REQUEST FOR COMMITTEE ACTION

HENDERSON COUNTY

TECHNICAL REVIEW COMMITEE

MEETING: TRC 12-1-20 & ZBA 12-30-20

- SUBJECT: Major Site Plan Review Benton Roofing Machining and Assembly Operation SUP-20-06
- PRESENTER: Matt Champion

ATTACHMENTS: Staff Report & Site Plan

SUGGESTED MOTION:

I move that the TRC approve the major site plan for Benton Roofing

I recommend forwarding the Special Use Permit to the Zoning Board of Adjustment



Henderson County, North Carolina Code Enforcement Services

1. Committee Request

- 1.1. Applicant: Caleb Benton
- 1.2. Request: Major Site Plan Approval/SUP-20-06
- 1.3. **PIN:** 9588-07-2064
- 1.4. Size: 5.72 acres +/-
- 1.5. Location: Southeast side of the intersection/overpass at Tracy Grove Rd and I-26
- 1.6. Supplemental Requirements:

SR 10.7. Machining and Assembly Operations \leq 10,000sf

Site Plan. Major *Site Plan* required in accordance with §42-331 (Major Site Plan Review).
 Lighting. *Adequate lighting* shall be placed in areas used for vehicular/pedestrian access including, but not limited to stairs, sidewalks, crosswalks, intersections, or changes in grade. *Lighting mitigation* required.

(3) Dust Reduction. Unpaved *roads, travelways* and/or parking areas shall be treated to prevent dust from adverse affects to adjacent properties.

SR 6.9. Office: Business, Professional and Public

(1) Site Plan. Major Site Plan required in accordance with §42-331 (Major Site Plan Review).

(2) Lighting. *Adequate lighting* shall be placed in areas used for vehicular/pedestrian access including, but not limited to stairs, sidewalks, crosswalks, intersections, or changes in grade. *Lighting mitigation* required.



Map A: County Context Map



Map B: Aerial Map



Map C: Zoning Map



Map D: CCP Future Land Use Map

2. <u>Current Conditions</u>

Current Use: The subject area was previously approved for use as an RV Park in 1991. There is a manufactured home on the property, and two non-conforming signs (an on-premise sign as well as a billboard).

Adjacent Area Uses: There are residential, agricultural, and vacant land uses surrounding the subject area. The subject area is also adjacent to Interstate 26.

Zoning: The subject area is currently zoned Residential Two Rural (R2R). R2R is primarily a residential zoning district allowing some recreational, educational and institutional, and some other light uses. The subject area is adjacent to Residential Two Rural (R2R) to the north and east, Residential One (R1) and Industrial (I) are adjacent to the west and south.

- **3.** <u>Floodplain /Watershed Protection</u> The property is not located in a Special Flood Hazard Area. The property is not in a Water Supply Watershed district.
- 4. <u>Water and Sewer</u> This property is served by individual well and septic.

5. <u>Comprehensive Plan</u>

The Henderson County Comprehensive Plan (CCP): The CCP Future Land Use Map places the Subject Area in the Community Service Center (CSC). The following is a description of the patterns of development envisioned within the CSC:

- a. **Community Service Center:** *Community Service Centers* are intended to be intensive, efficient, defined concentrations of mixed services that meet the needs of the surrounding community and defined service areas. *Community Service Centers* are appropriate for a mixture of commercial uses scaled to the service area in question; residential uses of varying densities depending upon available services; and *Community Facilities* such as schools, parks, community centers, and other similar *Community Facilities*. The mixture and intensity of land uses contained within *Community Service Centers* are intended to be appropriate within the context of the surrounding community and intended service area. *Community Service Centers* should also be properly controlled by appropriate aesthetic standards, access management standards, and other appropriate development control measures. (CCP, Pg. 138)
- 6. <u>Proposal</u> The applicant is proposing to install an 8,050SQFT machining and assembly operation building, 3,600sqft shop, and a 3,600sqft office building. The site plan shows a total of 29 parking spaces and 3 ADA parking spaces.
- 7. <u>Staff Recommendations</u> Staff's position currently, under the guidelines of current plans, policies and studies, is to approve the Major Site Plan.

8. <u>Photographs</u>





HENDERSON COUNTY MAJOR SITE PLAN REVIEW APPLICATION

CONTACT INFORMATION	
Property Owner:	
Name: Philip & Ann Bourick	Phone:
Complete Address: 2114 VV. Apache Trail	Apache Junction, AZ 85120
Applicant:	
Name: Caleb Benton	Phone: (828) 606-9968
Complete Address: 2421 Spartanburg Hig	way, E. Flat Rock, NC 28726
Agent:	
Name:	Phone:
Complete Address:	
Agent Form (Circle One): Yes No	
Plan Preparer:	
Name: Tyson Griswold	Phone: (828) 393-5820
Complete Address: 421 5th Ave W, Hend	sonville, NC 28739
PARCEL INFORMATION PIN: 9588072064 Zoning District: R2R Supplemental Requirement#	Tract Size (Acres): 5.72 Fire District: Blue Ridge Watershed: French Broad Floodplain: No
Location / Property to be developed: Property is lo	ated on the SE side of the intersection/overpass at
Tracy Grove Road and Interstate 26 at Mid Allen	oad
***************************************	**************************************

Driveway Date of Permit No. Application November 3, 2020 County: Henderson Development Name: Benton Roofing LOCATION OF PROPER	STREET AND DRIVEWAY ACCESS PERMIT APPLICATION RTY:
County: Henderson Development Name: Benton Roofing LOCATION OF PROPER	PERMIT APPLICATION
Development Name: Benton Roofing LOCATION OF PROPE	RTY:
LOCATION OF PROPE	RTY:
Route/Road: 1/93/Tracy Grove Road	
Exact Distance 0	
From the Intersection of Route No. <u>1893/Mid Allen</u> and Route No.	1793/Tracy Grove Road Toward North
Property Will Be Used For: Residential /Subdivision Commercial Educa	ational Facilities TND Emergency Services Other
	Oity Zoning Alea.
 I, the undersigned property owner, request access and permission to of-way at the above location. I agree to construct and maintain driveway(s) or street entrance(s) in Street and Driveway Access to North Carolina Highways" as adopted Transportation. I agree that no signs or objects will be placed on or over the public rig I agree that no signs or objects will be placed on or over the public rig I agree that the driveway(s) or street(s) as used in this agreement ind speed change lanes as deemed necessary. I agree that if any future improvements to the roadway become necess located on public right-of-way will be considered the property of the N will not be entitled to reimbursement or have any claim for present ext. I agree that this permit becomes void if construction of driveway(s) or specified by the "Policy on Street and Driveway Access to North Carce. I agree to construct and maintain the driveway(s) or street(s) in a safe the public riavel. I agree to provide during construction proper signs, signal lights, flagg of traffic in conformance with the current "Manual on Uniform Traffic C Amendments or Supplements thereto. Information as to the above ru District Engineer. I agree to indemnify and save harmless the North Carolina Department for damage that may arise by reason of this construction. I agree to provide a Performance and Indemnity Bond in the amount is construction proposed on the State Highway system. The granting of this permit is subject to the regulatory powers of the N law and as set forth in the N.C. Policy on Driveways and shall not be I Agree to NOTIFY THE DISTRICT ENGINEER WHEN THE PROCOMPLETED. 	 construct driveway(s) or street(s) on public right- absolute conformance with the current "Policy on d by the North Carolina Department of ght-of-way other than those approved by NCDOT. on the attached plans. clude any approach tapers, storage lanes or ssary, the portion of driveway(s) or street(s) North Carolina Department of Transportation, and I kpenditures for driveway or street construction. r street(s) is not completed within the time olina Highways". ble to NCDOT. This fee will be reimbursed if e manner so as not to interfere with or endanger gers and other warning devices for the protection Control Devices for Streets and Highways" and ules and regulations may be obtained from the ent of Transportation from all damages and claims ume no responsibility for any damages that may carrying out its construction. specified by the Division of Highways for any NC Department of Transportation as provided by construed as a contract access point. POSED WORK BEGINS AND WHEN IT IS
2004-01 NOTE: Submit Four Copies of Application to Local District Enginee 61-03419	er, N.C. Department of Transportation TEB 65-04rev.

