Declassified E.O. 12356 Section 3.3/NND No. 785019

ACC 10000/150/779 (1 OF 2) TOSCANA REGION, MISCEL
(VOL. 3) FEB. – APR. 1945

Declassified E.O. 12356 Section 3.3/NND No. 785019

F 2) TOSCANA REGION, MISCELLANEOUS PROJECTS
FEB. – APR. 1945

~~1425~~ Vol 3-

TOSCANA REG.

MISCELLANEOUS

PROJECTS

Declassified E.O. 12356 Sec. 3.3/NND No. 785015

MISCELLANEOUS

PROJECTS

10000 150 779

THIS FOLDER
CONTAINS PAPERS
FROM FEB-45
TO APR-45
CATALOGUED

Declassified E.O. 12356 Section 3.3/NND No. 785019

427

T.G.U

DATES FROM To

TOTAL DOCUMENTS 25

0 3 8-01

Declassified E.O. 12356 Section 3.3/NND No. 785181

0 3 8 11

Declassified E.O. 12356 Section 3.3/NND No. 785019

DATES FROM To

TOTAL DOCUMENTS 25

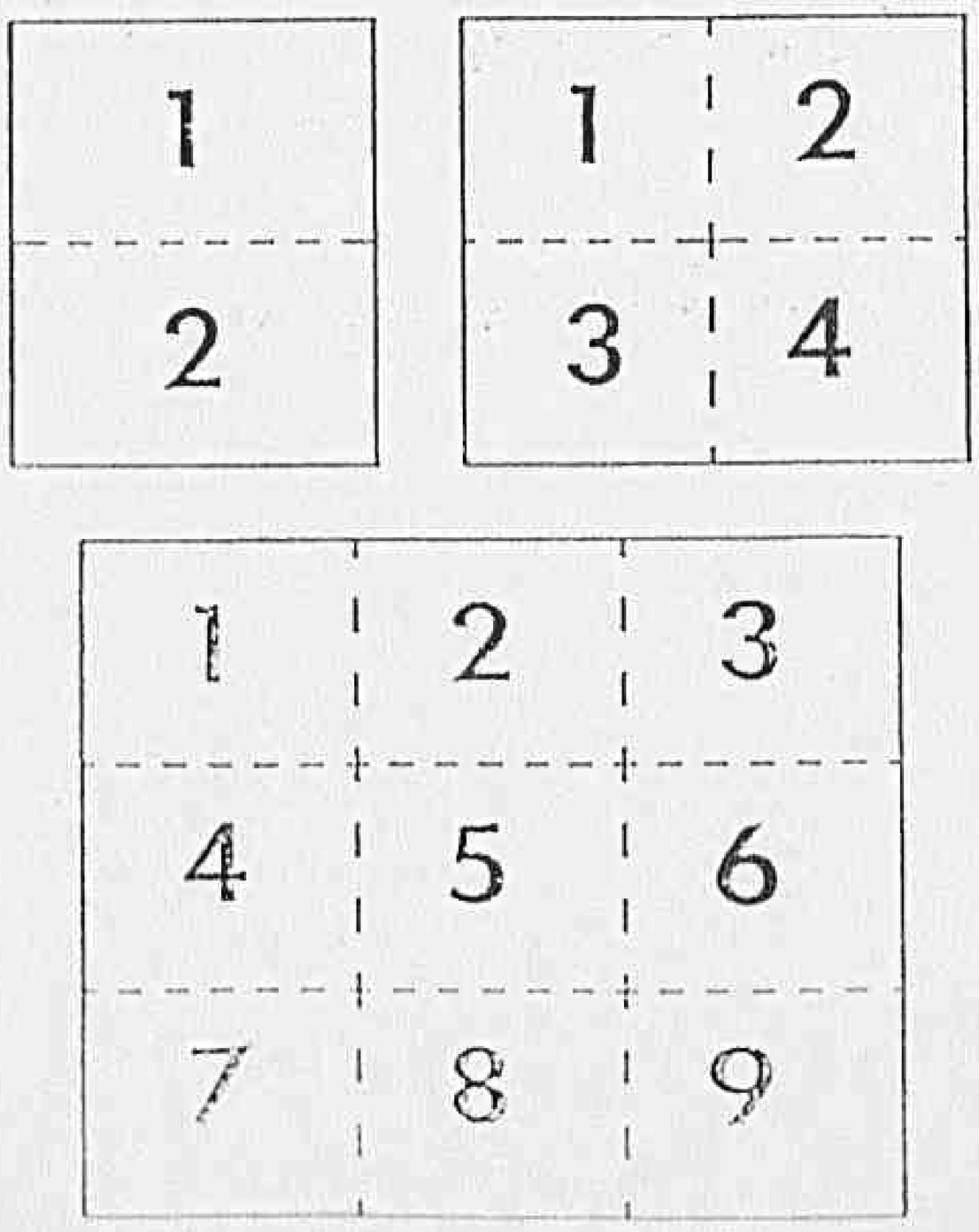
DOCUMENTS TO BE FILMED 25

0 3 8 21

Declassified E.O. 12356 Section 3.3/NND No. 785019

MAPS AND CHARTS TOO LARGE TO FILM
ON ONE EXPOSURE ARE FILMED CLOCKWISE
BEGINNING IN THE UPPER LEFT CORNER,
LEFT TO RIGHT, AND TOP TO BOTTOM.

SEE DIAGRAMS BELOW.



Declassified E.O. 12356 Section 3.3/NND No. 785015

7-66 II

COMVNE DI BORGO SAN LORENZO

UFFICIO TECNICO

II-766

Toscana II Misc

PROGETTO per la ricostruzione del Ponte sul Torrente "Bosso" lungo la strada Comunale di Grezzano a Grezzano.

426

N. 665

DISEGNI

1953

Borgo San Lorenzo li 20 Marzo 1953

l'Ing. Comunale

Toscana
Misc

426

PROGETTO per la ricostruzione del Ponte sul Torrente "Bosso" lungo la strada Comunale di Grezzano a Grezzano.

N. 665

DISEGNI

1953

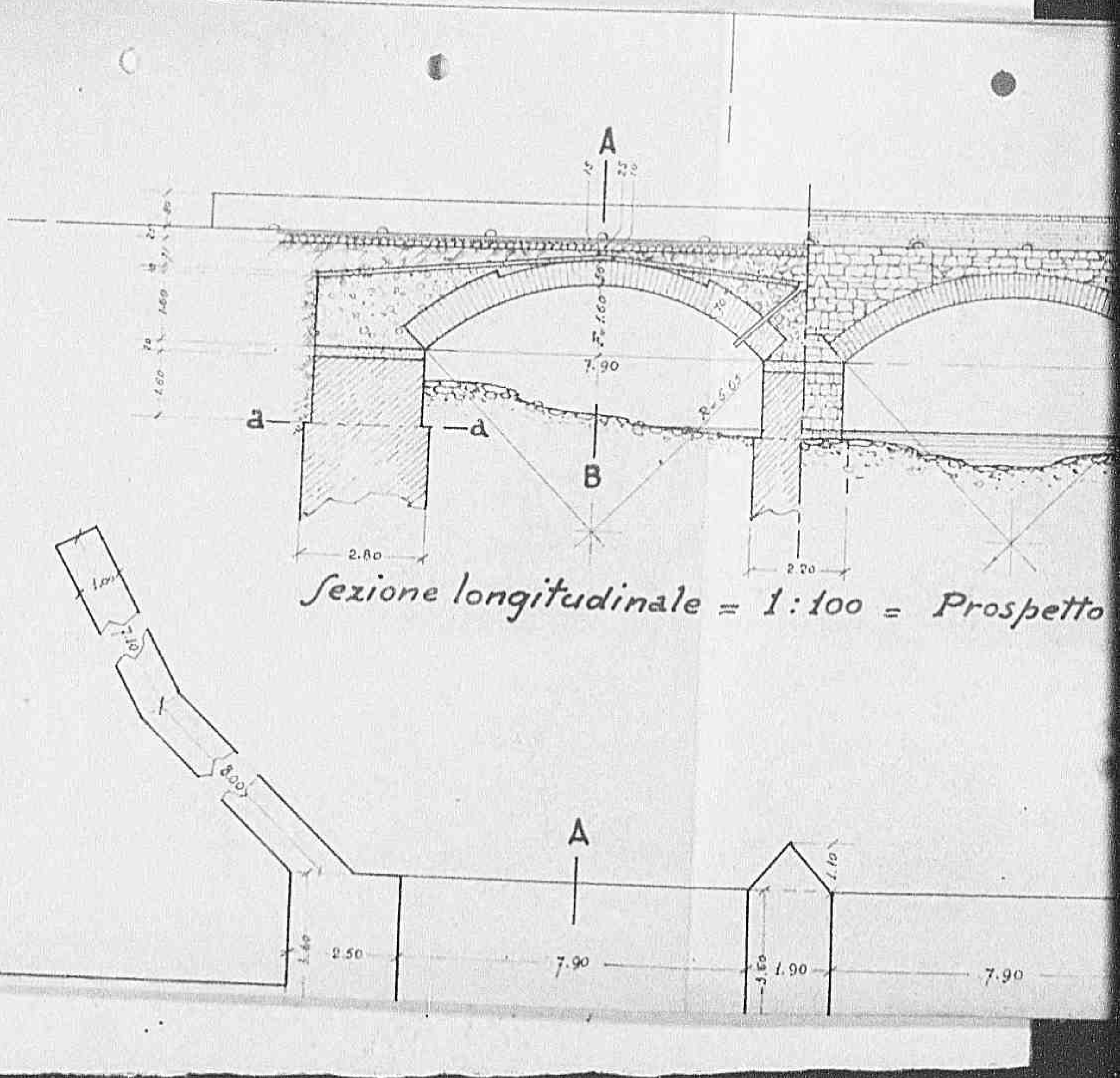
Borgo San Lorenzo li 29 Marzo 1945

l'Ing. Comunale

Declassified E.O. 12356 Section 3.3/NND No. 785019

038.51

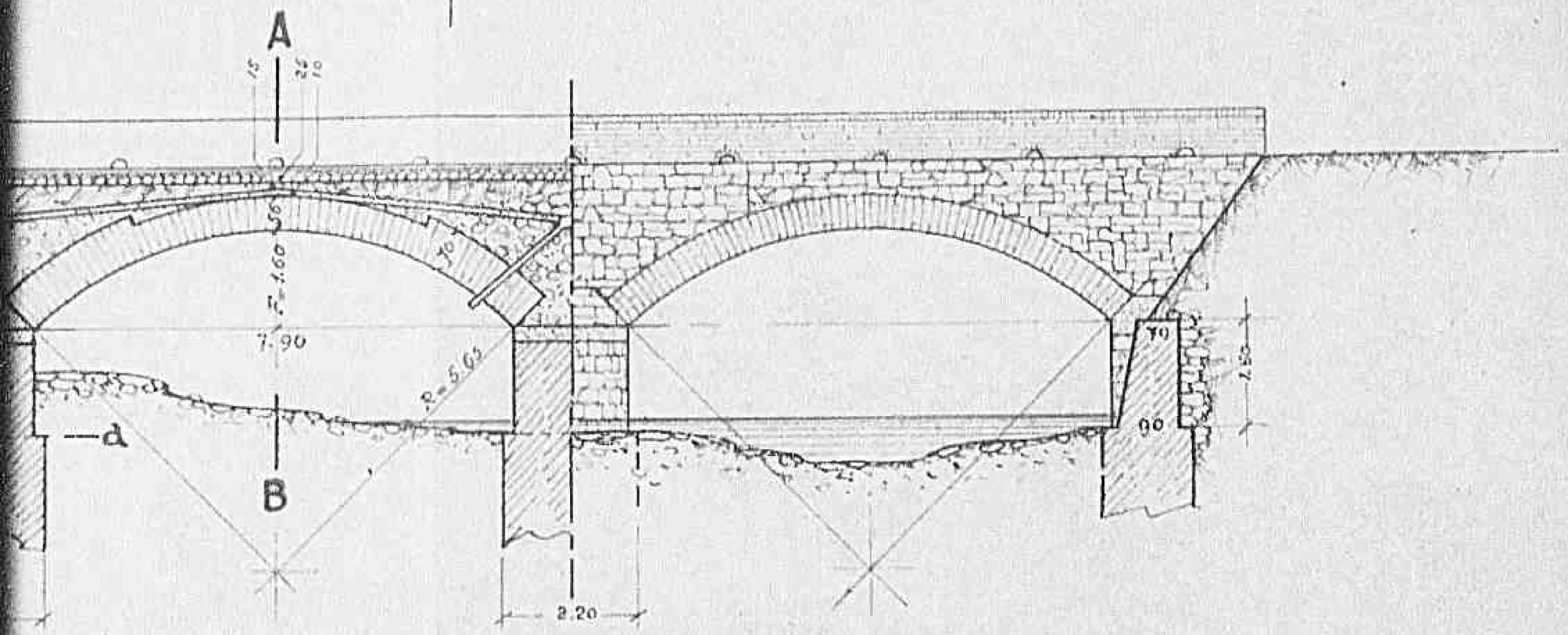
Declassified E.O. 12356 Section 3.3/NND No. 785019



Sezione longitudinale = 1:100 = Prospetto

0386

Declassified E.O. 12356 Section 3.3/NND No. 785019



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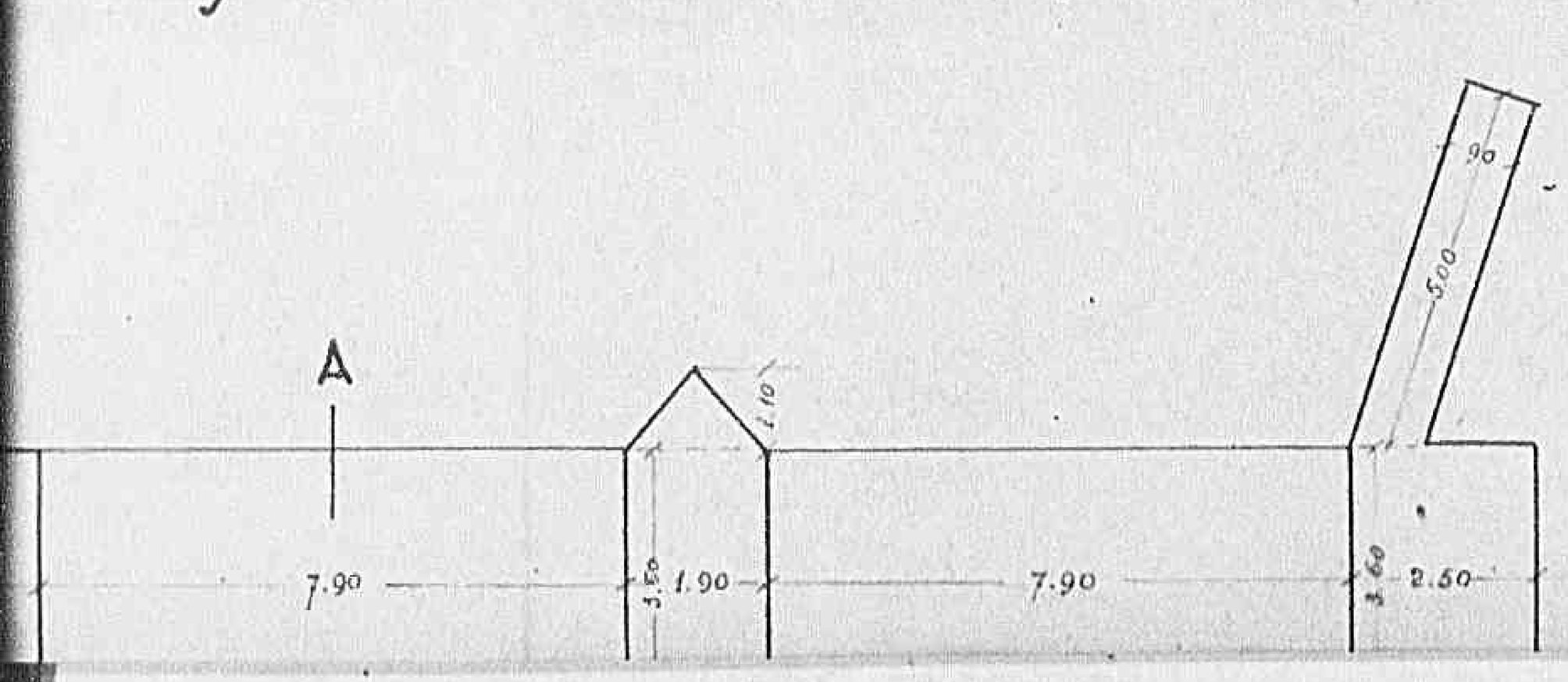
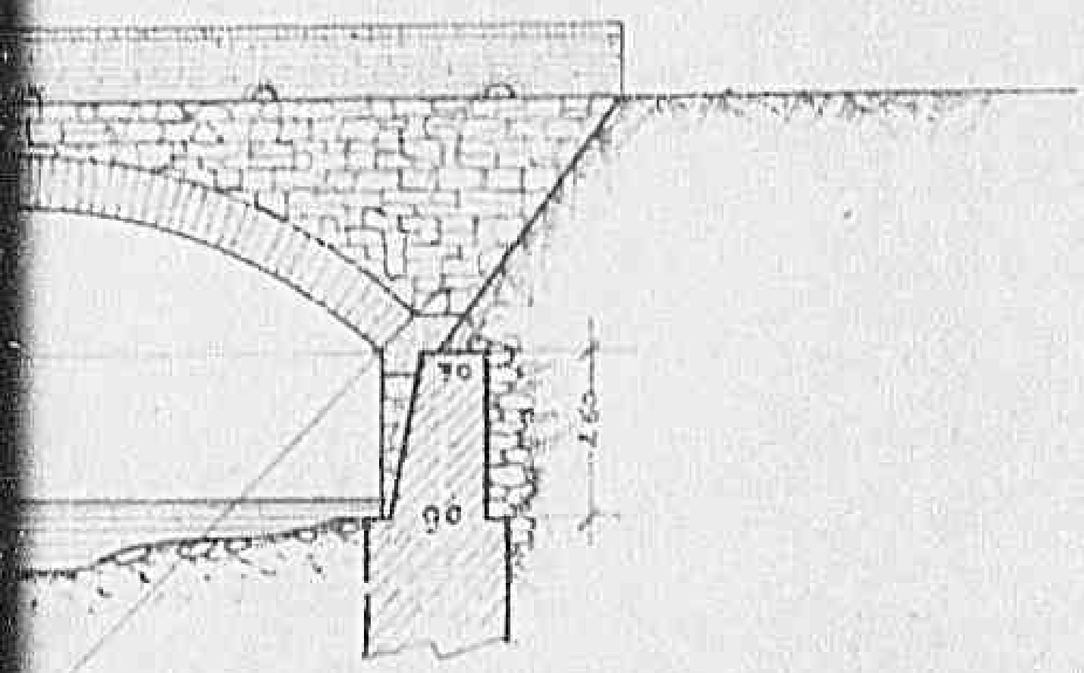
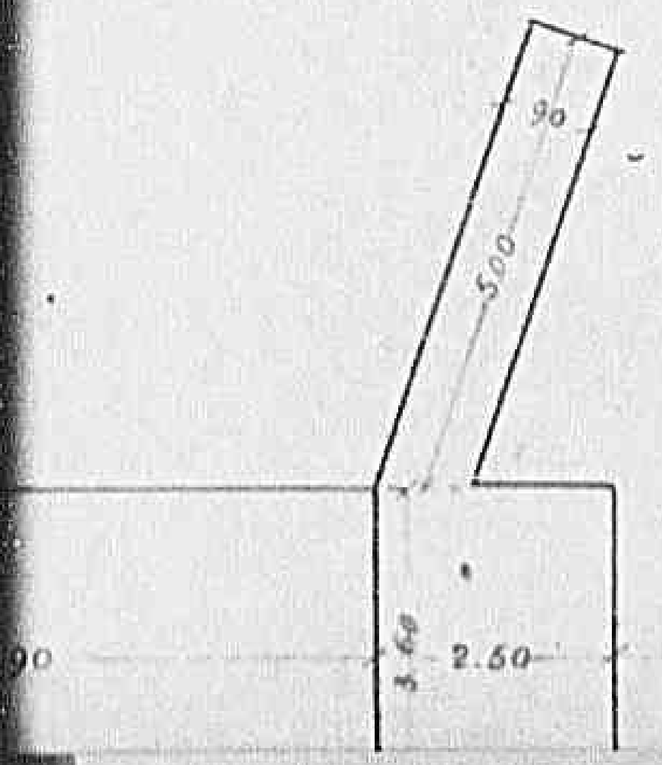


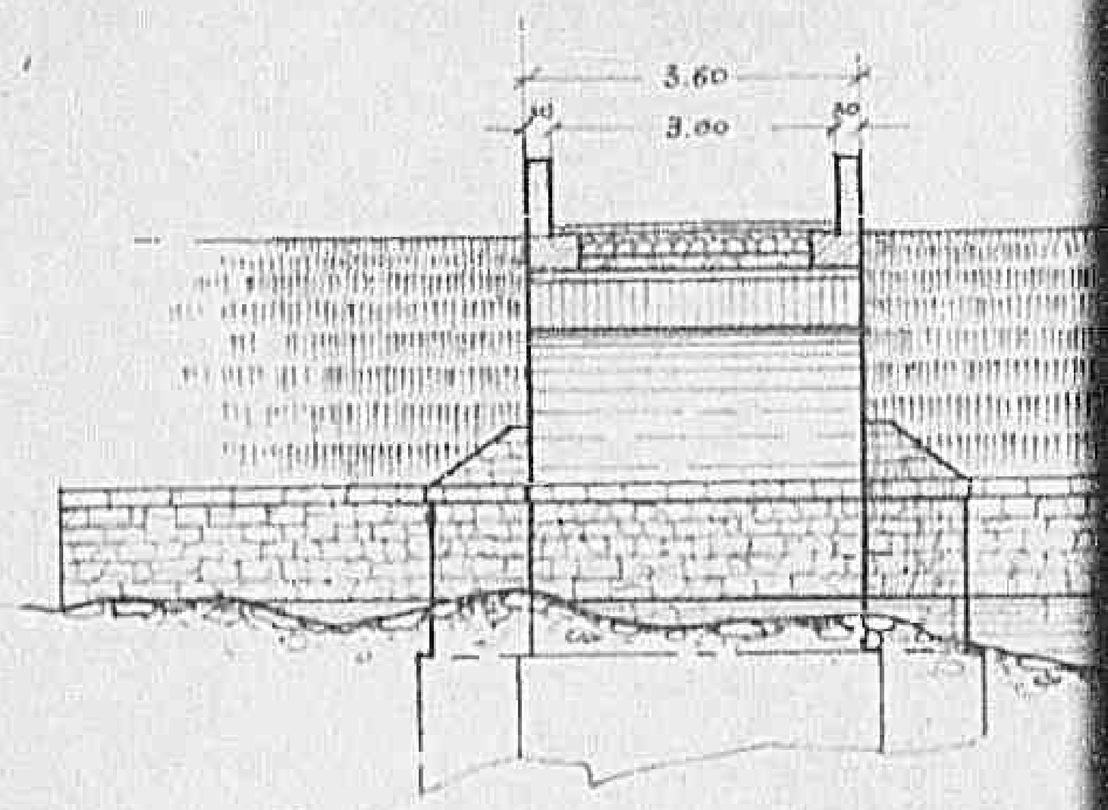
0 3 8 71

Declassified E.O. 12356 Section 3.3/NND No. 785019



Spetto a valle

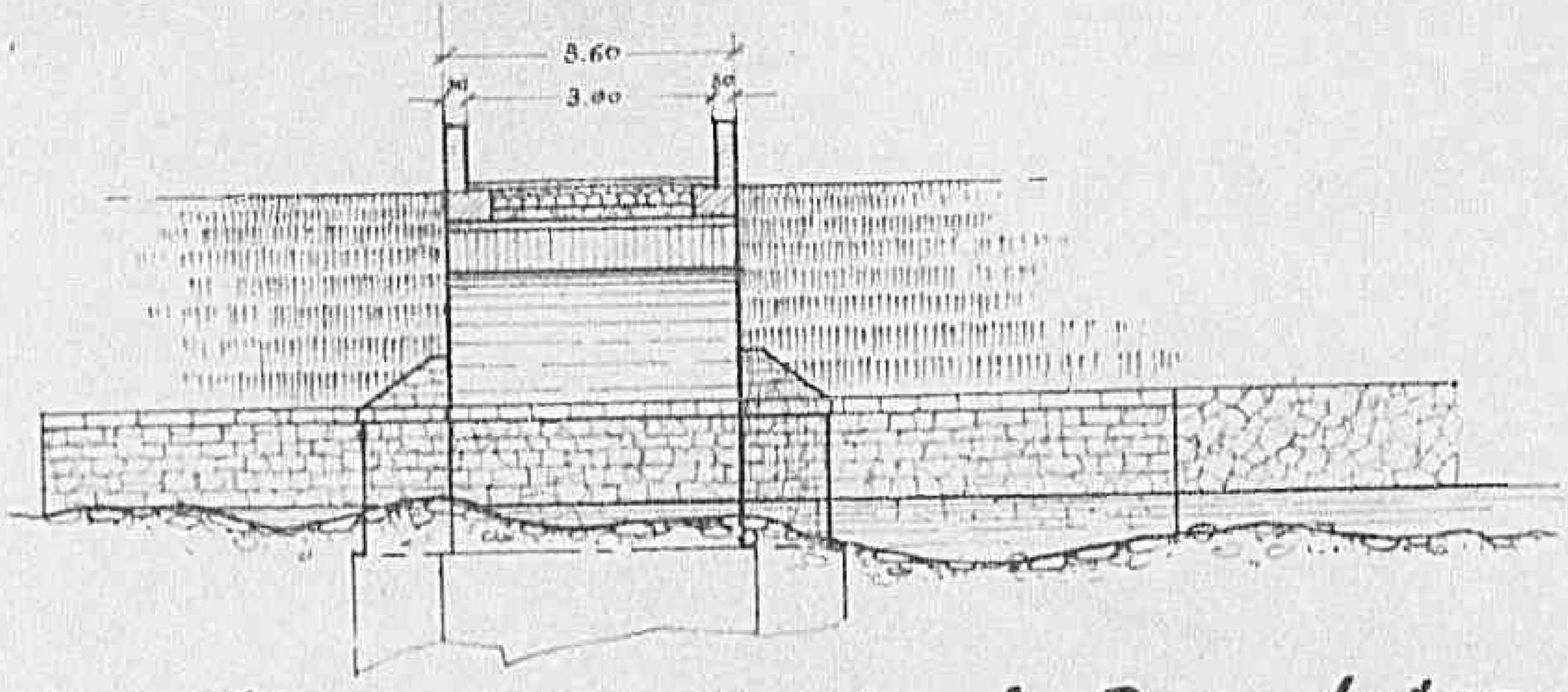




Sezione trasversale

0388

Declassified E.O. 12356 Section 3.3/NND No. 785019



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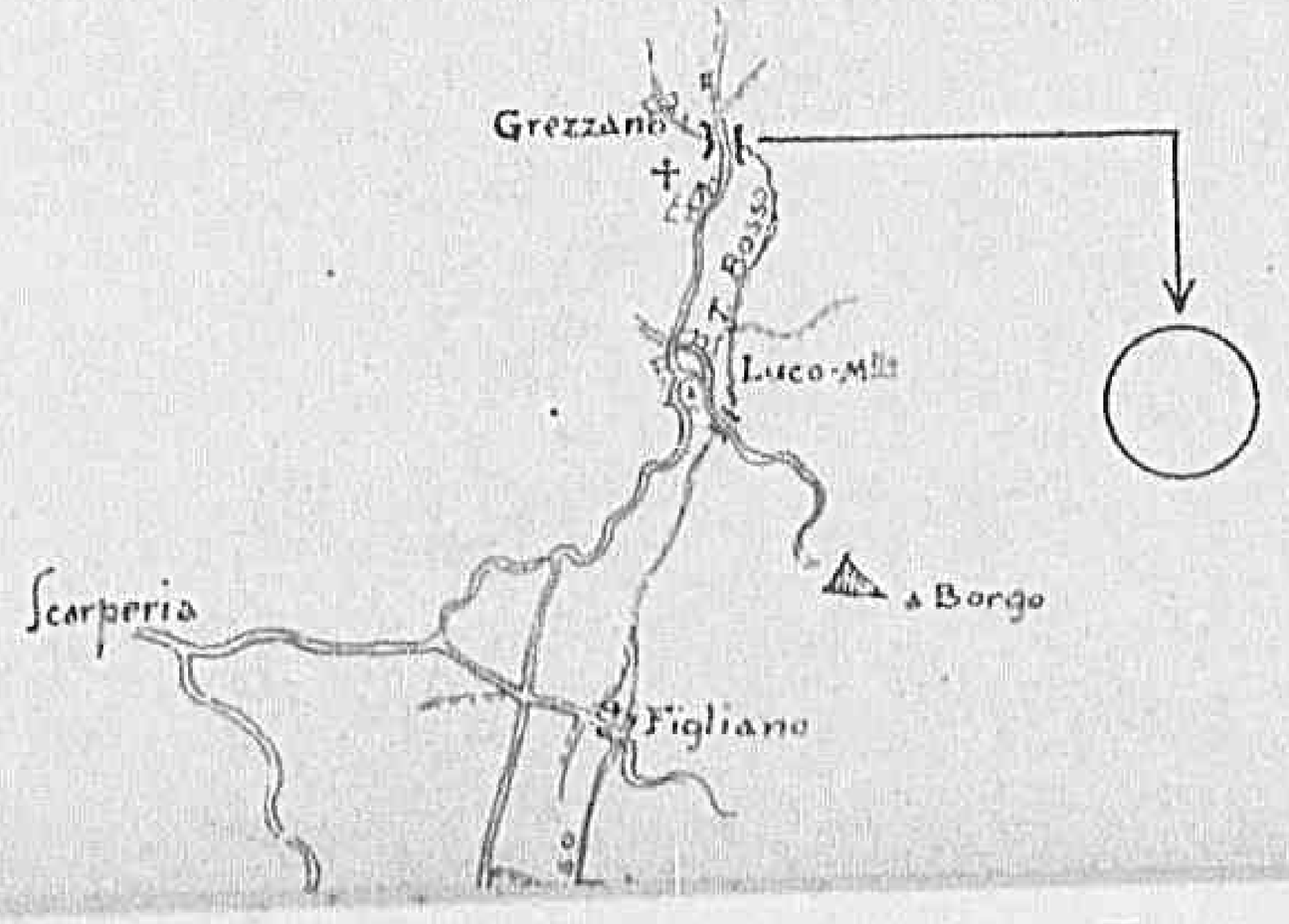

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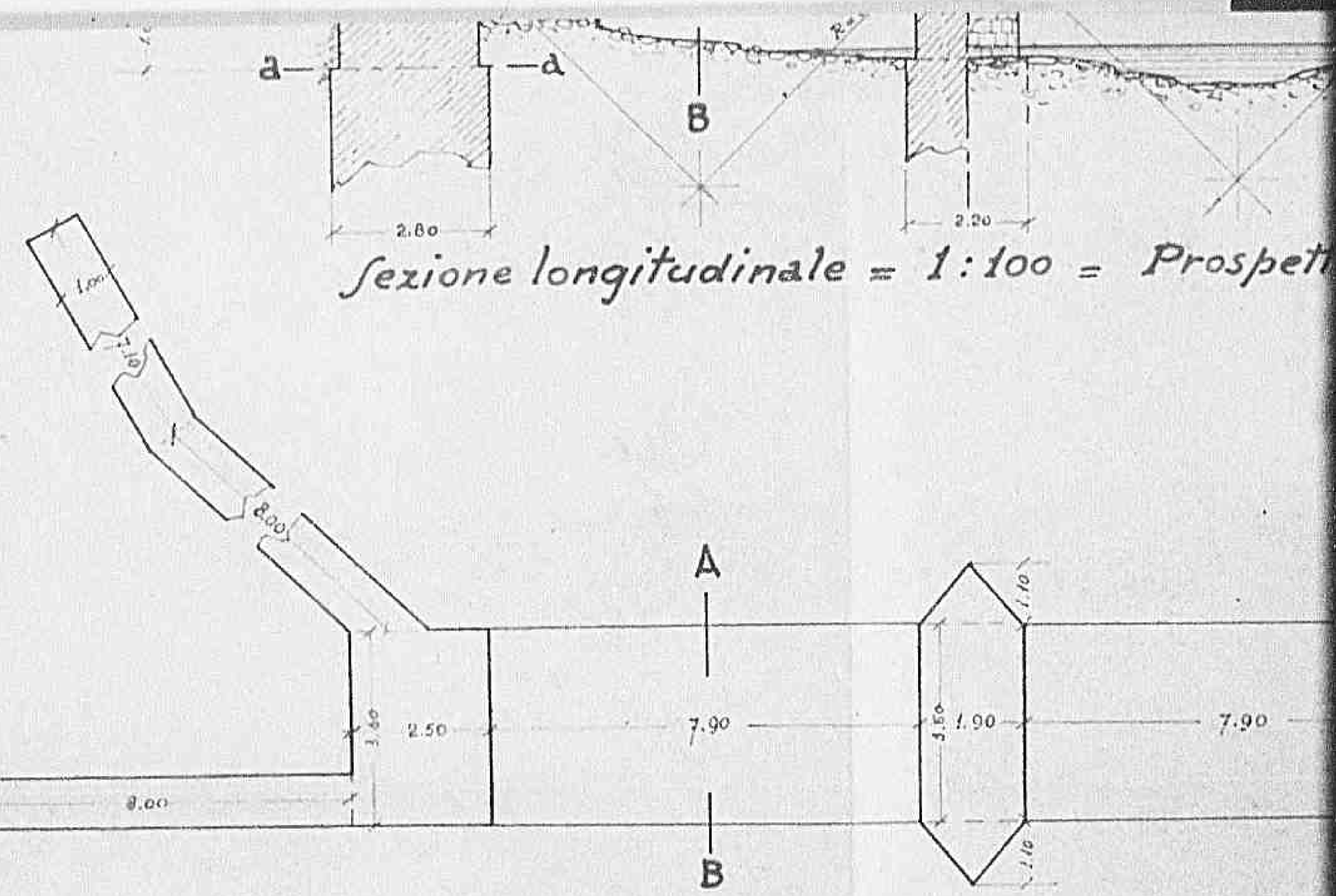
Declassified E.O. 12356 Section 3.3/NND No. 785019

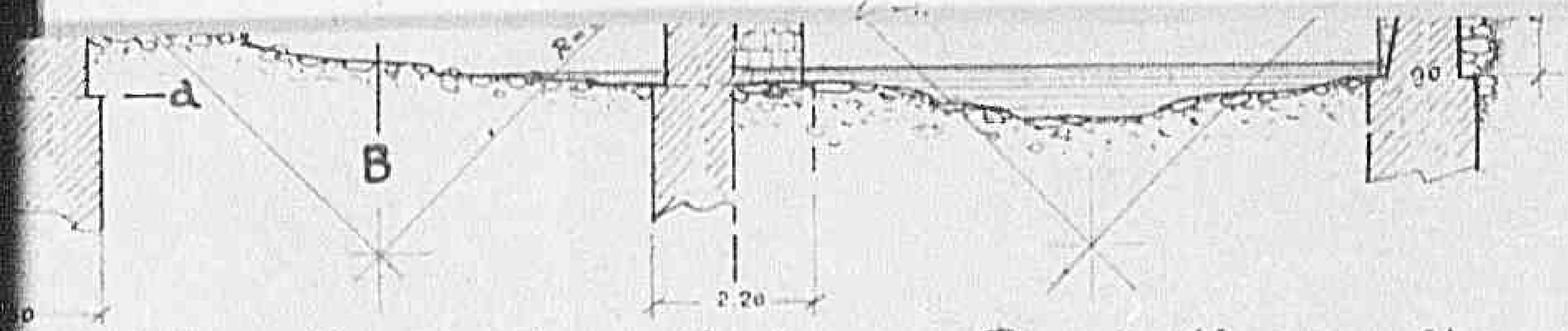


Sezione longitudinale = 1:100 = Prospett

Planimetria al piano a-a = 1:100

0390

Declassified E.O. 12356 Section 3.3/NND No. 780019



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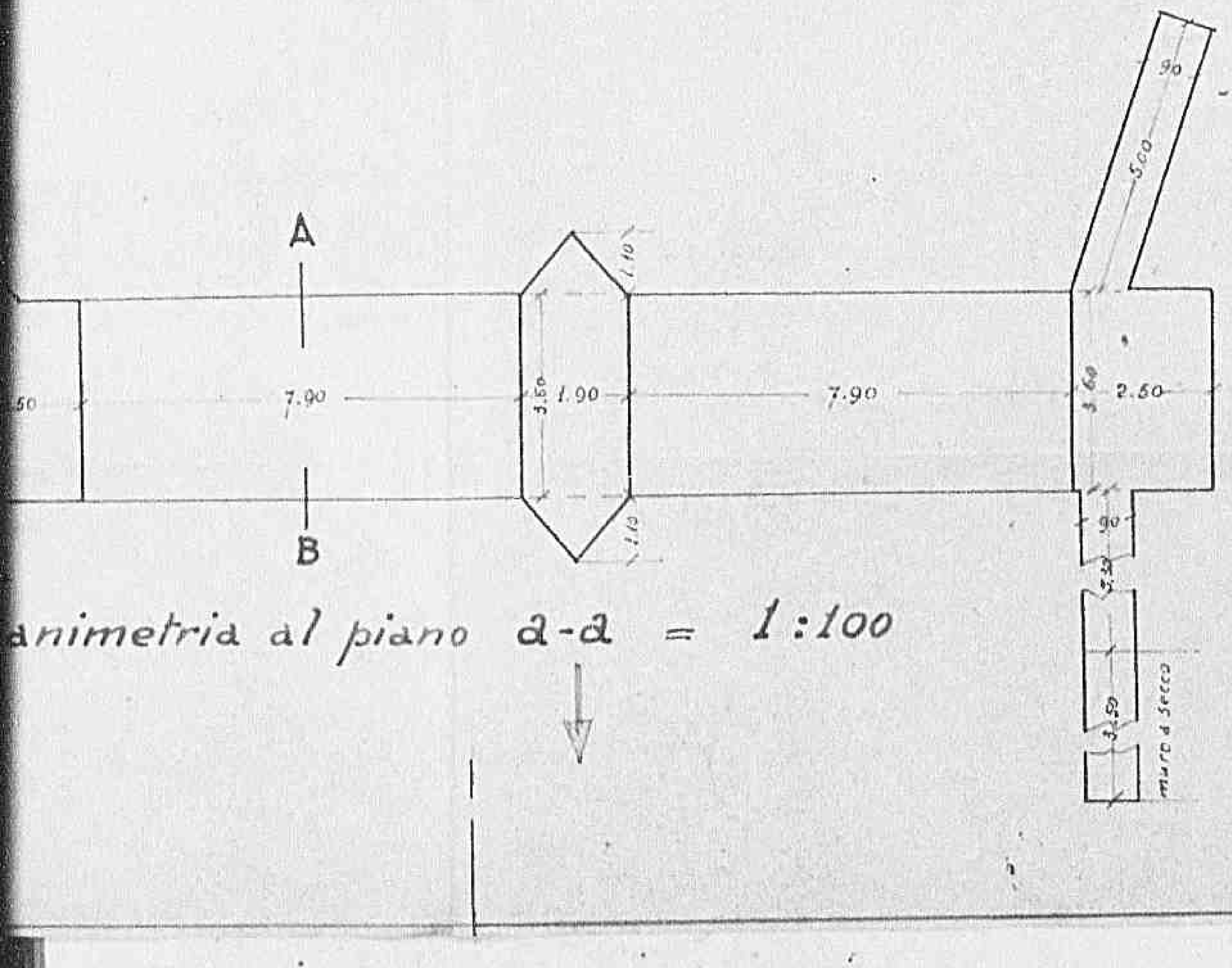

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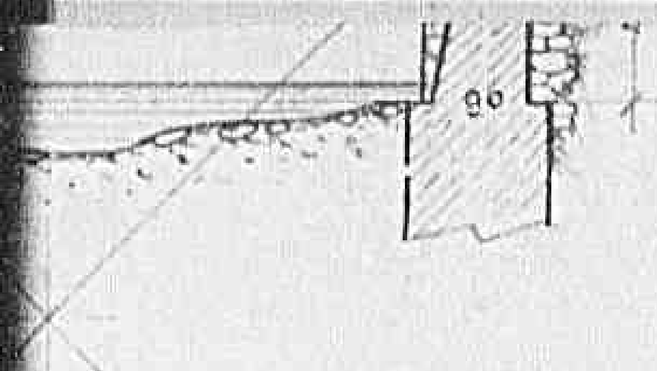
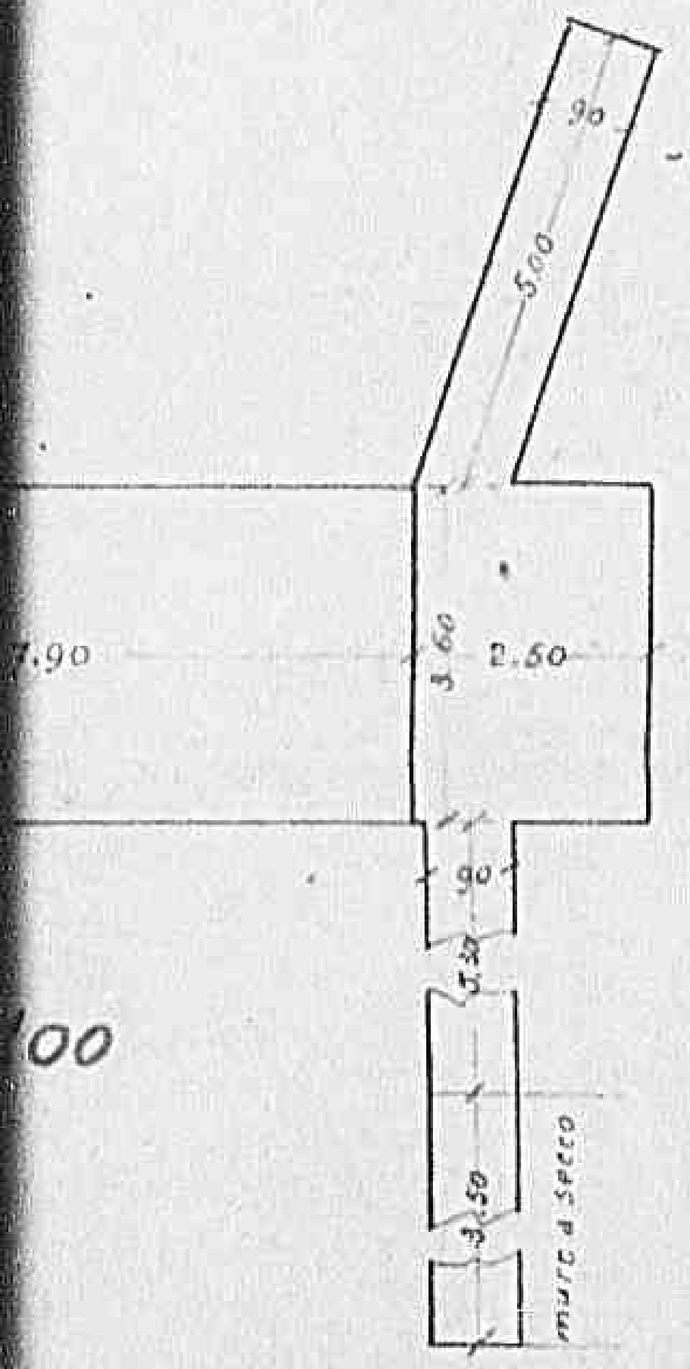
0 3 9 11

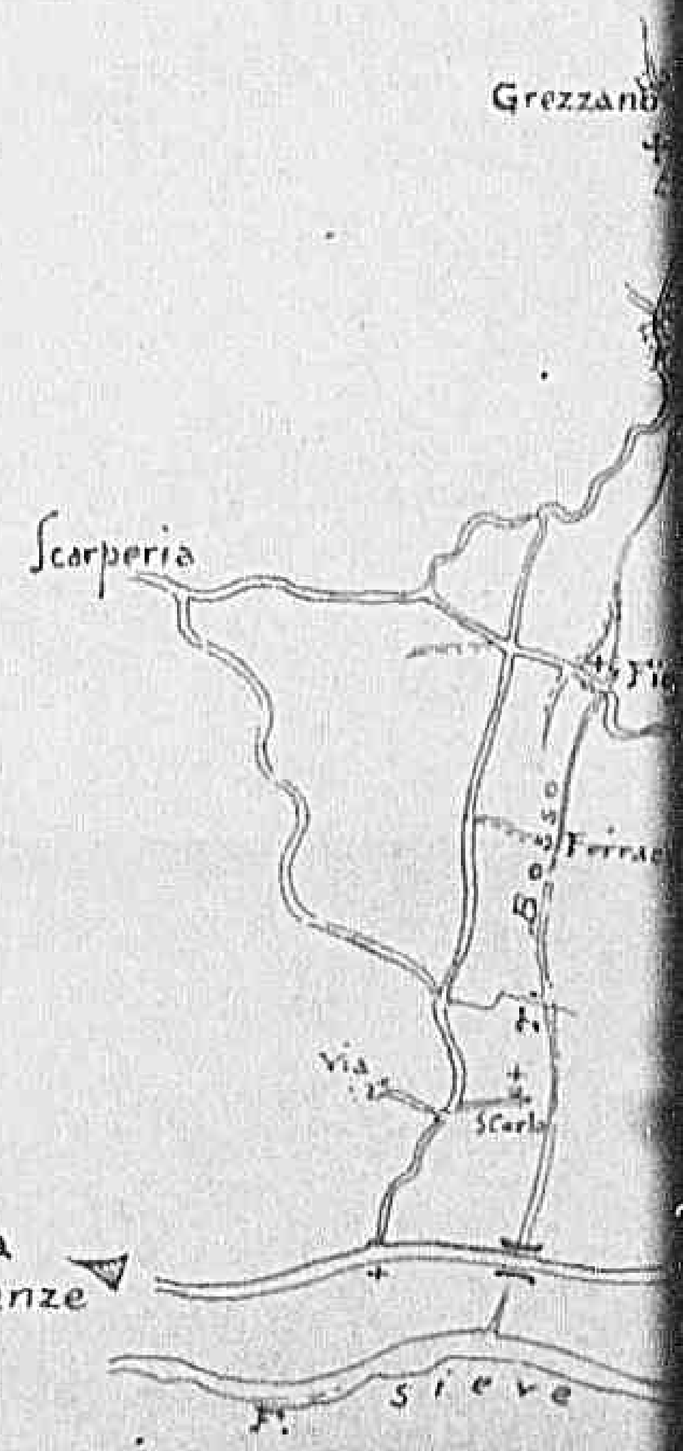
Declassified E.O. 12356 Section 3.3/NND No. 785019



Sezione trasversale

spetto a valle

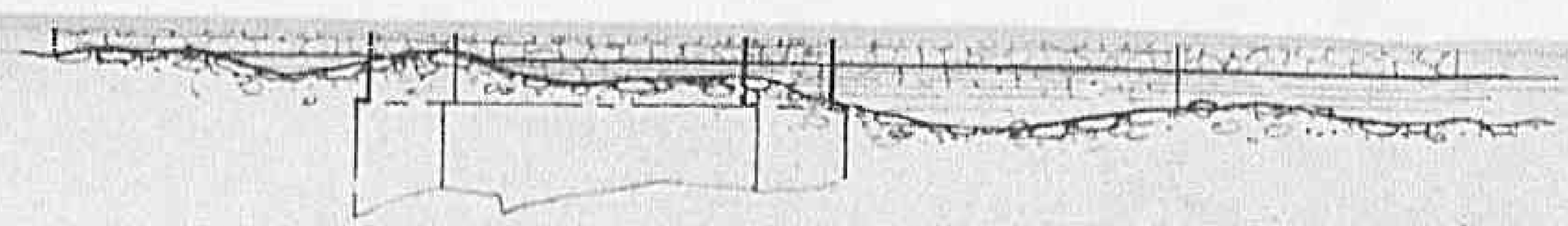




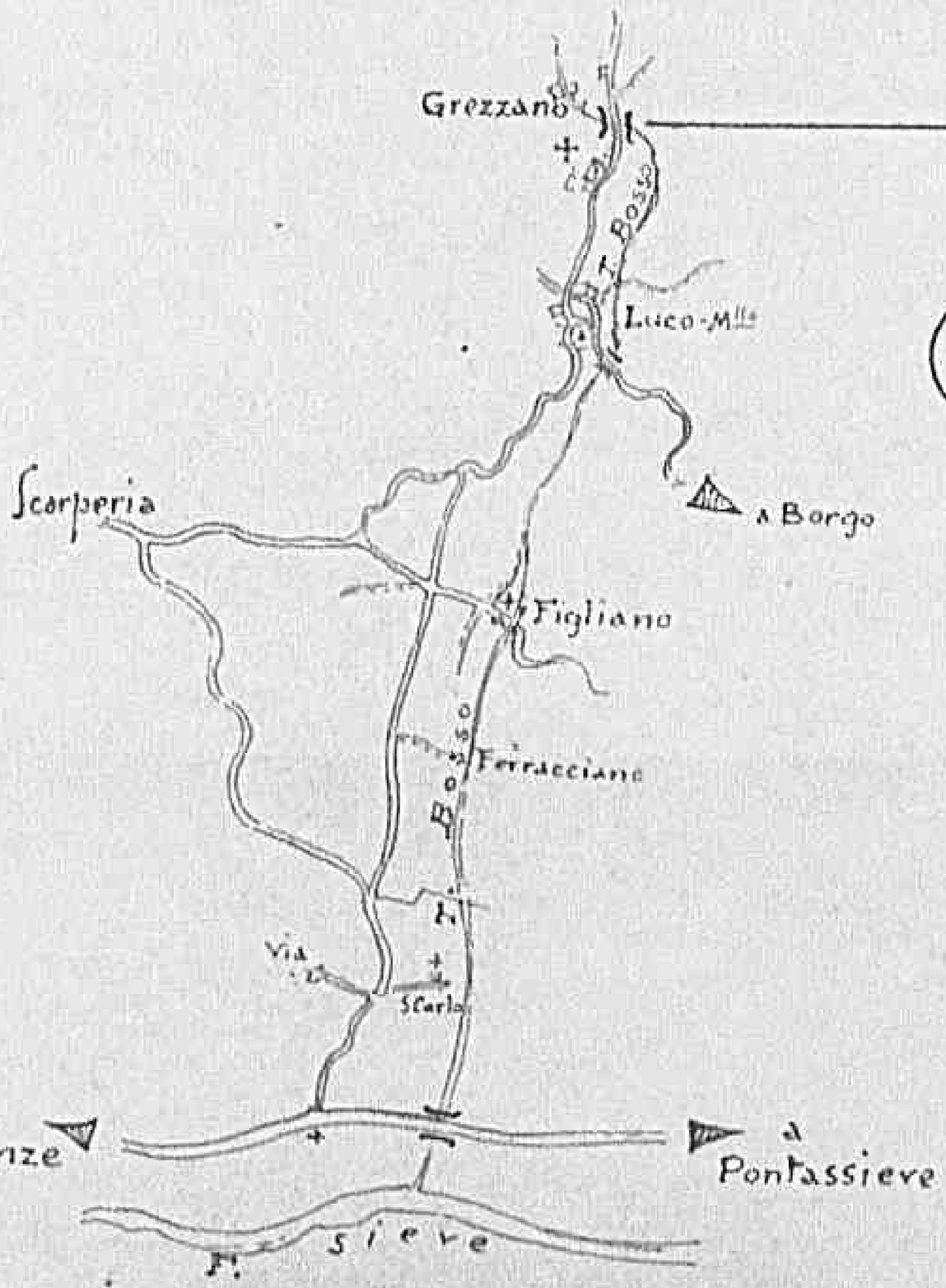
Corografia

0392

Declassified E.O. 12356 Section 3.3/NND No. 785019



Sezione trasversale A-B = 1:100



Corografia = 1:50.000

III n°5

MINISTERO DEI LAVORI PUBBLICI

UFFICIO DEL GENIO CIVILE - FIRENZE

FIR 637

M-164

Progetto *per la ricostruzione del "Ponte Rotto" sul torrente Pesa lungo la strada comunale Certaldese, in Comune di S. Casciano.*

(32)

DISEGNI

N. 749

Firenze, li 19 APR. 1945

IL Geometra

Racculli

Declassified E.O. 12356 Section 3.3/NND No. 780019

Progetto *per la ricostruzione del "Ponte Rotto" sul torrente Pesa lungo la strada comunale Certaldese in Comune di S. Casciano.*

(32)

DISEGNI

N. 749

Firenze, li 19 APR 1945

IL Geometra

L'Ing. Principale di Sez.ne

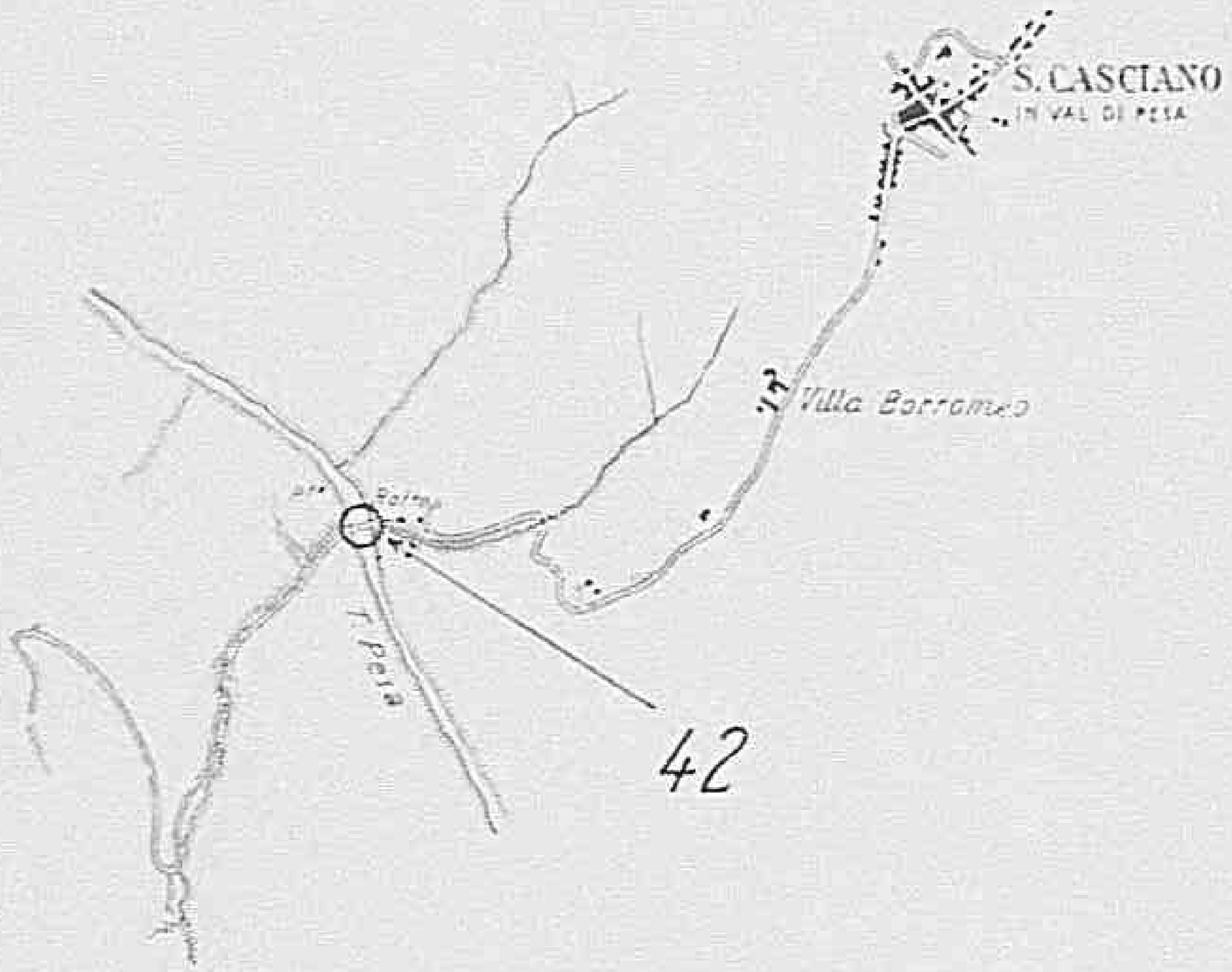
Visto: L'Ing. Capo

1952

CORPO REALE DEL GENIO CIVILE * UFFICIO DI FIRENZE *

Declassified E.O. 12356 Section 3.3/NND No. 785018

Corografia



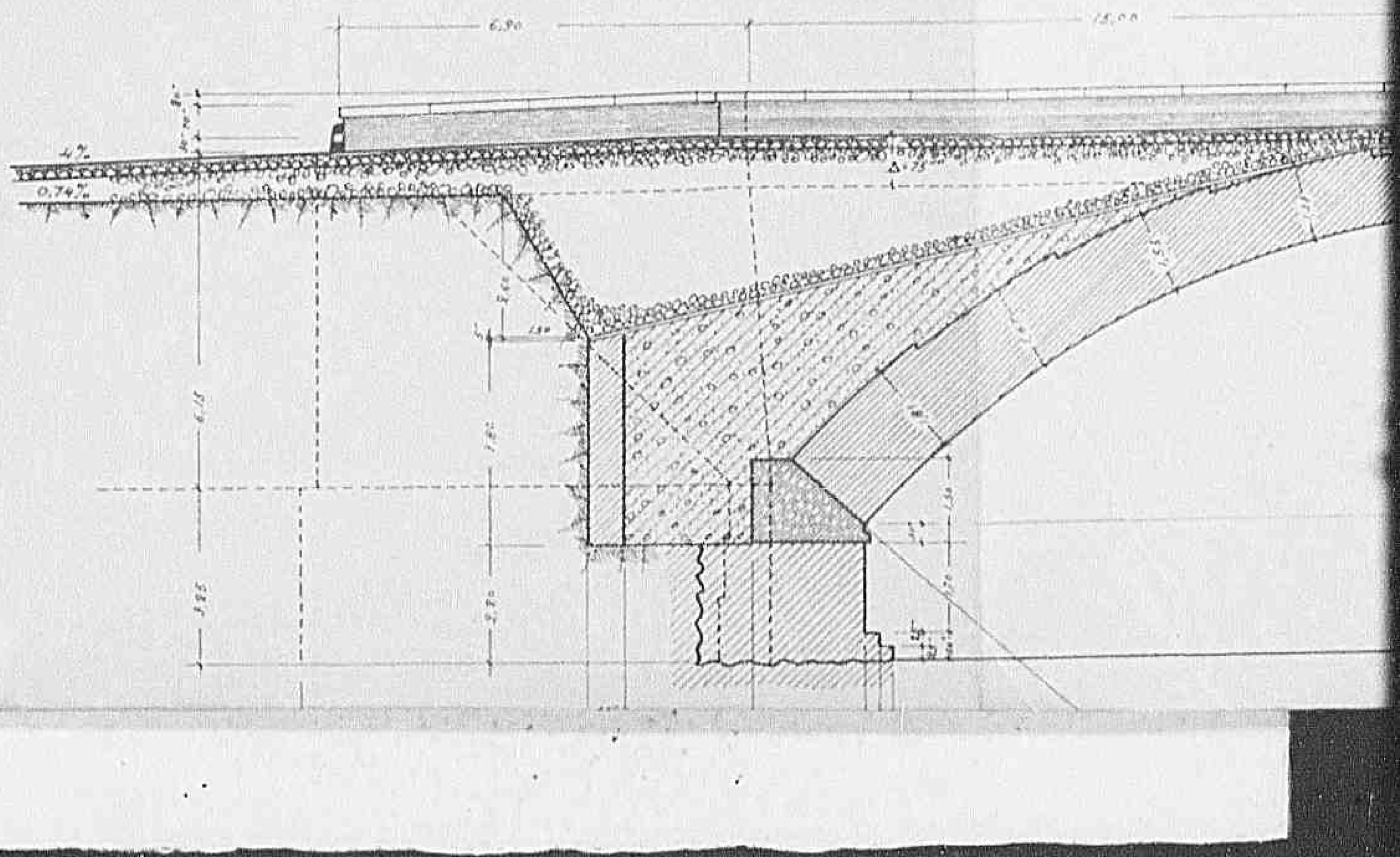
Scala 1:25000

Declassified E.O. 12356 Section 3.3/NND No. 785019

03961

Declassified E.O. 12356 Section 3.3/NND No. 785019

½ SEZIONE LONGITUDINALE



0397

Declassified E.O. 12356 Section 3.3/NND No. 785019

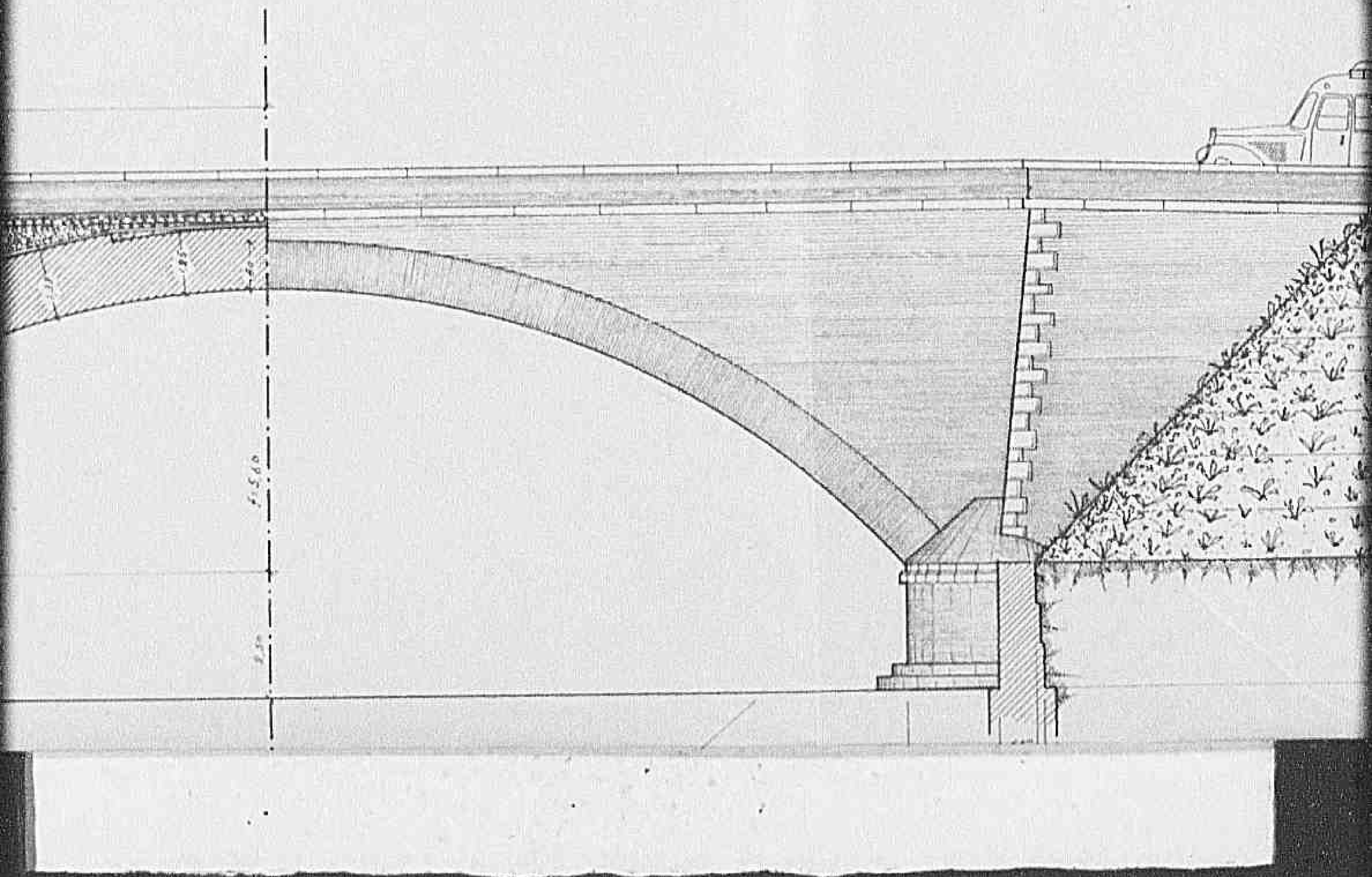
½ SEZIONE LONGITUDINALE

½ PR

0398

Declassified E.O. 12356 Section 3.3/NND No. 785019

½ PROSPETTO



0391

Declassified E.O. 12356 Section 3.3/NND No. 785019

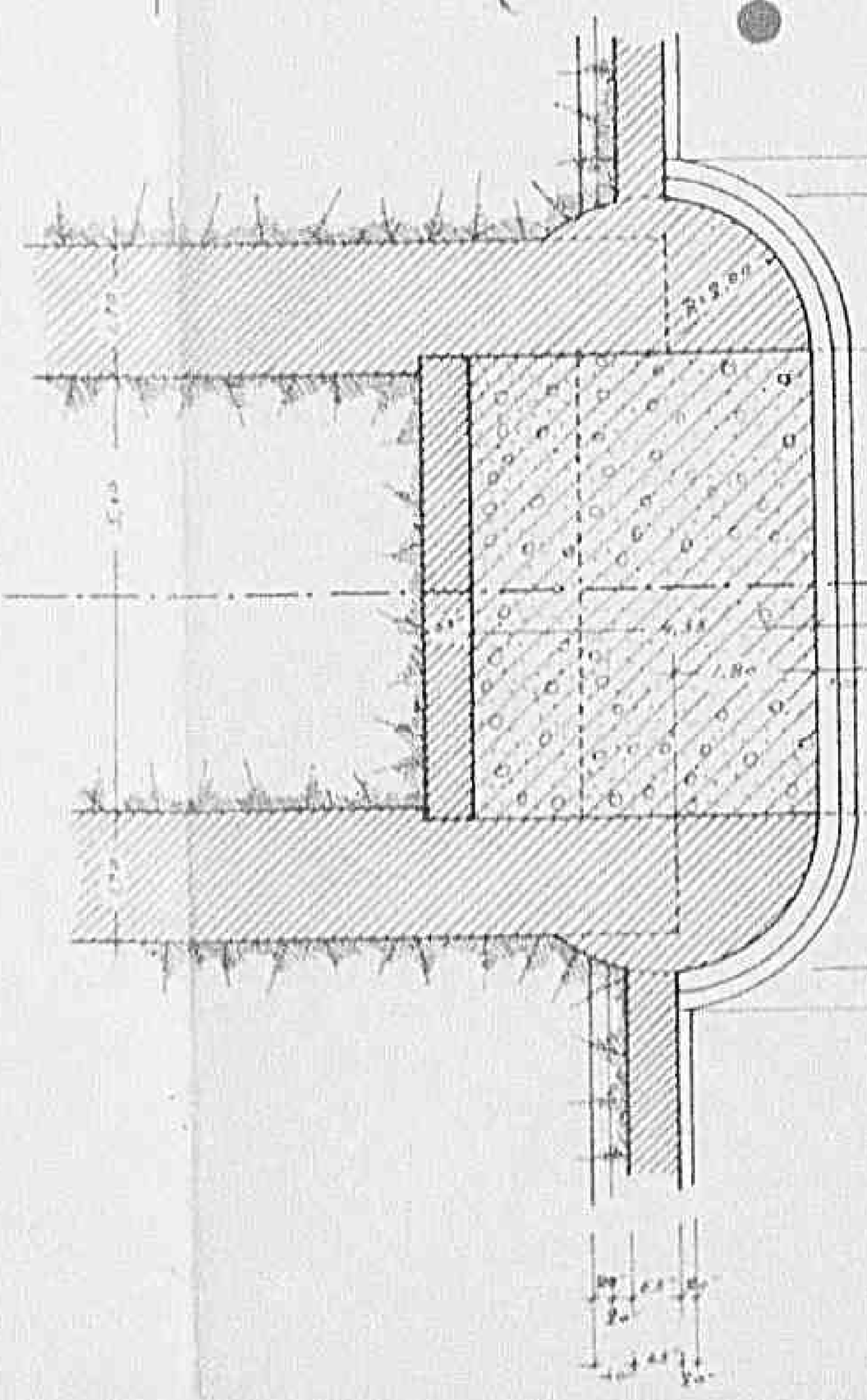
ETTO

0 4 0 0

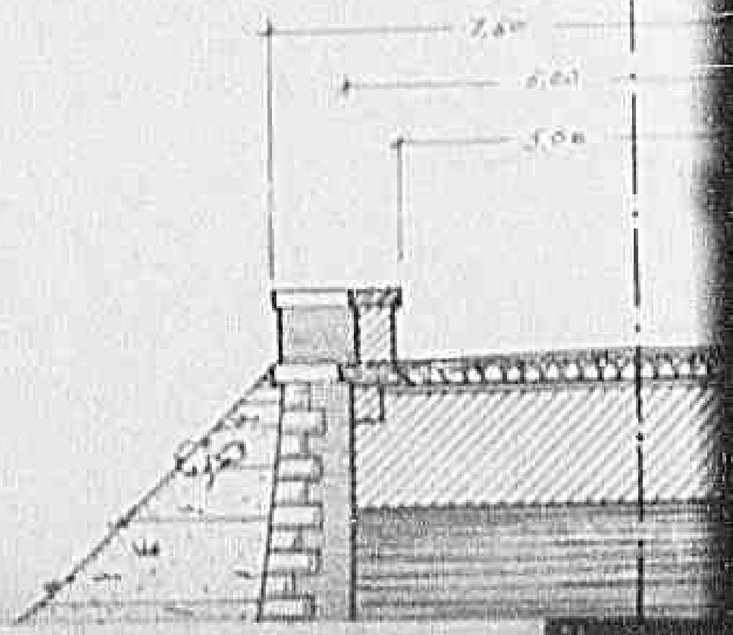
Declassified E.O. 12356 Section 3.3/NND No. 785019

½ PIANTA

a murature scoperte.



SEZIONE

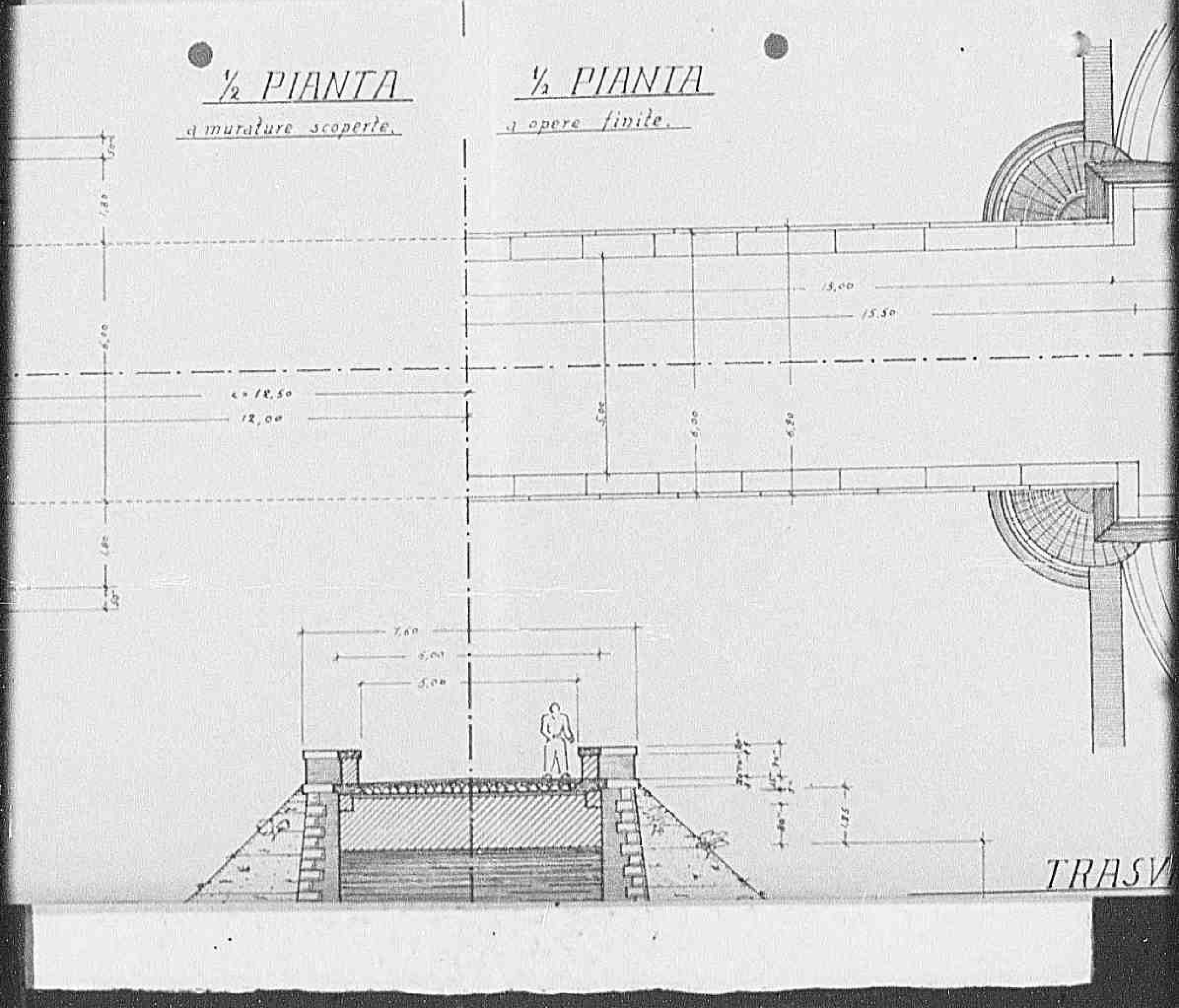


0401

Declassified E.O. 12356 Section 3.3/NND No. 785019

½ PIANTA
a murature scoperte.

½ PIANTA
a opere finite.



TRASV

0402

Declassified E.O. 12356 Section 3.3/NND No. 785019

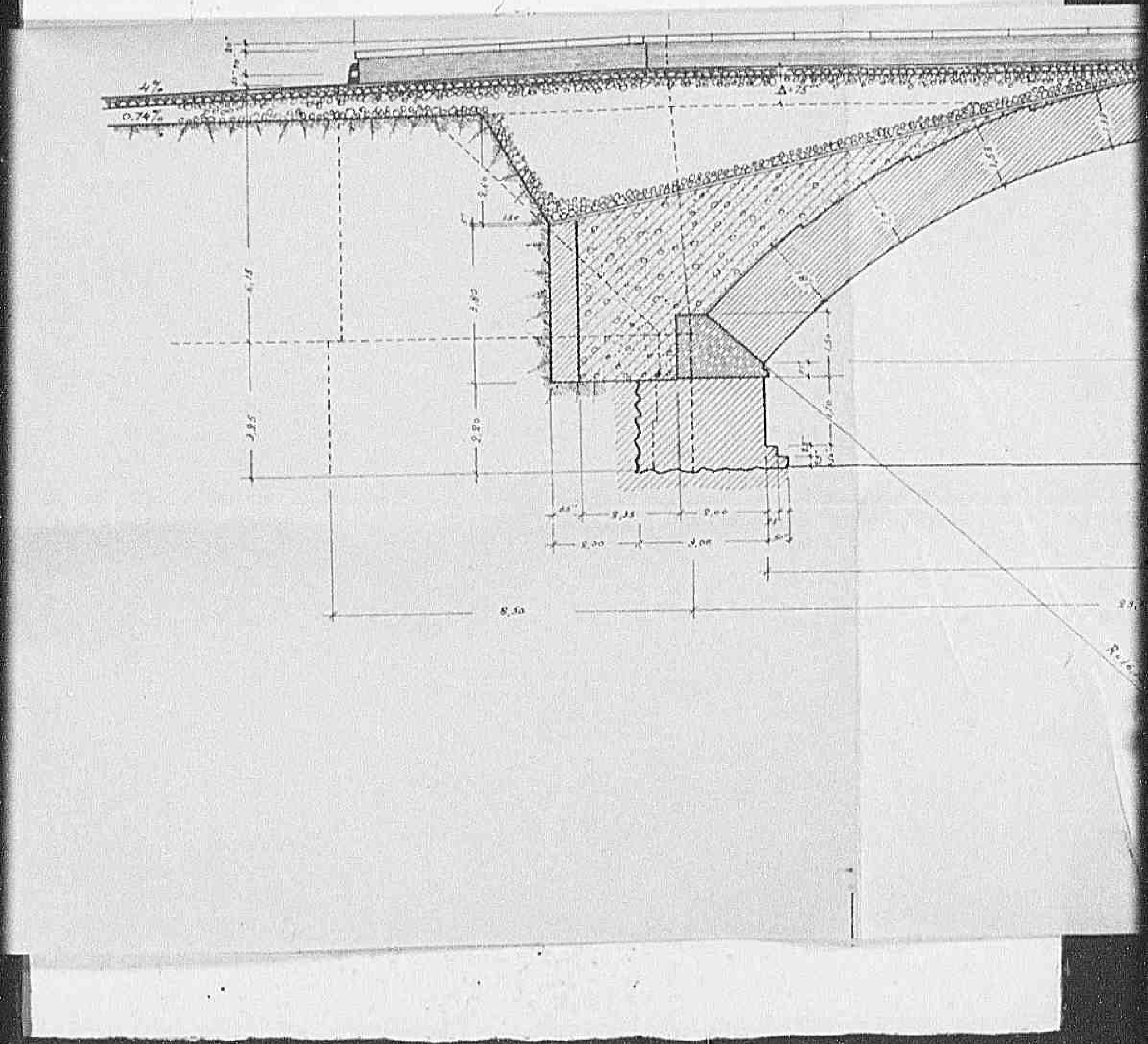
½ PIANTA

opere finite.

TRASVERSALE

0403

Declassified E.O. 12356 Section 3.3/NND No. 785019



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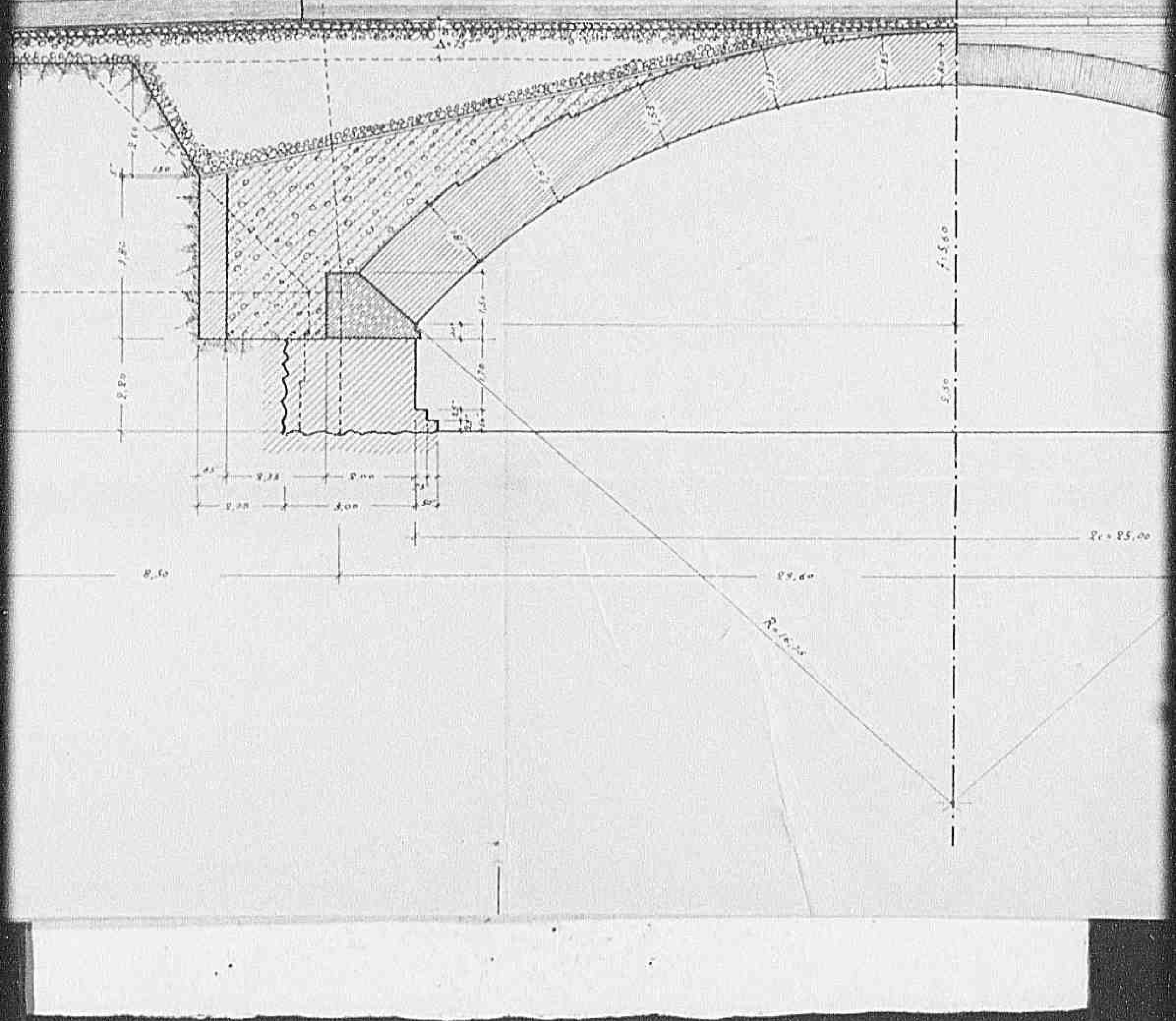
Declassified E.O. 12356 Section 3.3/NND No. 785019



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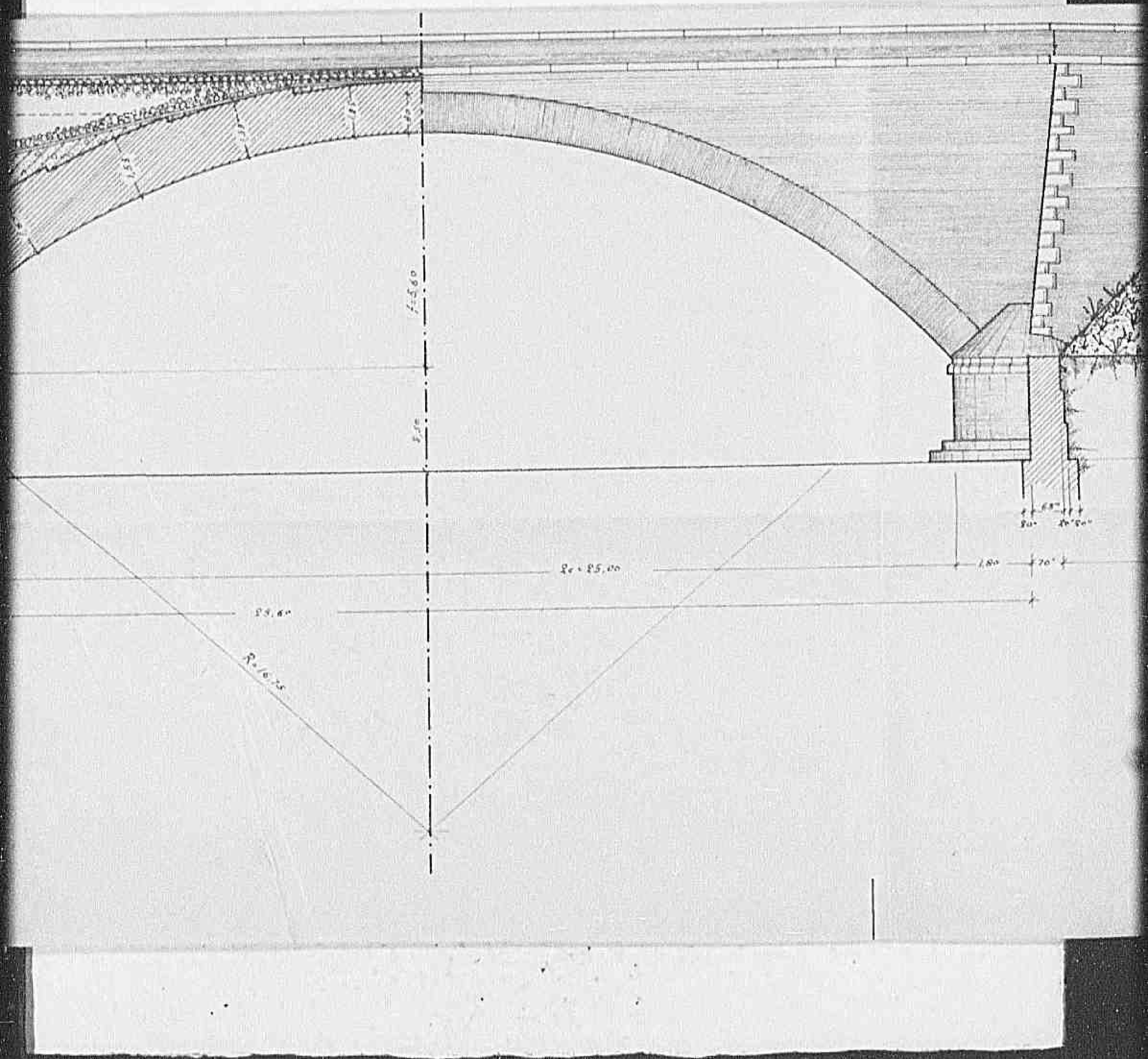
Declassified E.O. 12356 Section 3.3/NND No. 785019



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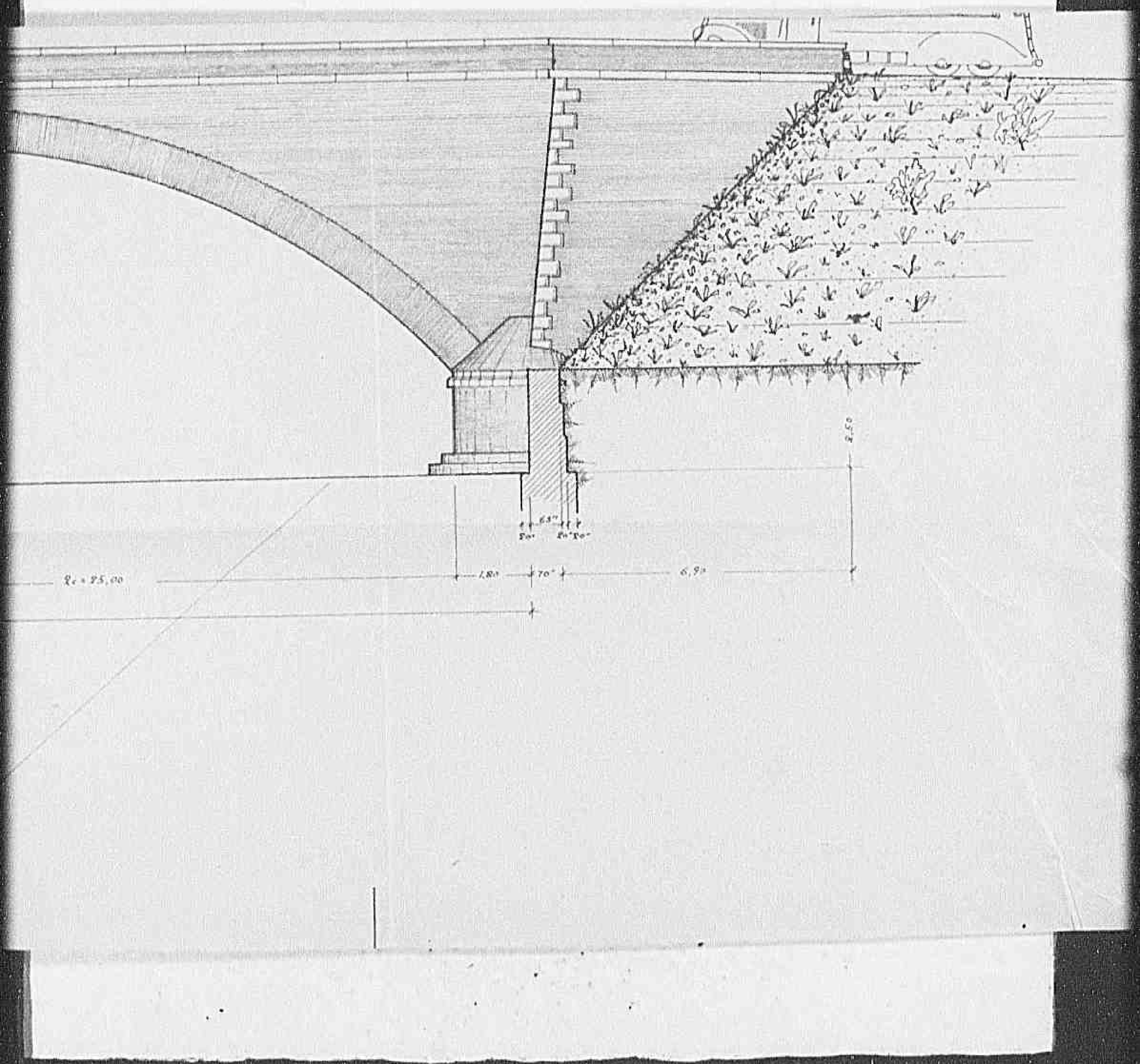

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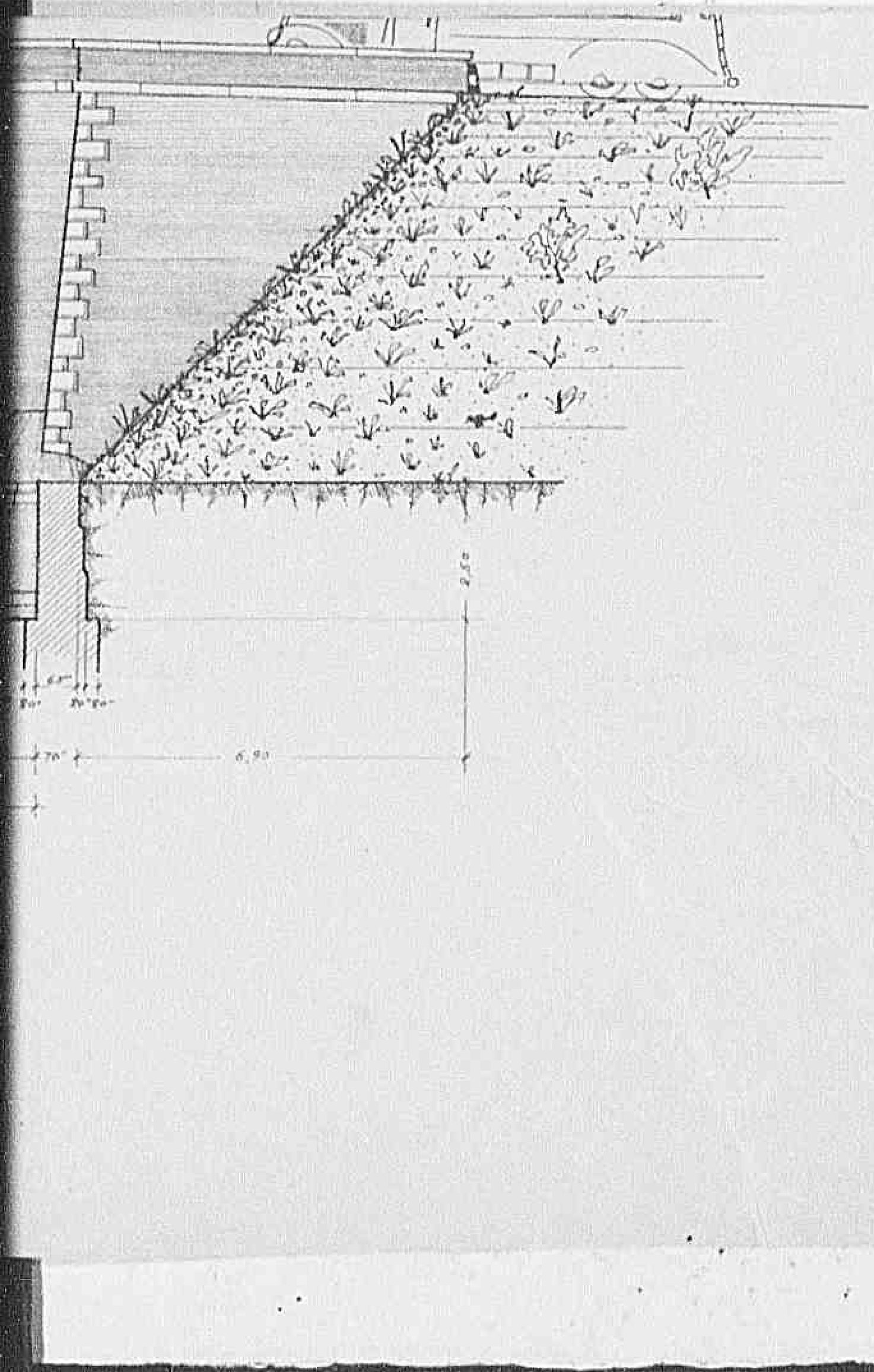

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Declassified E.O. 12356 Section 3.3/NND No. 785019

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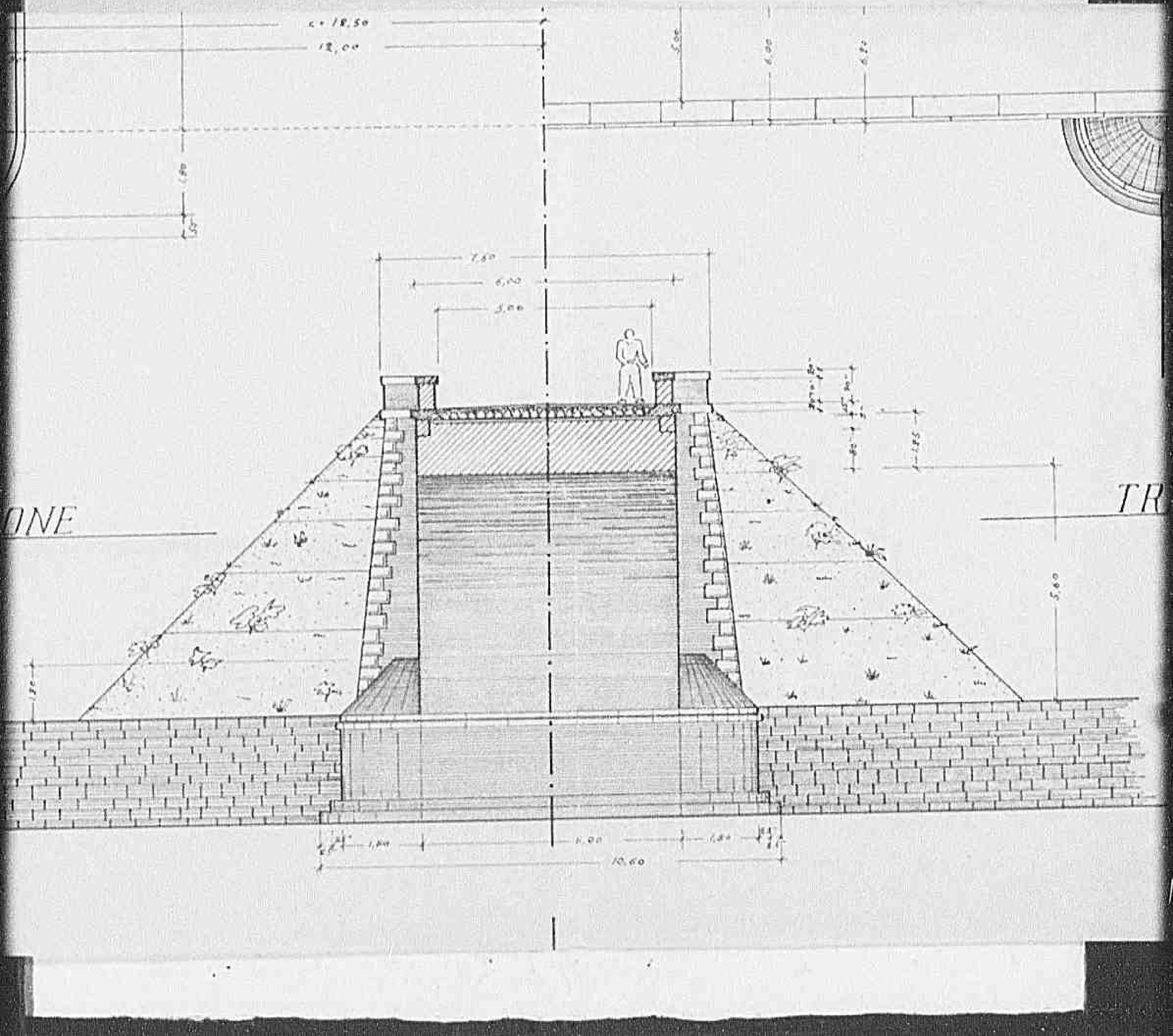
Declassified E.O. 12356 Section 3.3/NND No. 780019



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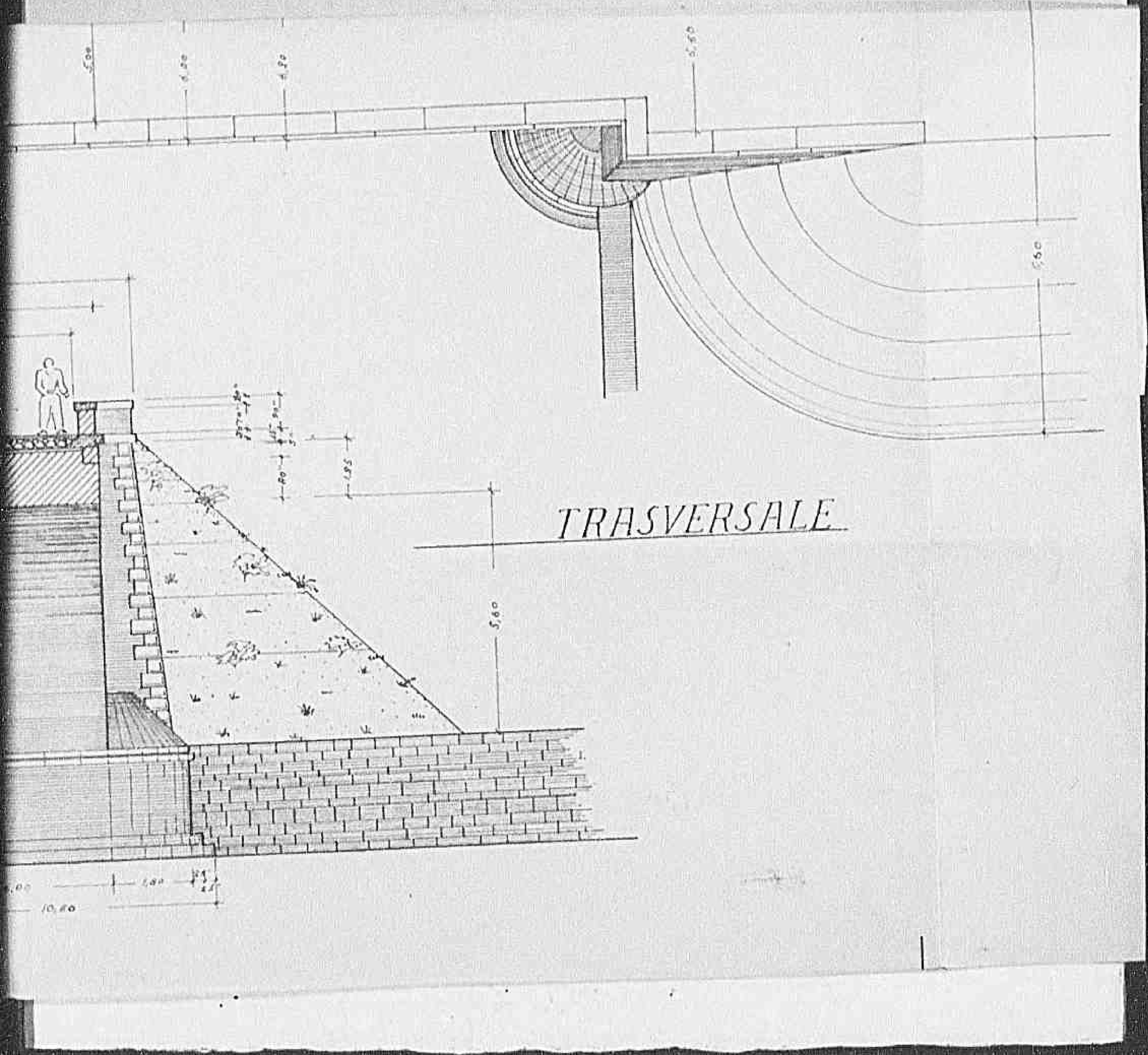
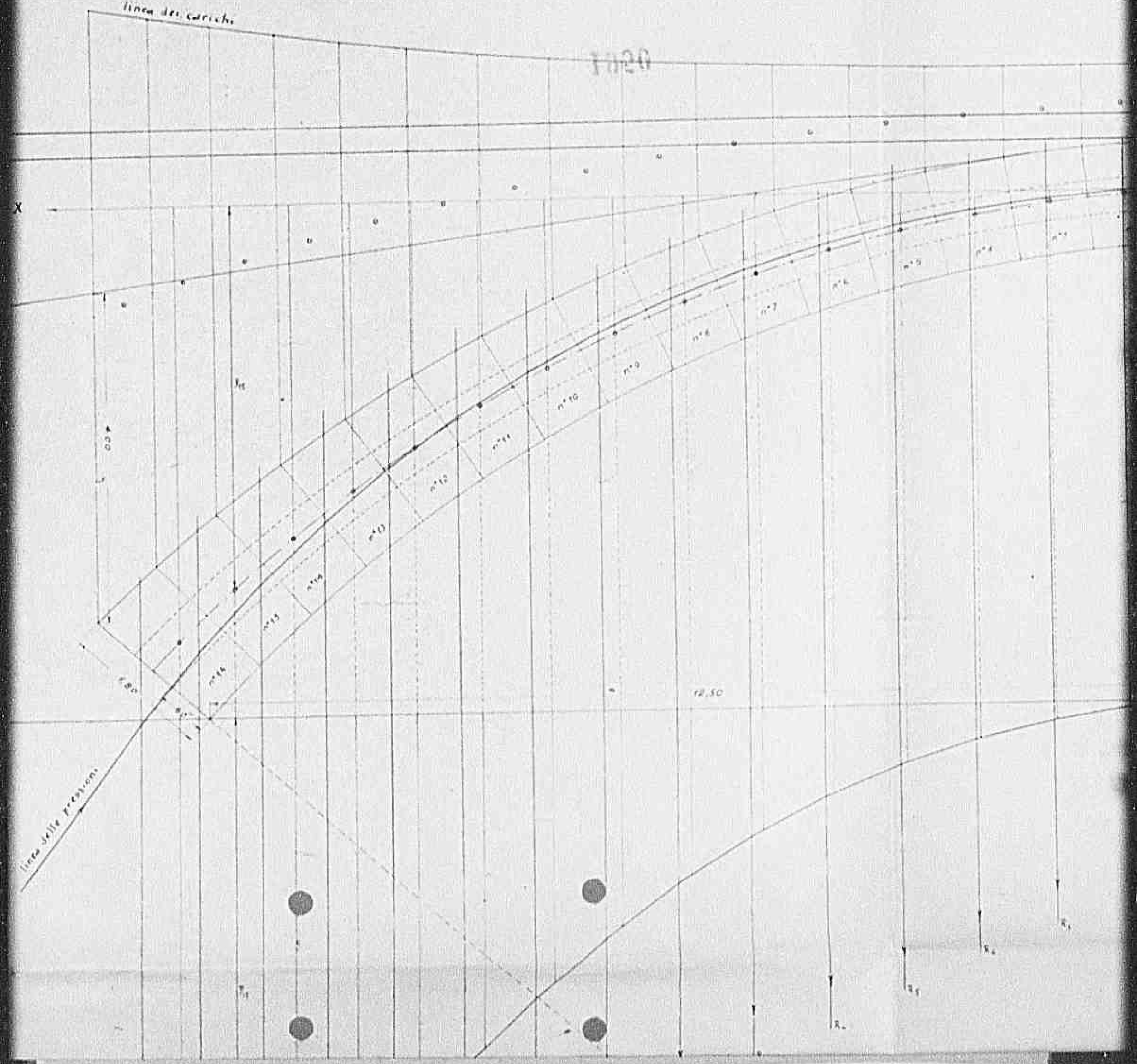


TRASVERSALE

Declassified E.O. 12356 Section 3.3/NND No. 785019



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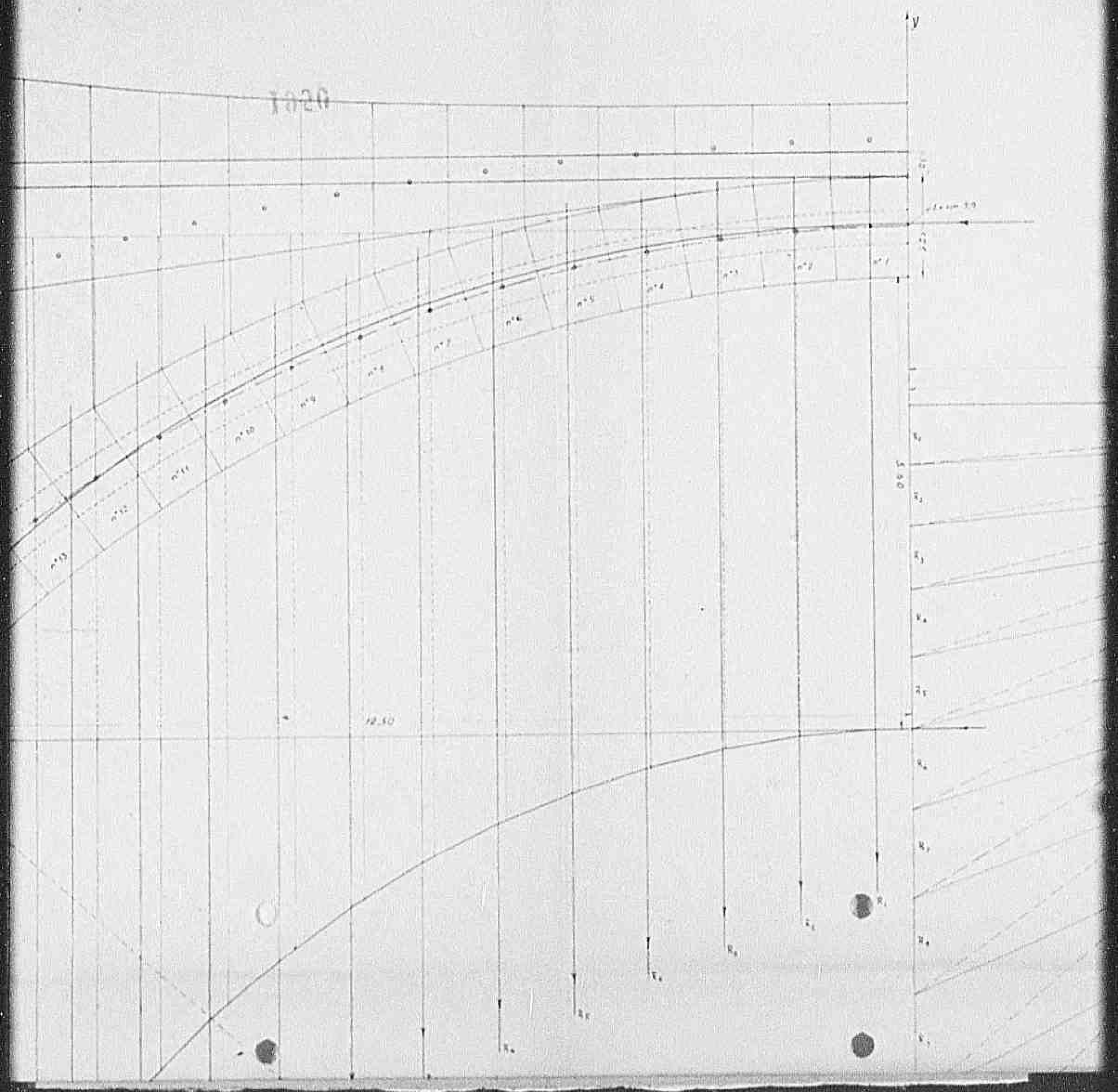

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Declassified E.O. 12356 Section 3.3/NND No. 785019

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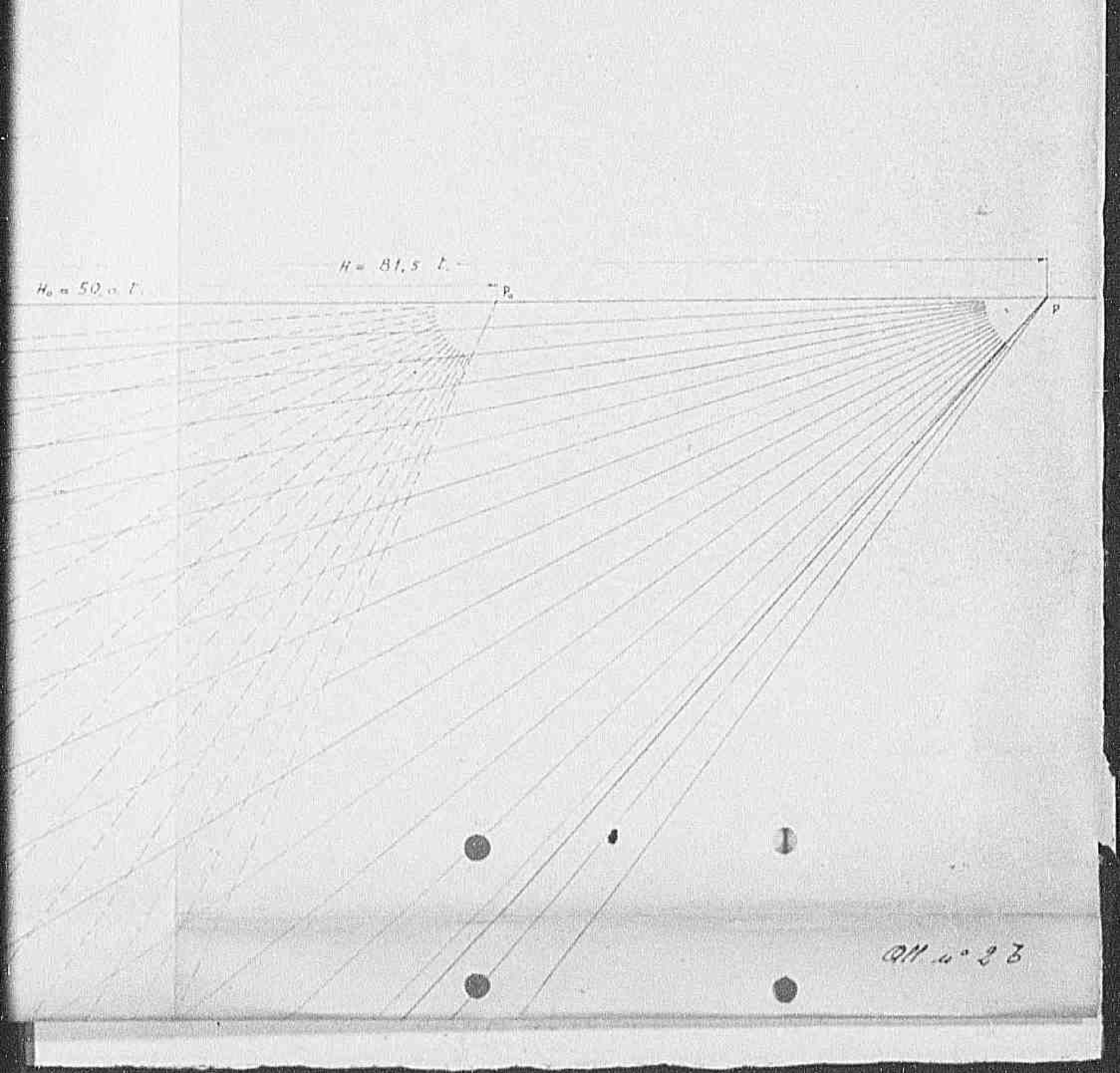
Declassified E.O. 12356 Section 3.3/NND No. 785019

0.4.15

Declassified E.O. 12356 Section 3.3/NND No. 785019



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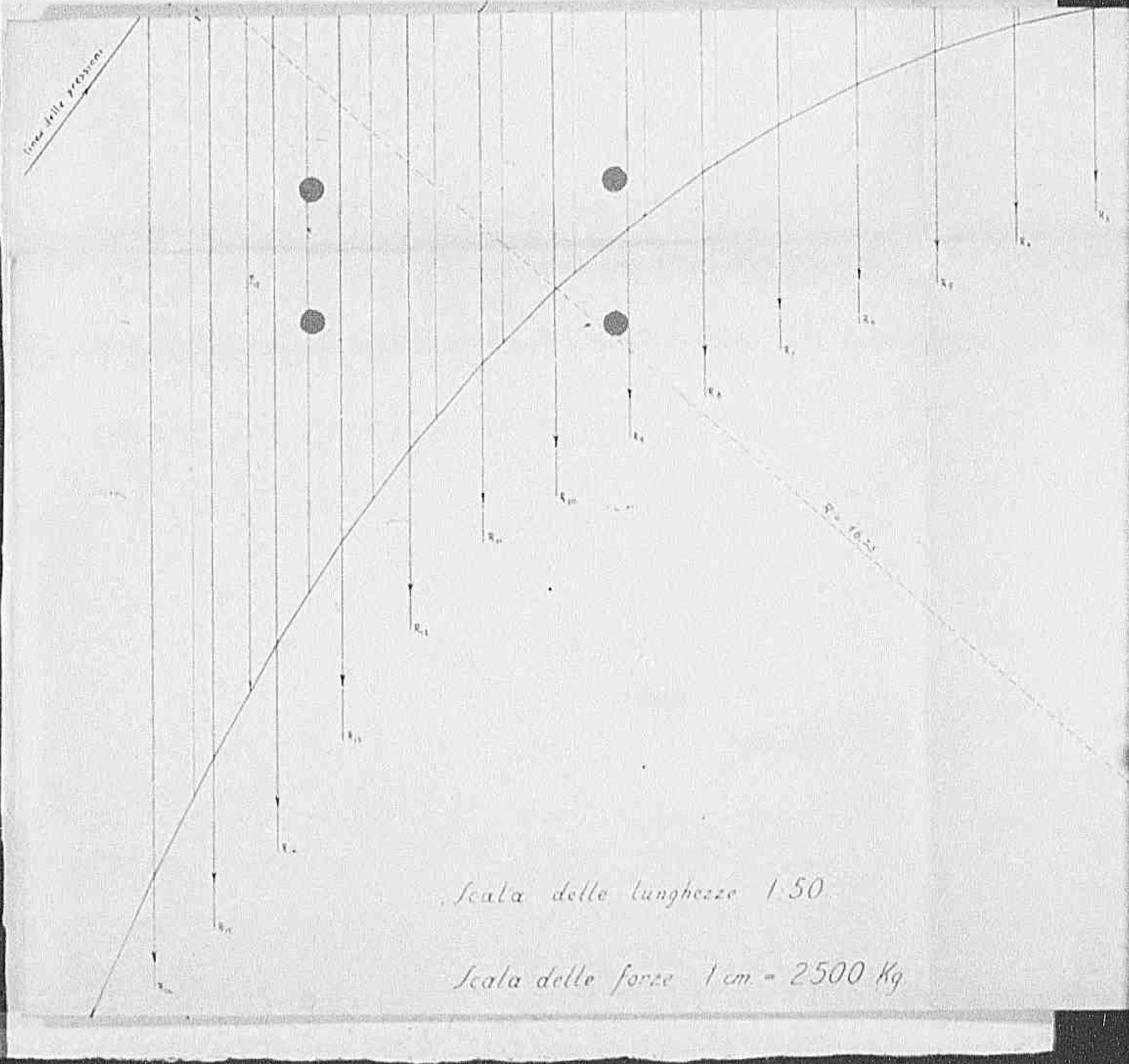
Declassified E.O. 12356 Section 3.3/NND No. 785019



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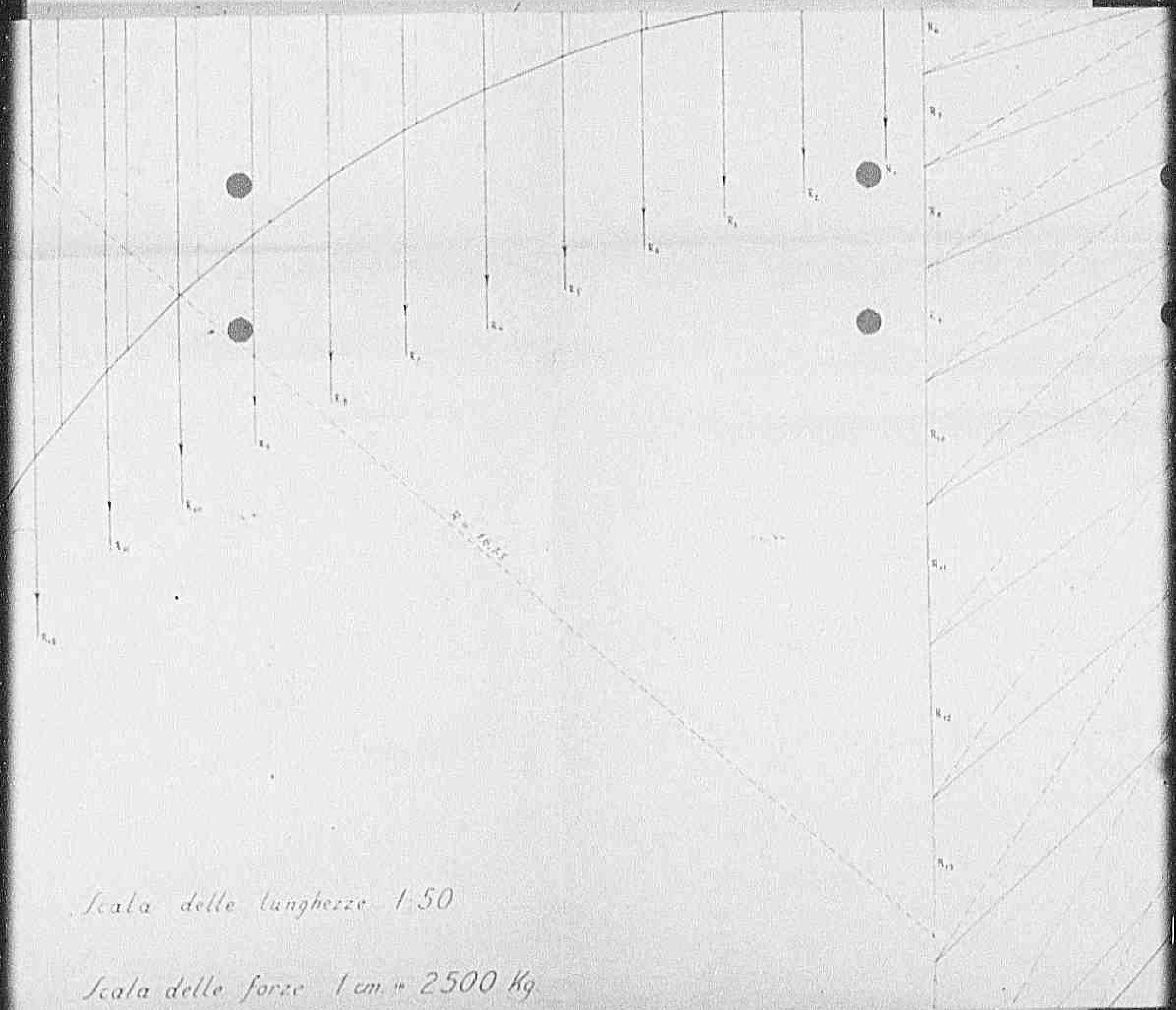
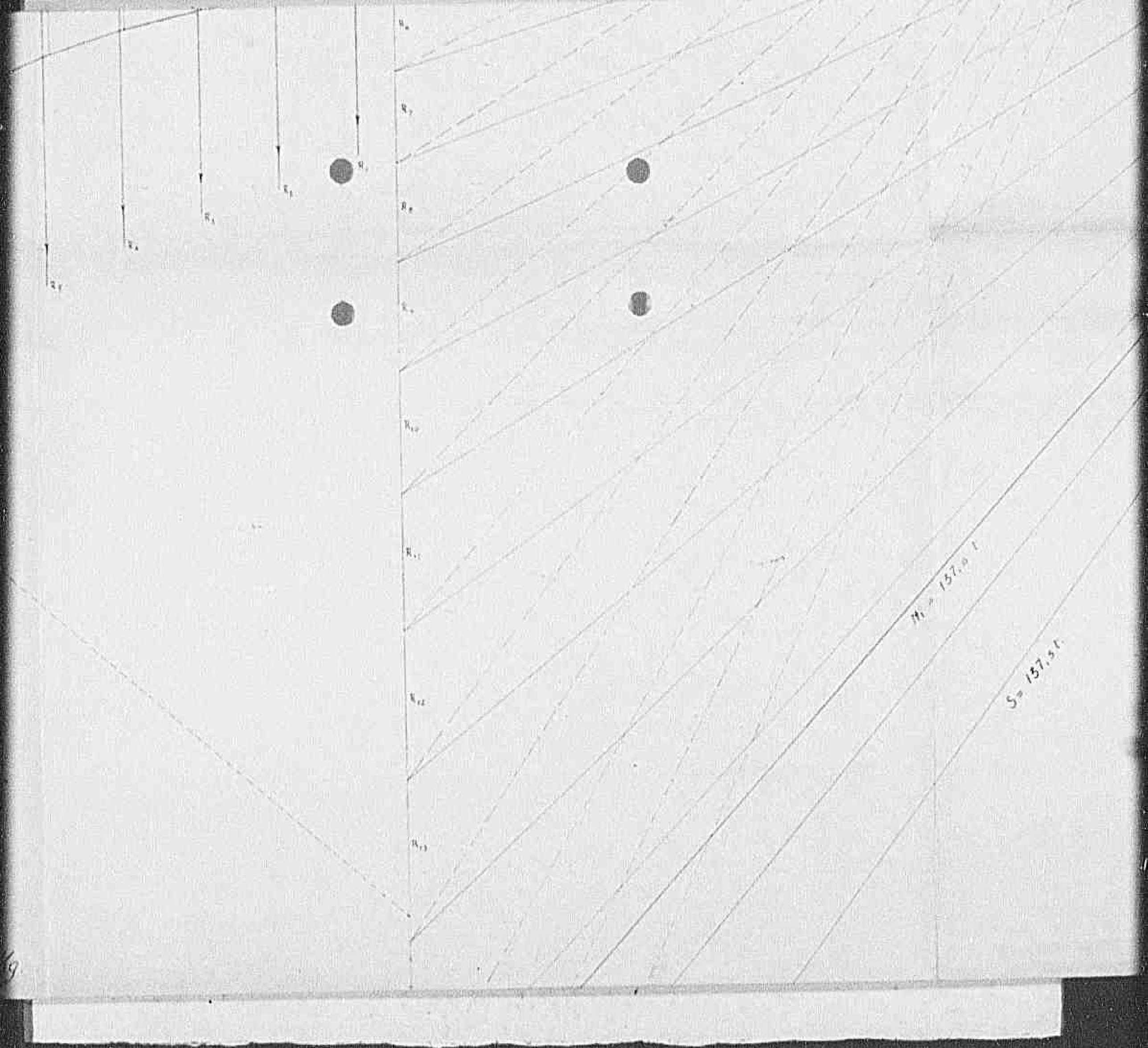


Scala delle lunghezze 1:50

Scala delle forze 1 cm = 2500 Kg

0418

Declassified E.O. 12356 Section 3.3/NND No. 785019



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Declassified E.O. 12356 Section 3.3/NND No. 785019

MINISTERO DEI LAVORI PUBBLICI
UFFICIO DEL GENIO CIVILE - FIREN

Progetto *per la ricostruzione del P.te Rotto*

(22) *torrente Pesa, lungo la strada*

0420

Declassified E.O. 12356 Section 3.3/NND No. 785019

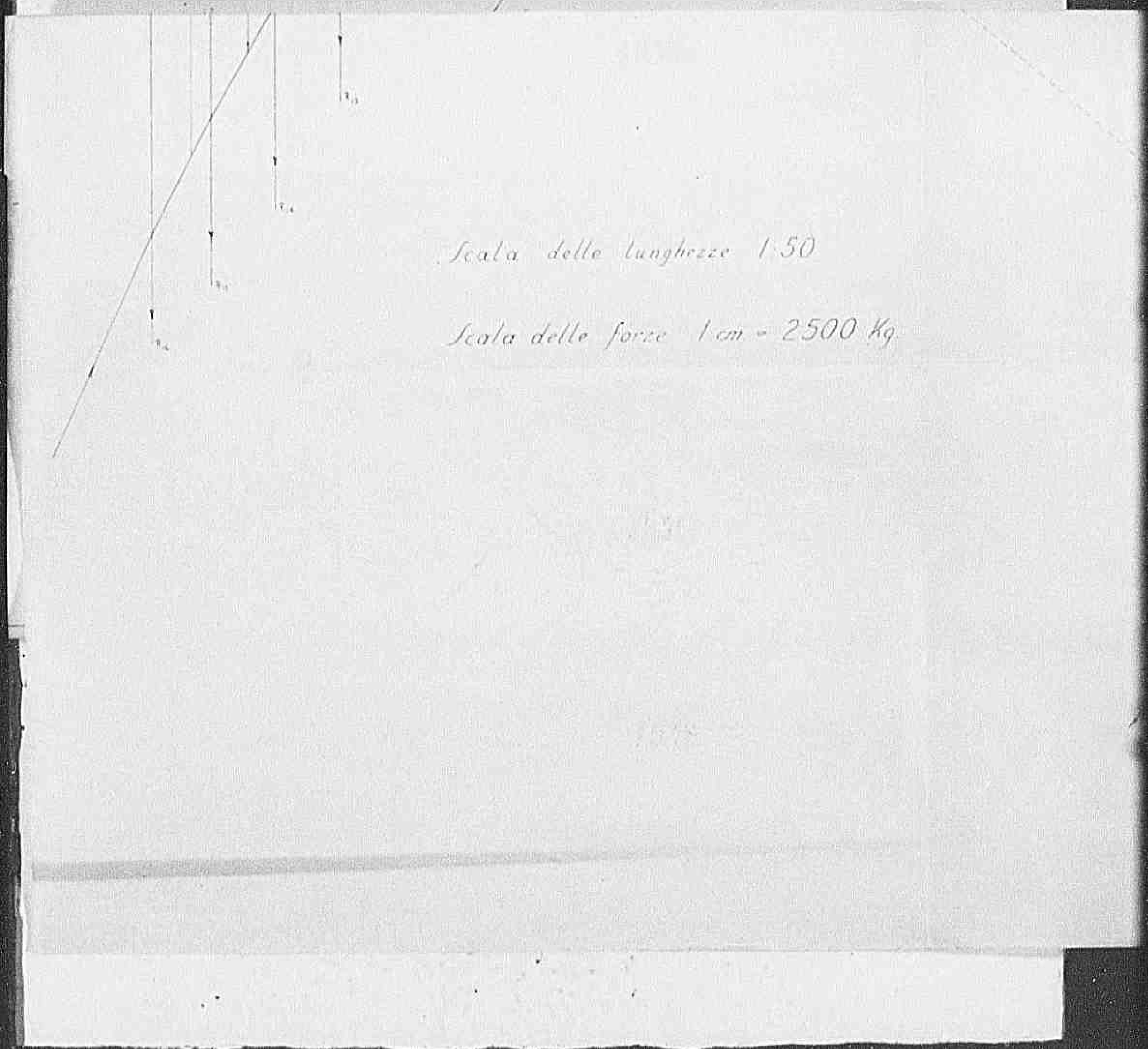
Cm n° 2 3

MINISTERO DEI LAVORI PUBBLICI
UFFICIO DEL GENIO CIVILE - FIRENZE

Progetto *per la ricostruzione del "P.te Rotto" sul*
(22) *torrente Pesa, lungo la strada comu*

0 4 2 11

Declassified E.O. 12356 Section 3.3/NND No. 785019



Scala delle lunghezze 1:50

Scala delle forze 1 cm = 2500 kg

0421

Declassified E.O. 12356 Section 3.3/NND No. 785019

0423

Declassified E.O. 12356 Section 3.3/NND No. 785019

MINISTER
UFF

Progetto
32

N749

CORPO REALE DEL GENIO CIVILE
UFFICIO DI FIRENZE

to: l'In

0 4 2 41

Declassified E.O. 12356 Section 3.3/NND No. 785019

MINISTERO DEI LAVORI PUBBLICI
UFFICIO DEL GENIO CIVILE - FIRENZE

Progetto per la ricostruzione del P.te Rotto sul torrente Pesa, lungo la strada comunale Certaldese, in Comune di S. Casciano.

(32)

N. 749

CALCOLI STATICI

Firenze, li 19 APR 1951

Il Dirigente Capo Ufficio: L'Ing. Capo

L'Ing. Principale di Sez.ne

•PISA 244•

IL PROGETTISTA

CONSORZIO BONIFICA VAL D'ERA

PI-110

PONTE AD ARCO SUL TORRENTE "RAGONE"

IN LOCALITA' RATTAIONE N°209

(a sostituzione dell'esistente in cemento armato devastato durante le operazioni di guerra)

SCALA 1:100

1949

0425
Declassified E.O. 12356 Section 3.3/NND No. 785019

SOTTOSEZIO BATTERIA VALDIERA

A-110

PONTE AD ARCO SUL TORRENTE "RAGONE"

IN LOCALITA' RATTAIONE N° 209

(In sostituzione dell'esistente in cemento armato devastato durante le operazioni di guerra)

SCALA 1:100

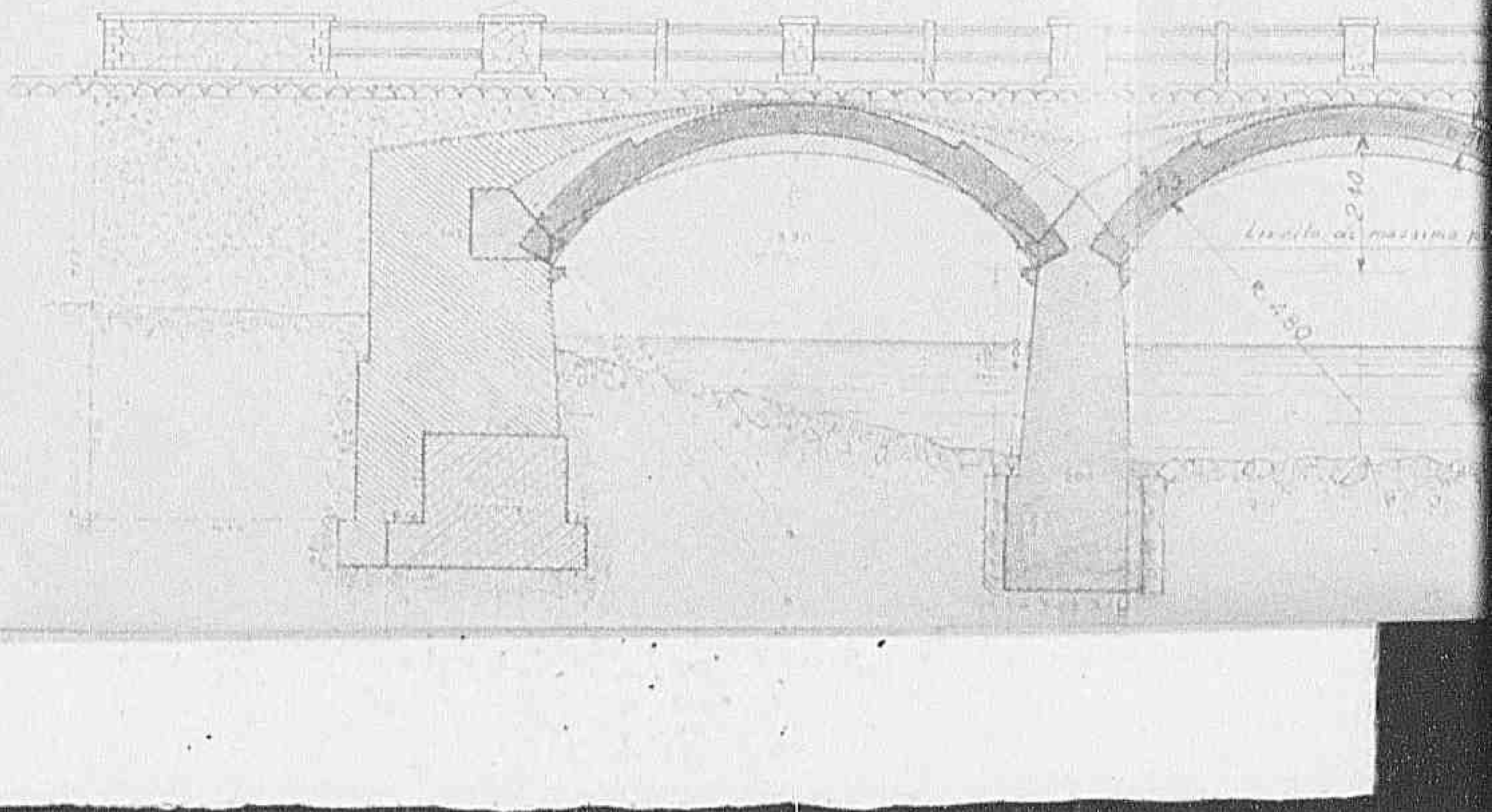
1949

Declassified E.O. 12356 Section 3.3/NND No. 780001

0427

Declassified E.O. 12356 Section 3.3/NND No. 785019

SEZIONE LONGITUDINALE



0428

Declassified E.O. 12356 Section 3.3/NND No. 735019

SEZIONE LONGITUDINALE

PROSPE

04291

Declassified E.O. 12356 Section 3.3/NND No. 785019

PROSPETTO

0430

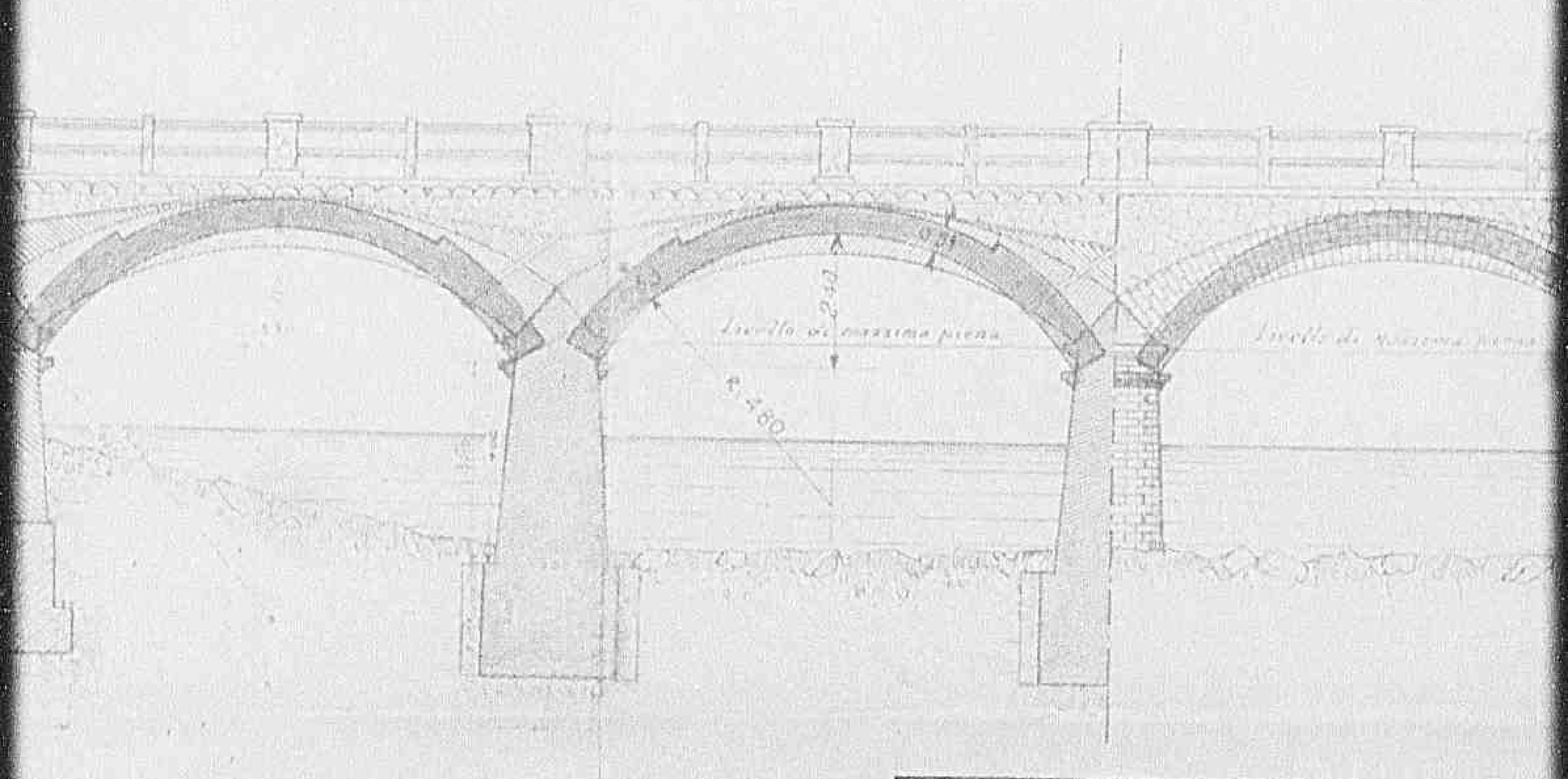
Declassified E.O. 12356 Section 3.3/NND No. 785019

0431

Declassified E.O. 12356 Section 3.3/NND No. 785017

0 4 3 21

Declassified E.O. 12356 Section 3.3/NND No. 785019

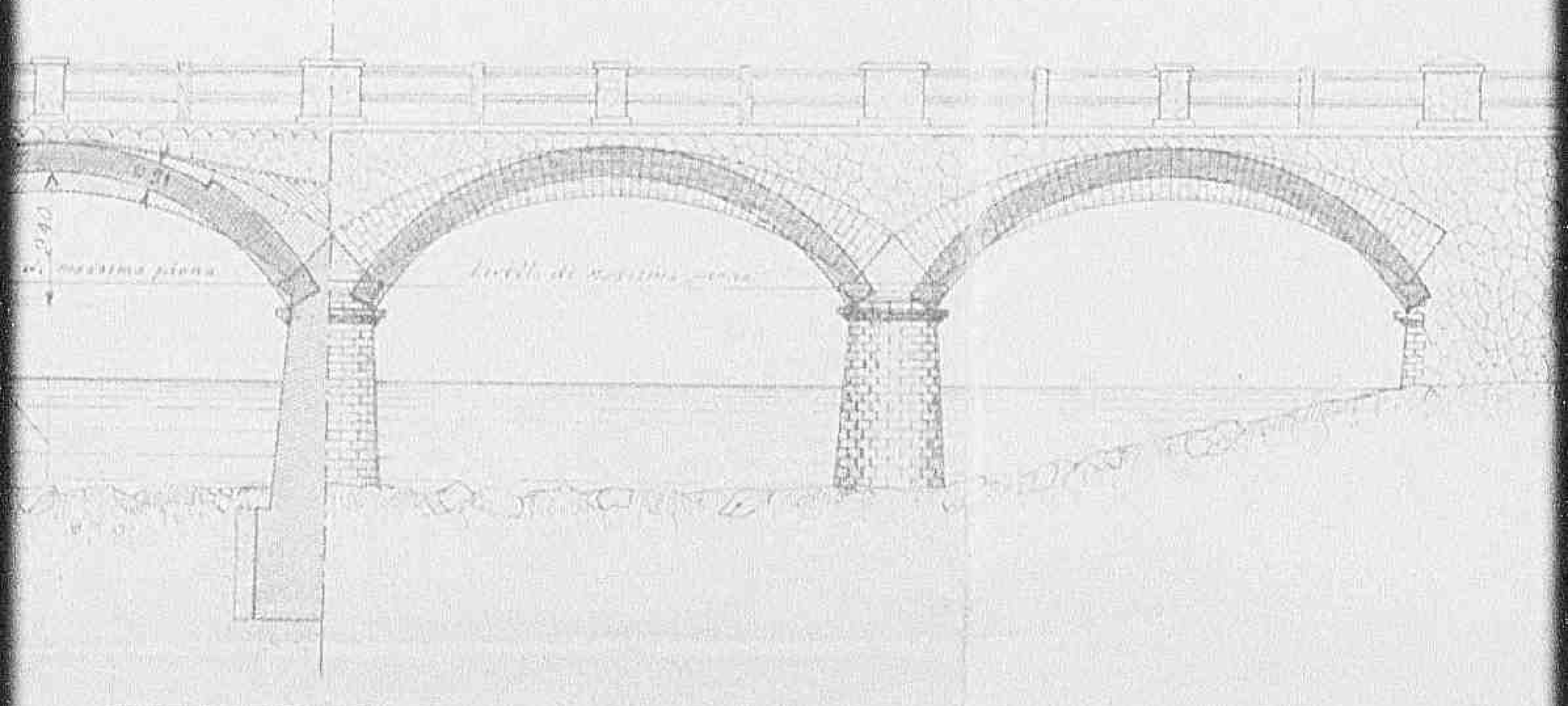


Materiali occorrenti

Mattoni	*n° 72500*
Pietrame	*mc. 1350*
Calce	*Qli. 1300*

0431

Declassified E.O. 12356 Section 3.3/NND No. 785019

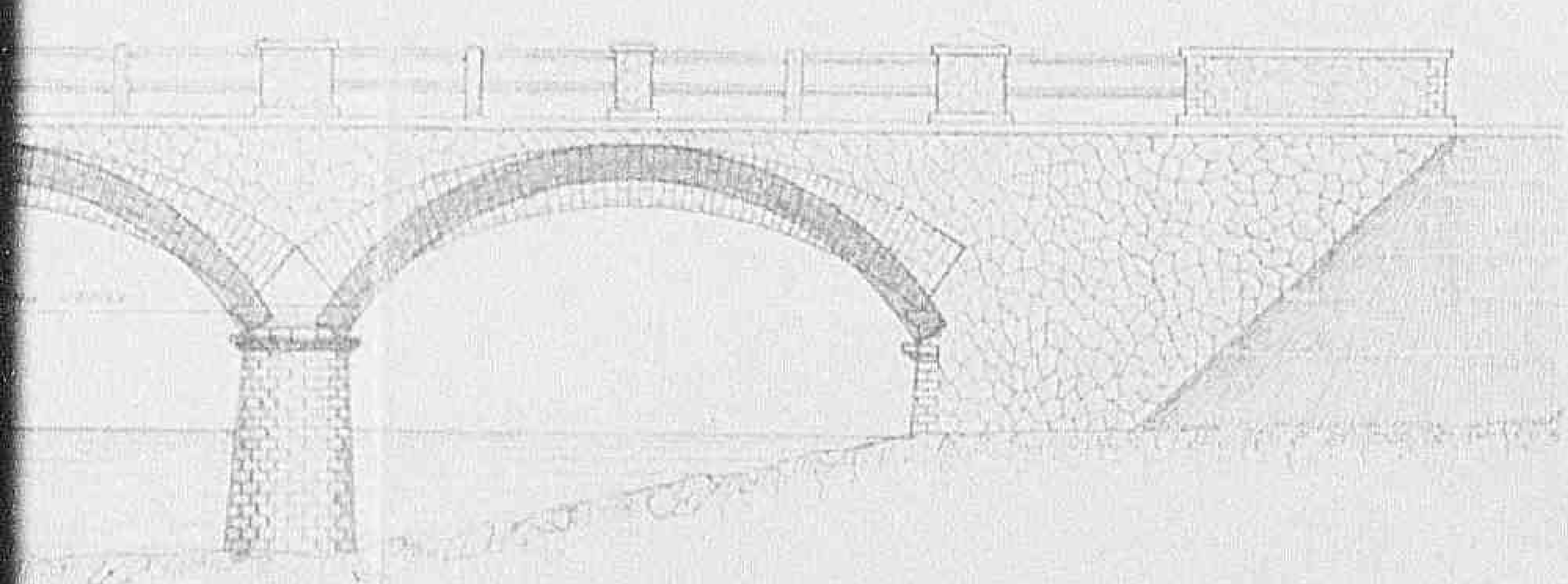


Materiali occorrenti

Mattoni	n° 72500
Pietrame	mc. 1350
Calce	Ql. 1300

0434

Declassified E.O. 12356 Section 3.3/NND No. 785019



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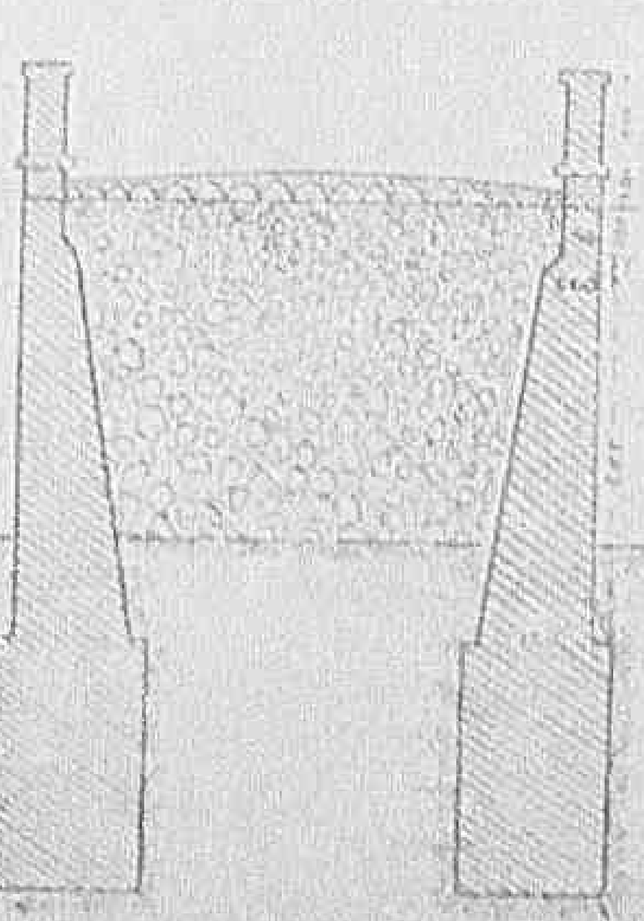
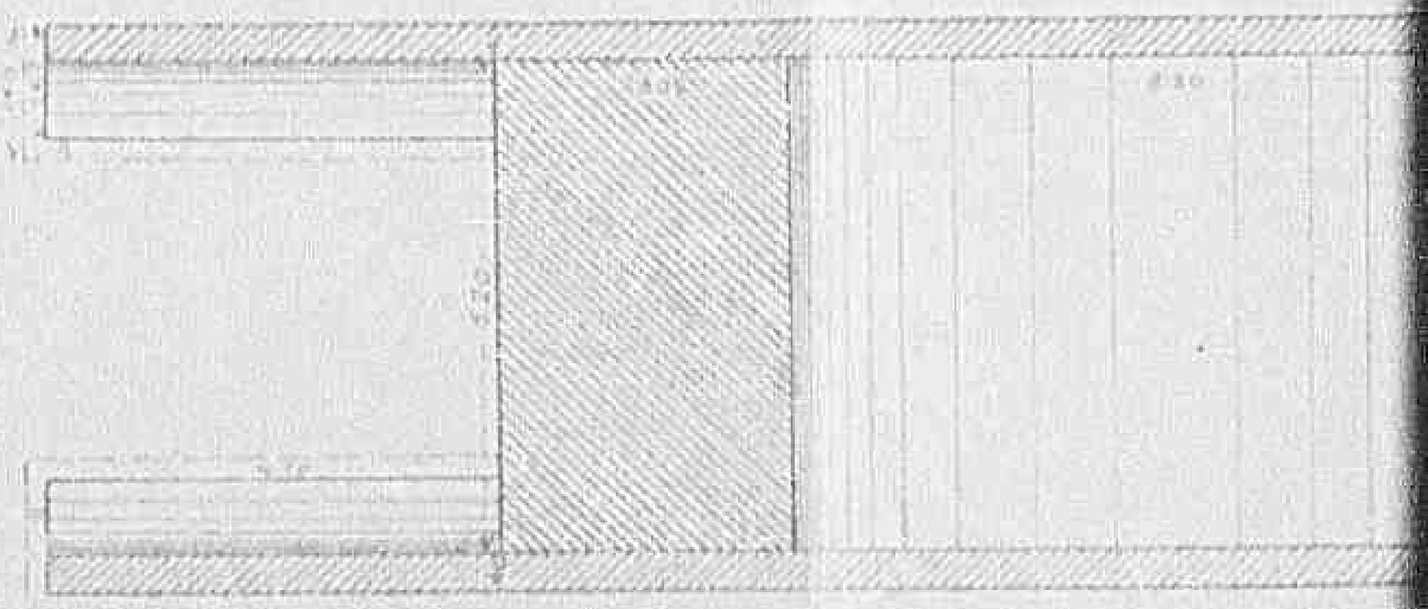
Declassified E.O. 12356 Section 3.3/NND No. 785019

A MURATU

SEZIONE MURI ANDATORI

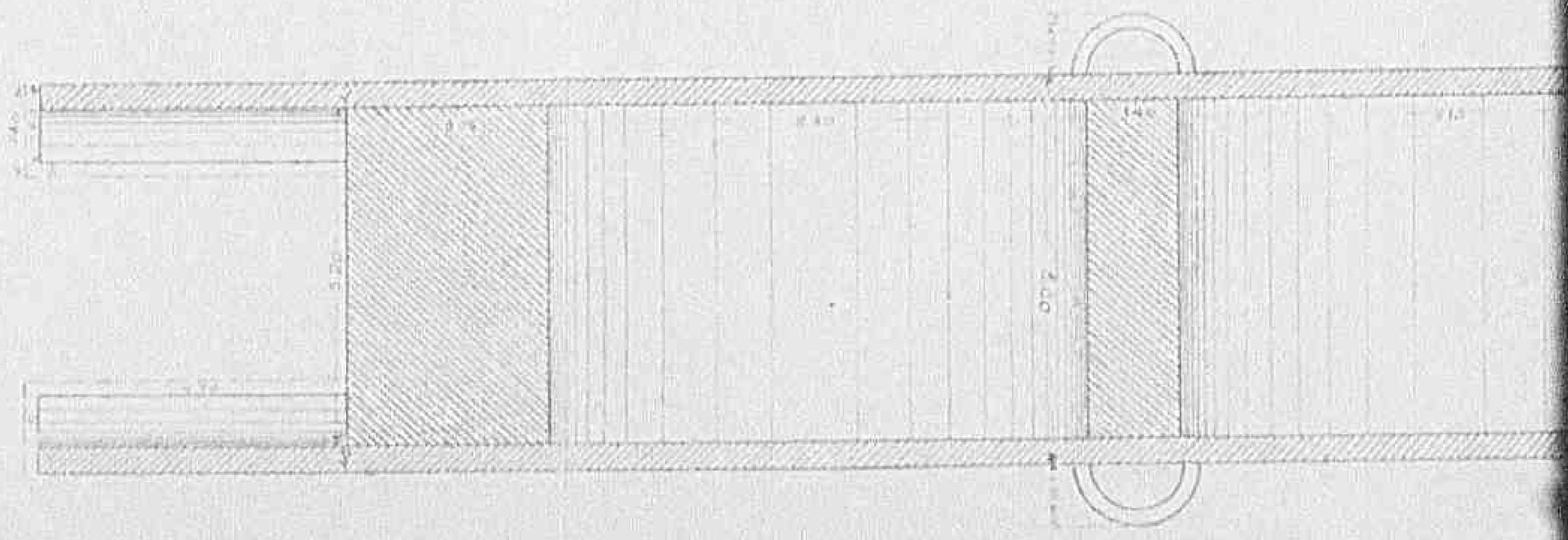




0436

Declassified E.O. 12356 Section 3.3/NND No. 785019

A MURATURE SCOPERTE



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Declassified E.O. 12356 Section 3.3/NND No. 785019

P I A N T A

A MURATURE SCOPERTE

AD OPERA ULTIM

0438

Declassified E.O. 12356 Section 3.3/NND No. 785019

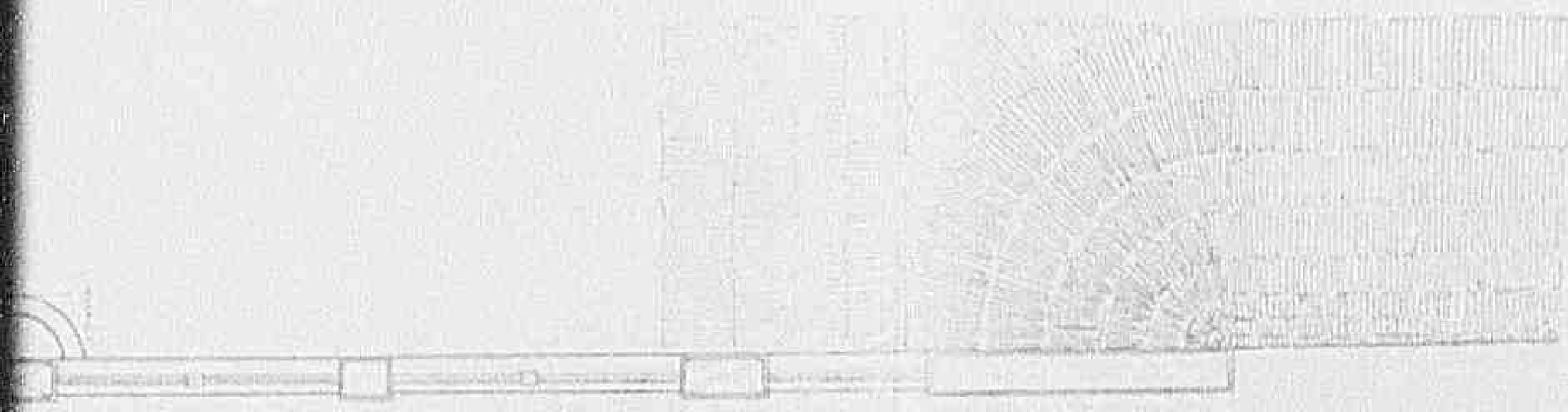
A N T A

AD OPERA ULTIMATA

0439

Declassified E.O. 12356 Section 3.3/NND No. 785019

TIMATA



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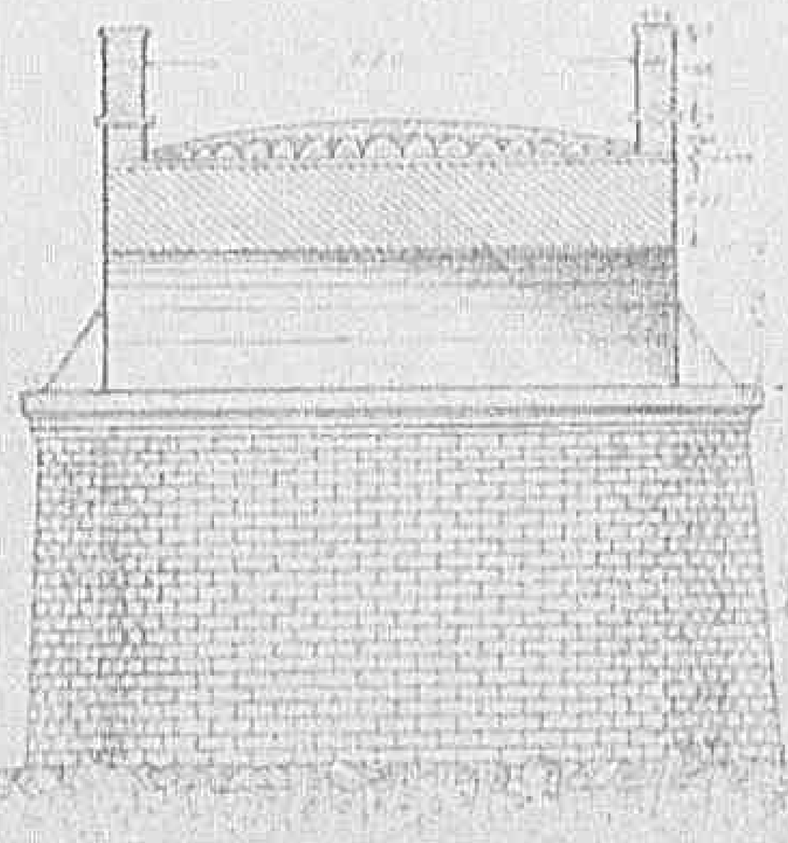
Declassified E.O. 12356 Section 3.3/NND No. 786019

SEZIONE TRASVERSALE



0441

Declassified E.O. 12356 Section 3.3/NND No. 780019

CALCOLI GRAFICI

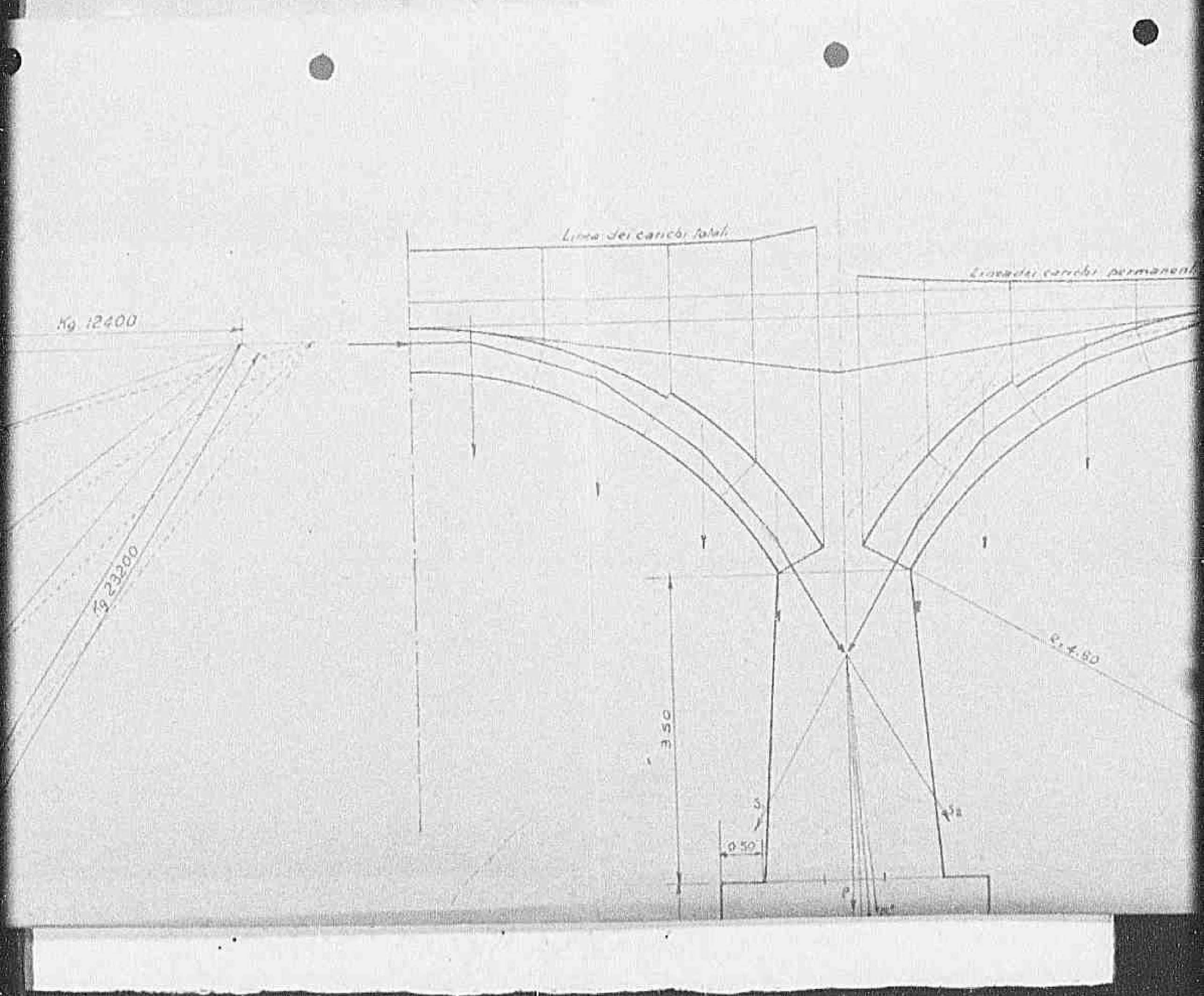
0421

Declassified E.O. 12356 Section 3.3/NND No. 785019

GRAFICI

0443

Declassified E.O. 12356 Section 3.3/NND No. 780019



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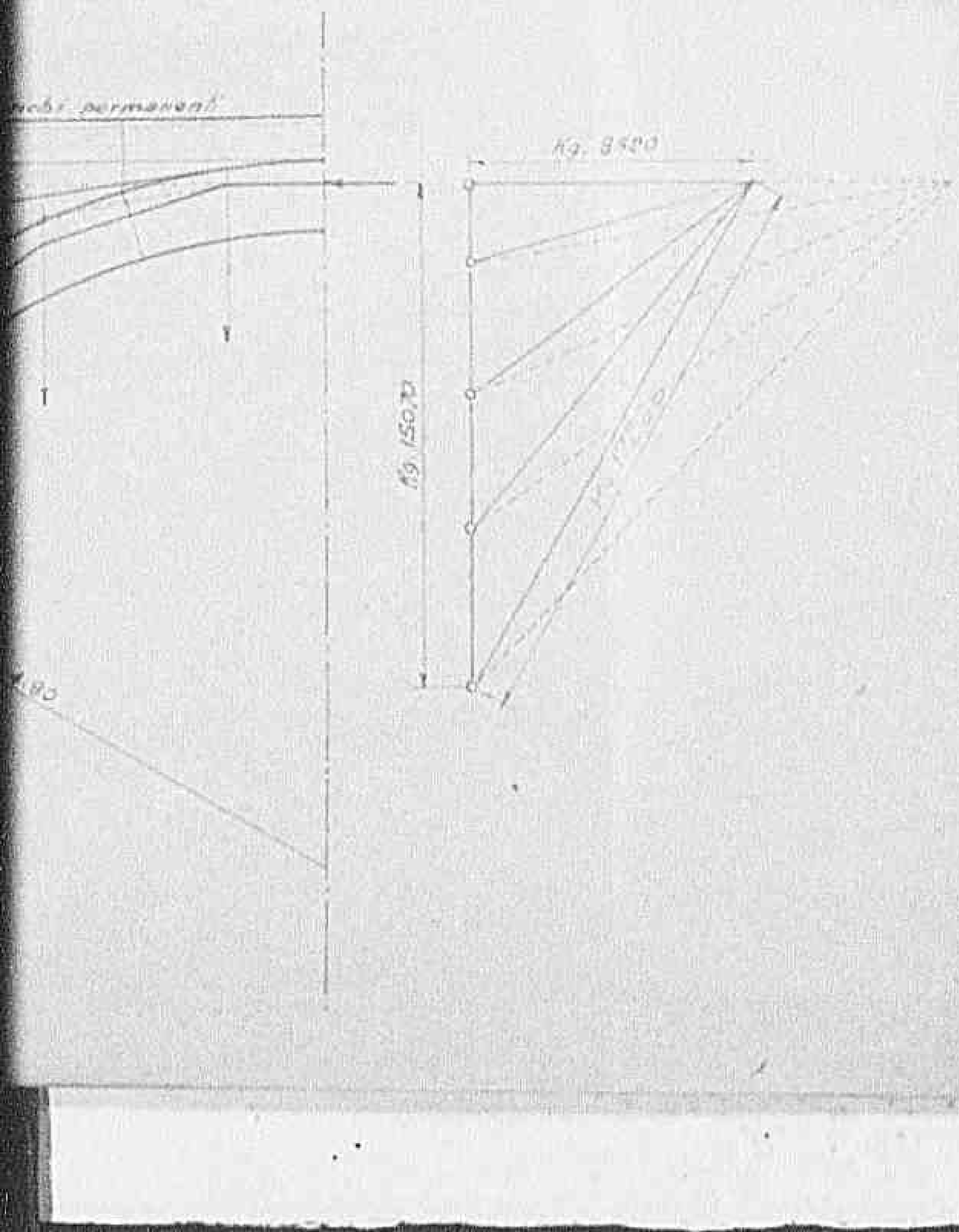
Declassified E.O. 12356 Section 3.3/NND No. 785019

0 4 4 5

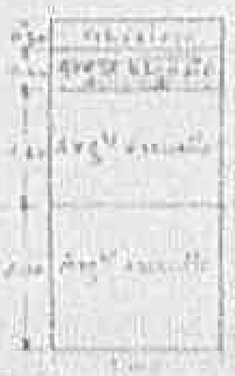
Declassified E.O. 12356 Section 3.3/NND No. 785019



