

Abstract

With a dozen checks, we have 10^{12} = 1,000,000,000,000

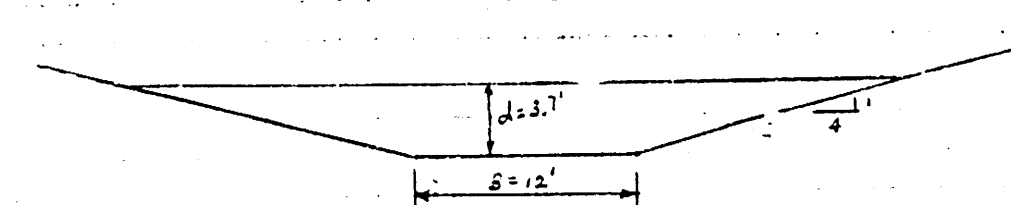
Culverts - 6

used on dc, #11 = H-H₀-L₀= .82+3-.2(1.205)×5.97' = 5.9'
max HW= 5.4' for inlet crest i.e. HW must be less than
that to keep culvert under inlet control. This means
 $L \times HW = H + L_0 = .82 + .22.85 = 5.67'$
in order for flow to continue past or less ad
ditch will be required). Per map, the nearest se-
outfall is approximately 350' or less. The type of
the ditch, S = $\frac{.017 \times 1.48}{3.49} = .0057$ let 0.005 ft.
Ave. Elev in this area = 190 ∴ depth = 1+0 = 3'
Try B=20', d=2.0', side slope = 1:1, Z=4+9.8 = 20.8 ft.²
Try B=25', d=2.5', " " " " , Z=4+9.8 = 20.8 ft.²
Try B=25', d=2.5', " " " " , Z=4+9.8 = 20.8 ft.²
Try B=26', d=2.8', " " " " , Z=4+9.8 = 20.8 ft.²
TW = 2.8' × 5.2' OK