GNATURES OF APPLICA	NT	
NAME SIGNATURE ADDRESS X & & & & & & & & & & & & & & & & & & &	× BUILTINESS BUILTING X 2421 Spart × EAST FLAT	Hope Benton Mandara HWY Famburg HWY EOIK WC 28726
NAME SIGNATURE ADDRESS	WITNESS	
APPROVALS		
	DATE	
AUTHORITY (when required)		
TITLE		DATE
	DATE	
TITLE		DATE
	GNATURES OF APPLICA	GNATURES OF APPLICANT

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HENDERSON COUNTY SPECIAL USE PERMIT APPLICATION FORM

GENERAL INFORMATIO	N			
Date of Application: Novem	nber 9, 2020			
Previously Submitted (Circl	le One): Yes	No		
Date of Pre-Application Con	nference: <u>No</u>	vember 5, 2020	<u> </u>	
Site Plan Attached (Circle C	Dne) Yes	No		
Traffic Impact Study Requi	red (Circle O	ne): Yes	No	
SPECIAL USE PERMIT IN	NFORMATIC	DN		
Type of use to be permitted:	Machining & A	Assembly Opera	tion	_ SR #:
Existing Structures or Uses or	n property: Sti	ructures exist fo	r use as an RV park	
Road System (Circle):	Public	Private		
Water System (Circle):	Individual	Community	Public (Municipal or County)	
Sewer System (Circle):	Individual	Community	Public (Municipal or County)	

SITE PLAN REQUIREMENTS

If a minor or major site plan is not specifically required, the applicant shall submit a site plan with the following items:

- Dimensions of property.
- Location of existing and proposed structures (including accessory structures), and general use thereof.
- Setbacks of existing and proposed structures from property lines and edge of right-of-way for roads (from centerline of roads for uses located in the R-40, WR, or SW districts).
- Separation of existing and proposed structures from one another.
- Parking and off/on loading areas
- Location of signs (including sign dimensions, height, type of material, lighting).
- Location and dimensions of existing and proposed roads / driveways and their entrance/exits.
- Location of dumpsters.
- Location and general description of any fences, landscaping or other buffering (proposed or existing).

Site plan not to exceed 11 X 17 size. Anything submitted larger than 11 X 17, the applicant must provide 12 copies with the application form.

PARCEL INFORMATION

PIN:	958807	2064		Deed Book/Pa	ge: 783/29	Tract Size (Acres): _	5.72
Zoning	; District:	R2R	Fire District:	Blue Ridge	Watershed: F	rench Br Floodplain:	N/A
Location of property to be developed: Property is located on the SE side of the intersection/overpass							
at Tracy Grove Road in Interstate 26 at Mid Allen Road.							

CONTACT INFORMATION

Property Owner:	
Name: Philip & Ann Botnick	Phone: (828) 606-9918
Address: 2114 Apache Trail, STE 1-141	City, State, and Zip: Apache Junction, AZ 85120
Applicant:	
Name: Caleb Benton	Phone: (828) 606-9968

Add	ress: 2421 Spartanburg Highway	Application No City, State, and Zip: East Flat Rock, NC 28726
Agent:		
Nan	ne:	Phone:
Add	lress:	City, State, and Zip:
Age	ent Form (Circle One): Yes No	
Plan Prepa	irer:	
Nan	ne:Tyson Griswold, P.E.	Phone: (828) 393-5820
Add	Iress: 421 5th Ave W	City, State, and Zip: Hendersonville, NC 28739

STANDARDS FOR REVIEW

The Land Development Code imposes the following GENERAL REQUIREMENTS on the use requested by the applicant. Under each requirement, the applicant should explain, where applicable, how the proposed use satisfies these requirements:

- A. General Requirement #1: The use will not materially endanger the public health, safety or welfare: The proposed project is for a relocation of an already exisiting business in the area located in East Flat Rock, not far from subject property. The use is for basic maching and assembly of roofing materials, storage, administration, and customer relations. No public health or environmental issues are expected.
- B. General Requirement #2. The use will not substantially injure the value of property or improvements in the area.

Considering the previous use, it is believed that this proposed project will not injure property values, and may even improve the property values in the area.

C. General Requirement #3. The use will be in harmony with the surrounding area. The proposed use is adjacent to industrial zoned areas across Interstate 26, and should be an improvement on the previous use of an RV park.

The Land Development Code also imposes the following SPECIFIC REQUIREMENTS on the use requested by the applicant. The applicant should be prepared to demonstrate that satisfactory provisions have been made for the following, where applicable.

The proposed use shall be located and developed in such a manner as to:

a. Comply with all applicable local, state and federal statutes, ordinance and regulations. The site plan indicates compliance with the above regulations.

 Be in accordance with the Comprehensive Plan, Long Range Transportation Plans and Comprehensive Transportation Plans of the county and/or Long Range Transportation Plans and comprehensive Transportation Plans of nay municipality of the County.

This project improves and assists in economic develelopment and growth for Henderson County. As mentioned above, the project represents an improvement and expansion of an existing business located in East Flat Rock. The applicant

will provide 24 jobs and also is part of the construction and light manufactuiring industry exisitng in the area.

Application No.

c. Minimize the effects of noise, glare, dust, solar access and odor on those persons residing or working in the neighborhood of the proposed use.

No increase of noise, glare, dust, solar or odor will occur as a result of the proposed project.

d. Minimize the environmental impacts on the neighborhood including the following groundwater, surface water, wetlands, endangered/threatened species, archeological sites, historic preservation sites and unique natural areas.

Environmental impacts are minimized through stormwater peak flow attenuation measures, and 85% removal of TSS of the 1" design storm. A 30' buffer will be maintained on the stream that traverses the property. Due to the previous use no historical, archeological, or endangered species will be impacted by the proposed project.

Show that satisfactory provision/arrangement has been made (where applicable or required) concerning:

- a. Ingress and egress to property and proposed structures thereon (with particular reference to automotive/pedestrian safety/convenience and traffic flow/control).
 The driveway is designed with NCDOT sight distance requirements achieved. No ingress/egress safety issues are expected.
- b. Off-street parking and loading areas. Off-street parking and loading are provided in accordance with the Henderson County Land Development Code.
- c. Utilities (with particular reference to locations, availability and compatibility). The proposed water source will be a non-transient, non-community well. The wastewater will be treated with an existing septic system. This septic system was evaluated by a licensed soil scientist. This evaluation is provided in the appendix to this submittal.
- Buffering and landscaping (with particular reference to type, location and dimensions).
 A 30 foot visual buffer is provided for the adjoining residential uses. Landscaping is provided in accordance with the land development code.
- e. Structures (with particular reference to location, size and use). Structures are as shown on the site plan.

I certify that the information shown above is true and accurate and is in conformance with the Land Developmen
regulations of Henderson County.

