



# **CITY OF HENDERSONVILLE SPECIAL CALLED BUSINESS ADVISORY COMMITTEE MEETING**

**City Hall - Council Chambers | 160 Sixth Avenue E. | Hendersonville, NC 28792  
Monday, March 04, 2024 – 10:00 AM**

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## **AGENDA**

**1. CALL TO ORDER**

**2. APPROVAL OF AGENDA**

**3. APPROVAL OF MINUTES**

A. October 9, 2023 Regular Meeting - *Jill Murray, City Clerk*

B. November 20, 2023 Special Called Meeting - *Jill Murray, City Clerk*

**4. OLD BUSINESS**

**5. NEW BUSINESS**

A. Approval of 2024 Annual Schedule of Meetings - *Jill Murray, City Clerk*

B. Review of Draft Tree Ordinance - *Daniel Heyman, Staff Attorney*

**6. OTHER BUSINESS**

**7. ADJOURNMENT**

*The City of Hendersonville is committed to providing accessible facilities, programs and services for all people in compliance with the Americans with Disabilities Act (ADA). Should you need assistance or an accommodation for this meeting please contact the City Clerk no later than 24 hours prior to the meeting at 697-3005.*



## CITY OF HENDERSONVILLE BUSINESS ADVISORY COMMITTEE

City Hall – 2<sup>nd</sup> Floor Meeting Room | 160 6<sup>th</sup> Avenue E. | Hendersonville NC 28792  
Monday, October 9, 2023 – 11:30 AM

### MINUTES

Present: Chair Ken Gordon, Jay Egolf, Vice-Chair Rebecca Waggoner, John Stevens, Chris Cormier, Sarah Cosgrove, Adam Justus

Absent: Cam Boyd, Jen Hensley, Brittany Brady

Staff Present: City Manager John Connet, City Clerk Jill Murray, Communications Manager Allison Justus, Budget Manager Adam Murr

Via Zoom: David Hyder, Stantec

#### 1. CALL TO ORDER

Chairman Ken Gordon called the meeting to order at 11:31 a.m. and welcomed those present.

#### 2. APPROVAL OF AGENDA

Sarah Cosgrove moved, seconded by John Stevens, to approve the agenda as presented. Motion carried unanimously.

#### 3. APPROVAL OF MINUTES

Rebecca Waggoner moved, seconded by Sarah Cosgrove, to approve the minutes of July 10, 2023, as presented. Motion carried unanimously.

#### 4. OTHER BUSINESS - None

#### 5. NEW BUSINESS

##### A. System Development Fee Proposal & Discussion - *Adam Steurer, Utilities Director*

David Hyder of Stantec presented his final report on the Water and Sewer System Development Fee Study to the group.



City of Hendersonville, NC

**Water and Sewer System Development  
Fee Study**

September 6, 2023

# 1. INTRODUCTION

Stantec Consulting Services Inc. (Stantec) has conducted a Water and Sewer System Development Fee Study (Study) for Hendersonville's water and sewer systems (hereafter referred to as the "City" or "Utility"). This report presents the results of the comprehensive Study, including background information, legal requirements, an explanation of the calculation methodology employed, and the results of the analysis.

## 1.1 BACKGROUND

A system development fee is a one-time charge paid by a new customer to recover a portion or all of the cost of constructing water and sewer system capacity. The fees can also be assessed to existing customers requiring increased system capacity. In general, system development fees are based upon the costs of current and/or future utility infrastructure including, but not limited to, water supply facilities, treatment facilities, effluent disposal facilities, and transmission mains. System development fees serve as the mechanism by which growth can "pay its own way" and minimize the extent to which existing customers must bear the cost of facilities that will be used to serve new customers.

Currently, the City does not assess system development fees and therefore does not recover the cost of providing water and sewer capacity from new connections to the utility systems. The City has retained the services of Stantec to calculate system development fees for each respective system in accordance with the North Carolina Public Water and Sewer System Development Fee Act, set forth in North Carolina General Statue 162A, Article 8 and provide recommendations developed during the study.

## 1.2 STUDY PROCESS AND ENGAGEMENT

To ensure a comprehensive and transparent study, the City devised a well-structured plan aimed at gathering input from various stakeholders, including City staff, management, elected officials, key stakeholders and interested members within the service area. To initiate the study Stantec developed and delivered a presentation outlining "System Development Fee 101." This presentation covered the purpose of the fees, the calculation methodology, potential policy considerations, and the necessary steps for their adoption. The information was initially presented at a public meeting before the Water and Sewer Advisory Council on October 24, 2022, and then presented at a City Council meeting on October 26, 2022.

The feedback and suggestions received during these meetings played a pivotal role in shaping the direction of the Study. Subsequently, the initial analysis results were shared with the Water and Sewer Advisory Council on April 24th, 2023, followed by a presentation to the City Council on April 26th, 2023. Throughout this process, the invaluable input from key stakeholders and City staff has been integrated into the Study and reflected in this report.

In addition to these key interactions, City staff took further strides to educate and inform the public about the Study. This involved briefing sessions conducted for the Business Advisory Committee on July 10th, 2023, the Water and Sewer Advisory Council on July 24th, 2023, and the City Council on August 23rd,

2023. As a result of this robust engagement effort, the Study has been able to effectively incorporate extensive input from diverse perspectives, ensuring transparency in the analysis and decision-making process. By completing the study in an open and transparent manner, the City has created an opportunity for the community to understand what system development fees would look like within the City's service area and to allow for input within the study process.

### 1.3 LEGAL REQUIREMENTS

The Public Water and Sewer System Development Fee Act ("SDF Act") was approved on July 20<sup>th</sup>, 2017 and grants local government entities that own or operate municipal water and sewer systems the authority to assess system development fees for the provision of utility service to new development.

The SDF Act defines new development as any of the following occurring within 1 year of a development fee being adopted 1) subdivision of land, 2) construction or change to existing structure that increases service needs or 3) any use of land which increased service needs.

According to the SDF Act, the following procedural requirements need to be followed in order to adopt a system development fee:

- **Requirement 1:** The fee should be calculated in a written analysis ("SDF Analysis") prepared by a financial professional or licensed professional engineer (qualified by experience and training or education) who employs generally accepted accounting, engineering, and planning methodologies to calculate system development fees for water and sewer systems, including the buy-in, incremental cost or marginal cost, and combined costs methods for each service; and that (1) documents the facts and data used in the analysis and their sufficiency and reliability; (2) provides analysis regarding the selection of the appropriate method of analysis; (3) documents and demonstrates reliable application of the methodology to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fee; (4) identifies all assumptions and limiting conditions affecting the analysis and demonstrates that they do not materially undermine the reliability of the conclusions reached; (5) calculates a system development fee per service unit of new development and includes an equivalency or conversion table to use in determining the fees applicable for various categories of demand; and (6) covers a planning horizon of between 5 and 20 years.
- **Requirement 2:** The system development fee analysis must be posted on the City's website, and the City must solicit comments and provide a means by which people can submit their comments, for a period of at least 45 days.
- **Requirement 3:** Comments received from the public must be considered by preparer of the system development fee analysis for possible adjustments to the analysis.
- **Requirement 4:** The City must hold a public hearing prior to considering adoption of the system development fees including any adjustments made as part of the comments received by the City.



- **Requirement 5:** The City must publish the system development fee schedule as part of its annual budget or fee ordinance.
- **Requirement 6:** The City cannot adopt a fee that is higher than the fee calculated by the professional analysis.
- **Requirement 7:** The City must update the system development fee analysis at least every five years.

In addition to the procedural requirements listed above, the SDF Act provides specific requirements pertaining to the calculation of the system development fees. These requirements are highlighted within the body of this report in concert with the calculation of the system development fees for the City. Further, the City must follow the SDF Act guidance when charging the system development fee: it may be charged only to “new development” and only at the time specified in the legislation; and new development must be given a credit for costs in excess of the development’s proportionate share of connecting facilities required to be oversized for use of others outside of the development.

## 1.4 GENERAL METHODOLOGY

There are three primary approaches to the calculation of system development fees, all of which are outlined within the SDF Act. Each of the approaches are discussed below.

### *Buy-In Method*

This approach determines the system development fees solely on the existing utility system assets. The replacement cost of each system’s major functional components serves as the cost basis for the system development fee calculation. This approach is most appropriate for a system with considerable excess capacity, such that most new connections to the system will be served by that existing excess capacity and the customers are effectively “buying-in” to the existing system, or limited capital improvement program (CIP).

### *Incremental/Marginal Cost Method*

The second approach is to use the portion of each system’s multi-year CIP associated with the provision of additional system capacity by functional system component as the cost basis for the system development fee calculation. This approach is most appropriate where 1) the existing system has limited or no excess capacity to accommodate growth, and 2) the CIP contains a significant number of projects that provide additional system capacity for each functional system component representative of the cost of capacity for the entire system.

### *Combined Cost Method*

The third approach is a combination of the two previous approaches described. This approach is most appropriate when 1) there is excess capacity in the current system that will accommodate some growth,

but additional capacity is needed in the near-term as reflected in each system's CIP, and 2) the CIP includes a significant number of projects that will provide additional system capacity.

While the SDF Act allows for the use of any one of the three methodologies discussed above, it specifies restrictions on how the revenues generated by the fees calculated using each methodology may be utilized. Table 1-1 summarizes each of the three methodologies, their typical application, and restriction of how the revenues can be utilized for each.

**Table 1-1 Description of Methodologies & Restriction to Proceeds**

Approach:	Description:	Fee Proceeds Allowed for:
<b>Buy-In Method</b>	New development shares in <u>capital costs previously incurred</u> which provided capacity for demand arriving with new development needs.	Expansion and/or rehabilitation projects. Since the buy-in method reimburses the system for certain past investments, proceeds can be utilized for all types of capital projects.
<b>Incremental / Marginal Cost Method</b>	New development share in <u>capital costs to be incurred in the future</u> which will provide capacity for demand arriving with new development needs.	Professional services costs in development of new fees and expansion costs (construction costs, debt service, capital, land purchase, other costs etc.) related to new development only. If no capital projects in next five years can be used for debt related to existing assets.
<b>Combined Cost Method</b>	Combination of Buy-In and Incremental / Marginal Cost methods	Professional services costs in development of new fees, expansion and/or rehabilitation costs. (same as both Buy-In and Incremental/Marginal Cost methods)

Given that the City has existing, but limited, capacity within both the water and sewer systems to sell, as well as capital spending planned for projects that will increase system capacity over the next 10 years, the Combined Cost approach is the most appropriate method for the calculation of the system development fee for both the water and sewer systems. To comply with the SDF Act, the City will revisit the methodology at least every five years to determine if the approach for each system is still the most appropriate to use should the City adopt system development fees.

## 2. BASIS OF ANALYSIS

Using the Combined Cost approach requires a Buy-In calculation and an Incremental/Marginal Cost calculation. The following outlines the process to determine the net value (cost basis) for each (water and sewer) system under the Combined Cost approach.

- 1) The City's existing major water and sewer system components assets are analyzed to determine the replacement cost if new less depreciation (RCNLD).
- 2) Any non-core system assets are excluded from the existing system value including items such as vehicles, meters, computer equipment and other non-core system assets.
- 3) Addition of spending on growth-related capital projects over the next 10 years as identified in the City's official Capital Improvement Plan (CIP). This includes projects designated to add new capacity to the system, whether partially or entirely.
- 4) Any donated assets and/or assets not funded by the City (funded by grants, developers, etc.) are removed from the net system value (both existing assets and future within the capital improvement plan).
- 5) The net value of the water and sewer systems is further reduced by the outstanding principal on existing debt and the net present value of future debt over the planning period for each system to provide a revenue credit (the revenue credit must be equal to at least 25% of the cost of the expansion related projects).
- 6) The resulting net system value is used in the determination of the system development fee using capacity and level of service standards.

The following section outlines the details of the analysis completed during the Study to calculate the water and sewer system development fees.

### 2.1 BUY-IN NET SYSTEM VALUE

The City provided an asset inventory which included description, asset category/class, year placed in service, original cost, and useful life for each asset through FY 2022 for both the water and sewer systems. Each asset was classified by each major system function; and a replacement cost new less depreciation was calculated using the data provided by the City and the Engineering News Record Construction Cost Index.

The SDF Act requires that the system development fee calculations include provisions for credits against the value of the system to account for assets that were not funded by the municipality. Assets that were identified to be contributed or paid for by developers and those that were grant funded were excluded from the overall results to determine the net asset value of each system. In addition to donated assets, non-core system assets are also excluded from the determination of the net asset value of each system. These include meters, vehicles, equipment, computers, and others. Results of the net asset value for the City's

existing water and sewer systems based upon the asset records provided by City staff are shown in Tables 2-1 and 2-2.

**Table 2-1 Replacement Cost New, Less Depreciation: Water System**

<b>Asset Category</b>	<b>RCNLD Value</b>	<b>Less Contributed Assets / Non-Core Asset</b>	<b>Net Asset Value</b>
Treatment	\$33,999,901	(\$584,317)	\$33,415,584
Supply & Pumping	\$1,827,398	(\$634,985)	\$1,192,413
Storage	\$7,314,728	(\$944,372)	\$6,370,356
Transmission & Distribution	\$53,351,047	(\$8,015,903)	\$45,335,144
<b>Total</b>	<b>\$96,493,074</b>	<b>(\$10,179,577)</b>	<b>\$86,313,497</b>

**Table 2-2 Replacement Cost New, Less Depreciation: Sewer System**

<b>Asset Category</b>	<b>RCNLD Value</b>	<b>Less Contributed Assets / Non-Core Asset</b>	<b>Net Asset Value</b>
Treatment	\$28,145,176	(\$63,282)	\$28,081,894
Pumping	\$343,488	(\$332,065)	\$11,423
Conveyance & Collection	\$35,459,106	(\$2,297,880)	\$33,161,226
<b>Total</b>	<b>\$63,947,771</b>	<b>(\$2,693,227)</b>	<b>\$61,254,544</b>

## 2.2 INCREMENTAL/MARGINAL COST NET SYSTEM VALUE

The City provided the Adopted FY2023 Capital Improvements Plan (CIP) which covers a 10-year period and totals \$294.2 million. The CIP included the project description, total spending, and an indication of whether the project was designated for expansion or rehabilitation. To calculate the Incremental/Marginal Cost approach, all expansion-related projects that would increase capacity and support growth were identified. This totaled \$182 million and included several water and sewer system projects, as well as expansions to both water and sewer treatment plants.

The water system CIP includes several projects that will expand the water system's capacity over the next 10 years at a total cost of \$108.5 million. This includes expansion to the existing water treatment facility, transmission and distribution improvements, and a new intake and pumping station. Expansion related capital projects for the water system are shown in Table 2-3.

