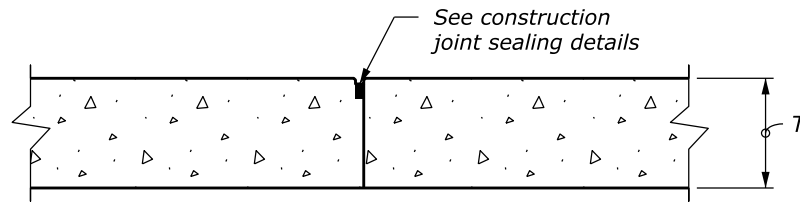
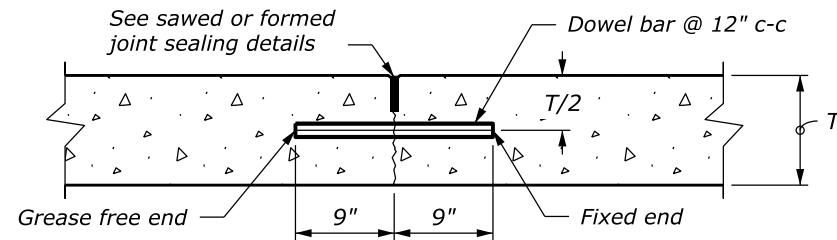


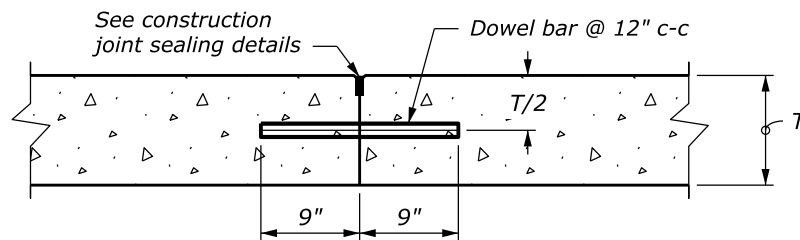
CONTRACTION JOINT
UNDOWELED - TRANSVERSE and
UNTIED - LONGITUDINAL



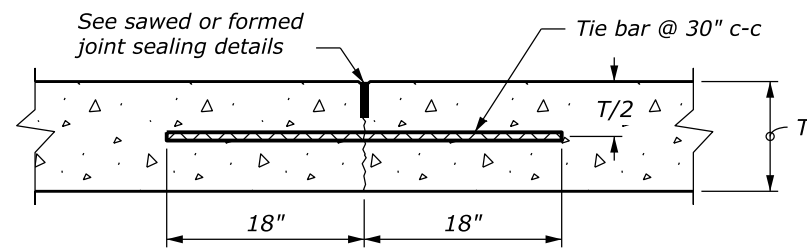
CONSTRUCTION JOINT
PLAIN - TRANSVERSE or LONGITUDINAL



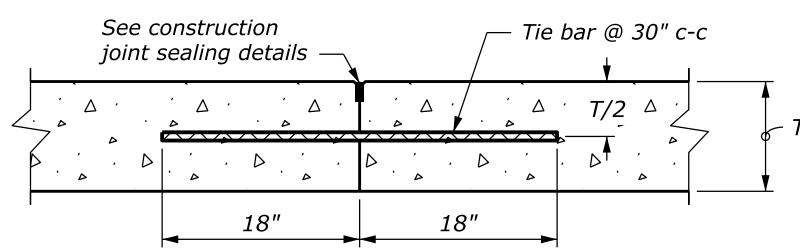
CONTRACTION JOINT
DOWELED - TRANSVERSE



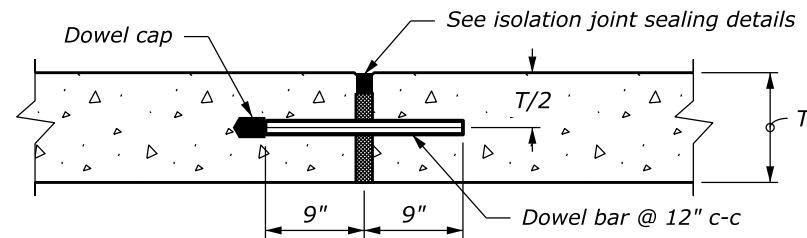
CONSTRUCTION JOINT
DOWEL BUTT - TRANSVERSE



