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DM0396


MEMORANDUM TO GROUP LEADERS & CONSULTANTS

SUBJECT: DIMENSIONING OF BRIDGE PLANS

Beginning June 1, 1996, all new bridge projects should be detailed using only millimeter dimensions. This change will promote the use of the "automatic dimensioning" tools in the microstation software.

Detailing of reinforcing steel, bending details, borings and reinforcing schedules should use millimeter dimensions. Completed plans and partially completed plans need not be reworked.

The attached sheets indicate the procedures and required CAD settings needed to use the "automatic dimensioning" features of microstation software.

  
Rocque L. Kneece  
Bridge Design Engineer

Attachments

cc: Asst. Bridge Design Engineers

REL/slb

**DIMENSIONING OF BRIDGE PLAN DETAILS  
FOR  
SCDOT BRIDGE DESIGN OFFICE**

The TQI team formed to improve production of bridge plans, recommended to the Bridge Engineer and Assistant Bridge Engineers to change all dimensions to millimeters on bridge plans. This will help with the automatic dimensioning tools in microstation. Due to this change, there are a few settings that need to be changed as follows:

- 1) Working Units
  - a) Leave the master units blank
  - b) Change resolutions to 10 mm per  
and 1 position unit per mm
  
- 2) Dimension Placement Settings
  - a) Change dimension unit accuracy to zero
  - b) Change attributes fonts to 1.
  - c) Change geometry terminator to 1 and 3000.

These settings should be changed in the file seed2dm.dgn for creating new files.

If you have any question about these changes, contact James Reese or Walter Reed. The new format for dimensions shall be as follows:

Examples:    1500 (1500 mm)  
                  195 000 (195 meters)  
                  10 000 (10 meters)  
                  430 (430 mm)

Hopefully, this will help eliminate a lot of dimension editing in the future because most of the dimension will be four (4) digits or less. In the cases where there is more than four (4) digits, you will have to add the space as shown above.

If there are any suggestions to make this a better transition, please let someone know.

### Working Units

**Unit Names**

Master Units:

Sub Units:

**Resolution**

mm Per

Pos Units Per mm

**Working Area**

429496729 Square

### Dimension Attributes

**Dimension Line**

Color:

Style:

Weight:

**Extension Lines**

Color:

Style:

Weight:

**Terminators**

Color:

Style:

Weight:

**Dimension Text**

Color:

Weight:

Font:

Height:

Width:

Level:

Override Level Symbology

### Dimension Geometry

**Extension Lines**

Extension Lines

Offset:

Extension:

Join When Text Outside

**Text margins**

Left:

Lower:

Tolerance Left:

Tolerance Sep.:

**Terminators**

Width:

Height:

Arrowhead:

**General**

Stack offset:

Min. Leader:

Center Size:

### Dimension Units

Format:

**Primary**

Units:

Accuracy:

Label:

**Secondary**

Show Secondary Units

Units:

Accuracy:

Label:

**Angle Format**

Units:

Accuracy:

Display:

Show Leading Zero

Show Trailing Zeros

Use Comma for Decimal

Scale Factor: