PROPOSED AGENDA

Meeting of the Town of Biltmore Forest Board of Commissioners

To be held Tuesday, May 9, 2023 at 4:30 p.m.

- A. Pledge of Allegiance
- B. Roll Call

Mayor George F. Goosmann, III Commissioner Fran G. Cogburn Commissioner E. Glenn Kelly Commissioner Doris P. Loomis

- C. The minutes of the April 11, 2023 meeting will be presented for approval.
- D. Reports of Officers
 - 1. Chief of Skyland Fire and Rescue
 - 2. Chief of Police Chris Beddingfield
 - 3. Public Works Director Harry Buckner
 - 4. Town Manager Jonathan Kanipe
- E. Presentation Mr. Steve Allan, Solutions for Local Government Space Needs Study for Major Town Facilities
- F. New Business
 - 1. Consideration of Tax Penalty Waiver 14 Amherst Road
 - 2. Consideration of FY23 Audit Contract with Carter P.C.
 - 3. Consideration of FY23 Budget Ordinance Amendment
 - 4. Review Zoning Ordinance Amendment Recommendations
 - Ch. 153.043 Maximum Roof Coverage Ordinance
 - Ch. 153.048 Impervious Surface Coverage Ordinance
 - Ch. 153.071 Recreational and Commercial Vehicle Storage
 - 5. Project Update Cedar Hill Road Stabilization & Stream Restoration
 - 6. Fiscal Year 2024 Budget Presentation
- G. Public Comment
- H. Adjourn

For those interested in viewing the Board meeting remotely, please utilize the following information: https://us02web.zoom.us/j/82228455470?pwd=SG9WU0FwUlFSdGZveS95b3pLTUlHdz09

Meeting ID: 822 2845 5470 Passcode: 966757

MINUTES OF THE MEETING OF THE MAYOR AND THE TOWN COMMISSIONERS OF BILTMORE FOREST HELD APRIL 11, 2023

Be it remembered by those that follow these proceedings that the Governing Board of the Town of Biltmore Forest met and conducted the following business:

Roll call taken by the Clerk:

Mayor George F. Goosmann, III, present Commissioner Doris P. Loomis, present Commissioner E. Glenn Kelly, present Commissioner Fran Cogburn, present

Mr. Jonathan Kanipe, the Town Manager, and Mr. William Clarke, the Town Attorney, were also present.

Mayor Goosmann called the meeting to order at 4:30 pm.

The Pledge of Allegiance was conducted.

Commissioner Cogburn made a motion to approve the minutes from March 14, 2023. Commissioner Loomis seconded the motion. The motion was unanimously approved.

Assistant Chief Zack Cicillian gave the report for the Skyland Fire Department. There were a total of 27 calls for service for the month. Mr. Cicillian emphasized the importance of using fire extinguishers and keeping them in your house.

Chief Chris Beddingfield gave the report for the Police Department. There were zero arrests this month. The Police Department had their first faculty lock down drill at Carolina Day School last week and several more will be scheduled in the months coming up. There have been a multitude of trees down that have caused a lot of work keeping the roads open. Chief Beddingfield said it is National Telecommunicators Week and often they are overlooked. They are an integral

part of the operation of the Police Department and all of them do a great job. Commissioner Kelly asked Chief Beddingfield what a faculty lockdown drill is. Chief Beddingfield said anytime there is an active shooter event or violent event on the school grounds, the staff will go into lockdown mode and everyone will shelter in place and lock everything down. They will go through the motions of dealing with the active shooter event or whatever the emergency is. The Police Department wanted to get the staff involved first before the student body. Commissioner Kelly asked when the children will be involved. Chief Beddingfield responded and said the children will participate in the drill after summer break in August.

Mr. Harry Buckner gave the report for the Public Works Department. Mr. Buckner said one of the Public Works employees is out for several weeks due to a workplace injury. This employee may be out six weeks or longer, but he is on his way to recovering. The Public Water Supply Plan was submitted to the State of North Carolina and is being reviewed. There has been an increase of water usage this year. We use about 150,000 gallons of water per day as a Town on average. In the peak of the summer in July, the Town uses about 250,000 gallons per day.

Mr. Buckner discussed the maintenance of Greenwood Park. Public Works staff mowed the park and did some maintenance around the creek area.

Mr. Drew Stephens asked about details about irrigation lines. Mr. Buckner said a resident can request to have an irrigation line installed at their house for outside watering. This is not connected to the sewer system so there is no sewer fee.

Commissioner Loomis asked about the repairing of the curbing around the triangles in Town. Mr. Buckner said this is something that will be repaired soon, and they will hire a contractor to fix these issues.

Commissioner Kelly asked Mr. Buckner for a further explanation of the 12% water loss for the Town. Mr. Buckner said this is where water is flushed through hydrants, small leaks, and leaks that occur on the Town's side of the meter that aren't captured.

Mr. Jonathan Kanipe gave the monthly report for the Town. Mr. Kanipe discussed the meeting with the City of Asheville which included Mayor Goosmann, Mr. Buckner, Chief Beddingfield and Mr. Kanipe who met with Asheville City officials. The City officials apologized for the outage and impact, which included the lack of communication during this outage. Town

staff explained how our system works relative to Asheville's system and relayed some of the conversations and experiences we had during this outage. City officials were very understanding, and the conversation was a positive experience.

In addition to the water outage, the Town staff also discussed Hendersonville Road traffic safety with Chief Zack from the City of Asheville. Chief Zack indicated their desire to utilize new speed trailers on Hendersonville Road. The Police Department has already placed one of our radar signs on Hendersonville Road at the Busbee intersection, which should improve the situation. Mr. Kanipe has spoken with the North Carolina Department of Transportation regarding a speed limit reduction and additional safety reviews and will continue pushing this process from the Town's perspective.

The Town Planner position has been filled and we have an excellent candidate who will fill this position starting May 8th. Mr. Kanipe thanked Mr. Clarke, Mr. Buckner, Mr. Dale, and Ms. Jacobs for assisting with the interview process.

Mr. Steve Allan will speak at the May meeting regarding the presentation of the space needs project.

Ms. Levonia Reese from Carter P.C. conducted the FY22 audit presentation. There was a budget violation of \$1,500 which was a formula error. There was no disagreement with staff or management. Nearly all the journal entries posted were GASB adjustments, but they are all typical routine entries.

Ms. Reese said there is also a new audit standard. The audit report is much longer and changed the report around. The Local Government Commission also issued a letter called the Financial Performance Indicators of Concern which was due to the late audit. An audit is considered late if it is issued after December 1st. The reason it was issued late is due to the NC ORBIT retirement system. There were numerous clients throughout the State that had reporting issues with the NC ORBIT system. There was an unmodified audit opinion. The total assets increased nearly \$1,000,000. The total liabilities increased almost \$600,000. The pension related liabilities also increased by \$300,000. Net position increased about \$515,000 for a total of \$6,700,000 and \$5,400,000 of that is investments and capital assets. The total revenues increased about \$500,000. The expenses increased by \$415,000. In the general fund, the actual revenues

were about \$400,000 more. The General Fund balance was \$4,200,000. The water fund increased about \$42,000. The expenses increased by \$100,000. The net position decreased \$150,000. The ending fund balance was \$2,300,000.

A motion was made by Commissioner Loomis to go into Public Hearing. Commissioner Cogburn seconded the motion. The motion was unanimously approved and the Board went into Public Hearing at 5:00pm.

The ZTA 2023-01 Ordinance to amend the Town of Biltmore Forest Zoning Ordinance was discussed. The updated draft was shown to the Board specifying the charging station will still be screened if visible. Ms. Martha Barnes asked if this is retroactive. Mr. Clarke said when the ordinance was written, it would apply.

A motion was made at 5:06pm by Commissioner Cogburn to leave the Public Hearing. Commissioner Kelly seconded the motion. The motion was unanimously approved.

Consideration of Ordinance 2023-03 an Ordinance to Amend the Town of Biltmore Forest Zoning Ordinance. The Planning Commission has provided a favorable recommendation to the Board of Commissioners regarding a new zoning ordinance regulation on electric vehicle (EV) charging stations. The Planning Commission's draft ordinance adds a new section to existing Zoning Ordinance regulations governing residential screening of utility structures. These utility structures are generally considered pieces of utility equipment (HVAC, generators) associated with the operation of a residence. The draft ordinance strongly recommends placement of EV charging stations within garages or buildings, but when not possible, this ordinance provides specific regulations on the installation of a charging station outside.

Because this amendment falls within the Zoning Ordinance, the Board of Commissioners are required to hold a public hearing. This public hearing was published in the Asheville *Citizen-Times* on Wednesday, March 29 and Wednesday, April 5. These publication dates fall within the state law governing land use public notice requirements.

Commissioner Loomis made a motion to approve the ZTA 2023-01 Ordinance to amend the Town of Biltmore Forest Zoning Ordinance, Commissioner Kelly seconded the motion. The motion was unanimously approved.

Consideration of Tax Penalty Waiver at 15 Hilltop Road. Ms. Krystal Curtis said the homeowners at this residence requested to waive interest for their 2022 tax bill. This person is disputing the fact they did not have notice. The interest amount due is \$316.25. They have paid the actual principal in full. In this case, there were discrepancies between the County's records and an additional room listed on an MLS listing, although it was additional closet space and not a bedroom. The County reviewed the MLS listing and made a value adjustment that created a discovery bill, legally, for the current year plus the previous 5 years per the statute of immaterial irregularity. Per G.S. §105-360, interest must accrue from the initial due date forward for each subsequent month until the notice is paid in full, so interest has accrued on this account since January 6, 2018. The property owner at 15 Hilltop requests the waiver of penalties and interest per G.S. §105-348, which states that a tax "notice shall be conclusively presumed, whether or not such persons have actual notice". The property owner had no presumption, as this was a discovery bill for adding a closet to the home and adding unforeseen value. The discovery bills have been paid for the value assessed, but the interest has not been paid and the owner is requesting the interest and penalties to be waived.

A motion was made by Commissioner Kelly and seconded by Commissioner Cogburn. The motion to waive the tax penalty was approved unanimously.

The Town road striping proposal was discussed. Mr. Buckner said there was a desire to improve the marquees on the road starting at Hendersonville Road and moving more internally toward the Town. The Town staff has created an implementation program for the Board to review. This will result in striping many roads throughout Town within the next five years. This will cost roughly four dollars per square foot. Mr. Buckner provided a proposal that corresponds with the street map layout of where striping will occur. This decision will enable Town staff to budget for

next budget year. Ms. Barnes suggested Valley Springs Road be striped. Valley Springs has the volume and the access and she prefers not to have the striping wait until 2027.

Mr. Drew Stephens suggested striping the sides first, painting them white, and following through with the yellow later. This will be further discussed at next month's meeting with the Budget presentation.

The park restroom implementation follow-up was discussed for Greenwood Park. Mr. Kanipe reached out to other local governments and said the most feasible option would be put in the center of the park on the North side of the creek. Cost wise, they are trying to figure out if the sewer would be gravity fed. Mayor Goosmann said he spoke to a few local residents near the park and they do not want bathrooms in the park. Commissioner Kelly would like to see the proposal for Rosebank Park and not Greenwood Park. Mr. Kanipe said they will hold off on this for now.

Consideration of Planning Commission appointment was discussed. Nine applications were received and Mayor Goosmann and Mr. Paul Zimmerman met with one of the candidates, Diane Fourton. Mayor Goosmann said Ms. Fourton is very capable and would be a good candidate.

A motion was made by Commissioner Cogburn to approve the appointment of Ms. Diane Fourton. Commissioner Loomis seconded the motion. The motion was unanimously approved.

The last matter discussed is a request for new driveway construction to Vanderbilt Road with Angela and Todd Newnam of 394 Vanderbilt Road along with Kent and Kathy Davis of 394-A Vanderbilt Road. They have been notified by Buncombe County E911 they are not in compliance. A site drawing showed where the new drive would be located. The Town's Code of Ordinance requires approval from the Boar for private driveways not associated with the Board of Adjustment review. Commissioner Loomis made a motion to approve the driveway, Commissioner Kelly seconded the motion. The motion was approved unanimously.

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No public comment

	The meeting v	was adjourned a	t 5:39 pm.	The next	meeting is	scheduled for	Tuesday,	May
9, 2023	at 4:30 pm.							

ATTEST:	
Laura Jacobs	George F. Goosmann, III
Town Clerk	Mayor



Skyland Fire & Rescue Biltmore Forest Valley Springs Station



Phone: (828) 684-6421 Address: PO Box 640 Skyland NC 28776 Fax (828) 684-1010 www.skylandfire.com

Biltmore Forest Valley Springs Station

Incident Response

April 2023

Station: 4 - BILTMORE FOREST STATION	
100 - Fire, other	1
311 - Medical assist, assist EMS crew	6
321 - EMS call, excluding vehicle accident with injury	2
324 - Motor vehicle accident with no injuries.	1
554 - Assist invalid	4
571 - Cover assignment, standby, moveup	1
611 - Dispatched & cancelled en route	1
622 - No incident found on arrival at dispatch address	1
700 - False alarm or false call, other	1
735 - Alarm system sounded due to malfunction	4
736 - CO detector activation due to malfunction	1
745 - Alarm system activation, no fire - unintentional	1
800 - Severe weather or natural disaster, other	1
813 - Wind storm, tornado/hurricane assessment	2

Incidents for 4 - Biltmore Forest Station:

Respectfully Submitted,

27

Chief Trevor Lance Skyland Fire Rescue

Trevor Lance

Biltmore Forest Police 355 Vanderbilt Road Biltmore Forest, NC 28803 828-274-0822 Chief M. Chris Beddingfield



George F. Goosmann, III, Mayor Doris P Loomis, Mayor-Pro Tem E. Glenn Kelly, Commissioner Fran Cogburn, Commissioner Jonathan Kanipe, Town Manager

Biltmore Forest Police Department May 9th, 2023 Commission Report

April 2023 Data

Total Calls For Service:

581 (555 last month)

Arrests:

- 1-Felony Arrest-Felony Fleeing to Elude and various traffic charges from a pursuit.
- 1-Misdemeanor Arrest-Failure to Appear on DWI, from a motor vehicle checkpoint.

Citations:

23-Citations for various traffic violations (7 last month)

Time Consumption Summary:

Approximations:

Business Checks- 4 hours

House Checks- 4 hours

Radar Operation- 3 hour

Vehicle Crash Investigation- 2 hours

Notable Calls and Projects:

We have been getting positive feedback on our speed sign and new DOT signage on Hendersonville Rd. Due to the heavy traffic volume it puts a heavy drain on the batteries. We have ordered a solar powered sign to be utilized in that area.

We had one vehicle pursuit this month, vehicle traveling over 90 mph on Hendersonville Rd. Suspect hit a fire hydrant at Long Shoals Road ending the pursuit. No injuries or other damage and the subject was arrested without incident.

Conducted yearly firearms qualification. Officers fired 2000 rounds of 9mm handgun ammunition, 1000 rounds of 5.56 rifle ammunition, and 400 rounds of shotgun ammunition. Officers go through various qualification courses for marksmanship and scenario-based situations over three different days during the month.

Biltmore Forest Police Department 355 Vanderbilt Rd

Biltmore Forest, NC 28803

April 2023 Calls for Service

ORE FOREST POLICE DEPARTMENT	Count	Percer
ALARM	20	3.44
ANIMAL CONTROL	5	0.86
ASSIST MOTORIST	7	1.20
ASSIST OTHER AGENCY	10	1.72
ASSIST RESIDENT	7	1.20
BUSINESS CHECK	219	37.69
CHASE	1	0.17
CHECK POINT	1	0.17
CRIME PREVENTION	7	1.20
DEATH INVESTIGATION	1	0.17
DEBRIS IN ROADWAY	2	0.34
DEPARTMENT OTHER	3	0.52
DISTURBANCE	1	0.17
DOWN POWER LINES	1	0.17
FIRE	3	0.52
FOLLOW-UP INVESTIGATION	5	0.86
HOUSE CHECK	124	21.34
IMPROPER PARKING	1	0.17
MEDICAL EMERGENCY	7	1.20
MISSING PERSON	1	0.17
No CallType	3	0.52
ORDINACE VIOLATION	5	0.86
PEDESTRIAN VIOLATION	1	0.17
POWER OUTAGE	1	0.17
PROPERTY DAMAGE	3	0.52
RADAR OPERATION	13	2.24
ROAD BLOCKED	3	0.52
SPECIAL ASSIGNMENT	1	0.17
SPECIAL CHECK	3	0.52
SUSPICIOUS ACTIVITY	3	0.52
SUSPICIOUS PERSON	14	2.41
SUSPICIOUS VEHICLE	21	3.61
TALK WITH OFFICER	3	0.52
TEST CALL	1	0.17
TRAFFIC STOP	58	9.98
TREE DOWN	12	2.07
TRESPASSING	1	0.17
VEHICLE ACCIDENT	3	0.52
WARRANT SERVICE	2	0.34
WELFARE CHECK	4	0.69



MEMORANDUM

To: Jonathan Kanipe, Town Manager

Mayor and Board of Commissioners

From: Harry B. Buckner, PE, Director of Public Works

Re: Public Works Department

April 2023 Monthly Report

Date: May 5, 2023

Recurring Activities:

The Public Works Department has completed the following activities during the month of March:

- Collected 33.93 tons of garbage.
- Diverted 13.29 tons of recycled goods from garbage.
- Picked up 29 loads of brush (approximately 870 cubic yards) over 14 days.
- Responded to 71 total utility locate requests, comprised of 38 new requests and 33 updates. This total includes 1 emergency and 1 rush request.
- Visited 10 residences for Tree Assessments, approving the removal of 38 trees, and requiring the installation of 49 trees.
- Completed daily chlorine residual tests across town and passed the required two bacteriological tests.
- Used the Beacon/Badger Meter automated meter reading system to monitor for water leaks daily and informed residents of suspected leaks.
- Assisted Ms. Jacobs with the semi-monthly water billings.
- We continue to perform litter pick-ups as needed, focusing on the entrances.
- Normal brush collection was performed on the North Route beginning on April 17th, and the South Route beginning on May 1st. Pick-ups will continue as scheduled with one pick-up per month per route until further notice.

Miscellaneous Activities in April

- We held three phone interviews and followed-up with two in-person interviews this month. We extended offers to both candidates on May 4, and both have verbally accepted them at the time of this report. Based on our past difficulties with hiring, I will continue to keep the job listing active
- We brought Joel Martin back on-board part time seasonally to assist with mowing and maintenance activities.

- On April 3rd, I attended a site visit with members of the planning commission to review ongoing tree ordinance work.
- We coordinated a site visit from Asheville Fence to look at our existing fence behind the Public Works and Police Department. They have provided a proposal to perform some repairs to the existing fence.
- Manager Kanipe, Chief Beddingfield and I met with Enterprise Fleet Management on April 12th to review a proposal from them to manage our vehicle fleet.
- Mowing of all public spaces is fully underway, and we have mowed every site multiple times.
- We continue to monitor the landscaping at Greenwood Park. We continue to see strong progress of most of the plant material, specifically the live stake plantings closest to the stream, and anticipate this material continuing to take hold in the were sprouting new vegetation and this material should begin filling in rapidly with new growth.
- Manager Kanipe and I met with representatives of Duke Energy Progress about placing a transformer along Cedarcliff Road near Vanderbilt Road on April 18th.
- Manager Kanipe, Chief Beddingfield, and I met with representatives of NCDOT regarding new speed signage along Hendersonville Road on April 19th. We also discussed appropriate temporary locations for our digital speed signs along Hendersonville Road as well.
- I attended the 2023-2034 (10-year) Capital Improvements Plan presentation at the Metropolitan Sewerage District of Buncombe County (MSD) offices on April 25th. MSD has approved a \$26M capital budget for FY 2022-2023. There are no projects identified in the Cip within the Town of Biltmore Forest town limits, but there are projects downstream of the Town to address maintenance needs and improve overall service.
- I attended an all-day seminar by the UNC School of Government on public options for funding of stormwater utility systems on April 26th at the Biltmore Park campus of Western Carolina University. This was a included high-level presentations on how other local government stormwater utilities manage their systems as well as presentation by state officials on funding sources for stormwater programs and utilities.
- I received notification that the Town's 2022 Water Supply Plan has been accepted by the NC Public Water Supply Section.
- I reached out to two (2) prefabricated pedestrian bridge suppliers for conceptual designs of replacement bridges for Greenwood Park and Brookside Park. These 50-foot span by 6-foot-wide bridges will be prefabricated off-site and installed with a crane once the project details are finalized. Supervisor Dale and I will be performing this design work in-house and managing the construction and installation with a local contractor.
- Supervisor Dale attended and participated in the Arbor Day presentation held on Saturday, April 29th at Brookside Park, and Town staff assisted with the set-up for the event.
- Work to extend new services to Town-owned streetlights by Duke Energy started on May 1, 2023, and MB Haynes is continuing to work on the conversion of the streetlights to

- LED. I have added this project to the Capital Projects section of this report with more detail.
- The French Broad River Metropolitan Planning Organization (MPO) Technical Coordinating Committee (TCC) did not hold a monthly meeting in April.
- I contacted David Melton, Director of the City of Asheville Water Department to obtain their latest Water Shortage Response Plan. I will be incorporating it by reference into an updated plan for the Town this month.
- On-call staff responded to multiple downed trees throughout the day on Saturday April 1st. This included trees on Cedar Chine, East Forest, and Stuyvesant, as well as trees in Greenwood Park and Lower Vanderbilt Park. The Police Department was a great help to us that day as there were multiple downed trees across Town.
- Along those lines, Town on-call personnel responded multiple times to downed trees closing roads in April, including on Cedar Hill and Browntown Roads.
- Supervisor Dale met with a painting contractor to obtain pricing for repainting both the inside and outside of the Town Hall. We are awaiting the proposal from the painting contractor.
- We have completed installation of the new building signage for Public Works, Town Hall, and the Police Department.
- We completed some invasive plant material removal at Brookside Park, and additional clean-up and maintenance activities will continue there.
- We completed several tree removals from the Town Hall Complex on May 4, 2023.

Larger/Capital Projects Updates

Cedar Hill Road Stream Stabilization Project

- We have fully executed the contracts with the Contractor for this project and held a preconstruction meeting on May 3rd.
- We also met with the neighbor on May 4th to discuss the project schedule and sequencing.
- The Contractor will be mobilizing to the site on the week of May 8, and tree removals are anticipated to begin the week of May 15th. Construction is anticipated to last approximately 5 weeks but ending no later than June 30. Some plantings will have to occur later in the fall in winter due to plant availability.

Master Plan Project Area 1 & Area 9 – Vanderbilt/Stuyvesant/Lone Pine Stormwater Project

- We received the final easement plats and I have forwarded those to Mr. Clark for preparation of the final easement documents. We will be contacting affected property owners in May.
- We now anticipate bidding the project in late spring for construction next fiscal year.

Streetlight LED Conversions and Service Upgrades

• There are a total of 21 streetlights that were impacted by the first two phases of the TUG project. The following table outlines lists those impacted lights and the progress made in the project thus far:

Location	Haynes LED Conversion Completed	Duke Service Extended	In Service	
Parkway/Stuyvesant	Yes	No	No	
Stuyvesant Crescent S /Stuyvesant	Yes	No	No	
Stuyvesant Crescent N/Stuyvesant	Yes	Yes	No	
Holly Hill/Stuyvesant	Yes	Yes	Yes	
Holly Hill/Frith	Yes	Yes	Yes	
Holly Hill Cul-de-Sac	Yes	Yes	Yes	
Greenwood/Greenwood Place	Yes	Yes	No	
Greenwood Place Cul-de-Sac	Yes	No	No	
Stuyvesant/Hilltop	Yes	Yes	No	
Hilltop/Ridgefield	Yes	Yes	No	
Ridgefield Mid-Block	Yes	Yes	No	
Ridgefield/Hendersonville Rd	Yes	Yes	No	
Eastwood/Hendersonville Rd	Yes	No	No	
Eastwood/Hilltop	Yes	No	No	
Eastwood/Stuyvesant	Yes	No	No	
Stuyvesant/Southwood	Yes	No	No	
Southwood/Brookside	Yes	Yes	Yes	
Brookside/Cedar Hill	Yes	Yes	Yes	
Westwood/Brookside	Yes	No	No	
Westwood/Hilltop	Yes	No	No	
Hilltop/Greenwood	Yes	No	No	

- Duke Energy Progress has returned to work extending service to the affected streetlight locations.
- Haynes has completed all the LED conversions and has only a couple of minor punch list type items to complete their work.
- We will be submitting activation requests this month as Duke reaches each light.

Greenwood and Brookside Park Pedestrian Bridges

• I have contacted two prefabricated bridge manufacturers (Contech and Pioneer Bridges) for detailed design and pricing information.

- I have reached out to two (2) structural engineers to coordinate the design of the abutment structures and am awaiting a call back.
- We have contacted a surveyor and have a meeting scheduled next week to scope the necessary site surveying limits. A survey is needed to make sure the bridge length and elevations are correct to avoid impacts to the flood plains.
- I have contacted a geotechnical engineer to schedule borings to assist in the proper end bent design.
- Mike and I will perform the civil engineering and landscape architecture site design inhouse and manage the construction work directly with a local contractor.

Upcoming in May

- We anticipate on-boarding our two new employees this month. Their anticipated start date is May 22nd.
- Daniel Rice is continuing to recover well after his surgery, and we are in contact with him to plan for his reentry to the team. His recovery is advancing well, and we think he can return to work in the next 4-6 weeks.
- Staff will complete the monthly bacteriological testing as well as the quarterly disinfection byproduct testing.
- Normal brush collection will continue on the North Route on April 17th, and the South Route on May 1st. Due to the heavy brush put-out, we are behind in collections, but have authorized overtime work on Fridays in order to catch up.
- The brush truck will be out of service for 2-3 days for maintenance work.
- I will be finalizing the scope and budget on the upcoming annual paving project on Vanderbilt Road.
- I will be updating our Water Shortage Response Plan for consideration this month. This policy is required to be reviewed and updated every 5 years by the Public Water Supply Section and must be submitted by June 1, 2023.
- We will be installing a new irrigation service on Hilltop Road.
- We have identified additional maintenance items on the water system including the replacement of several meter boxes and updating meters throughout Town.
- We are continuing our work from last year on controlling invasive plant species in Brookside Park.
- Work will continue on power service extensions to the Town streetlights.
- Fabrication of a replacement streetlight for the location at 394 Vanderbilt Road will continue.
- Old garbage container collections will continue as requested.
- We will assist the FOBF committee with the Food Truck Friday event scheduled at the end of the month.

As always, please do not hesitate to contact me with any questions or feedback.



BOARD OF COMMISSIONERS MEETING STAFF MEMORANDUM MAY 9, 2023

AGENDA ITEM D-4 TOWN MANAGER'S MONTHLY REPORT

New Town Planner Introduction - Mr. Tony Williams

The Board of Commissioners approved the creation of a new full-time position within the Town's Administration department in January 2023. The newly created Town Planner position was advertised in late January and the Town received over twenty applications for the position. Interviews were conducted with four candidates in March 2023 and two finalists returned for an interview panel with members of the Town staff and the Town Attorney. I am pleased to announce that Mr. Tony Williams was selected as the Town's first full-time planner.

Mr. Williams is a native of Buncombe County and has extensive experience in both planning and code enforcement. A graduate of North Buncombe High School and UNC-Charlotte, Mr. Williams began his career in this sector as the Code Enforcement Officer for the City of Hendersonville in the mid-2000s. Subsequently, he served in the Madison County government from 2007-2018 as the Zoning Administrator/Code Enforcement Officer, Fire Marshal, and finally as the Director of Inspections and Planning and Zoning. Most recently, Mr. Williams has served as a building inspector with Buncombe County.

Mr. Williams did an outstanding job during the interview process and has a great demeanor and perspective – he will be a tremendous asset to the Town. His first day is Monday, May 8. Tony

Hendersonville Road Traffic Safety Update

Chief Beddingfield, Public Works Director Harry Buckner, and I met on site April 19 with the NCDOT division traffic engineer and district engineer. We walked the route from Busbee Road to 945 Hendersonville Road and reviewed the Town's concerns regarding speeds and signage in the area.

NCDOT standards do not align with placing guardrails or chevrons along this stretch of road and the design speed for the road is 45 mph. NCDOT did understand the Town and resident concerns and is working with us to highlight the existing speed on the road and has allowed the Town to place one of our radar speed signs under their speed limit sign. NCDOT acted quickly to replace a missing speed limit sign in this location and added orange "flags" above and below the sign itself at the Town's

request. The Town has placed one of our existing radar speed signs under the speed limit sign and will be utilizing it in this location and at a new, speed limit sign location in the middle of the Busbee Triangle along Hendersonville Road. This speed limit sign will have the same orange flagging as the newly replaced sign. The Town will continue working on this issue and monitoring the area to gather data for this stretch of road. We have received positive feedback from residents along this part of Hendersonville Road and also from those who have simply driven by the sign and observed it being more noticeable.

Greenwood Park Improvements Update

The Town is actively trying to finish improvements in Greenwood Park as quickly as possible. Components of this work include the replacement bridge that will go across the stream, new safer and accessible parking spaces, new playground equipment, and new picnic tables, benches, and a shelter. The bulk of funding for this project will come from the remaining portions of the Town's American Recovery Plan funding. In addition to Greenwood Park, the Town will be replacing the bridge over Four Mile Creek in Brookside Park.

Town Streetlight Retrofit Project Update

Duke Energy has resumed the process of bringing underground power to the existing streetlights in the south end of Biltmore Forest. You may recall that the Board approved this work earlier this year with an idea that Duke's sub-contractor would trench as much as possible. They did so several months ago and determined that boring was necessary for the remaining portions of the work. After several weeks re-designing this portion of the work and providing time for the Town to review the proposal, they issued the work order to Sumter Utilities to renew the electrification project. This work began in earnest on Monday, May 1 and is scheduled to last approximately 3-4 weeks. Concurrently, the Town is continuing to retrofit our streetlights with LED fixtures so that the new underground power can appropriately connect to the historic streetlight. This has been a long, and ongoing project, but we are nearing a conclusion. Fortunately, the remainder of streetlights in Town will be connected as part of Duke's Targeted Underground Project (TUG) and not result in a cost to the Town nor the same outages and disruption experienced on this portion of the work.

June 2023 Meeting Date Change

Next month's meeting will take place one week earlier than normal on June 6, 2023. This will allow me the opportunity to travel to Gettysburg, PA for the ICMA Gettysburg Leadership Institute. The institute will be held June 14-16. I received free tuition for the course courtesy of the NC City/County Managers Association. I appreciate the Board for this opportunity and am excited about the course.



BOARD OF COMMISSIONERS MEETING STAFF MEMORANDUM MAY 9, 2023

AGENDA ITEM E-1 SPACE NEEDS STUDY FOR MAJOR TOWN FACILITIES

Background

On March 1, the Town began a project with Solutions for Local Government to conduct a space needs study for major town facilities. The purpose of this study was to evaluate existing facilities and uses, and to determine what, if any, improvements needed to be considered in the future.

Presentation

Mr. Steve Allan, president of Solutions for Local Government, will present his findings to the Board at the May 9 meeting. Mr. Allan has provided a copy of the report for the Board, included within this packet, and will provide additional copies at the meeting.



Space Needs Assessment of Major Town Facilities

Town Hall
Public Works
Police

April 2023

INTRODUCTION

This report addresses the results of a study completed for the Town of Biltmore Forest, North Carolina. The study's objective was to assess the space needs and related building conditions of the existing Administration Building together with the Public Works and Police Department buildings; all of which are located at 355 Vanderbilt Road.

Study Focus

For the purposes of this document, a Needs Assessment is a systematic process for determining and addressing the needs, or "gaps" between current conditions (in this case "building space") and the conditions required or needed.

Determining the space needs of a building or a designated area within a building is not the same as determining the physical condition of the building, its roof, its appearance, or its foundation. Determining space needs requires that the activities designated to be performed within a space have adequate room to do so safely, and efficiently.

The only way to determine this is to spend time in those spaces, with the people who are assigned to those spaces, and observe how they do what they do, who they do it with, the equipment and tools that they use or need, and ultimately, quantify the needs assessed.

Assessment Methodology

The major activities undertaken and the basis for the comments and recommendations made included but were not necessarily limited to the following:

- A detailed assessment of the quantity and type of space that exists.
- An audit of the activities currently occurring within the space/building, both on a continuous and intermittent basis.
- Interviews and discussions with personnel assigned to work within the space(s) studied.
- The identification of existing individual space deficits, as well as the total space needs necessary to accommodate the personnel and responsibilities assigned.
- The review and study of the building's construction documents as well as physical measurements of any spaces modified or altered since original construction.
- Identification and discussion of options to address any space deficits identified; and,
- Should a new facility be identified as a viable option, methods for determining probable construction and project-related costs will be discussed.

EXISTING CONDITIONS

This Section provides assessment summaries of the three buildings assigned for study: the Town Hall, Police Department, and Public Works.

Under the heading of each building, the year the building was originally built is identified together with the last/most recent alteration or modification that has taken place; for example, for the Town Hall, 1968/2008. Below these numbers is noted the "Current INSF" which refers to the (interior net square feet) of the space that was measured and assessed during the study.