**Table 2-3 Expansion Related Capital Projects for the Water System**

Project	Function	CIP Costs
French Broad Raw Water Intake #16007	Supply and Pumping	\$24,514,035
Water Distribution Master Plan Update #22012	Transmission & Distribution	\$425,000
WTP Expansion to 15.0 MGD #19207	Treatment	\$2,131,500
NCDOT 191 #16126	Transmission & Distribution	\$12,700,000
NCDOT HWY 64 #18140 <sup>(1)</sup>	Transmission & Distribution	\$680,000
Eastside Transmission Main, Phase 2 and 3	Transmission & Distribution	\$9,860,000
Upward Road Water Main Upgrade	Transmission & Distribution	\$1,010,000
Dana Rd. Water Main Extension	Transmission & Distribution	\$2,210,000
Airport Rd. - Water	Transmission & Distribution	\$720,000
East Campus Road	Transmission & Distribution	\$1,140,000
Pace Rd. Water Main Extension and Interconnect	Transmission & Distribution	\$1,710,000
S. Rugby Road Water Main Interconnect	Transmission & Distribution	\$2,850,000
Howard Gap Rd. Water Extension Mid	Transmission & Distribution	\$2,550,000
Howard Gap Rd. Water Extension North End	Transmission & Distribution	\$1,560,000
Southside Water System Improvements	Transmission & Distribution	\$4,090,000
Fruitland Rd. Water Main Extension	Transmission & Distribution	\$2,650,000
S. Mills Gap Rd. Water Main Extension	Transmission & Distribution	\$1,860,000
WTP Expansion to 18.0 MGD	Treatment	\$35,830,000
<b>Total Expansion Costs</b>		<b>\$108,490,535</b>

(1) During discussions with City staff NCDOT HWY 64 #18140 project was allocated 50% to water and 50% to sewer.

The City currently has several planned capital projects that will expand the capacity of the sewer system at a total cost of approximately \$74.0 million. Table 2-4 identifies each of the projects that are included in the analysis for the sewer system.

**Table 2-4 Expansion Related Capital Projects for the Sewer System**

Project	Function	Growth Related CIP Costs
Mud Creek Interceptor #18032	Collection & Conveyance	\$8,802,000
WWTP Headworks and Flow Equalization <sup>(1)</sup>	Treatment	\$11,355,769
Sewer Collection System Master Plan Update	Collection & Conveyance	\$220,000
WWTP Tertiary Filter Replacement Phase 2	Treatment	\$270,000
NCDOT HWY 64 #18140	Collection & Conveyance	\$680,000
Wash Creek Replacement Sewer G08	Collection & Conveyance	\$3,720,000
Devils Fork Sewer Replacement G05	Collection & Conveyance	\$2,790,000



Project	Function	Growth Related CIP Costs
WWTP Aeration Basin Modification	Treatment	\$2,125,000
WWTP 7.8 MGD Facility Expansion	Treatment	\$44,000,000
<b>Total Expansion Costs</b>		<b>\$73,962,769</b>

(1) Growth related portion represents 38% of the total cost of project as reminder of project is rehabilitation of existing capacity.

The SDF Act requires that the total project costs be reduced by a revenue credit equal to a minimum of 25 percent of the cost of the capital projects included in the analysis when the Incremental/Marginal Cost is utilized. The SDF Act "Minimum Requirements" allow for the credit to be determined by "either the outstanding debt principal or the present value of projected water and sewer revenues received by the local government unit for the capital improvements." For this Study, the revenue credit was determined by removing the net present value of debt principal for the cost of the future capital projects that the City plans to finance over the 10-year CIP planning period. Specifically, of the \$182 million in expansion costs the City plans to finance approximately \$179 million. The net present value was determined assuming a 3 percent discount rate. Table 2-5 presents the determination of the net system value given the revenue credit for future debt service.

**Table 2-5 Net System Value including Revenue Credits**

	Water	Sewer
Total Expansion Costs	\$108,490,535	\$73,962,769
Net Present Value of Principal Over Planning Period	(\$50,533,085)	(\$34,450,627)
Additional Credit to Achieve 25%	(\$ - )	(\$ - )
<b>Net System Value</b>	<b>\$57,957,450</b>	<b>\$39,512,143</b>

## 2.3 SYSTEM CAPACITY

### 2.3.1 Existing System Capacity

The City's water and sewer systems consist of numerous functional components such as water treatment, source of supply and/or pumping, storage, and transmission/conveyance. Each of the functional components have a physical or regulatory permitted capacity. While treatment, supply, and disposal capacities are readily available and generally accepted to be the physical or regulatory permitted capacity of such facilities, transmission system capacities are more difficult to quantify.

As such, it is common to define the capacity for all functional components (including the transmission or conveyance facilities) based on the system's total treatment capacity. This approach was utilized for the determination of the capacities of the City's utility systems. The rationale behind this decision is that even



if the pumping or transmission/conveyance portion of either system is larger than that system's treatment capacity, the maximum capacity the system can offer to its connections is its total treatment capacity.

For the City's water system, the City owns and operates the Hendersonville Water Treatment Facility (WTF). While permitted for a capacity of 12.0 million gallons per day (MGD), on average it currently treats and produces 7.575 MGD of water from the Pisgah National Forest and Mills River. Based on discussions with City staff, the capacity of 12.0 MGD was assumed for the system development fee analysis. Total existing maximum day water system capacity used in the system development fee analysis is 12.0 MGD.

For the City's sewer system, the City owns and operates the Hendersonville Wastewater Treatment Facility (WWTF) that has a capacity of 4.8 MGD. The WWTF currently treats an average influent flow of 3.0 MGD. At the time the new facility was constructed it was designed with a capacity of 4.8 MGD, but can be expanded up to 6.0 MGD in the future. A capacity of 4.8 MGD was used as the existing sewer system capacity for the system development fee analysis.

### 2.3.2 Added System Capacity

The expansion related capital improvement projects identified in the City's CIP will all add capacity to the City's water and sewer systems.

The water system capital projects will increase the City's water system capacity to 18.0 MGD, an incremental change of 6.0 MGD. This includes expansion to existing Water Treatment Facility, French Broad River intake and pumping station for added capacity. For the sewer system, the projects associated with the City's Wastewater Treatment Facility Master Plan will provide the WWTF with 3.0 MGD of incremental capacity in addition to rehabilitation and flow equalization of the WWTF Headworks bringing the total sewer capacity to 7.8 MGD after the future expansion. Table 2-6 summarizes the capacity by function used in the Combined Cost system development fee calculations. As shown in the table, the water treatment and sewer treatment capacities are assumed to be the limited factors within the systems and therefore the transmission/distribution and conveyance/collection capacities are assumed to be the same as the treatment capacities.

**Table 2-6 System Capacity by Function**

	Water Capacity (MGD)		Sewer Capacity (MGD)	
	Water Treatment	Transmission/Distribution	Sewer Treatment	Conveyance / Collection
Current Capacity	12.0	12.0	4.8	4.8
Capacity Expansion	6.0	6.0	3.0	3.0
<b>Total System Capacity</b>	<b>18.0</b>	<b>18.0</b>	<b>7.8</b>	<b>7.8</b>

## 2.4 COMBINED COST CALCULATION

As previously stated, the Combined Cost approach includes the net system assets in addition to the net capital project costs to reach the total system value of the utility. Table 2-7 summarizes the Combined Cost calculation for both the water and sewer system development fee calculation. It also provides the cost per gallon per day for system capacity based on the total capacity within each system.

**Table 2-7 Combined Approach Cost per Gallon**

	Water	Sewer
RCNLD Value of Existing Assets	\$96,493,074	\$63,947,771
Expansion Capital Projects	\$108,490,535	\$73,962,769
<b>Total Value</b>	<b>\$204,983,609</b>	<b>\$137,910,540</b>
<i>Less Credits</i>		
Outstanding Debt Principal	(\$18,058,384)	(\$14,648,017)
Donated Assets / Non-Core Assets	(\$10,179,577)	(\$2,693,227)
Revenue Credit (NPV of future debt principal over planning period)	(\$50,533,085)	(\$34,450,627)
Additional credit to meet 25% requirement	(\$ - )	(\$ - )
<b>Net System Value</b>	<b>\$126,212,563</b>	<b>\$86,118,669</b>
<b>System Capacity - Gallons per Day</b>	<b>18,000,000</b>	<b>7,800,000</b>
<b>Cost per Gallon Per Day</b>	<b>\$7.01</b>	<b>\$11.04</b>

## 2.5 LEVEL OF SERVICE STANDARDS

Once the unit cost of capacity is determined the system development fees can be calculated by applying the unit cost to the estimated units of service required by new customers joining the water and/or sewer system. The estimated units of service must be calculated consistent with the methodology that is used to charge the system development fees. For example, some utilities charge system development fees for all property types based on the size of the meter serving the property. While this approach is simple it does not necessarily reflect the demands (units of service) associated with the various categories of users connecting to the utility. Based on discussions with City staff, we are recommending an approach that more closely aligns the units of service and the actual use demonstrated by City customers. Specifically, we have evaluated the units of service based on average use by household size (heated square feet) for single family residential customers, per unit for multi-family, per mobile home and based on meter size for non-residential customers.

To evaluate units of service, Stantec worked with City staff to review detailed customer usage data to calculate the average day use in gallons per day by residential housing size. The use by household size for existing City customers demonstrated a significant correlation between the amount of water used and the size of the homes heated area. The average use for multi-family customers on a per unit basis was

also examined as part of the study. A system-wide peaking factor of 1.5 was applied to provide the maximum day demand for each household size, multi-family unit and non-residential customer. The peaking factor is based on historical data and is used for water system planning purposes. The results are for residential customers are shown in Table 2-8. It should be noted that the average usage for single family homes for all household sizes is 136 gallons per day.

**Table 2-8 Residential Units of Service - Water**

Property Type	Average Usage (gpd)	Peaking Factor	Max Day Units of Service (gpd)*
Single Family (Heated sq. ft.)			
<1,000	118	1.50	178
1,000 - 1,500	127	1.50	190
1,501 - 2,000	129	1.50	194
2,001 - 2,500	137	1.50	206
2,501 - 3,000	143	1.50	214
3,001 - 3,500	153	1.50	230
3,501 - 4,000	164	1.50	246
Over 4,000	189	1.50	284
Multi-Family per unit	85	1.50	128
Mobile Homes	133	1.50	200

\* Resulting units of service used to determine water system development fee for each property type

For the sewer system, a level of service was established based on the minimum design flow standards outlined by the North Carolina Department of Environmental Quality (NCDEQ) in 15A NCAC 02T .0114. For planning purposes, the City must assume 120 gpd per bedroom with a minimum of two bedrooms. As a result, the study assumes a sewer level of service per equivalent residential unit (ERU) of 240 gpd. To convert the level of service to the individual household sizes and per multi-family unit the ratios of the units of service for the water system were applied to the 240 gpd standard. Table 2-9 reflects the calculations and the resulting units of service for each property type.

**Table 2-9 Residential Units of Service - Sewer**

Property Type	Water Use* Ratios	Units of Service (gpd)**
Single Family (Heated sq. ft.)		
<1,000	87%	209
1,000 - 1,500	93%	223
1,501 - 2,000	95%	228
2,001 - 2,500	101%	242
2,501 - 3,000	105%	252
3,001 - 3,500	113%	271
3,501 - 4,000	121%	289

Property Type	Water Use* Ratios	Units of Service (gpd)**
Over 4,000	139%	334
Multi-Family per unit	63%	150
Mobile Homes	98%	235

\*Ratio comparing average residential single family customer demand

\*\*Resulting units of service used to determine sewer system development fee for each property type

The units of service for non-residential customers are based on demand by meter size. Specifically, the non-residential average use for a 3/4" meter was calculated based on an average usage per account for all non-residential customers with this size meter. This base demand is then scaled up for each meter size based on the American Water Works Association (AWWA) meter equivalency factors. A consistent system-wide peaking factor is applied for all meter sizes as mentioned above. The determination of the maximum day use by each meter size is shown in Table 2-10.

**Table 2-10 Non-Residential Units of Service - Water**

Meter Size	Meter Equivalency	Equivalent Use (gpd)	Max Day Peak Factor	Max Day Units of Service (gpd)*
3/4"	1.00	237	1.50	356
1"	1.67	395	1.50	593
1.5"	3.33	790	1.50	1,185
2"	5.33	1,264	1.50	1,896
3"	11.67	2,765	1.50	4,148
4"	21.00	4,977	1.50	7,466
6"	43.33	10,270	1.50	15,405
8"	93.33	22,120	1.50	33,180
10"	140.00	33,180	1.50	49,770

\* Resulting units of service used to determine water system development fee for meter size

The sewer system units of service for non-residential customers are based on a similar analysis as the water system. The water use ratio (single family water use compared to non-residential use) for the 3/4" metered non-residential customer was determined to be 1.74. This factor was applied to the per ERU planning standard of 240 gpd resulting in the units of service of 418 gpd for a 3/4" non-residential customer. The units of service for non-residential sewer customers are shown in Table 2-11.

**Table 2-11 Non-Residential Units of Service - Sewer**

Meter Size	Meter Equivalency	Units of Service (gpd)*
3/4"	1.00	418
1"	1.67	697
1.5"	3.33	1,394
2"	5.33	2,231

Meter Size	Meter Equivalency	Units of Service (gpd)*
3"	11.67	4,879
4"	21.00	8,783
6"	43.33	18,124
8"	93.33	39,035
10"	140.00	58,553

\*Resulting units of service used to determine sewer system development fee for each property type

### 3. RESULTS

This section summarizes the results of the Study, the calculated system development fees, and conclusions and recommendations.

#### 3.1 CALCULATED WATER AND SEWER SYSTEM DEVELOPMENT FEES

To calculate the system development fees, the total unit cost per gallon for capacity described in Section 2 is multiplied by the units of service associated with each of the categories of customers described in the prior section of this report. Tables 3-1 and 3-2 provide a schedule of the calculated water and sewer system development fees respectively based upon the cost and capacity information discussed in the Study.

**Table 3-1 Calculated Residential Water and Sewer Development Fees**

Property Type	Water	Sewer	Combined
Residential – Individually Metered (Heated sq. ft.)			
<1,000	\$1,247	\$2,309	\$3,555
1,000 - 1,500	\$1,332	\$2,466	\$3,797
1,501 - 2,000	\$1,359	\$2,517	\$3,876
2,001 - 2,500	\$1,443	\$2,672	\$4,115
2,501 - 3,000	\$1,500	\$2,778	\$4,278
3,001 - 3,500	\$1,613	\$2,987	\$4,600
3,501 - 4,000	\$1,724	\$3,193	\$4,918
Over 4,000	\$1,992	\$3,689	\$5,681
Multi-Family per-unit Master-Metered	\$894	\$1,656	\$2,551
Mobile Homes per unit Master Metered Park	\$1,399	\$2,592	\$3,991

It should be noted that for implementation purposes, we recommend that duplexes and individually-metered townhomes, mobile homes and condominiums be assessed the system development fees based on the heated square footage of the residential unit in the same manner as single family residential properties.

