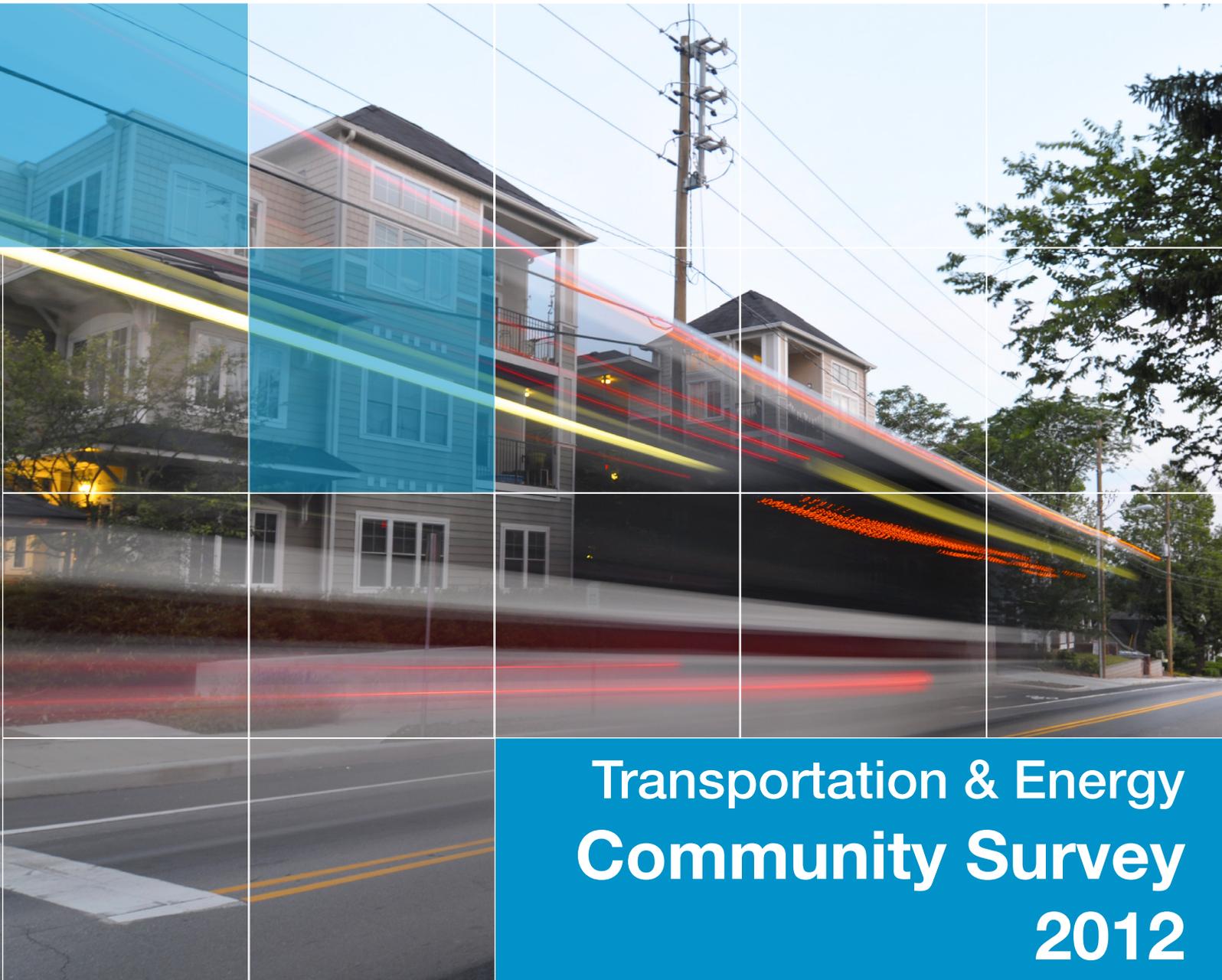


EAST OF THE RIVERWAY



Transportation & Energy Community Survey 2012



ACKNOWLEDGEMENTS

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We thank all community members who provided their time and insights during this process.

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EXECUTIVE SUMMARY

In 2010 the City of Asheville received a Sustainable Communities Tiger II Planning Grant from the U.S. Department of Transportation. Through the Asheville Design Center, Appalachian State University's Department of Geography and Planning offered to partner with the City and several other groups to engage in a community planning process and conduct a survey in the East of the Riverway community.

The overall intent of this survey was to identify needs in transportation and energy, and hear about resident's perceptions of neighborhood to guide planning efforts in ways that will best serve the community. The final results are documented in this report.

It is important to note that this report looks at the East of the Riverway area as a whole and does not specifically compare neighborhoods. Those interested in inquiring about the availability of the raw survey data should contact either Dr. Terence Milstead or the City of Asheville's Community Development Division (see page one for contact information).

Community Setting

This portion of the report details the East of the Riverway area and its five distinct neighborhoods: South French Broad, West End Clingman Avenue Neighborhood (WECAN), Hillcrest, Livingston and Lee-Walker Heights. Each of these five neighborhoods

is home to a relatively diverse population with various housing types, employment opportunities, parks and businesses.

Methodology

The methodology section details the project team's process of implementing the survey. This includes determining survey questions, collecting feedback, determining sampling methods, raising awareness about the Sustainable Communities Initiative, and training project partners and community members to assist with survey implementation.

Results

This section describes the results question-by-question to assist the reader in quickly locating desired information. Each question has three components: intent of the question, overall findings, and highlights (if needed).

Conclusions and Recommendations

The final section of this report uses the data to make conclusions about the needs and desires of East of the Riverway area residents. The team uses these conclusions to provide suggestions for future action.

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KEY SURVEY HIGHLIGHTS

Tenancy Trends

A count of owners and renters

- 56% rent from the Housing Authority of the City of Asheville.
- 30% are homeowners.
- 14% rent from individuals or companies.
- Homeowners tend to have lived in the East of the Riverway community longer than renters.

Energy Conservation

Most commonly practiced energy conservation measures

- Turning off lights
- Turning down the thermostat
- Using ceiling fans
- Turning off electronics

Safety

Safety trends

- Overall, respondents felt safe in all categories (day, night, bike, pedestrian, for children) but appear to feel slightly less safe at night.
- The longer someone has lived in the community, the safer they felt overall.
- Those who rent from a company or the Housing Authority of the City of Asheville felt the least safe

Neighborhood Likes

Top things respondents like about their neighborhood

- Noise level
- Location
- Neighbors

Neighborhood Dislikes

Top things respondents dislike about their neighborhood

- Nothing
- Noise level
- Traffic

Desired Energy Improvements

Top three desired energy-related improvements:

- Installing new insulation
- New lighting
- Sealing air leaks and fixing windows

Transportation

Primary modes of transportation

- Personal vehicle
- Public transportation
- Walking

Fuel Usage

Main fuel used for home heating

- Natural gas
- Electric heat pump
- Electric baseboard



COMMUNITY SETTING

This portion of the report details the East of the Riverway area and its five distinct neighborhoods: South French Broad, West End Clingman Avenue Neighborhood (WECAN), Hillcrest, Livingston and Lee-Walker Heights. Each of these five neighborhoods is home to a relatively diverse population with various housing types, employment opportunities, parks and businesses.

Asheville, NC

With a diverse population of more than 83,000, Asheville is the largest city in Western North Carolina and the seat of Buncombe County. Asheville's role as a regional economy is demonstrated by the significant growth the city experiences with its daytime population. Among all cities in North Carolina with populations of 50,000 or greater, Asheville has the highest daytime to nighttime population ratio, with more than 40,000 people commuting into Asheville for employment. Asheville enjoys a thriving health and wellness community, numerous institutions of higher learning and receives national accolades as a premier destination in the southeast.

East of The Riverway Target Area

The East of the Riverway area is a 1,100 acre portion of Asheville, nestled between downtown and West Asheville along the French Broad River. For purposes outlined in the methodology section of this report, the project team divided this area into five unique neighborhoods: South French Broad, West End Clingman Avenue Neighborhood (WECAN), Hillcrest, Livingston and Lee-Walker Heights. Each area is home to a relatively diverse population with various housing types, employment opportunities, parks, and stores.

Sustainable Communities Initiative Planning Grant

In 2010 the City of Asheville received a Federal Sustainable Communities Initiative Tiger II grant from the U.S. Department of Transportation to fund the East of the Riverway project. The grant's focus is to fund planning efforts in the South French Broad, WECAN,

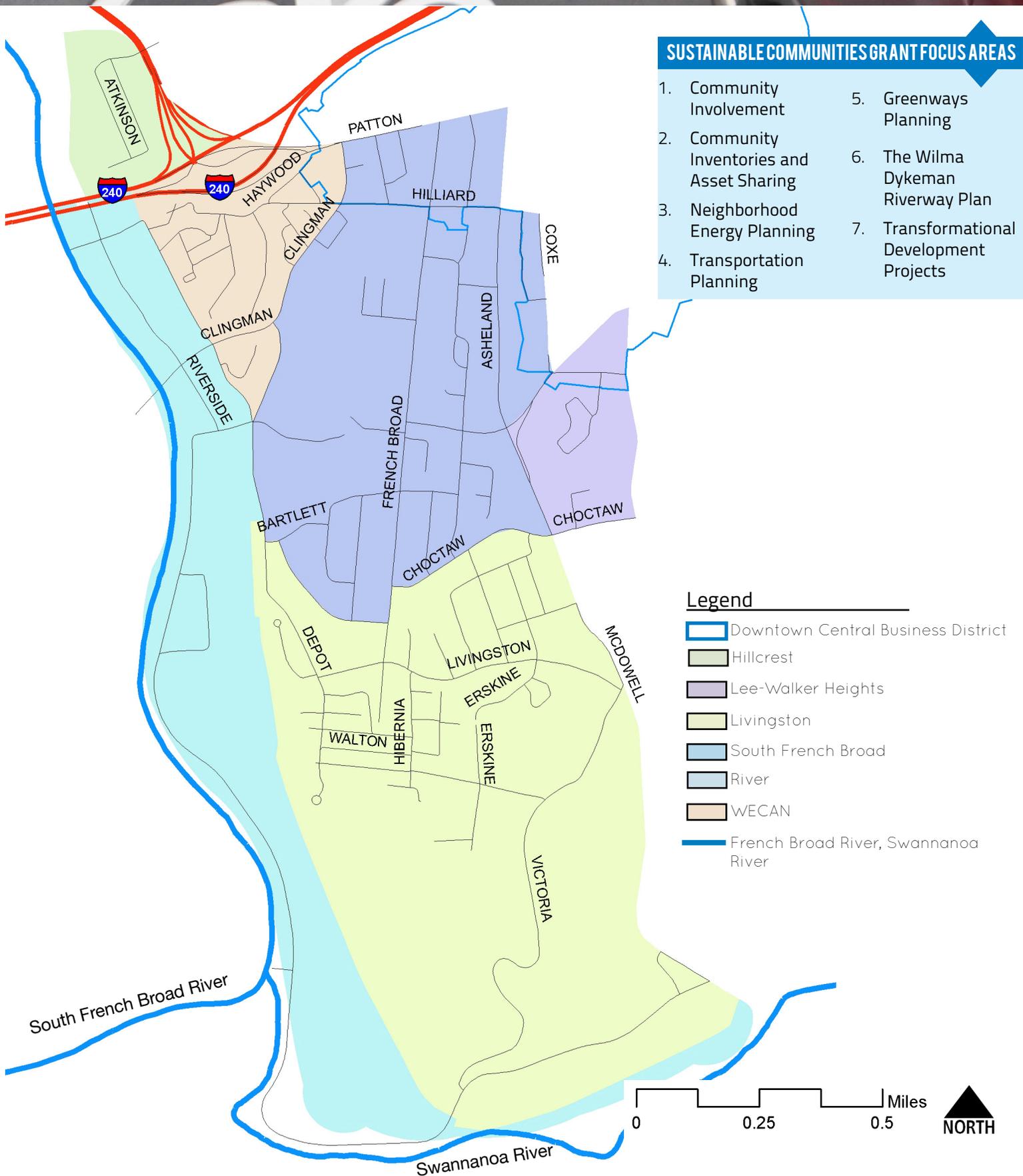
Hillcrest, River Arts, Southside (Livingston), and Lee-Walker Heights neighborhoods. These communities make up the "East of the Riverway" area, an area designated for the purposes of this grant.