The square footage noted for each building was calculated by the consultant or taken from available construction documents. The acronym INSF in each building's heading, refers to the total *Interior Net Square Feet* within the building, which does not include areas or spaces such as mechanical rooms, interior wall thicknesses, or the building's exterior walls which, if included, would represent each building's total gross square feet (GSF), which would represent the total "footprint" of the building itself.

Ultimately, the observations included the verification of those issues of concern expressed by department personnel as well as those identified by the consultant.

Building: Town Hall

Year Built: 1968/2008 Current INSF: 4,050

- The Reception area is awkwardly arranged.
- Options within the workspace are limited due to the permanent "half-walls" erected within.
- The Receptionist desk location is currently positioned facing *away from* the reception window.
- There is no room for expansion to accommodate perspective future personnel.
- Existing storage space is very limited.
- There is no seating available in the Lobby area for visitors.
- Note: Prior to the commencement of this study the Town had contemplated and reviewed several options for reworking the Town Hall's Administrative offices.

Town Hall Building Summary Comments

For a 55-year-old building, the Town Hall appears to be in good condition.

The Receptionist desk must be positioned to readily see, greet, and promptly address visitors when they appear at the reception window. Removing the referenced "half-walls" will open up space to facilitate a more efficient rearrangement of desks, equipment, and workspaces within the room.

In the event that additional personnel are considered at some point in the future, the logical option for placement in the building, without having to build an addition or interfere with space in the Community room, would be the current conference room adjacent and accessible to/from the Reception area and Town Manager's office.

Public Works

Year Built: 1926/2019 Current INSF: 4,248

[Storage Building @ 1,960 not included]

- The vehicles, trucks and equipment most frequently used are not covered/enclosed when not in use. NOTE: Providing adequate enclosures for the Department's vehicles will reduce deterioration from the elements (rain, heat, snow, etc.), protect the tools, equipment and materials stored in those vehicles, improve the reliability/availability of vehicles when needed, allow for convenient preventive maintenance, prolong the lifespan of the vehicles themselves, improve employee safety, and increase the long-range monetary value of the fleet.
- Truck size(s) and available garage space are not compatible, door heights are too low to accommodate the vehicles that are most frequently used.
- "Garage" space at the south end of the building also serves as a workroom/equipment repair space which often interferes with vehicle servicing, or visa-versa. Both need to be larger.
- Reportedly, the garage vehicle lift was improperly installed due to space limitations.
- Both the "water room" and "landscape room" at the north end of the building need to be considerably larger.
- The Public Works building needs significant internal, accessible storage space for designated seasonal equipment not frequently used, but necessary, i.e., signs, equipment, parts, and "stuff" that is currently accumulating in corridors, offices, and garage spaces.
- The size of the kitchen/designated breakroom space is excessive.
- There is also modest space (638 SF) on the second floor, above the kitchen area, which can be accessed via a small "lift" that has been installed for that purpose; however, Public Works was not utilizing the space during the period of this study.
- Staff lockers are available for each employee in the Workroom area open to the Breakroom, however, had the restroom and shower facilities installed during the last renovation included the lockers a complete and more efficient "Locker Room" could have resulted, and saved space in the process.
- The Public Works Storage building north of the Police station has previously been determined by a licensed engineer as unsafe and should be demolished.
- A larger, more accessible, outdoor covered area for materials storage is needed, (sand, salt, mulch, etc.)
- The trucks that have been retrofitted as salt trucks are rusting (deteriorating) having sat in open weather for the past 2-plus years; they need to be under cover or enclosed when not in use.

An adequately equipped truck wash-bay is needed.

- The outdoor equipment and material lay-down area is inadequate and much too small and awkwardly situated adjacent and around the (condemned) Storage building; space limitations and the current location of the space is inefficient.
- Truck parking can be difficult during meetings or events held in the Town Hall.

Public Works Building Summary Comments

The location of the main Public Works Building and the lay-down and equipment areas are disparate, scattered, and inefficient; maneuvering trucks around visitor and staff vehicles at times when parking may not be available, trucks kept at the south end of the building while the equipment often needed (landscaping and water rooms) is at the other end of the building, and the storage building, which is essentially condemned, is located among the lay-down and equipment areas which are on the other side of the Police Department building.

On paper, the 4,248 square feet included inside the main building currently assigned to Public Works would generally be adequate. The problem is that the allocation of that space, the configuration and location of the spaces within the building, and the functionality of the space itself is poor.

It is significant to note that a structural assessment of the Public Works main and storage buildings was completed, and a report submitted to the Town in 2016 that included the engineer's following comments.¹

Reportedly, the issues identified in quotes 1-4 were addressed during the Public Works building renovations in 2019.

- 1. "during periods of moderate rainfall, substantial amounts of water seeps through the rear wall and up between the joint of the rear wall and the slab on grade".
- 2. "it is my opinion that the economic feasibility of doing moderate modifications to the structural elements of the structure are not reasonable".
- 3. "the rear wall of the structure is constructed of clay tile ... the material is a poor choice for a retaining wall".
- 4. "the rear wall is showing indications of deterioration on the interior space where the moisture was noted".
- 5. "The existing structural elements do not meet the present North Carolina State Building Code requirements for seismic loads."
- 6. Regarding the Storage Building: "Due to the conditions noted the existing facility should undergo major renovations or be replaced."

Suffice it to say, the Main building space needs already addressed, combined now (again) with the Storage building's structural issues presented here, could very well serve as an "alert" to what may very well be in store for this 97-year-old building in the near future.

_

¹ R. L. Kanipe, PE, Asheville NC, 26 February 2016

Building: Police Department

Year Built: 1923/2011 Current INSF: 2,586

- The building lacks adequate signage indicating public access to the Police Department.
- Visitors must now press a doorbell and wait to be admitted, frequently, by a Dispatcher that must leave their assigned desk/position to answer the door, i.e., there is no secure vestibule type entrance.
- There is not an adequate Public Lobby into which a visitor can enter and communicate with the Dispatcher (who also serves as Receptionist) without the dispatcher having to leave his/her post.
- A public restroom, accessible from within the Lobby, is required for visitors without them having to enter the secure areas of the building.
- A private interview/meeting room is needed adjacent to the lobby area to meet with visitors.
- The Reception/ Dispatch (Communications) area should be sized to fully accommodate two (2) Dispatcher positions in the event that backup becomes necessary in a major event.
- Individual male and female staff locker rooms, that include showers are needed.
- Restroom on the first floor is poorly located; separate and adequately sized male and female restrooms are urgently needed.
- The Evidence room needs to be larger to include ample open shelving as well as separate and secure cabinetry (or individual rooms) for money, drugs, and guns.
- Ample counter/table space, within the secure evidence storage room, is needed to adequately
 process the evidence and property received, i.e., photographs, documents, quantities, serial
 numbers, packaging, etc.
- The designated "Sergeant's Area" is totally inadequate in both size and location, i.e., it is nothing
 more than a small hallway providing access to and from the stairway that staff uses to go between
 floors.
- The second floor of the building, which houses the offices of the Chief, Captain, Lieutenant, a conference room, and a currently open workspace for the Communications Manager, can only be accessed via a long stairway.
- With the exception of the single stairway, personnel on the second floor do not have an alternate exit from the building.
- Based on responsibilities currently assigned, the Department's Communications Director should have a private office proximate the Chief of Police.

- Storage within the Police Department building is seriously lacking as evidenced by the accumulation of supplies, materials, equipment, etc. that appear in offices, work areas, corridors and any other spaces that can be used for storage purposes.
- Secure, designated storage space is needed within the building for uniforms, ammunition, vests, guns, emergency equipment, patrol vehicle supplies, etc.
- A common practice in law enforcement is that public visitors have a prominent entrance to the building, and Police Department employees have a separate and secured entrance accessible from elsewhere in the building.
- Adding a vehicle wash bay for assigned police vehicles would be of benefit.
- Recent indications suggest that appropriate space is needed to accommodate missing, found, rescued, or captured animals.
- The reserve patrol vehicle(s), UTV (4-wheeler), and shooting range trailer need to be stored under more adequate, preferably enclosed garage space.
- The amount of space currently assigned to the Police Department is inadequate.
- More urgently, the configuration of the space that exists is pitifully inefficient.
- Observations regarding the basement of the building were not included in as much as it is essentially uninhabitable, i.e., among other issues, it still leaks.

Police Department Building Summary Comments

This building is 100 years old and, reportedly, was originally built to house both the Town's Fire and Police Departments. In observing the building from the outside, it appears to have held up quite well. The same cannot be said of the interior of the building. As noted in the preceding comments, the interior of the building and its included spaces are not adequate, efficient, nor as functional as should be the case in a professional Police Department headquarters.

In addition, it was reported that work was contracted in 2011 to address various issues within the building. It is assumed, particularly for a 100-year-old building, that the work involved would have included various renovations, or modifications, that would *improve* the space. On the contrary, based on the issues of concern noted above, that exist today, it would appear that very little if any communication took place between the contractor(s) and Police Department personnel at the time.

Building Summary Table

This table provides a summary of the assessment findings including each building's calculated space needs and deficits. Note that all numbers are in net square feet (NSF). The basis for determining the "Current Need" and "Existing Deficit" numbers noted is addressed in the Appendix.

Figure 1
Building Space Needs Assessment Summary

Building	Current	Current	Existing
Bullullig	Space	Need	Deficit
Town Hall	4,050	4,050	*
Public Works**	4,248	9,578	5,330
Police Department	2,586	6,660	4,074

^{* &}quot;Current Need" is minimal, and can be accommodated with minor interior renovations

FUTURE CONSIDERATIONS

Following the assessments of the Town Hall and Police and Public Works Departments' current space needs, additional study and discussions occurred to consider what might be anticipated in terms of the towns' *future* needs, beyond that already identified.

Internally, Biltmore Forest is an incorporated Township, governed by its elected Mayor and Board of Commissioners, and with defined Town boundaries. Externally, the Town is essentially surrounded by the City of Asheville and the rest of Buncombe County. Which begs the question: What might the town be aware of now or need to prepare for; realizing that in the coming years changes and growth within and around the Town are inevitable. During the above referenced discussions senior staff shared their thoughts with regards to:

- 35 acres recently sold.
- Available in-fill lots remaining within Town limits.
- Resident expectations.
- Park & walkway developments within town limits.
- Increased traffic on Blue Ridge Parkway within Town limits.
- Increased traffic on Interstate 40 within Town limits.
- Increased traffic adjacent, around, and through Biltmore Forest.

Local government entities provide services to their resident populations via the individuals they employ. In turn, as the resident populations of these entities increase the level of services required will increase, together with the number of employees needed to actually provide those services. Subsequently, the methodologies used to project future needs; whether people, workload, or space; will typically involve, at some point, an examination of recent and projected future year population trends.

The North Carolina Office of State Budget and Management (OSBM) provides annual estimates of past and future year populations to Counties, and intermittently for City and Town populations. Most recently OSBM has identified the 2021 population of Biltmore Forest as 1,415 residents. In turn, the most available population projections relevant to Biltmore Forest are limited to Buncombe County.

Figure 2
Buncombe County 2010-2040
Experienced & Projected Populations

^{**} Storage building space is not included in "Current Space" column

Year & Population	Year & Population	% Increase	Resident Increas	е
July 2010	July 2020	13.20%	31,482	
238,315	269,797	13.20/0	31,482	
July 2020	July2030	10.30%	27 011	
269,797	297,608	10.30%	27,811	DILLE E.C.
July 2030	July 2040	9.80%	20.059	> PLUS 56, 8
297,608	326,666	9.60%	29,058	

For example: and quite hypothetically, were Biltmore Forest to mirror Buncombe County's 2020-2040's 20% growth, its population would increase by 283 residents. Considering the 35 acres recently sold and the in-fill lots currently available within Town limits, an additional 50+/- homes by 2040 could very well become a reality.

RECOMMENDATIONS

Town Hall: Recommendations

- 1. Remove the existing built-in "half-walls" in the office/reception area to better accommodate the arrangement of current furnishings and equipment.
- 2. Position the Receptionist's desk prominently facing the office window to greet visitors.
- 3. Provide comfortable seating in the Lobby to accommodate visitors.

Public Works: Recommendations

- Implement the proposal requested for review by the Board of Commissioners to relocate major functions of the department, currently located on the Town Hall site, to Town property north of 292 Vanderbilt Road.
- 5. Extend the estimated 2.5 acres proposed to 3-3.5 acres to account for resident traffic, and future growth, i.e., an extended lay-down area, warehouse, and workshop, and potentiality, interior lobby, office, and meeting/conference space.

Comments:

Independent of this study, Public Works presented a plan at the request of the Board of Commissioners that recommended "that most utilitarian functions of the department be relocated off the Town Hall Complex site in order to improve the aesthetics at that site". ² The project narrative of the proposal was shared with the consultant in late March which, upon reading, found that it coincided very well with the space needs study findings already documented.

The page that follows includes two illustrations. The first (Figure 3) is a diagram of the Town Hall Complex. The blue shaded area represents the current space utilized by Public Works that includes a storage building, heavy equipment, truck parking and materials and lay-down areas.

² Public Works Maintenance Facility, Project Narrative, March 21, 2023

The second illustration (Figure 4) includes a preliminary sketch of the proposed Vanderbilt Road site to which the Public Works equipment and materials referenced above will be moved.

[Illustrations that follow were provided courtesy of the Public Works Department]

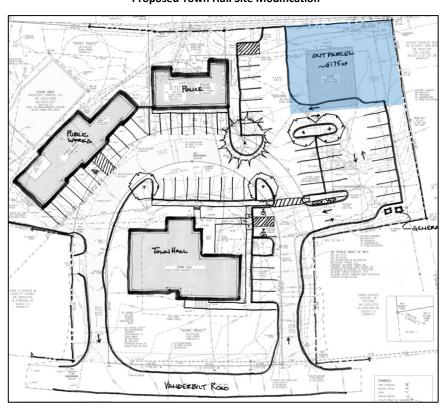
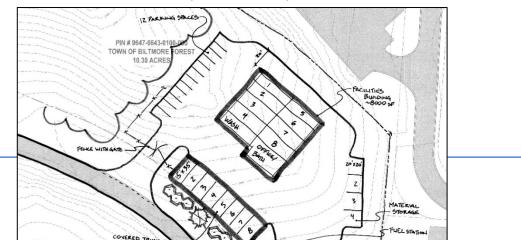


Figure 3
Proposed Town Hall Site Modification

Figure 4
Proposed Site & Concept



SJA Consulting

9

Police Department: Recommendations

- 6. Contract for professional programming services, to develop a formal Facility Program Document that will identify the detailed requirements for a new Police Station, on Town Hall property.
- Following the completion and acceptance of the Program Document, develop and publish an RFP soliciting qualified design firms to submit their qualifications and experience with Police Station design.
- 8. Distribute submittals to designated "project team" members to review, i.e., Town Manager, Police Chief, designated Commissioner, etc.
- 9. Identify project team's top candidates (typically 3-4) and schedule in-person presentations.
- 10. Following firm presentations, discuss observations, preferences, etc. and select preferred firm.

In this context, a Facility Program is defined as "a statement of the requirements for a building project".

The information developed and documented in the Facility Program moves the project from a general description of a building's anticipated needs to a more detailed presentation of how those needs will be met. The Facility Program describes all spaces, and the activities that are intended to take place in those spaces. It also defines, in narrative format, and graphically, the size and relationship between the many specific spaces to be included. More importantly, with appropriate input from participating Town users and Department personnel throughout the process, it will in fact become the Town's formal communication of instructions to the architect, and/or contractor, once selected, that will enable him/her to begin design.

Figure 5

Police Parking Police Station Prince Station

Proposed New Police Station

BUILDING COSTS

As introduced at the beginning of this report, the focus of this study was to assess the space needs of three major Town buildings. Building construction costs are typically not discussed at length during the needs assessment level of development. However, it is clear, and at the very top of the priorities addressed in this report, that the Town needs a new Police Station. Police Department Recommendation #6 said to "develop a formal Facility Program Document" which will detail, quantify, and document the data that will comprise the first "estimate of probable costs". What follows is a brief review and format of what can be expected.

When discussing the probable costs of a public building project, particularly a new building project, it is essential for budgeting purposes that two major categories of costs be included. The first is *Construction Costs*, for *both* the building and the building site. The second is *Project Related Costs*; that will occur before, during and often after construction. Brief explanations of these categories follow.

Construction Costs

- Base Construction Costs-the brick, mortar, steel, and glass that comprise the building structure.
- Site Development-the required grading, excavating, installation of utilities, and paving.

Project Related Costs

- Design Fees-architectural & engineering design fees and expenses.
- Site & Construction Materials Testing-soil tests, concrete consistency tests, etc.
- Printing Costs- primarily for construction documents printed & distributed during bidding.
- Construction Escalation-from date of estimate to the estimated date of construction start.
- Project Contingencies-a set aside reserved for unforeseen expenses, required for public projects.

Cost Basis [EXAMPLE]

The cost tables that follow identify how the probable construction and project related costs are typically broken down.

Construction Costs

Cost Category	Area/Basis	Unit Cost	Cost
Base Construction	Building GSF	Cost/GSF	Unit Cost x GSF
Site Development (Estimate)	# Acres	Lump Sum	Negotiated
Subtotal-Construction Costs		\$ -	

Project Related Costs

Project Related Unit Costs (below) are typically calculated as a % of the total Construction Cost

Cost Category	Area/Basis	Unit Cost	Cost
Design Fees	%	Negotiated	_
Site & Construction Materials Testing	Lump Sum	Lump Sum	_
Printing Costs	Lump Sum	Lump Sum	_
Fixtures, Furnishings & Equipment	%	Est	_
Escalation	%	Est	_
Design/Construction Contingency	%	Est	
Subtotal-Project Related Costs			

Total Project Cost \$ -

APPENDIX

Basis for "Current Need" and "Existing Deficit" calculations identified on page 6 as follows:

Building	Current Space	Current Need	Existing Deficit
Town Hall	4,050	4,050	*
Public Works	4,248	9,578	5,330
Police Department	2.586	6.660	4.074

Public Works

The total interior space of the main Public

Works building was 4,248 square feet (column 1). The "current need" (column 2) included the 4,248 square feet *plus* the most notable space deficiencies identified. These included the following spaces which were estimated based on observation of need and/or space lacking, discussions with staff, and physical measurements/calculations.

Dedicated workshop	320 NSF
Internal storage space	450 NSF
Increase size of Landscape room by	180 NSF
Increase size of Water room by	180 NSF
Covered truck parking facility	4,200 NSF
Total Deficit:	5,330 NSF

Police Department

There was neither a facility program nor any previous studies to refer to with regard to the space that would be needed for a new Police Station. The basis for determining the noted 6,660 NSF suggested was the consultant's personal experience in having evaluated the functional requirements and corresponding office/workspace requirements of over 700 local government buildings and the resulting database acquired during the process. Subsequently, a "menu of spaces" known to be necessary in a small (50 or fewer personnel) Police Department were developed and sized to known practices. The results are list here: this is not **THE** answer. It is only the beginning and intended to provide a number from which to begin.

SPACE	NSF	•
Public Entrance	50	
Lobby	180	Staff Entrance
Visitor Restroom	60	Interview-defendant/witne
Reception/Dispatch	120	Training [24]
Reception/Dispatch Restroom	60	Training Room Equipment S
Interview	80	Restroom/Shower-Men
Chief	168	Restroom/Shower-Women
Captain	156	Lockers [Men]
Lieutenant	120	Lockers [Women]
Communications Manager	120	Conditioning
Conference [8]	200	Kitchen/Break
Restroom	60	Evidence Processing
Supplies/Work Room	160	Evidence Storage
Materials Storage/Records	100	Armory
Visiting LE	120	Uniform Storage
Sergeants	240	General Storage
Patrol Equipment	150	Janitor Closet
Garage	1080	Total Est. NSF



BOARD OF COMMISSIONERS MEETING STAFF MEMORANDUM MAY 9, 2023

AGENDA ITEM F-1 CONSIDERATION OF TAX PENALTY AND INTEREST WAIVER

Background

The Town received a request from the property owners at 14 Amherst Road for a tax penalty waiver. As you know, state law prohibits Town staff from adjusting or providing waivers without prior Governing Board approval. In this case, the tax notice was mailed to the property owner's physical address but per deed, should have been mailed to his Florida address.

This resident stated that his lender escrows taxes for him on another property he owns in Biltmore Forest and assumed the property at 14 Amherst Rd was also escrowed.

The taxpayer has paid the full taxes owed and requests a waiver of the initial interest penalty that remain on the account.

Tax Penalty Waiver Request

14 AMHERST NC LLC 14 AMHERST RD, ASHEVILLE, NC, 28803

Type of Taxes: Real Property

Waiver of Penalty and Interest: \$152.93

Krystal Curtis

From: Eric Grabois <eric@graboislaw.com>
Sent: Friday, April 21, 2023 11:42 AM

To: Krystal Curtis

Subject: Penalty Interest Waiver request for 14 Amherst Rd., Biltmore Forest, NC 28803

WARNING: This email originated from outside of the Town of Biltmore Forest Network.

Good morning Ms. Curtis,

Thank you for contacting me regarding the outstanding tax bill. My lender escrows payment for taxes and pays them to Buncombe. I believe there was some oversight on their part for not tendering the funds to the Town. I own another home in the Forest at 415 Vanderbilt Rd, and have not had an issue with payments on that home with the Lender's escrow services. Also, the tax bills were mailed to the property address and not the address listed on the buncombe county property appraiser, which is 935 Fairway Drive, Miami Beach, FL 33141. Had I been notified of the additional tax, it would have been paid on time, as I pay all of my tax bills.

In light of the foregoing, I am requesting that the late fees and other penalties be removed. I can assure you this will not be an issue again.

Best,

Eric

ERIC J. GRABOIS, ESQ.

LAW OFFICES
ERIC J. GRABOIS, P.L.
PINNACLE TITLE GROUP, LLC
1666 79TH STREET CAUSEWAY
SUITE 500
NORTH BAY VILLAGE, FLORIDA 33141
(305) 891-2029 PHONE
(305) 428-2607 FAX
ERIC@GRABOISLAW.COM
WWW.GRABOISLAW.COM

PLEASE CALL OUR OFFICE TO CONFIRM ANY AND ALL WIRE INSTRUCTIONS YOU MAY RECEIVE BY EMAIL FROM US, PRIOR TO INITIATING ANY WIRE TO OUR OFFICE. THIS REQUEST IS BEING MADE TO PROTECT FUNDS WIRED TO OUR OFFICE. THERE HAS BEEN RECENT FRAUDULENT ACTIVITY WHERE EMAILS ARE BEING SENT POSING AS TITLE AND ESCROW COMPANIES OR LAW OFFICES IN AN ATTEMPT TO DIVERT WIRES TO A FRAUDULENT ACTOR'S ACCOUNT. IF YOU DO NOT FOLLOW THE PROCEDURE, AS REQUESTED, YOUR FUNDS MAY SUBJECT TO MISAPPROPRIATION.



BOARD OF COMMISSIONERS MEETING STAFF MEMORANDUM MAY 9, 2023

AGENDA ITEM F-2 CONSIDERATION OF FY23 AUDIT CONTRACT WITH CARTER, P.C.

Background

State law requires the Town to undertake an audit of all financial statements at the conclusion of each fiscal year. The audit firm must perform this review in accordance with Generally Accepted Accounting Principles (GAAP). Carter P.C. has performed these audits for many years. Their staff works well with our staff. We appreciate their assistance and help to ensure the Town is doing everything possible to abide by and exceed governmental accounting standards.

Audit Services for FYE23

The attached engagement letters and audit contract will allow Carter P.C. to perform this work for the fiscal year that concludes June 30, 2023. If approved by the Board, they will be on-site for work in mid-August. Please let me know if there are any questions or concerns regarding this audit contract.



May 3, 2023

To the Honorable Mayor and Members of the Board of Commissioners Town of Biltmore Forest, North Carolina Biltmore Forest, North Carolina

We are pleased to confirm our understanding of the services we are to provide Town of Biltmore Forest, North Carolina (the Town) for the year ending June 30, 2023.

Audit Scope and Objectives

We will audit the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information, and the disclosures, which collectively comprise the basic financial statements of the Town as of and for the year ending June 30, 2023. Accounting standards generally accepted in the United States of America (GAAP) provide for certain required supplementary information (RSI), such as management's discussion and analysis (MD&A), to supplement Town of Biltmore Forest's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to Town of Biltmore Forest's RSI in accordance with auditing standards generally accepted in the United States of America (GAAS). These limited procedures will consist of inquires of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide on any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by GAAP and will be subjected to certain limited procedures, but will not be audited:

- 1. Management's Discussion and Analysis
- 2. Schedule of the Proportionate Share of the Net Pension Liability Local Government Employees' Retirement System
- 3. Schedule of Contributions Local Government Employees' Retirement System
- 4. Schedule of Changes in Total Pension Liability Law Enforcement Officers' Special Separation Allowance
- 5. Schedule of Total Pension Liability as a Percentage of Covered Payroll Law Enforcement Officers' Special Separation Allowance
- 6. Schedule of Town's Proportionate Share of the Net OPEB Liability Retiree Health Benefit Fund
- 7. Schedule of Town Contributions Retiree Health Benefit Fund

We have also been engaged to report on supplementary information other than RSI that accompanies Town of Biltmore Forest's financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS, and we will provide an opinion on it in relation to the financial statements as a whole in a report combined with our auditors' report on the financial statements:

- 1. General Fund Schedule of Revenues, Expenditures, and Changes in Fund Balances Budget and Actual
- 2. Enterprise Fund Water Fund: Schedule of Revenues and Expenditures Budget and Actual
- 3. Schedule of Ad Valorem Taxes Receivable
- 4. Analysis of Current Tax Levy

The objectives of our audit are to obtain reasonable assurance as to whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; and issue an auditors' report that includes our opinion about whether your financial statements are fairly presented, in all material respects, in conformity with GAAP; and report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. Misstatements, including omissions, can arise from fraud or error and are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgement of a reasonable user made based on the financial statements.

Auditors' Responsibilities for the Audit of the Financial Statements

We will conduct our audit in accordance with GAAS and will include tests of your accounting records and other procedures we consider necessary to enable us to express such opinions. As part of an audit in accordance with GAAS, we exercise professional judgement and maintain professional skepticism throughout the audit.

We will evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management. We will also evaluate the overall presentation of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation. We will plan and preform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the government or to acts by management or employees acting on behalf of the government.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is an unavoidable risk that some material misstatements may not be detected by us, even though the audit is properly planned and performed in accordance with GAAS. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

In connection with this engagement, we may communicate with you or others via email transmission. As emails can be intercepted and read. disclosed, or otherwise used or communicated by an unintended third party, or may not be delivered to each of the parties to whom they are directed and only to such parties, we cannot guarantee or warrant that emails from us will be properly delivered and read only by the addressee. Therefore, we specifically disclaim and waive any liability or responsibility whatsoever for interception or unintentional disclosure of emails transmitted by us in connection with the performance of this engagement. In that regard, you agree that we shall have no liability for any loss or damage to any person or entity resulting from the use of email transmissions, including any consequential, incidental, direct, indirect, or special damages such as loss of revenues or anticipated profits, or disclosure or communication of confidential or proprietary information.

We will also conclude, based on the audit evidence obtained, whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the government's ability to continue as a going concern for a reasonable period of time.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, tests of the physical existence of inventories, and direct confirmation of receivables and certain assets and liabilities by correspondence with selected customers, creditors, and financial institutions. We will also request written representations from your attorneys as part of the engagement and they may bill you for responding to this inquiry.

We may from time to time and depending on the circumstances, use third-party service providers in serving your account. We may share confidential information about you with these service providers, but remain committed to maintaining the confidentiality and security of your information. Accordingly, we maintain internal policies, procedures, and safeguards to protect the confidentiality of your personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of your information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others. In the event that we are unable to secure an appropriate confidentiality agreement, you will be asked to provide your consent prior to the sharing of your confidential information with the third-party service provider. Furthermore, we will remain responsible for the work provided by any such third-party service providers.

Our audit of the financial statements does not relieve you of your responsibilities.

Audit Procedures - Internal Control

We will obtain an understanding of the government and its environment, including internal control relevant to the audit, sufficient to identify and assess the risks of material misstatement of the financial statements, whether due to error or fraud, and to design and perform audit procedures responsive to those risks and obtain evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentation, or the override of internal control. An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. Accordingly, we will express no such opinion. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards.

We identified the following significant risks of material misstatement as part of our audit planning:

- Improper revenue recognition due to fraud
- Management override of controls
- Identification of all capital assets

Planning for the current year engagement has not concluded and modifications to these risks may be made.

Audit Procedures – Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of Town of Biltmore Forest's compliance with the provisions of applicable laws, regulations, contracts, agreements, and grants. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion.

Other Services

We will assist in preparing the financial statements of Town of Biltmore Forest in conformity with accounting principles generally accepted in the United States of America based on information provided by you. We will also prepare the Annual Financial Information Report (AFIR) for the year ending June 30, 2023, based on information provided by you. In addition, we will maintain your property and equipment listing, based on information provided by you.

We will perform the services in accordance with applicable professional standards. The other services are limited to the financial statement, AFIR, and maintenance of your property and equipment listing services previously defined. We, in our sole professional judgement, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities.

You agree to assume all management responsibilities for the financial statement preparation services, maintenance of your property and equipment listing, AFIR, and any other nonattest services we provide; oversee the services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of the services; and accept responsibility for them.

Responsibilities of Management for the Financial Statements

Our audit will be conducted on the basis that you acknowledge and understand your responsibility for designing, implementing, and maintaining internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, including monitoring ongoing activities; for the selection and application of accounting principles; and for the preparation and fair presentation of the financial statements in conformity with accounting principles generally accepted in the United States of America with the oversight of those charged with governance.

Management is responsible for making drafts of financial statements, all financial records, and related information available to us and for the accuracy and completeness of that information (including information from outside of the general and subsidiary ledgers). You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, identification of all related parties and all related-party relationships and transactions, and other matters; (2) additional information that we may request for the purpose of the audit; and (3) unrestricted access to persons within the government from whom we determine it necessary to obtain audit evidence. At the conclusion of our audit, we will require certain written representations from you about the financial statements and related matters.

Your responsibilities include adjusting the financial statements to correct material misstatements and confirming to us in the written representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements of each opinion unit taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the government involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the government received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the government complies with applicable laws and regulations.

You are responsible for the preparation of the supplementary information in conformity with accounting principles generally accepted in the United States of America (GAAP). You agree to include our report on the supplementary information in any document that contains, and indicates that we have reported on, the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the supplementary information in accordance with GAAP; (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

With regard to publishing the financial statements on your website, you understand that websites are a means of distributing information and, therefore, we are not required to read the information contained in those sites or to consider the consistency of other information on the website with the original document.

Engagement Administration, Fees, and Other

We will schedule the engagement based in part on deadlines, working conditions, and the availability of your key personnel. We will plan the engagement based on the assumption that your personnel will cooperate and provide assistance by performing tasks such as preparing requested schedules, retrieving supporting documents, and preparing confirmations. If, for whatever reason, your personnel are unavailable to provide the necessary assistance in a timely manner, it may substantially increase the work we have to do to complete the engagement within the established deadlines, resulting in an increase in fees over our original fee estimate.

The audit documentation for this engagement is the property of Carter, P.C. and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to the North Carolina Local Government or its designee. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Carter, P.C. personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

Levonia B. Reese, CPA is the audit managing director and is responsible for supervising the engagement and signing the reports. We expect to begin our audit in August 2023 and to issue our reports no later than October 31, 2023.

To ensure that Carter, P.C.'s independence is not impaired under the AICPA *Code of Professional Conduct*, you agree to inform the engagement director before entering into any substantive employment discussions with any of our personnel.

We estimate our fees for the audit and other services will approximate \$26,310. You will also be billed for travel and other out-of-pocket costs such as mileage, report production, postage, travel, copies, etc. Out-of-pocket expenses will not exceed \$350. Preparation of the AFIR will approximate \$800. The above fee is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will keep you informed of any problems we encounter and our fees will be adjusted accordingly. Our invoices for these fees will be rendered as work progresses and are payable on presentation.

In accordance with our firm policies, work may be suspended if your account becomes 45 days or more overdue and may not be resumed until your account is paid in full. If we elect to terminate our services for nonpayment, our engagement will be deemed to have been completed even if we have not completed our report. You will be obligated to compensate us for all time expended and to reimburse us for all out-of-pocket costs through the date of termination.

Liscio, our client portal system, is used solely to transmit data and exchange information and is not intended to store the Town's information. Upon completion of the engagement, Carter, P.C. will provide Town of Biltmore Forest. with a copy of deliverables and data related to the engagement. Information and data in Liscio will only be stored for 60 days after issuance of the report.

Reporting

We will issue a written report upon completion of our audit of Town of Biltmore Forest's financial statements. Our report will be addressed to the Honorable Mayor and Members of the Board of Commissioners of Town of Biltmore Forest. Circumstances may arise in which our report may differ from its expected form and content based on the results of our audit. Depending on the nature of these circumstances, it may be necessary for us to modify our opinions, add a separate section, or add an emphasis-of matter or other-matter paragraph to our auditors' report, or if necessary, withdraw from this engagement. If our opinions are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or we may withdraw from this engagement.

We appreciate the opportunity to be of service to Town of Biltmore Forest and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign below and return it to us.

Very truly yours,

Levonia B. Reese, CPA

Vice President & Audit Managing Director

This letter correctly sets forth the understanding of the Town of Biltmore Forest.