SAGGI GEOGNO

SPALLA SINISTRA

PILA SINISTRA

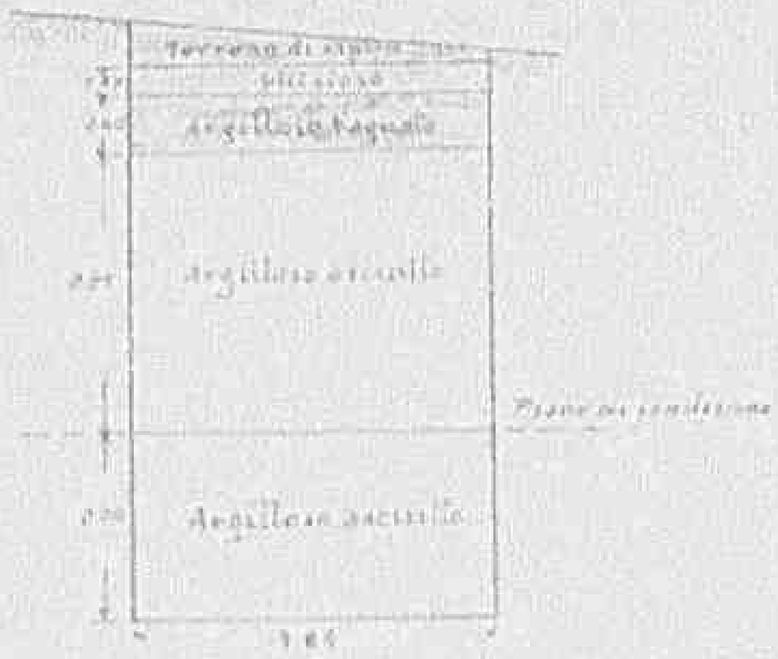


0446

Declassified E.O. 12356 Section 3.3/NND No. 785019

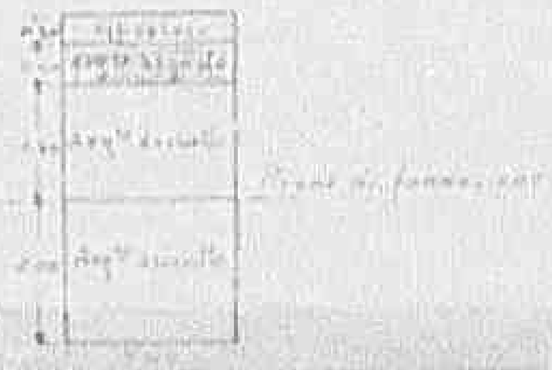
SAGGI GEOGNOSTICI

SPALLA SINISTRA



SPALLA DESTRA

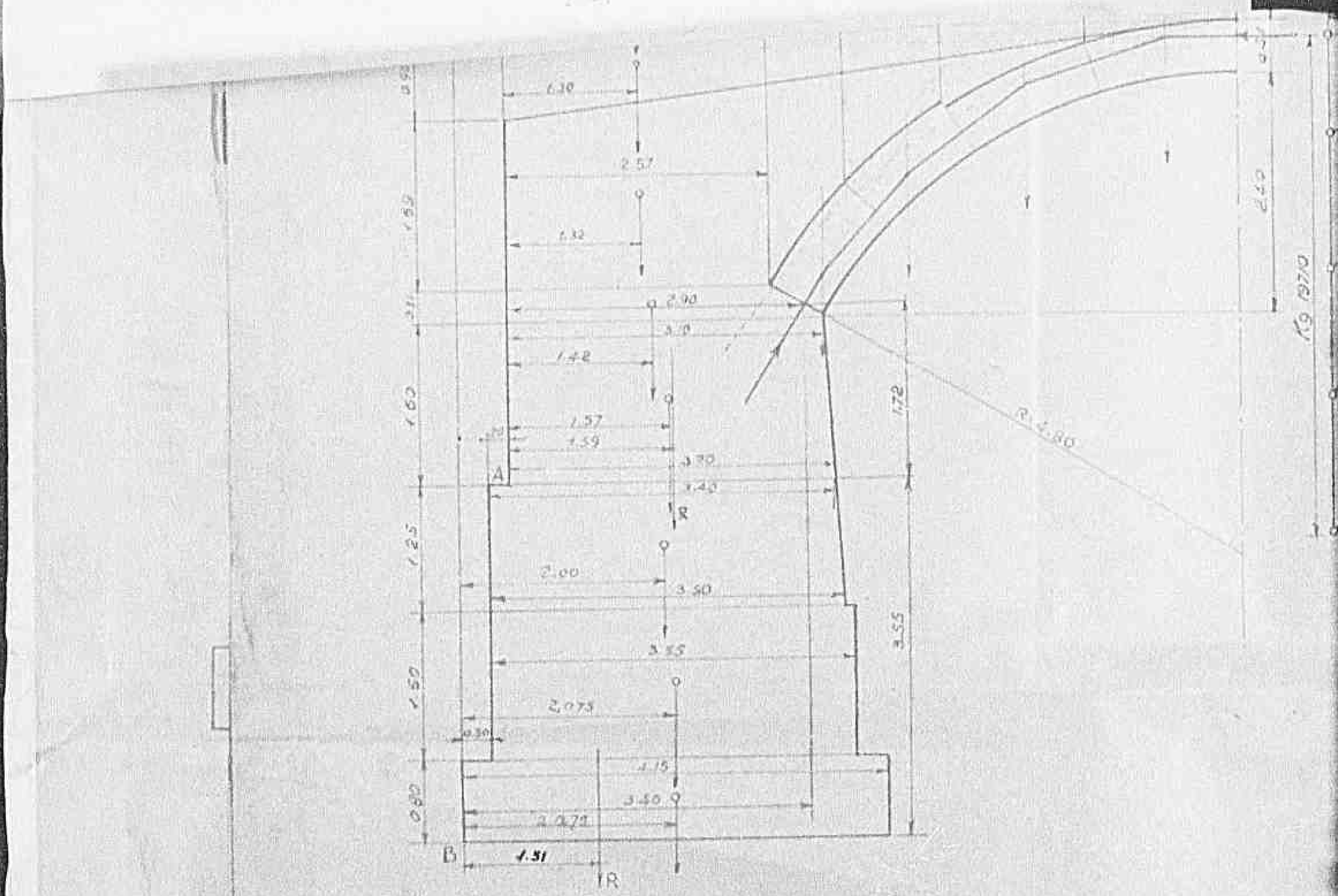
PILA SINISTRA



PILA DESTRA

0447

Declassified E.O. 12356 Section 3.3/NND No. 780019

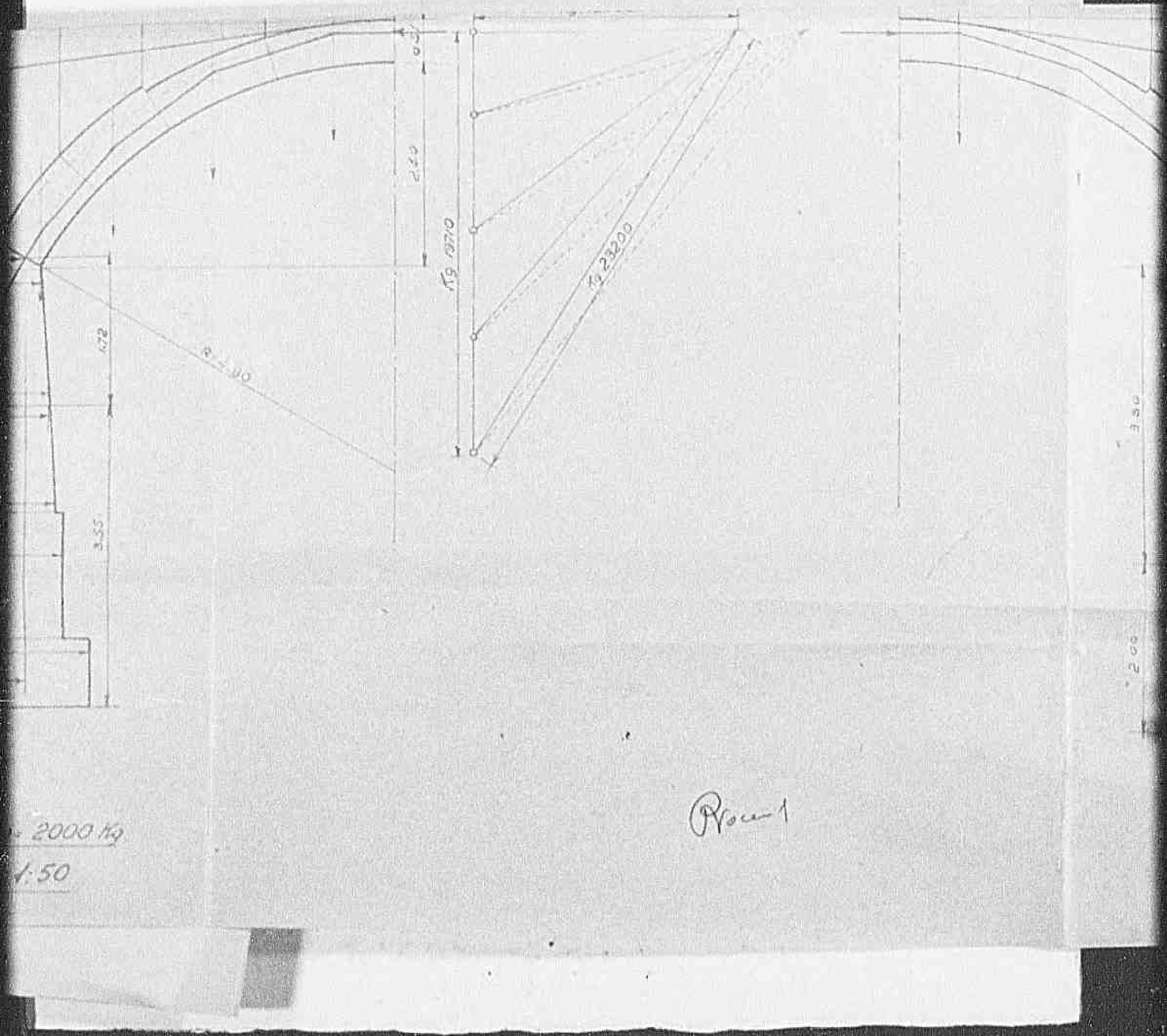


SCALA DELLE FORZE 1 cm = 2000 Kg

SCALA DELLE LUNGHEZZE 1:50

0448

Declassified E.O. 12356 Section 3.3/NND No. 785019



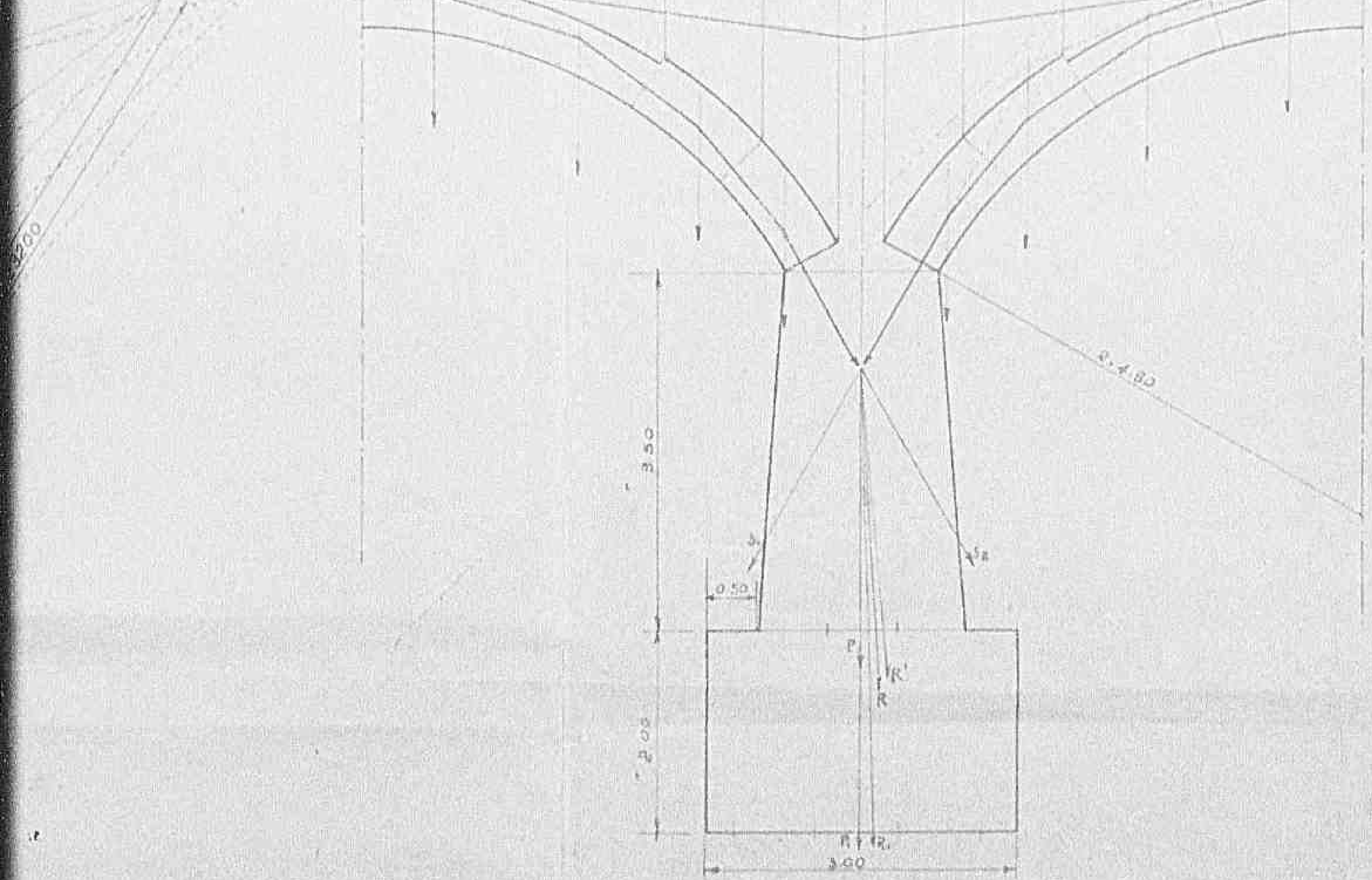
= 2000 kg

1:50

Room 1

0 4 4 9 1

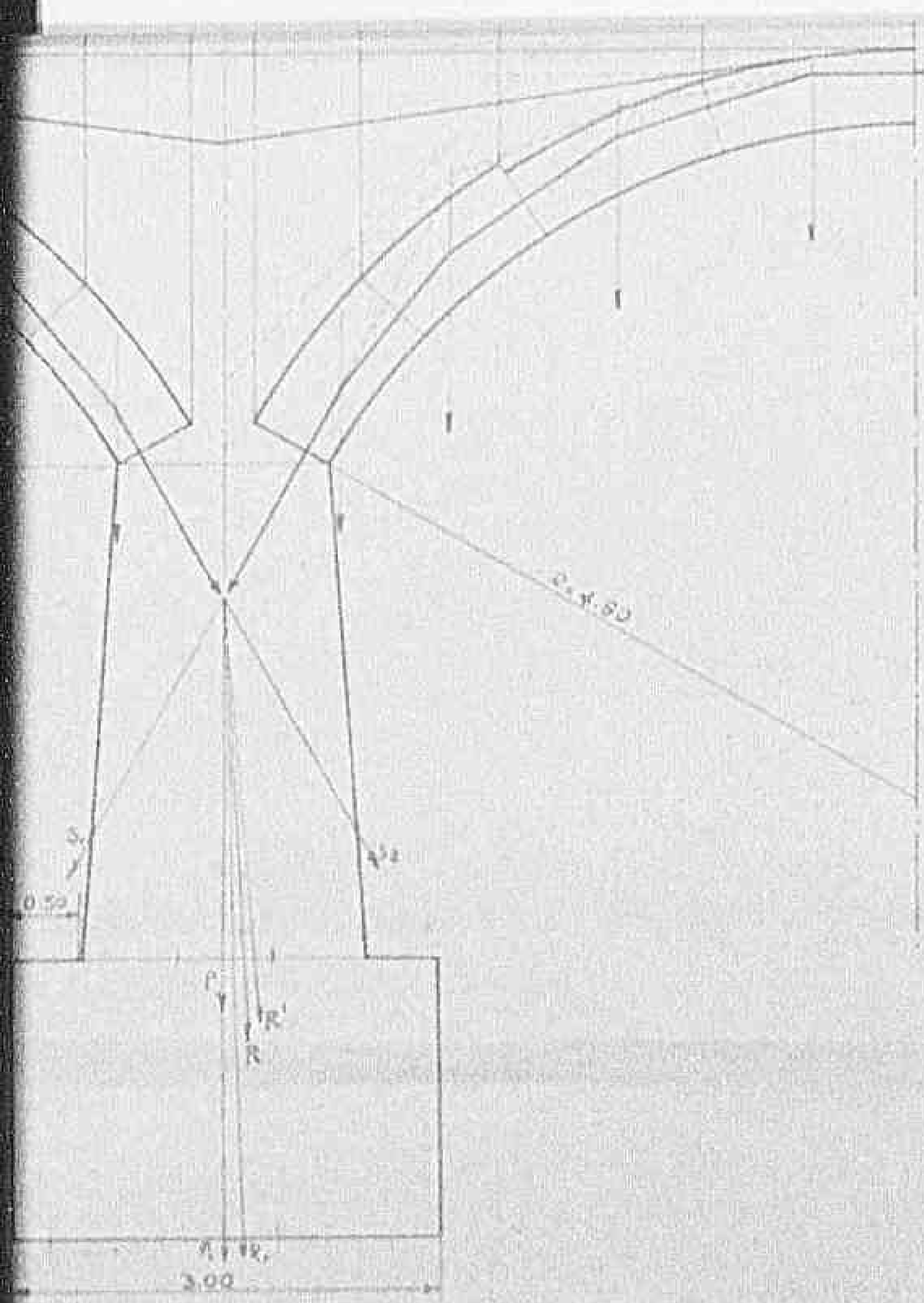
Declassified E.O. 12356 Section 3.3/NND No. 785019

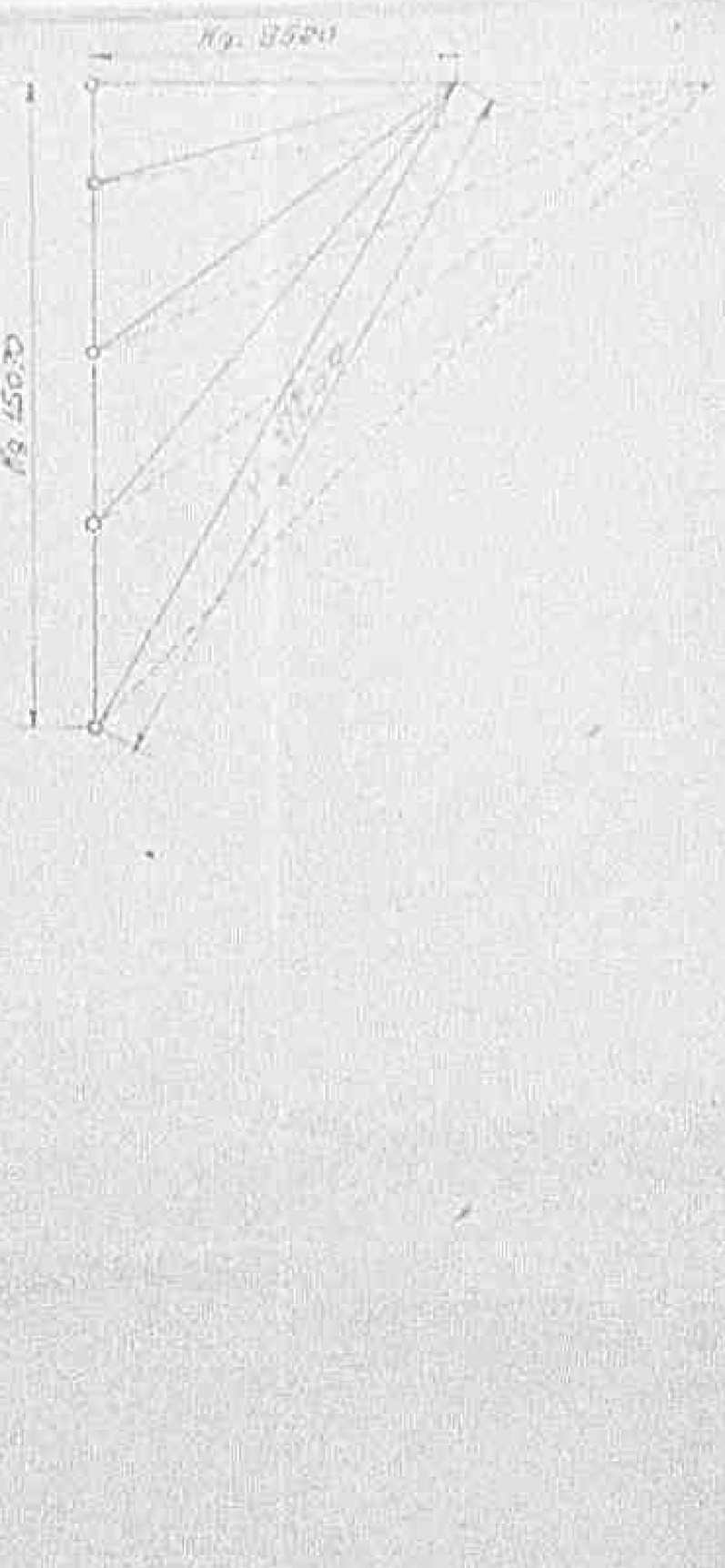


Roem 1

0 4 5 01

Declassified E.O. 12356 Section 3.3/NND No. 785019





M 5311 P

Archives - Bibliothèque

0451

Declassified E.O. 12356 Section 3.3/NND No. 78501

PILA SINISTRA

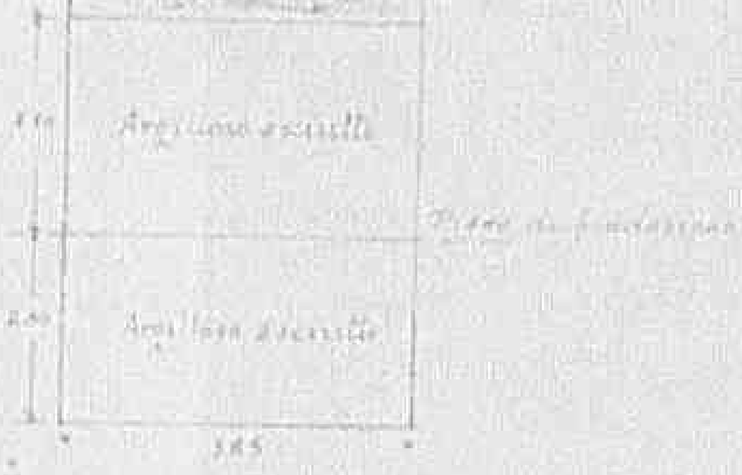
PILA CENTRALE

N. 5311 Pisd -3 APR. 1945

Il Capo: L'Ingegnere Capo

0452

Declassified E.O. 12356 Section 3.3/NND No. 7850179



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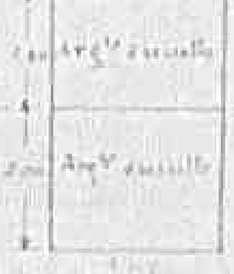
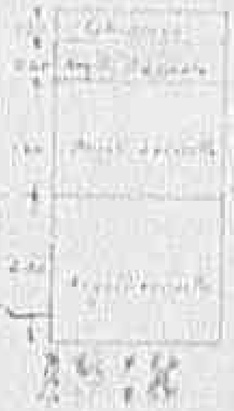


PILA DESTRA

PILA CENTRALE



SCALA 1:100

IL PROGETTISTA

N. 5311 Pisa - 3 APR. 1985

Visto: L'Ingegnere Capo

Sic 216 Progetto A 283

Ministero dei Lavori Pubblici

Corpo Reale del Genio Civile

Ufficio di Udine

M-777

Progetto di ricostruzione di Ponte sul fosso Centrale della strada comunale S. Giorgio Bellignano

A 3021 Udine 21 MAR. 1945

Redatto dal Geometra
Edmondo Brosch

L'Ingegnere Capo

L'Ingegnere Capo

1944

Declassified E.O. 12356 Section 3.3/NND No. 780019

M-171

Progetto di ricostruzione di Ponte sul fosso Centrale della strada com. S. Pancrazio Velignano

A 3021 Roma 21 MAR. 1945

Redatto dal Geometra
Edmondo Bruschi
L'Ingegnere Capo
Mauath

L'Ingegnere Capo
Mauath

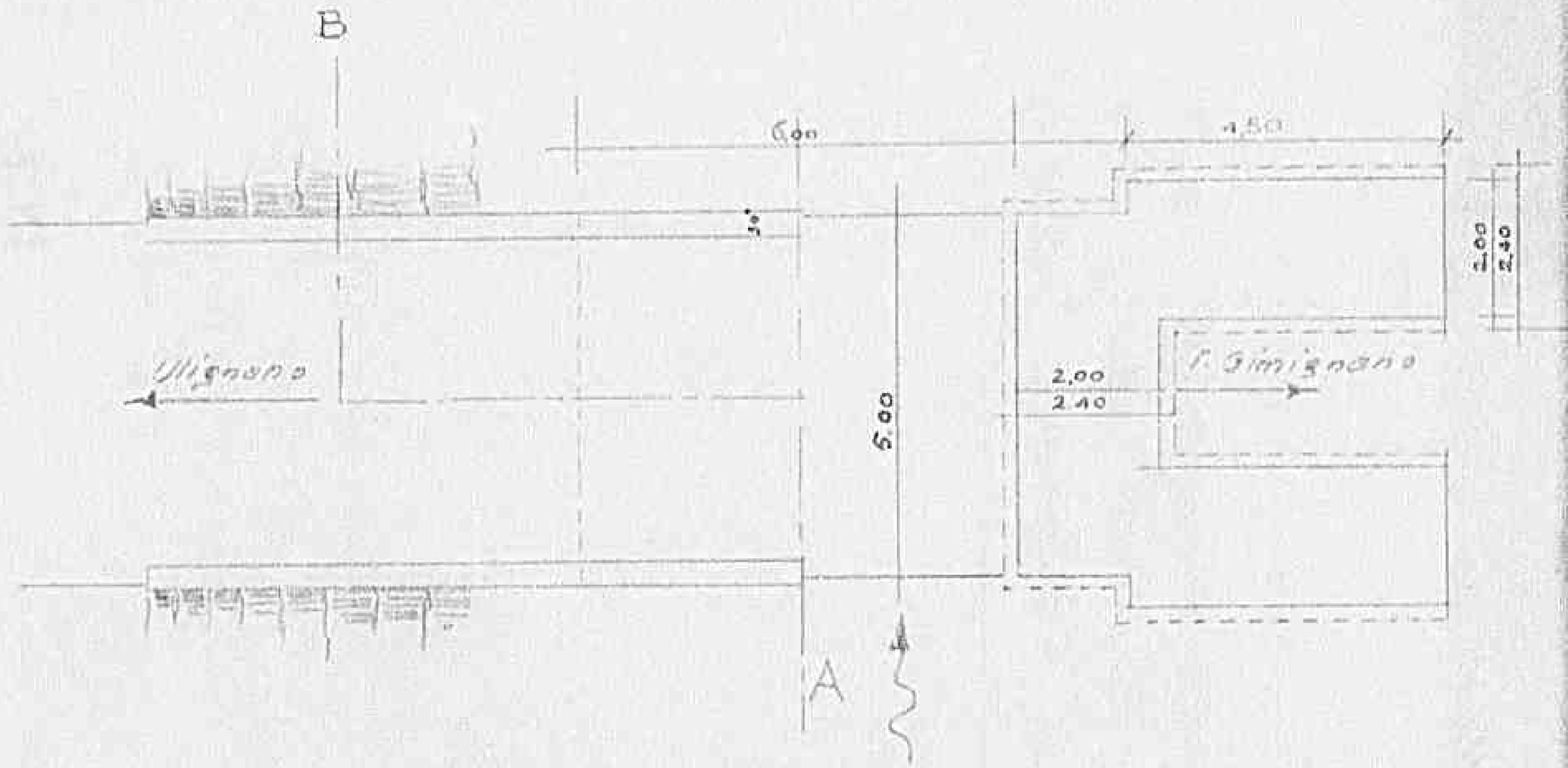
1948

Declassified E.O. 12356 Section 3.3/NND No. 786151

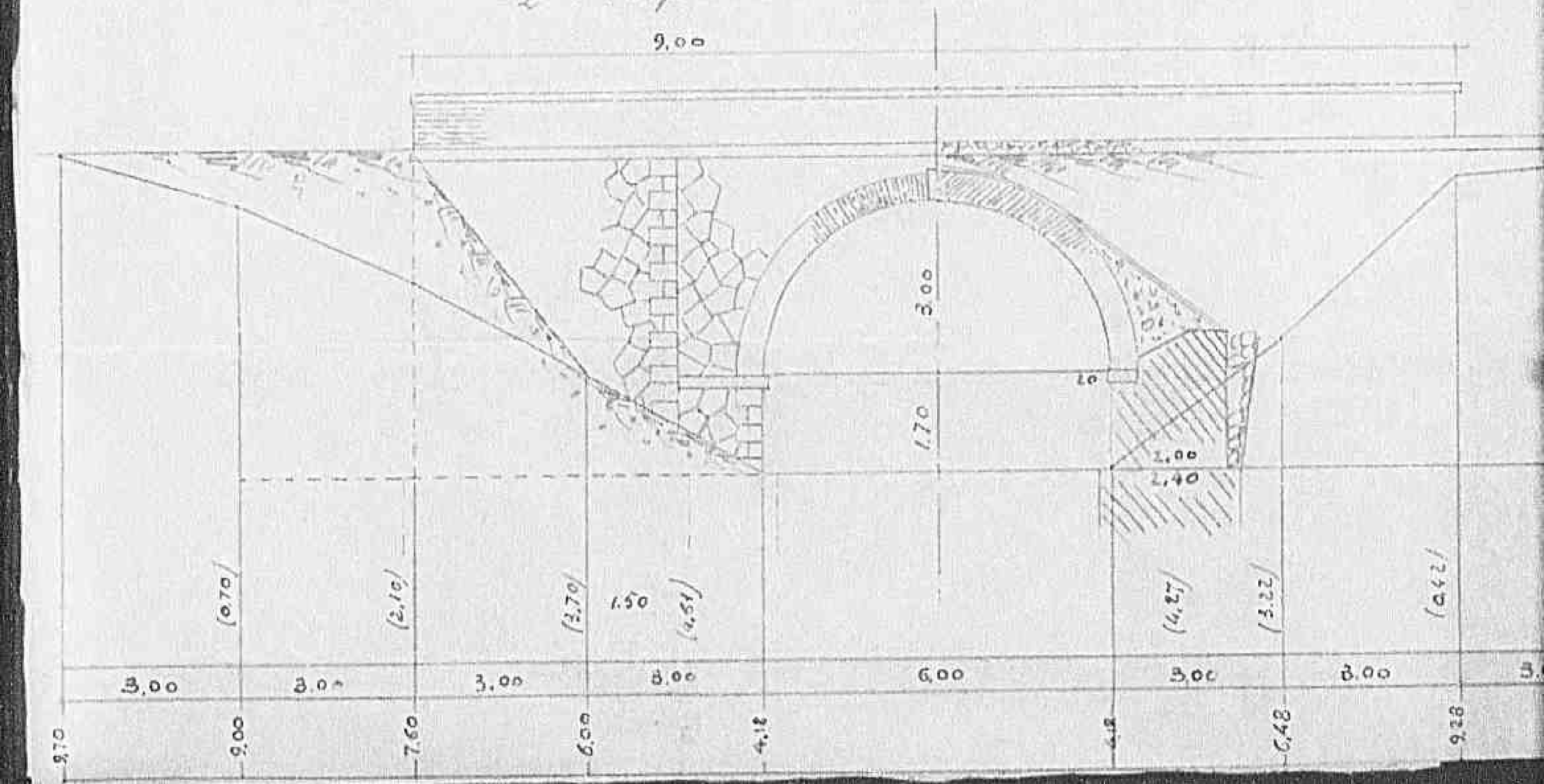
0451

Declassified E.O. 12356 Section 3.3/NND No. 785019

Pianta ad opera finita - Scala 1:100 - Pianta spiccato



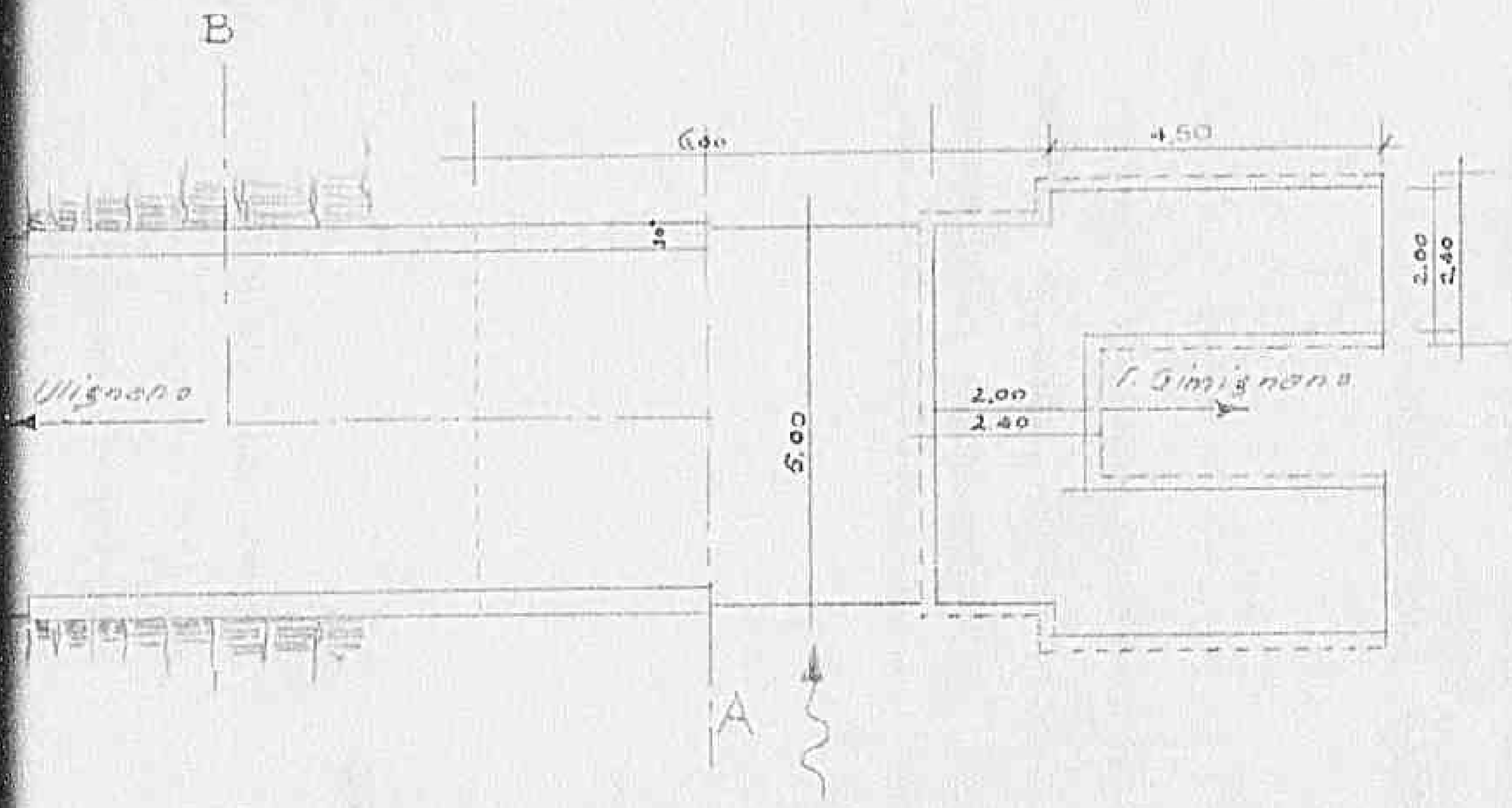
½ Prospetto - Scala 1:100 - ½ Sez. longitudinale



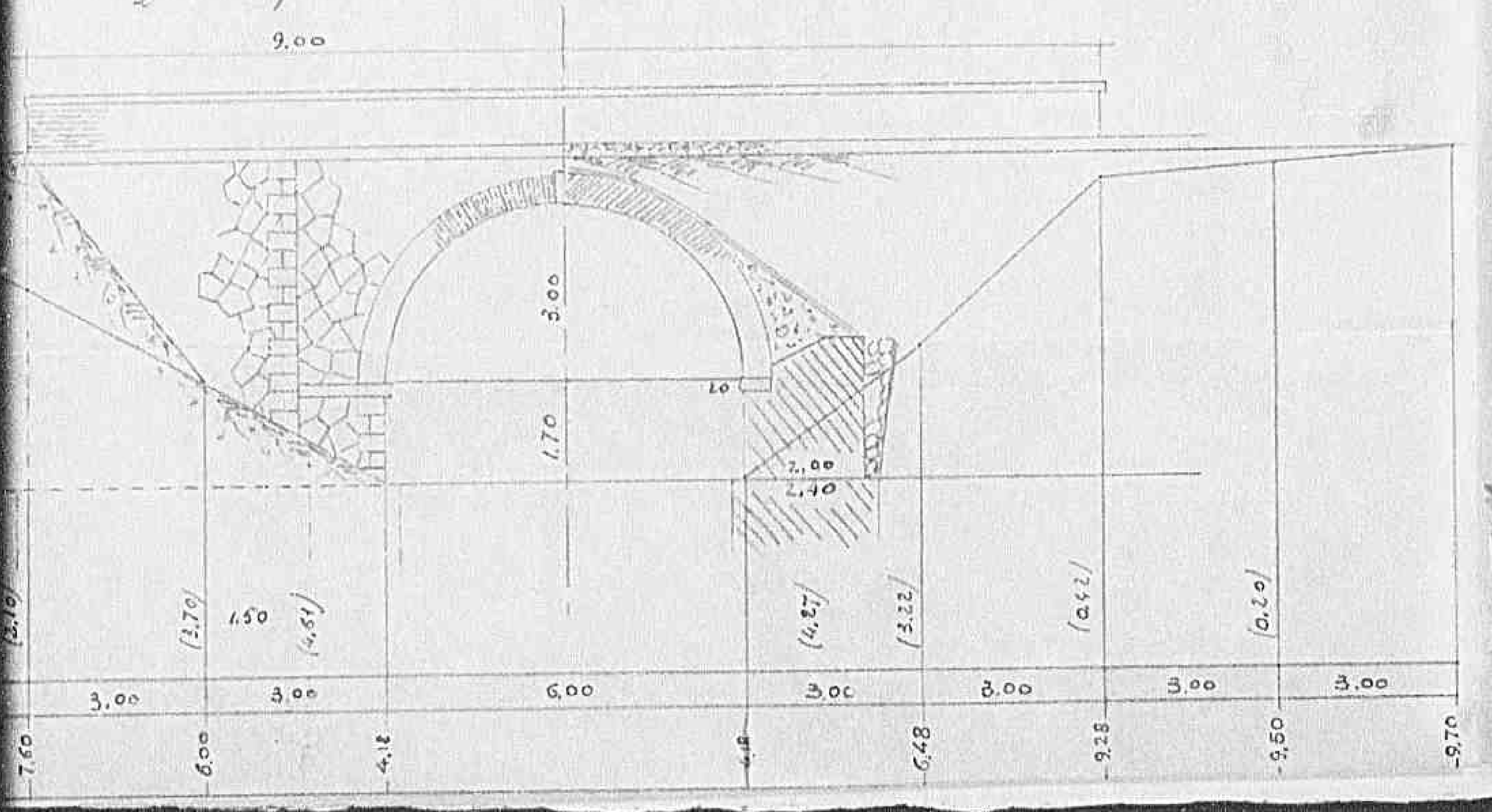
04561

Declassified E.O. 12356 Section 3.3/NND No. 785019

Sezione ad opera finita - Scala 1:100 - Pianta spiccato



½ Prospetto - Scala 1:100 - ½ Sez. longitudinale



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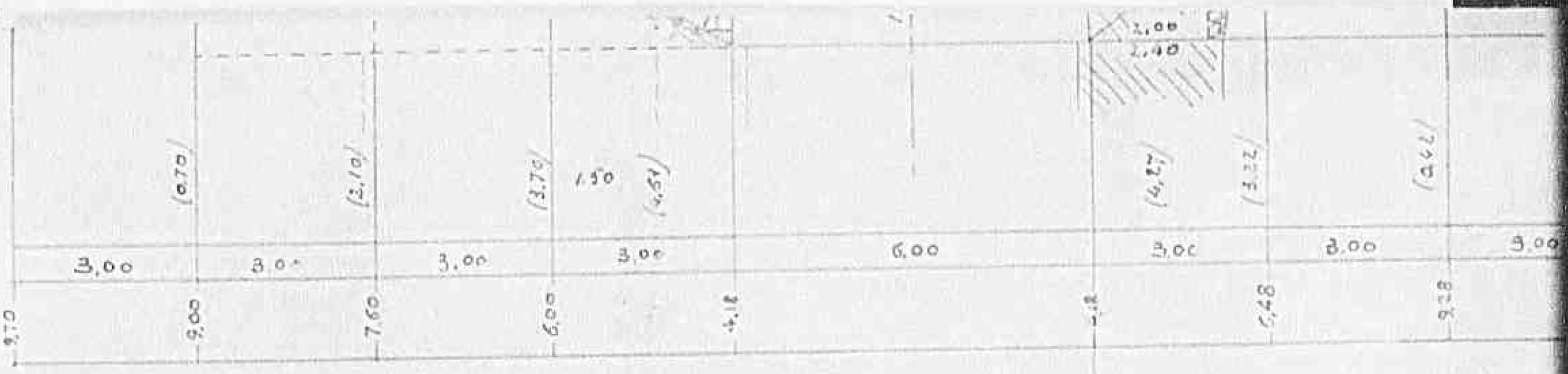
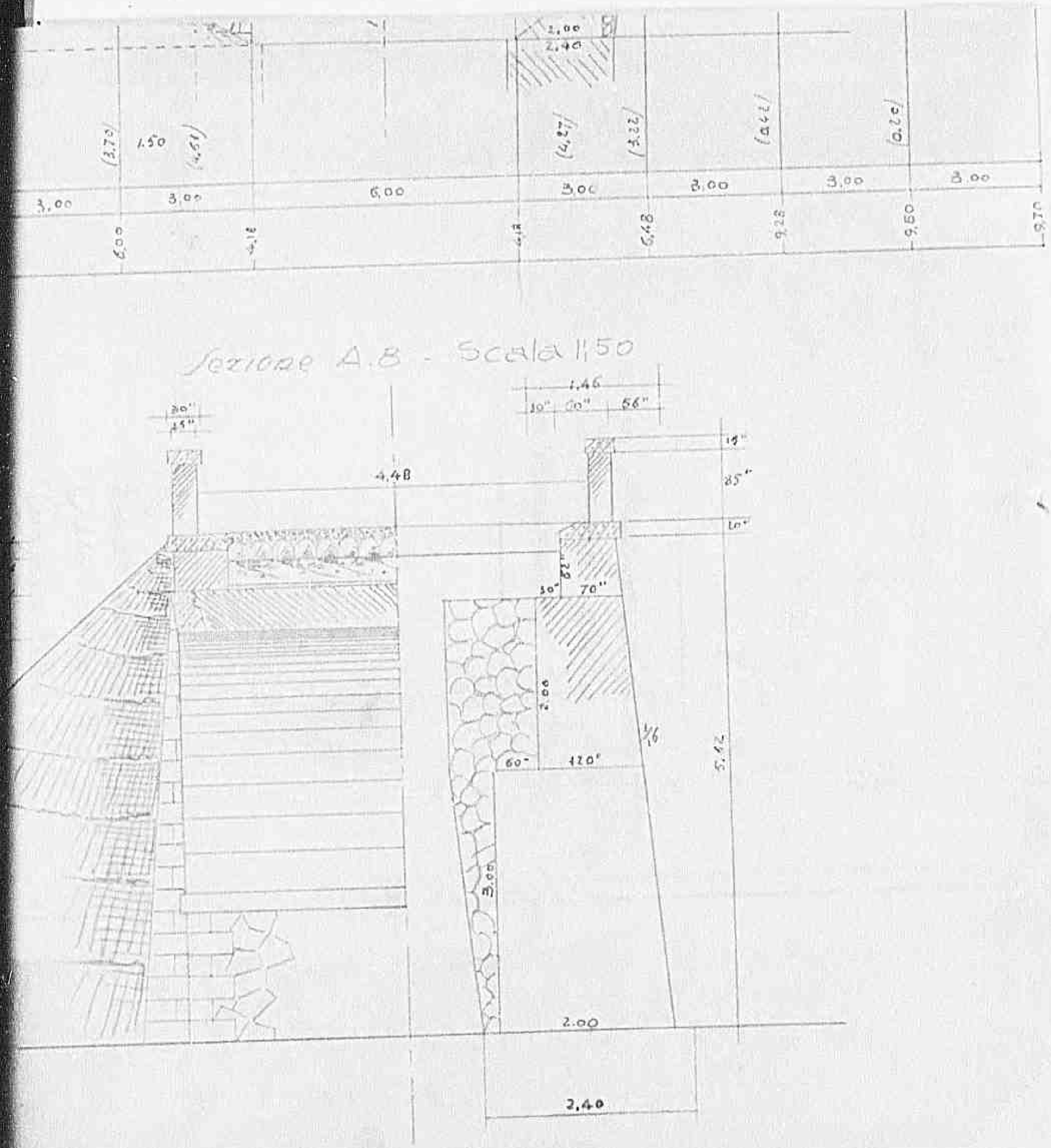
Declassified E.O. 12356 Section 3.3/NND No. 785019



Sezione A.B - Scala 1:50

0458

Declassified E.O. 12356 Section 3.3/NND No. 785019



Sezione A.B - Scala 1:50

Sc 230 Posto N° 332

Ministero dei Lavori Pubblici
Corpo Reale del Genio Civile
Ufficio di Siena

11-178

Progetto di ricostruzione del ponte sul Torrente delle strade provinciali Ortisi - Montauto

Pozzoni
Strada di Ortisi

Sc 3704 Ufficio 13 APR 1945 1945

L'Ingegnere Principale
Addetto

Il Ingegnere Capo
Addetto

Declassified E.O. 12356 Section 3.3/NND No. 785019

Progetto di ricostruzione del ponte sull'Astore sulla strada provinciale Ortisei - Santa Cristina

Disegni
Stato attuale

Il 3704 Ottava 13 APR 1945 1945

L'Ingegnere Capo
Rinaldi

V.to L'Ingegnere Capo
Provinciale

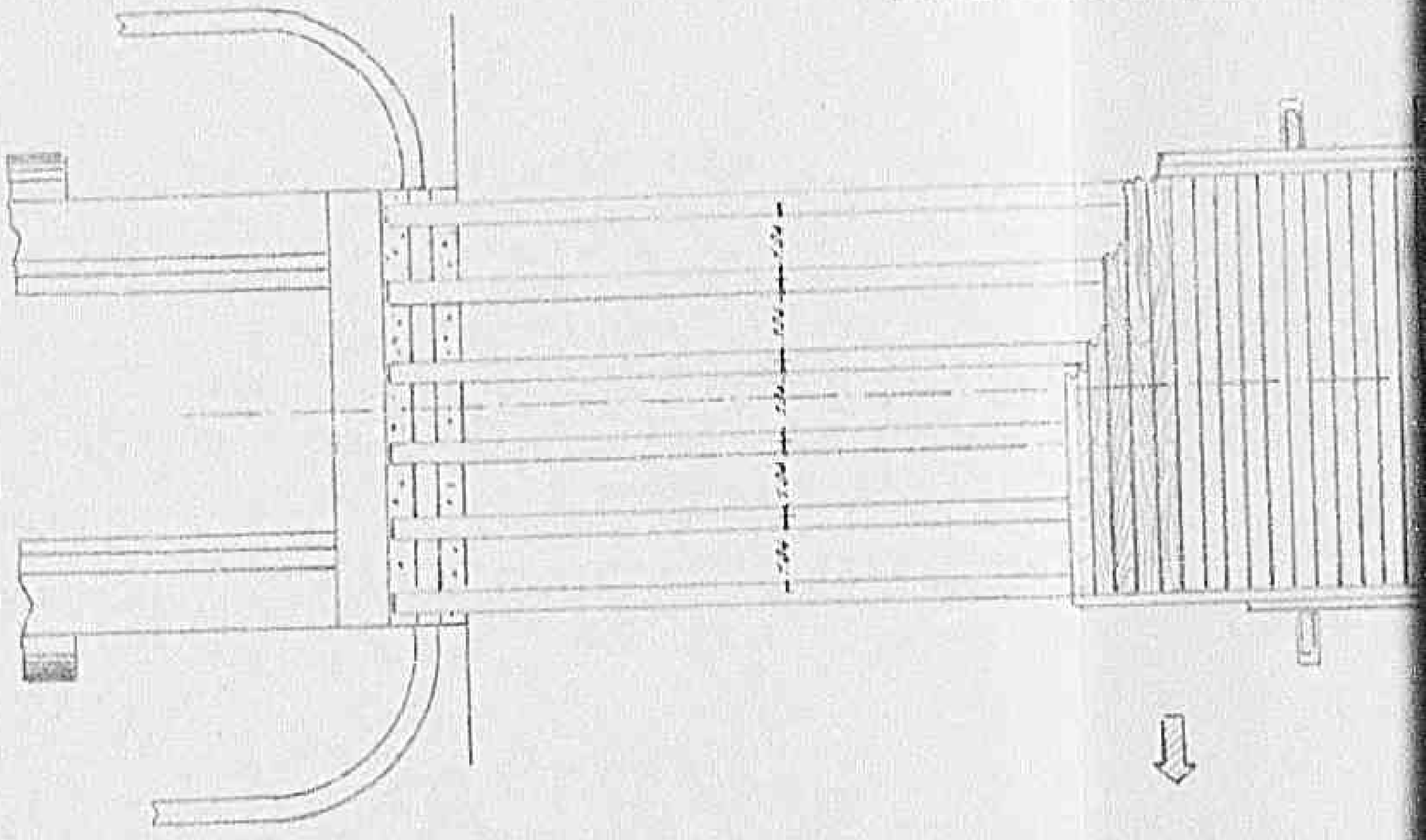
1947

Declassified E.O. 12356 Section 3.3/NND No. 785019

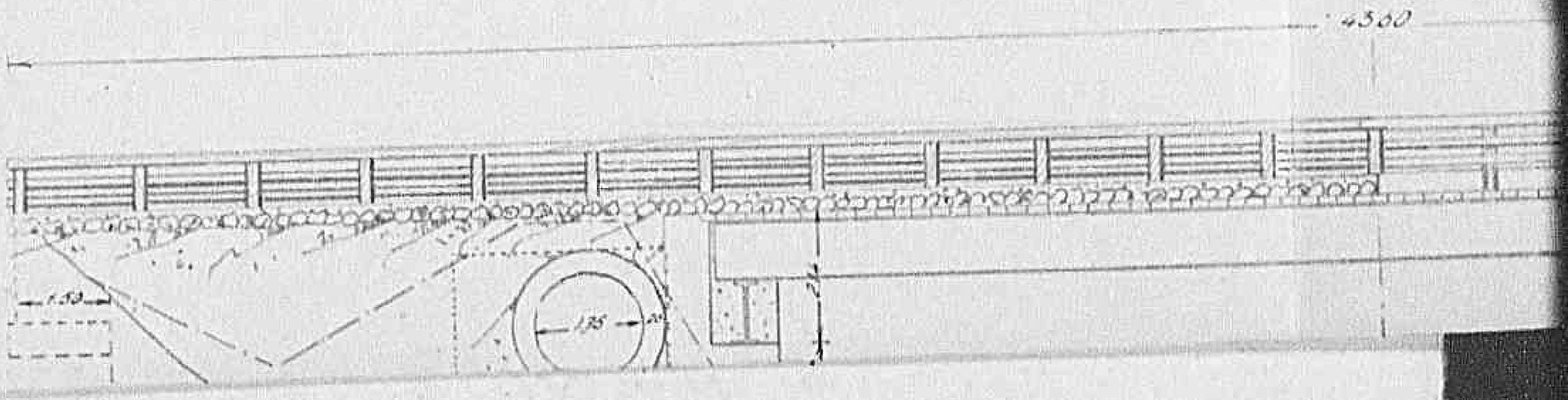
0461

Declassified E.O. 12356 Section 3.3/NND No. 785019

Pianta e struttura aperte a



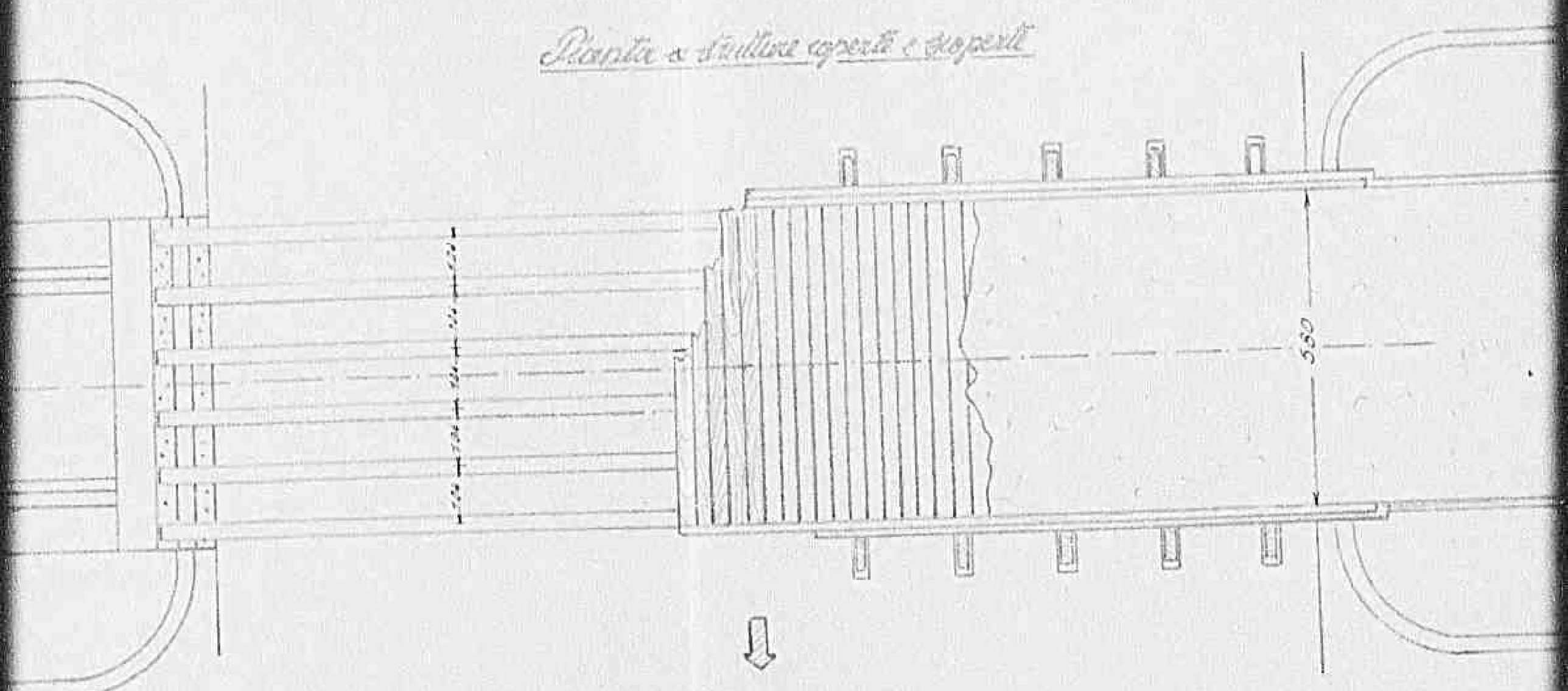
1/2 Sezione longitudinale



0421

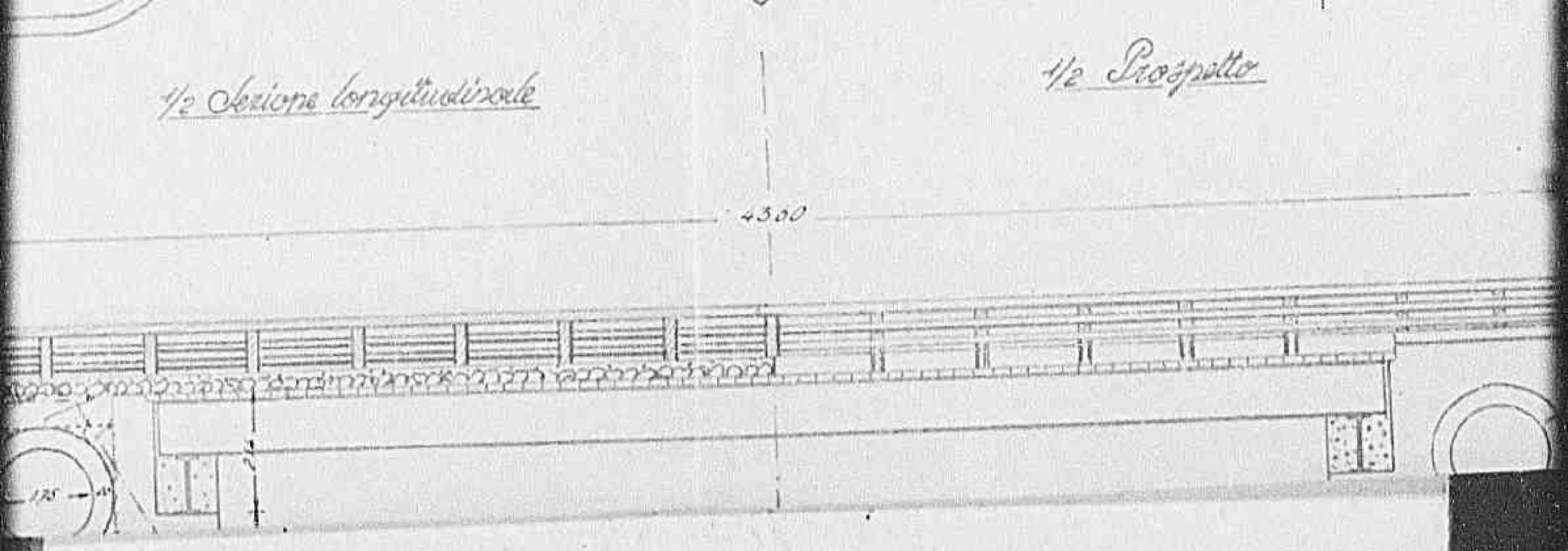
Declassified E.O. 12356 Section 3.3/NND No. 785019

Pianta a livello copertè e doppi



½ Sezione longitudinale

½ Prospetto



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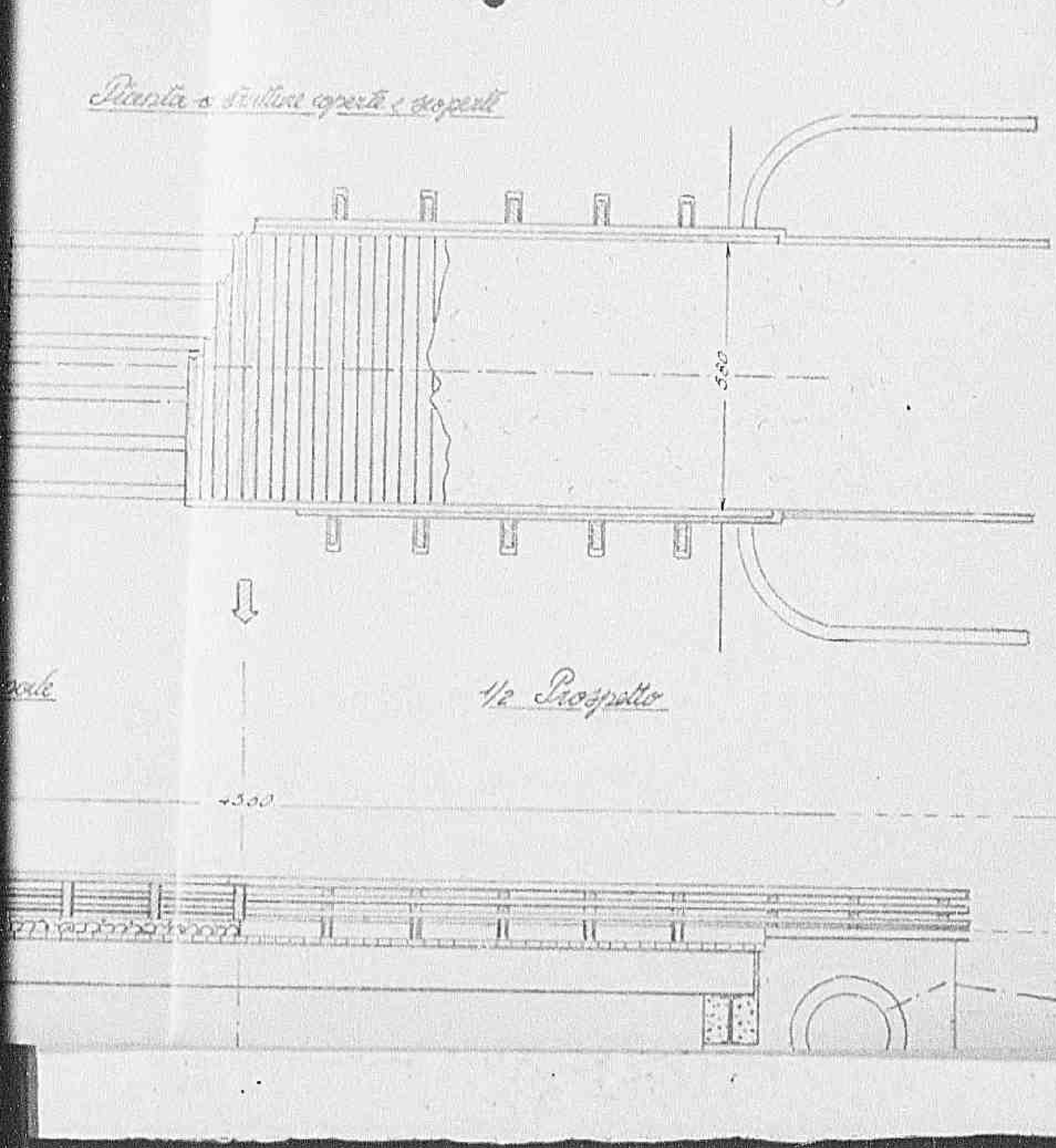
Declassified E.O. 12356 Section 3.3/NND No. 785019

Pianta e sezione opera a sbalzo

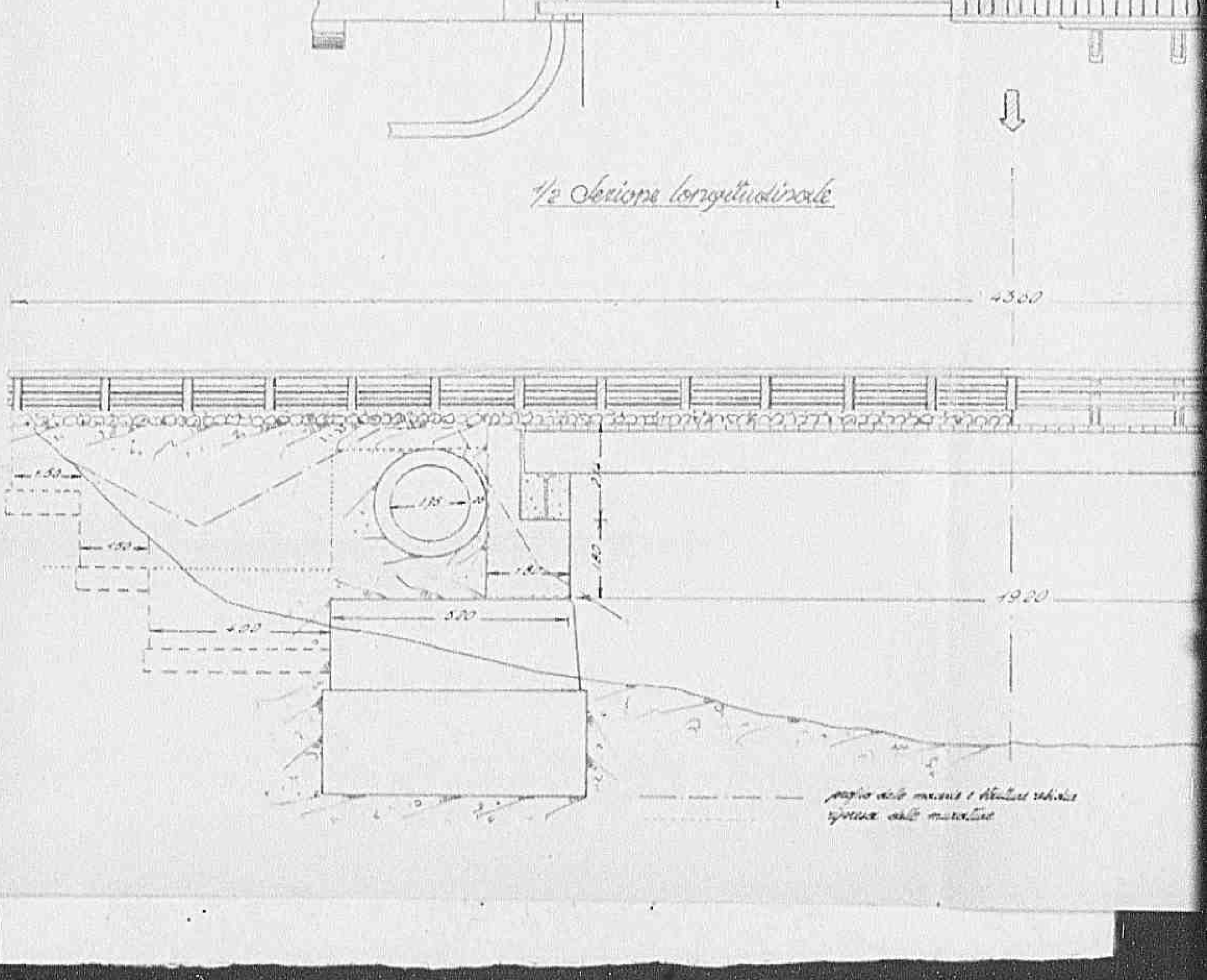


1/2 Prospetto

04641

Declassified E.O. 12356 Section 3.3/NND No. 785019

½ Sezione longitudinale



0465

Unclassified E.O. 12356 Section 3.3/NND No. 785019

½ Sezione longitudinale

½ Prospetto

4360

4920

0461

Declassified E.O. 12356 Section 3.3/NND No. 785019

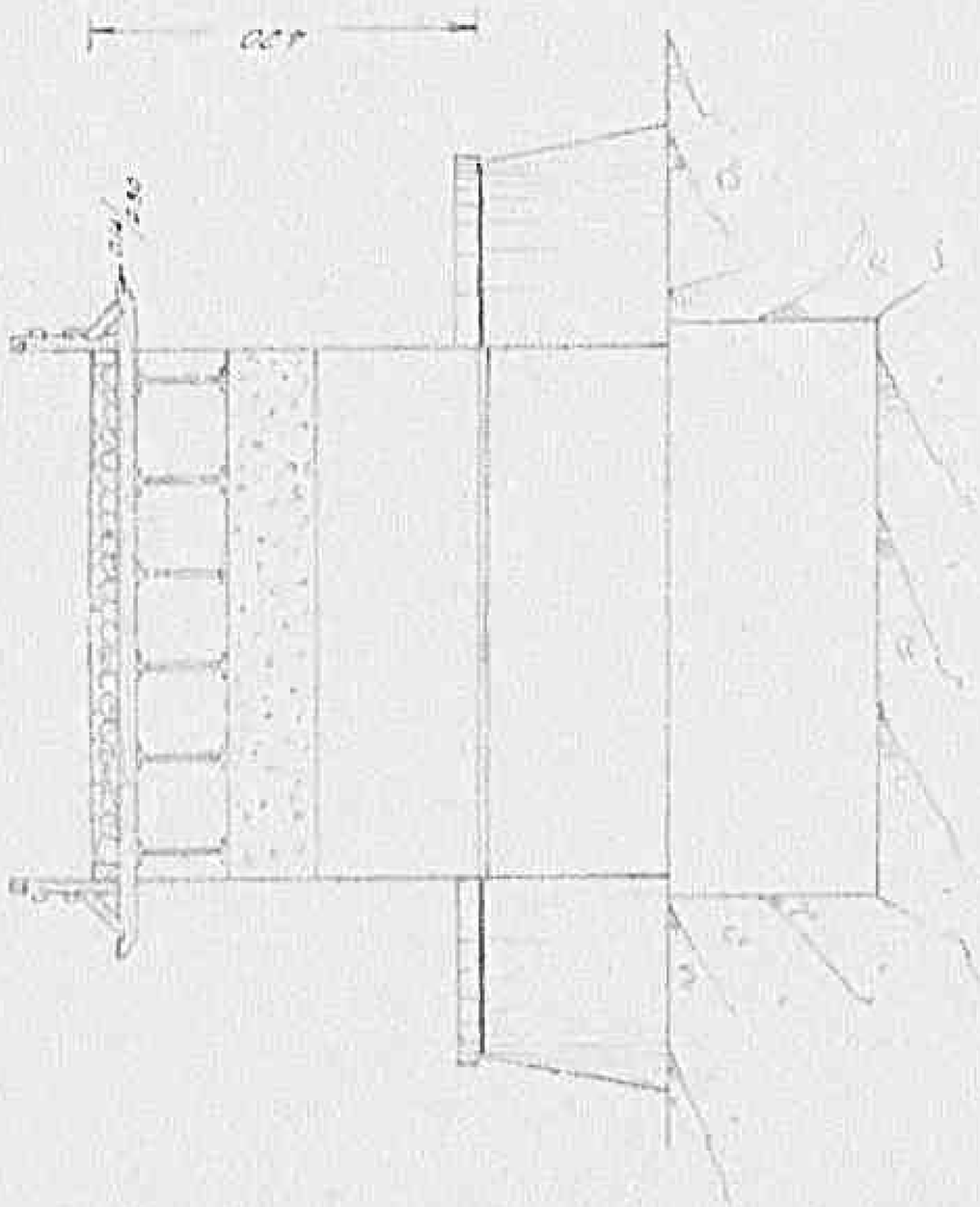
1/2 Prospetto

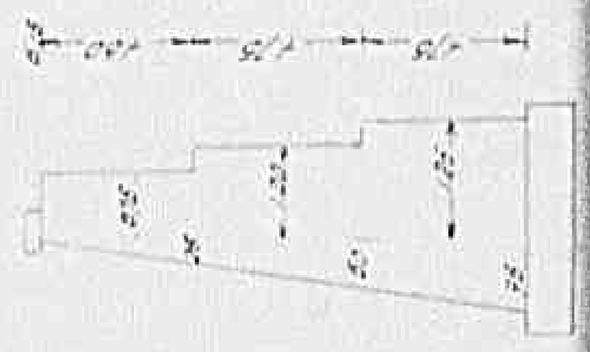
4500

1920

0471

Declassified E.O. 12356 Section 3.3/NND No. 785019





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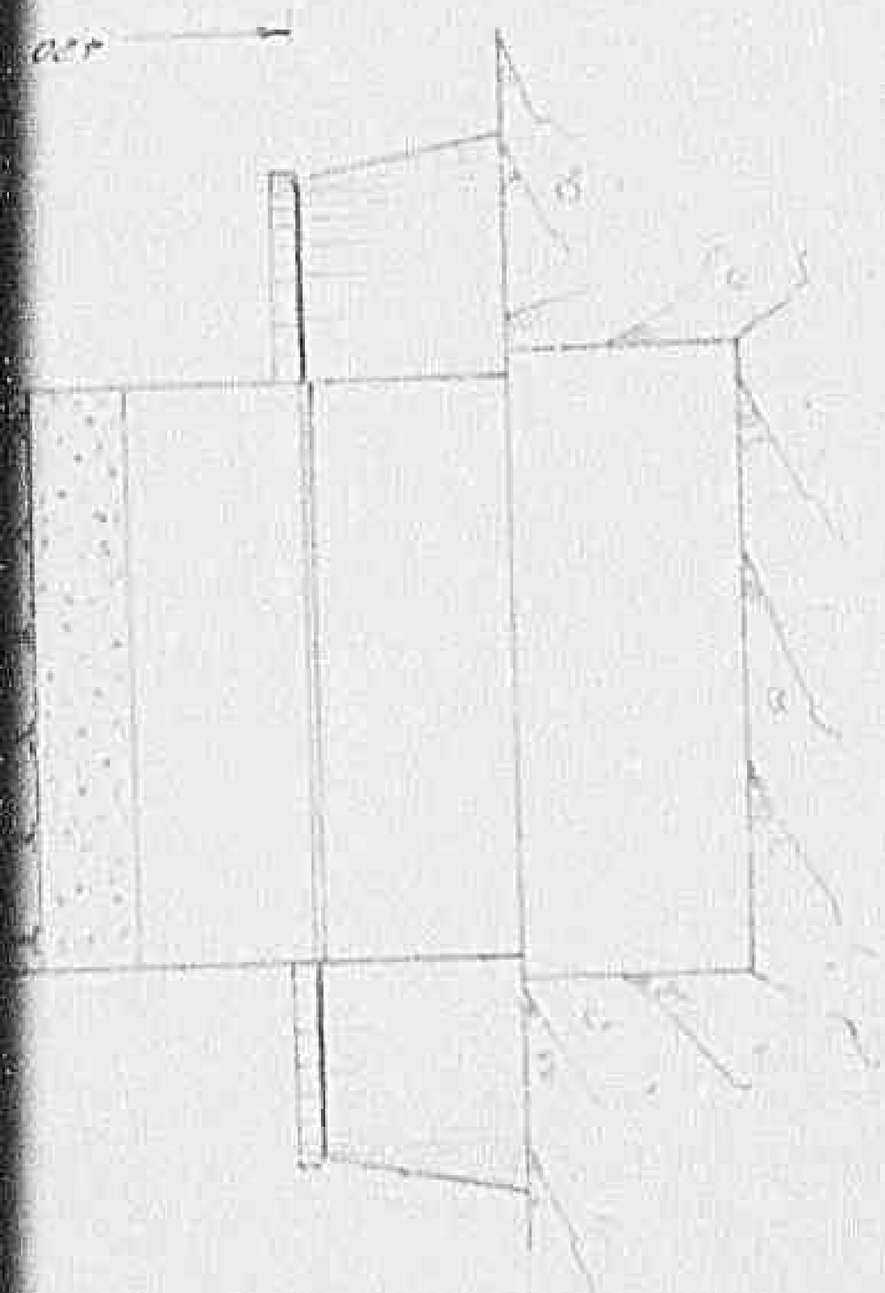
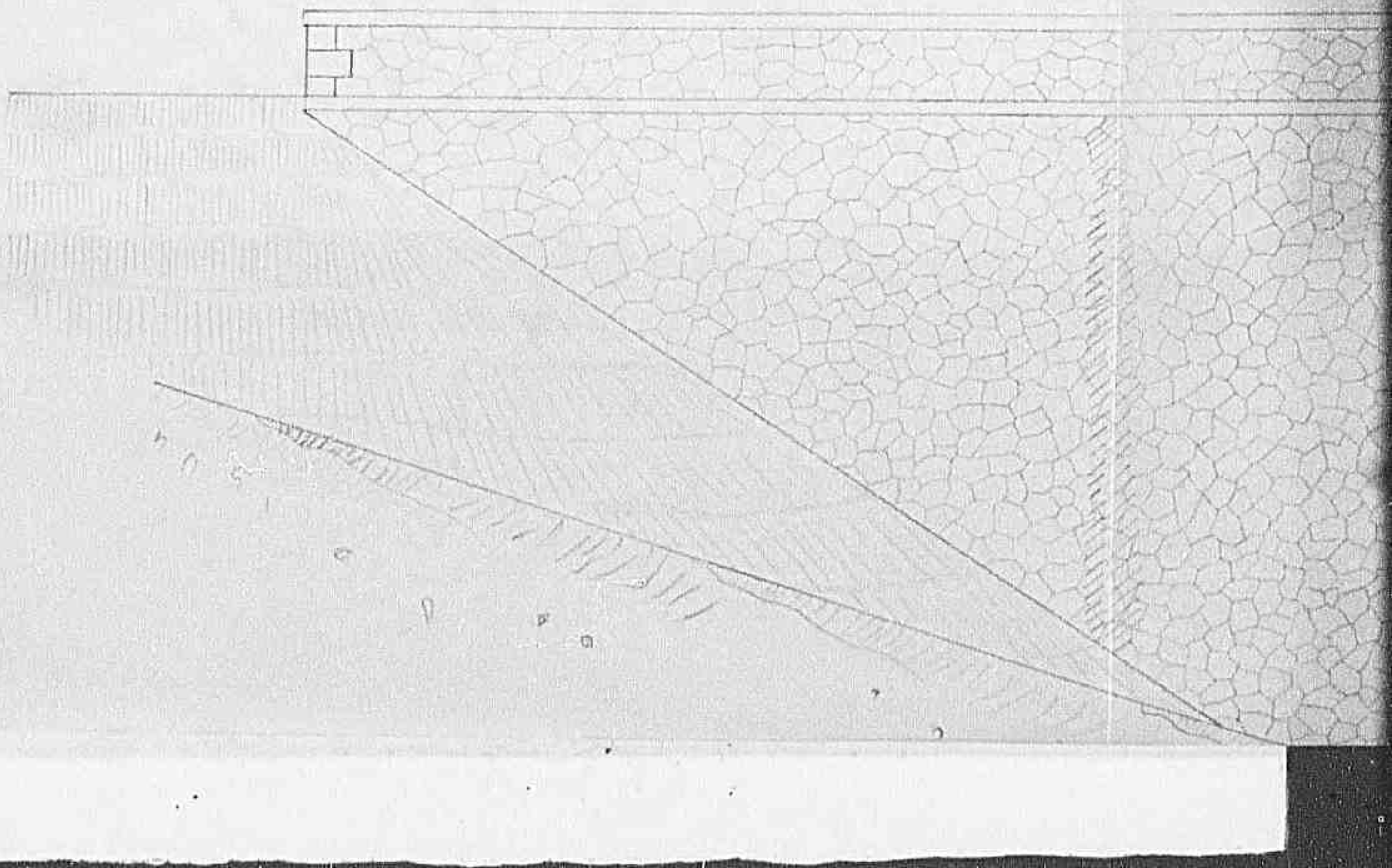


0469

Declassified E.O. 12356 Section 3.3/NND No. 780019

1/2 PROSPETTO = 1.50



0 4 7 01

Declassified E.O. 12356 Section 3.3/NND No. 780019

1/2 PROSPETTO = 1:50

14.35

3.10

4.40

0 4 7 11

Declassified E.O. 12356 Section 3.3/NND No. 785019

PETTO = 1.50

2.55

3.10

1/2 SEZIONE TRASVERSALE

1.50

R= 3.00

1.00

3.00

1.7

0 4 7 21

Declassified E.O. 12356 Section 3.3/NND No. 785019

610 257

1/2 SEZIONE TRASVERSALE

1:50

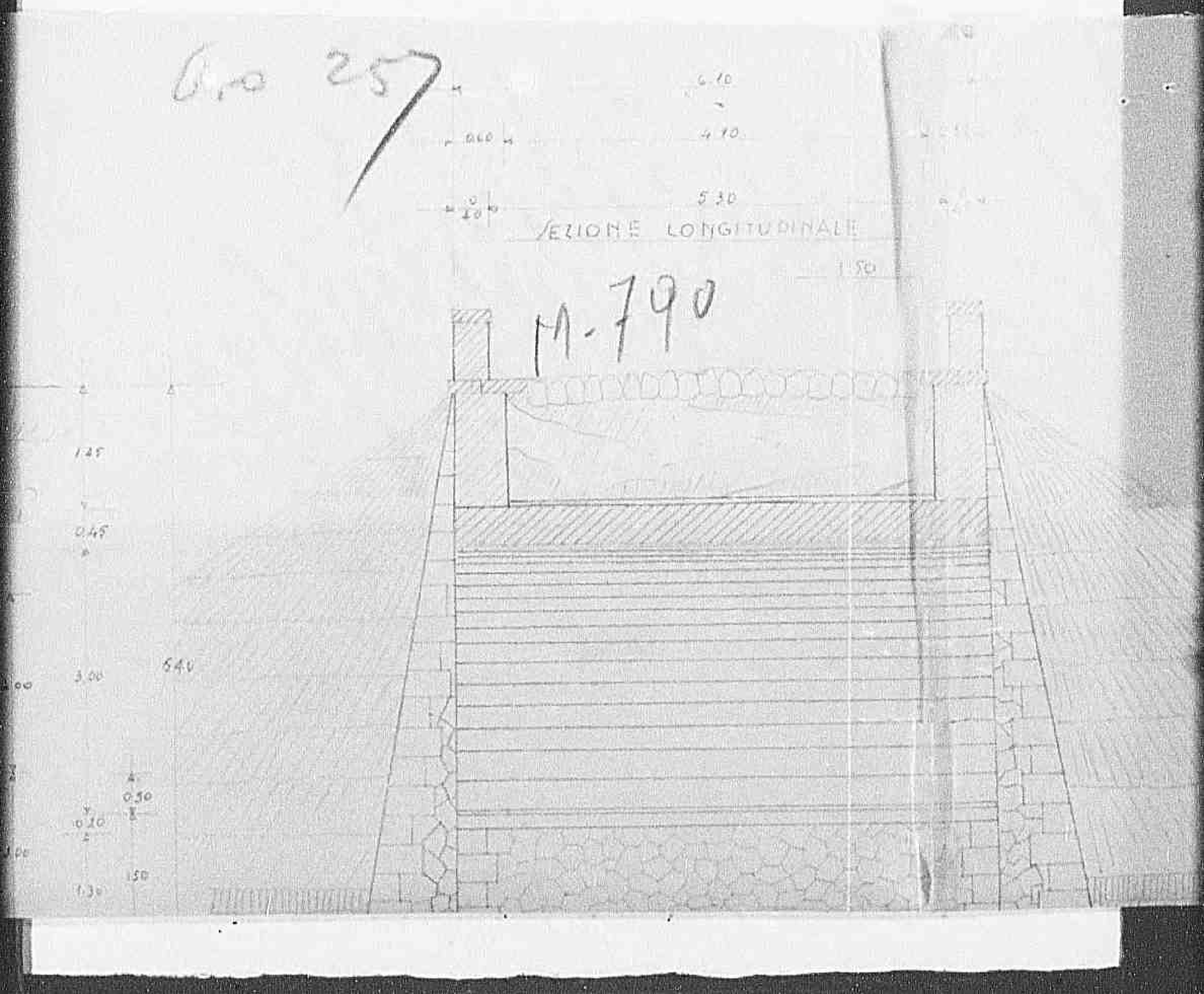
04731

Declassified E.O. 12356 Section 3.3/NND No. 7 8 0 1 1 1

6.10 257

17-790

SEZIONE LONGITUDINALE



0474

Declassified E.O. 12356 Section 3.3/NND No. 780190

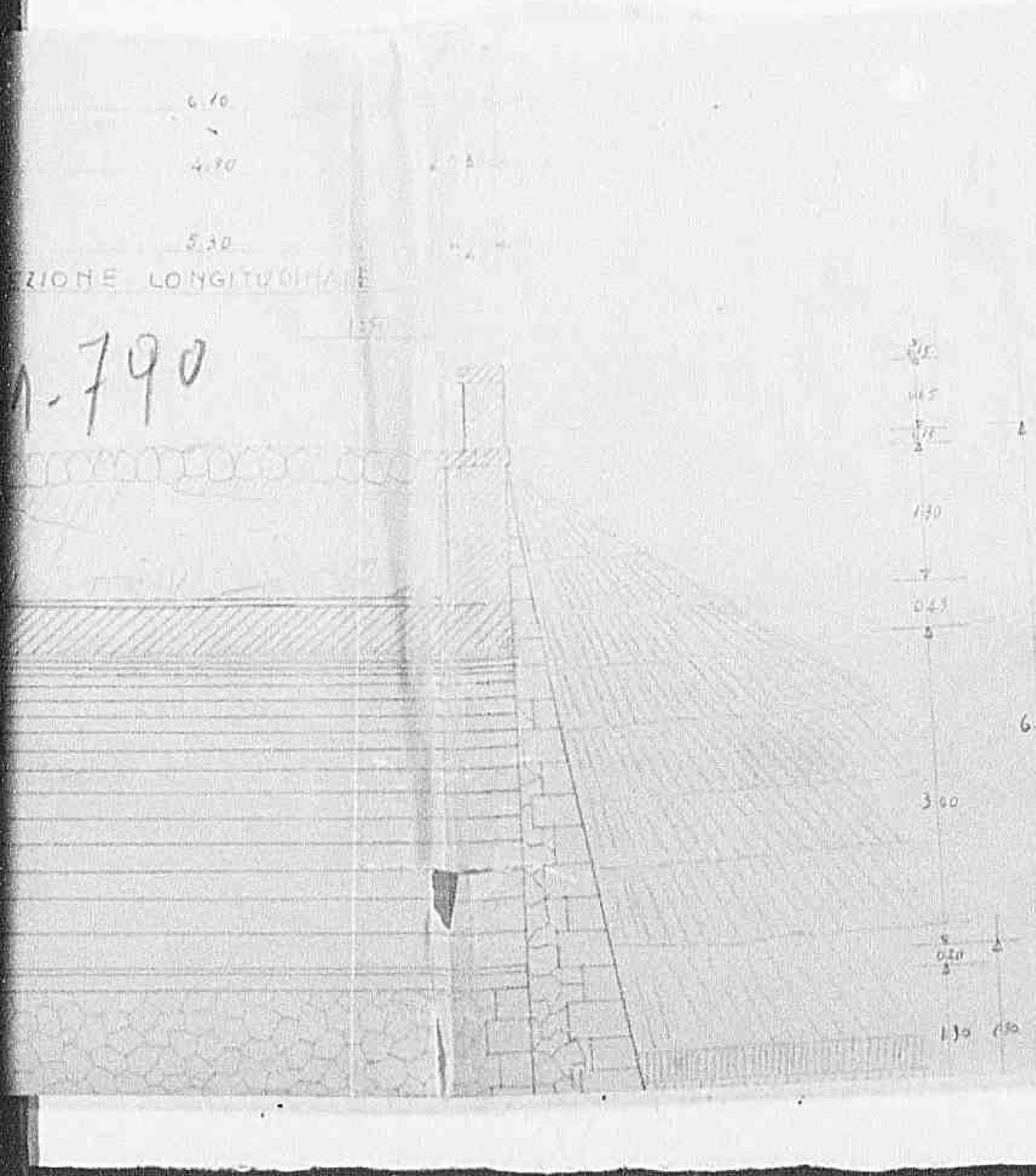
6.10

4.90

5.30

ZIONE LONGITUDI

n-790



0 4 7 51

Declassified E.O. 12356 Section 3.3/NND No. 785018

PROGETTO DEI LAVORI DI RICOSTRUZIONE DEL PONTE N° 25
SUL POZZONE LUNGO LA STRADA PROV. MANCIANO
MONTEMERANO

MATERIALI CONTINGENTATI

CEMENTO Q.li 20

0476

Declassified E.O. 12356 Section 3.3/NND No.

RICOSTRUZIONE DEL PONTE N°25

STRADA PROV. MANCIANO

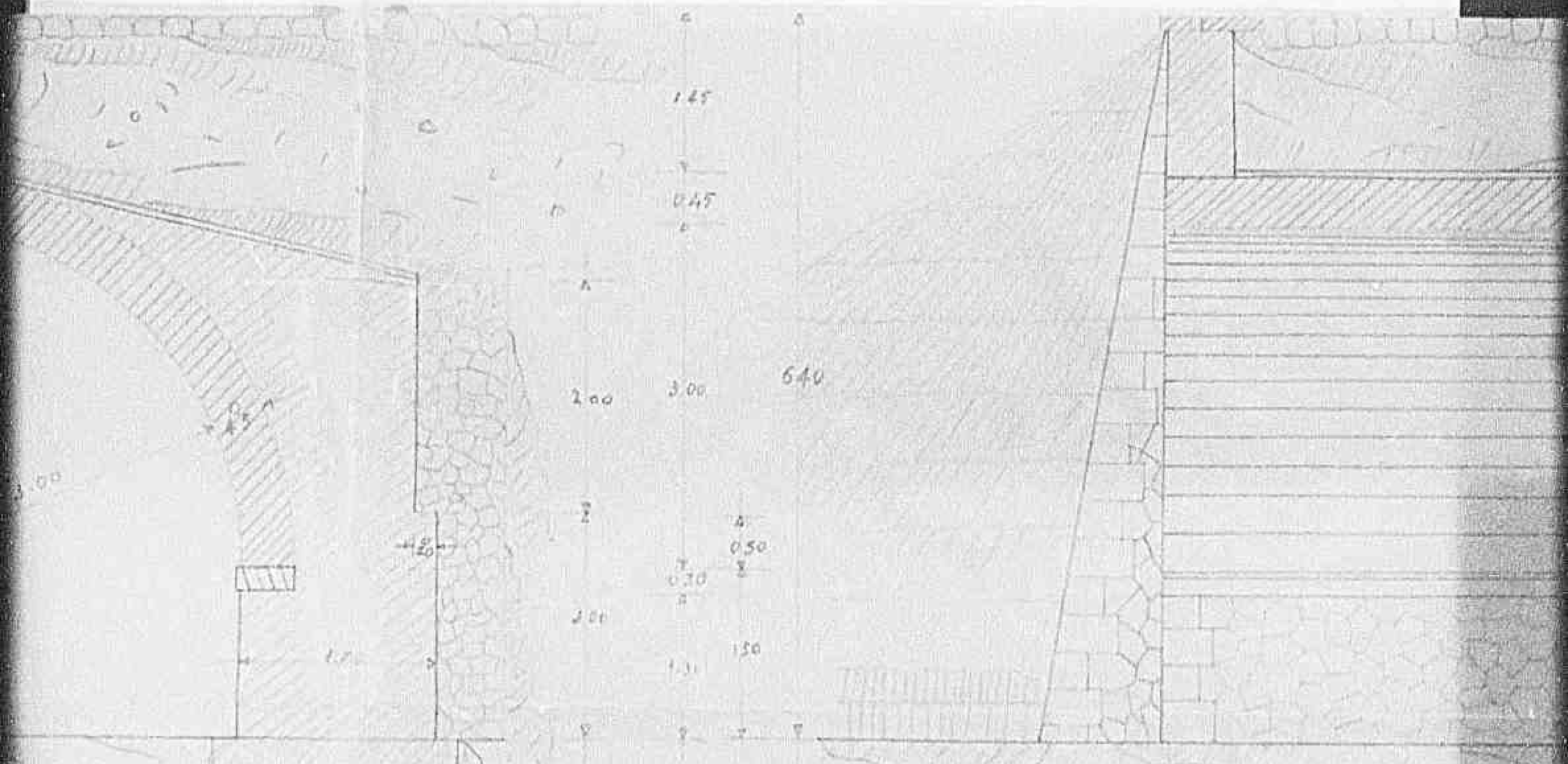
ENTATI

0471

Declassified E.O. 12356 Section 3.3/NND No.

0478

Declassified E.O. 12356 Section 3.3/NND No.



1946

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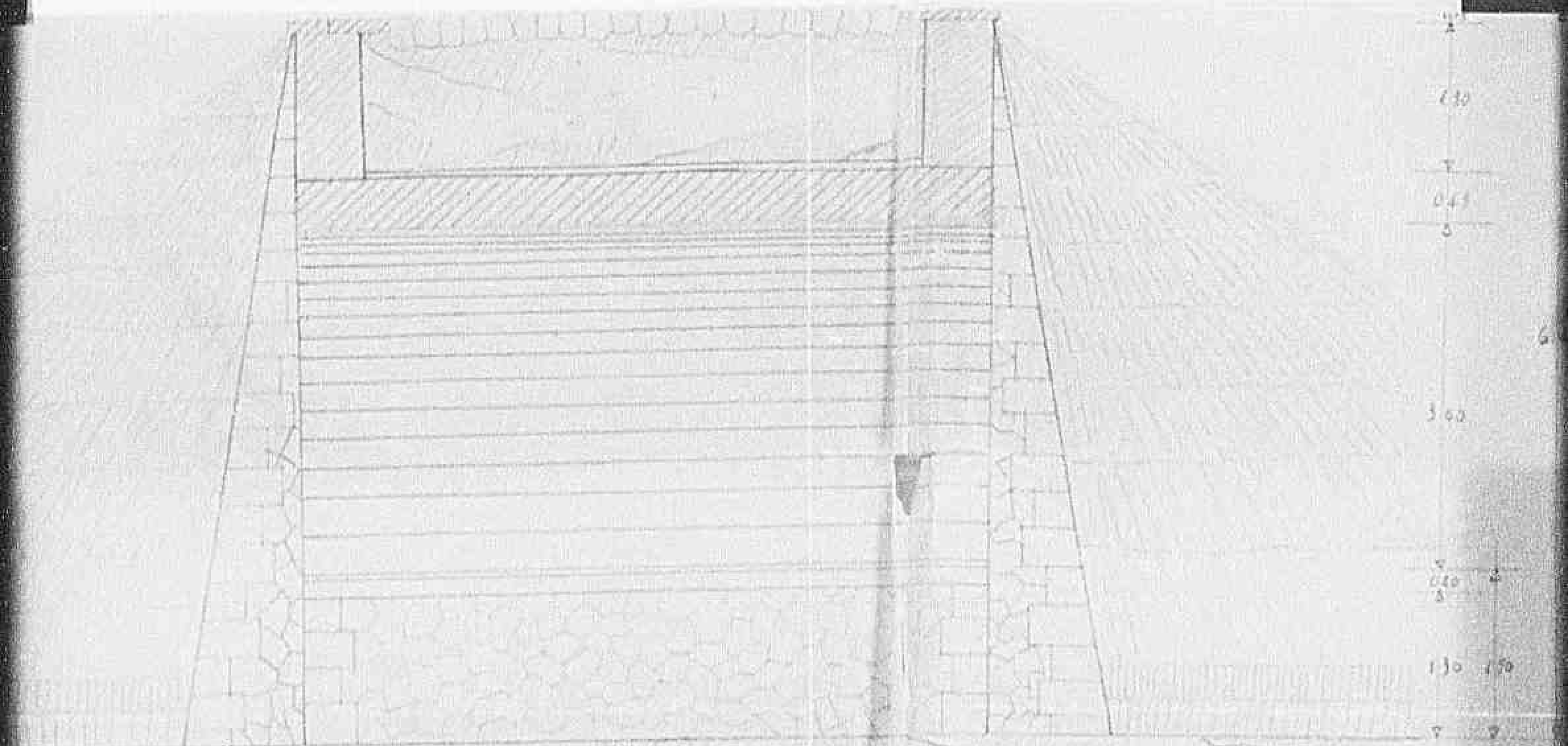
Declassified E.O. 12356 Section 3.3/NND No. 787015



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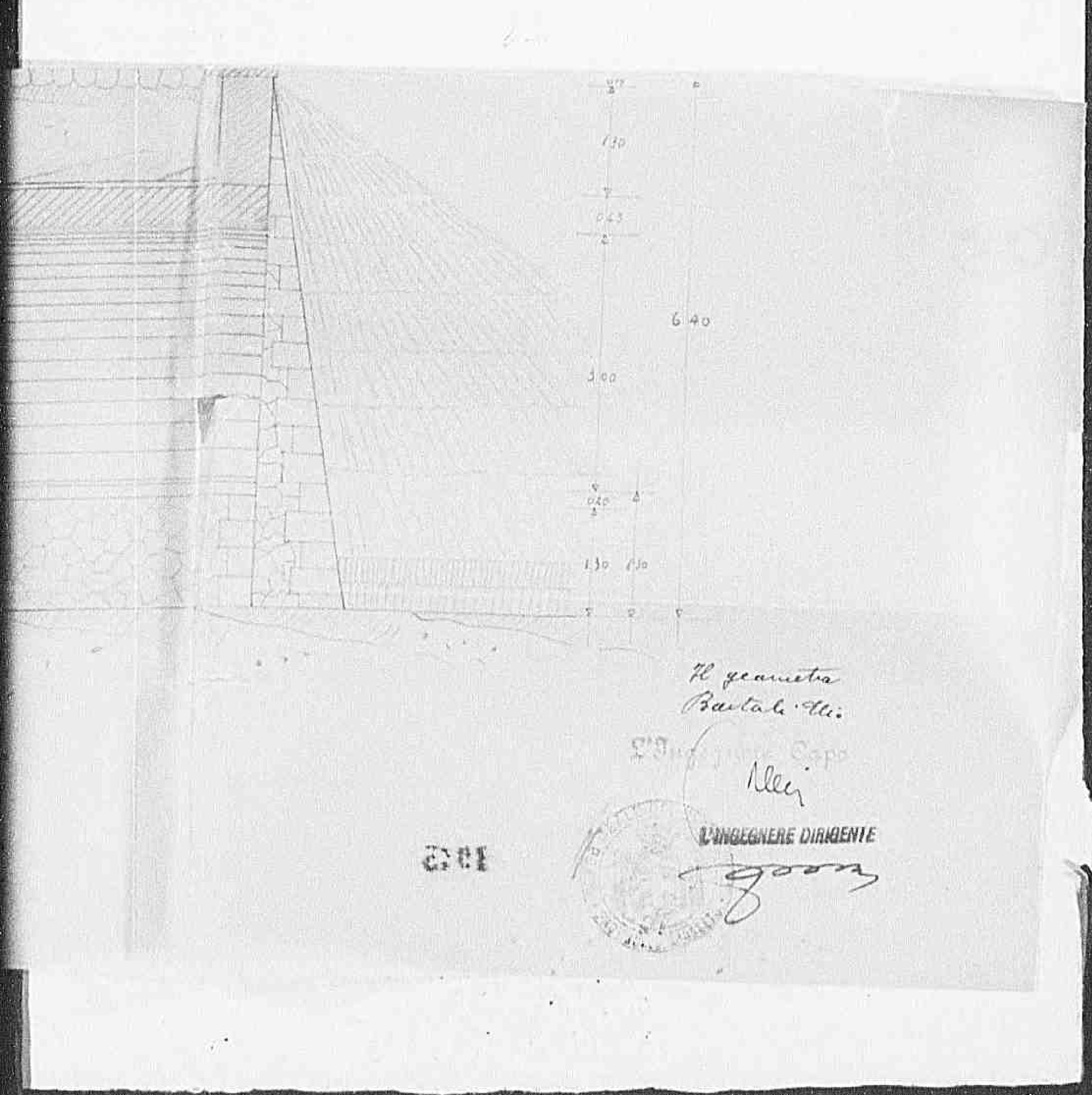
Declassified E.O. 12356 Section 3.3/NND No. 785019

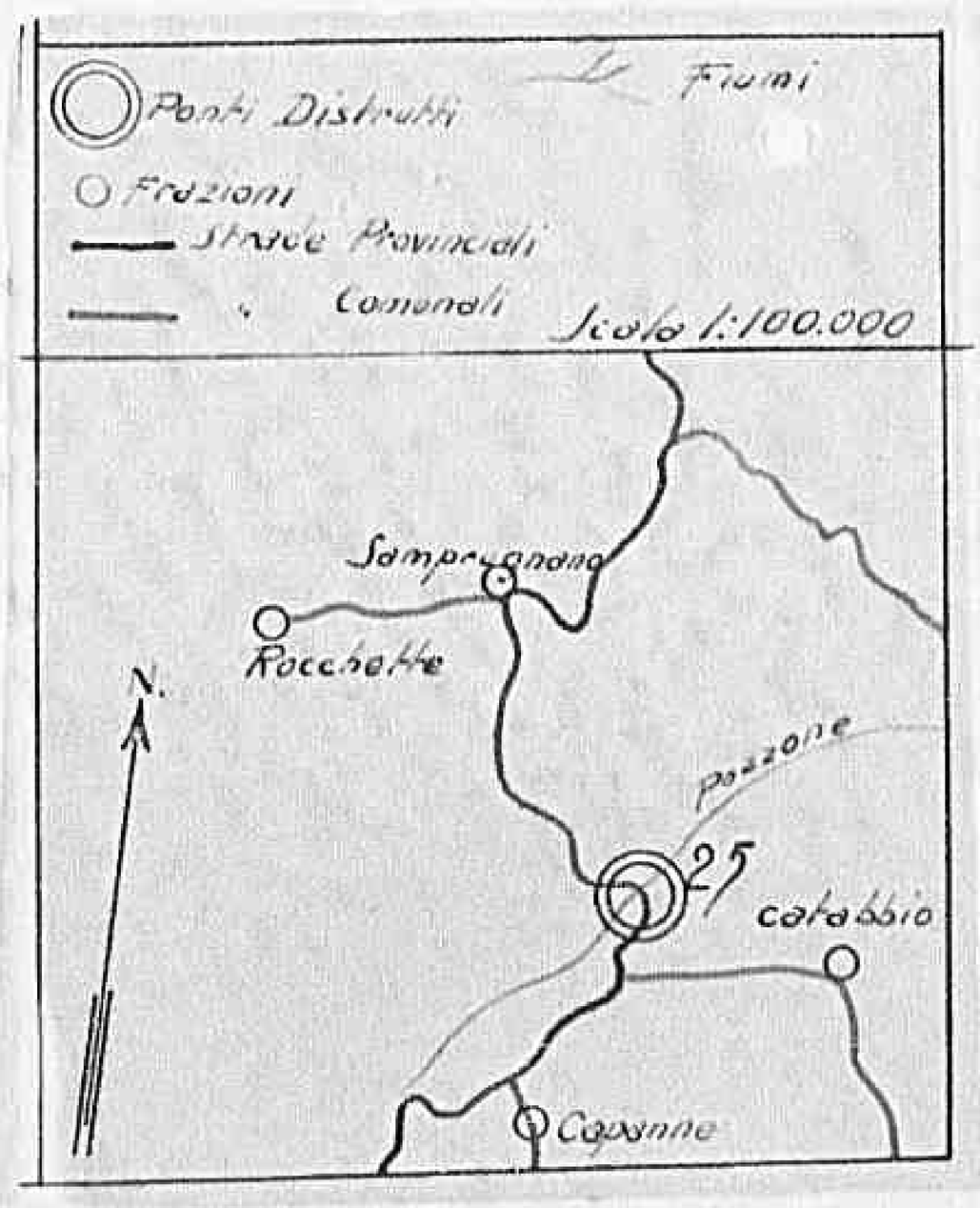


Il geometra
Bastaldi

L'INGEGNERE DIRIGENTE

0 4 8 11

Declassified E.O. 12356 Section 3.3/NND No. 785019



0 4 8 21

Declassified E.O. 12356 Section 3.3/NNI

6.0 250

PI 116

MINISTERO DEI LAVORI PUBBLICI
UFFICIO DEL GENIO CIVILE DI GROSS...

(302)

PROGETTO DI RICOSTRUZIONE DEL PONTE Nº 150 SUL TORRENTE MOLLA LUNGO LA PROVINCIALE GROSSETO- BATIGNANO.-

SCALA 1: 50

MATERIALI CONTINGENTATI

CEMENTO	Q.li 70
LEGNAME	mc. 5

1945

UFFICIO DEL GENIO CIVILE DI GROSSETO

(302)

PROGETTO DI RICOSTRUZIONE DEL PONTE

№ 150 SUL TORRENTE MOLLA LUNGO LA

PROVINCIALE GROSSETO- BATIGNANO.-

SCALA 1: 50

MATERIALI CONTINGENTATI

CEMENTO	Q.li 70
LEGNAME	mc. 5

1915

Ing. Cassuto Mario

Ragioniere
Bartali Elio

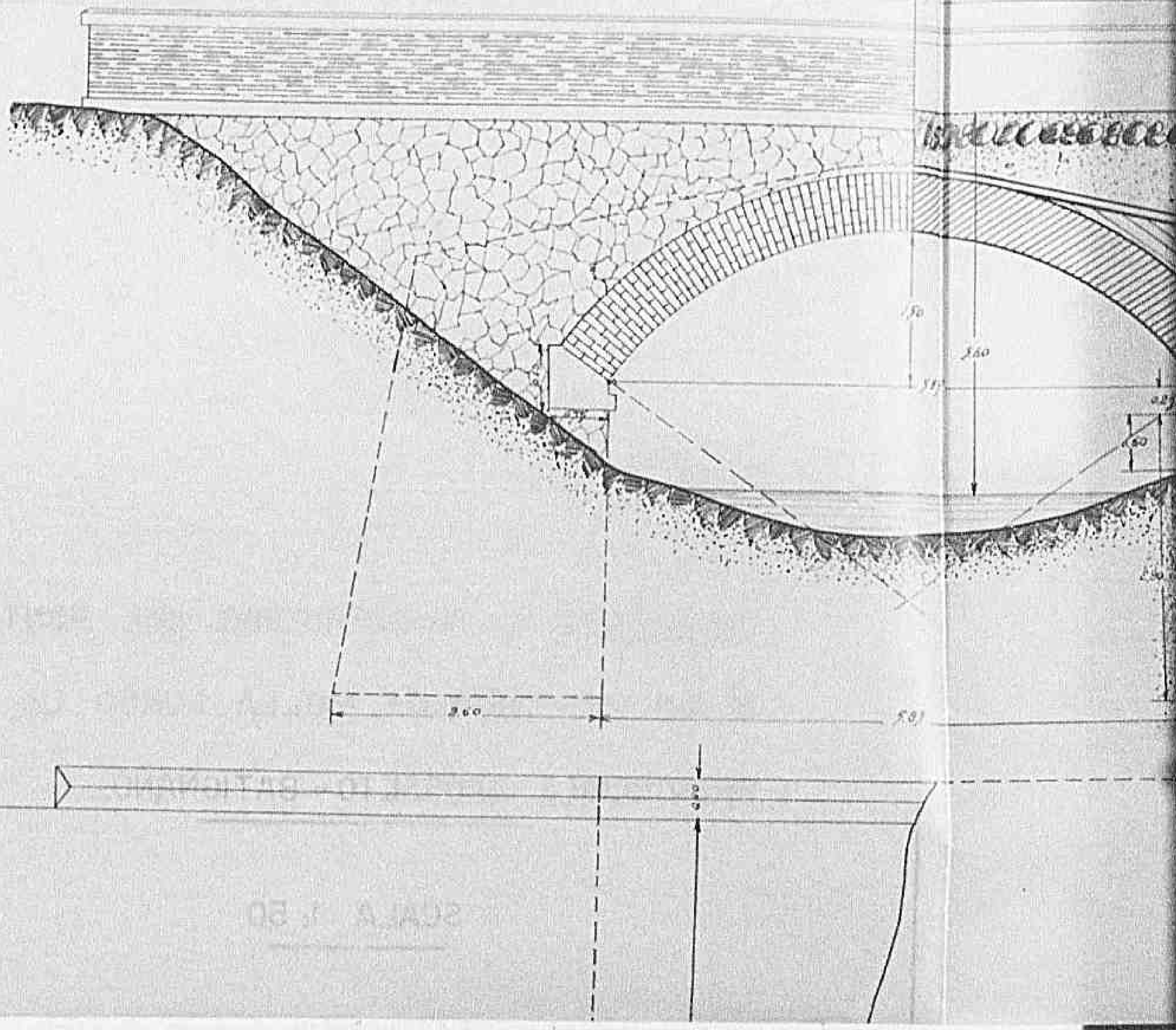
0 4 8 3 1

Declassified E.O. 12356 Section 3.3/NNB, Nov.

0484

Declassified E.O. 12356 Section 3.3/NND No.

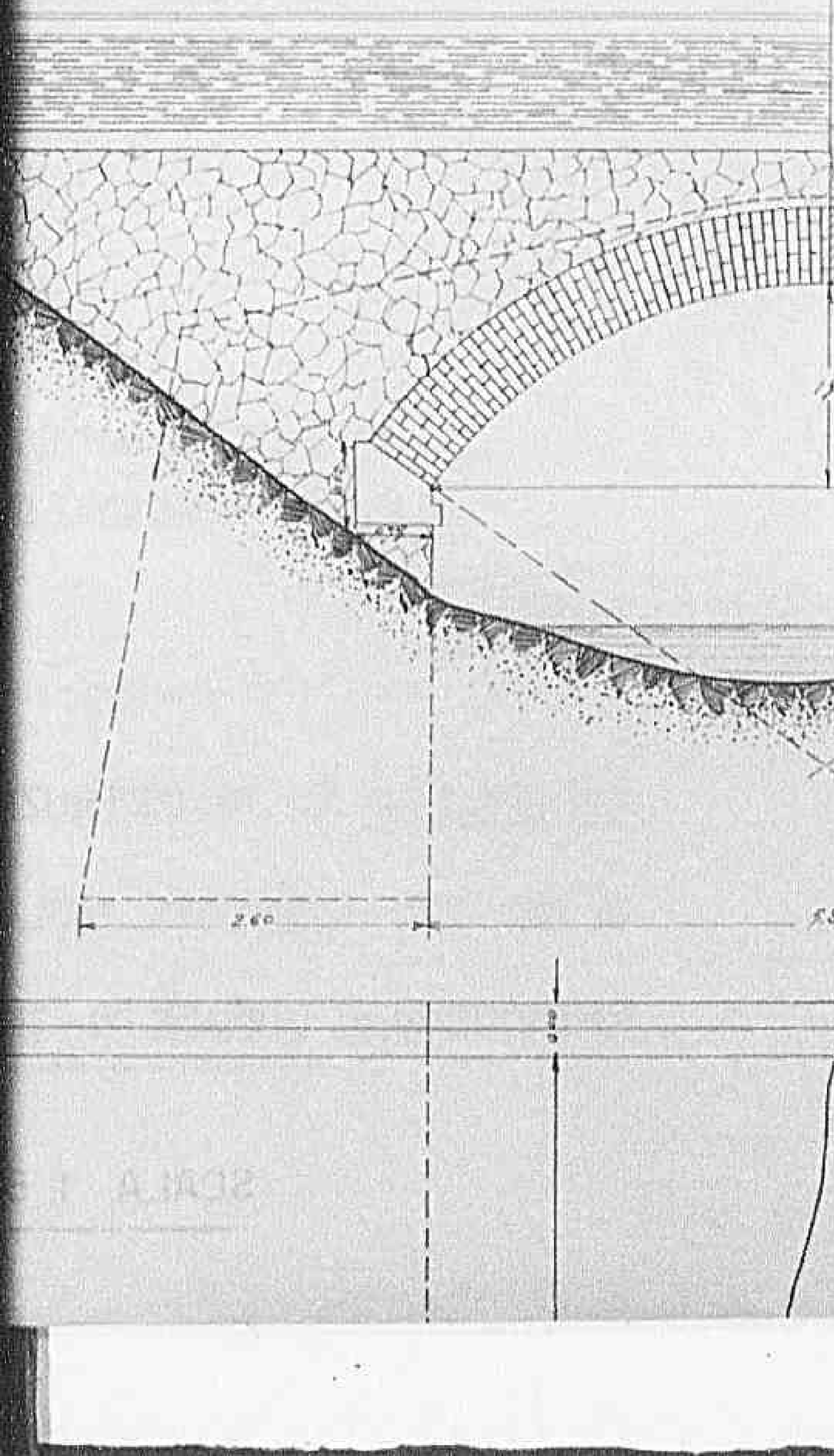
1/2 Prospetto



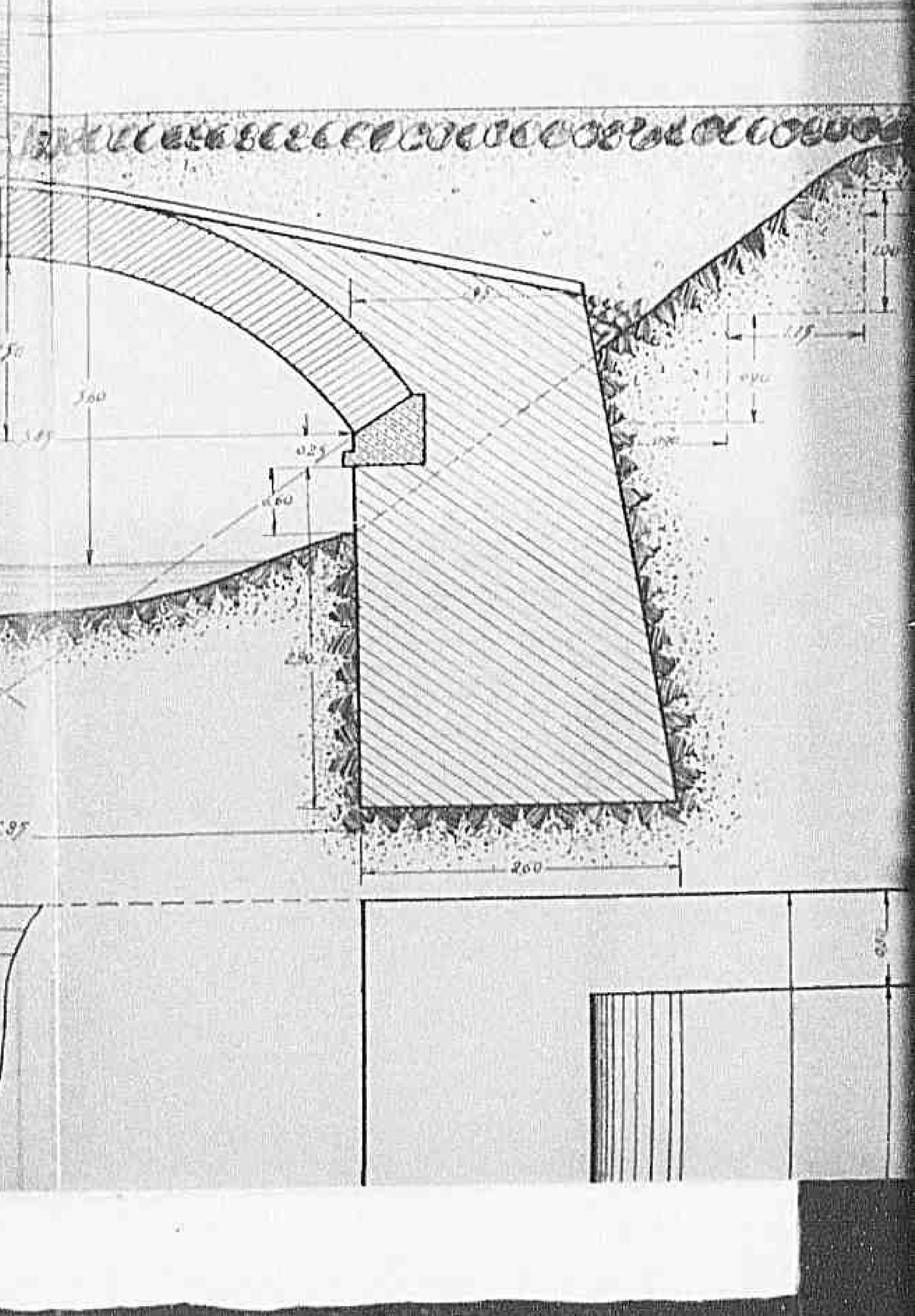
0485

Declassified E.O. 12356 Section 3.3/NSD No.

1/2 Prospetto



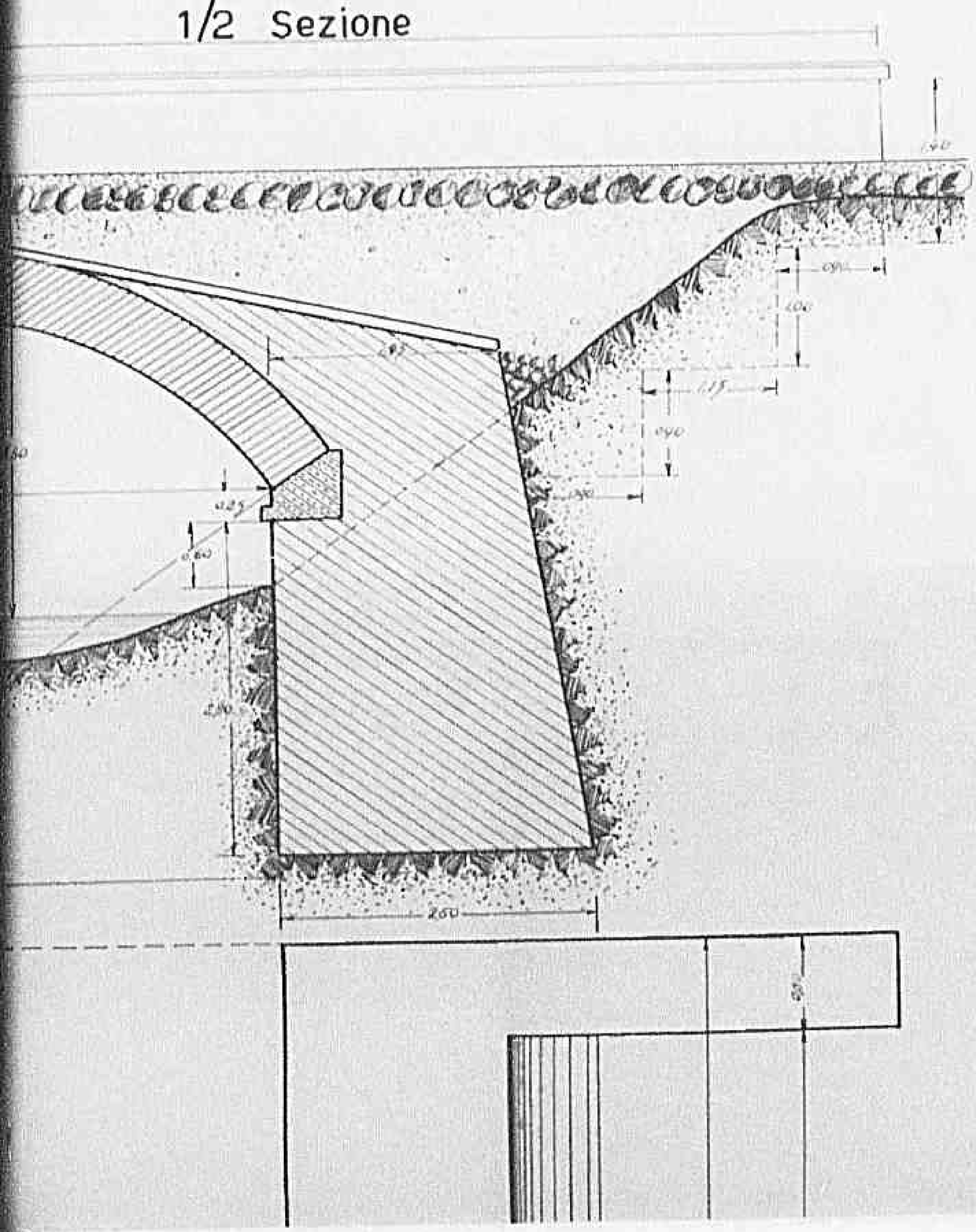
1/2 Sezione

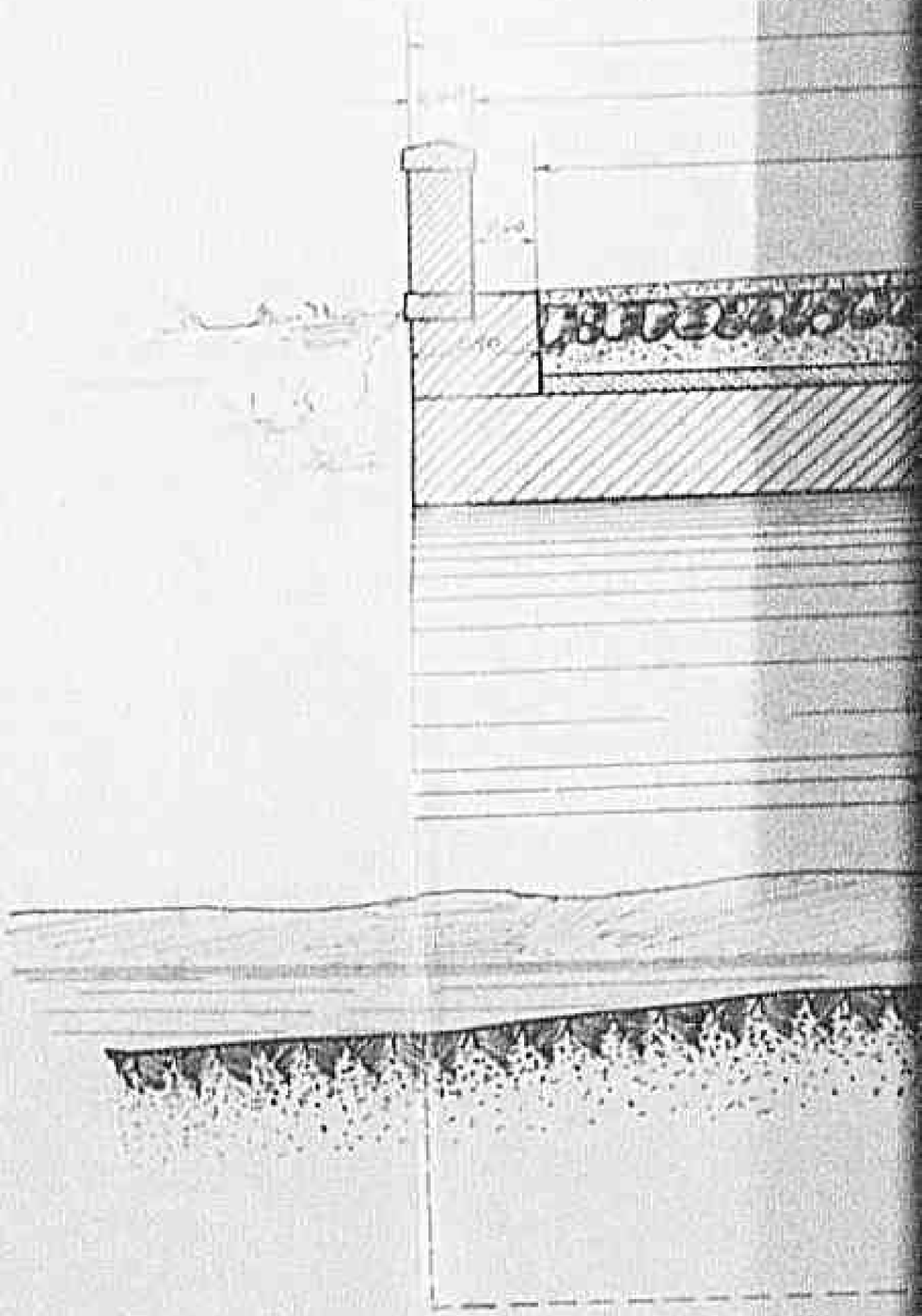


0486

Declassified E.O. 12356 Section 3.3/NND No.

1/2 Sezione





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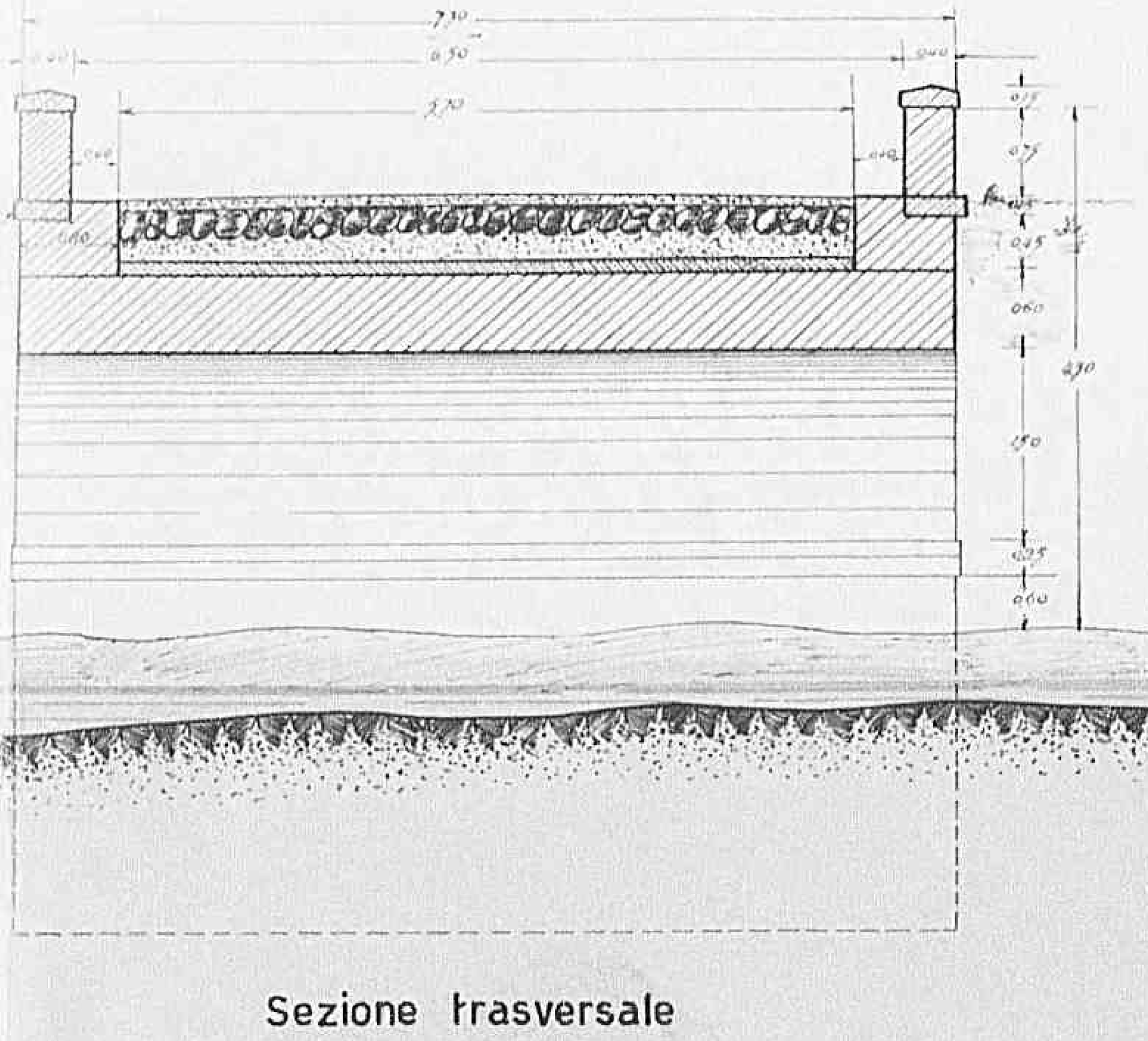
0487

Declassified E.O. 12356 Section 3.3/NND No.



Sezione trasversale

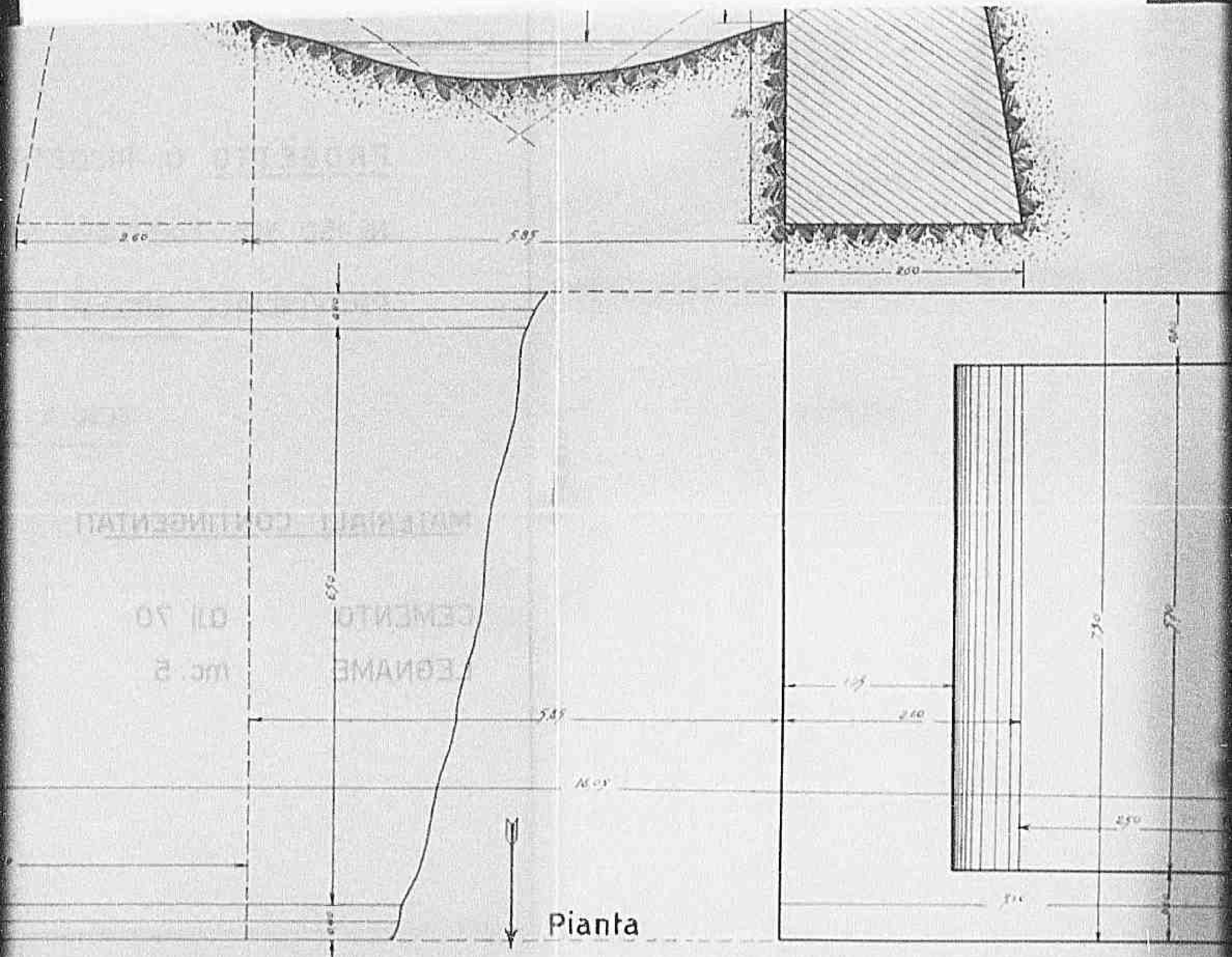
Ingegnere
Bartali Elio

0488

Declassified E.O. 12356 Section 3.3/NND No.

0 4 8 9

Declassified E.O. 12356 Section 3.3/NND No.



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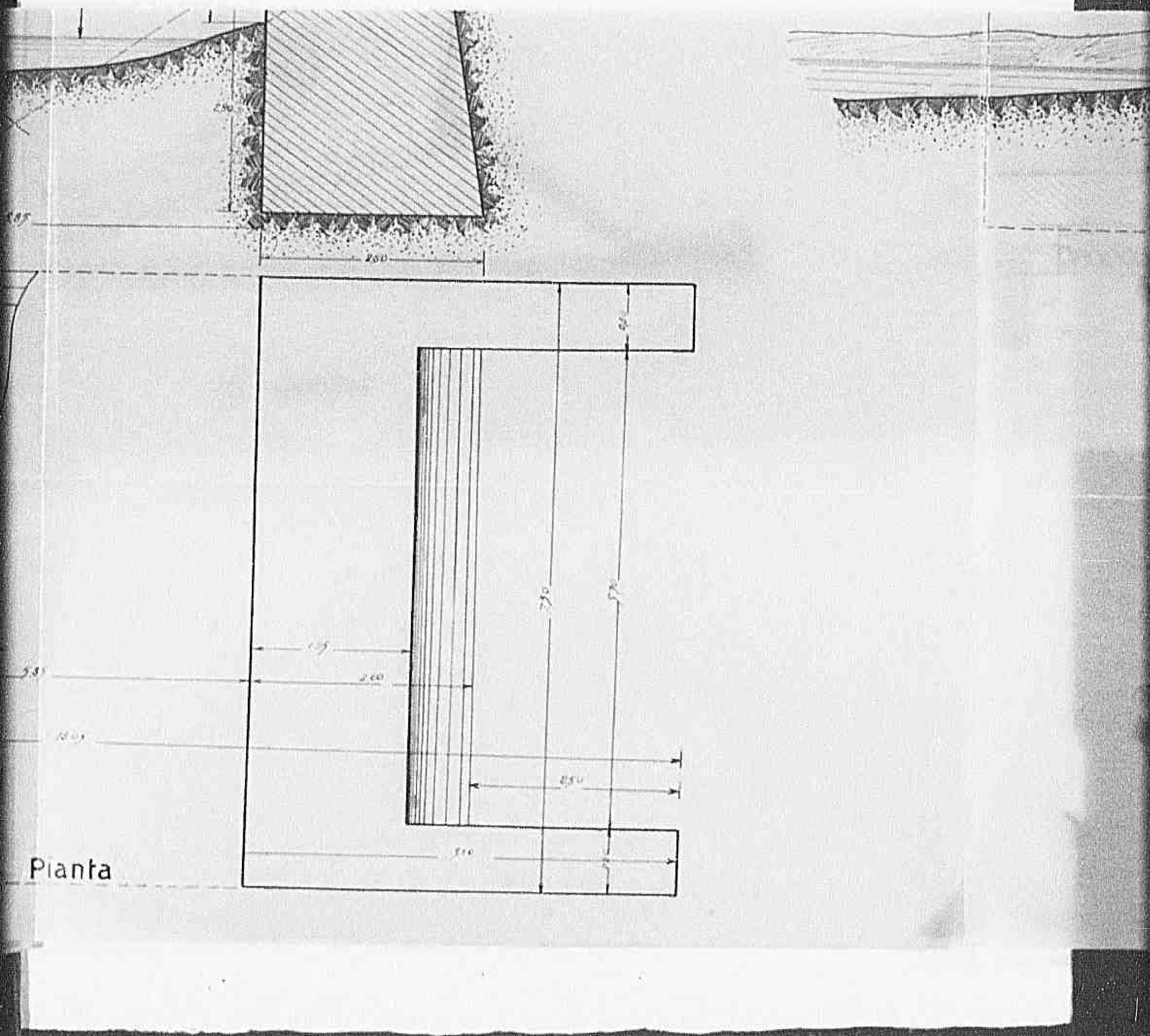
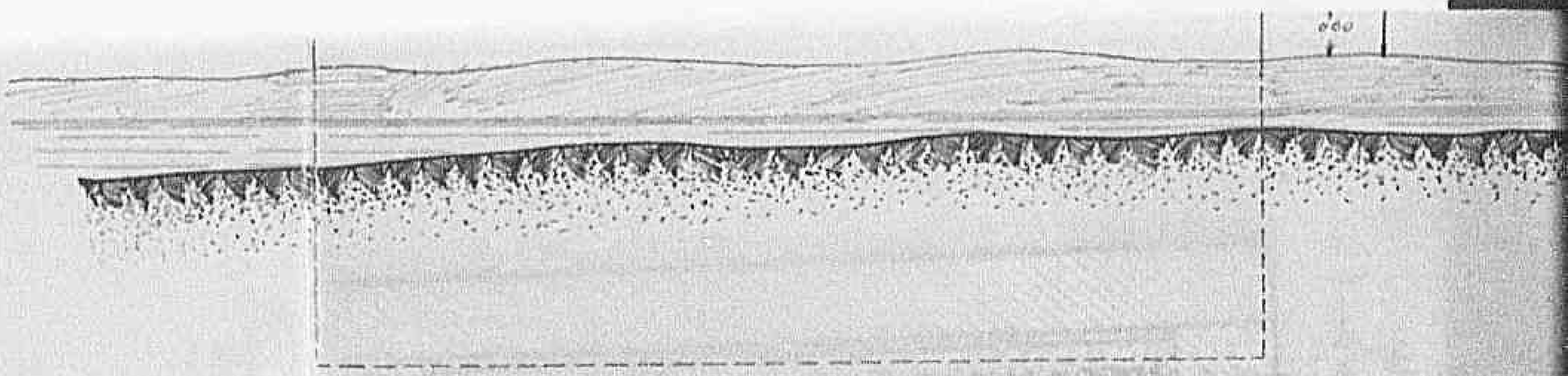
Declassified E.O. 12356 Section 3.3/NND No.



0491

Declassified E.O. 12356 Section 3.3/NND No.



Sezione trasversale

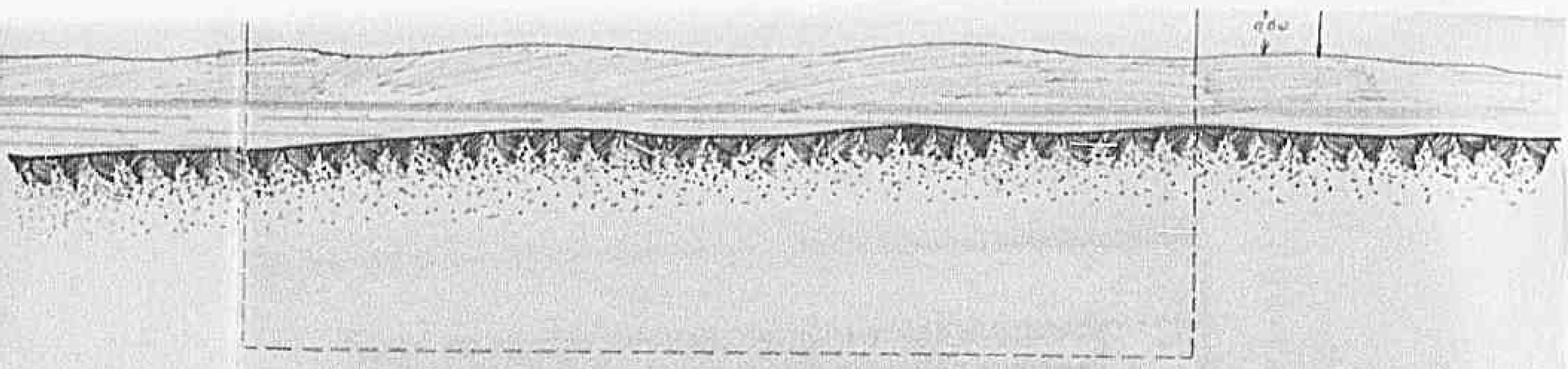
Ingegneri
Bartali Elio
Ing. Castellaccio

3.2.4

IL SEGRETARIO DIRIGENTE

0 4 9 2

Declassified E.O. 12356 Section 3.3/NND No.



Sezione trasversale

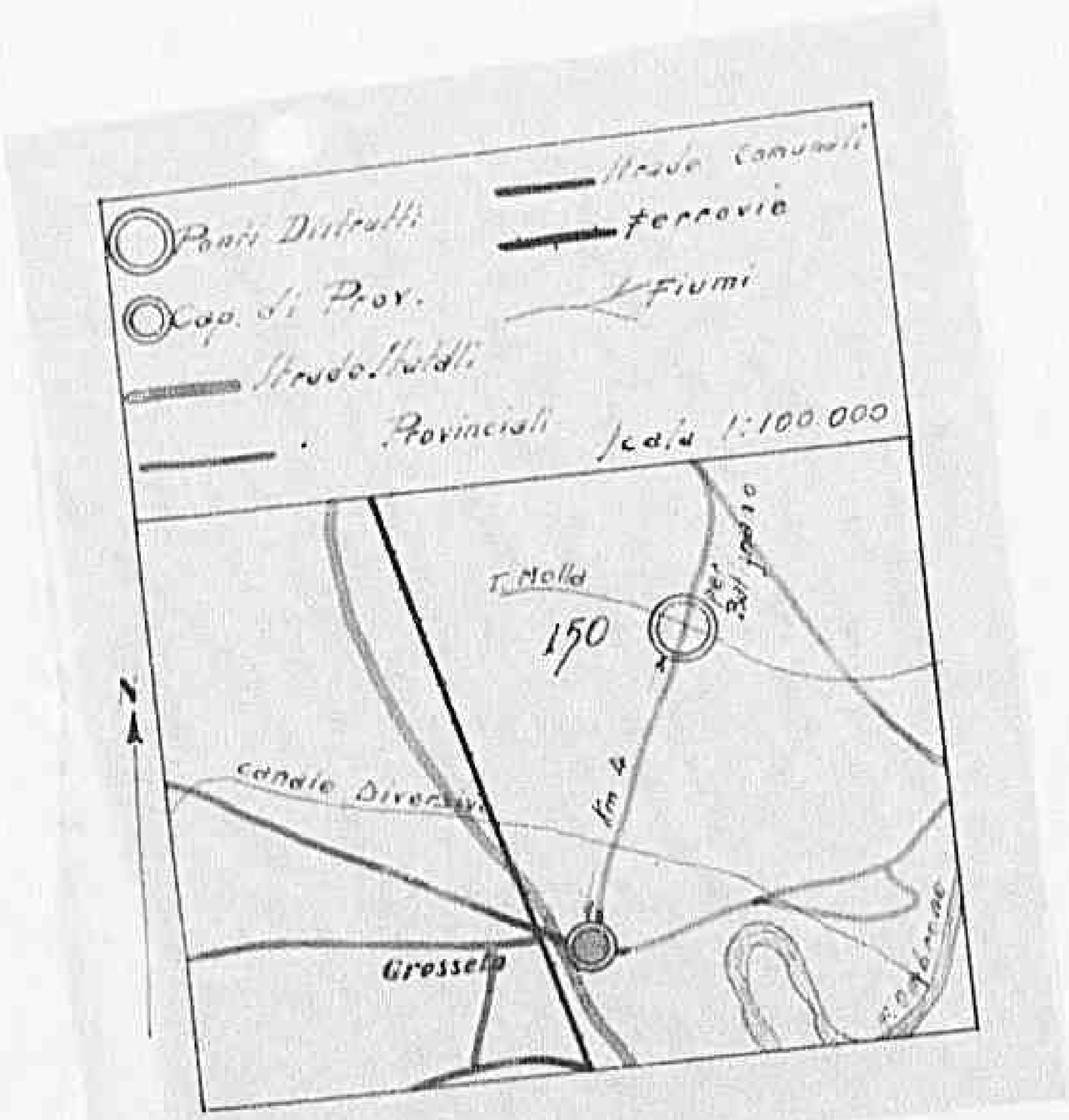
Ingegnere
Bartali Elio
Dott. Carlo Dellario

3222

SOPRINTENDENTE DIRIGENTE

0493

Declassified E.O. 12356 Section 3.3/NND No.



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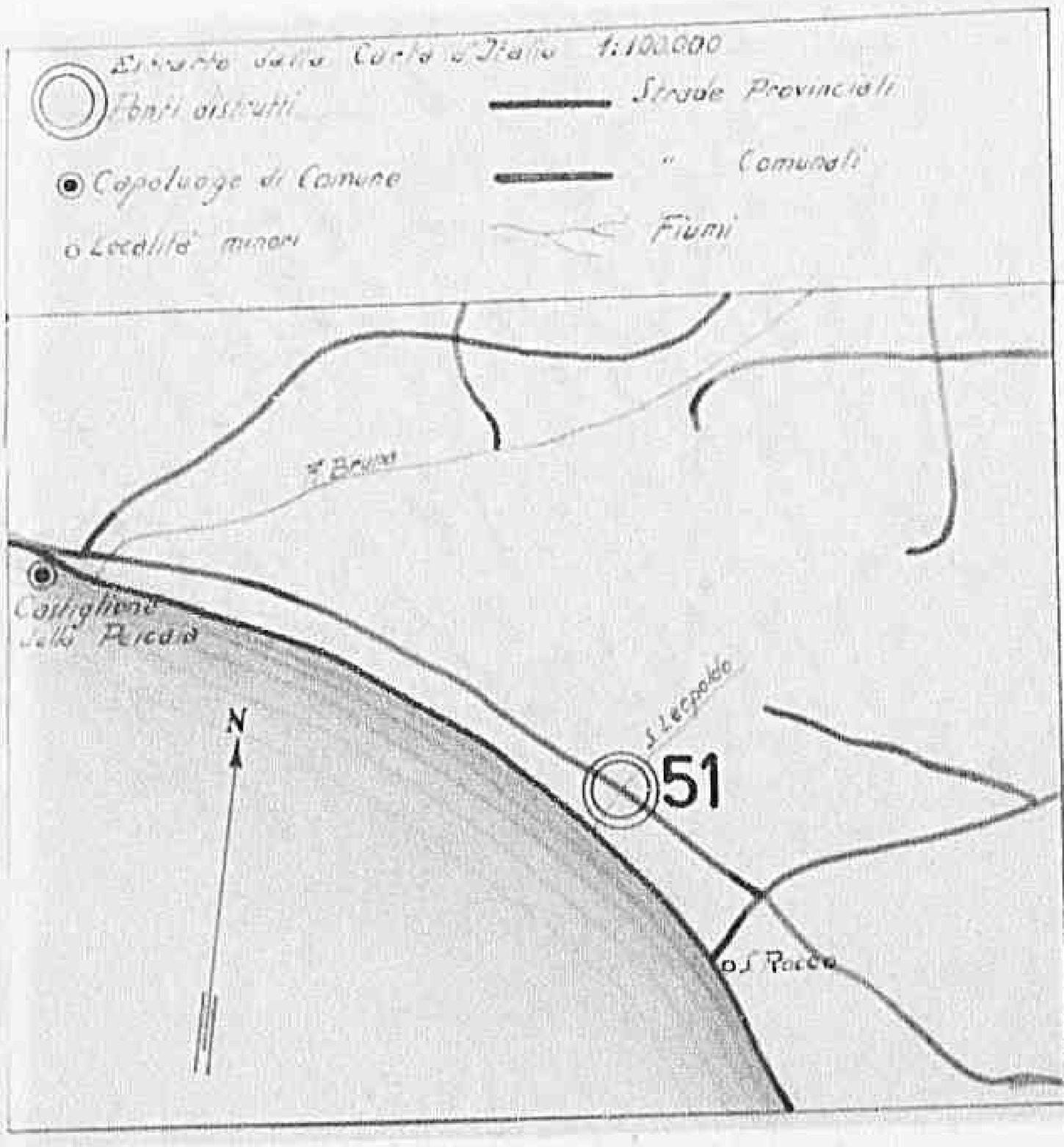

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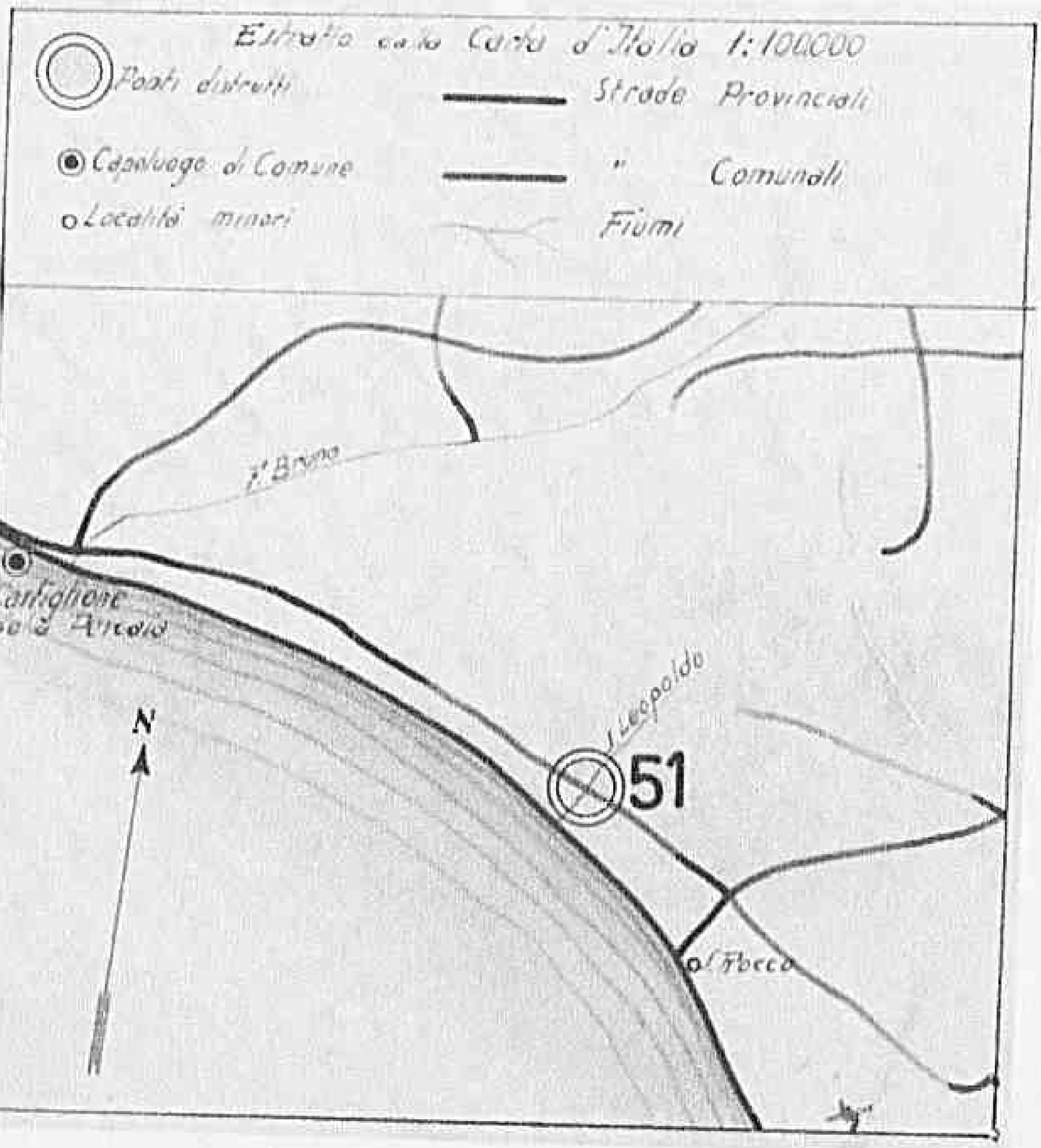
Declassified E.O. 12356 Section 3.3/NND No.



Gro. 240
M-182

MINISTERO DEI LAVORI PUBBLICI

UFFICIO DEL GENIO CIVILE DI GROSSETO

(243)

PROGETTO DI COSTRUZIONE DEL PONTE Nº 51 SUL CANALE S. LEOPOLDO LUNGO LA PROV. GROSSETO CASTIGLIONI

1954

Declassified E.O. 12356 Section 3.3/NND No.
0496

MINISTERO DEI LAVORI PUBBLICI

UFFICIO DEL GENIO CIVILE DI GROSSETO

PROGETTO DI COSTRUZIONE DEL PONTE Nº 51 SUL CANALE S. LEOPOLDO LUNGO LA PROV. GROSSETO CASTIGLIONI

1924

Ing. Cassuto Mario

Geom. Bustelli Elio

0 4 9 7 1

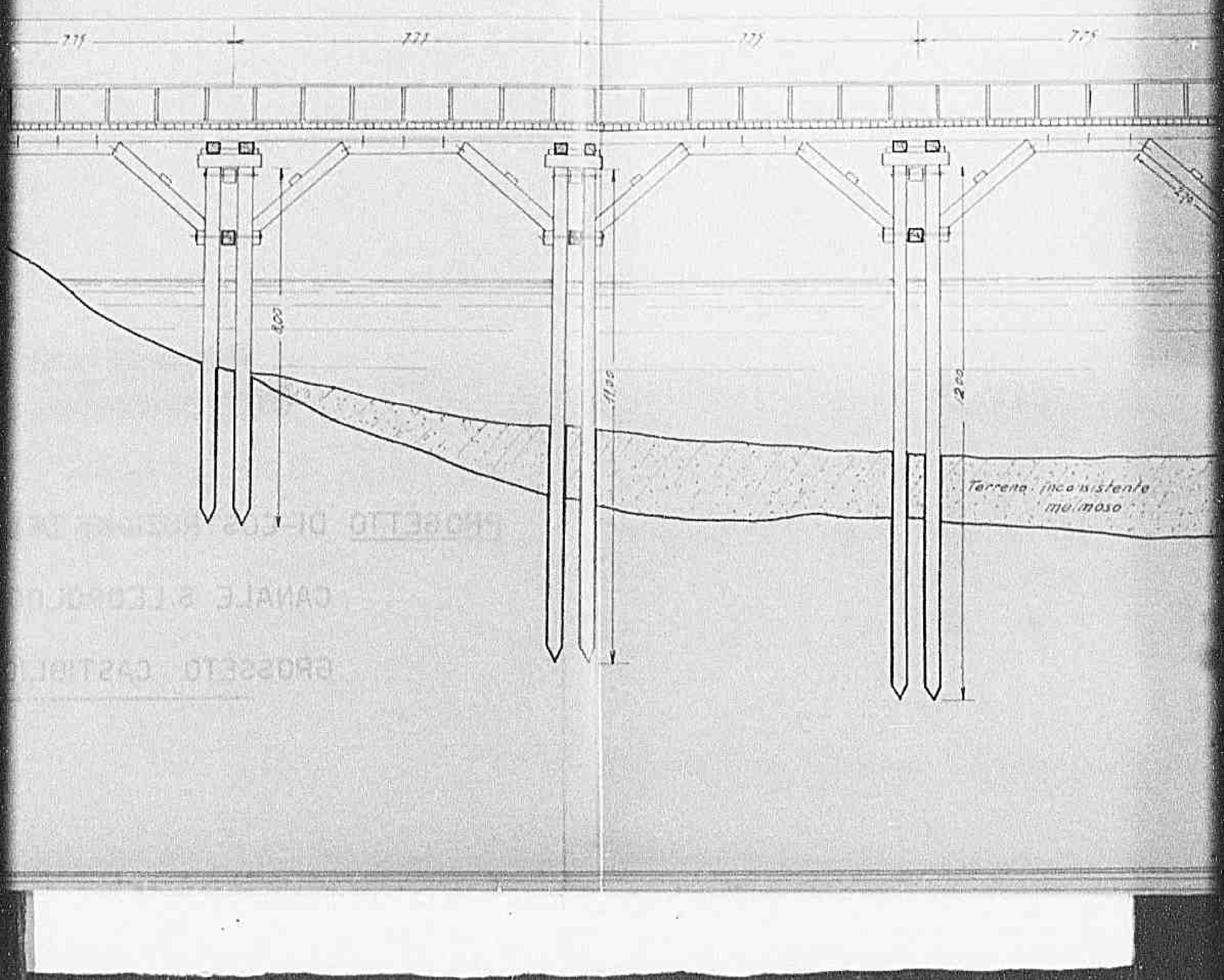
Declassified E.O. 12356 Section 3.3/NND No.

0498

Declassified E.O. 12356 Section 3.3/NND No.

04991

Declassified E.O. 12356 Section 3.3/NND No.



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Declassified E.O. 12356 Section 3.3/NND No.

PROSPETTO 1:100

0501

Declassified E.O. 12356 Section 3.3/NND No.

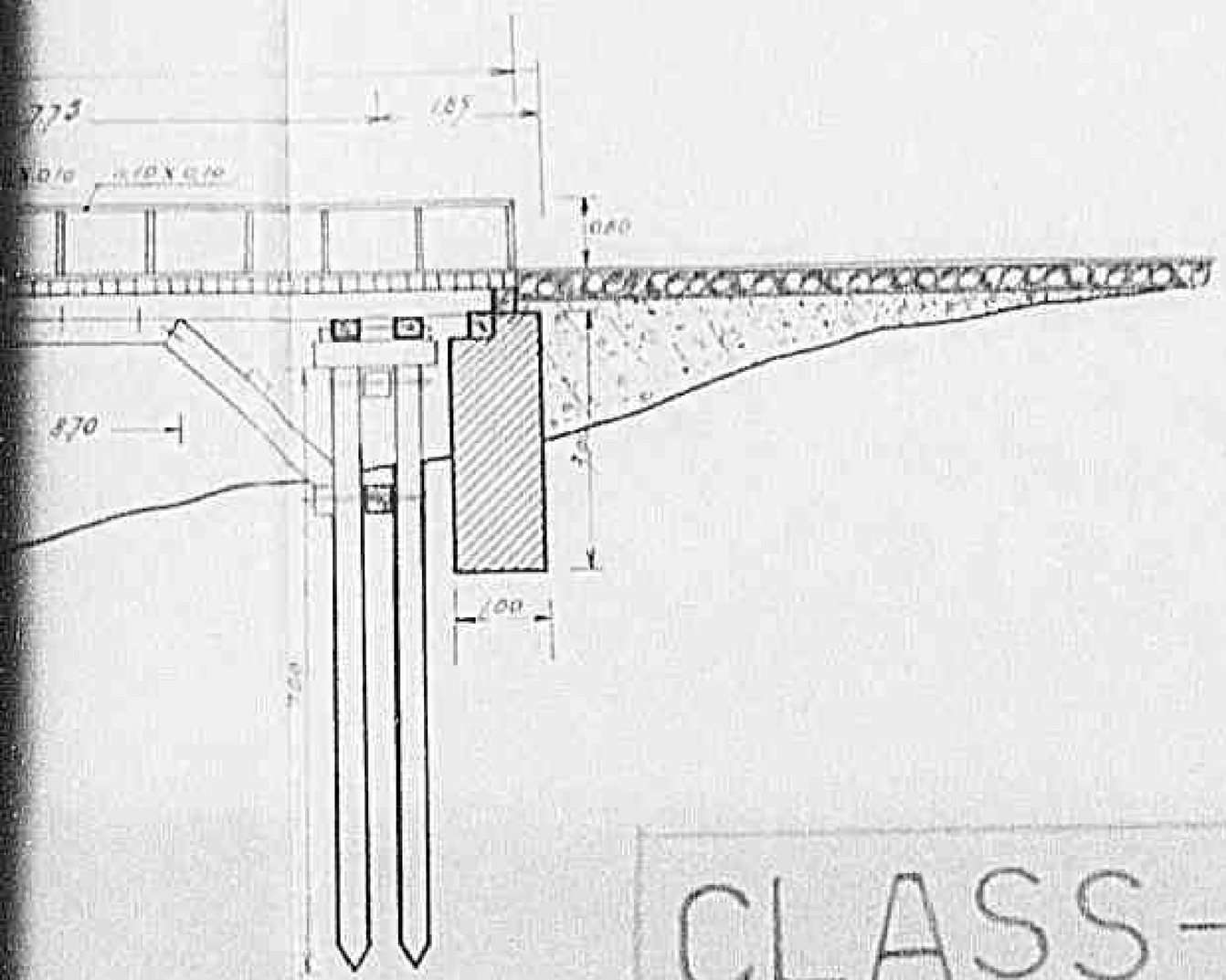
PROSPETTO 1:100

0502

Declassified E.O. 12356 Section 3.3/NNO No.

0503

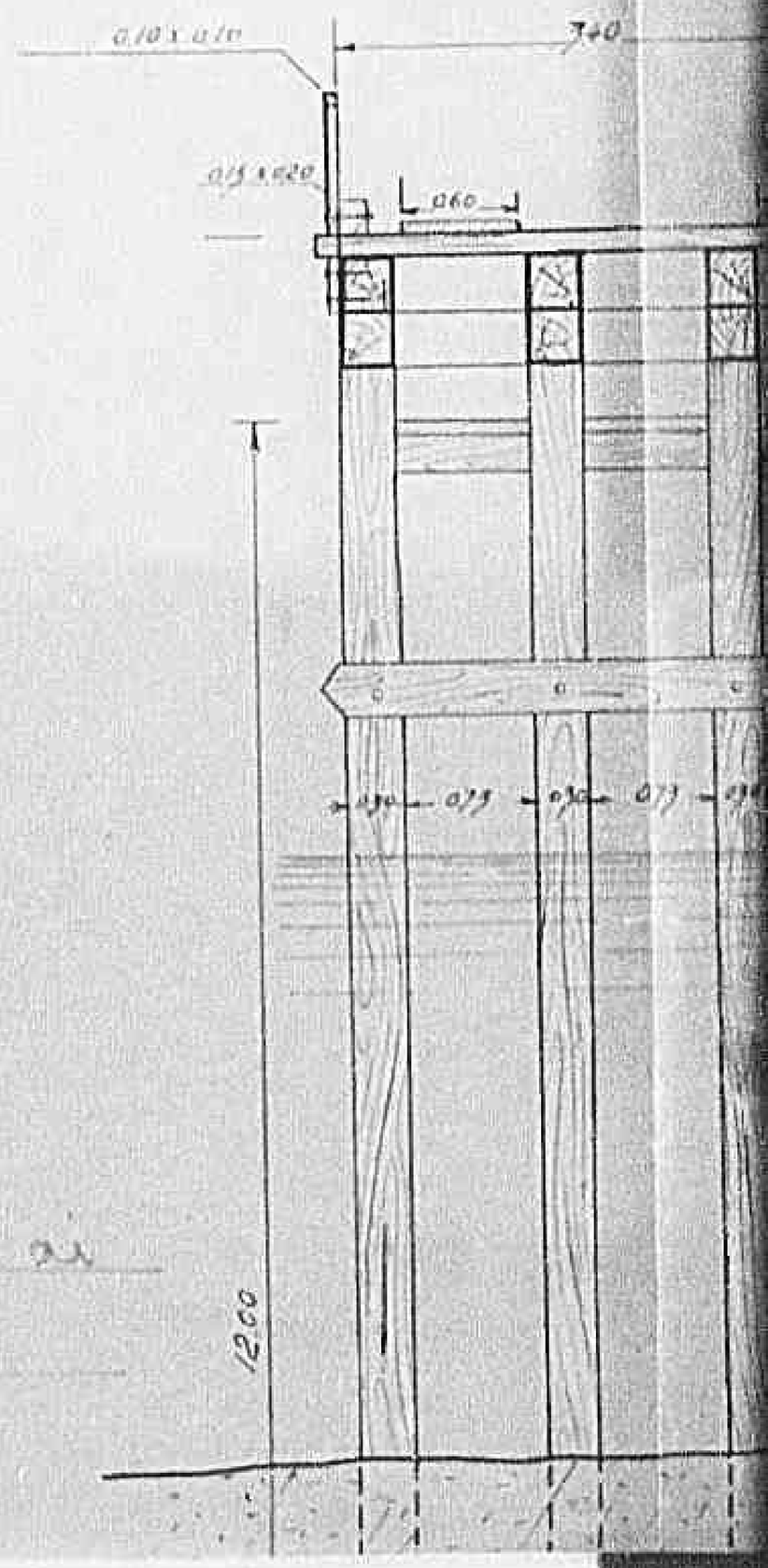
Declassified E.O. 12356 Section 3.3/NND No.



CLASS - 9 -

LIGHT TRAFFIC ONLY

PORTATA MAX. 9 TON.



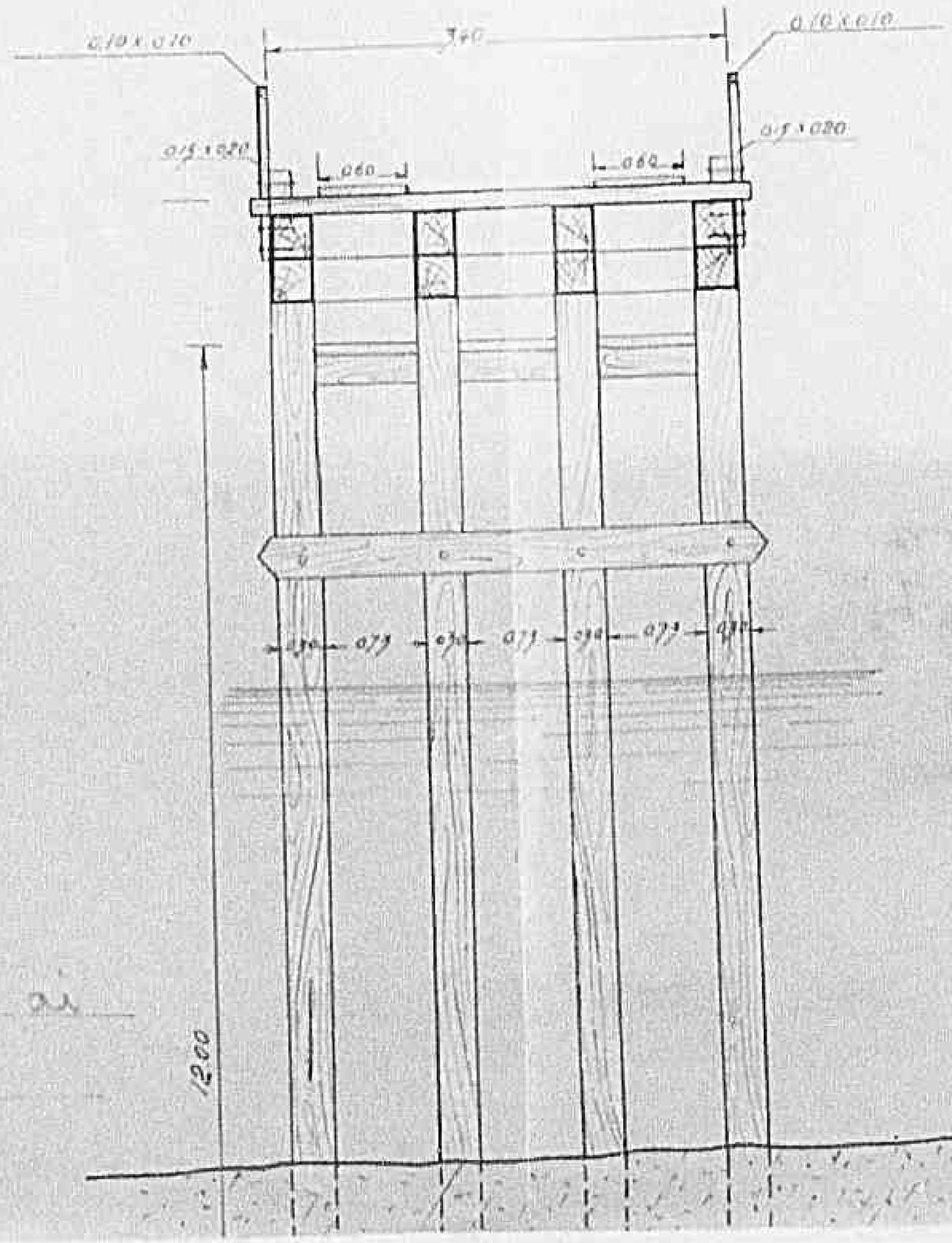
0504

Declassified E.O. 12356 Section 3.3/NSD No.

