

Job Sheet: Boundary Marking & Surveying

For Ecosystem Enhancement Program (EEP) Conservation Easements (CE)



Please review the following requirements to provide a project cost for boundary marking services. Your estimate should include the cost of ALL materials. After completion of contract, a property specialist will conduct a site visit to determine if contractor followed standard operating procedures (page 1) and specifications (page 2) in order to process payment.

Site Name & Number: _____

Length of Boundary (feet): _____

Length of Boundary to Mark (feet): _____

Boundary conditions (general): _____

Project Cost (\$): _____ Cost/ft(\$): _____

STANDARD OPERATING PROCEDURES (SOP)-

1) For corners, install the following:

_____ # corners: $\frac{5}{8}$ " rebar 30" long

_____ # corners: aluminum caps $3\frac{1}{4}$ " set on top of rebar

_____ # corners: 6-foot tall witness post with a conservation easement (CE) sign

Check here if applicable: corner 3-stripe painted witness with a CE sign if possible

2) For boundary lines, install marking every 200 feet (or at 100' for difficult lines of sight):

_____ ft total boundary, SELECT A, B, or combination as specified.

a. 6-foot tall post with a CE sign; select:

u-channel post

t-post

other post; **AND / OR**

b. scrape trees, or post and paint yellow; install CE sign using aluminum nails

3) Contact landowner prior to site visit:

Additional site specific information for project:

I agree to install boundary markers within specifications described above and below.

Name/Company

Date

I verify that installation of boundary markers meet requirements and specifications.

Property Specialist

Date

SPECIFICATIONS-

Corner Rebar: $\frac{5}{8}$ " and 30" long.

Corner Caps: 3 $\frac{1}{4}$ " aluminum caps. Must meet standards (Berntsen RBD5325, imprinted with NC State Logo #B9087 or equivalent). Stamped with corner number from plat. Caps can be purchased at Berntsen.com.

Posts: 6-ft tall witness and on-line markers must be made of a material that can last 20 years. All posts should be green with top 6" of post painted yellow. Drive posts 24" into ground. Posts may need to be special ordered from hardware store, tractor/ag supply, and/or on-line as heavy duty is required.

U-channel marker:

- Min. 2 lbs/ft with $\frac{3}{8}$ " or $\frac{7}{16}$ " diameter holes punched on 1" centers
- Use $\frac{3}{8}$ " steel drive rivets or $\frac{7}{16}$ " aluminum drive rivets to attach signs

T-Posts:

- Min. 1.25 lb/ft (heavy duty preferred)
- To attach signs, use 2 electric fence insulators (labeled 'standard snug fitting t-post electric fence insulator') at a distance between sign holes; attach with coated roofing screw to eliminate rust (ex: Phillips II High Performance with Durafast Coating for long life, #9 x 1 $\frac{1}{2}$ ")

Signs: CE signs consist of yellow with black lettering, triangular signs that read, '*Conservation Area / Protected by the State of North Carolina / No Mowing – No Cutting / No Vehicles / <http://www.doa.state.nc.us/spo>.*' Remove the plastic backing before installing. Post signs facing out (away from the easement) and right side up. Can purchase from Voss sign at 800-473-0698. Contractor must use pre-existing sign template.

Tree Paint: Must have approximately 3" DBH sized trees or larger to use this method. Use $\frac{3}{16}$ " aluminum nails with at least 2" nail exposed to attach signs (give tree some room to grow). Use a drawknife to smooth the outer bark of trees without penetrating the cambium (so as not to injure the tree). Use an oil-based forestry paint to cover least $\frac{3}{4}$ the circumference of selected tree. For corner trees if applicable, paint 3-lines per tree. Aluminum nails should be special ordered from hardware or tractor/ag supplier.

ADDITIONAL NOTES:

- These guidelines were designed based on dormant season (fall, winter) plant conditions.
- Keep boundary markings inside the line (6-12").

Boundary Marking Picture Examples



Easement signs with 2" nail exposed



3-stripe painted tree indicating corner witness



T-post w/ electric fence insulators

Corner Cap



Stamped and numbered aluminum corner cap



U-Channel marker w/ drive rivets