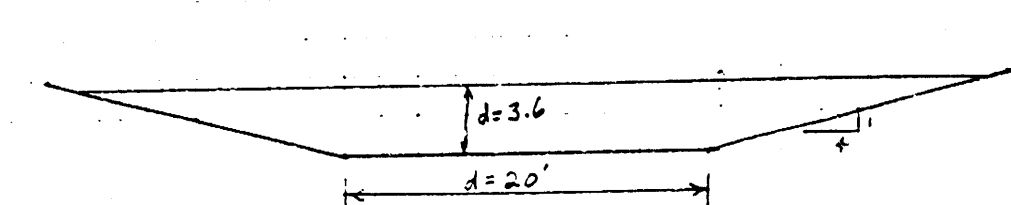
Ditch Cross-Sections - 1

Ditch in Reserve A, N. 1/2 3-12 RCPs

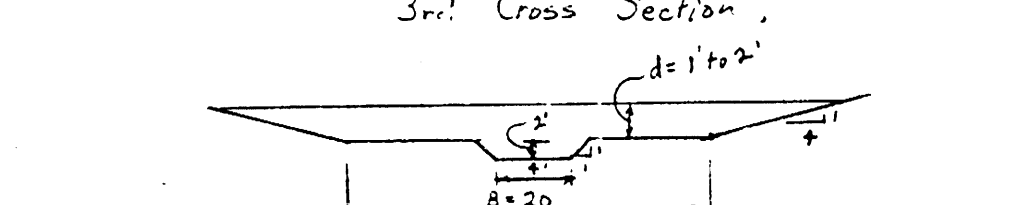
Initial Cross Section



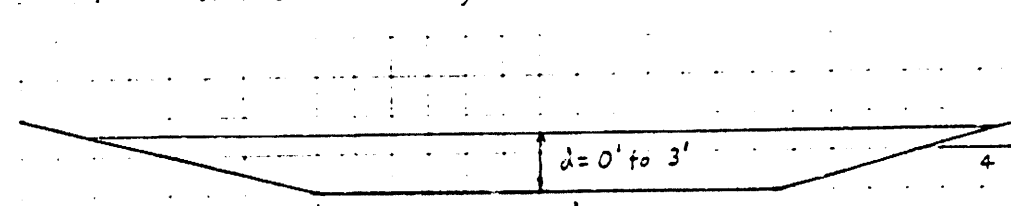
2nd Cross Section



3rd Cross Section

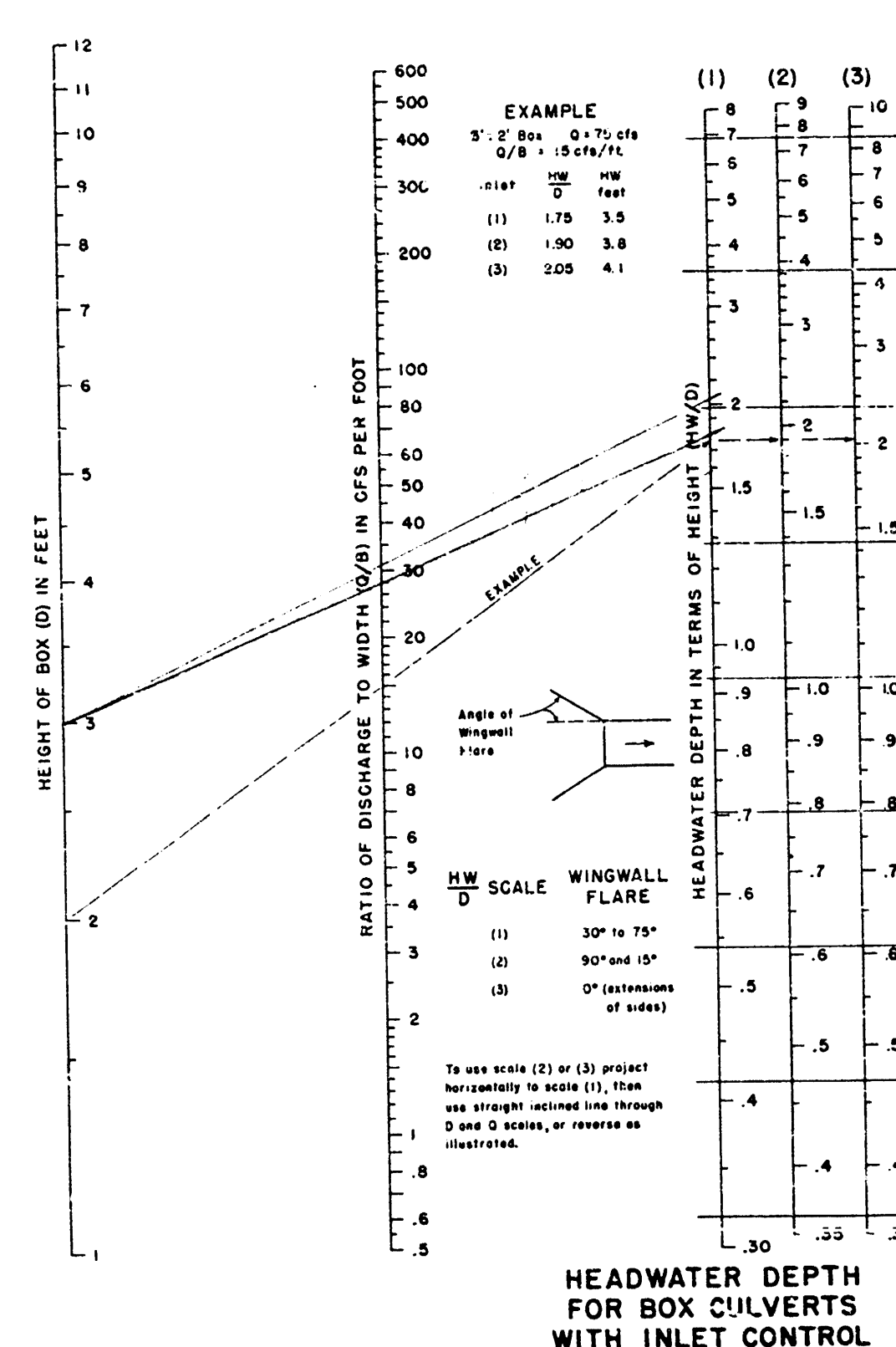


Ditch in Reserve A, South of Double 4'x3' Box Culverts