The goal of the Sustainable Communities Initiative is to make the East of the Riverway area more sustainable by following six Livability Principles established by the federal government's Sustainable Communities Partnership.

- | | |
|---|--|
| 1. Provide more transportation choices | 4. Support existing communities |
| 2. Promote equitable and affordable housing | 5. Coordinate policies and leverage investment |
| 3. Enhance economic competitiveness | 6. Value communities and neighborhoods |

Numerous partners, including the City of Asheville, Asheville Design Center, Green Opportunities (GO), Just Folks, Appalachian State University and other community organizations are working together to engage community members in this important planning process and to learn more about the East of the Riverway area.

As part of the planning grant, the City of Asheville recruited a project team that included East of the Riverway community members, Just Folks, Green Opportunities (GO), and Appalachian State University graduate planning students to develop and conduct a survey in the target area. The project team trained project partners and community members to assist with survey implementation, and Appalachian State University students analyzed the survey data to create a final report on the findings.

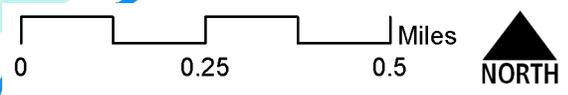


SUSTAINABLE COMMUNITIES GRANT FOCUS AREAS

- | | |
|--|--|
| 1. Community Involvement | 5. Greenways Planning |
| 2. Community Inventories and Asset Sharing | 6. The Wilma Dykeman Riverway Plan |
| 3. Neighborhood Energy Planning | 7. Transformational Development Projects |
| 4. Transportation Planning | |

Legend

- Downtown Central Business District
- Hillcrest
- Lee-Walker Heights
- Livingston
- South French Broad
- River
- WECAN
- French Broad River, Swannanoa River



HILLCREST

Introduction to the Hillcrest Neighborhood

The Hillcrest neighborhood is a self-contained public housing complex owned and operated by the Housing Authority of the City of Asheville and is located in the northwest section of the East of the Riverway community. It is bound to the south by I-240, to the northeast by I-26, and the west by Riverside Drive and the French Broad River. The complex is fenced, and vehicular access is controlled at a security gate; this is the only vehicle access to the complex.

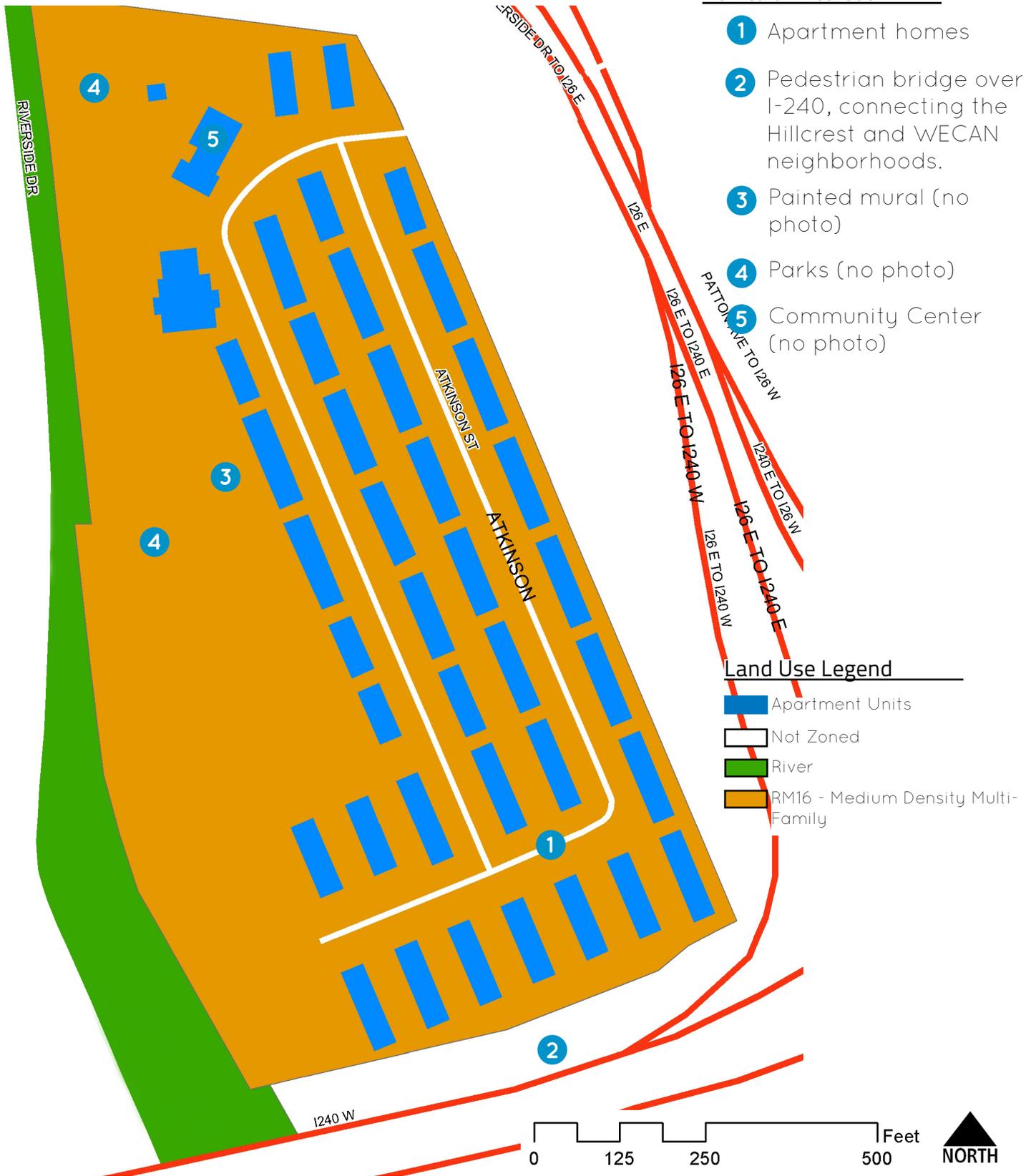
Traditional single-story flats share space with multi-story townhouses. The townhouses occupy the majority of two long parallel roads with on-street parking and street-oriented design. The flats are situated around parking lots at the end of these roads. The buildings in the neighborhood have a uniform and well-maintained external look. They are brick with wood siding on the second floor, and have covered stoops in front with a small storage shed and clothesline in the rear. Although there are no businesses, the neighborhood does have a daycare and community center.

Sidewalks crisscross the area making it particularly pedestrian-friendly. Small flowering trees partially line the streets and fences. Open space exists behind the westernmost row of buildings and includes basketball courts, playgrounds, grassy fields, and picnic tables.





Hillcrest: Current Zoning and Land Use



LEE-WALKER HEIGHTS

Introduction to the Lee-Walker Heights Neighborhood

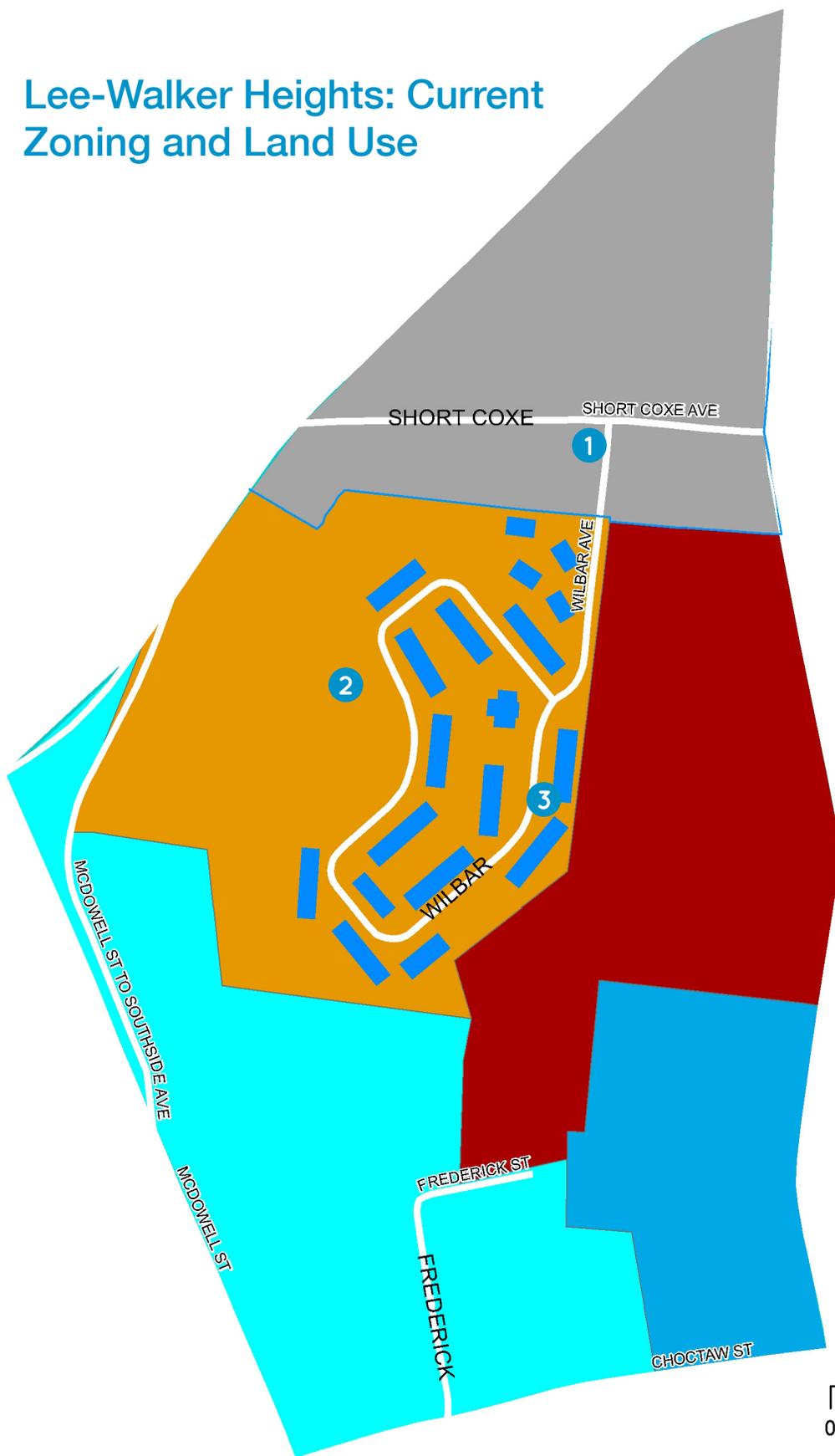
Lee-Walker Heights is located on the eastern edge of the East of the Riverway community in the Southside neighborhood. The 96 multi-family housing units are located on a 12.5 acre lot between Biltmore Avenue and McDowell Street.

As typical in public housing, there is one entrance with a circular drive. The units are located on either side of the one lane road with a community center located in the middle. Amenities include a basketball court and playground. The structures are brick, two story dwellings with wood siding. Four, one story units are located at the entrance to the complex. There are no sidewalks along the road, but paved paths connect units throughout the neighborhood.

The HACA has found the complex is severely "physically distressed" and the electric, plumbing and heating systems are obsolete. These findings have led the City of Asheville to apply for a Choice Neighborhoods Planning grant for Lee-Walker Heights. If this grant is awarded, this complex would be the first in Asheville to be engaged in the Choice Neighborhoods redevelopment process.