ASS-9-

T TRAFFIC ONLY/

TA TA MAX. 9 TON.



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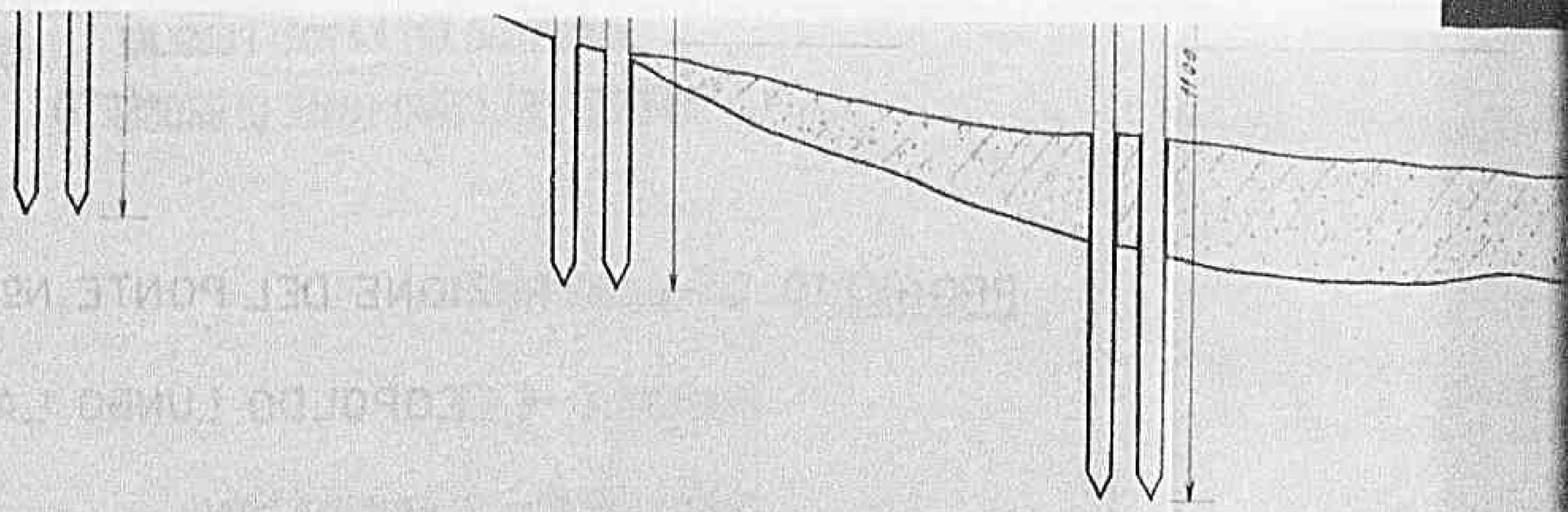
Declassified E.O. 12356 Section 3.3/NND No.



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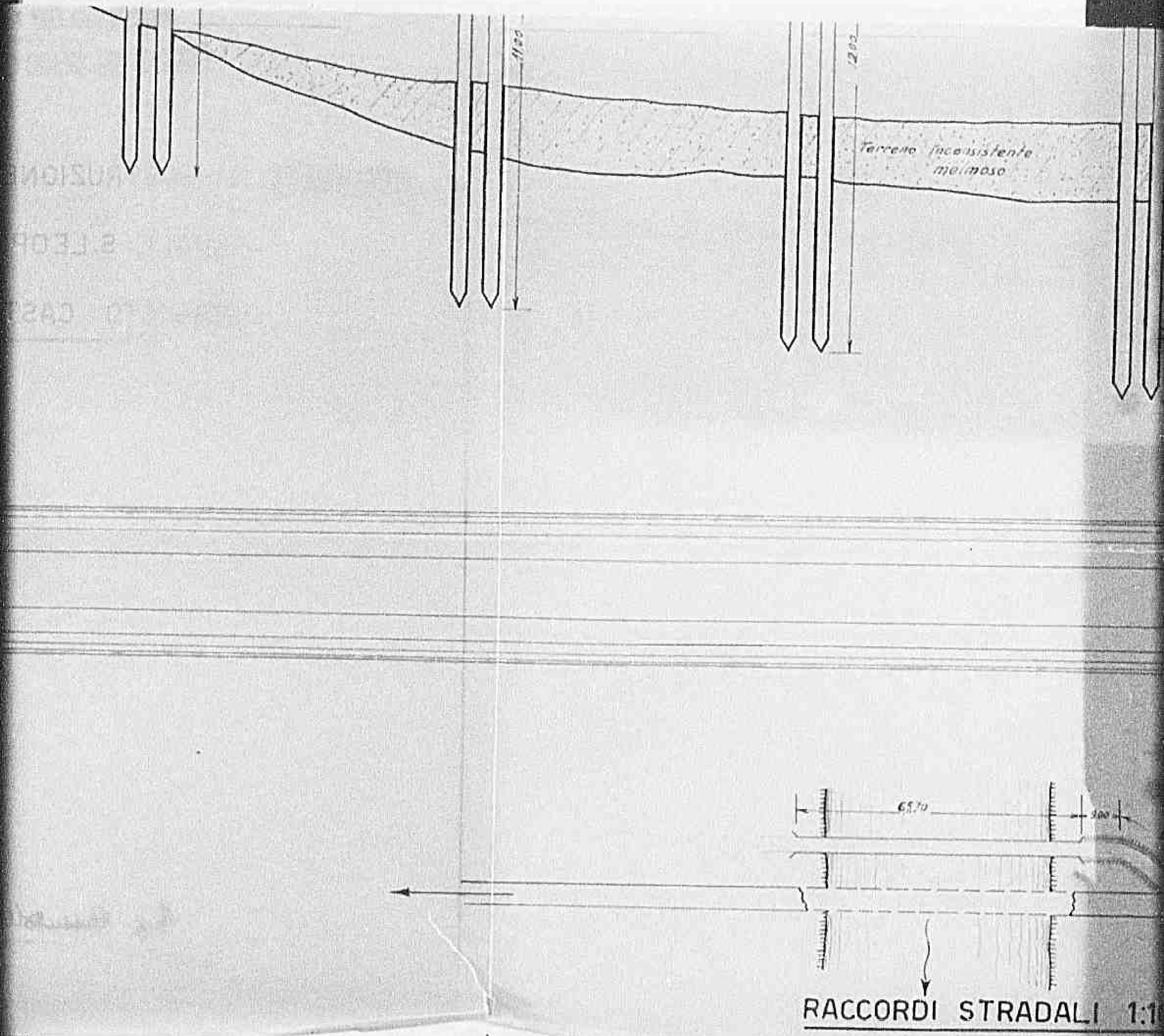
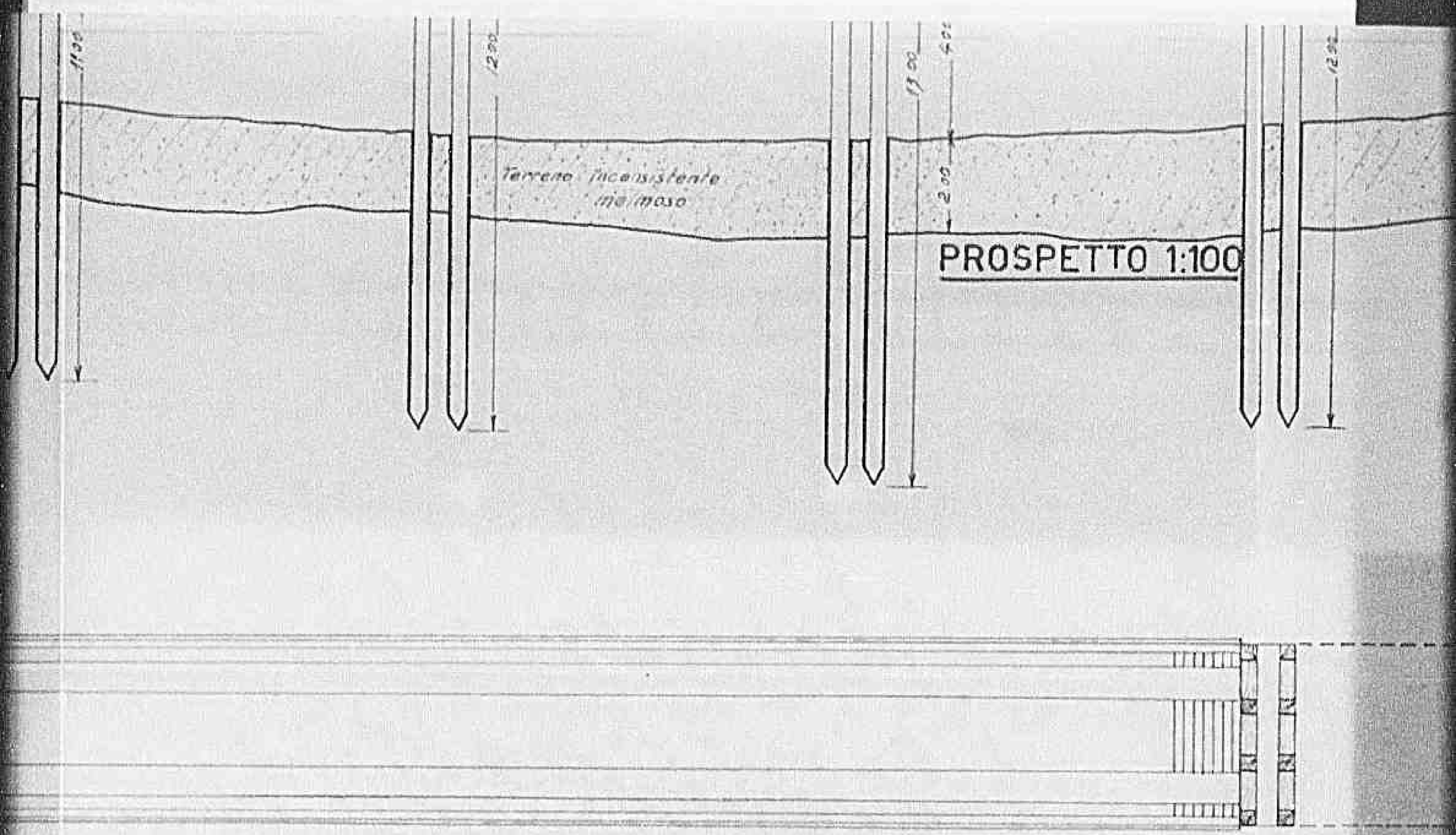


RACCORDI STRADALI 1:1

0507

Declassified E.O. 12356 Section 3.3/NND No.



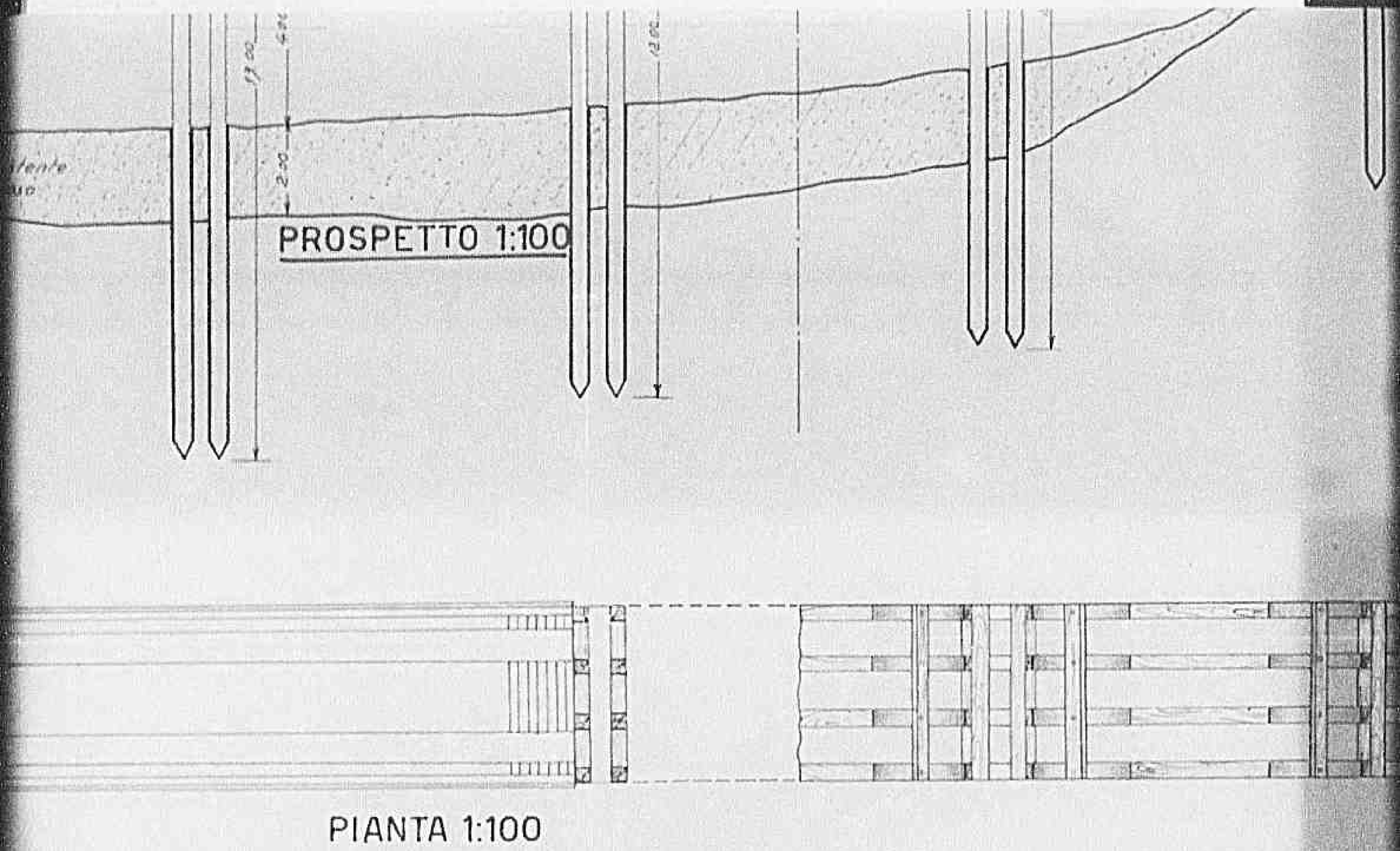
PROSPETTO 1:100

PIANTA 1:100

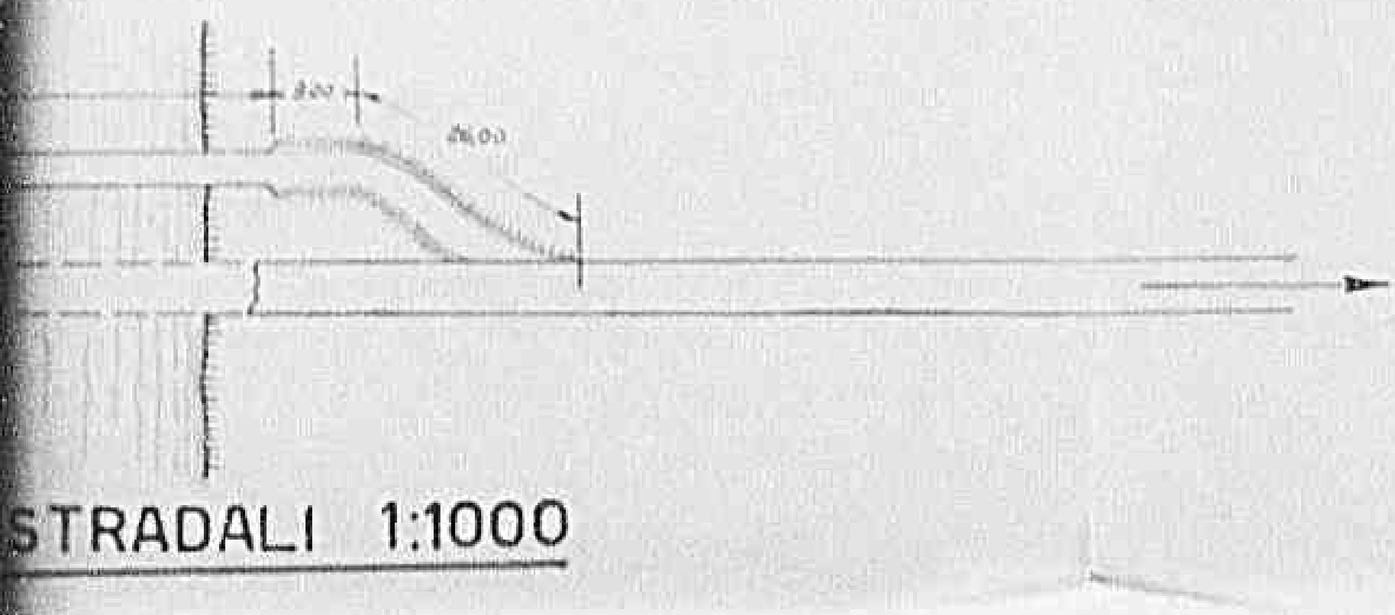
RACCORDI STRADALI 1:1000

0 5 0 8

Declassified E.O. 12356 Section 3.3/NND No.



PIANTA 1:100



STRADALI 1:1000

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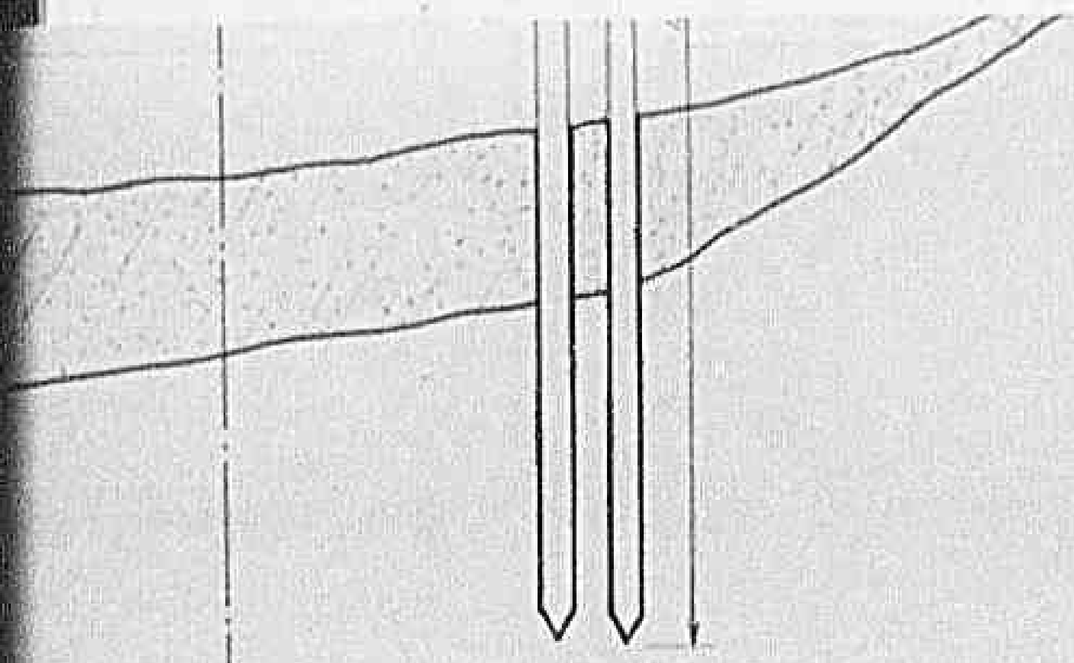
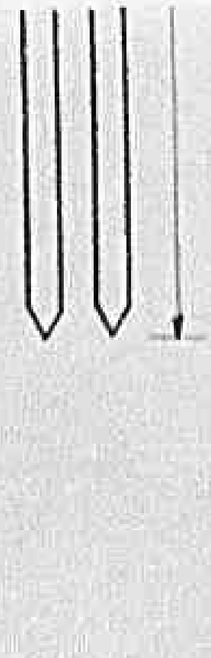
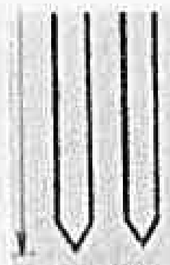
Declassified E.O. 12356 Section 3.3/NND No.







CL

LIG

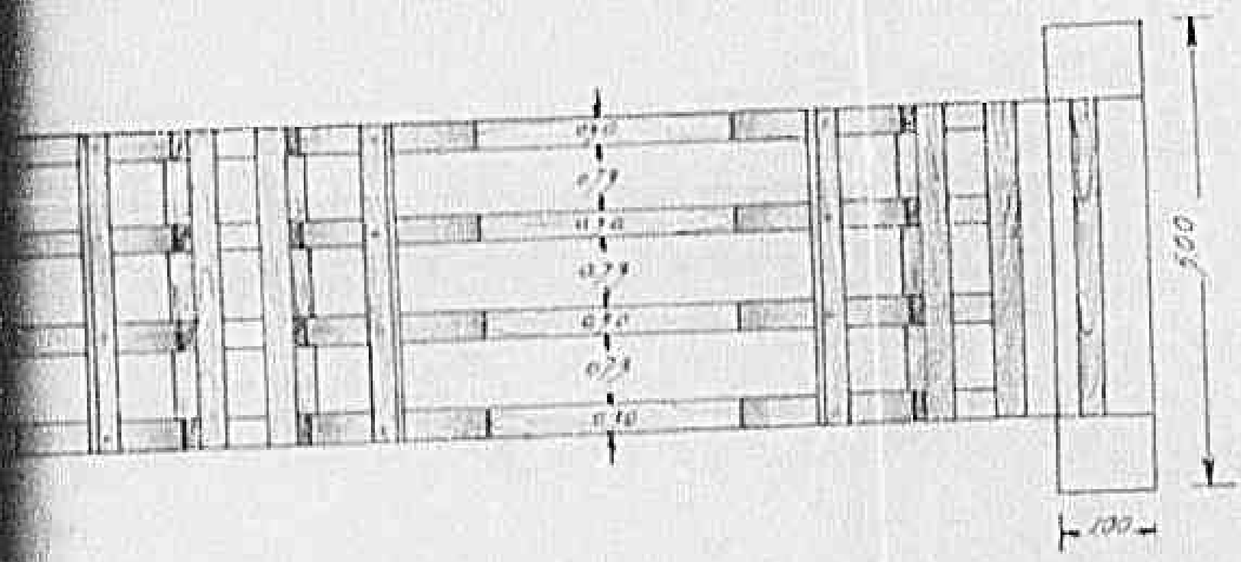
PO

Declassified E.O. 12356 Section 3.3/NND No.

CLASS-9-

LIGHT TRAFFIC ONLY

PORTATA MAX. 9 TON.



0511

Declassified E.O. 12356 Section 3.3/NND No.

CLASS-9-

IGHT TRAFFIC ONLY

OLETA MAX. 3 TON.

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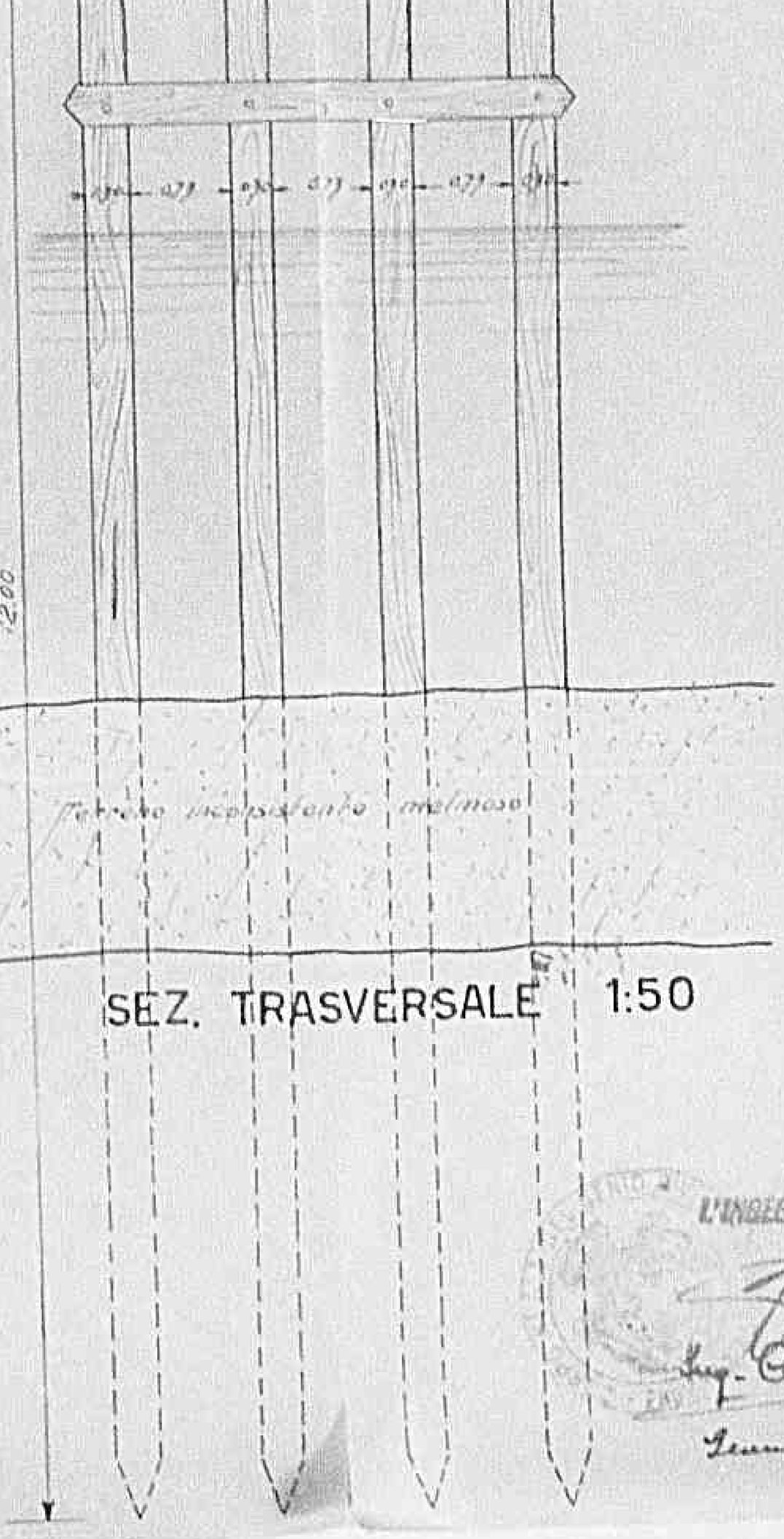
ur inspection of the ponte.



SEZ. TRASVERSALE 1:50

L'INGEGNERE DIRIGE

Ing. Cassinelli

Geom. Bur

0512

Declassified E.O. 12356 Section 3.3/NND No.

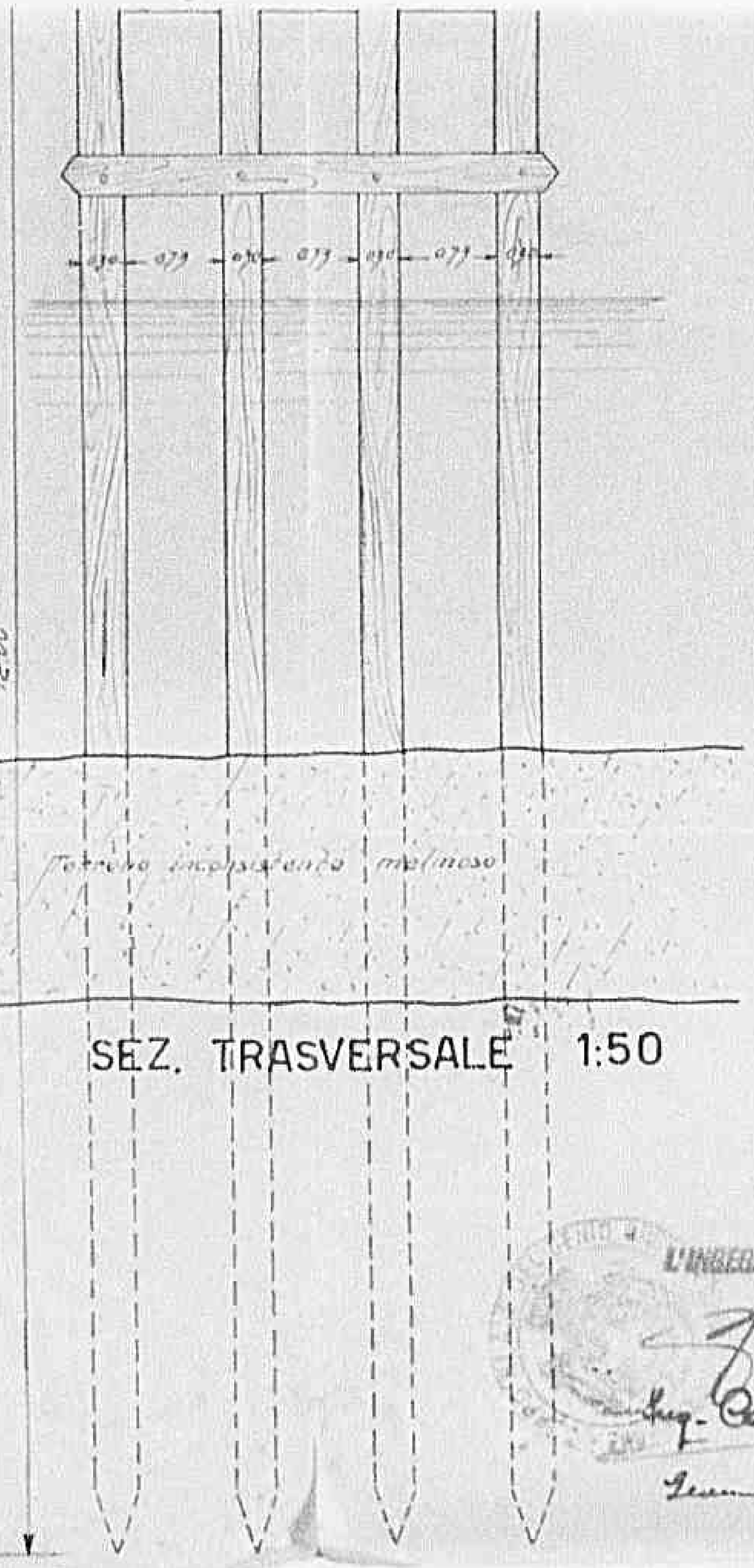
S-9-

FIC ONLY

REX. 9-701.

Sbic una parte su

fil parete.



SEZ. TRASVERSALE 1:50

L'INGEGNERE DIRIGENTE

Ing. Casimiro Marin

Geom. Bertoli Elio

Declassified E.O. 12356 Section 3.3/NND No. 785019

MAPS FILMED ON

35 MM ROLL

C. FIR. 639

CONSORZIO DI BONIFICA

DELLA PIANA DI SESTO F.HO

PONTE DELLA STRADA COMUNALE

SESTO F.HO - QUINTO SUL

TORRENTE ZAMBRA

N. 740

PLANIMETRIA - SEZIONI

13 MAR 1945

Il Progettista

Il Presidente

Declassified E.O. 12356 Section 3.3/NND No. 785019

PONTE DELLA STRADA COMUNALE

SESTO F.no - QUINTO SUL

TORRENTE ZAMBRA

N. 740

PLANIMETRIA - SEZIONI

13 MAR. 1945

Il Progettista

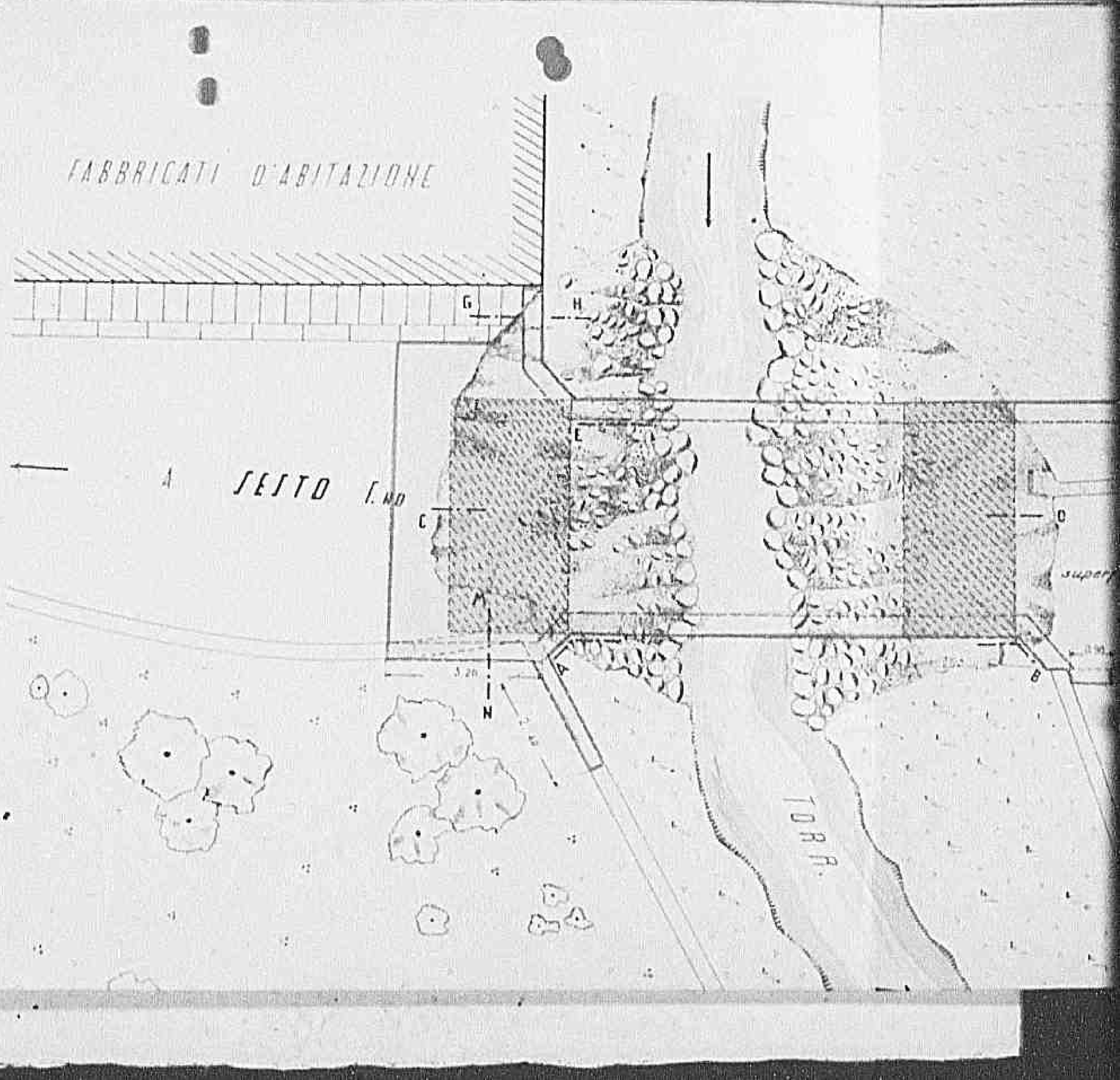
Prof. 1941 A. di Moratiis

V/ Il Presidente

P. Giannini

Declassified E.O. 12356 Section 3.3/NND No. 785019

Declassified E.O. 12356 Section 3.3/NND No. 785019



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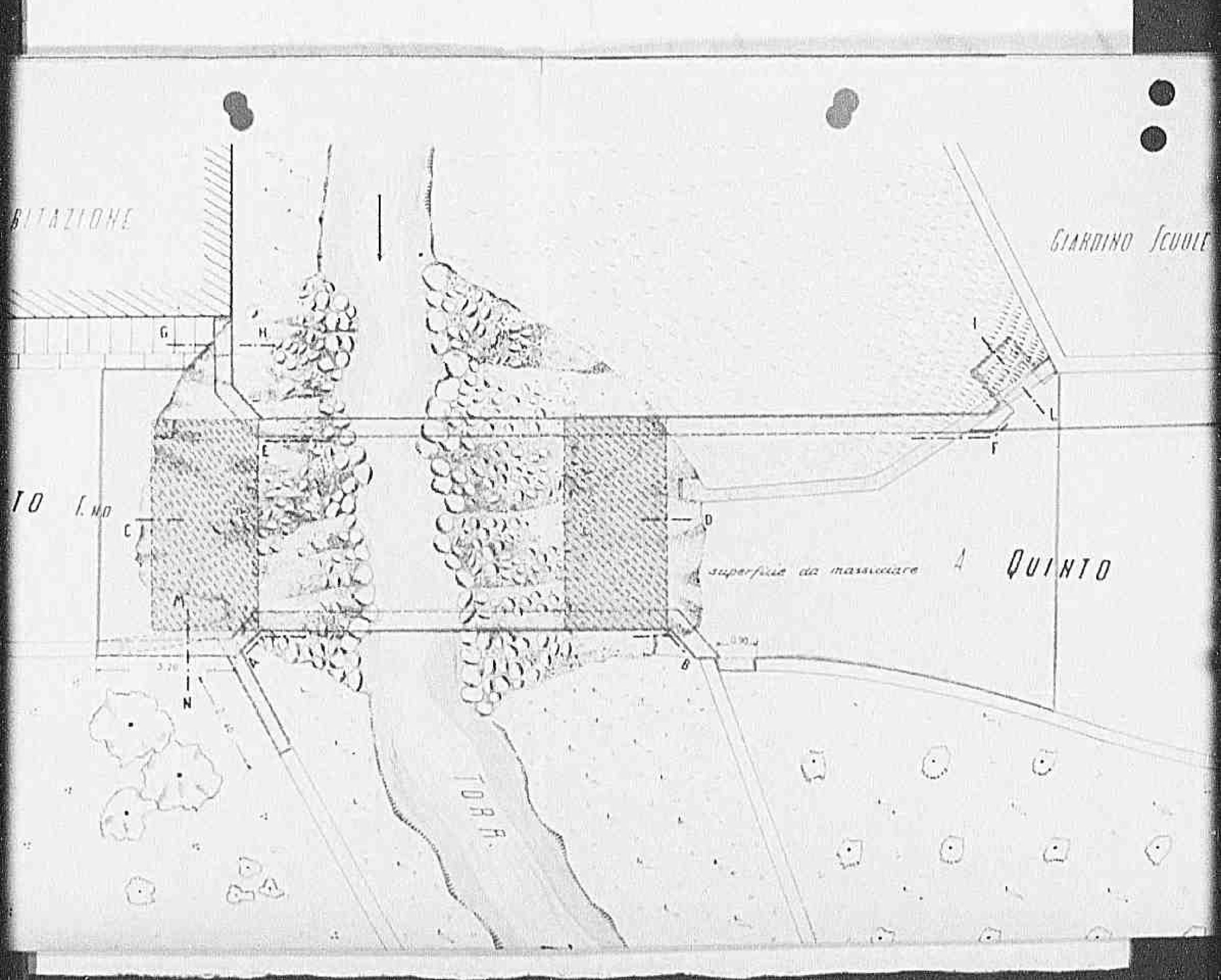
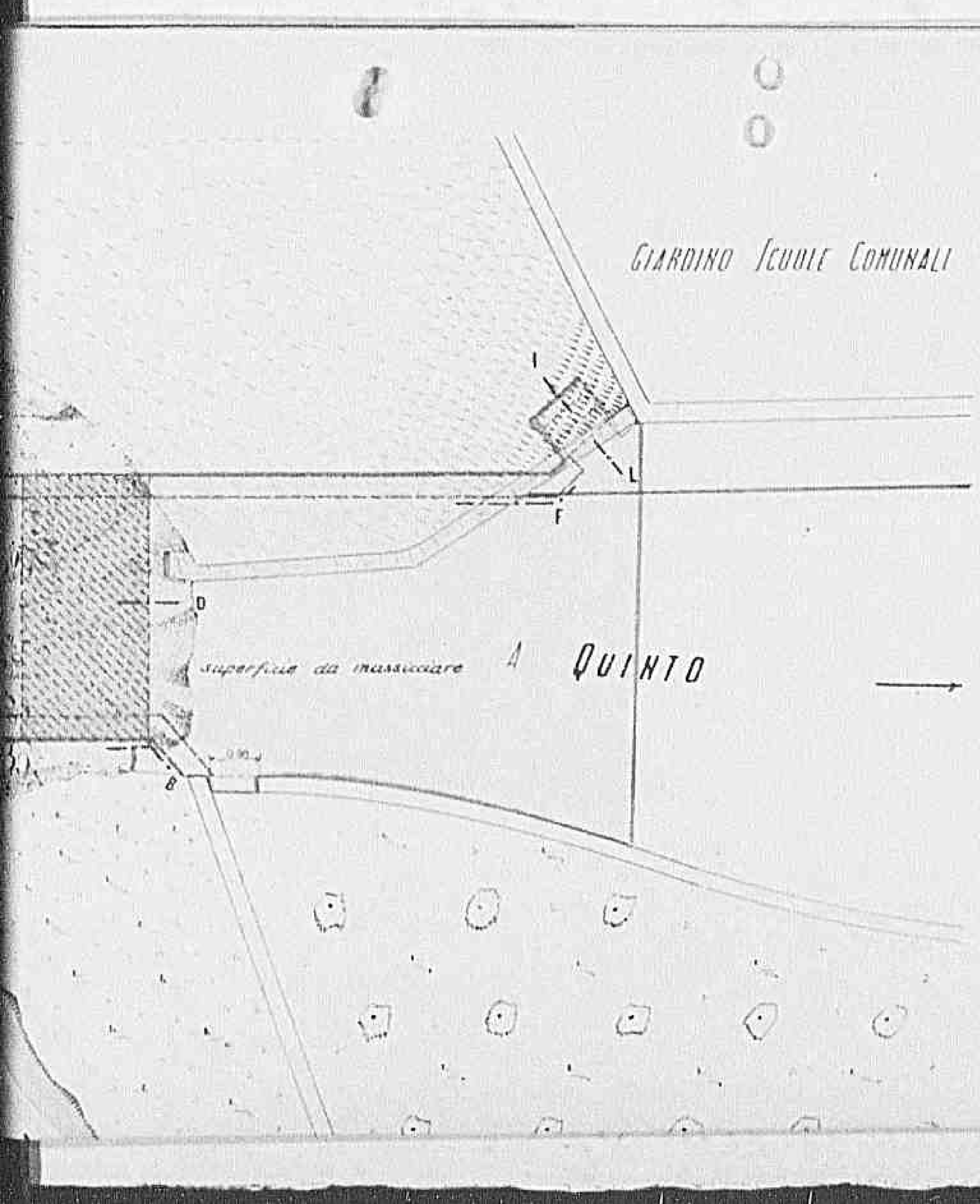
Declassified E.O. 12356 Section 3.3/NND No. 785019

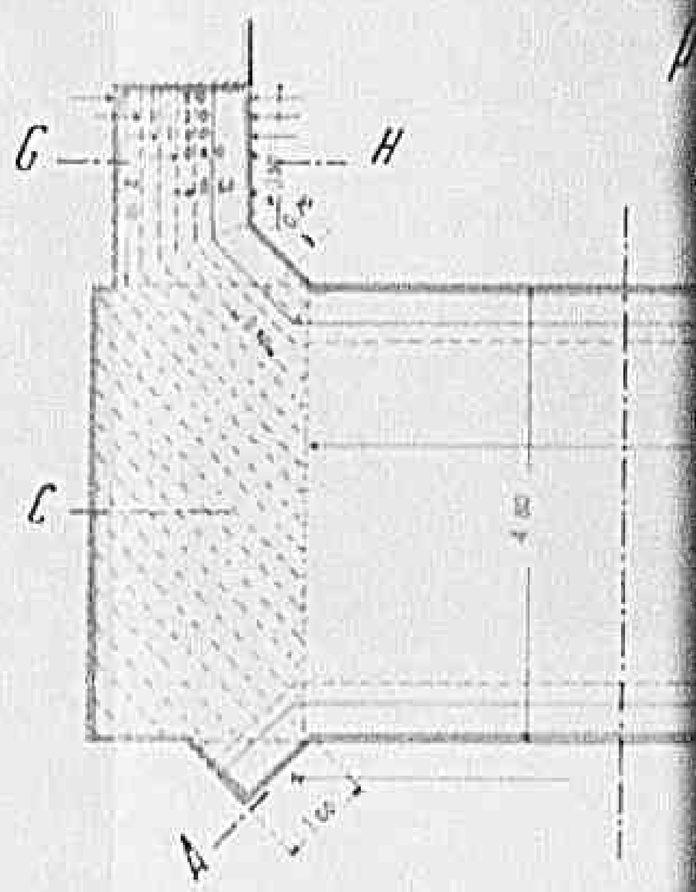


0518

Declassified E.O. 12356 Section 3.3/NND No. 785019

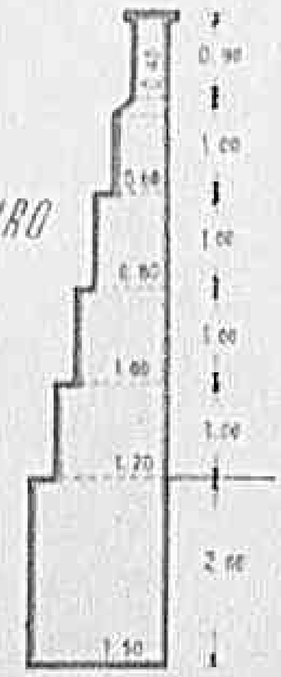
GIARDINO SCUOLE COMUNALI





SEZIONE DEL MURO

G - H

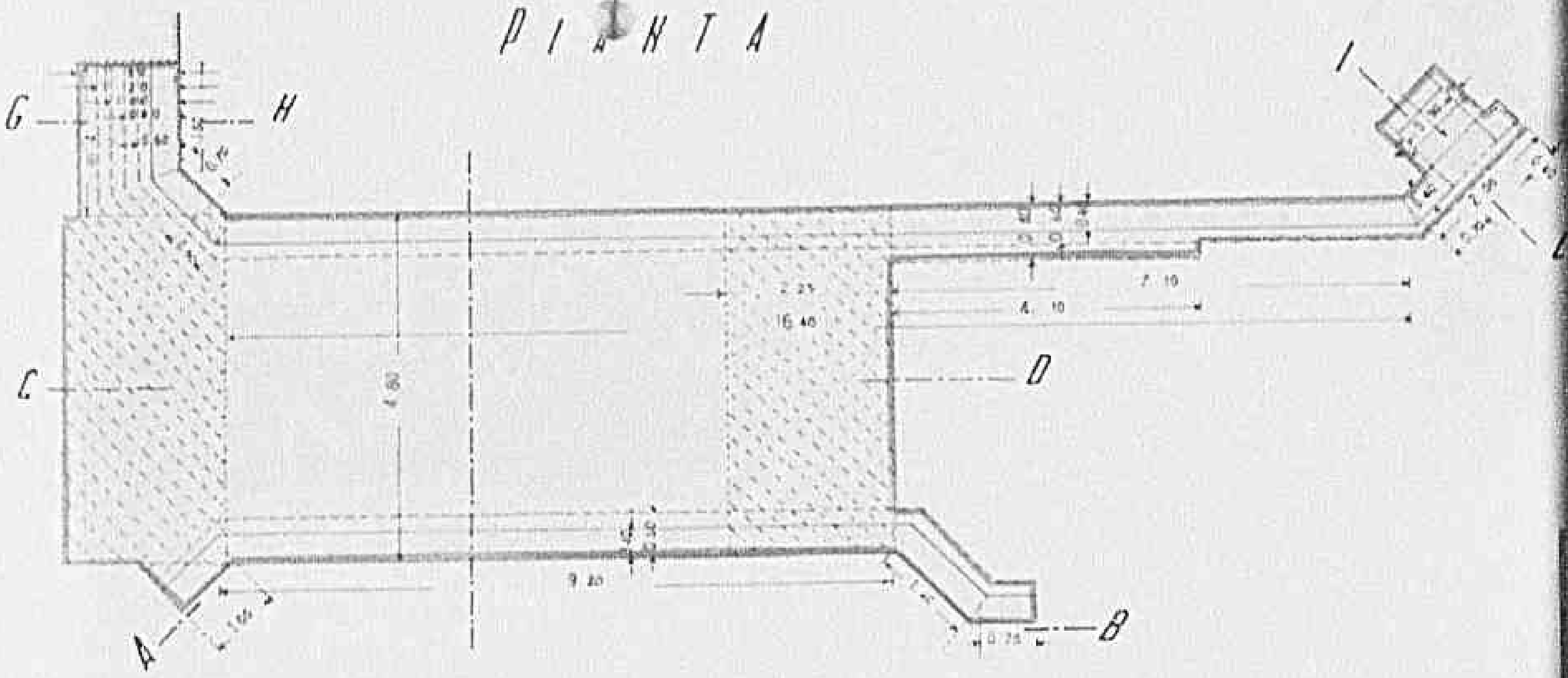


05 1 91

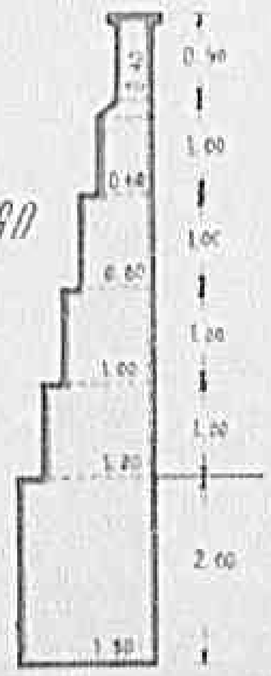
Declassified E.O. 12356 Section 3.3/NND No. 785019

...LE COMUNALI

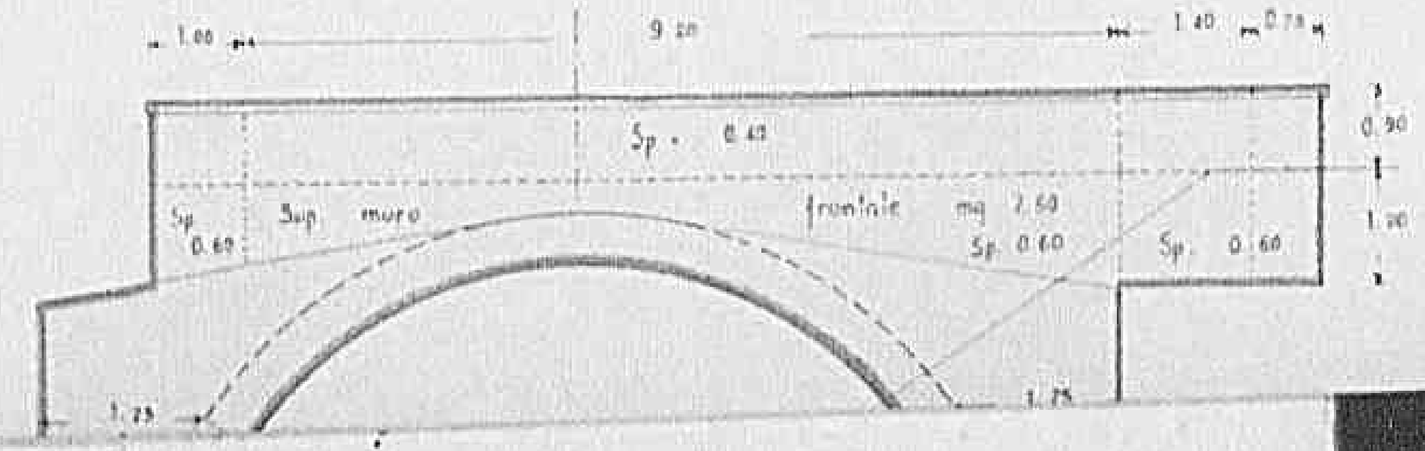
PIANTA



SEZIONE DEL MURO G - H



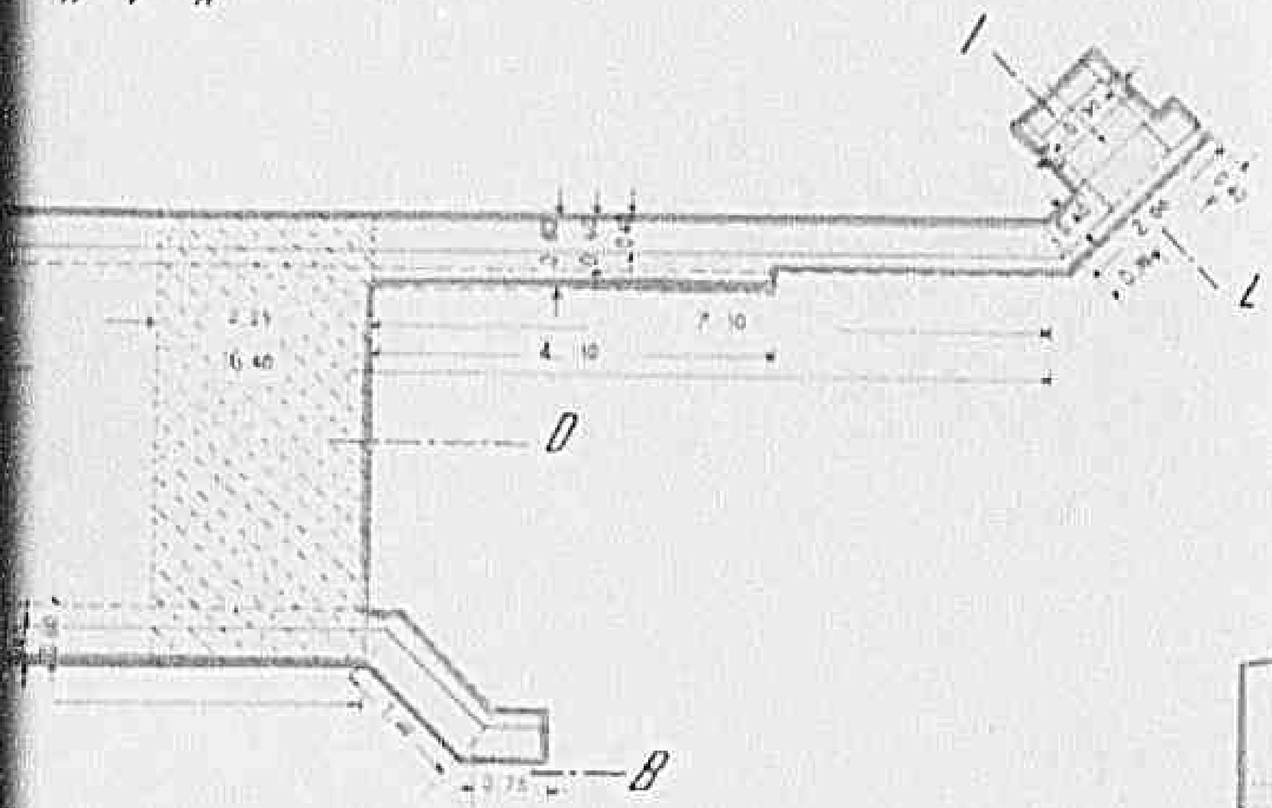
SVILUPPO MURO FRONTALE A - B



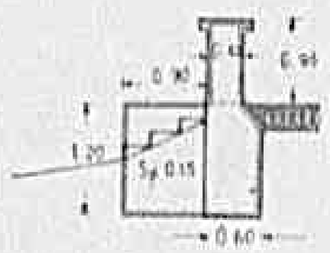
0.15.2.01

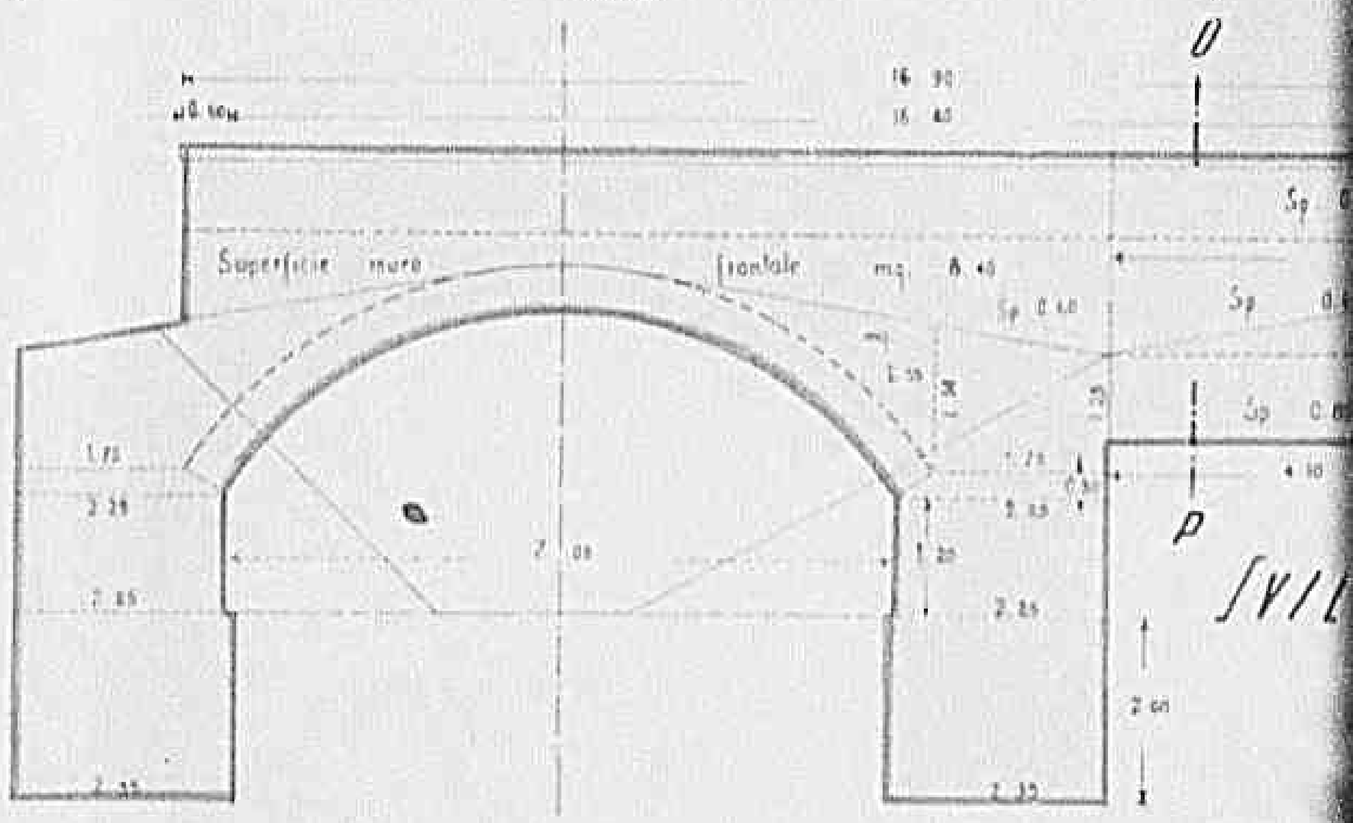
Declassified E.O. 12356 Section 3.3/NND No. 785019

H T A

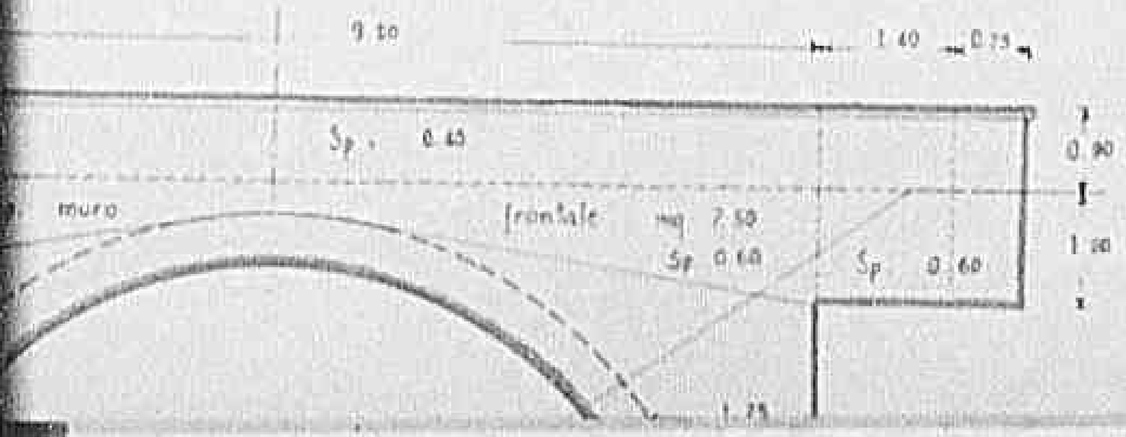


SEZIONE I L





UPPO MURO FRONTALE A-B

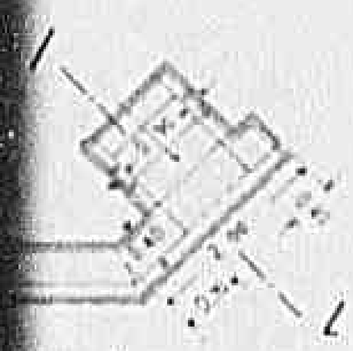


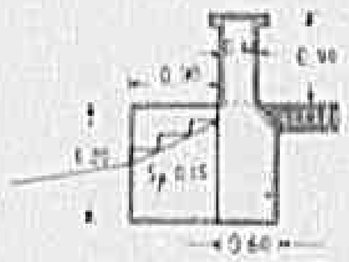
SEZIONE C-D

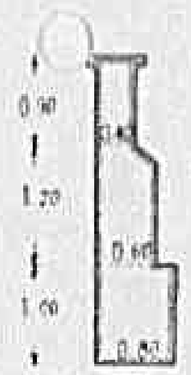
0521

Declassified E.O. 12356 Section 3.3/NND No. 785019

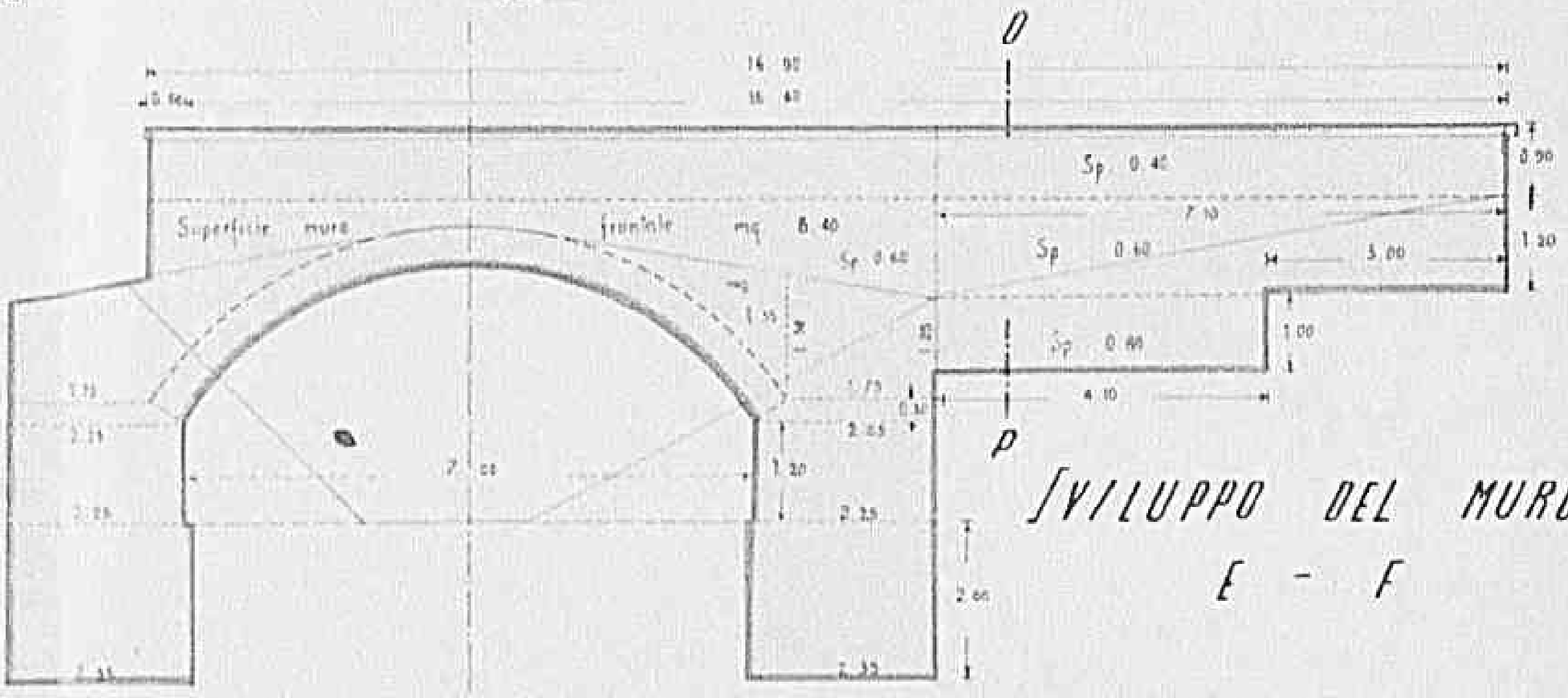
SEZIONE I L







SEZIONE O - P



SVILUPPO DEL MURO
E - F

SEZIONE C - D

0 5 2 21

Declassified E.O. 12356 Section 3.3/NND No. 785019

PLANIMETRIA

SCALA 1:100

0 5 2 31

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0524

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D

superficie da rimuoversi

A QUINTO

B

A

SEZIONE DEL MURO

G - H

Z A M B R A

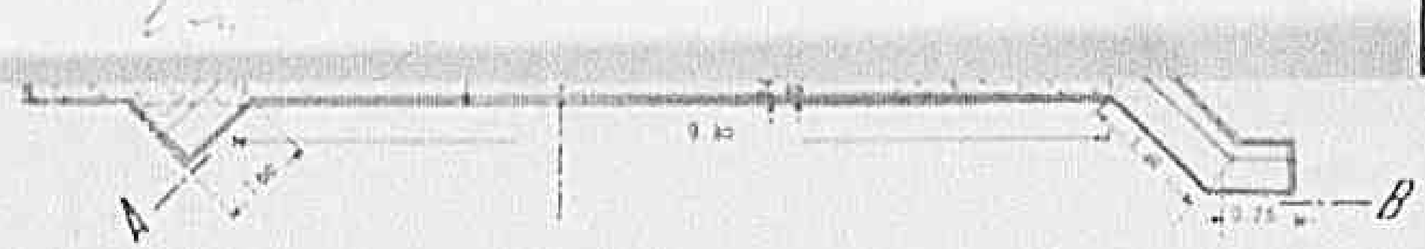
OLIVETO

SEZIONE

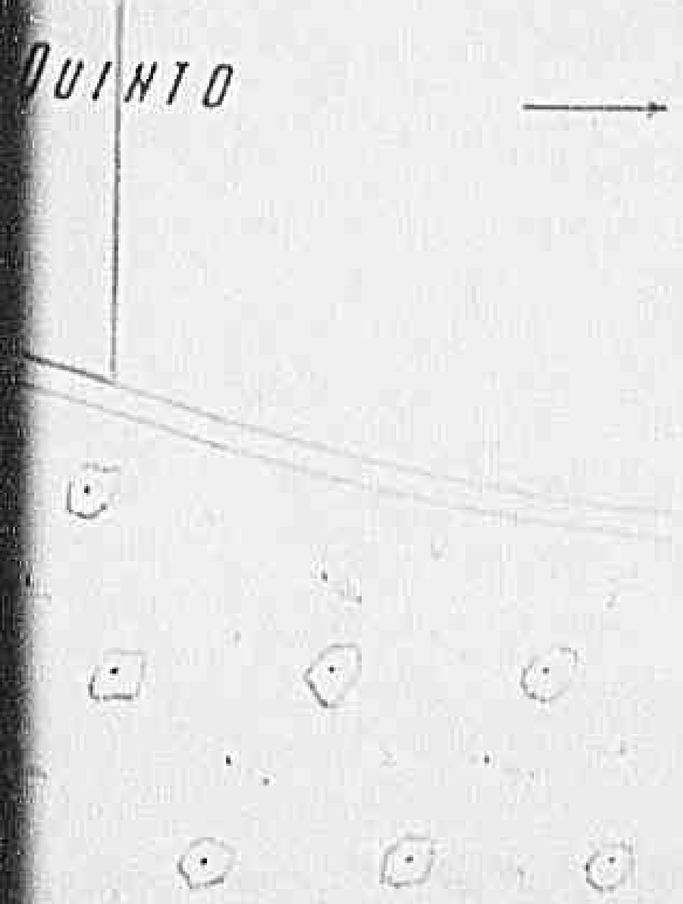
M N

0525

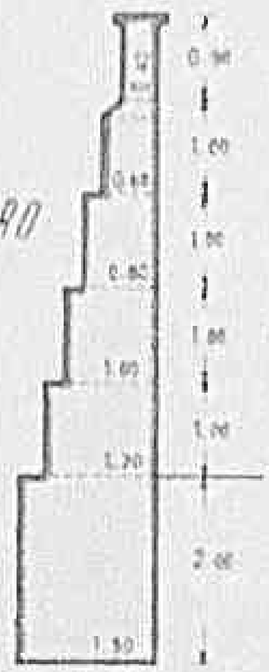
Declassified E.O. 12356 Section 3.3/NND No. 7850019



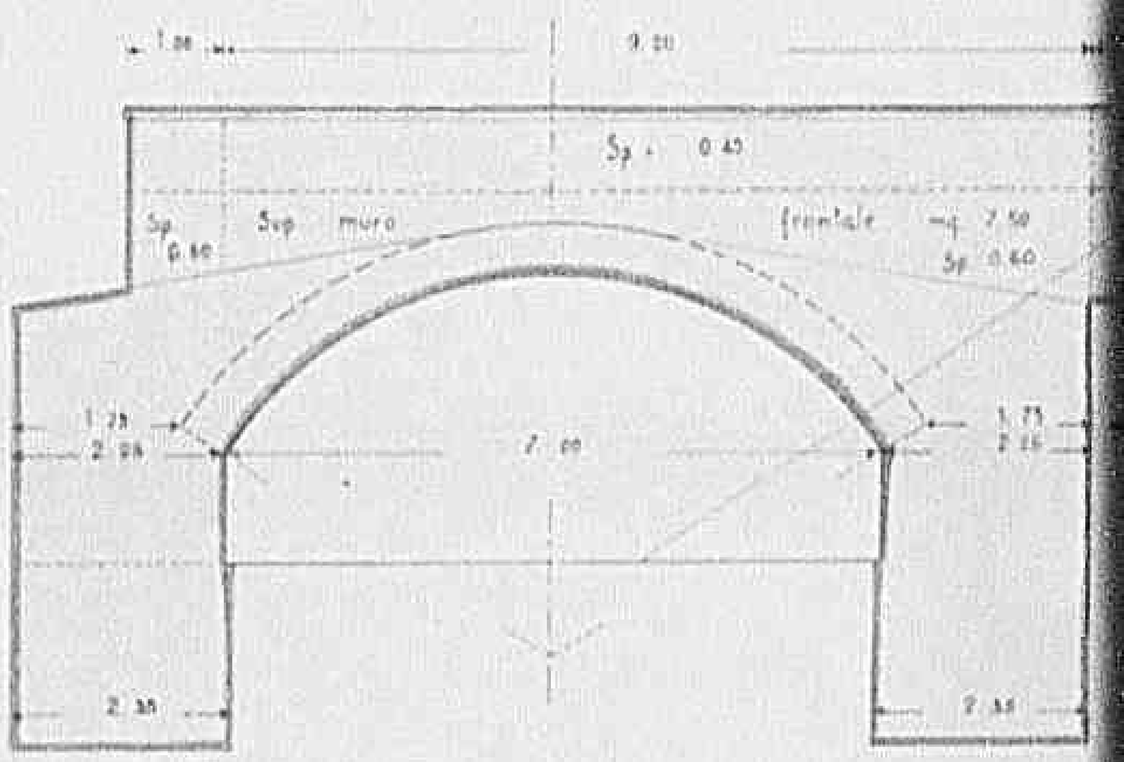
QUINTO



SEZIONE DEL MURO
G - H

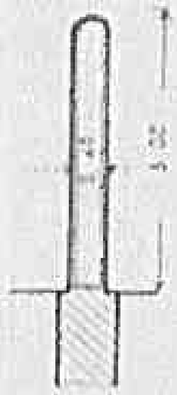


SVILUPPO MURO FRONTALE A - B



LIVELLO

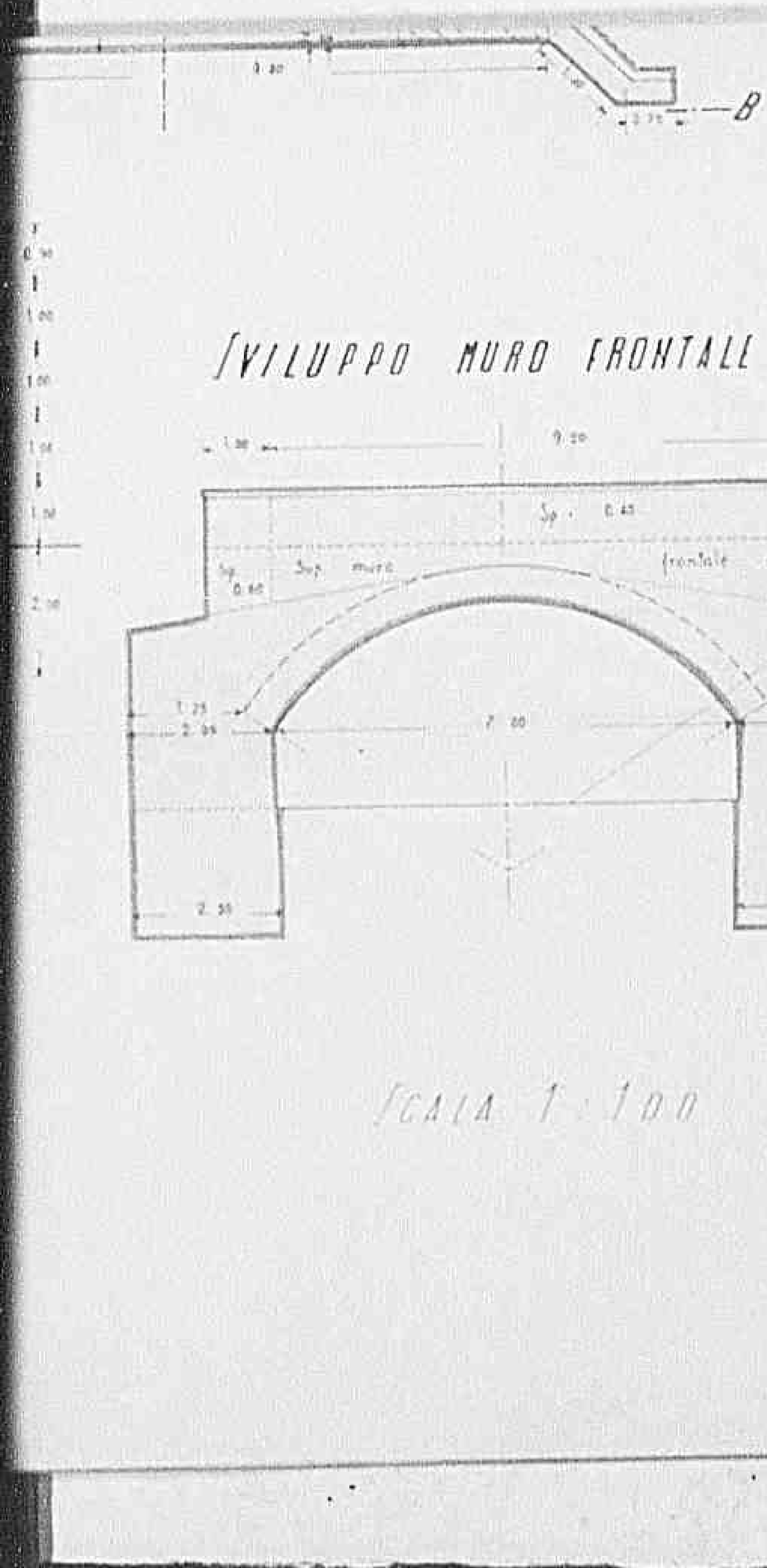
SEZIONE
M N



SCALA 1 : 100

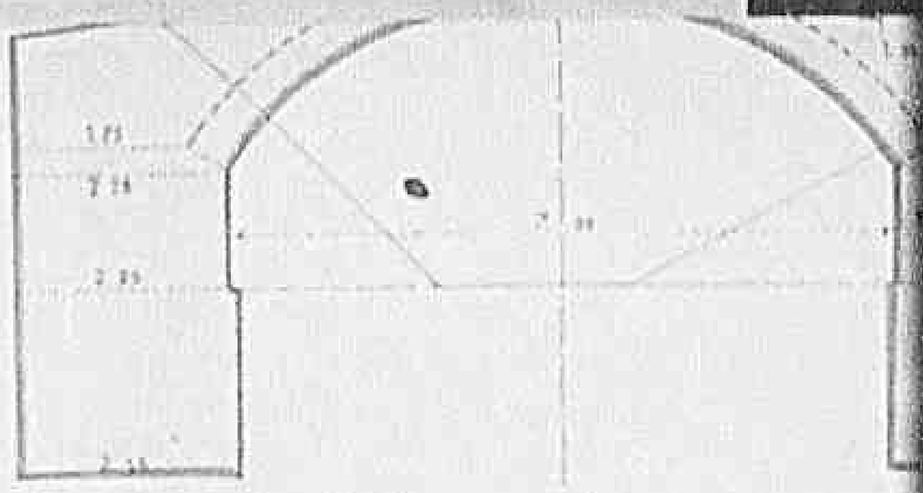
0526

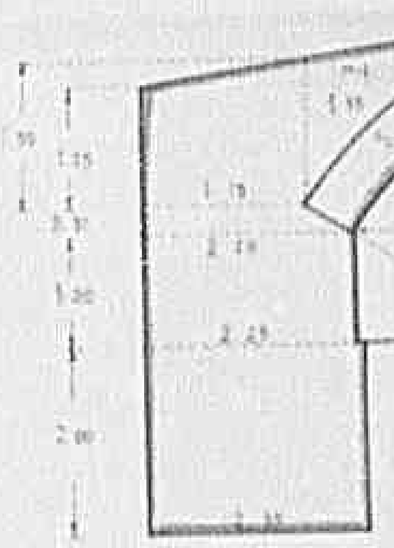
Declassified E.O. 12356 Section 3.3/NND No. 785019



SVILUPPO MURO FRONTALE A - B

SCALA 1:100





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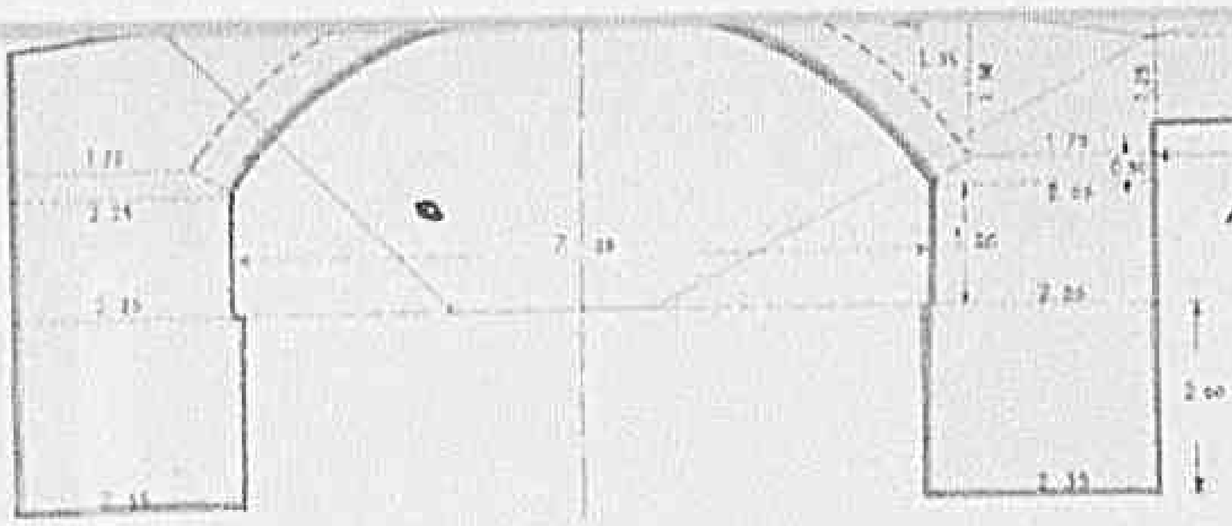
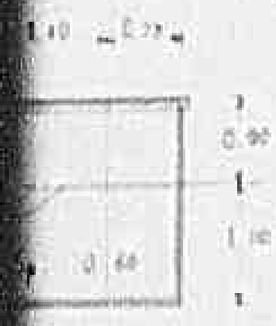
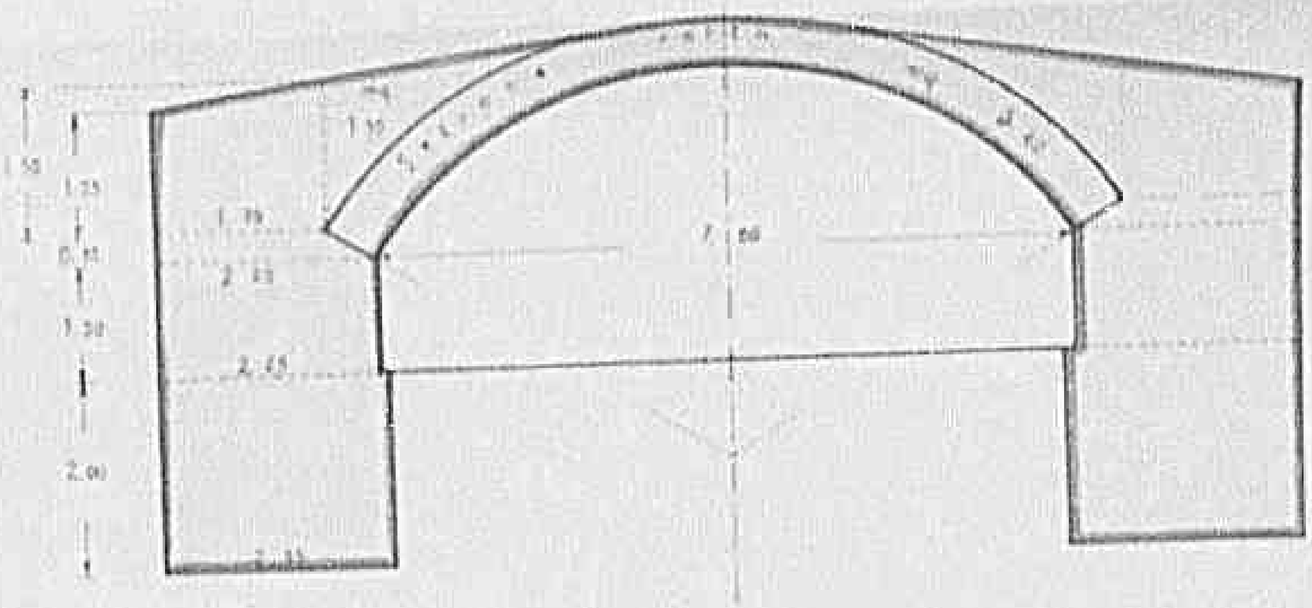
Declassified E.O. 12356 Section 3.3/NND No. 7860019



SVILUPPO DEL MURO
E - F



SEZIONE C - D



C FIR 639

Corografia generale

Scala 1 : 25000

13 MAR 1948

Il Progettista
prof. ing. A. dell'Orata

V.to Il Presidente
C. Ganelli

N. 740

Declassified E.O. 12356 Section 3.3/NND No. 785019

Corografia generale

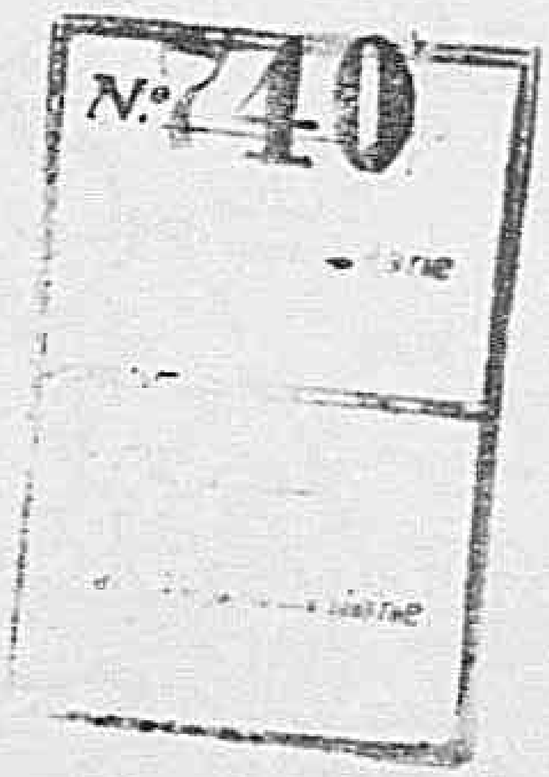
Scala 1 : 25000

13 MAR 1948

Il Progettista

prof. ing. A. dell'Orata

V.to Il Presidente



Declassified E.O. 12356 Section 3.3/NND No. 785019

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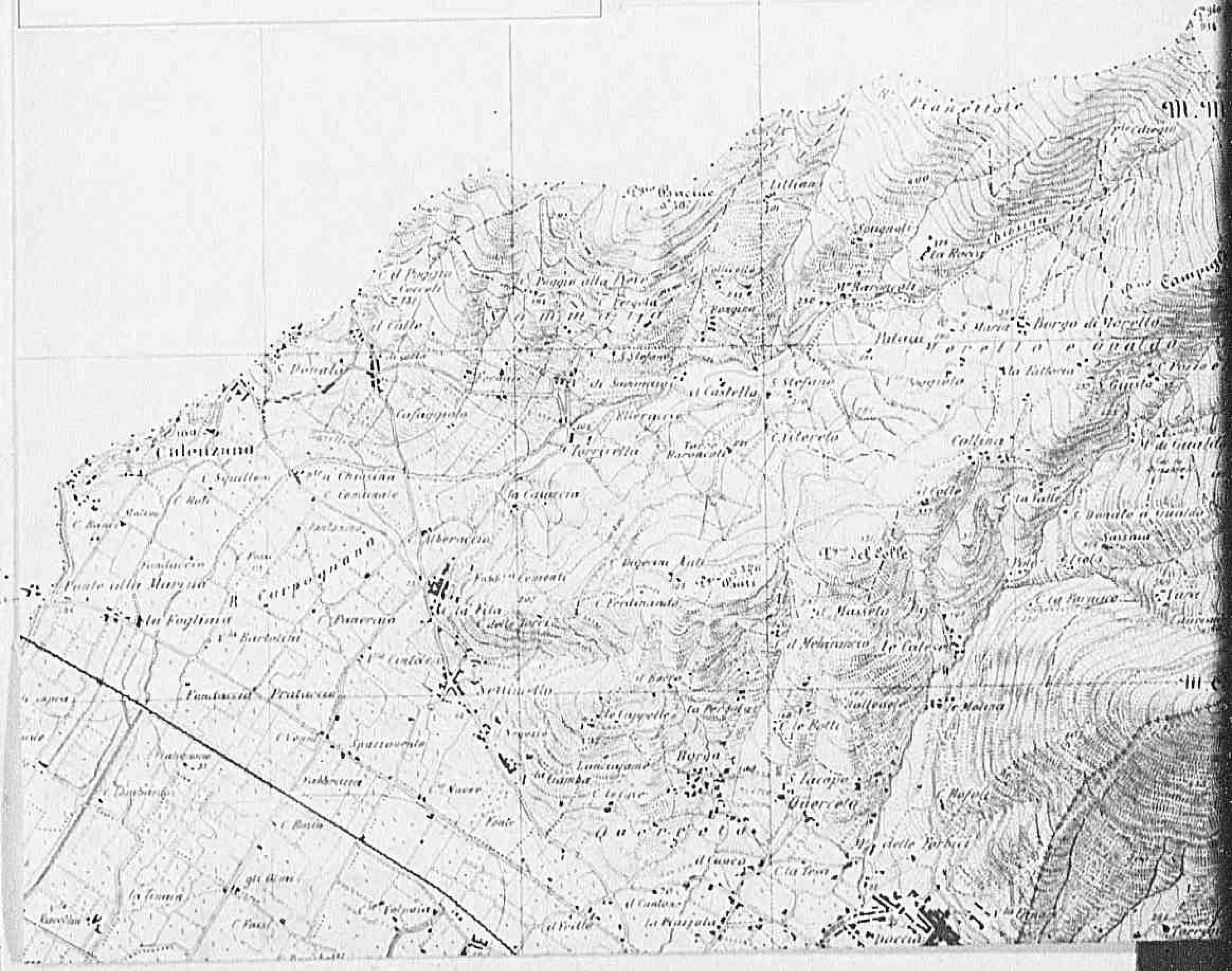
Declassified E.O. 12356 Section 3.3/NND No. 785019

COROGRAFIA GENERALE

SCALA 1 : 25.000



0531

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M. Mozello

M. Rotondo

M. Clapier

Pgo dell'Oca

Pgo Comacchiaccia

Pgo Cancia

Pgo Campofreno

Pgo Dell'Orso

Pgo Barlotto

Borgo di Vercelli

Vercelli e unalda

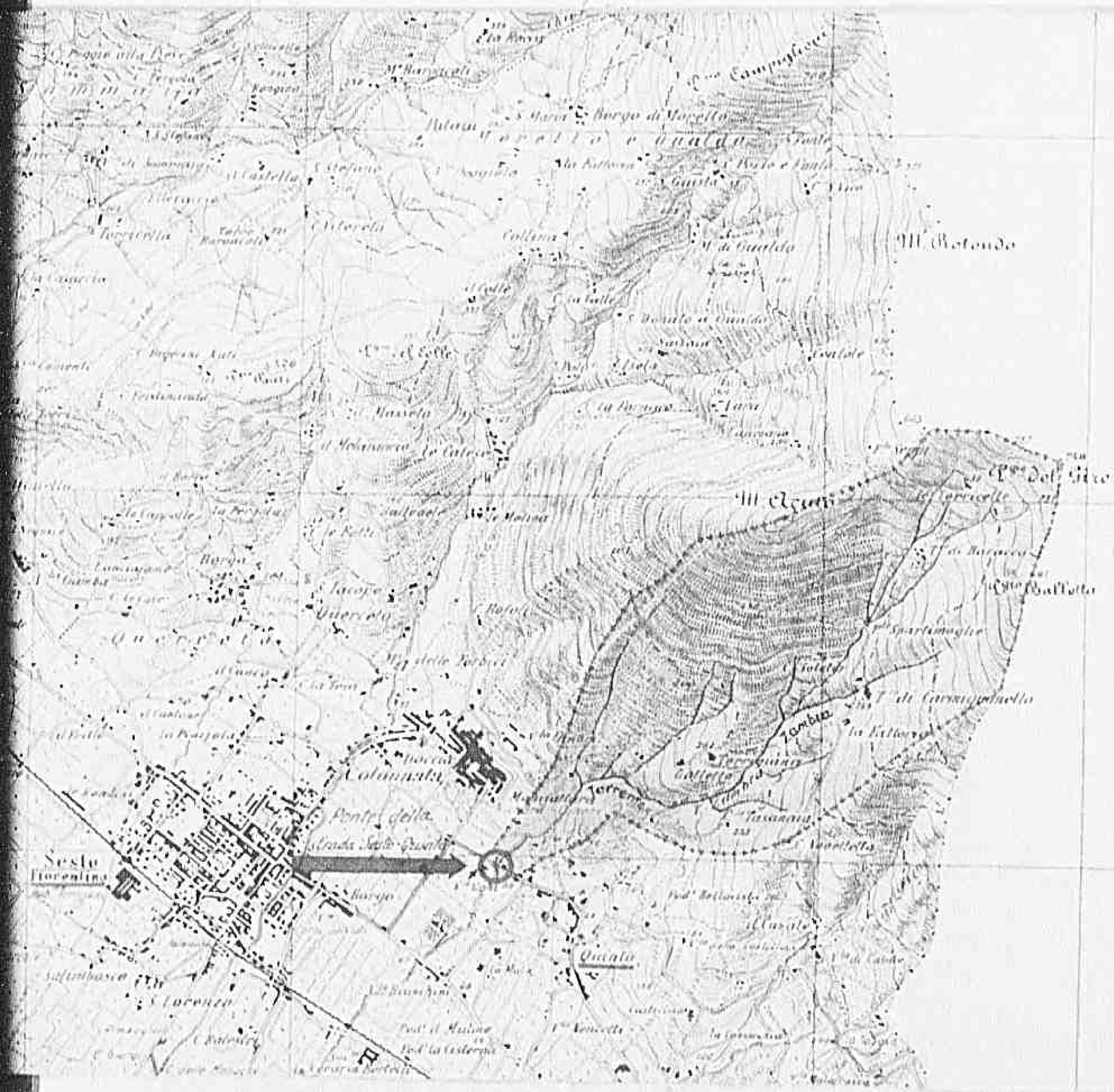
Quercetta

0532

Declassified E.O. 12356 Section 3.3/NND No. 785019

05331

Declassified E.O. 12356 Section 3.3/NND No. 785019


Sesto Fiorentino
Quinto
Colonnata
Castello
Querceto
Colle
Monte Morello
Monte Cuccoli
Monte Calvi
Monte Senario
Monte Giovi
Monte Falterona
Monte Falterona
Monte Falterona

CONSORZI RIUNITI BACINI
MONTANI VAL DI SIEVE

FIR 636

TA-806

OCLW

PONTE DELLA "RUZZA"
SUL TORR. FIUMICELLO
NELLA STRADA COM. BARBERINO - DOGANA
[COM.ne DI BARBERINO DI MUGELLO]

PLANIMETRIA - PROSPETTO - SEZIONI

SCALA 1:100

27 FEB 1945

Declassified E.O. 12356 Section 3.3/NND No. 785019

N. 90

PONTE DELLA "RUZZA"
SUL TORR. FIUMICELLO
NELLA STRADA COM. BARBERINO-DOGANA
[COM.ne DI BARBERINO DI MUGELLO]

PLANIMETRIA - PROSPETTO - SEZIONI

SCALA 1:100

27 FEB. 1945

Il Progettista
ing. L. Zoli

1940

V.° Il Presidente

Declassified E.O. 12356 Section 3.3/NND No. 785019

0536

Declassified E.O. 12356 Section 3.3/NND No. 785019

Barberina

Torr. Fiumicello

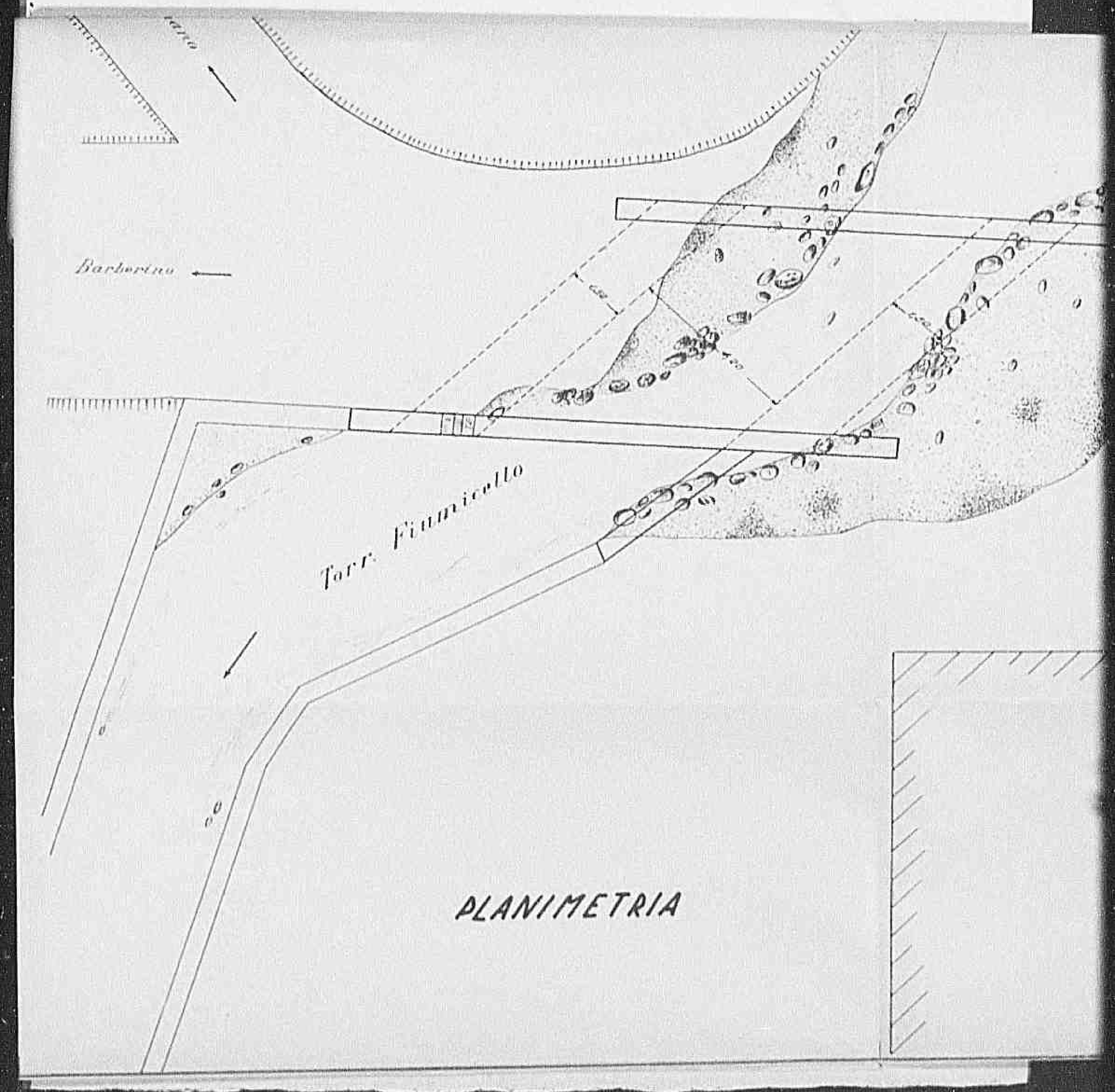
0537

Declassified E.O. 12356 Section 3.3/NND No. 785019

Bayana

0538

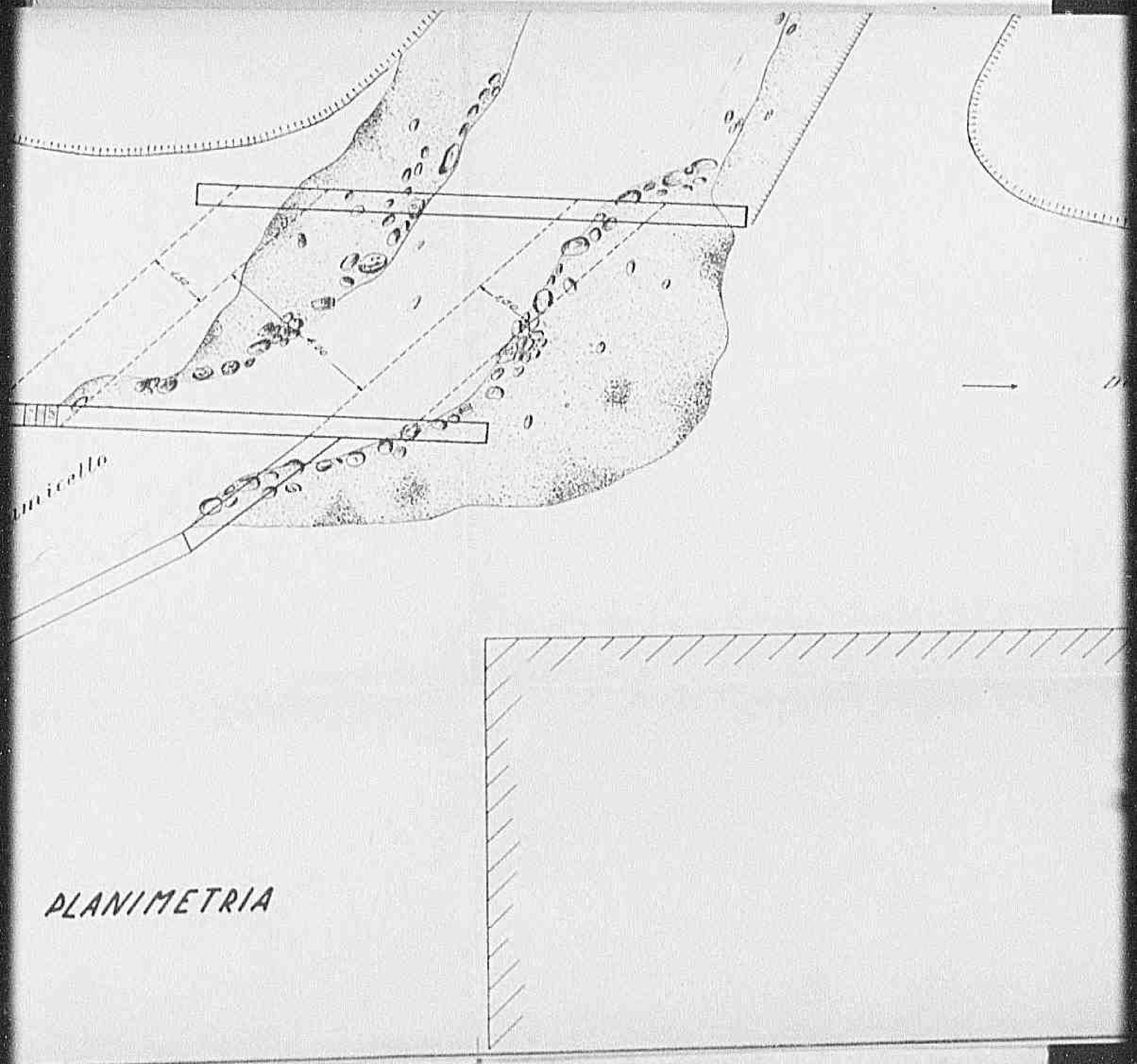
Declassified E.O. 12356 Section 3.3/NND No. 785019



PLANIMETRIA

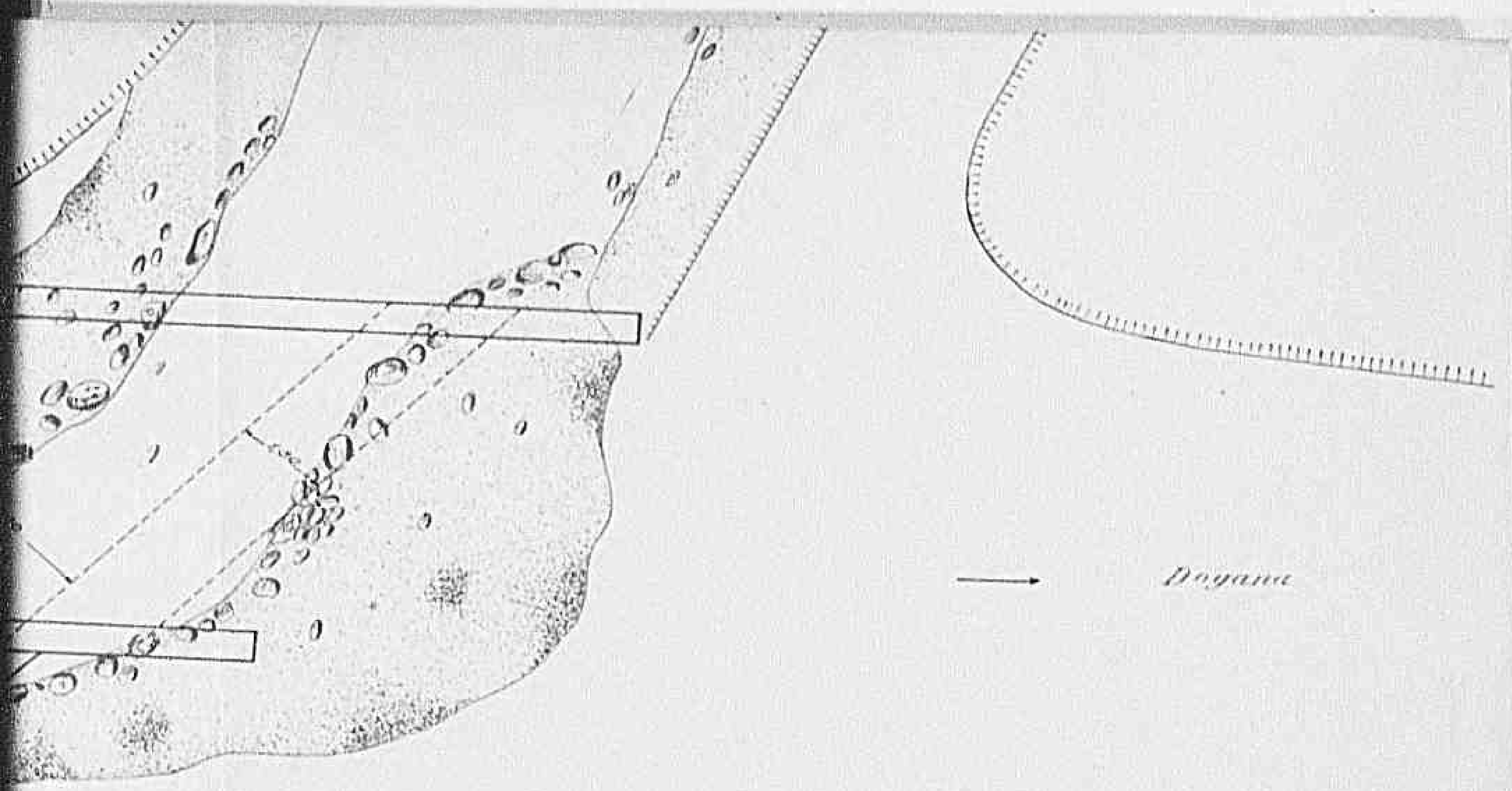
0539

Declassified E.O. 12356 Section 3.3/NND No. 785019



PLANIMETRIA

Declassified E.O. 12356 Section 3.3/NND No. 785019

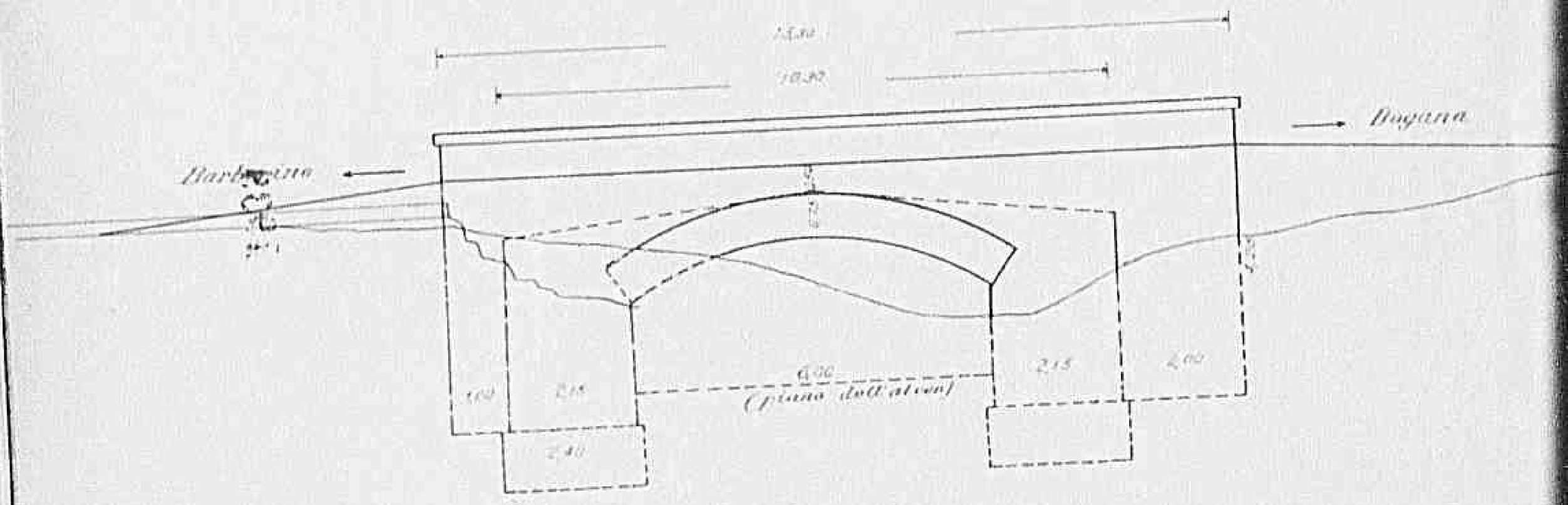


Diagonale

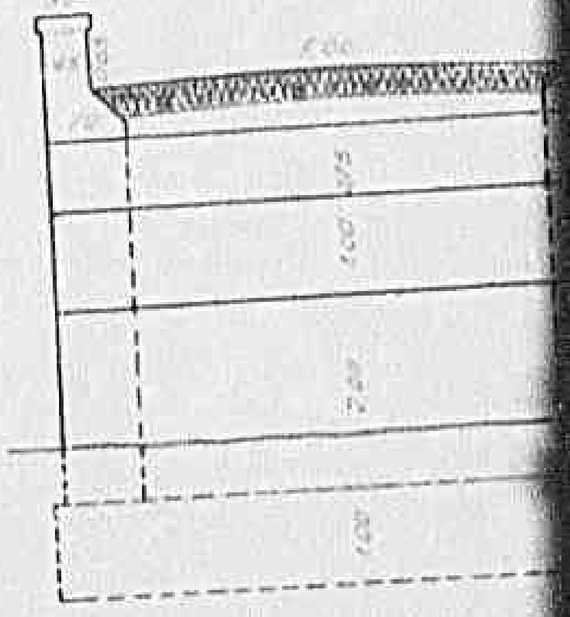
0541

Declassified E.O. 12356 Section 3.3/NND No. 785019

PROSPETTO DA VALLE



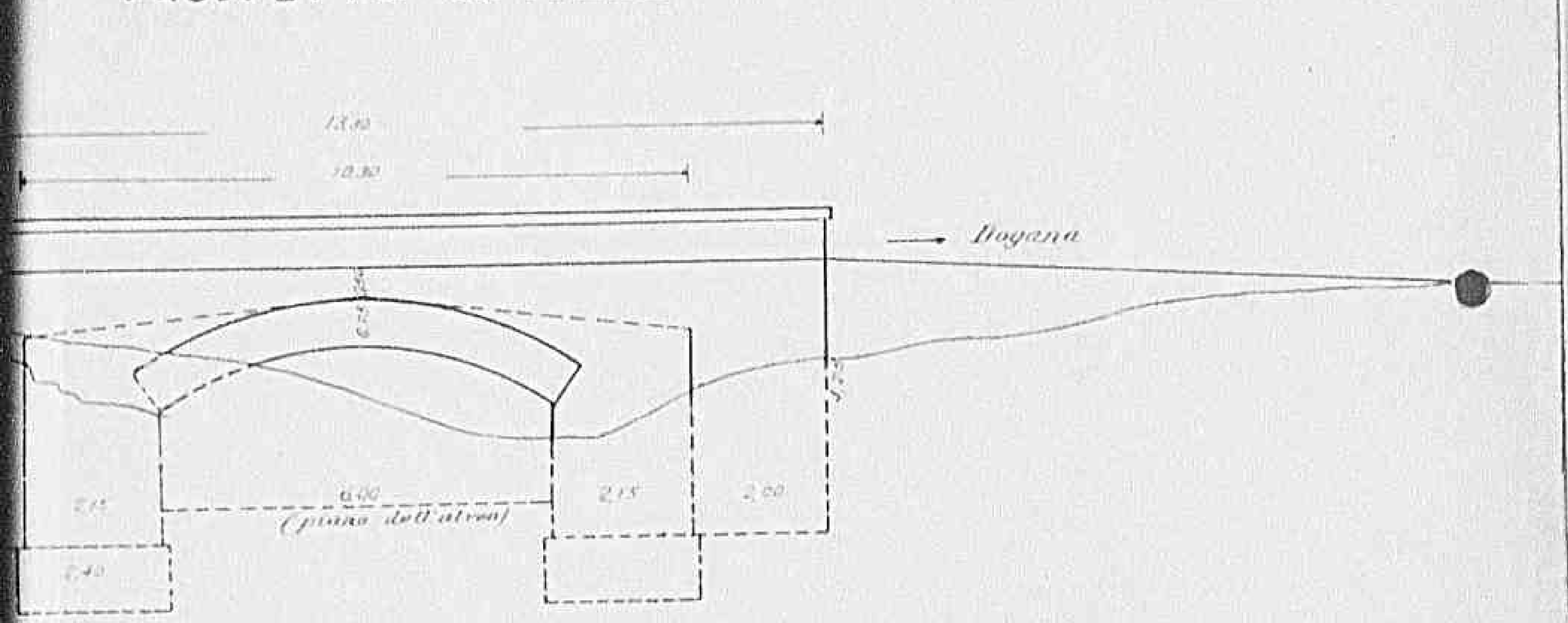
SEZIONE



05421

Declassified E.O. 12356 Section 3.3/NND No. 785019

PROSPETTO DA VALLE



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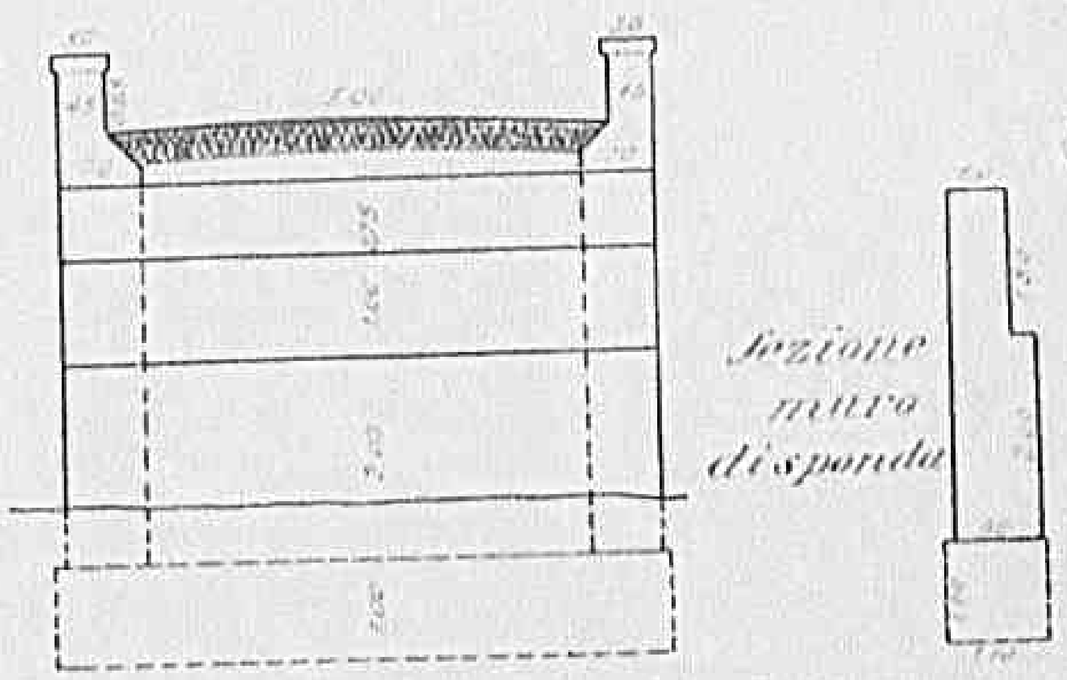

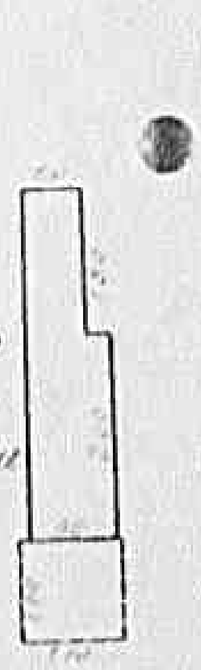

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№750

0544

Declassified E.O. 12356 Section 3.3/NND No. 780019

0545

Declassified E.O. 12356 Section 3.3/NND No. 785019

0546

Declassified E.O. 12356 Section 3.3/NND No. 785019

Lucca
Pisa
Livorno
Viareggio
Carrara
Massa
Pontedera
Empoli
Volterra
Cecina
Piombino
Elba
Follonica
Grosseto
Orbetello
Siena
Arezzo
Chiusi
Montepulciano
Cortona
Perugia
Foligno
Spoleto
Terni
Rieti
Viterbo
Civitavecchia
Tivoli
Frascati
Velletri
Albano
Rocca di Papa
Nettuno
Anzio
Ostia
Fiumicino
Civita Castellana
Orvieto
Bracciano
Tolfa
Corneto
Canino
Montalto
Ischia di Castro
Pitigliano
Sorano
Sovana
Saturnia
Manciano
Capalbio
Orbetello
Talamone
Porto Ercole
Monte Argentario
Giglio
Isola del Giglio
Isola di Montecristo
Isola di Pianosa
Isola di Capraia
Isola della Gorgona
Isola della Meloria
Isola di Palmaiola
Isola di Cerboli
Isola di Formiche
Isola di Giannutri
Isola di Giannutrino
Isola di Scoglietto
Isola di Troia
Isola di Porcarecci
Isola di Porcarecce
Isola di Porcarecciola
Isola di Porcarecciolina
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Isola di Porcarecciolinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinetto
Isola di Porcarecciolinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettinettino
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Isola di Porcarecciolinett

0547

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№ 750

27 FEB. 1948

Il Segretario
avv. R. Rodi

V° Il Presidente
Prescothesi

Scala 1:25000

Mantova
M. Frassino
Castellaro
Cerlongo
Cerlongo
Cerlongo

05481

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FEB. 1948

Il Direttore
sup. R. Rol

25000

0549

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Pontassieve

Ponte della Ruzzia

Barberino di Mugello

0550

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Monte Senario
Monte Senario
Monte Senario

0551

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FIR 6HP

COMVNE DI BORGO SAN LORENZO

— UFFICIO TECNICO —

PROGETTO per la ricostruzione del Ponte sul Torrente "CALE. lungo il Viale Umberto I° in Borgo San Lorenzo (Mugello)

— DISEGNI —

Borgo San Lorenzo li Febbraio 1945

N. 7 3 8

l'Ing. Comunale

Declassified E.O. 12356 Section 3.3/NND No. 785019

PROGETTO per la ricostruzione del
Ponte sul Torrente "CALE.
lungo il Viale Umberto I°
in Borgo San Lorenzo (Mugello)

DISEGNI

Borgo San Lorenzo li Febbraio 1945

N. 78

di Protocollo

N.

di Archiviazione

l'Ing. Comunale

1939

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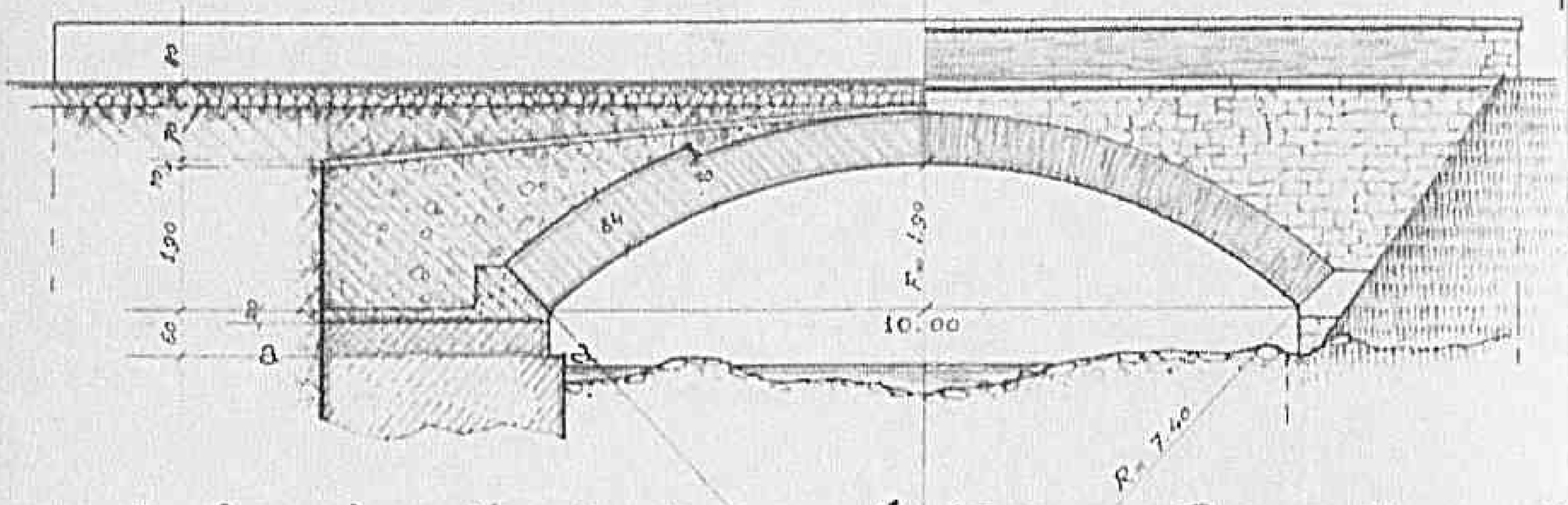

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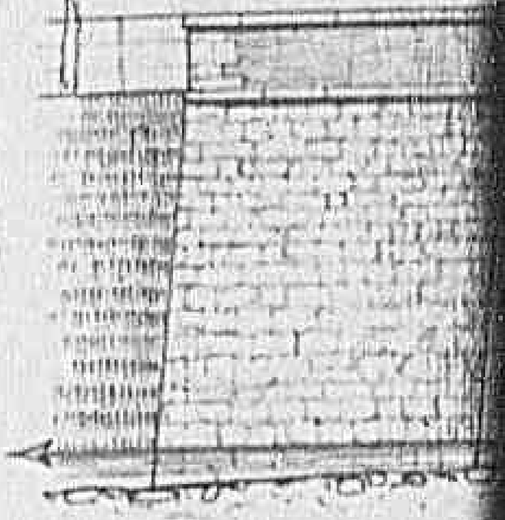

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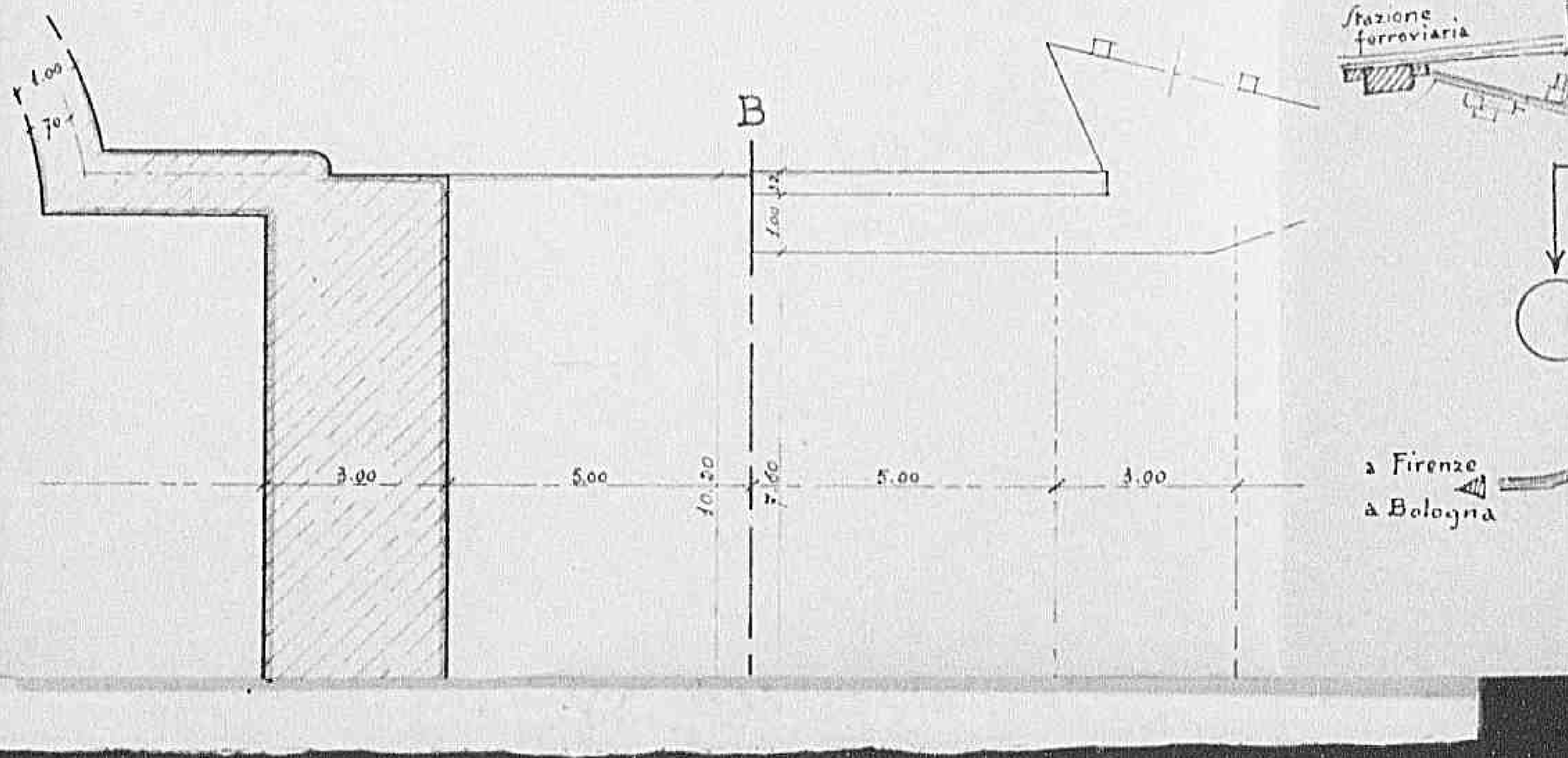

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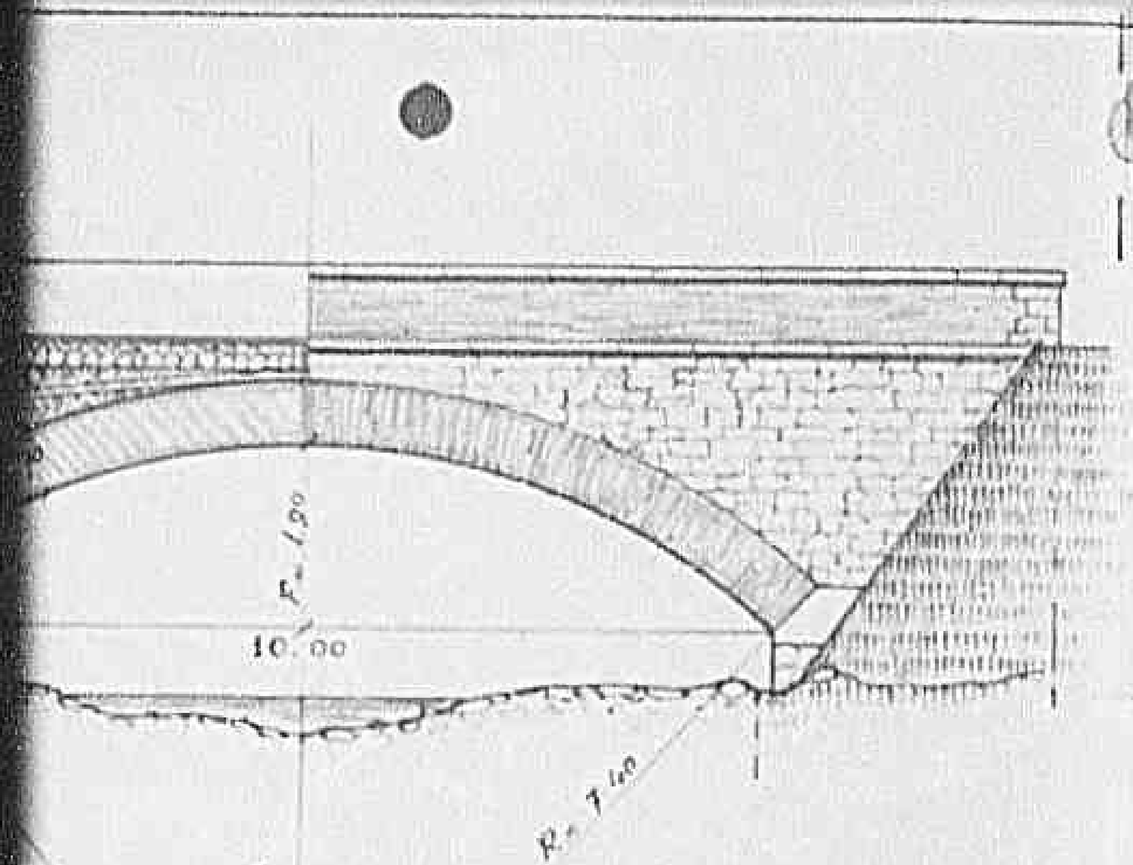
Declassified E.O. 12356 Section 3.3/NND No. 785019



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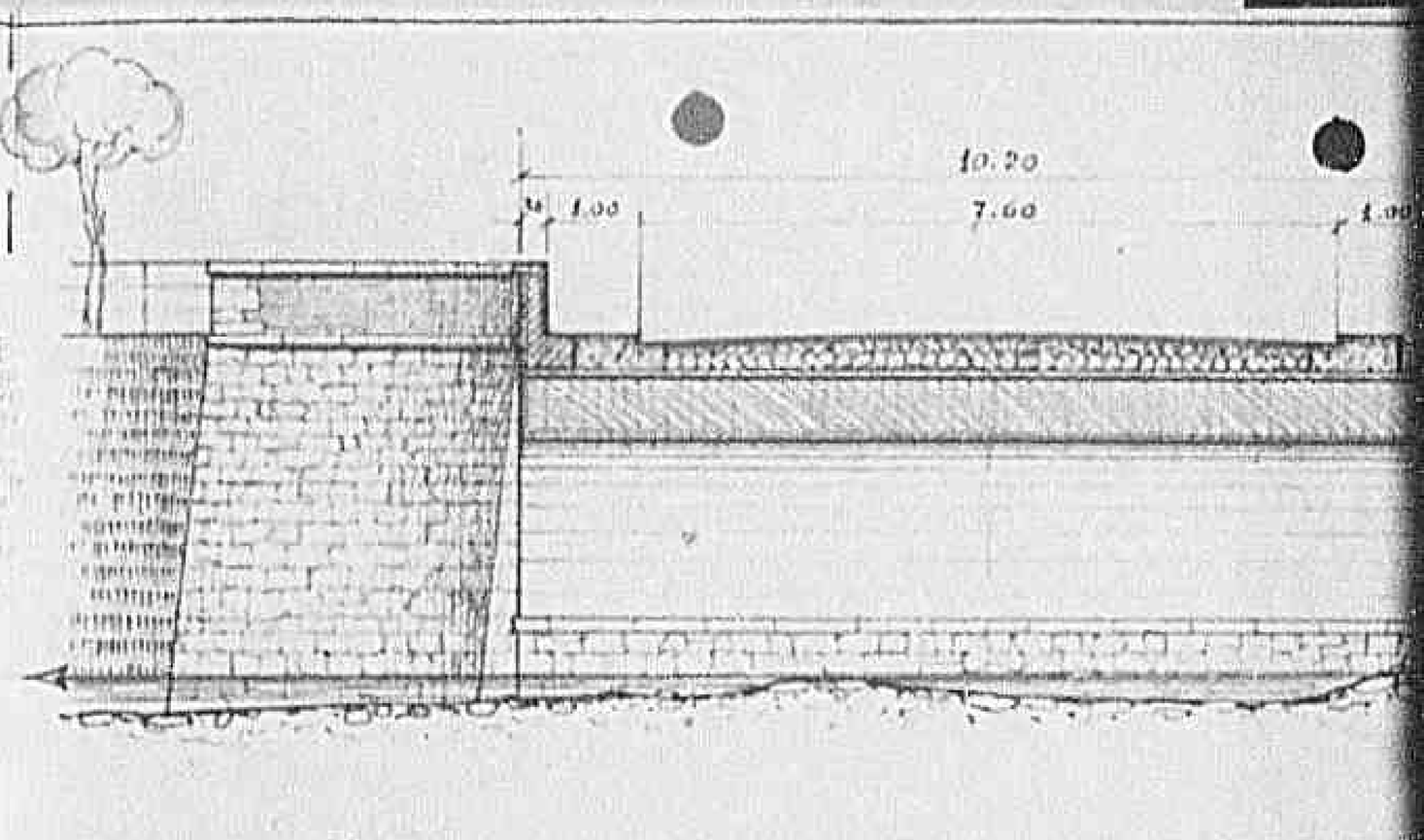

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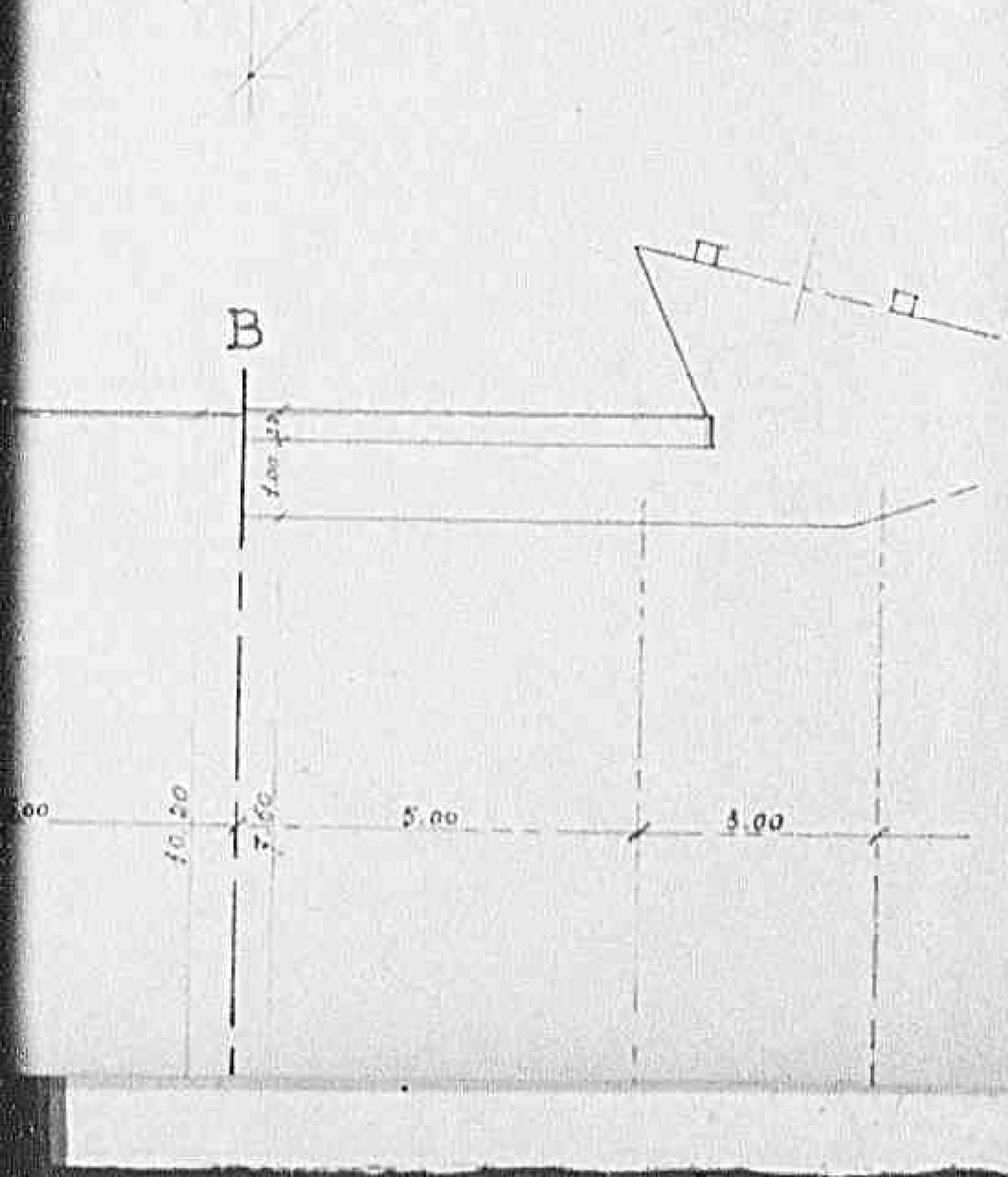

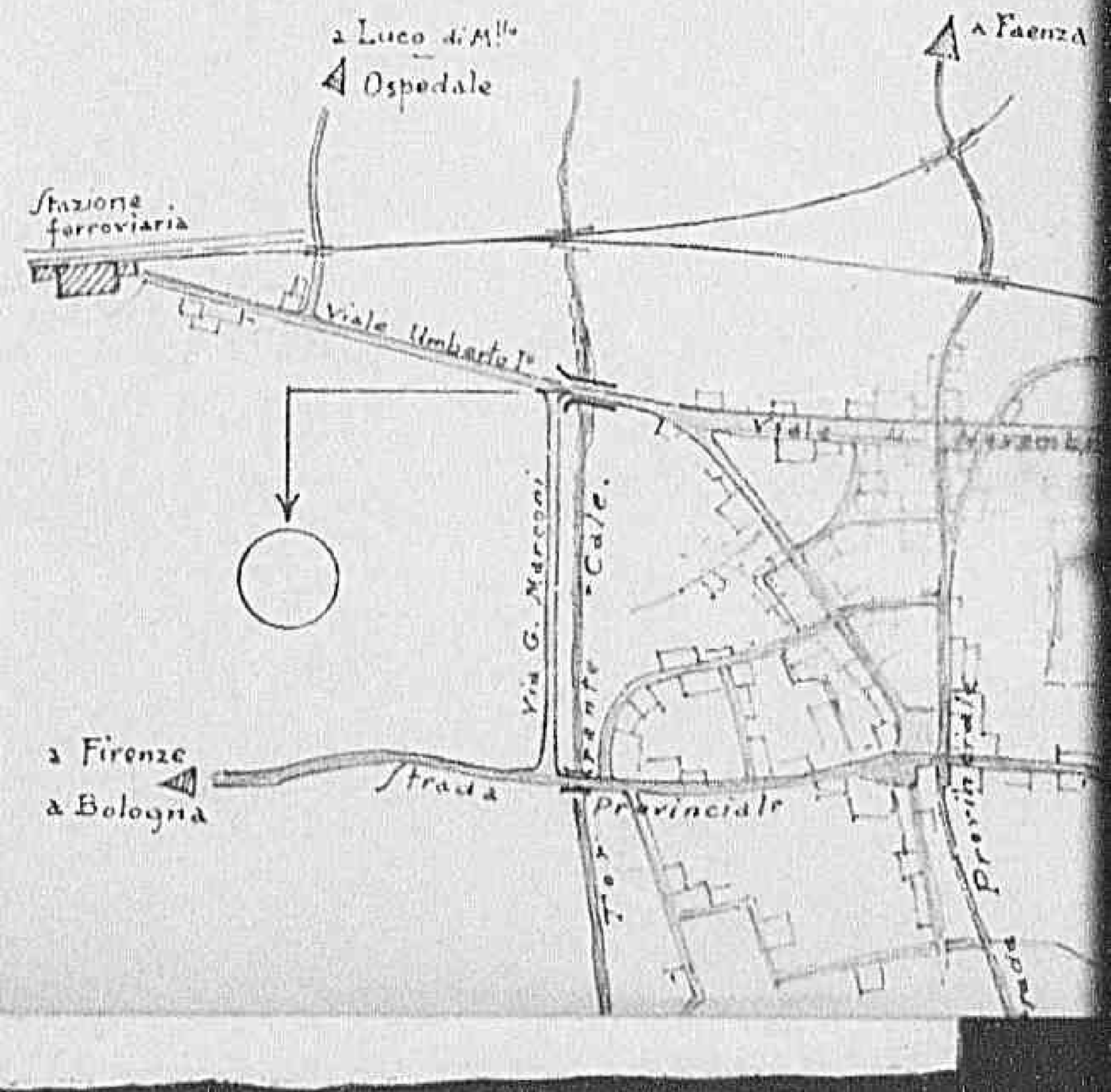

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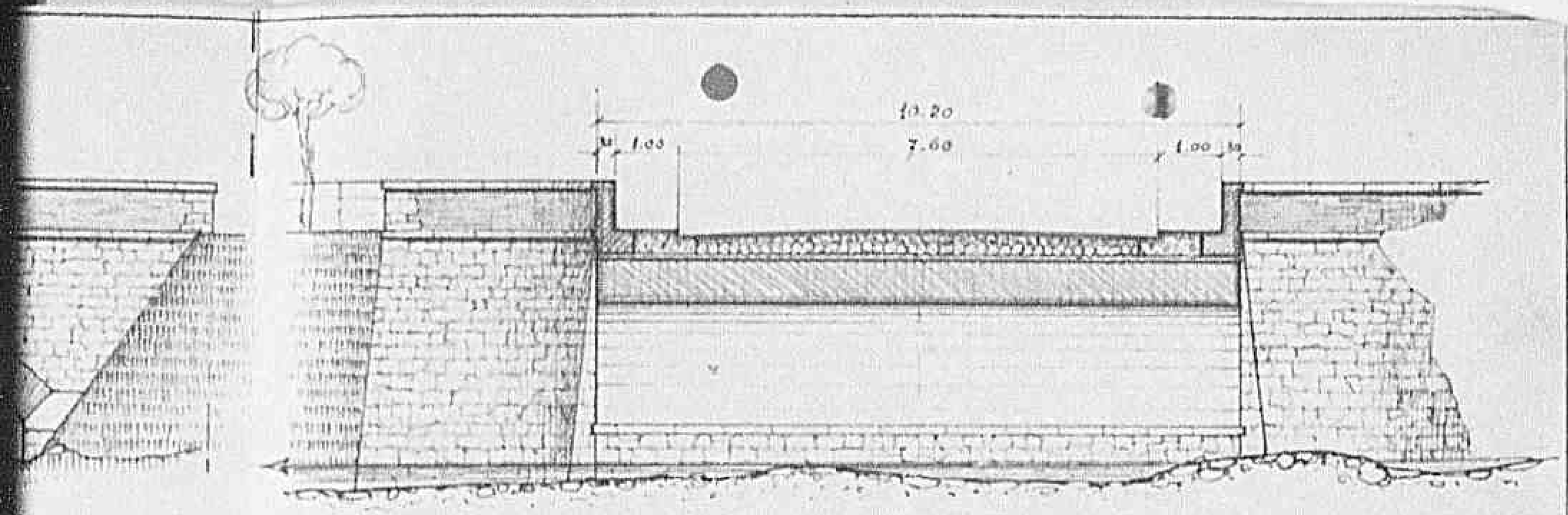

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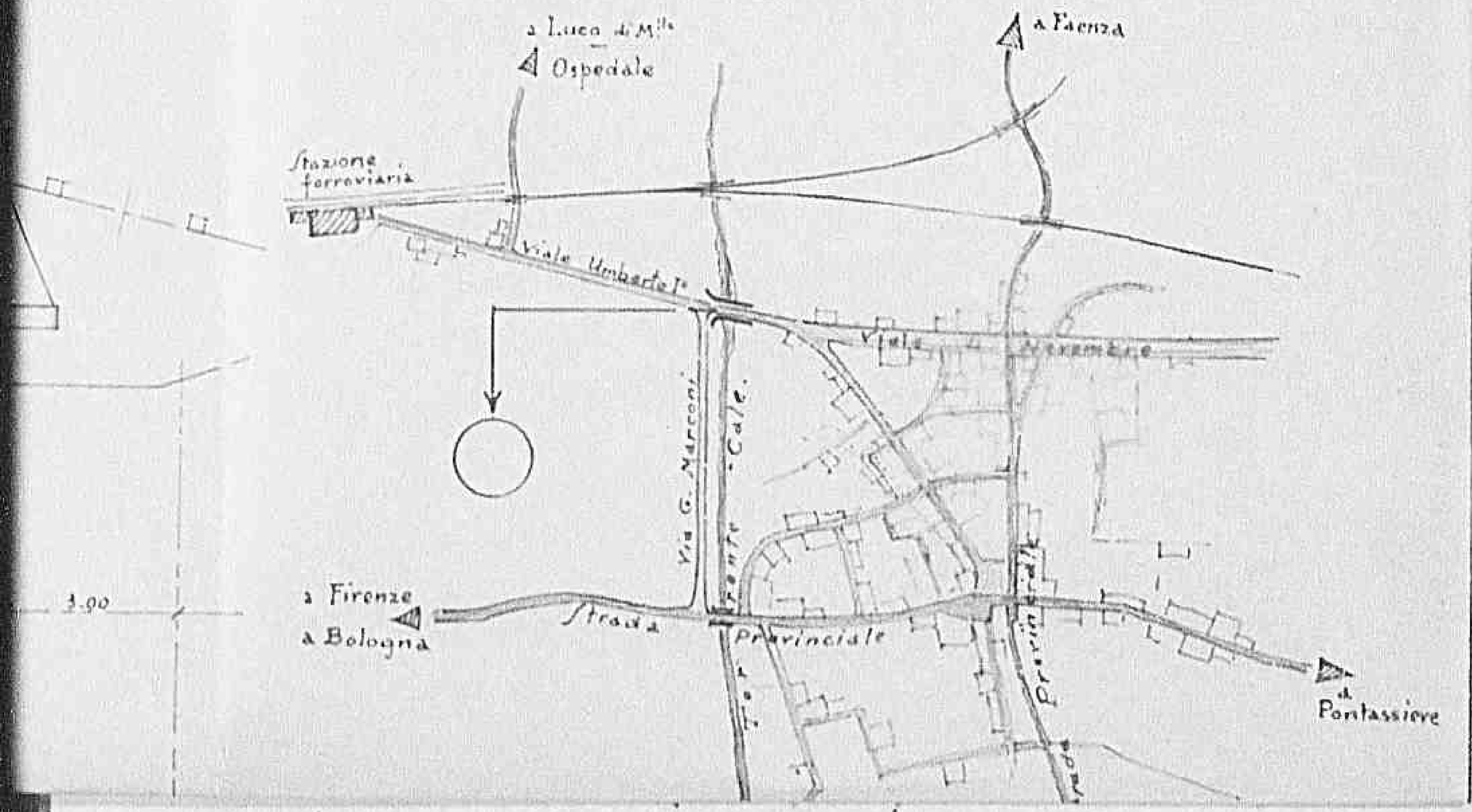

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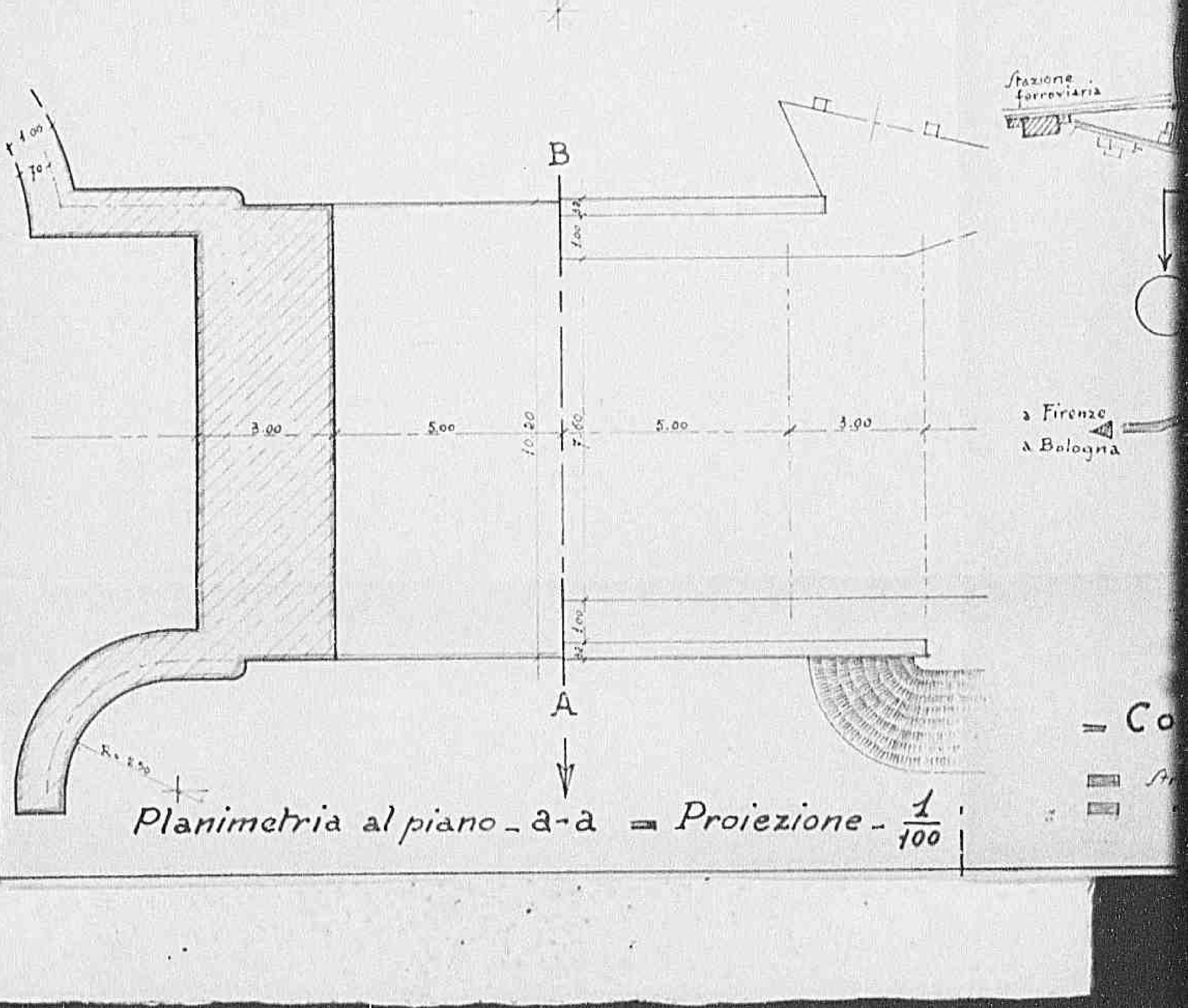
Declassified E.O. 12356 Section 3.3/NND No. 785019

Sezione longitudinale = 1:100 = Prospetto a valle Sezio



Planimetria al piano - a-a = Proiezione - $\frac{1}{100}$ = Co

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Declassified E.O. 12356 Section 3.3/NND No. 785019

tudinale = 1:100 = Prospetto a valle

Sezione trasversale = A

ria al piano - a-a = Proiezione - $\frac{1}{100}$

= Corografia = 1:12.500

Strade Provinciali
" Comunali

05591

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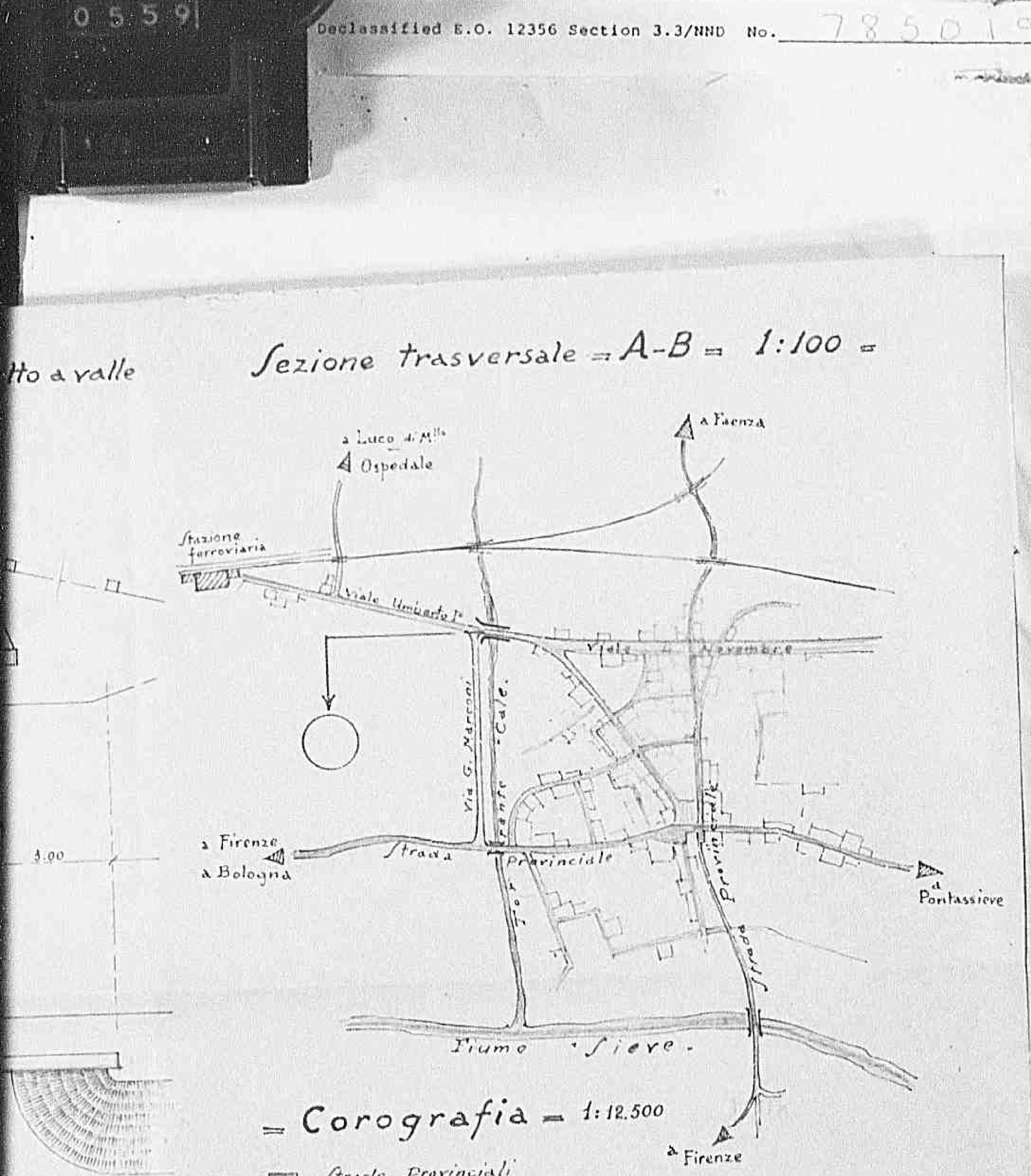
Ho a valle

Sezione trasversale = A-B = 1:100 =



= Corografia = 1:12.500

Strade Provinciali
" Comunali

ione - 1/100

Sic 190 Progetto N° 219

Ministero dei Lavori Pubblici
Corpo Reale del Genio Civile
Ufficio di Siena

12-812

Progetto

RICOSTRUZIONE DEL PONTE IN MURATURA SUL TORRENTE STILE NELLA STRADA COMUNALE VESCOVADO DI MURLO STRADA NAZIONALE CASSIA N°2

Scala 1:100

N 3264 SIENA, 9 MAG. 1945

L'Ingegnere
Ing. Mario Ginelli

V° L'Ingegnere Capo

0 5 6 0 1

Declassified E.O. 12356 Section 3.3/NND No. 785019

Progetto

RICOSTRUZIONE DEL PONTE IN MURATURA SUL TORRENTE STILE NELLA STRADA COMUNALE VESCOVADO DI MURLO STRADA NAZIONALE CASSIA N°2

Scala 1:100

FEB MAG 1945

N 3264 SIENA, L

L'Ingegnere
Luigi Mauro Ciacelli

V. L'Ingegnere Capo
Mauro Ciacelli

1938

Declassified E.O. 12356 Section 3.3/NND No. 785018

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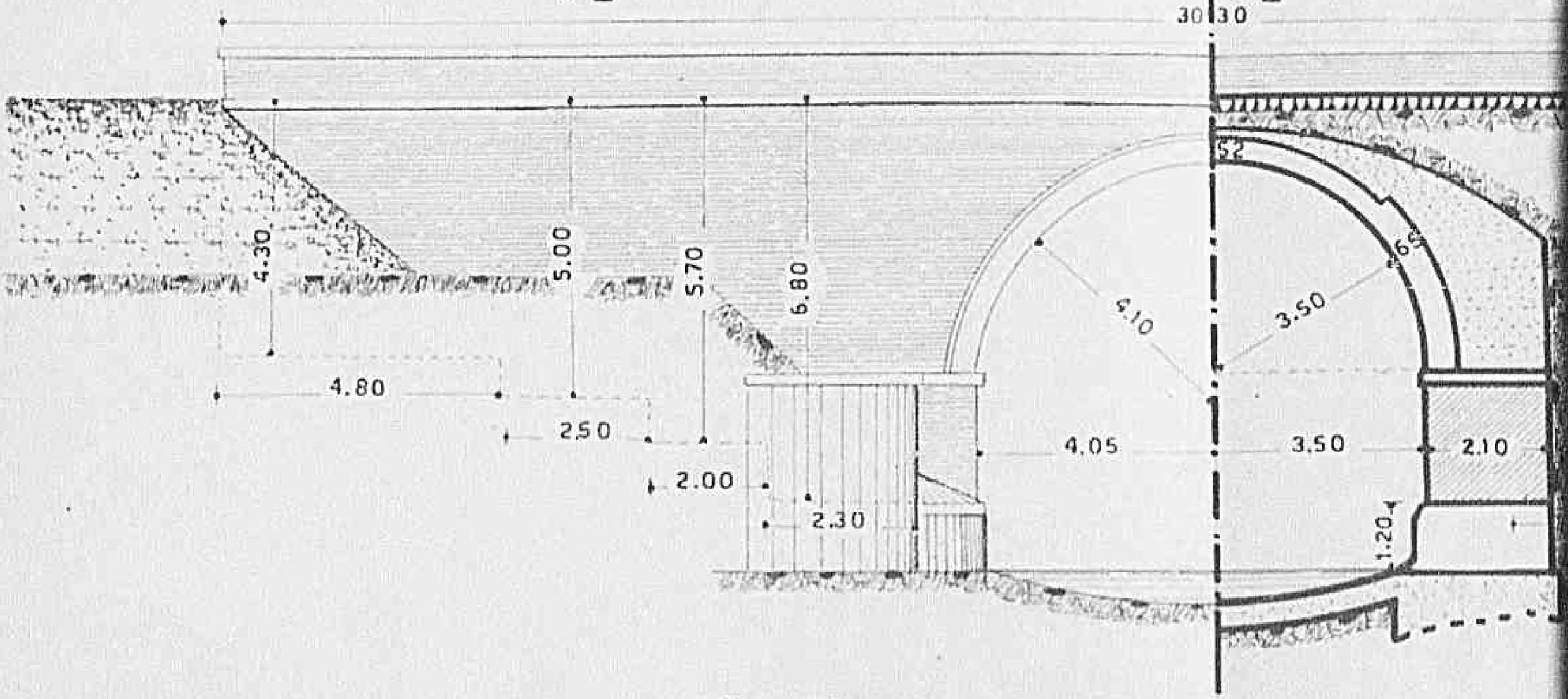
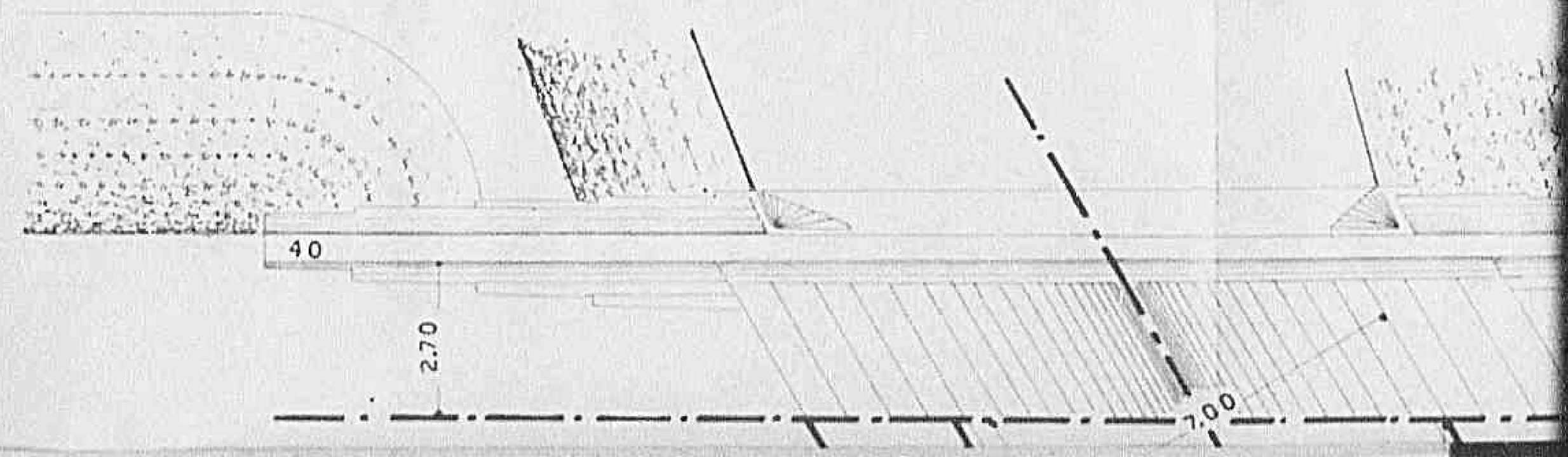
½ PROSPETTO A VALLE

½ SEZIONE LO



½ PIANTA A MURATURE SCOPERTE

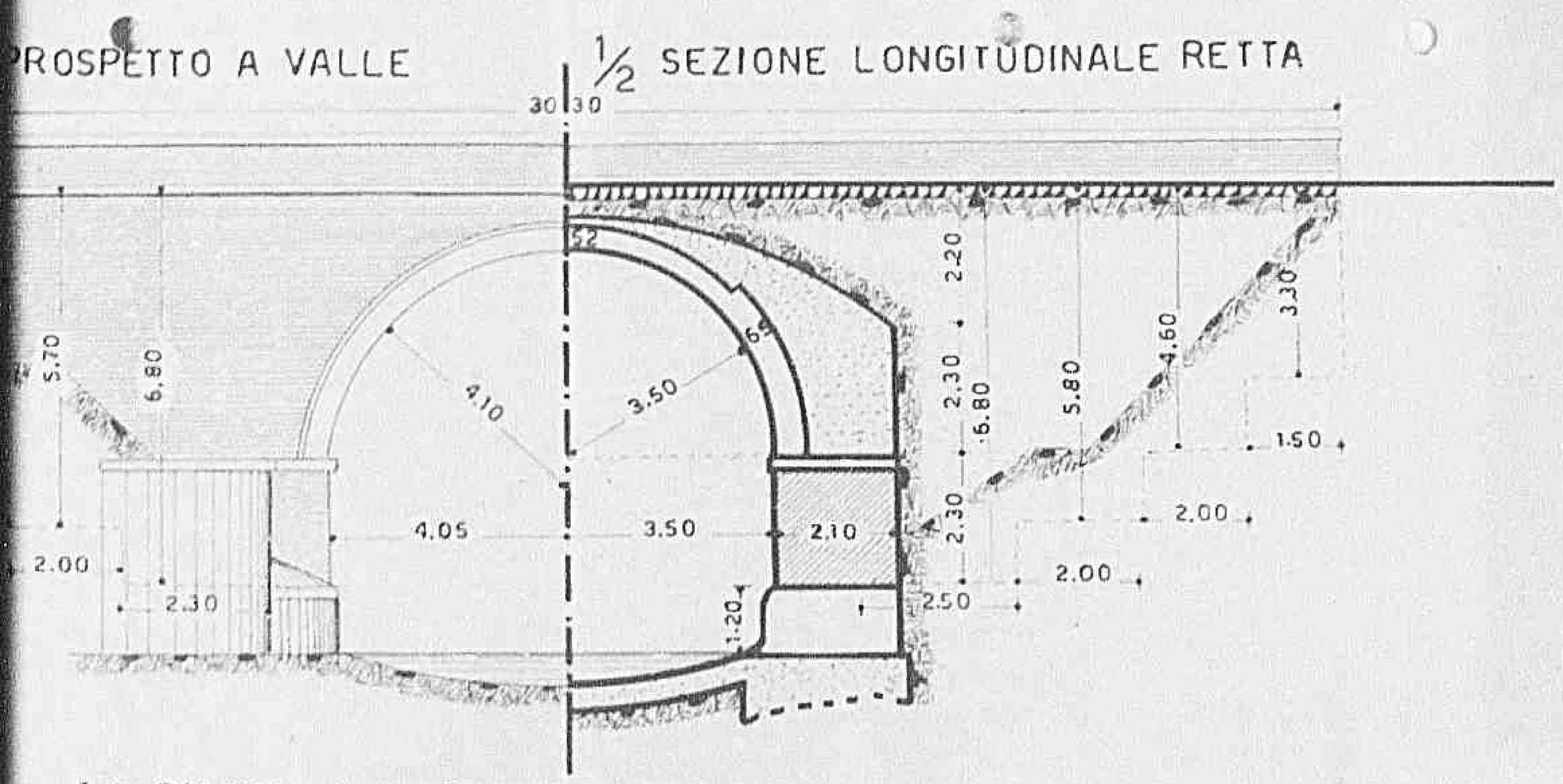


05631

Declassified E.O. 12356 Section 3.3/NND No. 785019

PROSPETTO A VALLE

½ SEZIONE LONGITUDINALE RETTA



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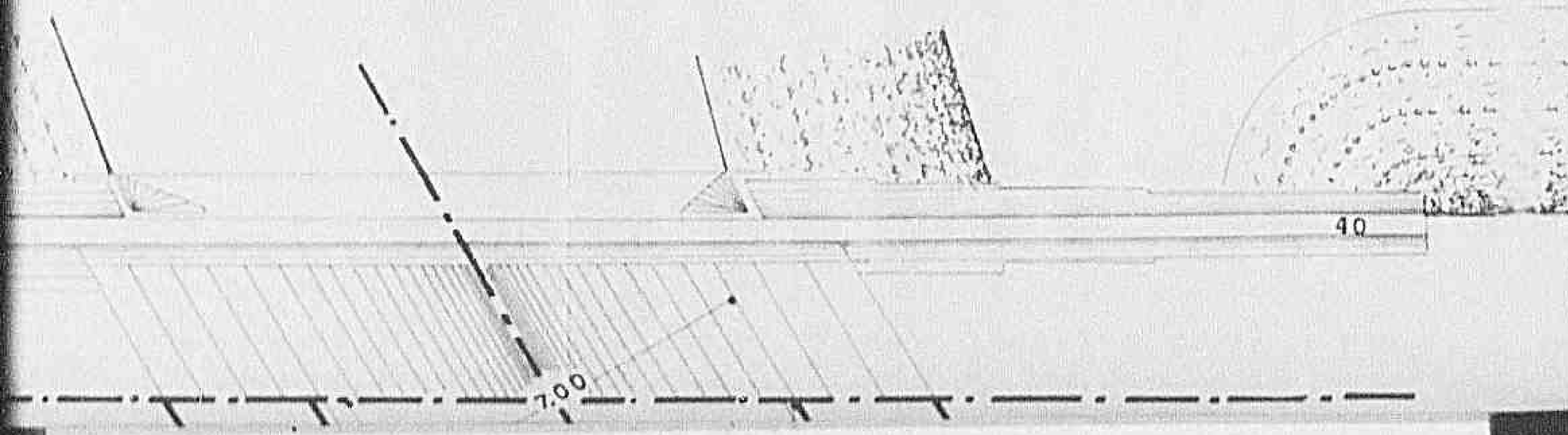

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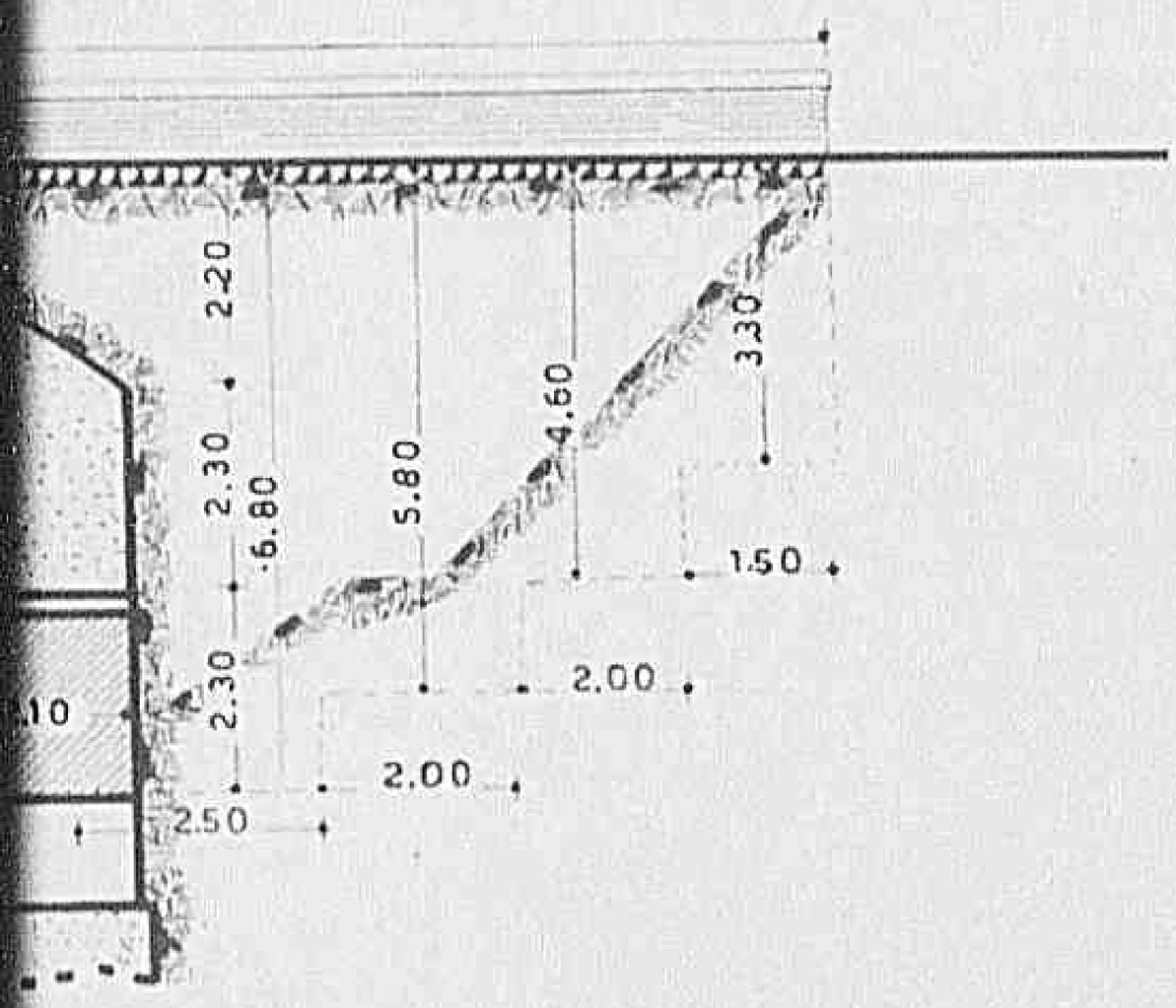
LONGITUDINALE RETTA



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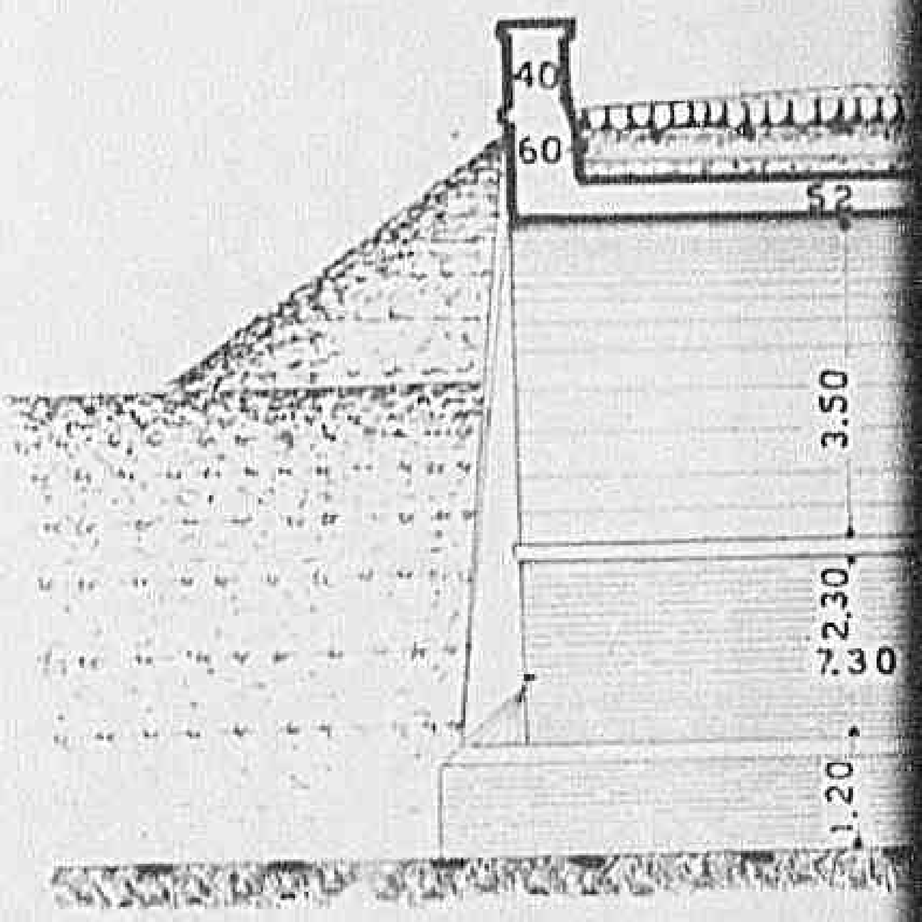

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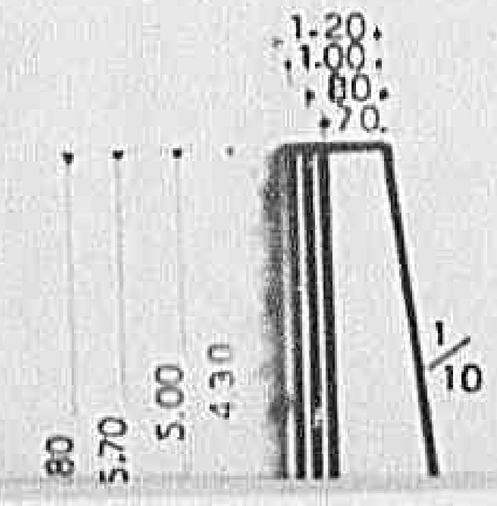

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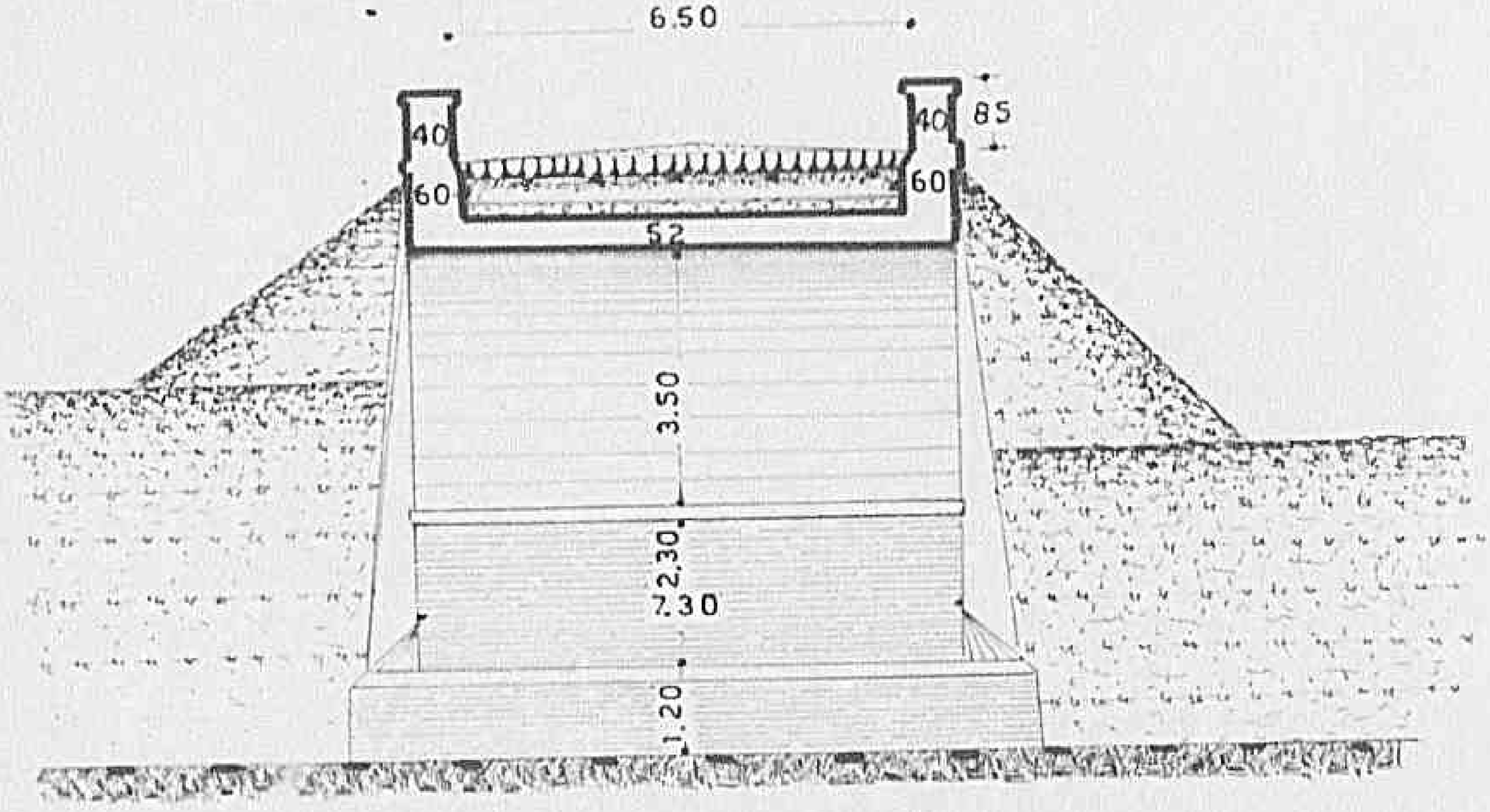

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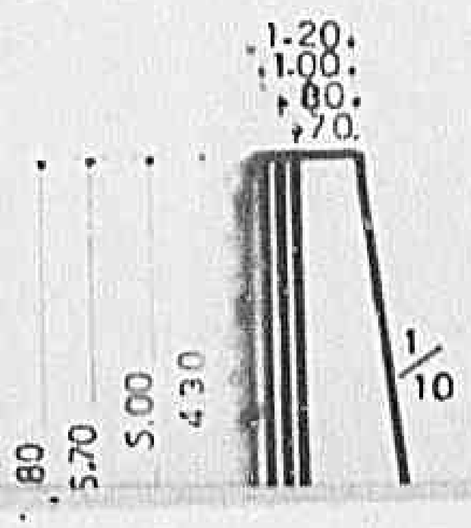

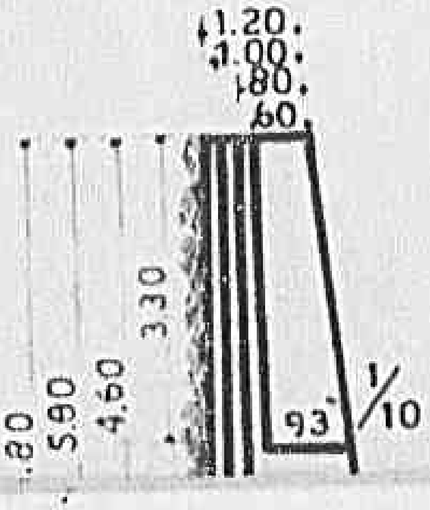

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COROGRAFIA

Scala 1:50.000

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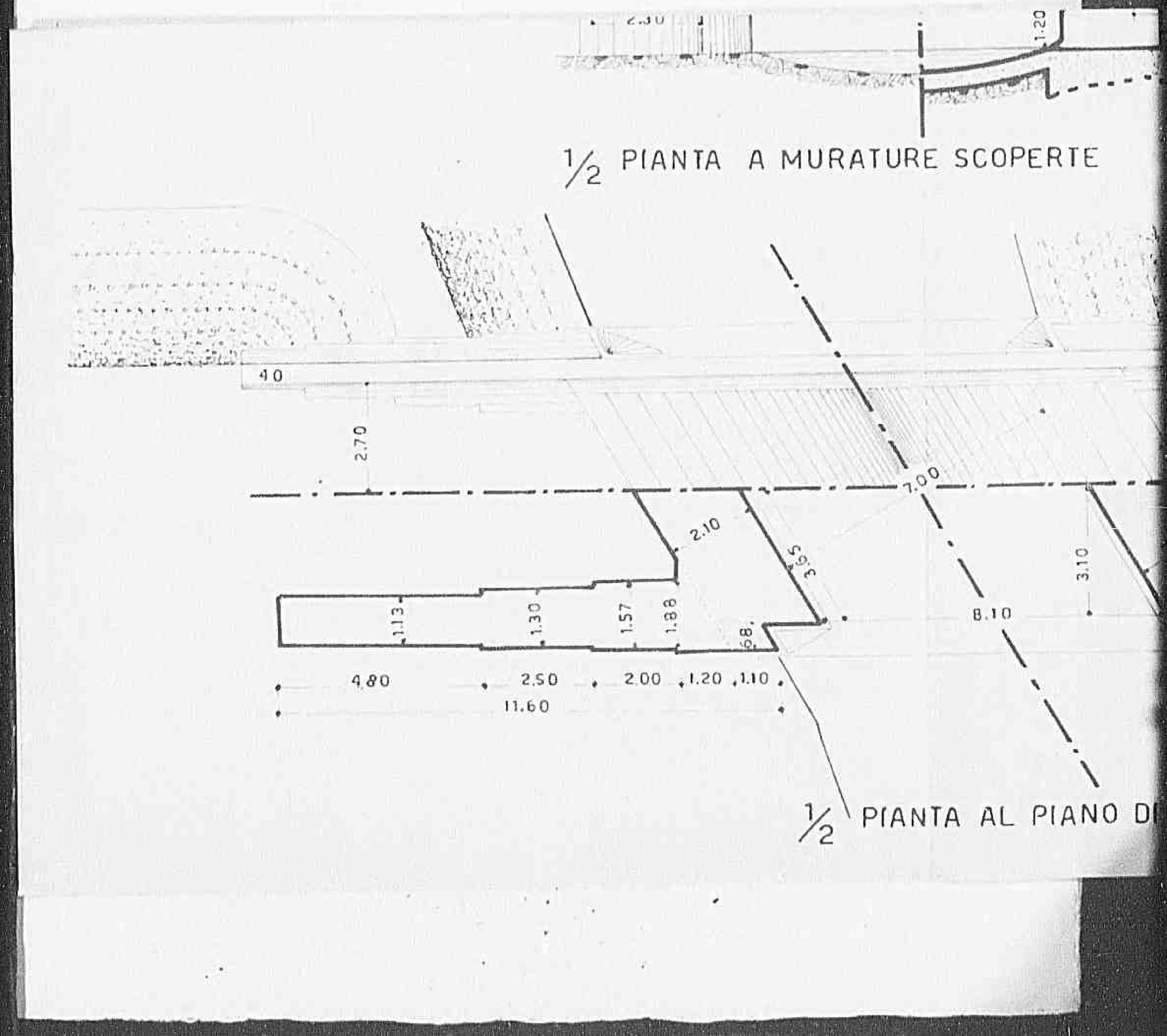
Declassified E.O. 12356 Section 3.3/NND No.