Continued H.E. Tech. Center
PEN 1/2/84

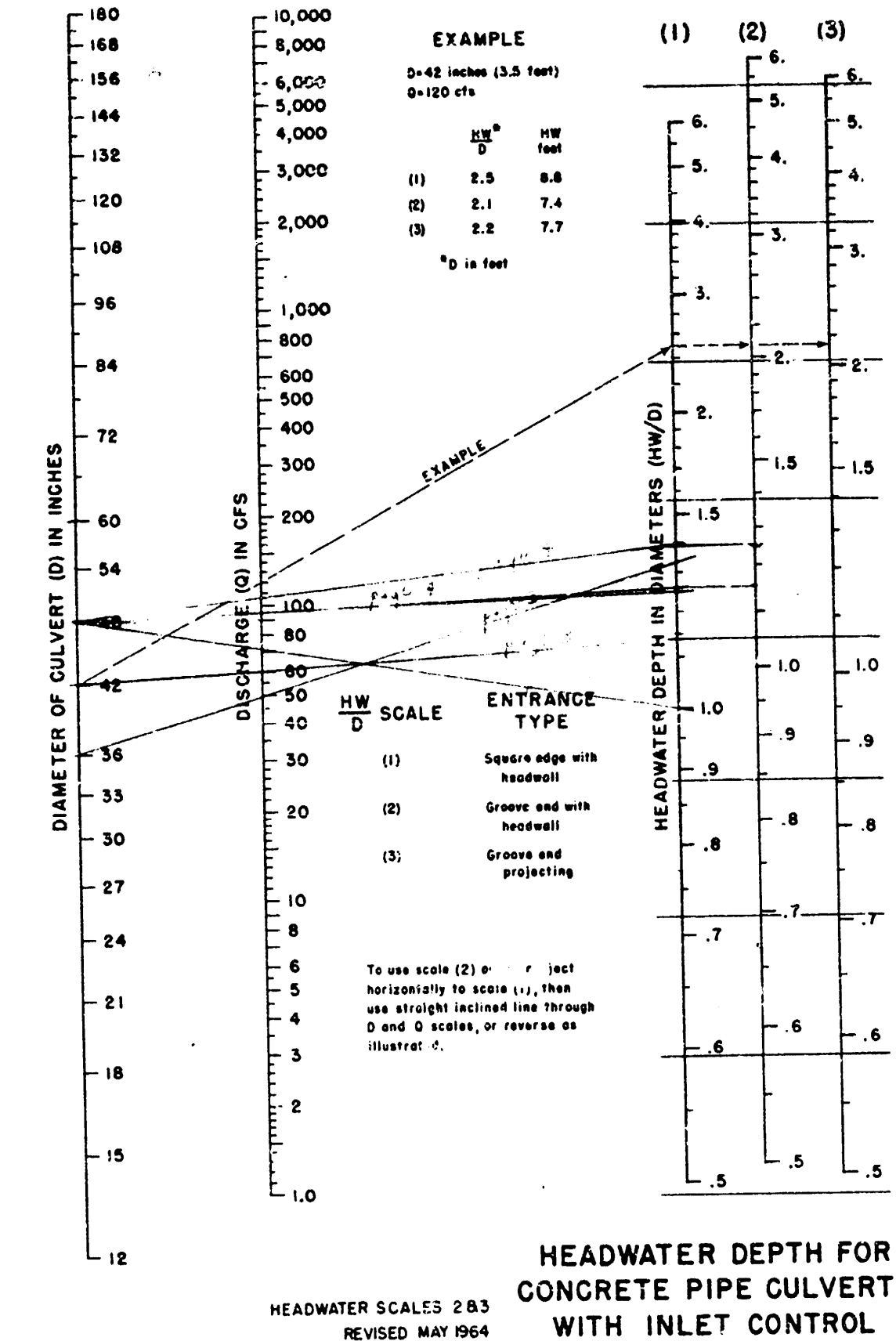
CHART 1



HEADWATER DEPTH FOR BOX CULVERTS WITH INLET CONTROL

BUREAU OF PUBLIC ROADS JAN 1963

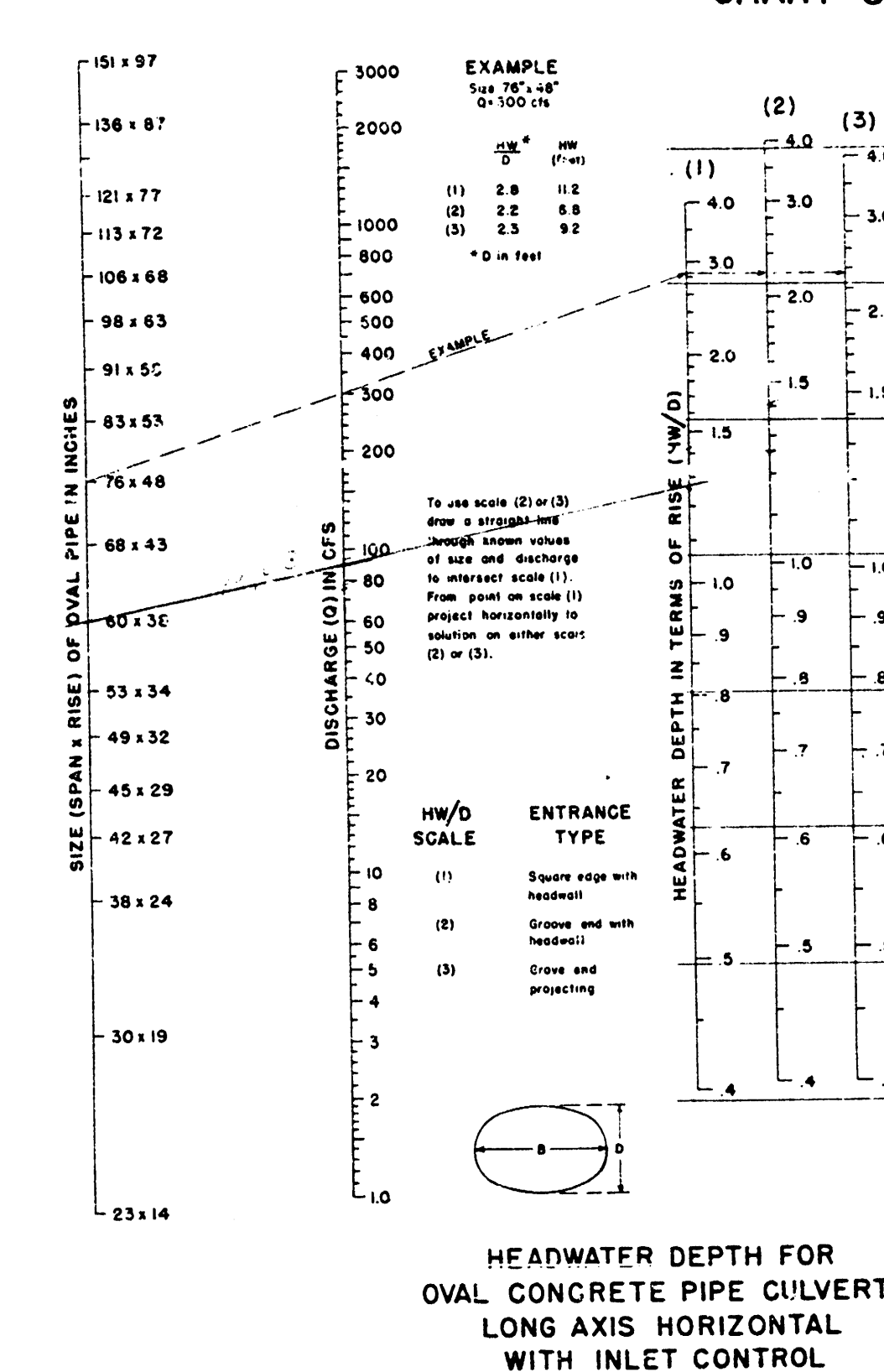
CHART 2



HEADWATER DEPTH FOR CONCRETE PIPE CULVERTS WITH INLET CONTROL

BUREAU OF PUBLIC ROADS JAN 1963

