CRANE CREEK MASTER PLAN

Prepared for:

- Richland County Neighborhood Improvement Program

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October 2009
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EXECUTIVE SUMMARY
Sustainable Community Design Principles - The principles of sustainable community have evolved from both the design and the ecological point of view. A sustainable community minimizes the impact on the natural environment and allows residents the opportunity to live, work, and play. The community design is conceived as an evolving organism which allows change, which is inevitable, to occur without disrupting the life of the community.

A - Analyze the site to determine the natural and cultural features that may affect the development plan.
B - Design the site to place development on those areas where the environmental impact is minimized.
C - Allow for the preservation of and the creation of, plant and animal habitat.
D - Utilize the natural features of the property as both an amenity and as a component of the community storm water control system.
E - Reduce the width of streets to a maximum of 24’ in residential areas.
F - Allow for the used of shared parking among the various elements of the community.
G - Create a system of pedestrian trails and sidewalks.
H - Design the community around the needs of the people who live and work there by providing easy access, multiple transportation options, pedestrian oriented streets, plenty of opportunities for people to interact with each other and the natural environment.
I - Mix housing types to allow for all income levels and ages to inhabit the community.
J - Create inter-related land uses which make the community walkable.
K - Create spaces for people to gather.
VISION AND COMMUNITY GOALS

VISION:
Recreate the community of crane creek and direct the future development to allow for a green, sustainable area.

Goals:

1. Reinvent the image of Crane Creek community
2. Preservation of existing single-family neighborhoods
3. Develop local retail services and limit industrial zone expansion
4. Create a walkable community with viable pedestrian and bike trails
5. Increase community recreational facilities
6. Preserve existing wetlands and create a community open space network
7. Increase sustainable community educational services
PART 1: COMMUNITY ANALYSIS

The Community Analysis section consists of 5 elements: Existing Conditions, Context of Change, Site Analysis, Design Process and SWOT (Strengths, Weaknesses, Opportunities and Threats) Analysis. The purpose of the analysis is to develop an understanding of the natural and cultural environment affecting the Crane Creek community. By developing this understanding we can know the steps needed to promote the preservation and enhancement of the community to benefit the residents of the community.
The Crane Creek Community is located at Richland County, South Carolina, just north of City of Columbia. The study area encompasses approximately 3,100 acres. There are 7 major existing neighborhoods: Bookert Heights, Crane Crossing, Crane Forest, Haskell Heights, Lincolnshire, Pine Forest, and Rockgate.

The area is bordered by Fairfield Road, Monticello Road, Heyward Brockington Road, Crane Church Road and Interstate I-20.

The predominate land uses are single family residential and industrial. There is a mixture of both good and poor conditions. There are is a large amount of vacant lots and many homes in the area are in need of repair.

The major streets are in good repair, however, most neighborhood streets lack regular maintenance. Some neighborhood streets are unpaved and also seem to have no regular maintenance. There are some sidewalks in the area, but overall the neighborhood lacks a pedestrian friendly road network. There is also a lack of inter-connectivity between most neighborhoods, for both vehicular and pedestrian traffic.

Although the Crane Creek Community is facing many challenges, it has its unique features such as: beautiful creeks and lakes, heavily wooded wetlands, matured neighborhood streetscape, unique housing styles, and pockets of new development which indicate a potential revitalization.
Over the next 30 years, the Crane Creek Community will face population growth, maturing infrastructure, aging population, and other challenges and opportunities. Planning for this growth requires consideration of likely trends and desired outcomes.

The population in the Crane Creek Community has experienced up and down trends. Because of economic reasons, the total population in the Crane Creek Community decreased by 14.4% from 1990 to 2000. This has resulted in large quantity of vacant lots and homes. After 2000, several new developments brought more people to the area. This revitalization trend will continue. According to the population projection for 2035, the Crane Creek Community will grow by more than 30%. The major reasons for the revitalization include the community’s unique location, accessibility and quantity of available land suitable for development.

Population growth didn’t occur equally among all age groups. The Community population is aging with the median age increasing from 28.7 (1990) to 39.6 (2011). This major demographic shift will have a considerable impact on community needs and services.

The household income increased significantly from 1990 to 2000. The average increase was 34%. The Per Capita income has increased by almost 50%. According to 2011 estimates, the average household income will increase from $25k/year (1990) to $42.8k/year (2011). The unemployment rate is relatively low. And it will keep dropping from 11.5% in 1990 to 4.5% by 2011.

These projections and anticipated changes to the community are a best estimate of what is likely to come. They should not be construed as inevitable outcomes, but serve as a framework for successfully planning for the future of Crane Creek Community.
SITE ANALYSIS

Residential Districts:
1. RR Rural Residential District
2. RS-E Residential, Single-Family, Estate District
3. RS-LD Residential, Single-Family, Low Density District
4. RS-MD Residential, Single-Family, Medium Density District
5. RS-HD Residential, Single-Family, High Density District
6. MH Manufactured Home Residential District
7. RM-MD Residential, Multi-Family, Medium Density District
8. RM-HD Residential, Multi-Family, High Density District

Commercial Districts:
1. OI Office and Institutional District
2. NC Neighborhood Commercial District
3. RC Rural Commercial District
4. GC General Commercial District

Industrial Districts:
1. M-1 Light Industrial District
2. LI Light Industrial District
3. HI Heavy Industrial District

Other Districts:
1. RU Rural District
2. PDD Planned Development District
3. TC Town and Country District

EXISTING DISTRICTS/ZONES IN CRANE CREEK NEIGHBORHOOD
Our design process for the Crane Creek Master Plan consisted of a community analysis, master plan preparation, creating catalyst projects and creating an action plan to be followed so that the master plan can come to fruition. The community analysis was used to make sure the plan was customized for the community. The master plan preparation was brought forth by the information received through the community analysis. The catalyst projects were an aspect of the master plan preparation in which the combination of input received and the design team’s expertise were collaborated into design ideas in areas observed to be in need. The action plan was created to suggest ideas to get the master plan in motion.

