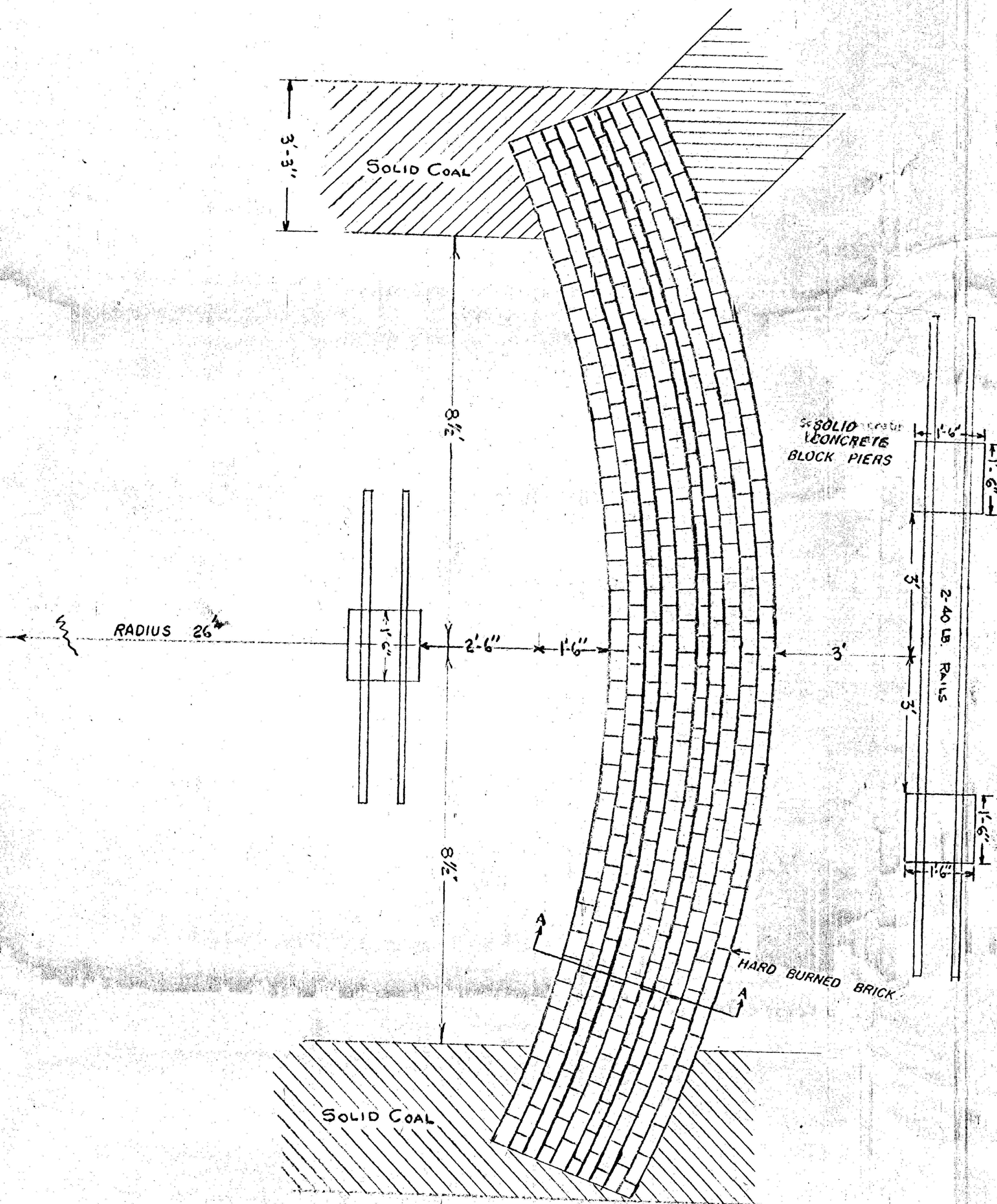
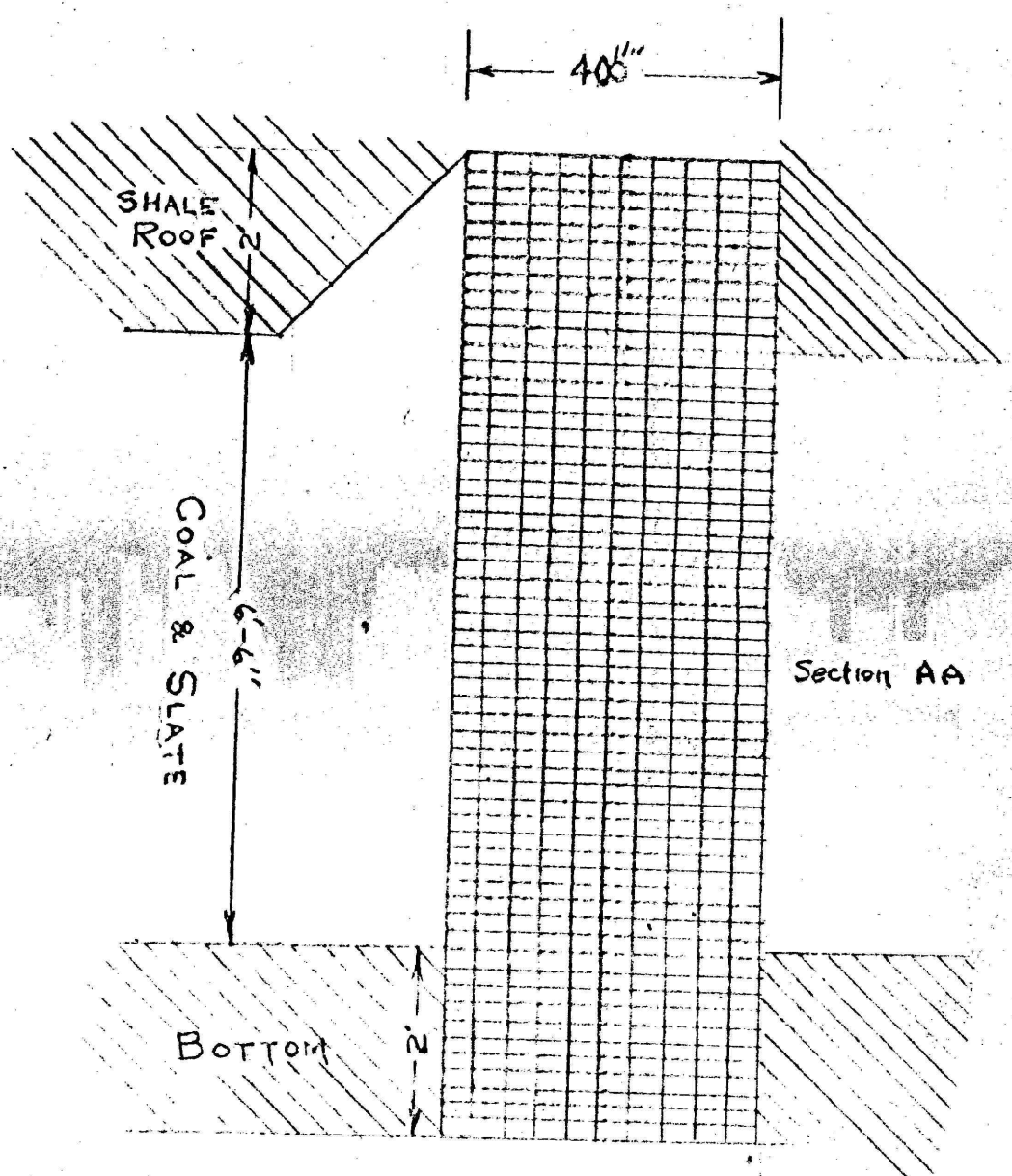




PITTSBURGH COAL COMPANY
DIVISION OF PITTSBURGH CONSOLIDATION COAL CO.
CONSTRUCTION PLAN OF BULKHEAD
3RD EAST WESTLAND MINE
DAM "5" SCALE 1"=2'

REF. "D"



FORMULA FOR DAM THICKNESS

$$T = \frac{PW\sqrt{AR-1}}{4S}$$

T = THICKNESS OF DAM IN INCHES
R = SHORTER RADIUS IN INCHES
W = WIDTH OF OPENING IN INCHES
S = COMPRESSIVE STRENGTH OF BRICK IN LBS. PER SQ. IN.
USED 1000 LBS. PER SQ. IN.
P = WATER PRESSURE AT DAM IN POUNDS PER SQUARE INCH.