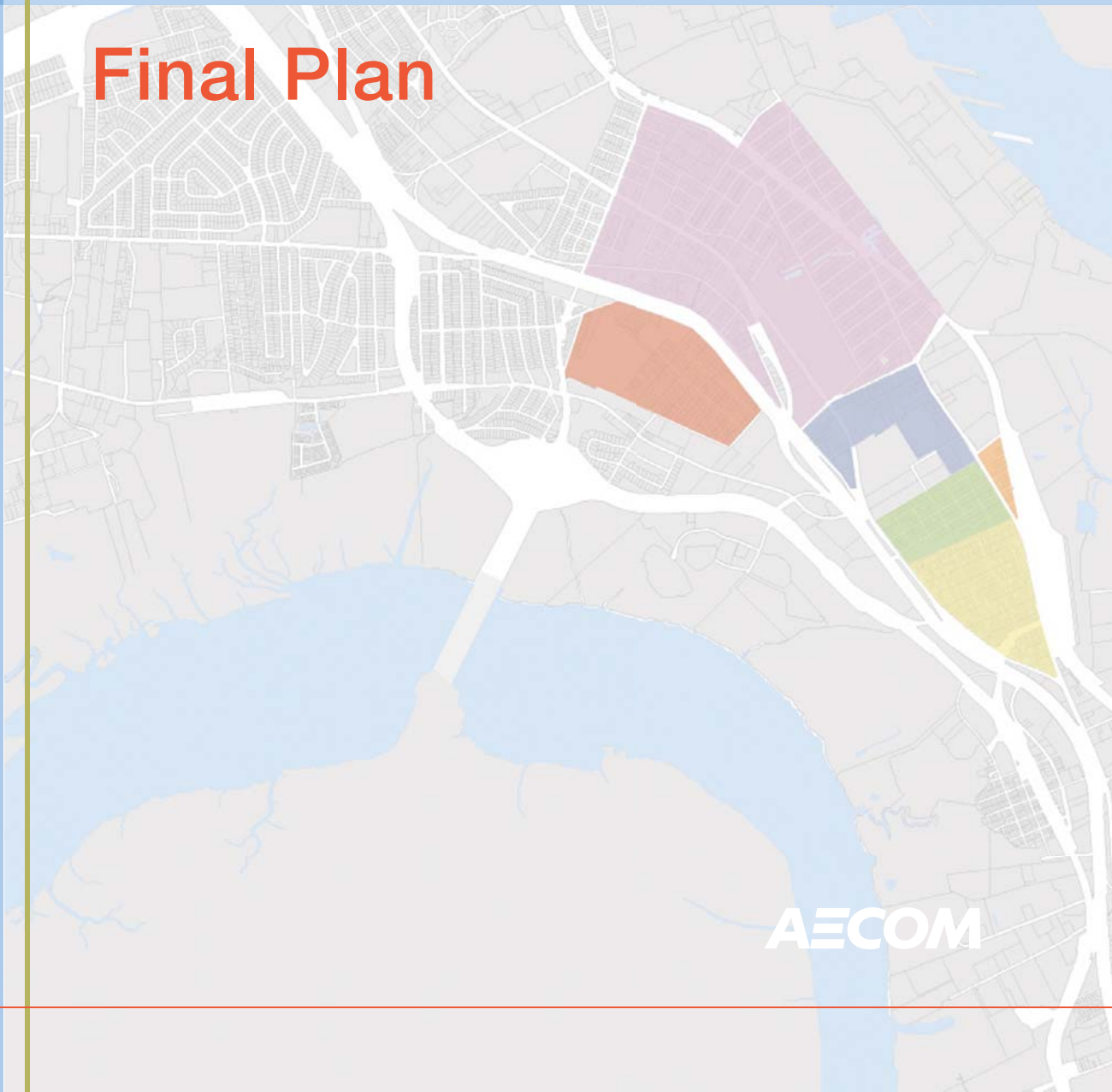


Lowcountry Alliance
for Model Communities

AREA REVITALIZATION PLAN

Final Plan



APRIL 16, 2010

AECOM

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Community Mitigation Plan Working Group

Rahim Karriem, *LAMC President, Howard Heights, Union Heights, Windsor*

A.J. Davis, *LAMC Vice-President, Chicora/Cherokee*

Robert Fludd, *LAMC Secretary/Treasurer, Liberty Hill*

William James, *LAMC Chaplain, Accabee*

Judy Miller, *LAMC, Five Mile*

Herb Frasier Rahim, *LAMC, Howard Heights, Union Heights, Windsor*

Councilman Michael Brown, *LAMC, North Charleston District 10*

Bill Stanfield, *Chicora/Cherokee*

Wannetta Mallette, *CMP Project Manager, City of North Charleston*

Mitigation Agreement Commission

State Senator Robert Ford

State Representative J. Seth Whipper, Esq.

State Representative David Mack

Charleston County Councilman Teddie Pryor

Charleston County Council Henry Darby

Councilman Sam Hart, *North Charleston District 7*

Councilman Kurt Taylor, *North Charleston District 9*

Councilman Michael Brown, *North Charleston District 10*

Byron Miller, *SCSPA*

Rahim Karriem, *LAMC*

Herb Fraser Rahim, *LAMC*

David Kinard, *SCDOT*

Richelle Tolton, *South Carolina Department of Health and Environmental Control*

Randy Cook, *South Carolina Department of Health and Environmental Control*

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Wannetta Mallette, *Mitigation Agreement Commission Chair*

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North Charleston Planning Commission

North Charleston City Council

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LAMC Area Revitalization Plan Project Consultant Team

AECOM Design + Planning

In association with:

BP Barber and Associates, Inc.

Asset Property Disposition, Inc.

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1.0 Executive Summary	3
1.1 A Community Vision Built on Environmental Justice	3
1.2 Developing the Revitalization Plan	4
1.3 Findings and Recommendations	4
2.0 Project Overview	9
2.1 Lowcountry Alliance Model Community Area Revitalization Plan – A Community Vision	9
2.1.1 Environmental Justice and LAMC Communities	9
3.0 Study Area Analysis	17
3.1 Study Setting/Historical Overview	17
3.2 Socioeconomic/Demographic Profile	19
3.2.1 Population & Household Characteristics	19
3.2.2 Age Cohorts	19
3.2.3 Household Income Characteristics	20
3.2.4 Household Spending Patterns	20
3.2.5 Homeownership Patterns	20
3.3 Housing Market Characteristics	20
3.3.1 Regional Development Activity	20
3.3.2 LAMC Study Area Housing Trends	20
3.3.3 New Residential Development	20
3.3.4 Foreclosures & High Risk Lending	21
3.3.5 Building Conditions	21
3.3.6 Floodplain Concerns	21
3.4 Environment	23
3.4.1 Environmental Site Identification	23
3.4.2 Air Quality Concerns	23
3.4.3 Groundwater and Contaminated Site Concerns	24
3.4.4 Surface Water Quality Monitoring	24
3.4.5 Port Impacts	24
3.5 Economic Development	29
3.5.1 Business Infrastructure	29
3.5.2 Business Activity	29
3.5.3 Regional Employment Trends & Forecasts	29
3.5.4 Visitation & Tourism	29
3.6 Education & Health	29
3.6.1 School Performance	29
3.6.2 School Closing and Redistricting	30
3.6.3 School Reform	30
3.6.4 After School and Early Childhood Education	31
3.6.5 Higher Education Options	31
3.6.6 Adult Education and Workforce Development	32
3.6.7 Obstacles to Workforce Development	32
3.6.8 Health Profile	33
3.7 Land Use & Urban Design	34
3.7.1 Challenges	34
3.7.2 Opportunities	34
3.7.3 Natural & Cultural Resources	34
3.7.4 Land Use & Zoning	35

3.8 Transportation & Infrastructure	39
3.8.1 Roadway Network	39
3.8.2 Rail Network	40
3.8.3 Pedestrian & Bicycle Facilities	40
3.8.4 Public Transit	43
3.8.5 Port Facilities	43
3.8.6 Water	44
3.8.7 Wastewater	44
3.8.8 Stormwater	44
3.9 Public Safety	45
3.9.1 Crime Levels	45
3.9.2 Parolees & Recidivism	45
3.9.3 Crime Enforcement	45
3.9.4 Crime Prevention	45
4.0 Community Vision & Goals	51
4.1 Public Involvement Plan	51
4.2 Public Visioning Workshop Series	52
4.2.1 Workshop Series 1 (April 16, 2009)	53
4.2.2 Workshop Series 2 (April 17, 2009)	56
4.2.3 Workshop 3 (April 18, 2009)	56
4.3 LAMC Working Group Vision Development Workshop	57
4.4 Public Open House	58
5.0 Redevelopment Priorities	67
5.1 Redevelopment Projects	67
5.1.1 Model Block Development	69
5.1.2 Spur Block Development	86
5.1.3 Stromboli Avenue Corridor Development	87
5.1.4 Chicora Tank Farm Concept	100
5.1.5 Neighborhood Commercial Corridor along Rivers Avenue	101
5.1.6 Incinerator Site Development	102
5.2 Network Improvements	104
5.2.1 Network Connectivity	104
5.2.2 Corridor Improvements	105
5.2.3 Intersection Improvements	106
5.2.4 Traffic Calming Measures	113
5.2.5 Maintenance of LAMC Study Area Roadways	115
5.2.6 Rail Recommendations	115
5.2.7 Transit Recommendations	116
5.2.8 Stormwater Infrastructure	120
5.2.9 Open Space Network	122
5.2.10 Pedestrian & Bicycle Network	126
5.2.11 Buffers	127
5.2.12 Gateway Enhancements	130
5.3 Community Development Projects	133
5.3.1 Educational Attainment & Lifelong Learning	133
5.3.2 Health	141
5.3.3 Public Safety	142
5.3.4 Community Centers	146

5.4 Economic Development	148
5.4.1 Redevelopment Projects' Economic Potential	148
5.4.2 Programs to Assist Local/DBE Vendors	152
5.4.3 Cultural Tourism	153
5.5 Environmental Considerations	155
5.5.1 Contaminated Sites & Brownfield Remediation	155
5.5.2 Air Quality Recommendations	156
6.0 Implementation Plan	163
6.1 From Concept to Reality	163
6.2 Organizational Structure	164
6.2.1 Purpose & Need for LAMC Capacity Building	164
6.2.2 LAMC Community Development Corporation (CDC)	164
6.2.3 Housing Trust Fund and Community Land Trust	167
6.2.4 Centralized Commercial Management Organization	171
6.2.5 Retail Merchant Associations	172
6.3 Zoning & Regulations	173
6.3.1 Land Use & Zoning Recommendations	173
6.3.2 Regulatory Tools	174
6.4 Building Partnerships	178
6.4.1 Partnerships with Faith-based Communities	178
6.4.2 Partnerships with Transportation Organizations	179
6.4.3 Partnerships with Local Government	180
6.5 Funding	180
6.6 Work Plan for Implementation	182
APPENDICES	201



Environmental Acronyms & Definitions

AIRS – Aerometric Information Retrieval System. AIRS is the national repository for information concerning airborne pollution in the United States.

AUL – Activity Use Limitation. An AUL allows the National Environmental Protection Agency (NEPA) to control the future usage of a property based on activities that may increase the chance of exposure to contaminants.

Brownfields - Abandoned, idled, or under used industrial and commercial facilities/sites where expansion or redevelopment is complicated by real or perceived environmental contamination. They can be in urban, suburban, or rural areas. The U.S. Environmental Protection Agency's (EPA's) Brownfields initiative helps communities mitigate potential health risks and restore the economic viability of such areas or properties.

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act (Superfund Act). This law was enacted by Congress on December 11, 1980 and created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, \$1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites.

CERCLIS - Comprehensive Environmental Response, Compensation and Liability Information System. CERCLIS is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of sites, including an inventory of sites, planned and actual site activities, and financial information.

CERC-NFRAP – No Further Remediation Action Planned. Archived sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site have been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential National Priority List (NPL) site. (See below for definition of NPL.)

CESQG – Conditionally Exempt Small Quantity Generator. CESQGs generate less than 100 kilograms (kg) of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

CORRACTS - CORRACTS is a list of handlers with Resource Conservation and Recovery Act (RCRA) Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity. (See below for RCRA description.)

CWA – The Clean Water Act. The United States Environmental Protection Agency's (EPA's) cornerstone for protection of surface waters. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Implemented locally by SCDHEC.

ERNS – Emergency Response Notification System. The ERNS records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

GWCI - Groundwater Contamination Inventory. Any site that has groundwater contamination over a federal MCL.

LQG – Large Quantity Generator. LQGs generate over 1,000 kg of hazardous waste, or over 1 kg of acutely hazardous waste per month.

LUST – Leaking Underground Storage Tank. The LUST list is maintained by the South Carolina Department of Health & Environmental Control.

MCL – Maximum Contaminant Level. The maximum permissible level of a contaminant in water delivered to any user of a public system. MCLs are enforceable standards.

MSAT – Mobile Source Air Toxic. Any non-stationary source of air pollution such as cars, trucks, motorcycles, buses, airplanes, and locomotives.

NonGen – Non-generators. Facilities that do not presently generate hazardous waste.

NPDES – National Pollutant Discharge Elimination System. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

NPL – National Priority List. Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

Point-Source - A stationary location or fixed facility from which pollutants are discharged; any single identifiable source of pollution, e.g. a pipe, ditch, ship, ore pit, factory smokestack.

PPB/PPM – Parts Per Billion/Parts Per Million. Units commonly used to express contamination ratios, as in establishing the maximum permissible amount of a contaminant in water, land, or air.

RCR – Registry of Conditional Remedies. The SCDHEC Bureau of Land and Waste Management established this Registry to help monitor and maintain sites that have conditional remedies. A Conditional Remedy is an environmental remedy that includes certain qualifications. These qualifications are divided into two major categories: Remedies requiring Land Use Controls and Conditional No Further Actions.

RCRA – Resource Conservation and Recovery Act of 1976. RCRA's primary goals are to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner. Implemented locally by SCDHEC.

SDWA - Safe Drinking Water Act. The main federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. Implemented locally by SCDHEC.

SHWS - State Hazardous Waste Site. The state's equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

SQG – Small Quantity Generator. SQGs generate between 100 kg and 1,000 kg of hazardous waste per month.

SWF – Solid Waste Facility list. SCDHEC's inventory of active and inactive solid waste disposal facilities.

TSDF – (RCRA) Transport, Storage, Disposal Facilities. This database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

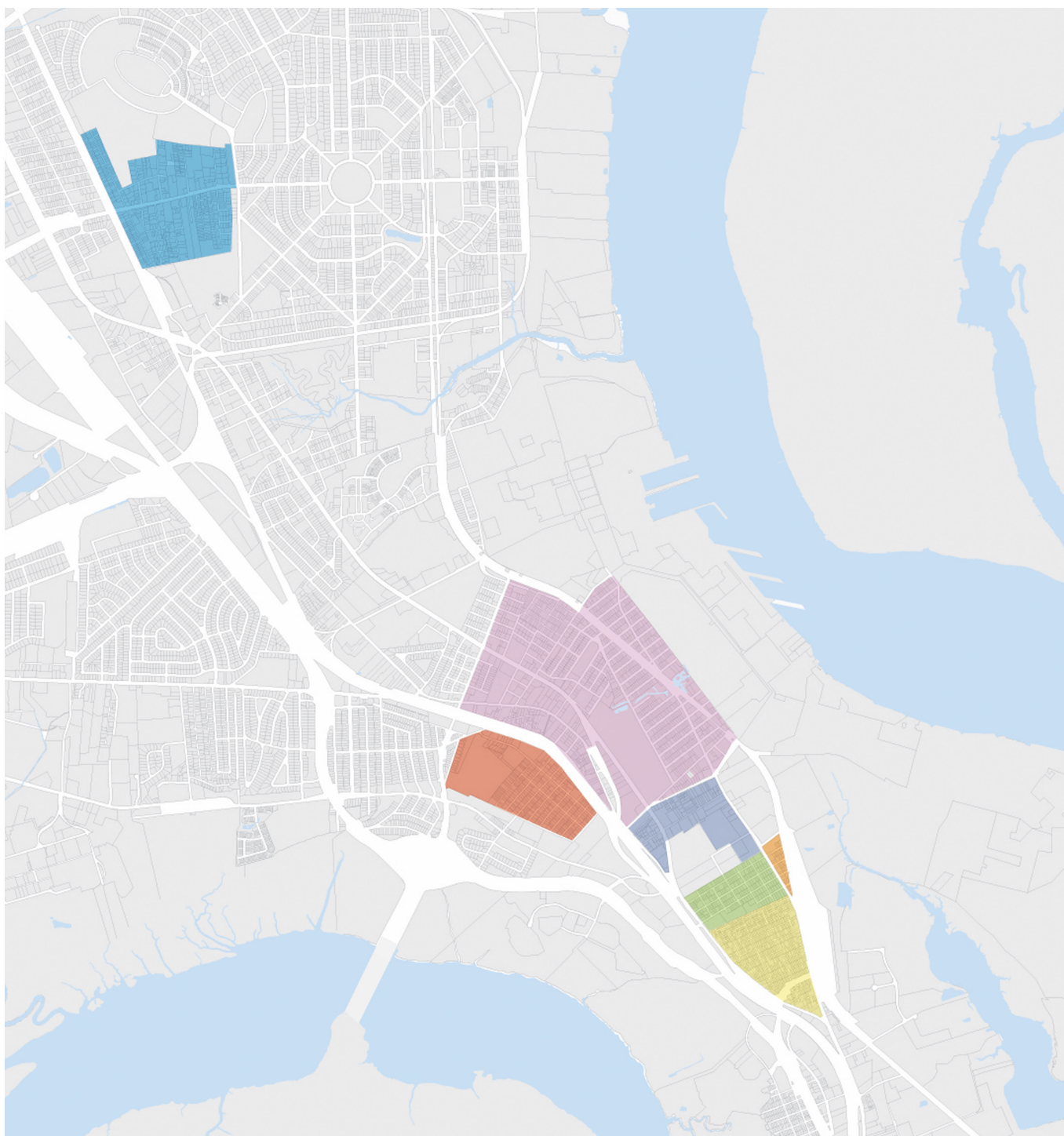
Title-V Permit Program – SCDHEC's comprehensive State air quality permitting systems consistent with the requirements of Title V of the Clean Air Act (Act) (42 U.S.C. 7401, et seq.). These regulations define the minimum elements required for South Carolina's Part 70 operating permit program and the corresponding standards.

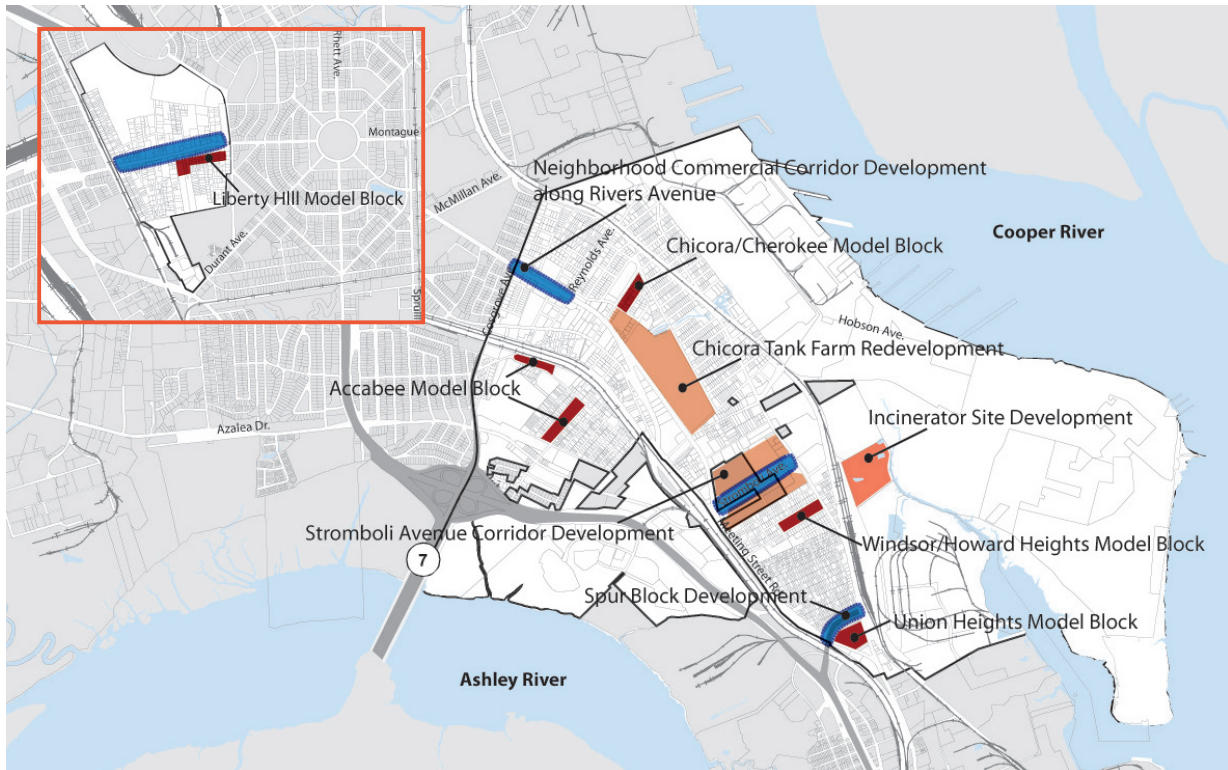
UST – Underground Storage Tank. The UST list is maintained by the South Carolina Department of Health & Environmental Control.

VCP – Voluntary Cleanup Sites as listed by the South Carolina Department of Health & Environmental Control. Active State Brownfield sites.

1.0

Executive Summary





1.0 Executive Summary

This Executive Summary highlights the major recommendations and conclusions of the Revitalization Plan, including significant redevelopment projects and elements from the Work Plan for implementation.

1.1 A COMMUNITY VISION BUILT ON ENVIRONMENTAL JUSTICE

As a direct result of the South Carolina General Assembly's decision to relocate a proposed marine port terminal to the area, the Lowcountry Alliance for Model Communities (LAMC) officially organized in 2005 as a grass-roots comprehensive planning effort led by seven environmental justice neighborhoods in the City of North Charleston. As part of the environmental review process for the port terminal expansion, LAMC representatives – representing each study area neighborhood – were able to demonstrate that their communities bore a disproportionate share of the region's air, water, and land based pollution. The Corps of Engineers conducted an environmental justice assessment and determined that the study area met the criteria of an environmental justice population.

A Community Mitigation Plan - the first of its kind in the state and the nation – was negotiated between LAMC, the South Carolina State Ports Authority and the City of North Charleston to address and carry out activities related to the direct and indirect impacts of the SCSPA's terminal, supported by \$4.08 million in funding. This Revitalization Plan is one of the products of LAMC's commitment not only to mitigate the impacts of the port development, but also to ensure that maximum community benefits are secured.

The neighborhoods included in the study area for the plan are Accabee, Chicora/Cherokee, Five Mile, Howard Heights, Liberty Hill, Union Heights, and Windsor. Launched in February 2009, the Revitalization Plan presents a vision for the future of the LAMC area and sets a clear action plan that turns conceptual projects into reality.

1.2 DEVELOPING THE REVITALIZATION PLAN

Under appointment to the City of North Charleston and directed by the LAMC Working Group, the consultant team, headed by AECOM (planning, design, and economic development) and including BP Barber (transportation and infrastructure), Asset Property Disposition, Inc. (APD) (housing market and strategies), and Planners for Environmental Quality (PEQ) (community involvement), conducted background research and talked to over 25 stakeholders to develop a baseline document, the Community Profile. The Community Profile contains information on existing conditions pertaining to demographics, housing, environment, transportation, infrastructure, education, public safety, community facilities, land use, urban design, and the commercial market.

During the production of the plan, a series of Public Visioning Workshops was held in April 2009 over three days. Residents were given the forum to discuss issues and opportunities in the community and to describe their vision for their neighborhoods. A Findings and Directions Workshop was held with the LAMC Working Group in May 2009 to report on the results from the Team's extensive research and the study area's public feedback.

A LAMC Visioning Workshop was held in July 2009 with the Working Group to develop a set of aspirational goals for the area. An Implementation Strategies report was then drafted shaping community input into initial projects and work plans.

A public meeting was held at the Military Magnet School in November 2009 at which time elected officials, the LAMC Working Group and the communities of the LAMC area received a report of the principal recommendations of the plan and its implementation approach. This plan represents the culmination of the work described above by the community leadership and the consultant team to bring a vision for model communities into reality.

1.3 FINDINGS AND RECOMMENDATIONS

The community outreach and statistical analysis yielded opportunities where by 2030:

- 600-700 housing units (400-450 for-sale market units and 200-250 rental units) will need to be built to accommodate growth.
- 100,000-125,000 square feet of office space will be required.
- 40,000-90,000 square feet of investment-grade retail space will be required.

Despite these achievable goals, the LAMC study area still faces challenges related to:

- A declining population in near term, lack of business & personal credit, limited homeownership;
- Limited "investment-grade" retail space; significant retail sales "leakage" from LAMC households (i.e. people are spending money outside the neighborhoods); and
- Weakened commercial market conditions.

The Revitalization Plan recommends a series of investment strategies to capture the housing opportunity such as the Model Block and Spur Block developments, which use the existing neighborhood structure to bring additional housing into the LAMC study area that not only accommodates new growth but also enhances the condition of existing housing. The housing component of this plan is the baseline upon which the economic development strategy is built since reestablishing the population base in the LAMC study area is essential to support commercial and institutional development.

Key redevelopment recommendations include:

- The Model Block program, which identifies priority sites in the LAMC neighborhoods that hold the greatest promise to catalyze residential development in the area. These sites introduce a transformational development solution and become models for housing in the neighborhoods in which they are located.
- The Spur Block Development, which seizes the opportunity due to the planned I-26 realignment, freeing up a large amount of space towards the southern end of Union Heights, provides an opportunity to stitch that neighborhood back together.
- The Stromboli Avenue Corridor, a proposed concept plan that reflects community and stakeholder input and builds on SCDOT plans for roadway improvements, combines a mix of uses with retail and commercial investment concentrated at the intersection of Spruill and Stromboli Avenues and institutional facilities at Carner and

Stromboli linked through a variety of housing product. A major park space serving the LAMC study area is also a principle feature of the corridor design.

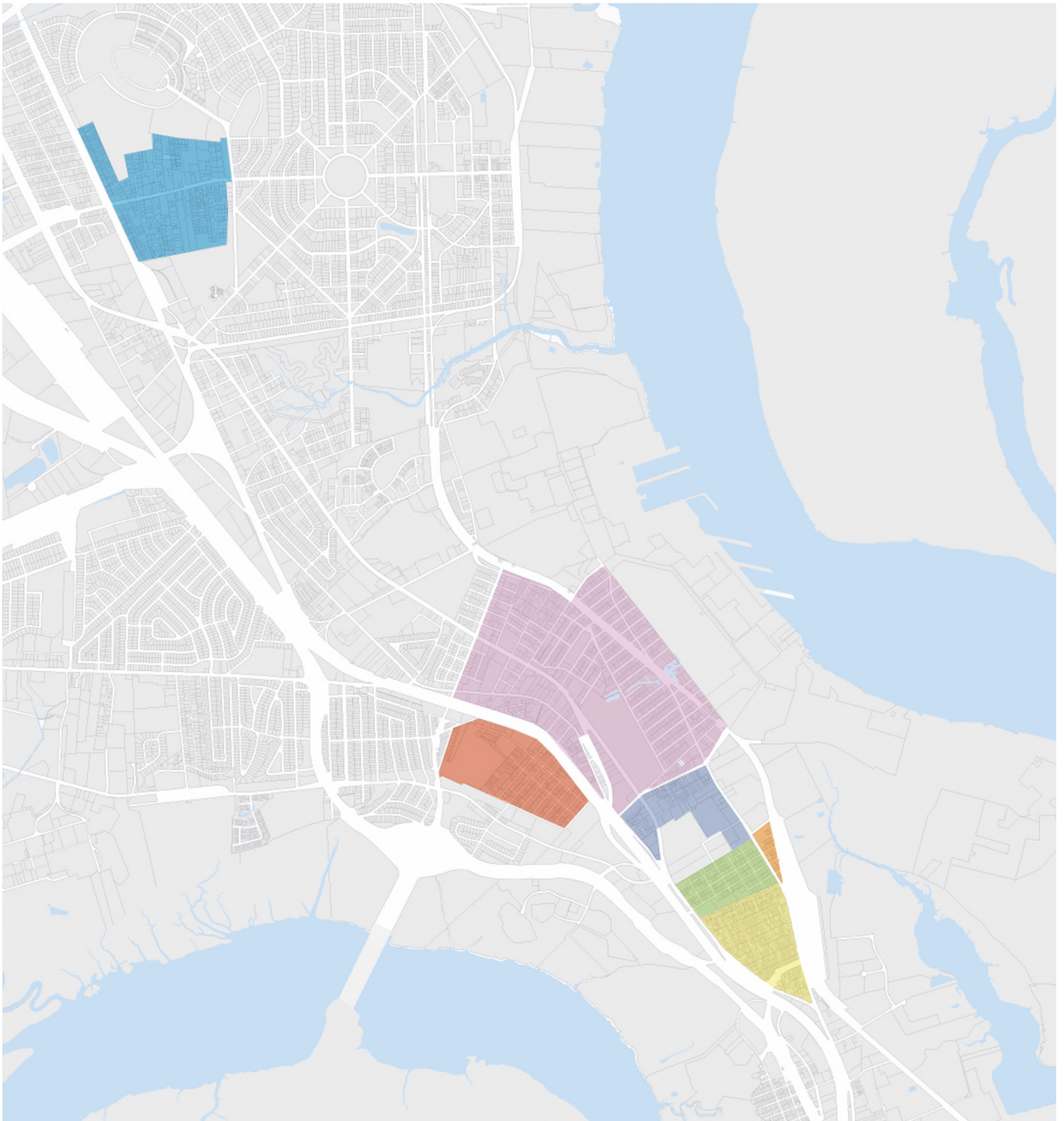
- The Chicora Tank Farm site, a redevelopment concept including 22.5 acres of recreational open space, designed to provide multiple sporting opportunities complementing the adjacent schools.
- Community development programs addressing Community Centers, Health, Education, and Public Safety are an integral part of the Revitalization Plan. Among the proposed programs is public safety improvement through environmental design, expand and improved after-school programming and developing more robust parent-education programs to foster stronger support networks for the community youth.
- A program to ensure that local business have opportunity to partake of economic development at all levels through a strong DBE/local vendor support, training, and outreach program and the incubation of small businesses that can tie into the global aspects of port operations and the new Boeing investment
- The creation of programs or institutions that will focus on the deliverables of the Revitalization Plan, such as a Community Land Trust to help with land management for affordable housing and a Community Development Corporation to focus on broader economic development opportunities and major project implementation of the Revitalization Plan and establish an ongoing and productive relationship with the business community in North Charleston.
- The establishment of strategic and effective alliances among vested stakeholders or service providers in the LAMC study area including but not limited to: the City of North Charleston, Charleston County, the local faith-based communities and other not-for-profits, the State of South Carolina, the School Board, various federal agencies, and the State Housing Trust Fund as examples.

The physical structure of the LAMC study area is defined by a network of streets ranging from neighborhood road to interstate access, providing excellent “bones” for pursuing different scenarios of community reinvestment, housing, mixed-used and recreational development accessible across the community. Major corridor improvements are proposed on Rivers, Spruill, McMillan, and Cosgrove Avenues. Within the confines of the existing road widths of each of these streets (with the exception of Spruill, which will have an expanded right-of-way of 100 feet), a program of improvements has been crafted to maintain vehicular mobility, enhance pedestrian access and safety, facilitate bicycle travel, and improve the appearance of streetscapes.

A Work Plan is included that identifies the priority, responsibility, schedule and resource for the plan’s key elements and should serve as an initial guide to mobilize the community towards early successes – the “low hanging fruit” – and align the institutions that will need to deliver the more complex and longer term plan elements, such as the Stromboli Corridor Development.

The detailed discussion of these elements can be found in the body of this plan and its appendices. Taken in their entirety with the *Community Profile*, these documents represent the vision, goals, and commitment of the neighborhoods, citizens, and leadership in the LAMC study area to take their community to a new, sustainable, and prosperous threshold for current and future generations.

2.0 Project Overview





2.0 Project Overview

The LAMC Revitalization Plan was born out of the community's commitment to achieve environmental justice through reinvestment and renewal.

2.1 LOWCOUNTRY ALLIANCE MODEL COMMUNITY AREA REVITALIZATION PLAN – A COMMUNITY VISION

Successful plans create action by gathering people together around a unifying vision. The Lowcountry Alliance for Model Communities (LAMC) Area Revitalization Plan is such an effort. In February of 2009, a grass-roots comprehensive planning effort led by seven neighborhoods in the City of North Charleston was launched. The Revitalization Plan presents a process for envisioning the future of the LAMC area and setting a clear action plan that turns a community vision into reality.

2.1.1 Environmental Justice and LAMC Communities

The Lowcountry Alliance for Model Communities (LAMC) officially organized in 2005 as a direct result of the South Carolina General Assembly's decision to relocate a proposed marine port terminal to the area. The seven LAMC neighborhoods are located primarily on the City's southern end adjacent to the South Carolina State Port Authority (SCSPA) terminal and include the neighborhoods of Accabee, Chicora/Cherokee, Five Mile, Howard Heights, Liberty Hill, Union Heights, and Windsor. These seven communities formally joined together out of growing frustration with traditional community organizing and public involvement coupled with the need to address historical environmental impacts associated with the port and the potential additional impacts associated with the proposed port activity. During the environmental review process for the port terminal expansion, LAMC representatives were able to demonstrate that their communities bear a disproportionate share of the region's air, water, and land based pollution. The Corps of Engineers conducted an environmental justice assessment and determined that the study area met the criteria of an environmental justice population.

Environmental Justice

According to the Environmental Protection Agency (EPA), environmental justice is the goal to be achieved for all communities so that 1) people of all races, colors, and income levels are treated fairly with respect to the development and enforcement of protective environmental laws, regulations, and policies; and 2) potentially affected community residents are meaningfully involved in the decisions that will affect their environment and/or their health. Conversely, allegations of environmental injustice describe the situations where communities believe that the goal has not been achieved because of their belief that there is disproportionate exposure to environmental harms and risks.

Allegations of environmental justice include:

- A dispute over the siting of a pollution-generating facility in a community that is already inundated with such facilities;
- Allegations that government regulators are not enforcing protective environmental laws, regulations, and policies equally;
- A dispute over the method of cleanup standards and operations at a contaminated site;
- Arguments regarding whether the approach to a cleanup/enforcement action should address single versus multiple sources of contamination at a site;
- Disputes over which segment of the population bears the burden, i.e. the resident population, or the seasonal agricultural workers in the fields, or transients (individuals at shopping centers, or people participating in recreational activities such as a soccer field that is constructed on top of a former landfill); or
- The notion of proximity, e.g. the effects of pollution on the proximate community versus the adverse health effects on the population affected by off-site operations.

Source: Toolkit for Assessing Potential Allegations of Environmental Injustice (EPA, March 2006)



Industrial uses in the LAMC study area



Railroad tracks near a LAMC area neighborhood

With the Corps of Engineers determination in hand, the LAMC group engaged area citizens in a community-led process to identify environmental impacts and outline a mitigation strategy. The LAMC effort resulted in a negotiated community mitigation strategy that focuses on maximizing community benefits while mitigating undesirable environmental and social impacts.

The South Carolina State Ports Authority, the Lowcountry Alliance for Model Communities and the City of North Charleston identified eight community mitigation activities along with funding targeted to address and carry out activities related to the direct and indirect impacts of the SCSPA's terminal. The resulting \$4.08 million Community Mitigation Plan is the first of its kind in the state and the nation.

Community Mitigation Plan

An Eight Point Plan

1. Establish a housing trust
2. Placement and monitoring of environmental receptors in the community
3. Support for education attainment programs
4. Establish a Maritime Training Institute (Career Center)
5. Establish and support local vendor assistance programs
6. Expand health care and fitness amenities
7. Improve existing community centers
8. Develop a community vision and master plan

From its inception LAMC stakeholders realized the value of addressing the community needs through a comprehensive approach - that is in seeing the connection between all of the 'separate' elements that contribute to a thriving and healthy community – a model community. The guiding philosophy for the LAMC Area Revitalization Plan builds on the premise that the natural and physical environment, economic development strategies, and community building initiatives are addressed in an integrated manner, reflecting the aspirations of LAMC study area's citizens.

The Revitalization Plan marks a pivotal juncture in the evolution of the LAMC organization and its mission. Over a period of twelve months (beginning in February 2009), the LAMC Working Group used the Revitalization Plan as the vehicle for dialogue with the public where any interested person was able to participate and contribute towards shaping the vision, share everyday concerns, and set goals and priorities.

These goals, inspired by community input and developed by community representatives, embody the focus for future development of the LAMC study area and provide benchmarks to monitor if development is occurring in line with community desires. The community goals are highlighted on the following page in Figure 2.1; the revitalization strategies are presented in the following chapters.

Figure 2.1 LAMC Community Goals

LAMC Community Goals
 Developed by the LAMC Working Group

Heritage & History – Our Model Community will be one where all residents maintain pride, dignity, and ownership of their community.

Nature & Environment – Our Model Community will be one where all families enjoy and benefit from the natural spaces and waterways between the Cooper and Ashley Rivers, using them to promote their recreation and health.

Physical Fabric – Our Model Community will have attractive neighborhoods that are a connected through our natural environment, our cultural identity, and our architectural heritage.

Crime & Safety – Our Model Community will allow children and adults to walk through their neighborhoods safely at any time of day or night.

Education – Our Model Community will provide highly effective opportunities for lifelong learning for all residents, including open-admission area schools that perform at the top level within Charleston County.

Economic Development – Our Model Community will provide access to and create economic opportunity for every resident.



Cultural asset: Strong community centers



Natural asset: Quitman Marsh



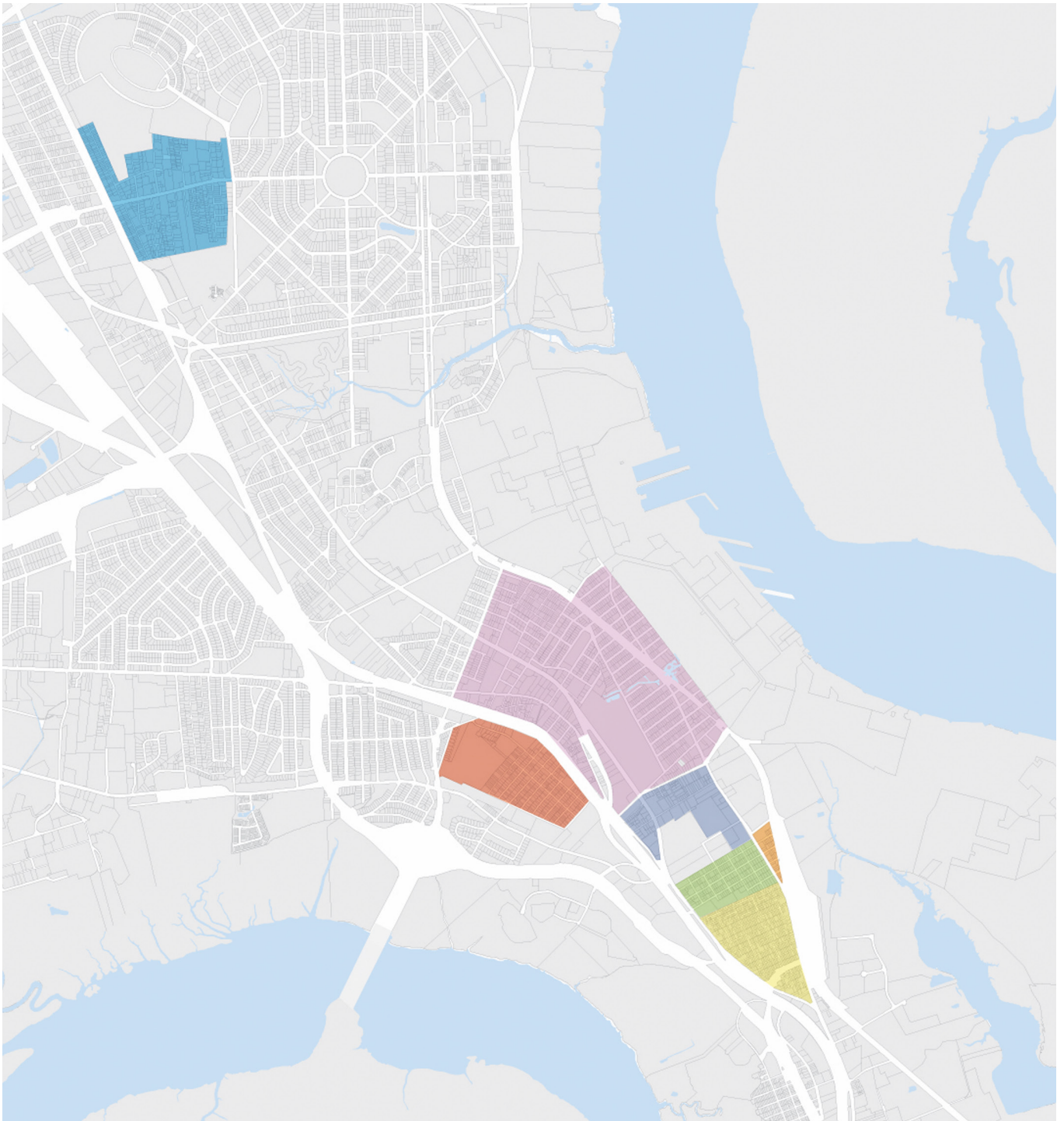
Urban design asset: Unique architectural features

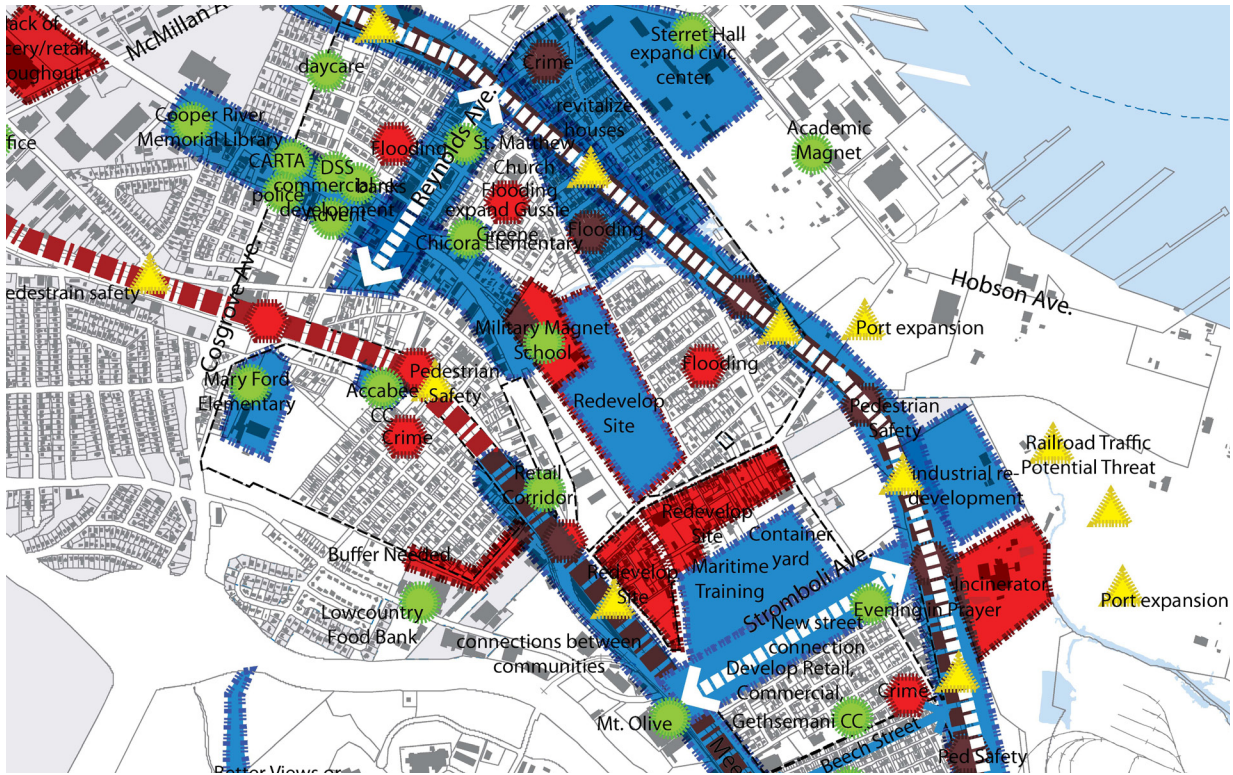


Economic asset: Emerging industry

3.0

Study Area Analysis





3.0 Study Area Analysis

This section provides a synopsis of existing conditions for the LAMC study area, drawing from findings contained in the accompanying resource document to this Plan, the *Community Profile*. Topics explored in this section are the current socioeconomic and demographic profiles; housing; environmental conditions; education & health; land use & urban design; transportation & infrastructure; and public safety. This baseline information, collected from site visits, prior planning studies, technical and market analyses, and information gleaned from stakeholder interviews helped form the foundation upon which the Plan's recommendations are made.

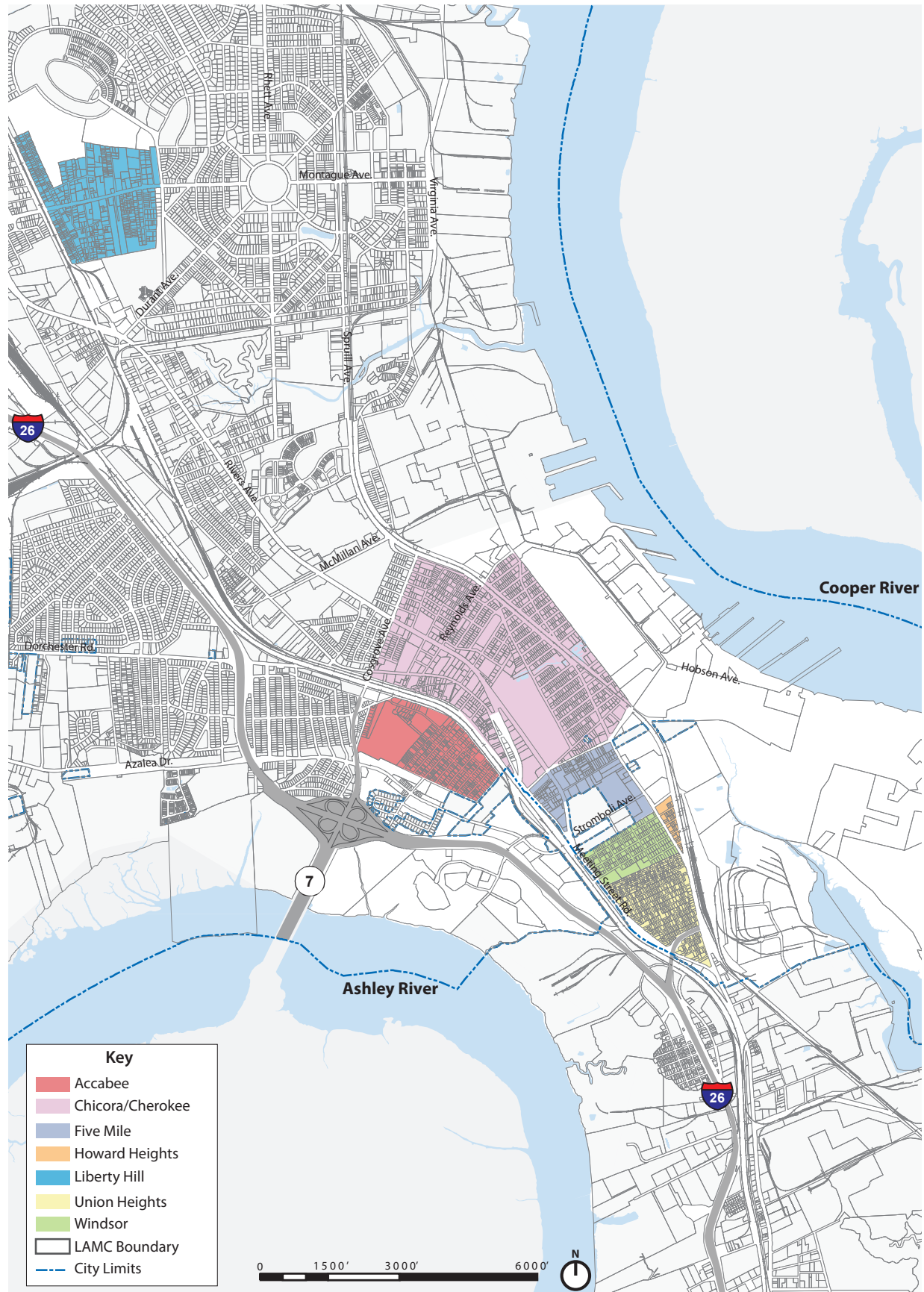
3.1 STUDY SETTING/HISTORICAL OVERVIEW

From the late 1800s to the early 1900s, several residential communities began developing in the northern area of Charleston, including the current LAMC neighborhoods. One of the earliest and historically significant neighborhoods is Liberty Hill, which is considered to be the oldest residential subdivision in the City of North Charleston, settled by freed slaves in 1871.

Since the early 1900s, this area of Charleston developed as a planned industrial community with its growth geared directly to uses associated with the growing military activity and related business sectors. In the 1940s and 1950s, neighborhoods began developing to house workers employed at the Charleston Naval Complex and other local industries. The LAMC neighborhoods of Chicora/Cherokee, Five Mile and Union Heights (with its sub-neighborhoods of Windsor and Howard Heights) grew up around and became economically dependent on the Charleston Naval Complex.

From World War II through the 1960s, many people in the newly developing North Charleston communities became concerned about the uncontrolled development patterns occurring, and residents wanted more direct control over

Figure 3.1 LAMC Study Area Neighborhoods



future development. On June 12, 1972, after a series of legal battles, the South Carolina Supreme Court upheld referendum results and North Charleston became a city. Within the first 10 years, the City of North Charleston annexed the Naval Complex, making North Charleston the fourth largest city in the state. With the annexation of the Naval Complex, other economic opportunities began to arise as more industries began to locate within the city limits. The 1990s also saw the annexation of several LAMC neighborhoods into the City of North Charleston, including Howard Heights, Windsor (1995), and Union Heights (1997).

The constant threats of base closure through the years along with the move of much of the white population to the sprawling suburbs significantly affected the economic health of the LAMC neighborhoods. Subsequently, the character of the LAMC neighborhoods changed during the 1990s, particularly with the closure of the Charleston Naval Complex.

Also during the 1990s, as the white population decreased, the African-American population in the LAMC neighborhoods increased significantly. At the same time, as employment fled the area with the closure of the Charleston Naval Complex, poverty and unemployment rates grew. Community residents feel that past redevelopment plans in these neighborhoods have failed to create social and economic equity and have widened gaps based on race and income. The subsequent public and private disinvestment has led to property devaluation in the study area.

3.2 SOCIOECONOMIC/DEMOGRAPHIC PROFILE

Demographic and economic conditions, across a range of indices, help estimate the depth of market support for revitalization efforts and new development in the LAMC neighborhoods. The demographic and economic profile also informs retail demand potentials by analyzing information on consumer spending patterns, disposable income and household growth and professional office demand potentials.

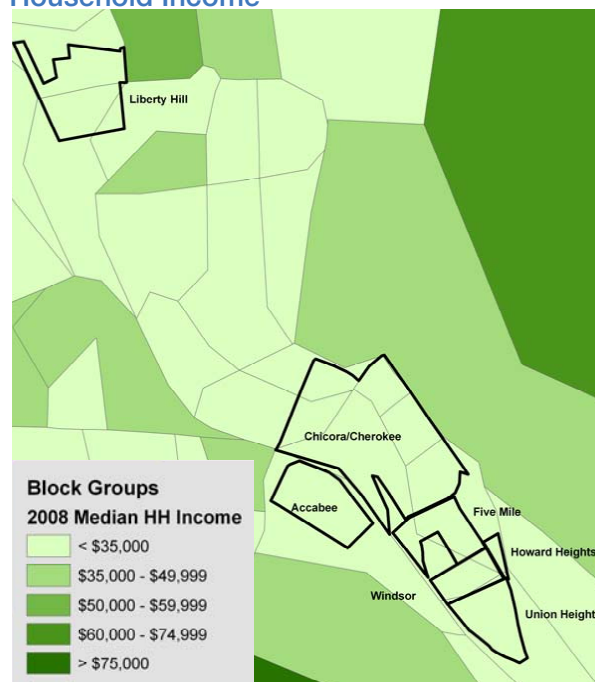
3.2.1 Population & Household Characteristics

The LAMC Revitalization Area (encompassing the Magnolia area and Port as well as the seven specific LAMC study area neighborhoods) contains 7,357 residents in 2,525 households—roughly 8% of the total population of the City of North Charleston (based on Census 2008 population figures). The seven neighborhoods alone contain 5,621 residents in 2,270 households—roughly 76% of the total population within the wider LAMC Revitalization Area. Over the next five years, the population in the larger LAMC Revitalization Area is expected to decline only slightly—to 7,283 residents; however, the number of households is forecast to increase slightly, to 2,531. The Council of Governments (COG) forecasts that population decline in the LAMC study area will stabilize and that 850 new households will be added by 2020. Citywide, between 2008 and 2020, the COG forecasts that the City's population will increase by 17,700 residents in 10,250 households, to 93,800 residents by 2020.

3.2.2 Age Cohorts

Examining characteristics among age cohorts is useful for understanding market potentials for new housing types. According to ESRI Business Analyst, 37% of the LAMC study area's population is under 24 years of age; roughly one-quarter of area residents are in their peak earning years (ages 45 to 64); and about 12% are over the age of 65. A projected decline in numbers for those in their peak earning years reinforces the critical importance of creating job opportunities for LAMC residents. The number of elderly and retired residents is forecast to increase by at least 7% over the next five years, making provision of services to this demographic increasingly important.

Figure 3.2 LAMC Block Groups - Median Household Income



All LAMC neighborhoods had less than \$35,000 Median Household Income in 2008

3.2.3 Household Income Characteristics

Average household incomes in the LAMC study area are moderate—\$31,500 per year—compared to the citywide average of \$44,500, and are expected grow more slowly (9%) than the citywide average (12%) over the next five years. Further, per capita income in the LAMC study area is significantly lower (\$12,836/year) than the North Charleston average (\$18,051). Median household incomes range from roughly \$18,900 in Union Heights to \$28,700 in Accabee. To meet the U.S. Department of Housing and Urban Development’s (HUD) eligibility requirements for affordable housing, household incomes must be between 50% and 80% of the Area Median Income (AMI). Using these thresholds, households in all seven LAMC neighborhoods would qualify for the Affordability Index.

3.2.4 Household Spending Patterns

Spending patterns of area households in various retail and consumer categories are a useful gauge for retail market potentials. LAMC study area households spending ranges from \$5,700 per year in Howard Heights to \$8,400 per year in Union Heights. These spending levels are lower than the city as a whole, which ESRI estimates at \$10,800 per year.

3.2.5 Homeownership Patterns

Almost 67% of households in the LAMC study area are renters, compared to 57% citywide. In 2008, 33% of LAMC study area’s were owner-occupants, and that number is projected by ESRI Business Analyst to decrease slightly to 32% over the next five years. Conversely, 67% of households are renters in the LAMC study area. Over the next five years, the number of renter households is forecast to increase—to 1,726 units. While there is no minimum “desired” rate of homeownership, higher rates of owner occupancy typically enhance overall neighborhood stability. Moreover, this forecast reinforces the importance of encouraging programs as part of an overall revitalization strategy that encourage homeownership, such as low- or no-interest loans aimed at encouraging home renovations, code upgrades, down payment assistance, and the like.

3.3 HOUSING MARKET CHARACTERISTICS

Market conditions, more than any other factor, set the framework for making rational decisions about where neighborhood revitalization should start, including which properties to acquire, which to rehab, and which to demolish. The current state of the local and national economies and weakened regional real estate market conditions partially account for housing realities in LAMC neighborhoods, but local factors also have a major effect.

3.3.1 Regional Development Activity

Between 1997 and 2006, North Charleston issued more than 9,000 building permits for new housing—comprising 20% of the County total. Residential development in North Charleston includes 2,000 multi-family permits and 7,000 single-family permits issued since 1997. Significant residential development is also occurring in the City of Charleston (14,900 permits), Mt. Pleasant (12,200) and unincorporated parts of the County (5,100).

3.3.2 LAMC Study Area Housing Trends

The median sales price for homes in Zip Code 29405, which includes the LAMC neighborhoods, was \$58,500 from March 2009 to May 2009. The median sales price decreased by 10.7% over the previous year, while sales volume decreased significantly, by 60.2%. The average price in 29405 was \$63 per sq. ft., an annual decrease of more than 27%. There are currently 206 resale and new homes available for sale in 29405 according to Trulia.com, including 15 homes in the pre-foreclosure, auction, or bank-owned stages of the foreclosure process. The average listing price for homes currently for sale in 29405 is \$180,025 for the week ending June 17, 2009, which represents a decrease of 2.6%, or \$4,900, compared to the prior week.

3.3.3 New Residential Development

There are multiple new residential developments in the northern part of the LAMC study area. New projects include: Mixson, Hope’s Point, Oak Terrace Preserve, and Horizon Village. Also, the City of North Charleston set aside \$45.2 million to raze the former public housing complex and rebuild. Mixson is a mixed use, walking neighborhood being developed in Park Circle. As of September 2008, on 17 of the proposed 950 units had sold, with list prices ranging from \$143,000 to \$349,000. Hope’s Point is located in a private borough near the Liberty Hill neighborhood and offers 11 single family detached units, with lot prices starting at \$124,000 and home prices starting at \$325,000. Oak Terrace Preserve, located at the northern boundary of Liberty Hill and Howard Heights, is a sustainable redevelopment

project that will have 376 detached and townhome units at build-out. Sales began in 2006, and townhome sales were scheduled to begin in 2009. Horizon Village is a Hope VI redevelopment located north of Chicora/Cherokee and serving households with average income of \$36,000. It will have 126 public housing units, 124 rent-controlled apartments, 130 single-family homes (a percentage of which will be market rate) and 104 units for the elderly and disabled.

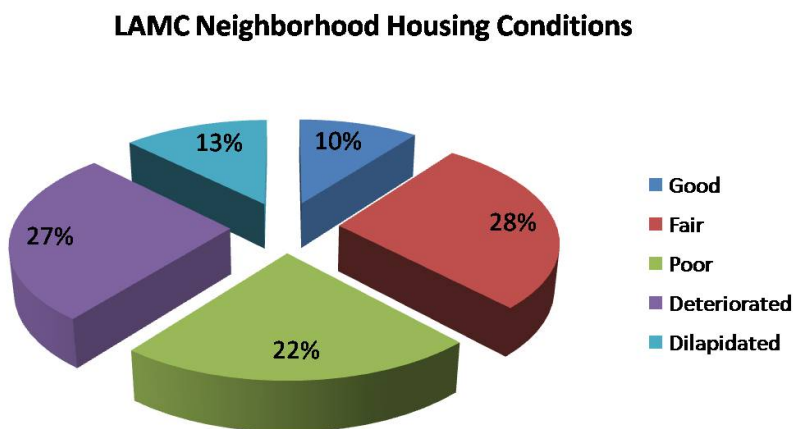
About 100 homes and rentals are available in The Manor, a multi-story apartment community for the elderly, and Marshside, which has townhomes for seniors. Barony Place Apartments has 240 units and is priced from \$540 a month for the least expensive one-bedroom floor plans. The apartments are designed to look like homes, and none of the buildings contains more than four units.

3.3.4 Foreclosures & High Risk Lending

Within the past 24 months, leading indicators of neighborhood conditions have been the amount of high risk lending, the rate of foreclosures, and the amount of vacant and abandoned properties. Based on data from the U.S. Department of Housing and Urban Development (HUD), all LAMC neighborhoods are at very high risk of destabilization due to foreclosures. Almost 10% of LAMC properties were foreclosed as of 2008, with 299 foreclosures occurring between January 2007 and June 2008. An average of 14% of the properties in Howard Heights, Liberty Hill, and Union Heights were foreclosed, and Chicora/Cherokee, Liberty Hill, and Union Heights also suffered high

foreclosure numbers. Regionally, a concentration of high-risk lending is found in the City of North Charleston. The LAMC study area, with over 40% high cost loans, has been a disproportionate target of such lending.

Figure 3.3 LAMC Housing Conditions



LAMC neighborhood housing conditions, based on consultants' windshield survey

Minor rehabilitation is deemed warranted on structures in poor condition, which accounts for approximately 22% of the study area. In addition, approximately 27% of all structures are in deteriorated condition and require major rehabilitation. Extensive deterioration or neglect is visible on dilapidated structures, which includes 13% of study area residences.

This data suggests that the neighborhoods have undergone a long-term transition from being viable places to live to being areas of decline and disinvestment. Investor ownership and lack of infrastructure investment has accelerated the residential disinvestment in LAMC neighborhoods. LAMC neighborhoods have experienced a significant amount of housing demolition due to the deterioration of housing stock. Nearly 19% of the properties within the LAMC neighborhoods are vacant of any structures, and approximately 62% of the residential structures that make up the LAMC neighborhoods require some level of rehabilitation. Such information helps quantify the magnitude of rehabilitation assistance required to stabilize the neighborhood.

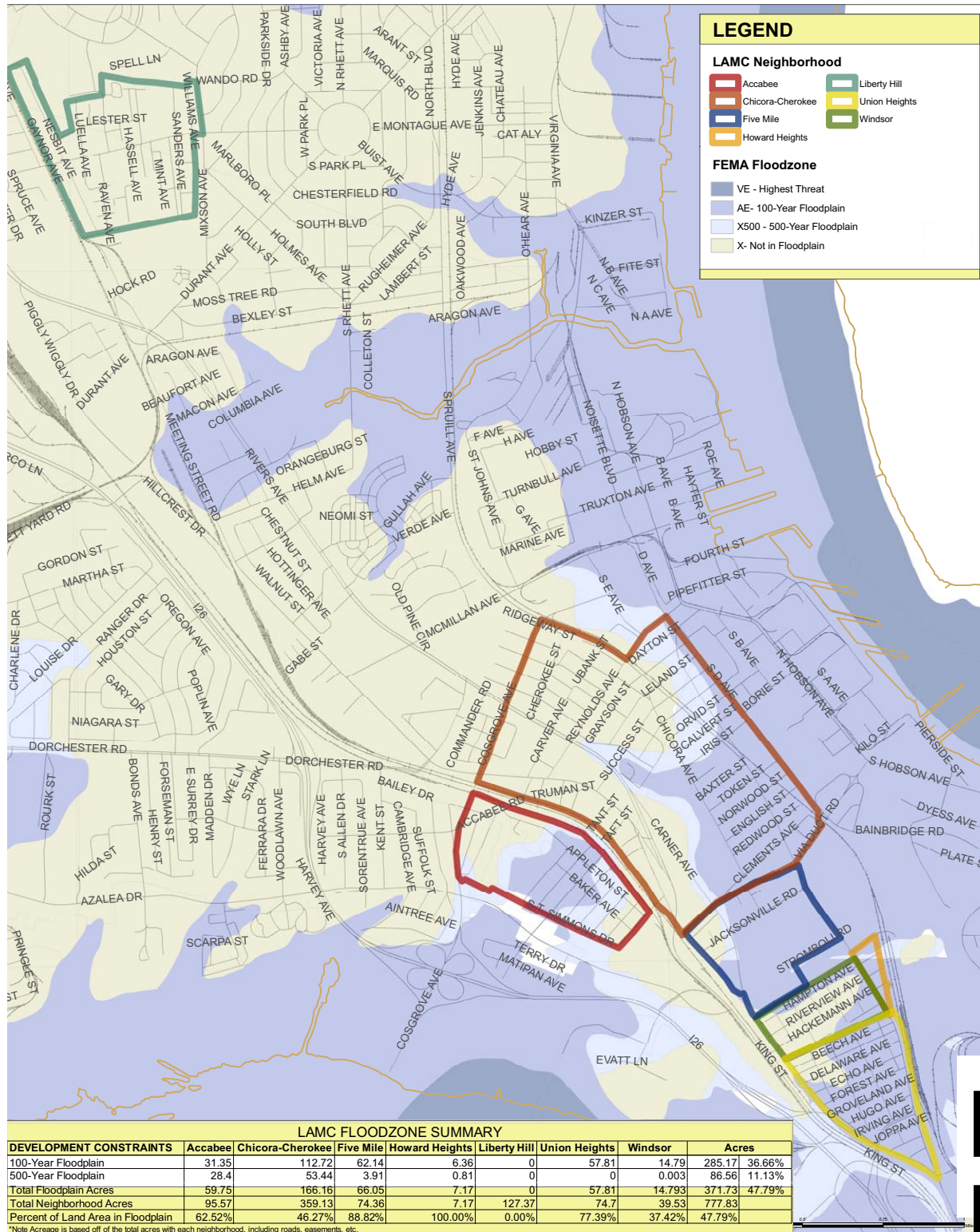
3.3.6 Floodplain Concerns

Neighborhood residents and the LAMC Task Force have indicated that flooding is a recurring problem in their neighborhoods, and not only during major storms. Federal Emergency Management Agency (FEMA) information shows that over 47% of the LAMC study area falls within the 100- and 500-year floodplain, with Howard Heights (88%), Five Mile (83%), and Union Heights (77%) containing the highest percentages of floodplain land, and Chicora/Cherokee

3.3.5 Building Conditions

There are a total of 1,538 single-family houses in the LAMC neighborhoods. According to the building condition assessment, approximately 38% of the single-family residential structures are in good to fair condition and require little to no rehabilitation.

Figure 3.4 LAMC Flood Zones



(166.16 acres), Five Mile (66.05 acres), and Accabee (59.75 acres) containing the greatest total floodplain acreage. Liberty Hill is the only LAMC neighborhood without any land in the floodplain.

3.4 ENVIRONMENT

3.4.1 Environmental Site Identification

The Plan identifies 113 sites in the southern portion of the LAMC study area and seven sites in the Park Circle Area on environmental databases. These are shown on Figures 3.5 and 3.6 and described in the Environmental Sites Matrix which follows. The sites identified are typical of heavy commercial and industrial developed urban areas, and include facilities with air and wastewater discharge permits, groundwater contamination issues, and an EPA Superfund site. Of the environmental sites identified in the LAMC study area, those with confirmed hazardous material and/or petroleum releases pose the greatest constraints to future development. Some of these sites are: Macalloy; Naval Shipyard; Swift Agri-Chem; VCC Wando; and the Charleston Naval Complex. Solid waste disposal facilities (SWF) and hazardous waste treatment storage and disposal facilities (TSDF) also represent development constraints. TSDF sites in the study area include the Naval Shipyard and Macalloy, and SWF sites include Montenay, Charleston/Spruill Avenue Dump, Gaston Dump, and Charleston County Dump.

3.4.2 Air Quality Concerns

The Charleston region meets all national ambient air quality standards, although it is close to the Ozone and PM2.5 limits. The concentration of PM2.5 has been trending downward in recent months, possibly due to recent weather patterns, economic conditions, or both. SCDHEC found in a recent study that temporary saturation monitors in Chicora/Cherokee, Union Heights, Howard Heights, and Accabee showed slightly higher PM2.5 readings in the Charleston Neck Area than regional averages, likely due to traffic congestion. Of the four neighborhoods sampled, Howard Heights had the highest levels, while Chicora/Cherokee had the lowest. However, the results demonstrated that PM2.5 levels in the Charleston Neck Area are well below national standards

Point-source Emissions

There are approximately 25 facilities with air permits located in the LAMC study area, all in the southern portion. Five facilities operate under SCDHEC Title-V Air Permits within or within close proximity to the LAMC study area: Detyen's Shipyard, Inc. (SCDHEC Permit No. 0560-0236), Montenay, Inc. (County Incinerator, SCDHEC Permit No. 0560-0196), Kinder Morgan Shipyard River Terminal (SCDHEC Permit No. 0560-0015), Rhodia Charleston (SCDHEC Permit No. 0560-0011), and SCE&G Hagood (SCDHEC Permit No. 0560-0029). Under their Title-V Permits, these facilities are required to maintain a continuous monitoring process, and submit Emissions Inventory Reports to the SCDHEC BAQ; and although the permitting and monitoring process does not guarantee that these facilities cause no impacts, it does allow the EPA and SCDHEC to ensure that all available and feasibly practicable measures are being taken to maintain compliance with all standards.

Charleston County has recently elected to end its contract with the Montenay Incinerator, which will eliminate one of the City of North Charleston's primary contributors of air pollution. This decision received strong support from LAMC and area residents, as well as Charleston County's Green Ribbon Committee. In addition, the Kinder Morgan Company announced plans to halt the expansion to its Coal Processing Facility just south of the Study Area in June 2009. The expansion would have caused an increase in the number of trains spreading coal dust throughout the study area.

Mobile Source Air Toxics

The primary cause of mobile source air toxics (MSAT) emissions is the presence of the I-26 corridor, which currently experiences heavy traffic volumes of 80,000 vehicles per day and frequent congestion problems, which worsen the affect of MSATs on the local environment. MSAT emissions are particularly noticeable and harmful because they are at "nose-level," unlike industrial emissions. The Coastal Conservation League has filed suit against the SPA, citing that the EIS should have evaluated on-dock rail as a transportation alternative to avoid the deterioration of I-26 by reducing the number of truck trips to and from the facility.

Future Monitoring & Remediation

SCDHEC is in the process of conducting the 'Charleston Neck Area Air Monitoring Study' in order to determine the most appropriate location for an additional permanent monitoring station, which will continue to sample local air quality before, during and after implementation of developments which may be expected to cause a change in

emissions levels. In July of 2009, SCDHEC installed an Air Quality Monitoring Station at Chicora Elementary School in order to measure the amounts of toxic pollutants found in the air. Chicora Elementary was chosen for the study because it is located near a variety of pollution sources – cars, trucks, and buses on the highway and interstate, fueling stations, dry cleaners, and large industries.

Additionally, LAMC and the University of South Carolina’s Arnold School of Public Health have recently received a \$1.2M grant from the National Institute of Environmental Health Sciences to conduct a four-year environmental monitoring program specifically targeting the seven LAMC neighborhoods. While the study will be focused on mapping the concentration of air pollutants within the study area, the program will also incorporate soil testing.

3.4.3 Groundwater and Contaminated Site Concerns

Due to the shallow presence and great depth of Charleston’s ‘Cooper Marl’ layer, it is not typically feasible to draw potable water directly from the ground at depths of less than two hundred feet. Therefore, any possible groundwater contamination is not likely to taint drinking water within the Study Area. However, contamination does become a concern given contact with surface water during heavy rain events or excavation activities. Environmentally suspect sites warranting particular concern are those close to projected redevelopment areas under the Revitalization Plan, as well as those that are located close to schools, community centers, and recreation areas.

As indicated on the Environmental Sites Figures, there are two abandoned Solid Waste Facilities (SWFs) within the vicinity of the intersection of Stromboli Avenue and Spruill Avenue: the Gaston Dump (Map ID 74), and the Charleston County/Spruill Avenue Dump (Map ID 62). Though state and federal records for these sites are limited, more information may possibly be found at the SCDHEC Regional Environmental Quality Control (EQC) Office.

The property once operated by Excel Apparatus facility (Map ID 82), located on Debonair Street adjacent to the Gethsemani Center, has been identified as a Hazardous Substance Handler, with abandoned Underground Storage Tanks remaining on the property. PCBs, dangerous organic compounds used in manufacturing electrical transformers, were handled at this facility. The site is registered with the both the South Carolina Environmental Facility Information System (SC-EFIS) and the Resource Conservation and Recovery Act (RCRA) program, which indicates that inspections have been conducted, but no violations have been filed.

3.4.4 Surface Water Quality Monitoring

Two major tributaries in the Study Area drain to the Cooper River: Noisette Creek in the northern portion, and Shipyard Creek near the southern end. The nearest SCDHEC Water Quality Monitoring Station (WQMS) downstream from Noisette Creek is WQMS MD-045, located on the Cooper River approximately half-way between the two tributaries. Conditions at this downstream point in the watershed are similar or no worse than its tributaries upstream.

WQMS MD-243 is located near the headwaters of Shipyard Creek. Recreational and Aquatic Life uses are fully supported at this station as well. The nearest Shellfish Monitoring Site is located downstream where the Wando River joins the Cooper River. No significant deficiencies have been noted at this Shellfish Monitoring Site; however, like most major water bodies in South Carolina, the Cooper River is under a fish consumption advisory due to mercury content.

3.4.5 Port Impacts

Development and operation of the new Port Terminal will generate air quality, visual quality, light pollution, and noise pollution impacts. The construction phase of the Port expansion would generate temporary fugitive dust and fuel combustion emissions, and the operational phase would generate emissions from container-handling yard equipment, other vehicles, container ships, and marine boats. However, the Port EIS Air Quality Report concluded that emissions would minimally affect air quality, and would not lead to violations of NAAQS or PSD standards. SCSA has a plan in place to reduce emissions at the new terminal, the details of which are described in the Community Profile. According to the Port EIS, noise impacts are expected to be negligible to local residents. Some impact is expected at the Federal Law Enforcement Training Center (FLETC) dormitory and the Cooper River Marina. Noise from the proposed access roadway will only minimally impact approximately 129 sensitive receptors. Light impacts should be minimal and manifest primarily as sky glow, according to the Port EIS. However, light trespass from the Port could affect the FLETC campus and the Cooper River Marina, and light trespass from the access road could minimally impact residential areas. Visual quality concerns include the placement and stacking height of storage of containers both within the new terminal and on private storage yards outside the new terminal. As the nearest potentially impacted residence is approximately one-half mile away, the SPA has no plans to regulate container storage within the terminal. Although the SPA has no authority to regulate storage on private property, the City of North Charleston could adjust its zoning ordinance to regulate container storage practices.

Figure 3.5 Environmental Sites Map South

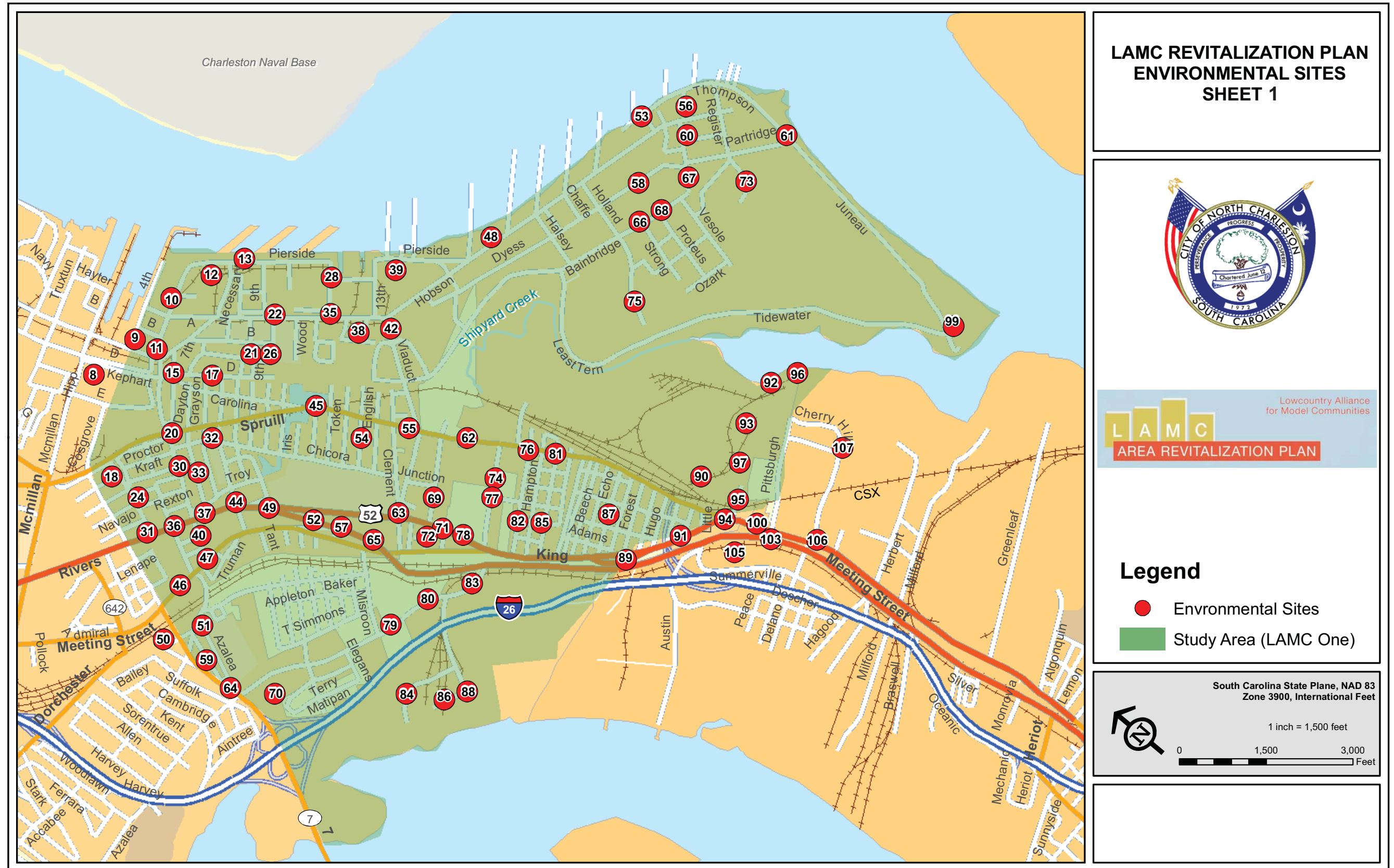


Figure 3.6 Environmental Sites Map North

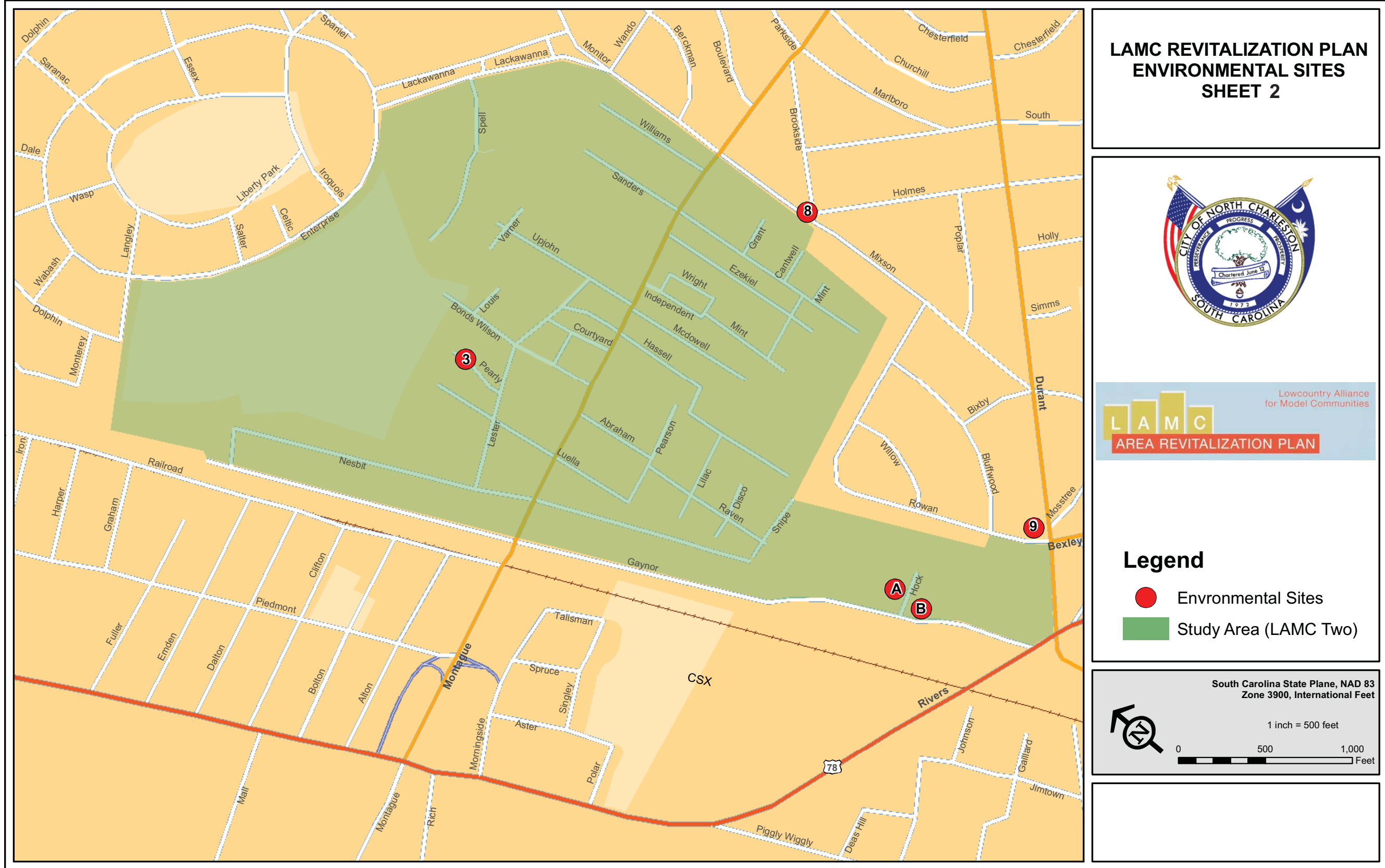


Figure 3.7 Environmental Sites Matrix

LAMC ONE (See 'Environmental Sites' Map - Sheet 1)																									
Site Description			Environmental Database																						
Site Name	Site Address	Map ID	NPL	CERCLIS	CERC-NFRAP	CORRACTS	TSDF	LQG	SQG	CESQG	NonGen	AUL	ERNS	US BROWN FIELDS	SHWS	RCR	SWF	LUST	GWCI	UST	DRY CLEANERS	VCP	BROWN FIELDS	NPDES	AIRS
			"National Priority List" (Superfund)	Active	No further remediation planned	Active, Corrective Actions	Transp/Storage/ Disposal (Suspect)	Large Quantity Generator	Small Quantity Generator	Conditionally Exempt Small Quantity Generator	Non-generator	Activity Use Limitation	Spills	Yet to be done/Volunteer Cleanup	State Hazardous Waste Sites	Registry of Conditional Remedies (possible remnants)	Solid Waste Facilities	Leaking Underground Storage Tank	Groundwater Contamination Inventory (in progress)	Underground Storage Tank		Active Brownfield - state equivalent	State	Permitted Wastewater Treatment Facility	Imply no violations
Naval Command Module Maint Fac	1690 Ave A South	9								x															
Detyens Shipyards	1670 Drydock Ave.	10						x					x											x	x
Charleston Naval Complex	1670 Drydock Ave.	10											x		x									x	
Applied Cleaning Tech.	1670 Drydock Ave.	10											x												
Sheen	1670 Drydock Ave.	10											x												
Quick Stop Food Stores	1922 Cosgrove Ave.	18																			x				
Circle K 8082	1840 Reynolds Ave.	20																			x				
Charleston Shipbuilders Inc.	1235 9th St. Bldg. 10	21									x										x				
Academic Magnet High	1525 Avenue B South	21																							
Naval Shipyard	Viaduct Rd.	22		x		x	x				x	x			x										
Noland Co.	3695 Meeting St.	23																							
Charleston County	3505 Pinehaven Dr.	29																							
Monarch Printing Service	1938 Reynolds Ave.	30																							x
Exxon Location 4-1521	3401 Rivers Ave.	31									x					x		x	x	x					
Former Gulf Oil Gas Station	3376 Rivers Ave.	31																x	x	x					
WW Smith Stamp Co.	2133 Dorchester Rd.	34									x														
Dryclean USA	3326 Rivers Avenue	36									x														
Kenan Transport Co.	Carver and Rivers Ave.	36									x														
Garrett Dry Cleaning	3328 Rivers Ave.	36									x														
Fmr. Dryclean USA	3328 Rivers Ave.	36													x										
Fmr. Dryclean USA	65 Windermere Blvd.	36																				x			
MCI Telecommunications	3374 River Avenue	36													x						x				
Charlestowne Paint & Body Shop	3127 Rivers Ave.	37									x														
North Area Automotive	3216 Rivers Ave.	37									x														
Rivers Mart	3255 Rivers Ave.	37																		x					
Tigers Market	3255 Rivers Ave.	37																	x						
Napa Auto Parts	2110 Reynolds Ave.	40									x									x					
Charleston Naval Base	1419 Viaduct Rd.	42											x								x				
June Hawkins	Rivers Ave & Success St.	44																			x				
Circle K 8095	2947 Spruill Ave.	45																							
Coastal Auto Parts & Salvage	3201 Meeting St. Rd.	47								x															
Charleston Woodworks	3290 Meeting St. Rd.	47																							x
Safeco	2960 Rivers Ave.	49																							
Lionheart Auto & Truck Repair	2940 Rivers Ave.	52								x															
White Point Svc/Drycleaning	2960 Rivers Ave.	52																							
2430 Thompson Ave.	2430 Thompson Ave.	53											x												
Delta Airlines	Charleston International	54									x														
Montenay Charleston Resource	1801 Shipyard Creek Rd.	55											x				x							x	x
Circle K 8108	2745 Spruill Ave.	55																							
Metal Trades Inc.	2778 Spruill Ave.	55																							
Foster Wheeler Charleston Reso	1801 Shipyard Creek Rd.	55																							
International Salt Co.	2265 South Hobson Ave.	56																							x
Delta Marine Tech	2221 South Hobson Ave.	56																							x
3R of Charleston	2900 Rivers Ave.	57									x														
US Dept. of State Charleston Re	1969 Dyess Ave.	58								x															
US Dept. of State Financial Svc.	1969 Dyess Ave.	58																							
Exxon Location 4-2168	2301 Cosgrove Ave.	59									x														
US Border Patrol Ac	1180 Barraks Ave.	60																							
US Coast Guard Vessel Support	1050 Register St.	61								x			x												
SC State Ports Authority	2395 S Hobson Ave.	61																							x
Dan Beach	2665 Spruill Ave.	62																							
Eason Diving & Marine	2668 Spruill Ave.	62									x														
South Atlantic Amusements	2681 Spruill Ave.	62																							
Charleston/Spruill Ave. Dump		62																							
Belk Cobb Chandler & Goldstein	2344 Cosgrove Ave.	64															x								
Tassin & Tassin	2825 Rivers Ave.	65																							x

Note: Some map ID's have multiple sites at the designated location.

Figure 3.7 Environmental Sites Matrix

Site Description			Environmental Database																								
Site Name	Site Address	Map ID	NPL	CERCLIS	CERC-NFRAP	CORRACTS	TSDf	LQG	SQG	CESQG	NonGen	AUL	ERNS	US BROWN FIELDS	SHWS	RCR	SWF	LUST	GWCI	UST	DRY CLEANERS	VCP	BROWN FIELDS	NPDES	AIRS		
			"National Priority List" (Superfund)	Active	No further remediation planned	Active, Corrective Actions	Suspect	Large Quantity Generator	Small Quantity Generator	Conditionally Exempt Small Quantity Generator	Non-generator	Activity Use Limitation	Spills	Yet to be done/Volunteer Cleanup	Solid Hazardous Waste Sites	Registry of Conditional Remedies (possible remnants)	Solid Waste Facilities	Leaking Underground Storage Tank	Groundwater Contamination Inventory (in progress)	Underground Storage Tank		Active Brownfield - state equivalent	State	Wastewater	Imply no violations		
Pryors Texaco	2851 Rivers Ave.	65														x			x								
WD Robinson Electric Co.	2821 Meeting Street	65																x		x							
2010 Bainbridge Ave.	2010 Bainbridge Ave.	66																									
Federal Law Enforcement Training	2000 Bainbridge Ave.	66											x												x		
Sani Tech Environment	2051 Bainbridge Ave.	68									x																
Sherwin Williams Co.	2014 Jacksonville St.	69									x																
Pepper Industries	Millford Road	70			x						x																
Intermodal Mgmt. Ltd.	2650 Carner Ave.	71																									
Infinger Transportation	2811 Carner Ave.	71							x						x					x							
Sims Quality Printers	2069 Jacksonville Blvd.	72														x									x		
SCE&G Navy Base Crew Qtr	1312 CB Lane	73								x																	
CC South	1923 Stromboli Ave.	74																									
Gaston Dump		74																									
Container Care Inc.	2534 Spruill Ave.	76															x								x		
Carolina Shipping Co.	1950 Stromboli Ave.	77																									
Phillyship of Charleston	2724 Carner Ave.	78									x																
Container Salvage	2724 Carner Ave.	78																							x		
Monarch Building Supply	2816 Azalea Dr.	79																									
Cameron & Berkeley Co	2821 Azalea Dr.	80								x																	
Rental Svc. Corp. Store 477	2841 Azalea Dr.	80								x																	
Construction Equip. Sales	2740 Azalea Dr.	80																									
Meadors Const. Corp.	2811 Azalea Dr.	80																							x		
Monarch Building Supply	2816 Azalea Dr.	80																							x		
Americast Charleston Heights	2750 Azalea Dr.	80																									
Belcher Serv Station	2502 Spruill Ave.	81																									
General Electric Co.	2490 Debonair St.	82									x																
Excell Apparatus Svc.	2490 Debonair St.	82																									
CMC Construction Svc.	2740 Azalea Dr.	83								x																	
Ruscon Corp. Prop.	2711 Azalea Dr.	83																									
Construction Equip. Sales	2740 Azalea Dr.	83																									
Swift Agri-Chem	2750 Speissegger Dr.	84		x																							
Roper Hospital North	2750 Speissegger Dr.	84																							x		
Excell Apparatus Svc.	2490 Debonair St.	85																							x		
Baker - 126 Site	2381 Baker Hospital Blvd.	86																									
Charleston Co Dump		86																									
VCC - Wando	2390 Baker Hospital Blvd.	88		x																							
Rhodia Charleston	2151 King Street Ext.	89																									
Albright and Wilson Americas	2151 King Street Ext.	89																									
Crosbys Garage	2204 Meeting St.	91																									
Delta Machine Shop Ltd	2008 Cherry Hill Ln.	92								x																	
Detyens Shipyards	1905 Pittsburg Ave.	92									x														x		
Metal Trades Inc. Shipyard	1905A Pittsburg Ave.	92									x														x		
Charleston Constructors	2007 Cherry Hill Ln.	92																									
Metal Trades Charleston	1905 Pittsburg Ave.	92																									
Yellow Cab Co. of Chas	2003 Cherry Hill Rd.	92																							x		
Plantation Painters	2128 Spruill Ave.	94							x																		
Transflo Corp.	1990 Taxbury Ln.	95								x																	
First Recovery	1990 Taxbury Ln.	95									x																
Kimmels Coal and Packaging	1800 Pittsburg Ave.	96																							x		
Macalloy Corporation	1800 Pittsburg Ave.	96	x	x		x	x				x	x	x			x			x	x		x	x				
Polyklean - closed	1800 Pittsburg Ave.	96																							x		
Metal Trades	1965 Pittsburg Ave.	97																									
Cooper River Marina	1010 Juneau Rd.	99																									
1000 Juneau Rd.		99											x														
Jennings Body Shop	2038 Meeting St.	100								x																	
J&G Properties Inc.	2038 Meeting St.	100																									
Albright and Wilson Chemical	2151 King Street Ext.	103																									
Rhodia Inc.	2151 King Street Ext.	103																									
LAMC TWO (See 'Environmental Sites' Map - Sheet 2)																											
Bonds Wilson High School	4900 Pearly Ln.	3									x																
Lenz Drycleaning	4727 Mixson Ave.	8																									
Pearlstone Distributors	1821 Hock Ave.	A								x																	
Ryder Transportation	1821 Hock Ave.	A																									
Pearlstone Distributors	1821 Hock Ave.	A																									
Pearlstone Distributors	4550 Gaynor St.	B																									
Seaboard System RR	4565 Gaynor Ave.	B																									
Seaboard System RR	4565 Gaynor Ave.	B																									

Note: Some map ID's have multiple sites at the designated location.

3.5 ECONOMIC DEVELOPMENT

Despite the challenging economic climate and historic disinvestment, there are opportunities for economic innovation and growth in the LAMC communities. Continued, rapid growth in the Charleston region and some influence over port expansion externalities provide study area neighborhoods a healthy platform for community revitalization. Resources embedded in the communities, like a strong sense of place and cultural identity, are also major factors in determining economic growth. A discussion of some of the LAMC area's economic development indicators is included here.

3.5.1 Business Infrastructure

The Charleston area offers state of the art infrastructure including telecommunications, electricity, natural gas, water, and wastewater. A full range of broadband and internet services are available including fiber optic connections. AT&T ensures reliability and continuity of service with their Emergency Operations Center in Summerville. The Charleston area has adequate capacity and relative affordability for electricity, water, and wastewater services. Major transportation infrastructure includes I-26, I-526, and the Charleston International Airport.

3.5.2 Business Activity

Study area businesses generated approximately \$40.8 million in sales volume in 2008, across various retail categories. However, more than \$8.5 million in annual retail sales leaks out of the LAMC study area, suggesting that household spending (demand) is greater than sales (supply) in these sectors. Retail sectors experiencing leakage (i.e., spending occurs at retailers outside the study area) include: apparel & accessories; food & beverage; leisure & entertainment; and general merchandise. Retail sectors a sales "surplus" (i.e., businesses attracting sales to the LAMC study area) include: furniture/home furnishings; and convenience/service. These surplus sectors generate \$17.1 million of retail sales in-flow to the LAMC study area.

3.5.3 Regional Employment Trends & Forecasts

Another critical factor informing demand for commercial real estate is employment growth. Charleston County is forecast to add 77,400 new jobs by 2020 and another 61,000 by 2030, with the greatest growth occurring in the Services, Retail Trade, and Government sectors. North Charleston is expected to gain 10,400 of those jobs by 2030. The COG predicts limited job growth in the LAMC study area (approximately 200 new jobs) by 2020, and a decreasing share of City jobs. However, this does not include proposed job growth as part of the Port's expansion. Port expansion is likely to generate a significant number of new jobs for the City and the LAMC study area.

Based on COG's 2003 Traffic Analysis Zones data, the LAMC study area contained an estimated 4,400 jobs—6% of the City's total employment. However, data from ESRI Business Analyst suggests that there are almost 5,800 jobs and 350 businesses in the LAMC study area, generating annual business sales of almost \$1.2 billion. Employment is focused across several categories, including Manufacturing and Construction. Major employers include: Sumter Utilities, Deytens Shipyard Inc., and Palmetto Lowcountry Behavioral.

Labor force data in the seven LAMC neighborhoods, compiled by TAZ zones indicates a current unemployment rate of 30%, suggesting almost 1,000 unemployed residents out of a potential labor force of 3,300.

3.5.4 Visitation & Tourism

The method by which the Charleston CVB compiles general visitor information and behavior characteristics does not segment visitation by specific geographic levels such as North Charleston or LAMC neighborhoods. As such, it is not known how many visitors come to the LAMC study area or how much they spend while there. In ERA's view, however, it is probably very limited when taking into consideration the overall quality of local businesses/retailers in the LAMC study area today.

3.6 EDUCATION & HEALTH

3.6.1 School Performance

LAMC study area elementary schools include Chicora, Mary Ford, Malcolm Hursey, and North Charleston schools. Middle schools include Brentwood, Morningside, Charleston School of the Arts, and Military Magnet. High schools include North Charleston, the Academic Magnet, and Garrett Academy of Technology. The Charleston School of the Arts and the Military Magnet actually include both middle school and high school students. Consistent with the challenges of lower-income areas, educational attainment in the LAMC study area lags other locations in the Charleston area.

Census 2000 data indicate that 10% of residents have less than a 9th grade education, about 33% are high school graduates, and about 9% have attained a bachelor's degree.

By most metrics, LAMC schools public schools are struggling, although some successes are found at specialized and private schools. According to No Child Left Behind standards, all traditional public schools – elementary, middle, and high – in the LAMC area are either Below Average or Unsatisfactory. The Military Magnet, which serves grades 6-12, also rated Below Average. At the middle school level, the Charleston School of the Arts stands out as a success, receiving an Excellent rating. At the high school level, the Charleston School of the Arts and Garrett Academy of Technology are also rated Excellent. Magnet schools have also consistently outperformed public schools in Palmetto Achievement Challenge Tests (PACT) and have higher graduation rates. School performance may be measured by academic achievement, but should also account for disciplinary activity, parent involvement, staff quality, and average expenditures.



Chicora Elementary School

3.6.2 School Closing and Redistricting

In the LAMC study area, Brentwood Middle School has been recently closed due to Unsatisfactory ratings and high average cost per pupil. One of the goals of the closure and the accompanying redistricting by CCSD is to spread students with significant needs equitably around the three District Four middle schools. LAMC stakeholders have expressed concern that poor and minority neighborhoods have been disproportionately targeted for school closings both in this instance and in the past (i.e., Bonds-Wilson High School and Liberty Hill Elementary School). The student body at the five schools closed in the district is 72% African-American. Unfortunately, school closures based upon performance may tend to target predominantly African-American schools because of the persistent achievement gap in many of these schools. Another concern is that the distance middle school students will have to travel could reduce parental involvement and community connections.

3.6.3 School Reform

The CCSD has adopted a three year strategic plan for school reform called "Charleston Achieving Excellence." The Action Design section outlines plan assumptions and emphasizes a reliance on proven strategies for improving student performance. Specific Action Plans are developed for elementary, middle, and high schools that outline required actions in terms of curriculum, student support, assessment and accountability, teacher support, enrichment, student recognition, and school climate and behavior. Responsibilities are outlined for principals, teachers, and various school teams that focus on particular action items. The Action Plan also calls for guarantees for students, such as all students receiving enrichment and acceleration programs. The Charleston Achieving Excellence plan is a strong and ambitious plan for reform, but it is yet unknown how well the plan will be implemented and how thoroughly progress will be reported to the public.

School Choice

One of CCSD's key strategies for improving educational opportunities is school choice. CCSD's school choice options include magnet schools, charter schools, single gender schools, and Montessori schools. North Charleston area offers a number of school choice schools, including the Academic Magnet High School, the Charleston County School of the Arts, Garrett Academy of Technology, Charlestown Academy, and the Military Magnet Academy. CCSD is planning to expand its magnet program by offering a series of new partial magnet schools, including the School of Communications at Chicora Elementary in 2009-2010. The strong performance of the magnet schools in the area – such as the Academic Magnet High School and the Charleston School of the Arts – suggests that school choice is effective in providing selected students a higher quality of education. However, some reform advocates oppose school choice on the grounds that luring the best students away from under-performing schools isolates less advantaged or less motivated students from their high performing peers. Others suggest that magnet schools can undermine

efforts to establish schools as centers of community, with vast attendance zones creating long commutes and disabling parents from becoming more engaged in their children's education.

Closing the Achievement Gap

One of the priorities for the CCSD, as stated in the Charleston Achieving Excellence plan, is to close the achievement gap in student attainment, graduation rates, discipline referrals, and teacher qualifications. The high level of racial segregation in the school system may play a role in variable achievement between schools. Historically, schools with concentrations of African-Americans have received fewer resources and less qualified teachers. All LAMC study area schools are highly segregated; seven of the eleven schools in the area are 85% African-American or higher. On the other hand, the Academic Magnet and the School of the Arts have a predominantly white student body with just 9.9% African-American enrollment at the Academic Magnet and just 19.6% at the School of the Arts. Overall, this reflects a highly segregated school system that may be perpetuating the historic imbalances in access to education for the LAMC community.

The CCSD is employing a number of strategies to help close the achievement gap, a few of which include: recruiting, keeping, and continuing to train highly skilled teachers; regular testing to identify which students are falling behind, and providing supplemental instruction to students who have fallen behind grade level through the M-Gap and E-Gap programs; and increasing parent involvement in their child's education.

Community-School Collaboration

Partnerships with parents and with businesses, non-profits, governments, and academic institutions can provide valuable resources and opportunities for schools. CCSD initiatives aimed at increasing parental involvement include Parent Teacher Associations (PTA), School Improvement Councils (SIC), and the Linking Learners program. Linking Learners assists parents with job training and job preparation, and it links the parent's training program with increased involvement with their child's education

Partnerships with businesses, non-profits, governments, and higher educational institutions can also be an effective mechanism for increasing educational opportunities and enhancing student motivation. For example, local colleges are partnering with the new Chicora School of Communications to bring their organizational and educational expertise.

3.6.4 After School and Early Childhood Education

After School Opportunities

The City of North Charleston offers a variety of athletic programs at North Charleston middle schools, including basketball, cheerleading, football, track and field, volleyball, and step team. The after school programs link participation in their activities and academic success by requiring a report card review and a clean disciplinary record.

After school programs available in the LAMC study area include: the Kaleidoscope program, offered by Charleston County Community Education; City of North Charleston after school program, offered at sixteen locations; youth sports offered by the City of North Charleston Recreation Department; homework centers at select schools; the Wings for Kids program, currently offered at Chicora Elementary; and a program by Metanoia CDC.

Early Childhood Education Opportunities

Most Charleston County elementary schools offer the CCSD Child Development program for 4 year old children. These programs are designed to prepare children to be ready to enter kindergarten and are free to qualifying families based on need. The Child Development program's goals cover literacy, art, encouraging awareness of numbers, science, learning to work in groups, and much more. In the LAMC study area, Chicora Elementary and Malcolm Hursey Elementary offer the 4-year old Child Development program at their schools.

Malcolm Hursey Elementary provides a Montessori Program with certified Montessori teachers. The Montessori program emphasizes a holistic and exploratory approach to learning. The Montessori Program is a half-day program for 3-year olds and a full day program for 4-year olds.

3.6.5 Higher Education Options

The Charleston metropolitan area offers a range of higher educational options that can suit a variety of budgets goals, and life stages. Institutions of higher education in North Charleston include: Charleston Southern University, a four-year private university; Trident Technical College, an accredited community college offering associates degrees

and certificates in 12 academic divisions; Miller-Motte Technical College, a nationally accredited technical college offering two-year associates degrees; Strayer University, an accredited technical college targeted to working adults; and the Lowcountry Graduate Center, a consortium of several colleges and universities offering degrees to adults in a flexible setting. Other institutions in the region include: College of Charleston, a four-year, public liberal arts and sciences university; The Citadel, a public, four-year military college; and the Medical University of South Carolina (MUSC), a public university and comprehensive academic health center offering a full range of programs in the medical professions and biomedical sciences.