Print Applicant (Owner or Agent)

Botnick (Nov 6, 2020 07:

Nov 6, 2020

Signature Applicant (Owner or Agent)

Date

		County Use Only		
Fee: \$	Paid:	Method:	Received by:	
Authority to gran	nt the requested permit is cor	ntained in the Land Devel	lopment Code, Sections:	

Community Planning Area:

special_use_permit_application for signature

Final Audit Report

2020-11-06

Created:	2020-11-06
By:	Tyson Griswold (engineer@tysongriswold.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAARIx7pn_1fqQCz9G7c4JFp65DHW2uGmZd

"special_use_permit_application for signature" History

- Document created by Tyson Griswold (engineer@tysongriswold.com) 2020-11-06 2:28:08 PM GMT- IP address: 66.169.52.185
- Document emailed to Philip Botnick Ann Botnick (annphilrv@yahoo.com) for signature 2020-11-06 2:28:36 PM GMT
- Email viewed by Philip Botnick Ann Botnick (annphilrv@yahoo.com) 2020-11-06 - 2:52:30 PM GMT- IP address: 185.30.176.27
- Document e-signed by Philip Botnick Ann Botnick (annphilrv@yahoo.com) Signature Date: 2020-11-06 - 2:58:07 PM GMT - Time Source: server- IP address: 174.238.16.113

Agreement completed.
 2020-11-06 - 2:58:07 PM GMT

GENERAL NOTES

PROJECT LOCATION 818 TRACY GROVE ROAD HENDERSON COUNTY, NC PIN# 9588-07-2064

CURRENT ZONING: R2R; PROPOSED: SPECIAL USE FOR MACHINING AND ASSEMBLY OPERATIONS

ENGINEER: TYSON GRISWOLD, P.E.

- 1. TOTAL PARCEL ACREAGE IS: 5.72 ACRES; EXISTING IMPERVIOUS AREA 0.04 ACRES; PROPOSED IMPERVIOUS AREA 1.04 ACRES; DISTURBED AREA 1.71 ACRES;
- THIS PROPERTY DOES NOT LIE WITHIN A FLOOD PLANE
- THIS PROJECT DESIGN IS BASED ON SURVEY INFORMATION GENERATED BY OTHERS. TYSON GRISWOLD, P.E.
- ASSUMES NO RESPONSIBILITY FOR ACCURACY OR COMPLETENESS OF THIS INFORMATION. THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS BEFORE GIVING A PRICE.
- ALL DISTANCE AND DATA SHALL BE CHECKED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION, IN CASE OF CONFLICT, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY SO THAT CLARIFICATIONS MAY BE MADE THE CONTRACTOR SHALL SUPPLY AND ESTABLISH SURVEY CONTROL, INCLUDING THE HORIZONTAL AND VERTICAL
- CONTROL POINTS. THE CONTRACTOR SHALL MAINTAIN THE CONTROL AND PROVIDE ALL BENCHMARKS, STAKES, GRADES, LEVELS, AND LINES NECESSARY FOR CONSTRUCTION. CONTRACTOR SHALL PROVIDE ADEQUATE SUPERVISION TO PREVENT DAMAGE AND MOVEMENT FROM EQUIPMENT WORKING AROUND CONSTRUCTION STAKES, THESE CONSTRUCTION STAKES SHALL REMAIN IN PLACE AND BE PROTECTED UNTIL OWNER APPROVES THEIR REMOVAL. ANY STAKES OR PROPERTY CORNERS THAT HAVE BEEN DISPLACED AS A RESULT OF CONSTRUCTION ACTIVITY ARE TO BE REPLACED BY A LICENSED LAND SURVEYOR AT NO COST TO THE OWNER.
- BURNING ON OR NEAR THE JOB SITE WILL NOT BE PERMITTED. HENDERSON COUNTY SHALL BE NOTIFIED PRIOR TO CONSTRUCTION AND A PRE-CONSTRUCTION MEETING SHALL BE COORDINATED AND HELD BY CONTRACTOR.
- ENGINEER DOES NOT UNDERTAKE OR ASSUME ANY OBLIGATION FOR SUPERVISION OF CONSTRUCTION, SAFETY MEASURES TAKEN DURING THE COURSE OF CONSTRUCTION. RESPONSIBILITY FOR SCHEDULING THE WORK FOR INSURE COMPLETE COMPLIANCE WITH THE DESIGN DOCUMENTS, AND/OR ALL CODE REQUIREMENTS, RULES, AND REGULATIONS OF ANY PUBLIC OR PRIVATE AUTHORITY HAVING JURISDICTION OVER THE WHOLE, OR ANY PART OF THE WORK. THE ENGINEER ASSUMES NOR GUARANTEES THE WORK AND/OR PERFORMANCE OF THE CONTRACTOR
- 10. HANDICAP ACCESSIBILITY REGULATIONS: 10.1. A HANDICAP PARKING SPACE SHALL HAVE NO GREATER SLOPE THAN ¹/₄" PER FOOT ACROSS THE SPACE. ALL HANDICAP SPACES SHALL BE MARKED WITH A SIGN.
- 10.2. ALL HANDICAP SPACES WILL BE MARKED WITH A FREESTANDING OR WALL SIGN. THE HANDICAP SIGN SHALL BE 7' IN HEIGHT FROM BOTTOM OF SIGN OR ABOVE THE DRIVING SURFACE. 11. THE CONTRACTOR SHALL RESET ALL MANHOLE COVERS, CATCH BASIN GRATES, AND ANY OTHER UTILITY ACCESS
- COVERS TO FINISH PAVEMENT SURFACE OR SIDEWALK GRAD. 12. NEW GRADES SHOWN ARE FINISHED GRADES UNLESS OTHERWISE SHOWN.
- 13. PAVEMENT SHALL BE JOINED BY SAW CUT.
- 14. ENGINEER ASSUMES NO RESPONSIBILITY FOR ANY LANDSCAPE, ELECTRICAL, OR MECHANICAL PLANS, DRAWINGS, DETAILS, OR SPECIFICATIONS. CONTRACTOR SHALL PERFORM CONSTRUCTION IN ACCORDANCE WITH APPROVED CONSTRUCTION DOCUMENTS FOR ALL PARTS OF THE OVERALL PROJECT.
- 15. BUILDING MATERIAL WASTE HANDLING ALL WASTES COMPOSED OF BUILDING MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH NORTH CAROLINA GENERAL STATUTES, CHAPTER 130A, ARTICLE 9 FOR SOLID WASTE MANAGEMENT, AND RULES GOVERNING THE DISPOSAL OF SOLID WASTE. LOCATE AREAS DEDICATED FOR MANAGEMENT OF LAND CLEARING AND DEMOLITION DEBRIS, CONSTRUCTION AND DOMESTIC WASTE, AND HAZARDOUS OR TOXIC WASTE. THIS LOCATION SHALL BE AT LEAST 50 FEET AWAY FROM STORM DRAIN INLETS AND SURFACE WATERS UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE. 16. HANDLING OF CONCRETE -
- 16.1. CONCRETE MATERIALS ONSITE, INCLUDING EXCESS CONCRETE, MUST BE CONTROLLED AND MANAGED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS OR BUFFERS. NO CONCRETE OR CEMENT SLURRY SHALL BE DISCHARGED FROM THE SITE. (NOTE THAT DISCHARGES FROM ONSITE CONCRETE PLANTS REQUIRE COVERAGE UNDER A SEPARATE NPDES PERMIT - NCG140000.) II)
- 16.2. ANY HARDENED CONCRETE RESIDUE WILL BE DISPOSED OF, OR RECYCLED ON SITE, IN ACCORDANCE WITH LOCAL AND STATE SOLID WASTE REGULATIONS.