I. COMMUNITY ANALYSIS
   A. SITE INVENTORY
   B. ECOLOGICALLY DETERMINED DEVELOPMENT OPPORTUNITIES
   C. PUBLIC INVOLVEMENT
      1. COMMUNITY IMAGE SURVEY
      2. SWOT ANALYSIS
      3. COMMUNITY CHARRETTE

II. MASTER PLAN PREPARATION
   A. SYNTHESIS OF COMMUNITY
   B. CONCEPT MASTER PLAN
   C. IDENTIFY CATALYST PROJECTS

III. CATALYST PROJECTS
   A. IDENTIFY AREAS WHERE NEW PUBLIC OR PRIVATE DEVELOPMENT WOULD POSITIVELY IMPACT THE COMMUNITY
   B. PREPARE CONCEPT PLANS FOR EACH IDENTIFIED CATALYST

IV. ACTION PLAN
   A. IDENTIFY A SERIES OF STEPS THAT WILL ALLOW IMPLEMENTATION OF THE PLAN
      1. Code enforcement actions
      2. New overlay development
      3. Community infrastructure improvements
      4. Community identity measures
   B. IDENTIFY MECHANISMS WHICH CAN PROVIDE FUNDING DIRECTLY TO THE COMMUNITY
      1. Tax allocation district
      2. Grants (public and private)
      3. Regime fees through an umbrella property owners association
SWOT Analysis, is a strategic planning tool used to evaluate the Strengths, Weaknesses, Opportunities, and Threats of a project. Local residents were brought together to identify internal strengths and weaknesses, also external opportunities and threats of their community.

Most residents spoke of good communication, affordable housing, open space, large lots, and safe place for children to play as strengths. They also mentioned the strong community association and active community involvement as very positive aspects for their neighborhood. The common weaknesses related to concerns about vacant houses, missing commercial and amenity areas, incomplete drainage system, poor street lighting and weak community upkeep. Most neighborhoods saw opportunities for increased accessibility and connectivity as key to future success. Threats were numerous, but the most concerned is about uncontrolled sprawl into the area.

The SWOT analysis was a meaningful exercise that helped each of the neighborhoods focus on neighborhood and community issues. While the terms are general, the analysis offered direction to the participants in the planning process. The items identified through the SWOT analysis, are not necessarily identical to factors that became issues in master planning. However, the discussion facilitated the development of the residents’ concerns which needed to be addressed in the master plan.

**INTERNAL**

**Strengths**
- Good communication, proximity to other areas
- Strong community association
- Active community involvement
- Housing price is affordable
- Large open area
- Big lot sizes
- Space between homes is good
- Safe place for children to play

**Weaknesses**
- No planning in advance
- Lots of vacant houses
- No entryway into neighborhoods
- No commercial amenities
- Poor drainage
- Poor lighting
- Community needs better upkeep

**EXTERNAL**

**Opportunities**
- Access to creeks
- Sidewalk connections
- Recreation/youth center/senior center
- Connectivity
- Code enforcement
- Best practices in other areas

**Threats**
- North East Sprawl
- Lack of regulation regarding water resources
- Surrounding development encroaching on the community
- Planned development not occurring
- City incorporation
PART 2: MASTER PLAN

The Master Plan section consists of 9 elements: Design Charrette, Land Use Plan, Circulation Plan, Open Space Plan, Catalyst Projects, Community Gateway, Community Icon and Signage, Pedestrian Oriented Streetscape and Social Spaces. The purpose of this is to develop a plan that was created through the input of the Crane Creek Community and combined with Smart Growth ideology to give the residents of the neighborhood exactly what they feel they want it to look like.
The Public Design Charrette is a creative process of visual brainstorming to develop solutions to a design problem within a limited time frame. It is a collaborative planning process that harnesses the talents and energies of all interested parties to create and support a feasible plan that represents transformative community change.

Charrettes provide a framework for creating a shared vision with community involvement, directed by consultants representing all key disciplines. It actively engages the public and key community stakeholders in the future of their community. The rewarding results of a public charrette are a better-informed public, a clearer understanding of issues and opportunities, and an actively engaged partnership of elected officials, community leaders, and citizens with a joint vision of where their community wants to go and how to get there.
On July 21, 2007 a Neighborhood Design Charrette was attended by County officials, the professional design team, and local residents. The Charrette consisted of a SWOT analysis, a COMMUNITY IMAGE SURVEY, and a break-out session in which the residents were divided into groups to participate in a design of their community. Although each group has different opinions on specific issues, they are sharing many concerns in common for the future of the community.

Redevelopment and New Development

- Keep the same residential density; larger lots are preferred
- Reconstruct the commercial area near the intersection of Blue Ridge Road and Monticello Road
- Add small amounts of commercial properties, built at human scale; no strip malls
- Limit industrial growth; promote rezoning industrial to commercial
- Protect and enhance property value; prevent lower price point development near high ones; amend community by laws to maintain property – add covenants
- Eliminate abandoned homes; new Codes for vacant lots – or enforce existing ones
- Add medical center, library, and police department
- Plan for schools
- Plan for senior housing
- Some mixed use of office and commercial
- Need large complex recreational facilities
- Oak Hill Property needs clarification for future development
- The intersection of I-20 and Fairfield Road needs clarification for future development

Open Space

- Conserve open space
- Preserve existing trees
- Add parks; small parks throughout the neighborhoods
- Provide access to creek
- Create pocket parks by cleaning up vacant property and abandoned area

Transportation

- Increase road connectivity among neighborhoods, but safety is a big concern, be careful in planning
- Bus service needs to continue up Crane Church Road and Brockington Road