Lee-Walker Heights: Current Zoning and Land Use

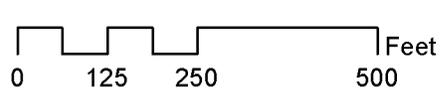


Points of Interest

- 1 Neighborhood Entrance
- 2 Neighborhood Park
- 3 Apartment Buildings

Land Use Legend

- Apartment Buildings
- CBD - Central Business District
- INST - Institutional
- OB - Office Business
- RB - Regional Business
- RM16 - Medium Density Multi-Family



LIVINGSTON

Introduction to the Livingston Neighborhood

The Livingston area is centrally located within the East of the Riverway community, and includes the Livingston Heights, Erskine-Walton, and Walton-Oakland neighborhoods. This area is part of the Southside neighborhood. Livingston is bound on the north by Ralph and Choctaw Streets, on the east by McDowell Street and Victoria Road, on the south by Asheville-Buncombe Technical Community College, and on the west by the Norfolk Southern rail yard and railroad.

This area has a mix of single and multi-family housing of various styles and conditions. Non-residential properties border Livingston and can be found sparingly in the interior. Multi-family housing in the area consists primarily of public housing developments. Livingston Heights is located in the center of the area and Erskine-Walton is located on the western side. On the northwest end, affordable housing is provided in the Glen Rock Depot Apartments.

Sidewalks are common although connectivity is limited. There are four city parks in the area that offer recreational opportunities. Open space is also prevalent in the public housing complexes.

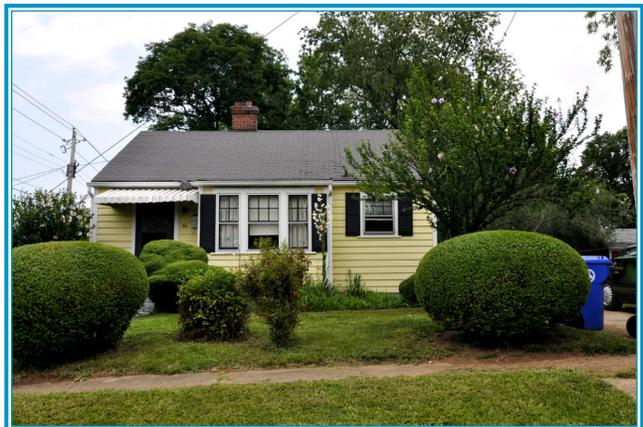
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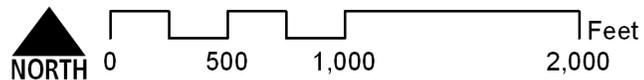
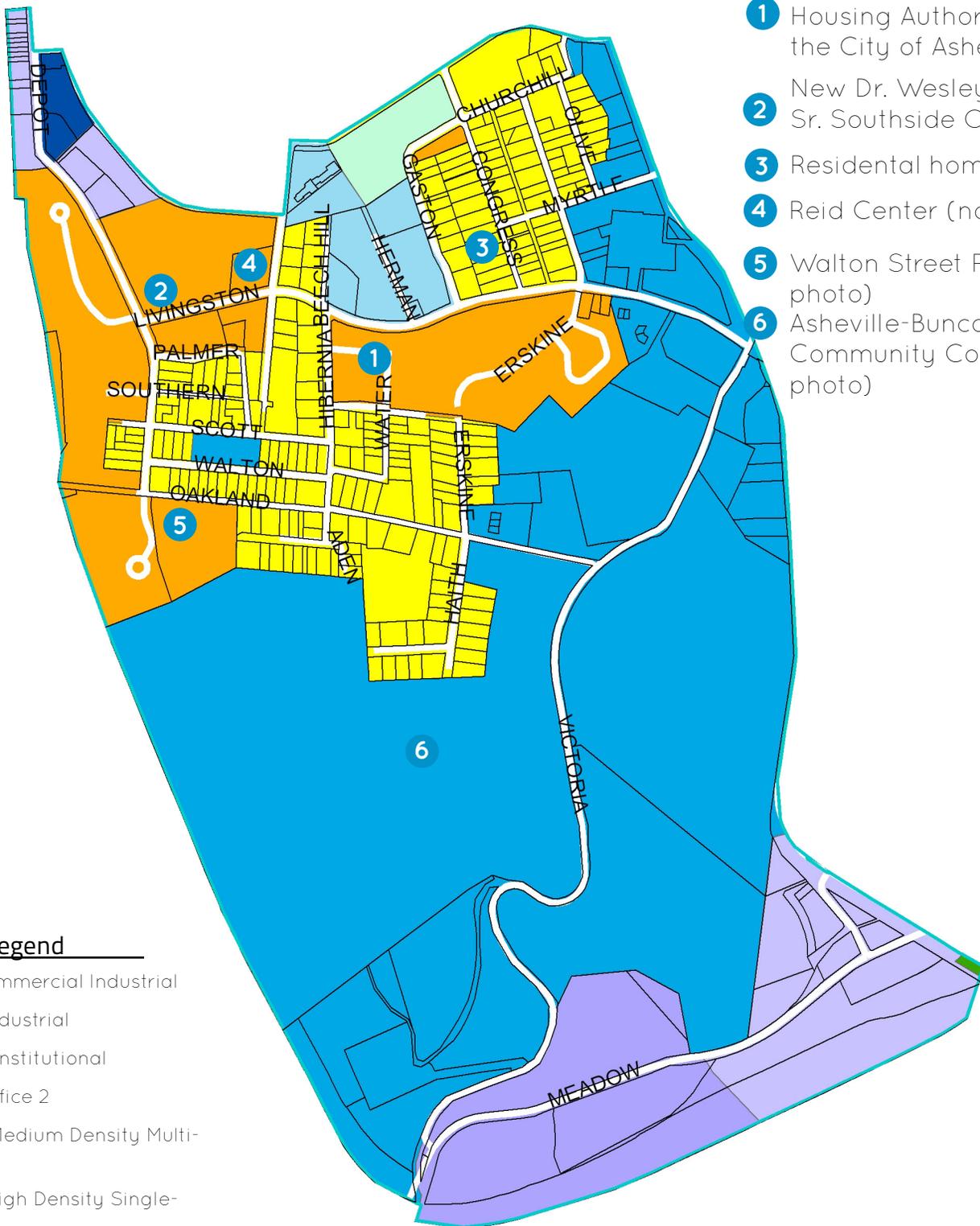
Livingston: Current Zoning and Land Use

Points of Interest

- Units managed by the Housing Authority of the City of Asheville
- 1 New Dr. Wesley Grant Sr. Southside Center
- 2 Residential home
- 3 Reid Center (no photo)
- 4 Walton Street Park (no photo)
- 5 Asheville-Buncombe Community College (no photo)
- 6

Land Use Legend

- CI - Commercial Industrial
- IND - Industrial
- INST - Institutional
- O2 - Office 2
- RM8 - Medium Density Multi-Family
- RS8 - High Density Single-Family
- UP - Urban Place
- URD - Urban Residential District



SOUTH FRENCH BROAD

Introduction to the South French Broad Neighborhood

The South French Broad neighborhood is located in the northern section of the East of the Riverway community. The neighborhood is bound to the north by Hilliard Street, to the east by South Grove and Blanton Streets, and to the south and west by Ralph Street.

The neighborhood is primarily residential and has a scale, feel, and spacing that is pedestrian oriented. Buildings are generally one to two stories high and made of brick or wood. While housing types vary in style and condition, traditional craftsman is the dominant architectural style. The South French Broad neighborhood is also home to several large public housing developments, including Bartlett Arms, Aston Park Towers, and the Garden Apartments. The YWCA and Asheville Middle School are both located in the neighborhood along South French Broad Avenue.

Two city parks, Aston and Murray Hill, are located in the neighborhood. These parks include clay tennis court facilities, playgrounds, play areas, basketball courts, a pavilion with benches and picnic tables, and walking trails.



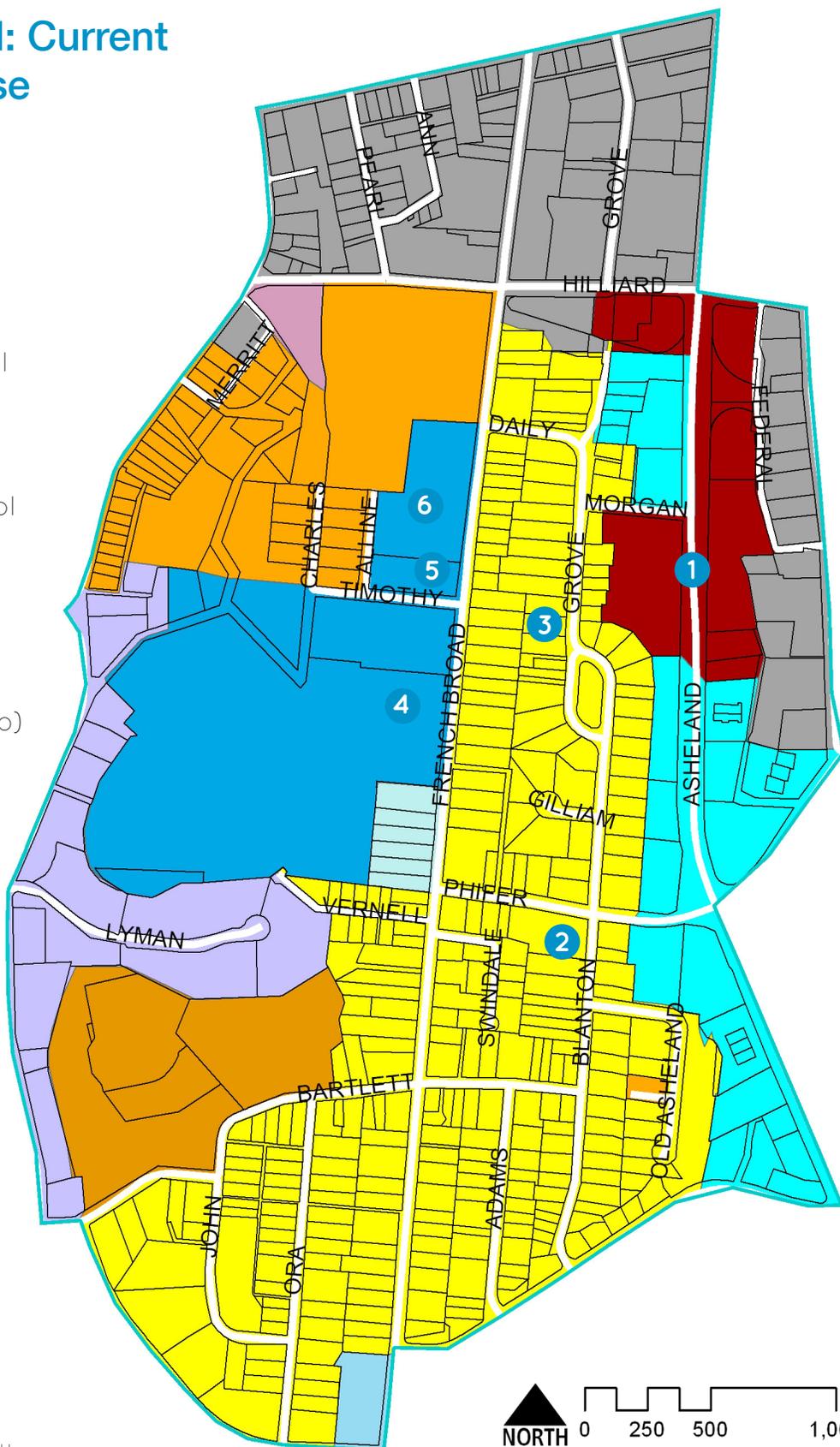
South French Broad: Current Zoning and Land Use

