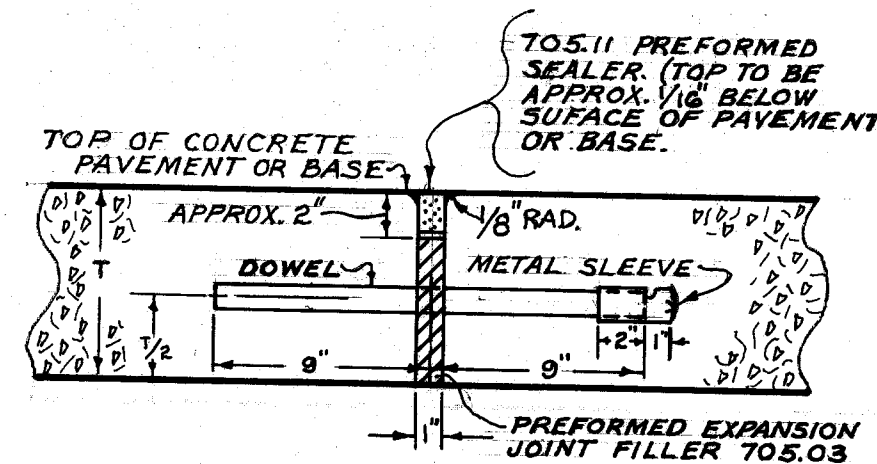
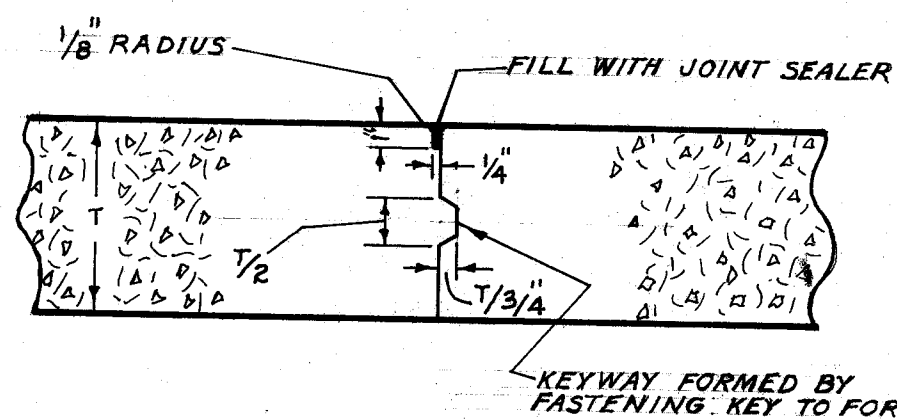


EXPANSION JOINT

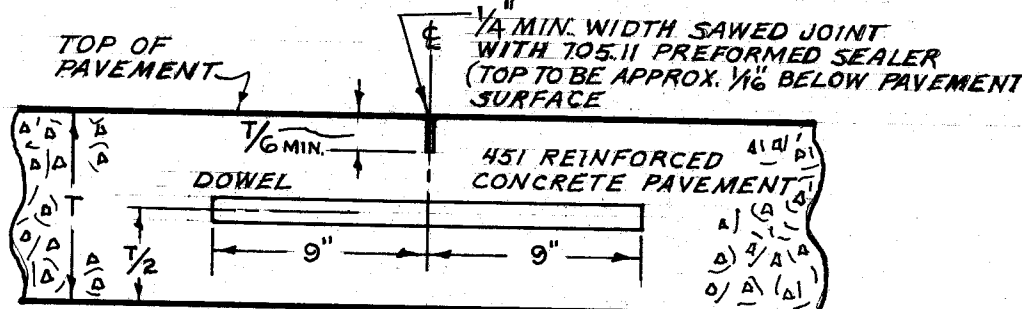


SECTION "A" THROUGH EXPANSION JOINT "A" MAX. SPACING 600'



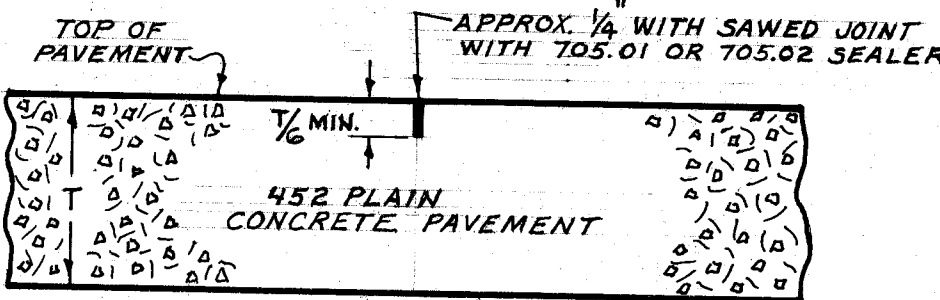
LONGITUDINAL CONSTRUCTION JOINT "B"