Streetscape

- Improve road conditions; pave unpaved roads (Sara Mathews, Wages road, Club road, Furwood Circle, Hattie Rd, Larger St.)
- Locate more sidewalks and complete gaps (Fairfield road, Monticello Road, Blue Ridge Tier, Brockington, Cora Dr., Singleton, Dakota, Red Ridge, Crane Church Road, sidewalks need to continue to Crane Creek Community Center)
- Walking trails to connect all communities
- Security system needs to be present (Monticello Road)
- Provide sufficient street lights on all major streets (Crane Church Road, Monticello Road, and Heyward Brockington Road)
- Build community gateways

Utility

- Upgrade utilities (Broadband, underground utilities, electricity, etc)
- Improve sewer service (Brockington Road, Cargor St., Hattie Road)
The site located on the intersection of Blue Ridge Terrace and Monticello Drive in the southeastern portion of the Crane Creek study area is suggested as the location for one of two mixed-use developments. The location is visible due to the volume of traffic on both roads, Blue Ridge Terrace because it has access throughout the whole Crane Creek area and Monticello Road because from there it is a direct route I-20. The direct route can be an advantage for both people coming to the retail/commercial areas and the residential areas as well. The commercial areas are a replacement for abandoned commercial that already is exists. This first mixed-use area will have commercial/office/loft mixed-use, townhomes, and single-family home sites. There are multiple open space areas as requested by the community in the COMMUNITY IMAGE SURVEYS at the neighborhood charrette. The development would take advantage of the existing ponds and utilize them as open spaces and as an element of the storm water utility.

**CATALYST 1 TOOLS**

- Overlay Zoning for Architectural Control
- Tree Preservation & Landscape Ordinance
- Private Developer Incentives
- Retail and Commercial Incentives
- Tax Allocation District
- Community Improvement District

**PROPOSED MIXED USE AREA**

- **SINGLE FAMILY HOMES**
- **EXISTING LOTS**
- **TOWNHOMES**

**COMMERCIAL/ OFFICE/ LOFT**

**EXISTING LAKE**

MIXED-USE (COMMERCIAL/OFFICE/LOFT)**
PROPOSED MIXED USE AREA

- Commercial/Office/Loft - 246, 224 SF
- Townhomes - 74
- 75’x125’ Lots - 230

CATALYST 2 TOOLS

- Overlay Zoning for Architectural Control
- Tree Preservation & Landscape Ordinance
- Private Developer Incentives
- Retail and Commercial Incentives
- Tax Allocation District
- Community Improvement District

The site located on Crane Church Road in the north central part of the Crane Creek study area near the Crane Crossing neighborhood is the location for the other mixed-use development. The location is accessible to and from Crane Church Road which runs across the northeast side of the Crane Creek area. The development allows more residential in the area, as well as giving the existing residential area better access to commercial/retail. The mixed-use area will have a combination of commercial/office/loft mixed-use, townhomes, and single family home sites. Open space areas are located throughout the development and connectivity is established between the Lincolnshire, Haskell Heights and Crane Forest neighborhoods through the proposed road on the east side of the development. This road will run from Crane Church Road south to Blue Ridge Terrace.
Located behind Lincolnshire Boulevard to Saddle Trail Road is the location of the gateway park. A park creates usable space along Crane Creek that is currently not in use. The location takes advantage of the lake behind the Lincolnshire neighborhood, allowing the surrounding neighborhoods a large area for passive or active recreational activities as requested by the community. The concept proposes tennis courts, baseball fields, walking trails and an outdoor amphitheater for concerts and festivals. The proposed road running along the west side of the park allows easy access to the park from both the Haskell Heights and Crane Forest neighborhoods. This park will be a much needed people space which will be a neighborhood focal point.
PROPOSED MIXED-USE AREA

The Heyward-Brockington Rd/Blue Ridge Terrace location is the site of mixed-use development. The community suggested one-story retail with drug store and grocery facilities. The concept proposes wide pedestrian venues in front of the building for tables and chairs. The vehicular traffic on both Heyward-Brockington and Blue Ridge Terrace in combination with the single-family residential homes in Bookert Heights allows the development to be utilized by the residents in the area as well as travelers in route to Interstate-20.

Commercial/Retail - 49,754 SF
Total Parking - 248 spaces

CATALYST 4 TOOLS

-Overlay Zoning for Architectural Control
- Dakota Street Improvements
- Private Developer Incentives
- Commercial & Retail Incentives
- Overlay Zoning for Architectural Control
- Landscape Ordinance
- Vegetative Buffer Ordinance
CATALYST PROJECTS

PROPOSED COMMUNITY CENTER

CATALYST 5 TOOLS

- Richland County Recreation Foundation Funding
- Richland County Neighborhood Grants
- Local Area Business Donations
- Richland County Cultural Arts Groups
- Richland County Community Involvement Groups
- Columbia Action Council Funding
- Tax Allocation District
- Community Improvement District
- Richland County Department of Education Funding

The Fairfield Rd/ Crane Church Road location on the northeastern side of the Crane Creek area is the site for a community center. The site has access from both Fairfield and Crane Church roads, allowing easy access to the surrounding neighborhoods. The existing community center is expanded from a single building to a complete area for indoor and outdoor activities. The community suggested gyms or a recreational building that can be used as a gym along with other activities. The concept also proposes outdoor basketball courts, an amphitheater, a picnic pavilion and walking trails.