**Table 3-2 Calculated Non-Residential Water and Sewer System Development Fees**

Meter Size	Water	Sewer	Combined
3/4"	\$2,494	\$4,618	\$7,112
1"	\$4,156	\$7,697	\$11,853
1.5"	\$8,312	\$15,393	\$23,706
2"	\$13,300	\$24,629	\$37,929
3"	\$29,093	\$53,877	\$82,970

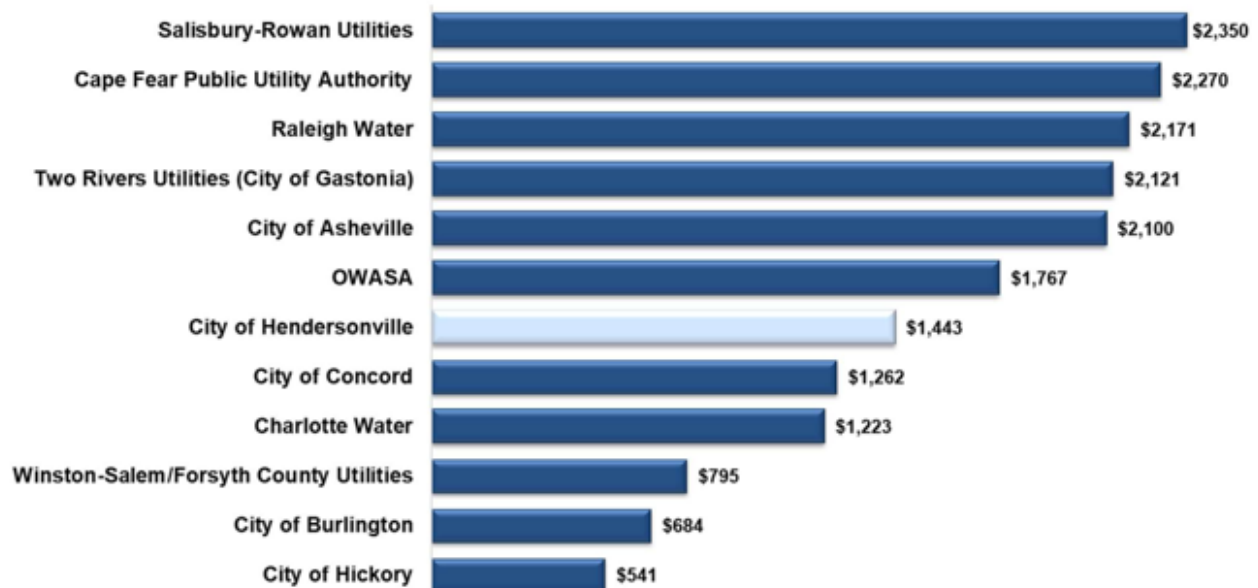
Meter Size	Water	Sewer	Combined
4"	\$52,368	\$96,978	\$149,347
6"	\$108,062	\$200,114	\$308,176
8"	\$232,748	\$431,015	\$663,763
10"	\$349,122	\$646,522	\$995,644

It is important to note that the City has discretion regarding the percentage of cost recovery utilized in the establishment of the system development fees. The system development fees can recover any amount up to, but not in excess of, the full cost recovery amounts identified herein for the calculated system development fees.

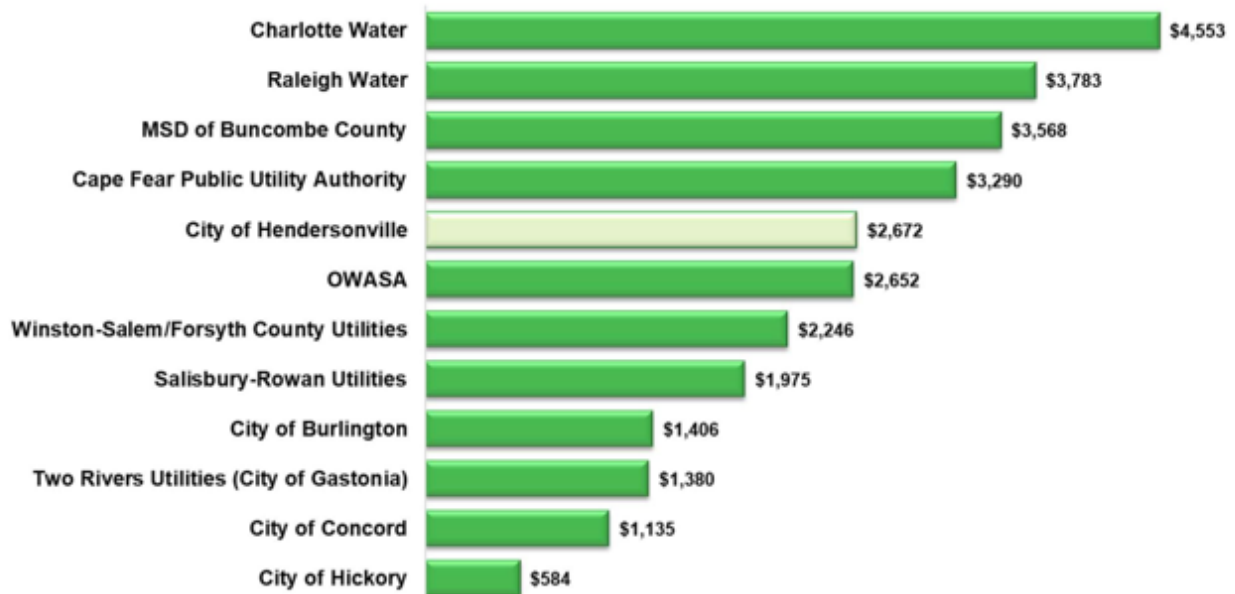
### 3.2 SYSTEM DEVELOPMENT FEE BENCHMARKING

System development fees are commonly adopted by utilities in North Carolina given the enabling legislation. A survey of current system development fees for surrounding and comparable utilities was completed to benchmark the calculated system development fees for the City. It is important to note that the system development fees used in the benchmarking are based on the fees that are currently in place as of the writing of this report. Since the enabling legislation requires an update of the fees every five years, many of the utilities are currently engaged with consultants to update the fees. The following figures present the results of the benchmarking.

**Figure 3.1 - Water System Development Fees (Residential 2,100 Sq. Ft.)**





**Figures 3.2 - Sewer System Development Fees (Residential 2,100 Sq. Ft.)**

The benchmarking results demonstrate that the calculated fees are comparable with the benchmarked utilities current system development fees.

### 3.3 CONCLUSIONS AND RECOMMENDATIONS

Based upon the analysis presented herein, Stantec has developed the following conclusions and recommendations:

- 1) We recommend that the City adopt the calculated water and sewer system development fees as demonstrated in Tables 3-1, and 3-2. This will allow the City to recover a portion of the cost of providing water and sewer capacity from new connections joining the system.
- 2) We recommend that following the adoption of system development fees, the fees be collected from all new connections consistent with the required within the SDF Act outlined below:
  - For new development involving the subdivision of land, the system development fee shall be collected at the later of either of the following: (1) The time of application for a building permit. (2) When water or sewer service is committed by the City.
  - For all other new development, the fees should be collected at the earlier of either of the following: (1) The time of application for connection of the individual unit of development to the service or facilities. (2) When water or sewer service is committed by the City.
- 3) We recommend that the City review its development fees at least every five years to ensure that it follows requirements established by the SDF Act and to ensure that they remain fair and equitable and continue to reflect its current cost of capacity. As the City continues to expand its facilities,

future changes in technology, demands, development patterns, or other factors may necessitate additional adjustments to its development fees.

- 4) We recommend that as part of any system development fee update, the City also evaluates the most appropriate accepted methodology for calculating its system unit cost of capacity as system capacity may change over time.

## Disclaimer

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*In preparing this report, Stantec utilized information and data obtained from the city or public and/or industry sources. Stantec has relied on the information and data without independent verification, except only to the extent such verification is expressly described in this document. Any projections of future conditions presented in the document are not intended as predictions, as there may be differences between forecasted and actual results, and those differences may be material.*

*Additionally, the purpose of this document is to summarize Stantec's analysis and findings related to this project, and it is not intended to address all aspects that may surround the subject area. Therefore, this document may have limitations, assumptions, or reliance on data that are not readily apparent on the face of it. Moreover, the reader should understand that Stantec was called on to provide judgments on a variety of critical factors which are incapable of precise measurement. As such, the use of this document and its findings by city should only occur after consultation with Stantec, and any use of this document and findings by any other person is done so entirely at their own risk.*

### Schedule 1: Summary of System Fixed Assets & Administration Cost Allocation

Function		Gross RCNLD Asset Value	Less Donated and Minor Equipment (Non-Core Assets)	Net RCNLD Asset Value	% of Total	Net Asset Value + Allocated Admin
Water	Treatment	\$ 33,999,902	\$ 584,317	\$ 33,415,584	22.64%	\$ 33,415,584
Water	Supply and Pumping	\$ 1,827,398	\$ 634,985	\$ 1,192,413	0.81%	\$ 1,192,413
Water	Storage	\$ 1,314,128	\$ 944,312	\$ 369,816	4.32%	\$ 369,816
Water	Transmission & Distribution	\$ 53,351,047	\$ 8,015,903	\$ 45,335,144	30.72%	\$ 45,335,144
Sewer	Treatment	\$ 28,145,176	\$ 63,282	\$ 28,081,894	19.03%	\$ 28,081,894
Sewer	Pumping	\$ 343,488	\$ 332,065	\$ 11,423	0.01%	\$ 11,423
Sewer	Collection & Conveyance	\$ 35,459,106	\$ 2,297,880	\$ 33,161,226	22.47%	\$ 33,161,226
<b>Total</b>		<b>\$ 160,440,845</b>	<b>\$ 12,872,804</b>	<b>\$ 147,568,041</b>	<b>100%</b>	<b>\$ 147,568,041</b>

### Schedule 2: Capital Improvement Summary

Function		Capital Improvement Costs	% of Total	Function Costs + Allocated Admin
Water	Treatment	\$ 37,961,500	20.81%	\$ 37,961,500
Water	Supply and Pumping	\$ 25,524,035	13.99%	\$ 25,524,035
Water	Storage	\$ -	0.00%	\$ -
Water	Transmission & Distribution	\$ 45,005,000	24.67%	\$ 45,005,000
Sewer	Treatment	\$ 57,750,769	31.65%	\$ 57,750,769
Sewer	Pumping	\$ -	0.00%	\$ -
Sewer	Collection & Conveyance	\$ 16,212,000	8.89%	\$ 16,212,000
<b>Total Expansion CIP</b>		<b>\$ 182,453,304</b>		<b>\$ 182,453,304</b>
Excluded Non-Expansion CIP		\$ 111,792,361		\$ 111,792,361
<b>Total System CIP</b>		<b>\$ 294,245,665</b>		<b>\$ 294,245,665</b>

### Schedule 3: Capital Improvement Program Listing and Allocations

	Project Name	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Cost	Water Allocation	Sewer Allocation	% Growth	Growth Related CIP Cost
1	Apple Project Land Acquisition #10174	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	100%	\$ -	0%	\$ -
2	Pleasant Water Improvement Project #10172	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	100%	\$ -	0%	\$ -
3	French Creek New Water System #10167	\$ 24,514,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,514,000	100%	\$ -	0%	\$ -
4	Blue Creek Water Project #10162	\$ -	\$ -	\$ 8,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000,000	100%	\$ -	0%	\$ -
5	North Fork Slough #10171	\$ 1,110,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,110,000	100%	\$ -	0%	\$ -
6	North Greenwood Water Project #10160	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 850,000	100%	\$ -	0%	\$ -
7	Sewer #10161 Truck Replacement #10171	\$ 550,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 550,000	100%	\$ -	0%	\$ -
8	Sewer #10161 Truck Replacement #10171 - 1	\$ -	\$ -	\$ 510,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 510,000	100%	\$ -	0%	\$ -
9	Sewer #10161 Truck Replacement #10171 - 2	\$ -	\$ -	\$ 400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400,000	100%	\$ -	0%	\$ -
10	Wastewater Collection - Main #10165	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	100%	\$ -	0%	\$ -
11	Water Distribution Main Plan Update #10172	\$ 400,000	\$ -	\$ -	\$ -	\$ -	\$ 231,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400,000	100%	\$ -	0%	\$ 429,000
12	WTP Expansion to 150 MGD #10167	\$ -	\$ 6,131,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,131,500	100%	\$ -	0%	\$ 6,131,500
13	WTP Rawwater Storage Covered Building #10163	\$ -	\$ 1,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,400,000	100%	\$ -	0%	\$ -
14	WTP Rawwater Storage Covered Building #10163	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	100%	\$ -	0%	\$ -
15	WTP Rawwater Storage Covered Building #10163	\$ -	\$ -	\$ -	\$ 12,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,000,000	100%	\$ -	0%	\$ -
16	WTP #10167 Expansion Project #10167	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000	100%	\$ -	0%	\$ -
17	Corbett Slough Longitudinal Water Replacement	\$ -	\$ 330,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 330,000	100%	\$ -	0%	\$ -
18	RCDOT Highland Lake Rd	\$ -	\$ 370,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 370,000	100%	\$ -	0%	\$ -
19	Old Bridge Rd #10161	\$ -	\$ 470,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 470,000	100%	\$ -	0%	\$ -
20	Slough Road Water Replacement #10162	\$ -	\$ 270,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270,000	100%	\$ -	0%	\$ -
21	WTP #10167 and Pipe Replacement	\$ -	\$ 4,000,000	\$ -	\$ -	\$ -	\$ 20,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,000,000	100%	\$ -	0%	\$ 11,355,000
22	CWT Truck Replacement	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000	100%	\$ -	0%	\$ -
23	North Main Water and Sewer Replacement	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	50%	\$ -	0%	\$ -
24	Sewer Collection System Master Plan Update	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000	100%	\$ -	0%	\$ 200,000
25	Slough Truck Storage Building	\$ -	\$ -	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 600,000	100%	\$ -	0%	\$ -
26	WTP #10167 and Pipe Replacement Phase 2	\$ -	\$ -	\$ 270,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 270,000	100%	\$ -	0%	\$ 270,000
27	RCDOT 1st #10161	\$ -	\$ -	\$ -	\$ 12,100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,100,000	100%	\$ -	0%	\$ 12,100,000
28	RCDOT 1st #10161	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	100%	\$ -	0%	\$ 1,000,000
29	RCDOT 1st #10161	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -
30	RCDOT 1st #10161	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -
31	RCDOT 1st #10161	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -
32	WTP #10167 and Pipe Replacement	\$ -	\$ -	\$ -	\$ 3,700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,700,000	100%	\$ -	0%	\$ 3,700,000
33	WTP #10167 and Pipe Replacement	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	100%	\$ -	0%	\$ -
34	WTP #10167 and Pipe Replacement	\$ -	\$ -	\$ -	\$ 1,100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,100,000	100%	\$ -	0%	\$ -
35	WTP #10167 and Pipe Replacement	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	100%	\$ -	0%	\$ -
36	North Fork Slough Replacement #10167	\$ -	\$ -	\$ -	\$ 2,700,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,700,000	100%	\$ -	0%	\$ 2,700,000
37	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ 3,000,000
38	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	100%	\$ -	0%	\$ -
39	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ 6,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,000,000	100%	\$ -	0%	\$ -
40	RCDOT 1st #10161	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	\$ -
41	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	100%	\$ -	0%	\$ -
42	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	100%	\$ -	0%	\$ 1,000,000
43	WTP #10167 and Pipe Replacement	\$ -	\$ -	\$ -	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000,000	100%	\$ -	0%	\$ -
44	AM Metering Infrastructure Replacement	\$ 625,000	\$ -	\$ -	\$ -	\$ -	\$ 3,710,000	\$ 3,000,000	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 11,005,000	100%	\$ -	0%	\$ -
45	Slough Rd Water Main Extension	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,210,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,210,000	100%	\$ -	0%	\$ 2,210,000
46	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 900,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 900,000	100%	\$ -	0%	\$ -
47	Slough Rd Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000	100%	\$ -	0%	\$ -
48	Slough Rd Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000	100%	\$ -	0%	\$ 220,000
49	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000	100%	\$ -	0%	\$ -
50	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
51	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200,000	100%	\$ -	0%	\$ -
52	Slough Rd Water Main Extension and Interconnect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,100,000	100%	\$ -	0%	\$ 1,100,000
53	Slough Road Water Main Extension	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	100%	\$ -	0%	\$ 2,000,000
54	WTP #10167 and Pipe Replacement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000	100%	\$ -	0%	\$ 4,000,000
55	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	100%	\$ -	0%	\$ 2,000,000
56	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	100%	\$ -	0%	\$ 1,000,000
57	North Fork Slough Water Line Repaving	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ 3,000,000
58	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000	100%	\$ -	0%	\$ 4,000,000
59	WTP #10167 and Pipe Replacement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
60	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
61	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
62	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
63	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
64	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
65	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
66	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
67	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
68	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
69	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
70	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
71	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
72	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
73	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
74	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
75	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
76	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
77	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
78	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
79	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
80	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
81	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ -
82	WTP #10167 and Pipe Replacement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000	100%	\$ -	0%	\$ 4,000,000
83	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,000,000	100%	\$ -	0%	\$ 2,000,000
84	Slough Road Water Replacement #10162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	100%	\$ -	0%	\$ 1,000,000
85	North Fork Slough Water Line Repaving	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000	100%	\$ -	0%	\$ 3,000,000
86	Slough Road Water System Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$										