CONTRACTION JOINT



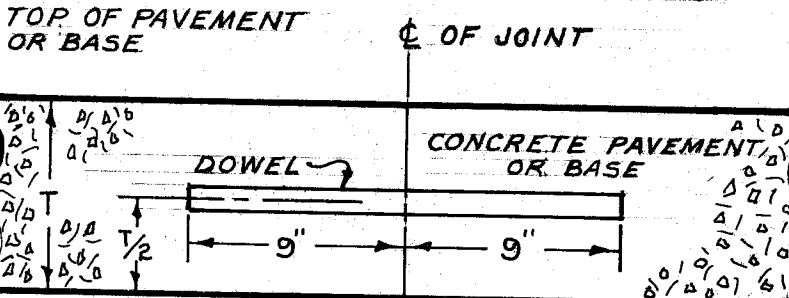
SECTION 451 PAVEMENT "C-1"

CONTRACTION JOINT



SECTION 452 PAVEMENT "C-2"

CONSTRUCTION JOINT



SECTION THROUGH CONSTRUCTION JOINT

PAVEMENT JOINTS

SCALE 1/8" = 1"

GENERAL NOTES

ALL JOINTS SHALL BE CONSTRUCTED NORMAL TO THE CENTERLINE OF THE PAVEMENT LANE UNLESS OTHERWISE DIRECTED. WHERE DOWELS ARE SPECIFIED, THEY SHALL BE ROUND, STRAIGHT STEEL BARS OF THE SIZE INDICATED IN THE FOLLOWING TABLE, AND SHALL BE SHOP COATED WITH A SUITABLE RUST INHIBITOR. DOWELS SHALL BE SPACED AT 12" CENTERS, BEGINNING 6" FROM THE LONGITUDINAL JOINT.

DOWEL SIZE	
THICKNESS OF PAVEMENT	DIAMETER OF DOWEL
8" OR LESS	1"
9"	1 1/8"
10"	1 1/4"
OVER 10"	AS SHOWN ON PLAN

EXPANSION JOINTS: EXPANSION JOINT FILLER SHALL BE PLACED AT 90° TO THE DOWELS, BOTH HORIZONTALLY AND VERTICALLY, AND SHALL BE HELD RIGIDLY IN POSITION BY THE USE OF A METAL CAP WHICH SHALL BE REMOVED AT SUCH A TIME IN THE FINISHING OPERATION THAT WILL ENABLE THE BEST WORKMANSHIP IN FINISHING THE JOINT TO THE DIMENSIONS SPECIFIED. JOINT FILLER SHALL BE CONTINUOUS FOR THE FULL WIDTH OF EACH LANE.

SMOOTH DOWELS SHALL BE USED, AND FREE MOVEMENT SHALL BE PROVIDED BY APPLYING A COATING OF AN OIL SUCH AS S.A.E. 140 OR OTHER APPROVED BOND-BREAKING MATERIAL JUST PRIOR TO PLACING THE CONCRETE. ONE FREE END OF EACH DOWEL SHALL BE EQUIPPED AFTER COATING WITH A METAL SLEEVE APPROXIMATELY 3" LONG DESIGNED WITH CRIMPED END AND OVERLAPPING SEAMS FITTING CLOSELY AROUND THE DOWEL. EACH SLEEVE SHALL BE PROVIDED WITH A DEPRESSION OR INTERIOR PROJECTION TO ACT AS A STOP FOR THE DOWEL SUFFICIENTLY DISTANT FROM THE CRIMPED END TO ALLOW 1" FOR LONGITUDINAL DOWEL MOVEMENT WITH PAVEMENT EXPANSION. IN LIEU OF THIS REQUIREMENT ANY OTHER MEANS MAY BE USED IF APPROVED BY THE DIRECTOR.