The sheriff training building is relocated, a police substation and a neighborhood entry sign are proposed but the existing church and cemetery are preserved.
PROPOSED SINGLE FAMILY

CATALYST 6 TOOLS
- Planned Development District Zoning
- Private Developer Incentives
- South Carolina Association of Home Builders
- Home Builder Incentives
- Architectural Control Guidelines
- Home Owner Incentives
- Community Improvement District
- Revised Subdivision Regulations
- Landscape Architectural Ordinances
- Pedestrian Circulation Guidelines

The Sandpiper Lane/Birchwood Road/Core Drive location just east of Singleton Dr. is the location for another single-family residential area. The community requested medium density housing in the COMMUNITY IMAGE SURVEY and this will blend with the existing medium density housing.
The catalyst next to Forest Heights Elementary School is a large public space with a community green, multi-purpose center and a collection of small formal parks. The park will serve as the front yard of the community. It will be the location for neighborhood festivals, family gatherings, and afternoon strolls. A people place where one and all will meet, see, and greet their friends and neighbors. The type of space will create the identity of Crane Creek because of the proposed road running along the east side of the development will create a connection to multiple neighborhoods and can be used by all of the Crane Creek neighborhoods.

**CATALYST 7 TOOLS**
- Richland County Recreation Foundation Funding
- Richland County Neighborhood Grants
- Local Area Business Donations
- Richland County Cultural Arts Groups
- Richland County Community Involvement Groups
- Columbia Action Council Funding
- Tax Allocation District
- Community Improvement District
- Richland County Department of Education Funding
PEDESTRIAN ORIENTED STREETSCAPE

■ KEY ELEMENTS TO MAKE A PLACE WALKABLE
- Destinations that attract people
- Community is built at a pedestrian scale
  - distances are short enough to walk
  - buildings are close to the sidewalk
- Pedestrians are reachable and interconnected
- Pedestrians feel safe from crime, traffic, and weather conditions
  - eyes on the street
  - safe traffic speed
  - shelters at frequent intervals

■ PEDESTRIAN METHODS TO MAKE CONNECTIONS
- Universal Access (ADA)
- Sidewalk
- Bike lanes and bike paths

(Source: Creating Walkable Places, ULI)
STREETSCAPE

BEFORE

AFTER

MINOR COLLECTOR STREET

STREETSCAPE
Social spaces allow a sense of belonging to an identifiable place and to an active public realm

- **EXAMPLES OF SOCIAL SPACES**
  - Parks
  - Plazas
  - Other Public Places

- **STANDARDS OF SOCIAL SPACES**
  - Welcoming
  - Safe
  - Attractive

- **KEY ELEMENTS OF SOCIAL SPACES**
  - Active
  - Provide ample and comfortable seating areas
  - Offer protection from weather extremes (sun, wind, rain, etc.)
  - Connection to Streets
  - Convenient location
  - Equipment for both passive and active recreation

- **SOCIAL SPACES SHOULD BE PLANNED AND DESIGNED TO PROMOTE COMMUNITY INTERACTION AND FACILITATE PROGRAMMING OF NEIGHBORHOOD EVENTS**
PART 3:
ACTION PLAN

The Action Plan section consists of 6 goals: Preservation of existing single-family neighborhoods; Reinvent the image of the Crane Creek Community; Develop supportive local retail services and limit industrial zone expansion; Increase community recreational facilities; Preserve existing wetlands and green corridors and create a community open space network; Increase sustainable community educational services. These goals were a combined effort from community member input, county input and design team knowledge. These goals create plan of action for the Crane Creek community to be a community people will love to call home.
To translate a future vision for the Crane Creek community into actual implementation an Action Plan must be created to make the master plan a reality. The Action Plan for the Crane Creek Neighborhood is based on six goals which are sequential and attainable. These goals, when accomplished, will lead to a redevelopment of the neighborhood and a strengthening of the underlying community and the values it cherishes.

1. Action Items

   Preservation of existing single-family neighborhoods

   o Code Enforcement and Regulatory Enhancements
     The first step in re-inventing any area is to arrest the slide into blight and stabilize the area. While much of Crane Creek is in good condition there are areas where substandard housing, dilapidated structures, vacant homes and lack of adequate public services are evident. Code enforcement is a strong tool in the first phases of the redevelopment process. There should be increased patrols in the project area by code enforcement personnel to detect, identify and cite properties which are not in compliance with the requirements of the county planning and zoning codes and building codes. A strong enforcement effort will help to bring the structures in the area up to an acceptable minimum standard which will show those people who are attempting to keep their properties in good condition that the county cares about their efforts and will provide them with support. This effort must be shared in by the people who live in the area. Their role will be to maintain their properties and report those who do not to the code enforcement officials.

   o Improve infrastructure
     A comprehensive program should be developed to bring all of the public roads and utilities up to acceptable standards.
     1- Repair and repave existing roads.
     2- Pave all existing dirt roads within the neighborhood
     3- Create logical road connections that enable each neighborhood to have better connectivity to other neighborhoods and public spaces.
     4- Repair and replace substandard sanitary sewer systems in the project area.
     5- Improve the storm water systems in the area and add new system elements in those areas of the neighborhood where there are none.

   o Rehabilitation of existing homes/New Development
     Devise and adopt an overlay zoning district for Crane Creek which will help to control the architectural style and development types that are allowed in the neighborhood.
1. Action Items, continued

- Infill development for vacant lots; build community park inside each neighborhood
  1. Acquire vacant lots in each neighborhood and develop them into small public parks. No resident should be more than a 15 minute walk from a park space.
  2. Acquire and develop the open space areas along crane Creek to develop a major neighborhood park. This park will be passive in nature with trails, picnicking, and established activity nodes.
- Strengthen community association and leadership
  The Neighborhood planning division will work with the existing residents associations to train the members for leadership roles.
  The existing leadership should be encouraged to take an active role in dealing with County Council, SCDOT, and other agencies that have an effect on the area.

