



GREENSBORO, NC

SUSTAINABLE NEIGHBORHOOD ASSESSMENT

September 12 - September 14 2012

SUSTAINABLE NEIGHBORHOOD ASSESSMENT USING LEED-ND

Through the Sustainable Neighborhood Assessment Tool developed by Global Green USA, public officials and local government staff are using the LEED for Neighborhood Development (LEED-ND) rating system to determine ways that future development in their communities can achieve high levels of environmental, economic, and social sustainability. LEED-ND integrates the principles of smart growth, walkable urbanism and green building into the first national rating system for neighborhood design. In Greensboro, NC, Global Green used the assessment tool to reveal the existing, planned, and potential sustainability levels of the City's Cottage Grove Neighborhood and to make sustainability-related recommendations.

ENVIRONMENTAL PROTECTION AGENCY

Technical Assistance provided by Global Green USA with Farr Associates and the US Green Building Council to the City of Greensboro was made possible through funding from the US EPA's Office of Sustainable Communities Building Blocks for Sustainable Communities Grant Program.



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Neighborhood Location

North Carolina



Greensboro in Guilford County



Cottage Grove



Sustainable Neighborhood Assessment Process

The goal of the sustainable neighborhood assessment process is to establish focus areas where policy and planning changes can promote sustainable urban development over the short and long term. To define these focus areas, Global Green USA and its team use a Sustainable Neighborhood Assessment tool whose backbone is a modified LEED-for Neighborhood Development (ND) checklist. Prior to visiting the target neighborhood, the team conducts a thorough review of relevant planning documents, code requirements, and city and stakeholder priorities for the neighborhood and creates an initial LEED-ND checklist, marking each credit as “achieved,” “not achieved,” “unknown,” or “not applicable” according to baseline conditions. This initial checklist also ranks credits within the three LEED-ND categories (Smart Location & Linkages, Neighborhood Pattern & Design, and Green Infrastructure & Building) as they compare to local policy priorities, regulatory support, technical feasibility, market support, and stakeholder input. The checklist for the Cottage Grove neighborhood is provided on pages 13-16.

Using the initial assessment as a point of departure, the Global Green team then conducts a three-day site visit. The team walks each block of the target neighborhood and conducts a series of meetings with targeted stakeholders, city staff, and other relevant agencies. Initial findings are then presented and discussed at a community workshop. Throughout this process, the checklist is edited and augmented to incorporate the team’s visual observations, issues raised

during stakeholder meetings, and priorities developed during the community workshop. The checklist helps to group individual sustainability components into the broad focus areas noted on the next page in the green box. It also provides specific sustainability performance metrics – taken directly from LEED-ND – for those focus areas. These metrics then serve as the technical criteria for the team’s specific policy and planning recommendations.

At the end of the process in Greensboro, the Global Green team developed specific recommendations in four topic areas. Many of these recommendations have components that can be implemented quickly, while others will require long-term dedication and collaboration with private-sector and community-based partners. The intention behind the recommendations is not to formally certify the area under the LEED-ND rating system but rather to suggest policy, planning, and development changes that promote the sustainable growth of the Cottage Grove neighborhood. Through the concerted effort of the City to improve upon existing assets and characteristics, such as the stream network, tree canopy, and proximity to jobs, by following the recommendations herein, this would, in time, enable the Cottage Grove/South English Street neighborhood to look, feel and perform like a LEED-ND neighborhood.

Neighborhood Background

The Cottage Grove/South English Street neighborhood is located in the southeastern portion of Greensboro, approximately two miles east of North Carolina A&T University. The Sustainability Assessment area is approximately 175 acres, bound by South English Street to the west, East Market Street and Holts Chapel Road to the north, Banner Avenue to the east, and Everitt Street to the south. The area is made up of commercial uses to the north, industrial land, multifamily and single family residential, as well as a heavily forested open space. The area has a rail line running through the northern portion, a creek and tributary channel, and is also home to some institutional uses such as Hampton Elementary School, and New Hope Baptist Church. Just outside of the assessment area to the west is Bingham Park and Maplewood Memorial Cemetery. To the west is the East Side Park neighborhood, redeveloped in the 1990s, and Willow Oaks, a HOPE VI area that has been rebuilt over the past ten years. However, Cottage Grove itself has experienced limited investment over the past several years, and some owners are now looking to dispose of their holdings in the area.

The area is within a Qualified Census Tract according to the 2010 census data, meaning it qualifies for the Low Income Housing Tax Credit (LIHTC) program intended to increase the availability of affordable rental housing. The neighborhood is 83% African American and 8% Hispanic, and contains a significant immigrant population from Africa, Latin America, and Asia. The neighborhood demographics adds rich diversity but also

language barriers and cultural differences. According to the 2005-2009 American Community Survey (ACS), census tract median household income was \$23,803; at least 54% of the households had incomes less than 50% of area median income and 85% had incomes less than 80% of area median, with 32.3% of people below the poverty line. Most of the housing stock was built before 1980 with approximately 55% tenant-occupied housing units. Despite relatively low rents, 37% of the tenants were rent burdened and there is a vacancy rate of close to 20%.

The Global Green team considered the economic and social dynamics of the neighborhood- understanding that these aspects have an affect on the built environment. The sustainability indicators used in this assessment process provide residents, City staff, and policy makers a collective understanding of the neighborhood's potential, as it compares to a national standard.