0568

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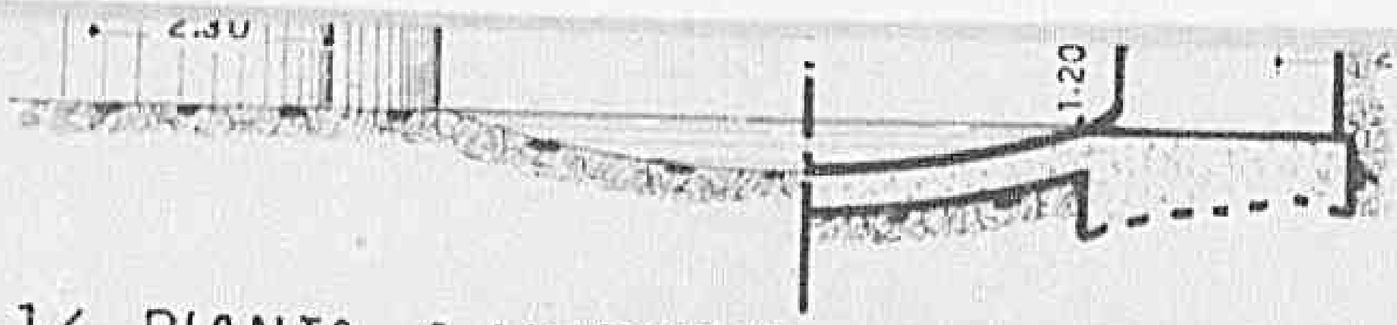

½ PIANTA A MURATURE SCOPERTE

½ PIANTA AL PIANO DI RISEGA

0569

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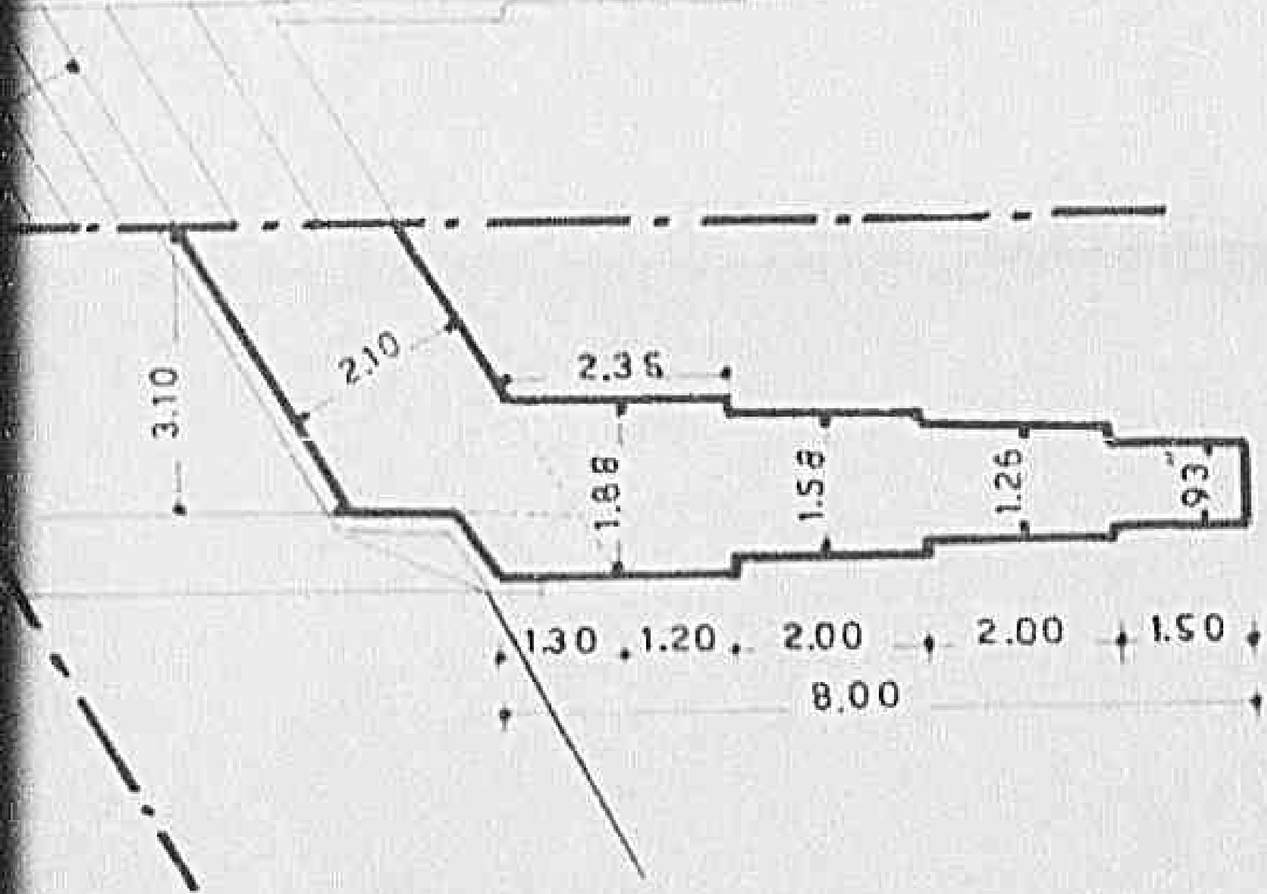
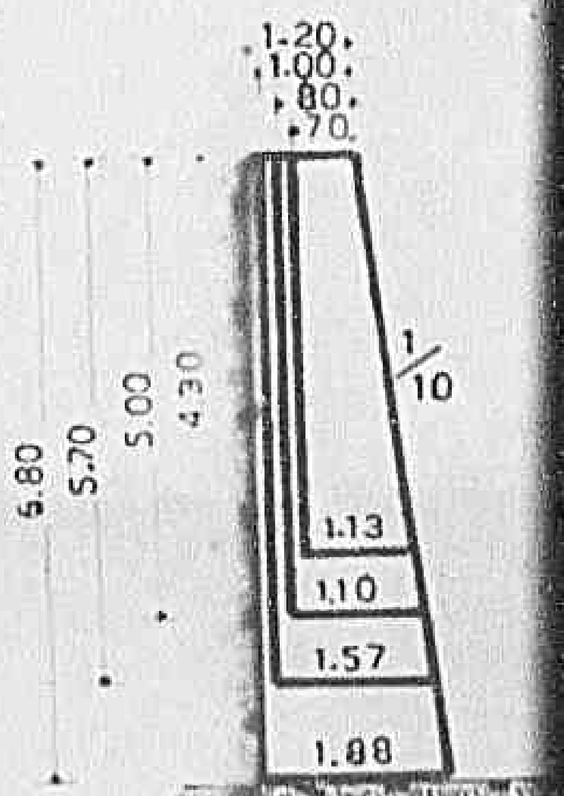
PERTE



PIANO DI RISEGA

SEZIONE



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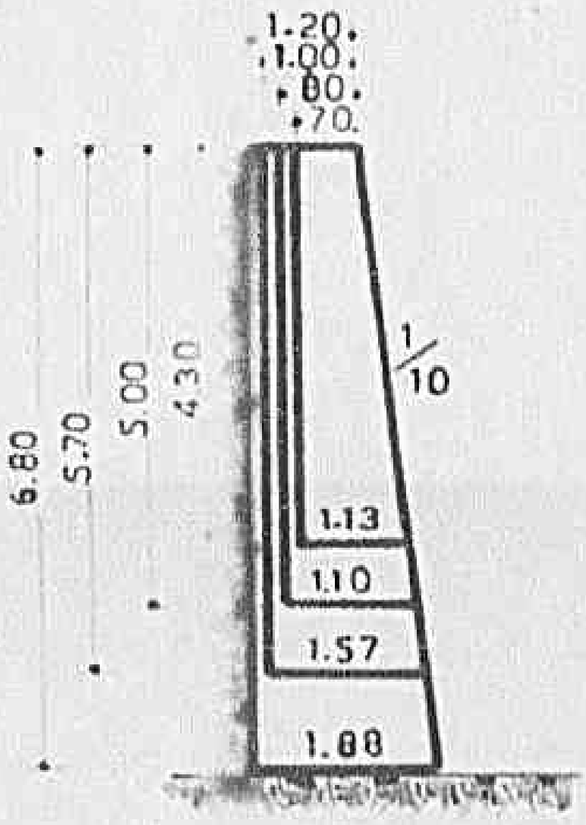
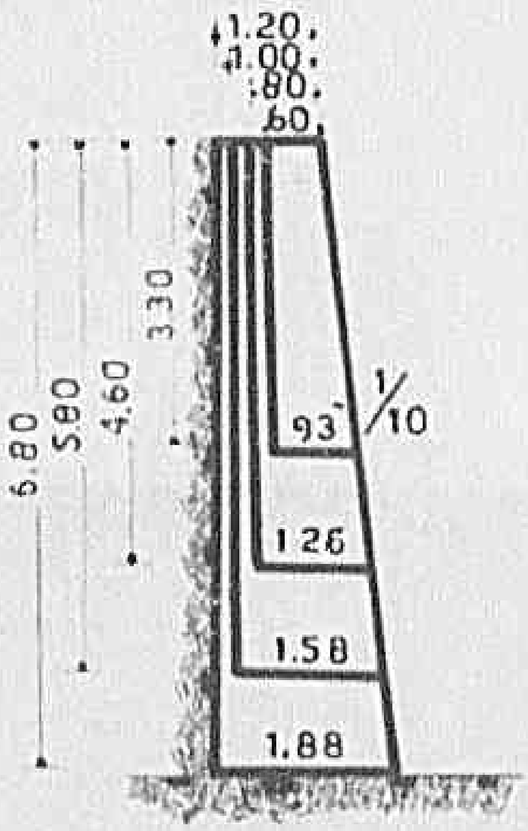
SEZIONE DEI MURI ANDATORI





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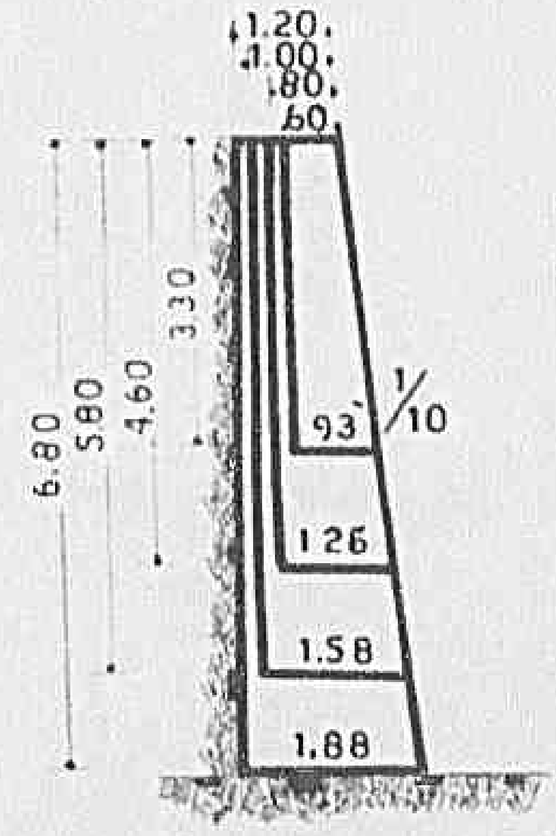

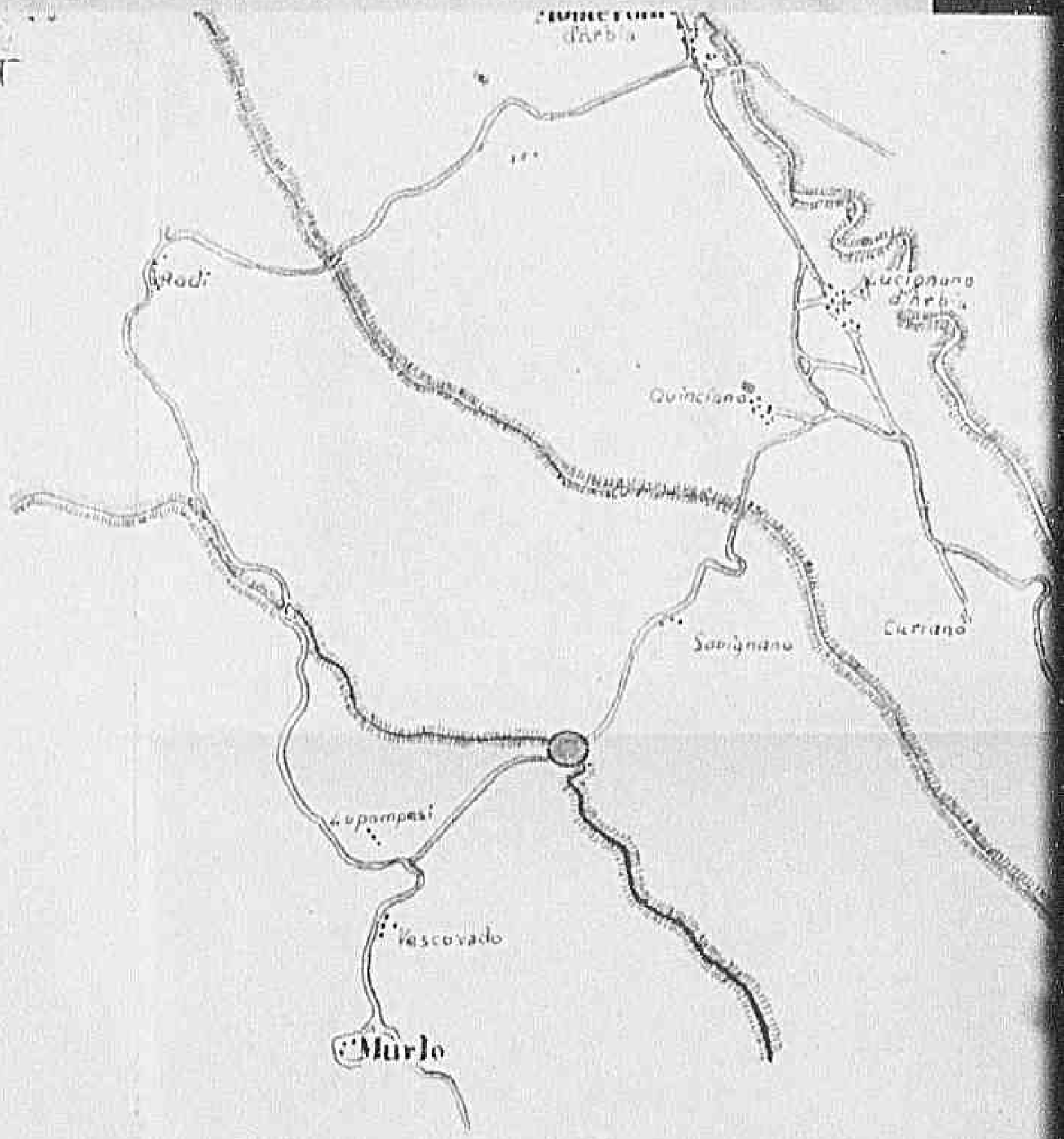

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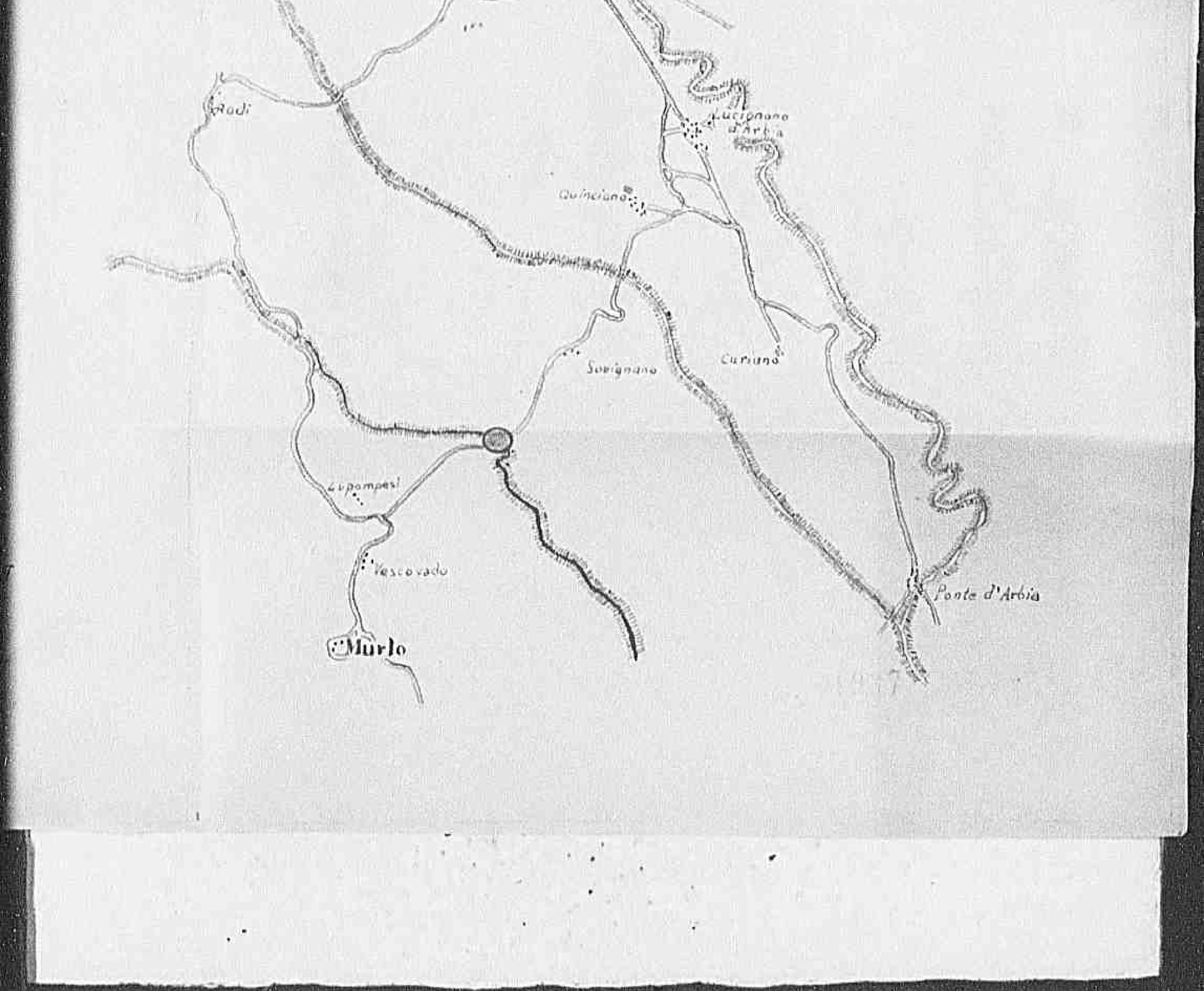

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PISA N.° 101

PISA 268

268

AMMINISTRAZIONE PROVINCIALE DI PISA

UFFICIO TECNICO

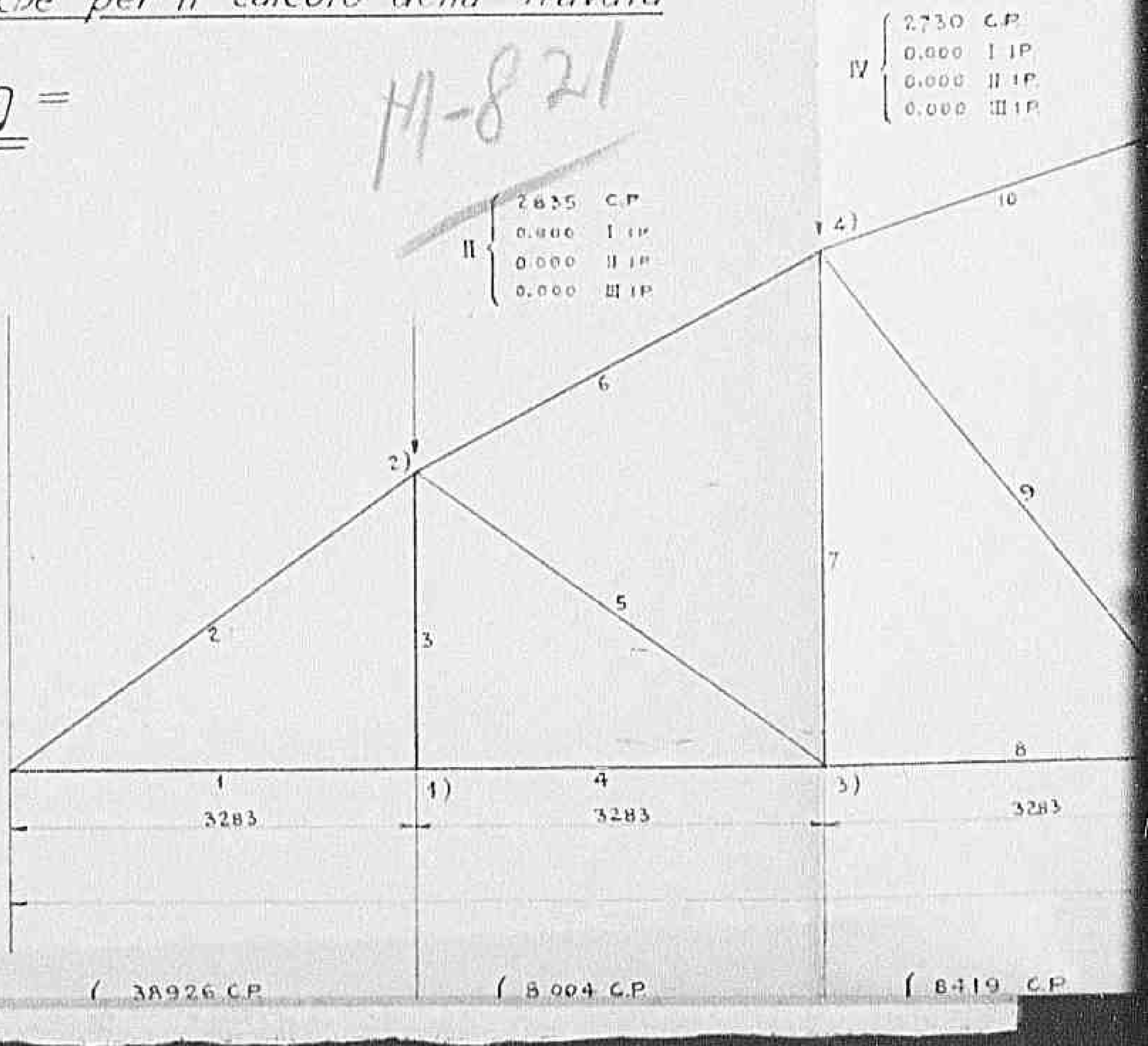
"PONTE SUL FIUME CECINA"

"SALINE DI VOLTERRA"

Figure reciproche per il calcolo della travata

H-821

= SCALA 1:50 =



0574

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168

PROVINCIALE DI PISA

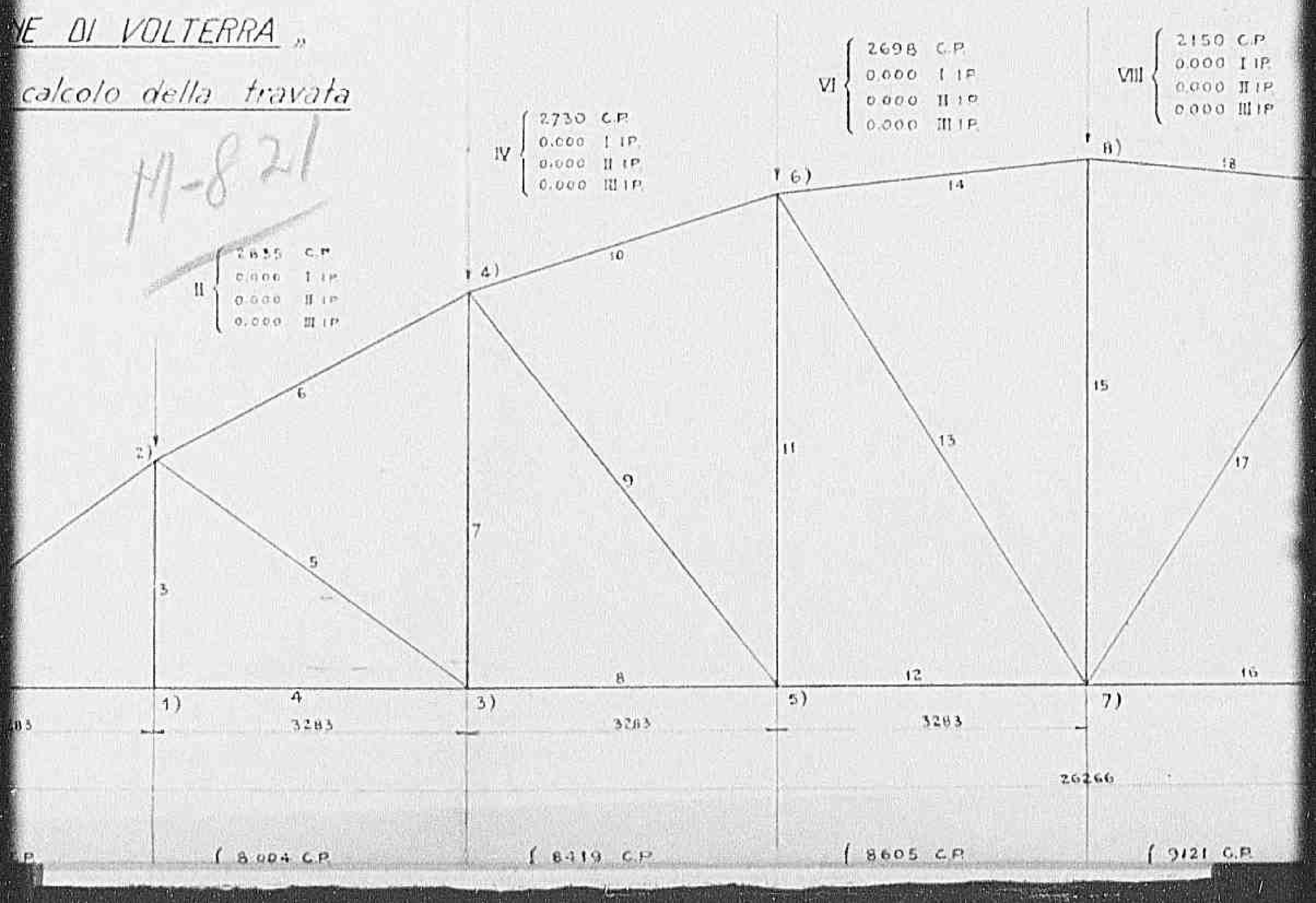
TECNICO

E CECINA »

NE DI VOLTERRA »

calcolo della travata

11-821



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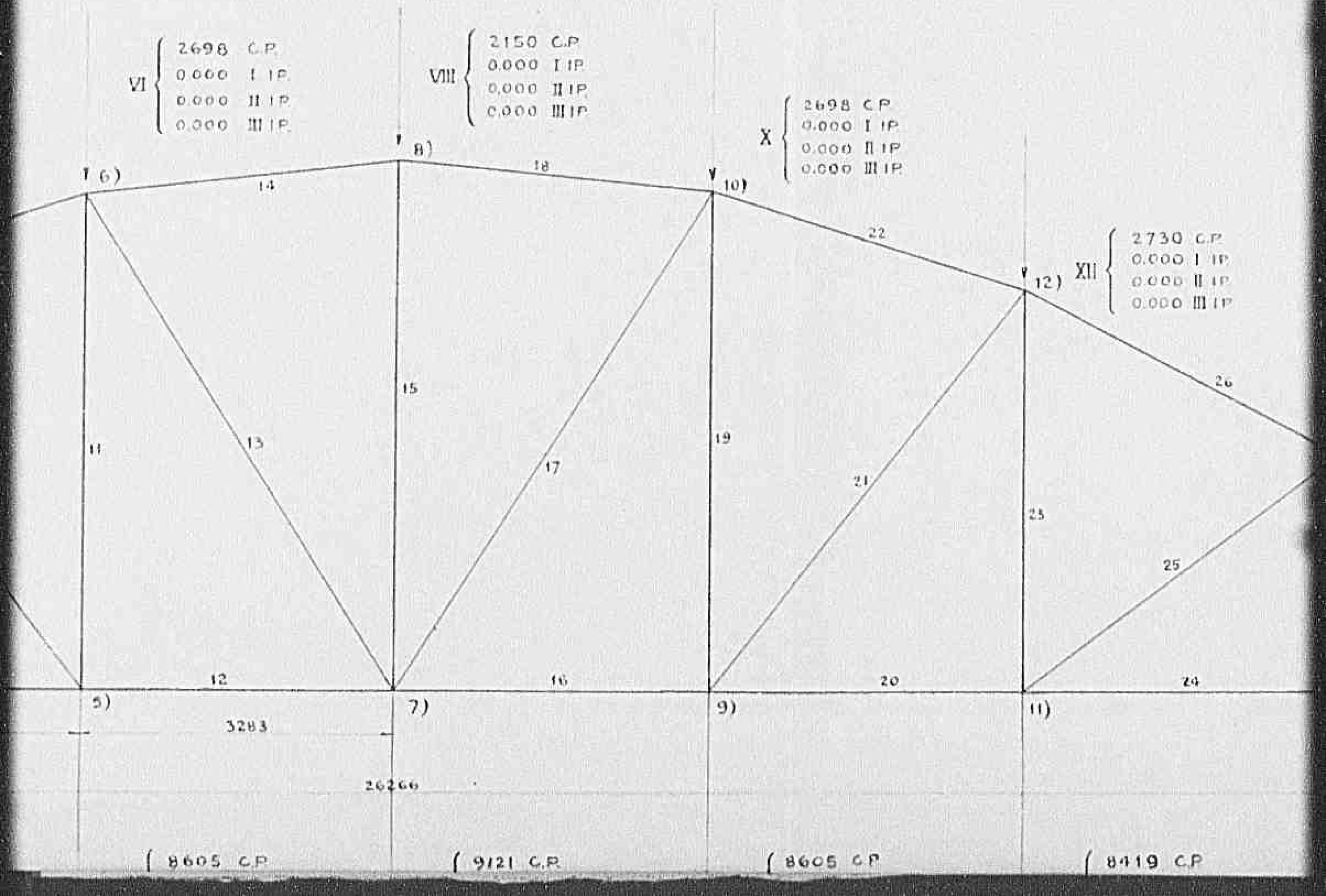

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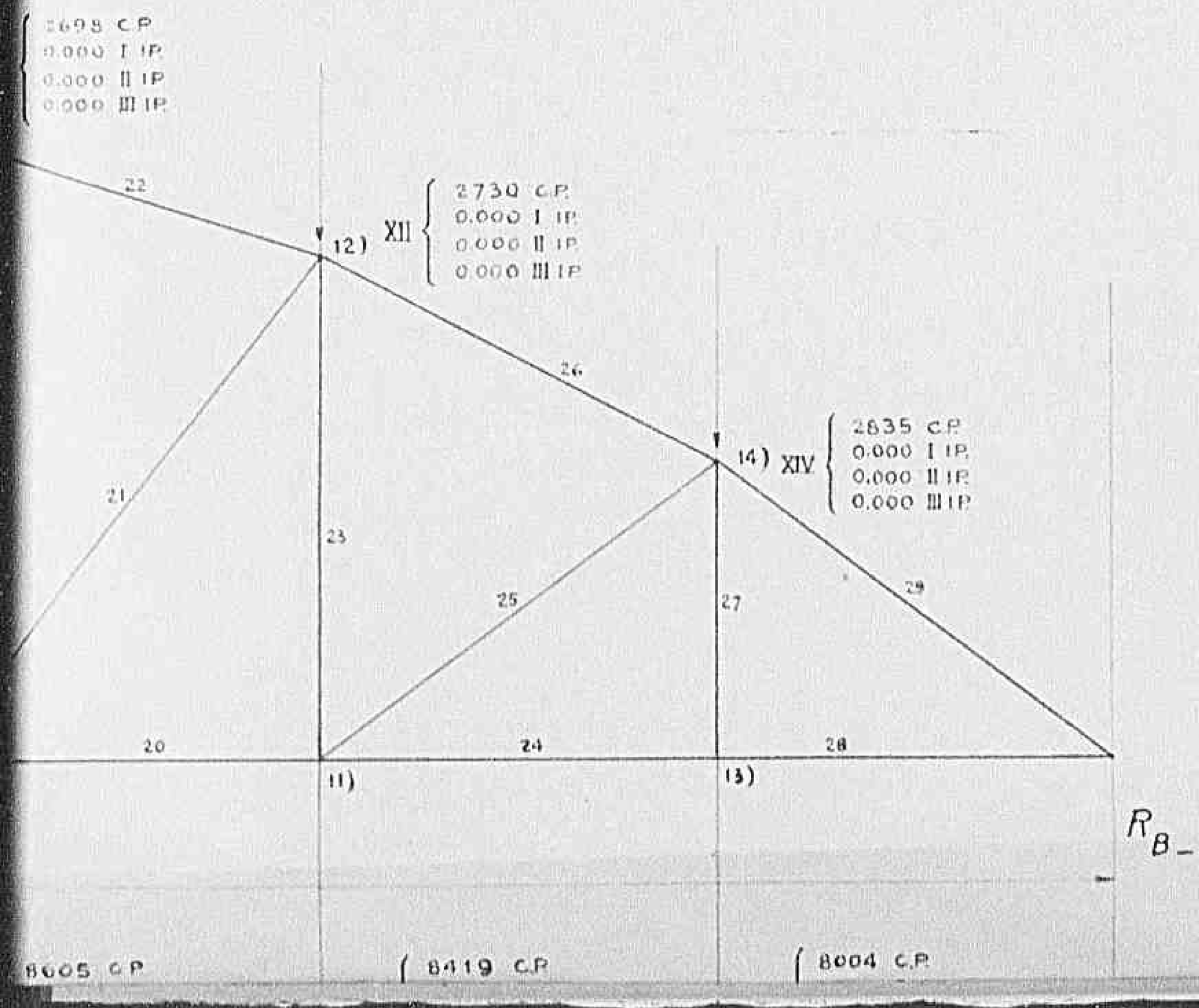

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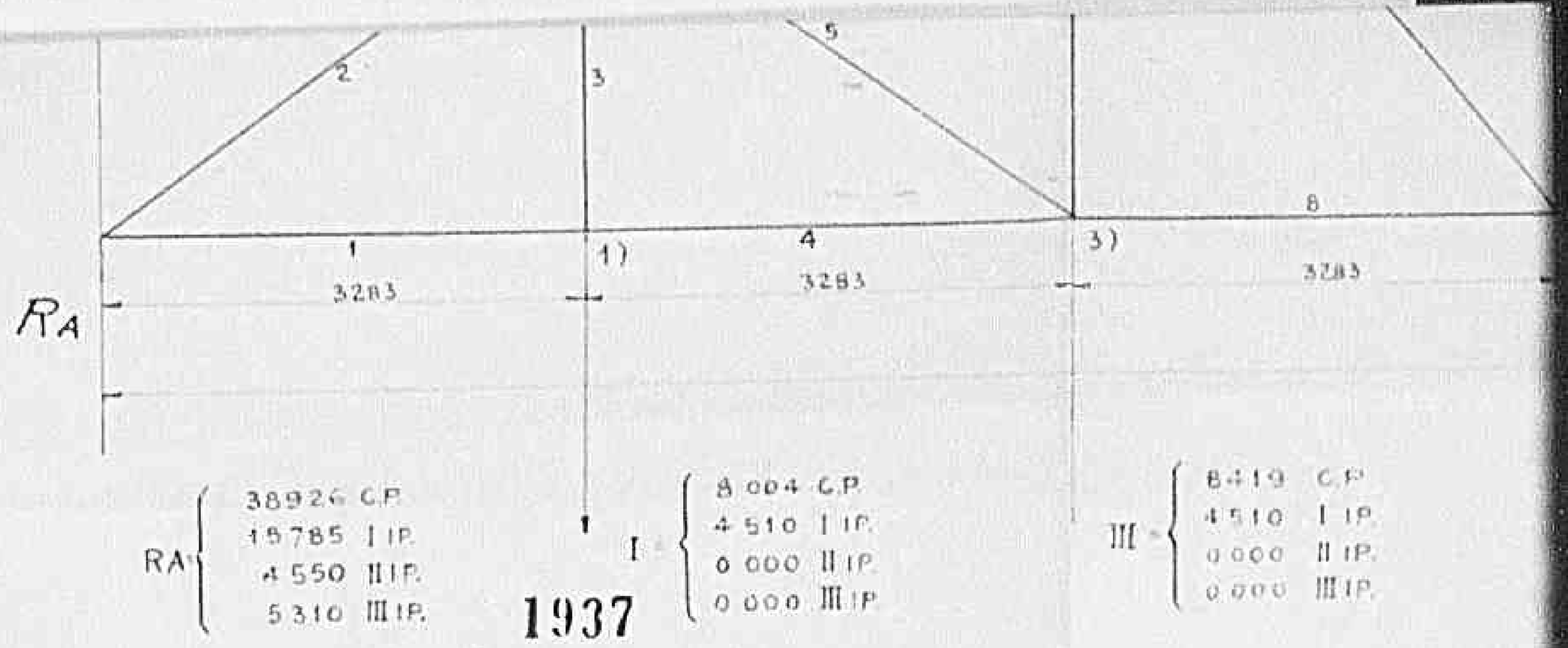
Declassified E.O. 12356 Section 3.3/NND No. 785019



1937

Carico permanente
1‰ = 500 Kg.

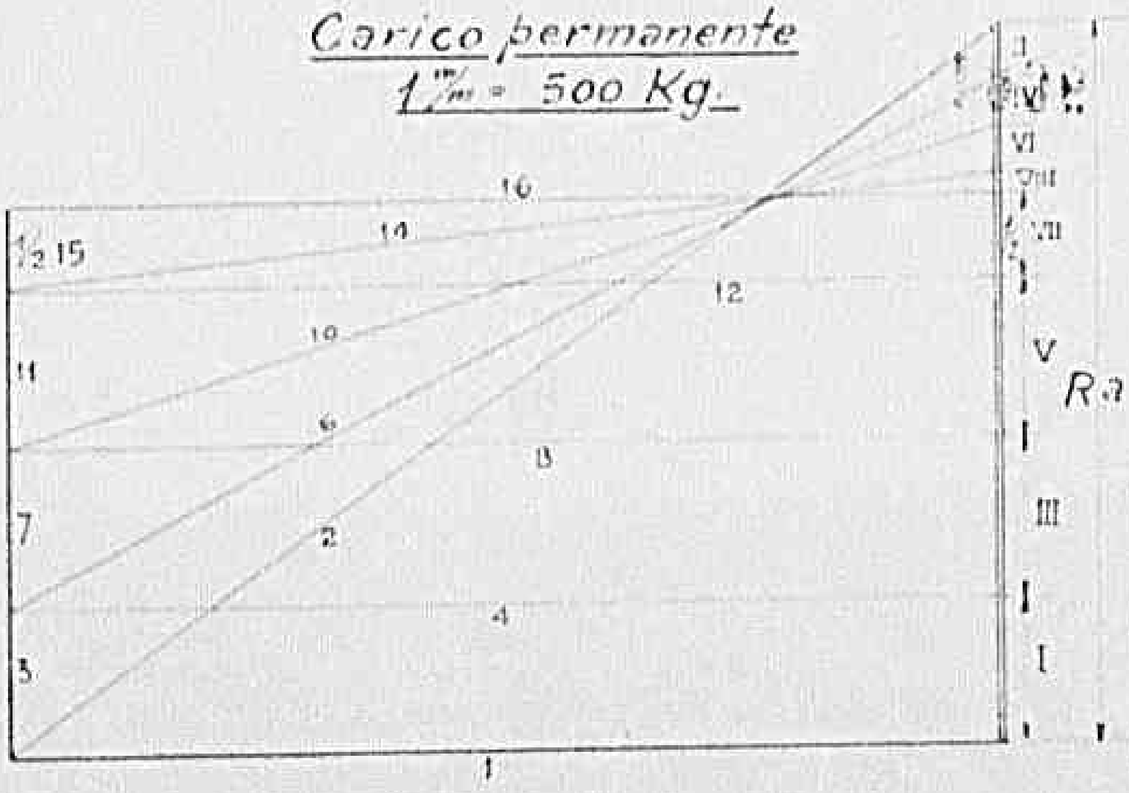


Fig. 1ª

1ª Ipotesi di carico
Sovraccarico uniformemente distribuito
1‰ = 200 Kg.

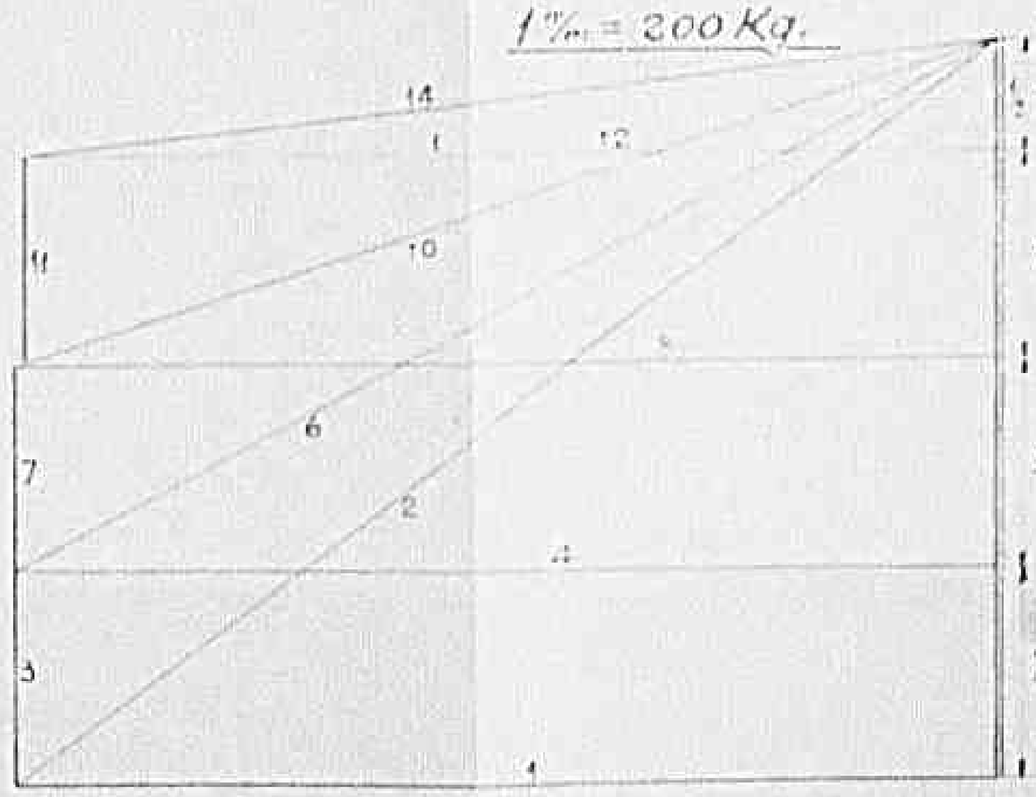


Fig 2ª

0578

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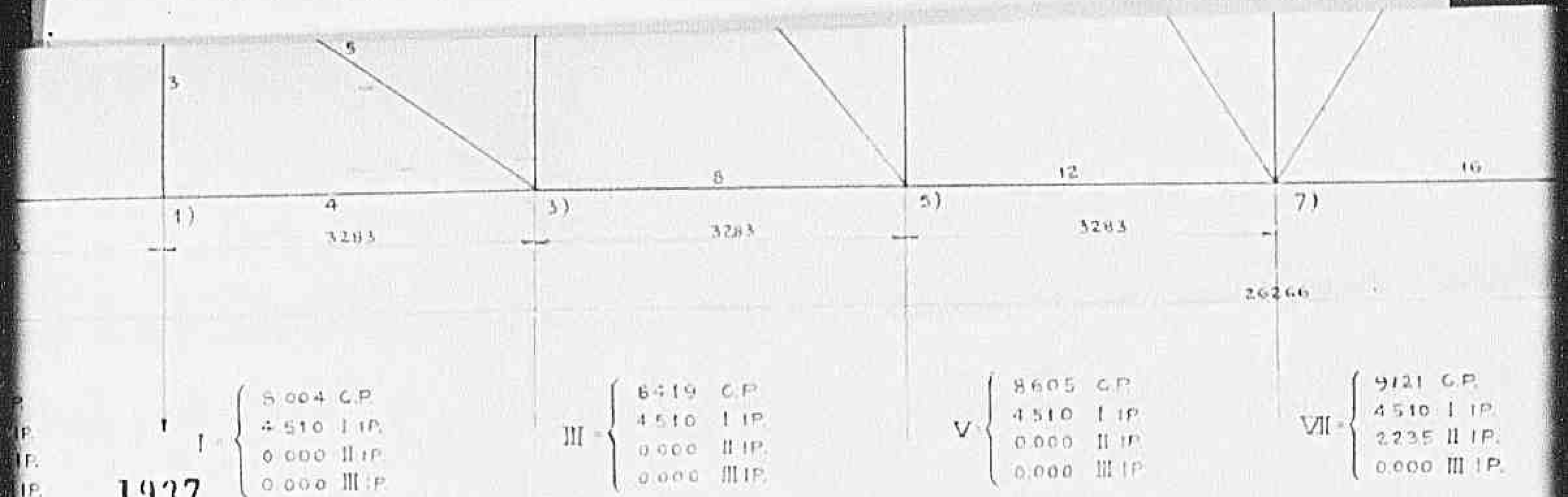


1937

1ª Ipotesi di carico

Sovraccarico uniformemente distribuito

1‰ = 200 Kg.

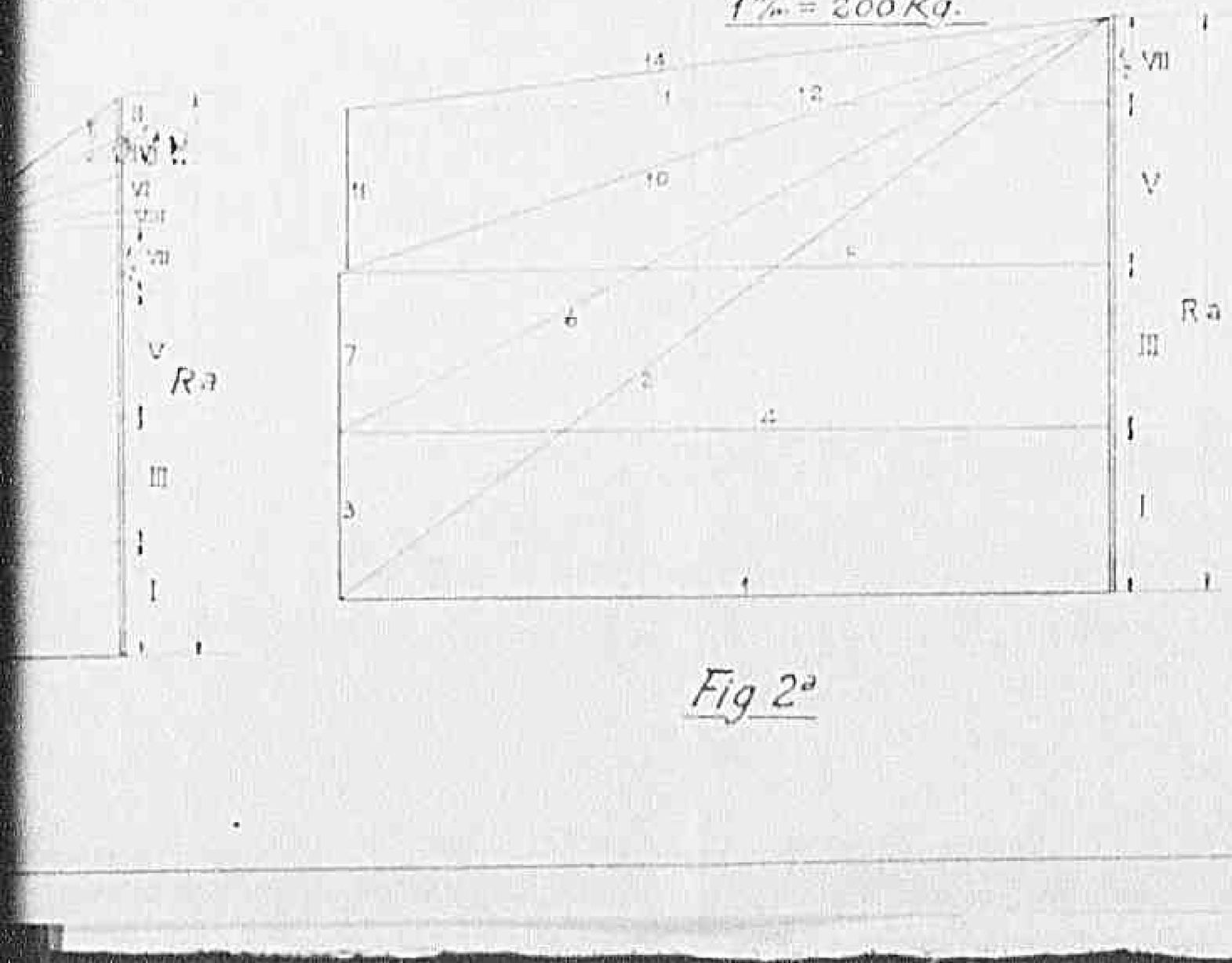


Fig 2ª

IIª Ipotesi di carico

uniformemente distrib

Sovraccarico su mezza Tr

1‰ = 200 Kg.

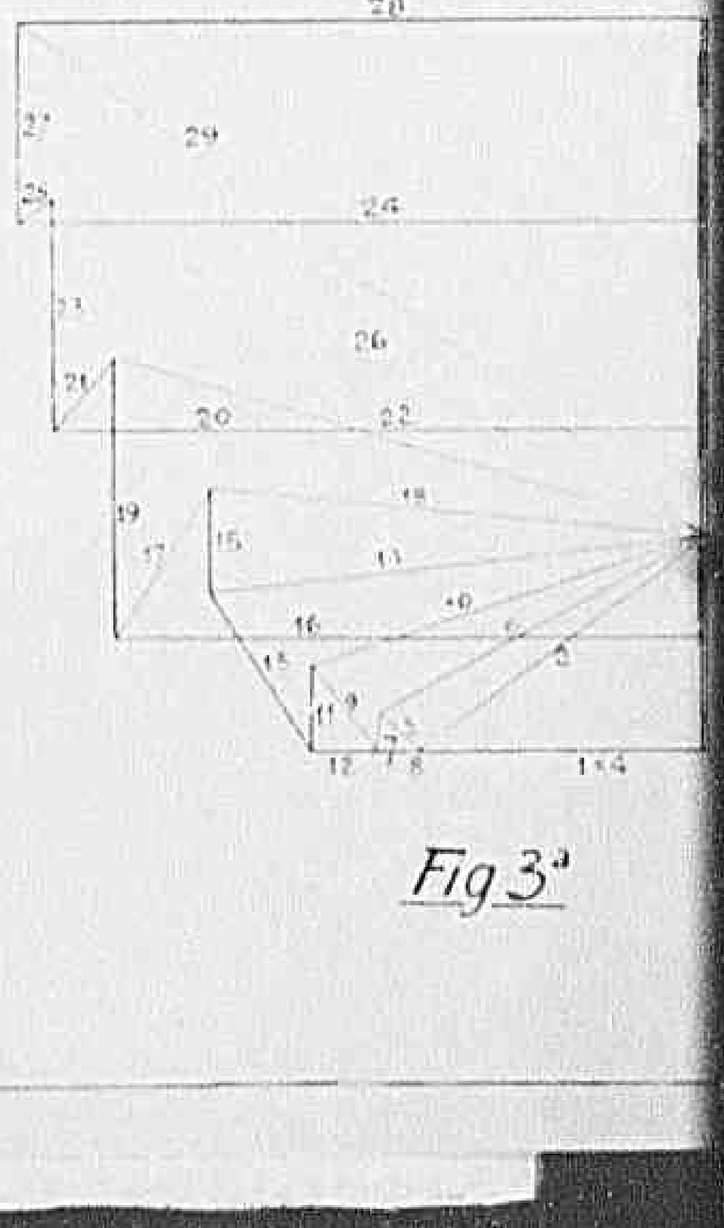
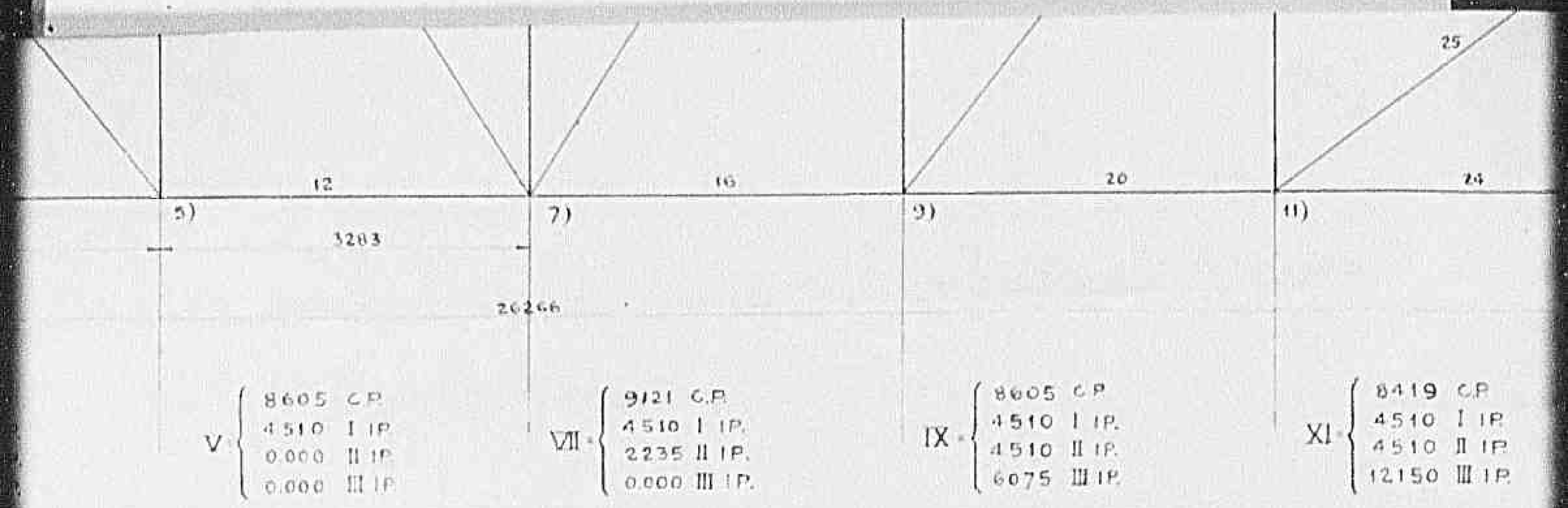


Fig 3ª

Declassified E.O. 12356 Section 3.3/NND No. 785019



IIª Ipotesi di carico

uniformemente distribuito

Sovraccarico su mezza Travata

1% = 200 Kg.

IIIª Ipotesi di carico

Rullo sui montanti 19

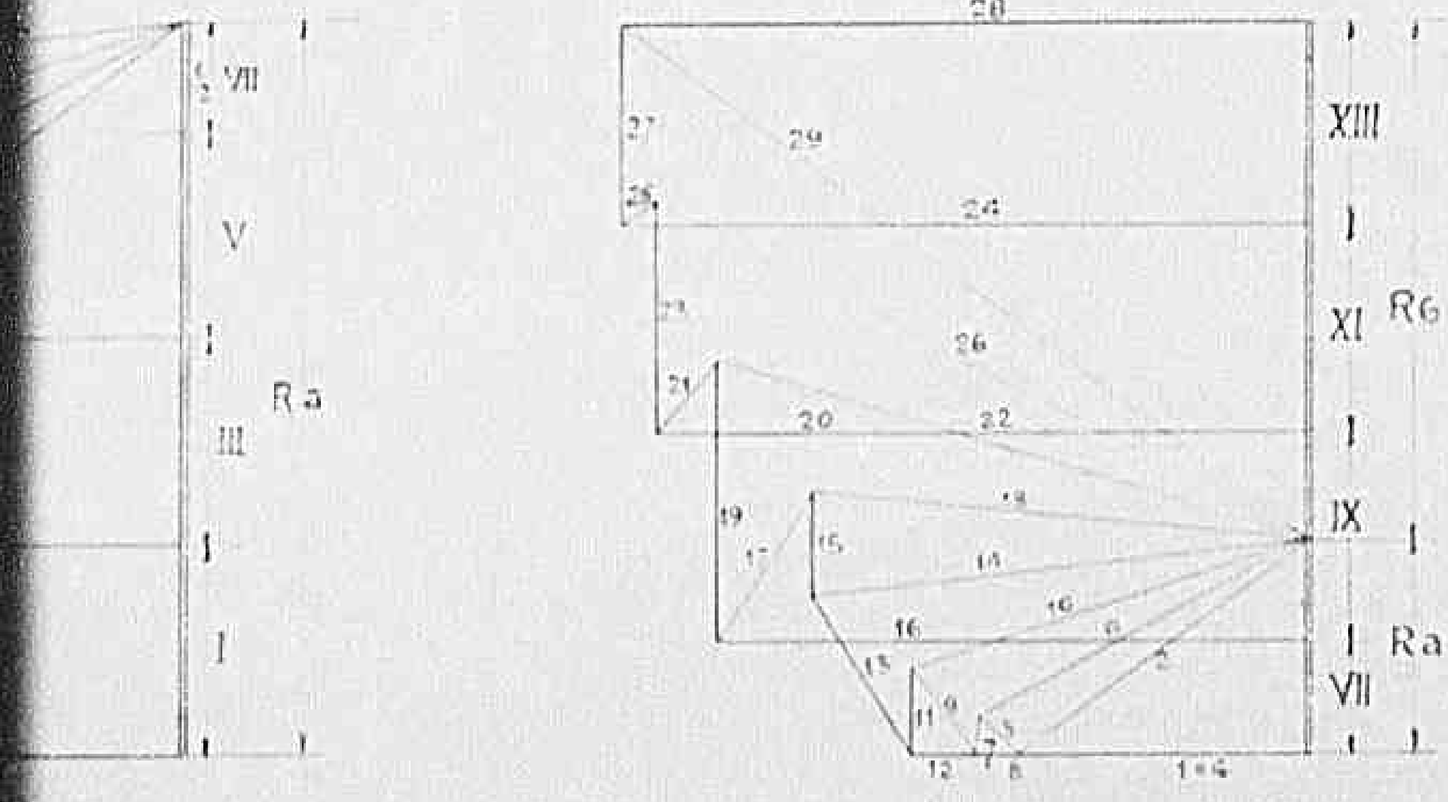


Fig 3ª

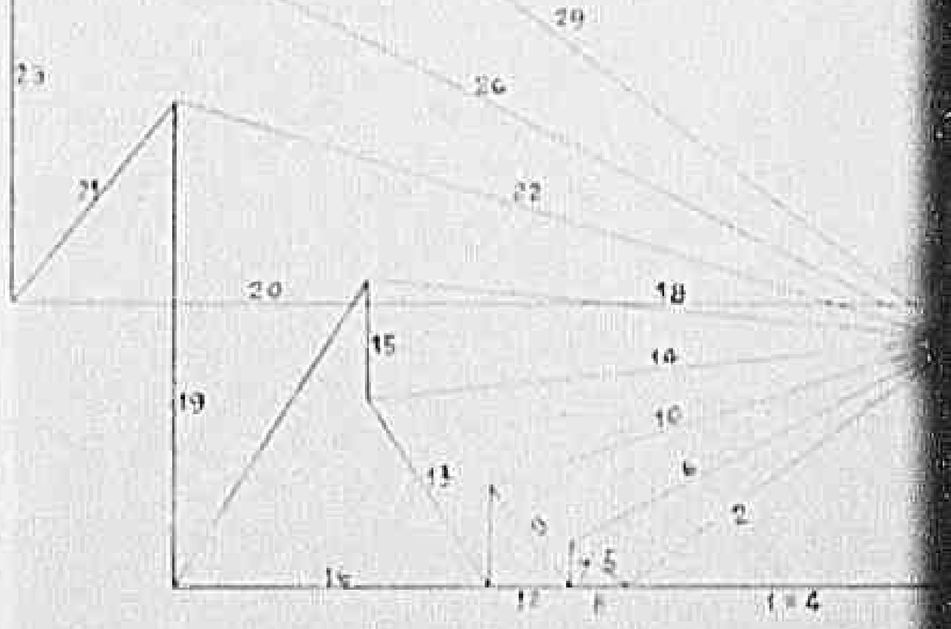


Fig 4ª

0 5 8 01

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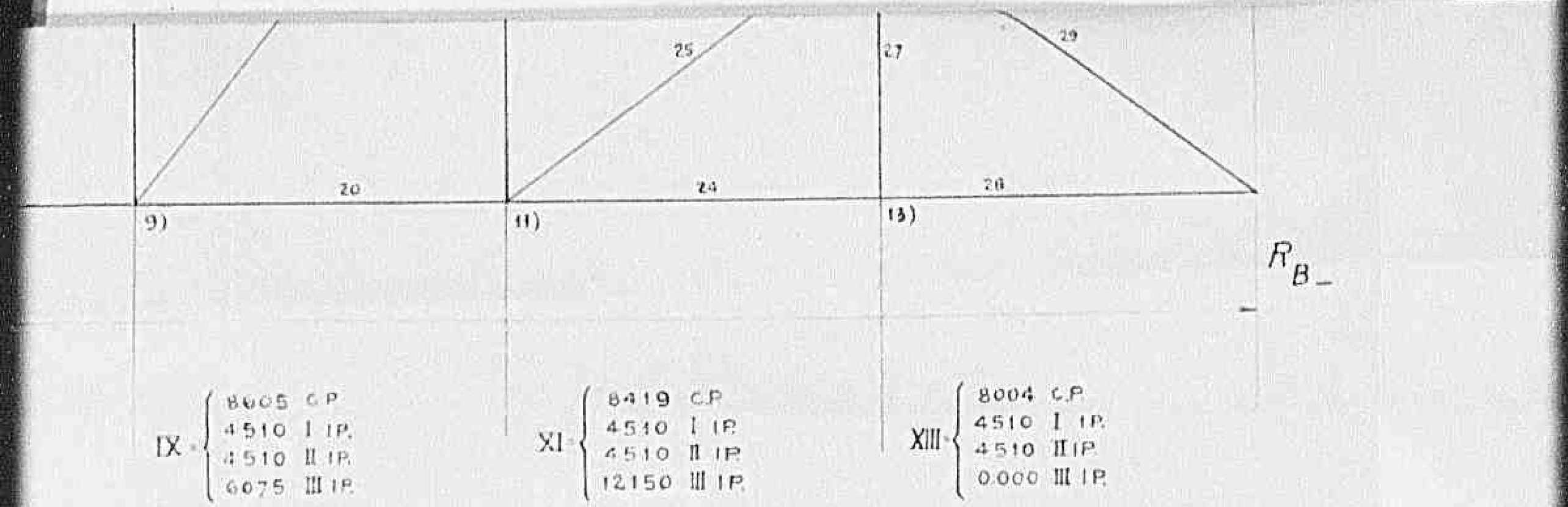

IIIª Ipotesi di carico

Rullo sui montanti 19 e 23 *17m = 200 Kg.*

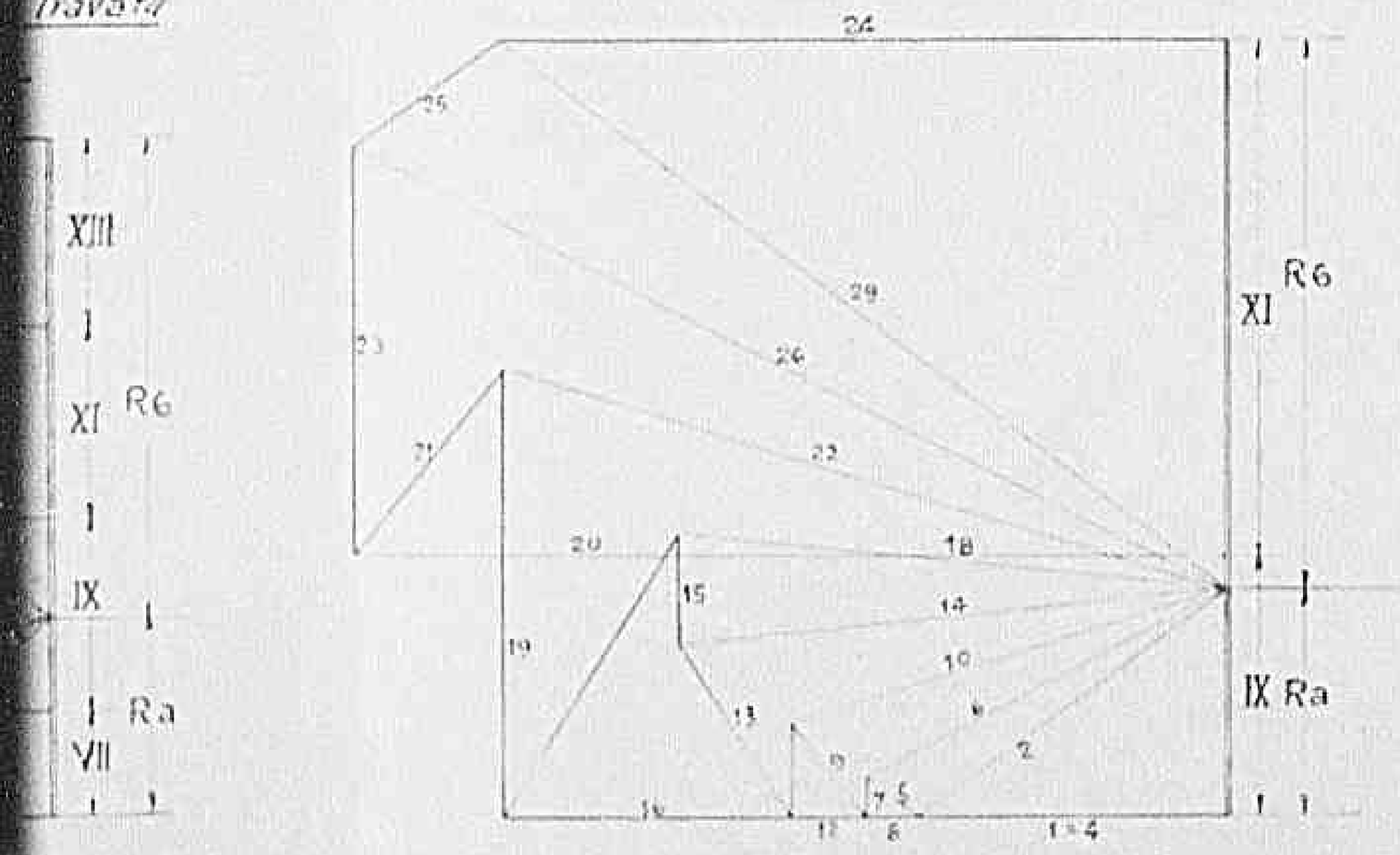

Fig 4ª

0581

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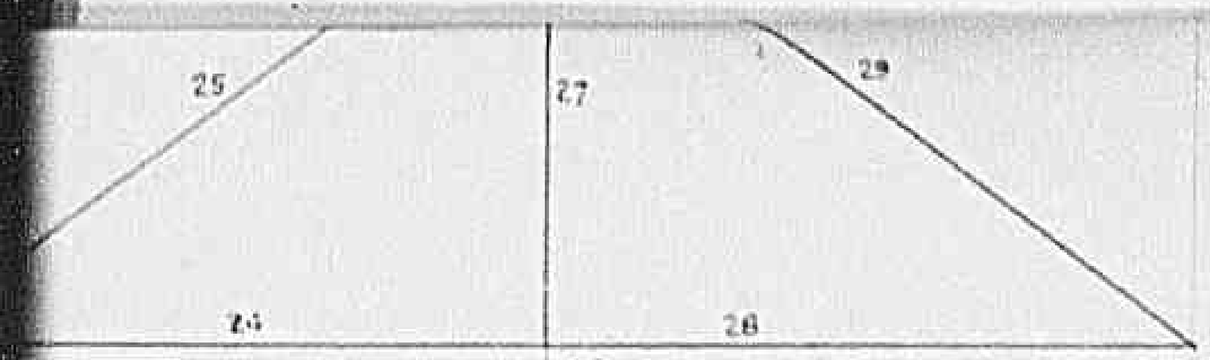

R_B –

8419 C.P
4510 I I.P.
4510 II I.P.
12150 III I.P.

XIII { 8004 C.P.
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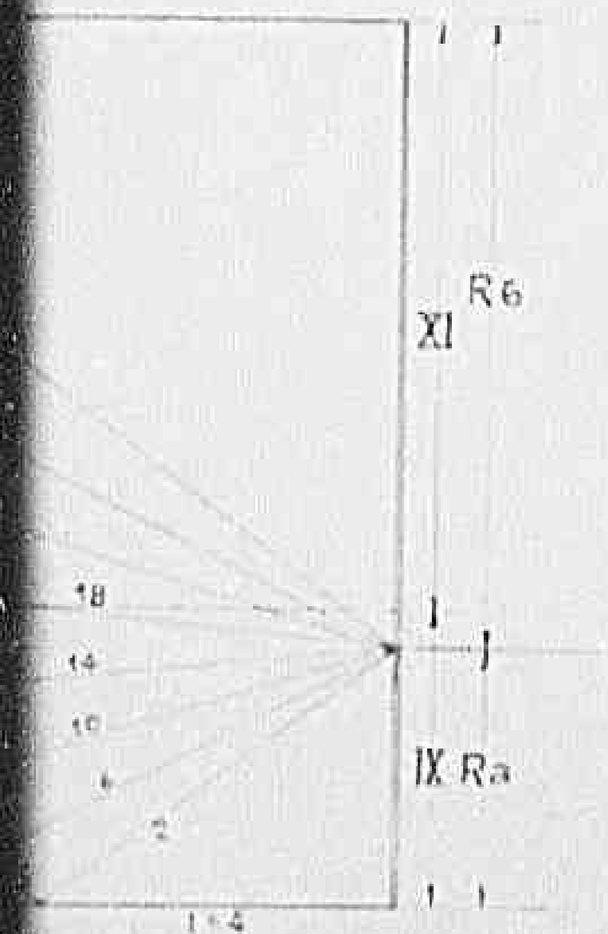
4510 II I.P.
0.000 III I.P.

ipotesi di carico

montanti 19 e 23 17m = 200 Kg.



J. 6432 Pisa 25 APR. 1945

Visto: L'Ingegnere Capo

4ª

Unclassified E.O. 12356 Section 3.3/NND No. 785019

MAPS FILMED ON
35MM ROLL

0 5 8 51

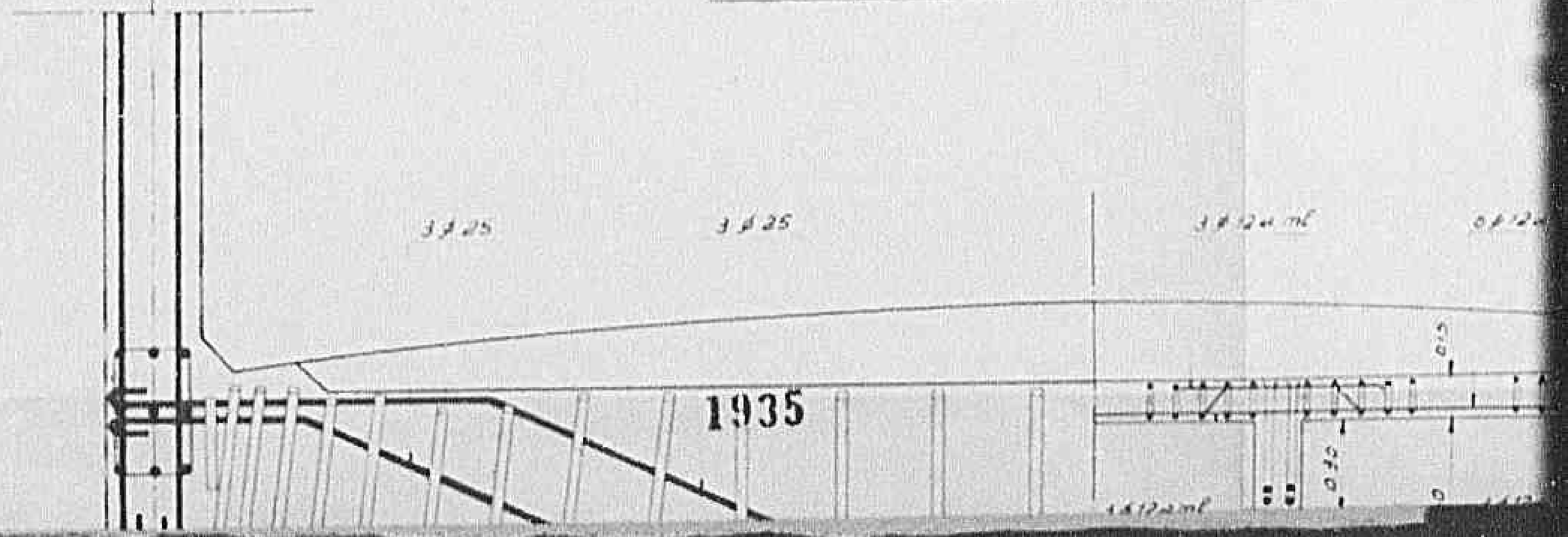
Declassified E.O. 12356 Section 3.3/NND No. 785019

PISA
N.° 111
268

PISA 268

SEZIONE TRASVERSALE

Disposizione dei ferri delle travi principali



0584

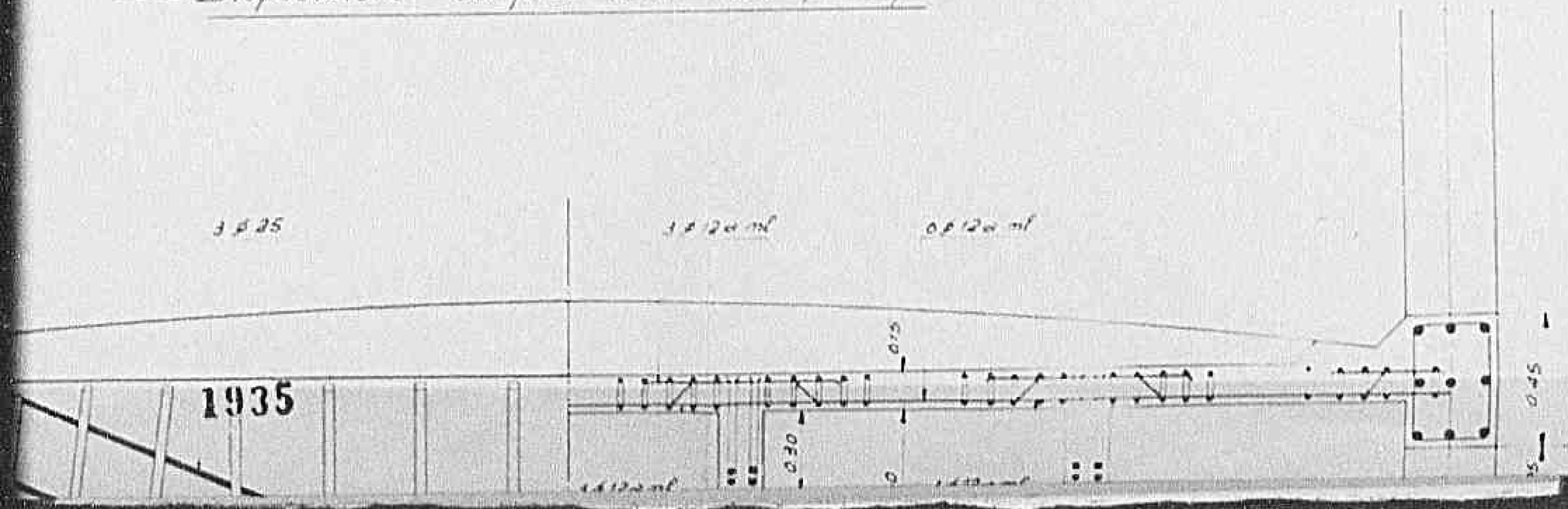
Declassified E.O. 12356 Section 3.3/NND No. 785019

268

= AMMINISTRAZIONE = UFFI
= PONTE SUL FI

= SEZIONE TRASVERSALE =

— Disposizione dei ferri delle travi principali —



05451

Declassified E.O. 12356 Section 3.3/NND No. 785019

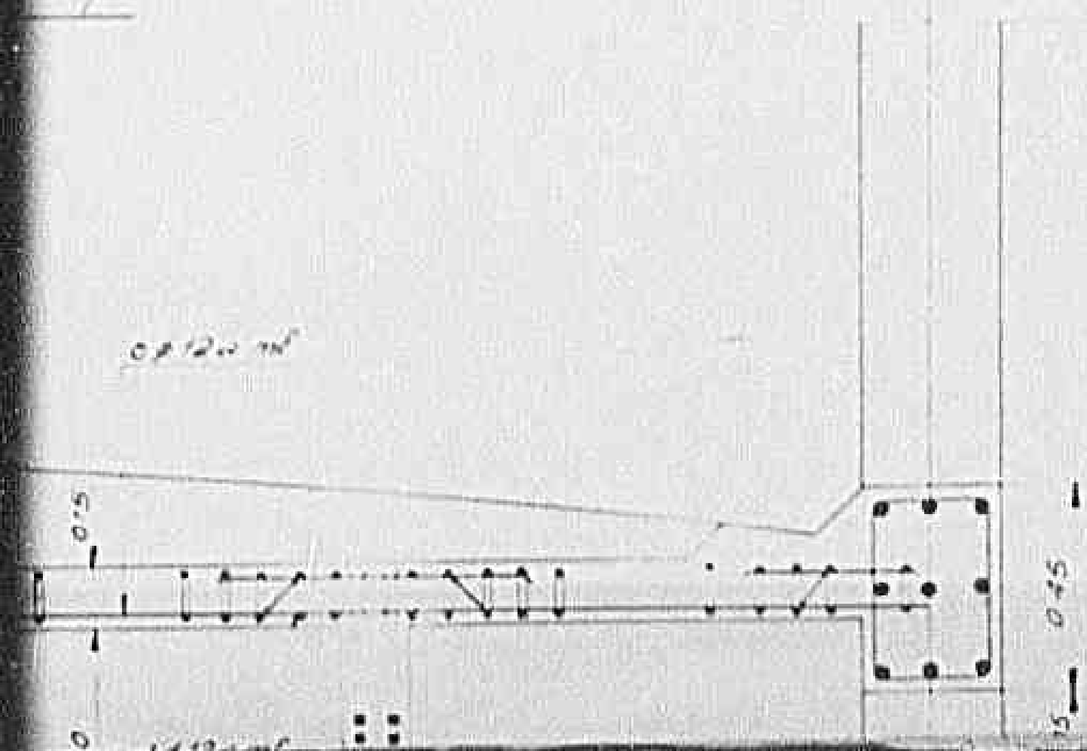
= AMMINISTRAZIONE PROVINCIALE DI P

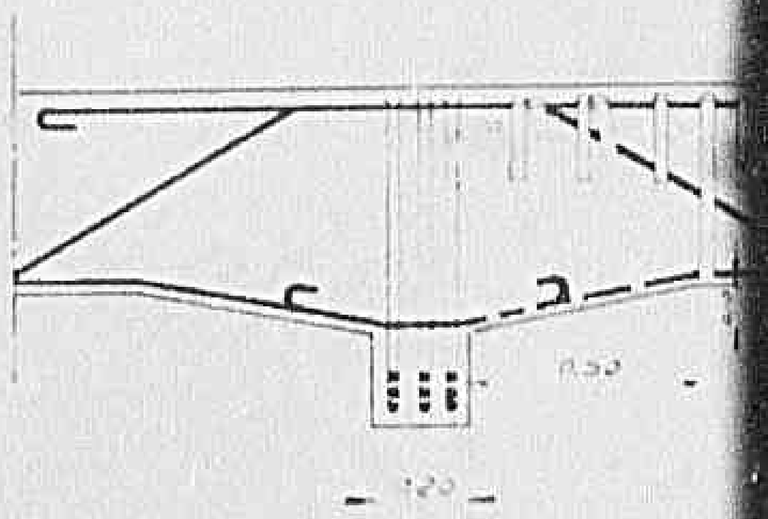
= UFFICIO TECNICO =

= PONTE SUL FIUME CECINA = « SALINE DI

= SEZIONE

ncipali =





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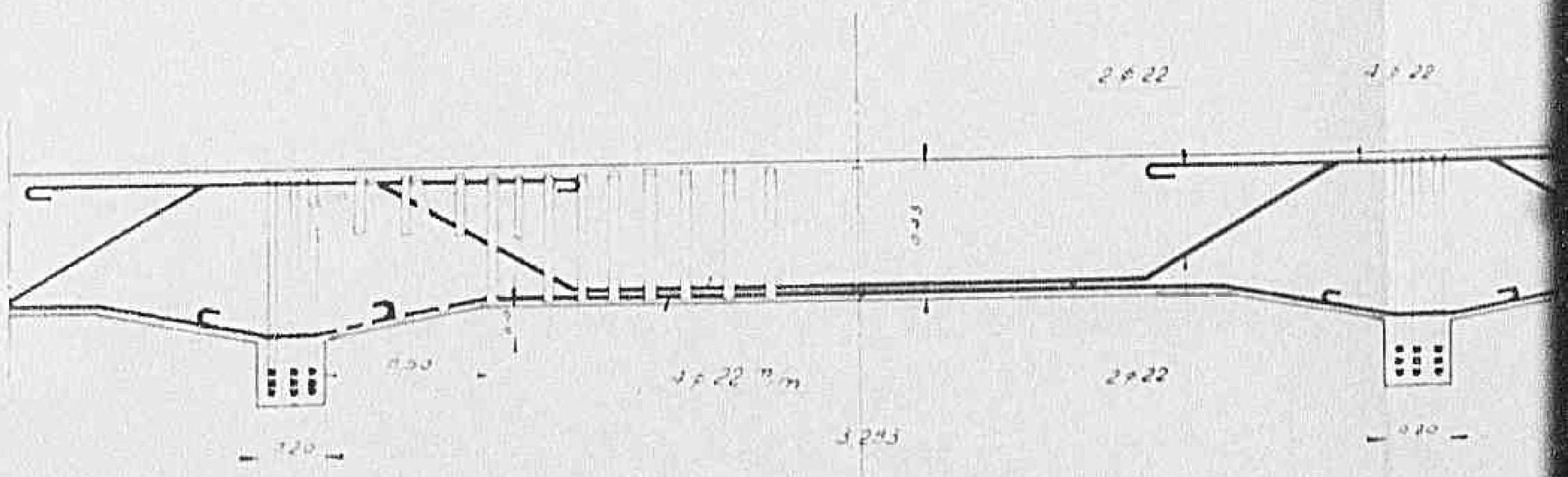
ROVINCIALE DI PISA

TECNICO

CECINA — « SALINE DI VOLTERRA »

SEZIONE LONGITUDINALE DEI TRAVETTI



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Declassified E.O. 12356 Section 3.3/NND No. 785019

PISA

E DI VOLTERRA »

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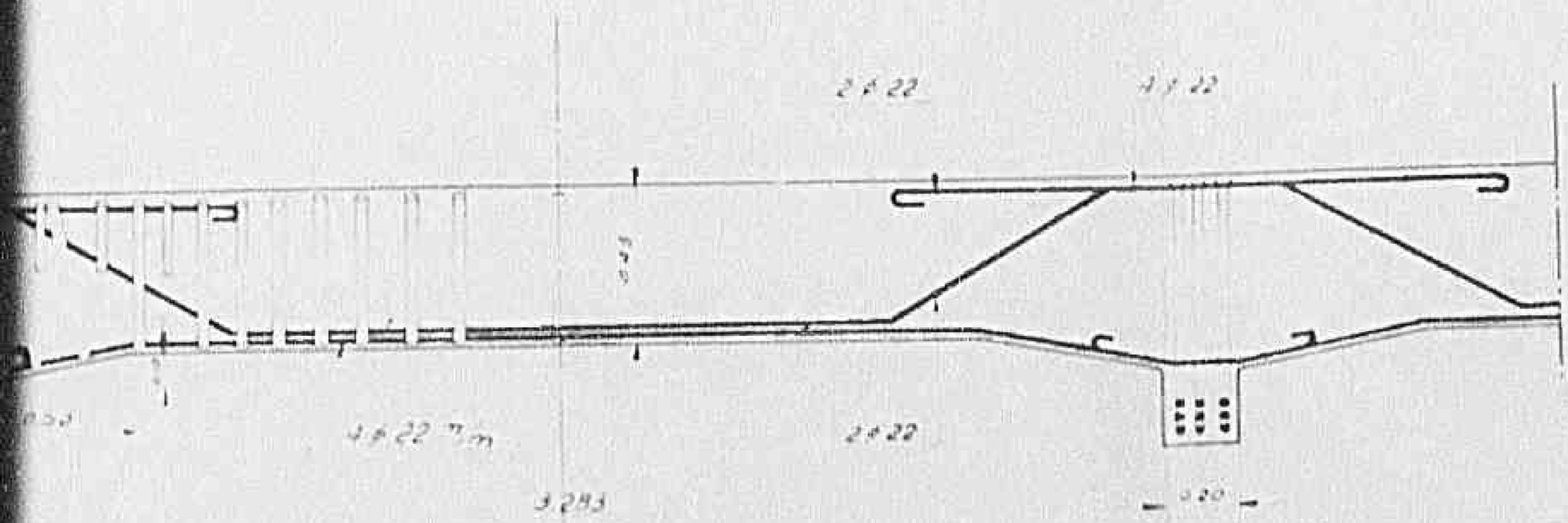

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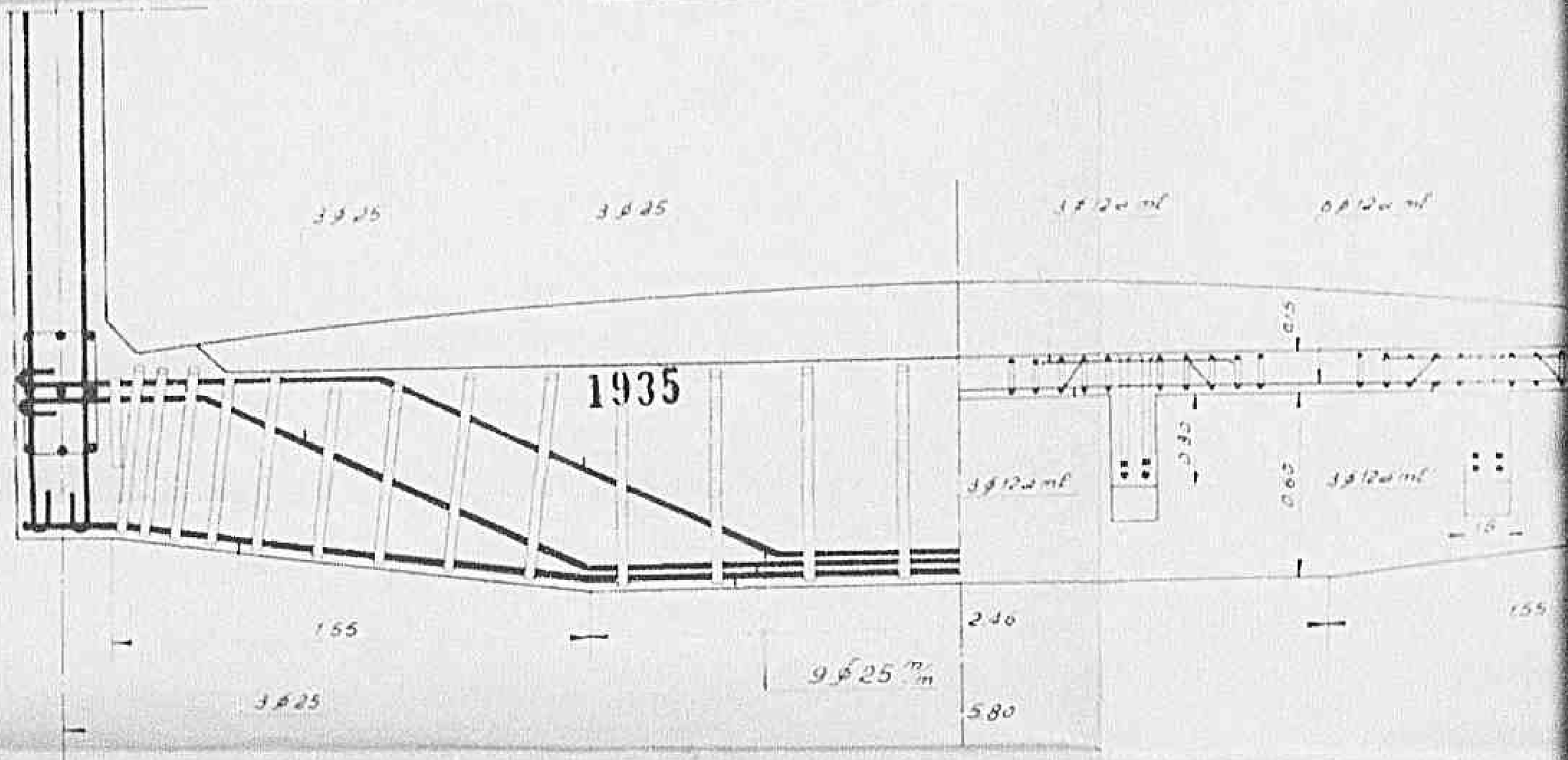

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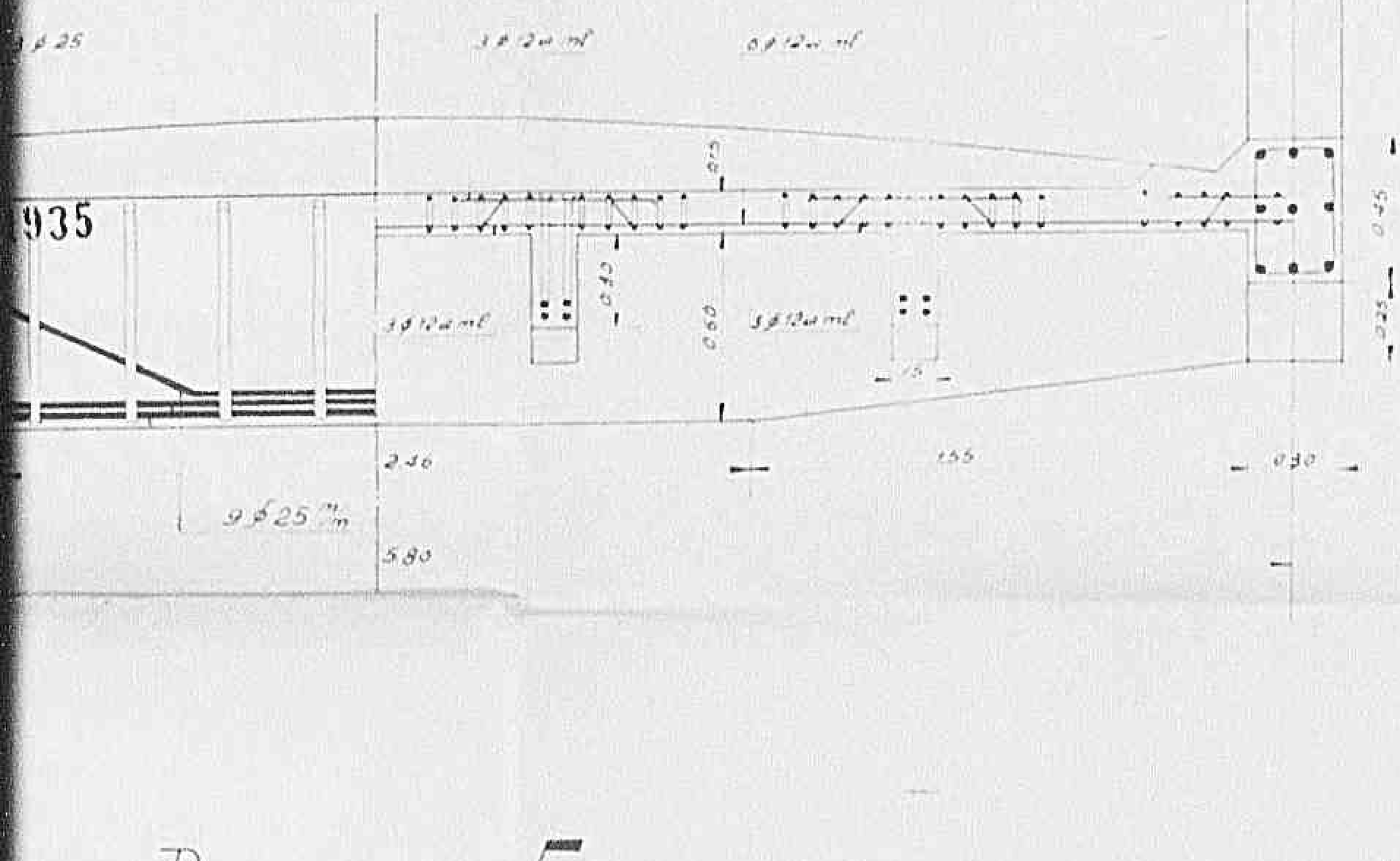

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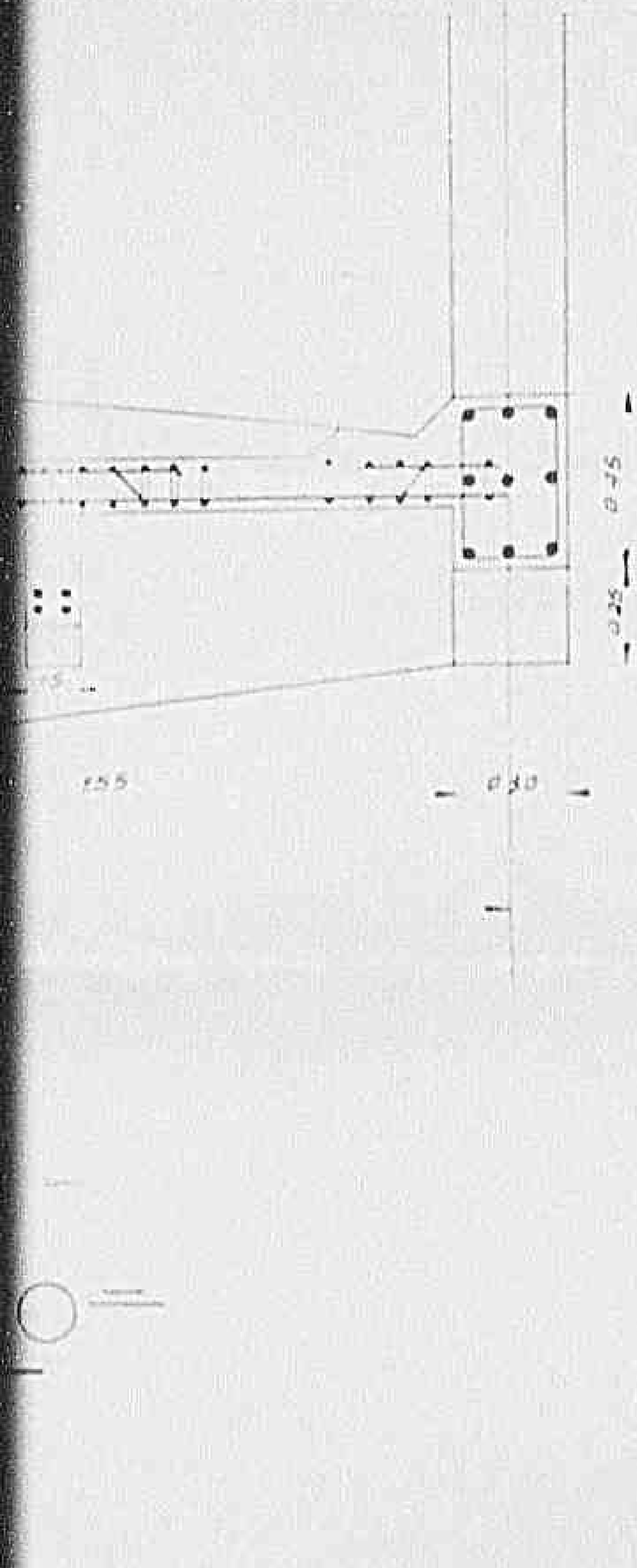
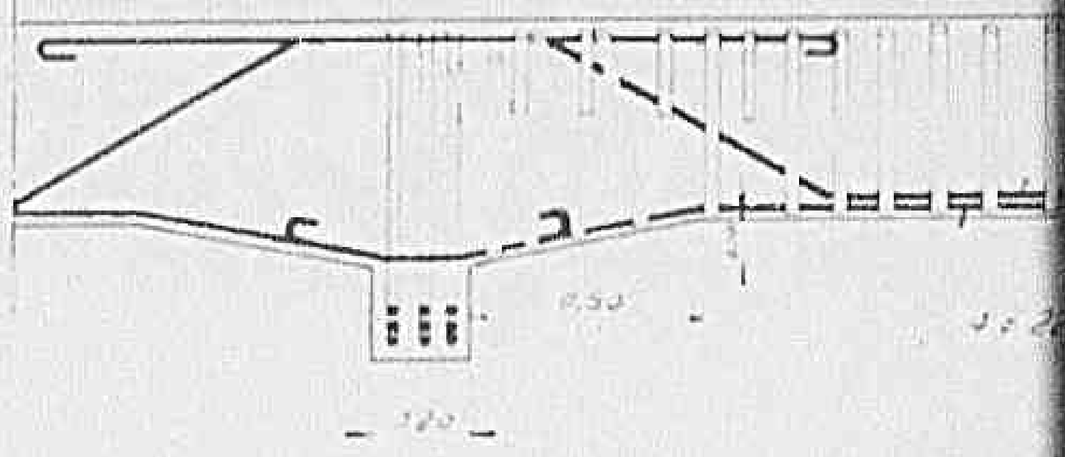
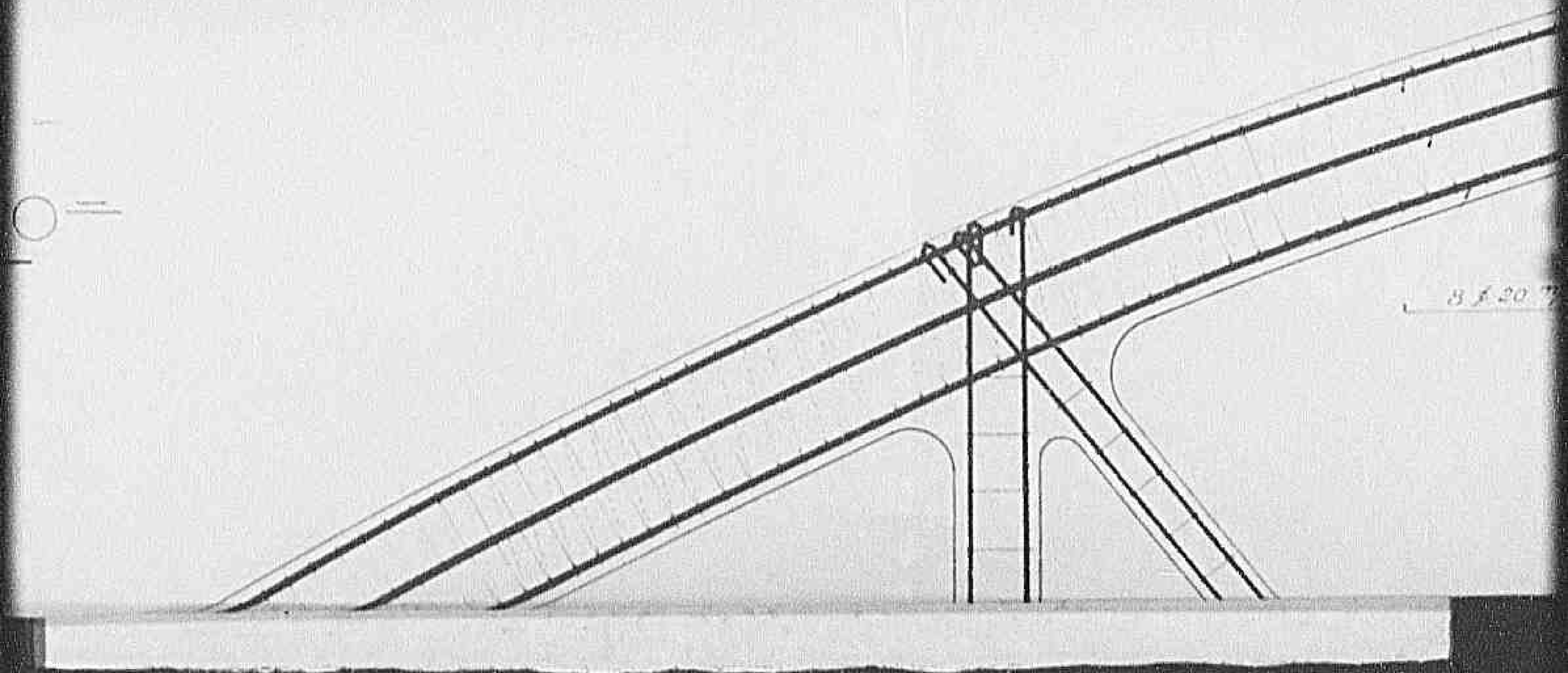
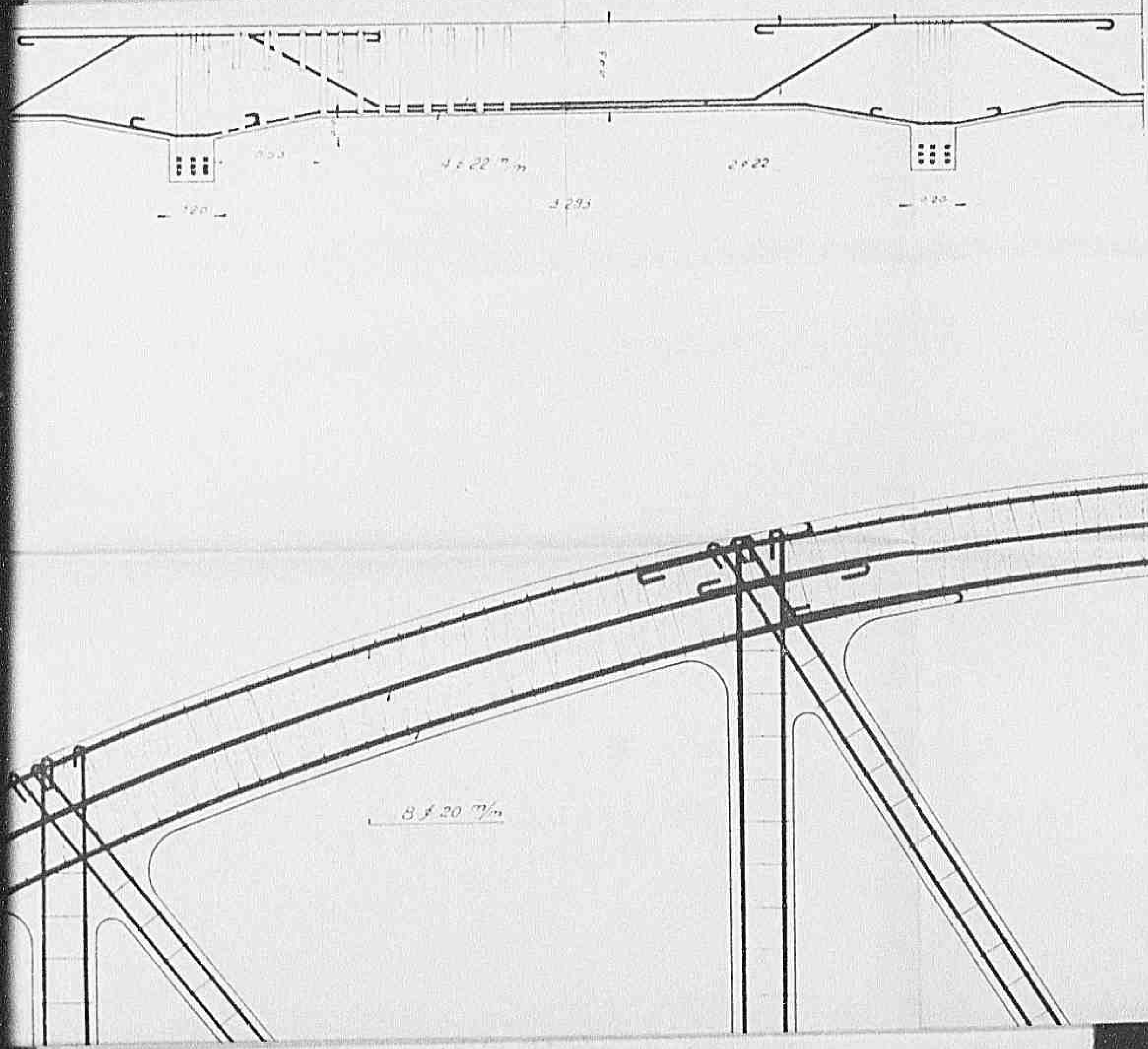






Declassified E.O. 12356 Section 3.3/NND No. 785019



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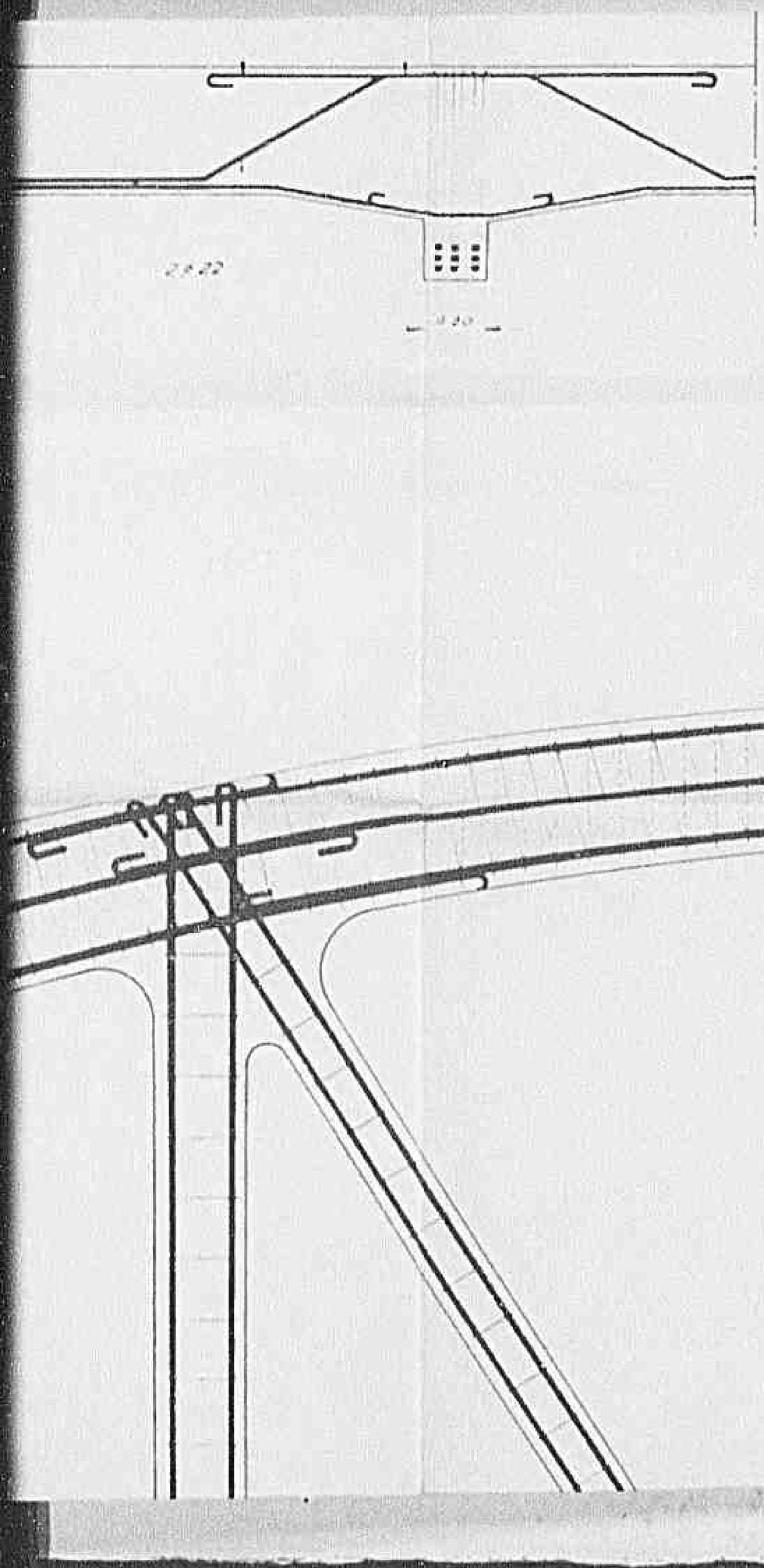

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Declassified E.O. 12356 Section 3.3/NND No. 785019

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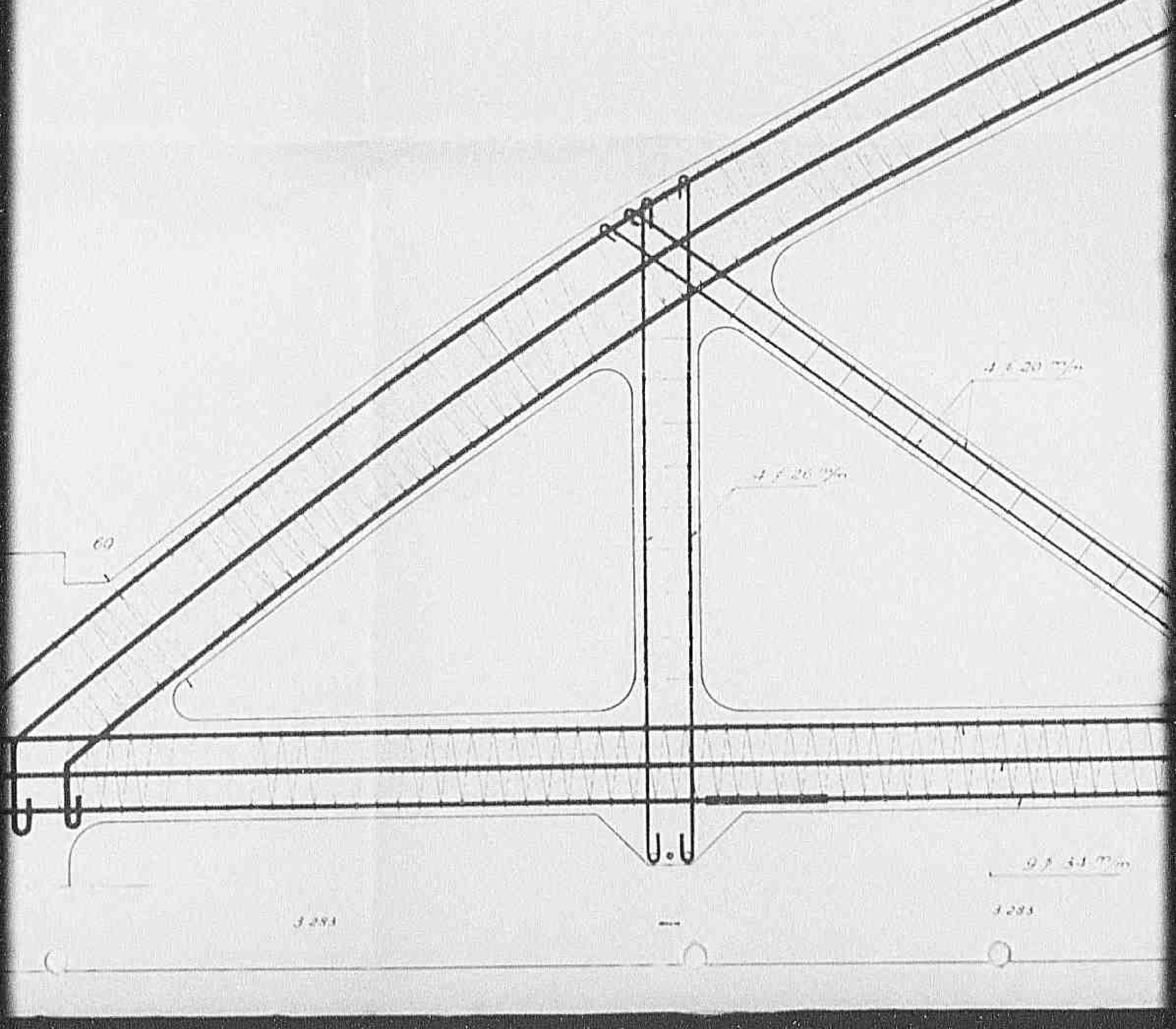

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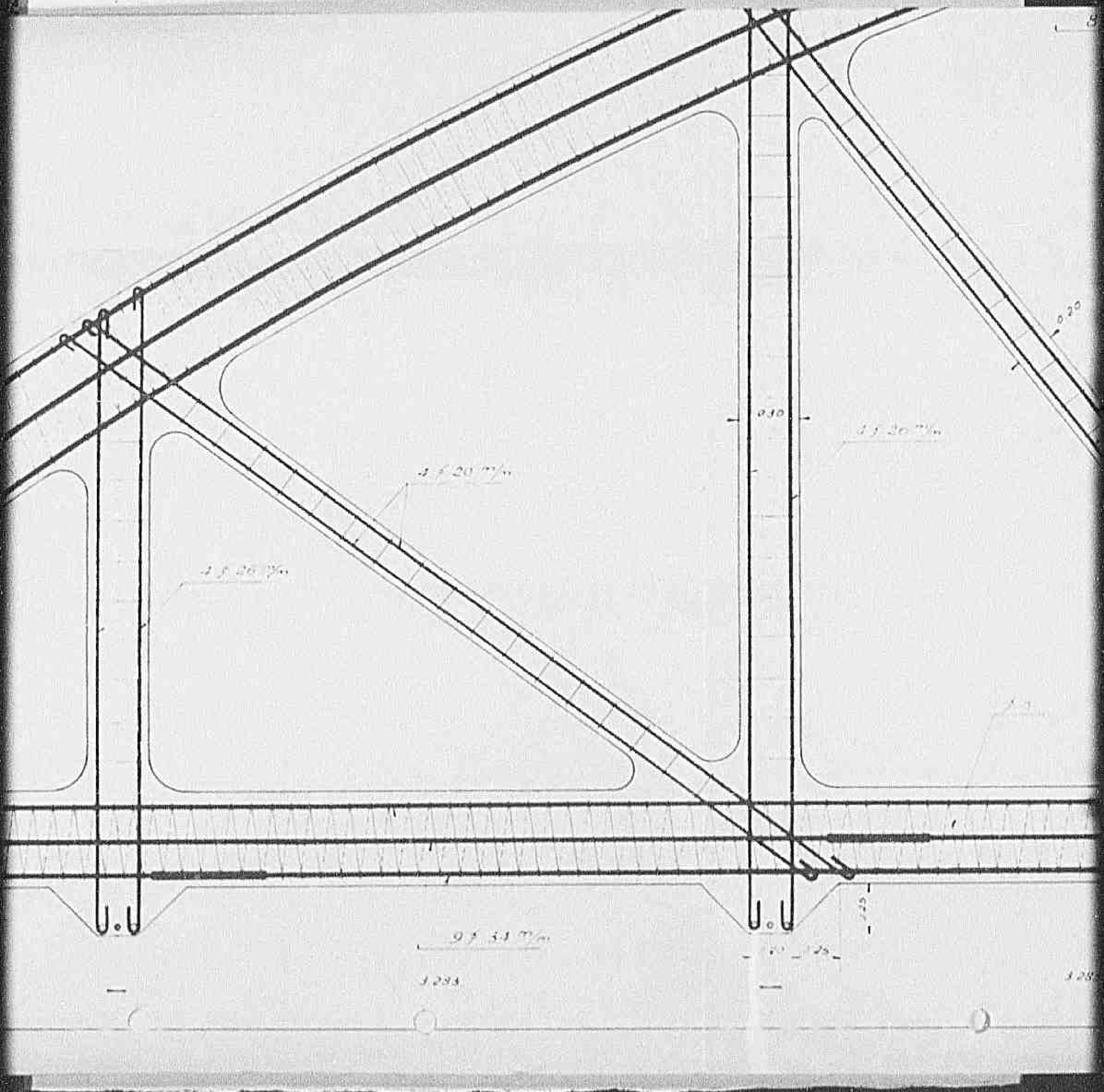

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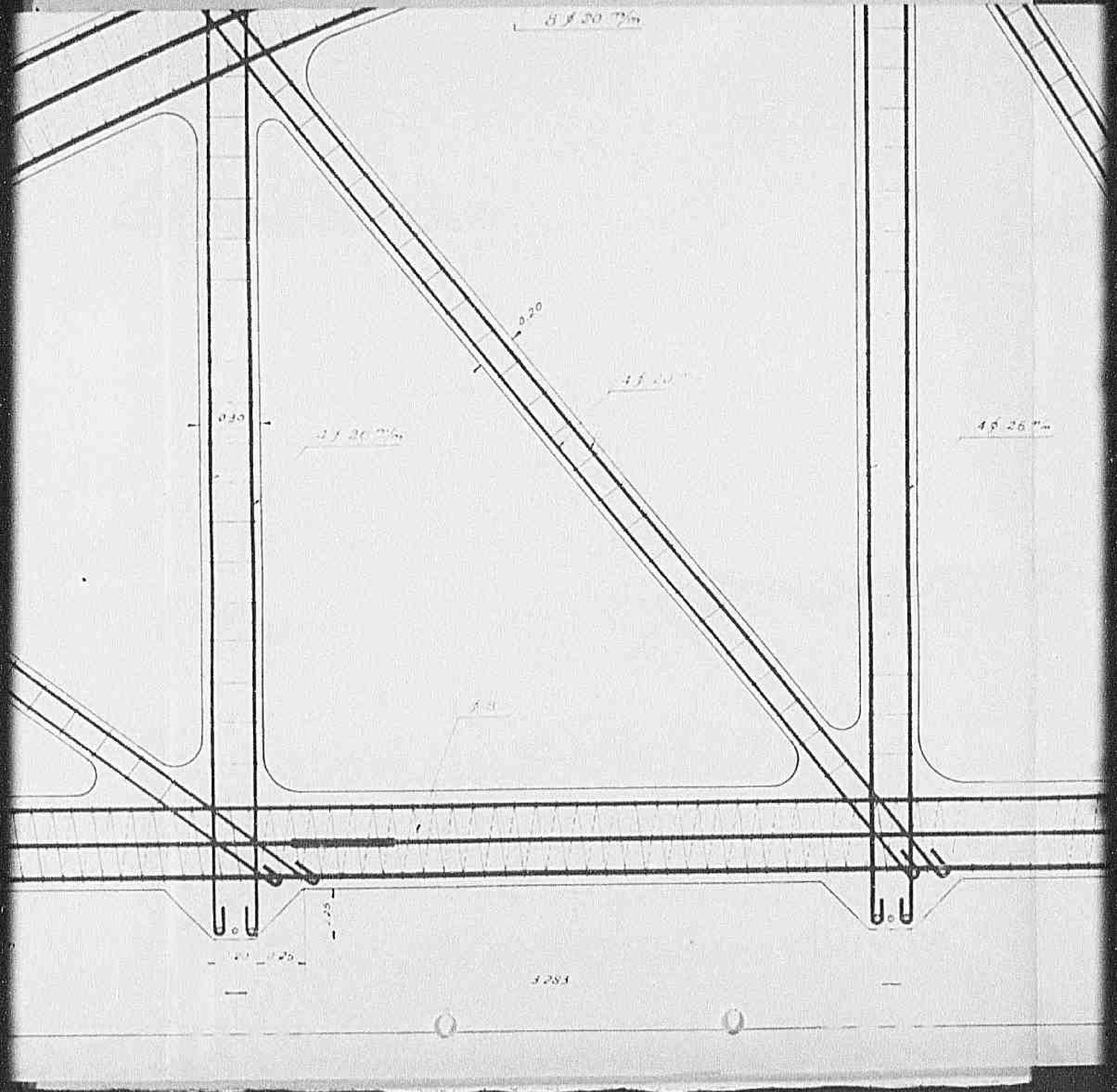

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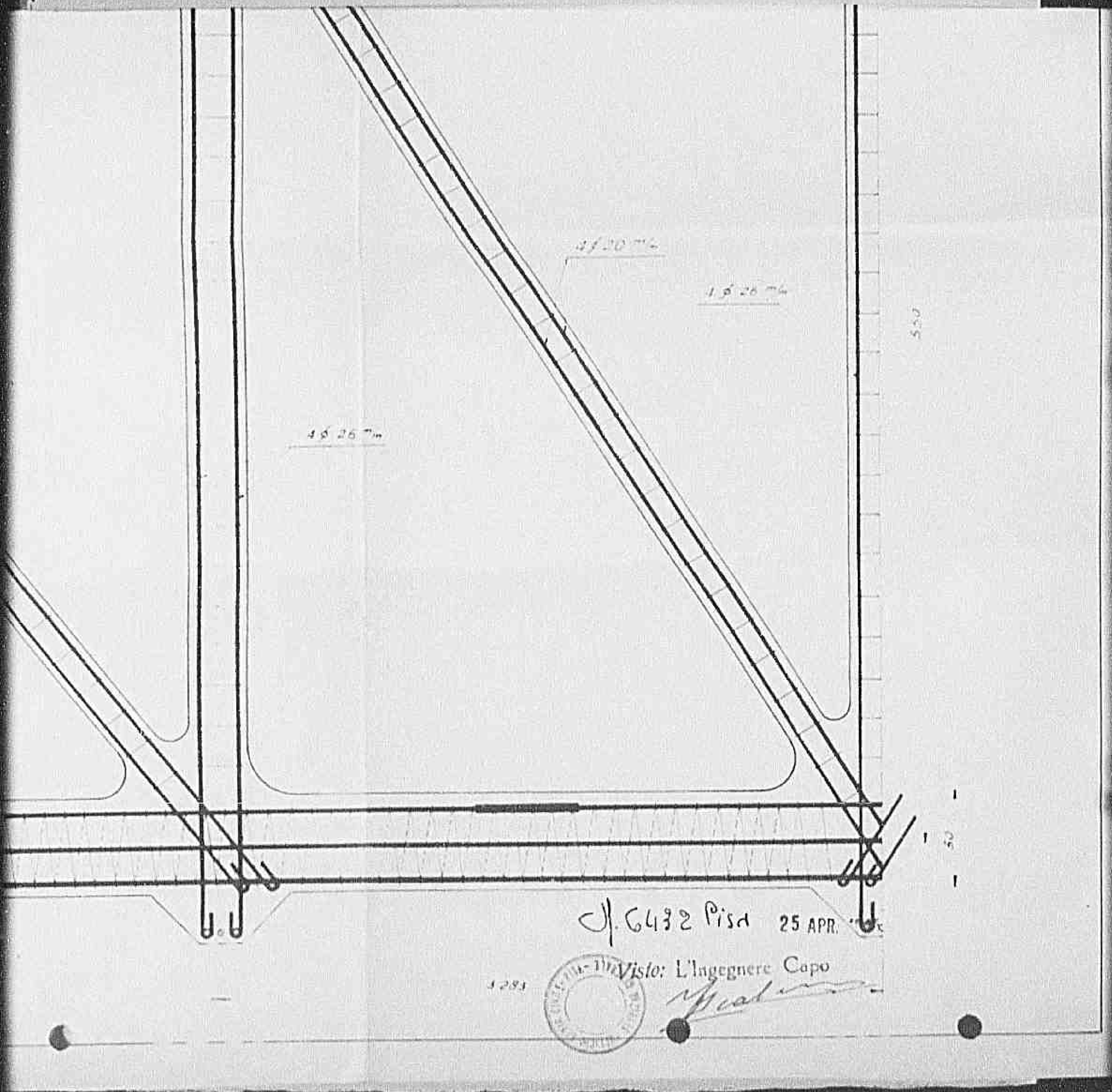

Il. 6432 Pisa 25 APR.

Visto: L'Ingegnere Capo

05981

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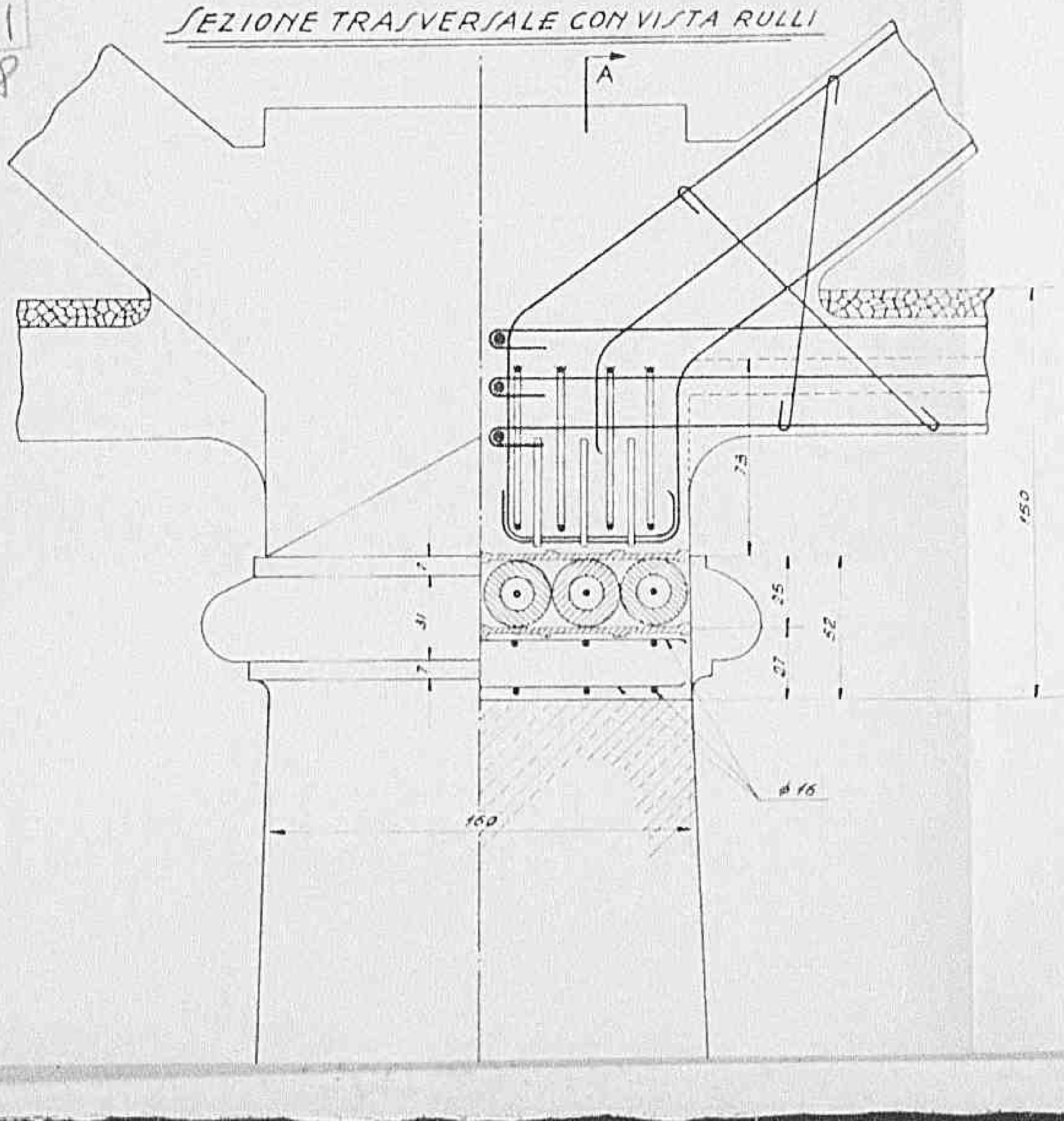
PISA
Inv. N°1401
268

P&SA 268 Q

SEZIONE TRASVERSALE CON VISTA RULLI



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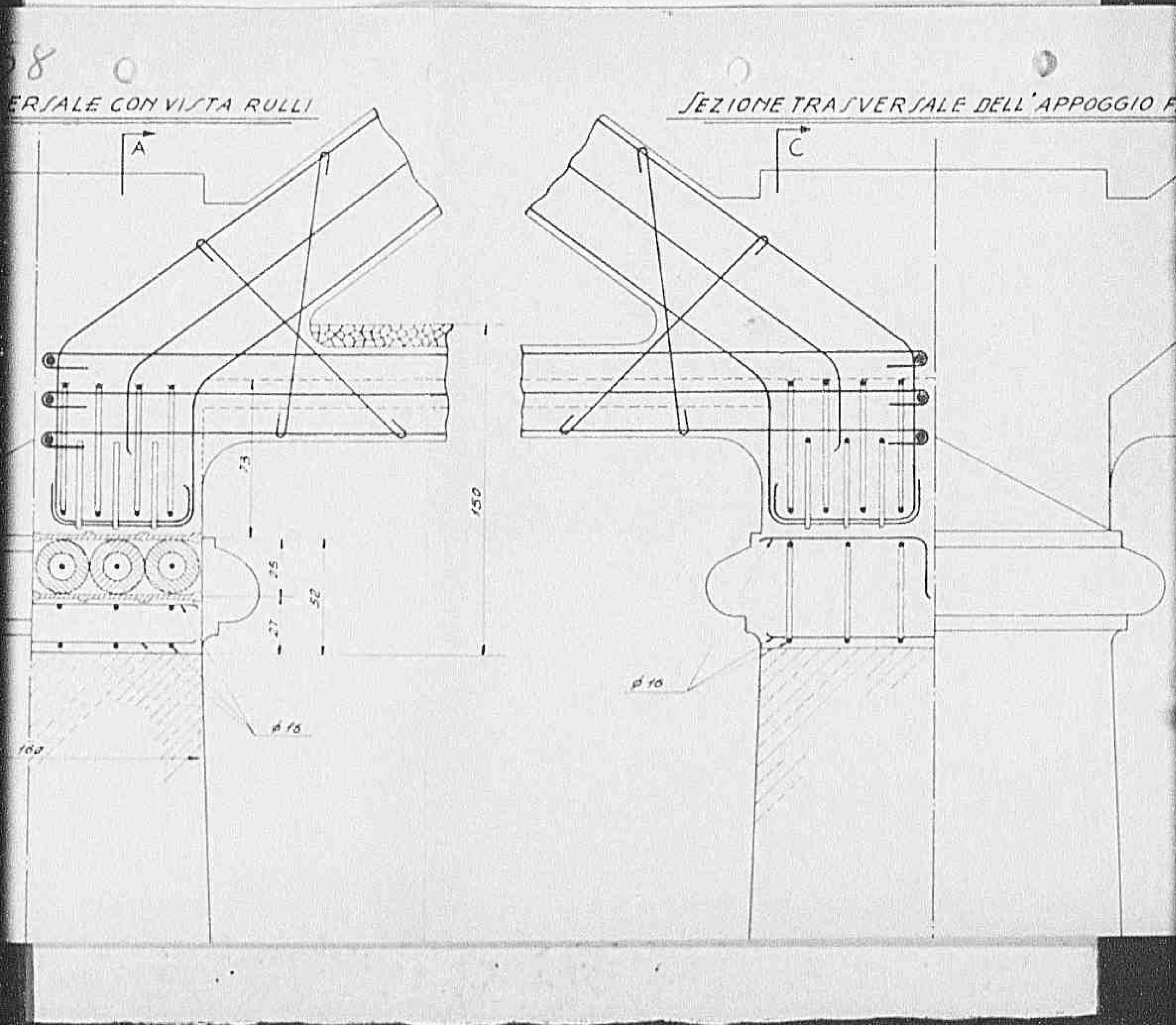
8

ERSALE CON VISTA RULLI

SEZIONE TRASVERSALE DELL'APPOGGIO FI



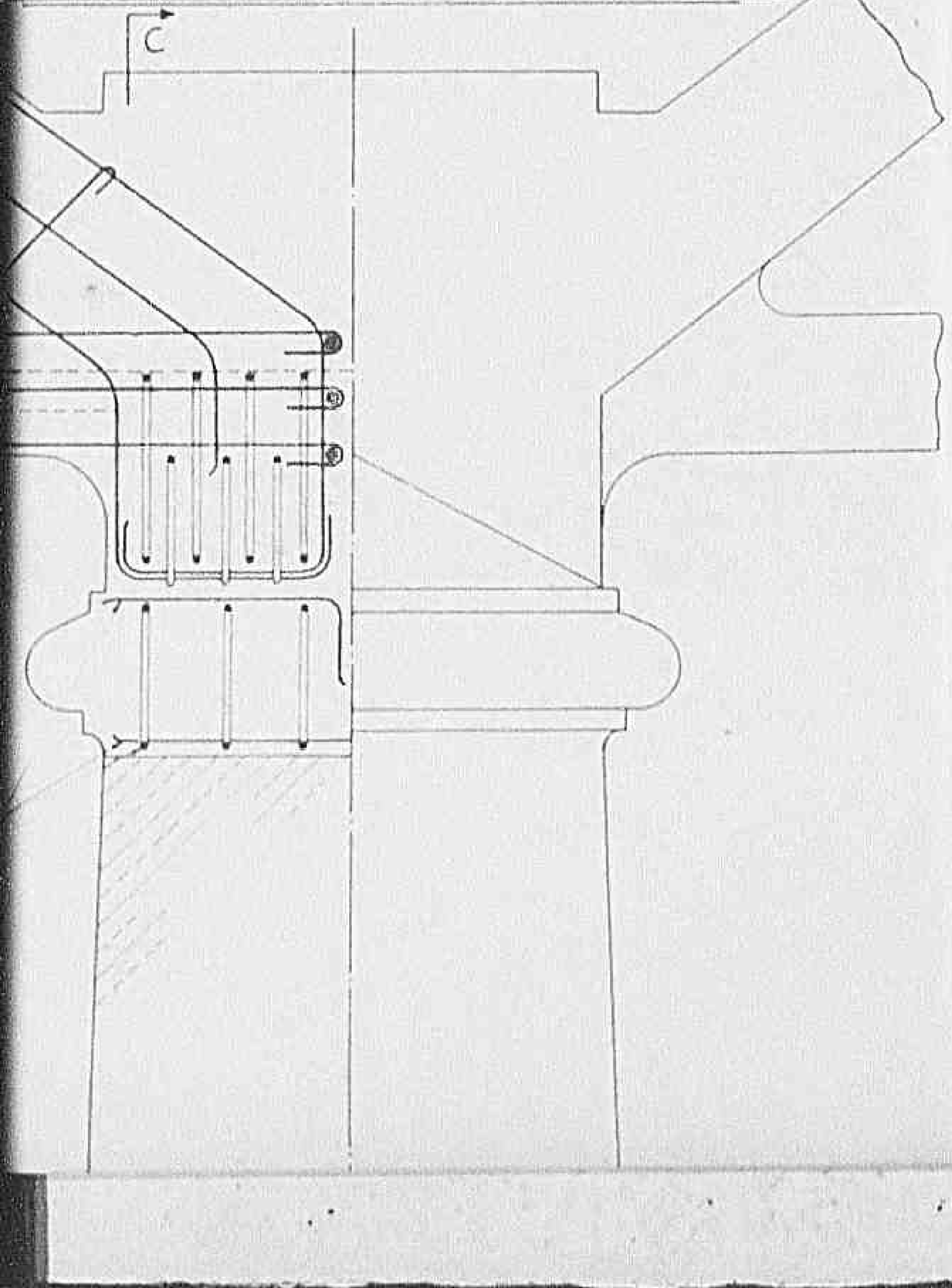
Declassified E.O. 12356 Section 3.3/NND No. 785019

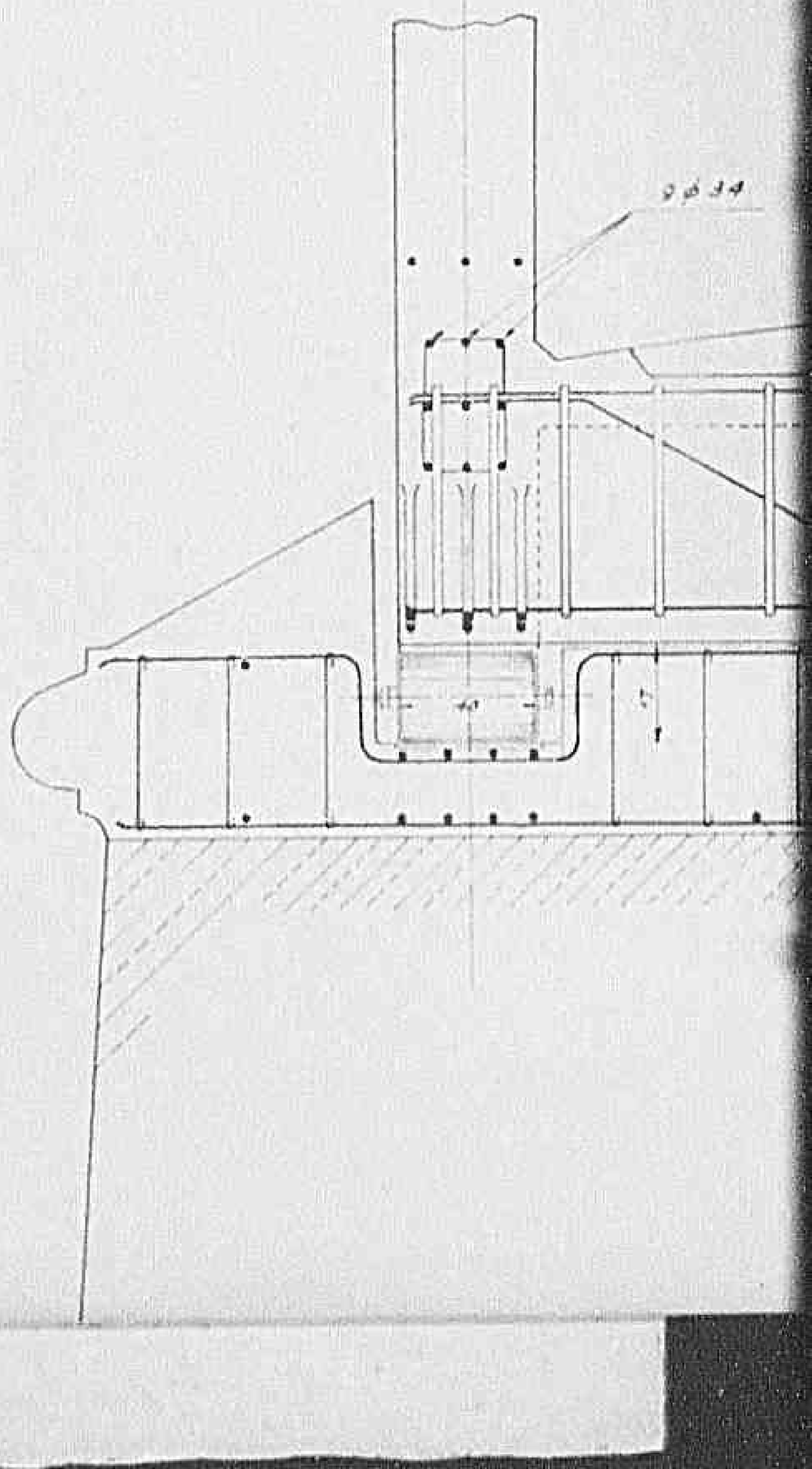
PONTE SUL FIUME CECINA A SALI

DETTAGLIO DEGLI APPOGGI DELL

SCALA 1:20

SEZIONE TRASVERSALE DELL'APPOGGIO FISSO





0601

Declassified E.O. 12356 Section 3.3/NND No. 785019

PONTE SUL FIUME CECINA A SALINE DI VOLTERRA

DETTAGLIO DEGLI APPOGGI DELLE TRAVATE

SCALA 1:20

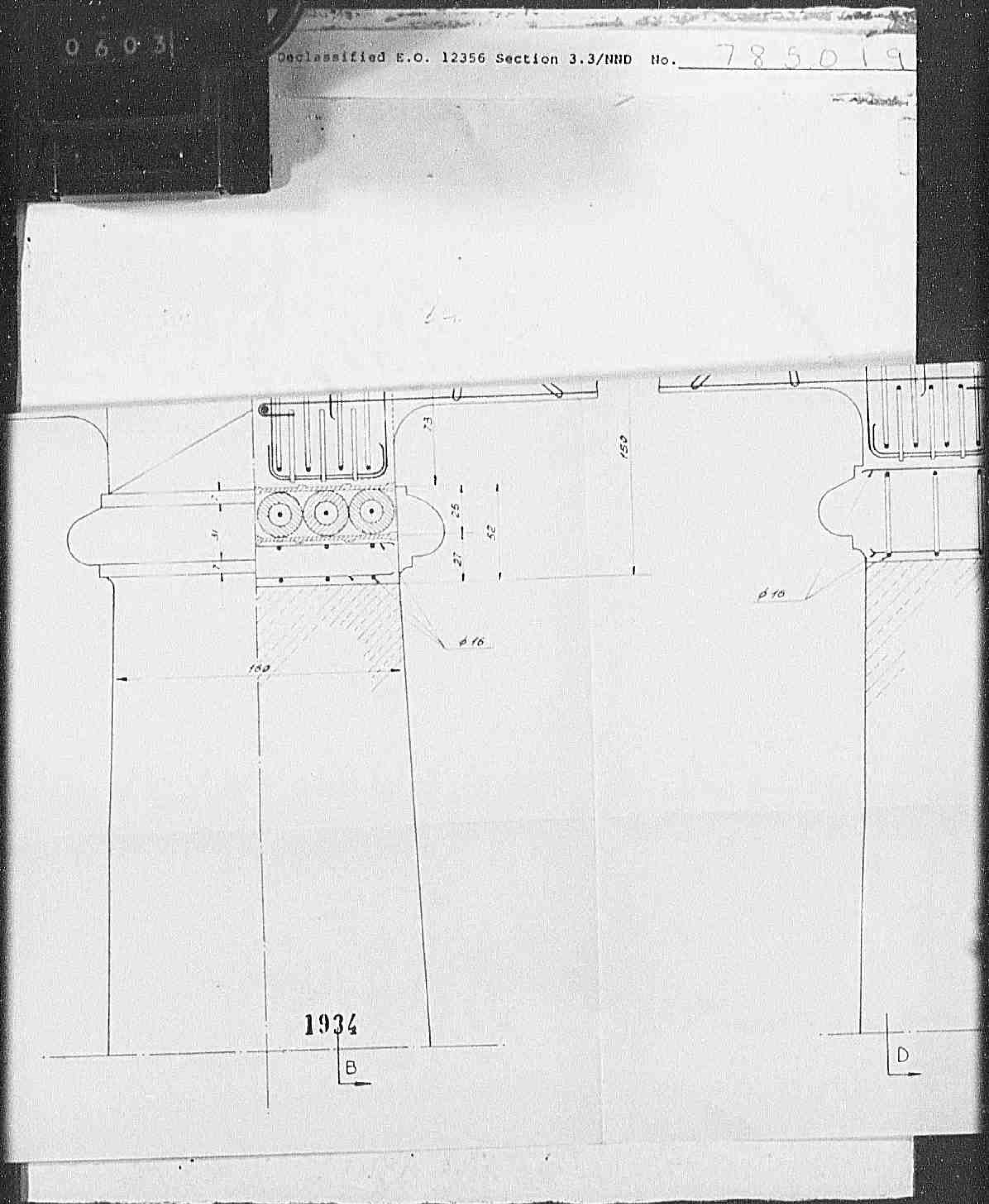
0.6.0.21

Declassified E.O. 12356 Section 3.3/NND No. 785019

SEZIONE LONGITUDINALE

C - D

Declassified E.O. 12356 Section 3.3/NND No. 785019



0604

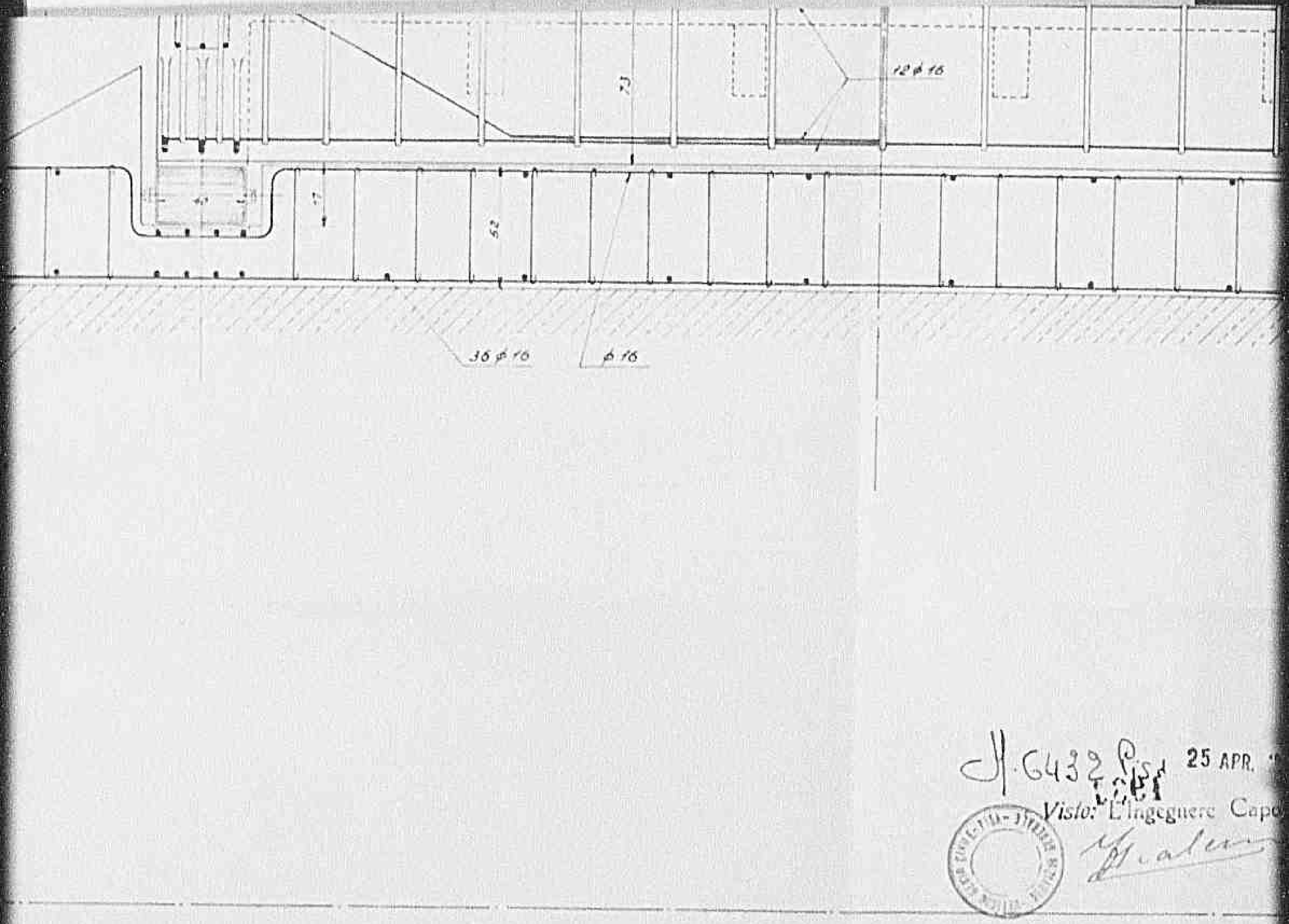
Declassified E.O. 12356 Section 3.3/NND No. 785019

0605

Declassified E.O. 12356 Section 3.3/NND No. 785019

0606

Declassified E.O. 12356 Section 3.3/NND No. 785019

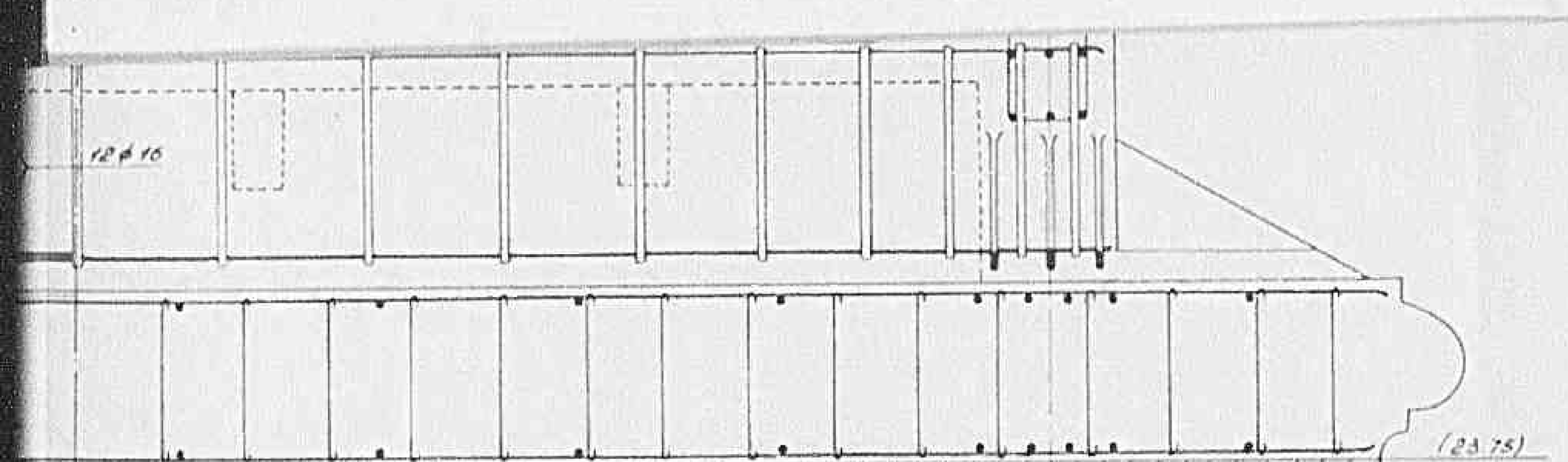


J. 6432 Pisa 25 APR.

Visto: L'Ingegnere Capo

0607

Declassified E.O. 12356 Section 3.3/NND No. 785019



J. 6432 Pisa 25 APR. 1945.

Visto: L'Ingegnere Capo

0 6 0 8

Declassified E.O. 12356 Section 3.3/NND No.

