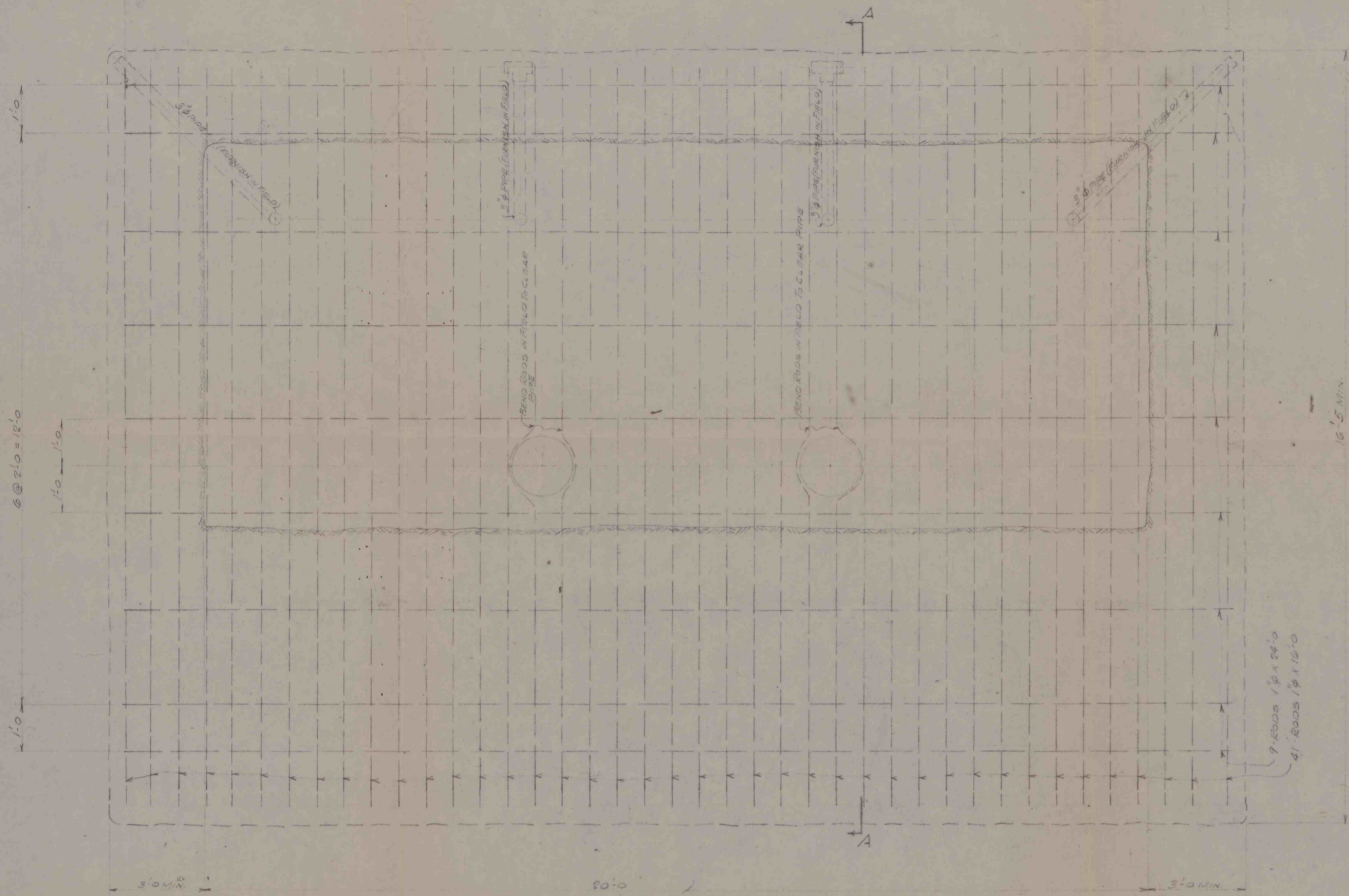
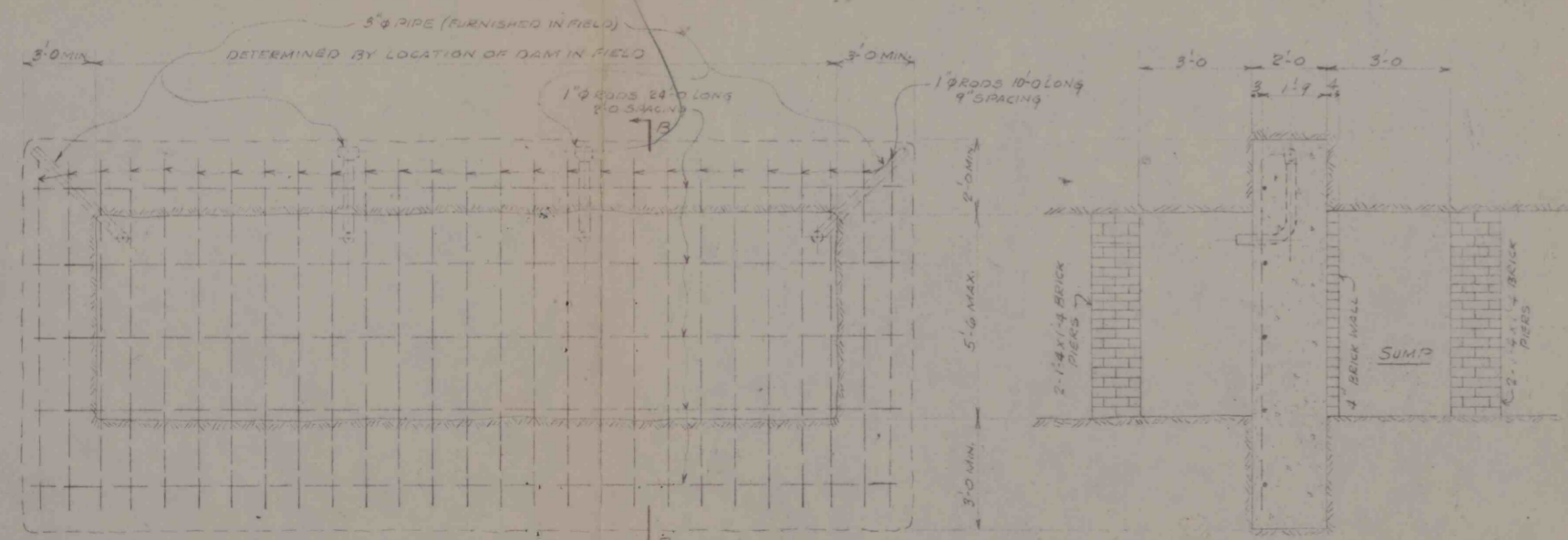