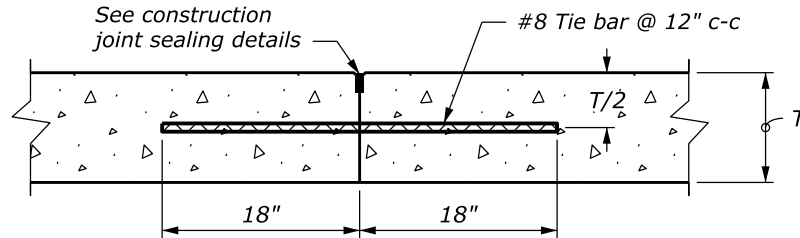
CONTRACTION JOINT
TIED - LONGITUDINAL



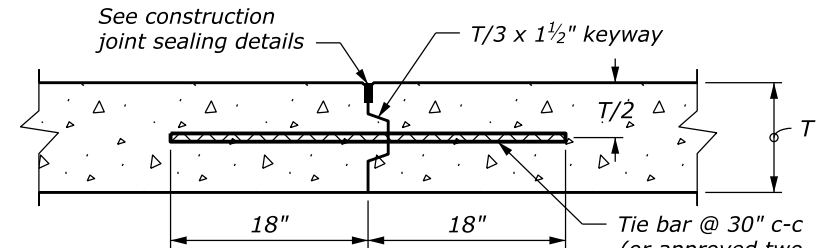
CONSTRUCTION JOINT
TIED BUTT - LONGITUDINAL



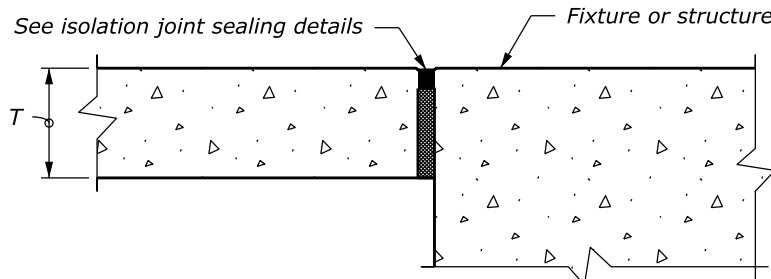
ISOLATION/EXPANSION JOINT
DOWELED - TRANSVERSE



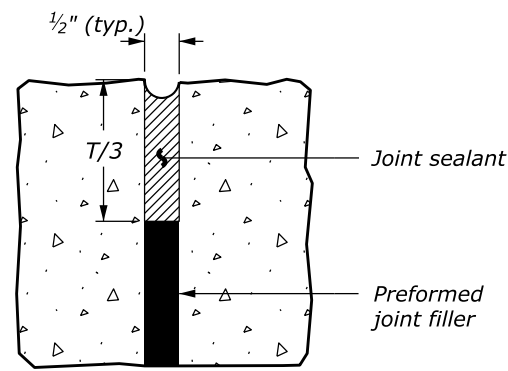
CONSTRUCTION JOINT
TIED BUTT - TRANSVERSE



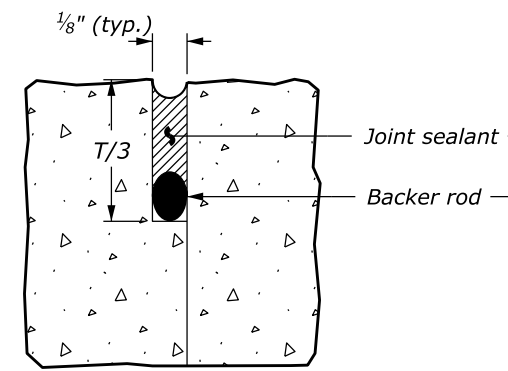
CONSTRUCTION JOINT
KEYWAY - LONGITUDINAL



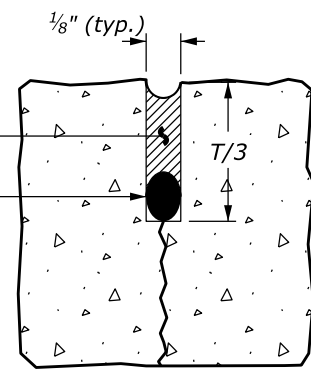
ISOLATION JOINT
UNDOWELED - LONGITUDINAL