## Schedule 4: Capacity Summaries

### Water System Capacity

Treatment		
Water Treatment Plants	Existing Capacity (MGD)	Incremental Capacity (MGD)
Existing Capacity Expansion to 18	12.00	
		6.00
	12.00	6.00

### Sewer System Capacity

Treatment		
Wastewater Treatment Plants	Capacity (MGD)	Incremental Capacity (MGD)
Existing Capacity Expansion to 7.8	4.80	
		3.00
	4.80	3.00

Supply and Pumping		
	Capacity (MGD)	Incremental Capacity (MGD)
	12.00	6.00
	12.00	6.00

Pumping		
	Capacity (MGD)	Incremental Capacity (MGD)
	4.80	3.00
	4.80	3.00

Transmission & Distribution		
	Capacity (MGD)	Incremental Capacity (MGD)
	12.00	6.00
	12.00	6.00

Collection & Conveyance		
	Capacity (MGD)	Incremental Capacity (MGD)
	4.80	3.00
	4.80	3.00

## Schedule 5: Water System Development Fee - Combined

Functional Component:	Treatment / Supply / Pumping	Transmission and Distribution	Total
Gross Plant in Service Value	\$35,827,300	\$60,665,774	\$96,493,074
Total Expansion Capital Projects	\$63,485,535	\$45,005,000	\$108,490,535
Combined System Value	\$99,312,835	\$105,670,774	\$204,983,609
<b>Less:</b>			
Principal Credit (Outstanding Debt)	\$ 6,704,970	\$ 11,353,414	\$ 18,058,384
Specific Asset Contributions/Exclusions	1,219,302	8,960,275	10,179,577
General Allowance for Asset Contributions/Exclusions	-	-	-
Grants (Historical and Future)	-	-	-
Revenue Credit (Principal Future Debt during Planning Period)	29,570,505	20,962,580	50,533,085
Additional credit to meet 25% requirement	-	-	-
<b>Net System Value</b>	<b>\$ 61,818,058</b>	<b>\$64,394,506</b>	<b>\$126,212,563</b>
Revenue Credit % Used in Fee Calculation			46.58%
<b>Cost per Gallon:</b>			
Capacity	18.00	18.00	
<b>Unit Cost per Gallon:</b>	<b>\$3.43</b>	<b>\$3.58</b>	<b>\$7.01</b>

**Schedule 6: Sewer System Development Fee - Combined**

Functional Component:	Treatment and Storage	Collection Conveyance and Pumping	Total
Gross Plant in Service Value	\$28,145,176	\$35,802,595	\$63,947,771
Total Expansion Capital Projects	\$57,750,769	\$16,212,000	\$73,962,769
Gross System Value	\$85,895,945	\$52,014,595	\$137,910,540
Less:			
Principal Credit	\$ 6,446,996	\$ 8,201,021	\$ 14,648,017
Specific Asset Contributions/Exclusions	63,282	2,629,945	2,693,227
General Allowance for Asset Contributions/Exclusions	-	-	-
Grants (Historical and Future)	-	-	-
Revenue Credit (Principal Future Debt during Planning Period)	26,899,347	7,551,280	34,450,627
Additional credit to meet 25% requirement	-	-	-
<b>Net System Value</b>	<b>\$ 52,486,320</b>	<b>\$ 33,632,349</b>	<b>\$ 86,118,669</b>
Revenue Credit % Used in Fee Calculation			46.58%
Cost per Gallon:			
Capacity	7.80	7.80	
<b>Unit Cost per Gallon:</b>	<b>\$6.73</b>	<b>\$4.31</b>	<b>\$11.04</b>

**Schedule 7: Fee Summary**

Water			Sewer			Combined	
Residential			Residential			Residential	
Single Family (Heated Sq. Ft.)	Max Day Flow (gpd)	Calculated System Development Fee	Single Family (Heated Sq. Ft.)	Planning Flow (gpd)	Calculated System Development Fee	Single Family (Heated Sq. Ft.)	Calculated System Development Fee
<1000	178	\$1,247	<1000	209	\$2,305	<1000	\$3,552
1,000 - 1,500	190	\$1,332	1,000 - 1,500	223	\$2,468	1,000 - 1,500	\$3,797
1,501 - 2,000	194	\$1,358	1,501 - 2,000	228	\$2,517	1,501 - 2,000	\$3,876
2,001 - 2,500	206	\$1,443	2,001 - 2,500	242	\$2,672	2,001 - 2,500	\$4,115
2,501 - 3,000	214	\$1,500	2,501 - 3,000	252	\$2,778	2,501 - 3,000	\$4,278
3,001 - 3,500	230	\$1,613	3,001 - 3,500	271	\$2,987	3,001 - 3,500	\$4,600
3,501 - 4,000	246	\$1,724	3,501 - 4,000	289	\$3,193	3,501 - 4,000	\$4,918
4,000+	284	\$1,992	4,000+	334	\$3,688	4,000+	\$5,681
Multi-Family per-unit Master Metered	128	\$894	Multi-Family per-unit Master Metered	150	\$1,656	Multi-Family per-unit Master Metered	\$2,551
Mobile Homes	200	\$1,399	Mobile Homes	235	\$2,592	Mobile Homes	\$3,991
Non-Residential			Non-Residential			Non-Residential	
Meter Size	Max Day Flow (gpd)	Calculated System Development Fee	Meter Size	Planning Flow (gpd)	Calculated System Development Fee	Meter Size	Calculated System Development Fee
3/4"	356	\$2,494	3/4"	418	\$4,618	3/4"	\$7,112
1"	593	\$4,158	1"	697	\$7,697	1"	\$11,852
1.5"	1,185	\$8,312	1.5"	1,394	\$15,393	1.5"	\$23,708
2"	1,896	\$13,300	2"	2,231	\$24,629	2"	\$37,529
3"	4,148	\$29,093	3"	4,879	\$53,877	3"	\$82,970
4"	7,465	\$52,368	4"	8,783	\$98,978	4"	\$149,347
6"	15,405	\$108,062	6"	18,124	\$200,114	6"	\$308,176
8"	33,180	\$232,748	8"	39,035	\$431,015	8"	\$663,763
10"	49,770	\$349,122	10"	58,553	\$648,522	10"	\$995,644

Ken Gordon moved, seconded by John Stevens, to not move forward with the system development fees. Motion carried 5-2 to not move forward with System Development Fees. Adan Justus and Jay Egolf were nays.

## B. November 20, 2023 Special Meeting – John Connet, City Manager

City Manager John Connet proposed that the Committee have a special called meeting on Monday, November 20, 2023, to go over the Gen H Comprehensive Plan with the consultants who have been working on it. Sarah Cosgrove moved to have the special called meeting on November 20, 2023. Motion carried unanimously.

## 6. OTHER BUSINESS – None

## 7. ADJOURNMENT

Rebecca Waggoner moved to adjourn. There being no further discussion the meeting was adjourned at 12:55 p.m. upon unanimous assent of the Committee.

---

Ken Gordon, Chair

ATTEST:

---

Jill Murray, City Clerk





## CITY OF HENDERSONVILLE BUSINESS ADVISORY COMMITTEE

City Hall – 2<sup>nd</sup> Floor Meeting Room | 160 6<sup>th</sup> Avenue E. | Hendersonville NC 28792  
Monday, November 20, 2023 – 11:30 AM

### MINUTES

Present: Chair Ken Gordon, Jay Egolf, Vice-Chair Rebecca Waggoner, John Stevens, Chris Cormier, Sarah Cosgrove, Adam Justus, Cam Boyd, Jen Hensley, Brittany Brady

Staff Present: City Manager John Connet, City Clerk Jill Murray, Community Development Director Lew Holloway, Planning Projects Manager Matt Manley, Communications Manager Allison Justus, Budget Manager Adam Murr

Others Present: Lorna Allen, Bolton & Menk; Grant Meacci, Bolton & Menk; Ben Hitchings, Green Heron Planning; Meg Nealon, Nealon Planning; Jenn Gregory, Retail Strategies / Downtown Strategies

#### 1. CALL TO ORDER

Chairman Ken Gordon called the meeting to order at 11:37 a.m. and welcomed those present.

#### 2. NEW BUSINESS

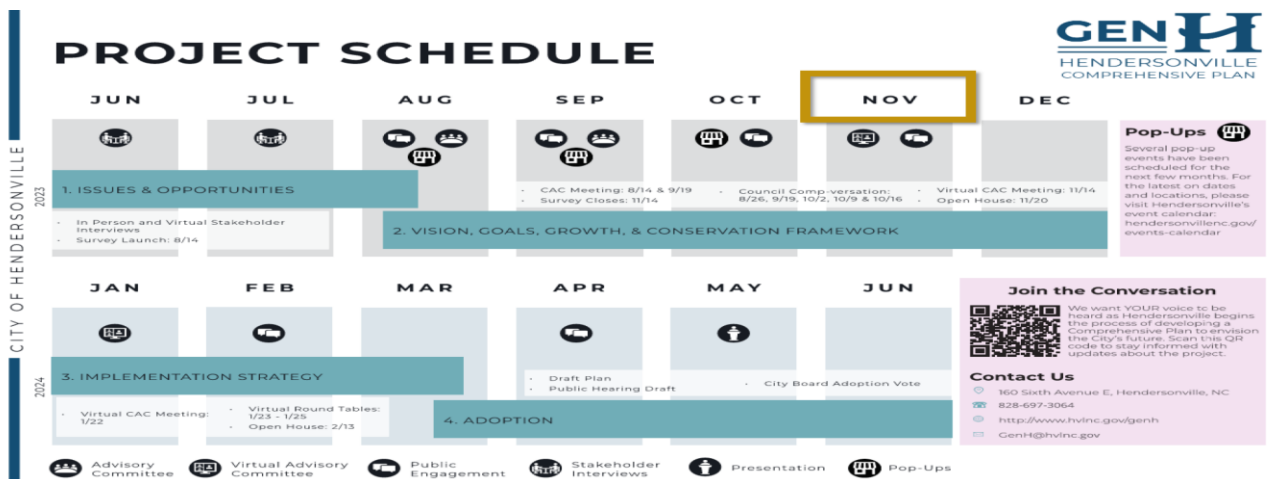
##### **A. Generation H Comprehensive Plan Discussion - Matt Manley, Planning Projects Manager**

The consultants and the board introduced themselves to each other and then each consultant took turns going over both PowerPoint presentations and answering questions.



