

CITY COUNCIL REGULAR MEETING

City Council Chambers Monday, October 14, 2024 at 7:00 PM

AGENDA

Call to Order, Prayer, Pledge of Allegiance

Adjustment and Approval of the Agenda — *Items will only be added or removed with the approval of the Mayor and City Council.*

Special Presentations

Students of the Month: Mayor & City Council will recognize the October 2024 students of the
month from Bessemer City area schools: Bessemer City Primary School, Bessemer City Central
Elementary School, Tryon Elementary, Bessemer City Middle School, and Bessemer City High
School.

Request to Speak/Opportunity for Public Comment — This is an opportunity for members of the public to express items of interest to the Mayor and City Council. This is not a time to respond or take action. Any necessary action will be taken under advisement. Speakers are asked to use proper decorum and to limit comments to no more than three minutes.

2. **Public Comment Acknowledgment**: City Manager, Josh Ross will provide clarity on items mentioned during public comment, if needed.

Consent Agenda — The items of the Consent Agenda are adopted on a single motion and vote, unless the Mayor and City Council wish to withdraw an item for separate vote and/or discussion.

- 3. **Approval of Minutes:** City Council will consider adopting the Regular Meeting minutes of September 9, 2024.
- 4. **Approval of Minutes:** City Council will consider adopting the Regular Meeting minutes of September 24, 2024.
- 5. Street Closure- Christmas in the City Festival & Parade: City Staff is requesting a temporary street closure of the 100 block of West, 100 Block East Virginia Avenue, 100 block of N. 12th, 100 block of N. 11th Street for the Parks & Recreation Christmas in the City festival, Parade, and Community Tree Lighting on Sunday, November 24th from 11:00 AM until 9:00 PM.

Business Items

6. **ABC Store Presentation** - Terry Battles, ABC Store Manager will address Council regarding a payment to the City of Bessemer City from the store.

- 7. Ordinance Amending Zoning Map- City Council will consider approving an ordinance regarding a zoning map amendment for property located at tax parcels #151640, #151644, and #151645 (35.77 acres) from Neighborhood Residential & Rural to Neighborhood Residential Conditional District to accommodate the development of a single-family residential community that will consist of 93 single family units. A public hearing was previously held on Monday, September 9, 2024.
- 8. Captial Project Ordinance Lead & Copper: City Council previously awarded the lead and copper inventory project contract to Harvin Engineering PLLC in the amount of \$760,000. Thus, City Staff is seeking approval of a capital project ordinance detailing the appropriations and revenues.
- 9. Captial Project Ordinance Stormwater Assessment Inventory: City Staff is seeking approval of a capital project ordinance detailing the appropriations and revenues of the Stormwater Assessment inventory. The City was awarded \$340,000 of NC Department of Environmental Quality LASII planning grant funds.
- 10. Award Stormwater Assessment Inventory Engineering Services: City Council will consider awarding the Stormwater Assessment Inventory engineering services contract to McGill Associates in the amount of \$340,000. This contract is 100% funded by NC Department of Environmental Quality LASII planning grant funds.
- 11. **Resolution Approving Application for Emerging Contaminants (PFAS) Study:** City Council will consider approving a resolution for City Staff to apply for grant funds to complete a study on contaminants (PFAS) at the water plant.
- 12. **Resolution Modification to System Development Fees:** City Council will consider approving a resolution modifying system development fees for the Tryon Community Water line customers.
- 13. **Establish Public Hearing: Amend Land Development Code (LDC)& Abolish Section 5.1** (**Flood Hazard Overlay**): City Council will hold a public hearing to hear public comment regarding the abolishment of section 5.1 of the Land Development Code (LDC) on Tuesday, November 12, 2024.
- 14. **Establish Public Hearing: Amend Land Development Code (LDC)& Establish Section 5.1 (Flood Hazard Overlay)**: City Council will hold a public hearing to hear public comment regarding the abolishment of section 5.1 of the Land Development Code (LDC) on Tuesday, November 12, 2024.

City Manager's Report

- 15. **Budget Amendments- Business Accelerator Program (BAP)**: City Council will consider approving a budget amendment regarding the transfer of \$29,762.00 to the general fund for the BAP program.
- <u>16.</u> **Budget Amendments- Business Accelerator Program (BAP)**: City Council will consider approving a budget amendment regarding the close out of the for the BAP grant funds.

- 17. Budget Amendment- Community Development Block Grant (CDBG): City Council will consider approving a budget amendment regarding the transfer of \$7,666.00 from the general fund to the CDBG project fund.
- 18. Budget Amendment- Community Development Block Grant (CDBG): City Council will consider approving a budget amendment regarding the close out of the CDBG project fund.

Council General Discussion — This is an opportunity for the Mayor and City Council to ask questions for clarification, provide information to staff, request staff to report back, or place a matter on a future agenda.

19. Closed Session - 143-918.11 (a) (6) (personnel matter)

Adjourn



CITY COUNCIL REGULAR MEETING

City Council Chambers Monday, September 9, 2024 at 7:00 PM

MINUTES

Members Present

Mayor, Becky S. Smith, Council Members: Brenda Boyd, Brent Guffey, Donnie Griffin, Nellie Floyd and Allen Hook were all present. City Manager, Josh Ross and City Attorney, Marshall Walker were present. Council member, Michael Brooks was absent.

Call to Order, Prayer, Pledge of Allegiance

Mayor Smith called the meeting to order. First Wesleyan Senior Pastor, Rev. Matt Mitchell led the audience in prayer. Mayor Smith led the audience in the Pledge of Allegiance.

Adjustment and Approval of the Agenda

By motion of Brent Guffey and unanimous vote, the September agenda was approved with no revisions.

Oath of Office- Deputy Police Chief

Mayor Smith administered the oath of office to Deputy Police Chief, Christopher Vaughn with his family and friends present. All present were invited to congratulate the new Deputy Police Chief.

Request to Speak/Opportunity for Public Comment

Mayor Smith opened the floor for public comment. The following came forth:

- Phillip Scates of 416 Sunset Drive: Mr. Scates addressed the Board regarding the City's new tax rate. Mr. Scates has previously addressed Mayor Smith and City Manager Ross after last year's adoption of the budget. However, Mr. Scates was still not pleased with City taxes and fees. Mr. Scates appreciated City Manager, Josh Ross meeting with him regarding the budget. If the city is in financial trouble, city officials should plan better.
- Paula Walt of 422 Sunset Drive: Ms. Walt addressed the Board regarding her concern with the new tax rate. Ms. Walt is a lifelong resident of Bessemer City. She recommends that the city cutback on the budget and lay off some people to afford operational expenses. It is not the responsibility of the citizens to carry the monetary burden of the city's finances.
- <u>Monica Hence of 705 S. Skyland Avenue</u>: Ms. Hence addressed the Board regarding her concern of the Ingles grocery store. The Ingles store is in desperate need of renovations and repairs. With an influx of new residents coming to Bessemer City, it should be the Council's goal to spruce up the store.

Public Comment Acknowledgment

Mayor Smith recognized City Manager, Josh Ross to provide clarification on some items discussed during public comment:

• Ingles is a privately owned business. City administration has met with Ingles corporate division multiple times to advocate for renovations and expansions. The city is in full support of renovation or a new store. However, the decision depends on the owner.

Consent Agenda

The following items on the Consent Agenda were unanimously approved by motion of Allen Hook:

- **1. Approval of Minutes**: City Council will consider adopting Regular Meeting minutes of the August 12, 2024 meeting.
- **2. Approval of Minutes:** City Council will consider adopting Work Session Meeting minutes of the August 27, 2024 meeting.
- **3. Temporary Street Closure Trunk or Treat:** City administration is requesting the temporary closure of the 100 Block of West and East Virginia Avenue for the Halloween Trunk or Treat event on Saturday, October 26th, 2024.

Proclamation: Dyslexia Awareness Month

Mayor, Becky S. Smith read the Dyslexia Awareness Month Proclamation aloud and declared October 2024 as a month of awareness in Bessemer City.

By motion of Brent Guffey and unanimous vote, the proclamation was adopted. A copy of the proclamation is available at City Hall.

Proclamation: Domestic Violence Awareness Month

Mayor, Becky S. Smith read the Domestic Violence Awareness Month Proclamation aloud and declared October 2024 as a month of awareness in Bessemer City.

By motion of Nellie Floyd and unanimous vote, the proclamation was adopted. A copy of the proclamation is available at City Hall.

Public Hearing – Rezoning Request

City Council held a public hearing to hear public comment regarding a rezoning request from Development Solutions Group for property located at tax parcels #151640, #151644, and #151645 (35.77 acres) from Neighborhood Residential & Rural to Neighborhood Residential Conditional District to accommodate the development of a single-family residential community that will consist of 93 single family units.

By motion of Allen Hook and unanimous vote, the public hearing regarding the rezoning request was opened at 7:22 PM.

Mayor Smith asked if there was anyone present to speak in favor of the rezoning request. The following individual came forth:

• Kent Olson of Development Solutions Group: Mr. Kent informed the Board that the Sunset Ridge development plans have been presented to the Planning Board at their August and September 2024 meetings. He feels confident that the development meets standards highlighted by the Planning Board and current property owners to produce a product that Bessemer City residents can be proud of. Currently, there are no proposed sidewalks in the project, but curb and gutters will be utilized.

• Austin Hines: Mr. Hines represents the current property owners, the M.L. Kiser family. The sellers approve of this development. We expect this to be a nice single-family development and would like to appeal to the citizens of Bessemer City.

Additionally, City Manager, Josh Ross informed Council that an updated list of conditions and request for relief had been amended and recommended by the Planning & Zoning Board:

Exhibit A - Areas of Relief and Conditions of Approval Sunset Ridge Major Subdivision (CD-02-2024)

- 1. The proposed development shall follow the requirements of the City of Bessemer City Land Development Code with the added relief of:
 - a. <u>Sidewalks</u> relief from installing sidewalks on both sides of new streets within the subdivision as indicated on the site plan. The Bessemer City Land Development Code (LDC) requires sidewalks on both sides of streets in Major Subdivisions (Chapter 4, Section 4.5).
 - b. <u>Garage Setback</u> relief from the six-foot garage setback requirement from front facing garages on 50% of units (Chapter 3, Section 3.3).
- 2. The following conditions will be applied to the development and agreed to by the developer with the vote of the City of Bessemer City Council to approve the rezoning:
 - a. <u>Design Standards</u>- the development is required to abide by standards as follows:
 - i. Design standards as required by the property owner, including 50% brick or stone facades, pitched roofs, architectural shingles, and all other standards as required by the property owner (additional attachment)
 - ii. Upgraded door designs on units without 6-foot setback
- 3. The developer is responsible for all system development fees.
- 4. The developer shall extend the City of Bessemer City utilities and within the site, at their expense. The development will be served by City utilities: water and sewer.
- 5. All off-site utility easements, if necessary to provide utilities to the site, must be obtained by the developer, at their expense, prior to approval of construction plans, issuance of permits, or commencement of construction.
- 6. Conditional Zoning approval is valid for a period of twenty-four (24) months from the date of approval.

Mayor Smith asked if there was anyone present to speak in opposition of the rezoning request. The following individual came forth:

• Jeff Parker of 122 Sherwood Drive: Mr. Parker expressed his concern regarding the increase traffic on his road as a result of the development. Currently, many people utilize Sherwood Drive as a cut through and speed down the road. There needs to be some traffic signs to slow down traffic, or else there will be fatalities. Mr. Parker also had concerns about how this could affect the school system.

By motion of Donnie Griffin and unanimous vote, the public hearing regarding the rezoning request was closed at 7:32 PM.

Ordinance Amending Zoning Map

By motion of Brent Guffey and unanimous vote, the zoning map amendment was tabled to the October 2024 regular meeting agenda. At that time City Council will consider voting on the zoning map amendment.

Public Hearing –Text Amendment

City Council held a public hearing to hear public comment regarding a text amendment to Chapter 75 of the City Code, to change the intersection of Arc Street and Costner Drive to a 4-way-stop.

By motion of Allen Hook and unanimous vote, the public hearing regarding the text amendment was opened at 7:34 PM.

Mayor Smith asked if there was anyone present to speak in favor of the text amendment. There was none.

Mayor Smith asked if there was anyone present to speak in opposition of the text amendment. There was none.

By motion of Brenda Boyd and unanimous vote, the public hearing regarding the text amendment was closed at 7:35 PM.

City Manager, Josh Ross informed the Board that this text amendment comes via Council discussion at the last work session. In an effort to improve the intersection of Arc Street and Costner Drive staff recommend that this 2-way stop be changed to a 4-way stop. As traffic counts are projected to increase, due to the Creekside Cottages subdivision. Altering the traffic pattern before the development is completed will aid in a steady flow of traffic.

Ordinance for Text Amendment

By motion of Brent Guffey and unanimous vote, the ordinance regarding the text amendment to Chapter 75 traffic schedule 1 was adopted to reflect the following:

• Arc Street/Costner Drive: 4 – Way Stop

City Manager's Report

City Manager, Josh Ross, addressed Council regarding the following:

- General: Mr. Ross informed Council about several upcoming events: "We Will Remember"9/11 service will take place Wednesday, September 11th at 8:30 AM in front of City Hall. The Vantine Collective reunion will be Saturday, September 14th at 12 PM. We will have our 3rd annual Brew & Que on Saturday, September 21st at 12 Noon in downtown Bessemer City. The City recently completed a grant to receive funding to work with BC Central students to implement an art expression tunnel. We have over 130 children registered for youth soccer this year. City staff will be completing updates to the City website with grant funding from the community branding project. Osage Mill is hosting a community social on Thursday, September 12th from 5 – 7 PM. All are encouraged to attend; Osage Mill has over 17 certificates of occupancy.

Council General Discussion

Mayor Smith opened the floor for Council general discussion. Council Member, Nellie Floyd invited all present to attend the Vantine Collective reunion on Saturday, September 14th. Council Member, Brent Guffey expressed concern about trash and debris being left in the roadway from Lennar Homes contractors. Chief Ellis commended Captain Vaughn on his promotion to deputy chief. Mr. Vaughn was in charge of operations while the Chief was out of the office on medical leave earlier this year. He did a fantastic job.

Adjournment

Being no further business to come before the board, by motion of Brenda Boyd and unanimous vote, the meeting was adjourned at 7:42 PM.

Becky S. Smith, Mayor	Hydeia Y. Hayes, City Clerk



CITY COUNCIL WORK SESSION

City Council Chambers Tuesday, September 24, 2024 at 3:00 PM

MINUTES

Call to Order

Mayor Becky S. Smith called the meeting to order.

Members Present

Mayor, Becky S. Smith, Council Members: Brenda Boyd, Donnie Griffin, Nellie Floyd, Michael Brooks and Allen Hook were present. City Manager, Josh Ross, and department heads were present as well. Council member, Brent Guffey was absent. A quorum was present.

Department Head Reports

Bessemer City department heads gave reports on their department's status:

Jamie Ramsey, Director of Operations- Mr. Ramsey addressed Council regarding the Gibson Branch Creek repair completion. The city bid this project out to repair the washed-out large embankment, near the walking trail in Stinger Park. City staff is speaking with Meritage Homes representatives to install a pedestrian bridge from the subdivision to Stinger Park. Meritage will need a temporary easement to complete the bridge. Staff will provide an update on the construction schedule for the bridge later in the year. Additionally, the Vantine Pump Station Project has been completed.