CONSTRUCTION SEQUENCE

- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE ENGINEERING DEPARTMENT. INSTALL RAIN GAUGE AND JOB BOX. ALL PERMIT APPROVALS, DRAWINGS AND WEEKLY EROSION CONTROL INSPECTIONS SHALL BE KEPT ONSITE AND READILY AVAILABLE FOR REVIEW BY ENGINEER OR COUNTY/STATE
- INSPECTORS. 3. SET UP PRE-CONSTRUCTION CONFERENCE ON SITE WITH THE APPROPRIATE HENDERSON COUNTY REPRESENTATIVE, APPROPRIATE REPRESENTATIVE OF THE GRADING CONTRACTOR, EROSION CONTROL INSPECTOR, OWNER AND CIVIL ENGINEER TO DISCUSS EROSION CONTROL MEASURES, PROJECT REQUIREMENTS AND SPECIAL CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- FIELD LOCATE ALL UTILITIES. CALL FOR LOCATES.
- DETERMINE AND MARK LIMITS OF DISTURBANCE.
- INSTALL PERIMETER SILT FENCING AND TEMPORARY CONSTRUCTION AS SHOWN ON THE PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES. ALL PERIMETER CONTROL SHALL BE IN PLACE PRIOR TO ANY LAND DISTURBANCE AND/OR DEMOLITION.
- BEGIN GRADING OPERATIONS, MAINTAIN EROSION CONTROL DEVICES AND REPLACE AS NEEDED. PREPARE THE BUILDING PAD AS SOON AS POSSIBLE. INSPECT AND REPAIR BMPS AFTER EACH RAINFALL
- AS GRADING PROGRESSES, ADDITIONAL/RELOCATION OF PREVIOUSLY INSTALLED SILT FENCE WILL BE NECESSARY AND EXPECTED.
- 9. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP AND REMOVAL OF ANY SEDIMENT DISCHARGED ONTO ADJACENT PROPERTIES, AND ANY ASSOCIATED DAMAGES. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT THE REQUIRED INTERVALS.
- 10. BEGIN BUILDING CONSTRUCTION, UTILITY INSTALLATION, ETC AS SHOWN ON THE PLANS AS GRADING ALLOWS 11. TEMPORARY GRASSING SHALL BE APPLIED TO AREAS THAT WILL BE DORMANT FOR PERIODS LONGER THAN 14 DAYS. PERMANENT GRASSING SHALL BE APPLIED TO ALL AREAS AT FINAL GRADE AND IN SEASON AS INDICATED ON GRASSING NOTES.
- 12. INSTALL FINAL LANDSCAPING. 13. AFTER COMPLETION OF CONSTRUCTION AND THE SITE IS STABILIZED, (A) REMOVE EROSION CONTROL BMPS, (B) REPAIR AND RE-STABILIZE (PERMANENT GRASSING) ALL AREAS DISTURBED BY REMOVAL OF BMPS, (C) REMOVE SILT FENCE.

CONTRACTOR NOTES

- 1. CONTRACTOR SHALL LOCATE PORTABLE RESTROOM FACILITIES IN SUCH A MANNER SO AS TO PREVENT LEAKAGE OR DISCHARGE INTO SURROUNDING WATER BODIES AND/OR DRAINAGE STRUCTURES. CONTRACTOR SHALL PROVIDE A DESIGNATED LOCATION AND MEANS OF ENCLOSING AND/OR CONTAINING ALL
- CONSTRUCTION RELATED DEBRIS PRIOR TO THEIR LAWFUL DISPOSAL. THIS CONTAINMENT SHALL PREVENT THE DEBRIS FROM SPREADING OR LEAVING THE SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL APPLICABLE PERMITS {INCLUDING BLJT
- NOT LIMITED TO NPDES) FOR OFF-SITE BORROW AND/OR BORROW SITES REQUIRED TO COMPLETE THE GRADING ACTIVITIES INDICATED ON THIS PLAN. CONTRACTOR SHALL VERIFY ALL BENCHMARK INFORMATION INDICATED IN THESE PLANS WITH THE
- SURVEYOR. TYSON GRISWOLD, P.E. IS NOT RESPONSIBLE FOR BENCHMARK INTERPRETATION OR LOCATION ERRORS CONTRACTOR IS RESPONSIBLE FOR CALLING UTILITY LOCATE 811. CONTRACTOR IS RESPONSIBLE FOR
- IDENTIFYING AND RELOCATING EXISTING UTILITIES, INCLUDING ITEMS NOT IDENTIFIED ON PROPOSED PLANS AND SURVEY. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH EACH UTILITY PROVIDER. ADEQUATE SITE SECURITY MEASURES SHALL BE PROVIDED BY THE CONTRACTOR TO PREVENT
- UNAUTHORIZED PERSONNEL FROM ACCESSING THE SITE DURING/AFTER WORKING HOURS. CONTRACTOR IS ALSO RESPONSIBLE FOR PROVIDING APPROPRIATE AND VISIBLE SIGNAGE TO RESTRICT UNAUTHORIZED PERSONNEL FROM THE SITE. ALL VISITORS MUST REGISTER WITH THE SITE SUPERINTENDENT AND NOT BE ALLOWED TO ROAM THE SITE UN-SUPERVISED. TEMPORARY GATES AND FENCING MAY BE REQUIRED TO ADEQUATELY PROVIDE THIS. SITE DESIGN IS BASED UPON HENDERSON GIS AND DATA PROVIDED BY FIELD SURVEYOR.
- CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS FOR BUILDING LAYOUT.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL DURING CONSTRUCTION PER NCDOT REQUIREMENTS
- 10. DURING CONSTRUCTION, SEDIMENT AND EROSION CONTROL BMP'S MAY NEED TO BE MOVED OR ADJUSTED IN ORDER TO ACHIEVE FINAL GRADES AND PRIOR TO FINAL STABILIZATION.
- 11. FOR AREAS TO RECEIVE SOD, CONTRACTOR SHALL INCLUDE THE COST TO REMOVE TEMPORARY GRASS, FINE GRADE. ESTABLISH TOP SOIL AND INSTALL SOD. TEMPORARY IRRIGATION MAY BE NEEDED TO ESTABLISH SOD.
- 12. NO MECHANICAL GRADING SHALL OCCUR OUTSIDE THE LIMITS OF THE PROPERTY.

THIS SPACE LEFT BLANK INTENTIONALLY CLEARING AND GRUBBING

REMOVE TREES, SHRUBS, GRASS AND OTHER VEGETATION, IMPROVEMENTS, OR OBSTRUCTIONS INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION. WHERE POSSIBLE, ALLOW EXISTING TREES AND SHRUBS WHICH CAN ADD AESTHETIC, SHADE, AND LANDSCAPE VALUE TO PROPERTY TO REMAIN. REMOVE SUCH ITEMS ELSEWHERE ON SITE OR PREMISES AS REQUIRED FOR CONSTRUCTION. REMOVAL INCLUDES DIGGING OUT STUMPS AND ROOTS. CAREFULLY AND CLEANLY CUT ROOTS AND BRANCHES OF TREES TO BE LEFT STANDING, WHERE SUCH ROOTS AND BRANCHES OBSTRUCT NEW CONSTRUCTION. CLEARING AND GRUBBING OPERATIONS SHALL BE COMPLETED SUFFICIENTLY IN ADVANCE OF GRADING OPERATIONS AS MAY BE NECESSARY. ALL WORK SHALL BE PERFORMED IN A MANNER THAT WILL CAUSE A MINIMUM OF SOIL EROSION. THE CONTRACTOR SHALL PERFORM SUCH EROSION CONTROL WORK, TEMPORARY OR PERMANENT AS MAY BE DIRECTED BY THE ENGINEER, IN ORDER TO SATISFACTORILY MINIMIZE EROSION RESULTING FROM CLEARING AND GRUBBING OPERATIONS. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER TO PREVENT LIMB, BARK, OR ROOT INJURIES TO TREES, SHRUBS, OR OTHER TYPES OF VEGETATION THAT ARE TO REMAIN GROWING AND ALSO TO PREVENT DAMAGE TO ADJACENT PROPERTY. WHEN ANY SUCH INJURIES UNAVOIDABLY OCCUR, ALL ROUGH EDGES OF SCARRED AREAS SHALL FIRST BE MADE REASONABLY SMOOTH IN ACCORDANCE WITH GENERALLY ACCEPTED HORTICULTURAL PRACTICE, AND THE SCARS THEN THOROUGHLY COVERED WITH ASPHALTUM BASE TREE PAINT. ANY SUCH PLANTS THAT ARE DAMAGED BY ANY CONSTRUCTION OPERATIONS TO SUCH AN EXTENT AS TO DESTROY THEIR VALUE FOR SHADE OR OTHER LANDSCAPE PURPOSES, SHALL BE CUT AND DISPOSED OF BY THE CONTRACTOR.