Neighborhood Highlights



NATURAL FEATURES



JOBS



INSTITUTIONS



LOCAL FOOD PRODUCTION

FOCUS AREAS

Related LEED-ND Credits

Walkability & Connectivity

Category: Neighborhood Pattern & Design

- Walkable Streets (prerequisite & credit 1)
- Connected & Open Community (prerequisite & credit 2)
- Mixed Use Neighborhood Centers (credit 3)
- Street Network (credit 6)
- Access to Civic & Public Open Space (credit 9)
- Access to Recreational Facilities (credit 10)
- Neighborhood Schools (credit 15)

South English Street

Category: Smart Location & Linkages

- Bicycle Network and Storage (credit 4)

Category: Neighborhood Pattern & Design

- Walkable Streets (prerequisite 1 & credit 1)
- Mixed-Use Neighborhood Centers (credit 3)
- Reduced Parking Footprint (credit 5)

Natural Features

Category: Smart Location & Linkages

Imperiled Species & Ecological Communities (prerequisite 2)

- Wetland & Water Body Conservation (prerequisite 3)
- Floodplain Avoidance (prerequisite 5)
- Design for Habitat or Wetland & Water Body Conservation (credit 7)

Category: Neighborhood Pattern & Design

- Access to Civic & Public Spaces (credit 9)

Category: Green Infrastructure & Building

- Stormwater Management (credit 8)

Neighborhood Diversity

Category: Neighborhood Pattern & Design

- Mixed-Income Diverse Communities (credit 4)
- Mixed-Use Neighborhood Centers (credit 3)
- Community Outreach & Involvement (credit 12)

Catalytic Projects

The Cottage Grove/ South English Street project was selected to receive Sustainable Neighborhood Technical Assistance based on two catalytic projects and its proximity to a recently constructed high-technology university research park just over one mile away. The first catalytic initiative is the Atlanta-based revitalization model established by Purpose Built Communities. The City receives no-cost technical assistance from Purpose Built Communities (PBC), which connects the City with PBC's network of partners to address the various pillars of a model that seeks to allow every child in Cottage Grove to achieve cradle-to-career excellence. Rather than focusing on just a single component of community change, holistic initiatives like PBC typically include mixed-income housing (a primary focus of City's Planning and Community Development Department), radically improved cradle-to-college educational opportunities, youth and adult development programs, jobs and job training, health and wellness programs, transportation access, recreational opportunities and commercial investment. PBC has worked with City staff and dozens of area stakeholders for close to two years to craft a structure for implementing activities and projects associated with these initiatives. The Projects will be implemented through the newly established non-profit, Cottage Grove Initiative LLC. This organization's purpose is to coordinate the holistic efforts identified through the PBC process. The City aims to develop a master plan to house all the ideas and initiatives from the PBC process. The City and Guilford County School District have applied for a \$425,000 planning grant from Promise Neighborhood in order to complete the master plan. Once the master plan is complete implementation activities and projects will take place over several years.

The second project is specific to the existing Avalon Trace apartments, where discussions are underway for the City to secure control of the project. The distressed 176 unit low-rent complex is in need of rehabilitation in order to spur the physical revitalization of the neighborhood. The redevelopment of Avalon Trace will serve as a benchmark for the quality of future investment in the neighborhood. Knowing this, the City is working with the current property owner and other investors to develop an acquisition and redevelopment strategy for the nearly nine acre property.

A master planning or planned unit development process will define future use and site configuration. The City has a long standing interest in this property from a land use and public safety perspective and has commissioned various site layouts and concepts for the property.

Past Site Plan Studies



Recommendation 1

RESPONSIBLE DEPARTMENT

Planning and Community Development, with support from Transportation and Engineering

Improving Neighborhood Connectivity

Street connectivity is a key component of LEED-ND and is an issue of prime importance in the Cottage Grove area. Neighborhoods with good connectivity typically have higher rates of walking, biking, and public transportation usage, along with lower transportation costs and rates of dependence on private vehicles. An increase in the physical usage of the public realm can improve public health and provide more support for local businesses; the *Balanced Economic Development: A Strategic Plan for East Greensboro* report indicated that there were enough households in the Cottage Grove area to support more local business but that those households were physically disconnected from potential business areas by haphazard street configurations. Equally important for Cottage Grove, better connectivity could help create the social interactions necessary to reduce isolation and promote a distinct neighborhood feel. So while street connectivity is a physical characteristic, its benefits span a number of economic, social and environmental areas.

As a metric, connectivity has two components. Internal connectivity looks at how easy it is to move within a neighborhood and is often measured in intersections per square mile. External connectivity concerns the relative ease or difficulty in traveling in or out of a neighborhood and is measured in distance between intersections that provide access to a neighborhood. Compared to LEED-ND definitions of best practice of 140 internal intersections per square mile and external connections of every 800 linear feet, Cottage Grove fares very poorly, with 16 internal connections per square mile and more than 2000 linear feet between some external connections. The current street pattern cuts off Cottage Grove residents from the rest of East Greensboro and isolates residents from both one another and key neighborhood assets such as Hampton Elementary School and Bingham Park.

Most of the benefits of connectivity can only be realized if the streets and other parts of a

neighborhood's connective tissue have walkable infrastructure such as sidewalks and pedestrian-friendly urban design such as buildings that front directly onto the street. In this area, Cottage Grove also fares poorly. Sidewalks are limited and much of the public realm is dominated by parking lots, thus creating a high degree of conflict between pedestrians, bicyclists and motor vehicles.

To improve connectivity in the Cottage Grove area, we recommend a number of short-term steps that address the near-term potential for rehabilitation of the Avalon Trace Apartments and the desire of neighborhood activists to better connect the northern portion of the neighborhood with Hampton Elementary School. Long-term recommendations focus on design standards that should be instituted as part of any rezoning or comprehensive physical reconfiguration of the area.



