

2"Ø x 1" Block-out for Lifting Devices

21/2"

2"Ø x 1" Block-out for Lifting Devices

This stirrup

perpendicular

to C beam. -

Transition

Stirrups -

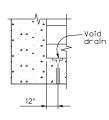
See Applicable Std. for Stirrup Spacing

1/2" x 3" Slotted Holes for Dowels

© 1½" x 3" Slotted Holes for Dowels

These stirrups

parallel to skew.



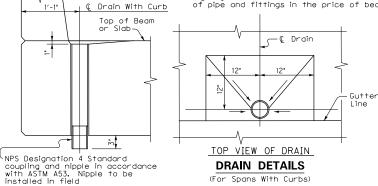
## **VOID DRAIN DETAIL**

Locate two drains at each end of each void. Provide I'0 drains of a type approved by the Division of Materials.

# Diaphragms may be omitted if void is cut to allow drain to be encased with a minimum 2" of concrete.

Provide drains on both sides of bridge with normal crown and on low side only for superelevated bridges. Space drains at maximum 12'-6' on centers with a minimun of one placed each gutter line per span. Omit drains when span crosses over a highway or railroad. Include the cost of pipe and fittings in the price of beam.

(For Spans With Curbs)

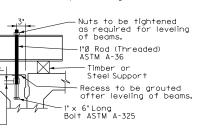


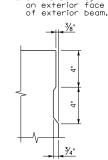
# **SECTION THRU DRAIN EXTERIOR BOX BEAM**

**SECTION THRU BEAM** 

(Showing coupling in barrier)

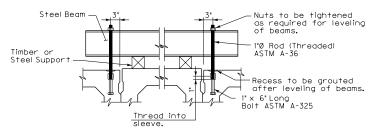
Note: Inserts are to be plated or galvanized Steel Beam Nuts to be tightened of beams. 1"Ø Rod (Threaded) ASTM A-36 Timber or Steel Support ·1" x 6" Long Bolt ASTM A-325 Thread into





NOTE: Omit shear key

SHEAR KEY DETAIL



# LEVELING DEVICE DETAILS

Locate inserts at the center of beams up to 50 ft. and at diaphragm locations of beams over 50 ft. Include the cost of materials and labor involved in leveling beams in the price for beams. Submit alternate leveling devices to the Division of Bridge Design for approval.

### This stirrup perpendicular to @ beam. -Transition Stirrups 21/2 NOTE: Void omitted These stirrups on 12" beams. parallel to skew. min. 12"

1'-6"

1'-6"

for Stirrup Spacing

TYPICAL SKEWED END FOR BEAMS OVER 50 FEET (Right Skew Shown, Left Opposite Hand) See Applicable Std.

# TYPICAL SKEWED END FOR BEAMS 50 FEET OR LESS

(Right Skew Shown, Left Opposite Hand)

# KENTUCKY DEPARTMENT OF HIGHWAYS

**BOX BEAM MISCELLANEOUS DETAILS** 

STANDARD DRAWING NO. BDP-003-03

SUBMITTED all W Frank
DIRECTOR DIVISION OF BRIDGE DESIGN Marelyn Mothers
STATE HIGHWAY (ENGINEER APPROVED

11-21-07