Hydeia Hayes, City Clerk & Human Resources Director- City Clerk & Human Resources Director, Hydeia Hayes informed the Board of openings and received applications for the Downtown Development Board. The deadline to complete required Unit Assistance List (UAL) training for the board by December 31, 2024 per the Local Government Commission (LGC). Ms. Hayes is available to assist Council with accessing the modules and printing PowerPoints. Mayor Smith additionally informed the Board that she was proud of the work that City Staff had already begun working on prior to the LGC official visit.

Floodplain Ordinance

City Staff is working with Gaston County officials to draft an update to the Land Development Code's (LDC) Chapter 5 section 1. An update of this section of code is needed to match General Statutes and to provide consistency with other agencies. The City will need to hold a public hearing to abolish the old section, and a public hearing to establish the new section.

Sunset Ridge Discussion

Kent Olson with Development Solutions Group (DSG) addressed Council regarding the proposed Sunset Ridge subdivision. Light discussion was held regarding curbing, guttering, the use of natural gas, and sidewalks. Mr. Olson stated that he would rather complete a sidewalk, than include the use of natural gas in the project due to pricing constraints. City Council Member, Allen Hook expressed their desire to see a

sidewalk in the subdivision. City Council plans to vote on the rezoning request at the Monday, October 14th, 2024 Regular City Council meeting.

City Manager's Report

City Manager, Josh Ross addressed City Council regarding several items:

- <u>Development Services Director</u>- The city is still recruiting for the Development Services Director position. However, the staff believes more applications will come in if the position is advertised at \$70,000+. The individual staff would like to see hired would have some years of experience and thus qualify for this starting salary. Additionally, this position and pay are already included in this year's budget.
- <u>Natural Gas Position</u>- We are moving forward with hiring for a new Natural Gas Position. Per the FY 24-25 budget, City Council approved the hiring of a natural gas technician in January 2025.
- System Development Fees for Tryon Waterline Project- Council agrees to waive future system development fees for a short window of time to make water connections more attractive and affordable for new customers along the new line. A resolution will be brought forward to City Council at their next regular meeting.
- <u>Public Safety (Fire Station) Update</u>- The City has located a potential vendor to complete a feasibility study of the area immediately behind City Hall. In the coming weeks, staff will ask Council to approve the design-build model of the new fire station project. Then city staff will issue a request for proposals (RFQ).
- <u>Capital Projects</u> Several capital projects will be coming to Council in the coming months to establish revenue and expenditures for projects like the stormwater assessment inventory.
- <u>LGC Unit Assistance List Update</u> City staff meet with LGC officials to establish budget goals and compliance.
- Future concept to rent Centennial Park City staff is working to create a rental program for Centennial Park similar to the Allan Farris Community Center and Pool. City Council will discuss this at a future Work Session to decide if they would like to implement the rental program.
- <u>Ella May Wiggins Mural</u> City staff met with stakeholders to install a mural dedicated to Ella May in downtown Bessemer City at the corner of 12th and Virginia. This mural will be funded by a private group.
- <u>Boys and Girls Club relocation</u>- Mold at the Boys & Girls facility has been found. The facility is temporarily closed. Allan Farris Community Center is being used as a temporary site for pick up spot for club participants.
- <u>Full Traffic Code changes</u> Hannah Dove, UNC Lead Fellow, is working on a list of revisions for Council to review at a future meeting regarding traffic codes.
- 11th Street Expression Tunnel- City Staff is working with local community partners to apply for a grant to create an Art expression tunnel at the 11th Street underpass. If granted, staff would like to work with the Bessemer City middle school robotics club to complete the art.
- <u>PFAS Grant</u>- City staff will apply for a PFAS Study Grant through the Department of Environmental Quality (DEQ). A resolution permitting city staff to complete the application will be on City Council's next regular agenda.
- <u>12th Steet Project (potential)</u>- City staff had an inquiry for a rezoning request for a proposed Parkview Commons project, a single-family subdivision of 23 homes. The Planning & Zoning Board will be hearing this project at their next meeting.
- <u>Stormwater Project</u>- Staff will be recommending to City Council at the Monday, October 14, 2024 Regular City Council Meeting to use McGill Associates for the Stormwater Asset Inventory and Assessment (AIA) grant. The AIA grant funds 100% of the Stormwater Project.

- <u>Capital Project for Meritage Homes</u> -City Council will see a Capital Project request at the October 14, 2024 Regular City Council meeting for the Stewart Crossing Natual Gas Project. This is for installing natural gas infrastructure in a new major subdivision off Costner School Road, Stewart Crossing. This project is 100% paid for by the developer.
- Staff continues to have issues with non-paying utility customers. Staff is working with Attorney Smith on a resolution and next steps.

Council General Discussion

Mayor Smith opened the floor for City Council general discussion. Council member, Michael Brooks informed the board that the ABC Board completed their audit. Additionally, the store will be presenting the city will a \$22,000 payment in four installments. Council member, Brenda Boyd inquired about paving on 200 block of East Tennessee.

Adjourn Being no further business to come before the board, the meeting was adjourned at 4:18 PM.				
Packy C Smith Mayor	Hydaia V. Hayas, City Clark			
Becky S. Smith, Mayor	Hydeia Y. Hayes, City Clerk			

Item 5.



ORDINANCE-TEMPORARY ROAD CLOSURE 16^{TH} ANNUAL CHRISTMAS IN THE CITY AND ANNUAL CHRISTMAS PARADE

WHEREAS, the City of Bessemer City wishes to provide recreational entertainment for the citizens of Bessemer City; and

WHEREAS, the City of Bessemer City understands the importance of hosting such entertainment in the downtown central business district of Bessemer City; and

WHEREAS, the City of Bessemer City acknowledges that a special event requires rerouting traffic and providing safety measures for citizens attending said events; and

WHEREAS, the City of Bessemer City wishes to host the 16th Annual Christmas in the City, Annual Christmas Parade, and Community Tree Lighting along Highway 274 (North 14th Street, North 12th Street, North 11th Street, East and West Virginia Avenue) on Sunday, November 24th, 2024 from 11:00 AM-9:00 PM.

NOW THEREFORE BE IT ORDAINED by the City Council of Bessemer City pursuant to the authority granted by G.S. 20-169 that they do hereby declare a temporary road closure during the days and times set forth below on the following described portion of a State Highway System route:

Dates:	November 24 th , 2024

Times: 11:00 AM - 9:00 PM

Route Description:

PARADE

100 Block of North 14 Street between West Washington and West Virginia Avenue

West Virginia Avenue between North 13th Street and North 8th Street

CHRISTMAS IN THE CITY

100 block of West Virginia Avenue, 100 block of East Virginia Avenue

COMMUNITY TREE LIGHTING 100 block of West Virginia Avenue

Adopted by City Council this 14th Day of October, 2024	
Becky S. Smith, Mayor	
	Hydeia Y. Hayes, City Clerk



ORDINANCE AMENDING OFFICIAL ZONING MAP OF THE CITY OF BESSEMER CITY

WHEREAS, after proper notification, a Public Hearing was held before the Bessemer City Council on September 9, 2024, to consider a proposed amendment to the City of Bessemer City Zoning Map; and WHEREAS, On September 3rd, 2024, the Bessemer City Planning Board voted unanimously to recommend the City Council approve the proposed zoning map amendment with conditions and areas of relief (Attachment A) for the Proposed Sunset Ridge Major Subdivision; and vote, the City Council of Bessemer City approved a zoning map change to WHEREAS, after a the Official City of Bessemer City Zoning Map reflected in application CD 02-2024. NOW THEREFORE BE IT ORDAINED, by the City Council of the City of Bessemer City, that the Official City of Bessemer City Zoning Map is amended to reflect the adopted changes as set forth in: 1. Tax Parcel #151644 from Rural (R) to Neighborhood Residential- Conditional District (NR-CC) 2. Tax Parcel #151640 from Rural (R) to Neighborhood Residential- Conditional District (NR-CC) 3. Tax Parcel #151645 from Neighborhood Residential (NR) to Neighborhood Residential- Conditional District (NRCC) Effective Date This Ordinance shall become effective upon its adoption by the City Council of the City of Bessemer City, North Carolina. Adopted by City Council this _____ day of _______, _____. Becky S. Smith, Mayor

COBC-GOVBOD-2024-2025 O 11

Hydeia Y. Hayes, City Clerk



Memoradum

To: Bessemer City Planning Board

From: Joshua Ross, MPA, City Manager

Date: August 27, 2024

Subject: CD 02-2024 Project Review #2

Development Solutions Group (DSG) contacted City Staff during the week of August 19, 2024, requesting the City's consideration on additional areas of relief for their project, Sunset Ridge Major Subdivision Project as follows:

• Relief from Chapter 3 Design Standards, Section 3.3.F. Garage and Carports, Item 2:

• Attached garages or garage buildings shall be located in the side or rear yard only. Attached garage buildings that front a public street shall be and recessed a minimum of six feet from the front façade.

The developer requested that a condition of the following to apply to the Sunset Ridge Major Subdivision Project:

• C Condition to Install/Provide Natural Gas Utility and Appliances

 Developer shall extend City of Bessemer City natural gas, water, and sewer utilities to and through the site, to all single-family homes, at their expense. The development will be served by City utilities: natural gas, water, and sewer. The developer will upfit new homes with natural gas for heating and appliances.

This request promoted City Council's direction, by consensus, to send this project back to the Planning Board for review prior to the Council holding a Public Hearing and voting on the rezoning request from Rural/Neighborhood Residential (R &NR) to Neighborhood Residential- Conditional District (NR-CC).

Along with this memo is a draft "Exhibit A" Areas of Relief and Condition of Approval that would be included as part of the rezoning request presented to City Council next month (September 9, 2024).



EXHIBIT A

Exhibit A Areas of Relief and Conditions of Approval Sunset Ridge Major Subdivision (CD-02-2024)

- 1. The proposed development shall follow the requirements of the City of Bessemer City Land Development Code with the added relief of:
 - a. <u>Sidewalks-</u> relief from installing sidewalks on both sides of new streets within the subdivision as indicated on the site plan. The Bessemer City Land Development Code (LDC) requires sidewalks on both sides of streets in Major Subdivisions (Chapter 4, Section 4.5).
 - b. <u>Garage Setback</u>- relief from the six-foot garage setback requirement from front facing garages on 50% of units (Chapter 3, Section 3.3).
- 2. The following conditions will be applied to the development and agreed to by the developer with the vote of the City of Bessemer City Council to approve the rezoning:
 - a. Design Standards- the development is required to abide by standards as follows:
 - i. Design standards as required by the property owner, including 50% brick or stone facades, pitched roofs, architectural shingles, and all other standards as required by the property owner (additional attachment)
 - ii. Upgraded doors designs on units without 6-foot setback
- 3. The developer is responsible for all system development fees.
- 4. The developer shall extend the City of Bessemer City utilities and within the site, at their expense. The development will be served by City utilities: water and sewer.
- 5. All off-site utility easements, if necessary to provide utilities to the site, must be obtained by the developer, at their expense, prior to approval of construction plans, issuance of permits, or commencement of construction.
- 6. Conditional Zoning approval is valid for a period of twenty-four (24) months from the date of approval.



Item 7.



132 W. Virginia Ave. Bessemer City, NC 28016 (704) 629 – 5542 Ext. 1003 Staff Only:
Date Rec'd: 06/14/2024
Rec'd by: N. Hester
Case #: CD 02-2024

LAND DEVELOPMENT APPLICATION FORM

					F
1. Application Type	<u> </u>	<u>Fee</u>		<u> </u>	<u>Fee</u>
• Sketch Plan/Plat (Major Sub):			• Conditional Zoning (CZ)		700.00
• Preliminary Plat (Major Sub):		Mary Mary Control of the Control of	• Special Use Permit (SUP)		
• Final Plat (Major Sub):		Name of the Owner, who states the Owner, which is the Owner, which i	• Text Amendment		
• Major Site Plan			• Minor Site Plan		
Construction Documents:			• Minor Subdivision Plat		
• Recombination Plat			• General Rezoning		
• Other:			Fee Total:		700.00
2. Project Information Date of Application: O6/14/24 Name of Project: Sunset Ridge Single Family Location: Sherwood Drive and N. 14th St Property Size (acres): 35.77 # of Units/Lots: 93 Current Zoning: NR and R Proposed Zoning: CZ Current Land Use: Single Family Proposed Land Use: Single Family					3
Tax Parcel Number(s): 151644, 151645 and 151640					
Square Footage: N/A					

3. Contact Information	Item 7.			
Owner, Applicant, or Developer Development Solutions Group, LLC Address 11121 Carmel Commons Blvd #360 City, State Zip Charlotte, NC 28226 Telephone 704-543-0760	Agent(s) (Engineer, Architect, Etc.) LC3 Consulting Address 320 Inland Cove Court City, State Zip Clover, SC 29710 Telephone 803-415-4866			
Email kent@olsondvelopment.com	Email kcrowe@lc3consulting.com			
4. The following items may also be required to be considered part of a complete application, please check all that apply on this list:				
Signed "Original" application				
Project Fee(s) – See Fee Schedule				
	impany letterhead. Shall include requested use or uses, sq. feet of sidential, or any other applicable information. For CZ's, must also dode			
Property Survey (at least one copy), including existing be in diameter), and other natural features.	buildings, topography, wetlands, streams, vegetation (trees over 18"			
architect. Shall include locations of buildings and/or lots, streets	e pages and must be drawn to scale by an engineer or landscape s, parking, proposed grading, landscaping/screening, open space, sures, and proposed utilities and lighting. Shall also include general			
Illustrative (color) site/sketch plan for presentation purp	poses with same layers as described above			
Architectural elevations, Perspective Renderings, and Architectural Review Board Checklist may include multiple pages and must be drawn to scale by an architect. Include all primary and accessory buildings (all building sides), an illustrative color package, and black and white w/dimensions. Other architectural elements/features of the site such as gazebos, trellis's, garden walls, retaining walls, or other items over 4-feet in height must also be included (NOT REQUIRED, BUT OPTIONAL FOR SINGLE-FAMILY RESIDENTIAL DEVELOPMENTS).				
Illustrative (color) elevations for presentation purposes and photograph examples	for all items described above, as well as perspective (3D) renderings			
Digital Files of all items listed above				
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Last Update: 07/06/2021

Signature: Office Signature:

____ Printed Name: Kent Olson

Date: 06/14/2024



CONSULTING

June 14, 2024

Bessemer City 132 W. Virginia Ave Bessemer City, NC 28016

RE: Rezoning Request

Dear Planning Board, Council and Staff:

LC3 Consulting, on behalf of Development Solutions Group, hereby requests the rezoning of parcel numbers 151644, 151645 and 151640. We request that the property be rezoned from R and NR to CZ to allow for the development of 93 single family homes as depicted on the provided rezoning drawings. One existing home is to remain and be platted separately.

The parcel is approximately 35.77 acres and we have requested a unit count of 93 units (2.6 units/acre).

We have requested to install ditch section roads instead of curb and gutter. We are proposing to install a center median along a portion of the main road as a concession for not installing the curb and gutter. We will also propose a trail to connect the eastern and western property boundaries for future tie-in from adjacent properties.

Please let me know if you need further clarification.

Sincerely,

Kyle J. Crowe, PE



June 14, 2024

Bessemer City 132 W. Virginia Ave Bessemer City, NC 28016

RE: Preliminary Traffic Analysis for Sunset Ridge Single Family Homes

Dear Planning Board, Council and Staff:

LC3 Consulting has done a preliminary analysis of the impact anticipated to the surrounding traffic for this project and have determined the following based on the current edition of the ITE:

• Proposed Trips Per Day from Development: 930

Proposed New Trips During Peak AM: 65

Proposed New Trips During Peak PM: 87

Due to the threshold requiring a TIA has not been met per City Code, a traffic impact study is not required.

Please let me know if you need further clarification.