Three of five dead end streets within the assessment area



Improving Neighborhood Connectivity

Recommendations:

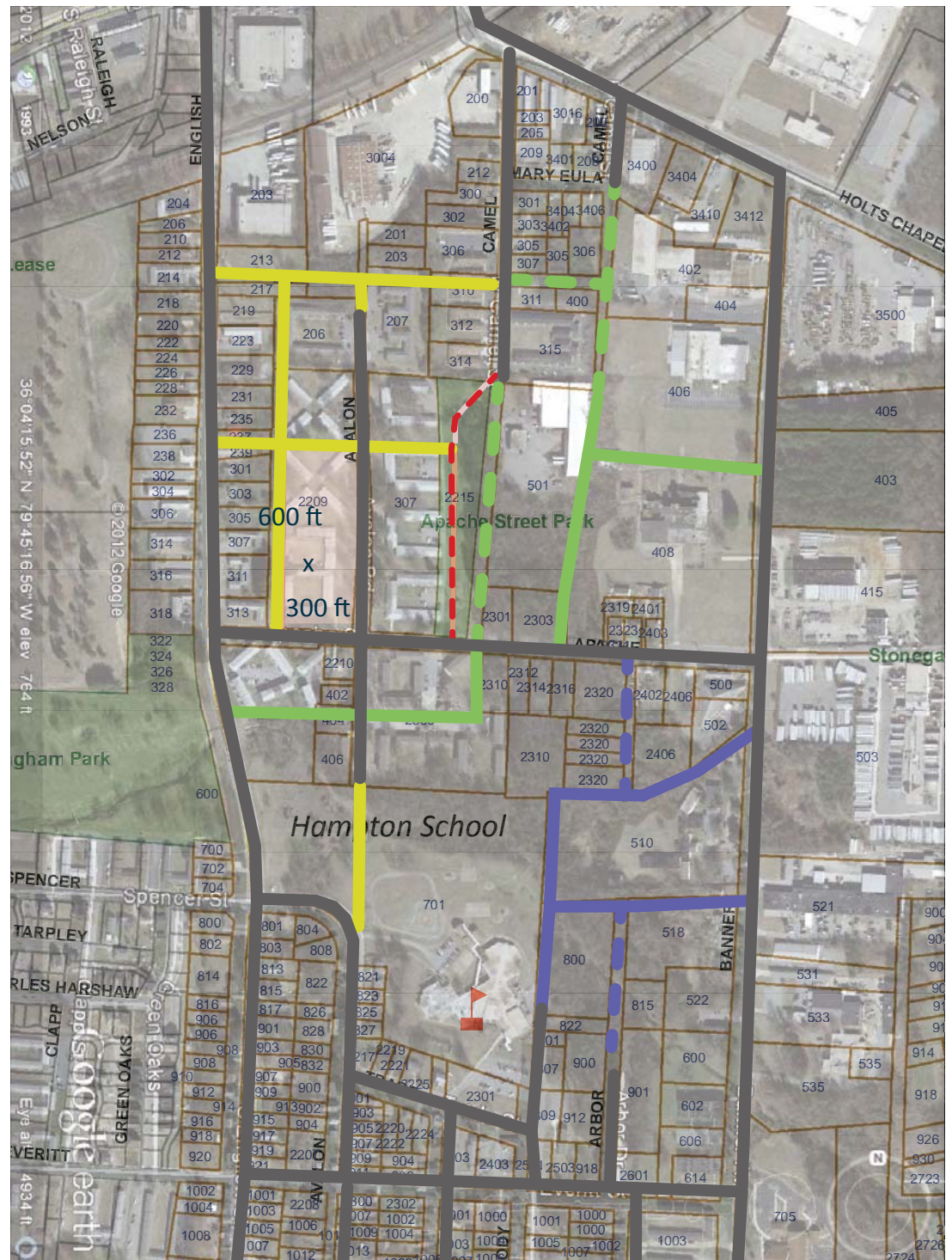
Short Term

1. A formal connection should be constructed between Avalon Trace and Hampton Elementary School to the south. An informal connection through dense woods with a degraded crossing over a stream already exists. Improvements to this path could enhance connectivity and improve security.
2. Any rehabilitation of Avalon Trace should include a minimum of one new street connection between Avalon Road and South English Street.
3. Site designs or plans for the Avalon Trace apartments should meet parts a and b of Neighborhood Pattern and Design Prerequisite #1: Walkable Streets (NPDp1), which require sidewalks to be constructed on both sides of street and buildings to face public space (not parking lots). Technically many of the requirements of NPDp1 only apply to new streets and buildings but our recommendation is that the City apply these requirements to the existing streets and buildings in the Avalon Trace area as well.
4. Site designs or plans for the Avalon Trace apartments should allow for future connections to the apartments to the north of Avalon Trace and then east across the creek to link up with West Camel.
6. Development proposals for the Cottage Grove area, whether done through the traditional zoning process or through a PUD process, should be required to meet, at a minimum, the NPD p1 minimum walkability standards:
 - At least 90% of new building frontage must face a public space or street;
 - At least 15% of the street frontage must have a 1:3 building-height-to-street-width ratio;
 - At least 90% of streets must have a continuous sidewalk on both sides of the street, and;
 - Garages and service bays must not occupy more than 20% of the linear street frontage.
7. A maximum block size of 600' x 300' should be added to the zoning requirements for residential and commercial areas of the Cottage Grove. Owners of the large industrial parcels on the east side of the neighborhood should be encouraged to intensify their activities, thus connecting people to more job opportunities in the neighborhood, or to subdivide those parcels into more manageable sizes, enabling other types of small businesses or commercial activities to enter the area while enhancing physical connectivity
8. Phase construction of new streets so that they complement the existing street network and take advantage of existing paper streets. The phased construction of new and paper streets are illustrated on the map on page 6.