# PROJECT UPDATE

## PROJECT PHASES

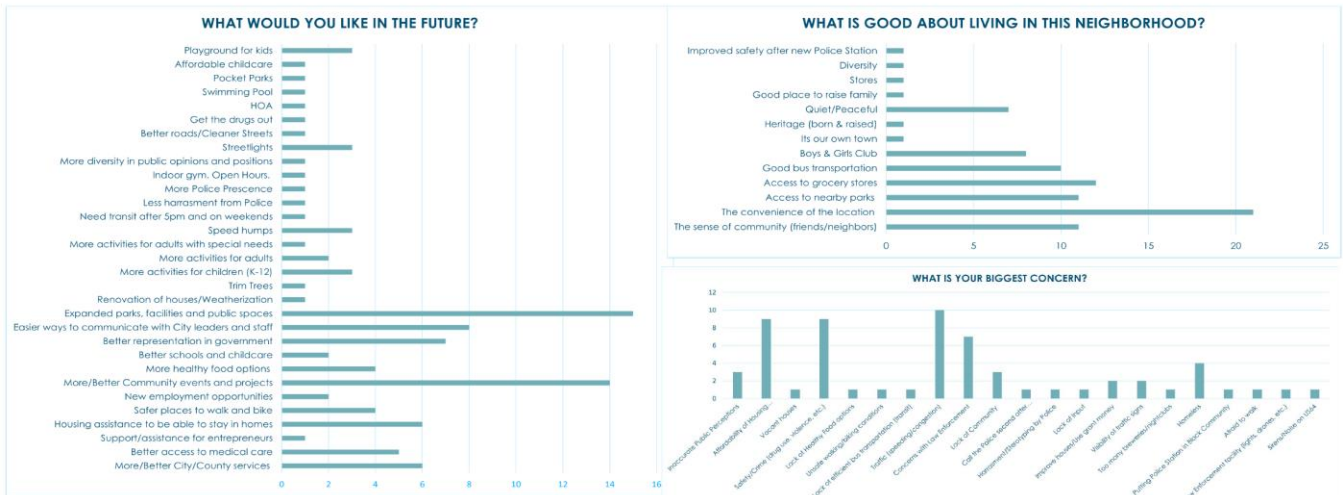


## 25

# Pop-Ups, Presentations, Round Tables

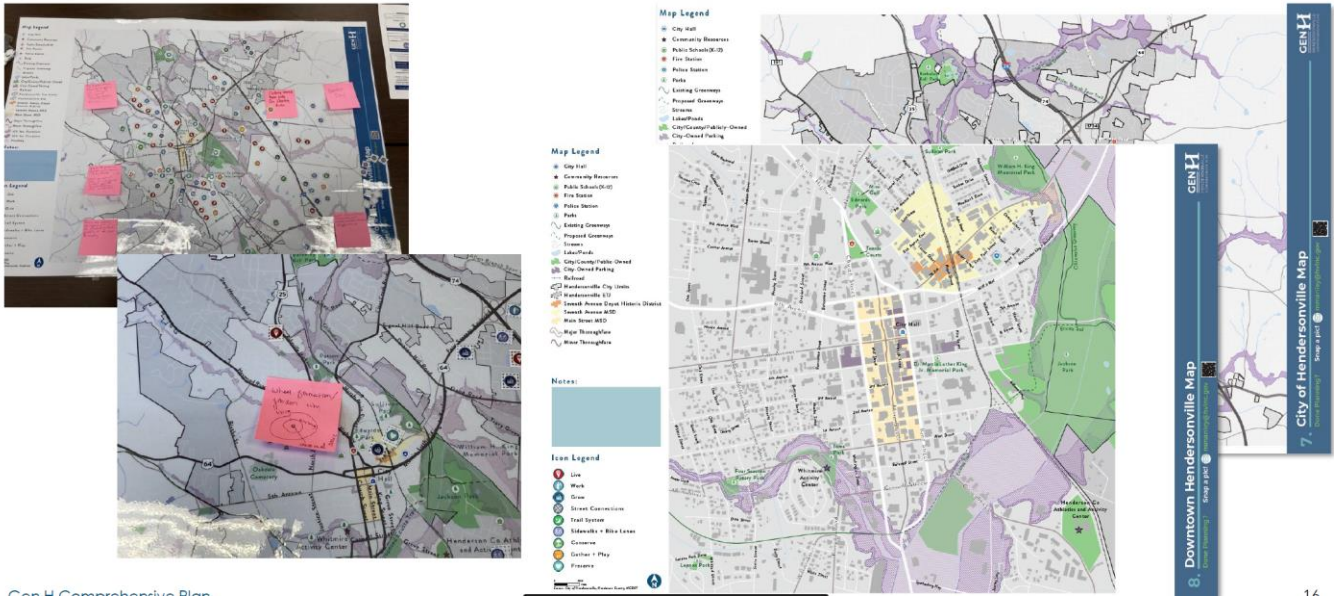


## Neighborhood Canvas: Green Meadows

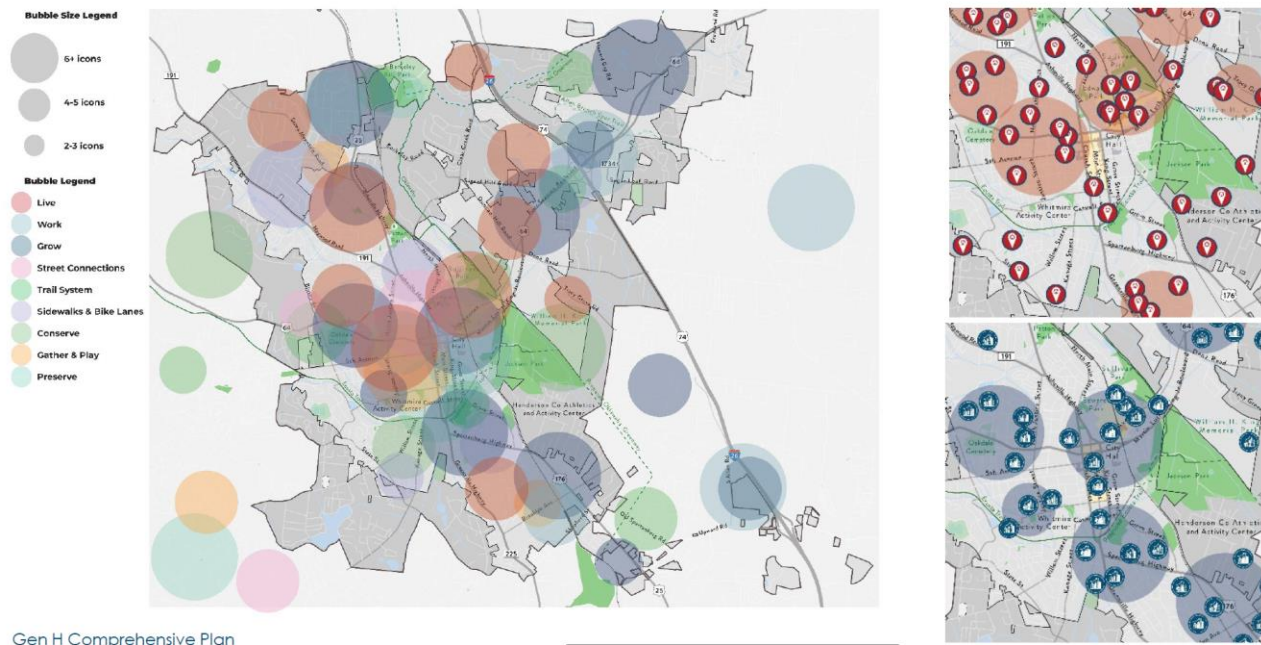




# MEETINGS “TO GO”



# Meetings “TO GO”



# SURVEYS CLOSED 11/14

## Key Issues – Student Survey

1. Housing
2. Effects of Population Growth
3. Access to quality goods and services
4. Economic Development
5. Community Resources

### Gen H - Comprehensive Plan - HCPS Student Survey

Project Engagement				
VIEWS	PARTICIPANTS	RESPONSES	COMMENTS	SUBSCRIBERS
438	227	9,737	384	83

1. As you look into the future, what are the top three things you are most concerned about for Hendersonville?

52%	Housing (affordability, availability, variety - for sale/rent, houses, apartments, etc.)	108 ✓
37%	Effects of Population Growth (increased traffic, sprawl, etc.)	75 ✓
30%	Access to Quality Goods and Services (shopping, dining, entertainment, etc.)	60 ✓
29%	Economic Development (jobs, workforce, small business support, etc.)	59 ✓
23%	Community Resources (for youth, aging population, homeless population, etc.)	46 ✓
21%	Community Health (physical, mental, and spiritual)	42 ✓
20%	Community Safety and Appearance (crime, vacant/underutilized buildings, etc.)	41 ✓
19%	Quality Education (early childhood, K-12, higher education, continuing, etc.)	39 ✓
18%	Environmental Health (climate, tree canopy, water quality, etc.)	37 ✓
14%	Safe, Efficient Transportation Options (vehicle, bike, pedestrian, transit, etc.)	28 ✓
13%	Diversity, Equity & Inclusion	27 ✓
10%	Parks, Trails & Recreation (proximity to, quality, etc.)	23 ✓
5%	Water/Sewer/Utilities (capacity, quality, etc.)	11 ✓
0%	Other (write-in)	1 ✓

### Gen H - Comprehensive Plan Survey

Project Engagement				
VIEWS	PARTICIPANTS	RESPONSES	COMMENTS	SUBSCRIBERS
10,008	4,087	153,122	9,270	1,429

1. As you look into the future, what are the top three things you are most concerned about for Hendersonville?

52%	Effects of Population Growth (increased traffic, sprawl, etc.)	1831 ✓
34%	Housing (affordability, availability, variety - for sale/rent, houses, apartments, etc.)	1186 ✓
30%	Community Safety and Appearance (crime, vacant/underutilized buildings, etc.)	1040 ✓
26%	Environmental Health (climate, tree canopy, water quality, etc.)	897 ✓
21%	Quality Education (early childhood, K-12, higher education, continuing, etc.)	749 ✓
20%	Parks, Trails & Recreation (proximity to, quality, etc.)	706 ✓
17%	Economic Development (jobs, workforce, small business support, etc.)	607 ✓
17%	Community Resources (for youth, aging population, homeless population, etc.)	605 ✓
16%	Access to Quality Goods and Services (shopping, dining, entertainment, etc.)	550 ✓
15%	Water/Sewer/Utilities (capacity, quality, etc.)	511 ✓
14%	Community Health (physical, mental, and spiritual)	476 ✓
13%	Safe, Efficient Transportation Options (vehicle, bike, pedestrian, transit, etc.)	436 ✓
11%	Diversity, Equity & Inclusion	372 ✓
0%	Other (write-in)	224 ✓

## Key Issues – General Survey

1. Effects of Population Growth
2. Housing
3. Community Safety and Appearance
4. Environmental Health
5. Quality Education

# Why people visit

## General

9. If you spend time in downtown, select all the reasons you come here:

84%	Dine	2821 ✓
71%	Events (i.e., parade, festival, art show, cruise-in)	2384 ✓
66%	Shop	2226 ✓
31%	Recreate	1048 ✓
26%	Government offices (i.e., Courthouse for services, City Hall to pay bill)	883 ✓
21%	Exercise	696 ✓
17%	Work	573 ✓
14%	Live	479 ✓
7%	Other (write-in)	242 ✓

## Student

9. If you spend time in downtown, select all the reasons you come here:

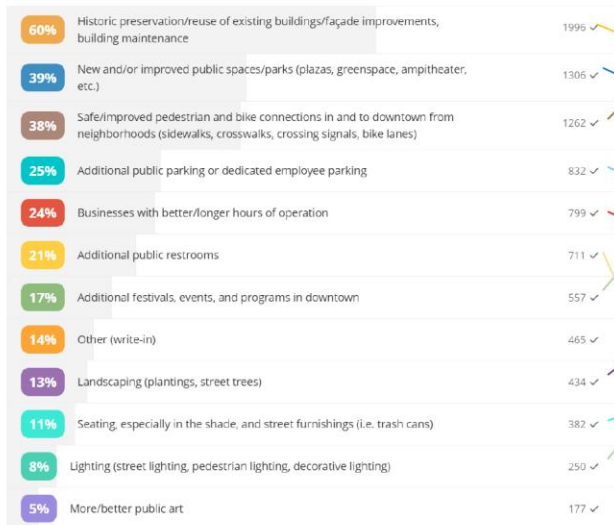
71%	Events (i.e., parade, festival, art show, cruise-in)	130 ✓
69%	Dine	125 ✓
68%	Shop	124 ✓
27%	Work	50 ✓
25%	Recreate	45 ✓
17%	Exercise	31 ✓
16%	Live	30 ✓
7%	Government offices (i.e., Courthouse for services, City Hall to pay bill)	13 ✓
5%	Other (write-in)	9 ✓



# Improvements

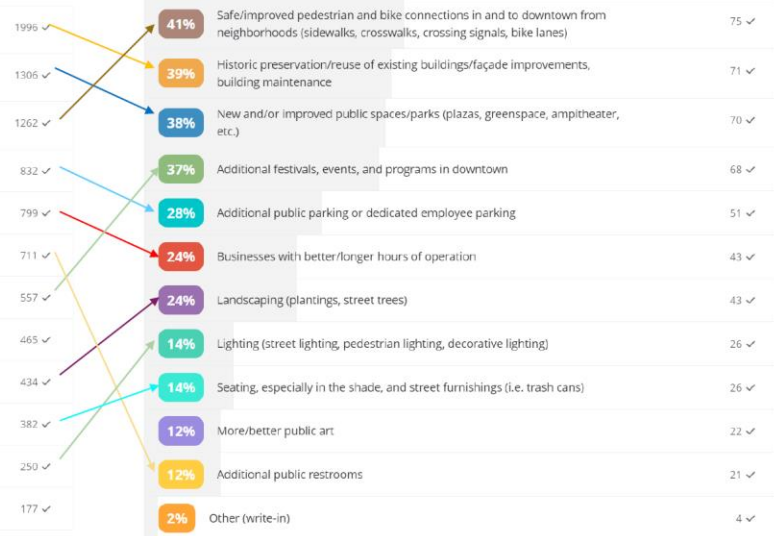
## General

10. What are your top three improvements for downtown?



## Student

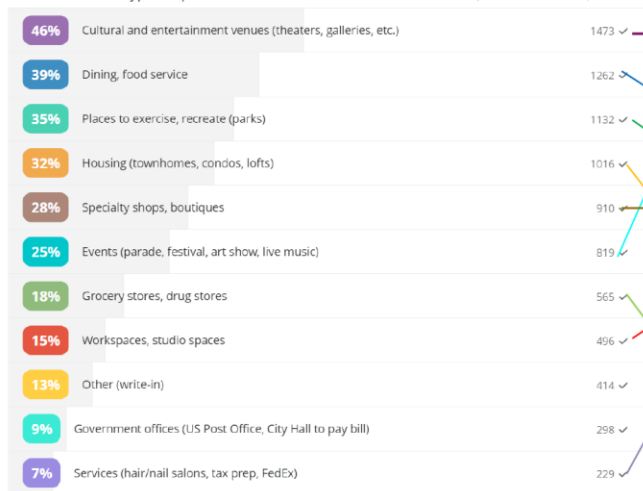
10. What are your top three improvements for downtown?



# Needs

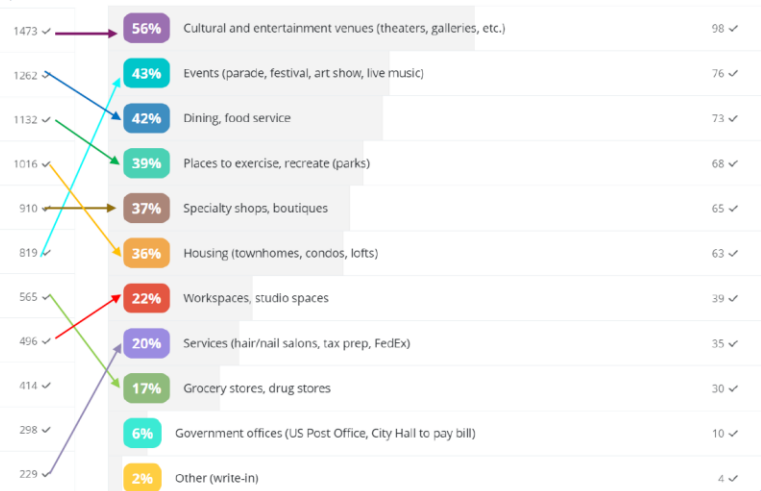
## General

11. What types of places does downtown Hendersonville need (or need more of)?



## Student

11. What types of places does downtown Hendersonville need (or need more of)?



## Survey Results

### Key Themes

Friendly  
(Family &  
Dog)

Vibrant, Charming,  
Quaint, Pleasant,  
Lovely

Safe, Walkable

- Great main street
- Mainstreet USA
- Attractive downtown with lots of old, architecturally interesting buildings and businesses
- Great, eclectic, unique restaurants, shopping and dining.
- Nice variety of festivals.
- Going downtown is like a trip from the past.

- A small version of downtown Naperville Illinois;
- A smaller Franklin, TN in the mountains of NC
- Similar to Beaufort, SC .
- I wish Main St. looked more like Helen, GA or Greenville, SC

## Survey Results

### Key Themes

- Very nice downtown , as long as you're here on vacation.
- Selection/quality of shops and restaurants might be ok for tourists visiting for a weekend but not full-time residents
- Touristy shops and restaurants. Few other shopping opportunities
- Touristy shops that have replaced art galleries, bookstores and fine dining, Increased vacancies.
- Lacking any decent stores or any longevity for small businesses-Rent \$\$
- No comedy clubs, museums, Not enough housing
- Big-city conveniences outside the downtown area.
- Too much attention to Main St., not enough done other areas. A town that spends 75% of it's budget on it's Main Street area once every three years
- Replace unsightly molder fountain at Main St. with mention of Tom Orr and others.
- The parking deck off Main St was a great waste of money... SHOULD have free parking
- There are WAY TOO MANY downtown street closures.
- Main street closes at 5pm

Touristy

Closes early,  
Not much to  
do

Parking,  
Homeless

# Survey Results

## Ideas for the future

Community  
Green Space

Cultural Facilities  
and Music Venues

Recreation spaces  
for all ages

- Music venues, outdoor amphitheaters, and concert halls, Performing arts centers, theaters, auditoriums
- Recreational activity spaces for youth in the community (splash pads, science museums, playgrounds, movie theaters, pickleball courts, skateboard parks, bowling alleys, skating rinks, putt-putt places, and photogenic art walls and spaces, community gardens)
- Recreational activity spaces oriented toward older adults (sculpture gardens, community gardens, libraries, green spaces with chess tables and other games, soda shops, senior centers, art galleries and museums, water features)
- More events and festivals that can create more community for residents and attract visitors to a vibrant downtown.
- A community green space and park downtown that can hold large events and food trucks
- A completion of the Ecusta Trail and Saluda Trail, connectivity between existing trails and greenways to each other, downtown, and other neighborhoods and parks
- Expansion and continuation of a trail and greenway network
- Increase of bicycle lanes, infrastructure, and activities throughout the town
- LGBTQ center, safe spaces, and events
- A pedestrian main street and other additional streets that prohibit vehicles, and an increase of sidewalks and walkability

# Survey Results

## Ideas for the future

- Supermarkets, wholesalers, and grocery stores such as Costco, Trader Joe's, Target, Whole Foods, and Lidl
- More of a variety of dining and shopping options that accommodate all demographics
- adding forms of hospitality and hotels to be in the downtown
- Increase of bicycle lanes, infrastructure, and activities throughout the town
- More jobs and industries, and affordable housing
- Minor league baseball team or other sporting teams
- Free trolleys and public transit throughout the town
- Revitalization of abandoned buildings, run-down malls and shopping centers, and train station
- More affordable housing and accessible jobs
- More night life with late night dining and businesses that have activities in late evenings

More variety of  
businesses

More Housing  
Options

Better Connectivity

# GEN H

## HENDERSONVILLE COMPREHENSIVE PLAN

Demographic Market Analysis  
September 13, 2023

# Data Sources & Trends

## Research Partners

LANDVISION™  
Real Estate Mapping Software

Restaurant News

RLT  
RETAIL LEASE TRACK



near

PlainVanillaShell



SiteSeer

SN  
SOUTHERN MARKET NEWS

the CRITTENDEN REPORT

TETRAD



sitewise

STDB

SitesUSA

REGIS  
online

ChainXY  
Location Matters.