ISOLATION JOINT



CONSTRUCTION JOINT



SAWED OR FORMED JOINT

NOTE:

1. Use epoxy-coated material for all tie bars, dowels, and other steel used in the construction of concrete pavement.
2. Deformed reinforcing bars or hook bolts may be used for tie bars.
3. Do not place tie bars within 15 inches of transverse joints.
4. Install isolation joints when abutting a fixed structure. Use expansion joint material extending the full depth and length of the concrete surface.
5. Transverse and longitudinal construction joints are not included in the joint layout plan. Use transverse and longitudinal construction joints sparingly. Submit planned construction joint locations for approval.
6. For construction joints, if tie bars and dowels are not set into concrete during placement, drill and anchor the tie bars and dowels into the existing concrete construction with epoxy resin.
7. Maintain joint sealant shape factor of 1:1; except when silicone sealant is used maintain the width to depth shape factor of 2:1 or as recommended by sealant manufacturer.
8. See Standards 501-1 or 502-1 for reinforcement details.

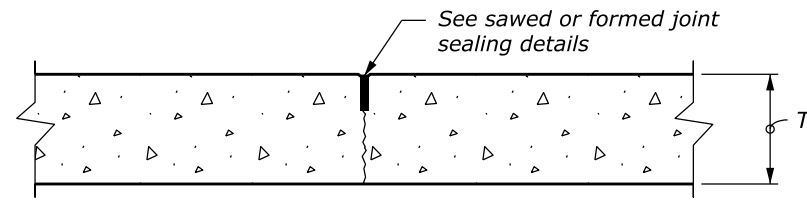
BAR SIZES		
PAVEMENT THICKNESS (T) (in)	TIE BAR	DOWEL BAR DIAMETER (in)
T ≤ 8	#5	1
8 < T ≤ 10	#5	1 1/4
10 < T ≤ 12	#6	1 1/2

MINOR CONCRETE PAVEMENT JOINT SEALING DETAILS

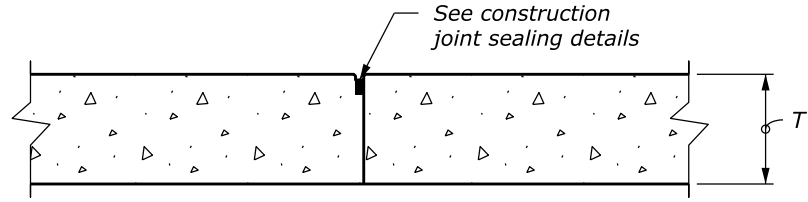
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	FLH STANDARD 501-2
MINOR CONCRETE PAVEMENT JOINTS	SPECIFICATION FP-14; FP-24 APPROVED FOR USE 1/2024

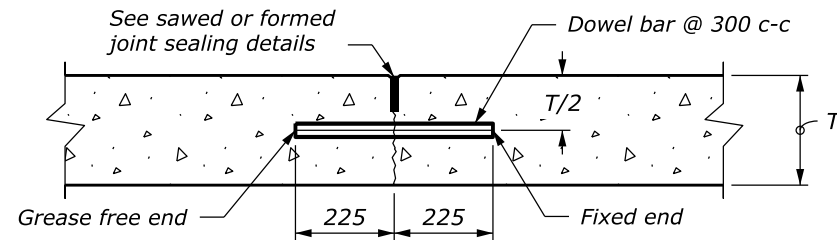
c:\pwwork\02564541\std501-2.dwg [Std 501-2] 28 January 2025 9:49 AM



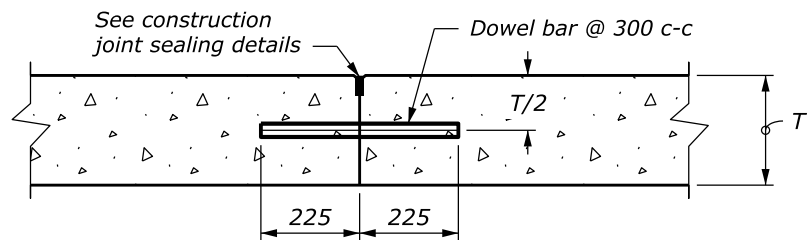
CONTRACTION JOINT
UNDOWELED - TRANSVERSE and
UNTIED - LONGITUDINAL