Long Term

5. Residential and mixed-use portions of the Cottage Grove area should be declared a Traditional Neighborhood Development (TND), allowing the City's TND street standards to be used.

Improving Neighborhood Connectivity



- phase 1 new street
- - - phase 1 pedestrian path
- phase 2 paper streets
- - - phase 2 new streets
- - - phase 3 paper streets
- phase 3 new streets

Recommendation 2

Capitalize on Natural Assets

Not so long ago, the Cottage Grove area was rural county land before being annexed by the City of Greensboro as new urban development opportunities occurred. Many remnants of that rural character, including forest, waterways, and agricultural activities, still exist in the area and are assets that many urban populations fight to preserve and work to enhance. LEED-ND recognizes this with credits for habitat and ecosystem protection and restoration, access to public space, food production, tree lined streets, and for the promotion of watershed quality.

Despite this, the neighborhood's physical and social fabric seems to have turned its back on these natural assets. Parks are unused or considered a security threat, agricultural activities are haphazard, with plots uncared-for due to high resident turnover, and the impressive investments in stream restoration appear to be driven by broader state and federal policies requiring watershed protection rather than for local use and enjoyment.

Historically, discovery and enhancement of an area's natural features has proven to be a powerful community building tool, engaging a wide range of residents while providing momentum for ecosystem restoration and environmental education activities. Our recommendations focus on this important confluence of social and environmental actions that would result in a healthier neighborhood that embraces its natural surroundings.



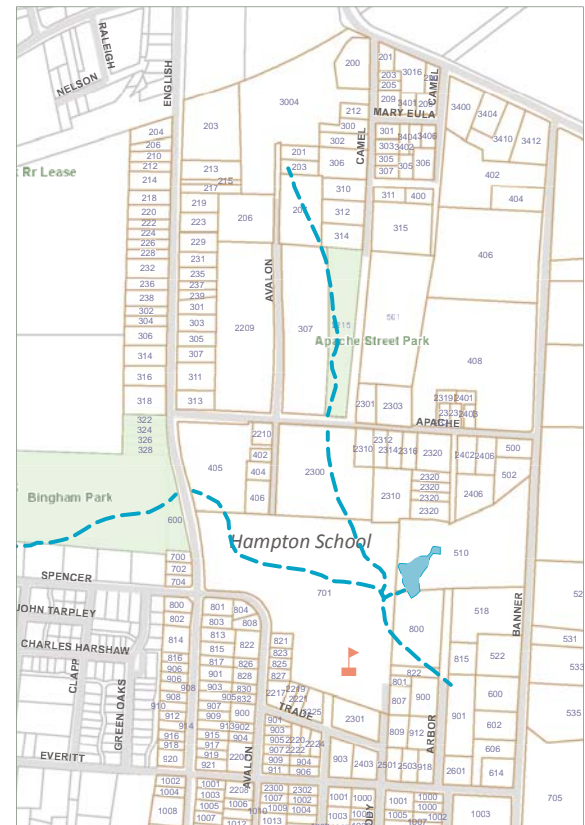
Creek within the assessment area flowing into a street culvert



Mature trees surrounding a natural pathway

Recommendations:

1. The Cottage Grove Initiative should sponsor a creek naming contest among local residents as a way of reintroducing them to this key natural feature.
2. Reconfiguration or reconstruction of Avalon Trace and the northern section of Cottage Grove should include restoration of the two creek tributaries that run through the neighborhood. Restoration should remove invasive species and follow the best practices for plantings, management and public access contained in Smart Location and Linkages Credit 8 (SLLc8) and Smart Location and Linkages Prerequisite 3.
3. Local environmental protection or education groups should be invited to team up with the Hampton Elementary School to introduce hands-on environmental curriculum to the school's existing emphasis on science and technology. Focusing this education on the creeks and surrounding forested areas could be a way to develop a stronger social and physical bridge between the school and neighborhood residents.
4. Neighborhood farmers and active gardeners should be recruited as a core constituency in the community outreach activities recommended elsewhere in this report.



Creek tributary location within Cottage Grove

Recommendation 3

RESPONSIBLE DEPARTMENT

Cottage Grove Initiative LLC, and the Department of Planning and Community Development

Stimulate the Community Engagement Process

There are many LEED-ND credits that are tailored to improve civic and community engagement. Prioritizing access to civic and public space improves not only the physical, but the emotional, mental, and social capital within a neighborhood by facilitating civic engagement, physical activity, and time spent outdoors. The rating system also encourages responsiveness to community needs and rewards community engagement processes that involve residents in neighborhood revitalization and planning projects.

However there are many forms of community involvement and outreach not covered by the rating system; conditions in Cottage Grove dictate a more comprehensive approach than that required by LEED-ND. To that end the Global Green team recommends goals and objectives that are specifically tailored to the community of residents living and working in the Cottage Grove neighborhood.

In many ways the community building and engagement process is an iterative one. The City of Greensboro will find it easier to commit to providing the type of physical spaces that will nurture the growth and engagement of a community when that community is engaged in the neighborhood revitalization process. Without active community participation on the part of the neighborhood and timely, responsive action on the part of the City to initiate the appropriate improvements, the efforts to promote change in the Cottage Grove neighborhood could come to a halt.