Management signature		
Title		
Governance signature		
Title		

CONTRACT TO AUDIT ACCOUNTS

The	Governing Board
	Honorable Mayor and Members of the Board of Commissioners
of	Primary Government Unit
	Town of Biltmore Forest
and	Discretely Presented Component Unit (DPCU) (if applicable)
	NA
	Primary Government Unit, together with DPCU (if applicable), hereinafter referred to as Governmental Unit(s)

and	Auditor Name
	Carter, P.C.
	Auditor Address
	301 College St., Suite 320

Hereinafter referred to as Auditor

for	Fiscal Year Ending	Date Audit Will Be Submitted to LGC
	06/30/23	10/31/23

Must be within four months of FYE

hereby agree as follows:

- 1. The Auditor shall audit all statements and disclosures required by U.S. generally accepted auditing standards (GAAS) and additional required legal statements and disclosures of all funds and/or divisions of the Governmental Unit(s). The non-major combining, and individual fund statements and schedules shall be subjected to the auditing procedures applied in the audit of the basic financial statements and an opinion shall be rendered in relation to (as applicable) the governmental activities, the business- type activities, the aggregate DPCUs, each major governmental and enterprise fund, and the aggregate remaining fund information (non-major government and enterprise funds, the internal service fund type, and the fiduciary fund types). The basic financial statements shall include budgetary comparison information in a budgetary comparison statement, rather than as RSI, for the General Fund and any annually budgeted Special Revenue funds.
- At a minimum, the Auditor shall conduct the audit and render the report in accordance with GAAS. The Auditor shall perform the audit in accordance with *Government Auditing Standards (GAGAS)* if the Governmental Unit expended \$100,000 or more in combined Federal and State financial assistance during the reporting period. The auditor shall perform a Single Audit if required by Title 2 US Code of Federal Regulations Part 200 *Uniform Administration Requirements, Cost Principles, and Audit Requirements for Federal Awards, Subpart F* (Uniform Guidance) or the State Single Audit Implementation Act. This audit and all associated audit documentation may be subject to review by Federal and State agencies in accordance with Federal and State laws, including the staffs of the Office of State Auditor (OSA) and the Local Government Commission (LGC). If the audit requires a federal single audit in accordance with the Uniform Guidance (§200.501), it is recommended that the Auditor and Governmental Unit(s) jointly agree, in advance of the execution of this contract, which party is responsible for submission of the audit and the accompanying data collection form to the Federal Audit Clearinghouse as required under the Uniform Guidance (§200.512).

Effective for audits of fiscal years beginning after June 30, 2023, the LGC will allow auditors to consider whether a unit qualifies as a State low-risk auditee based upon federal criteria in the Uniform Guidance §200.520(a), and (b) through (e) as it applies to State awards. In addition to the federal criteria in the Uniform Guidance, audits must have been submitted timely to the LGC. If in the reporting year, or in either of the two previous years, the unit reported a Financial Performance Indicator of Concern that the audit was late, then

the report was not submitted timely for State low-risk auditee status. Please refer to "Discussion of Single Audits in North Carolina" on the LGC's website for more information.

If the audit and Auditor communication are found in this review to be substandard, the results of the review may be forwarded to the North Carolina State Board of CPA Examiners (NC State Board).

- 3. If an entity is determined to be a component of another government as defined by the group audit standards, the entity's auditor shall make a good faith effort to comply in a timely manner with the requests of the group auditor in accordance with AU-6 §600.41 §600.42.
- 4. This contract contemplates an unmodified opinion being rendered. If during the process of conducting the audit, the Auditor determines that it will not be possible to render an unmodified opinion on the financial statements of the unit, the Auditor shall contact the LGC Staff to discuss the circumstances leading to that conclusion as soon as is practical and before the final report is issued. The audit shall include such tests of the accounting records and such other auditing procedures as are considered by the Auditor to be necessary in the circumstances. Any limitations or restrictions in scope which would lead to a qualification should be fully explained in an attachment to this contract.
- 5. If this audit engagement is subject to the standards for audit as defined in *Government Auditing Standards*, 2018 revision, issued by the Comptroller General of the United States, then by accepting this engagement, the Auditor warrants that he/she has met the requirements for a peer review and continuing education as specified in *Government Auditing Standards*. The Auditor agrees to provide a copy of the most recent peer review report to the Governmental Unit(s) and the Secretary of the LGC prior to the execution of an audit contract. Subsequent submissions of the report are required only upon report expiration or upon auditor's receipt of an updated peer review report. If the audit firm received a peer review rating other than pass, the Auditor shall not contract with the Governmental Unit(s) without first contacting the Secretary of the LGC for a peer review analysis that may result in additional contractual requirements.

If the audit engagement is not subject to *Government Auditing Standards* or if financial statements are not prepared in accordance with U.S. generally accepted accounting principles (GAAP) and fail to include all disclosures required by GAAP, the Auditor shall provide an explanation as to why in an attachment to this contract or in an amendment.

- 6. It is agreed that time is of the essence in this contract. All audits are to be performed and the report of audit submitted to LGC Staff within four months of fiscal year end. If it becomes necessary to amend the audit fee or the date that the audit report will be submitted to the LGC, an amended contract along with a written explanation of the change shall be submitted to the Secretary of the LGC for approval.
- 7. It is agreed that GAAS include a review of the Governmental Unit's (Units') systems of internal control and accounting as same relate to accountability of funds and adherence to budget and law requirements applicable thereto; that the Auditor shall make a written report, which may or may not be a part of the written report of audit, to the Governing Board setting forth his/her findings, together with his recommendations for improvement. That written report shall include all matters defined as "significant deficiencies and material weaknesses" in AU-C 265 of the *AICPA Professional Standards (Clarified)*. The Auditor shall file a copy of that report with the Secretary of the LGC.

For GAAS or *Government Auditing Standards* audits, if an auditor issues an AU-C §260 report, commonly referred to as "Governance Letter," LGC staff does not require the report to be submitted unless the auditor cites significant findings or issues from the audit, as defined in AU-C §260.12 - .14. This would include issues such as difficulties encountered during the audit, significant or unusual transactions, uncorrected misstatements, matters that are difficult or contentious reviewed with those charged with governance, and other significant matters.

- 8. All local government and public authority contracts for audit or audit-related work require the approval of the Secretary of the LGC. This includes annual or special audits, agreed upon procedures related to internal controls, bookkeeping or other assistance necessary to prepare the Governmental Unit's records for audit, financial statement preparation, any finance-related investigations, or any other audit- related work in the State of North Carolina. Approval is also required for the Alternative Compliance Examination Engagement for auditing the Coronavirus State and Local Fiscal Recovery Funds expenditures as allowed by US Treasury. Approval is not required on audit contracts and invoices for system improvements and similar services of a non-auditing nature.
- 9. Invoices for services rendered under these contracts shall not be paid by the Governmental Unit(s) until the invoice has been approved by the Secretary of the LGC. This also includes any progress billings [G.S. 159-34 and 115C-447]. All invoices for audit work shall be submitted in PDF format to the Secretary of the LGC for approval. the invoice marked 'approved' with approval date shall be returned to the Auditor to present to the Governmental Unit(s) for payment. This paragraph is not applicable to contracts for audits of hospitals.
- 10. In consideration of the satisfactory performance of the provisions of this contract, the Governmental Unit(s) shall pay to the Auditor, upon approval by the Secretary of the LGC if required, the fee, which includes any costs the Auditor may incur from work paper or peer reviews or any other quality assurance program required by third parties (federal and state grantor and oversight agencies or other organizations) as required under the Federal and State Single Audit Acts. This does not include fees for any pre-issuance reviews that may be required by the NC Association of CPAs (NCACPA) Peer Review Committee or NC State Board of CPA Examiners (see Item 13).
- 11. If the Governmental Unit(s) has/have outstanding revenue bonds, the Auditor shall submit to LGC Staff, either in the notes to the audited financial statements or as a separate report, a calculation demonstrating compliance with the revenue bond rate covenant. Additionally, the Auditor shall submit to LGC Staff simultaneously with the Governmental Unit's (Units') audited financial statements any other bond compliance statements or additional reports required by the authorizing bond documents, unless otherwise specified in the bond documents.
- 12. After completing the audit, the Auditor shall submit to the Governing Board a written report of audit. This report shall include, but not be limited to, the following information: (a) Management's Discussion and Analysis, (b) the financial statements and notes of the Governmental Unit(s) and all of its component units prepared in accordance with GAAP, (c) supplementary information requested by the Governmental Unit(s) or required for full disclosure under the law, and (d) the Auditor's opinion on the material presented. The Auditor shall furnish the required number of copies of the report of audit to the Governing Board upon completion.
- 13. If the audit firm is required by the NC State Board, the NCACPA Peer Review Committee, or the Secretary of the LGC to have a pre-issuance review of its audit work, there shall be a statement in the engagement letter indicating the pre-issuance review requirement. There also shall be a statement that the Governmental Unit(s) shall not be billed for the pre-issuance review. The pre-issuance review shall be performed prior to the completed audit being submitted to LGC Staff. The pre-issuance review report shall accompany the audit report upon submission to LGC Staff.

- 14. The Auditor shall submit the report of audit in PDF format to LGC Staff. For audits of units other than hospitals, the audit report should be submitted when (or prior to) submitting the final invoice for services rendered. The report of audit, as filed with the Secretary of the LGC, becomes a matter of public record for inspection, review and copy in the offices of the LGC by any interested parties. Any subsequent revisions to these reports shall be sent to the Secretary of the LGC. These audited financial statements, excluding the Auditors' opinion, may be used in the preparation of official statements for debt offerings by municipal bond rating services to fulfill secondary market disclosure requirements of the Securities and Exchange Commission and for other lawful purposes of the Governmental Unit(s) without requiring consent of the Auditor. If the LGC Staff determines that corrections need to be made to the Governmental Unit's (Units') financial statements and/or the compliance section, those corrections shall be provided within three business days of notification unless another deadline is agreed to by LGC Staff.
- 15. Should circumstances disclosed by the audit call for a more detailed investigation by the Auditor than necessary under ordinary circumstances, the Auditor shall inform the Governing Board in writing of the need for such additional investigation and the additional compensation required therefore. Upon approval by the Secretary of the LGC, this contract may be modified or amended to include the increased time, compensation, or both as may be agreed upon by the Governing Board and the Auditor.
- 16. If an approved contract needs to be modified or amended for any reason, the change shall be made in writing and pre-audited if the change includes a change in audit fee (pre-audit requirement does not apply to hospitals). This amended contract shall be completed in full, including a written explanation of the change, signed and dated by all original parties to the contract. It shall then be submitted to the Secretary of the LGC for approval. No change to the audit contract shall be effective unless approved by the Secretary of the LGC, the Governing Board, and the Auditor.
- 17. A copy of the engagement letter, issued by the Auditor and signed by both the Auditor and the Governmental Unit(s), shall be attached to this contract, and except for fees, work, and terms not related to audit services, shall be incorporated by reference as if fully set forth herein as part of this contract. In case of conflict between the terms of the engagement letter and the terms of this contract, the terms of this contract shall take precedence. Engagement letter terms that conflict with the contract are deemed to be void unless the conflicting terms of this contract are specifically deleted in Item 30 of this contract. Engagement letters containing indemnification clauses shall not be accepted by LGC Staff.
- 18. Special provisions should be limited. Please list any special provisions in an attachment.
- 19. A separate contract should not be made for each division to be audited or report to be submitted. If a DPCU is subject to the audit requirements detailed in the Local Government Budget and Fiscal Control Act and a separate audit report is issued, a separate audit contract is required. If a separate report is not to be issued and the DPCU is included in the primary government audit, the DPCU shall be named along with the primary government on this audit contract. DPCU Board approval date, signatures from the DPCU Board chairman and finance officer also shall be included on this contract.
- 20. The contract shall be executed, pre-audited (pre-audit requirement does not apply to hospitals), and physically signed by all parties including Governmental Unit(s) and the Auditor, then submitted in PDF format to the Secretary of the LGC.
- 21. The contract is not valid until it is approved by the Secretary of the LGC. The staff of the LGC shall notify the Governmental Unit and Auditor of contract approval by email. The audit should not be started before the contract is approved.
- 22. Retention of Client Records: Auditors are subject to the NC State Board of CPA Examiners' Retention of Client Records Rule 21 NCAC 08N .0305 as it relates to the provision of audit and other attest services, as well as non-attest services. Clients and former clients should be familiar with the requirements of this rule prior to requesting the return of records.

 Page 4

- 23. This contract may be terminated at any time by mutual consent and agreement of the Governmental Unit(s) and the Auditor, provided that (a) the consent to terminate is in writing and signed by both parties, (b) the parties have agreed on the fee amount which shall be paid to the Auditor (if applicable), and (c) no termination shall be effective until approved in writing by the Secretary of the LGC.
- 24. The Governmental Unit's (Units') failure or forbearance to enforce, or waiver of, any right or an event of breach or default on one occasion or instance shall not constitute the waiver of such right, breach or default on any subsequent occasion or instance.
- 25. There are no other agreements between the parties hereto and no other agreements relative hereto that shall be enforceable unless entered into in accordance with the procedure set out herein and approved by the Secretary of the LGC.
- 26. E-Verify. Auditor shall comply with the requirements of NCGS Chapter 64 Article 2. Further, if Auditor utilizes any subcontractor(s), Auditor shall require such subcontractor(s) to comply with the requirements of NCGS Chapter 64, Article 2.
- 27. **Applicable to audits with fiscal year ends of June 30, 2020 and later.** For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct and *Government Auditing Standards, 2018 Revision* (as applicable). Financial statement preparation assistance shall be deemed a "significant threat" requiring the Auditor to apply safeguards sufficient to reduce the threat to an acceptable level. If the Auditor cannot reduce the threats to an acceptable level, the Auditor cannot complete the audit. If the Auditor is able to reduce the threats to an acceptable level, the documentation of this determination, including the safeguards applied, must be included in the audit workpapers.

All non-attest service(s) being performed by the Auditor that are necessary to perform the audit must be identified and included in this contract. The Governmental Unit shall designate an individual with the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the services and accept responsibility for the results of the services performed. If the Auditor is able to identify an individual with the appropriate SKE, s/he must document and include in the audit workpapers how he/she reached that conclusion. If the Auditor determines that an individual with the appropriate SKE cannot be identified, the Auditor cannot perform both the non-attest service(s) and the audit. See "Fees for Audit Services" page of this contract to disclose the person identified as having the appropriate SKE for the Governmental Unit.

- 28. Applicable to audits with fiscal year ends of June 30, 2021 and later. The auditor shall present the audited financial statements including any compliance reports to the government unit's governing body or audit committee in an official meeting in open session as soon as the audited financial statements are available but not later than 45 days after the submission of the audit report to the Secretary. The auditor's presentation to the government unit's governing body or audit committee shall include:
 - a) the description of each finding, including all material weaknesses and significant deficiencies, as found by the auditor, and any other issues related to the internal controls or fiscal health of the government unit as disclosed in the management letter, the Single Audit or Yellow Book reports, or any other communications from the auditor regarding internal controls as required by current auditing standards set by the Accounting Standards Board or its successor;
 - b) the status of the prior year audit findings;
 - c) the values of Financial Performance Indicators based on information presented in the audited financial statements; and
 - d) notification to the governing body that the governing body shall develop a "Response to the Auditor's Findings, Recommendations, and Fiscal Matters," if required under 20 NCAC 03 .0508.
- 29. Information based on the audited financial statements shall be submitted to the Secretary for the purpose of identifying Financial Performance Indicators and Financial Performance Indicators of Concern. See 20 NCAC 03 .0502(c)(6).

- 30. All of the above paragraphs are understood and shall apply to this contract, except the following numbered paragraphs shall be deleted (See Item 17 for clarification).
- 31. The process for submitting contracts, audit reports and invoices is subject to change. Auditors and units should use the submission process and instructions in effect at the time of submission. Refer to the N.C. Department of State Treasurer website at https://www.nctreasurer.com/state-and-local-government-finance-division/local-government-commission/submitting-your-audit
- 32. All communications regarding audit contract requests for modification or official approvals will be sent to the email addresses provided on the signature pages that follow.
- 33. Modifications to the language and terms contained in this contract form (LGC-205) are not allowed.

FEES FOR AUDIT SERVICES

1. For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional

Code of Conduct (as applicable) and (this contract for specific requirements. presented to the LGC without this information of the LGC without the contract of the LGC without the LGC without the contract of the LGC without	The following inf	ormation must be			
Financial statements were prepared by:		□Governmenta	I Unit □Third Party		
If applicable: Individual at Government experience (SKE) necessary to overse results of these services:	ntal Unit designa	ted to have the	suitable skills, knowledge, and/or		
Name:	Title and Unit / Con	npany:	Email Address:		
Krystal Curtis	Finance Director		kcurtis@biltmoreforest.org		
OR Not Applicable (Identification of SKE II GAAS-only audits or au			applicable for		
2. Fees may not be included in this con (AFIRs), Form 990s, or other services rengagement letter but may not be included in this con the services of the servi	not associated wit ded in this contra	h audit fees and ct or in any invoid	costs. Such fees may be included in the		
3. The audit fee information included in Fees (if applicable) should be reported any language other than an amount is in	as a specific dolla	ar amount of audi	fees for the year under this contract. If		
4. Prior to the submission of the complethis contract, or to an amendment to this approval for services rendered under the for the unit's last annual audit that was in an audit engagement as defined in 20 any payment is made. Payment before and invoices associated with audits of h	s contract (if requives contract to the submitted to the SON NCAC .0503 shapproval is a viol	ired) the Auditor Secretary of the Secretary of the L all be submitted	may submit interim invoices for LGC, not to exceed 75% of the billings GC. All invoices for services rendered to the Commission for approval before		
	PRIMARY GOVER	NMENT FEES			
Primary Government Unit	Town of B	Biltmore Forest			
Audit Fee	\$ 19,730				
Additional Fees Not Included in Audit Fee:					
Fee per Major Program	\$				
Writing Financial Statements	\$ 6,580				
All Other Non-Attest Services	\$ see enga	gement letter			
	DPCU FEES (if	applicable)			
Discretely Presented Component Unit	NA	,			
Audit Fee	\$				
Additional Fees Not Included in Audit Fee:					
Fee per Major Program	\$				
Writing Financial Statements	\$				
All Other Non Attest Services					

SIGNATURE PAGE

AUDIT FIRM

Audit Firm*	
Carter, P.C.	
Authorized Firm Representative (typed or printed)*	Signature*
Levonia Reese	Tuble
Date*	Email Address*
05/04/23	levonia.reese@carter-cpa.com

GOVERNMENTAL UNIT

Governmental Unit*				
Town of Biltmore Forest				
Date Primary Government Unit Governing Board Approved Audit Contract* (G.S.159-34(a) or G.S.115C-447(a))				
Mayor/Chairperson (typed or printed)*	Signature*			
Date	Email Address			
Chair of Audit Committee (typed or printed, or "NA")	Signature			
Date	Email Address			

GOVERNMENTAL UNIT - PRE-AUDIT CERTIFICATE

Required by G.S. 159-28(a1) or G.S. 115C-441(a1). Not applicable to hospital contracts.

This instrument has been pre-audited in the manner required by The Local Government Budget and Fiscal Control Act or by the School Budget and Fiscal Control Act.

Primary Governmental Unit Finance Officer* (typed or printed)	Signature*
Date of Pre-Audit Certificate*	Email Address*



BOARD OF COMMISSIONERS MEETING STAFF MEMORANDUM MAY 9, 2023

AGENDA ITEM F-3 CONSIDERATION OF FISCAL YEAR 2022-23 BUDGET AMENDMENT

Background

Town staff has prepared budget amendments for the current fiscal year. These budget amendments are offered to reflect increased (or decreased) revenues and increased (or decreased) expenditures in some line items. The Town Manager prepared this budget amendment and it has been reviewed by the Finance Director.

Recommendation

Staff recommends approval of the attached budget ordinance amendment.



FY 2022-2023 BUDGET ORDINANCE AMENDMENT

BE IT ORDAINED by the Governing Board of the Town of Biltmore Forest, North Carolina, that the attached amendment be made to the annual budget ordinance for the fiscal year ending June 30, 2023.

The Town Manager drafted this budget amendment and the Finance Director has verified this amendment balances with the above listed revenues and expenditures.

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

	Adopted this 9 th day of May, 2023.
	George F. Goosmann, III
	Mayor
Attest:	
Laura Jacobs	
Town Clerk	

		Increase/(Decrease)	New Budget Amount
Account	Budget (\$)		
3010 Ad Valorem Tax			
10-3010-0000 AD VALOREM TAXES (PROPERTY) 10-3010-0200 TAX INTEREST & PENALTIES	2,920,559.00	53,000	2,973,559
	5,000.00	1,000	6,000
3010 Ad Valorem Tax Subtotal 3020 Unrestricted Intergovernmental		54,000	
10-3020-0000 FRANCHISE & UTILITIES TAX DIS	211,384.00	12,712	224,096
10-3020-0600 SALES TAX REFUND	15,000.00	6,200	21,200
10-3020-0700 GASOLINE TAX REFUND	3,500.00	2,400	5,900
3020 Unrestricted Intergovernm Subtotal		21,312	
3030 Restricted Intergovernmen			
10-3030-0100 POWELL BILL	66,849.00	358	67,207
10-3030-0200 ILLICIT SUBSTANCE TAX	0.00	18	18
3030 Restricted Intergovernmen Subtotal		376	
3040 Permits & Fees			
10-3040-0000 ZONING PERMITS 3040 Permits & Fees Subtotal	45,000.00	(15,000) (15,000)	30,000
3050 Investment Earnings		(15,000)	
10-3050-0000 INTEREST EARNED	2,000.00	108,538	110,538
3050 Investment Earnings Subtotal	,	108,538	,
General Fund Revenue Increase/(Decrease)		169,226	
4200 Administration	7 722 00	2.000	10.722
10-4200-3300 SUPPLIES AND EQUIPMENT 10-4200-5700 MISCELLANEOUS	7,722.00 1,000.00	3,000 1,000	10,722 2,000
10-4200-6500 STAFF DEVELOPMENT	16,000.00	5,000	21,000
Expenditure Subtotal	10,000.00	9,000	21,000
5100 Police Department		9,000	
10-5100-1600 MAINT/REPAIR - EQUIPMENT	1,000.00	1,000	2,000
10-5100-1700 MAINT/REPAIR - VEHICLES	10,000.00	5,000	15,000
10-5100-3600 UNIFORMS 10-5100-5700 MISCELLANEOUS	15,000.00	30,000	45,000 18,365
	8,265.00	10,000	18,265
5100 Police Department Subtotal 5600 Public Works		46,000	
10-5600-1600 MAINT/REPAIR- STREETLIGHTS	35,000.00	75,000	110,000
5600 Public Works Subtotal		75,000	
5700 Streets & Transportation 10-5700-2300 SUPPLIES	10,000.00	F 000	15.000
10-5700-2300 SOPPLIES 10-5700-7500 ENGINEERING	10,000.00	5,000 (25,000)	15,000 75,000
5700 Streets & Transportation Subtotal		(20,000)	
5800 Sanitation & Recycling		(20,000)	
10-5800-1700 MAINT/REPAIRS - VEHICLES	25,000.00	20,000	45,000
10-5800-3800 TECHNOLOGY	600.00	1,500	2,100
10-5800-6000 CAPITAL OUTLAY	55,000.00	(5,000)	50,000
5800 Sanitation & Recycling Subtotal 6600 General Government		16,500	
10-6600-1100 TECHNOLOGY	92,120.00	13,000	105,120
10-6600-1300 MUNICIPAL UTILITIES	25,000.00	15,000	40,000
10-6600-1500 GE. REPS. AND MAINT.	28,200.00	15,000	43,200
10-6600-5400 INSURANCE	105,000.00	600	105,600
10-6600-6000 CONTINGENCY	181,444.00	(15,874)	165,570
10-6600-6500 FOREST MANAGEMENT	60,000.00	15,000	75,000
6600 General Government Subtotal		42,726	
General Fund Expenditures Increase (Decrease)		169,226	(0)



BOARD OF COMMISSIONERS MEETING STAFF MEMORANDUM MAY 9, 2023

AGENDA ITEM F-4 REVIEW ZONING ORDINANCE AMENDMENT RECOMMENDATIONS

Ch. 153.043 – Maximum Roof Coverage Ordinance

Ch. 153.048 – Impervious Surface Coverage Ordinance

Ch. 153.071 – Recreational and Commercial Vehicle Storage

Background

The attached ordinance amendments were recommended for adoption by the Town's Planning Commission. The Planning Commission has spent the past several months reviewing existing ordinances for clarity and potential updates, where necessary. These ordinances were reviewed and considered by the Planning Commission after consultation with the Town's Board of Adjustment at a joint meeting in March. Each ordinance was recommended for approval unanimously.

Planning Commission Chair Paul Zimmerman summarized the rationale for each ordinance change below.

Draft Ordinance Regarding Maximum Roof Coverage

The Planning Commission felt the maximum roof coverage ordinance needed to be amended for the following reasons:

- 1. The specificity of the chart was coarse enough (0.2-0.25 acre) that there were frequent misunderstandings (between 2014 and 2019) between architects and the BOA as to what the roof limit was for a home that fell in between the two nearest chart limits. More detail was needed.
- 2. When the roof limits were graphed, it was immediately obvious the existing specifications fit the shape of a mathematical curve. This curve fit the EXISTING roof limits to 99.07% accuracy. By using the mathematical curve for the original chart, it was easier to get a much more accurate chart for the BOA, with gradations down to 0.1 acre. Having a mathematical function also allows a much more accurate roof area for the few very large lots in Biltmore Forest.

Draft Ordinance Regarding Impervious Surface Coverage

The Planning Commission felt the impervious surface coverage ordinance needed to be amended for the following reasons:

- 1. The existing Ordinance allowed a simple percentage of lot size for Impervious Coverage breaking lot size into only three groups. The percent impervious surface coverage decreased from 27.5% to 20%, as the lot size increased. According to the existing Ordinance, a 3-acre lot would have LESS Impervious coverage than a 2.9 acre lot. This is clearly not logical.
- 2. There is no upper bound to the amount of Impervious Coverage. At 20%, a 5-acre lot could have 1-acre of impervious coverage, which seemed excessive.
- 3. The new Ordinance uses the exact same acreage gradations as the new Roof Coverage Ordinance simplifying interpretations, especially on new construction.
- 4. The new Ordinance is generously maxed out at roughly 3/4 acre (30,000ft2), and uses the same type of mathematical function as the Roof Ordinance to establish non-overlapping limits for each acreage gradation.

Draft Ordinance Regarding Commercial Vehicle Storage

The Planning Commission believed the existing commercial vehicle storage ordinance needed to specifically include enclosed utility trailers and clarify that motor homes, unregistered all-terrain vehicles, and all types of boats were covered. The new ordinance specifies this with new language shown in blue on the attached document.

Public Hearing Process

These amendments exist within the Zoning Ordinance. The Board of Commissioners are required to hold a public hearing prior to any amendment consideration. This public hearing will be scheduled for the June 2023 meeting. The ordinances are being presented now to allow additional thoughts or questions from the Board of Commissioners on the proposed ordinance.

Planning Commission Recommendation

These potential ordinances require a formal recommendation to the Board of Commissioners and a statement from the Planning Commission that the proposed ordinance is consistent with the Town's Comprehensive Plan. In both instances, the Planning Commission voted unanimously to recommend each ordinance for adoption and believes they are consistent with the Town's Comprehensive Plan.

RECOMMENDED AMENDMENT TO ORDINANCE §153.043 MAXIMUM ROOF COVERAGE

- (A) (1) (a) The MAXIMUM ROOF COVERAGE is defined as the total area under roof, of all primary and accessory structures and buildings, on the lot. This is measured from the outside edge of the gutter, if any, vertically to the ground.
 - (b) The maximum roof coverage assures the total size of buildings and structures is proportional to the size of the lot.
 - (2) The maximum roof coverage permitted is as follows:

The below table can also be used by simply rounding up or down to the nearest lot acreage. For lots larger than 5.5 acres or for exact MRC allowances for lots falling between points in the below table, the below equation shall be used as the definitive allowance.

Lot Size (Acres)	Max Roof Coverage	Lot Size (Acres)	Max Roof Coverage	Lot Size (acres)	Max Roof Coverage
	(Ft ²)		(Ft ²)		(Ft ²)
0.50	2552	1.60	5836	3.25	7837
0.60	3067	1.70	6008	3.50	8047
0.70	3502	1.80	6169	3.75	8241
0.80	3879	1.90	6322	4.00	8424
0.90	4212	2.00	6467	4.25	8595
1.00	4509	2.20	6736	4.50	8756
1.10	4779	2.40	6981	4.75	8921
1.20	5024	2.60	7207	5.00	9054
1.30	5250	2.80	7417	5.25	9191
1.40	5459	3.00	7611	5.50	9325
1.50	5654				

- (B) (1) Lots exceeding 6 acres in size: Multiply the lot size by 43,560; multiply this number by 3.25% (0.0325); provided, that the result is less than 9,647, structures on the lot may have maximum roof coverage of 9,647 square feet.
- (2) If the result is greater than 9,647, structures on the lot may have maximum roof coverage equal to the result produced by the multiplication.

- (C) All structures exceeding the Maximum Roof Coverage for the lot on which they are located shall require approval of a variance by the Board of Adjustment in accordance with the procedures and standards set forth in §153.110(D).
- (D) The equation which may also be used to calculate MRC is: MRC= 2823.5 LN (Acreage), where 'LN' is the natural logarithm mathematical function. This may be calculated using Excel, if needed.

RECOMMENDED AMENDMENT TO ORDINANCE §153.048 IMPERVIOUS SURFACE COVERAGE

- (A) (1) The maximum percentage of a residential lot that can be devoted to impervious surfaces, as defined in §153.004, is established to assure that the character of the Town is preserved and to control stormwater and runoff directed to the streets and adjacent properties.
 - 2) The maximum impervious coverage is proportional to the lot size. The maximum area permitted is as follows:

Lot Size (Acres)	Max Impervious Surface	Lot Size (Acres)	Max Impervious Surface	Lot Size (acres)	Max Impervious Surface
	(\mathbf{Ft}^2)		$(\mathbf{F}\mathbf{t}^2)$		$(\mathbf{F}\mathbf{t}^2)$
0.50	8102	1.60	18352	3.25	24597
0.60	9708	1.70	18886	3.50	25250
0.70	11067	1.80	19390	3.75	25858
0.80	12244	1.90	19886	4.00	26427
0.90	13282	2.00	20318	4.25	26961
1.00	14310	2.20	21158	4.50	27465
1.10	15050	2.40	21925	4.75	27941
1.20	15817	2.60	22630	5.00	28393
1.30	16522	2.80	23284	5.25	29233
1.40	17175	3.00	23892	5.50	29625
1.50	17783				

- (B) Lots on which new construction and/or development activity could cause the amount of Impervious Surface on the lot to exceed the amounts set forth above shall proceed with the Proposed construction and/or development activity only if a variance for the increased impervious surface coverage is granted by the Board of Adjustment in accordance with the procedures set forth in §153.110(D).
- (C) The Board of Adjustment reserves the right to limit Impervious Surface Coverage to prevent the unreasonable diversion of stormwater or surface water onto another property or properties or to the town streets.
- (D) The equation which may also be used to calculate Maximum Impervious Coverage (MIC) is: MIC= 8812.5 LN (Acreage), where 'LN' is the natural logarithm mathematical function. This may be calculated using Excel, if necessary.

RECOMMENDED AMENDMENT TO ORDINANCE

\S 153.071 RECREATIONAL AND COMMERCIAL VEHICLE STORAGE.

- (A) (1) Commercial vehicles and recreational vehicles, including, but not limited to, motor-powered recreational vehicles <u>(motor homes and unregistered all-terrain vehicles of any kind)</u>, recreational trailers, campers, boats <u>(including sailboats and motorboats)</u> and other water craft, <u>enclosed utility trailers</u>, and the trailers used to tow or transport any such boat or vehicle, shall not be parked or stored outside on any lot or tract of land.
- (2) Further, nor shall any such vehicle be parked or stored in or under an open garage/carport or in or under any other type of open accessory structure/building.
- (3) However, such vehicles may be parked or stored in an enclosed accessory structure/building (said accessory structure/building is to comply with all size and height requirements of this chapter) or in an enclosed garage such that the vehicle is not visible.
- (B) Exceptions to this rule would be those residents who have already received certificate of zoning compliance from the Board of Adjustment.

(Ord. passed 10-19-1983; Ord. passed 6-8-2021)

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BOARD OF COMMISSIONERS MEETING STAFF MEMORANDUM MAY 9, 2023

AGENDA ITEM F-5 CEDAR HILL ROAD STABILIZATION AND STREAM RESTORATION PROJECT

Background

The Town issued a request for proposals in late November 2022 for the road stabilization and stream restoration project at the intersection of Hemlock and Cedar Hill Roads. The purpose of this project is primarily to stabilize Cedar Hill Road and ensure that the stream running parallel to it does not encroach further into the road. The action required to ensure this does not happen is for the Town to strengthen the edge of the road and stream embankment with boulders and restore the original stream channel. The project was designed during fiscal year 2022 and planned for construction in the current fiscal year. The Board of Commissioners awarded the construction project to Baker Grading and Landscaping in January 2023 in the amount of \$274,027.50.

