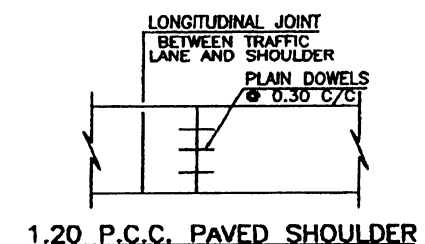
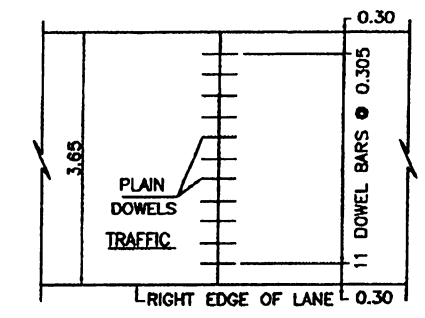


PLAN OF JOINTS, STEEL DOWELS AND STEEL TIE BARS



1.20 P.C.C. PAVED SHOULDER



DETAIL OF STEEL DOWEL SPACING AT 3.65 LANE TRANSVERSE CONTRACTION AND CONSTRUCTION JOINTS

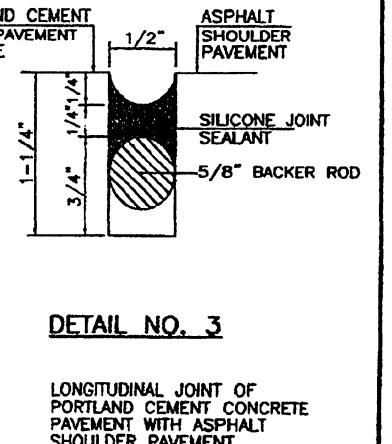
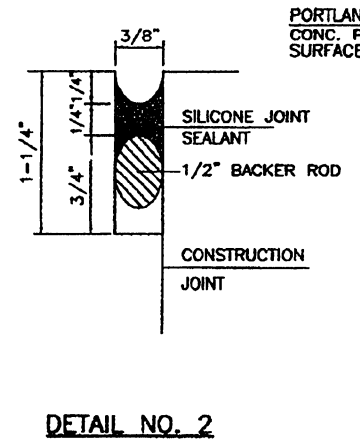
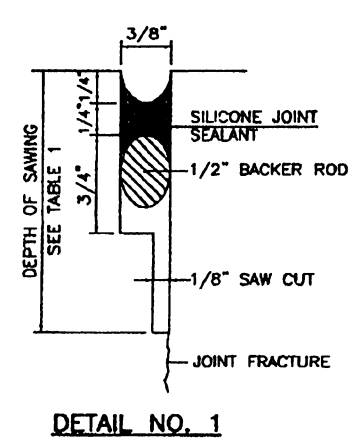


TABLE NO. 1  
STEEL DOWEL (EPOXY COATED, PLAIN OR DEFORMED) AND DEPTH OF JOINTS SAW

PAVEMENT THICKNESS METERS*	DOWEL BAR DIAMETER INCHES	DOWEL LENGTH METERS	DOWEL SPACING METERS	DEPTH OF JOINT SAW CUT METERS (MIN.)
0.200	1-3/8"	0.45	0.305	0.07
0.250	1-1/2"	0.45	0.305	0.08
0.350	1-5/8"	0.45	0.305	0.10

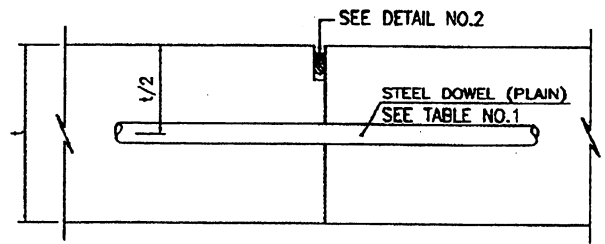
\* - PAVEMENT THICKNESS EQUAL OR LESS THAN TABULATED VALUE.