Reinvent the image of Crane Creek Community
- Establish Crane Creek Community Icon/Identification
- Build Community Gateway Monuments
- Develop a Community Marketing Campaign
- Create Community Volunteer Team for cleanup

Develop supportive local retail services and limit industrial zone expansion
- Provide retail services along primary road corridors
- Create a pedestrian oriented mixed-use area for regional retail service and diversifying services
- Develop neighborhood retail services
- Regulatory enhancement to limit industrial growth

Increase community recreational facilities
- Create community social space and provide recreational facilities
- Identify issues/needs within existing parks
- Acquire areas for new parks

Preserve existing wetlands and green corridors and create community open space network
- Conduct Environmental Assessment of existing wetlands along Crane Creek
- Set up conservation area for existing wetlands and green corridors
- Create trail network linking community open space
- Identify funding sources
1. Action Items, continued

- Increase Sustainable Community educational services
  - Provide community cultural programs and events
  - Set up environmental education programs with local schools
  - Set up interpretive signs along trails

2. Funding Options

Richland County has many options for funding. In this report there are some options listed to serve as a starting point to help make the plan into a reality. The options given are compiled of grants, tax allocations, and developer incentives.

- Public/Private Partnerships- Richland County should consider public/private partnerships to get developers interested in the areas in need. The county would cover certain development fees and cover certain infrastructure improvements as an incentive to bring in developers.

- Tax Allocation District (TAD)- The tax allocation district is a district with district boundaries within which any increase in property tax revenues brought on by new development of public upgrades to the area infrastructure are allocated to finance new public improvement within the district.

- Community Improvement District- A Community Improvement District (CID) may be either a political subdivision or a not-for-profit corporation. CID’s are organized for the purpose of financing a wide range of public-use facilities and establishing and managing policies and public services relative to the needs of the district.

- Richland County Recreation Foundation Funding- Richland County Recreation Foundation assists the Richland County Recreation Commission in its efforts to create and connect community through people, parks, and programs. Quality recreation facility programs and activities for county residents are the result of a solid investment of tax dollars which can be enhanced through the generous support of the business community.

- South Carolina Recreation & Parks Association- South Carolina Recreation & Parks Association, through many sponsors, promotes parks and recreational opportunities and quality of life to all the people of South Carolina.
PART 4: COMMUNITY IMAGE SURVEY

The Visual Preference section consists of a survey with a series of pictures in which community members vote on which images seem the most appropriate for their neighborhood. There were images in the subject of single-family residential, multi-family residential, retail, office, industrial, parks & greenways, streetscapes and mixed-use developments.
## In which of these neighborhoods do you live?

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bookert Heights</td>
<td>35%</td>
</tr>
<tr>
<td>Crane Crossing</td>
<td>3%</td>
</tr>
<tr>
<td>Crane Forest</td>
<td>0%</td>
</tr>
<tr>
<td>Haskell Heights</td>
<td>9%</td>
</tr>
<tr>
<td>Lincolnshire</td>
<td>21%</td>
</tr>
<tr>
<td>Pine Forest</td>
<td>0%</td>
</tr>
<tr>
<td>Rockgate</td>
<td>0%</td>
</tr>
<tr>
<td>Others</td>
<td>32%</td>
</tr>
</tbody>
</table>
Single-Family Residential: Group 1 – Low Density

1. Choice 1 (1) = 44.1%
2. Choice 2 (2) = 44.1%
3. Choice 3 (3) = 2.9%
4. Choice 4 (4) = 8.8%
Single-Family Residential: Group 2 – Medium Density

1. Choice 1  (1) = 14.7%
2. Choice 2  (2) = 17.6%
3. Choice 3  (3) = 20.6%
4. Choice 4  (4) = 47.1%
Single-Family Residential Group 3 – High Density

1. Choice 1 (1) = 17.6%
2. Choice 2 (2) = 14.7%
3. Choice 3 (3) = 11.8%
4. Choice 4 (4) = 55.9%
Townhomes

1. Choice 1 (1) = 14.7%
2. Choice 2 (2) = 29.4%
3. Choice 3 (3) = 50.0%
4. Choice 4 (4) = 5.9%
Multi-Family Residential

1. Choice 1  (1) = 5.9%
2. Choice 2  (2) = 47.1%
3. Choice 3  (3) = 17.6%
4. Choice 4  (4) = 29.4%
Retail: Group 1

1. Choice 1 (1) = 2.9%
2. Choice 2 (2) = 2.9%
3. Choice 3 (3) = 41.2%
4. Choice 4 (4) = 52.9%
Retail: Group 2

1. Choice 1  (1) = 54.3%
2. Choice 2  (2) = 17.1%
3. Choice 3  (3) = 22.9%
4. Choice 4  (4) = 5.7%
Office – Group 1: Large Size

1. Choice 1 (1) = 44.1%
2. Choice 2 (2) = 26.5%
3. Choice 3 (3) = 5.9%
4. Choice 4 (4) = 23.5%
Office – Group 2: Small Size

1. Choice 1 (1) = 65.6%
2. Choice 2 (2) = 3.1%
3. Choice 3 (3) = 28.1%
4. Choice 4 (4) = 3.1%
Mixed-Use

1. Choice 1 (1) = 9.1%
2. Choice 2 (2) = 21.2%
3. Choice 3 (3) = 15.2%
4. Choice 4 (4) = 54.5%
Industrial

1. Choice 1 (1) = 25.0%
2. Choice 2 (2) = 22.2%
3. Choice 3 (3) = 41.7%
4. Choice 4 (4) = 11.1%
COMMUNITY IMAGE SURVEY

PARKS & GREENWAYS - GROUP 1: ACTIVE
- Basketball
- Baseball
- Tennis
- Playground
- Gym
- Swimming pool
- Soccer
- Others