LAND GRADING AND CONSTRUCTION SPECIFICATIONS

- 1. CONTACT THE EROSION CONTROL OFFICE 48 HOURS PRIOR TO LAND DISTURBANCE 2. CONTACT THE EROSION CONTROL OFFICE TO SET UP A PRE-CONSTRUCTION MEETING PRIOR TO
- ANY LAND DISTURBING ACTIVITIES 3. CONSTRUCT AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL PRACTICES AND MEASURES IN ACCORDANCE WITH THE APPROVED SEDIMENTATION CONTROL PLAN AND CONSTRUCTION SCHEDULE
- FINISHING THE GRADING OF ALL CRITICAL AREAS.
- 5. SCARIFY AREAS TO BE TOPSOILED TO A MINIMUM DEPTH OF 2 INCHES BEFORE PLACING TOPSOIL (PRACTICE 6.04, TOPSOILING).
- OBJECTIONABLE MATERIAL THAT WOULD AFFECT THE PLANNED STABILITY OF THE FILL.
- DEBRIS, AND OTHER MATERIALS INAPPROPRIATE FOR CONSTRUCTING STABLE FILLS.
- SLOPES.
- PHASES OF DEVELOPMENT.
- 12. HANDLE SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION IN ACCORDANCE WITH APPROVED METHODS (PRACTICE 6.81, SUBSURFACE DRAIN).
- 13. PERMANENTLY STABILIZE ALL GRADED AREAS IMMEDIATELY AFTER FINAL GRADING IS COMPLETED ON EACH AREA IN THE GRADING PLAN. APPLY TEMPORARY STABILIZATION WORKING DAYS OR LONGER.
- 14. SHOW TOPSOIL STOCKPILES, BORROW AREAS, AND SPOIL AREAS ON THE PLANS, AND MAKE SURE AREAS IN THE PLAN.

MAINTENANCE

PERIODICALLY, CHECK ALL GRADED AREAS AND THE SUPPORTING EROSION AND SEDIMENTATION CONTROL PRACTICES, ESPECIALLY AFTER HEAVY RAINFALLS. PROMPTLY REMOVE ALL SEDIMENT FROM DIVERSIONS AND OTHER WATER-DISPOSAL PRACTICES. IF WASHOUTS OR BREAKS OCCUR, REPAIR THEM IMMEDIATELY. PROMPT MAINTENANCE OF SMALL ERODED AREAS BEFORE THEY BECOME SIGNIFICANT GULLIES IS AN ESSENTIAL PART OF AN EFFECTIVE EROSION AND SEDIMENTATION CONTROL PLAN.

SURFACE ROUGHENING CONSTRUCTION SPECIFICATIONS

- CUT SLOPE ROUGHENING FOR AREAS NOT TO BE MOWED STAIR-STEP GRADE OR GROOVE CUT SLOPES WITH A GRADIENT STEEPER THAN 3:1 (FIGURES 6.03B AND
- 6.03C)
- SLOPES CONSISTING OF SOFT ROCK WITH SOME SUBSOIL ARE PARTICULARLY SUITED TO STAIR-STEP GRADING.
- HORIZONTAL POSITION OF THE "STEP" IN TOWARD THE VERTICAL WALL.
- DO NOT MAKE INDIVIDUAL VERTICAL CUTS MORE THAN 2 FEET IN SOFT MATERIALS OR MORE THAN 3 FEET IN ROCKY MATERIALS.
- GROOVING USES MACHINERY TO CREATE A SERIES OF RIDGES AND DEPRESSIONS THAT RUN ACROSS THE SLOPE (ON THE CONTOUR).
- DISKS, TILLERS, SPRING HARROWS, OR THE TEETH ON A FRONT-END LOADER BUCKET. DO NOT MAKE SUCH GROOVES LESS THAN 3 INCHES DEEP NOR MORE THAN 15 INCHES APART.
- FILL SLOPE ROUGHENING FOR AREAS NOT TO BE MOWED PLACE FILL SLOPES WITH A GRADIENT STEEPER THAN 3:1 IN LIFTS NOT TO EXCEED 9 INCHES, AND MAKE SURE EACH LIFT IS PROPERLY COMPACTED. ENSURE THAT THE FACE OF THE SLOPE CONSISTS OF LOOSE, UNCOMPACTED FILL 4 TO 6 INCHES DEEP. USE GROOVING, AS DESCRIBED ABOVE, TO ROUGHEN THE FACE OF
- THE SLOPES, IF NECESSARY. 10. DO NOT BLADE OR SCRAPE THE FINAL SLOPE FACE.
- 11. CUTS, FILLS, AND GRADED AREAS THAT WILL BE MOWED
- 12. MAKE MOWED SLOPES NO STEEPER THAN 3:1. 13. ROUGHEN THESE AREAS TO SHALLOW GROOVES BY NORMAL TILLING, DISKING, HARROWING, OR USE OF
- CULTIPACKER-SEEDER. MAKE THE FINAL PASS OF ANY SUCH TILLAGE IMPLEMENT ON THE CONTOUR. 14. MAKE GROOVES, FORMED BY SUCH IMPLEMENTS, CLOSE TOGETHER (LESS THAN 10 INCHES) AND NOT LESS
- THAN 1 INCH DEEP.
- L5. EXCESSIVE ROUGHNESS IS UNDESIRABLE WHERE MOWING IS PLANNED. 16. ROUGHENING WITH TRACKED MACHINERY 7. LIMIT ROUGHENING WITH TRACKED MACHINERY TO SANDY SOILS TO AVOID UNDUE COMPACTION OF THE SOIL SURFACE. TRACKING IS GENERALLY NOT AS EFFECTIVE AS THE OTHER ROUGHENING METHODS
- 18. OPERATE TRACKED MACHINERY UP AND DOWN THE SLOPE TO LEAVE HORIZONTAL DEPRESSIONS IN THE SOIL. DO NOT BACK-BLADE DURING THE FINAL GRADING OPERATION.

GROUND STABILIZATION SPECIFICATION

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

. Stabilizati

Temporary Stabilization	Permanent Stabilization
Temporary Grass seed covered with straw or other mulches and tackifiers	Permanent grass seed covered with straw or other mulches and tackifiers
Hydroseeding	Geotextile fabrics such as permanent soil reinforcement matting
Rolled erosion control products with or without temporary grass seed	Hydroseeding
Appropriately applied straw or other mulch	Shrubs or other permanent plantings covered with mulch
Plastic Sheeting	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

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

	Re	equired Ground Stabil	ization Timeframes
Si	te 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		
(e)	Areas with slopes flatter than 4:1		

DWG N C-0 C-01 C-1 C-2 C-3 C-4 C-5 C-6 C-7 C-9A C-9B C-9C C-10 C-11 C-12

PERMANENT SEEDING

AREAS TO BE STABILIZED WITH PERMANENT VEGETATION SHALL BE SEEDED OR PLANTED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS AFTER FINAL GRADE IS REACHED, UNLESS TEMPORARY STABILIZATION IS APPLIED.