40 @ 7' 2 1/2" = 294'



ELEVATION OF DAM FROM
PUMP ROOM SIDE
2-REQ. MARKED A
SCALE 3/8" = 1'-0"



ELEVATION OF DAM
1-REQ. MARK B
SCALE 3/8" = 1'-0"

SECTION B-B

LOCATION PLAN
SCALE 1/8" = 1'-0"

DAM #1 DESIGN

NEGLECT EFFECT OF BRICK WALL
ASSUME CONCRETE BEAM ONE FOOT WIDE AND 8'-0" LONG
LOAD: 50' HEAD = 875 #/SQ FT
MAX. BENDING MOMENT = 24,100 #'-IN
ALLOWABLE CONC. STRESS = 1600 #/SQ IN
ALLOWABLE STEEL STRESS = 16,000 #/SQ IN
AREA OF STEEL REQUIRED PER FOOT OF WIDTH 1.01"
1" @ 12" @ 1" SPACING

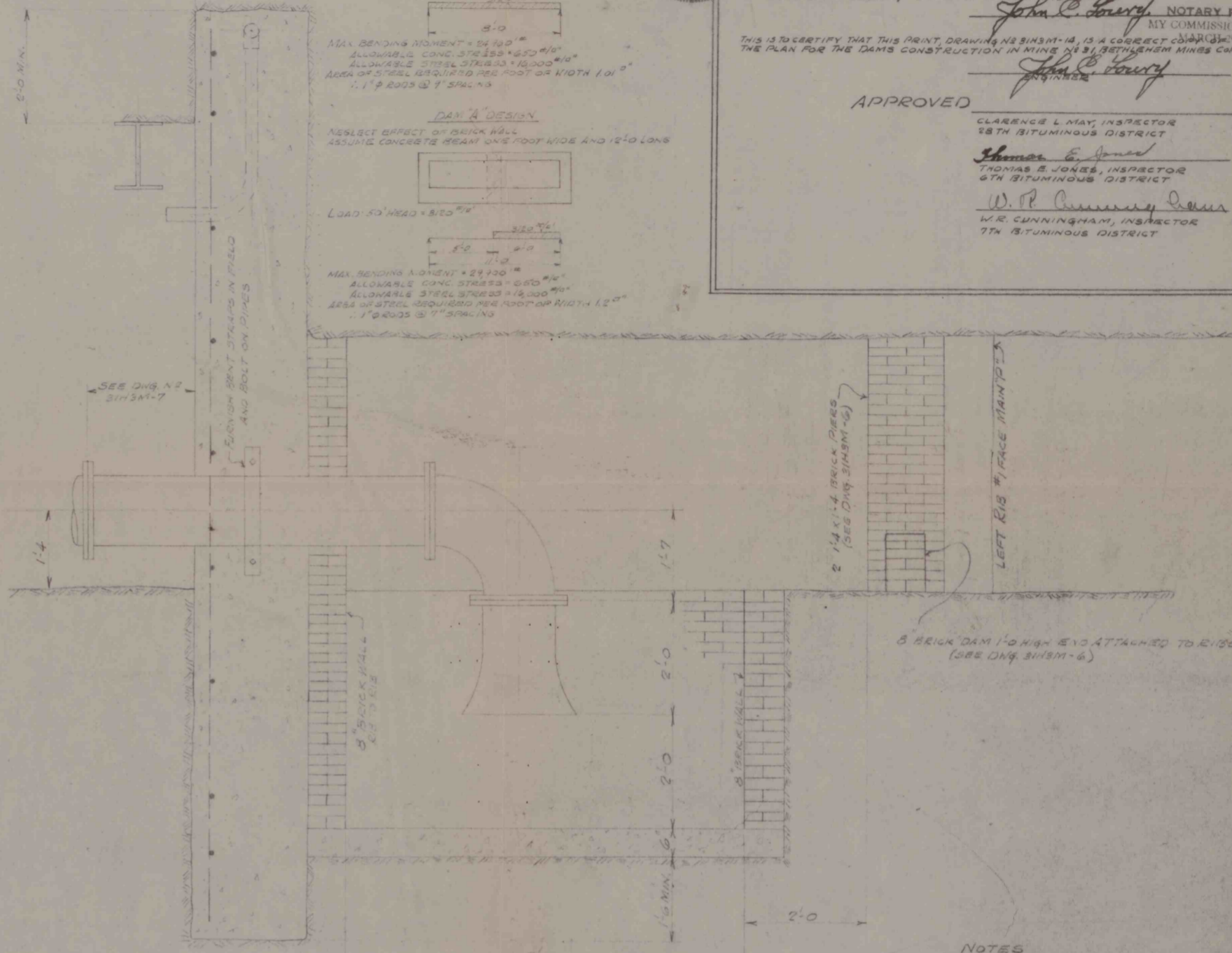
DAM #2 DESIGN

NEGLECT EFFECT OF BRICK WALL
ASSUME CONCRETE BEAM ONE FOOT WIDE AND 12'-0" LONG
LOAD: 50' HEAD = 875 #/SQ FT
MAX. BENDING MOMENT = 28,700 #'-IN
