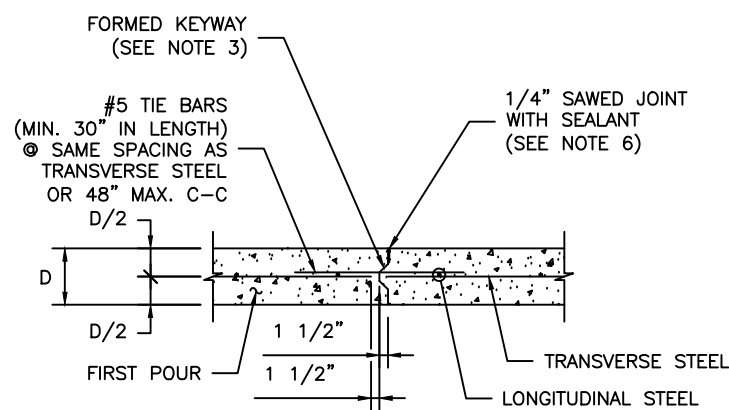


**TYPICAL CONCRETE ROADWAY WIDENING DETAIL**  
SCALE: 1" = 1'-0"

TABLE 1

DOWEL SIZE	PAVEMENT DEPTH
#5 BAR	7"
#6 BAR	≥9"

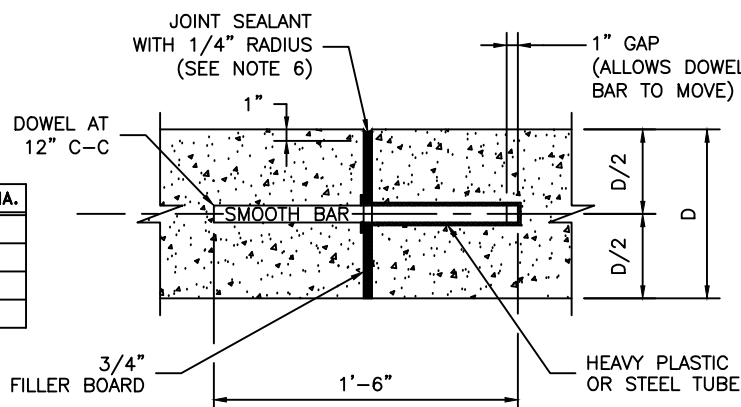
DOWEL SHALL BE DRILLED INTO EXISTING PAVEMENT A MINIMUM OF 10" AND EPOXIED (SEE ITEM 361.3)



**LONGITUDINAL CONSTRUCTION JOINT**  
SCALE: 1" = 1'-6"

DOWELS

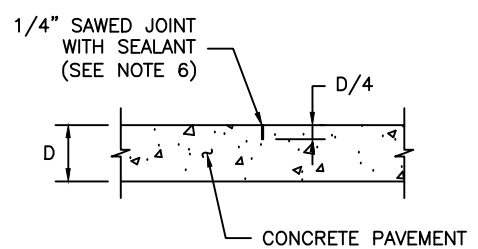
PAVEMENT THICKNESS (D)	DOWEL DIA.
6"	3/4"
7"	1"
8"	1"
9" & 10"	1 1/4"