PARKS & GREENWAYS - GROUP 2: PASSIVE

choice 1
choice 2
choice 3
choice 4
## Parks & Greenways

**Group 1 – Which facility would you prefer in the park?**

<table>
<thead>
<tr>
<th>Facility</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>3%</td>
</tr>
<tr>
<td>Baseball</td>
<td>3%</td>
</tr>
<tr>
<td>Tennis</td>
<td>3%</td>
</tr>
<tr>
<td>Playground</td>
<td>14%</td>
</tr>
<tr>
<td>Gym</td>
<td>50%</td>
</tr>
<tr>
<td>Swimming pool</td>
<td>22%</td>
</tr>
<tr>
<td>Soccer</td>
<td>0%</td>
</tr>
<tr>
<td>Others</td>
<td>6%</td>
</tr>
</tbody>
</table>
Fairfield Rd. Monticello Rd.

choice 2
Fairfield Rd. Monticello Rd.

choice 4
Streetscapes
Group 1 – Major Collector

1. Choice 1
   \( (1) = 2.9\% \)

2. Choice 2
   \( (2) = 14.3\% \)

3. Choice 3
   \( (3) = 51.4\% \)

4. Choice 4
   \( (4) = 31.4\% \)
Fairfield Rd. Monticello Rd.

Most Appropriate
Blue Ridge Tier  Crane Church Rd.  Heyward Brockington Road

choice 1
Blue Ridge Tier, Crane Church Rd, Heyward Brockington Road

choice 2
Blue Ridge Tier, Crane Church Rd, Heyward Brockington Road

choice 4
Streetscapes
Group 2 – Minor Collector

1. Choice 1 (1) = 2.9%
2. Choice 2 (2) = 25.7%
3. Choice 3 (3) = 37.1%
4. Choice 4 (4) = 34.3%
Blue Ridge Tier  Crane Church Rd.  Heyward Brockington Road

Most Appropriate
Blue Ridge Tier, Crane Church Rd., Heyward Brockington Road

Most Appropriate
Lincolnshire North Dr. Roberson St. Sea Gull Ln. Dakota St.

choice 1
Lincolnshire North Dr. Roberson St. Sea Gull Ln. Dakota St.

choice 2
Lincolnshire North Dr. Roberson St. Sea Gull Ln. Dakota St.

choice 3
Streetscapes
Group 3 – Neighborhood Street

1. Choice 1 (1) = 10.0%
2. Choice 2 (2) = 40.0%
3. Choice 3 (3) = 36.7%
4. Choice 4 (4) = 13.3%
Lincolnshire North Dr. Roberson St. Sea Gull Ln. Dakota St.

Most Appropriate
APPENDIXES

A conceptual cost estimate has been prepared for the public areas as well as the streetscapes from the conceptual master plan. In this cost estimate quantities are approximate. This is just a preliminary cost estimate and the costs can either rise or fall. More detailed cost estimates will be developed during the design and development phases of the recommended improvements.

<table>
<thead>
<tr>
<th>CATALYST #3 - PARK</th>
<th>CRANE CREEK PUBLIC AREAS &amp; STREETSCAPE IMPROVEMENTS PRELIMINARY COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Street</td>
<td>8,200 lf of road</td>
</tr>
<tr>
<td>Amphitheater</td>
<td>1 ea</td>
</tr>
<tr>
<td>Baseball Field</td>
<td>1 ea</td>
</tr>
<tr>
<td>8' Wide Asphalt Walking Trails</td>
<td>17,750 lf of trail</td>
</tr>
<tr>
<td>Amenity Center</td>
<td></td>
</tr>
<tr>
<td>Clubhouse</td>
<td>3,600 sf</td>
</tr>
<tr>
<td>Pool</td>
<td>180 sf</td>
</tr>
<tr>
<td>Pool Decking</td>
<td>3,000 sf</td>
</tr>
<tr>
<td>Plaza Areas</td>
<td>51,000 sf</td>
</tr>
<tr>
<td>Lake Improvements</td>
<td>1 ls</td>
</tr>
<tr>
<td>Additional Buildings</td>
<td>4 ea</td>
</tr>
<tr>
<td>Tennis Courts</td>
<td>4 double courts</td>
</tr>
</tbody>
</table>

Subtotal $3,674,200
25% Contingency $918,550

**TOTAL** $4,592,750
## COST ESTIMATE (2007)

### CATALYST #5 - COMMUNITY CENTER

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational Building</td>
<td>44,500 sf</td>
<td>$100 per sf</td>
<td>$4,450,000</td>
</tr>
<tr>
<td>Outdoor Basketball Courts</td>
<td>5 ea</td>
<td>$41,000 ea</td>
<td>$205,000</td>
</tr>
<tr>
<td>Amphitheater</td>
<td>1 ea</td>
<td>$200,000 ea</td>
<td>$200,000</td>
</tr>
<tr>
<td>Police Substation</td>
<td>10,000 ea</td>
<td>$100 per sf</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Neighborhood Entry Sign</td>
<td>1 ea</td>
<td>$10,000 ea</td>
<td>$10,000</td>
</tr>
<tr>
<td>Outdoor Pavilion</td>
<td>1 ea</td>
<td>$25,000 ea</td>
<td>$25,000</td>
</tr>
<tr>
<td>8’ Wide Asphalt Walking Trails</td>
<td>1,620 lf of trail</td>
<td>$24 per lf</td>
<td>$38,880</td>
</tr>
</tbody>
</table>

Subtotal: $5,928,880  
25% Contingency: $1,482,220  
**TOTAL:** $7,411,100

### CATALYST #7 - PUBLIC SPACE

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Green</td>
<td>261,360 sf</td>
<td>$4 per sf</td>
<td>$1,045,440</td>
</tr>
<tr>
<td>Multi-Purpose Center</td>
<td>49,500 sf</td>
<td>$150 ea</td>
<td>$7,425,000</td>
</tr>
<tr>
<td>Neighborhood Pool</td>
<td>2,200 sf</td>
<td>$40 per sf</td>
<td>$88,000</td>
</tr>
<tr>
<td>Spray Fountain</td>
<td>1 ea</td>
<td>$90,000 ea</td>
<td>$90,000</td>
</tr>
<tr>
<td>North Plaza Area</td>
<td>52,000 sf</td>
<td>$10 per sf</td>
<td>$520,000</td>
</tr>
<tr>
<td>South Plaza Area</td>
<td>110,000 ea</td>
<td>$10 per sf</td>
<td>$1,100,000</td>
</tr>
</tbody>
</table>