Understanding this dynamic, the City's main goal for this engagement process should be that residents of the Cottage Grove neighborhood see it as a place they choose to live even when they have financial mobility. The major objectives to accomplishing this goal are twofold. The first is centered on uncovering the unique natural assets of the neighborhood to highlight the areas potential, as described in the Capitalize on Natural Assets recommendation. The second is to provide a variety

of ways for the community to engage in the planning and development process such that they see their involvement as having a meaningful influence on the direction of the neighborhood.

The objective around community engagement inherently implies creating a level of trust and transparency between residents, the City, and potential developers and property owners. By listening to residents needs, and their unique insight into the motivations and/or reservations of staying in Cottage Grove, the City should develop clear and practical parameters on what residents can affect and hold true to those parameter during development negotiations. During this trust building period, the City should be prepared to answer questions on future affordability levels along with other questions that may not be clearly defined at the onset of this planning process. Understanding that the planning process can only inform development and capital improvements rather than dictate exact outcomes will ensure that trust is not lost during the long development time line. Once trust is established, the onus falls on the City to ensure the community's need are embedded within the development requirements- to the highest extent possible. Ultimately, the City will be responsible for managing both developer and resident expectations.



Stakeholder Meeting held by the Global Green Team

Stimulate the Community Engagement Process

Recommendations:

1. Engage residents of Cottage Grove through the following ways:
 - One-on-one meetings
 - House meetings
 - Planning events
 - Social media
 - Surveys
 - Neighborhood walks
 - Sports leagues
 - Faith institutions
 - Crime watches
2. Hold engagement opportunities at a variety of times to accommodate schedules.
3. Meet residents where they are in order to engage- this may include informal one-on-on conversations on their front porch, or other places where residents frequent.
4. Provide child care and a meal to maximize participation in any events or meetings.
5. Offer engagement opportunities in multi-lingual, multi-cultural ways and record information in a visual and/or audio format to avoid potential literacy barriers.
6. Create a neighbor-organize-neighbor engagement process to discuss the reinvestment plans/projects:
 - Recruit two to three residents-leaders
 - Provide a stipend for purchasing food and materials for residents-leaders to hold gatherings where they see fit
 - Task residents-leaders to organize and prepare other residents to participate meaningfully by preparing them with information they many need for future planning events.
 - Task resident-leaders with discussing survey questions, hold neighborhood walks, or survey the blocks- whatever the City sees as useful information.

Improve South English Street

Recommendation 4

RESPONSIBLE DEPARTMENT

Transportation and Engineering, with support from Planning and Community Development-Redevelopment

The largest category within LEED-ND, in terms of points, is Neighborhood Pattern & Design (NPD). This credit category emphasizes the creation of compact, walkable, vibrant, mixed use neighborhoods with connections to nearby assets. These attributes are vital to creating a sustainable neighborhood by using infrastructure and land more efficiently, therefore reducing driving while promoting local business.

As the main north-south thoroughfare in Cottage Grove, South English Street currently serves as the backbone of the neighborhood. However, the current street and sidewalk design, combined with a development pattern ill-suited for the street's importance, limits the potential. The current street design has insufficient pedestrian infrastructure and high speed traffic. The lack of traffic calming/control measures and the inconsistent sidewalk network creates significant safety concerns for pedestrians, cyclists, and those with disabilities. Narrowing the street to accommodate the existing traffic, expanding the pedestrian zone of the street with wider, accessible sidewalks and street trees, and adding on-street parking as a buffer to pedestrians would enhance the pedestrian experience and slow traffic through the area.

With these street improvements, South English Street could begin to serve as Cottage Grove's "Main Street". In the traditional sense, a main street creates a place for a mix of commerce and social activity. However the predominantly residential land use lining the street and the limited allowance in the zoning code for non-residential development in the area inhibits the opportunity to create this Main Street feel and function. From an urban design and land use perspective, South English Street could easily support a mix of uses – either vertically or horizontally – with somewhat higher residential densities, creating a small neighborhood scale shopping and service destination that would complement South English Street's thoroughfare function. Additionally, higher density residential and mixed-use buildings add an additional type of

housing to the neighborhood, while also providing "eyes on the street", thus promoting security. Further, increasing density through up-zoning may also create the opportunity to lock-in affordability for a portion of the units by expanding the type and size of units available. With a redesigned street and more residents, goods, and services, South English Street would no longer be another barrier isolating the residents of Avalon Trace and other apartment buildings in Cottage Grove. This change could help create a cohesive neighborhood identity that includes neighborhood serving retail and other nearby amenities across South English Street, such as the Bingham Park and New Hope Baptist Church.



(Top) Missing sidewalks and fast moving vehicular traffic on S. English Street creates an unsafe pedestrian experience.
(Bottom) Lack of controlled crossings on S. English creates safety hazard for pedestrians and cyclists while impeding traffic

Improve South English Street

Recommendations:

Short Term

1. Complete the sidewalk network on both sides of South English Street.
2. Stripe Bike lanes on South English Street.
3. Provide on-street parking on both side of South English Street.
4. Create a planting strip on South English in order to provide a buffer from fast moving cars.
5. Reduce South English Street from a four lane street to a two lane street.

