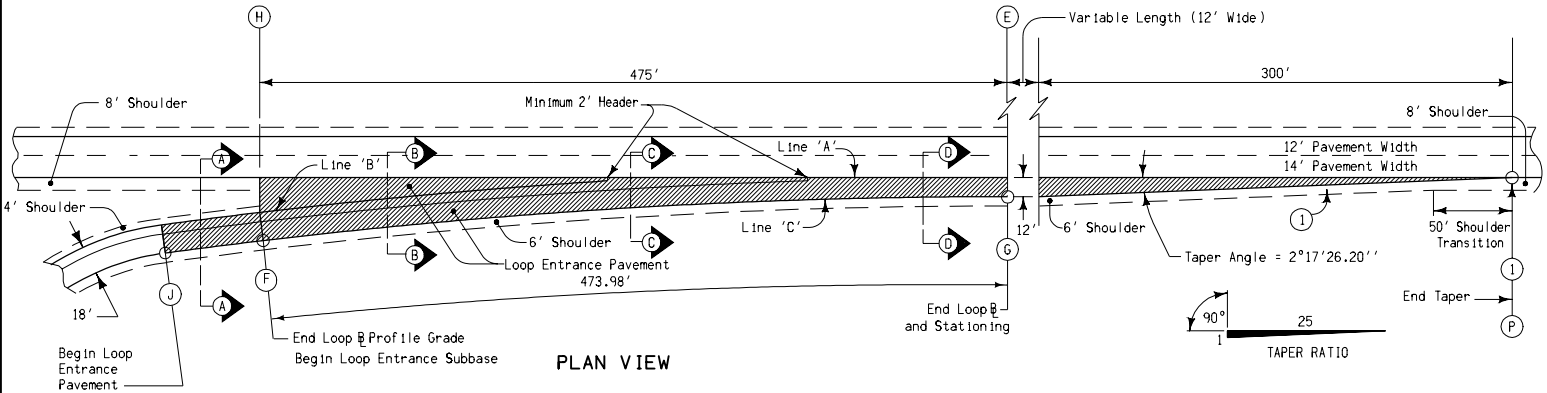
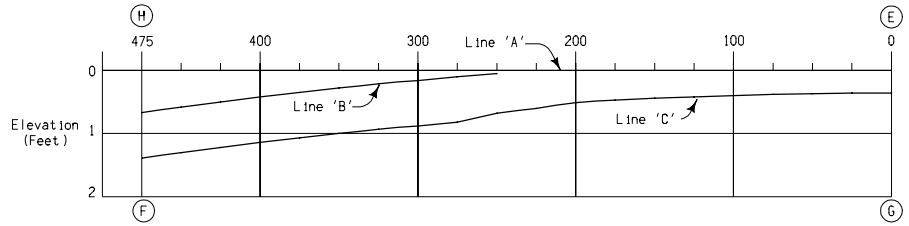


PLAN VIEW



PROFILE

Pt. 'J' to Pt. 'G'
△ = 7°26'54.43"
D = 1°25'56.62"
T = 260.37'
L = 520.00
E = 8.45'
R = 4000.00'

NOTE: The algebraic difference between profile grade for Loop Base Line at (F) and relative profile grade of Mainline at (H) is 0.36%.

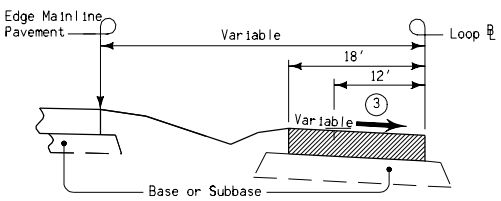
(H) (E)

TABLE OF OFFSETS AND DROPS FOR 18' LOOP TAPER

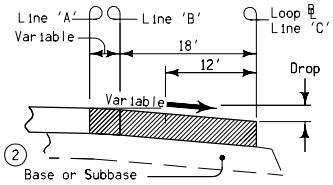
Distance From Point (E) Along Line 'A' (Ft.)		475	450	425	400	375	350	325	300	275	250	225	200	175	150	125	100	75	50	25	0
From Line 'A' To Line 'B'	Offset (Ft.)	22.18	19.28	16.54	13.96	11.54	9.27	7.17	5.22	3.42	1.79										
	Slope (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00										
	Drop (Ft.)	0.67	0.58	0.50	0.42	0.35	0.28	0.21	0.16	0.10	0.05										
From Line 'B' To Line 'C'	Offset (Ft.)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0										
	Slope (%)	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.80										
	Drop (Ft.)	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.68										
From Line 'A' To Line 'C'	Offset (Ft.)											18.30	16.98	15.81	14.80	13.95	13.25	12.70	12.31	12.08	12.00
	Slope (%)											3.30	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	Drop (Ft.)	1.39	1.30	1.22	1.14	1.07	1.00	0.93	0.88	0.82	0.68	0.60	0.51	0.47	0.44	0.42	0.40	0.38	0.37	0.36	0.36
Distance From Point (G) Along Line 'C' (Ft.)		473.98	448.93	423.89	398.87	373.86	348.87	323.90	298.93	273.98	249.04	225.13	200.09	175.06	150.04	125.02	100.01	75.00	50.00	25.00	00.00

(F) (G)

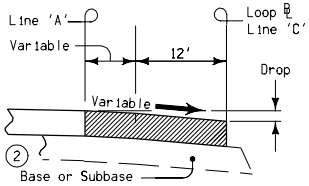
NOTE: From (G) to (P) cross-slope between Line 'A' and Line 'C' is a constant 3%.



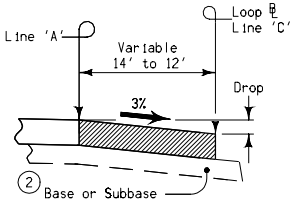
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

(1) For header construction details at end of taper, refer to the appropriate Typical 7101 or 7102.

(2) Loop entrance subbase shall be the same thickness as mainline subbase.

(3) The loop pavement cross slope between (J) and (F) determined by superelevation rotated about line C. Refer to Standard Road Plan RP-3 and plans for superelevation transition requirements.

Loop entrance pavement shall be the same thickness as mainline pavement.

Loop entrance pavement shown by shaded area is 1421 square yards.

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

For jointing layout, see Standard Road Plan RV-11.

This design is based on 100 km/h design speed at "e" max = 6%.

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

Iowa Department of Transportation
Highway Division

STANDARD ROAD PLAN RV-9

REVISION: Change Detail Sheet 550-6 to Standard Road Plan RV-11.

REVISION NO. 4

REVISION DATE 04-19-05

William J. Stein
APPROVED BY DESIGN METHODS ENGINEER

ACCELERATION TAPER FOR 18' ENTRANCE LOOP