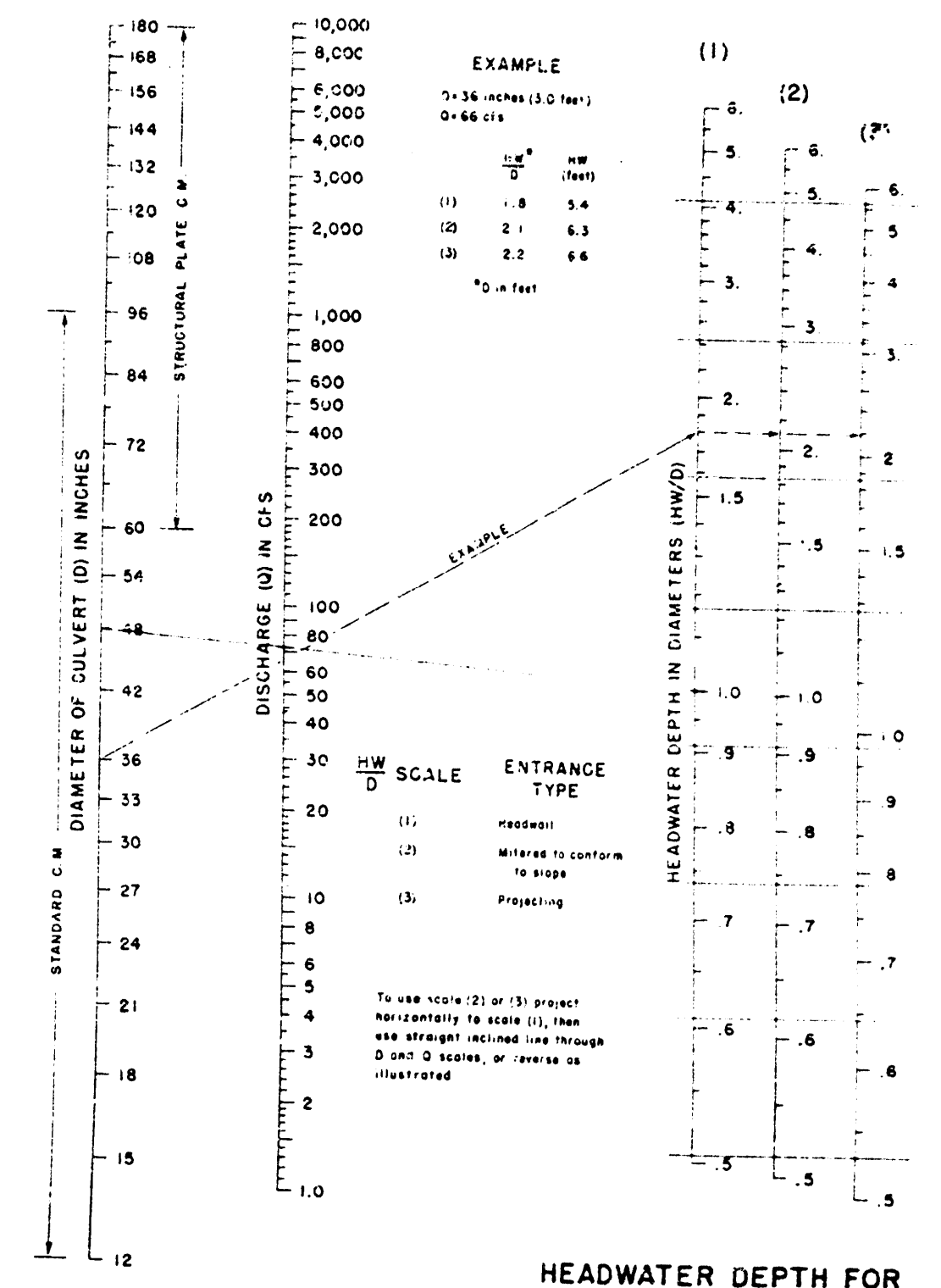
CHART 3



HEADWATER DEPTH FOR OVAL CONCRETE PIPE CULVERTS LONG AXIS HORIZONTAL WITH INLET CONTROL

BUREAU OF PUBLIC ROADS JAN 1963

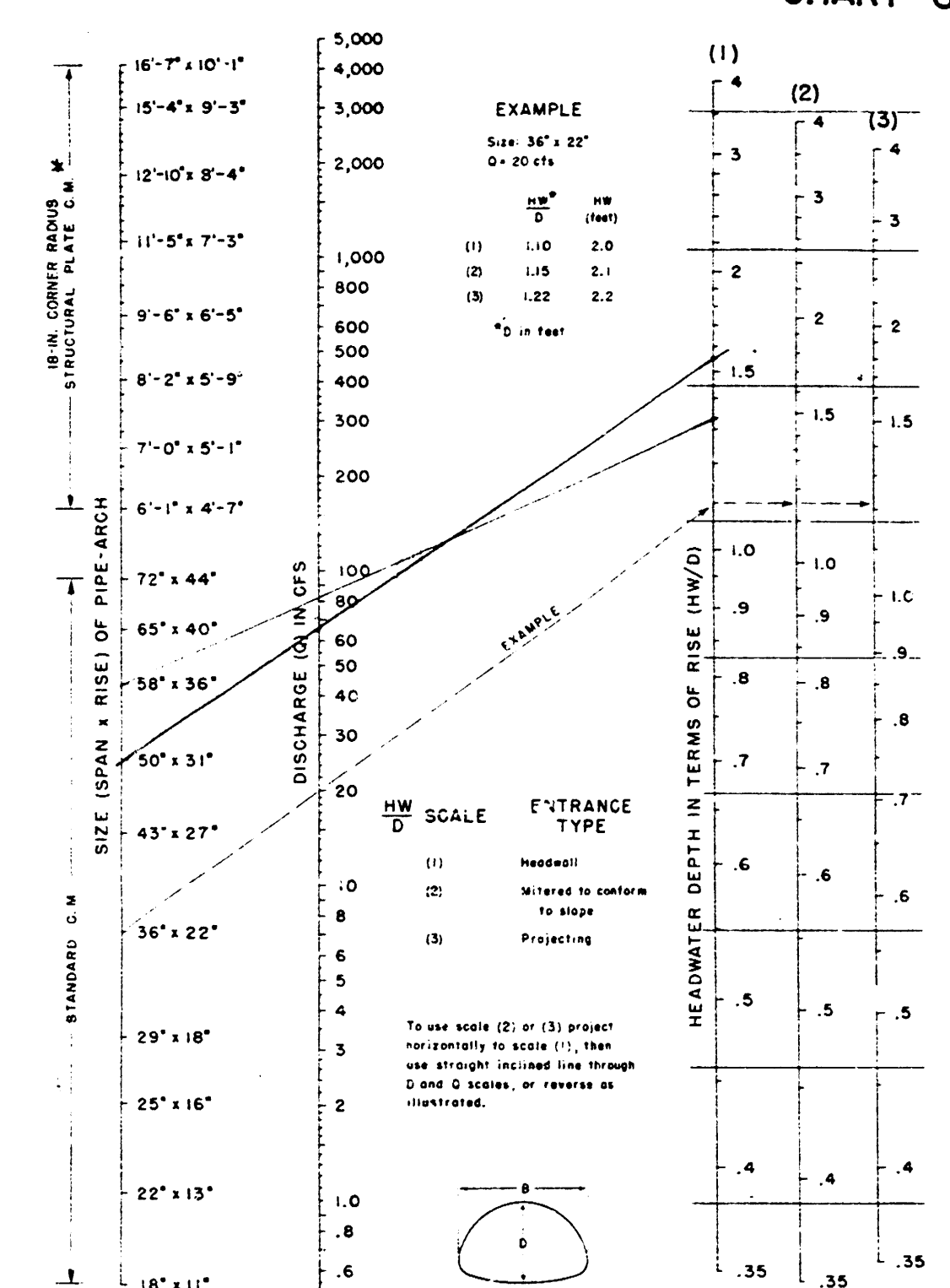
CHART 5



HEADWATER DEPTH FOR C.M. PIPE CULVERTS WITH INLET CONTROL

BUREAU OF PUBLIC ROADS JAN 1963

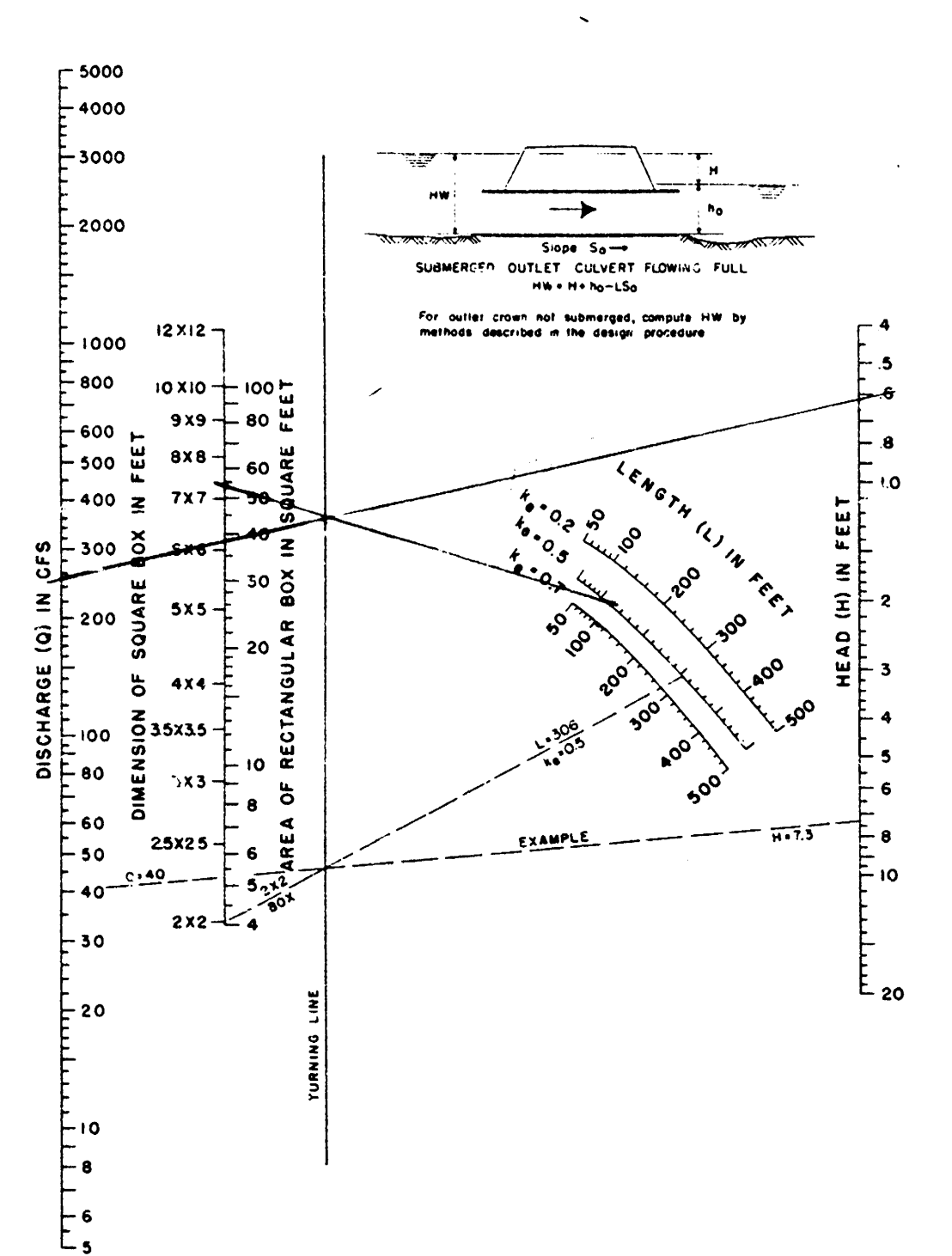
CHART 6



