

# CG DRAWING BORDER TEMPLATES AND TITLE BLOCK REVISION ACTIVITY 52350

**Statement of Problem:**

Due to changes in CG Command policy and general industry practices, the USCG standard drawing borders have become outdated.

**Action Requested:**

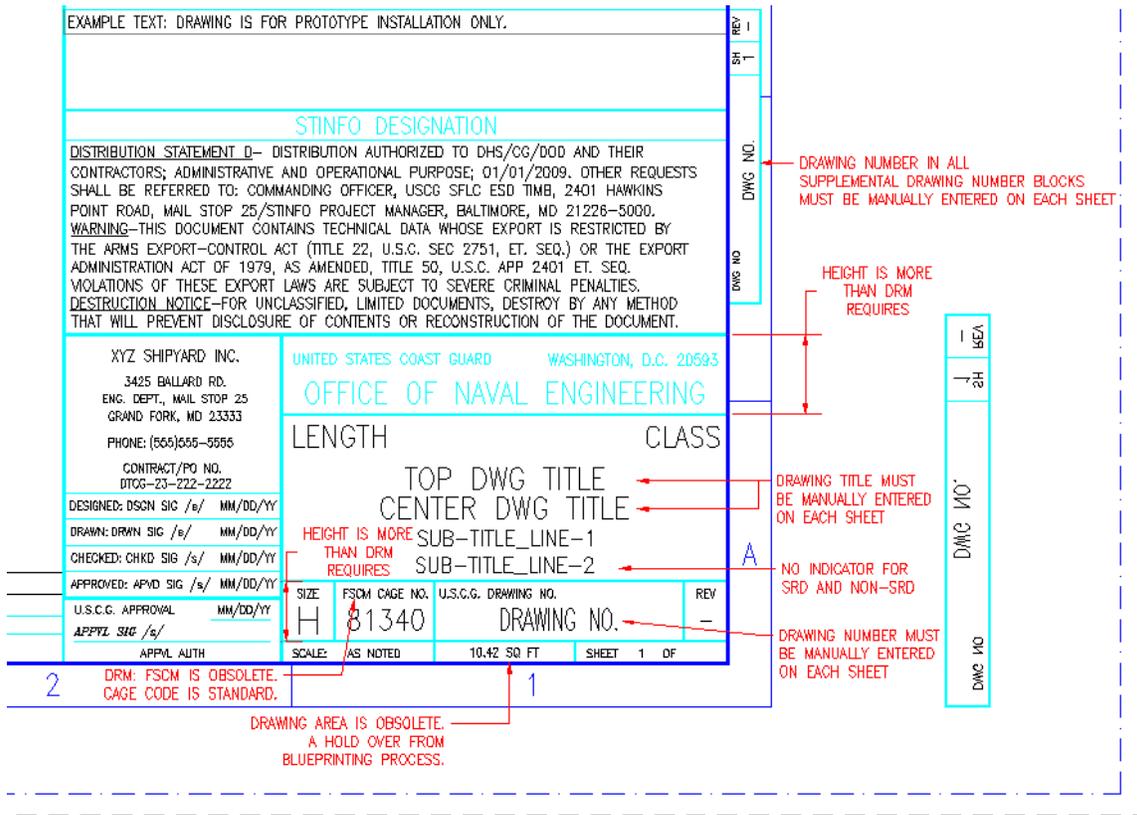
Revise the USCG standard border templates for all applicable sheet sizes, to reflect current industry standards and CG Command policy changes.

**Revised Title Blocks:**

USCG drawing template Title Blocks for first sheet and continuation sheets have been revised to remove outdated information, reflect CG Command policy changes and to be IAW Drawing Requirements Manual (DRM), ASME Y14.100-2004. Drawing template revisions shall take advantage of the latest AutoCAD enhancements.

**Current Sheet One Title Block:**

The sheet one title block and supplemental drawing number blocks on current drawing templates (Fig. 1) have some antiquated information and requires manual input of repetitive data such as drawing number and title. Some text block areas are larger than what is required in the DRM and the 'Drawing Area' block is now obsolete. There is no area set aside to indicate Selected Record Drawing (SRD) or Non-SRD in the title block.