Subtotal: $10,268,440  
25% Contingency: $2,567,110  
**TOTAL:** $12,835,550

### FAIRFIELD ROAD STREETSCAPE

(Major Collector Street)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>4” cal. trees (2 per 40 lf)</td>
<td>184 ea</td>
<td>$700 ea</td>
<td>$128,800</td>
</tr>
<tr>
<td>2” cal. flowering trees (1 per 25 ft)</td>
<td>148 ea</td>
<td>$225 ea</td>
<td>$33,300</td>
</tr>
<tr>
<td>Shrubs</td>
<td>1 lump sum</td>
<td>$26,000 lump sum</td>
<td>$26,000</td>
</tr>
<tr>
<td>Groundcover</td>
<td>1 lump sum</td>
<td>$17,000 lump sum</td>
<td>$17,000</td>
</tr>
<tr>
<td>Sidewalk Improvements</td>
<td>7,500 lf</td>
<td>$30 per lf</td>
<td>$225,000</td>
</tr>
</tbody>
</table>

Subtotal: $430,100  
25% Contingency: $107,525  
**TOTAL:** $537,625
# COST ESTIMATE (2007)

## MONTICELLO ROAD STREETSCAPE
(Major Collector Street)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; cal. trees (2 per 40 lf)</td>
<td>466 ea</td>
<td>$700 ea</td>
<td>$326,200</td>
</tr>
<tr>
<td>2&quot; cal. flowering trees (1 per 25 ft)</td>
<td>373 ea</td>
<td>$225 ea</td>
<td>$83,925</td>
</tr>
<tr>
<td>Shrubs</td>
<td>1 lump sum</td>
<td>$26,000 lump sum</td>
<td>$65,000</td>
</tr>
<tr>
<td>Groundcover</td>
<td>1 lump sum</td>
<td>$17,000 lump sum</td>
<td>$44,000</td>
</tr>
<tr>
<td>Sidewalk Improvements</td>
<td>10,000 lf</td>
<td>$30 per lf</td>
<td>$300,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td><strong>$819,125</strong></td>
</tr>
<tr>
<td>25% Contingency</td>
<td></td>
<td></td>
<td><strong>$204,781</strong></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>$1,023,906</strong></td>
</tr>
</tbody>
</table>

## BLUE RIDGE TERRACE STREETSCAPE
(Minor Collector Street)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; cal. trees (2 per 60 lf)</td>
<td>500 ea</td>
<td>$700 ea</td>
<td>$350,000</td>
</tr>
<tr>
<td>2&quot; cal. flowering trees (1 per 40 ft)</td>
<td>375 ea</td>
<td>$225 ea</td>
<td>$84,375</td>
</tr>
<tr>
<td>Shrubs</td>
<td>1 lump sum</td>
<td>$70,000 lump sum</td>
<td>$70,000</td>
</tr>
<tr>
<td>Groundcover</td>
<td>1 lump sum</td>
<td>$47,000 lump sum</td>
<td>$47,000</td>
</tr>
<tr>
<td>Sidewalk Improvements</td>
<td>30,000 lf</td>
<td>$30 per lf</td>
<td>$900,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td><strong>$1,451,375</strong></td>
</tr>
<tr>
<td>25% Contingency</td>
<td></td>
<td></td>
<td><strong>$362,844</strong></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>$1,814,219</strong></td>
</tr>
</tbody>
</table>

## CRANE CHURCH ROAD STREETSCAPE
(Major Collector Street)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; cal. trees (2 per 60 lf)</td>
<td>256 ea</td>
<td>$700 ea</td>
<td>$179,200</td>
</tr>
<tr>
<td>2&quot; cal. flowering trees (1 per 40 ft)</td>
<td>192 ea</td>
<td>$225 ea</td>
<td>$43,200</td>
</tr>
<tr>
<td>Shrubs</td>
<td>1 lump sum</td>
<td>$36,000 lump sum</td>
<td>$36,000</td>
</tr>
<tr>
<td>Groundcover</td>
<td>1 lump sum</td>
<td>$24,000 lump sum</td>
<td>$24,000</td>
</tr>
<tr>
<td>Sidewalk Improvements</td>
<td>15,500 lf</td>
<td>$30 per lf</td>
<td>$465,000</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td><strong>$747,400</strong></td>
</tr>
<tr>
<td>25% Contingency</td>
<td></td>
<td></td>
<td><strong>$186,850</strong></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>$934,250</strong></td>
</tr>
</tbody>
</table>
### COST ESTIMATE (2007)

#### HEYWARD BROCKINGTON ROAD STREETSCAPE
(Main Collector Street)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>4&quot; cal. trees (2 per 60 lf)</td>
<td>168 ea</td>
<td>$700 ea</td>
<td>$117,600</td>
</tr>
<tr>
<td>2&quot; cal. flowering trees (1 per 40 ft)</td>
<td>252 ea</td>
<td>$225 ea</td>
<td>$56,700</td>
</tr>
<tr>
<td>Shrubs</td>
<td>1 lump sum</td>
<td>$24,000 lump sum</td>
<td>$24,000</td>
</tr>
<tr>
<td>Groundcover</td>
<td>1 lump sum</td>
<td>$15,000 lump sum</td>
<td>$15,000</td>
</tr>
<tr>
<td>Sidewalk Improvements</td>
<td>20,000 lf</td>
<td>$30 per lf</td>
<td>$600,000</td>
</tr>
</tbody>
</table>