HEADWATER DEPTH FOR C.M. PIPE-ARCH CULVERTS WITH INLET CONTROL

BUREAU OF PUBLIC ROADS JAN 1963

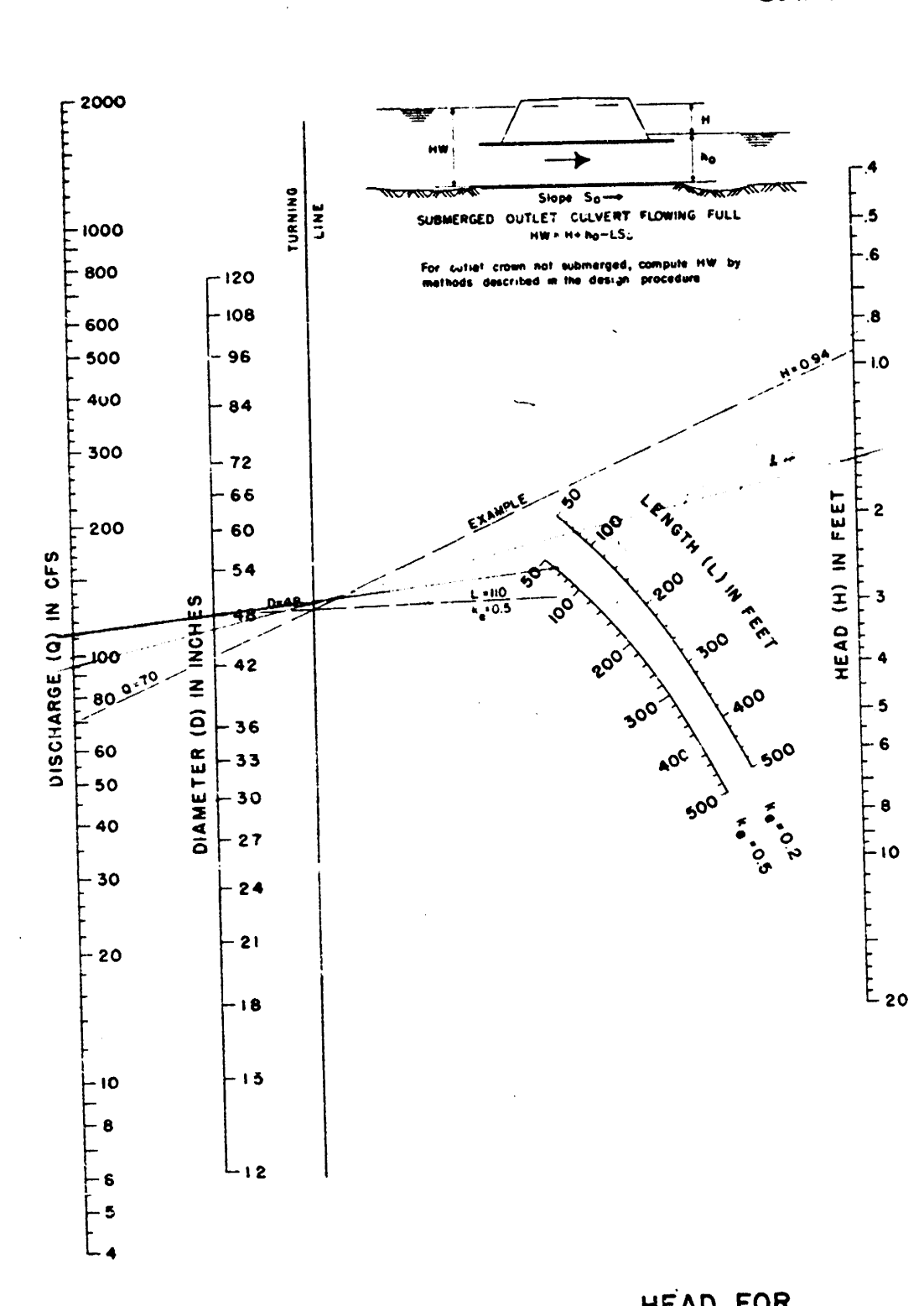
CHART 8



HEAD FOR CONCRETE BOX CULVERTS FLOWING FULL n=0.012

BUREAU OF PUBLIC ROADS JAN 1963

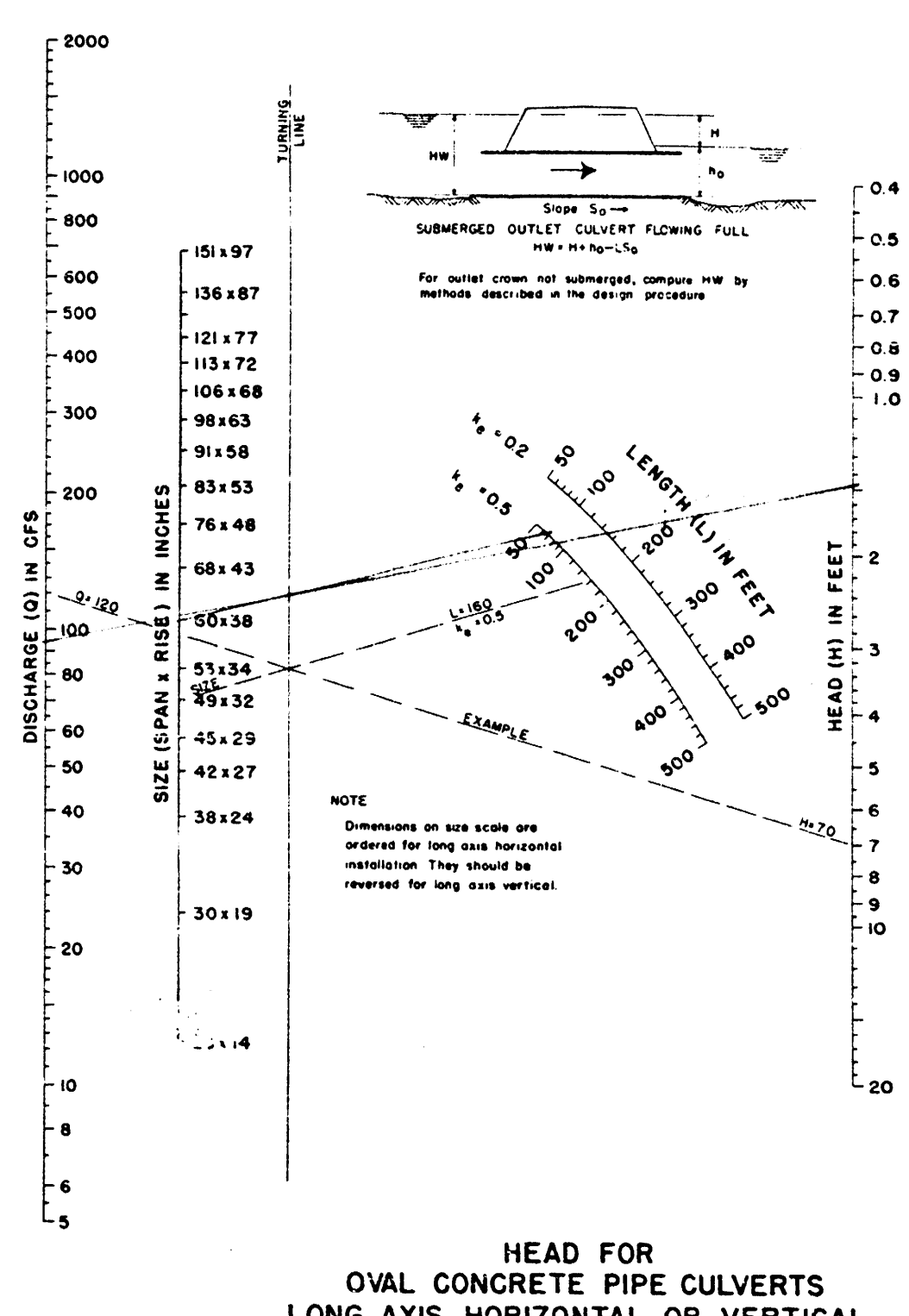
CHART 9



HEAD FOR CONCRETE PIPE CULVERTS FLOWING FULL n=0.012