Memberships, Subscriptions &  
Customized Reports

Research Partners &  
Geographic Information Systems

# Research Sources



# Retail is Economic Development

1 in 4 jobs are Retail





# Retail is Economic Development



## Retail Sales

SOURCE: US Census, adjust



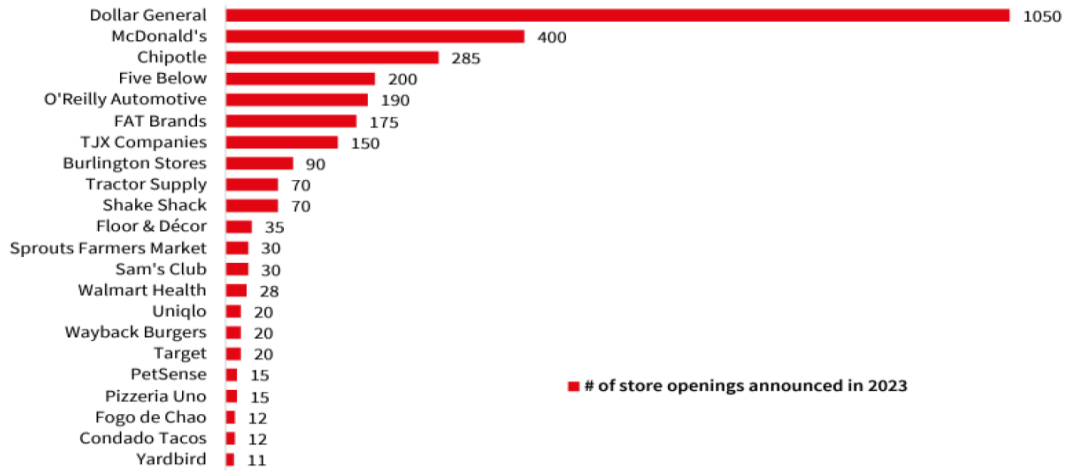
Retail sales rise, with a 3.0% increase from December.

Year-over-year sales are up 6.4% in January.



# National Retailer Expansions in 2023

Dollar General and Chipotle among retailers with most announced openings in 2023



Source: PNC CreditIntell, JLL Research

## New Store Openings

100+ LOCATIONS



## New Store Openings

20 – 99 LOCATIONS



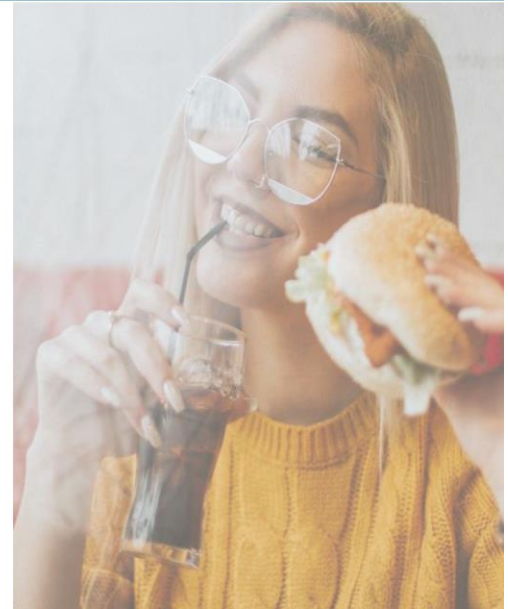
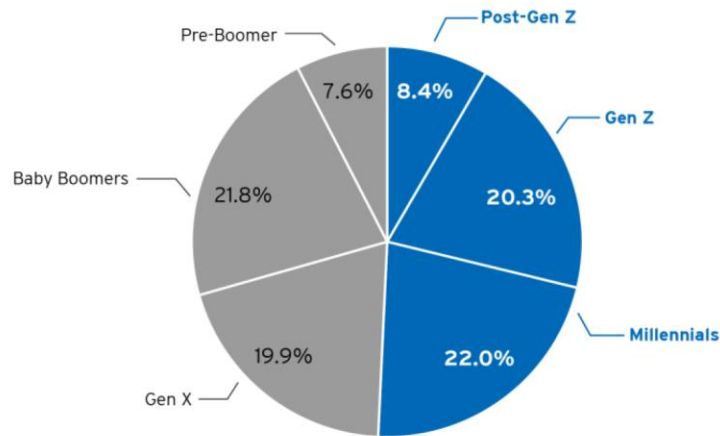
## New Store Openings

25 – 49 LOCATIONS



# Millennials & the Future Consumer

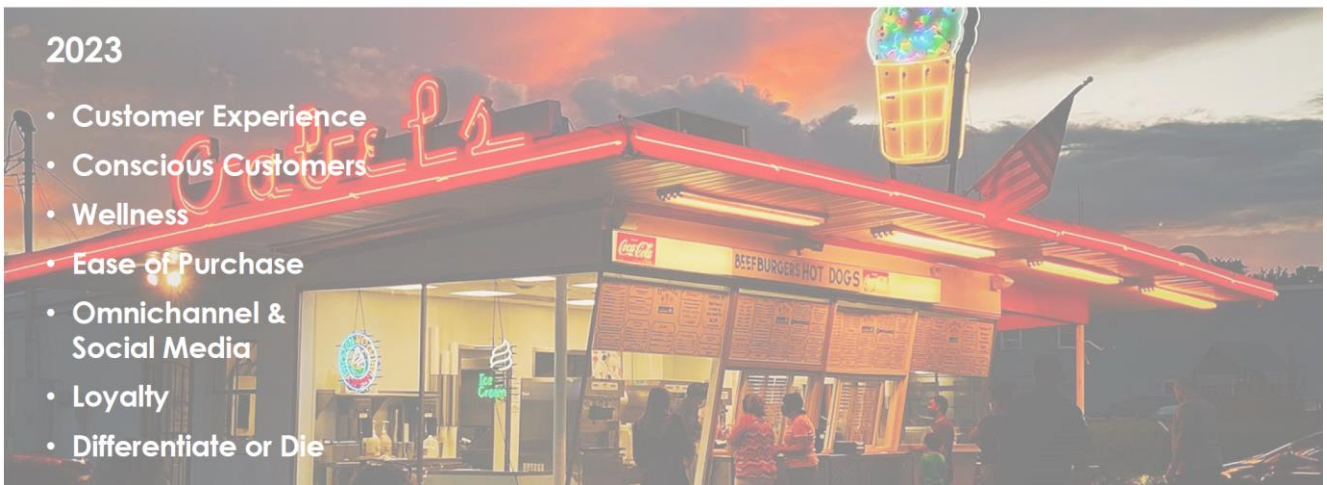
Share of US population by generation



## Retail Trends

2023

- Customer Experience
- Conscious Customers
- Wellness
- Ease of Purchase
- Omnichannel & Social Media
- Loyalty
- Differentiate or Die



# Electric Vehicles



# Market Research & Analysis

## Market Analysis

The information covered in this document represents the key highlights for your community from a data and analytics perspective.

**Mobile Data Collections**

**Customized Trade Area Analysis**

**Demographic Overview**

**Retail GAP Analysis**

**Tapestry Lifestyle Segmentation**



# Mobile Data Collection

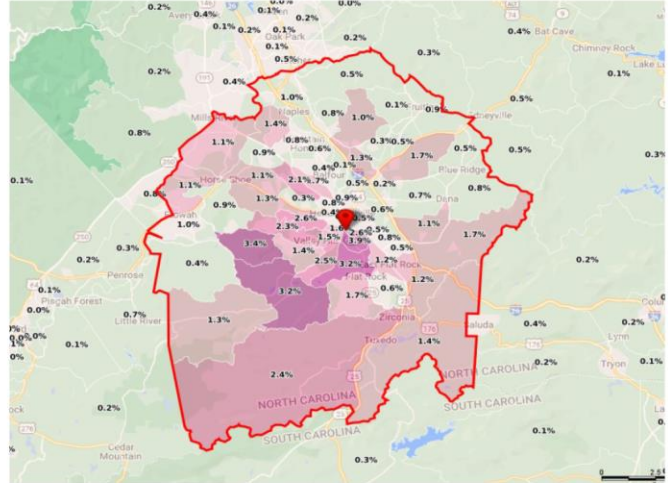
Mobile data tracking uses **data collected from mobile phone users** who have agreed within their apps and phone settings to enable location information. This technology includes mobile phone data with **latitude and longitude points** that are accurate to approximately 20 feet. Data inputs are updated as quickly as every 24-hours.

The data shown **includes shoppers who visited the defined location** during a 1-year time period. This tool allows us to identify where consumers are actually coming from to shop in your market (Custom Trade Area) using actual data



The location tracked was Publix

For the time period of August 2022 - August 2023



Publix

Location Name	Publix	Estimated Annual Visits	96,886
Address	635 Greenville Hwy	Repeat Visitors	43%
City, State	Hendersonville, NC	Tourist Visits	8.6%
Category	Grocery	Average Distance From Home	4.91 mi
Brand	Publix	Average Dwell Time	22 min

# Custom Trade Area

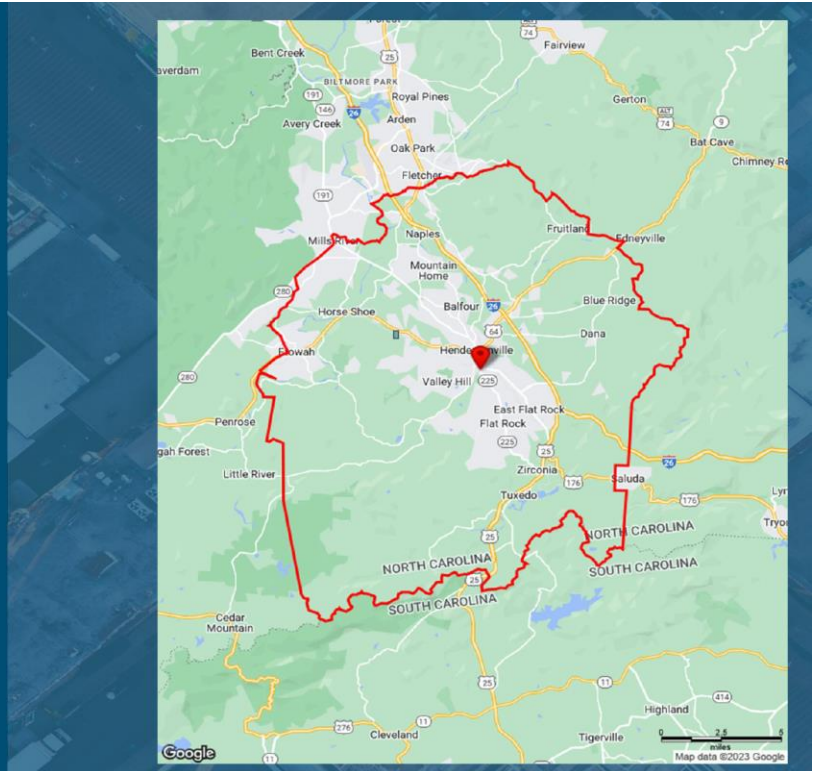
Each retailer has a specific set of site selection criteria they use to determine if they will have a profitable store. Municipal boundaries, radius rings, and drive time areas are a start.

A customized trade area is the next step to analyzing a market. A trade area defines a core customer base of consumers highly likely to shop and eat in the market at least once a month.

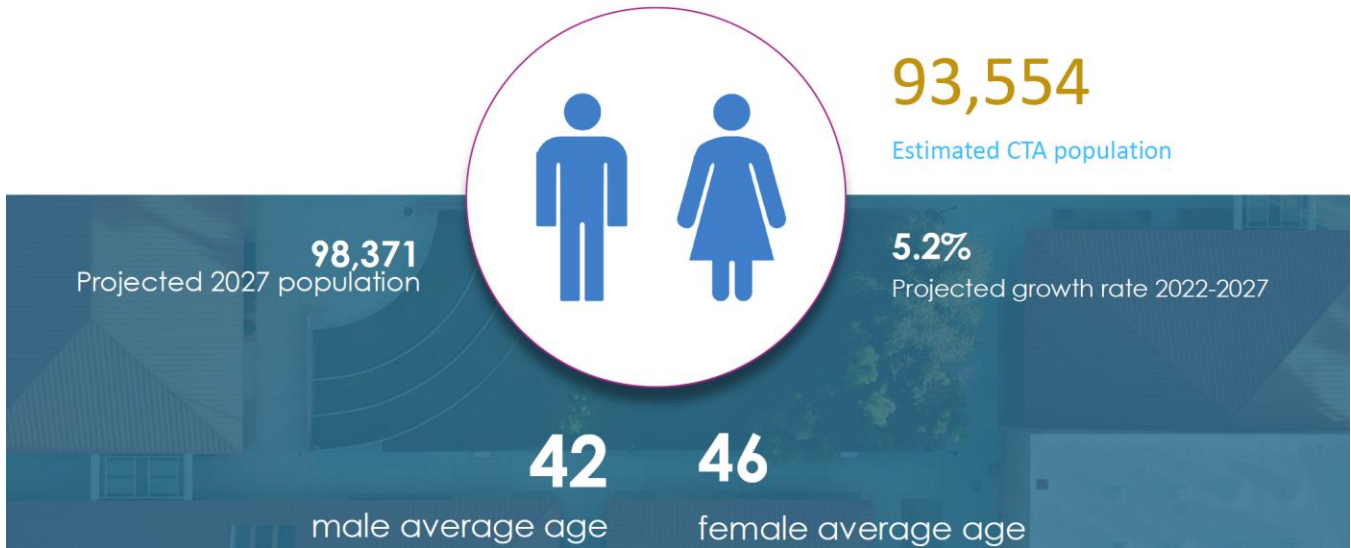
Your trade area has been created by combining a series of drive times, mobile data analysis, geographic boundaries, and proximity to neighboring shopping destinations.

