

SUPERELEVATION STANDARD

S.C. STATE HIGHWAY DEPT.
COLUMBIA

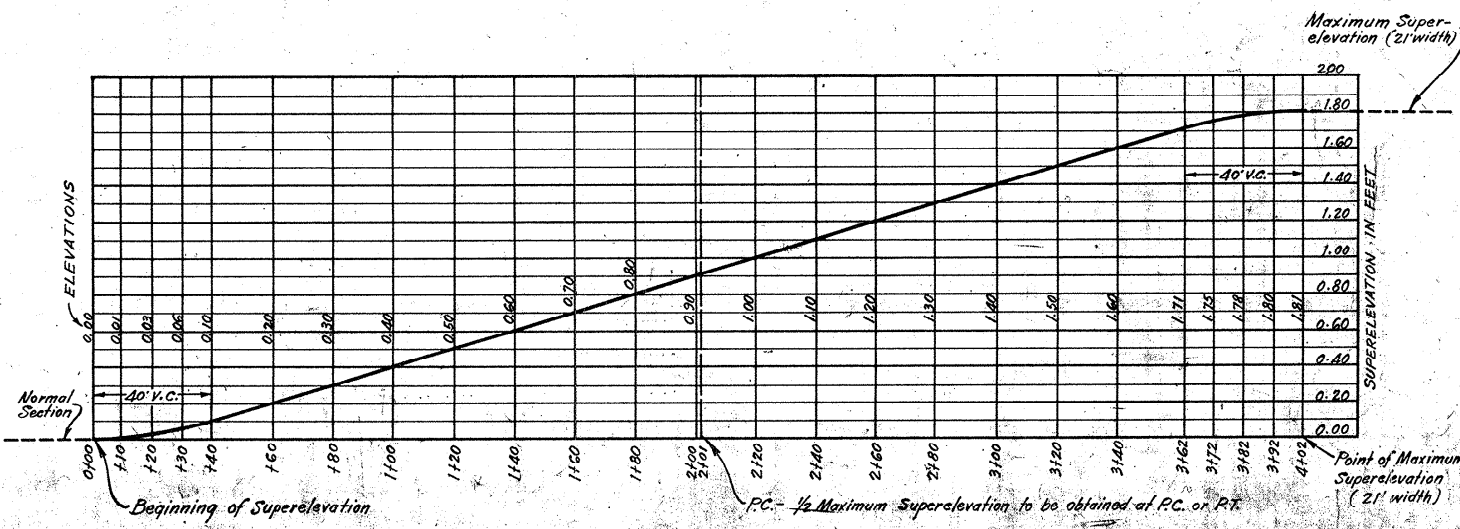
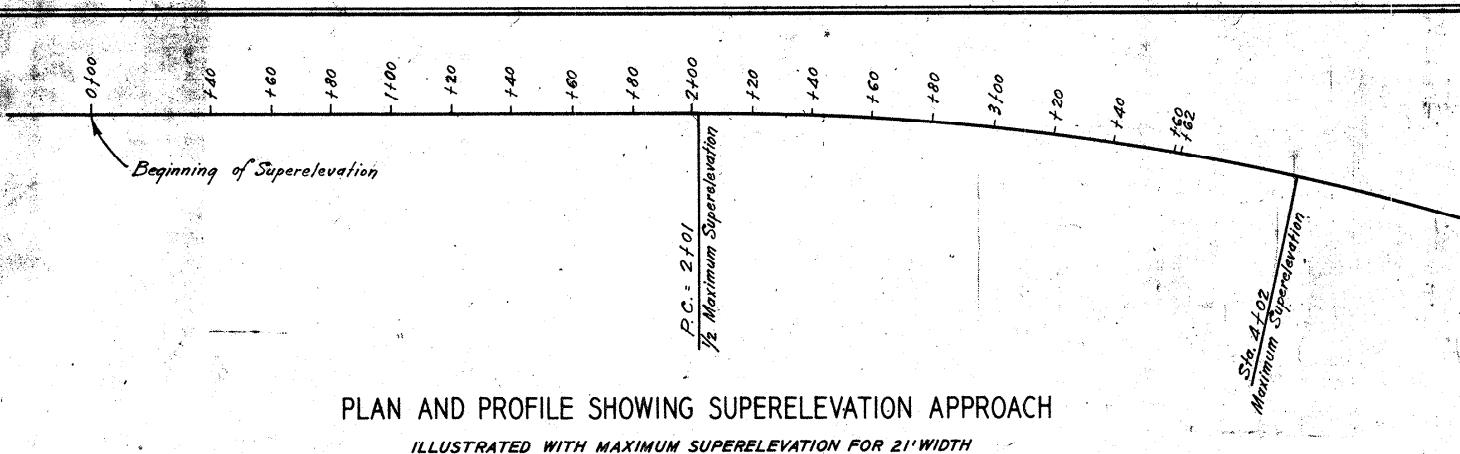