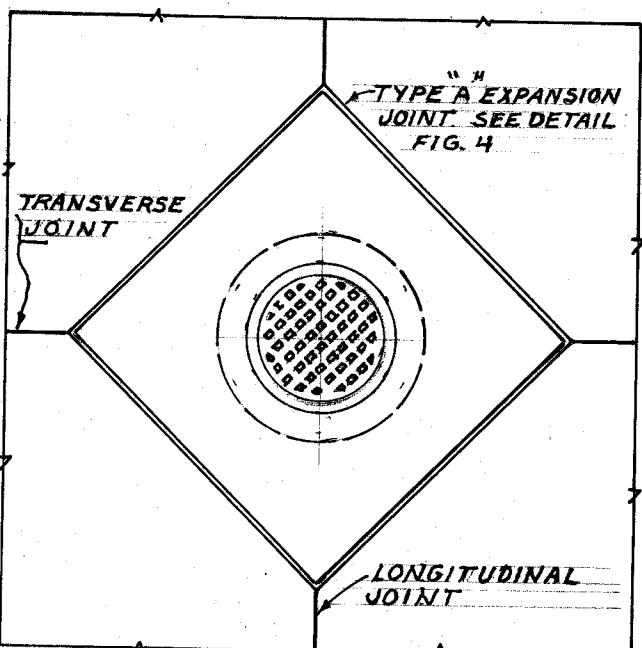
CONTRACTION JOINTS: DOWEL SHALL BE USED IN CONTRACTION JOINTS IN 451 REINFORCED CONCRETE PAVEMENT. THEY SHALL BE SMOOTH BARS AND FREE MOVEMENT SHALL BE PROVIDED BY APPLYING A COATING OF AN OIL SUCH AS S.A.E. 140 OR OTHER "BONDBREAKING" MATERIAL JUST PRIOR TO PLACING THE CONCRETE.

CONTRACTION JOINTS OF THE TYPE SPECIFIED SHALL BE SPACED IN ACCORDANCE WITH THE FOLLOWING TABLE.

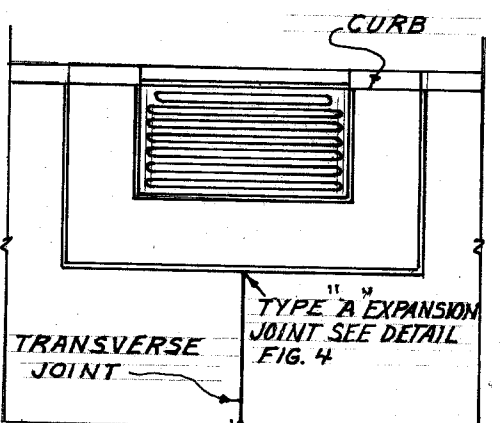
CONTRACTION JOINT SPACING	
TYPES OF PAVEMENT OR BASE	MAXIMUM SPACING BETWEEN JOINTS
451 REINFORCED CONCRETE PAVEMENT	60 LIN. FT.
452 PLAIN CONCRETE PAVEMENT	17 LIN. FT.
305 PLAIN CONCRETE PAVEMENT	17 LIN. FT.

CONSTRUCTION JOINTS: EITHER SMOOTH OR DEFORMED DOWELS SHALL BE USED IN CONSTRUCTION JOINTS IN ALL PORTLAND CEMENT CONCRETE PAVEMENT AND BASE. DOWELS SHALL BE THOROUGHLY CLEANED OF ALL OIL OR OTHER SUBSTANCE THAT WOULD BREAK THE BOND BETWEEN THE STEEL AND CONCRETE. THE JOINT SHALL BE FORMED BY USING A 2" MINIMUM THICKNESS WOOD BULKHEAD OR EQUAL WITH OPENINGS PROVIDED FOR DOWEL BARS SPACED AT INTERVALS NOT TO EXCEED 12" AS DIRECTED. THE BULKHEAD SHALL BE SHAPED TO FIT THE TYPICAL SECTION OF THE PAVEMENT OR BASE AND DOWELS SHALL BE HELD RIGIDLY IN POSITION DURING THE PLACING OF THE CONCRETE. THE CONCRETE SHALL BE CAREFULLY FINISHED SO AS TO PROVIDE A NEAT, TIGHT FITTING JOINT THAT WILL NOT REQUIRE SEALING. CONSTRUCTION JOINTS IN REINFORCED CONCRETE PAVEMENT SHALL NOT BE LOCATED AT A CONTRACTION JOINT, NOR SHALL THEY BE LOCATED CLOSER THAN 10' TO ANY OTHER PARALLEL JOINT. IN PLAIN CONCRETE PAVEMENT OR BASE, THEY SHALL NOT BE LOCATED CLOSER THAN 5' TO ANOTHER PARALLEL JOINT.

JOINT "B" SHALL BE AN ALTERNATE CONSTRUCTION JOINT.