BUREAU OF PUBLIC ROADS JAN 1963

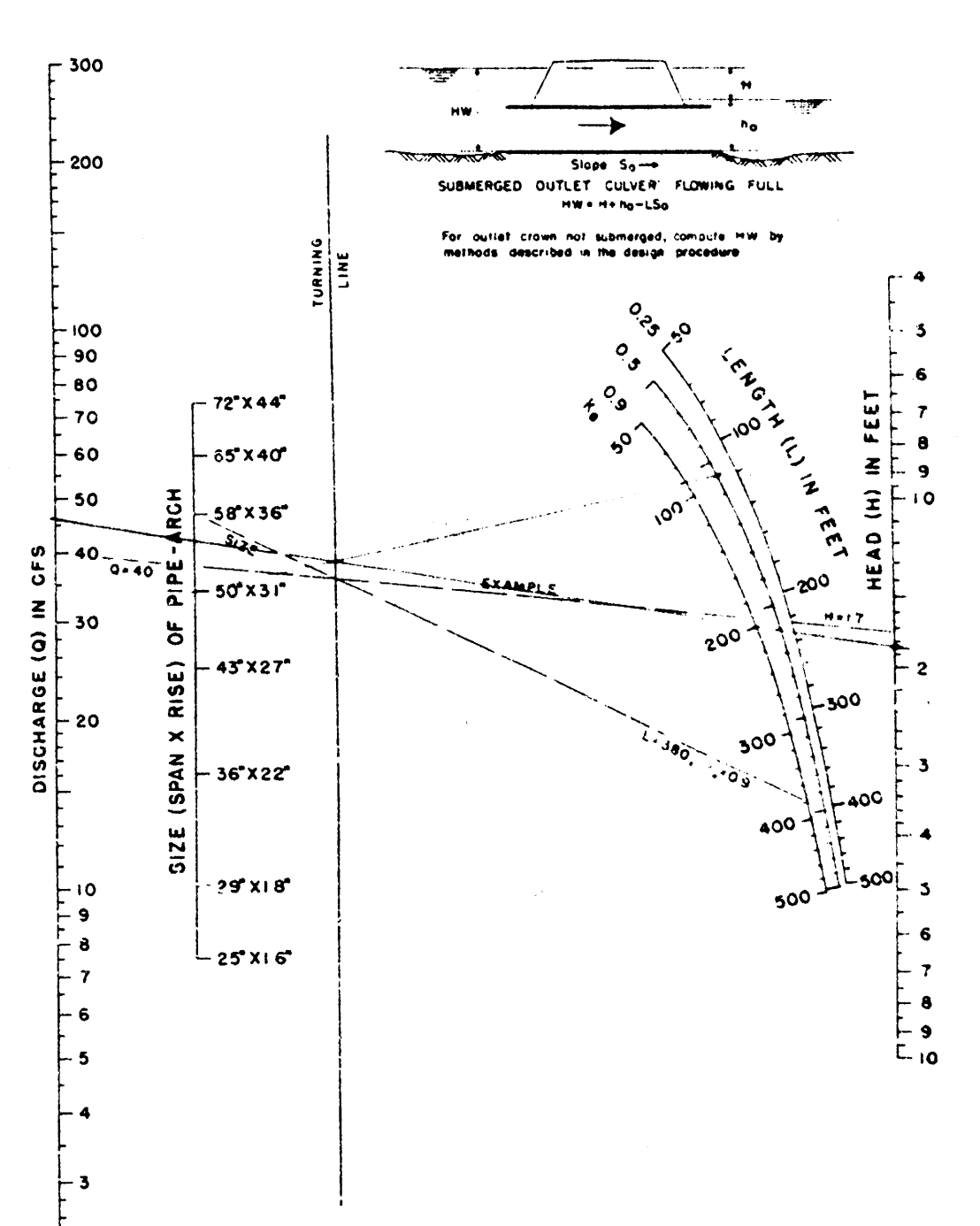
CHART 10



HEAD FOR OVAL CONCRETE PIPE CULVERTS LONG AXIS HORIZONTAL FLOWING FULL n=0.012

BUREAU OF PUBLIC ROADS JAN 1963

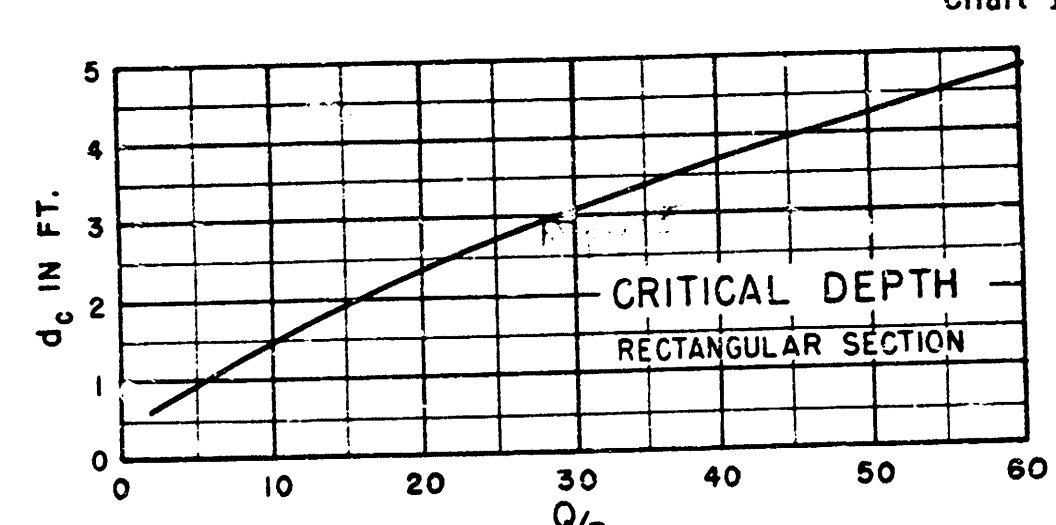
CHART 12



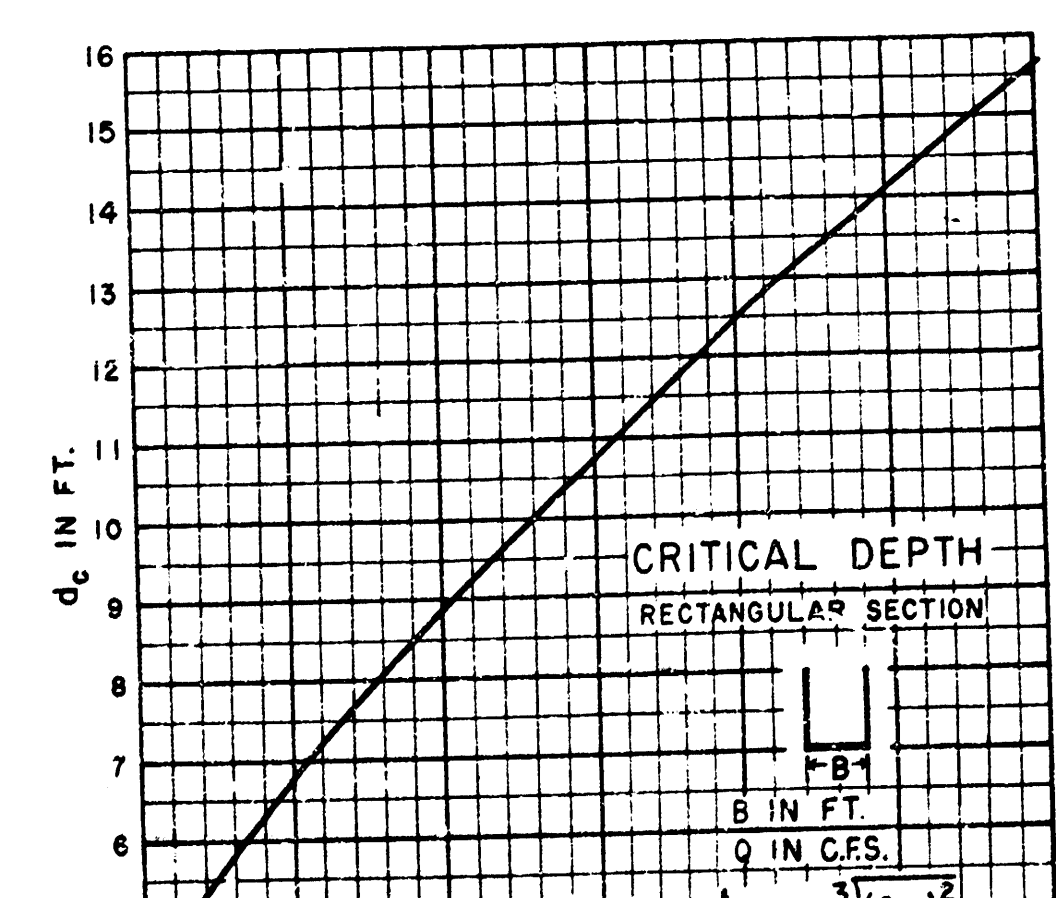
HEAD FOR STANDARD C.M. PIPE-ARCH CULVERTS FLOWING FULL n=0.024