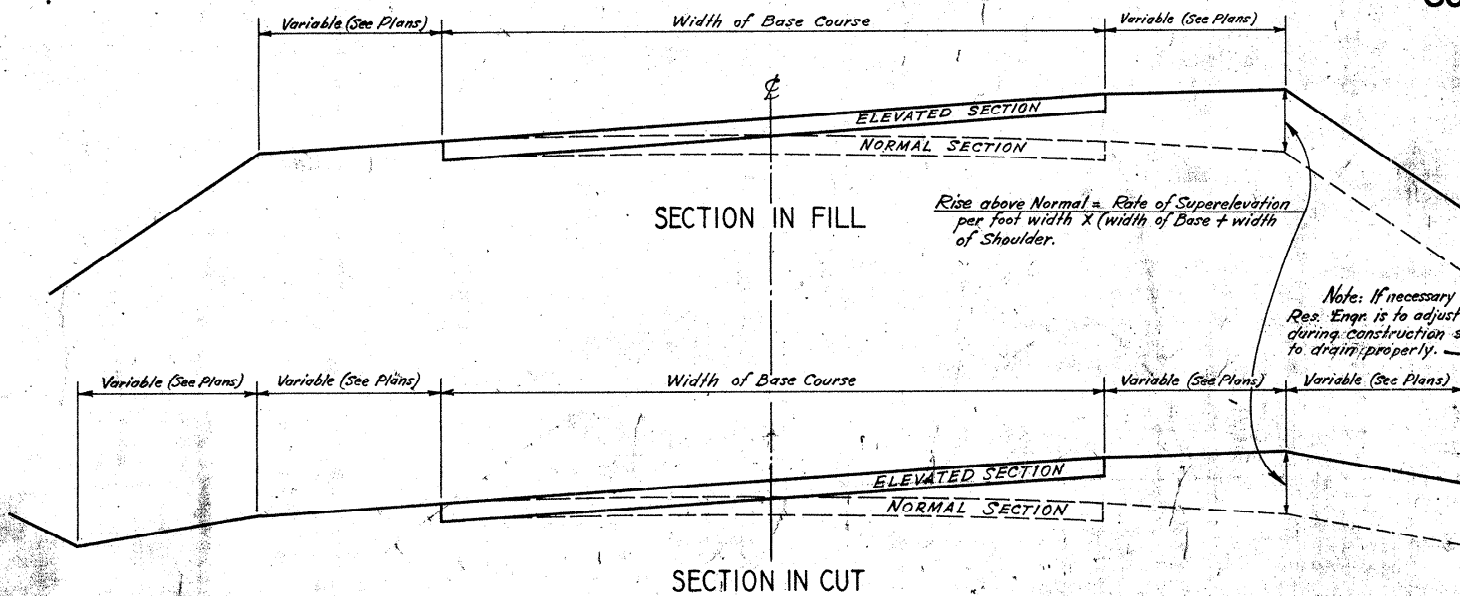
Fed. Road Dist. No.	State	County	Docket No.	Route No.	Sheet No.	Total Sheets
3	S.C.	HORRY	26256	904	3	68