Long Term

6. Amend the existing zoning around South English Street to allow for mixed use and higher residential densities.
7. Up-zone density minimums to provide a 1:2 building-height-to-street-width ratio (NPDc1).
8. Ensure that any new site design or plan for Avalon Trace rehabilitation allow for the future construction of larger buildings along South English Street at a minimum FAR of 0.5 (NPDp2), while adhering to the walkable streets criteria (NPDp1,c1 and c5) for building design and parking lot location.
9. Implement the Collector Criteria under the Traditional Neighborhood Development (TND) street design standards for South English



Sustainability Assessment

Checklist

The Sustainable Neighborhood Assessment tool includes an annotated LEED-ND checklist created by Global Green. It is a key component of the process used to document and compare the assessment area against the LEED-ND prerequisites and credits. Each credit within the three credit categories (Smart Location & Linkage, Neighborhood Pattern & Design, and Green Infrastructure & Building) is marked as "achieved," "not achieved," "unknown," or "not applicable" under baseline conditions. Additional analysis has been done based on local planning policy, regulatory support, technical feasibility, market support and stakeholder input. The preliminary checklist analysis was edited and augmented during our site visit, stakeholder meetings, and after the community workshop. This information was then translated into an overall assessment of sustainable neighborhood performance.

LEED for Neighborhood Development: Project Assessment Checklist COTTAGE GROVE NEIGHBORHOOD- GREENSBORO, NORTH CAROLINA

Baseline Conditions
Local/Regional Planning Priority
Regulatory Support
Technical feasibility
Market Support
Neighborhood Need/ Stakeholder Input

Legend	
✓	Achieved
?	Unknown
X	Not Achieved
—	Does not exist/ NA
Green	Explicit support/ no technical issues
Yellow	Lack of explicit support/ minor technical issues
Red	Opposition/ significant technical issues
Grey	Not Applicable

Smart Location and Linkage

✓	Green	Green	Green	Yellow	Green	P 1	Smart Location
✓	Grey	Grey	Green	Grey	Grey	P 2	Imperiled Species and Ecological Communities
✓	Yellow	Green	Green	Grey	Green	P 3	Wetland and Water Body Conservation
✓	Grey	Grey	Grey	Grey	Grey	P 4	Agricultural Land Conservation
✓	Green	Green	Green	Green	Green	P 5	Floodplain Avoidance
✓	Green	Yellow	Green	Yellow	Yellow	C 1	Preferred Locations
—	Grey	Grey	Grey	Grey	Grey	C 2	Brownfield Redevelopment
X	Yellow	Red	Red	Red	Yellow	C 3	Locations with Reduced Automobile Dependence
X	Green	Green	Yellow	Red	Green	C 4	Bicycle Network
X	Yellow	Yellow	Green	Red	Yellow	C 4	Bicycle Storage
✓	Green	Green	Green	Yellow	Green	C 5	Housing and Jobs Proximity
✓	Green	Green	Green	Green	Grey	C 6	Steep Slope Protection
✓	Yellow	Green	Green	Grey	Green	C 7	Site Design for Habitat or Wetland and Water Body Conservation
X	Green	Yellow	Green	Yellow	Green	C 8	Restoration of Habitat or Wetlands and Water Bodies
X	Green	Yellow	Green	Yellow	Green	C 9	Long-Term Conservation Management of Habitat or Wetlands an

Sustainability Assessment

Checklist

LEED for Neighborhood Development: Project Assessment Checklist COTTAGE GROVE NEIGHBORHOOD- GREENSBORO, NORTH CAROLINA

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Input
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Legend	
✓	Achieved
?	Unknown
X	Not Achieved
-	Does not exist/ NA
Green	Explicit support/ no technical issues
Yellow	Lack of explicit support/ minor technical issues
Red	Opposition/ significant technical issues
Grey	Not Applicable

Neighborhood Pattern and Design

X	Green	Green	Yellow	Yellow	Yellow	P 1 Walkable Streets- Principal Entries
X	Yellow	Yellow	Green	Red	Red	P 1 Walkable Streets- Building Height to Street Width Ratio
X	Green	Red	Yellow	Red	Yellow	P 1 Walkable Streets-Continuous Sidewalks
✓	Red	Red	Green	Grey	Yellow	P 1 Walkable Streets-Garage and Service Bays
X	Green	Green	Green	Red	Yellow	P 2 Compact Development
X	Yellow	Red	Yellow	Green	Green	P 3 Connected and Open Community
X	Yellow	Yellow	Green	Yellow	Yellow	C 1a Walkable Streets : Facades and Entries
X	Yellow	Yellow	Green	Yellow	Yellow	C 1b Walkable Streets: Ground-Level Use and Parking
X	Yellow	Green	Green	Grey	Green	C 1c Walkable Streets: Design Speed for Safe Ped and Bike Travel
✓	Grey	Yellow	Green	Grey	Yellow	C 1d Walkable Streets: Sidewalk Intrusions
X	Green	Green	Green	Red	Yellow	C 2 Compact Development
X	Yellow	Green	Green	Red	Green	C 3 Mixed-Use Neighborhood Centers
✓	Green	Green	Green	Green	Green	C 4 Mixed-Income
X	Grey	Green	Green	Yellow	Green	C 4 Diverse Communities
X	Yellow	Yellow	Green	Yellow	Yellow	C 5 Reduced Parking Footprint
X	Yellow	Yellow	Green	Yellow	Green	C 6 Street Network
X	Green	Yellow	Green	Grey	Green	C 7 Transit Facilities
X	Yellow	Yellow	Yellow	Yellow	Yellow	C 8 Transportation Demand Management
✓	Yellow	Green	Green	Grey	Green	C 9 Access to Civic and Public Spaces
✓	Yellow	Green	Green	Grey	Green	C 10 Access to Recreation Facilities
X	Grey	Yellow	Green	Grey	Green	C 11 Visitability and Universal Design
X	Green	Yellow	Green	Grey	Green	C 12 Community Outreach and Involvement
X	Yellow	Yellow	Green	Green	Green	C 13 Local Food Production
X	Green	Yellow	Yellow	Yellow	Yellow	C 14 Tree-Lined and Shaded Streets
X	Green	Green	Green	Grey	Yellow	C 15 Neighborhood Schools