GENERAL REQUIREMENTS

- PREPARATION FOR PRIMARY/PERMANENT STABILIZATION SHALL NOT BEGIN UNTIL ALL CONSTRUCTION AND UTILITY WORK WITHIN THE PREPARATION AREA IS COMPLETE. HOWEVER, IT MAY BE NECESSARY TO PREPARE FOR NURSE CROPS PRIOR TO COMPLETION OF CONSTRUCTION AND INSTALLATION OF UTILITIES. • A NORTH CAROLINA DEPARTMENT OF AGRICULTURE SOILS TEST (OR EQUAL) SHALL BE OBTAINED FOR ALL AREAS TO BE SEEDED, SPRIGGED, SOLDED OR PLANTED. RECOMMENDED FERTILIZER AND PH ADJUSTING PRODUCTS SHALL BE
- INCORPORATED INTO THE PREPARED AREAS AND BACKFILL MATERIAL PER THE TEST. ALL AREAS TO BE SEEDED OR PLANTED SHALL BE TILLED OR RIPPED TO A DEPTH SPECIFIED ON THE APPROVED PLANS, CONSTRUCTION SEQUENCE AND/OR CONSTRUCTION BID LIST. RIPPING CONSISTS OF CREATING FISSURES IN A CRISS-CROSS PATTERN OVER THE ENTIRE SURFACE AREA, UTILIZING AN IMPLEMENT THAT WILL NOT GLAZE THE SIDE WALLS OF THE FISSURES. ONCE TILLED OR RIPPED ACCORDING TO THE APPROVED PLAN, ALL AREAS ARE TO BE
- RETURNED TO THE APPROVED FINAL GRADE. PH MODIFIERS AND/OR OTHER SOIL AMENDMENTS SPECIFIED IN THE SOIL TESTS CAN BE ADDED DURING THE SOIL PREPARATION PROCEDURE. • ALL STONES LARGER THAN THREE (3) INCHES ON ANY SIDE, STICKS, ROOTS, AND OTHER EXTRANEOUS MATERIALS THAT SURFACE DURING THE BED PREPARATION SHALL BE REMOVED. AREAS TO BE SEEDED
- TILL OR DISC THE PREPARED AREAS TO BE SEEDED TO A MINIMUM DEPTH OF FOUR (4) INCHES. REMOVE STONES LARGER THAN THREE (3) INCHES ON ANY SIDE, STICKS, ROOTS AND OTHER EXTRANEOUS MATERIALS THAT SURFACE. IF NOT INCORPORATED DURING THE SOIL PREPARATION PROCESS, ADD PH MODIFIER AND FERTILIZERS AT THE RATE SPECIFIED IN THE SOIL TEST REPORT. • RE-COMPACT THE AREA UTILIZING A CULTIPACKER ROLLER. THE FINISHED GRADE SHALL BE A SMOOTH EVEN SOIL SURFACE WITH A LOOSE, UNIFORMLY FINE TEXTURE. ALL RIDGES AND DEPRESSIONS SHALL BE REMOVED AND FILLED TO
- PROVIDE THE APPROVED SURFACE DRAINAGE. SEEDING OF GRADED AREAS IS TO BE DONE IMMEDIATELY AFTER FINISHED GRADES ARE OBTAINED AND SEEDBED PREPARATION IS COMPLETED. AREAS TO BE SPRIGGED, SODDED, AND/OR PLANTED
- AT THE TIME OF PLANTING TILL OR DISC THE PREPARED AREAS TO A DEPTH OF FOUR (4) TO SIX (6) INCHES BELOW THE APPROVED FINISHED GRADE. REMOVE ALL STONES LARGER THAN THREE (3) INCHES ON ANY SIDE, STICKS, ROOTS AND OTHER EXTRANEOUS MATERIALS THAT SURFACE. IF NOT INCORPORATED IN THE RIPPING PROCESS, ADD PH MODIFIER, FERTILIZER, AND OTHER RECOMMENDED SOIL AMENDMENTS. • RE-COMPACT THE AREA UTILIZING A CULTIPACKER ROLLER AND PREPARE FINAL GRADES AS DESCRIBED ABOVE. INSTALL SPRIGS, SOD AND PLANTS AS DIRECTED IMMEDIATELY AFTER FINE GRADING IS COMPLETE.

IF SOIL TESTS ARE NOT OBTAINED, FOLLOW THESE RECOMMENDATIONS FOR PERMANENT GRASS SEEDING: APPLY 75 POUNDS OF GROUND LIMESTONE PER 1,000 SQ. FT.

APPLY A STARTER TYPE FERTILIZER (ONE THAT IS HIGH IN PHOSPHORUS) BASED ON THE TYPE OF GRASS AND PLANTING METHOD. FERTILIZER BAGS HAVE A THREE-NUMBER SYSTEM INDICATING THE PRIMARY NUTRIENTS, SUCH AS 8-8-8 OR 5-10-10. THESE NUMBERS DENOTE THE N-P-K RATIO—THE PERCENTAGE OF EACH NUTRIENT IN A FERTILIZER. THE PERCENTAGES ARE ALWAYS NOTED IN THE FOLLOWING ORDER: N NITROGEN FOR GREEN COLOR AND GROWTH. P2 05 PHOSPHORUS FOR GOOD ESTABLISHMENT AND ROOTING.

K2 O POTASSIUM TO ENHANCE PEST AND ENVIRONMENTAL STRESS TOLERANCE.

FERTILIZERS REQUIRED FOR A 1,000 SQ. FT. AREA INCLUDE 40 POUNDS OF 5-10-10, 20 POUNDS OF 10-20-20, OR 16 POUNDS OF 18-24-6.

HERBACEOUS PLANTS - Seeding recommendations for primary stabilization

Successful development depends on planting date (effectiveness goal: 6 mo. - 3 yrs. Without an ongoing maintenance program) **Table 6.11.c**

Native Species													
					Opt	imal Planting Dates	i						
Common Name	Botanical Name / Cultivar	Native / Introduced	See Table 6.11d for variety seeding rates	Fretilization / limestone lbs/acre	Mountains	Piedmont	Coastal Plane	Sun/Shade Tolerant	Wetlands	Riparian Buffers	Invasive Yes or <u>No</u>	Installation / Maintainance Considerations	Other Information
Switchgrass	Panicum virgatum / Cave-in-Rock	Ν	А	By soil test	12/1-4/15	NR	NR	Sun	NR	Well drained only	No	Responds well to controlled burns. Mix with 3 to 5 other seed varieties that have similar soil drainange adaptions	
Switchgrass	Panicum virgatum / Blackwell	Ν	A	By soil test	12/1-4/15	12/1-4/1	12/1-4/1	Sun	NR	Well drained only	No	Responds well to controlled burns. Mix with 3 to 5 other seed varieties that have similar soil drainange adaptions	
Switchgrass	Panicum virgatum / Shelter	Ν	А	By soil test	12/1-4/15	12/1-4/1	12/1-4/1	Sun	NR	Well drained only	No	Responds well to controlled burns. Mix with 3 to 5 other seed varieties that have similar soil drainange adaptions	
Switchgrass	Panicum virgatum / Carthage	Ν	А	By soil test	12/1-4/15	12/1-4/1	12/1-4/1	Sun	Yes	Yes	No	Responds well to controlled burns. Mix with 3 to 5 other seed varieties that have similar soil drainange adaptions	
Switchgrass	Panicum virgatum / Kanlow	Ν	А	By soil test	12/1-4/15	12/1-4/1	12/1-4/1	Sun	No	Poorly Drained	No	Responds well to controlled burns. Mix with 3 to 5 other seed varieties that have similar soil drainange adaptions	
Switchgrass	Panicum virgatum / Alamo	Ν	А	By soil test	NR	12/1-5/1	1/1-5/1	Sun	No	Poorly Drained	No	Responds well to controlled burns. Mix with 3 to 5 other seed varieties that have similar soil drainange adaptions	