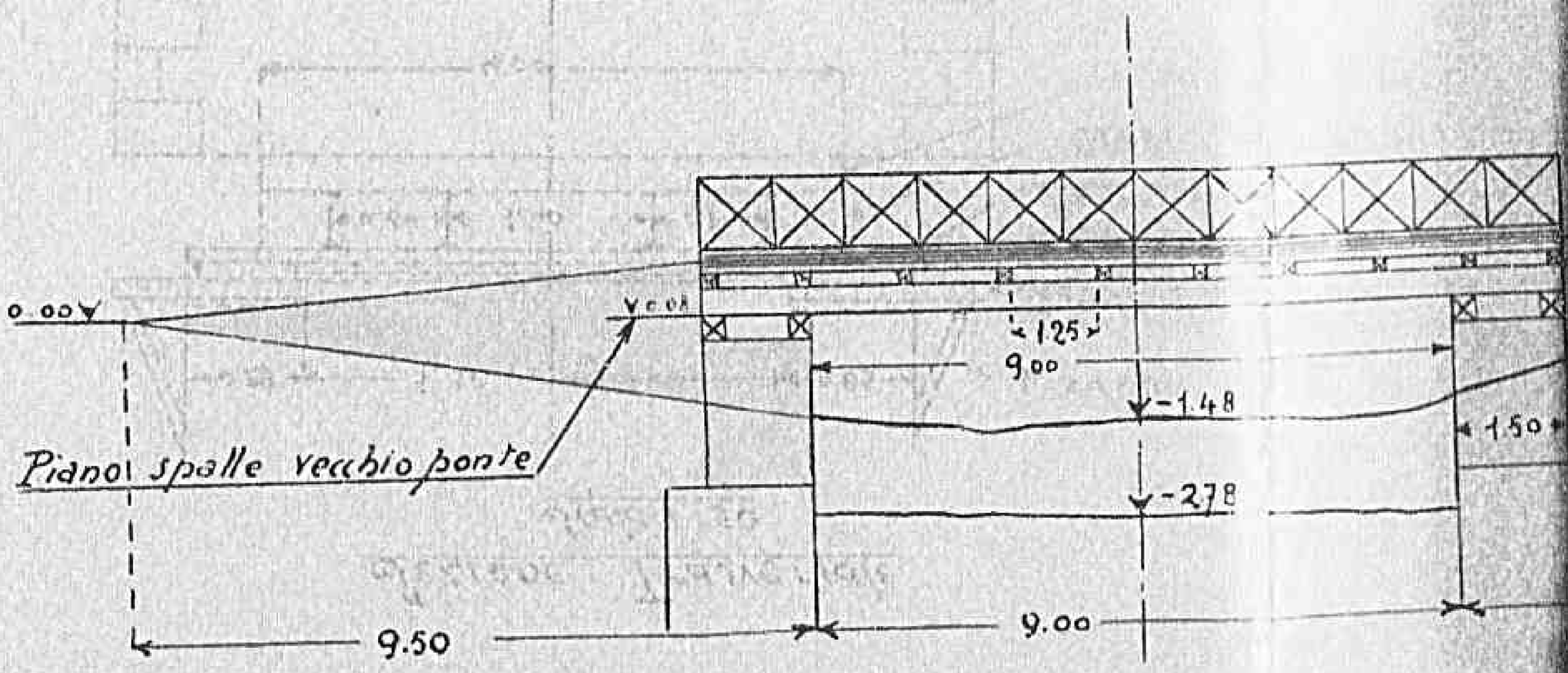
Torino n° 92

allegato H

Progetto del Ponte nell'abitato

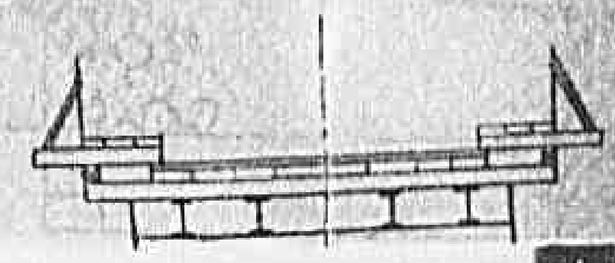
Sezione A-B

Scala 1:100



Sezione CD

Scala 1:100



Livello strada y 9.00

0609

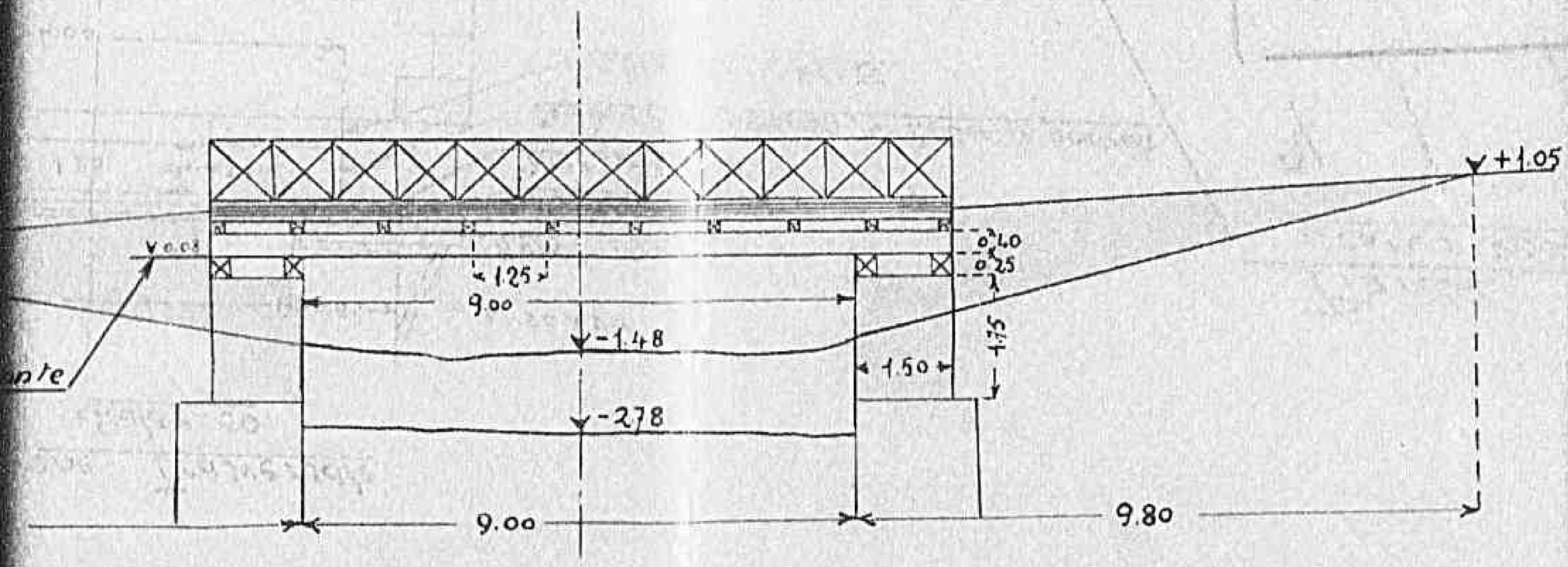
Declassified E.O. 12356 Section 3.3/NND No.

allegato H

Progetto del Ponte nell'abitato di Val di Castello

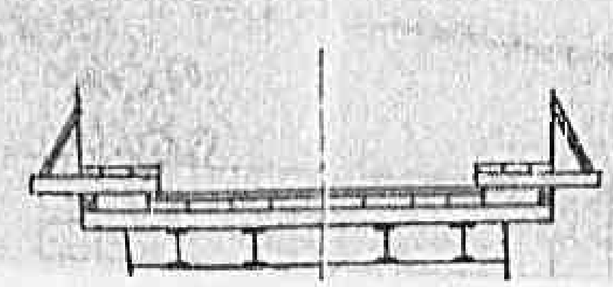
Sezione A-B

Scala 1:100



Sezione CD

Scala 1:100



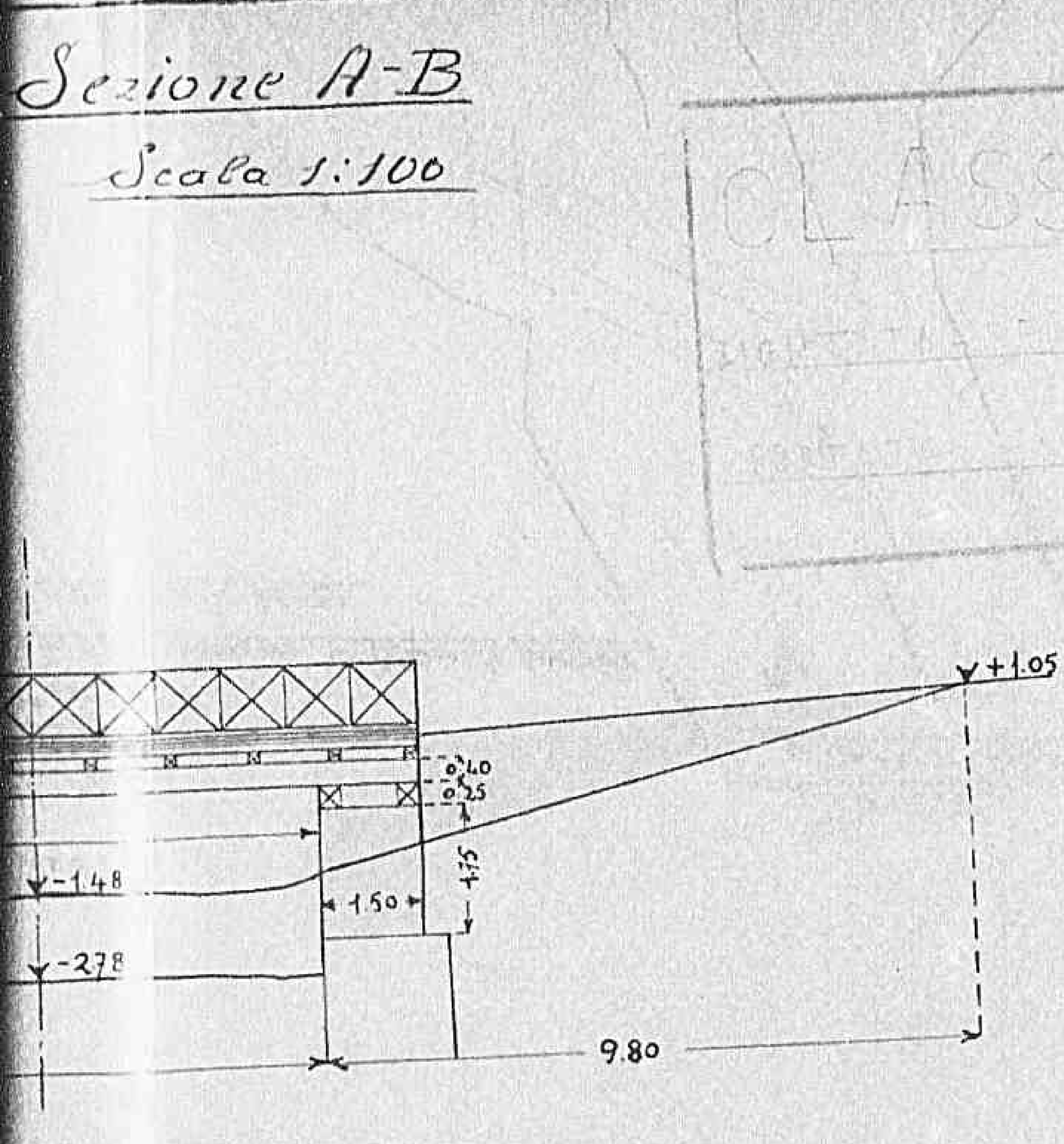
0610

Declassified E.O. 12356 Section 3.3/NND No.

dell'Abitato di Val di Castello

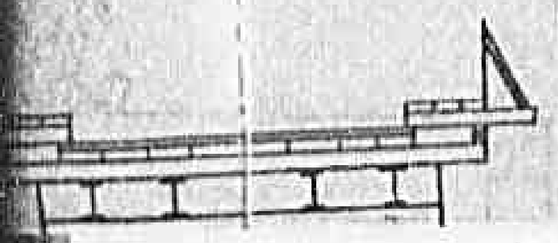
Sezione A-B

Scala 1:100



Sezione CD

Scala 1:100

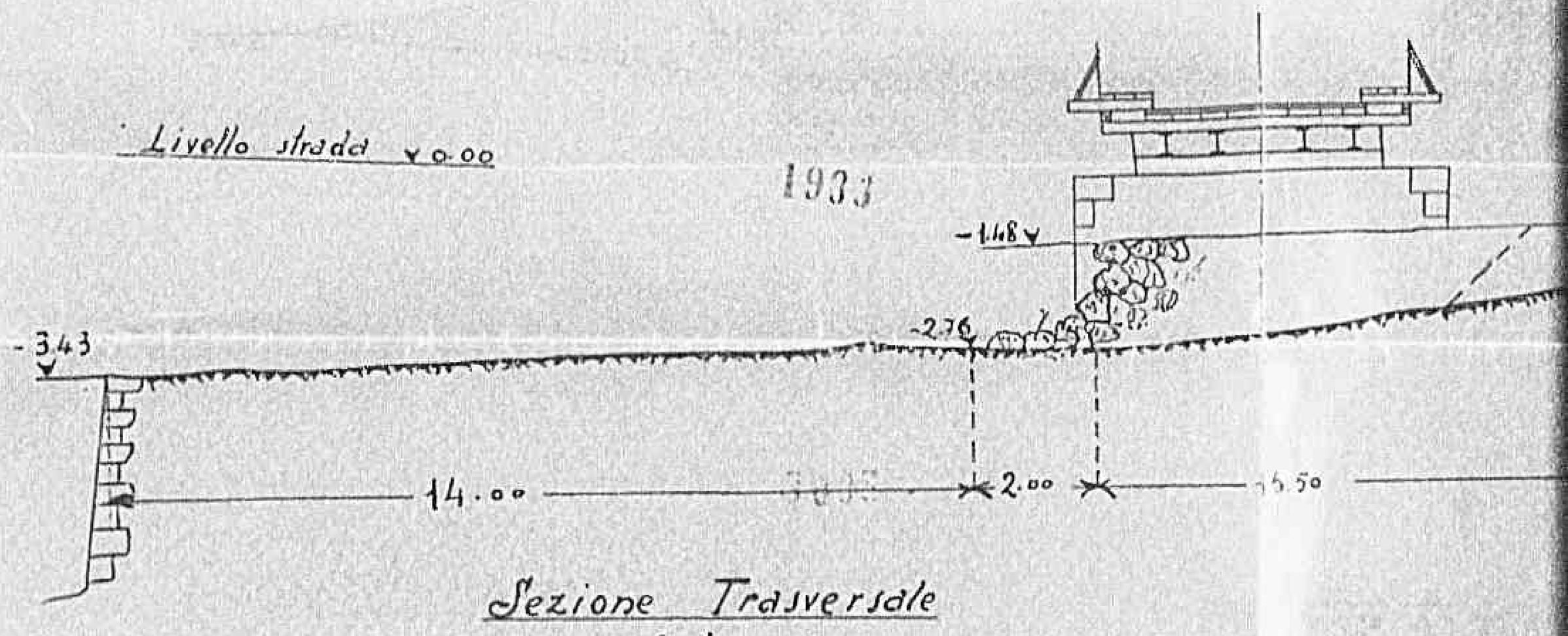


0611

Declassified E.O. 12356 Section 3.3/NND No.

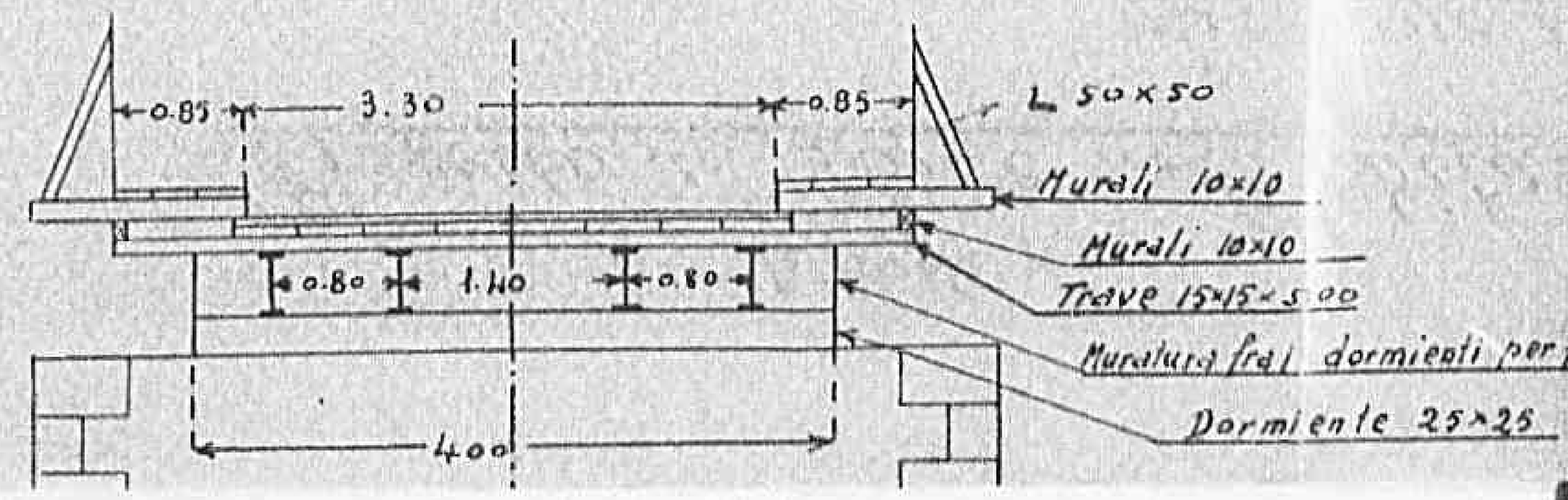
Sezione CD

Scala 1:100



Sezione Trasversale

Scala 1:50

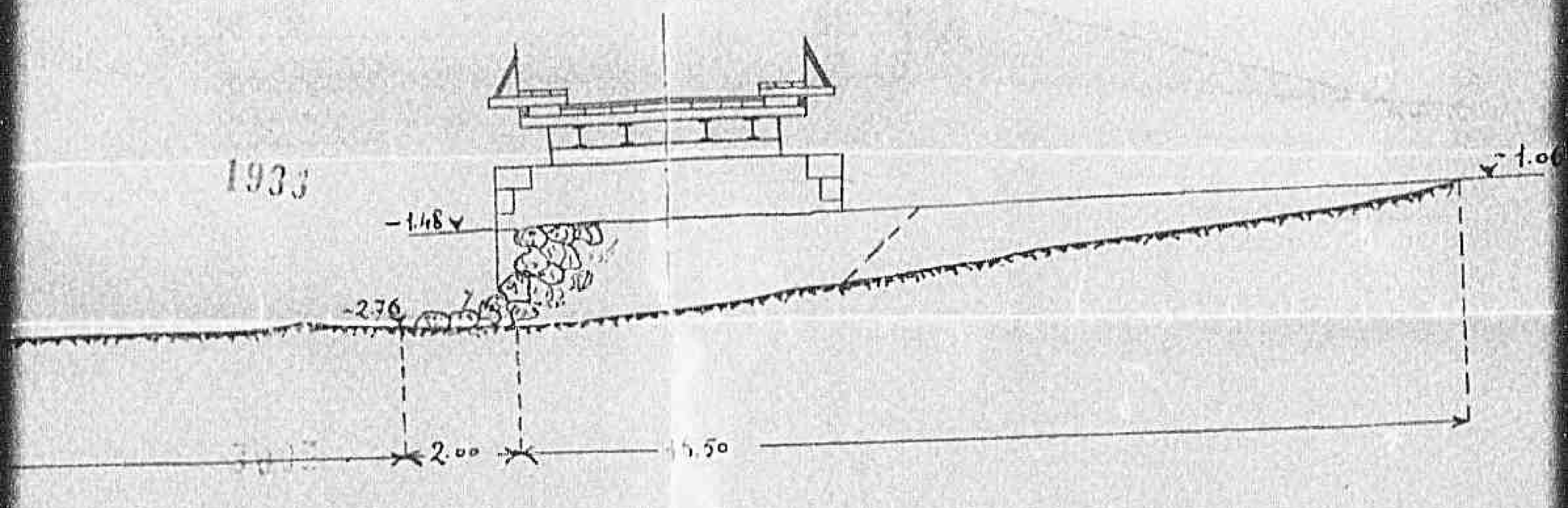


0612

Declassified E.O. 12356 Section 3.3/NND No.

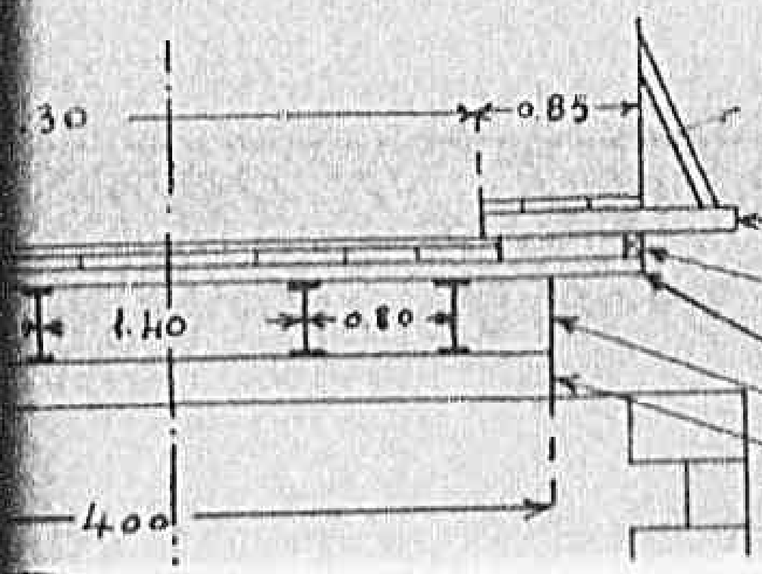
Sezione CD

Scala 1:100



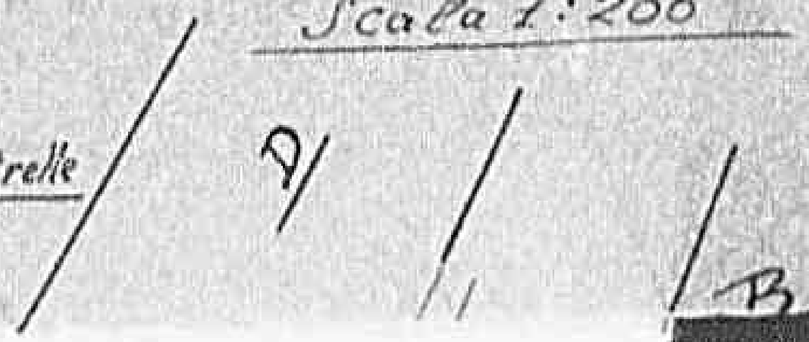
zione Trasversale

Scala 1:50



Pianta

Scala 1:200



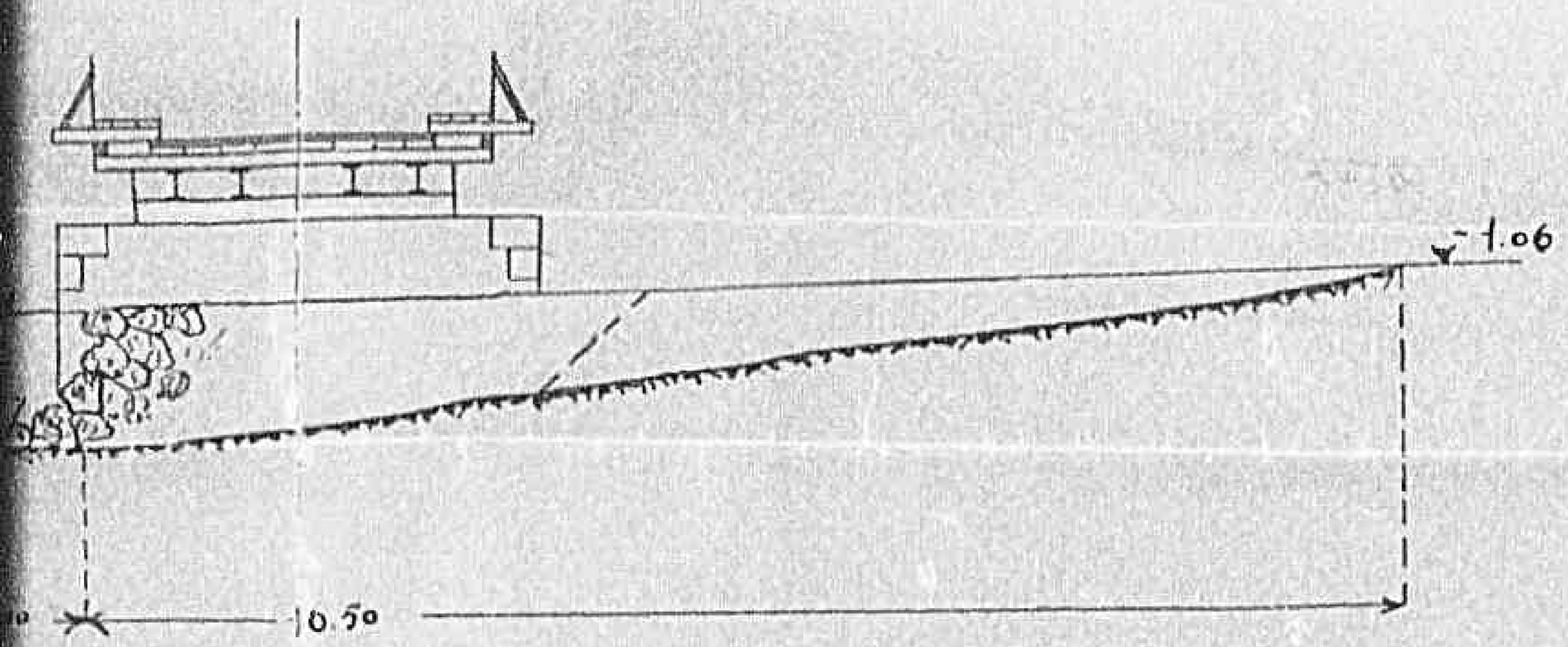
0613

Declassified E.O. 12356 Section 3.3/NND No.

y.00

Sezione CD

Scala 1:100



L 50×50

Murali 10×10

Murali 10×10

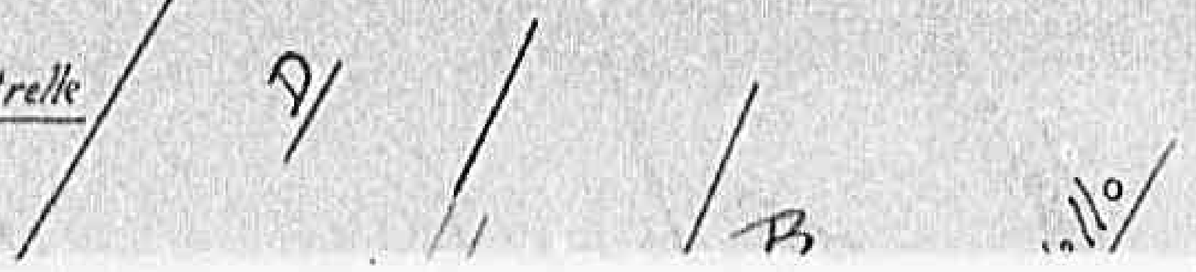
Trave 15×15×5.00

Muratura fra i dormienti per fissare le poutrelle

Dormiente 25×25

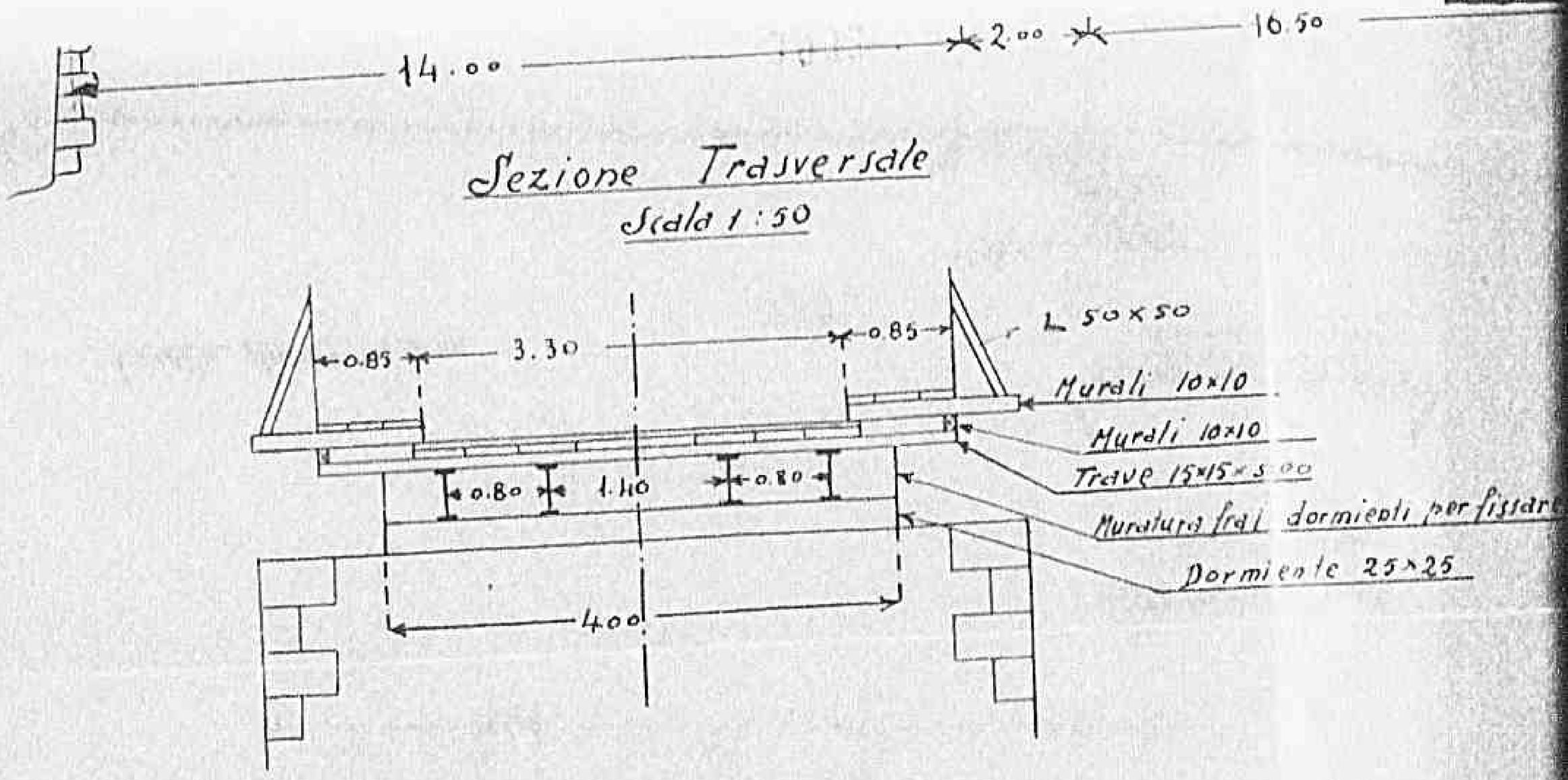
Pianta

Scala 1:200



0614

Declassified E.O. 12356 Section 3.3/NND No.

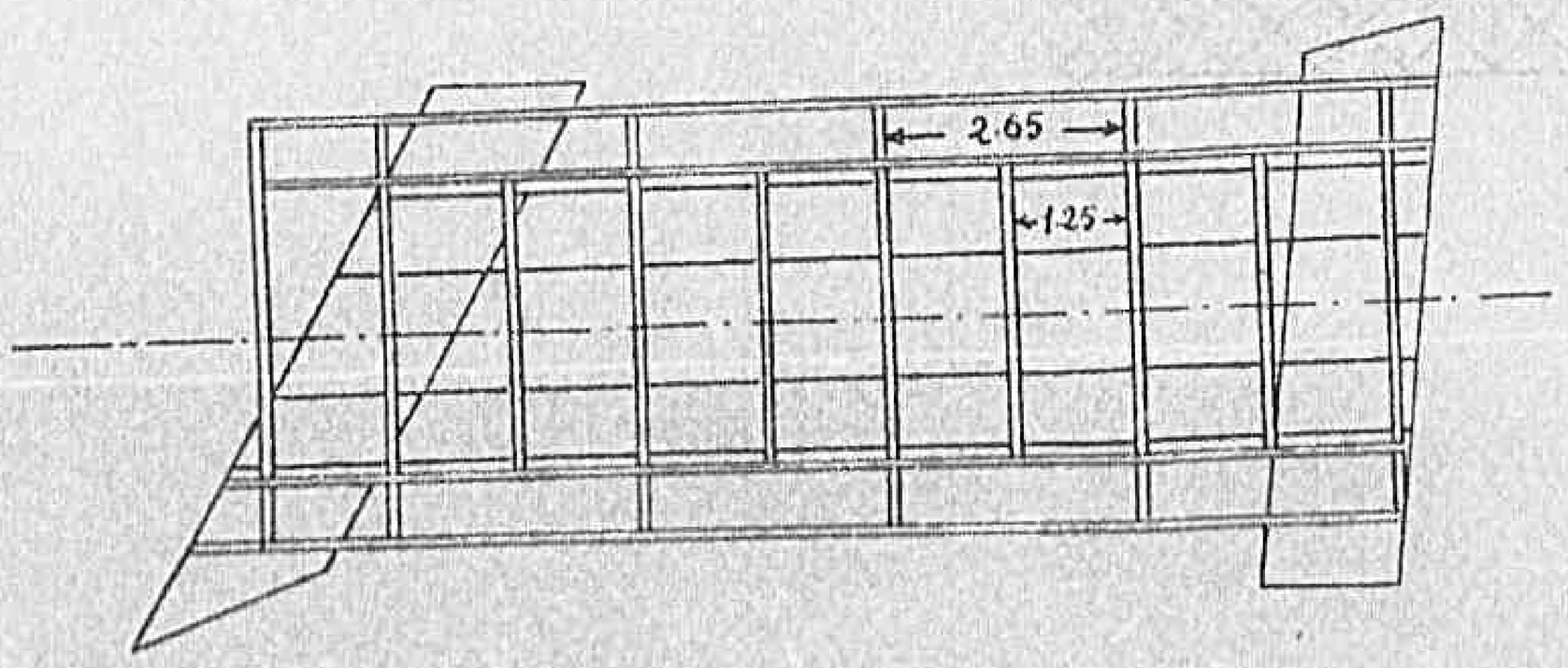


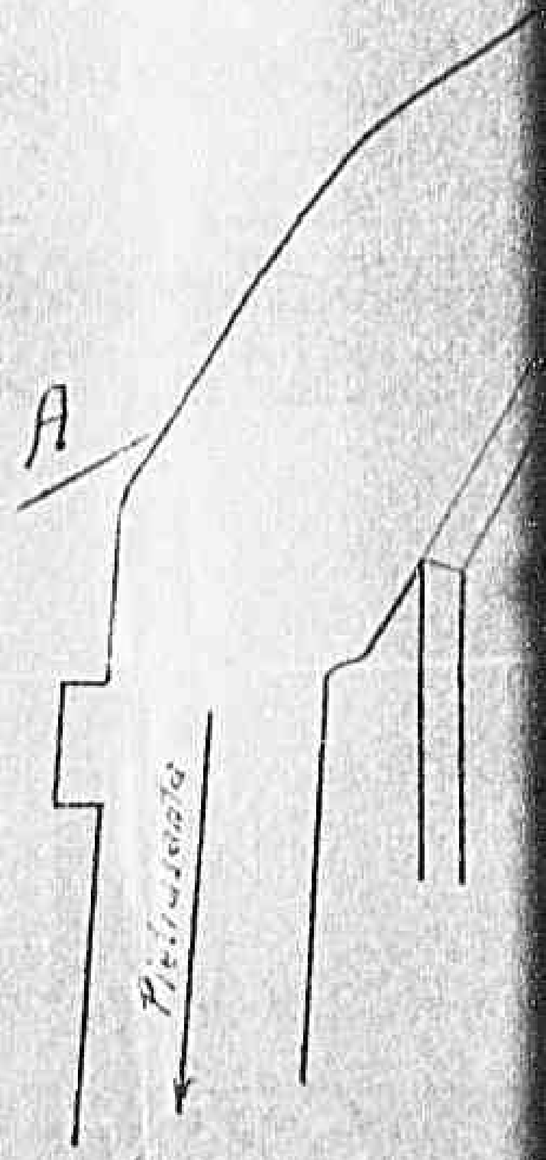
Sezione Trasversale

Scala 1:50

Disposizione delle Travature

Scala 1:100



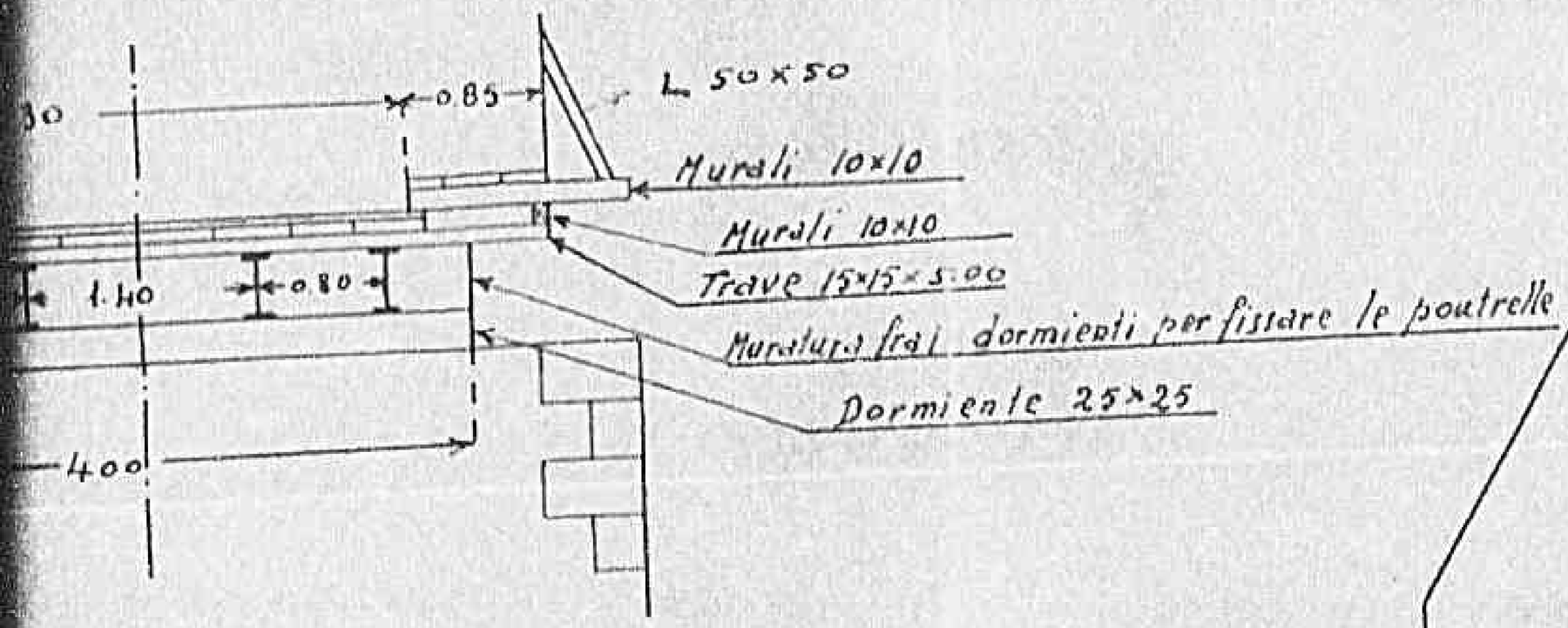


0615

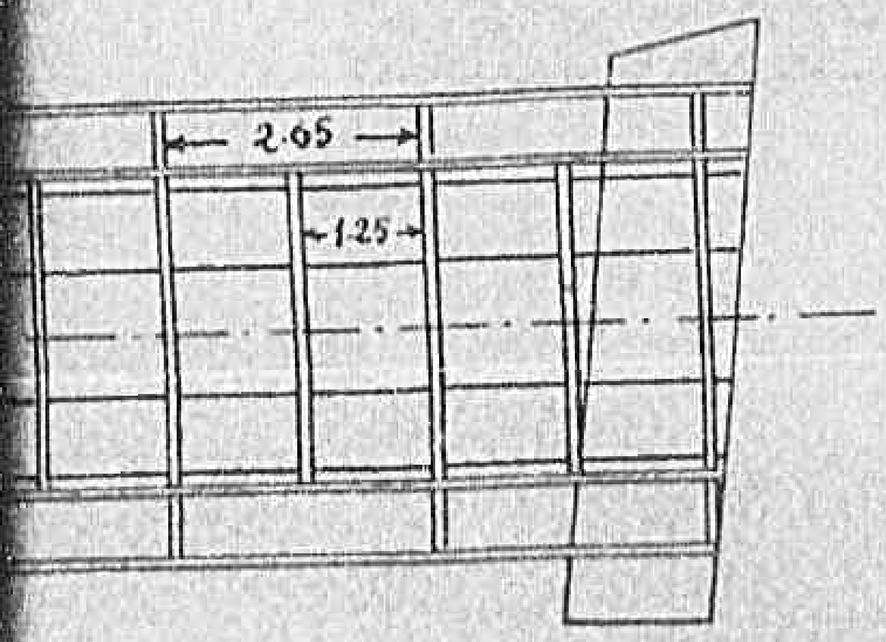
Declassified E.O. 12356 Section 3.3/NND No.

2.00 16.50

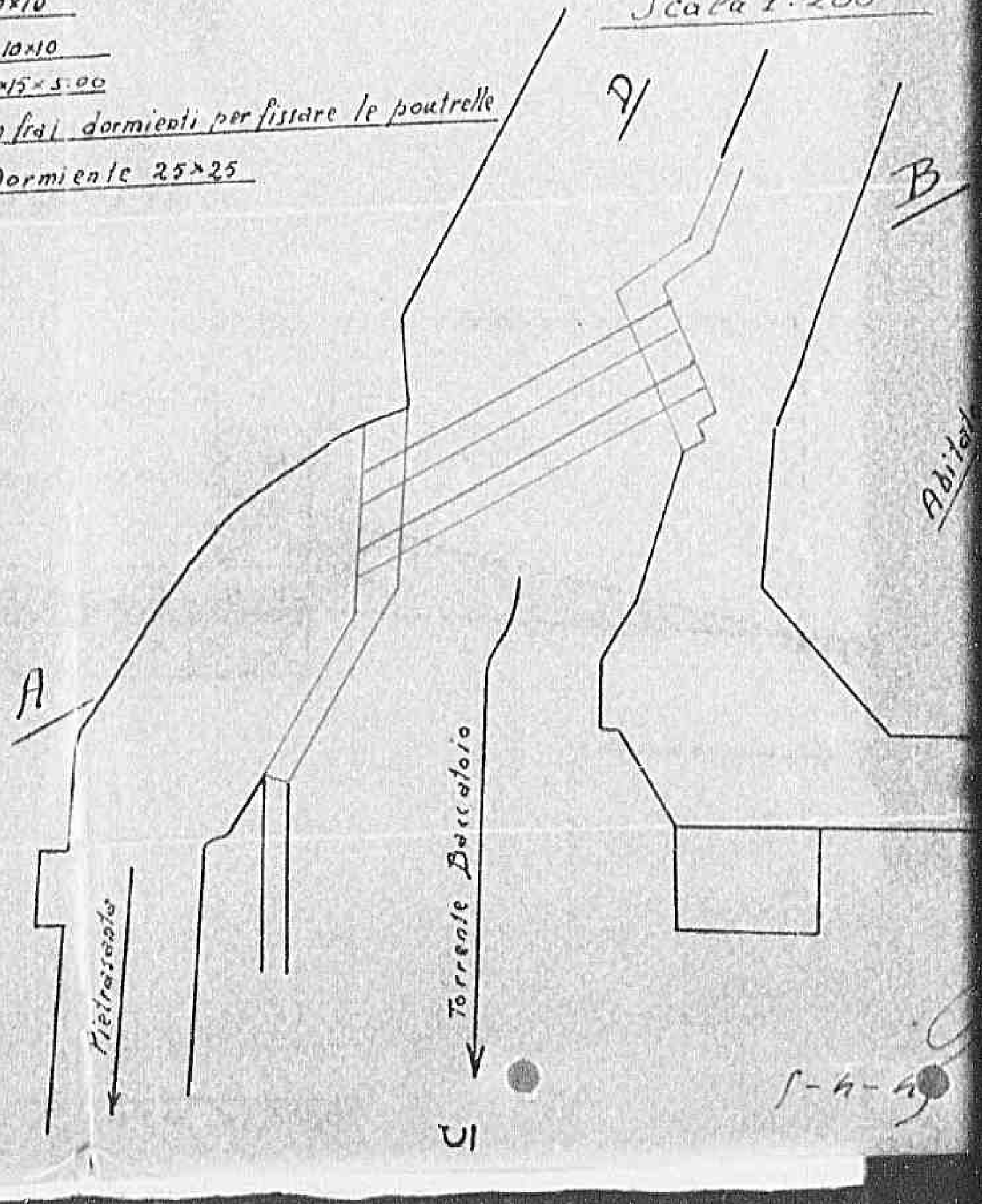
ione Trasversale
Scala 1:50



ione delle Travature
Scala 1:100



Pianta
Scala 1:200



1-4-49

0616

Declassified E.O. 12356 Section 3.3/NND No.

16.50

50

10×10

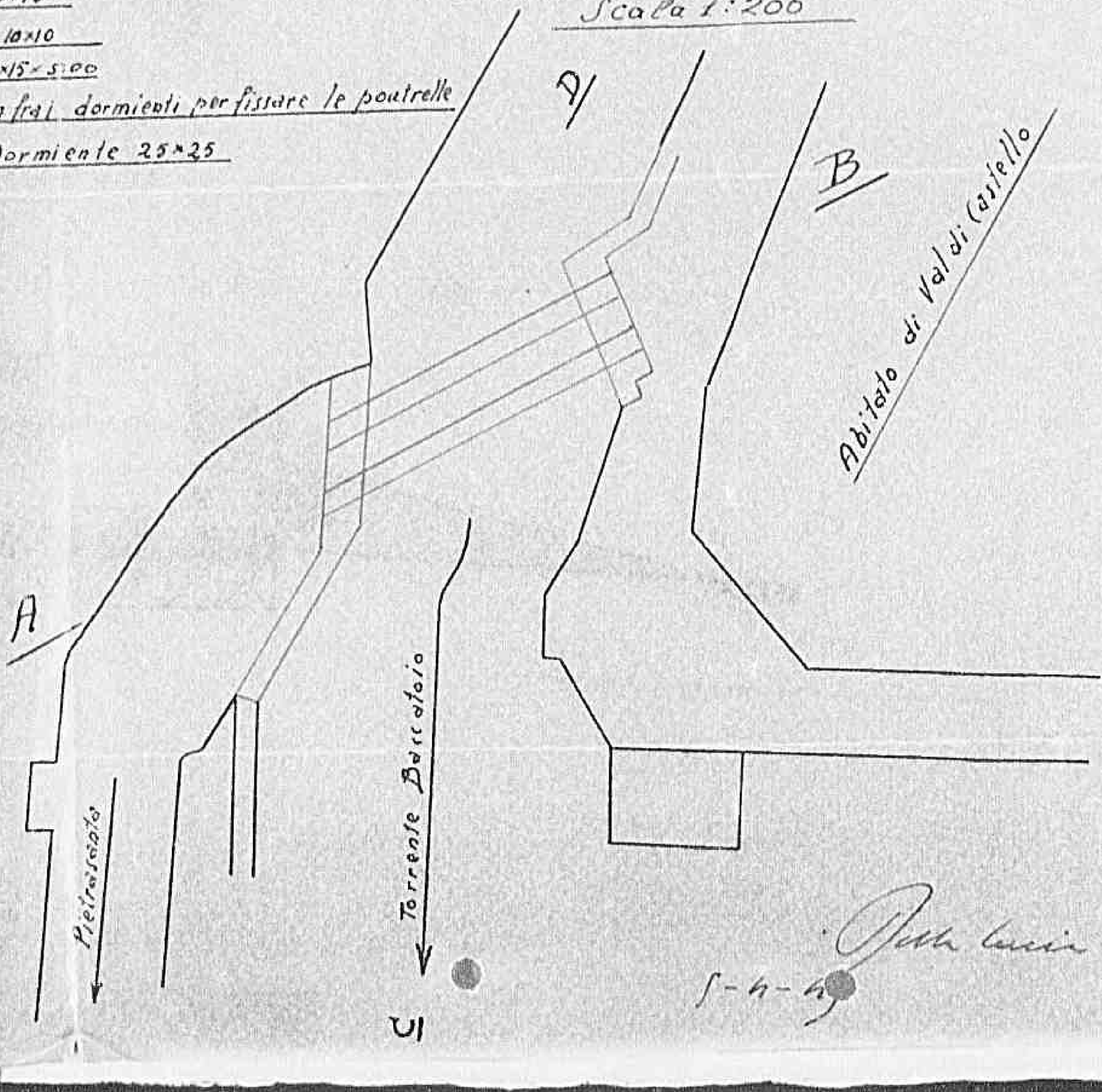
li 10×10

15×15×5.00

ura frai dormienti per fissare le poutrelle

Dormiente 25×25

Pianta
Scala 1:200



Seriya N 112 • LUCAS 4.5 Alb. n. 5

11-843

1932

Declassified E.O. 12356 Section 3.3/NND No. 786019

Declassified E.O. 12356 Section 3.3/NND No. 785019

0618

1933

FI-823

0 6 1 9 1

Declassified E.O. 12356 Section 3.3/NND No.

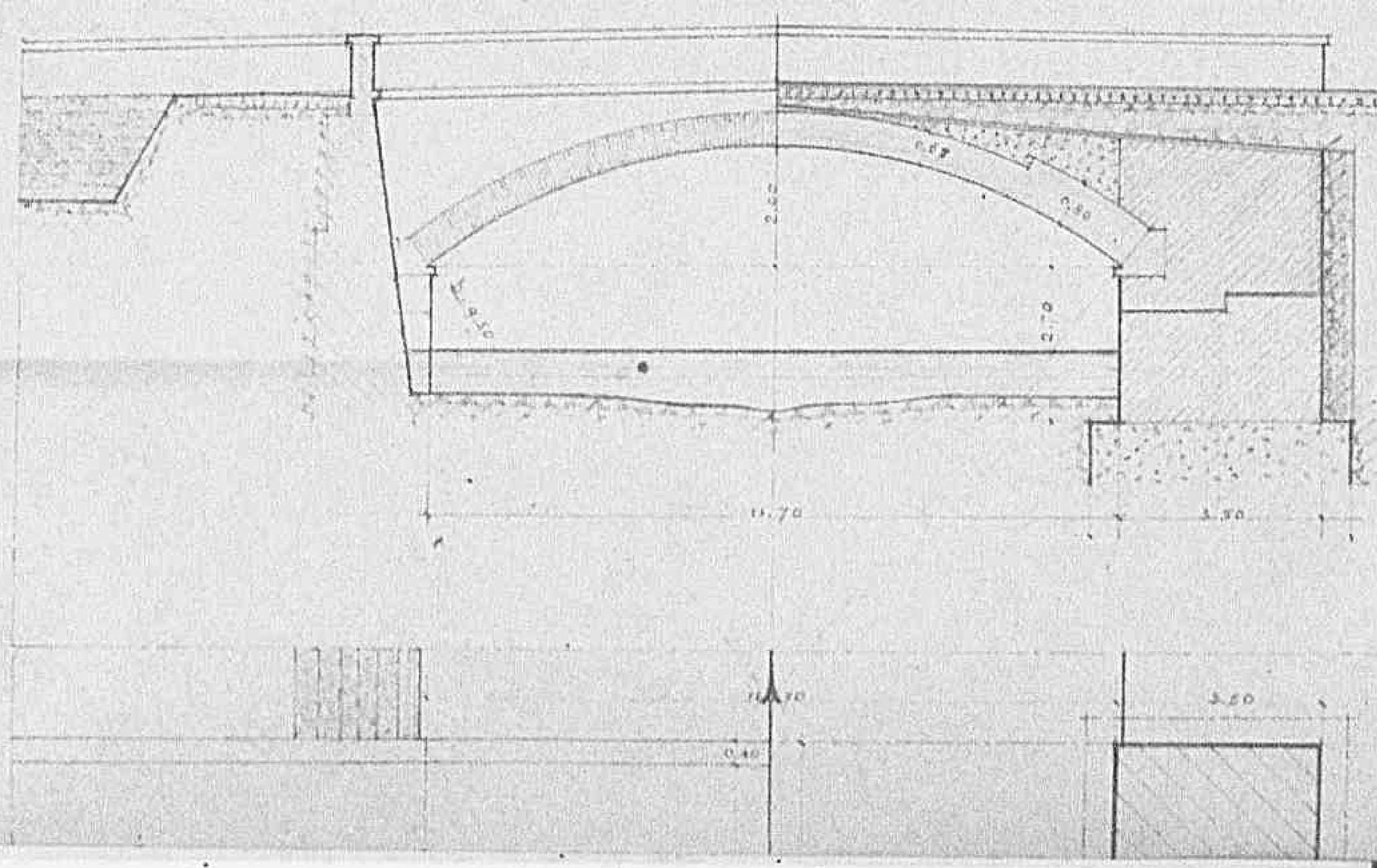
— Amministrazione Provinciale di

— Via di Tiglio —

— Ponte Maggiore - Sul Canale

— Prospetto —

— Sezione —



0 6 2 01

Declassified E.O. 12356 Section 3.3/NND No.

Amministrazione Provinciale di Lucca —

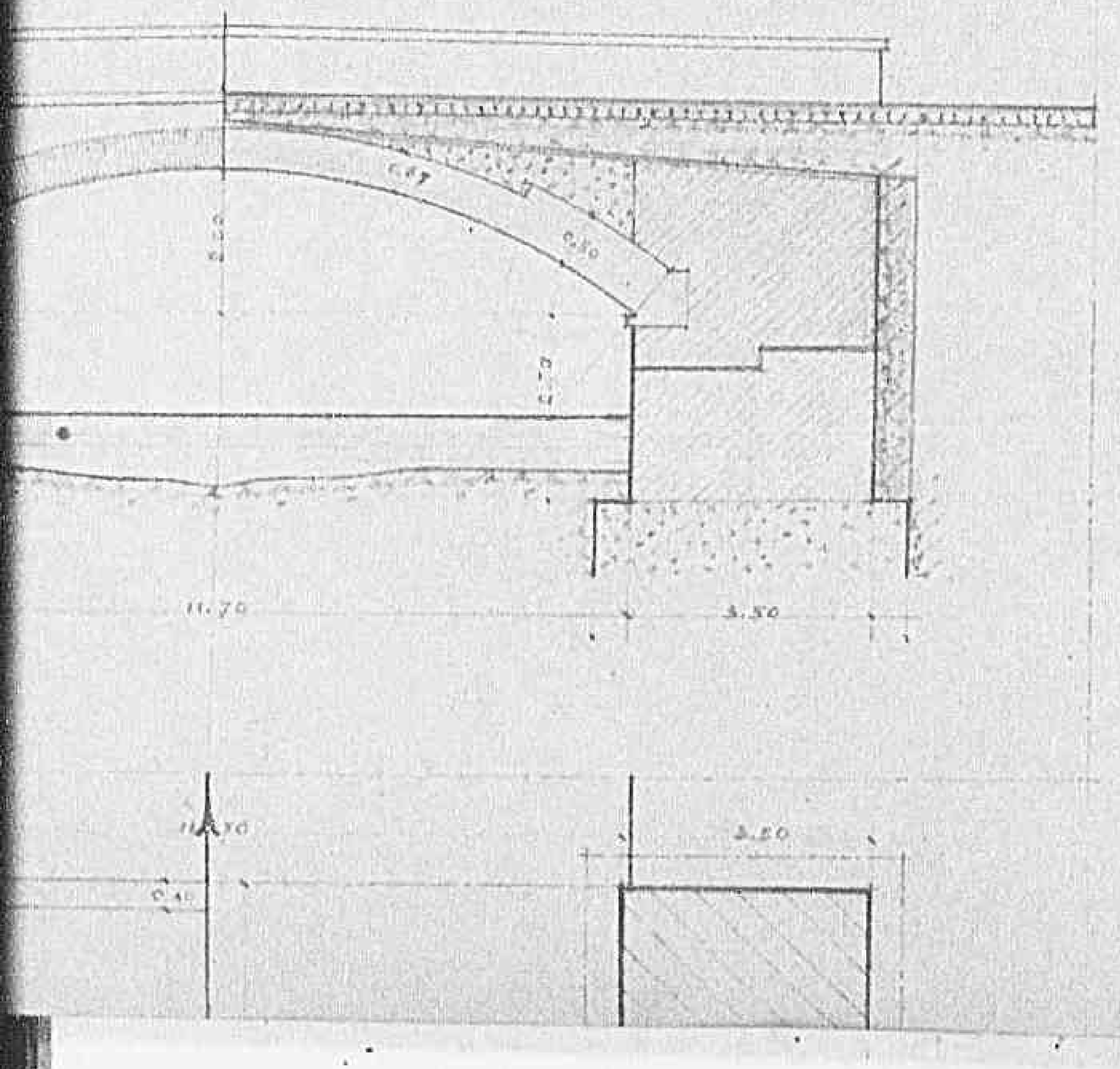
— Via di Tiglio —

— Scala 1:100 —

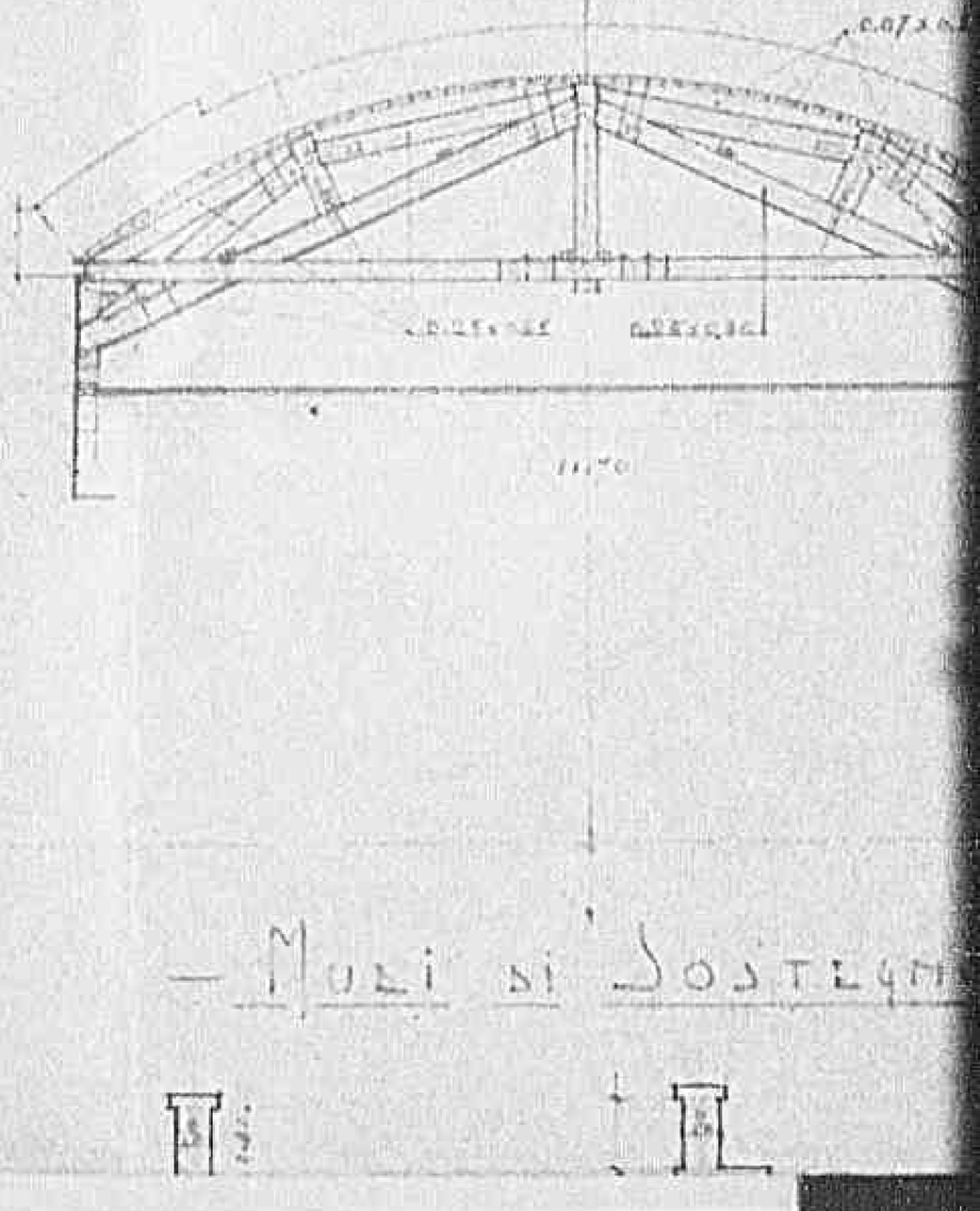
- 8-2-945 -

Ponte Maggiore - Sul Canale Rogio —

— Sezione —



— Ultima —



— Muri di sostegno —

0621

Declassified E.O. 12356 Section 3.3/NND No.

Provinciale di Lucca —

Tiglio —

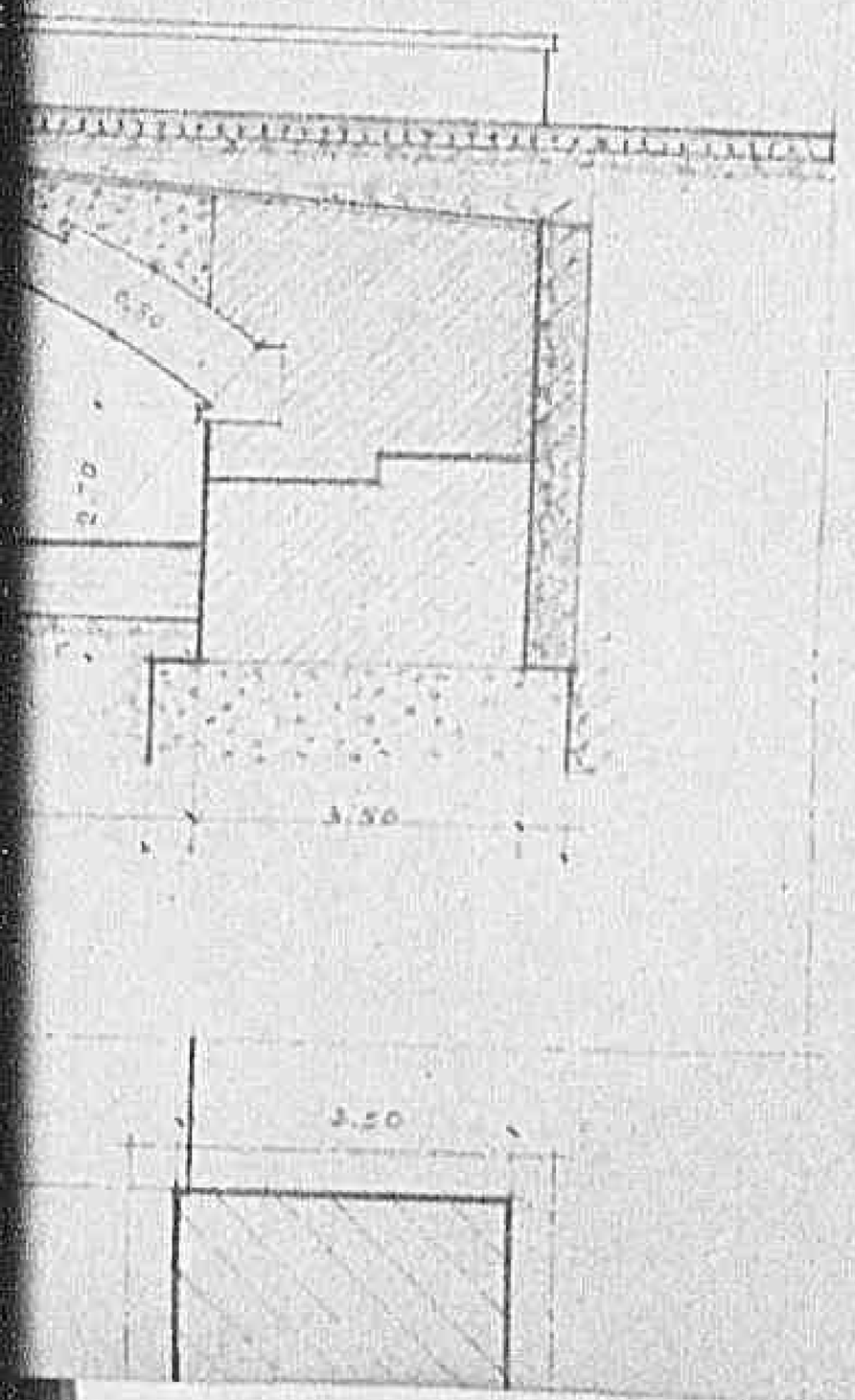
— Scala 1:100 —

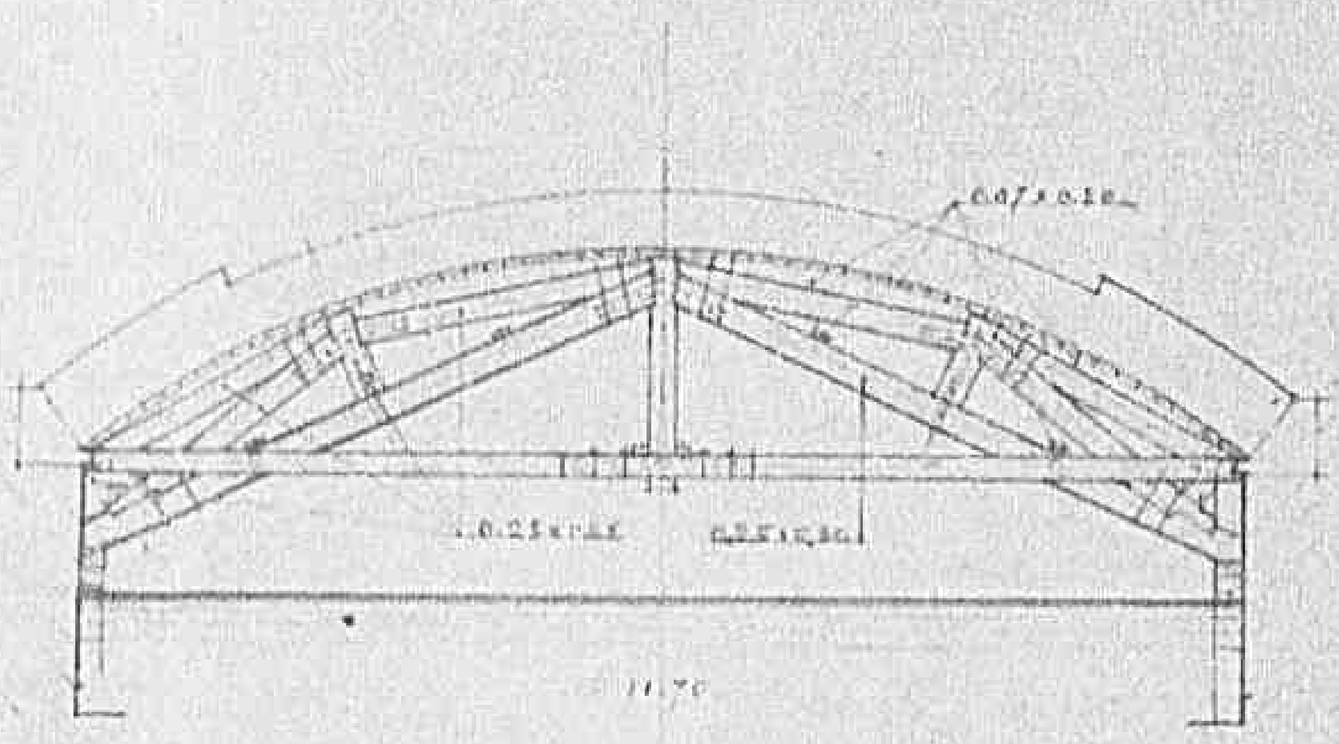
- 8-2-945 -

— Sul canale Tiglio —

— Olmi —

— Lentina —





— Muri di Sostegno —

0621

Declassified E.O. 12356 Section 3.3/NND No.

0623

Declassified E.O. 12356 Section 3.3/NND No.

11.70

3.50

11.70

2.50

0.40

7.20

5.00

0.40

— PIANTA —

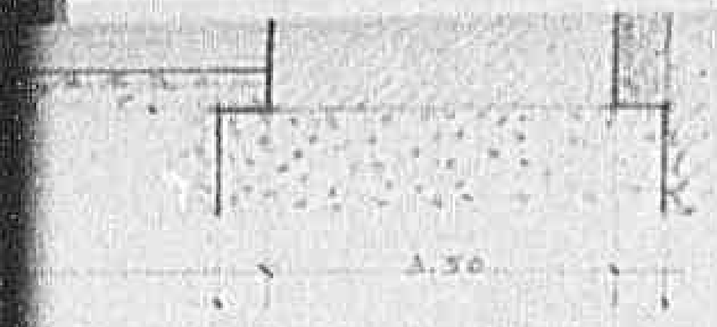
— MURI DI SOS

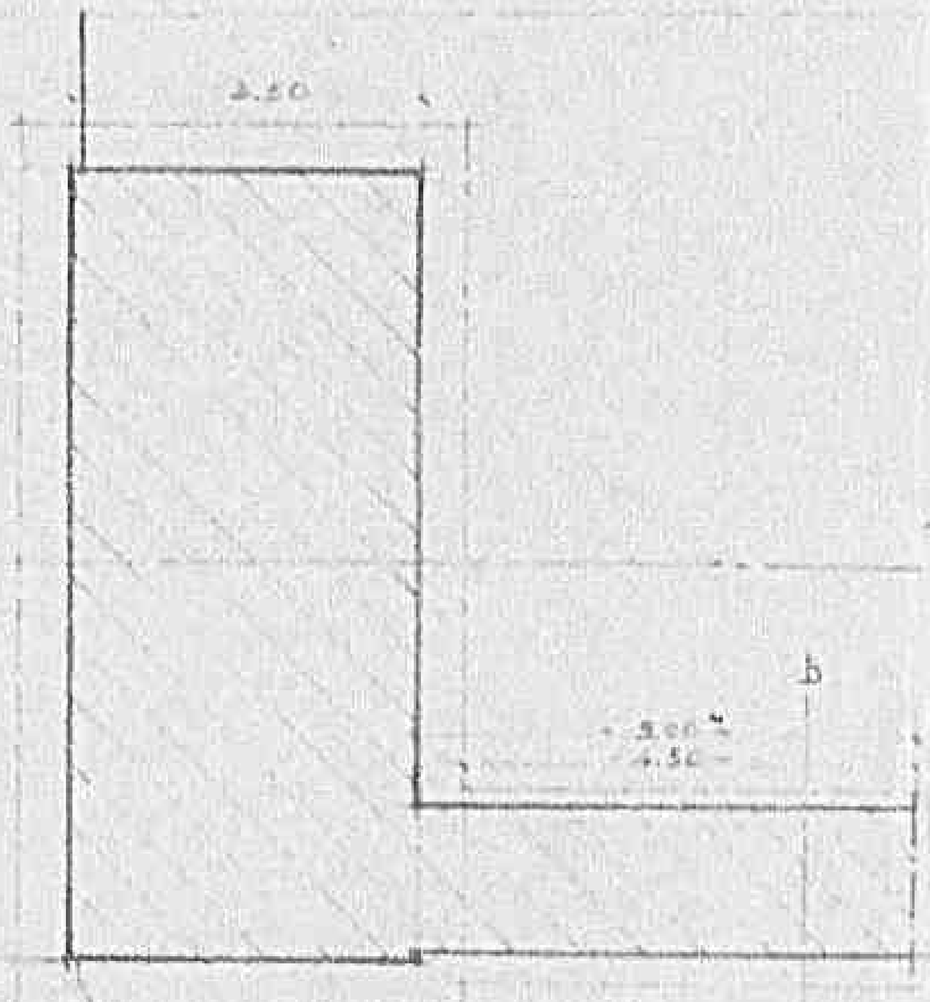
— SEZ. B —

— SEZ. A —

0624

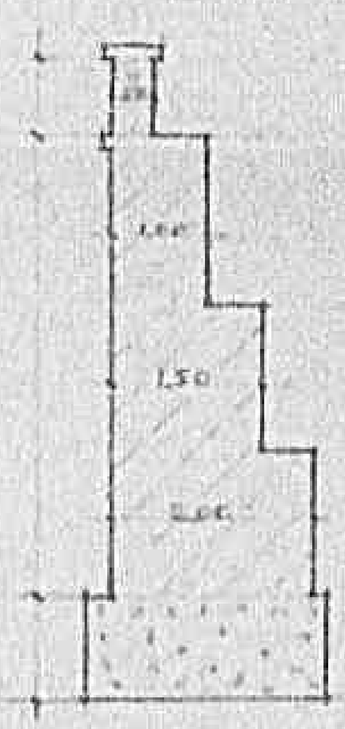
Declassified E.O. 12356 Section 3.3/NND No.





— Muri di Sostegno —

— Sez. A-B —



— Sez. C-D —

L'Ingegnere Capo

0625

Declassified E.O. 12356 Section 3.3/NND No. 785019

ACC 10000/150/779 (2 of 2) TOSCANA REGION, MISCEL
(VOL. 3) FEB. - APR. 1945

Declassified E.O. 12356 Section 3.3/NND No. 785019

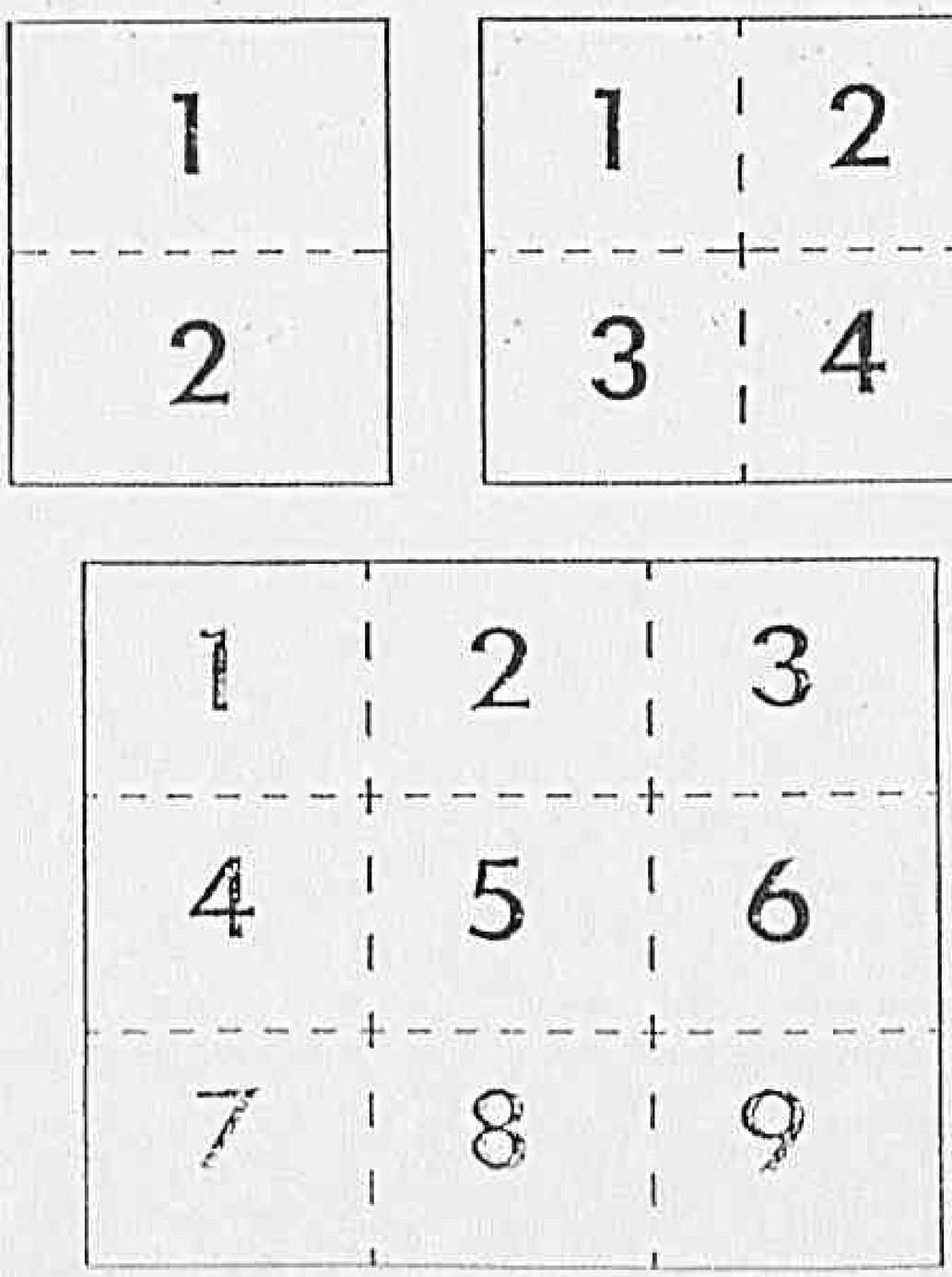
TOSCANA REGION, MISCELLANEOUS PROJECTS
FEB. - APR. 1945

0628I

Declassified E.O. 12356 Section 3.3/NND No. 785019

MAPS AND CHARTS TOO LARGE TO FILM
ON ONE EXPOSURE ARE FILMED CLOCKWISE
BEGINNING IN THE UPPER LEFT CORNER,
LEFT TO RIGHT, AND TOP TO BOTTOM.

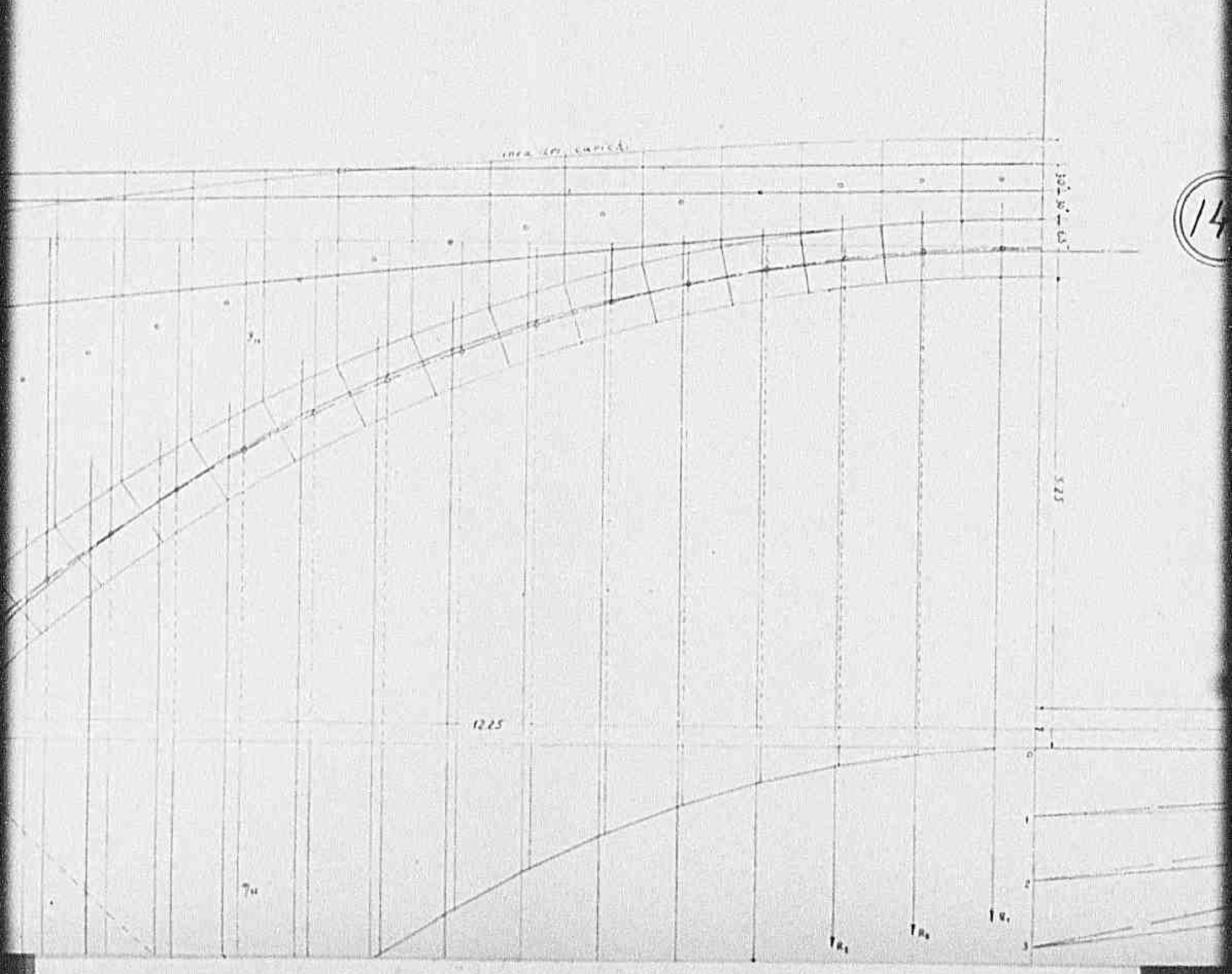
SEE DIAGRAMS BELOW.



0 6 2 91

Declassified E.O. 12356 Section 3.3/NND No. 785019

Declassified E.O. 12356 Section 3.3/NND No. 785019



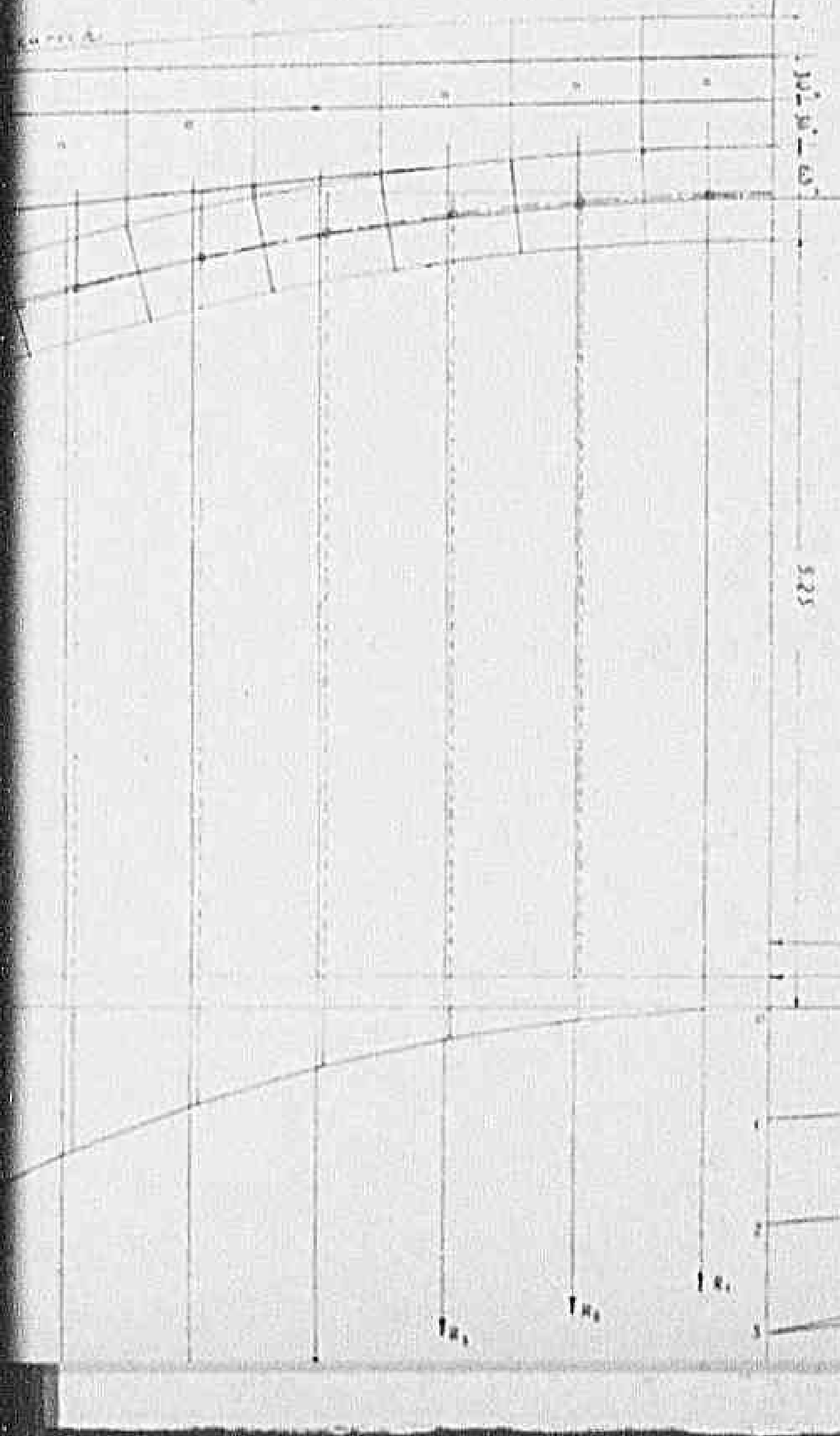
0631

Declassified E.O. 12356 Section 3.3/NND No. 785019

MINISTERO D
Ufficio del

(148) Ricostruzione del p

Calcolo da



0.6.3.21

Declassified E.O. 12356 Section 3.3/NND No. 785019

MINISTERO DEI LAVORI PUBBLICI
ufficio del genio civile di FIRENZE

(148) Ricostruzione del ponte di Mercatale a
sul E

Calcolo dell'arcata centrale

$H = 85.5\ l$

$H_0 = 50\ l$

P_0

0633

Declassified E.O. 12356 Section 3.3/NND No. 785019

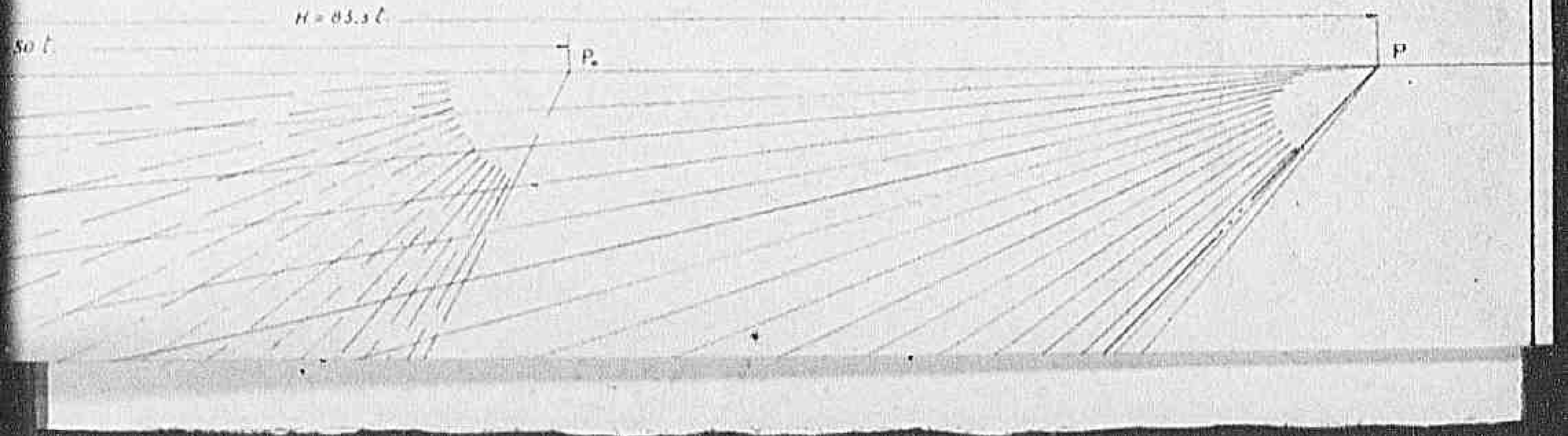
Fn 680

MINISTERO DEI LAVORI PUBBLICI
ufficio del genio civile di
FIRENZE

...zione del ponte di Mercatale a Prato sul Bisenzio

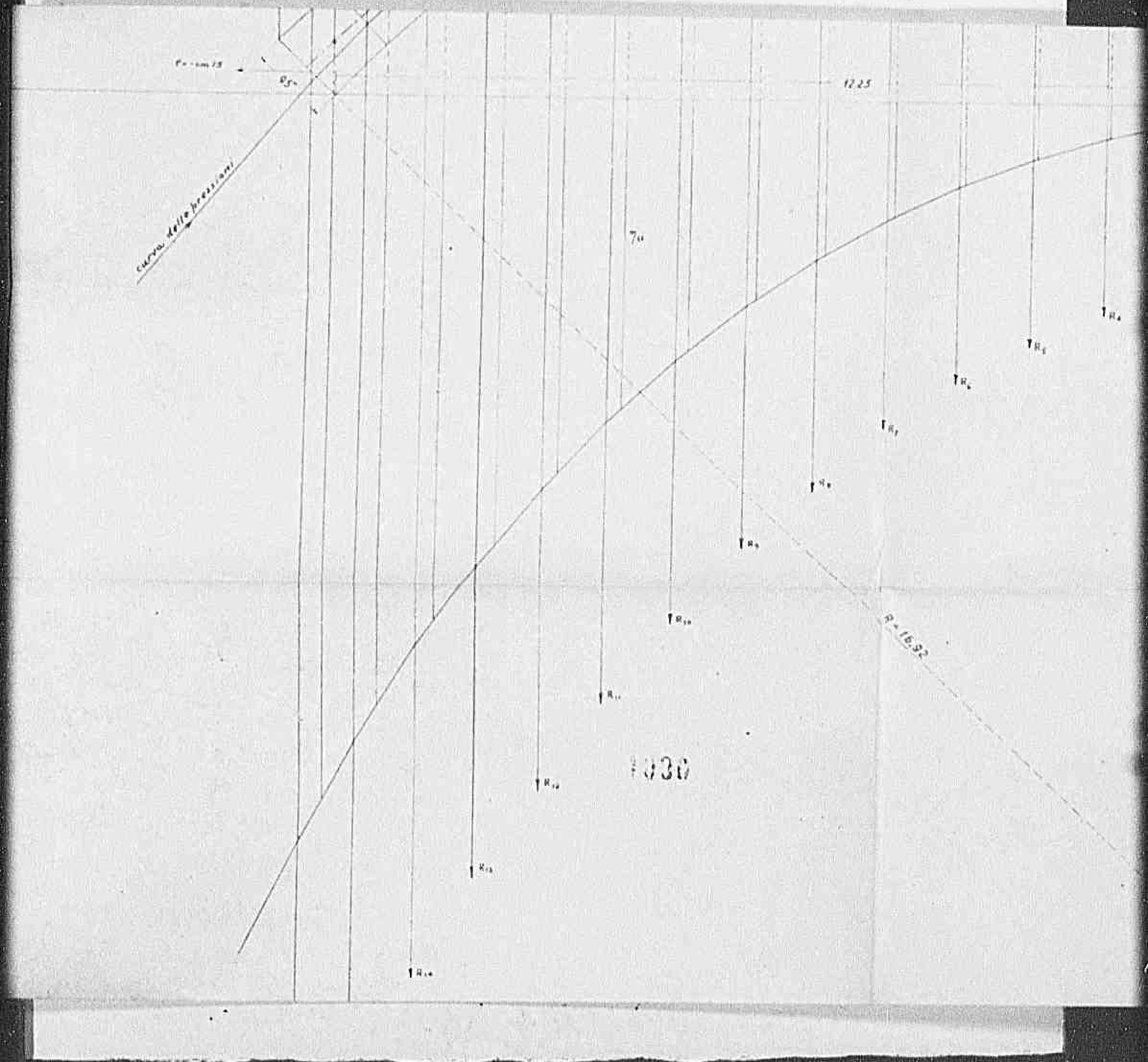
...alcolo dell'arcata centrale

M 841



0634

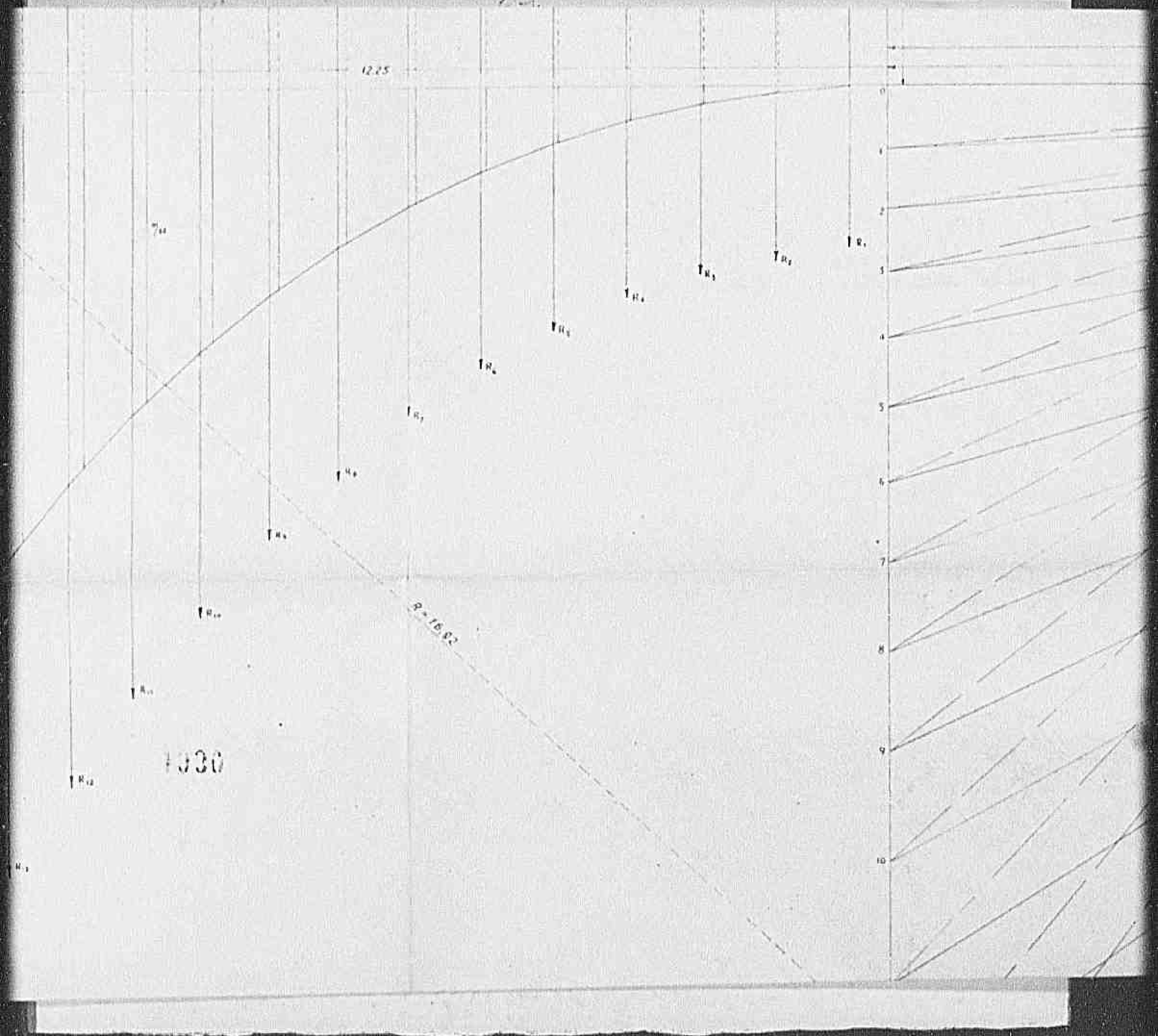
Declassified E.O. 12356 Section 3.3/NND No. 785019



938

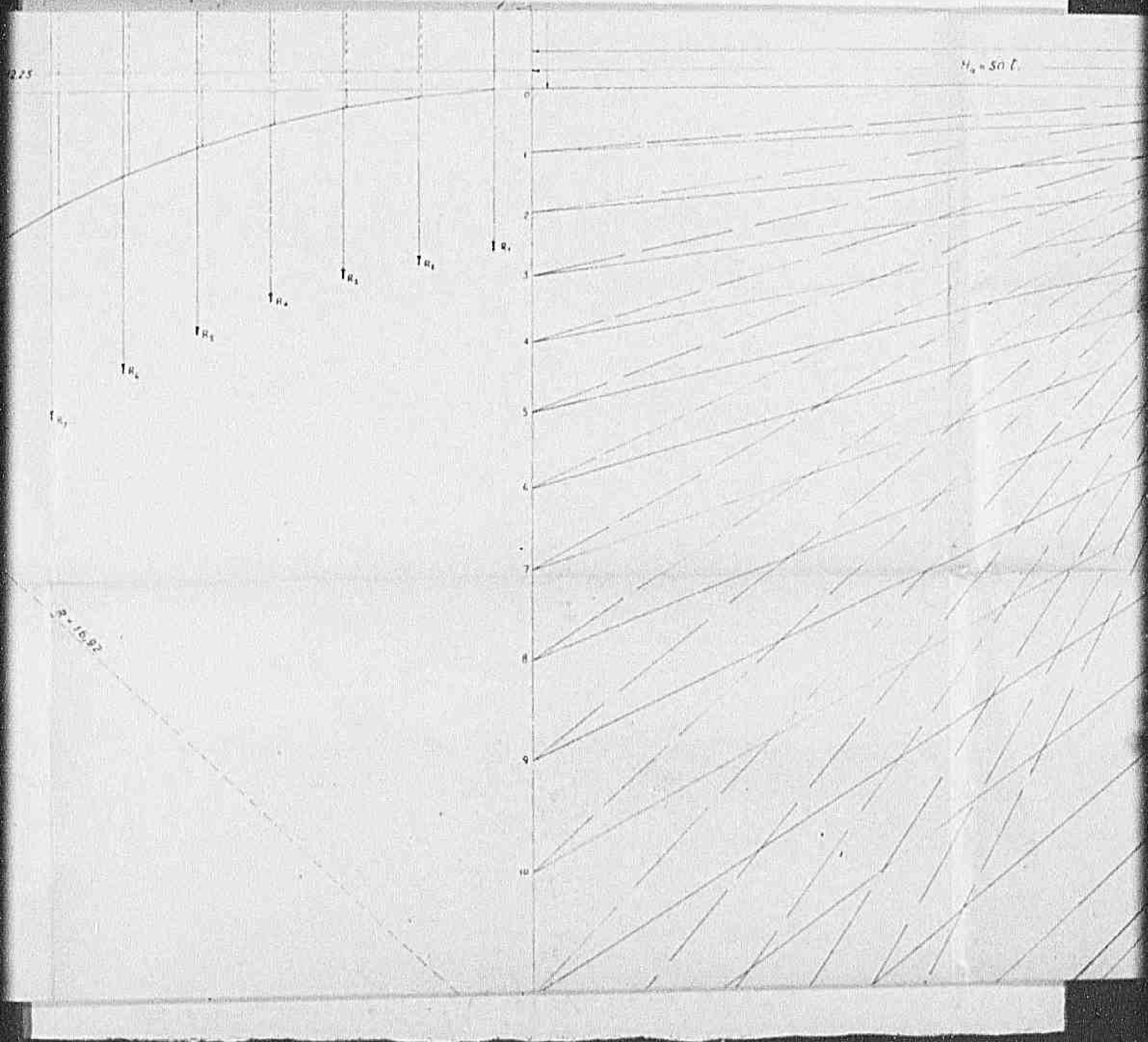
0635

Declassified E.O. 12356 Section 3.3/NND No. 785019



0 6 3 61

Declassified E.O. 12356 Section 3.3/NND No. 785019



0637

Declassified E.O. 12356 Section 3.3/NND No. 785019

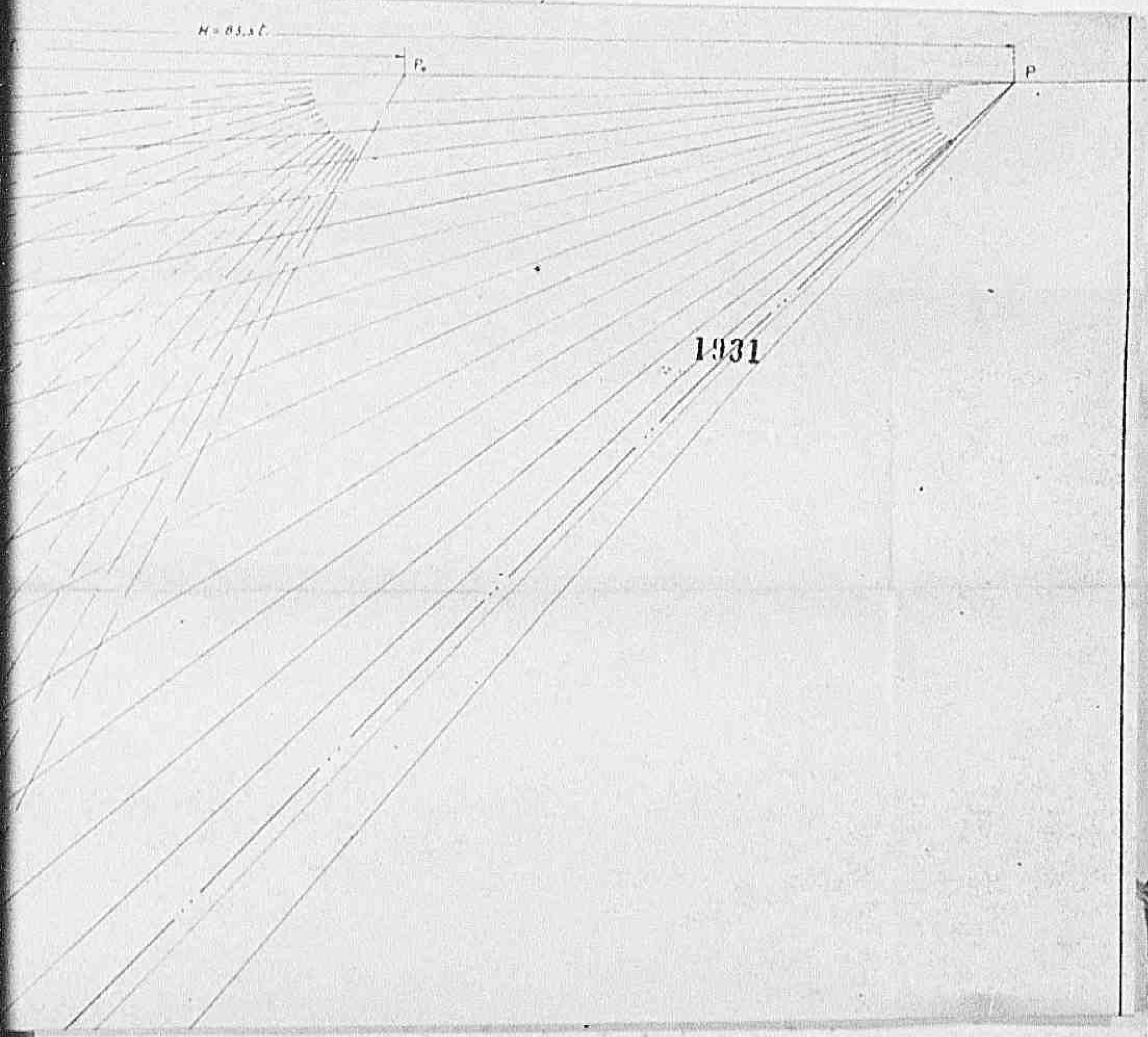
$H = 83.5\ l.$

$H_0 = 50\ l.$ } P_0

1931

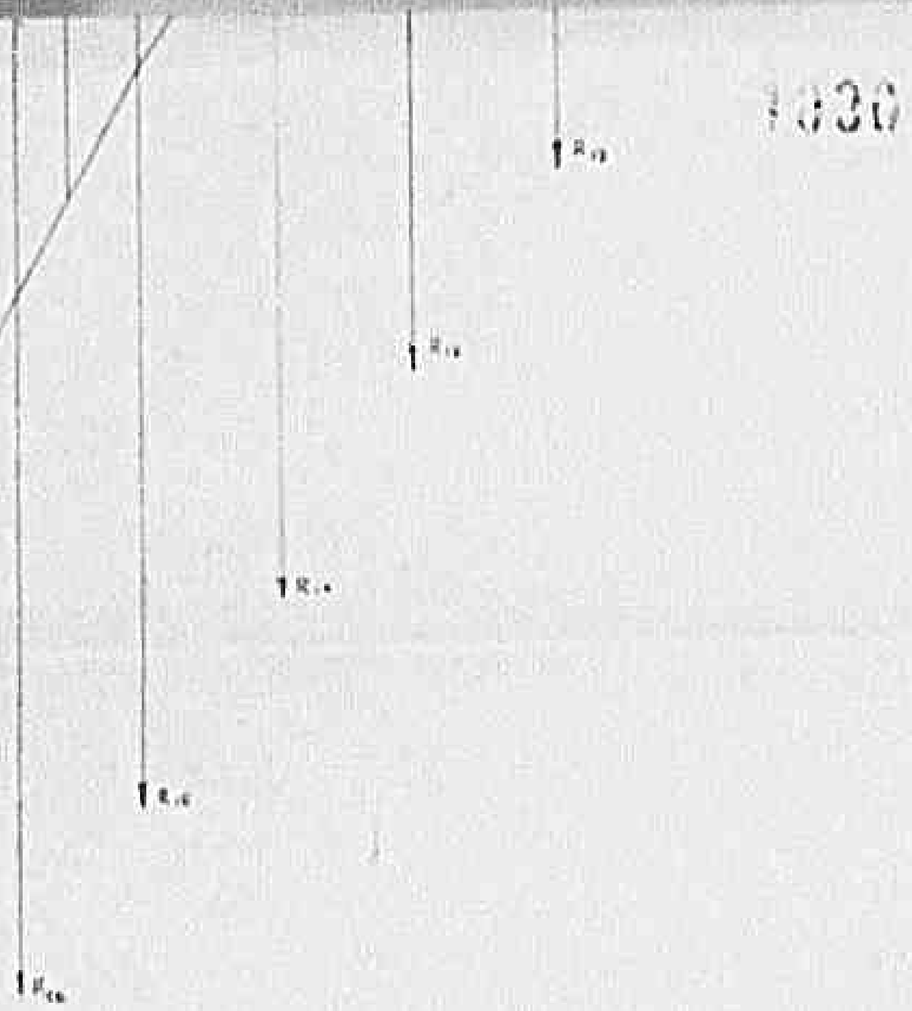
0 6 3 8 1

Declassified E.O. 12356 Section 3.3/NND No. 785019



0 6 3 9 1

Declassified E.O. 12356 Section 3.3/NND No. 785019



Scala lunghezze 1:50

" forze 1 cm : 2500 kg.

2 MAG. 1945

L'INGEGNERE PRINCIPALE DI SEZIONE

VISTO: L'Ingegnere Capo

UFFICIO DI PISA

0 6 4 01

Declassified E.O. 12356 Section 3.3/NND No. 785019

1930

scala lunghezze 1:50

" forze 1 cm : 2500 kg.

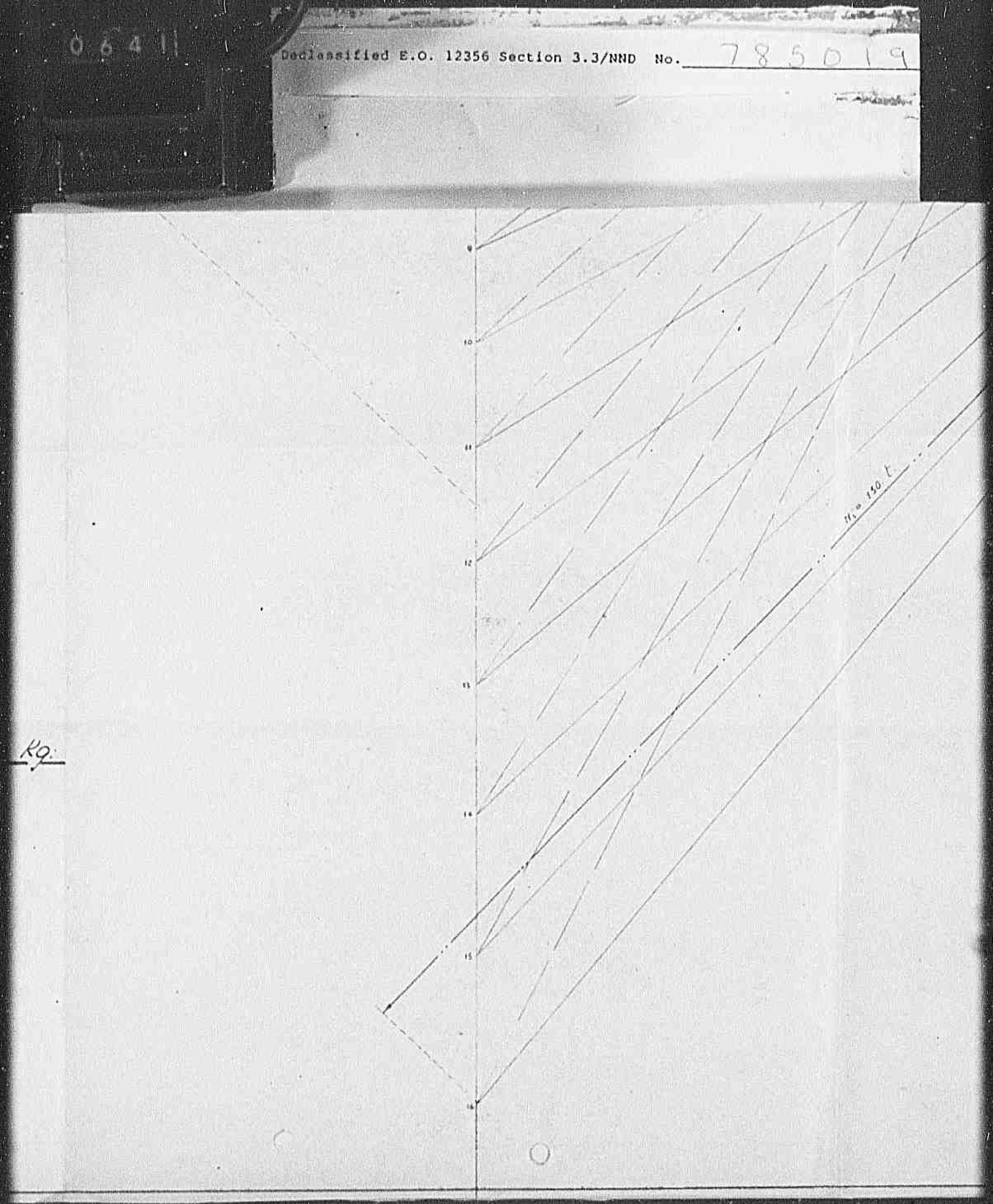
2 MAG. 1940

L'INGEGNERE PRINCIPALE DI SEZIONE

Capo

0641

Declassified E.O. 12356 Section 3.3/NND No. 785019



KG

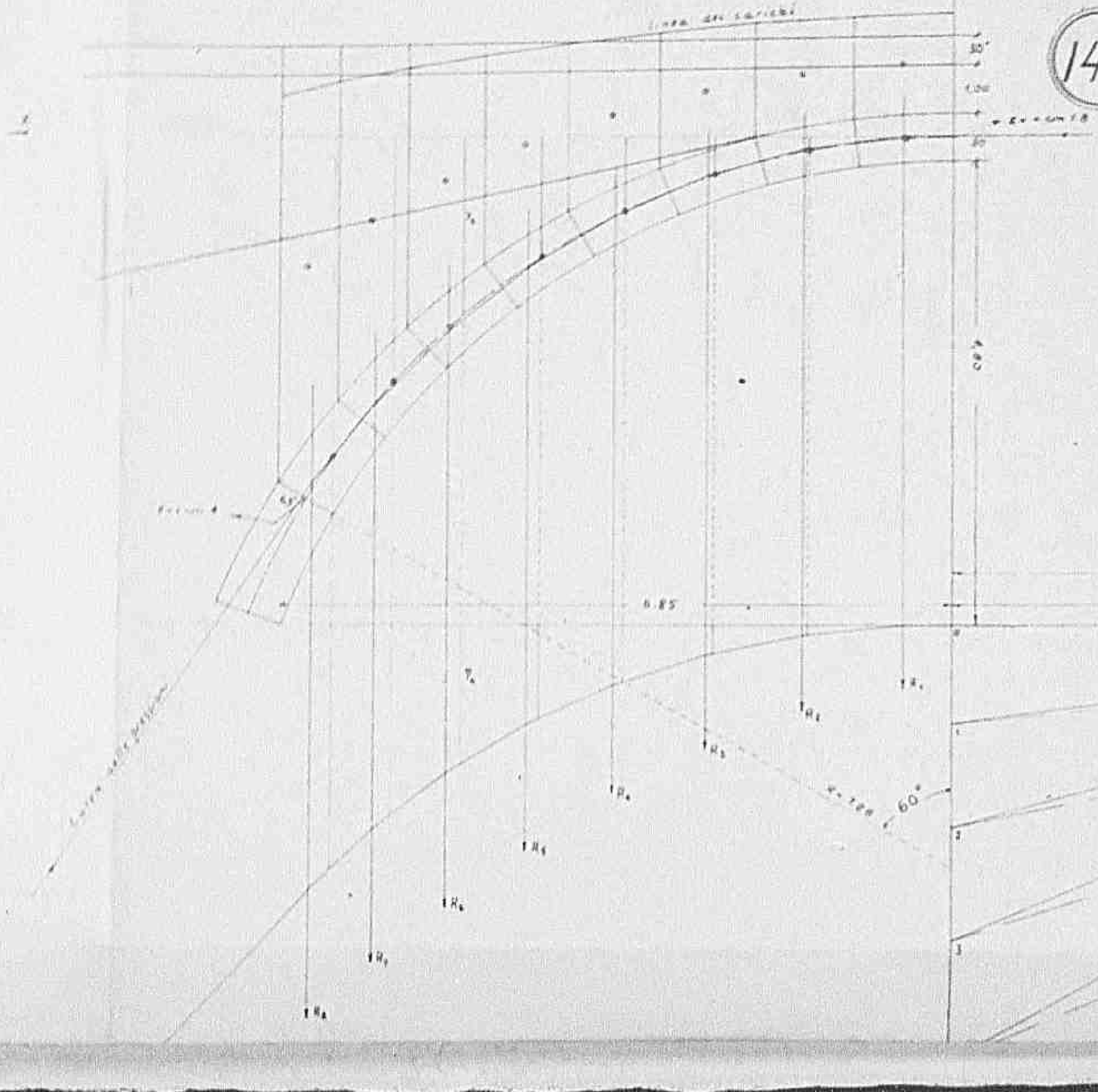
Declassified E.O. 12356 Section 3.3/NND No. 785019

$H_L = 130$ L

06431

Declassified E.O. 12356 Section 3.3/NND No. 785019

148



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Declassified E.O. 12356 Section 3.3/NND No. 785019

148

Ri
Mo

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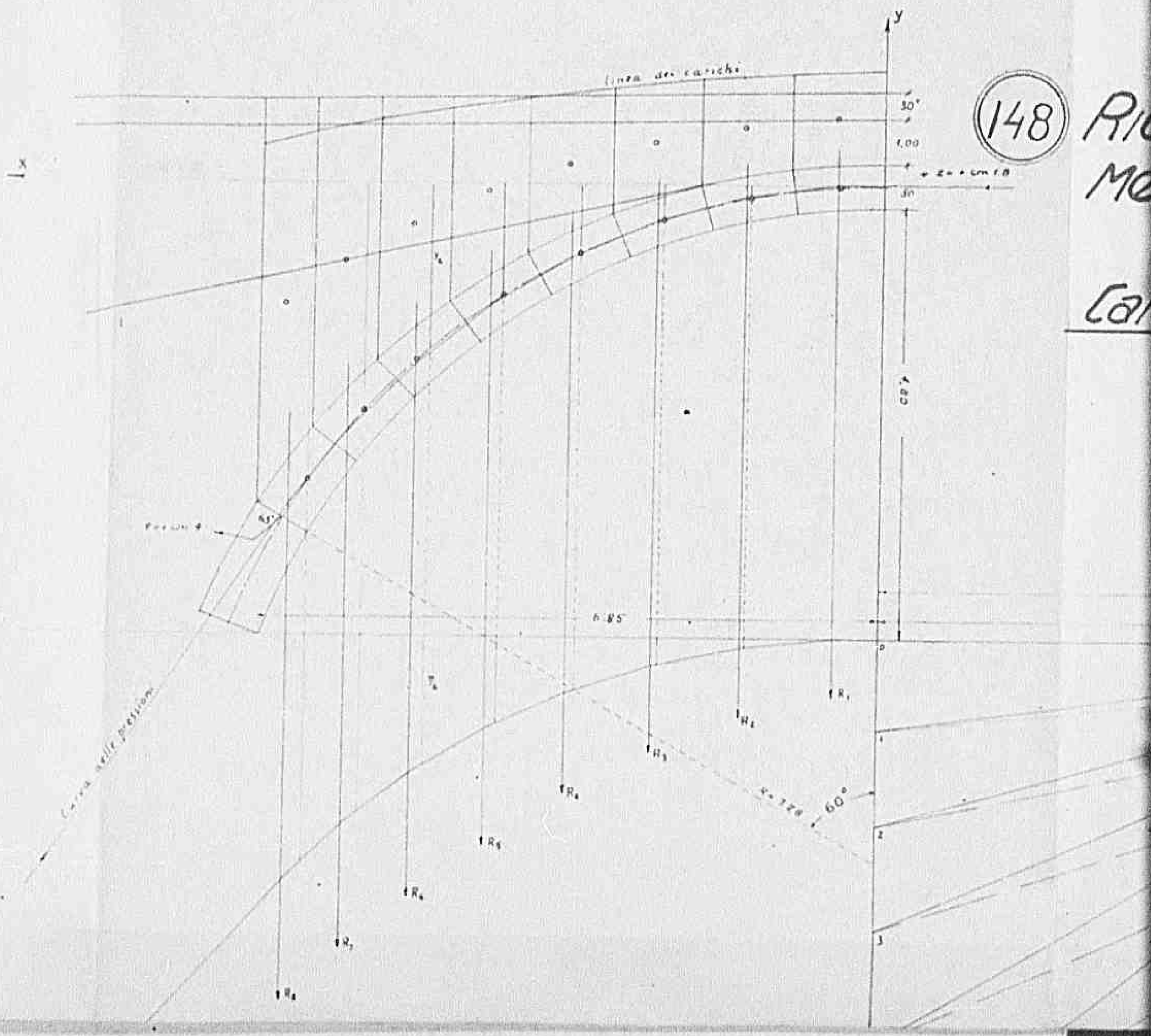


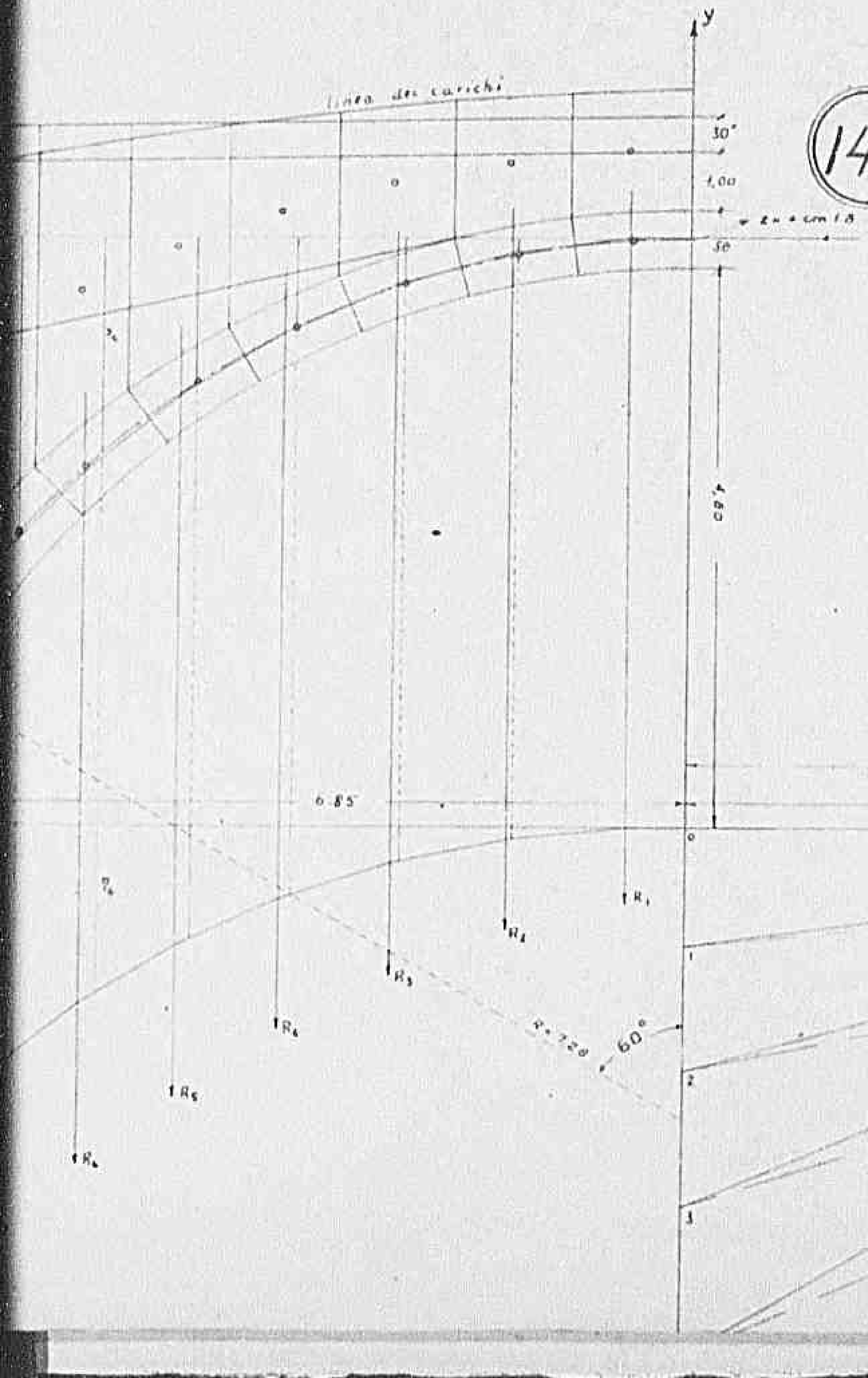
0645

Unclassified E.O. 12356 Section 3.3/NND No. 785019

MINISTERO DEI LAVORI
Ufficio del Genio Civ

(148) Ricostruzione del
Mercatale a Prato

Calcolo di una arcata



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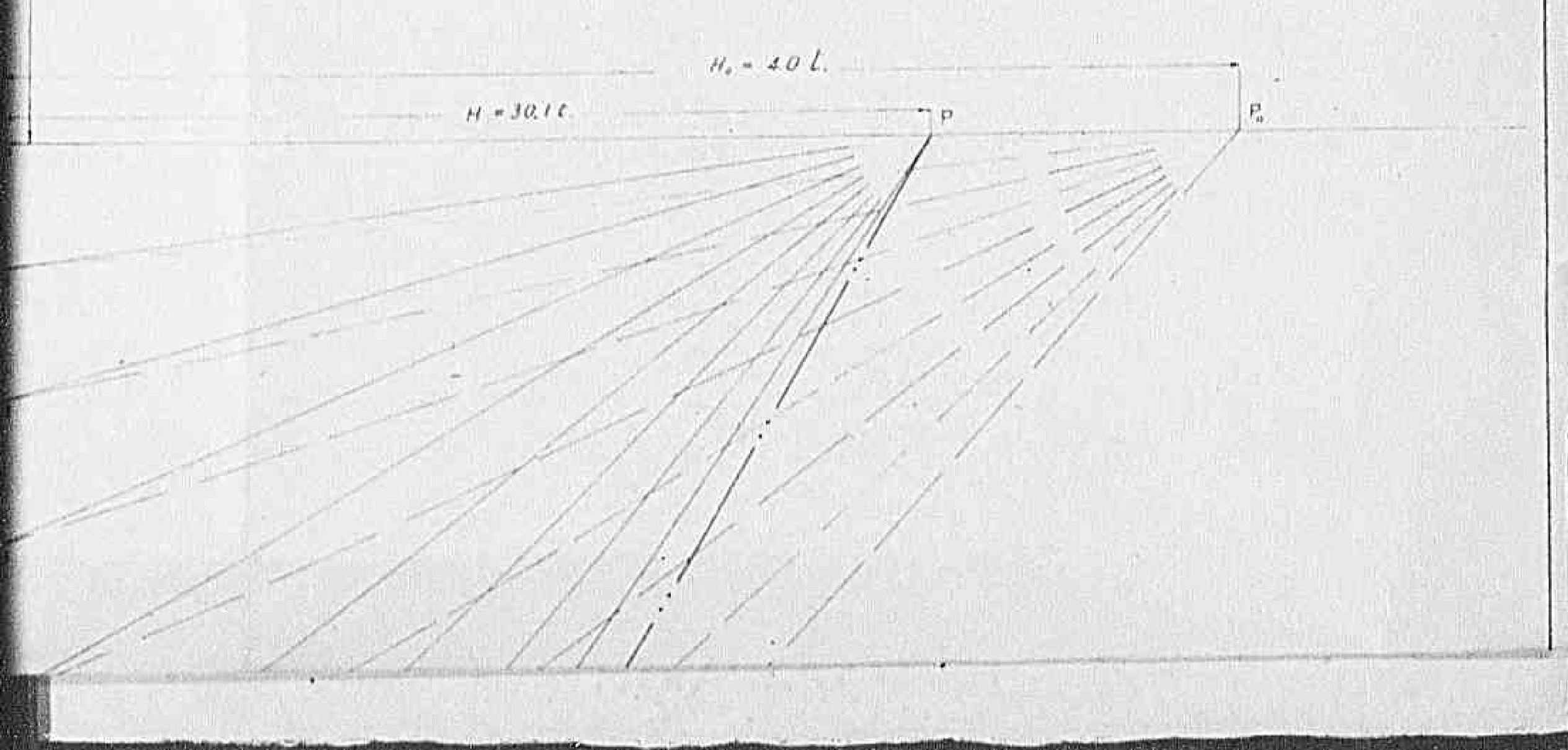
Declassified E.O. 12356 Section 3.3/NND No. 785019

Mem 680

MINISTERO DEI LAVORI PUBBLICI
ufficio del genio civile di
FIRENZE

(148) Ricostruzione del ponte di Mercatale a Prato sul Bisenzio

Calcolo di una arcata laterale



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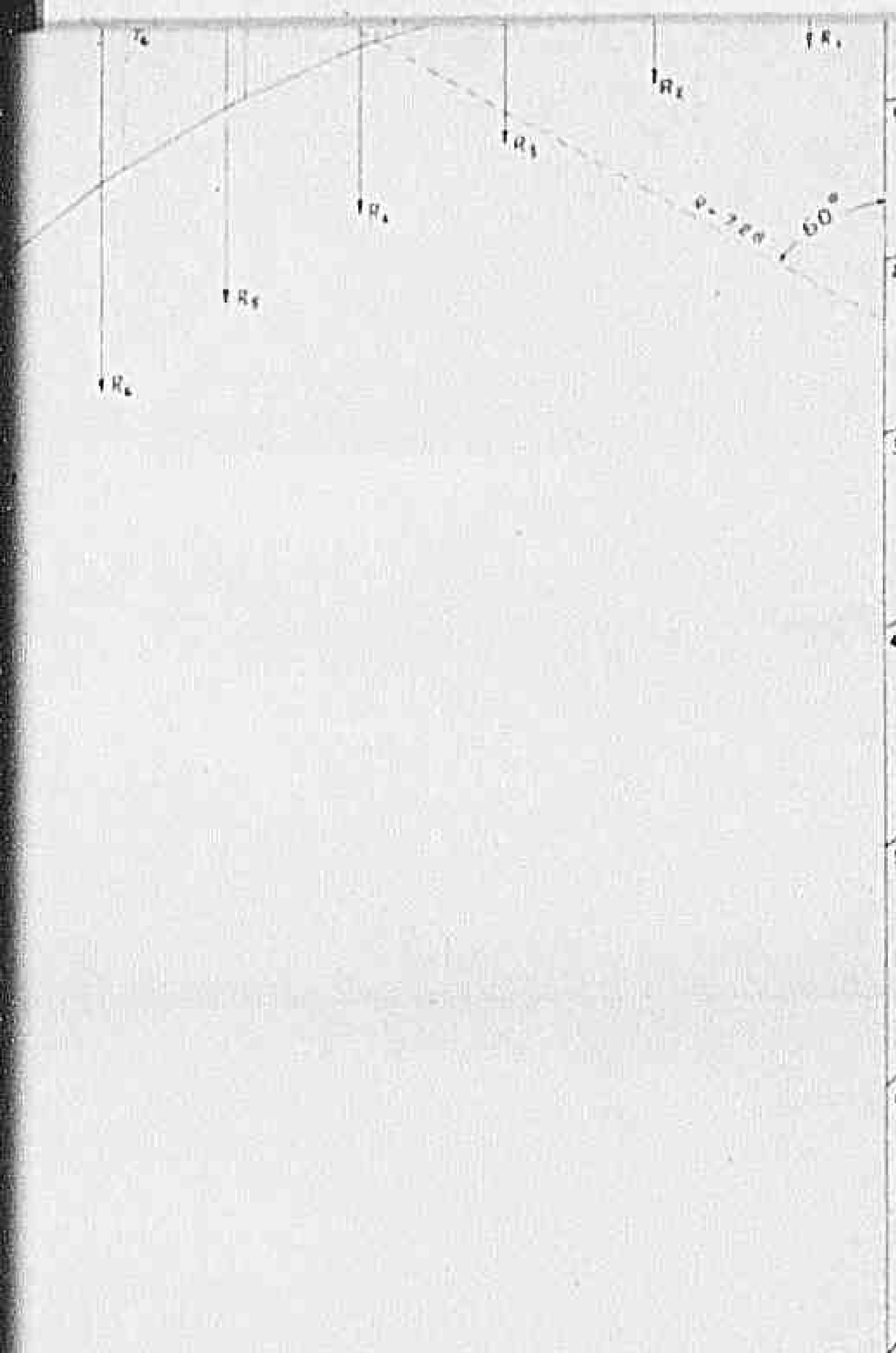
Declassified E.O. 12356 Section 3.3/NND No. 785019

Declassified E.O. 12356 Section 3.3/NND No. 785019



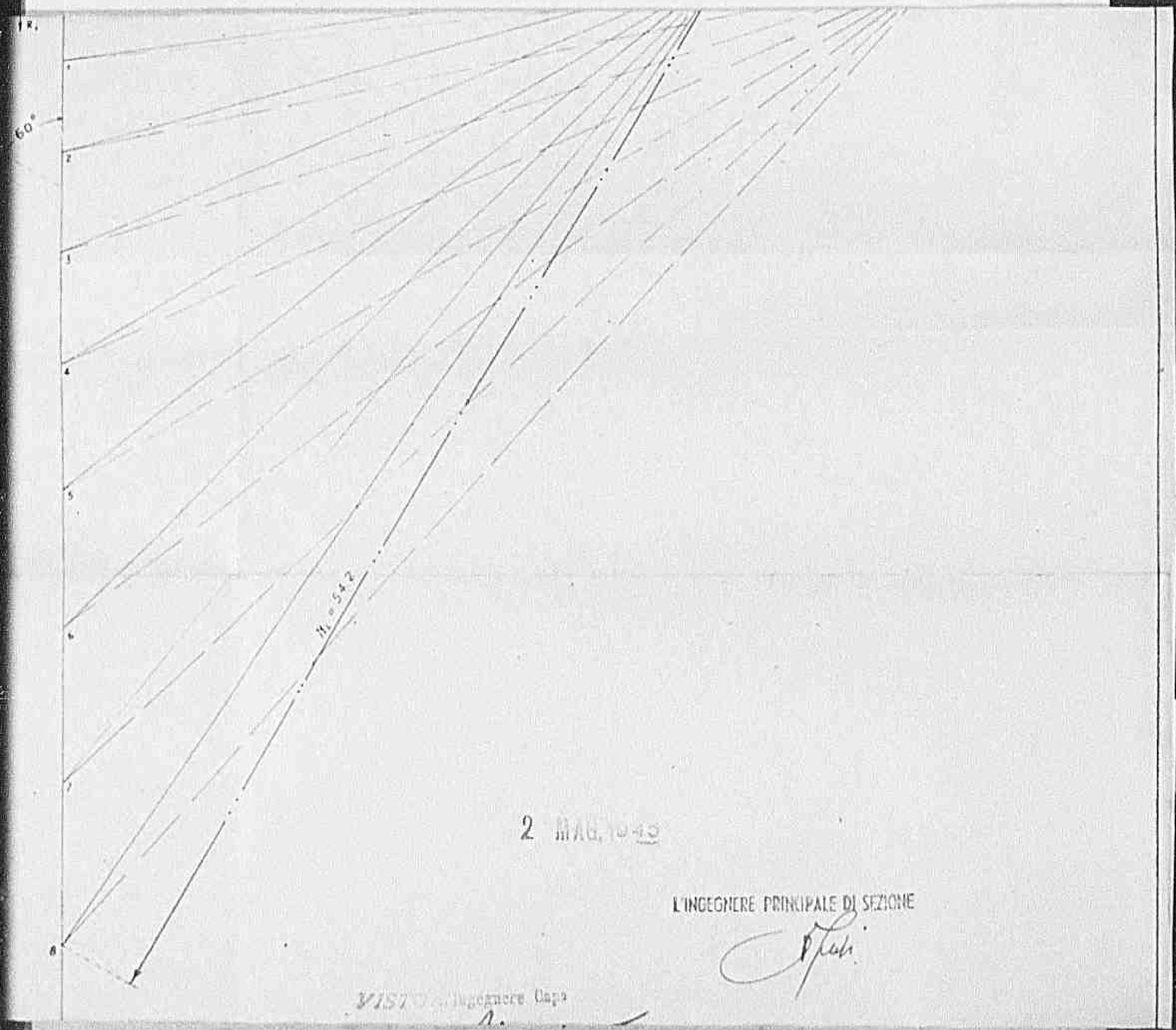
2 MAG. 1940

L'INGEGNE

VISTO - Ingegnere Capo

0649

Declassified E.O. 12356 Section 3.3/NND No. 785019



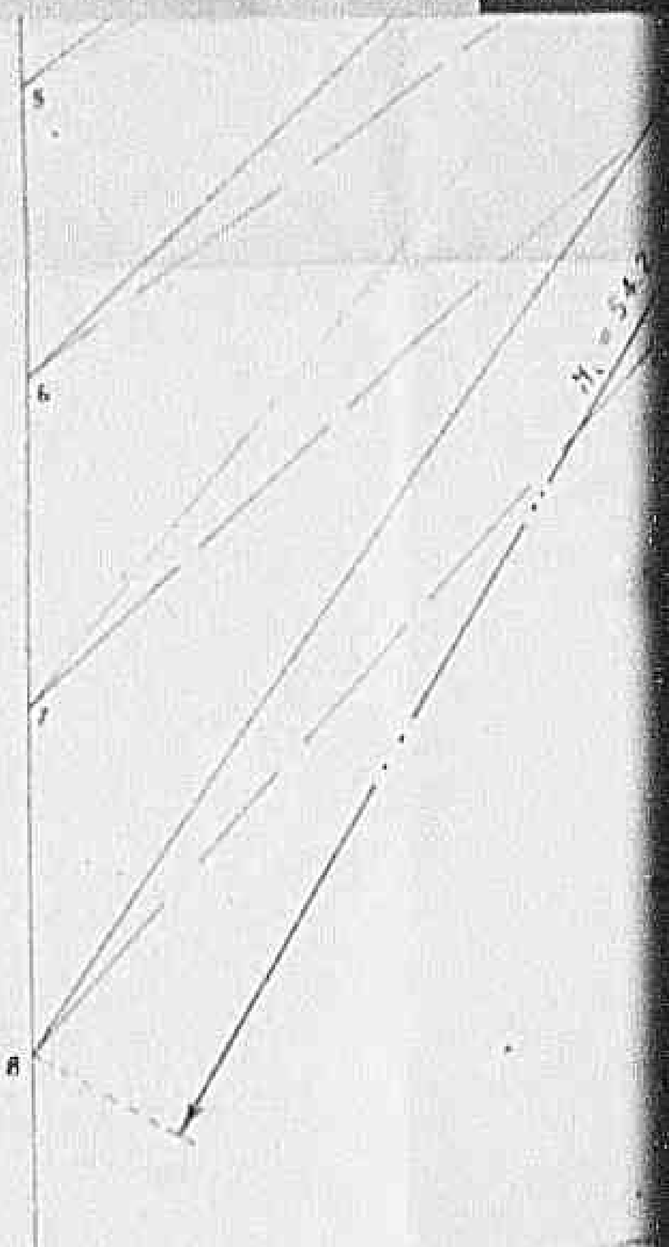
2 MAG. 1943

L'INGEGNERE PRINCIPALE DI SEZIONE

VISTO L'Ingegnere Capo

0 6 5 01

Declassified E.O. 12356 Section 3.3/NND No. 785019

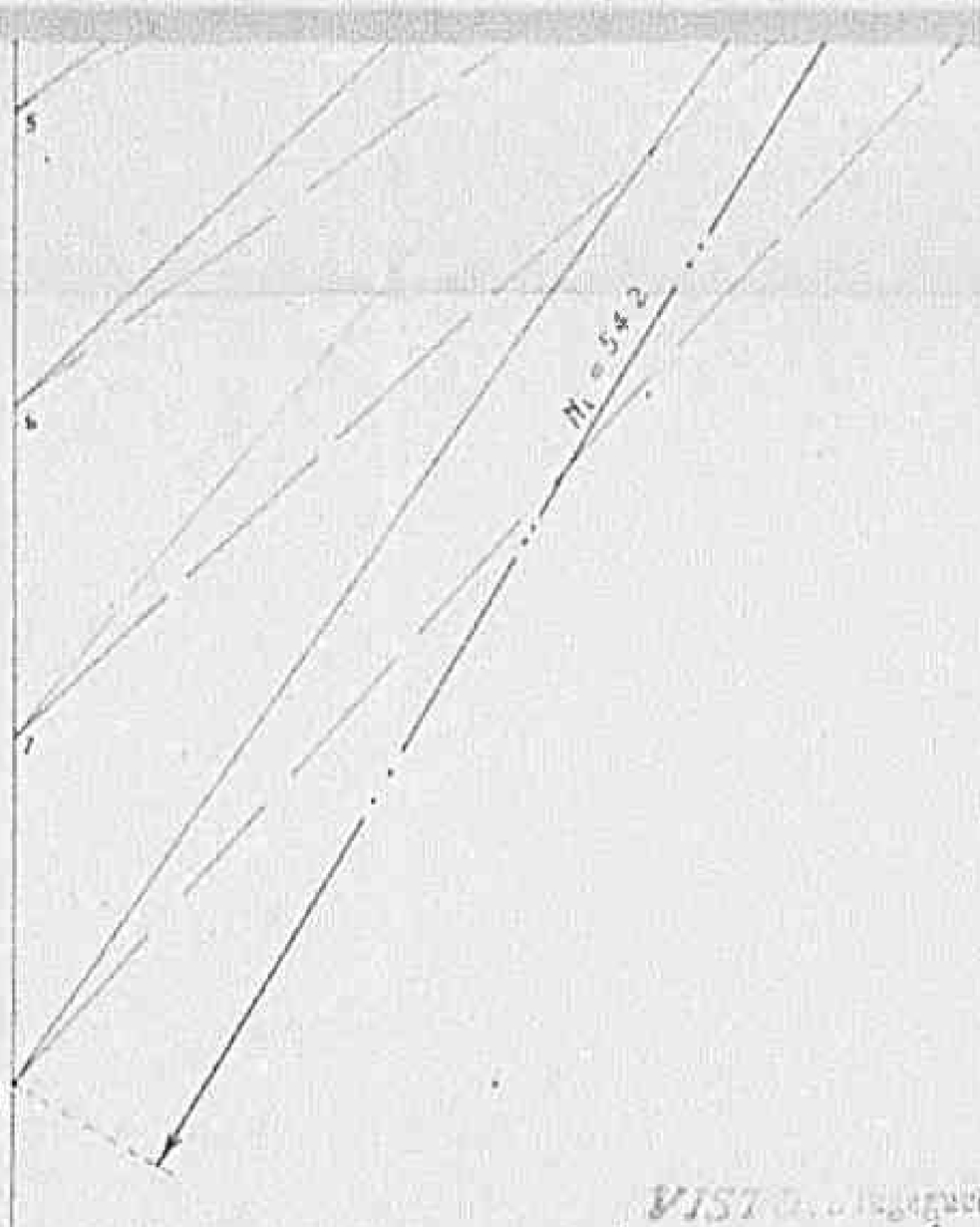


scala lunghezze 1:50

.. delle forze 1 cm : 2000 Kg

0651

Declassified E.O. 12356 Section 3.3/NND No. 785019



1:50

1 CM : 2000 K°

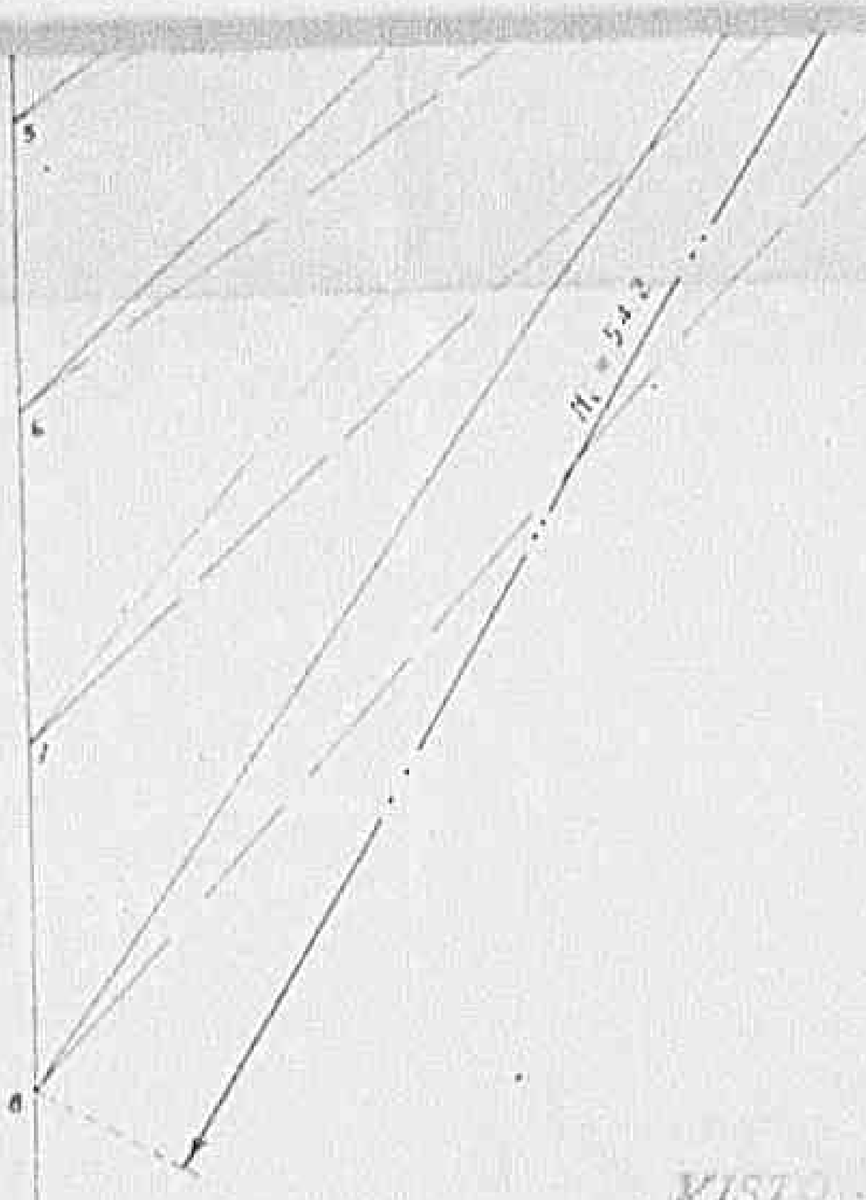
2 MAG. 1940

L'INGEGNERE PRINCIPALE DI

VISTO Ingegnere Capo

0652

Declassified E.O. 12356 Section 3.3/NND No. 785019



2 MAG. 1940

L'INGEGNERE PRINCIPALE DI SEZIONE

VISTO - Ingegnere Capo

Ministero dei LL.PP.
Ufficio del Genio Civile di Firenze

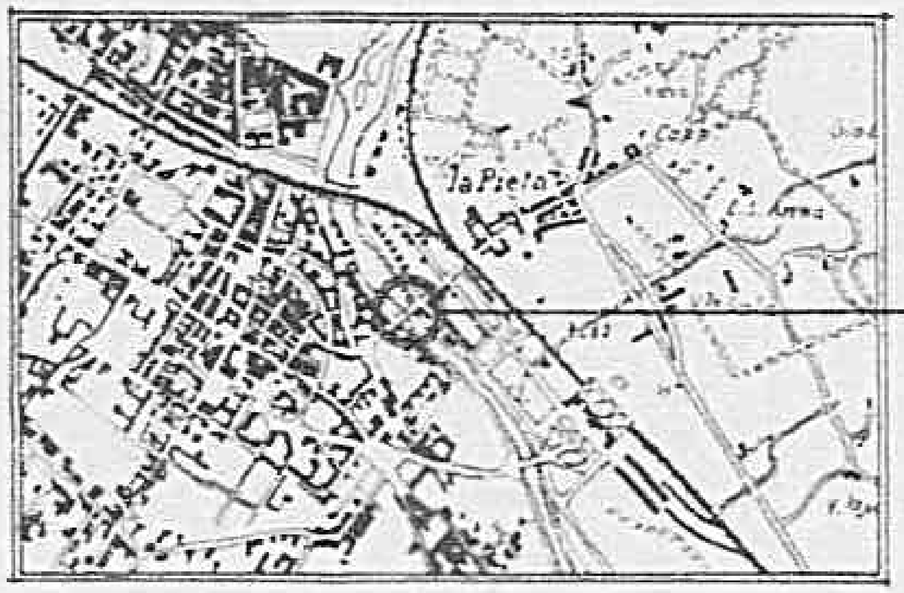
N° 680

148

RICOSTRUZIONE DEL PONTE MERCATALE SUL BISENZIO A PRATO.

N°

COROGRAFIA.



Scala 1~25.000.

Ponte n° 148

Firenze li 2 MAG. 1945

il geom. Principale

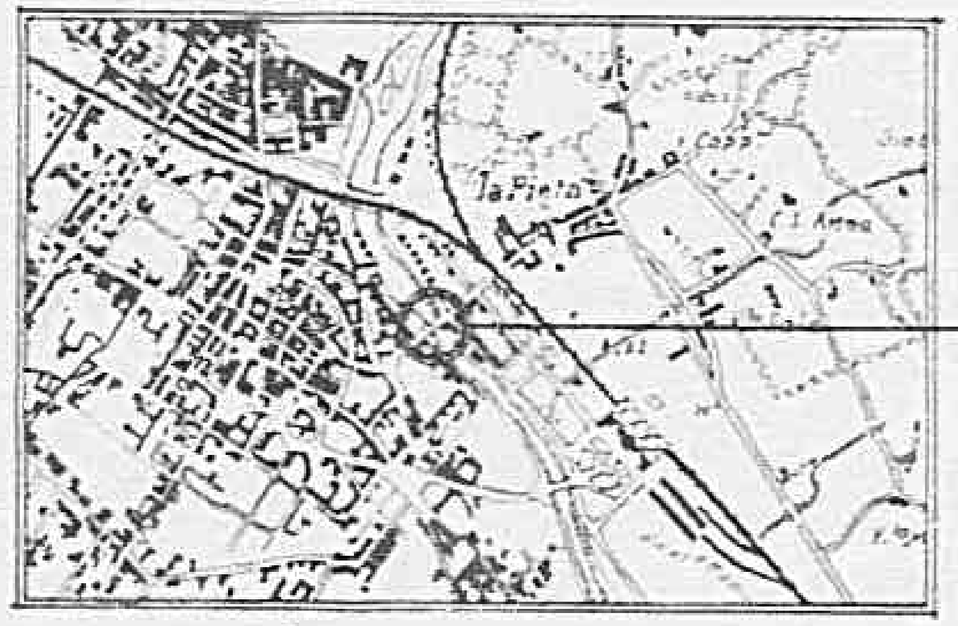
Declassified E.O. 12356 Section 3.3/NND No. 785019

148

SUL BISENZIO A PRATO.

N.

COROGRAFIA.



Scala 1~25.000.

Ponte n° 148

Firenze, li 2 MAG. 1940

il geom. Principale

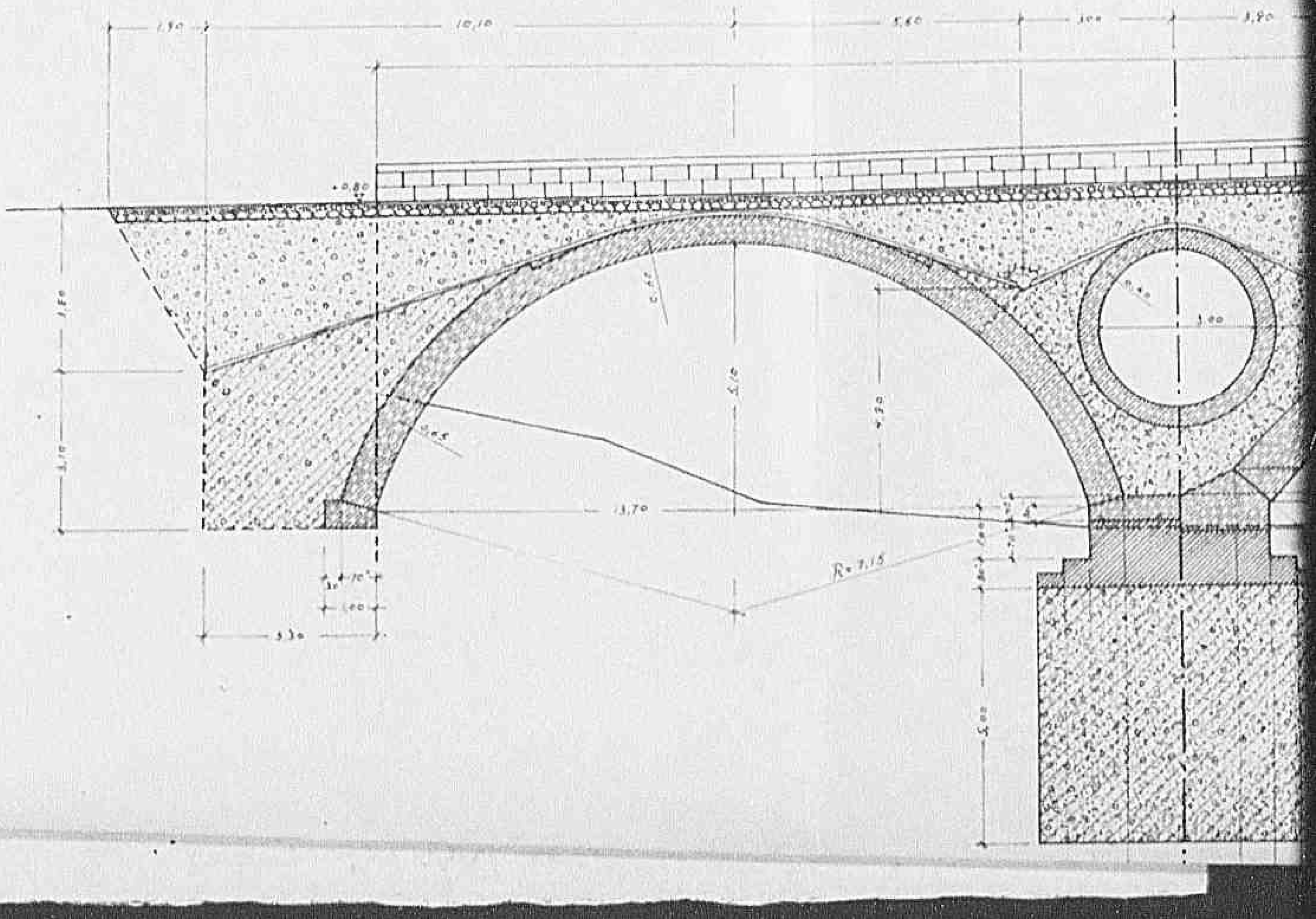
l'Ing. Principale di Sezione

Visto l'Ing. Capo

Declassified E.O. 12356 Section 3.3/NND No. 785019

0655

Declassified E.O. 12356 Section 3.3/NND No. 785019



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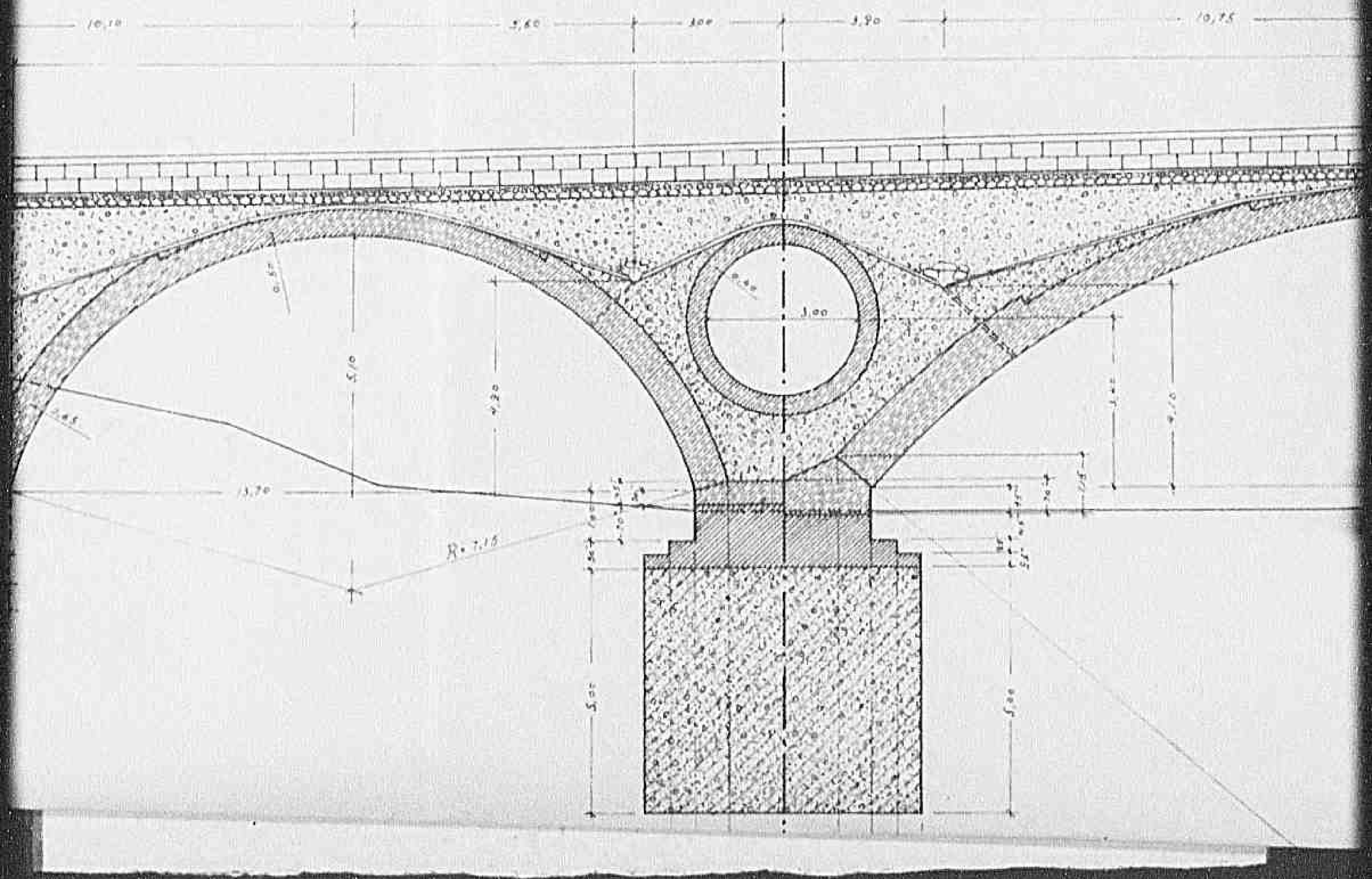
Declassified E.O. 12356 Section 3.3/NND No. 785019

SEZIONE



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Declassified E.O. 12356 Section 3.3/NND No. 785019

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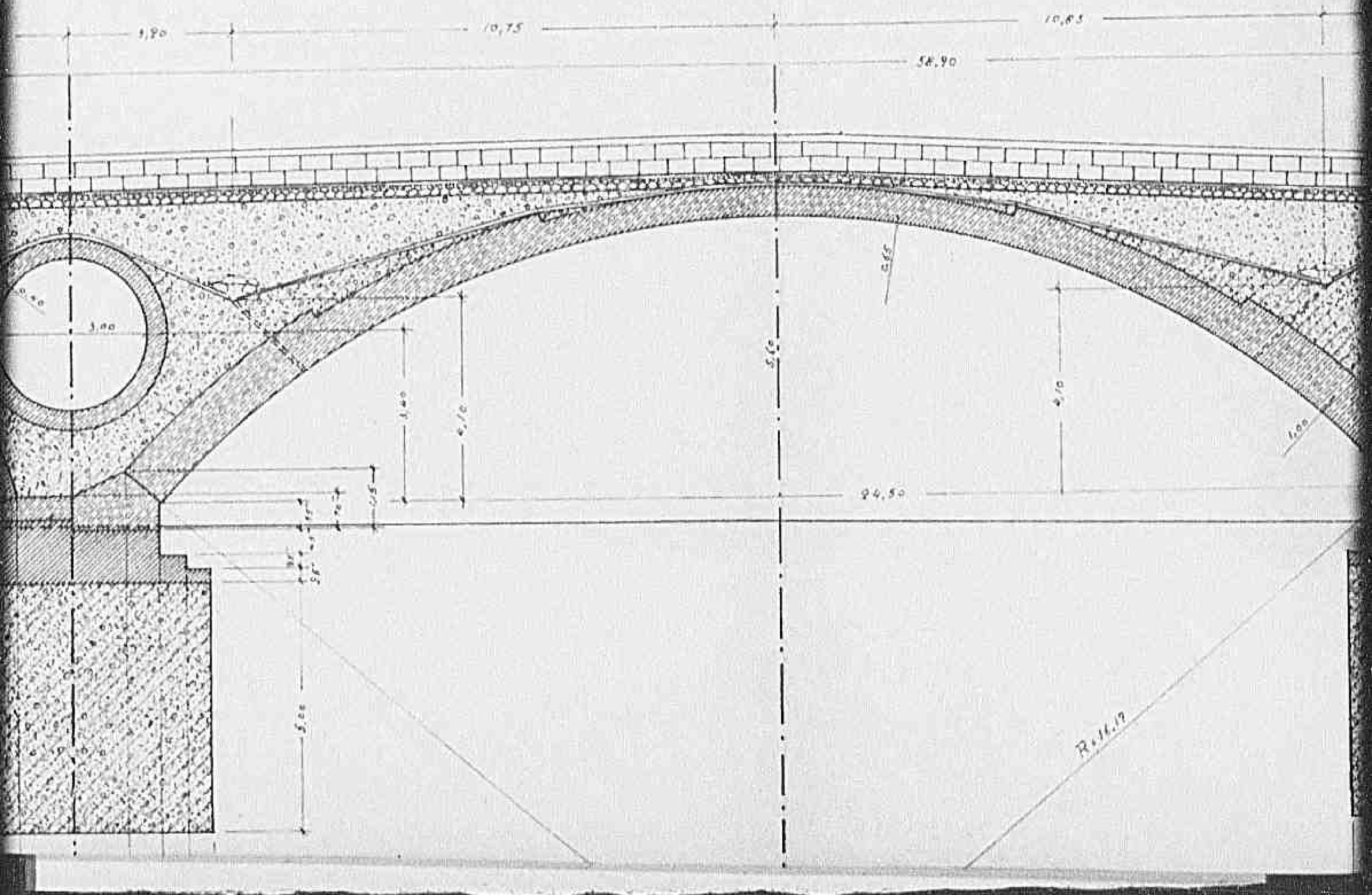

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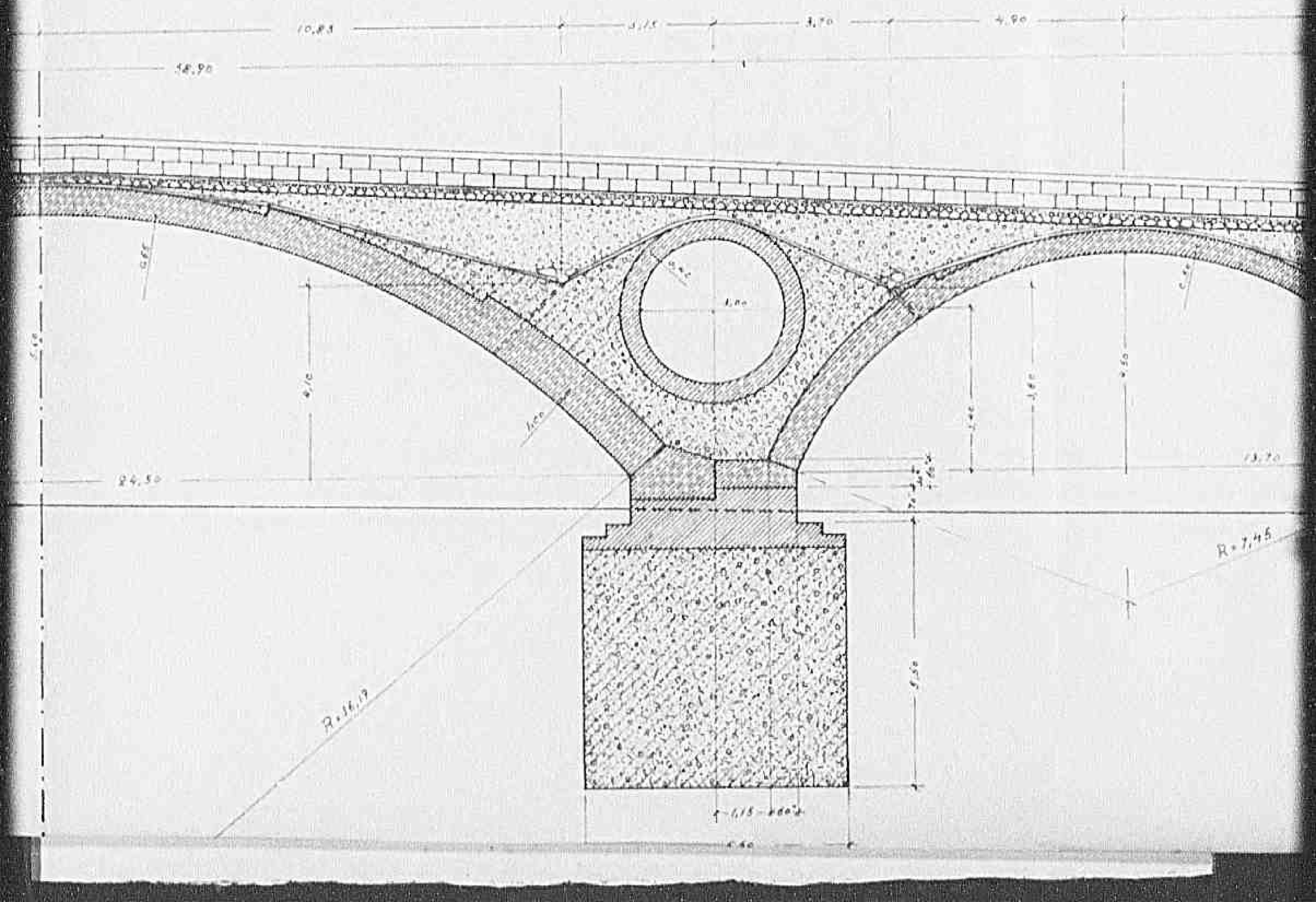
Declassified E.O. 12356 Section 3.3/NND No. 785019

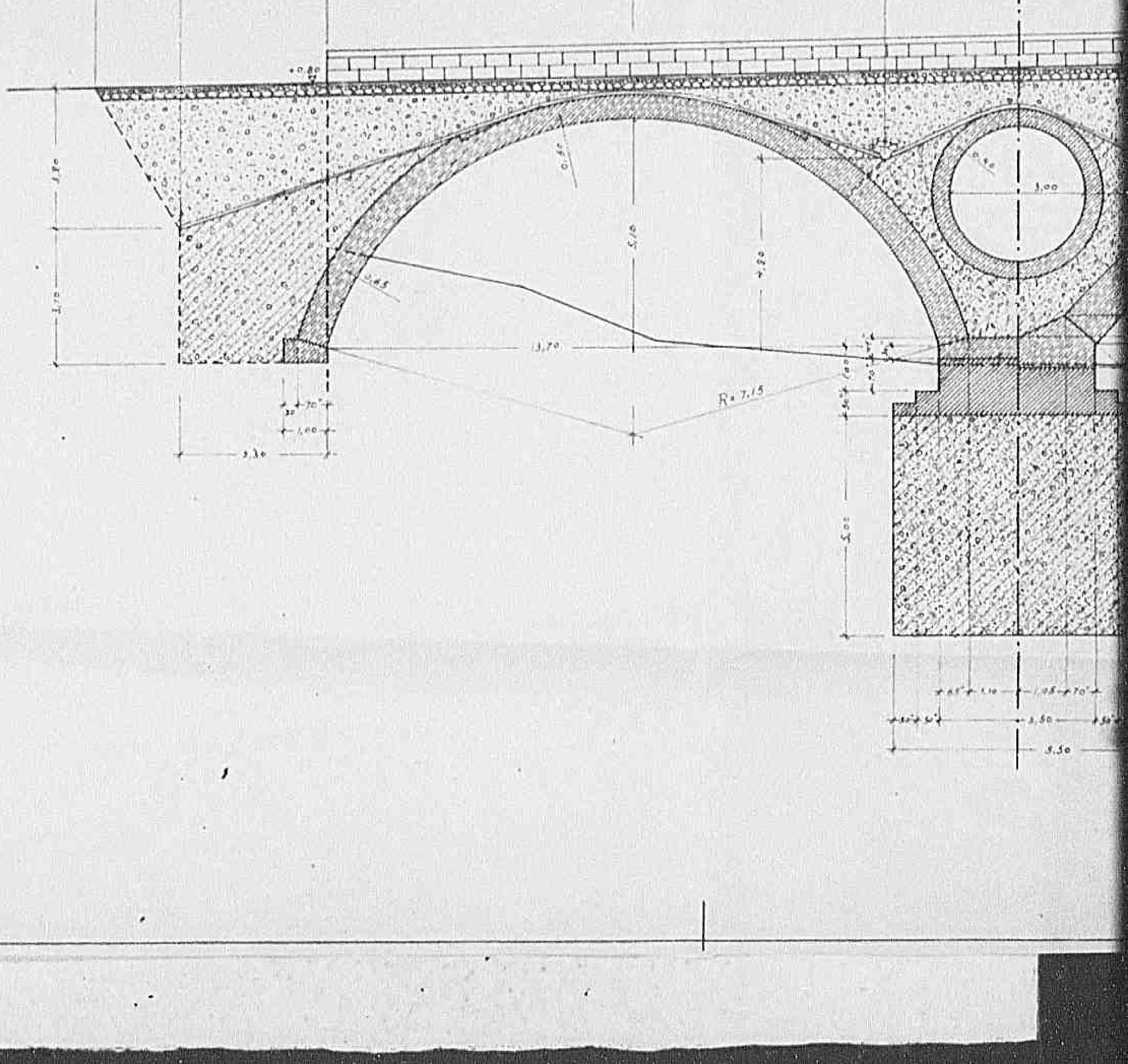
LONGITUDINALE.