**DOWEL TYPE EXPANSION JOINT**  
SCALE: 1" = 3"

**NOTES FOR DOWEL EXPANSION JOINT:**

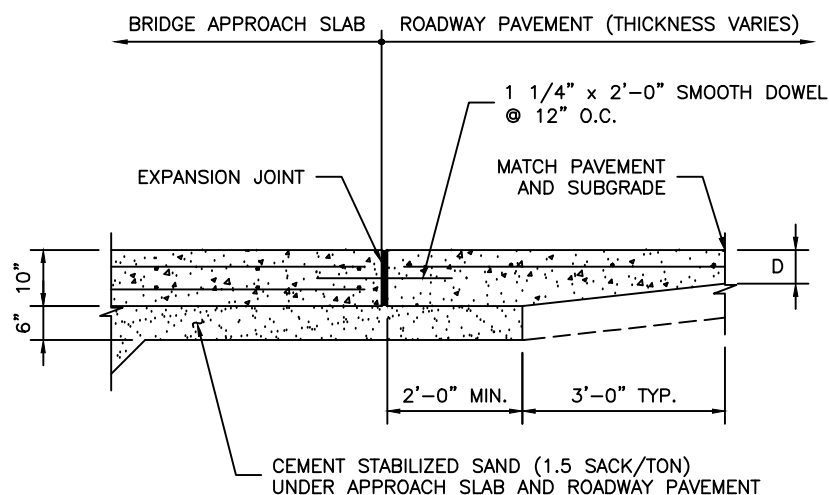
- EXPANSION JOINT SHALL BE PLACED AT THE END OF EACH CURB RADIUS AND SPACED AT A MAXIMUM DISTANCE OF 80 FEET.
- CENTER DOWEL HORIZONTALLY ON JOINT.
- EXPANSION JOINT BARS SHALL BE HELD PARALLEL TO THE FINISHED CONCRETE SURFACE.



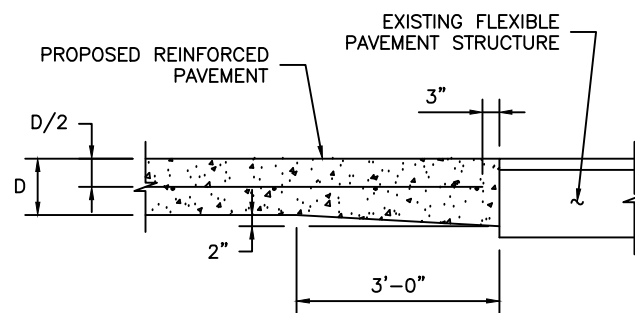
**CONTRACTION JOINT (SAWED)**  
SCALE: 1" = 1'-6"

**NOTE FOR CONTRACTION JOINT:**

- 20'-0" MAXIMUM SPACING BETWEEN JOINTS.



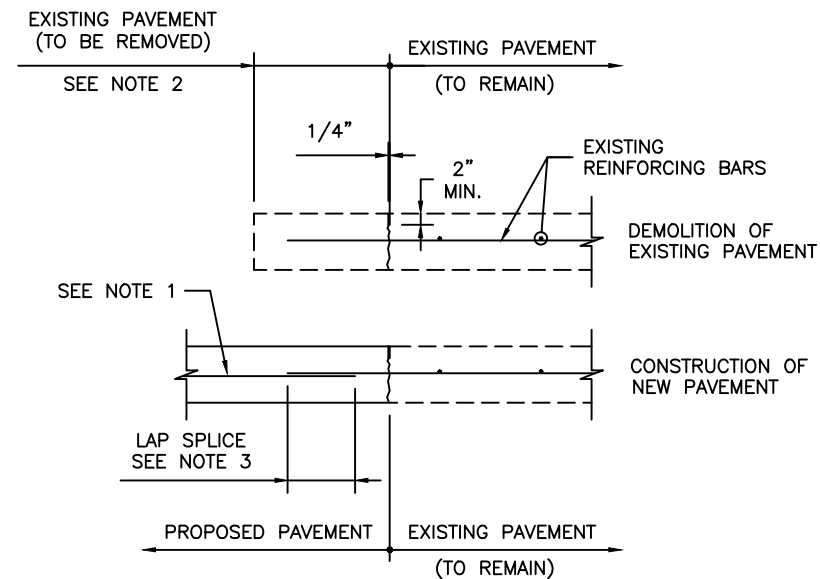
**TYPICAL SECTION PAVING TIE-IN TO BRIDGE APPROACH SLAB**  
SCALE: 1" = 1'-6"



**TYPICAL PAVING HEADER**  
SCALE: 1" = 1'-6"

**NOTES FOR PAVING HEADER:**

- ADDITIONAL CONCRETE FOR PAVING HEADER SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAVING BID ITEMS.
- DISTURBED MATERIAL IN THE FLEXIBLE PAVEMENT WILL BE BACKFILLED WITH ASPHALT CONCRETE PAVEMENT (ACP). THE ACP WILL BE CONSIDERED INCIDENTAL TO VARIOUS PAVING BID ITEMS.



