

Curtis Delaune, New Orleans District

1. General: Existing CADD sheet drawings and details are not mentioned under this standard. What are we required to do with hundreds of drawings requiring modification to meet the new standards, i.e. line weights, leveling scheme, etc.

Response: We realize implementing this standard will change the way sites develop electronic drawings. Sites should convert old drawings on an as needed basis in order to make them comply with this standard.

2. General: Will the TSTC revise all the CADD details already in use from many different organizations and provide them to us in the new format/level/color/weight adopted.

Response: The Center currently has a library of CADD details that conform to the A/E/C Standards. If a site submits details that are unique or can replace existing details in the tri-service library, the Center will convert those details (project funds permitting).

3. Chapter 2, Table 2 entitled Comparison of Line Widths: The column entitled Line Thickness has no relation to any drawing standards used by the USACE, New Orleans District, i.e. fine, medium, thick lines. The column should be dropped in lieu of this failure to correlate itself to previous drafting standard.

Response: This standard will become a part of the National CADD Standard which includes AIA's, "CAD Layer Guidelines", and CSI's "Uniform Drawing System". Therefore, the descriptions of line thickness' will be in accordance with CSI's line thickness descriptions.

4. If USACE is to move to the SI (a.k.a. Metric) system of measurement, then the line thickness weights used should be a uniform metric system, i.e. use a 0.20 mm line width instead of the 0.18 mm line, a 0.75 mm width line instead of a 0.70 mm width line and a 1.5 mm width line instead of a 1.60 mm width line. The line weight and line weight difference would be standardize as follows:

Line Weights

0.064 - 1.5 mm
0.040 - 1.0 mm
0.028 - 0.75 mm
0.020 - 0.50 mm
0.014 - 0.35 mm
0.010 - 0.25 mm
0.007 - 0.20 mm

Difference between line weights

0.064 to 0.040: .50 mm difference
0.400 to 0.028: .25 mm "
0.028 to 0.020: .25 mm "
0.020 to 0.014: .15 mm "

0.014 to 0.010: .10 mm "
0.010 to 0.007: .05 mm "

Response: Line weights were chosen from the eight recommended in ISO 128 "Technical drawings - General principles of presentations." However, the 1.6 mm width will be removed and substituted with 1.4 and 2.0 mm widths in order to be in complete compliance with ISO 128.

5. Page 7, Table 4: In order to avoid confusion between AutoCAD and Microstation colors and the numbers used for each proprietary package, TSTC should provide a standardized color and pen table to be distributed to all government facilities, A-E contractors/engineers and software developers as part of the standardization process and National CADD Standards adopted. This system would be supplied to Microstation, AutoCAD and any other software developers to include these standards as part of their software for use on all federal government projects.

Response: The development of pen tables is outside of the scope for this project, at this time, due to the varying hardware configurations of each site. The Center will provide workspaces to assist in the implementation of these standards. If a site develops a pen table, the Center encourages that it be submitted in order to be made available to other users via the Center's web site.

6. Page 11, Figure 1: When will we be required to start using the drawings with the vertical title blocks? USACE, New Orleans uses other numbering systems in their title block, solicitation and file numbers for storage and reuse at a later date. This system does not allow for compatibility with contracting, real estate and construction division since they all file drawing differently and use different control/access numbers for retrieval during the time the project is active and after the project is complete. The Tri-Service needs to prepare standardize sheet title system for use with Real Estate, Construction, Contracting Division as well as Engineering Division, architectural sections, mechanical and electrical sections, as well as being able to identify the drawings according to Districts, Division user, MACOM, Air Force, Army, Coast Guard, Navy, etc. The sheet title system presently does not give any other identifiers except architectural, structural, mechanical, etc. in which 300 projects later, all of these project sheets will have the same identifiers. We will be unable to find all of the sheets for one project in one place. We will, however, be able to find all of the architectural/demolition plans together unless the designer put two section or details on the same sheet and classifies it as architectural/demolition section, in which case the plan will never be found without extensive searching of electronic or hard copies. This system is better used as an index to pre-packaged standardize drawings for use on Army, USACE, Navy, etc. projects.

Response: The use of border sheets with the vertical title block has already been mandated through ER 1110-345-700 dated 30 May 1997. We will be providing border sheets A0 and A1 with the release of 1.7. The information contained within the blocks can be modified depending on site requirements. The figures give examples of the typical information that a user may require within the blocks.

7. Page 28, Figure 42: "Project Code" is added to the front of the naming convention. This needs to be further defined for its intended usage or dropped.

Response: The two character project code was added as a result of reviewing South Atlantic Division's standard which uses a two character project code. The Center is in the process of

looking into extending the characters.

8. Appendix B, General: The leveling scheme should be identified in the first column. The AutoCAD and Microstation line color columns should be deleted and add a new "National CADD Standard" pen table which includes line thickness, weight and color designation. This will avoid proprietary nomenclature which could very easily change in the next few years.

Response: These standards are constantly evolving. As software evolves, so will these standards.

9. Consider standardizing the sheet sizes (A0, A1, etc.) to the metric system also.

Response: These sheets are already sized in metric. The Center provides English equivalents (e.g. ANSI and Architectural) to show the similarity in sizes between all sheets.