Declassified E.O. 12356 Section 3.3/NND No. 785019

0660

Declassified E.O. 12356 Section 3.3/NND No. 785019



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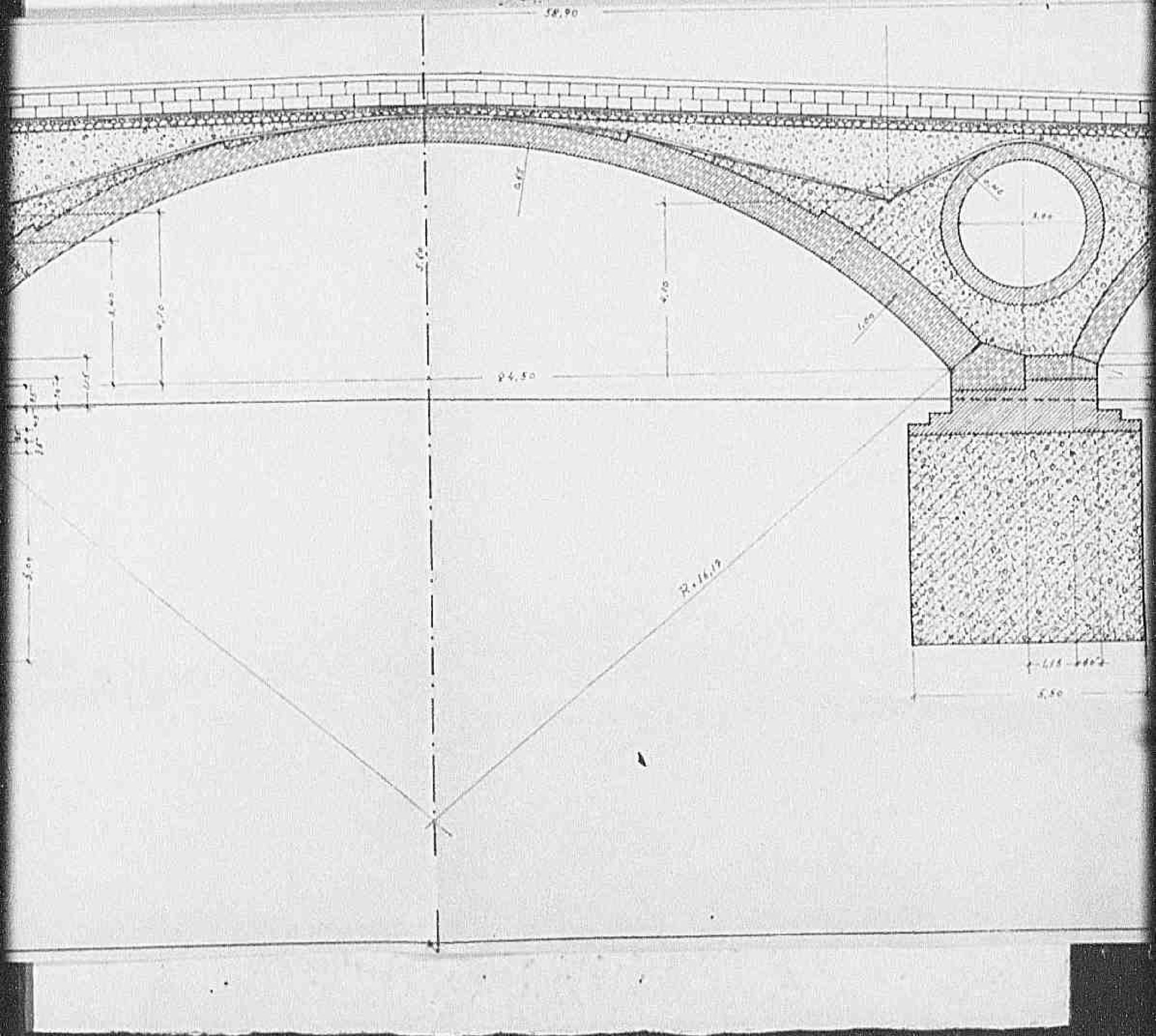
Unclassified E.O. 12356 Section 3.3/NND No. 785019



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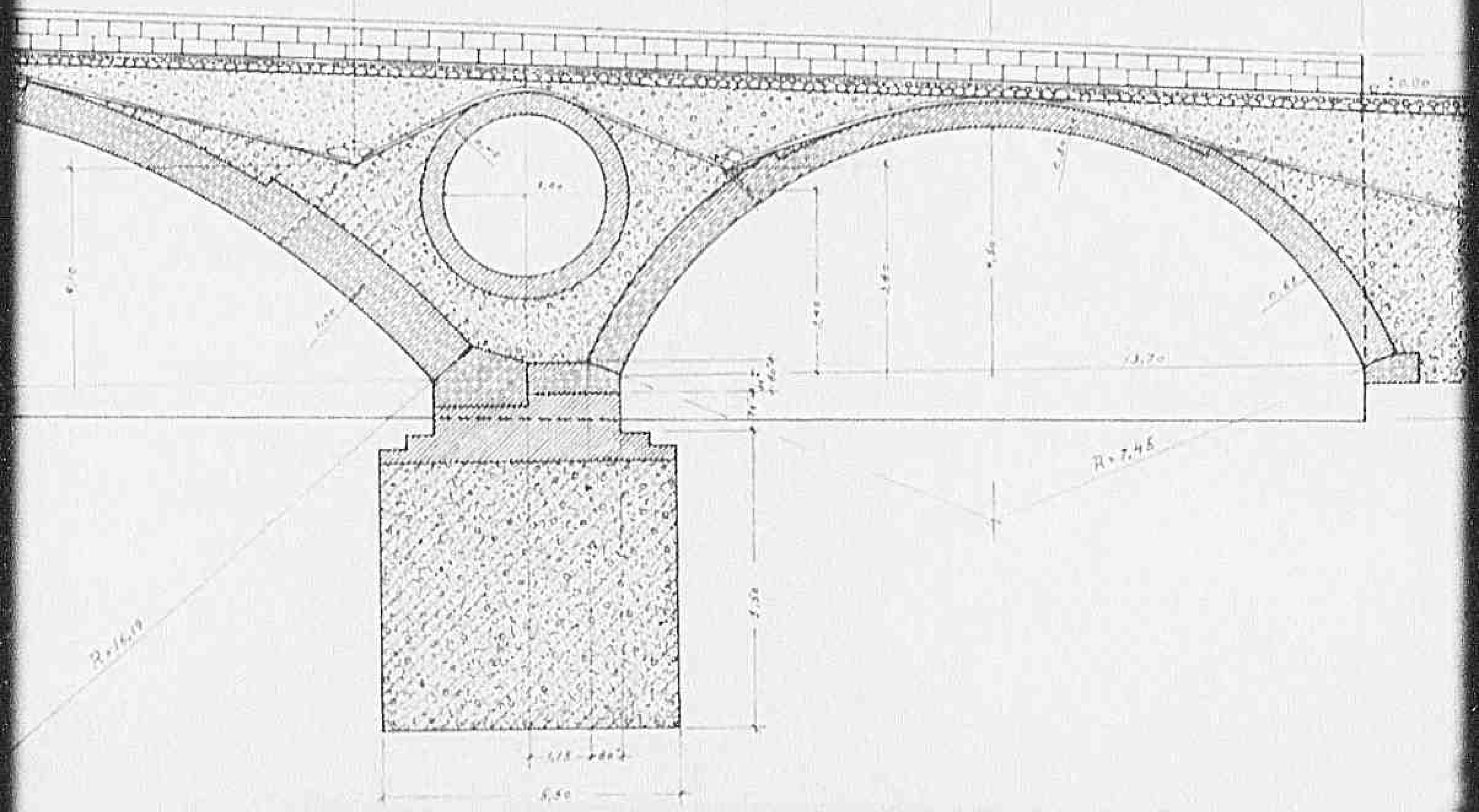
Declassified E.O. 12356 Section 3.3/NND No. 785019



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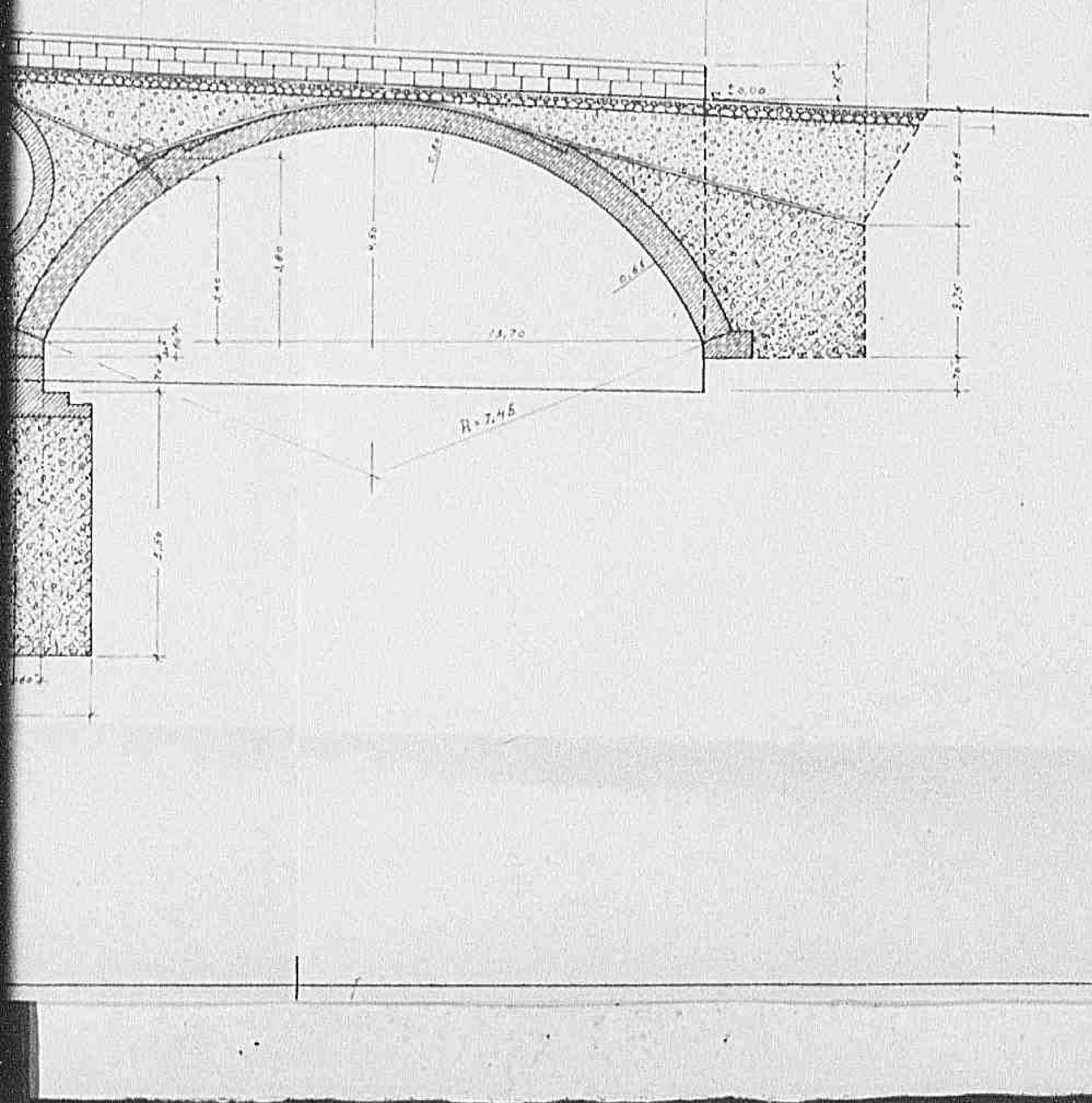
Declassified E.O. 12356 Section 3.3/NND No. 785019



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Declassified E.O. 12356 Section 3.3/NND No. 785019

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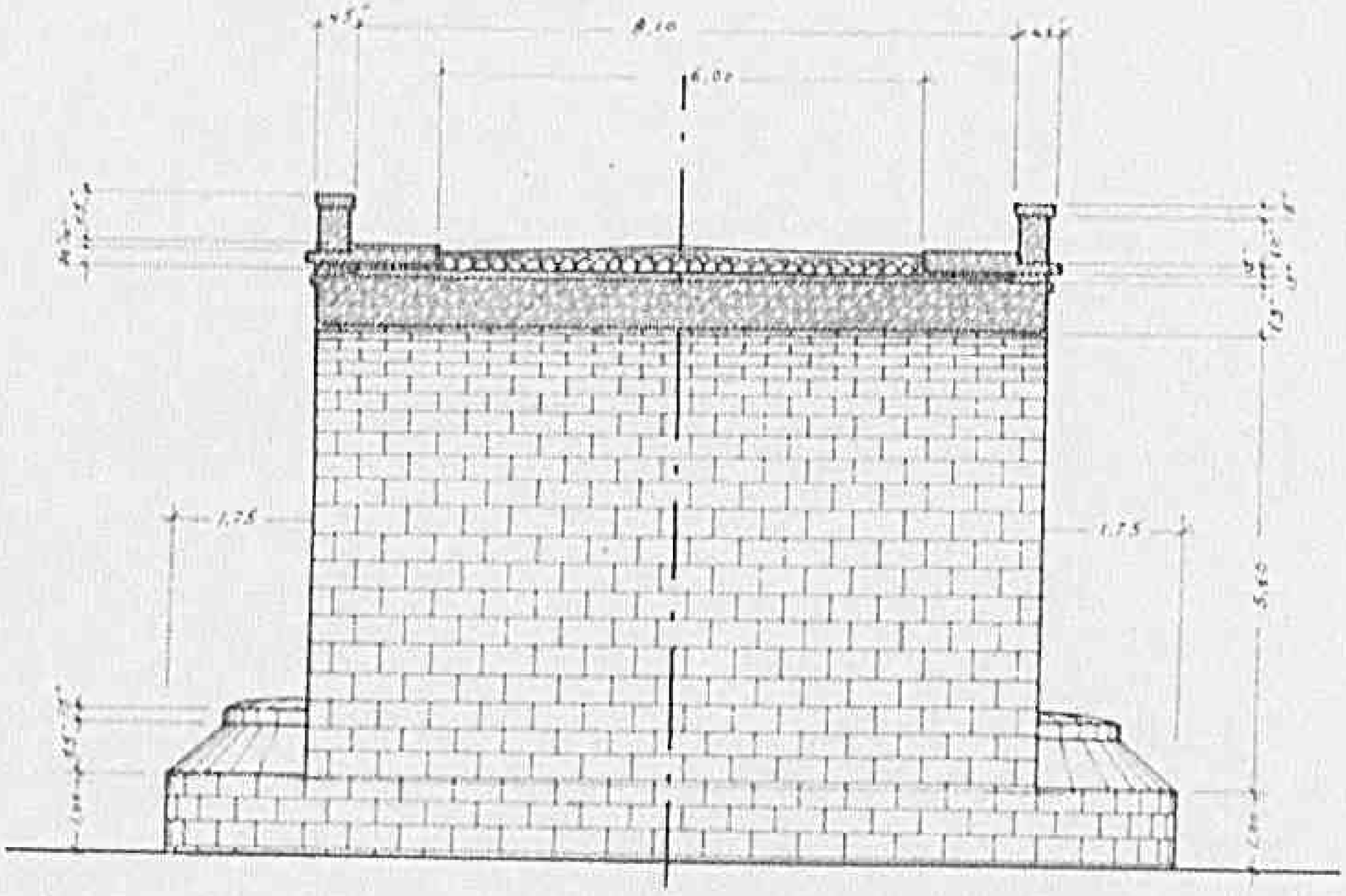

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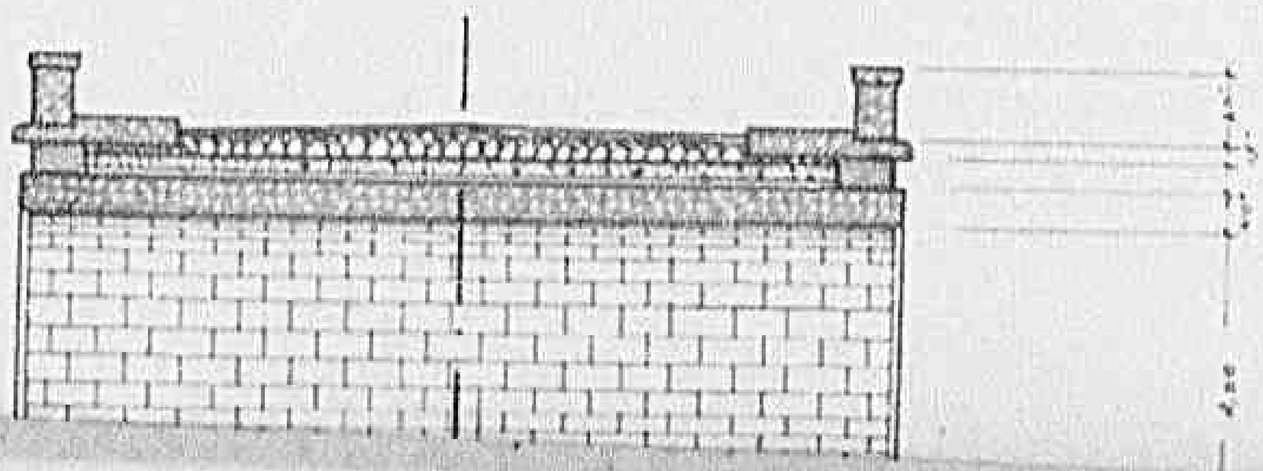

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Declassified E.O. 12356 Section 3.3/NND No. 785019

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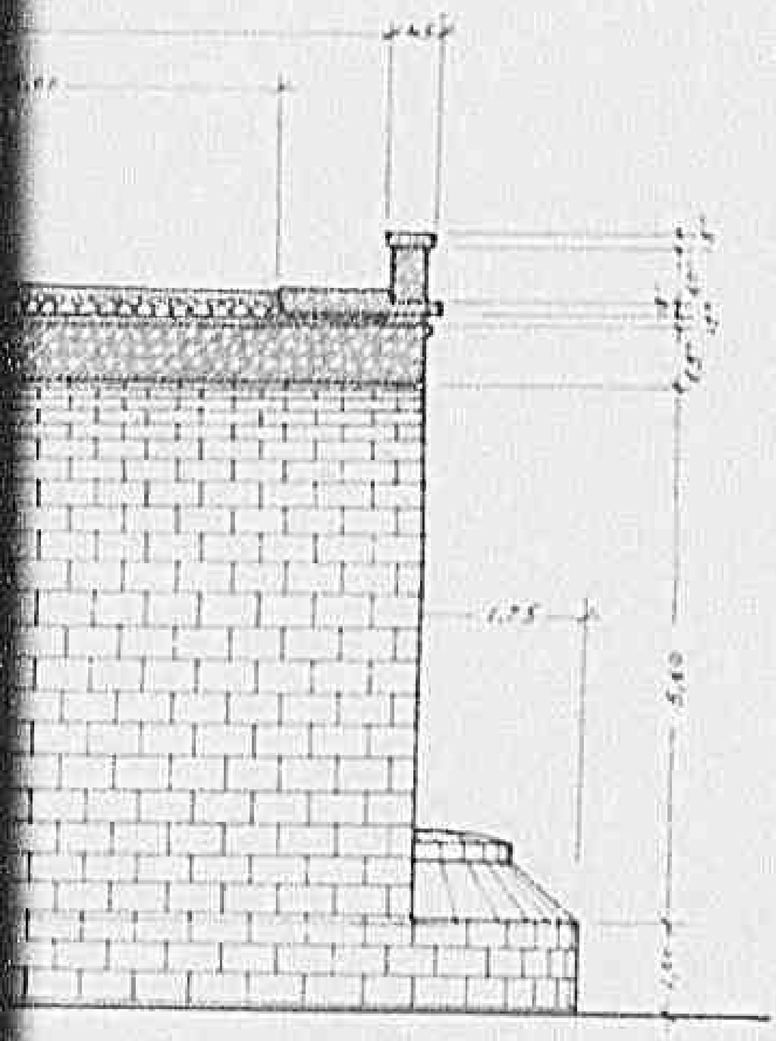

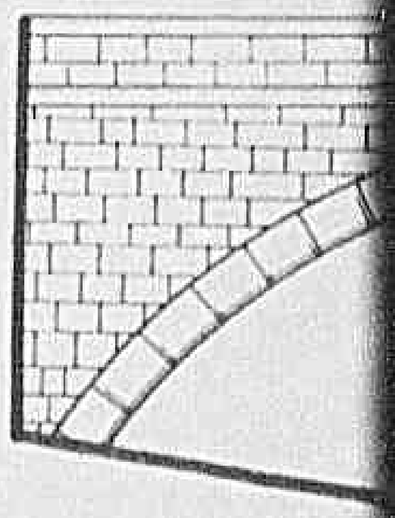

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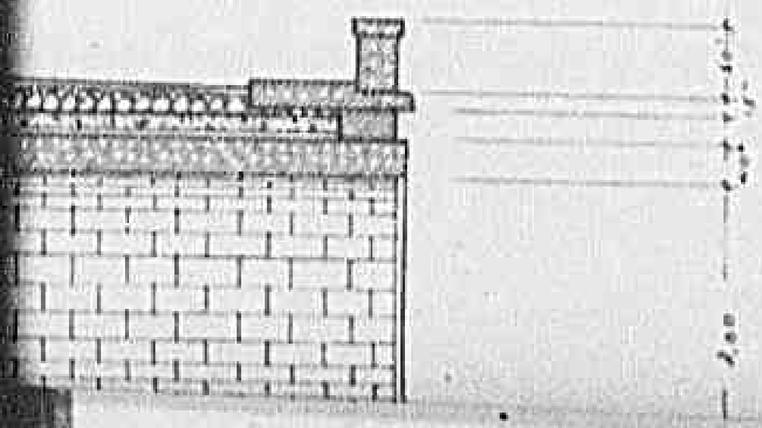

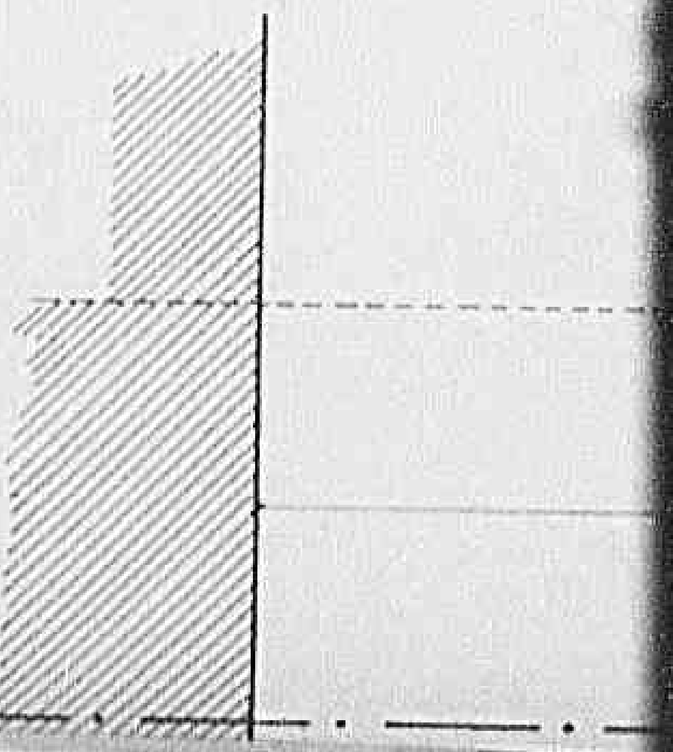

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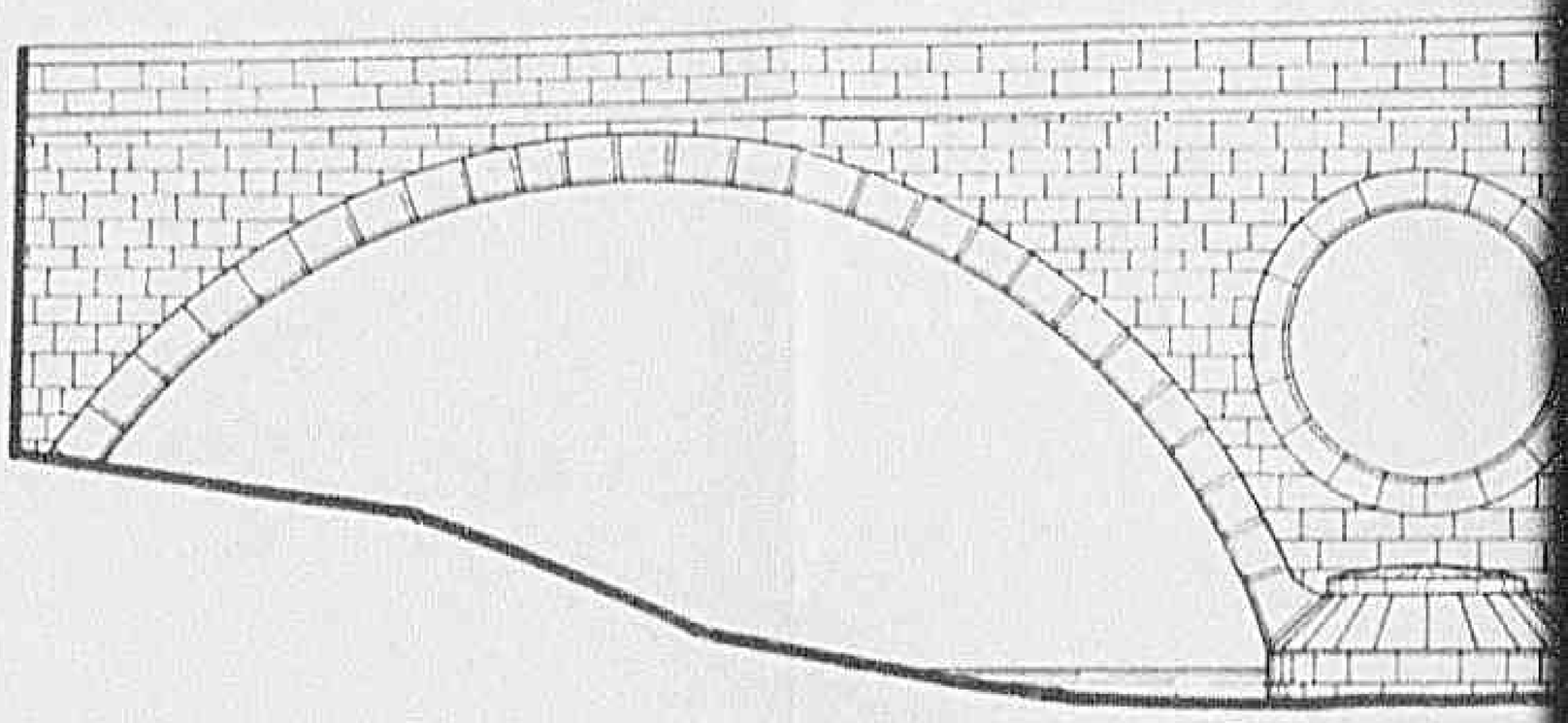
Declassified E.O. 12356 Section 3.3/NND No. 785019



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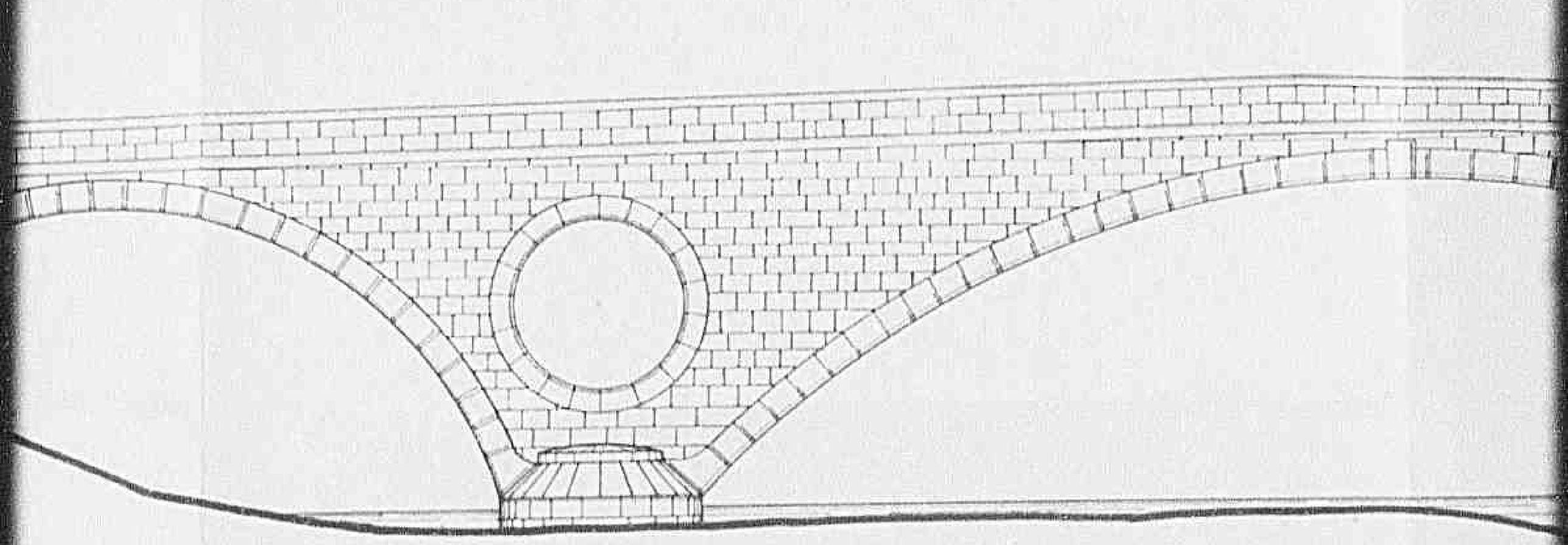
Declassified E.O. 12356 Section 3.3/NND No. 785019

PROSPETTO

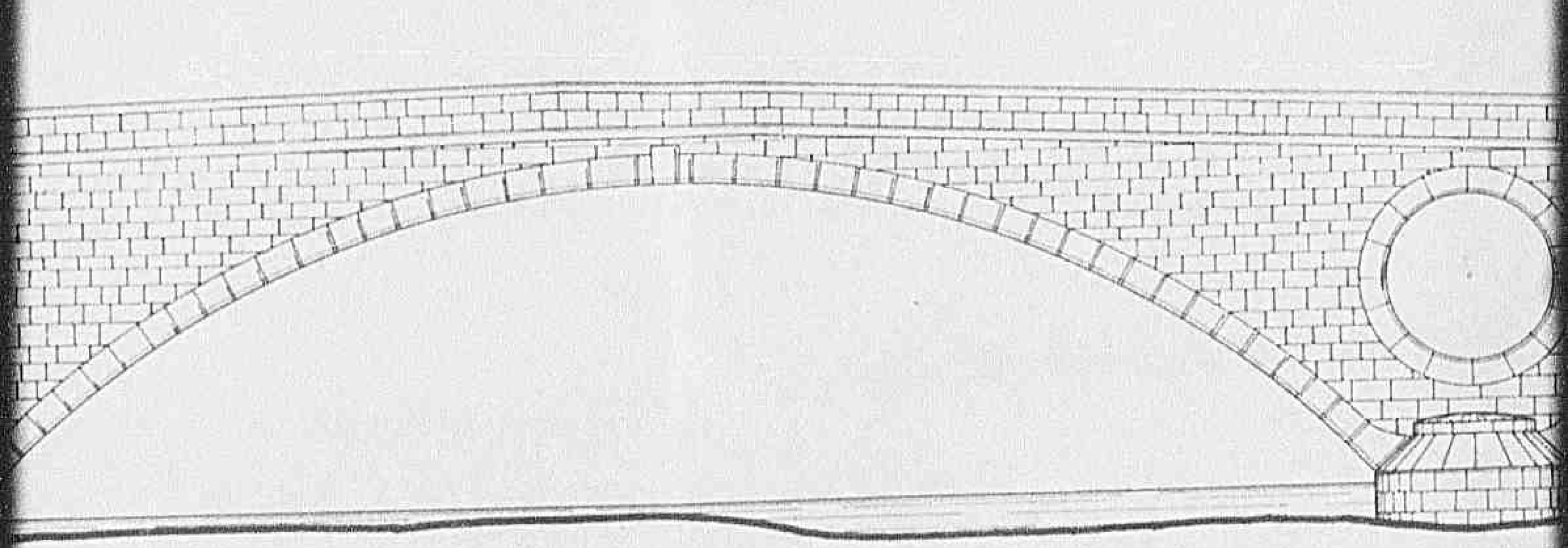


½ PIANTA a murature scoperte. ½

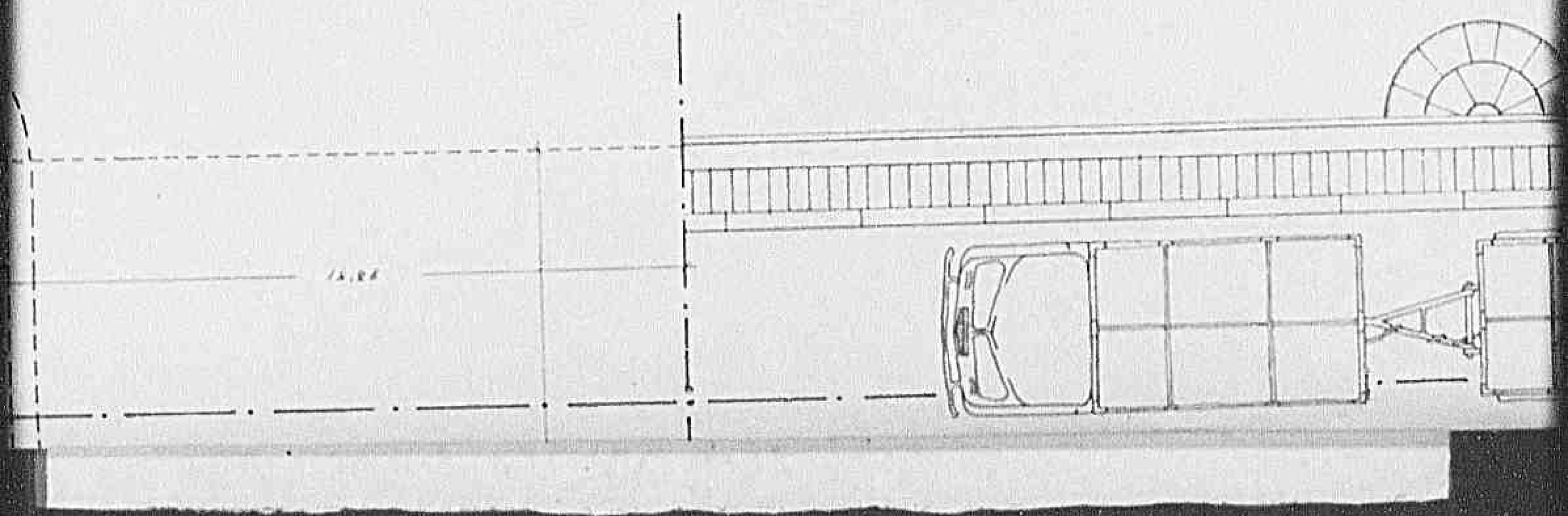
0.6.6.91

Declassified E.O. 12356 Section 3.3/NND No. 785019

PROSPETTO a monte



PIANTA a murature scoperte. ½ PIANTA a opera finita



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Declassified E.O. 12356 Section 3.3/NND No. 785019

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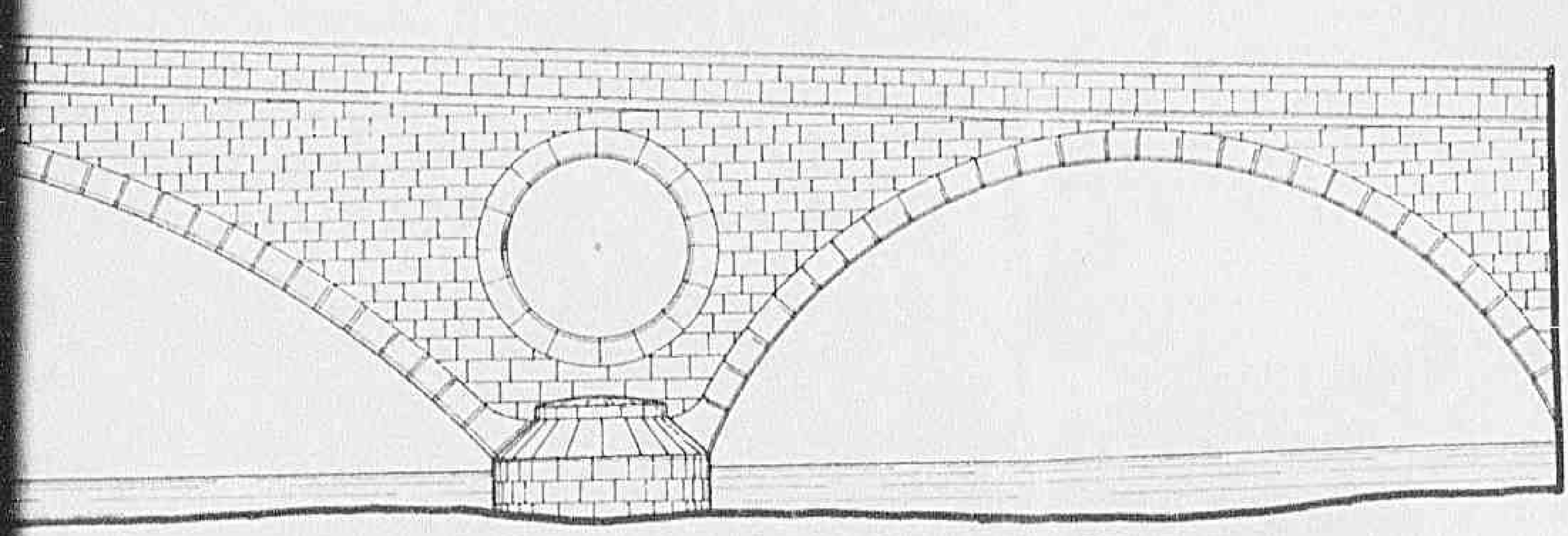
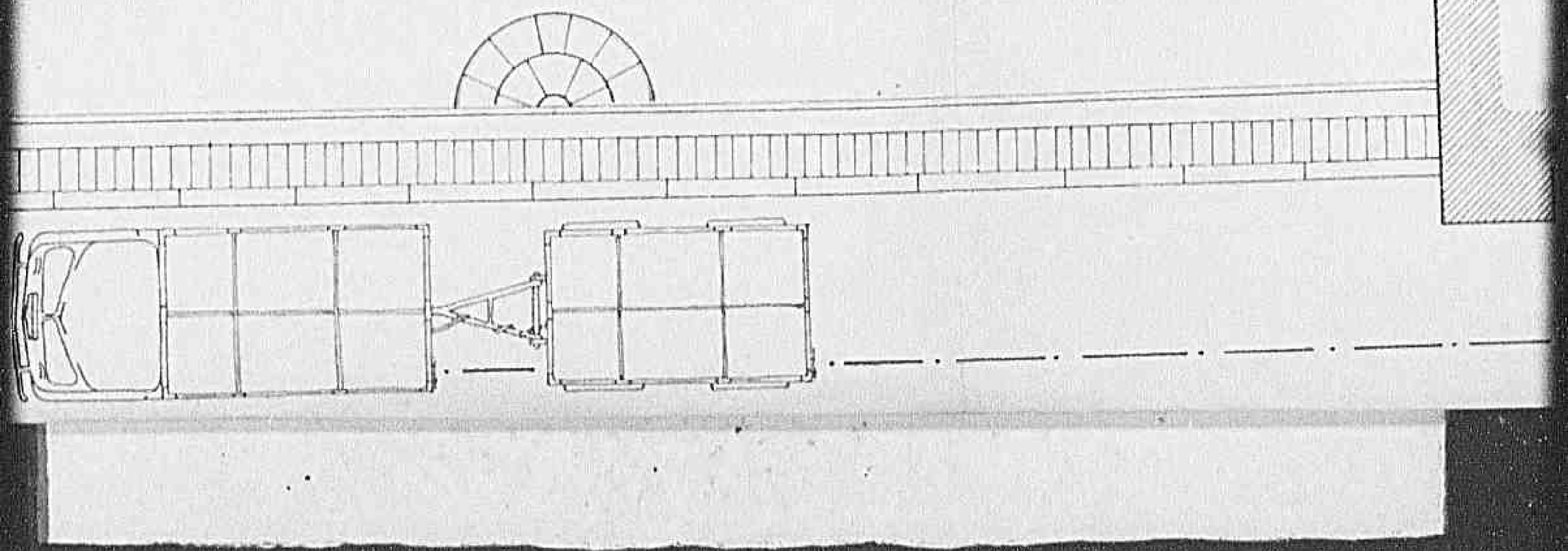


TA a opera finita



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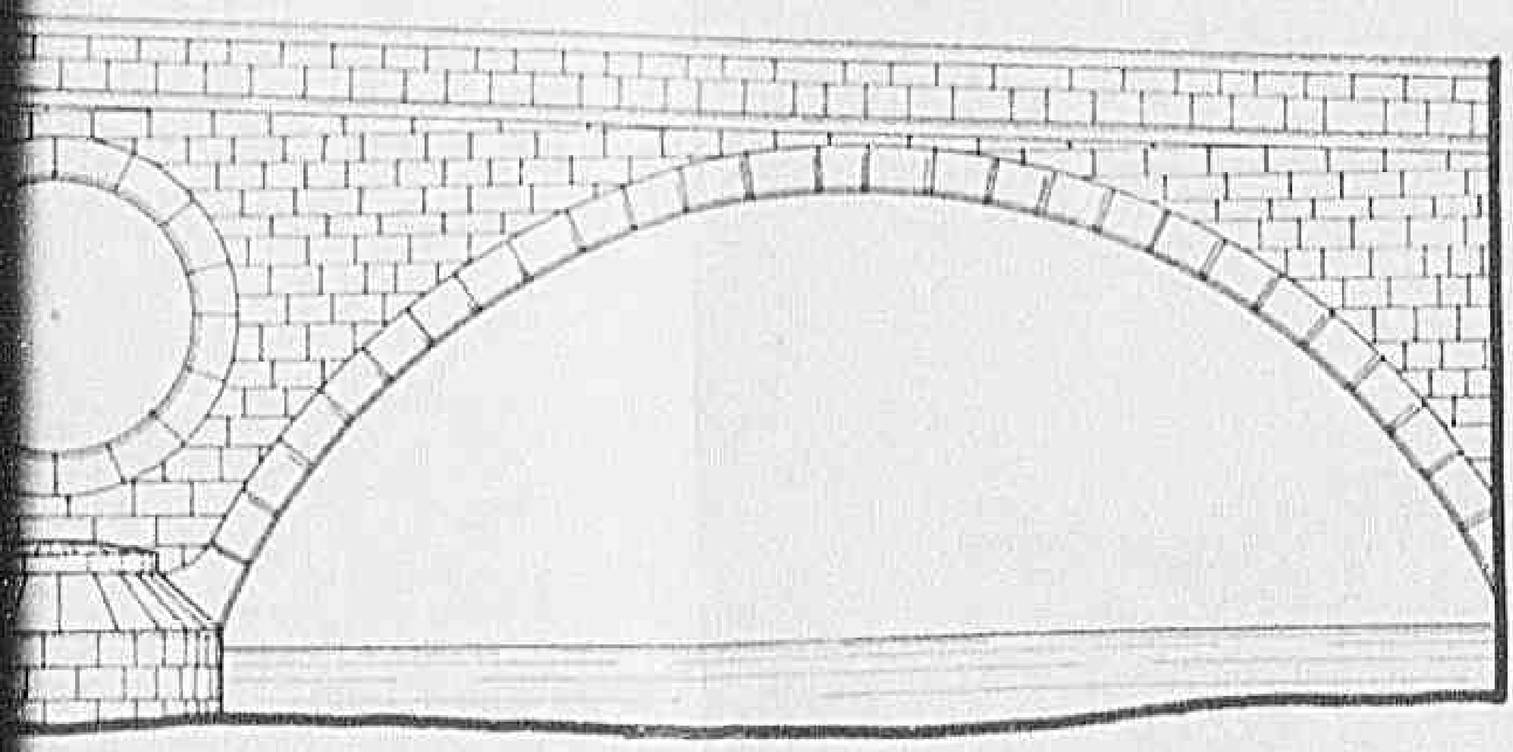
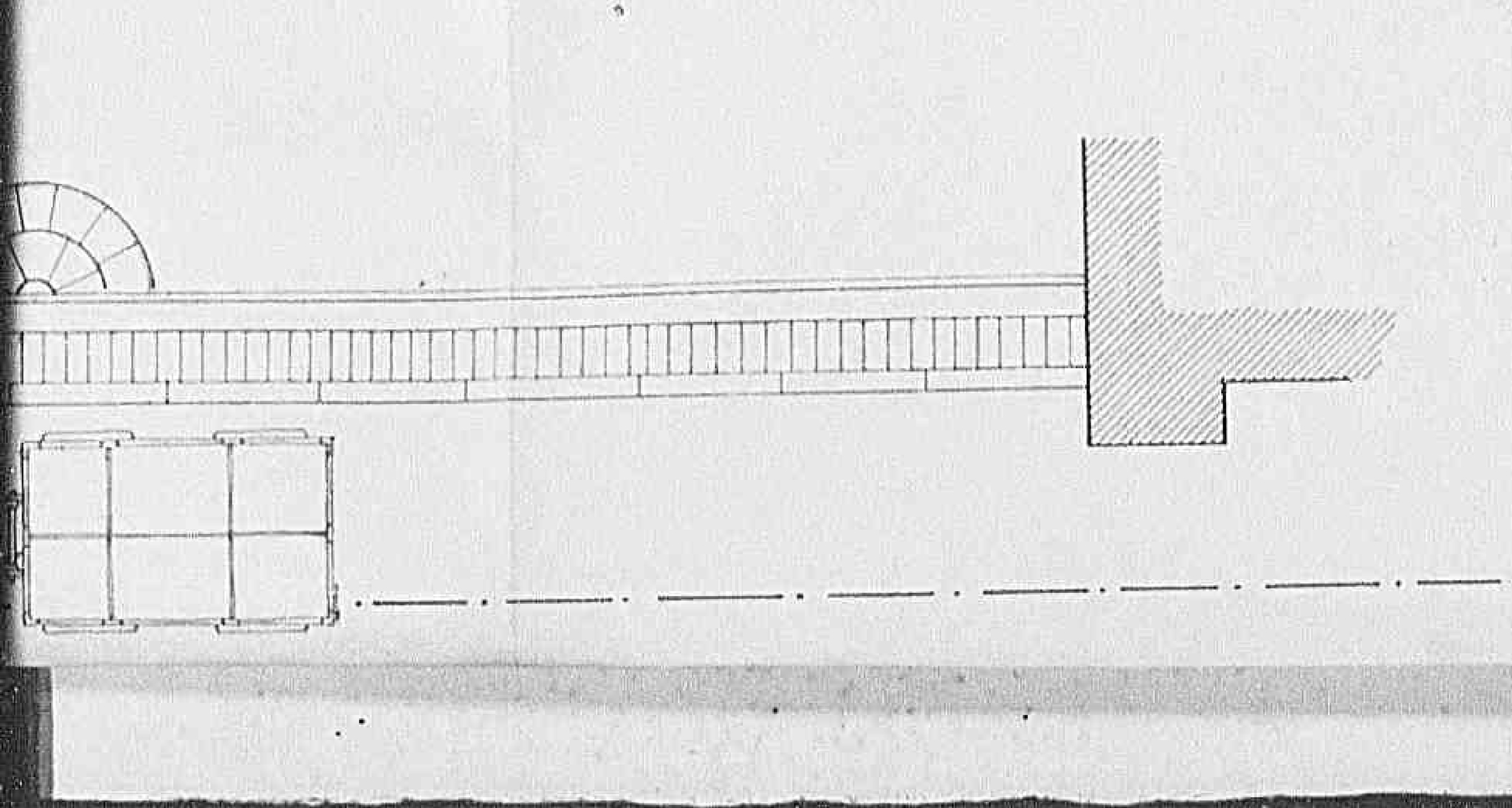
Declassified E.O. 12356 Section 3.3/NND No. 785019





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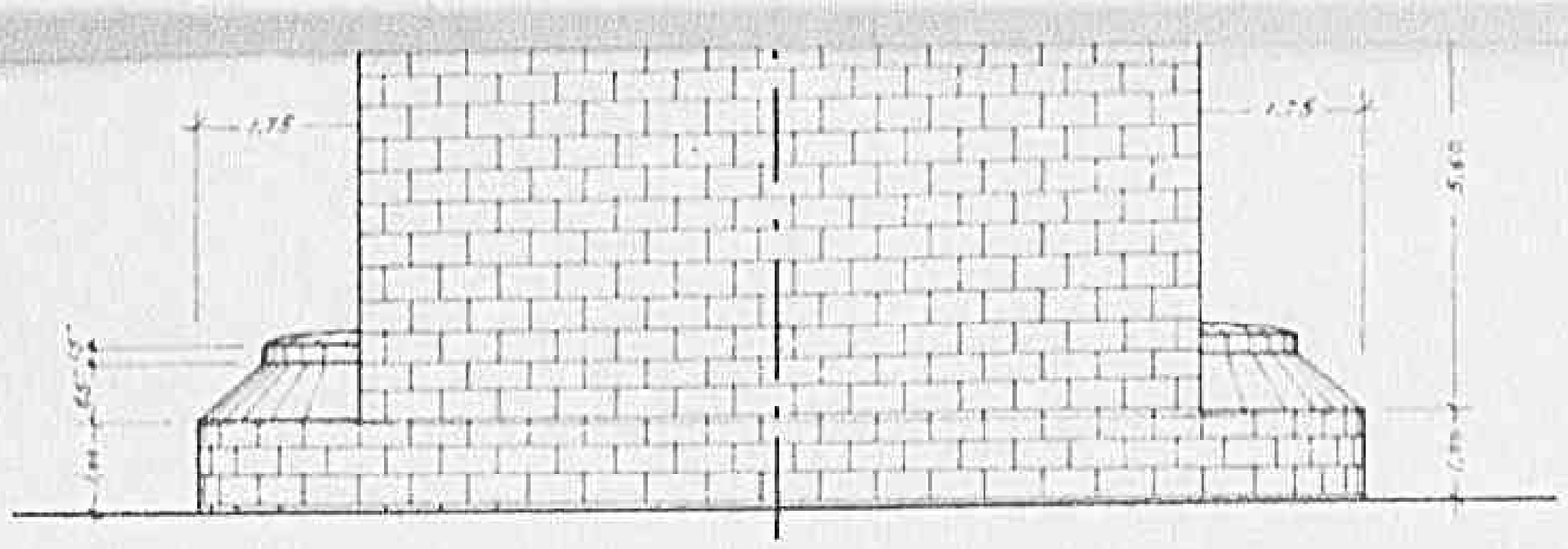
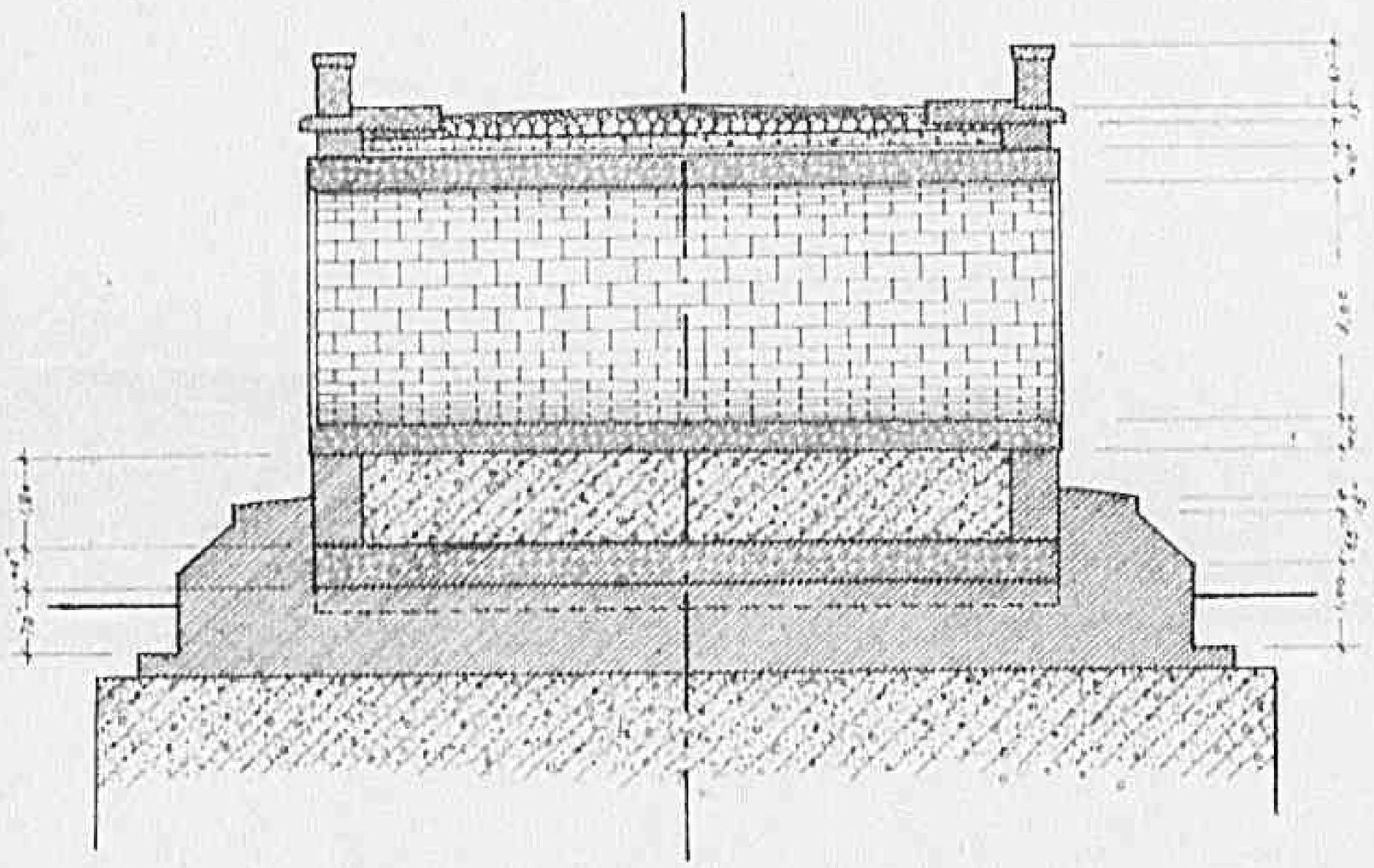
Declassified E.O. 12356 Section 3.3/NND No. 785019



SEZIONE TRASVERSALE sulla pila.



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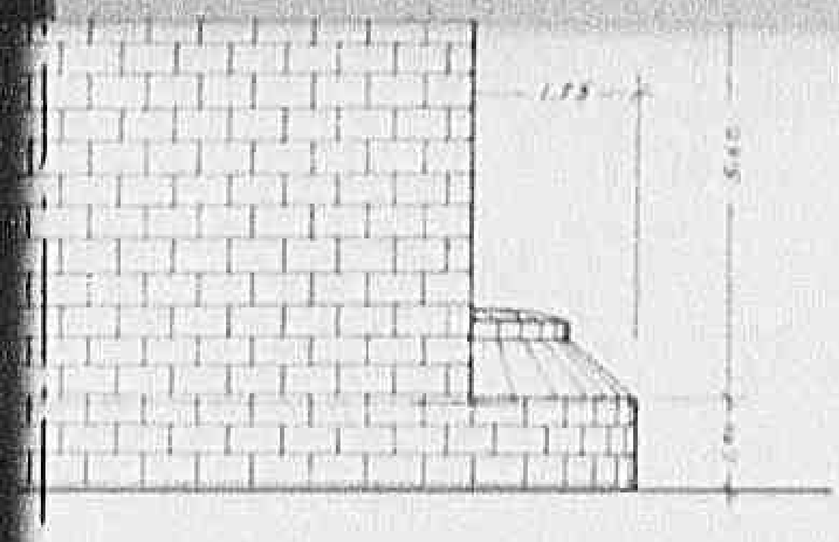
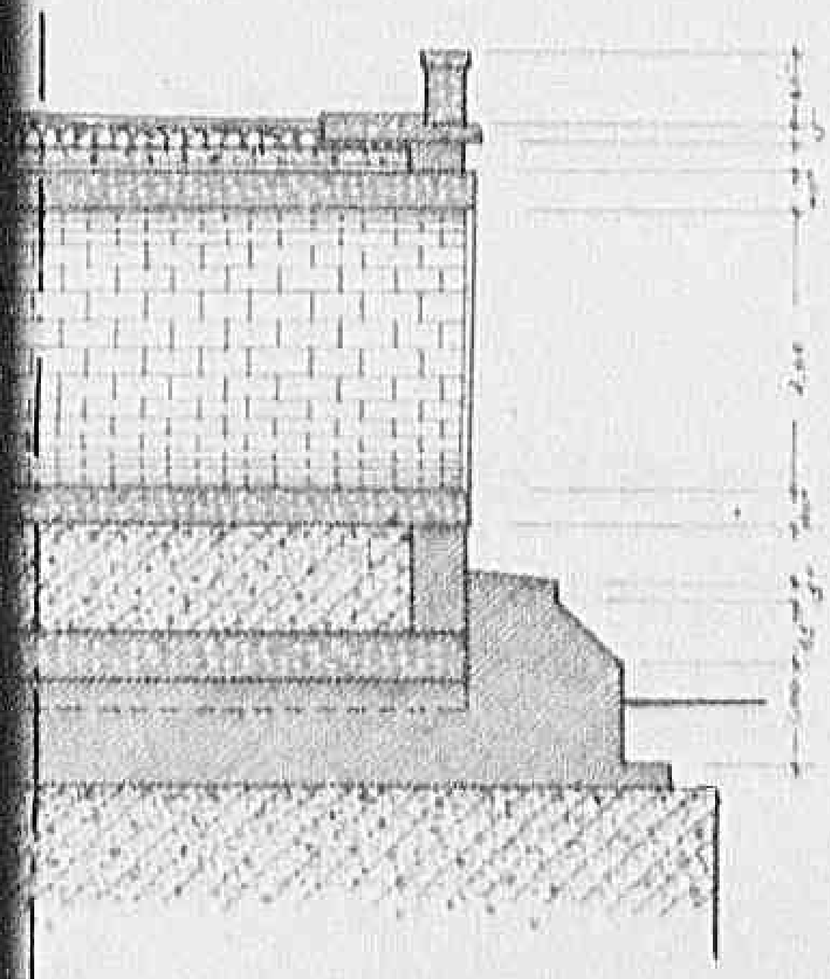
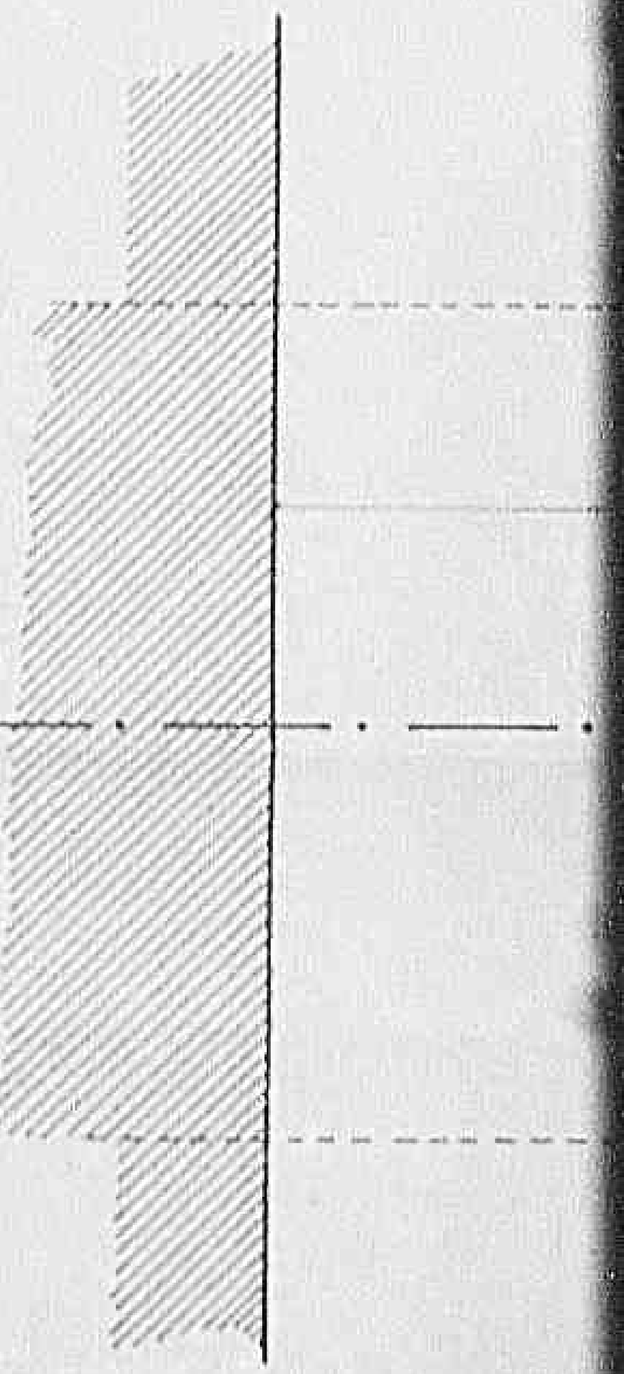


TRASVERSALE sulla pila.





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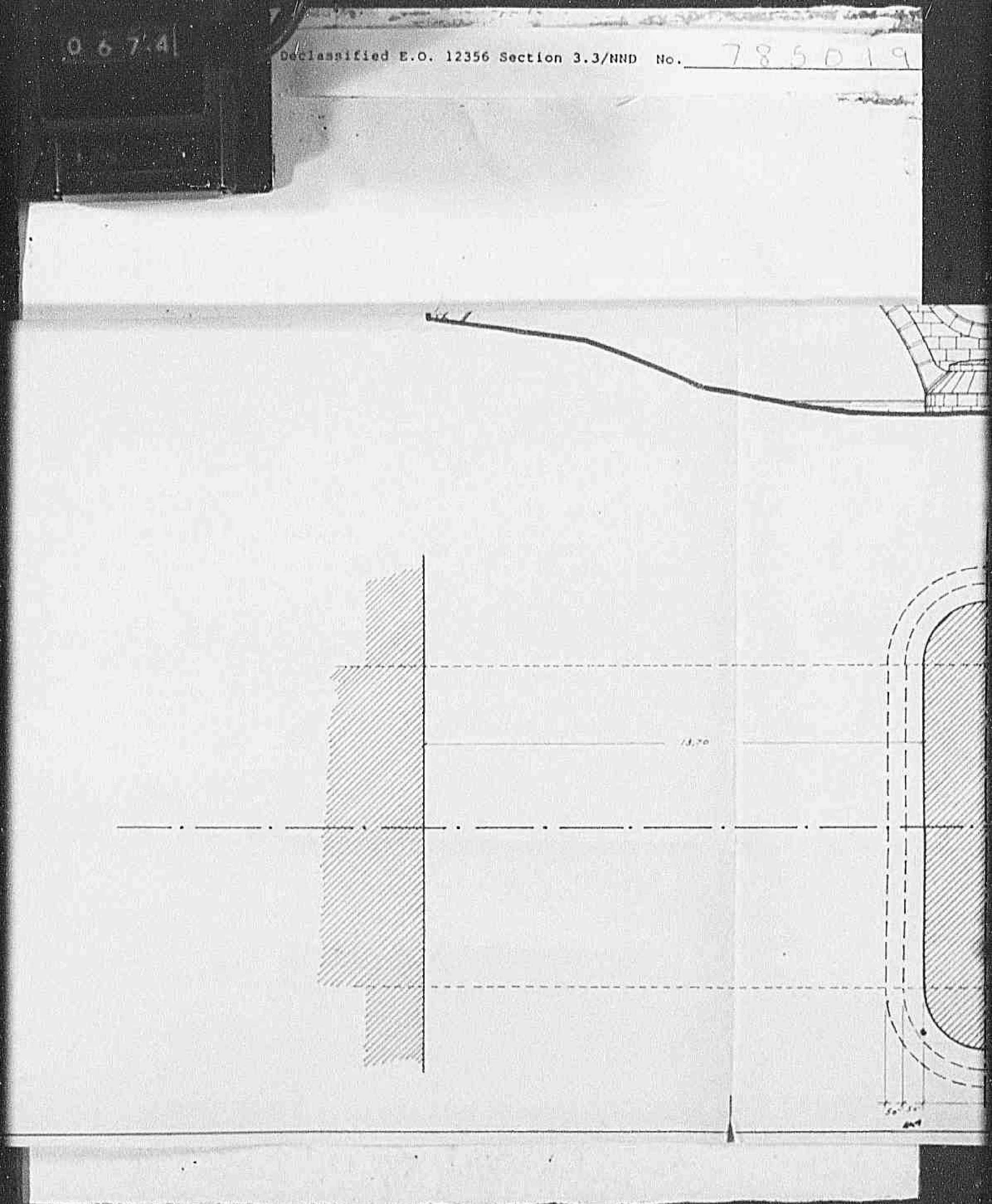

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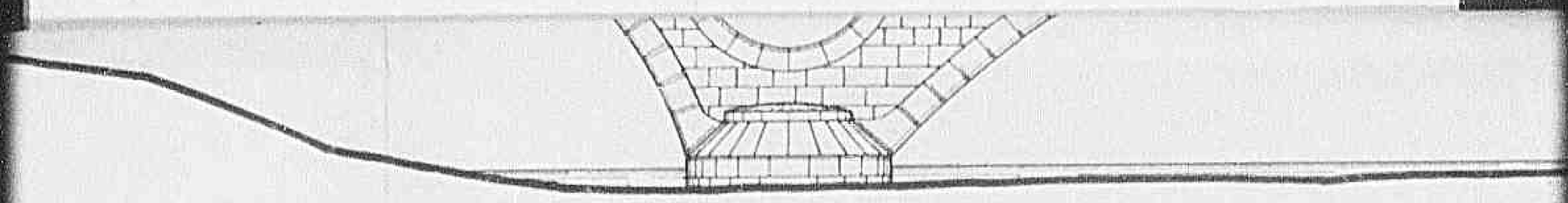
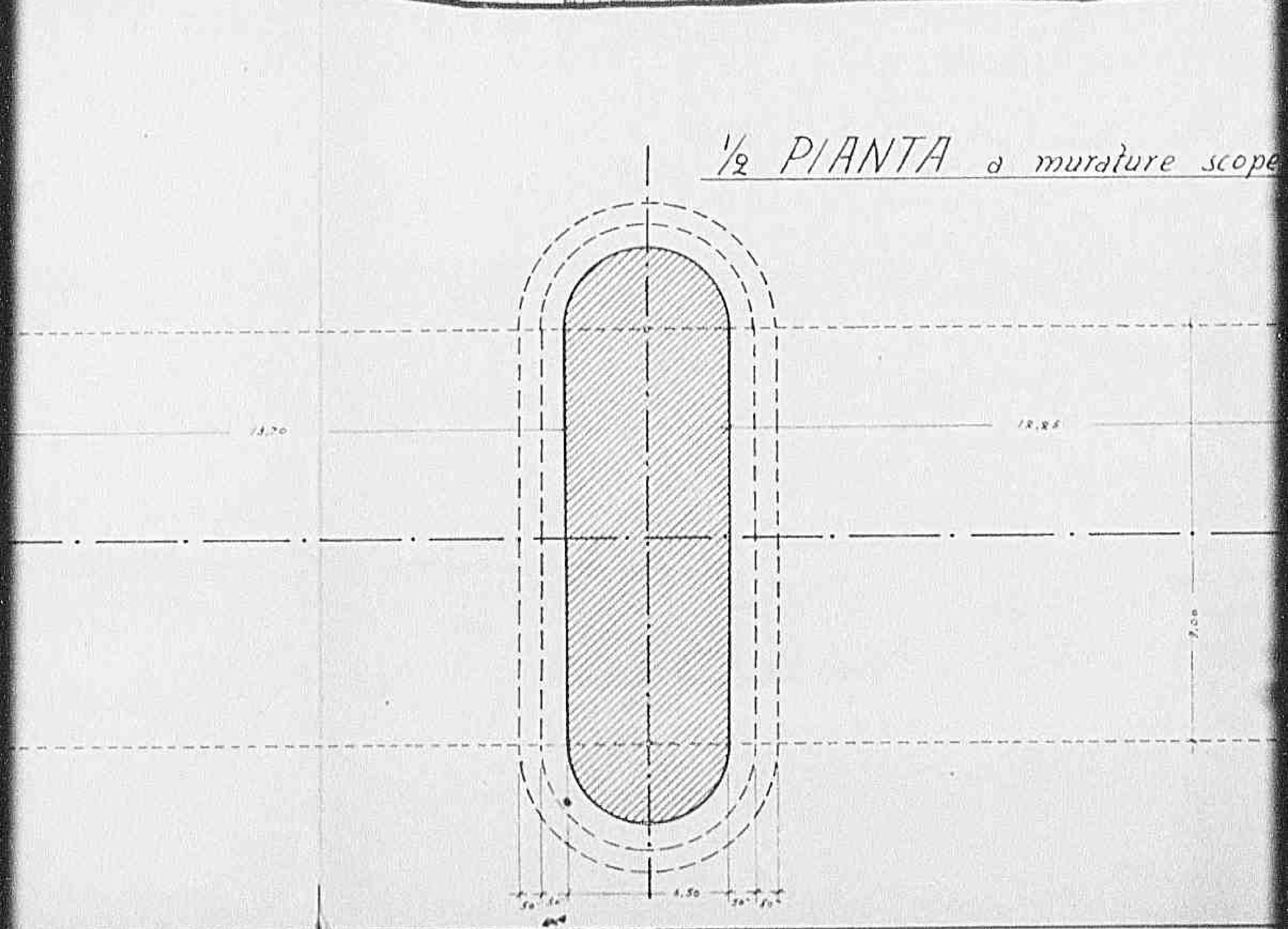


½ PIANTA a murature scope



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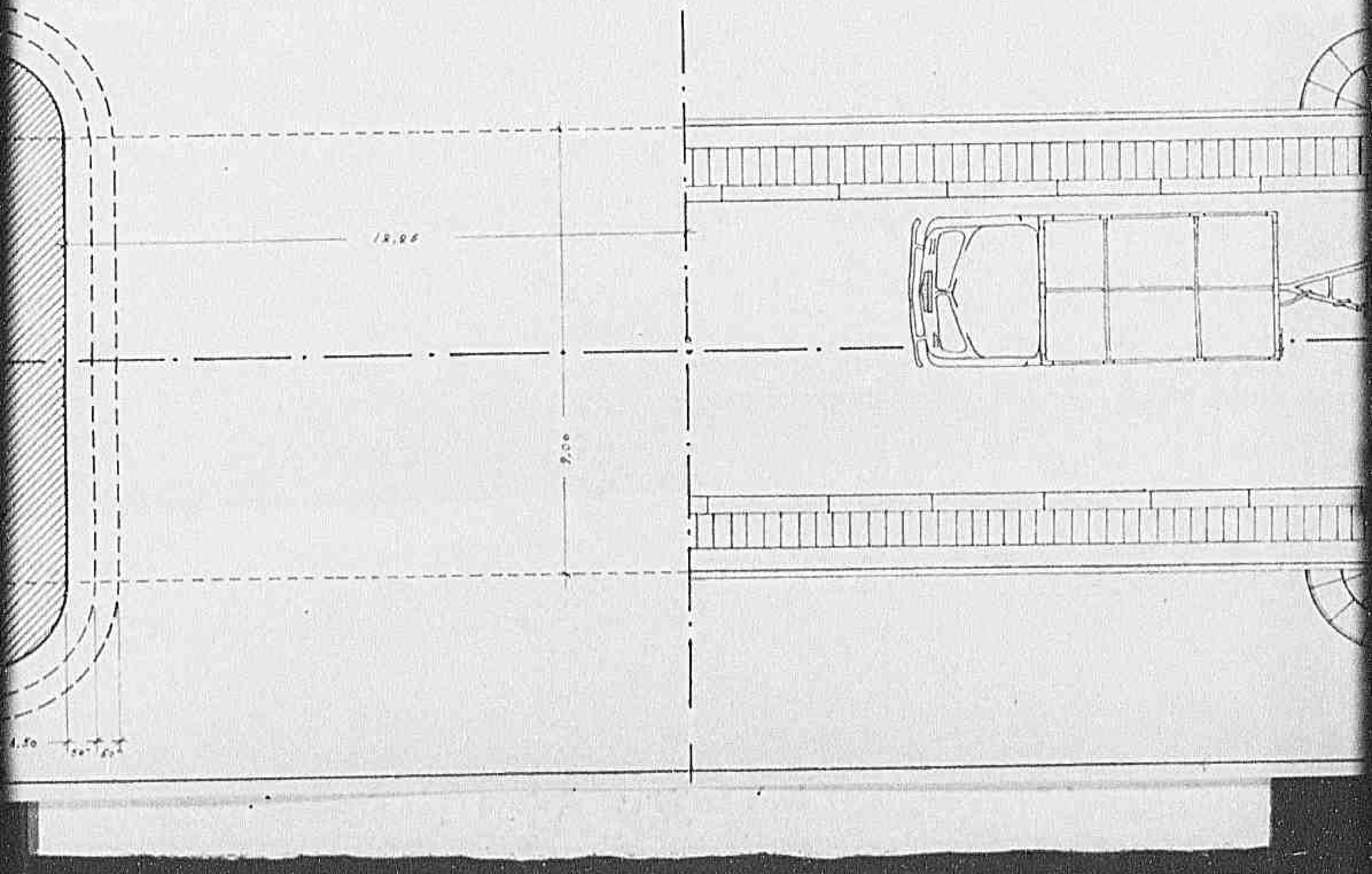
Declassified E.O. 12356 Section 3.3/NND No. 785019

½ PIANTA a murature scoperte. ½ PIANTA a opera finita



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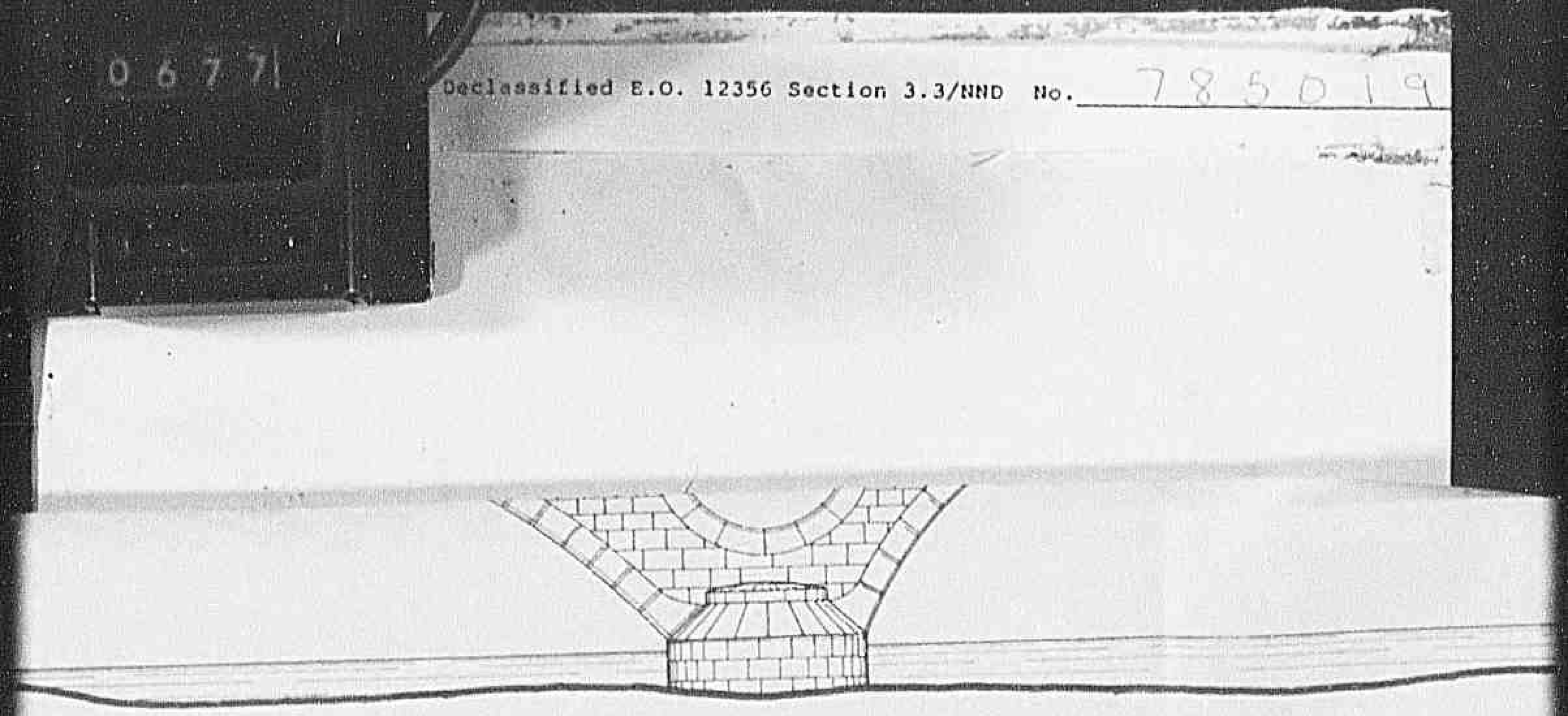
Declassified E.O. 12356 Section 3.3/NND No. 785019



½ PIANTA a opera finita

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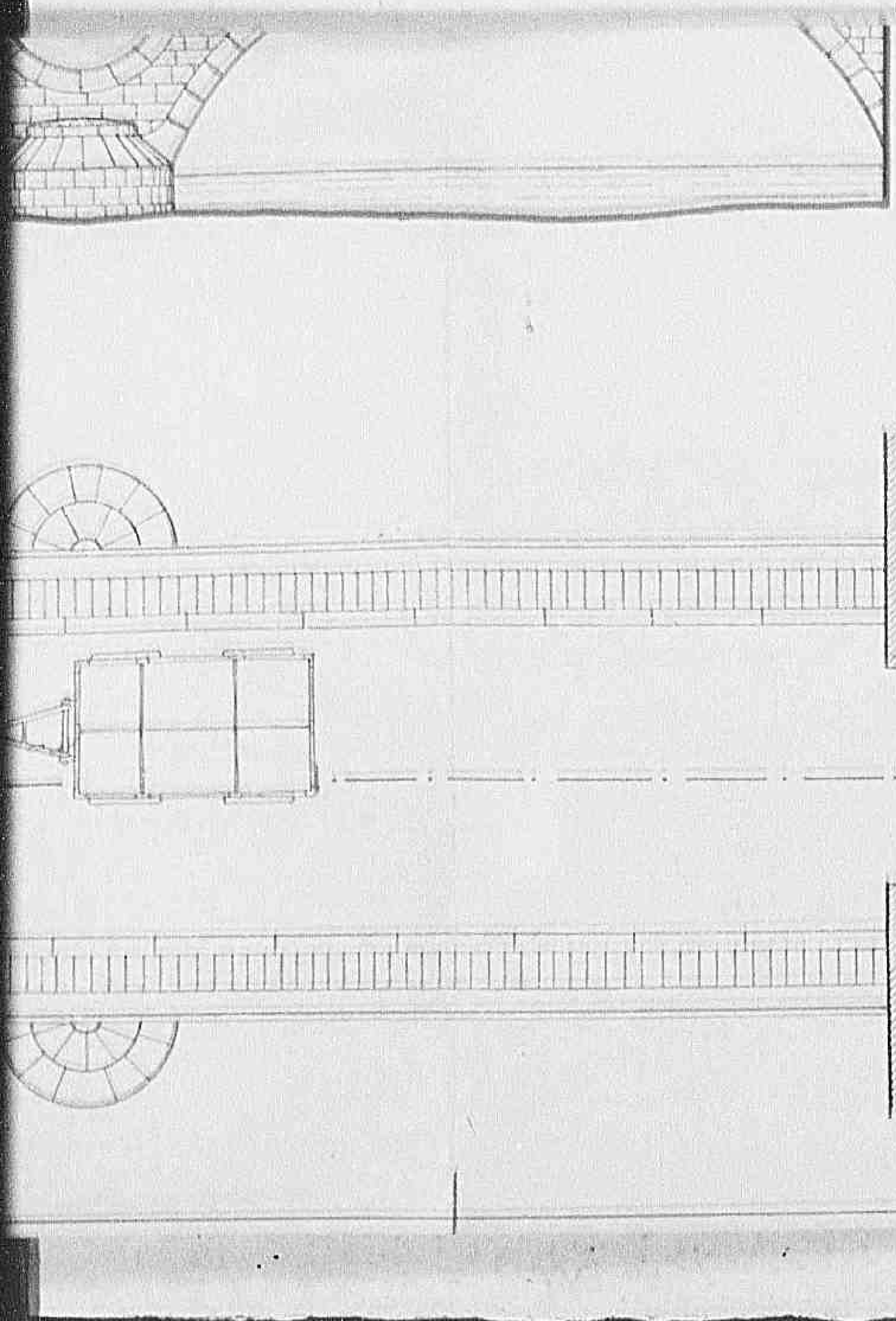
Declassified E.O. 12356 Section 3.3/NND No. 785019



Pisa 203

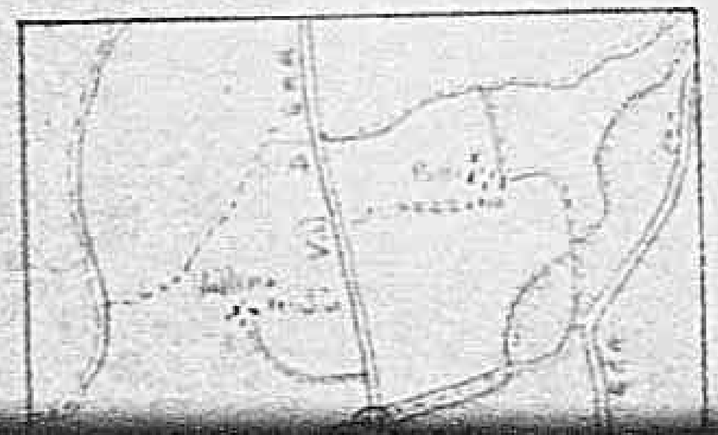
PISA
N. 298

AMMINISTRAZIONE PROVINCIALE DI PISA,
UFFICIO TECNICO

m-581

STRADA PROVINCIALE DI VAL D'ERA (cantone 2°) =

Progetto di ricostruzione del ponte in muratura della luce di m. 6,00 sul Vallino al Km: 25,600.



1930

Declassified E.O. 12356 Section 3.3/NND No. 787050

UFFICIO TECNICO

m-581

STRADA PROVINCIALE DI VAL D'ERA (Canone 2ª) =

Progetto di ricostruzione del ponte in muratura della luce di m. 6,00 sul Vallino al Km: 25,600.

1930

Declassified E.O. 12356 Section 3.3/NND No. 785019

0681

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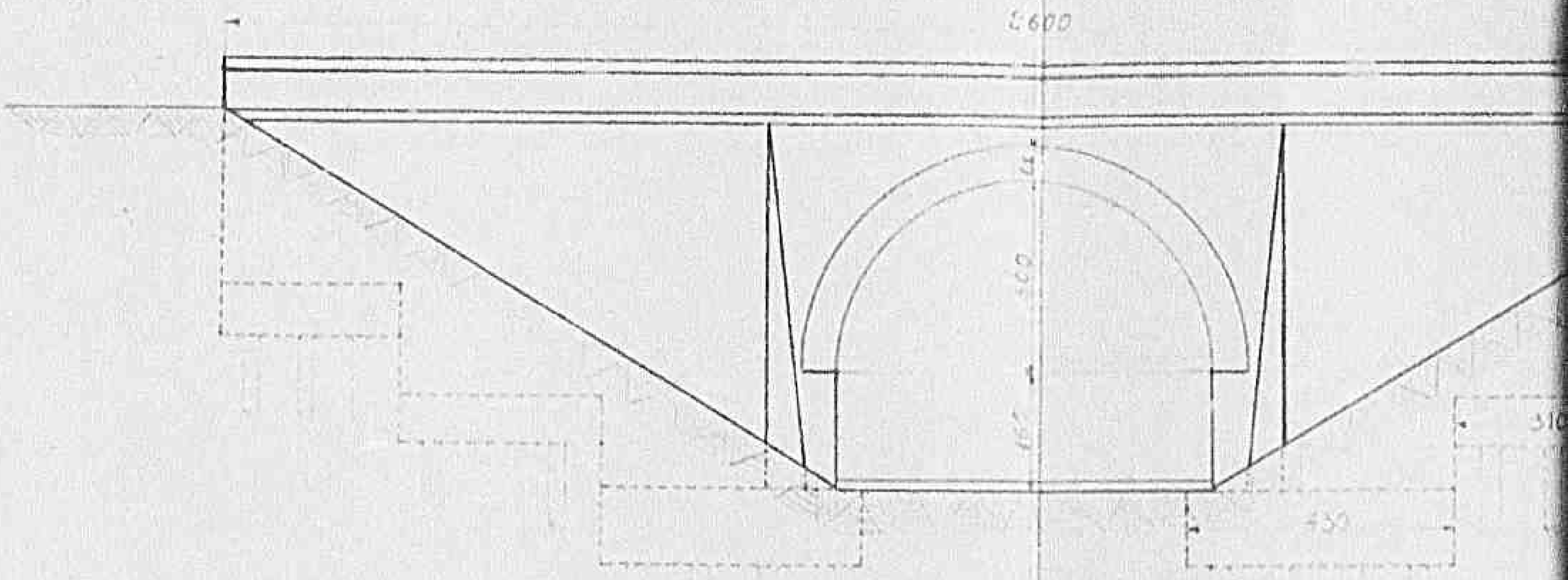
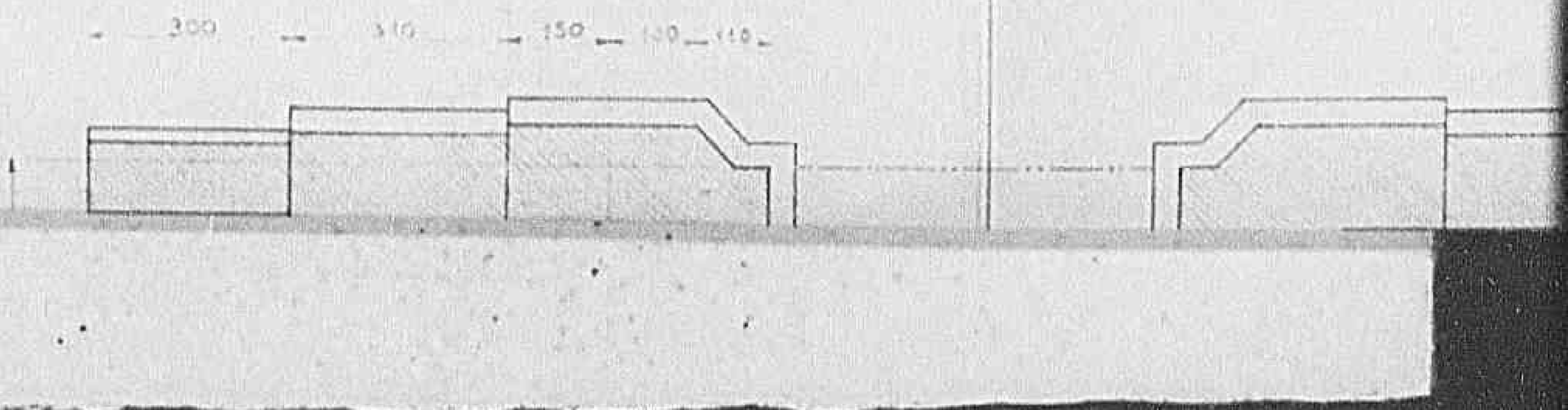
PROSPETTO A VALLE



PIANTA AL PIANO DELLE RISEGI



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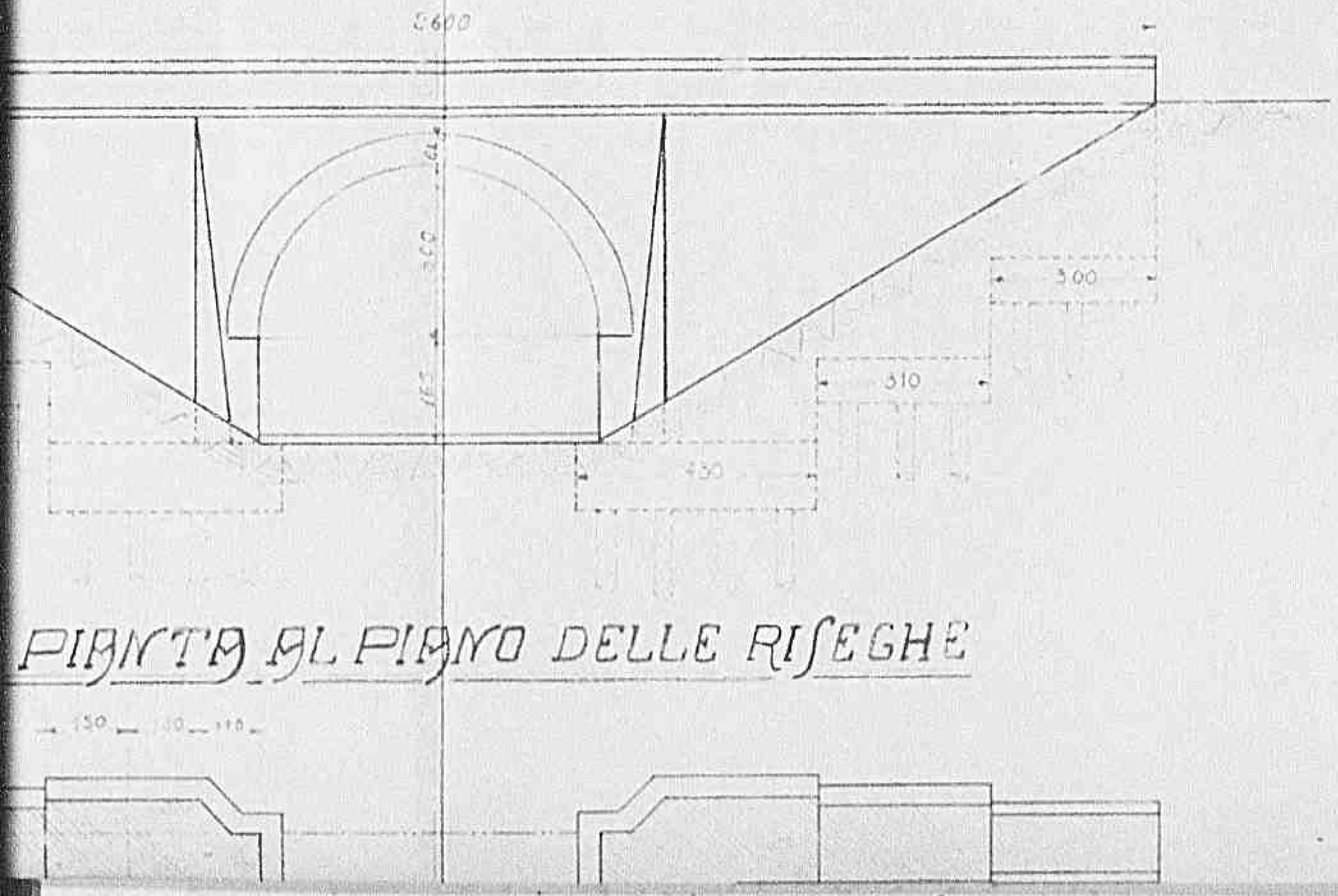
Declassified E.O. 12356 Section 3.3/NND No. 785019

PROSPETTO A VALLE



PIANTA AL PIANO DELLE RISEGHE

0683

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LLE

E RISEGHE

SEZIONE TR

SEZIONE LON

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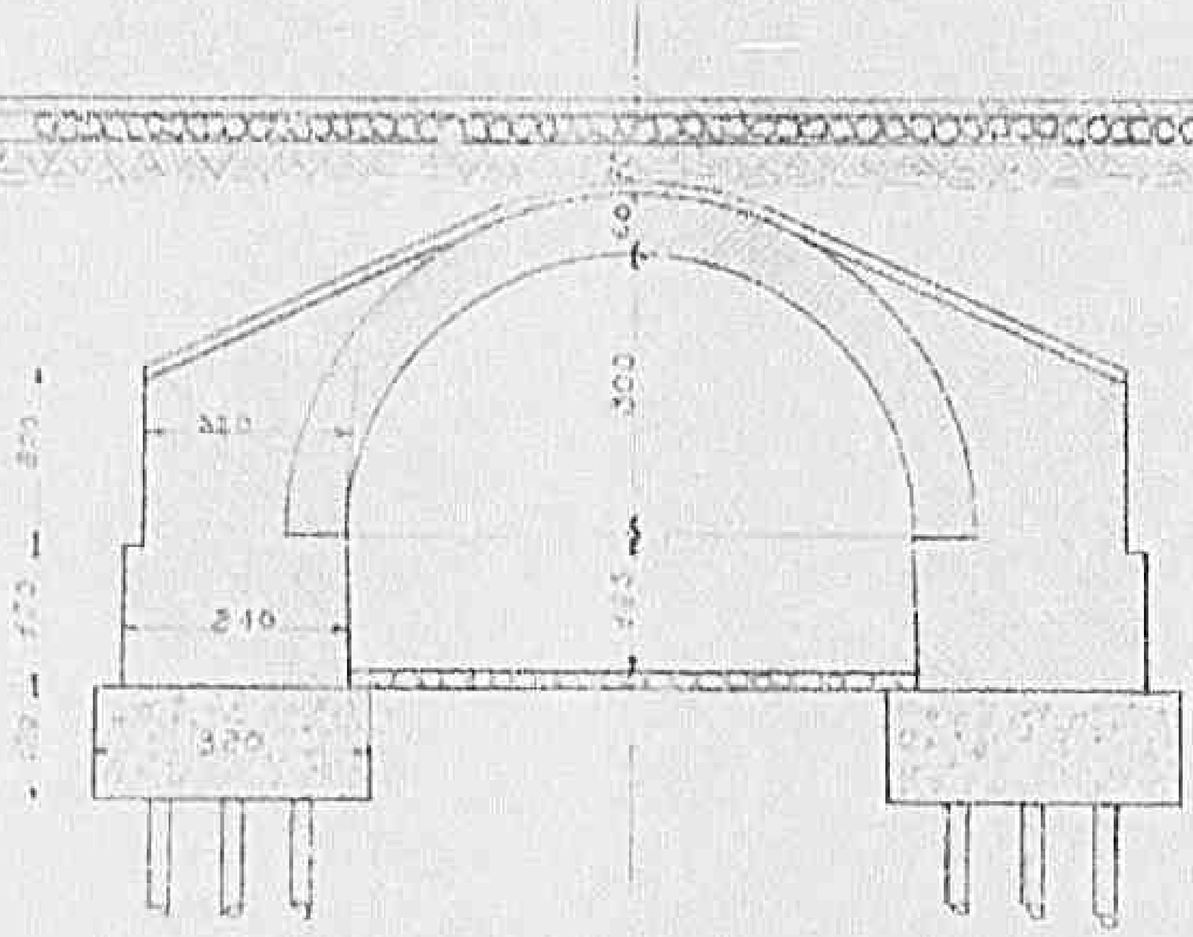
SEZIONE TRASVERSALE



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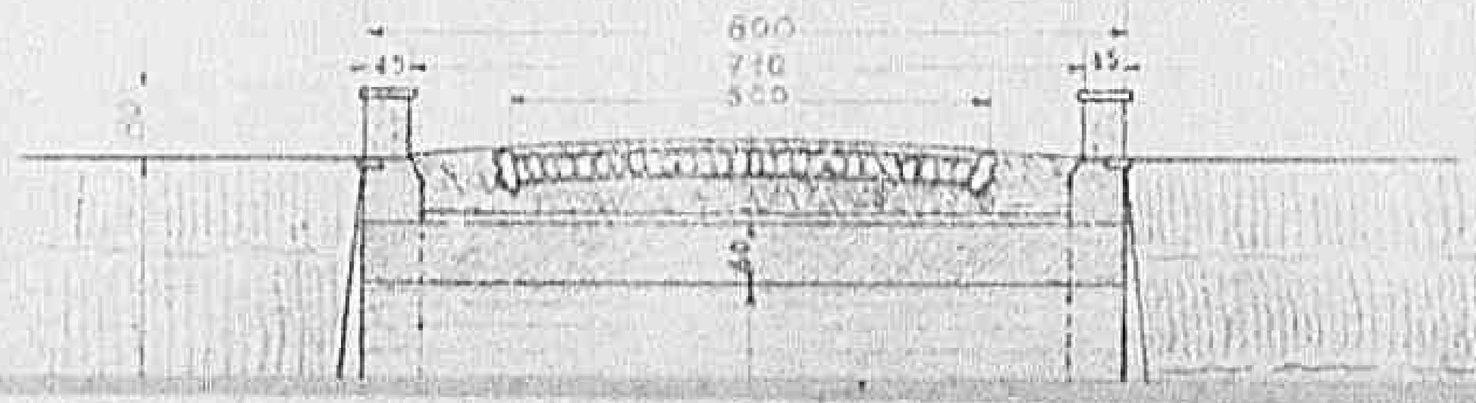

06851

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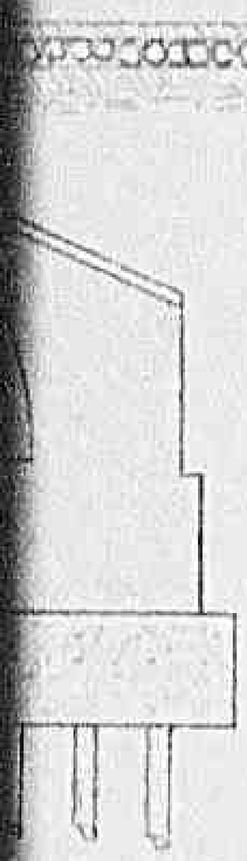
ERSALE



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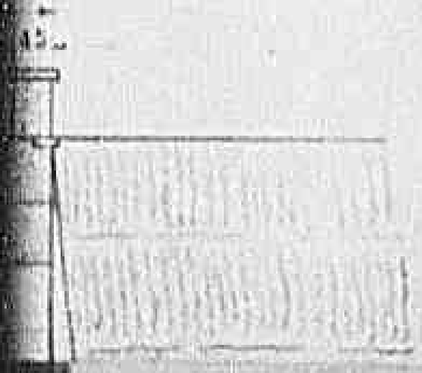
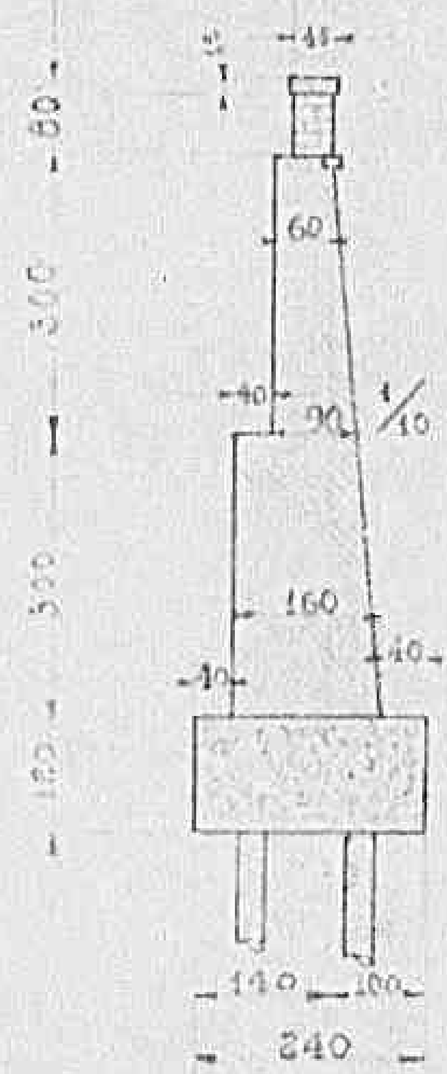


SEZIONE A-B. MURO ANDATOR

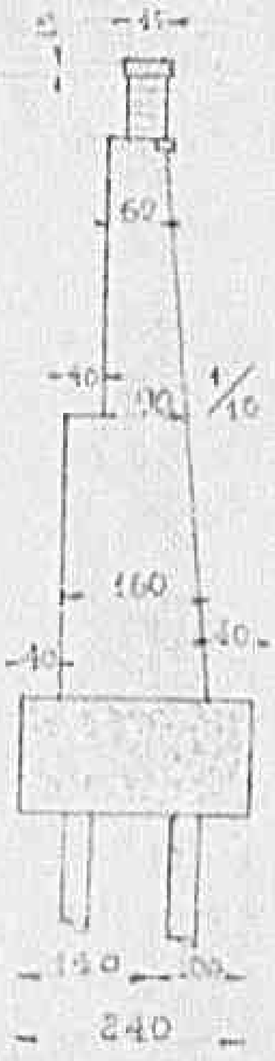


SEZ

SEZIONE C-D. MURO ANDATORIO

Declassified E.O. 12356 Section 3.3/NND No. 785019

A-B MURO ANDATORIO



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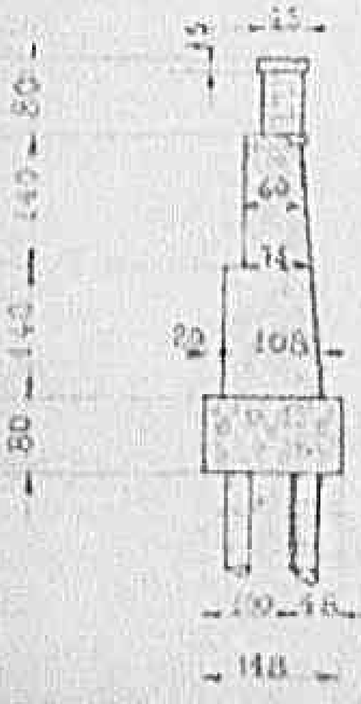
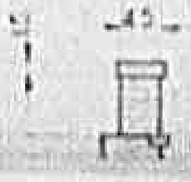


D. MURO ANDATORIO



DISTINTA MATERIALI OCCORRENTI

Legname per casseri	mc. 8
Cake	qt. 600
Pietrame	mc. 20

0687

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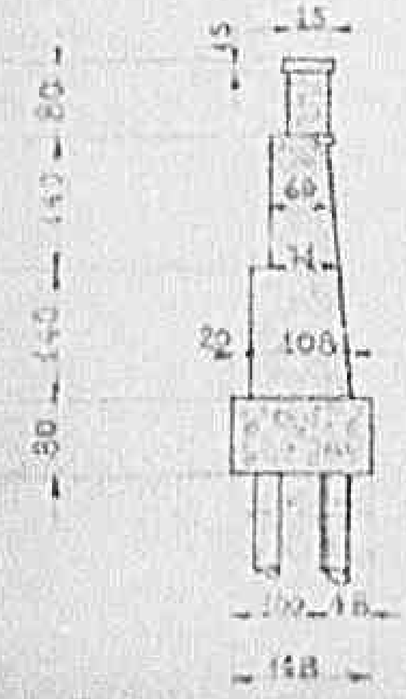
NDATORIO

SEZIONE E-F MURO AMDATORIO



TORIO

DISTINTA MATERIALI OCCORRENTI	
Legname, uso (metri cubi)	mc. 8½
Calce	Ql. 600
Pietra	mc. 180

0 6 8 81

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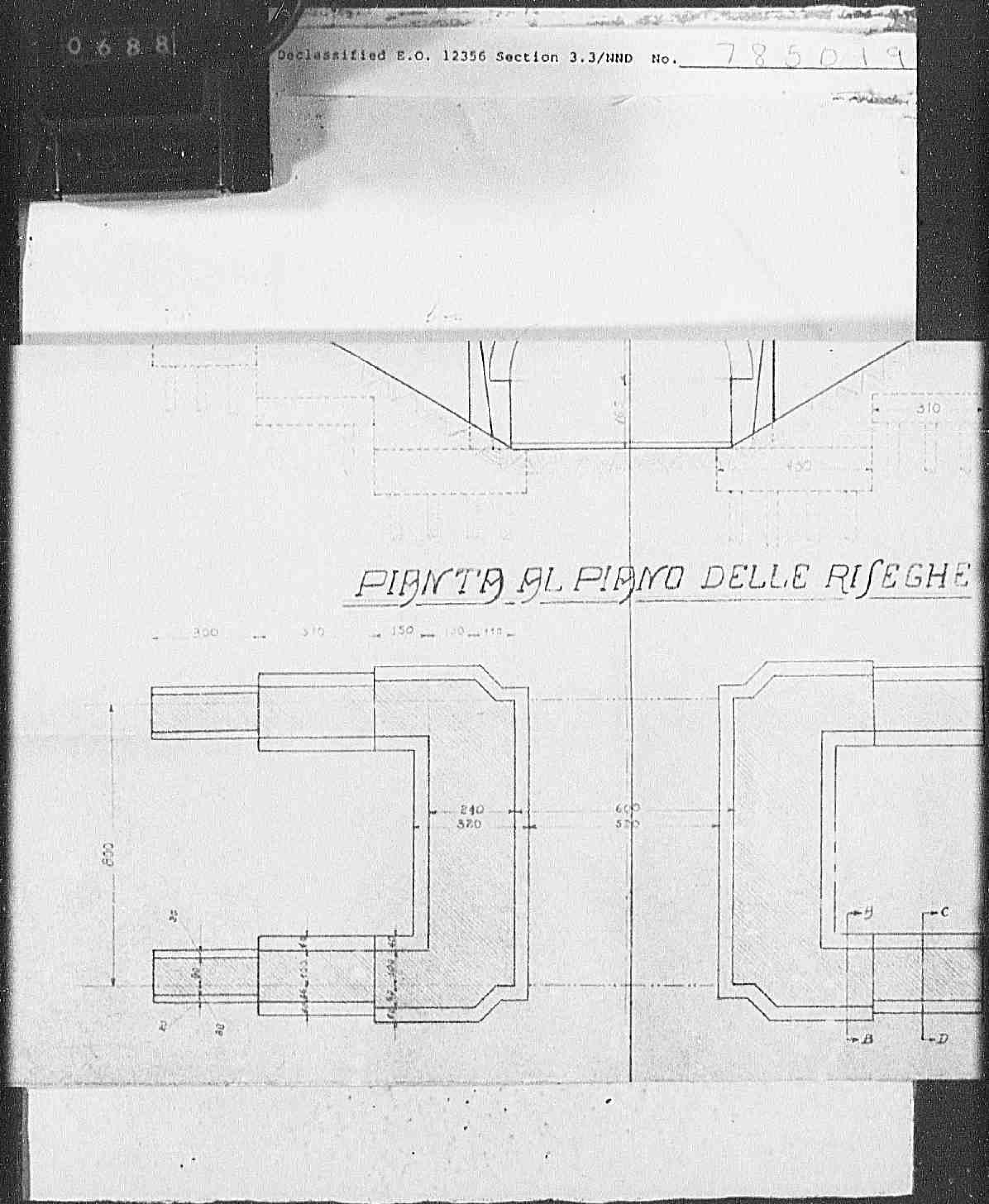
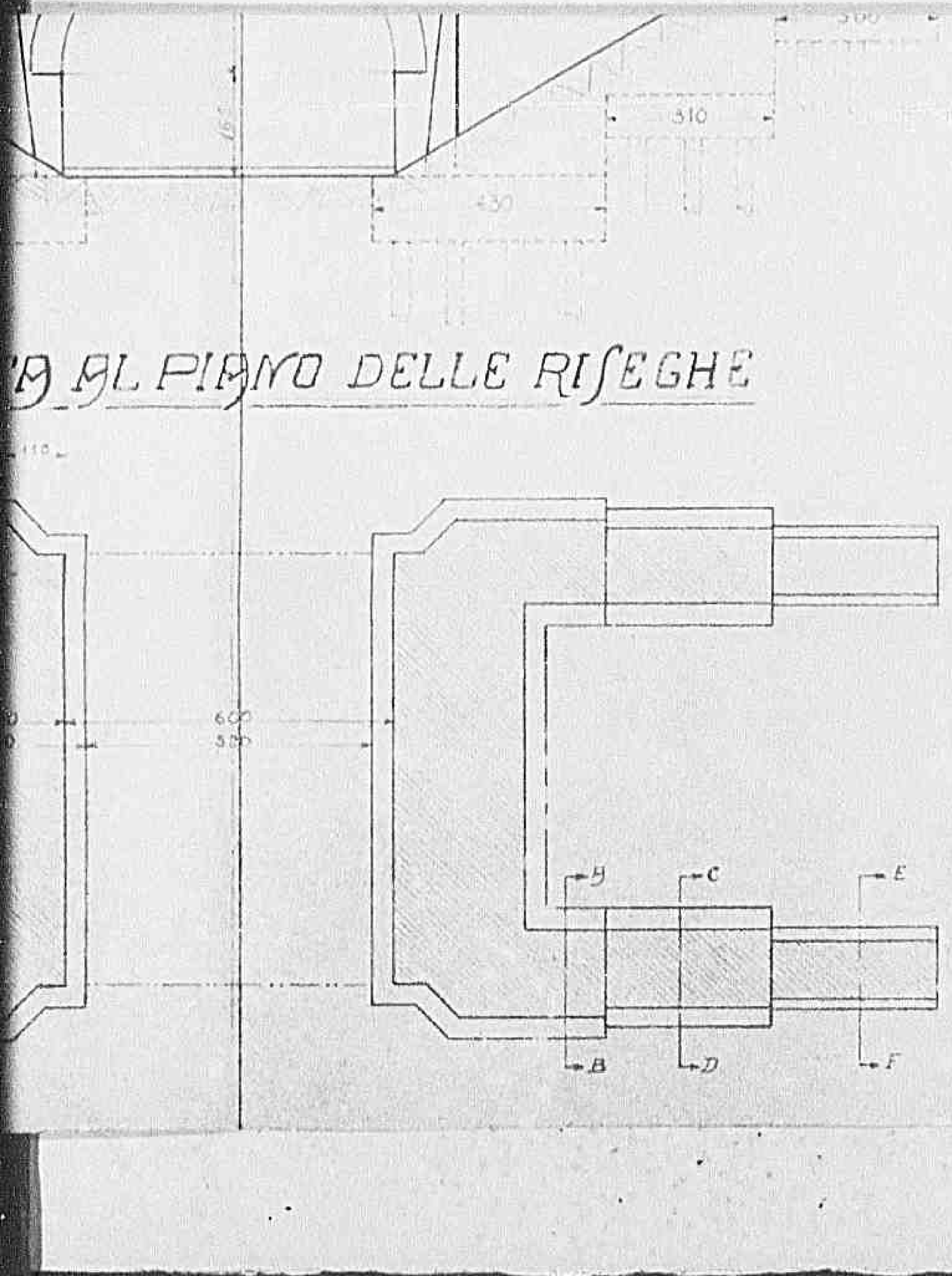


PIANTA AL PIANO DELLE RISEGHE

0689

Unclassified E.O. 12356 Section 3.3/NND No. 785019



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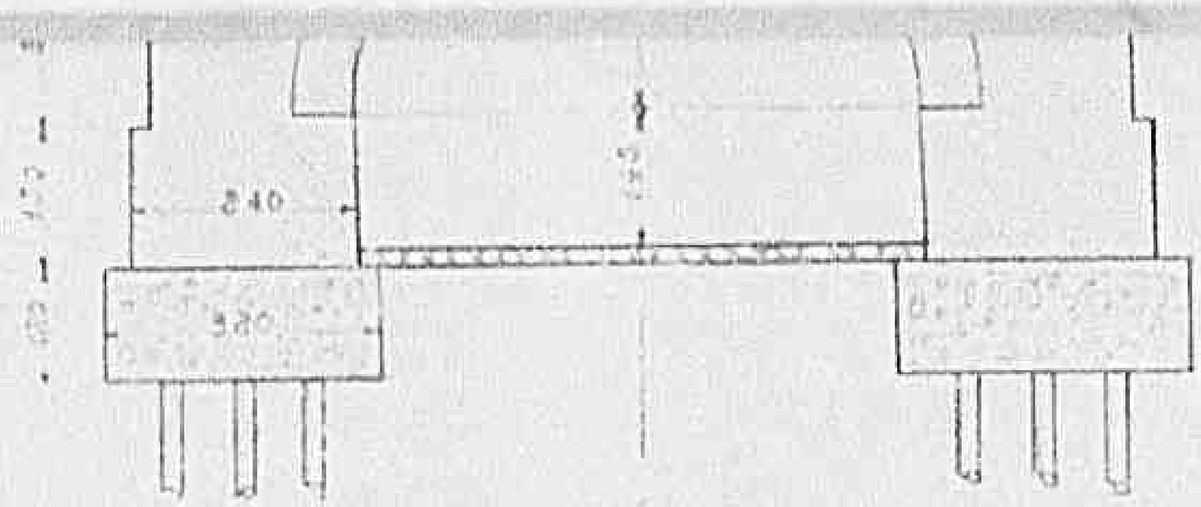
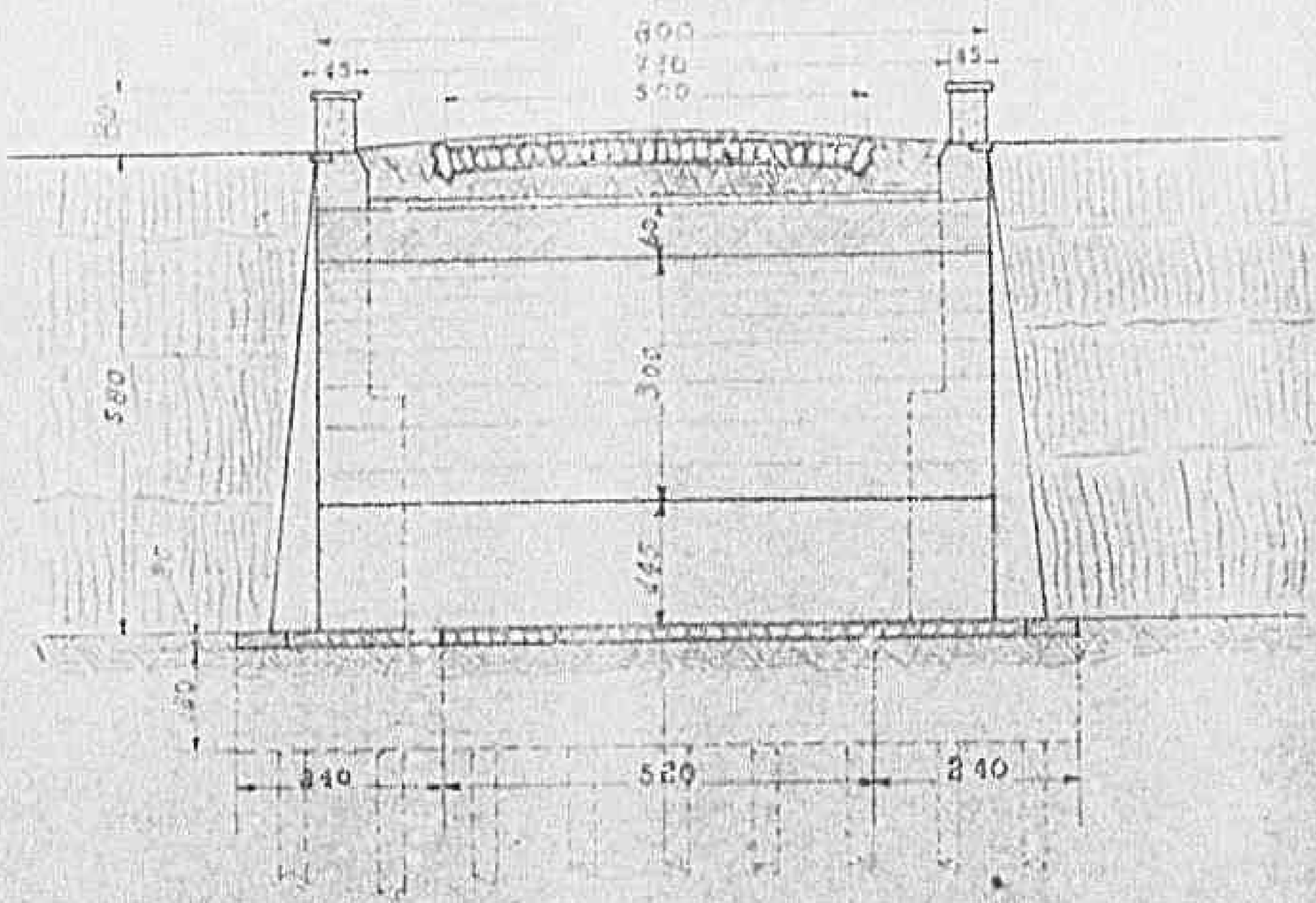
Declassified E.O. 12356 Section 3.3/NND No. 785019



SEZIONE LONGITUDINALE



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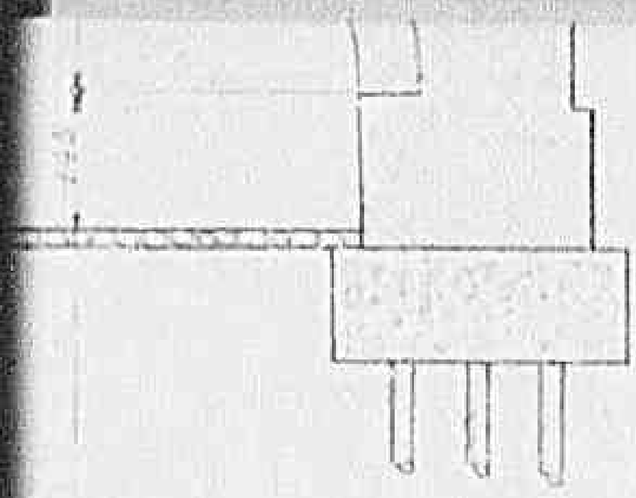
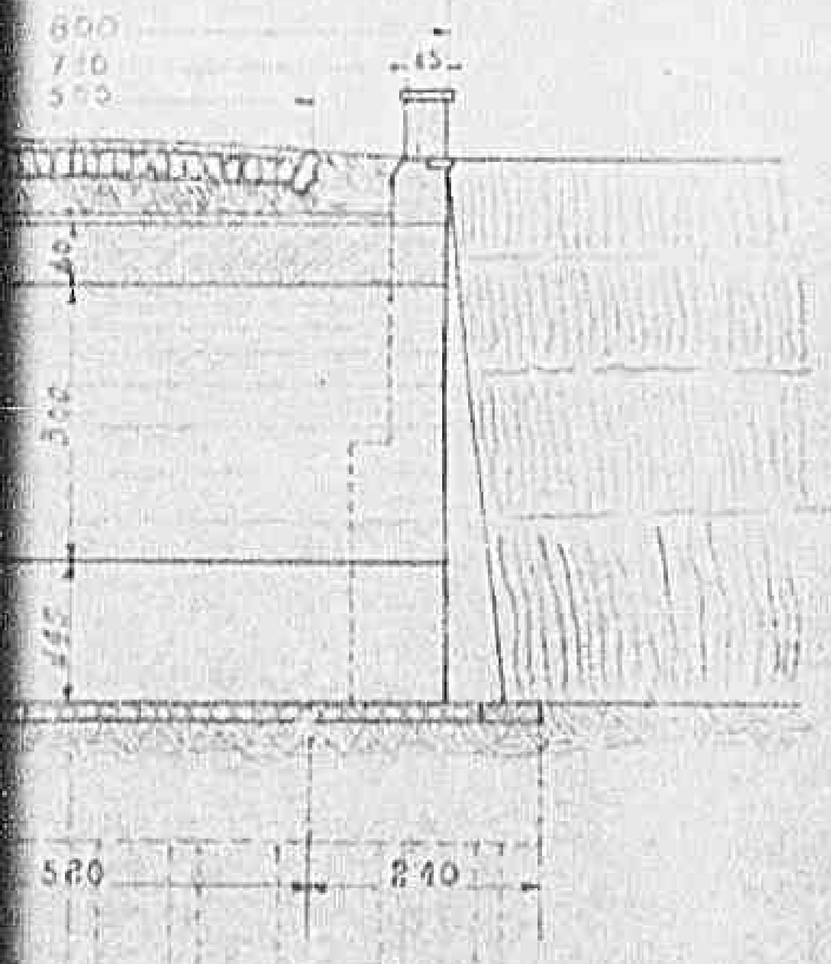
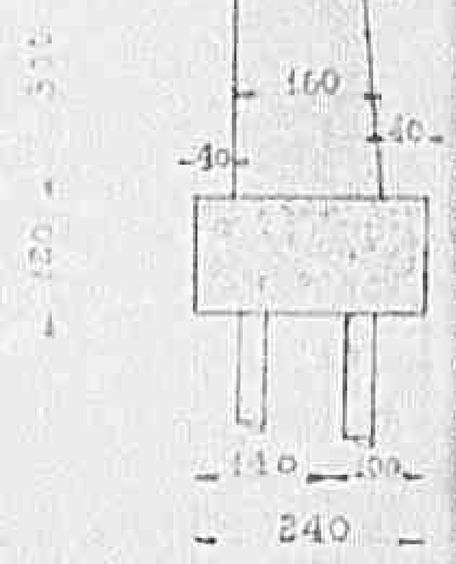
Unclassified E.O. 12356 Section 3.3/NND No. 785019

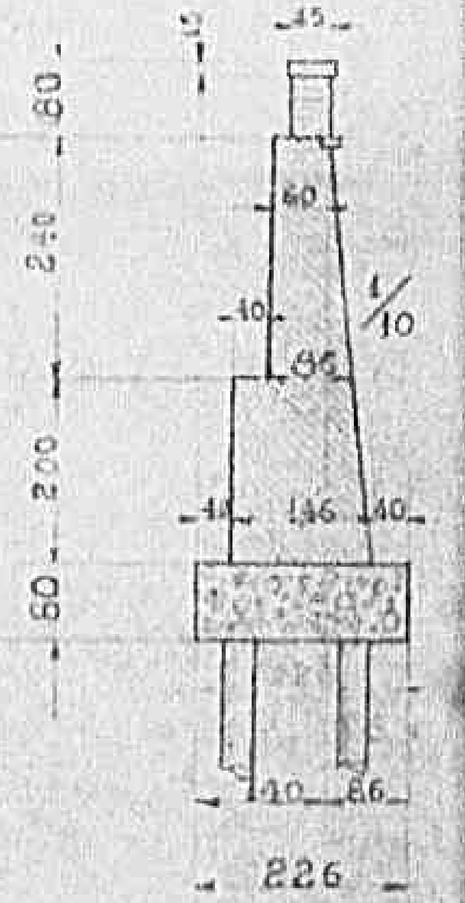


LONGITUDINALE





SEZIONE C-D. MURO GI



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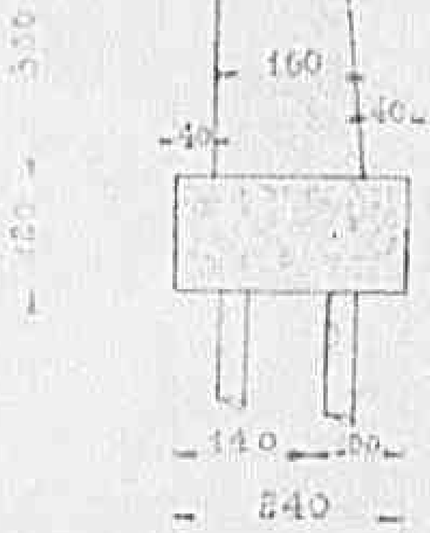
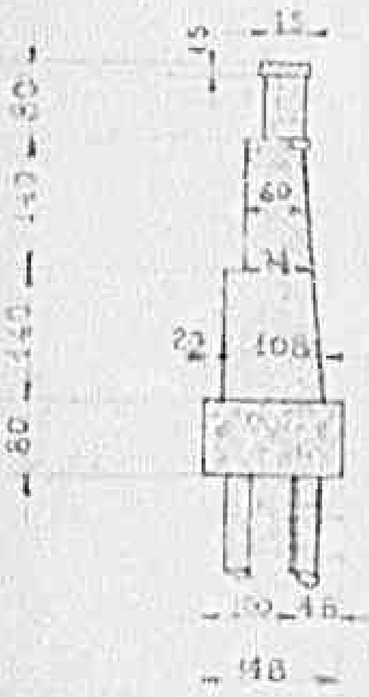
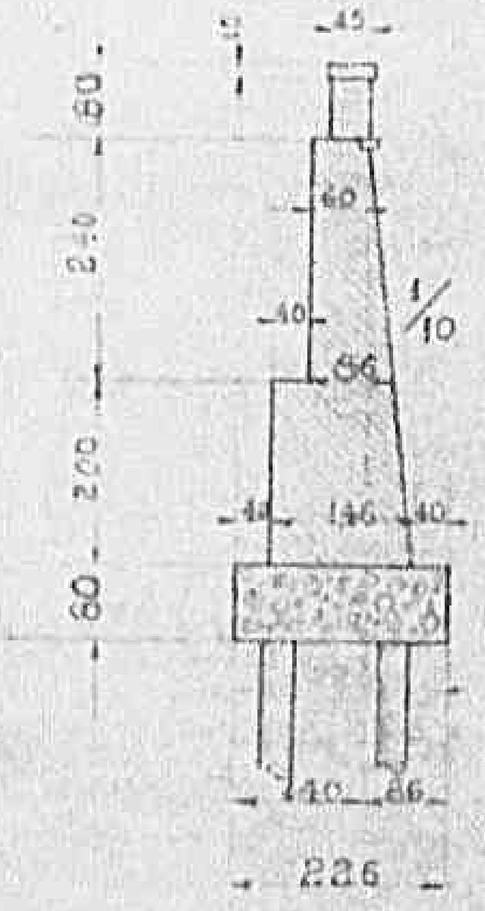
SEZIONE E-F MURO SPALLETTA





SEZIONE C-D. MURO SPALLETTA



DISTINTA

Calce

Scala 1:100.

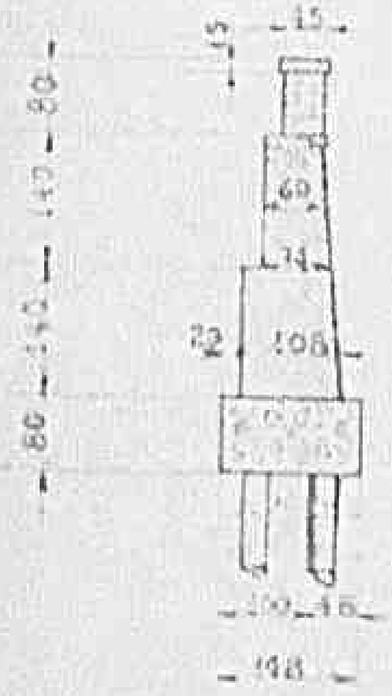
H. 4468 Pisa 16 MAR. 1945.

Visto: L'Ingegnere, Capo

0 6 9 3

Declassified E.O. 12356 Section 3.3/NND No. 785019

SEZIONE E-F MURO SINISTRO



10

Scala 1:100.

DISTINTA MATERIALI OCCORRENTI	
Legname forte (casseforme)	mc. 8½
Cake	qli 500
Ferro	mc. 30
Mattoni	mc. 150
Pietre	N° 16000

H. 4468 Pisa 16 MAR. 1945.

Visto: L'Ingegnere, Capo

Gio 223

CONSORZIO PER L'ACQUEDOTTO DEL FIORA IN PROVINCIA DI GROSSETO

m-606

(862)

Grosseto, 12 Marzo 1945.-

RIPRESA DELLA ESCAVAZIONE E SAGGIO PER LA CAPTAZIONE DELLE SORGENTI DI SANTA FIORA.

A) NOTIZIE E DATI

Consorzio per l'Acquedotto del Fiora costituito con decreto di S.E. il Prefetto di Grosseto in data 1° settembre 1938 tra 17 dei 24 Comuni della Provincia di Grosseto, e precisamente :

Campagnatico - Castiglione della Pescaia - Cinigiano - Civitella Paganico - Follonica - Gavorrano - Grosseto - Magliano in Toscana- Manciano - Massa Marittima - Monteargentario - Orbetello - Pitigliano - Roccalbegna - Roccastrada - Scansano - Sorano.=

Progetto generale in data 7 settembre 1939 a firma dell'Ingegnere Amedeo MANESCALCHI.

Voto del Consiglio Superiore dei Lavori Pubblici n.1326 in data 29 maggio 1940.

Approvazione del progetto per parte del Ministero :

- di Agricoltura e Foreste, decreto 18.1.1941 n.5495/5671 div.IV;
- dei Lavori Pubblici, decreto 5.6.1941 n.1168/2105 div.XXII.

Territorio :

1)- dell'intera Provincia	ettari	450.107
2)- incluso nel comprensorzio consorziale	ettari	338.275
di cui :		
a) in bonifica	ettari	111.069
b) fuori bonifica	ettari	227.206
in totale come sopra	ettari	338.275

pari a circa il 75% dell'intera Provincia.

Centri abitati serviti	n°	55-
Comprensori di bonifica serviti	n°	9-

Popolazione da servire a completo incremento del servizio :

a) agglomerata		102.185
b) sparsa rurale		101.733
	totale	203.918

Declassified E.O. 12356 Section 3.3/NND No. 785019

A) NOTIZIE E DATI

Consorzio per l'Acquedotto del Fiora costituito con decreto di S.E. il Prefetto di Grosseto in data 1° settembre 1938 tra 17 dei 24 Comuni della Provincia di Grosseto, e precisamente :

Campagnatico - Castiglione della Pescaia - Cinigiano - Civitella Paganico - Follonica - Gavorrano - Grosseto - Magliano in Toscana- Manciano - Massa Marittima - Monteargentario - Orbetello - Pitigliano - Roccalbegna - Roccastrada - Scansano - Sorano.=

Progetto generale in data 7 settembre 1939 a firma dell'Ingegnere Amedeo MANESCALCHI.

Voto del Consiglio Superiore dei Lavori Pubblici n.1326 in data 29 maggio 1940.

Approvazione del progetto per parte del Ministero :

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Comprensori di bonifica serviti	n°	9-

Popolazione da servire a completo incremento del servizio :

a) agglomerata	102.185
b) sparsa rurale	101.733
totale	203.918

Sviluppo totale delle tubazioni adduttrici, escluse le 1929 di distribuzione negli abitati, chilometri 660, del peso complessivo di circa 25.000 tonnellate. Vedasi schema allegato in fotocopia.

./.

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B) LAVORI IN CORSO

Il Consorzio del Fiora, in attesa dell'approvazione del progetto generale dell'opera, fece presente la necessità di far precedere alla sua piena attuazione la captazione delle sorgenti, anche allo scopo di definire esattamente la quantità dell'acqua disponibile, la quota di partenza alla quale è subordinato tutto il vasto complesso dei 660 chilometri di tubazione, nonchè la positura della definitiva captazione a tutti gli effetti igienici.

Il Ministero dei Lavori Pubblici con decreto 3 maggio 1940 n.2924 div.XIII aderendo alla richiesta del Consorzio, decretava l'autorizzazione ad iniziare i lavori di captazione, dichiarandoli urgenti ed indifferibili.

Poichè le sorgenti di S.Fiora sgorgano nella zona sottostante il paese omonimo, i lavori dovettero necessariamente svolgersi in galleria, onde evitare gravi ripercussioni sulla stabilità del paese e per conseguire i migliori risultanti anche dal lato igienico.

Con la galleria scavata si ottenne un cospicuo primo risultato e, dalla situazione della fronte di avanzamento, si ha ragione di ritenerne per imminenti altri notevoli.

C) RIPRESA DELLE OPERE

La Maremma, che si identifica, per la maggior parte, con la Provincia di Grosseto, agli effetti della completa redenzione dalla malaria, ha necessità assoluta di pura ed abbondante acqua potabile.

In conseguenza di queste necessità si prospetta l'opportunità di continuare i lavori in corso per la captazione delle sorgenti dhe, come si è detto, debbono precedere l'impianto delle tubazioni.

Poichè attualmente i lavori si trovano in una fase delicata e di prossime realizzazioni, è della massima urgenza di continuare l'esplorazione in galleria intanto per altri 200 metri, per non compromettere il già fatto : e questo lavoro è l'oggetto della valutazione allegata.

Ma per il saggio criterio tecnico di far precedere la captazione delle acque all'impianto delle tubazioni, sarà opportuno inoltre il completare l'opera intrapresa, e per tale completamento sarà compilata una nuova proposta, compiuto il suddetto avanzamento di duecento metri.

La spesa prevista nell'allegata valutazione ascende a lire un milione, dovuta, per la maggior parte, alla mano d'opera occorrente.

Declassified E.O. 12356 Section 3.3/NND No. 785019

vasto complesso dei 600 chilometri di tubazione, nonchè la posatura della definitiva captazione a tutti gli effetti igienici.

Il Ministero dei Lavori Pubblici con decreto 3 maggio 1940 n.2924 div.XIII aderendo alla richiesta del Consorzio, decretava l'autorizzazione ad iniziare i lavori di captazione, dichiarandoli urgenti ed indifferibili.

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Con la galleria scavata si ottenne un cospicuo primo risultato e, dalla situazione della fronte di avanzamento, si ha ragione di ritenerne per imminenti altri notevoli.

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CONSORZIO ACQUEDOTTO DELLA FIORA GROSSETO

IL DIRETTORE DEI LAVORI
(Dott.Ing.Amedeo Manescalchi)

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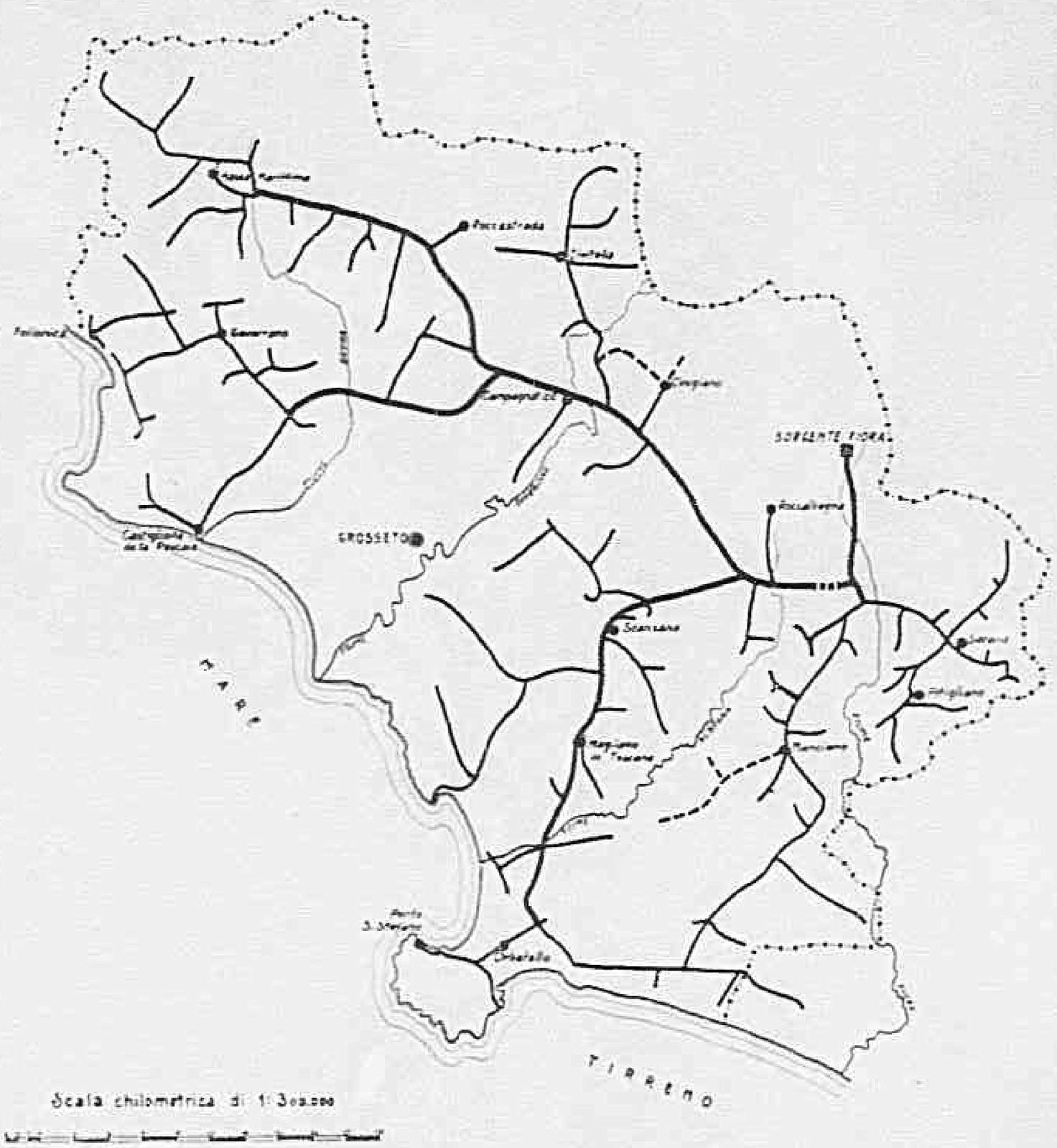
CONSORZIO PER L'ACQUEDOTTO DEL FIORA

SCHEMA GENERALE DELL' ACQUEDOTTO

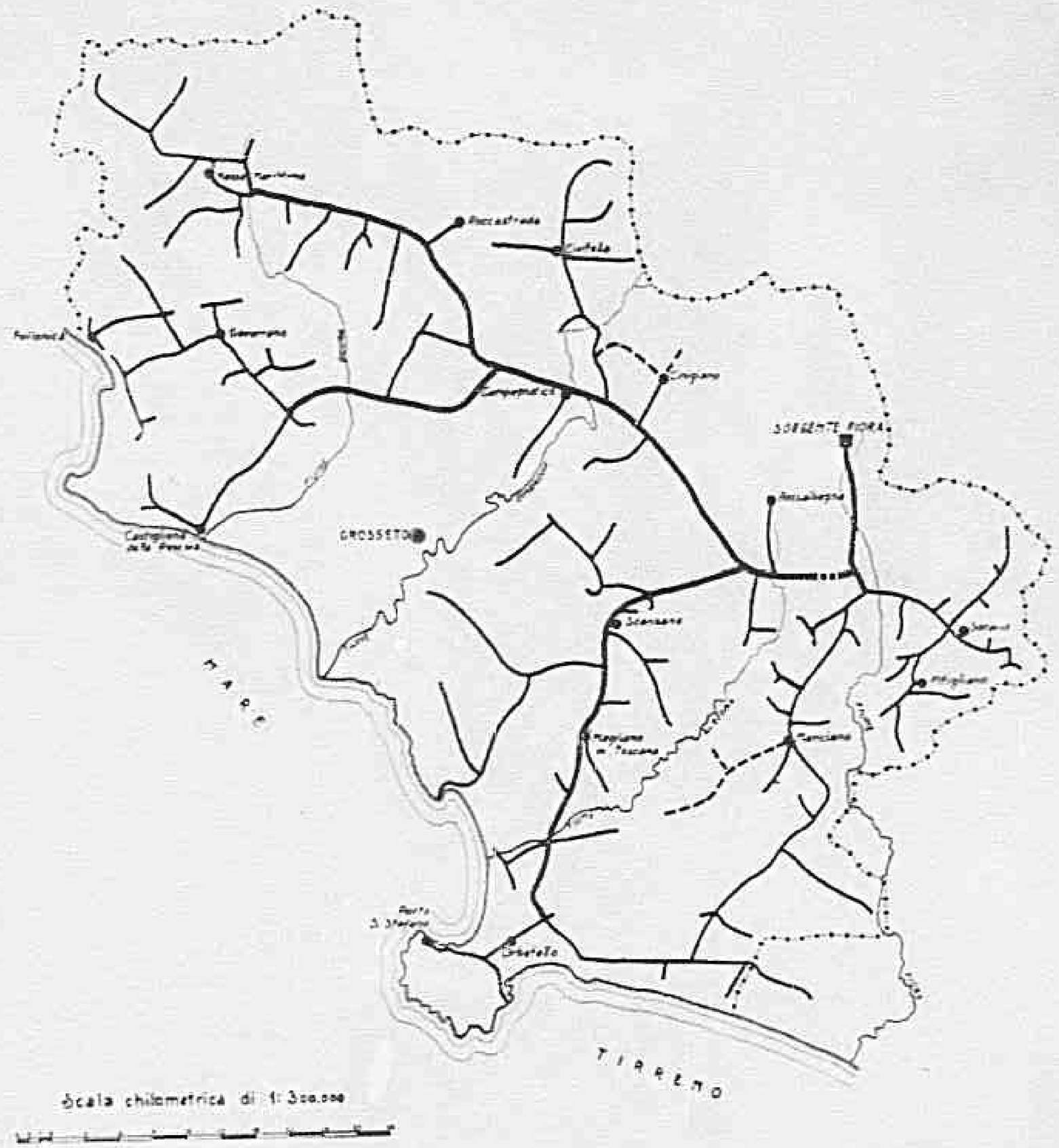


Scala chilometrica di 1:300.000

Declassified E.O. 12356 Section 3.3/NND No. 789018

CONSORZIO PER L'ACQUEDOTTO DEL FIORA

SCHEMA GENERALE DELL' ACQUEDOTTO



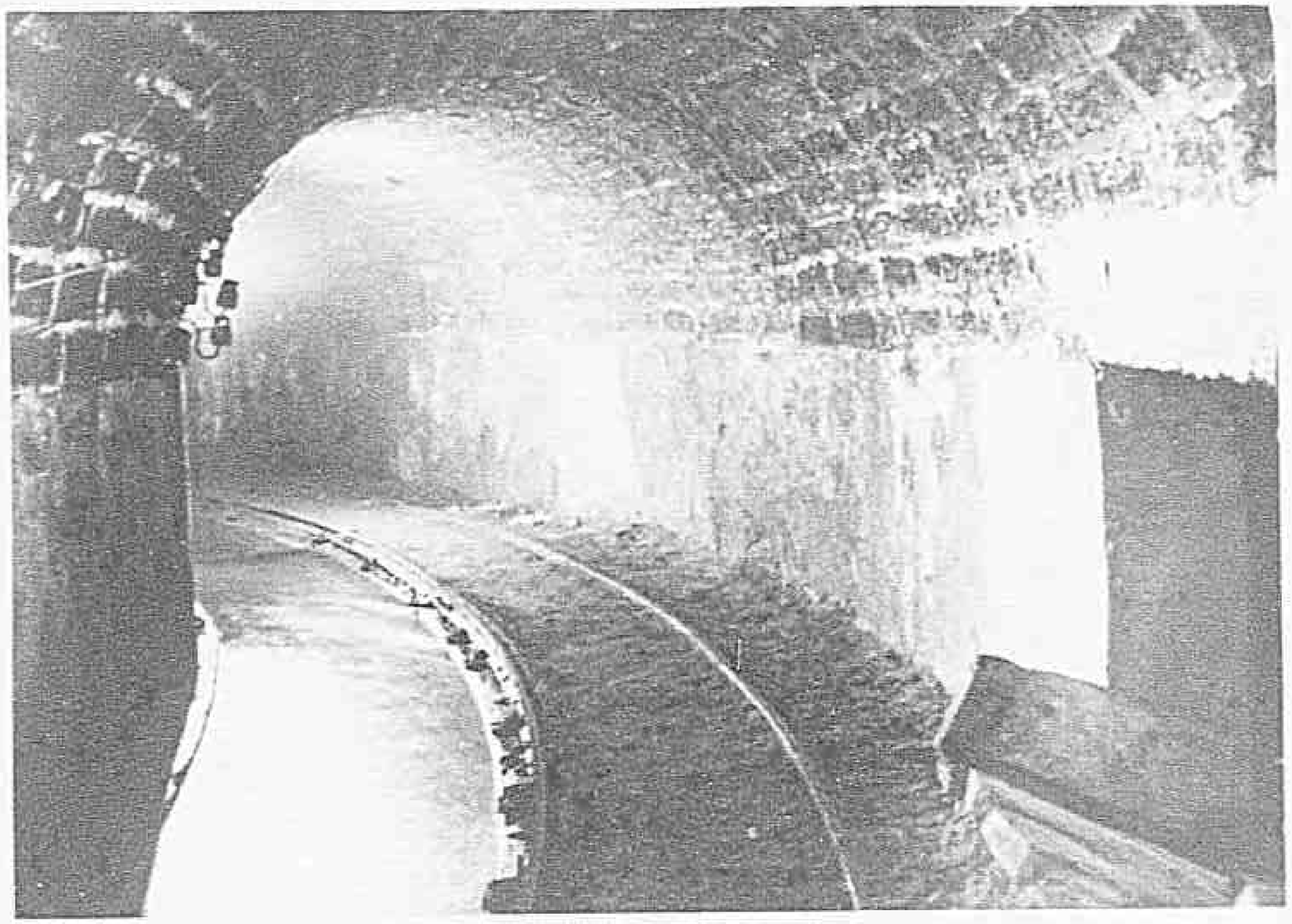
Scala chilometrica di 1: 300.000

1928

Declassified E.O. 12356 Section 3.3/NND No. 780019

0700

Declassified E.O. 12356 Section 3.3/NND No.



07011

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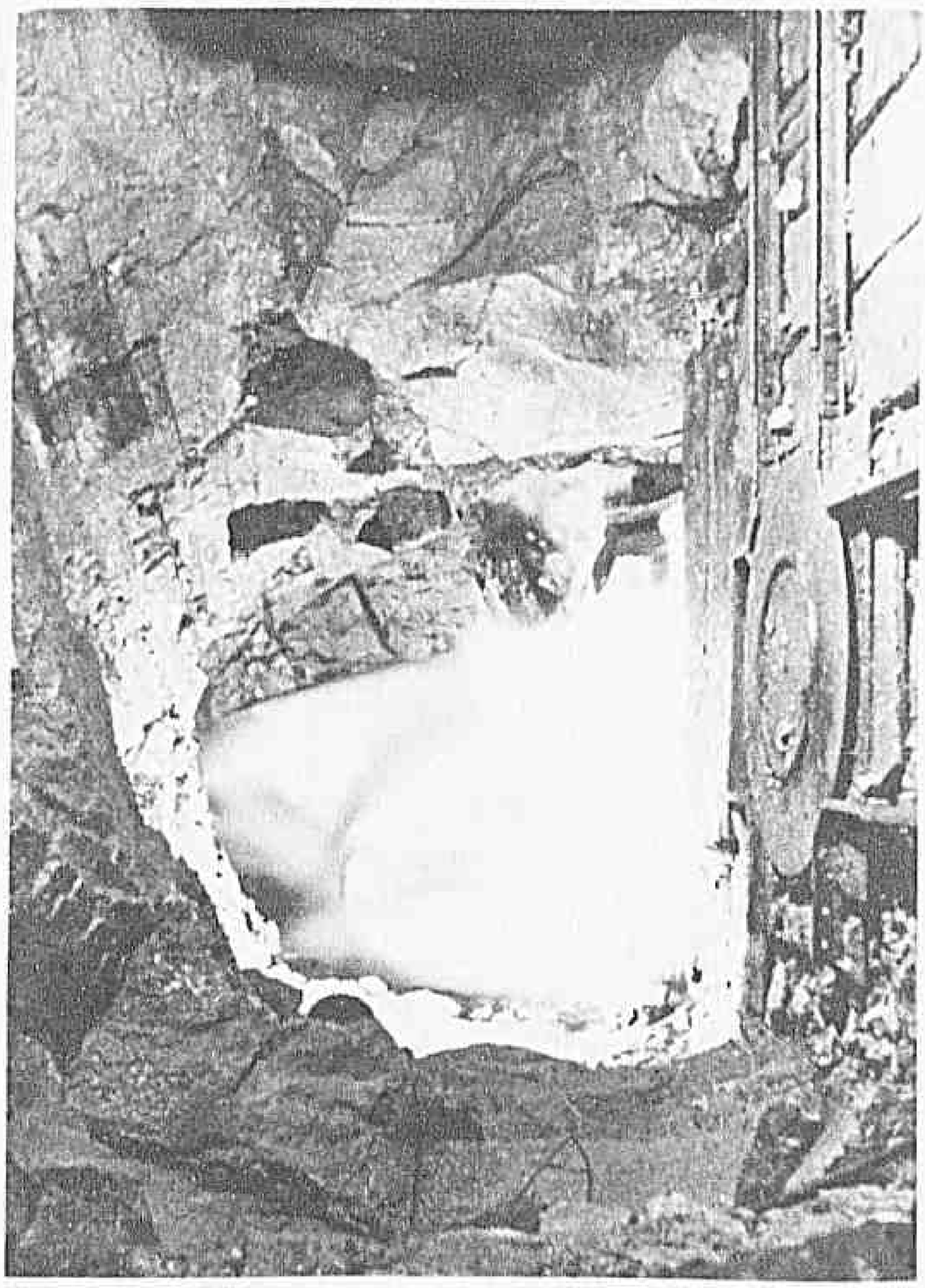
LIBRARY OF THE MASTER

1927

0702

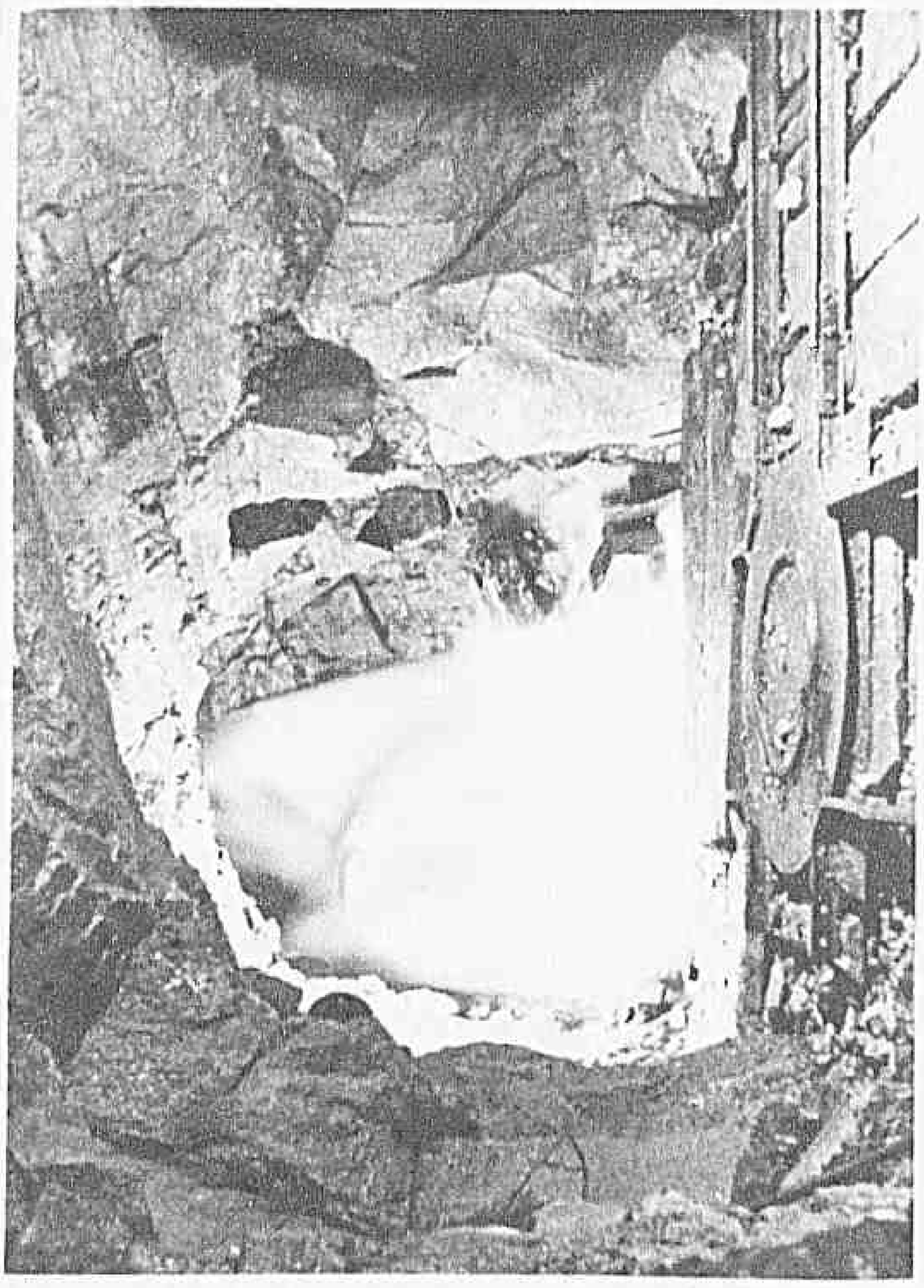
Declassified E.O. 12356 Section 3.3/NND No.



ESERCITO DELLA REPUBBLICA

0703

Declassified E.O. 12356 Section 3.3/NND No.



GABINETTO DEL TIRSU

Ministero Lavori Pubblici
UFFICIO DEL GENIO CIVILE AREZZO
Visto si consulti
n. 608/bis 13 FEB 1962
Arezzo, li
L'INGEGNERE CAPO
(G. Corelli)

126/ARE/113

COMUNE di LUCIGNANO

PONTE SUL TORRENTE ESSE

STRADA LUCIGNANO - MARCIANO

COMPUTO METRICO

Scavo di splateamento:

$2\left[\left(\frac{2.55+8.20}{2}\times 4.92\right)-\left(\frac{1.55\times 0.35}{2}\right)-\left(\frac{4.92+6.72}{2}\times 4.65\right)\right]\times 7.20 =$ mc. 28.20

Scavo di fondazione:

$\frac{1}{3}\left[2(3.80\times 1.20)\right]\times 7.20 =$ mc 21.90

$4\left(\frac{0.70\times 0.23}{2}\right) 1.50\times 0.80 =$ " 2.30

$4\left(\frac{1.27+0.95}{2}\right) 1.10\times 0.80 =$ " 3.90

$4\left(\frac{1.95+1.35}{2}\times 1.10\right) 0.80 =$ " 5.80

mc. 33.90

Calcestruzzo di fondazione:

$\frac{1}{3}\left[2(3.80\times 1.20)\right] 7.20 =$ mc. 21.90

Muratura in pietrame

$2\left\{\left[\left(\frac{4.65+4.92}{2}\times 7.14\right)+(3.50\times 0.40)+\right.\right.$

$+(1.25\times 0.40)-\left[(4.65\times 2.30)-\frac{2}{3}(4.65\times 1.10)+\right.$

Muratura di mattoni per volte:

$(10.50\times 0.65)\ 6.20 =$ mc. 42.30

Pietrame squadrato.

$4(10.60\times 0.15)\ 0.45 =$ mc 2.85

$4(1.00\times 0.50)\ 0.40 =$ " 0.80

$4(2.30\times 0.70)\ 0.50 =$ " 3.20

$2(10.50\times 0.70)\ 0.50 =$ " 7.35

mc 14.20

Cappa:

$15\times 7.20 =$ mq 108.00

Drenaggio:

$2\left(\frac{1.75\times 2.00}{2}\right) 6.00$ mc 21.00

Massicciata: 1926

$(60.10\times 6.50) =$ mq. 390,00

Declassified E.O. 12356 Section 3.3/NND No.

ESSE

STRADA LUCIGNANO - MARCIANO

COMPUTO METRICO

Scavo di splateamento.

$2\left[\left[\frac{2.55+3.20}{2}\times 4.92\right]-\left[\frac{2.55\times 0.35}{2}\right]-\left(\frac{4.92+4.72}{2}\times 4.65\right)\right]\times 7.20 =$ mc. 28.20

Scavo di fondazione:

$\frac{1}{3}\left[2\left[3.80\times 1.20\right]\right]\times 7.20 =$ mc. 21.90

$4\left(\frac{0.70+0.21}{2}\right) 1.50\times 0.80 =$ " 2.30

$4\left(\frac{1.27+0.95}{2}\right) 1.10\times 0.80 =$ " 3.90

$4\left(\frac{1.95+1.35}{2}\times 1.10\right) 0.80 =$ " 5.80

mc. 33.90

Calcestruzzo di fondazione:

$\frac{1}{3}\left[2\left(3.80\times 1.20\right)\right] 7.20 =$ mc. 21.90

Muratura in pietrame

$2\left\{\left[\left(\frac{4.65+4.92}{2}\times 7.15\right)+\left(3.50\times 0.40\right)+\right.\right.$

$+\left(1.35\times 0.40\right)+\left(4.65\times 2.30\right)+\frac{2}{3}\left(4.65\times 1.70\right)+$

$\left.\left.+\left(5.25\times 0.65\right)+\frac{1}{3}\left(1.15\times 0.30\right)\times 15\right]\right\}\times 7.20 =$ mc 186,00

$4\left[\left[0.95\times 1.50\right)+\left(0.60\times 0.25\right)\right] 0.30$ " 4.15

$4\left[\left(1.35\times 1.00\right)+\left(0.60\times 0.15\right)\right] 0.60$ " 6.50

$4\left[\left(\frac{1.90+2.00}{2}\times 3.75\right)+\frac{1}{3}\left(1.15\times 0.30\right)\times 15\right] 0.60:$ " 25.80

$4\left(\frac{1.00+0.65}{2}\times 0.50\right) 0.60:$ " 13.85

mc 236.80

Murature a mattoni per volta.

$\left(10.50\times 0.65\right) 6.20 =$ mc. 42.30

Pietrame squadrato.