3.6.6 Adult Education and Workforce Development

In addition to the technical programs described above, the North Charleston community provides a number of education, training, and workforce development options for adults who need assistance in seeking a job or improving career prospects. While the resources are generally available, there may be obstacles to obtaining the career development assistance some individuals need.

Trident One Stop Career Center

The Trident One Stop Career Center, located in the City of North Charleston off Rivers Avenue north of I-526, offers a full range of services to support job seekers and career development. It is an integrated site where a variety of service providers assist people interested in career development through job search assistance, assessments, and skills training. More in depth services, including career counseling and access to training, is available to those who qualify under the Workforce Investment Act, a federal program that funds employment and training programs. For those who qualify, staff can assist with skills assessment and developing an individual employment plan. Training programs are available in health care, manufacturing, welding, commercial driving, and computers/software.

Charleston County Community Education

Charleston County Community Education is a partnership funded by the Charleston County School District and Charleston County Parks and Recreation Commission to promote lifelong learning opportunities in Charleston County. CCSD has agreed to support this mission by providing access to several public school sites after hours. In the LAMC study area, Community School Programs are offered at Garrett Academy and North Charleston High School. A variety of adult education courses are offered at these locations covering topics ranging from home maintenance to arts to adult education to business classes.

Greater Charleston Empowerment Corporation (GCEC)

The mission of the non-profit GCEC is to promote economically healthy neighborhoods and to empower residents to bring about positive social and economic change. The GCEC administers the Renewal Community Program in conjunction with the City of Charleston. Recent GCEC accomplishments include developing a Strategic Economic Development Plan and promoting business and employment through incentives and tax credits.

GED Opportunities

Both the Trident One Stop Career Center and the Charleston County School District provide GED preparation courses. Courses are generally offered during daytime hours and may take several months to complete. Currently, GED preparation and/or high school diploma programs are offered at the Trident One Stop Career Center on Hanahan Road and at North Charleston High School. The Felix Pinckney Community Center and the Accabee Community Center also offer GED classes as part of their regular programming. The programs are offered in collaboration with the Trident Literacy Association.

3.6.7 Obstacles to Workforce Development

Fortunately for job seekers, most of the services that they need are provided at a single location at the Trident One Stop Career Center. However, there may be several obstacles to for those seeking out career development assistance, including: lack of awareness about the range of services offered at training centers; the cumbersome WIA application process; and lack of transportation options.

3.6.8 Health Profile

Environmental Health

Urban planners, scientists, and health professionals have established a clear link between environmental characteristics and the health of populations occupying a given area. Air quality, water quality and contamination, and industrial practices can severely impact community health by increasing a population's likelihood of being afflicted by disease and other health complications. Similarly, the configurations of land uses, transportation infrastructure, and community design have been shown to bear close correlation with overall community health and wellbeing.

As environmental justice communities, the LAMC neighborhoods have direct experience with the inequities of pollution impacts. Air pollution from both point and non-point sources can cause asthma and other respiratory diseases; wastewater and stormwater runoff result in contaminated water supplies, causing water to be unusable for human consumption without risk of illness; and the storage of hazardous materials carries health threats near when residential land uses are in close proximity to noxious industrial practices. Studies have shown that these environmental risks have a greater impact on low-income populations due to a range of factors, including environmental injustice and lack of access to health care and health-related education. Lower income populations have also historically lacked the resources and political influence to keep environmental risks out of their neighborhoods.

While the environment can be a source of health risk, it can also provide the physical framework for improved community health. The organization of the built environment has been shown to have significant influence on physical activity within communities. Studies have demonstrated that physically active populations often have measurably lower rates of contracting adverse health conditions, such as obesity, diabetes, and heart disease, than less active populations. Researchers and proponents of achieving public health objectives through urban planning are in general agreement that the degree to which active lifestyles are supported by the built environment are directly related to the level of density in terms of building stock, street pattern and connectivity, mix of land uses, and availability of pedestrian and bicycle infrastructure. To be sure, physical form is not the only determinant of active lifestyle. Other factors, such as perception of crime, influence the level of outdoor activity a community engages in. However, the urban planning and design provide the foundation for activity which promotes health.

LAMC Health Initiatives

Because of the lack of grocery stores in the LAMC area, MUSC is working with CARTA to modify routes to better connect LAMC residents with grocery stores in the region. They are also working with local farmer's markets, such as the market in Park Circle, to have them accept food stamp cards, so that those without cash can also benefit from healthy food options. Also, some schools are offering pregnant student counseling. MUSC is involved in numerous community health programs, especially those which promote healthy living through preventive measures. They support programs promoting school readiness in pre-k children and teen leadership. They are also trying to reach out specifically to the Latino population. The Franklin C. Fetter Community Health Center in Union Heights provides some health care services to the community. It is typically staffed by a single provider - often a nurse practitioner - and houses a small pharmacy.

The information generated from the study to be conducted through a grant the University of South Carolina School of Public Health received from the National Institute of Health (NIH) to conduct an environmental health study in the City of North Charleston will significantly help pinpoint specific health issues in the community. The four-year, \$1.2 million research grant will determine if there is a link between multiple sources of pollution and the health of the residents living in the LAMC neighborhoods. The study will be doubly beneficial as it will help educate residents about local environmental health risks and teach ways to reduce their exposure. This research will help tailor a health program to directly meet the needs of to the LAMC community and manage the environmental stressors with which they are faced.

3.7 LAND USE & URBAN DESIGN

The enviable location of the LAMC neighborhoods to major waterways, streams, and historic Charleston has been undermined over time as industrial uses have degraded the local environment and quality of life. New projects, like school construction, the Noisette Preserve restoration, and the revitalization of key corridors, are helping to regenerate the area and restore the environment. Assessing physical challenges, opportunities, and assets can help these resource-rich neighborhoods promote development strategies which enhance, rather than degrade, the physical environment.



I-26 currently divides the LAMC community

3.7.1 Challenges

The LAMC neighborhoods face a number of challenges related to the physical environment in their pursuit of revitalization. These challenges primarily take the form of barriers to connectivity and incompatible, out-of-scale industrial uses. Railroad tracks pass through every LAMC neighborhood, creating noise and pollutant emissions in addition to hindering connectivity. I-26 is an even worse physical divide, isolating neighborhoods from each other and damaging neighborhood aesthetics. Rampant industrial development has also occurred in LAMC neighborhoods. Defunct industrial operations have left many brownfield sites, like the Chicora tank farm, requiring environmental remediation, and many other polluters like the Charleston County Incinerator continue to operate in the heart of residential areas.

3.7.2 Opportunities

There are some extraordinary opportunities for revitalizing the LAMC neighborhoods, due to a combination of major port initiatives, CMP funding, school innovation, historical development patterns, and new development. Development of the Port Terminal on the former Naval Complex could bring jobs and consumer spending to the area, as well as improved connectivity via SCDOT's Port Access Road Project. There are also enhanced educational opportunities in LAMC neighborhoods, as several schools, like the Academic Magnet and the School of the Arts, have proven to be excellent learning environments, while new schools and programs are under development, like the new Chicora Elementary School. Another promising educational opportunity is the Clemson University Restoration Institute (CURI) North Charleston Research Park, located on the former Naval Complex, which can drive economic growth by creating and fostering restoration industries and technology through partnerships, new companies, and research agencies.

New developments plans at Ashley River Center, the River Center at Noisette, Chicora Tank Farm, Shipwatch Square have direct and indirect benefits in housing and employment for LAMC residents, as well as land use compatibility improvements. The Hope VI redevelopment at Horizon Village is an example of how new development can express local design characteristics and encourage new investment. The preponderance of vacant land in the LAMC study area is a challenge, but also an opportunity to address needs in the community. Such land can be used to increase and conserve green space, like at the Noisette Preserve and Quitman Marsh, or can be redeveloped to meet community needs.

3.7.3 Natural & Cultural Resources

Schools, community centers, open space, and other cultural resources are located throughout the study area. Within easy reach of LAMC study area residents are six City parks. All of these City parks, however, are located north of McMillan Avenue, except for Park South, which may be closing. For this reason, additional recreational facilities in this part of the study area are critical. The Ashley and Cooper rivers are also two significant recreational resources. Shipyard Creek, a Cooper River tributary long polluted by the Macalloy facility, has been reclaimed after two years of environmental clean-up. Dozens of churches and mosques, some providing outreach ministries, are found in LAMC neighborhoods. Schools also represent public assets, with five elementary schools, one high school, and three magnet schools in the vicinity. Four community centers are located in the LAMC neighborhoods as well, with an additional facility located in the Noisette area. Practically each LAMC study area neighborhood is anchored by a community center which offers programs, classes, and meeting spaces. Health needs are served at the Franklin C. Fetter Health Center in Union Heights, which focuses on prevention and treatment of diabetes and hypertension.

Additionally, the Cooper River Memorial Library is located just outside the Chicora/Cherokee neighborhood, supporting learning, enrichment, and workforce development. Sterrett Hall Auditorium, located on the former Naval Complex, also offers performance and event space.

Also on the former Naval Complex is the City Cultural Complex, which offers artist studios, civic uses/classrooms, a theatre, and public exhibition spaces. The North Charleston Arts Department provides programs such as a growth incubator system for new or established artists and arts organizations, and works with the State parks department to develop local history and culture in the North Charleston Heritage Corridor. A 1995 historical and archaeological survey recommends that Chicora and Liberty Hill be designated local historic districts.

3.7.4 Land Use & Zoning

Most of the LAMC study area has retained its pre-1960 urban form, a traditional grid layout with smaller lot sizes and setbacks. This layout is considered beneficial for redevelopment, although that has not occurred in areas south of the railroad line as it has in Park Circle. To better understand land use patterns and particular barriers to development, the greater analysis area can be divided into four generalized “land use character areas”: Liberty Hill Area; Noisette Creek Area; Southern Neighborhoods Area; and Ashley River Area.

Liberty Hill Area

Existing Land Use

Liberty Hill is characterized by its varied land uses, as it contains institutional and commercial uses among residential uses and vacant lots, and a sizeable industrial use at the neighborhood’s southern extremity. There is also a large tract of vacant land in the southern area, and a large institutional use separating Liberty Hill from Oak Terrace Preserve. Access to green space is better than in the Southern Neighborhood Area, with park land behind Felix Pinckney Community Center and the nearby Park Circle on Montague Avenue.

Future Land Use

The future land use map illustrates the development vision for the City. In Liberty Hill, the vision is for commercial development to concentrate along Montague and Mixson Avenues, with more uniform residential development throughout. Heavy industrial uses in the south are converted to light industrial and appropriately buffered. The bulk of vacant land converts to residential, and park and green space is conserved along I-526 and the Oak Terrace area.

Zoning

The zoning code is designed to support and reflect the City’s future land use map. As such, zoning maps for Liberty Hill largely correspond to the desired land uses. However, because there is no institutional category, churches, schools, and other civic uses are zoned residential. This ambiguity could lead to uncertain development patterns.

Southern LAMC Neighborhoods Area

Existing Land Use

This character area contains the majority of LAMC neighborhoods: Accabee, Chicora/Cherokee, Five Mile, Howard Heights, Union Heights, and Windsor. These neighborhoods are typified by scattered land uses, where residential areas (including single-family, multi-family, and mobile homes) are peppered with institutional, commercial, and industrial uses. Vacant lots are interspersed throughout the area. Park land is negligible, limited to small sites around Community Centers, and in danger of closing. A large institutional use in Chicora/Cherokee lies at the center of the LAMC study area. The most consistent land use is the industrial land flanking all LAMC neighborhoods.

Connectivity is thwarted by three railroad corridors and a major interstate, and the area is further divided by industrial properties forming a barrier between Windsor, Union Heights and Howard Heights to the south and Accabee and Chicora/Cherokee to the north. Corridors such as Rivers Avenue, Meeting Street, and Spruill Avenue could, however, have a unifying effect throughout not only the LAMC study area but the broader study area as well.

Future Land Use

The future land use map generally conveys a more consistent development pattern throughout the neighborhoods, with residential and industrial land uses defining the landscape. In primarily residential areas, much of the current spot commercial zoning converts to residential. Commercial and mixed uses are shown to be concentrated in strategic locations along Meeting and Carner Streets and as a community gateway between McMillan and Cosgrove Avenues. Industrial is the dominant land use for the southernmost neighborhoods, but is located primarily to the east at the Naval Complex and between I-26 and King Street.

Figure 3.8 City of North Charleston Existing Land Use

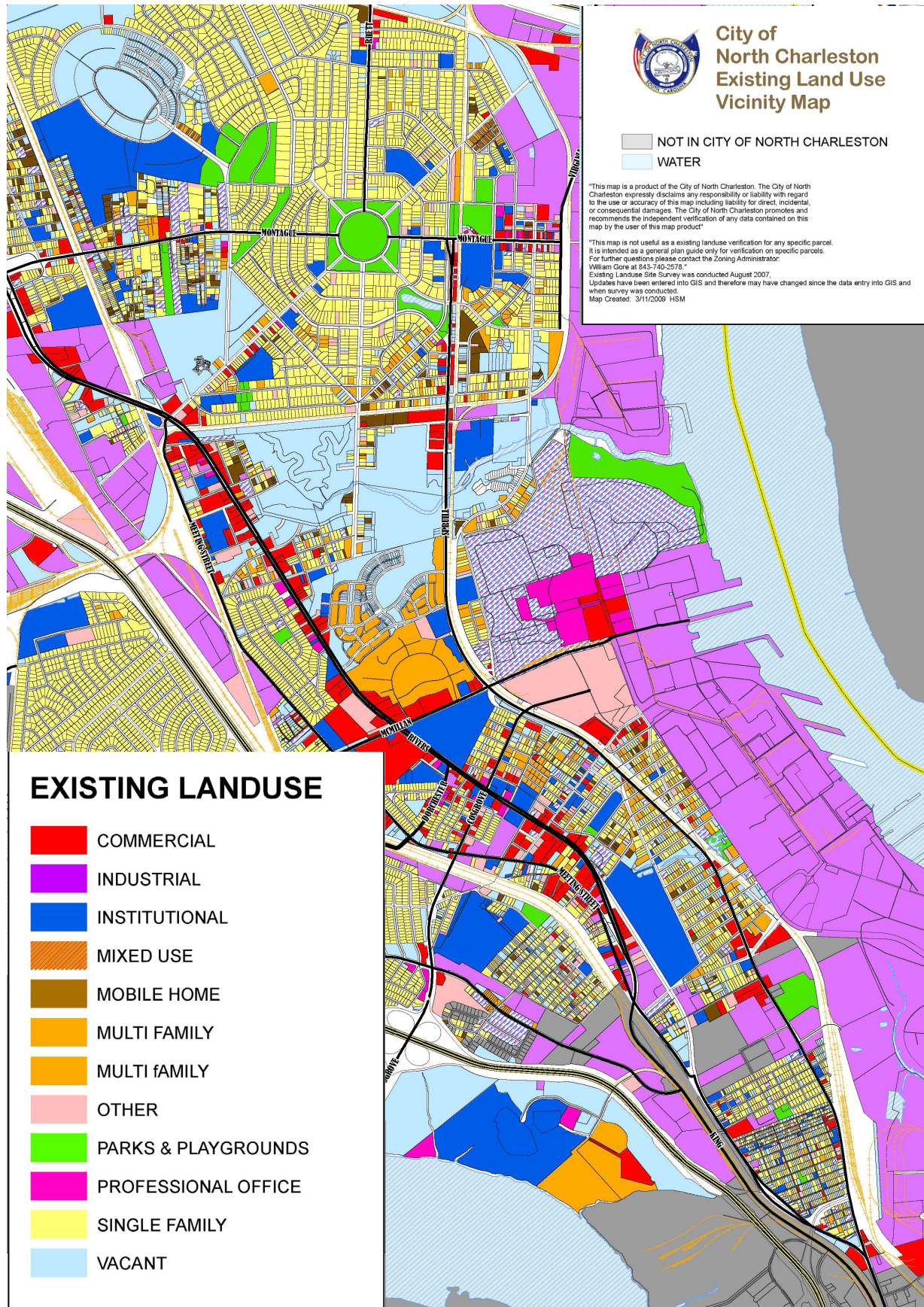
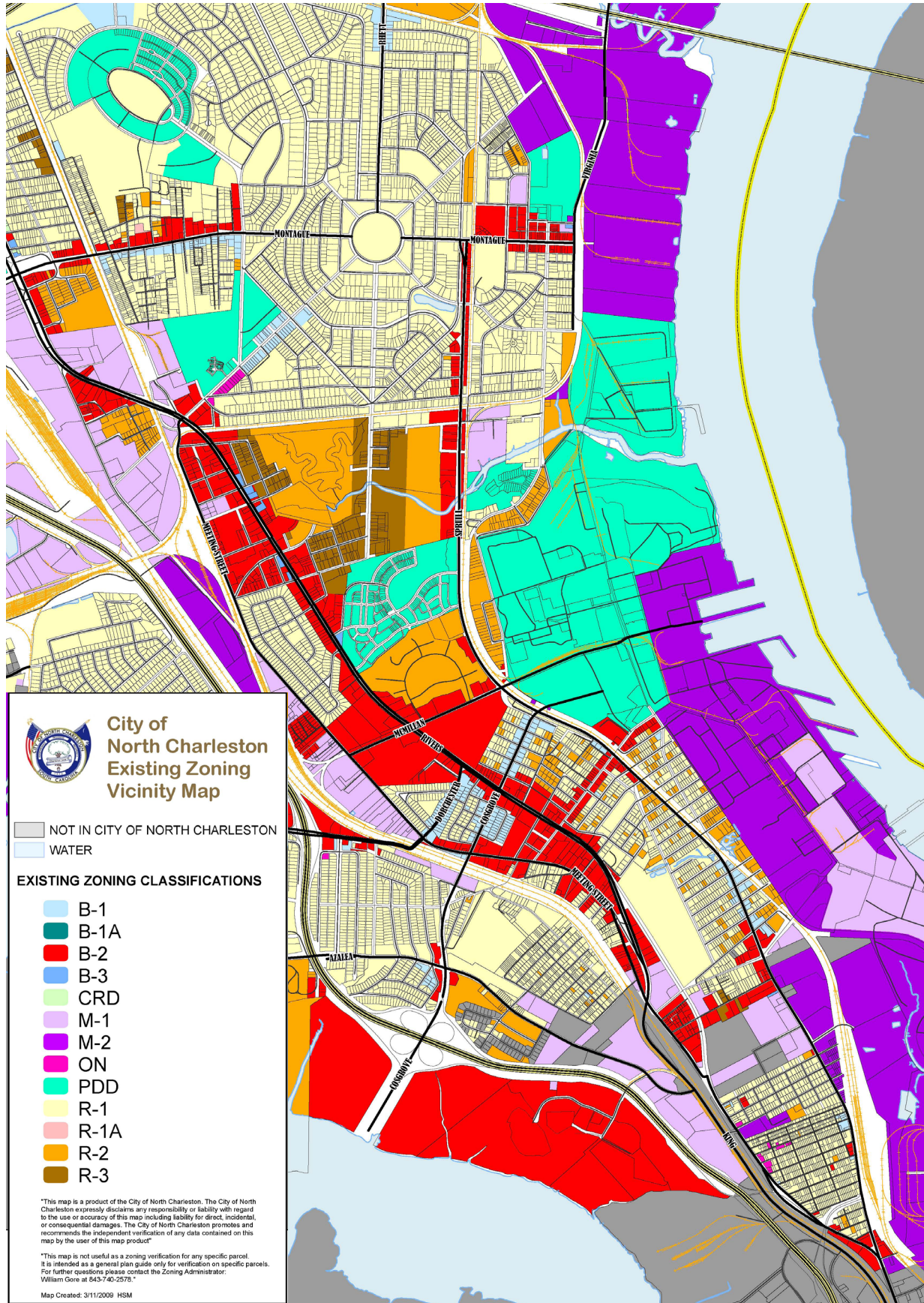


Figure 3.9 City of North Charleston Zoning Map

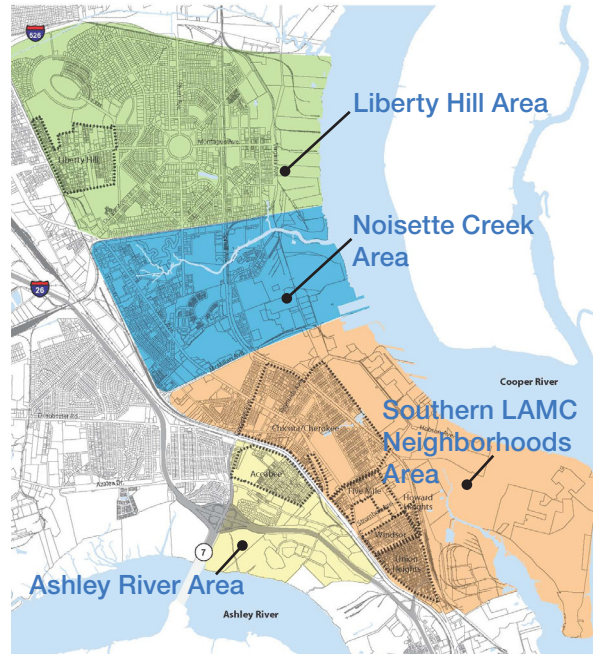


The Howard Heights neighborhood is shown as entirely industrial, as is a large portion of Windsor. Redevelopment priorities are marked in parts of Five Mile (including Stromboli Avenue) and the area just south of Union Heights. Perhaps because these areas are earmarked for redevelopment, industrial development has been allocated in place of Park South.

The map proposes limited new green space in residential areas, but a large swath of existing industrial land is shown as conservation land to the east of Five Mile, Windsor, Howard Heights, and Union Heights, which would buffer against industrial uses on the other side. A linear park is proposed at Cosgrove Avenue and Azalea Drive, but Park South is shown to convert to heavy industrial use.

Zoning

While zoning classifications largely reflect the future land use map, some discrepancies exist. For instance, the zoning map shows heavy industrial uses in a location adjacent to Chicora/Cherokee slated for institutional use and a “redevelopment priority” area in Five Mile neighborhood. Also, because there is currently no open space classification in the zoning ordinance, areas slated for conservation in the future land use map could be developed for other uses. Further, the zoning ordinance allows for heavy industrial adjacent to residential areas, and should be adjusted to either downgrade them to light industrial and/or ensure they are appropriately buffered.



“Land use character areas” delineated for analysis purposes

Noisette Creek Area

Existing Land Use

The Noisette Creek Area is typified by large swathes of vacant land, open spaces, and large lots. Vacant land constitutes roughly one half of the area, presumably due to floodplain concerns. Commercial and industrial uses make up the north end of the area, with most commercial located along Rivers Avenue and at the Rivers Avenue-McMillan Avenue intersection. Multi-family residential and industrial uses are found in the center of the broad character area.

Future Land Use

The future land use map creates a more consistent land use pattern, with much vacant and institutional land converted to conservation and park land. The area around Noisette Creek is shown to be dedicated as a Conservation Area. Also, industrial land along the Cooper River converts to park land.

Zoning

The zoning map and future land use map are inconsistent in a number of ways. Most notable is that the land around Noisette Creek is zoned for multi-family residential and mobile home development rather than conservation and park land, which would bridge the Liberty Hill Area and the Southern Neighborhoods Area. Additionally, the zoning map shows a concentration of high intensity commercial development at the intersection of McMillan and Rivers Avenues, in contrast to the mixed use/commercial/industrial development shown on the future land use map. As a potential gateway into the LAMC study area, the zoning designation of this intersection should be clarified.

Ashley River Area

Existing Land Use

This area is separated from the LAMC neighborhoods by I-26, and is constituted of vacant land and institutional, industrial, and multi-family developments.

Future Land Use

Future land use appears to be mixed use, single-family, and multi-family residential developments fronting the Ashley River, containing a small commercial component. A large Conservation Area is designated from Cosgrove Avenue east to the current Palmetto Lowcountry Behavioral Health facility. Because the Ashley River Area, however, is bounded to the north and east by proposed heavy industrial development, connecting to the LAMC study area will be challenging.

Zoning

The zoning map does not correspond to the future land use map here, as this area is zoned for high intensity commercial development. Zoning along the Ashley River should be reexamined in light of the community's aspirations.

3.8 TRANSPORTATION & INFRASTRUCTURE

Numerous studies and plans relating to transportation and infrastructure have been conducted in and around the LAMC study area in recent years. Most of these were focused on particular proposed projects, including the interstate improvements, the new container terminal, transit improvements, stormwater management, and specific development opportunities. While not specifically about the seven communities making up the LAMC study area, many of these studies and plans provide key insights into the future of the study area.

3.8.1 Roadway Network

The study area is served by an existing roadway network composed of interstate highways, including Interstate 26 and Interstate 526; major US highways US 52 and US 78; primary and secondary state highways SC 642 and SC 7, and a local network of collector streets.

Comprehensively, the LAMC study area lacks transportation connectivity. Although Carner Avenue/Rivers Avenue, Meeting Street Road, and Spruill Avenue provide strong major north/south routes, the area does not have adequate east/west access routes to provide options for local circulation, primarily due to the presence of two major north/south rail corridors dividing study-area neighborhoods. Existing east/west connectors include E. Montague Avenue, Cosgrove Avenue, Reynolds Avenue, and Stromboli Avenue. Stromboli Avenue is currently closed, but is being considered as a new center of redevelopment given the improvements planned as part of the SCDOT's Port Access Road Project. Howard Heights is the only neighborhood without some north/south connectivity.

The traffic analysis from the Port Environmental Impact Study (EIS) shows that several roadway segments are currently operating at or near capacity at compromised levels of service. The current level of traffic congestion is primarily due to the heavy traffic periods, number of intersections and interchanges, and inadequate traffic signals and controls.

Port-Related Roadway Improvements

As part of the container terminal development, the SCDOT is building a Port Access Roadway to provide a direct connection between the terminal and I-26. The new port is currently planned to be serviced exclusively by trucks. The Port Access Roadway (primarily elevated) will be constructed to provide a direct connection between the terminal and I-26; trucks serving the port will not access the local roadway network, and as a result will not impact that network. The Access Roadway alignment was determined based on community input from the LAMC Action Committee, ensuring that the least possible impact is caused to the LAMC neighborhoods. As part of the Port Access Roadway improvements, Exit 218 will be reconfigured to remove the existing ramps that presently bisect and blight Union Heights at Spruill Avenue. The property will be conveyed to the City of North Charleston for future neighborhood improvements.

Local access to the port, existing federal, commercial, and industrial facilities located on the former Charleston Naval Complex (CNC), and I-26 via the new Access Roadway will be maintained through the construction of a local access boulevard, traveling behind the incinerator property and connecting with Bainbridge Road. Additionally, Stromboli Avenue will be reopened and reconstructed as a five-lane boulevard connecting eastward to the new local access boulevard. SCDOT will provide streetscape enhancements along Stromboli Avenue, along Spruill Avenue and Meeting Street Road/Carner Avenue between Naval Base Road and Pittsburgh Avenue, and operational improvements will be provided along Meeting Street Road.

Other Planned Projects

The Long Range Transportation Plan (LRTP) was adopted by BCDCOG in April 2005 as a guide for growth and development within the regional transportation network. Some of the major projects affecting LAMC neighborhoods

included in the Transportation Improvement Program (TIP) are: replacing the US 78 (Rivers Avenue/King Street) Bridge over Meeting Street Road; replacing the SC 7 (Cosgrove Avenue) Bridge over Meeting Street Road; and developing the I-26 Bridge over Dorchester Road.

The Liberty Hill Land Use and Design Plan (2005) recommended reconfiguration of East Montague Avenue as a primary action. Montague Avenue currently divides the Liberty Hill community and fails to provide a comfortable bicycle and pedestrian environment. Recommended improvements also include a streetscape with improved aesthetics and pedestrian safety, and a “road diet” resulting in two travel lanes, a shared median, and additional on-street parking.

Once near-term strategies are implemented, the Improvement Council will pursue long-range strategies which include improving connectivity for pedestrians, emergency vehicles, and addressing the issue of vacant land. Plans will entail construction of a shared-use trail to the Magnet School for Liberty Hill children, connecting dead-end streets, and construction of new access routes via vacant or underutilized property.

3.8.2 Rail Network

Although the rail network is essential to the economy of the Charleston region, it does pose challenges to the connectivity and safety of automobile, bicycle, and pedestrian travelers. CSX Transportation and Norfolk Southern are owners of the existing railway network traversing the LAMC study area and surrounding areas. CSX Transportation owns a rail line that runs north/south and is directly adjacent to the LAMC study area. Amtrak also utilizes this corridor for passenger service via the Silver Meteor/Palmetto Route, which runs along the East Coast. In LAMC, there is one station with a waiting room located on Gaynor Avenue. Amtrak operates on a daily basis including six passenger trains that service this route.

The BCDCOG LRTP recommends expanding intermodal yard capacities, providing I-26 access to the new port terminal, and the consolidation of variously owned railroad tracks under the South Carolina Public Railways Authority. State agencies are also conducting commuter rail studies for the region, primarily for the purpose of alleviating truck traffic at the Port.

The Port EIS discusses community infrastructure safety improvements to railroad crossings in the area. These include installation of gates, lights, and signs at four railroad crossings within the local community; the crossings are located at Accabee, Misroon, Hackerman, and Discher streets.

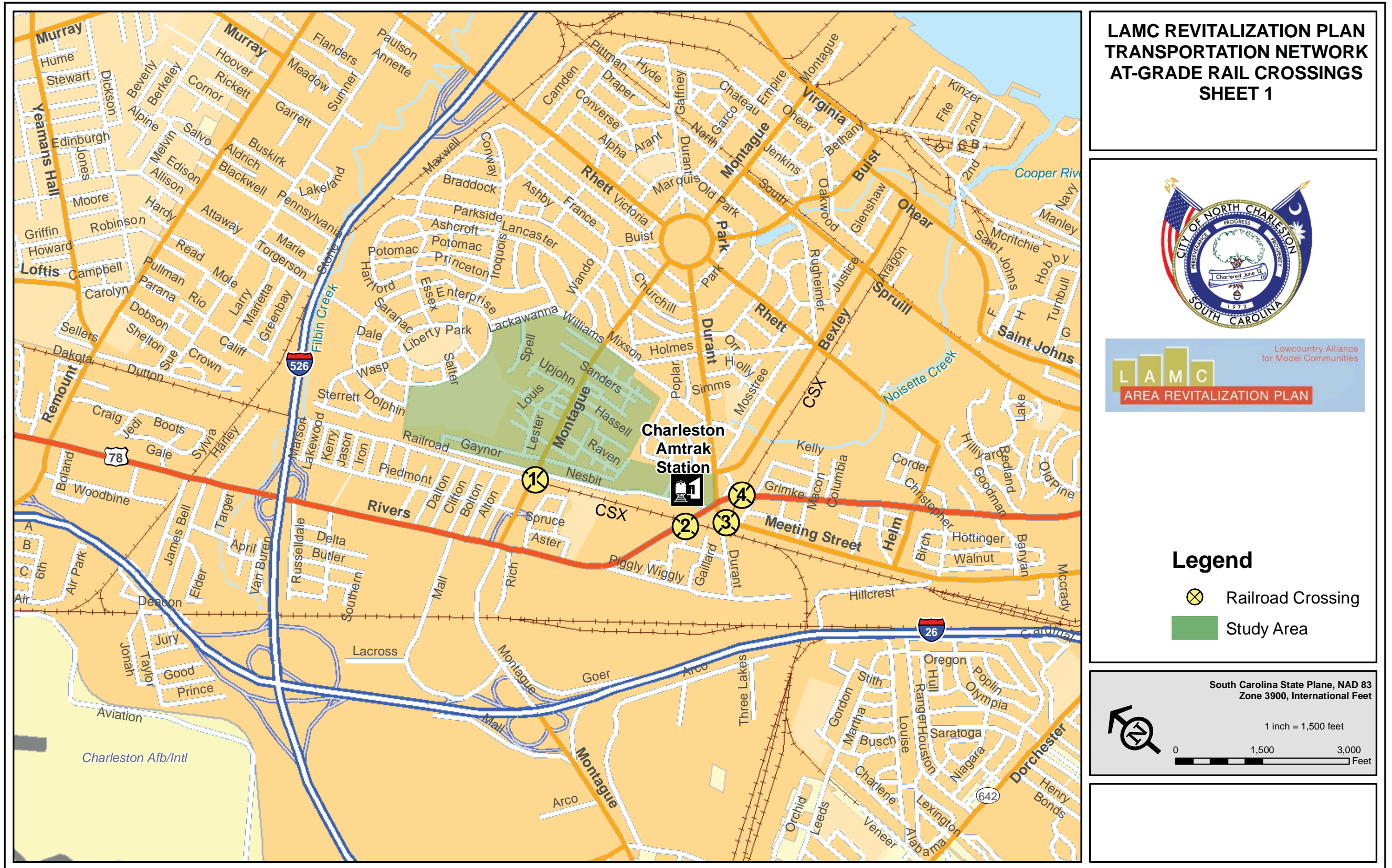
Though it is stipulated in the Port EIS and in the MOU between the SPA and the City of North Charleston that no on-dock rail will be planned for the new port facility, the 2008 State Rail Plan, completed by Wilbur Smith Associates for the Department of Commerce (and therefore the South Carolina Public Railroads, the State’s freight rail planning and advisory agency which owns and operates several short-line rail terminal service lines within the Port), presents three options for providing intermodal rail service to the new terminal. The report acknowledges that there are no clearly preferable solutions at this point between north and south rail access points (proposed at the Cooper Yard-Macalloy site, located at the south end of the CNC; and the Noisette and Clemson University Research Institute (CURI) sites, both of which are located at the north end). Nonetheless, the rail proposals are a departure from the MOU and EIS, which has caused great concern in the community.

Despite the regional benefits of the potential near-dock intermodal facilities, direct impacts to the communities surrounding the sites, and the neighborhoods which these rail lines traverse provide a strong argument against intermodal development. Locating an intermodal rail yard to locate in North Charleston would worsen existing congestion problems caused by rail traffic and train switching, and would virtually undo all efforts made to date to transform the City’s reputation of industrial blight to one of renaissance. Based upon information drawn from studies completed to date, and in consideration of the potentially harmful direct and indirect impacts caused by increased industrial railroad activity, it is in the best interest of LAMC to oppose any proposals for the location of an intermodal rail terminal within the LAMC study area. A complete description of Rail Access and Intermodal Terminals issues is provided in Appendix IV.

3.8.3 Pedestrian & Bicycle Facilities

Overall, the sidewalk system within the LAMC study area lacks connectivity. Where sidewalks do exist, they are in disrepair. The majority of residential streets do not have sidewalks and shoulder areas are limited due to narrow streets and open drainage systems. Specifically, sidewalks exist on one side of the road along Reynolds Avenue, Spruill Avenue, Carner Avenue, Burton Lane, and Naval Base Road. Existing sidewalks on both sides of the road run along North Rhett Avenue, Rivers Avenue, Montague Avenue, Ohear Avenue, and a portion of Virginia Avenue. Transit buses include bicycle racks, but no bicycle lanes exist within the study area.

Figure 3.10 Railroad Crossings Map 1



**LAMC REVITALIZATION PLAN
TRANSPORTATION NETWORK
AT-GRADE RAIL CROSSINGS
SHEET 1**



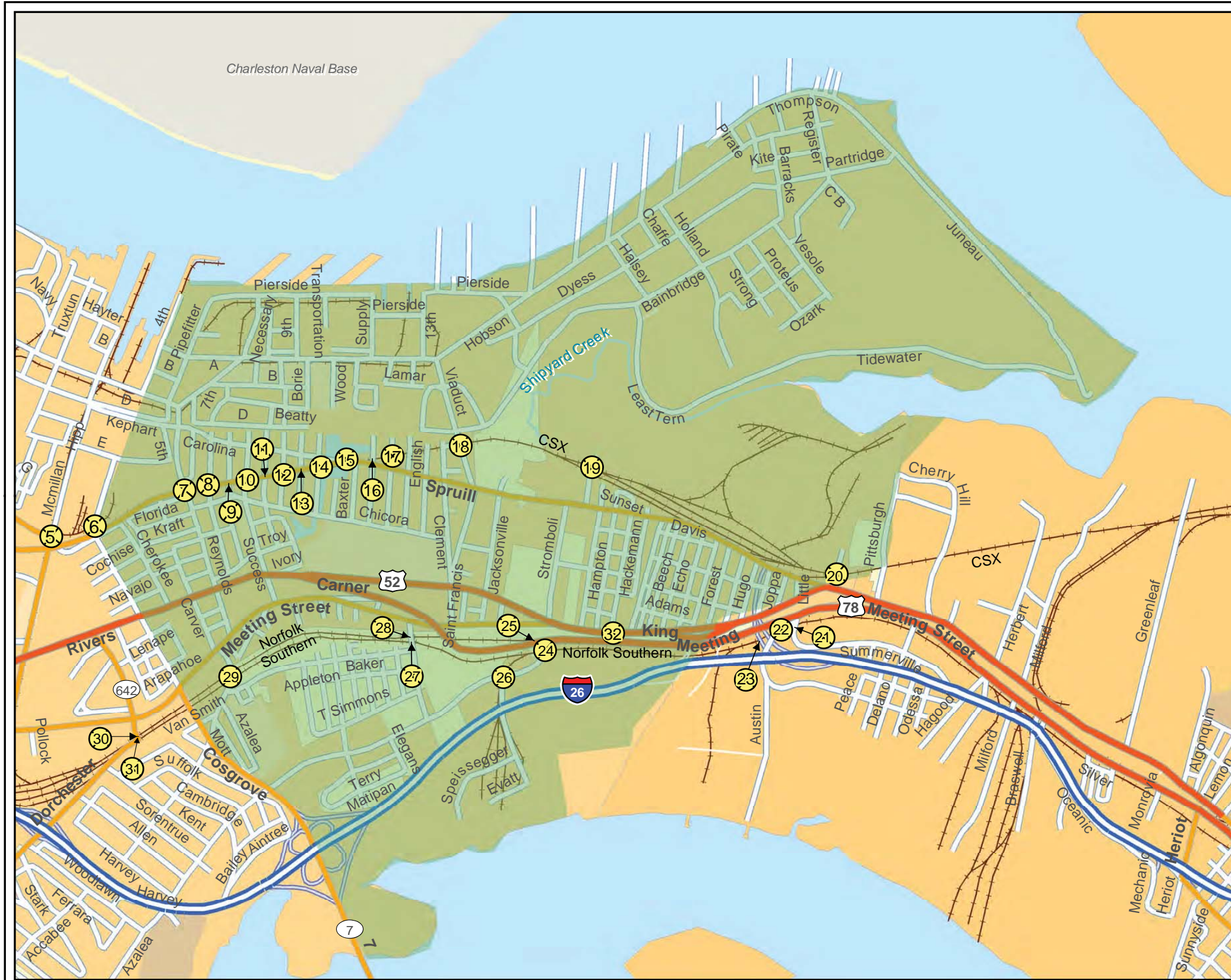
Legend

- Railroad Crossing
- Study Area

South Carolina State Plane, NAD 83
Zone 3900, International Feet

1 inch = 1,500 feet



Figure 3.11 Railroad Crossings Map 2



**LAMC REVITALIZATION PLAN
TRANSPORTATION NETWORK
AT-GRADE RAIL CROSSINGS
SHEET 2**




Legend

-  Railroad Crossing
-  Study Area

South Carolina State Plane, NAD 83
Zone 3900, International Feet

1 inch = 1,500 feet



The Port EIS includes mitigation and enhancement activities that will benefit pedestrians and bicyclists. Streetscape enhancements will be implemented along Stromboli Avenue including sidewalks and a shared-use pathway. Additionally, a streetscape project is included for Spruill Avenue/Meeting Street Road between Naval Base Road and Pittsburgh Avenue. This will include sidewalks, crosswalks, pedestrian signals, and landscaping. Each of these projects will enhance functionality and connectivity for pedestrians and/or bicyclists.

The City of North Charleston's Comprehensive Plan supports improvements to bicycle and pedestrian transportation, and their annual budget includes funding for sidewalk improvements, on-road bikeways, and trails. City ordinances require sidewalks as part of new development or redevelopment. Also, the BCDCOG is advancing a "Complete Streets" philosophy for the region that supports and encourages local governments and the SCDOT to provide streets accommodating all modes of travel – vehicular, pedestrian, bicycle, and transit. The LRTP dedicates \$30 million for future pedestrian and bicycle facilities over a 20-year period. In the LAMC study area, trails or bikeways are recommended for Spruill Avenue, Rivers Avenue, Meeting Street Road, Dorchester Road, Cosgrove Avenue, and Hampton Avenue. Such improvements will greatly enhance transportation connectivity in the LAMC study area.

3.8.4 Public Transit

Public transit is a critical component of the transportation network within the LAMC study area. Many residents depend on public transit to get to work, shop, and visit friends and relatives. It is critical for citizens to have access to an efficient and affordable transit system in a dignified manner. Although a detailed analysis of Transit Level of Service is beyond the scope of this document, several observations with regard to Transit LOS can be made: most of the population within the study area is within an acceptable walking distance (less than 1 mile) of a local transit route; the new intermodal center and its associated park-and-ride lot is within an acceptable driving distance (5 miles) from the majority of residents within the study area; headways are much greater than the optimal standard (15-30 minutes) for local routes; and hours of service operation are acceptable.

The Charleston area is served by the Charleston Area Regional Transportation Authority (CARTA), which provides a fixed route bus service and a DASH Trolley. CARTA provides eight bus routes through the study area. The study area is also supported by transit through the North Charleston "SuperStop," located at the intersection of Cosgrove Avenue and Rivers Avenue. The facility serves as a central stop and transfer hub for a number of major routes and is equipped with public restrooms, seating, and a snack bar. The SuperStop is within close proximity to the LAMC neighborhoods in the southern portion of the study area, providing these communities with a strong connection to many important destinations in the Charleston region. In addition to CARTA service, bus transit is offered by the Charleston County School District to students who live greater than 1.5 miles from school or who live in areas predetermined to be hazardous for walking to school.

CARTA plans to construct an intermodal center on W. Montague Avenue near its intersection with Dorchester Road. The facility will host public and private transportation providers such as CARTA, Amtrak, taxis, intercity buses, and a "park-n-ride" lot. The opening of the intermodal center will not eliminate the existing North Charleston SuperStop; it will continue to be utilized as a hub for CARTA riders to switch routes. With the realization of the new Intermodal Center and the development of destinations within the study area, transit will become an important linkage for bringing people from throughout the region to the LAMC area to shop, work, dine, and play.

There are also plans to utilize the existing Norfolk Southern freight rail line to operate a commuter rail between the City of Charleston and the Town of Summerville. The commuter service would support the connectivity of the LAMC community, in conjunction with express bus services, and allow residents to access new markets.

Fare Structure

Given the variety of trip types for which many LAMC neighborhood residents rely on public transit, bus fares for multiple trips per day can take their toll on a family's budget. Recommendations for addressing this concern are outlined in Section 5.2.7.

3.8.5 Port Facilities

In October 2002, the SCSPA and the City of North Charleston signed a MOUA that described the split of the former CNC property between the two entities and outlined agreed upon terms for such. The SCSPA applied to the USACE and SCDHEC for a permit for the CNC site in January 2003 and proceeded with environmental documentation. The Port EIS was completed in December 2006 and the permit was issued by the USACE in conjunction with a Record of Decision on April 24, 2007. The Federal Highway Administration (FHWA) also issued a Record of Decision for the Port Access

Roadway and its associated improvements to be implemented by the SCDOT. As part of the Port EIS, a mitigation agreement was detailed between LAMC and the SCSPA and SCDOT.

The terminal is currently scheduled to open December 2014. The majority of construction equipment, personnel, and fill material will access the site from waterside. The new container terminal will be constructed and operated as permitted and described in the EIS.

3.8.6 Water

The City of North Charleston gets its water from Charleston Water System (CWS), which operates and maintains all water mains. The majority of the water comes from the Edisto River and the Bushy Park Reservoir. This water is treated at the Hanahan Water Treatment Plant. The plant has a permitted capacity of 118 MGD with an average daily flow of 55 MGD. In general, the distribution system is at least 30 years old. The seven neighborhoods comprising the LAMC study area in North Charleston all have access to the existing water system. Most areas have adequate pressure and flow to support the current land use. There should be adequate flow and pressure to support a larger development. However, because most of the distribution mains in these neighborhoods are small, water main extensions and upgrades will be required to meet fire suppression demands, per the fire code and CWS design standards. This will be a significant expense for smaller sized projects and may force developers to look to other areas where sufficient fire protection is readily available.

3.8.7 Wastewater

The North Charleston Sewer District (NCSW) provides service and treatment of wastewater throughout the City of North Charleston, including the seven neighborhoods that comprise the LAMC study area. Within these neighborhoods there are a number of different sewer mains providing adequate service. All wastewater lines end at the Felix C. Davis Wastewater Treatment Plant located on Herbert Street. All the mains and pump stations are at least 35 years old, with some as old as 60-70 years old. All lines in service for over 35 years need to be improved. In the past 10 years, NCSW has rehabilitated gravity mains in Union Heights, Windsor, Accabee, Liberty Hill and most of Chicora/Cherokee. All of the pump stations in these neighborhoods received upgrades during the 2000's. The Chicora/Cherokee neighborhood could most readily handle additional flows associated with a new large redevelopment project because a major sewer trunk line discharging directly to the treatment plant runs through the neighborhood. In other areas, upgrades to the downstream pump stations would be required.

3.8.8 Stormwater

The LAMC study area suffers from major stormwater problems due to both topography and inadequate infrastructure. North Charleston Public Works maintains the public stormwater system. The drainage system in LAMC neighborhoods is old and has undersized culverts and ditches. Damaged and unmaintained catch basins result in flooding of the roadways even during minor storm events. The fact that these neighborhoods are all located in low lying areas only exacerbates the problem. Flooding problems include roadway flooding, ponding of stormwater, and flooding of existing buildings. Outstanding drainage issues in the study area could have a detrimental effect on development potential, as developers tend to look for sites that require minimal infrastructure investment.

Some stormwater system improvements have been made over the last 10-20 years based on the findings of various stormwater studies that have been completed throughout the study area. Because of funding from Community Development Block Grants, stormwater improvements to the LAMC neighborhoods were completed before other North Charleston neighborhoods, which did not have access to such funding. In general, many of the existing problems are minor and may be fixed by simply cleaning out existing ditches, culverts, and catch basins; North Charleston Public Works does a good job with this continued maintenance.

Because of the neighborhoods' proximity to the Cooper River, much of the LAMC study area lies within the Federal Emergency Management Agency (FEMA) designated 100-year floodplain. Accabee, Chicora/Cherokee, Five Mile, Union Heights, and Windsor have portions that are located in the 100-year floodplain. Other areas are located above the 100-year floodplain. Development within the floodplain is not prohibited; however it adds cost to construction, since buildings need to be placed above the established flood level. Also, buildings constructed within the flood zone require national flood insurance, which is an additional cost to the homeowner.

All proposed industrial development, including port expansion, is required to follow the stricter standards of the NPDES General Permit for Stormwater Activities Associated with Industrial Activities. Because of this, port terminal development will cause no adverse effects stormwater facilities within the LAMC neighborhoods.

The Noisette Company is planning to construct large water basins to handle stormwater, which should help with upstream flooding problems in the Chicora/Cherokee neighborhood. The basins are being built to control storm water flow toward the Cooper River and will gradually taper down deeper toward the river to allow water runoff from areas along Spruill and Cosgrove Avenues adjacent to the Naval Hospital.

3.9 PUBLIC SAFETY

3.9.1 Crime Levels

Crime and the perception of crime are serious constraints on neighborhood revitalization. It is difficult to attract a stable population to a crime ridden area. Crime deters investment from homeowners and from businesses. As an area becomes more transient and lacks investment and maintenance, it becomes more vulnerable to crime. Therefore, a community revitalization strategy is often needed to coordinate crime prevention efforts with neighborhood revitalization efforts, so that they can become mutually supportive. While the Police Department is engaged in many worthwhile efforts to enforce the law and promote crime prevention, it is unlikely that these efforts will make a major turnaround without a broadly based partnership with local residents and other governmental and non-profit institutions.

The City of North Charleston is generally known as a high-crime city; in 2006, it was ranked the 7th most violent city in the U.S. LAMC neighborhoods experience varied crime levels and varied perceptions about their crime levels. The Chicora/Cherokee neighborhood has experienced chronically high crime rates and has a widespread reputation as a high crime area. The Liberty Hill neighborhood, on the other hand, is considered a relatively low crime area with only marginal problems. Most of the other neighborhoods in the LAMC study area fall somewhere in between, with higher than average crime rates but less serious problems than the Chicora/Cherokee neighborhood.

3.9.2 Parolees & Recidivism

One of the challenges of the LAMC community and the City of North Charleston in general is the high number of residents – up to 2,000 in the city – who are on probation or parole. Unfortunately, there is a high rate of recidivism among ex-convicts. Due to a lack of employment opportunities and their familiarity with crime, people on probation or parole are much more likely to engage in crime than the average citizen. This problem has been compounded by state budget cuts that have reduced the amount of oversight of parolees. There are a number of transitional and educational programs offered by various agencies in which parolees in LAMC neighborhoods can enroll. Some of these are: SC Strong; Apprenticeship Carolina; Going Home; Palmetto Unified School District; South Carolina Parole Employment Program (PEP); and the South Carolina Vocational Rehabilitation Department’s program. Each of these programs is described in greater detail in the appendix.

3.9.3 Crime Enforcement

The City of North Charleston Police Department (NCPD) is staffed by 300 sworn and 100 civilian personnel. Patrols are divided into twelve zones, and operate out of three Patrol Bureaus – North, South, and West. The Uniform Patrol Division is the largest division and provides basic patrol services and response to calls. Specialized equipment, such as the ShotSpotter, which uses acoustics to identify the location of a gun within seconds of it firing, help the police respond quickly to potentially dangerous situations.

NCPD engages in an analytical and data driven approach to identifying and responding to crime hot spots as they emerge. The Crime Analysis Unit looks at the location of crime as well as the time of day and day of the week. In crime hot spots, the police department mobilizes saturation patrols with two officers dedicated to the area of concern during the hours of high crime activity. In addition, NCPD is currently experimenting with security cameras surveillance, and has located one in Liberty Hill. The purpose of the security camera is both to deter crime and to identify crimes in progress so that police intervention can occur.

3.9.4 Crime Prevention

There are social, economic, and physical factors at play in creating both an orientation towards crime and the opportunity to commit crime. Crime prevention is a proactive strategy for creating active conditions that minimize the opportunity for and the inclination for crimes to occur. The City of North Charleston engages in a number of crime prevention initiatives. One of the key strategies is the deployment of Neighborhood Resource Officers (NRO) in high need neighborhoods. NROs are full-time resources dedicated to crime prevention and community policing activities.

They focus on repeat problems, identify patterns, and partner with local residents to address crime. They also educate and recruit local residents to participate. Currently, Chicora/Cherokee, Union Heights, and Accabee have NROs.

One example of a strong partnership between NCPD and a local neighborhood is the Charleston Farms neighborhood. Charleston Farms residents participate in regular meetings with the police, bringing questions and issues of concern to the awareness of their designated police officers. Another innovative partnership is between the Police Department and the North Charleston Housing Authority. When the Police Department identifies a problem property, they often work with the Housing Authority to remove problem tenants who qualify for Section 8 vouchers.

Another prevention tool that NCPD is exploring is security camera surveillance systems, which have become popular with major municipal police and service departments. There is currently a security camera installed in the Liberty Hill neighborhood, but its usefulness for the police department and its effectiveness in deterring crime is not yet known.

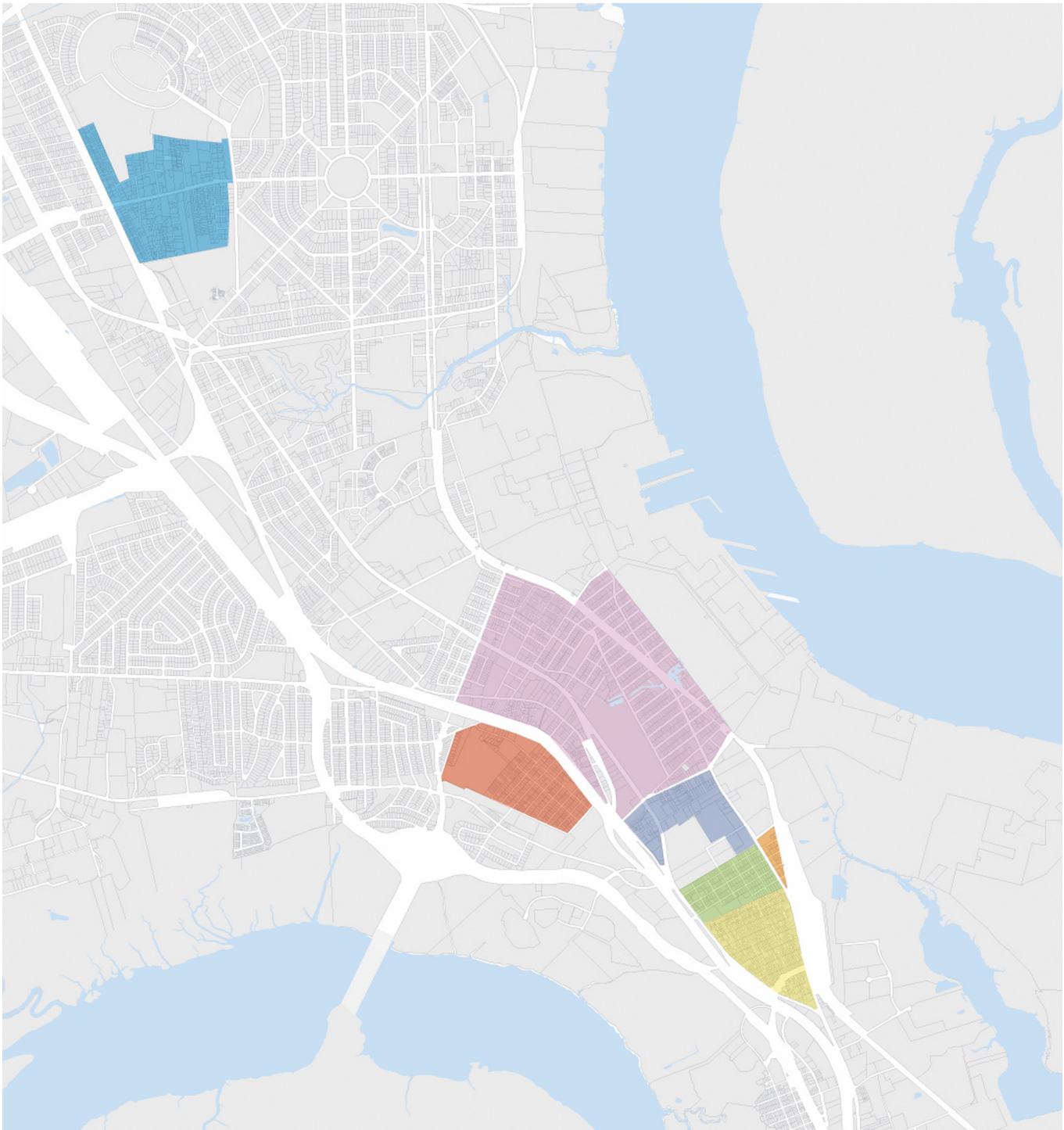
Citizens Patrol against Drugs

One of NCPD's community policing strategies is the Citizens Patrol against Drugs (CPAD), which originated in Liberty Hill in the 1980s. This program facilitates joint patrols by local neighborhood residents and police officers. These joint patrols increase police visibility, build camaraderie between citizens and police, and demonstrate that neighborhood residents are reclaiming problem areas from criminals. Also, during these joint patrols, citizens and police can identify physical issues that need to be addressed, i.e. burned out lights, to enhance public safety. The level of participation in CPAD patrols has varied, and in some cases in LAMC neighborhoods there have been more police officers than residents participating.

Weed and Seed

Weed and Seed is a strategy developed by the US Department of Justice, Office of Justice Programs, which aims to prevent, control, and reduce levels of violent crime, drug abuse, and gang activity in targeted high crime neighborhoods across the United States. The Weed and Seed strategy involves a "weed" component of increased enforcement with a "seed" strategy of increased social services and crime prevention. Some LAMC neighborhoods participated in a 10-year Weed and Seed program which expired in 2003. Some of the effective components of the Weed and Seed program are volunteer clean-up days and National Nights Out, when residents organize social events in crime-plagued areas. The Police Department is not planning to continue the Weed and Seed program at this time because the accompanying grants have been reduced to an ineffective amount.

4.0 Community Vision & Goals





4.0 Community Vision & Goals

The concerns of local residents and key stakeholders played a key role in formulating the strategies and recommendations of the Revitalization Plan. Through interactive and educational workshops and meetings, citizens came together to engage in open and meaningful dialogue about issues facing the community - and to discuss possible solutions - to shape the area's growth.

4.1 PUBLIC INVOLVEMENT PLAN

A Public Involvement Plan was created at the beginning of the Revitalization Plan process to guide outreach efforts which would enhance public participation in this and subsequent community development efforts. Resident and stakeholder input was essential to instilling the Revitalization Plan with a local perspective. Participants in the process can take ownership of the Plan, as their contributions are the cornerstone of the recommendations and strategies which will help further their community's revitalization.

The LAMC Working Group played a critical role in helping to steer the public engagement and planning process. Comprised of neighborhood presidents, appointed representatives, and the Community Mitigation Plan project manager, the Working Group served as the primary advisory body for the overall direction and technical aspects of the Revitalization Plan. Members' roles were to represent their neighborhoods, share information with their organizations, and encourage public participation in the process. Throughout the project, the Working Group met regularly to provide input into the planing process. The Working Group also interfaced with members of the Mitigation Agreement Commission (MAC), established to ensure the guidelines of the Community Mitigation Plan are implemented, to update them on progress.

Outreach techniques described in the Public Involvement Plan and utilized throughout the plan-making process were:

- **Stakeholder Interviews** - 25 interviews were conducted with community leaders, City of North Charleston staff and elected officials, and other key stakeholders early in the process, as identified by the LAMC Working Group.

These interviews helped compile a range of views and concerns, data and information, and gain a deeper understanding of project issues from the community stakeholder perspective.

- **Community Visioning Sessions** - Three community visioning sessions (described in detail below) were conducted early in the process (April 16, 17, and 18 2009) to solicit input and feedback from area residents, businesses, and property owners to help set the vision and goals for the plan. Using maps and graphics, these sessions allowed for a high level of participation in a collaborative atmosphere. All sessions were held in convenient locations and times throughout the LAMC study area neighborhoods to maximize participation. Participants' feedback was documented and is summarized below. A detailed accounting of feedback can be found as Appendix 1 of this report.
- **Community Open House** - The final Open House was conducted at the end of the study process (November 7, 2009) to demonstrate study findings, conclusions, and recommendations. The Open House gave residents and stakeholders an opportunity to comment on draft strategies for inclusion in the final Revitalization Plan. Community input is summarized in this section.
- **Roving Displays** - Large graphic displays depicting the project's findings (presented first at the Community Open House) were placed in public places so that the general public, and those not able to attend the Open House, could visualize the potential of the LAMC study area neighborhoods. Graphic boards were placed community centers around the study area for two weeks in November.
- **Newsletters** - Four newsletters were prepared at milestone stages of the Revitalization Plan process. These were widely distributed to keep the public updated and engaged in the process.
- **Web Page** - Maps, reports, and other project-related materials were posted on the project website: www.lamcnc.org.
- **Media Coverage and Advertisements** - Press releases, public service announcements, newspaper advertisements and television coverage were developed to further assist with public outreach and provide information on ways for the community to participate in the process.

Special attention was given to ensure all members of the LAMC study area neighborhoods could participate in a meaningful way, recognizing certain constraints that may characterize Environmental Justice populations. To this end, public meetings were held in the evenings and on Saturdays in locations accessible to a significant number of the population, such as schools and community centers. Newsletters were written in a style which avoided technical jargon, and minority media outlets within the LAMC study area were contacted for press releases and general project information.

4.2 PUBLIC VISIONING WORKSHOP SERIES

A series of seven community workshops were conducted for the LAMC Revitalization Plan from April 16 – April 18, 2009 to obtain feedback and input from area residents, property owners, and business owners about the future vision of the LAMC neighborhoods. The first two workshops were conducted in three different locations for participants' convenience and to obtain specific input and feedback on each neighborhood. The third workshop brought all neighborhoods together for the purpose of hearing all of the concerns and to begin a cohesive, comprehensive approach to LAMC community visioning.

A total of 146 people were recorded to have participated in the workshops over the three-day consultation period. People and elected officials were notified about the meetings through mailings as well as notifications hand-delivered to local places of worship, businesses, the area library, community centers, and schools. The public, elected officials, and other stakeholders were notified about the community input workshops by several means. A written meeting notification was prepared for each of the three workshop locations, which also contained a list of neighborhoods specific to each workshop location. The individual notifications were distributed to LAMC members, hand-delivered to LAMC study area places of worship, businesses, the local library, community centers, and schools. These notifications were distributed according to neighborhood and workshop locations. A second notification was prepared containing the comprehensive schedule of workshops and locations, and mailed to all federal, state, county and city elected officials. This notification was also mailed to all members of the Mitigation Advisory Committee (MAC). Members of LAMC conducted door-to-door campaigns, phone calls and distribution of the written notification to area constituents. EDAW staff participated in a music festival on the Riverfront and distributed the written notifications to area attendees. EDAW staff also conducted several telephone surveys with area businesses and encouraged business

owners to attend during the conversations. A press release was prepared and submitted to the South Carolina Port Authority's public relations staff for distribution to area media outlets.

Figure 4.1 LAMC Community Workshops

LAMC Community Visioning Workshops			
Location	Neighborhood Focus	Time	Number of Participants
Workshop Series 1 - Thursday, April 16, 2009			
Chicora Elementary School	Five Mile, Chicora/Cherokee	6:00 pm	33
Gethsemani Community Center	Accabee, Union Heights, Howard Heights & Windsor	6:30 pm	23
Felix Pinckney Community Center	Liberty Hill	7:00 pm	28
Workshop Series 2 - Friday, April 17, 2009			
Chicora Elementary School	Five Mile, Chicora/Cherokee	5:30 pm	9
Gethsemani Community Center	Accabee, Union Heights, Howard Heights & Windsor	5:30 pm	14
Felix Pinckney Community Center	Liberty Hill	5:30 pm	9
Workshop 3 - Saturday, April 18, 2009			
Chicora Elementary School	All neighborhoods	10:00am	30

4.2.1 Workshop Series 1 (April 16, 2009)

Workshop 1 was hosted nearly simultaneously at locations throughout the study area on April 16. At all workshops, the agenda was as follows:

- **Welcome and Introductions** - LAMC Working Group members gave an overview of the proceedings and Revitalization Plan process.
- **Community Profile Presentation** - Consultants presented their findings from background research and analysis of the LAMC study area, including: a history of environmental justice and related challenges to the LAMC neighborhoods; environmental issues, including air quality; current land use and zoning; transportation, including road network issues and planned improvements by other agencies; infrastructure, including drainage challenges; the identification of neighborhood amenities, including schools, parks and other community facilities; population and growth trends; housing trends; economic development including retail and commercial trends and job growth; education and workforce development; and public safety issues.
- **Audience Survey** - Attendees engaged in several interactive exercises designed to focus on future visions for the neighborhoods and geographically identifying locations for improvement. The first exercise involved a two-part preference survey to gauge the level of public concern about topics such as economic development, education, housing, and health. The second part of the survey gauged participants' visual preferences for different types of land uses, housing styles, and other neighborhood conditions.
- **Group Exercises** - Workshop attendees then divided into groups where they were asked to identify strengths (current positive aspects), weaknesses (current negative aspects), opportunities (possibilities for improvements), and threats (potential obstacles to improvements) for their neighborhoods. Neighborhood maps, markets, and easel pads were provided to each group to facilitate the activity.
- **Group Report Out** - The results of each group's strengths, weaknesses, opportunities, and threats (SWOT) analysis was shared with everyone.
- **Next Steps** - Next steps in the planning process were explained to let attendees know when the next opportunity to participate would occur and when the final plan would be produced.

Five Mile & Chicora/Cherokee (Chicora Elementary School Workshop)

Top Issues

- Improving educational opportunities
- Promoting quality redevelopment of underused areas
- Increasing home ownership
- Improving employment and workforce opportunities
- Improving the appearance and cleaning up the neighborhood

SWOT Themes

- Strengths: schools, community centers, services (library, DSS)
- Weaknesses: lack of grocery/retail throughout neighborhood
- Opportunities: commercial revitalization: Reynolds and Rivers Avenues
- Threats: industry located near homes

Preferred Images



Neighborhood, small scale development



Focus on detailing and design



Neighborhood recreation and amenities



Tree-lined streets

Accabee, Union Heights, Howard Heights & Windsor (Gethsemani Community Center Workshop)

Top Issues

- Improving educational opportunities
- Improving employment and workforce opportunities
- Improving the appearance and cleaning up the neighborhood
- More youth and after school programs
- Increasing home ownership
- Improving public safety and addressing chronic crime issues
- Promoting active, healthy lifestyles

SWOT Themes

- Strengths: central location, schools, health clinics, community centers
- Weaknesses: incompatible land uses, vacant properties
- Opportunities: Stromboli corridor revitalization and reconnecting neighborhoods, grocery
- Threats: incinerator, proposed rail line, lack of street lighting

Note: The Gethsemani Workshop did not conduct the Preferred Images survey.

Liberty Hill (Felix Pinckney Community Center Workshop)

Top Issues

- Improving educational opportunities
- Improving employment and workforce opportunities
- Improving the appearance and cleaning up the neighborhood
- More youth and after school programs
- Improving access to buses and public transit

SWOT Themes

- Strengths: shopping and other amenities
- Weaknesses: speeding on Montague Avenue
- Opportunities: commercial revitalization
- Threats: flooding, rail line crossing

Preferred Images



Single-family homes with trees



Single-family homes set back from the street



Neighborhood recreation and amenities



Schools

The complete results from these exercises are contained in Appendix V: Community Visioning Workshop Series Summary; however, a summary of the top issues and preferred images by neighborhood are presented thematically below.

4.2.2 Workshop Series 2 (April 17, 2009)

The second workshop series served as open house opportunities at each of the three locations on the following day for attendees to observe and confirm what had been discussed and to provide any new ideas and feedback. Participants voted on the strengths, weaknesses, opportunities, and threats compiled from the first day of the workshop, establishing priorities for issues to be addressed. This workshop also welcomed new participants.

4.2.3 Workshop 3 (April 18, 2009)

The final workshop brought all of the neighborhoods together in one location to present the findings and preliminary ideas resulting from input received at the previous six workshops. Displays of the neighborhood exercises were placed on the walls along the meeting room. Next steps for the project were also presented and the workshop was opened for general discussion. Attendees were encouraged to stay involved and to join the LAMC organization to advocate for the revitalization.

An evaluation form was given to each attendee to complete and assess the overall workshop(s) experience. All respondents (100%) indicated that the meeting location was convenient; that they were able to freely share their ideas; that their issues were clearly documented and will be taken into consideration; and that they would participate in future workshops/meetings for this project.

Top LAMC Study Area Community Concerns

Although workshop participants discussed a wide variety of concerns, several physical and social issues surfaced as recurring themes. Because of the significant emphasis community residents placed on these concerns, these issues were carried forward to help frame the development of the LAMC Area Revitalization Plan. These top concerns were summarized in Workshop 3 as follows:

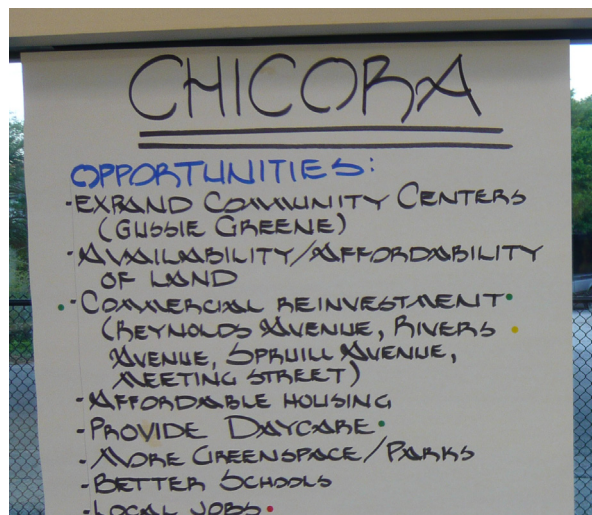
- Community pride;
- Youth;
- Retention of families and local seniors;
- Affordable housing;
- Incompatible land uses and zoning;



LAMC Working Group member Herb Fraser Rahim kicking off the Visioning Workshop



Community members and consultants discuss neighborhood issues



Notes from a SWOT exercise

- Schools as contributors to the community;
- Public safety – lighting, crime;
- Appropriate neighborhood retail;
- Linkage to the river edge; and
- Health care.

4.3 LAMC WORKING GROUP VISION DEVELOPMENT WORKSHOP

On July 15, 2009, members of the LAMC Working Group convened to crystallize community input received during the Public Visioning Workshop Series held in April into a concise series of goals to help guide the development of LAMC study area neighborhoods into the future. As neighborhoods develop, these goal statements are meant to not only provide persistent, long term direction but also benchmarks for revitalization. These goals differ from the vision and mission already established for the LAMC organization as they represent goals for the development of the actual LAMC study area neighborhoods.

After reviewing public input from the April meetings, LAMC Working Group members engaged in goal setting exercises, directed by the questions “What are the characteristics of the LAMC neighborhoods that we should preserve in order to build model communities?” and “What are the characteristics of the LAMC neighborhoods that we need to change in order to build model communities?”.

Participants generated responses to these questions, which were then grouped by topical themes. The Working Group’s ideas for characteristics that should be changed and those that need to be preserved are as follows:

- **Economic Development** - create economic opportunities; address low level of economic and commercial opportunities; provide jobs and training
- **Education** - improve education in public schools; changes should be in education, health, and environmental control
- **Crime and Safety** - address crime; change the policing of the neighborhood (more policing)
- **Physical Fabric** - address vacant land use and spot zoning; address vacant housing stock; create connectivity between communities; change the streetscape; preserve small scale architecture; preserve physical makeup of homes and affordability
- **Nature & Environment** - provide access to Cooper River; preserve the natural elements of the community; preserve the natural environment, trees; address environmental issues
- **Heritage & History** - members of community with continued ownership; sense of community tradition; stop gentrification of outside forces; retain ethnic and cultural character; be able to walk in peace; create a village of school, church, and recreation; change life styles for the positive

Working with the consultant team, these responses and themes were developed into a set of goals for the LAMC study area’s future development:

- **Heritage & History Goal** – Our Model Community will be one where all residents maintain pride, dignity, and ownership of their community.
- **Nature & Environment Goal** – Our Model Community will be one where all families enjoy and benefit from the natural spaces and waterways between the Cooper and Ashley Rivers, using them to promote their recreation and health.
- **Physical Fabric Goal** – Our Model Community will have attractive neighborhoods that are a connected through our natural environment, our cultural identity, and our architectural heritage.
- **Crime & Safety Goal** – Our Model Community will allow children and adults to walk through their neighborhoods safety at any time of day or night.
- **Education Goal** – Our Model Community will provide highly effective opportunities for lifelong learning for all residents, including open-admission area schools that perform at the top level within Charleston County.
- **Economic Development Goal** – Our Model Community will provide access to and create economic opportunity for every resident.



Participants browsed the nine display boards which presented an overview of the project and the proposed redevelopment projects



Mayor Keith Summey and community members



A consultant explains part of the Revitalization Plan to a community member

These goals, inspired by community input and developed by community representatives, represent the focus for future development of the LAMC study area and provide benchmarks to monitor if development is occurring in line with community desires.

Community input and Working Group goals also played a vital role in helping to shape the LAMC Area Revitalization Plan. The next section describes how the plan evolved using this input as a basis for recommendations.

4.4 PUBLIC OPEN HOUSE

On Saturday, November 7, 2009, a Public Open House was convened from 10am-12pm at the Military Magnet School to review Revitalization Plan recommendations and get feedback on proposed projects. All past public meeting participants were invited, as were City Council representatives. Approximately 700 flyers were distributed throughout the community (including at neighborhood churches) and local media were contacted to raise awareness of the event. About 90 people attended the meeting, including the Mayor of North Charleston, Keith Summey.

Nine large boards were displayed which presented a project overview, baseline information such as demographic research, community vision and goals (based on the prior public visioning sessions in April and the LAMC Working Group session in July), proposed major redevelopment projects, and an implementation plan. Consultants were stationed at each board to answer any questions community members had and to note concerns.

Mayor Summey provided opening remarks and other City Council representatives offered greetings before the consultant group presented an overview of the information contained on the display boards. Community members asked questions following the presentation, and then the Open House format continued where people browsed the displays at will.

Comment forms were collected at the Open House. Overall, participants were happy with the project proposals and excited about the prospect for redevelopment in the LAMC neighborhoods. Based on community feedback, the major issues are listed below. This feedback helped inform the Plan; the section numbers where the issues are addressed follow. Additional detail on all subjects can be found in the Appendix as well.

- Addressing air pollution from industries - Addressed in Sections 3.4.2 and 5.5.2.
- Focus on improving existing buildings and homes, including homeowner assistance with renovations - Addressed in Section 5.1.1.

- Expanding economic opportunity for residents and job training - Addressed in Sections 5.4.1 and 5.4.2.
- More information on public transit desired - Addressed in Section 5.2.7.
- More information on funding desired to understand how proposed projects can be delivered - Addressed in Section 6.4 and the Work Plan.
- Importance of involving local churches in revitalization activities - Addressed in Section 6.3.1.

4.5 COMMUNITY VISION & GOALS: FRAMEWORK FOR REVITALIZATION

Top participant concerns from the Public Workshop Visioning Series were combined with those identified by the LAMC Working Group to generate a “master list” of priority issues to address in the Revitalization Plan. These concerns helped frame the projects and recommendations presented in this plan. The table below lists these priority concerns and identifies how these issues are addressed in the Revitalization Plan.

Figure 4.2 Priority Community Concerns

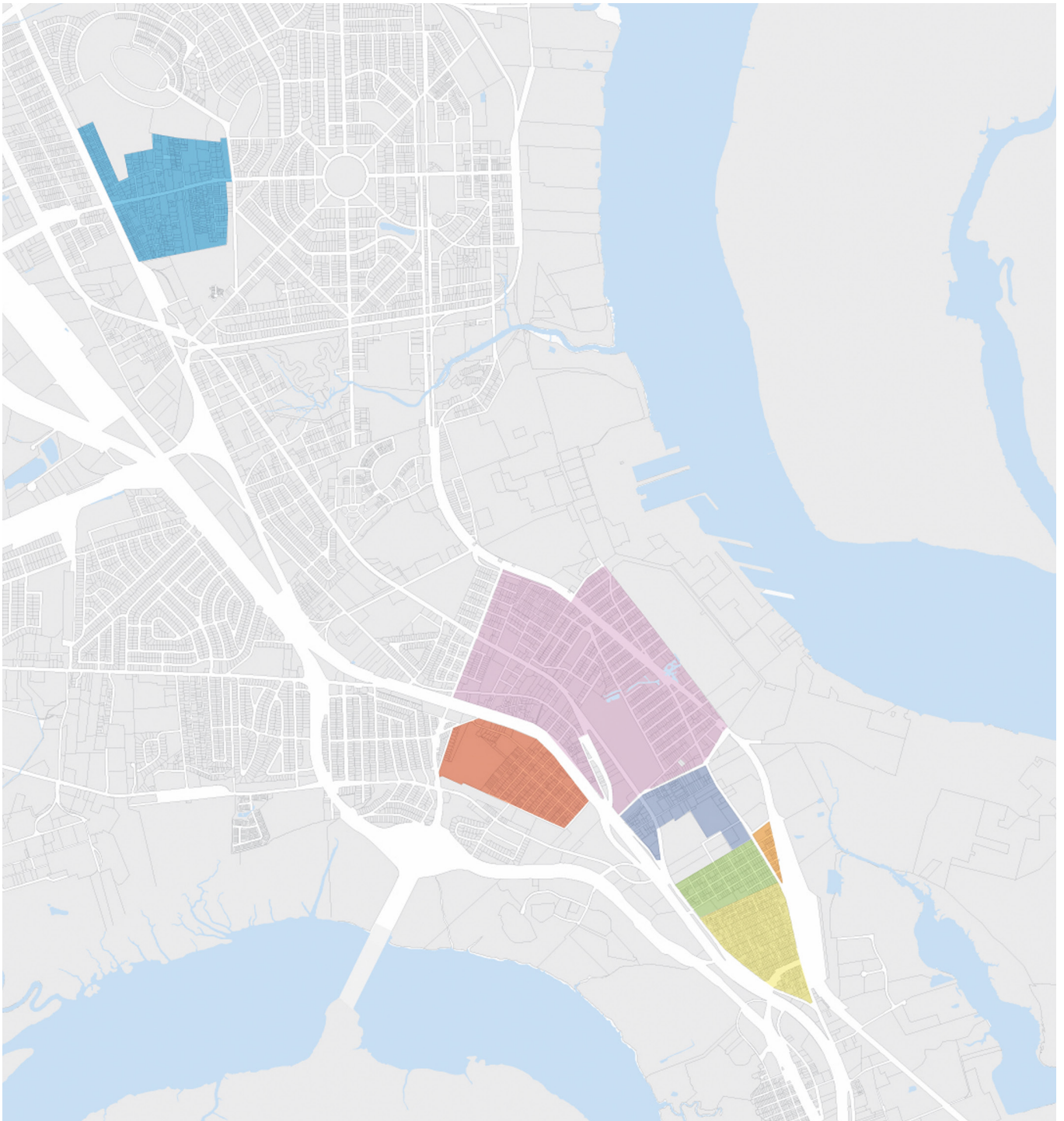
Priority Community Concerns Framing the Revitalization Plan		
Issues to Address	Revitalization Plan Solutions	Location in the Plan
Heritage & History		
Increase home ownership	Home Ownership can be increased through the Model Block infill programs in the LAMC neighborhoods; training and prequalification from rent to own; and the age-in-place strategies that retain ownership in communities	Section 5.1.1, Model Blocks
Retention of families and local seniors	Apply universal design and age-in place standards for homes; bring senior and after hours child services to the LAMC community	Section 5.1.1, Model Blocks
Improve the appearance of and cleaning up the neighborhood	Implement a “Seven in Seven” (seven neighborhoods in seven weeks) program where each neighborhood is the focus of clean-up effort for debris and trash; apply design guidelines for infill housing and commercial districts	Section 5.1.1, Model Blocks
Build on strengths of existing community centers, health centers, and services	Expand community centers so they may accommodate multiple community uses. Invite special health and wellness initiatives to present programs at the centers, as well as training for home ownership, etc.	Section 5.3.4, Community Centers
Stop gentrification; maintain affordable housing	Neighborhood Overlay Districts can help maintain affordability of homes so that residents can remain in LAMC neighborhoods. Model Block strategy also provides housing at different price points.	Section 5.1.1, Model Blocks

Priority Community Concerns Framing the Revitalization Plan		
Issues to Address	Revitalization Plan Solutions	Location in the Plan
Retain ethnic and cultural character	Programs at the Felix Pinckney Community Center and Gethsemani Community Center are recommended to be broadened to focus on local ethnic heritage. Cultural tourism is proposed to be developed to capture and celebrate local culture. Additionally, the proposed LAMC Community Development Corporation could develop festivals and programs to highlight ethnic traditions, such as in parks and open spaces within the neighborhoods.	Section 5.3.4, Community Centers Section 5.4.3, Cultural Tourism
Increase community pride	Improve the sense of ownership, the physical appearance, employment opportunities and quality open space	Section 5.1.1, Model Blocks Section 5.4.2, Programs to Assist Local Vendors/DBEs Section 5.2.9, Open Space Network
Nature & Environment		
Promote active, healthy lifestyles	Design green streets that accommodate walking, biking, and create a range of park and open spaces such as at Stromboli and the Tank Farm for LAMC communities	Section 5.2.9, Open Space Network
Provide opportunities for neighborhood recreation	Park and Open Space planning, green walkable streets, expanded community centers	Section 5.2.9, Open Space Network Section 5.3.4, Community Centers
Provide access and linkages to local rivers	A network of pedestrian and bicycle paths is proposed to criss-cross the LAMC study area, providing access to new and existing open space. Linkages to both the Cooper and Ashley Rivers are recommended as part of this network.	Section 5.2.9, Open Space Network
Preserve natural elements of the community	The proposed open space network would provide the community with increased access not only to existing green space but new parks and natural areas.	Section 5.2.9, Open Space Network
Mitigate the impacts of the proposed rail line	LAMC policy position in opposition to rail line	Section 3.8, Transportation and Infrastructure Appendix IV, Rail and Intermodal Report
Flooding	Strategies for conservation / open space designation in appropriate areas; implementation of suggested stormwater improvements	Section 3.8.8, Stormwater Section 5.2.8, Stormwater Infrastructure
Physical Fabric		
Promote quality redevelopment of underused areas	Model Blocks, Stromboli Corridor, Chicora Tank Farm, Spur Block, retail district on Rivers	Section 5.0, Redevelopment Projects
Preserve small, neighborhood-scale architecture and other unique physical features	Develop infill style from existing architecture and promote corridor overlays to enforce appropriate design	Section 5.1.1, Model Blocks

Priority Community Concerns Framing the Revitalization Plan		
Issues to Address	Revitalization Plan Solutions	Location in the Plan
Incompatible land uses (such as the industrial development near homes, the incinerator)	Conduct brownfield assessments, land-banking, and marketing for appropriate developments (such as to green industries for Incinerator site)	Section 5.5.1, Brownfield Remediation Section 6.1.2, Housing Trust & Land Bank Section 5.1.6, Incinerator Site
Vacant land use and housing stock	Conduct survey of properties and availability for acquisition inventory with the Community Land Trust and subsequent use for infill in Model Blocks	Section 6.1.2, Housing Trust & Land Bank Section 5.1.1, Model Blocks
Spot zoning	Follow Revitalization Plan recommendations for residential uses, mixed-use designations, open spaces and buffers	Section 5.1.1, Model Blocks Section 5.2.9, Open Space Network Section 5.2.10, Buffers
Reconnect the neighborhoods	Implement street improvements as recommended for major corridors; pursue development of new streets in the Stromboli corridor development; traffic calming for safer pedestrian movement between neighborhoods	Section 5.2.2, Corridor Improvements Section 5.1.3, Stromboli Avenue Corridor Development
Improve the streetscape, such as by providing more tree-lined streets	“Green” the streets by increasing street trees and planted medians; improve the pedestrian environment by providing wider sidewalks, enhanced lighting, and street furniture	Section 5.2.2, Corridor Improvements
Improve access to buses and public transit	Incorporate universal design principles in the right of way and at transit stops	Section 5.2.7, Transit Recommendations
Lack of street lighting	Use energy efficient lighting at appropriate locations on streets	Section 5.2.2, Corridor Improvements
Speeding on Montague Avenue	Implement traffic calming measures and strictly enforce	Section 5.2.4, Traffic Calming Measures
Crime & Safety		
Improve public safety (e.g. through lighting) and address chronic crime issues	Include public safety officials in design process for all open space and parks; incorporate defensible space design when planning new projects	Section 5.3.4, Public Safety
Provide more policing in neighborhoods	Cite effective programs in other communities to establish benchmark goals for LAMC neighborhoods	Section 5.3.4, Public Safety
Education		
Improve schools and educational opportunities	Look at magnet programs for LAMC schools and other related programs with organizations like the Annenberg Institute	Section 5.3.1, Educational Attainment & Lifelong Learning
More youth and after school programs	Increase activities at Community Centers, expand Community Centers for concurrent uses, match elderly and youth in outreach	Section 5.3.4, Community Centers

Priority Community Concerns Framing the Revitalization Plan		
Issues to Address	Revitalization Plan Solutions	Location in the Plan
Economic Development		
Improve employment and workforce opportunities	Create inter-organizational training with Maritime Institute, CDC, GEX-based incubator, CURI; establish local vendor/contractor program	Section 5.3.1, Educational Attainment & Lifelong Learning Section 5.4.2, Programs to Assist Local Vendors/DBEs
Commercial revitalization (Rivers Avenue, Stromboli corridor)	Target specific areas along cited corridors for commercial development	Section 5.1.5 Rivers Avenue Commercial Corridor Section 5.1.3, Stromboli Avenue Corridor Development Section 5.4.1, Redevelopment Projects' Economic Potential
Lack of grocery/retail throughout neighborhoods	Follow plan for Model Blocks to increase demand for LAMC and broader catchment area; target grocery location for Shipwatch Square	Section 5.1.1, Model Blocks Section 5.4.1, Redevelopment Projects' Economic Potential

5.0 Redevelopment Priorities





5.0 Redevelopment Priorities

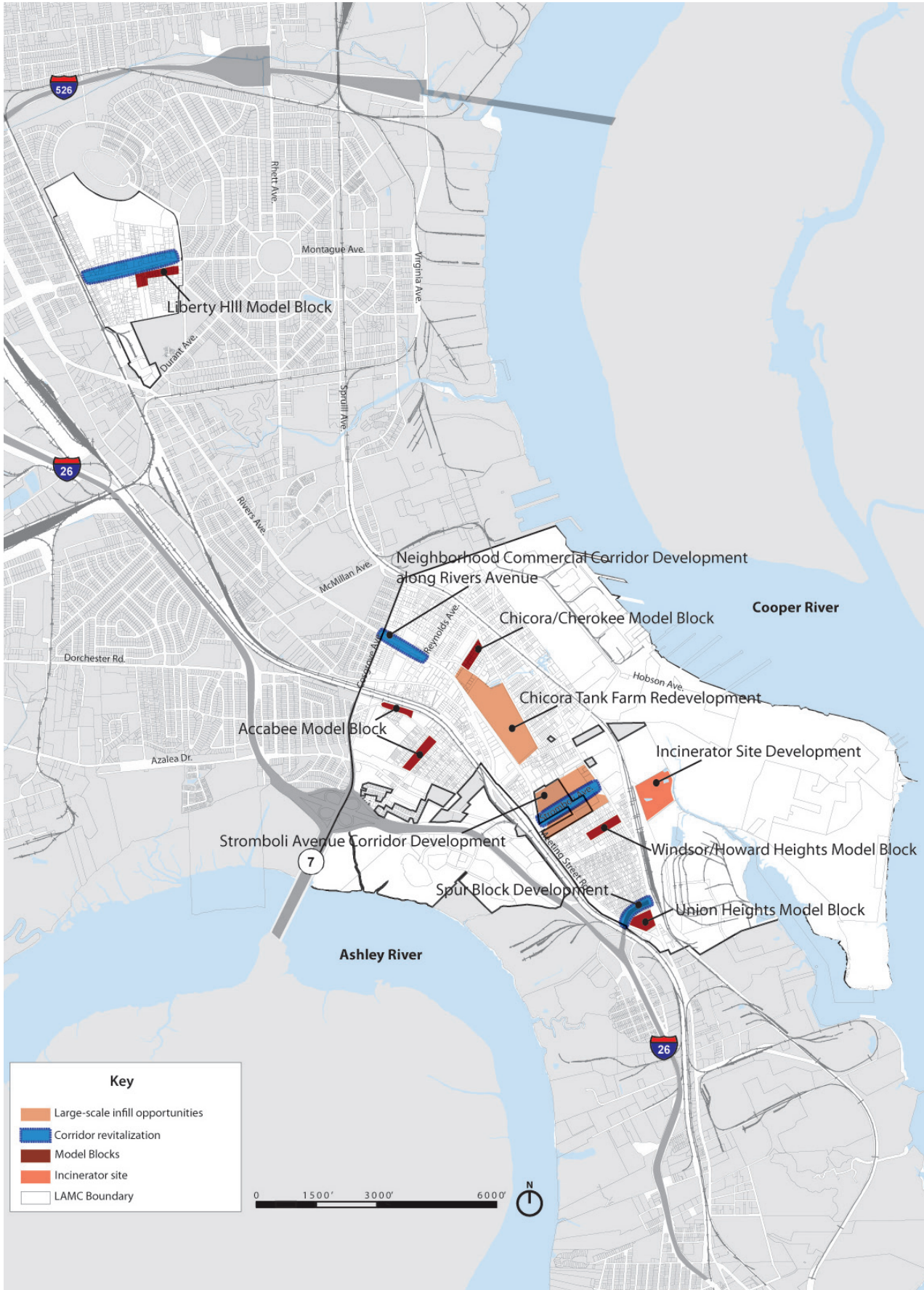
Based on community goals, baseline research, and market analysis, the Plan recommends the pursuit of many projects to help catalyze revitalization in the LAMC study area. These are described under the following headings in this section: Redevelopment Projects (including Model Block Development; Stromboli Avenue Corridor Development; Chicora Tank Farm Redevelopment; Spur Block Development; Neighborhood Commercial Corridor Development along Rivers Avenue; and Incinerator Site Development); Network Improvements; Community Development Projects; Economic Development Projects; and Environmental Considerations.

5.1 REDEVELOPMENT PROJECTS

Given the demographic and investment conditions of the LAMC study area, a range of redevelopment opportunities was studied and assessed through community input, market feasibility, infrastructure condition, pending private and public projects and the requirements to promote, encourage, and execute plan recommendations. As a result of these assessments, this plan proposes redevelopment strategies: 1) for the seven LAMC neighborhoods collectively, where projects are best realized by serving the entire study area; and 2) on a neighborhood-by-neighborhood basis where such strategies will stabilize and enhance individual communities. In the case of the neighborhood-specific redevelopment goals, the contributing benefit to the LAMC study area as a whole is also evident.

1. Concerning the relationship among the three primary market focuses for redevelopment - new housing (both for-sale and rental product); “workplace” (professional office); and supporting services (general/community retail and grocery store) - housing development clearly emerges as the primary strategy to stabilize the LAMC neighborhoods. Moreover, the adage that “retail follows rooftops” bears out in the prioritization of the LAMC

Figure 5.1 Proposed Redevelopment Projects



redevelopment strategy **where housing efforts must precede any realistic horizon for significant market-based retail investment.** Therefore, while this plan proposes an array of future land uses for the LAMC study area, the principal focus is on residential housing as a tool not only for neighborhood revitalization but for the study area as a whole.

The existing conditions assessed in the *Community Profile* and the delivery systems for projects and programs tested under through the planning process suggest six areas of immediate focus for development opportunities:

1. Model Block Development
2. Stromboli Avenue Corridor Development
3. Chicora Tank Farm Redevelopment
4. Spur Block Development
5. Neighborhood Commercial Corridor Development along Rivers Avenue
6. Incinerator Site Development

Each project presents a unique outcome for investment and development in the LAMC study area. Each also has a distinct threshold of readiness for implementation. Finally, particularly in the case of the Model Block development, each will contribute to subsequent phases of the overall plan, enhancing the probable success of the following phase.



Vacant parcels provide opportunities for infill housing development



Homes in the LAMC area which display unique architectural features

5.1.1 Model Block Development

Because of the long-term and multiple benefits that a robust housing program will bring the LAMC study area, the Revitalization Plan advances housing through a Model Block program as an initial strategy. The Model Block program identifies priority opportunity sites in the LAMC study area neighborhoods which hold the greatest promise to catalyze residential development in the area, primarily due to current physical condition, vacancy, proximity to community amenities and commercial nodes, and the planning team's understanding of the current real estate market for the LAMC study area neighborhoods. Individual neighborhood maps on pages 72- 81 show the Model Blocks in the context of the number of vacancies, dilapidated properties, and other "opportunity sites" which make these selected areas attractive for redevelopment. These sites introduce a high impact development statement and become models for housing in the neighborhoods in which they are located. In the long term, model development block sites assist in stabilizing the housing stock by encouraging reinvestment in areas beyond the identified boundaries.

Once implemented, the Model Block strategy would produce approximately 200 new residential units throughout the LAMC community. As this plan is executed, the increased population and improved conditions of the neighborhoods will encourage other categories of investment that serve the neighborhoods' retail needs, as well as attracting employment-based investment to the entire LAMC study area.

This strategy is based on establishing site control of vacant lots and buildings and using these resources to implement model projects within each of the LAMC

study area neighborhoods. Five guiding principles form this strategy:

1. Prioritize single-family infill owner-occupancy and the use of architectural design guidelines for compatibility and protection of current investments;
2. Create development opportunities, **restore existing housing whenever feasible, and renovate existing occupied housing** to retain lower income families in the LAMC study area neighborhoods;
3. Expand the use and effectiveness of non-profit housing development organizations as a primary entity to deliver residential and community-development support services, including the development of a LAMC-affiliated Community Development Corporation (CDC) (discussed later in the Implementation Plan section);
4. Implement housing development strategies by establishing mechanisms to assemble and transfer land and building to facilitate long-term redevelopment objectives, e.g. affordability, building design guidelines, retaining existing residents; and
5. Use Model Block development areas as a catalyst, and leverage the funds set aside by LAMC for housing development with private sector investment in mixed-income housing.

Appropriate Infill Development: Housing Typologies

To help inform the kind of development which would be appropriate in the Model Block areas (and throughout the LAMC community), housing typologies were created based on the unique character of the area's existing housing stock. Collectively, the LAMC study area is unified by the neighborhood-scale of buildings; housing oriented to the street (helping to create vibrant street life); and a preponderance of greenery and trees lining local lanes and alleyways. A windshield survey conducted at the start of the planning process confirmed, however, that each of the LAMC neighborhoods has distinct and definable characteristics such as age of housing stock, architectural detail unique to particular neighborhoods, street patterns, and social structure; some neighborhoods additionally have historic neighborhood retail nodes. These diverse historic and cultural characteristics distinguish the LAMC neighborhoods and make them unique from other neighborhoods in North Charleston. The example housing typologies (presented below on the following pages) draw from these distinct characteristics, yet share common elements, rendering them unique to the LAMC area.

Two surveys were conducted to inform the development of the housing typologies presented. One survey was conducted with LAMC representatives that helped in the identification of houses within each neighborhood that represent architectural styles and design features that are unique to the respective LAMC neighborhoods. This survey also identified new neighborhood developments within and near the LAMC study area that illustrate the type of housing development LAMC officials do not favor. A second survey was conducted by the consultant for the sole purpose of capturing the unique LAMC housing designs and architectural features through photo documentation.

The fold-out sheets which follow show the outputs of these surveys and the Model Block strategies for each neighborhood - including the blocks to be first targeted in each neighborhood, infill and renovation opportunities in these blocks, and examples of new house designs that are distinctive to each LAMC neighborhood. In these schematics, new sample floor plans are introduced to accommodate increased functionality and new construction technology.

It is recommended that the Model Blocks should be developed drawing inspiration from the typologies presented, rather than be dictated by strict design rules for construction of homes in these areas. LAMC should work with an architect to address the peculiarities of individual parcels (such as lot dimensions) to adapt these typologies to the surrounding context and to ensure that housing caters to residents' and families' needs and desires.

Retaining Local Families and Maintaining Affordability

Many successful neighborhood revitalization projects have chosen to develop and restore new housing stock that will be attractive to first time homebuyers and to a "move-up" market of homebuyers. Attracting new homebuyers within this range is often characterized as the development of mixed-income communities, where housing is provided at different price points. The current demographic profile of the LAMC neighborhoods suggests that there is another important component of providing a range of housing options that should be taken into consideration. The LAMC study area, like many other older urban communities, is experiencing an increasing aging population of residents often characterized as active senior citizens.

Figure 5.2 Location of Model Blocks

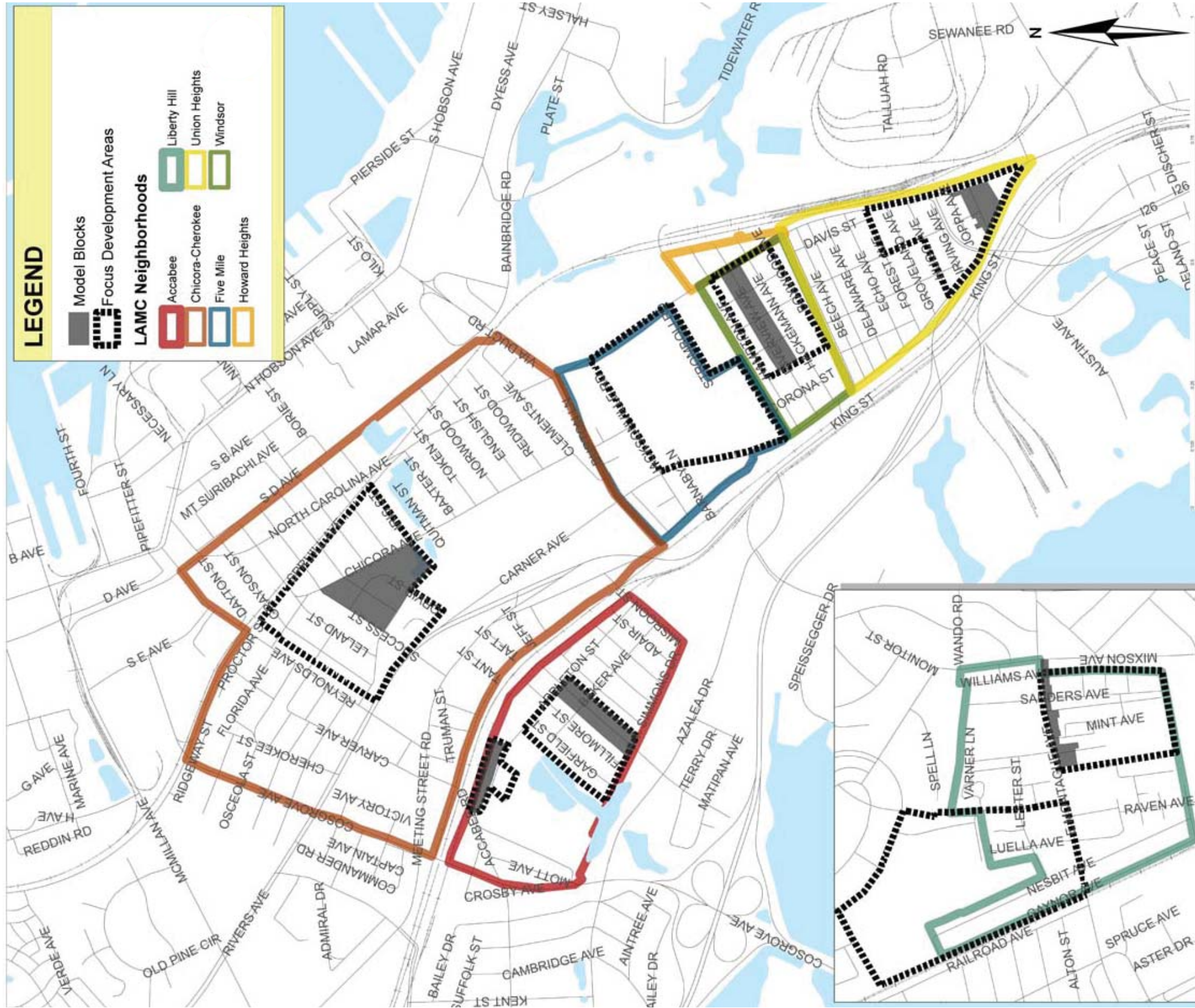


Figure 5.3 Liberty Hill Model Block

Liberty Hill Model Block

The Liberty Hill model development block site is located on East Montague Avenue between Hassel Avenue and Williams Avenue. The existing architectural character of many homes in Liberty Hill and proximity to East Montague Avenue is an opportunity to attract new residents.

A relatively large number of mobile homes existing in Liberty Hill clustered near houses in good to fair condition. The neighborhood consists of a wider variety of architectural styles and building sizes than other LAMC study area neighborhoods, including small bungalows and ranch style homes. Many homes are brick over block or frame construction.

Strategies for residential development include:

- Owner-occupied rehab program for moderate to major renovations.
- Down payment and closing cost assistance to encourage new homeowners.
- Construction of infill houses on vacant lots and on lots with mobile homes as they become available.

Neighborhood Character

Architectural design of new infill housing and renovation of existing housing should follow consistent standards that build on the historic and cultural heritage of Liberty Hill. Infill houses and renovated houses should be modeled in size and style after the existing housing stock, and should include architectural enhancements such as full front porches, detailed trim, and pitched roofs that contribute to the overall character of the neighborhood.



Priority Liberty Hill Infill & Renovation Opportunities



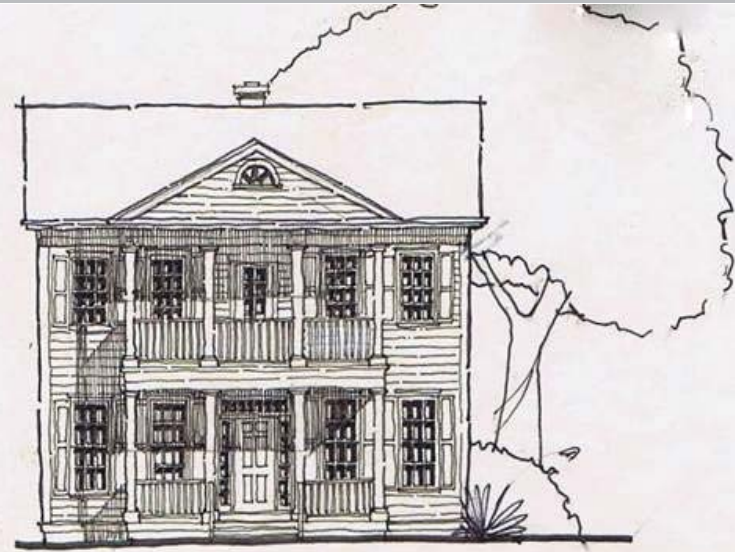
A variety of homes exists along Montague Avenue, in the Liberty Hill neighborhood, ranging from mobile homes to two-story single-family homes. Some tend to be larger than those in the interior of the neighborhood, and have the following characteristics:

1. Shallow front yard setbacks
2. Larger lots
3. More two story structures
4. Full front porches
5. Off grade construction
6. Vernacular architecture
7. Lower roof slopes (6/12 and lower)

In order to optimize the frontage on East Montague, infill designs will include both one and two story housing styles that attempt to mimic the existing styles but use a modern floor plan. Renovated homes have their interiors gutted and replaced with a new floor plan that is more functional.