Sincerely,

Kyle J. Crowe, PE



City of Bessemer City, North Carolina Conditional District Rezoning Staff Report

Planning Board Agenda Item August 5, 2024 City Council Agenda Item September 9, 2024

Applicant: Development Solutions Group

Request:

To review and make a recommendation on the rezoning of three parcels of land to accommodate a single-family residential development.

Background Information:

Development Solutions Group has worked with the current property owners of Gaston County Tax Identification Numbers: 151640, 151644, and 151645 to purchase the properties and develop a single-family residential project upon the site. Parcel number 151645 is currently zoned Neighborhood Residential and is located within the city limits of Bessemer City. Parcel numbers 151644 and 151640 are currently zoned Rural (R) and are not located within the city limits of Bessemer City but are within the city's extra territorial jurisdiction. All three parcels of land are currently vacant. The applicant has applied to rezone all three parcels to Neighborhood Residential Conditional District with the intent to voluntarily annex tax parcels 151640 and 151644 into the Bessemer City limits.

The project parcels are surrounded by two public right of ways, N. 14th St. and Sherwood Dr. Both public right of ways are owned and maintained by the NCDOT. The applicant is proposing to develop the project site into a single-family residential community that will consist of 93 single family units, five public right of ways, sidewalks along one side of the right of way in certain areas, and along both sides in other areas. The community will also consist of ditch sections along both sides of the right of way to assist in the collection of stormwater runoff and a center median with street tree plantings along the main interior roadways.

Current regulations within section 4.4.N. – Curb and Gutter of the Bessemer City Land Development Code state that state that curb and guttering shall be installed along all newly constructed roadways within the city limits.

Section 4.5.A. – Sidewalks, Required Locations of the Bessemer City Land Development Code state that sidewalks shall be constructed along both sides of newly created roadways within the city limits of Bessemer City.

Section 4.6. & 3.5.D. – Street Trees of the Bessemer City Land Development Code states that street trees shall be installed along all newly created roadways. Applicant has proposed fifty three tree plantings along the interior street network and common open space to include the plantings within the median along certain internal roadways.

Section 3.2.A. – Dimensional Standards for Principal Structures states that the minimum lot size for Neighborhood Residential zoning districts shall be 12,000 saft for single family residential lots.

The purpose of the conditional zoning application is to request relief from the curb and gutter requirements to allow for ditch sections along the internal roadway network to collect stormwater. Request relief from the dimensional standards and to allow minimum lots square footage of 8,000 sqft. Request relief from the sidewalk requirements of sidewalk along both sides of the entire internal street network and to allow for sidewalks along both sides within the development where feasible.

<u>Proposal:</u> The Applicants have submitted a Neighborhood Residential Conditional District application proposing to develop a single-family residential community on three parcels of land within the Neighborhood and Rural zoning districts. A summary of the proposal is as follows:

Parcels	Site	Waters	Existin	Proposed	Number	Maxim	Prop	Requir	Propos
	Are	hed	g Use	Use	of Units	um	osed	ed	ed Open
	a					Densit	Densi	Open	Space
						y per	ty per	Space	
						Acre	Acre		
151644,	35.	N/A	Vacant	Residential	93	8	4.5	2.6	6 Acres
151645,	77			Single				Acres	
151640				Family					

The lots site are proposed to be generally 70' x 115' for 8,050 sqft. In some cases depending on roadway construction the lots could be slightly narrower or shorter but all lots will meet 8,000 sqft minimum. The required setbacks and proposed setbacks are depicted in the following table:

	Front	Side	Rear	Corner
Required	20'	12'	30'	20'
Proposed	20'	12'	30'	20'

Roads: The proposal for the site involves the construction of five internal roadways within the project site. There will be sidewalk along one side of all internal streets and on both sides were feasible. The developer has applied to install ditch sections along the entire internal street network to collect stormwater. A median planting strip will be constructed on three of the five internal streets. Planned roadways will be constructed to accommodate all public safety apparatuses and solid waste pickup equipment. See attached application packet for apparatus maneuverability.

Traffic: Per City of Bessemer City Land Development Code, no Traffic Impact Analysis study is required to be conducted due to the projected number of daily trips during peak hour travel times.

- Proposed Trips Per Day form Development: 930
- Proposed New Trips During Peak AM: 65
- Proposed Trips During Peak PM: 87

<u>Parking</u>: Bessemer City Land Development Code requires two parking spaces per unit minimum. The project consists of three hundred and seventy-six total parking spaces to include a two-car garage, and two outside parking spaces per unit.

<u>Utilities – Water and Sewer:</u> The applicant is proposing the development to be served by City of Bessemer City Water, Sewer, and Natural Gas services.

- The Public Works Director has indicated that there is City utility availability for the sites.
- A wastewater pump station will be required to be installed due to the topography of the site.
- Applicant has committed to providing Natural Gas to the project.
- Applicants will pay the water, sewer tap fees, system development fees, and will be financially responsible for the engineering and construction of utility systems within the development site.

<u>Stormwater Drainage:</u> Stormwater runoff will be managed by ditch roll sections installed along all right of ways within the project site. Stormwater runoff will also be managed by two stormwater retention ponds. The property is subject to adopted stormwater management guidelines and will have to be approved by the Gaston County Department of Natural Resources, as well as the city's third-party engineering firm.

<u>Open Space:</u> The open space requirement for the project is 2.6 acres. The applicant has proposed 2.6 acres of open space to include a walking trail along the stream within the middle of the development. The trail will stub out at the project property lines for future greenway connection. This walking trail will assist the city in providing future greenways throughout the city as proposed with the Pedestrian Plan adopted by City Council in 2022. The applicant has proposed to install benches along the trail and implementing a dog park or fire pit/small grilling area internal to the community.

<u>Land Use Buffer:</u> According to the City of Bessemer City Land Development Code section 3.5.C. no landscaping buffer is required for single family residential land uses adjacent to properties that

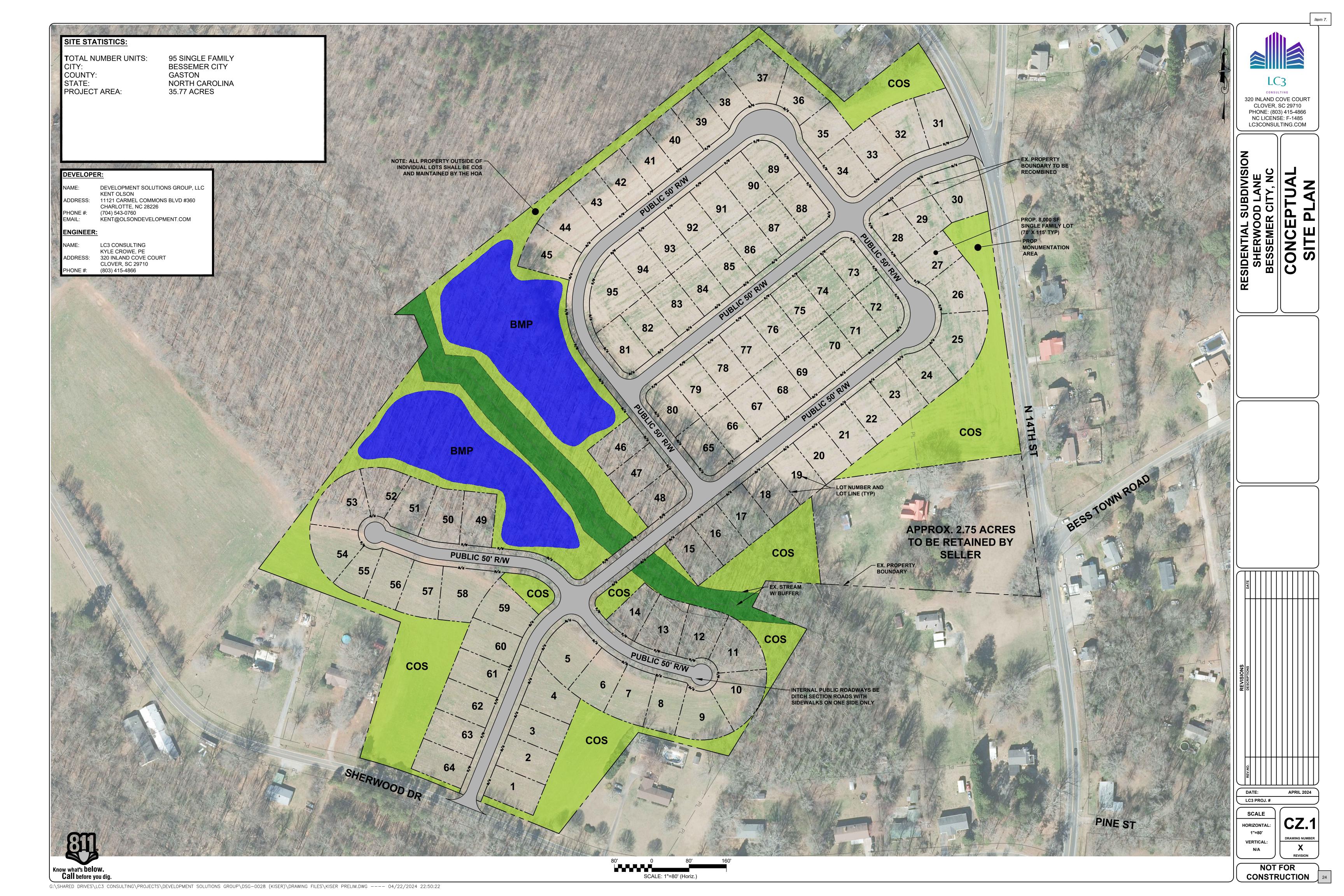
are existing or zoned for future single family residential land uses. The applicant is proposing a to buffer the development with common open space vegetation plantings.

Staff Recommendation:

1. Recommend that City Council rezone requested parcel to Neighborhood Residential Conditional District (CCCD).

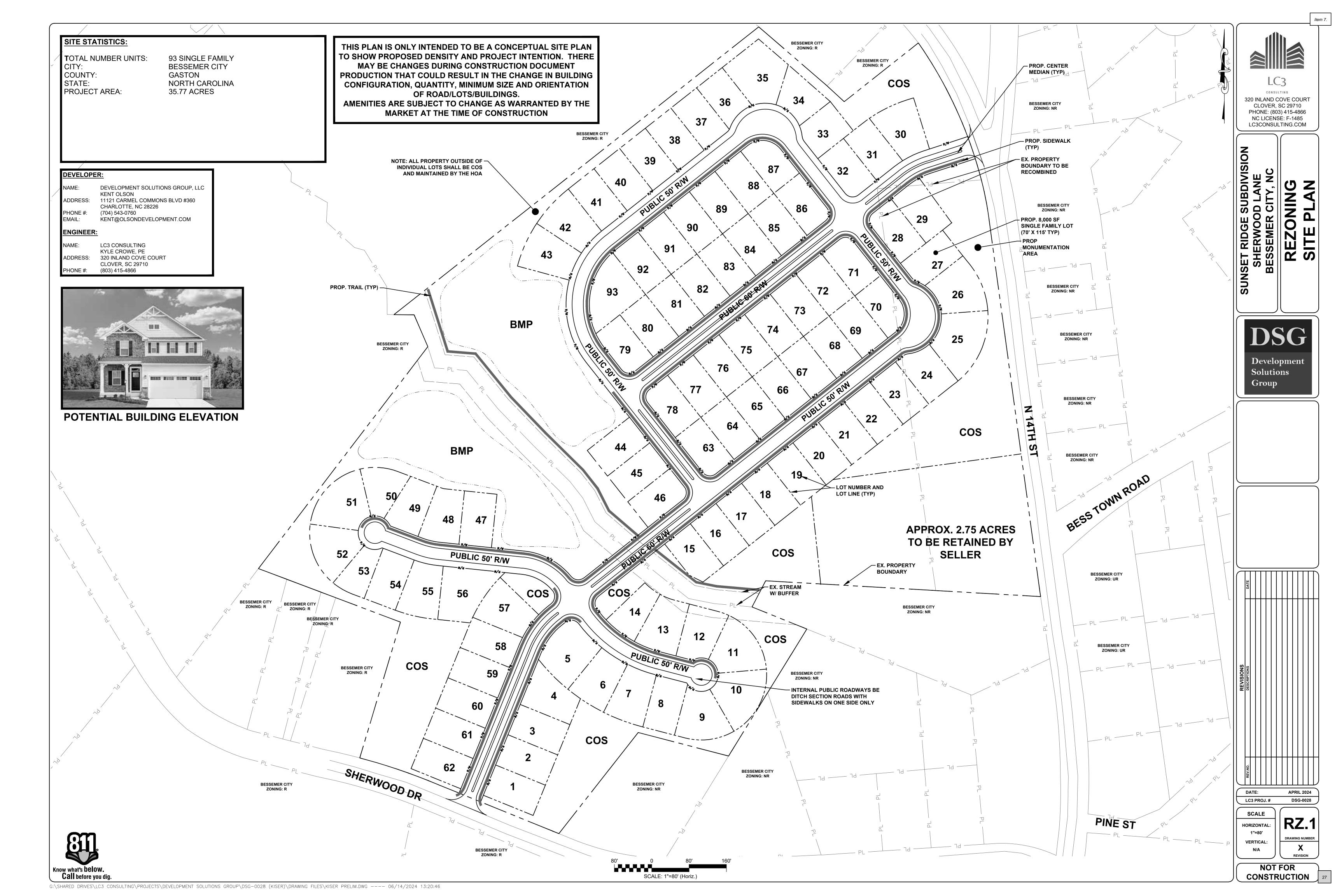
Exhibits:

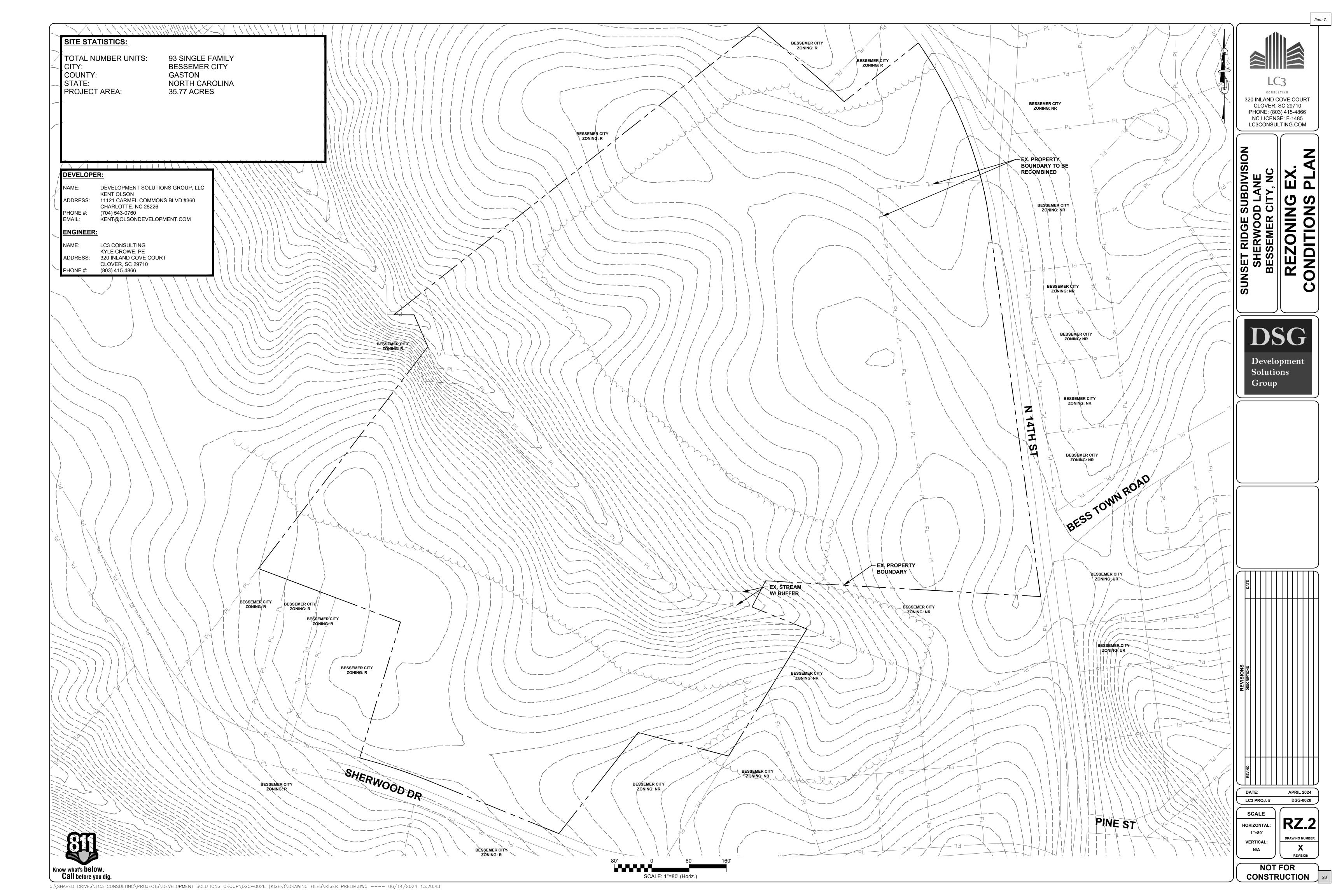
- 1. Sunset Ridge Application Packet.
- 2. Recommended Effective Date: September 9th, 2024