**CONCRETE TO CONCRETE STANDARD PAVEMENT TIE-IN**  
SCALE: 1" = 1'-6"

**NOTES FOR STANDARD PAVEMENT TIE-IN:**

- REINFORCING CENTERED IN PROPOSED PAVEMENT, 3" CLEAR AT EDGES.
- SAWCUT 2" DEEP MINIMUM AND REMOVE 2'-0" EXISTING PAVEMENT OR PAVEMENT WITH CURB. EXPOSE AND CLEAN EXISTING REINFORCING.
- 24 BAR DIAMETER LAP SPLICE OR WELD, IF DIRECTED.
- IF NO EXPOSED REINFORCING STEEL EXISTS, HORIZONTAL DOWELS SHALL BE GRADE 60, 30" LONG DRILLED AND EMBEDDED 15" INTO THE CENTER OF THE EXISTING CONCRETE SLAB WITH EPOXY OR APPROVED EQUAL. SIZE OF DOWEL BARS SHALL CONFORM TO TABLE 1. DOWELS SHALL BE PLACED 24" CENTER TO CENTER.
- ALTERNATIVELY, THE CONTRACTOR MAY CHOOSE TO USE FULL DEPTH SAWCUT WITH DRILLED IN DOWELS (AS SHOWN IN THE "TYPICAL CONCRETE ROADWAY WIDENING DETAIL" ON THIS SHEET. IF THE CONTRACTOR SO CHOOSES, THE SAWCUTTING AND DOWELS WILL BE AT HIS OWN EXPENSE (THESE ITEMS WILL ONLY BE PAID FOR IF THE COUNTY REQUIRES THE FULL DEPTH SAWCUT AND DOWELS).

**GENERAL NOTES:**

- FOR FURTHER INFORMATION REGARDING THE PLACEMENT OF CONCRETE AND REINFORCING, REFER TO THE GOVERNING SPECIFICATION ITEM 360 "CONCRETE PAVEMENT".
- THE CHAIRS USED TO SUPPORT THE BAR MATS SHALL BE OF SUFFICIENT STRUCTURAL QUALITY AND NUMBER TO HOLD THE MAT WITHIN THE PLACEMENT HEIGHT, AND SHALL BE OF A TYPE APPROVED BY THE ENGINEER. SPACING OF BAR SUPPORT CHAIRS SHALL BE 3 FEET MAXIMUM.
- SAWED CONTRACTION JOINTS SHALL BE USED FOR LONGITUDINAL JOINTS WHEREVER MORE THAN ONE LANE WIDTH IS PLACED IN A SINGLE POUR. KEYED CONSTRUCTION JOINTS SHALL BE USED AT ALL OTHER JOINTS.
- ALL SAW CUTTING SHOWN ON THIS DETAIL SHALL BE INCIDENTAL TO ITEM 360 "CONCRETE PAVEMENT".
- D = THICKNESS OF CONCRETE PAVEMENT.
  - FOR DEVELOPMENT PROJECTS SEE "REGULATIONS OF HARRIS COUNTY, TEXAS FOR THE APPROVAL AND ACCEPTANCE OF INFRASTRUCTURE."
  - FOR PUBLIC PROJECTS SEE HCED 1988 DESIGN GUIDELINES.
- JOINT SEALANT SHALL CONFORM TO THE REQUIREMENTS OF ITEM 360 "CONCRETE PAVEMENT".

NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME	2/17/15	RS
2	CHANGE DETAIL TITLE AND NOTE 5	8/4/15	RS

HARRIS COUNTY  
ENGINEERING DEPARTMENT



CONSULTANT  
LOGO/INFORMATION

FOR INTERIM REVIEW ONLY

DOCUMENT INCOMPLETE:  
NOT INTENDED FOR CONSTRUCTION,  
BIDDING, OR PERMIT PURPOSES

ENGINEER:  
P.E. SERIAL No.  
DATE:

PROJECT TITLE:

DRAWN BY:

LMJ

CK'D BY:

PDG

SCALE:

AS NOTED

DATE:

4/28/14

SHEET DESCRIPTION:  
CONCRETE PAVEMENT DETAILS

SHEET 1 OF 2

APPROVED BY:

/

HCD STANDARD

5

SHEET NO:

/