Points of Interest

- 1 Asheland Avenue: Small and Medium Commercial
- 2 Church in a residential block
- 3 Residential home
- 4 Asheville Middle School (no photo)
- 5 YWCA (no photo)
- 6 Housing Authority of the City of Asheville Headquarters (no photo)

Land Use Legend

- CBD - Central Business District
- CB1 - Community Business I
- CI - Commercial Industrial
- INST - Institutional
- O2 - Office 2
- OB - Office Business
- Office
- RB - Regional Business
- RM8 - Medium Density Multi-Family
- RM16 - Medium Density Multi-Family
- RS8 - High Density Single-Family



WECAN

Introduction to the West End Clingman Avenue Neighborhood

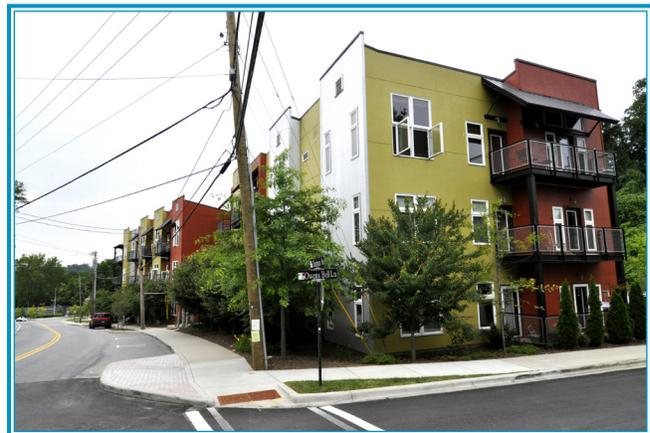
WECAN is located in the northwest section of the East of the Riverway community. Distinct wayfinding signage helps give the neighborhood a clear identity and defines its boundaries. WECAN is bound to the north by I-240 and Patton Avenue, to the east by Clingman Avenue, to the south by Lyman Street, and to the west by the French Broad River.

While a majority of the neighborhood is zoned residential, some areas are zoned commercial. Housing styles vary from older, historic bungalows to modern condos and renovated lofts in former industrial buildings. The neighborhood also has several affordable housing projects. These include the Merritt Park Condos, Prospect Terrace and Clingman Lofts. Residential blocks vary in size and shape and the Haywood Road/ Clingman Avenue corridor includes sidewalks and bicycle lanes.

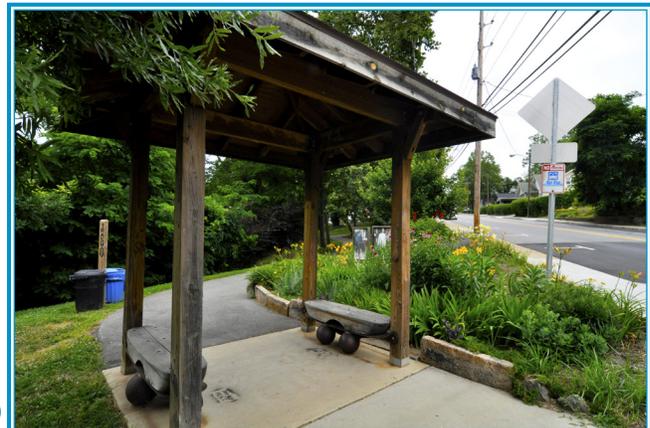
Open space in the neighborhood includes Owens Bell Park which offers a community garden and walking paths. Open areas of vacant and abandoned land also exist along Riverside Drive and serve as access points to the French Broad River.



1

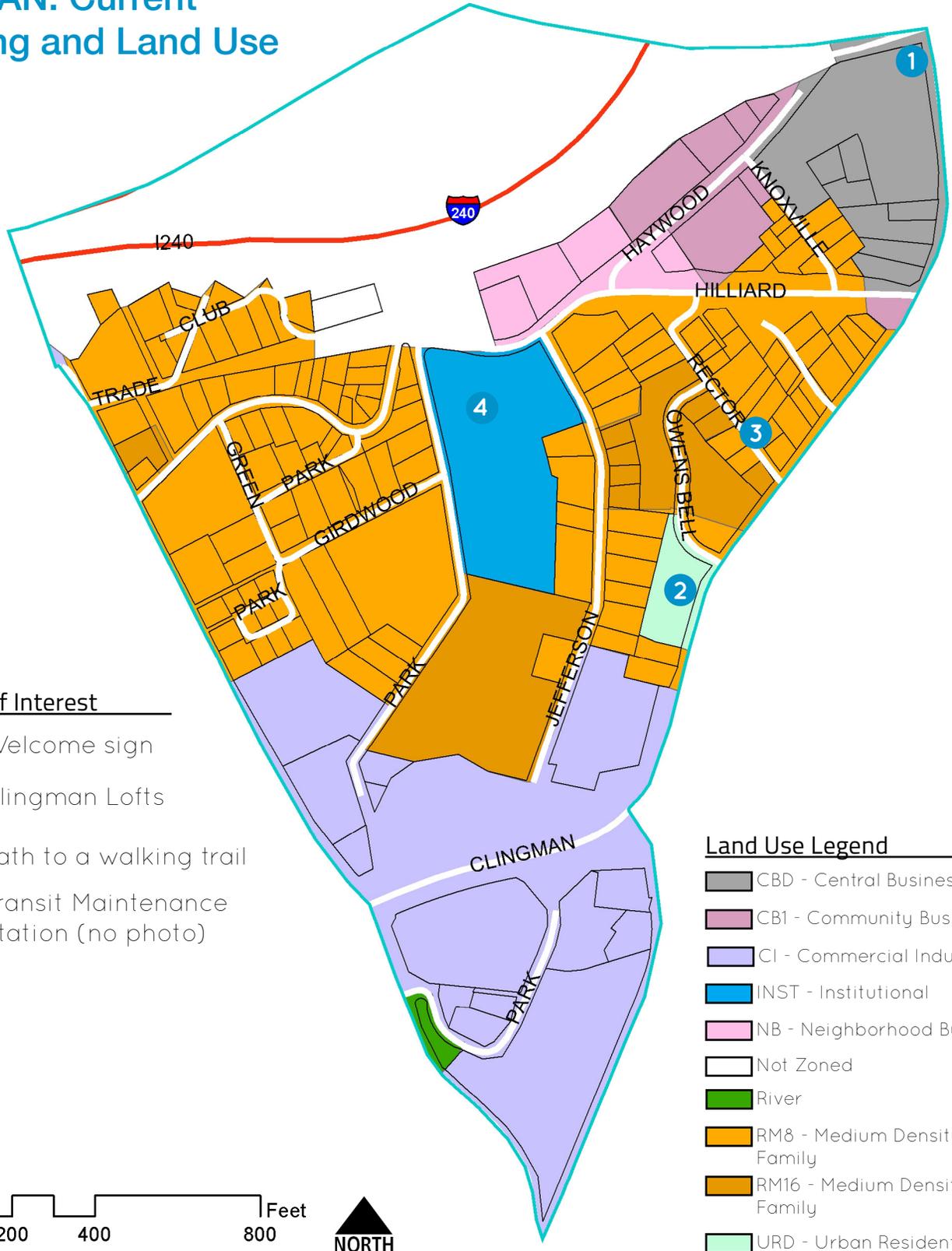


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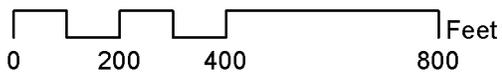
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WECAN: Current Zoning and Land Use



Points of Interest

- 1** Welcome sign
- 2** Clingman Lofts
- 3** Path to a walking trail
- 4** Transit Maintenance Station (no photo)



DEMOGRAPHICS

According to 2010 US Census data, the East of the Riverway area has a total population of 3,643 with a total of 1,492 residentially zoned parcels. A majority of the community members are African-American (61.6%) and renters (71.9%) (Figures 1 & 2). In order to gauge the accuracy of the survey results, the project team compared demographic data between the 2010 US Census data and the survey results. For this reason, census blocks were used to establish corresponding boundaries in the East of the Riverway community.

The survey results correlate closely to the Census data, however, the team could only compare the variables of race and tenancy at the block level (Table 1). Survey results closely corresponded with the Census data in terms of race, as African-Americans accounted for 64.4% of the community members that responded. Additionally, survey 66% of respondents were female, with 50% living in multi-family housing.

According to the 2006–2010 American Community Survey 5-Year Estimates, 51% of the housing units in Census Tract 9 (which largely correlates with the study area) were built prior to 1970.

Table 1: U.S. Census data compared to project data.

Comparison: Census Data vs. Survey Data	Survey	Census (2010)
Race		
White	32.20%	34.70%
African-American	64.40%	61.60%
Hispanic	2.50%	1.89%
Asian	0.40%	0.03%
Other	1.20%	1.16%
Tenancy		
Owner-occupied	30.00%	28.10%
Renter-occupied	70.00%	71.90%

Source: U.S. Census Bureau

Figure 1: Race Distribution East of the Riverway Community U.S. Census Bureau (2010).

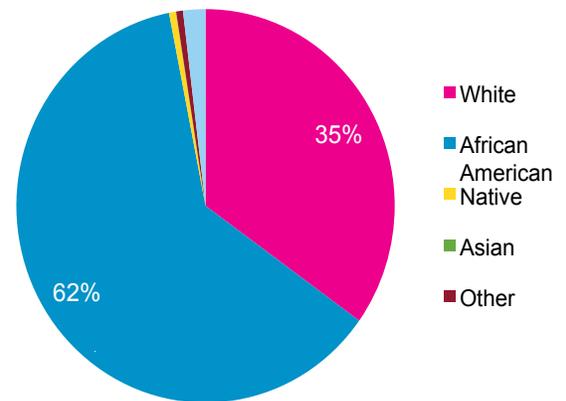
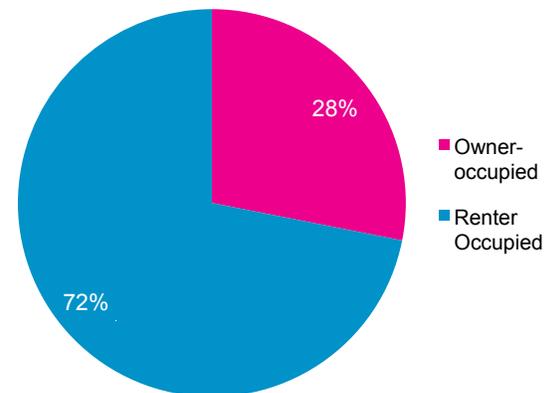
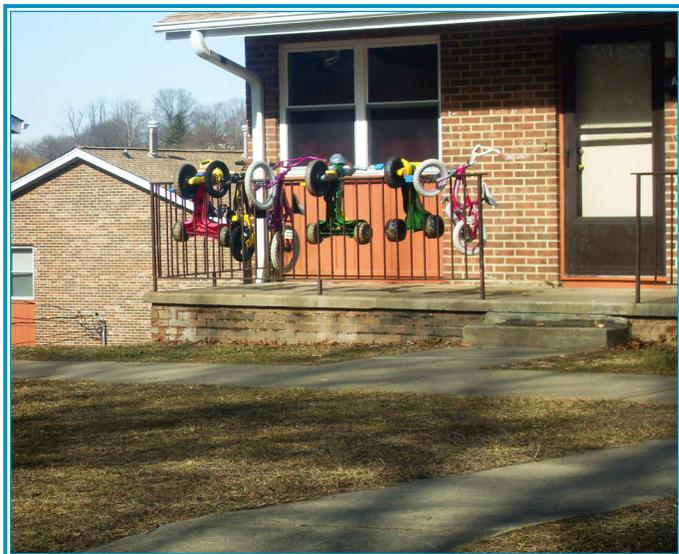


Figure 2: Household Status East of the Riverway Community U.S. Census Bureau (2010).





Children's toys at rest in the Livingston neighborhood.

