

NOTE: The algebraic difference between profile grade for Loop B at (F) and relative profile of Mainline at (H) is 0.38%.

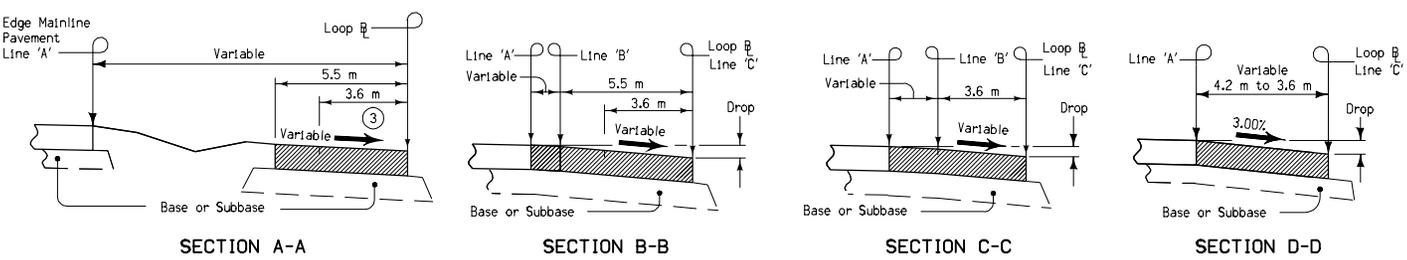
PROFILE

Pt. (J) to Pt. (G)  
 $\Delta = 7^{\circ}24'02.54''$   
 $R = 1200.000 \text{ m}$   
 $T = 77.608 \text{ m}$   
 $L = 155.000 \text{ m}$   
 $E = 2.507 \text{ m}$

TABLE OF OFFSETS AND DROPS FOR 5.5 m LOOP ENTRANCE

Distance From Point (E) Along Line 'A' (m)	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0	
From Line 'A' To Line 'B'	Offset (m)	6.257	5.130	4.088	3.129	2.255	1.464	0.757								
	Slope (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00								
	Drop (mm)	188	154	123	94	68	44	23								
From Line 'B' To Line 'C'	Offset (m)	5.5	5.5	5.5	5.5	5.5	5.5	5.5								
	Slope (%)	4.00	4.00	4.00	4.00	4.00	4.00	3.64								
	Drop (mm)	220	220	220	220	220	220	200								
From Line 'A' To Line 'C'	Offset (m)								5.643	5.101	4.642	4.267	3.975	3.767	3.642	3.600
	Slope (%)								3.21	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	Drop (mm)								181	153	139	128	119	113	109	108
Distance From Point (G) Along Line 'C' (m)	139.676	129.659	119.651	109.651	99.658	89.673	79.694	70.040	60.025	50.014	40.007	30.003	20.001	10.000	0	

NOTE: From (G) to (P) cross slope between Line A and Line C is a constant 3.0%.



GENERAL NOTES:

Loop entrance pavement shall be the same thickness as the mainline pavement. Loop entrance subbase for both HMA and PCC pavement shall be the same thickness as the mainline subbase.

Loop entrance pavement area shown by shaded area is 1130 square meters.

Special shaping of entrance area between lines A and B may be required in order to assure proper drainage.

Refer to Detail Sheet 550-6 for jointing layout.

- ① For header construction details at the beginning of taper, refer to the appropriate Typical 7101 or 7102.
- ② Refer to detail project plans for loop alignment, profile grade and superelevation data.
- ③ The loop pavement cross slope between point (J) and (F) is determined by superelevation rotated about line C. Refer to Standard Road Plan RP-3 and project plans for superelevation transition requirements.

This design is based on 'e' max = 6%.

For location equivalent stations see Tabulation [101-15].  
 Equate Point 'G' (Loop Stationing) to Point 'E' (ML Stationing).

All dimensions given in millimeters unless noted.

<b>METRIC VERSION</b>	<b>Iowa Department of Transportation</b> Highway Division	
	<b>STANDARD ROAD PLAN</b>	<b>RV-9</b>
	REVISION: Equate Point 'G' to Point 'E'.	
	<i>William J. Steen</i> APPROVED BY DESIGN METHODS ENGINEER	
	REVISION NO. 3	REVISION DATE 10-21-03
ACCELERATION TAPER FOR 5.5 m ENTRANCE LOOP		