Project Status and Update

Baker Grading, the consultant, and Town staff held a pre-construction meeting on Wednesday, May 3, 2023 to review the project and finalize a construction schedule. Baker will begin tree removal and clearing next week and fully mobilize at the same time. The work itself is weather dependent, but we anticipate the bulk of the project being complete by June 30. There is extensive planting (native riparian trees, shrubs, and ground cover) associated with this project and the bulk of this will be done during the fall planting season to ensure product availability and survival. As a result, the site will likely be sparse and appear vastly different than its current, wooded nature – but this will be heavily replanted in the fall. The Town also intends to place two information signs on the property directing residents to a project page on our website that will include all related project information.

Public Works staff met with the most impacted property owners at 2 Hemlock Road and have reviewed the proposed landscaping and boulder work that will be completed. The Town is appreciative of these residents and additional upstream residents for allowing us the ability to utilize their property while working on the stream. Attached to this packet is the final construction drawing for the project. If you have any questions, Harry or I will do our best to provide answers to those Tuesday.

REVISIONS:

TOWN OF BILTMORE FOREST UT FOURMILE BRANCH STREAM RESTORATION

BUNCOMBE COUNTY, NORTH CAROLINA

USACE ACTION ID NO.: 2022-01264 NCDWR WQC NO.: 2022-0767

PROJECT DIRECTORY					
LANDOWNER	JOHN BRACKET, LAURA WERNER				
	2 HEMLOCK DRIVE BILTMORE FOREST, NC 28803				
PROJECT OWNER	TOWN OF BILTMORE FOREST				
Barth Carolina	HARRY BUCKNER PUBLIC WORKS DIRECTOR HBUCKNER@BILTMOREFOREST.ORG				
ENGINEER	JENNINGS ENVIRONMENTAL PLLC				
Jennings Environmental	GREG JENNINGS, PHD, PE PRESIDENT GREG@JENNINGSENV.COM (919) 600-4790				
SURVEYOR	BEN PATTON LAND SURVEYING PLLC				
BPLS Ben Patton Land Surveying	BEN PATTON, PLS PRESIDENT BEN@BPSURVEYING.COM (828) 559-8004				

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SHEET INDEX	
COVER SHEET	0.1
PROJECT NOTES AND SPECIFICATIONS	0.2
STREAM RESTORATION DESIGN CHANNEL SECTIONS	1.1
STREAM RESTORATION DESIGN PLAN AND PROFILE	2.1
STREAM RESTORATION DESIGN GRADING SECTIONS	3.1
STREAM RESTORATION DESIGN DETAILS	4.1 - 4.2
SITE PREPARATION PLAN	5.1
EROSION AND SEDIMENTATION CONTROL PLAN	6.1 - 6.3
VEGETATION PLAN	7.1 - 7.2

FINAL DRAWING RELEASED FOR CONSTRUCTION MAY 3, 2023

GENERAL PROJECT NOTES AND SPECIFICATIONS

- DEFINITIONS:
- 1.1. CONSTRUCTION DOCUMENTS: THE CONTRACT AND APPLICABLE DRAWINGS, DETAILS, SPECIFICATIONS, PERMIT(S), AND/OR ANY OTHER DOCUMENTS (MEETING MINUTES, PUNCH LISTS, BID TABS, ETC.) FOR COMPLETE INFORMATION ABOUT THE REQUIRED WORK. ANY ONE OF THESE PARTS OF THE MAY NOT CONTAIN ALL OF THE INFORMATION REQUIRED TO COMPLETE THE PROJECT WORK.
- 1.2. PROJECT OWNER: TOWN OF BILTMORE FOREST
- ENGINEER: JENNINGS ENVIRONMENTAL PLLC 2. THE WORK ON THIS PROJECT SHALL ADHERE TO THE FOLLOWING
- SPECIFICATIONS, STANDARDS AND/OR REGULATIONS: 2.1. NC DEMLR'S "EROSION AND SEDIMENT CONTROL PLANNING
- AND DESIGN MANUAL" (2013) 2.2. NC DEMLR'S CONSTRUCTION GENERAL PERMIT NUMBER
- NCG01000 GENERAL, REGIONAL AND SPECIAL CONDITIONS OF USACE'S
- 404 NATIONWIDE PERMIT NUMBER 27 GENERAL AND SPECIAL CONDITIONS OF NCDWR'S 401 WATER
- QUALITY CERTIFICATION 4134
- 2.5. THE CONSTRUCTION DOCUMENTS 3. NOT ALL EXISTING UTILITIES ARE SHOWN. SOME LOCATIONS MAY BE ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY LOCATION AND COORDINATION. ANY UTILITIES SHOWN ON THE CONSTRUCTION DOCUMENTS ARE FOR INFORMATIONAL PURPOSES ONLY AND IN NO WAY RELIEVES THE CONTRACTOR FROM COORDINATING, VERIFYING AND PROTECTING EXISTING UTILITIES. ALL UTILITIES SHALL BE PROTECTED AND REMAIN ACTIVE UNLESS OTHERWISE NOTED.
- 4. THE BUILDER IS RESPONSIBLE FOR THE PROJECT AREA UNTIL COMPLETION AND FINAL ACCEPTANCE BY THE PROJECT OWNER. THE BUILDER SHALL TAKE ALL PRECAUTIONS NECESSARY AND SHALL BEAR ALL RISK OF LOSS OR DAMAGE. THE CONTRACTOR WILL FURNISH ALL NECESSARY EQUIPMENT, TOOLS, LABOR, TRANSPORTATION, AND SUPERVISION TO COMPLETE THE WORK ACCORDING TO THESE SPECIFICATIONS AND APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. THE BUILDER SHALL CONFINE ALL ACTIVITIES, INCLUDING EQUIPMENT STORAGE, TO THE LIMITS OF DISTURBANCE, STAGING AREAS, AND DESIGNATED CONSTRUCTION ACCESS POINTS.
- THE MANNER IN WHICH THE BUILDER DEALS WITH PEOPLE AND THEIR PROPERTIES WHILE PERFORMING THIS WORK IS EXTREMELY IMPORTANT TO THE TOWN. THEREFORE, THE BUILDER AND THE BUILDER'S REPRESENTATIVES SHALL MANIFEST A SPIRIT OF FRIENDLINESS AND COOPERATION WHEN DEALING WITH PROPERTY OWNERS AND THE GENERAL PUBLIC WHILE PERFORMING WORK UNDER THIS SPECIFICATION.
- 6. EXTREME CARE AND DILIGENCE SHALL BE EXERCISED BY THE CONTRACTOR TO ASSURE THE SAFETY OF PERSONS, ANIMALS, AND PROPERTY. IF AT ANY TIME PROJECT OWNER DETERMINES THAT THE BUILDER'S METHODS OR EQUIPMENT ARE INADEQUATE FOR SECURING THE SAFETY OF THE CONTRACTOR'S EMPLOYEES OR THE PUBLIC, THE DESIGNATED REPRESENTATIVE MAY DIRECT THE CONTRACTOR TO TAKE SPECIFIC ACTIONS TO ENSURE SAFETY. THE CONTRACTOR SHALL IMPROVE METHODS AS DEEMED APPROPRIATE BY THE DESIGNATED REPRESENTATIVE WITHOUT ADDITIONAL COST TO THE PROJECT OWNER, SO AS TO ASSURE COMPLIANCE WITH SAFETY CONCERNS. FAILURE OF THE DESIGNATED REPRESENTATIVE TO MAKE THIS DEMAND SHALL NOT RELIEVE THE BUILDER OF ANY OBLIGATION TO ENSURE THE SAFE CONDUCT OF ITS WORK.
- THE BUILDER SHALL MAINTAIN ALL LIGHTS, GUARDS, SIGNS, TEMPORARY PASSAGES, OR OTHER PRECAUTIONS NECESSARY FOR THE SAFETY OF ALL PERSONS. THE BUILDER SHALL ABIDE BY ALL GOVERNMENTAL AUTHORITIES AND OTHER ENTITIES, INCLUDING RAILROADS, SO THE PUBLIC IS SAFEGUARDED FROM ACCIDENTS AND DELAYS. GUARDS AND FLAGS REQUIRED BY GOVERNMENTAL OR RAILROAD AUTHORITIES SHALL BE PROVIDED AT THE BUILDER'S EXPENSE, UNLESS DIRECTED OTHERWISE BY THE DESIGNATED REPRESENTATIVE. CONTRACTOR SHALL AT NO TIME COMPROMISE EITHER SAFETY OR ENVIRONMENTAL REQUIREMENTS.
- 8. THE BUILDER SHALL ONLY USE ACCESS POINTS, ACCESS PATHS AND STAGING AREAS SHOWN ON THE DRAWINGS. ANY ALTERNATE ACCESS PLANNED BY THE CONTRACTOR SHALL BE APPROVED BY THE ENGINEER AND PROJECT OWNER PRIOR TO USE. ANY NEW ACCESS ROUTES OR STAGING AREAS NEEDED FOR STREAM RESTORATION ACTIVITIES MUST FIRST BE FLAGGED AND MAPPED FOR EVALUATION AND WRITTEN APPROVAL MUST BE OBTAINED PRIOR TO ANY DISTURBANCE ACTIVITIES.

TOPOGRAPHIC NOTES AND SPECIFICATIONS

- 9. A DETAILED TOPOGRAPHIC AND TREE SURVEY OF THE WORK AREA WAS COMPLETED BY BEN PATTON SURVEYING PLLC IN OCTOBER 2021. ADDITIONAL SITE DATA AND BASE DRAWINGS WERE CURATED BY JENNINGS ENVIRONMENTAL PLLC.
- 10. HORIZONTAL DATUM IS NAD83(2011) & VERTICAL DATUM IS NAVD88. ALL COORDINATES ARE BASED ON NAD83(2011) AND ALL ELEVATIONS ARE BASED ON NAVD88.
- 11. THE DESIGN ELEVATIONS AND GRADES SHOWN IN THE DRAWINGS ARE BASED ON THE EXISTING GROUND SURFACE FROM THE OCTOBER 2021 SURVEY FROM WHICH ALL COMPUTATIONS OF CUT AND FILL ARE BASED. SLIGHT DISCREPANCIES BETWEEN THE SURVEYED EXITING GROUND SURFACE AND FIELD CONDITIONS AT THE TIME OF CONSTRUCTION CAN RESULT IN VARIATIONS OF TOTAL EXCAVATED QUANTITIES. THESE VARIATIONS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

QUANTITIES AND MATERIALS SPECIFICATIONS

- 12. THE BUILDER SHALL FURNISH ALL MATERIALS NECESSARY TO COMPLETE THE PROPOSED WORK UNLESS OTHER PROVISIONS HAVE BEEN AGREED UPON PRIOR TO CONSTRUCTION. THE BUILDER SHALL DELIVER ALL MATERIALS TO THE DESIGNATED ACCESS POINTS AND STAGING AREAS. MATERIAL QUANTITIES, DIMENSIONS AND SIZES SHALL CONFORM TO THE NOTES AND SPECIFICATIONS PROVIDED IN THE CONSTRUCTION DOCUMENTS. THE ENGINEER MAY INSPECT AND APPROVE ALL MATERIALS PRIOR TO CONSTRUCTION. IF MATERIALS DO NOT MEET THE MINIMUM REQUIREMENTS SPECIFIED IN THE CONSTRUCTION DOCUMENTS, THE ENGINEER SHALL REJECT THE MATERIALS.
- 13. COSTS INCURRED DUE TO PROJECT DELAYS RESULTING FROM FAILURE OF THE BUILDER TO MEET THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS SHALL BE THE EXPENSE OF THE BUILDER. QUANTITIES LISTED ARE ESTIMATES ONLY AND SHALL BE
- CONFIRMED BY THE BUILDER. 14. THE EROSION CONTROL MEASURES DEPICTED ON THE DRAWINGS SHALL BE INSTALLED AS NEEDED TO KEEP ALL SEDIMENT ON SITE AND OUT OF STREAMS AND WETLANDS. ADDITIONAL EROSION

- CONTROL MEASURES (ABOVE THOSE SHOWN ON THE DRAWINGS) MAY BE REQUIRED IN ORDER TO KEEP ALL SEDIMENT ON SITE AND OUT OF STREAMS AND WETLANDS.
- 15. ANY ADDITIONAL GRADING OTHER THAN WHAT IS SHOWN ON THE PLANS SHALL REQUIRE PRIOR APPROVAL FROM THE ENGINEER AND
- 16. THE USE OF ANY BRAND NAMES/MANUFACTURERS OR MODELS IS INTENDED SOLELY TO DENOTE THE QUALITY STANDARD OF THE DESIRED PRODUCT. ANY USE OF BRAND NAMES IS NOT INTENDED TO RESTRICT BIDDERS TO A SPECIFIC BRAND, MAKE, MANUFACTURER, OR NAME. THE BRAND NAMES / MANUFACTURERS OF MODELS ARE INTENDED TO CONVEY THE GENERAL STYLE, TYPE, CHARACTER, AND QUALITY OF PRODUCT. EQUIVALENT PRODUCTS WILL BE ACCEPTABLE IF THE PROJECT OWNER OR ENGINEER HAS GIVEN APPROVAL OF THE SPECIFIC PRODUCT IN WRITING.
- 17. THE BUILDER SHALL BE RESPONSIBLE FOR LOCATING AND PROVIDING STORAGE AREAS FOR CONSTRUCTION MATERIALS AND EQUIPMENT. THE MATERIAL AND EQUIPMENT STORAGE SHALL COMPLY WITH THE CONSTRUCTION DOCUMENTS AND ALL LOCAL, STATE AND FEDERAL REGULATIONS THROUGHOUT THE CONSTRUCTION PERIOD. THE BUILDER SHALL RESTORE THE STORAGE AREA TO ITS ORIGINAL (OR BETTER) CONDITION UPON COMPLETION OF THE PROJECT OR UPON SUCH TIME AS DIRECTED BY THE ENGINEER AND PROJECT OWNER.
- 18. THE BUILDER SHALL WARRANTY ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE OF BY THE PROJECT OWNER AND SHALL REPLACE ANY PORTIONS THAT FAIL DUE TO FAULTY MATERIALS OR WORKMANSHIP, AT NO ADDITIONAL COST TO THE PROJECT OWNER. A SIX (6) MONTH AND ELEVEN (11) MONTH INSPECTION WILL BE PERFORMED DURING THE WARRANTY PERIOD. THE BUILDER SHALL IMMEDIATELY REPAIR ALL ITEMS DETERMINED BY THE PROJECT OWNER OR AUTHORIZED REPRESENTATIVE TO BE DEFECTIVE UPON NOTIFICATION. THE BUILDER SHALL IMMEDIATELY REPAIR OR REPLACE FAILED ITEMS UPON NOTIFICATION BY THE PROJECT OWNER. SEASONALLY INSTALLED ITEMS SHALL BE REPAIRED OR REPLACED DURING THE NEXT AVAILABLE INSTALLATION PERIOD. ITEMS REPAIRED OR REPLACED UNDER THIS PROVISION SHALL HAVE AN ADDITIONAL ONE (1) YEAR WARRANTY PERIOD FROM THE NEW DATE OF ACCEPTANCE. AREAS AND/OR OTHER WORK DISTURBED WHILE ACCESSING AND/OR REPAIRING/REPLACING WARRANTY COVERED ITEMS SHALL BE STABILIZED.

STREAM RESTORATION NOTES AND **SPECIFICATIONS**

- 19. FIELD CONDITIONS AND PROJECT VARIABILITY MAY REQUIRE ADAPTATION OF THE DRAWINGS AND/OR DETAILS PROVIDED IN THE CONSTRUCTION DOCUMENTS DEPENDING ON SITE CONDITIONS OR PROJECT NEEDS. MINOR VARIATION(S) OR ADAPTATION(S) OF THE PROPOSED WORK SHOWN ON THE DRAWINGS AND/OR DETAILS ARE CONSIDERED INCIDENTAL TO THE
- 20. THE BUILDER SHALL MARK THE LIMITS OF CLEARING FOR ACCESS STAGING AND GRADING OPERATIONS FOR VERIFICATION OF INTENT BY THE ENGINEER AND THE TOWN. SOME MINOR ADJUSTMENT OF THE ACCESS ROUTES AND STAGING AREAS MAY BE REQUIRED TO PRESERVE TREES OR MINIMIZE IMPACT TO TREES THE ENGINEER AND PROJECT OWNER MUST APPROVE ALL TREE REMOVAL OPERATIONS. WHERE PRACTICABLE, EXISTING TREES AND VEGETATION SHOULD BE LEFT IN PLACE TO FACILITATE NATURAL REGENERATION AND SOIL STABILIZATION.
- 21. THE BUILDER SHALL MINIMIZE, TO THE MAXIMUM EXTENT POSSIBLE, IMPACTS TO THE ADJACENT TREES.
- SAFETY RULES AND CONSTRUCTION CONDITIONS REQUIRED BY 22. CONSTRUCTION EQUIPMENT TRACKS AND ACCESS PATHS SHALL BE GRADED AND RE-CONTOURED AFTER CONSTRUCTION TO PREVENT RILL AND GULLY EROSION.
 - 23. THE BUILDER SHALL USE AN EXCAVATOR WITH A HYDRAULIC THUMB TO INSTALL IN-STREAM STRUCTURES.
 - 24. DESIGN ELEVATIONS AT THE UPSTREAM AND DOWNSTREAM EXTENTS OF THE WORK AND IN THE VICINITY OF TRIBUTARIES AND CONFLUENCES MAY NEED TO BE ADJUSTED TO MEET FIELD CONDITIONS. ADJUSTMENTS SHALL BE MADE IN CONJUNCTION WITH THE ENGINEER AND ARE CONSIDERED INCIDENTAL TO CONSTRUCTION.
 - 25. CHANNEL REALIGNMENT WORK SHALL BE COMPLETED AND STABILIZED PRIOR TO ALLOWING FLOW TO ENTER INTO THE NEWLY CONSTRUCTED STREAM CHANNEL. THE BUILDER SHALL NOT OPEN UP MORE THAN 150 FEET OF CHANNEL WITHOUT EROSION CONTROL MATTING IN PLACE OR BY APPROVAL OF THE ENGINEER. IF THE CHANNEL REALIGNMENT WORK IS NOT COMPLETED PRIOR TO ABANDONING THE OLD CHANNEL, A TEMPORARY SYSTEM SHALL BE USED ACCORDING THE APPROVED E&SC PLAN AND DETAILS. IN-LINE CHANNEL WORK SHALL UTILIZE THE TEMPORARY PUMP AROUND SYSTEM AT ALL TIMES.
 - 26. STREAM RESTORATION WORK SHALL BE IMPLEMENTED BY FIRST GRADING THE FLOODPLAIN ADJACENT TO THE CHANNEL TO THE ELEVATIONS AND GRADES SPECIFIED IN THE DRAWINGS. THE DESIGN CHANNEL SHALL THEN BE EXCAVATED TO THE DESIGN CHANNEL CROSS-SECTION GEOMETRY AND LONGITUDINAL PROFILE SHOWN IN THE DRAWINGS AND DETAILS. ANY TEMPORARY STOCKPILING OR DOUBLE HANDLING OF EXCESS EARTH NECESSARY TO BUILD THE CHANNEL SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
 - 27. BANKFULL CHANNEL DIMENSION TOLERANCES WILL BE HELD TO THE DIMENSIONS SHOWN ON THE DESIGN CHANNEL SECTIONS. ELEVATIONS SHALL BE CONSTRUCTED WITHIN 0.1' (VERTICAL) WIDTHS AND DEPTHS MUST FALL WITHIN RANGES SHOWN IN THE PLANSHEETS. CHANNEL CROSS-SECTION DIMENSIONS SHALL BE WITHIN 0.2' (HORIZONTAL).
 - 28. IF THE EXISTING GROUND IS LESS THAN 0.2' HIGHER THAN THE PROPOSED BANKFULL ELEVATION, IT IS NOT NECESSARY TO EXCAVATE TO THE PROPOSED ELEVATIONS AND GRADES IN THE CONSTRUCTION DOCUMENTS.
 - 29. IN-STREAM STRUCTURES SHALL BE INSTALLED AS THE CHANNEL IS BEING CONSTRUCTED. INSTREAM STRUCTURES SHALL BE FINISHED TO A SMOOTH SURFACE IN ACCORDANCE WITH THE LINES, GRADES AND ELEVATIONS SHOWN IN THE CONSTRUCTION DOCUMENTS. THE FINISHED STRUCTURE SLOPES AND PROFILE ELEVATIONS SHALL BE WITHIN 0.1' (VERTICAL) OF THE CONSTRUCTION DOCUMENTS.
 - 30. FILTER FABRIC SHALL BE USED FOR IN-STREAM STRUCTURES. ALL FILTER FABRIC SHALL BE 80Z. NONWOVEN GEOTEXTILE UNLESS OTHERWISE SPECIFIED IN STRUCTURE DETAILS OR SPECIFICATIONS. FILTER FABRIC SHALL BE TRIMMED TIGHT TO THE SURFACE OF THE STRUCTURE AND SHOULD NOT BE OBSERVED BY VISUAL INSPECTION.
 - 1. BOULDER STRUCTURES SHALL BE CONSTRUCTED FROM BOULDERS THAT ARE CUBICAL OR RECTANGULAR IN SHAPE AND SIZED ACCORDING TO THE STRUCTURE DETAILS.
 - 32. AFTER THE STRUCTURE IS COMPLETE AND FLOW IS RESTORED TO THE CHANNEL, SOME ADJUSTMENT TO THE STRUCTURE OR

ADDITIONAL STABILIZATION MEASURE MAY BE NECESSARY TO ACHIEVE THE DESIRED FUNCTION.

- 33. THE CONSTRUCTED CHANNEL SHALL BE STABILIZED AS SOON AS POSSIBLE BY TEMPORARY AND PERMANENT SEEDING, ADDING STRAW MULCH TO BARE SOIL AND INSTALLING EROSION CONTROL MATTING FROM THE TOE OF THE BANKFULL CHANNEL TO THE FLOODPLAIN GRADING LIMITS. PRIOR TO INSTALLING THE EROSION CONTROL MATTING, PREPARE THE SOIL SURFACE BY LOOSENING 4" OF SOIL OR APPLYING 4" OF TOPSOIL TO THE PROPOSED ELEVATIONS AND APPLY SEED AND THEN STRAW MULCH. SEED SHALL BE BROADCAST EVENLY OF THE AREA USING A BROADCAST SPREADER PRIOR TO COVERING WITH THE EROSION CONTROL MATTING. INSTALL MATTING IN ACCORDANCE WITH THE DETAIL INCLUDED IN THE CONSTRUCTION DOCUMENTS. MATTING MATERIAL USED FOR STREAMSIDE STABILIZATION MUST BE CERTIFIED WEED-FREE STRAW OR OTHER NATURAL WEED-FREE / NON-PROPAGATING VEGETATIVE MATERIALS. REWORKING OF AREAS THAT DO NOT ESTABLISH VEGETATION OR BECOME UNSTABLE SHALL BE NECESSARY IN THE MATTING SEPARATES FROM THE SOIL.
- 34. ANY AREA DISTURBED BY THE BUILDER SHALL BE PROMPTLY STABILIZED FOR INTERIM AND PERMANENT PURPOSES CONSISTENT WITH STORMWATER BEST MANAGEMENT PRACTICES. STABILIZATION INCLUDES RE-VEGETATION OF ANY EXPOSED SOILS. MULCH SHALL BE SPREAD TO COVER DISTURBED CHANNEL AND FLOODPLAIN AREAS. MULCH SHALL BE KEPT OUT OF THE CROWNS OF SHRUBS AND GROUND COVER.

EXISTING SITE FEATURES

CONIFEROUS TREE

STREAM RESTORATION PLAN FEATURES

	PARCEL BOUNDARY	\otimes	UTILITY	—— LOD ——	LIMITS OF DISTURBANCE (LOD)	DESIGN CHANNEL PLUG
R/W	RIGHT OF WAY		NAIL WITH BLUE FLAGGING	(2085)	DESIGN MAJOR CONTOUR	DESIGN CONSTRUCTED RIFFLI
——·2085 ——	EXISTING MAJOR CONTOUR		FIRE HYDRANT		DESIGN MINOR CONTOUR	DESIGN BOULDER RIFFLE
	EXISTING MINOR CONTOUR		SEWER MANHOLE		DESIGN STREAM BANKFULL	DESIGN BOULDER STEP
==:==:=	EXISTING CULVERT	D	STORMWATER MANHOLE		DESIGN STREAM CENTERLINE	 DESIGN TOE PROTECTION
	EXISTING STREAM	#	DECIDUOUS TREE		DESIGN GRADING LIMITS	 DESIGN BOULDER WALL
		.31111111111111111111111111111111111111				

— FPT — DESIGN FLOODPLAIN TOE

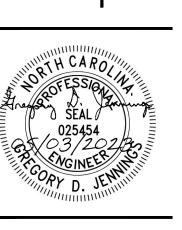


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FINAL **DRAWING**

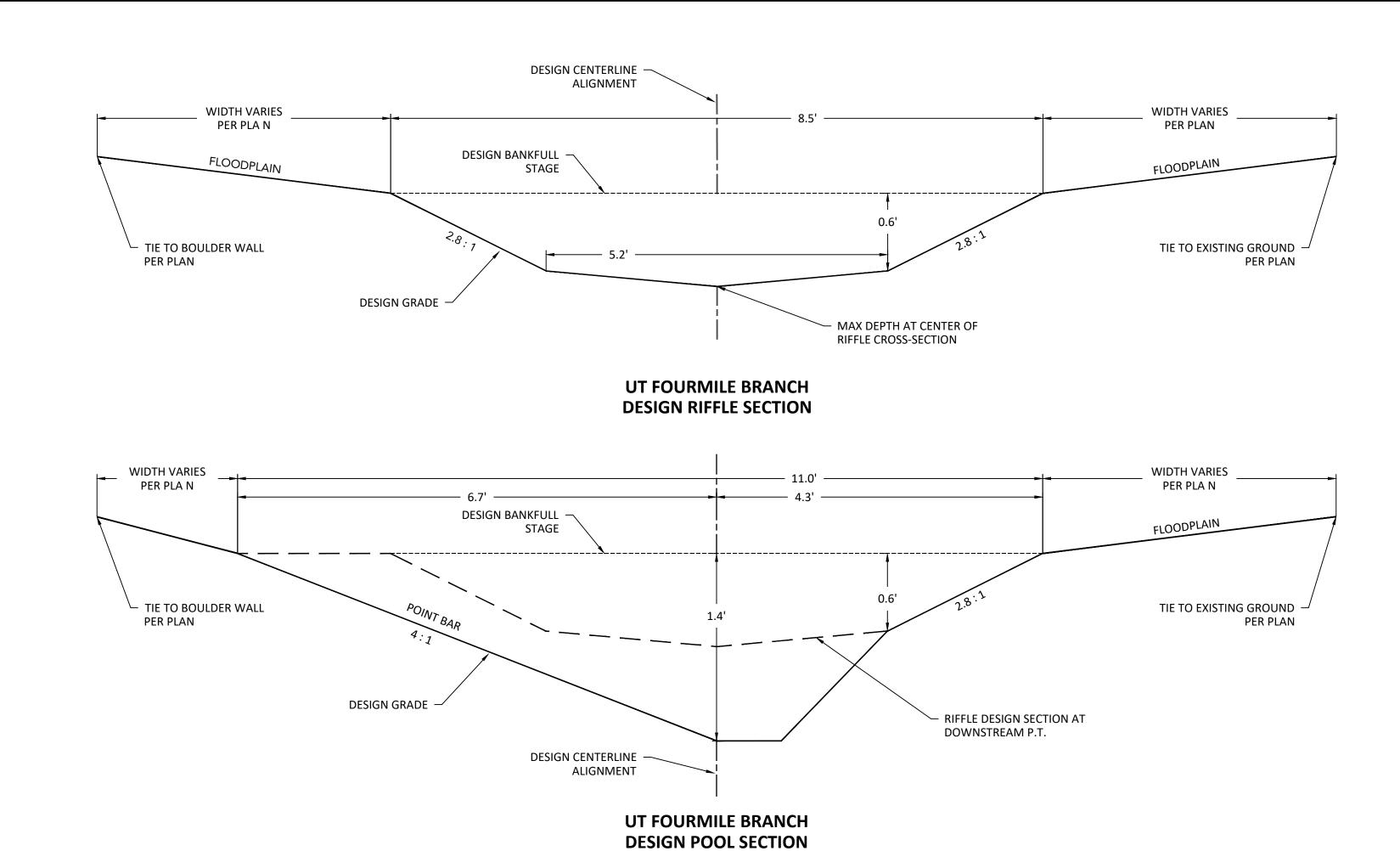
REVISIONS:

DATE: 05/03/2023 PLOT SIZE: 24" x 36" H.D.: NAD83 (NCSP) V.D.: NAVD88

JE PID: 5701

DESIGN CHANNEL SECTION SPECIFICATIONS

- CONSTRUCT THE DESIGN CHANNEL SECTION TO THE LINES, ELEVATIONS AND GRADES SHOWN ON THE DRAWINGS AND DETAILS.
- 2. CHANNEL CONSTRUCTION WORK SHALL BE IMPLEMENTED BY FIRST GRADING THE FLOODPLAIN ADJACENT TO THE CHANNEL TO THE DESIGN ELEVATIONS AND GRADES SPECIFIED IN THE DRAWINGS AND DETAILS. THE DESIGN CHANNEL SHALL THEN BE EXCAVATED TO THE DESIGN CHANNEL GEOMETRY AND PROFILE. THIS CHANNEL WORK SHALL BE DONE WITH LOW GROUND PRESSURE TRACK EQUIPMENT. DRAWINGS PROVIDE DIMENSIONS, ELEVATIONS AND SLOPES TO AID IN CONSTRUCTION OF THE CHANNEL. THE THALWEG (CENTERLINE) CAN FIRST BE EXCAVATED TO THE ELEVATION SPECIFIED IN THE PROFILE. EXCAVATION OF THE SIDE SLOPES AND FINE GRADING OF THE CHANNEL SHALL THEN BE PREFORMED. ANY TEMPORARY STOCKPILING OR DOUBLE HANDLING OF EXCESS EARTH NECESSARY TO BUILD THE CHANNEL SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
- 3. BANKFULL CHANNEL DIMENSIONS WILL BE HELD TO THE DIMENSIONS SHOWN IN THE DESIGN CHANNEL SECTION DETAIL ON THIS SHEET. ELEVATIONS AND DEPTHS SHALL BE CONSTRUCTED TO WITHIN 0.1' (VERTICAL). CHANNEL WIDTHS AND OTHER HORIZONTAL (X,Y) DIMENSIONS SHALL BE WITHIN 0.2'.
- 4. IN-STREAM STRUCTURES SHALL BE INSTALLED AS THE CHANNEL IS BEING CONSTRUCTED. INSTREAM STRUCTURES SHALL BE FINISHED TO A SMOOTH SURFACE IN ACCORDANCE WITH THE LINES, GRADES AND ELEVATIONS SHOWN IN THE DRAWINGS AND DETAILS. THE FINISHED STRUCTURE SLOPES AND ELEVATIONS SHALL BE WITHIN 0.1' (VERTICAL) OF THE DRAWINGS AND DETAILS.
- 5. INSTALL EROSION CONTROL MATTING ON THE ENTIRE FLOODPLAIN.



