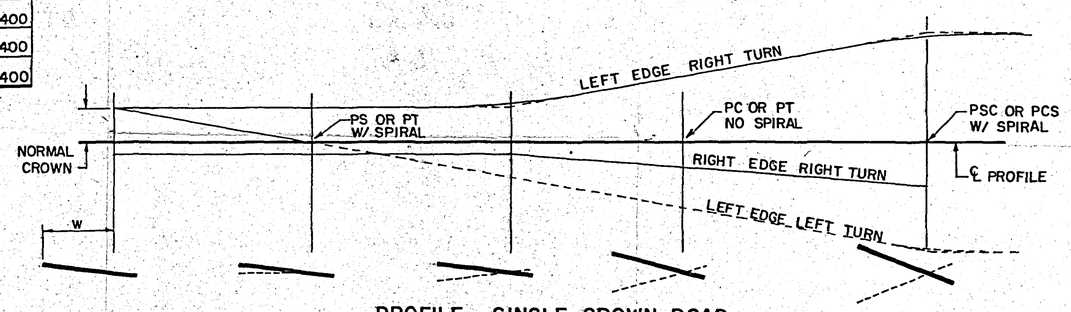
SUPERELEVATION MINIMUM TRANSITION LENGTH

V=30 MPH						V=40 MPH						V=50 MPH						V=60 MPH						V=70 MPH						
D	R	E	W			D	E	W				D	E	W				D	E	W				D	E	W				
			20	30	40			20	30	40				20	30	40				20	30	40	50			20	30	40	50	60
0 15'	22918	NC	0	0	0	0 15'	NC	0	0	0		0 15'	NC	0	0	0		0 15'	NC	200	200	200	200	0 15'	RC	200	200	200	200	300
0 30'	11459	NC	0	0	0	0 30'	NC	0	0	0		0 30'	RC	150	150	0		0 30'	RC	200	200	200	200	0 30'	RC	200	200	200	250	300
0 45'	7639	NC	0	0	0	0 45'	RC	150	150	150		0 45'	RC	150	150	150		0 45'	RC	200	200	200	200	0 45'	.021	200	200	200	250	300
1 00'	5730	NC	0	0	0	1 00'	RC	150	150	150		1 00'	RC	150	150	150		1 00'	.023	200	200	200	250	1 00'	.028	200	200	250	350	400
1 30'	3820	RC	100	100	150	1 30'	RC	150	150	150		1 30'	.025	150	150	150		1 30'	.033	200	200	300	350	1 30'	.040	200	300	400	500	600
2 00'	2865	RC	100	100	150	2 00'	.023	150	150	150		2 00'	.031	150	200	200		2 00'	.041	200	250	350	450	2 00'	.050	250	400	500	600	700
2 30'	2292	RC	100	100	150	2 30'	.028	150	150	200		2 30'	.037	150	200	300		2 30'	.046	200	300	400	500	2 30'	.056	300	450	550	700	800
3 00'	1910	.022	100	150	150	3 00'	.032	150	150	250		3 00'	.042	150	250	350		3 00'	.053	250	350	450	600	3 00'	.060	300	450	600	750	900
3 30'	1637	.025	100	150	200	3 30'	.036	150	200	250		3 30'	.046	200	300	400		3 30'	.056	250	350	500	600	3 18'	.060	300	450	600	750	900
4 00'	1432	.027	100	150	200	4 00'	.039	150	200	300		4 00'	.050	200	300	400		4 00'	.059	250	400	500	650							
5 00'	1146	.032	150	200	250	5 00'	.045	200	250	350		5 00'	.056	250	350	450		4 36'	.060	250	400	500	650							
6 00'	955	.036	150	200	300	6 00'	.049	200	250	350		6 00'	.059	250	350	450														
7 00'	819	.040	150	250	300	7 00'	.053	200	300	350		6 54'	.060	300	350	500														
8 00'	716	.043	150	250	350	8 00'	.056	200	300	400																				
9 00'	637	.045	200	250	350	9 00'	.058	200	300	400																				
10 00'	573	.048	200	300	400	10 00'	.059	200	300	400																				
11 00'	521	.050	200	300	400	11 00'	.060	200	300	400																				
12 00'	477	.052	200	300	400	11 20'	.060	200	300	400																				
13 00'	441	.073	200	350	400																									
14 00'	409	.055	200	350	450																									
16 00'	358	.057	250	350	450																									
18 00'	318	.059	250	350	450																									
20 00'	286	.060	250	350	450																									
21 00'	273	.060	250	350	450																									