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Chart 15



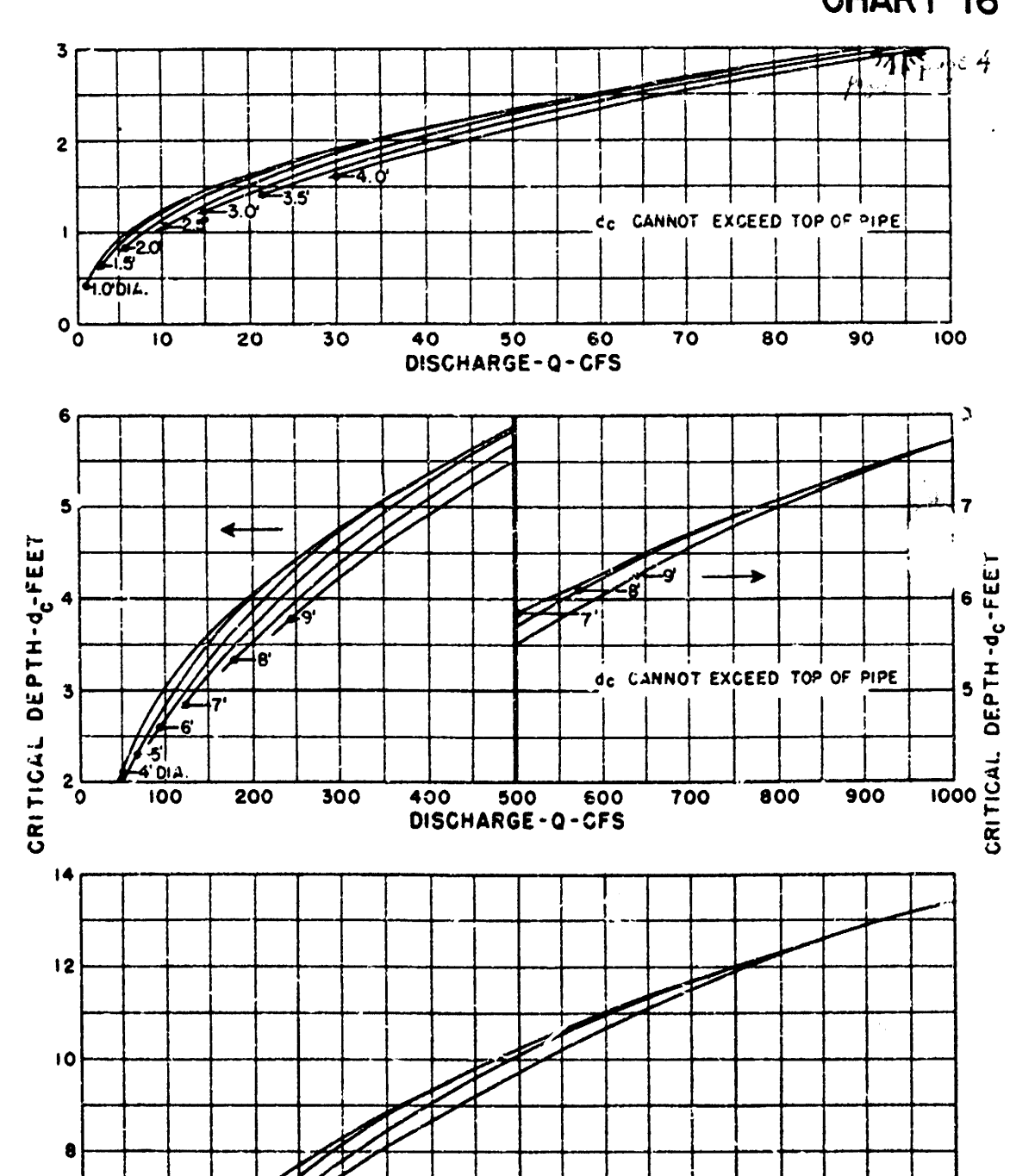
CRITICAL DEPTH RECTANGULAR SECTION



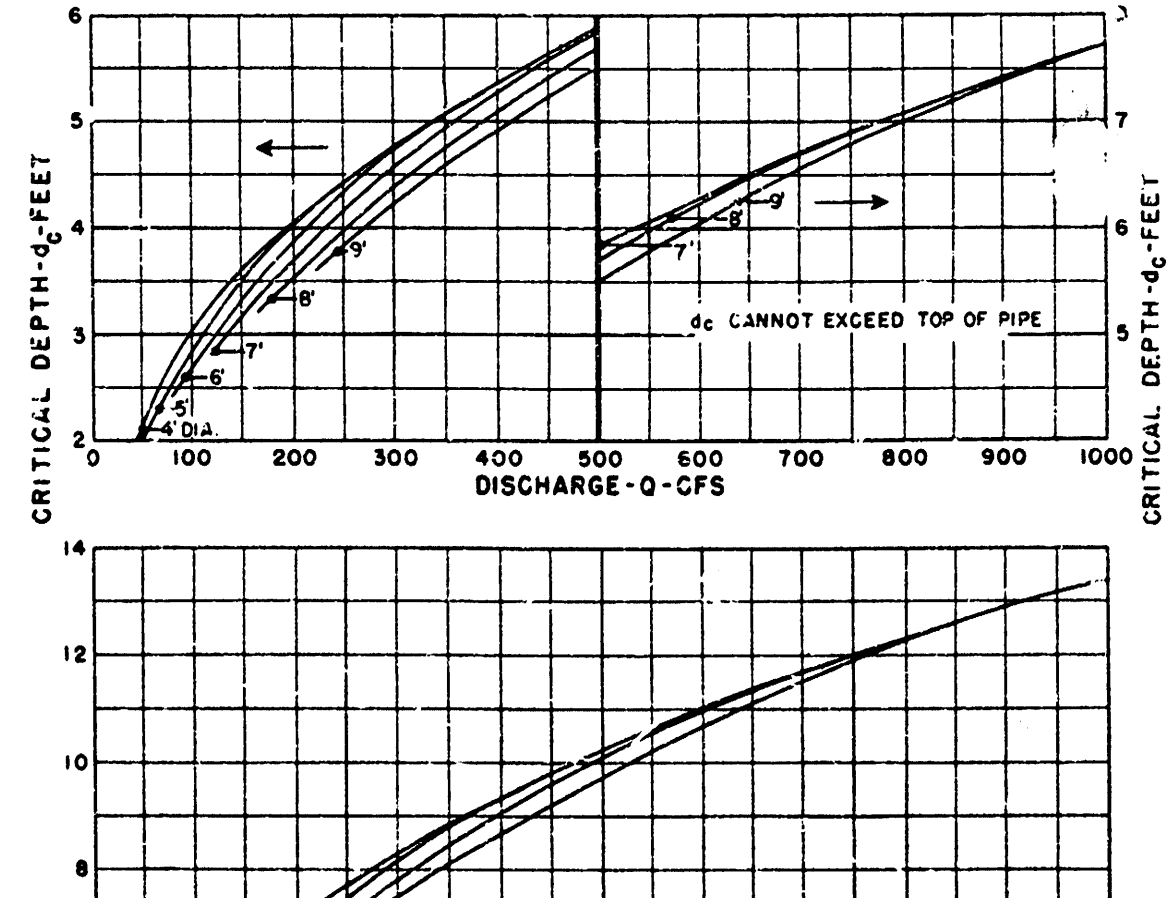
CRITICAL DEPTH RECTANGULAR SECTION

BUREAU OF PUBLIC ROADS JAN 1963

CHART 16



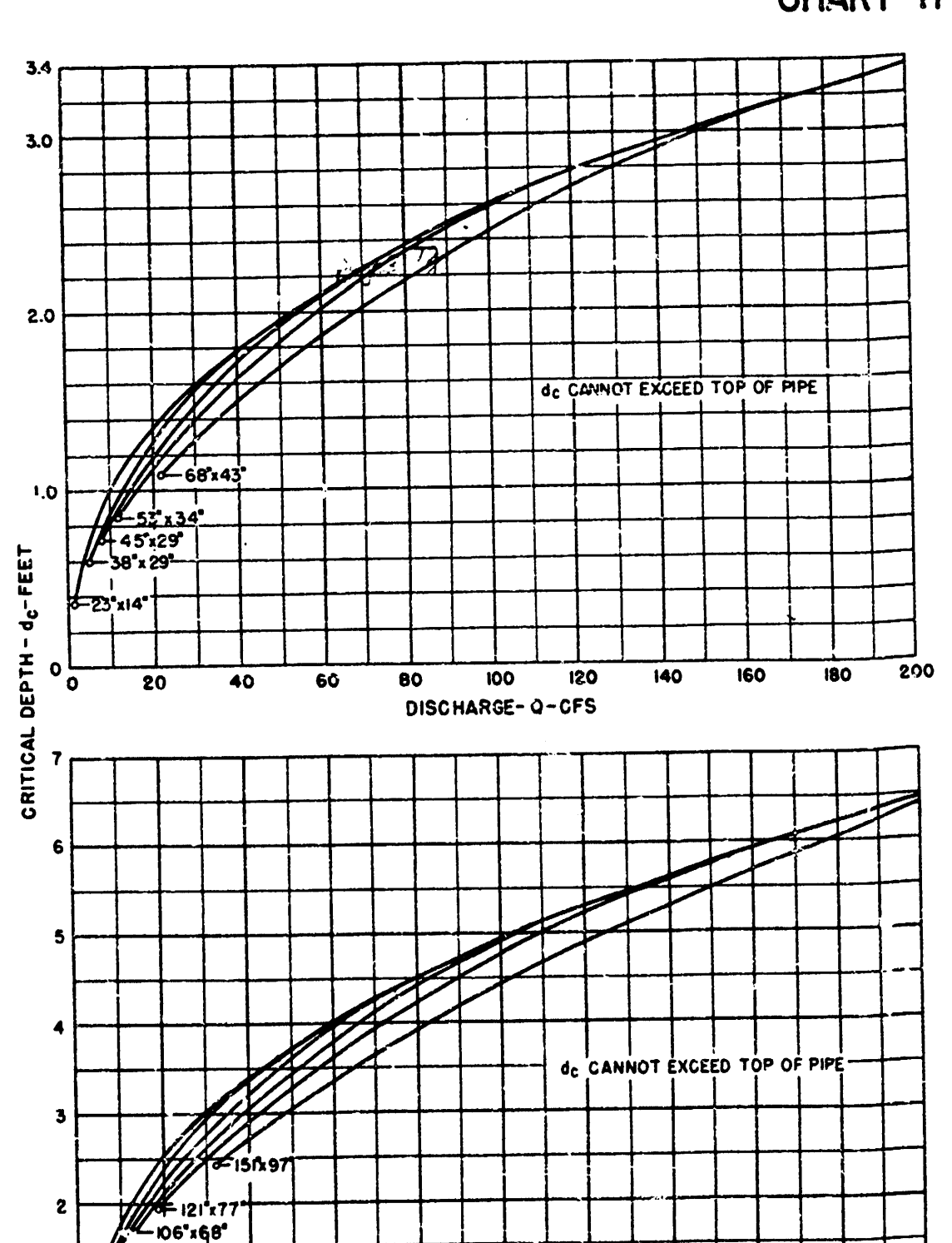