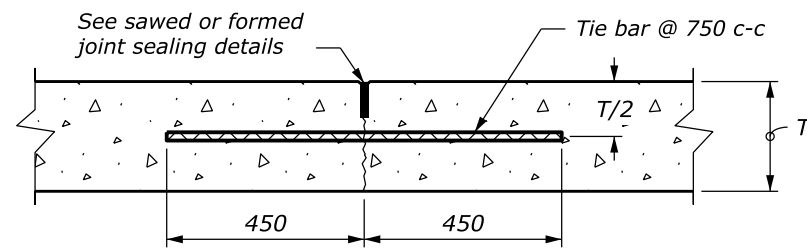
CONSTRUCTION JOINT
PLAIN - TRANSVERSE or LONGITUDINAL



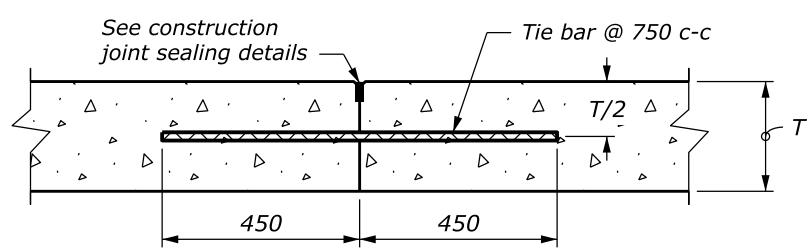
CONTRACTION JOINT
DOWELED - TRANSVERSE



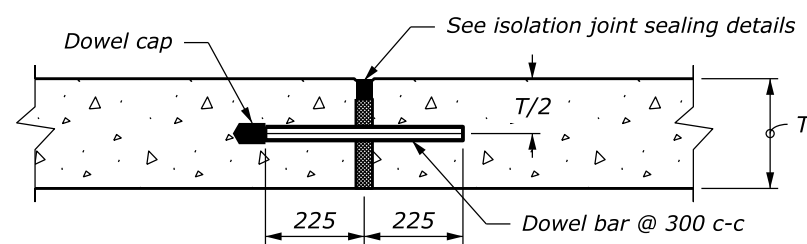
CONSTRUCTION JOINT
DOWEL BUTT - TRANSVERSE



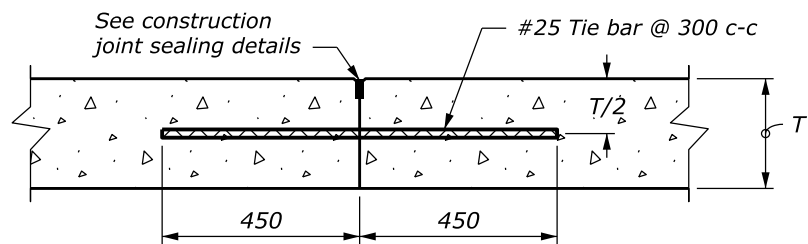
CONTRACTION JOINT
TIED - LONGITUDINAL



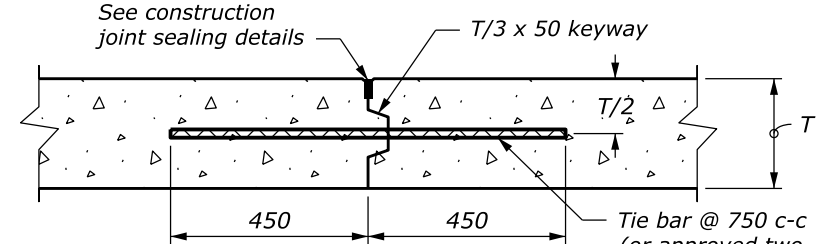
CONSTRUCTION JOINT
TIED BUTT - LONGITUDINAL