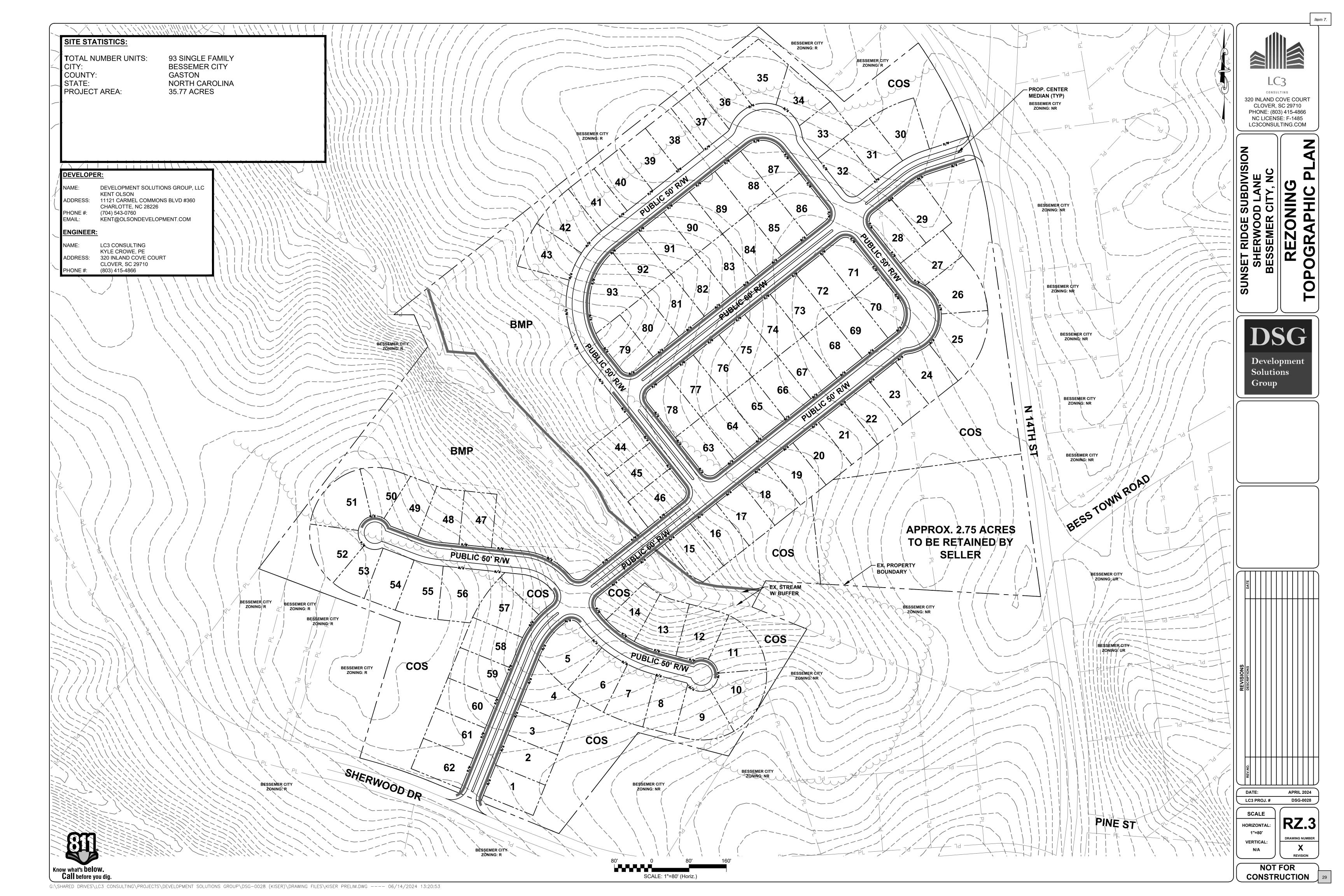


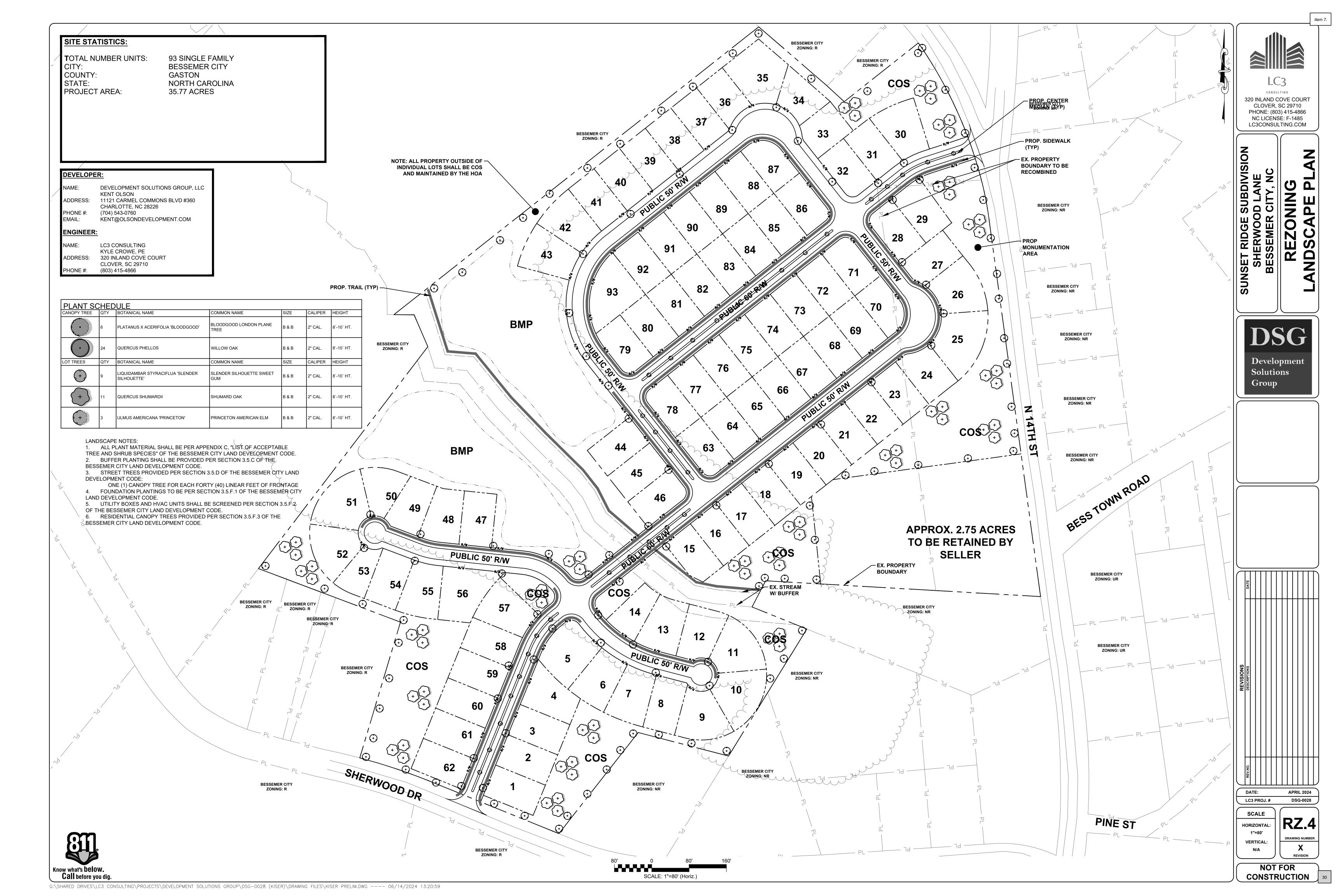


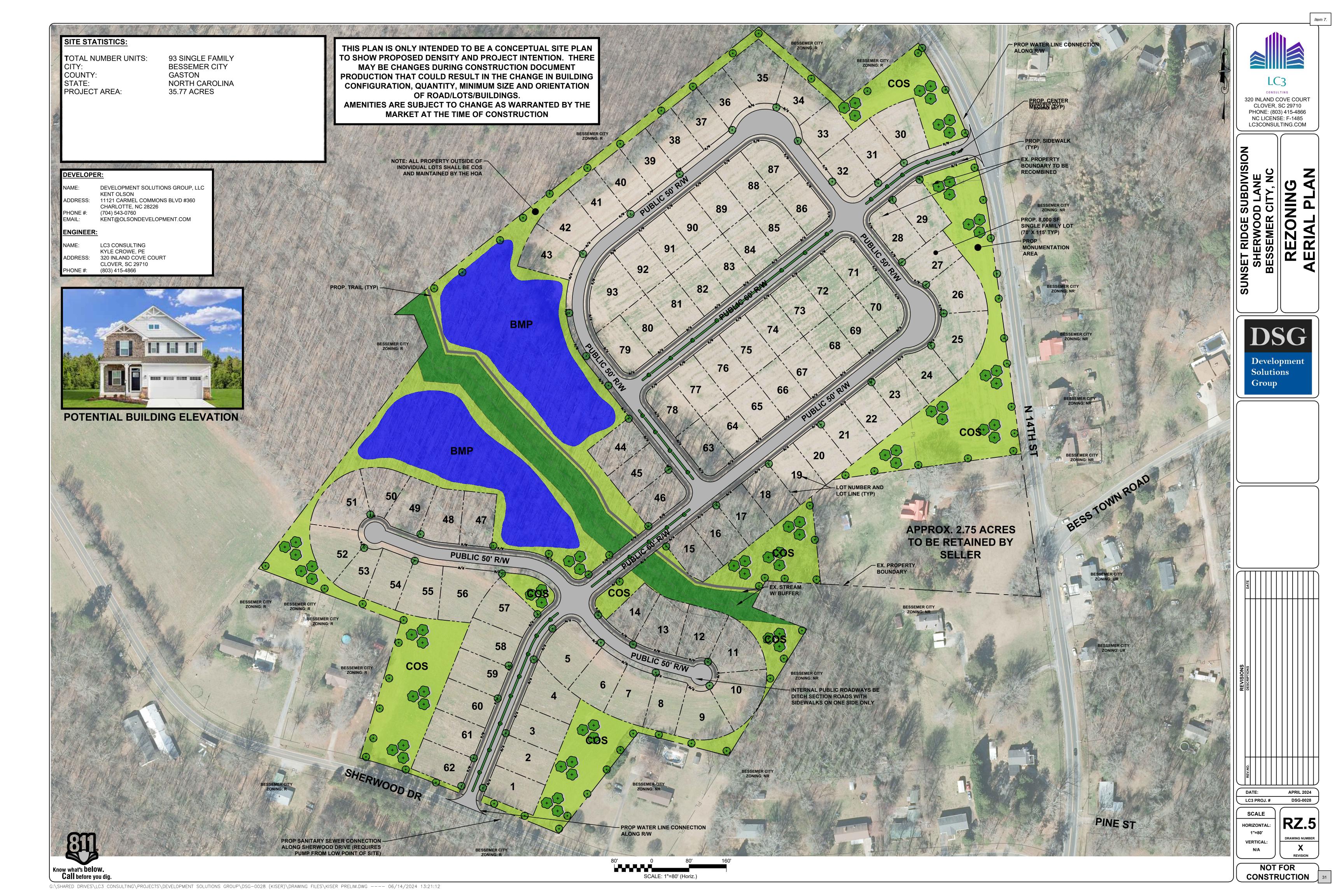


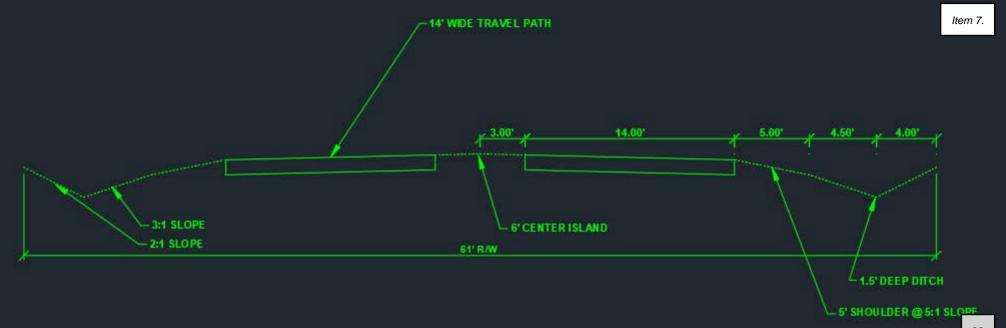
















PLAN CONSISTENCY & STATEMENT OF REASONABLENESS ZONING MAP AMENDMENT October 14th, 2024

Pursuant to N.C. Gen. Stat. §160D-605 the City of Bessemer City Council hereby approves and adopts the following Plan Consistency and Statement of Reasonableness for the rezoning of the Tax Parcels included with development application CD 02-2024 within the City limits and Extra Territorial Jurisdiction of Bessemer City, North Carolina as noted and depicted on the proposed Official Zoning Map.

- 1) Said zoning change is **consistent** with the goals and values established by the City Council adopted in 2023.
 - a. The City Council created a mission and vision statement that included the following six values: 1. Accountability, 2. Ethics, 3. Community Dependability, 4. Honesty, 5. Respect, 6. Open-Mindedness. These rezoning's are consistent with these values.
 - b. The City Council created a mission and vision statement that included the following five goals: 1. Promote a desirable place to live and work that provides a healthy quality of life, 2. Ensure a safe and secure community for residents and visitors, 3. Invest in a high quality infrastructure to support a thriving and diverse economy, 4. Provide opportunities for citizen engagement and promote volunteerism, 5. Foster organizational sustainability that embraces innovation and creativity. These rezoning's are consistent with these goals.
- 2) Said rezoning is **consistent** with the City of Bessemer City 2020 Vision Plan and the City of Bessemer City Planning and Economic Development Comprehensive Land Use Vision Map adopted by the City Council in 2019. The proposed rezoning's are:
 - a. Consistent with the existing adjacent land uses as designated on the official land use map.
- 3) The proposed map amendments would not be detrimental to the city and ETJ.
 - a. The physical conditions that make the rezoning's reasonable are:
 - Provides Residential and Economic Development growth opportunities with new development in areas that are currently zoned to accommodate the applicable use.
 - b. Rezoning is in the best interest of the public to increase and maximize property values to provide for future infrastructure and amenities.