\*The following demographics reflect the Custom Trade Area (CTA) and not geographic community boundaries.

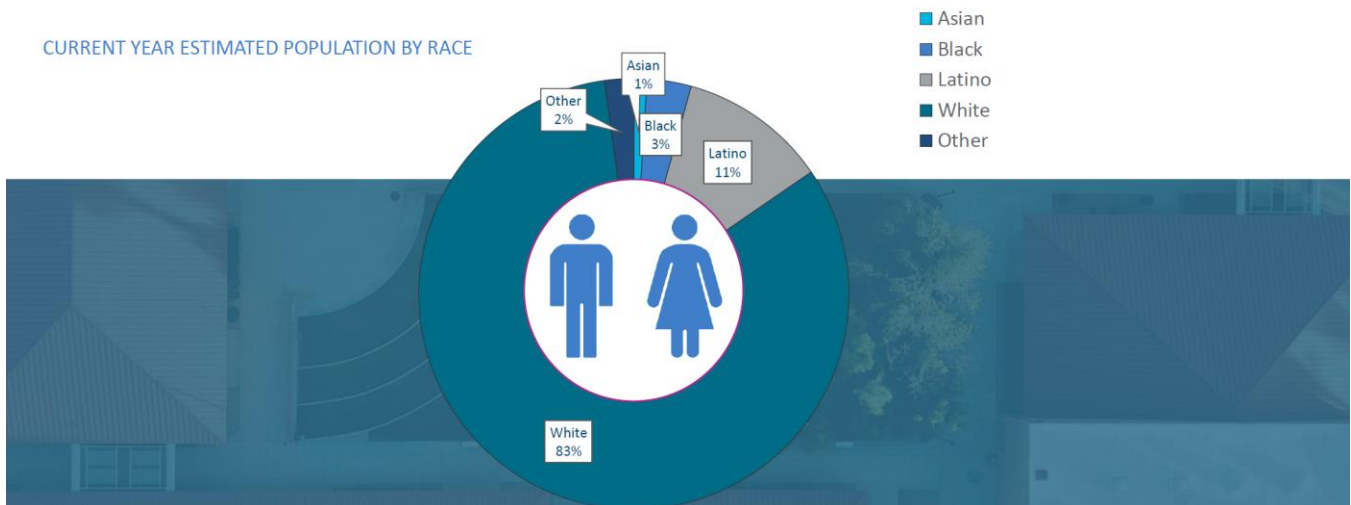
**Hendersonville, NC (CTA)\***  
Population – 93,554



## Custom Trade Area Demographics



## Custom Trade Area Demographics





# Custom Trade Area Demographics

CURRENT YEAR ESTIMATED HOUSEHOLDS BY HOUSEHOLD SIZE

47,842

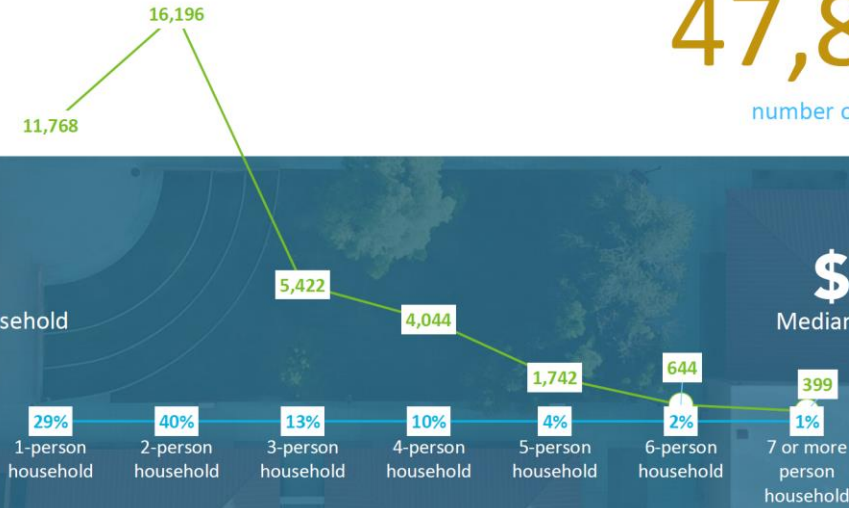
number of households

2.30

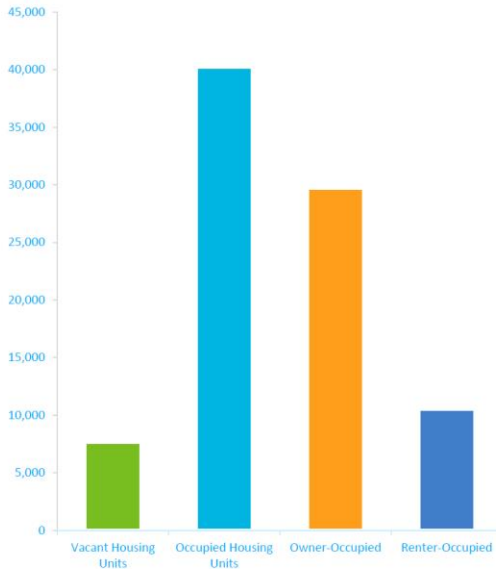
Average people per household

\$59,850

Median household income



# Custom Trade Area Demographics



CURRENT YEAR ESTIMATED HOUSING UNITS BY TENURE

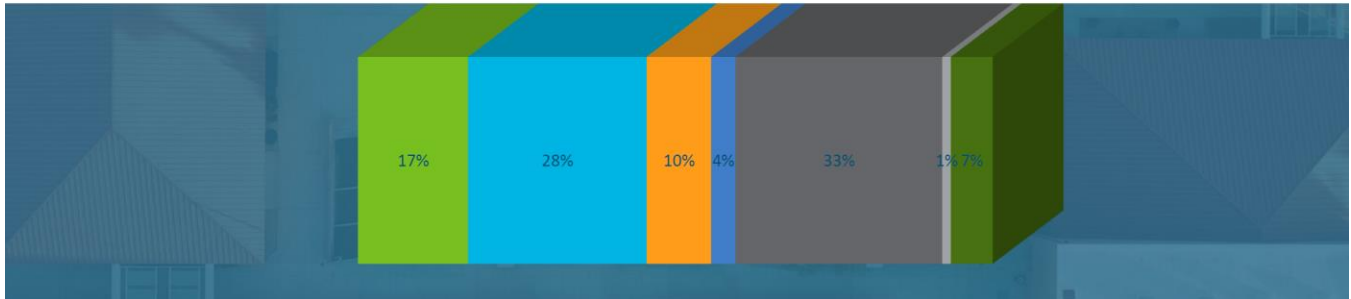
\$475,230

average housing unit value

# Custom Trade Area Demographics

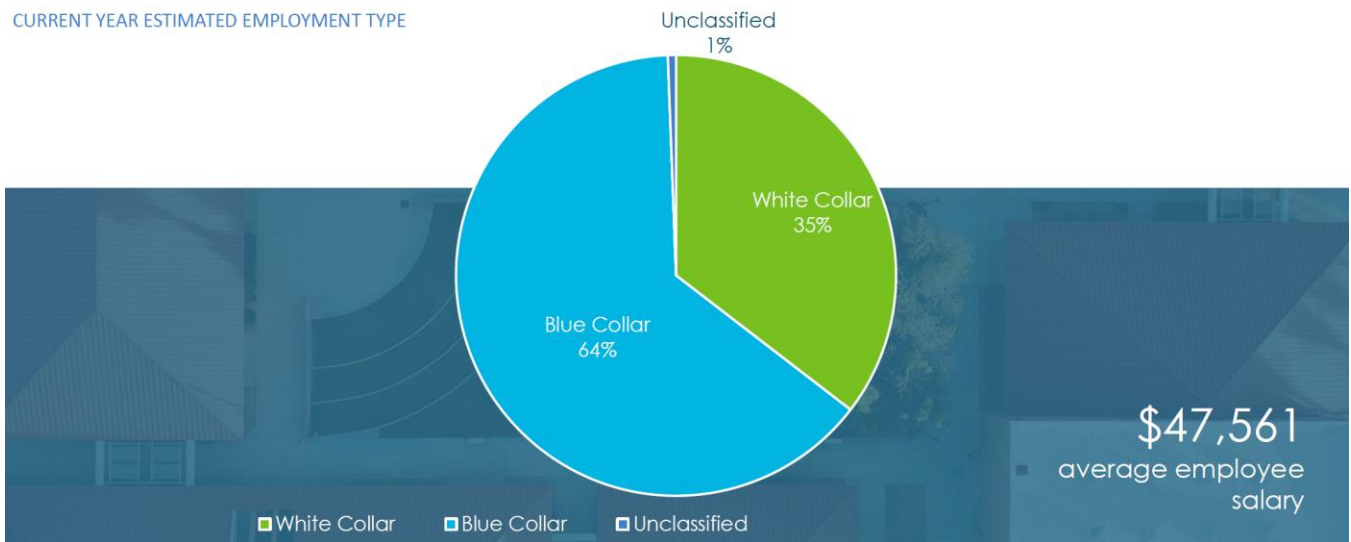
CURRENT YEAR ESTIMATED DAYTIME POPULATION

Children at home    Retired/Disable persons    Homemakers  
Work at Home    Employed    Unemployed  
Student Populations



# Custom Trade Area Demographics

CURRENT YEAR ESTIMATED EMPLOYMENT TYPE



# Custom Trade Area Demographics

Current Year Estimated Population  
Age 25+ by  
Educational Attainment



## GAP Analysis

Retail Strategies uses STI:PopStats as our provider of the Consumer Demand and Supply by Establishment (or GAP) information. Several demographers provide the data in a variety of ways. Following are the sources and methodologies used by STI:PopStats and Retail Strategies to draw conclusions for you.

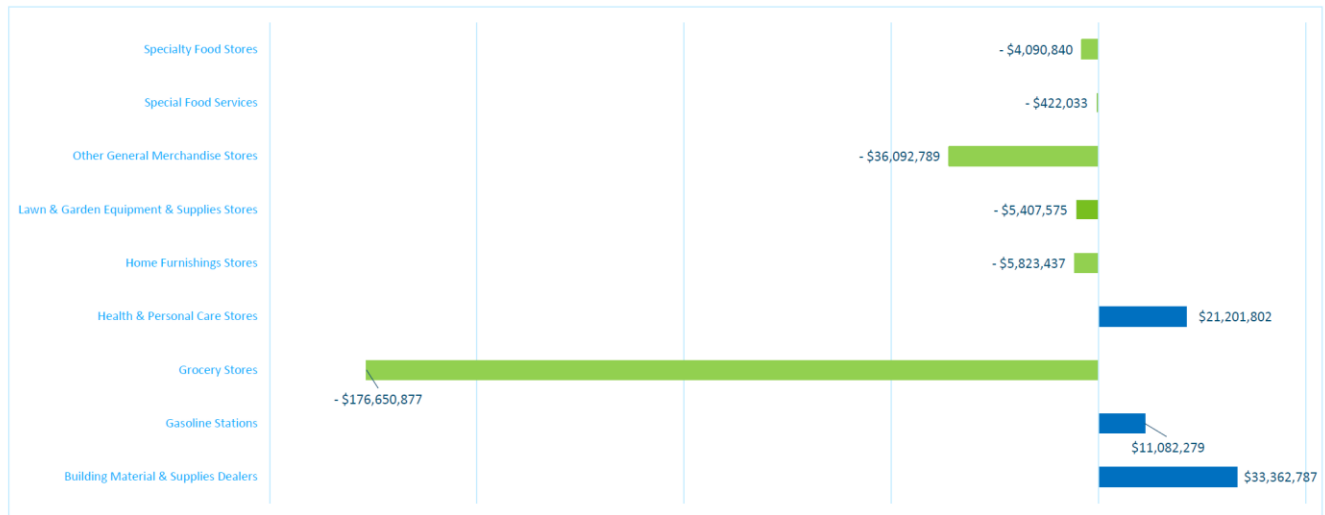
The market supply data is derived from annual retail sales and expenditures from the source data. The source for market supply is U.S. Census Bureau's monthly and annual Census of Retail Trade (CRT) Reports; U.S. Census Bureau's Economic Census. The source for the establishment is Bureau of Labor Statistics (BLS). The consumer demand data by establishment is derived from the BLS Consumer Expenditure Survey (CE).

The difference between demand and supply represents the opportunity gap or surplus available for each merchandise line in the specified reporting geography. When the demand is greater than (less than) the supply, there is an opportunity gap (surplus) for that merchandise line. For example, a positive value signifies an opportunity gap, while a negative value signifies a surplus.

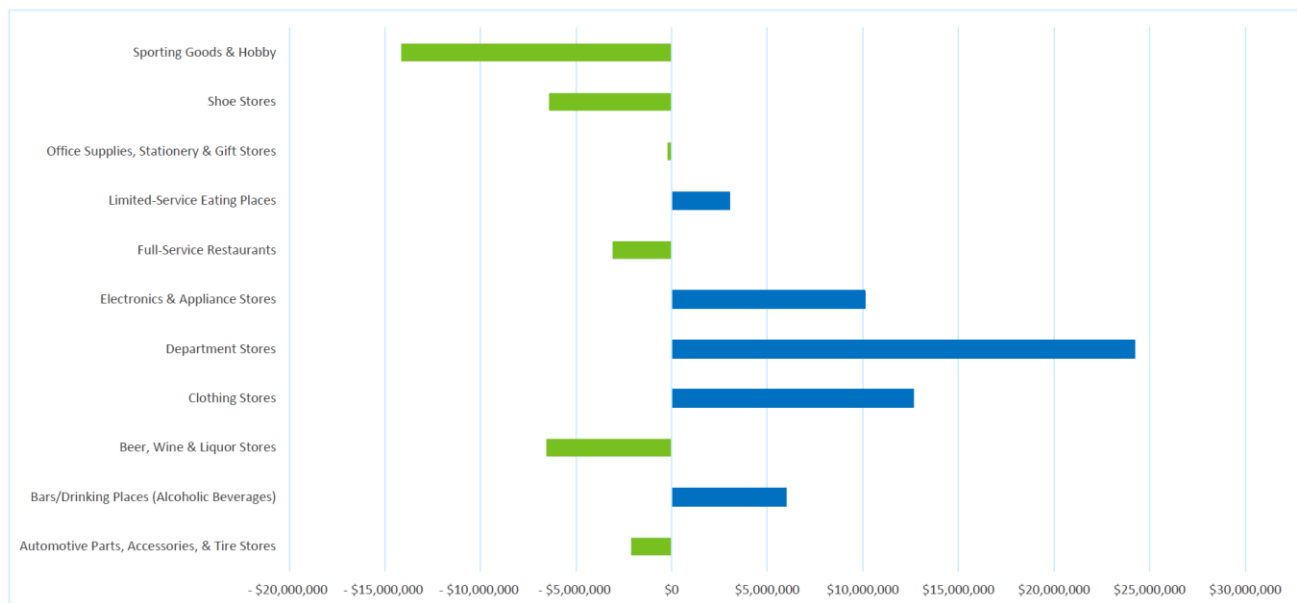
The **GAP Analysis** helps us uncover the number of dollars being spent outside of the community on an annual basis from a categorical perspective.

