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Inter-Departmental Memorandum

Date: October 22, 2007
To: Design Team Leaders
From: Amy Mood
Design Section Engineer
Subject: Sight Flares

The sight flare criteria table on page 6-29 of the Roadway Design Manual has been revised. Please see revised table below. The values for "S" in the revised table are the safe stopping sight distances from the 2004 Green Book.

Design Speed (mph)	S (ft)
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730

As part of the design of a sight flare, the elevation of the ground along the sight line should be checked to make sure the ground is not obstructing the line of sight. If it is, the ground should be excavated to at least one foot below the line of sight and additional ROW should be acquired for the backslope. Attached is the sight flare standard drawing showing additional ROW for a cut section. This check has been added to the Quality Control Checklist.



Also attached is an example intersection with cross-sections. To determine the maximum allowable elevation along the sight line equate the ratio of the distances to the ratio of the elevation changes. See an example calculation on the attached sheet. The results of the calculations for one quadrant of the example intersection are below. The cross-sections show the sight line and cut required for these elevations.

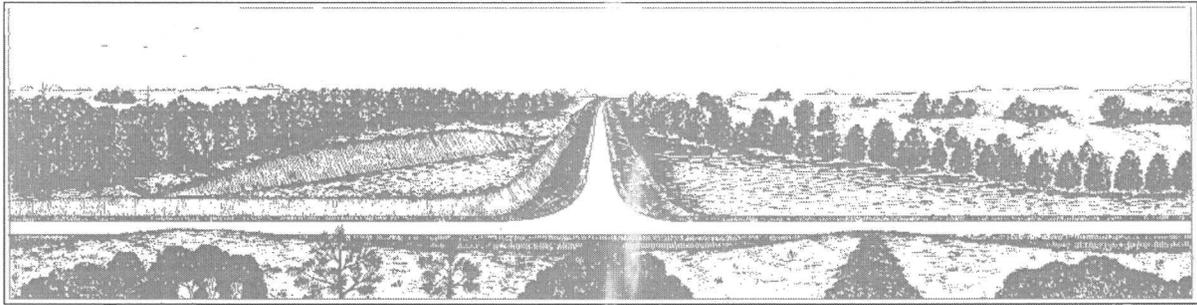
<u>Station</u>	<u>Maximum Allowable Elev.</u>
348+00	213.42
349+00	213.65
350+00	213.88
351+00	214.11

Three different ways of setting no-access ROW for one leg of the example intersection are attached. The desired design carries the no-access ROW to where the sight line crosses the edge of pavement. The minimum design stops the no-access ROW where the ROW line would intersect the sight line. The permissible design stops the no-access ROW somewhere in between the desired design and the minimum design. Each intersection should be evaluated on a case-by-case basis to determine which treatment to use.

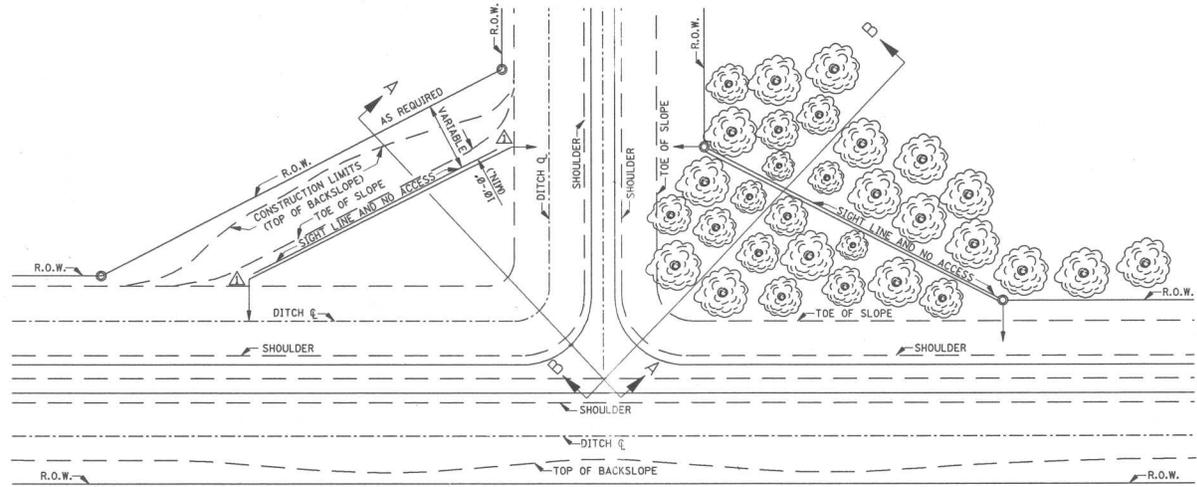
No changes to previously designed intersections will be required.