Greensboro, NC

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9/12/2012

Sustainability Assessment

Checklist

LEED for Neighborhood Development: Project Assessment Checklist COTTAGE GROVE NEIGHBORHOOD- GREENSBORO, NORTH CAROLINA

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Input
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Legend	
✓	Achieved
?	Unknown
✗	Not Achieved
-	Does not exist/ NA
Green	Explicit support/ no technical issues
Yellow	Lack of explicit support/ minor technical issues
Red	Opposition/ significant technical issues
Grey	Not Applicable

Green Infrastructure and Buildings

✗	Green	Yellow	Green	Yellow	Green	Yellow	Green	Yellow	Green	P 1	Certified Green Building
✗	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Yellow	P 2	Minimum Building Energy Efficiency
✓	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Yellow	P 3	Minimum Building Water Efficiency
✗	Green	Yellow	Green	Yellow	Green	Yellow	Green	Yellow	Green	P 4	Construction Activity Pollution Prevention
✗	Green	Yellow	Green	Yellow	Green	Yellow	Green	Yellow	Green	C 1	Certified Green Buildings
✗	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Yellow	C 2	Building Energy Efficiency
✓	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Yellow	C 3	Building Water Efficiency
✓	Green	Green	Green	Green	Green	Green	Green	Green	Green	C 4	Water-Efficient Landscaping
✗	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	C 5	Existing Building Use
-	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	C 6	Historic Resource Preservation and Adaptive Reuse
?	Grey	Yellow	Green	Yellow	Yellow	Green	Yellow	Yellow	Green	C 7	Minimized Site Disturbance in Design and Construction
✗	Green	Green	Green	Grey	Grey	Grey	Grey	Grey	Grey	C 8	Stormwater Management
✗	Green	Green	Green	Grey	Grey	Grey	Grey	Grey	Grey	C 9	Heat Island Reduction
✗	Red	Red	Yellow	Grey	Grey	Grey	Grey	Grey	Grey	C 10	Solar Orientation
✗	Yellow	Yellow	Yellow	Red	Red	Yellow	Yellow	Yellow	Yellow	C 11	On-Site Renewable Energy Sources
✗	Grey	Grey	Red	Red	Grey	Grey	Grey	Grey	Grey	C 12	District Heating and Cooling
✓	Yellow	Green	Green	Grey	Grey	Grey	Grey	Grey	Grey	C 13	Infrastructure Energy Efficiency
✗	Grey	Grey	Red	Red	Grey	Grey	Grey	Grey	Grey	C 14	Wastewater Management
✗	Yellow	Yellow	Yellow	Grey	Grey	Grey	Grey	Grey	Grey	C 15	Recycled Content in Infrastructure
✗	Green	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Green	Yellow	C 16	Solid Waste Management Infrastructure
✓	Green	Green	Green	Yellow	Yellow	Green	Yellow	Yellow	Yellow	C 17	Light Pollution Reduction

Sustainability Assessment

Summary

Based on in-field assessment, planning document review, various stakeholder meetings, and the community workshop, the Global Green team estimated which LEED-ND credits were “Likely,” “Possible with Effort,” “Unlikely” to be achieved, or “Not Applicable,” considering existing conditions, technical feasibility, policy readiness, financial burden, and applicability to neighborhood conditions. The bar graph summary identified the overall level of sustainable neighborhood performance for the Cottage Grove neighborhood. To that end, in all three of the LEED-ND credit categories, credits fall into the “Likely” category, which affirms the teams perception that the area has existing attributes of sustainability. Of the remaining credits, many fall in the “Possible with Effort” category, which shows the large potential for improving the neighborhood’s level of sustainability specifically by pursuing the high-priority recommendations described in this report.

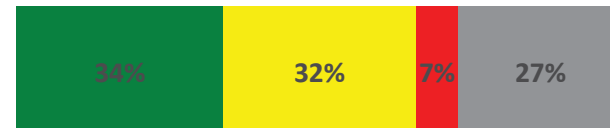
Smart Location and Linkages



Neighborhood Pattern and Design



Green Infrastructure and Building



Legend

- “Likely”
- “Possible with Effort”
- “Unlikely”
- “Not Applicable”

The summary table below shows the numeric values extrapolated from the percentage of credits identified as “Likely” above. While these values do not correlate exactly to specific LEED-ND points, they provide an estimate of the neighborhood’s potential level of future achievement. It should be noted that this is a rough measure of performance, and not an exact representation of the project’s level of possible certification. It should also be noted that all the prerequisites would need to be achieved if certification was to be pursued.