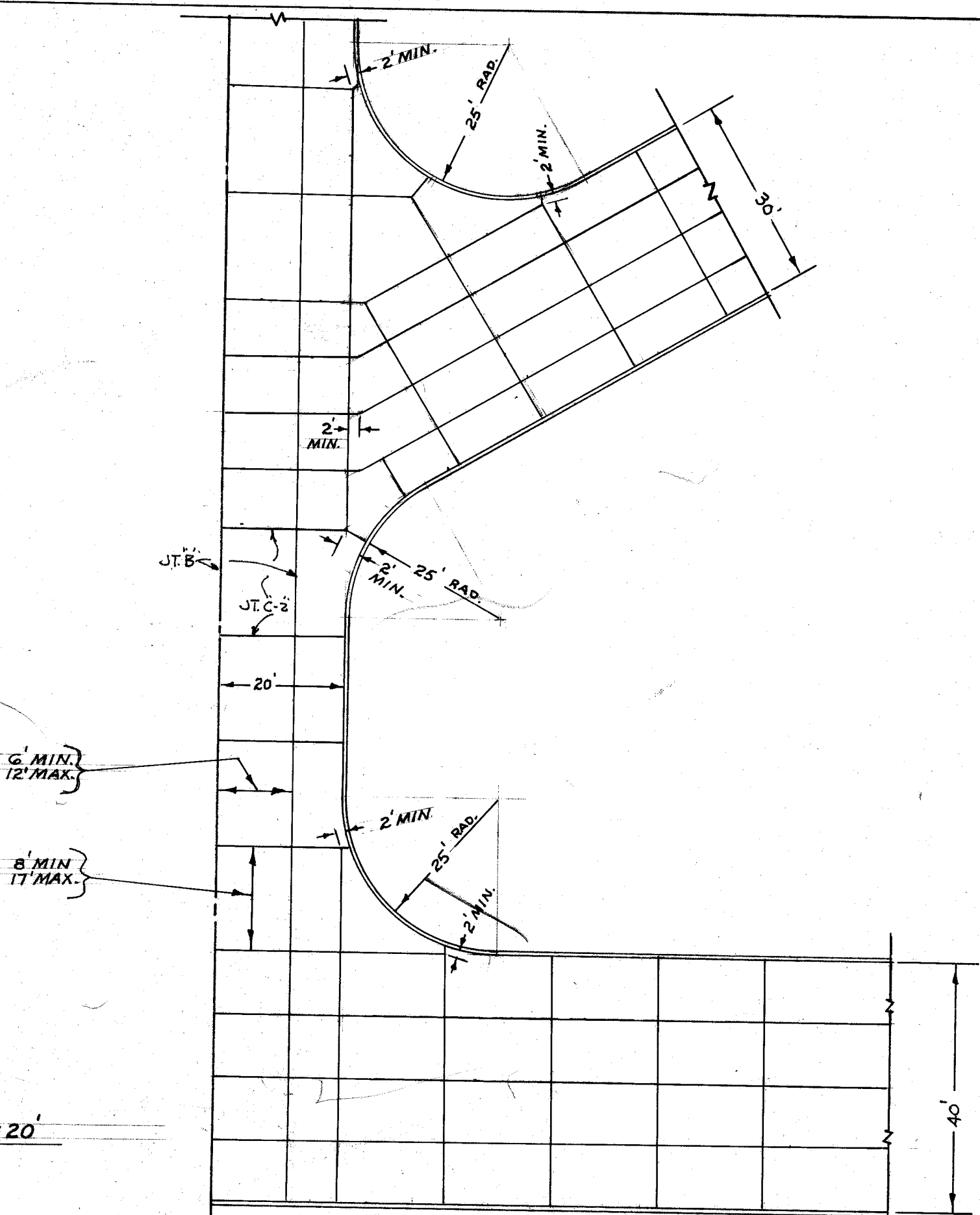
MANHOLE BOXOUT



CATCH BASIN BOXOUT

NO SCALE

1. ALL CATCH BASINS SHALL BE SEPARATED FROM THE PAVEMENT AND CURB BY BOXING OUT AROUND BASIN AS SHOWN ABOVE. EXPANSION JOINT MATERIAL SHALL EXTEND COMPLETELY THROUGH CURB AND SLAB. MANHOLE CASTINGS WITHIN THE PAVEMENT LIMITS SHALL BE BOXED IN LIKE MANNER EXCEPT WHEN TELESCOPING-TYPE CASTINGS ARE USED.
2. WHEN A JOINT FALLS WITHIN 5 FT. OF OR CONTACTS BASINS, MANHOLES, OR OTHER STRUCTURES SHORTEN ONE OR MORE PANELS EITHER SIDE OF OPENING TO PERMIT JOINT TO FALL ON ROUND STRUCTURES AND AT OR BETWEEN CORNERS OF RECTANGULAR STRUCTURES.



PAVEMENT JOINTS AND CROSS-SECTION DETAILS

CITY OF MASSILLON, OHIO	
CONSTRUCTION DETAILS	
PAVEMENT JOINTS & PAVEMENT JOINTS CROSS SECTION, MANHOLE BOXOUT, & CATCH BASIN BOXOUT	
DR. BY RONNIE MCPHERSON	DEPT. OF PUBLIC SERVICE
CITY ENG. ROBERT WAGNER	ENGINEERING DIVISION
DATE - JUNE 24, 1970	