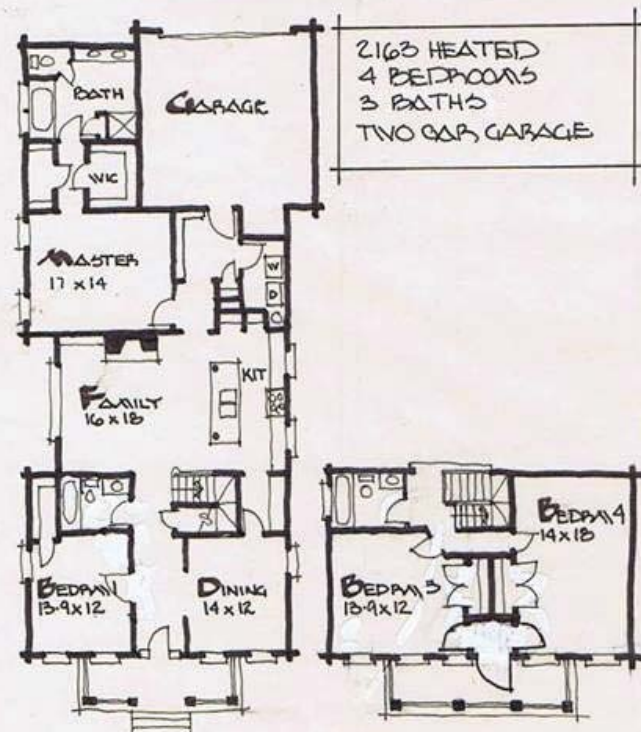
Liberty Hill Model Development Block Site		
Existing House	Infill House	Renovated Existing House
2	5	3

Proposed Liberty Hill Model Block Typology



Proposed Liberty Hill Model Block Typology

The Model Block housing typology design in Liberty Hill is inspired by commonly-found features in the neighborhood, such as two-story construction, first and second floor porches, simple yet elegant columns, and brick construction. Typical Model Block homes would have four bedrooms, three baths, and a two-car garage over around 2,100 square feet of space.



2163 HEATED
4 BEDROOMS
3 BATHS
TWO CAR GARAGE



Photo - Liberty Hill

First Floor Plan
1,659 square feet

Second Floor Plan
504 square feet

Figure 5.4 Chicora/Cherokee Model Block

Chicora/Cherokee Model Block

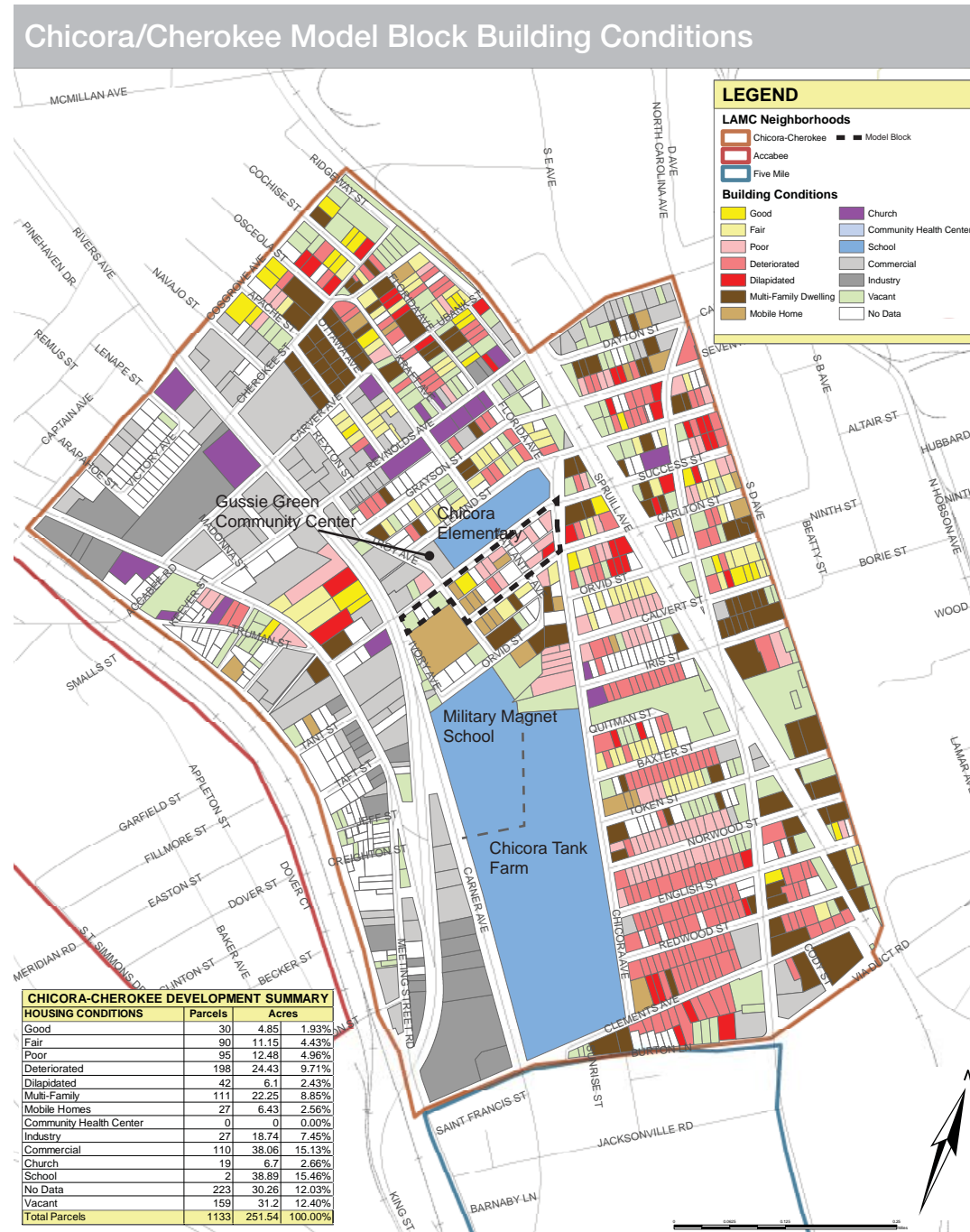
The Chicora/Cherokee model development block site is located along Success Street between Chicora Avenue and Troy Avenue. Chicora Elementary School, the Gussie Green Community Center, and the Military Magnet School are anchors for proposed site. Existing housing in the Chicora/Cherokee Model Block site consists of a variety of building types, including a significant number of multi-family dwellings and mobile homes. Housing style characteristics include full front porches, columns, and façade detailing. An opportunity exists to reinforce strategies for the revitalization of the Tank Farm site by improving nearby housing.

Strategies for residential development include:

- Redevelopment of houses around Chicora Elementary and adjacent green space that includes repairs to the existing housing stock and infill houses on vacant lots or lots with houses in dilapidated condition.
- Development of architectural design standards for new infill houses and renovation of existing houses.
- Owner-occupied rehab program for moderate to major renovations.
- Use design to enhance the visual, pedestrian, and vehicular connections between the Model Block site and surrounding amenities such as the schools, churches, parks, community centers, and commercial nodes.
- Down payment and closing cost assistance to encourage new homeowners to locate in Chicora/Cherokee neighborhood.
- Housing Workforce Home Benefit Program to encourage workforce to live close to work.

Neighborhood Character

Architectural enhancements such as front porches, detailed trim, and pitched roofs are currently found on many houses in the model development block site and the neighborhood. The scale, style, and architectural enhancements (full front porches, detailed trim and pitched roofs) of infill houses should be modeled after the existing housing stock. Houses in need of renovation should be restored to a level that also contributes positively to the overall character of the Chicora/Cherokee neighborhood.



Priority Chicora/Cherokee Infill & Renovation Opportunities



Architectural features that are prevalent are:

1. Hip /gable roof lines
 2. Double gables
 3. Shallow eave overhangs
 4. Exposed rafter tails
 5. Metal roofing
 6. Lap siding
 7. Brick foundations
 8. Brick pier construction
 9. Ornate porch and column detailing and trim
- Infill designs attempt to mimic the existing styles but use a modern floor plan. Renovated homes have their interiors gutted and replaced with a new floor plan that is more functional.

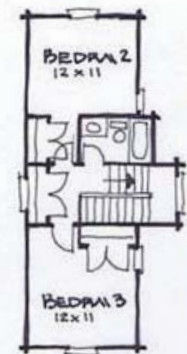


Chicora/Cherokee Model Development Block Site		
Existing House	Infill House	Renovated Existing House
3	12	12

Proposed Chicora/Cherokee Model Block Typology



First Floor Plan



Second Floor Plan



Photo - Chicora/Cherokee

Proposed Chicora/Cherokee Model Block Typology

Many examples of “shotgun” style homes are evident in the neighborhood, which have steep roofs, crawlspaces, and asymmetrical entries. Typical Model Block homes would have three bedrooms and two and a half baths over around 1,500 square feet of space.

Figure 5.5 Accabee Model Blocks

Accabee Model Blocks

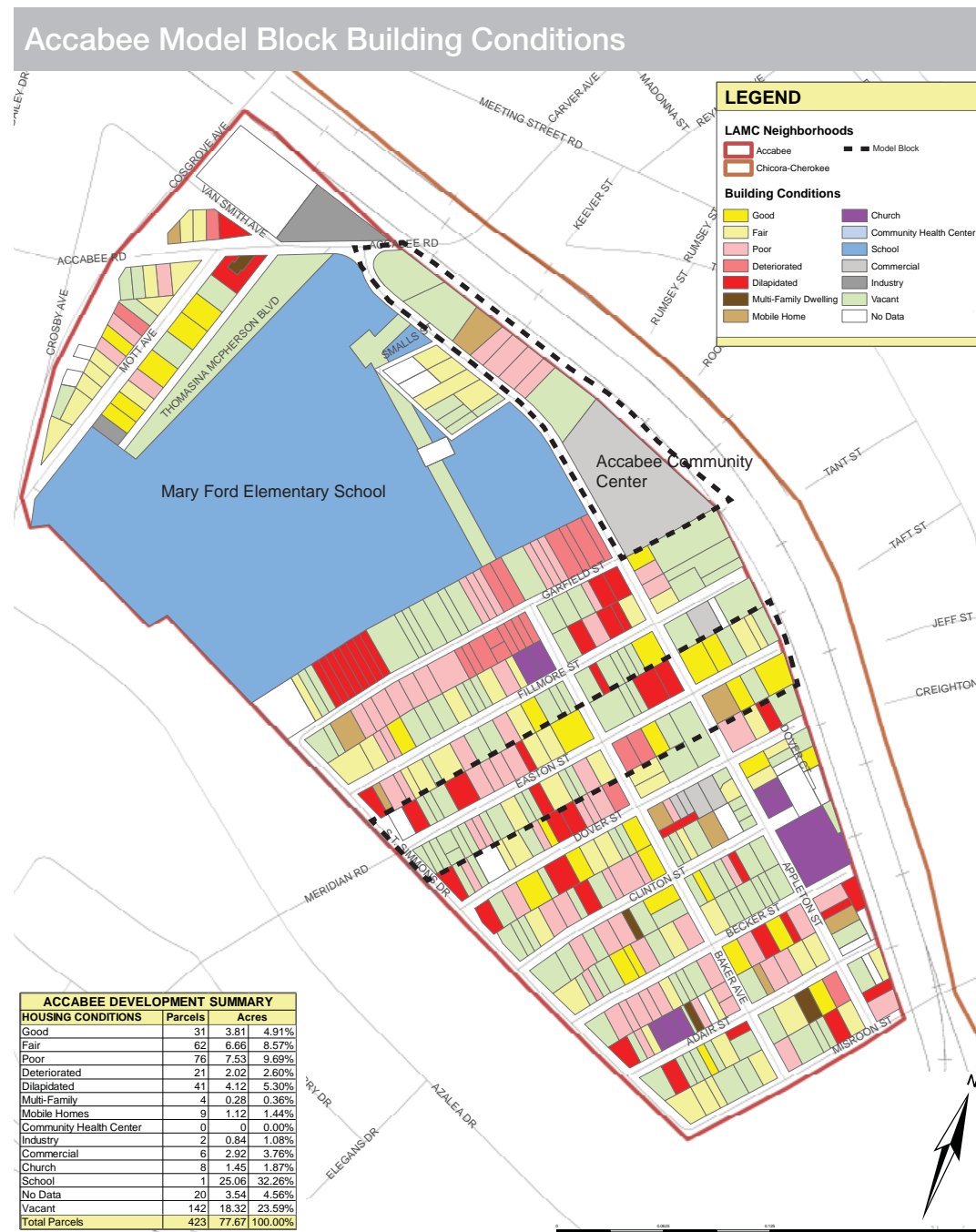
The strategy for Accabee includes two Model Blocks. Accabee Model Block 1 is located on Appleton Street between Accabee Road and the Accabee Community Center. Accabee Model Block 2 is located on Easton Street and takes advantage of this street's role as a gateway for the Accabee neighborhood from St. Simon's Street. In both of these Model Blocks, Mary Ford Elementary and the Accabee Community Center act as anchors for future residential development. The building conditions of these Model Blocks include a significant number of clustered vacant parcels as well as homes in deteriorated to dilapidated condition.

Strategies for residential development include:

- Rental rehabilitation program for investor owners renting to low-to-moderate income families.
- Owner occupied rehab program for houses with moderate to major renovations.
- Land banking to establish site control of deteriorating housing stock.

Neighborhood Character

The Accabee Model Development Block sites are currently characterized by a variety of housing types and architectural styles of primarily concrete block or wood frame construction and mobile homes. Architectural enhancements such as front porches, detailed trim, and pitched roofs are currently found on a limited number of houses in the Accabee neighborhood. Infill houses and renovated houses should be modeled in size and style after the existing housing stock and include architectural enhancements (front porches, detail trim, and pitched roofs) that will enhance the overall character of the neighborhood.



Priority Accabee Infill & Renovation Opportunities (Model Block 1)



Additional features that identify the architectural styles in the Accabee neighborhood are:

1. Exposed rafter tails
2. Cross gable construction
3. Multiple gables
4. Raised construction with crawlspace
5. Metal roofing
6. Lap siding

Infill designs attempt to mimic the existing styles but use a modern floor plan. Renovated homes have their interiors gutted and replaced with a new floor plan that is more functional.



Example model block with single-family infill houses and renovated houses






Accabee Model Development Block 1 Site		
Existing House	Infill House	Renovated Existing House
6	4	4

Priority Accabee Infill & Renovation Opportunities (Model Block 2)



LEGEND

-  Existing house
-  Infill house
-  Renovated existing house

The Accabee neighborhood has many examples of more traditional housing styles. These styles often feature:

1. Pitched roof with minimum 7/12 slope
2. Wood columns with brick base
3. Full front porches with symmetrical column spacing and intricate trimwork
4. Raised floor plan @ minimum 24" a.f.g.
5. Crawl space construction (stem wall construction can be substituted)
6. Traditional window types i.e. 6 over 1
7. Brick foundation
8. Lap siding
9. Minimum 4" trim at doors and windows

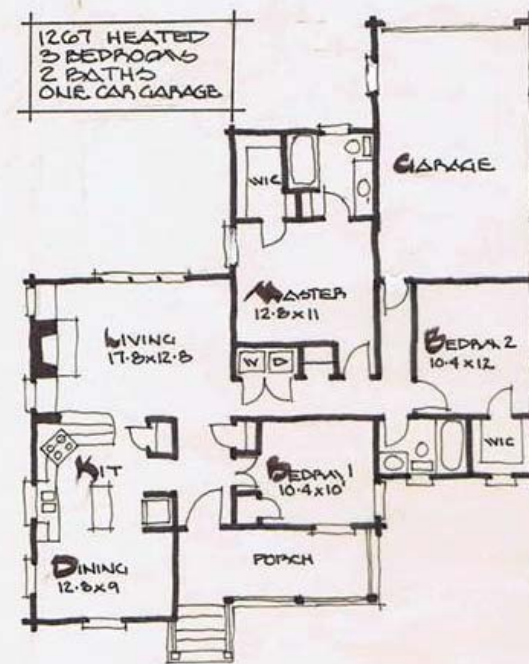
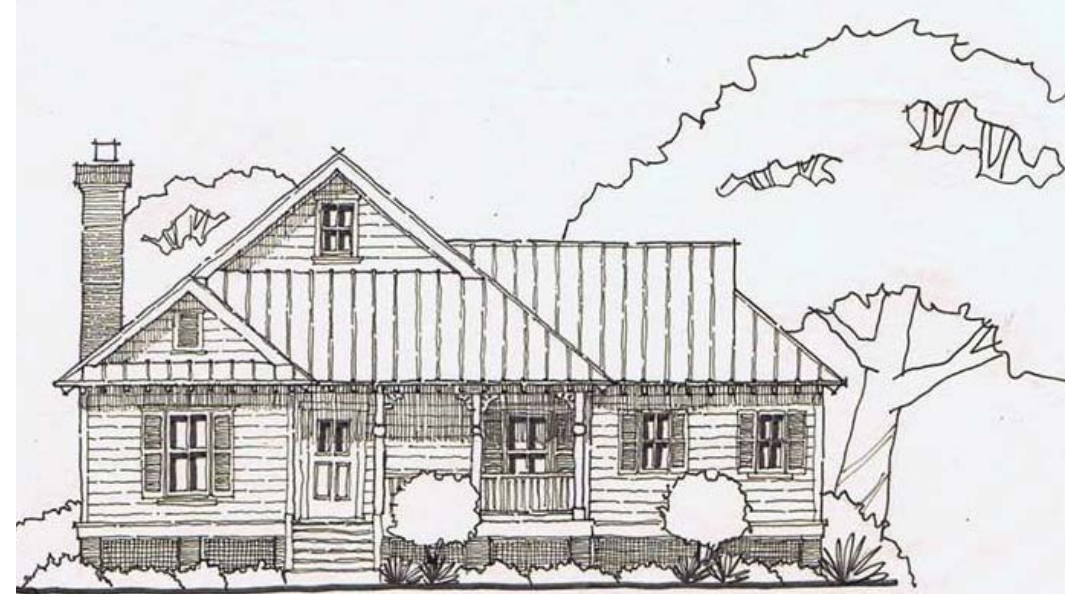
Existing house in Accabee



Example infill house



Proposed Accabee Model Block Typology



First Floor Plan
1,262 square feet



Photo - Accabee

Proposed Accabee Model Block Typology

An Arts and Crafts style home found in the neighborhood inspired the Accabee design, featuring detailed columns, a low-pitched roof, broad trim around the windows and doors, and a mixture of materials. Typical Model Block homes would have three bedrooms, two baths, and a one-car garage over around 1,250 square feet of space.

Accabee Model Development Block 2 Site		
Existing House	Infill House	Renovated Existing House
6	22	9

Figure 5.6 Five Mile, Windsor & Union Heights Model Blocks

Five Mile, Windsor & Howard Heights Model Blocks

Five Mile Model Block

The Five Mile Model Block housing focus area includes the Stromboli Avenue corridor and vacant land adjacent to the Stromboli site and Spruill Avenue. Redevelopment of the industrial land adjacent to Stromboli Avenue is an opportunity to introduce new housing styles into the Five Mile neighborhood. Specific development concepts for the Stromboli Avenue corridor can be found in the next section of the Plan.

Aside from commercial and industrial property, Five Mile is composed of seven houses ranging from fair to dilapidated condition along Jacksonville Road

Strategies for residential development include:

- Repair existing houses in the short term for current residents.
- Renovate existing houses in a way that transitions the neighborhood into what will happen long-term with the Stromboli corridor redevelopment.

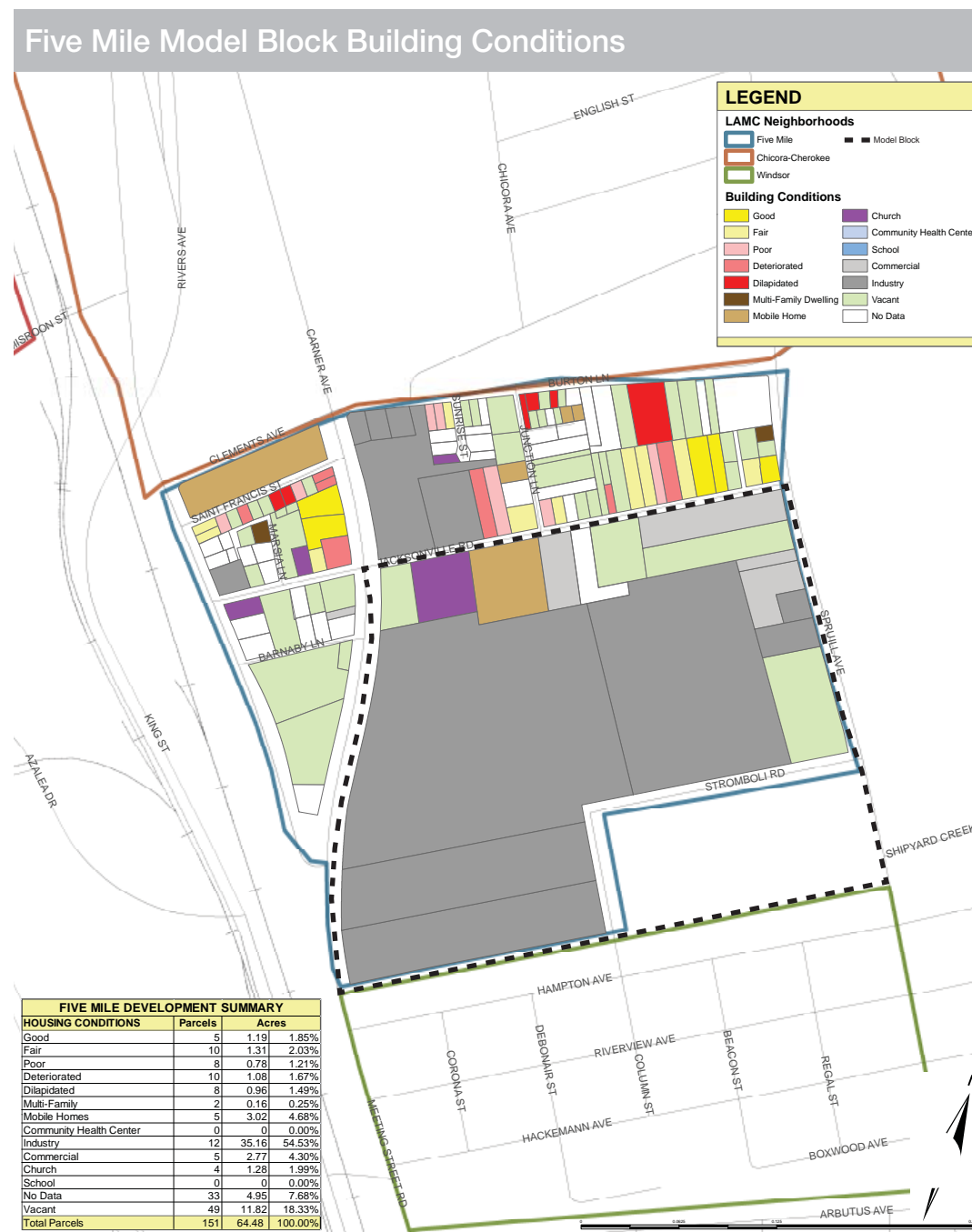
Five Mile Neighborhood Character

Existing houses in the Five Mile neighborhood are mostly workforce housing of block or wood with on-grade construction. Renovated houses should include architectural enhancements such as front porches, detailed trim, and pitched roofs that are compatible with the design of infill houses on the Stromboli site and enhance the overall character of the neighborhood.

Windsor & Howard Heights Model Blocks

In Windsor, the identified model development block site is located on Riverview Avenue between Spruill Avenue and Debonair Street. Existing building conditions include a large percentage of houses in deteriorated and dilapidated condition, but there are a significant number of houses in fair condition.

Howard Heights is currently disconnected from the other LAMC neighborhoods because of the neighborhood's location on the opposite side of Spruill Avenue from Windsor and Union Heights. Existing building conditions include a large percentage of deteriorated and dilapidated structures as well as vacant property adjacent to industrial land.

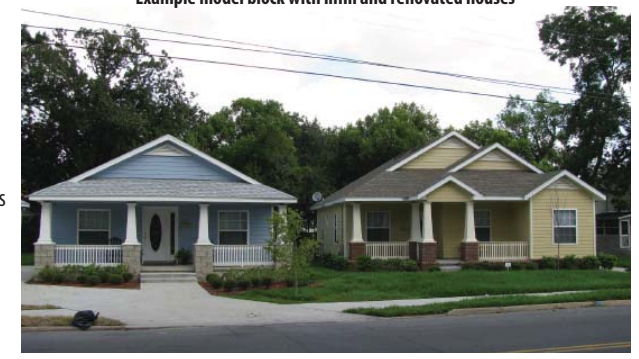


Priority Windsor & Howard Heights Infill & Renovation Opportunities



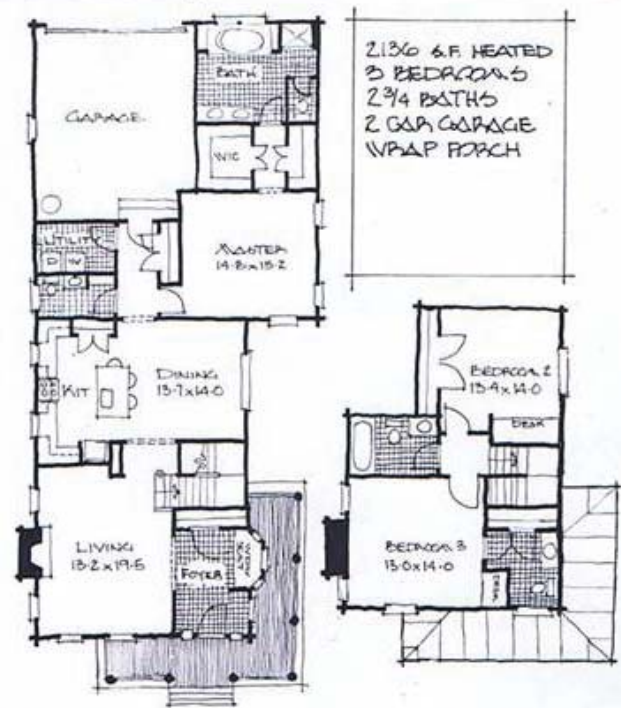
- LEGEND**
- Existing house
 - Infill house
 - Renovated existing house

- Architectural features for Windsor include:
1. Smaller floor plans
 2. Symmetrically placed front porch gables
 3. Horizontal "Shotguns"
 4. Cross gable construction
 5. Arts and crafts style of architecture
 6. 6 over 6 window patterns
 7. Broad trim at porch and windows
 8. Brick column bases with tapered wood columns
 9. Side entry porches
 10. Ornate trim at porches
 11. Exposed rafter tails
 12. Story and a half construction
 13. Metal gable vents
 14. Stylized window patterns and trim in second story front facing window(s)
- Infill designs attempt to mimic the existing styles but use a modern floor plan .
Renovated homes have their interiors gutted and replaced with a new floor plan that is more functional.



Windsor & Howard Heights Model Development Block Site		
Existing House	Infill House	Renovated Existing House
10	12	17

Proposed Five Mile, Windsor & Howard Heights Model Block Typology



First Floor Plan
1,416 square feet

Second Floor Plan
768 square feet

Photo - Five Mile

Riverview Avenue appears to be a street in transition with many houses in good to fair condition as well as a significant number of homes deteriorating or in dilapidated condition. There is an opportunity for neighborhood housing improvements aimed at preventing further deterioration of building conditions and the overall neighborhood aesthetic.

- Strategies for residential development include:
- Owner-occupied rehab program for moderate to major renovations.
 - Down payment and closing cost assistance to encourage new homeowners.
 - Construction of infill houses on vacant lots.
 - Land banking to establish site control of deteriorating housing stock.

Windsor & Howard Heights Neighborhood Character

Existing housing stock includes small bungalows with few architectural enhancements such as columns, front porches, railings, or decorative facades. Most neighborhood houses are built on or near grade and are constructed of block with stucco and wood frame construction with lap siding, and generally have low pitch roofs.

Infill houses and renovated houses should be modeled in size after the existing housing stock, and should include architectural enhancements (front porches, detail trim, and pitched roofs) consistent with the vernacular of distinguishable homes in the LAMC study area.

Proposed Five Mile, Windsor & Howard Heights Model Block Typology

This concept, suitable for all neighborhoods in this area of the LAMC community, is inspired by uniquely-sloped roofs, siding, one and a half story construction, and recessed front porches. Typical Model Block homes would have three bedrooms, two and a half baths, and a two-car garage over around 2,100 square feet of space. This type of house also includes a wrap-around porch.

Figure 5.7 Union Heights Model Block

Union Heights Model Block

The Union Heights Model Block housing focus area includes the intersection of Spruill Avenue and Meeting Street, a gateway into North Charleston from downtown Charleston, and extends north into the Union Heights neighborhood to Hugo Avenue. The specific model development block site includes the property between Little Avenue and Kingsworth Avenue.

Existing building conditions include a large percentage of vacant parcels and houses in dilapidated to deteriorated condition. The gateway intersection at Spruill Avenue and Meeting Street, combined with the removal of the I-26 access road, creates the opportunity to highlight that entrance into the LAMC neighborhoods through the introduction of new architecture and improvements in the existing housing stock, such as is recommended in the Spur Block Development (see page 86).

Strategies for residential development include:

- Owner-occupied rehab program for moderate to major renovations.
- Down payment and closing cost assistance to encourage new homeownership.
- Construction of infill houses on vacant lots.
- Land banking to establish site control of deteriorating housing stock.

Neighborhood Character

Existing housing stock includes a wide range of housing types and architectural styles with a few architectural enhancements such as front porches, detailed trim, or pitched roofs. Infill houses and renovated houses should be modeled in size and style after the existing housing stock, but should include architectural enhancements (front porches, detail trim, and pitched roofs) that will enhance the overall character of the neighborhood.

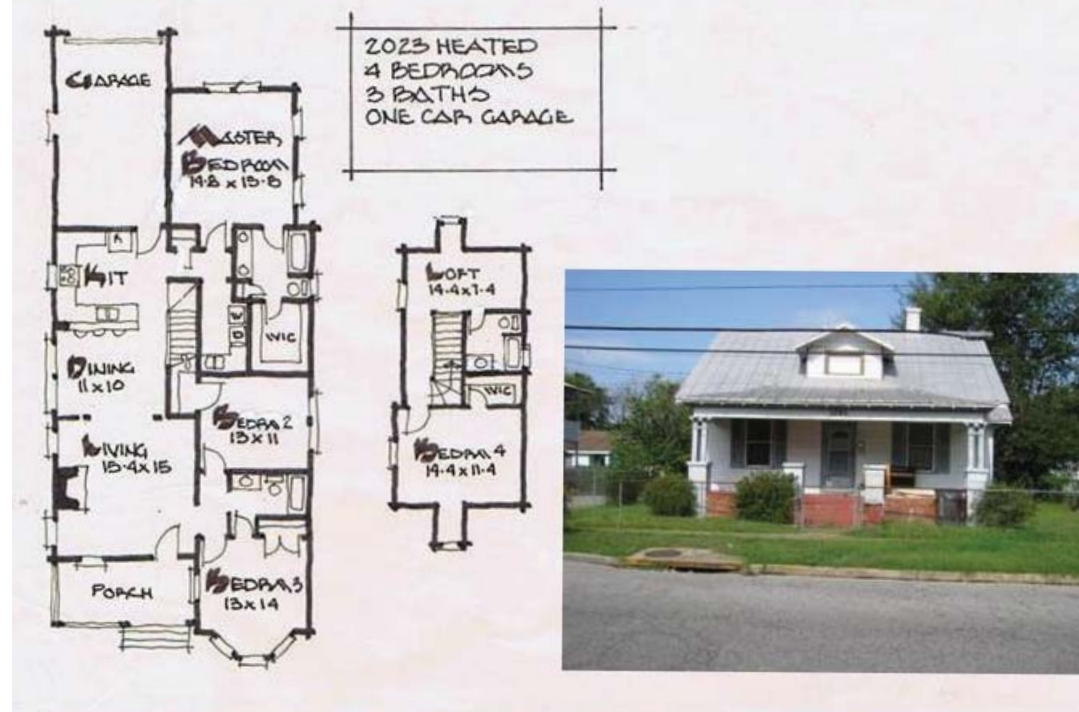


Priority Union Heights Infill & Renovation Opportunities



Union Heights Model Development Block Site		
Existing House	Infill House	Renovated Existing House
2	23	3

Proposed Union Heights Model Block Typology



First Floor Plan
1,564 square feet

Second Floor Plan
459 square feet

Photo - Union Heights



Proposed Union Heights Model Block Typology

Details found in existing houses in Union Heights inspired the design schematics presented here, including crawlspaces, dormers, unique columns, and symmetrical entryways. Typical Model Block homes would have four bedrooms, three baths, and a one-car garage over around 2,000 square feet of space.

Developing housing for first-time homebuyers (low- to moderate-income), families and individuals who are moving up to more expensive homes (moderate- to middle-income), and lower income active senior citizens will require LAMC to develop a housing strategy that includes building and redeveloping homes at different prices to reach these potential markets. It is recommended that the strategy be guided by the following principles:

- Design houses using universal design techniques that can be adapted to allow people to age in place by being retrofitted to meet the needs of the elderly (for example by limiting the construction of stairs, building wider doorways to make them wheelchair accessible, installing cabinets that are easy to reach, etc.);
- Offer different housing types (such as single-family and multi-family) in LAMC neighborhoods to allow residents to remain in the area as their lifestyle needs change;
- Design houses that incorporate a consistency in architecture and do not drastically differentiate between price points;
- Vary the size of houses and interior finishes as a method of controlling cost, but maintain scales which are appropriate to the context of the neighborhood (which can be achieved through design guidelines or overlays); and
- Emphasize the redevelopment of existing housing stock with code violations, when financially feasible, as a primary housing redevelopment strategy for retaining lower-income owner-occupied houses and investor owned properties occupied by low-to-moderate income renters by providing assistance programs; this helps ensure residents are not dislocated due to maintenance or code conformity issues.

A number of financing mechanisms and strategies also exist which can help increase homeownership and therefore engender investment and longevity in their neighborhoods. LAMC area residents should be able to receive assistance in pre-qualifying for mortgage financing. A LAMC Community Development Corporation (CDC), described in the Implementation Plan section, could play a role by reviewing employment history, income, savings, credit history, and current debt. This service could be provided in tandem with the provision of affordable houses through a LAMC Community Land Trust (CLT) (again described in the Implementation Plan section). Houses under the program would be sold to financially qualified families on a first come-first served basis.

Funds to assist low-income buyers with the cost of their down payment could be accessed through a Housing Trust Fund provided through the LAMC CLT. Many homeownership programs like this proposed one have established a track record of low foreclosure across the country. This program should be closely coordinated with the acquisition, construction and sale activities for LAMC CDC and LAMC CLT. Organizations like LISC and the Enterprise Foundation can contribute toward a revolving fund used for acquisition and construction.

The use of conventional financing for owner-occupied rehabilitation in LAMC neighborhoods will most likely be limited since houses located in the LAMC study area have experienced declining property values, and the potential credit issues families may be experiencing. Grants and Deferred Payment Loans (DPL) are the most likely funding mechanism for owner-occupied homes requiring minor rehabilitation. These are described further in Appendix I.

Case Study Example: Low Interest Loans for Rehabilitation

Clackamas County, Oregon City, OR

Clackamas County's Housing Rehabilitation Program provides low income homeowners with zero-interest or low interest loans for needed and critical home repairs. The maximum loan is \$15,000 for exterior repairs or single purpose (health/safety) repairs. Repairs can be for roofs/gutters, exterior painting, weatherization, windows/doors, foundation issues; water/well repairs, septic/sewer repairs or heating repairs. These loans are for owner-occupants only, current property taxes, and property must have sufficient equity to cover the loans. Loans are deferred as long as the owner lives in the home, the home is sold, title is transferred, mortgage is refinanced, or there is a change of use in the property; forgivable if owner remains in the home for ten years. Loans are secured by a lien on the property.

For more information, visit: <http://www.co.clackamas.or.us/cd/rehab.htm>

Maintaining Neighborhood Appearance

In order to achieve the transformation potential of the Revitalization Plan, basic services such as street cleaning, demolition of dangerous structures, and maintenance of lots and rights-of-way in the community take on an even

more important role in establishing confidence in the overall revitalization effort. With seven communities in the study area, a program that concentrates on a thorough street cleaning, lot cutting, signage repair, park cleaning, and community center repair in one neighborhood at a time would give each area a total “lift” that can truly present the communities at their best at any given time and bolster the momentum to move forward with new programs and investment.

A tightly coordinated effort among City and County departments and the proposed LAMC Community Development Corporation could set a “Seven Neighborhood in Seven Weeks” program to bring this kind of clean-up and repair effort on those more maintenance-related operations. Clearly, capital projects would not fall under this program, and it might take several iterations to coordinate all of the related maintenance services. Once the “learning curve” has been climbed, however, these programs go far in maintaining community pride and encouraging investment. The outreach should include not-for-profit centers and area ministries to further advance this program as a practical and inspirational component of a successful revitalization plan.

The order and schedule of neighborhood clean-ups as well as the time required per neighborhood given the range of scale and maintenance issues must be factored before a formal “roll out,” and should be formed in tandem with the City of North Charleston, Charleston County, and the LAMC Working Group/CDC. It will be critical for all LAMC communities to know when their respective areas are scheduled for attention to build the broad support and commitment of public resources to make this program a reality.

Recommended Regulatory Tools

The development and implementation of several regulatory tools are recommended to help the Model Block strategy succeed and to generally create a more consistent neighborhood character throughout the LAMC study area. While these tools - including an overview of recommended zoning changes - are described in greater detail in the Implementation Plan section (6.3), the primary recommendations are summarized below:

- **Creation of a Single-family Traditional zoning district** - Existing City of North Charleston zoning tends to support more suburban-type development, whereas LAMC neighborhoods are characterized by smaller lot sizes and structures typically found in more urban settings. The new zoning district would promote compact housing development at affordable levels through reduced site area requirements, and optional public improvement design standards. LAMC neighborhoods should then be re-zoned to better accommodate infill housing on smaller lots.
- **Setback averaging** - To ensure new housing development fits into the character of the existing community, this alteration to the North Charleston zoning code is recommended in all single-family residential areas. If an existing house is set back 15 feet from the road, for example, and the adjacent house is situated 10 feet from the road, setback averaging would allow the new house to be placed 12.5 feet away from the street front. This helps infill housing in particular to fit into the neighborhood context.
- **Nonconforming use regulations** - Oftentimes, single-family homes are converted into boarding houses or the property owner begins renting rooms. In the event such non-conforming uses are discontinued, the City of North Charleston should have the regulatory authority to have the property owner return the home to its original single-family residential use. This plan therefore recommends adopting such a policy.
- **Neighborhood Conservation District** - A conservation district provides design guidelines to ensure that new development and renovations within the district are consistent within the neighborhood. In LAMC neighborhoods, locally-generated design standards tailored to the rehabilitation and infill goals of each community could be used. The design standards can help stabilize the home values of the community by making the range of housing types and styles more predictable within the LAMC neighborhoods and also allow for a compatible design across a range of residential types, both single- and multi-family. It is recommended that such a conservation district be designated in LAMC neighborhoods to encourage positive infill development.
- **Abandoned Property Registration/Maintenance Ordinance** - Vacant property registration allows the City to collect fees and track maintenance issues to assist with code enforcement. This plan recommends a City ordinance be established to help maintain vacant properties in the LAMC study area and beyond.
- **Buffering of industrial uses** - Buffers help screen unsightly uses in residential and other areas. This tool is described more fully in Appendix II. An ordinance which mitigates the impacts of container stacking in LAMC neighborhoods is also proposed (see Appendix VI for details).

Figure 5.8 Before & After Infill Housing

Neighborhood Block Before Infill Housing



Neighborhood Block After Infill Housing



5.1.2 Spur Block Development

As part of future Port Access Roadway improvements, the ramp spur at Exit 218 of I-26 will be reconfigured to remove the existing ramps that presently bisect Union Heights. It is anticipated that the property once occupied by the ramp spur will be conveyed to the City of North Charleston. Complementing the proposed Model Block development, three block alternatives are proposed to knit the Union Heights neighborhood back together following the demolition of the ramps, which consist of single-family, townhomes and community green space.

- Alternative 1 maintains the existing block framework and connects Cosmopolitan Street to provide better access and circulation. This option focuses on maximizing new housing with 50 units.
- Alternative 2 modifies the existing block framework and introduces a community green that is fronted on either side by residences. This option focuses on maximizing the community green space and introduces 30 residential units.
- Alternative 3 modifies the existing block framework and introduces two new streets around a community green, fronted by 21 units of single-family residential.

Spur Block Program 1

Residential:	50 units
Townhomes:	50

Spur Block Program 2

Residential:	30 units
Single Family:	9
Townhomes:	21

Spur Block Program 3

Residential:	21 units
Single Family:	21

Location Map

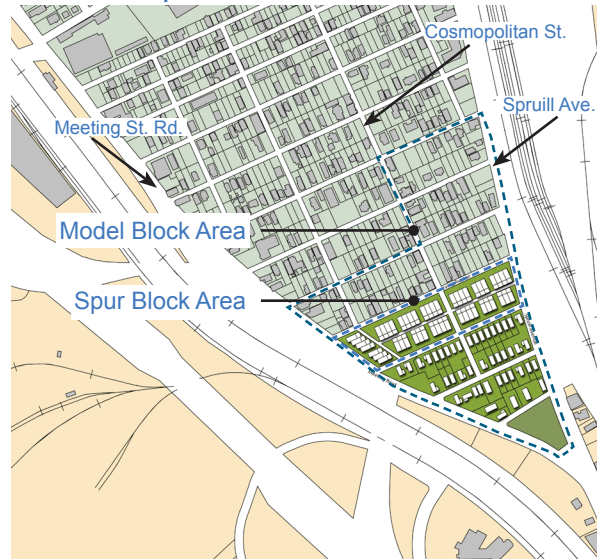


Figure 5.9 Spur Block Alternatives

Alternative 1



Alternative 2



Alternative 3



5.1.3 Stromboli Avenue Corridor Development

Stromboli Avenue is currently an industrial corridor creating a significant division between the residential areas in Chicora/Cherokee to the north and Windsor and Union Heights to the south. However, as an identified priority redevelopment and reinvestment opportunity site by the City of North Charleston and as a model development block site (see description above) in this Plan, it is targeted for improvements extending west to Carner Avenue and east to Spruill Avenue. The recommendations provided address a long-term perspective: Improvements planned by the South Carolina Department of Transportation (SCDOT) in the near term would require lane reconfiguration to be more appropriate for a residential character.

The extension and improvement of the street provide an excellent opportunity for redevelopment. Recommended future uses should help tie together the neighborhood on both sides. Opportunities include incorporating new housing types, a commercial “boulevard” along Stromboli Avenue and a retail node at its intersection with Spruill, public uses, and open space such as recreation or natural restoration.

Two concepts are presented for the corridor’s redevelopment which imply different implementation challenges and solutions: one considering the retention and reuse of the former GEX facility for community and business uses, and the other proposing additional housing in its place. Both proposed concept plans for the Stromboli Avenue Corridor redevelopment reflect community and stakeholder input, market analysis, SCDOT plans for roadway improvements, and existing conditions. Both also draw on previous studies of the site, including the *Stromboli Corridor Charrette Report* (2008) compiled by landscape architecture and planning students from Clemson University.

Stromboli Concept Plan 1

Stromboli Concept Plan 1 combines a mix of residential and non-residential uses at Spruill and Carner Avenues and a variety of housing types throughout the concept. Key elements of the alternative include:

- Creating development blocks that are consistent with the block framework of the surrounding neighborhoods.
- Continuing the existing street grid through the site to improve connectivity between neighborhoods.
- Transforming Stromboli into a grand boulevard with a 114’ right-of-way, lined with a mix of uses including mixed-use development with ground floor retail and residential on upper stories, open space, and office/institutional uses.
- Open space provides a 5.5-acre community park featuring family recreational uses, walking paths, picnic areas, and playground facilities; park is adjacent to health and recreational center for indoor sports activities such as a swimming pool. Refer to Tank Farm site, which is within a five-minute walk, for additional recreational uses including playing fields.
- Reuse of a portion of the GEX facility, anticipated to include uses such as a Maritime Institute, transportation job training center, offices for a local community development corporation, business incubation space, farmers market, and restaurant.
- Institutional and office uses located at the southeast corner of Carner Avenue and Stromboli.
- Retail uses located at the intersection of Spruill Avenue and Stromboli, which is anticipated to be the busiest intersection on the corridor.
- Single-family residential is set back off Stromboli, both north and south of the corridor.
- Introducing “Green Streets” in the Concept Plan to facilitate stormwater infiltration, with features including a landscaped median along Corona Street and bioswales along Column Street.
- Providing public right-of-way improvements totaling 732,805 sq. ft. or 16.8 acres.

Key Map



Stromboli Avenue, 2009

Figure 5.10 Stromboli Concept 1

Street Connections: Concept 1

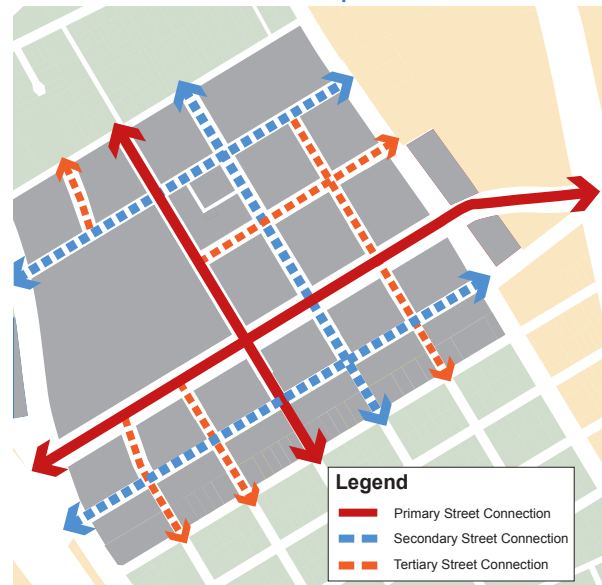


Figure 5.11 Stromboli Program 1

Stromboli Program 1

Residential:	180 units
Single Family:	117
Townhomes:	15
Apartments:	48
Retail:	153,937 sq. ft.
Office/Commercial:	46,538 sq. ft.
Institutional:	125,000 sq. ft.
Open Space:	5.5 acres
Proposed Right of Way:	732,805 sq. ft. or 16.8 acres

Proposed Land Use Plan



Retail & Mixed Use Land Uses



Office & Institutional Land Uses



Residential Land Uses



Stromboli Concept Plan 2

Stromboli Concept 2 combines a mix of uses with nonresidential uses at Spruill and Carner Avenues and a variety of housing types throughout the concept. This concept does not contain the re-use of the GEX facility. While redevelopment of the GEX facility is desired by the community, implementation challenges, such as site acquisition and market conditions (i.e. not being able to fill the space with tenants), may prove too difficult to address. This concept provides an alternative to the GEX redevelopment which features added residential development in its place.

Key elements of the alternative include:

- Creating development blocks that are consistent with the block framework of the surrounding neighborhoods.
- Continuing the existing street grid through the site to improve connectivity between neighborhoods.
- Transforming Stromboli into a grand boulevard with a 114' right-of-way, lined with a mix of uses including mixed-use development with ground floor retail and residential on upper stories, open space, and office/institutional uses.
- Open space provides a 4.4-acre community park featuring family recreational uses, walking paths, picnic areas, and playground facilities; park is adjacent to health and recreational center for indoor sports activities such as a swimming pool. Refer to Tank Farm site, which is within a five-minute walk, for additional recreational uses including playing fields.
- Institutional and office uses located at the intersection of Carner Avenue and Stromboli including a maritime and transportation job training center.
- Retail uses located at the intersection of Spruill Avenue and Stromboli, which is anticipated to be the busiest intersection on the corridor.
- Single-family residential is set back off Stromboli, both north and south of the corridor.
- Introducing "green streets" in the Concept Plan to facilitate stormwater infiltration, with features including a landscaped median along Corona Street and bioswales along Column Street.
- Providing public right-of-way improvements totaling 750,782 sq. ft. or 17.2 acres

Stromboli Location Map



Figure 5.12 Stromboli Concept 2

Street Connections: Concept 2

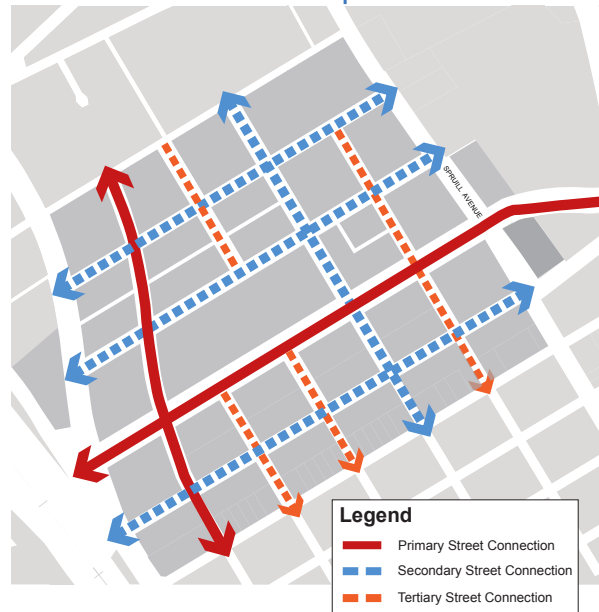


Figure 5.13 Stromboli Program 2

Stromboli Program 2

Residential:	223 units
Single Family:	132
Townhomes:	45
Apartments:	46
Retail:	138,396 sq. ft.
Office/Commercial:	49,902 sq. ft.
Institutional:	32,977 sq. ft.
Open Space:	4.4 acres
Proposed Right of Way:	750,782 sq. ft. or 17.2 acres

Proposed Land Use Plan



Retail & Mixed Use Land Uses



Office & Institutional Land Uses



Residential Land Uses





Rendering of potential Stromboli Avenue Corridor entrance

Street Connectivity to and from the Redevelopment Site

The Stromboli Avenue redevelopment area offers a quality prospect for establishing additional connectivity (see inset “Street Connections” diagrams for each concept). Expansion of the existing street grid is recommended in this area through the creation of several new east-west roadways and the extension of a number of existing north-south streets (see New Streets Figure 5.19 on page 105). Such improvements will provide direct connections between the Union Heights and Windsor neighborhoods to the south and Five Mile and Chicora/Cherokee to the north. This new connectivity should reduce conflicts and congestion along Spruill and Carner Avenues, as it would provide route options for drivers to allow them to stay within the neighborhoods when travelling north and south. Additionally, pedestrians and bicyclists will benefit from these new and extended streets by being able to travel along lesser volume streets with lower speed limits.

With the SCDOT’s current policy of taking on no net new lane miles for ownership and maintenance, the City of North Charleston should consider what streets it would be advisable to take over. It is recommended that the City take over the ownership and maintenance of Stromboli Avenue and the new local access boulevard. By entering into an agreement with the SCDOT to take over these roads prior to their design and construction, the City will be able to control the character of these roadways. Additionally, as new roadways built under current design and construction standards, maintenance and life cycle costs should be lower than those of older, existing streets.

Design, construction, ownership, and maintenance of the new streets that are proposed in and around the Stromboli corridor redevelopment area and the re-connection of Cosmopolitan Street will most likely be the responsibility of the City of North Charleston. Funding for the construction and maintenance of these streets may be achieved through some type of public/private partnership with local developers who will benefit from their implementation. Specific details could be worked out through development agreements as part of the regulatory approval process.

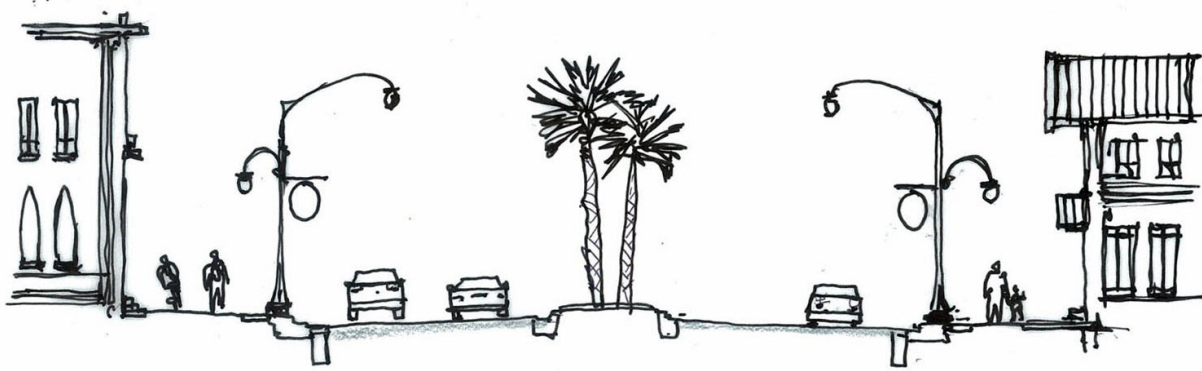
Intersection Improvements

As part of the SCDOT roadway improvements associated with the new marine container terminal, eight intersections will receive enhancements to improve their levels of service, including two in the redevelopment area: at the intersections of Carner and Spruill with Stromboli Avenue. Detailed improvement plans for each of these intersections are depicted graphically in the accompanying concept drawings. While the remaining intersections are described in Section 5.2 (Network Improvements), the intersection improvements specific to Stromboli Avenue are described below.

Spruill Avenue at Stromboli Avenue (Intersection #1 on Figure 5.19, page 105)

The program of improvements for the intersection of Spruill and Stromboli Avenues would include:

- Creation of enhanced crosswalks utilizing patterned concrete or asphalt products at the crossings of Stromboli Avenue parallel to Spruill Avenue.
- Implementation of enhanced striping crosswalks at the crossings of Spruill Avenue parallel to Stromboli Avenue.
- Actuated countdown pedestrian signals.
- Installation of ADA compliant ramps at all surface transitions.



Rendering of possible Stromboli Avenue streetscape

- Planting of street trees and landscaping along right-of-way and adjacent private property via easement agreements.
- Installation of traffic signal mastarms and decorative pedestrian-scale lighting.

Carner Avenue at Stromboli Avenue (Intersection #8 on Figure 5.19, page 105)

The program of improvements for the intersection of Carner and Stromboli Avenues would include:

- Creation of enhanced crosswalk utilizing patterned concrete or asphalt products at the crossing of Stromboli Avenue parallel to Carner Avenue.
- Actuated countdown pedestrian signals.
- Installation of ADA compliant ramps at all surface transitions.
- Planting of street trees and landscaping along right-of-way and adjacent private property via easement agreements.
- Installation of decorative pedestrian-scale lighting.

Residential Component

Based on preliminary market analysis, it is recommended that 100-200 homes be built within the Stromboli Avenue Corridor redevelopment in the form of single-family detached, townhomes, and multi-family rentals. This would allow for the residential component of the Stromboli redevelopment to be phased, reduce potential investor/developer risk (by diversifying the product mix), and respond to variable market conditions. Of course, additional (for-sale) units could be phased in over time as market response warrants. Importantly, detailed market and financial feasibility studies would be required of this concept to further refine the program and mix.

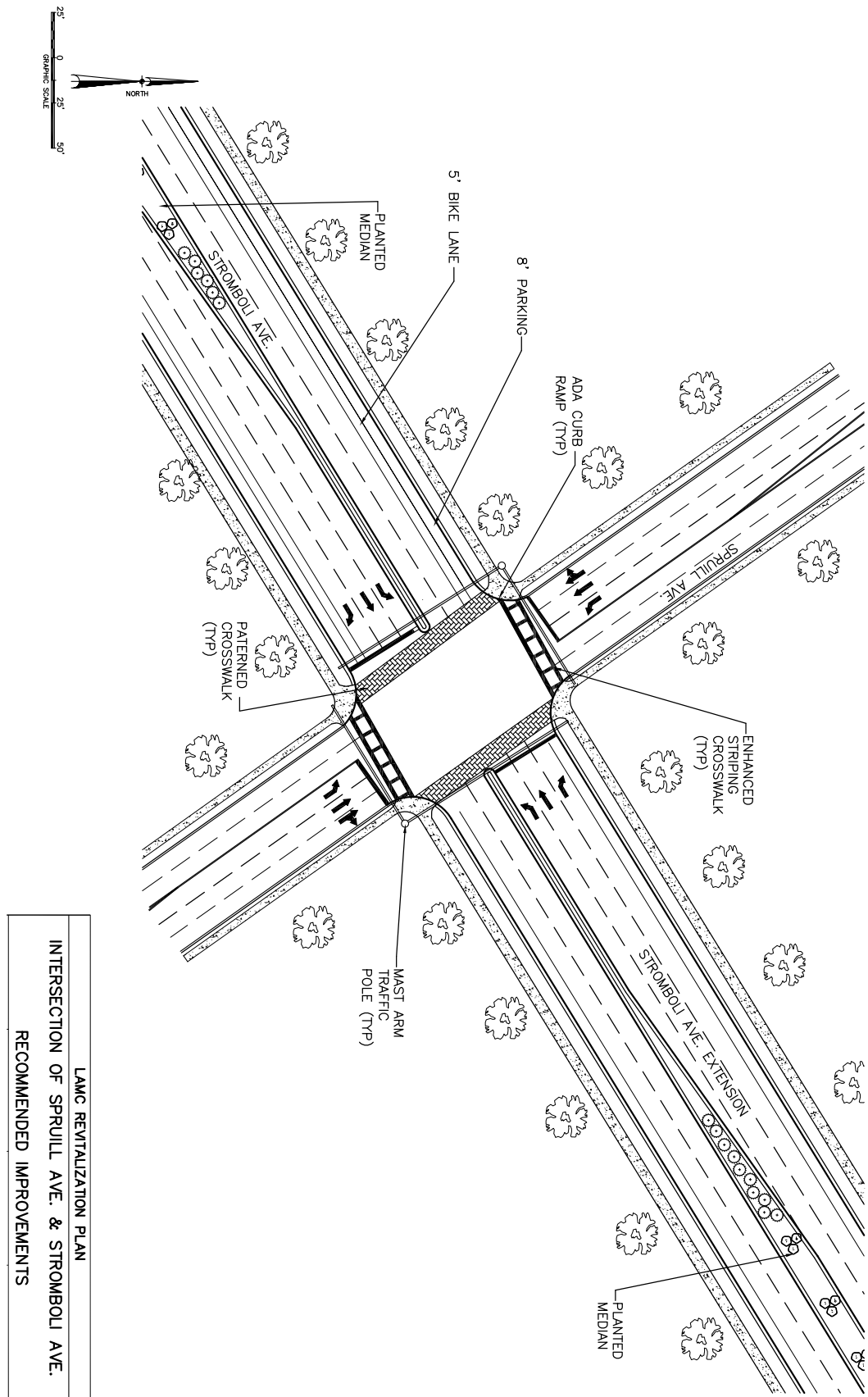
Commercial Office Component

Based on the market analysis, both options for Stromboli Avenue redevelopment could accommodate future market potentials for office development. However, speculative office development is a longer-term prospect (beyond five years). In the event that a redevelopment project on the Stromboli corridor moves forward within the next five years, it will be critical to secure an anchor office tenant—such as a government agency or a Port-related contractor—as a means of securing construction and permanent financing for mixed-use development. Such as use could be housed in the former Government Exchange Facility, described in detail below.

Retail Component

The retail component of the Stromboli corridor redevelopment is likely to be limited for the foreseeable future. Retail and commercial components of a Stromboli corridor redevelopment should be concentrated at a key intersection (such as at Spruill and Stromboli) or open space rather than scattered throughout the corridor. A vital need for both Stromboli and the larger study area is for centralized management organization for commercial revitalization. Supporting materials such as database of property maps, building inventory (by retail/merchandise type), roadway maps, and other resources as the basis for future planning, analysis and evaluations (beyond the redevelopment plan) and as tools for surveys will be useful for facilitating future larger-scale commercial or mixed-use developments in the Stromboli area.

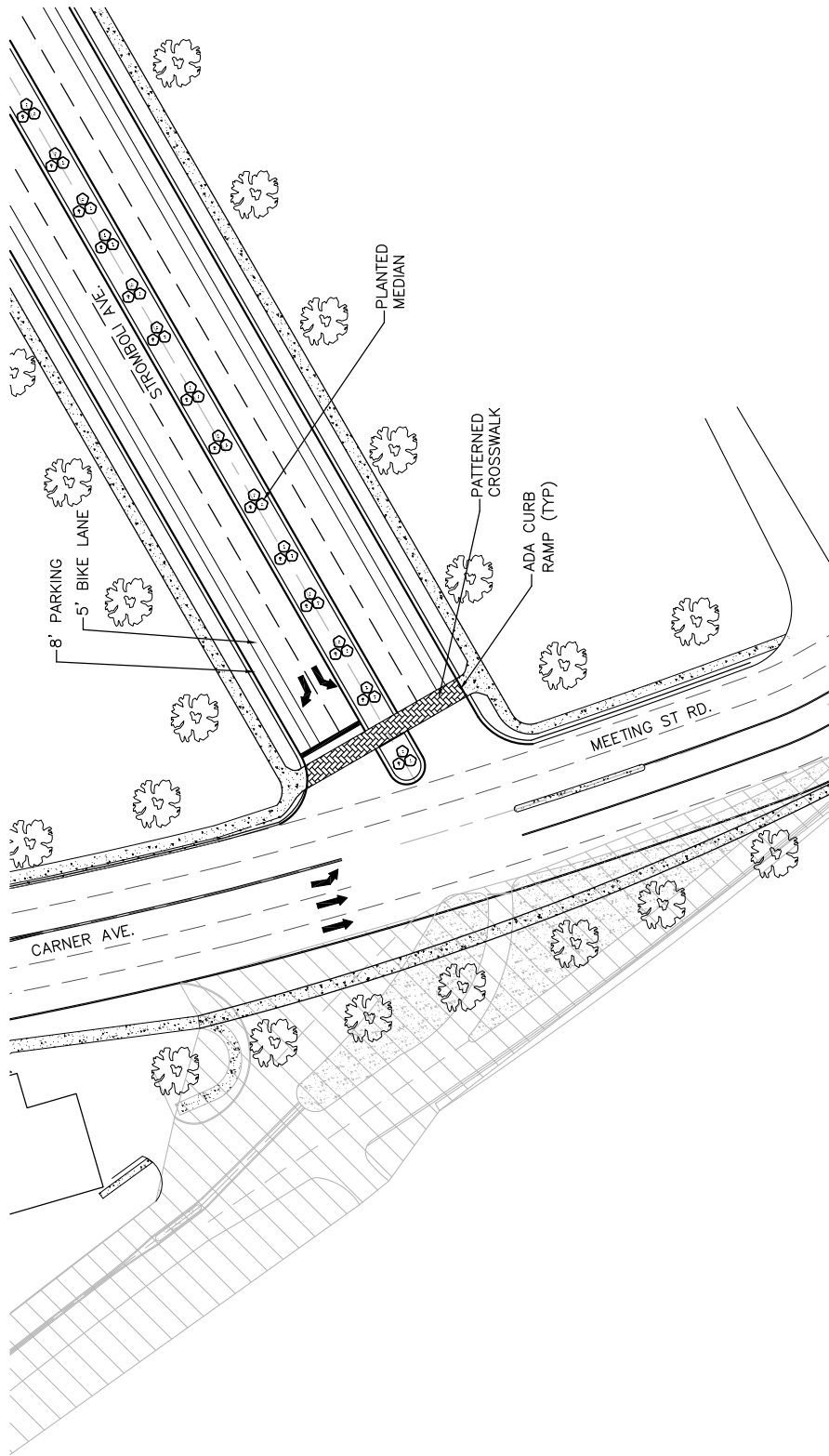
Figure 5.14 Recommended Intersection Improvements: Spruill & Stromboli



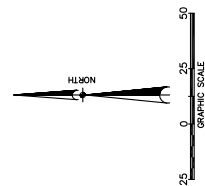
LAMC REVITALIZATION PLAN
 INTERSECTION OF SPRUILL AVE. & STROMBOLI AVE.
 RECOMMENDED IMPROVEMENTS

Note: These improvements are conceptual in nature and should be tested through proper traffic analysis prior to their advancement.

5.15 Recommended Intersection Improvements: Carner & Stromboli



LAMC REVITALIZATION PLAN
 INTERSECTION OF CARNER AVE. & STROMBOLI AVE.
 RECOMMENDED IMPROVEMENTS



Note: These improvements are conceptual in nature and should be tested through proper traffic analysis prior to their advancement.

Government Exchange Facility Re-use

With over 600,000 sq. ft. of land centrally located in the LAMC study area, this site promises great development opportunity along its length from Carner Avenue to Spruill Avenue. The overall feasibility of re-using the Stromboli site will be based on the outcome of a brownfield site assessment and the prevailing market conditions at key milestones of site readiness for development. From that determination, the range of urban land uses – institutional, commercial, or residential – can be identified that both respond within brownfield policies with the site condition and address the development goals of the community and marketplace.

Given the road networks of Carver and Spruill and the pending I-26 connector, as well as the adjacent neighborhoods of the Five Mile and Windsor communities, the Revitalization Plan projects a true mixed-use corridor. Depending on the environmental findings on the site, the actual blend and proportion of this mix of land uses will vary along the length of Stromboli. The SCDOT roadway alignment and plan will form the central organizing spine along any development scenario. Given the stage of the Stromboli Street Improvement, the future use of the site can depend on a strong connector to surrounding arterials and the interstate, allowing it to be a regional draw for the proposed mix of uses as well as an amenity for the adjoining neighborhoods.

One of the opportunities that warrants further investigation is the re-use of the GEX site. The viability of this building will depend on the condition and structural integrity of the facility; the amount of required non-brownfield-related environmental remediation, the uses that this facility could support operationally and financially, and the means for funding its development for that purpose. While there are examples of facilities of similar size being rehabilitated for new and inspired uses, such success stories are typically the result of public-private partnerships, often where a not-for profit institution in combination with a public agency or private investor has led the way.



A nearby example of warehouse re-use: Storehouse 10 on the Port



Storehouse 10 exterior

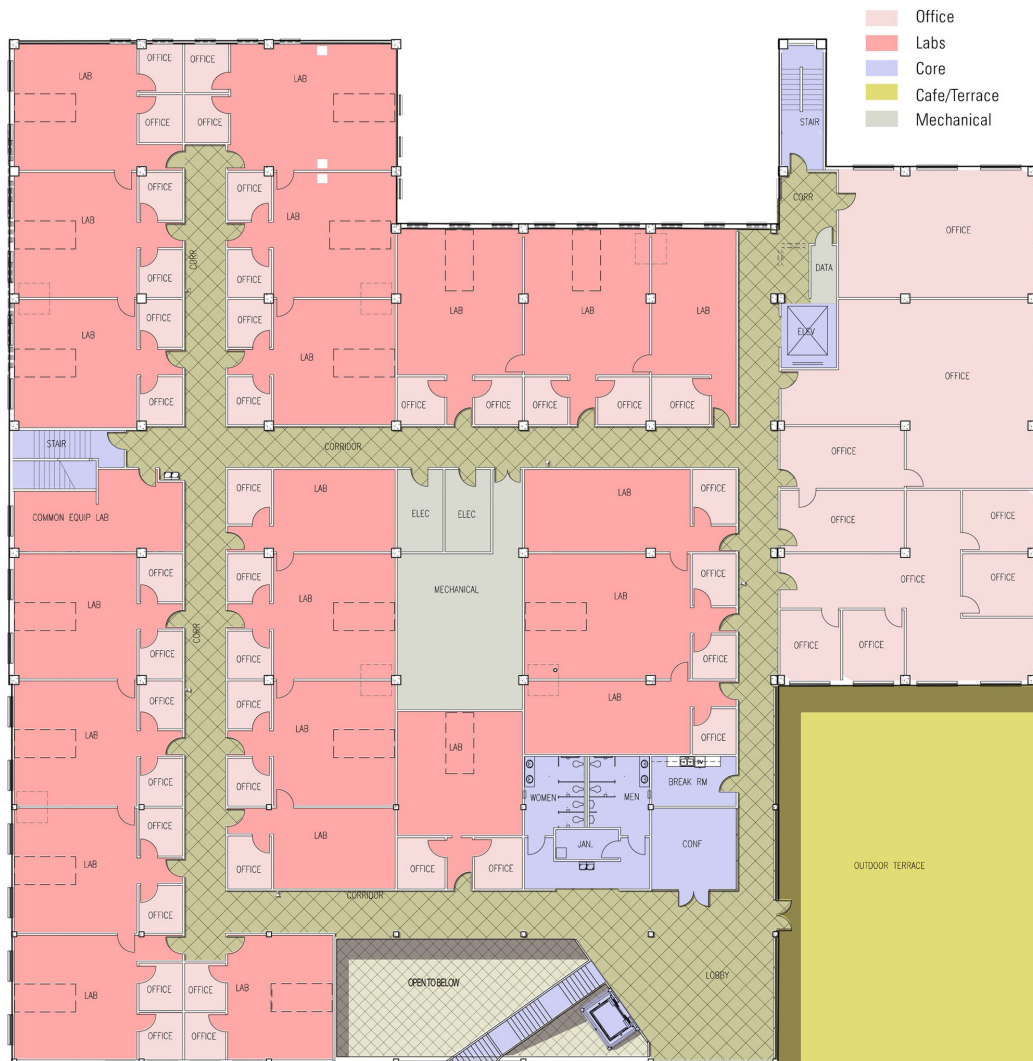
Inasmuch as the citizens of the LAMC community have expressed an interest in the re-use of the facility given its historic role in the community, every effort should be made to see to what extent the facility can be re-used even if it requires some reduction in the building size. There are examples where warehouse buildings have been reprogrammed for exciting new uses.



An abandoned Sears distribution and warehouse center in Birmingham, Alabama



In about two years, the same abandoned space was transformed into an incubation center; today it is thriving



Sample floorplan from the Birmingham incubation center

Environmental Concerns

Of the areas slated for revitalization by this plan, the Stromboli corridor presents one of the more significant challenges regarding the conflict of projected land use with former activities due to the presence of former solid waste facilities (SWFs), particularly the Gaston Dump, listed by the State of South Carolina's SWF database as being located along Stromboli Avenue at the intersection of Stromboli Avenue and Spruill Avenue. In addition, the abandoned Charleston County/Spruill Avenue Dump is also located here (both indicated on the Environmental Sites Maps on pages 25-26, Map ID 74 and Map ID 62, respectively). Additional environmental sites were identified within the vicinity of the Stromboli Corridor. A summary of these implications is included below:

- **Map ID 69** – Sherwin Williams (2014 Jacksonville Street); Hazardous Waste Handler (Non-Generator)
- **Map ID 71** – Intermodal Management, LTD (2650 Carner Avenue); Contained Leaking Underground Storage Tank (LUST); Cleanup completed and No Further Action (NFA) issued 1/26/99
- **Map ID 71** – Infinger Transportation, Inc. (2811 Carner Avenue); Active Hazardous Waste Generator (Small Quantity Generator, SQG); State Hazardous Waste Site (SWHS); Active Groundwater Contamination Inventory Case (GWCI); Groundwater Monitoring Active
- **Map ID 77** – Carolina Shipping Company (1950 Stromboli Avenue); Abandoned Underground Storage Tank
- **Map ID 78** – Phillyship of Charleston/Container Salvage (2724 Carner Avenue); Hazardous Waste Handler (Non-Generator); Imply No Violations

Limited records of closure procedures, previous activity, or possible contents of these sites and the former SWFs is available from State and Federal Records; however, additional records may possibly be found at the SCDHEC Regional Environmental Quality Control (EQC) Office. A significant challenge posed by an abandoned landfill with few available records is the uncertainty of its contents – whether it was previously used for construction and demolition debris, possibly containing asbestos; or whether it contains municipal solid waste.

A primary evaluation of the conditions present within the study area should be initiated with local government in order to determine the best path forward regarding identification and mitigation of present environmental conditions in and around the Stromboli Corridor. The City of North Charleston and/or LAMC may elect to independently conduct a Phase I Environmental Assessment of the area using available funds in order to identify any possibly significant obstructions to future development. This will provide an initial level of due diligence to will help clarify the level of investment required for redevelopment, which is desirable by perspective developers.

Should obstructions to development be encountered, modern engineering and environmental practices are typically able to overcome them. For instance, providing a “cap” layer (where concrete is poured to cap the potentially contaminated soils) and surface water management system over a potentially contaminated site would prevent further impacts to the site and surrounding area from occurring during the remediation funding and implementation process.

5.1.4 Chicora Tank Farm Concept

Located within a five-minute walk from the Stromboli Avenue Corridor redevelopment area, the Chicora Tank Farm is a 22.5-acre former ship fuel storage site in Chicora/Cherokee. Adjacent to the Military Magnet school and near the location of the new Chicora/Cherokee Elementary School, the Tank Farm site is currently being considered for a land exchange with the Park South property.

The Tank Farm redevelopment concept proposed includes the development of the full 22.5 acres on site into open space and recreation - what could be the LAMC community's "central park." This purely recreational option is designed to provide multiple sporting opportunities, complementing the adjacent schools and the more passive park opportunities offered through the Stromboli Avenue Corridor redevelopment concept. (Combined, the Tank Farm and Stromboli sites would produce around 27 acres of park space if developed as proposed.) The concept includes a running track and football field (of the magnitude found at high schools), two baseball diamonds, three junior sized soccer fields and several basketball and tennis courts.

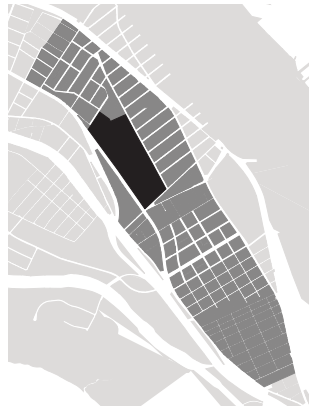
While other development options for the Tank Farm were considered through the course of the planning process, this alternative composed entirely of open space and recreation opportunities was the sole option brought forward as market analysis has determined that housing should be focused in Model Block and redevelopment areas. This

will help ensure that all housing units projected to be developed in the area are absorbed. Additionally, due to the lack of green space in the LAMC study area, it is appropriate to dedicate the Tank Farm land to creating a focal-point public amenity.

Figure 5.16 Chicora Tank Farm Concept



Key Map



Tank Farm Program

Baseball Field:	(2) 270' Radius
Football Field:	(1) 360'x160'
Running Track:	(1) 400 Meter
Basketball Courts:	(4) 84'x50'
Tennis Courts:	(8) 78'x36'
Soccer Field:	(1) 150'x240'
Total Park Acres:	22.5 acres

5.1.5 Neighborhood Commercial Corridor along Rivers Avenue

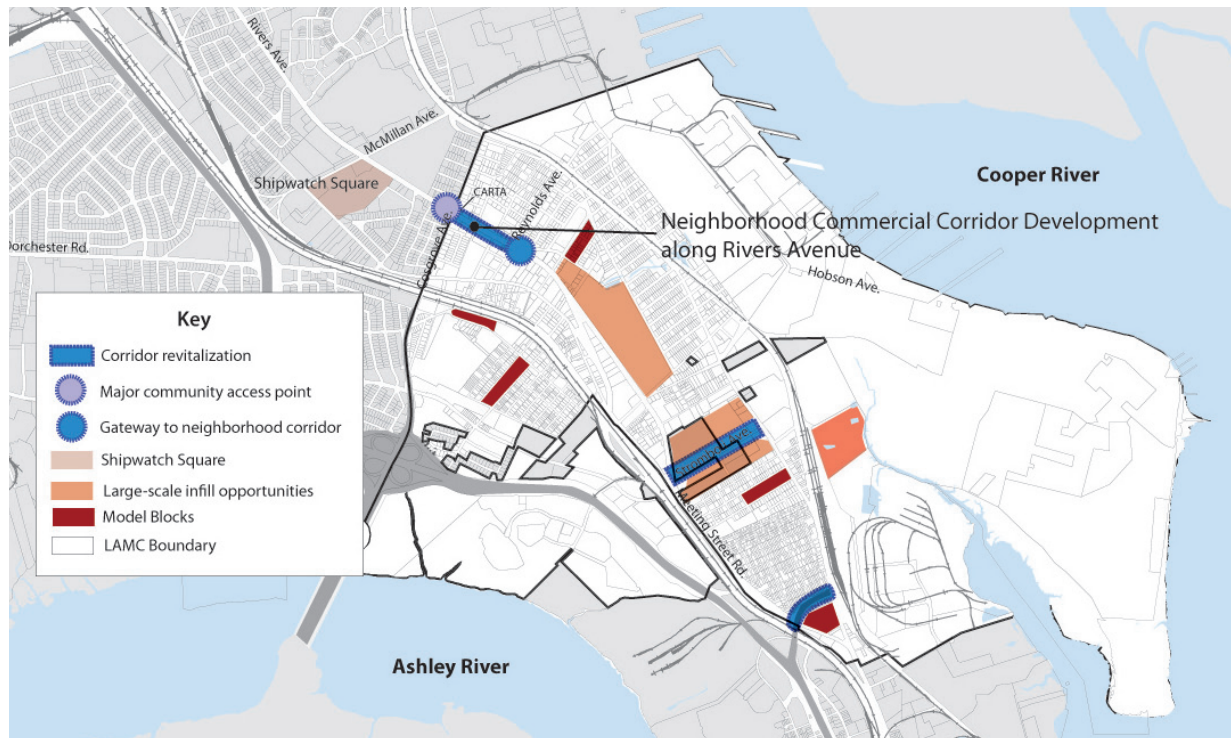
The possibility exists to create a small commercial corridor along Rivers Avenue from Cosgrove Avenue to Reynolds Avenue to complement the larger-scale retail uses appropriate for nearby Shipwatch Square (see Section 5.4 Economic Development Projects, page 150, for details). It is proposed that local retail development front both sides of Rivers and that nodes be created at gateway locations at the intersections with Cosgrove and Reynolds.

While opportunities for infill are limited at the intersection of Cosgrove and Rivers, greater opportunity for new development exists at Reynolds and Rivers, where more vacant properties appear to exist. It is important to note that redevelopment efforts should respect existing businesses while increasing the development intensity along Rivers. Some infill development will likely be appropriate, however, particularly given that the existing commercial uses have a surplus of parking. Further studies should be undertaken to understand precise occupancy along this corridor as well as building conditions to understand the type of commercial tenants which may be attracted to these spaces.

Developing a small commercial corridor at this location will also enhance the sense of arrival into the LAMC community. The intersection of Rivers and Cosgrove is an important gateway for the southern LAMC neighborhoods, with the potential to become a strong retail and transit hub. Currently, the churches on the west side of the street, particularly the Cherokee Place United Methodist Church at the southwest corner of the intersection, are prominent from the north along Rivers and from the east along Cosgrove, drawing attention to the intersection architecturally. The CARTA SuperStop at the southeast corner, however, is less readily noticeable, and it is easy to travel past without noting this important community resource.

The concept plan for this site is intended to draw attention to the gateway, particularly the corner of the intersection containing the CARTA SuperStop where infill development efforts can be encouraged. The north façade of the CARTA station should be enhanced with more prominent signage (signage currently only faces the southwest). There is potential for the corner of Cosgrove and Rivers where the CARTA SuperStop is located to develop into a key location for the southern LAMC neighborhoods’ retail uses and a transit hub, to provide an alternative to bigger “box” development more appropriate for the Shipwatch Square area at Rivers and McMillan.

Figure 5.17 Rivers Avenue Neighborhood Commercial Corridor



Recommended Regulatory Tools

Regulatory tools can help bring forward change along Rivers Avenue and other future commercial areas by providing a framework for consistent, aesthetically-pleasing, and economically beneficial development. The recommended regulatory tools for commercial districts are summarized below (see Section 6.3.2, page 174 for details):

- **Neighborhood Overlay District Designation or Corridor Overlays** - For commercial districts, design guidelines and overlays have been instrumental in revitalizing sections of cities across the nation, with examples including Chattanooga, Birmingham, and of course the City of Charleston. Overlays can not only guide design but can also help pre-select development in the area, as only developers who are amenable to adhering to the commercial district's vision will seek to build their businesses there. Overlays additionally give developers confidence to invest as they know others wishing to develop in the neighborhoods will be bound by the same guidelines. Overlays in commercial districts can also help catalyze revitalization by encouraging coherent storefront facade renovation (which can be facilitated through financial support in the form of rebates and grants). Design guidelines can be established through the overlays so that redevelopment occurs in concert with the vision for the area. Consistent styles also help brand districts as destinations. The Ford Foundation, the International Downtown Association, and the Urban Land Institute, among others, have advanced initiatives and documented the relationship between design guidelines and improved economic activity as part of neighborhood and commercial revitalization programs.
- **Sidewalk Ordinance** - The City of North Charleston does not currently require the installation of sidewalks. It is recommended that all new planned developments should be required to install sidewalks to help make a complete pedestrian network for the LAMC community. This is particularly important to promote connectivity, healthy living, and pedestrian safety - and because many residents within the City do not own or have access to a personal vehicle. Considerations regarding sidewalk safety and aesthetics (such as required widths and the incorporation of planting strips) should be factored into the ordinance.

5.1.6 Incinerator Site Development

The closing of the Montenay Incinerator provides a robust opportunity for LAMC to explore land banking for uses that complement the residential, commercial and retail related uses that occur within the neighborhood areas. The impending closure of the Montenay Incinerator will pose both a unique opportunity and a challenge to the City of North Charleston, the LAMC community, and local environmental agencies. Given the site's proximity to the waterfront and its potential connection to future trails along Shipyard Creek and Tidewater Road, the proper redevelopment of the property could allow for the establishment of a key activity center within the southern LAMC area. However, on the same token of its proximity to Waters of the State, much care must be taken during the decommissioning and demolition/recycling of the facility to prevent the release of potentially hazardous materials caused by two decades of solid waste processing. The details of the closure process and the parties responsible for any necessary remediation will largely depend on the terms of the facility's closure and the financial status of the owner/operator at the time. SCDHEC will typically and most likely require the owner/operator to demolish/recycle the structure and return the site to a favorable condition under the terms of its current operating permit. However, should the owner default on the terms or file bankruptcy, the project may end up in brownfield status. The developer would need to address the condition of the incinerator site to determine the extent to which remediation is required.

Depending on that status, a range of uses could be projected for the land that are compatible with the development goals for the LAMC community. This determination could be made through a Targeted Brownfield Assessment, which would encompass understanding the incinerator site's potential for re-use; the best strategy to accomplish that goal in terms of public, private, and not-for profit development; and a timeline over which the site preparation could realistically be scheduled.

Given the proximity of the Incinerator site to the Port, Spruill Avenue, and the proposed new access to I-26, it is reasonable that this site could be looked at for future development for a light industrial use for businesses that would capitalize on the Port's proximity. Under a brownfield redevelopment strategy, a public-private partnership would be the best means of approaching any redevelopment opportunity combining the city, a not-for-profit, and a private developer for the final outcome. The degree to which each party is involved in the site assessment, the redevelopment, and the transaction will be a factor of both the market at the time of assessment and the degree to which remediation needs to occur.

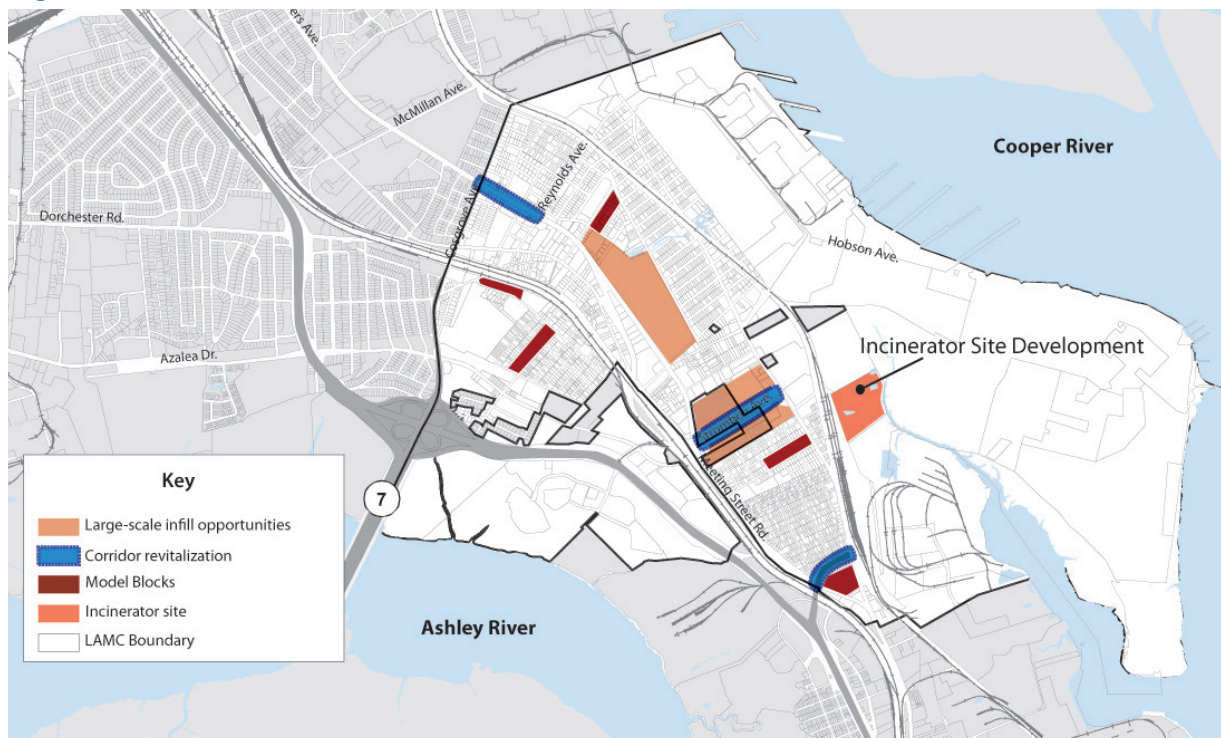
From the outset, it appears the best option would be for a labor-intensive business to take over the site that could source from the community and, perhaps, link with both the potential Maritime Training Institute (described on page 140) and the incubation business center, proposed to be housed at the former GEX facility in the Stromboli

Avenue Corridor development. The size and location of the Incinerator site lends itself to a service or distribution-based development. The type of sustainable business that could be placed on the Incinerator site can range from an industry-type model like the sustainable manufacturer Interface™ to a more agriculturally-based green business for horticulture or urban forestry.

Given the history of the site and the burgeoning market for environmentally-oriented technologies, the Revitalization Plan recommends that a “green” industry be sought as the first round of development at this site. In addition to capturing an industry segment that is showing long-range growth, such an investment would signal a “new day” in the LAMC community as a counterpoint to the challenges of environmental justice it has had to overcome. Ultimately, the goal should be for a business model which employs local residents while providing an exportable product to a broad geographic market.

It would be preferable to keep the site under one master development initially to guide the investment in infrastructure to place the site on the market, but also as a means of implementing other practices that enhance the success of an industrial site in this urban setting, such as standards for architectural review and a focused marketing effort to recruit the appropriate businesses to the site.

Figure 5.18 Incinerator Site



“Green” industry potential on the Incinerator site

5.2 NETWORK IMPROVEMENTS

A well-connected transportation network is vital to revitalization efforts in the LAMC area. A network that provides connections within and between communities and connections that reach out to the region will enhance the long-term viability of the area. Offering a diverse network that embraces a variety of modes (rather than relying on just the automobile) will provide affordable transportation choices and opportunities for citizens. Safe, efficient, livable, multimodal transportation is achievable.

The basic grid-like structure of the neighborhoods that make up the LAMC area should be capitalized on and expanded where possible. Shorter block lengths encourage biking and walking. Increasing options, both of methods for travel and of routes to take, will help to decrease congestion and increase livability. A “complete streets” philosophy should be advanced by LAMC to promote streets that accommodate all available modes of travel – automobiles, walking, bicycling, and transit. Specific recommendations for the individual components of the network are outlined below, and an overview of recommended improvements is shown in Figure 5.20.



Improvements along Rivers Avenue are recommended

5.2.1 Network Connectivity

Maintaining and enhancing the functionality of the street network within the LAMC area will rely heavily on making the most efficient use of the network that currently exists. Although the South Carolina Department of Transportation (SCDOT) will be making substantial capital investments in new roadway infrastructure in the area, such large-scale improvements are not the norm in today’s economic climate. More common will be smaller connections and linkages within the existing system that have a much more modest cost.

SCDOT Improvements

As illustrated on the facing page in Figure 5.19, SCDOT improvements associated with the development of the marine container terminal (and mitigation of its impacts) will include:

- A new Access Roadway connecting the Port to I-26.
- A new local access boulevard connecting local streets to the Access Roadway and I-26.
- Widening, extending, and streetscape enhancement of Stromboli Avenue.
- Streetscape enhancements to portions of Carner and Spruill Avenues.

Additional Connectivity

Opportunities for improving the connectivity of the street network are limited without substantial right-of-way acquisition and the demolition of existing structures. However, the Stromboli Avenue Corridor redevelopment area (discussed earlier in this section) does offer a quality prospect for establishing additional connectivity. Additionally, the bicycle and pedestrian network links many community facilities and activity centers, as illustrated in Figure 5.20 on page 107.

With the implementation of the Port Access Roadway, the existing I-26 ramps for Exit 218 in the vicinity of Irving Avenue will be removed. The SCDOT has indicated that the land that remains will revert to the City of North Charleston. This presents another opportunity for local street connectivity. It is recommended that Cosmopolitan Street be reconnected as part of the infill development that is outlined as part of the Spur Block development (described on page 86).

Figure 5.19 New Streets



5.2.2 Corridor Improvements

Major Corridors

Recommended improvements have been developed for four major corridors within the LAMC area: Cosgrove Avenue, McMillan Avenue, Rivers Avenue, and Spruill Avenue. Within the confines of the existing road widths of each of these streets (with the exception of Spruill Avenue), a program of improvements has been crafted to maintain vehicular mobility, enhance pedestrian access and safety, facilitate bicycle travel, and improve general streetscape appearance. Residents' specific desires for wider sidewalks, more street furniture (i.e. items such as benches), and more trees were incorporated into the concepts. Street trees are recommended to be provided where right-of-way allows to develop a system of "green streets." Local species should be planted so that they can be maintained with minimal upkeep. These should be spaced to adequately allow for parking.

Although the recommendations below conform with generally accepted Level of Service criteria, these improvements are conceptual in nature and should be tested through proper traffic analysis prior to their advancement. Improvements are outlined below and depicted graphically in the accompanying conceptual cross sections on the fold-outs (pages 108-109) which follow.

Neighborhood Streets

Most neighborhood streets within the study area are narrow and challenging for two-way traffic. However, the narrow pavement width acts as a passive form of traffic calming, requiring oncoming vehicles to negotiate the roadway with care. It is not recommended to convert such streets to one-way because then these streets would feel extremely wide to the driver and higher vehicle speeds would result. With lower posted speed limits and lesser traffic volumes, these streets should be capable of continuing to handle two-way traffic. Where possible, it is recommended that curb and gutter and sidewalks be implemented in coordination with drainage and utility improvements when they occur.

5.2.3 Intersection Improvements

As part of the SCDOT roadway improvements associated with the new marine container terminal, eight intersections will receive enhancements to improve their levels of service. Four of these intersections can be classified as key intersections with the LAMC area:

- Spruill Avenue at Stromboli Avenue.
- Carner Avenue at Stromboli Avenue.
- Spruill Avenue at Meeting Street Road.
- Spruill Avenue at Viaduct Road.

Detailed improvement plans for each of these intersections are depicted graphically in the accompanying concept drawings. These improvements are conceptual in nature and should be tested through proper traffic analysis prior to their advancement. Although these improvements are specific to the intersections listed above, the basic design elements could be applied to any intersection improvement project within the LAMC area. As integral elements to the Stromboli Avenue Corridor redevelopment concept, the intersections of Spruill and Stromboli and Carner at Stromboli are described above on pages 95-96. Improvement components for the remaining intersections (Sпруill and Meeting Street Road and Spruill and Viaduct Road) are outlined below and illustrated on subsequent pages.

Sпруill Avenue at Meeting Street Road (Intersection #6 on Figure 5.19, page 105)

The program of improvements for the intersection of Spruill Avenue and Meeting Street would include:

- Implementation of enhanced striping crosswalks at the crossings of Spruill Avenue north of Meeting Street Road, Meeting Street Road south of Tuxbury Lane, and Tuxbury Lane.
- Actuated countdown pedestrian signals.
- Installation of ADA compliant ramps at all surface transitions.
- Planting of street trees and landscaping along right-of-way and adjacent private property via easement agreements.
- Installation of traffic signal mastarms and decorative pedestrian-scale lighting.
- Installation of bus stop with shelter at corner of Spruill Avenue and Meeting Street Road.
- Construction of bus pullout with shelter on east side of Spruill Avenue north of Tuxbury Lane.
- Construction of bus pullout with shelter on west side of Meeting Street Road south of Tuxbury Lane.

Sпруill Avenue at Viaduct Road (Intersection #7 on Figure 5.19, page 105)

The program of improvements for the intersection of Spruill Avenue and Viaduct Road would include:

- Implementation of enhanced striping crosswalks at the crossings of Spruill Avenue south of Burton Lane, Viaduct Road, and Burton Lane.
- Actuated countdown pedestrian signals.
- Installation of ADA compliant ramps at all surface transitions.
- Planting of street trees and landscaping along right-of-way and adjacent private property via easement agreements.
- Installation of traffic signal mastarms and decorative pedestrian-scale lighting.