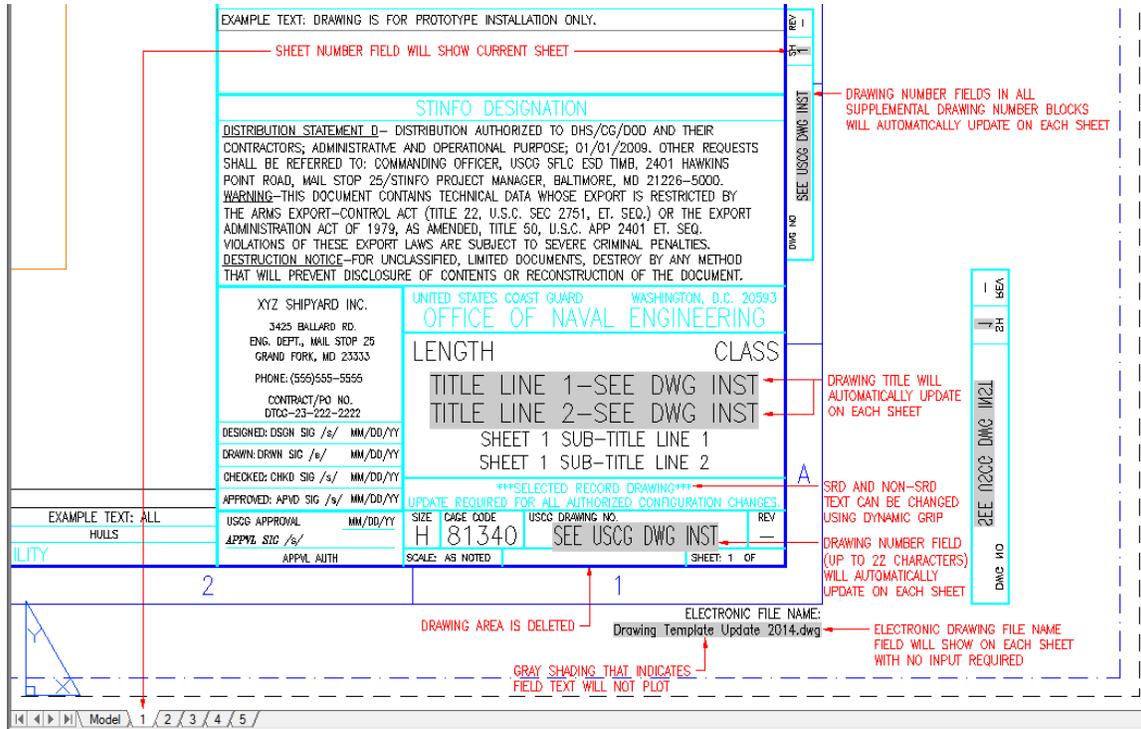


**Figure 1: Current Sheet One Title Block and Supplemental Drawing Number Blocks.**

# CG DRAWING BORDER TEMPLATES AND TITLE BLOCK REVISION ACTIVITY 52350

## Sheet One Title Block Revisions:

The revised sheet one title block and supplemental drawing number blocks (Fig. 2) take advantage of AutoCAD text *fields* for repetitive data. Drawing Number and Title is entered once in *Drawing Properties* to populate all designated text *fields* in the drawing (Fig. 3). The sheet number text *field* in the supplemental drawing number blocks (and continuation sheet title blocks) will take the 'layout tab' number and populate each specific drawing sheet. A text *field* was added below the border for 'Electronic File Name' with extension that automatically updates on each drawing sheet with no operator input required. The obsolete 'Drawing Area' attribute text block between 'Scale' and 'Sheet' has been deleted. Text block heights are compressed to allow placement of SRD / Non-SRD text that can be changed with a dynamic grip. Text *fields* can be converted to attribute text if required.



