

SPELL, JESSE A & RENEE F  
 PIN NUM: 074223797  
 USE: RESIDENTIAL  
 ZONING: R-30

**NOTES:**

1. THE SITE IS LOCATED WITHIN THE DRAINAGE BASIN OF TURKEY CREEK.
2. IMPERVIOUS SURFACE AREA (PASTE) = 0.86 ACRES.
3. DO NOT REMOVE SEDIMENT BASIN UNTIL SITE BECOMES STABLE OR WITHOUT APPROVAL FROM EROSION CONTROL INSPECTOR.
4. NO WETLANDS EXIST ON THIS SITE.
5. A GRADING PERMIT MUST NOT BE ISSUED UNTIL THE TOWN OF CARY HAS RECEIVED NOTIFICATION FROM THE WETLANDS RESTORATION FUND (WRF) THAT A GRADING HAS BEEN ISSUED TO THE DEVELOPER AND THE LOCAL GOVERNMENT STATING THE NITROGEN BUY DOWN HAS BEEN COMPLETED.
6. THIS PROJECT WILL COMPLY WITH ALL APPLICABLE REQUIREMENTS RELATIVE TO BEST MANAGEMENT PRACTICES AND ENGINEERING STRONG WATER CONTROL STRUCTURES AS OUTLINED IN THE TOWN OF CARY UNIFIED DEVELOPMENT ORDINANCE (CHAPTER 10, PARTS, UDO).
7. ALL STORM DRAINAGE FRAMES, GRATES, AND HOSES SHALL BE STAMPED WITH "DRAINS TO RIVER" IN ACCORDANCE WITH THE TOWN OF CARY STANDARDS.
8. THE PROJECT MAY REQUIRE A PRE-CONSTRUCTION CONFERENCE BEFORE THE GRADING PERMIT IS ISSUED.
9. THE STREETS IN FRONT OF THE PROJECT WILL BE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.
10. THE TREE PROTECTION FENCING ON THE PROJECT WILL BE INSTALLED AND INSPECTED BEFORE THE GRADING PERMIT IS ISSUED.

**SEDIMENT BASIN CALCULATIONS**

**SEDIMENT BASIN - AREA B**  
 DRAINAGE AREA = 0.18 AC  
 DENUDE AREA = 0.18 AC  
 STORAGE AREA = 0.18 x 1615 = 327 cf  
 Q10 = CIA = 0.4 x 7.22 x 0.18 = 0.52 cfs  
 MIN SURFACE AREA = 0.52 x 100' = 43.560' x 227 sf  
 BASIN SURFACE SIZE = 22L x 11W = 242 sf  
 BASIN DEPTH = 2 ft  
 STORAGE PROVIDED = 464 cf  
 WEIR LENGTH = 10 ft