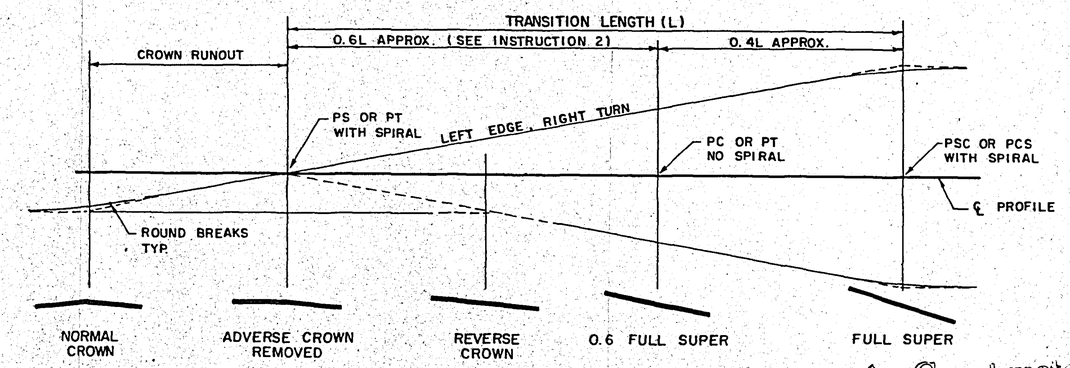
V - DESIGN SPEED.
D - DEGREE OF CURVATURE
R - RADIUS OF CURVE FEET.
E - SUPERELEVATION FOOT PER FOOT.
W - CROSS SECTIONAL DISTANCE IN FEET FROM AXIS OF ROTATION (NORMALLY THE CONTROL LINE) TO THE OUTER EDGE OF THE SHOULDER. USE THE GREATER SIDE AND ROUND UP TO A MULTIPLE OF 10.
L = TRANSITION LENGTH
NC = NORMAL CROWN
RC = REMOVE ADVERSE CROWN AND SUPERELEVATE AT NORMAL CROWN.

INSTRUCTIONS

1. USE SPIRALS WITH CURVES THAT FALL BELOW THE HEAVY LINE IN TABLE, DO NOT USE SPIRALS ON LOW VOLUME ROADS, FRONTAGE ROADS OR RAMPS REGARDLESS OF SUPER ELEVATION. IF SPIRALS ARE USED, THE SPIRAL LENGTH SHALL BE THE TRANSITION LENGTH.
2. ADJUST THE 0.6L AND 0.4L DIMENSIONS (SEE PROFILE SKETCH) SO THAT THE BEGIN AND END POINTS OF THE TRANSITION FALL ON EVEN OR HALF STATIONS. MAKE CROWN RUNOUT APPROX. 4 W ADJUSTED TO A MULTIPLE OF 50' WHERE W IS THE VALUE DEFINED IN THE LEGEND.
3. CHECK FOR DRAINAGE IN THE ROADWAY WHERE THE CROSS SLOPE IS ZERO AND IN SIDE DITCHES.
4. THE LAST LINE OF EACH SECTION OF THE TABLE SHOWS MAXIMUM ALLOWABLE CURVATURE FOR THE GIVEN SPEED.
5. PLACE THE FOLLOWING INFORMATION CONSTRUCTION PLANS.
   RATE OF SUPPERELEVATION
   BEGIN AND END OF CROWN RUNOUT
   BEGIN AND END OF TRANSITION IF SPIRALS ARE NOT USED.



PROFILE - SINGLE CROWN ROAD



PROFILE - DOUBLE CROWN ROAD

PAVEMENT WIDENING

RADIUS ON INNER EDGE OF PAVEMENT	PAVEMENT WIDENING / FEET	
	1-LANE 1-WAY TURNING RDWY 14' PAVEMENT	2-LANE 2-WAY TURNING RDWY 24' PAVEMENT
50	6	11
75	4	8
100	3	6
150	2	5
200	2	3
300	1	2
400	1	2
500	1	1
TANGENT	0	0

CURVE WIDENING SHALL BE APPLIED TO THE INSIDE EDGE OF THE PAVEMENT WITH A SMOOTH TRANSITION EXTENDING THE SAME DISTANCE AS SUPERELEVATION RUNOFF.

NO WIDENING REQUIRED FOR 12' THROUGH TRAFFIC LANES WITHIN THE PERMISSIBLE LIMITS OF CURVATURE.

5-1
Addition/0-1-84

10-14-80 R COLUMN UPPER LEFT

UTAH DEPARTMENT OF TRANSPORTATION

SUPERSEDES
EX. 805 1A
" 1B

REVISIONS

Date	Appr.
10-14-80	

SUPERELEVATION AND WIDENING

RECOMMENDED FOR APPROVAL: Shirley W. Mackie — CHAIRMAN STANDARDS COMMITTEE — 4-8 Date 1980
APPROVED: C. V. Hudson — ASSISTANT DIRECTOR — 4-8 1980

STD. DWG. NO. 805-1

As Constructed
Creamer & Noble
CONSULTING ENGINEERS

UTAH POWER & LIGHT COMPANY
DEPARTMENT OF MINING & EXPLORATION
Sheet 20 of 38 — AWB 8/9/84 — Dwg.# CM-10584-DS