

**VIRGINIA DEPARTMENT OF TRANSPORTATION  
SURVEY SUBCOMMITTEE WHITE PAPER**

**SURVEY IMPLEMENTATION PLAN**

**MAY 15, 2009**

## **INTRODUCTION:**

It is the intention of this office to provide accurate and complete survey information, which meets a legally required minimum standard and utilized for design, right-of-way and construction efforts. The creation of the survey base, the establishment of right-of-way and easement plats and the monumentation of R/W limits falls under the responsibility of a professional land surveyor. This plan begins the establishment of new processes, streamlines some existing interactions and addresses issues that will bring VDOT into compliance with the Code of Virginia surrounding the surveying practice. This document is a general plan to bring attention to these new areas of practice within the Department and similarly allow management to schedule and budget resources for successful future implementation. A committee was formed to address the multiple concerns and bring a better working relationship to all disciplines impacted by the survey effort.

## **THE SURVEY IMPLEMENTATION PLAN:**

In accordance with the Chief Engineer's mandate, beginning July 1, 2009, all new VDOT surveys, deliverables and services listed and described in this document and the "Virginia Department of Transportation Professional Licensure Sealing and signing Committee White Paper", dated October 12, 2007 shall be certified by a surveyor, licensed in Virginia. The survey products and services shall meet applicable APELSCIDLA minimum standards and regulations, state recording standards and all other state codified regulations pertaining to surveys for the Commonwealth. The surveyor shall follow procedures and practices established in the Department's Survey Manual.

This implementation plan encompasses all preliminary phases of implementation (training, processes and approvals) of the VDOT surveying discipline as they apply to:

- Survey Plan Base
- R/W Plan Sheets
- R/W Data Sheets
- R/W Acquisition Plats
- Donated R/W Surveys

**Any professional surveying products delivered before July 1, 2009, are exempt or "grandfathered" from the requirements of this plan.**

For the purpose of this plan the following items are defined:

Timeframe for Identification: that window of time allowed for the Project Manager, Design Engineer or Survey customer to communicate with Survey management (CO and/or District) all of the identified, or impacted, active projects that require certification by a licensed surveyor.

Timeframe for evaluation: that window of time required to evaluate the active survey for certification of the product. This timeframe will include field and office time for assessment of accuracy and compliance with all applicable standards.

### **The Survey Plan Base:**

**All new surveys delivered to VDOT on or after July 1, 2009 will be signed and sealed.** For those projects going to advertisement in August of 2009 and later, a total inventory of active survey files must be identified and assessed. These files may require field and office verification by either VDOT survey professionals, or the consultants that supplied them to determine relevance and accuracy. **It will be the responsibility of the Project Managers and Project Engineers to communicate the inventory of affected or impacted survey files to the State or District Survey Engineers.** These evaluations will require time and funding to perform field and office checks. The evaluation may determine a need to re-survey the project limits for a myriad of reasons. The decision will reside with the project manager and the survey manager.

**Any professional surveying products delivered before July 1, 2009, unless such performance is specifically requested for certification, and applying to this section, are exempt or “grandfathered” from the requirements of this plan.**

**NOTE: The evaluation of the existing survey in the field may uncover significant errors or changes in existing topographic or planimetric features, which may require an assessment on its impact to the design.**

### **R/W Plan Sheets:**

The Survey Managers (and CO) will meet with Design Managers to assess the total number of affected projects requiring acquisition of R/W and perpetual easements. For those projects active with these elements, a professional surveyor will perform an evaluation of the graphical and mathematical location of R/W and easement information.

At this time, these R/W sheets will be developed as separate plan sheets (free of design and construction elements), remain part of the contract assembly, but suitable for recording as the legal document in the State Highway Plat Book at the respective Clerk of the Circuit Court Archive.

Timeframe for Identification: Begin January 1, 2009 and complete July 1, 2009.

Timeframe for evaluation of active surveys: Commence upon identification. Duration is dependent upon project scope, stage of completion and advertisement schedule.

If the R/W Plan Sheet is complete, and has moved to R/W for negotiation purposes at the time of evaluation, the professional surveyor will perform adequate checking and computations, and certify the sheets if it is determined necessary to do so. The decision to certify will consider the time or stage of negotiations in the R/W process.

**Any professional surveying products delivered before July 1, 2009, unless such performance is specifically requested for certification, and applying to this section, are exempt or “grandfathered” from the requirements of this plan.**

**NOTE: The evaluation of the R/W sheets may uncover significant errors or changes in depiction of R/W limits or easements, which may require an assessment on its impact to the design, or R/W schedule or both.**

If the R/W Plan Sheet is complete, and has not gone to R/W for negotiation purposes at the time of evaluation, the professional surveyor will perform adequate checking and computations and then certify the sheets.

If the R/W Plan Sheet is not complete, the professional surveyor will be responsible through working with the designer to completion and certification.

### **R/W Acquisition Plats and Data Sheets:**

- **Development of Plat Standards and Additional Cells**

The Survey Support Section is working toward implementing new CAD plat standards and updating the cell libraries to support creating a typical plat. These standards will be broadcast to VDOT and consultant surveyors.

Timeframe for completion: Begin August 15, 2008 and complete July 1, 2009.

- **CAD Training**

Bentley will be responsible for administering initial training in the use of these standards, cells and GEOPAK tools to support the creation of plats. The CO Survey Support Section will be responsible for subsequent training and support.

Timeframe for completion: **Complete.**

### **R/W Acquisition Plats and Data Sheets**

The State Survey Engineer has met with the new R/W Administrator October 22, 2008. The meeting was informational and further discussion is anticipated. Currently, during negotiation, the property owner is given funds to set new property corners, post-construction. This funding is not spent for surveying services. For approximately the same funding, a record document and supplemental field surveying will bring this VDOT effort into compliance with the State Professional Licensing Board.

Timeframe for implementation: Implementation through new statewide policy or direct request for professional surveying services by R/W on a case-by-case basis.

**Any professional surveying products delivered before July 1, 2009, unless such performance is specifically requested for certification, and applying to this section, are exempt or “grandfathered” from the requirements of this plan.**

### **Donated R/W Surveys:**

VDOT, through group agreements, has received donated R/W from landowners in order to assist with road improvements and major maintenance. During the construction phase, most, if not all, property monumentation is lost, not reset and the new acquired R/W is neither platted, nor monumented. Beginning **July 1, 2009**, VDOT's surveyors will be required to map the existing road and reference existing property monuments (pre-construction). Following construction, the surveyors shall reference and monument the as-built roadway (post-construction), and depict the R/W limits on a plat to be recorded in the State Highway Plat Book. The responsibility rests with the Residency to communicate and schedule these surveys with the respective District Survey Managers. The surveyors are available to stake proposed R/W as needed for negotiations and construction services.