SUPERELEVATION FORMULA:

$$E = 0.067 \frac{S^2}{R}$$

E = SUPERELEVATION IN FEET
S = SPEED IN MILES PER HOUR
R = RADIUS OF CURVE IN FEET

NOTES: All curves are to be superelevated to the nearest thirty (30') minutes according to table.
In any case where conditions do not permit an approach as long as shown on this sheet, the Resident Engineer is to adjust same to meet the conditions.
Where unusual conditions make it desirable, superlevation may be obtained by revolving the surface about the centerline instead of the inside edge, the amount of superlevation to be the same as shown in the table.
For all types of surfacing the roadway crown shall decrease gradually from the point where superlevation begins, reaching a flat section 80 ft. from the beginning S.E. toward the curve. The crown in subgrade shall be eliminated to conform to the finished surfacing.



SUPERELEVATION FOR DESIGN SPEED OF 65 M.P.H. (BASED ON S = 50 M.P.H. IN FORMULA)

DEGREE OF CURVE	RADIUS OF CURVE	SUPERELEV. IN FT. PER FT. WIDTH	TOTAL SUPERELEVATION - FT.			LENGTH OF APPROACH - FT.		
			21' WIDTH	23' WIDTH	25' WIDTH	21' WIDTH	23' WIDTH	25' WIDTH
0°-30'	11,459.19	0.014	0.29	0.32	0.35	98	104	110
1°-00'	5729.65	0.029	0.61	0.67	0.73	162	174	186
1°-30'	3819.83	0.043	0.90	0.99	1.08	220	238	256
2°-00'	2864.93	0.057	1.20	1.31	1.43	280	302	326
2°-30'	2292.01	0.072	1.51	1.66	1.80	342	372	400
3°-00'	1910.08	0.086	1.81	1.98	2.15	402	436	470

TABLE SHOWING AMOUNT OF SUPERELEVATION AT ANY POINT ON APPROACH TO CURVE

DEGREE OF CURVE	RADIUS OF CURVE	SUPERELEV. IN FT. PER FT. WIDTH	TOTAL SUPERELEVATION - FT.			LENGTH OF APPROACH - FT.		
			21' WIDTH	23' WIDTH	25' WIDTH	21' WIDTH	23' WIDTH	25' WIDTH
0°-30'	11,459.19	0.014	0.29	0.32	0.35	98	104	110
1°-00'	5729.65	0.029	0.61	0.67	0.73	162	174	186
1°-30'	3819.83	0.043	0.90	0.99	1.08	220	238	256
2°-00'	2864.93	0.057	1.20	1.31	1.43	280	302	326
2°-30'	2292.01	0.072	1.51	1.66	1.80	342	372	400
3°-00'	1910.08	0.086	1.81	1.98	2.15	402	436	470

SUPERELEVATION FOR DESIGN SPEED OF 45 M.P.H. (BASED ON S = 35 M.P.H. IN FORMULA)

DEGREE OF CURVE	RADIUS OF CURVE	SUPERELEV. IN FT. PER FT. WIDTH	TOTAL SUPERELEVATION - FT.			LENGTH OF APPROACH - FT.		
			19' WIDTH	21' WIDTH	23' WIDTH	19' WIDTH	21' WIDTH	23' WIDTH
1°-00'	5729.65	0.014	0.27	0.29	0.32	94	98	104
1°-30'	3819.83	0.021	0.40	0.44	0.48	120	128	136
2°-00'	2864.93	0.029	0.55	0.61	0.67	150	162	174
2°-30'	2292.01	0.036	0.68	0.76	0.83	176	192	206
3°-00'	1910.08	0.043	0.82	0.90	0.99	204	220	238
3°-30'	1637.28	0.050	0.95	1.05	1.15	230	250	270
4°-00'	1432.69	0.057	1.08	1.20	1.31	256	280	302
4°-30'	1273.57	0.065	1.24	1.37	1.50	288	314	340
5°-00'	1146.28	0.072	1.37	1.51	1.66	314	342	372
5°-30'	1042.14	0.079	1.50	1.66	1.82	340	372	404
6°-00'	955.37	0.086	1.63	1.81	1.98	366	402	436

TABLE SHOWING AMOUNT OF SUPERELEVATION AT ANY POINT ON APPROACH TO CURVE

DEGREE OF CURVE	RADIUS OF CURVE	SUPERELEV. IN FT. PER FT. WIDTH	TOTAL SUPERELEVATION - FT.			LENGTH OF APPROACH - FT.		
			19' WIDTH	21' WIDTH	23' WIDTH	19' WIDTH	21' WIDTH	23' WIDTH
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1°-30'	3819.83	0.021	0.40	0.44	0.48	120	128	136
2°-00'	2864.93	0.029	0.55	0.61	0.67	150	162	174
2°-30'	2292.01	0.036	0.68	0.76	0.83	176	192	206
3°-00'	1910.08	0.043	0.82	0.90	0.99	204	220	238
3°-30'	1637.28	0.050	0.95	1.05	1.15	230	250	270
4°-00'	1432.69	0.057	1.08	1.20	1.31	256	280	302
4°-30'	1273.57	0.065	1.24	1.37	1.50	288	314	340
5°-00'	1146.28	0.072	1.37	1.51	1.66	314	342	372
5°-30'	1042.14	0.079	1.50	1.66	1.82	340	372	404
6°-00'	955.37	0.086	1.63	1.81	1.98	366	402	436

"S.E." REVISED