SECTIONS

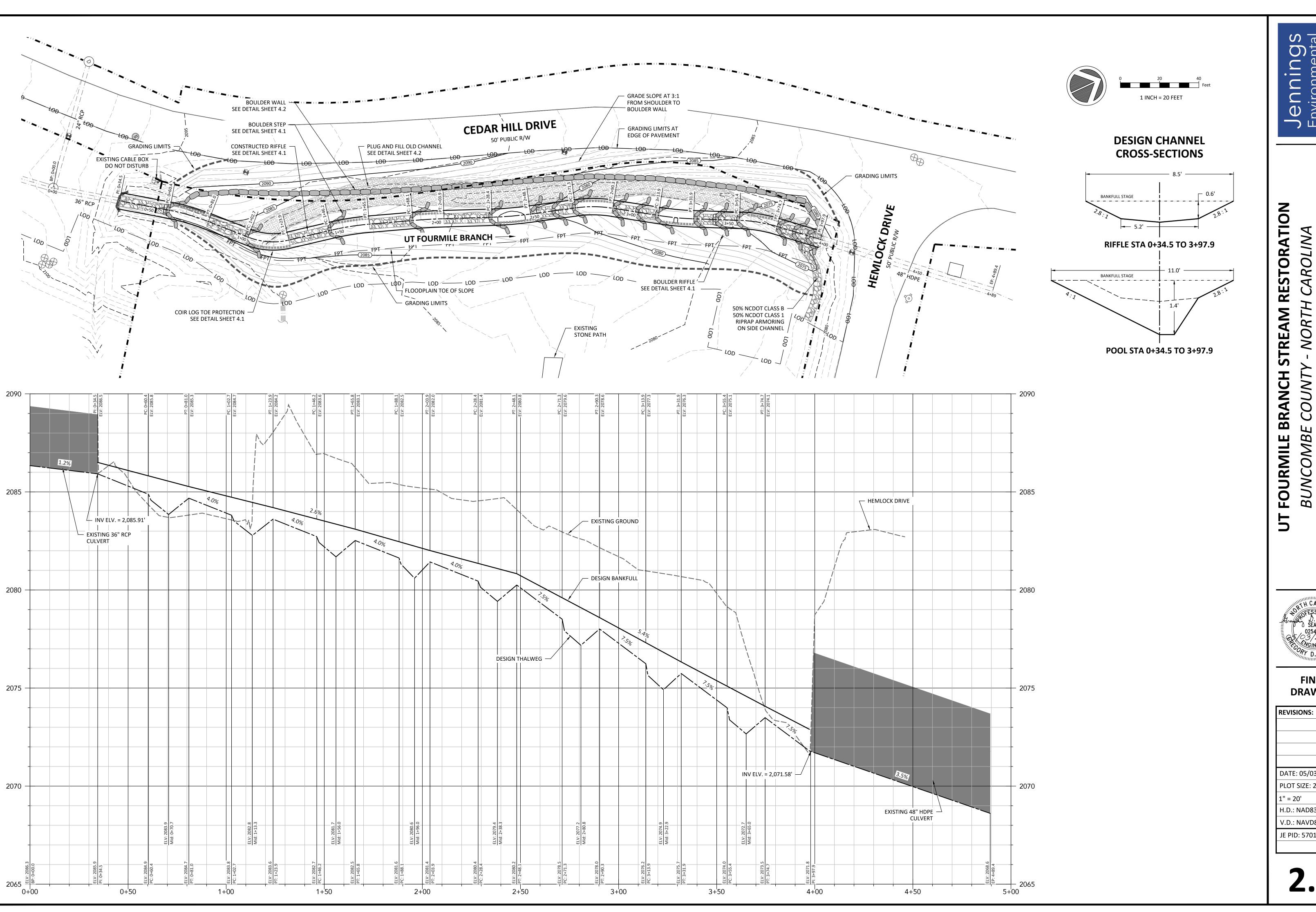
RESTORATION

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H.D.: NAD83 (NCSP)
V.D.: NAVD88

JE PID: 5701

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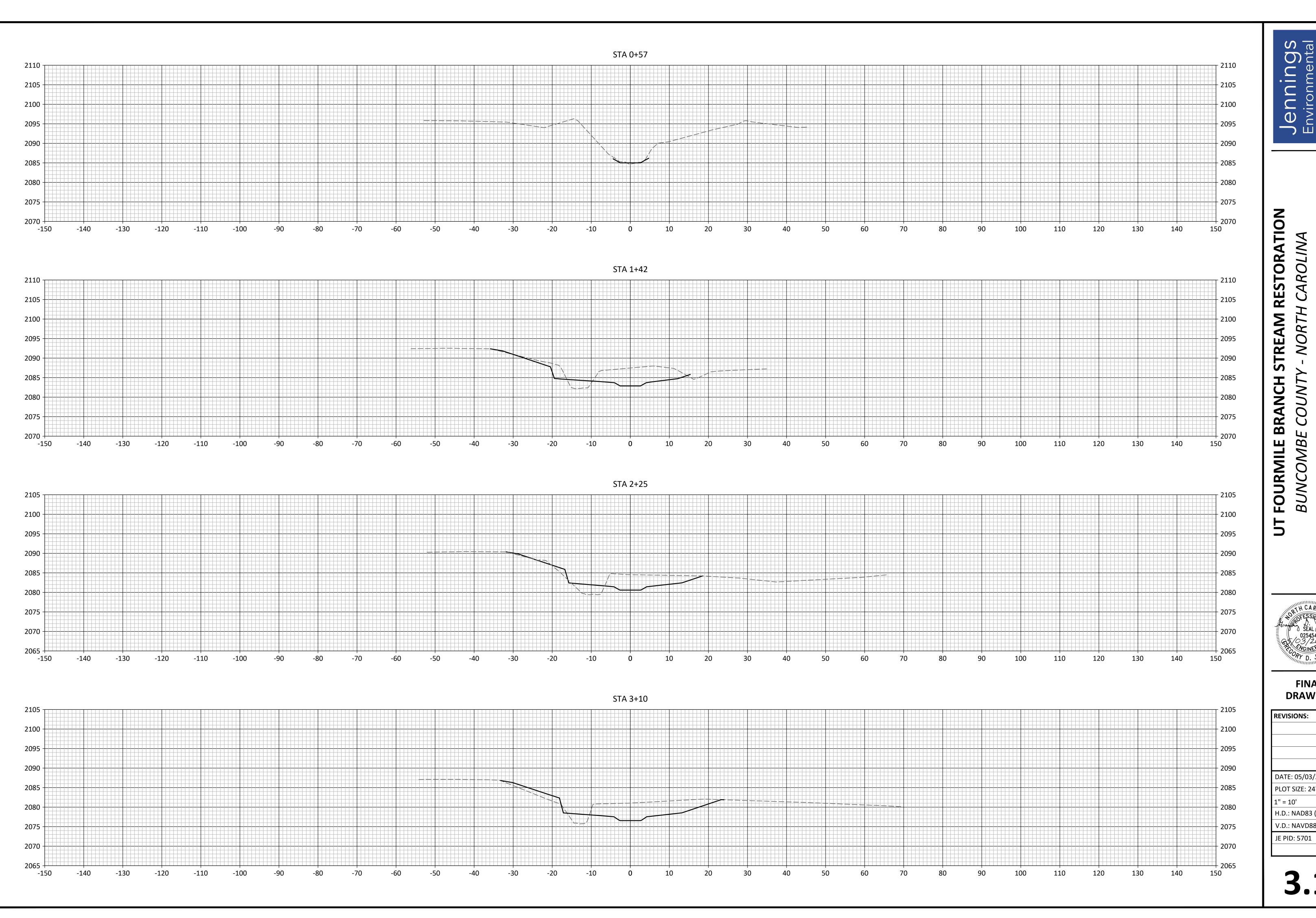
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FINAL DRAWING

DATE: 05/03/2023 PLOT SIZE: 24" x 36"

H.D.: NAD83 (NCSP) V.D.: NAVD88 JE PID: 5701



Jennings Environmental

STREAM RESTORATION CAROLINA **BRANCH** RMILE BUN FOU

SECTIONS

RESTORATION DESIGN GRADING

REAM

FINAL DRAWING

REVISIONS: DATE: 05/03/2023 PLOT SIZE: 24" x 36" 1" = 10' H.D.: NAD83 (NCSP) V.D.: NAVD88

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DESIGN

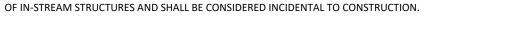
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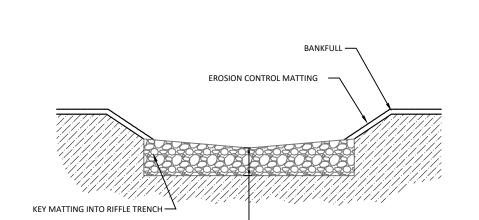
DATE: 05/03/2023 PLOT SIZE: 24" x 36"

H.D.: NAD83 (NCSP) V.D.: NAVD88 JE PID: 5701

CONSTRUCTED RIFFLE SPECIFICATIONS

- 1. FOR INSTALLATION, THE CONTRACTOR SHALL OVER EXCAVATE THE LENGTH OF THE RIFFLE AND BACKFILL THE TRENCH WITH THE SPECIFIED RIFFLE SUBSTRATE MATERIAL TO THE ELEVATIONS SHOWN ON THE PROPOSED PROFILE.
- 2. RIFFLE MATERIAL SHALL EXTEND A MINIMUM OF $\frac{1}{3}$ W_{BKF} U/S OF THE P.T. INTO THE GLIDE AND A MINIMUM OF $\frac{1}{3}$ W_{BKF} D/S OF THE P.C. INTO THE RUN.
- 3. THE RIFFLE MATERIAL SHALL BE PLACED AT A UNIFORM THICKNESS SUCH THAT, IN CROSS-SECTION, ITS LOWEST ELEVATION OCCURS IN THE CENTER OF THE CHANNEL.
- 4. RIFFLE MATERIAL SHALL BE COMPACTED USING AN EXCAVATOR BUCKET SUCH THE DEEPEST POINT OF THE CHANNEL IS ALONG THE CENTERLINE AND THAT FUTURE SETTLEMENT OF THE MATERIAL IS KEPT TO A MINIMUM.
- 5. RIFFLES SHALL BE CONSTRUCTED OF 50% NCDOT CLASS B AND 50% NCDOT CLASS 1 RIPRAP. THE ENGINEER MUST APPROVE THE USE OF ALL ONSITE NATIVE MATERIAL. ALL STONE USED FOR RIFFLE CONSTRUCTION SHALL BE MIXED WITH EARTH AVAILABLE ONSITE SUCH THAT THE RIFFLE MATERIAL IS WELL-GRADED WHEN PLACED IN THE RIFFLE
- 6. THE SURFACE OF THIS STRUCTURE SHALL BE FINISHED TO A SMOOTH AND COMPACT SURFACE IN ACCORDANCE WITH THE LINES, GRADES, AND CROSS-SECTIONS OR ELEVATIONS SHOWN ON THE DRAWINGS. THE DEGREE OF FINISH FOR ELEVATIONS SHALL BE WITHIN 0.1 FT OF THE GRADES AND ELEVATIONS INDICATED OR APPROVED BY THE ENGINEER.
- 7. RE-DRESSING OF CHANNEL AND BANKFULL BENCH/FLOODPLAIN WILL LIKELY BE REQUIRED FOLLOWING INSTALLATION





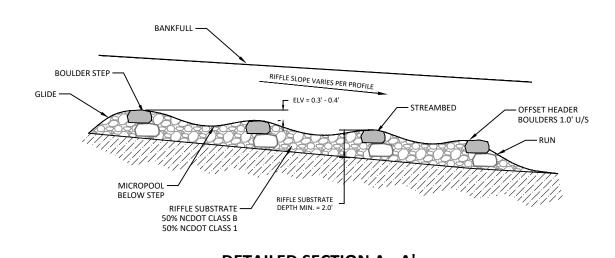
DETAILED SECTION B - B' NOT TO SCALE

MOST DOWN STREAM STRUCTURE AT -PC MAY BE A BOULDER STEP PER PLAN AND DETAILS

EXTEND BOULDER SILL INTO STREAMBANK ·

MIN 8.0' OR TWO FULL BOULDER LENGTHS

DETAILED PLAN NOT TO SCALE

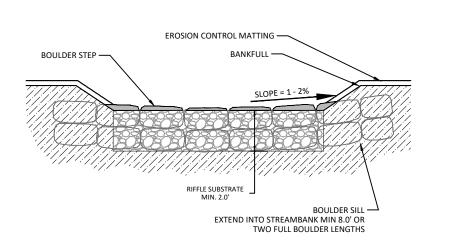


DETAILED SECTION A - A' NOT TO SCALE

1. ALL BOULDERS USED FOR THE BOULDER CASCADE SHALL BE STRUCTURAL STONE, CUBICAL OR RECTANGULAR IN SHAPE. THE ENGINEER MUST APPROVE THE USE OF BOULDERS THAT MAY BE AVAILABLE ONSITE. BOULDERS DIMENSIONS SHALL BE 3.0' X 5.0' X 2.0' (W X L X H) +/- 0.5 FT. THE MINIMUM ACCEPTABLE BOULDER THICKNESS (H) IS 1.5'. BOULDERS LONGER (L) THAN 5.5' WILL BE ACCEPTED. DIMENSIONS AND SLOPES OF STRUCTURES DESCRIBED IN THE DETAIL MAY BE ADJUSTED BY THE ENGINEER TO FIT CONDITIONS ONSITE. CONTRACTOR WILL BE REQUIRED TO FIT BOULDERS TOGETHER TIGHTLY. GAPS BETWEEN BOULDERS SHALL BE

BOULDER RIFFLE SPECIFICATIONS

- MINIMIZED BY FITTING BOULDERS TOGETHER AND PLUGGING WITH NC DOT CLASS A ROCK OR CHINKING STONE APPROVED BY ENGINEER. HEADER BOULDERS SHALL BE UNDERLAIN BY FOOTER BOULDERS TO PROVIDE A FOUNDATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. HEADER BOULDERS SHALL BE OFFSET 1 FT UPSTREAM OF THE FOOTER BOULDERS WHERE MICROPOOLS ARE ANTICIPATED TO FORM AS SHOWN IN THE DETAIL.
- 3. SET BOULDER INVERTS AT ELEVATION SHOWN ON THE PLAN AND PROFILE SHEETS. NO ELEVATIONS OF THE BOULDERS MAY VARY FROM THE PLAN SHEETS WITHOUT DIRECTION FROM THE ENGINEER. THE BOULDER ARMS SHALL EXTEND UP TO THE STREAMBANK AT A 1% - 2% SLOPE AND INTO THE STREAMBANK A MINIMUM OF 10.0' OR TWO FULL BOULDER LENGTHS. MAXIMUM ELEVATION DROP OVER EACH BOULDER IS STEP IS 0.3' - 0.5'.
- 4. ON THE UPSTREAM SIDE OF THE BOULDERS, NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED ON THE ENTIRE LENGTH OF THE STRUCTURE. FILTER FABRIC SHALL EXTEND FROM THE BOTTOM OF THE FOOTER BOULDER TO THE FINISHED GRADE ELEVATION AND SHALL BE PLACED THE ENTIRE LENGTH OF THE STRUCTURE. RIFFLE MATERIAL SHALL BE USED AS BACKFILL MATERIAL AROUND THE OFFSET BOULDER STEPS AND MICROPOOLS SHALL BE ESTABLISHED
- BOULDER RIFFLES SHALL BE BACKFILLED WITH NATIVE GRAVEL AND COBBLE MATERIAL AVAILABLE ONSITE. THE ENGINEER MUST APPROVE THE USE OF ALL ONSITE NATIVE MATERIAL. WHEN NATIVE SUBSTRATE IS NOT SUFFICIENT FOR COMPLETION OF THE STRUCTURE, QUARRIED STONE SHALL BE USED TO SUPPLEMENT THE RIFFLE MATERIAL ACCORDING TO THE RIFFLE SUBSTRATE SPECIFICATIONS IN THE CONSTRUCTED RIFFLE DETEAIL. RIFFLE MATERIAL SHALL BE PLACED AT A UNIFORM THICKNESS SUCH THAT, IN CROSS-SECTION, ITS LOWEST ELEVATION OCCURS IN THE CENTER OF THE CHANNEL. RIFFLE MATERIAL SHALL BE COMPACTED USING AN EXCAVATOR BUCKET SUCH THAT FUTURE SETTLEMENT OF THE MATERIAL IS KEPT TO A MINIMUM.
- 6. RIFFLE MATERIAL SHALL EXTEND A MINIMUM OF $\frac{1}{3}$ W_{BKF} U/S OF THE P.T. INTO THE GLIDE AND A MINIMUM OF $\frac{1}{3}$ W_{BKF}
- RIFFLES SHALL BE CONSTRUCTED OF 50% NCDOT CLASS B AND 50% NCDOT CLASS 1 RIPRAP. THE ENGINEER MUST APPROVE THE USE OF ALL ONSITE NATIVE MATERIAL. ALL STONE USED FOR RIFFLE CONSTRUCTION SHALL BE MIXED WITH EARTH AVAILABLE ONSITE SUCH THAT THE RIFFLE MATERIAL IS WELL-GRADED WHEN PLACED IN THE RIFFLE
- 8. THE SURFACE OF THIS STRUCTURE SHALL BE FINISHED TO A SMOOTH AND COMPACT SURFACE IN ACCORDANCE WITH THE LINES, GRADES, AND CROSS-SECTIONS OR ELEVATIONS SHOWN ON THE DRAWINGS. THE DEGREE OF FINISH FOR ELEVATIONS SHALL BE WITHIN 0.1 FT OF THE GRADES AND ELEVATIONS INDICATED OR APPROVED BY THE ENGINEER.
- 9. RE-DRESSING OF CHANNEL AND BANKFULL BENCH/FLOODPLAIN WILL LIKELY BE REQUIRED FOLLOWING INSTALLATION OF IN-STREAM STRUCTURES AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.



DETAILED SECTION B - B' NOT TO SCALE

CONSTRUCTED RIFFLE DETAIL

— EXTEND VANE ARM

INTO STREAMBANK

MIN. 8.0' OR TWO

FULL BOULDER LENGTHS

P.T. STATION PER

P.T. ELEVATION PER -

GRAVEL BACKFILL

BOULDER

FOOTER

GRAVEL BACKFILL

MATERIAL

NON-WOVEN -

FILTER FABRIC

UPSTREAM OF STRUCTURE

NON-WOVEN FILTER FABRIC

HIGH DENSITY PLANTINGS -

── BANKFULL STAGE

DETAILED PLAN

NOT TO SCALE

RIFFLE SUBSTRATE -

DETAILED SECTION A - A'

NOT TO SCALE

DETAILED PLAN NOT TO SCALE

DETAILED SECTION A - A'

NOT TO SCALE

— SCOUR POOL

BELOW STRUCTURE

50% NCDOT CLASS 1

- STREAMBANK TOE OF SLOPE

BOULDER STEP SPECIFICATIONS

- 1. ALL BOULDERS USED FOR THE PROPOSED STRUCTURE SHALL BE STRUCTURAL STONE, CUBICAL OR RECTANGULAR IN SHAPE. THE ENGINEER MUST APPROVE THE USE OF BOULDERS THAT MAY BE AVAILABLE ONSITE. BOULDERS DIMENSIONS SHALL BE 3.0' X 5.0' X 2.0' (W X L X H) +/- 0.5 FT. THE MINIMUM ACCEPTABLE BOULDER THICKNESS (H) IS 1.5'. BOULDERS LONGER (L) THAN 5.5' WILL BE ACCEPTED.
- 2. DIMENSIONS AND SLOPES OF STRUCTURES DESCRIBED IN THE DETAIL MAY BE ADJUSTED BY DESIGN ENGINEER TO FIT CONDITIONS ONSITE. CONTRACTOR WILL BE REQUIRED TO FIT BOULDERS TOGETHER TIGHTLY.
- 3. GAPS BETWEEN BOULDERS SHALL BE MINIMIZED BY FITTING BOULDERS TOGETHER AND PLUGGING WITH NC DOT
- 2. HEADER BOULDERS SHALL BE UNDERLAIN BY FOOTER BOULDERS TO PROVIDE A FOUNDATION UNLESS OTHERWISE DIRECTED BY THE ENGINEER. HEADER BOULDERS SHALL BE OFFSET 1.0 FT UPSTREAM OF THE FOOTER.
- SET BOULDER INVERTS AT ELEVATION SHOWN ON THE PLAN AND PROFILE SHEETS. NO ELEVATIONS OF THE

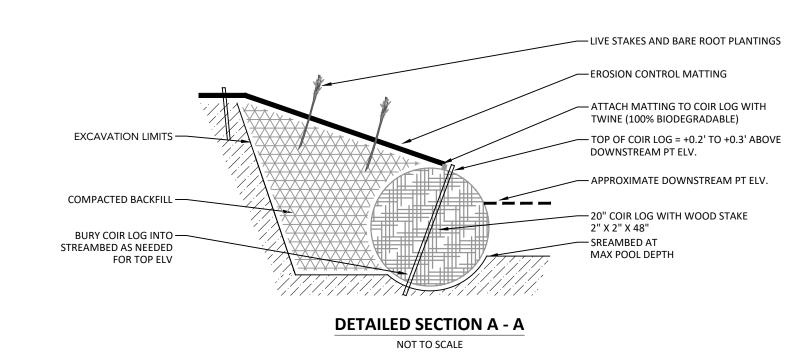
CLASS A ROCK OR CHINKING STONE APPROVED BY ENGINEER.

4. NON-WOVEN GEOTEXTILE SHALL BE PLACED ON THE UPSTREAM SIDE OF THE STRUCTURE TO PREVENT WASHOUT OF SEDIMENT THROUGH BOULDER GAPS. FILTER FABRIC SHALL EXTEND FROM THE BOTTOM OF THE FOOTER BOULDER TO THE FINISHED GRADE ELEVATION AND SHALL BE PLACED THE ENTIRE LENGTH OF THE STRUCTURE. SELECT BACK FILL MATERIAL SHALL BE PLACED UPSTREAM OF THE GEOTEXTILE MATERIAL.

BOULDERS MAY VARY FROM THE PLAN SHEETS WITHOUT DIRECTION FROM THE ENGINEER.

- 5. GRAVEL MATERIAL CONSISTING OF A WELL-GRADED BLEND OF NCDOT CLASS A RIP-RAP AND ASTM #57 ROCK MIXED WITH EARTH SHALL BE USED TO BACKFILL THE STRUCTURE. BACKFILL MATERIAL SHALL BE COMPACTED SUCH THAT FUTURE SETTLEMENT OF THE MATERIAL IS KEPT TO A MINIMUM.
- 6. THE SURFACE OF THIS STRUCTURE SHALL BE FINISHED TO A SMOOTH AND COMPACT SURFACE IN ACCORDANCE WITH THE LINES, GRADES, AND CROSS-SECTIONS OR ELEVATIONS SHOWN ON THE DRAWINGS. THE DEGREE OF FINISH FOR INVERT ELEVATIONS SHALL BE WITHIN 0.1 FT OF THE GRADES AND ELEVATIONS INDICATED.
- 7. RE-DRESSING OF CHANNEL AND BANKFULL BENCH/FLOODPLAIN WILL LIKELY BE REQUIRED FOLLOWING INSTALLATION OF IN-STREAM STRUCTURES AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

LIVE STAKES AND BARE ROOT PLANTINGS **DETAILED PLAN** NOT TO SCALE



STREAMBANK @ ½ TO 3 BKF STAGE KEY BOULDERS INTO -—FIT BOULDERS TIGHTLY TOGETHER STREAMBANK MIN. 8.0' OR TWO FULL BOULDER LENGTHS PLACE BOULDERS INTO STREAMBED A MINIMUM OF THE BOULDER DIAMETER

—KEY BOULDERS INTO

DETAILED SECTION B - B'

NOT TO SCALE

BOULDER STEP DETAIL

WOOD STAKES 4' O.C. 2. COIR LOG SPECIFICATIONS: 2.1. DIAMETER: 20" 2.2. WEIGHT: 15 LBS / FT 2.3. DENSITY: 9 LBS / FT³ 2.4. LENGTH: 10 FT

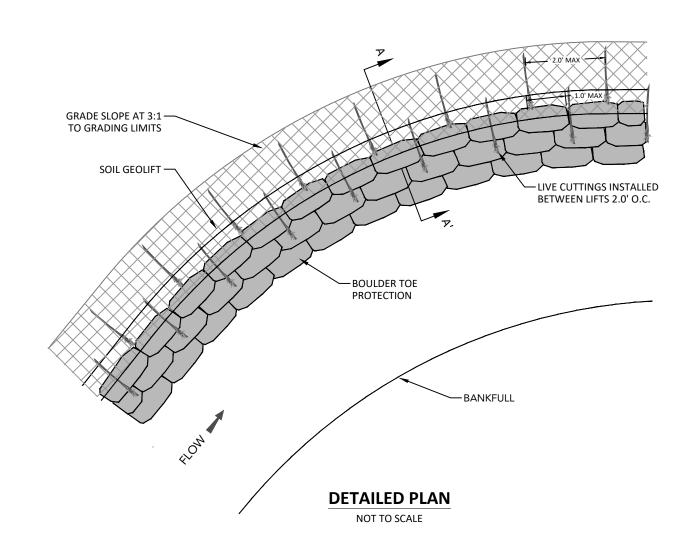
COIR LOG TOE DETAIL

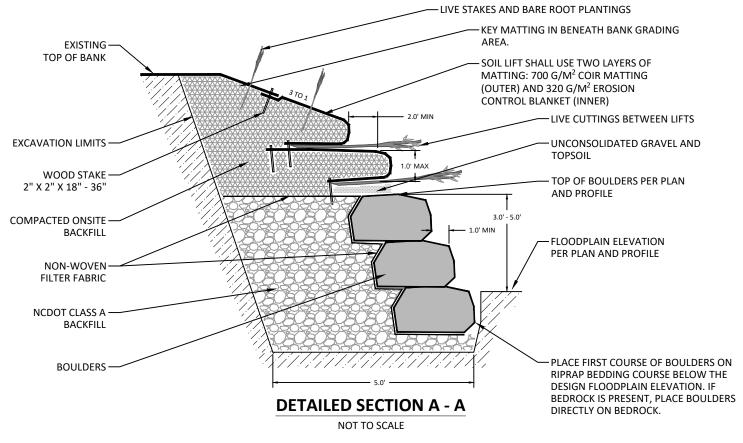
BOULDER RIFFLE DETAIL

4. THE SURFACE OF THIS STRUCTURE SHALL BE FINISHED TO A SMOOTH AND COMPACT SURFACE IN ACCORDANCE WITH THE LINES, GRADES, AND CROSS-SECTIONS OR ELEVATIONS SHOWN ON THE DRAWINGS. THE DEGREE OF FINISH FOR ELEVATIONS SHALL BE WITHIN 0.1 FT OF THE GRADES AND ELEVATIONS INDICATED OR APPROVED BY THE ENGINEER.

5. RE-DRESSING OF CHANNEL AND BANKFULL BENCH/FLOODPLAIN WILL LIKELY BE REQUIRED FOLLOWING INSTALLATION OF IN-STREAM STRUCTURES AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

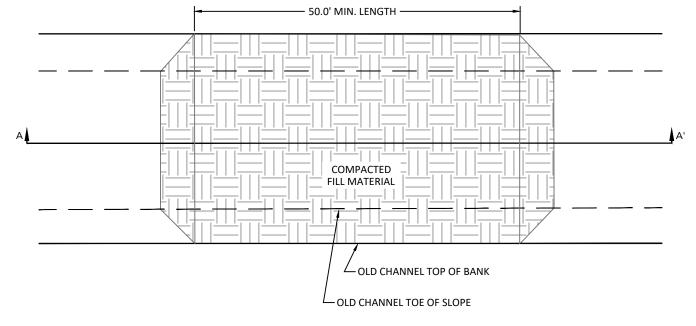
COIR LOG TOE SPECIFICATIONS 1. COIR LOGS USED IN THE VEGETATED SOIL LIFT SHALL BE 24" IN DIAMETER AND SECURED IN PLACE USING 2" X 2" X 36" 3. LIVE TRANSPLANTS AVAILABLE ON THE SITE MAY REPLACE EROSION CONTROL MATTING AS DIRECTED BY THE



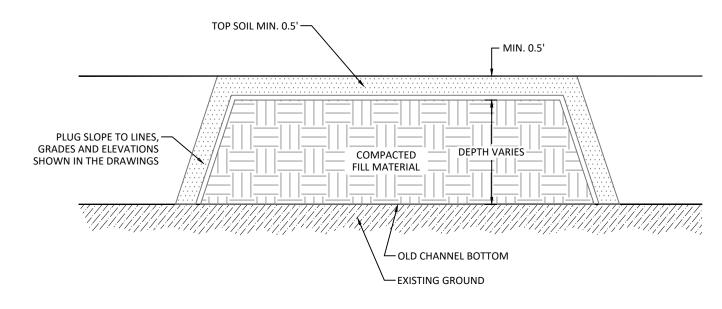


BOULDER WALL NOTES AND SPECIFICATIONS

- 1. ALL BOULDERS SHALL BE STRUCTURAL QUARRIED STONE, CUBICAL OR RECTANGULAR IN SHAPE. BOULDERS SHALL BE 3.0' X 5.0' X 2.5' (W X L X H) +/- 0.5'. THE MINIMUM ACCEPTABLE BOULDER THICKNESS (H) IS 2.0'. BOULDERS LONGER (L) THAN 5.5' WILL BE ACCEPTED. ALL BOULDERS SHALL BE APPROVED BY THE ENGINEER.
- 2. A BEDDING COURSE CONSISTING OF NCDOT CLASS A RIPRAP SHALL BE INSTALLED BELOW THE FIRST ROW OF BOULDERS. IF BEDROCK IS ENCOUNTERED ONSITE, THE FIRST LIFT OF BOULDERS SHALL BE PLACED DIRECTLY ON THE BEDROCK. ALL BOULDERS SHALL FIT TIGHTLY TOGETHER. INSTALL EACH LIFT OF BOULDERS WITH A 1.0' SETBACK FROM THE FRONT EDGE OF THE PREVIOUS LIFT OF BOULDERS. STACK BOULDERS TO THE LINES ELEVATIONS AND GRADES SHOWN IN THE DRAWINGS AND DETAILS. BACKFILL STACKED BOULDERS WITH NCDOT CLASS A.
- 3. UNCONSOLIDATED GRAVEL AND TOPSOIL SHALL BE INSTALLED AS A LEVELING COURSE THE ABOVE BOULDERS BEFORE THE LIVE CUTTINGS AND SOIL LIFTS ARE INSTALLED.
- 4. PLACE LAYER OF LIVE CUTTINGS (MIN. 4' LENGTH) A 2.0' O.C. ON THE GRAVEL AND TOPSOIL LEVELING COURSE SUCH THAT APPROXIMATELY 6 INCHES TO 1 FOOT OF EACH LIVE BRANCH WILL BE EXPOSED AND THE REMAINDER (2' TO 4') OF EACH LIVE BRANCH WILL BE COVERED BY THE SOIL LIFT. LIVE BRANCHES SHALL BE AN EQUAL FRACTION OF SILKY WILLOW (SALIX SERICEA) AND SILKY DOGWOOD (CORNUS AMOMUM). LIVE CUTTINGS SHALL ONLY BE INSTALLED IF CONSTRUCTION OCCURS BETWEEN OCTOBER AND APRIL. IF LIVE CUTTINGS ARE NOT INSTALLED, HIGH DENSITY LIVE STAKING SHALL BE COMPLETED WHEN SEASONALLY APPROPRIATE.
- 5. INSTALL TWO (2) SOIL LIFTS ON TOP OF THE BOULDER WALL. THE SOIL LIFT SHALL NOT EXCEED 1.0' THICKNESS. LIFTS SHALL INCLUDE ALL SOIL PREPARATION, TEMPORARY AND PERMANENT SEEDING AND MULCH. SOIL LIFTS SHALL USE TWO LAYERS OF BIODEGRADABLE MATTING: 700 G/M² COIR MATTING (OUTER) AND 320 G/M² EROSION CONTROL BLANKET (INNER). EROSION CONTROL PRODUCTS USED FOR SOIL LIFTS SHALL BE MADE OF 100% NATURAL FIBERS AND MATERIALS AND BE BIODEGRADABLE UNDER NORMAL CLIMATE CONDITIONS. EROSION CONTROL MATTING CONTAINING PLASTICS OR PLASTIC BASED MATERIALS SHALL NOT BE USED.
- 6. GRADE THE SLOPE AT 3:1 TO THE EXISTING GROUND.
- 7. KEY EROSION CONTROL MATTING IN BENEATH BANK GRADING AREA AND INSTALL MATTING ON ALL DISTURBED SLOPES AND STREAMBANKS.
- 8. PLACE SOIL BACKFILL UP TO THE LIFT HEIGHT SPECIFIED OF NO GREATER THAN 1.0 FT BEING CAREFUL NOT TO PUSH/PULL OR TEAR THE FABRIC PREVIOUSLY PLACED.
- 9. THE SURFACE OF THIS STRUCTURE SHALL BE FINISHED TO A SMOOTH AND COMPACT SURFACE IN ACCORDANCE WITH THE LINES, GRADES, AND CROSS-SECTIONS OR ELEVATIONS SHOWN ON THE DRAWINGS. THE DEGREE OF FINISH FOR ELEVATIONS SHALL BE WITHIN 0.1 FT OF THE GRADES AND ELEVATIONS INDICATED OR APPROVED BY THE ENGINEER.
- 10. RE-DRESSING OF CHANNEL AND BANKFULL BENCH/FLOODPLAIN WILL LIKELY BE REQUIRED FOLLOWING INSTALLATION OF IN-STREAM STRUCTURES AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.