ALLOWABLE CONC. STRESS = 1600 #/SQ IN
ALLOWABLE STEEL STRESS = 16,000 #/SQ IN
AREA OF STEEL REQUIRED PER FOOT OF WIDTH 1.2"
1" @ 12" @ 1" SPACING



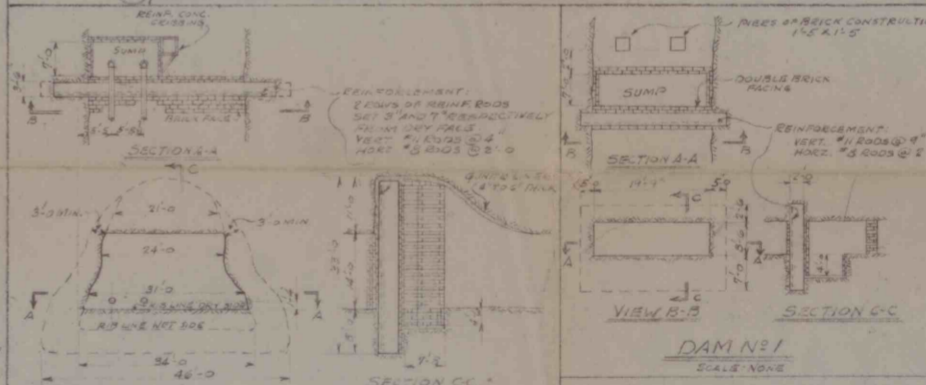
NOTARY PUBLIC
COMMONWEALTH OF PENNSYLVANIA
COUNTY OF CAMBRIA
ON THIS 20th DAY OF March, 1925, BEFORE ME THE UNDERSIGNED OFFICER,
PERSONALLY APPEARED John C. Jones
WHO ACKNOWLEDGED
THAT THE DAMS HEREIN DETAILED WERE CONSTRUCTED BY HIM OR UNDER HIS
SUPERVISION ACCORDING TO THIS SPECIFICATIONS SHOW
John C. Jones NOTARY PUBLIC
MY COMMISSION EXPIRES
THIS IS CERTIFY THAT THIS PRINT DRAWING NO. 5131-M-14, IS A CORRECT COPY OF THE
THE PLAN FOR THE DAMS CONSTRUCTION, IN WITNESS WHEREOF, I HAVE HEREBY
SIGNED AND SEALED MY OFFICE AND NOTARY PUBLIC OFFICE.