Industries for the consumer expenditures survey are categorized and defined by the North American Industry Classification System (NAICS). Retail Strategies has narrowed down the categories to only those with real estate growth potential based on national trends. Data is rarely perfect, but with proper analysis can get us a lot closer to the answer than we would be without it. This is one of several tools used to identify focus categories for recruitment. Our focus is more on the category than the actual dollar amounts.

# Custom Trade Area GAP Analysis



## Custom Trade Area GAP Analysis (cont.)



## RETAILER SITE CRITERIA



# Costco

Min SF	115,000
Max SF	150,000
Current Store	542
Desired Locations 12/24 Months	10/20
Mile Radius Demographics	5
Minimum Population	200,000
Facility Type/Other Demo Comments	Free Standing, Regional Strip
Average Sales Volumes	\$206,180,812
Number of Jobs	504

## RETAILER SITE CRITERIA



# Trader Joe's

Min SF	10,000
Max SF	14,000
Desired Locations 12/24 Months	20/40
Mile Radius Demographics	3
Minimum Population	90,000
Average Household Income	\$50,000
Customer Comments	Will consider freestanding, in-line and mixed use with 85 feet of frontage. Looking for 80 dedicated parking spaces
Facility Type/Other Demo Comments	Free Standing, Neighborhood Strip, Power Center, Regional Strip, Specialty Strip
Average Sales Volumes	\$21,000,000
Number of Jobs	50



## RETAILER SITE CRITERIA

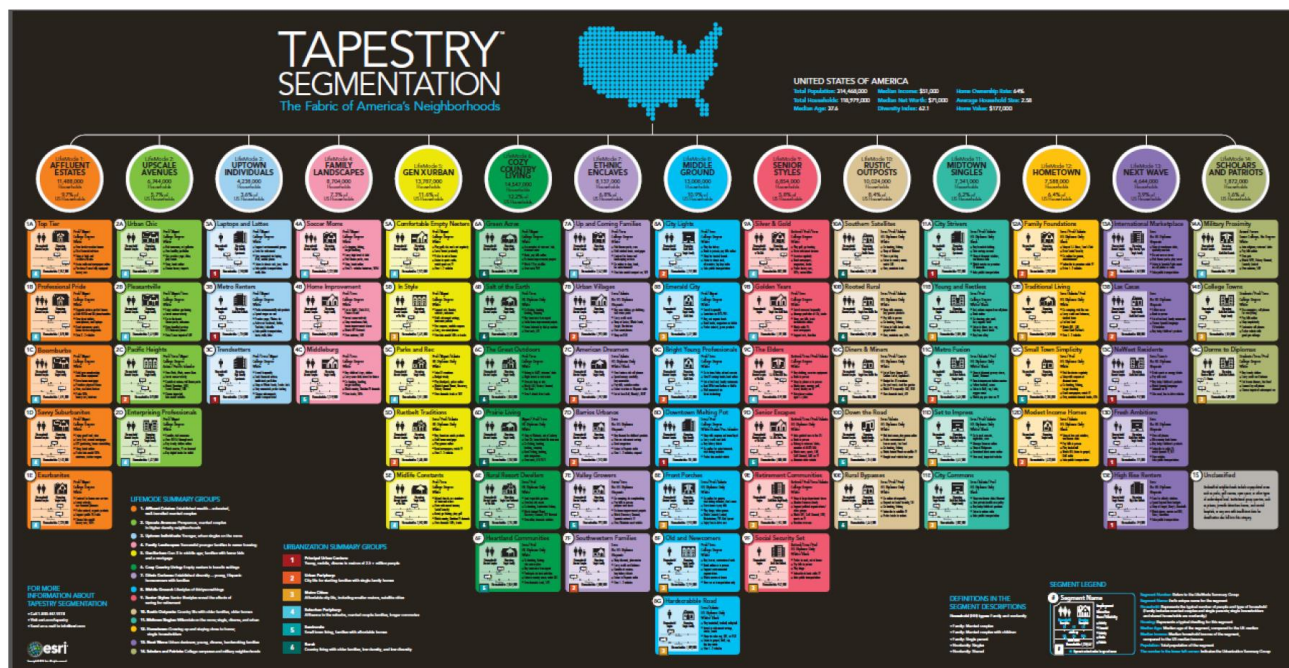
# Top Golf



Min SF	65,000
Max SF	100,000
Current Store	62
Desired Locations 12/24 Months	3/6
Minimum Population	90,000
Average Household Income	\$50,000
Facility Type/Other Demo Comments	Free Standing
Average Sales Volumes	\$25,000,000

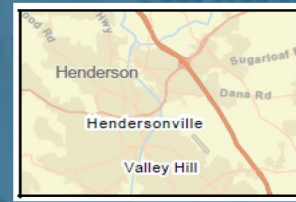
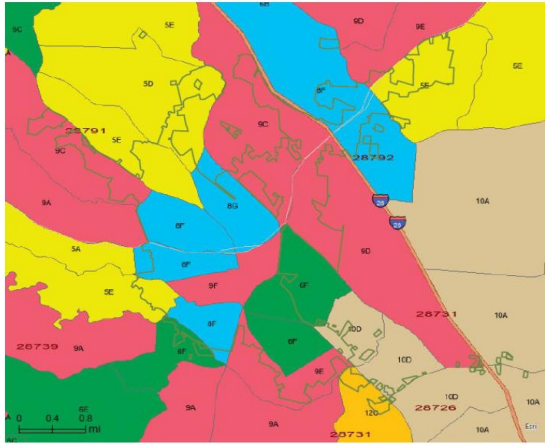
## Tapestry Segmentation: Hendersonville City Limits

## Tapestry Segmentations





# Tapestry Segmentations



Tapestry LifeMode

L1: Affluent Estates	L8: Middle Ground
L2: Upscale Avenues	L9: Senior Styles
L3: Uptown Individuals	L10: Rustic Outposts
L4: Family Landscapes	L11: Midtown Singles
L5: GenXurban	L12: Hometown
L6: Cozy Country	L13: Next Wave
L7: Sprouting Explorers	L14: Scholars and Patriots

Rank	Tapestry Segment	Percent	Cumulative Percent	Percent	Cumulative Percent	Index
1	Old and Newcomers (8F)	22.9%	22.9%	2.3%	2.3%	1003
2	Midlife Constants (5E)	22.3%	45.2%	2.4%	4.7%	924
3	The Elders (9C)	19.9%	65.1%	0.7%	5.4%	2,724
4	Heartland Communities (6F)	9.2%	74.2%	2.2%	7.6%	417
5	Retirement Communities (9E)	7.2%	81.5%	1.2%	8.8%	610
	<b>Subtotal</b>	<b>81.5%</b>		<b>8.8%</b>		

HENDERSONVILLE, NC CITY LIMITS

# Tapestry Segmentations



LifeMode Group: Middle Ground

## Old and Newcomers

8F

Households: 2,859,200

Average Household Size: 2.12

Median Age: 39.4

Median Household Income: \$44,900

### WHO ARE WE?

This market features singles' lifestyles, on a budget. The focus is more on convenience than consumerism, economy over acquisition. *Old and Newcomers* is composed of neighborhoods in transition, populated by renters who are just beginning their careers or retiring. Some are still in college; some are taking adult education classes. They support charity causes and are environmentally conscious. Age is not always obvious from their choices.

### OUR NEIGHBORHOOD

- Metropolitan city dwellers.
- Predominantly single households (Index 148), with a mix of married couples (no children); average household size lower at 2.12.
- 55% renter occupied; average rent is lower than the US (Index 85).
- 45% of housing units are single-family dwellings; 45% are multiunit buildings in older neighborhoods, built before 1980.
- Average vacancy rate at 11%.

### SOCIOECONOMIC TRAITS

- An average labor force participation rate of 62.6%, despite the increasing number of retired workers.
- 32% of households are currently receiving income from Social Security.
- 31% have a college degree (Index 99), 33% have some college education (Index 114), 9% are still enrolled in college (Index 121).
- Consumers are price aware and coupon clippers but open to impulse buys.
- They are attentive to environmental concerns.
- They are comfortable with the latest technology.

# Tapestry Segmentations



LifeMode Group: GenXurban

## Midlife Constants

5E

Households: 3,068,400

Average Household Size: 2.31

Median Age: 47.0

Median Household Income: \$53,200

### WHO ARE WE?

Midlife Constants residents are seniors, at or approaching retirement, with below-average labor force participation and below-average net worth. Although located in predominantly metropolitan areas, they live outside the central cities, in smaller communities. Their lifestyle is more country than urban. They are generous but not spendthrifts.

### OUR NEIGHBORHOOD

- Older homes (most built before 1980) found in the suburban periphery of smaller metropolitan markets.
- Primarily married couples, with a growing share of singles.
- Settled neighborhoods with slow rates of change and residents that have lived in the same house for years.
- Single-family homes, less than half still mortgaged, with a median home value of \$154,100 (Index 74).

### SOCIOECONOMIC TRAITS

- Education: 63% have a high school diploma or some college.
- At 31%, the labor force participation rate is low in this market (Index 91).
- Almost 42% of households are receiving Social Security (Index 141); 27% also receive retirement income (Index 149).
- Traditional, not trendy; opt for convenience and comfort not cutting edge. Technology has its uses, but the bells and whistles are a bother.
- Attentive to price, but not at the expense of quality, they prefer to buy American and natural products.
- Radio and newspapers are the media of choice (after television).



# Tapestry Segmentations



LifeMode Group: Senior Styles

## The Elders

9C

Households: 910,100

Average Household Size: 1.68

Median Age: 72.3

Median Household Income: \$42,800

### WHO ARE WE?

With a median age of 72.3 years, this is Tapestry Segmentation's oldest market. *The Elders* residents favor communities designed for senior or assisted living, primarily in warmer climates with seasonal populations. Most of these householders are homeowners, although their housing varies from mobile homes to single-family residences to high-rise apartments. These seniors are informed, independent, and involved. This is a smaller market.

### OUR NEIGHBORHOOD

- Suburban periphery of metropolitan areas, primarily in the warmer climates of Florida or Arizona.
- 45% married couples without children; 44% single households; average household size, 1.68.
- Owner-occupied housing units; median home value of \$180,000 (Index 87).
- Housing mix of single-family homes (44%), townhomes, and high-density apartment buildings in neighborhoods built from 1970 through 1989.
- Vacancy rates higher at 24%, due to the number of seasonal or vacation homes.
- Almost 60% of the population in group quarters in nursing home facilities.

### SOCIOECONOMIC TRAITS

- Predominantly retirees, *The Elders* has a low labor force participation rate of 22.4%.
- Those who are still in the labor force tend to be self-employed or part-timers, commonly in real estate, retail, or the arts.
- Their income derives primarily from Social Security (80% of the households), retirement, or investments (almost half of the households). Less than 30% of the households draw wage or salary income.
- Median household income is lower than the US (Index 76), but median net worth is much higher (Index 269).
- These consumers focus on price, but not at the expense of quality. They prefer to use coupons and buy American and environmentally safe products.
- Cell phones are common but primarily used to make/receive calls.



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# Tapestry Segmentations



LifeMode Group: Cozy Country Living

## Heartland Communities

6F

Households: 2,850,600

Average Household Size: 2.39

Median Age: 42.3

Median Household Income: \$42,400

### WHO ARE WE?

Well settled and close-knit, *Heartland Communities* residents are semirural and semiretired. These older householders are primarily homeowners, and many have paid off their mortgages. Their children have moved away, but they have no plans to leave their homes. Their hearts are with the country; they embrace the slower pace of life here but actively participate in outdoor activities and community events. Traditional and patriotic, these residents support their local businesses, always buy American, and favor domestic driving vacations over foreign plane trips.

### OUR NEIGHBORHOOD

- Rural communities or small towns are concentrated in the Midwest, from older Rustbelt cities to the Great Plains.
- Distribution of household types is comparable to the US, primarily (but not the majority) married couples, more with no children, and a slightly higher proportion of singles (Index 112) that reflects the aging of the population.
- Residents own modest, single-family homes built before 1970.
- They own one or two vehicles; commutes are short (Index 82).

### SOCIOECONOMIC TRAITS

- Retirees in this market depress the average labor force participation rate to less than 60% (Index 94). More workers are white collar than blue collar; more skilled than unskilled.
- The rural economy of this market provides employment in the manufacturing, construction, utilities, health-care, and agriculture industries.
- These are budget-savvy consumers; they stick to brands they grew up with and know the price of goods they purchase. Buying American is important.
- Daily life is busy but routine. Working on the weekends is not uncommon.
- Residents trust TV and newspapers more than any other media.
- Skeptical about their financial future, they stick to community banks and low-risk investments.



# Tapestry Segmentations



LifeMode Group: Senior Styles

## Retirement Communities

9E

Households: 1,501,100

Average Household Size: 1.88

Median Age: 53.9

Median Household Income: \$40,800

### WHO ARE WE?

*Retirement Communities* neighborhoods are evenly distributed across the country. They combine single-family homes and independent living with apartments, assisted living, and continuous care nursing facilities. Over half of the housing units are in multiunit structures, and the majority of residents have a lease. This group enjoys watching cable TV and stays up-to-date with newspapers and magazines. Residents take pride in fiscal responsibility and keep a close eye on their finances. Although income and net worth are below national averages, residents enjoy going to the movies, fishing, and taking vacations. While some residents enjoy cooking, many would rather dine out.

### OUR NEIGHBORHOOD

- Much of the housing was built in the 1970s and 1980s—a mix of single-family homes and large multiunit structures that function at various levels of senior care.
- Small household size; many residents have outlived their partners and live alone.
- Over half of the homes are renter occupied.
- Average rent is slightly below the US average.
- Nearly one in five households has no vehicle.

### SOCIOECONOMIC TRAITS

- Brand loyal, this segment will spend a little more for their favorite brands, but most likely they will have a coupon.
- Frugal, they pay close attention to finances.
- They prefer reading magazines over interacting with computers.
- They are health conscious and prefer name-brand drugs.

No motions were made as this presentation was for informational purposes.

**6. OTHER BUSINESS - None**

**7. ADJOURNMENT**

Ken Gordon moved to adjourn. There being no further discussion the meeting was adjourned at 1:06 p.m. upon unanimous assent of the Committee.

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Ken Gordon, Chair

ATTEST:

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Jill Murray, City Clerk



# NOTICE

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City of Hendersonville Business Advisory Committee | 160 Sixth Avenue East Hendersonville, NC 28792

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## CITY OF HENDERSONVILLE Business Advisory Committee

### **2024 ANNUAL SCHEDULE OF REGULAR MEETINGS**

**Regular Meetings** of the City of Hendersonville Business Advisory Committee are held **Quarterly on the second Monday of January, April, July, and October, at 11:30 a.m.** in the 2<sup>nd</sup> Floor Meeting Room inside of City Hall located at 160 6<sup>th</sup> Avenue East, Hendersonville NC.

The following regular meetings have been scheduled for 2024:

**January 8, 2024**

**April 8, 2024**

**July 8, 2024**

**October 14, 2024**

Meetings are open to the public.

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**Ken Gordon, Chairman**

The City of Hendersonville is committed to providing accessible facilities, programs, and services for all people in compliance with the Americans with Disabilities Act (ADA). Should you need assistance or a particular accommodation for this meeting please contact the City Clerk no later than 24 hours prior to the meeting at 697-3005.

*Posted 01/08/24*

<https://www.hendersonvillenc.gov>