Figure 5.20 Network Improvements: Summary

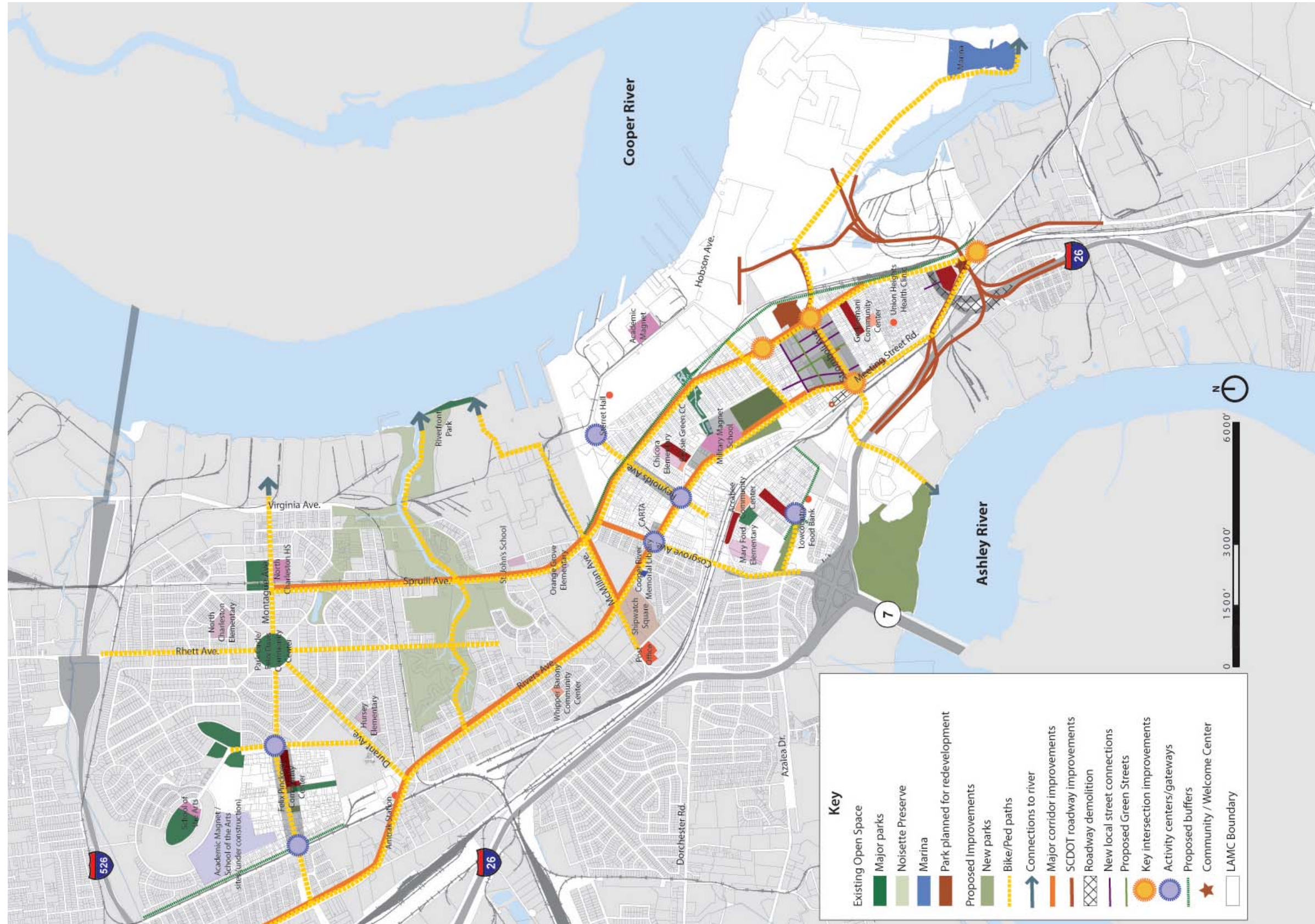
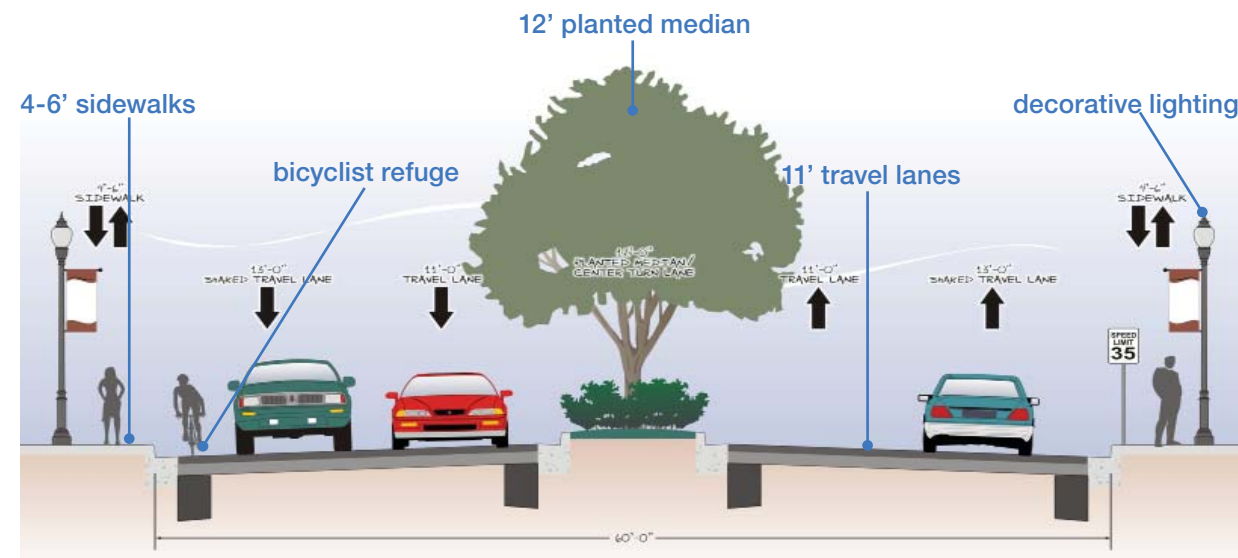


Figure 5.21 Corridor Improvements: Cosgrove & McMillan

Cosgrove Avenue Corridor Improvements

The existing road width of Cosgrove Avenue is 60 feet. Individual components of the existing cross section are four 12-foot travel lanes (two in each direction), a 4-foot raised concrete median, and 8-foot left turn lane. The program of improvements for Cosgrove Avenue would include (see rendered cross section):

- Design speed of 45 mph and posted operational speed of 35 mph
- Narrowing of the inside travel lanes from 12 feet to 11 feet
- Widening of the outside travel lanes from 12 feet to 13 feet to provide additional pavement width for bicyclist refuge
- Replace concrete median and 8-foot turn lane with 12-foot planted median and center turn lane were appropriate
- Installation of decorative pedestrian scale lighting



McMillan Avenue Corridor Improvements

The existing road width of McMillan Avenue is 68 feet. Individual components of the existing cross section are four travel lanes (two in each direction) with inconsistent widths but averaging roughly 13 feet each, a 11-foot left turn lane, and a 4-foot sloped paved area (in lieu of a curb and gutter) adjacent to the sidewalk. The program of improvements for McMillan Avenue would include:

- Design speed of 45 mph and posted operational speed of 35 mph
- Installation of curb and gutter in place of sloped pavement
- Narrowing of the inside travel lanes from 14 feet to 11 feet
- Narrowing of outside travel lanes from 12 and 13 feet to 11 feet
- Installation of a 12-foot center turn lane/planted median
- Striping of a 6-foot bike lane on each side of the roadway
- Installation of decorative pedestrian scale lighting

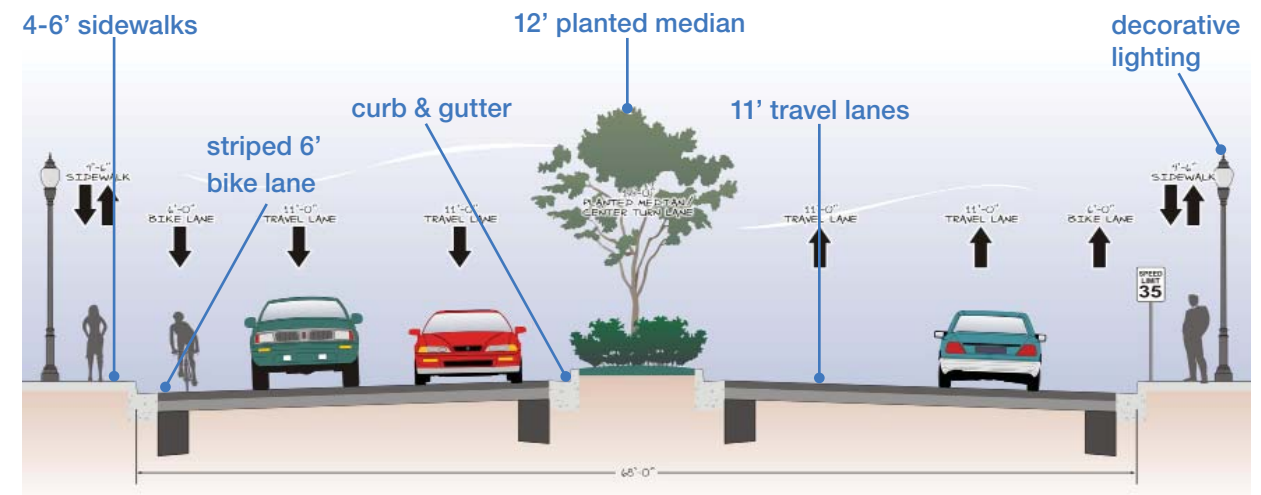
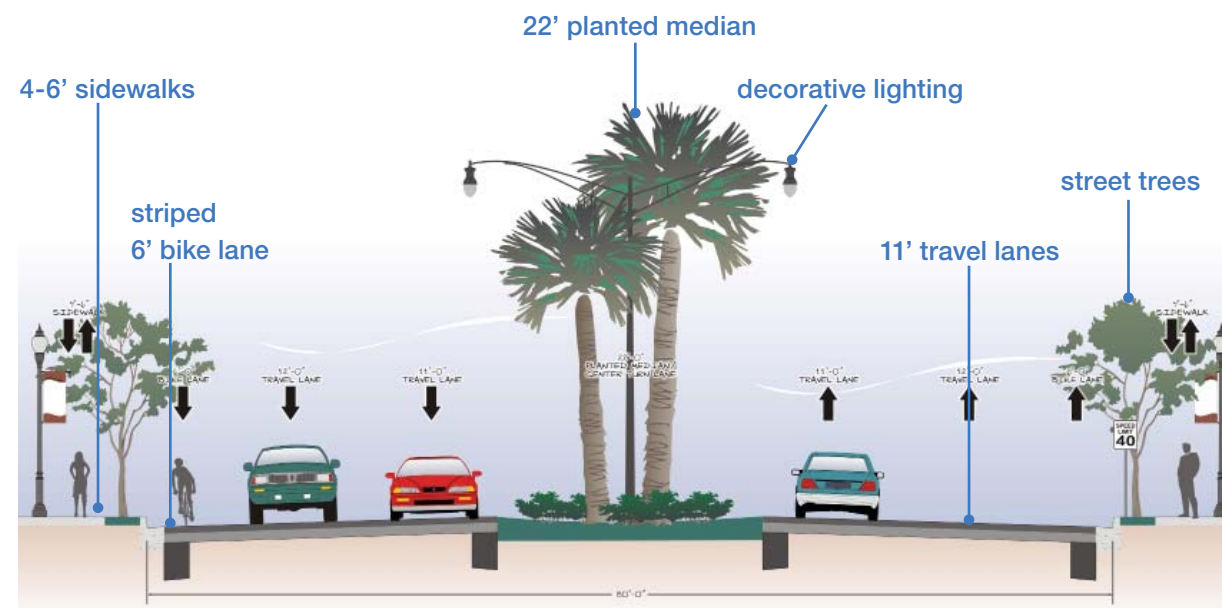


Figure 5.22 Corridor Improvements: Rivers & Spruill

Rivers Avenue Corridor Improvements

The existing road width of Rivers Avenue is 80 feet. Individual components of the existing cross section are four travel lanes (two in each direction). Inside travel lanes average 13 feet, while outside travel lanes average 20 feet. A 14-foot center turn lane also exists. The program of improvements for Rivers Avenue would include:

- Design speed of 50 mph and posted operational speed of 40 mph
- Narrowing of the inside travel lanes from 13 and 14 feet to 11 feet
- Narrowing of outside travel lanes from 19 and 20 feet to 12 feet
- Striping of a 6-foot bike lane on each side of the roadway
- Installation of a 22-foot planted median with left turn lanes where applicable
- Planting of street trees in the grassy parkway area between the curb and sidewalk
- Installation of decorative overhead lighting within planted median



Spruill Avenue Corridor Improvements

The existing road width of Spruill Avenue is 42 feet. Individual components of the existing cross section are four substandard 8-foot travel lanes (two in each direction) and a 10-foot center turn lane. As part of roadway improvements for the Marine Container Terminal, SCDOT plans to expand the right-of-way of Spruill Avenue to 100 feet. This additional right-of-way will allow for increased vehicular mobility while also providing an enhanced environment for bicyclists and pedestrians. Specific elements of the program of improvements for Spruill Avenue would include (see rendered cross section):

- Design speed of 50 mph and posted operational speed of 40 mph
- Two 11-foot travel lanes in each direction (total of 4 travel lanes)
- A 6-foot bike lane on each side of the roadway
- 12-foot planted median and center turn lane where appropriate
- Installation of high-mast decorative lighting
- 8-foot sidewalk behind parkway with street trees on each side of the road
- Seatwalls with planter boxes
- Installation of decorative pedestrian scale lighting

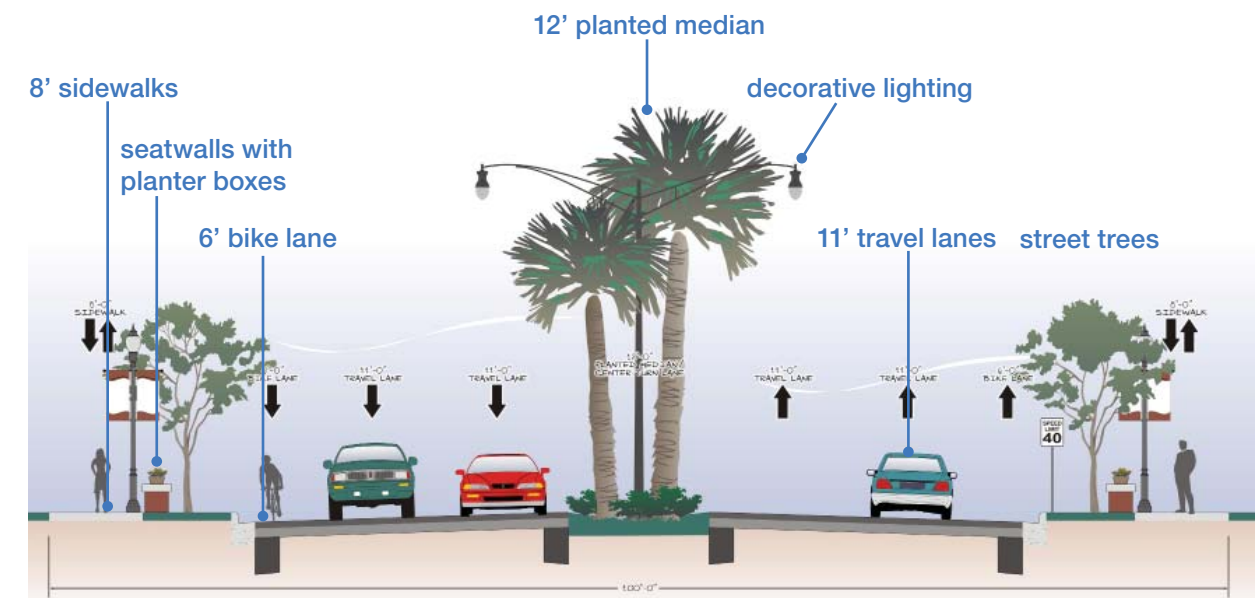
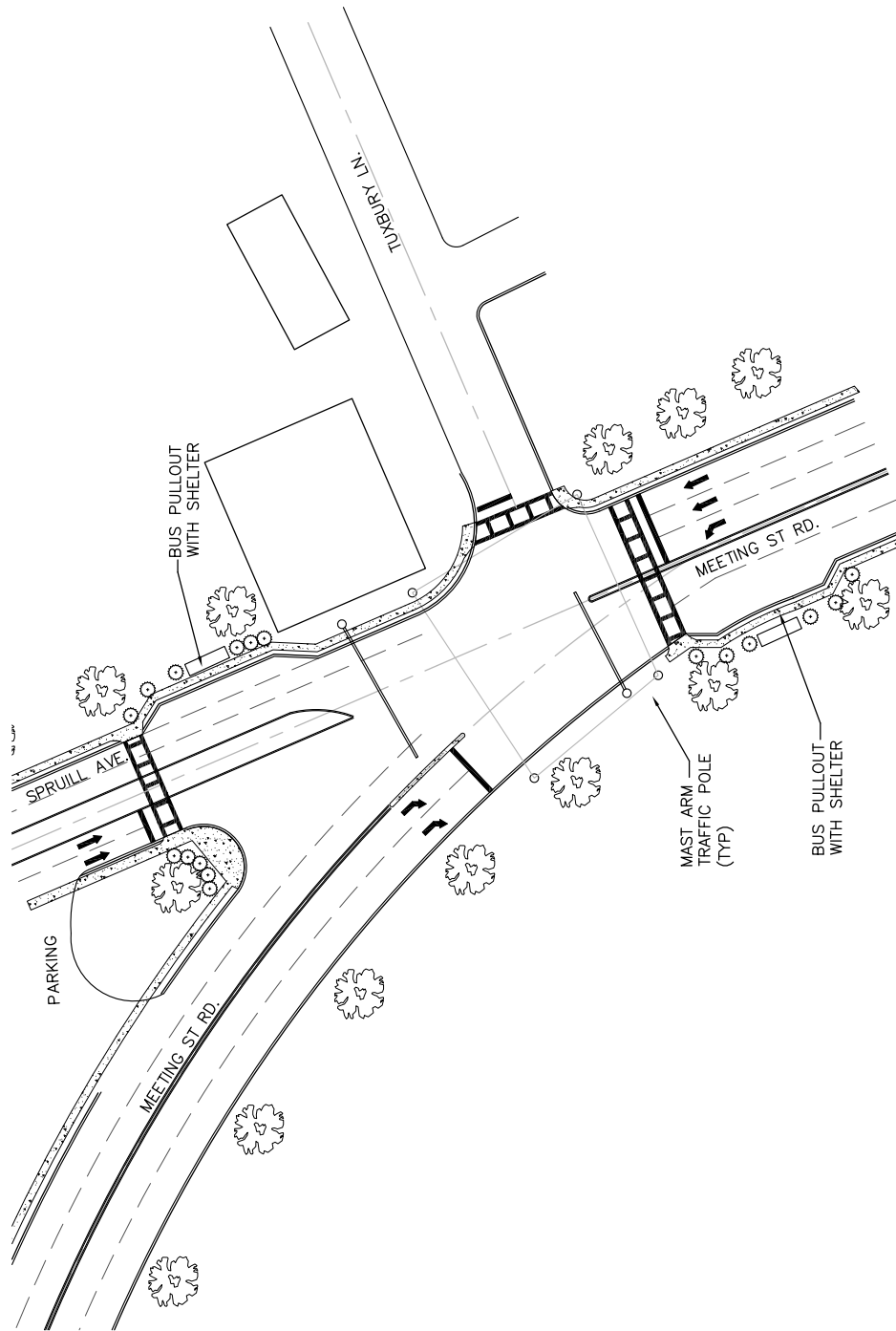


Figure 5.23 Intersection Improvements: Spruill Avenue & Meeting Street



LAMC REVITALIZATION PLAN
 INTERSECTION OF SPRUILL AVE. & MEETING ST.
 RECOMMENDED IMPROVEMENTS

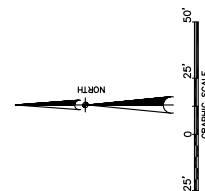
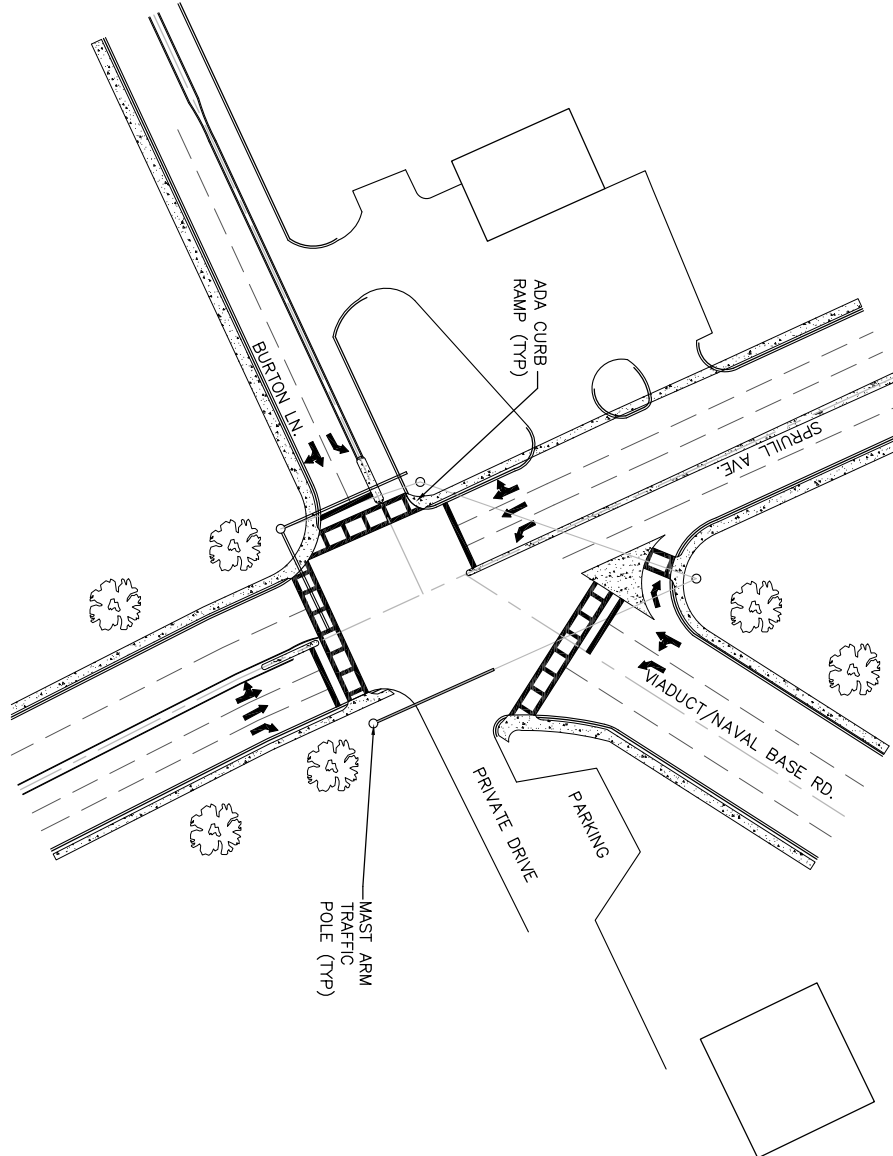
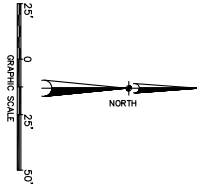


Figure 5.24 Intersection Improvements: Spruill Avenue & Viaduct Road



LAMC REVITALIZATION PLAN
 INTERSECTION OF SPRUILL AVE. & VIADUCT RD.
 RECOMMENDED IMPROVEMENTS

5.0 Redevelopment Priorities

To provide additional protection and shorten crossing distances, refuge islands should be installed where right-of-way permits. These would be used in conjunction with crosswalks. Such islands allow pedestrians and bicyclists to stop partially through their crossing and are particularly helpful when crossing distances are long or the mobility of the pedestrian is less than ideal. Refuge islands can be integrated into planted medians and raised concrete turn lane channelizations.

Other Planned Intersection and Roadway Improvements

No intersection improvement plans affecting the study area are included in either the SCDOT'S State Transportation Improvement Plan or the Charleston Area Transportation Study (CHATS) Transportation Improvement Plan. It is recommended that LAMC and the City of North Charleston coordinate closely with SCDOT Program Management regarding the incorporation of intersection improvements into the Port Access Roadway Improvements.

5.2.4 Traffic Calming Measures

Given the location of the LAMC community between two major arterials, along with the number of connecting cross roads and the smaller streets and alleys that serve the residential communities, it is appropriate to look at means other than designated speed limits to moderate the movement and pace of traffic coming through the community. Fortunately traffic engineering has advanced means known as "traffic calming" to accommodate the mixing of pedestrians, bicycles and cars in a way that supports the needs of all modes to travel between and through neighborhoods. The purpose of traffic calming is:

- To reduce vehicular speeds.
- To promote safe and pleasant conditions for motorists, bicyclists, pedestrians, and residents.
- To improve the environment and livability of neighborhood streets.
- To improve real and perceived safety for non-motorized users of the streets.
- To discourage use of residential streets by non-citizens' cut-through vehicular traffic.

All of these objectives align with the model community initiatives proposed for the LAMC area.

There are several design elements that can be incorporated into existing and new street design to manage movement within a district or, particularly important for the LAMC area, to moderate the transition between commercial and residential districts. The Revitalization Plan recommends sparing use of any method that places elements within the right-of-way between opposing travel lanes, but would prioritize traffic calming that slows traffic in residential areas and creates a safer pedestrian environment. Such measures include:

- Bulb-outs/neckdowns/chokers.
- Diverters.
- Speed tables/textured pavement/raised crossings.
- Speed humps.
- Bike lanes.
- Chicanes/lateral shifts (curb extensions that alternate from one side of the roadway to the other, forming s-shaped curves).

The intent in using these elements would be to create improved traffic conditions for the community while not changing the community's physical character and path system familiar to residents.



Bulb-outs help slow traffic

Figure 5.25 Cosgrove & Rivers Intersection Before & After

Cosgrove and Rivers Intersection Before Improvements



Cosgrove and Rivers Intersection After Improvements



5.2.5 Maintenance of LAMC Study Area Roadways

Roadways within the LAMC study area are owned and maintained either by the SCDOT or by the City of North Charleston (via the Charleston County Transportation Committee). SCDOT currently owns and maintains the following arterial and collector roadways:

- Dorchester Road (SC-642).
- Rivers Avenue (US-52/78).
- Carner Avenue (US-52).
- Meeting Street Road (US-52/S-39).
- King Street Extension (US-78).
- Spruill Avenue (S-32).
- E. Montague Avenue (S-62).
- Cosgrove Ave (SC-7).
- McMillan Avenue (S-48).

The SCDOT owns and maintains approximately 46,000 centerline-miles of roadway state-wide, which are classified into two distinct categories: roadways eligible for federal aid (on-system roads, ranked on a state-wide basis), and roadways not eligible for federal funds (off-system roads, ranked on a county-wide basis). The following criteria are then used to prioritize non-interstate resurfacing projects: pavement condition (65%), average daily traffic (15%), average daily truck traffic (5%), pavement maintenance costs (5%), and location/significance to the community and local business (10%). Maintenance projects are then categorized into reconstruction, rehabilitation, or preservation. The only project slated for repair in 2009 within the City is Buist Avenue near Park Circle, which is not within the LAMC study area.

The remaining neighborhood streets and minor collectors are owned by the City of North Charleston, whose resurfacing program is administered by the Charleston County Transportation Committee, with construction managed by Charleston County Public Works. Similar to the State's program, maintenance and resurfacing projects are prioritized based on traffic loads, the roadway condition, and the type and cost of the repairs required. LAMC area roadways on the Fiscal Year 2008 resurfacing list included: Arapahoe Street, Creighton Street, Lenape Street, and Victory Avenue.

Unless an agreement between the SCDOT and the City of North Charleston is established prior to letting of the Port Access Roadway improvements (including Stromboli Avenue) dictating otherwise, these additions will be built to SCDOT standards and will remain under the ownership and maintenance of the SCDOT.

5.2.6 Rail Recommendations

Site Specific Recommendations

Provisions have been made within the Memorandum of Understanding and Agreement (MOU&A) between the State Ports Authority (SPA) and the City of North Charleston, as well as within the Mitigation Plan portion of the Environmental Impact Statement (EIS), in order to mitigate the impacts of increased rail traffic on North Charleston's roadway network. The MOU&A and the EIS call for highway and rail intersection improvements at the following crossings, which are shown on Figures 5.26 and 5.27 (pages 117-118):

1. Grade separation at the Rivers Avenue and Norfolk Southern line crossing near Harley Avenue.
2. Grade separation at the N. Rhett Avenue and CSX line crossing near I-526.
3. Grade separation at the Rivers Avenue and CSX line crossing near Durant Road.
4. Gate and Signal Installation at the E. Montague Avenue and CSX line crossing.
5. Gate and Signal Installation at the Dorchester Road and CSX and Norfolk Southern lines crossing.
6. Gate and Signal Installation at the Accabee Road and CSX and Norfolk Southern lines crossing.

7. Gate and Signal Installation at the Misroon Street and CSX and Norfolk Southern lines crossing.
8. Gate and Signal Installation at the Hackemann Avenue (unnamed Meeting Street Road – King Street connector road) and CSX and Norfolk Southern lines crossing.
9. Gate and Signal Installation at the Discher Street and CSX line crossing, which also corresponds to King Street.

While these improvements will not affect the amount of train traffic at LAMC area at-grade crossings, the implementation of these safety devices is a direct benefit to the area's roadway users. LAMC's Mitigation Action Committee should begin coordination with their local SCDOT Program Manager and the State Ports Authority as soon as reasonably possible in order to determine the best avenue to take in implementing these improvements, as any endeavors undertaken with private railroad companies (much less with multiple railroad companies) can tend to be a drawn out process.

In addition to these improvements, it is recommended that LAMC and the City of North Charleston concurrently pursue the incorporation of Quiet Zones where new safety equipment is being implemented in order to minimize noise impacts caused by train horns approaching at-grade intersections. The implementation of Quiet Zones should be administered through the public highway authority (SCDOT), who will in turn coordinate efforts with the line owners, the Federal Rail Administration, and possibly South Carolina Public Railways (SCPR), who serve as rail advisors to the South Carolina Department of Commerce, and often serve as an intermediary when corresponding with private rail lines.

5.2.7 Transit Recommendations

A reliable and efficient transit system is of paramount importance to the LAMC area. Transit provides linkages within the immediate vicinity and to regional destinations that would otherwise be inaccessible to those who prefer not to drive, have limited financial resources for the purchase of gas and vehicle maintenance, or do not have access to an automobile. With the realization of the new Intermodal Center and the development of destinations within the study area, transit will become an important linkage for bringing people from throughout the region to the LAMC area to shop, work, dine, and play.

The existing transit route network services the LAMC area well. Most of the population within the study area is within an acceptable walking distance (less than one mile) of available routes. However, the time a user has to wait between the arrivals of buses at a particular stop (headway) is much greater than the accepted optimal standard (15-30 minutes) for local routes.

With the creation of destinations in at the intersection of Rivers and Reynolds and in the Stromboli area, it will be important to address the need for transit stops in close proximity. Individuals and families from adjacent areas will desire to visit these corridors and convenient and safe transit access will be of great importance. To this end, it is recommended that new stops along existing routes be located as follows (see Figure 5.28 Public Transit Routes & Proposed Stops map on page 119):

- **Route 11** – In the vicinity of the intersection of Spruill and Stromboli Avenues
- **Route 102** – In the vicinity of the intersection of Rivers and Reynolds Avenues
- **Route 102** – In the vicinity of the intersection of Carner and Stromboli Avenues

The addition of stops on an existing route will have a ripple effect on that entire route. Likewise, the adjustment of headways will also affect the entire route and potentially the entire system. With this in mind, the exact location and schedule/headway structure of the recommend new stops should be determined as part of a larger system-wide study. Transit providers typically perform operations analyses and scheduling studies on a periodic basis to ensure that the system is functioning at its greatest efficiency and providing an optimal level of service to its customers. It is recommended that these new stops be evaluated



The CARTA SuperStop, where several bus routes converge

Figure 5.26 Rail Recommendations North

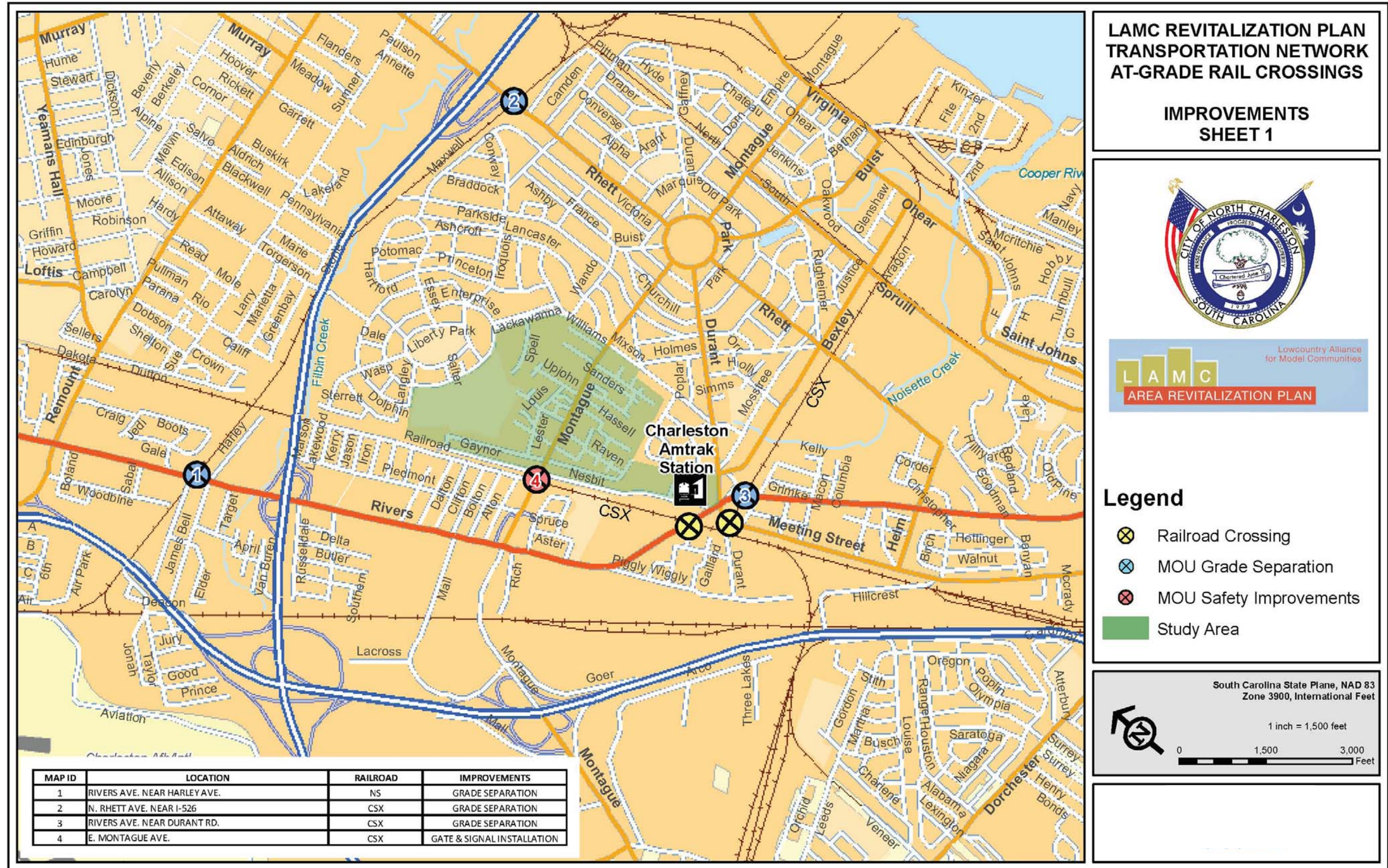
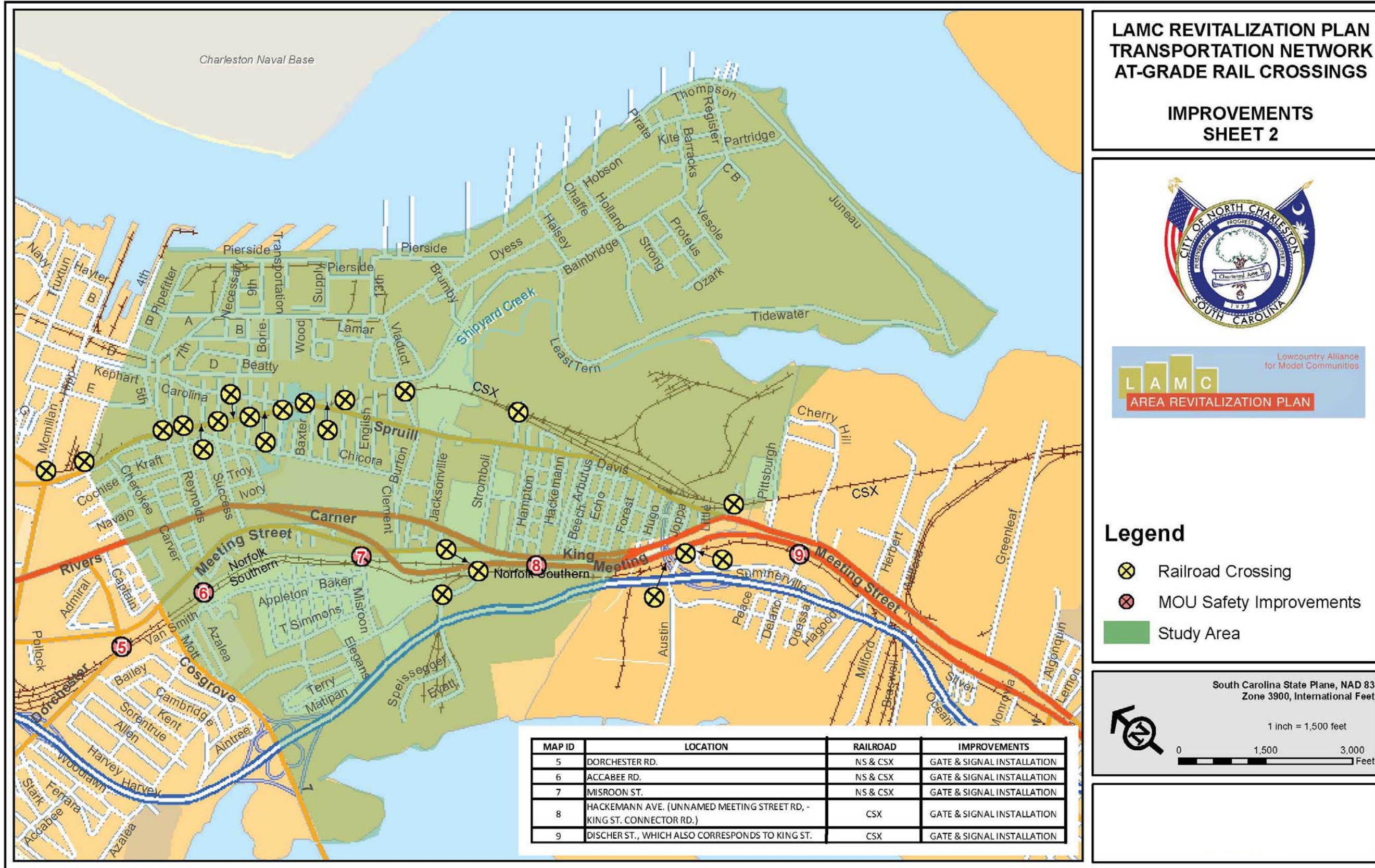


Figure 5.27 Rail Recommendations South



LAMC REVITALIZATION PLAN
TRANSPORTATION NETWORK
AT-GRADE RAIL CROSSINGS

IMPROVEMENTS
SHEET 2



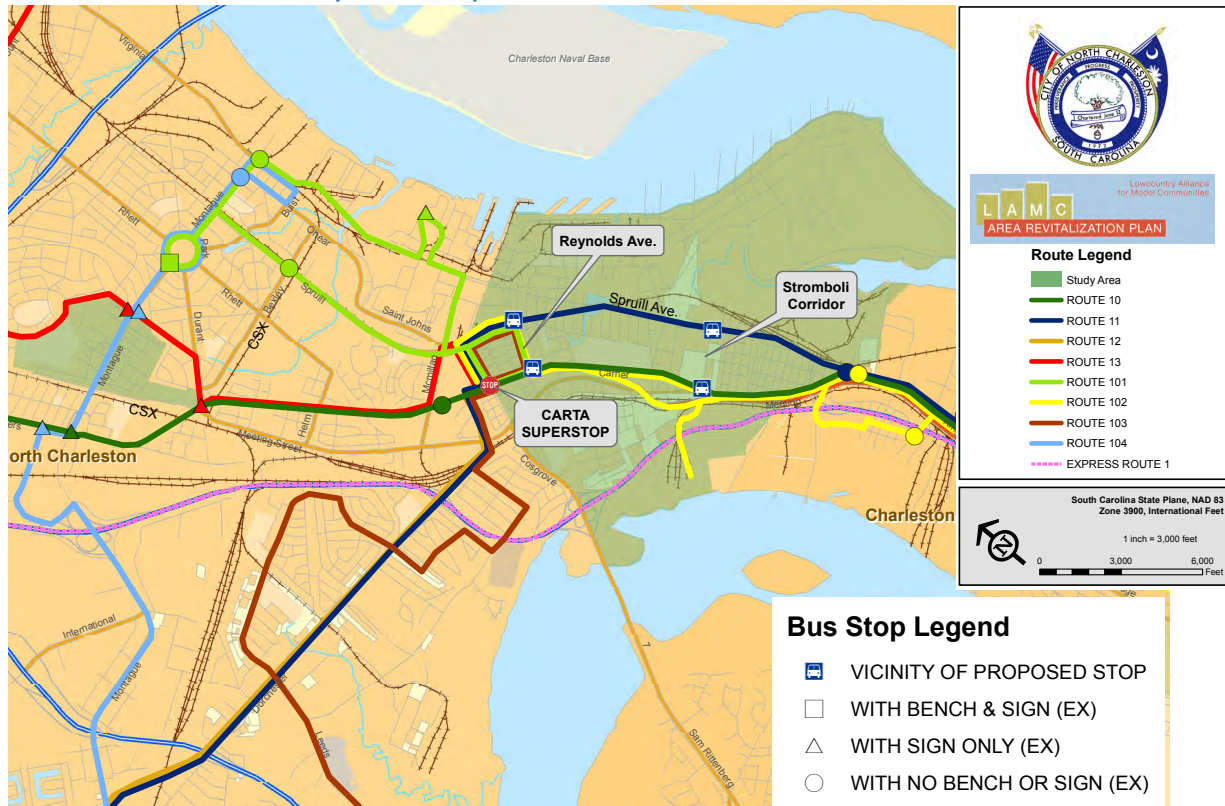
Legend

- Railroad Crossing
- MOU Safety Improvements
- Study Area

South Carolina State Plane, NAD 83
Zone 3900, International Feet

1 inch = 1,500 feet

5.28 Public Transit & Proposed Stops



and programmed into the system during CARTA's next scheduled operations analysis. It is also recommended that the reduction of headways at all stops in the LAMC area be examined as part of the next operations analysis. Priority for headway improvement should be given to those routes that currently have 60 minute headways (Routes 11, 12, 13, 102, 103, and 104).

A series of bus stop improvements are also recommended for the LAMC area (these could also be recommended for the system as a whole). All improvements should be carefully coordinated with CARTA to ensure that they are in keeping with the Authority's overall policy goals and objectives. Bus stop recommendations are as follows:

- Install highly visible, uniform bus stop signs at all scheduled stop locations.
- Ensure that adequate approach sidewalks, security lighting, and trash receptacles are provided and maintained at all stops.
- Locate bus stops on the far side of intersections where feasible.
- Install shelters with benches at stops that have significant boardings/alightings, or are located in and around transit ridership generators (i.e., grocery stores, convenience stores, pharmacies, etc.).
- Construct bus bays/pullouts at key locations where boardings/alightings warrant.

Fare Structure

Given that many of LAMC neighborhood residents depend upon public transit as a means for commuting to work, going to the grocery store, visiting nearby friends and family, or attending meetings such as community-involvement events or parent-teacher conferences, compounding bus fares for multiple trips per day can begin to take their toll on a family's budget. To this end, a monthly fare card is offered; it is recommended that this structure should be maintained. Further, with this understanding CARTA offers Low Income Discount Fares for those who qualify. The Low Income Fare Determination Office is located at the Trident One Stop Career Center located at 1930 Hanahan Road, North Charleston, SC 29406.

The Federal Transit Administration (FTA) does provide guidance regarding fare increases to transit agencies serving large urbanized areas with diverse ridership. FTA states that agencies "shall evaluate significant system-wide service

and fare changes and proposed improvements at the planning and programming stages to determine whether these changes have a discriminatory impact” (FTA Circular 4702.1A, Chapter V, part 4). Additionally, FTA has developed a self-assessment that providers should utilize to ask themselves a series of key questions to more fully understand the implications of fare changes on their ridership.

In order to ensure that the quality of CARTA service and the upkeep of its amenities is maintained without the burden of increased fares, especially to low-income riders, the City of North Charleston and LAMC members should seek opportunities to offer input during CARTA service studies and fare evaluations. The City and LAMC should also ensure the public is aware of opportunities given by CARTA for riders to offer their input or express concern about conditions of the transit routes and facilities that affect their daily lives and to inform CARTA of the importance of their service to the community. In the event that fare increases are unavoidable in order to maintain an acceptable level of service, CARTA can utilize the following techniques to minimize the impact on its riders:

- Use the FTA’s “Service and Fare Change Equity Self-Assessment” to provide insight on the equity of such increases.
- Phase in fare increases periodically (e.g., a small increase every two years), rather than having less frequent but much larger increases (e.g., significant increases every 10 years).
- When a fare increase is announced, allow riders to purchase a one-year pass at the previous fare level.
- Delay or defer fare increases for paratransit/dial-a-ride customers.

Transit and Development

Over the past two decades the momentum to introduce transit into more urban service areas as a means to manage sprawl, reduce commute time, improve air quality, and collocate land uses has picked up sufficient pace and fostered numerous successes. As a category, developments that are based on these benefits from transit systems are referred to as Transit Oriented Development (TOD). LAMC does not yet have a project that per se qualifies under a TOD definition, but there are several strong strategies that apply to the revitalization plan and should be considered as development occurs, particularly where transit service is already in place and where other investment opportunities would coincide. The intersection of Rivers and Cosgrove, cited as a gateway area, should be looked at in light of the CARTA bus station and the opportunity to concentrate commercial development near that location.

Some of the most applicable transit related development principles for LAMC’s consideration include:

- Proximity to transit.
- Mixed-uses in immediate developments.
- Accommodation of Multiple Modes of Travel in addition to the transit provision.
- Accommodation of public common space.
- Located within 2,000 feet of multiple land uses that support the high utilization of the transit option during most hours of operation.

While the CARTA location at Rivers and Cosgrove comes immediately to mind under this definition as an opportunity to apply these principles in service and development, LAMC should look at all transit and transportation opportunities to encourage the synergy between land development and transit use. This linkage is always present and the opportunity is realized when the plan acknowledges future opportunities for transit and land use to act symbiotically. Under any discussion of regional passenger bus or train system, LAMC should look for the chance to increase the density and range of development to use these systems as the economic and community stabilizers that they have so effectively been across the country.

5.2.8 Stormwater Infrastructure

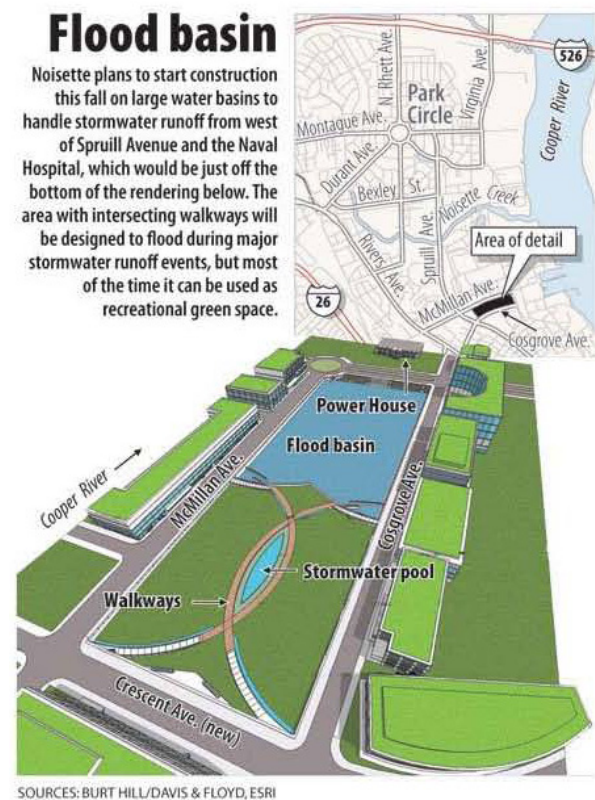
Given the environmental basis upon which the LAMC revitalization plan was started, any responsible plan must consider the impact that infrastructure has on the sustainability of the community. Even once the most adverse impacts of Brownfield and identified contaminant have been addressed, it is critical to plan and design the functional infrastructure for storm water management and streets in a way that add to the overall health and engagement of the community in the rich landscape of neighborhood, creeks and riverfront that define the community.

It has been previously explained that the City of North Charleston and the LAMC neighborhoods experience problems with flooding. There are many reasons for the problems, some of which can be remedied and some that cannot due to the area's low-lying elevation. One measure to reduce stormwater runoff and flooding is the application of Low Impact Development (LID) practices. LID practices go beyond what is required by the City of North Charleston's stormwater regulations. LID practices also help new buildings obtain Leadership in Energy and Environmental Design (LEED) certification. LEED certification is a movement to design buildings to have less impact on the environment, use less energy, integrate more effectively in their community surroundings and be more sustainable overall.

Increased commercial and residential development generally results in increased stormwater runoff. The impact from increased stormwater runoff can be mitigated using LID practices. Stormwater runoff increases with development because the pervious area through which rain water can infiltrate into the soil is eliminated. Regulations in place require runoff quantities to be unchanged, even after development with post-development runoff less than or equal to pre-development runoff. Stormwater runoff also leads to erosion, increased pollutants from parking lots and lawns, and reduces overall water quality through non point source pollution. Also, because the runoff is not infiltrating and recharging groundwater, this leads to water demand issues later. Finally, flooding is obviously a large problem as stormwater runoff increases. Flooding leads to increased sediment erosion, and becomes a hazard for residents and drivers alike as well as causing damage to personal property.

There are established stormwater LID practices that can reduce the amount of stormwater runoff in LAMC. The following LID practices are suitable for residential and urban areas similar to those areas found in the study area: pervious pavements, subsurface infiltration beds, infiltration basins, dry wells or seepage pits, infiltration trenches, and vegetated roofs.

- Pervious pavement replaces impervious materials like asphalt and concrete, which do not allow stormwater to infiltrate. Pervious pavements help to improve water quality and reduce runoff volume and are well-suited for parking lots of churches, schools, and small stores where there is not a lot of heavy traffic.
- Subsurface infiltration beds are placed underneath a pervious or impervious surface to store excess runoff. They are hidden, easily retrofitted to existing developed areas, and ideal near homes and buildings where runoff originates from roofs.
- Infiltration basins should allow for areas of permeable soil where runoff infiltrates and can be stored. These prevent thermal pollution, remove a high percentage of pollutants, and are well suited for green space and landscape areas which are available as part of the re-development of the vacant lots within the LAMC area.
- Dry wells are subsurface facilities that store runoff, mostly from roofs. Similar to the infiltration beds, dry wells are easy to retrofit and work best near houses and buildings.
- Infiltration trenches are excavated and filled with stone and soil through which runoff infiltrates. They improve water quality and reduce the volume of stormwater runoff. The moderately porous loamy sandy soil in the North Charleston area is well suited for this technique.
- The last technique that is well suited to reduce stormwater runoff in urban areas is the vegetated roof (or green roof). This technique traps stormwater runoff on rooftops by using plants and reduces the amount of runoff that reaches the ground. Vegetated roofs are also aesthetically pleasing.



Noisette Creek flood basin

Implementing the above LID practices in the LAMC area could also aid in attaining LEED certification for new buildings by maximizing open space, improving stormwater design – quantity control and quality control – fostering water efficient landscaping. These measures should be part of a greater long-term strategy of sustainability for the LAMC neighborhoods and integrated as part of city public work or private developer activity. With increasingly stringent water quality standards, intense public awareness of environmental impact, higher demand of water, rising energy costs, and aging infrastructure, it is vital to think in terms of decades instead of years when considering the cost-benefit of these approaches. Better stormwater management practices are one method to reach the goal of sustainability. LAMC should consider requiring or at least encouraging homes and commercial buildings in the study area to implement LID practices to improve stormwater quality and help reduce flooding problems in the area on all new and redeveloped projects and of working with the City of North Charleston to phase these measures through code and ordinance.

5.2.9 Open Space Network

The LAMC Revitalization Plan's open space network is comprised of parks and natural areas, linked by "green" modes of transportation, i.e. pedestrian paths and sidewalks and bicycle routes. The proposed network features existing green space as well as new - in particular the future "central park" for the LAMC community which is recommended for development on the Chicora Tank Farm site, consisting of 22.5 acres of recreation space. Nearby, the Stromboli Avenue Corridor development will feature around 5 acres of park space.

It is also recommended that Quitman Marsh, a freshwater emergent wetland located adjacent to Quitman Street in the Chicora/Cherokee neighborhood, be developed into a community feature. Stormwater for a majority of the Chicora/Cherokee area drains via a network of swales, culverts and channels that run along Troy Avenue, across Orvid Street and Chicora Avenue, and continues under Spruill Avenue into Quitman Marsh, towards the former Charleston Naval Complex. Fenced off for years due to safety concerns, the marshland could be reclaimed and become an attraction in its own right. With proper design treatment and beautification efforts, Quitman Marsh could be transformed into a resource, potentially with such features as a boardwalk accessible to the public. Further study needs to be done to understand its reclamation and development potential, but an artist's rendering on page 118 (Figure 5.30) suggests how the marsh may become a natural community asset in the future.

Increased access to the Cooper and Ashley Rivers is proposed as well, as shown on the Open Space Network map (Figure 5.29 on the facing page).

Open Space Strategy

Currently passive and active open spaces in the LAMC neighborhoods are limited. If the LAMC study area is to redevelop as a viable place to live and raise a family, the current amount and location of passive and active open space will not be adequate. Four recommendations are outlined below that should be implemented as part of the overall open and public space redevelopment strategy for the LAMC community:

- Establish an Adopt-A-Lot Program** - Some of the vacant lots located in the LAMC neighborhoods are too narrow to build on, and some of these "nonconforming" lots are located adjacent to owner-occupied households. LAMC should utilize the maps that have been created as part of this plan to identify the location of vacant lots that meet these criteria. Additionally, the City has a "demolition by neglect" ordinance which can be exercised if properties are dangerous or unfit for human habitation. These properties deemed to be neglected could be acquired by the City of North Charleston and deeded to LAMC or the proposed LAMC CDC. The non-conforming lots would be held by LAMC as part of a Special Land Bank and conveyed to adjoining property owner through their Community Land Trust, if established. A program should be designed that conveys the ownership of the selected vacant lots to the adjoining property owners for \$1.



Existing park space adjacent to Felix Pinckney Community Center

5.29 Proposed Open Space Network



Figure 5.30 Quitman Marsh - Before & After

Quitman Marsh Before



Quitman Marsh After



The clear title should be conveyed only if the adjoining property owner agrees to maintain the lot for a minimum of three years. LAMC should encourage the property owners to consider a landscaping plan for each lot conveyed through the program.

- Establish Mid-block Pocket Parks** - Currently the LAMC neighborhoods have a land development pattern that consists primarily of small lot frontages. During the discussion with residents and stakeholders about future land development patterns, many of the stakeholders suggested that not every vacant lot should be redeveloped with a house. It was suggested that some lots could be adaptively re-used as passive open space. It is recommended that LAMC select a number of lots to be used as passive open space. LAMC should work closely with developers on the selection of the lots and the landscaping plan for each lot. Developers and builders should be encouraged to fund the cost of initial landscaping and provide park benches and any hardscape features that would be included in the overall landscaping plan. The lots, once landscaped, would act as a neighborhood amenity, and could potentially add value to the homes located on blocks that include the “pocket park” and provide space for children to play. LAMC should seek funding for landscaping equipment and organize itself to work with the City’s Parks Department to take on the responsibility of maintaining the pocket parks. LAMC should also work with local police and community policing organizations to ensure the parks are adequately surveilled. According to a City Council representative, the City has purchased land at North Carolina Avenue for a pocket park. This is an encouraging step in establishing a network of such parks throughout the community.
- Designate Gateway Locations into the Neighborhoods** - Currently there are only small gateway markers, sometimes in poor condition, which announce LAMC neighborhoods to residents, stakeholders, and visitors arriving into the community. Beyond the major gateway locations described earlier in this section, it is recommended that the development of neighborhood-specific gateway locations and signage become a project that is initially lead by LAMC but subsequently turned over to neighborhood-based organizations as they are developed. While the signage should be unique to each neighborhood, a similar color or materials palette is recommended to be used to unify and mark the neighborhoods as belonging to the LAMC community.
- Community Gardens** - As an additional consideration for the use of vacant lots, LAMC should consider working with community-based organizations and youth groups to establish community gardens. Community Gardens can provide residents with opportunities for health, education, and enjoyment through cultivation of fruits, nuts, and vegetables, relationships and community stewardship. Community gardens create an informal place to gather and converse with other garden users and can build bonds between neighborhood groups from all over the city. These resources provide opportunities for partnerships with seniors, youth at the Boys and Girls Club, neighborhoods groups, and local and regional farmers’ markets.

Design elements of a community garden include:

- Community garden plots, farm plots, and orchard space can be maintained by community residents or any of the community groups and resources such as Senior Citizen organizations and the Boys and Girls Club. These groups could become vendors at local Farmer’s Market to help sustain the garden.
- Educational areas, such as a rain garden between the greenway trail and drainage flume that collects and filters storm water from the site.

Many neighborhood groups are forming community gardens in vacant lots, or even on rooftops. These community gardens are a great way to get both children and residents involved in taking care of the community. (For more information see www.aggie-horticulture.tamu.edu/Kinder/commun.html.) Another good information source is the United States Conference of Mayors (2008): “Vacant and Abandoned Properties: Survey and Best Practices” (<http://www.usmayors.org/vacantproperties/VacantandAbandonedProperties08.pdf>).



Each LAMC neighborhood has signage as a gateway treatment

5.2.10 Pedestrian & Bicycle Network

Critical to the successful revitalization and long-term viability of the LAMC area is the implementation of a connected pedestrian and bicycle network. Such a network will meet the needs of so many citizens in the area who utilize walking and biking as essential modes of transportation. Safe, secure, efficient pedestrian and bicycle access and mobility between residences, places of employment, and business establishments will assist in the enhancement of citizens' quality of life, health, and basic dignity. Additionally, realization of a true pedestrian and bicycle network will also improve access to and the efficiency of the transit system (see Transit Recommendations for additional discussion).

It is recommended that a system of pedestrian and bicycle thoroughfares be established (see Open Space Network map). These principal thoroughfares are not presented as a comprehensive mapping of sidewalk and bicycle lane locations, but rather designate critical connections for walking and biking between homes, schools, parks, and retail districts. These connections may be accomplished through a variety of means (e.g. sidewalks, bicycle lanes, wide outside travel lanes, shared-use pathways, greenway trails, etc.).

Specific improvement recommendations within the pedestrian and bicycle thoroughfare network include:

- **Sidewalks** – Sidewalks, in various forms of disrepair, exist along many of the designated thoroughfares. Targeted improvements should be made to these existing facilities as necessary. Where sidewalks do not currently exist, new sidewalks should be constructed that meet or exceed Americans with Disabilities Act (ADA) public rights-of-way guidelines. Improvements to these corridors should be accomplished when feasible through the leveraging of SCDOT Port-related projects, safe routes to school program, transportation enhancements, and utility upgrades.
- **Curb Ramps** – ADA compliant curb ramps should be installed at all intersections parallel to crosswalks. At signalized intersections, where pedestrians may cross in both directions, ramps should be located within the width of each crosswalk. In most cases this would require two separate ramps at a corner instead of a single, diagonal-opening ramp at the corner. ADA suggests dual ramp installations for several reasons:

“Single ramps can misdirect blind pedestrians who use the slope of curb ramps as cues. They can increase crossing times for persons who use wheeled mobility aids and can place users into oncoming traffic at small radius corners where it is difficult to provide landing space at the bottom that is wholly within marked crossings. Also, drivers may not be as alert to persons crossing at the apex of the corner.”
- **Crosswalks** – Installation of crosswalks at all intersections is recommended. At unsignalized intersections, crosswalks should run only parallel to the uncontrolled street, while crosswalks at signalized intersections should allow for pedestrian travel in all four directions (as appropriate and feasible). No mid-block crossings are recommended. Crosswalks should also follow ADA guidelines. Crosswalks should be composed of an enhanced striping pattern so as to provide greater visibility. At key intersections the use of patterned concrete or asphalt products is suggested to define the crossing area, calm traffic, and provide visual cues (see Intersection Recommendations - Figures 5.14, 5.15, 5.23 and 5.24 - for additional information).
- **Pedestrian Signals** – In conjunction with crosswalk recommendations, actuated countdown pedestrian signals with audible confirmation and signage indicating signal operation and crossing safety should be installed. ADA requirements pertaining to signal timing, audible signals, locator tones for push buttons, placement, and mounting locations should be evaluated as individual improvement projects are pursued.
- **Bicycle Accommodations** – Where existing right-of-way or roadway width allows, travel lanes of roadways that are part of the recommended pedestrian and bicycle thoroughfare network should be restriped to accommodate bicycle lanes. Bicycle lanes should be a minimum of five feet in width and follow SCDOT guidelines for retrofitting existing roadways. Where sufficient roadway width is not available for dedicated bicycle lanes, wide outside travel



Improved bicycle accommodations could be provided for residents

lanes should be pursued. Such lanes should be a minimum of 13 feet to comfortably accommodate both vehicular and bicycle modes within the same lane. These facilities are not intended to serve as a “regulation” bicycle lane, and should not be striped as such, but instead will serve as a reasonable refuge for bike traffic.

It should be noted that neighborhood streets do comprise critical links for pedestrians and bicyclists but are not included in the recommended thoroughfare network. These streets have lesser traffic volumes and lower posted speed limits, allowing them to provide quality pedestrian and bicycle environments without the addition of sidewalks and bicycle accommodations.

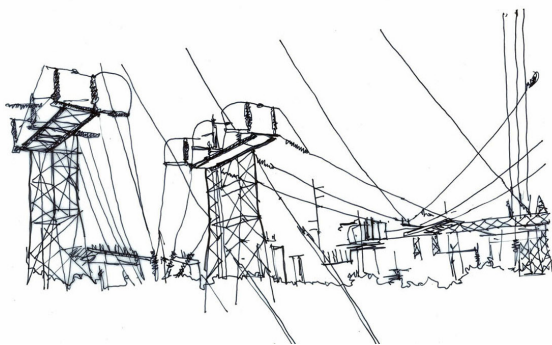
5.2.11 Buffers

Due to the significant number of industrial uses in residential neighborhoods in the LAMC study area, providing appropriate buffers and screens to mitigate industrial uses’ negative impacts, such as noise, light, and aesthetic qualities, is important to help guarantee a high quality of life for residents. A “network” of buffers is proposed to help shield these inappropriate uses. Recommended buffer locations are described below, and regulatory tools which will help implement the recommendations are described in Appendix II.

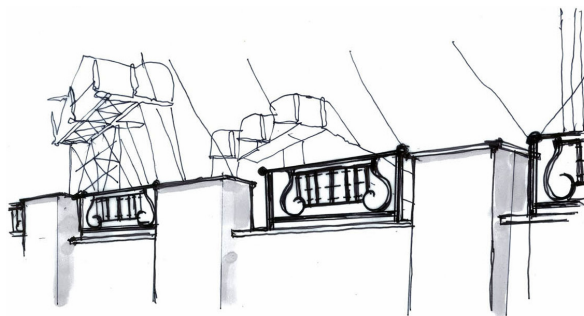
Recommended Buffer Locations

Several improvements may be made either within the public right-of-way or in partnership with key property owners. Key areas requiring screening are identified on the Buffer diagram, and appropriate buffers for these areas are as follows.

- **Electrical Substation (Accabee)** - A buffer for the electrical substation should be opaque and tall to block out views of the site. The buffer along Meridian Road/Easton Street and S. T. Simmons Drive would ideally be a solid wall, a minimum eight feet tall. The wall could incorporate public art, such as murals, mosaics, or wrought-iron details, to establish the community character at this gateway to the neighborhood. A vegetated buffer of coniferous or deciduous trees could enhance an unadorned wall and provide a taller screen of the industrial use; refer to the Type C Buffer Area in the City of North Charleston Code of Ordinances.
- **Commercial/industrial Uses (Accabee)** - A buffer should be provided between the commercial and industrial uses along S. T. Simmons Drive, for all areas aside from those addressed at the substation and extending north adjacent to the residential property at S. T. Simmons and Garfield Street, as well as along Misroon Street. The Food Bank and industrial uses should be screened using a combination steel picket fence and landscape screen. The picket fence should have a minimum opacity of 60%, and landscaping should include deciduous trees planted 20 feet on center and continuous hedges. The use of landscape will provide not only a visual buffer, but a sound buffer as well. Refer to the Type B Buffer Area in the City of North Charleston Code of Ordinances for minimum landscape requirements.
- **Rail Buffers (Spruill Avenue)** - A continuous vegetated buffer would be appropriate on Spruill Avenue along the length of the rail, to screen the adjacent neighborhoods from noise and visual nuisances. Where space allows, this buffer should meet the vegetation described in the Type C requirements, particularly in Union Heights. Between Reynolds and the intersection of Spruill and North Carolina, buffering should be installed along both sides of the rail line, where space permits. North of Reynolds, a vegetated buffer should be installed along the western edge of the rail, where space permits.
- **Rail Buffers (Liberty Hill)** - A vegetated buffer along the west side of Gaynor Street would screen the adjacent neighborhood from noise and visual nuisances. The buffer could also serve as a gateway element at the entry point to Liberty Hill from the west.



Before the use of screening



After the use of screening

5.31 Recommended Buffer Locations

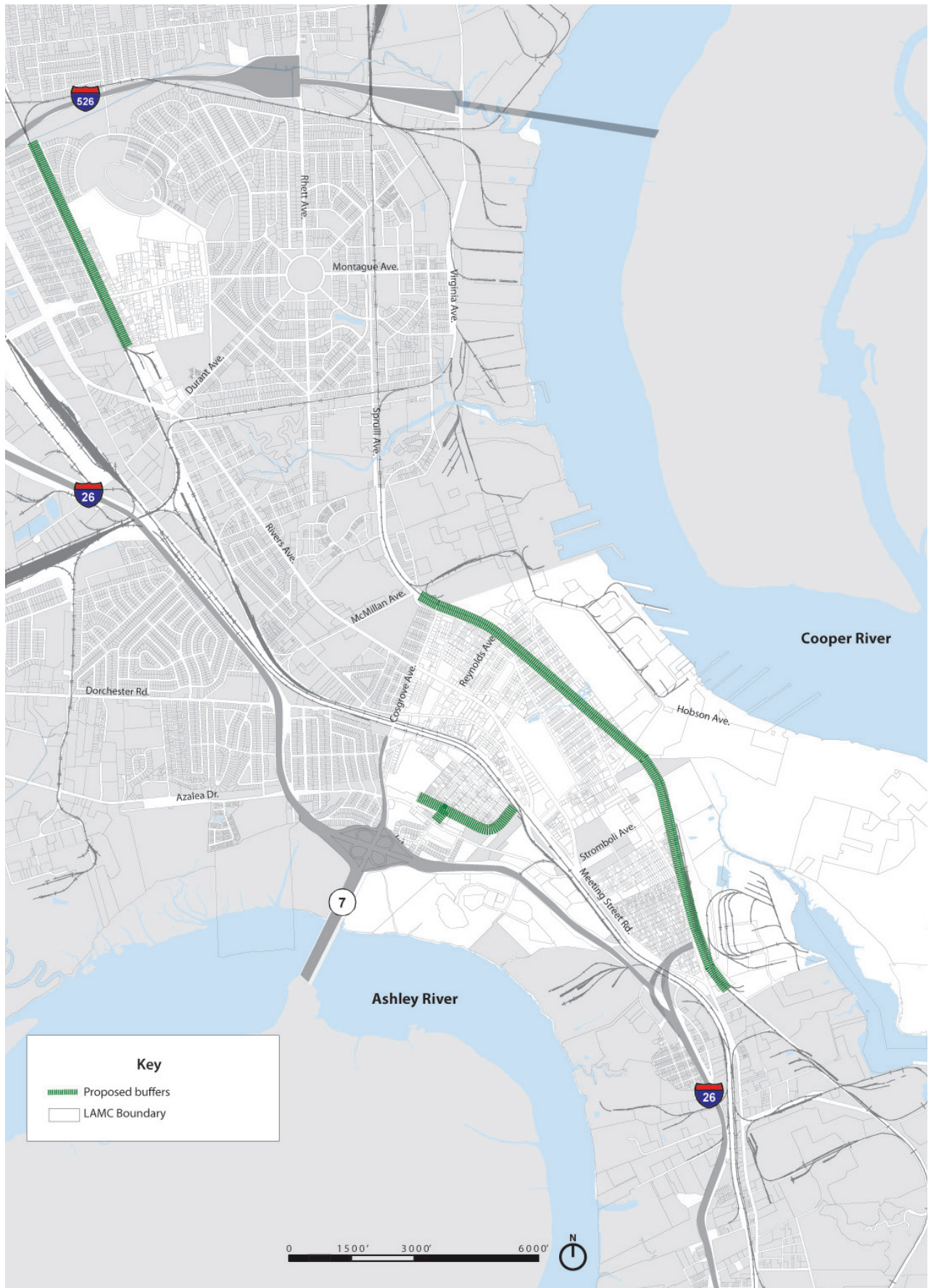
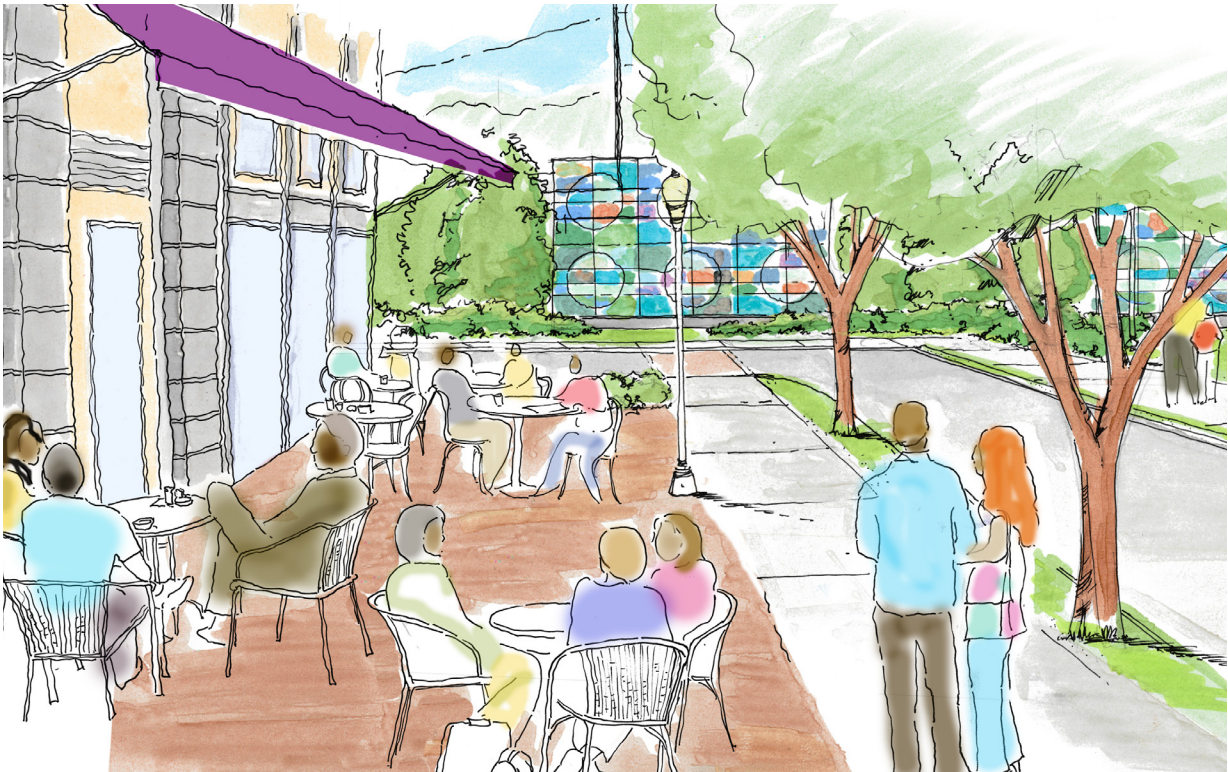


Figure 5.32 Railroad Screening - Before & After

Railroad Before Screening



Railroad After Screening, Enhancing the Built Environment



5.2.12 Gateway Enhancements

Gateways address key entry points to the community or activity centers within the neighborhood. Gateway enhancements can help define a neighborhood's character and draw attention to the entry point to the community. Activity centers or key entry points to the LAMC neighborhoods can be highlighted with architectural elements or with urban design features.

Several types of gateways have been identified for the LAMC community, as follows:

- Main community gateways, which are the primary points of access to the LAMC neighborhoods from the main arterials.
- Gateways to neighborhood corridors, which draw focus to the key corridors addressed during the master planning process.
- Minor access points, which address notable but not primary visitor destinations and are typically located after the decision point to turn off an arterial.

Further, as part of the SCDOT roadway improvement plan associated with the new marine container terminal, four intersections within the LAMC community will receive enhancements to improve their levels of service. The intersections and recommended improvements are indicated below.

Main Community Gateways

The main community gateways identified are located at the primary intersections to the LAMC neighborhoods, at access points from the main arterials leading to the communities. The following locations are appropriate for gateway enhancements or focus points; additional details are provided below:

- Montague Avenue at Gaynor Street/Railroad Avenue.
- Montague Avenue at Mixson Avenue.
- Rivers Avenue at Cosgrove Avenue.
- Spruill Avenue at Meeting Street Road.

Montague Avenue at Gaynor Street/ Railroad Avenue

As described in the section addressing buffers, vegetation will be an important component of the gateway into Liberty Hill from the west. In addition to the vegetation, a design element such as pillars similar in scale to the existing gateway element at East Montague Avenue would be an appropriate gateway element for Liberty Hill, addressing the neighborhood's character while acknowledging its surrounding context in North Charleston. To differentiate the neighborhood, the markers could incorporate different materials than the brick and iron elements in the East Montague pillars and/or be enhanced by mosaics or other artistic elements.

This design element would also be located at the intersection of Montague Avenue at Mixson Avenue, which is a gateway to a neighborhood corridor but not considered a main gateway since most traffic enters the neighborhood from the west.

Montague Avenue at Mixson Avenue

As described above for the intersection of Montague Avenue at Gaynor Street/ Railroad Avenue, a design element would be incorporated to draw attention to the entry point for Liberty Hill. Since most traffic enters the neighborhood from the west, this intersection is not considered the primary gateway to Liberty Hill; however, the entry point is important and should incorporate the same theme as at the western access point to the neighborhood.

Rivers Avenue at Cosgrove Avenue

In coordination with the corridor improvements planned for Rivers Avenue, gateway enhancements to draw attention to the entry point for the southern LAMC neighborhoods can be incorporated. The anticipated corridor improvements include installation of decorative lighting within the planted median, and planting grass and street trees in the parkway between the curb and sidewalk.

There are currently limited infill opportunities at the intersection, due to the existing uses at this intersection. However, future support for transit and expansion of the CARTA SuperStop could provide an opportunity to create a transit node in the long term. New development adjacent to the CARTA station would ideally incorporate architectural features to emphasize this entry point to the LAMC neighborhood area.

Spruill Avenue at Meeting Street Road

The intersection of Spruill Avenue and Meeting Street Road is a gateway into North Charleston from downtown Charleston. This gateway intersection, combined with the removal of the I-26 access road, creates an opportunity to highlight the entrance into the LAMC neighborhoods through the introduction of new architecture and improvements in the existing housing stock. This intersection is also included in the SCDOT roadway improvement plan, for enhancements to improve the level of service.

It is also recommended that the triangular parcel at the intersection of Meeting Street and Spruill Avenue accommodates a Welcome Center or be developed as open space, perhaps with signage or public art to mark the entry point to the community.



Existing gateway in Park Circle, along Montague Avenue

Gateways to Neighborhood Corridors

The gateways providing access and visibility to neighborhood corridors reflect the redevelopment and reinvestment opportunities identified in this master planning effort. The following are key gateways to neighborhood corridors:

- Montague Avenue at Mixson Avenue.
- Spruill Avenue at Stromboli Avenue.
- Carner Avenue at Stromboli Avenue.
- Rivers Avenue at Reynolds Avenue.
- Spruill Avenue at Reynolds Avenue.

Montague Avenue at Mixson Avenue

As described above for the intersection of Montague Avenue at Gaynor Street/ Railroad Avenue, a design element could be incorporated to draw attention to the entry point for Liberty Hill.

This intersection is not considered the primary gateway to Liberty Hill, since most traffic enters the neighborhood from the west, but noting the entry point is important.



A potential gateway location: Montague Avenue at Mixson Avenue

Spruill Avenue and Carner Avenue at Stromboli Avenue

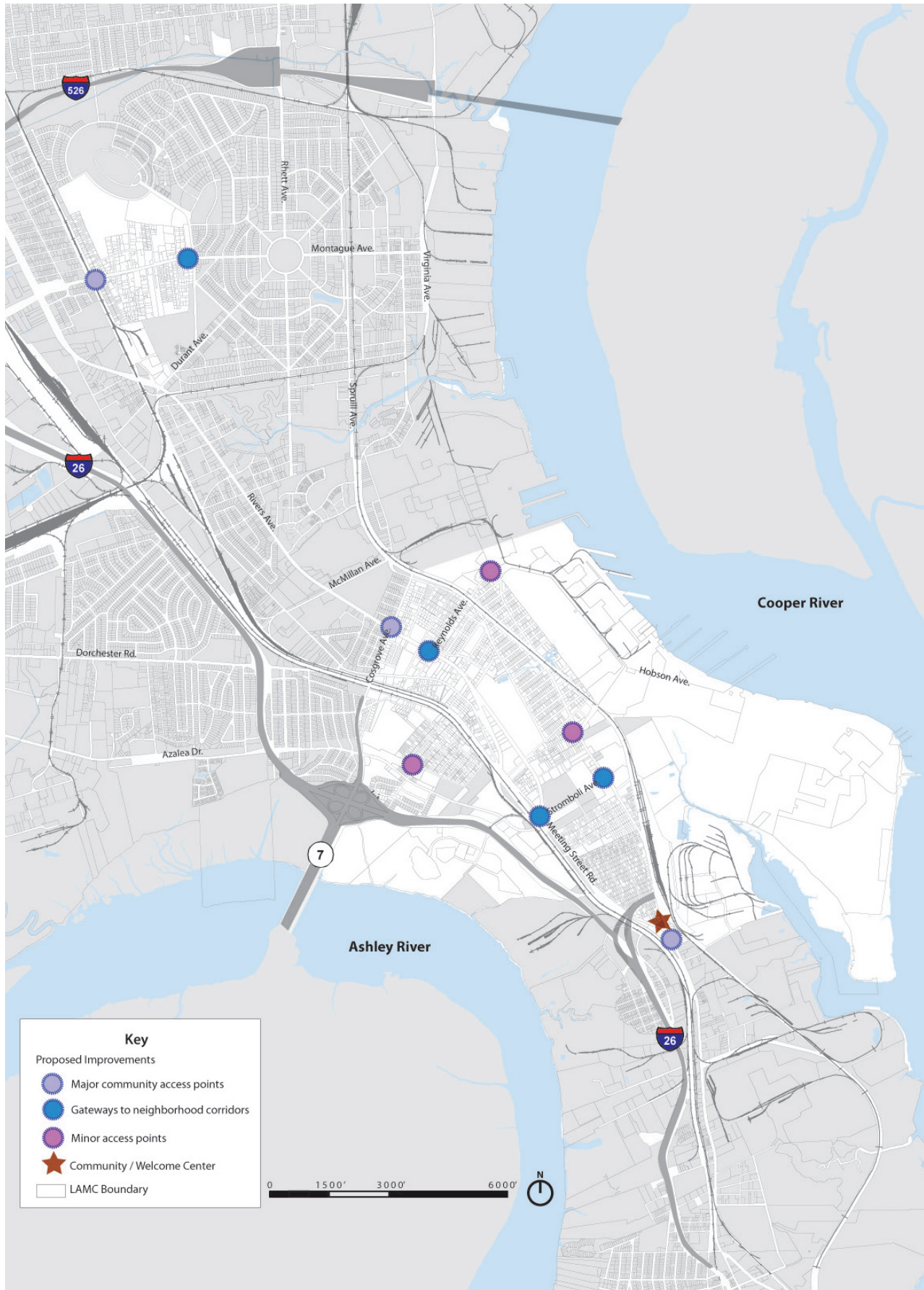
These two intersections will be included in the SCDOT roadway improvement plan, for building the new access road and for enhancements to improve the level of service.

It is anticipated that development at either end of Stromboli will incorporate architectural features to provide a sense of place. It will be important for any new construction to “hold the corner” rather than be set back behind parking facilities, which will encourage pedestrian activity and signal that the Stromboli corridor has a special character. The intersections at either end of Stromboli should include directional signage for key destinations on the corridor to draw attention to the decision points along the north/south thoroughfares.

Rivers Avenue at Reynolds Avenue

The gateway treatment at the intersection of Reynolds Avenue at Rivers Avenue should draw attention to the local commercial corridor proposed along Rivers. Although the primary gateway into the local commercial strip will be at Cosgrove and Rivers, the treatment at this location should consist of greater massing of buildings with articulation at the corners to announce a sense of arrival.

Figure 5.33 Gateway Enhancement Locations



Minor Access Points

The minor access points identified address important destinations that are typically located after the decision point to turn off an arterial; the gateway is not located at a major intersection. The following are key minor access points within the LAMC community:

- Meridian Road/Easton Street at S. T. Simmons Drive.
- Reynolds Avenue at North Carolina Avenue (CURI).
- Spruill Avenue at Viaduct Road.

Meridian Road/Easton Street at S. T. Simmons Drive

As described in the section addressing buffers, it is recommended that a wall and vegetation be installed to screen the electrical substation. These elements should be incorporated into the gateway with special treatment at the corner of S. T. Simmons Drive. A pillar or corner element on the opposite side of the street would “hold the corner” with a design element matching the wall.

Reynolds Avenue at North Carolina Avenue

The intersection of Reynolds Avenue at North Carolina Avenue serves as a decision point when approaching from the LAMC neighborhoods due to the termination of Reynolds Avenue. Navigation through the area, particularly for eastbound traffic, would be aided by clear directional signage. The location of destinations such as the Clemson University Restoration Institute (CURI) and public access to the river should be clearly indicated.

Spruill Avenue at Viaduct Road

The intersection of Spruill Avenue and Viaduct Road is included in the SCDOT roadway improvement plan, for enhancements to improve the level of service. It is primarily an industrial access point for truck traffic to the base. Due to the focus as a service road, no special or decorative gateway treatment would be necessary for this intersection.

5.3 COMMUNITY DEVELOPMENT PROJECTS

5.3.1 Educational Attainment & Lifelong Learning

Improved educational opportunities are at the very heart of LAMC’s community building work; one of LAMC’s first activities after completing the Community Mitigation Plan was to fund educational scholarships. The recommendations below address improving the public schools through School Improvement Councils; examining alternative curricula and training to bolster existing educational offerings; increased attention and funding for early childhood education; increased opportunities for after school programming; and increased opportunity for adult education. These strategies are explored and developed as key points of entry for LAMC and the broader community to intervene and make a difference in lifelong learning opportunities for both children and adults.

For more detailed information on the resources and recommendations described below, see the Education section in Appendix I.

Programs for Children & Teens

Early Childhood Development

Child development and education experts have discovered that one of the most important factors explaining varying performance in school is the level of preparation or readiness that a child has entering school. One of the most effective mechanisms that has emerged for closing the achievement gap between urban minority children and their peers is increased access to early childhood education.

Early childhood education cannot be considered in isolation from the broader family context. Stresses on the family environment such as difficulty finding employment, low level of education, and the ravages of drugs and alcohol, all also have an impact on children and their ability to develop and be prepared for learning in a school environment. Therefore, early childhood education intervention often addresses multiple aspects of the family environment, including health, screening of children, parent education, and social and educational services for parents.

There are several existing programs available to LAMC area residents which can help children with their development which LAMC could help bolster to improve early childhood development. The programs and strategies are described on the following pages.

- **Build community awareness of 4-K programs** - The Charleston County School District (CCSD) offers a Child Development program for 4-year olds in most of its elementary schools, including all of the elementary schools in the LAMC area. These programs focus on all aspects of child development (i.e. physical, cognitive, social, and emotional development), but eligibility requirements limit some residents' access. In addition, the CCSD offers a Preschool Intervention Class (PIC) program targeted to children with special needs or disabilities in several LAMC area schools, although these are not offered at Chicora Elementary nor Hursey Elementary. LAMC should ensure that all of these childhood development programs are fully utilized, and that all LAMC area parents are aware of these programs and the procedures for qualifying for and enrolling in these programs. At the same time LAMC should lobby CCSD and the State of South Carolina to expand these programs so that all eligible children can attend, which is not currently the case.



Mary Ford Elementary School

- **Build parents' and physicians' awareness of Baby Net/Baby Steps programs** - BabyNet is the State of South Carolina program for providing early intervention services for children from birth to age 3 who are learning or developing slowly. Baby Steps is the Charleston County version of the BabyNet program. LAMC should partner with Child Find (the program for identifying children who qualify due to developmental delays or disabilities) to develop and distribute educational resources such as posters, videos, and brochures to ensure that parents and health professionals are well aware of these programs and how to access them.
- **Develop a parental education program modeled after Harlem Children Zone's Baby College** - Children's development hinges on parenting practices. The Baby College is widely acclaimed program run by the Harlem Children's Zone in New York City founded on the premise that children must be given proper support from birth to develop into successful students. The curriculum teaches parents about child development patterns and prepares them to better manage their children's crucial developmental stage and also includes subjects such as child safety and nutrition. The free nine-week program is run within local public school buildings, and classes are held on Saturday mornings. It is recommended that LAMC develop a comprehensive parental education program like the Baby College. This would require significant support from either public institutions or major private non-profit organizations. Implementing such a program through the Charleston County Community Education department could be more cost-effective, as it already offers some parenting courses and resources and draws funding from pools of public money. Most likely, partnerships between standing organizations such as LAMC or Wings for Kids and the County would be necessary to develop and implement a similar program. LAMC has already taken a critical step towards developing such a program by sending a delegation to meet with Harlem Children's Zone representatives to learn from their experiences.
- **Develop a campaign to improve parental involvement at all education levels** - Parental involvement is a key indicator of student success; unfortunately, many LAMC residents face significant challenges - long commutes, scheduling difficulties, etc. - to being more involved. LAMC leadership needs to seek creative solutions to cement the practice of parents actively supporting their children's academic endeavors. Owens Christian Academy provides an innovative model within the LAMC study area. Parents at the Academy are required to commit to at least 15 mandatory volunteer hours at the school each year, which helps build connections and relationships to the children's learning environment. Further, parents are provided regular progress updates and must attend teacher conferences. For more information on Owens Christian Academy, see Appendix I.

This plan recommends LAMC adopt the following overarching strategies to help implement these and other subsequent early childhood development programs:

- **Build early childhood education partnerships** - Partnerships are particularly important for the addressing early childhood development for a number of reasons. First, there are substantial resources available to support the development and assessment of early childhood education programs, but these resources are scattered among

educational institutions, health institutions, foundations, and federal, state, and local governments. LAMC will be able to accomplish much more by tapping into the substantial organizational and funding capacity that exists within these organizations. In many cases, these organizations are looking for a community partner to coordinate their efforts and LAMC could benefit from being the subject of a model or trial program in the early childhood development arena. Key partners to reach out to include the Charleston County Literacy Roundtable, CCSD, and non-profits and social service providers who support early childhood education.

- **Lobby for increased funding of early childhood education** - Current funding levels do not support the provision of 4-K programs for all eligible children. LAMC can partner with other educational advocacy groups, such as some of the organizations mentioned above, to lobby at the Federal, State, and County levels for increased resources for early childhood education. Additional funding could also help institute universal pre-school for all 3 and 4 year olds (rather than just covering eligible children).

School Reform and Accountability

As discussed in the Study Area Analysis section, school performance in the LAMC study area is poor. Education reform and accountability are complex issues. While the Revitalization Plan recommends new programming to help bolster education opportunities, the Plan also advocates for getting the most out of existing programs to help strengthen the system. To this end, it is recommended that existing School Improvement Councils be reformed to help make LAMC area schools more effective and accountable.

School Improvement Councils are the school district's formal mechanism for parent and local community participation in school performance and school reform efforts. Every school in South Carolina is required by state law to have a School Improvement Council. Each School Improvement Council (SIC) consists of the school principal, parents, teachers, community members, and in the case of high schools may also contain students. School Improvement Councils generally meet monthly throughout the school year as well as additionally in committees dedicated to working on advancing specific strategies. SICs produce a variety of plans and reports that guide school reform, evaluate the effectiveness of school reform efforts, and report to parents on the school performance and progress on any school improvement initiatives. SICs serve as the information link between each school and the community that the school serves.

Parents and community leaders can be most effective in advocating for school reform within the framework of the School Improvement Councils because this is an officially sanctioned method for parental involvement. Support for the School Improvement Council approach is highly developed at both the state-wide and Charleston County district levels. School Improvement Councils are also a proven approach for increasing parent and community involvement in schools, which is another demonstrated strategy for improving school performance. School Improvement Councils are both an opportunity for parents having a greater say in school performance and for recruiting parents and the broader community into greater engagement with neighborhood schools.

The heart of the SICs work is the development and the implementation of the School Improvement Plan. While SICs report on progress on the School Improvement Plan annually, SIC members are continually working on the implementation and evaluation of the School Improvement Plan by gathering and reviewing information on plan progress. School Improvement Plans usually have three to seven strategies and an SIC committee is usually assigned to oversee each strategy. Committees recruit additional participation beyond the SIC and monitor progress on the implementation of each strategy. The SIC meets as a group monthly to issue committee reports and review information provided by the school administration and/or faculty committees. These monthly meetings ensure that continual progress is being made on all strategies that are part of the School Improvement Plan.

Though explained in greater detail in Appendix I, key recommendations for strengthening the role of SICs in school reform are:

- Increase the number of parents and community stakeholders participating in SICs and SIC committees, and ensure diverse stakeholder participation.
- Actively advocate for a SIC slate at each LAMC school to be filled by effective parents and teachers.
- Support and recognize SIC members (as SIC membership is a volunteer position with substantial demands).
- Where necessary, rewrite the bylaws of SICs to be in compliance with the standards set by the South Carolina School Improvement Council, regarding such issues as the size and composition of the elected, appointed, and ex-officio membership and the process and publicity of elections to ensure adequate parent participation.

- Ensure that SICs are following best practices for success; the South Carolina School Improvement Council (<http://sic.sc.gov>) provides training, technical assistance and operational resources for School Improvement Councils.
- Promote new School Improvement Plans at schools that are not showing adequate progress, or those that receive an “At Risk” rating on their school performance report cards.
- Hold annual community meetings for each LAMC area school to review and discuss the annual Report to Parents, which tracks progress being made on the School Improvement Plan and therefore establishes accountability.

Enhancing School Curriculum: Maritime Industries Training

In light of the myriad economic development opportunities provided by the maritime industries present in the community, LAMC should pursue every avenue to equip its residents with pertinent skills. In addition to developing the LAMC Maritime Training Institute (otherwise known as the Multimodal Training Center, or LMTC), a maritime curriculum should be prepared and implemented in local high schools - particularly Garrett Academy and North Charleston High School. In doing so, students would be prepared to immediately enter the workforce or enroll in a maritime trade school upon graduation. The unique knowledge and skill-set gained in such a program could qualify students to earn at least a living wage right out of high school.

West Ashley High School, located in the City of Charleston, is attempting to develop a maritime curriculum for students interested in pursuing career opportunities immediately after high school. Advocates of the program note that North Charleston is a maritime community with scores of job opportunities, but that most in the community do not know about them. According to Commander Robert Turner, the West Ashley ROTC teacher leading the effort, the program is still in its infancy and will require additional funding for a full-time teacher in order to manifest. An advisory board, which is steering the development effort, includes representatives from Trident Technical College, ECPI, and Virginia College.

Supporters envision a four-year progression for students interested in maritime careers: the first course would be an introduction to the field and its various subsets; the second course would be a more in-depth examination of subsectors within the field related science and engineering concepts; the third course would begin teaching hands-on skills and could include an internship or co-op component; the fourth and final course might include spending time at working at sea and/or working with technical schools to attain licenses and qualifications. The four-year curriculum would examine the three major subsectors of maritime employment: seagoing; the Ports Authority; and government opportunities with the Navy, Army, or MSC. Graduating students would be qualified for enrollment in institutions of higher education, including maritime trade schools and four-year universities, and would also be qualified for immediate employment in their maritime field of choice.

An introductory course was taught in 2008 which provided a broad survey of: ships and how they are made; industry jargon; types of careers in the maritime field; Port operations; military and government services and what they do; engineering concepts, and navigation concepts. It received a high level of initial interest, but without sufficient funding to publicize and promote the program, it has been difficult to launch. Further, the State of South Carolina, which must approve new courses, has said that it wants a certified teacher teaching the classes even though there are many practicing experts in this field available to teach it. One challenge, therefore, is finding an appropriate and qualified teacher to run the program.

Currently, there are no national guidelines for developing such a curriculum. The supervisory board for the West Ashley effort is lobbying the Maritime Administration (MARAD) to create guidelines based on best practices found throughout the country. The Maritime Academy Charter School in Philadelphia, serves as a model for aspiring maritime schools. The school enrolls students in grades 5-12, and provides rigorous academic training with a maritime theme. Once in high school, students are exposed to myriad career options and encouraged to explore opportunities through strategic partnerships with the school. The Board of Directors is comprised of prominent industry and civic leaders.

In the absence of national guidelines, West Ashley High School and other LAMC area schools might look to MACHS for guidance on planning to launch such a school and developing a curriculum. Alternately, the Maritime Training Institute should help develop a curriculum if operational at the time. Such a program would provide students employment training that is in high demand locally and nationally, and also prepare students for further maritime education and licensing programs, like Seaschool.

Expansion of Magnet Schools

In support of its initiative to promote school choice, the Charleston County School District (CCSD) has adopted a strategy of converting some schools to partial magnets.

In these schools, a magnet program will operate alongside the conventional school platform, but the majority of spaces will be available to neighborhood residents. The first LAMC study area school to make this conversion is Chicora Elementary, which opened the Chicora Elementary School of Communications in 2009. In keeping with the focus on developing maritime education and employment opportunities, LAMC leadership might also want to investigate the opportunity to establish another partial magnet focusing on maritime and green technology. Mary Ford Elementary has been recommended as a potential location for the school. The idea should be further developed in collaboration with CCSD and the Chicora Elementary leadership.

Because magnet schools draw some percentage of their students from other school zones, it can be more difficult for them to establish themselves as a partner within their immediate neighborhood. While such dynamics are an inevitable result of having commuter students, there are ways in which magnet schools can better integrate and partner with the community. Below are recommendations for LAMC magnet schools:

- Promote legislation allowing partial attendance zones for area magnet schools
- By requiring that some percentage of students at magnet schools live in an attendance zone proximate to the school, the level of interaction with neighborhood students and parents will increase.
- Create a task force for marketing the school's facilities and resources to the surrounding neighborhood, business community, and recreational groups

By opening and promoting school facilities to neighborhood groups, valuable partnerships could develop, influencing and improving school curricula, facilities, and image in the community.

The South Carolina Association of Public Charter Schools (SCAPCS) provides assistance to groups interested in creating a charter school. SCAPCS has set a goal for 10% of all public schools in South Carolina to be charter schools by 2015. To that end, the association provides training and guidance, including forming a planning committee, developing mission statements and needs assessments, coaching through the application process, marketing, facilities financing, and curriculum development.

After School Programs

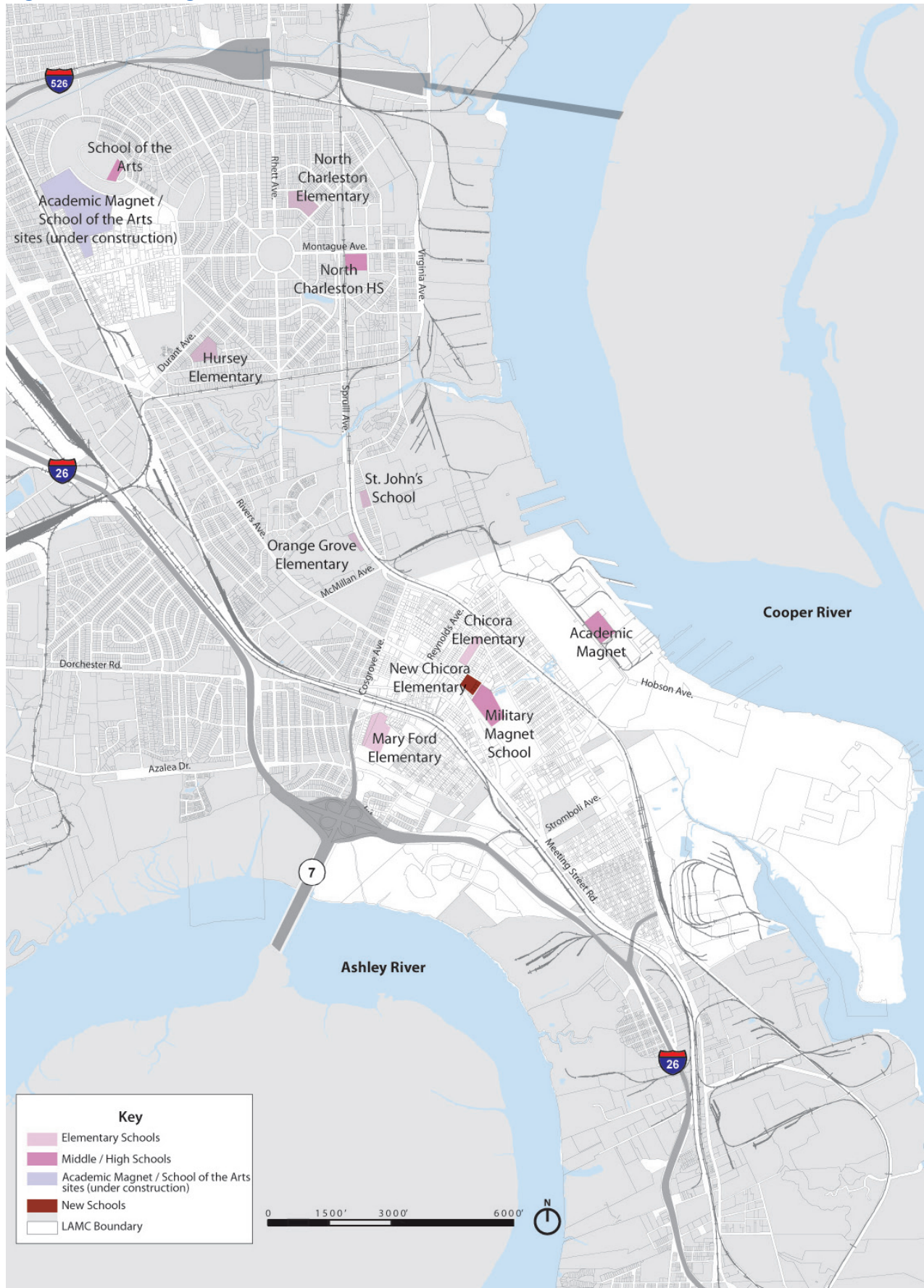
After school programs offer far more than babysitting services until parents get off of work; they can be fun, engaging, and educational opportunities to positively affect child development. They can take the form of youth sports, homework sessions, classes, structured programming, or free play. Research on after school programs has shown that they generate positive outcomes across several child development criteria. As such, they have garnered considerable political support, as well as funding, with the federal government and states supplying budgeted and grant money to qualifying citizens and organizations.

Research published by the National Institute for Out-of-School Time suggests that children are most vulnerable during after school hours, between the end of the school day and nightfall. Violent juvenile crime triples between 3 pm and 8 pm; children are also more likely to be the victims of violent crimes by a non-family member between 2 pm and 6 pm. Children without adult supervision are at significantly greater risk of truancy from school, stress, receiving poor grades, risk-taking behavior, and substance abuse. Further, it seems that in the absence of constructive alternatives, children's free time is unlikely to be productive; children spend more of their discretionary time watching television than doing any other activity.

Magnet Schools vs. Charter Schools

Charter schools differ from other public schools (including magnet schools) in that they operate under a charter that releases them from the administrative control of the public school system. While charter schools are still considered public schools, and receive public funding, they are organized as non-profit corporations, which provide autonomy from the local school district. Magnet schools, on the other hand, are administered by the local school board, not unlike other public schools. Magnet schools, however, differ from other public schools in that they are not bound to a single enrollment zone, but rather generally pull students from several surrounding zones. This is similar, although not identical, to the manner in which charter schools draw students geographically, which is not by zone, but instead by county. In general, magnet schools are provided new or existing school space by the local school district, while charter schools are responsible for acquiring their own school space. However, recent legislation passed by the South Carolina legislature requires Charleston County to provide space for Charter Schools. According to LAMC, this mandate is the subject of an on-going lawsuit.

Figure 5.34 Existing & Planned Schools



Securing quality after school care for all students in need is not an easy accomplishment, given the effort required to operate first-rate programs and the difficulty in covering their high costs. Still, the benefits proceeding from family participation in such programs suggests that pursuing and supporting after school initiatives should be a high priority for LAMC neighborhoods. Several quality programs exist in the community (notably Metanoia CDC's youth development programs and those offered at local community centers, referenced further in the Appendix I), but two in particular can be leveraged further, as described below:

- **Ensure that the Kaleidoscope program is following best practices.** Extended day programs, called Kaleidoscope, are offered through Charleston County Community Education at several LAMC study area schools, including Mary Ford Elementary, Morningside Middle, Garrett Academy, and North Charleston High School. Kaleidoscope programs engage children in activities that encourage creativity, social relationships, appropriate behavior, and a positive self-image. The program strongly encourages parental involvement, and has established a Parent Advisory Council to assist with program development, long-range planning, and evaluation.
- **Develop and strengthen the partnership between Charleston County Community Education (CCDE) and Wings for Kids.** Another innovative after school program operating in Charleston County is Wings for Kids, which currently only operates at Chicora Elementary in the LAMC study area. At Chicora, the program includes over 130 1st-grade to 5th-grade students every school day from 3 pm to 6 pm. The foundation of the Wings program is social and emotional learning (SEL), and Wings is the one U.S. organization focused solely on developing and improving SEL within after school programming. The program's SEL objectives strengthen attachment to school and diminish self-defeating behavior, which Wings cites as the two factors best determining child success. Children participate in group activities that facilitate small lessons (focused on music, sports, community service, and other fun skills development) and supervised homework time. Regular parent check-ins and progress reports keep families involved. Wings has been recognized by numerous national organizations for its program effectiveness, including the Academy for Educational Development, the National Institute for Out-of-School Time, and the National Association of Elementary School Principals. As Wings is in a planning process for growth and expansion, the CCDE should cement its commitment to Wings and work to implement the program at more LAMC study area schools. As Wings is supported almost entirely by individuals, foundations, and federal government grants, the county would not likely have to make large financial commitments.

More work also needs to be done to increase the availability of after school programming. To this end, the Plan recommends the following:

- **Create a LAMC study area task force for obtaining education and after school grant money.** The 21st Century Community Learning Center grant, administered by the U.S. Department of Education, is one of the primary sources of funding for after school care programs in the United States. CCSD has been a consistent recipient of this grant, but a LAMC task force could have the dual effect of obtaining a higher proportion of the money disbursed by the county for LAMC schools and obtaining a larger total share for the county by assisting the county with the grant-writing process. Many more education grants exist, including those from private foundations like the Annie E. Casey Foundation, which provides grant money to organizations serving disadvantaged youth. The Foundation has shown a commitment to innovative youth development programs, and the LAMC task force might partner with Wings for Kids to present a compelling grant proposal.
- **Evaluate the effectiveness of the current distribution of after school programs in the LAMC study area.** Several LAMC study area schools are without well-developed after school programming, while others are home to award-winning programs. A planning process should be undertaken whereby the distribution of after school care in the LAMC study area is evaluated based on criteria including demand, need, and program effectiveness. LAMC should strive to ensure that those most in need of services are not the least likely to obtain it.



Sports can be an integral part to after school programs

- **Designate a liaison between LAMC and local colleges and universities.** Local colleges and universities are a wealth of knowledge, resources, and human capital, and should be leveraged by LAMC to promote and develop more and better after school programs for children. Social science departments, campus clubs, and volunteer groups are just a few of the potential support mechanisms for after school initiatives. The Wings for Kids program staff is constituted almost entirely of college students, which helps provide a cutting-edge perspective and greater enthusiasm.

Programs for Adults

One of the great needs in the LAMC communities is for the local workforce to be equipped with job skills relevant to the opportunities around them. Specifically, the neighborhoods exist within a broader maritime community, with major industries and a plethora of job opportunities operating all around. With the recent announcement that Boeing has chosen its North Charleston facility as the location for an assembly site for the 787 Dreamliner program, programs should additionally be geared towards equipping residents with the necessary skills to capitalize on this new economic opportunity.

It is incumbent on LAMC to not only promote strategies which generally create employment opportunities for adults, but to help link them specifically with available opportunities. There is certainly great need for expanded GED course offerings and access to job markets, but it is possible that the most powerful tool that LAMC could place in the hands of its employment-seeking residents is direct access, in the neighborhood, to training programs in the maritime industries.



LAMC residents should be equipped with skills to take advantage of Boeing assembly work

Maritime Training Institute

The SCSPA, City of North Charleston, and LAMC developed the \$4.08 million Community Mitigation Plan that included the imperative to develop a Maritime Training Institute (also referred to as the Multimodal Training Center) that would realize positive community impacts from Port expansion. The proximity of the Port activity in North Charleston and the need for employment-based training underpins the concept of the Maritime Training Institute that has been reinforced through the plan by the LAMC Working Group and citizens. There are many examples of institutions that undertake such training in port communities. The promise of this institution's mission to outreach will distinguish it as an important component of the LAMC plan and as a model for port communities across the country. As such, this plan reinforces the CMP's imperative to:

- **Develop a Maritime Training Institute in the LAMC study area** - The Maritime Training Institute can leverage this mission of outreach with excellence in preparation for maritime-related employment skills through its curriculum and its facility location and development. Nationally, the strongest examples of curriculum appear not only to build off of the direct skill sets needed for labor in ports, but also addresses the management skills often associated with other business curricula that, in fact, prepare enrollees for the real range of management opportunities related to port operations. The model of the Maritime Training Institute should address education and training in port basics, such as transportation and management of storage and transfer systems, and operations management. The level of training would suggest that a three tiered approach be structured that garners support from: 1) the local and regional port and dock operations; 2) business programs that will provide accredited instruction in the management of ports and other complex systems, and 3) fostering related businesses that can synergistically take advantage of the proximity of a thriving port and training institute to fulfill the economic development plan for LAMC.

Given this three-pronged focus, there appears to be an opportunity to:

- **Coordinate with other LAMC initiatives like the Local Vendor/Contractor program**, and a business incubation center should be pursued. The Maritime Training Institute is charged to be "near the Terminal" and certainly access to the Terminal itself would be important as part of the complete training of enrollees and should be pursued.

However, it might be worth investigating the collocation of the Maritime Training facility with other LAMC program objectives in a common building of ample size like the GEX building. If that possibility appears viable, then in order to accommodate the range of other tandem uses possible for the GEX, a balance of shared and common space must be examined to economize on facility capital and operating expenses. Classrooms, workshops, even an internal area to learn operation of dockside equipment would be valuable and could be provided within the GEX. While the exact area for the school would need to be determined with an operator of this institution type and a programmer/architect, and would occur during Phase 1: Facility Feasibility Study/Fundraising.

Many general examples of maritime institutes exist, but given the explicit community focus of this one under the CMP, the plan suggests this unique approach. It would prepare enrollees not only to compete in the global market place of port operations, but also support economic development of the LAMC study area and, hopefully, have it as a viable choice to pursue their maritime career competitively with other port economies.

Another recommendation, unrelated to the Maritime Institute, is to:

- **Work with the Trident One Stop Career Center to improve access to resources there.** This is an imminently valuable resource in the LAMC communities, providing job seekers access to technology and expertise needed for many searches. Many job seekers may not be aware of the range of services offered or may not believe that they can benefit from a visit to a workforce development agency. The Trident One Stop Career Center may not be adequately advertised. Also, it is notable that the Trident One Stop Career Center's website has a confusing layout and is not oriented towards job seekers.

5.3.2 Health

The LAMC neighborhoods are underserved by both facilities that help prevent medical interventions and those that provide them. Further, they have been subject to environmental conditions that are harmful to community health, including: air pollution, flooding, and lack of connectivity. Due to a lack of sufficient health data, it is difficult to quantify the impact of these factors on community health. Fortunately, LAMC has received a \$1.2 million grant from South Carolina State University to study the particular impact of pollutants on local residents. This study should yield much more accurate data about the health profile of the LAMC study area, and further refine recommendations for improving health outcomes.