Subtotal: $813,300
25% Contingency: $203,325
**TOTAL**: $1,016,625

#### LINCOLNSHIRE NORTH DRIVE STREETSCAPE
(Residential Street)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Trees (1 per 70 lf)</td>
<td>28 ea</td>
<td>$700 ea</td>
<td>$19,600</td>
</tr>
<tr>
<td>Shrubs</td>
<td>1 lump sum</td>
<td>$4,000 lump sum</td>
<td>$4,000</td>
</tr>
<tr>
<td>Groundcover</td>
<td>1 lump sum</td>
<td>$2,500 lump sum</td>
<td>$2,500</td>
</tr>
<tr>
<td>Sidewalk Improvements</td>
<td>8,000 lf</td>
<td>$30 per lf</td>
<td>$240,000</td>
</tr>
</tbody>
</table>

Subtotal: $266,100
25% Contingency: $66,525
**TOTAL**: $332,625

#### ROBERTSON STREET STREETSCAPE
(Residential Street)

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Trees (1 per 70 lf)</td>
<td>105 ea</td>
<td>$700 ea</td>
<td>$73,500</td>
</tr>
<tr>
<td>Shrubs</td>
<td>1 lump sum</td>
<td>$14,500 lump sum</td>
<td>$14,500</td>
</tr>
<tr>
<td>Groundcover</td>
<td>1 lump sum</td>
<td>$10,000 lump sum</td>
<td>$10,000</td>
</tr>
<tr>
<td>Sidewalk Improvements</td>
<td>7,500 lf</td>
<td>$30 per lf</td>
<td>$225,000</td>
</tr>
</tbody>
</table>

Subtotal: $323,000
25% Contingency: $80,750
**TOTAL**: $403,750
## COST ESTIMATE (2007)

### SEA GULL LANE STREETSCAPE

**(Neighborhood Street)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Trees (1 per 70 lf)</td>
<td>29 ea</td>
<td>$350 ea</td>
<td>$9,425</td>
</tr>
<tr>
<td>Shrubs</td>
<td>1 lump sum</td>
<td>$8,000 lump sum</td>
<td>$8,000</td>
</tr>
<tr>
<td>Groundcover</td>
<td>1 lump sum</td>
<td>$5,000 lump sum</td>
<td>$5,000</td>
</tr>
<tr>
<td>Sidewalk Improvements</td>
<td>9,000 lf</td>
<td>$30 per lf</td>
<td>$270,000</td>
</tr>
</tbody>
</table>

| **Subtotal**                  | **$292,245** |
| **25% Contingency**           | **$43,864**  |
| **TOTAL**                     | **$336,289** |
# MEETING AGENDA
RICHLAND COUNTY, SC

**CRANE CREEK MASTER PLAN PUBLIC CHARRETTE**
Crane Creek Community Center
July 21, 2007  8:30 am - 3:00 pm

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Details</th>
</tr>
</thead>
</table>
| 8:30 - 9:30 am| Overview of the Project                                   | - Introduce the team
|               |                                                            | - Project overview presentation
|               |                                                            | - SWOT Analysis
|               |                                                            | - Base information & Board display                                     |
| 9:30 - 10:15 am| Visual Preference Survey                                  | - 50 people as one voting group                                         |
| 10:15 - 12:30 pm| Charrette - Develop a Land Use Plan for the future of your community | - 10 people per group
|               |                                                            | - Each group will elect one group leader and one note taker              |
|               |                                                            | - One facilitator (planner/designer) will be assigned to each group     |
| 12:30 - 1:00 pm| Lunch Break                                                |                                                                        |
| 1:00 - 2:30 pm| Group Presentation & Priority Vote                        | - Group leader from each group will have 10 minutes to present their Charrette outcome
|               |                                                            | - Public will vote for their favorite future land use plans             |
| 2:30 - 3:00 pm| Visual Preference Survey result presentation               | - Based on the visual preference survey, the most voted pictures will be put together for public confirmation |

**Facilitators**
- Tisa B. Rutherford (Neighborhood Planner, Richland County)
- Monique Mack (Neighborhood Coordinator, Richland County)
- Jen Davis (Land Planner/Landscape Architect, JJ&G)
- Sheri Williamson (Engineer, JJ&G)
- Grace Zhang (Land Planner/Designer, JJ&G)
- Brad Jones (Landscape Architect, JJ&G)
- Amanda Eason (Planner/Public Involvement Specialist, JJ&G)
- Tim Wood (Land Planner/Designer, JJ&G)
- Leah Simon (Landscape Architect, JJ&G)
- Sturowbridge (Designer, JJ&G)
<table>
<thead>
<tr>
<th>Comment Form</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CRANE CREEK MASTER PLAN PUBLIC CHARRETTE—JULY 21, 2007</strong></td>
</tr>
<tr>
<td><strong>APPENDIXES</strong></td>
</tr>
</tbody>
</table>

| Which plan did you think was the best, and why? |
| What do you like MOST about your group’s plan? And what do you like LEAST about your group’s plan? |
| What changes would you like to make to the most popular plan? |
| Are there any additional needs in your neighborhood that need to be addressed? |
| General Comments |

Thank you!
Flood Hazard Zone Designations

Zone A
Zone A is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no Base Flood Elevations or depths are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone AE and A1-A30
Zones AE and A1-A30 are the flood insurance rate zones that correspond to the 100-year floodplains that are determined in the Flood Insurance Study by detailed methods. In most instances, Base Flood Elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Zones B, C, and X
Zones B, C, and X are the flood insurance rate zones that correspond to areas outside the 100-year floodplains, areas of 100-year sheet flow flooding where average depths are less than 1 foot, areas of 100-year stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 100-year flood by levees. No Base Flood Elevations (BFE) or depths are shown within this zone.