Attachments

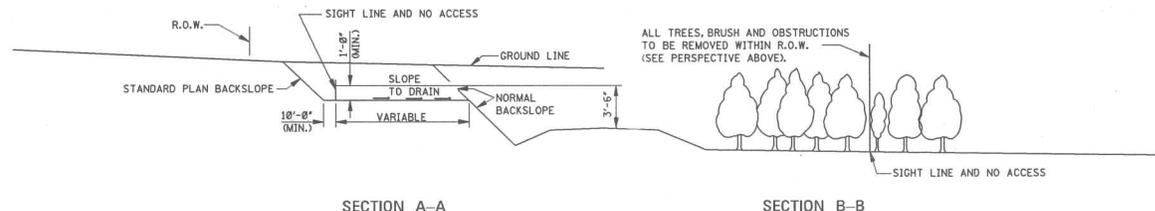
pc: Roadway Design Division Engineer (Purvis)
Assistant Roadway Design Division Engineer (Reese)
Special Projects Engineer (Boteler)
Quality Control Engineer (Reeves)
Roadway Design Section Engineers
Active Consultants
FHWA



PERSPECTIVE OF TYPICAL DAYLIGHTING AT INTERSECTION IN CUT AND FILL



PLAN



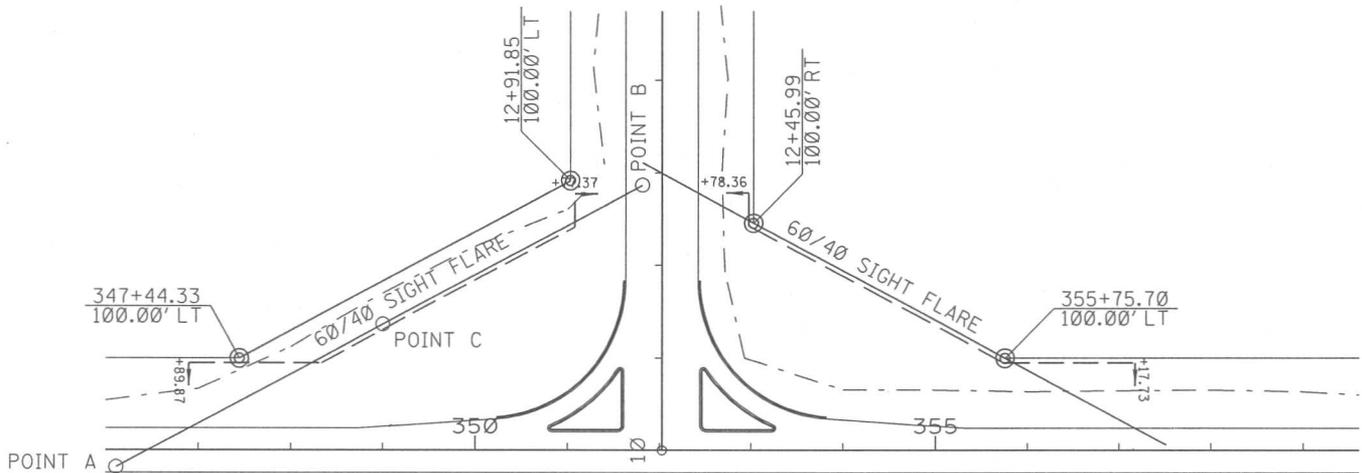
SECTION A-A

SECTION B-B

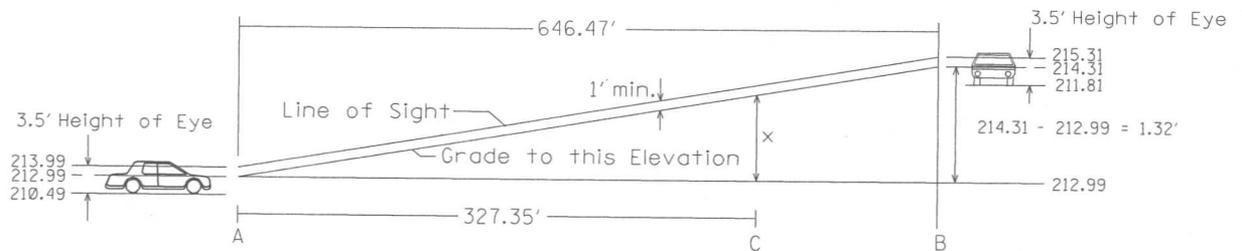
DESIGNED	BY	MISSISSIPPI DEPARTMENT OF TRANSPORTATION
CHECKED	BY	ROADWAY DESIGN DIVISION
DATE	REVISION	STANDARD PLAN
SIGHT FLARE		
WORKING NUMBER	SF-1	
SHEET NUMBER	273	
ISSUE DATE:	OCTOBER 1, 1998	