Point Requirements for LEED-ND Certification

Certified:	40-49
Silver:	50-59
Gold:	60-79
Platinum:	80+

Greensboro, NC

LEED for Neighborhood Development

	Total	Achievable
Smart Location and Linkage	27	12
Neighborhood Pattern and Design	44	21
Green Building and Infrastructure	29	10
	100	43

COTTAGE GROVE

GREENSBORO

CONNECTIVITY

- UPPER END OF WALTON TRACE
- JOBS ON BANNER
- SCARCE INDUSTRY - RE-PURPOSE
- BANNER CONNECT TO LEE ST.
- BANNER CONNECTS TO ADJACENT N'HOD
- SIDE WALKS ON BANNER MAKE CONNECTIONS EASIER
- MORE RETAIL WOULD REQUIRE CONNECTIONS & MORE ROOFTOPS
- ^{WIDE} STREETS ALSO SLOWS DOWN TRAFFIC
- PEOPLE MAKE THEIR OWN WALKING PATHS - TRAILBLAZING

→ WILLOW CREEK GREEN PATH PRESERVED BUT INTENTIONALLY NOT ISOLATED

NATURAL FEATURES

- WALKING ALONG THE CREEK IS A PLUS, BUT NOT POSSIBLE/EASY NOW
- COMMUNITY GARDEN • SHOWS OWNERSHIP & INVOLVEMENT
- EDUCATION OPPORTUNITY
- CREEK NEEDS TO BE SAFE
- CREEK NEEDS TO BE MAINTAINED
- ONLY TWO PROPERTY OWNERS OF MUCH OF THE CREEK ADJ. PROPERTY
- ENVIRON. ASSESSMENT STILL PENDING
 - ↳ SHOULD BE A BROWN FIELD
 - ↳ FUNDING OPPORTUNITY?
- BROWN FIELD CAN PROTECT FROM DEV. PRESSURE
- S.W. SIDE OF TOWN (LINEAR PARK) ≈ 1 MILE → COULD HAVE BEEN JUST A BACK YARD.
- OTHER NATURAL AREAS THAT ARE USED/ ARE SUCCESSFUL ACTIVATED
- CLEAN UP LIQUOR HOUSE, CAR YARDS & THIS WILL ACTIVATE THE AREA BY REDUCING CRIME CARBOR DR. PARTICULARS
- KIDS WON'T WALK AROUND IF THE CRIME CONTINUOUS
- ABSENTEE LANDLORDS ARE A MAJOR ISSUE
 - ↳ THERE ARE MANY, POLICE REPORT TENANTS REQUESTS TO LANDLORDS, BUT TO NOW RESOLUTION
 - ↳ VISIBILITY IS A DETERENT TO CRIME
- PROPERTIES NEED TO BE MAINTAINED TO SEND CRIMINALS THE RIGHT MESSAGE

HOUSING TYPES

- SUBSTANTIAL SINGLE HOMES & CONDOS
 - ↳ WITH A NEIGHBORHOOD FEEL & DOESN'T ~~NEED~~ SUPPORT / DEMAND LIQUOR HOUSES
- CONDOS FOR THOSE THAT CAN'T AFFORD A SF. HOME
- HOUSING STOCK IS GETTING OLD & NOT PROVIDING MUCH OPTIONS
- MEANINGFUL INVESTMENT (BY EITHER RUNNER OR LANDLORDS)
- THERE NEEDS TO BE MORE THEN HOUSING TO BETTER THE N'HOD, LIKE COMMERCIAL
- OPENING UP THE STREETS IS MORE/JUST AS IMPORTANT AS NEW OTHER HOUSING
- CIVIC SPACE CAN ALSO HELP THIS
- HOW DO WE GET NEW/IMPROVED N'HOD W/O GENTRIFICATION
- A LONG TERM APPROACH - STARTING W/ YOUTH

→ ~~WANT~~ COMMON SPACE FOR COMMUNITY COLLEGE OR SOMETHING THAT ALLOWS VARIOUS PEOPLE INVOLVED

→ SOMETHING TO DRAW OTHERS INTO THE COMMUNITY → THE ADDITIVE FROM OTHER NEARBY ASSETS → (LIKE UNIVERSITIES)

→ CONNECTING TO THE NEW YMCA & THE CREEK TO THE YMCA

→ ONE THING ISN'T GOING TO MAKE A DIFFERENCE → WE NEED TO LEVERAGE ALL THE RESOURCES

→ ADDRESS HOUSING, SCHOOL, CIVIC SPACE, ETC. ALL AT THE SAME TIME

→ WHAT EVER IS BUILT FIRST NEEDS TO BE A "SPARK" → WHAT TYPE OF HOUSING THE COMMUNITY WANTS IS TO BE DETERMINING

SOUTH ENGLISH ST.

- SOUTH ENGLISH MUST BE LEVERAGED TO OFFER A WAY OUT / ACCESS FOR NEIGHBORS
- THE PERCEPTION OF SPEED IS SCARY - MORE THEN THE REALITY
- IN THE PAST YOU COULD SAFELY WALK
- THE HISTORY HASN'T BEEN TOLD OR ISN'T KNOWN
- COMMUNITY ENGAGEMENT IS CRUCIAL, THOSE WHO LIVE THERE NEED TO PARTICIPATE IN THE PROCESS, ITS THEIR FUTURE
- 37 VACANT PROPERTIES THAT ARE PUSHING OUT ACTIVE RESIDENTS
- DOCTOR'S OFFICE (FACILITY, RESTAURANTS)
 - ↳ SINCE THEY COME THEY WILL WANT TO STAY
- NEED TO CHANGE THE PERCEPTION TO DRAW THESE RESOURCES
- THESE ARE THINGS THAT CAN LOCATE ON ENGLISH ST.
- DOES THE N'HOD WANT ENGLISH TO BE RESIDENTIAL TO MAKE THE RES. (INTERNAL) WORK?
- NEED SIDE WALKS, BETTER LIGHTING ON ENGLISH.
- LANDSCAPE MAINTENANCE TO IMPROVE VISIBILITY

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