$4\left(10.60\times 0.15\right) 0.45 =$ mc 2.85

$4\left(1.00\times 0.50\right) 0.60 =$ " 1.20

$4\left(2.30\times 0.70\right) 0.50 =$ " 3.20

$2\left(10.50\times 0.70\right) 0.50 =$ " 7.35

mc 14.20

Carpa:

$15\times 7.20 =$ mq 108.00

Drenaggio:

$2\left(\frac{1.75\times 2.00}{2}\right) 6.00$ mc 21.00

Massicciata: 1926

$\left(60.10\times 6.50\right) =$ mq 390,00

Pietrisco:

$\left(390.00\times 0.07\right) =$ mc 27.30

Ing. Eurilio Bassi

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0706

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07071

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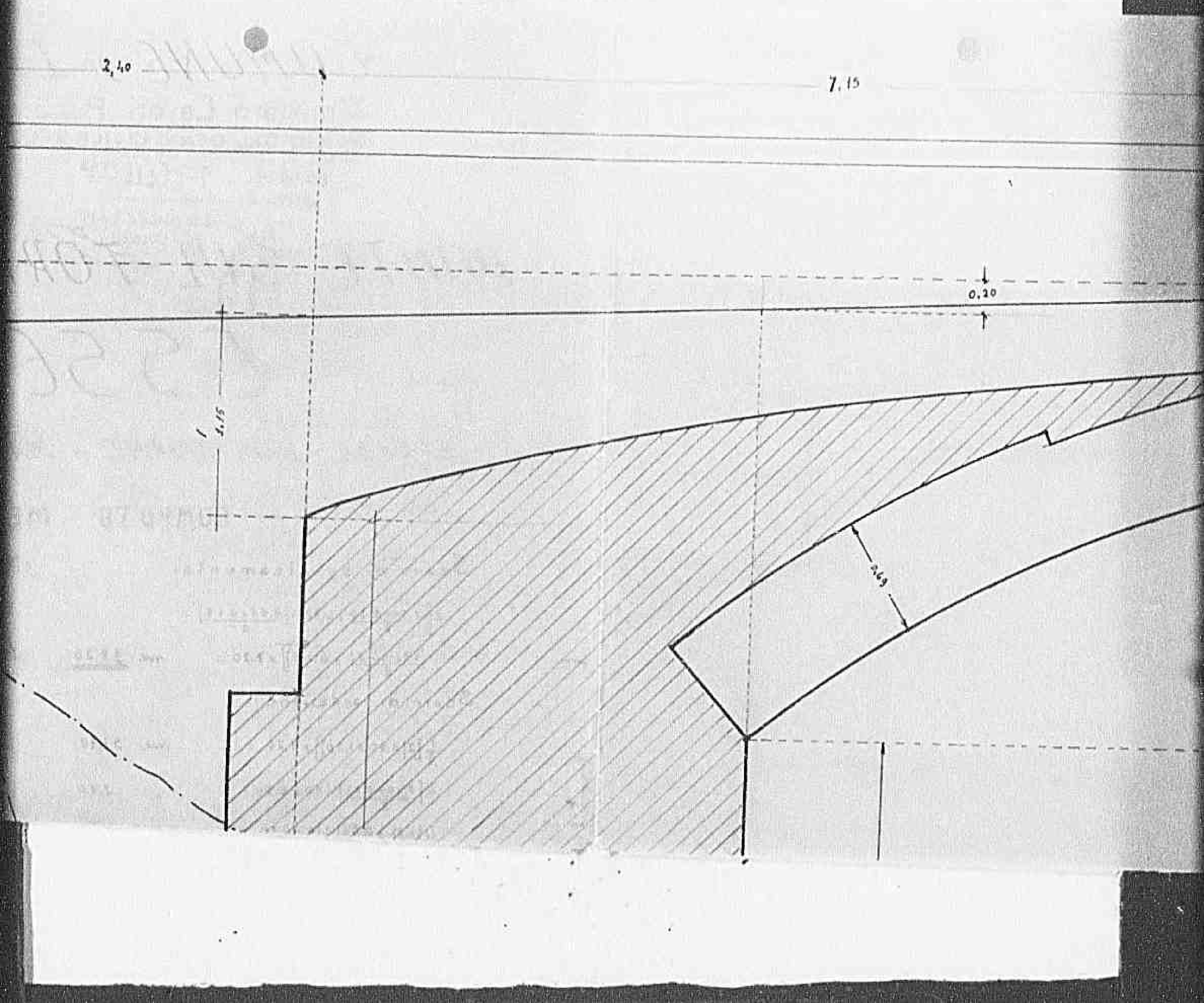

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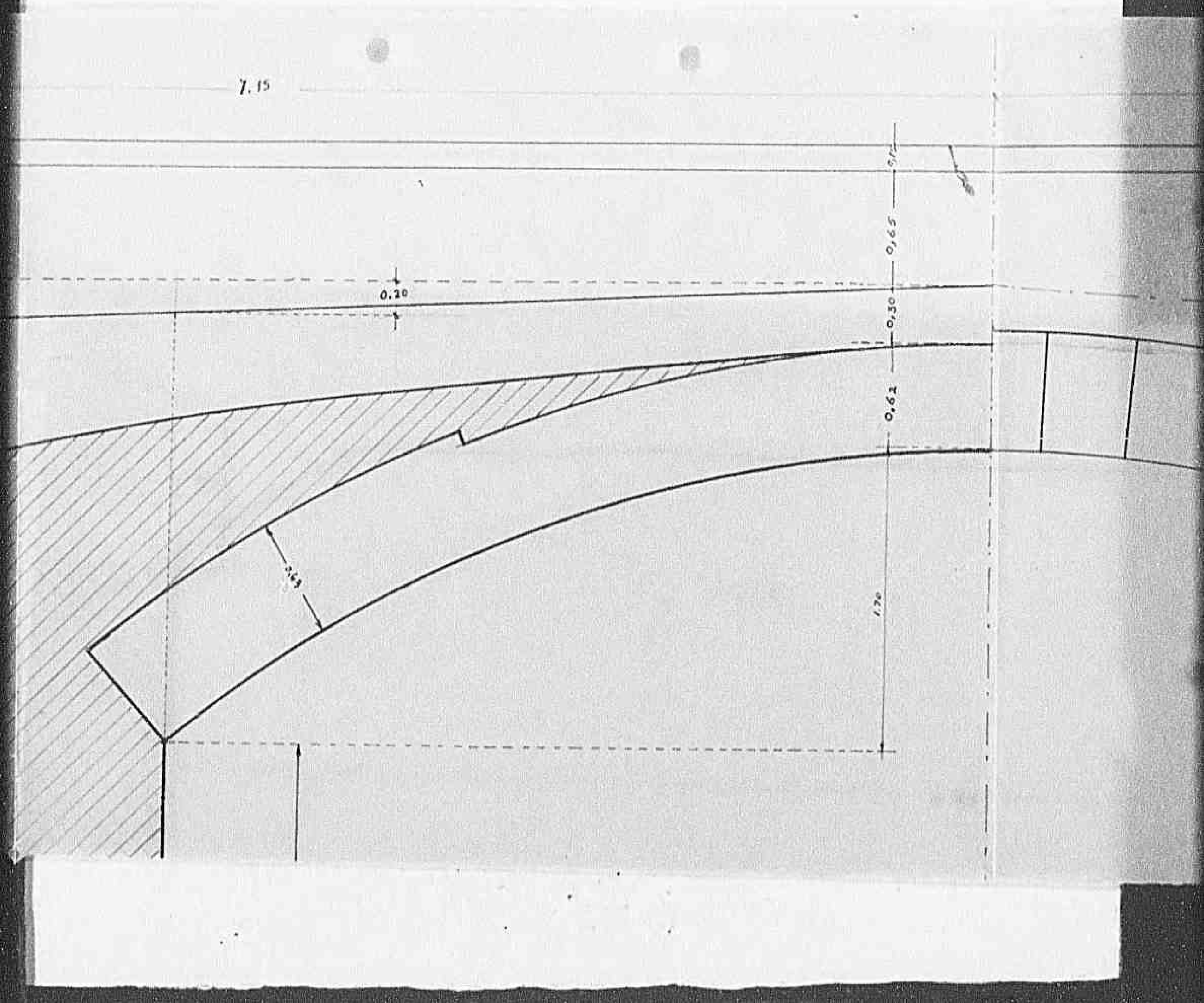

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Declassified E.O. 12356 Section 3.3/NND No. 785019

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10,50

0711

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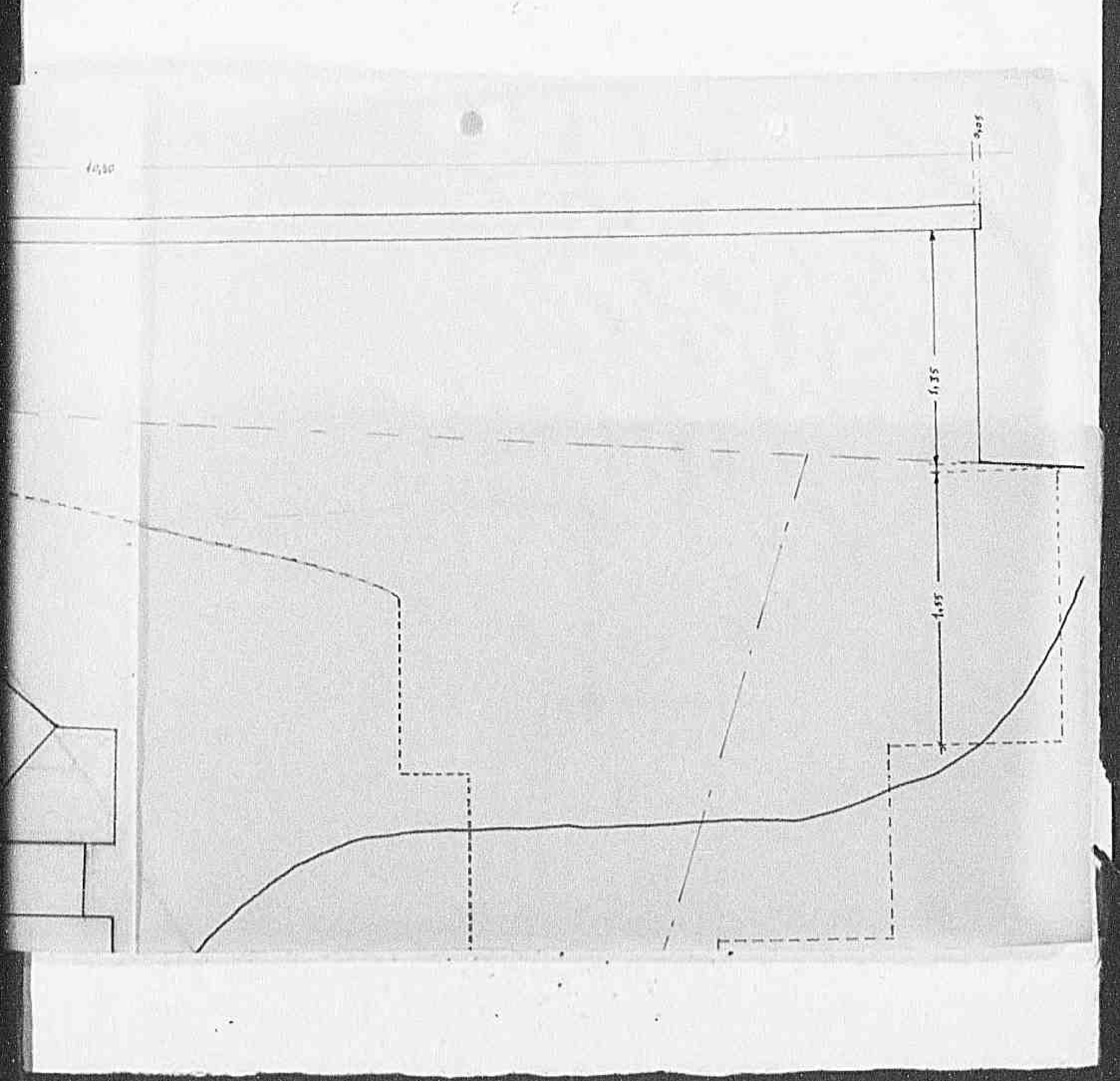

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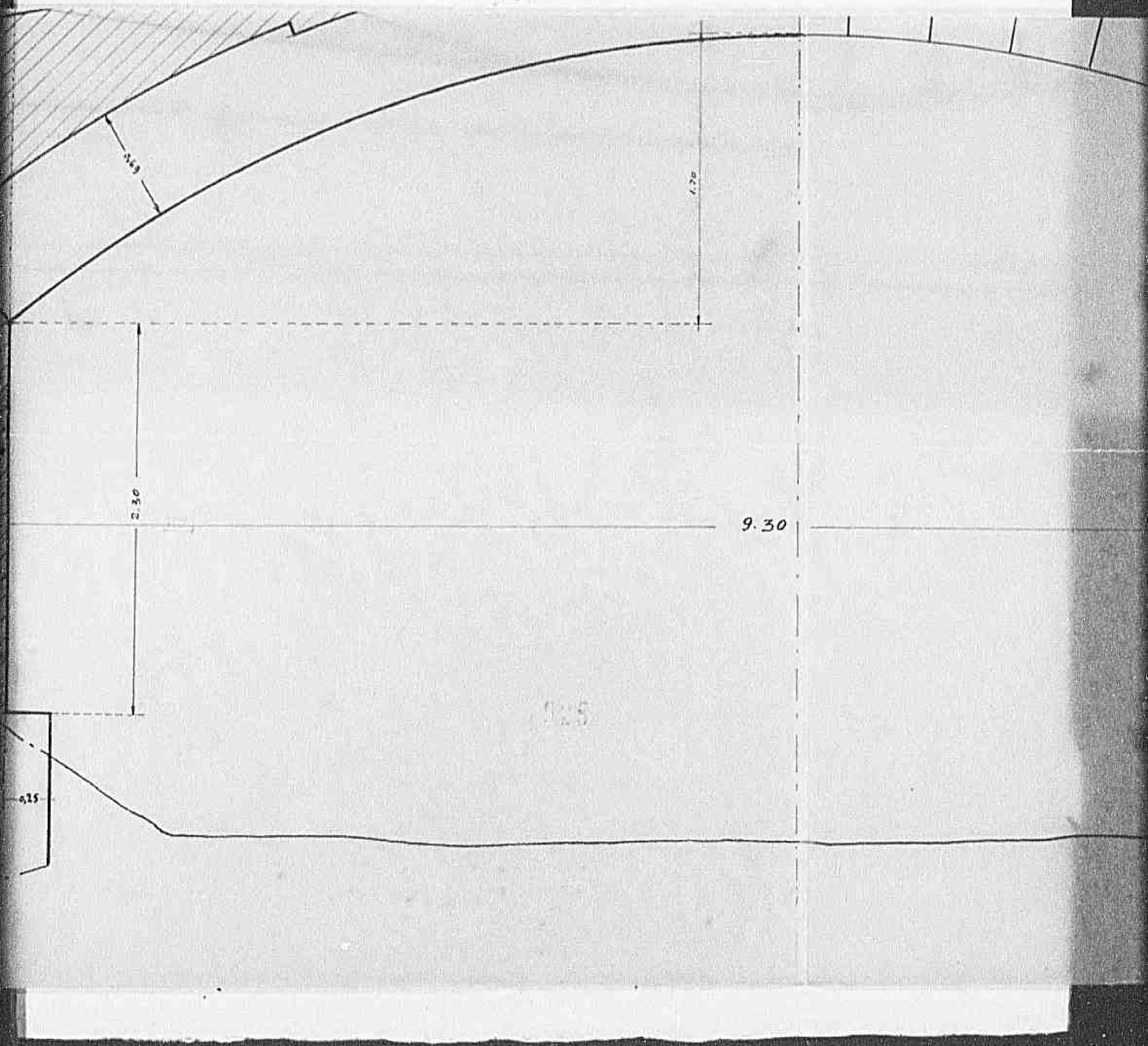

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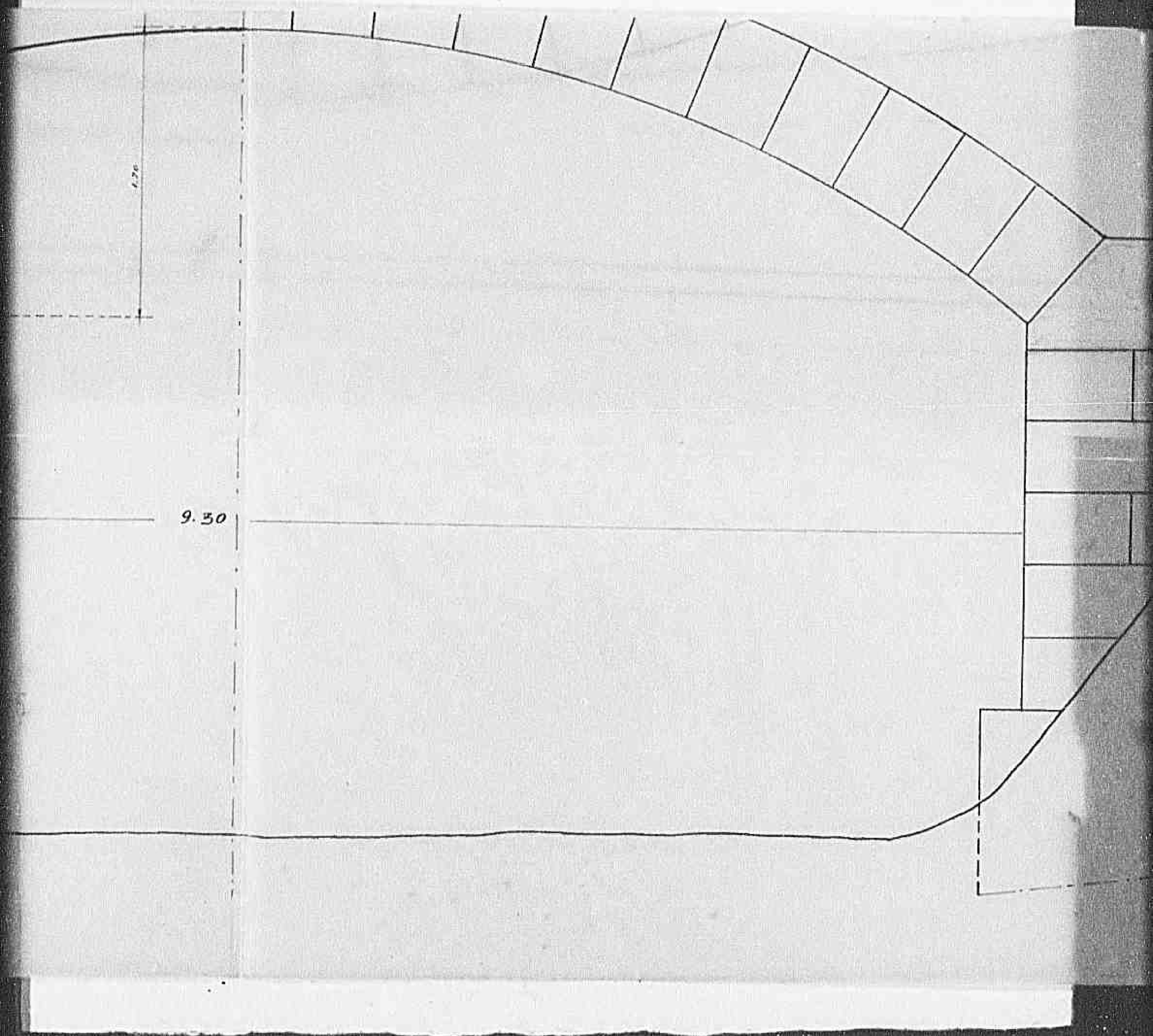

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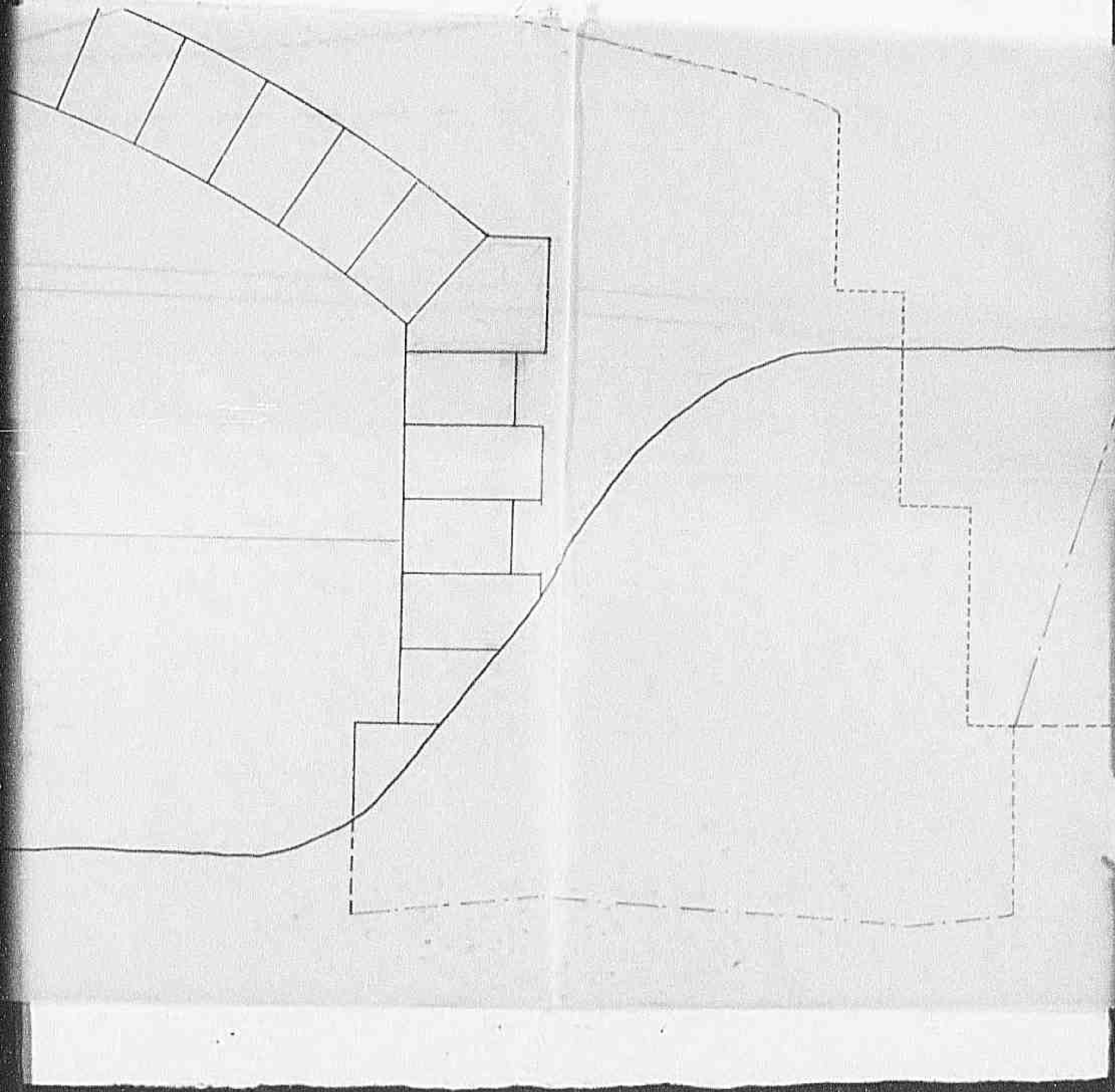

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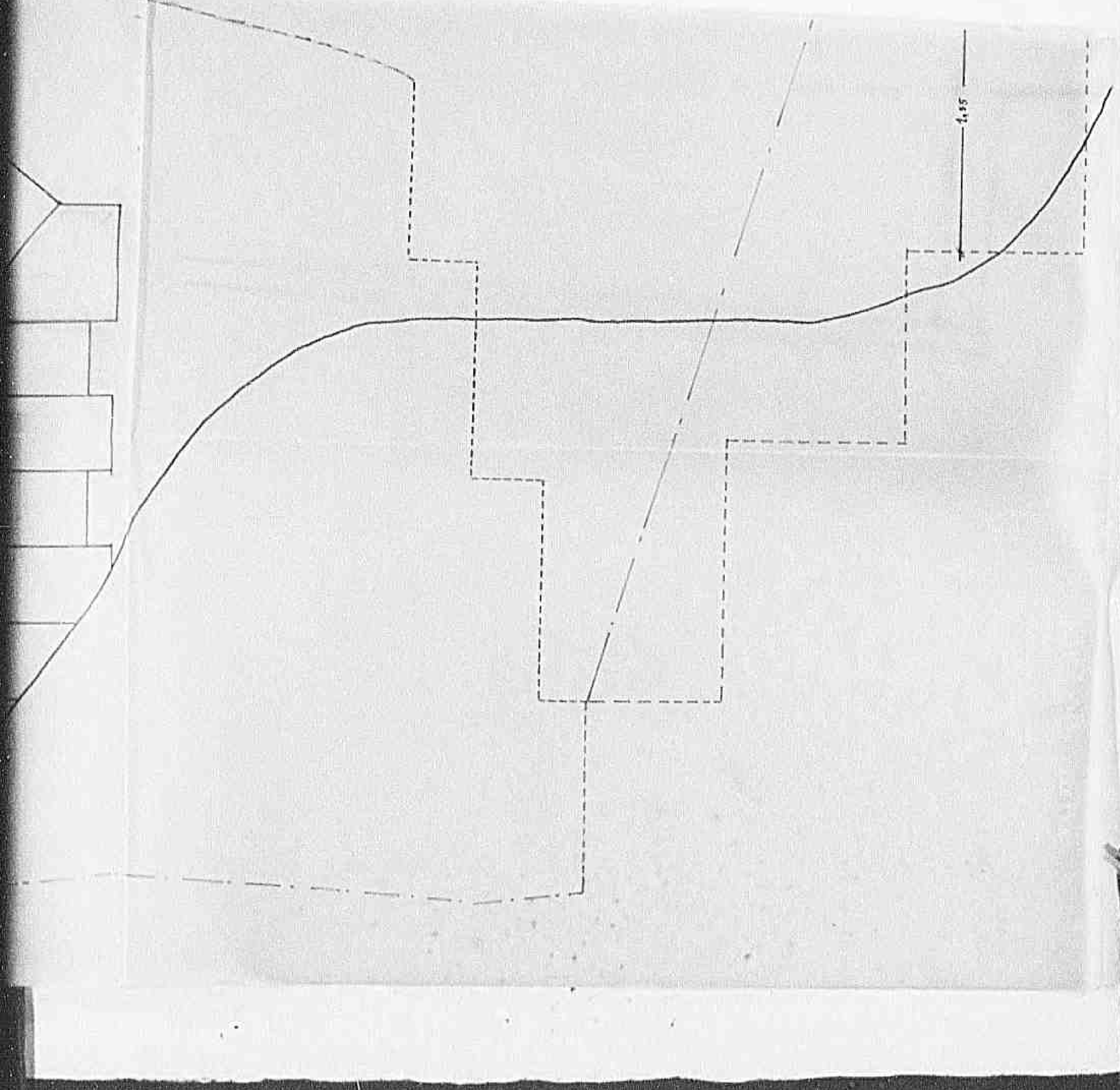

Ministero Lavori Pubblici
UFFICIO DEL GENIO CIVILE AREZZO

Visto si conferma ed approva
n. 6682/1
Arezzo, li 14 FEB 1949
L'INGEGNERE CAPO
(O. Rotelli)

Declassified E.O. 13526 Section 3.3/NNI ...

8140

0719

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VER

PONTE

STRADA LUCIGNAN

Ministero dei Lavori Pubblici

0720

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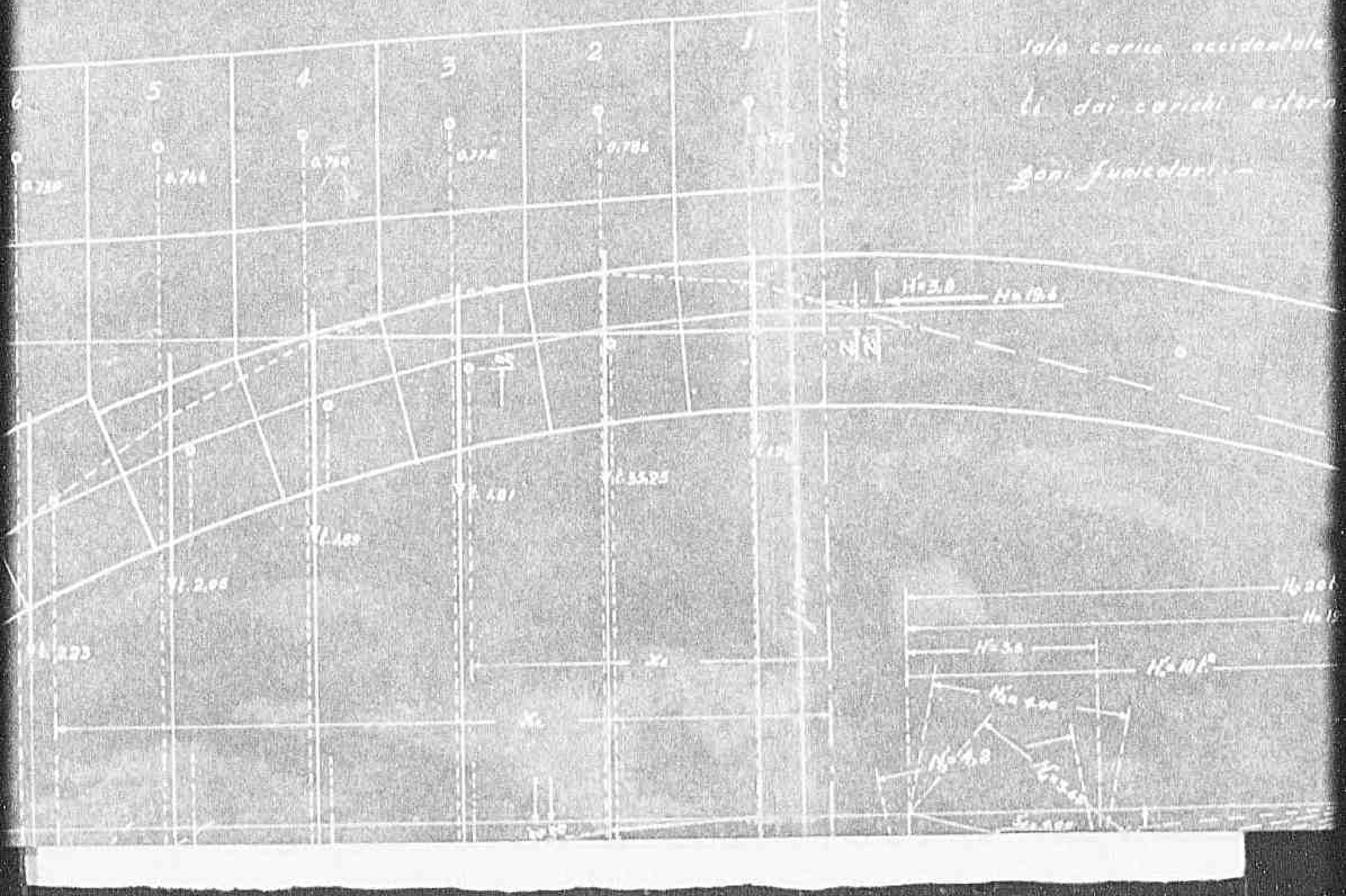
VERIFICA DI STABILITÀ DEL PONTE SUL TORRENTE [illegible]

STRADA LUCIGNANO - MARCIANO (Principio dei lavori V[illegible]

Dati: Peso specifico di [illegible]
considerato nel calco
solo carico accidentale
ai dai carichi estern
sono trascurati.



0721

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TABILITÀ DEL TORRENTE ESSE

NO (Principio dei lavori virtuali)

Dati: Peso specifico di riferimento $\gamma = Kg\ 1800$ /mc. — Carico accidentale uniforme kg/
considerato nel calcolo = m 1.00 — Il calcolo è stato eseguito prima per il carico
solo carico accidentale esterno e poi per l'azione dell'acqua e stato
di dei carichi esterni su la varie sezioni del terreno considerato come
sono funicolari. — Dal principio dei lavori virtuali applicato a tale corpo (poli

Posto $t = H_0/H$ e consi

$$= -\frac{(\Sigma \frac{1}{2}) \cdot (\Sigma \frac{}{} +}{(\Sigma \frac{}{}) \cdot (\Sigma \frac{}{})}$$

$$= -\frac{(\Sigma \frac{}{}) \cdot (\Sigma \frac{}{} +}{(\Sigma \frac{}{}) \cdot (\Sigma \frac{}{})}$$

07221

Declassified E.O. 13526 Section 3.3(b)(6) 3

...sf

...olt).

...nte f = Kg 1800/mq. — L'arco accidentale uniforme Kg 1500/mq. comprese azioni aerodinamiche —

...ro. Fig. 80 — Il calcolo è stato eseguito prima per tutto l'arco intero e tutto l'arco ... suddivi...

...ato arco. — La suddivisione dell'arco è stata fatta in conci di uguale lunghezza. —

...to le varie sezioni del semiarco considerato come mensola si sono ottenuti graficamente ...

...el principio dei lavori virtuali applicato alla catenaria spezzata. Si ha:

I Caso (carico totale esteso a tutto l'arco)

Posto $\frac{H_0}{H} = \eta$ chiamato il coefficiente della spinta in chiave ...

$$\eta = \frac{(\Sigma \frac{1}{a}) \cdot (\Sigma \frac{y^2}{a} + \frac{1}{12} \Sigma \frac{1}{a}) - (\Sigma \frac{y}{a})^2}{(\Sigma \frac{1}{a}) \cdot (\Sigma \frac{y^2}{a}) - (\Sigma \frac{y}{a}) \cdot (\Sigma \frac{y}{a})} = \frac{0,000005146\,38}{0,000003077\,74} = 1,0$$

$$= \frac{(\Sigma \frac{z}{a}) \cdot (\Sigma \frac{yz}{a} + \frac{1}{12} \Sigma \frac{1}{a}) - (\Sigma \frac{y}{a}) \cdot (\Sigma \frac{z}{a})}{(\Sigma \frac{1}{a}) \cdot (\Sigma \frac{z^2}{a}) - (\Sigma \frac{z}{a}) \cdot (\Sigma \frac{z}{a})} = \frac{0,000\,003\,010\,091\,6}{0,000\,003\,077\,74} =$$

da cui $H = \frac{H_0}{\eta} =$ tonnellate 19...

II Caso (Carico accidentale esteso a metà arco)

0723

Declassified E.O. 12356 Section 3.3(NND) A

...uniforme kg 1400/mq. compreso azioni dinamiche — Profondità dell'Arco

...gulo prima però carico totale esteso a tutto l'Arco e successivamente per il

...tiene nell'arco è stato fatto in cinque da ugual lunghezza. — I momenti inflet-

...ve considerato come incastro si sono ottenute graficamente mediante poli-

...ale con la tensione polare scomposizione di hor.

I Caso (carico totale esteso a tutto l'Arco)

Posto $t = H_0/H$ chiamata la eccentricità delle spinte in chiave si ottiene:

$$\frac{\left(\Sigma\frac{1}{y_n}\right)\cdot\left(\Sigma\frac{y_n^2}{J_n}+\frac{1}{12}\Sigma\frac{1}{J_n}\right)-\left(\Sigma\frac{y_n}{J_n}\right)^2}{\left(\Sigma\frac{1}{J_n}\right)\cdot\left(\Sigma\frac{y_n^2}{J_n}\right)-\left(\Sigma\frac{y_n}{J_n}\right)\cdot\left(\Sigma\frac{y_n}{J_n}\right)} = \frac{0{,}000031465}{0{,}000030774} = 1{,}02$$

$$\frac{\left(\Sigma\frac{y_n}{J_n}\right)\cdot\left(\Sigma\frac{y_n^2}{J_n}+\frac{1}{12}\Sigma\frac{1}{J_n}\right)-\left(\Sigma\frac{y_n}{J_n}\right)\cdot\left(\Sigma\frac{y_n}{J_n}\right)}{\left(\Sigma\frac{1}{J_n}\right)\cdot\left(\Sigma\frac{y_n^2}{J_n}\right)-\left(\Sigma\frac{y_n}{J_n}\right)\cdot\left(\Sigma\frac{y_n}{J_n}\right)} = \frac{0{,}000020100018}{0{,}000030774} = -6{,}54\ cm.$$

da cui $H = \frac{H_0}{t}$ = tonnellate 19,6

II Caso (Carico accidentale esteso a metà arco)

0724

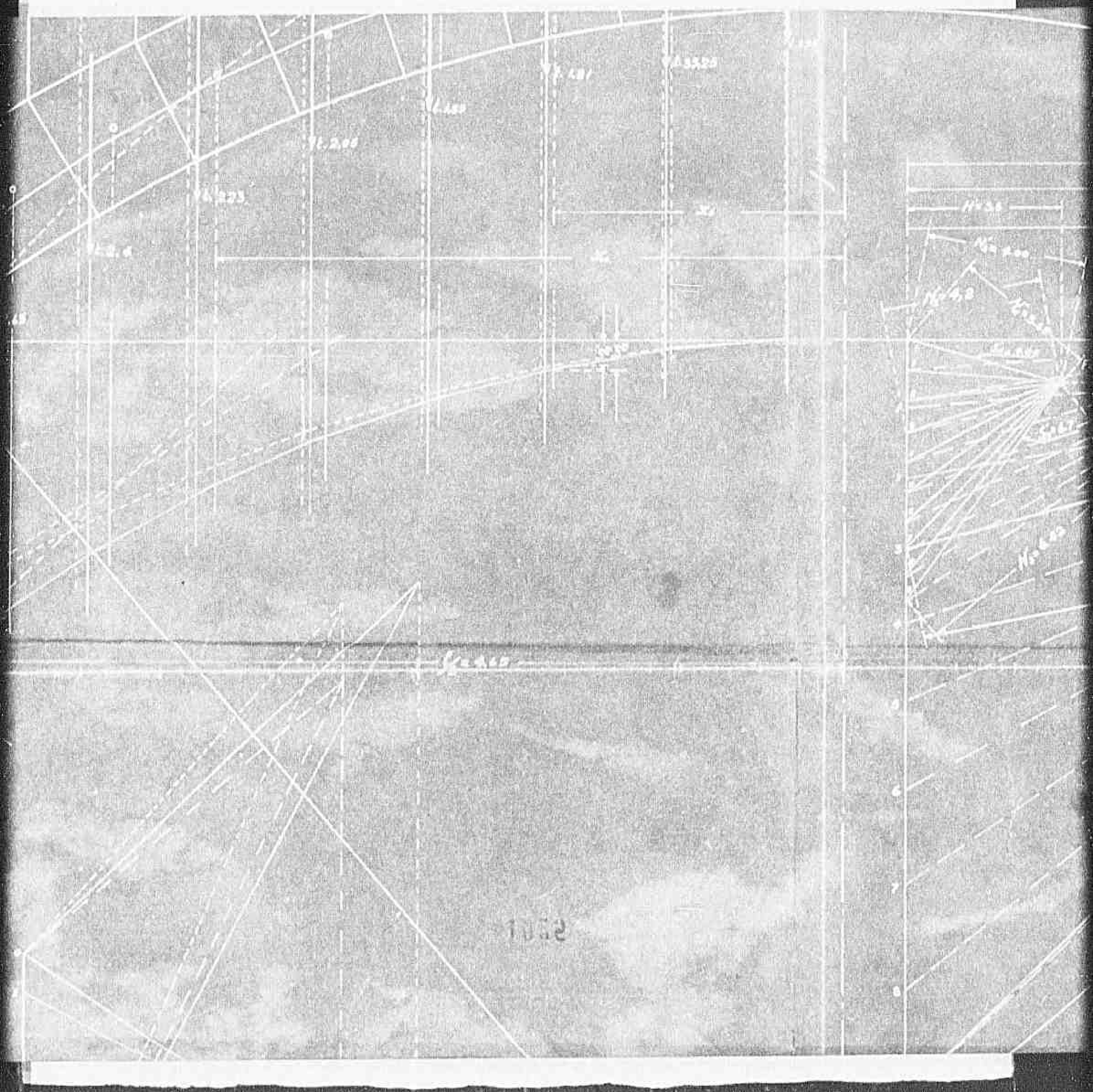
Declassified E.O. 12356 Section 3.3/3B0 #

0725

Declassified E.O. 12356 Section 3.3/NNF 3

0726

Declassified E.O. 12356 Section 3.3(NN) N



0727

Declassified E.O. 12356 Section 3.3(NSC) by

Concen. %	y	
1	0.5	
2	1.0	
3	1.4	

0728

Declassified E.O. 12356 Section 3.3/NND

$$Z = \frac{(\Sigma \frac{z}{a})\cdot(\Sigma \frac{1}{a^2} + \frac{1}{2}\Sigma \frac{1}{a}) - (\Sigma \frac{z}{a^2})\cdot(\Sigma \frac{1}{a})}{(\Sigma \frac{1}{a})\cdot(\Sigma \frac{1}{a^2}) - (\Sigma \frac{1}{a^2})\cdot(\Sigma \frac{1}{a})} = \frac{0.0000}{0.0000}$$

da cui $H = \frac{H_0}{6} =$ to

Il Caso (Carta occidentale ustica

Dalle formule precedenti e ricordando che

se la moto di rivello ottenuto da de

$$t = \frac{0.00003175 \cdot 0.184278 - 0.001794}{0.00003175 \cdot 0.154267 - 0.001593 \cdot 0.001}$$

$$Z = \frac{0.001593 \cdot 0.184278 - 0.154267 \cdot 0}{0.00003175 \cdot 0.154267 - 0.001593 \cdot 0.0}$$

Media mobile storica dei dollaro australiano

$$F = \frac{H \cdot \Sigma a}{\Sigma \frac{1}{a}} = \frac{10 \cdot 0.0221}{2.3059} =$$

Valore della spesa risulta pertio

$$H = \frac{1}{2} \cdot \frac{H_0}{t} = \frac{10}{2 \cdot 1.5} = 3 \text{ x B Lannelli}$$

Colonna H	y	e		η	ν	y_e	y_a	y_e'	y_a'	y_a''	y_e''	
1	0.5	62										
2	1.0	62										
3	1.4	62										
4	0.75	62										

0729

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$$Z = -\frac{(\Sigma \frac{z}{a})(\Sigma \frac{x}{a} + \frac{1}{n}\Sigma \frac{1}{a}) - (\Sigma \frac{x}{a})(\Sigma \frac{1}{a})}{(\Sigma \frac{1}{a})(\Sigma \frac{x}{a}) - (\Sigma \frac{x}{a})(\Sigma \frac{1}{a})} = -\frac{0,00002010091}{0,00000307274} = -6,54 \text{ cm.}$$

da cui $H = \frac{H_0}{t} =$ tonnellate 19,6

Il Caso (Carico accidentale vento a mezzo arco)

Dalla formula precedente e ricordando che la spinta in questo caso è la metà di quella ottenuta da detta formula si ottiene:

$$t = \frac{0,00003512 \times 0,1842786 - 0,0017194^2}{0,00003512^2 \times 0,1842786 - 0,001593 \times 0,0017194} = 1,313$$

$$Z = -\frac{0,001593 \times 0,1842786 - 0,1546267 \times 0,0017194}{0,00003512 \times 0,1546267 - 0,001593 \times 0,0017194} = -11,55$$

Momento in chiave della metà arco

$$f = \frac{H_0}{2} \cdot \frac{1}{\Sigma \frac{1}{a}} = 310 \times \frac{1}{2 \times 2,039} = 1,155$$

Il valore della spinta risulta perciò

$$H = \frac{1}{2} \cdot \frac{H_0}{t} = \frac{10}{2,87+13} = 3,18 \text{ tonnellate}$$

07301

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M = momento flettente [illegible] quando la

σ = sollecitazione a carico [illegible] orizz

σ' = sollecitazione a carico [illegible] verticale

Mom. d'inerzia in chiave a [illegible]

Mom. d'inerzia sezione a [illegible]

Mom. d'inerzia all'im[illegible]

Scala lunghezze 1:20

0731

Declassified E.O. 12356 Section 3.3 NND

3,30

Indicazioni varie

M_n = momento flettente (positivo quando tende le fibre dell'intradosso) ; N_n Sforzo norma

σ_n = Sollecitazioni a carico [illegible] subito a tutto l'arco (Positivo se di compressione)

σ''_n = Sollecitazioni a carico accidentale steso a metà arco più il peso proprio (Positivo se

Mom. d'inerzia in chiave = $J_c = \frac{1}{12}$ 100 x 62³ = 1986066 cm⁴ Sez. in chiave A_c = 100 x 62 = 6200

Mom. d'inerzia in sezione 3 e 3' = Mom J_x Sez. in 3 e 3' = 100 x 62 = 6200

Mom. d'inerzia all'imp[illegible] J_n = $J_{imp} = \frac{1}{12}$ 100 x 69³ = 2737575 Sez. alle Imposte 100 x 69 = 6900

Scala lunghezze 1:20

L'Ing

Ing

0732

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...dicazioni varie...

le fibre dell'intradosso); N_3 Sforzi normali

lo sforzo (Positivo se di compressione)

momento area ideale "1" resto proiezione (Positivo se di compressione)

198068 cm⁴ Sez. in chiave Acm 100×62 = 6200 cm²

Sez. in 3 e 3' = 100×62 = 6200 "

2737.979 Sez. alle Imposte 100×69 = 6900 "

Concio N°	Car
Sezione di chiave	N°
Sezione al N° 3	N₃ = M₃ =
Sezione al N° 3'	N₃' = M₃' =
Imposta Sinistra	N₁ = M₁ =
Imposta Destra	N₂ = M₂ =

L'Ingegnere progettista

Ing. Danilo Boren

0733

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Concio N°	y	z	
1	0.5	6	
2	4.3	6	
3	14	6	
4	27.5	6	
5	46.3	6	
6	69.7	6	
7	99.5	6	
8	135	6	
9	176.5	6	

Concio N°	Carico totale esterno sulla linea	Carico accidentale esterno
Sezione di chiave	$N_c = H$ ton 19.6 $M_c = H \cdot Z =$ 19.6 x 6.50 = t.cm 108.16	$N'_c = H'$ $M'_c = H' z' =$ 3.8 x 11.86
Sezione al N° 3	$N_3 =$ ton 20.3 $M_3 = \begin{cases} H(y_3+z) - (\eta_3 H_3) \\ (19.6 \times 20.50) - (18 \times 20) = \end{cases}$ t.cm 102.58	$N'_3 =$ $M'_3 = \begin{cases} H'(y_3+z) + F x_3 - (\eta_3 \times H'_3) \\ (3.8 \times 25.50) + (1.13 \times 149) - (1.5 \times \end{cases}$ t.cm
Sezione al N° 3'	$N_3 = N_0$ ton 20.3 $M_3 = \begin{cases} = M_3 \\ = \end{cases}$ t.cm 132.58	N'_3 $M'_3 = \begin{cases} H'(z+y_3) - (F x_3) \\ 3.8(26.5) - (1.13 \times 149) \end{cases}$ t.cm
Imposta Sinistra	$N_3 =$ ton 27.4 $M_3 = \begin{cases} H(y_3+z) - (H_3 \times \eta_3) \\ 19.6(1.765+4.50) - (192.0 \times 20) \end{cases}$ t.cm = 245	$N'_3 =$ $M'_3 = \begin{cases} H'(y_3+z) + F x_3 - (\eta_3 H_3) = \\ (3.8 \times 188.05) + (1.13 \times 149) - (10 \times \end{cases}$
Imposta Destra	$N_3 = N_0 =$ ton 27.4 $M_3 = M_0 =$ t.cm = 265	N'_3 $M'_3 = \begin{cases} H'(z+y_3) - (F x_3) \\ 3.8(188.05) - (1.13 \times 415) = \end{cases}$

progettista
Ing. Stramm

0734

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0735

Declassified E.O. 12356 Section 3.3(NSC)

y	e													
0.5	6.3	1.9	—	—	0.1013	0.0[illegible]	—	0.0[illegible]	0.0[illegible]	—	—	—	—	0.[illegible]
1.0	6.2	3.7	3	3.75	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
1.5	6.2	5.6	4.5	5.6	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
2.0	6.2	7.5	6	7.5	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
2.5	6.2	9.4	7.5	9.4	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
3.0	6.2	11.3	9	11.3	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
3.5	6.2	13.2	10.5	13.2	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
4.0	6.2	15.0	12	15.0	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
4.5	6.2	16.9	13.5	16.9	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
5.0	6.2	18.8	15	18.8	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
5.5	6.2	20.7	16.5	20.7	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
6.0	6.2	22.6	18	22.6	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
6.5	6.2	24.5	19.5	24.5	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
7.0	6.2	26.4	21	26.4	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
7.5	6.2	28.3	22.5	28.3	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
8.0	6.2	30.2	24	30.2	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
8.5	6.2	32.1	25.5	32.1	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
9.0	6.2	34.0	27	34.0	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
9.5	6.2	35.9	28.5	35.9	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
10.0	6.2	37.8	30	37.8	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
10.5	6.2	39.7	31.5	39.7	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
11.0	6.2	41.6	33	41.6	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
11.5	6.2	43.5	34.5	43.5	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
12.0	6.2	45.4	36	45.4	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
12.5	6.2	47.3	37.5	47.3	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
13.0	6.2	49.2	39	49.2	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
13.5	6.2	51.1	40.5	51.1	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
14.0	6.2	53.0	42	53.0	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
14.5	6.2	54.9	43.5	54.9	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
15.0	6.2	56.8	45	56.8	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
15.5	6.2	58.7	46.5	58.7	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
16.0	6.2	60.6	48	60.6	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
16.5	6.2	62.5	49.5	62.5	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
17.0	6.2	64.4	51	64.4	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
17.5	6.2	66.3	52.5	66.3	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
18.0	6.2	68.2	54	68.2	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
18.5	6.2	70.1	55.5	70.1	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
19.0	6.2	72.0	57	72.0	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
19.5	6.2	73.9	58.5	73.9	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]
20.0	6.2	75.8	60	75.8	0.0113	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]	0.0[illegible]

Poids propres et réactions hyperstatiques dues aux poids propres

Valeurs de σ en kg/cm²

					+ 3,74 + 1,16
3,6 x 17,58	3,6	$N_1 = N_0 - N_1' = 19,8 - 3,8 =$	f_{com} 15,8	$\sigma_1 = \frac{1360}{6200} + \frac{138180 \times 31}{1986066}$	+ 3,87 + 3,25
	f_{com} 43,80	$N_1'' = N_1 - N_1' = 123,18 - 43,59 =$	f_{com} 84,20	$\sigma_1' = \frac{15600}{6200} + \frac{88290 \times 31}{1986066}$	
$F'_{x_0} = (\eta_0 \times l'_0)$	f_{com} 4,3	$N_2' = N_1 - N_1' = 20,5 - 4,08 =$	f_{com} 16,42	$\sigma_2 = \frac{20300}{6200} + \frac{102580 \times 31}{1986066}$	+ 4,34 + 2,82
$(\eta_0 \times l'_0) - (\eta_1 \times l'_1)$	f_{com} 126,39	$N_2'' = \begin{cases} N_1 - N_0 \\ 102,38 - 46,97 \end{cases}$	f_{com} 169,53	$\sigma_2' = \frac{16300}{6200} + \frac{169650 \times 31}{1986066}$	+ 5,28 - 0,02
	f_{com} 4	$N_3' = N_2 - N_2' = 20,5 - 4,2$	f_{com} 16,1	$\sigma_3 = \frac{20300}{6200} + \frac{102580 \times 31}{1986066}$	+ 4,34 + 2,82
$(F'_{x_2}) - (\eta_2 \times l'_2)$	f_{com} 124,11	$N_3'' = \begin{cases} N_2 - N_0 \\ 102,38 - 124,75 \end{cases}$	f_{com} 22,17	$\sigma_3' = \frac{14100}{6200} + \frac{24170 \times 31}{1986066}$	+ 2,98 + 2,28
	6,42	$N_4 = N_3 - N_3' = 27,4 - 5,46 =$	f_{com} 25,72	$\sigma_4 = \frac{27400}{6900} + \frac{265000 \times 34,5}{2737575}$	+ 7,28 + 0,66
$+ F'_{x_3} - (\eta'_3 l'_3) =$	27,4	$N_4'' = \begin{cases} N_3 - N_0 \\ - 2,63 = 165,18 = \end{cases}$	f_{com} 426,18	$\sigma_4' = \frac{2378}{6900} + \frac{426150 \times 34,5}{2737575}$	+ 8,80 - 1,92
	265	$N_5' = N_4 - N_4' = 27,4 - 6,42 =$	f_{com} 20,98	$\sigma_5 = \frac{27400}{6900} + \frac{265000 \times 34,5}{2737575}$	+ 7,28 + 0,66
$(F'_{x_4}) - (\eta_4 \times l'_4) =$	165,18	$N_5'' = \begin{cases} N_4 - N_0 \\ - 265 + 274 = \end{cases}$	f_{com} 11	$\sigma_5' = \frac{20980}{6900} + \frac{11000 \times 34,5}{2737575}$	+ 3,18 + 3,04

Visto si conferma ed approva.

Arezzo, li 11 GEN 1945

L'INGEGNERE CAPO
(G. Goretti)

UFFICIO GENIO CIVILE · AREZZO ·

59/BRE/72

M-608

PONTE
di
MERCATALE

Scala - 1:50

0 7 3 6 1

Declassified E.O. 12356 Section 3.3/NND No.

Visto si conferma ed approva.

Arezzo, li 11 GEN 1945

L'INGEGNERE CAPO
(O. Corsetti)

UFFICIO GENIO CIVILE · AREZZO

PONTE

di

MERCATALE

Scala - 1:50

924

0 7 3 7 1

Declassified E.O. 12356 Section 3.3/NND No.

0738

Declassified E.O. 12356 Section 3.3/NND No.

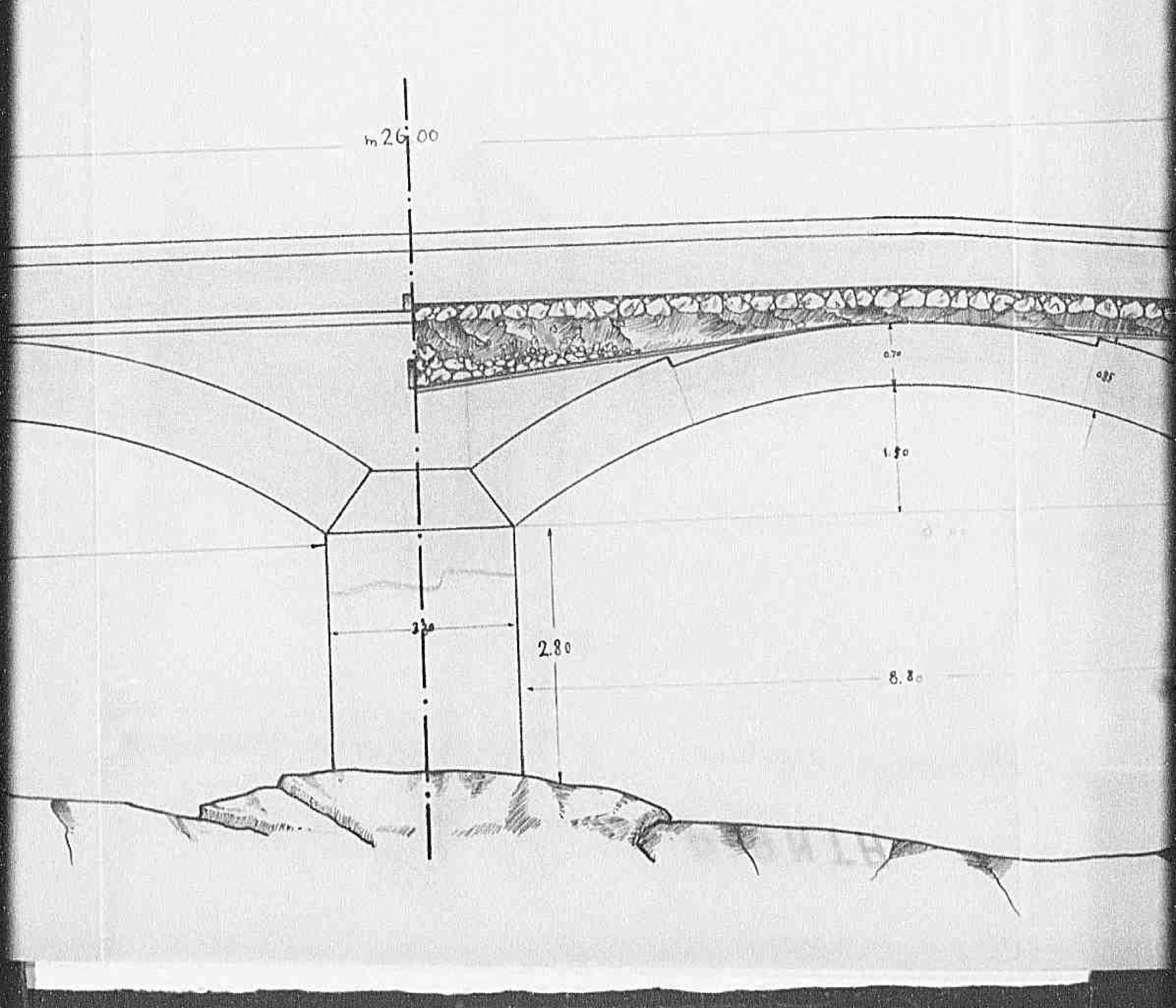
0739

Declassified E.O. 12356 Section 3.3/NND No.

MERCATA

0701

Declassified E.O. 12356 Section 3.3/NND No.



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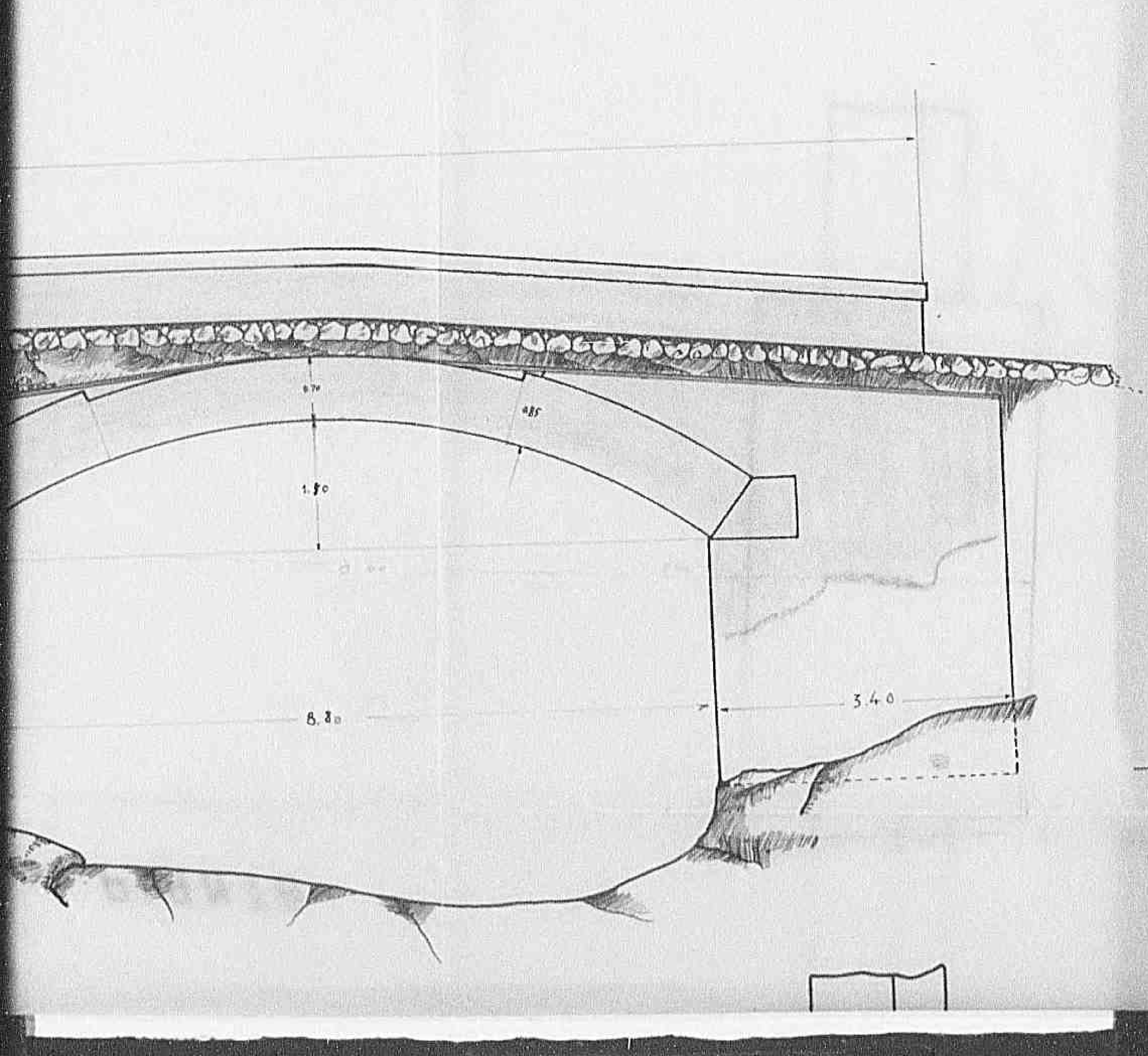
Declassified E.O. 12356 Section 3.3/NND No.



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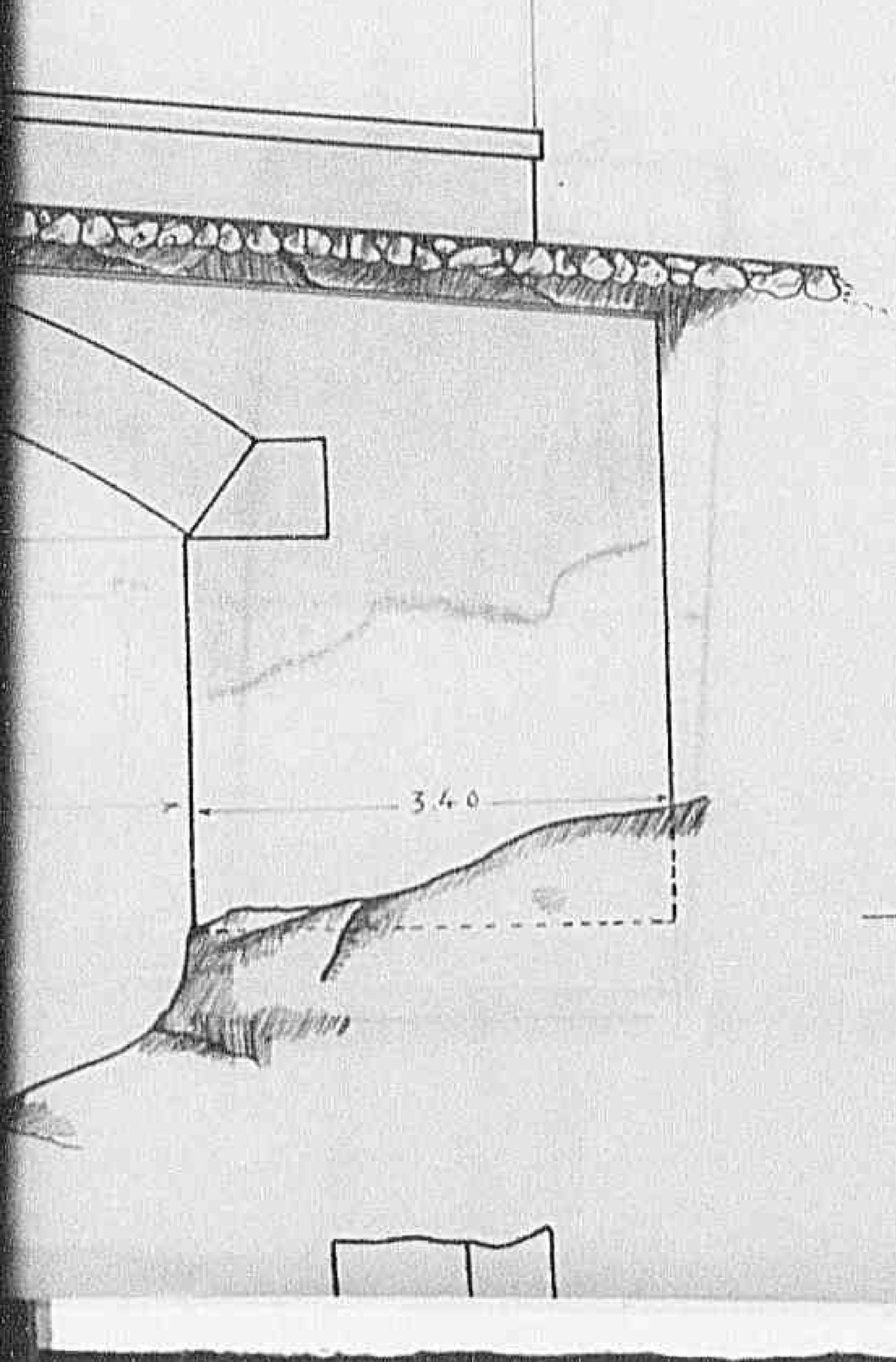
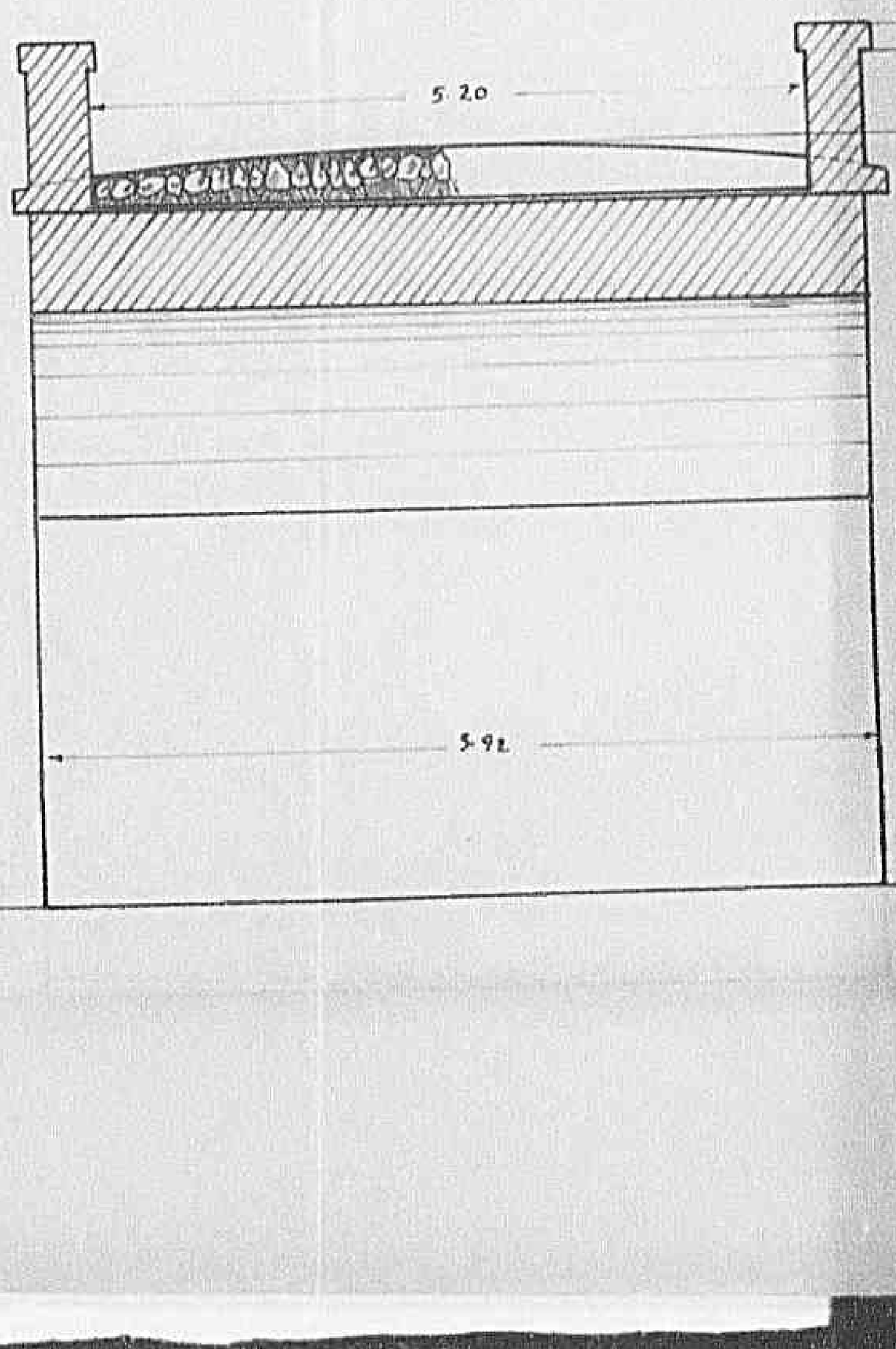
Declassified E.O. 12356 Section 3.3/NND No.

SEZIONE A-B





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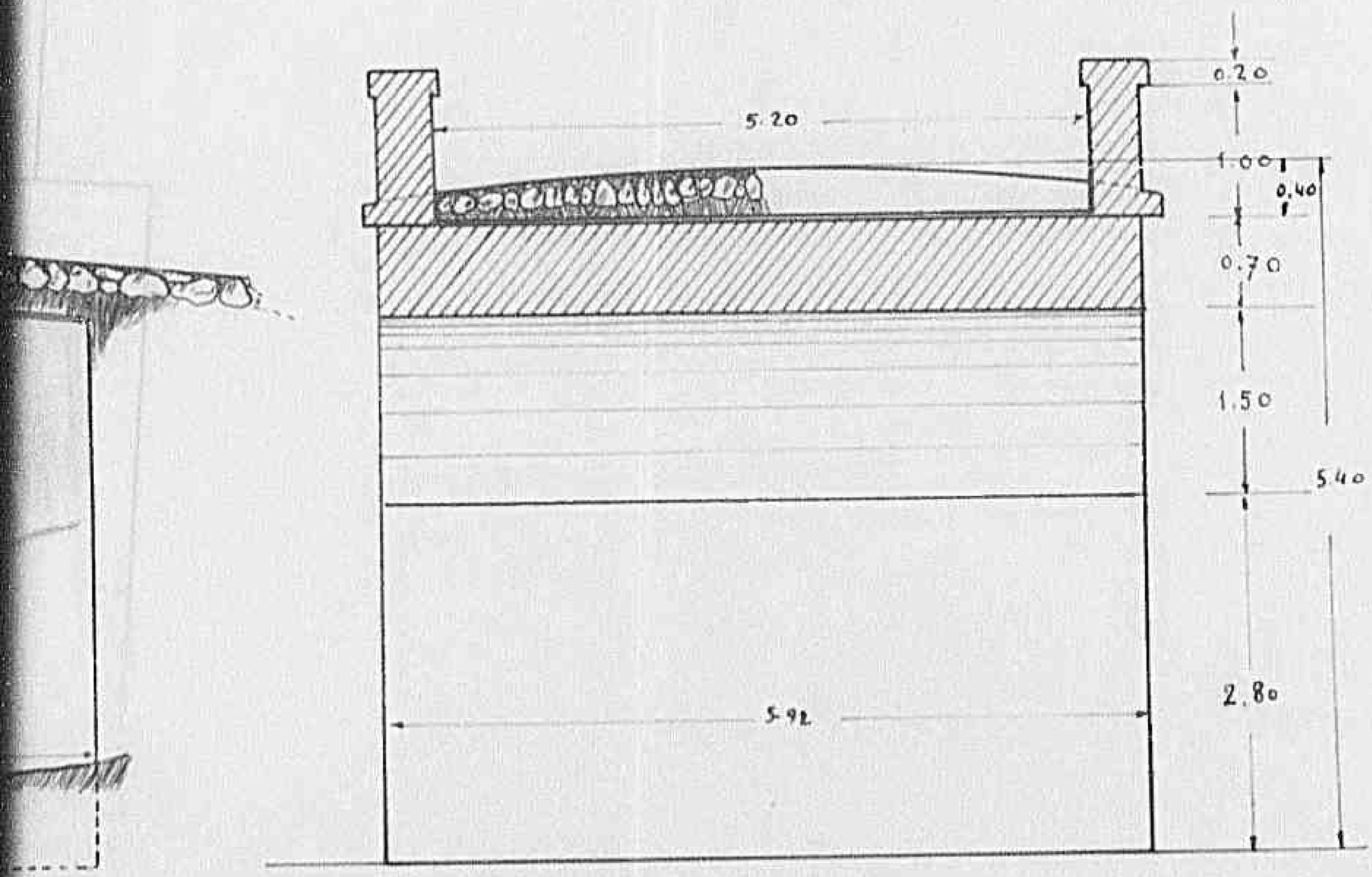
Declassified E.O. 12356 Section 3.3/NND No.

sezione A-B



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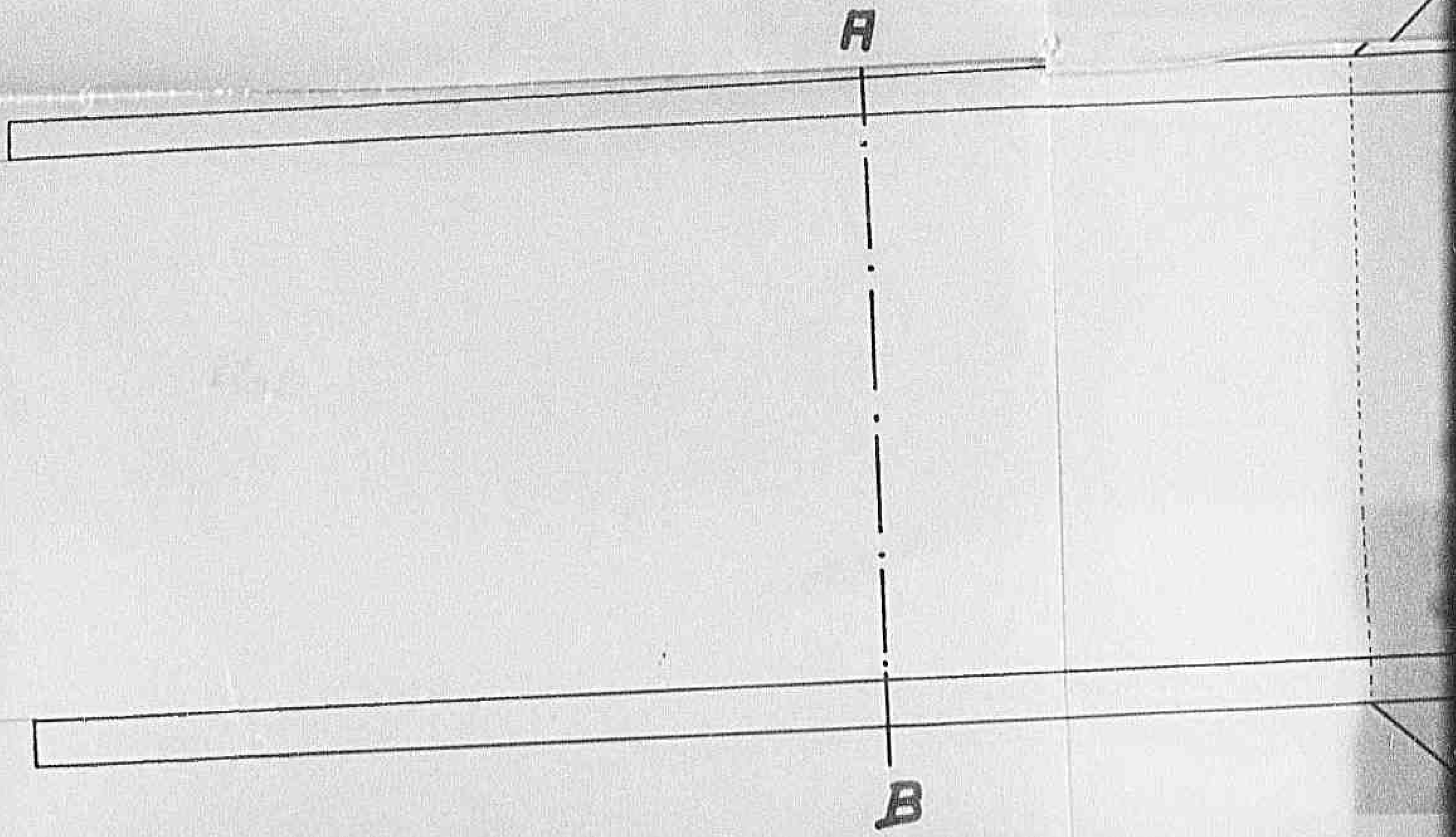

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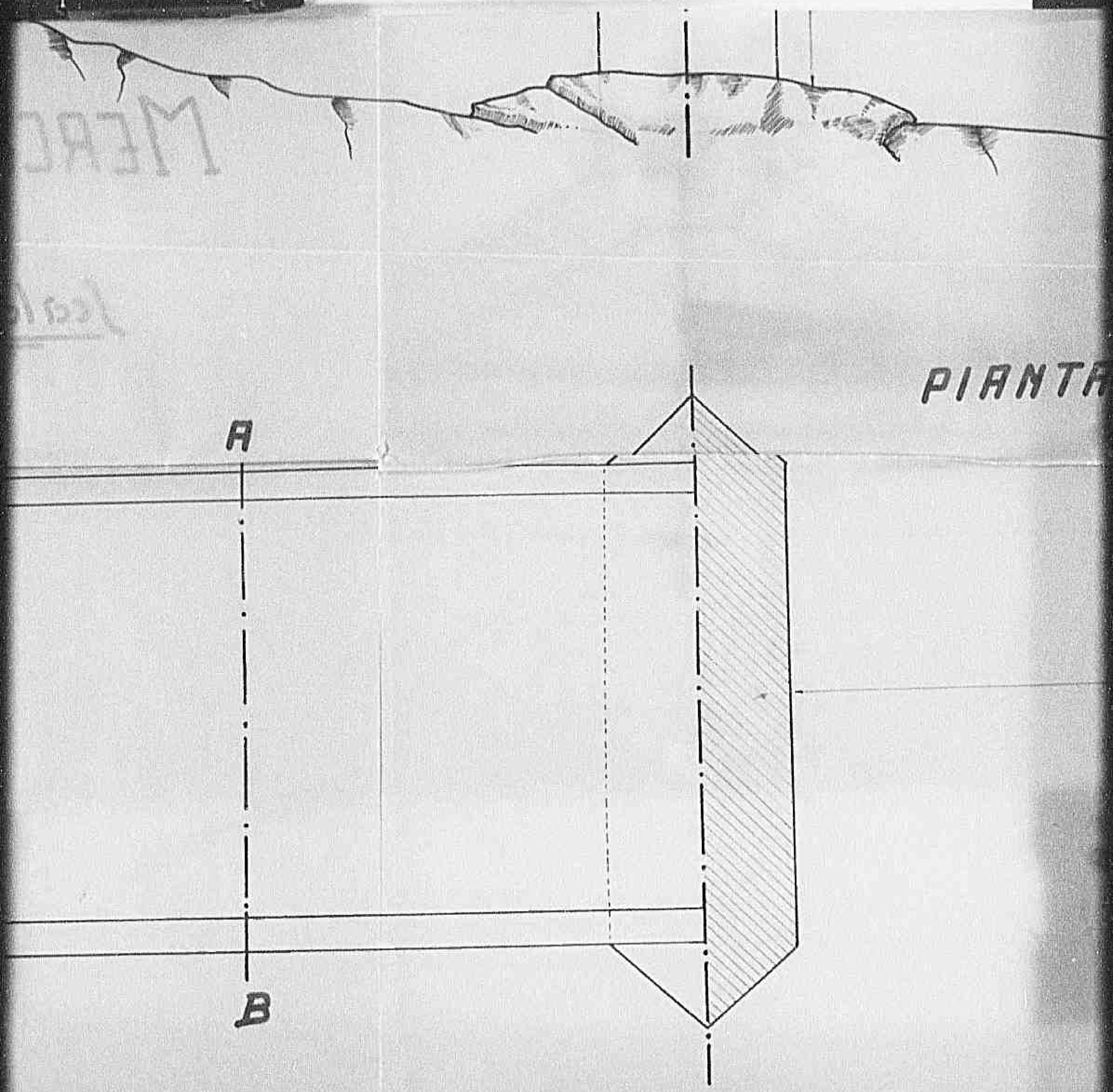

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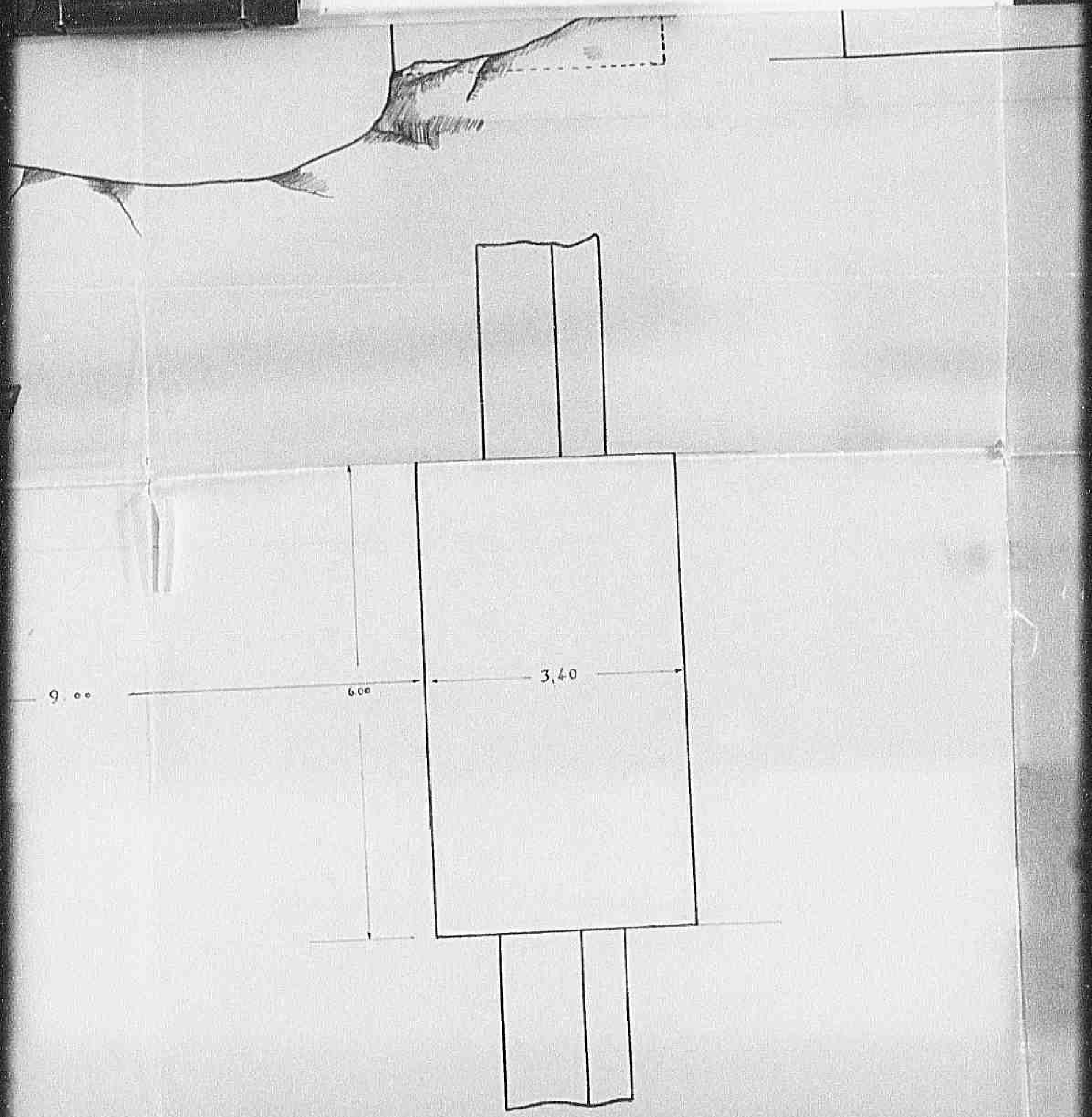
Declassified E.O. 12356 Section 3.3/NND No.

PIANTA

0747

Declassified E.O. 12356 Section 3.3/NND No.



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Declassified E.O. 12356 Section 3.3/NND No.

0749

Declassified E.O. 12356 Section 3.3/NND No. 785019

COMUNE DI MONTEVARCHI

Ponte di Mercatale

59/ARE/72

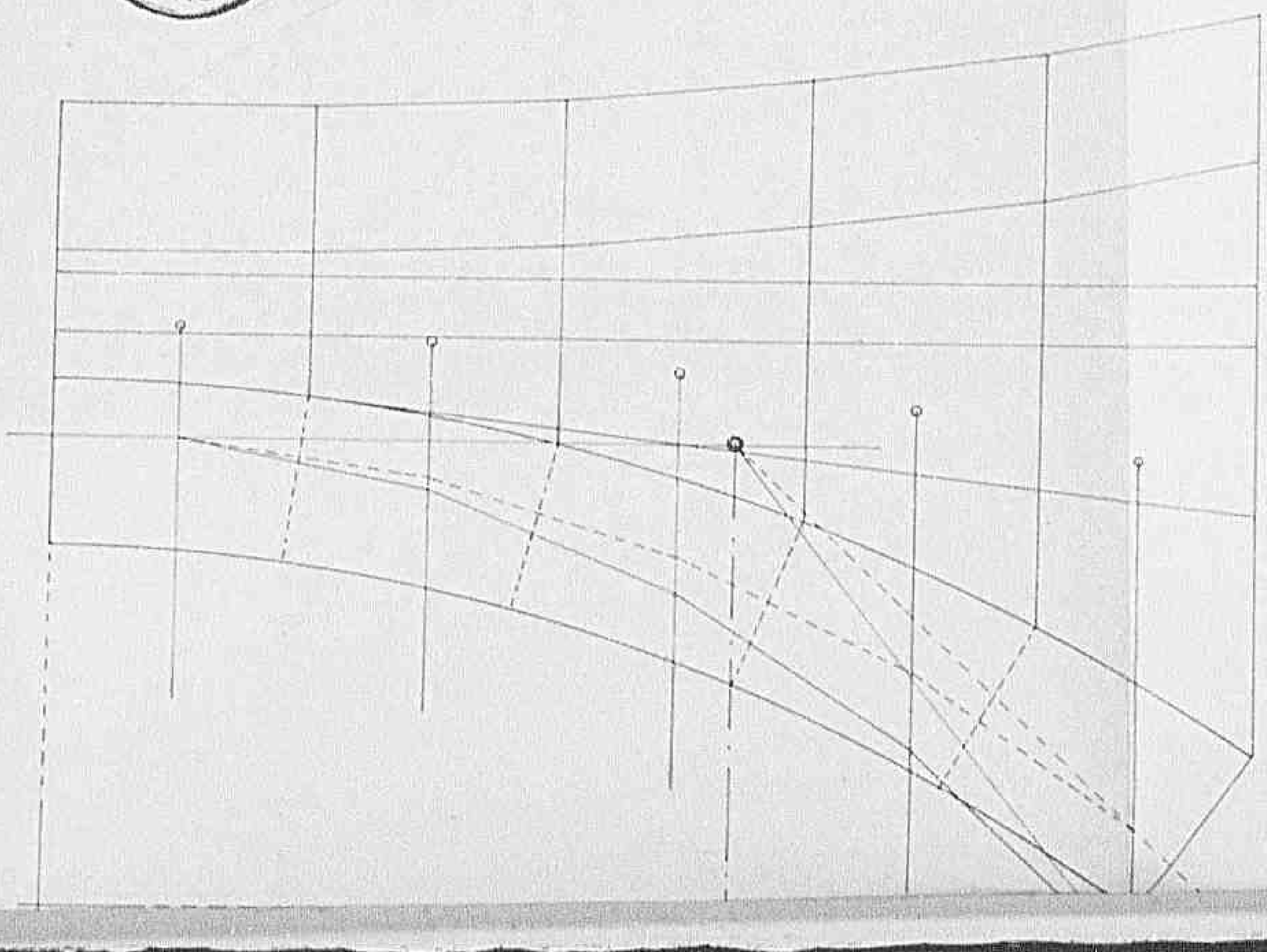
Visto si conferma ed approva.
Arezzo, lì 11 GEN 1945

L'INGEGNERE CAPO
(O. Goretti)

UFFICIO GENIO CIVILE · AREZZO ·

Verifica di stabilità dell'arco

Scala - 1 cm = 25 cm = 2000 Kg



Declassified E.O. 12356 Section 3.3/NND No. 785019

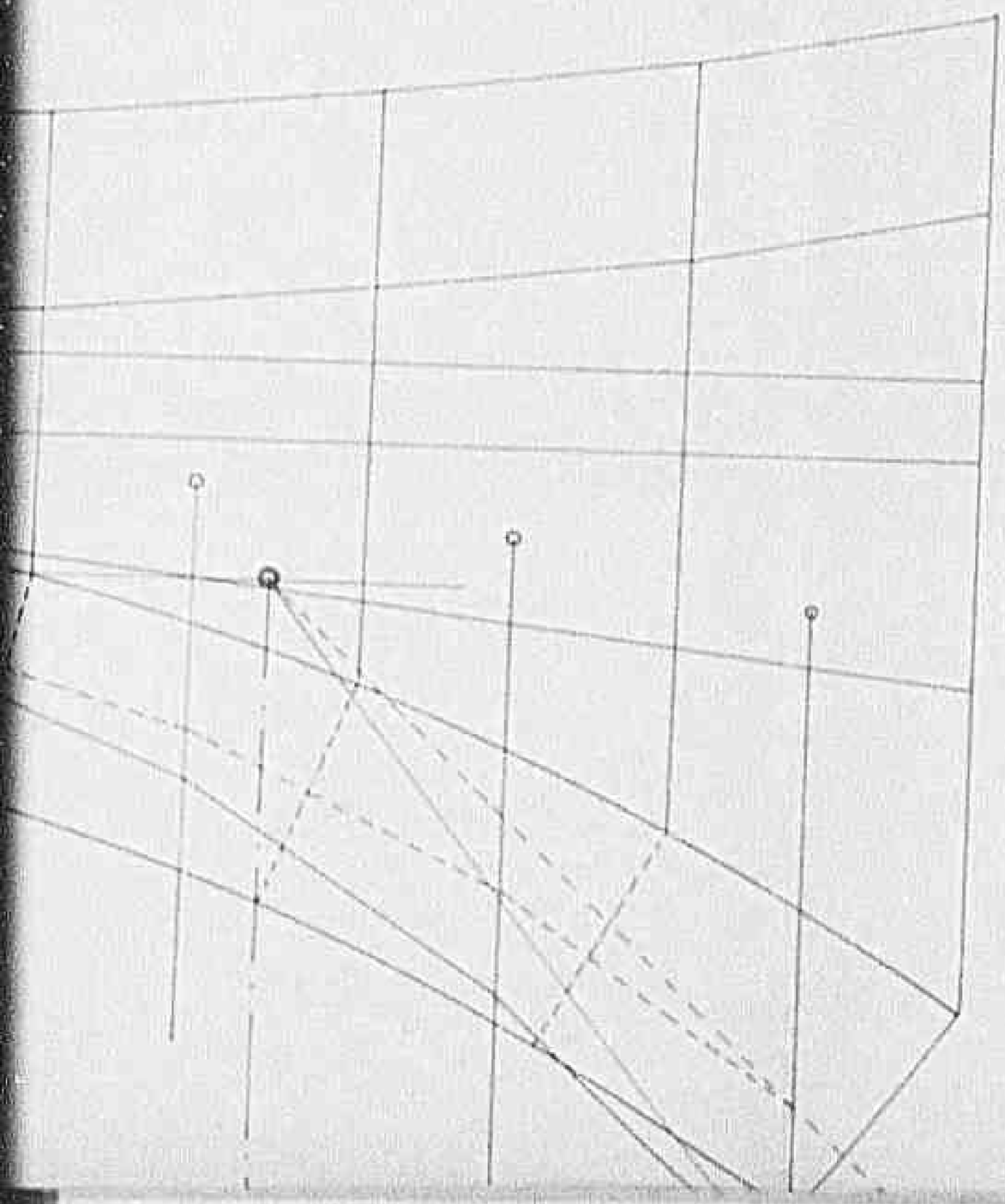
ONTEVA[illegible]-HI

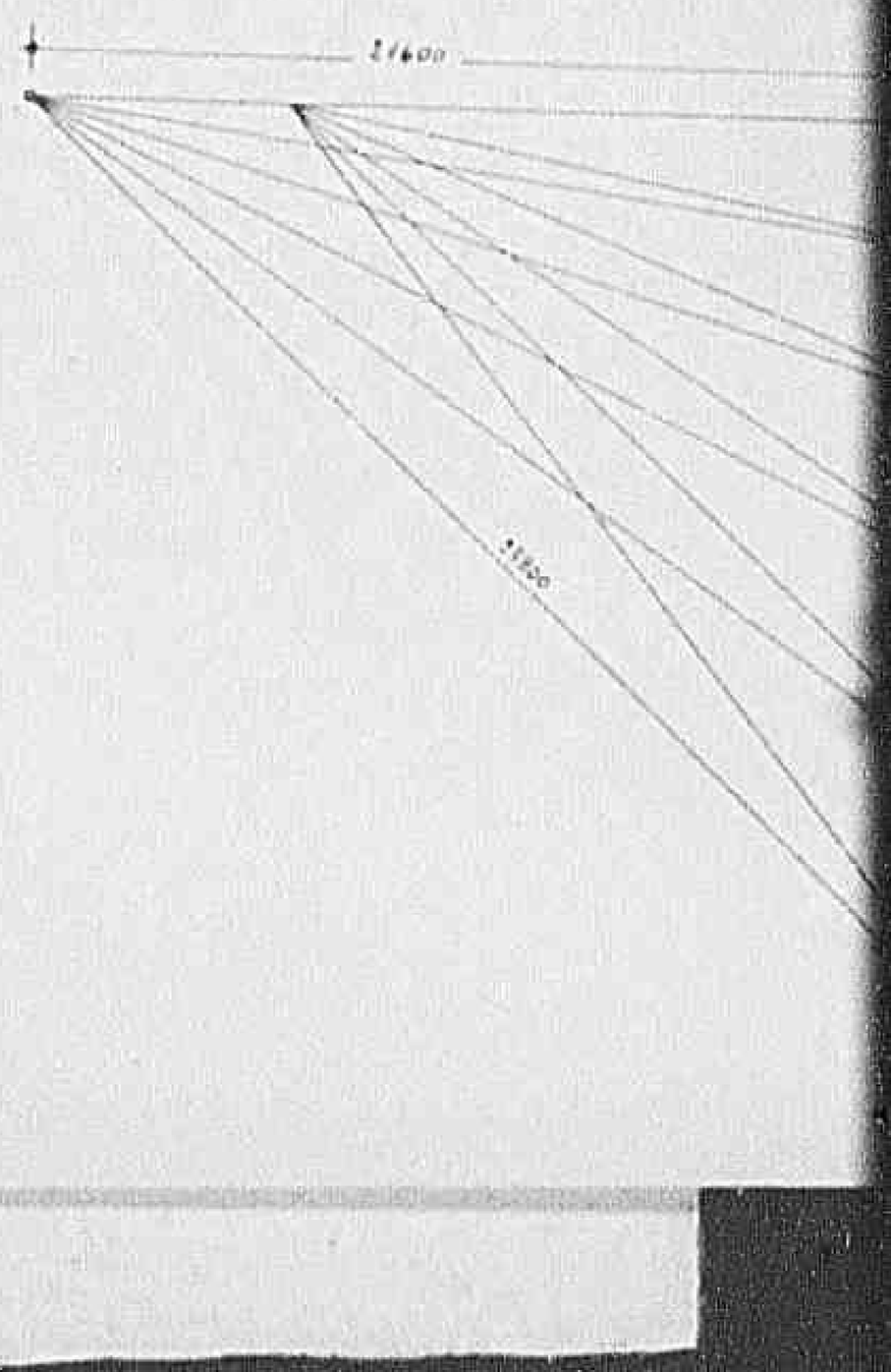
rcatdle

SQUARE 172

Verifica di stabilità dell'arco

Scala - 1 cm = 25 cm = 2000 Kg:



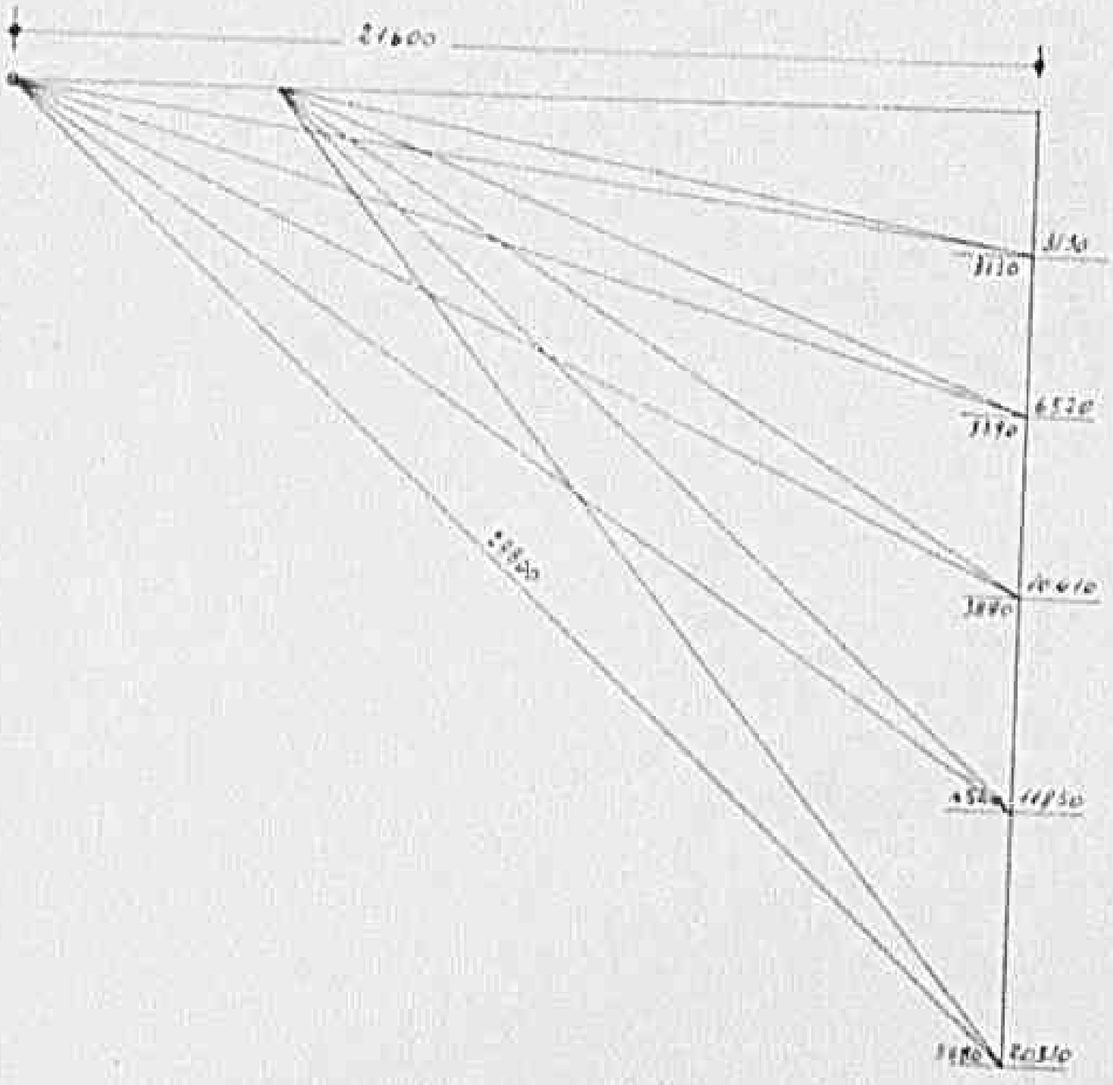


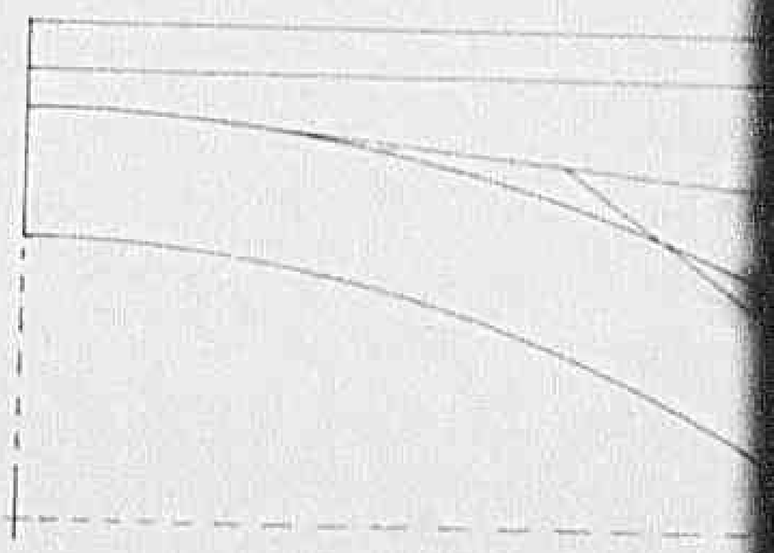
0751

Declassified E.O. 12356 Section 3.3/NND No. 785019

Verifica della stabil

Scala - 1 cm = 50 cm =



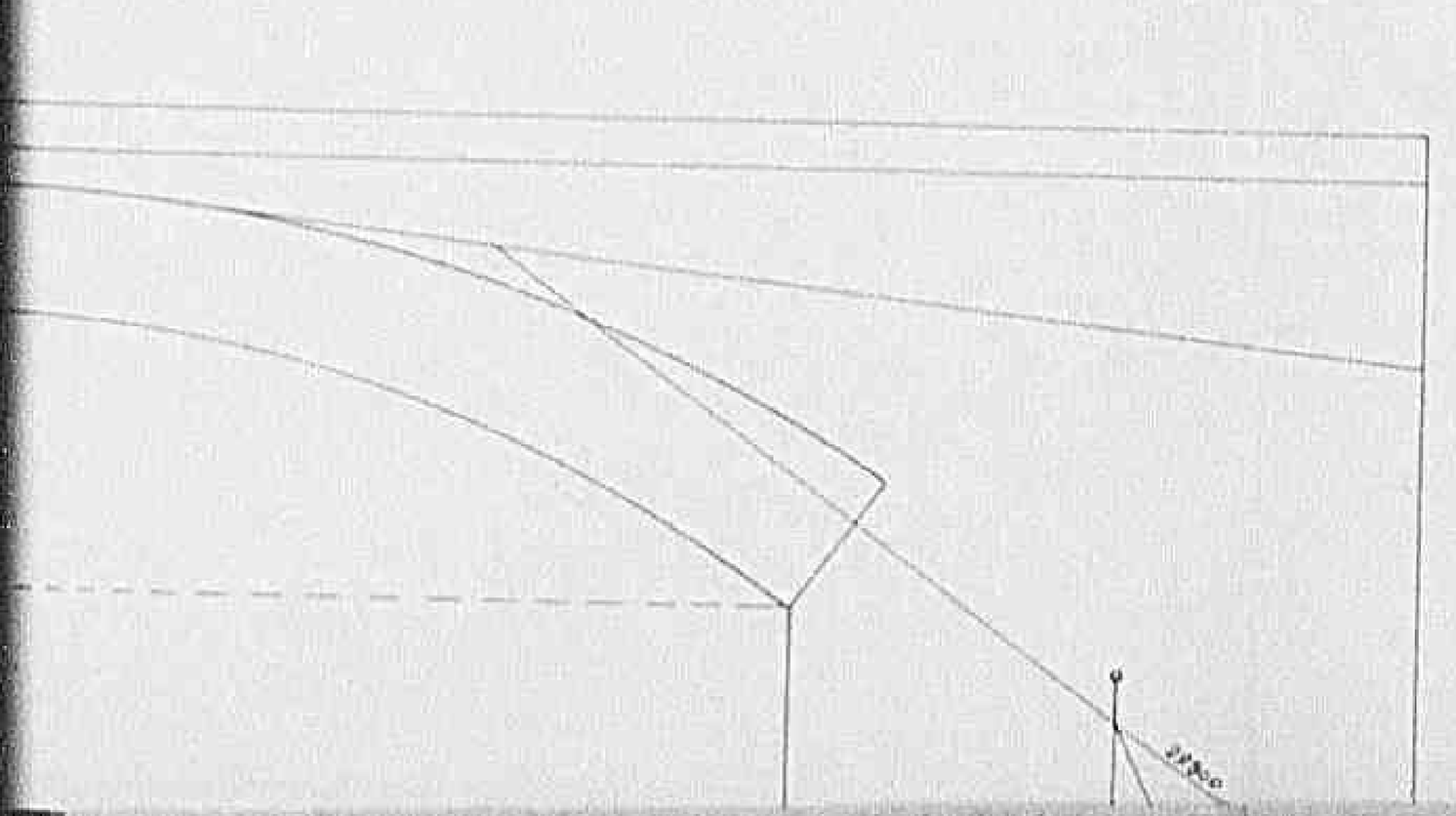


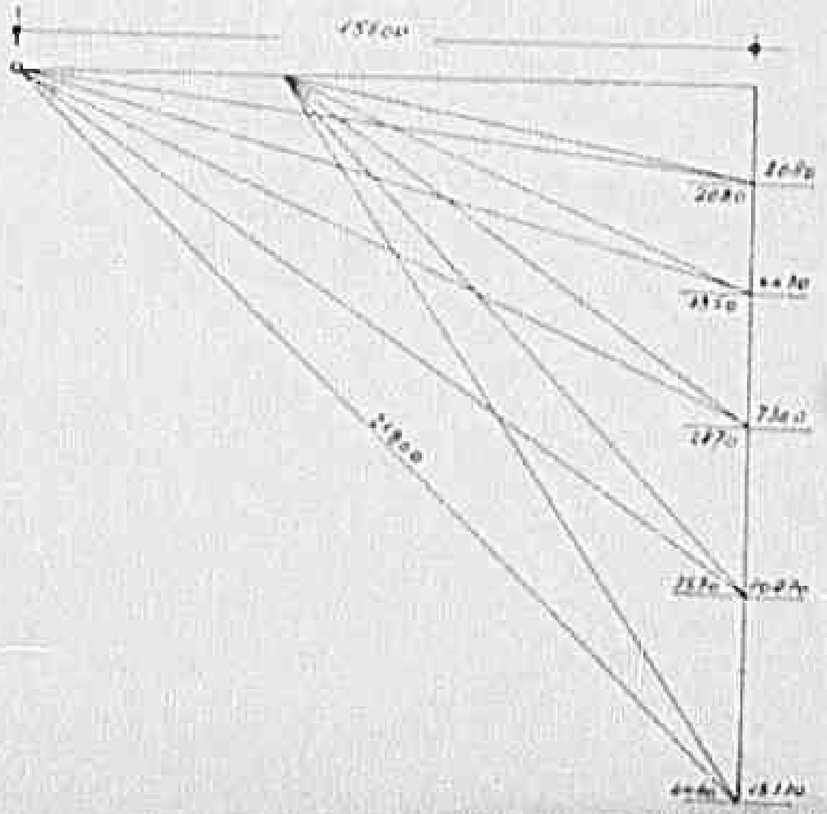
Declassified E.O. 12356 Section 3.3/NND No. 785019

Verifica della stabilità della spalla

Scala - 1 cm. : 50 cm = 10'000 Kg:

Scala delle forze - 1 cm. = 2000 Kg.





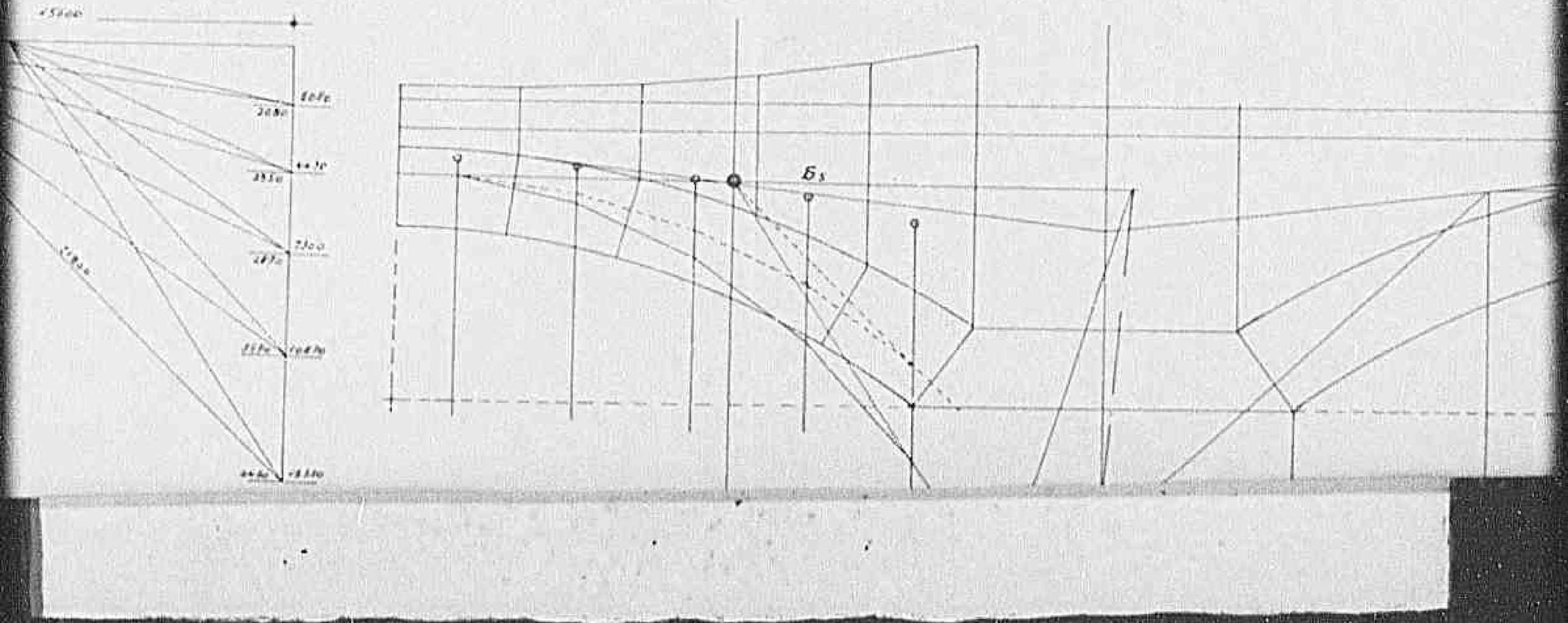
07531

Declassified E.O. 12356 Section 3.3/NND No. 785019

Verifica di stabilità della pila

Scala. 1:50

orze - 1 cm. = 2000 Kg.



0754

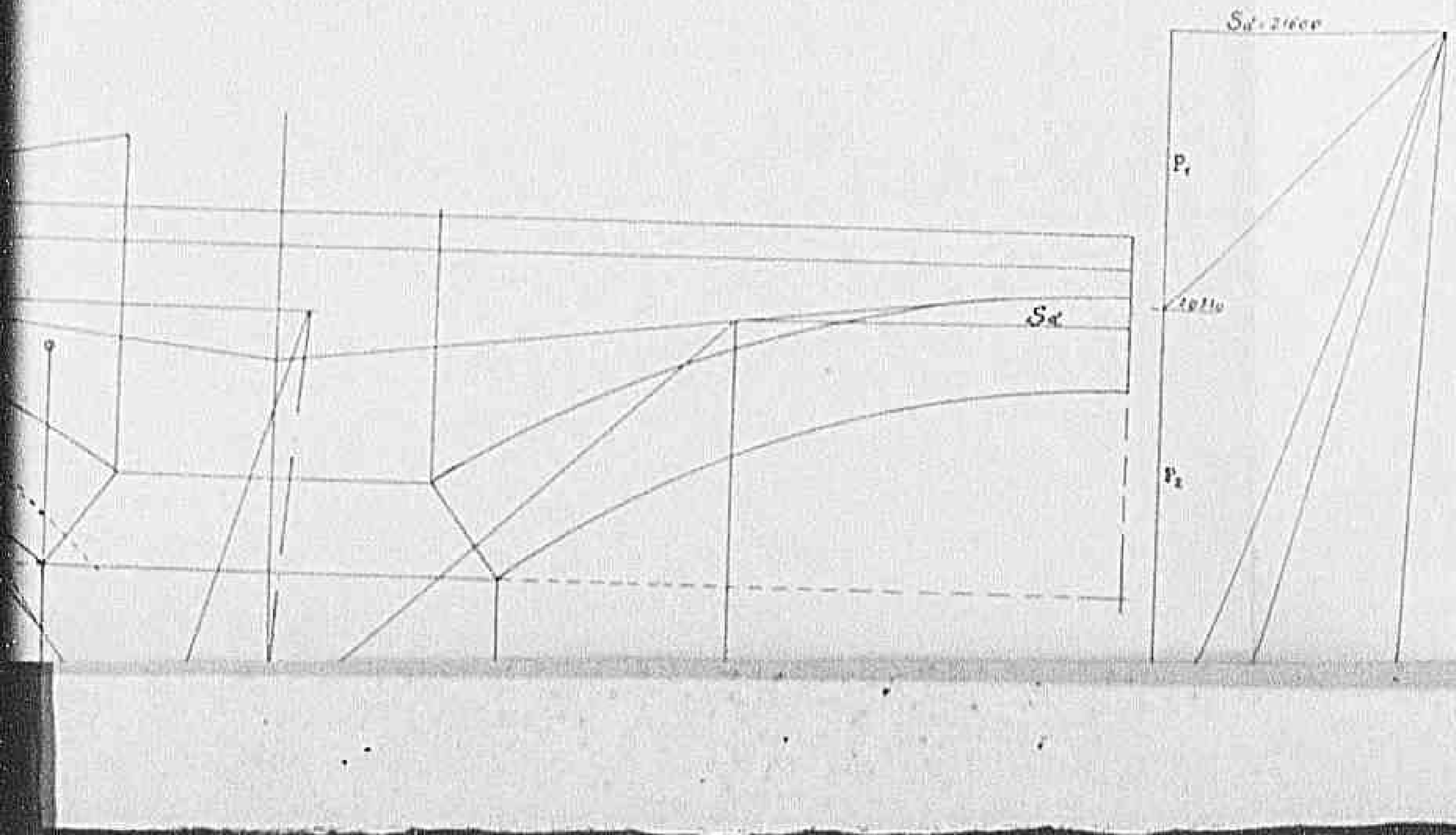
Declassified E.O. 12356 Section 3.3/NND No. 785019

Verifica di stabilità della pila

Scala. 1:50

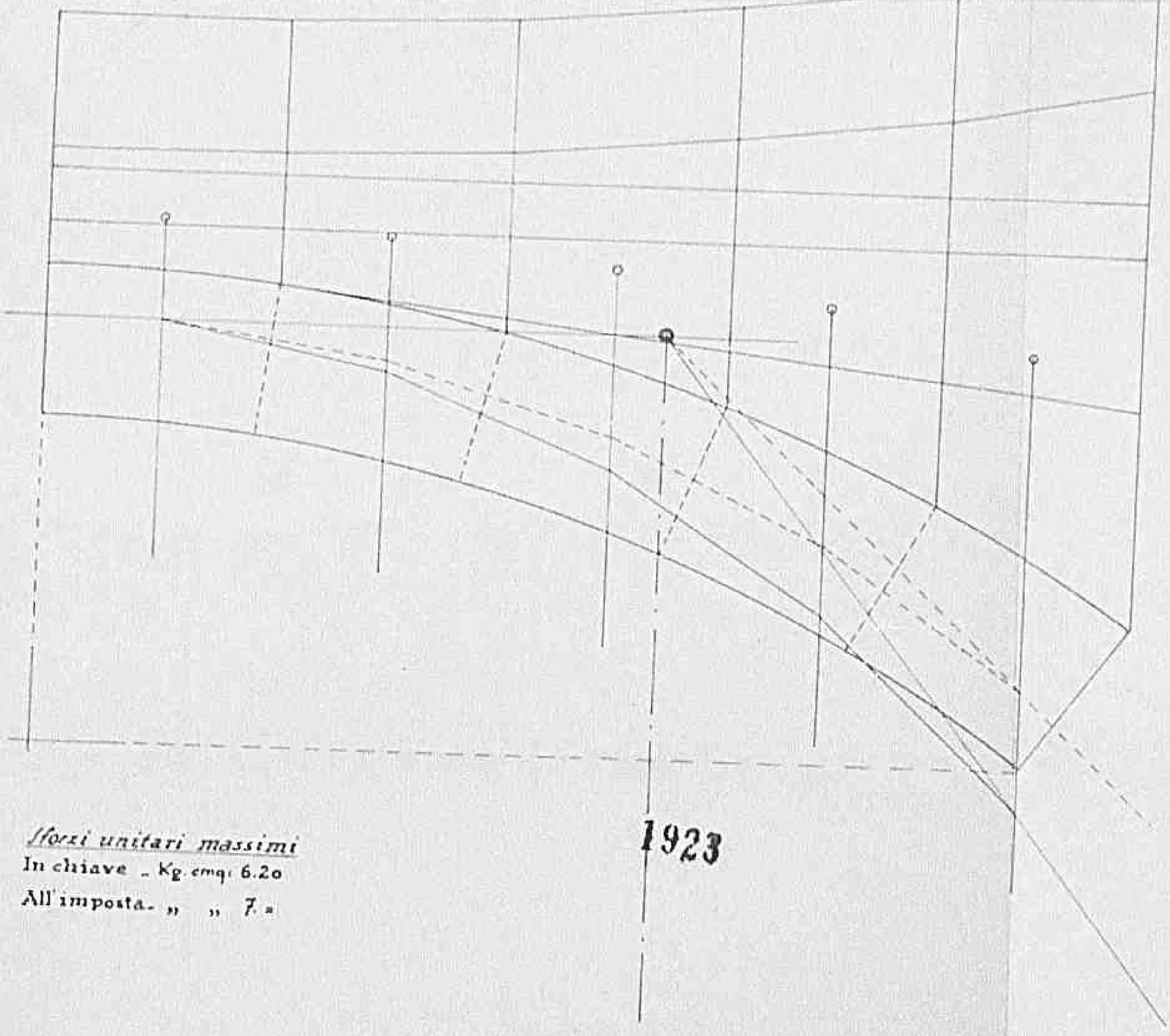
Scala delle forze

1 cm = 5000 Kg.



07531

Declassified E.O. 12356 Section 3.3/NND No. 785019

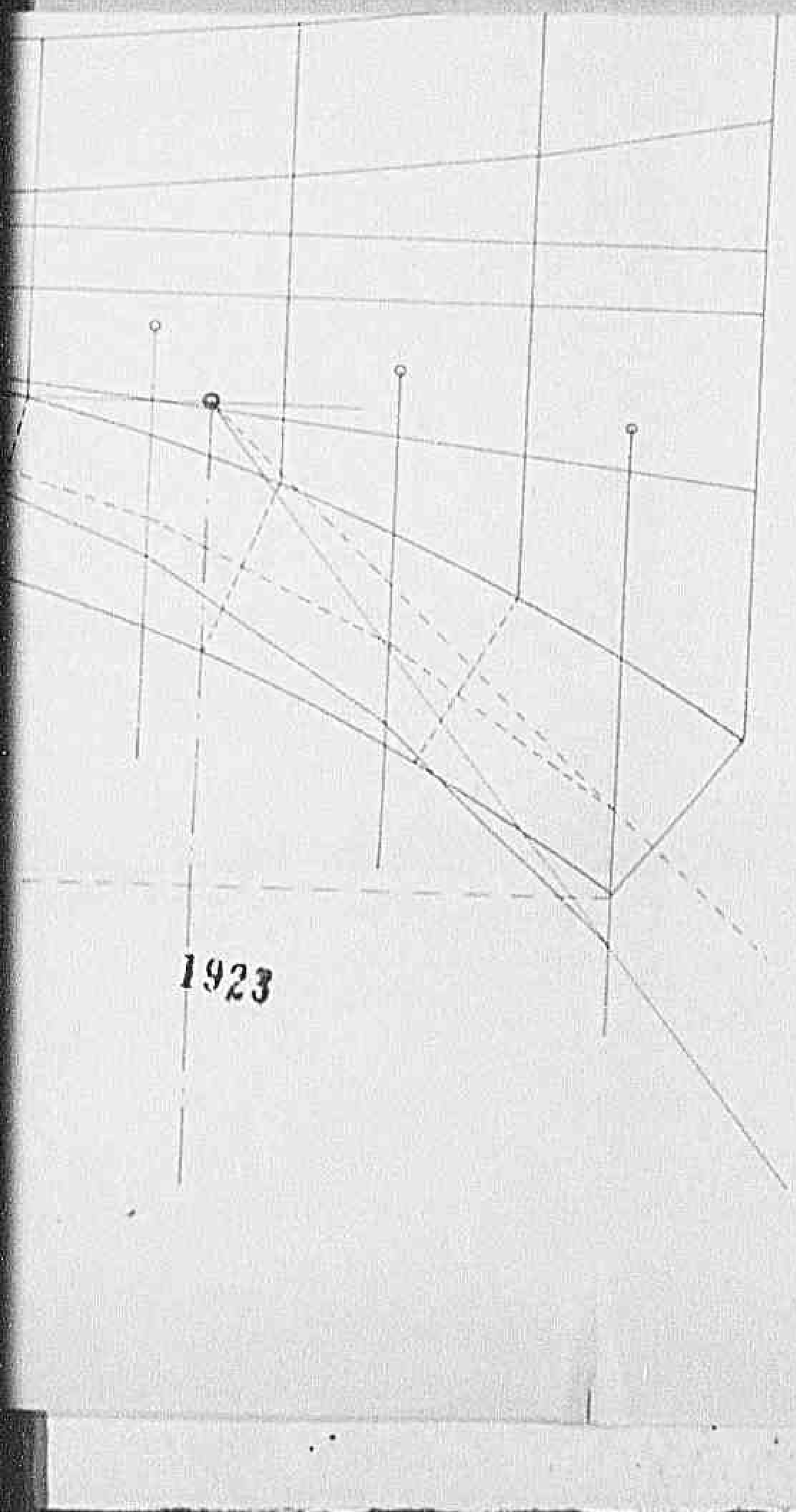


Sforzi unitari massimi
In chiave - Kg. cmq. 6.20
All'imposta - „ „ 7. „

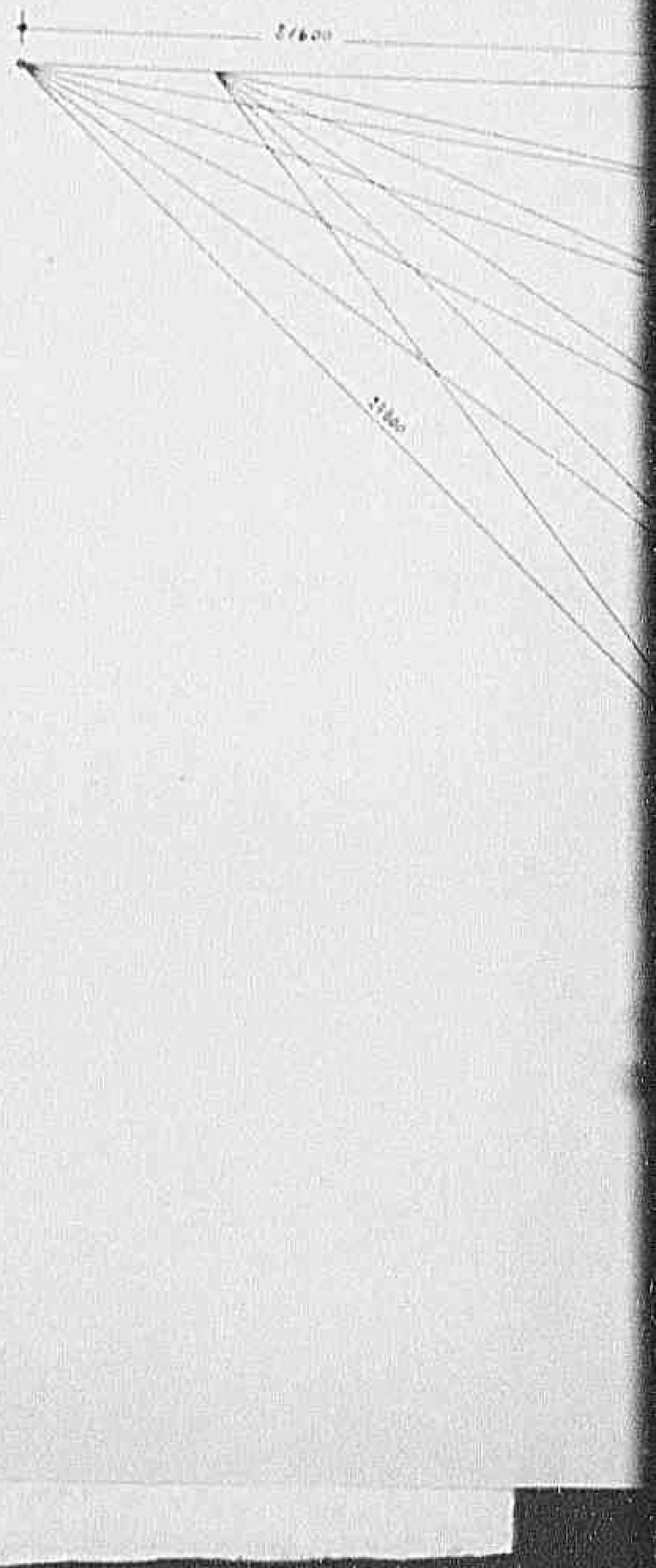
1923

0756

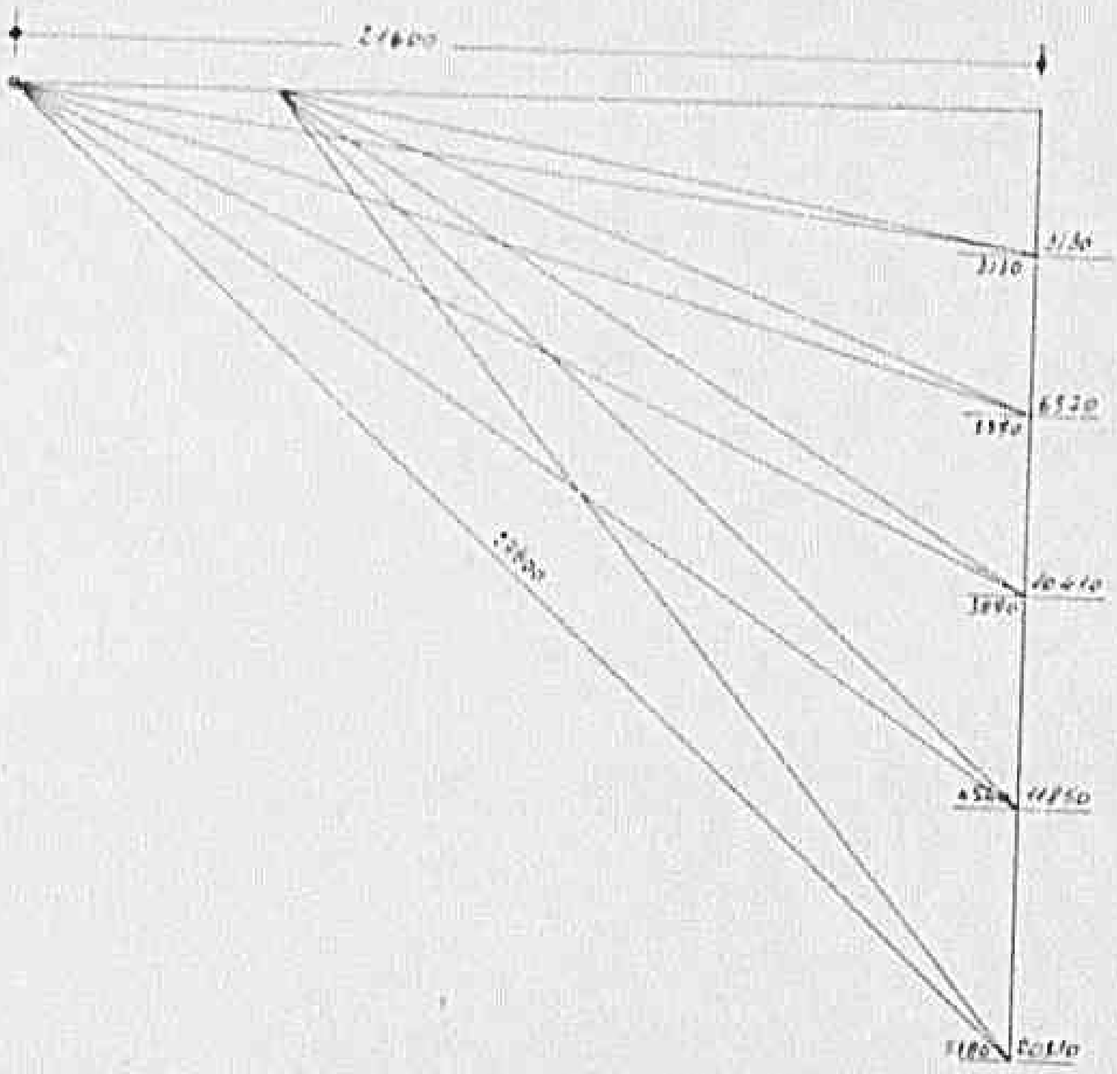
Declassified E.O. 12356 Section 3.3/NND No. 785019

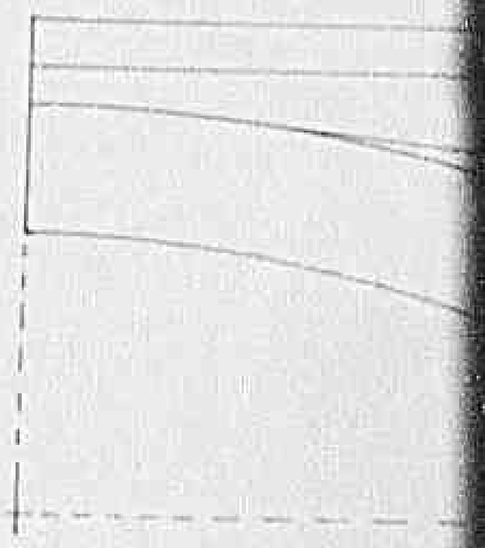


1923



Declassified E.O. 12356 Section 3.3/NND No. 785019





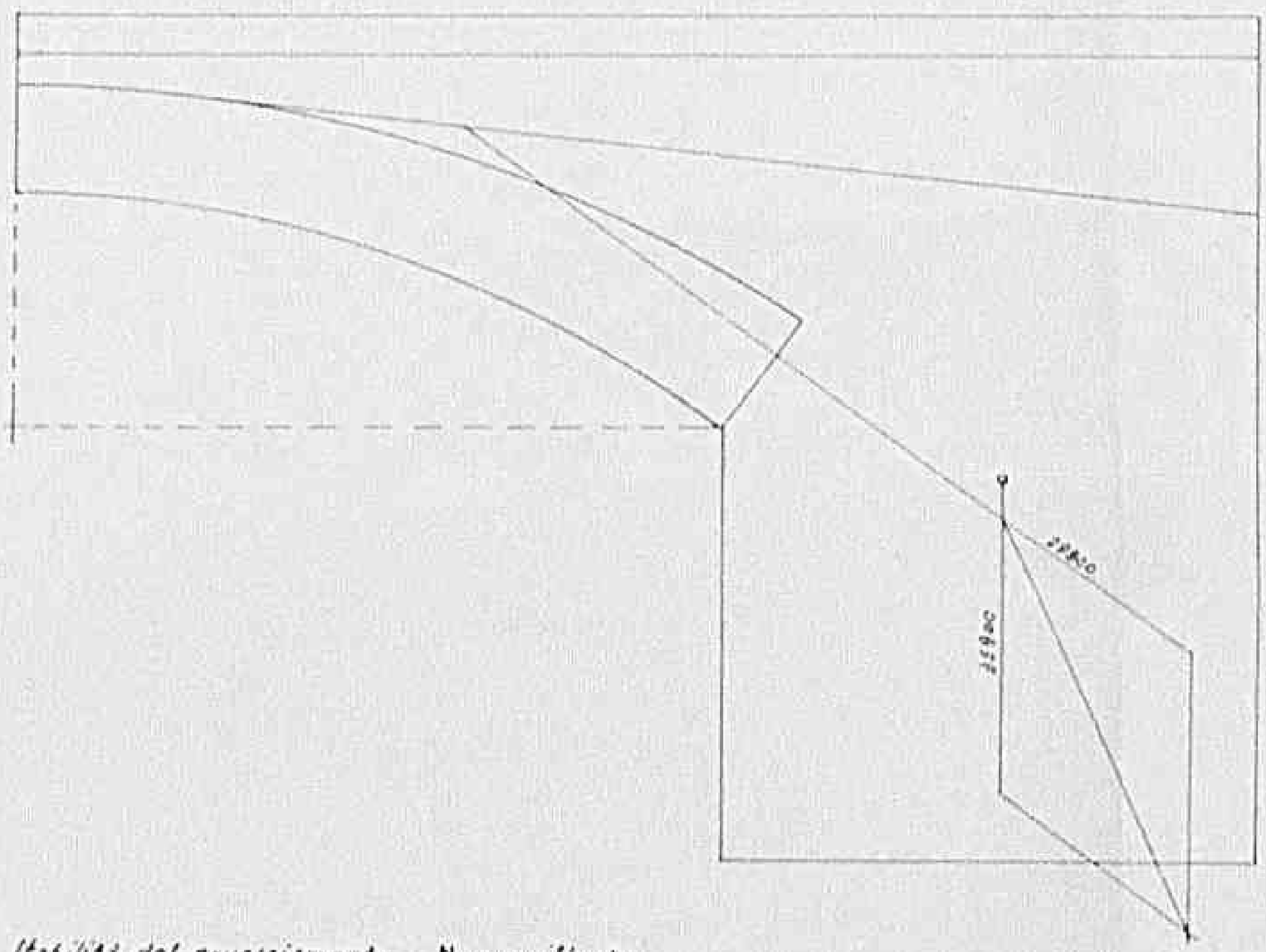
Stabilità del rovesciamento

" dello schiacciamento

" dello scorrimento

0758

Declassified E.O. 12356 Section 3.3/NND No. 785019



Stabilità del rovesciamento - Non verificata.

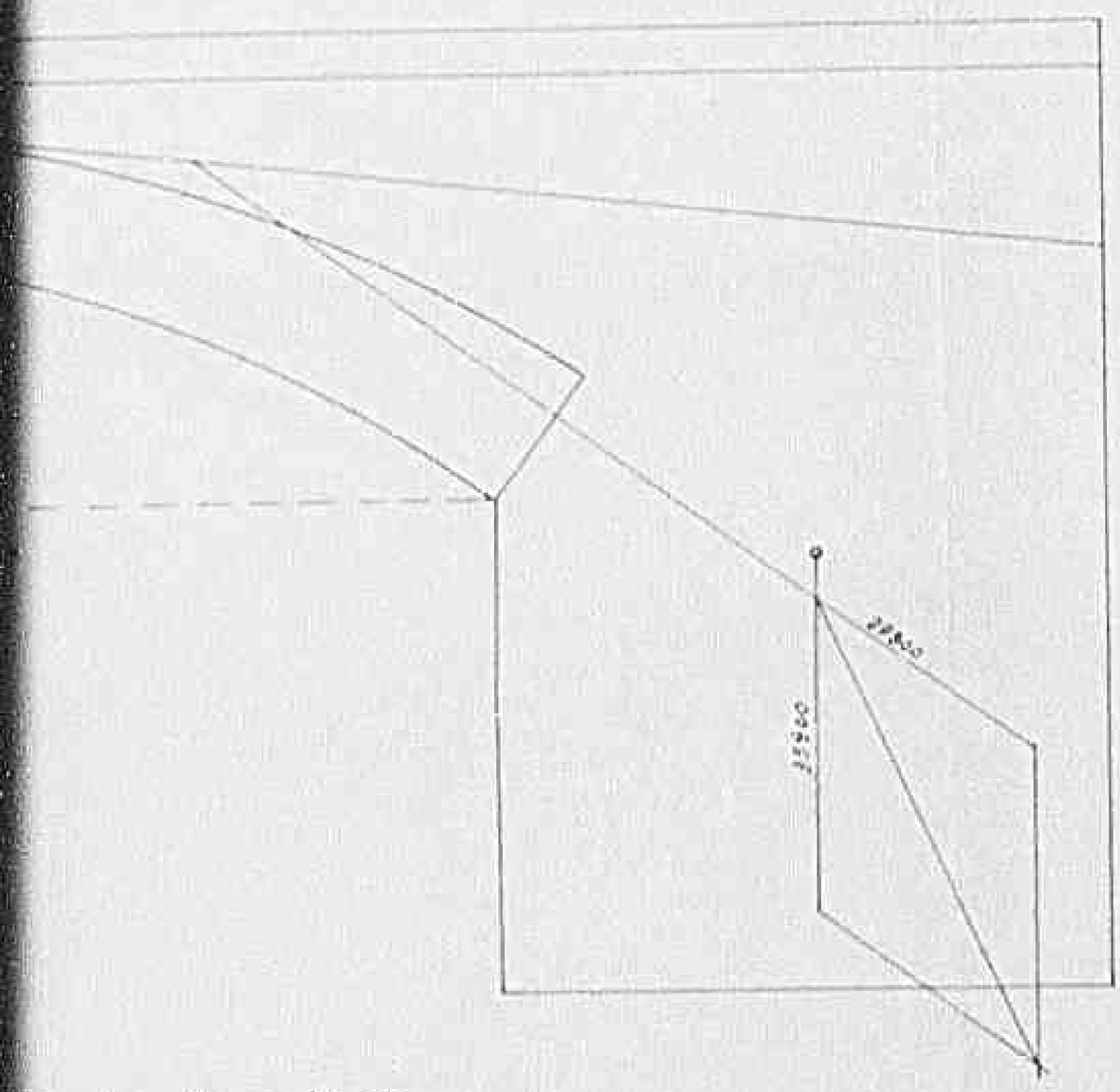
" allo schiacciamento - $2 = \frac{(20330 + 35900)}{3 \cdot 0.62} = Kg.\ cmq:\ 6.05$

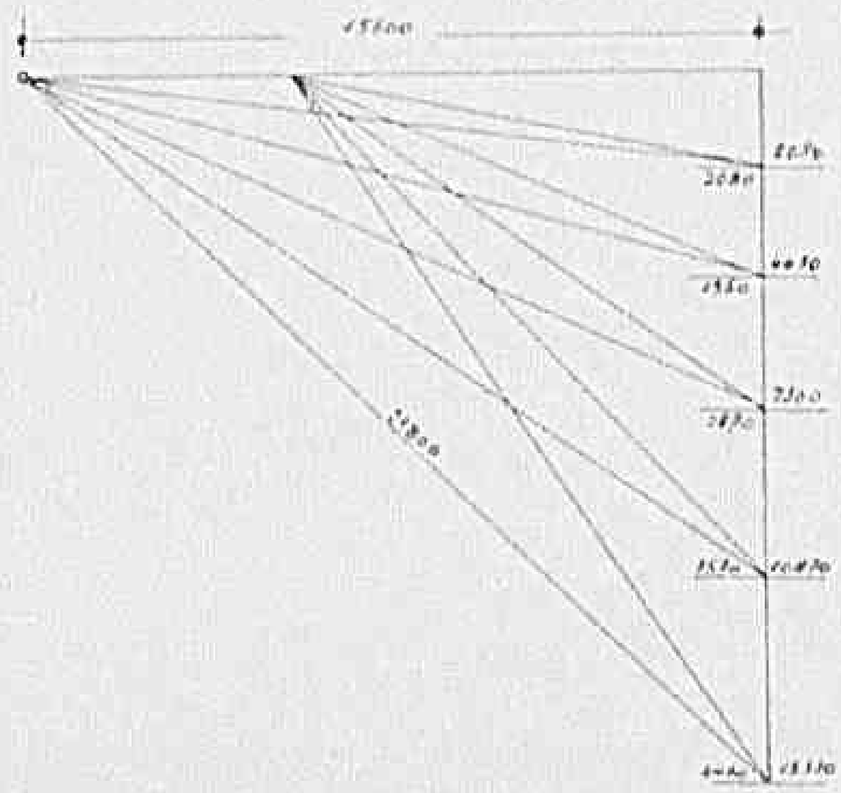
" allo scorrimento - $(15050 + 20330) 0.70 > 21600$

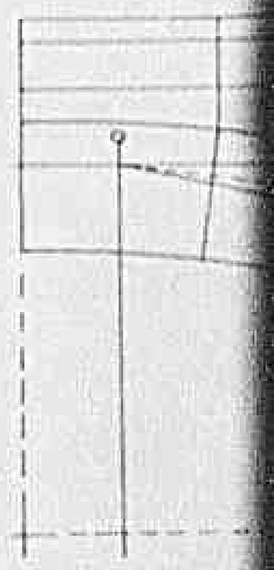
0759

Declassified E.O. 12356 Section 3.3/NND No. 785019

Scala delle forze - 1 cm. = 2000 Kg.







Stabilità al ribaltamento - Non verificata.

Stabilità allo scorrimento - $2 \times \frac{(20330 + 15900)}{3 \times 0.62} = Kg.cmq\ 6.05$

Stabilità al rovesciamento - $(15050 + 20330) 0.70 > 21600$

Stabilità al rovesciamento - Verificat

" allo schiacciamento = $\frac{20330 + 33510}{3.30}$

= Kg.cmq 2

0760

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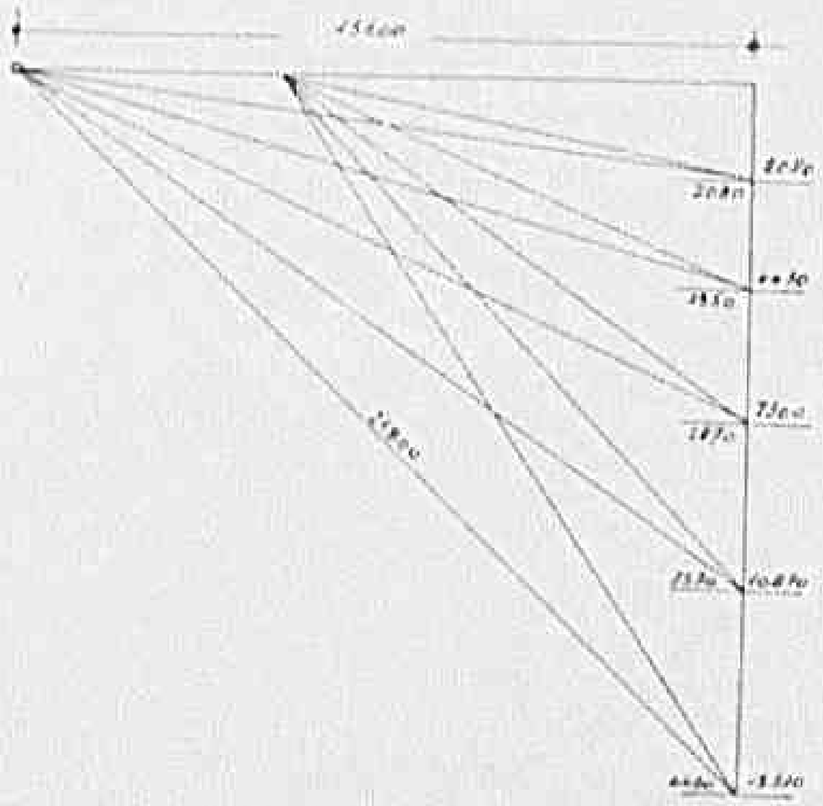
Verifica di stabilità

Scala. 1:5

Scala delle forze - 1 cm. = 2000 Kg.



Stabilità al rovesciamento = Verificata.

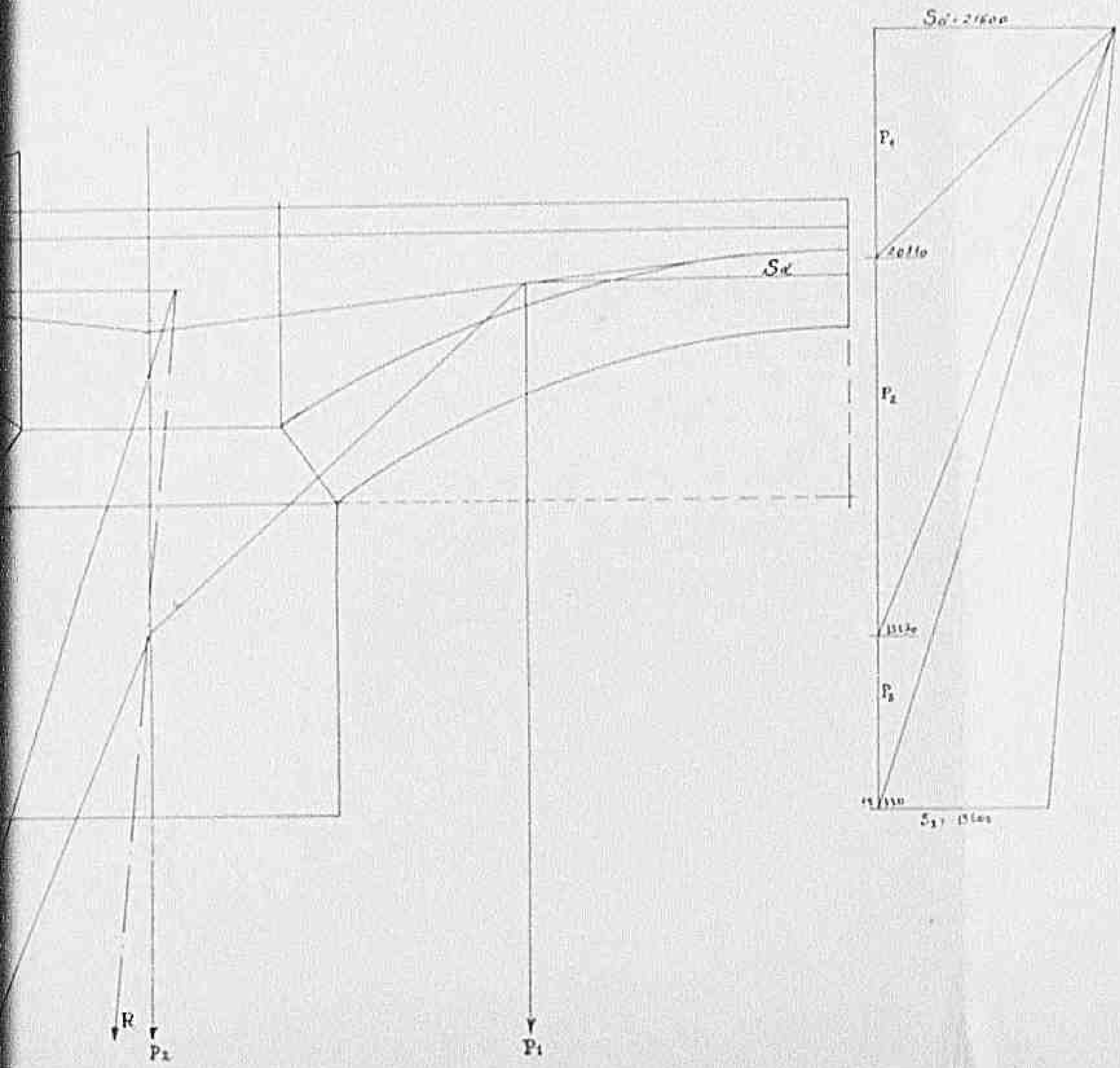
" allo schiacciamento = $\frac{20330 + 33570 + 15330}{3.30}\left\{1 + 6 \cdot \frac{0.16}{3.30}\right\}$ =

= Kg/cmq 2.70

Declassified E.O. 12356 Section 3.3/NND No. 785019

fica di stabilità della pila
Scala. 1:50

Scala delle forze
1 cm = 5000 Kg.



07621

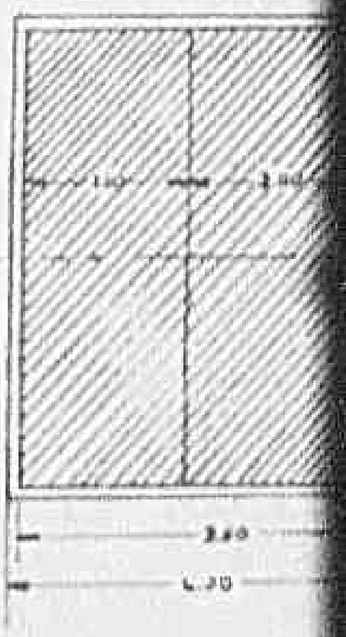
Declassified E.O. 12356 Section 3.3/NND No. 785019

Sie 212 O. Progetto N° 1/12

MINISTERO DEI LAVORI PUBBLICI
REGIO REALE DEL GENIO CIVILE
UFFICIO DI SIENA

M-609

Progetto di ricostruzione del ponte sul torrente "Gonna" lungo la strada Monticiano-Ponte Macereto.



Scala: 1:100

07631

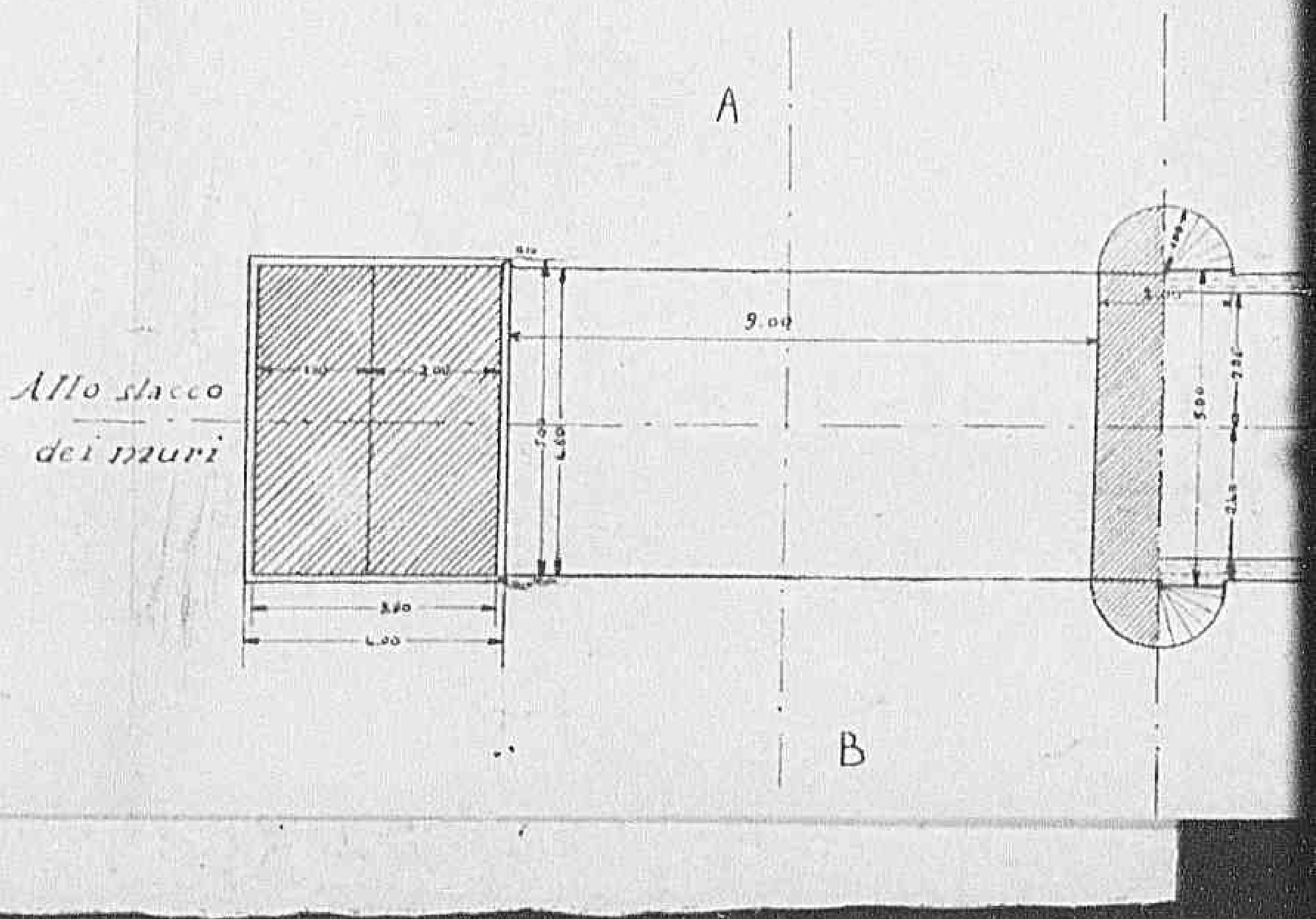
Declassified E.O. 12356 Section 3.3/NND No. 785019

C. Progetto N° 1V9 1V2

UBBLICI
NIO CIVILE

M-609

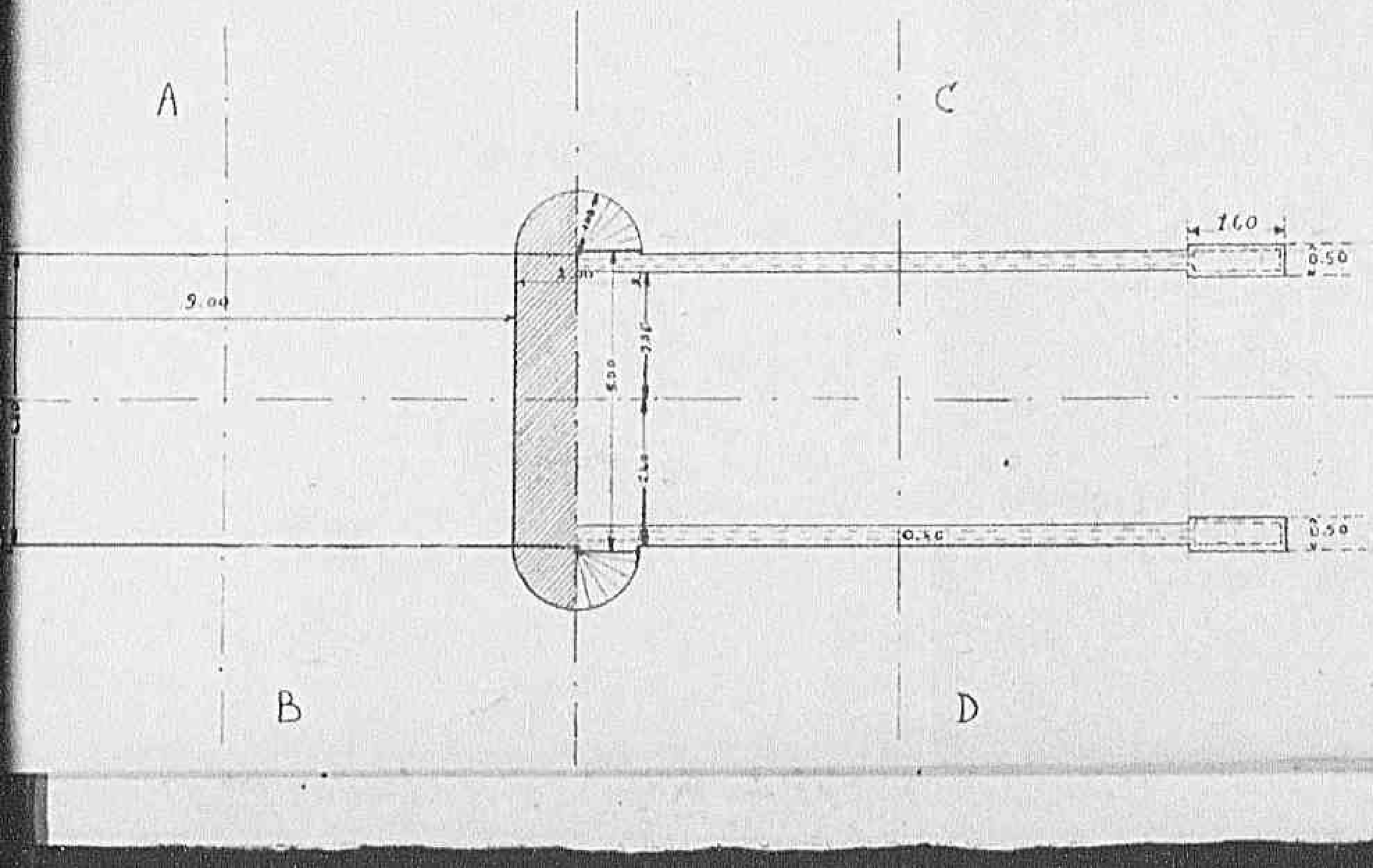
...uzione del ...e "Gonna" ... e Macereto.



07641

Declassified E.O. 12356 Section 3.3/NND No. 785019

Piazza

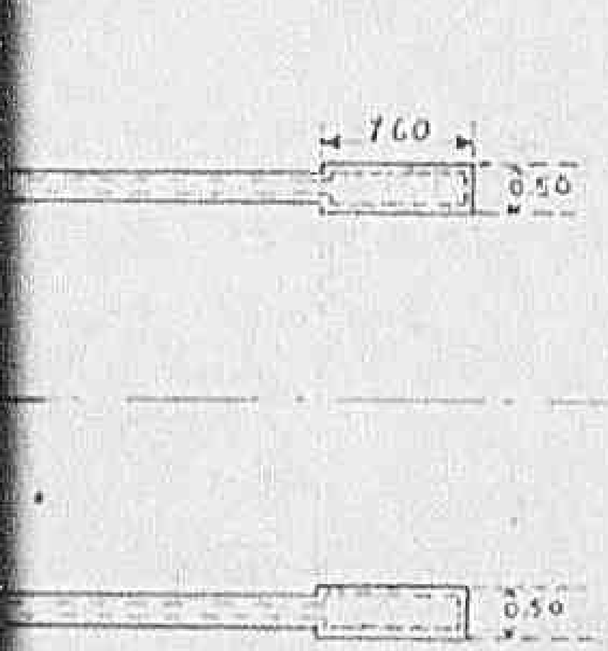


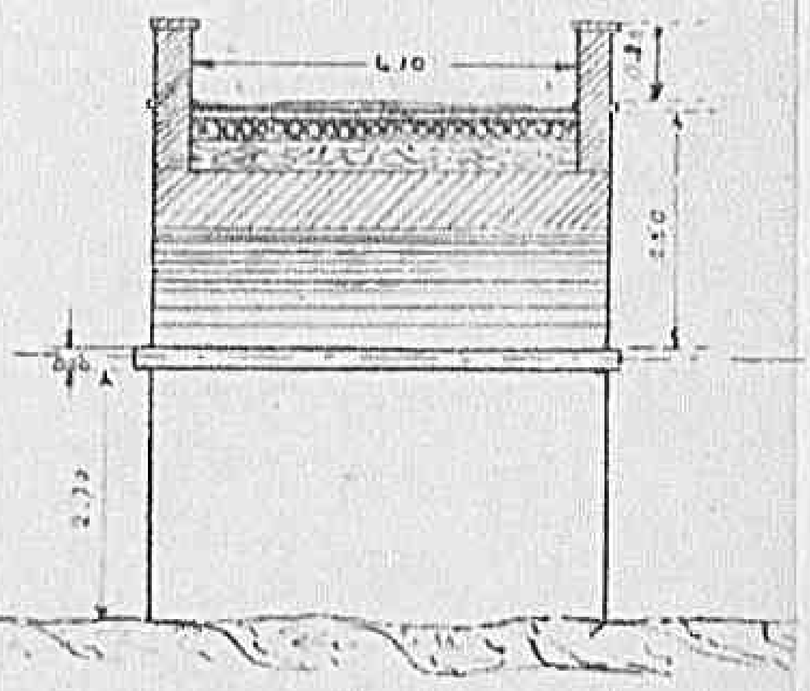
0765

Declassified E.O. 12356 Section 3.3/NND No. 785019

Sezione trasversale

Sezione A.B.





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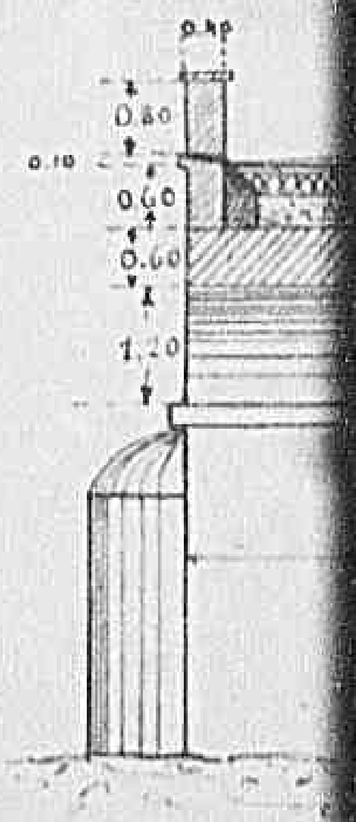


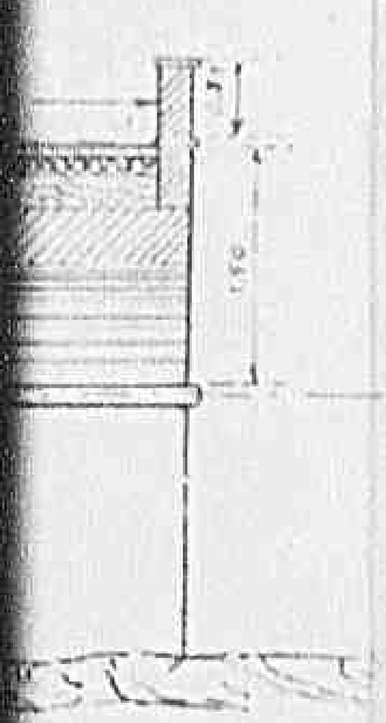
07661

Declassified E.O. 12356 Section 3.3/NND No. 785019

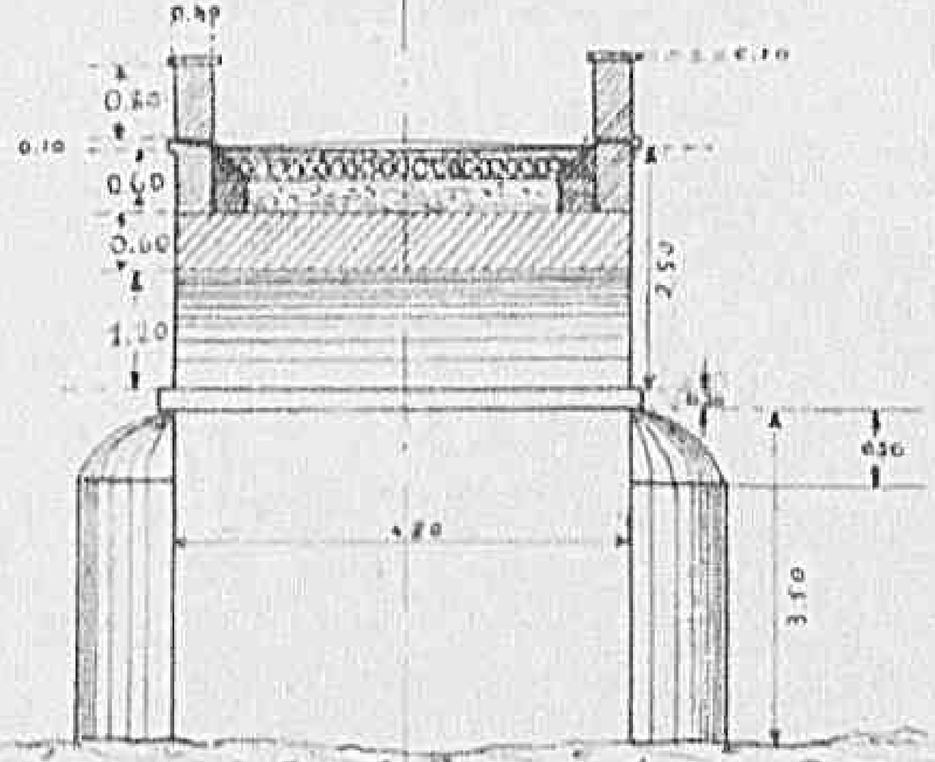
Ponte
in muratura

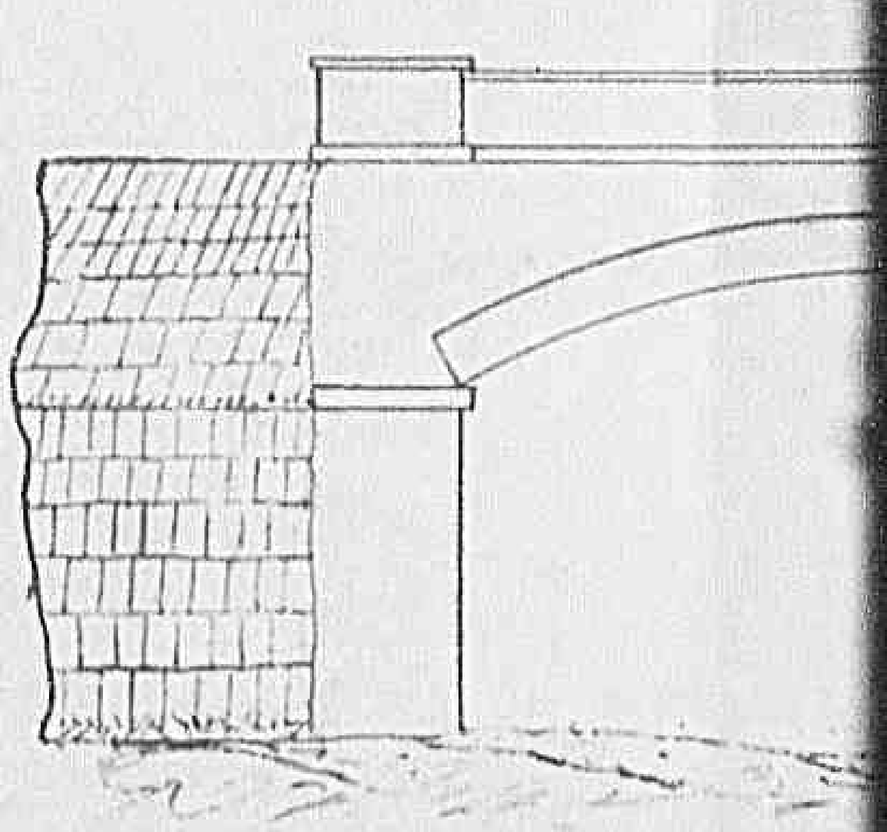
Sezione trasversale

A.B.