NOT TO SCALE



DETAILED SECTION A - A'

CHANNEL AND LATERAL DITCH PLUG NOTES

- 1. ALL CHANNEL WORK SHALL TAKE PLACE DURING DRY WORKING CONDITIONS. THE CONTRACTOR SHALL MINIMIZE THE EXPORT OF SEDIMENT TO ADJACENT SURFACE WATERS TO THE MAXIMUM EXTENT PRACTICABLE BY USING E&SC
- 2. FOR INSTALLATION, THE CONTRACTOR SHALL PLACE SUITABLE CLAY FILL MATERIAL IN THE EXISTING CHANNEL UP TO THE TOP OF BANK. FILL MATERIAL SHOULD BE LOCATED WITHIN THE SITE AND APPROVED FOR USE BY THE ENGINEER. THE CHANNEL PLUG SHALL BE COMPACTED AS DIRECTED AND UNTIL APPROVED BY THE ENGINEER ON
- 3. TOP SOIL SUITABLE FOR ESTABLISHING NATIVE VEGETATION SHALL BE INSTALLED ON TOP OF THE COMPACTED FILL MATERIAL TO A MINIMUM DEPTH OF 0.5' ABOVE THE COMPACTED FILL MATERIAL.
- 4. THE SURFACE OF THIS STRUCTURE SHALL BE FINISHED TO A SMOOTH AND COMPACT SURFACE IN ACCORDANCE WITH THE LINES, GRADES, AND CROSS-SECTIONS OR ELEVATIONS SHOWN ON THE DRAWINGS.
- 5. RE-DRESSING AND STABILIZATION OF THE SURROUNDING WORK AREA WITH TEMPORARY AND PERMANENT SEEDING AND MULCHING WILL LIKELY BE REQUIRED FOLLOWING INSTALLATION OF THE DITCH PLUG AND SHALL BE

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FINAL DRAWING

REVISIONS:

DATE: 05/03/2023 PLOT SIZE: 24" x 36" H.D.: NAD83 (NCSP)

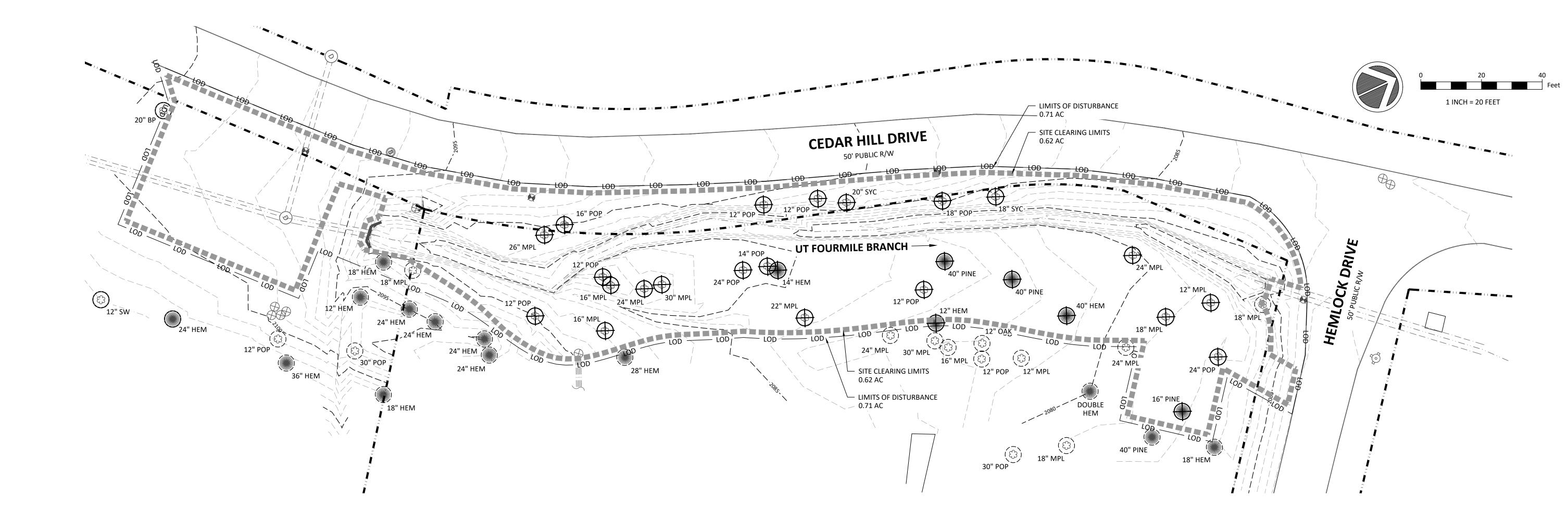
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DETAILED PLAN

NOT TO SCALE

BOULDER WALL DETAIL

CHANNEL AND LATERAL DITCH PLUG DETAIL



SITE PREPARATION PLAN SPECIFICATIONS

- 1. ALL TREES, UTILITIES AND OTHER SITE FEATURES SHALL BE PROTECTED UNLESS MARKED FOR REMOVAL OR RELOCATION.
- PROTECTED UNLESS MARKED FOR REMOVAL OR RELOCATION.

 4. FLAG THE WORK LIMITS, STAKE OUT THE EXTENTS OF THE PROPOSED WORK AND MARK ALL TREES AND VEGETATION WITHIN THE CLEARING LIMITS THAT MUST BE REMOVED TO COMPLETE THE WORK.
- 5. THE ENGINEER AND PROJECT OWNER MUST APPROVE ALL TREES MARKED FOR REMOVAL.
- 6. ALL LOGS AND WOODY DEBRIS GENERATED DURING SITE CLEARING AND TREE REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE

SITE PREPARATION PLAN FEATURES

LIMITS OF DISTURBANCE (LOD)

CLEARING LIMITS

DECIDUOUS TREE

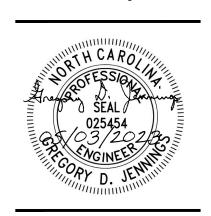
CONIFEROUS TREE

TREE TO REMAIN

TREE REMOVAL



JT FOURMILE BRANCH STREAM RESTORATION BUNCOMBE COUNTY - NORTH CAROLINA



FINAL DRAWING

REVISIONS:

DATE: 05/03/2023
PLOT SIZE: 24" x 36"
1" = 20'

H.D.: NAD83 (NCSP)
V.D.: NAVD88
JE PID: 5701

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EROSION AND SEDIMENTATION CONTROL PLAN SPECIFICATIONS

- ALL CONSTRUCTION ACTIVITIES SHALL ADHERE TO THE CONDITIONS AND REQUIREMENTS OF NCDEML'S NG01 CONSTRUCTION
- PROTECTED UNLESS MARKED FOR REMOVAL OR RELOCATION.
- 3. ALL WETLANDS AND STREAMS LOCATED WITHIN 50 FEET OF THE CONSTRUCTION AREA ON THE PROJECT SITE SHALL BE CLEARLY MARKED (EXAMPLE: ORANGE FABRIC FENCING AND FLAGGING) MAINTAINED ON THE PROPERTY UNTIL THE PROJECT PHASE IS COMPLETED. [15A NCAC 02H .0506 (B)(2)]
- TURBIDITY UNITS) SHALL NOT BE EXCEEDED AS DESCRIBED IN 15A PRACTICES MUST BE USED TO MEET THIS STANDARD. [15A NCAC 02B .0211 (21)]
- EQUIPMENT SHALL BE WELL-MAINTAINED, CLEANED PRIOR TO MOBILIZATION, AND CHECKED DAILY FOR LEAKS OF PETROLEUM PRODUCTS. FUELING, LUBRICATION AND GENERAL EQUIPMENT MAINTENANCE SHOULD NOT TAKE PLACE WITHIN 50 FEET OF A WATERBODY OR WETLANDS TO PREVENT CONTAMINATION BY FUEL AND OILS. [15A NCAC 02H .0506 (B)(3) AND 15A NCAC 02B
- 6. CONSTRUCTION SHALL BE TIMED TO OCCUR DURING TIMES OF LOW FLOW.
- 7. A TEMPORARY PUMP AROUND SYSTEM SHALL BE USED TO MAINTAIN DRY WORKING CONDITIONS IN THE EXISTING STREAM CHANNEL.
- 8. THE STREAMBANKS, IN-STREAM STRUCTURES AND WORK AREA MUST BE STABILIZED AT THE END OF EACH DAY BEFORE THE TEMPORARY IN-STREAM DIVERSIONS ARE REMOVED AND FLOW IS RETURNED THE FULL CHANNEL.
- 9. EROSION CONTROL MATTING THAT INCORPORATES PLASTIC MESH AND/OR PLASTIC TWINE SHALL NOT BE USED ALONG STREAMBANKS OR WITHIN WETLANDS. DISTURBED AREAS SHOULD BE SEEDED, MULCHED, AND/OR MATTED AS SOON AS POSSIBLE, PREFERABLY AT THE END OF EACH WORKDAY. [15A NCAC 02B
- 10. IF BORROW OR WASTE MATERIAL IS REQUIRED OR GENERATED DURING GRADING OPERATIONS, AN APPROVED EROSION AND SEDIMENT CONTROL PERMIT MUST BE SECURED FOR THE BORROW OR WASTE MATERIAL SITE PRIOR TO INITIATION OF ANY LAND 13. INSTALL TEMPORARY, PERMANENT SEEDING AND MULCH ON ALL DISTURBING ACTIVITY. {15A NCAC 04B .0110}.

CONSTRUCTION SEQUENCE

- 1. OBTAIN AND REVIEW THE UT FOURMILE STREAM RESTORATION PROJECT EROSION AND SEDIMENTATION CONTROL PLAN AND ALL OTHER APPLICABLE PERMITS.
- 2. FLAG THE WORK LIMITS AND STAKE OUT THE LIMITS OF DISTURBANCE (LOD) OF THE PROJECT. THE TOTAL PROJECT LOD IS 0.71 AC.
- 3. LOCATE ALL UNDERGROUND UTILITIES WITHIN THE WORK AREA. 4. FLAG THE WORK LIMITS. STAKE OUT THE EXTENTS OF THE
- PROPOSED WORK AND MARK ALL TREES AND VEGETATION THAT MUST BE REMOVED TO COMPLETE THE WORK.
- 5. HOLD ONSITE PRE-CONSTRUCTION MEETING WITH BUILDER, PERMITTEE (PROJECT OWNER), LANDOWNER AND ENGINEER.

HEMLOCK DRIVE AS SHOWN IN THE DRAWINGS AND DETAILS.

- 6. POST CERTIFICATE OF APPROVAL FOR LAND DISTURBANCE AT SITE.
- 7. INSTALL RAIN GAUGE AND PREPARE INSPECTION FORMS. 8. INSTALL CONSTRUCTION ENTRANCES OFF CEDAR HILL DRIVE AND

- ESTABLISH THE STAGING AREA, CONSTRUCTION ACCESS ROUTE AND TEMPORARY STREAM CROSSING AS SHOWN IN THE DRAWINGS AND DETAILS.
- 10. INSTALL CONSTRUCTION SAFETY FENCE ALONG THE PROJECT BOUNDARY AND INSTALL SILT FENCE ON THE DOWNSLOPE SIDES OF THE STAGING AREAS AS SHOWN IN THE DRAWINGS AND DETAILS.
- ALL TREES, UTILITIES AND OTHER SITE FEATURES SHALL BE 11. INSPECT EROSION PREVENTION AND SEDIMENT CONTROL BMPS DAILY AND AFTER SIGNIFICANT RAINFALL EVENTS. MAKE NEEDED REPAIRS IMMEDIATELY. KEEP ALL LOGS AND RECORDS UP-TO-DATE. THE SITE SHALL BE "STORM READY" AT THE END OF EACH WORK DAY AND WORK WEEK.
- PRIOR TO ANY LAND DISTURBING ACTIVITIES AND MUST BE 12. CLEAR EXISTING VEGETATION AND SIGNIFICANT TREES MARKED FOR REMOVAL TAKING CARE NOT TO DISTURB DESIRABLE VEGETATION TO REMAIN INTACT.
- 4. THE TURBIDITY STANDARD OF 50 NTUS (NEPHELOMETRIC 10. PREPARE AND TEST THE TEMPORARY PUMP AROUND SYSTEM FOR WORK IN THE EXISTING CHANNEL.
- NCAC 02B .0200. APPROPRIATE SEDIMENT AND EROSION CONTROL 11. ACQUIRE AND STORE MATERIALS (E.G. ROCK, BOULDERS, EROSION CONTROL MATTING AND FILTER FABRICS) FOR WORK AT THE SITE IN THE STAGING AREA.
 - 12. DURING STREAM RESTORATION WORK, TO THE EXTENT PRACTICABLE, WORK ITERATIVELY FROM UPSTREAM TO DOWNSTREAM. THE BUILDER SHALL LIMIT STREAM CHANNEL DISTURBANCE TO AREAS THAT CAN BE COMPLETED AND STABILIZED DURING ONE DAY OF WORK. DURING EACH ZONE OF DISTURBANCE, FOLLOW THE FOLLOWING STEPS:
 - 12.1. IF WORKING IN THE EXISTING CHANNEL, THE TEMPORARY PUMP AROUND SYSTEM SHALL BE USED TO MAINTAIN DRY WORKING CONDITIONS AND MINIMIZE THE EXPORT OF
 - 12.2. AS SHOWN ON THE DRAWINGS, GRADE THE FLOODPLAIN AND REALIGN THE CHANNEL. ENSURE CONSTRUCTED SLOPES ARE STABILIZED. EXCAVATED EARTH SHALL BE STORED IN THE STAGING AREA OR USED TO BACKFILL THE EXISTING CHANNEL.
 - 12.3. INSTALL IN-STREAM STRUCTURES, BEDFORM FEATURES, AND STREAMBANK PROTECTION AS SHOWN IN THE DRAWINGS AND DETAILS. WHEN POSSIBLE, PERFORM WORK FROM STREAMBANKS IN ORDER TO MINIMIZE TIME SPENT WORKING IN THE CHANNEL.
 - 12.4. INSTALL TEMPORARY SEEDING, PERMANENT SEEDING AND EROSION CONTROL MATTING ON THE STREAMBANK TO 6.0' (MIN) BEYOND THE BANKFULL STAGE.
 - 12.5. PLUG AND FILL THE OLD CHANNEL AFTER STREAM FLOW HAS BEEN TURNED INTO THE NEW CHANNEL.
 - AREAS DISTURBED FOR FLOODPLAIN GRADING AND CONSTRUCTION ACCESS AS SHOWN ON SHEETS 6.1 AND 6.2.
 - 14. ONCE THE WORK AREA IS STABILIZED AND CONSTRUCTION ACTIVITIES ARE COMPLETED, REMOVE AND DISPOSE OF ALL NON-BIODEGRADABLE EROSION AND SEDIMENTATION CONTROL
 - 15. NOTIFY PERMITEE (PROJECT OWNER) AND THE ENGINEER FOR A FINAL INSPECTION AND WALK THROUGH TO VERIFY FINAL STABILIZATION OF THE SITE.
 - 16. WHEN SEASONALLY APPROPRIATE, INSTALL WOODY AND HERBACEOUS PLANTINGS ON STEAMBANKS AND WITHIN THE RIPARIAN ZONE AS SHOWN ON SHEETS 6.1 AND 6.2.

E&SC PLAN FEATURES

— LOD — LIMITS OF DISTURBANCE (LOD)

— CF — CONSTRUCTION SAFETY FENCE

— SF — SILT FENCE

TEMPORARY CULVERT

CONSTRUCTION ENTRANCE

STAGING AREA

CONSTRUCTION ACCESS ROUTE

TEMPORARY STREAM CROSSING

EROSION CONTROL MATTING

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FINAL DRAWING

REVISIONS:

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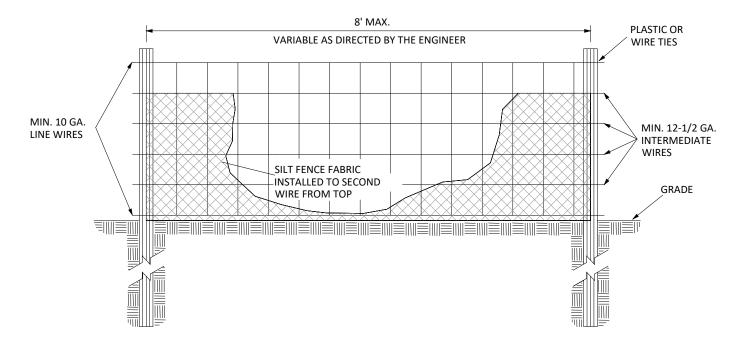
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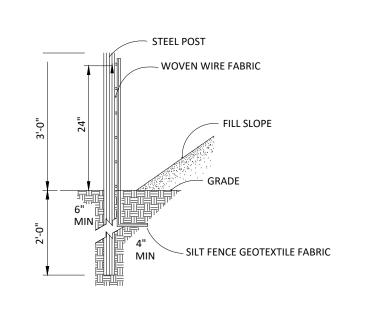
V.D.: NAVD88 JE PID: 5701

STANDARD CONSTRUCTION ENTRANCE SPECIFICATIONS

- 1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION ROOTS, AND OTHER OBJECTIOABLE MATERIAL AND
- 2. PLACE THE 2"-3" STONE TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLAND AND SMOOTH IT.
- 3. USE GEOTEXTILE FABRICS TO IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR A HIGH
- 4. INSTALL SILT FENCE OR TREE PROTECTION FENCE UP TO ENSURE CONSTRUCTION ENTRANCE IS USED.
- 5. IF CONSTRUCTION ON THE SITES ARE SUCH THAT THE MUD IS NOT REMOVED BY THE VEHICLE TRAVELING OVER THE STONE, THEN THE LENGTH OF THE CONSTRUCTION ENTRANCE SHALL BE INCREASED.
- 6. SEE SECTION 6.06.1 OF NC DEMLR'S EROSION AND SEDIMENT CONTROL DESIGN MANUAL (2013) FOR ADDITIONAL INFORMATION, NOTES AND SPECIFICATIONS.



DETAILED FRONT NOT TO SCALE



DETAILED SIDE NOT TO SCALE

TEMPORARY SILT FENCE NOTES

- 1. CONSTRUCT THE SILT FENCE WITH STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS.
- SUPPORT THE STANDARD STRENGTH FILTER FABRIC BY WIRE MESH FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS. EXTEND THE WIRE MESH SUPPORT TO THE BOTTOM THE TRENCH. FASTEN THE WIRE REINFORCEMENT, THEN FABRIC ON THE UPSLOPE SIDE OF THE FENCE POST. WIRE OR PLASTIC ZIP TIES SHOULD HAVE A MINIMUM 50 POUND TENSILE STRENGTH
- 3. WHEN A WIRE MESH SUPPORT FENCE IS USED, SPACE POSTS A MAXIMUM OF 8 FT APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 2 FT.
- 4. EXTRA STRENGTH FILTER FABRIC WITH 6 FT POST SPACINGS DOES NOT REQUIRE WIRE MESH SUPPORT FENCE.
- EXCAVATE A TRENCH APPROXIMATELY 4 INCHES WIDE AND 8 INCHES DEEP ALONG THE PROPOSE LINE OF POSTS AND UPSLOPE OF THE BARRIER.
- 6. PLACE 12 INCHES OF FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
- 7. BACKFILL THE TRENCH WITH SOIL PLACED OVER THE FILTER FABRIC AND COMPACT. THOROUGH COMPACTION OF THE BACKFILL IS CRITICAL TO SILT FENCE PERFORMANCE.
- 8. DO NOT ATTACH FILTER FABRIC TO EXISTING TREES.
- 9. CONSTRUCTION SITE RUNOFF SHALL NOT RUN PARALLEL WITH THE FENCE.
- 10. END OF SILT FENCE NEEDS TO BE TURNED UPHILL.
- 11. SEE SECTION 6.62.1 OF NC DEMLR'S EROSION AND SEDIMENT CONTROL DESIGN MANUAL (2013) FOR ADDITIONAL INFORMATION, NOTES AND SPECIFICATIONS.

TEMPORARY STREAM CROSSING SPECIFICATIONS

1. ALL TEMPORARY STREAM CROSSING WORK SHALL TAKE PLACE DURING DRY WORKING CONDITIONS. THE

3. THE CONTRACTOR SHALL SELECT A STRUCTURE AND MATERIAL FOR THE CROSSING THAT IS SUFFICIENT TO SUPPORT

5. THE CROSSING SHALL PROVIDE A CLEAR SPAN OF THE CHANNEL WITH SOOTH TRANSITIONS ON INGRESS AND EGRESS

ALIGN ROAD APPROACHES WITH THE CENTERLINE OF THE CROSSING FOR A MINIMUM DISTANCE OF 30 FT. RAISE ABUTMENTS AND CULVERT FILLS A MINIMUM OF 1 FT ABOVE THE ADJOINING APPROACH SECTION TO PREVENT

ALL STREAMBANKS AND BED MATERIAL DISTURBED DURING INSTALLATION OF THE CROSSING SHALL BE STABILIZED WITH TEMPORARY SEEDING AND EROSION CONTROL MATTING OR RIPRAP. COIR EROSION CONTROL WATTLES SHALL

REMOVE TEMPORARY STREAM CROSSINGS IMMEDIATELY WHEN THEY ARE NO LONGER NEEDED. RESTORE THE STREAM CHANNEL TO ITS ORIGINAL CROSS-SECTION, AND SMOOTH AND APPROPRIATELY STABILIZE ALL DISTURBED

10. RE-DRESSING OF CHANNEL AND BANKFULL BENCH/FLOODPLAIN WILL LIKELY BE REQUIRED FOLLOWING REMOVAL OF

11. SEE SECTION 6.70.1 OF NC DEMLR'S EROSION AND SEDIMENT CONTROL DESIGN MANUAL (2013) FOR ADDITIONAL

4. KEEP CLEARING AND EXCAVATION OF THE STREAMBANKS AND BED AND APPROACH SECTIONS TO A MINIMUM.

EROSION FROM SURFACE RUNOFF AND TO ALLOW FLOOD FLOWS AROUND THE STRUCTURE.

BE INSTALLED AT ALL INGRESS AND EGRESS POINTS AS SHOWN IN THE DRAWINGS.

THE CROSSING AND SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

INFORMATION, NOTES AND SPECIFICATIONS.

6. KEEP STREAM CROSSING AT RIGHT ANGLES TO THE STREAM FLOW.

CONTRACTOR SHALL MINIMIZE THE EXPORT OF SEDIMENT TO ADJACENT SURFACE WATERS TO THE MAXIMUM EXTENT

STANDARD CONSTRUCTION ENTRANCE DETAIL

DETAILED CROSS-SECTION A - A'

NOT TO SCALE

FILTER FABRIC UNDER STONE

50' MINIMUM

CONSTRUCTION SAFETY FENCE NOTES AND SPECIFICATIONS

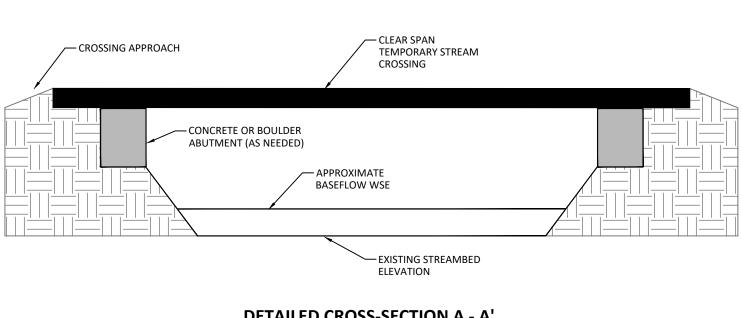
- 1. INSTALL THE CONSTRUCTION SAFETY FENCE WITH ORANGE, UV RESISTANT HIGH TENSILE STRENGTH POLY BARRICADE
- 2. WIRE OR PLASTIC ZIP TIES SHOULD HAVE A MINIMUM 50 POUND TENSILE STRENGTH.

NEW CONSTRUCTION -

- 3. SPACE POSTS A MAXIMUM OF 8 FT APART. SUPPORT POSTS SHOULD BE DRIVEN SECURELY INTO THE GROUND A
- 4. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED. PLACE A SIGN AT EACH END OF LINEAR SAFETY FENCING AND 50' ON CENTER THEREAFTER. FOR CONSTRUCTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
- 5. MAINTAIN SAFETY FENCE THROUGHOUT DURATION OF PROJECT.

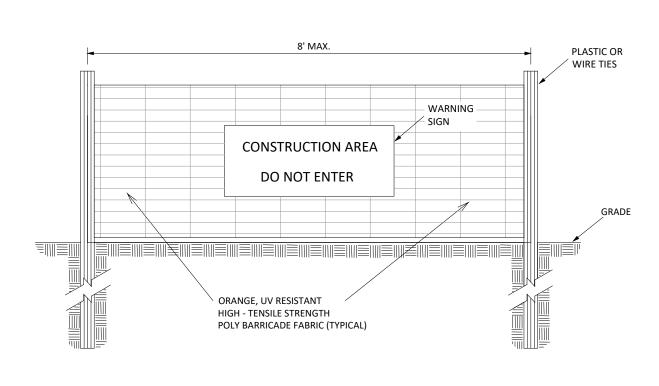
AT CROSSING APPROACH AS SHOWN IN THE - CHANNEL TOP OF BANK - CHANNEL TOE OF SLOPE CLEAR SPAN TEMPORARY STREAM CROSSING STABILIZE ALL STREAMBANKS DISTURBED DURING -INSTALLATION WITH TEMPORARY SEEDING AND EROSION CONTROL MATTING

-INSTALL COIR EROSION CONTROL WATTLES



DETAILED CROSS-SECTION A - A'

NOT TO SCALE



50' MINIMUM

2"-3" STONE TO BE USED

(NCDOT CLASS A OR RAILROAD

BALLAST)

DETAILED PLAN

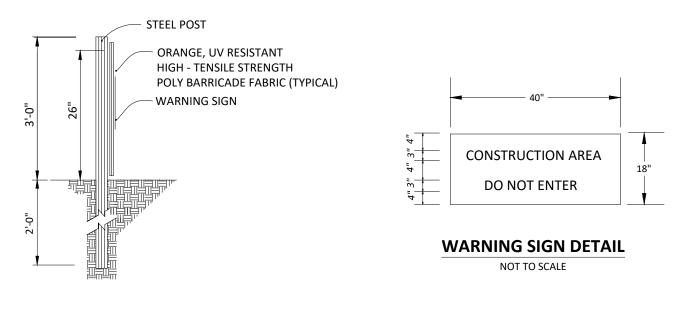
NOT TO SCALE

EXISTING ROADWAY -

EXISTING

ROADWAY

DETAILED FRONT NOT TO SCALE



DETAILED SIDE

NOT TO SCALE

CONSTRUCTION SAFETY FENCE DETAIL

TEMPORARY SILT FENCE DETAIL

DETAILED PLAN NOT TO SCALE

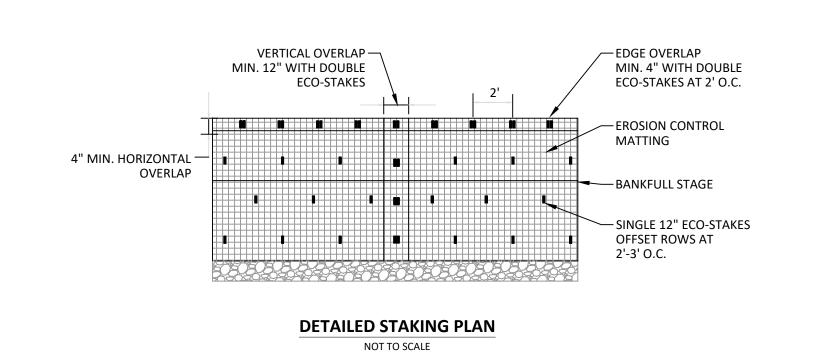
TEMPORARY STREAM CROSSING DETAIL

TEMPORARY PUMP AROUND SYSTEM NOTES

- 1. BERMS SHALL BE SITUATED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE WORK AREA, AND STREAM FLOW SHALL BE PUMPED AROUND THE WORK AREA. THE DIVERSION PUMP SHOULD DISCHARGE ONTO A STABLE VELOCITY DISSIPATER CONSTRUCTED OF RIPRAP. DIVERSION PUMP DISCHARGE SHALL NOT GENERATE SCOUR, EROSION OR THE EXPORT OF EXCESS SEDIMENT TO SURFACE WATERS.
- 2. WATER FROM THE WORK AREA SHALL BE PUMPED TO A SEDIMENT FILTERING BAG. THE MEASURE SHALL BE LOCATED ON A RIPRAP OR GRAVEL PAD SUCH THAT THE WATER DRAINS BACK INTO THE CHANNEL BELOW THE DOWNSTREAM BERM WITHOUT CAUSING FURTHER EROSION.
- 3. THE CONTRACTOR SHALL SIZE THE PUMP AROUND SYSTEM SUFFICIENTLY FOR A RANGE OF POSSIBLE BASEFLOW DISCHARGES AND THE SYSTEM SHALL RUN CONTINUOUSLY WHILE WORKING IN THE STREAM.
- 4. THE STREAMBANKS AND WORK AREA MUST BE STABILIZED AT THE END OF EACH DAY BEFORE THE PUMP AROUND SYSTEM IS SHUT DOWN AND BEFORE FLOW IS RETURNED THE CHANNEL.

EROSION CONTROL MATTING SPECIFICATIONS

- 1. EROSION CONTROL MATTING IS USED TO PROTECT RECENTLY CONSTRUCTED STREAM BANKS FROM EROSION. THE MATTING WILL REMAIN INTACT WHILE THE BANK AND RIPARIAN VEGETATION MATURES, PROVIDING CRITICAL BANK
- . STREAM BANK EROSION CONTROL MATTING MATERIAL SPECIFICATIONS:
- 2.1. MACHINE DIRECTION TENSILE STRENGTH: 77 LB/IN
- CROSS MATCH DIRECTION TENSILE STRENGTH: 86 LB/IN 2.3. APPARENT OPENING SIZE: 0.59" x 0.67"2.4. PERCENT OPENING: 49%
- 2.5. MASS: 700 G/M²
- 3. BEFORE INSTALLING EROSION CONTROL MATTING, RAKE SOIL LEVEL, ADD TEMPORARY AND PERMANENT SEED, SOIL PREPARATION AND MULCH.
- 4. EROSION CONTROL MATTING SHALL BE PLACED ALONG THE LENGTH OF THE NEW CHANNEL FROM THE CHANNEL TOE OF SLOPE OUT TO FLOODPLAIN TOE OF SLOPE.
- 5. SECURE MATTING IN PLACE BY STAKING AND OVERLAPPING AT THE SEEMS WITH A SHINGLE-TYPE METHOD SUCH THAT THE OVERLAPPING PIECE IS IN THE SAME DIRECTION AND AS THE STREAM FLOW AS SHOWN IN THE DETAIL. ADDITIONAL STAKING SHALL BE APPLIED BY THE CONTRACTOR AT NO ADDITIONAL COST IF THE MATTING SEPARATES FROM THE SOIL MORE THAN ONE INCH UNDER A REASONABLE PULL.
- 6. EROSION CONTROL MATTING SHALL USED ON ALL STREAM BANKS SHALL HAVE A DENSITY OF MADE OF 100% NATURAL FIBERS AND MATERIALS AND BE BIODEGRADABLE UNDER NORMAL CLIMATE CONDITIONS. EROSION CONTROL MATTING CONTAINING PLASTICS OR PLASTIC BASED MATERIALS SHALL NOT BE USED.



BANKFULL-

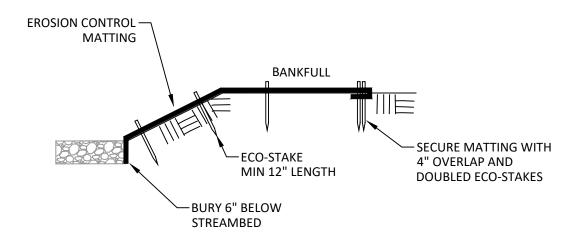
FLOODPLAIN TOE OF SLOPE

DETAILED PLAN

NOT TO SCALE

EROSION CONTROL MATTING FROM TOE OF CHANNEL TO

TOE OF SLOPE



DETAILED SECTION A - A' NOT TO SCALE

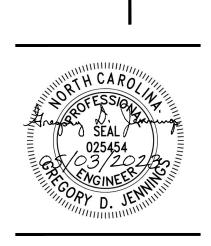
TEMPORARY PUMP AROUND SYSTEM DETAIL

EROSION CONTROL MATTING DETAIL

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PLOT SIZE: 24" x 36" H.D.: NAD83 (NCSP)

V.D.: NAVD88 JE PID: 5701

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

mplementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

Required Ground Stabilization Timeframes				
Site Area Description		Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations	
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None	
(b)	High Quality Water (HQW) Zones	7	None	
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed	
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed	
(e)	Areas with slopes flatter than 4:1	14	 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zone -10 days for Falls Lake Watershed unless there is zero slope 	

ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

accommendation in the teasier account			
Temporary Stabilization	Permanent Stabilization		
 Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Rolled erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting 	 Permanent grass seed covered with straw or other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls Rolled erosion control products with grass seed 		

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during
- construction, selecting from the NC DWR List of Approved PAMS/Flocculants. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures. Apply flocculants at the concentrations specified in the NC DWR List of Approved
- PAMS/Flocculants and in accordance with the manufacturer's instructions. Provide ponding area for containment of treated Stormwater before discharging
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment. Identify leaks and repair as soon as feasible, or remove leaking equipment from the
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible). Remove leaking vehicles and construction equipment from service until the problem
- has been corrected. . Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes. Locate waste containers at least 50 feet away from storm drain inlets and surface
- waters unless no other alternatives are reasonably available. Locate waste containers on areas that do not receive substantial amounts of runoff
- from upland areas and does not drain directly to a storm drain, stream or wetland. Cover waste containers at the end of each workday and before storm events or
- provide secondary containment. Repair or replace damaged waste containers. Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- . Dispose waste off-site at an approved disposal facility.

9. On business days, clean up and dispose of waste in designated waste containers.

- PAINT AND OTHER LIQUID WASTE Do not dump paint and other liquid waste into storm drains, streams or wetlands. Locate paint washouts at least 50 feet away from storm drain inlets and surface
- waters unless no other alternatives are reasonably available. 3. Contain liquid wastes in a controlled area.
- 4. Containment must be labeled, sized and placed appropriately for the needs of site. 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from

PORTABLE TOILETS

construction sites.

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place
- on a gravel pad and surround with sand bags. Provide staking or anchoring of portable toilets during periods of high winds or in high
- foot traffic areas. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace

EARTHEN STOCKPILE MANAGEMENT

with properly operating unit.