Therefore, the requested rezoning's are **reasonable** and **in the public interest**.

Upon a motion that the application is **consistent** with the Bessemer City Planning and Economic Development Comprehensive Land Use Vision.

Read, approved and adopted this the 14th day of October, 2024.

ATTEST	CITY COUNCIL FOR THE CITY OF BESSEMER CITY
	BY
Hydeia Hayes, City Clerk	Becky S. Smith, Mayor
APPROVED AS TO FORM	
David Smith, City Attorney	

Capital Project Ordinance for the City of Bessemer City Lead and Copper Service Inventory Project

Ordinance Number # COBC-GOVBOD-2024-2025 O 5

BE IT ORDAINED by the City Council of the City of Bessemer City that, pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following capital project is hereby adopted:

Section 1. The project authorized is the Lead and Copper Service Inventory Project.

Section 2. The officers of this unit are hereby directed to proceed with the capital project with acceptance of grant and loan funds, and the budget contained herein.

Section3. The following amounts are appropriated for the project.

Historical Records Review/Inventory Setup	25,000
Utility Location Coordination	15,000
Potholing of Water Services (3,250 Potholes)	655,000
Data Entry/Data Coordination	15,000
Final Report	30,000
Customer Notification Assistance	20,000
Customer Notification	20,000
Total Appropriations	\$ 780,000

Section 4. The following revenues are anticipated to be available to complete this project:

Total Estimated Revenues	\$ 780 000
Local Funds	78,000
NCDEQ-DWSRF Loan – Principal Forgiveness	\$ 702,000

Section 5. The Finance Officer is hereby directed to maintain within the Capital Project Fund sufficient specific detailed accounting records.

Section 6. The Finance Officer is directed to report on the financial status of the project pursuant to loan agreement.

Section 7. The Finance Officer is directed to include a detailed analysis of past and future costs and revenues on this capital project in every budget submission made to this Board.

Section 8. Copies of this Capital Budget Ordinance shall be furnished to the Clerk of the Governing Board and to the Finance Officer for direction in carrying out this project.

Adopted this theof _	
Mayor, Becky S. Smith	Hydeia Hayes, City Clerk

Capital Project Ordinance for the City of Bessemer City Stormwater Assessment Project

Ordinance Number # COBC-GOVBOD-2024-2025 O 6

BE IT ORDAINED by the City Council of the City of Bessemer City that, pursuant to Section 13.2 of Chapter 159 of the General Statutes of North Carolina, the following capital project is hereby adopted:

Section 1. The project authorized is the Stormwater Assessment Project.

Section 2. The officers of this unit are hereby directed to proceed with the capital project with acceptance of grant and the budget contained herein.

Section3. The following amounts are appropriated for the project.

Stormwater Assessment

340,000

Total Appropriations \$ 340,000

Section 4. The following revenues are anticipated to be available to complete this project:

LASII Planning Grant

\$ 340,000

(Project No.:SRP-SW-003)

Total Estimated Revenues \$ 340,000

Section 5. The Finance Officer is hereby directed to maintain within the Capital Project Fund sufficient specific detailed accounting records.

Section 6. The Finance Officer is directed to report on the financial status of the project.

Section 7. The Finance Officer is directed to include a detailed analysis of past and future costs and revenues on this capital project in every budget submission made to this Board.

Section 8. Copies of this Capital Budget Ordinance shall be furnished to the Clerk of the Governing Board and to the Finance Officer for direction in carrying out this project.

Adopted this theof	, 2024.	
Mayor, Becky S. Smith		Hydeia Hayes, City Clerk

City of Bessemer City

Stormwater Master Plan





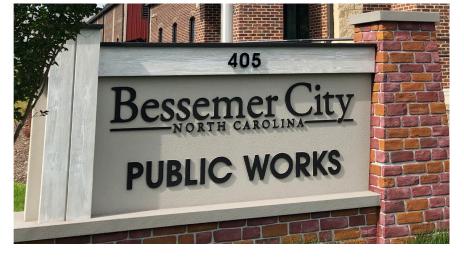








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PREPARED FOR

Jamie Ramsey Operations and Special Projects Director City of Bessemer City 321 East Lee Ave Bessemer City, NC 28016

PREPARED BY

McGill Associates, PA 1240 19th Street Lane NW Hickory, NC 28601 828.328.2024 mcgillassociates.com



September 13, 2024

Jamie Ramsey
Operations and Special Projects Director
City of Bessemer City
321 East Lee Ave
Bessemer City, NC 28016

RE: Statement of Qualifications Stormwater Master Plan

Dear Jamie Ramsey:

Bringing on an engineering firm to lead the development of a Stormwater Master Plan will directly improve the quality of life and safety in the City of Bessemer City. McGill Associates, PA (McGill) has worked with communities throughout North Carolina to provide reliable and practical stormwater management program assistance, infrastructure project design and implementation, and conveyance system evaluation. We are confident in our capabilities to provide responsive, high-quality professional services to accomplish the scope of services and objectives for this project. Please consider the following strengths as you review our Statement of Qualifications (SOQ):



Commitment to the City: We have worked with Bessemer City for over 12 years on various projects, and we secured funding for this project in 2022. McGill treats all of our clients as partners, and we are eager to continue demonstrating this level of commitment to the City on this stormwater project.



Unique Qualifications: McGill's professionals have extensive experience in hydrologic and hydraulic modeling, including one-dimensional and two-dimensional predictive models, such as HEC-HMS, HEC-RAS, and stormwater management model (SWMM). We use these models to support surface water management system analyses, dam design and safety analyses, risk assessment, innovative and alternative flood protection solutions, stormwater network data collection and inventory, and stormwater management systems design. Additionally, our staff has direct, local government experience with National Pollutant Discharge Elimination System (NPDES)

Phase II stormwater program management and understands the delicate balance between funding infrastructure improvements while still committing to the six minimum control measures required for discharge permit compliance.



Practical Approach: McGill will review and update the City's geographic information system (GIS) based system inventory and provide a thorough condition assessment of components, perform hydrologic and hydraulic modeling using a blended approach to characterize and design system outputs, and prioritize improvement projects based on need, financial feasibility, and alternative analysis.

McGill's team will provide the appropriate personnel, equipment, and time needed for this project, and we will work seamlessly with City staff and partners to support project goals. Cameron Long, McGill's Water Resources Practice Area Leader, will be leading this project and serve as an extension of City staff throughout the process. Please reach out if you have any questions during review of this submittal. You may contact me at doug.chapman@mcgillassociates.com or 828.328.2024. Thank you for your consideration.

Sincerely,

MCGILL ASSOCIATES, PA

DOUG CHAPMAN, PE

Principal / Vice President / Regional Manager

Firm Overview



Primary Contact

Cameron Long, PE

Water Resources Practice Area Leader / Project Manager cameron.long@mcgillassociates.com

How We're Different

McGill serves public and private clients throughout the Southeast. The range and depth of McGill's expertise includes a wide spectrum of engineering services, land planning and recreation, and consulting services.

Our foundation is built on creating comprehensive solutions in a personal way. Collaboration is the key to our success and clients are an integral part of every project at McGill. By building lasting relationships with communities, we understand our clients' visions and project goals. Our dedicated project team focuses on delivering a customized solution for each unique community.

We help our clients identify challenges, formulate responsive solutions, and manage successful project completion. Through partnership, we shape the best results for each client and community.

At a Glance

Legal Name: McGill Associates, PA

Incorporated / Year: 1984

Business Type: Corporation

Number of Offices: 8

Number of Employees: 172

Office Locations





Local Office:

1240 19th Street Lane NW, Hickory, NC 28601 828.328.2024

What We Do



Water and Wastewater



Civil Engineering



Water Resources



Land Planning and Recreation



Electrical Engineering



Mechanical, Electrical, and Plumbing



Surveying



Construction Administration



Solid Waste



Environmental



Consulting Services



NORTH CAROLINA Department of the Secretary of State

CERTIFICATE OF EXISTENCE (PROFESSIONAL CORPORATION)

I, ELAINE F. MARSHALL, Secretary of State of the State of North Carolina, do hereby certify that

MCGILL ASSOCIATES, P.A.

is a professional corporation duly incorporated under the laws of the State of North Carolina, having been incorporated on the 11th day of January, 1984, with its period of duration being Perpetual.

I FURTHER certify that the said corporation's articles of incorporation are not suspended for failure to comply with the Revenue Act of the State of North Carolina; that the said corporation is not administratively dissolved for failure to comply with the provisions of the North Carolina Business Corporation Act; that the said corporation's certificate of registration is not suspended or revoked by their licensing board; and that the said corporation has not filed articles of dissolution as of the date of this certificate.





Scan to verify online.

Certification# 110726511-1 Reference# 17577000- Page: 1 of 1 Verify this certificate online at https://www.sosnc.gov/verification

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Raleigh, this 18th day of June, 2021.

Elaine J. Marshall

Secretary of State



NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERS AND SURVEYORS

4601 Six Forks Rd Suite 310 Raleigh, North Carolina 27609

McGill Associates, P.A. PO Box 2259 Asheville, NC 28802

This is to Certify that:

McGill Associates, P.A. is licensed with the North Carolina Board of Examiners for Engineers and Surveyors, and is authorized to practice *engineering and land surveying* under the provisions of Chapter 89C and 55B of the General Statutes of North Carolina.

This authorization must be renewed annually, and expires on June 30, 2025

License No.: C-0459



THE NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERS AND SURVEYORS

Executive Director

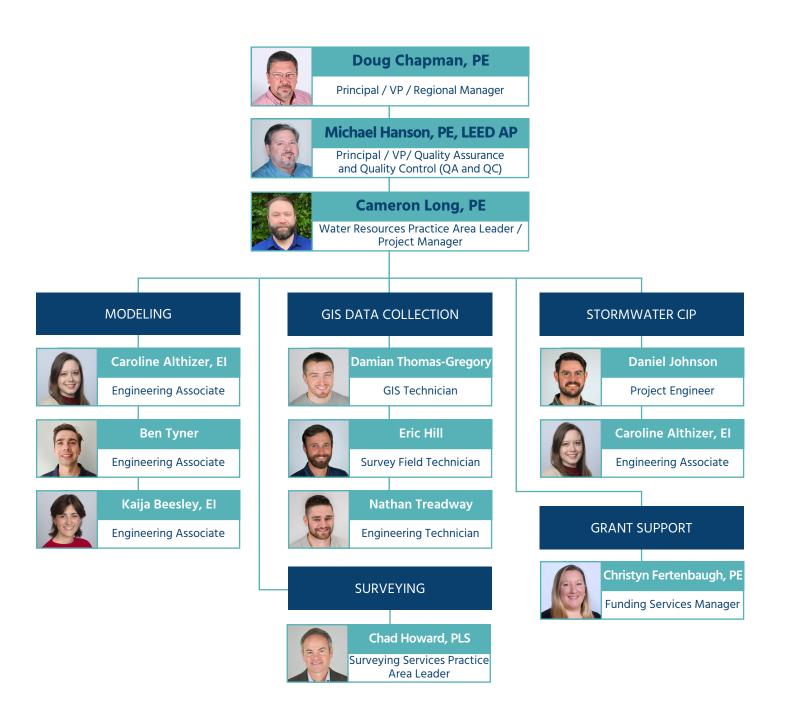
POST IN PLACE OF BUSINESS

Issued 06/28/2024

O1 | Project Team

Team Overview

Our goal in assembling the proposed team outlined below is matching the individual and team qualifications with the expertise and experience appropriate for this project. Our comprehensive project team approach is particularly appropriate for projects where coordination, scheduling, and efficiency are important considerations.





BS, Mechanical Engineering, North Carolina State University (NCSU)

Professional Licensure

PE NC #020622

Professional Associations

- American Water Works Association (AWWA)
- Water Environment Federation (WFF)

Doug Chapman, PE

Principal / VP / Regional Manager

Doug Chapman has practiced engineering in North Carolina for more than 33 years. His experience includes a wide range of public projects, such as streets and stormwater systems, water and wastewater systems, parks and recreation, and community facilities and planning. Doug has worked in a variety of professional environments, including both public and private sector positions, which have contributed positively toward developing his capacity to solve complex problems and understand the needs of public clients. He is an innovator and a leader in infrastructure and facility planning and design. Doug has worked on numerous projects and is well versed in public bidding requirements and project funding opportunities. He also understands the need to actively manage projects from inception throughout construction.

Related Experience

- Bessemer City Booster Pump Station, City of Gastonia
- CWMTF Stormwater Study, Town of Blowing Rock
- Stormwater and Flood Plain Assistance, Guilford County
- Capital Project Planning (Stormwater Ditchlines), Town of Blowing Rock
- Public Works Facility Improvements (Stormwater Detention),
 City of Bessemer City
- Stinger Park, City of Bessemer City



Education

BS, Civil Engineering University of Florida

Professional Associations

- American Public Works Association (APWA)
- Southeast Stormwater
 Association (SESWA)
- Stormwater Association of North Carolina (SWANC)
- American Society of Civil Engineers (ASCE)

Michael Hanson, PE, LEED AP

Principal / VP / QA and QC

Michael Hanson's 33 years of planning experience includes watershed assessments, stormwater master planning, and flood mapping with extensive use of hydrologic and hydraulic models. His design experience includes projects related to wetland creation, stream restoration, regional flood control, and water quality improvement basins. Michael has performed all aspects of project delivery, including NPDES and environmental permitting, plan preparation, cost estimating, preparation of technical specifications and contract documents, stakeholder facilitation, and construction administration.

Professional Licensure

PE: NC #030624 (+6 other states); LEED AP: National #10445033

- Flood Recovery Support, Town of Canton
- Stormwater Management Plan, Town of St. Pauls
- Stormwater Management and Master Plan, Village of Pinehurst
- Stormwater AIA and Master Plan, City of Morganton
- Stormwater Management Plan, Town of Holden Beach
- Stormwater Improvements, Town of Autryville
- Stormwater Utility Feasibility Study, City of Clinton



MS, Civil Engineering, NCSU

Professional Licensure

DE

NC #034333

Years of Experience

21

Cameron Long, PE

Water Resources Practice Area Leader / Project Manager

Cameron Long is passionate about helping communities improve. This passion is largely what drove him to pursue engineering, and he has been an engineer for over 20 years. Cameron has worked on a variety of water-related projects. From stormwater control measure designs to asset inventory assessments to floodplain mapping, he has extensive experience with local and state standards for stormwater design and permitting projects. He is particularly knowledgeable of working in and around floodplains, which is beneficial for all water projects, as the floodplain maps continue to change. Cameron enjoys collaborating with team members and clients. He is a learner, always looking to learn something new while working with new and familiar people.

Related Experience

- Upper Pigeon River Flood Risk Reduction Plan, Haywood Waterways Association, Inc., Haywood County
- Stormwater Improvements, Town of Autryville
- Townwide Stormwater Master Plan, Town of Mount Olive
- Ford Street Drainage Improvements, Town of Robbinsville
- Hominy Creek Flood Study and No-Rise Certification, Metropolitan Sewerage District of Buncombe County (MSDBC)
- Veterans Memorial Park Flood Model, Macon County



Education

BS, Civil Engineering, Clemson University

Professional Licensure

PE

SC #39267

Professional Associations

- SESWA
- ASCE

Years of Experience

6

Daniel Johnson

Project Engineer

Daniel Johnson has six years of water resources experience centering around hydrology and hydraulics. He has worked on modeling and analyses of tidal and riverine systems in small streams, watersheds, and floodplains; stormwater pipe systems and roadway drainage; dams; bridge hydraulics; risk prioritization exercises for dams, bridges, and basins; and development of standard operating procedures (SOPs), policy and procedure updates, and standards development. Daniel has a significant modeling background that allows him to effectively execute different hydrologic and hydraulic analyses. The many hours he has spent outside of the office — either in the field or working one-on-one with clients — affords him a unique perspective on how projects come together from start to finish.