Community kiosk with helpful information on the Sustainable Communities Initiative (River Arts District)



A survey team comprised of Appalachian State students and members of the community.



METHODOLOGY

The methodology section details the project team's process of implementing the survey. This includes drafting survey questions, collecting feedback, determining sampling methods, raising awareness about the Sustainable Communities Initiative and training project partners and community members to assist on survey implementation.

Survey Design

Over approximately three weeks, the project team conducted a series of meetings with the partners and community members to determine survey questions. The City of Asheville wished to explore the transportation and energy habits and choices of community members as part of the Sustainable Communities grant. Community groups wanted to examine attitudes about neighborhood likes, dislikes, and safety to gain a better idea about general community welfare. Several of the questions were asked on a pilot survey that was administered in the spring of 2012 in the East of the Riverway area. The team received feedback from the partners and community members at a large meeting held in the Reid Center. This input was then used to create the final version of the survey.

Community Engagement

The project team and partners reached out to community associations (Southside and WECAN) and other neighborhood groups, local radio stations, and newspapers to raise awareness about the Sustainable Communities Initiative, the survey, and other community-led efforts in the East of the Riverway community. Team members participated in interviews on WETS FM's Saturday radio show to talk about the East of the Riverway project and survey effort. The partners also posted flyers at numerous community locations, placed an ad in the Urban News, a local monthly publication, and mailed postcards to potential survey

respondents announcing the survey and the Sustainable Communities Initiative.

Sampling Methods

First, the project team assembled a list of all residentially-zoned addresses within the survey area as of February 1, 2012; the area zoned "River" was excluded during this process because it is not solely residential. The survey area was then divided into the smaller neighborhoods mentioned previously that comprise the East of the Riverway area. These divisions were correlated with the 2010 US Census blocks.

Due to the significant differences between the individual neighborhoods within the East of the Riverway area, the project team chose to conduct stratified random sampling. Stratified random sampling is a statistical survey method where the overall population is divided into smaller groups (i.e. neighborhoods) based on common characteristics.

The team then used proportionate allocation to determine how many households in each neighborhood would be part of the sample. Proportionate allocation involved taking a sample from each group in proportion to the total number of households in the East of the Riverway area. For example, if the number of households in a particular neighborhood made up 30% of the households in the

entire East of the Riverway area, then only 30% of the neighborhood households were selected to survey. This method provides a more accurate representation of each neighborhood and reduces sampling error. It also allows the project team to make limited comparisons between survey results from the individual neighborhoods.

The team decided to “target”, meaning to actually survey, 50% of the households within the East of the Riverway area. Once the proportions for the neighborhoods were determined, 50% of the addresses in each individual neighborhood were randomly chosen. Table 2 shows the target sample size for the East of the Riverway survey area and individual neighborhoods.

Timeline of Work

Initial Contacts

Initial Sustainable Communities project engagement with the City of Asheville, Asheville Design Center, Just Folks and Green Opportunities

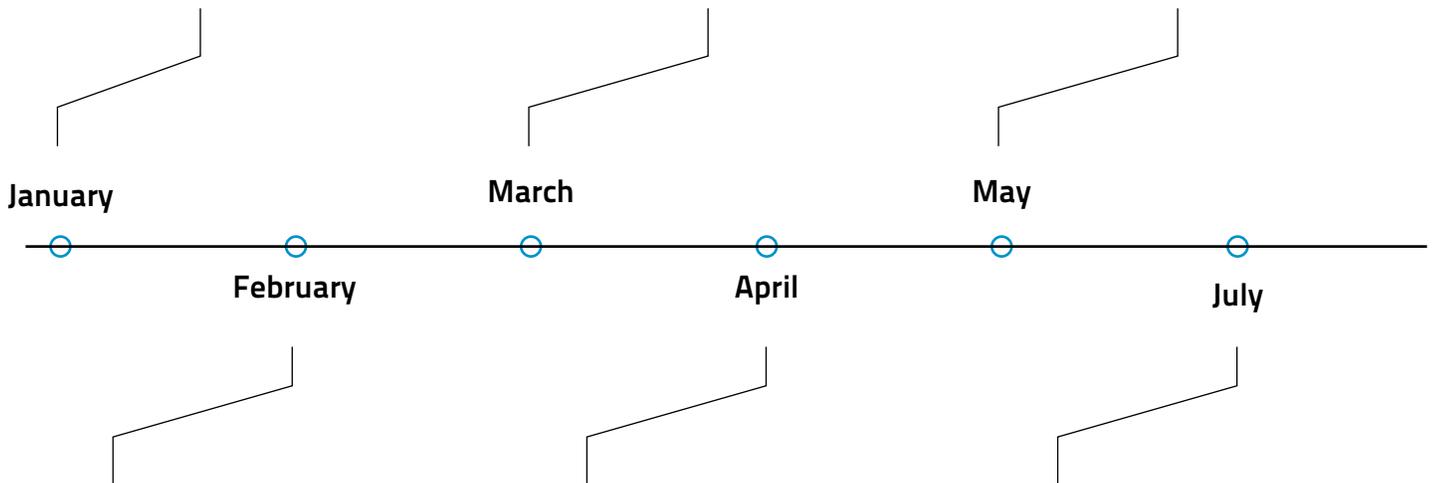
Trainings

Final survey preparations, community outreach, surveyor training and implementation

Analysis

Final data analysis, preliminary analysis presented to project partners and surveyors, draft report proposal

2012



Survey Design

Neighborhood research, community survey engagement, survey design and survey feedback from the community

Implementation

Survey implementation, data entry and analysis

Final Report

Final report preparation and presentation to project partners and community members.

Training for Survey Implementation

The project team held two training exercises for the project partners and community members. As part of the exercises, the team offered topics such as effective communication, accurate survey response collection and record keeping. The intent of these trainings was to allow community members to become familiar with the formal survey process and form a model that can be replicated for future outreach projects. Team members were then divided into groups assigned to specific neighborhoods. Survey implementation started immediately after the group assignments.

Statistical Analysis

Once completed, the project team entered all survey answers into a Microsoft Excel spreadsheet. Each survey was assigned a unique identifier number to allow the team to reference the original survey if needed. On a separate Excel spreadsheet, each survey answer was assigned a number (also known as being "coded"). This allowed the team to process and conduct statistical analysis with the SPSS (Statistical Package for the Social Sciences) computer program.

First, the project team used SPSS to count the number of responses (frequencies) and calculate the average (mean) and most common answer (mode) for each question. Frequency results helped team members recognize any errors that may have occurred during data-entry. Once this data was correct, the team used SPSS to run the cross-tabulation analysis. This type of analysis allows comparison of the responses for two separate questions to determine any relationships between the two variables. An example of this is a comparison of the most common energy conservation measures across the individual neighborhoods.

The project team also examined the response

rates for the overall survey area and each neighborhood. Some neighborhoods had a significantly higher response rate than others due to the success of project team community members in these areas (Table 2). In some instances, the neighborhood response rate exceeded the target, while other neighborhood areas failed to meet the target. This resulted in overrepresentation of some neighborhoods and underrepresentation of others due to the actual proportions that resulted from the survey implementation. This would most significantly affect analyzing the overall survey results of the East of the Riverway area as a whole. Results for the individual neighborhoods and for comparison between the neighborhoods would not be greatly affected.

Since the actual representation varied from the targeted proportions for each neighborhood, the project team "weighted" the results from numerical survey questions. The team used the weighted average mean to determine if the variations significantly affected the overall results. This was calculated for each question by multiplying the original mean from each neighborhood by the target percentage for that neighborhood. This process allowed for a more accurate representation of each individual neighborhood.

The project team compared the actual survey results with the weighted results and found very few significant differences. The overall results seem to be fairly consistent before and after weighting and with the 2010 US Census data. For this reason, the unweighted results were used for analysis and presented in this report.

Sampling and Surveyor Error

Sampling error refers to variation that may occur with any type of statistical sampling. More specifically, it is the amount of inaccuracy that may result when estimating a value based on

Table 2: Target sample size for the overall survey area and individual neighborhoods.

	Hillcrest	WECAN	Livingston	Lee Walker Heights	South French Broad	Total
Target Sample Size	138	56	277	49	226	746
Overall Target Percentage	18.5%	7.5%	37.2%	6.5%	30.2%	100%
Number of Responses	41	14	118	41	134	349
Response Rate	30%	25%	43%	84%	60%	47%

a sample instead of the entire population. This error may be a result of a variety of different factors. The project team attempted to minimize sampling error through survey design and careful training. However, some degree of sampling error is unavoidable.

In the East of the Riverway survey sample, some errors may have resulted from mistakes made by the project team members administering the surveys or by the community members that responded to the surveys. An example of surveyor error would include marking the wrong response to the survey. The project team discovered that in numerous cases, demographic information was not recorded on the survey. This lack of information results in a smaller sample size when analyzing the demographic data.

Error may have also resulted from a misunderstanding of the survey questions. In some cases, community members may have responded based on what they perceived to be the "correct" answer, while others may have not known the

correct answer. For example, one question asked who pays for different utilities and services. Some community members that rent from the Housing Authority of the City of Asheville (HACA) responded that they pay for their own utilities, while in fact the HACA pays for all or a portion of these utilities.

While the actual sampling error is unknown, a Confidence Interval (CI) can be used to calculate sample reliability. The confidence interval is a range within which the average response for a question would fall if the survey was repeated. It is typically calculated to a 90%, 95%, or 99% degree of certainty. In order to evaluate the reliability of the survey results, the project team calculated a confidence interval to 95% certainty for the numerical survey results. The results for question one are found in Table 3 below. The table shows that while the "mean" (average) value of responses to this question based on our sample group was 2.39, we are 95% certain that the actual average value of responses to this question among the entire population of the East of the Riverway community is somewhere between 2.24 and 2.54.

Table 3: Example of survey mean compared to the confidence level

Question 1	Mean	95% Confidence Level
How many people live in this household?	2.39	2.24 - 2.54

RESULTS

This section describes the results question-by-question to assist the reader in quickly locating desired information. Each question has three components: intent of the question, overall findings and highlights (if noted).

Q1: How many people live in this household?

Intent of the Question: The project team asked this question for demographic information and to examine how household size may affect responses to other survey questions.

Overall Findings

The most common response to this question was two people per household (Figure 3). A large percentage of those surveyed (92%) have less than five people in their household.

Only 30% of the residents in this community live alone. Survey data reveals with 95% confidence that the average number of people per household falls between 2.24 and 2.54. Additionally, Figure 4 shows the number of people per household relative to their tenancy status.