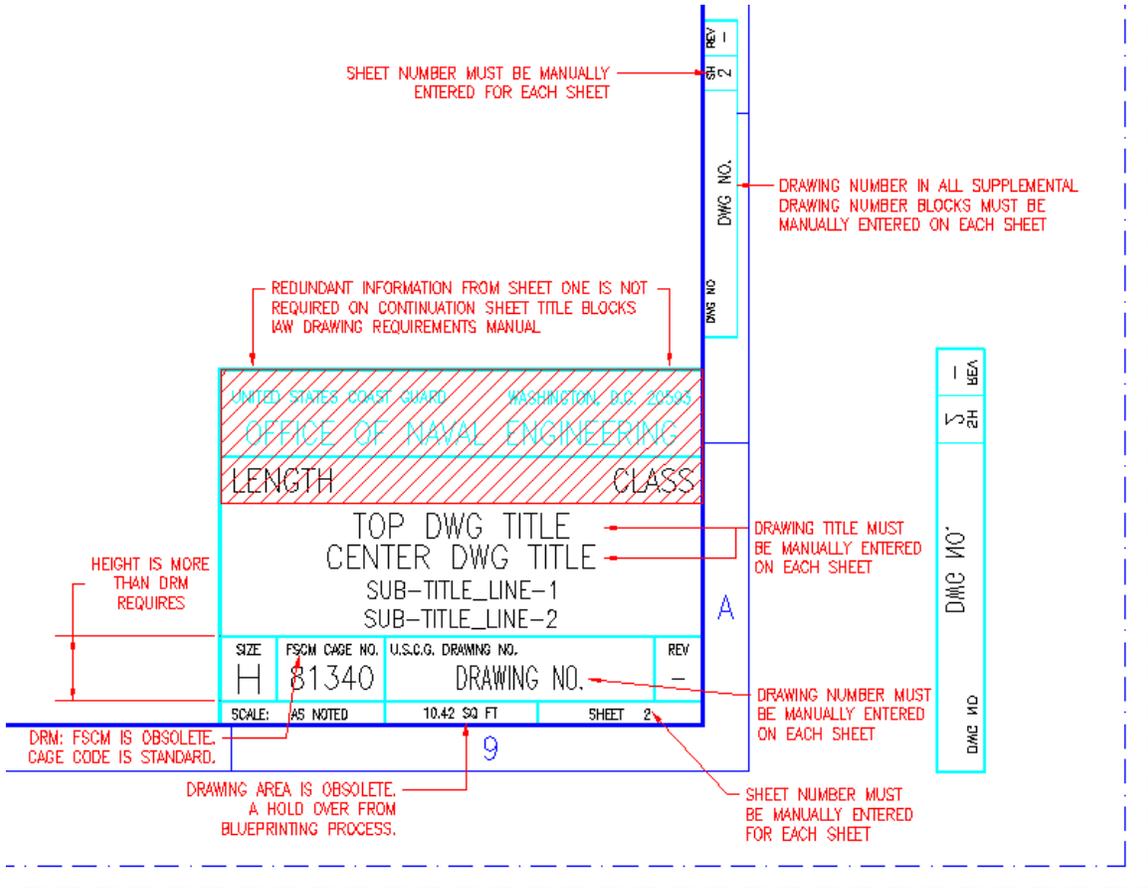
**Figure 2: Revised Sheet One Title Block and Supplemental Drawing Number Blocks.**



# CG DRAWING BORDER TEMPLATES AND TITLE BLOCK REVISION ACTIVITY 52350

## Current Continuation Sheet Title Block:

The continuation sheet title block on current drawing templates (Fig. 4) have some redundant information that is not required according to the DRM. The height of some text areas is more than what is required. Some text areas are obsolete. Drawing numbers, titles and sheet numbers must be manually entered for each sheet.