- Upper Pigeon River Flood Risk Reduction Plan, Haywood Waterways Association, Inc., Haywood County
- Citywide Stormwater Modeling, Infrastructure Assessment, and Master Plan, City of Shelby
- Flood Recovery Support, Town of Canton
- Stormwater Management Plan, Town of Holden Beach
- Rhoda Street Flood Damage Repair, Town of Canton



BS, Biological and Agricultural Engineering (Environmental Concentration), NCSU

Professional Licensure

EI NC #A-30174

Years of Experience

5

Caroline Althizer, El

Engineering Associate

Caroline Althizer has experience in hydrologic and hydraulic modeling and stormwater control measures design. She is adept in hydrology, water quality modeling, drainage, stormwater control measure (SCM) design, and wetland and stream restoration. Her experience includes preparing floodplain maps to include FEMA topographic work maps and annotated FIRMs associated with CLOMR / LOMR applications; developing HEC-HMS and HEC-RAS models and terrain models in RAS Mapper; and evaluating of drainage capacity.

Related Experience

- Stormwater Management Plan, Town of Holden Beach
- Flood Recovery Support, Town of Canton
- Stormwater Management Plan, Town of St. Pauls
- Stormwater Management and Master Plan, Village of Pinehurst
- WWTP Road Culvert No Rise, Town of Maiden
- Stormwater Review, City of Oxford
- Pirate's Cove Stormwater Study, City of Wilmington



Education

MS, Civil Engineering, Colorado State University

BS, Biological Engineering, NCSU

Years of Experience

5

Ben Tyner

Engineering Associate

Ben Tyner has five years of experience with HEC-RAS, GIS, CAD, floodplain modeling, and stormwater modeling. He has worked on large-scale 2D floodplain models, flood risk reduction plans, roadway drainage, stormwater designs, and bridge scour studies and countermeasure designs. Ben has experience developing numerical models of hydraulic and hydrologic systems and composing technical reports. He is a part of the highly skilled and energetic water resources team. Ben is fulfilled by solving public water resources problems for our clients.

- Flood Recovery Support, Town of Canton
- Upper Pigeon River Flood Risk Reduction Plan, Haywood Waterways Association, Inc., Haywood County
- Citywide Stormwater Modeling, Infrastructure Assessment, and Master Plan, City of Shelby
- Ford Street Drainage Improvements, Town of Robbinsville
- Camp Hope Access Bridge Testing, Town of Canton
- 1951 Asheville Highway Lift Station Replacement and Repair, Town of Canton
- Bobby N. Setzer State Fish Hatchery, North Carolina Wildlife Resources Commission, Transylvania County



BS, Biological Engineering, NCSU

Professional Licensure

FI

NC #A-30756

Years of Experience

3

Kaija Beesley, El

Engineering Associate

Kaija Beesley is an engineering associate on our water resources team who brings a passion for environmental sustainability and community service to each project she is involved with. Kaija is skilled in hydrologic and hydraulic modeling and has experience in dam emergency action plans, creating norise models and reports, stormwater and floodplain development reviews, culvert design, site grading, and record drawings. She is eager to be a part of initiatives involving either reducing or mitigating damage from past or future flooding. Kaija believes that if these hazards are prevented or controlled, the affected communities and the environment that surrounds them will see an improvement in both their quality of life and their level of safety.

Related Experience

- Stormwater Management and Master Plan, Village of Pinehurst
- Stormwater Master Plan, Town of Mount Olive
- Stormwater Management Plan, Town of Holden Beach
- Stormwater Improvements, Town of Autryville
- Stormwater Mitigation Assessment, Town of Spring Lake
- Stormwater and Flood Plain Assistance, Guilford County



Education

BS, Environmental Science, Western Carolina University

Years of Experience

1

Specializations

- AIAs
- Data collection, management, and mapping
- Damage survey reports

Damian Thomas-Gregory

GIS Technician

Damian Thomas-Gregory is a skilled GIS technician who is driven by his desire to offer clients meaningful solutions to their challenges. He has valuable experience in data collection, data management, and mapping. Damian possesses the education and training necessary to assist the McGill team on AIAs and damage survey reports. He values open dialogue and strong interpersonal communication throughout the duration of a project, and he is eager to be a part of initiatives that allow him to combine his technical knowledge with his love of nature and being outdoors. When it comes to working around unique barriers that arise in the GIS realm, Damian holds the perspective that the highest priority should be on enhancing the standard of living for members of the community.

- Stormwater AIA and Master Plan, City of Morganton
- Stormwater Master Plan, Town of Mount Olive
- Citywide Stormwater Modeling, Infrastructure Assessment and Master Plan, City of Shelby
- Stormwater Management Plan, Town of Holden Beach
- Upper Pigeon River Flood Risk Reduction Plan, Haywood Waterways Association, Inc., Haywood County
- Flood Recovery Support, Town of Canton



BS, Environmental Science,
Appalachian State University

Years of Experience

1

Specializations

- Topographic surveying
- Environmental science

Eric Hill

Survey Field Technician

Eric Hill is a survey field technician who is excited about projects that allow him to explore different areas and work outside. He utilizes his environmental science background each day in his surveying work. Eric believes what sets McGill apart is creating solutions for clients that help people live better lives and doing so through innovative solutions. Prior to McGill, his favorite project was completing a topographic survey of Mingus Mill in the Great Smoky Mountains National Park. Eric learns quickly and adapts to different situations, which is an added value to our team.

Related Experience

- Stormwater AIA and Master Plan, City of Morganton
- Flood Recovery Support, Town of Canton
- Pryor Street Storm Drainage and Sewer Improvements, Town of Forest City
- East End Water System Project, McDowell County
- 2022 Emergency Watershed Protection (EWP), Haywood County
- On-Call Services, Transylvania County Schools
- South Main Street Improvements, Town of Boiling Springs
- Buffalo Shoals Road Water Line Extension, Catawba County
- West 15th Street Water Line Replacement, City of Newton



Education

BS, Physics, Emory & Henry College

Years of Experience

2

Specializations

- AlAs
- Asset management
- AutoCAD
- Utility mapping

Nathan Treadway

Engineering Technician

As an engineering technician on McGill's water / wastewater team, Nathan Treadway brings a strong understanding of collaboration and time management to the table. Nathan has experience working on a variety of civil / site initiatives and is proficient in AutoCAD. He is committed to making productive use of his abilities to contribute in a meaningful way to communities and to assist municipalities throughout the Southeast in achieving their objectives.

- Stormwater AIA and Master Plan, City of Morganton
- Water AIA, Town of Valdese
- Water AIA, Town of Sparta
- NCDEQ Water AIA, Town of Long View
- NCDEQ Sewer AIA, Town of Long View
- Water System AIA, Town of Autryville
- ARPA Water and Sewer Infrastructure Project, Town of Long View
- 2021 ARPA Water Line Extension Project, Alexander County
- Main Street Water and Sewer Line Replacements, Town of Blowing Rock
- Finley Area Water System Improvements, City of Lenoir
- Sewer System Repairs and Replacement, Phase 5, City of Oxford



MS, Environmental Engineering, University of Notre Dame

BS, Civil Engineering, University of North Carolina (UNC) Charlotte

Professional Licensure

DF

NC #042020

Years of Experience

13

Education

AAS, Surveying Technology, Wake Technical Community College (Wake Tech)

AAS, Civil Engineering Technology, Wake Tech

Professional Licensure

PLS: NC #L-4220

Years of Experience

28

Christyn Fertenbaugh, PE

Funding Services Manager

Christyn Fertenbaugh has 13 years of experience with water and wastewater permitting and compliance; funding programs for water, wastewater, and stormwater administered through DWI; and communicating dynamically with people at all levels of the technical spectrum. She has managed study grants (from the funding perspective) including AIAs, merger / regionalization feasibility (MRF) studies, and rate studies. The construction projects Christyn has worked with related to permitting and funding vary widely — from several-hundred-foot-long water and sewer extensions all the way up to 1-30 million gallons a day (MGD) water and wastewater treatment plants and pump stations (both new and expansions). She is particularly skilled at asking the right questions, updating processes for efficiency, maintaining good relationships, clear and consistent communication, and always moving forward both technically and personally. Christyn is passionate about protecting the environment by helping water and wastewater systems meet regulations and improve their infrastructure. With her strong background in both engineering and funding management, she uses that knowledge and enthusiasm to contribute to the AIA process.

Related Experience

- Lecho Park Outfall Sewer Replacement, City of Conover
- Sewer System Repairs and Replacement, Phase 5, City of Oxford

Chad Howard, PLS

Surveying Services Practice Area Leader

Chad Howard has worked in the surveying field for over 28 years. During this time, he has managed over \$20,000,000 worth of successful land surveying and subsurface utility engineering (SUE) projects. In his role, Chad has been responsible for project estimating, contract negotiation, billing, client relations, quality control and quality assurance (QA / QC), computing and adjusting boundary problems, and drafting and reviewing finalized plats. As a result of his hard work, he has received 13 awards from the North Carolina Society of Surveyors Annual Statewide Plat Contest produced by the National Society of Professional Surveyors (NSPS), including first place in the Boundary Survey Category of the annual NSPS nationwide plat contest. His hard work and dedication to his field is evident in the work ethic and enthusiasm he demonstrates with his team members and clients.

- Cline Avenue Basin and Pump Station Upgrades Project, Town of Valdese
- French Broad River Greenway, City of Asheville
- Stormwater AIA and Master Plan, City of Morganton
- Flood Recovery Support, Town of Canton
- WWTP Road Culvert No Rise, Town of Maiden

O2 | Project Experience



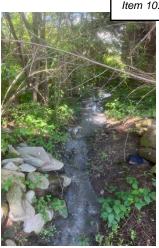
Experience with the City of Bessemer City

- Public Works Facility Improvements
- Stinger Park
- Vantine Pump Station Improvements
- Wastewater Pump Station Generators
- DWSRF Water Line Replacements
- NC 161 Sidewalk
- Sewer System Replacements
- Centennial Park
- Community Center Improvements
- Various Stormwater Issues
- East Tennessee Stream Restoration
- Plan Review Services

- Arrowood Reservoir Raw Water Intake
- Water Plant Improvements
- West Pennsylvania Streetscape
- 2014 Paving Projects
- Skyline Pump Station Improvements
- Gastonia Booster Pump Station
- 2021 Paving Projects
- System Development Fee Study
- Water System Model
- Water and Sewer Master Plan
- Lithium Pump Station Improvements
- Downtown Electrical Improvements











Relevant Water Resources Experience

We regularly perform various water resources projects, including AIAs, CIPs, stormwater master planning, rate studies, flood studies, no-rise, open channel hydraulic analyses, and stormwater improvement analyses for communities across North Carolina. For example, we recently completed a stormwater management plan for the Town of St. Pauls, which supported ARPA funding applications for up to \$5 million to complete stormwater improvement projects. Elements of the project included developing stage storage and rating curves, computing watershed parameters, collating rainfall data, determining peak inflow and outflow, preparing supporting data and calculations, compiling the final report, and summarizing the findings and recommendations.

Our team members have extensive hydrologic and hydraulic modeling experience with both one- and two-dimensional predictive models, including HEC-HMS, HEC-RAS, and SWMM. We utilize these models to support surface water management system analyses, dam design and safety analyses, risk assessment, innovative and alternative flood protection solution evaluation, stormwater network data collection and inventory, and stormwater management systems design.

Our team has developed multiple AIAs, stormwater master plans, stormwater impact evaluations, and stormwater utility feasibility for communities throughout North Carolina. Among these are the City of Asheville, Town of Canton, Town of Clyde, City of Clinton, and Village of Pinehurst. Our approach for this project will be tailored based on our deep understanding of the hydrology and hydraulics and our experience with the City of Bessemer City.

McGill's Experience with AIA Projects

Our project team has extensive experience in public infrastructure inventory and assessment, including stormwater, water, and sanitary networks. The key to a successful AIA project is to prepare a systematic approach and methodologies to meet the goals of the project. Over the years, our team has refined our approach to allow for efficient data collection, rigorous and prompt quality assurance and control, and flexibility to meet specific project and community needs. At the onset of the project, we will convene with the City to discuss:

- City's software requirements (typically esri ArcGIS online is used and requires minimal investment from the community)
- City's staff assigned to the project and how the various staff members will use the product
- **3.** Available data (digital and hard copies) of the network to be mapped.

Following the meeting, we provide the City with a geodatabase design for review that it needs the expectations of the project. The geodatabase template is then revised as needed based on input from the City.

We leverage available data by importing / digitizing all records to develop a basemap to be used as a guide for field crew completing the mapping. Having a basemap provides for substantial field data collection efficiency.

All collected data is available live for review by the project engineer. We ensure the review is done promptly to identify any gaps and corrective measures needed early for the field crew to revisit the site. The live data collection and storage also allows for coordination between field crew and office staff if discrepancies and unidentified conditions are encountered.

Infrastructure systems that we have completed for various municipalities throughout North Carolina include:

- Stormwater Master Plan, City of Shelby
- Stormwater Master Plan, City of Morganton
- Stormwater Master Plan, Town of St Pauls
- Stormwater Master Plan, Town of Holden Beach
- Stormwater System, Town of Sunset Beach
- Stormwater System, Town of St Pauls
- Water and Sewer AIAs, Town of Shallotte
- Water and Sewer AIAs, Town of Maxton
- Water and Sewer AIAs, Town of Mount Olive
- Water and Sewer AIAs, City of Oxford
- Sewer AIA, Town of St. Pauls
- Water and Sewer AIA, Town of Siler City
- Sewer AIA, Town of Roseboro
- Water and Sewer AIA, City of Lenoir
- Water and Sewer AIA, Town of Hot Springs
- Water AIA, Town of Canton
- Water and Sewer AIA, Town of Bryson City

Our Commitment To You



McGill is committed to providing innovative and efficient engineering to our clients. We strive to ensure each project is completed successfully through our diverse technical expertise, effective project management, and open communication methods.



Technical Expertise



Project Management



Open Communication







Stormwater Management and Master Plan

Village of Pinehurst

McGill was selected by the Village of Pinehurst to assist in stormwater management and master planning with the goal of identifying effective stormwater strategies and developing supporting programs and funding mechanisms. Phase 1 focused on its stormwater program, including updating policies, ordinances, and regulations; reviewing stormwater work orders and complaints; public engagement; and post-construction stormwater maintenance requirements. Phase 2 focused on project planning and implementation, including developing conceptual plans and cost estimates, determining whether funding levels in the current five-year CIP were adequate, and evaluating alternate funding sources.

Project Highlights

- Stormwater master planning
- Stormwater engineering design
- Cost estimation
- CIP
- Stormwater work order and complaint review
- Policy updates

Date Completed



Stormwater Management Plan

Town of Holden Beach

The environmental conditions of this island community presents unique challenges in managing stormwater runoff, given the limited surface discharge opportunities, even from within public rights-of-way. Ponding water within roadway areas following rain events cannot always be managed through permanent piping to low-point outlets. Though the Town can respond to emergent events — such as hurricanes — with temporary pumping measures, the more frequent rain events that still cause flooding must be handled otherwise.