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of
- five feet from the toe of stockpile. Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER 3.CONCRETE WASHOUT STRUCTURE NEEDS T BE CLEARY MARKED WITH SIGNAGE NOTING

ABOVE GRADE WASHOUT STRUCTURE

CONCRETE WASHOUTS

BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- L. Do not discharge concrete or cement slurry from the site.
- 2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- 3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within
- 4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two
- types of temporary concrete washouts provided on this detail. 5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive
- spills or overflow. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- 8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location. 9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary
- products, follow manufacturer's instructions. 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- 1. Store and apply herbicides, pesticides and rodenticides in accordance with label
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately. 4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- . Create designated hazardous waste collection areas on-site.
- . Place hazardous waste containers under cover or in secondary containment. 3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend holiday periods, and no individual-day rainfall information available, record the cumulative rain measurement for those attended days (and this will determine if a site inspection needed). Days on which no rainfall occurred shall be recorded "zero." The permittee may use another rain-monitoring decapproved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	 Identification of the measures inspected, Date and time of the inspection, Name of the person performing the inspection, Indication of whether the measures were operating properly, Description of maintenance needs for the measure, Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	 Identification of the discharge outfalls inspected, Date and time of the inspection, Name of the person performing the inspection, Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, Indication of visible sediment leaving the site, Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a recor of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has I the site limits, 2. Description, evidence, and date of corrective actions taken, and an explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, a 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this pern of this permit.
(6) Ground stabilization measures	After each phase of grading	The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the

and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This general permit as well as the certificate of coverage, after it is received.
- (b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

SECTION C: REPORTING

Permittees shall report the following occurrences:

- They cause sheen on surface waters (regardless of volume), or

- (c) Noncompliance with the conditions of this permit that may endanger health or the

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence Reporting Timeframes (After Discovery) and Other Requirements		
(a) Visible sediment deposition in a stream or wetland	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure complia 	
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	 with the federal or state impaired-waters conditions. Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. 	
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	 A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass. 	
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass. 	
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(I)(7)]	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6). Division staff may waive the requirement for a written report on a case-by-case basis. 	

PART III

SELF-INSPECTION, RECORDKEEPING AND REPORTING

1. Occurrences that must be reported

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They are within 100 feet of surface waters (regardless of volume).
- (a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (b) Anticipated bypasses and unanticipated bypasses.

2. Reporting Timeframes and Other Requirements

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment	Within 24 hours, an oral or electronic notification.
deposition in a	Within 7 calendar days, a report that contains a description of the
stream or wetland	sediment and actions taken to address the cause of the deposition.
	Division staff may waive the requirement for a written report on a case-by-case basis.
	If the stream is named on the NC 303(d) list as impaired for sediment-
	related causes, the permittee may be required to perform additional
	monitoring, inspections or apply more stringent practices if staff
	determine that additional requirements are needed to assure compliance
	with the federal or state impaired-waters conditions.
(b) Oil spills and	Within 24 hours, an oral or electronic notification. The notification
release of	shall include information about the date, time, nature, volume and
hazardous	location of the spill or release.
substances per Item	
1(b)-(c) above	
(c) Anticipated	A report at least ten days before the date of the bypass, if possible.
bypasses [40 CFR	The report shall include an evaluation of the anticipated quality and
122.41(m)(3)]	effect of the bypass.
(d) Unanticipated	Within 24 hours, an oral or electronic notification.
bypasses [40 CFR	Within 7 calendar days, a report that includes an evaluation of the
122.41(m)(3)]	quality and effect of the bypass.
(e) Noncompliance	Within 24 hours, an oral or electronic notification.
with the conditions	Within 7 calendar days, a report that contains a description of the
of this permit that	noncompliance, and its causes; the period of noncompliance,
may endanger	including exact dates and times, and if the noncompliance has not
health or the	been corrected, the anticipated time noncompliance is expected to
environment[40	continue; and steps taken or planned to reduce, eliminate, and
CFR 122.41(I)(7)]	prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).
	Division staff may waive the requirement for a written report on a
	case-by-case basis.

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FINAL DRAWING

REVISIONS:

DATE: 05/03/2023 PLOT SIZE: 24" x 36"

H.D.: NAD83 (NCSP) V.D.: NAVD88 JE PID: 5701

GENERAL RE-VEGETATION AND PLANTING NOTES

- PROCUREMENT OF PLANT/SEED STOCK.
- LARGER NATIVE TREE SPECIES TO BE PRESERVED WILL BE IDENTIFIED PRIOR TO CONSTRUCTION ACTIVITIES.
- 3. ALL DISTURBED AREAS WILL BE STABILIZED USING TEMPORARY AND PERMANENT SEEDING AS DEFINED IN THE SEEDING SCHEDULE AND THE APPROVED E&SC PLANS.
- 4. SUPPLEMENTAL PLANTING ACTIVITIES MAY BE REQUIRED WITHIN THE PROJECT BOUNDARY.

TEMPORARY SEEDING AND MULCHING NOTES

- 5. TEMPORARY SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS AND ACCESS ROUTES DISTURBED DURING CONSTRUCTION. 6. ALL SEED AND SEED VARIETIES MUST BE FREE OF STATE AND
- FEDERALLY LISTED NOXIOUS WEED SEED AND INVASIVE SPECIES. 7. ALL DISTURBED AREAS WILL BE SEEDED WITH TEMPORARY SEED AND MULCHED WITH WHEAT STRAW. SEEDING WILL BE PERFORMED USING A BROADCAST SPREADER. OTHER METHODS MAY BE USED BUT MUST BE APPROVED BY ENGINEER IN ADVANCE

OF INSTALLATION.

8. MAINTENANCE OF SEEDED AREAS SHALL CONSIST OF WATERING, WEED AND PEST CONTROL, FERTILIZATION, EROSION REPAIR, 15. PERMANENT AND TEMPORARY SEEDING AND MULCHING SHALL BE RE-SEEDING, AND INCIDENTAL OPERATIONS AS NECESSARY TO ESTABLISH A HEALTHY, VIGOROUS, WEED FREE AND DISEASE FEE UNIFORM STAND OF GRASS. ALL AREAS WHICH FAIL TO SHOW A UNIFORM STAND OF GRASS FOR ANY REASON SHALL BE TREATED REPEATEDLY UNTIL A UNIFORM STAND OF AT LEAST 90% COVERAGE IS ATTAINED WITH NO BARE AREA GREATER THAN FIVE SQUARE FEET.

PERMANENT SEEDING NOTES

- 9. PERMANENT SEEDING SHALL OCCUR IN CONJUNCTION WITH TEMPORARY SEEDING WHERE APPLICABLE. IDEALLY, PERMANENT SEEDING SHALL OCCUR DURING THE PLANTING SEASON FOR EACH SEED TYPE. AREAS FERTILIZED FOR TEMPORARY SEEDING SHALL BE SUFFICIENTLY FERTILIZED FOR PERMANENT SEEDING; ADDITIONAL FERTILIZER IS NOT REQUIRED FOR PERMANENT SEEDING.
- 10. ALL SEED AND SEED VARIETIES MUST BE FREE OF STATE AND FEDERALLY LISTED NOXIOUS WEED SEED AND INVASIVE SPECIES.
- 11. THE CONTRACTOR SHALL LOOSEN THE SOIL TO A MINIMUM DEPTH OF 4-INCHES AND GRADE TO A SMOOTH, EVEN SURFACE WITH A LOOSE, UNIFORMLY FINE TEXTURE. THE AREAS TO BE SEEDED ARE THEN TO BE ROLLED AND RAKED TO REMOVE RIDGES AND FILL DEPRESSIONS TO MEET FINISH GRADES. THE CONTRACTOR IS TO LIMIT SUB GRADE AND FINISH GRADE PREPARATION TO AREAS THAT WILL BE PLANTED IMMEDIATELY. PREPARED AREAS ARE TO BE RESTORED IF ERODED OR OTHERWISE DISTURBED AFTER FINE GRADING AND BEFORE PLANTING.
- 12. SEED SHALL BE SOWN WITH A SPREADER OR A SEEDING MACHINE. SEED IS NOT TO BE BROADCAST OR DROPPED WHEN WIND VELOCITY EXCEEDS 5 MPH. SEED SHALL BE EVENLY DISTRIBUTED BY SOWING IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER. WET SEED OR SEED THAT IS MOLDY OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE IS NOT TO BE USED. AFTER BEGIN SOWN, THE SEED SHALL BE RAKED INTO THE TOP 1/4 INCH OF THE TOPSOIL, LIGHTLY ROLLED, AND WATERED WITH FINE SPRAY.

SEEDED AREAS ON STREAMBANKS SHALL BE PROTECTED WITH COIF

ZONE 1: STREAMBANK

PLANTINGS SCHEDULE SHALL BE PLANTED IN OFFSET ROWS AT A DENSITY OF 4,840 STEMS PER ACRE (3.0' O.C.) FROM TOE OF THE RESTORED CHANNEL TO 3.0' OUTSIDE THE BANKFULL STAGE. HERBACEOUS PLUGS SHALL BE PLANTED ALONG THE TOE OF THE CHANNEL IN THE OUTSIDE OF THE POOL MEANDER BENDS. PERMANENT AND TEMPORARY SEEDING AND MULCHING SHALL BE APPLIED TO ALL GRADED STREAMBANKS.

ZONE 2: RIPARIAN BUFFER

14. WOODY SPECIES LISTED IN THE PLANTING SCHEDULE SHALL BE PLANTED IN OFFSET ROWS AT A DENSITY OF 440 STEMS PER ACRE (10.0' O.C.) FROM 3.0' OUTSIDE THE BANKFULL STAGE TO THE GRADING LIMITS. EXACT PLACEMENT OF THE SPECIES SHALL BE DETERMINED BY THE BUILDERS'S VEGETATION SPECIALIST PRIOR TO SITE PLANTING AND BASED ON THE WETNESS CONDITIONS OF PLANTING LOCATIONS. PERMANENT AND TEMPORARY SEEDING AND MULCHING SHALL BE APPLIED TO ALL DISTURBED AREAS.

ZONE 3: UPLAND SEEDING

APPLIED TO ALL DISTURBED UPLAND AREAS.

VEGETATION PLAN FEATURES

ZONE 1: STREAMBANK

ZONE 2: RIPARIAN BUFFER

ZONE 3: UPLAND

10.0' O.C. BARE ROOT PLANTINGS 3.0' FROM BANKFULL REMOVE THE DIBBLE AND STRAIGHT DOWN INTO PUSH THE SEEDLING SEVERAL INCHES IN TO THE FULL DEPTH OF

THE SOIL TO THE FULL ROOTS DEEP INTO THE DEPTH OF THE BLADE PLANTING HOLE. PULL AND PULL BACK ON THE THE SEEDLING BACK UP HANDLE TO OPENT THE TO THE CORRECT PLANTING HOLE, DO NOT PLANTING DEPTH, THE ROCK THE SHOVEL BACK ROOT COLLAR SHOULD BE AND FORTH AS THIS 1" - 3" BELOW THE SOIL CAUSES THE SOIL IN THE SURFACE, GENTLY SHAKE PLANTING HOLE TO BE THE SEEDLING TO ALLOW COMPACTED, INHIBITING THE ROOTS TO ROOT GROWTH.

BUFFER WIDTH

VARIES

HERBACEOUS

SEEDLING OR LEAVE THE

ROOTS J-ROOTED.

ZONE 1: 3' O.C. SPACING / 3' ROW SPACING

BARE ROOT SEEDLING

FRONT OF THE SEEDLING AND PUSH THE BLADE HALFWAY INTO THE SOIL. TWIST AND PUSH THE HANDLE FORWARD TO CLOSE THE TOP OF THE PLANTING HOLE TO HOLD THE SEEDLING IN PLACE. STRAIGHTEN OUT. DO NOT TWIST OR SPIN THE

BLADE WITH A TRIANGULAR BUFFER PLANTING AREA CROSS-SECTION, AND SHALL BE SHALL BE FINE GRADED AND 2" LONG, 4" WIDE AND 1" / OR DISKED, AS REQUIRED, THINK AT THE CENTER. PRIOR TO PLANTING. ROOT PRUNING SEEDLINGS 10.0' O.C. IN ALL ROOTS SHALL BE PRUNED OFFSET ROWS FROM 3.0' TO AN APPROPRIATE LENGTH FOR PLANTING TO PREVENT STAGE TO THE GRADING J-ROOTIING.

PLANTING BAR SHALL HAVE A

PUSH THE DIBBLE DOWN

THE BLADE.

BARE ROOT DETAILS

PULLBACK ON THE HANDLE TO CLOSE THE CLOSE AND FIRM UP THE BOTTOM OF THE OPENING WITH YOUR PLANTING HOLE. THEN HEEL. BE CAREFUL TO PUSH FORWARD TO AVOID DAMAGING THE

ELIMINATING

POCKETS AROUND THE

CLOSE THE TOP SEEDING.

1. ALL SOILS WITHIN THE

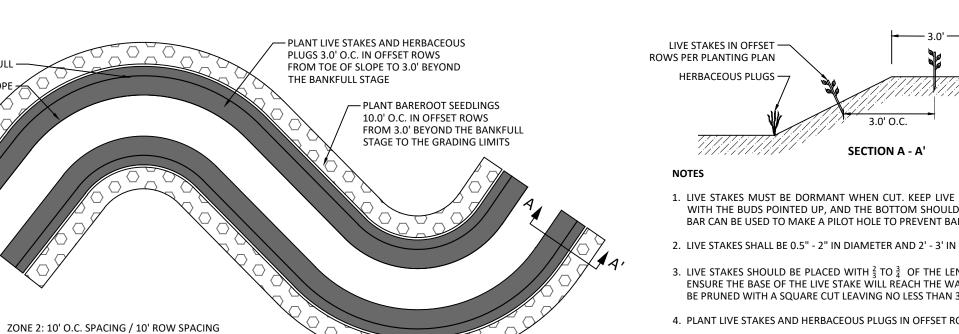
BAREROOT

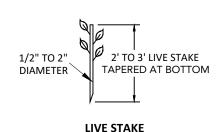
1.5x CONTAINER **CONTAINER WIDTH**

- 1. PLANTS SHALL HAVE BEEN GROWN IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD ITS SOIL TOGETHER ONCE REMOVED FROM THE CONTAINER.
- 2. PLANTS WILL NEED TO BE WATERED REGULARLY AND PLACED IN SHADY
- CONDITIONS UNTIL PLANTING OCCURS. 3. THE DIAMETER OF THE PLANTING PITS FOR EACH PLANT SHOULD BE AT LEAST TWO TIMES THE DIAMETER OF THE ROOT MASS. SCARIFY THE PLANTING PIT
- 4. SET PLANTS UPRIGHT IN THE CENTER OF THE PIT. THE BOTTOM OF THE ROOT MASS SHOULD BE RESTING ON UNDISTURBED SOIL.
- 5. PLACE BACKFILL AROUND BASE AND SIDES OF ROOT MASS, AND WORK EACH LAYER TO SETTLE BACKFILL AND TO ELIMINATE VOIDS AND AIR POCKETS. WHEN PIT IS APPROXIMATELY ? FULL. WATER THOROUGHLY BEFORE PLACING REMAINDER OF THE BACKFILL. WATER AGAIN AFTER PLACING FINAL LAYER OF BACKFILL.

CONTAINER PLANT DETAILS

PRIOR TO EACH PLANT INSTALLATION.

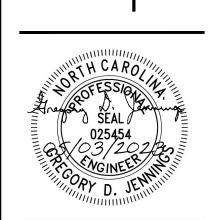




LIVE STAKE

- 1. LIVE STAKES MUST BE DORMANT WHEN CUT. KEEP LIVE STAKES MOIST UNTIL PLANTING. THE STAKE SHOULD BE PREPARED WITH THE BUDS POINTED UP, AND THE BOTTOM SHOULD BE CUT AT AN ANGLE FOR INSERTION INTO THE GROUND. AN IRON BAR CAN BE USED TO MAKE A PILOT HOLE TO PREVENT BARK FROM BEING DAMAGED DURING INSTALLATION.
- 2. LIVE STAKES SHALL BE 0.5" 2" IN DIAMETER AND 2' 3' IN LENGTH.
- 3. LIVE STAKES SHOULD BE PLACED WITH $\frac{2}{3}$ TO $\frac{3}{4}$ OF THE LENGTH OF THE STAKE BELOW GROUND AND ANGLED DOWNSTREAM. ENSURE THE BASE OF THE LIVE STAKE WILL REACH THE WATER TABLE. AFTER INSTALLATION THE TOP OF THE LIVE STAKE SHALL BE PRUNED WITH A SQUARE CUT LEAVING NO LESS THAN 3" AND NO LESS THAN 6" ABOVE THE GROUND.
- 4. PLANT LIVE STAKES AND HERBACEOUS PLUGS IN OFFSET ROWS AND SPACINGS PER PLANTING PLAN.

LIVE STAKING DETAILS



V.D.: NAVD88 JE PID: 5701

H.D.: NAD83 (NCSP)

TEMPORARY SEEDING SCHEDULE

ALL DISTURBED AREAS - TEMPORARY SEEDING			
DATE	ТУРЕ	APP. RATE (LBS/AC)	
	RYE GRAIN (Secale cereale)	120	
	COMMON OATS (Avena sativ)	100	
JAN 1 - MAY 1	GROUND AG. LIMESTONE	2,000	
	10-10-10 FERTILIZER	750	
	STRAW MULCH	4,000	
	GERMAN MILLET (Setaria italica)	50	
	COMMON OATS (Avena sati)	100	
MAY 1 - AUGUST 1	GROUND AG. LIMESTONE	2,000	
	10-10-10 FERTILIZER	750	
	STRAW MULCH	4,000	
	RYE GRAIN (Secale cereale)	120	
	WINTER WHEAT (Triticum aestivum)	100	
AUGUST 1 - DECEMBER 31	GROUND AG. LIMESTONE	2,000	
	10-10-10 FERTILIZER	750	
	STRAW MULCH	4,000	

TOTAL TEMPORARY SEEDING AREA =

PERMANENT SEEDING SCHEDULE

ZONE 1 AND 2 - RIPARIAN SEEDING (25 LBS/AC)			
SPECIES	COMMON NAME	PERCENT	
Agrostis hyemalis	WINTER BENTGRASS	0.5%	
Agrostis perennans	UPLAND BENTGRASS	0.5%	
Andropogon gerardii	BIG BLUESTEM	15.0%	
Andropogon virginicus	BROOMSEDGE	0.5%	
Coleataenia anceps	BEAKED PANICGRASS	1.0%	
Coreopsis lanceolata	LANCELEAF COREOPSIS	1.0%	
Dichanthelium dichotomiflorum	FALL PANICGRASS	0.5%	
Elymus virginicus	VIRGINIA WILDRYE	34.0%	
Juncus effusus	SOFT RUSH	0.5%	
Panicum virgatum	SWITCHGRASS	13.0%	
Pycnanthemum tenuifolium	NARROWLEAF MOUNTAINMINT	0.5%	
Rudbeckia hirta	BLACKEYED SUSAN	0.5%	
Schizachyrium scoparium	LITTLE BLUESTEM	10.0%	
Solidago speciosa	SHOWY GOLDENROD	0.5%	
Sorghastrum nutans	INDIAN GRASS	7.0%	
Tradescantia subaspera	ZIGZAG SPIDERWORT	1.0%	
Tripsacum dactyloides	EASTERN GAMAGRASS	12.0%	
Zizia aurea	GOLDEN ZIZIA	2.0%	
	TOTAL	100%	

TOTAL ZONE 1 AND 2 SEEDING AREA =

ZONE 3 - UPLAND (25 LBS/AC)			
PECIES	COMMON NAME	PERCENT	
estuca ovina	HARD FESCUE	50.0%	
estuca arundinacea	TALL FESCUE	25.0%	
oa pratensis	KENTUCKY BLUEGRASS	25.0%	
	TOTAL	100%	

TOTAL ZONE 3 SEEDING AREA =

WOODY PLANTINGS

ZONE 1 - STREAMBANK - 3' O.C. (4,840 STEMS/AC)			
SPECIES	COMMON NAME	% OF STEMS	
LIVE STAKES			
Cornus amomum	SILKY DOGWOOD	30%	
Salix sericea	SILKY WILLOW	30%	
Salix nigra	BLACK WILLOW	10%	
Salix caroliniana	CAROLINA WILLOW	10%	
Sambucus canadensis	ELBERBERRY	10%	
Physocarpus opulifolius	NINEBARK	10%	
TOTAL 100%			

TOTAL ZONE 1 PLANTING AREA =

SPECIES	COMMON NAME	% OF STEMS
	OVERSTORY	
Betula lenta	SWEET BIRCH	10%
Betula alleghaniensis	YELLOW BIRCH	10%
Betula nigra	RIVER BIRCH	10%
Carya cordiformis	BITTERNUT HICKORY	10%
Quercus marilandica	BLACKJACK OAK	10%
Ceanothus americanus	NEW JERSEY TEA	5%
Nyssa sylvatica	BLACK GUM	5%
	UNDERSTORY	
Cephalanthus occidentalis	BUTTON BUSH	5%
Alnus serrulata	HAZEL ALDER	5%
Hamamelis virginiana	WITCH HAZEL	5%
Vaccinium macrocarpon	AMERICAN CRANBERRY	5%
Vaccinium altomontanum	BLUE RIDGE BLUEBERRY	5%
Viburnum carolinianum	CAROLINA ARROWWOOD	5%
Viburnum lantanoides	HOBBLEBUSH	5%
Viburnum acerifolium	MAPLE-LEAF ARROWWOOD	5%
	TOTAL	100%

TOTAL ZONE 2 PLANTING AREA =



STREAM RESTORATION **BRANCH** BUN FOU



VEGETATION I

FINAL DRAWING

REVISIONS:

DATE: 05/03/2023 PLOT SIZE: 24" x 36" H.D.: NAD83 (NCSP) V.D.: NAVD88

JE PID: 5701



BOARD OF COMMISSIONERS MEETING STAFF MEMORANDUM MAY 9, 2023

AGENDA ITEM F-6 FY24 BUDGET PRESENTATION

The North Carolina Local Budget and Fiscal Control Act requires the Budget Officer provide a budget proposal no later than May 31st of each year. Attached to this memorandum is my proposed budget and budget message for FY2024. Notice has been provided to the Asheville *Citizen-Times* and an advertisement will be placed in the newspaper indicating the Town will hold a public hearing on Tuesday, June 6, 2023 before considering the budget for adoption.

Please let me know if you have questions regarding the budget process or notification procedures.



Town of Biltmore Forest Fiscal Year 2023-2024 Budget Message

Presented Tuesday, May 9, 2023

Prepared for the Citizens of the Town of Biltmore Forest and General Public

The Honorable Mayor George F. Goosmann, III Mayor Pro-tem Doris P. Loomis Commissioner Fran G. Cogburn Commissioner E. Glenn Kelly

> Prepared by: Jonathan B. Kanipe Town Manager

Introduction

I am pleased to present the FY24 budget proposal to the Town's citizens, the Mayor, and Board of Commissioners. This budget proposal provides an opportunity for the Town to continue providing exceptional service while maintaining a low tax rate for our residents. The proposal includes significant infrastructure improvements, direct investment in tangible equipment for the Police and Public Works Departments, and continued enhancements in our services and the way they are provided. The information below provides a snapshot into the overall budget proposal, and I am more than happy to provide additional information as requested.

General Fund

Revenues

Property Tax – Real Estate

Property tax revenue comprises the bulk of the Town's percentage of total general fund revenue but dropped from 57 percent to 45 percent for the coming fiscal year. This drop is a bit misleading, however, as there is a significant fund balance appropriation included in this year's revenue proposal that accounts for just over eighteen percent of total revenue. Without the fund balance revenue, the total percentage would once again equal 57 percent.

The property tax base continues to grow and represents growth of 2.2 percent over last year's estimate. The estimated assessed value for FY24 (tax year 2023) represents growth of 1.43 percent from last year. This growth equals \$12,662,081 in added value from tax year 2022 to 2023, and is nearly 12 percent growth over the past three fiscal years.

Property tax growth allows the Town to continue providing, and expanding, high level services without a property tax increase. As a result, my recommendation is for the tax rate in fiscal year 2024 to remain at thirty-four and one-half cents per \$100 valuation.

FY 24 Estimated Property Tax Information

Total Valuation (excluding motor vehicles): \$864,777,253 Property Tax Collection Percentage (from FY21): 99.94%

Proposed Tax Rate: \$0.345/\$100 valuation

One penny brings the Town \$86,426. This is \$1,862 per penny more than last year's assessed value. Per state law, the Town *must* budget based upon the prior year's tax collection percentage. I am pleased to report that this year's tax collection percentage rose by 0.91 percent to 99.94 percent. This percentage is exceptionally high and is a testament to the work done by our Tax Collector and front office staff.

Property Tax – Motor Vehicles

Motor vehicle valuations are not included within the above assessed valuation. These payments are collected by the State and disbursed to the Town monthly. Collection percentages have increased statewide since the State combined motor vehicle taxation with registration. The Town's collection percentage is 100 percent, and we anticipate remaining at that level. For FY24, the

Town's total motor vehicle valuation increased by 4.5 percent to \$34,424,275. This will result in an increase of nearly \$9,500 in motor vehicle property tax revenue.

Sales Tax

Sales tax revenue continued to increase in FY23 even with economic headwinds of higher interest rates and inflation. This remained specifically true in urban areas, including Biltmore Forest and Buncombe County. The increases were modest compared to prior years, but are still expected to finish slightly above last year's expectations. The NC League of Municipalities forecast for the coming year reflects modest growth with higher amounts in the urban counties. As a result, the FY24 forecast anticipates five (5) percent growth in sales tax over the prior year.

Franchise and Utility Taxes

Franchise and utility taxes are always difficult to pin down due to regional weather and the amount of energy (electricity and piped natural gas) used. As costs have risen for natural resources, the state has seen some higher revenues from these taxes. The current year trend shows slightly higher than estimated tax revenue, and forecasts for next year indicate five (5) percent growth over the current year. Much like last year, these increases do not extend to traditional video and telecommunications usage. These sectors continue to recede as people opt for less and less "traditional" video and telecommunications services. Telecommunications and video programming are forecast to continue their downward trend.

Investment Earnings

The increase in interest rates by the Federal Reserve has sent the Town's investment earnings skyrocketing in FY23. The economic downturn during the Covid pandemic sent this revenue plummeting, but this changed dramatically in FY23. We have already surpassed our estimated revenue by over \$100,000 and I anticipate this to be in line with next year's revenue as well. Certainly, a reduction in the Town's overall fund balance will lead to less investment earnings, but the Town will retain an exceptionally robust general fund balance that will still do well.

Intergovernmental Loans

We do not forecast any intergovernmental loans for the coming year.

Powell Bill Fund Revenue

Powell Bill revenues are the state's disbursements to municipalities for maintenance and operation of non-DOT streets and roads. Powell Bill revenue in FY23 exceeded estimates slightly. Based upon NCLM projected mileage and population distributions, the estimated revenue for FY24 is expected to remain near this level. The Powell Bill allocation is based upon a Town's population and its street mileage. Estimated revenue for FY24 is \$67,210. Per state law, these funds are restricted and must be spent on street and road maintenance. The Town's Street Department budget for FY24 is 94 percent higher than the allocation from the state.

Zoning Permit Revenue

FY23 zoning permit revenue has not kept pace with FY22. We anticipate finishing at the same level as previous years which correlates with a slowdown in the economy and home construction more broadly.

Fund Balance Appropriation

The Town has an exceptionally robust fund balance. Currently, the Town has just over ninety (90) percent of its annual budget in reserve. The Board adopted a policy several years ago to hold between 20 and 50 percent of fund balance, and certainly, maintaining a robust savings is an important goal. For the coming year, I recommend a fund balance appropriation of over \$1,000,000. This recommendation is not offered lightly and is not intended to be used for routine operations. Rather, this funding will make up nearly the entire cost of the Town's large stormwater project at Stuyvesant, Vanderbilt, Lone Pine, and Park Roads. This project will result in the completion of two projects from the 2019 stormwater master plan and has an estimated construction cost that is approximately \$1.2 million. There is much more information regarding this project in the streets section, but in terms of revenue, please understand that this recommendation is for these funds to go directly toward a large, capital project that will benefit the entire town.

General Fund Revenue Takeaways

The Town's general fund revenue sources remain robust. We are fortunate to have a strong and resilient real estate market that continues to grow – I do not foresee a turndown in these revenues anytime soon. While zoning permits have fallen slightly this year, we have more than made up for that with investment earnings and this will continue next year. Sales tax and franchise utility taxes remain strong and constant sources of revenue, and we are fortunate to have a strong fund balance from which we can take significant funding for a direct capital project. In short, the Town is in strong financial condition, and I believe this will continue into FY24.

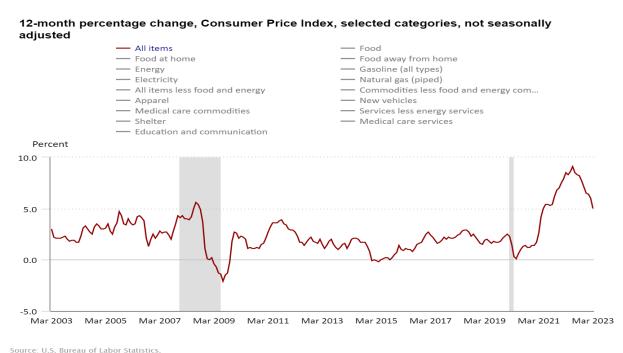
General Fund

Expenditures

Town Wide Expenditures

Salaries

The Board approved a six (6) percent cost-of-living adjustment (COLA) for all full-time employees last year. Historically, the Town has based COLA recommendations on the March consumer price index (CPI). Last year's COLA did not match the CPI from March 2021-March 2022, as it was 8.5 percent at that time. As the Federal Reserve has raised interest rates, inflation has fallen from the highs of last year, but it remains high relative to previous years. The 12-month percent change in CPI from March 2022-March 2023 was 5.6 percent, when not including energy and food items. The CPI was five (5) percent when factoring these sectors into the rate.



As shown on the 20-year CPI chart above, inflation remains high, and the Town is committed to providing adequate salaries and benefits for our employees. Employee hiring is more difficult than at any time in recent memory and employer offerings are more important than ever. Aside from recruiting new employees, it is vitally important we continue to appropriately value our current employees. As a result, my recommended cost-of-living adjustment for FY24 is 5.6 percent, in line with the March CPI. In addition to this increase for all full-time employees, department heads will utilize performance evaluations to direct targeted pay increases for high-achieving employees.

The Town is not alone with this recommendation. A review of other jurisdictions within Buncombe County shows similar recommendations¹. The Town can accept this salary growth and the targeted merit increases.

<u>Jurisdiction</u>	Projected FY24 COLA
Black Mountain	5%
Weaverville	6%
Woodfin	6%

Chart 1.

We continue to experience increases within entry-level salary positions, particularly within the Police Department. Law enforcement jobs are exceptionally competitive right now and the Town is doing everything possible to maintain existing employees and recruit successfully in this market.

Town Provided Benefits

The Town's comprehensive and generous benefit package continues to be an incentive when recruiting new employees and helps with employee retention. The Board allowed the Town the opportunity to increase benefits last year by offering short-term disability insurance. Staff continues to evaluate needs and other benefit options and will recommend changes to the Board as necessary.

Health Care – State Health Plan

The Town's health insurance, provided through the NC State Health Plan, provides effective and robust health insurance benefits to employees. The FY24 budget anticipates a five (5) percent increase for plan year 2024. This is a difficult number to pin down each year as the State Health Plan does not announce any changes until October, and then effective increases begin in January. I am comfortable with this number and any other changes that may be associated with the health plan.

One change to be aware of is that the State Health Plan will be shifting insurance providers from Blue Cross Blue Shield NC to Aetna. As of this writing, we are unaware of any dramatic changes to benefits or cost, but will monitor this as we get closer to this implementation timeline in plan year 2025.

Vision and Dental Insurance

The Town continues to offer robust vision insurance through VSP. This plan, managed by the North Carolina League of Municipalities (NCLM), provides great benefits for employees. The Town's dental plan (also managed by NCLM) switched last year to Delta Dental. We increased our benefits last year from Dental II to Dental III to continue providing desirable benefits for our employees.

Short-Term Disability Insurance

The Town began offering short-term disability benefits to employees last year at a cost of \$13 per employee per month. There is no anticipated increase in this benefit.

¹ Recommendations as of May 5, 2023.

LGERS Retirement and 401(k) Benefits

The NC Local Government Employees' Retirement System (LGERS) is the pension fund for all town employees. This pension system is managed by the North Carolina Treasurer's Office. The LGERS and State Retirement System Board has been aggressively modifying rates over the past several years to ensure the plan remains viable and well run. The retirement rate in FY24 increases for all employee classes. Sworn law enforcement officers will now receive a contribution of 20.78 percent to their pension. This is an increase of 1.84 percent over the previous year. Non-sworn employees will receive a contribution of 19.53 percent, an increase of 1.53 percent over the prior year. Please note, of that total percentage, it is estimated that approximately 6 percent is contributed to the employees' retirement health plan. This funding is required by state law. This budget continues the Town's annual contribution of five (5) percent contribution for each employee's 401(k) plan.