**Figure 4: Current Continuation Sheet Title Block and Supplemental Drawing Number Blocks.**

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## Continuation Sheet Title Block Revisions:

The revised continuation sheet title block and supplemental drawing number blocks (Fig. 5) take advantage of AutoCAD text *fields* for repetitive data. Drawing Number and Title (entered once in Drawing Properties) populates all designated text *fields* on each continuation sheet. The sheet number text *field* in the supplemental drawing number blocks and continuation sheet title blocks will take the 'layout tab' number and populate each specific drawing sheet. A text *field* was added below the border for 'Electronic File Name' with extension that automatically updates on each drawing sheet with no operator input required. The obsolete 'Drawing Area' attribute text block between 'Scale' and 'Sheet' has been deleted. Redundant information (USCG HQ address and vessel Length and Class) is removed to reduce the overall height of the title block. Text *fields* can be converted to attribute text if required.

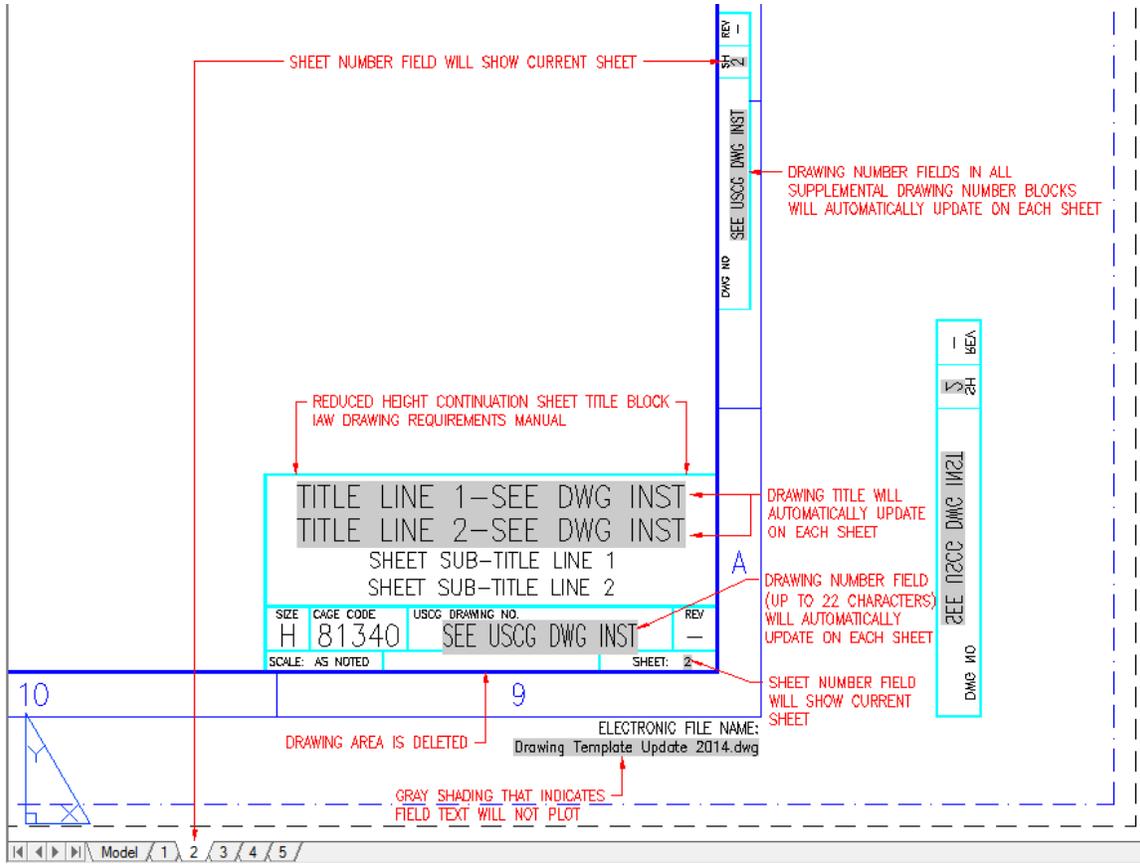


Figure 5: Revised Continuation Sheet Title Block and Supplemental Drawing Number Blocks.

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## Special Plotting Instructions Block Revision:

Special Plotting Instructions (Fig. 6) has been expanded for using color 255 (white on black). A hyperlink has been added to the block for accessing CG\_Lineweight.ctb from the SFLC website (Fig. 7).