APPROVED
CLARENCE L. MAY, INSPECTOR
8TH DISTRICT
Thomas E. Jones
THOMAS E. JONES, INSPECTOR
6TH DISTRICT
W. P. Cunningham
W. P. CUNNINGHAM, INSPECTOR
7TH DISTRICT



SECTION A-A

CONSTRUCTION AND DIMENSIONS OF DAMS AS COMPLETED



NOTES
CONCRETE MIX
THE CONCRETE PROPORTIONS SHALL BE 500 POUNDS OF
AGGREGATE AND A MAXIMUM OF 54 GALLONS OF WATER INCLUDING
OVERAGE MOISTURE OF FREE WATER ON AGGREGATE FIVE SACKS OF
CEMENT THE PROPORTIONS OF THE MIX AND COARSE AGGREGATE
ARE TO BE ADJUSTED BY TESTING IN A SLUMP OF ABOUT
3 INCHES A TEST MIX TO OBTAIN THE ABOVE SLUMP IS 150
POUNDS OF FINE AGGREGATE AND 85 POUNDS OF 2" COARSE
AGGREGATE.
THE CONCRETE SHALL BE CAREFULLY CURED BY ANY APPROVED
METHOD OF THE PORTLAND CEMENT ASSOCIATION.
AGGREGATE MUST CONFORM TO ASTM SPEC. C-39-46.
FINE AGGREGATE TO BE ALLEGHENY #144 SAND.
THAT PORTION OF THE DAM ABOVE THE ROOF SHOULD BE MADE
BY USING GROUT CONSISTING OF ONE PART CEMENT TWO PARTS
SAND MIXED THROUGH THE CENTER PILES UNTIL IT OVERLAYS
THE END PILE PLATE. THIS GROUT MUST BE PULVERED CONTINUOUSLY
AND BEFORE THE CONCRETE SETS.
DAM #1 ALL NOT TO BE BUILT UNTIL ALL PIPE CONNECTIONS
ARE MADE.
ALL CUTS FOR DAMS IN ROOF, BOTTOM, AND RIBS TO BE
CHANNELLED, NO SHOOTING PERMITTED.
NO MINE WATER TO BE PERMITTED IN CONSTRUCTION
OF ANY DAM.
MIN. TIMBERING SHOWN ON DRAWING, FIELD TO PROVIDE
EXTRA TIMBER WHERE NECESSARY.

1. CONSTRUCTION AND DIMENSIONS OF DAMS AS COMPLETED ADDED.

NO.	DESCRIPTION	DATE
1	AS SHOWN	11-19-21
2	AS SHOWN	11-19-21
3	AS SHOWN	11-19-21
4	AS SHOWN	11-19-21
5	AS SHOWN	11-19-21
6	AS SHOWN	11-19-21
7	AS SHOWN	11-19-21
8	AS SHOWN	11-19-21
9	AS SHOWN	11-19-21
10	AS SHOWN	11-19-21
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44	AS SHOWN	11-19-21
45	AS SHOWN	11-19-21
46	AS SHOWN	11-19-21
47	AS SHOWN	11-19-21
48	AS SHOWN	11-19-21
49	AS SHOWN	11-19-21
50	AS SHOWN	11-19-21

DAM DETAILS
MAIN P PUMP STATION
MINE #31 CAMBRIA DIV, NANTY GLO, PA.
BETHLEHEM LIMESTONE CO.
OPERATED BY
BETHLEHEM COLLIERIES CORP (DEL.)
DWG BY G.W.M., D.R.S. (CO); F.U. 2, 11-4-21 SCALE AS NOTED.
DATE 11-19-21 ORDNAL 1034-1
APPROVED: P.S. CUNNINGHAM DWG NO. 5131-M-14