Department Specific Expenditures

Administration

The Town's administration department consists of the Town Manager, Finance Director, Town Clerk, and Town Planner. The Town Planner position was approved by the Board of Commissioners in January 2023 and is fully covered within the FY24 budget. This year's administration budget reflects additional staff development associated for each position and for the Board of Commissioners and other Town advisory boards. In addition, this year's recommended budget includes the addition of front office staff to provide greater financial controls and citizen support. The Town has utilized a temporary employee in a similar position for much of this year and this addition has been an immediate and welcomed benefit to both the Town staff and citizens. If approved, the position would function as a Citizen Service Representative. The position would have two main purposes – financial transparency and customer service - as outlined below.

First, from a practical perspective, the importance of having a backup for payroll and accounts payable cannot be overstated. Currently, we are reliant on the Finance Director to handle each task – and if that person is out of the office for any reason, then it becomes very difficult to process these items in a timely manner. The Finance Director does everything possible to avoid this scenario and has even handled these duties from off-site when sick. Clearly, having someone as a backup that is trained directly in this task would alleviate these concerns. This additional position will allow the Town significantly better financial controls and processes.

Second, and perhaps most importantly, the Town annually receives a critique from the Local Government Commission (LGC) regarding segregation of duties and internal controls. The auditors must note this each year, not because there are issues with financial accounting or transparency, but rather because there are simply not enough checks in place for the funds to come through and going out of the Town. The additional position provides a check between the Tax Collector who issues bills and the person who posts the deposits. While it may seem minor, having a position focused on collecting payments and making the physical deposit is significant – it removes the ability of one person to collect funds, deposit funds, and post the funds to accounts. Similarly, with water billing, the same layer would be in between the position that creates the bill and then posts the payment. The finance director, in each situation, performs a bank reconciliation each month that verifies the amount billed and the amount deposited, and then the Town Manager reviews the bank statements to confirm these reconciliations. Removing the physical act of collecting funds and depositing these funds from the people issuing the bills and reviewing the deposits greatly enhances the Town's internal controls. Other jurisdictions within Buncombe County and similarly sized jurisdictions in Henderson County currently utilize additional staff to assist with financial duties, as shown in the chart on the following page.

Jurisdiction	Front Office Staff with	FTE Positions
	Financial Roles	
Black Mountain	Town Clerk; 3 Finance positions;	5
	requesting PIO this year	
Laurel Park	Town Clerk; Asst. to Mgr;	3.5
	Finance Director; PT admin asst.	
Mills River	Clerk/Finance Director; Deputy	3.5
	Clerk/Admin Asst; Tax Collector;	
	PT Admin Asst – requesting this	
	position become FT and deputy	
	tax collector	
Weaverville	3 finance only staff members;	4
	Town Clerk/Asst to Manager	
Woodfin	Finance Director; Town Clerk;	3
	Accountant	
Biltmore Forest	Finance Director/Tax Collector;	2
	Town Clerk/Billing Clerk	(not counting current
		temporary employee)

Chart 2.

This position will also focus on citizen engagement via phone and in-person communication and provide direction to citizens and other visitors regarding their requests. From a purely practical perspective, this position allows the other members of the Town's administration department the ability to perform their duties without significant interruptions. Daily tasks for each employee require precision and focus – in an open work plan, as we have, this is inherently more difficult than in a closed office environment. However, when walk-in traffic and phone calls are occurring at the same time, there is a much higher likelihood of less precision and errors. This is a significant concern when performing detailed accounting activities or meeting with employees regarding human resources issues, or simply just when working on projects and board reports. This has been proven through detailed research that show specific amounts of time that it takes to resume work after being interrupted. This idea, that being interrupted prevents you from staying in a state of work flow and creates less timely work, is fairly straightforward. However, a study from the University of California-Irvine found that work may still be performed in a quick manner, but

When people are constantly interrupted, they develop a mode of working faster (and writing less) to compensate for the time they know they will lose by being interrupted. Yet working faster with interruptions has its cost: people in the interrupted conditions experienced a higher workload, more stress, higher frustration, more time pressure, and effort. So interrupted work may be done faster, but at a price.

Our results suggest that interruptions lead people to change not only work rhythms but also strategies and mental states. Another possibility is that interruptions do in fact lengthen the time to perform a task but that

this extra time only occurs directly after the interruption when reorienting back to the task, and it can be compensated for by a faster and more stressful working style.²

In essence, the timeliness of the work may be the same, but the stress on the employee may be significant and the quality of work performed may diminish. This is NOT to say that our front office staff is performing inadequately. But it is important to recognize that walk-in citizen interactions occur frequently and the citizen, or any other person who visits Town Hall, deserves to have appropriate time and attention paid to their request. Staff endeavors to do this, but this additional position with a focus on initial citizen service will greatly enhance our ability to serve our residents and allow greater work productivity among staff.

Police Department

The Board has provided significant budgetary improvements over the past several years for the Police Department. These include significant investments in vehicles, technology, and equipment, in addition to many other sectors. The Department did not purchase vehicles last fiscal year to move into an appropriate replacement plan for all our vehicles. As a result, two vehicles are planned for FY24. The method in which the Town will acquire these vehicles is different than in prior years, but staff believes will result in significant cost savings to the Town while also ensuring that the fleet is continually updated.

Enterprise Fleet Management will provide police (and public works) vehicles for the Town beginning in FY24. Enterprise does this as a capital lease and is the largest vehicle owner in the nation. As a result, they can provide supply due to having dealer relationships all over the US and oftentimes when other agencies are unable to get vehicles. This year, we intend to follow the Town's police vehicle replacement program through Enterprise. The estimated cost savings for the Town, over a ten-year period across all departments, is \$600,000. These cost savings come from having a single maintenance plan that is paid through Enterprise with the same local vendors we currently use, the cost savings on vehicles leased, and the appreciation that the Town is able to put back into new leases after vehicles are sold by Enterprise. The Town will have a dedicated fleet manager to assist with procurement, service, and any other issues. There is no commitment and no exclusive plan with Enterprise. We will only begin this process with vehicles that need to be replaced this fiscal year and will continually evaluate as necessary.

Additionally, this year's budget will focus on an upgraded radio system that will be able to communicate with both the Asheville Police Department and Buncombe County Sheriff's Office more reliably. Currently, officers must carry three radios in order to hear and communicate with the above agencies and our dispatch office. This is not safe, and the investment in this system will help ensure officer safety and provide better service.

The Police Department needs new service weapons this year. Chief Beddingfield has reviewed and tested new optical sight weapons from Glock, and believes it is an appropriate time for the Town to proceed in this direction. Many local jurisdictions have moved to this modern

² Mark, Gloria. *The Cost of Interrupted Work: More Speed and Stress.* Donald Bren School of Information and Computer Sciences, University of California-Irvine. https://www.ics.uci.edu/~gmark/chi08-mark.pdf. Accessed 15 April 2023.

equipment as it affords officers the ability to keep both eyes on a suspect as opposed to having one eye on the suspect and one in the sight.

Additional expenditures are anticipated for the Town's continuing efforts at finding security cameras that work within our forested environment. Our current license plate reading vendor is building, at no cost to the Town, a hybrid system that they believe will work in the Town.

Public Works Department

The Public Works Department continues to focus on park improvements and the streetlight retrofitting project that was a result of Duke's Targeted Underground Project. While not shown within the Public Works Department, specifically, the anticipated final improvements for Greenwood Park will be delivered via this department. These funds are being paid from the remainder of the American Recovery Plan (ARP) funds and will be compensated, as necessary, with additional funding from this departmental budget. Please note: several salaries within the Public Works Department are split between the General Fund and the Water Fund. These positions include the Public Works Director, Public Works Supervisor, and one additional public services worker.

Streets Department

This department has the most dramatic increase in expenditures for FY24, and this is specifically where the fund balance appropriation will be targeted. The Town has undertaken multiple stormwater improvements since 2019 and made great strides through the approved master plan. During FY23, the Board approved funding for the design work to make repairs and improvements for stormwater improvements on Stuyvesant Road, Lone Pine Road, Vanderbilt Road, and Park Road. These projects encompass Master Plan projects 1 and 9. A copy of the Master Plan narrative regarding these projects is attached to this budget message as Addendum 2. The Town received an updated estimate for construction of this project the last week of April. The estimate for this work is just over \$1.2M. Ironically, the estimate from 2019 for these projects (when combined) was just under \$1.2M. Staff feels confident that this work will benefit the Town and dramatically improve stormwater issues in this area. It does bear repeating that this is the reason for the fund balance appropriation – it is nearly direct payment for the anticipated construction costs for this project.

Additional funding is included for further engineering associated with this project as well as other storm water or street engineering needs. The Town is continuing the process of improving our street system by appropriately milling and re-surfacing roads and has an approved five-year striping plan that will be implemented as part of this budget.

As noted in the Police Department section, the Town's vehicle fleet – particularly in Public Works – needs updating. The Enterprise Fleet Management solution will be utilized to improve the Town's fleet and two vehicles are planned for acquisition out of the Streets Department.

Sanitation and Recycling

The Town continues to experience significant vehicle repair and maintenance costs with the garbage trucks. These trucks, while typically only running three days per week, are intensively used as they drive a short distance, back into a driveway, idle briefly, go forward a few hundred feet and do the same process at the next driveway. This starting/stopping is difficult on the trucks, and we do continually experience issues. Staff recommends a new garbage truck this year and this is another area where we will benefit from the new relationship with Enterprise Fleet Management. They are able to obtain these vehicles and will assist as we outfit the truck the appropriate bed and lift system on the rear of the truck. The proposed budget includes one new truck for the coming year. Brush disposal fees have continued to rise over the past year and we anticipate a slight increase in this area.

General Government

Expenditures in general government remain dedicated to projects and programs that affect the Town as a whole. Many line items remain constant with prior year actual expenses. The Town continues to actively pursue forestry management and will continue our focus on removing hazardous trees from public spaces and town rights of way. The Town's 100th anniversary will continue for the first half of 2023 and funds are allocated once more to these town wide activities. We are also continuing to improve technology throughout the Town and are working with our technology vendor, VC3, to make continual improvements to the security of the Town's network and systems. Contingency funding of \$50,000 is also included within this budget for items that may come up during the year or other activities the Board would like to pursue.

Debt Service

The Town's debt service for the police vehicles was paid in full during FY23. This has been removed from the debt service spreadsheet, but the Town's stream restoration loan to NCDEQ has taken its place. We are making the first payment this fiscal year and will commence for the next 19 years with a zero-percent interest payment of \$14,600 each May.

Water Fund

Revenues

The Town's water system and water fund remains in good shape. This fund is fairly streamlined in terms of what we receive from Town customers and what is paid out to the City of Asheville and Metropolitan Sewerage District. This budget includes a 2.5 percent increase for water charges and a three (3) percent increase for sewer charges, consistent with increases from the City of Asheville and MSD, respectively. We have begun a review of the Town's fee schedule and intend this to be available for implementation in FY25. We do anticipate revenues to be higher in FY24 than projected last year, as we have seen higher usage and payments than anticipated.

Expenditures

Staff salaries and benefits (half for each) are allocated to the water fund for five (5) employees – three in Public Works and two from the Administration department. This is allowable based on the time and work done by each staff person on behalf of the Town's water system. We are continuing the acquisition of a vehicle for Public Works from Enterprise within this budget as well. This truck is likely to replace the existing F-350 that is utilized within the Water Department. Sewer and water purchases are expected to increase as well, as noted above in the revenue section.

Additional Note

This proposed budget <u>does not</u> include funding for any projects related to the Town's recently completed space needs study. This space needs study is being presented to the Board on the same date as the budget presentation. Certainly, any major renovations and/or improvements to Town facilities will require significant capital investment. The Board will need to review the space needs study and make determinations about how, if at all, to move forward. Once these decisions are made, staff will prepare the financial analysis on funding these projects as requested.

Conclusion

The Town remains in sound financial condition and this will continue in FY24. The services provided by our staff is continually evaluated and we strive to improve in every sector. The recommendations in this budget are those that we believe will allow greater service provisions to the residents of Biltmore Forest. The Board of Commissioners continually express the desire to increase services and have provided support and funding to do this.

On behalf of all Town staff members, I appreciate the support of the Citizens, Mayor, and Board of Commissioners. Thank you for your belief in the Town's staff as we continually try to improve how we serve the citizens of Biltmore Forest.

Respectfully Submitted,

Grattian B. Kanipe

Jonathan B. Kanipe Town Manager

GENERAL FUND REVENUES

		2020-21	2021-22	2022-23	2022-23	2023-24
	REVENUES	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	ESTIMATED
10-3010-0000	Ad Valorem Taxes (Property)	2,670,639	2,956,098	2,920,559	2,973,578	2,981,691
10-3010-0100	Ad Valorem Taxes (DMV)	108,071	108,759	109,396	91,636	118,764
10-3010-0200	Tax Interest & Penalties	13,129	5,314	5,000	6,073	5,000
10-3010-0300	Tax Collection Prior Years	,	•	,	ŕ	-
	Total Ad Valorem					3,105,455
10-3020-0000	Franchise & Utilties Tax	209,551	221,240	211,384	168,072	235,200
10-3020-0100	Alcohol Beverage Tax	5,655	5,594	6,450	-	6,500
10-3020-0200	Sales Tax-Article 39	584,883	743,407	793,429	664,812	835,550
10-3020-0300	Sales Tax-Article 40	252,345	292,188	330,137	286,543	358,260
10-3020-0400	Sales Tax-Article 42	308,866	365,732	419,847	353,401	443,961
10-3020-0600	Sales Tax Refund	58,022	(22,449)	15,000	21,219	15,000
10-3020-0700	Gasoline Tax Refund	4,050	2,315	3,500	5,923	5,000
	Total Unrestricted Intergovernmental					1,899,471
10-3030-0000	Solid Waste Disposal Tax	1,012	804	975	833	1,133
10-3030-0100	Powell Bill	56,403	67,822	66,849	67,207	67,210
10-3030-0200	Illicit Substance Tax	285		-	18	-
	Total Restricted Intergovernmental					68,343
10-3040-0000	Zoning Permits	31,674	73,729	45,000	21,442	30,000
10-3040-0100	Dog License Fee	1,350	1,220	1,300	1,145	1,300
	Total Permits & Fees					31,300
40 2050 0000		026	7 227	2 000	404.074	405.000
10-3050-0000	Interest Earned	936	7,227	2,000	104,974	105,000
	Total Investment Earnings					105,000
10-3060-0100	American Tower Agreement	29,620	31,044	45,600	31,310	46,365
10-3060-0200	Miscellaneous	23,075	43,174	20,000	16,039	20,000
10 3000 0200	Total Miscellaneous	23,073	13,174	20,000	10,033	66,365
						20,000
10-3500-0000	Sale of Personal Property	22,838	26,020	10,000	u u	10,000
10-3500-0200	Installment Agreement	-	,	292,000	-	=
10-3500-0300	Transfer from Fund Balance	-		,		1,213,866
	Total Other Financing Source					1,223,866
	TOTAL General Fund Revenues					6,499,800

GENERAL FUND EXPENDITURES (Administration & General Government)

GENEI	RAL FUND EXPENDITURES	2020-21	2021-22	2022-23	2022-23	2023-24
	ADMINISTRATION	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
10-4200-0200	Salaries	223,797	217,543	226,063	236,815	321,633
10-4200-0300	Overtime	3,458	85	3,000	-	3,000
10-4200-0500	FICA	16,686	15,497	17,293	14,858	24,605
10-4200-0550	Unemployment Insurance	-				-
10-4200-0600	Health Insurance	29,606	23,189	24,158	19,123	42,598
10-4200-0650	Dental, Vision, Life Insurance	5,548	4,650	4,935	3,787	10,500
10-4200-0675	Health Reimbursement Acct	4,000	3,750	3,750	2,813	7,500
10-4200-0700	LGERS Retirement	38,292	37,671	41,231	37,844	62,815
10-4200-0800	401k Supplemental Retirement	11,290	10,638	11,453	10,131	16,232
10-4200-1000	Accounting & Taxes	41,524	51,381	51,400	26,275	51,400
10-4200-1200	Postage, Printing & Stationary	6,783	6,204	10,140	6,524	10,140
10-4200-1400	Mileage & Board Salary	21,600	21,600	21,600	18,919	21,600
10-4200-1500	Bldg & Grounds Maintenance			20,000	6,425	20,000
10-4200-3300	Supplies & Equipment	8,490	8,264	7,722	8,664	10,000
10-4200-5300	Dues & Fees	3,689	7,656	5,070	4,774	5,070
10-4200-5700	Miscellaneous	783	2,986	1,000	1,078	1,000
10-4200-6500	Staff & Board Education	8,129	7,357	16,000	13,978	21,395
10-4200-6600	Capital Improvements	-				-
	TOTAL	423,677	418,470	464,815	412,008	629,487

GENEI	RAL FUND EXPENDITURES	2020-21	2021-22	2022-23	2022-23	2023-24
GE	NERAL GOVERNMENT	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
10-6600-0400	Outside Professional Services					
10-6600-0401	Legal Services	28,896	27,278	35,000	21,826	35,000
10-6600-1100	Technology	76,756	99,374	92,120	88,887	105,937
10-6600-1300	Municipal Utilities	16,561	37,079	25,000	36,702	40,000
10-6600-1500	General Maintenance	30,120	35,851	28,200	40,007	40,000
10-6600-2800	Elections	150		6,000	184	6,000
10-6600-3300	Supplies & Equipment	25				
10-6600-5400	Insurance	78,179	82,911	105,000	105,578	110,000
10-6600-6000	Contingency	-	-	181,444	-	50,000
10-6600-6100	Miscellaneous	4,765	11,209	10,000	5,694	10,000
10-6600-6201	Covid Expenditures	51,941	900	2,000	8,500	
10-6600-6300	Community Events			50,000	8,303	55,000
10-6600-6301	4th of July	1,621	6,343	10,000	5,222	
10-6600-6302	National Night Out	488.54	3,841	7000	0	
10-6600-6303	Holiday Lighting	12,700	10,843	21,500	9,875	
10-6600-6304	Arbor Day Event		205	2,000	-	
10-6600-6400	Wildlife Management	446	977	5,000	2,730	5,000
10-6600-6500	Forest Management	28,806	32,131	60,000	49,800	60,000
	TOTAL	331,457	348,941	640,264	383,307	516,937

GENERAL FUND EXPENDITURES (Police Department & Fire Contract)

GEN	NERAL FUND EXPENDITURES	2020-21	2021-22	2022-23	2022-23	2023-24
	POLICE DEPARTMENT	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
10-5100-0200	Salaries	904,566	987,949	951,387	904,634	1,013,718
10-5100-0300	Overtime	27,423	16,585	26,000	-	30,412
10-5100-0400	Separation Allowance	30,617	30,617	38,117	32,317	16,445
10-5100-0500	FICA	70,989	72,632	72,781	66,354	77,549
10-5100-0550	Unemployment Insurance	437				
10-5100-0600	Medical Insurance	141,742	146,901	164,272	114,920	144,832
10-5100-0650	Dental, Vision, Life Insurance	20,655	19,168	35,558	14,190	35,700
10-5100-0675	Health Reimbursement Account	26,500	25,250	25,500	18,250	25,500
10-5100-0700	LGERS Retirement	155,869	171,654	185,598	161,221	210,651
10-5100-0800	401K Supplemental Retirement	45,118	48,002	48,996	43,270	50,686
10-5100-0900	Short Term Disability					
10-5100-1500	Maint/Repair -Building & Grounds	27,771	1,017	20,000	3,415	20,000
10-5100-1600	Maint/Repair - Equipment	2,113	793	1,000	1,356	1,000
10-5100-1700	Maint/Repair - Vehicles	9,727	8,374	10,000	8,249	10,000
10-5100-3100	Motor Fuels	15,031	21,596	24,600	17,504	24,600
10-5100-3300	Supplies	9,712	5,828	20,080	15,374	10,080
10-5100-3600	Uniforms	5,668	7,508	15,000	16,203	15,000
10-5100-3700	Software	14,300	70,448	18,725	16,454	18,725
10-5100-3800	Technology	62,722	51,504	58,740	37,869	58,740
10-5100-5700	Miscellaneous	6,528	13,023	8,265	4,690	8,265
10-5100-5800	Physical Exams	2,196	951	2,000	1,599	2,000
10-5100-6500	Staff Development	2,312	13,144	15,000	9,777	15,000
10-5100-7400	Capital Equipment Purchases	96,422	98,891	102,500	115,424	169,000
	TOTAL	1,678,418	1,811,835	1,844,119	1,603,068	1,957,903

GEI	NERAL FUND EXPENDITURES	2020-21	2021-22	2022-23	2022-23	2023-24
	FIRE CONTRACT	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
10-5200-0000	Fire Contract	425,000	425,000	425,000	425,000	425,000
	TOTAL	425,000	425,000	425,000	425,000	425,000

GENERAL FUND EXPENDITURES (Public Works)

GEN	IERAL FUND EXPENDITURES	2020-21	2021-22	2022-23	2022-23	2023-24
	PUBLIC WORKS	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
10-5600-0200	Salaries	228,954	238,121	244,822	198,413	211,888
10-5600-0300	Overtime	5,190	-	5,000	-	5,000
10-5600-0500	FICA	17,314	17,194	19,111	13,617	16,209
10-5600-0500	Unemployment Insurance	437	-	500	-	
10-5600-0600	Medical Insurance	38,520	34,260	43,484	22,531	68,156
10-5600-0650	Dental, Vision, Life Insurance	6,333	3,937	8,883	3,025	10,500
10-5600-0675	Health Reimbursement Account	7,313	6,313	6,750	3,688	7,500
10-5600-0700	LGERS Retirement	39,267	41,002	44,968	34,314	41,382
10-5600-0800	401K Supplemental Retirement	11,616	11,097	12,491	8,696	10,594
10-5600-1000	Outside Services	7,542	1,109	10,000	275	-
10-5600-1300	Streetlights Electric	5,972	1,773	7,000	4,192	7,000
10-5600-1500	Maint/Repair-Building & Grounds	12,802	3,564	9,600	5,808	9,600
10-5600-1600	Maint/Repair - Streetlights	634	24,696	35,000	31,000	35,000
10-5600-1700	Maint/Repair-Vehicles	6,874	5,748	10,000	4,722	10,000
10-5600-3100	Motor Fuels	11,700	17,351	20,000	13,786	20,000
10-5600-3300	Supplies	9,096	5,779	10,000	6,506	10,000
10-5600-3400	Street Signs & Numbers	369	285	1,000	94	1,000
10-5600-3600	Uniforms	4,924	3,472	8,650	5,452	8,650
10-5600-3800	Technology	6,150	7,115	9,500	8,937	9,500
10-5600-5200	Parks	3,793	20,328	60,000	5,413	60,000
10-5600-5202	Greenwood Park Stream Restoration	39,485	138,760	292,000	246,408	
10-5600-5800	Physical Exams	130	-	500	-	500
10-5600-5900	Miscellaneous	772	773	1,000	204	1,000
10-5600-6000	Capital Outlay	-				8,000
10-5600-6500	Staff Development	4,869	1,386	8,000	4,178	
	TOTAL	470,056	584,063	868,259	621,257	551,480

GENERAL FUND EXPENDITURES (Streets & Transportation and Sanitation & Recycling)

GENE	RAL FUND EXPENDITURES	2020-21	2021-22	2022-23	2022-23	2023-24
STRE	ETS & TRANSPORTATION	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
10-5700-0200	Salaries	32,244				
10-5700-0300	Overtime	-				
10-5700-0500	FICA	2,467				
10-5700-0550	Unemployment Insurance					
10-5700-0600	Medical Insurance	4,330				
10-5700-0650	Dental, Vision, Life Insurance	486				
10-5700-0675	Health Reimbursement Account	1,000				
10-5700-0700	LGERS Retirement	5,372				
10-5700-0800	401K Supplemental Retirement	1,612				
10-5700-1700	Maint/Repair - Vehicles	3,353	5,325	10,000	471	5,000
10-5700-2200	Contracts-Paving & Striping	28,453	225,735	210,000	71,765	255,000
10-5700-2300	Supplies	10,099	10,178	10,000	8,505	10,000
10-5700-2400	Traffic Signs	4	560	500	809	500
10-5700-2500	Storm Water Drainage Repairs	147,920	212,276	275,000	1,687	1,400,000
10-5700-3800	Technology	2,175	2,284	5,000	-	5,000
10-5700-6500	Staff Development	220	287	1,000	-	1,000
10-5700-7400	Capital Equipment Purchases	1,460	(0)	5,000	-	19,200
10-5700-7500	Engineering	62,633	22,610	100,000	56,911	50,000
	TOTAL	303,827	479,255	616,500	140,148	1,745,700

GENE	RAL FUND EXPENDITURES	2020-21	2021-22	2022-23	2022-23	2023-24
SAI	NITATION & RECYCLING	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
10-5800-0200	Salaries	111,664	123,571	125,190	121,837	141,376
10-5800-0300	Overtime	789	286	5,000	-	5,000
10-5800-0500	FICA	8,526	9,238	9,960	8,915	11,198
10-5800-0550	Unemployment Insurance					
10-5800-0600	Medical Insurance	21,002	20,591	28,989	17,825	68,156
10-5800-0650	Dental, Vision, Life Insurance	2,072	1,968	5,922	1,989	6,300
10-5800-0675	Health Reimbursement Account	4,875	4,500	4,500	3,375	4,500
10-5800-0700	LGERS Retirement	18,634	21,809	23,435	21,703	27,611
10-5800-0800	401K Supplemental Retirement	5,674	6,236	6,510	5,956	7,069
10-5800-1700	Maint/Repair - Vehicles	20,930	25,461	25,000	40,471	40,000
10-5800-3100	Motor Fuels	13,563	22,376	30,000	23,126	30,000
10-5800-3300	Supplies	1,158	43,667	1,000	979	1,000
10-5800-3600	Uniforms	341	1,022	1,000	-	1,000
10-5800-3800	Technology	534	553	600	1,696	3,000
10-5800-5800	Physical Exams		-	500	-	500
10-5800-5900	Miscellaneous		532	1,000	-	1,000
10-5800-6000	Capital Outlay		(1)	55,000	43,155	80,000
10-5800-8000	Landfill Tipping Fees		60,122	30,000	37,774	50,000
10-5800-8100	Recycling Disposal Fees	8,269	-	6,000	7,817	20,000
10-5800-8200	Brush & Leaf Disposal Fees	47,777		31,200	17,460	31,200
	TOTAL	265,811	341,931	390,806	354,077	528,910

GENERAL FUND EXPENDITURES (Debt Service)

GEN	IERAL FUND EXPENDITURES	2020-21	2021-22	2022-23	2022-23	2023-24
	DEBT SERVICE	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
10-6700-0100	Principal Police Dept Renovations	23,333	23,333	23,334	23,333	23,334
10-6700-0200	Principal Street Improvements	6,667	6,667	6,667	6,667	6,667
10-6700-0500	Principal Public Works Bldg	84,211	84,564	84,211	50,594	84,211
10-6700-0600	NCDEQ Loan Strm Rest					14,600
10-6700-1100	Interest Police Dept Renovations	3,223	2,334	1,445	1,445	556
10-6700-1200	Interest Street Improvements	921	667	413	413	159
10-6700-1500	Interest Public Works Bldg	23,343	20,160	17,685	51,301	14,855
10-6700-1600	Interest 2020 Police Cars	1,579	1,579	801	1,579	
	TOTAL	143,276	139,303	134,556	135,331	144,382

WATER FUND

	WATER FUND	2020-21	2021-22	2022-23	2022-23	2023-24
	REVENUE	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
30-3290-0000	Interest Earned			50	2,440	4,000
30-3350-0000	Commissions (Sewer Collection Fee)			8,000	7,097	8,000
30-3710-0000	Water Charges	402,547	434,705	369,000	381,589	572,382
30-3710-0100	Sewer Charges	334,512	350,217	248,284	328,951	493,425
30-3710-0200	AMI Transmitter Charges	8,309	6,814	7,700	6,837	7,700
30-3730-0000	Water Tap & Connection Fees	9,290	4,870	6,000	9,450	6,000
	TOTAL	754,658	796,606	639,034	736,364	1,091,507
30-3710-0000	Transfers from General Fund	-	=	=	-	-
	TOTAL	754,658	796,606	639,034	736,364	1,091,507

	WATER FUND	2020-21	2021-22	2022-23	2022-23	2023-24
	EXPENDITURES	BUDGET	BUDGET	BUDGET	ACTUAL THRU 5-3-23	RECEOMMENDED
30-8100-0200	Salaries	66,255	108,247	144,572	95,082	169,693
30-8100-0300	Overtime					-
30-8100-0400	Professional Services	5,653	4,845	5,000	3,188	5,000
30-8100-0500	FICA	5,069	8,192	11,060	6,813	12,981
30-8100-0550	Unemployment Insurance					-
30-8100-0600	Medical Insurance	-	16,527	19,326	11,763	-
30-8100-0650	Dental, Vision, Life Insurance	-	2,533	3,948	1,905	-
30-8100-0675	Health Reimbursement Account	1,438	2,938	3,000	1,875	-
30-8100-0700	LGERS Retirement	11,012	83,084	26,023	17,272	27,611
30-8100-0800	401K Supplemental Retirement	3,313	6,273	7,229	5,872	8,485
30-8100-1200	Postage, Printing & Stationary	2,406	4,340	5,000	621	5,000
30-8100-1500	General Repairs	3,817	-	10,000	17,175	25,000
30-8100-3300	Supplies & Equipment	9,403	16,592	15,000	10,114	15,000
30-8100-3800	Technololgy	2,175	2,284	5,000	-	5,000
30-8100-4800	Water Purchases	132,028	158,705	179,580	148,937	204,750
30-8100-4900	Sewer Purchases	274,446	350,492	185,400	263,561	396,000
30-8100-5000	AMI Transmitter Fees	6,582	8,529	7,700	5,099	7,700
30-8100-5700	Miscellaneous	376	-	6,196	56	6,196
30-8100-6000	Contingency					178,891
30-8100-6500	Staff Development	4,653	4,943	5,000	1,602	5,000
30-8100-7400	Capital Improvement	=	18,244	29,939		19,200
	TOTAL	528,624	796,767	668,973	590,934	1,091,507

2022-2023 BUDGET SUMMARY

GENERAL FUND	2023-24
REVENUE	RECEOMMENDED
Ad Valorem	3,105,455
Unrestricted Intergovernmental	1,899,471
Restricted Intergovernmental	68,343
Permits & Fees	31,300
Investment Earnings	105,000
Miscellaneous	66,365
Other Financing Source	1,223,866
TOTAL General Fund Revenues	6,499,800
GENERAL FUND	2023-24
EXPENDITURES	RECEOMMENDED
Administration	629,487
Police Department	1,957,903
Fire Contract	425,000
Public Works	551,480
Streets & Transportation	1,745,700
Sanitation & Recycling	528,910
General Government	516,937
Debt Service	144,382
TOTAL General Fund Expenditures	6,499,800
	6,499,800
	6,499,800

WATER FUND	2023-24
WATER FOND	2023-24
REVENUE	RECEOMMENDED
Operating Revenues	1,091,507
WATER FUND	2023-24
EXPENDITURES	RECEOMMENDED
Operating Expenditures	1,091,507
	1,091,507
	1,091,507

Results

Summary of Issues and Solutions for Each Project Area

The following is a summary of the issues and solutions proposed for the 10 Project Areas included in the CIP. Please refer to the *Preliminary Stormwater Assessment and Analysis* (**Appendix C**) for a more detailed description of the issues and solutions for each Project Area.

Project Area 1

PROBLEM DESCRIPTION

The streets at the intersection of Vanderbilt and Lone Pine Road have been observed to flood frequently. The pipes under Lone Pine Road and Stuyvesant Road are undersized, and the associated inlets are categorized as "Poor" or "In Need of Repair." The majority of local network inlets are in "Poor" condition.





RECOMMENDED SOLUTION Estimated Project Cost: \$484,500

- Replace storm drainage networks on the east and south side of the intersection with larger capacity inlets and larger storm drainage lines.
- Increase the size of the existing cross pipes, under Lone Pine and Stuyvesant Road.
- Replace existing boulder inlet covers with better performing, aesthetically designed inlet covers.

ADDITIONAL MULTI-PURPOSE SOLUTION

• Install permeable pavement at the intersection to improve minor flooding. Assess incorporating a round-about design with a rain garden centerpiece.

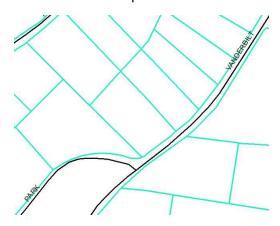
Stormwater Master Plan 10

Project Area 9

PROBLEM DESCRIPTION

Any drainage improvements performed at Project Area 1 would likely impact the downstream stormwater infrastructure at Project Area 9 requiring a higher capacity system at Project Area 9 as well as additional erosion protection. Additionally, the storm drainage system at Project Area 9 is mostly in "Fair" condition. The cross pipe that discharges to Raoul Branch near the park is currently undersized and in need of repair or replacement. The remaining cross pipes near the park are also in need of repair.





RECOMMENDED SOLUTION Estimated Project Cost: \$778,030

- Rehabilitate or install new inlets to improve capture efficiency along Vanderbilt Road.
- Replace existing pipe with a larger capacity storm pipe as needed.
- Replace the cross pipes near the park.

ADDITIONAL SOLUTION:

• Locate utilities in the right-of-way, and utilize available space for infiltration trenches to reduce runoff.

Stormwater Master Plan 18