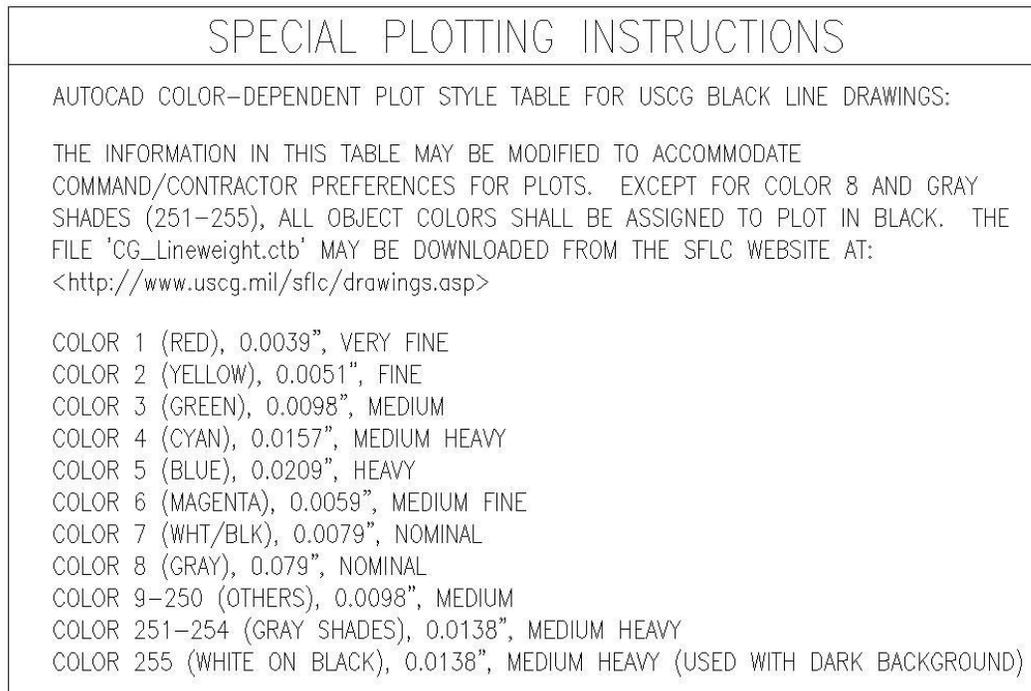


Figure 6: Revised Special Plotting Instructions Block.

