

## Survey Requirements for Full Delivery Projects Version 05-01-12

The full delivery provider (Provider) shall furnish one point of contact) as a central point of communication for easement acquisition. The easement boundary shall mimic the boundary provided within the technical proposal. The Provider shall contact the Project Manager at the Ecosystem Enhancement Program (EEP) to discuss any variations in the easement boundary from the technical proposal prior to proceeding with the acquisition. The conservation easement template for full delivery acquisitions is located at the following link: [Full Delivery Conservation Easement Version 05\\_01\\_12](#).

### Conservation Easement Boundary Design and Fencing Requirement

- 1) The configuration of any survey should simplify the project boundary and reduce the number of corners. Corners shall be no less than 200 feet apart without prior approval. A strong preference for fewer longer lines should prevail over many short lines when considering the placement of lines and corners. Wetland delineations and measurements from the top of bank should serve as tools to help draw the conservation easement boundary but should rarely be used as the boundary itself.
- 2) Woven wire or barbed wire fences are required on sites with livestock access to areas adjacent to the conservation easement. Any fencing along the conservation easement boundary shall be installed on the conservation easement boundary and shall conform to Natural Resources Conservation Service specifications, **except that metal posts may not be used for fencing.** Woven Wire Fence and Barbed Wire Fence Specifications as of 02/14/12 can be found at <http://portal.ncdenr.org/web/eep/fd-forms-templates>. At least four strands of galvanized barbed wire must be used. Either a gate or a y-shaped opening at least three feet in width must be installed every one thousand feet on at least one side of the project. Woven wire or barbed wire fencing must be attached to pressure treated posts or other wood of equal life and strength. **If woven wire is used for cattle operations, electric fencing is required on the pastured side of the fence.** Fences shall not impede the future use of the parent tract, and must be located so as to provide for long-term maintenance of the fence by the Grantor without impacting the rest of the conservation easement area. The State is not responsible for maintenance of fencing. Maintenance zones shall extend into the Conservation Easement Area no more than ten feet from the fence. Survey pins and caps are required on each corner as described elsewhere in this document. Installation of the fence shall not disturb the survey pins or caps. The interior of the maintenance zone shall be marked with durable permanent markers, such as t-posts, at each corner. Fences, maintenance zones and fence openings shall be shown on the survey plat (plat). **Please note that maintenance zones cannot count towards widths required for compensatory mitigation credit.**
- 3) All existing easements or rights-of-way that affect the project must be shown on the plat. Please refer to this link for examples: <http://portal.ncdenr.org/web/eep/fd-forms-templates>. When pre-existing easements and rights-of-way run parallel to the outer edge of the conservation easement, make the boundaries contiguous and exclusive.

### Survey and Boundary Marking

- 1) All surveys shall meet the Standards of Practice for Land Surveying in North Carolina as described in Title 21, Chapter 56 of the North Carolina Administrative Code.
- 2) The Provider shall show the existing property corners, nearby easements, dwellings, roadways, streams and creeks on the survey plat. The Provider shall also show all easements that are within 100 feet of proposed conservation easement boundary lines. Manholes and power poles shall also be shown on the plat.
- 3) The Provider shall set 5/8" rebar 30" in length with 3-1/4" aluminum caps on all easement corners. Caps shall meet EEP specifications (Berntsen RBD5325 imprinted with NC State Logo # B9087 or equivalent). After installation, caps shall be stamped with the corresponding number from the table of coordinates that is required in paragraph 6 below.
- 4) The Provider shall place a 6-foot tall durable witness post at each corner in the conservation easement boundary. Witness posts shall be placed within the conservation easement area. Posts shall be made of material that will last a minimum of 20 years. The Provider shall attach a conservation easement sign to each witness post and place additional signs at no more than 200-foot intervals on long boundary lines. When appropriate, the Provider shall mark existing trees with conservation easement signs and/or blaze property lines at approximate eye level. Please see EEP portal for examples at <http://portal.ncdenr.org/web/eep/fd-forms-templates>.
- 5) All surveys shall be tied to the North Carolina State Plane Coordinate System NAD83 (NSRS2007) per the Standards of Practice for Land Surveying in North Carolina, Title 21 NCAC 56.1602(g), **regardless of whether the property is or is not within 2,000 feet of a geodetic monument** and with application of 21-56.1607 GLOBAL POSITIONING SYSTEM SURVEYS or 21-56.1603 CLASSIFICATION OF BOUNDARY SURVEYS.
- 6) The Provider shall send an Adobe Acrobat (.pdf) copy and an Arc GIS file of the preliminary plat to the EEP Project Manager and the State Property Agent by electronic mail. The title block shall read, "Conservation Easement Survey for the State of North Carolina, Ecosystem Enhancement Program", survey sheet number, and shall contain the SPO parcel ID number, EEP project name and number. The title block shall contain the name of the landowner, location, date surveyed, scale of the drawing, name, address, registration number and seal of the surveyor. **A table of coordinates (northing and easting) for all property corners must be included on the plat.** All corners shall be numbered consecutively starting with number 1. If multiple parcels comprise a single project, assign a unique number to each property corner within the project. The text metes and bounds description for each tract of the surveyed areas shall be provided on standard letter sized paper and titled "Exhibit A".
- 7) After written approval has been received from the SPO and EEP, the Provider shall record the final approved plat and obtain all necessary approvals from the county review officer.

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- 8) The Provider shall send one copy of the recorded plat to Blane Rice, State Property Office, Mail Service Center 1321, Raleigh, NC, 27699-1321. The Provider shall also send one copy of the final recorded plat in the following formats: a legible Adobe Acrobat (.pdf) copy, digital files in CAD (.dwg) format and Arc GIS format to the EEP Project Manager and to the following at the State Property Office: [Blane.Rice@doa.nc.gov](mailto:Blane.Rice@doa.nc.gov) and [Jeff.Mulligan@doa.nc.gov](mailto:Jeff.Mulligan@doa.nc.gov). All files must be geo-referenced and projected in NC State Plane Coordinates, NAD83 (NSRS 2007), in US Survey Feet. The CAD and Arc GIS files must contain a closed polygon of the conservation easement shape and must contain a polygon layer in addition to the line work
- 9) For tips on creating GIS compatible CAD drawings, please see ESRI's [Creating Compatible CAD Data for ArcGIS](#).
- 10) Digital files submitted to EEP shall follow the guidance document [Format, Data Requirements and Content Guidance for Electronic Drawings Submitted to EEP](#).