TABLE NO. 2  
TIE BARS (EPOXY COATED, DEFORMED)

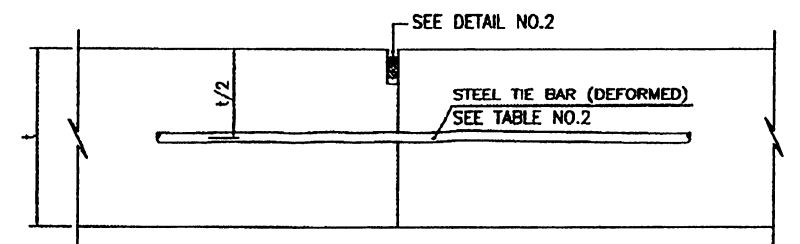
TYPE AND GRADE OF STEEL	WORKING STRESS PSI	EXISTING PAVEMENT THICKNESS METERS*	MINIMUM OVERALL LENGTH INCHES	NO. 5 BARS		
				LANE WIDTH METERS		
				3.05	3.35	3.65
				MAXIMUM SPACING INCHES		
GRADE 60	30,000	0.20	30	48	48	48
BILLET	30,000	0.25	30	48	48	48
STEEL	30,000	0.35	30	48	48	40

\* - PAVEMENT THICKNESS EQUAL OR LESS THAN TABULATED VALUE.

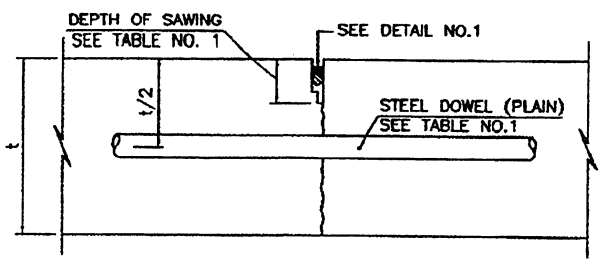
- NOTES:
- 1 - WHEN P.C.C. PAVED SHOULDERS ARE SPECIFIED, THE LEFT INSIDE SHOULDER SHALL BE PAVED FULL WIDTH, INTEGRAL WITH THE MAINLANE PAVEMENT.
  - 2 - UNLESS OTHERWISE SPECIFIED, TRANSVERSE JOINTS SHALL BE SPACED 6.0 FROM EACH OTHER.
  - 3 - DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.



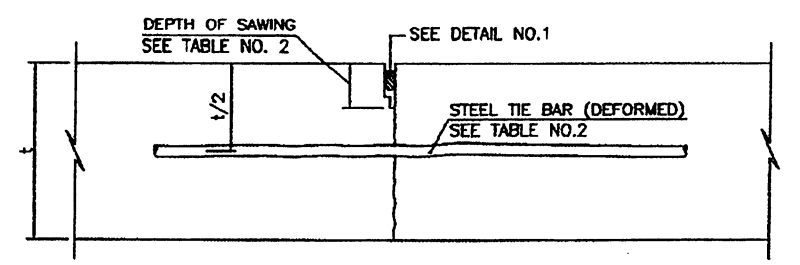
DETAIL OF CONSTRUCTION JOINT AT END OF CONSTRUCTION OPERATION



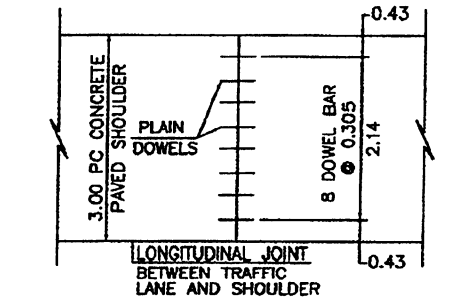
DETAIL OF LONGITUDINAL JOINT TO BE USED WHEN SLABS EQUAL TO OR LESS THAN ONE LANE WIDE ARE PLACED



DETAIL OF SAWED TRANSVERSE CONTRACTION JOINT



DETAIL OF SAWED LONGITUDINAL JOINT TO BE USE WHEN SLABS WIDER THAN ONE LANE ARE PLACED



DETAIL OF STEEL DOWEL SPACING AT 3.00 CONCRETE PAVED SHOULDER TRANSVERSE CONTRACTION AND CONSTRUCTION JOINTS

EFFECTIVE DATE: DECEMBER 1998

COMMONWEALTH OF PUERTO RICO  
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS  
HIGHWAY AND TRANSPORTATION AUTHORITY

**PORTLAND CEMENT CONCRETE PAVEMENT JOINT DETAILS**

RECOMMENDED BY: *[Signature]*  
DESIGN AREA DIRECTOR  
DATE: *Dec. 9, 98*

APPROVED BY: *[Signature]*  
EXECUTIVE DIRECTOR  
DATE: *12-21-98*

APPROVED BY: *[Signature]*  
DIV. ADM. ENVA-PR DIVISION  
DATE: *12-21-98*

DATE	REVISION	BY
12-9-98	NOTES #2 AND #3	LV.

STD. DWG. PCCP 4 OF 6