For this project, McGill is:

- Mapping and assessing the existing system (location, condition, and material)
- Assessing the conveyance capacity
- Identifying current and potential trouble areas
- Evaluating alternatives and recommending solutions for each area
- Preparing a stormwater management plan (SWMP) document that will include prioritizing the recommended solutions
- Providing an evaluation of the feasibility of a stormwater utility

McGill's SWMP documents include a summary of all the tasks performed, methodologies used, detailed data and results tables, digital copies of supporting GIS and modeling data, alternatives evaluation, and recommendations for proposed improvement projects with a planning-level cost estimate for each. This SWMP can be used as the basis for developing a CIP and supporting any future work toward developing a stormwater utility.

Project Highlights

- Existing system mapping and assessment
- Conveyance capacity assessment
- Current and potential trouble area identification
- Alternatives evaluation with probable construction costs
- Prioritized recommendations
- Stormwater utility feasibility evaluation
- Stormwater master plan

Date Completed



Stormwater Management Plan

Town of St. Pauls

The Town of St. Pauls has been severely impacted by recurring stormwater flooding issues over the past few years, which were exacerbated by Hurricane Matthew and Hurricane Florence. Stormwater also impacts the Town's sewer system as infiltration and inflow of runoff that exceeds the stormwater conveyances, which causes treatment and capacity issues.

McGill successfully assisted the Town in obtaining Disaster Recovery funding through the Golden LEAF Foundation to assess the existing stormwater system and develop a holistic approach to flood mitigation. The results of this plan will be utilized to direct funds to areas that are identified as the highest priority.

For this project, our team:

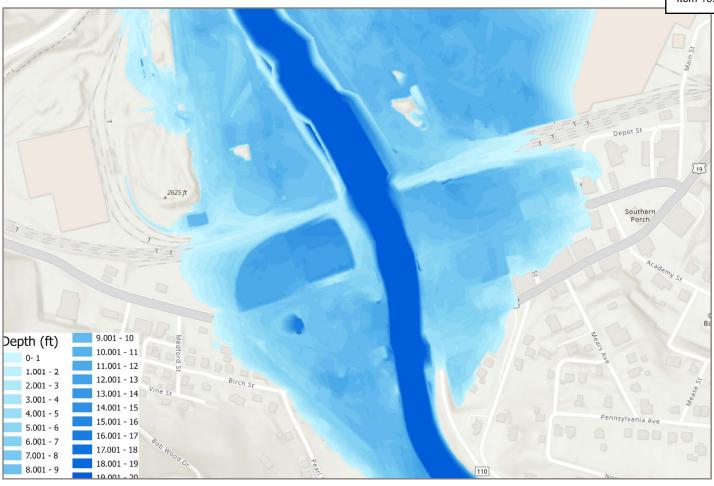
- Mapped the extent, condition, and material of the current system in place
- Assessed the conveyance capacity through hydraulic and hydraulic analysis
- Identified current and potential hotspot areas of widespread and nuisance flooding
- Evaluated alternatives and recommend solutions for each area
- Prepared a stormwater master plan document that included prioritizing the recommended solutions
- Provided a financial plan to identify various funding strategies for the implementation of the stormwater master plan

McGill's holistic approach will benefit — directly or indirectly — the 947 households and 120 businesses physically located in the St. Pauls community.

Project Highlights

- Holistic approach to alleviate flooding and manage Town stormwater
- Benefits households and businesses
- Stormwater master planning
- CIF
- Current system mapping
- Conveyance assessment
- Flooding area identification
- Alternatives evaluation
- Financial plan preparation

Date Completed



Upper Pigeon River Flood Risk Reduction Plan

Haywood Waterways Association, Inc., Haywood County

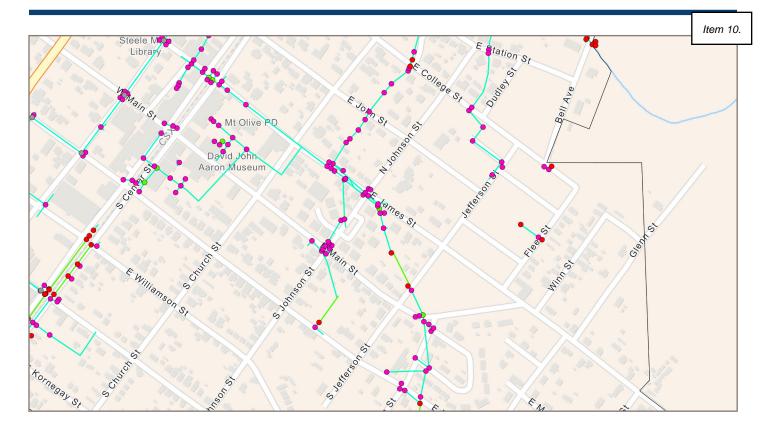
The goals of this project include preparing a hydraulic model that can serve as the foundation to explore opportunities to achieve greater flood resilience in Town of Canton, coordinating with the North Carolina State University Coastal Dynamics Design Lab (CDDL) and the American Flood Coalition (AFC) to identify collaborative projects that benefit the Town of Canton and the Pigeon River watershed, and producing a preliminary engineering report (PER) that documents alternatives, establishes a potential cost of implementation, and serves as the basis for pursuing future grant funding.

This project occurs in the Upper Pigeon River Watershed of Haywood County (subbasin HUC #06010106) in the French Broad River Basin. The study area includes land uses upstream of the Town of Clyde, including the Town of Canton, extensive rural residential and agricultural land uses, and the Pisgah National Forest. Riverine modeling simulates flood conditions occurring within the project area and helps identify alternative best management practices that reduce flooding and increase resiliency within the Town of Canton.

Project Highlights

- Hydraulic model preparation
- Flood risk reduction plan
- Goals to reduce flooding and increase resiliency
- Recommendations for phased Implementation of complimentary improvements
- Identified future study needs and project funding options

Date Completed



Stormwater Management Plan

Town of Mount Olive

This project includes an inventory and assessment of the existing stormwater system, plan for the MS4 state requirements, and complete hydrologic and hydraulic analysis of the system. The McGill team is making recommendations for improvements, considering funding options, and assembling the resulting recommendations into a master plan document for the Town's use. We are currently modeling this project.

Citywide Stormwater Modeling, Infrastructure Assessment, and Master Plan

City of Shelby

McGill is assisting with development of ARPA funding for stormwater projects for the City of Shelby for stormwater modeling, infrastructure assessment, and master planning project. We are collating readily available supporting data to develop a project narrative in support of the application. The data includes site location, maps, photographs, description of stormwater problems, benefits anticipated from the project, and a cost estimate for the project. Our team is also responsible for NCDEQ DWI application preparation. Currently, this project is in data processing for connectivity of the stormwater system before hydraulic and hydrologic modeling begins.

Project Highlights

- Stormwater master plan
- Existing stormwater AIA
- Hydrologic and hydraulic analysis
- McGill secured DWI LASII funding
- Grants management

Date Completed

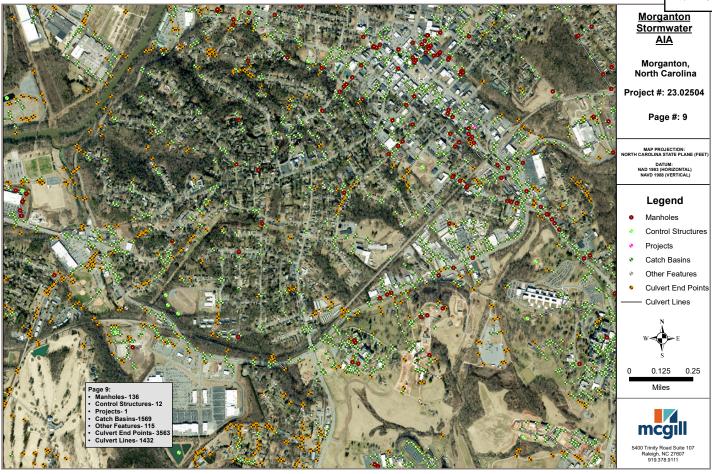
On-going

Project Highlights

- AIA
- Stormwater master plan
- Application preparation
- ARPA funding
- McGill secured DWI LASII funding
- Grants management

Date Completed

On-going



Stormwater AIA and Master Plan

City of Morganton

This project consists of obtaining and assessing the City of Morganton's existing stormwater GIS data, identifying data gaps, and performing field data collection to update the City's database. In addition to data collection, the project includes performing a conditions assessment of stormwater infrastructure within the focus areas and creating hydraulic and hydrologic modeling for specific flooding events. Updates to the City's GIS database, modeling results, and a stormwater-specific CIP will be included in a final master plan document presented to the City. This project is currently in data processing for connectivity of the stormwater system before hydraulic and hydrologic modeling begins.

Project Highlights

- Existing stormwater GIS data assessment
- Data gap identification
- Field data collection
- Stormwater infrastructure condition assessment
- Hydraulic and hydrologic modeling
- Funded by DWI LASII
- Grants management

Date Completed

On-going



Flood Recovery Support

Town of Canton

On August 17, 2021, the Town of Canton was severely impacted by flooding caused by Tropical Storm Fred, causing tremendous damage to municipal facilities, including the Rhoda Street culvert system, two sanitary pump stations, the Town's raw water intake pump station, Chestnut Mountain access bridge, various recreation facilities, fire station, town hall / police department, and the historic Colonial Theater. McGill assumed the responsibility for administering the floodplain development permitting program for the Town during the initial six-month recovery period and assisted coordination with FEMA to maximize the recovery and mitigation funding for the Town.

As the Town transitions from response to recovery, McGill prepared a flood recovery plan for the community to assist in defining the vision of the Town in building towards a stronger and more resilient future and position them for competitive grant applications in state and federal grant programs. McGill's team brought years of experience with disaster recovery for recent events in Texas, Florida, Puerto Rico, and New York to the town to make its third flood recovery experience in past 17 years more successful by reducing future risk to critical infrastructure and community services.

Project Highlights

- Flood recovery support
- Recovery and resiliency plan
- Review and issuance of floodplain
- FEMA assistance
- Floodplain development permitting program administration
- Construction management

Date Completed

On-going

O3 | Project Approach

Project Understanding

We understand that the City of Bessemer City was approved for a Local Assistance for Stormwater Infrastructure Investments (LASII) grant in March 2024, and is seeking professional engineering and consulting services to develop a master plan for the City's stormwater infrastructure system.

The City has been experiencing widespread flooding complaints caused by rainfall / runoff within the City's watersheds. The City lacks a planned proactive repair and maintenance plan due to the absence of information on the extent and condition of the existing stormwater system.

We will complete an inventory and assessment of the existing system, a comprehensive evaluation of the capacity of the existing system, identifying solutions to solve current problems, and developing a master plan to guide the City decisions to accommodate future repairs / maintenance / retrofits. The masterplan includes developing a capital improvement plan (CIP) to provide the City a better approach for use of funds from the existing stormwater utility fee.

Project Approach

Based on this understanding, we anticipate the following steps for completing a Stormwater AIA and development of a CIP Master Plan:

- Examining of existing mapping data
- Completing of a system inventory with data collection using GPS equipment and updated attribute fields including system size, material, and condition
- Establishing hydraulic and hydrologic modeling of the conveyance system
- Identifying current and potential problem areas
- Evaluating alternatives and recommending solutions for each area
- Public meetings and engagement

 Preparing a CIP Master Plan document, including prioritized recommended improvements and a costbenefit analysis of proposed projects

Review and Update Inventory of Existing Stormwater Infrastructure

Following a thorough review of the City's existing mapping data to determine extent, accuracy, and efficacy, McGill will complete a stormwater infrastructure inventory that will be mapped and cataloged in a GIS database. We view the creation and management of this information as a key element of our work effort and a crucial component in the long-term effectiveness of the City's stormwater planning and programming. Our team will be heavily involved with City staff in the review of existing data, and further planning, acquisition, processing, analysis, and dissemination of geospatial data to ensure that the consistency, integrity, and overall quality of the data is maintained throughout the data life-cycle and duration of the project.

Data Collection

The field collection of system data can be one of the more costly aspects of any stormwater assessment and management program. We have developed two distinct levels of inventory data collection, allowing the City to customize the project scope to fit its budgetary and program needs.

- 1. The first, and most cost-effective, data collection technique involves collecting field data with consumer-level mapping grade equipment, in lieu of survey-grade equipment. We have developed project-specific workflows for similar projects that allow us to use handheld tablets with integrated, sub-meter GPS capability (EOS Arrow 100 units) to facilitate fast and efficient data collection, giving field personnel the ability to collect data in true geodatabase format.
- 2. A second alternative available to the City is to collect location data of the stormwater infrastructure through traditional surveying techniques. Reserving the use of survey-grade data collection for use in targeted problem areas can reduce study costs, while still achieving the project goals. By providing the City with options to customize the data collection process to

fit its needs, we can provide a study that is tailored to address your specific needs, while leveraging limited budgets towards project implementation.

3. Another opportunity during the mapping exercise is to utilize the GIS platform to understand more about growth dynamics in your community and how they may be contributing to stormwater pollution. The RFQ noted that many of these stormwater repairs have been in or near the Central Business District, which is the older part of town, in the watershed of Hunting Creek and which is an impaired stream. Mapping current and future zoning along with recent developments inside and outside the City over top pf the drainage network may provide important growth planning insights to target reductions on stormwater pollution and recovery of impaired watersheds.

Mapping

In either case, we propose to use the industry-standard GIS platform, Environmental Systems Research Institute, Inc. (Esri) ArcGIS software to create and modify databases and analyze the field data to ensure the required accuracy is met. Our key technical team members are proficient in GIS.

While mapping the City's stormwater infrastructure, our staff will conduct a visual inspection of each stormwater feature. We will evaluate any piping, inlets, headwalls, or other structures — including open channels and swales within the study area — for a general condition assessment, with detailed data recorded for the type of component, size, configuration, material, approximate utilization age, condition, and apparent functionality.

Areas of piping concern identified by the mapping assessment crew, or as identified by City staff, will be included on a prioritized list of segments considered for further evaluation using CCTV (video inspection). McGill maintains relationships with numerous specialized companies that can provide not only video inspection services, but can also provide more high-tech methodologies, such as acoustic or laser analyses of pipe conditions. McGill has extensive experience reviewing the data gathered during these detailed surveys. We will provide the City with a detailed analysis of any video or other detailed data gathered during the project. Major drainage channels or pipes and areas of specific concern for the City will be surveyed for accurate hydrologic and hydraulic modeling and capacity analysis.

Assessing the Conveyance Capacity

McGill will perform a capacity analysis on the stormwater system through both hydrologic and hydraulic modeling. These modeling results will be used to approximate the existing hydrology and hydraulic conditions within the City. The results will allow the City to validate known problems or deficiencies in existing stormwater systems and identify the extent of risk these deficiencies present.

Hydrologic and Hydraulic Modeling

We will analyze current conditions using the most appropriate hydraulic model for the situation. McGill engineers are well-versed in several hydrologic and hydraulic software packages, including StormCAD, SWMM, Hydroflow, and the United States Army Corps of Engineers' (USACE) HEC-HMS and HEC-RAS models.



We recommend dynamically modeling the stormwater conveyance to account for peak intensities and duration of rainfall events. One such example includes coupling HEC-HMS output hydrographs (hydrology) with an unsteady HEC- RAS model (hydraulics) or a dynamic rainfall-runoff simulation model, such as SWMM.