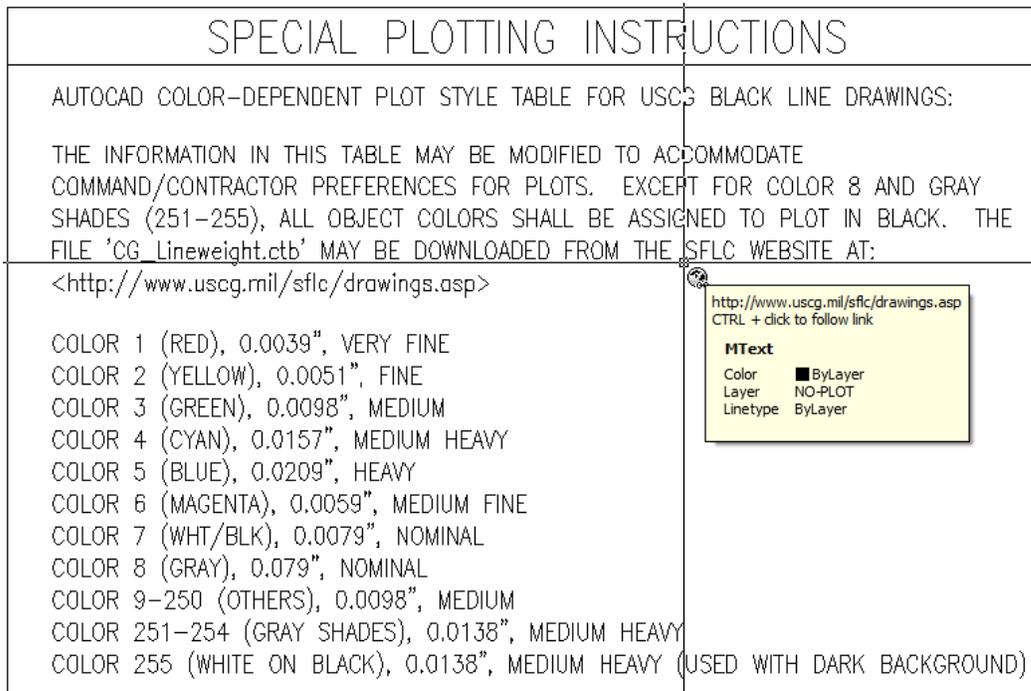


Figure 7: Special Plotting Instructions with Hyperlink.

## CG DRAWING BORDER TEMPLATES AND TITLE BLOCK REVISION ACTIVITY 52350

### Drawing Template Instructions Block Revision:

The word 'Template' is removed from the header 'USCG Drawing Template Instructions' (Fig. 8 & 9). List of names for all block types, layers, dimension styles and multileader styles have been removed. Instructions for entering data for *fields*, modifying *dynamic blocks* and sequence to create drawing continuation sheets have been added under 'General Drawing Notes'. The CAD Standards URL has been updated and a hyperlink has been attached to the block. Note to forbid addendum sheets on initial release of drawing was added. Notes have also been added dealing with example text in tables, layout tab numbering and text masking.

USCG DRAWING INSTRUCTIONS
<p>THESE INSTRUCTIONS ARE PROVIDED AS A GUIDE FOR PRODUCING STANDARD FORMAT TECHNICAL DRAWINGS IN ACCORDANCE WITH 'USCG NAVAL ENGINEERING COMPUTER AIDED DESIGN STANDARDS', COMDTINST M9085.1(SERIES). A COPY OF THE MANUAL CAN BE DOWNLOADED FROM THE SFLC TECHNICAL INFORMATION MANAGEMENT BRANCH WEBSITE AT: &lt;<a href="http://www.uscg.mil/sflc/drawings/CIM_9085_1C.pdf">http://www.uscg.mil/sflc/drawings/CIM_9085_1C.pdf</a>&gt;</p> <p><u>GENERAL DRAWING NOTES:</u></p> <ul style="list-style-type: none"><li>- THERE ARE A VARIETY OF STANDARD BLOCKS, DYNAMIC BLOCKS, TABLES, LAYERS, DIMENSION STYLES AND MULTILEADER STYLES THAT ARE PRELOADED IN THIS DRAWING TEMPLATE. PURGE ALL THAT ARE NOT USED AFTER THE DRAWING IS COMPLETED.</li><li>- <u>TO EDIT DRAWING NUMBER AND DRAWING TITLE FIELDS:</u> IN 'DRAWING PROPERTIES' (COMMAND: DWGPROPS) PICK THE 'CUSTOM' TAB IN THE DIALOG BOX. UNDER 'CUSTOM PROPERTIES' ENTER VALUE FOR 'DWGNUMBER', 'TITLE1' AND 'TITLE2' TO POPULATE FIELDS IN ALL DRAWING SHEETS. SUBTITLES AND REVISIONS MUST ENTERED MANUALLY FOR ALL SHEETS.</li><li>- <u>DYNAMIC TITLE BLOCK FOR SELECTED RECORD AND NON-SELECTED RECORD DRAWINGS:</u> SELECT SRD OR NON-SRD BY PICKING THE INVERTED TRIANGLE 'VISIBILITY GRIP' IN LOWER RIGHT HAND CORNER WHEN TITLE BLOCK IS HIGHLIGHTED.</li><li>- <u>DYNAMIC BLOCK FOR CREATING NEW BORDER CONTINUATION SHEET:</u> FIRST RIGHT CLICK A CONTINUATION SHEET TAB AND PICK "Move or Copy..." FROM THE LIST. CHECKMARK THE "Create a copy" BOX AND "(move to end)". RENAME THE COPIED SHEET BY RIGHT CLICKING THE NEW LAYOUT TAB. PICK THE INVERTED TRIANGLE 'VISIBILITY GRIP' AND SELECT CORRECT SHEET NUMBER TO MATCH LAYOUT TAB NUMBER. EXPLODE ONCE TO EDIT ZONES FOR ADDENDUM SHEETS OR FOR SHEETS NOT LISTED IN THE DYNAMIC BLOCK.</li></ul>