Figure 3: Overall Percentage of People in Each Household

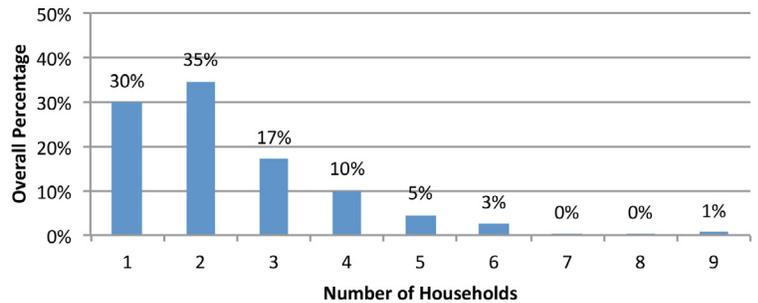
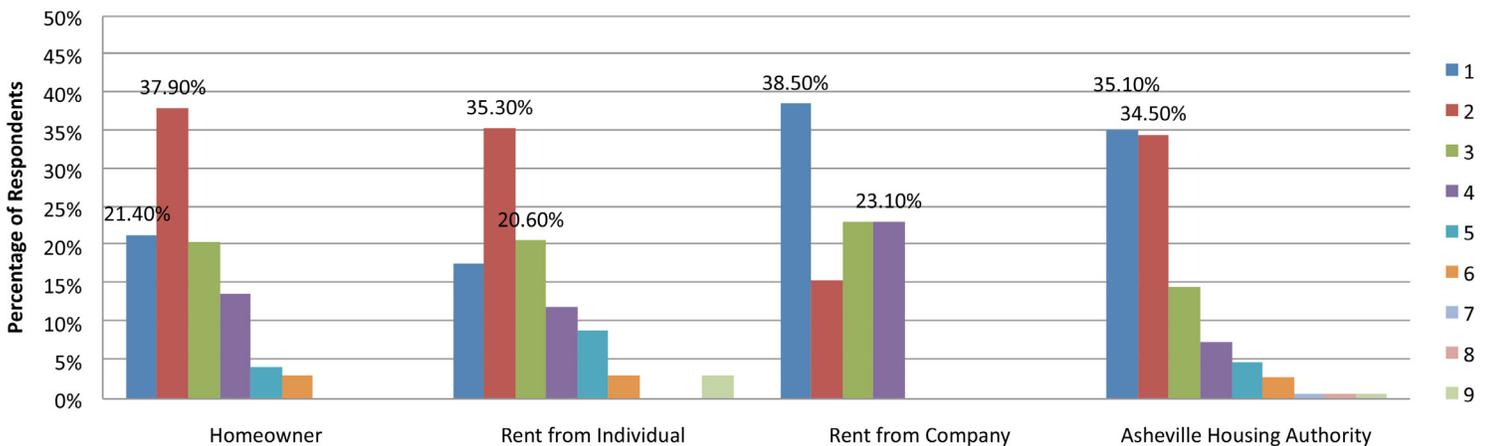


Figure 4: Tenancy Status vs. Number of Persons Per Household





Q2: How long have you lived in the neighborhood?

- Less than 1 year
- 1 - 5 Years
- 6 - 10 Years
- 11 - 20 Years
- 20+ Years

Intent of the Question: The project team asked this question to examine how length of residency may affect responses to other survey questions, and to understand longevity in the neighborhood.

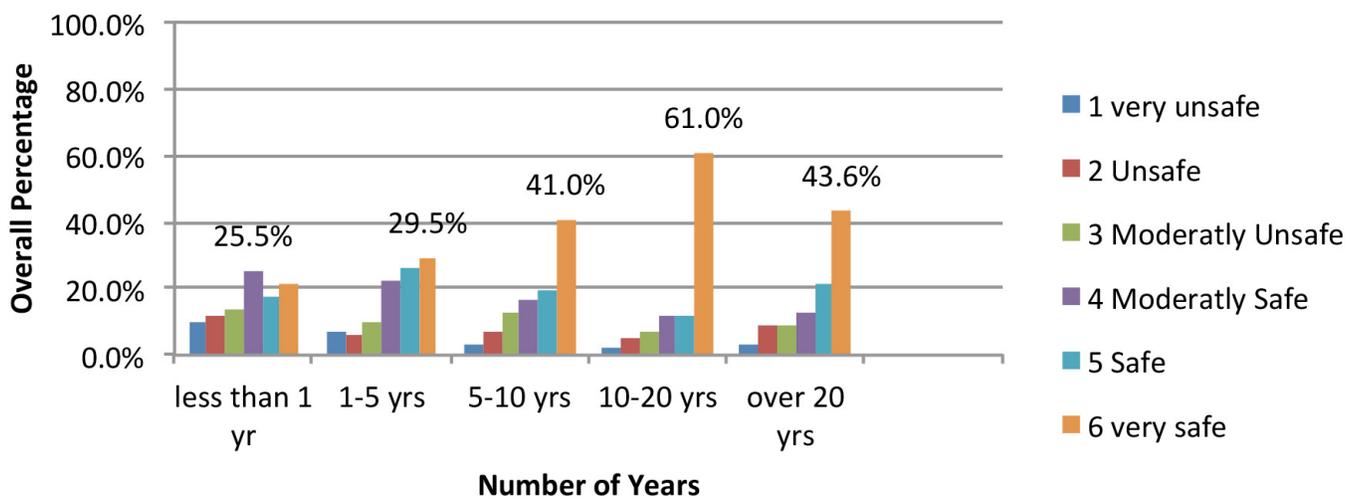
Overall Findings

Slightly over half (53%) of those surveyed have been in the neighborhood for less than five years. Approximately 18% of community members have lived in the neighborhood for five to ten years and 16% have lived in the area for 20+ years. Further, figure 5 shows that the majority of newer residents (less than five years) generally rent from the Housing Authority of the City of Asheville, while long-term residents (over 20 years) are generally homeowners.

The longer people live in the community the safer they feel.

Among community members that have lived in the area for 10-20 years, approximately 71% feel very safe during the day, and approximately 61% feel safe at night. Feelings of safety are discussed in further detail on page 35.

Figure 6: Length of Residency & Night Time Safety



Q3: Which of the following applies to you?

- I am a homeowner and occupant
- I rent my home from an individual
- I rent my home from a company
- I rent my home from the Asheville Housing Authority

Intent of the Question: The project team asked this question to determine if tenancy status may affect answers to other survey questions and attitudes and responses to energy related questions in particular.

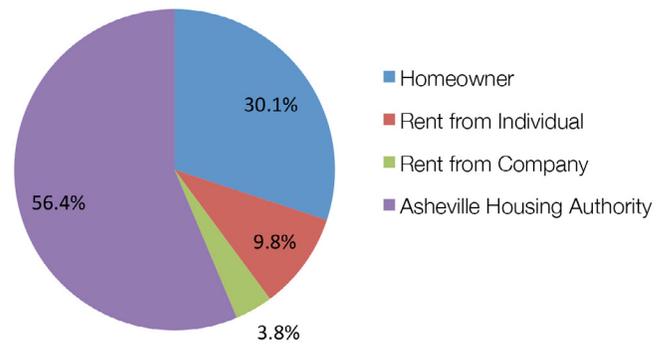
Overall Findings

Just over half (56%) of the community members surveyed in the East of the Riverway area rent from the Housing Authority of the City of Asheville. Almost one third (30%) are homeowners. Approximately 14% of community members rent from individuals and companies (Figure 7).

Highlights

As may be expected, homeowners in the East of the Riverway community tend to have lived in the community longer than renters (Table 4). The majority of those who rent from the Housing Authority of the City of Asheville (65.5%) have lived in the neighborhood for five years or less. This result may indicate that public housing is serving as a short-term housing solution for many community members. Only 23.1% of homeowners in the area have lived in the community for five years or less.

Figure 7: Tenancy Status



Length of Residency	Tenancy Status			
	Less than 1 year	1 -5 Years	5-10 Years	10-20 Years
Homeowner	2	22	25	23
Rent from Individual	4	19	8	2
Rent from Company	2	9	1	0
Rent from Asheville Housing Authority	43	84	28	16

Table 4: Tenancy status compared with length of residency (displayed as total number of responses for each category).

Q4: What are the top two things you like about your neighborhood?

Intent of the Question: Partner and community member input during survey design revealed a desire to learn about what was already working within the East of the Riverway community. Hopefully, the results for this question will feed future planning efforts by supporting and building upon what respondents already like about the area.

Overall Findings

The project team received a variety of responses for this open-ended question. These included answers such as “community-oriented area and events, on the bus line, near school, and it’s affordable”. The original responses were recorded in the community members’ own words. The project team then categorized this broad range of answers into seven separate

categories (safety, noise level, location, neighbors, cleanliness/aesthetics, amenities and other) to complete statistical analysis on this question.

The results for the East of the Riverway community are as displayed in Table 5 below:

Table 5: Overall results of what residents like about their neighborhood.

First Choice

Noise Level	Location	Neighbors	Other	Aesthetics	Amenities	Safety
24.9%	23.7%	23.3%	12.0%	7.9%	5.0%	3.2%

Second Choice

Neighbors	Location	Other	Aesthetics	Amenities	Noise Level	Safety
29.6%	17.2%	13.9%	13.4%	10.6%	10.2%	5.1%

Highlights

These findings appear to suggest that location and neighbors are what community members like most about the East of the Riverway area.

Noise level also seemed to be an important “like” showing that community members feel the neighborhood is generally quiet; However, responses varied throughout the area by neighborhood and length of residency. Community members that lived further away from main thoroughfares were more likely to say noise level. Those who have lived in the area less than one year were most likely to answer location while those who have lived there over ten years listed noise level and neighbors. These findings also bring attention to some potential areas for improvement. Very few people noted safety as a “like” in their neighborhood.

Additionally, it is possible that the reason those who have lived in the neighborhood longer cited “noise” level as something they like is because over time they have become used to it. This however, doesn’t necessarily mean that they are not negatively impacted by noise pollution, and should therefore be investigated further.

By neighborhood the project team also found that overall, the community members’ first most prevalent answer was neighbors, and second was location. The exceptions were Lee-Walker Heights and Hillcrest, in which aesthetics and other were the most popular answers.

Q5: What are the top two things you dislike about your neighborhood?

Intent of the Question: As with the previous question, partner and community member input during survey design revealed that this question would be helpful in identifying appropriate and meaningful improvements.

Overall Findings

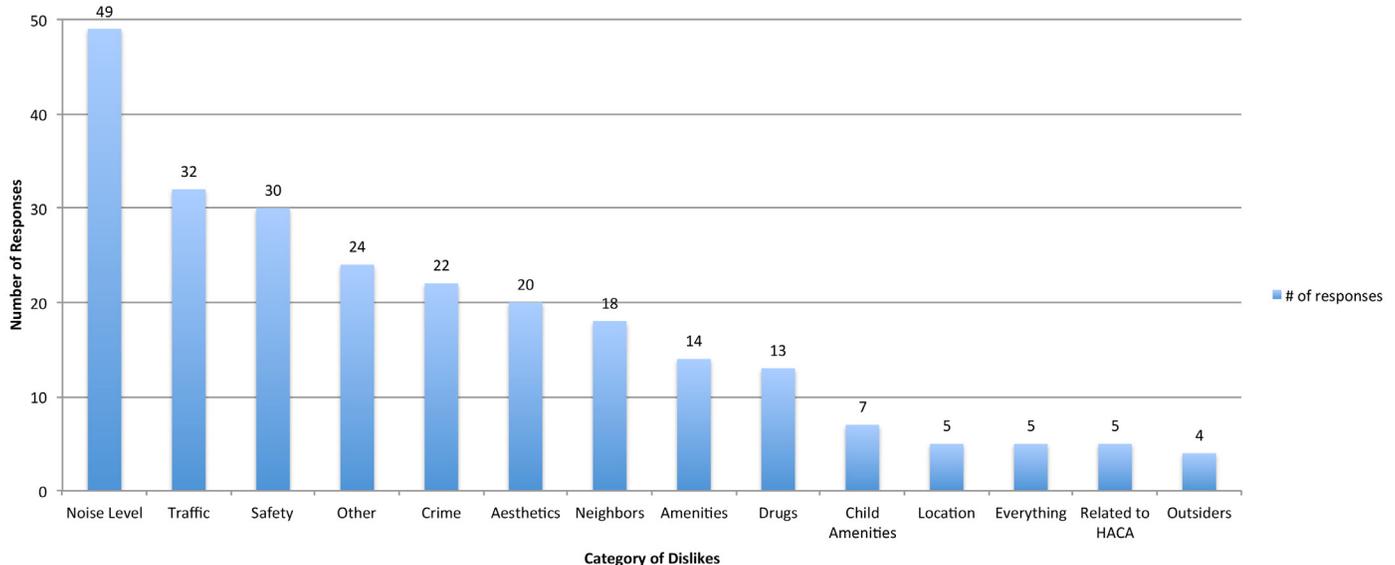
The project team again received a variety of responses for this open-ended question. The original responses were recorded in the community members' own words. The project team then categorized this broad range of answers into seven categories to complete statistical analysis on this question. Upon further examination of the original responses, the project team realized several areas of concern were left out. Therefore, the team created additional categories such as "traffic" and "related to the Housing Authority of the City of Asheville" to capture these concerns. This provided a more accurate representation of the community members' dislikes.