4. REMOVE GOOD TOPSOIL FROM AREAS TO BE GRADED AND FILLED, AND PRESERVE IT FOR USE IN

6. CLEAR AND GRUB AREAS TO BE FILLED BY REMOVING TREES, VEGETATION, ROOTS, OR OTHER

7. ENSURE THAT FILL MATERIAL IS FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING

8. PLACE ALL FILL IN LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS, AND COMPACT THE LAYERS AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, OR OTHER RELATED PROBLEMS. 9. DO NOT INCORPORATE FROZEN, SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS INTO FILL

10. DO NOT PLACE FILL ON A FROZEN FOUNDATION, DUE TO POSSIBLE SUBSIDENCE AND SLIPPAGE. 11. KEEP DIVERSIONS AND OTHER WATER CONVEYANCE MEASURES FREE OF SEDIMENT DURING ALL

MEASURES ON ALL GRADED AREAS WHEN WORK IS TO BE INTERRUPTED OR DELAYED FOR 30

THEY ARE ADEQUATELY PROTECTED FROM EROSION. INCLUDE FINAL STABILIZATION OF THESE

USE STAIR-STEP GRADING ON ANY ERODIBLE MATERIAL SOFT ENOUGH TO BE RIPPED WITH A BULLDOZER.

MAKE THE VERTICAL CUT DISTANCE LESS THAN THE HORIZONTAL DISTANCE, AND SLIGHTLY SLOPE THE

GROOVE USING ANY APPROPRIATE IMPLEMENT THAT CAN BE SAFELY OPERATED ON THE SLOPE, SUCH AS

	LEGEND OF DRAWINGS DISTRIBUTION						
WG NO	SHEET NO	REV NO	SHEET TITLE		CONSTR.	WATER	EROSION
C-0	1	4	COVER SHEET	х	Х	Х	Х
C-01	2		ADDITIONAL NOTES PAGE		Х	Х	Х
C-1	3	4	SITE PLAN	х	Х		Х
C-2	4	DEMOLITION PLAN			Х		
C-3	5		EROSION CONTROL PLAN		Х		Х
C-4	6	1	SITE GRADING PLAN	Х	Х		Х
C-5	7	2	STORMWATER PLAN	х	Х	Х	
C-6	8	2	UTILITY PLAN	х	Х		
C-7	9		PROFILES		Х		
C-9A	11	1	SITE DETAILS	х	Х		
C-9B	12	1	SITE DETAILS	Х			
C-9C	13	2	SITE DETAILS	Х			
C-10	14		EROSION DETAILS		Х		Х
C-11	15		STORMWATER DETAILS		Х		
C-12	16		SEWER DETAILS		Х		
C-13	17		WATER DETAILS		Х	Х	

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	SEAL (1.000)
	SEAL / LUGU:
	NORTH ARROW
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X X	
^	REVISIONS
	R2 RELEASE FOR APPROVAL;
	DSM 11-01-20
	R3 REVISED C1, C5 & C6: C-9 CHANGED TO
	C-9A; ADDED SHEETS C-9B AND C-9C;
	JOINT 11-00-20
X	R4 REVISED C1 & C-9C;
	DSM 11-10-20
	Know what's below. Call before you dig.
	PROJECT
	APPLICANT: CALEB BENTON
	BENTON ROOFING
	2421 SPARTANBURG HWY EAST FLAT ROCK NC 28726
	5.72 ACRES
	PIN 9588-07-2064
	ISSUED DATE 11-10-20 DWG NO. HEC-261020 ISSUED DATE 11-10-20 DWG DATE 10-29-20
	SCALE NTS SHEET 1 OF
	CHECKED TMG

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				- 812 êtê
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WM WATER	METER	STB		
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		SIB		M
WATER				
H FIRE HY	DRANT	45' NH		ž /
SWMH SANITAR	RY SEWER MANHOLE			
– SS – SEWER		L'AP STB		\overline{I}
SEWER	CLEANOUT			
	VATER MANHOLE	1'P	STB	7/1
	LET/CATCH BASIN			
	POLE	P		
SILT FEI	NCE			
EXISTIN	G FENCE	P	Si	H
-r- PROPER	TY LINE			1///
	K F WAY	P		
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C-7	ET NO.			
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IOTES: . TRUCK DO	OCK APRON AND DRIVEWAY TURNS I	DEVELOPED FROM AAS	HTO TURNING $\dot{\lambda}$	(PP)
TEMPLATE SUITABLE	WB-40 FOR 40 FT WHEELBASE SE FOR LARGER VEHICLES.	MI TRUCKS AND MAY	NOT BE	¥ \
. WAREHOU LOADING	SE BUILDING DESIGN HAS BEEN MOU DOCK HAS BEEN MOVED TO ACCOMI	DIFIED FROM ARCHITEC	T FLOOR PLAN. SED 4 FT. DOCK.	
TRUCK DO	OWN SHOWN HAS MIN. 12 FT SPACIN DOCK TO BE CONSTRUCTED USING 4	NG BETWEEN TRUCKS. 4000 PSI CONCRFTF 8	" THICK WITH ¹ / ₁ "	\mathcal{O}
REBAR 12 SETRACKS	" ON CENTER IN BOTH DIRECTIONS S SHOWN ARE BASED ON REQUESTE	D ZONING CODE CO NO	OT EXISTING	\mathcal{O}
ZONING.	SHEFT C-6 DETAIL #1 FOR FIRE	TRUCK TURNAROUND		
ACCOMMC	DATIONS. PS REQUIRED FOR FRONT ENTRANCE	AND WARFHOUSE RU	DG.	
. ADEQUATI	E LIGHTING SHALL BE PLACED IN AF	REAS USED FOR	STAIRS	
SIDEWALK	S, CROSSWALKS, INTERSECTIONS, OF	R CHANGES IN GRADE.	LIGHTING	

8. UNPAVED ROADS, TRAVELWAYS AND/OR PARKING AREAS SHALL BE TREATED TO PREVENT DUCT FROM ADVERSE AFFECTS TO ADJACENT PROPERTIES.

NOTES:

 $\langle \rangle$

1. EXISTING SEPTIC DRAIN FIELD WILL BE REUSED FOR NEW BUILDING. DO NOT

— ла — ла — Да — Ф

- DISTURB. EXISTING CONTOURS ARE DASHED AND FADED. PROPOSED CONTOURS ARE DARKER AND SOLID.
 CONTOUR SPACING IS 1 FT. MINOR AND 5 FT. MAJOR

"NOT FOR CONSTRUCTION"

NOTES:

