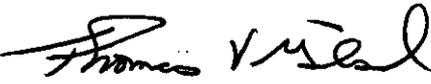


# Office of Bridge Design

## Technical Memorandum

Date: March 1, 2004

To: All Bridge Engineering Staff

From: Thomas V. Gilsrud, PE  
Bridge Maintenance Engineer 

Subject: Technical Memorandum BTM04.5  
Structure Numbers

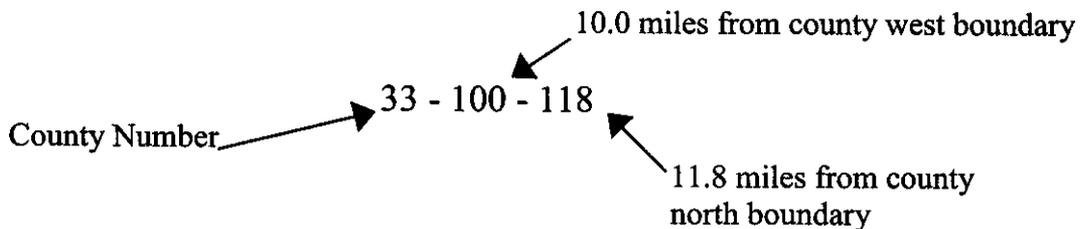
### 1. Structure Identification

#### 1.0 Structure Definition

A structure is defined as a bridge or culvert. For the purposes of assigning a structure number, the structure does not have to meet the National Bridge Inspection Standard of being greater than 20 feet in length.

#### 1.1 Structure numbering procedure

The numbering system is set up based on a rectangular grid reference system, separate from the highway route numbering. The structure number contains the grid coordinates of the structure location within the county. It consists of an eight-digit number from which it can be geographically located. The first two digits are the county number as listed below in 1.2.1. The next three digits are the miles and tenths (00.0) from the west most point on the county boundary line. The last three digits are the miles and tenths (00.0) from the north most point on the county boundary line. The location point for the structure number is at the highest MRM point on the structure at centerline of roadway. MRM's run west to east and south to north. Grid coordinates shall be determined by use of a scale, to the nearest tenth of a mile, using full size county maps.



### 1.2.1 County numbering

02 Aurora	24 Fall River	46 Marshall
03 Beadle	25 Faulk	47 Meade
04 Bennett	26 Grant	48 Mellette
05 Bon Homme	27 Gregory	49 Miner
06 Brookings	28 Haakon	50 Minnehaha
07 Brown	29 Hamlin	51 Moody
08 Brule	30 Hand	52 Pennington
09 Buffalo	31 Hanson	53 Perkins
10 Butte	32 Harding	54 Potter
11 Campbell	33 Hughes	55 Roberts
12 Charles Mix	34 Hutchinson	56 Sanborn
13 Clark	35 Hyde	57 Shannon
14 Clay	36 Jackson	58 Spink
15 Codington	37 Jerauld	59 Stanley
16 Corson	38 Jones	60 Sully
17 Custer	39 Kingsbury	61 Todd
18 Davison	40 Lake	62 Tripp
19 Day	41 Lawrence	63 Turner
20 Deuel	42 Lincoln	64 Union
21 Dewey	43 Lyman	65 Walworth
22 Douglas	44 McCook	68 Yankton
23 Edmunds	45 McPherson	69 Zieback

### 1.2.2 Counties over 100 miles in width

Pennington County is over 100 miles in width. The first two digits (10) are replaced with "A". For instance, a bridge 102.0 miles from the west county would be 52-A20-552.

### 1.2.3 Assigning Structure Numbers at County Borders

#### Crossing the county line

Structures crossing county lines shall be assigned to the county at the high MRM end of the bridge. This would be the north county on north/south routes and the east county on west/east routes.

#### Paralleling the county line

Structures located on routes that coincide with the county line shall be assigned to the county bordering to the north or east.

#### 1.2.4 Assigning Structure Numbers at Twin Bridge Sites

For north/south highway routes, the structure number is assigned to the SBL structure in accordance with the procedures described above. The NBL structure number is assigned by using one digit higher for the east coordinate (middle three numbers): Example 64-164/165-405.

For east/west highway routes, the structure number is assigned to the WBL structure in accordance with the procedures described above. The EBL structure number is assigned by using one digit higher for the south coordinate (last three numbers): Example 41-015-041/042.

#### 1.3 Review and Approval

Proposed structure numbers shall be submitted to the Special Assignments Engineer for review and approval. The numbers will be reviewed for accuracy and possible duplication of existing numbers.

Reviewed by: \_\_\_\_\_ Date: \_\_\_\_\_

Approved by: John Cole, Chief Bridge Engineer, Date: 4-01-2004

cc: File