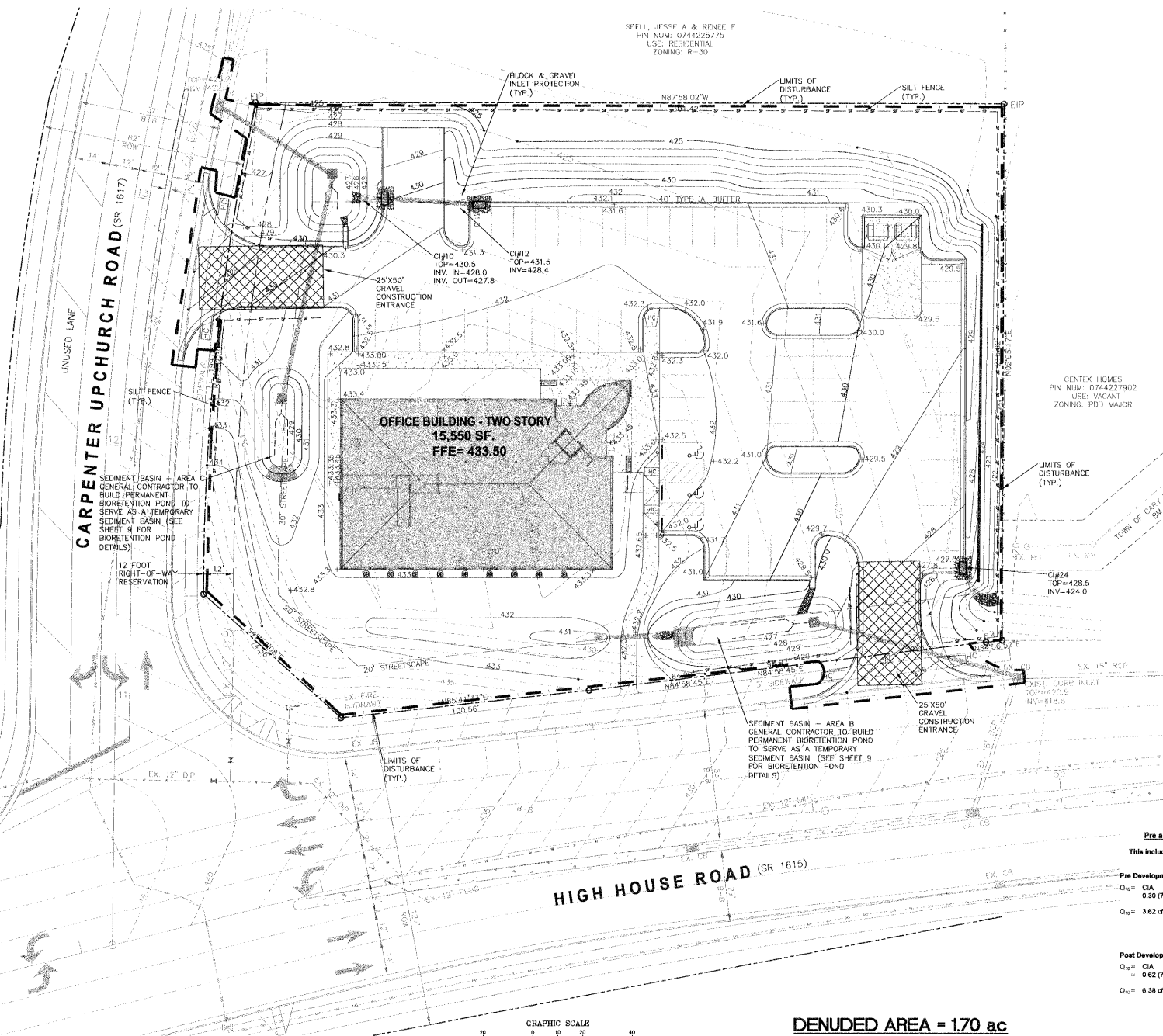
**SEDIMENT BASIN - AREA C**  
 DRAINAGE AREA = 0.47 AC  
 DENUDE AREA = 0.47 AC  
 STORAGE AREA = 0.47 x 1615 = 853 cf  
 Q10 = CIA = 0.4 x 7.22 x 0.47 = 1.36 cfs  
 MIN SURFACE AREA = 1.36 x 100' = 43.560' x 593 sf  
 BASIN SURFACE SIZE = 42L x 15W = 630 sf  
 BASIN DEPTH = 2 ft  
 STORAGE PROVIDED = 1,260 cf  
 WEIR LENGTH = 10 ft

**CONSTRUCTION SEQUENCE**

- THE CONSTRUCTION SEQUENCE ON THIS PROJECT SHALL BE AS FOLLOWS:
1. OBTAIN GRADING PERMIT.
  2. INSTALL ALL EROSION CONTROL MEASURES AS SHOWN: SILT FENCE, FILTER ROCKS, AND CONSTRUCTION ENTRANCE.
  3. OBTAIN CERTIFICATE OF COMPLIANCE THROUGH ON-SITE INSPECTION BY EROSION CONTROL OFFICER.
  4. PROCEED WITH GRADING.
  5. CLEAN SEDIMENT BASINS WHEN ONE-HALF FULL.
  6. SEED AND MULCH DENUDE AREAS WITHIN 30 DAYS AFTER FINISHED GRADES ARE ESTABLISHED.
  7. MAINTAIN SOIL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
  8. REQUEST FINAL APPROVAL BY EROSION CONTROL OFFICER.
  9. REMOVE SOIL EROSION CONTROL MEASURES AND STABILIZE THESE AREAS.