McGill can also use available information from public agencies (e.g., LiDAR, land cover, soil) to develop a City-specific hydrologic model, detailed, as needed, to capture critical stormwater areas. We will utilize SCS methodologies to determine curve numbers (CNs), time of concentrations (TOCs), and flow patterns. McGill will use aerial photos, soil maps, and zoning areas to determine the appropriate current and potential runoff parameters.

Our team will use the results from the field inventory to create a hydraulic analysis of the stormwater system and compare the hydraulic results to known information. For example, a major storm event can be simulated, and the model refined to mimic conditions in the field. Then, another storm will be simulated to validate the model. The model validation storms will be selected based on the desired level of services (i.e., storm intensity) and availability of data for use in the calibration.

Identifying Current and Future Areas of Concern

Once the model development is complete, we will simulate various design storm events to identify areas that do not meet the desired level of service. These will further be identified as Areas of Concern (AOC). For each AOC, we will evaluate the current level of service provided by the existing drainage system, impacted structures, potential for road closures, and limitations to emergency response. The potential for significant service impacts in each identified AOC will influence an assigned criticality rating to be used in future programming efforts.

A summary will be provided for each AOC and a target level of service will be set, in coordination with the City, for the development of remedial alternatives.

Alternatives Evaluation

Using the results of the hydrologic and hydraulic modeling, McGill will prepare conceptual solutions to address the problems in the AOCs. These solutions will include not only the standard options, such as replacing, repairing, and extending pipes, culverts, channels, and conveyances to move the runoff downstream faster,

enhancement, and stabilization; and stormwater management techniques that focus on maintaining the water balance and slowing down the runoff rate. All concepts will include water quantity and water quality options that holistically address stormwater.

Our team will work with the City to evaluate different methodologies and will develop an evaluation or decision- making tool that is fair, objective, and defensible.

The proposed alternatives will be technically feasible, reliable, maintainable, environmentally acceptable, economically viable, and financially feasible (i.e., suitable for future capital improvement funding locally and through grant supported efforts). An alternative ranking matrix (example provided) will be developed in collaboration with the City to objectively evaluate and compare the alternatives, including an opinion of probable construction cost.

We noted earlier that GIS mapping can be an important growth planning tool. As such the City may benefit from including some efforts in the Stormwater Master Plan to determine changes in current ordinances to proactively implement higher stormwater standards or other growth management strategies within impaired watersheds to target reductions in stormwater pollution and support the recovery of impaired waters.

CIP Master Plan

During development of the City's Stormwater CIP Master Plan, McGill will provide recommendations for phased implementation of improvements, based on priority, to be used for planning and budgeting purposes. The implementation will account for interdependency between projects in the prioritization (e.g., if Project B is dependent on Project A, Project A will take precedence). McGill proposes to meet with the City to review all conceptual options and select preferred solutions to include in the improvements plan. We will create an analysis process to support the prioritization of conceptual improvements, based on priorities identified by the City. Recommendations will also assist the City is understanding how to develop future budgets that include capital improvements and operation and maintenance as well as staff positions needed to support

a long-term stormwater program.

McGill's final deliverables for this project will include a stormwater CIP master plan containing a summary of all the tasks performed for this project, detailed data and results tables, digital copies of system inventory and assessment findings with supporting GIS and modeling data, as well as a remediation plan on a prioritized implementation timeline. The plan will also include implementation costs and schedules for the prioritized stormwater improvement projects to assist the City in CIP. Ultimately, this tool will aid the City in programming for stormwater infrastructure improvement projects and applicable MS4 permitting requirements.

Funding Options

McGill brings hundreds of thousands of dollars to North Carolina communities each year in the form of grant support. Our staff has extensive grant acquisition and management experience. Members of this project team are currently leading the effort on the TS Fred Recovery and Grant Assistance project for Town of Canton and assisting with the EWP / StRAP grant management project for Haywood County. McGill secured over \$1.1M in ARPA funding for stormwater studies in six North Carolina communities from the 2022 funding round. This source of funding may provide opportunities for project implementation in future years. Additionally, we will work with the City to explore other potential sources of stormwater funding. McGill has successfully secured funding with a wide array of state and federal grant agencies including, USDA, EPA, EDA, CDBG / HUD, FEMA, NRCS, DOD, NCORR, NCAg, NC DWI and CWMTF.

Project Management Approach

McGill has many years of collective experience and a lengthy record of accurate project scheduling, effective cost control, quality work, and innovative design capabilities. We consistently plan and design projects within the client's budget and schedule. Our internal procedures were established 40 years ago and have been evolving ever since to allow for successful development of project schedules and milestones. The actual project duration may be subject to change due to regulatory permitting review and approvals, as well as desired material procurement method.

For this project, we understand the City wants McGill to complete all preliminary paperwork and necessary supporting documentation needed to submit for reimbursements to Division of Water Infrastructure. Our finance and project management staff have direct experience in using Deltek Vision software to establish and track projects to support the reporting metrics required by DWI. We will coordinate with the City at the start of the project to set up this tracking process to facilitate a regular reimbursement schedule.



04 | Project Schedule

Proposed Schedule												
Month	1	2	3	4	5	6	7	8	9	10	11	12
Task			3	4	3	0	/	0	9	10	11	IZ
Regular meeting with City staff	•		♦		•		•		♦		•	
City of Bessemer City document review												
Stormwater inventory and assessment												
Stormwater modeling												
Public engagement strategy development												
Alternatives analysis and cost estimates												
SWMP development												
Draft SWMP development												
Final SWMP submittal												
City Council presentation												•

05 | Billing Rates

McGill's Hourly Rates

Professional Fees	1	II	III	IV
Senior Principal	\$300			
Principal – Regional Manager – Director	\$245	\$255	\$280	\$290
Practice Area Leader	\$220	\$240	\$270	\$280
Senior Project Manager	\$220	\$235	\$260	\$270
Senior Engineer	\$220	\$235	\$260	\$270
Project Manager	\$190	\$205	\$ 210	\$ 215
Senior Project Engineer	\$190	\$205	\$ 210	\$ 215
Project Engineer	\$155	\$ 165	\$ 175	\$185
Engineering Associate	\$ 135	\$140	\$145	\$150
Planner – Consultant – Designer	\$140	\$150	\$ 175	\$190
Engineering Technician	\$120	\$ 135	\$140	\$150
CAD Operator – GIS Analyst	\$100	\$ 110	\$120	\$ 130
Construction Services Manager	\$ 155	\$ 165	\$180	\$200
Construction Administrator	\$130	\$145	\$ 155	\$165
Financial Services Manager	\$140	\$150	\$160	\$ 170
Grant Administrator	\$125	\$140	\$150	\$160
Construction Field Representatives	\$105	\$ 115	\$ 125	\$140
Environmental Specialist	\$105	\$ 115	\$120	\$ 125
Administrative Assistant	\$ 85	\$ 90	\$100	\$ 115
Survey Party Chief	\$100	\$ 115	\$130	\$150
Survey Field Technician	\$ 85	\$ 90	\$ 95	\$100

Expenses

- Mileage \$0.70/mile
- Flow Monitoring Equipment:
 - Pressure Flow Meter \$400/week
 - Gravity Flow Meter \$1,000/deployment
- Robotics / GPS Equipment: \$30/hour
- Telephone, reproduction, postage, lodging, and other incidentals shall be a direct charge per receipt.

Associated Services

Associated services required by the project such as soil analysis, materials testing, etc., shall be at cost plus ten (10) percent.





McGill Associates, PA

1240 19th Street Lane NW, Hickory, NC 28601 828.328.2024 | mcgillassociates.com



RESOLUTION BY GOVERNING BODY TO COMPLETE APPLICATION FOR EMERGING CONTAIMINANTS STUDY

WHEREAS, That the City of Bessemer City has need for and intends to conduct a study in a project described as the Emerging Contaminants Study, and

WHEREAS, That Bessemer City intends to request State loan and/or grant assistance for the project.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF BESSEMER CITY:

That Bessemer City, the Applicant, will arrange financing for all remaining costs of the project, if approved for a State loan and/or grant award.

That the Applicant will provide for efficient operation and maintenance of the project on completion of construction thereof.

That the Applicant will adopt and place into effect on or before completion of the project a schedule of fees and charges and other available funds which will provide adequate funds for proper operation, maintenance, and administration of the system and the repayment of all principal and interest on the debt.

That the governing body of the Applicant agrees to include in the loan agreement a provision authorizing the State Treasurer, upon failure of Bessemer City to make a scheduled repayment of the loan, to withhold from Bessemer City any State funds that would otherwise be distributed to the local government unit in an amount sufficient to pay all sums then due and payable to the State as a repayment of the loan.

That Joshua M. Ross, MPA, City Manager, the Authorized Representative and successors so titled, is hereby authorized to execute and file an application on behalf of the Applicant with the State of North Carolina for a loan and/or grant to aid in the study of or construction of the project described above.

That the Authorized Representative, and successors so titled, is hereby authorized and directed to furnish such information as the appropriate State agency may request in connection with such application or the project: to make the assurances as contained above; and to execute such other documents as may be required in connection with the application.

That the Applicant has substantially complied or will substantially comply with all Federal, State, and local laws, rules, regulations, ordinances, and funding conditions applicable to the project and to Federal and State grants and loans pertaining thereto.

Adopted this the 14th of October, 2024	, at 132 W. Virginia Ave., l	Bessemer City, North Carolina
Becky S. Smith, Mayor		

FORM FOR CERTIFICATION BY THE RECORDING OFFICER

The undersigned duly qualified and acting City Clerk of the Bessemer City does hereby certify: That the above/attached resolution is a true and correct copy of the resolution authorizing the filing of an application with the State of North Carolina, as regularly adopted at a legally convened meeting of the City Council duly held on the 14th day of October, 2024; and, further, that such resolution has been fully recorded in the journal of proceedings and records in my office. IN WITNESS WHEREOF, I have hereunto set my hand this ______ day of October, 2024.

(Signature of Recording Officer)
City Clerk
(Title of Recording Officer)

Note: an Attestation by the Clerk/Recording Officer may be used in lieu of the Form for Certification by the Recording Officer.



RESOLUTION MODIFICATION TO SYSTEM DEVELOPMENT FEES FOR TRYON COMMUNITY WATER LINE CUSTOMERS- INCENTIVE

WHEREAS, Gaston County received funding from the Coronavirus State and Local Fiscal Recovery Funds as part of the American Rescue Plan Act (ARPA); and

WHEREAS, \$13,000,000 of said funding will go towards the construction of a new waterline from Bessemer City to the Tryon Community, including Tryon Elementary and Tryon Park; and

WHEREAS, the City of Bessemer City will provide treated water to customers along this waterline route and take ownership and maintenance of the infrastructure after construction; and

WHEREAS, it is in the City's best interest to serve as many customers as possible along this route; and

WHEREAS, the City desires to incentivize new customers along the Tryon Waterline Project Area by providing an incentive to relinquish system development fees for a set period of time to encourage new customer connection.

NOW, THEREFORE BE IT RESOLVED by the City Council of Bessemer City that:

That City Manager Joshua M. Ross, and successors so titled, is hereby authorized to permit a forty-five (45) day relinquishment period of system development fees for new customers along the Tryon Waterline Project Area. After this period passes, system development fees will be required to be paid by new customers in this Project Area. The City Manager shall advertise and communicate this relinquishment period on the City's website. This incentive is designed to encourage new customer connection along the new waterline to the Tryon Community.

Becky S. Smith, Mayor	
(Attest)	Hydeia Y. Haves, City Clerk

Adopted this the 14th day of October 2024.

BUDGET AMENDMENT 2024-2025

October 14, 2024

BE IT ORDAINED by the governing body of the City of Bessemer City that the following amendments be made to the annual budget ordinance for the fiscal year ending June 30, 2025.

Section 1. To amend the Accelerator Project Fund, the appropriations are to be changed as follows:

Funa 670					
Dept Number	Description	Increase	Decrease	Debit	Credit
670-00-9810-670	General Fund Reimbursement	\$ 29,7	762		
This will result in no in	crease in appropriations for the Accelerator	Project Fund.			
Dept Number	Description	Increase	Decrease	Debit	Credit
670-00-9810-670	Captial Outlay/Admin	\$	29762	2	
	s of this budget amendment shall be furr Finance Officer.	nished to the Clerk, (Governing Board, I	Budget Officer	
	Adopted by Council, this d	ay of	202	5.	
			Becky S. Sm	nith, Mayor	
Attest:					
Hydeia Y. Hayes, C	Clerk				

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BUDGET AMENDMENT 2024-2025

October 14, 2024

BE IT ORDAINED by the governing body of the City of Bessemer City that the following amendments be made to the annual budget ordinance for the fiscal year ending June 30, 2025.

Section 1. To amend the General Fund, the appropriations are to be changed as follows:

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Fun	ď	1	00

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Dept Number	Description	Increas	e Decrease	Debit	Credit
100-00-4120-290	Supplies for Accelerator Prior Year	\$	29,762		

This will result in a net increase in appropriations for the General Fund.

To provide for the increase, the General Fund Revenue Account will be increased.

Dept Number	Description	Inci	rease	Decrease	Debit	Credit
100-00-3988-670	Reimbursement From Fund 670	\$	29,762.00			
		\$	29,762.00			
•	es of this budget amendment shall be furnis Finance Officer.	hed to t	ne Clerk, Gov	erning Board, B	udget Officer	
	Adopted by Council, this day	of		2025	5.	
				Becky S. Sm	ith, Mayor	
Attest:						
Hydeia Y. Hayes,	Clerk					

BUDGET AMENDMENT 2024-2025

October 14, 2024

BE IT ORDAINED by the governing body of the City of Bessemer City that the following amendments be made to the annual budget ordinance for the fiscal year ending June 30, 2025.

Increase

Decrease

Debit

Credit

Section 1. To amend the CDBG Project Fund, the appropriations are to be changed as follows:

580-00-5820-199	Administration	\$	7,666		
	increase in appropriations for the CD ease, the CDBG Project Fund Revenue	•	ed.		
Dept Number	Description	Increase	Decrease	Debit	Credit
580-00-3988-580	Transfer From GF	\$ 7.	,666.00		
		\$ 7	7,666.00		

Section 2. Copies of this budget amendment shall be furnished to the Clerk, Governing Board, Budget Officer and the Finance Officer.

Adopted by Council, this ______ day of _______ 2025.

Becky S. Smith, Mayor

Attest:

Hydeia Y. Hayes, Clerk

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Description

Fund 580 Dept Number

BUDGET AMENDMENT 2024-2025

October 14, 2024

BE IT ORDAINED by the governing body of the City of Bessemer City that the following amendments be made to the annual budget ordinance for the fiscal year ending June 30, 2025.

Section 1. To amend the General Fund, the appropriations are to be changed as follows:

Fund 100				
Dept Number	Description	Increase	Decrease	

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Dept Number	Description	Increase		Decrease	Debit	Credit
100-00-9840-480	Transfer to CDBG	\$	7,666			
This is the second of the second						
	increase in appropriations of \$7,666 for the Gease, the following General Fund Revenue Acc		creased			
To provide for the men	case, the following deficial rand nevertae Acc	ount will be in	cicasca.			
	D 1.4	_		_	5.11	a
Dept Number 100-00-3839-890	Description Miscellaneous Revenue	# Increase		Decrease	Debit	Credit
100-00-3839-890	Miscenaneous Revenue		7,666.00 7,666.00			
		Ψ	7,000.00			
Section 2. Copie	s of this budget amendment shall be furni	shed to the C	lerk, Gov	erning Board, I	Budget Officer	
	Finance Officer.					
	Adopted by Council this do	u of		202	5	
	Adopted by Council, this day	y 01		202	J.	
				Becky S. Sm	ith, Mayor	
.						
Attest:						
Hydeia Y. Hayes, C	N1 1					