The results for the East of the Riverway community are as follows:

Highlights

When comparing dislikes to length of residency in the East of the Riverway community most residents report they dislike nothing, noise, and traffic; this comparison shows an overall sense of satisfaction (no figure referenced). The majority of community members living in the area for over 10 years reveal they have no dislikes. This is also true for those who have lived there between 1-5 years. However, those having less than one year of residency reveal that they are more concerned over safety than others, and those living there between 5-10 years reveal they are mostly concerned with noise levels.

Figure 8: The number of responses for each dislike category.





Q6: What is the best way to share information with you?

Intent of the Question: The project team asked this question to find the best way to communicate with community members about information related to the East of the Riverway project and planning efforts. The City of Asheville is currently implementing a mobile marketing campaign as an innovative new community engagement tool that uses text messaging to communicate with community members. The responses to this question can help the City anticipate the level of success for this campaign and learn about additional techniques for effective communication with community members.

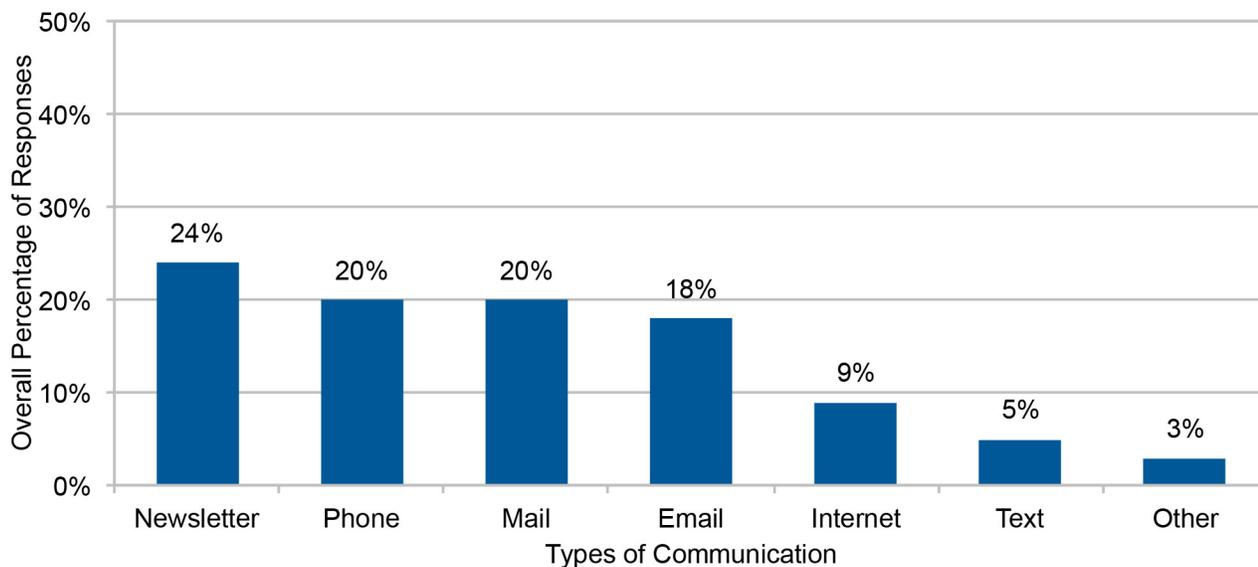
Overall Findings

Based on the survey results, a variety of communication methods will be necessary to effectively and equitably communicate information to community members. While email received a high response rate, many respondents also prefer traditional forms of communication, such as newsletters and mail. Phone communication was also a common answer, however text messaging did not receive a relatively high proportion of responses.

Highlights

The project team did notice some trends between responses to this question and tenancy status. A majority of community members who rent from the Housing Authority of the City of Asheville (HACA) prefer to receive communications via newsletter. The HACA currently produces a monthly newsletter, and this response indicates that it is an effective source of information for those community members.

Figure 9: Responses to the question "What is the Best Way to Share Information With You?"



Q7: Which of the following energy conservation measures have you done in the last year?

- Turn down thermostat in the winter
- Use ceiling fans for cooling in the summer
- Use plastic or thick curtains to insulate windows
- Use extra blankets to stay warm at night in winter
- Turn off lights when not in use
- Switch out old light bulbs to CFL's or LED's
- Turn off television, radio, and/or computers when you leave the room
- Use a power strip to turn off appliances when not in use
- Use a clothesline to dry clothes instead of a dryer
- Used cold water for washing clothes
- Take shorter showers
- Recycle cooking oil
- Plant a garden and grow our own food
- Composting
- Rain barrels
- Other?

Intent of the Question: The City of Asheville requested this question to help inform their energy and resource conservation education and outreach efforts. By understanding which energy saving measures people are already using, the City could target those measures which people are not engaging in. Community members could choose from a list of 15 conservation measures and list one of their own.

Overall Findings

The most popular energy conservation measures were behavioral measures which are free to do. Community members answered "turning off lights" and "turning down the thermostat" most frequently. Other choices such as using ceiling fans for cooling and turning lights and other electronics off were also common. Less popular conservation measures included taking shorter showers, drying clothes on a clothesline, planting a garden, and rain barrels.

Highlights

The survey results for this question showed notable variation among tenancy type and conservation measures. The biggest differences were between homeowners and those who rent from the Housing Authority of the City of Asheville. Many of these renters may have limited access to their thermostat, do not have space for a garden or clothesline, or have limited disposable income to invest in some of the listed energy conservation measures. Further, it appears that conservation measures generally differ among newer and long-term residents (Figure 10).

Q8: If you were able to make some energy-related home improvements, what improvements would you make? Choose three.

- Insulation
- Sealing air leaks/Window repair
- Heating/Air Conditioning Repairs
- Replace furnace
- Replace air conditioner
- Replace water heater
- New lighting
- Replace light bulbs
- Low-flow fixtures
- Replace appliances (refrigerator, washer, etc)
- High-efficiency wood-burning stove
- Solar thermal hot water
- Solar electricity
- Geothermal system
- Other?

Intent of the Question: The project team asked this question in order to establish a list of energy-related home improvements that community members are interested in making to their homes.

Overall Findings

The primary energy-related home improvement preferred by East of the Riverway area residents is installation of new insulation. Secondly, community members chose new lighting followed by sealing air leaks and fixing windows. Some of the less frequently selected options included replacing the air conditioning unit, replacing the water heater, and utilizing a high efficiency wood-burning stove. This could be due to the high cost of these types of improvements.

Highlights

The energy-related home improvement chosen most often by community members across all housing options was installing new insulation. 44.8% of homeowners chose this option, as did 48.4% of those who rent from an individual, 46.2% who rent from a company and 33.8% who rent from the Asheville Housing Authority.

The second most common improvement chosen among homeowners was a tie between new windows

(11.2%) and sealing leaks (11.2%). The choices of sealing air leaks (15.4%) and new lighting (15.4%) tied for the second most popular choice for renters from a company. The second most common choice among renters from an individual was new windows (16.1%). A renter from the Housing Authority of the City of Asheville (HACA) chose new lighting at 26.2% as their second most common response.

The third most popular choice among renters from the HACA was sealing air leaks (16.5%). Renters from an individual chose replacing light bulbs with CFL's (6.5%) and replacing a furnace (6.5%) as their third most common choice.

The project team found it notable that 26.2% of community members who lived in the HACA managed properties selected new lighting as their second most popular choice. Most notably, ninety-five percent (95%) of community members that live in Lee-Walker Heights chose new lighting as the energy-related home improvement they would make.

Q9: What are your most common modes of transportation?

- Personal vehicle (car, scooter, motorcycle, van)
- Public transportation (bus, train)
- Bike
- Walk
- Car pooling
- Catching rides
- Taxi
- Other?

Intent of the Question: The project team asked this question to examine what types of transportation are used most frequently in the East of the Riverway community. While the intent was for community members to rank their top three modes of transportation from one to three, many simply checked three choices with no ranking. In these instances, the project team ranked them in the order they were checked on the survey.

Overall Findings

In the course of conducting the survey, there was miscommunication with respondents as to how this was to be answered. Community members were asked to rank responses to show most to least frequent mode of transportation, however many surveys only had modes of transportation checked; this resulted in a source of measurement error for this question. The project team recommends that the data for this question be used with caution.

For the primary mode of transportation, community members most commonly chose personal vehicle (61%). This was followed by public transportation (21%) and walking (4%). Bike, carpool, catching rides, taxi and other were all a close forth choice for primary mode at 1-3%.

Walking was the most frequent secondary mode of transportation (22%), followed by public transportation (9%), and carpooling (7%). Bike and catching rides tied as the third choice at 5%.

Overall the community members' third choice for transportation was the most evenly distributed among the varying modes: catching rides and walking (8%), carpooling and public transportation (5%), taxi (4%), personal vehicle and other (1%).

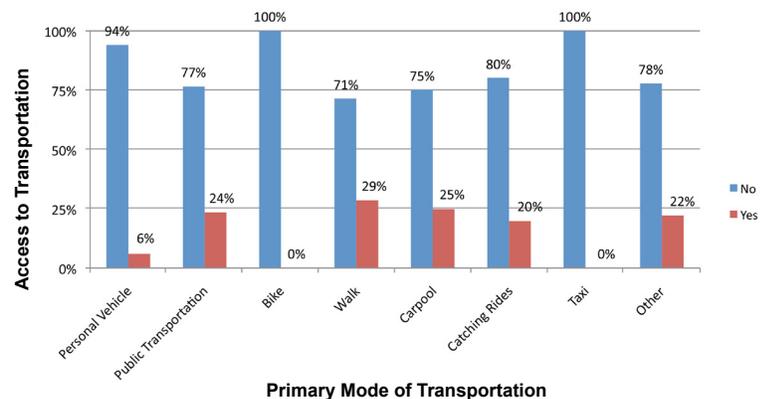
Highlights

The results of this question were compared to question number 12: "Do you have trouble getting to where you need to go?". As may be expected, a majority of those

who listed personal vehicle as their primary mode of transportation did not have trouble getting to where they need to go (Figure 11). Community members who used public transportation, walked, caught rides, or used other modes as their primary transportation were more likely to have difficulty getting to where they needed to go.

The project team also found interesting correlations between community member's modes of transportation and whether they own their home or rent. A higher percentage of those who rent from the Housing Authority of the City of Asheville compared to those who don't cited public transportation as a primary (41%) and secondary (24%) mode of transit. A greater percentage of those who rent from the Housing Authority indicated "catching rides" as their third mode of transit (33%).

Figure 11: Primary mode of transportation & problems with access.



Q10: What is the main fuel used for home heating?

- Electricity (baseboard-style heaters)
- Electricity (heat pump)
- Electricity (portable space heater)
- Natural gas
- Bottled gas (i.e. LPG or propane)
- Fuel oil
- Kerosene
- Wood
- Coal
- Some other fuel?
- Don't know
- No heating fuel used

Intent of the Question: The purpose of this question was to determine the most commonly used fuels for home heating in the East of the Riverway community. It was also asked to examine how the responses may affect responses to offer energy related questions.

