

Allen



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

ROADWAY DESIGN UNIT	
RECEIVED	FILE _____
SEP 10 2004	
<input type="checkbox"/> ALLEN	<input type="checkbox"/> SYKES
<input type="checkbox"/> BREW	<input type="checkbox"/> HOUSER
<input type="checkbox"/> LOVERING	<input type="checkbox"/> GOODMIGHT
<input type="checkbox"/> LYND J. MOORE	<input type="checkbox"/> SPEER
<input type="checkbox"/> MOORE	<input type="checkbox"/> THOMAS
<input type="checkbox"/> MUMFORD	<input type="checkbox"/> WALLS
<input type="checkbox"/>	<input type="checkbox"/> POLLARD
PREPARE REPLY FOR _____ SIGNATURE	
FYI.	
REVIEW/DISCUSS WITH _____	

MEMORADUM TO: Jay A. Bennett, PE  
State Roadway Design Engineer

FROM: Art McMillan, PE *Art McMillan*  
State Highway Design Engineer

DATE: September 9, 2004

SUBJECT: Superelevation Guidelines

In an effort to establish the appropriate superelevation treatment for different classification of roadways within the context of their location, the attached guidelines for superelevation will be implemented. These guidelines are intended to direct the designer to the appropriate superelevation table in the AASHTO "Green Book".

The date of implementation will be on a project by project basis. As a general rule, if the project has already been sent to the Hydraulics Unit, changes related to these guidelines are not necessary.

If a superelevation table is used other than those listed, it shall be discussed with the appropriate Roadway Design Assistant Unit Head.

If you have any questions, please contact me at 250-4001.

AM/rda

- cc: Debbie Barbour, PE
- Division Engineers
- Ron Allen, PE
- Scott Blevins, PE
- Dewayne Sykes, PE
- Roadway Design Project Engineers
- Emily Lawton
- Frankie Draper

# SUPERELEVATION GUIDELINES

TYPE OF ROADWAY	LOCATION & CONDITIONS	SUPERELEVATION <sup>(1)</sup>
Interstates & Freeways	Statewide	.08 or .10 <sup>(2)</sup>
Ramps & Loops	Statewide	.08
Flyovers (Directional ramps with bridges)	Statewide	.06
Arterials & Rural Collectors	<ul style="list-style-type: none"> <li>• Statewide</li> <li>• Limited Access</li> </ul>	.08
Arterials & Urban Collectors with 60 mph design speed or greater	<ul style="list-style-type: none"> <li>• Statewide</li> <li>• Partial or no control of access</li> </ul>	.06
Urban Collectors with 50 mph or less design speed	<ul style="list-style-type: none"> <li>• Statewide</li> <li>• Curb &amp; gutter or shoulders with driveways</li> </ul>	.04
Bridge replacement projects, Locals, & Secondary Roads	Statewide	.04 or .06 <i>Choose table that fits characteristics of area</i>

(1) Refers to the particular design superelevation table shown in the 2001 AASHTO "Green Book" (pages 156 to 165) that the designer should use.

(2) Don't use in locations susceptible to icy conditions.

Bridges - it is desirable to use a degree of curve that the superelevation will not exceed 0.06 on any bridge.