

DMS As-Built Survey Requirements

The As-Built Survey shall be performed by a Professional Land Surveyor registered in North Carolina.

1. The survey will meet or exceed all Minimum Standards of Land Surveying in North Carolina as adopted by the Board under regulatory authority of Title 21, Chapter 56, Section 1600 of the North Carolina Administrative Code. All surveys shall be tied to the North Carolina State Plane Coordinate System NAD83 (NSRS2011) per the Standards of Practice or 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.
2. Surveyor will verify or establish horizontal and vertical control for the project prior to commencement of work.
3. Provide information in horizontal NC State Plane Coordinates (NAD83) and NAVD88 datum.
4. Provide proper legend and iconic representation of all applicable features.
5. As-Built survey will depict all topography within the construction limits.
6. Surveyor will provide a Topographic Survey (including DTM with 1-foot contour map) of the Limits of Disturbance.
7. Breaklines should be placed within the DTM file to represent the top, toe, and thalweg of the bankfull channel, as well as toe and top of bench excavation.
8. Surveyor will provide DTM survey along all swales and ditches.
9. All mapping will be provided in MicroStation or ACAD format.
10. Project station numbers along the thalweg (10+00 etc.)
11. Channel boundary - shots along the stream channel shall be sufficient to map the pattern of the channel as it appears on the ground.
 - At a minimum, shots along the meander bend shall be taken at the PC and PT points, as well as the mid-point and quarter points of the curve.
 - Additional shots along the meander bend may be necessary such that the shots are spaced approximately 1/3 of the designed bankfull width to fit a curve along the top, toe, and thalweg.
12. Topography with a boldness/transparency level sufficient not to interfere with clear visual interpretation of the other plan boundaries and features.
13. Surveyor will provide a sealed As-Built survey of such that features are clearly visible and legible.
14. A sealed .PDF of the As-Built Survey and a digital copy of the survey in a format compatible with MicroStation or ACAD will be provided to DMS.
15. At a minimum, the Surveyor is responsible for collecting and producing all data in the table below.
This List is not intended to be comprehensive and shall be modified by the full delivery provider to be project specific.

	NAME OF LEVEL OR LAYER
Site Points	Site Location
Property Boundary Features	Parcel Easement Fencing Utilities within easement Infrastructure Built Structure Access Corridor Benchmark(s)
Crossing Features	Ford Crossing Culvert Crossing Bridge
Contours	1-foot contours
Channel Features	Thalweg Water surface LTOB RTOB Left Bank Toe Right Bank Toe Riffles (beginning and end) Pools (beginning and end) Bankfull Terrace toe Terrace top Confluence Bedrock Outcrops
Engineered Stream Structures	Cross Vane W-Weir Vane J-Hook Sill Root wad Boulder Toe Log Cover Log Wing Deflector Log/rock drop Constructed Riffle Bank Revetment AOP Structure
Wetland Features	Wetland Limits
Vegetation Features	Existing Vegetated Buffer (tree line) Planted zone
Best Management Practice Stormwater & Agriculture	Bioretention Cell Stormwater Wetland Dry Detention Pond Wet Detention Pond Swale Shade House

	<ul style="list-style-type: none"> Filter Strip Sand Filter Natural Infiltration Area
Monitoring Features	<ul style="list-style-type: none"> Pool and riffle cross sections Begin and end longitudinal profile Vegetation Plots Surface water gauges Wetland gauges Photo Points Additional site-specific monitoring features Benchmarks