CRITICAL DEPTH RECTANGULAR SECTION



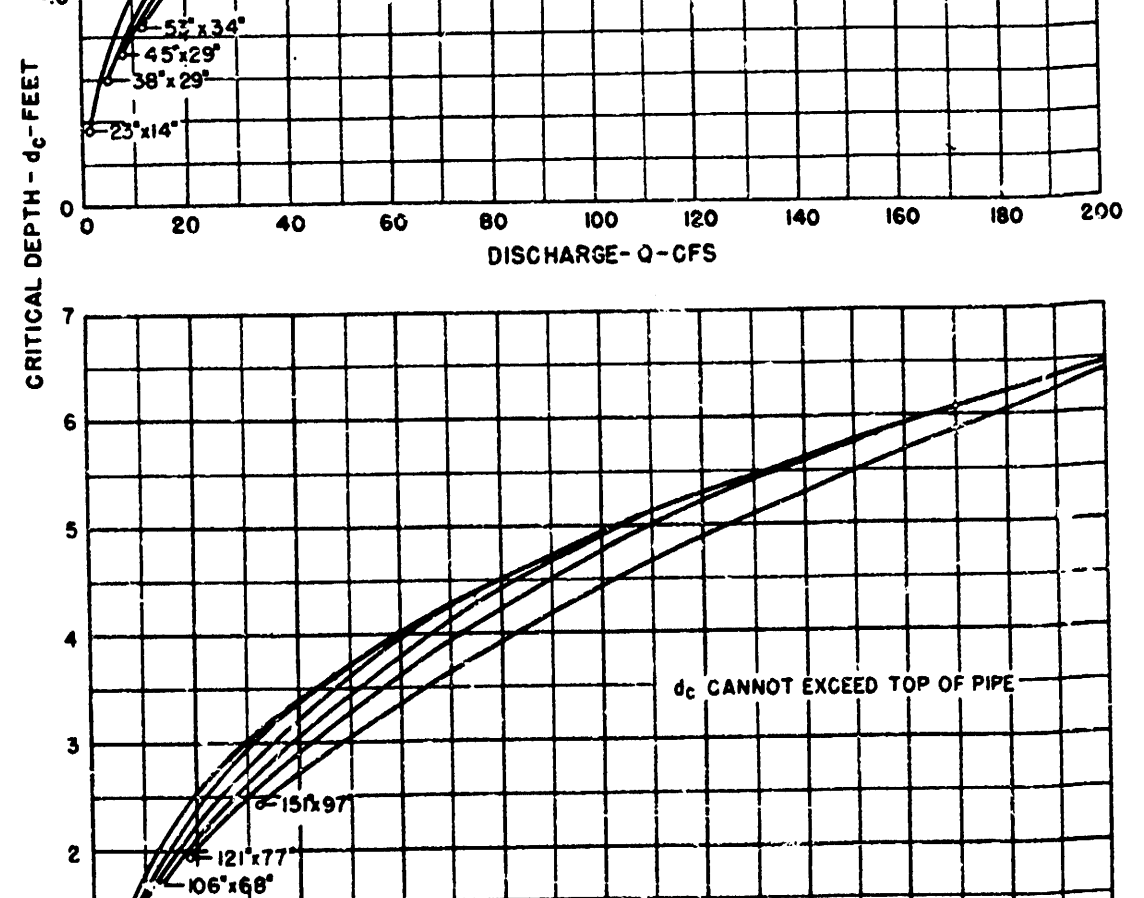
CRITICAL DEPTH RECTANGULAR SECTION

BUREAU OF PUBLIC ROADS JAN 1963

CHART 17



CRITICAL DEPTH RECTANGULAR SECTION



CRITICAL DEPTH RECTANGULAR SECTION

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