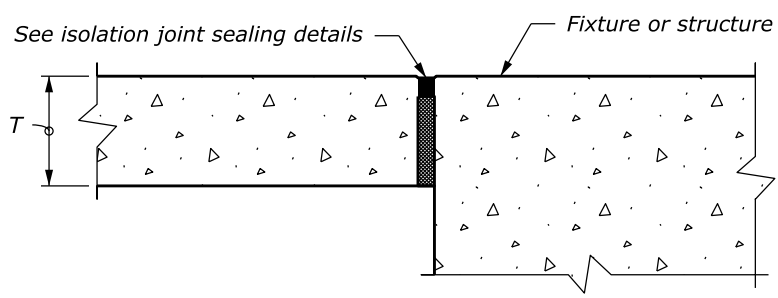
ISOLATION/EXPANSION JOINT
DOWELED - TRANSVERSE



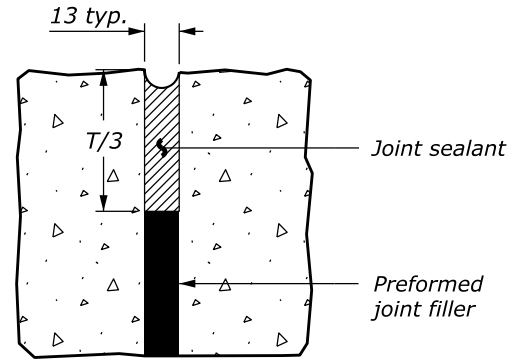
CONSTRUCTION JOINT
TIED BUTT - TRANSVERSE



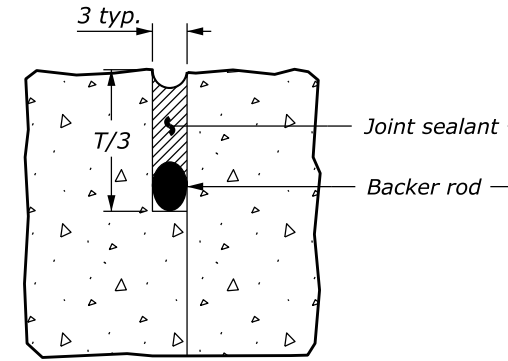
CONSTRUCTION JOINT
KEYWAY - LONGITUDINAL



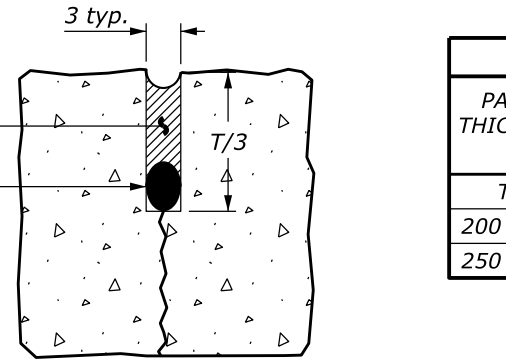
ISOLATION JOINT
UNDOWELED - LONGITUDINAL



ISOLATION JOINT



CONSTRUCTION JOINT



SAWED OR FORMED JOINT

- NOTE:**
1. Use epoxy-coated material for all tie bars, dowels, and other steel used in the construction of concrete pavement.
 2. Deformed reinforcing bars or hook bolts may be used for tie bars.
 3. Do not place tie bars within 380 mm of transverse joints.
 4. Install isolation joints when abutting a fixed structure. Use expansion joint material extending the full depth and length of the concrete surface.
 5. Transverse and longitudinal construction joints are not included in the joint layout plan. Use transverse and longitudinal construction joints sparingly. Submit planned construction joint locations for approval.
 6. For construction joints, if tie bars and dowels are not set into concrete during placement, drill and anchor the tie bars and dowels into the existing concrete construction with epoxy resin.
 7. Maintain joint sealant shape factor of 1:1; except when silicone sealant is used maintain the width to depth shape factor of 2:1 or as recommended by sealant manufacturer.
 8. See Standards M501-1 or M502-1 for reinforcement details.

BAR SIZES		
PAVEMENT THICKNESS (T) (mm)	TIE BAR	DOWEL BAR DIAMETER (mm)
T ≤ 200	16	25
200 < T ≤ 250	16	32
250 < T ≤ 300	19	43

This drawing contains **Metric** units of measure. Dimensions without units are millimeters.

MINOR CONCRETE PAVEMENT JOINT SEALING DETAILS

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	FLH STANDARD M501-2
MINOR CONCRETE PAVEMENT JOINTS	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 1/2024

c:\pwwork\d0256454\Std501-2.dgn [Scri M501-2] 28 January 2025 9:46 AM