EXAMPLE



CALCULATIONS FOR STATION 349+00:

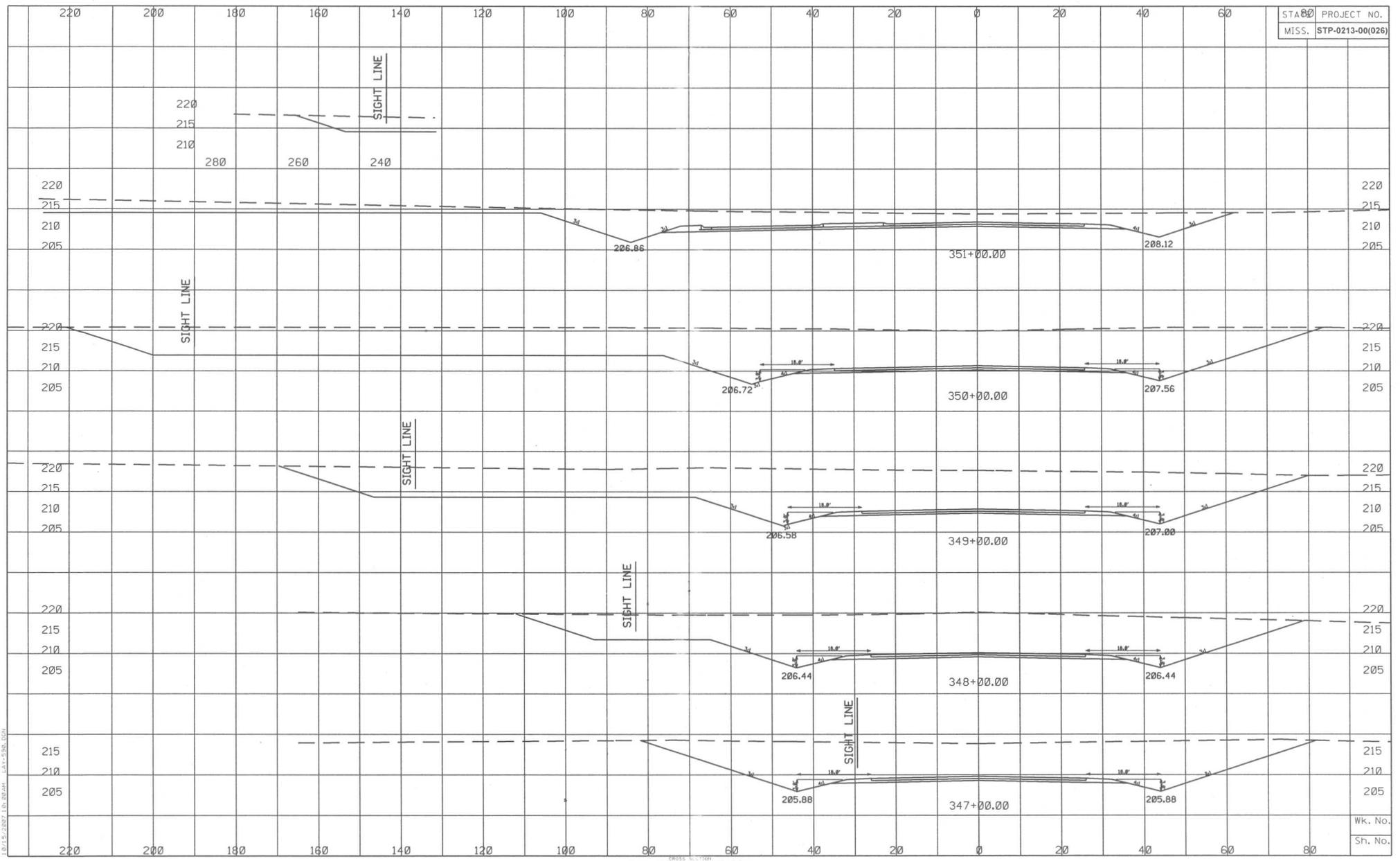


$$\frac{\text{ELEV. DIFFERENCE BETWEEN A \& C}}{\text{ELEV. DIFFERENCE BETWEEN A \& B}} = \frac{\text{DIST. FROM A TO C}}{\text{DIST. FROM A TO B}}$$

$$\frac{x}{214.31 - 212.99} = \frac{327.35}{646.47}$$

$$x = 0.69'$$

$$\text{ELEV}_C = 212.99 + x = 213.66$$



10/15/2007 10:20 AM LA+596.DGN