Preventative Measures and Treatment

This plan recommends actions that facilitate both preventative health care and acute treatment. Many recommendations connect directly to other parts of this plan, highlighting the connectedness of many issues facing the LAMC communities. Recommendations for improving community health include:

- **Develop an improved bicycle and pedestrian network** - Physically active populations often have measurably lower rates of adverse health conditions, such as obesity, diabetes, and heart disease, than less active populations. The physical environment is a major determinant of a population's level of outdoor activity. Proponents of achieving public health objectives through urban planning agree that the degree to which active lifestyles are supported by the built environment is directly related to the level of density in terms of building stock, street pattern and connectivity, mix of land uses, and availability of pedestrian and bicycle infrastructure. On roadways primarily designed for cars, pedestrians and cyclists are left without adequate facilities and often deterred from walking or riding. This plan recommends the development of a more comprehensive, more connected network of pedestrian and bicycle paths and lanes. See Figure 5.29 (Open Space Network) on page 117 for a visualization of proposed improvements.
- **Provide increased access to the Cooper and Ashley Rivers** - Water bodies are major generators of recreational activity, and can be a powerful resource for improving the health of LAMC neighborhood residents. Major challenges in the study area include limited connectivity and lack of open/green space. By improving access corridors to the major rivers in the area, these challenges can be alleviated and a major obstacle to preventative health care removed. The Open Space Network diagram (page 117) access improvements recommended in this plan.
- **Develop new park land and open space** - Similar to water bodies, park land and open space generate recreational activity. LAMC residents are currently underserved by these assets, and need accessible, usable open space to encourage higher levels of outdoor activity and exercise.

- **Create local farmer’s market space on Stromboli Avenue** - The presence of a local farmer’s market in the LAMC study area could encourage healthy eating habits in neighborhood residents, in addition to addressing a major market deficiency in the absence of a sufficient grocery store. Market demand for a grocery retailer in the study area is described on page 145 and in greater detail in Appendix I.
- **Expand health care offerings in local community center or health care facility:** air quality, water quality and contamination, and industrial practices can severely impact community health by increasing a population’s likelihood of being afflicted by several diseases and other health complications. Similarly, the configurations of land uses, transportation infrastructure, and community design have been shown to bear close correlation with overall community health and wellbeing. The LAMC study area has undoubtedly received a disproportionate share of the negative externalities associated with industrial uses and physical configurations in the region. There are distinct community health issues associated with these factors, and LAMC residents need a robust offering of health care service providers nearby. This is especially true in light of the number of LAMC-area residents without automobiles and relying on public transit or walking to make important trips. LAMC has received \$500,000 as part of the CMP for the expansion of health care offerings and the provision of fitness amenities in either a Community Center or Health Care Facility.

5.3.3 Public Safety

Persistent crime can have the effect of warding off outsiders to the community and immobilizing members within it. Crime-ridden areas have difficulty attracting stable businesses and new homeowners, and can become trapped in cyclical disinvestment. A general sense of security is a major component of healthy, vibrant neighborhoods. It has the opposite effect on investors and residents alike, activating productive activity and preserving key neighborhood characteristics. This section introduces some best practices in the realm of public safety and recommends specific strategies in the LAMC neighborhoods.

Community Policing

Community Policing is a top-to-bottom approach to policing that emphasizes community partnerships and problem solving techniques for combating crime. It requires a shift away from traditional crime-fighting methods focused on reacting to crime towards prevention and employing diverse methods to deter criminal activity. According to the COPS (Community Oriented Policing Services) office of the US Department of Justice, “Community policing is a philosophy that promotes organizational strategies, which support the systematic use of partnerships and problem-solving techniques, to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime.”

The heart of Community Policing is greater collaboration between the police department and the community. Partners might include neighborhood and community groups, businesses, non-profits, faith organizations, or other government agencies. The importance of partnerships is two-fold: firstly, community partnerships enable the police to be more responsive to community needs, reinforcing trust and increasing the flow of information; secondly, community partnerships increase the number of resources and tactics available for combating crime. For example, as a result of regular neighborhood meetings, neighborhood residents become more confident that police efforts are responding to their concerns, and share information more openly. The most successful Community Policing tactics improve coordination, communication, and trust between the police and the communities that they serve.

Another important aspect of Community Policing is its focus on problem solving, often through Problem Oriented Policing (POP) methods. These methods of policing focus on proactive, systemic examinations of specific problems or patterns. They emphasize analyzing problems in depth, and often include the use of information technologies such as Geographic Information Systems (GIS). Problem solving in the policing arena is based upon the SARA model – Scanning, Analysis, Response, and Assessment (see next section).

There are several challenges to maintaining a community-oriented approach to policing. One challenge is that in the high-crime areas where Community Policing is most needed, police resources must be dedicated to crime and incident response and criminal prosecution. Another challenge is that in areas of chronic crime problems, citizens may feel that their participation cannot make a difference.

North Charleston Police Department & Community Policing

The City of North Charleston Police Department (NCPD) is in many ways a model for its Community Policing practices, although the existence of a framework has not guaranteed improved outcomes in all neighborhoods. This reality reinforces the tenet that there must be deep trust and ongoing collaboration between police and community members for Community Policing strategies to bear fruit. Community-oriented policing practices currently employed by the NCPD include:

- **Monthly Neighborhood Meetings** - Police attend meetings in nearly all City of North Charleston neighborhoods, although attendance varies widely.
- **Citizens Patrol Against Drugs (CPAD)** - These joint citizen-police patrols are usually done upon the request of the neighborhood. Low citizen attendance is an issues with many of these CPAD patrols.
- **School Lunch Program** - The City has regular day patrol officers attend local public schools once monthly to sit and talk with local elementary school children.
- **Neighborhood Enhancement Teams** - These are cross-functional City of North Charleston teams that include code enforcement, housing, recreation, and public works departments. These teams walk through a target area and identify physical issues to be addressed through whatever resources these departments can bring to bear.
- **Community Panel** - The Police Department established a Community Panel in 2008, led by Pastor Augustus Robinson, to improve police-community relationships and to guide the police department in its fight against violent crime.
- **Neighborhood Resource Officers (NROs)** - Neighborhood Resource Officers are officers assigned to a specific neighborhood and dedicated to the community policing effort. They are not asked to respond regularly to calls so that they can work on getting to know people and issues in their particular community. The Neighborhood Resource Officers are the heart of the City of North Charleston's Community Policing efforts.



Local police officers at a community gathering

Enhancing Community Policing in the LAMC Area

Two basic strategies are recommended for enhancing Community Policing in the LAMC area:

- **Problem-Solving Partnerships and Problem Oriented Policing (POP)** - Although the Police Department has a number of general outlets for community partnership, they have not formally engaged LAMC area neighborhoods in a Problem Oriented Policing (POP) initiative. The NCPD can engage the resources of the Police Executive Research Forum (PERF), with which it has an existing relationship, in order to assist with this effort. The goal would be to identify a specific crime problem that could be the focus of joint police-community efforts and set the stage for further collaboration. It would be important to set the expectation at the outset that not every crime issue can be addressed simultaneously; rather the success of a problem-oriented approach depends upon a specific focus for analysis and intervention. Problem-Oriented Policing is further described in Appendix I.
- **Increase participation in existing outlets for community-police collaboration** - A number of strategies should be explored in this regard, through a trial-and-error approach. It is important that a sub-committee specifically tasked with increasing the level of community-police collaboration be formed. Some strategies include:
 - Seek LAMC representation on the NCPD's Community Panel. This panel is specifically tasked with improving community-police relations and enhancing community partnerships, and is therefore a key organization.
 - Track and publicize attendance at neighborhood meetings for all LAMC neighborhoods. Award a neighborhood improvement grant to the neighborhood with the highest annual attendance, or with the greatest improvement in annual attendance. Friendly competition can be an excellent motivator, especially if there is an incentive attached.

- Market and publicize CPAD patrols better, or find an alternative method for organizing the community against crime. While the CPAD patrols are a worthy effort, if attendance is not increased, alternative approaches should be considered. For example, some communities host outdoor parties or evening social events as take-back-the-neighborhood events (i.e. National Night Out). Remember, the purpose is greater communication and trust building, and no particular approach is necessarily the right one.
- Include key neighborhood representatives in the rounds of the Neighborhood Enhancement Teams. This will help increase the flow of information between neighborhoods and all relevant City departments, and add focus on Neighborhood Enhancement Team interventions. Ensure that every LAMC neighborhood is visited by a Neighborhood Enhancement Team at least once annually.
- Include Neighborhood Resource Officers for Accabee, Union Heights, and Chicora/Cherokee regularly in LAMC meetings, either as part of the regular monthly meetings, or as part of a regularly meeting sub-committee focused on public safety issues. Establish a regular report for crime trends in these areas so that important changes in crime patterns can quickly be identified and strategies for addressing them can be discussed.
- Consider integrating bicycle-based patrols. Bicycle based-patrols make it easier to see and communicate with police officers and encourage police officers to become more intimately aware of the surrounding community. While bicycle-based patrols demand a high level of fitness from the officer corps, some officers appreciate the opportunity to get out of their cars and integrate exercise into their regular patrol.



Community police station on Rivers Avenue

Coordinate Police and LAMC Community Development Efforts

Another strategy that LAMC leadership should pursue is:

- **Creating institutional linkages between the (proposed) LAMC CDC and the North Charleston Police Department.** As stated above, many of the most successful crime combating efforts involve partnerships between police and community stakeholders. However, one particularly promising trend nationally is the growing success of partnerships between police and community development organizations. Community development organizations and police departments have found that their interests coincide and that they provide complementary approaches to what is really a unified underlying problem – how to build up a strong community that is naturally resistant to crime. Crime can be a persistent drag on community development efforts, so community developers need police involvement and intelligence. Likewise, it is difficult to combat crime through policing alone, so the police need community developers for the building blocks that provide the foundation for long term deterrence. Most crime-ridden communities need simultaneous, integrated improvements on a number of fronts at the same time – housing, education, jobs, safety, and health. Comprehensive community development is the only long term cure for crime problems. Community developers are well situated to promote quality, stable new housing or new businesses that create the foundation for health communities.

Best Practices in Community Development and Police Collaboration

Collaborations between Community Development Corporations (CDCs) and police have happened around the country, and generally involve a gradually deepening partnership over many years. Both sides must understand their roles and the nature of their collaboration. Both sides must also have flexible people who are willing to work with the other organization despite different organizational culture and priorities.

The role of the CDC is to create desirable, valuable places within the community that will then serve as anchor points for the community. High quality housing, well maintained parks, and strong commercial business districts serve both to make a community more desirable and to deter crime. It is important for the CDC to create a critical mass of quality development. On occasion, CDCs have even bought out an entire street or block in order to change the character of a distressed area. If the LAMC CDC is a property manager, then its role is to maintain its properties, deal with problem tenants in short order, and notify police of suspicious activity.

The role of the police includes targeted enforcement, crime prevention strategies, and crime analysis. Targeted enforcement against crime hot spots can pave the way for a broader community intervention or community development strategy. The police can also engage the community in crime prevention efforts through partnerships that increase surveillance and management of problem areas. The police can also provide analysis on the geography of crime patterns down to the block level, and therefore guidance for how community development resources can best be organized to displace or shift crime problems. In fact, one of the most important initiatives police departments can take to promote partnerships with CDCs is to build up their information analysis resources and produce block-level crime statistics.

For more information on partnerships between CDCs and police departments, please see the publication “Building Our Way Out of Crime,” US Department of Justice, Office of Community Oriented Policing Services, Geller, Bill and Belsky, Lisa, June 2009.

Crime Prevention through Environmental Design

Many crimes are the result of perceived opportunity, where perpetrators are most likely to pursue crimes that offer the quickest and simplest return. Physical elements may either encourage or inhibit the desire to pursue criminal activity. New development and redevelopment should be designed to incorporate design factors known to reduce crime to the extent possible, thereby increasing quality of life. Many CPTED techniques are best applied by residents and property owners to their own properties. CPTED may be particularly appropriate for properties that have poorly defined distinctions between public and private spaces. Simple and inexpensive measures such as fencing, access control, lighting, and landscaping could increase the sense of resident security as well as overall neighborhood security.

Crime Prevention through Environmental Design (CPTED) techniques provide guidelines for reducing criminal activity through physical design strategies. LAMC should publish and disseminate materials encouraging residents to take the lead on implementing the following design strategies:

- Natural surveillance enhances “eyes on the street” and includes design strategies to maximize visibility of key areas such as providing windows and front porches that overlook public areas, maintaining views of parking areas and building entrances, and ensuring that lighting is appropriate.
 - Installing low shrubbery or vegetation under ground-level windows.
 - Ensuring that retail shops keep window signage to a minimum, allowing visibility both in and out of shops.
- Natural territorial reinforcement provides a deterrent to intruders by clearly defining property lines and separating private and public spaces through landscaping and fencing, emphasizing a sense of ownership and interest in private spaces.
 - Using fences, hedges, tree lines, or planter boxes to separate public and private spaces: three- to four-foot fences allowing some transparency, such as picket fences, are appropriate for front yard; four- to five-foot fences allowing some transparency, such as picket fences, are appropriate along residential property lines to provide privacy between residents while allowing surveillance; fences six-feet tall, with limited to no transparency, are appropriate to delineate backyards from public alleys.
 - Using signs to establish ownership and any limits on use.
 - Maintaining buildings, yards, gardens, sidewalks, and other features, and keeping them clean, providing a sign of guardianship.
- Natural access control reduces access to crime targets or victims by providing a perception of risk to potential intruders, attained by designing transitional spaces between the public way and the private realm to limit access to potential offenders.

- Marking changes in elevation and using variations in paving or flooring materials to define transitions from public to private spaces.
- Eliminating access points to roofs or upper stories.

CPTED is useful because it helps a community put into analysis all of the factors that encourage criminal acts. Furthermore, CPTED techniques are particularly suited for communities attempting to target problem areas in specific neighborhoods, to help establish programs or strategies that are proactive and tailored to the problem and the location. CPTED engages an array of citizens, government agencies, and local institutions, each of whom has a role to play in defining the problem and deciding upon an appropriate solution, as well as provides some accountability for long-term improvements.

Target hardening, which includes safety features that prevent entry or access such as locks and gates, is a security technique that complements CPTED strategies, since it addresses the final opportunity to keep out the intruder from a building or property. CPTED features may be supported by locks, alarm systems, CCTV, guards, or other security measures in some situations. Ensuring that appropriate exterior doors are installed and orienting doors so that hinges are located on the interiors of buildings are important strategies that property owners should keep in mind when ensuring that their buildings are secure.

Where applicable to site design, CPTED techniques have been applied to the design concepts included as Implementation recommendations. For example, new housing located across from a park is oriented to face the park, thereby increasing the residents' surveillance of the public space. For renovation of existing retail buildings, CPTED strategies would include ensuring that storefront windows remain clear of window signage to the extent practical, allowing visibility both in and out of shops.

Explore Surveillance Camera Alternatives

Since the September 11 attacks on the United States, security cameras have proliferated in American cities. Major metropolises like New York City, Chicago, Washington, D.C., and Los Angeles have initiated massive surveillance programs, largely to protect residents from crime and provide improved emergency response. In Chicago, for instance, surveillance cameras operated by public and private institutions are being routed to a central emergency management office for monitoring. Many decry the potential violation of privacy rights made possible by city-wide networks of surveillance cameras and monitoring staff, but anti-crime groups and city officials have lauded their benefits. It is difficult to evaluate the general effectiveness of urban surveillance camera systems, given that factors such as camera technology, monitoring capability, inter-agency communication, can vary widely from case to case. However, an increasing body of research is accumulating on the issue.

The most comprehensive study on the effectiveness of surveillance camera programs was completed in December 2008 by researchers at the University of California, Berkeley, who evaluated San Francisco's Safety Camera Program. The study's findings indicate that safety cameras had no impact on violent crime, whether near or further away from the camera. Also, no decline in homicides, prostitution, drug activity, or vandalism was found. However, a substantial decrease in property crimes was found in the vicinity of safety cameras - a drop of twenty-four percent within 100 feet.

Before pursuing an extensive surveillance camera program, LAMC partners should carefully define the intended purpose of such a program, and then research areas for which a similarly defined program has proven successful. With such resource constraints, LAMC communities might best be served by a narrowly targeted surveillance program that complements the community policing innovations recommended in this report.

5.3.4 Community Centers

Community centers can be an incredibly versatile resource in the LAMC neighborhoods, adding value to a multitude of interest groups. They are vibrant hubs of activity, as evidenced by Gethsemani Community Center in Union Heights and Felix Pinckney Community Center in historic Liberty Hill. This plan envisions community centers taking a more central role in achieving the objectives of stabilizing and enhancing the LAMC study area. The following strategies reinforce the primacy of Community Centers in LAMC neighborhood life:

- **Develop Community Centers as the hub of neighborhood stabilization and enhancement:** Gethsemani Community Center offers programs for almost every age and stage of life. Programs include: elderly activities and appreciation (dinners; Mother/son and father/daughter events; movie nights on Thursdays; after-school programming; quilting class on Wednesdays; Menagerie Monday - a different theme each week). It has hosted

activities in the past which might serve as models for future initiatives. Coke Jam, held years ago, was an event held by the city in which a stage was brought in and entertainment acts were brought right into the neighborhood. Admittance was free, and everyone welcomed the opportunity to attend an entertainment event within the neighborhood rather than having to drive to another part of the city. GED preparation courses have periodically been offered in collaboration with Trident Literacy Association, as space and demand permit.

- **Conduct usable space audits at each of the LAMC-area Community Centers:** A Clemson University landscape architecture student, Bradley Hance, has been working with Gethsemani Community Center leadership as part of his final project to develop a site plan and space recommendations for future activities at the Center. Through collaboration with Gethsemani staff and other stakeholders, it is hoped that this work will lay the foundation for making Gethsemani the model community center in the City of North Charleston. For more information on Mr. Hance's audit and proposals at Gethsemani, see Appendix I.

- **Establish programs related to the unique cultural identity of LAMC neighborhoods:** To achieve this goal, stakeholders recognize that the Center must not only serve the neighborhood of Union Heights, but it must reveal the cultural identity of the area and create connections, both physical and relational, that will draw residents and visitors alike. Gethsemani Community Center has proven an innovator in this area with their development of the Djole Dance Company. Ten years ago, leaders from the community center took a group of young people to see an African dance recital, and an interest was sparked in the group. The group began buying drums from a Ghanaian artisan, and that relationship blossomed into an exchange program. A group of forty from Gethsemani went to Ghana in 2006, including twenty-one children. The group participated in a national AIDS awareness and dance event and other cultural activities. The relationship has blossomed into a joint initiative called Project Okurase, which works to improve the lives of children in both Ghana and the Union Heights community. Djole has become an important piece of the neighborhood's cultural makeup, and the group has now performed in Africa and in front of the United Nations, among many other places. Gethsemani leadership, along with Mr. Hance, are proposing the establishment of the Gethsemani Cultural Area, which would be accompanied by information kiosks and wayfinding elements on Meeting Street Road and Spruill Ave, which are the major thoroughfares near the Center.

Challenges to Community Center Efforts

Despite the wealth of resources available, some Community Centers and programs struggle to take hold in their neighborhoods. Some of the challenges to higher utilization have been expressed by Community Center directors. Some noted challenges are:

- **Gender disparity** - It is far more difficult to get men involved at the Center than women. New programs and outreach efforts need to focus on how to involve them, as their involvement is crucial to promoting a stronger community.



Felix Pinckney Community Center



Playground at Gethsemani Community Center

- **Transportation** - Providing transportation to and from activities at the center is a challenge which presents itself mostly to elderly and youth activities. Career training is the most highly demanded activity at Gethsemani. People come in asking for skills and access to software for job-seeking tasks.
- **Space/facility deficiencies** - According to Mazie Taylor, director at Felix Pinckney Community Center, all Centers are in need of technology- and computer-related programs. GED classes are frequently requested. Trident Literacy Association has previously provided instructors and materials for GED classes, but competition for space at the Center has made it difficult to continue providing the service. The need for more space is a recurring theme at Gethsemani even though it is one of the larger community centers in the LAMC area. Trade-offs between programs are common. For instance, during the summer, senior adult programming essentially shuts down to accommodate the youth programs operating between school years. Although these tradeoffs reflect high utilization of current space, administrators lament having to end one program in order to begin another.

5.4 ECONOMIC DEVELOPMENT

5.4.1 Redevelopment Projects' Economic Potential

Housing

A key element to successful, revitalized urban neighborhoods in the LAMC community includes providing ample opportunities for development of quality rental and for-sale housing in various locations throughout the seven study area neighborhoods. New housing may comprise a number of tenures and products—ranging from rental apartment flats, to market-rate for-sale single-family, to mid-rise condominiums. That determination will ultimately be made by multiple factors, including the marketplace, economic conditions, population and household growth, the availability of developable—and marketable—sites, and the provision of public incentives and funding designed to attract new investment in housing to the various neighborhoods throughout the LAMC area.

Notably, a key objective of both LAMC residents as well as City officials is to increase the supply of quality, owner-occupied housing units. Current estimates suggest that:

- Almost 67% of households in the LAMC study area are renters as compared to 57% citywide.
- More specifically, in 2008, 831 of the LAMC study area's 2,525 households (33%) are owner-occupants. Over the next five years, ESRI Business Analyst, a demographic forecasting service, predicts that the number of owner-occupied homes in LAMC will decline slightly—to 804 units (32%).
- By contrast, more than 1,694 households (67%) are renters today. Over the next five years, the number of renter households is forecast to increase—to 1,726 units (almost 68%).

While there is no minimum “desired” rate of homeownership, higher rates of owner occupancy typically enhance overall neighborhood stability. This forecast reinforces the importance of encouraging programs as part of an overall revitalization strategy that encourage homeownership, such as low- or no-interest loans aimed at encouraging home renovations, code upgrades, down payment assistance, and the like.

The recommendations of the plan concerning the creation of the LAMC Community Development Corporation (CDC) and the LAMC Community Land Trust (CLT) address two key elements in the implementation of the housing program. While the focus of the LAMC CLT will be on affordable housing, the LAMC CDC should be an active agent and partner in helping to bridge the development opportunities for a range of housing price points within the study area through assisting in the development of parks and, when the market can support community-based retail, assisting in developing it to help broaden the amenity base for the LAMC neighborhoods.

Other factors guiding market potentials for new housing in the LAMC area include the following:

- The analysis of housing conditions conducted by the planning team suggests fully 30% of the housing stock in LAMC today is in poor/deteriorated/dilapidated condition.
- There are approximately 800 vacant units/lots (25%) distributed across the seven neighborhoods. These parcels comprise over 110 acres of land, with high concentrations in Union Heights (303), Chicora/Cherokee (159), and Accabee (142).
- An updated review of Council of Governments (COG) forecasts suggest that population in the LAMC Revitalization Area will stabilize; however, forecasts indicate an increase of 326 new households (i.e. units) by 2030.

Clearly, there is opportunity to provide more housing in the LAMC area, but there is considerable work to do in the rehabilitation of existing properties and the development of new housing. The Model Block project provides two distinct and important economic development prospects:

1. The economic benefit to construction trades in the ongoing repair and construction of new housing; and
2. The increase in stable resident population that contribute to the commercial and institutional development interest in the LAMC neighborhoods.

A detailed discussion of housing absorption in both owner-occupied and rental properties may be found in the Appendix I, which summarizes the housing market analysis for both owner-occupied and rental housing. The analysis also considers recent new residential development underway in several areas outside of—but proximate to—the LAMC study area, including such projects as Oak Terrace Preserve, Horizon Village (HOPE VI), Mixson, and the planned housing at both Noisette and Ashley River Center.

Retail Development

Rivers Street Retail Corridor

To understand the challenges of estimating retail market potentials absent critical market data, the planning team prepared a preliminary analysis that examines general retail market potentials among LAMC area households. This is summarized below and described further in Appendix I.

Estimated retail spending potentials are based on household spending patterns, household incomes, and household composition as reported by the Consumer Expenditure Survey prepared by the U.S. Census for the Bureau of Labor Statistics. Among the LAMC study area’s 2,600 or so existing households, annual retail spending totals \$16.1 million. To translate this spending into physical retail space, total sales are divided by a sales (per sq. ft.) factor. From an industry and investment-grade perspective, sales are typically 10 times a tenant’s rent. In order to justify the feasibility of new retail construction rents in the \$20 to \$25 per sq. ft. range, \$200 to \$250 per sq. ft. in sales would need to be reached.

However, retail space in the LAMC study area will not command market-rate rents at this level; thus, the planning team reduced the required sales estimates to \$150 per sq. ft., which would suggest public subsidies to write-down retail rents to roughly \$15 per sq. ft. to attract new retailers to LAMC. For the purpose of the plan recommendation, sales were increased in 2030 to \$180 per sq. ft. to reflect overall neighborhood improvements (see table X).

For estimating how much a particular retail district might capture in annual sales from its surrounding trade area, a rate was developed by examining the trade area’s existing retail offerings, quality of retailers, the potential for increased sales with improved retail operations, size of the trade area, and professional judgment considering nearby competition and other available retail purchasing opportunities for customers to derive more precise estimates of supportable retail space. The plan acknowledges that a majority of LAMC area households would support better-quality retail proximate to their neighborhoods. This opportunity is likely to increase over time as neighborhood revitalization initiatives enhance market draw and overall business quality.

Presuming the addition of 600 to 700 new households in the LAMC study area as estimated in the housing analysis by 2030, this increase has the potential to raise annual household retail spending to almost \$30 million. Other market segments might also enhance the amount of supportable, investment-grade retail space, such as nearby employees (there are an estimated 3,900 employees among the 350 or so businesses in the LAMC study area) as well as potential visitors to an area. However, no data were available on visitors, visitor behavior, or visitor spending patterns in

North Charleston or the LAMC community, which is still critical data required to make a full assessment of market supported retail.

Even with the other market factors, such as nearby employees, supplementing retail potentials by as much as 10%, the resulting estimates of supportable investment-grade space—in the

Figure 5.35 Preliminary Supportable Retail

Preliminary Supportable Retail Potentials: LAMC Area Households, 2010-2030		
	2010	2030
Annual HH Retail Spending	\$16.1 million	\$29.6 million
Required Sales per sq. ft.	\$150	\$180
Gross Supportable Space	107,300 sq. ft.	164,400 sq. ft.
% Capture	35%	50%
Supportable Space	37,500 sq. ft.	82,200 sq. ft.

range of 40,000 sq. ft. in 2010 to 90,000 sq. ft. by 2030—is significantly below current estimates of 235,500 sq. ft. of existing retail inventory. This investment-grade analysis is critical because such retail tenants are deemed credit-worthy and have sufficient access to capital/financing necessary to justify inventory, marketing and sales outreach, and business expansion as sales conditions warrant.

In light of the supportable space implied by this analysis, the retail must be concentrated in key locations that have the best chance of succeeding. One area the plan recommends is along Rivers Street running south from the Shipwatch Square and past the intersection of Cosgrove Avenue. The economic development opportunity along this corridor will also coincide with the right-of-way improvements proposed for Rivers Avenue, which is already heavily traveled by vehicular traffic and has the sidewalk infrastructure to support more pedestrian activity. Moreover, it is anchored by the CARTA bus transfer facility, which provides an alternative for ridership to this area. Also, the proximity to Shipwatch square is an important consideration for the economic opportunity along this corridor.

In addition to the area retail opportunity anchored to the north by Shipwatch Square, some increment of local businesses should supplement investment-grade potentials. However, given the lack of market information on the current conditions of local business owners, it is critical to conduct further study on the viability of existing local businesses to devise appropriate support strategies for them to effectively maintain and grow business in this location.

Shipwatch Square

LAMC study area residents and City of North Charleston staff have indicated the urgent need for a new grocery store in the area since the Winn Dixie chain closed all of its stores (including one on Rivers Avenue) in South Carolina, including their location at Shipwatch Square. As such, the planning team prepared a preliminary analysis of grocery store potentials.

Today, LAMC area residents reportedly spend approximately \$8.1 million per year on grocery and other foods as well as convenience store goods. Some amount (estimated at \$2.9 million) is spent outside of LAMC neighborhoods; however, this is likely far higher given that the nearest full-service grocery store is located approximately four miles from the LAMC study area.

While detailed market and financial feasibility studies are required to generate a precise estimate, preliminary analysis indicates that \$7.5 to \$8.0 million in annual grocery store spending would support between 16,000 and 18,000 sq. ft. of grocery space—if **fully 100% of this spending is done locally and at an assumed sales productivity of \$450 per sq. ft.** (National grocery store chains frequently require minimum sales levels of \$500 to \$600 per sq. ft., however, which would lower the amount of supportable space.)

According to City staff, a national grocery store chain with numerous stores in similar urban locations recently showed interest in constructing a 15,000 to 20,000 sq. ft. store in the LAMC area. While this has not come to fruition, it is a hopeful sign that grocery stores find aspects of the market attractive.

The Shipwatch Square location would still appear viable for such an opportunity and while formally outside the study area, the plan supports efforts to revitalize that location for an investment like a grocery store, which could pull patrons that bolster the inflow or non-local retail customer for the Rivers Corridor.

A good location for this store would be at the highly visible and trafficked intersection of McMillan and Rivers Avenues, where Shipwatch Square is located. This is estimated to have the greatest potential for concentrated investment-grade retail development in the LAMC study area. Other locations may be suitable for more neighborhood-scale retail development in the community, in particular Rivers Avenue between Cosgrove and Reynolds and at the intersection of Stromboli and Spruill. These are described further earlier in this section as primary redevelopment projects for the LAMC community.



The former Winn Dixie site at Shipwatch Square

Stromboli Corridor

The other opportunity for new development that captures retail as part of a mixed-use strategy is along the proposed Stromboli Avenue Corridor. The economic development intent for this project includes the placement of retail at the corner of Stromboli and Spruill (as a major existing corridor) and new access road intersect to create an easily accessible destination for retail. The remaining Stromboli corridor toward Carner Street would eventually accommodate a mix of multi-family and single family housing, timed to follow the successful implementation of the Model Block program.

The potential redevelopment of the GEX facility or other anchored uses at the western end of the corridor would provide an institutional anchor, which at the moment is envisioned as housing much of the not-for-profit organizations like the LAMC CDC, LAMC CLT, the Maritime Institute and a farmers market. The complement of these operations should establish a node of activity along the corridor, which in tandem with many of the LAMC CDC activities, such as the local DBE (disadvantaged businesses enterprises) support will eventually be a strong contributor to the long-term economic viability of the LAMC communities.

Office Development

The LAMC study area is currently not a marketable location for office space. As revitalization initiatives are implemented (including increasing the number of homeowners) over time (i.e. beyond five years), additional households will incrementally generate demand for small amounts of professional office tenants—most likely in the medical/accounting/engineering sectors. Leasing the lion's share of the existing 35,000 sq. ft. of vacant space will be necessary before the capital markets will consider financing of new office construction.

Revitalization strategies to attract new office development include:

- **Establish an Office Building Renovation Fund** - Physical conditions of existing office space should be evaluated by LAMC, in coordination with the City of North Charleston's economic development and planning staff, to understand what buildings are candidates for a renovation program. An office building renovation fund could be structured in one of two ways: 1) as a direct matching grant program to leverage private investment from building owners; or 2) as a revolving, low- (or zero-) interest loan fund whereby funds are recaptured over time for use by future applicants. Strategies should ensure that financial incentives are used for appropriate purposes. For example, renovation funding will create/add value to an appreciated asset. As such, the funding program should ensure that property owners do not raise rents to the degree that it would preclude attracting price-sensitive tenants in a location such as the LAMC study area. Alternatively, renovation funding could be designed to be awarded directly to office tenants for improvements that also specify minimum occupancy/lease terms to ensure that the value of the renovation fund is amortized over time.
- **Attract a government tenant as an anchor and catalyst** - Because LAMC is not a viable location for speculative/private office development today (or for the next several years), oftentimes commercial revitalization strategies will include securing a major government agency—such as a social service department of a county government—to occupy a government-sponsored office building as a means of jump-starting or catalyzing other commercial revitalization initiatives. Such an anchor could locate in many places, such as the former GEX facility along Stromboli Avenue, along Rivers Avenue, or at Shipwatch Square.
- **Implement a business retention and recruitment program** - A carefully targeted business retention and recruitment program for office tenants should be designed. While this is not an immediate-term priority, over the next three years a retention and recruitment program that targets price-sensitive office users, such as professional and service-related tenancies, should be implemented. LAMC and City economic development and planning staff should coordinate this effort with leasing activities planned by Noisette (River Center) as well as Port administrative staff to ensure that opportunities to attract tenants or spin-off businesses (that do not necessarily need to be located on the Port) are successful. Business retention and recruitment strategies for office-using sectors should be focused on creation of a professional services cluster. This could include medical/dental/legal/accounting/engineering occupations that derive much of their business from household growth and nearby employment centers such as Noisette and the Port. The strategy should ensure the creation of a "critical mass" of professional and service-related businesses. In turn, this could be expected to provide some increment of additional support for retail businesses in the LAMC study area.
- **Develop an office incubator program** - An office-incubator program that provides very low-cost space and training programs should also be considered. This can be designed to dovetail with existing educational and

training programs (such as computer literacy and job training at Trident One Stop Career Center) or new ones (such as the potential Maritime Institute), working with local and regional entities such as the Charleston Chamber of Commerce, to attract tenants in the professional and business services sectors. These and other labor force skills are critical when office tenants are making location decisions with regard to tenancy. In addition, this is an opportunity to utilize existing (viable) vacant space in one of the study area's office buildings and should be designed to serve as a marketing/outreach effort for prospective office tenants. Alternatively, the GEX facility would be a good location for such incubation space.

Port-related Development

While the railroad is one of the most popular modes for landside service and distribution for inland river ports, it represents a highly inflexible investment in land-usage compared to other more tractable modes, like trucks. Railroads can be a massive consumer of ground space because of the increasing use of unit trains, heavy cars, special stack cars for containers, ever larger rail curves.

The widespread assumption that the local and regional economic effect of rivers' ports is positive and beneficial is valid and has been shown anecdotally to be evident. Beyond the direct employment benefits from on-site port-based jobs or contract- and trade- related jobs ensuing from construction projects, specific data and information concerning the magnitude and nature of off-site multiplier effects for high paying jobs are rare across the country. Nonetheless, there are economic development opportunities for LAMC from the Inland Port Development that should be pursued. These opportunities would be highly dependent on three sets of factors:

1. Port-asset utilization level and shipping volume, which for the LAMC area will be set by the global maritime market and the competitive advantage the North Charleston Port Facility has with other regional coastal ports like Savannah;
2. The extent to which LAMC offers opportunities for wage earners at the Port itself to spend earnings within the LAMC area. Again, the pattern of "retail following rooftops" links the overall strategy for the LAMC area's multiplier benefit from the Port operation with sufficient critical mass from the model block and residential goals to repopulate the community; and
3. The ability to incubate, attract, or develop businesses that either supply goods to the Port operation itself or export goods at a competitive advantage due to their proximity to the Port itself. This strategy should be avidly pursued with the Port on an ongoing basis and be a cornerstone in the Maritime Institute curriculum and the business incubator.

5.4.2 Programs to Assist Local/DBE Vendors

As LAMC moves into facilitating redevelopment through its funding sources, it will be creating opportunities for economic development through the creation of jobs and new business ventures. To enable minority- and women-owned businesses (also known as "disadvantaged business enterprises," or DBEs) to have increased opportunities to participate, every effort should be made to link local small business owners with local, regional, and state offices.

In Section 6 (Implementation Plan), it is proposed that LAMC help establish a Community Development Corporation (CDC). One of the CDC's major roles will be to establish and maintain a program to help local vendors position themselves for project opportunities within the LAMC study area. Serving this function, the CDC has an opportunity to be a resource and information clearinghouse in the redevelopment process, helping make their constituents informed consumers.

As a new organization, establishing and maintaining a program to assist local vendors is a relatively straight-forward service which can be provided that does not require the substantial capital investment required to act as a builder or developer.



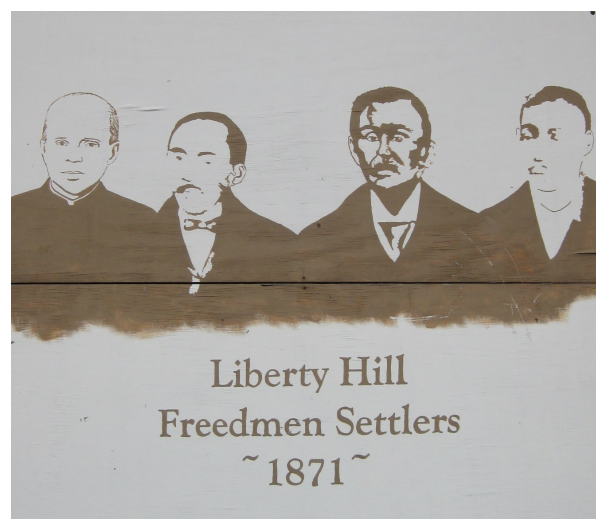
This operation would be housed with the LAMC CDC and would include as a baseline:

- **Training and Development** - Provide educational programs to support and strengthen local vendors/ contractors.
- **Construction Services** - Provide liaison between local vendors/contractors, general contractors and owners of projects.
- **Voluntary Support** - Enlist governmental bodies, other construction users and building contractors support by advisory members to this unit of the CDC.
- **Monitoring and Tracking** - Maintain a reporting system for measuring local vendor/contractor participation and general contractor support of program guidelines.
- **Goals Setting** - Establish relationships between General Contractors' and local vendor/contractor to encourage local participation on construction projects.
- **Funding** - Develop funding sources to support staff and programs.
- **Career Opportunities** - Promote career opportunities for minority and disadvantaged students through education scholarships and expand employment opportunities.
- **Certification** - Verify a firm's status as a local enterprise and verify any other certification under federal, state, or local programs.
- **Public Relations** - Provide information concerning the programs and objectives to local as well as national media.
- **Plan Room Access** - The CDC should maintain an official plan room for use by local vendors/contractors. Contractors should be able to use the CDC plan room to perform their take-off, or check out project plans for up to 48 hours with approval.
- **Weekly Summary** - A weekly summary report is mailed to the program membership and posted to a web site for local vendor/contractors on planned, current, and future construction projects in the LAMC study area in particular and in the North Charleston region in general. The summary report includes bidding requirements, project size and estimated value, scope summary, owner, architect, engineer, and bid date, time, and location.
- **Quantity take-off** for material and labor on selected construction projects. Technical assistance must be made available through the CDC office and through referral to qualified local estimating services. Contractors can take the quantities of material and labor for a specific job, review them, and then add their respective overhead and profit prior to bid submittal.
- **Internet Plan Room Access** should be available at the CDC. Contractors should have access to electronic plans and specifications. Plans can be viewed on computer at the CDC office, and can be sorted for locale, by trade, or size. Utilization of this service benefits contractors through time and money savings particularly as they start-up businesses.
- **Computer Bank** – This should be available for use by any local vendor/contractors, so they can source information while they are using services at the CDC.

5.4.3 Cultural Tourism

The LAMC study area is at the crossroads of an amazing American story. While the historic and cultural characteristics of the LAMC neighborhoods have thus far been under-documented by local, state, and federal jurisdictions, the rich architectural preservation of the City of Charleston to the south and the language and culture of coastal African-American settlement throughout the region have already established South Carolina's seaboard as a draw for those interested in this historically and naturally vivid area of our nation. Military history is particularly rich in the area as well.

The LAMC area certainly has a distinct story and history that it must still examine and assess in its quest to



Sign commemorating Liberty Hill's African-American settlers

establish a new beachhead for cultural or heritage tourism. The first step should be in assessing LAMC's potential for heritage tourism. Five areas of focus can set the direction and extent to which cultural tourism will be a viable pillar for the community's economic vitality. These include:

- Attractions/Destinations.
- Visitor Services and Support.
- Organizational Capacity for Events.
- Protection of Assets.
- Promotion and Marketing.

The attractions – both existing and potential - in LAMC should be inventoried to establish a baseline to make key decisions about prioritization and potential as cultural heritage tourism components. Particularly in light of the strongly established cultural heritage of the region, a hard evaluation of the real ability to draw visitors with a compelling story and outcome is critical. At this time there do not appear to be any sites within the study area that are listed on the National Register of Historic Places, and South Carolina does not have a state registry in addition to the national. However, the South Carolina Institute of Archaeology and Anthropology and the South Carolina Department of Archives and History are jointly developing a geodatabase that includes all places on the National Register as well as places they consider worthy of consideration or nomination. Their website offers an interactive mapping software for displaying the locations of all such items. In the LAMC neighborhoods, these places include: a World War II chapel on Hobson Avenue; the 5-Mile Viaduct at Rivers Avenue and Meeting Street; Freedman's cottages on Irving Ave and Joppa Street; Six Mile Elementary on Thomasina McPherson Boulevard; the Charleston Naval Hospital; the John C. Calhoun Homes and Office; George Legare Homes; the Coast Guard Air Station Bachelor Officers' Quarter; GARCO employee housing; and a Marine Corps barracks. The lone historic marker in the LAMC area is located at the Felix Pinckney Community Center and commemorates Liberty Hill as the oldest neighborhood in what is now North Charleston.

The Institute of Archaeology and Anthropology and the Department of Archives and History are strong potential partners in helping LAMC further leverage its historic identity for cultural activities and tourism. LAMC leaders should consider conducting a LAMC study area-wide survey of historic and properties and work in collaboration with these partners to nominate some for the National Register of Historic Places.

Contact with the State Historic preservation office would serve to further identify and expand on possible inventory to test the viability of this market. There may be unidentified assets or "eligible" projects for federal or state designation stemming from distinct character and normally at least 50 years old and significant for their architecture or archaeology, or association with an event or person. If an historic survey has never happened, then it might be well worth commissioning in order to confirm the status of existing assets.

The other area that needs examination is cultural resources such as museums, theaters, or local cuisine, crafts, songs and dances. If the historic assets are insufficient to yield a destination preference for visitors, then the celebration of these creative aspects of the region can become a great anchor for visitors. Perhaps these are event driven and happen on a cyclical basis like a music, art, or literature festival.

It is also possible that the LAMC area can leverage its location with interpretation that ties it in to the rich regional story of the South Carolina coast. An aspect of the interpretation of the history, nature, or anthropology of the area that is not related in other venues may become destination opportunities if they are well presented and promoted. The coastal location, potentially the history of local music, and the opportunity to become a location for intercultural expression with West Africa are some of the ideas that could be explored as part of a new cultural attraction. LAMC should not overlook the potential of everything that is distinct in the community from its natural setting to the crafts



of the community. For generations the African American women of Gees Bend, Alabama created quilts that passed on skills, family history, and design concepts, emerging as the creators of a museum-class collection of quilts and tapestries blending craft, high art, and design that now draws visitors from around the world to their town or to any museum showing their work. This story cannot be replicated; nonetheless, it is instructive that many of the richest aspects of our communities that distinguish us in the world are just under the surface of our local activities.

Assuming that the exploratory investigations for tourism yield true potential for the LAMC area to assume its place among the network of tourist destinations on the South Carolina coast, then subsequent studies affirming visitor support, management capacity, inventorying of assets and marketing and promotion must be the next steps in incubating a tourism industry. This is a highly specialized area of expertise, particularly if the expectation of the cultural or heritage tourism is to bring measurable economic benefit to the community. It is firmly recommended that this study be done with programming and tourism experts to confirm the degree to which resources and time are committed to this pursuit.

5.5 ENVIRONMENTAL CONSIDERATIONS

5.5.1 Contaminated Sites & Brownfield Remediation

Brownfield Sites – Basis of Priority

Sites of environmental concern associated with former or current industrial land uses have been identified within the study area that will require additional investigation and most likely remediation prior to being considered for redevelopment. Additional sites exist that may present a health hazard but are not associated with industry, such as gas stations, dry cleaners, and solid waste facilities. The level of constraint associated with a specific site will depend on a number of variables, such as the planned redevelopment use, the time-frame for redevelopment, the type and extent of environmental impact, what stage the environmental corrective action is in (e.g., assessment, active remediation, activity use limitations, natural attenuation, no further action, etc.), and if there is pending litigation.

Given the concentration of probable groundwater contamination sources within the study area, it is recommended (and in some cases may be required by lenders) that any property located within one-half mile of a site that is listed on state and federal environmental databases undergo a Phase I Environmental Site Assessment (ESA) prior to the real estate transaction, and before detailed plans for development are produced. A Phase I ESA consists of a detailed review of available environmental documentation in order to identify any potential contamination sources generally within one-half mile of the prospective property. In addition to this ‘desktop research,’ a field review is performed in order to observe any obvious contamination sources within the vicinity that may reasonably affect the property. Neighboring property owners are also interviewed in order to determine the history of the adjacent and subject properties.

Should the Phase I ESA present reasonable evidence that the subject property contains or formerly hosted contamination sources, or may have been affected by adjacent sources, a Phase II ESA may be initiated, which entails more in-depth soil and groundwater sampling and testing. Upon completion of the soil and groundwater analyses, a recommendation for remediation methods is then developed, which are implemented through the Phase III process.

An alternative means for remediating former industrial sites intended for re-use is the United States Brownfield program, by which the local government (typically City or Council of Governments [COG]) applies for federal assistance to perform the analysis, testing, and cleanup activities. This program is largely regulated by the EPA in conjunction with state-level environmental regulatory agencies, such as the South Carolina Department of Health & Environmental Control (SCDHEC).

The City of North Charleston has recently received EPA brownfields grant funds which will allow for Phase I and Phase II ESA’s to be completed for various properties within the City in order to determine sites where no remediation actions would be necessary; or to help further refine the cleanup priority list. The LAMC Working Group and City of North Charleston Planning Staff should coordinate directly with the City’s Grants Administrator in order to submit a ‘wish-list’ of sites which may be eligible for use of these funds. The selection of these sites should be completed on the basis of the property’s role in the overall Revitalization Plan, as well as the currently apparent threat that the property may already be causing to surrounding properties. This may initially prove to be a difficult process due to the significant number of problem sites, but through coordination with the Grant Administrator regarding the terms of the funding, and through receiving feedback from the community regarding the Plan, the City and LAMC have a valuable opportunity to analyze constraints and opportunities on a more detailed level.

Remediation Next Steps

A primary evaluation of the conditions present within the study area should be initiated with local government in order to determine the best path forward regarding identification and mitigation of present environmental conditions, particularly surrounding the Stromboli corridor and Chicora Tank Farm redevelopment areas. It is recommended that the City of North Charleston and/or the LAMC independently conduct a Phase I ESA of these areas to identify any potential significant obstructions to future development. This will provide an initial level of due diligence to will help clarify the level of investment required for redevelopment, which is desirable by perspective developers.

Should obstructions to development be encountered, modern engineering and environmental practices are typically able to overcome them. For instance, providing a “cap” layer and surface water management system over a potentially contaminated site would prevent further impacts to the site and surrounding area from occurring during the remediation funding and implementation process.

Site-Specific Remediation

Remediation of contaminated properties will likely need to take place to advance the Stromboli Avenue Corridor and Incinerator site concepts; discussions for these sites in particular are discussed in their respective sections above. In addition, specific attention should be paid to the remediation of the Macalloy site, due to its Superfund status.

According to environmental due diligence completed for this project to date, the Macalloy Property, a former ferrochromium alloy production facility, is listed on the EPA’s National Priority List, or Superfund list. Unlike the Stromboli and Incinerator sites, the Macalloy Property is identified as a former hazardous waste handler (non-generator), and will therefore require a more stringent remediation process. A Record of Decision has been filed by the EPA, and at the time of the research (February, 2009) an Administrative Consent Order was under negotiation. The EPA has encouraged prospective purchasers to become involved with the remedy selection and implementation so that the remediation process can be reconciled with redevelopment concepts. Future land use at the property is envisioned as being consistent with the surrounding properties and zoning established by the City of North Charleston.

With a thorough analysis of the existing conditions both above and below ground at these sites, remediation measures can be developed and implemented that would enable the site to accommodate various future land uses. Although neither the landfill (on Stromboli) nor incinerator sites are listed for having generated or handled hazardous materials, groundwater monitoring and soil testing will most likely be recommended or required for the property transaction, or for close-out procedures, respectively prior to determining any activity-use limitations placed upon them.

5.5.2 Air Quality Recommendations

Terminal Operation - Best Management Practices

The Environmental Impact Statement (EIS) completed by the United States Army Corps of Engineers (USACE) for the proposed terminal categorizes possible Port-related air quality impacts into two general phases: construction phase emissions, and operational phase emissions. Construction phase emissions are projected to be significantly less than those generated at the full-capacity year of 2025; and while regional air emissions levels are expected to rise due to the new terminal and its associated operations upon reaching full-capacity, they would only represent a small fraction of the regional emissions (generally less than 1%). The State Ports Authority has committed to significantly reduce possible air impacts through their “Pledge For Growth” partnership with the South Carolina Department of Health and Environmental Control (SCDHEC), which outlines best management practices (BMPs) to be implemented during construction and throughout the operation of the Port .

Pollutants that can typically be expected to be generated during construction activities include fuel combustion emissions from earth-moving equipment and tractor trailers importing fill to the site, as well as fugitive dust particles from general construction activity, which are generally a nuisance to communities surrounding a construction site. In order to mitigate these construction-phase impacts, the SPA will include special provisions within the construction project’s contract documents as follows:

- All non-road equipment producing between 100 and 750 horsepower will be low emission vehicles that conform to the Federal Tier 2 or higher emissions standards.
- All equipment and vehicles will be registered and approved prior to commencing work.
- Diesel engines not active during construction activity will be turned off, reducing idling at the site.
- A dust control plan will be developed and implemented by the contractor.

Three primary sources of operation-phase emissions are identified and analyzed by the EIS, including container-handling yard equipment (cranes, lifters, hustlers, etc.); container ships and other small vessels used during berthing operations; and light duty gas and heavy duty diesel vehicles along terminal access routes and idling on site. Of these sources, container ships are by far the most significant generator of harmful emissions due to the amount of sulfur contained in the marine-diesel powering the ships. In order to mitigate the impact of emissions produced by container vessels, the SPA, SCDHEC, and local environmental activists are strongly supporting the Environmental Protection Agency's (EPA) current initiative to implement a 230-mile emissions buffer zone around the nation's coastlines in order to improve air quality. The EPA's initiative includes measures requiring ships that operate within the emissions control areas to use fuels with a maximum sulfur content of 1,000 parts-per-million (compared to the current average content of 40,000 parts per million) in order to reduce air pollution generated while in-port.

The SPA has recently made efforts within their existing Charleston terminals in order to reduce Port-generated emissions by streamlining the movement of cargo both from the ships and onto roadway carriers; these efforts are expected to be implemented and further refined by the new state-of-the-art CNC Terminal. The SPA has initiated an internal goal of limiting the amount of time a truck spends within the terminal (or turn-time) to 30 minutes, which greatly reduces idling times and therefore emissions generated by motor carriers while on-site. A goal of 40 container moves per crane per hour (exceeding industry standards) is maximizing the productivity of cranes loading and unloading the carrier vessels, therefore reducing the amount of time a ship will spend idling and generating emissions within the Port.

Additional operation-related measures taken by the SPA to reduce emissions include the use of electric cranes, container handling equipment, and refrigeration devices to greatly reduce the need for diesel engines on site. The SPA has also agreed to evaluate the use of ultra-low sulfur diesel, three years ahead of federal mandate. In order to reduce the amount of harmful emissions generated by trucks servicing the Port, the SPA, Charleston Motor Carriers Association, the South Carolina Trucking Association, the Charleston Metro Chamber of Commerce, SCDHEC, and the American Lung Association have jointly applied for EPA grant funding to improve trucks in the private sector fleet by retrofitting over-the-road trucks with new, lower emitting, higher efficiency engines. Other recommended practices to reduce environmental impacts caused by the proposed marine terminal include:

- The terminal can provide "plug-in" power to container vessels and tugboats to reduce idling while at port.
- The SPA should prepare and ensure adherence to a stormwater pollution prevention plan.
- The EPA/SPA should evaluate implementing graduated harbor fee that requires more polluting ships to pay higher impact fees.
- Regional authorities should monitor and enforce ship speed limits.
- Neighboring states should work together in coastal alliances to protect their marine natural resources and to share information on programs and technologies, and they should work together to jointly shoulder the neglected responsibility to neighboring communities and their surrounding environment.

Long-Term Air Quality Monitoring and Concerns

Concerns from the public and from regulatory agencies have been raised about current and future air quality within the Charleston 'Neck Area' and in adjacent areas such as the LAMC community. The Neck Area is the stretch of land connecting the Charleston peninsula to the mainland that is constricted by the Ashley and Cooper Rivers as they turn in toward one another - commonly characterized by interstate congestion and heavy industrial land use. The primary causes include the concentration of industrial land uses within the area and the presence of the I-26 corridor, which currently experiences heavy traffic volumes of 80,000 vehicles per day, as well as frequent congestion problems, which worsen the affect of mobile source air toxins (MSATs) on the local environment. Emissions generated by these MSATs are particularly more noticeable and harmful due to the fact that they are at "nose-level" as compared to industrial emissions generators.

In order to accurately quantify the current conditions within the area, SCDHEC is in the process of conducting the 'Charleston Neck Area Air Monitoring Study' in order to determine the most appropriate location for an additional permanent monitoring station, which will continue to sample local air quality before, during and after implementation of developments which may be expected to cause a change in emissions levels. In July of 2009, SCDHEC installed an Air Quality Monitoring Station at Chicora Elementary School in order to measure the amounts of toxic pollutants found in the air to see if the levels could be unsafe for the health of the children, staff, and nearby residents. Chicora Elementary was chosen for the study because it is located near a variety of pollution sources – cars, trucks, and buses

on the highway and interstate, fueling stations, dry cleaners, and large industries. Children's health is a priority, and DHEC and EPA are working together to make sure school environments are safe and healthy. This is part of EPA's nationwide study of the environmental impacts on children's health. It is recommended that representatives from the LAMC communities remain involved with public participation opportunities offered by SCDHEC.

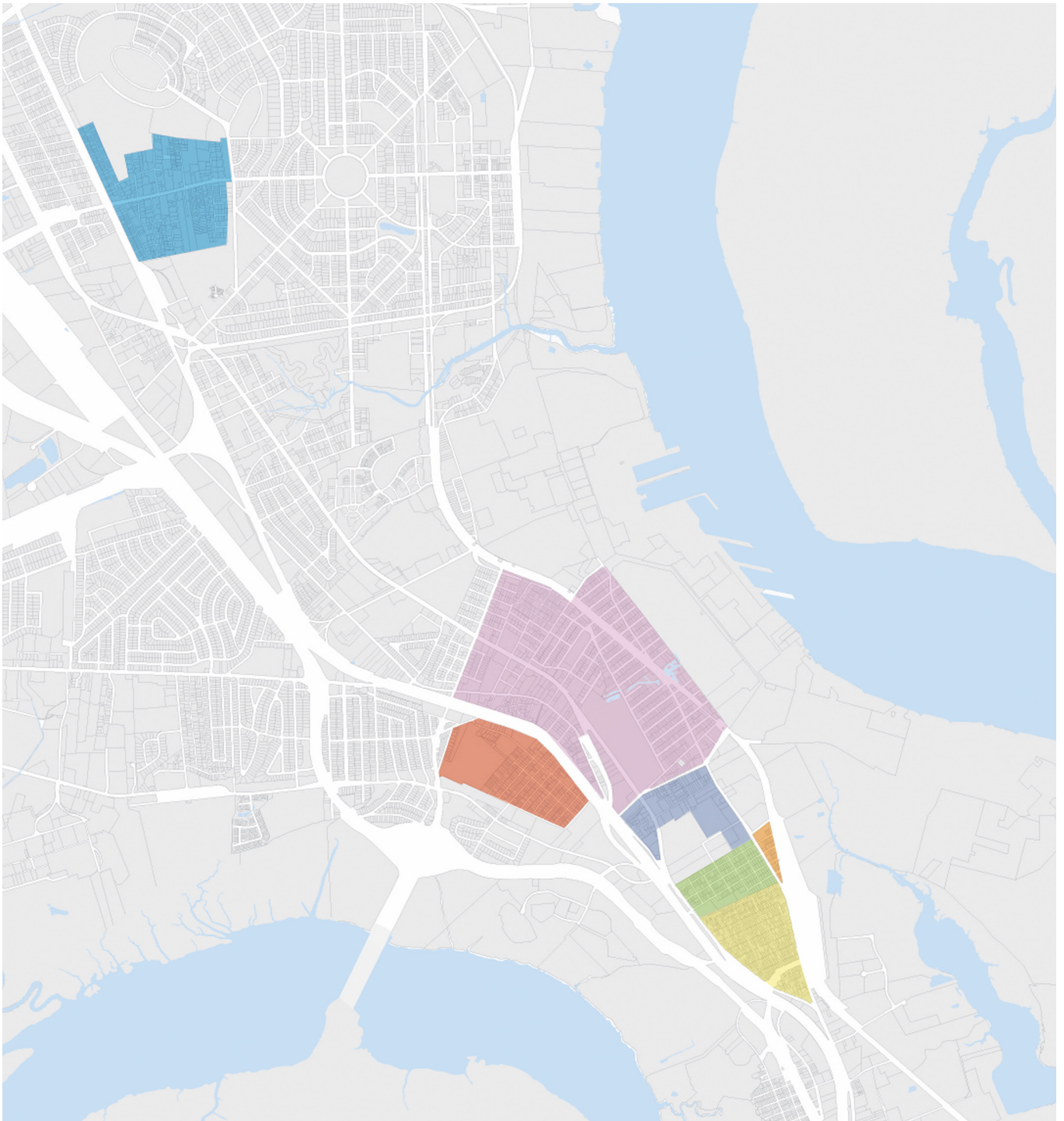
Additionally, LAMC in conjunction with the University of South Carolina's Arnold School of Public Health have recently received a \$1.2 million grant from the National Institute of Environmental Health Sciences in order to conduct a four-year environmental monitoring program specifically targeting the seven LAMC neighborhoods. While the study will be focused on mapping the concentration of air pollutants within the study area, the program will also incorporate soil sampling methodologies as well.

Given that vehicles on I-26 produce a significant portion of the area's toxic air emissions (especially worsened by gridlock conditions), providing relief to this portion of the interstate immediately surrounded by residential areas remains a primary concern for local organizations such as the Coastal Conservation League, who have filed suit against the SPA citing that on-dock rail should have been evaluated within the EIS as a transportation alternative in order to avoid the deterioration of I-26 by reducing the amount of truck trips generated by the facility. Although reevaluating this particular alternative would require reopening of the EIS document and is therefore not immediately viable, other alternatives may be evaluated in the future to give consideration to near-dock intermodal rail access. As previously cited, LAMC representatives should stay abreast of the ongoing legal and legislative developments surrounding this aspect of the proposed terminal project.

5.0

Redevelopment Priorities

6.0 Implementation Plan





6.0 Implementation Plan

With the refinement of the plan's specific program and project recommendations and their alignment with the LAMC community's aspirations and goals, the implementation component of the Revitalization Plan is articulated as the step-by-step roadmap of how LAMC transforms concepts into reality.

6.1 FROM CONCEPT TO REALITY

The transition from a conceptual plan to built form and the delivery of services is always critical as it is in the clear setting of priorities, resources, and expectations that the success of these efforts will be assessed for years to come. This plan is intended to apply over a 30 year horizon, so it is critical to establish the sequence in which activities should happen, both in making viable early achievements happen to set up the early momentum for the plan, as well as begin in many cases, the first of many related and complex steps in a series of action items that will call on commitment from many members within LAMC and throughout the community to make this plan a reality. Given the environmental impetus of this plan as well as its broad inclusion throughout the process, there are many constituents and organizations that have vested interest in the plan's success.

This section is organized in a manner that allows LAMC to understand how it needs to adapt into a new phase of its leadership in this effort and to identify key partners in the community at the onset. Working with the City of North Charleston, Charleston County, and the State of South Carolina consistent with their areas of public concern and LAMC's plan are also advanced. The implementation examines the creation of new entities in LAMC to align interests to contribute to the successful realization of the plan, such as a Community Land Trust for Affordable housing. There is also a broader outline on building capacity among LAMC's existing resources.

A Work Plan is also included that cites zoning recommendations for the specific redevelopment projects cited in this plan and sets forth specific objectives, tasks, priorities and timeframes for getting the plan done. In many ways, the implementation plan is the most critical component. It will be a living document, even more so than the plan itself

as it will be the most subject to change as the plan is tested against assumptions among stakeholders, partners and constituents through. In all cases it is important to keep the momentum forward on the implementation and manage the unforeseen opportunities in keeping with the transformational goals that the community has set forth.

This Work Plan does look at resources as understood at this time and lays them out to allow key players to understand what they will need to do in order for the entire plan to achieve its stated objectives in the broad range of program and project coming out of this significant effort.

6.2 ORGANIZATIONAL STRUCTURE

6.2.1 Purpose & Need for LAMC Capacity Building

Initial capacity building for LAMC should begin with a series of action steps that will lead to a sustainable organizational structure to ensure the long-term success in the implementation of the Community Mitigation Plan (CMP) and Revitalization Plan. Over time, LAMC should be established as the conduit for mobilizing and empowering local residents and businesses, and for representing their collective interests through the advocacy process.

Capacity building should always align with the mission and vision of the organization. Having decided to continue its leadership role, LAMC must organize to manage the redevelopment activities that will enhance each of the participating neighborhoods. LAMC must also train and mentor the next generation of leaders to continue to implement the CMP, the Revitalization Plan, and other internal and external strategies.

Some key areas where LAMC should increase capacity include:

- **Succession Planning** - Successors need to be identified to drive the plan as current leadership changes. This will help guarantee the long-term sustainability of the organization.
- **Public Relations** – An effective public relations program will be essential for LAMC to gain the necessary support among stakeholders, partners, and funding agencies.
- **Land Use/Zoning** – Understanding the local land use and zoning processes, as well as consistent participation and influence in decision making, is one of the most important capacity-building strategies for the LAMC organization. Zoning regulations, specifically, affect all new construction, most alterations, commercial occupancy changes, property-line changes and most site development.
- **Government Relations** – Building strong bipartisan support for LAMC’s agenda and strengthening partnerships through the local, regional, state and national political networks will assist LAMC’s success.
- **Membership and Board Recruitment** – The effective recruitment of future LAMC board and general members is a process that must be consistent and ongoing. Assessing an individual’s interest and willingness to commit to the mission of LAMC and ultimately share in the responsibility of improving the organization’s function is a skill the organization must employ to insure the vision is supported and executed.
- **Partnering Opportunities** – Partnering with agencies and organizations to maximize resources is a capacity-building strategy that will enable LAMC to strengthen strategic alliances and general outreach.

In order to fulfill these organizational objectives, the Revitalization Plan recommends LAMC’s formation of a Community Development Corporation and a Community Land Trust (described below).

6.2.2 LAMC Community Development Corporation (CDC)

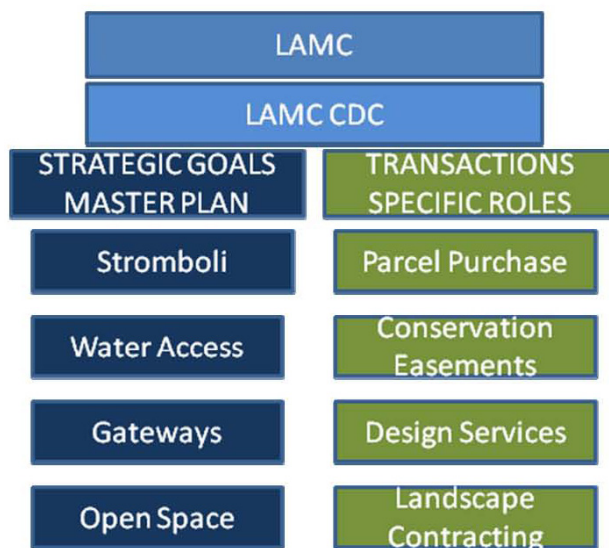
The role of a LAMC Community Development Corporation (CDC) as a lead development agency in LAMC study area neighborhoods is critical to the success of a community revitalization initiative since it is unlikely that for-profit developers will be attracted to these neighborhoods at the beginning of the redevelopment process. Establishing a LAMC CDC would not preclude the important role being carried out by existing non-profit development corporations such as the Metanoia CDC in Chicora/Cherokee. The proposed LAMC CDC would potentially provide support services that complement and not conflict with existing service delivery. The fact that it would be a start-up CDC with limited capacity to produce affordable or mixed use housing could be an initial impediment to the implementation of housing and economic development projects. However, the long term potential for “growing” a LAMC CDC will be critical for the successful implementation of much of the housing strategy.

The following is a general list of roles and responsibilities typically handled by a non-profit CDC as part of a community revitalization initiative:

- Homebuyer pre/post purchase counseling.
- Assemble property for development.
- Recipient of public and private funding for land acquisition and development.
- Lead developer for affordable in-fill new construction.
- Lead developer for the renovation of vacant houses.
- Lead or co-developer for economic development projects.
- Coordinate the repair of occupied houses.
- Implementer of community commercial projects.
- Liaison between community and business interests.

The LAMC CDC would be established to serve as an active agent under the Master Plan through specific roles that advance project priorities. Figure 6.1 below illustrates the two areas of focus that the CDC would need to maintain: strategic in achieving the primary objectives of the plan; and transactional in taking on responsibility in specific roles as contracting agent, including but not limited to land acquisition, recording CDC-owned properties for restricted uses, hiring designers or other professionals for pre-construction services, or engaging contractors to actually do the construction work.

Figure 6.1 CDC Areas of Focus



These are examples of priorities that may be assumed through implementation of the plan and a sample of the transactional roles that LAMC might undertake.

This organization would report to LAMC, but work closely with the city, public agencies, and private developers to ensure that the community's interests are realized and executed through selected, prioritized projects. As experience and resources accrue, the LAMC CDC will become an important, if not essential, agent in leading development initiatives toward fulfillment of the master plan. ***Skill sets in negotiation with government, development, and financial agencies, as well as project management, will be critical to the success of the LAMC CDC.*** In many instances, the LAMC CDC would be the developer of record for projects that initiate district or program implementation.

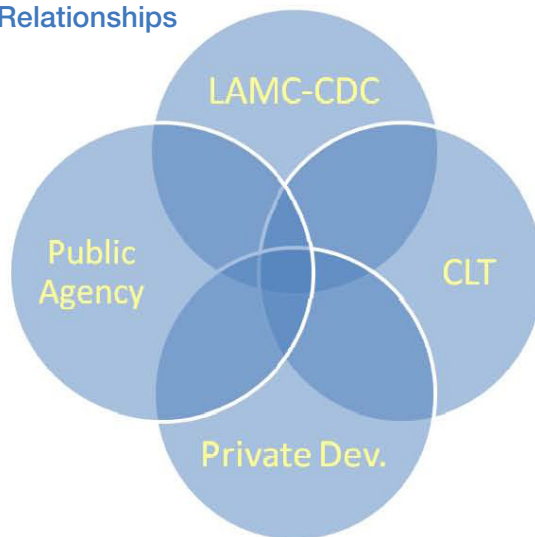
The transactional relationship among the LAMC CDC, the Community Land Trust, Private Developers, and Public Agencies would vary depending on specific project opportunities, but, generally, one might expect certain strategic and transactional relationships to occur, as shown in Figure 6.2.

Figure 6.2 LAMC CDC Strategic and Transactional Relationships

LAMC CDC Strategic and Transactional Relationships	
LAMC CDC / CLT	LAMC CDC would acquire property and deed it over to the Land Trust in order to allow for long-term development opportunities where the trust would retain ownership of the land and development would be transacted through a leasehold. This would be useful for affordable housing and other projects where the cost of land might restrict development opportunity.
LAMC CDC / DEVELOPER	LAMC CDC would work with private developer through the coordinated execution of public-private partnerships that enhance the community's interest in achieving certain objectives in the project's execution. Such objectives may include compatible development of adjacent parcels in mutually satisfactory outcomes, or easements for public purpose, or the timing in phases of development of areas of the community.
PRIVATE DEVELOPER / CLT	A Developer may work with the CLT to execute a project on property under the CLT's ownership consistent with the chartered use of the land trust. By leasing the land, the CLT offers the advantage to the developer for projects that fulfill the master plan's purpose and the CLT's charter but which also removes land acquisition costs. Affordable Housing would be the primary project delivery through this system.
LAMC CDC / PUBLIC AGENCY	The LAMC CDC would work with the city to refine the scope of work to implement specific projects for housing, community recreation facilities, streetscapes and other work products for specific target areas. A high level of focused project management would be necessary for the successful working relationship. Many of these ventures would include private development partners and, less frequently, the CLT.

In addition to the roles and responsibilities listed above, the LAMC CDC could play an important role in providing a bridge between local government/private sector interests and the community-at-large. Even though local government/private sector intentions are often for the good of the community, their roles are often misunderstood and generally linked to past experiences. An effective CDC can act as an intermediary to help translate programs and strategies into terms and conditions that affected residents can understand and believe. Moreover, depending upon their charter, non-profit CDCs can often access funding sources that are available only to approved organizations.

Figure 6.3 Development Relationships



As part of the LAMC revitalization strategy, it is recommended that a LAMC CDC consider partnering with an experienced for-profit or non-profit developer. It is suggested that the organizations' roles and responsibilities be clearly defined as within a partnership agreement that would be linked to a process that helps build the capacity of the LAMC CDC. Learning how to be an effective CDC capable of developing houses and other economic development projects will take several years of hard work to master, so it will be important for the community to understand the

length of the process and how the transition from a start-up organization will occur. Potential steps to follow in implementing this strategy could include:

- Identification of an experienced for-profit or non-profit development organization to work in the LAMC study area neighborhoods.
- Preparation of a three to five year work program, inclusive of benchmarks to evaluate progress and a process for transitioning roles and responsibilities of development to the LAMC CDC. The work program should be based on the LAMC Neighborhood Revitalization Plan.
- Establish a LAMC CDC Board of Directors with a composition similar to the LAMC Working Group.
- Conduct a local and national search for a qualified Director of the LAMC CDC. The position should be approved by the LAMC Working Group and funded through mitigation funding.
- The LAMC CDC and their experienced non-profit CDC partner should work together as a team to transition the day-to-day responsibilities of the revitalization projects based on the work plan, established benchmarks, and evaluation components.

6.2.3 Housing Trust Fund and Community Land Trust

The housing analysis estimates development potentials totaling 600 to 700 units (combined) of both for-sale and multi-family product between 2010 and 2030—suggesting an annual pace in the range of 30 to 35 units per year. This is likely to be a combination of: 1) incremental infill development of existing vacant lots—consistent with the single-family infill strategy and Model Development Block Sites recommendations, which are scattered throughout all seven neighborhoods comprising the study area; and, 2) opportunities to consolidate underutilized or vacant parcels for larger residential projects, which could include the undeveloped land along Stromboli Avenue as a key redevelopment project(s).

Notably, attracting the interest of local or regional residential developers and investors for market-rate housing will require identifying and securing large enough sites capable of accommodating a minimum of 100 to 125 units. Assuming an average density of 15 units per acre, minimum site sizes in the range of 8 to 12 acres would be necessary to accommodate single- or multi-phased projects of 100 or more units.

Therefore, institutional investors (particularly of multi-family rental product) will require minimum investment thresholds at this scale. Given the current economic downturn, credit freeze, and concomitant declines in housing sales and absorption, investment requirements for residential development are likely to tighten further as the economy recovers. Under these conditions, it is important to examine alternate means of delivering both market-rate and affordable housing to the LAMC study area. The Plan recommends the use of a Housing Trust Fund (HTF) - either the existing South Carolina HTF or a newly created local HTF - and Community Land Trust as means to deliver affordable housing during the current market conditions and to position the LAMC study area with a strong housing mix as the market re-emerges.

Housing Trust Fund

Housing Trust Funds are among the most effective financial tools advancing the cause and implementation of affordable housing in the nation. South Carolina is one of over 30 states in the nation to make use of this resource as a means of delivering affordable housing and associated services, such as home-ownership training, home ownership purchase, development of rental properties, groups homes and supportive housing, emergency home repair, and home rehabilitation.

Neighborhood reinvestment and stabilization are not only cornerstones for the residential component of the plan, but also form the basis upon which any commercial, institutional, or employment-based opportunities rely. Therefore, the application of a Housing Land Trust is an important tool for the overall success of the plan.

The South Carolina Housing Trust Fund (Housing Trust Fund) was created by the South Carolina General Assembly under the Housing Trust Fund Act of 1992. The primary purpose of the Housing Trust Fund is to promote the preservation of safe, sanitary and affordable housing for low-income families in the State of South Carolina. The South Carolina State Housing Finance and Development Authority (“the Authority”), acting as the Administrator for the State.

Under the plan, there are two ways in which the LAMC communities can benefit from the South Carolina Housing Trust. Housing Trusts are required to be government entities by law, therefore either the City of North Charleston or

Charleston County can apply to operate a Housing Land Trust within their respective jurisdictions. Moreover, the State of South Carolina can receive application from approved not-for-profits for funding support.

The Housing Trust Fund requirements for a not-for-profit are set forth in the S.C. Code of Laws. See Sections 31-13-400 through 31-13-470. An approved Housing Trust Fund participant is restricted to eligible Housing Trust Fund activities in which the nonprofit acts as either a developer or sponsor of affordable housing.

To become qualified for the State program, the nonprofit must:

- Be a private, 501 (c) (3) or (4) nonprofit organization as verified by the IRS.
- Be organized under the laws of the State of South Carolina and registered with the Secretary of State's Office.
- Perform housing related services within a defined service area, such as those identified in the Housing Trust Fund program.
- Provide written evidence of community support from the jurisdiction in which the service area is located;
- Provide evidence of previous housing experience.
- Provide financial data to support the qualifying nonprofit's financial responsibility and capacity.
- Provide documented "approval" from the qualifying nonprofit's board of directors to participate in the Housing Trust Fund program.

Community Land Trust

With the LAMC revitalization strategy's emphasis on housing, the plan's success would benefit from the creation of a Community Land Trust (CLT) as a private non-profit community organization that receives land to provide affordable housing. The LAMC CLT would buy and hold land in the study area permanently offsetting the market factors that cause housing real-estate prices to rise, especially in revitalization areas. The LAMC CLT could build and sell affordably-priced homes to families with limited incomes by separating the price of the house from the cost of the land.

Whenever a LAMC CLT home is resold in the study area, it will be at an affordable price to another homebuyer with limited income. Therefore, the goal of LAMC CLT would be to:

- Meet the short-term needs of affordable housing at the inception of the LAMC plan execution.
- Allow homeowners to build equity and gain stability in these properties as they live there.
- Enhance neighborhood stability.
- Prevent resident displacement.
- Achieve the goal of preserving affordable homeownership for future generations in the LAMC community.

Some critical aspects of the LAMC CLT would include:

1. **Dual ownership of the parcel where the ownership of homes is separate from the CLT's ownership of the land where the home is located.** A long-term land lease will define the arrangement between the LAMC CLT and the leaseholder who owns the home and improvements to the facility. The land trust offers leaseholders security, privacy, stability, and a legacy for their heirs and equity in the house itself.
2. **Protection against gentrification.** The LAMC-CLT will protect affordability for future residents by ensuring the affordable resale of homes and other improvements on the trust's land. LAMC CLT could adopt a shared-appreciation provision in its ground lease agreements that offer homeowners a fair return on their investment while protecting the community's investment of public and private resources that must be made to create a CLT and affordable housing.
3. **Retention of local control over the land as a strategic component of the LAMC Revitalization Plan implementation.** The LAMC CLT will provide local control over a significant portion of the land and housing ownership within the study area, giving community members a greater say in land-use decision-making even beyond the immediate transactional purpose of individual parcel development.
4. **Representative of the LAMC community values.** The LAMC CLT would be community based and controlled, so the community residents decide how the land trust is operate.

5. **Adaptability for changing conditions.** The LAMC CLT would be adaptable where it can provide affordable housing, community gardens, playgrounds, parks, and coordinate with local businesses and other community services like the LAMC CDC for broader plan implementation.
6. **A development program that builds for LAMC.** The LAMC CLT would continue an acquisition and development program that meets diverse community needs while building appropriately communities for each of the LAMC study areas, extending the stock of contextual homes whose affordability are permanently locked in.
7. **Grassroots planning.** Fundamental to the whole approach is the idea that the people themselves have to take responsibility for the place where they live and work.

The civic organization(s) must host a program of participatory planning to find common ground and determine the urgent needs of the community. They will then be armed with the responsibility of creating a team that will have the vision to move towards reality. For example, financial advisors, engineers, architects, and other experts will be needed to move the project forward.

The LAMC CLT will work in tandem with the LAMC CDC which can take a broader charge under both housing as well as other elements of community development and plan implementation. The LAMC CLT would act more as a keep and caretaker of inventory. It could also apply for Housing Trust Fund dollars.

In order to establish the LAMC CLT, several organizational options should be examined, particularly in light of the LAMC CDC's role and the fact that these two organizations will be working together to implement the housing element of the revitalization plan. The determination needs to be based on how independently the LAMC CLT is to operate from the LAMC CDC. Please refer to chart in Appendix III to examine the range of organizational arrangement and how the LAMC CDC and LAMC CLT would benefit from each alternative structure.

There are three approaches to leveraging the resource of a Community Land Trust for the LAMC study area:

1. LAMC can include in its CDC incorporation as part of its charter a mission to provide affordable housing consistent with the State of South Carolina program and apply for funds to the State Housing Trust;
2. LAMC can support the City of North Charleston or Charleston County in establishing their own respective Housing Land Trust where they could implement programs for affordable housing directly; or
3. LAMC can incorporate a CDC as suggested under Approach 1 with the affordable housing mission in its charter and apply for funds through the local city or county entity once it is established.

These approaches are not mutually exclusive although 1 and 3 presume on LAMC establishing a CDC that is capable of providing affordable housing as an intermediary or agent for government programs. Approach 2 presumes that the local government would undertake the program entirely –both funding and housing development.

The advantage with Approaches 2 and 3 is the local focus. Which of those two is implemented depends entirely on the capacity of the proposed LAMC CDC – or even the Community Land Trust as another vehicle – to direct this program



Members of LAMC have already begun to explore the possibility of a CLT through meeting with members of the Durham, NC Land Trust



A Durham Community Land Trustees (the Durham CLT) house

or the capacity of the local jurisdictions to assume the delivery of affordable housing through their own respective programs.

Irrespective of the organizational approach (i.e. CDC or CLT), it would be critical to have the geographic areas of focus for affordable housing clearly established so it may be included in any application for funds to demonstration of alignment with the Housing Trust Fund. The identification of Model Blocks and the summary of the windshield survey findings, as outlined in the Plan and the implementation strategy, could be extracted and included in an application for Housing Trust Funds. In structuring the CDC or CLT, it is also important that there be:

- An on-going government commitment of public funds (State, City, or County).
- A community-based process to create and sustain the fund (LAMC CDC).
- A component of housing policy that reinforces innovation and cooperation (City and LAMC CDC).
- A flexible model that can adapt to changing market conditions (LAMC CDC).

The State of South Carolina has allowed the creation of local Housing Trust Funds in Greenville and Charleston have them in place at the time of this plan submittal. It would be worthwhile to explore the creation of one in North Charleston, but in the meantime, LAMC should look into establishing a CDC with strong housing-development capacity. The housing director for the CDC, or the Executive Director, needs to have sufficient experience in housing to provide portfolio for a successful application for grants or funding to the state or local government Housing Trust. There also needs to be a sophisticated regular re-examination of the local housing markets to time the application with cycles. One area that a LAMC CDC should investigate for early use of these category of funds is for housing rehabilitation since that would help with the infill program and be an eligible category for the State Housing Trust Program.

Land Banking

Land banking is the process by which land is acquired, managed, typically focusing on vacant, foreclosed, and abandoned properties. Because enabling legislation has not been established in South Carolina, land banks can only be established through non-profit organizations. While such organizations do not have the same level of power to expedite the acquisition of at-risk properties, they still have the ability to assemble and consolidate vacant, foreclosed, and abandoned properties. The LAMC CDC could establish such a land bank through a Community Land Trust along one of five organizational arrangements (see chart entitled *Structural Options for CLT and CDC* in Appendix III).

Land Acquisition

Acquiring land is the foundation of a land bank, but LAMC should first determine the goals of the land bank to guide their land purchase decisions. LAMC may want to solely focus on the purchase of land for housing development, or they may consider the purchase of land for an array of uses, such as a combination of housing, parks, conservation land, and commercial development. Prioritizing the purchase of land may be based on affordability, the location of designated model blocks and future development, the ease of acquisition, or a combination of factors. Regardless, LAMC should approach land acquisition in a systematic manner with an end goal in mind. Otherwise, LAMC may be stuck with an abundance of scattered properties without potential buyers.

To help guide the decision making process, LAMC should determine where redevelopment occurs. This Revitalization Plan serves as a guide by identifying neighborhood gateways, Model Blocks, urban design enhancements, and commercial centers. LAMC should focus on vacant land, foreclosed properties, and properties that have consistently received code violations. These properties can threaten property values and the quality of life in established neighborhoods. While vacant land is identified in the Housing section of the *Community Profile*, determining the location of foreclosed properties and code violations will require a strong relationship with City agencies, including housing, code enforcement, and planning departments.

Clusters of vacant properties are also a good target for land acquisition and assembly. Throughout the LAMC study area, the lot sizes are too small for developing single-family homes. Consolidating and resurveying purchased properties makes them more appealing to developers because they have the ability to subdivide according to their desired use, whether it is for single-family residential, multi-family residential, or commercial development.

Property Maintenance

One of the goals of land banks is typically to preserve or restore the character of existing neighborhoods. After acquiring a property, regular basic maintenance, including yard work and debris and trash removal, is essential to restoring its marketability. The cost for maintaining acquired land can be recovered once the property values have increased and it is sold.

In some cases, LAMC may purchase properties with structures in a deteriorated or dilapidated state, and it may be necessary to demolish these unsound structures. Demolition of blighted structures can not only positively change the appearance of a neighborhood, it has the potential to eradicate centers of crime and possibilities for arson. LAMC may be able to partner with the City of North Charleston in the short-term to create a housing demolition strategy, funded through provisions made from the Neighborhood Stabilization Program and funds allocated through the Community Mitigation Plan. In the long-run, LAMC may be able to partner with the City of North Charleston or other non-profit organizations to receive Community Development Block Grants to assist with the demolition of dilapidated properties, providing a location for the development of affordable housing.

Property Transfer

The success of a land bank relies upon its relationship with the neighborhoods it serves, the affordable housing community, and the business community. In many cases the land bank may offer to sell a property to an adjacent land owner so that the property will be maintained and not be in the possession of the land bank for an extended period of time.

Depending on how LAMC would like to redevelop an area, they may want consolidate parcels and resell them to the local government for parks and greenways or civic buildings. Neighborhood groups may even be willing to purchase the land for community gardens. It is important to note that not all land purchased through a land bank will need to be redeveloped in the near-term because the demand for housing or commercial use may not exist in such a weak market. In some cases, the land bank should hold onto properties until they have had the chance to acquire a conglomeration of properties. These larger areas of land are more marketable to developers, both for-profit and non-profit. Larger conglomerations of land reduce development costs, in turn, reducing the cost to the buyer. In addition, it provides the developer more control of neighborhood conditions, which is a selling factor to home buyers. Most importantly, LAMC should work towards putting as much productive property back on the tax rolls as possible.

In order to guide the redevelopment process, model development block sites have been determined for the LAMC neighborhoods. These are near-term redevelopment areas where infill housing and rehabilitation should occur to spur development throughout the neighborhoods. A LAMC CDC could utilize its potential land bank to purchase the non-owner occupied properties, maintain or rehabilitate the property, and sell the property to a potential home buyer or to a non-profit developer.

6.2.4 Centralized Commercial Management Organization

Additional information and research is necessary to identify more opportunities for retail development in the LAMC community. Critical to developing a retail strategy for the LAMC area is creating a centralized management organization focused on commercial revitalization that represents the interests of retailers, property owners, and investors. The lack of such an organization makes it more difficult to create and sustain solutions, involve public and private interests, and to strengthen the overall marketability for commercial development as well as an enhanced image for the LAMC area.

The development of a centralized retail management organization will require full-time staff and a stabilized source of operating income for at least five years to focus on providing incentive funding, technical assistance, and organization of (viable) local businesses through the management entity. The plan recommends that LAMC examine the inclusion of these activities under the Community Development Corporation structure suggested above. The LAMC CDC should work in concert with other City of North Charleston departments, lead efforts to secure commitments from both the City as well as Charleston County (as appropriate) to fund a management entity; link the entity/program to established redevelopment funding and assistance sources; and incorporate funding into the city's budget for at least five years as a demonstration effort. The management entity could be organized within LAMC, but its sole function would be focused on commercial district revitalization.

A management entity focused on commercial revitalization will need to pursue the following general action steps toward implementation:

- Seek legal assistance to create a new 501(c)(3) organization to provide centralized management for the commercial corridors/retail districts (if outside of LAMC auspices);
- Hire full-time and part-time support staff to direct the management program with experience in commercial district revitalization, tenant recruitment, economic development expertise, and marketing;

- Work with property owners, investors, and local businesses to set priorities for needed improvements (e.g., storefront and sign enhancements, pedestrian walkways and streetscape improvements, corridor identity programs, retail and business recruitment, etc.);
- Lobby city, county, and state officials to understand the impact of unresolved development/safety/social issues on the LAMC area's overall marketability (i.e., property values, sales tax revenues, importance of the LAMC area as an employment center, etc.);
- Use the redevelopment plan and other public efforts to create a baseline against which future investment and improvements can be documented and measured by the entity's management staff;
- Seek public seed money (from multiple sources) to establish and operate a management staff (at least two full-time and one part-time staff members) for a minimum of three years (preferably five years). We estimate that annual staff costs and benefits will range from approximately \$150,000 to \$200,000 per year (depending on number of staff and full-time versus part-time employment);
- Use findings of necessity/need and redevelopment designation to channel other county, state and Federal funds into the LAMC area for specific projects and programs as outlined in the plan;
- Conduct a comprehensive retail/business inventory as the basis for subsequent business retention and recruitment strategies. Collect information on occupancy patterns, lease terms, business type, merchandise mix, number of employees, annual sales (proprietary information), rents, business plan objectives and other critical market and performance data. The inventory should be conducted on an annual basis to understand trends and changes in tenancies and business mix. Tailor the inventory and profile to reflect national, regional, and local/mom & pop businesses, and conduct outreach to local businesses for contacts, support and participation in the inventory. Ensure annual or semi-annual updates to the inventory as businesses change and new tenants are recruited to the LAMC area;
- Compile a database of property maps, building inventory (by retail/merchandise type), roadway maps, and other resources as the basis for future planning, analysis and evaluations (beyond the redevelopment plan) and as tools for surveys, updates and subsequent leasing strategies. This is particularly critical for larger parcels that will be assembled for redevelopment, such as the Stromboli corridor;
- Track retailer performance/sales productivity (to the extent possible) as a means of understanding weaknesses and strengths across merchandise categories. This will inform more specific directions related to marketing and business retention and recruitment initiatives;
- Conduct consumer and household surveys on retail mix, safety, new projects and directions, etc., as the basis for future policy and funding decisions related to commercial district revitalization; and
- Analyze inventory trends, including property information for existing (viable) vacant space that can be used as marketing material for tenant prospects.

6.2.5 Retail Merchant Associations

In many cities, groups of merchants within shared retail districts have organized to become principle players in the revitalization of their districts and when those districts are neighborhood commercial areas, these merchants' efforts can, by extension, become critical components in entire community revitalization. For LAMC, the convening of community-based business interests could assist in the implementation of many key elements of the plan. Areas of participation include:

- Forming a merchant's district that can establish design review guidelines that are supported by businesses who want to see their investment protected by knowing the standard to which all subsequent investors in there district must develop;
- Forming programs and events that promote what is unique about their district, whether it is to showcase a farmer's market every weekend, or to sponsor holiday themed events that make the commercial district a regional destination;
- Forming a working partnership with LAMC to focus the economic development, entrepreneurial and local business engagement through the plan as well as build trust between the business community and the LAMC organization.

These organizations have been effective vehicles to build support and partnerships for economic investment in revitalization programs. It is possible that these organizations could have a more direct organizational relationship with LAMC, or they may simply be independent groups that still work with the LAMC CDC in order to achieve goals of common interest. In any scenario, a strong merchant association would be a key starting element in galvanizing support and investment in the plan's implementation.

6.3 ZONING & REGULATIONS

One of the most challenging issues facing LAMC is developing a more compatible arrangement of land uses that are supported by a regulatory framework that is easily enforceable, achieves the quality of life aspired to by the community and that reflects real opportunities for the market place to realize its investment potential. The LAMC study area is much like many older communities, particularly coastal communities that blended maritime commerce with industry and distribution while supporting a strong residential presence all in close proximity. In many instances, brownfield developments grew in scope and location more in response to operational considerations than to the compatibility with adjacent neighbors who were left exposed to byproducts of the manufacturing process and even the distribution of goods. Power plants, rail lines, and heavy industry are among the most blatant examples of impacts that occurred in LAMC, bordering entire residential enclaves.

As this plan is implemented, there are several advantages the LAMC community has among the technical land-use tools at its disposal. The zoning ordinance is robust with a variety of zoning that can address the remnant incompatible adjacencies and with some slight modification as suggested in this section, they should support key project recommendations, such as the Model Blocks and the specific Redevelopment Projects across the LAMC neighborhoods.

6.3.1 Land Use & Zoning Recommendations

Based on research compiled in the Community Profile and in light of input from stakeholders and the community regarding how people would like their neighborhoods to develop, five basic principles guided land use recommendations:

- Reduction of spot zoning to better protect single-family neighborhood fabric;
- Decrease in permitted intensity of uses where appropriate to support community-friendly character (i.e. from heavy industrial to light industrial, and from major business / retail to neighborhood business);
- Consolidation of commercial areas / corridors, particularly around proposed redevelopment areas (e.g. Reynolds Avenue, Stromboli corridor) to support the establishment of activity centers and the strengthening of residential zones;
- Sensitivity to market research findings (i.e. viability of supporting the degree of commercial uses as currently proposed on future land use and zoning maps); and
- Increase opportunities to incorporate additional green space.

Liberty Hill

These basic principles influenced the recommendation to decrease the intensity of proposed commercial development in Liberty Hill. While the City's Future Land Use Map proposes more uniform residential uses in the neighborhood, it also shows increased commercial uses (including major business / retail establishments) lining Montague Avenue. It is agreed that more consistent residential development in the neighborhood is desired; however, the viability of supporting the number of commercial uses proposed is uncertain, according to market research presented in the *Community Profile* and in the Study Area Analysis section of this report. The future land use recommendation for Liberty Hill, therefore, is to focus residential rather than major commercial development along Montague Avenue. However, some neighborhood-scale commercial uses should be maintained and developed, primarily at major intersections (at Montague and Meeting Street and Montague and Mixson Avenue) where traffic will be greatest. Additionally, where businesses currently exist (according to the City's Existing Land Use Map), it is recommended that commercial zoning be maintained to support their continued operation.

Southern LAMC Study Area

For the southern LAMC study area, the following recommendations have been made:

- **Industrial Uses** - All heavy industrial uses in residential areas should be properly buffered or transitioned to less intense uses as ownership changes.
- **Commercial Uses** - It is recommended that most commercial development be concentrated in key redevelopment areas, namely along Rivers Avenue between Cosgrove and Reynolds and the Stromboli corridor, with the exception of two existing commercial clusters in Chicora/Cherokee (at the intersections of Spruill Avenue and Burton Lane / Naval Base Road and Rivers Avenue and Reynolds Avenue). Other small exceptions include a few existing commercial uses in the Windsor and Union Heights neighborhoods that are located on major thoroughfares. It is recommended that neighborhood-scale businesses be located in the redevelopment locations.
- **Residential Uses** - In areas where spot zoning is apparent (in Union Heights in particular), commercial uses are recommended to be replaced with residential development as property ownership transitions to help establish a more cohesive residential zone. Additionally, the location of the current I-26 ramp (which will be removed in the future) is recommended for residential infill (see Spur Block Development proposal on page 86).
- **Open Space** - In addition to maintaining all proposed open space per the City's Future Land Use Map, a significant new open space is proposed at the Chicora Tank Farm. Zoning for the Tank Farm is currently institutional and would therefore need to change should the open space proposal be taken forward. As a major gateway to the LAMC study area, the triangular parcel at the intersection of Meeting Street and Spruill Avenue (in Union Heights) could be developed as open space, perhaps with signage or public art to mark this entry. (Alternatively, a Welcome Center could be developed on the site, as suggested by the community.) The precise programming for these open spaces (i.e. if they are to remain conservation areas or passive or active parks) will need to be determined as part of the master plan for the area.
- **Mixed Use** - Mixed use designations would be appropriate for the Stromboli corridor development and potentially the Spur Block redevelopment. Additionally, rather than heavy industrial and major commercial development at the intersection of McMillan and Rivers Avenues, it is recommended that this key intersection become mixed use to serve as a suitable gateway into the southern LAMC study area neighborhoods. In the Ashley River area (south of I-26), it is also recommended the Future Land Use Map be updated to reflect the mixed use development occurring there.
- **Institutional Uses** - Options for new institutional uses are proposed for the Stromboli corridor redevelopment area.

Land use and zoning recommendations specific to redevelopment areas, and the regulatory tools suggested to help implement them, are further described below.

6.3.2 Regulatory Tools

Model Block and Spur Block Zoning Changes

Lot Size

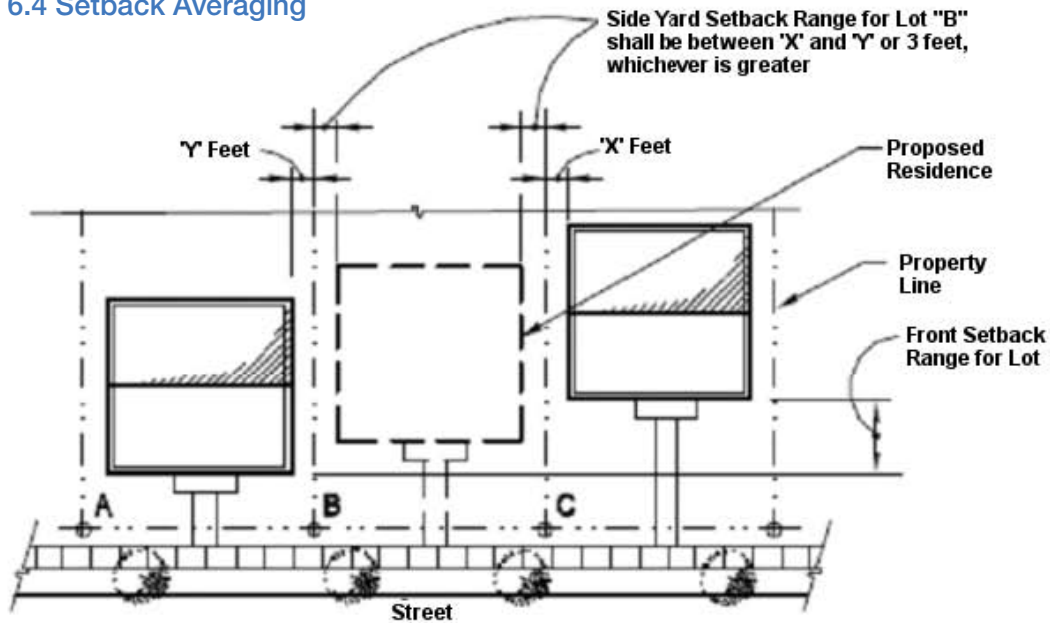
The City of North Charleston's municipal codes require that all residential properties have a minimum lot width of 60 feet with 30 feet of the structure facing onto the road and the lots being a minimum of 6,000 sq. ft. These existing requirements coincide with typical suburban development requirements. Under current codes, many smaller lots within the LAMC communities are not eligible for development unless neighboring properties are purchased and consolidated into one parcel or if a variance is provided to the property owner by the City.

Because the municipal codes require this sized lot for housing development, providing infill housing – a key component of the plan's success - will prove difficult throughout the LAMC study area neighborhoods. Lots located within the LAMC study area neighborhoods range from 30 to 60 feet in width with front yard setbacks generally within 15 ft. In order to promote redevelopment without requiring planned-unit developments or subdivision plats, small lot sizes and building frontages should be allowed within the City under a separate new zoning designation, Single-Family Traditional. The existing single-family residential designation could be reclassified as Single-Family Suburban and still be maintained under the current zoning ordinance. The 2008 City of North Charleston Comprehensive Plan suggests this zoning designation, but it does not specify the lot size requirements.

Setback Averaging

Because infill development is crucial to the revitalization of the LAMC neighborhoods and other portions of the City of North Charleston, it is essential that new development fits into the character of the existing community. While housing within the LAMC neighborhoods typically has minimal front setbacks from the road, there are cases where one adjacent house is set back 15 feet and another is 10 feet from the road. In that case where an available lot exists between those conditions, a new house can be placed 12.5 feet away from the street-front. The same concept can apply towards the width of the side-setback. One structure may be five feet from the property line and the other may be 10 feet from the property line, determining that the side yard on each side of the house should be at least 7.5 feet in width. Allowing for setback averaging to occur in all single-family residential designations will allow infill development to fit into the neighborhood context. This approach would need to be used judiciously in order not to cause a “calliope effect” of excessive undulation of housing frontage within one block. Also, in cases where there are a clear adherence to a uniform distance along a street frontage, say of more than two-thirds of the housing on the block, a tighter adherence to the minimal setback should be enforced for new construction.

Figure 6.4 Setback Averaging



Source: Louisville, Kentucky <http://www.louisvillefdc.org>

Nonconforming-Use Regulations

Oftentimes, single-family homes are converted into boarding houses or the property owner begins renting rooms. In the event that such non-conforming uses are discontinued, the City of North Charleston should adopt the regulatory authority to have the property owner return the home to its original state as a single-family facility. Spartanburg, SC has had significant success in improving public safety within its community by eradicating nonconforming uses within their redevelopment areas. Such a policy could prove to be beneficial to the LAMC community and could be a project undertaken with a combination of zoning enforcement as well and with the housing assistance through the proposed LAMC CDC and CLT.

City of Spartanburg, SC

Nonconforming Use Regulations

502.14 Discontinued Nonconforming Uses. When any nonconforming use is discontinued for a period exceeding one hundred twenty (120) days, any future use of the premises should conform to the provisions of this Ordinance. The Zoning Administrator should check all nonconforming uses at least three (3) times for occupancy. When seeking relief under this Section, it should be the responsibility of the person seeking relief of this Section to establish when the premises was initially vacated and the established use at such time in accordance with this Section.

However, multifamily structures in the R-8 SFD should be exempt from the provisions of this subsection if they were **originally** constructed as a duplex or multifamily structure. This exemption should not apply to structures that were originally constructed as single-family homes and were subsequently converted into multifamily structures.

Source: Spartanburg, SC http://www.cityofspartanburg.org/pdf_files/2005%20PDF%20Files/Sections%20501%20to%20514.pdf

Neighborhood Conservation Overlay District

Currently, the City of North Charleston has one designated conservation district, which is located adjacent to the Old North Charleston Historic District. The conservation district provides design guidelines that are consistent with the scale and design of the adjacent historic district. This will ensure that new development and renovations within the conservation district are consistent in character to the neighborhood.

Conservation districts can serve communities in a number of ways, but the main purpose is to ensure that new development complements the character of the existing neighborhood structure. This can be done through design guidelines that are established by the City of North Charleston under the zoning ordinance. Housing design guidelines can be established to reflect housing characteristics from the neighborhood. All permitted projects, including new development and renovations, would need to meet the design/development guidelines prior to permit approval. The use of this designation will protect neighborhood character and encourage positive infill development and should be applied in tandem with the Model Block Program. This is another program that would demonstrate the LAMC communities' commitment to affordable housing whenever they were requesting funding from Housing Land Trusts, as a means of ensuring that a minimal standard of design investment be made in a house in these areas and that assurance would be backed by the zoning ordinance itself.

Case Study Examples: Neighborhood Conservation Districts

Chapel Hill, NC

Chapel Hill currently has five designated Conservation Districts that serve to protect the character and quality of established residential and commercial areas. The City defines the elements that must be included within each conservation district, such as lot size, building height, off-street and loading parking requirement, setbacks, and lot coverage, but the parameters of these elements will vary by district. In addition, Chapel Hill's conservation districts may include architectural guidelines. All building permits within the conservation districts must receive a zoning compliance permit and be reviewed by the Town Manager prior to approval.

For more information, visit: <http://www.ci.chapel-hill.nc.us/>

Jefferson Parish, LA

Established in 1989, the Old Metairie Neighborhood Conservation District is intended to "maintain the open character and architecture of the neighborhood, enhance economic viability of the neighborhood, protect and preserve the existing tree canopy, and reduce negative impacts from flooding, erosion, and sediment pollution." Only large scale improvements are reviewed by an advisory committee that was established by town council and is made up of neighborhood residents and architecture and planning professionals.

For more information, visit: <http://www.jeffparish.net>

Some other cities that have established neighborhood conservation districts include: North Charleston, SC; Raleigh, NC; New Orleans, LA; Cambridge, MA; Champaign, IL; and Knoxville, TN.

Parks (Chicora Tank Farm, Stromboli Park) Conservation/Open Space District

While open space development is represented by R-1 district (single-family residential) designation on North Charleston's current Zoning Map, no specific category exists to stipulate open space must indeed be developed on these parcels. As a result, single-family residential could be developed on spaces intended for open space per the Future Land Use Map. Given the open space elements among the plan recommendations, it is recommended that a new zoning district be developed specifically for natural open space and recreation open space. Such a district exists in the code of nearby Mt. Pleasant, South Carolina, so there is precedent for such local designation. As stated in Mt. Pleasant's zoning code, part of the purpose of the Conservation/Open Space District is:

- "To ensure the preservation of significant natural amenities against undesirable development;"
- "To provide for opportunities for improved public recreation activities; and
- "To provide for a community-wide recreational network of public paths, watercourses, buffer zones, and recreation spaces" (Section 156.331)."

Additionally, the zoning district is meant to protect flood-prone areas from unsuitable development. Such a regulatory tool could help ensure the open space proposed for LAMC study area neighborhoods by the zoning ordinance.

Stromboli Corridor Mixed-Use Overlay District / Planned Development District

Rather than have a specific district for mixed use, the City of North Charleston allows mixed use development in commercial districts (e.g. B-2). While the existing Planned Development District (PDD) designation also allows for flexibility in mixed-use development, it could be constructive to develop a special mixed-use overlay to encourage that category of development more precisely. Such an overlay could contain specifications regarding, for example, how different land uses should be integrated (e.g. commercial on bottom floors, residential on upper floors of multi-story buildings), special parking requirements, special appearance standards, and open space requirements. The mixed use overlay could specify land use composition requirements as well. For example, a general rule of thumb is to stipulate 50% residential development, 25% retail, 10% office / institutional, and 15% open space. A mixed use overlay could also include additional design criteria and development standards which could be created and reviewed by the City of North Charleston, or a designated review board designated for the specific district of review. The boundaries of these overlays must be large enough to obtain a critical mass in development outcome while being manageable for whichever administrative structure is advanced. The Stromboli Corridor is a prime example of this kind of overlay opportunity given the coherent plan for its development as a major mixed-use corridor and the need to guide its incremental development with flexible yet visionary intent to be the major convening corridor of the LAMC Revitalization Plan.