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SEAL / LOGO:	
NORTH ARROW	
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5	
REVISIONS	
DSM 11-01-20	~ • / · _
CHANGED NEW COLVE CHANGED BASIN TYPE	FROM SKIMMER TO
DSM 11-05-20	
811	
Know what's below.	
Galf before you dig.	
PROJECT	
BENTON	ROOFING
818 TRACY O	
HENDERSON	COUNTY, NC CRES
PIN 9588	3-07-2064
SHEET TITLE	
	ER PLAN
ISSUED FOR APPROVAL	DWG NO. HEC-261020
ISSUED DATE 11-10-20	DWG DATE 10-29-20
SCALE 1:30 DRAWN DSM	SHEET 7 OF
CHECKED TMG	()-5
APPR. BY TMG	

		r
DESCRIPTION	MATERIAL	AREA (SQ. FT.)
OFFICE/SHOP BUILDING	BUILDING	7,200
WAREHOUSE BUILDING	BUILDING	8,050
	SUBTOTAL BUILDINGS	15,250
TRUCK GRAVEL AREA	GRAVEL	8,013
	SUBTOTAL GRAVEL	8,013
DRIVEWAY AND PARKING AREAS	ASPHALT	14,710
	SUBTOTAL ASPHALT	14,710
SIDEWALKS	CONCRETE	1,697
TRUCK APRON	CONCRETE	4,200
	SUBTOTAL CONCRETE	5,897
TOTALS (SQ. FT)		
TOTAL IMPERVIOUS ASPHAL	T, CONCRETE & BUILDINGS (SQ. FT.) >>	35,857
Т	OTAL IMPERVIOUS GRAVEL (SQ. FT.) >>	8,013
	TOTAL DISTURBED AREA (SQ. FT.) >>	74,539
TOTALS (ACRES)		
TOTAL IMPERVIOUS ASPHAI	T, CONCRETE & BUILDINGS (ACRES) >>	0.82
т	OTAL IMPERVIOUS GRAVEL (ACRES) >>	0.18
	TOTAL DISTURBED AREA (ACRES) >>	1.71
PERCENTAGE IMPERVIOUS		
	TOTAL ACRES IN PARCEL >>	5.72
TOTAL % IMPERVIOUS	S ASPHALT, CONCRETE & BUILDINGS >>	14.39%
	TOTAL % IMPERVIOUS GRAVEL >>	3.22%

STORMWATER STRUCTURE ID	DESCRIPTION
SG1	24" X 36 CATCH BASIN
SG2	24" X 36 CATCH BASIN
SG3	24" X 36 CATCH BASIN
SG4	48" X 48" CATCH BASIN W/TRASH RACK
F1	PIPE FLARE

"NOT FOR CONSTRUCTION"

- NON-COMMUNITY WELL. MAXIMUM 24 EMPLOYEES. 3. SEPTIC REPAIR AREA IS ESTIMATED FOR DRIP IRRIGATION SYSTEM 4. 20 FT. EASEMENT REQUIRED FROM DRIVEWAY ENTRANCE TO PERIMETER AROUND BIORETENTION BASIN
- 50 FT FROM BASIN MEDIA LAYER. WELL TO BE NON-TRANSIENT,
- 1. INSTALL NEW 1500 GA. SEPTIC TANK AND DISTRIBUTION BOX. CONNECT DISTRIBUTION BOX TO EXISTING 720 GPD SEPTIC FIELD. 2. PROPOSED LOCATION OF NEW WELL. MAINTAIN MINIMUM DISTANCE OF 100 FT FROM ANY SEWER LINE OR ANY SEWER APPURTENANCES AND
- NOTES:

— 7a -

<u>30 FT.</u> STREAM BUFFER

(1)-

S

"NOT FOR CONSTRUCTION"

7" BARREL TYPE SURFACE WELDED BALL BEARING HINGES WITH FORCED LUBRICATION CAPABILITY (PAINT)

CONTINUOUS 2" X 12" TREATED WOOD ROT BOARD WITH ³/₄" DIAGONAL CHAMFER AT TOP EDGE

6" DIA. STEEL PIPE BOLLARD, SOLID FILLED WITH CONCRETE AND PAINT TO MATCH ENCLOSURE COLOR

2-1/2" X 2-1/2" X ¹/₄" STEEL TUBE POSTS AT 8'-0" O.C. TYP. (MAXIMUM) (PAINT TO MATCH BUILDING COLOR)

 $\frac{3}{4}$ " X 6" TREATED WOOD PICKET FENCE BOARDS WITH $\frac{1}{4}$ " SPACING (TYP.)

> 4 CUBIC YARD DUMPSTER (BY OTHERS)

HORIZONTAL 2" X 4" TREATED WOOD NAIL BOARD CONTINUOUS AT ENCLOSURE PERIMETER WALLS

4" X 4" X $\frac{1}{4}$ " STEEL TUBE POSTS AT GATE OPENINGS (PAINT TO MATCH BUILDING COLOR)

STEEL TUBE GATE FRAMING. CONTRACTOR TO PROVIDE TURNBUCKLE AND BRACING TO SQUARE GATES; LOCKING PROVISIONS REQUIRED (PAINT TO MATCH BUILDING COLOR)

 $\frac{3}{4}$ " X 6" TREATED WOOD PICKET FENCE BOARDS SECURED TO STEEL GATE FRAMING. $\frac{1}{4}$ " SPACING BETWEEN BOARDS (TYP.)

"NOT FOF

R CONSTRUCTION"	Griswold Engineering & Environmental PLLC Cvil & Environmental Engineering Consultant Civil Engineer Tyson Griswold, PE 421 5th Avenue West Hendersonville, NC 28739 (828) 393-5820 engineer@tysongriswold.com SEAL / LOGO:
	NORTH ARROW
TRIANGLE	RELEASED FOR APPROVAL; DSM 11-05-20
	PROJECT BENTON ROOFING 818 TRACY GROVE ROAD HENDERSON COUNTY, NC 5.72 ACRES PIN 9588-07-2064
	SHEET TITLE SITE TRIANGLES
0 25' 50'	ISSUED FOR APPROVAL DWG NO. HEC-261020 ISSUED DATE 11-10-20 DWG DATE 11-05-20 SCALE 1:25 SHEET 12 OF DRAWN DSM CHECKED TMG APPR. BY TMG

---- PL ----- PL

NOTES:
1. PROVIDE B1 VISUAL BUFFER ALONG THE EAST AND SOUTHEAST PARCEL BORDER WITH TREES AS INDICATED IN TABLE P-1. VISUAL BUFFER TO BE 20 FT WIDE WITH MULCH COVER.
2. PRAIRIFIRE CRABAPPLE TREES SUITABLE FOR ZONE 6 AND 7 WITH MATURE HEIGHT OF 15-20 FT. (6) REQUIRED. ALL PARKING SPACES ARE WITHIN 60 FT. OF A TREE AS MEASURED FROM THE TREE TRUNK.

TABLE P-1

ITEM	CATEGORY	TREE SPECIES	QTY/100 LINEAR FT.	MATURE WIDTH	MATURE HEIGHT
А	LARGE DECIDUOUS	SILVER MAPLE	1	35-50 FT	50-70 FT
В	SMALL DECIDUOUS	CREPE MYRTLE	2	15-25 FT	15-25 FT
С	LARGE EVERGREEN	DOUGLAS FIR	2	15-20 FT	40-80 FT
D	SMALL DECIDUOUS	BLUE POINT JUNIPER	6	3-6 FT	8-12 FT

"NOT FOR CONSTRUCTION"

o	40'	80'

APPR. BY TMG

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1
REVISIONS R1
RELEASED FOR APPROVAL; DSM 11-05-20
R2
ADDED TABLE P-1; REVISED TREES AROUND PARKING; ADDED VISUAL
BUFFER; REVISED NOTES; DSM 11-10-20
811
Know what's below. Call before you dig.
PROJECT
BENTON ROOFING
818 TRACY GROVE ROAD HENDERSON COUNTY, NC
5.72 ACRES
LANDSCAPING DETAIL
ISSUED FOR APPROVAL DWG NO. HEC-261020 ISSUED DATE 11-10-20 DWG DATE 11-05-20
ISSUED FOR APPROVAL DWG NO. HEC-261020 ISSUED DATE 11-10-20 DWG DATE 11-05-20 SCALE 1:40 SHEET 13 OF