LaDOTD CADD Standards
AutoCAD Support Files Basics – January 1, 2013

AutoCAD Resource Files – Overview, Version 3.2

The "AutoCAD Resources" (Support Files) download is designed to be comprehensive in providing all that is needed to create plans that conform to LaDOTD standards. Version 3.00 represents a substantial redesign. Users of earlier versions must upgrade soon.

- Notable changes in this version
  - Updates to borders, seed files, line styles, levels, CADconform feature tables, etc.
  - ERP financial system: Related changes to borders and Title Sheets.
  - Extensive updates to Traffic standards
  - Discipline-specific "Allowed Feature Tables"
  - Seals for Digital Signatures
  - The default PDF drawing size is 11x17. 22x36 paper can be printed to when needed.
  - Vastly improved translations to MicroStation format

Startup Basics

Before installing the AutoCAD support files, make sure that the appropriate version of CADconform is installed, licensed, and configured properly for your version of AutoCAD. Go to Altiva Software's LaDOTD CAD Standards web page, and then execute the support files installer: http://www.altivasoft.com/ladotd/

When executing the installer, the following functions will be performed:

1. The support files will be installed on a server or a user's computer, as specified
2. The delivered AutoCAD profile will be updated to include the search paths needed to find the support files required to create LaDOTD project plans.*
3. The CADconform feature tables will be installed

* Once LaDOTD support files are installed, opening AutoCAD with the LaDOTD shortcut will import the delivered profile, "LADOTD_CAD_Standards.arg", which will direct AutoCAD to find support file locations. Once this profile is installed, the designer is ready to start plan production. (If you are updating from a previous installation, then you will need to delete the current LaDOTD profile from AutoCAD first, so that the new profile can be imported correctly).

Plan Delivery - Issues to Consider for a Smooth Ride

Each submittal requires translating AutoCAD files into MicroStation format and then uploading them into the DOTD ProjectWise "Plans" folder (e.g., H.001234\Road-Site\Plans). The following tips will go a long way towards a stress-free plan delivery experience.

- Take DOTD CAD standards seriously
- Use DOTD standard CAD resources
- Read all documentation available
- Default PDF drawing size (if not Letter) is 11x17
- Upload deliverable MicroStation files into ProjectWise as required
- Lead Consultant is responsible for making sure sub-consultants conform to standards
- Do not place certification stamp in AutoCAD file. Translate to MicroStation format first.

- When using the latest versions of AutoCAD, you may have to save your work to an earlier (supported) DWG file format before converting to MicroStation.
- Level description updates (required for mechanical, electrical and architectural drawings) may have to wait until Final Plans for AutoCAD users (AutoCAD checks to make sure users are not tampering with level properties). It is probably best to apply descriptions in MicroStation at Final Plans instead.
- Conform components of any user-created blocks to DOTD standards. ControlCAD checks MicroStation cell components. Elements using AutoCAD styles will be flagged.
- Inroads must be used for any drawing file that requires modeling software. ControlCAD checks for modeling software data signatures. Drawing examples include Plan-Profile and Cross Section drawings; and electronic surveys. Inroads must be run on the MicroStation platform, not AutoCAD
- Do not "round trip" Inroads designs. Example: A designer creates a Road Plan-Profile drawing using Inroads in MicroStation; then converts it to AutoCAD format for additional annotation; and finally converts it back to MicroStation format for plan delivery. This workflow may be complicated by translation issues. The translation may also invalidate the Inroads data signature, which is checked by ControlCAD.
- Consider that ControlCAD has been updated to work in ProjectWise. Reports will be generated on the deliverable MicroStation files at each submittal milestone to track progress of CAD standards compliance. These reports can be generated in ProjectWise by CAD Administrators, Project Managers, Task Managers, etc. Once generated, they will be available to all who have rights to view the discipline *Plans* folder.
- Compliance checks go beyond the ground that CADconform covers. Examples of checks include: File names begin with four-digit sheet numbers (e.g., 0042), CAD compliance stamp found, missing reference files found, approved borders used, drawing scale, global *active linestylescale*, missing level descriptions, orphan cells found (informational), AutoCAD styles found, MicroStation Working Units, Road Design software Data Signature and CADconform dictionaries used.

Benefit of considering the tips above:

- ControlCAD is integrated with ProjectWise. Spreadsheet reports provide feedback at each submittal milestone so that problems can be resolved early in the plan development process, rather than late when plan delivery deadlines can be compromised. Following these guidelines will help transform a potential uphill battle at Final Plans into a smooth ride.

User Questions and Feedback

It is important for users of LaDOTD CAD standards to understand what is expected and have important issues that come up addressed so they and DOTD support personnel can be more productive. For assistance and feedback, contact Paul Mandella. paul.mandella@.la.gov.