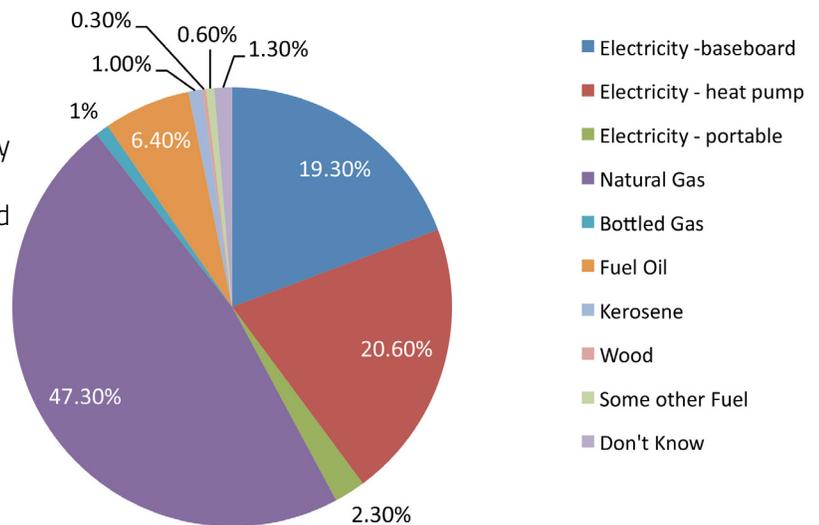
Overall Findings

The project team discovered that almost half (47.3%) of community members use natural gas to heat their homes (Figure 12). Electric heat pump was chosen by 20.6% and electric baseboard heat was chosen by 19.3% of community members. Other fuel sources included fuel oil (6.4%), electricity - portable (2.3%), do not know (1.3%), bottled gas (1%), kerosene (1%), some other fuel (0.6%) and wood (0.3%).

Highlights

The project team chose to more closely examine the type of fuel used by each neighborhood in the East of the Riverway. All community members (100%) that live in Lee-Walker Heights use natural gas as the main fuel to heat their homes. Hillcrest residents listed their main fuel sources as electricity (baseboard) 42.4%, electricity (heat pump) 45.5%, and natural gas 12.1%. A little more than two-thirds (68.9%) of the community members that live in Livingston use natural gas as their heating fuel source. Approximately 10.4% use fuel oil. Almost a third (31.4%) of the community members that live in South French Broad use electricity (heat pump), almost another third (30.6%) use electricity (baseboard), and 23.1% use natural gas.

Figure 12: Fuel Type



Q11: Please note who pays for which of the following services

- Electricity
- Natural gas
- Fuel oil
- Wood for heating
- Water
- Recycling collection

Intent of the Question: The project team asked this question to determine who pays for utilities and recycling service for each household and to examine how this response may affect answers to other energy related survey questions. This question also accompanies the City of Asheville Sustainability Office's research related to the relationship between who pays for energy and existing energy conservation measures.

Overall Findings

The project team received a variety of answers for those who live in public housing managed by the Housing Authority of the City of Asheville (HACA). Additional research indicated that depending on the neighborhood, in some cases the renter pays for utilities, and in other cases the HACA pays for all or a portion of these utilities. This resulted in a mix of answers from community members in public housing which were not necessarily consistent with their neighbors. This may provide a source of some error for this question. The project team recommends that the data for this question be used with caution.

Other than those living in public housing, survey results showed that only a small number (2%) of landlords pay the utilities for their tenants.

Owners are most likely to pay for their own recycling collection service (28.3%). Approximately 26.8% of community members responded "Not Applicable" to recycling collection. A quarter of those who rent from HACA (25.4%) stated that the HACA pays for their recycling services. Finally, 15.9% of renters answered that they pay for their own recycling service, while only 2.2% of landlords provide this service for their tenants.

Highlights

Hillcrest and Lee-Walker Heights had the most community members who stated that the HACA pays for their electricity. Roughly a quarter of the respondents in South French Broad and Livingston also responded that the HACA pays for their electricity. Livingston had the most renters who paid for their own natural gas, though the HACA pays for 27.8% of the natural gas usage in Livingston and 95.1% in Lee-Walker Heights. South French Broad had the largest number of respondents who were owners that pay for all of their own services. Finally, Lee-Walker Heights and Livingston both had the highest number of "Not Applicable" responses for a recycling service. The team anticipates that both the City of Asheville and the Housing Authority of the City of Asheville will be able to use this data to understand patterns in conservation measures amongst homeowners and renters.



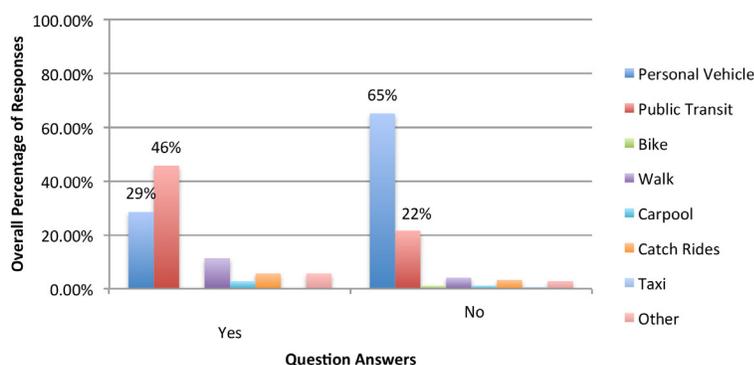
Q12: Do you have trouble getting to where you need to go? If yes, why?

Intent of the Question: The goal of this question was to examine transportation barriers in the East of the Riverway community and individual neighborhoods. This open-ended question allowed community members to answer freely and explain why or what was causing the issue. The project team hoped the findings would help inform and guide future transportation planning projects and services in the East of the Riverway community.

Overall Findings

The results of this survey question show that 79% of community members surveyed do not have trouble getting to where they need to go. As may be expected, comparisons between these results and the primary mode of transportation appear to show that those who use public transportation have more trouble getting to where they need to go than community members that drive personal vehicles (Figure 13). Of those who walk as their primary mode of transportation, 11.4% said they do have a hard time getting where they need to go, compared to 4.1% that said they don't. These results may indicate an opportunity for improvement with public transportation access and pedestrian infrastructure in the East of the Riverway community.

Figure 13: Access to Transportation & primary mode of transportation.

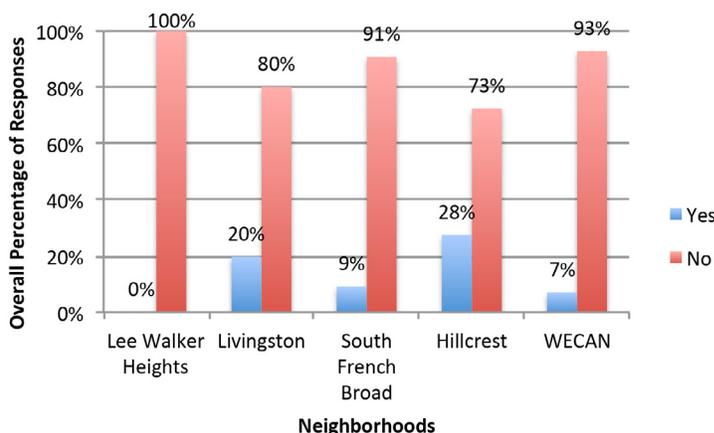


Highlights

According to the survey responses, almost all of the neighborhoods in the East of the Riverway community do not appear to have transportation access issues. However, one must question whether people have modified their behaviors so that their access to community services are constrained.

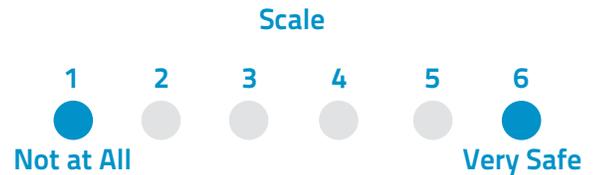
The percentage of yes responses was highest in Hillcrest (27.5%) and Livingston (19.8%) (Figure 14). This could be due to the result that 37% of the community members in Hillcrest use public transit and 34% walk. In Livingston, 69% of the community members use a personal vehicle and 18% use public transit.

Figure 14: Access to Transportation by neighborhood.



Q13: Please rate the following on a scale of 1-6

- How safe do you feel in your neighborhood:
 - during the day?
 - at night?
 - as a pedestrian or on a bicycle?
- How safe do you feel kids are in your neighborhood? Why?



Intent of the Question: Partner and community member input during survey design revealed this was a good question to ask so the City could make appropriate and meaningful safety improvements within the East of the Riverway area. The project team decided to investigate differences in feelings of safety during the day, at night, as a pedestrian, on a bicycle and for children.

Overall Findings

For this question, the project team asked community members to rate their feelings of safety on a scale of 1 to 6. A rating of six corresponded with feeling extremely safe and a rating of one corresponded with feeling extremely unsafe. During the day, the average or mean rating was 5.18. At night, it was 4.51. As a pedestrian or on a bicycle the average response was 4.41. When the project team asked community members "How safe do you feel kids are in your neighborhood?" the mean rating was 4.54. This information reveals that in general, community members feel safe to moderately safe in the East of the Riverway community during the day, at night, and as a pedestrian or on a bicycle. Community members also feel that kids are safe in the neighborhood.

In order to examine the accuracy of the findings for this question when applied to the East of the Riverway area as a whole, the project team calculated confidence intervals for the mean scores. The team is 95% confident that the true mean for the area lies between the ranges found in table seven.

Highlights

The project team discovered that feelings of safety were generally lower at night, although community members still felt safe overall. The team also noticed trends when comparing feelings of safety to length of residency and tenancy status. For example, feelings of

Table 6: The mean survey responses compared to the confidence interval

	Mean	95% Confidence Interval
How safe do you feel in your neighborhood...		
during the day?	5.18	5.06 - 5.35
at night?	4.51	4.27 - 4.67
as a pedestrian or on a bicycle?	4.41	4.24 - 4.64
How safe do you feel kids are in your neighborhood?		
	4.54	4.31 - 4.70

safety appeared to increase exponentially when length of residency increased. New community members generally reported feeling less safe than those who have lived in the area for five years or more. Also, the team noted that homeowners and community members who rent from individuals reported greater feelings of safety than those who rent from a company or the Housing Authority of the City of Asheville.

Additionally, it is possible that the reported feeling of safety could reflect a de-sensitization to an unsafe environment, particularly since feeling unsafe was notably higher among those who had lived in certain neighborhoods a relatively short period of time.



Appalachian State University student, Rosaura Cluxton, carrying extra weight during the survey implementation.



RECOMMENDATIONS

The final section of this report used the data to make conclusions about the needs and desires of East of the Riverway community members. The team uses these conclusions as suggestions for future community-based planning efforts.

Further Analysis

- Examine survey results for all questions by neighborhood. For example, are certain areas benefiting more from City core services?
- Thoroughly review the actual responses recorded in the raw data for “likes” and “dislikes”. Valuable information may have been lost by generalizing responses into broad categories for the purposes of statistical analysis. Many responses were not easily categorized and therefore were noted as “other”.

Potential Focus Group Topics

- What barriers exist to engaging in certain energy conservation measures? Knowledge, finances, or other resources?
- Statistical analysis showed that relatively few people use bicycles as their main form of transportation (page 34). What are barriers to bike use for community members?



Additional Research

- The majority of those surveyed who have lived in the area for over ten years answered “nothing” when asked about dislikes, while newer residents (less than one year) cited “safety” over all other dislikes (page 27). Does this point to residential preferences being conditioned over time?
- Of those surveyed, a notable percentage of public transit riders have trouble getting to where they need to go (page 34). What barriers exist for these residents? Why were the highest percentage “yes” responses in Hilcrest (27.5%) and Livingston (19.8%)?
- Results showed that slightly over half (53%) of those surveyed have lived in their neighborhood for less than five years (page 24). Are these people coming from other neighborhoods within the East of the Riverway area, other areas in Asheville or even areas outside of Asheville?
- Results showed that residents generally feel safer the longer they live in a neighborhood (page 35). Does this sense of safety reflect a desensitization to an unsafe environment?
- Statistical analysis revealed a broad spread of conservation measures currently being used in the community (page 29). Why is this? Are such measures too expensive? Are most residents aware of such measures?
- When asked question 11 (who pays for energy use), a number of residents in the Housing Authority of the City of Asheville expressed an interest in recycling services. Are residents aware of recycling programs they can utilize?

East of the Riverway Community Survey

Appalachian State University
City of Asheville
Asheville Design Center