**EROSION CONTROL NOTES:**

1. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDE AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS OF DISTURBANCE TO DENUDE AREAS THAT MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. ALL CUT AND FILL SLOPES AND CHANNEL SIDE SLOPES WHICH ARE NOT TO BE PAVED, SHALL BE SEEDS WITH A MIXTURE OF GRASS SEEDS IN ACCORDANCE WITH:
  - A) 100 LBS. PER 1,000 SQUARE FOOT GROUND LIMESTONE OR EQUIVALENT, NO SOIL TEST REQUIRED FOR INITIAL ESTABLISHMENT.
  - B) 20 LBS. OF 10-10-10 FERTILIZER OR EQUIVALENT PER 1,000 SQUARE FOOT.
  - C) VARIETIES TO BE SEEDS:
    - 1. SPRING SEEDING - MARCH 1 - APRIL 30; SPRING OATS 2.5 LBS. PER 1,000 SQUARE FOOT.
    - 2. SUMMER SEEDING - MAY 1 - AUGUST 1; KEEPING LOVE GRASS AT 2 OZ. PER SQUARE FOOT MIXED WITH 1 BUSHEL OF SAWDUST FOR UNIFORM SEEDING.
3. ASPHALT MULCH 5 GALLONS PER 1,000 SQUARE FOOT. ALL SEEDING WILL BE ANCHORED.
4. TOWN ENGINEER AND OTHER APPLICABLE AGENCIES SHALL MAKE A CONTINUING REVIEW AND EVALUATION OF THE METHOD USED FOR THE OVERALL EFFECTIVENESS OF THE EROSION CONTROL PROGRAM. AN APPROVED EROSION AND SEDIMENT CONTROL PLAN MAY BE AMENDED BY THE APPROVING AUTHORITY IF ON SITE INSPECTION INDICATES THAT THE APPROVED CONTROL MEASURES ARE NOT EFFECTIVE IN CONTROLLING EROSION AND SEDIMENTATION OR IF BECAUSE OF CHANGED CIRCUMSTANCES, THE APPROVED PLAN CANNOT BE CARRIED OUT.
5. CONTRACTOR SHALL LOCATE AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
6. THE CONTRACTOR SHALL NOTIFY NORTH CAROLINA ONE - CALL 1-800-632-4949 48 HOURS BEFORE BEGINNING ANY EXCAVATION OR UTILITY WORK.
7. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED, SO THAT SEDIMENT CARRYING RUNOFF FROM THE SITE WILL NOT ENTER ANY STORM DRAINAGE FACILITIES.
8. PROPERTIES AND RIGHT-OF-WAY ADJOINING THE SITE SHALL BE KEPT CLEAN OF MUD OR SILT CARRIED FROM THE SITE BY VEHICULAR TRAFFIC OR RUNOFF.
9. ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THE SITE VIA THE CONSTRUCTION ENTRANCES.
10. EXCAVATED MATERIAL FROM TRENCHES SHALL BE PLACED ON THE UPGRADE SIDE OF THE TRENCH TO ALLOW MATERIAL TO ERODE INTO THE TRENCH. CONSTRUCTION MAINTENANCE AND REMOVAL OF ALL EROSION CONTROL DEVICES ARE THE RESPONSIBILITY OF GRADING CONTRACTOR UNLESS OTHERWISE NOTED.
11. THE APPROXIMATE AREA OF THE LIMITS OF CLEARING, GRADING, AND CONSTRUCTION IS 1.0 ACRES.
12. THE ESTABLISHMENT OF PERMANENT GRADE COVER WILL BE ESTABLISHED IN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER.
13. ALL CUT AND FILL SLOPES WILL BE STABILIZED WITHIN 15 DAYS OF ANY PHASE OF GRADING.



**Pre and Post Development Runoff Calculations - 10-Yr. Storm**  
 This includes the area of the site that was factored in the Stone Creek Village Master Plan. 0.48 ac

**Pre Development 10-Year Runoff**

Q <sub>10</sub> = CIA	C = composite C
= 0.30 (7.22) 1.67	C = 0.22 (grass) = 1.48 ac
Q <sub>10</sub> = 3.62 cfs	C = 0.85 (impervious) = 0.19 ac
	C <sub>imp</sub> = 0.30
	I <sub>10</sub> = 7.22 in/hr
	A = 1.87 ac

**Post Development 10-Year Runoff (includes 1/2 of Carpenter Upchurch Rd. R.O.W.)**

Q <sub>10</sub> = CIA	C = composite C
= 0.62 (7.22) 1.91	C = 0.22 (grass) = 0.87 ac
Q <sub>10</sub> = 6.38 cfs	C = 0.85 (impervious) = 1.04 ac
	C <sub>imp</sub> = 0.42
	I <sub>10</sub> = 7.22 in/hr
	A = 1.91 ac

**DENUDE AREA = 1.70 ac**  
**05-SP-154**

**FINAL PLAN - NOT RELEASED FOR CONSTRUCTION**

**Cary Project Number**  
 05-SP-154  
**APPROVED**  
 TOWN OF CARY  
 Approved by: [Signature] Date: 3/14/19  
 Planning: [Signature] Date: 3/14/19  
 Engineering: [Signature] Date: 4/15/19

REVISIONS  
 1. 01-27-05 REVISED PER TOWN OF CARY 1st REVIEW.  
 2. 03-10-06 REVISED PER TOWN OF CARY 2nd REVIEW.

**ADVANTAGE REALTY GROUP IV**  
 OFFICE BUILDING  
 2128 HIGH HOUSE ROAD  
 CARY NC

**SCALE: 1"=20'**  
 ORIGINAL DATE: 12-16-05  
 LATEST REVISION DATE: 03-10-06  
 PROJECT NO: 04-157

**EROSION CONTROL PLAN**

**DEVELOPMENT ENGINEERING, INC.**  
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**SHEET NO. 6**