**Figure 8: Revised Drawing Template Instructions.**

**CG DRAWING BORDER TEMPLATES AND TITLE BLOCK REVISION  
ACTIVITY 52350**

- DO NOT EXPLODE AND MODIFY ATTRIBUTE BLOCKS! MANDATORY ATTRIBUTE BLOCKS SHALL NOT BE MODIFIED WITH THE EXCEPTION OF THE COMMAND OR CONTRACTOR APPROVAL SIGNATURE BLOCK (CCBLK).
- ADDENDUM SHEETS ARE NOT ALLOWED TO BE USED IN INITIAL RELEASE OF DRAWING! ADDENDUM SHEETS MAY ONLY BE ADDED WHEN DRAWING IS REVISED.
- PRELOADED LAYERS MAY BE COPIED, MODIFIED, RENAMED, OR DELETED AS REQUIRED. ASSIGNED COLOR AND LINETYPE ON LAYERS REFLECT USCG RECOMMENDED PLOT SETTINGS FOR BLACK LINE DRAWINGS.
- EXAMPLE TEXT IN TABLE CELLS SHALL BE DELETED OR REPLACED WITH A DASH (-) PLACEHOLDER IF CELL IS NOT BEING USED FOR DRAWING DATA.
- LAYOUT TABS SHALL BE NUMBERED FOR EACH SHEET OF THE DRAWING BEGINNING WITH ONE (1) AND PROGRESS CONSECUTIVELY FOR ALL SHEETS. ADDENDUM SHEETS SHALL HAVE NUMBER AND LETTER ONLY. LAYOUT TAB DESCRIPTIONS SUCH AS 'DETAILS' OR 'LAYOUT2' SHALL BE RENAMED TO THE SHEET NUMBER IT REPRESENTS.
- TO PREVENT BLACKENED AREAS ON PLOTS, TEXT MASKING SHALL BE PERFORMED USING "Background Mask..." IN THE MULTILINE TEXT EDITOR WITH "Use drawing background color" CHECKED. THE 'WIPEOUT' COMMAND CAN BE USED TO MASK DRAWING AREAS ONLY IF BOUNDARIES ARE ON LAYER 'WIPEOUT' WITH TRUE COLOR 255, 255, 255.

**Figure 9: Revised Drawing Template Instructions.**

## CG DRAWING BORDER TEMPLATES AND TITLE BLOCK REVISION ACTIVITY 52350

### **Dimension Notes Revision:**

Dimension Notes have been condensed and updated (Fig. 10).

#### DIMENSION NOTES:

- ALL DIMENSIONS SHALL BE IN PAPER SPACE!
- THE USE OF NONASSOCIATIVE OR 'EXPLODED' DIMENSIONS IS PROHIBITED!
- ALL FRACTION FORMATS SHALL BE 'NOT STACKED' AS OPPOSED TO 'HORIZONTAL' OR 'DIAGONAL'!
- DIMENSION APPEARANCE (1/8" CLOSED ARROWS, 'CG\_ROMANS' TEXT STYLE, 1/8" TEXT HEIGHT, 'NOT STACKED' FRACTIONS, ETC.) SHALL REMAIN CONSISTENT WITH ALL PRESENT AND NEW DIMSTYLES.
- FRACTIONAL UNIT (CG-FRAC) DIMSTYLES ADD AN INCH MARK (") TO THE DIMENSION AS A SUFFIX AND SHALL NOT BE USED FOR ANGULAR DIMENSIONS. THESE DIMSTYLES ARE GENERALLY USED FOR OBJECTS MEASURING UP TO 72".
- ARCHITECTURAL UNIT (CG-ARCH) DIMSTYLES ARE GENERALLY USED FOR OBJECTS MEASURING 6'-0" AND OVER.
- MILLIMETER WITH INCH UNIT (CG-MMIN) DIMSTYLES ARE USED WHEN THE BORDER TEMPLATE GEOMETRY AND ASSOCIATED BLOCKS HAVE BEEN SCALED UP BY A FACTOR OF 25.4.
- PAPER SPACE (PS) DIMSTYLES AUTOMATICALLY SCALE TO THE VIEWPORT WHEN THE VARIABLE 'DIMASSOC' IS SET TO TWO (2).
- SCALE FACTOR (SF) DIMSTYLES ARE USED IN PAPER SPACE BUT HAVE A 'MEASUREMENT SCALE FACTOR' (DIMLFAC) ASSIGNED. NOTE THAT THESE 'SF' STYLES MUST HAVE THE VARIABLE 'DIMASSOC' SET TO ONE (1) TO WORK PROPERLY. THESE DIMSTYLES MAY BE COPIED AND RENAMED TO ACCOMMODATE ADDITIONAL SCALES IF THE 'DIMLFAC' IS CHANGED TO MATCH THE SCALE FACTOR.