Rivers and Cosgrove Zoning for Commerce

The intersection of Rivers Street and Cosgrove Avenue are one of the plan's recommended commercial concentrations as it is along a key corridor of traffic, transit, and larger retail investment opportunity at Shipwatch Square. In order to realistically achieve the outcome hoped for as a result of this plan for the intersection investment, zoning beginning from half block along the corridor on Rivers from the intersection with Cosgrove needs to be down-zoned to transition to residential retail and then to residential –in all likelihood given the nature of Rivers Street – multi-family being the most likely to work well along that corridor.

Consistent with the physical improvements proposed in the plan for the right of way, such as the median and the strategic placement of trees along the right-of-way, the proposed zoning changes should correspond with the physical character of the street, allowing for more intense development at the intersection of Rivers and Cosgrove and stepping down as the street becomes pedestrian oriented further from the intersection, particularly to the south. The zoning can change be B-2 at the intersection of Cosgrove and Rivers and down to the intersection of Rivers and Cherokee, which will also allow for more flexible development at the CARTA site, particularly if the use of the transfer facility supports greater private investment. Past that point southward, B-1, ON, and R-2 categories will concentrate the commercial at the intersection and bring another opportunity to bring more residents into the community, which will be critical for the future economic investment in the LAMC communities.

Incinerator Site Zoning

With the decommission of the incinerator site along Spruill just south of the new Interstate connection, there is an opportunity for zoning to serve as part of a longer term strategy for more compatible land use on that parcel with the aspirations of the LAMC community. While the advantage of location and access to the port, rail, and Spruill,

this property can be ideally situated for commercial or light industrial development. At this time it is not possible to predict a precise business for this location, but the plan would suggest an environmentally based business that can use the distribution network and employ the local work force.

The plan would recommend that a zoning change from M-2 Heavy Industrial to M-1 Light Industrial where it could support service-oriented establishments in particular. A strategy of acquisition, rezoning, and recruiting business would ensure the best possible outcome for this parcel's development. The LAMC CDC could play a critical role in the advancement of this plan element, including the acquisition of the property and its subsequent down-zoning.

6.4 BUILDING PARTNERSHIPS

The ability to sustain and develop new local and regional partnerships will significantly influence the organizational growth and future success of LAMC. Building collaborative relationships with public and private agencies and organizations should become a long-term implementation strategy for LAMC. A multi-stakeholder partnership approach also facilitates mutual understanding of issues and opportunities, brokers consensus on solutions, and leverages resources from multiple stakeholders (skills, funds, equipment, etc.). Finally, the partnership approach provides a mechanism to ensure that community investment is demand-driven and that its value is maximized.

LAMC has demonstrated, over the course of only four years, the ability to establish meaningful partnerships with institutions and agencies including the Department of Health and Environmental Control (DHEC), Clemson University, the University of South Carolina as well as relationships with local non-profits. Other examples of potential partnering organizations include the Charleston County School District; Neighborworks Housing, CARTA; local developers: municipal, county and state public safety organizations; and the Environmental Protection Agency among many others.

These relationships will become increasingly important as LAMC moves forward with the implementation of the Revitalization Master Plan. The multiple layers of projects cited in the plan as well as their projected duration requires an expanded platform of committed resources and partners to ensure these projects and programs are realized. To that end, it is recommended that LAMC align its efforts under each of the eleven programmatic areas with two to three strategic partners. The importance of these relationships should be clearly expressed by LAMC to these partners and mutually understood that these partnerships are centered on fulfilling a shared agenda. In addition, these partnerships should complement the areas where LAMC requires expertise, while it ramps up organizationally, and provide the opportunity for LAMC internally to build similar capacity over time.

Learning how to avoid obstacles to successful partnerships must also receive equal focus as does the effort to identify the opportunities. Obstacles can range from the micro-level (e.g. specific individuals involved in the partnership or organizational constraints due to resource constraints, inadequate leadership support and competing priorities) to the macro-level (e.g. perceptions of the general public and the social, political and economic climate).

Opportunities can be identified from multiple sectors at the local, regional, state and national level to collaborate on the revitalization of the LAMC neighborhoods. Becoming a focused partner of new collaborations, ideas and strategic initiatives will assist LAMC in building connections that can turn into successful partnerships and coalitions for implementation solutions.

6.4.1 Partnerships with Faith-based Communities

In many communities undertaking revitalization plans, the local faith-based networks have been instrumental in the delivery of support services and the development of houses. In some instances they have even been the spearhead of employment-based development in their respective communities. In North Charleston, there are several ministries that are heading programs for youth, the elderly, the homeless, and entrepreneurial undertaking for some new development and recruitment of businesses.

The role for this active, connected, and committed branch of the LAMC community is great and can bring tremendous value to the plan itself and efficiency in its implementation. It will be critical as part of an initial inventory to assess:

- Which existing programs managed by the faith-based community fall in line with the Revitalization Plan.
- The degree of interest on the part of the program sponsor to work with LAMC on the plan in a coordinated effort.
- In any case, convene on a regular basis (no less than bi-monthly) to avoid any duplication of efforts among the voluntary work of the faith-based organizations and those initiatives under direct LAMC supervision.

It would be best to establish a permanent liaison relationship between the faith-based organizations, such as the Ministerial Alliance, and LAMC either at the board level or through inclusion on regular meeting notices and special events or programs. The coordinated energy of these organizations have been the catalyst for transformation of many cities across the nation and LAMC study area has a bounty of this human capital to harness for a coordinated, efficient coordination in the realization of the plan.

6.4.2 Partnerships with Transportation Organizations

LAMC has the opportunity to increase its level of involvement in the local, regional, and state transportation planning processes in order to influence the type and character of transportation infrastructure that will be part of its community. Many highly successful avenues for participation have already been paved by LAMC. The leaders of LAMC have been actively involved in numerous, recent transportation planning projects, including but not limited to the marine container terminal and its associated roadway improvements, the proposed widening of I-26, and the proposed relocation of I-26. With each of these efforts, LAMC representatives have gained knowledge, standing, and credibility in the transportation planning arena.

Although participation has occurred, in most cases LAMC's involvement has generally been from a position of reacting to proposed projects. Many successes have been achieved, but had LAMC been proactively involved on the front end of these initiatives, at their very conception, LAMC's position of influence would have been even greater. LAMC's ability to articulate and advance their mission would have been much easier. By becoming involved in the overall transportation planning process, rather than just individual projects, LAMC will possess a greater understanding of the context in which decisions are made and be able to anticipate projects that will affect their constituents at the earliest possible time. This will enable LAMC to be part of the proactive shaping of transportation initiatives, rather than a responding to individual transportation projects as they arise.

In order to advance community input into the regional transportation planning process, two key points of guidance are offered. These are by no means exhaustive of the methods available, but rather basic building blocks that will serve as a starting point to further immerse LAMC into the regional transportation planning discussion.

- LAMC should organize a subcommittee that can continuously educate itself on the transportation planning process to gain a more complete understanding of how projects are conceived and advanced through local, state, and federal processes. Understanding the individual milestones of project development from concept, to inclusion in the regional Long Range Transportation Plan (LRTP), to allocation of funding as part of the Transportation Improvement Program (TIP) and State Transportation Improvement Program (STIP), to construction is essential to being able to influence such projects.
- LAMC representatives should regularly attend meetings of the Charleston Area Transportation Study's (CHATS) Technical and Policy Committees. CHATS is the federally mandated Metropolitan Planning Organization (MPO) for the Charleston metropolitan area and as such oversees the transportation planning process for the region. CHATS is housed within and staffed by the BCDCOG. These meetings are open to the public and regular attendance will allow LAMC to keep abreast of current transportation thought in the region and potential projects that may emerge in the immediate and distant future. An additional advantage of attending these meetings is the ability to network with key transportation decision-makers in the region.

The Policy Committee is made up of mayors, council members, administrators, and state representatives from throughout the Charleston region. It is the decision-making body for all regional transportation plans and programs for the MPO study area. The Technical Committee is comprised of staff level transportation technical experts from local governments throughout the Charleston region. The Technical Committee's role is to provide technical expertise to the Policy Committee by reviewing and recommending revisions to the planning process and the development of the Unified Planning Work Program (UPWP), TIP, and LRTP. SCDOT and FHWA staff are also regularly in attendance at meetings of both of these committees. The opportunity to meet and develop/strengthen relationships with such individuals will prove invaluable in furthering LAMC's goals and objectives.

Policy Committee and Technical Committee meetings do not follow a set schedule; rather they are called by their respective chairpersons as required. LAMC representatives can be added to a mailing list by calling the BCDCOG offices at 529-0400, which will alert them when meetings are scheduled. All meetings are held at the offices of BCDCOG located at 1362 McMillan Avenue, Suite 100, North Charleston, SC 29405. Additional information on these committees and the transportation planning process can be obtained from the BCDCOG by calling 529-0400, visiting their offices, or via the internet at www.bcdco.com.

6.4.3 Partnerships with Local Government

Given the investment by the citizens of the LAMC neighborhoods in this planning effort, it is imperative that this momentum of public engagement continues. The various phases of individual initiatives recommended under this plan will require a transparent and inclusive process to deliver their full potential. The plan calls for regular meetings of the LAMC neighborhoods where agendas may include land use, transportation, institutional, and commercial items. It is also appropriate that the relevant public officials attend these meetings on a regular basis as a means of sharing information concerning policy and projects with the community.

6.5 FUNDING

The LAMC neighborhoods find themselves with a distinct advantage of already having a funded budget by category to address the key elements in the Community Mitigation Plan. The LAMC Working Group and the seven neighborhoods have demonstrated insight in leading a comprehensive strategy for the appropriate use of these funds through a coordinated, revitalization plan. While it is anticipated that much of the funding for capital improvements and program administration will be initiated under the CMP, it is also clear that the breadth and schedule of the revitalization plan will depend on other resources. LAMC will need to seek partnerships –both financially and in kind – to implement many of these plan’s recommendations beyond the current CMP funding.

The following list shown in Figure 6.5 includes a series of agencies, foundations and departments that have as their primary charge assisting organizations like LAMC in the implementation of elements like those in the revitalization plan. The effective engagement of these groups will help in completing discrete pieces of this project, and also fortify the City of North Charleston’s and LAMC’s positions to engage public-private partnerships that will be essential for housing and commercial investment in the area.

This list is not exhaustive, but is a representative sample of organizations whose missions align with funding needs for LAMC. Given the competitively constrained environment for funding across most sectors, developing relationships with this plan will be critical for LAMC to receive the necessary funding to leverage the sources it already has in place.

Figure 6.5 Potential Funding Sources for Revitalization Projects

Potential Funding Sources		
Foundation and Grant Sources	Programs	Mission
Annenberg Foundation	Capacity Building	The Annenberg Foundation exists to advance the public well-being through improved communication. As the principal means of achieving this goal, the Foundation encourages the development of more effective ways to share ideas and knowledge.
Annie E. Casey Foundation	Family Programs	The Foundation invests heavily in a set of approaches and projects collectively called Family Economic Success (FES) that reflect our premise that strengthening families is the key to improving child outcome. These efforts address the multiple factors needed to help families find and keep work, save and grow finances, and build assets to secure better futures for their children.
Kaiser Family Foundation	Family Health	Focus on minority health disparities
Robert Wood Johnson Foundation	Health Care	Looking at expanded support for healthy community initiatives including community design
Federal Government Department of:		
HUD	Housing and Infrastructure	Housing, roads, sewer projects (in eligible areas)
Health and Human Services	Health/Wellness	Fitness and medical
Transportation	Roads, Trails, and Paths	Design and construction of multi-modal projects
Energy	Community Block Grants	Sustainability and conservation infrastructure
Labor	Training and Placement	Training for employment
Interior	Historic Preservation	Save America's Treasures
US Army Corps of Engineers	Flood Correction	Flood mitigation through engineering or acquisition
FEMA	Flood Mitigation	Flood mitigation through acquisition

6.6 WORK PLAN FOR IMPLEMENTATION

The Project Matrix presented on the following pages outlines recommended key initiatives for the Lowcountry Alliance Model Communities (LAMC) for the next five years along with key on-going and longer term efforts linked to the five initiatives. Each project is described along with the entity responsible for the effort, estimated cost, and potential funding sources for the effort.

The projects are organized into eleven categories with a corresponding color.

Project Categories

Redevelopment Projects

Significant 'big move projects' that provide significant long term benefit to the LAMC communities and greater North Charleston

Policy

Legislative measures needed to set the framework for desired infill and redevelopment

Model Block/Housing

Proposed housing infill and redevelopment concepts focusing re-establishing the neighborhood fabric and maintaining residents

Economic Development

Efforts that address the economic viability of the LAMC communities

Transportation

Projects that improve the functionality of major corridors and enhance circulation with the LAMC communities

Open Space Network

Key green space and parks and linkages to and from the LAMC communities

Infrastructure

Critical assessments identified that address drainage and access

Environmental

Key on-going and new efforts identified to ensure the health, safety, and welfare of area residents is improved

Education Attainment

Programs and partnerships identified to increase education attainment and promote life-long learning among residents

Public Safety/Health/Community Centers

Measures identified to address public safety, improve access health services among residents

Capacity Building

Specific actions are identified to promote community involvement at the neighborhood and city policy level as well as develop a formal Community Development Corporation

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Redevelopment Projects					
6 Mos	Stromboli Avenue Concept Plan	Assemble land, develop site master plan, obtain entitlements according to master plan.	City of North Charleston; LAMC (as community participants)	\$450K	City of North Charleston & LAMC
1	GEX Acquisition/Master Plan	Investigate potential for GEX acquisition and possible development partners; develop master plan for site if acquisition is feasible and partner identified	City of North Charleston; LAMC (as community participants)	TBD	TBD
1	Stromboli Remediation	A primary evaluation of the conditions present within the study area should be initiated with local government in order to determine the best path forward regarding identification and mitigation of present environmental conditions in and around the Stromboli Corridor. The City of North Charleston and LAMC may elect to independently conduct a Phase I Environmental Assessment of the area using available funds in order to identify any possibly significant obstructions to future development. Should obstructions to development be encountered, modern engineering and environmental practices are typically able to overcome them.	LAMC with the City of North Charleston	TBD	EPA Brownfield Grant, HUD Community Grant
2	Stromboli Avenue Development	Construct street grid, develop parks, housing, and commercial properties	City of North Charleston; LAMC (as community participants)	\$500K seed funding - joint partnership with developer(s).	LAMC, City of North Charleston, and private developer.
1	Chicora Tank Farm Concept Plan - Acquisition	Obtain title to land, develop site master plan & remediation plan	City of North Charleston; LAMC (as community participants)	\$300K	City of North Charleston & LAMC
2	Chicora Tank Farm Development	Obtain entitlements and develop parks according to master plan.	City of North Charleston; LAMC (as community participants)	\$500K seed funding - joint partnership with developer.	LAMC, City of North Charleston, and private developer.
2	Spur Block Concept Plan	Obtain title to land, develop site master plan, subdivide parcels, and develop parks and housing.	City of North Charleston; LAMC (as community participants)	\$150K	LAMC, City of North Charleston, and private developer.
2	Incinerator Site Development	Determine the extent to which remediation is required. Depending on that finding, a range of uses could be projected, such as distribution-based development and "green" industry.	TBD	TBD	TBD
3	Rivers Avenue Commercial Corridor Studies	Further studies should be undertaken to understand precise occupancy along this corridor as well as building conditions to understand the type of commercial tenants which may be attracted to these spaces. (Also creation of overlay districts to guide appropriate development; see Policy section below.)	City of North Charleston - Economic Development; LAMC (as community participants)	N/A	N/A

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Policy					
1-3	Redevelopment Area Land Use & Zoning Update	Change Future Land Use Map and Zoning Map to reflect land use recommendations from the <i>Implementation Strategies</i> Land Use section.	City of North Charleston	200 Staff Hours - Redevelopment Area Update	City of North Charleston
6 mos	Stromboli Land Use				
1	Spur Block Land Use				
1	Tank Farm Land Use				
2	Incinerator Site Land Use				
3	Rivers Avenue Retail				
6 Mos	Adopt a Container Stacking Ordinance	Seek adoption of a Container Stacking ordinance to address issues concerning aesthetics, environmental hazards, criminal activity, noise, traffic, and safety.	City of North Charleston Planning and Management; LAMC	100 Staff Hours	City of North Charleston
1	Establish Single Family Traditional zoning in LAMC neighborhoods	Change the existing zoning from Single Family Residential to Single Family Traditional in order to promote traditional development patterns in LAMC study area. The minimum lot requirement would be reduced from 6,000 sq. ft to 4,000 sq. ft.	City of North Charleston	200 Staff Hours	City of North Charleston
1	Establish Neighborhood Conservation Overlay Districts	Create Neighborhood Conservation Overlay Districts in select locations in order to ensure that development is consistent with the existing neighborhood character. This can be done through design guidelines that are established by a governing body, whether it is a local government authority or a board of community members.	LAMC, City of North Charleston	150 Staff Hours	City of North Charleston
2	Update Buffering Regulations	Improve existing buffering regulations by: providing more detail on landscape elements used for buffering; providing guidelines on opacity; developing standards for the mitigation of odors, light, and sound; developing buffering requirements for the interface of industrial uses with other uses beyond residential; presenting regulations in a clear format; and providing language on buffer maintenance requirements; (See Section 3.0 of Implementation Strategies report for details.)	City of North Charleston	80 Staff Hours	City of North Charleston
2	Review Setback Averaging as a possible tool in the LAMC neighborhoods	Determine the feasibility of changing the setback requirements in the existing residential zoning designations from a minimum 20 foot setback to an average distance based on the setbacks of neighboring properties in order to allow infill development to fit into the neighborhood context.	City of North Charleston	100 Staff Hours	City of North Charleston
2	Establish Nonconforming Use Regulations	Require that single family property which has been converted into rental property be returned to its original state as a single family home when the use is discontinued.	City of North Charleston	200 Staff Hours	City of North Charleston
3	Establish Mixed Use Overlay Districts	Establish a special mixed use overlay district to help encourage mixed use development.	City of North Charleston	150 Staff Hours	City of North Charleston
3	Establish Sidewalk Ordinance	Develop a more thorough sidewalk ordinance that promotes connectivity, healthy living, and pedestrian safety by requiring wider sidewalks in areas with greater pedestrian traffic and also by requiring sidewalks be separated from the back of the curb by a 3 to 5 foot planting strip.	City of North Charleston	100 Staff Hours	City of North Charleston

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Policy (continued)					
4	Adopt Corridor Overlays for Rivers and Spruill	Develop and seek adoption of corridor overlays for Rivers and Spruill. This will specifically encourage appropriate development in support of the small commercial corridor proposed along Rivers Avenue.	City of North Charleston Planning and Management; LAMC	200 Staff Hours	City of North Charleston
Model Block/Housing					
2	Use Model Block Development Sites as Catalyst Projects	Focus single-family infill development and housing rehabilitation in identified model block development sites. Model Blocks are catalyst residential development projects located in areas with the greatest opportunity for short-term development that can be a model for long-term success.	LAMC, City of North Charleston, property owners, Community Development Corporations	200 Hours for Program Development. 40 Hours monthly	Community Mitigation Plan (CMP), Revolving loan fund, Charleston County, City of North Charleston - CDBG funding
2	Abandoned Property Registration/ Maintenance Ordinance	Require property owners to register with Building and Codes when their properties become vacant; allow the City to collect fees to assist with code enforcement.	City of North Charleston	400 Staff Hours & On-going code enforcement 8 Hours weekly	Existing budget for code enforcement
3	Develop a Land Bank	Assemble vacant, foreclosed, and abandoned properties through the use of a land bank.	LAMC	400 Staff Hours research and program development. 20 Hours monthly.	Community Mitigation Plan (CMP), City of North Charleston
Economic Development					
6 Mos - on-going	Initiate Relationships with Grocery Store Chains	Initiate relationships with candidate grocery stores that would consider a LAMC location; understand store location criteria, lease terms, investment/sales criteria, development parameters (e.g., minimum size, parking requirements, etc.) as a means of informing potential incentives package	City of North Charleston, Local commercial brokers in coordination with LAMC, City Planning Department, Chamber of Commerce	City of North Charleston and LAMC	City of North Charleston
1	Develop Programs to support Local Vendors / DBEs	Initiate a vendor registry, work with SCPA, SCDOT to identify vendors for future projects.	LAMC and/or LAMC CDC with Port Authority & City	100 Staff Hours. 10 Hours monthly.	Community Mitigation Plan (CMP)
3	Conduct Commercial Building Survey	Conduct annual surveys of commercial properties (office & retail) throughout LAMC; verify size (SF), occupancy patterns, building conditions, use, type of business, lease terms, rent levels, etc. Establish GIS database; critical step required before business recruitment strategies can be identified.	Independent source in coordination w/ City Planning Department, local commercial brokers & property owners	LAMC, City of North Charleston in association with merchants.	LAMC and City of North Charleston
3	Investigate Opportunities for Cultural Tourism	Continue liaison with State coordinator for Gullah Trail	LAMC, City of North Charleston	N/A	N/A
4	Track Existing Retail Performance Measures	Conduct annual/seasonal surveys of LAMC area retail businesses to understand overall sales performance, customer spending behavior, etc.; critical step required before business recruitment strategies can be identified.	Independent source in coordination w/ City Planning Department, local commercial brokers, property owners & merchants	200 Staff Hours. On-going coordination monthly - approximately 8 hours a month.	Department of Commerce /HUD economic development grant

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Transportation					
immediately	LAMC Policy Position on Rail & Intermodal Yards	Develop LAMC's official policy position on rail activity in and around the community and the improvement of existing or addition of new intermodal rail terminals.	LAMC	N/A	N/A
immediately	Participation in the Planning Process	Increase level of involvement in the transportation planning process in order to influence the type and character of transportation infrastructure in the community	LAMC	N/A	N/A
1	Improvements associated with Port Access Roadway	New Access Roadway connecting port to I-26; new local access boulevard; widening, extending, and streetscape enhancement of Stromboli Avenue; streetscape enhancements to portions of Carner and Spruill Avenues	SCDOT	\$1.2 Million	SCDOT
2	Ownership and Maintenance of Stromboli Avenue and Local Access Boulevard	Following construction, the City of North Charleston would take over ownership and maintenance responsibilities for Stromboli Avenue and the new Local Access Boulevard connecting the Port Access Roadway to Bainbridge Avenue.	City of North Charleston; Charleston County; SCDOT	120 Staff Hours	SCDOT
3	Develop Traffic Calming Measures	Incorporate traffic calming measures such as bulb-outs, diverters, speed tables, speed humps, bike lanes, and chicanes in concert with recommended corridor improvements.	City of North Charleston; Charleston County; SCDOT	TBD	City of North Charleston - Transportation

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Transportation (continued)					
3	Pedestrian & Bicycle Thoroughfares	Establishment of designated pedestrian and bicycle thoroughfares to guide future planning and construction projects. Specific improvements are recommended as discreet projects move forward including sidewalks, curb ramps, crosswalks, pedestrian signals, and bicycle accommodations.	LAMC; North Charleston; Berkeley-Charleston-Dorchester Council of Governments	Determine as part of City and County capital improvement programs.	NA
3	New Bus Stops	New bus stops are recommended in the vicinity of Spruill@Reynolds, Spruill@Stromboli, Rivers@Reynolds, and Carner@Stromboli. Exact locations and schedule/headway would be determined as part of CARTA's next operational analysis.	CARTA; North Charleston	TBD average shelter ~ \$50K-75K	CARTA, Federal Transit Authority
3	Bus Stop Improvements	Series of improvements including signage, far side stops, shelters, benches, and pullouts.	CARTA; North Charleston; LAMC	approximately \$5K- 20K	CARTA, Federal Transit Authority
5	Expansion of Street Grid surrounding the Stromboli corridor redevelopment area	Creation of several new east-west roadways; extension of a number of existing north-south streets	City of North Charleston	TBD	City of North Charleston, SCPA
5	Reconnection of Cosmopolitan Street	Once Exit 218 ramp is removed in the vicinity of Irving Avenue, reconnect Cosmopolitan Street.	City of North Charleston; SCDOT	TBD	SCDOT
5	Intersection Improvements	Intersection improvements for Spruill@Stromboli, Spruill@Meeting, Spruill@Viaduct, and Carner@Stromboli. These include a full program of vehicular capacity and pedestrian access/safety improvements.	SCDOT	TBD	State TIP, City of North Charleston
10	Major Corridor Improvements	Corridor improvements for Cosgrove, McMillan, Rivers, and Spruill Avenues including reconfiguration of travel lanes, addition of bike lanes, installation of landscaping, new lighting, etc.	City of North Charleston; SCDOT	TBD	State TIP, City of North Charleston
10	At-Grade Railroad Crossing Improvement Plan	A variety of geometric and safety improvements at various at-grade railroad crossings, including quiet zone technologies.	City of North Charleston, SCPA; SCDOT	TBD	TBD

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Open Space Network					
1	Designate Gateway Locations into the Neighborhoods	Develop neighborhood-specific gateway locations and signage. While the signage should be unique to each neighborhood, a similar color or materials palette is recommended to be used to unify and mark the neighborhoods as belonging to the LAMC community.	Initially lead by LAMC but subsequently turned over to neighborhood-based organizations as they are developed.	\$10 - 25K	Community Development Block Grant, Private Sponsorship
1	Develop Community Gardens	As an additional consideration for the use of vacant lots, LAMC should consider working with community-based organizations and youth groups to establish community gardens. Follow similar process as outlined for the Adopt-a-Lot program.	City of North Charleston Parks, LAMC	TBD - land possibly donated	
2	Establish an Adopt-a-Lot Program	Identify the location of vacant "nonconforming" lots adjacent to owner-occupied households to hold in a Land Bank and conveyed to adjacent property owners for maintenance for a minimum of three years. Work with the City of North Charleston to exercise the demolition by neglect ordinance to acquire additional lots for open space under the same program.	City of North Charleston Parks, LAMC	N/A	Community Mitigation Plan (CMP)
3	Develop Quitman Marsh into a Community Feature	Develop concept for daylighting creek and incorporating marsh into an overall green network for the City	City of North Charleston Parks, LAMC, University Partnership	200 Staff Hours for concept planning.	City of North Charleston, Charleston County - Greenway Program
3	Establish Mid-block Pocket Parks	Select lots to be used as passive open space. LAMC should work closely with developers on the selection of the lots and the landscaping plan for each lot. Developers and builders should be encouraged to fund the cost of initial landscaping and provide park benches and any hardscape features that would be included in the overall landscaping plan. LAMC should seek funding for landscaping equipment and organize itself to work with the City's Parks Department to take on the responsibility of maintaining the pocket parks.	LAMC Communities in partnership with the City of North Charleston	100 Staff Hours - 8 Hours monthly liaison	TBD
3	Enhance Major Community Gateways	Develop main community gateways, gateways to neighborhood corridors, and minor access points at locations referenced in the Plan with architectural elements or urban design features as appropriate.	LAMC Communities in partnership with the City of North Charleston	Competition and funding through industry sponsorships and Community Block Grants.	N/A
Infrastructure					
1	Continue to upgrade the existing drainage in Accabee	Use the Accabee stormwater study and suggested improvements to implement as funds allow.	North Charleston Public Works	Improvements programmed as part of City of North Charleston Capital Improvement Program.	City of North Charleston Capital Improvement Program
1	Upgrades to the Little Street Pump Station	Upgrade this pump station to allow addition flows. Amount of upgrade to be determined by the expected redevelopment to this neighborhood.	North Charleston Sewer District	TBD	
1	Upgrades to the Howard Heights Pump Station	Determine the amount of additional flow to this pump station as a result of the recommended redevelopment. Upgrade this pump station to allow for this addition flow.	North Charleston Sewer District	TBD	
2	Chicora/Cherokee Drainage Study and Improvements	A complete stormwater Hydrologic and Hydraulic Study including a survey of the existing conditions, an existing model outlining problem areas, and proposed improvements to alleviate problems with a cost for improvements. The study should also prioritize the recommended improvements. Use the study and suggested improvements and implement as funds allow.	North Charleston Public Works	Approximately 100K Study. Improvements programmed as part of City of North Charleston Capital Improvement Program	City of North Charleston Capital Improvement Program

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Infrastructure (continued)					
2	Union Heights Drainage Study and Improvements	A complete stormwater Hydrologic and Hydraulic Study including a survey of the existing conditions, an existing model outlining problem areas, and proposed improvements to alleviate problems with a cost for improvements. The study should also prioritize the recommended improvements. Use the study and suggested improvements and implement as funds allow.	North Charleston Public Works	Approximately 100K Study. Improvements programmed as part of City of North Charleston Capital Improvement Program.	City of North Charleston Capital Improvement Program
2	Windsor Drainage Study and Improvements	A complete stormwater Hydrologic and Hydraulic Study including a survey of the existing conditions, an existing model outlining problem areas, and proposed improvements to alleviate problems with a cost for improvements. The study should also prioritize the recommended improvements. Use the study and suggested improvements and implement as funds allow.	North Charleston Public Works	Approximately 100K Study. Improvements programmed as part of City of North Charleston Capital Improvement Program.	City of North Charleston Capital Improvement Program
2	Conduct a Study of the water system with the LAMC Neighborhoods	Use hydrant data collected to evaluate the effects of additional demands on the system due to redevelopment of the recommended areas. Then prioritize the recommended improvements.	LAMC; Charleston Water Systems	Approximately 125K Study. Improvements programmed as part of Water Systems capital improvements.	City of North Charleston Capital Improvement Program
2	Conduct Fire Hydrant Data	Perform hydrostatic flow tests on all hydrants within the LAMC neighborhoods.	LAMC; Charleston Water Systems		City of North Charleston Capital Improvement Program
5	Install and upgrade suggested improvements	Use the improvements suggested in the water study and start making the improvements as prioritized in the study.	Charleston Water Systems		
Environment					
ongoing	Continued Involvement Air Quality Monitoring Efforts	LAMC must remain actively involved in SCDHEC's ongoing air quality monitoring efforts.	LAMC, SCDHEC, and University of South Carolina	\$15-25K annually	EPA Clean Air Grant/State of South Carolina
1	Implement Best Management Practices	As part of its "Pledge for Growth" partnership with SCDHEC, the SPA will implement a series of best management practices at each of its ports to reduce emissions.	SCPA	TBD	SC Ports Authority (SCPA), EPA, and DHEC
2	Phase I ESA for key redevelopment sites	A Phase I Environmental Site Assessment should be completed for key redevelopment sites to provide an initial baseline of due diligence to perspective developers	North Charleston; LAMC	Approximately \$200K	EPA Brownfield Grant
Educational Attainment					
immediately	Develop a more robust parental education program in LAMC schools	Develop a parent education and training program for LAMC neighborhoods to implement at local public schools. Model the program after The Baby College or equivalent program.	LAMC; Charleston County School District; Charleston County Community Education	10 Staff Hours monthly for coordination.	Community Mitigation Plan (CMP)
1	Reform LAMC-Area School Improvement Councils (SICs)	Re-write the bylaws of SICs to comply with best practices; increase the number of parents and community stakeholders involved on SICs; Ensure all SIC members engage in annual training.	LAMC; Charleston County School District; South Carolina School Improvement Council	20 Staff Hours monthly	Charleston County Schools and LAMC

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Educational Attainment (continued)					
1	Build partnerships to lobby for increased resources for early childhood education	Develop relationships with the Charleston County Literacy Roundtable, Charleston County School District staff, MUSC, and other entities concerned with early childhood development. Lobby for increased funding for early childhood education from local, state, and federal sources.	LAMC; Charleston County School District; Charleston County Roundtable	20 Staff Hours monthly	Charleston County Schools and LAMC
1	Build community awareness of existing early childhood development programs such as Baby Net/Baby Steps	Develop outreach programs to educate parents on the availability of 4-K programs and Baby Net/Baby Steps.		As part of the education liaison function 20 Staff Hours monthly.	
1	Develop and strengthen the partnership between Charleston County Community Education and Wings for Kids	Formalize an agreement to help Wings for Kids expand into more LAMC study area schools. Designate liaisons in the CCDE and at Wings to collaborate around developing and running the expanded program.	LAMC; Wings for Kids; Charleston County Community Education	80 Staff Hours for program development. 10 hours monthly for liaison with partners.	
1	Develop a publicity campaign on early childhood development resources	Ensure that all parents know about and have access to 4-K and BabyNet programs through publicity campaigns including flyers, posters, videos, and so forth. Ensure that all LAMC area parents know the developmental benchmarks for young children and the importance of early childhood development for life long success.	LAMC; Charleston County School District; Charleston County Child Find	40 Staff Hours for campaign development. 5K for material.	Charleston County Schools and LAMC
2	Integrate design principles into community center planning processes	Develop design guidelines to be implemented with every school renovation or new development that comply with principles of community schools.	Charleston County School District	10 Staff Hours	Charleston County Schools and LAMC
2	Develop a parental education program modeled after Harlem Children Zone's Baby College	Seek support from either public institutions or major private non-profit organizations. Implementing such a program through the Charleston County Community Education department could be more cost-effective, as it already offers some parenting courses and resources and draws funding from pools of public money. Most likely, partnerships between standing organizations such as LAMC or Wings for Kids and the County would be necessary to develop and implement a similar program. Incorporate lessons learned from the LAMC delegation's visit with Harlem Children Zone.	LAMC, Charleston County Community Education; Charleston County School District (CCSD)	120 Staff Hours for program investigation	Community Mitigation Plan (CMP)

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Public Safety/Health/Community Centers					
immediately	Increase citizen participation in existing community-police collaborations	Track and publicize attendance at neighborhood meetings; Mobilize the community with social crime-fighting events; Participate in Neighborhood Enhancement Team rounds; Include Neighborhood Resource Officers in monthly LAMC meetings.	LAMC; Charleston of North Charleston Police	20 Staff Hours monthly.	Community Policing National Grants
1	Establish a Problem Solving Partnership to address violent crime in the Chicora/Cherokee neighborhood.	Jointly define a specific problem and involve the community in all stages of problem solving: Scanning; Analysis; Response; and Assessment.	LAMC; Charleston of North Charleston Police; Police Executive Research Forum	100 Staff Hour for program development. 20 Hours monthly.	Community Policing National Grants
1	Coordinate LAMC Community Development efforts with the City of North Charleston Police.	Coordinate police enforcement with targeted community development efforts; Increase consultation with the police over community development targeting and over crime enforcement initiatives.	LAMC; Charleston of North Charleston Police	20 Staff Hours monthly.	N/A current public safety operations
1	Continue the development of Healthy Living Program.	Coordinate with local partners on green community and healthy by design initiatives for LAMC communities. Green Community: Essays on Community Health; Resource: http://www.planning.org/apastore/search/Default.aspx?p=4012	LAMC; City of North Charleston	20 Hours Monthly	HUD Healthy Communities grants, Annie E. Casey Foundation
2	Expand community access to Public Health facilities	Coordinate with Department of Public Health to expand health care offerings in local community center or health care facility	LAMC; Department of Health and Human Services, City of North Charleston, University of SC	80 Staff Hours for investigation.	N/A
1	Develop Community Centers as the hub of neighborhood stabilization and enhancement	Orient community, afterschool, and life long learning activities around community centers	City of North Charleston Parks and Recreation, LAMC, Charleston County Schools, Trident Tech.	100 Staff Hour for program coordination. 20 Hours monthly.	N/A

Figure 6.6 Work Plan for Implementation

Timing/Yrs	Project Title	Description	Responsible Entities	Estimated Costs	Recommended Funding Sources
Capacity Building					
immediately	Establish a LAMC Neighborhood Community Development Corporation	Create a LAMC CDC to act as a bridge between the LAMC neighborhoods and local government/private sector interests, and the community at-large. A LAMC CDC should provide support services that build capacity to support all aspects of the Revitalization Plan.	LAMC	500 Hours. 5-10K for legal assistance.	LAMC
1	Establish a Community Land Trust	Create a Community Land Trust (CLT) to acquire and hold land that can be used to provide affordable housing for the community.	LAMC	800 Hours	LAMC
1	Establish a Housing Trust Fund	Goal to provide local funding for affordable housing.	LAMC CDC in association with local CDCs & City of North Charleston and Charleston County		LAMC, State Trust Fund, Federal Government - HUD, private donations
5	Create centralized business/retail management organization	Focus on preparation of business/retail retention & recruitment strategies, marketing (of district & available space). Data & analysis is required in order to accurately define mix of local/regional/national retailers, with appropriate recruitment strategies to follow.	Professional staff; coordinate with local commercial brokers, property owners, LAMC, City Planning Dept.	20 Staff Hours monthly	LAMC & Chamber, SC Port Authority for initial seed funding. Membership dues once established.

Figure 6.7 Work Plan Timeline

Phase	Project Title	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 20
ongoing	Continued Involvement Air Quality Monitoring Efforts							
immediately	LAMC Policy Position on Rail & Intermodal Yards	█						
immediately	Establish a LAMC Neighborhood Community Development Corporation	█						
immediately	Increase LAMC Participation in the Planning Process	█	█	█	█	█	█	█
immediately	Increase citizen participation in existing community-police collaborations	█						
immediately	Develop a more robust parental education program in LAMC schools	█	█					
6 Mos - on-going	Initiate Relationships with Grocery Store Chains	█	█					
6 Mos	Stromboli Avenue Concept Plan	█						
1-3	Redevelopment Area Land Use & Zoning Update	█	█	█				
6 mos	Stromboli Land Use	█	█					
6 Mos	Adopt a Container Stacking Ordinance	█						
1	Implement Best Management Practices	█	█	█	█	█	█	█
1	GEX Acquisition/Master Plan	█						
1	Stromboli Remediation	█	█					
1	Chicora Tank Farm Concept Plan - Acquisition	█						
1	Spur Block Land Use	█	█					
1	Tank Farm Land Use	█	█					
1	Establish Single Family Traditional zoning in LAMC neighborhoods	█	█					
1	Establish Neighborhood Conservation Overlay Districts	█						
1	Develop Programs to support Local Vendors / DBEs	█						
1	Improvements associated with Port Access Roadway	█	█					
1	Designate Gateway Locations into the Neighborhoods	█	█					
1	Develop Community Gardens	█	█					
1	Continue to upgrade the existing drainage in Accabee	█	█					
1	Upgrades to the Little Street Pump Station	█	█					
1	Upgrades to the Howard Heights Pump Station	█	█					
1	Reform LAMC-Area School Improvement Councils (SICs)	█	█					
1	Build partnerships to lobby for increased resources for early childhood education	█	█					
1	Build community awareness of existing early childhood development programs such as Baby Net/Baby Steps	█	█					
1	Develop and strengthen the partnership between Charleston County Community Education and Wings for Kids	█	█					
1	Develop a publicity campaign on early childhood development resources	█	█					
1	Establish a Problem Solving Partnership to address violent crime in the Chicora/Cherokee neighborhood.	█	█					
1	Coordinate LAMC Community Development efforts with the City of North Charleston Police.	█	█					
1	Continue the development of Healthy Living Program.	█	█	█	█	█	█	█

Figure 6.7 Work Plan Timeline

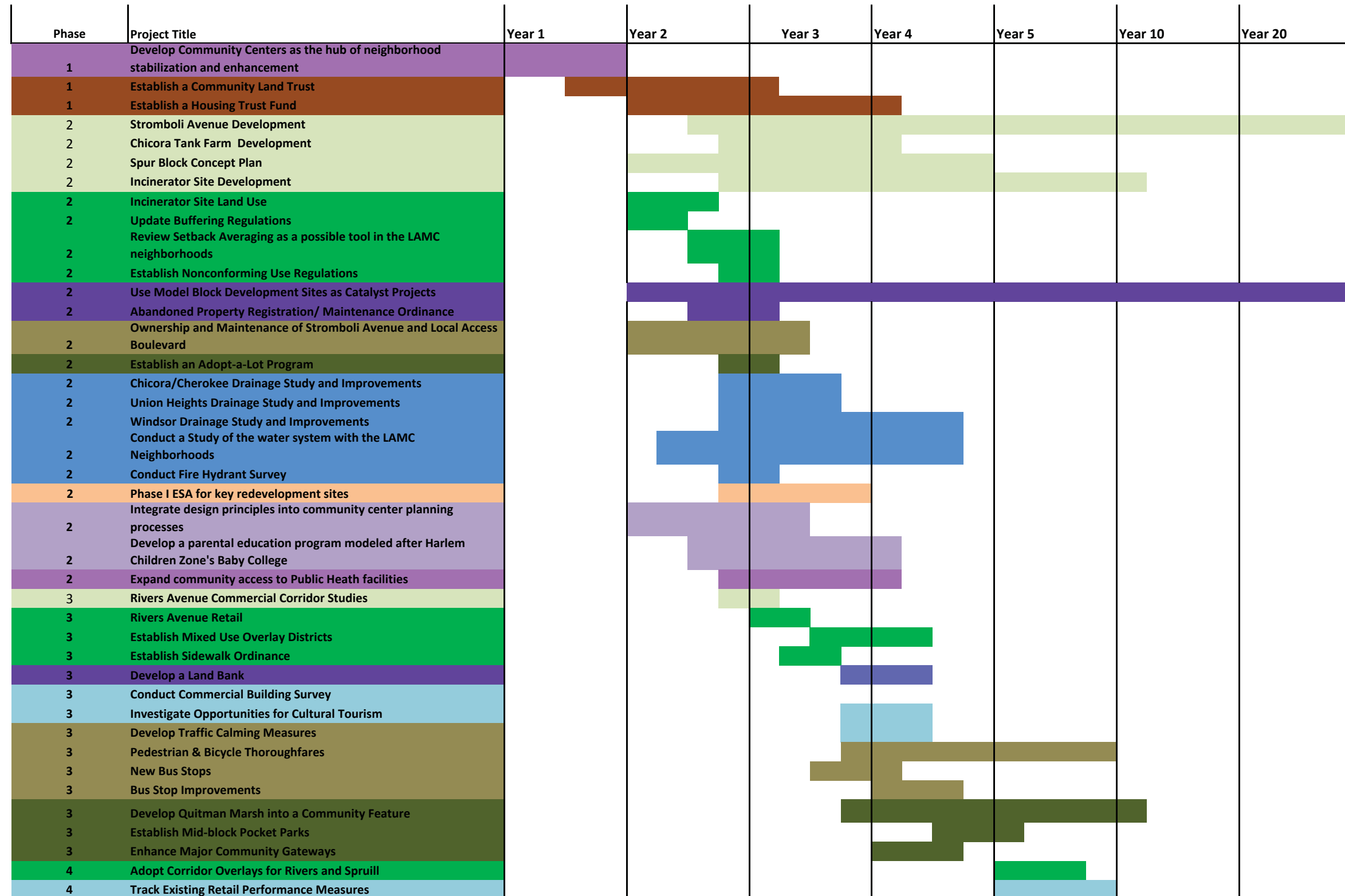


Figure 6.7 Work Plan Timeline

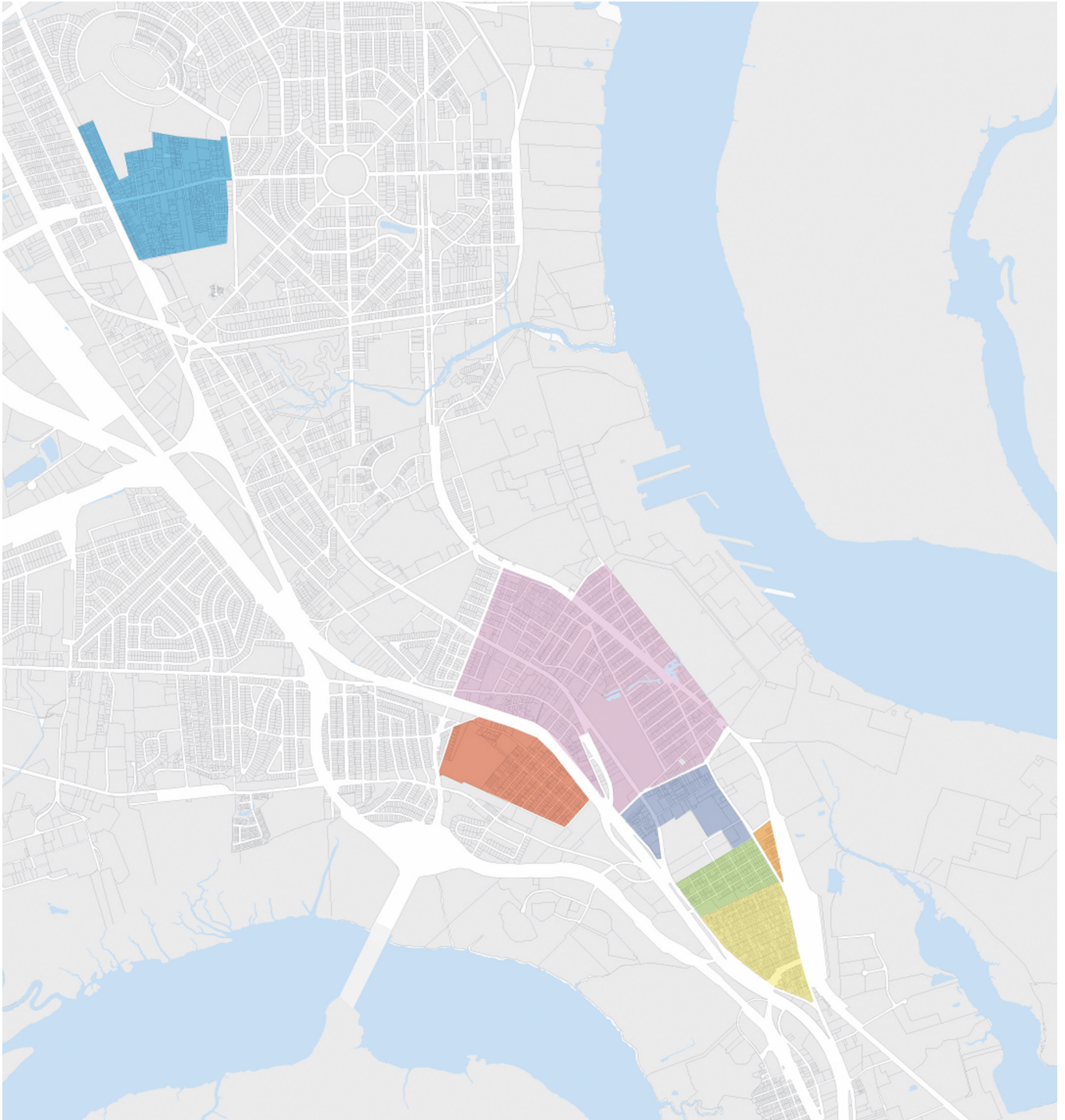
Phase	Project Title	Year 1	Year 2	Year 3	Year 4	Year 5	Year 10	Year 20
5	Expansion of Street Grid surrounding the Stromboli corridor redevelopment area							
5	Reconnection of Cosmopolitan Street							
5	Intersection Improvements							
5	Infrastructure - Install and upgrade suggested improvements							
5	Create centralized business/retail management organization							
10	Implement Major Corridor Improvements							
10	Implement At-Grade Railroad Crossing Improvement Plan							

Project Categories

Redevelopment Projects
Policy
Model Block/Housing
Economic Development
Transportation
Open Space Network
Infrastructure
Environmental
Education Attainment
Public Safety/Health/Community Centers
Capacity Building

A.0

Appendices





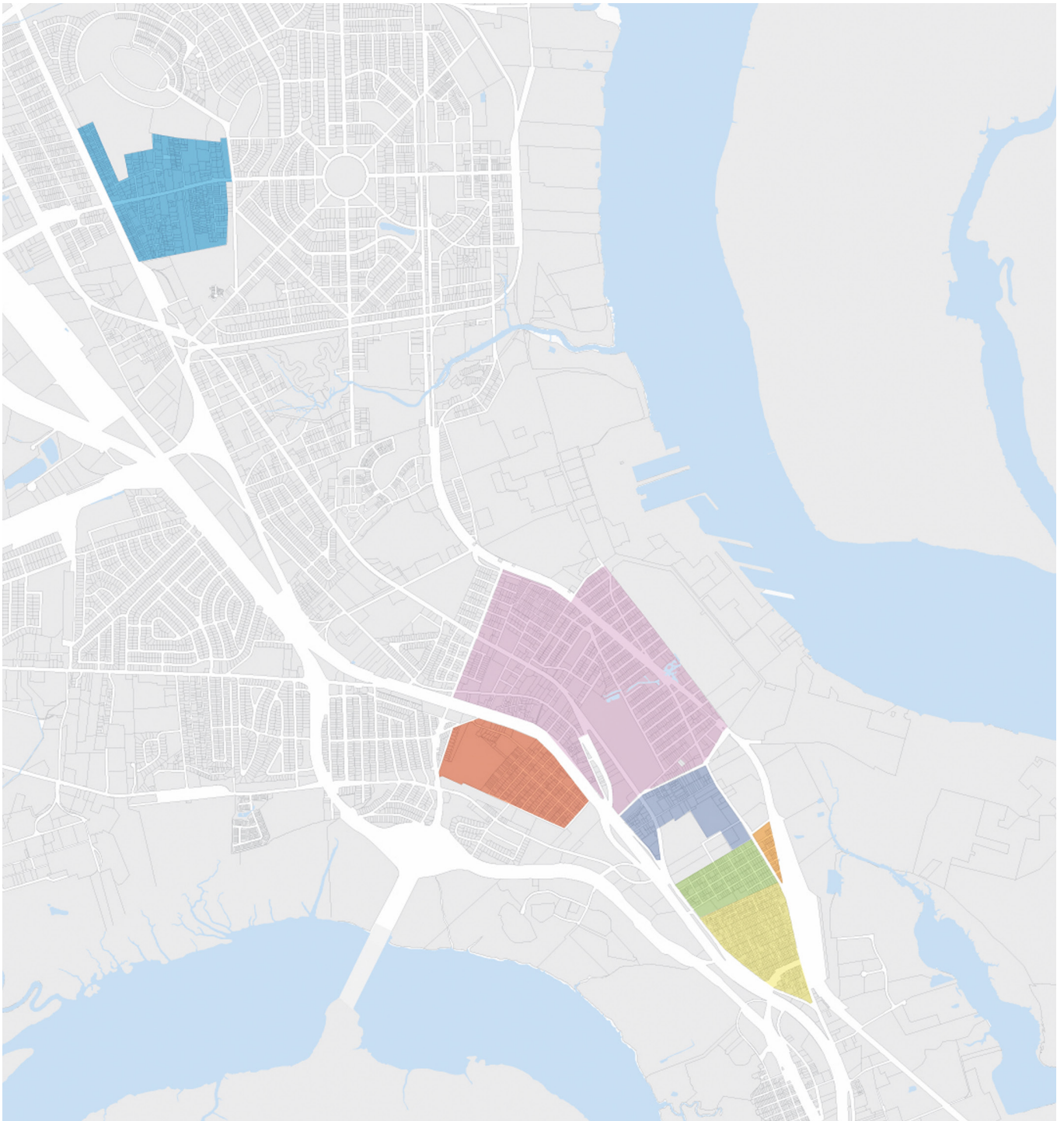
LAMC Draft Revitalization Plan

APPENDICES

These Appendices to the Draft Revitalization Plan for the LAMC study area contain research, analysis, and explorations that confirm or support the conclusions offered in the Draft Plan. The complete review of these Appendices will explain the basis for the Revitalization Plan's recommendations. In some instances the Revitalization Plan makes specific references to sections of the Appendices that provide a fuller understanding for the plan's implementation.

APPENDIX I	DATA & REFERENCES
APPENDIX II	BUFFER DESIGN RESEARCH & RECOMMENDATIONS
APPENDIX III	COMMUNITY DEVELOPMENT CORPORATION & COMMUNITY LAND TRUST
APPENDIX IV	RAIL & INTERMODAL REPORT
APPENDIX V	VISIONING WORKSHOP SUMMARY
APPENDIX VI	ORDINANCES

Data & References





A.I Data & References

APPENDIX I

Data and References

A. Urban Design Revitalization Opportunities

URBAN DESIGN AND PLANNING FRAMEWORK

The proposed Urban Design and Planning Framework build off and summarize all the previous analysis of the conditions of the study area, particularly the identified Strengths, Weaknesses, Opportunities, and Threats, and illustrate key opportunities for improvement. This Urban Design Framework identifies the locations and opportunities for transformational moves that could serve as anchors or catalysts for neighborhood revitalization.

The recommended activity centers are linked closely to opportunities for corridor revitalization and improvement. Activity centers would serve as gateways and focus points for the following key corridors: Montague Avenue, Reynolds Avenue, and Stromboli Avenue. McMillan Avenue is also considered an opportunity for revitalization, given that the Navy Hospital might be a future redevelopment site. Also, the ramp at I-26 that currently divides Union Heights is slated for demolition; its redevelopment and reversion to a city street will provide an opportunity to reconnect the southern part of the neighborhood to the northern portion.

In addition to the Navy Hospital site, a large-scale infill opportunity is at the Tank Farm site adjacent to the Military Magnet school. Another component of redevelopment in this area is a new Chicora Elementary School, which would complement the surrounding school and park campus and increase the level of activity at this area.

Connections between neighborhoods are recommended to improve pedestrian and/or automobile access where neighborhoods are currently divided. Stronger connection between the new Academic Magnet/School of the Arts sites and Liberty Hill, as well as between Windsor and Union Heights at Gethsemani Community Center, will improve access and circulation between these areas. In order to make these schools centers of their respect communities, better and more direct access should be provided.

Finally, improved connections to the river, either through better views or physical access to the water, were identified as opportunities to link the community to both the Cooper and Ashley Rivers.

ORDINANCES

Corridor Overlay Ordinance

Corridor overlay ordinances are recommended for improving the aesthetics and the pedestrian-friendliness of both the Rivers and Spruill corridors. Corridor overlays are often used in conjunction with

the construction of new streetscapes to promote corridor revitalization, create a consistent physical character, and enhance access and mobility. Although corridor overlays can improve design and environmental quality, careful consideration must be given to ensure that the ordinances are not too burdensome and therefore discourage redevelopment and new investment.

The City of North Charleston currently has a number of corridor overlays including Dorchester Road, Ladson Road, and University Boulevard. While parts of these overlays may be applicable to the LAMC study area, they were deemed to be more appropriate for a suburban than for an urban context and were not focused on promoting a pedestrian-oriented environment.

Primary Considerations for Corridor Design

The primary considerations for a corridor overlay are providing adequate transportation access, and balancing the needs of vehicles and pedestrians in the corridor. Aesthetic considerations include streetscape design, sign regulations, the location of utilities, screening, and design guidelines for buildings. Pedestrian-oriented corridors generally focus on having buildings near the street frontage to create a “building wall” and therefore a feeling of continuous activity along the corridor. Pedestrian-oriented corridors also focus on creating adequate pedestrian infrastructure, including generous sidewalks and pedestrian amenities such as benches. Limiting the proliferation of driveways and adding medians improves the safety and comfort of both pedestrians and motorists. Burying utilities can often create a dramatic aesthetic improvement in a corridor, but it is also very expensive, and so it is often dropped as a requirement for new development. Regulating signage is often one of the easier ways to make a short-term improvement in the appearance of a corridor, and sign regulations are sometimes phased in to apply to existing as well as new uses.

Parking lots are also an opportunity for aesthetic improvements. One of the most important design moves is to place parking to the rear or to the side, therefore emphasizing the visibility of architecture rather than parking lots. Parking lots can also be designed or resized to increase trees and green space and to limit impervious surfaces, which add to local heat islands and increase the flow of polluted stormwater.



Image of Quality, Pedestrian-Oriented Commercial Corridor

Recommended Ordinance Provisions

Purpose

This section describes the intended purposes of the proposed overlay, usually including improving aesthetics, promoting quality redevelopment, and promoting alternative transportation.

Applicability

This section describes the sites and structures to which the overlay provisions apply, usually including new structures and renovations covering more than 50% of the value of the existing property.

Transportation and Access

One primary recommendation is to limit the number of driveways, which helps to make both pedestrian and vehicular traffic safer by limiting the number of potential conflicts. It is recommended that only one driveway be permitted per frontage and that a minimum frontage of 120' be required for any new driveway. It is also recommended that driveway width be limited to no more than 28', in order to minimize the interruption to pedestrians. Usually a minimum clearance from nearby intersections is also required for driveways.

It is recommended that any new acceleration lanes and deceleration lanes be prohibited, as these increase the safety hazard for pedestrian traffic.

It is recommended that inter-parcel access between contiguous commercial, office, industrial, and multifamily developments be required, in order to promote ease of circulation and limit congestion. This provision may be less of a concern on Spruill where traffic volumes are lower and the number of developed parcels is fewer.

Parking

Recommended parking provisions include:

- Permit shared parking between nearby uses with different parking peaks; for example a religious facility and a business.
- Allow on-street parking spaces to count towards a site's parking requirement.
- Require one planted tree for every ten parking spaces, with a minimum landscaped area per tree to ensure health growth of the tree.
- Require the provision of 1 bicycle parking space for every 20 vehicular parking spaces in order to promote bicycle use.

Pedestrian Infrastructure

Require the construction of basic pedestrian infrastructure along with every redevelopment, including:

- Marked pedestrian pathways of at least four feet in width connect the sidewalk with the primary building entrance.
- Incorporation of decorative, commercial quality bicycle racks, pedestrian-scale lighting, benches, and trash receptacles on site by all retail or office developments over a minimum size.

If there are no plans for the City to invest in a new streetscape, the streetscape can be improved incrementally by developers as redevelopment occurs. Under this approach, a standardized streetscape design is required of all new development. This streetscape design usually includes the following elements:

- A standard streetscape design, including a street furniture buffer zone, a sidewalk zone, and a landscape zone between the sidewalk and the building.

- Require that streetlights be located every 50-150 feet, with potential requirements that pedestrian-scale streetlights be alternated with taller, vehicular scale lighting. Standardize the streetlight design.
- Require that a street tree be planted every 30-60 feet, usually with equal spacing between trees and street lights. Required a specified tree species, size, and planting area for each corridor.

Site Design and Buffers

Encourage a site design that minimizes impervious surfaces, maximizes green spaces, encourages on-site filtration of stormwater, and places the building close to the street and sidewalk. Recommendation regulations include:

- A maximum building setback of 15-25'
- The primary entrance and façade of the building face and be visible from the street
- Any existing natural vegetated areas must be preserved
- A maximum impervious surface ratio, i.e. a maximum impervious surface area of 80% applies to the Dorchester Road corridor.

Buffers between commercial and single family uses are currently required by the City of North Charleston zoning code.

Architectural Design Guidelines

Architectural design guidelines are often the most controversial part of an overlay district. Design guidelines may just prohibit a few unwanted materials, or may provide extensive guidance on the required building design types. Architectural design guidelines may cover roof design, fenestration, articulation of building floors, specific required features, variations on massing, and other building elements. It is recommended that detailed architectural design guidelines be avoided unless a sufficient study of the current corridor building design is conducted first and consensus is reached by property owners to support such an overlay. The general goal of architectural design guidelines in these corridors should be to discourage large, monotonous structures and to encourage the use of human scale detail elements.

Some basic and general architectural design guidelines that may be applicable include:

- Buildings should address at least 50% of the lot frontage.
- Building having a minimum of 30 percent glazing (glass covered areas). Tinted and darkened glass is not permitted.
- Buildings of less than 5,000 square feet of gross floor area should be designed with pitched roofs, minimum pitch of four in 12.
- Buildings over 5,000 square feet should:
 - lend the appearance of multi-tenant occupancy, facades of multi-tenant buildings should be varied in depth or parapet height.
 - vary their facades a minimum of every 50 feet through a change of material, height, or decorative pattern.
 - Articulate roof parapets with features, such as towers or cupolas to provide visual diversity. Parapets should include articulations or architectural features at least every 100 feet.

Sign Regulation

Sign regulations are recommended that limit the number, size, and location of signs to prevent the appearance of clutter and disorientation that results from the proliferation of signs. Many of the recommendations from the University Avenue corridor overlay would be applicable, such as:

- Limitation to one freestanding sign per major road frontage

- Required monument design for all freestanding signs, with a limitation of 50 square feet and 10 feet in height
- Similar limitations on the size and number of signs for shopping centers
- Limitation on the size of wall signs
- Prohibitions on certain signs such as off-premise signs

In addition, it is recommended that blinking, exposed neon, moving, portable, and inflatable signs should be prohibited.

It is also recommended that sign design be required to use materials in coordination with the building design.

General Aesthetics

General aesthetics encompass other basic considerations of screening, lighting, and utilities. Generally, any features other than the building, the landscaping, and the parking area should be minimally visible. Recommendations that apply to both corridors include:

- All utility lines such as electric lines, telephone lines, cable and other lines should be placed underground, and all access boxes to service these utilities should be screened with fencing or vegetation to be predominantly obscured from view. (This provision may be dropped if it is deemed too big a burden on redevelopment activity).
- Dumpsters should be screened on all sides by an opaque wall or fence.
- Mechanical areas and HVAC systems should be screened so as not to be visible from any residential districts or public rights-of-way.
- Loading zones should be located to the rear of the lot where viable and should not be visible from any residential districts or public rights-of-way.
- Lighting should be designed and directed to avoid light intrusion onto adjacent properties. Full cut-off light fixtures should be required for all street and parking lot lighting.

Sidewalk Ordinance

Currently, the City of North Charleston requires that all sidewalks be a minimum of four feet wide, although the City does not require the installation of sidewalks. The development of a more stringent sidewalk ordinance is suggested for the City in order to promote connectivity, healthy living, and pedestrian safety. Such an ordinance is especially important because many residents and households within the City do not own or have access to a personal vehicle. All new planned developments should be required to install sidewalks according to their land uses as part of a complete network. While all sidewalks should be a minimum of four-feet wide in residential areas, the City should reserve the right to require up to eight-foot sidewalks along commercial, industrial, and multi-family areas due to anticipated pedestrian and vehicular traffic. The City should also reserve the right to require sidewalks to be separated from the back of the curb by a three to five foot planting strip, protecting pedestrians from vehicular traffic and providing aesthetically pleasing streetscapes. Along some corridors, this will require that the street right-of-way be extended. Currently, all streets within the City have a 50 foot right-of-way, with no differentiation between arterial streets and neighborhood streets.

Abandoned Property Registration/Maintenance Ordinance

Many cities throughout the United States are impacted by vast numbers of vacant and unmaintained properties, especially older, industrial cities. In an effort to address the maintenance of these properties, some cities now require property owners to register with Building and Codes when their properties become vacant. In some cases, the banks or lenders become the owners of foreclosed properties, and they are also required to register foreclosed properties with Building and Codes. In both cases, the property owner must indicate to the City how the property will be maintained for the duration of its vacancy. In the City of Chula Vista, CA, the City not only requires lenders of abandoned properties to secure the property against vandalism and deterioration, they are required to hire a local property

management/maintenance company to maintain it, and post the company's name and contact number on registration.

Vacant property registration allows the City to collect fees to assist with code enforcement. By having such properties on record, the City of North Charleston will be able to track the condition of a property, making it easier to enforce codes with the property owner. If the City identifies vacant and unmaintained properties that are not registered, the City has the right to fine the property owner not only for violating municipal codes but also for not registering the property with the City.

Neighborhood Overlay District Ordinance

Several important objectives should be established as the focus of a Neighborhood Overlay District in the LAMC neighborhoods:

The architectural, historic, and cultural significance of the neighborhood

The physical characteristics of development sites, including, but not limited to existing vegetation and topography, and

The potential adverse effects of the proposed construction, demolition, or alteration on the surrounding properties, and on the immediate streetscape.

In addition to general criteria for the overlay district outline above, the City of North Charleston should consider applying the following conditions to augment this regulatory tool:

Review of the design of a proposed new structure or addition to an existing structure over 400 square feet including:

North Charleston Comprehensive Plan Update 2008 (Included in the current 2008 Plan Update)

This program is used in Albany, NY. A city ordinance would require property owners to register property with the Vacant Building Registry within 30 days of becoming vacant, with an annual fee for each building. The process would require the property owner to file a building maintenance plan with the registry to lay out how the property will be maintained and kept up to standards while vacant. In Albany, a Vacant Building Committee was established to identify vacant properties and determine the extent of any damage or deterioration; notify property owners of violations and maintenance requirements; inspect the properties; and prosecute property owners for violations. The committee also helps educate property owners on property maintenance and rehabilitation, as well as helping them find buyers for the properties if they wish to sell their properties.

- a. Site layout;
- b. Provisions for parking;
- c. Size and dimensions of the structure;
- d. Provisions for landscaping; and
- e. The scale of the structure in relation to its surroundings.

In evaluating an application to demolish a structure, LAMC should consider the following factors:

- a. The architectural, historical, and cultural significance of the structure;
- b. The physical condition of the structure;
- c. The design of the proposed replacement structure, if any.

In reviewing the following additional factors:

- a. The extent to which the integrity of the original design has been retained or previously diminished;
- b. The consistency of the proposed alteration with the character and scale of the surrounding properties;
- c. The proximity of adjacent surrounding properties.

Once guidelines are established, they will help pre-select development in the area, as only developers who are amenable to adhering to the commercial district’s vision will seek to build their businesses there. Overlays additionally give developers confidence to invest as they know others wishing to develop in the neighborhoods will be bound by the same guidelines. Overlays in commercial districts can also help catalyze revitalization by encouraging coherent storefront facade renovation (which can be facilitated through financial support in the form of rebates and grants). Design guidelines can be established through the overlays so that redevelopment occurs in concert with the vision for the area. Consistent styles also help brand districts as destinations. The Ford Foundation, the International Downtown Association, and the Urban Land Institute, among others, have advanced initiatives and documented the relationship between design guidelines and improved economic activity as part of neighborhood and commercial revitalization programs.

Design guidelines and overlays should be adopted in the LAMC study area including the corridor at Stromboli, commercial areas along Rivers Avenue, and the Model Blocks as a means of implementing these projects to a standard that will signal their beneficial transformation and ensure that current investments are protected as new projects come on line in the future as they will be required to meet the same standard of design and construction. The next steps for LAMC in this regard would be to confirm the targeted areas like the Stromboli corridor and begin working with the City of North Charleston to establish the location and extent of such guidelines as part of the public purpose for revitalization. The CDC could facilitate this activity as convener and record keeper and work with property owners and public officials for the adoption of design guidelines that are targeted for the desired outcome of district revitalization.

Container Stacking Ordinance

A container stacking ordinance is recommended to mitigate the impacts of container stacking uses on LAMC study area neighborhoods. While the City’s existing regulations largely address the siting and buffering concerns for new container stacking developments, the following section outlines some potential improvements, with a particular focus on addressing existing container stacking uses.

Current City of North Charleston Regulations

Currently, the City of North Charleston only permits container stacking in its heavy industrial district (M-2), and then only with a conditional use permit. The proposed container stacking facility must submit a stacking and buffering plan so that it does not substantially harm adjoining uses. Many of the container stacking sites in the City are nonconforming uses, which means that they are not in compliance with current zoning but are permitted to remain so long as they are in continuous operation and do not seek to expand. In order to obtain approval as a conditional use, a container stacking facility must be voted on by City Council after a public hearing with notice provided.

Primary Land Use Issues with Container Stacking

Container stacking uses may pose a variety of hazards and nuisances to nearby properties, particularly nearby residential properties. Primary concerns include:

- Views and Aesthetics – Containers stacked several high can create an imposing vertical wall. This may obstruct views and light and create a visual character that is incompatible with nearby residential and business uses.
- Environmental hazards – Containers may have a variety of raw or industrial material residue, especially if they have not been thoroughly emptied. If containers or the container storage site are not well maintained, or if they are stored for a number of years on site, materials and stormwater may leak into surrounding soil, to nearby waterbodies, and/or onto adjacent properties.
- Criminal activity/vagrancy – The shelter and hiding places created by generally unattended containers can serve as a location for criminal activity, vagrancy, or attract the homeless.
- Noise levels – The transport and stacking of containers may cause significant noise.

- Truck traffic – The transport and storage of containers may involve a significant volume of truck traffic.
- Safety issues – Poorly stacked containers may unexpectedly topple; however, we did not uncover any actual instances of a collapsed stack of containers in our research.

Recommended Ordinance Provisions

Purpose

The purpose should discuss the land use issues described above and how they will be mitigated or prevented by the provisions of the ordinance.

Location

The City’s current recommendation that container stacking facilities only be located on heavy industrial (M-2) sites with a conditional use permit is deemed adequate.

Lot Size and Dimensions

The current regulations for the City’s heavy industrial zone, which require a minimum 5 acre site and 50 or 100 foot yards, address the needs of site functionality and adequate buffering.

Site Plan

The City’s current ordinance requires that a stacking and buffering plan be submitted in order to regulate the height of stacking and the size and design of buffers. In addition it is recommended that the site plan include a circulation plan that ensures adequate on-site circulation for inspection, emergency access, and surveillance.

Height and Stacking Limitations

The current provision, which requires that a stacking and buffering plan be submitted, is deemed adequate to address the height issue. However, it is recommended that a “no racking” provision be added that bans the storage of stacking containers in an upright position where the bed is perpendicular to the ground.

Screening

The current City code requires an eight-foot planting screen or wall, and in addition the heavy industrial (M-2) zoning district requires a landscape plan be submitted for the site. The current code also requires that a “Type C” buffer be established wherever industrial or outdoor storage uses occur adjacent to industrial uses, with specific requirements for buffer size, number and size of plantings, and opacity. No additional recommendations are made on top of the existing City code.

Access

Basic provisions to secure and improve access are recommended. Namely, the storage of containers in areas that impede access to public rights-of-way, public utilities, or drainage easements should not be permitted. Also, it is recommended that all driveways and parking areas be covered with materials that inhibit the disturbance of dust.

Safety and Environmental

A number of additional provisions are recommended to enhance safety of container storage areas. These include:

- The entire perimeter should be secured with an eight-foot fence to deter unauthorized access.
- All containers should be fully emptied and cleaned of any residue that may pose an environmental or health risk.
- All containers must be structurally sound and in good repair.
- Adequate lighting must be provided on site to promote on-site surveillance, including at entrances and exits; however, lighting must not affect adjacent properties.

Noise

Cargo container facilities should make every effort to contain noise within their site, and if noise becomes excessive, then they may be treated as a public nuisance. As with the City's other noise provisions, it is recommended that no stacking or unstacking of containers be permitted between 11:00 pm and 7:00 am for any site within 1000 feet of any residentially zoned land.

Inspections

It is recommended that all container storage sites be inspected annually, and that the annual inspection fee be paid by the property or business owner at the site. During these inspections, the site will be inspected for compliance with the provisions of the code and appropriate code enforcement measures such as citations and/or fees should apply if necessary.

B. Housing

HOUSING REVITALIZATION STRATEGY

The opportunities for development and initial catalyst project opportunities introduced in this report are based primarily on stabilizing neighborhood conditions as a basis for growth and development. The suggested strategy of stabilization is based on establishing site control of vacant lots and buildings and using these resources to launch focused model projects within each of the LAMC study area neighborhoods. The goal of the focused model project areas is to establish a framework for long range and comprehensive neighborhood redevelopment. Five guiding principles should be incorporated into the initial housing strategy for the LAMC study area neighborhoods:

1. Single-family infill development should prioritize owner-occupancy and the use of architectural design guidelines;
2. Through the housing strategy, create development opportunities, restore existing housing whenever feasible, and renovate existing occupied housing to retain existing lower income families in the LAMC study area neighborhoods;
3. Expand the use and effectiveness of non-profit housing development organizations as a primary entity to deliver residential and community development support services, including the development of a LAMC-affiliated CDC;
4. Housing development strategies are more effectively implemented by establishing mechanisms to assemble land and building and controlling the disposition of land and building in a manner that facilitates long term redevelopment objectives, e.g. affordability, building design guidelines, retaining existing residents; and
5. Use of Model Block Development Areas as a catalyst and use of funds set aside by LAMC for housing development to leverage private sector investment in mixed-income housing.

Single Family Infill Strategy

Overall Approach

- An analysis of the LAMC study area neighborhoods identified vacant parcels of land that are large enough to support the development of single-family homes. The focus of single-family infill should be for owner-occupancy. Because of the large number of rental units that currently exists in LAMC study area neighborhoods, the development of additional single-family rentals should not be encouraged. In an effort to maximize the impact of single-family infill developments, project sites should be considered in conjunction with the location of purchase / rehabilitation of vacant and occupied homes. The project's approach should include several important elements: Architecture sensitive to the existing history and character of the community
- Homeownership training that prepares families and individuals for homeownership
- Affordable housing that can be purchased by existing LAMC study area residents who qualify for an affordable mortgage product
- Financing and development subsidies that encourage non-profit and for-profit development and leverage the involvement of conventional lenders
- Mixed-income development that attracts a range of household incomes

Purchase Rehabilitation and Occupied Rehabilitation

Overall Approach

Housing units requiring both minor rehabilitation and major rehabilitation were found in the LAMC study area neighborhoods as part of our windshield survey. Because of the large number of occupied homes needing minor to moderate rehabilitation, this project category represents the best opportunity to address the housing needs of current LAMC neighborhood residents. Since a significant portion of the homes requiring minor rehabilitation are occupied by renters, the approach should provide incentives for conversion of renters to owner-occupants, and incentives for investor-owners to reinvest in their property. Similar to the approach suggested for single-family infill, the project approach should include several key elements:

- Encourage architectural sensitivity and rehab standards as part of the overall approach to both minor and major rehabilitation
- Provide homeownership training that prepares families and individuals to transition from rental to owner-occupancy
- Identify financial incentives that encourage investor-owners to reinvest in their property without passing the cost of reinvestment to lower income tenants
- Link identification of code violations with financial incentives and technical assistance to encourage reinvestment
- Incorporate an outreach and marketing component into the overall approach to encouraging rehabilitation, since the rehabilitation of occupied homes is generally met with concerns of displacement and gentrification
- Target marketing of vacant/abandon homes to moderate/middle income homebuyers to facilitate mixed income within the LAMC study area

Deferred Payment Loans (DPL)

The use of conventional financing for owner-occupied rehabilitation in LAMC neighborhoods will most likely be limited since houses located in the LAMC study area have experienced declining property values, and the potential credit issues families may be experiencing. Grants and Deferred Payment Loans (DPL) are the most likely funding mechanism for owner-occupied homes requiring minor rehabilitation. While it is recommended that grants be limited to very low-income owner-occupied families, there should also be occupancy restrictions to ensure families remain in the house for an extended period of time after the repair work is completed. In the case of moderate-income owner-occupied houses and investor-owned houses requiring minor repairs, below-market interest rate loans and DPL are recommended. Since grants require no repayment, they should have limited use and be restricted to owner-occupied households.

DPL's are recommended for investor-owned houses rented by low- to moderate-income households. Since DPL's are typically loans in which the principal and interest are deferred until some point in the future or repaid when the property title is transferred, they can be used to finance minor to moderate repair costs to help insure that lower-income households remain in the community. DPL's could also be converted into grants as incentives for the investor-owner to sell the house to the renter-occupant or income-restricted purchaser.

C. Economics

MARKET POTENTIALS & REVITALIZATION STRATEGIES

Building upon the demographic and economic analysis completed as part of the LAMC *Community Profile*, the following presents the analysis and results of real estate market potentials for three critical land uses in LAMC—new housing (both for-sale and rental product); “workplace” (professional office); and supporting services (general/community retail and grocery store). We note that this analysis is presented for the seven LAMC neighborhoods in their entirety, as market conditions suggest limited opportunities on a neighborhood-by-neighborhood basis. In addition, supplemental information and analysis beyond the scope of this assignment will be critical as specific revitalization initiatives move forward.

The planning team further notes that a preliminary list of potential funding mechanisms and strategies will be provided in the next phase of this assignment.

MARKET POTENTIALS: NEW HOUSING

Introduction

A key element of successful, revitalized urban neighborhoods in LAMC includes providing ample opportunities for development of quality rental and for-sale housing in various locations throughout these seven neighborhoods. New housing may comprise a number of tenures and products—ranging from rental apartment flats to market-rate, for-sale single-family, to mid-rise condominiums. That determination will ultimately be made by multiple factors, including the marketplace, economic conditions, population and household growth, the availability of developable—and *marketable*—sites, and the provision of public incentives and *funding* designed to attract new investment in housing to the various neighborhoods throughout LAMC.

Notably, **a key objective of both LAMC residents as well as City officials is to increase the supply of quality, owner-occupied housing units.** Current estimates suggest that:

- Almost 67% of households in the LAMC study area are renters as compared to 57% citywide
- More specifically, in 2008, 831 of LAMC’s 2,525 households (33%) are owner-occupants. Over the next five years, ESRI Business Analyst, a demographic forecasting service, predicts that the number of owner-occupied homes in LAMC will *decline* slightly—to 804 units (32%)
- By contrast, more than 1,694 households (67%) are renters today. Over the next five years, the number of renter households is forecast to *increase*—to 1,726 units (almost 68%)

While there is no minimum “desired” rate of homeownership, higher rates of owner occupancy typically enhance overall neighborhood stability. This forecast reinforces the importance of encouraging programs as part of an overall revitalization strategy that encourage homeownership, such as low- or no-interest loans aimed at encouraging home renovations, code upgrades, down payment assistance, and the like.

Other factors guiding market potentials for new housing in LAMC include the following:

- The analysis of housing conditions conducted by the planning team suggests fully 30 percent of the housing stock in LAMC today is in poor/deteriorated/dilapidated condition
- There are approximately 800 vacant units/lots (25 percent) distributed across the seven neighborhoods. These parcels comprise over 110 acres of land, with high concentrations in Union Heights (303), Chicora/Cherokee (159), and Accabee (142)

- An updated review of Council of Governments (COG) forecasts suggest that population in the LAMC Revitalization Area will stabilize; however, forecasts indicate an increase of **326 new households (i.e., units) by 2030**



Sample Photos of Single-Family Housing in the LAMC Neighborhoods

Thus, the housing market analysis summarized below tests opportunities for both owner-occupied and rental housing. The analysis also considers recent new residential development underway in several areas outside of—but proximate to—the LAMC study area, including such projects as Oak Terrace Preserve, Horizon Village (HOPE VI), Mixson, and the planned housing at both Noisette and Ashley River Center.

For-Sale/Owner-Occupied: 2010-2030

Consistent with the LAMC study area’s current role in the metropolitan Charleston housing market as a more affordable location, the planning team defined the target-market of income-qualified households as those earning a minimum of \$40,000 per year. This indicates an affordability range starting at \$120,000 per unit. That is, using the standard of three times annual household income as the pricing threshold (as defined by the U.S. Department of Housing & Urban Development), a minimum of \$40,000 per year is necessary to purchase a home valued at \$120,000.

By comparison, over the next five years, the average annual income of LAMC households is expected to increase to almost \$35,000 per year. This suggests that a key element of a housing revitalization strategy needs to include “gap financing” in the form of down payment assistance, housing vouchers/subsidies, and other methods for prospective owner-occupants that reduce or eliminate the gap between existing incomes and those necessary to purchase a dwelling unit.

To calculate demand potentials, three general market segments were identified:

- Demand from new households
- Demand from converting renter households, and
- Turnover from existing households meeting the demographic and income criteria above.

This analysis is summarized below and illustrated in Table 1.

Demand from New Households (HHs)

A key source of potential demand for new owner-occupied housing is generated by new or relocating households to the City of North Charleston. The Berkeley-Charleston-Dorchester Council of Governments estimates there will be almost 2,900 new households in North Charleston by 2030,

equating to annual growth of 145 new households per year. Roughly 59 percent of households citywide (and 32 percent in the LAMC study area) would meet the income threshold of \$40,000.

The second factor in estimating demand includes an estimate of those households with a propensity to purchase a home; this is known as a “lifestyle preference” to purchase either a single-family detached or a multi-family (for-sale) unit. This estimate ranges from a low of four percent among LAMC households to 40 percent among households citywide.

Conversion of Existing Renter Households

Each year, a certain proportion of renter households will move and, of those, some will decide to purchase. To evaluate demand potentials from converting renter households, a similar approach using the following criteria was taken: 1) income; 2) renter status; 3) annual turnover rate; and 4) propensity to buy.

With regard to income, again, 59 percent of households citywide meet the income threshold. Second, existing renters total 58 percent citywide and 68 percent in the LAMC study area. Third, an estimated annual turnover rate was applied to those renter households that move in any given year, ranging from a low of five percent citywide to a high of 15 percent among LAMC study area households. Fourth, a household’s propensity to buy (estimated between five and 10 percent) as well as the propensity to purchase a for-sale unit was applied to the target population to arrive at demand.

Turnover of Existing Owner-Occupied Households

Similar qualifiers of income, tenure preference, and propensity to purchase a for-sale unit were applied to this market segment. An estimated annual turnover rate of 22 percent for the City of North Charleston (based on U.S. Census data from the 2007 American Community Survey) was applied to those existing households that will decide to buy new homes in any given year.

For-Sale Market Potentials (Unit Absorption)

Between 2010 and 2030, this analysis suggests a total “pool” of candidate homebuyers of almost 1,650 households generated by both existing and new households in LAMC as well as those living elsewhere in the City of North Charleston. However, because of market competition from existing and potential new housing projects located throughout the City, the LAMC neighborhoods will capture only a certain amount of this prospective pool of buyers.

The next step in this analysis is to estimate the LAMC area’s capture. The planning team estimates that the seven neighborhoods comprising the LAMC study area could capture fully 75 percent of the target market (i.e., from within the study area) and up to two percent of demand generated from existing and new households living elsewhere in North Charleston. In addition, there may be a small increment of potential demand generated by investors, estimated at five to 10 percent.

Capture rates, of course, are not a precise science. These are estimates based on the following:

- The experience of other similar markets around the United States
- The degree to which City commitments to revitalize LAMC are successful, such as infrastructure and other public realm projects, school improvements and the like (which in turn serve to attract subsequent private investment)
- The presence of viable, available public incentives, particularly those focused on increasing the number of owner-occupant households in LAMC
- Successful redevelopment of key, nearby projects such as Ashley River Center, the River Center at Noisette, and the new Port terminal, which would serve to create new jobs and increase the pool of prospective owner-occupant households, and
- Over time, of course, the overall revitalization of LAMC’s neighborhoods could be expected to enhance capture rates, as these neighborhoods become more desirable places to live and their overall marketability is strengthened, particularly for affordable product as measured in this analysis.

- It should be noted that the River Center at Noisette project is in jeopardy due to lack of adequate financing and the threat of potential foreclosure. Should this property change ownership, the nature and focus areas of redevelopment in the City of North Charleston generally could be greatly altered.

Based on this analysis, the planning team estimates for-sale housing potentials from all target markets in the range of **400 to 450 units between 2010 and 2030.**

2030 For-sale Housing Potentials: 400 to 450 Units



Table 1: Market Potentials for For-Sale Units, 2010-2030

Target Market Income Range \$40,000+

	2010-2020			2020-2030		
	LAMC Study Area	City of North Charleston	Total	LAMC Study Area	City of North Charleston	Total
I. Demand from New Households						
New Households	22	2,883	2,905	18	2,860	2,878
Annual New Households	2	288	290	2	286	288
Income Qualified ^{1/}	32%	59%	-	32%	59%	-
Estimated Lifestyle Preference ^{2/}	4%	40%	-	4%	40%	-
Propensity to Own	32%	42%	-	32%	42%	-
New Target Market Households:	0.0	29	29	0.0	29	29
II. Demand from Converting Renter Households						
Total Households	2,811	37,043	39,854	2,833	39,926	42,759
Income Qualified	32%	59%	-	32%	59%	-
Existing Renters	68%	58%	-	68%	58%	-
Annual Turnover Rate ^{3/}	15%	5%	-	10%	5%	-
Estimated Lifestyle Preference	4%	40%	-	10%	40%	-
Propensity to Buy	5%	10%	-	5%	10%	-
Conversion Target Market Households:	0.2	26	26	0.3	28	28
III. Turnover of Existing Households						
Total Households	2,811	37,043	39,854	2,833	39,926	42,759
Income Qualified	32%	59%	-	32%	59%	-
Tenure Qualified	32%	42%	-	32%	42%	-
Estimated Lifestyle Preference	4%	40%	-	10%	40%	-
Estimated Annual Turnover Rate ^{4/}	22%	22%	-	17.5%	17.5%	-
Existing Target Market Households:	2.7	829	832	5.0	699	704
Annual Absorption Potential						
Total Target Market Annual Demand (I+ II+ III)	3	884	887	5	755	761
LAMC Study Area Capture	75%	2.0%	-	90%	2.0%	-
Annual Absorption Potential	2.2	18	-	4.8	15	-
Potential Investor Demand	10%	5%	-	10%	5%	-
Potential Annual Absorption:	2.4	19	21	5.3	16	21
Total Period Absorption			210			211

1/ Target market income range is \$40,000+ , indicating an affordability of \$120,000 (three times annual salary)

2/ Based on ESRI socio-economic analysis of households that would consider a for-sale unit

3/ ERA estimate based on experience in similar locations

4/ Based on American Community Survey data for the City of North Charleston

Source: ESRI Business Analyst, US Census, ERA AECOM, 2009

Multi-Family Rental: 2010-2030

While a stated objective is to increase the supply of quality, for-sale housing units in the LAMC study area, the planning team recognizes that *high-quality* rental housing should also be considered a viable alternative for both existing and prospective residents of LAMC study area neighborhoods. Moreover, introducing quality rental housing is oftentimes viewed by residential developers as less risky than the development of for-sale housing, particularly in the early years of revitalization in “untested” locations such as the LAMC study area.

Therefore, the planning team tested demand potentials for a multi-family rental product. The target-market was defined as those income-qualified households earning more than \$25,000 per year; again, this reflects the LAMC study area’s historic role as a more affordable location in the regional market. Utilizing the standard of 30 percent of monthly gross income toward housing costs, this suggests that average monthly rents would fall in the range of \$625 per month. (By comparison, average monthly apartment rents in North Charleston [citywide] since 2008 have ranged from \$700 to \$716 per month. Notably, vacancy rates have fluctuated between 10.1 percent and 13.1 percent, with recent declines noted in 2009).

To calculate demand potentials, three general market segments were identified:

- Demand from new households,
- Demand from relocating households, and
- Turnover among existing households meeting the demographic and income criteria above.

This analysis is summarized below and illustrated in Table 2 below.

Demand from New Households (HHs)

A key source of potential demand for new rental housing is generated by new or relocating households. As noted previously, the Berkeley-Charleston-Dorchester Council of Governments estimates there will be almost 2,900 new households in North Charleston by 2030, equating to annual growth of 145 new households per year. Roughly 74 percent of households citywide (and 64 percent in LAMC) would meet the income threshold of \$25,000. In addition, between 58 percent and 71 percent would be tenure-qualified for rental housing.

The third factor in estimating demand includes identifying those households with a propensity to live in multi-family rental housing such as stacked garden flats; this is known as a “lifestyle preference,” with estimates ranging from a low 15 percent among LAMC households to 67 percent among households citywide. This factor is low among LAMC households simply because this sort of multi-family product does not exist in any large degree among the seven neighborhoods comprising the study area. However, there are significant numbers of rental units elsewhere across the City in garden apartment complexes; thus, there is precedence for this product as a “lifestyle” choice among other City residents.

Turnover of Existing Renter Households

Similar qualifiers of income, tenure preference, and propensity to purchase a for-sale unit were applied to this market segment. An estimated annual turnover rate of 22 percent for the City of North Charleston (based on U.S. Census data from the 2007 American Community Survey) was applied to those existing households that will decide to buy new homes in any given year.

Rental Market Potentials (Unit Absorption)

As illustrated in Table 2, between 2010 and 2030, this analysis suggests a total “pool” of more than 5,300 candidate renter households generated by both existing and new residents in LAMC as well as those living elsewhere in the City of North Charleston. However, because of market competition from existing and potential new rental housing projects located throughout the City, LAMC will capture only a certain amount of this prospective pool of renters.

The next step in this analysis is to estimate the LAMC study area’s capture. The planning team estimates that the seven neighborhoods comprising the LAMC study area could capture 15 percent of the target market (i.e., from within the study area) and a nominal capture of up to 0.25 percent of demand generated from existing and new households living elsewhere in North Charleston. The “internal” capture is relatively low because of the limited experience of renters in LAMC seeking to live in a rental product such as stacked garden flats. Notably, over time, as LAMC revitalization initiatives are successful, the number of captured renter households could be expected to decline—particularly as homeownership opportunities are provided.

Based on this analysis, the planning team estimates rental housing potentials from all target markets in the range of **200 to 250 units between 2010 and 2030**.

2030 Rental Housing Potentials: 200 to 250 Units

Table 2: Market Potentials for Multi-Family Rental Units, 2010-2030

Target Market Income Range \$25,000+

	2010-2020			2020-2030		
	LAMC Study Area	City of North Charleston	Total	LAMC Study Area	City of North Charleston	Total
I. Demand from New Households						
New Households	22	2,883	2,905	18	2,860	2,878
Annual New Households	4	577	290	4	572	288
Income Qualified /1	64%	74%	-	50%	71%	-
Tenure Qualified	71%	58%	-	71%	58%	-
Estimated Lifestyle Preference /2	15%	67%	-	15%	67%	-
New Target Market Households:	0.3	165	166	0.2	158	158
II. Demand from Existing Households (Turnover)						
Total Households	2,811	37,043	39,854	2,833	39,926	42,759
Income Qualified	64%	74%	-	64%	74%	-
Tenure Qualified	71%	58%	-	71%	58%	-
Estimated Lifestyle Preference	15%	67%	-	15%	67%	-
Annual Turnover Rate	22%	22%	-	22%	22%	-
Existing Target Market Households:	43	2,378	2,421	44	2,563	2,607
Annual Absorption Potential						
Total Target Market Annual Demand	44	2,543	2,587	44	2,721	2,765
LAMC Study Area Capture	15.0%	0.25%	-	10.0%	0.25%	-
Annual Absorption Potential:	7	6	13	4	7	11
Total Period Absorption			129			112

1/ Target market income range is \$25,000+ , indicating monthly base rent of \$625 (one-third of monthly salary)

2/ Based on ESRI socio-economic analysis of households that would consider a for-sale unit

Source: ESRI Business Analyst, US Census, ERA AECOM, 2009

COMMERCIAL MARKET POTENTIALS: PROFESSIONAL OFFICE

Growth in office-using employment sectors is a key barometer of demand for professional office space. To estimate market potentials, the planning team examined forecast increases in employment in Charleston County and considered the relative merits and challenges of the LAMC study area in estimating how much new office space could be developed in the study area. This analysis also considers historic indices in market performance, such as absorption (leasing) and share of the regional office inventory.

Charleston County is expected to add over 121,000 new jobs across all sectors by 2030, with the greatest growth expected to occur in Services (which includes education, health/medical, hospitality/tourism and professional and business services), Retail Trade and Government. Woods & Poole, Inc., a demographic forecasting service based in Washington, D.C., prepares employment forecasts, and the planning team used these forecasts to estimate office market potentials in Charleston County.

The planning team notes that not all industries (job sectors) use office space equally. To account for this, the planning team utilized a factor for each sector to determine the proportion of office users. Notably, Services and Finance, Insurance & Real Estate (FIRE) are particularly heavy users of office space. Since these sectors are expected to gain large numbers of new jobs, demand for office space will be greater in these sectors. This could be expected to benefit core office locations such as downtown Charleston (CBD) and suburban office submarkets like North Charleston.

- As illustrated in Table 3, the analysis suggests that job growth will generate average *annual* demand of more than 450,000 sq. ft. per year of speculative office space across Charleston County between 2010 and 2030, with fully 60 percent of this demand driven by job growth in Services. These estimates also include a frictional vacancy rate of 3.5 percent (i.e., due to normal tenant relocations as leases rollover/expire) and a cumulative replacement reserve of five percent (i.e., to replace obsolete buildings or unusable space in the market).
- To further test assumptions about office demand based on future job growth, the planning team analyzed historic market demand for office space in Charleston County (net absorption) and examined North Charleston’s relative share of this activity. As illustrated in Table 4, based on CoStar market data, today North Charleston comprises fully 34 percent of the county’s total office inventory (5.3 million sq. ft.).
- Presuming that North Charleston *maintains its fair share* in the future (through aggressive economic development strategies and successful redevelopment) suggests that the City could capture *up to* 3.0 million sq. ft. of office space generated by future job growth in office-using sectors by 2030. By comparison, historic absorption patterns—which have been limited because of the economic downturn—suggest demand for roughly 1.5 million sq. ft. over the next 20 years. The planning team applied the midpoint range in this analysis—which translates into market opportunities to develop up to 2.2 million sq. ft. of office space citywide over the next 20 years (averaging 110,000 sq. ft. per year).
- Today, LAMC is considered a *tertiary* office market; that is, it is *not* a viable location for speculative office tenants today. This is reflected in the fact that the study area (according to CoStar) contains only 43,500 sq. ft. of office space—less than one percent of the City’s total. Notably, fully 80 percent of this space is vacant, with *negative* absorption over the past two years because of tenant departures and consolidations.
- In light of these weak market characteristics, identifying LAMC’s potential capture of future office space is difficult. The premise, of course, is that redevelopment projects like the Rier Center at Noisette and Ashley River Center are successful, that expansion of the Port generates significant new job growth, thus creating spin-off opportunities in LAMC, and revitalization efforts within LAMC’s neighborhoods serve to stabilize the area and enhance its overall marketability. With that, opportunities for commercial office development—particularly among professional services sectors (medical, legal, engineering, etc.) that primarily serve neighborhood residents and businesses, could be expected to strengthen.
- Capturing from 3.5 to 7.5 percent of office demand generated by future citywide job growth translates into office development potentials ranging from 40,000 sq. ft. over the next 10 years to 80,000 sq. ft. between 2020 and 2030.

2030 Office Potentials: 100,000 to 125,000 Sq. Ft.

Table 3: Office Market Potentials, Charleston County 2010-2030

Industry Sector	New Jobs 2010-2030	% Office- Using	SF Occupancy Factor	Potential Countywide Demand (Sq. Ft.)
Charleston County				
Mining & Construction	5,355	20%	150	160,700
Manufacturing	(485)	10%	175	(8,500)
Trans/Com/Public Utilities	5,785	25%	175	253,100
Wholesale & Retail Trade	15,038	15%	200	451,100
Finance/Insurance/Real Estate	7,429	80%	225	1,337,200
Services	78,746	35%	200	5,512,200
Government	9,443	40%	175	661,000
TOTAL:	121,311		186	8,366,800
+ Vacancy Adjustment @	1/	3.5%		292,800
+ Cumulative Replacement Demand	2/	5%		418,300
TOTAL DEMAND (in Sq. Ft.):				9,077,900

1/ This allows for a 3.5% frictional vacancy rate in new space delivered to the market

2/ This represents new space required by existing businesses to replace obsolete or otherwise unusable space. This is assumed to represent 5% of total implied demand

Source: CoStar; Economics Research Associates, 2009

Table 4: Office Market Potentials, City of North Charleston & LAMC, 2010-2030

	Charleston County	City of North Charleston		
Total Inventory (In Sq. Ft.)	15,777,408	5,339,226		
As % of Charleston County			34%	
Vacant Space	1,638,701	834,714		
Average Annual Absorption	126,190	70,590		
Years to Stabilization	13.0	11.8		
Demand-Charleston County (In SF)	Annual Change	2010-2020	2020-2030	
Demand from Job Growth	N/A	4,682,300	4,244,500	
Demand from Historic Absorption	126,190	1,261,895	1,261,895	
Apportioned to City of North Charleston		2010-2020	2020-2030	
Apportioned Growth based on Fair Share		34%	34%	
Demand from Job Growth		1,584,535	1,436,379	
Demand from Historic Absorption		705,900	705,900	
"Midpoint" Apportion:		1,145,000	1,071,000	
LAMC Study Area Capture		3.5%	7.5%	
Supportable Space (in square feet)		40,075	80,325	

Source: ERA AECOM, 2009

Revitalization Strategies for New Office Development

Revitalization strategies for general/professional office space will be driven largely by creation of a business retention and recruitment program, the provision of incentives—including regulatory and financial—by the public sector, and pre-conditions that must be met as a means of enhancing the overall marketability of the LAMC study area as a potential location for speculative/multi-tenant professional office space. These strategies and other pre-conditions are summarized below:

Setting the Stage

- At this time, the physical and functional obsolescence of existing office buildings in LAMC is not known. CoStar Realty data indicate that seven of the 10 office buildings in LAMC are defined as “Class B”, which suggests fair to average quality space. The remaining buildings are defined as “Class C”, which is below-average quality. The inventory is comprised of very small buildings (less than 15,000 sq. ft.), which would be categorized as “garden” office
- Moreover, rent levels are quite low—in the range of \$11 to \$12 per sq. ft. This is *not* considered investment grade. Notably, four small buildings at Noisette are included in the inventory; each is fully vacant, with asking rents of \$18 per sq. ft.
- In short, the LAMC study area is not a marketable location for office space today. Over time (i.e., beyond five years), as revitalization initiatives are implemented (including increasing the number of homeowners), additional households will incrementally generate demand for small amounts of professional office tenants—most likely in the medical/accounting/engineering sectors. Leasing the lion’s share of the existing 35,000 sq. ft. of vacant space will be necessary before the capital markets will consider financing of new office construction.

Establish Office Building Renovation Fund

- LAMC, in coordination with City economic development and planning staff, should work with owners of existing office buildings in LAMC to evaluate the physical conditions of these properties. These surveys should identify physical and functional/systems repairs and renovations to understand what buildings are candidates for a renovation program
- An office building renovation fund could be structured in one of two ways: 1) as a direct matching grant program to leverage private investment from building owners; or 2) as a revolving, low- (or zero-) interest loan fund whereby funds are recaptured over time for use by future applicants
- Strategies should ensure that financial incentives are used for appropriate purposes. For example, renovation funding will create/add value to an appreciated asset. As such, the funding program should ensure that property owners do not raise rents to the degree that it would preclude attracting price-sensitive tenants in a location such as LAMC. Alternatively, renovation funding could be designed to be awarded directly to office tenants for programs such as tenant improvements that also specify minimum occupancy/lease terms to ensure that the value of the renovation fund is amortized over time.

Attract Government Tenant as Anchor and Catalyst

- Because LAMC is not a viable location for speculative/private office development today (or for the next several years), oftentimes commercial revitalization strategies will include securing a major government agency—such as a social service department of a county government—to occupy a government-sponsored office building as a means of jump-starting or catalyzing other commercial revitalization initiatives

Implement Business Retention & Recruitment Program

- A carefully targeted business retention and recruitment program for office tenants should be designed. While this is not an immediate-term priority, over the next three years, a retention and recruitment program that targets price-sensitive office users, such as professional and service-related tenancies should be implemented. LAMC and City economic development and planning staff should coordinate this effort with leasing activities planned by Noisette (River

Center) as well as Port administrative staff to ensure that opportunities to attract tenants or spin-off businesses (that do not necessarily need to be located on the Port) are successful

- An office-incubator program that provides very low-cost space and training programs for incubator office tenancies should also be considered. This can be designed to dovetail with existing educational and training programs, working with local and regional entities such as the Charleston Chamber of Commerce, to attract tenants in the professional and business services sectors. In addition, this is an opportunity to utilize existing (viable) vacant space in one of LAMC’s office buildings and should be designed to serve as a marketing/outreach effort for prospective office tenants
- Business retention and recruitment strategies for office-using sectors should be focused on creation of a professional services cluster. As noted, this could include medical/dental/legal/accounting/engineering occupations that derive much of their business from household growth and nearby employment centers such as Noisette and the Port. The strategy should ensure the creation of a “critical mass” of professional and service-related businesses. In turn, this could be expected to provide some increment of additional support for retail businesses in LAMC
- The office incubator program could also dovetail existing educational/training programs in such critical areas as computer literacy and job training activities for LAMC residents. These (and other, labor force) skills are critical when office tenants are making location decisions with regard to tenancy.

COMMERCIAL MARKET POTENTIALS: GENERAL RETAIL & GROCERY

The study area contains several strip commercial retail corridors and small-scale neighborhood commercial districts along Montague, Reynolds and Rivers Avenues. Revitalization of these commercial corridors and districts is sorely needed, as evidenced by numerous decaying and deteriorated commercial buildings, vacant storefronts, and observed overall low-quality of the existing business and retail mix.

The following summarizes key market characteristics based on available information and examines opportunities to enhance the study area’s commercial uses.

Existing Inventory & Market Performance

Inventory

Notably, North Charleston is the county’s largest retail submarket with over 9.5 million sq. ft. of space, fully one-third of Charleston County’s total retail inventory. Much of the city’s retail space is located around the mall as well as in numerous community retail centers in various locations throughout North Charleston. Typically, suburban retail centers (particularly free-standing properties) are easily tracked by regional and national real estate sources such as CoStar Realty.

Understanding the amount of retail space in the study area, however, is more problematic. CoStar Realty reports a retail inventory in the study area of only 57,900 sq. ft. It is clear that this estimate excludes a number of properties and freestanding buildings. By comparison, based on GIS data provided by EDAW, Inc., the study area contains the following “commercial” land uses:

<u>Location</u>	<u>Square Feet</u>
Rivers Corridor	127,940
Reynolds Corridor	124,686
Montague Corridor	26,385
TOTAL-COMMERCIAL:	279,011 Sq. Ft.

However, it is not known how much of this inventory is comprised of retail versus office use. As noted in the analysis of office potentials, based on data provided by CoStar Realty, the study area contains roughly 43,500 sq. ft. of Class B/C office space. If that is accurate, this would suggest that the **commercial corridors throughout the study area contain approximately 235,500 sq. ft. of commercial “retail” uses.**

Moreover, it is not known how much of this existing retail space is occupied and, of the occupied space, what the business mix consists of (i.e., the distribution by retail category such as clothing, convenience, food, etc.). According to the GIS data, the 127,940 sq. ft. of commercial space on Rivers Avenue is reportedly the community shopping center formerly occupied by Winn Dixie. That center is currently vacant.

