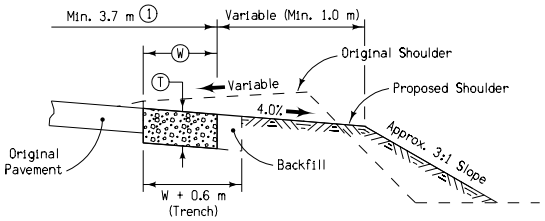

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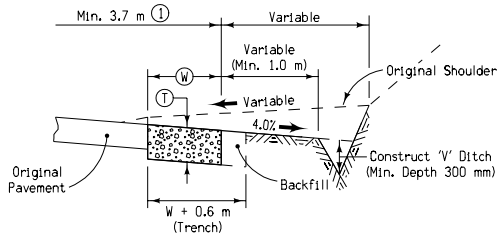

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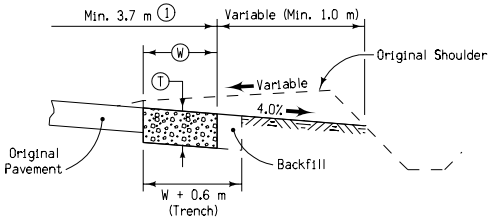

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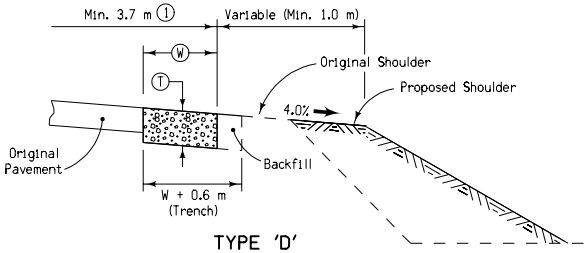
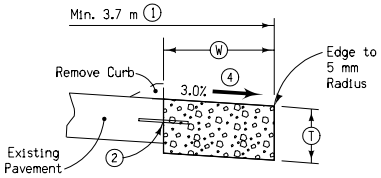
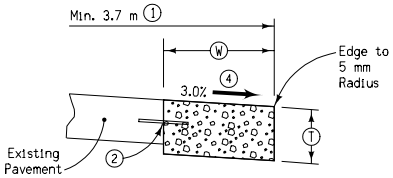


TYPE 'D'

TYPICAL DETAILS OF SHOULDERS FOR PAVEMENT WIDENING



P.C. CONCRETE WIDENING ON
EXISTING PAVEMENT WITH CURB



P.C. CONCRETE WIDENING ON
EXISTING PAVEMENT WITHOUT CURB

TYPICAL DETAILS FOR PAVEMENT WIDENING

GENERAL NOTES:

'W' and 'T' shall be as specified by the individual project plans. Dimensions may vary for superelevated curves or at locations specifically designated by the Engineer.

Joints in the widening unit shall be as described in the specifications and as shown on Standard Road Plans RH–50, RH–51 and RH–52. Contraction joints shall be installed adjacent to all existing joints or at the interval specified on the plans. Existing expansion joint shall be extended through the widening unit and considered incidental to other work on the project.

Shoulders shall be constructed as detailed hereon. Excavation from Type 'A' and 'D' shoulders shall be disposed of in the immediate area. Excavation from Type 'B' and 'C' shoulders shall be hauled to and disposed of in Type 'A' and 'D' shoulder areas, or in areas specifically designated by the Engineer. When directed by the Engineer, surplus excavation shall be disposed of on foreslopes of superelevated curves which will require extra width of roadbed to accommodate future wedge courses.

Special shaping of widening units through bridge approach sections shall be done at the direction of the Engineer. The joint between the widening unit and the end of a bridge shall consist of a 75 millimeter wide joint filled with full depth bituminous resilient filler as specified in Article 4136.03, Paragraph A.

Curb removal details hereon are based on removal by grinding. Where other methods of removal are allowed, they shall be accomplished according to Section 2514 of the Standard Specifications.

Excavation in excess of that indicated shall be considered incidental to other work on the project.

① Minimum surface dimension is based on accommodating 80 millimeters of resurfacing. Where thickness other than 80 millimeters is provided, the surface width should be modified appropriately.

② 'BT–3' placed at mid–height unless otherwise noted.

③ Quantities indicated are for design purposes and may be adjusted at time of construction when so directed by the Engineer. Quantities listed are for two sides per station.

④ For ramps and superelevated curves, the cross–slope of the widening unit shall match the existing pavement.

DESIGN QUANTITIES FOR PAVEMENT WIDENING ③

W m		T 180 mm	190 mm	200 mm	210 mm	220 mm	230 mm	240 mm	250 mm
0.6	Surface Area, m^2	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
	Volume, m^3	21.6	22.8	24.0	25.2	26.4	27.6	28.8	30.0
	Trench Excavation, m^3	43.2	45.6	48.0	50.4	52.8	55.2	57.6	60.0
0.9	Surface Area, m^2	180.0	180.0	180.0	180.0	180.0	180.0	180.0	180.0
	Volume, m^3	32.4	34.2	36.0	37.8	39.6	41.4	43.2	45.0
	Trench Excavation, m^3	54.0	57.0	60.0	63.0	66.0	69.0	72.0	75.0
1.2	Surface Area, m^2	240.0	240.0	240.0	240.0	240.0	240.0	240.0	240.0
	Volume, m^3	43.2	45.6	48.0	50.4	52.8	55.2	57.6	60.0
	Trench Excavation, m^3	64.8	68.4	72.0	75.6	79.2	82.8	86.4	90.0

All dimensions given in millimeters unless noted.

M

Iowa Department of Transportation
Highway Division

METRIC VERSION

STANDARD ROAD PLAN | **RG-1**

REVISION: Include mm in table for pavement thickness (T).

REVISION NO.
14
REVISION DATE
10-02-01

William J. Stein
APPROVED BY DESIGN METHODS ENGINEER

P.C. CONCRETE PAVEMENT
WIDENING