NOTE: THIS INFORMATION WILL NOT SHOW ON PLOTS.

**Figure 10: Revised Dimension Notes.**

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## Additional Drawing Template Revisions:

Supplemental drawing number blocks have been removed or relocated on some drawing border templates to be in accordance with the DRM. 'A', 'B', 'C' and 'D' size borders will no longer have the blocks in the lower right and upper left corners outside of the border. These mirrored text blocks are used for reading drawing numbers on rolled sizes; they are not required for flat sheet sizes. Location of the single supplemental drawing number block (within the border boundaries) has been changed on 'B' and 'D' size borders.

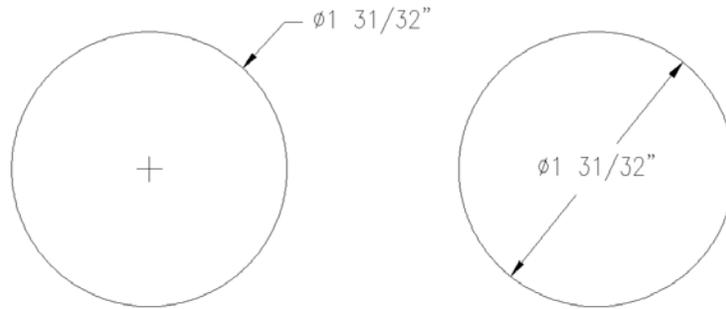
Text style name 'ROMANS' has been changed to 'CG\_ROMANS' which still uses *romans.shx* font at a width factor of 0.8". This was done to prevent text style conflicts with drawings received from contractors and vendors.

The USCG Standard Block and Welding Symbol Libraries have been updated. Many of the dynamic blocks in the libraries have been enhanced to be more user-friendly. Graphics and informational text explaining dynamic functions have been added to each block library. For a full explanation of enhancements, see 'CG DYNAMIC BLOCKS, Rev 2014.pdf'.

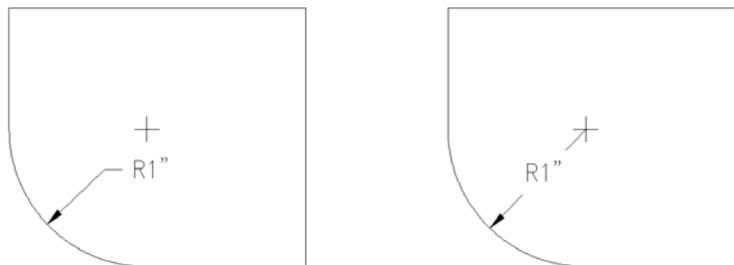
Sample text in some tables has been revised to reflect drawing template changes.

Most multisheet drawing templates have been expanded from 2 to 5 'ready to use' drawing sheets.

CG dimstyles have been modified to force circle diameter dimensions between two arrow leaders (Fig. 11) and radius dimensions between the radius and the radius center point (Fig. 12).



**Figure 11: Old and New Circle Diameter Dimension Format.**



**Figure 12: Old and New Radius Dimension Format.**