Sales Performance & Household Retail Sales

Another key barometer of market performance of LAMC’s retail mix is annual store sales, that is, sales per sq. ft. by merchandise category. Current estimates are not documented; therefore, the planning team has not relied on this information. Further, high levels of vacant space and observed low-quality of the existing retail mix, which is comprised primarily of “mom & pop” tenancies, with very few investment-grade businesses (such as McDonald’s or Kerr Drug) also contribute to the challenge of understanding sales performance. As a rule, in similar commercial districts existing retail businesses are oftentimes undercapitalized, with few resources and access to capital necessary to undertake improvements.

As noted in the Community Profile, **average annual retail spending among LAMC residents ranges from \$5,700 per household in Howard Heights to \$8,400 per household in Union Heights, with an overall average of \$6,400 per household.** This is significantly *below* both the citywide average (\$10,800 per household) as well as the national average (\$16,000 per household). This would suggest that LAMC households generate about \$16.1 million in gross annual retail spending (irrespective of location).

The planning team also prepared a surplus/gap analysis to understand what gaps exist where demand (sales) exceeds supply within specific categories of retail—such as apparel or home furnishings—that could also guide direction on recommendations related to retail merchandise strategies. Preliminary data indicate that LAMC households have some incremental available spending surplus available to support additional apparel (\$1.4 million), Groceries (\$2.9 million), and Leisure/Entertainment (\$2.7 million).

In conclusion, the planning team notes that substantially more complete data on physical inventory, business type/merchandise mix, and sales performance is necessary to support further study and analysis in order to accurately measure retail market potentials and to identify appropriate commercial revitalization strategies.

Preliminary Retail Directions

To understand the challenges of estimating retail market potentials absent such critical market data, the planning team prepared a preliminary analysis that examines general retail market potentials among LAMC households. This is summarized below and illustrated in Table 5.

Generally speaking, retail market demand modeling should not be considered conclusive, as it combines “typical” and “industry average” performance measures with professional analysis based on local conditions and knowledge of the market and retail industry. There are a multitude of other factors, such as business planning, the availability of capital, or the uniqueness of the merchandise mix that will determine the success or failure of any individual retail business; that is why the industry is constantly changing and evolving.

Estimated retail spending potentials are based on household spending patterns, household incomes, and household composition as reported by the Consumer Expenditure Survey prepared by the U.S. Census for the Bureau of Labor Statistics.

Required Sales Per Sq. Ft.

- Among LAMC’s 2,600 or so existing households, annual retail spending totals \$16.1 million. To determine how that translates into physical retail space, total sales are divided by a sales (per sq. ft.) factor. From an industry (and investment-grade) perspective, sales are typically 10 times a tenant’s rent. Today, to justify feasibility of new retail construction requires rents in the \$20 to \$25 per sq. ft. range, or \$200 to \$250 per sq. ft. in sales.
- However, retail space in LAMC will not command market-rate rents at this level; thus, the planning team reduced the required sales estimates to \$150 per sq. ft. (As noted in the strategies below, this would suggest public subsidies to write-down retail rents to roughly \$15 per sq. ft. to attract new retailers to LAMC). Sales were increased in 2030 to \$180 per sq. ft. to reflect overall neighborhood improvements.

Estimated Capture of Retail Sales

- The next step is to estimate how much a particular retail district will capture in annual sales from its surrounding trade area. A capture rate is calculated as a percentage of sales expected from households in the study area. The rate is developed by examining the trade area’s existing retail offerings, quality of retailers, the potential for increased sales with improved retail operations, size of the trade area, and professional judgment considering nearby competition and other available retail purchasing opportunities for customers to derive more precise estimates of supportable retail space
- With respect to capture, the planning team recognizes that a majority of LAMC households would likely support better-quality retail proximate to their neighborhoods. It is likely to increase over time as neighborhood revitalization initiatives enhance market draw and overall business quality. Therefore, the capture rate was increased from 35 percent in 2010 to 50 percent by 2030, suggesting that fully \$1 of every \$2 in retail spending by LAMC households would occur in the neighborhoods.
- Notably, a 50 percent capture may be aggressive in light of the agglomeration of competitive retail offerings around the mall or elsewhere on the Peninsula and within easy driving or transit distance for LAMC residents. (Typically, urban neighborhood retail captures range from 5 percent to 20 percent).
- Presuming the addition of 600 to 700 new households in LAMC as estimated in the housing analysis by 2030 has the potential to increase annual household retail spending to almost \$30 million.

Table 5: Preliminary Supportable Retail Potentials: LAMC Households, 2010-2030

Annual HH Retail Spending	\$16.1 million	\$29.6 million
/Required Sales Per Sq. Ft.	<u>\$150</u>	<u>\$180</u>
Gross Supportable Space:	107,300 SF	164,400 SF
% Capture	<u>35%</u>	<u>50%</u>
Supportable Space:	37,500 SF	82,200 SF

- Other market segments *may* enhance the amount of supportable, investment-grade retail space; these include nearby employees (there are an estimated 3,900 employees among the 350 or so businesses in LAMC) as well as potential visitors to an area. However, no data are available on visitors, visitor behavior, or visitor spending patterns in North Charleston or LAMC. These segments are known as *inflow*, which typically ranges from five to 10 percent.

Supportable Investment-Grade Retail Space

- Clearly, even if other market segments such as nearby employees supplement retail potentials by as much as 10 percent, the resulting **estimates of supportable investment-grade space—in**

the range of 40,000 sq. ft. in 2010 to 90,000 sq. ft. by 2030—is significantly *below* current estimates of 235,500 sq. ft. of existing retail inventory.

- Notably, this investment-grade analysis is critical because such retail tenants are deemed credit-worthy and have sufficient access to capital/financing necessary to justify inventory, marketing and sales outreach, and business expansion as sales conditions warrant.
- In addition, some increment of local, “mom & pop” businesses should also supplement investment-grade potentials. However, given the lack of market information as noted above, it is impossible to estimate how many of the local retailers in LAMC today would be considered sufficiently viable to devise appropriate business support strategies.

Evaluation of Grocery Store Potentials

LAMC residents and city staff have indicated the urgent need for a new grocery store in the area since the Winn Dixie chain closed all of its stores (including one on Rivers Avenue) in South Carolina. As such, the planning team prepared a preliminary analysis of grocery store potentials. These findings are summarized below.

- Today, LAMC residents reportedly spend approximately \$8.1 million per year on grocery and other foods as well as convenience store goods. Some amount (estimated at \$2.9 million) is spent outside of LAMC neighborhoods; however, the planning team submits that this is likely far higher given that the nearest full-service grocery store is located approximately four miles from the LAMC study area.
- City staff indicated that a national grocery store chain with numerous stores in similar urban locations, has expressed interest in constructing a 15,000 to 20,000 sq. ft. store in the LAMC area.
- While this will require detailed market and financial feasibility studies, ERA’s preliminary analysis indicates that **\$7.5 to \$8.0 million in annual grocery store spending would support between 16,000 and 18,000 sq. ft. of grocery space**—if fully 100 percent of this spending is done locally *and* at an assumed sales productivity of \$450 per sq. ft. We note that national grocery store chains frequently require minimum sales levels of \$500 to \$600 per sq. ft., which would lower the amount of supportable space.

2030 Retail Potentials: 40,000 to 90,000 Sq. Ft. of Investment-Grade Space with Supporting Local Businesses

Next Steps on Retail Revitalization

The analysis above makes it abundantly clear that significant additional information and research is necessary to identify more appropriate revitalization strategies. As such, the following represents preliminary direction on commercial (retail) revitalization strategies for LAMC. The lack of a centralized management organization focused on commercial revitalization makes it more difficult to create and sustain solutions, involve public and private interests, and to strengthen the overall marketability for commercial development as well as an enhanced image for LAMC. There does not appear to be an organization that represents the interests of retailers, property owners, and investors. Moreover, it is not known whether LAMC has sufficient staffing or budget to comprehensively address such issues and establish and sustain a commercial district management program. The key recommendation is to establish a central management function focused on commercial revitalization of LAMC. This will require full-time staff and a stabilized source of operating income for at least five years to focus on providing incentive funding, technical assistance, and organization of (viable) local businesses through the management entity. We recommend that LAMC, in concert with other city departments, lead efforts to secure commitments from both the City of North Charleston as well as Charleston County (as appropriate) to fund a management entity; link the entity/program to established redevelopment funding and assistance sources; and incorporate funding into the city’s budget for at least five years as a demonstration effort. (We note that the management entity can be organized within LAMC, but its sole function will be focused on commercial district revitalization).

D. Transportation

Pedestrian / Bicycle Network Recommendations

Critical to the successful revitalization and long-term viability of the LAMC area is the implementation of a connected pedestrian and bicycle network. Such a network will meet the needs of so many citizens in the area who utilize walking and biking as essential modes of transportation. Safe, secure, efficient pedestrian and bicycle access and mobility between residences, places of employment, and business establishments will assist in the enhancement of citizens' quality of life, health, and basic dignity. Additionally, realization of a true pedestrian and bicycle network will also improve access to and the efficiency of the transit system (see Transit Recommendations for additional discussion).

It is recommended that a system of pedestrian and bicycle thoroughfares be established (see accompanying map). These principal thoroughfares are not presented as a comprehensive mapping of sidewalk and bicycle lane locations, but rather designate critical connections for walking and biking between homes, schools, parks, and retail districts. These connections may be accomplished through a variety of means (e.g., sidewalks, bicycle lanes, wide outside travel lanes, shared-use pathways, greenway trails, etc.).

Specific improvement recommendations within the pedestrian and bicycle thoroughfare network include:

- Sidewalks – Sidewalks, in various forms of disrepair, exist along many of the designated thoroughfares. Targeted improvements should be made to these existing facilities as necessary. Where sidewalks do not currently exist, new sidewalks should be constructed that meet or exceed American's with Disabilities Act (ADA) public rights-of-way guidelines. Improvements to these corridors should be accomplished when feasible through the leveraging of SCDOT port-related projects, safe routes to school program, transportation enhancements, and utility upgrades.
- Curb Ramps – ADA compliant curb ramps should be installed at all intersections parallel to crosswalks. At signalized intersections, where pedestrians may cross in both directions, ramps should be located within the width of each crosswalk. In most cases this would require two separate ramps at a corner instead of a single, diagonal-opening ramp at the corner. ADA suggests dual ramp installations for several reasons:

“Single ramps can misdirect blind pedestrians who use the slope of curb ramps as cues. They can increase crossing times for persons who use wheeled mobility aids and can place users into oncoming traffic at small radius corners where it is difficult to provide landing space at the bottom that is wholly within marked crossings. Also, drivers may not be as alert to persons crossing at the apex of the corner.”

- Crosswalks – Installation of crosswalks at all intersections is recommended. At unsignalized intersections, crosswalks should run only parallel to the uncontrolled street, while crosswalks at signalized intersections should allow for pedestrian travel in all four directions (as appropriate and feasible). No mid-block crossings are recommended. Crosswalks should also follow ADA guidelines. Crosswalks should be composed of an enhanced striping pattern so as to provide greater visibility. At key intersections the use of patterned concrete or asphalt products is suggested to define the crossing area, calm traffic, and provide visual cues (see Intersection Recommendations for additional information).



Crosswalk with Enhanced Striping

- Pedestrian Signals – In conjunction with crosswalk recommendations, actuated countdown pedestrian signals with audible confirmation and signage indicating signal operation and crossing safety should be installed. ADA requirements pertaining to signal timing, audible signals, locator tones for push buttons, placement, and mounting locations should be evaluated as individual improvement projects are pursued.



Countdown Pedestrian Signal



Audible Pedestrian Signal Push Button with Operational Signage

Bicycle Accommodations – Where existing right-of-way or cartway width allows, travel lanes of roadways that are part of the recommended pedestrian and bicycle thoroughfare network should be restriped to accommodate bicycle lanes. Bicycle lanes should be a minimum of 5 feet in width and follow SCDOT guidelines for retrofitting existing roadways. Where sufficient cartway width is not available for dedicated bicycle lanes, wide outside travel lanes should be pursued. Such lanes should be a minimum of 13 feet to comfortably accommodate both vehicular and bicycle modes within the same lane. These facilities are not intended to serve as a “regulation” bicycle lane, and should not be striped as such, but instead will serve as a reasonable refuge for bike traffic.

It should be noted that neighborhood streets do comprise critical links for pedestrians and bicyclists but are not included in the recommended thoroughfare network. These streets have lesser traffic volumes and lower posted speed limits, allowing them to provide quality pedestrian and bicycle environments without the addition of sidewalks and bicycle accommodations.

Transit

A reliable and efficient transit system is of paramount importance to the LAMC area. Transit provides linkages within the immediate vicinity and to regional destinations that would otherwise be inaccessible to those who prefer not to drive, have limited financial resources for the purchase of gas and vehicle maintenance, or do not have access to an automobile. With the realization of the new Intermodal Center and the development of destinations within the study area, transit will become an important linkage for bringing people from throughout the region to the LAMC area to shop, work, dine, and play.

A variety of factors impact access to and the efficient operation of public transit. Many of these address the basic dignity and comfort of the rider, including the condition and availability of sidewalks, pedestrian crossings/signals, benches, shade and shelter, and street lighting. Basic pedestrian amenities can be improved in the study area and will benefit not only those choosing to walk but those utilizing the transit system as well. Another key factor in the functionality of any transit system is headway, or the time a user has to wait between the arrivals of buses at a particular stop. In general, it is accepted that an optimal headway for local transit lines is 15-30 minutes. However, headway is typically directly correlated to demand; the higher the demand for transit in a particular area, the more frequently buses travel that route. Headway can be a “chicken or egg” scenario: if demand is low, then headways are longer; but if headways are longer, potential riders view the system as inconvenient and do not utilize it, therefore demand does not increase and headways do not improve. In the LAMC study area, transit headways range from 30 minutes (Routes 10 and 101) to 60 minutes (Routes 11, 12, 13, 102, 103, and 104).

Transit Level of Service (LOS) is calculated based on a number of inputs, including: percent of population in close proximity to local transit routes; percent of population within a short drive of a commuter park-and-ride facility; length of headways; hours of service operation; and distance between bus stops. Although an analysis of Transit LOS is beyond the scope of this plan, several observations with regard to Transit LOS can be made:

- Most of the population within the study area is within an acceptable walking distance (less than 1 mile) of a local transit route;
- The new Intermodal Center and its associated park-and-ride lot will be within an acceptable driving distance (5 miles) from the majority of residents within the study area;
- Headways are double the accepted optimal standard (15-30 minutes) for local routes; and
- Hours of service operation are acceptable.

E. Infrastructure

INFRASTRUCTURE IMPROVEMENT PRIORITIES

Water

Fire hydrants are required to be on 6" mains and to provide a minimum flow of 500 gpm at 20 psi. After reviewing valve cards and grid maps for the fire hydrants in the area, no hydrants are on mains less than 6 inches. The existing lines are sufficient to handle the current development. However, if LAMC wants to entice future denser development then the system may need to be upgraded in certain areas.

Charleston Water System (CWS) currently has a water model for their system. LAMC should have the hydrants in the proposed redevelopment areas (Stromboli Avenue, Chicora Tank Farm, and the Spur Block) flow tested and input this information into the model to determine if sufficient flow and pressure exist for the proposed recommended land uses. If the model indicates that the lines will be insufficient then LAMC should evaluate what improvements are required to bring the system up to the required flows and pressures.

If LAMC wants to be proactive and entice development, money should be spent on the improvements recommended by the water model. Various funding opportunities may be available to facilitate these required upgrades.

In addition, the National Fire Protection Association (NFPA) requires that fire hydrants be placed every 500' as the hose would lay. It is difficult to graphically represent how the hose would lay. However, the figure on page 235 shows a 500' radius around each hydrant. Looking at this figure it appears that the LAMC study area meets this requirement with the exception of a portion of Stromboli Avenue. It is recommended that when SCDOT implements the port access improvements along Stromboli Avenue that a 6" main and a hydrant be installed within the newly constructed right-of-way. It is also recommended that when any additional roadway improvements are implemented within any of the LAMC area that water lines be examined to determine if they need to be replaced or upgraded. Doing this work in conjunction with the roadway improvement work is the most cost effective method to upgrade existing utilities.

Wastewater

The sewer that is intertwined within the City of North Charleston is owned and maintained by the North Charleston Sewer District. They currently make scheduled upgrades to the system on an annual basis, including the sewer within the LAMC neighborhoods. Overall, there are few problems with the system;

most issues are addressed by yearly maintenance. If the land uses change or there is an increase in flow, then it is the responsibility of the proposed development to upgrade the system. This includes all required upgrades to the gravity system, pump stations, or force mains affected.

It may be desirable to proactively upgrade the system to entice or anticipate development. Upgrades could be done to the pump stations within Howard Heights and Union Heights. These stations currently meet the existing demand; however, they will need to be upgraded if additional flows are added. Doing this work upfront will take this cost off of the developer, and might make an otherwise unprofitable project viable.

In areas where major redevelopment is desired, a study should be done to see what effect the additional flows will put on the system and cost of these upgrades.

Stormwater

The existing drainage system experiences many problems due to the fact that it is very old and has undersized culverts and ditches. The fact that these neighborhoods are located in low lying areas, which are tidally effected, only exacerbate the problem. Much of the LAMC area is also within the FEMA designated 100 year flood zone. Many of the existing buildings in this area have been built at or below the 100 year flood resulting in damage to personal property. FEMA now requires that all new buildings be built 1' above the 100 year flood.

It may be difficult to prevent flooding in the LAMC area for the 100 year storm event however, flooding caused by smaller "everyday" events can be and should be addressed by upgrading the existing system.

There have been a variety of drainage studies completed for the City of North Charleston over the years. The most complete study was conducted in 1980 and was a wide spanning study covering the whole city. Recently, a smaller study was completed focusing on the Accabee area. This study has resulted in several completed upgrades to the system as well as upgrades that are currently in design.

It is suggested that smaller focused studies be completed for other problem areas, such as the Chicora/Cherokee, Windsor, and Union Heights neighborhoods. This study should include to following data:

- A complete survey of the existing drainage structures, their sizes and condition.
- A complete Stormwater Hydrologic and Hydraulic Study under the existing conditions stated. This study is to include both large and small storm events. This model will be used to locate where the problem areas are located.
- The report should provide a complete list of proposed upgrades to the existing system that will minimize the potential for flooding of roadways and residents. These upgrades may include culvert replacements, additional culverts or box culverts, ditch improvements, additional detention ponds and suggest minor maintenance.
- The report should also try to predict the cost to implement these improvements.
- The report should prioritize the recommended improvements to insure that LAMC gets the most "bang for its buck."

LAMC Study Area Fire Hydrants with 500' Radii



F. Environment

Air Quality Concerns

Mobile Source Air Toxics

Concerns from the public and from regulatory agencies (see Plan Section 3.4.2) have been raised with regards to current and future air quality within the Charleston Neck Area. The primary causes include the concentration of industrial land uses within the area and the presence of the I-26 corridor, which currently experiences heavy traffic volumes of 80,000 vehicles per day, as well as frequent congestion problems which worsen the affect of mobile source air toxics (MSATs) on the local environment. Emissions generated by these MSATs are particularly more noticeable and harmful due to the fact that they are at “nose-level” as compared to industrial emissions generators.

Given that vehicles on I-26 produce a significant portion of the areas toxic air emissions (especially worsened by gridlock conditions), providing relief to this portion of interstate immediately surrounded by residential areas remains a primary concern for local organizations. Reevaluating this particular alternative would require reopening of the EIS document and is therefore not immediately viable.

Point-source Emissions

It is no mere speculation that lung, heart, and neuromuscular health problems have been linked to industrial air emissions, particularly in times past when fewer (if any) emissions regulations existed, and when air quality monitoring and remediation technology was basically non-existent. Since the mid to late twentieth century, advancements in the awareness of and the ability to monitor and abate harmful components of industrial air emissions have helped to decrease the immediate threat to communities surrounding industrial generators. Five facilities operate under SCDHEC Title-V Air Permits within or within close proximity to the LAMC study area: Detyen’s Shipyard, Inc. (SCDHEC Permit No. 0560-0236), Montenay, Inc. (County Incinerator, SCDHEC Permit No. 0560-0196), Kinder Morgan Shipyard River Terminal (SCDHEC Permit No. 0560-0015), Rhodia Charleston (SCDHEC Permit No. 0560-0011), and SCE&G Hagood (SCDHEC Permit No. 0560-0029). The permitting and monitoring process regulating these Title V facilities is managed by the SCDHEC Bureau of Air Quality (BAQ), who works in conjunction with the EPA to ensure Clean Air Act, National Ambient Air Quality Standards, and other EPA standards and regulations are upheld. Under their Title-V Permits, these facilities are required to maintain a continuous monitoring process, and submit Emissions Inventory Reports to the SCDHEC BAQ; and although the permitting and monitoring process does not imply or guarantee that these facilities operate without causing impacts to the surrounding area, it does allow the EPA and SCDHEC to ensure that all available and feasibly practicable measures are being taken to maintain compliance with all standards.

Charleston County has recently elected to end its contract with the Montenay Incinerator, which will eliminate one of the City of North Charleston’s primary contributors of air pollution, and a general nuisance to the LAMC study area. This decision received strong support from LAMC and area residents, as well as Charleston County’s Green Ribbon Committee.

In addition, the Kinder Morgan Company announced plans to halt the expansion to its Coal Processing Facility located just south of the Study Area in June of 2009. The expansion would have allowed the company to build additional waterfront dock space in order to increase the amount of coal handled at the facility, and would have also caused an increase in the number of trains spreading coal dust throughout the Study Area.

Future Monitoring & Remediation

In order to accurately quantify the current conditions within the area, SCDHEC is in the process of conducting the ‘Charleston Neck Area Air Monitoring Study’ in order to determine the most appropriate location for an additional permanent monitoring station, which will continue to sample local air quality before, during and after implementation of developments which may be expected to cause a change in

emissions levels. In July of 2009, SCDHEC installed an Air Quality Monitoring Station at Chicora Elementary School in order to measure the amounts of toxic pollutants found in the air to see if the levels could be unsafe for the health of the children, staff, and nearby residents. Children’s health is a priority, and DHEC and EPA are working together to make sure school environments are safe and healthy. This is part of EPA’s nationwide study of the environmental impacts on children’s health.

G. Education

INTRODUCTION

Improved educational opportunities are at the very heart of LAMC's community-building work; one of LAMC's first activities after completing the Community Mitigation Plan was to fund educational scholarships. The recommendations below address enhancing the public schools through School Improvement Councils; increased attention and funding for early childhood education; leveraging schools as community centers; and increased opportunities for afterschool programming. These strategies are explored and developed in the Revitalization Plan as key points of entry for LAMC and the broader community to intervene and make a difference in the educational opportunities for both children and adults.

EARLY CHILDHOOD EDUCATION

Although school generally begins at age 5 or later in the United States, children are continuously learning and developing from birth. Child development and education experts have discovered that one of the most important factors explaining varying performance in school is the level of preparation or readiness that a child has entering school. Some children enter kindergarten with significant linguistic, cognitive, and social skills and are ready to learn; other children enter kindergarten with development delays and are unprepared to benefit from the structured learning environment provided by school.

One of the most effective mechanisms that has emerged for closing the achievement gap between urban minority children and their peers is increased access to early childhood education. The South Carolina State Board of Education published a study in December of 2006 showing that children who were enrolled in 4-year old child development programs performed significantly better than their peers in standardized test taken in 6th and 7th grades.¹ Students who benefited from 4-year old development programs showed a decreased performance gap between non-Caucasian and Caucasian students and between low-income and other students. This study, along with dozens of others around the country, suggests that early childhood education can help to address achievement gaps over long periods of time. In this case, the student cohort was tested 7 or more years after they experienced these programs, and yet a significant benefit was still apparent.

Early childhood education cannot be considered in isolation from the broader family context. The early development of children depends heavily upon the environment provided by the parent or guardian. Not all parents are aware of the developmental needs of children, nor are many parents aware of how they can help meet their children's developmental needs. Stresses on the family environment such as difficulty finding employment, low level of education, the ravages of drugs and alcohol, all also have an impact on children and their ability to develop and be prepared for learning in a school environment. Disabilities and difficulties with linguistic development can also be crucial barriers to a child's developmental process. Therefore, early childhood education intervention often addresses multiple aspects of the family environment, including health, screening of children, parent education, and social and educational services for parents.

¹ "What Is the Penny Buying for South Carolina?," South Carolina State Board of Education, December 2006.

Taking Advantage of Existing Early Childhood Development Resources

4-K Programs In Schools

The Charleston County School District offers a Child Development program for 4-year olds in most of its elementary schools, including all of the elementary schools in the LAMC area. These programs are taught by instructors trained in early childhood development, and focus on all aspects of child development – that is physical, cognitive, social, and emotional development. As stated above, these programs have a track record of success in that children who complete these programs show higher levels of school performance than their peer group. These 4-K programs are offered at no cost to the parent.

Eligibility for the 4K programs depends upon a number of evaluation criteria. Generally children who score below the mean on the Dial 3 screening test for child development are eligible, but other criteria that are considered include income level and non-native English speakers.

In addition, the Charleston County School District offers a Preschool Intervention Class (PIC) program targeted to children with special needs or disabilities in several LAMC area schools.

The table below shows the current availability of these programs for LAMC area schools:

Table 6: Number of Children Served in Early Childhood Education Classes in LAMC Area Schools for 2009-2010

School	Childhood Development Program for 4-Year Olds	Preschool Intervention Classes
Chicora Elementary	40	0
Hursey Elementary	80	0
Mary Ford Elementary	40	15
North Charleston Elementary	20	15

Source: Lerah Lee, CCSD Early Childhood Development Specialist, July 17, 2009.

LAMC should ensure that all of these Childhood Development programs are fully utilized, and that all LAMC area parents are aware of these programs and the procedures for qualifying for and enrolling in these programs. At the same time LAMC should lobby CCSD and the State of South Carolina to expand these programs so that all eligible children can attend, which is not currently the case. Lobbying for expanded funding of early childhood education programs is discussed in the section below.

BabyNet/Baby Steps

BabyNet is the state of South Carolina program for providing early intervention services for children from birth to age 3 who are learning or developing slowly. BabyNet matches infants and toddlers who are showing developmental delays with the professional resources they need to reach their full potential. Early identification and intervention are crucial because research has shown that children are rapidly developing during the first three years of life, and early intervention can help compensate for any delays in child development. Baby Steps is the Charleston County version of the BabyNet program, administered by the Disabilities Board of Charleston County.

Any person who knows a child with developmental delays can refer that child to the BabyNet program, however the most common referrals are made by professional health care providers such as doctors and nurses. Signs of delayed development include delays in learning how to walk; below-average height and weight; delayed ability to listen and talk; delayed ability to conduct activities on their own. Once a child is referred, BabyNet staff will screen and assess the child for developmental needs. The staff will then help develop an Individualized Family Services Plan (IFSP) in coordination with the child's parent or guardian.

Services are generally delivered in the home or in the child's everyday environment. Services provided can vary widely depending upon the needs of the child and family, ranging from family education to speech therapy, to testing of hearing and eyesight.

As with the 4-K programs, ideally all children who qualify for these services should be receiving them. The most important keys to dealing with developmental delays and disabilities is early identification and early intervention. The BabyNet program provides individualized and comprehensive services to children and families once the need has been identified and verified in screening.

LAMC's role can be to ensure that all children who qualify for BabyNet services receive them. This means that parents and medical personnel who serve the community should be educated on the BabyNet program, who it serves, and how to request its services. Parents should be provided information on childhood development and on how to tell if children are experiencing development delays. The program for identifying children who qualify for BabyNet is known as Charleston County Child Find (nationally these programs are known as Child Find programs). LAMC should partner with Child Find to develop and distribute educational resources such as posters, videos, and brochures to ensure that parents and health professionals are well aware of these programs and how to access them. It is also important that parents know the value of early intervention in addressing developmental delays and in assisting with their children's long term success.

Parental Education

In the United States, a good education is one of the most effective means of escaping poverty, yet impoverished communities are less likely to be well-served by educational institutions than middle- and upper-class communities. High school and college graduation rates, strong indicators of high earning potential, are positively correlated with income. Studies show that children in low-income communities face barriers to a good education before they ever step into a classroom. Low-income children have received on average 25 hours of one-on-one picture book reading compared to 1,700 hours for the average middle-class child². By age three, children from families on welfare have an average vocabulary of about 525 words, while those from professional families have a vocabulary of 1,116 words³. Early intellectual and social stimulation has proven in recent research to be a critical factor in brain development and cognitive ability. These differences in early childhood experiences map clearly onto the future outcomes in educational achievement and earning power.

Parental education provides parents with much-needed knowledge about child development and training to develop the practices that will best benefit their children educationally and behaviorally. But it is more than just a means of developing individual parents; it helps to foster a community network of active, involved parents capable of supporting each other and their children. Such community support is crucial to the renewal and growth of low-income neighborhoods. Children growing up in a safe, supportive home and a safe, supportive community are far more likely to achieve their educational goals and break cyclical poverty.

The Baby College Model

The Baby College is a program run by the Harlem Children's Zone in Central Harlem. The Harlem Children's Zone is an extensive community organization founded in Central Harlem to provide support services for children, their families, and the greater community. It is funded entirely by donations and grants, and raises enough money to provide all of its services, including the operation of two schools, free of charge. The Baby College was founded on the premise that children must be given proper support from birth to develop into successful students. Its goal is to provide everyone expecting or raising a child between the ages of 0 and 3 in the Harlem Children's Zone with the information and support necessary to raise happy, healthy children ready to learn when they enter school.

² Adam, J.A. (1990). *Beginning to Read: Thinking and Learning in Print*. MIT Press.

³ Hart, B., and Risley, T.R. (1995). *Meaningful Differences in the Everyday Experience of Young American Children*. Paul H. Brooks Publishing Co.

The program is run within local public school buildings, and classes are held on Saturday mornings. All services, including breakfast, lunch, incentives, and childcare, are offered free of charge. Most participants are included in the fifty percent of Central Harlem's population falling below the federal poverty line. The 9-week curriculum was developed collaboratively by Dr. T. Berry Brazelton, a professor at Harvard Medical School, and The Baby College staff. The curriculum teaches parents about child development patterns and tendencies and prepares them to better manage their children's crucial developmental stages, which are sometimes the most difficult for parents to navigate. The curriculum includes subjects beyond just child development, like child safety and nutrition. Participants are strongly encouraged to attend every meeting and to take ownership of the experience.

Participants in The Baby College have enjoyed immense gains in parenting skills and have developed a supportive community for their children. Every class session includes significant time for discussion, question-and-answer periods, and sharing experience. The Baby College also sponsors regular social and educational events to encourage deeper relationships among the participants. Many participants have developed lasting friendships, and share babysitting responsibilities and other responsibilities with each other.

Owens Christian Academy

While many of the LAMC area schools are struggling - with some even closing - there are also some innovative, successful institutions at work. One of these institutions is Owens Christian Academy (OCA), located in the Chicora/Cherokee neighborhood. At OCA, all parents are required to sign a contract committing them to 15 mandatory volunteer hours each year. Families receiving scholarships must make up the cost deficit with mandatory volunteer hours. Every child, whether two years old or in first grade, is assigned approximately fifteen minutes of homework each night, and parents must participate in weekly homework accountability meetings with teachers. Mrs. Owens notes that beginning to educate children as early as birth is the key to successful future outcomes. Parent involvement is central to OCA's mission, which is accomplished primarily through regular progress updates, teacher conferences, and volunteering. Owens Christian Academy is staffed entirely by certified, retired school teachers. As such, the school does not have to provide insurance for teachers because the county school system provides it as part of retirement packages. The school has leveraged strategic relationships to accomplish key objectives: parents contribute heavily to the success of both academic initiatives and facility maintenance; each child has received a laptop because of donations from HP arranged by a parent. Students are regularly treated to field trips and guest speakers arranged through school and parent connections. These relationships have substituted for grant money, which OCC had never received prior to the 2008-2009 school year, when it received a grant from South Carolina State University for teacher training. OCA also benefits from professional development by Charleston County School District, the cost of which is reimbursed to the school.

OCA's mission has been shaped by Mrs. Owens' experience in public schools in the Chicora/Cherokee neighborhood. She notes that when people (both students and teachers) feel welcomed and valuable and are not treated condescendingly, the learning environment is enhanced. Encouraging parental involvement through child activities is also an important strategy; every parent wants to know what is going on with their child. Rewarding the class with the highest parental attendance at some event is a strategy for connecting child activities with parents. After school programs are also crucial because they inevitably involve parents in the activities of their children. Also, opportunities for teachers to train parents who might not otherwise know about strategies for reading to their children are crucial for successful schools. Having teachers who live in the local community and are willing to make home visits is a great boon to child outcomes. Transportation is considered one of greatest barriers to effective linkages between children, parents, and teachers, but public schools receive transportation resources through the Title I program.

Prospects For LAMC Neighborhoods

Developing a comprehensive parental education program like The Baby College in LAMC neighborhoods would require significant support from either public institutions or major private non-profit organizations. Implementing such a program through the Charleston County Community Education

department could be more cost-effective, as it already offers some parenting courses and resources and draws funding from pools of public money. Most likely, partnerships between standing organizations such as LAMC or Wings for Kids and the county would be necessary to develop and implement a similar program. This reality is directly in line with recommendations found throughout this document that public-private and private-private partnerships are fundamental to effective, sustainable revitalization efforts in LAMC. By increasing the number and participation level of stakeholders, grass-roots change can take place. The demographics and history of school decline and closure in LAMC neighborhoods suggest that taking up the Baby College cause and promoting its development is a wise strategy. LAMC must promote parent education and early childhood development as cornerstones of a brighter future.

The Harlem Children’s Zone has become a popular reference point for policy advocates and politicians alike, as stories of its success have become more familiar. President Obama has touted the Harlem Children’s Zone approach as a model for other communities to follow. Foundations such as the Annie E. Casey Foundation have also shown support for HCZ, and have provided funding to encourage the spread of their program to other parts of the country. LAMC can capitalize on HCZ’s popularity by submitting grant proposals to supportive foundations and sending a delegation to meet with HCZ administrators.

Building Early Childhood Education Partnerships

The importance of partnerships is discussed in many sections of this document; however, partnerships are particularly important for the addressing early childhood development for a number of reasons. First, there are substantial resources available to support the development and assessment of early childhood education programs, but these resources are scattered among educational institutions, health institutions, foundations, and federal, state, and local governments. LAMC will be able to accomplish much more by tapping into the substantial organizational and funding capacity that existing within these organizations. In many cases, these organizations are looking for a community partner to coordinate their efforts and LAMC could benefit from being the subject of a model or trial program in the early childhood development arena.

Charleston County Literacy Roundtable

The Charleston County Literacy Roundtable is a recently formed coalition of organizations that are mobilized around the issue of improving literacy to four target populations: pre-school children, school aged children, adults, and populations that have generally been overlooked for literacy efforts. The purpose of the roundtable is to coordinate efforts and provide a clearinghouse for resources, as well as advocate for changes to public policy. The goals of the Literacy Roundtable are to build and maintain awareness of the importance of high levels of literacy; to identify and network community resources; and to identify gaps in service in literacy building.

LAMC should endeavor to have a delegation with regular participation in the Literacy Roundtable. The Literacy Roundtable would be an excellent source of networking and information on literacy efforts and opportunities, including early childhood educational efforts. Also, the Literacy Roundtable would likely be an effective entity to coordinate with on lobbying efforts to expand early childhood education, such as to advocate for 4-K for all eligible children in the State of South Carolina.

Charleston County School District

Charleston County School District staff includes professionals and experts who specialize on early childhood education. In addition, CCSD is working on their own initiatives to obtain grant funding to enhance their early childhood education options. LAMC should develop relationships with key CCSD staff members in order to be informed about programs, grants, and opportunities that may be applicable to the LAMC area. In addition, LAMC can serve as a valued community partner in rolling out and monitoring the success of CCSD’s early childhood education initiatives.

Other Partners

There are a wide number of other organizations that can provide resources and are potential partners in lobbying efforts. Medical organizations, including local hospitals such as MUSC, often provide health and parent education services to parents as a public service. Institutions of higher education can often provide resources on best practices and contribute to community education campaigns on the

importance of early childhood education. A number of non-profits and social service providers support the concept of early childhood education, early childhood health, and the provision of services to the family unit in order to further the opportunities available to young children and the families that nurture them.

Lobby for Increased Funding of Early Childhood Education

Providing 4-K For All Eligible Children

Despite ample evidence that early childhood education is one of the most effective mechanisms for addressing the achievement gap and increasing educational opportunity for disadvantaged children, current funding levels do not support the provision of 4-K programs for all eligible children. LAMC can partner with other educational advocacy groups, such as some of the organizations mentioned above, to lobby at the Federal, State, and County levels for increased resources for early childhood education.

Universal Preschool

Some early education advocates suggest that the target should be universal preschool for 3 and 4 year olds, rather than just covering all eligible children. The argument for universal preschool is several fold. First, all targetted programs will miss some eligible children who do not apply, as well as many more children who are not eligible based upon income or other grounds but who are nevertheless developmentally delayed and in need of early education. Second, univernal preschool meets a growing need among the broader community for child care and as a universal program would be better funded and supported politically than a program that is targetted to disadvantaged populations.

Regardless of whether the desired goal is broader coverage for eligible children or universal preschool, it is clear that more resources are needed to support early childhood education and that investments in early childhood education are one of the most effective educational, social, economic, and crime prevention investments that can be made.

MAGNET SCHOOLS

In support of its initiative to promote school choice, the Charleston County School District (CCSD) has adopted a strategy of converting some schools to partial magnets. In these schools, a magnet program will operate alongside the conventional school platform, but the majority of spaces will be available to neighborhood residents. The first LAMC study area school to make this conversion is Chicora Elementary, which opened the Chicora Elementary School of Communications in 2009. In keeping with the focus on developing maritime education and employment opportunities, LAMC leadership might also want to investigate the opportunity to establish another partial magnet focusing on maritime and green technology. Mary Ford Elementary has been recommended as a potential location for the school. The idea should be further developed in collaboration with CCSD and the Chicora Elementary leadership.

Charter schools differ from other public schools (including magnet schools) in that they operate under a charter that releases them from the administrative control of the public school system. While charter schools are still considered public schools, and receive public funding, they are organized as non-profit-corporations, which provide autonomy from the local school district. Magnet schools, on the other hand, are administered by the local school board, not unlike other public schools. Magnet schools, however, differ from other public schools in that they are not bound to a single enrollment zone, but rather generally pull students from several surrounding zones. This is similar, although not identical, to the manner in which charter schools draw students geographically, which is not by zone, but instead by county. In general, magnet schools are provided new or existing school space by the local school district, while charter schools are responsible for acquiring their own school space. However, recent legislation passed by the South Carolina legislature requires Charleston County to provide space for Charter Schools. This mandate is the subject of an on-going lawsuit. (NOTE: citation needed)

The South Carolina Association of Public Charter Schools (SCAPCS) provides assistance to groups interested in creating a charter school. SCAPCS has set a goal for 10% of all public schools in South Carolina to be charter schools by 2015. To that end, the association provides training and guidance, including forming a planning committee, developing mission statements and needs assessments, coaching through the application process, marketing, facilities financing, and curriculum development.

Magnet School Recommendations

Because magnet schools draw some percentage of their students from other school zones, it can be more difficult for them to establish themselves as a partner within their immediate neighborhood. While such dynamics are an inevitable result of having commuter students, there are ways in which magnet schools can better integrate and partner with the community.

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Other recommendations for LAMC magnet schools include:

- Promote legislation allowing partial attendance zones for area magnet schools

By requiring that some percentage of students at magnet schools live in an attendance zone proximate to the school, the level of interaction with neighborhood students and parents will increase.

- Create a task force for marketing the school's facilities and resources to the surrounding neighborhood, business community, and recreational groups

By opening and promoting school facilities to neighborhood groups, valuable partnerships could develop, influencing and improving school curricula, facilities, and image in the community.

SPECIALIZED CURRICULUM

Maritime Curriculum in Local Schools

In light of the myriad economic development opportunities provided by the maritime industries present in the community, LAMC should pursue every avenue to equip its residents with pertinent skills. In addition to developing the LAMC Maritime Training Institute (otherwise known as the Multimodal Training Center, or LMTC), a maritime curriculum should be prepared and implemented in local high schools - particularly Garrett Academy and North Charleston High School. In doing so, students would be prepared to immediately enter the workforce or enroll in a maritime trade school upon graduation. The unique knowledge and skill-set gained in such a program could qualify students to earn at least a living wage right out of high school. West Ashley High School, located in the City of Charleston, is attempting to develop a maritime curriculum for students interested in pursuing career opportunities immediately after high school. Advocates of the program note that North Charleston is a maritime community with scores of job opportunities, but that most in the community do not know about them. According to Commander Robert Turner, the West Ashley ROTC teacher leading the effort, the program is still in its infancy and will require additional funding for a full-time teacher in order to manifest. An advisory board, which is steering the development effort, includes representatives from Trident Technical College, ECPI, and Virginia College. Supporters envision a four-year progression for students interested in maritime careers: the first course would be an introduction to the field and its various subsets; the second course would be a more in-depth examination of subsectors within the field related science and engineering

concepts; the third course would begin teaching hands-on skills and could include an internship or co-op component; the fourth and final course might include spending time at working at sea and/or working with technical schools to attain licenses and qualifications. The four-year curriculum would examine the three major subsectors of maritime employment: Seagoing; the Ports Authority; and government opportunities with the Navy, Army, or MSC. Graduating students would be qualified for enrollment in institutions of higher education, including maritime trade schools and four-year universities, and would also be qualified for immediate employment in their maritime field of choice.

An introductory course was taught in 2008 that provided a broad survey of: ships and how they are made; industry jargon; types of careers in the maritime field; port operations; military and government services and what they do; engineering concepts, and navigation concepts. It received a high level of initial interest, but without sufficient funding to publicize and promote the program, it has been difficult to launch. Further, the State of South Carolina, which must approve new courses, has said that it wants a certified teacher teaching the classes even though there are many practicing experts in this field available to teach it. One challenge, therefore, is finding an appropriate and qualified teacher to run the program.

Currently, there are no national guidelines for developing such a curriculum. The supervisory board for the West Ashley effort is lobbying the Maritime Administration (MARAD) to create guidelines based on best practices found throughout the country. The Maritime Academy Charter School in Philadelphia, serves as a model for aspiring maritime schools. The school enrolls students in grades 5-12, and provides rigorous academic training with a maritime theme. Once in high school, students are exposed to myriad career options and encouraged to explore opportunities through strategic partnerships with the school. The Board of Directors is comprised of prominent industry and civic leaders. In the absence of national guidelines, West Ashley High School and other LAMC area schools might look to MACHS for guidance on planning to launch such a school and developing a curriculum. Alternately, the Maritime Training Institute should help develop a curriculum if operational at the time.

Such a program would provide students employment training that is in high demand locally and nationally, and also prepare students for further maritime education and licensing programs, like Seaschool.

AFTER SCHOOL PROGRAMMING

After school programs offer far more than babysitting services until parents get off of work; they can be fun, engaging, and educational opportunities to positively affect child development. They can take the form of youth sports, homework sessions, classes, structured programming, or free play. Research on after school programs has shown that they generate positive outcomes across several child development criteria. As such, they have garnered considerable political support, as well as funding, with the federal government and states supplying budgeted and grant money to qualifying citizens and organizations.

Research published by the National Institute for Out-of-School Time suggests that children are most vulnerable during after school hours, between the end of the school day and nightfall. Violent juvenile crime triples between 3 pm and 8 pm; children are also more likely to be the victims of violent crimes by a non-family member between 2 pm and 6 pm. What happens after school has also proven to have a significant effect on what happens in school. Children without adult supervision are at significantly greater risk of truancy from school, stress, receiving poor grades, risk-taking behavior, and substance abuse. Further, it seems that in the absence of constructive alternatives, children's free time is unlikely to be productive; children spend more of their discretionary time watching television than doing any other activity.

After school programming can not only fill the afternoon gap that would otherwise be spent on the street or watching television, but can support healthy, tangible education and social outcomes for children. The Afterschool Alliance, a national organization committed to raising awareness of the importance of after school programs and advocating for supportive legislation and funding, made several

key findings about the effects of after school care upon surveying programs across the nation. Some of the most important outcomes for children include:

- Improved school attendance and engagement in learning
- Improved test scores and grades
- Students at the greatest risk show the greatest gain
- After school programs keep kids safe, healthy, and on track for success
- After school programs help working families

Securing quality after school care for all students in need is not an easy accomplishment, given the effort required to operate first-rate programs and the difficulty in covering their high costs. Still, the benefits proceeding from family participation in such programs suggests that pursuing and supporting after school initiatives should be a high priority for LAMC neighborhoods.

After School Challenges

One of the challenges facing afterschool and summer programs for teenagers is striking the appropriate balance between keeping the teenagers' attention and equipping them with life skills. The boys' screenprinting business at Metanoia has taken off and is an example of how the neighborhood could help create a legitimate "youth economy" to combat the "illegitimate youth economy." In addition to helping run the screenprinting business, Metanoia has encouraged money-management skills by jointly opening Individual Development Accounts (IDA) with several students, which are no-fee checking accounts to be used for education or entrepreneurial purposes. Metanoia CDC also matches student deposits into the account on a 2:1 basis and requires that all withdrawals are either for school or work purposes. Another innovative initiative at Metanoia is working with the Master of Public Administration department at College of Charleston to develop integrated leadership development standards for youth, which would be the first program of its kind.

An additional primary need for LAMC youth is for facilities and places that are removed from "the street," and which provide safe spaces to spend crucial after-school hours. A building has been donated to Metanoia CDC that might be turned into a Youth Entrepreneur Center. The corporation currently occupies mostly classroom-like spaces, and faces pressure to expand into new space as the program matures and grows.

Leveraging Existing After School Programming

Charleston County Schools

Charleston County has expressed a commitment to providing successful, affordable after school programs in its neighborhoods. Extended day programs, called *Kaleidoscope*, are offered through Charleston County Community Education at several LAMC study area schools, including Mary Ford Elementary, Morningside Middle, Garrett Academy, and North Charleston High School. Kaleidoscope programs engage children in activities that encourage creativity, social relationships, appropriate behavior, and a positive self-image. The program strongly encourages parental involvement, and has established a Parent Advisory Council to assist with program development, long-range planning, and evaluation. Participation in Kaleidoscope requires a small annual fee of \$20, and enrollment is open to all students. Families in financial hardship have the option of arranging subsidized enrollment with program administrators. Special needs students can also participate in the program, and consultation with parents helps to provide placement recommendations. Activities at Kaleidoscope programs can vary across locations, but all activities are designed to serve children's physical, social, and educational needs. Activity leaders and volunteers might include creative dramatic play, sports, games, science, crafts, books, or food preparation in a day's activities, which include time outside every day.

Wings for Kids

Another innovative after school program operating in Charleston County is Wings for Kids, which currently only operates at Chicora Elementary in the LAMC study area. At Chicora, the program includes over 130 1st-grade to 5th-grade students every school day from 3 pm to 6 pm. Students are selected by

need first, but behavior, academics, and family support are also factored. The foundation of the Wings program is social and emotional learning (SEL), and Wings is the one U.S. organization focused solely on developing and improving SEL within after school programming. The program's SEL objectives strengthen attachment to school and diminish self-defeating behavior, which Wings cites as the two factors best determining child success. Children participate in group activities that facilitate small lessons, and each week's lesson builds on the last. There is also supervised homework time. Student-teacher ratios are kept intentionally low (1:10-1:12), and regular parent check-ins and progress reports keep families involved. Wings is staffed by carefully recruited college students who will be role models for success, and the year-to-year staff retention rate is 97 percent. The curriculum includes: connection development; 9-week blocks of art music, and sports; community service; fun skills development; and positive reinforcement. The Wings program administrators have developed a 5-year strategic plan to build and replicate its model for utilization in more area locations.

Metanoia CDC

Metanoia CDC, based in St. Matthew Baptist Church in the Chicora/Cherokee neighborhood, focuses on housing issues and youth leadership development. Metanoia's youth development programs were founded five years ago, and enrolled a cohort of elementary school students from Chicora Elementary and middle school students from various schools. The Metanoia youth programs' vision is to provide development and entrepreneurial training resources to youth in the Chicora/Cherokee community. Ideally, participants enroll in elementary school and continue through high school. It operates throughout the calendar year, serving sixty students during the school year and 120 during the summer months. Currently, 40 students are elementary-age and 20 are middle- and high school-age, but program leaders expect the number of older students to increase as current participants grow older. Four new students (two boys, two girls) deemed to embody leadership qualities by teachers at their schools are selected each spring to participate in Metanoia programs. Programs are staffed by both permanent Metanoia staff and volunteer students from area colleges. The youth activities are funded through fundraising efforts, an annual banquet, and grant money received from United Way and other sources.

The Young Leaders program runs throughout the school year and focuses on character education and entrepreneurial training. The boys have started a screenprinting business and the girls have started a jewelry making business. Students arrive at 2:30 pm and stay until 5:20 pm. Program activities include leadership training, 30 minutes of homework, games, and meal service. Older students also participate in their chosen entrepreneurial pursuit.

The Freedom School operates during summer months and draws additional students from Mary Ford Elementary. Facilities at the Metanoia office and Mary Ford Elementary are utilized. Freedom School focuses on providing a literacy-rich, high energy summer camp environment. The program operates for eight hours a day, five days a week. Activities include constant reading exercises and games, which aim to address the gap in reading activity for students between school years. City of North Charleston Community Centers: The two City of North Charleston Community Centers located in the LAMC study area also offer after-school programs. Programming at each Center is dependent upon the amount of usable space and the involvement of community members. Programs are funded by the City of North Charleston, but are shaped by the unique resources within each community.

Community Centers

At Felix Pinckney Community Center, after-school activities are split between educational time and activity time; during educational time, students receive free tutoring from non-certified volunteers; during activity time, the students participate in such diverse offerings as Double Dutch games, Girl Scouts, African dance, and salsa dance. Any school-age child from ages 5-18 are permitted, but there is typically space for 20-25 kids. Students come to the center after school and remain until 5:30. Currently, there is a need for programs targeted at children age 14 and older. Many choose not to participate after 13, and there is very little offered at the Center for acutely at-risk teens. At present, the Liberty Hill Improvement Council is investigating ways to attract and involve more teenagers. After-school offerings at Gethsemane Community Center include sports, dance, and games. The Djole dance group is based out of the Center, and participation in its practices and productions is available to after-school students.

Other valuable after school programs in the area include athletics at middle and high schools, teacher-staffed homework centers at the Military Magnet School, and programs run by the City of North Charleston for 5- to 12-year olds in 16 locations across the city.

Explanation for Key Recommendations Cited in Revitalization Plan for Education

- Ensure that the Kaleidoscope program is following best practices

The South Carolina Afterschool Alliance provides valuable resources, information, and training to after school care providers and administrators. Their website (www.scafterschool.com) provides links to upcoming training events, policies, other providers, pertinent policies and legislation, proven programs, and best practice manuals. The Parent Advisory Councils at each location should undertake evaluation and review processes to ensure that the program provides the most effective environment for their children.

- Develop and strengthen the partnership between Charleston County Community Education (CCDE) and Wings for Kids

Wings for Kids has established itself as an incredibly successful after school program model. The results at Wings are impressive: 100% of Wings kids passed core subjects; 95% got a C or higher in reading; and 91% got a C or higher in math. Wings has been recognized by numerous national organizations for its program effectiveness, including the Academy for Educational Development, the National Institute for Out-of-School Time, and the National Association of Elementary School Principals. As Wings is in a planning process for growth and expansion, the CCDE should cement its commitment to Wings and work to implement the program at more LAMC study area schools. As Wings is supported almost entirely by individuals, foundations, and federal government grants, the county would not likely have to make large financial commitments.

- Create a LAMC study area task force for obtaining education and after school grant money

The 21st Century Community Learning Center grant, administered by the U.S. Department of Education, is one of the primary sources of funding for after school care programs in the United States. Charleston County School District has been a consistent recipient of this grant, but a LAMC task force could have the dual effect of obtaining a higher proportion of the money disbursed by the county for LAMC schools and obtaining a larger total share for the county by assisting the county with the grant-writing process. Many more education grants exist, including those from private foundations like the Annie E. Casey Foundation, which provides grant money to organizations serving disadvantaged youth. The Foundation has shown a commitment to innovative youth development programs, and the LAMC task force might partner with Wings for Kids to present a compelling grant proposal.

- Evaluate the effectiveness of the current distribution of after school programs in the LAMC study area

Several LAMC study area schools are without well-developed after school programming, while others are home to award-winning programs. A planning process should be undertaken whereby the distribution of after school care in the LAMC study area is evaluated based on criteria including demand, need, and program effectiveness. LAMC should strive to ensure that those most in need of services are not the least likely to obtain it.

- Designate a liaison between LAMC and local colleges and universities

Local colleges and universities are a wealth of knowledge, resources, and human capital, and should be leveraged by LAMC to promote and develop more and better after school programs for children. Social science departments, campus clubs, and volunteer groups are just a few of the potential support mechanisms for after school initiatives. The Wings for Kids program staff is constituted almost entirely of college students, which helps provide a cutting-edge perspective and greater enthusiasm.

School Improvement Councils for School Reform and accountability

Every school in South Carolina is required by state law to have a School Improvement Council. School Improvement Councils are the official school district mechanism for increasing parental input into school reform efforts and for increasing school accountability to parents. Parents and community leaders can be most effective in advocating for school reform within the framework of the School Improvement Councils because this is an officially sanctioned method for parental involvement. Support for the School Improvement Council approach is highly developed at both the state-wide and Charleston County district levels.

Education reform and accountability are complex issues. Although the State of South Carolina requires schools to report their performance through an annual report card, these report cards only tell a small part of the story. Report cards often focus primarily on testing results, and tend to emphasize shortfalls rather than achievements. It takes a group of highly informed and motivated parents and community leaders to provide true accountability for school performance, and the School Improvement Councils provide the mechanism for parents and community leaders to be involved to the degree that they can establish true accountability and make a major impact on school reform issues.

School Improvement Councils are also a proven approach for increasing parent and community involvement in schools, which is another demonstrated strategy for improving school performance. School Improvement Councils are both an opportunity for parents having a greater say in school performance and for recruiting parents and the broader community into greater engagement with neighborhood schools.

School Improvement Councils are the school district's formal mechanism for parent and local community participation in school performance and school reform efforts. Each School Improvement Council (SIC) consists of the school principal, parents, teachers, community members, and in the case of high schools may also contain students. School Improvement Councils generally meet monthly throughout the school year as well as additionally in committees dedicated to working on advancing specific strategies. SICs produce a variety of plans and reports that guide school reform, evaluate the effectiveness of school reform efforts, and report to parents on the school performance and progress on any school improvement initiatives. SICs serve as the information link between each school and the community that the school serves.

SICs are tasked with a number of specific products that they must produce:

- School Improvement Plans – School Improvement Councils are tasked with developing a five-year school improvement plan or school renewal plan, and then monitoring and reviewing progress on that plan over the ensuing years. The SIC also has the right to revise the School Improvement Plan if the school is considered “At Risk” as indicated by two years of Unsatisfactory ratings on the State report cards.
- Annual Report to Parents – The SICs write an annual report to parents about major progress made on school improvement efforts over the previous year. The report to parents also covers any programs, activities, rewards or recognitions of note and sets out actions planned for the upcoming year.
- Annual School Update – SICs also compile, analyze, and evaluate annual school progress in conjunction with the school administration.
- Narrative for School Report Card – In conjunction with the Principal, the SIC will help to write the narrative that is included in the State's official School Report Card. This can help provide important context to parents on the pace of school improvement efforts

The heart of the SICs work is the development and the implementation of the School Improvement Plan. While SICs report on progress on the School Improvement Plan annually, SIC members are continually

working on the implementation and evaluation of the School Improvement Plan by gathering and reviewing information on plan progress. School Improvement Plans usually have three to seven strategies and an SIC committee is usually assigned to oversee each strategy. Committees recruit additional participation beyond the SIC and monitor progress on the implementation of each strategy. The SIC meets as a group monthly to issue committee reports and review information provided by the school administration and/or faculty committees. These monthly meetings ensure that continual progress is being made on all strategies that are part of the School Improvement Plan.

Each SIC is governed by a set of bylaws that dictate its composition, its procedures, and its annual schedule. Each SIC is composed of elected members, who compose 2/3 of the SIC, and appointed members, who compose the remaining 1/3. Elected members include parents and teachers, with a designated number of positions for each. Appointed members are appointed by the principal and must represent other portions of the community exclusive of parents and teachers. The SIC can also have Ex-Officio members who play important roles at the school – for example a school designated business partner, a representative of the PTO, or a previous SIC chair. Ex-Officio members may or may not have the ability to vote, depending upon SIC bylaws. Elections are held annually and are for two-year terms, with a staggered election schedule. Each SIC selects a Chair who organizes the agenda and directs monthly meetings. The Chair also signs official SIC documents. Each SIC also organizes a number of standing committees, with a chair for each committee to lead each committee’s efforts.

One of the key functions of the SICs is to serve as a liaison body between the school and the broader community. For that reason it is important the SIC composition be diverse and reflect the breadth of the community that the school serves. Also it is important the SICs recruit outside participation in the various SIC committees (it is not necessary to be on the SIC to be part of one of the SIC committees). SIC members should be known to school parents and parents should feel that they can approach SIC members with concerns. SICs should conduct their business in an open and welcoming fashion and encourage public participation and feedback in their activities. By engaging in an open, public process, SICs create a greater sense of participation and ownership in the success of the neighborhood school.

Key Recommendations

- Increase the number of parents and community stakeholders participating in SICs and SIC committees, and ensure diverse stakeholder participation

The effectiveness of SICs depends upon having an adequate number of parents and other community stakeholders involved to move School Improvement Plans forward. Also it is important to have the full cross-section of the community represented to ensure that all of the resources and talents of the community are being leveraged for school improvement efforts. Set a target of having at least 12 members for each SIC. Where SIC membership has been deemed inadequate in the past for accomplishing SIC goals, increase the membership size.

- Advocate for a SIC slate at each LAMC school

Actively recruit effective parents and teachers to run for SIC positions. Parents who are already involved in their children’s education are likely to be the most effective in SIC positions. LAMC can leverage its existing community organizing efforts to identify desired candidates for SIC positions at all LAMC area schools.

- Support and recognize SIC members

As SIC membership is a volunteer position with substantial demands, it is important that SIC members be recognized and supported in their efforts. LAMC should work to recognize the contribution of SIC members as part of its education program, perhaps even offering a token reward for SIC member of the year. LAMC can also serve as a sounding board for SIC member complaints to identify if there are any systemic problems in the SIC system.

- Where necessary, rewrite the bylaws of SICs

SIC bylaws should be reviewed to be in compliance with the standards set by the South Carolina School Improvement Council. Issues to be reviewed include: availability of written bylaws to all SIC members; the size and composition of the elected, appointed, and ex-officio membership; the

calendar year established for elections, meetings, and reports (are elections held early enough for SICs to be effective?); the process and publicity of elections to ensure adequate parent participation; and the publication of SIC meeting and products to ensure parents are receiving adequate feedback from the SIC on the school improvement process.

- Ensure that SICs are following best practices for success

The South Carolina School Improvement Council (<http://sic.sc.gov>) provides training, technical assistance and operational resources for School Improvement Councils. Their materials include recommendations for effective SICs including an annual self-evaluation recommended for all SICs. Among the key best practices for SICs include: Encourage strong leadership from the school principal; ensure all SIC members engage in annual training; establish written bylaws; rely upon support from the local school district; provide each SIC member with specific defined responsibilities and support all SIC members; Ensure SIC meetings stick to designated agendas and start and end on time.

- Promote new School Improvement Plans at schools that are not showing adequate progress

School Improvement Councils should be able to re-write School Improvement Plans for receiving an “At Risk” rating (formerly “Unsatisfactory”) on their annual state School. If schools receive an “At Risk” rating, the school district and the State Department of Education should provide support for developing a new School Improvement Plan. Whether or not a school needs a new School Improvement Plan will depend upon the evaluation of the school Principal, the SIC, and Charleston County School District representatives. Going beyond the school report card, these stakeholders should evaluate the current School Improvement Plan and determine if meaningful progress is being made, and if not, where the deficiencies lie.

- Hold annual community meetings for each LAMC area school to review and discuss the annual Report to Parents

One of the key functions of the SIC is to increase communication with parents and create greater accountability. This accountability is realized through the annual Report to Parents, which provides an overview on the School Improvement Plan strategies and progress made over the course of the school year. In order to deepen the level of communication around school report and further engage the school community, it is recommended that LAMC facilitate an annual meeting at each school corresponding to the annual Report to Parents. At this meeting, the annual Report to Parents would be presented in brief and SIC members would be available for additional consultation to the parents of each school.

Success Indicators

- Minimum Standards for SICs
 1. Technical Assistance (direct contact with an SC-SIC Council Specialist through documented on-site visits, phone calls, US mail, or e-mails).
 2. Participation in SC-SIC sponsored/approved training opportunities. These may be regional, district or school-level training. (Two persons must attend from one of the following groups: minimum of one school staff member, and one parent, community member or student).
 3. Bylaws (include date reviewed and date revised if any). Schools rated as “At Risk” must submit this information to the SC-SIC state office.
 4. Membership ratio in compliance with state law (must have twice as many elected members as appointed members, excluding ex-officio members, to meet the statutory ratio of 2/3 elected to 1/3 appointed). Note: Appointed members should NOT be parents OR staff members of the school.
 4. All schools must submit membership information through the online SC-SIC Member Network database by November 15th of each year.
 5. Minutes must be taken at every SIC meeting and be made publicly available. Schools rated as “At Risk” must submit an agenda, sign-in sheet and minutes of minimally one fall AND one spring SIC meeting to the SC-SIC state office.

6. Copy of the SIC's annual Report to the Parents distributed by April 30th of each year. Schools rated as "At Risk" must submit this information to the SCSIC state office.
7. Copy of the 425 word narrative for the upcoming annual S.C. School Report Card written by June 15th. Schools rated as "At Risk" must submit this information to the SC-SIC state office.

- Membership/size

Does the membership of the SIC include at least 12 members? Are there an adequate number of members to advance the work of the SIC? What has the attendance level been at SIC meetings?

- Annual training

Have all SIC members engaged in at least one annual training activity? Has the school district funded incidental expenses associated with SIC training?

- Annual self evaluation

Has the SIC conducted an annual self-evaluation per the guidance of the South Carolina School Improvement Council? What were the results of this self-evaluation?

- Annual report to parents

Did the SIC produce the annual Report to Parents on time? Did the report include an adequate explanation of any progress on the School Improvement Plan? Was the Report to Parents publicized and distributed in a convenient way for most parents to access?

- School Report Cards

Is the school showing progress on its annual school report cards? Is the number of students scoring at the Basic level and above increasing in each of the major subject areas?

RESOURCES FOR MORE INFORMATION

The following resources provide more information on education strategies, including early childhood education, School Improvement Councils, Parent University, and other recommended education strategies:

Publications

- "What Is the Penny Buying for South Carolina?," South Carolina State Board of Education, December 2006.

Websites/Organizations

- South Carolina School Improvement Council - <http://sic.sc.gov> - provides training, technical assistance and operational resources for School Improvement Councils.
- BabyNet (South Carolina Department of Health and Environmental Control) <http://www.scdhec.gov/health/mch/cshcn/programs/babynet/>
- Charleston County School District Family Resource Center - <http://www.ccsdschools.com/Families/> - Provides information on registering for Child Development 4-K classes.
- Charleston County Literacy Roundtable - http://www.ccsdschools.com/Departments_Staff_Directory/Office_of_the_Superintendent/Initiatives/literacy/index.php - Service coordination and advocacy organization for a variety of service providers in the literacy arena.
- Child Find – Ideas that Work - <http://www.childfindidea.org/> - Resources for promoting awareness and access to early intervention programs.

ADULT EDUCATION AND WORKFORCE DEVELOPMENT

Maritime Training Institute

The SCSPA, City of North Charleston, and LAMC developed the \$4.08 million Community Mitigation Plan that included the imperative to develop a Maritime Training Institute (also referred to as the Multimodal Training Center) that would realize positive community impacts from Port expansion. The proximity of the Port activity in North Charleston and the need for employment-based training underpins the concept of the Maritime Training Institute that has been reinforced through the plan by the LAMC Working Group and citizens. There are many examples of institutions that undertake such training in port communities. The promise of this institution's mission to outreach will distinguish it as an important component of the LAMC plan and as a model for port communities across the country.

The Maritime Training Institute can leverage this mission of outreach with excellence in preparation for maritime-related employment skills through its curriculum and its facility location and development. Nationally, the strongest examples of curriculum appear not only to build off of the direct skill sets needed for labor in ports, but also addresses the management skills often associated with other business curricula that, in fact, prepare enrollees for the real range of management opportunities related to port operations. The model of the Maritime Training Institute should address education and training in port basics, such as transportation and management of storage and transfer systems, and operations management. The level of training would suggest that a three tiered approach be structured that garners support from: 1) the local and regional port and dock operations; 2) business programs that will provide accredited instruction in the management of ports and other complex systems, and 3) fostering related businesses that can synergistically take advantage of the proximity of a thriving port and training institute to fulfill the economic development plan for LAMC.

Given this three-pronged focus, it seems particularly in this start-up mode, that the opportunity to coordinate with other LAMC initiatives like the Local Vendor/Contractor program, and a business incubation center should be pursued. The Maritime Training Institute is charged to be "near the Terminal" and certainly access to the Terminal itself would be important as part of the complete training of enrollees and should be pursued. However, it might be worth investigating the collocation of the Maritime Training facility with other LAMC program objectives in a common building of ample size like the GEX building. If that possibility appears viable, then in order to accommodate the range of other tandem uses possible for the GEX, a balance of shared and common space must be examined to economize on facility capital and operating expenses. Classrooms, workshops, even an internal area to learn operation of dockside equipment would be valuable and could be provided within the GEX. While the exact area for the school would need to be determined with an operator of this institution type and a programmer/architect, and would occur during Phase 1: Facility Feasibility Study/Fundraising.

Many general examples of maritime institutes exist, but given the explicit community focus of this one under the CMP, the plan suggests this unique approach. It would prepare enrollees not only to compete in the global market place of port operations, but also support economic development of the LAMC study area and, hopefully, have it as a viable choice to pursue their maritime career competitively with other port economies.

GED Programs

One of the primary components of a plan for improving the marketability of local residents must be a robust, accessible, and well-publicized GED preparation program. The Trident Literacy Association offers a GED preparation program, including a practice test to adults interested in achieving high school equivalency. The program is tailored to the individual student with self-paced curriculum. Students can be placed in study groups consisting of up to five people or can be assigned to a tutor for one-on-one study. The cost of the program is a one-time annual fee of \$25 for adults under the age of 65, and free of charge for senior citizens over 65. The Trident Literacy Association offers services in the study area at two locations – at Celebration Station at 1935 Reynolds Avenue (open Mondays through Thursdays 9am – 12pm) and the Accabee Community Center at 3200 Appleton Avenue (Tuesday and Thursday evenings 6 – 9pm). Trident also works in collaboration with City of North Charleston, providing staff and materials

for GED courses at Gethsemane and Felix Pinckney Community Centers. Demand is high at both locations, but space limitations have often made offering the courses difficult, if not impossible. At Felix Pinckney, courses are offered jointly with Brothers United two nights a week in conjunction. North Charleston High School, located just outside the LAMC study area, also offers preparation for the GED exam. The office is open Monday through Thursday from 12pm – 2:30pm and Friday from 9:30am – 12:30pm.

Programs for Parolees and Inmates

Apprenticeship Carolina

Apprenticeship Carolina is a tool developed by the SC Technical College System, which serves the mission “to ensure that all employers in South Carolina have access to the information and technical assistance they need to create their own demand-driven registered apprenticeship programs.” A registered apprenticeship is a training program, sponsored by an employer that develops highly skilled workers. It is typically comprised of two components: supervised on-the-job training provided by an employer, and related technical instruction (RTI). RTI is often provided by a technical college and serves to reinforce the theory supporting the trade skills. As there are over 950 occupations across the country recognized through registered apprenticeship programs, Apprenticeship Carolina supports apprenticeship development in all sectors, with particular support for areas of interest to South Carolina. These include: advanced manufacturing, construction, health care, energy, information technology, and tourism and hospitality. Apprenticeship Carolina staffs a team of apprenticeship consultants to help employers apply for and develop apprenticeship programs. LAMC falls into Region 3, under consultant Michelle Marcus. One service provided by AC is identifying state and federal funding support. In South Carolina, businesses receive a \$1,000 tax credit for each registered apprentice employed for seven months for up to four years of an apprenticeship program. Instruction, training, and wages may be covered for apprentices meeting Workforce Investment Area (WIA) eligibility requirements. Apprentices may also be eligible for Lottery Tuition Assistance (LTA).

Going Home: Serious and Violent Offender Reentry Initiative

The Serious and Violent Offender Reentry Initiative (SVORI) is a major federal initiative developed by the US Department of Justice along with the U.S. Departments of Labor, Health and Human Services, Education, and Housing and Urban Development. Federal partners help state and local agencies sort through complexities of existing state formula and block grants to assist them in accessing and utilizing those resources to support existing, effective comprehensive reentry programs. The problem of recidivism for serious and violent offenders is grave – fewer than half of all violent offenders stay out of trouble for at least three years after their release from prison, and many commit serious offenses while under parole. If these offenders cannot be successfully grafted into society again, communities are gravely threatened. The high risk associated with this population warrants a high level of intervening effort.

SVORI grants are issued in limited amounts, but the main focus is not on acquiring “new money” for the program, but finding funds already available to state and local agencies for supported purposes. Funds go to state and local agencies finding solutions for transitioning offenders back into communities. The initiative aims to draw on the expertise and experience of those organizations already demonstrating success. Two South Carolina agencies received SVORI grants: The South Carolina Department of Corrections (\$1,000,002); and the South Carolina Department of Juvenile Justice (\$999,989). The Department of Corrections partners with service agencies to address recidivism, substance abuse, and physical and mental health issues and to support workforce participation, housing, family reunification, faith-based issues, and restorative justice. The program is primarily for violent or high risk inmates ages 17-35 with supervision requirements after release. However, the DOJJ target areas currently fall outside of the LAMC study area. The ultimate goal of SVORI grants is to protect public safety by helping offenders obtain and retain long-term employment, maintain stable residences, address substance abuse and mental health needs, and become productive and responsible members of society. The SCDC has developed a Service Provider Database to help find services inmates may need prior to release. The grant has expanded transition services at seven facilities across the state.

Palmetto Unified School District

The Palmetto Unified School District was created by legislative act in 1981 to provide educational services to inmates through a statewide school district. The Individuals with Disabilities Act (IDEA) requires that SC inmates under the age of twenty-two whom have been previously placed in special education programs must be placed in the least restrictive education environment for their custody and security level. Students then create an Individualized Education Plan (IEP). Students are transferred to the designated facility, of which there are nine in the state. They then work toward achieving a high school diploma or GED certificate. The district also oversees programs for adults over the age of twenty-one and incorporates training in the technical and soft skills inmates need to enter the job market upon release.

South Carolina Parole Employment Program (PEP)

The Parole Employment Program (PEP), run by the South Carolina Department of Probation, Parole, and Pardon Services, is a statewide employment skills development and assisted job placement program. It helps offenders meet the “suitable employment” requirement which must be met as a condition for release to parole. Those offenders whom have no job experience or education, and are eligible for parole but lack employment prospects, can receive assistance from this program in finding and maintaining suitable employment as they transition back into the community.

South Carolina Vocational Rehabilitation Department

The South Carolina Vocational Rehabilitation (VR) Department is an employment agency for people with disabilities. Applicants are evaluated by a team of vocational rehabilitation specialists to determine eligibility, and then jointly create an Individualized Plan for Employment (IPE). Using the IPE, VR staff can provide a number of services, including classes, training, job placement, supported employment, and restoration services. More specialized services include substance abuse and dependence treatment. There is an area office and a work training center in the City of Charleston.

H. Public Safety

PROMOTE COMMUNITY POLICING

Community Policing is an overall, top-to-bottom approach to policing that emphasizes community partnerships and problem solving techniques for combating crime. Community Policing involves a shift away from traditional crime-fighting methods focused on responding or reacting to crime events towards a greater emphasis on crime prevention and employing diverse methods to deter or discourage criminal activity. According to the COPS (Community Oriented Policing Services) office or the US Department of Justice, “Community policing is a philosophy that promotes organizational strategies, which support the systematic use of partnerships and problem-solving techniques, to proactively address the immediate conditions that give rise to public safety issues such as crime, social disorder, and fear of crime.”

The heart of Community Policing is greater collaboration between the police department and various aspects of the community. Community policing partners can include neighborhood and community groups, businesses, non-profits, faith organizations, or other government agencies. The importance of partnerships is two-fold: Firstly, community partnerships enable the police to be more responsive to community needs, therefore encouraging trust in the police and increasing the flow of information; and secondly, community partnerships increase the number of resources and tactics that are available for combating crime. For example, as a result of regular neighborhood meetings, neighborhood residents are more confident that police efforts are responding to their concerns and share information more openly; or as a result of police partnerships with public works and code enforcement departments, physical issues that contribute to crime problems are address, leveraging a second set of resources to combat crime. Any of a number of tactics may be useful for promoting Community Policing, so long as the level of coordination, communication, and trust is enhanced between the police and the communities that they serve.

A second but also important aspect of Community Policing is a focus on problem solving; in fact, sometimes community-oriented policing methods are also referred to as Problem Oriented Policing (POP) methods. Problem solving methods of policing focus on proactive and systemic examinations of specific identified problems or patterns. There is a greater emphasis on identifying specific problems and analyzing them in depth; the use of information technologies such as Geographic Information Systems is often a part of this analysis. Problem solving in the policing arena is based upon the SARA model – Scanning, Analysis, Response, and Assessment (see the discussion of the SARA steps in the next section of this report). Another technique of Problem Oriented Policing is using the crime triangle of Victim/ Offender/ Location to identify opportunities for response and intervention.

There are several challenges to maintaining a community-oriented approach to policing. One challenge is that in the high-crime areas where Community Policing is most needed, there is a strong demand for all available police resources to be dedicated to crime and incident response and criminal prosecution. Another challenge is that it may be difficult to have the community involved in areas that are chronically suffering from crime, as people feel that their participation may not make any difference.

Enhancing Community Policing in the LAMC Area

There is no single silver bullet strategy to ensuring the success of North Charleston’s Community Policing efforts. The Police Department is already engaged in a number of practices that support Community Policing and community-police partnerships. Two basic strategies are recommended for enhancing Community Policing in the LAMC area: 1) Encourage the North Charleston Police Department to engage the community in identifying key problems and in the problem-solving process; and 2) Increase participation in the existing outlets for community-police collaboration.

The Police Department has a number of general outlets for community partnership as mentioned above, however, the City of North Charleston Police have not tried to formally engage LAMC area neighborhoods in a Problem Oriented Policing (POP) initiative; one potential such initiative focused in on the Chicora/Cherokee area is discussed in greater detail below. However, it is generally recommended that the NCPD engage LAMC area communities in a more formal way to identify key crime problems in the LAMC area. The NCPD can engage the resources of the Police Executive Research Forum (PERF), with which it has an existing relationship, in order to assist with this effort. The goal would be to identify a specific crime problem that could be the focus of joint police-community efforts and set the stage for further collaboration. It would be important to set the expectation at the outset that not every crime issue can be addressed simultaneously; rather the success of a problem-oriented approach depends upon defining a specific focus for analysis and intervention.

ESTABLISH PROBLEM-SOLVING PARTNERSHIPS IN LAMC NEIGHBORHOODS

Problem-Oriented Policing is a policing strategy that addresses **chronic** crime problems through a disciplined, iterative process with a heavy emphasis on the use of data and analysis to define and track crime problems. Problem solving in the policing arena is based upon the SARA model – Scanning, Analysis, Response, and Assessment. The SARA steps are defined as follows:

- Scanning - Identify a basic problem, determine the nature of that problem, determine the scope of seriousness of the problem, and establish baseline measures. Pattern of concern to the community.
- Analysis – Research what is known. Identify the dynamics of the problem. Use the crime triangle to identify opportunities for intervention.
- Response – Review and develop a list of potential strategic responses, and then select a preferred response. The preferred response may reduce the problem or mitigate its effects.
- Assessment – Evaluate the success of the response. Revisit analysis and response if necessary.⁴

Problem-Oriented Policing differs from standard policing strategies in that POP looks at overall patterns of crime – i.e. “problems” - rather than looking at crimes just on an individual basis. POP emphasizes the use of data and analysis to better understand crime patterns and to come up with innovative responses for intervention. Responses are not limited to police activities but may also include physical interventions or joint campaigns with community partners. The objective assessment of the preferred response is also important, so that the response can be evaluated and modified if necessary. The basic assumption of Problem-Oriented Policing is that a persistent analytical approach to crime problems will result in gradual improvements in the effectiveness of interventions. The discipline in the POP process comes from thorough analysis and objective assessment – this allows for new or adjusted responses to be developed as the facts on the ground determine.

Problem-Oriented Policing also employs best practices – what responses have been found to be effective in other communities with similar problems. However there is also an emphasis on looking at each problem freshly – so that the best response can be developed to the particulars of the situation involved.

Steps to a Successful Problem Solving Partnership

The primary steps to a successful problem solving partnership between the police department and the community is for the community to be involved from the beginning of the POP effort. Also, it is important that police and community roles be clearly defined, so that both parties can contribute

⁴ “Community Policing Defined,” Community Oriented Policing Services, US Department of Justice, 2009.

meaningfully and to minimize conflict. The Police Executive Research Forum identifies the following characteristics of successful problem solving partnerships⁵:

- Select A Well-Defined, Manageable Problem

As discussed above, POP works best when the problem has been well defined; not all crime problems can be thoroughly addressed at the same time. The strength of the POP approach comes from identifying patterns of related crimes that can be addressed simultaneously with a systemic intervention. It is essential that the community be involved in identifying what problem should be addressed by the POP effort.

- Establish A Target Area To Fit The Problem

The size of the Target Area should correspond to the nature of the problem identified.

- Incorporate Community Involvement In All Phases Of The Project.

Usually the police department would take the lead in a POP effort, however the community should be involved from the early problem definition stages, and should be significantly involved in each stage of the process – Scanning, Analysis, Response, and Assessment. This is important both to deepen the community-police partnership and to leverage the use of community resources.

- Conduct A Thorough Analysis Of The Data Prior To Selecting A Response

The most common failure in POP efforts is to speed through the analysis and move quickly to a response. The heart of the POP effort is in a thorough and careful analysis, usually taking six to nine months. Fortunately, the City of North Charleston has a Crime Analysis department capable of conducting the analysis and evaluation of relevant crime data. Outside expertise, such as PERF, should be brought in to ensure an adequate analysis phase to the project.

- Use The Analysis Findings To Develop A Response

The response should not be automatic based upon the problem identified; rather, the analysis should drive the response. Alternative ideas should be explored, especially if they address the particulars of the situation and the crime triangle. Responses can address the core problem any number of ways, by increasing the difficulty of crime, increasing the risks involved, reducing the rewards, reducing the provocations, and removing the excuses for crime.

- Assess The Impact Of The Response

Specific metrics should be developed to determine how effective the identified response was in addressing the crime problem. The impact should be evaluated over a period of time and then discussed. Then ideas for reforming or adding to the existing response can be developed. If the response is deemed generally unsatisfactory, it may be necessary to begin again at the analysis phase of the POP process.

- Provide Problem-Solving Training To Sworn And Non-Sworn Personnel Early In The Project

POP techniques go beyond the traditional training of many police officers, so technical training in POP methods is vital to the success of the approach.

- Garner Support From Command-Level Staff Prior To Initiating A Problem-Solving Project

Leadership from the top and across departments is key to the success of a POP project. While POP has generally been found to be more effective than traditional policing techniques, the resource requirement can be high and the results may take months or years to realize, so leadership from the head of the organization is important.

Strategies for a LAMC Problem Solving Partnership

In addition to the above recommendations from PERF, the following recommendations have been developed specific to the LAMC area. However specific response strategies should not move forward until a thorough POP process of Scanning and Analysis has occurred in cooperation with community interests:

⁵ “Problem-Solving Partnerships: Including the Community for a Change,” U.S. Department of Justice, Office of Community Oriented Policing Services, Debra Cohen, Ph.D., June 2001.

- Include all aspects of the community from the beginning

One of the challenges of community-police collaboration efforts in LAMC neighborhoods is the transient nature of the resident population. While neighborhood residents should be a focus of the community partnership efforts, it is important to include entities with a long-term investment in improving their surroundings, namely local area businesses and schools, including Chicora Elementary and the Military Magnet schools.

- Coordinate code enforcement with crime prevention efforts

The police already cooperate with code enforcement to combat crime efforts. This strategy should be developed further as part of a coordinated POP based strategy for combatting crime in the LAMC neighborhoods.

- Implement Crime Prevention Through Environmental Design (CPTED) interventions in problem areas

Crime Prevention Through Environmental Design techniques can be employed to promote surveillance, access control, and to provide other physical and psychological means of deterrence. See the discussion on CPTED below. One potential strategy for discouraging the drug trade may be to temporarily close or dead-end certain streets to make vehicular circulation more difficult in key problem areas.

- Develop a strategy for closing problem businesses

The police have identified one of the sources of problems for the community as a few problem businesses that do not do their part in fighting crime and delinquency in the community. If community stakeholders agree that this is a problem, a strategy should be developed for addressing these problem businesses. Potential strategies include using the State of South Carolina process for protesting the alcohol license of the problem business, or revising City of North Charleston ordinances to crack down on problem behaviors.

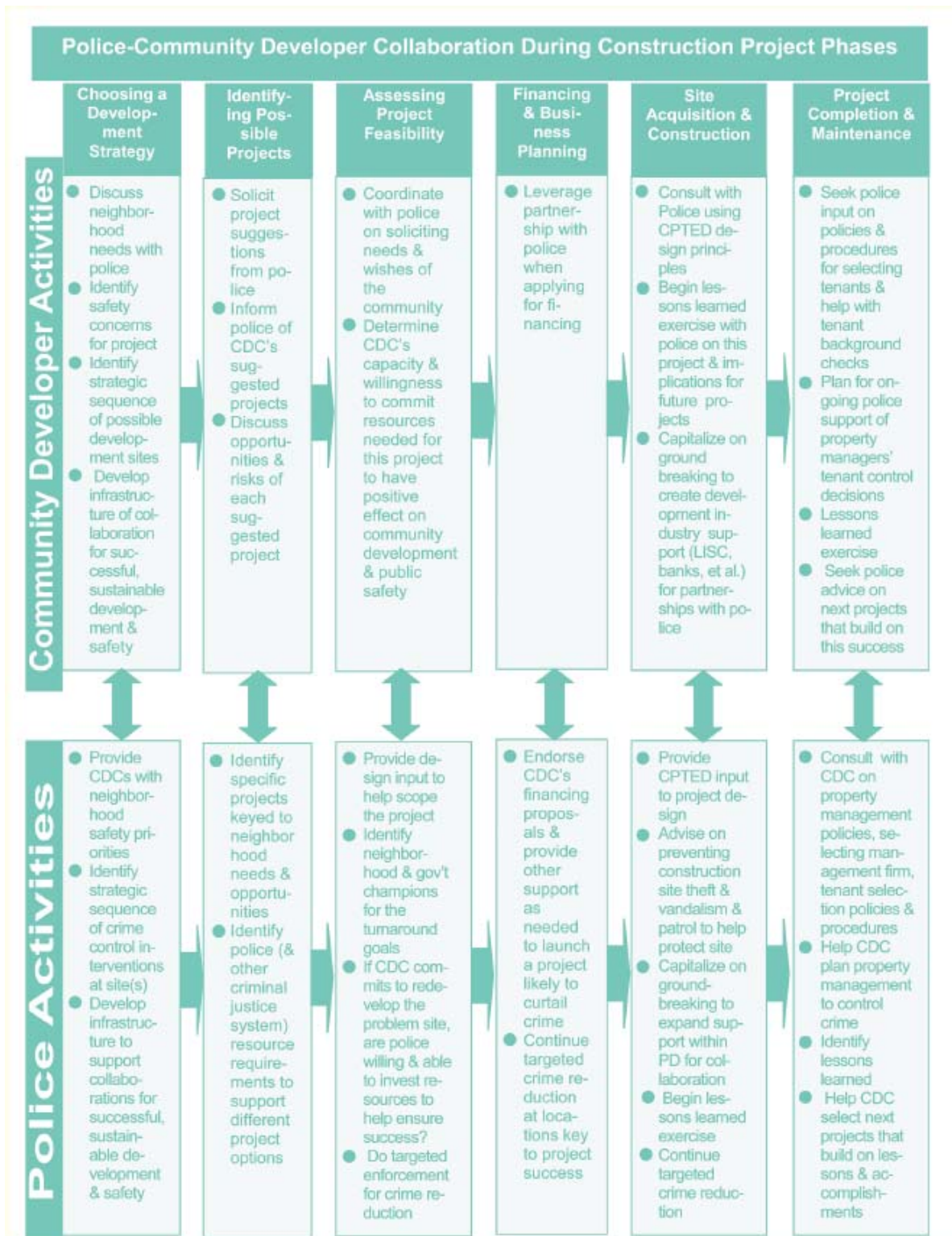
- Provide positive alternatives for LAMC residents

Simultaneous with police efforts to crack down in these neighborhoods, opportunities should be provided to LAMC area residents to take greater control of their lives and make a positive contribution to their community. Positive programs that are discussed elsewhere in this report include promoting home-ownership opportunities among LAMC area residents who currently rent; promoting after-school opportunities for youth; and promoting workforce development opportunities among the unemployed and underemployed.

Coordinate police and LAMC Community Development efforts

As stated above, many of the most successful crime combating efforts involve partnerships between police and community stakeholders. Figure 2 below illustrates how a police department and a community development non-profit might interface to collaborate on a particular development project., depicting how consultation and coordination are important at each stage of a community development project.

Figure 1: Police-Community Development Collaboration for a Construction Project⁶



⁶ "Building Our Way Out of Crime," US Department of Justice, Office of Community Oriented Policing Services, Geller, Bill and Belsky, Lisa, June 2009.

The role of the police includes targeted enforcement, crime prevention strategies, and crime analysis. Targeted enforcement against crime hot spots can pave the way for a broader community intervention or community development strategy. The police can also engage the community in crime prevention efforts through partnerships that increase surveillance and management of problem areas. The police also can provide analysis on the geography of crime patterns down to the block level, and therefore guidance for how community development resources can best be organized to displace or shift crime problems. In fact, one of the most important initiatives police departments can take to promote partnerships with CDCs is to build up their information analysis resources to be able to produce block level crime statistics on demand.

For more information on partnerships between CDCs and police departments, please see the publication “Building Our Way Out of Crime,” US Department of Justice, Office of Community Oriented Policing Services, Geller, Bill and Belsky, Lisa, June 2009.

EMPLOY CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN STRATEGIES

Many crimes are the result of perceived opportunity, where perpetrators are most likely to pursue crimes that offer the quickest and simplest return. Physical elements may either encourage or inhibit the desire to pursue criminal activity. New development and redevelopment should be designed to incorporate design factors known to reduce crime to the extent possible, thereby increasing quality of life.

Crime Prevention through Environmental Design (CPTED) techniques provide guidelines for reducing criminal activity through physical design strategies. Design strategies include:

- **Natural surveillance** enhances “eyes on the street” and includes design strategies to maximize visibility of key areas such as providing windows and front porches that overlook public areas, maintaining views of parking areas and building entrances, and ensuring that lighting is appropriate.
- **Natural territorial reinforcement** provides a deterrent to intruders by clearly defining property lines and separating private and public spaces through landscaping and fencing, emphasizing a sense of ownership and interest in private spaces.
- **Natural access control** reduces access to crime targets or victims by providing a perception of risk to potential intruders, attained by designing transitional spaces between the public way and the private realm to limit access to potential offenders.

Some examples of CPTED policies include:

- Using fences, hedges, tree lines, or planter boxes to separate public and private spaces.
 - Three- to four-foot fences allowing some transparency, such as picket fences, are appropriate for front yards
 - Four- to five-foot fences allowing some transparency, such as picket fences, are appropriate along residential property lines to provide privacy between residents while allowing surveillance
 - Fences six-feet tall, with limited to no transparency, are appropriate to delineate backyards from public alleys
- Installing low shrubbery or vegetation under ground-level windows
- Ensuring that retail shops keep window signage to a minimum, allowing visibility both in and out of shops
- Marking changes in elevation and using variations in paving or flooring materials to define transitions from public to private spaces

- Discouraging loitering and illicit activity by using gardens, artwork, and furniture to indicate ownership of spaces, showing that someone cares and is paying attention
- Using signs to establish ownership and any limits on use
- Eliminating access points to roofs or upper stories
- Maintaining buildings, yards, gardens, sidewalks, and other features, and keeping them clean, providing a sign of guardianship

CPTED is useful because it helps a community put into analysis all of the factors that encourage criminal acts. Furthermore, CPTED techniques are particularly suited for communities attempting to target problem areas in specific neighborhoods, to help establish programs or strategies that are proactive and tailored to the problem and the location. CPTED engages an array of citizens, government agencies, and local institutions, each of whom has a role to play in defining the problem and deciding upon an appropriate solution, as well as provides some accountability for long-term improvements.

Target hardening, which includes safety features that prevent entry or access such as locks and gates, is a security technique that complements CPTED strategies, since it addresses the final opportunity to keep out the intruder from a building or property. CPTED features may be supported by locks, alarm systems, CCTV, guards, or other security measures in some situations. Ensuring that appropriate exterior doors are installed and orienting doors so that hinges are located on the interiors of buildings are important strategies that property owners should keep in mind when ensuring that their buildings are secure.

Where applicable to site design, CPTED techniques have been applied to the design concepts included as Implementation recommendations. For example, new housing located across from a park is oriented to face the park, thereby increasing the residents' surveillance of the public space. For renovation of existing retail buildings, CPTED strategies would include ensuring that storefront windows remain clear of window signage to the extent practical, allowing visibility both in and out of shops.

In addition, many of the techniques described above are appropriate for residents and property owners to apply to their own properties. CPTED may be particularly appropriate for properties that have poorly defined distinctions between public and private spaces. Simple and inexpensive measures such as fencing, access control, lighting, and landscaping could increase the sense of resident security as well as overall neighborhood security.

SECURITY CAMERA SURVEILLANCE SYSTEMS

Since the September 11 attacks on the United States, security cameras have proliferated in American cities. Major metropolises like New York City, Chicago, Washington, D.C., and Los Angeles have initiated massive surveillance programs, largely to protect residents from crime and provide improved emergency response. In Chicago, for instance, surveillance cameras operated by public and private institutions are being routed to a central emergency management office for monitoring. Many decry the potential violation of privacy rights made possible by city-wide networks of surveillance cameras and monitoring staff, but anti-crime groups and city officials have lauded their benefits. It is difficult to evaluate the general effectiveness of urban surveillance camera systems, given that factors such as camera technology, monitoring capability, inter-agency communication, can vary widely from case to case. However, an increasing body of research is accumulating on the issue.

The most comprehensive study on the effectiveness of surveillance camera programs was completed in December 2008 by researchers at the University of California, Berkeley, who evaluated San Francisco's Safety Camera Program. The study's findings indicate that safety cameras had no impact on violent crime, whether near or further away from the camera. Also, no decline in homicides, prostitution, drug activity, or vandalism was found. However, a substantial decrease in property crimes was found in the vicinity of safety cameras - a drop of twenty-four percent within 100 feet.

Before pursuing an extensive surveillance camera program, LAMC partners should carefully define the intended purpose of such a program, and then research areas for which a similarly defined program has

proven successful. With such resource constraints, LAMC communities might best be served by a narrowly targeted surveillance program that complements the community policing innovations recommended in this report.

RESOURCES FOR MORE INFORMATION

The following resources provide more information on Community Policing strategies, Problem Oriented Policing strategies, Crime Prevention through Environmental Design, and other crime prevention techniques:

Publications

- “Building Our Way Out of Crime,” US Department of Justice, Office of Community Oriented Policing Services, Geller, Bill and Belsky, Lisa, June 2009.
- “Community Policing Defined,” US Department of Justice, Office of Community Oriented Policing Services.
- “Problem-Solving Partnerships: Including the Community for a Change,” US Department of Justice, Office of Community Oriented Policing Services, Cohen, Debra, Phd., June 2001.
- “Twenty Five Techniques Of Situational Prevention,” Center for Problem Oriented Policing, 2009.
- “Using Crime Prevention Through Environmental Design in Problem-Solving,” US Department of Justice, Office of Community Oriented Policing Services, Zahm, Diane, August 2007.

Websites/Organizations

- Carolinas Institute for Community Policing - <http://www.cicp.org/>
 - Officer training in Community Policing techniques, including the use of GIS tools
- Center for Problem Oriented Policing - <http://www.popcenter.org/>
 - Problem Specific Guides
 - Response Guides detailing the effectiveness of specific responses
 - Problem Solving Tool Guides introducing analytic techniques and problem oriented approaches
- Office of Community Oriented Policing, US Department of Justice - <http://www.cops.usdoj.gov/>
 - Introductory information on Community Oriented Policing
 - Information and publications on best practices
 - Grants related to Community Policing
- Police Executive Research Forum - <http://www.policeforum.org/>
 - Membership organization providing research and training to police departments

I. Health

Environmental Health

Urban planners, scientists, and health professionals have long established a clear link between environmental characteristics and the health of populations occupying a given environment has been thoroughly. Air quality, water quality and contamination, and industrial practices can severely impact community health by increasing a population's likelihood of being afflicted by several diseases and other health complications. Similarly, the configurations of land uses, transportation infrastructure, and community design have been shown to bear close correlation with overall community health and wellbeing.

The spatial proximity of a population to harmful environmental conditions has major implications for the health of that population. Air pollution from both point and non-point sources can cause asthma and other respiratory diseases; wastewater and stormwater runoff result in contaminated water supplies, causing water to be unusable for human consumption without risk of illness; and the storage of hazardous materials carries health threats near when residential land uses are in close proximity to noxious industrial practices. Studies have shown that these environmental risks have a greater impact on low-income population due to a range of factors, including environmental injustice and lack of access to health care and health-related education. Lower income populations have also historically lacked the resources and political influence to keep environmental risks out of their neighborhoods. As an environmental justice community, the LAMC neighborhoods have direct experience with this inequity.

While the environment can be a source of health risk, it can also provide the physical framework for improved community health. The organization of the built environment has been shown to have significant influence on physical activity within communities. Studies have demonstrated that physically active populations often have measurably lower rates of contracting adverse health conditions, such as obesity, diabetes, and heart disease, than less active populations. Researchers and proponents of achieving public health objectives through urban planning are in general agreement that the degree to which active lifestyles are supported by the built environment are directly related to the level of density in terms of building stock, street pattern and connectivity, mix of land uses, and availability of pedestrian and bicycle infrastructure. To be sure, physical form is not the only determinant of active lifestyle. Other factors, such as perception of crime, influence the level of outdoor activity a community engages in. However, the urban planning and design provide the foundation for activity which promotes health.

Studies have further shown that physically active populations often have measurably lower rates of contracting several diseases and other adverse health conditions, including diabetes, heart disease, and obesity.

Ongoing Health Initiatives

Because of the lack of grocery stores in the LAMC area, MUSC is working with CARTA to modify routes to better connect LAMC residents with grocery stores in the region. They are also working with local farmers' markets, such as the market in Park Circle, to have them accept food stamp cards, so that those without cash can also benefit from healthy food options. Also, some schools are offering pregnant student counseling. MUSC is involved in numerous community health programs, especially those which promote healthy living through preventive measures. They support programs promoting school readiness in pre-k children and teen leadership. They are also trying to reach out specifically to the Latino population. The Franklin C. Fetter Community Health Center in Union Heights provides some health care services to the community. It is typically staffed by a single provider - often a nurse practitioner - and houses a small pharmacy.

The information generated from the study to be conducted through a grant the University of South Carolina School of Public Health received from the National Institute of Health (NIH) to conduct an environmental health study in the City of North Charleston will significantly help pinpoint specific health issues in the community. The four-year, \$1.2 million research grant will determine if there is a link

between multiple sources of pollution and the health of the residents living in the LAMC neighborhoods. The study will be doubly beneficial as it will help educate residents about local environmental health risks and teach ways to reduce their exposure. This research will help tailor a health program to directly meet the needs of to the LAMC community and manage the environmental stressors with which they are faced.

J. Community Centers

Examples of Community Center Roles in LAMC

One of the ways community centers can enhance neighborhoods is by providing an outlet for the expression of cultural identity through performances and entertainment events. Gethsemane Community Center has proven an innovator in this area with their development of the Djole Dance Company. Ten years ago, leaders from the community center took a group of young people to see an African dance recital, and an interest was sparked in the group. After receiving a small grant, the Gethsemane Circle of Friends began hosting dance lessons, which has evolved into an African dance and drum company called Djole. Djole participants range in age from seven to twenty years old. Initially, the drums for the company were purchased from a local vendor, but the group's proficiency soon demanded performance-quality instruments. The director of the Neighborhood Project, Dr. Cynthia Cupit Swenson, was put in contact with a master drum-maker and community leader in Ghana. The group began buying drums from the Ghanaian artisan, and that relationship blossomed into an exchange program. A group of forty from Gethsemane went to Ghana in 2006, including twenty-one children. The group participated in a national AIDS awareness and dance event and other cultural activities. The relationship has blossomed into a joint initiative called Project Okurase, which works to improve the lives of children in both Ghana and the Union Heights community. Djole has become an important piece of the neighborhood's cultural makeup, and the group has now performed in Africa and in front of the United Nations, among many other places.

Programs run out of Gethsemane include: Elderly activities and appreciation (dinners; Mother/son and father/daughter events; movie nights on Thursdays; after-school programming; quilting class on Wednesdays; Menagerie Monday - a different theme each week). It has hosted activities in the past which might serve as models for future initiatives. Coke Jam, held years ago, was an event held by the city in which a stage was brought in and entertainment acts were brought right into the neighborhood. Admittance was free, and everyone welcomed the opportunity to attend an entertainment event within the neighborhood rather than having to drive to another part of the city.

Gethsemane Space Audit and Analysis

A Clemson University landscape architecture student, Bradley Hance, has been working with Gethsemane Community Center leadership as part of his final project to develop a site plan and space recommendations for future activities at the Center. Through collaboration with Gethsemane staff and other stakeholders, it is hoped that this work will lay the foundation for making Gethsemane the model community center in the City of North Charleston. To achieve this goal, stakeholders recognize that the Center must not only serve the neighborhood of Liberty Hill, but it must reveal the cultural identity of the area and create connections, both physical and relational, that will draw residents and visitors alike.

Currently, Gethsemane has an auditorium, a small weight room, a library, a small computer lab, an outdoor, covered basketball court, and two smaller classrooms. The recommendations developed by Mr. Hance and the stakeholders have been classified into two tiers: early action items and long term items. One early action item is to build a larger and more versatile entertainment/performance space capable of accommodating music, art, and poetry events. This space would include at least a stage and appropriate viewing area. Another is to designate a new farmers market space, designed to be open-air and pedestrian friendly. Building a community garden is also falls into the early category. A well-designed and tended garden would create educational opportunities for community members, and could also serve as an urban farming experiment. These programs combine to drive the overall first tier priority of developing more green space.

The second phase focuses more property acquisition and development. One of the main long-term objectives is to convert the old, vacant machine shop adjacent to the property into a useful facility for the community - possibly a job training center or athletic facility. The City of North Charleston is presently considering purchasing the property and donating it to Gethsemane. Another long-term item is

to develop more parking at the center so that visitors and community members can better attend those cultural and entertainment activities the Gethsemane hopes to continue incubating.

The unifying element of these recommendations is the desire to capitalize on the strong cultural identity of the Gethsemane area. Among other activities, the cultural identity of the area is being enhanced by African dance and drum group, Djola, operating out of Gethsemane. Mr. Hance and the stakeholders are also proposing the establishment of the Gethsemane Cultural Area. The founding of the Area would be accompanied by information kiosks and wayfinding elements on Meeting St and Spruill Ave, which are the major thoroughfares nearest the Gethsemane Community Center.

Community Center Challenges

It is far more difficult to get men involved at the Center than women. New programs and outreach efforts need to focus on how to involve them, as their involvement is crucial to promoting a stronger community. Providing transportation to and from activities at the center is a challenge which presents itself mostly to elderly and youth activities. Career training is the most highly demanded activity at Gethsemane. People come in asking for skills and access to software for job-seeking tasks. Taylor added that all community centers are in need of technology- and computer-related programs. GED classes are also frequently requested. Trident Literacy Association has previously provided instructors and materials for GED classes, but competition for space at the Center has made it difficult to continue providing the service. The need for more space is a recurring theme at Gethsemane even though it is one of the larger community centers in the LAMC area. Tradeoffs between programs are common. For instance, during the summer, senior adult programming essentially shuts down to accommodate the youth programs operating between school years. Although these tradeoffs reflect high utilization of current space, administrators lament having to end one program in order to begin another.

K. Capacity Building

Partnering with Private Development Interests

Another alternative to LAMC developing property is contracting with private development interests. This may be particularly useful if LAMC is able to acquire more land than it can manage and/or develop somewhere down the line. LAMC may also partner with a private or non-profit developer if they have an area of specialization that is different from LAMC's own CDC (i.e. commercial or office development).

Land Banking To Facilitate Private Development

Consistent with the recommendation that a land bank be established to acquire, manage, and transfer ownership of vacant/foreclosed/abandoned properties as well as sites of sufficient size to attract redevelopment/investment, acquisition of appropriately marketable, usable sites is key to attracting residential developers.

The creation of a land bank—in this case through LAMC as a non-profit entity—would be highly attractive to developers because transfer of a fully entitled site or parcel would be a significant incentive. This is particularly true in an “untested” location where the overall marketability of specific uses—including market-rate housing—is less certain.

Enhancing the overall marketability of LAMC's neighborhoods is critical to attracting future investment. As such, in the early years, land bank activities could focus on the infill and Model Development Block strategies as a means of stabilizing these neighborhoods and expanding and strengthening homeownership opportunities across LAMC. This strategy serves a two-fold purpose because it meets these key community objectives and it is intended to leverage subsequent private investment, which will be easier to attract as neighborhood stability is strengthened.

The planning team notes that parcels in the land bank portfolio may serve as collateral and may be offered to developers of any number of potential projects, including rental and for-sale housing as well as mixed-use and commercial development. We urge that full financial feasibility studies be conducted in advance of each project to understand:

- **Impacts on land value (also known as residual value)**—LAMC may have to “give away” sites to attract private investment, particularly in the early years. Understanding land values of marketable sites, including land write-down costs, is critical to informing the expected level of private investment in response to such incentives.
- **Overall investment viability**—Developers will go where opportunities for investment returns are highest/risk is lowest, therefore, measuring such returns, by use, is key. These analyses will also identify the magnitude of the financing gap and guide appropriate public policies in response.
- **Economic and fiscal impacts/benefits**—Oftentimes public entities seek to understand the economic and fiscal impacts and costs and benefits of specific initiatives, particularly those where public funding—such as the provision of a land bank site or other financial incentives—is used to attract new development. In this case, potential economic benefits include job creation, net new property tax ratables and the like, while fiscal impacts include costs of new development on municipal services, etc.

Contracting with Private Development Interests through RFQs/RFPs

As revitalization initiatives (particularly public realm) move forward, gauging the degree of developer interest in specific locations such as the Stromboli corridor is critical. One revitalization strategy to attract new housing to LAMC is to identify and pre-qualify candidate residential developers through a Request for Qualifications (RFQ) and a Request for Proposals (RFP) process. The RFQ/RFP process includes up to five (5) steps, including preparation of a document that “packages” the development opportunity and pre-qualifies the most experienced and eligible developers. These steps include:

Step 1: Define and Package the Development Opportunity

- Identify (through the redevelopment plan) expected dimensions of proposed development project: location, boundaries (parcel areas), development program, densities and product types, overall development economics and development issues
- Outline assumptions related to infrastructure requirements and potential costs, land control, project phasing and timing, and form and magnitude of public (or privately sponsored) financing, as required, for specific items such as infrastructure
- Evaluate issues related to land disposition in its entirety (or of specific parcels)—typically prepared as part of a “Land Disposition and Development Agreement” between the City of North Charleston (or LAMC) and private property owners
- Develop full description of prospective development opportunity, including project characteristics, basic strategy, likely challenges in recruiting a development partner, and strategies for overcoming obstacles

Step 2: The Request for Qualifications (RFQ) Process

- Develop preliminary project schedule, RFQ content, advertising and distribution strategy, and evaluation criteria for review with City staff, legal counsel, and other representatives as identified
- Prepare RFQ and supporting materials, such as excerpts of the plan, financial analysis, and other materials as appropriate
- Develop mailing list of RFQ recipients
- Develop and place advertisements in appropriate publications to solicit prospective local, regional/state, and/or national developers
- Distribute RFQ to pre-identified developers and collect responses within agreed-upon timeframe

Step 3: Evaluate RFQ Responses

- Evaluate RFQ responses based on objective review criteria established by City and LAMC staff
- Develop ranking matrix of respondents with quantifiable factors to objectively rank respondents
- Convene meeting to discuss responses and shortlist potential RFP recipients
- Identify special conditions related to RFP respondent shortlist

Step 4: Request for Proposals (RFP) Process

- Develop draft RFP for consideration and review by City and LAMC staff
- Establish review and selection criteria
- Review and approve RFP, timeframe, and selection process
- Produce and issue RFP to pre-qualified, shortlist candidates
- Establish protocols for site tours and pre-proposal conference
- Assist in responding to developer questions, with pre-established timeframes and deadlines

Step 5: Evaluate RFP Responses and Select Preferred Developer

- Evaluate RFP responses based on pre-identified review criteria defined above
- Review developer submittals, such as pro forma financial analyses
- Develop ranking matrix for City and LAMC staff review
- Convene meeting to discuss responses and arrive at shortlist of potential developers called for interviews
- Develop interview format, questions and issues, and draft letter to selected, shortlist candidates
- Coordinate and manage developer interviews
- Conduct tour of projects developed by preferred candidate(s) (optional)
- Convene meeting to discuss interviews and rank leading candidates
- Advise City staff on selection issues
- Prepare final recommendation to City staff and other appropriate parties upon selection
- Assist in negotiating a “development term sheet” with top-ranked developer and in negotiating final development agreement

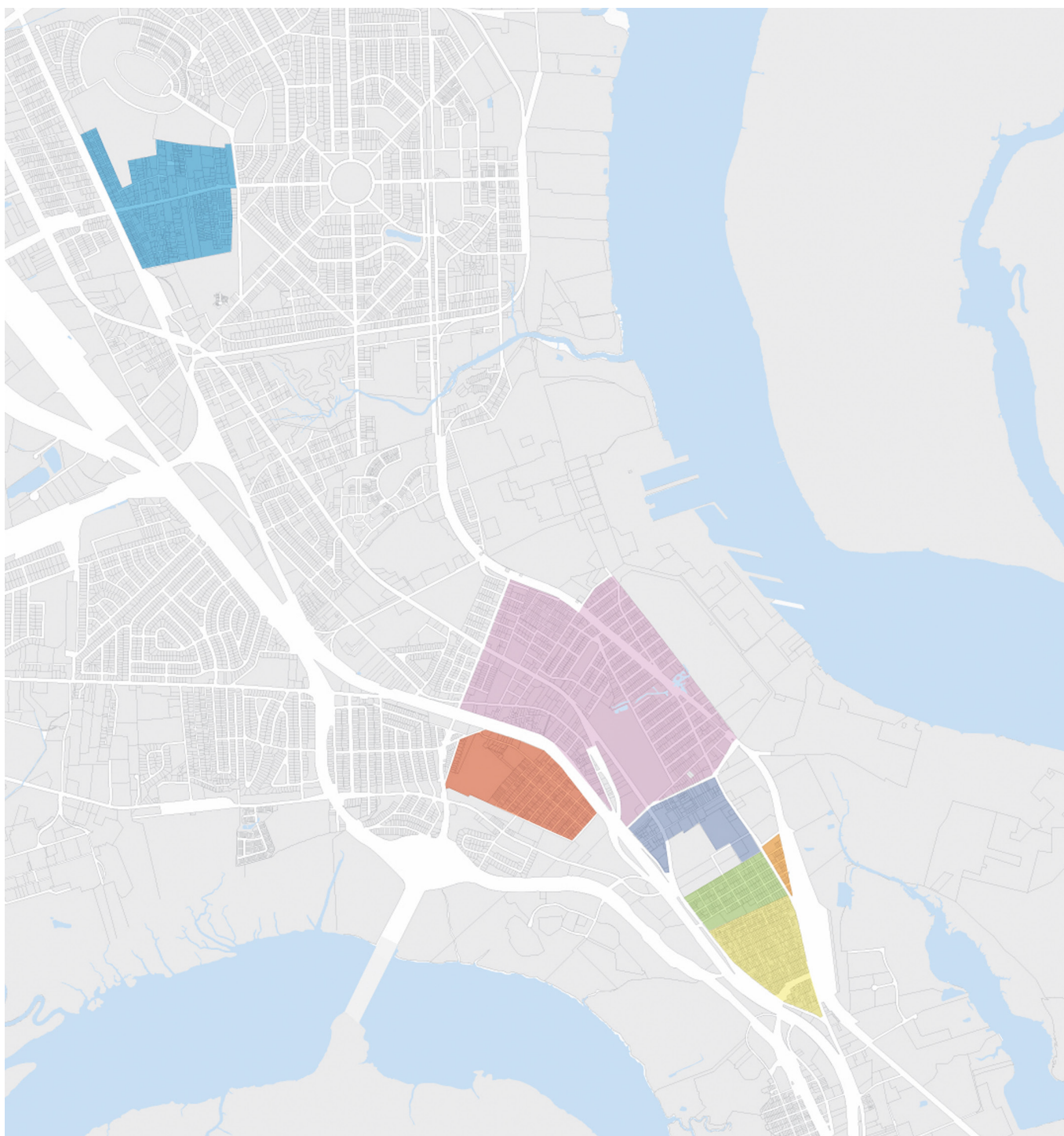
PREDEVELOPMENT CHECKLIST

LAMC PREDEVELOPMENT PROCESS & PROCEDURES

ACTIVITIES (deliverables)	DESCRIPTION & RESPONSIBLE PARTIES	Schedule	FEES
<p>1. <u>Project Orientation and Administration:</u> Set up schedule of pre-development activities and establish a procurement process for retaining housing development services activities</p>	Project Manager selected to coordinate	Month 1 through Month 12	
<p>2. <u>Document Review & Information Gathering:</u> Negotiate Local Government Agreements including Memorandum of Understanding with non-profit and for-profit organizations working in project area</p>	Primarily Project Manager & LAMC CDC and/or sharing of documents with third party consultants as necessary.	Month 1 through Month 6	
<p>3. <u>Development Project Planning:</u> Finalize Model Blocks or Development Area Project Profiles including preliminary sources/uses development budget, and preparing development packages to identify qualified development partners.</p>	Project Manager, LAMC CDC, and sub-consultants will finalize Development Area Project Profiles	Month 1 through Month 6	
<p>4. <u>Engineering:</u> Obtain existing environmental assessments, geotechnical studies, recommendations, and cost estimates for all environmental and engineering services.</p>	An estimate for third party consultants to conduct this work should be included in the Budget.	Month 1 through Month 4	
<p>5. <u>Conduct market analysis:</u> Review available market information, recent sales, and any available public information needed to prepare a Market Analysis report.</p>	Project Manager and LAMC form a market analysis committee consisting of realtors, lenders, appraiser, and local home ownership program managers. Hire Market Analysis firm.	Month 1 through Month 5	
<p>6. <u>Land Transfer:</u> Review existing title work, legal descriptions, boundary surveys and prepare a property acquisition matrix including, ownership, parcel size, value, and other key site characteristics.</p>	Through the selected Acquisition Agent, a designated law firm or title agency firms should perform title. LAMC CDC will make recommendations on additional land acquisition.	Month 1 through Month 24	

ACTIVITIES (deliverables)	DESCRIPTION & RESPONSIBLE PARTIES	Schedule	FEES
<p>7. <u>Finalize site plans & house designs with phasing</u> Finalize development of the housing program: the target unit sizes, mix and amenities for housing developments and engage cost estimator for housing and for public improvements.</p>	Contract with third party architect	Month 2 through Month 6	
<p>8. <u>Financing options and strategies plan:</u> Negotiate terms and conditions regarding construction and permanent mortgage financing and develop site-specific financing plans incorporating conventional lender funds and equity sources</p>	Project Manager and LAMC CDC and City Staff will form a financing committee to help ensure project financing issues are addressed. Committee should include secondary market representatives, mortgage insurance representatives, and appraisers.	Month 1 through Month 6	
<p>9. <u>Financing options and strategies plan:</u> Negotiate terms and conditions regarding construction and permanent mortgage financing and develop site-specific financing plans incorporating conventional lender funds and equity sources</p>	Project Manager and LAMC CDC and City Staff will form a financing committee to help insure project financing issues are addressed. Committee should include secondary market representatives, mortgage insurance representatives, and appraisers. .	Month 1 through Month 6	
<p>10. <u>Financing options and strategies plan:</u> Negotiate terms and conditions regarding construction and permanent mortgage financing and develop site-specific financing plans incorporating conventional lender funds and equity sources</p>	Project Manager and LAMC CDC and City Staff will form a financing committee to help insure project financing issues are addressed. Committee should include secondary market representatives, mortgage insurance representatives, and appraisers. .	Month 1 through Month 6	
<p>11. <u>MBE/WBE utilization plans:</u> Review plan and lists of certified firms and individuals and establish goals and strategy for MBE/WBE participation</p>	LAMC CDC should develop MBE/FBE utilization plan in conjunction with input from residents.	Month 1 through Month 3	
<p>12. <u>Community involvement process:</u> a. Advise on the timing of and agenda for community meetings. b. Make work products available for community presentations.</p>	Project Manager and LAMC CDC will lead one of the most important activities of the development process which is the successful engagement and support of residents of the LAMC study area neighborhoods proposed for revitalization.	Ongoing	

Buffer Research & Recommendations





A.II Buffer Research & Recommendations

Appendix II

Buffering Design Research & Recommendations

Summary of Findings

Due to the significant amount of industrial uses in residential neighborhoods in the LAMC study area, providing appropriate buffers and screens to mitigate industrial uses' negative impacts, such as noise, light, and aesthetic qualities, is important to help guarantee a high quality of life for residents. While this section provides a summary of existing buffering issues and best practice examples from other cities, Appendix III discusses these topics in detail. This research has informed recommendations for improvement to the City of North Charleston's current buffering regulations, also presented in this section.

Existing Buffering Regulations

The City of North Charleston's zoning regulations contain policies that address mitigation of incompatibilities between adjacent land uses. Buffer areas, screening, and landscaping are methods may be required in light industrial areas and are required in certain heavy industrial circumstances, namely for container storage facilities and open storage or processing of junk or salvage materials. When industrial uses are adjacent to residential uses, "Type C" buffers are required. As the strictest buffer requirement in the North Charleston zoning code, Type C buffers should consist of a high density screen to exclude all visual contact between uses and to create spatial separation. Existing zoning regulates the width of and the minimum landscaping required for these buffers. For open storage areas, additional screening is required in the form of opaque divides, which could be plants, earth berms, walls, or fences.

Buffering Best Practices

A best practice study of buffering regulations was undertaken to gain insight into how other cities mitigate land use conflicts to offer recommendations for improvements to North Charleston's standards. The five cities selected for analysis represent urban areas such as North Charleston with complex land use issues and environmental concerns. Buffering standards examined are from the following places: City of Carmel, Indiana; City of Kenosha, Wisconsin; County of Sarasota, Florida; City of Portland, Oregon; and City of Seattle, Washington.

These municipalities' regulations are notable for a number of reasons. First, they provided a degree of specificity regarding buffers, particularly around landscaping requirements and opacity standards for screening, which could be beneficial for North Charleston to adopt. Second, buffering regulations were provided for a multitude of scenarios, considering conflicts that could arise between a variety of land uses. Third, other cities presented buffering requirements in a user-friendly format, often supplying information in tabular format or accompanied by illustrative diagrams. Fourth, some codes addressed how to deal with existing non-conforming uses (as buffering regulations typically apply only when a property is newly developed or redeveloped). Finally, the best practice regulations often stipulated a level of maintenance was required for buffers to ensure the continual mitigation conflicts between incompatible land uses.

Buffering Recommendations

Based on an analysis of North Charleston’s existing buffering regulations in relation to other best practice standards from urban areas with similar contextual issues, the following are recommendations for improvements to the current zoning:

- Provide more detail on the types, height requirements, and layout of landscaping elements to be used as buffers; provide berms and other wall options in addition to or instead of landscaping elements.
- Provide guidelines on opacity requirements in particular to help ensure proper screening of conflicting land uses.
- Develop standards for the mitigation of odors, light, and sound emitted from industrial properties when situated adjacent to residential areas or major arterials.
- Develop buffer requirements for the interface of industrial uses with other uses beyond residential.
- Present buffer regulations in a clear format, e.g. easy to understand tables accompanied by illustrative diagrams.
- Consider a Buffer Overlay Zone to address key areas of concern or where additional regulation is needed.
- Provide language in zoning regulations that stipulates maintenance requirements for buffers and also outlines consequences should buffers not be maintained. Alternatively, work with the City to ensure regular code enforcement is carried out to help guarantee existing buffers are effectively mitigating land use conflicts.
- Consider updating zoning regulations to stipulate new developments must provide buffers to lessen the impact of conflicting land uses if an adjacent existing land use has already been developed without appropriate buffers.

Detailed Findings

Existing Buffering Regulations

The City of North Charleston’s zoning regulations contain policies which address mitigation of incompatibilities between adjacent land uses. Buffer areas, screening, and landscaping are methods required in certain circumstances to reduce land use conflicts.

Industrial Area Regulations

Section 5 of North Charleston’s zoning ordinance describes uses permitted in all districts across the City, including light industrial and heavy industrial.

According to the City’s zoning code, light industrial (M-1 zoning) districts should accommodate areas for “commercial, warehousing, transportation, and certain light manufacturing activities within the City.” Establishments engaged in activities such as construction, air conditioning, and moving operations, as well as laundry and dry cleaning plants, bakery shops, welding shops, and truck terminals are permitted. Provisions included in the M-1 ordinance to reduce potential conflicts with adjacent land uses include stipulating the following:

- Noise, vibration, smoke, gas, fumes, odor, dust, fire hazard, radiation, and other injurious or obnoxious conditions should not create a nuisance beyond the premises; and
- Forms of mining may require screening, berms, fences, drainage plans, mosquito abatement plans, or additional public notice.

For heavy industrial (M-2 zoning) districts, intended to “provide areas for commercial, manufacturing, storage, and transportation uses within the City,” processing plants, bulk storage of petroleum products, rail yards and docks, container storage facilities, dance halls and clubs, and open storage or processing of

junk or salvage materials are permitted. Provisions included in the M-2 ordinance to reduce potential conflicts with adjacent land uses include stipulating the following:

- Container storage facilities should not “substantially injure” neighboring or nearby properties, and should be “separated from adjoining uses or public or private rights-of-way...by suitable opaque plant screen, or wall sufficient to screen neighboring or nearby property, no less than eight feet high”;
- Open storage or processing of junk or salvage materials should be “enclosed and separated from adjoining uses or public or private rights-of-way by a fence or wall at least eight feet in height and screened with vegetative material sufficient to conceal all such uses from public view”; and
- “A landscape plan must be submitted and approved by the Zoning Administrator prior to the issuance of building permits. The landscape plane must meet all applicable buffering requirements” (described below).

In addition, heavy industrial uses have considerable yard and setback requirements, with minimum front yard depth of 50 feet; minimum side yard depth of 100 feet; and minimum rear yard depth of 50 feet. Though these setbacks essentially create buffers, the separation does not provide for the adequate mitigation of land use conflicts without additional landscaping and screening. The section below describes the City’s approach to buffer areas.

Buffer Area Regulations

According to the ordinance, “A buffer area is a unit of yard, together with plantings, fences, walls, and other screening devices required thereon...The purpose of a buffer area is to ameliorate any potential negative impact between adjacent land uses and streets, and promote land use compatibility.” The ordinance stipulates that buffer areas should be “located on the outer perimeter of a lot or parcel, extending to the lot or parcel boundary line” outside the public right-of-way; however, they may occupy part or all of any required front, side or rear yard setback.

Three types of buffer areas are required by the City’s zoning ordinance, Type A, Type B, and Type C:

- Type A Buffer Areas consist of low density landscaping between a proposed use and the adjacent street, providing separation between the two. This is required for multi-family and non-residential developments to separate them from adjoining streets.
- Type B Buffer Areas consist of a medium density screen intended to block visual contact between uses and to create spatial separation. This is required for multi-family, institutional, commercial uses, and mini-warehouses when adjoining single-family use lots.
- Type C Buffer Areas consist of a high density screen intended to exclude all visual contact between uses and to create spatial separation. This is required for industrial, warehouse outdoor storage, or related uses proposed for adjoining any residential use or residentially zoned district. Likewise, a Type C Buffer is also required for any new residential development or use to be located adjacent to any industrially used or industrially zoned property.

City of North Charleston Buffering Requirements

	Minimum Width	Minimum Landscaping Required (per 100 lineal feet)	Land Use Applicability
Type A Buffer Area	5 feet	35 ornamental shrubs, 2 canopy trees, 4 understory trees	To separate multi-family and non-residential uses from adjoining street
Type B Buffer Area	10 feet	2 deciduous trees planted 40-60 feet on center and 8 evergreen plants 10 feet on center; 8 foot wooden fence or wall in special circumstances	To separate multi-family institutional, commercial uses, and mini-warehouses from adjoining single-family uses

Type C Buffer Area	15 feet	2 deciduous trees planted 40-60 feet on center and 17 evergreen plants or understory trees planted in a double-staggered row 10 feet on center; 8 foot wooden fence or wall in special circumstances	To separate industrial, warehouse outdoor storage, or related uses from any adjoining residential uses
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Source: Extracted from City of North Charleston Code of Ordinances

All understory trees are expected to be at least six feet high, and all deciduous trees not less than eight feet high (however this excludes ornamental shrubs required for Type A buffers). If trees already exist in the buffer area and are at least four inches in diameter they may contribute to the buffer requirements, upon approval of the zoning administrator or staff horticulturist.

Other appropriate buffering, such as a fence or wall, can be substituted for the planted buffers if such circumstances as lot size, configuration, and topography make meeting landscape requirements infeasible, upon approval from the zoning administrator. All new uses which require buffering are responsible for providing and maintaining the appropriate buffer; however, no single-family dwelling or duplex is required to provide a buffer.

Screening Regulations

Described as a type of buffer in the City’s zoning ordinance, screening should be “designed to block or obscure a particular element or use from view... to minimize if not eliminate entirely the visual impact of potentially unsightly open storage areas and refuse disposal facilities.” Details of screening requirements are described in the table below.

Table 1: City of North Charleston Screening Requirements

	Minimum Height	Requirements	Land Use Applicability
Screening (i.e. visual buffer)	8 feet high	Opaque divide through the use of sight obscuring plant materials (generally evergreens), earth berms, walls, fences, proper siting of disruptive elements, building placement or other design techniques approved by the zoning administrator	To minimize visual impact of all open storage areas (though not retail) from public streets, including open storage areas for shipping containers, building materials, appliances, trash containers of four (4) or more cubic yards, salvage materials and similar unenclosed uses

Source: Extracted from City of North Charleston Code of Ordinances

Landscaping Regulations

Landscaping is required to improve aesthetics in the City as well as “promote public health and safety through the reduction of noise pollution, stormwater run off, air pollution, visual pollution, and artificial light glare.” According to the zoning ordinance, landscaped areas must be at least 25 square feet in size and a minimum of three feet wide. In addition to buffering requirements described above, further landscaping is required for all new and “reestablished” commercial, institutional, industrial, and other nonresidential uses. Additionally, if an existing building is enlarged by more than 50%, landscaping requirements (described below) for the entire site must be applied. However, if enlargements are between 20%-50%, landscaping only for the expanded area are required. For enlargements of less than 20% of the existing building area, no additional landscaping is required.

Landscaping plans – which should include buffering plans – are required to be submitted as part of building permit applications. Buffer area landscaping may provide up to 50% of landscaping requirements, per the table below. Maintenance of required landscaped areas are the responsibility of the property owner.

Table 2: City of North Charleston Landscaping Requirements

Use	Percent of Lot
Institutional	15%
Industrial/wholesale/storage	5%
Office/office warehouse	10%
Commercial-retail-service	5%

Source: City of North Charleston Code of Ordinances

Buffering and Screening Issues

The existing regulations for light and heavy industrial districts as well as buffering, landscaping, and screening requirements set a good foundation for mitigating the negative impacts of industrial development in the LAMC study area, providing guidance on plantings, setbacks, and other buffering measures. However, the requirements could be improved to provide greater specificity to help guarantee proper buffering is delivered. In particular, there is a lack of specificity concerning opacity requirements for buffers. Rather than simply regulating the number of plants for a landscaped buffer or that a fence should be constructed, North Charleston zoning could help guarantee buffering is effective by regulating the degree to which the screening shields industrial uses: the greater the opacity, the less substantial the impact. Using berms and fences as buffers is only referenced rather than fully detailed, e.g. regarding types of materials allowed and opacity requirements. The existing regulations also do not address industrial uses' interface with uses other than residential, which is problematic in the LAMC study area as industrial uses are often located adjacent to residential, institutional, commercial, and major and minor thoroughfares with little or no buffering or screening provided. Although presented in tabular form above, buffering requirements are also difficult to decipher as laid out in the existing zoning.

However, perhaps the greatest challenge is addressing current non-conforming uses which are grandfathered in, meaning zoning regulations do not apply to them unless significant modifications to the property are made or the use changes completely. The lack of zoning applicability makes it difficult to prescribe significant changes to property or land lots. Ensuring maintenance of existing buffers, such as fencing or landscaping, is also an issue, as several properties currently appear to have let such items fall into disrepair, thus negating their utility as effective buffers.

Buffering and screening issues can therefore be summarized as follows:

- Need for greater specificity of regulations, i.e. providing vague guidelines which can be interpreted with varying buffering results, not specifying the degree of opacity required
- Need for wider range of land uses considered in regulations, i.e. considering industrial development in relation to a multitude of uses (i.e. more than residential)
- Need for more user-friendly format, i.e. regulations presented tabular form or supported by descriptive illustrations
- Existing non-conforming uses and difficulty regulating them
- Maintenance of existing buffers

The following best practices provide examples of how other communities across the country address buffering. Recommendations for improvements to North Charleston's regulations are then developed based in part on these best practices.

Best Practices

City of Carmel, Indiana

The City of Carmel, Indiana regulates buffering between all land uses, rather than in particular circumstances like the City of North Charleston. For example, buffer standards are given for instances where industrial and residential development are adjacent but also where industrial and recreation, institutional, office, and other industry is adjacent. Further, buffering requirements for roadways are included. This could be a helpful addition to North Charleston's code to mitigate negative impacts between industrial and other community uses, particularly in the LAMC study area where a preponderance of industrial development exists. A simple matrix format, shown below, also allows users to easily understand these buffering requirements.

City of Carmel, Indiana's Table for Buffer-Yard Determination

	Single Family	Duplex	Multi-Family	Active Recreation	Institutional	Office; Retail	Warehouse; Light Industrial	Heavy Industrial	Collector Street	Parkway (Prim. Or Sec.)	Arterial (Prim. Or Sec.)	Expressway or Interstate Highway
Single Family Development	B	C	C	D	D	D	D	D	C	D	D	D
Duplex Development	C	A	C	B	B	C	C	D	B	D	D	D
Multi-Family Development	C	C	B	B	B	C	C	D	C	D	D	D
Active Recreation	D	B	B	A	C	C	C	C	B	D	D	D
Institutional	D	B	B	C	A	A	C	C	B	D	D	D
Office; Retail	D	C	C	C	A	A	C	D	B	D	D	D
Warehouse; Light Industry	D	C	C	C	C	C	A	B	B	D	D	D
Heavy Industry	D	D	D	C	C	D	B	B	B	D	D	D

Source: City of Carmel Zoning Ordinance

City of Carmel, Indiana's Bufferyard Design Standards*

Bufferyard	Minimum Yard Width		Shade Trees	Ornamental Trees	Shrubs
	Front & Side	Rear			
A	5'	10'	3	2	9
B	5'	10'	3	3	15
C	10'	20'	3	4	21
D	15'	25'	5	5	27

*Standards are stated in terms of minimum width and number of plants required per 100 linear foot increment.

Source: City of Carmel Zoning Ordinance

The buffer area stipulated in Carmel's zoning for heavy industrial uses adjacent to residential uses is the same as North Charleston (i.e. 15 feet); however, Carmel mandates that the rear yard width be larger (i.e. 25 feet). Additionally, Carmel's planting requirements are more robust: North Charleston stipulates

(for Type C Buffer Area) that two deciduous trees (equivalent to shade trees) should be planted every 100 linear feet, whereas Carmel stipulates five shade trees over the same area. Carmel potentially requires fewer small ornamental trees; however, because North Charleston’s buffering requirements lack specificity (i.e. by not providing detail on the height or character of “evergreen plants” required between deciduous trees) could result in an opacity which is significantly less than Carmel’s. The resulting opacity and therefore buffering effect could be significantly reduced in North Charleston if owners simply provide small evergreen plants rather than understory trees between deciduous trees. Although additional landscaping may be provided through landscaping plans, the nature of the additional landscaping is not formally regulated through zoning.

City of Kenosha, Wisconsin

The City of Kenosha requires four types of landscaping for all industrial uses:

- **Interior Parkway Landscaping** to screen vehicular parking which may be viewed from the public right-of-way;
- **Parkway Landscaping** to provide street trees;
- **Buffer Strips** to promote a sense of privacy between land uses; and
- **Site Interior Landscaping** to screen and aesthetically enhance site and building characteristics, such as service areas and trash dumpsters.

In addition to having more regulation around industrial uses interfacing with other land uses, Kenosha provides greater specificity than North Charleston for their industrial buffers. The table below shows Kenosha’s requirements for industrial uses situated adjacent to residential uses, although similar detailed standards tables are provided for industrial uses adjacent to non-residential and other industrial uses.

City of Kenosha’s Buffer Strip Requirements for Industrial Uses (Residential Zones)

Minimum Requirements	OPTION 1 Industrial Use Adjacent to Residential Zone	OPTION 2 Industrial Use Adjacent to Residential Zone
MINIMUM WIDTH OF BUFFERS	30 feet	20 feet
NUMBER OF TREES	One tree per 40 feet of linear buffer strip	One tree per 40 feet of linear buffer strip
SIZE OF TREES AT INSTALLATION		
Deciduous trees	2.5” caliper	2.5” caliper
Coniferous trees	5 feet	6 feet
Ornamental trees	Clump tree – 5 feet; Caliper tree – 2 inches	Clump tree – 5 feet; Caliper tree – 2 inches
PERCENT OF TREES TO BE CONIFEROUS	50%	75%
SHRUBS		
% of buffer strip to be planted with shrubs	50%	50%
% of shrubs to be coniferous	50%	50%
Size of deciduous shrubs	3 feet	3 feet
Size of coniferous shrubs	18 inches	18 inches
SCREEN FENCE OR WALL		
Height above grade	6 feet	6 feet
% of buffer to contain fence/wall	100% or berm	Not required
BERMING		
Height above surrounding grade	6 feet	Not required
% of buffer to contain berming	100%	Not required

Source: Zoning Ordinance for the City of Kenosha, Wisconsin

Although approximately the same number of large trees is required per Kenosha’s standards in industrial buffer strips adjacent to residential areas, Kenosha’s standards are generally more thorough than North Charleston’s. The specificity regarding tree and shrub height, type, and frequency of use is much greater, leaving less room for interpretation on the part of the property owner. In some instances, landscaping and berming or screening is required. Specificity regarding the kinds of trees and types of screening (e.g. fencing is required to be at least 75% opaque) adds to the ordinance’s clarity and robustness. Due to the focus on tree species, plant sizes, and other details, the buffering effect if implemented could be greater than those if developed per North Charleston’s standards.

County of Sarasota, Florida

Sarasota County zoning requires three basic types of buffers which may occur on a development site:

- **Street buffers**, the type of which to be determined upon the street classification; buffer specifications are given for interstate, arterials or collector streets, and local streets;
- **Parking lot buffers**, potentially required within a street buffer, to be included when a parking area or paved storage area is within 50 feet of and is visible from the street right-of-way;
- **Project boundary buffers**, the type of which and opacity depending on the subject (or impacted) parcel

The regulations stipulate that buildings and structures may be modernized, altered, or repaired without modifying landscaping and buffers provided that there is no increase in floor area or impervious area on site. In the regulations, lists of recommended plant species are offered from which property owners must select their landscaping elements, and minimum plant sizes described.

Of particular note in Sarasota County's regulations is the focus on opacity. Depending on the adjacent land uses, different opacities for buffers are given. Required buffer opacities are shared between uses (e.g. a residential development may have to share the responsibility of providing a buffer with an adjacent industrial use).

Additionally, the Sarasota regulations are notable for taking into account adjacent properties which are already developed without buffers. In these scenarios (say a new multi-family development being built next to an existing industrial use), the proposed project is responsible for providing the required opacity. The language used specifically, which may be a useful addition in some form to North Charleston's ordinance to help address existing non-conforming uses, is as follows:

“Where the adjacent property is already developed with no buffer, the proposed project is responsible for providing the total required opacity” (7.3.8. b.3.iv. Project Boundary Buffers, Required Project Boundary Buffer Table).

Additionally, if a property has been developed with a partial buffer, the new proposed development is responsible for providing the remainder of the buffer to yield the total required opacity.

Maintenance of buffers is also addressed in the Sarasota County zoning ordinances. The regulations mandate that the owner of the property is responsible for maintaining the required buffer by, for example, watering, mulching, fertilizing, mowing, weeding, and removing litter and dead plant material. It is also stipulated that landscape structural features such as walls, fences, and berms are to be “maintained in a structurally safe and attractive condition.” Consequences for not maintaining buffers are spelled out:

“In the event that any owner of a buffer area fails to maintain same according to the standards of these regulations, these regulations shall be enforceable by the County of Sarasota with the right to recover the cost of enforcement, including reasonable attorney fees. The County may also, following reasonable notice and a demand that deficiency of maintenance be corrected, enter the buffer area to maintain same. The cost of such maintenance shall be charged to those persons having the primary responsibility for maintenance of the buffer area.” (7.3.16.c. Project Boundary Buffers, Requirements for Maintaining Buffers, Failure to Maintain)

The critical role the County plays in the enforcement of proper maintenance of buffers is clear. It will be equally important for the City of North Charleston to be a proactive partner to ensure buffers are not only initially constructed correctly but continue to provide nuisance abatement into the future.

City of Portland, Oregon

When base zoning standards do not provide adequate separation between residential and nonresidential zones, Portland has special Buffer Overlay Zones. Additional separation is achieved by “restricting motor vehicle access, increasing setbacks, requiring additional landscaping, restricting signs, and in some cases by requiring additional information and proof of mitigation for uses that may cause off-site impacts and nuisances” (Planning and Zoning Chapter 33.140.010). The Buffer Overlay is applied primarily along the edge of nonresidential zones abutting or located across a street from a residential zone. In these overlay

zones, additional setbacks and higher levels of landscaping are required. The levels of landscaping are outlined in the City's Tree and Landscaping Manual, which provides details such as requirements for heights of plants, plant diversity, reference documents for plant selection, tree types, and wall options as a substitute for shrubs (trees and ground cover plants are still required in all situations). Illustrative diagrams help explain layouts and concepts in the Tree and Landscaping Manual.

For North Charleston, a similar Buffer Overlay Zone may be a good option for adding greater clarity and specificity to areas which require special attention. This may be a more straight-forward and context-sensitive solution rather than reformulating all of their existing buffer regulations for industrial properties.

City of Seattle, Washington

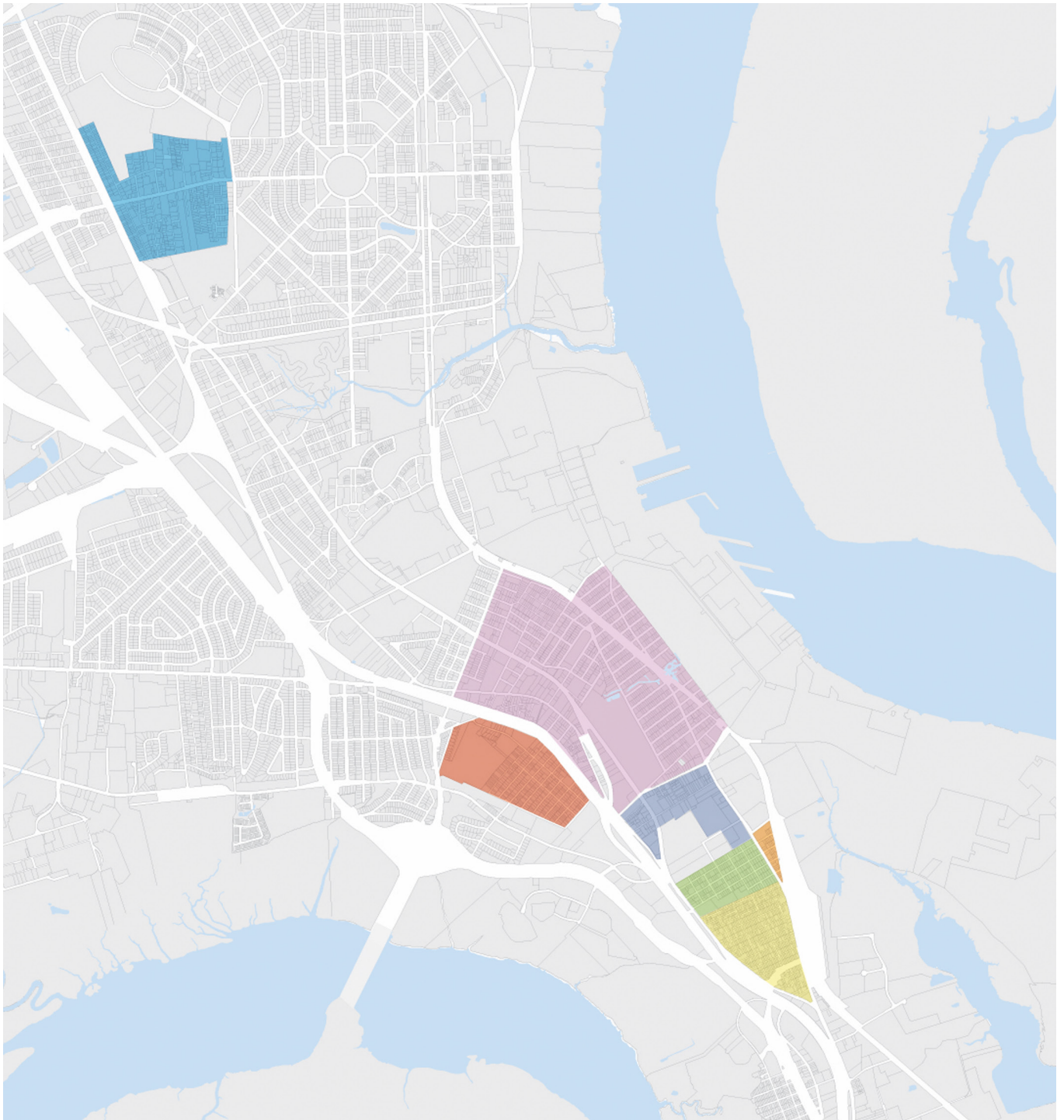
The City of Seattle's regulations on buffers is extensive and thorough, providing specificity for setbacks for a variety of industrial uses (e.g. surface parking areas, outdoor recycling, loading berths), structure heights in industrial buffers, and landscaping elements (types of trees, heights of walls). Of particular note, however, is the City's additional focus on standards for major odor sources and standards for light and glare.

To help mitigate odors, the City has identified a list of activities which are considered major odor sources (including some retail activities such as the cooking of grains, smoking of food products, and deep-fat frying). When an application is made in an industrial buffer area for a development which will include one of the listed activities identified as a major odor source, the Planning Director works with the local Clean Air Agency to determine the appropriate measures to be taken by the applicant to significantly reduce potential odor emissions and airborne pollutants. Measures to be taken are indicated on submitted plans and may become required conditions for the issuance of a permit. Regulations also indicate that the mitigation measures need to be maintained after the permit is issued.

Similarly, Seattle has standards to mitigate light and glare from industrial uses. Regulations stipulate that exterior lighting and interior lighting in parking structures needs to be shielded and directed away from residential areas. In some circumstances (i.e. when structures have facades of reflective coated surfaces, located close to a residential zone or major arterial), glare diagrams are required to identify potential adverse impacts. Upon review of the diagrams, the Planning Director may require modifications to plans to mitigate negative impacts by stipulating different building materials or changing the orientation of the structure.

A.III

CDC & CLT Organizational Options





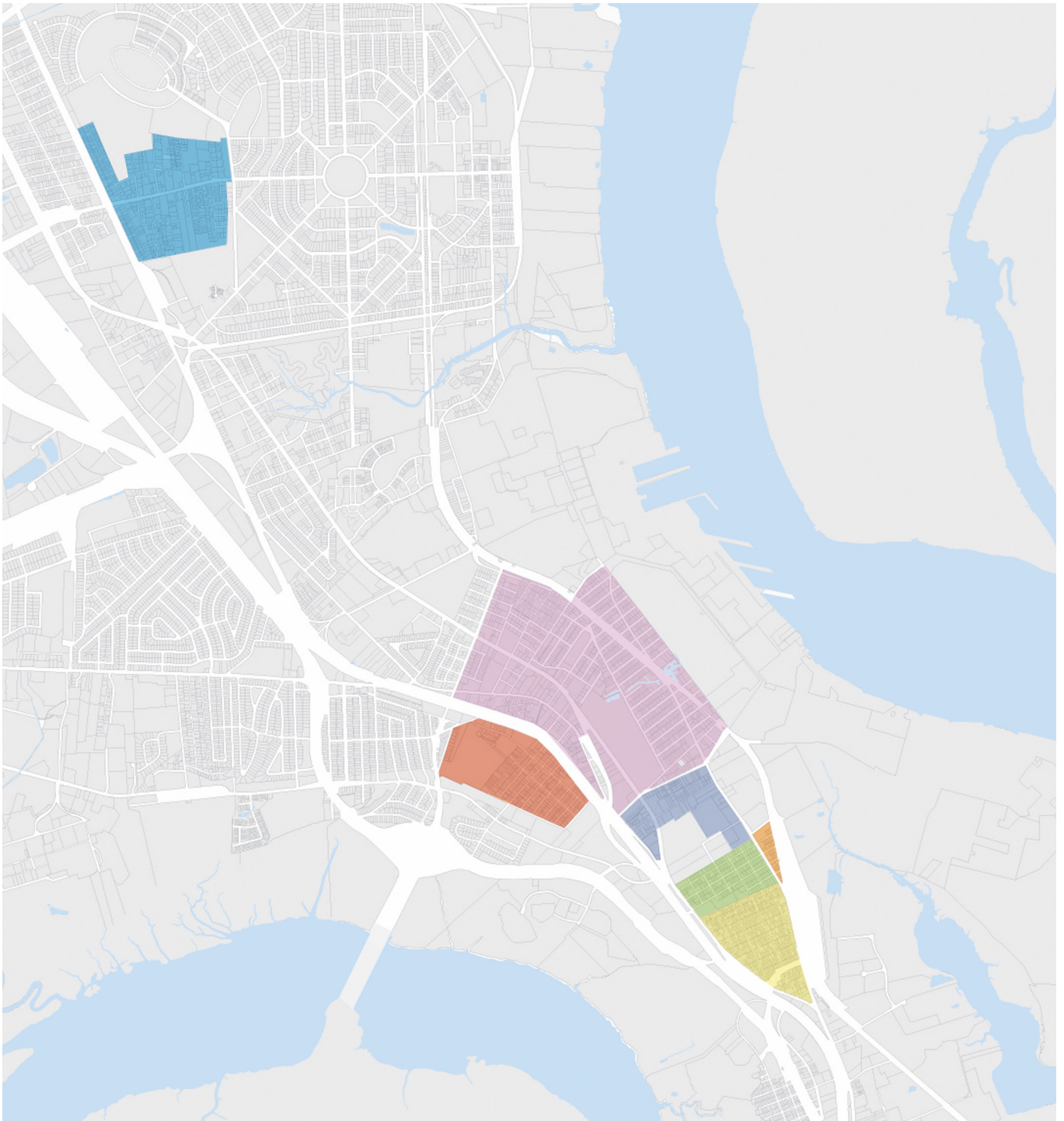
A.III CDC & CLT Organizational Options

THIS CHART DEPICTS FIVE DISTINCT APPROACHES UNDER WHICH A LAMC COMMUNITY LAND TRUST AND COMMUNITY DEVELOPMENT CORPORATION COULD INTERACT

Structural Arrangement for LAMC CLT and CDC	Description	Staffing	Governance	Advantages for CDC	Disadvantages for CDC
<u>Spin-Off</u>	A new, separately incorporated nonprofit organization, resembling a "classic" CLT - with its own staff and Board of Directors and membership - could be established separately from CDC. In turn, CDC would spin off its housing development activities and projects to the new A democratically controlled, membership -based, nonprofit organization that owns real estate in order to provide benefits to its local community - usually, to make land and housing available to residents who cannot otherwise afford them	CLT would employ its own staff.	A new, distinct Board of Directors would be recruited to govern this new organization.	A. This arrangement would provide maximum protection against cross-liability, since CDC's rental housing development and management functions would be separated legally from CLT. B. New CLT could adopt "classic" CLT structure and begin building identity and structure of its own. C. Develop communities without displacing people and perpetuate the affordability of privately owned housing while retain the public's investment in affordable housing and protecting the occupancy, use, condition & design of affordable housing	A. Establishing new organization (office; staff; policies & procedures; funding sources; etc). would be time-consuming and expensive. B. CDC would lose the credibility it has gained from developing homeownership housing. C. CLT would not benefit from CDC's current credibility. D. CDC would lose control of CLT and likely be in competition with CLT for operational revenue, project funding and buildable sites.
<u>Affiliate</u>	A new, separately incorporated, nonprofit organization, resembling a "classic" CLT" - with its own bylaws, Board of Directors and membership could be established separately from CDC. In this case, the CLT would have a contracted, affiliate relationship with CDC, which would spin off its housing development activities and projects to the new affiliated CLT.	CLT would not hire staff or maintain an office of its own but, rather, would contract with CDC for staffing and administrative services	A new, distinct Board of Directors would be recruited to govern this new organization.	A. This arrangement would create a legal separation, insulating CLT and CDC from each other, without functionally separating the two organizations -- allowing each organization to draw on the others' strengths, esp. when applying for funding. B. A "classic" CLT could be easily and inexpensively established, without difficulty and cost of developing the organizational capacity of a new CLT to develop and market affordable housing.	A. CDC would have responsibility for administering and staffing the CLT (through a multi-year contract for services), but could exercise little control over policies, procedures, or priorities adopted by the CLT's independent Board of Directors. B. CDC staff would be accountable to and responsible for two different Boards of Directors, CDC's and the CLT's. .
<u>Conversion</u>	CDC could amend its bylaws, restructure its Board of Directors, and build a membership along the lines of a "classic" CLT -- effectively "morphing" itself into "CDCCLT". There would, obviously, be no need to transfer ownership of properties because CDC would become CLT.	No staff or administrative responsibilities would need to be transferred to the CLT, since CDC itself would be converted into a CLT.	The existing Board of Directors would govern CDC's CLT on interim basis until tripartite Board structure can be elected and implemented.	A. Converting CDC to a CLT could be done with no cost and with little disruption to CDC's on-going operations. The integrity and coordination of present programs would be preserved. B. CDC could retain control over the CLT program it wishes to create.	A. Converting CDC to CLT would not reduce cross-liability between CLT program and CDC's other activities and programs. B. To convert itself into a CLT and to call itself a CLT could possibly be a difficult change in identity for CDC's staff, Board, and funders. C. CDC possesses a stable, capable, and experienced Board of Directors. Allowing a newly created membership to elect a majority of that board, while reserving a third of the seats for leaseholder representatives, could introduce a degree of instability, unpredictability and inexperience into mix.
<u>Subsidiary</u>	A new, separately incorporated, nonprofit organization, resembling a "classic" CLT" - with its own bylaws and Board of Directors could be established as a corporate subsidiary of CDC. Alternatively, a subsidiary relationship might be achieved by establishing a separate corporation for the CLT, but allowing CDC to appoint a majority of the CLT's board. CDC would deed current and future housing development activities and projects to the new subsidiary.	CDC could administer and staff the CLT	A new, distinct Board of Directors would be appointed by the CDC Board of Directors -- perhaps with some cross-over by CDC directors.	A. By appointing some or all of Board of Directors, CDC would retain effective and permanent control over the policies, procedures, priorities, and budgets of CLT - claiming CLT as its own, while limiting cross liability between itself and CLT. B. If CLT were set up as a corporate subsidiary, CDC's properties could possibly continue to appear on its consolidated balance sheet.	A. There are few precedents for this option in the world of CLTs, although subsidiary structures are not uncommon among nonprofit housing development corporations. Often, however, the subsidiary becomes neglected orphan of parent organization. B. Although CDC would appoint all (or most) of the CLT's board, the latter would still require time and attention from CDC's staff. CDC staff would, in effect, be accountable to and responsible for two different Boards, CDC and the CLT's. C. A subsidiary structure can be confusing to funders, auditors, supporters, and the public at large.
<u>Program</u>	CDC could "graft" elements of the CLT model into its existing homeownership program. The CLT would not exist as a separate corporation with its own Board of Directors, but as an internal program of CDC -- even though it lacks both a membership and the tripartite governance of the "classic" CLT. Frequently, when existing CDCs create a CLT as a program, eventually the CLT grows to point where "spinning off" into a separate organization is necessary.	CLT would be "staffed" and administered by CDC's staff.	CLT would be governed by CDC's Board of Directors -- possibly eventually amending by-laws to accommodate leaseholder representatives on Board.	A. As in the case with a subsidiary organization, CDC would retain effective and permanent control over the policies, procedures, priorities, and budgets of the CLT. B. The new CLT initiative would benefit from the credibility and reputation of CDC. Similarly, CDC could claim the CLT as its own.	A. The same amount of work would be required to create a CLT program as would be required to create a partially or completely autonomous organization. B. There would be clear, full cross-liability between the CLT program and CDC's other activities and programs. C. Unless CDC amends its bylaws to accommodate lessee representation on its Board, the level of "buy-in" from those whom your organization seeks to serve would likely be limited.

A.IV

Rail & Intermodal Report



APPENDIX IV

Rail & Intermodal Report

Background and Overview

During initial environmental studies and concurrent negotiations with potential port customers, the SPA originally determined that the new port terminal would be able to function efficiently without being provided direct rail access. It was therefore stipulated in the Environmental Impact Statement (EIS) that the CNC Terminal would be served exclusively by trucks. In order to transport cargo to and from the CNC Terminal, the SPA (via SCDOT) intends to construct a dedicated Port Access Roadway connecting the terminal directly to I-26 and therefore also mitigating the possible distribution of port-generated truck traffic onto local roadways. Furthermore, the SPA entered into a Memorandum of Understanding and Agreement (MOU&A) with the City of North Charleston agreeing that no rail access would be allowed through the existing corridor traversing the northern end of the base; the City's concern being that this would conflict with restorations recently completed within the eastern portion of the City, as well as future mixed-used redevelopment slated for the northern tip of the base, which is currently controlled by the Noisette Company.

In 1993, the State of South Carolina designated South Carolina Public Railroads as the State's freight rail planning and advisory agency as a division of the Department of Commerce. In addition, the SCPR was given the authority to acquire and operate rail equipment, rights-of-way, and construct and operate rail lines deemed to be in the public interest to promote and foster economic development. The SCPR currently owns and operates several short-line rail terminal service lines within the Port: The Port Utilities Commission of Charleston (PUCC) provides terminal switching at the Columbus Street and Union Pier (which primarily serves BMW) terminals for both CSX and Norfolk Southern. The Port Terminal Railroad (PTR) provides switching service for both private railroads at the North Charleston Terminal, and for current operations on the Charleston Naval Complex. The 2008 State Rail Plan, completed by Wilbur Smith Associates for the Department of Commerce (and therefore the SCPR), presents three options for providing intermodal rail service to the new terminal, although acknowledging that there are no clearly preferable solutions at this point between north and south rail access points.

Shipyards Creek Associates, which controls the Macalloy property, is currently working with CSX to develop plans for its use as an intermodal facility to serve the terminal from the south end of the Naval Base, as discussed in further detail below. In addition, Shipyards Creek Associates holds interest in the Promenade site, located farther south – just north of the Columbus Street Terminal, which could serve as an intermodal yard for Norfolk Southern; although CSX currently controls rail access to this parcel and will most likely be reluctant to permit its usage by their largest competitor.

Efforts continue between State lawmakers, the State Ports Authority, rail executives, and the City of North Charleston to reach a compromise regarding competitive rail access to the new terminal while limiting the possible undoing of the efforts the City has made to date in order to revitalize the character of the area.

Feasibility of Proposed Intermodal Facilities

Despite pressure from railway companies and environmental activists groups calling for the evaluation of on-dock rail service to mitigate truck impacts on I-26, the SPA maintains that the port will be a truck-only terminal, as stipulated in the EIS. Although the port will not be directly served by railway, the option still remains for the construction of near-dock intermodal facilities, which would allow the containers to be

transferred to rail cars, thus reducing the number of port-generated trucks on the highway. It is argued by rail advocates that near-dock rail access and development of an intermodal rail terminal are vital to the Port's future competitiveness, and to avoid the premature failure of an already stressed I-26.

Three options for off-site intermodal facilities were presented by the State Rail Plan: the Cooper Yard-Macalloy site, located at the south end of the CNC; and the Noisette and Clemson University Research Institute (CURI) sites, both of which are located at the north end. An additional property farther south of the base, the Promenade site, has recently entered into play but was not evaluated by the Plan. Each of the sites in question presents its own array of challenges, whether they involve conflicts with standing agreements between government authorities, reevaluation of currently approved environmental documentation, opposition from local home and business-owners, or physical and geographic constraints.

The Noisette site is the least technically feasible of the three, being located the farthest from the container terminal. This site would require that containers be transported from the port to the site by truck (this process is referred to as dray) via North Charleston roadways. In addition to an excessive dray distance, resistance to this option is extremely strong from conservationists and developers invested in future restoration plans for the northern portion of the Naval Base, or, The Navy Yard at Noisette. Also, ownership of the rail lines that would provide access to this site is currently tied up in litigation between the Noisette company and SCPR.

The Clemson Site, soon to be owned by the Clemson University Restoration Institute (CURI), is located approximately half the distance to the port terminal from the Noisette site, directly adjacent to the Chicora/Cherokee neighborhood on the west side of Hobson Avenue between Cosgrove Avenue and Viaduct Road. According to the Charleston City Paper, as of May, 2009 this property has not yet been fully transferred to Clemson University by the City. In addition, space constraints would limit the site's usefulness for dual railroad service, especially as the demand for container processing increases, making it less than desirable to railways and shippers alike. However, according to the State Rail Plan, this site would be able to adequately serve a single railroad, and with a connection to the Veteran's Terminal would enable cargo to be barged from the Wando Welch Terminal across the Cooper River. Given cooperation from intervening property owners, a private truck access road could be provided from the CNC Terminal.

The Cooper Yard-Macalloy site is located closest to the proposed container terminal, and could therefore almost function as an on-dock intermodal facility. This site is currently available and is surrounded by heavy industrial land uses that present minimal land use conflict. The major challenge of the Cooper Yard-Macalloy site involves its relationship to the alignment of the proposed Port Access Roadway. Under current proposals for the Cooper Yard-Macalloy site, the alignment of the Port Access Roadway would need to be adjusted to accommodate the site layout of the new intermodal yard. As the current alignment of the Port Access Roadway was approved through the EIS process, any change in that alignment could result in a re-opening of the environmental documentation process. Such reexamination of environmental impacts would most likely jeopardize the December 2014 opening date of the port. Because the currently proposed Macalloy property conflicts heavily with the SCDOT's permitted Access Roadway network, this proposed site does not appear feasible for the time being.

Another major drawback to this site according to shippers, rail-owners, and legislators is the fact that it is currently controlled exclusively by CSX. This would eliminate competitive access to the rail market from Norfolk Southern, which could in turn increase the overall cost of the port's operations. According to Bob Szabo, executive director of Consumers United for Rail Equity, "having single access to a transfer facility serving the new terminal could be even worse for the port than it is for shippers."

Neighborhood Impacts Associated with Proposed Intermodal Facilities and the LAMC Position

Despite the regional benefits of the potential near-dock intermodal facilities, direct impacts to the communities surrounding the sites, and the neighborhoods which these rail lines traverse provide a strong argument against intermodal development. Direct impacts for all of the proposed intermodal

sites include added congestion at the numerous at-grade rail crossings within the vicinity, noise impacts caused by train horns and the coupling and uncoupling of rail cars, air quality impacts from idling and operational locomotive engines, damage to adjacent structures caused by vibration, and the visual impacts of train cars being stored on siding tracks. Possible indirect impacts include the increase in truck traffic on local roads from trucks draying cargo from other nearby terminals to the intermodal yard, as well as an increase of the general industrial presence, which works in the opposite direction of the Revitalization Plan's intent.

The Noisette site is located to the northwest of the Chicora/Cherokee neighborhood, and would not likely cause any direct land use impacts to LAMC neighborhoods. However, traffic congestion would increase at intersections located to the north along Spruill Avenue, and certain parts of neighborhoods which lie east of the rail line would be increasingly cut off from adjacent residential areas. However another method of providing access to the Noisette site would be from South Carolina Public Railroads to the north, which would create significantly less rail traffic impacts to LAMC neighborhoods, but would also violate agreements made with the City of North Charleston.

The CURI site presents the greatest threat of noise, traffic, air quality, and visual impacts to LAMC neighborhoods, being located directly adjacent to the Chicora/Cherokee neighborhood. Access to either the Noisette or Clemson sites would require reconstruction and reactivation of the abandoned CSX line (on the west side of the sites) south of Bexley Street.

The Cooper Yard-Macalloy site would present additional traffic impacts at rail crossings; however, rail cars accessing the proposed Cooper Yard-Macalloy site would do so via the existing tracks that parallel Meeting Street Road and King Street Extension, which cross Meeting Street Road and Cosgrove Avenue with grade-separated intersections, minimizing traffic conflicts. As previously discussed, at-grade crossings that would experience increased rail traffic include Discher Ave., Hackemann Ave. (unnamed King St. – Meeting Street Rd. Connector), Misroon St, Accabee Rd., Dorchester Rd., and East Montague Ave., although the exact impacts are unknown as no rail traffic generation figures are currently available.

Although the Cooper Yard-Macalloy site would pose the lowest level of land-use conflict to the LAMC community due to its current industrial zoning, socioeconomic and health threats including air quality and noise impacts to the adjacent Union Heights and Howard Heights neighborhoods caused by trains would outweigh any possible benefits to the LAMC community. Furthermore, studies have shown noise walls or other buffering attempts would fundamentally provide little protection to surrounding neighborhoods.

Impacts of the Macalloy site were also considered by the US Army Corps of Engineers (USACE). In late 2008, the USACE reviewed the rail yard proposal for the Macalloy site. The USACE concluded that, based on then-available information, the development of an intermodal rail yard on the Macalloy property would likely result in impacts to both the existing transportation network and the LAMC community that are well beyond those that were evaluated in the Port EIS.

Based upon information drawn from studies completed to date, and in consideration of the potentially harmful direct and indirect impacts caused by increased industrial railroad activity, it is in the best interest of LAMC to oppose any proposals for the location of an intermodal rail terminal within the LAMC study area. Should advancements in proposals for intermodal facilities be made, LAMC and the City of North Charleston must remain diligent in insisting that all aspects of potential socioeconomic, environmental, and transportation-related impacts are carefully considered and analyzed in full-depth.

Further Considerations for Impacts and Mitigation

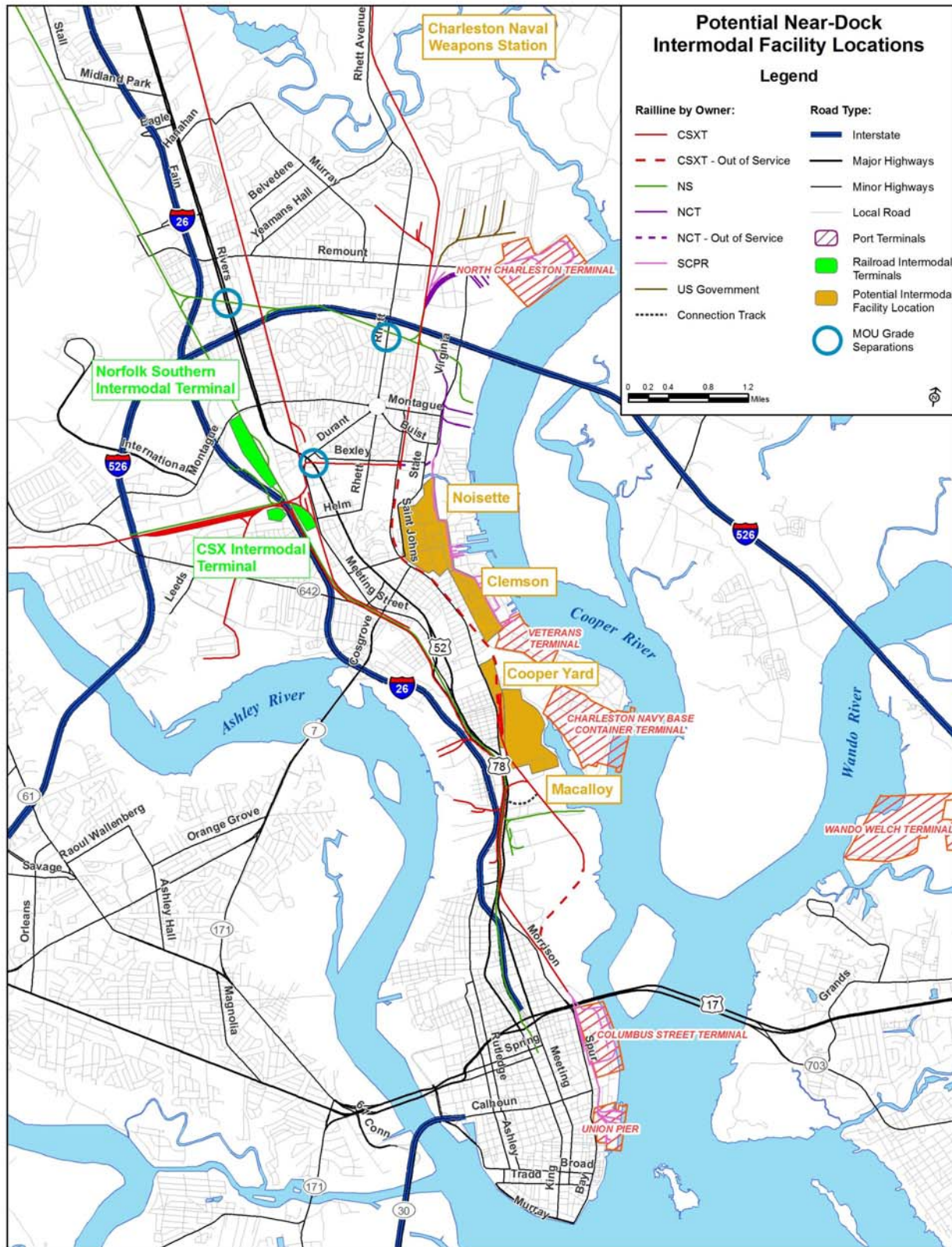
Potential for Increased Truck Impacts on Local Roadways – Regardless of the site chosen, a new intermodal rail terminal may result in additional truck trips on local roadways. With four facilities (i.e., Veterans Terminal, North Charleston, Columbus Street, and the new port at the Charleston Naval Complex) accessing the intermodal rail terminal, containers may be transported via rail (where possible) or truck to the terminal. Any truck trips between the intermodal rail terminal and outlying port facilities would directly impact the local roadway network in and around the LAMC study area.

Impact to Existing Intermodal Facilities – Should a new intermodal rail terminal be developed, existing terminal facilities west of Old Meeting Street in the City of North Charleston will be directly impacted. Either these facilities will move, leaving vacant industrial property behind, or, should the Cooper Yard-Macalloy site become a CSX-exclusive terminal, Norfolk Southern’s existing terminal would be impacted by CSX’s more competitive position. Such effects could have negative economic and land use impacts to the City of North Charleston, which should be considered.

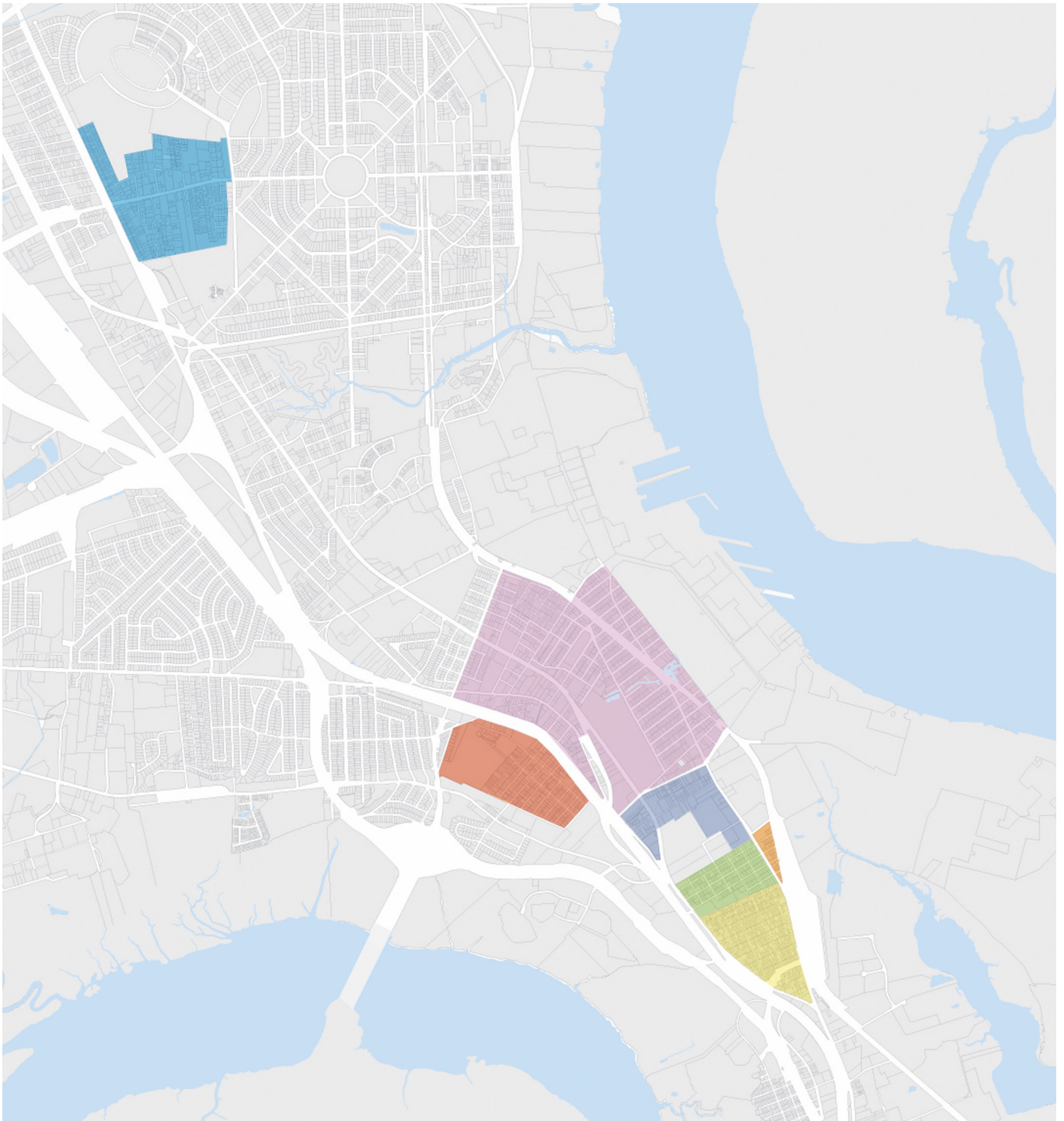
Analysis and Mitigation of Northbound Rail and Local Truck Traffic – Whether rail access is provided through the north end or the south end of the base, should intermodal rail service be investigated further, an in-depth analysis of possible impacts and counteractive mitigation measures such as a series of grade-separations and quiet zone technology would need to be evaluated to minimize negative impacts regarding traffic, noise, and visual quality. Regardless of the implementation of an intermodal facility, the MOU&A between the SPA and the City of North Charleston requires the implementation of safety improvements such as gates, lights, and signs at the Accabee Rd., Misroon St., Hackeman Ave., and Discher Street. In addition, a detailed traffic impact assessment should be performed analyzing the attraction of local truck trips from the proposed terminal, as well as other terminals within the port.

Alternative Cargo Transportation – Limited information is available regarding the feasibility of barging cargo from the new terminal to a potential intermodal facility. Therefore, it was not evaluated by this report, but may warrant additional studies to be performed by qualified marine transport professionals.

Exhibit ES-5: Potential Near-Dock Intermodal Sites



Visioning Workshop Summary



APPENDIX V

Community Visioning Workshop Series Summary

A series of seven community workshops were conducted for the LAMC Revitalization Plan from April 16 – April 18, 2009 to obtain feedback and input from area residents, property owners, and business owners about the future vision of the LAMC neighborhoods. The first two workshops were conducted in three different locations for participants’ convenience and to obtain specific input and feedback on each neighborhood. The third workshop brought all neighborhoods together for the purpose of hearing all of the concerns and to begin a cohesive, comprehensive approach to LAMC community visioning.

Chicora Elementary School 1912 Success Street North Charleston, SC 29405	Gethsemani Community Center 2449 Beacon Street North Charleston, SC 29405	Felix Pinckney Community Center 4790 Hassell Street North Charleston, SC 29405	Chicora Elementary School 1912 Success Street North Charleston, SC 29405
Neighborhoods - Five Mile, Chicora/Cherokee	Neighborhoods - Accabee, Union Heights, Howard Heights, Windsor	Neighborhood – Liberty Hill	<u>All Neighborhoods</u>
Thursday, April 16 6:00 pm	Thursday, April 16 6:30 pm	Thursday, April 16 7:00 pm	Saturday, April 18 10:00 am
Friday, April 17 5:30 pm	Friday, April 17 5:30 pm	Friday, April 17 5:30 pm	



Figure 1: Participants discussing map outputs at the final visioning meeting

WORKSHOP PUBLICITY

The public was notified about the community input workshops by several means. A written meeting notification was prepared for each of the three workshop locations, which also contained a list of neighborhoods specific to each workshop location. The individual notifications were distributed to LAMC members, hand-delivered to LAMC area places of worship, businesses, the only area library, community centers, and schools. These notifications were distributed according to neighborhood and workshop locations. A second notification was prepared containing the comprehensive schedule of workshops and locations, and mailed to all federal, state, county and city elected officials. This notification was also mailed to all members of the Mitigation Advisory Committee (MAC). Members of the LAMC conducted door-to-door campaigns, phone calls and distribution of the written notification to area constituents. EDAW staff participated in a music festival on the Riverfront and distributed the written notifications to area attendees. EDAW staff also conducted several telephone surveys with area businesses and encouraged business owners to attend during the conversations. A press release was prepared and submitted to the South Carolina Port Authority’s public relations staff for distribution to area media outlets.



Figure 2: Advertisement for Liberty Hill meeting

ATTENDANCE AND PARTICIPATION

Workshop attendees were asked to sign in for the record of attendance and future communications. A total of 146 people signed in. Attendance by locations and dates are as follows:

Locations	4/16/2009	4/17/2009	4/18/2009
Chicora Elementary School	33	9	30
Felix Pinckney Community Center	28	9	n/a
Gethsemani Community Center	23	14	n/a



Figure 3: A participant contributes her thoughts at a Chicora meeting

WORKSHOP 1: FORMAT AND CONTENT

The first workshop's agenda was duplicated at each location and included the following agenda items:

- Welcome and Introductions
- Community Profile Presentation
- Audience Survey
- Group Exercises
- Group Report Out
- Next Steps

Welcome and Introductions

The workshops were opened with a welcome and overview from LAMC Working Group members in attendance at each location. Introductions followed and included other LAMC members who were present, EDAW consultant team members and all attendees. Handouts included the project fact sheet and LAMC organizational information. Map displays of the neighborhoods were placed on the walls for observation and use in group exercises. A brief overview of the Revitalization Plan process was given and included a description of the neighborhoods and the project schedule.

Community Profile Presentation

A presentation was given that established the foundation for later discussions and included a general assessment of the involved neighborhoods. The presentation included:

- a history of environmental justice and related challenges to the LAMC neighborhoods
- environmental issues, including air quality
- current land use and zoning
- transportation, including road network issues and planned improvements by other agencies
- infrastructure, including drainage challenges
- the identification of neighborhood amenities, including schools, parks and other community facilities
- population and growth trends
- housing trends
- economic development including retail and commercial trends and job growth
- education and workforce development
- public safety issues



Figure 4: Community profile presentation at Chicora

Audience Survey

Following the community profile presentation, attendees were engaged in several interactive exercises designed to focus on future visions for the neighborhoods and geographically identifying locations for improvement. The first exercise involved a two-part preference survey. The survey was intended to gauge public impressions and not to be a voting process or to be considered final. Each attendee was provided a response card to mark as the statements and images appeared on the screen. The first part involved a series of statements which attendees were asked to rank by level of importance. The second part of the survey showed several dozen images of neighborhoods including land uses, housing styles, and conditions. Attendees were asked to give their first impression of each image. The following top responses are identified by workshop neighborhoods:

Five Mile, Chicora/Cherokee (Chicora Elementary School)

Top issues:

- Improving educational opportunities
- Promoting quality redevelopment of underused areas
- Increasing home ownership
- Improving employment and workforce opportunities
- Improving the appearance and cleaning up the neighborhood
- Increasing the supply of affordable housing
- Improving public safety and addressing chronic crime issues
- Promoting neighborhood commercial development
- Fixing the zoning to protect the neighborhoods
- Addressing environmental impacts, such as air quality and brownfields

Preferred images:

- Trees and greenery
- Neighborhood, small scale
- Neighborhood services
- Focus on detailing and design



Figure 5: Image preference materials

Liberty Hill (Felix Pinckney Community Center)

Top issues:

- Improving educational opportunities
- Improving employment and workforce opportunities
- Improving the appearance and cleaning up the neighborhood
- More youth and after school programs
- Improving access to buses and public transit
- Addressing flooding issues through improved drainage
- Increasing home ownership
- Increasing citizen involvement and



Figure 6: A breakout session map exercise

- participation in building up the community
- Improving public safety and addressing chronic crime issues
- Addressing environmental impacts, such as air quality and brownfields

Preferred images:

- Large, dramatic trees
- Low-rise buildings, setbacks
- Close-in neighborhood scale

Accabee, Union Heights, Howard Heights, Windsor (Gethsemani Community Center)

Top issues:

- Improving educational opportunities
- Improving employment and workforce opportunities
- Improving the appearance and cleaning up the neighborhood
- More youth and after school programs
- Increasing home ownership
- Improving public safety and addressing chronic crime issues
- Promoting active, healthy lifestyles
- Increasing citizen involvement and participation in building up the community
- Addressing environmental impacts, such as air quality and brownfields
- Promoting quality redevelopment of underutilized areas

Preferred images: The Gethsemani Workshop did not conduct the Preferred Images portion of the survey.

SWOT Analysis

For the second interactive exercise, attendees were divided into groups and given four activities to complete. Neighborhood maps, markers and easel pads were provided to each group, and they were asked to write down and to identify specific locations with the following:

- *Strengths:* What are the current positive aspects of the neighborhood?
- *Weaknesses:* What are the current negative aspects of the neighborhood?
- *Opportunities:* What are the possibilities for improvement in the future?
- *Threats:* What potential obstacles or problems might affect future improvements?

The following responses to the SWOT analysis exercise were identified for the neighborhoods:

Five Mile, Chicora/Cherokee (Chicora Elementary School)

Strengths:

- Local business
- Schools
- Community centers
- Churches
- History
- Public transportation
- Location/ accessibility

Weaknesses:

- Crime

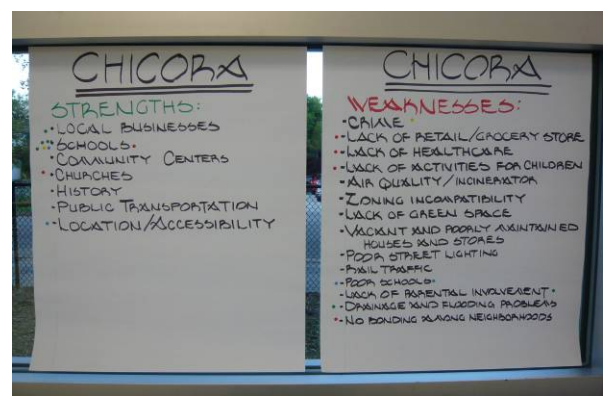


Figure 7: Strengths and weaknesses lists from Chicora

- Lack of retail/grocery
- Lack of health care
- Lack of activities for children
- Air quality/incinerator
- Zoning incompatibility
- Lack of green space
- Vacant and poorly maintained houses and stores
- Poor street lighting
- Rail traffic
- Poor schools
- Lack of parental involvement
- Drainage and flooding problems
- No bonding among neighborhoods

Opportunities:

- Expand community centers (Gussie Greene)
- Availability/ affordability of land
- Commercial reinvestment (Reynolds Avenue, Rivers Avenue, Spruill Avenue, Meeting Street)
- Affordable housing
- Provide daycare
- More green space/ parks
- Better schools
- Local jobs
- Sidewalks and bikeways
- Transportation hub
- Navy Yard redevelopment
- Residents taking ownership/ volunteering

Threats:

- Port expansion
- Rail traffic increase
- Residents being pushed out
- Poor lighting
- Local businesses being pushed out
- Lack of local jobs
- Crime and neighborhood image
- Impacts or conflicts w/Noisette and other nearby development

Physical SWOT – Key themes

- S: schools, community centers, services (library, DSS)
- W: lack of grocery/retail throughout neighborhood
- O: commercial revitalization: Reynolds and Rivers Aves.
- T: industry located near homes



Figure 8: Opportunities and threats lists from Chicora

Liberty Hill (Felix Pinckney Community Center)

Strengths:

- Sense of community
- History
- Family connections
- Location/access
- Churches
- Home ownership
- Central to shopping and amenities
- Crime on the decline
- Amtrak
- Programs for 5-12 year olds

Weaknesses:

- Speeding on Montague
- Poor street lighting
- Drainage and flooding problems
- Lack of retail/ entertainment establishments
- Vacant properties
- Crime
- Long time residents being pushed out
- Losing the young adult population



Figure 9: Community members gather around SWOT lists

Opportunities:

- More locally owned businesses on Montague Street
- Better partnerships w/ schools and parental involvement
- Church-related resources and education
- Recreational opportunities
- Affordable housing
- Beautification of streets
- Public bus shelter improvements
- Create programs for 13-16 year olds

Threats:

- Speeding on Montague Avenue
- Train traffic & switching
- Crime
- Big box retail threatening small business

Physical SWOT – Key themes

- S: Shopping and other amenities
- W: Speeding on Montague Ave
- O: Commercial revitalization
- T: flooding, rail line crossing

Accabee, Union Heights, Howard Heights, Windsor (Gethsemani Community Center)

Strengths:

- Great location (nearness to beaches and Charleston)
- Clean and quiet neighborhood
- Strong spiritual component of neighborhoods (churches)
- Longevity/history of strong family roots and close knit neighbors
- Health care clinic

Weaknesses:

- Vacant and abandoned properties
- Lack of neighborhood parking
- Inappropriate land use
- Narrow streets without curbs
- Unemployment
- Lack of activities for teens
- Flooding/ponding
- Financial literacy
- Community emergency plan/evacuation organized plan
- Lack of community maintenance program, esp. senior citizens

Opportunities:

- Grocery store
- Eatery / café opportunities
- Stromboli corridor plans for enhancement
- Health center
- Better education/ increase graduation rate
- Waterfront access (International)
- Community bank/ financial education
- Fitness center
- Childcare for working parents
- Vocational and training center
- Historical preservation society

Threats:

- Crime (drugs, gang activity)
- Lack of adequate street lighting
- Environmental (air quality issues)
- Proposed new rail line
- Gentrification (residents being pushed out of the neighborhood)
- Higher property taxes
- Financial literacy
- Lack of construction integrity

Physical SWOT – Key themes

- S: central location, schools, health clinics, community centers



Figure 10: Table discussion during SWOT exercise



Figure 11: Map output from SWOT exercise

- W: incompatible land uses, vacant properties
- O: Stromboli corridor revitalization and reconnecting neighborhoods, grocery
- T: incinerator, proposed rail line, lack of street lighting

WORKSHOP 2: FORMAT AND CONTENT

The second workshop (April 17) also duplicated activities at each location and served as an open house opportunity for attendees from the previous day to observe and confirm what had been discussed and to provide any new ideas and feedback. Participants voted on the strengths, weaknesses, opportunities, and threats compiled from the first day of the workshop, establishing priorities for issues to be addressed. This workshop also welcomed new participants.

WORKSHOP 3: FORMAT AND CONTENT

The third workshop (April 18) brought all of the neighborhoods together in one location to present the findings and preliminary ideas resulting from input received at the previous six workshops. Displays of the neighborhood exercises were placed on the walls along the meeting room. The workshop was opened by the EDAW consulting team and introductions were made, which included all attendees. Attendees were encouraged to introduce themselves to someone from another neighborhood whom they did not know. The presentations included the results from the exercises and discussions held in the previous workshops. Next steps for the project were also presented and the workshop was opened for general discussion. Attendees were encouraged to stay involved and to join the LAMC organization to advocate for the revitalization.

An evaluation form was given to each attendee to complete and assess the overall workshop(s) experience. The following responses were documented:



Figure 12: Community members scrutinize map outputs

1. Was the meeting location convenient for you?

YES (16)	NO (0)
----------	--------
2. Was the meeting time convenient?

YES (15)	NO (1)
----------	--------
3. How did you find out about this workshop? - Please check items that apply

Newspaper (0)	Word of mouth (8)	Flyer/announcement (8)
Other: LAMC (3)		
4. Did you feel you were able to freely share your ideas?

YES (14)	NO (0)
----------	--------
5. Did you feel your issues were clearly documented and will be taken into consideration?

YES (16)	NO (0)
----------	--------

Comments: Good presentation, EDAW staffs really made me feel as though they were concerned with our issues and thoughts, good opportunity to discover what the community wants.

6. Meeting space set-up

Poor (0)	Not so good (0)	Neutral (1)
Good (5)	Very good (10)	

7. What is your impression of the workshop overall?

Poor (0)	Not so good (0)	Neutral (0)
Good (6)	Very good (10)	

8. What would you like to improve about the session?

Comments: More advance notice of meetings; weekend meetings only; more community involvement; and a PA system for presenters

9. Will you participate again in future workshops/meetings for this project?

YES (16)	NO (0)
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Comment Form Responses:

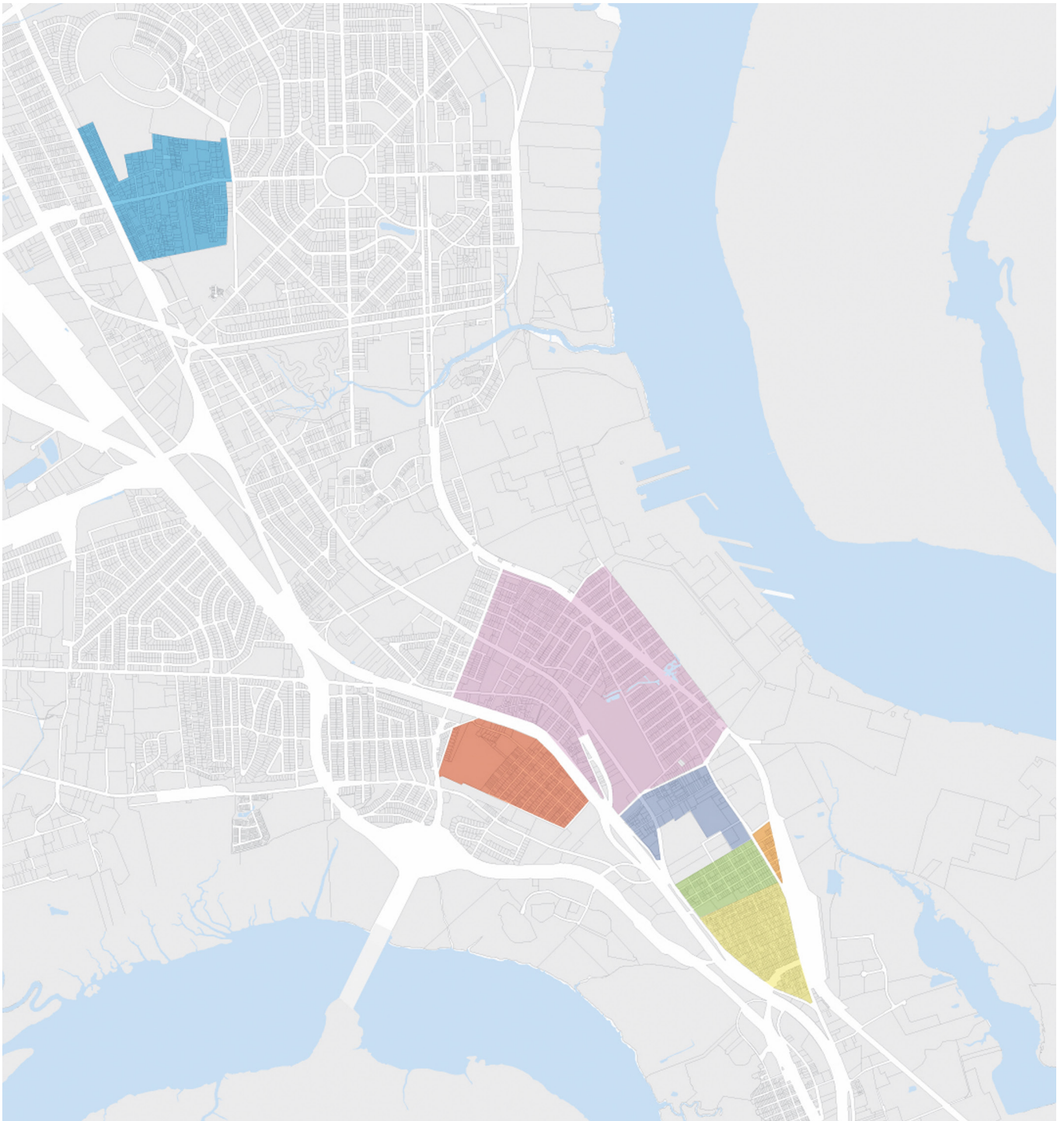
- This is a huge task and I would love to see them come to fruition in my lifetime
- Montague/Stromboli concepts are needed right away
- We will make every effort to hold our politicians & surrounding neighborhoods accountable
- Would like to see what could be done to keep the liquor stores, check cashing, night clubs and porno stores out of our neighborhoods along with drug activity
- As a small business owner, I take pride in working with the LAMC to improve and protect our communities
- The issues were clearly documented
- Our elected officials should have been here but I highly commend Councilman Brown
- The revitalization of Reynolds Ave is very exciting



Figure 13: Participants collect evaluation forms

A.VI

Ordinance Templates





A.VI Ordinance Templates

APPENDIX VI

Ordinance Templates

Community Land Trust and Housing Trust Fund

LAMC has an allocation of \$1,000,000 to facilitate affordable housing development initiatives in the LAMC neighborhoods through its CMP. While an estimate of the cost associated with redeveloping the housing stock of the LAMC neighborhoods has yet to be calculated, it is a safe assumption that such an undertaking will cost considerably more than \$1,000,000 simply on the existing demand for affordable housing alone. It is important to note that all non-profit organizations and municipalities are faced with the challenge of how to finance the cost of housing development in neighborhoods that have experienced years of disinvestment. Affordable housing development generally requires layered financing sources to lower the cost of development that is passed on to affordable housing homeowners or renters.

An important element of financing single-family infill housing will be the delivery of existing and reconfigured parcels free of liens or encumbrances. LAMC should consider using a portion of the funds set-aside for housing for the purpose of acquiring vacant houses and vacant lots. The lots would be assembled for the purpose of packaging key parcels for delivery to for-profit and non-profit developers including the Community Development Corporation or the Community Land Trust recommended in the Revitalization Plan. As part of the overall financing strategy, the cost of land (thru LAMC funding) would be “written down” as a form of subsidy to be passed through to the homebuyer. LAMC funds would remain part of the overall cost of development as a “soft” second mortgage and recapture with interest at the time the home is sold or when the ownership is transferred. When LAMC funds are recaptured they can be reused as a form of subsidy to help stimulate additional affordable housing development. In most cases LAMC can leverage their funding at minimum ratio of 3 to 1.

In addition to using LAMC funding to help leverage conventional funding, and other funding sources such as HOME and Community Development Block Grant funds, it will necessary for the City of North Charleston to consider how they can incorporate setting aside funds to help promote affordable housing. Many cities and states are using Housing Trust funds as a means to increase the supply of affordable housing. Housing trust funds are distinct funds, usually established by state or local governments that receive ongoing public revenues which can only be spent on affordable housing initiatives, including new construction, preservation of existing housing, emergency repairs, homeless shelters, housing-related services, and multifamily building for nonprofit organizations. Nearly 600 housing trust funds in cities, counties and states generate more than \$1.6 billion a year to support critical housing needs, underscoring the integral role these funds play in the world of affordable housing.

The State of South Carolina has a Housing Trust Fund in place and this could be a source to leverage funding as discussed in the Revitalization Plan. Other sample documents from state and local trust funds can be found through the Campaign for Affordable Housing (c. 2009). Included are case papers from across the country, including those on “enabling legislation,” “revenue sources,” “gathering support,” and “making your case.”

Through a combined and well-leveraged array of funding, a community can make significant strides in addressing its affordable housing needs with the support of its local municipalities. The LAMC Revitalization Plan speaks to the effective relationships among Community Development Corporations, Community Land Trusts and Public Agencies to address neighborhood reinvestment.

The role of the Community Land Trust in the context of local government varies. In some cases the Community Land Trust may be a primary provider of affordable housing for a city, in others it may be one of many providers or fill a niche as holder of title to property as a land bank. Cities may offer a range of assistance from cyclical support of Community Land trust through the municipal budget to the creation of the city's own not-for-profit Community Land Trust in furtherance of the public interest. For example, the City of Chicago established a non-profit Community Land Trust in 2006 that is appointed by the Mayor and works with profit and non-profit developers to address affordable housing needs in that city. In the case of Richmond, Va the city passed a resolution of commitment to support a Community Land Trust financially and in an advisory capacity, including a seat on its not-for-profit board. The following document represents a draft ordinance for a Community Land Trust that represents a supporting role by the city for a separate not-for-profit. A final determination by LAMC and the City of North Charleston should be made to confirm which path will have the strongest support. This discussion should also occur in light of the relationship with a Community Land Trust and Community Development Corporation depicted in APPENDIX III.

DRAFT Community Land Trust (CLT) Ordinance Template

WHEREAS, A CLT is a nonprofit corporation that typically holds legal title to land in trust for the community for the chief purpose of creating permanent affordable homeownership opportunities for low or moderate-income individuals and families who are kept out of the traditional homeownership market; and

WHEREAS, The CLT model of homeownership divides property ownership between individuals who hold title to the home and the CLT which holds title to the underlying land, but provide the home owner exclusive access to and use of the land; and

WHEREAS, The CLT ground leases place restrictions on the resale of subsidized homes to ensure that they will be sold to other limited income households at affordable prices as established by a resale formula; and

WHEREAS, The resale formula in a CLT ground lease determines the homeowner's profit on resale, balancing the competing goals of providing a fair return on the homeowner's housing investment and preserving long-term affordability; and

WHEREAS, the CLT approach to homeownership helps low or moderate income individuals and families build wealth through the creation of equity, while at the same time maximizing the benefits from housing assistance dollars and protecting the affordability of subsidized housing for future residents; and

WHEREAS, Although the CLT model of homeownership places limits on the ability of a homeowner to capture the full appreciated value of a home, it provides many other benefits not available to renters, including mortgage interest deductions, real property tax deductions, stable housing costs, security of ownership, a long-term stake in the surrounding neighborhood, full return of equity acquired through the pay-down of purchase money mortgage debt, and an equitable return on the homeowner's investment; and

WHEREAS, In addition to the foregoing benefits of CLT homeownership, permanent resale restrictions allow taxing authorities to reduce the assessed value of CLT housing, and thus reduce property taxes; and

WHEREAS, The collection of modest monthly ground lease fees and one-time marketing and resale fees payable by homeowners allow CLTs to become financially and organizationally self-sufficient, with the capacity to monitor and enforce ground

lease restrictions, conduct public education and outreach, market affordable units within its portfolio, provide back-up services for first-time homebuyers, and manage the resale of limited-equity homes without using limited public resources; and

WHEREAS, Nearly 67% of the LAMC households are renters compared to 57% in the City of North Charleston and would benefit greatly from improved quality of life that owning one's own home provides; and

WHEREAS, The CLT model for producing affordable housing has been adopted in more than 200 instances in 40 states and the District of Columbia, and the City of North Charleston in general and the LAMC Study Area can and should support a CLT to address its affordable housing needs; and

WHEREAS, the LAMC Revitalization Plan cites the need for land banking as a strategy to address the affordable housing needs of the Community and to bring stability under the Environmental Justice Mission of the LAMC members and the plan's focus on sustainability; and

WHEREAS, the City of North Charleston needs to assure due diligence and the proper performance of said Community Land Trust in its pursuit of affordable housing, the City should have representation on the governing board of the CLT, or assist the CLT pro-actively in an advisory capacity; and

THEREFORE BE IT RESOLVED that the City Council of the City of North Charleston is committed to supporting a LAMC Community Land Trust in the City of North Charleston that will provide housing opportunities to the low and medium income residents of LAMC ; and

THEREFORE BE IT FURTHER RESOLVED that the City of North Charleston is committed to supporting a LAMC Community Land Trust, and is further committed to utilize some of its local, state, and federal fund allocations to help further this effort.

DRAFT Container Storage Facility Ordinance Template

Background

Over the past couple of years there has been increase in property owners purchasing cargo containers for use on private property. In addition, many of the containers may not be sited properly and safety issues could arise. Lastly, some zoning classifications may not be appropriate for the storage of cargo containers.

Effect of the Ordinance

The ordinance is necessary to establish appropriate development regulations to assist in the proper siting and use of cargo containers. The ordinance will establish a definition of cargo containers. The ordinance will place limits on the zoning classifications where a cargo container would be a permitted use. The ordinance will also place limits on which zoning classification will allow containers to be stacked on top of one another.

ORDINANCE TEMPLATE

AMENDMENT CONTAINER STORAGE FACILITIES, IN THE CITY OF NORTH CHARLESTON COUNTY ZONING REGULATIONS

Findings of Fact:

WHEREAS, the Container Storage Facilities Section as articulated in the North Charleston Code of Ordinances Zoning Regulations currently requires the installation of a buffer to separate such facilities from surrounding uses; and

WHEREAS, City of North Charleston wishes to amend the description the in the zoning code to strengthen provisions related to buffer, setback, lighting options, and access for the separation of container storage facilities and surrounding properties; and

WHEREAS, the City Planning Staff and the City Planning Commission have reviewed the amendment in accordance with the procedures established in state law and the City of North Charleston Zoning Regulations; and

WHEREAS, the request to amend complies in all respects with Article 3.3 of the Charleston County Zoning and Land Development Regulations;

NOW, THEREFORE BE IT ORDAINED BY THE NORTH CHARLESTON CITY COUNCIL THAT SECTION # OF THE CITY OF NORTH CHARLESTON ZONING REGULATIONS IS HEREBY AMENDED TO READ AS FOLLOWS:

§## CONTAINER STORAGE FACILITIES

A. Facilities for or including container storage (whether temporary or permanent) are allowed in the M-2 Zoning District provided that the city council, after public notice and hearing, determines that the facility's location and the container storage use, considering the proposed height allowed for stacking of containers and the character, permitted uses, and actual uses of neighboring or nearby properties, will not substantially injure the actual or permitted uses of the neighboring or nearby properties; and provided that such uses are separated from any adjoining uses or public or private rights-of-way, excluding points of ingress or egress, by suitable opaque planting screen, or wall sufficient to screen neighboring or nearby property from the container storage facility, and in no event less than ten (10) feet in height above finished grade. Any such conditional use shall be required to adhere to the height limits for stacking of containers proposed in its application for conditional use.

- B. Storage within a container yard shall be restricted by the following:

Container Site Plan

Container stacking may be permitted, where appropriate, pursuant to an approved container stacking plan. Such plan shall, at a minimum, include a site plan showing the location of all abutting streets and sidewalks, all internal travel-ways, a stagger stacking schedule, and the proposed maximum stacking height.

1. A suitable stacking plan shall feature a slope not exceeding a rise/run of $\frac{1}{2}$, shall include a perimeter setback of not less than thirty (30) feet from the nearest stored container, the nearest sidewalk edge, or right-of-way edge, and shall indicate how the stacking plan meets all other requirements of this Ordinance; and In addition it is recommended that the site plan include a circulation plan that ensures adequate on-site circulation for inspection, emergency access, and surveillance.
2. Container and chassis storage is not permitted within three-hundred fifty (350) feet of the boundary adjacent to any property zoned Residential (R) and within fifty (50) feet otherwise. In addition, containers stacked in the yard shall not be visible above the tree line from adjacent residential neighborhoods. Structures may be allowed in the area beyond the required buffer where container and chassis storage is prohibited, provided that the proposed structures meet all requirements of this Ordinance and receive Stacking Plan Review Approval.
3. Buffers for Container Storage Facilities: A minimum vegetative buffer depth of two-hundred (200) feet along the boundaries adjacent to any property zoned Residential (R) and a minimum vegetative buffer depth of fifty (50) feet otherwise. This buffer shall be located within the required setback or a solid concrete, brick or masonry wall of not less than ten (10) feet in height above finished grade and completely screened from view from public-rights-of-way by way of a Type C vegetative buffer [Section 6-12 Buffer Areas.]

Type "C" Buffer Area. The Type C Buffer Area is a high density screen intended to exclude all visual contact between uses and to create spatial separation. The buffer areas shall be a minimum width of fifteen (15) feet. Per one hundred (100) lineal feet the screen shall consist of a combination of two (2) deciduous trees planted forty (40) to sixty (60) feet on center and seventeen (17) evergreen plants or understory trees planted in a double-staggered row ten (10) feet on center.
4. Lighting: Container yard light fixtures installed after January 1, 2010, shall be a type that minimizes fugitive light scatter and shall be directed into the container yard away from neighborhoods. In addition, yard light fixtures installed after January 1, 2010, shall not be visible above the tree line from adjacent residential neighborhoods.

Height and Stacking Limitations

A "no racking" provision be added that bans the storage of stacking containers in an upright position where the bed is perpendicular to the ground.

Access

Basic provisions to secure and improve access are recommended. Namely, the storage of containers in areas that impede access to public rights-of-way, public utilities, or drainage easements should not be permitted. Also, it is recommended that all driveways and parking areas be covered with materials that inhibit the disturbance of dust.

Safety and Environmental

A number of additional provisions are recommended to enhance safety of container storage areas. These include:

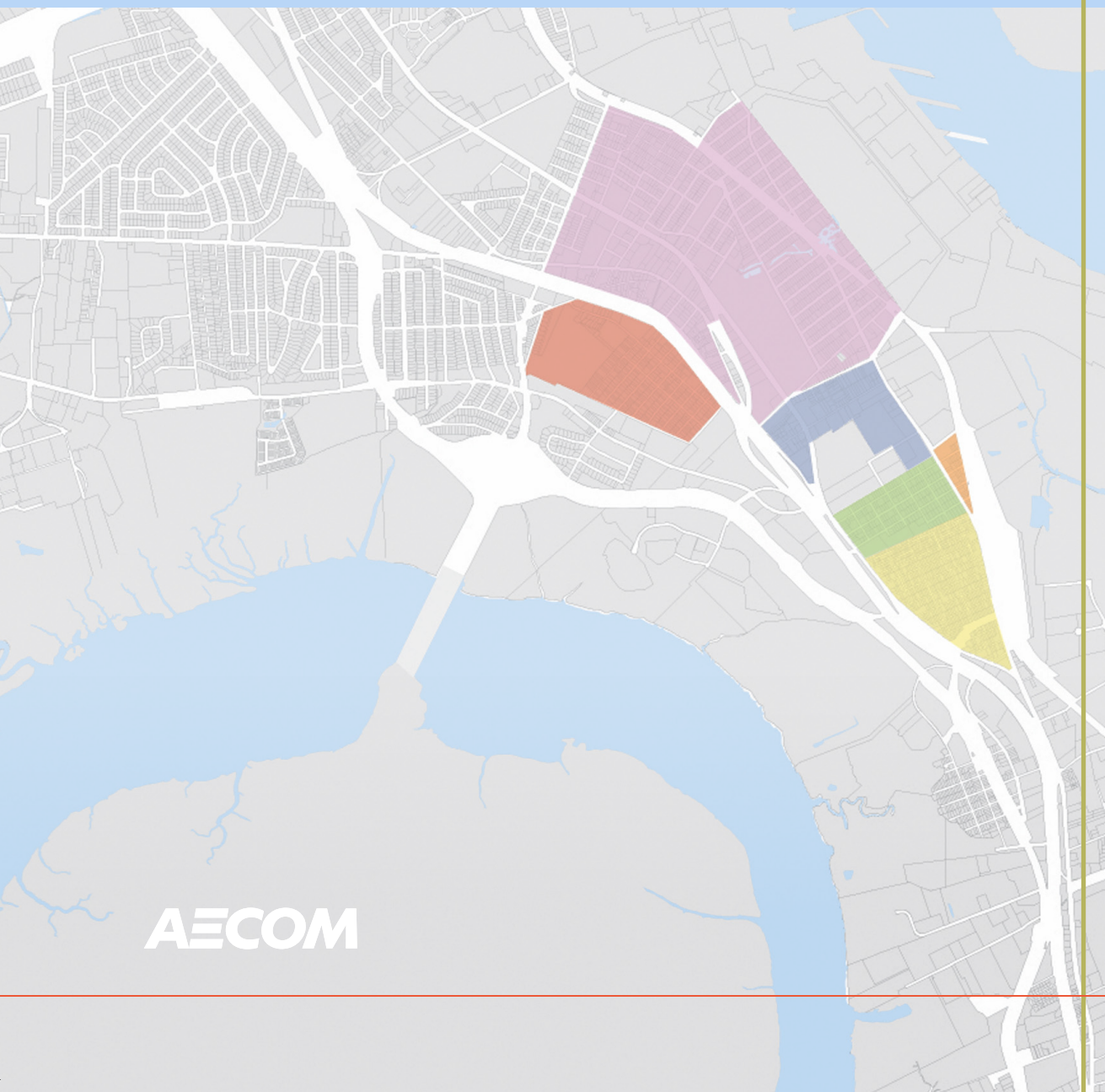
5. The entire perimeter should be secured with an eight-foot fence with appropriate Type C Buffer Area per Section 6-12 (vegetative buffer) to deter unauthorized access.
6. All containers should be fully emptied and cleaned of any residue that may pose an environmental or health risk.
7. All containers must be structurally sound and in good repair.
8. Adequate lighting must be provided on site to promote on-site surveillance, including at entrances and exits; however, lighting must not affect adjacent properties.

Noise

As with the City's other noise provisions, it is recommended that no stacking or unstacking of containers be permitted between 11:00 pm and 7:00 am for any sitewithin 1000 feet of any residentially zoned property.

Inspections

It is recommended that all container storage sites be inspected annually, and that the annual inspection fee be paid by the property or business owner at the should apply if necessary. During these inspections, the site will be inspected for compliance with the provisions of the code and appropriate code enforcement measures such as citations and/or fees.



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