Sezione C.D.





01671

Declassified E.O. 12356 Section 3.3/NND No. 785019

onte
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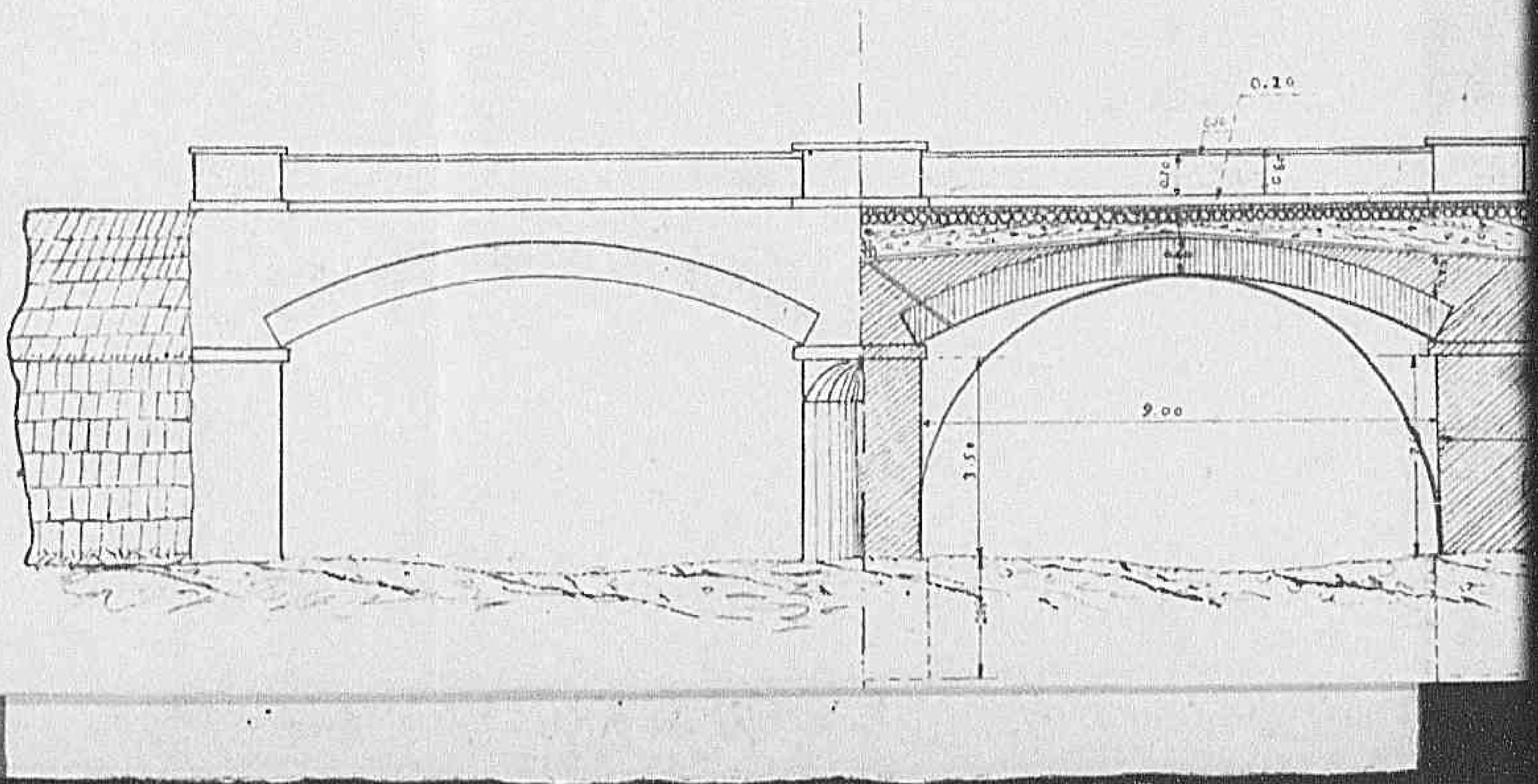
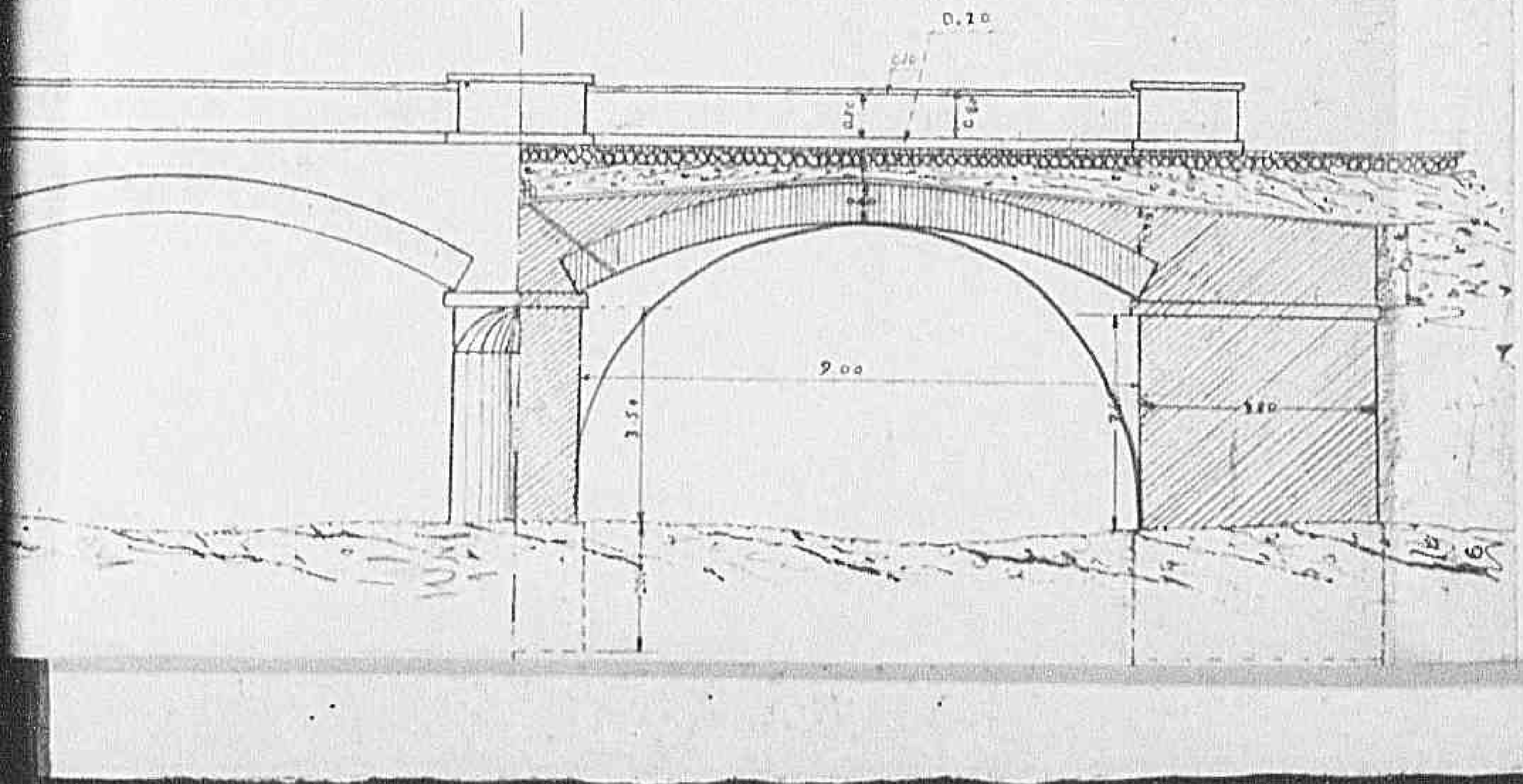
Prospetto = Sezione longitudinale



0768

Declassified E.O. 12356 Section 3.3/NND No. 785019

Prospetto = Sezione longitudinale

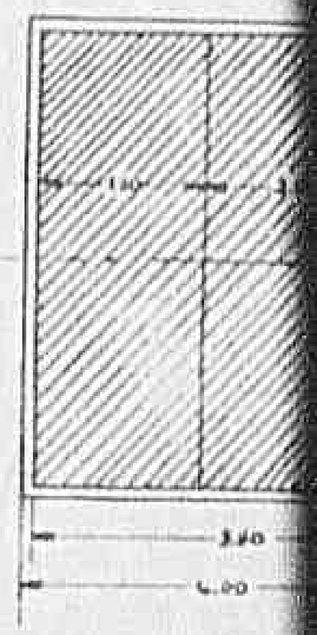


0769

Declassified E.O. 12356 Section 3.3/NND No. 785019

M-601

Progetto di ricostruzione del ponte sul torrente "Gonna" lungo la strada Monticiano-Ponte Macereto.



Scala: 1:100

N° 917 Siena 27 GEN. 1945

Redatto dal Geometra Ispe.

L'Ingegnere Principale

1922

V° L'Ingegnere Capo

07701

Declassified E.O. 12356 Section 3.3/NND No. 785019

M-601

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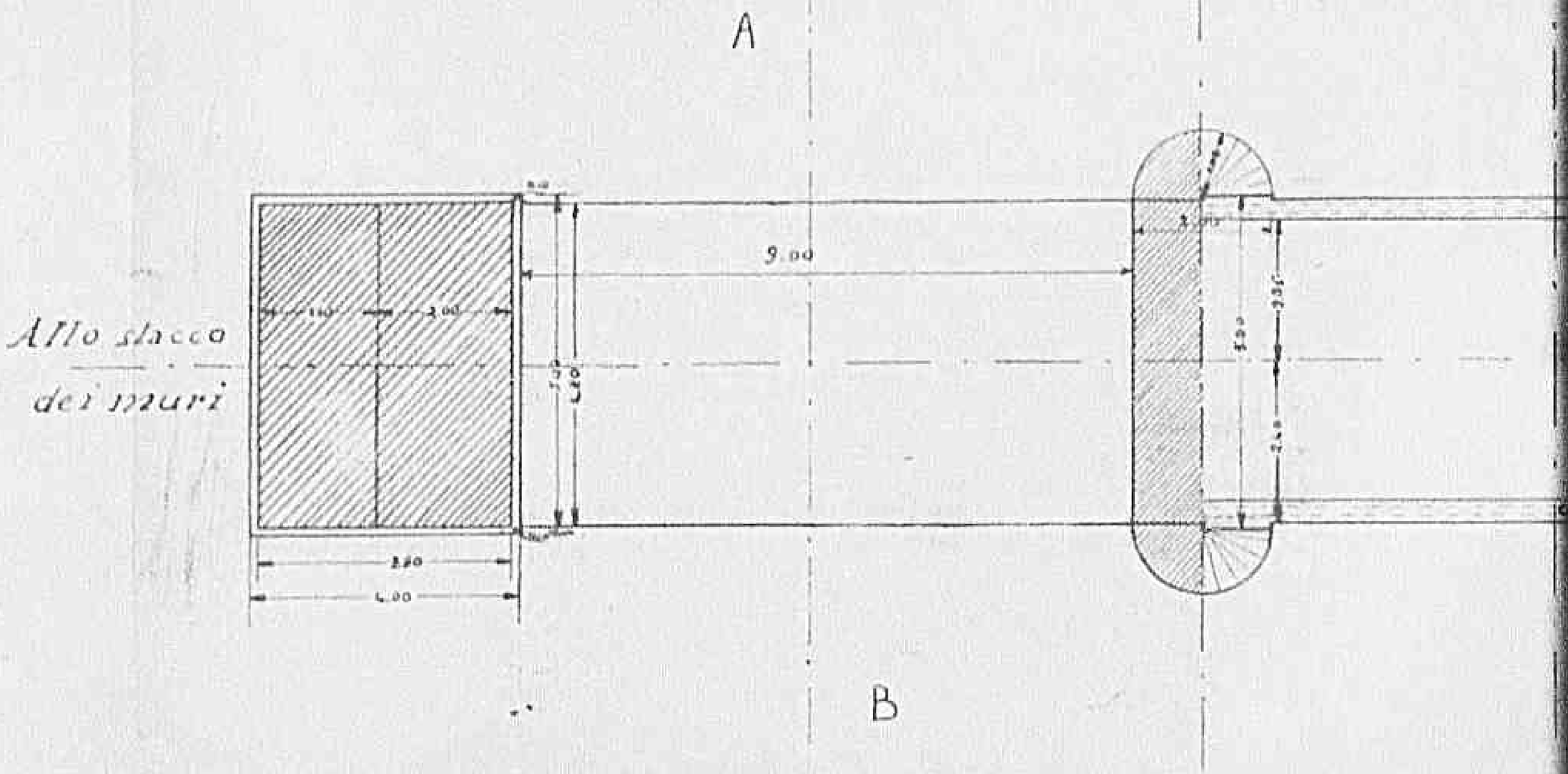
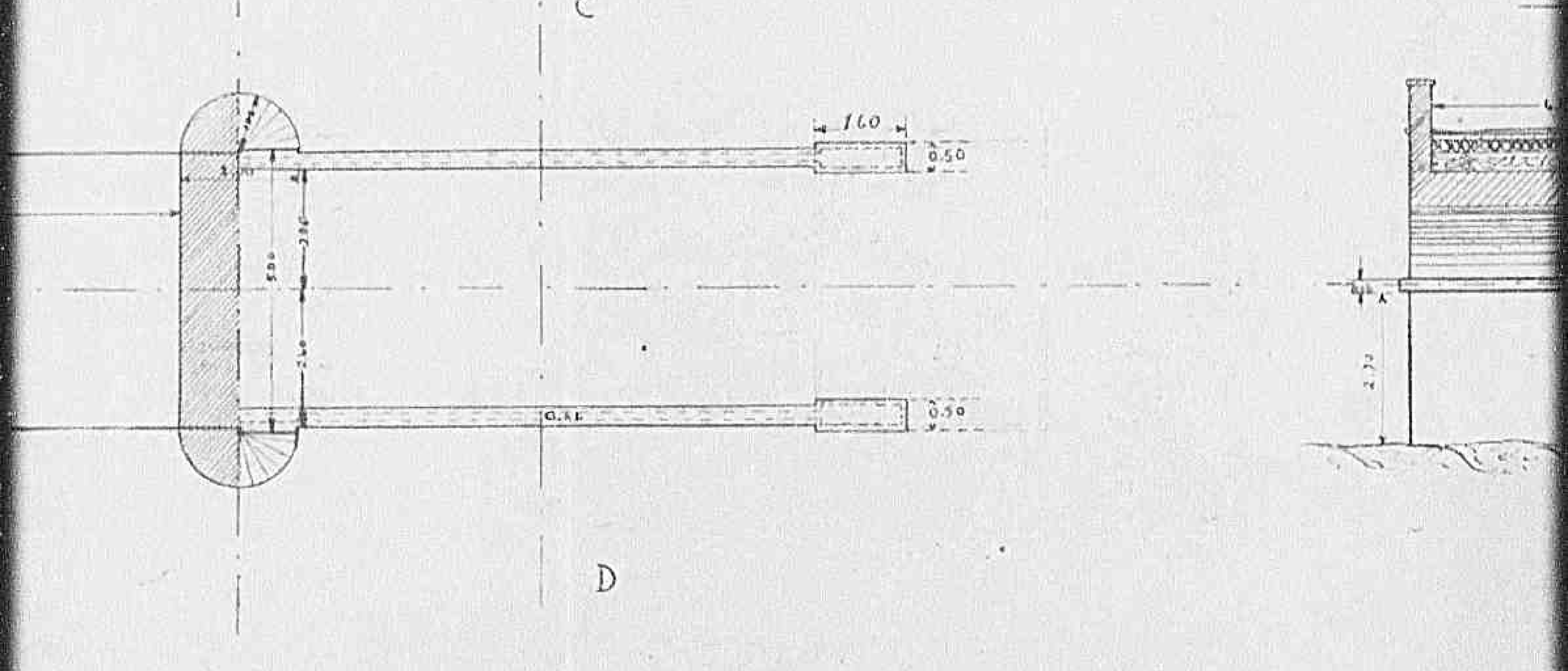
ereto -



27 GEN. 1945
Genetia Pisc.

22
Ingegnere Capo

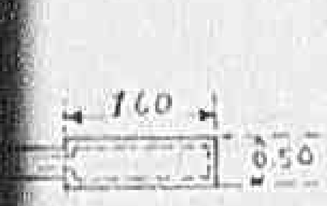
Declassified E.O. 12356 Section 3.3/NND No. 785019

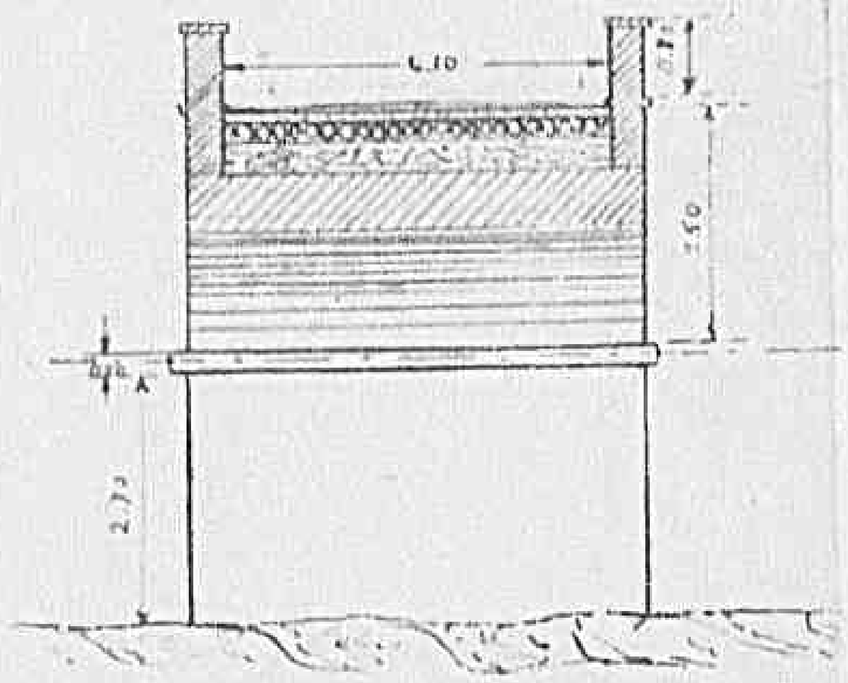


9721

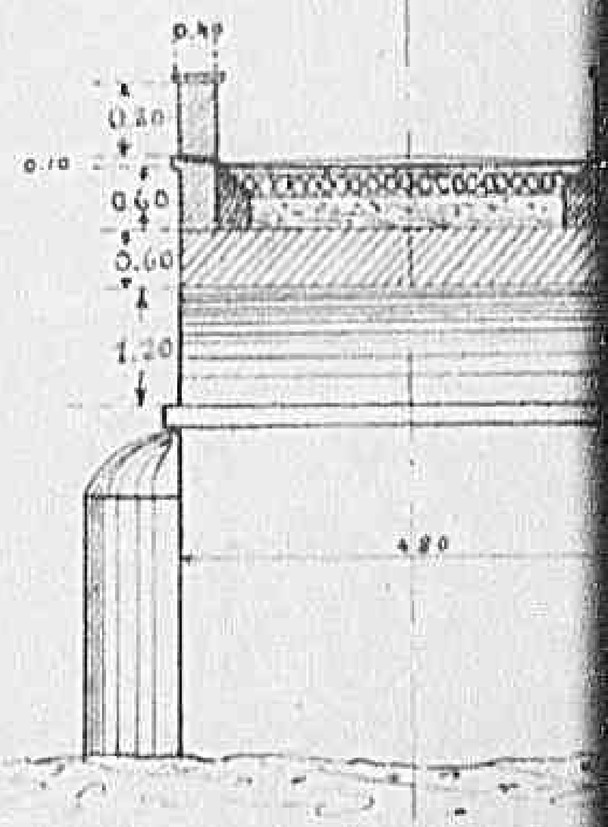
Declassified E.O. 12356 Section 3.3/NND No. 785019

Sezione A.B.





Sezione C.D.



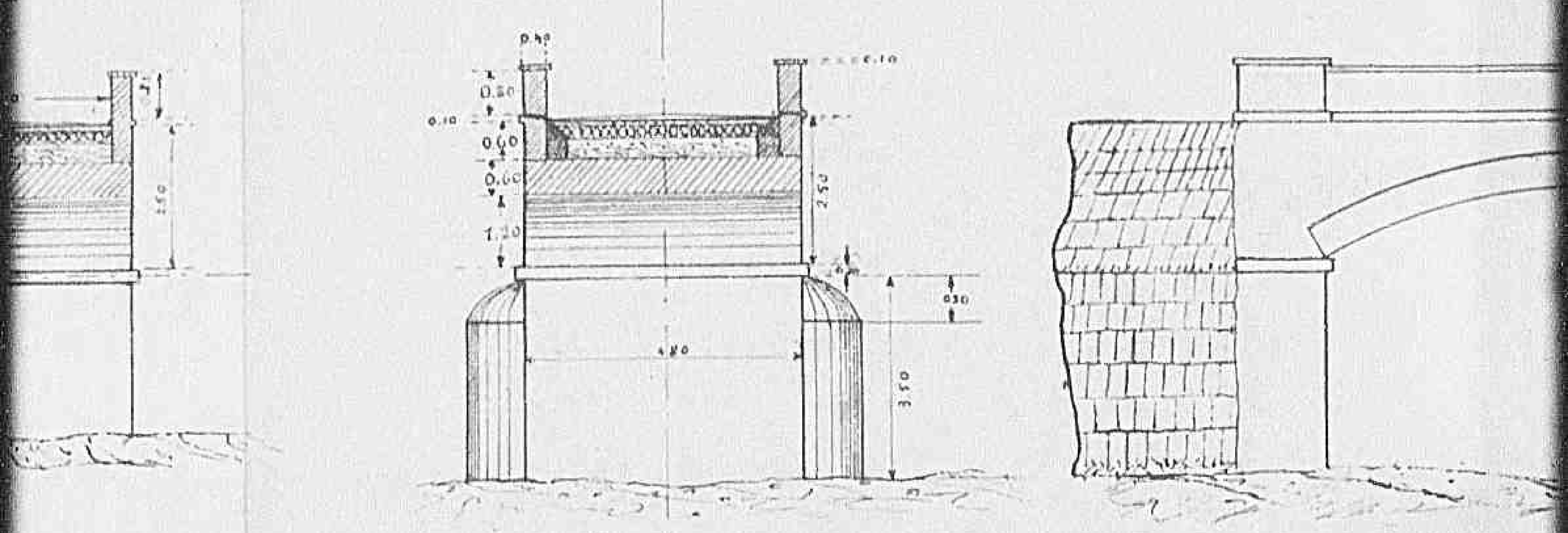
Scala: 1-100

07731

Declassified E.O. 12356 Section 3.3/NND No. 785019

A.B.

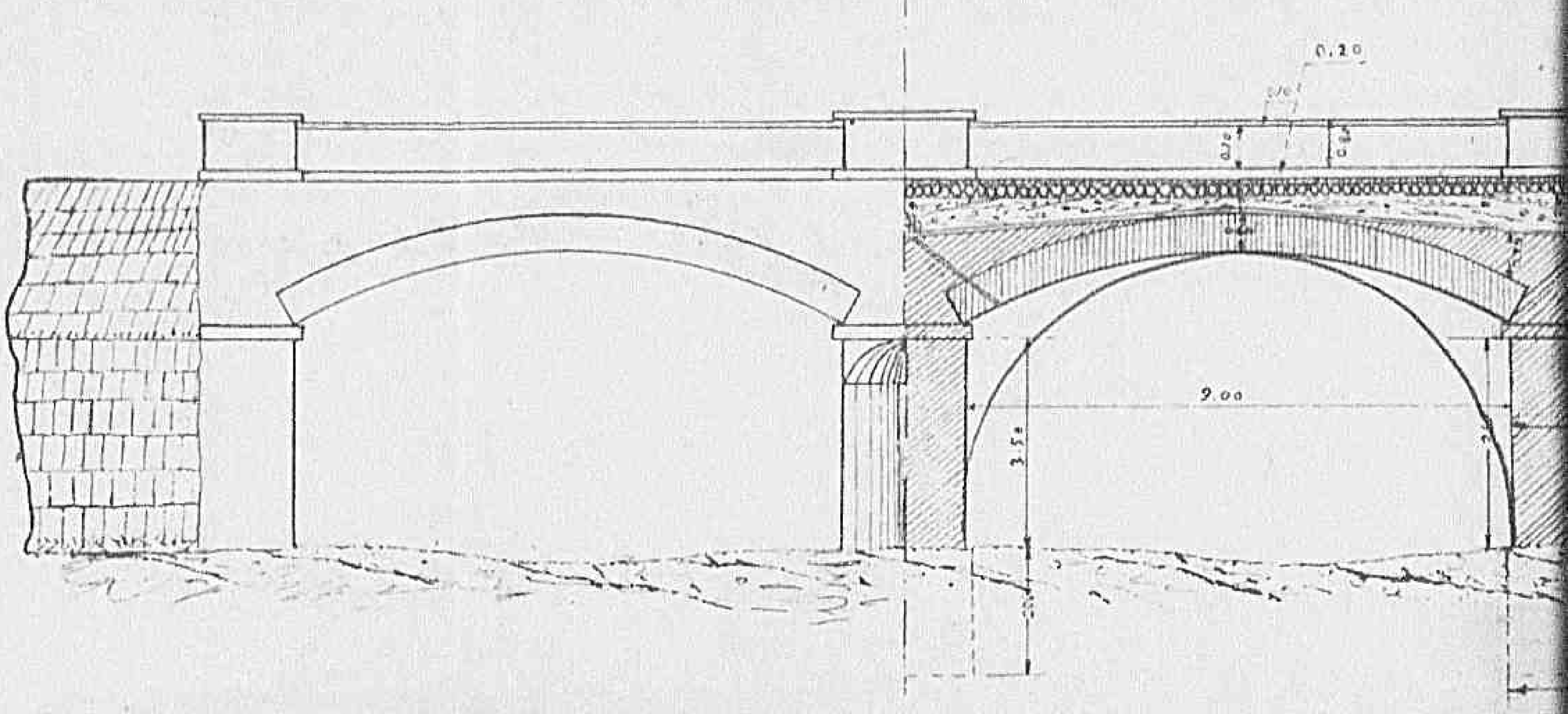
Sezione C.D.



Scala: 1-100

Materiali occorr

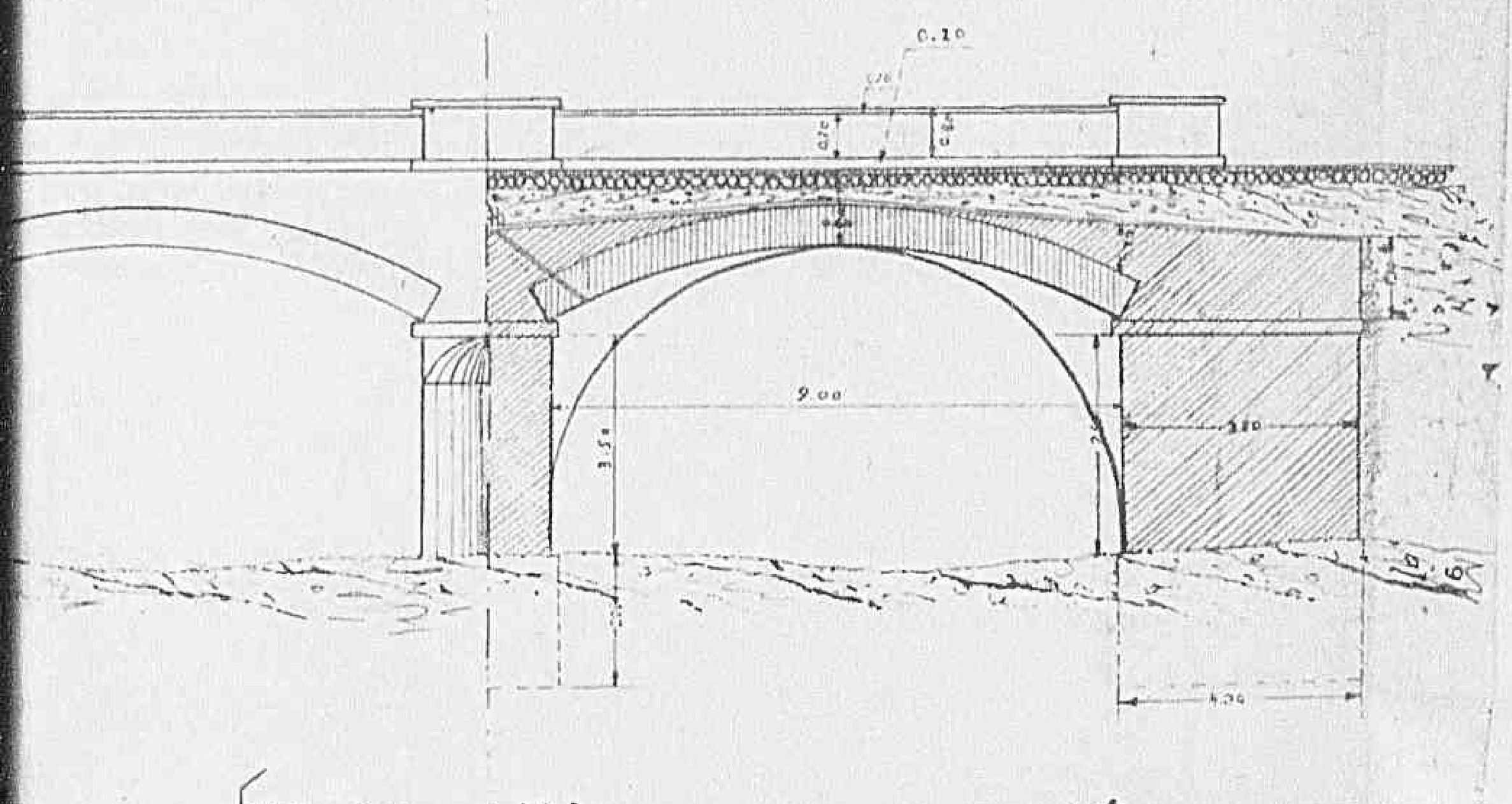
Declassified E.O. 12356 Section 3.3/NND No. 785019



Materiali occorrenti { Mattoni - N° 25000
Calce viva - qli 240

Art for flat
N. 16/4

Declassified E.O. 12356 Section 3.3/NND No. 785019



correnti { Mattoni - N° 25000
Calce viva - qli 240

Add to flat
qli 16/4

Pisa 173

MINISTERO DEL LAVORI PUBBLICI

UFFICIO DEL GENIO CIVILE DI PISA

PONTE IN MURATURA SUL TORRENTE ZAMBRA

M- 610

COMUNE DI CALCI (FRAZ. DI CASTELMAGGIORE)

N. 3118 PISA 1945

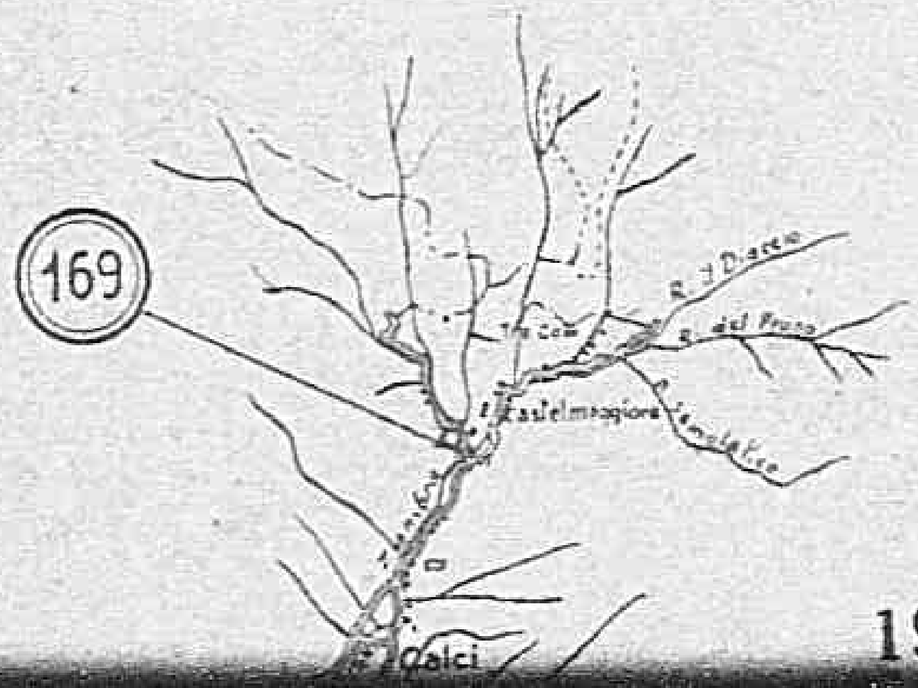
VISTO: L'INGEGNERE CAPO

Gonfaron

L'INGEGNERE PRINCIPALE

Rossi

PLANIMETRIA
Scala 1:50.000



1921 pos 671

0 7 7 6 1
Declassified E.O. 12356 Section 3.3/NND No.

PONTE IN MURATURA
SUL TORRENTE ZAMBRA

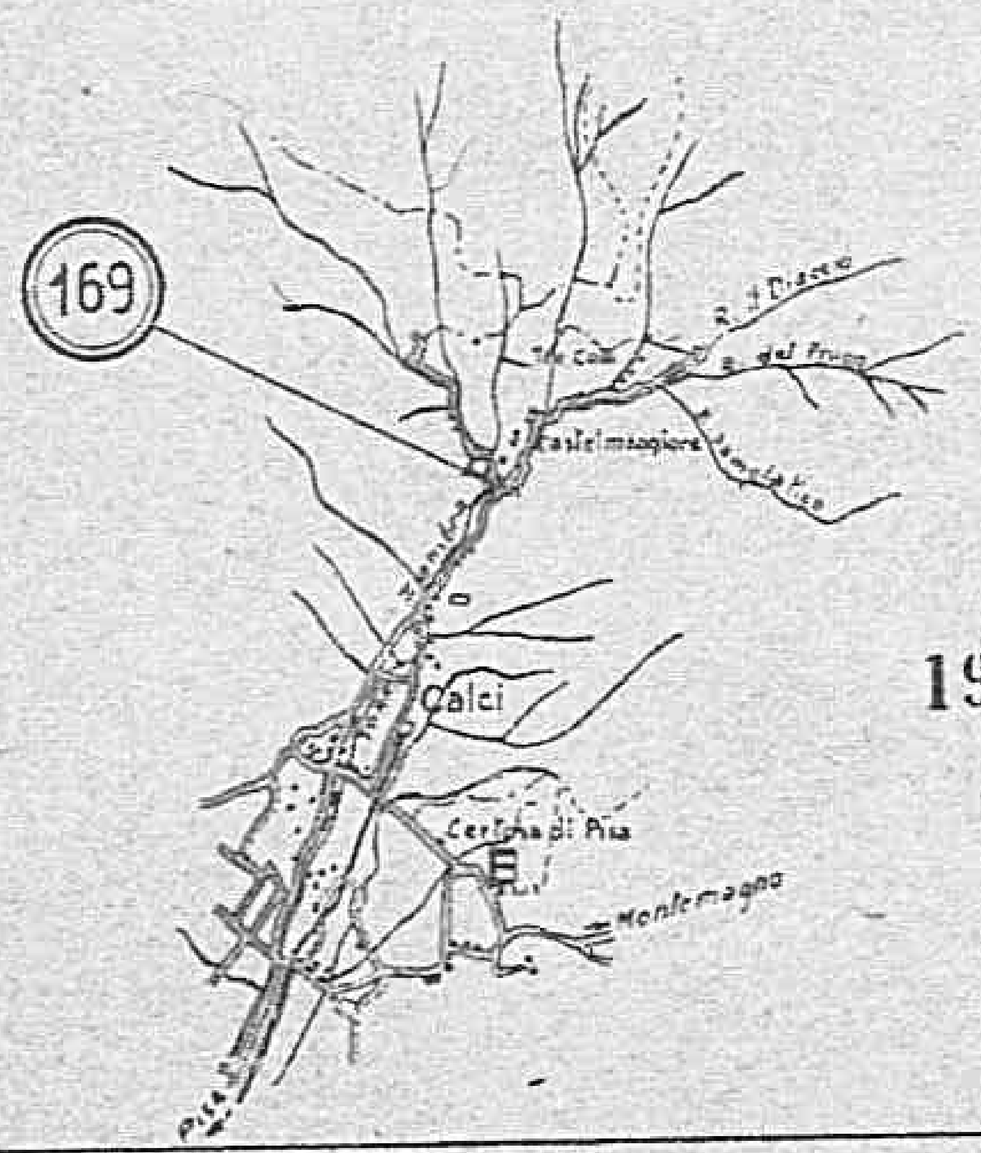
COMUNE DI CALCI (FRAZ. DI CASTELMAGGIORE)

Pisa 3118 1945

VISTO: L'INGEGNERE CAPO

L'INGEGNERE PRINCIPALE

PLANIMETRIA
Scala 1:50.000



1921

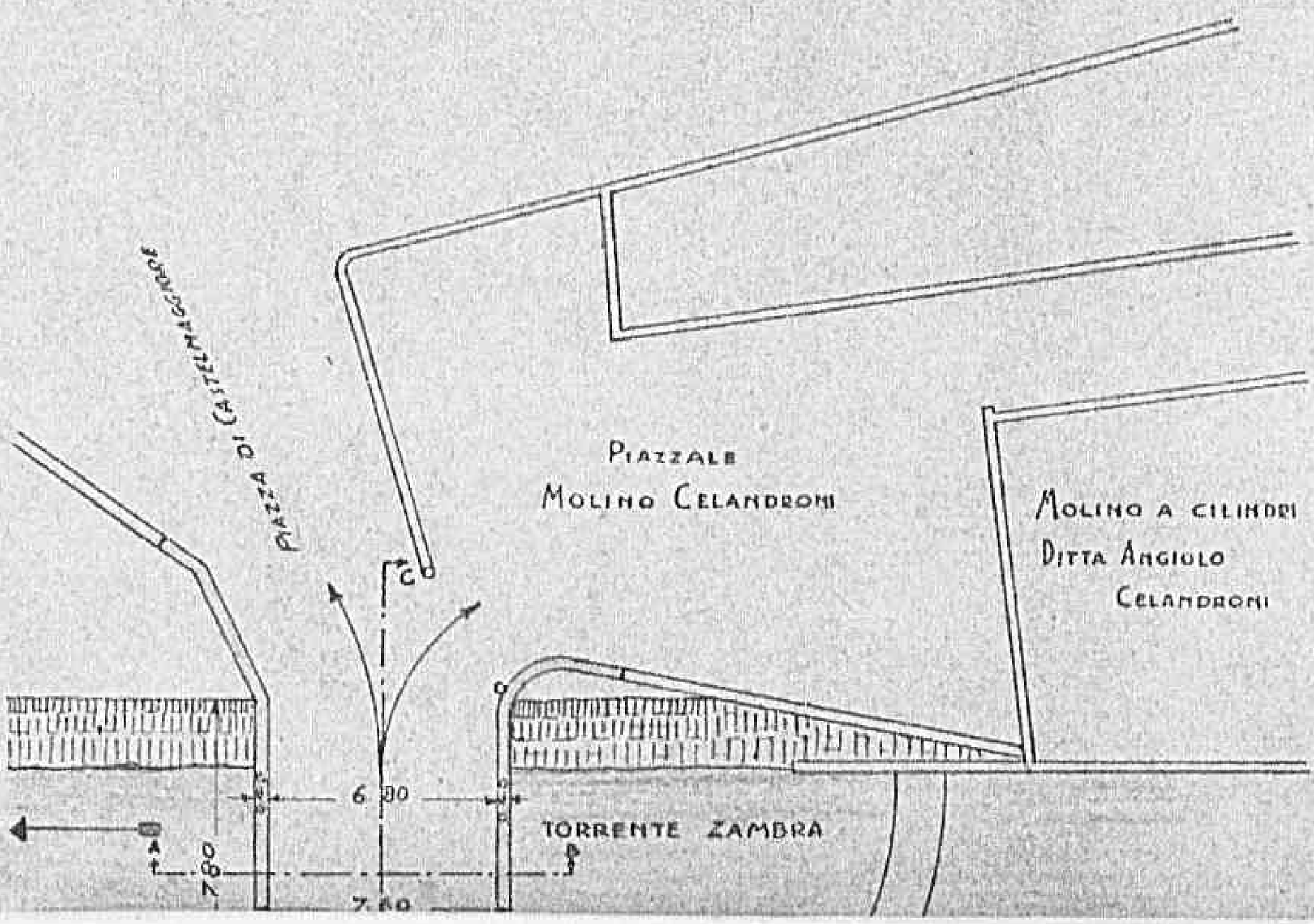
Declassified E.O. 12356 Section 3.3/NND No.

0778

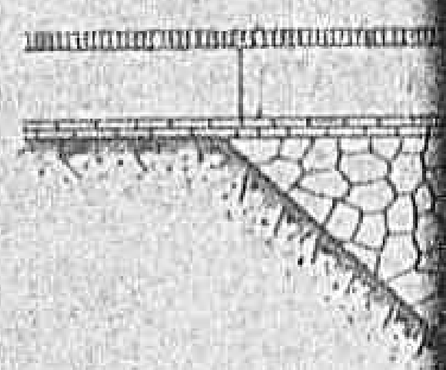
Declassified E.O. 12356 Section 3.3/NND No.

PLANIMETRIA

Scala 1:200



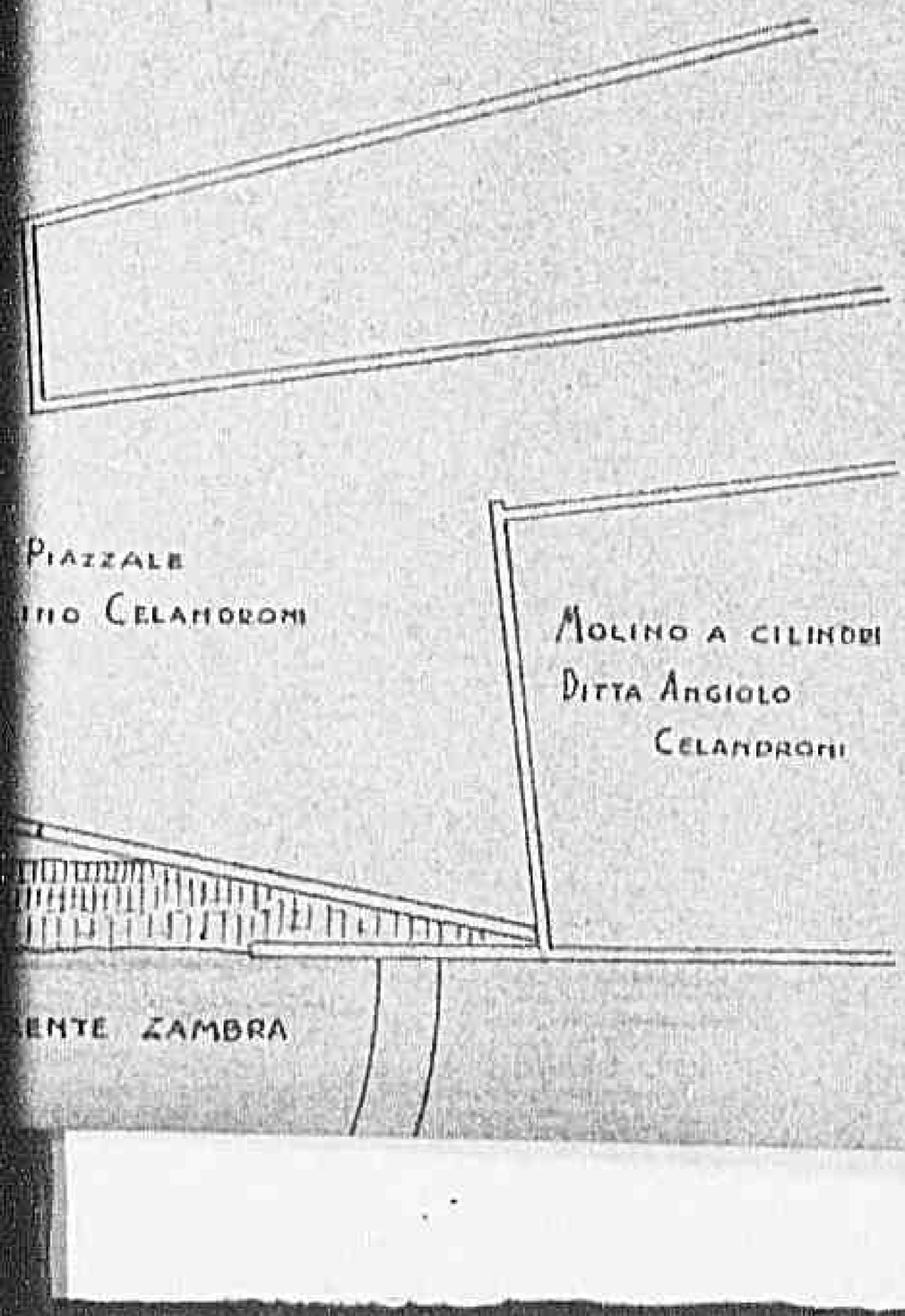
½ F



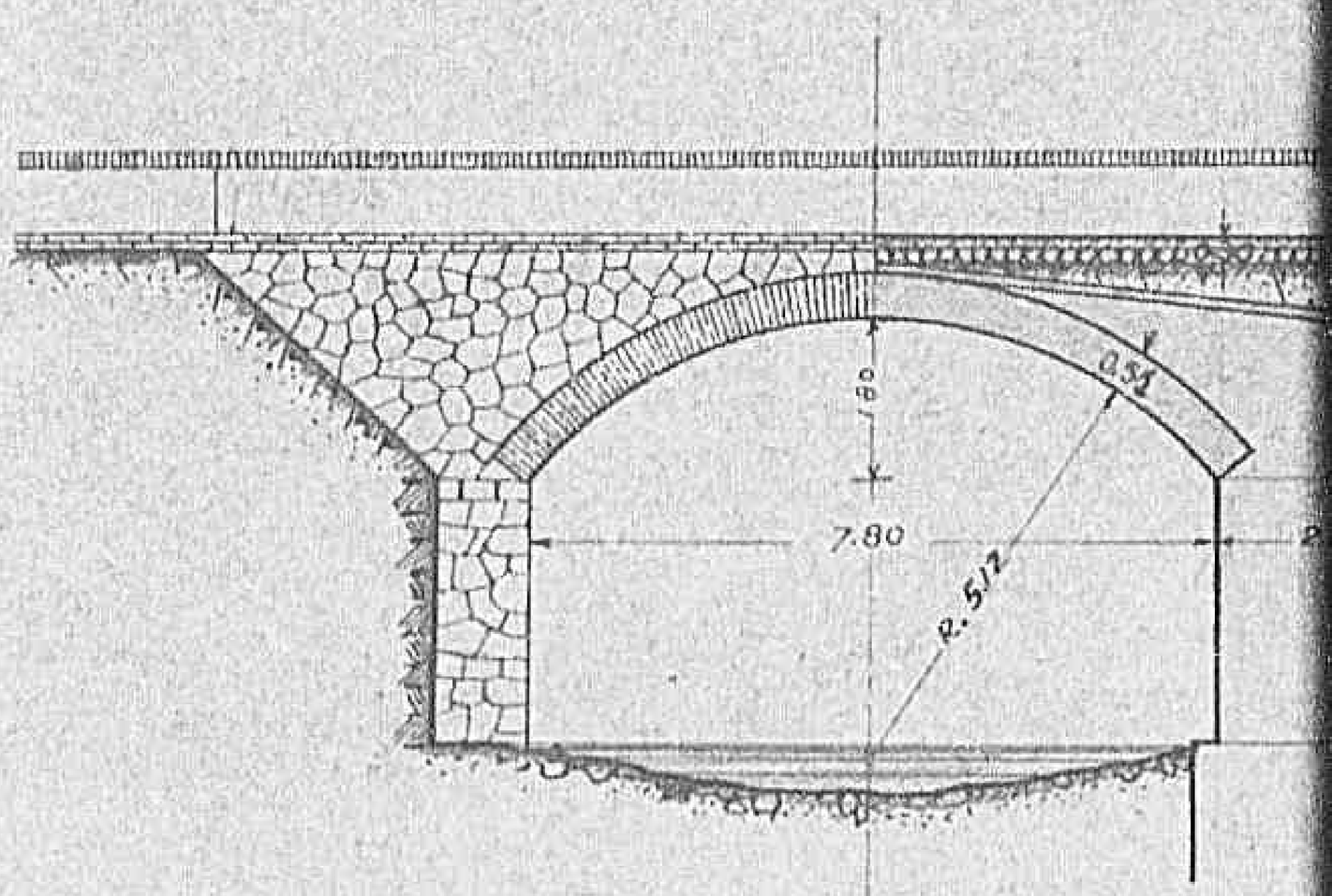
0 7 7 9

Declassified E.O. 12356 Section 3.3/NND No.

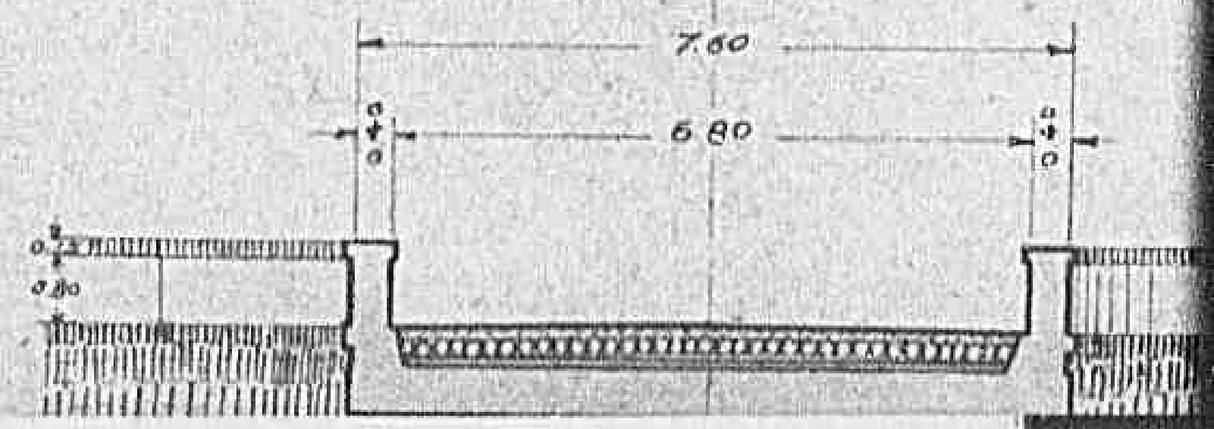
METRIA
1:200



½ PROSPETTO (1:100) ½ SEZIONE C-D



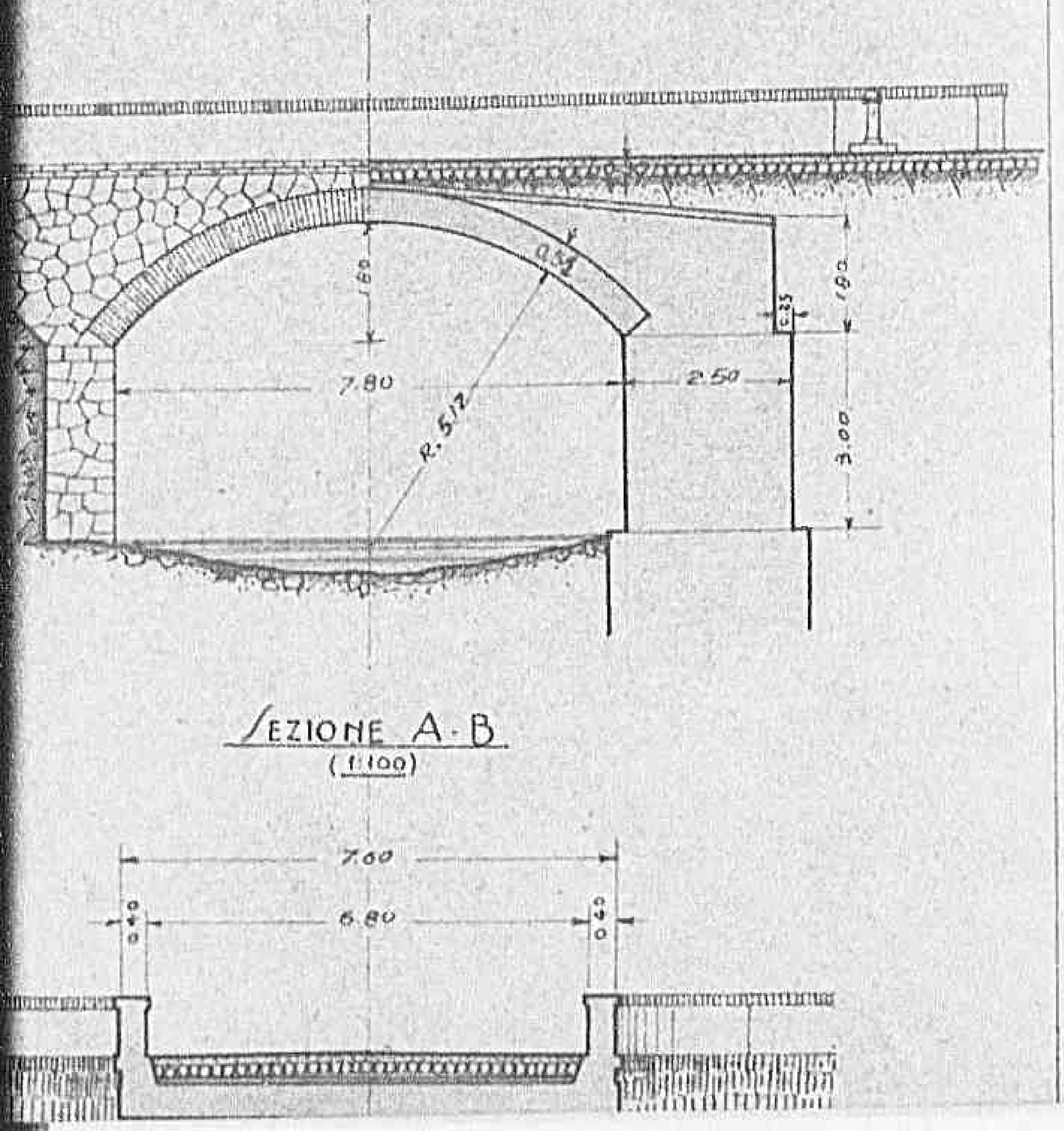
SEZIONE A-B
(1:100)



0780

Declassified E.O. 12356 Section 3.3/NND No.

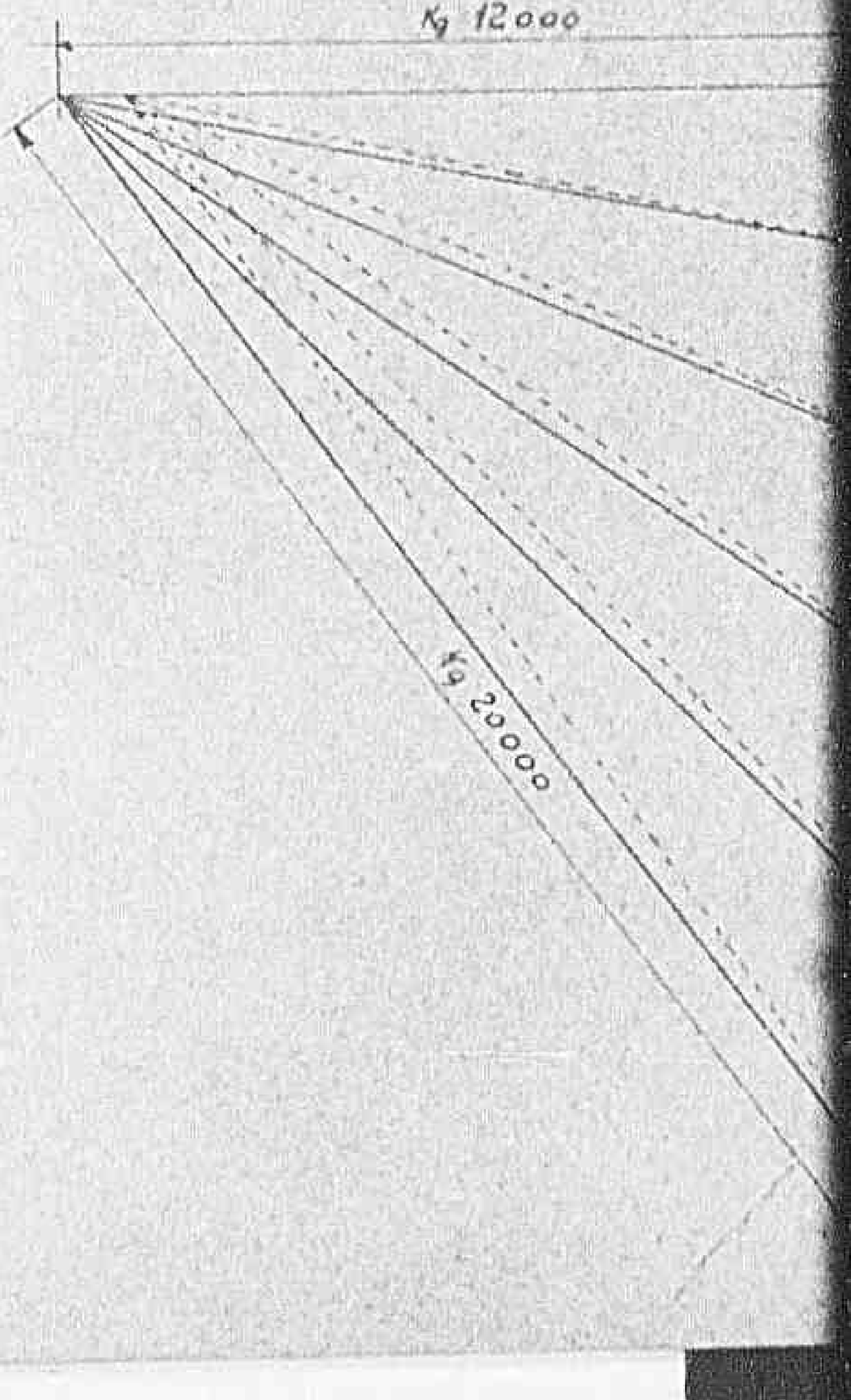
ROSPETTO (1:100)



½ SEZIONE C-D

SEZIONE A-B
(1:100)

CALCOLI GRAFICI



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Declassified E.O. 12356 Section 3.3/NND No.

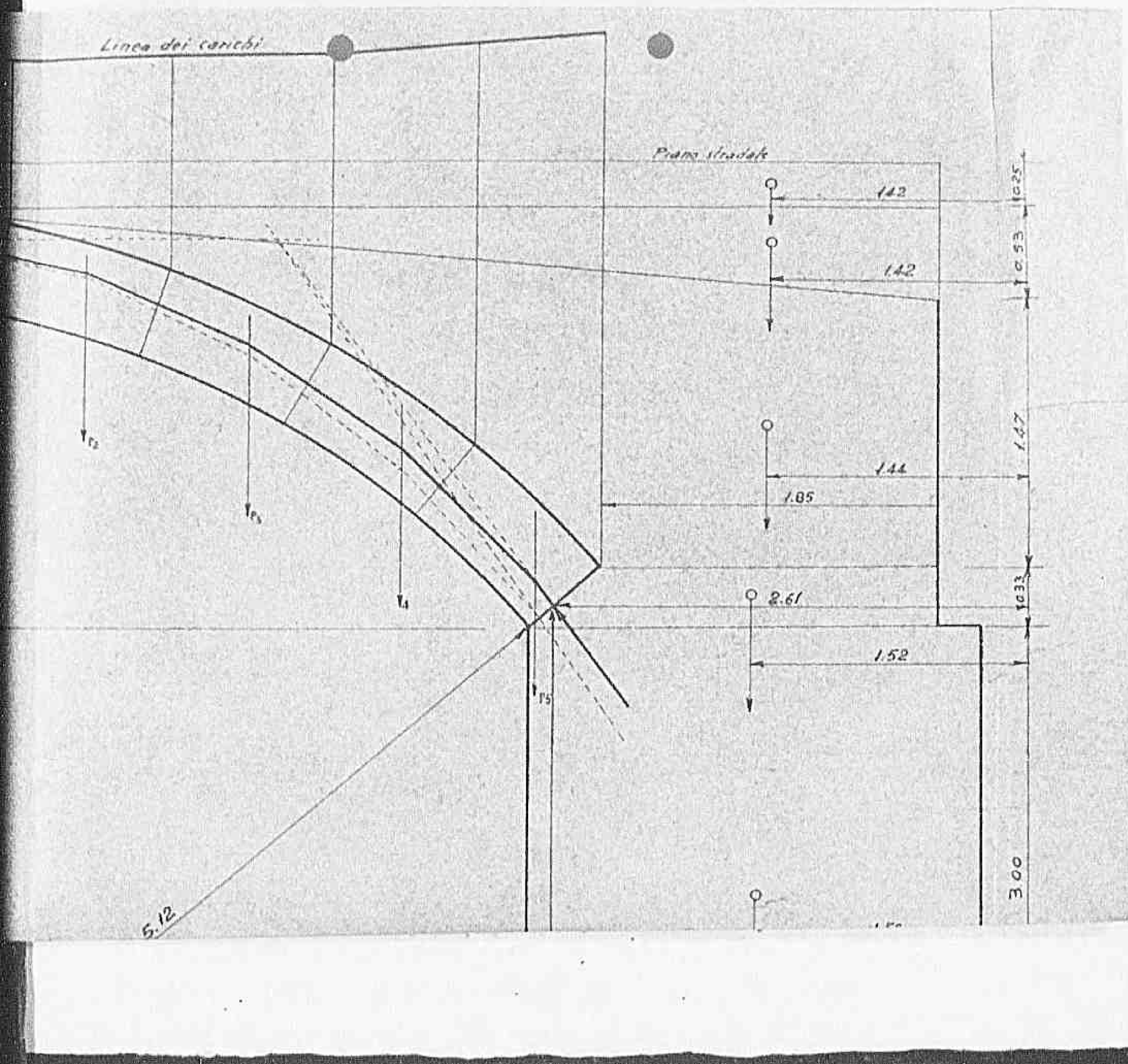
CALCOLI GRAFICI

0782

Declassified E.O. 12356 Section 3.3/NND No.

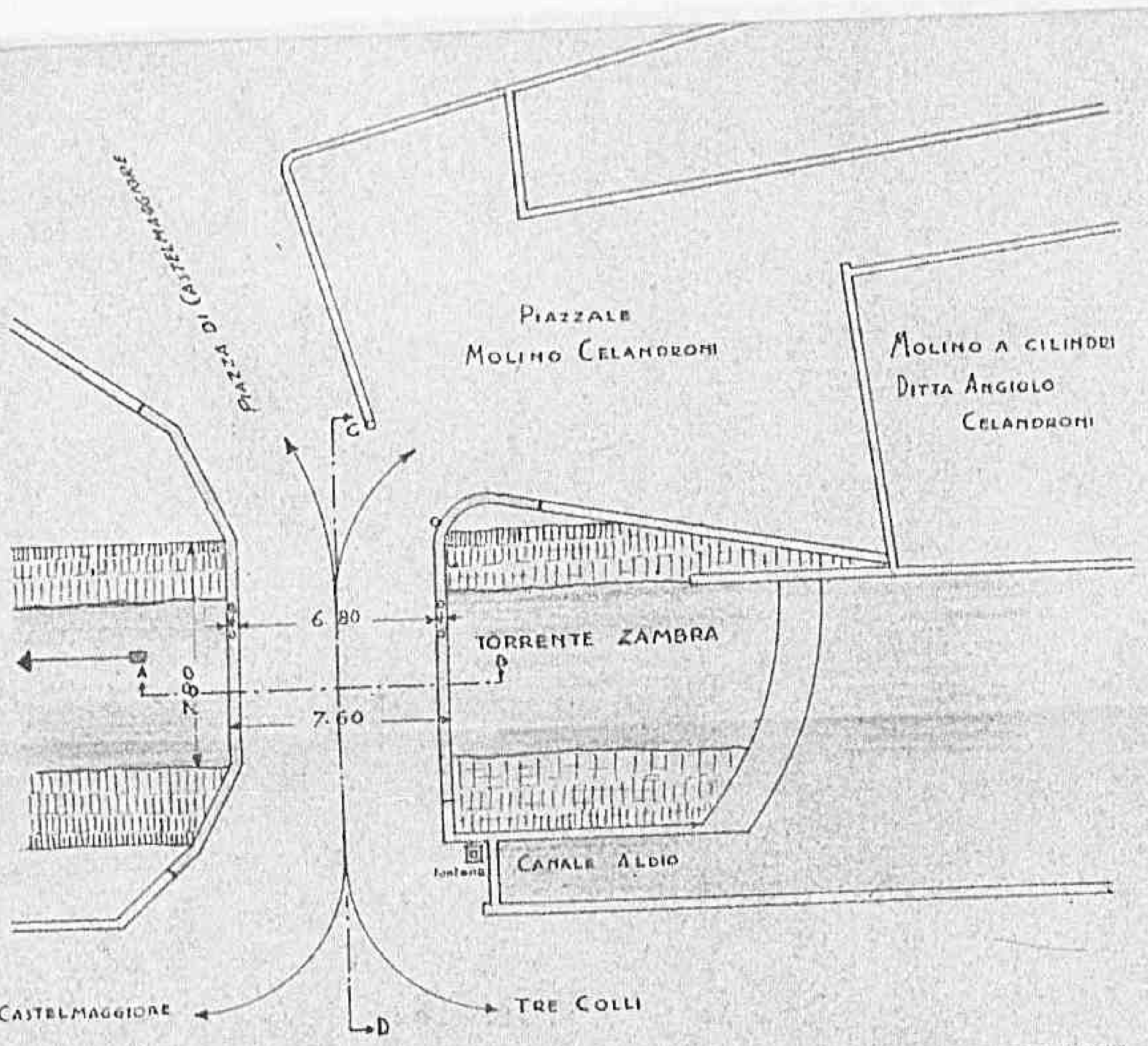
0783

Declassified E.O. 12356 Section 3.3/NND No.



0784

Declassified E.O. 12356 Section 3.3/NND No.

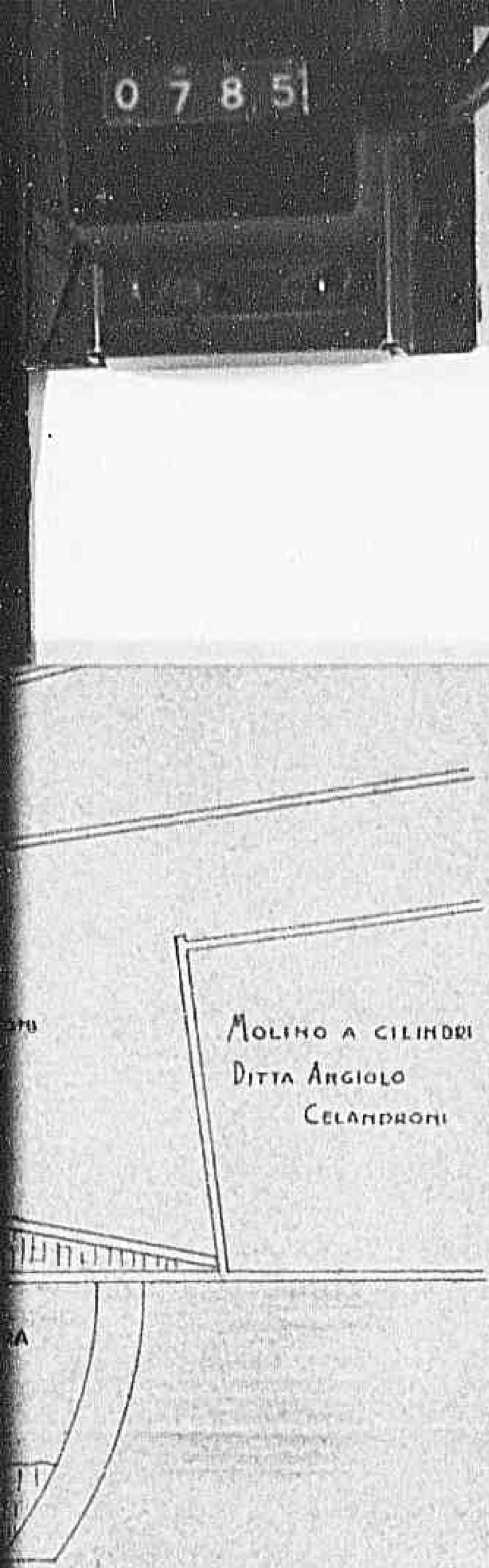


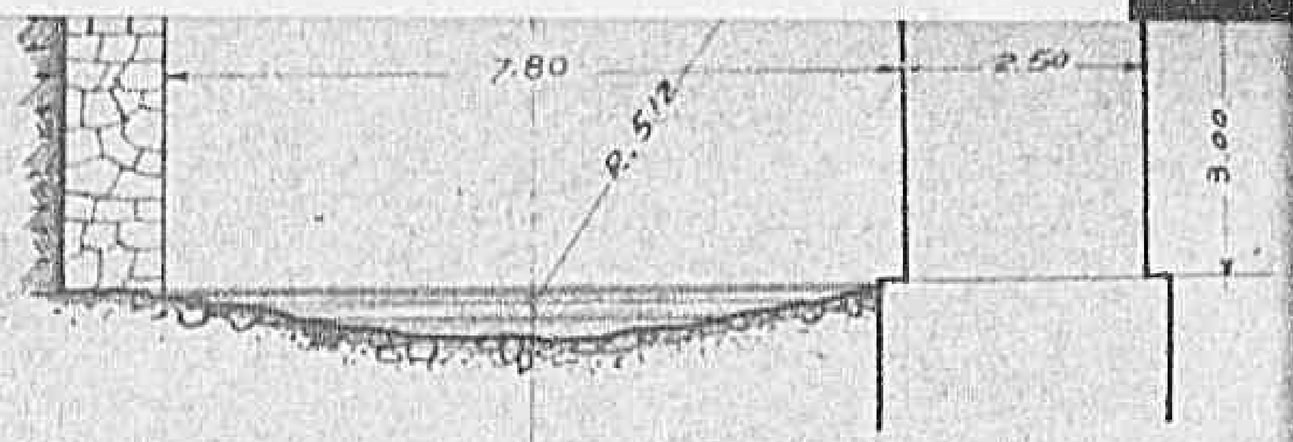
MATERIALE OCCORRENTE

Mattoni	N°	18000
Calce	gli	405
Pietrame	m³	427

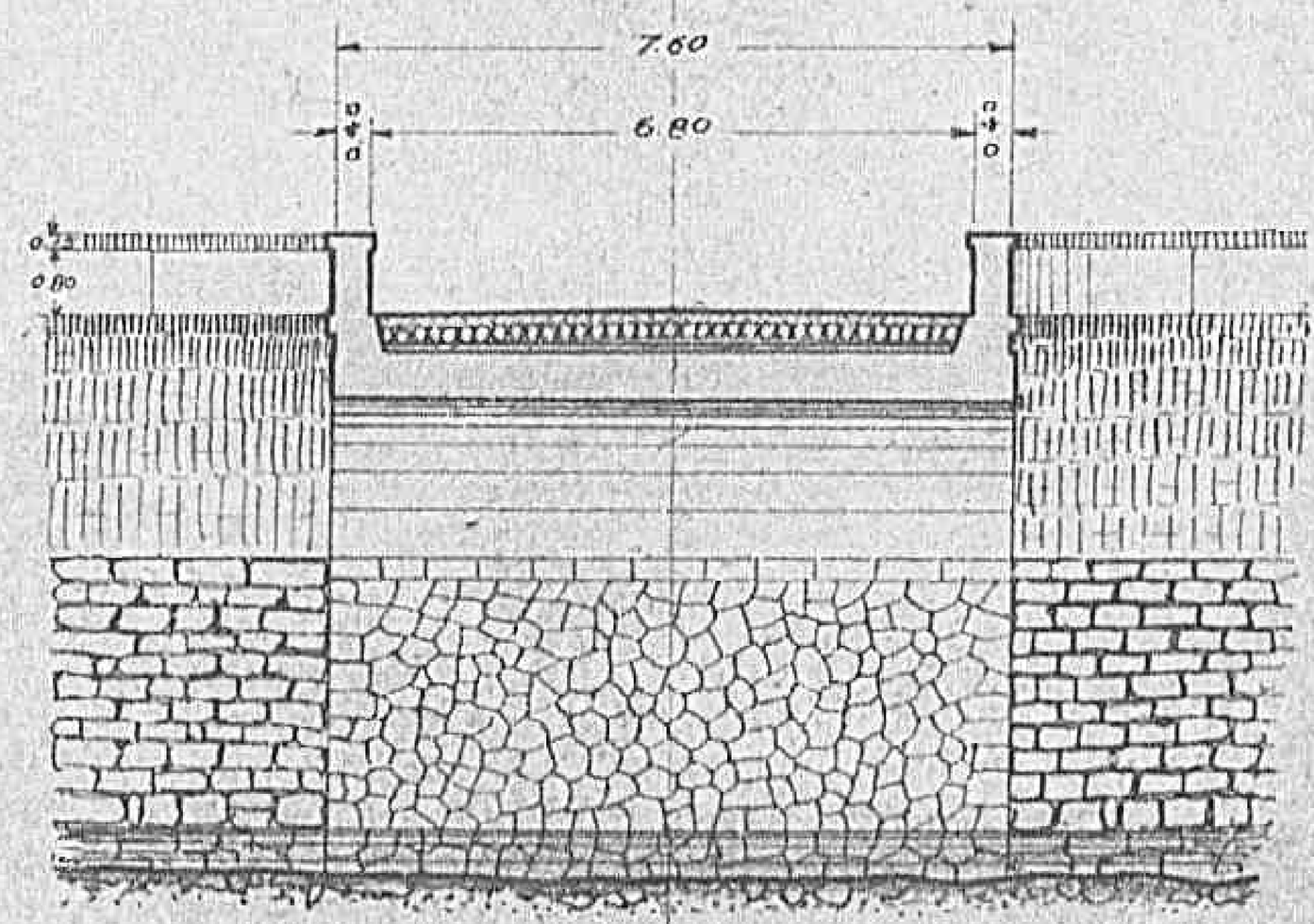
0 7 8 51

Declassified E.O. 12356 Section 3.3/NND No.





SEZIONE A-B
(1:100)

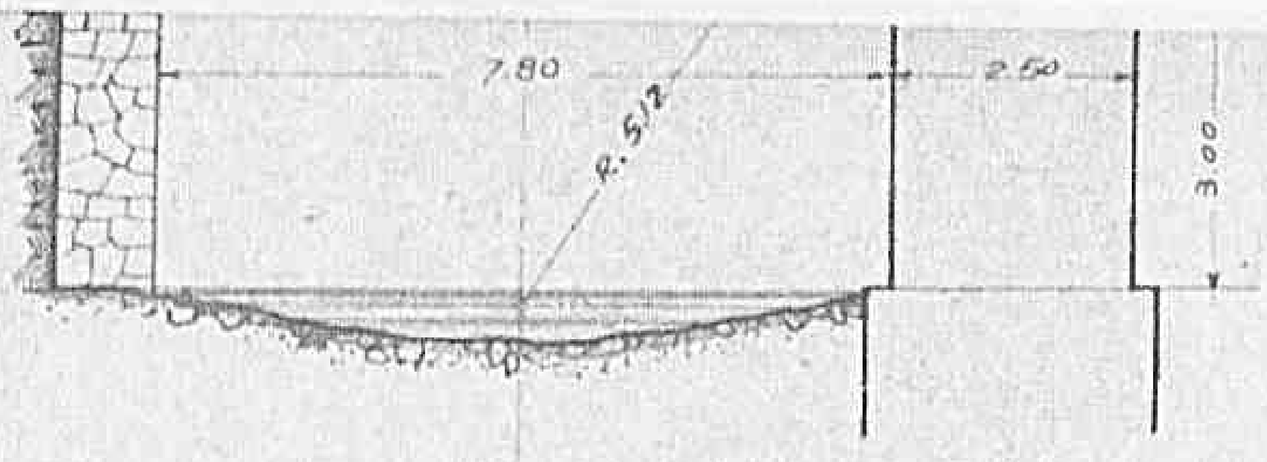


MATERIALE OCCORRENTE

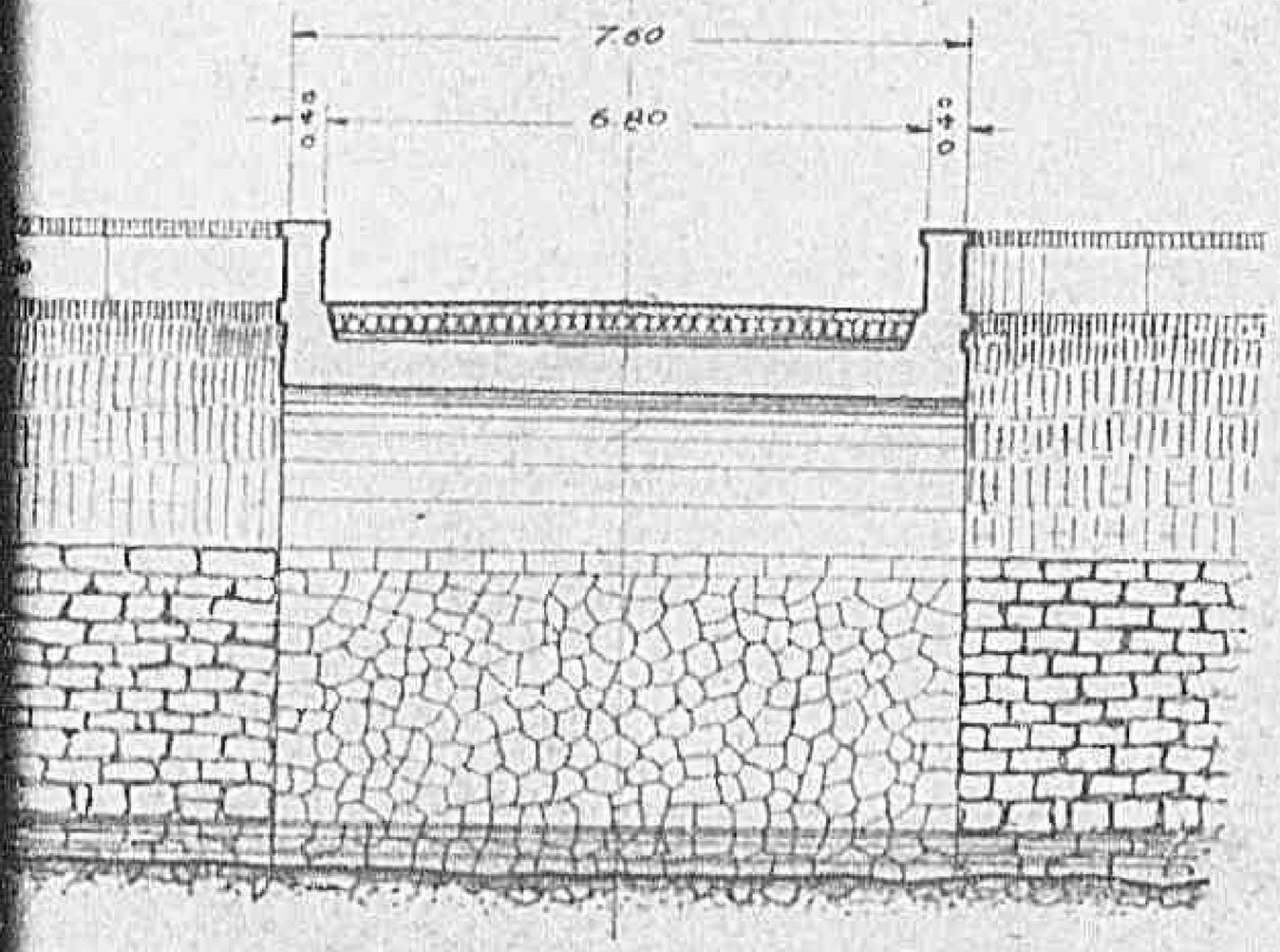
Mattoni N° 18000
Calce q.li 405
Pietrame m³ 427

0786

Declassified E.O. 12356 Section 3.3/NND No.



SEZIONE A-B
(1:100)

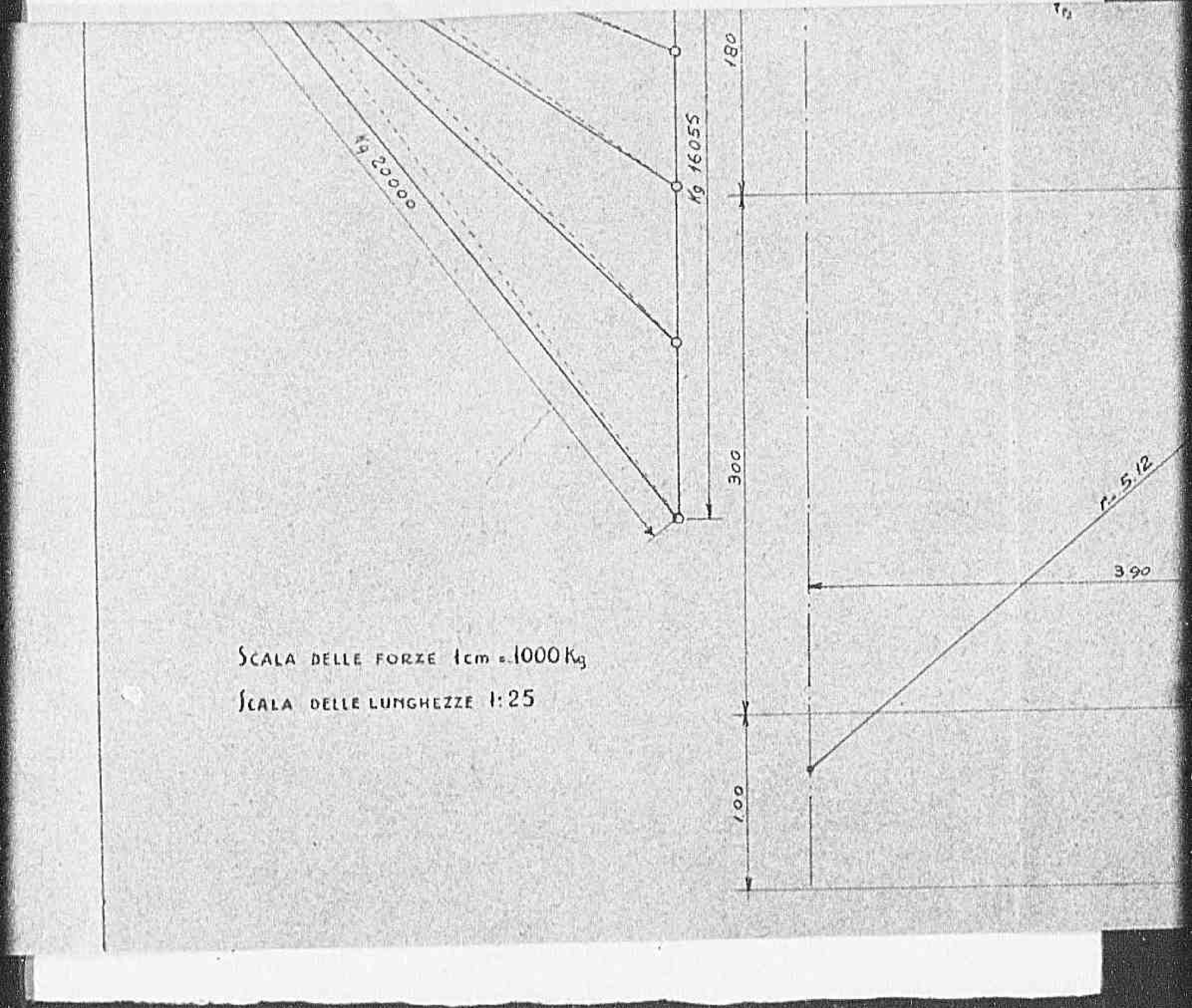


SCALA DELLE FORZE 1cm = 1

SCALA DELLE LUNGHEZZE 1:2

0 7 8 71

Declassified E.O. 12356 Section 3.3/NND No.

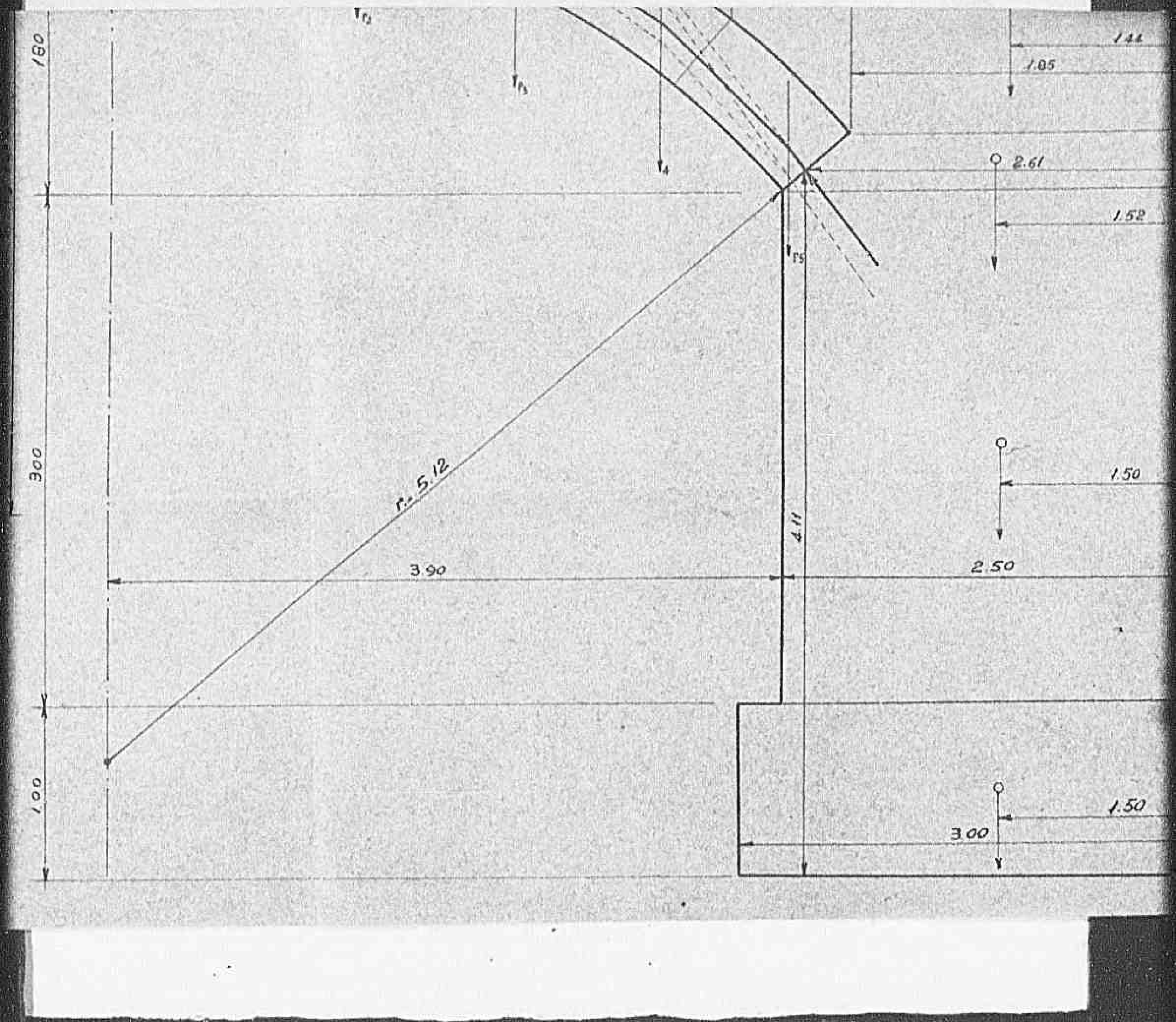


SCALA DELLE FORZE 1cm = 1000 Kg

SCALA DELLE LUNGHEZZE 1:25

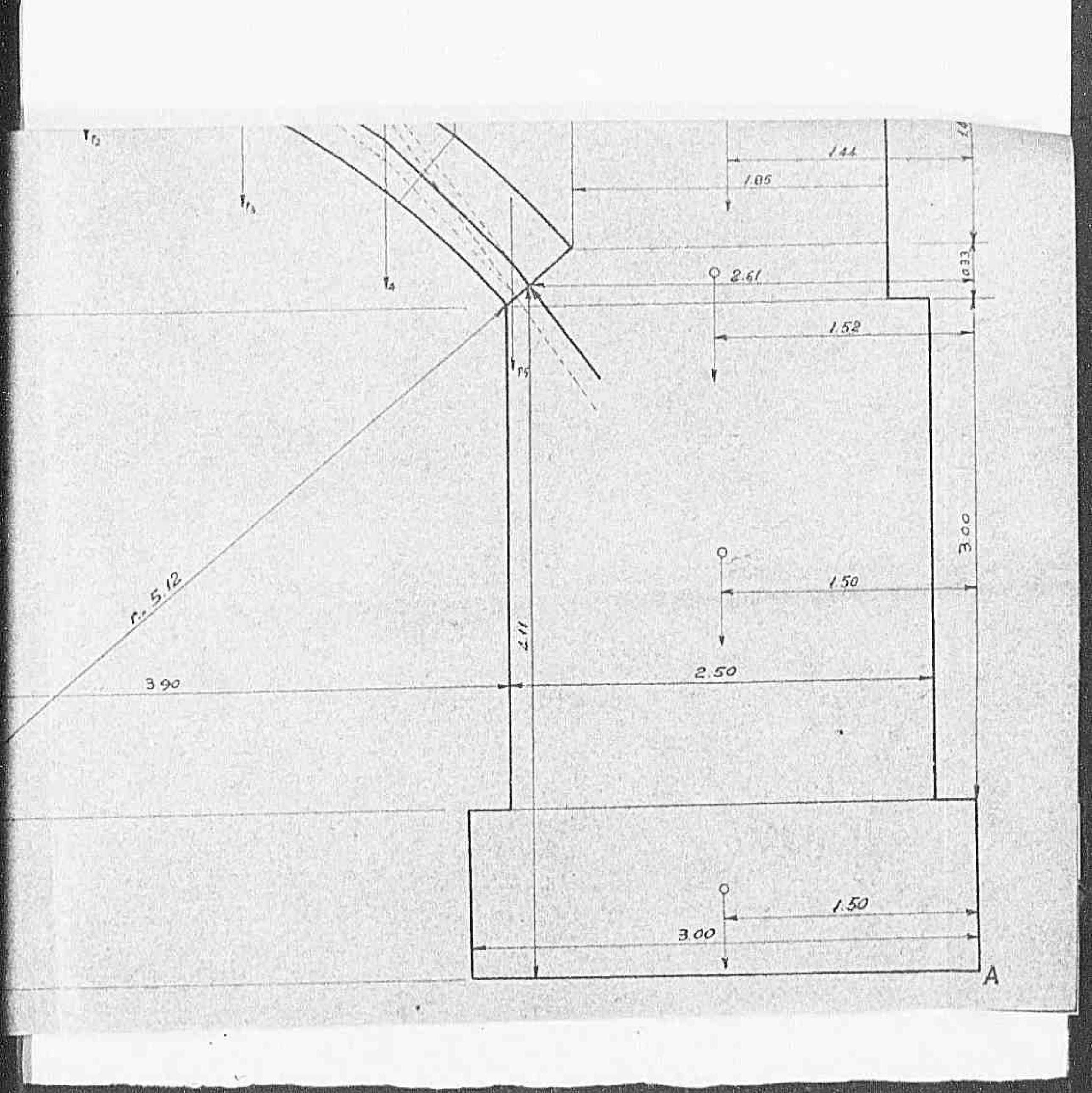
0788

Declassified E.O. 12356 Section 3.3/NND No.



07891

Declassified E.O. 12356 Section 3.3/NND No.



0790

Declassified E.O. 12356 Section 3.3/NND No. 78601

Sc 116

PROGETTO N°

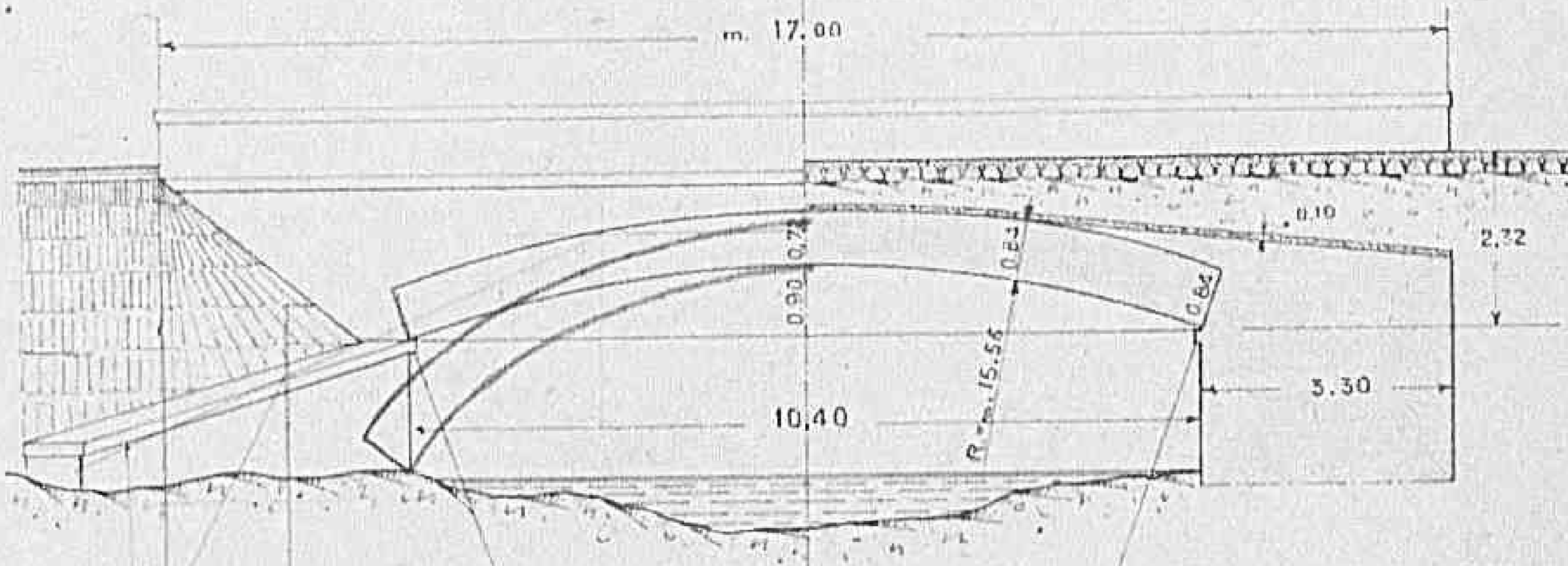
Strada provinciale Levane Biena

Ricostruzione del ponte sul fiume Ombrone

Progetto N° 111

Prospetto

Sezione longitudinale



Scala 1:100

IL DIRETTORE CAPO

Visto

Siena, lì 14 DIC. 1944

V° L'Ingegnere Capo del Genio Civile

0 7 9 11

Declassified E.O. 12356 Section 3.3/NND No. 786019

16

PROGETTO N° 111

Strada provinciale Levane Bieno

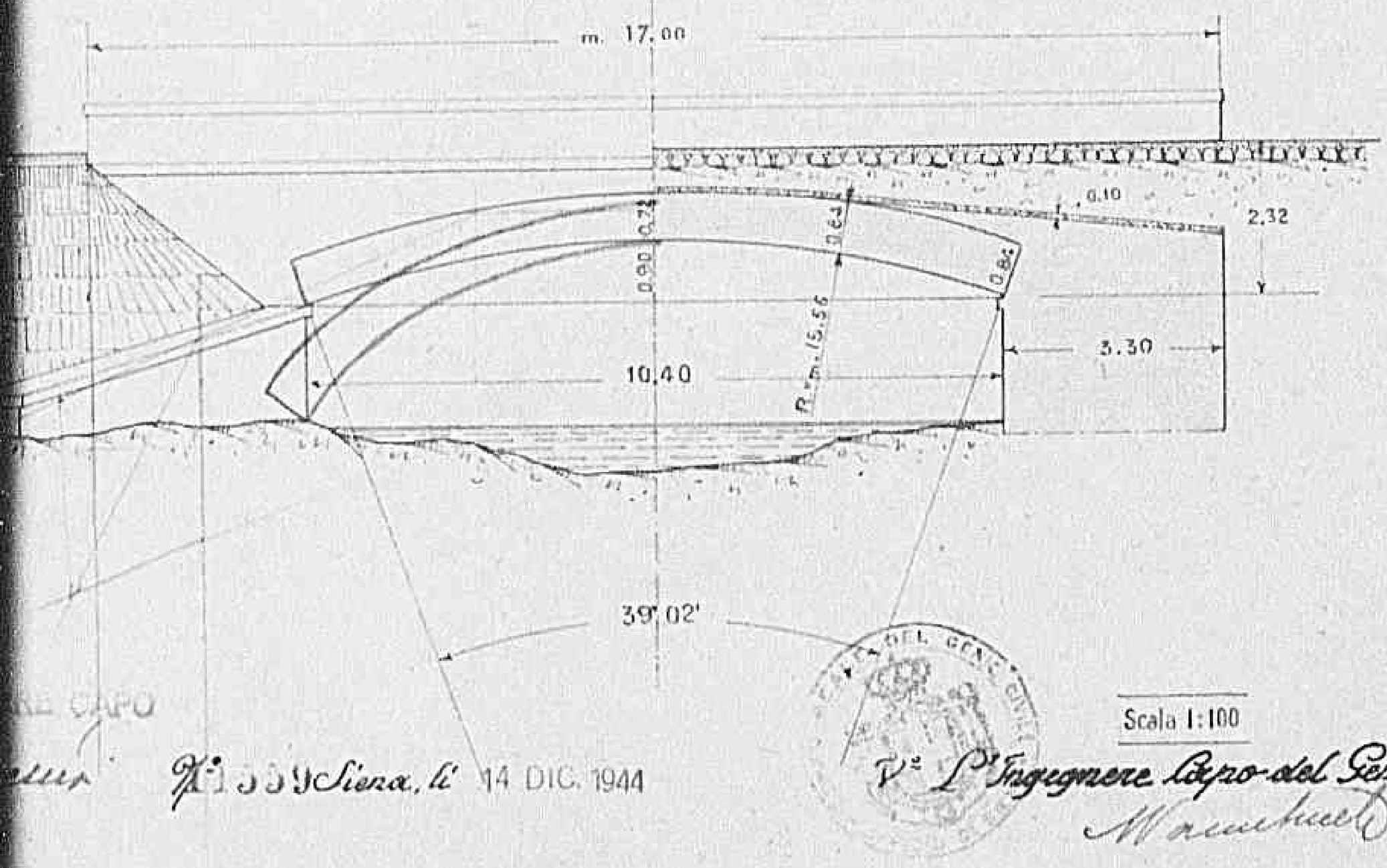
Ricostruzione del ponte sul fiume Ombrone

Progetto N° 111

1920

Prospetto

Sezione longitudinale



Scala 1:100

Pisa, li 14 DIC. 1944

V° L'Ingegnere Capo del Genio Civile

0 7 9 21

Declassified E.O. 12356 Section 3.3/NNDB No.

11.

PISA
N.° 306

Pisa 47

COMUNE DI LORENZANA

UFFICIO TECNICO

M-616

VIA COMUNALE DEI MOLINI

Progetto di ricostruzione del ponte in muratura
della luce di m.6 sullo "Pianteccli"

1498 Pisa 21 MAR. 1945.

Visto: L'Ingegnere Capo

IL PROGETTISTA

1919

COMUNE DI LORENZANA

UFFICIO TECNICO

M-616

VIA COMUNALE DEI MOLINI

Progetto di ricostruzione del ponte in muratura

sul fiume di m.5 sulla Pianfegoli

J 4498 Pisa 21 MAR. 1945.

Visto: L'Ingegnere Capo

IL PROGETTISTA

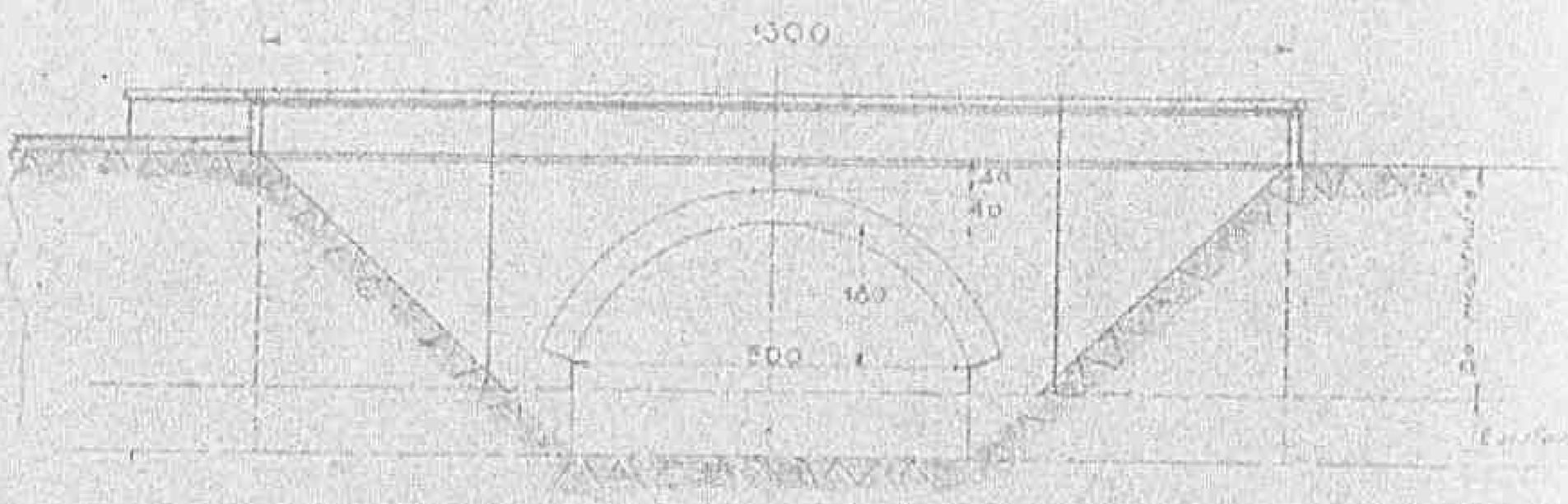
1919 Geom. Lorenzetti

Declassified E.O. 12356 Section 3.3/NND No.

0794

Declassified E.O. 12356 Section 3.3/NND No.

PROSPETTO

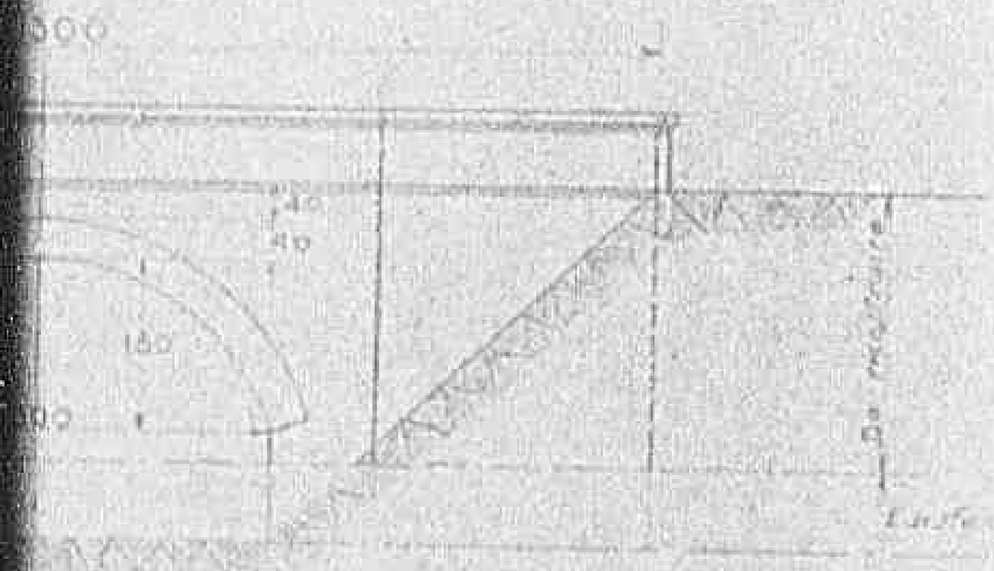


PIANTA AL PIANO D'IMPOSTA

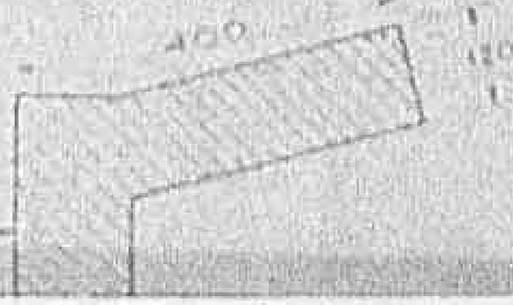
0 7 9 5

Declassified E.O. 12356 Section 3.3/NND No.

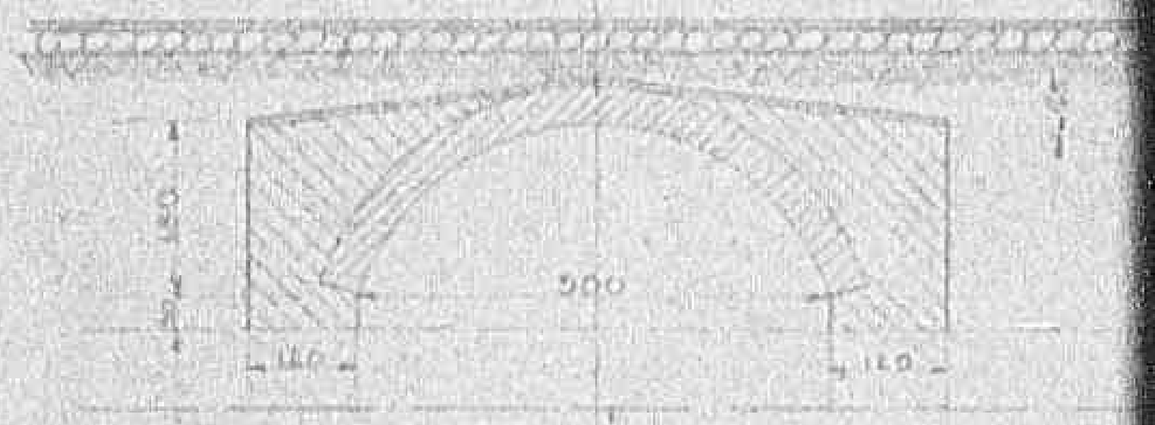
PROFILO



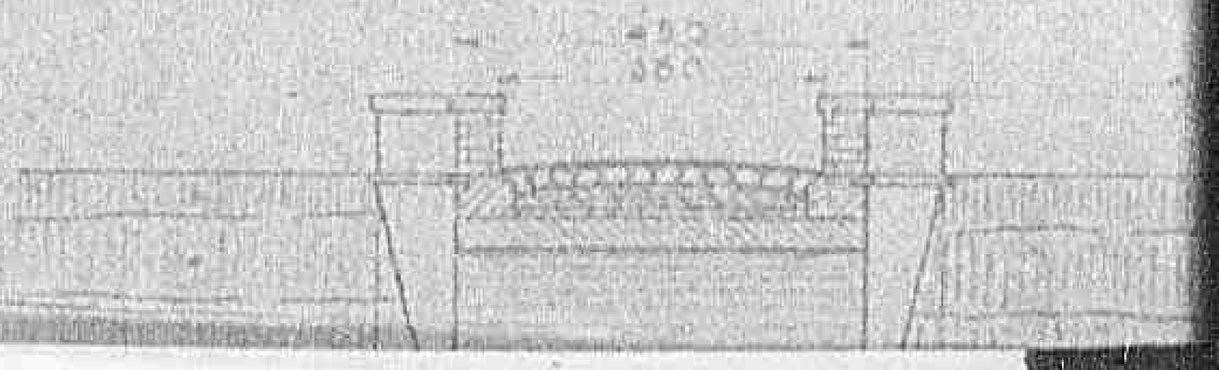
PIANO D'IMPOSTA



SEZIONE TRAV.E



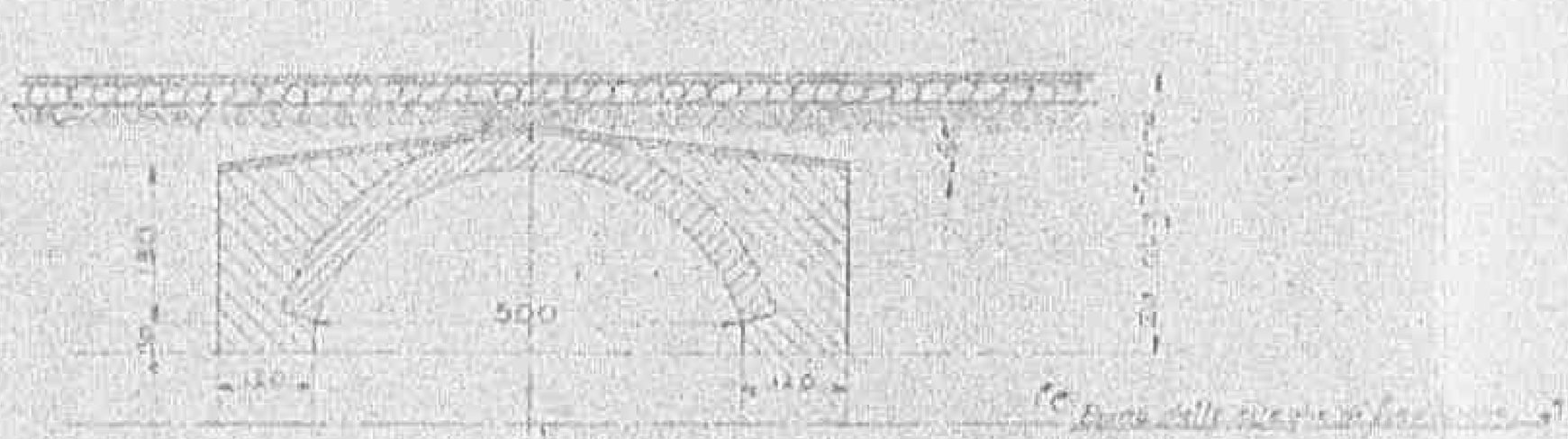
SEZIONE LONGIT.LE



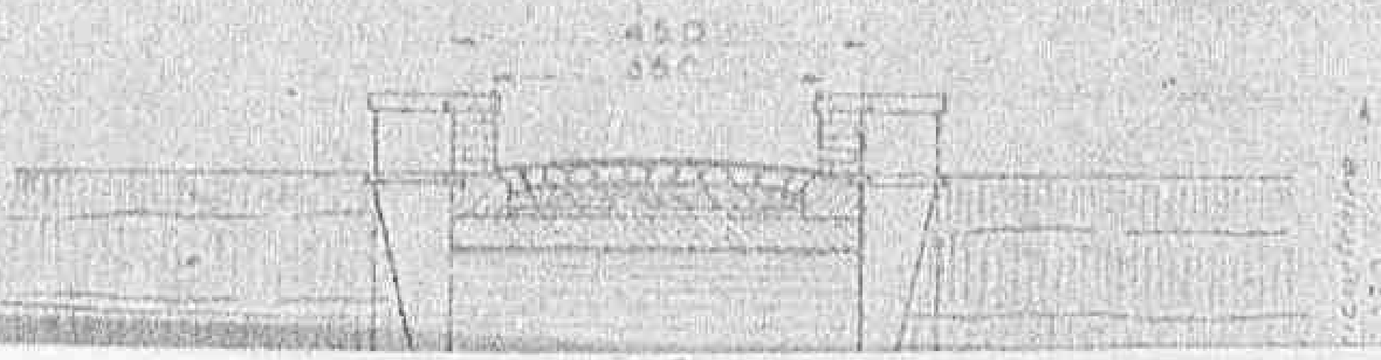
07961

Declassified E.O. 12356 Section 3.3/NND No.

SEZIONE TRASV.LE



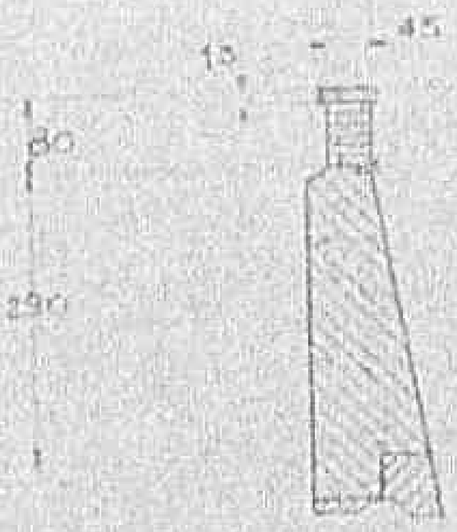
SEZIONE LONGIT.LE



07971

Declassified E.O. 12356 Section 3.3/NND No.

SEZIONE MURO ANDATORIO DA RICOSTUIRE



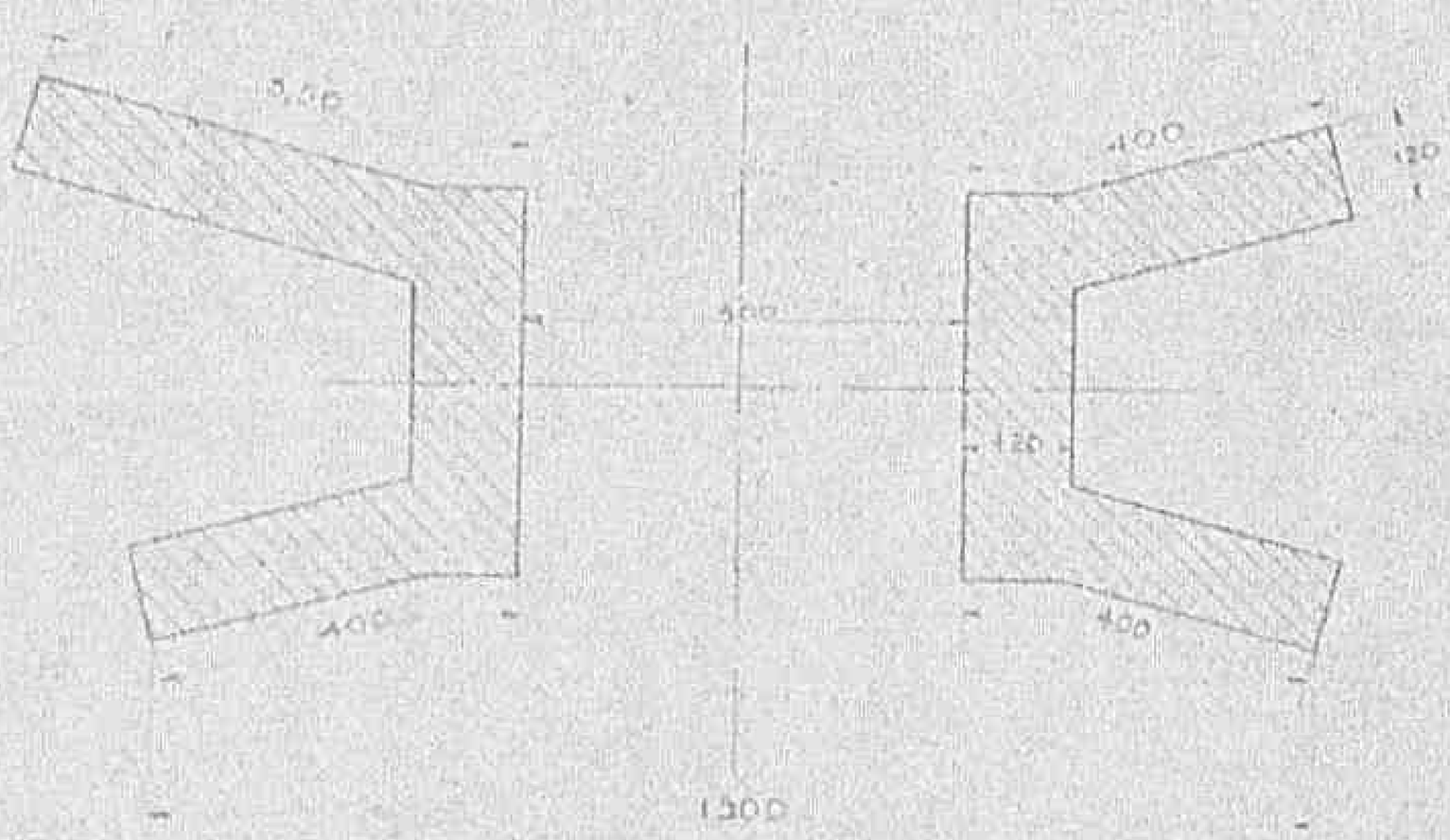
SCALA 1:100

DISTINTA MATERIALI OCCORRENTI	
Calce	qli 80

0798

Declassified E.O. 12356 Section 3.3/NND No.

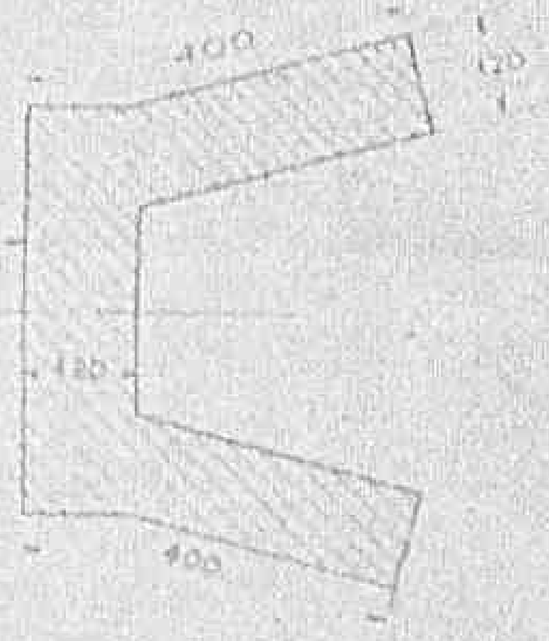
PIANTA AL PIANO D'IMPOSTA



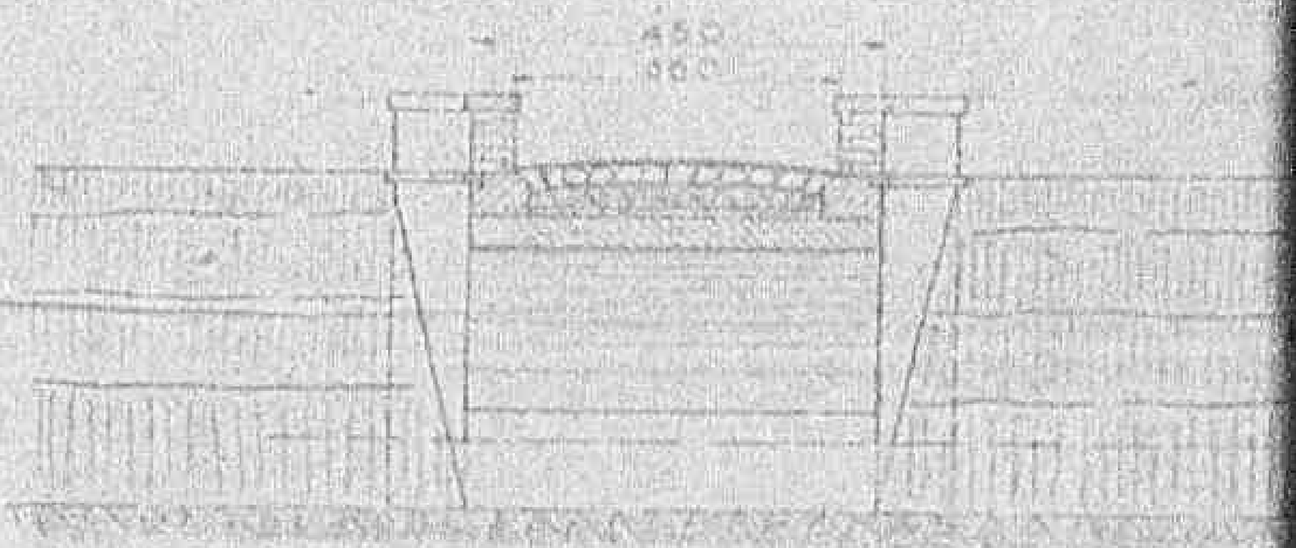
07991

Declassified E.O. 12356 Section 3.3/NSD No.

D'IMPOSTA



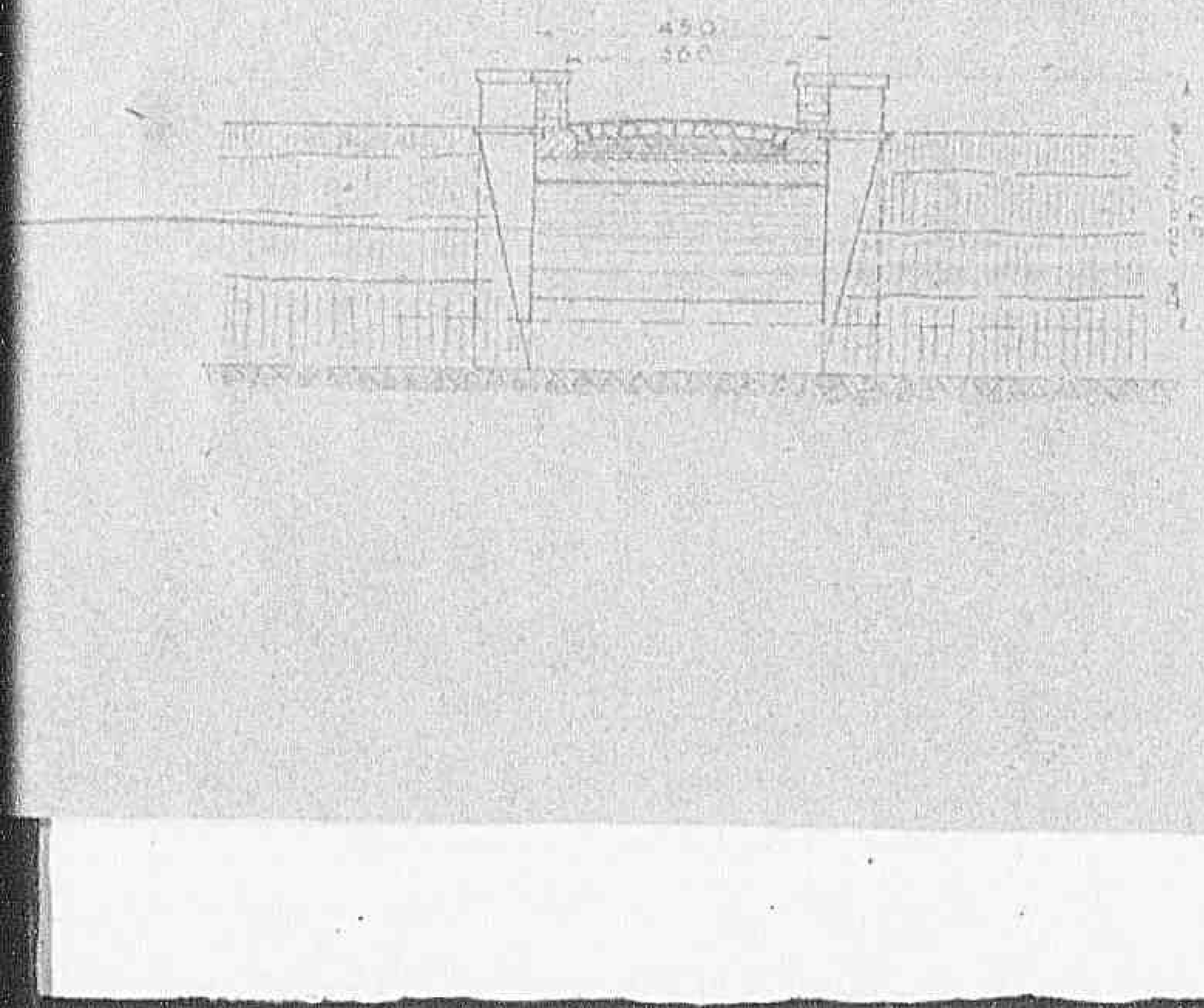
SEZIONE LONGIT.LE



0800

Declassified E.O. 12356 Section 3.3/NND No.

SEZIONE LONGIT.LE



0801

Declassified E.O. 12356 Section 3.3/NND No.

SCALA 1:100

DISTINTA MATERIALI OCCORRENTI	
Calce	q.li 30
Pietrisco	m³ 25
Pietrisco	" 100
Mattoni	N. 3000

3104

PISA
N.306

Pisa 47

COMUNE DI LORENZANA

VIA COMUNALE DEI MOLINI.—

Progetto di ricostruzione del ponte in muratura della luce di m. 5 sullo Pianteggio.—

— CALCOLI DI STABILITÀ —

N. 4598 Pisa 21 MAG 1945

0 8 0 2 1

Declassified E.O. 12356 Section 3.3/NND No. _____

0 8 0 31

Declassified E.O. 12356 Section 3.3/NND No.

VIA COMUNALE DEI MOLINI.—

Progetto di ricostruzione del ponte in muratura della luce di m. 5 sulla Fiantegoda.—

—CALCOLI DI STABILITÀ—

N. 4598 Pisa 21 MAR 1925

Il L'Ingegnere Capo

1918

0804

Declassified E.O. 12356 Section 3.3/NND No.

SCALA LUNGHEZZE 1:20

SCALA FORZE 1 cm. = 500 Kg.

0805

Declassified E.O. 12356 Section 3.3/NND No.

1:20

1 cm. = 500 Kg

0806

Declassified E.O. 12356 Section 3.3/NND No.

DIMENSIONI: — *Luce m 5 - F*

DATI DEL CALCOLO:

Peso di volume dell'arco kg/m3 180

peso specifico kg/m3 2000 - carico

ELEMENTI DEL CALCOLO:

si considera una striscia di arco

Omogeneizzazione del diagramma

1ª Verticale: $20 + 20 \times \frac{12}{15} + 50$

2ª " : $20{,}5 + 22 \times$ " $= 22$

3ª " : $21{,}5 + 28 \times$ " $=$

4ª " : $23 + 37{,}5 \times$ " $+$

5ª " : $26{,}5 + 50{,}5 \times$ " $+$

6ª " : $31{,}5 + 66{,}5 \times$ " $+$

7ª " : $42 + 83{,}5 \times$ " $+$

Forze

1ª Striscia : $\frac{63{,}5 + 65{,}3}{2} \times 24{,}5 \times$

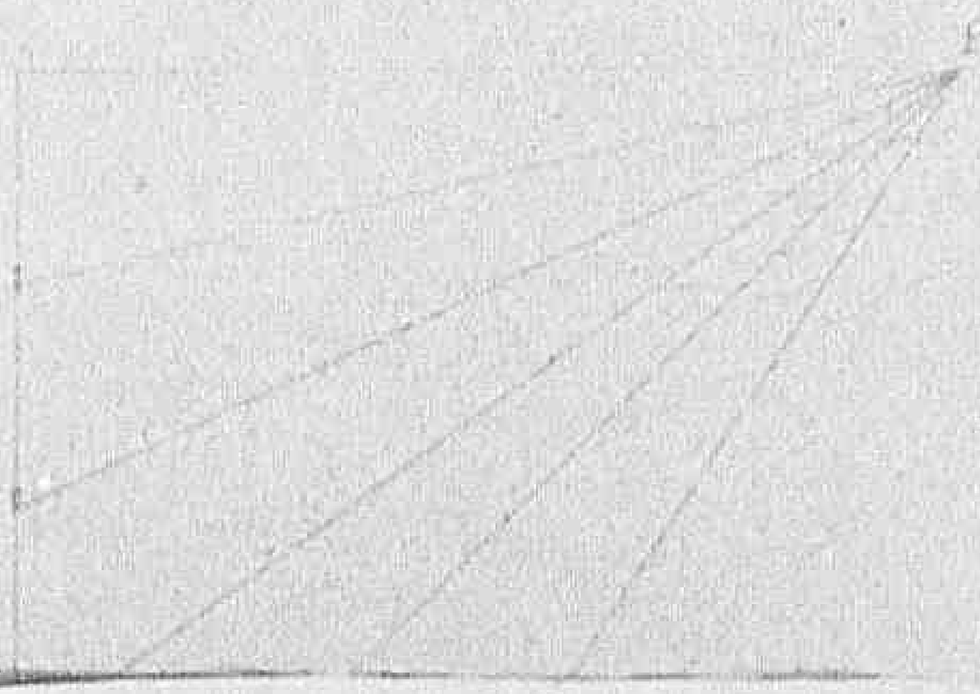
2ª " : $\frac{65{,}3 + 79{,}2}{2} \times 23{,}8 \times$

3ª " : $\frac{79{,}2 + 84{,}7}{2} \times 22{,}5 \times$

4ª " : $\frac{84{,}7 + 102}{2} \times 20{,}5 \times$

5ª " : $\frac{102 + 123{,}8}{2} \times 17{,}8 \times$

6ª " : $123{,}8 + 152{,}2 \times 14{,}5 \times$



0807

Declassified E.O. 12356 Section 3.3/NND No.

— CALCOLI DI STABILITÀ —

MENSIONI: — Luce m 5 - Freccia ribass. - Spess. Volta m 0,40 - Spess. Spalle m. 1,50 —

TI DEL CALCOLO:

Peso di volume dell'arco kg. 1800/mc - Peso medio dei riempimenti, riempimento e muratura spalle kg 2000/mc - carico accidentale kg. 500/mq —

LEMENTI DEL CALCOLO:

Si considera una striscia in arco di 1 m di larghezza

Sezione trasversale del diagramma di carico (ordinate a partire dall'asse neutro dell'arco):

Verticale: 20 - 20 × 10/15 + 30 arc/1000 = 65,3 mm. in chiave —

" : 20,5 - 22 " " + 22,2 = 65,9 "

" : 21,5 + 28 " " " = 73,2 "

" : 23 + 37,5 " " " = 84,7 "

" : 26,5 + 30,5 " " " = 102 "

" : 31,5 + 66,5 " " " = 125,9 "

" : 42 + 83,5 " " " = 152,2 "

Forze baricentriche delle singole strisce

Striscia 1: 65,3 + 65,9 / 2 × 24,5 × 500/1000 = 1140 kg. = 11,4 kg. in chiave

" 2: 65,9 + 73,2 / 2 × 23,8 × 0,72 = 1121 kg. = 11,21 "

" 3: 73,2 + 84,7 / 2 × 22,5 × " = 1279 " = 12,79 "

" 4: 84,7 + 102 / 2 × 20,5 × " = 1880 " = 18,80 "

" 5: 102 + 125,9 / 2 × 17,6 × " = 1448 " = 14,48 "

" 6: 125,9 + 152,2 / 2 × 14,5 × " = 1440 " = 14,40 "

0808

Declassified E.O. 12356 Section 3.3/NND No.

08091

Declassified E.O. 12356 Section 3.3/NND No.

0810

Declassified E.O. 12356 Section 3.3/NND No.

1ª stecca : 63,3 + 6
2

2ª " : 65,9 + 7
2

3ª " : 7 + 9
2

4ª " : 89,7 + 10
2

5ª " : 102 + 1
2

6ª " : 123,2 + 1
2

Carico verticale

Verifica giunto

Spinta d'impasto

Carico unitario

Verifica spinta

Analisi carichi:

Eccentricità

$\sigma_{max} = \frac{7878 + 8}{1,20 \times 1}$

Valore che ci

0811

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1ª spinta: $\frac{65,3 + 65,9}{2} \times 24,4 \times \frac{800}{800} = 1605$ kg = 11,4 mm in chiave

2ª " : $\frac{65,9 + 75,2}{2} \times 23,8 \times 0,72 = 1191$ kg = 11,91 "

3ª " : $\frac{75,2 + 84,7}{2} \times 23,5 \times$ " = 1619 " = 12,19 "

4ª " : $\frac{84,7 + 102}{2} \times 20,5 \times$ " = 1580 " = 13,30 "

5ª " : $\frac{102 + 123,9}{2} \times 17,6 \times$ " = 1946 " = 14,46 "

6ª " : $\frac{126,2 + 152,2}{2} \times 14,5 \times$ " = 1940 " = 14,40 "

Carico verticale totale = kg 7878

Verifica giunto di rottura –

Spinta all'imposta = 9400 kg. – $\sigma = \frac{2 \times 9400}{40 \times 100}$ kg/cm² 4,7

Carico unitario ammissibile per le murature di pietrame

Verifica spalla –

Analisi carichi: Spinta in chiave = 5000 kg – spinta all'imposta = 94

carico verticale arco = 7878 kg – carico spalla

sottostante = 1,20 × 1 × 3,5 × 2200 = kg 23520 –

Eccentricità della risultante e = 15 cm.

$\sigma_{max} = \frac{7878 + 8640}{1,20 \times 100} \cdot \left(1 + \frac{6 \times 15}{1,20 \times 100}\right) = 3,05$ kg/cm²

Valore che ci assicura della stabilità della costruzione. –

0 8 1 24

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striscia : $\frac{63,3 + 65,2}{2} \times 24,3 \times \frac{2,00}{3,00} = 1140$ kg = 11,4 ... (illegible)

" : $\frac{65,2 + 73,8}{2} \times 23,8 \times 0,12 = 1191$ kg = 11,91 "

" : $\frac{73,8 + 84,7}{2} \times 22,5 \times$ " = 1213 " = 12,13 "

" : $\frac{84,7 \times 102}{2} \times 20,5 \times$ " = 1550 " = 1550 "

" : $\frac{102 + 123,8}{2} \times 11,6 \times$ " = 1442 " = 1442 "

" : $\frac{123,2 + 132}{2} \times 14,5 \times$ " = 1440 " = 1440 "

Carico verticale totale = kg 7878

Verifica giunto di rottura -

Spinta d'impiego = 9400 kg:- $\sigma = \frac{2 \times 9400}{40 \times 120}$ kg/cm² 4,7

Carico unitario ammissibile per la muratura di pietrame

Verifica scarpa -

Analisi carichi: Spinta in calcolo = 8000 kg - Spinta all'imposta = 9400 kg -

carico verticale arco = 7878 kg - carico scarpa e terreno

totale = $1,20 \times 1 \times 3,6 \times 2000$ = 17.280 kg -

Eccentricità della risultante e = 13 cm.

$\sigma_{max} = \frac{7878 + 8640}{1,20 \times 100} \left(1 + \frac{6 \times 13}{1,20 \times 100}\right) = 3,05$ kg/cm² -

Valore che si ottiene della scarpa nella sezione inferiore -

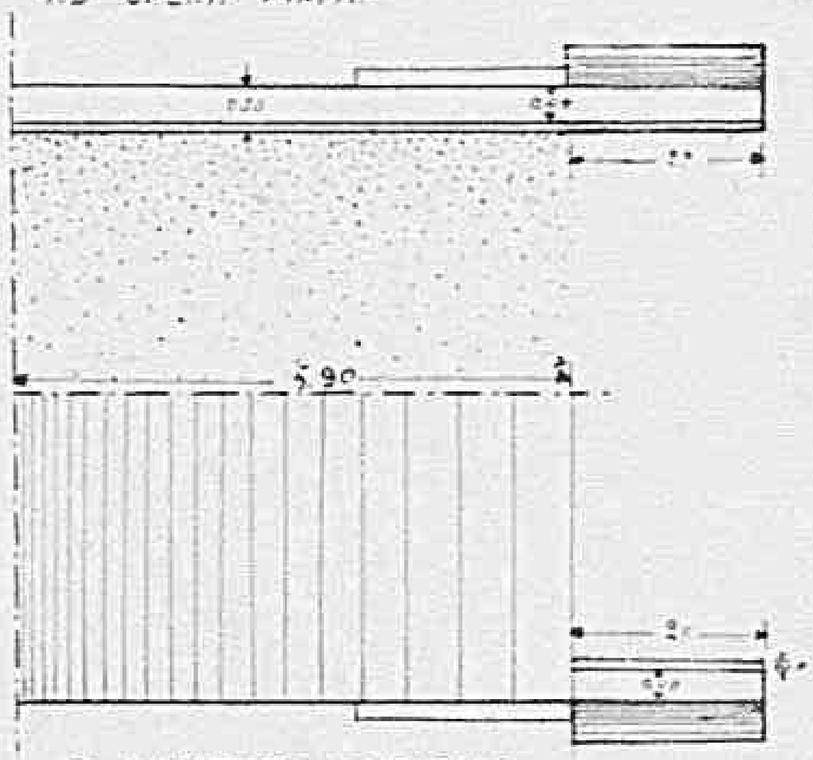
Tav VI

Ponte sul Rio Fraga di luce m. 7.20 a tutto sesto con muri di accompagno a monte a valle

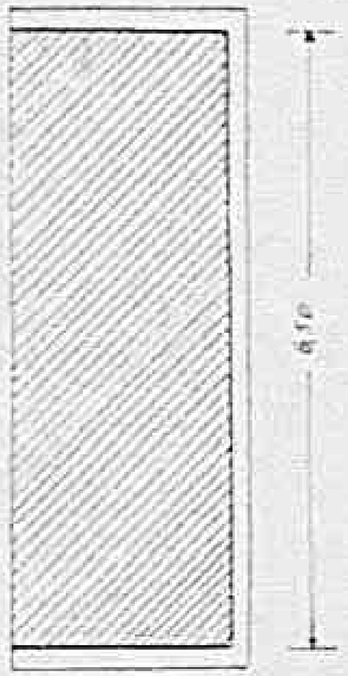
Catàn 55 Foglio 3

PIANTA

AD OPERA FINITA



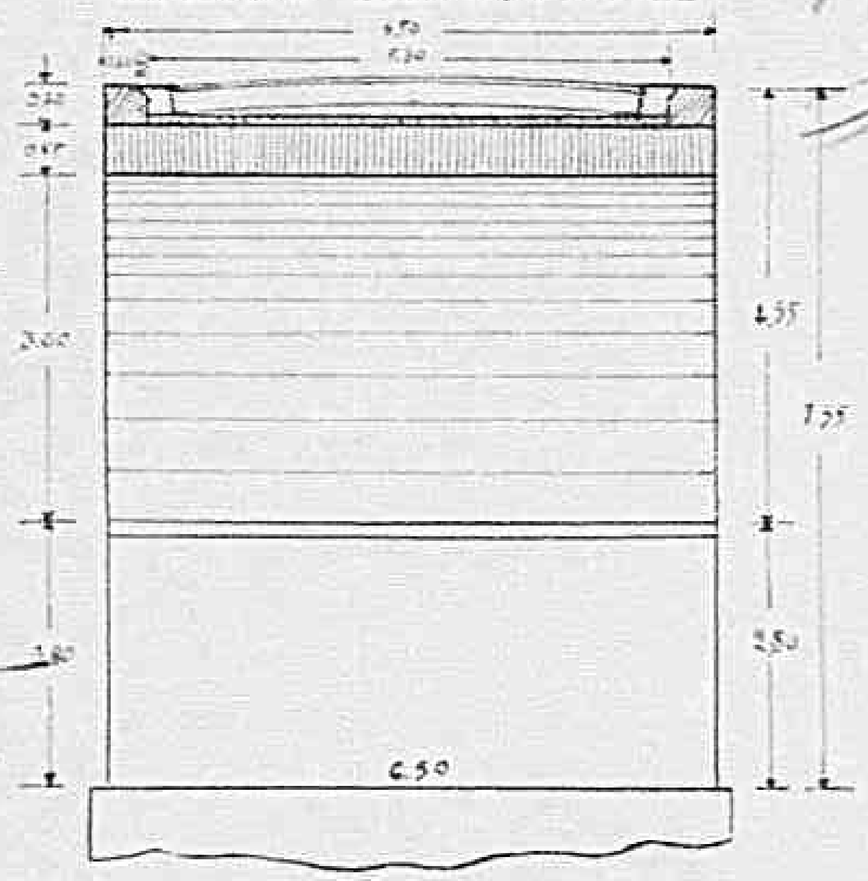
AL PIANO DI RISEGA



A MURATURE SCOPERTE

SEZIONE LONGITUDINALE

M-618



M. 931 Lucca 29 marzo 1945

V. Formalità, tipo
Progetto approvato

Visto, si approva tipo

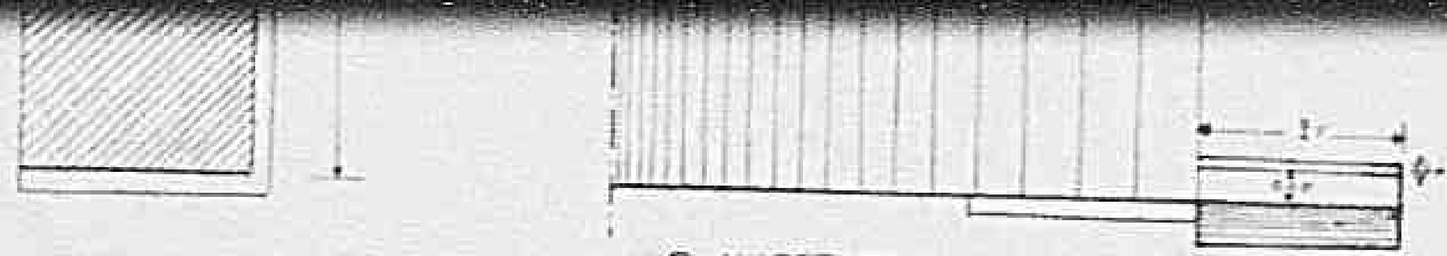
Il Podestà

½ PROSPETTO

½ SEZIONE TRASVERSALE

1917

Declassified E.O. 12356 Section 3.3/NND No. 785019



A MURATURE SCOPERTE

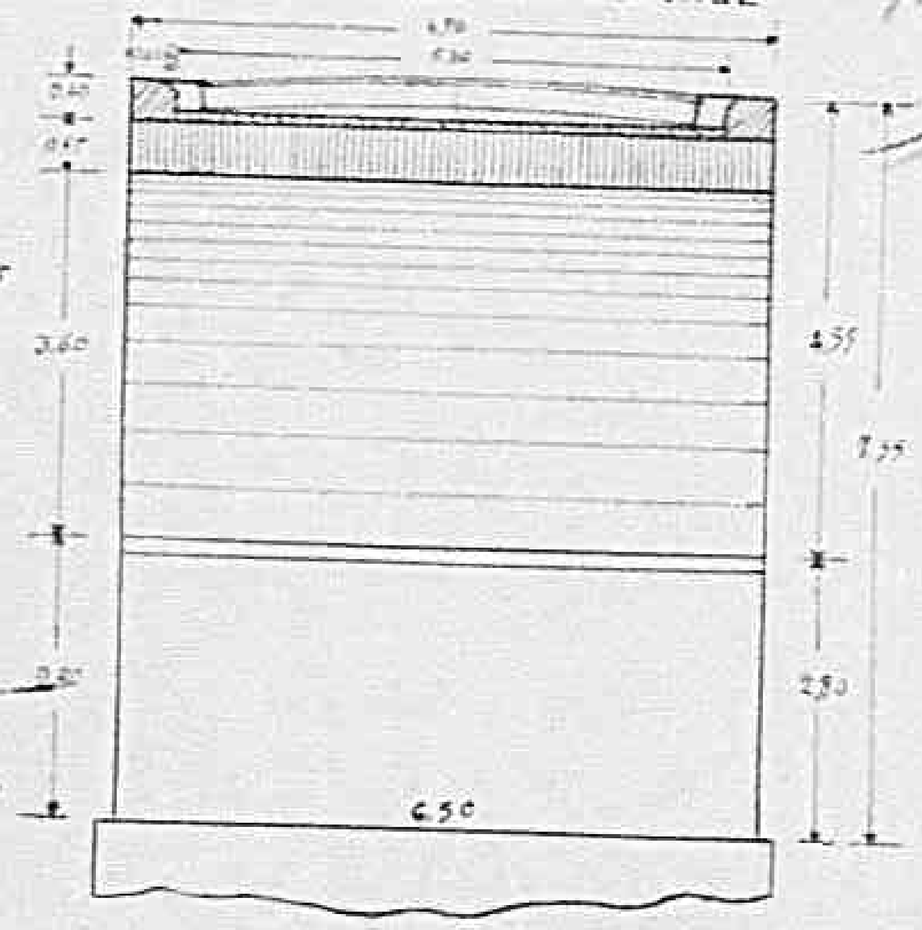
SEZIONE LONGITUDINALE

111-618

N. 936 Lucca 20 marzo 1915

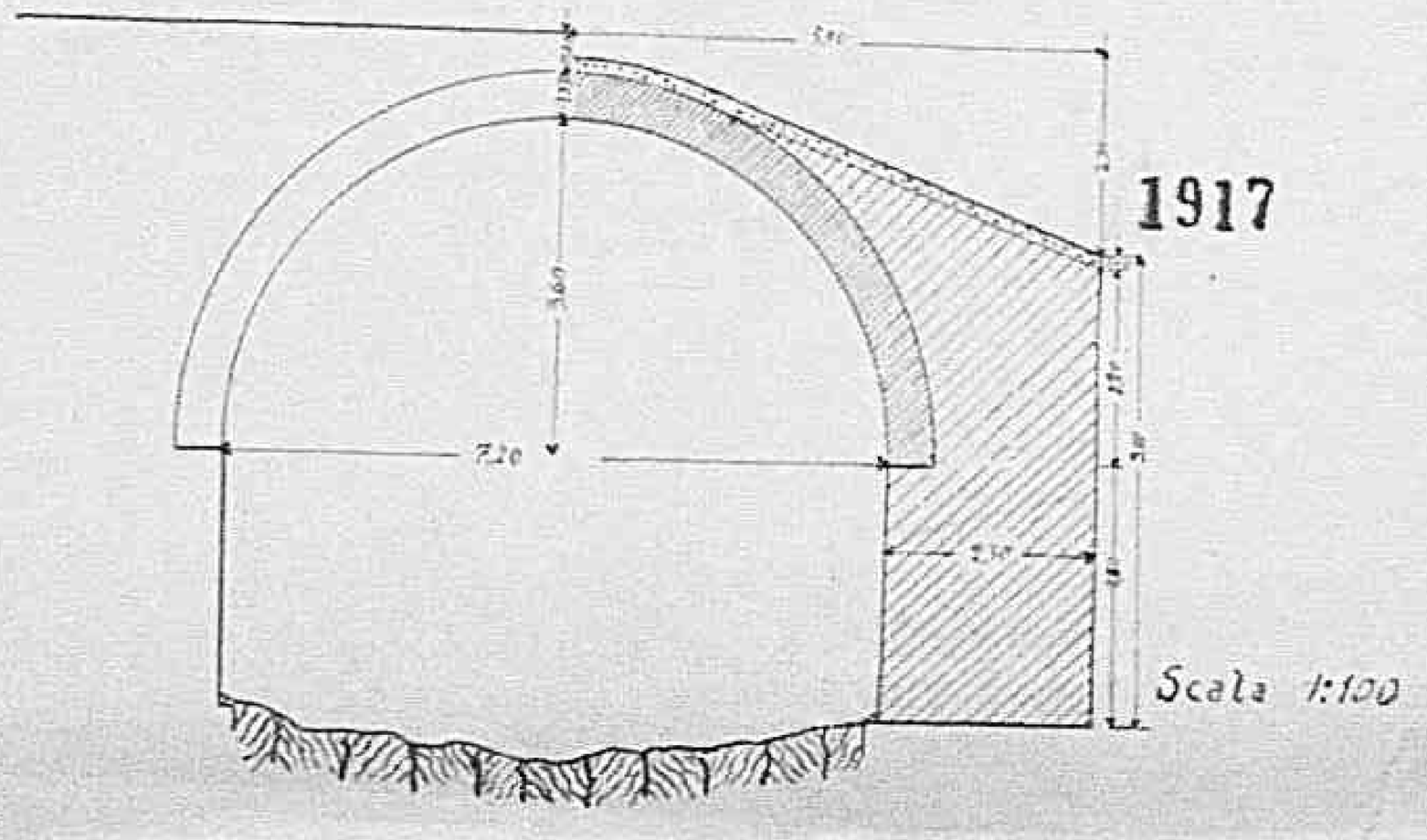
V. Ispettore Capo

Visto Ispettore Capo



½ PROSPETTO

½ SEZIONE TRASVERSALE



1917

Scala 1:100

Declassified E.O. 12356 Section 3.3/NND No. 785019

Sc 24

Progetto N 265

Ministero dei Lavori Pubblici

Corpo Reale del Genio Civile

Ufficio di Siena

N. 619

Progetto di ricostruzione del ponte sulla strada comunale di S. Lucia in Poggibonsi Progr. Km 1.

N. 2847 Siena 15 MAR. 1945

Redatto dal Segretario
L'Ingegnere Capo -

Il Direttore Capo -

1916

Declassified E.O. 12356 Section 3.3/NND No. 785015

n - 6 11

Progetto di ricostruzione del ponte sulla strada comunale di S. Lucia in Poggibonsi Progr. Km 1.

N. 2847 Siena 15 MAR 1945

Redatto dal Geometra Raimondo Bonelli

L'Ingegnere Capo

V. L'Ingegnere Capo - Arnaldo Micheli

Visto

1916

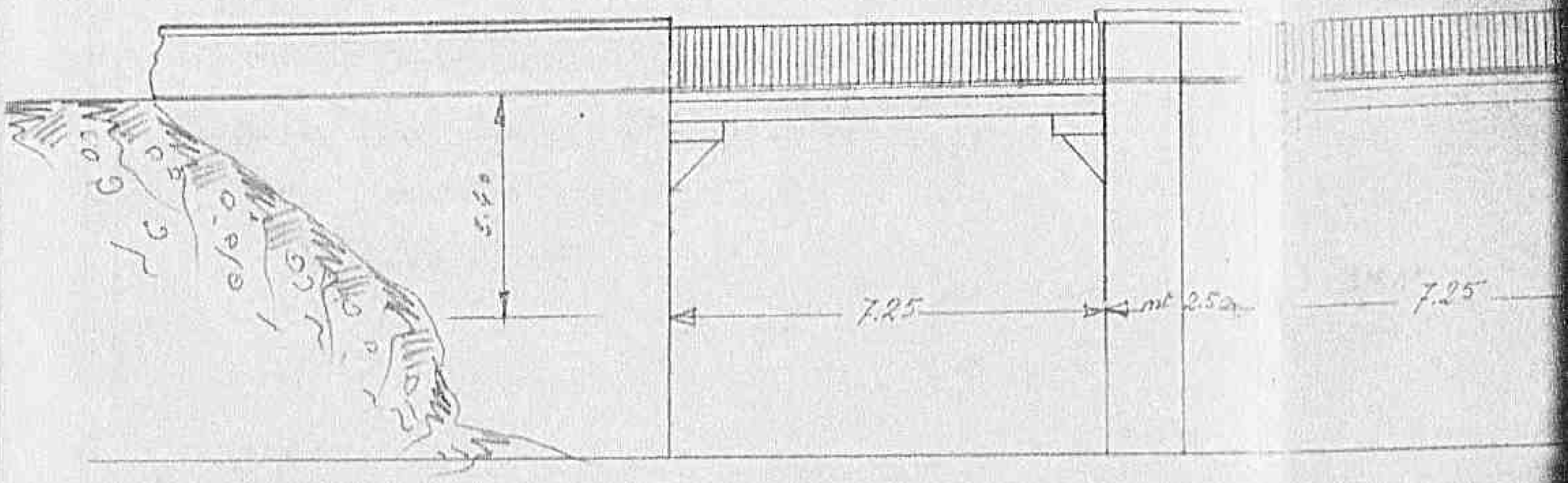
Declassified E.O. 12356 Section 3.3/NND No. 785019

0817

Declassified E.O. 12356 Section 3.3/NND No. 785019

Alzata Stato Riformato

Sezione 1:10



Pianta

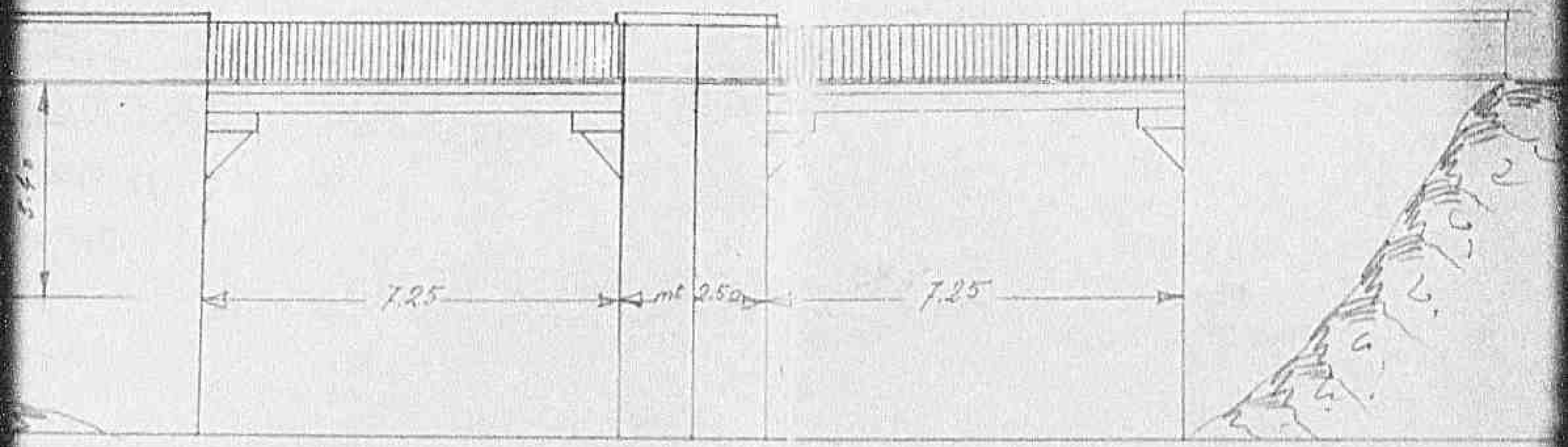
vedi spaccato foderato

0818

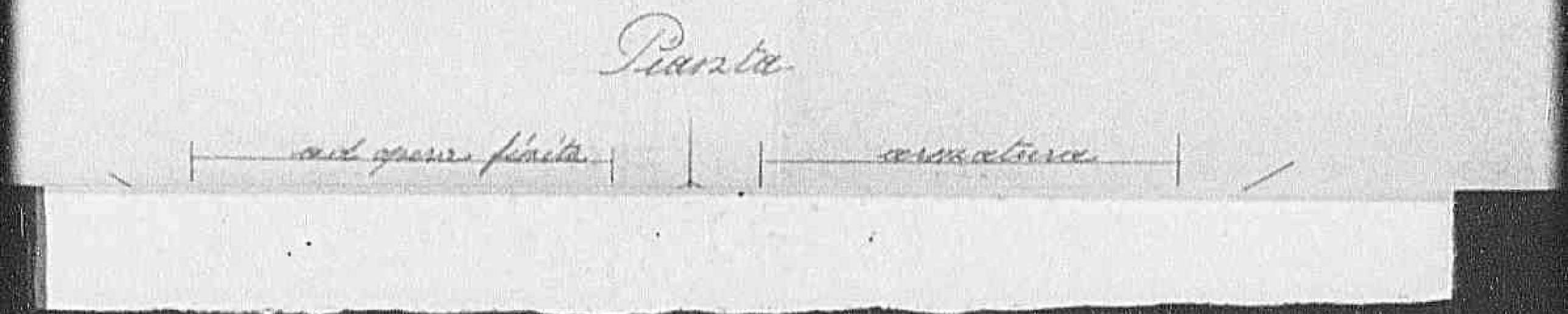
Declassified E.O. 12356 Section 3.3/NND No. 785019

Alzato Stato Riformato

Scala 1:100



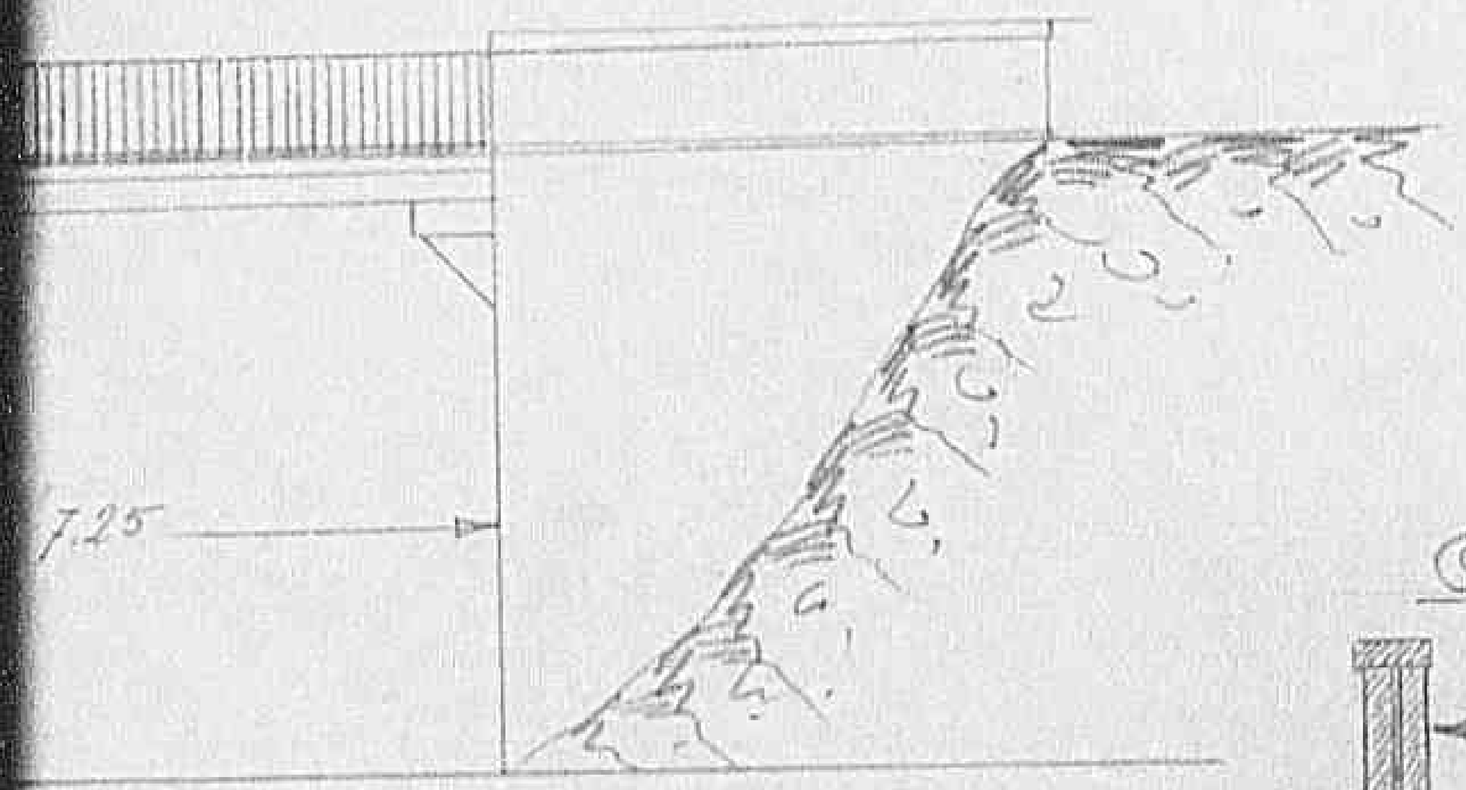
Pianta



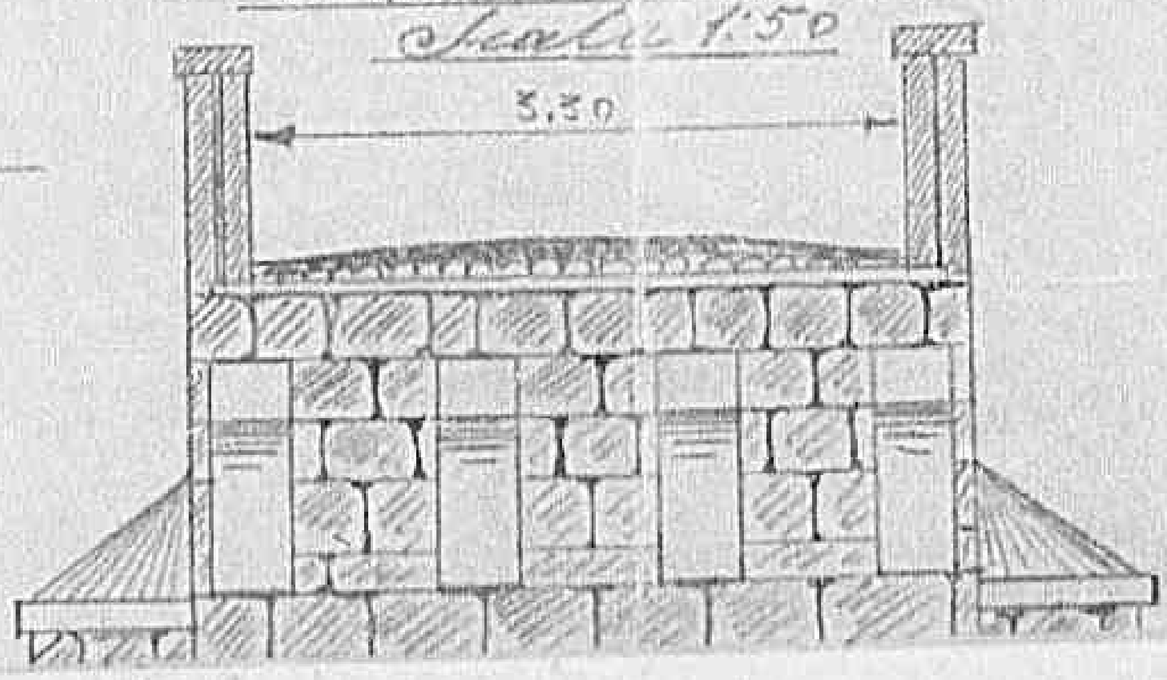
0.8 191

Declassified E.O. 12356 Section 3.3/NND No. 785019

Profondeur

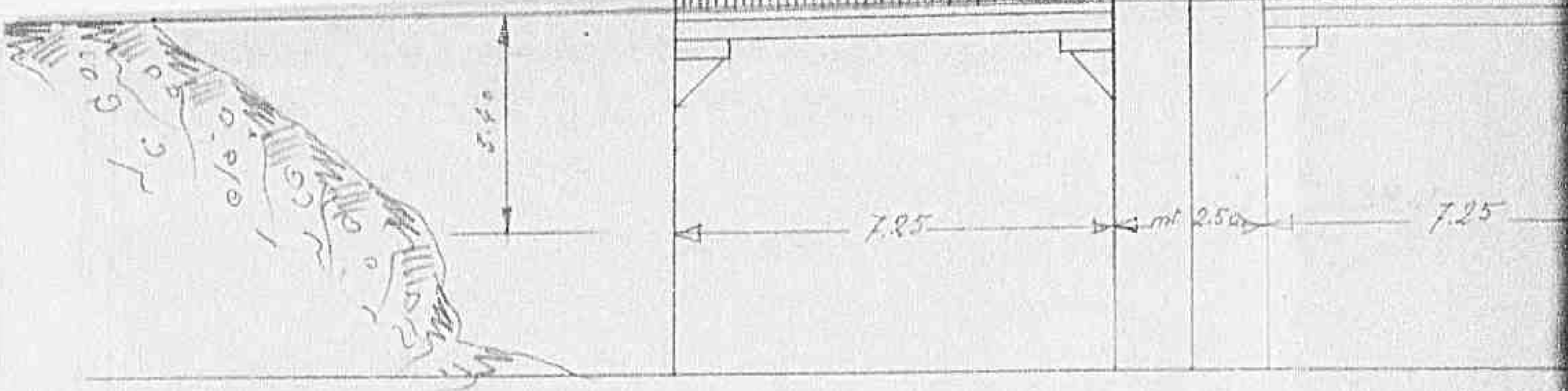


Section transversale
Echelle 1:50

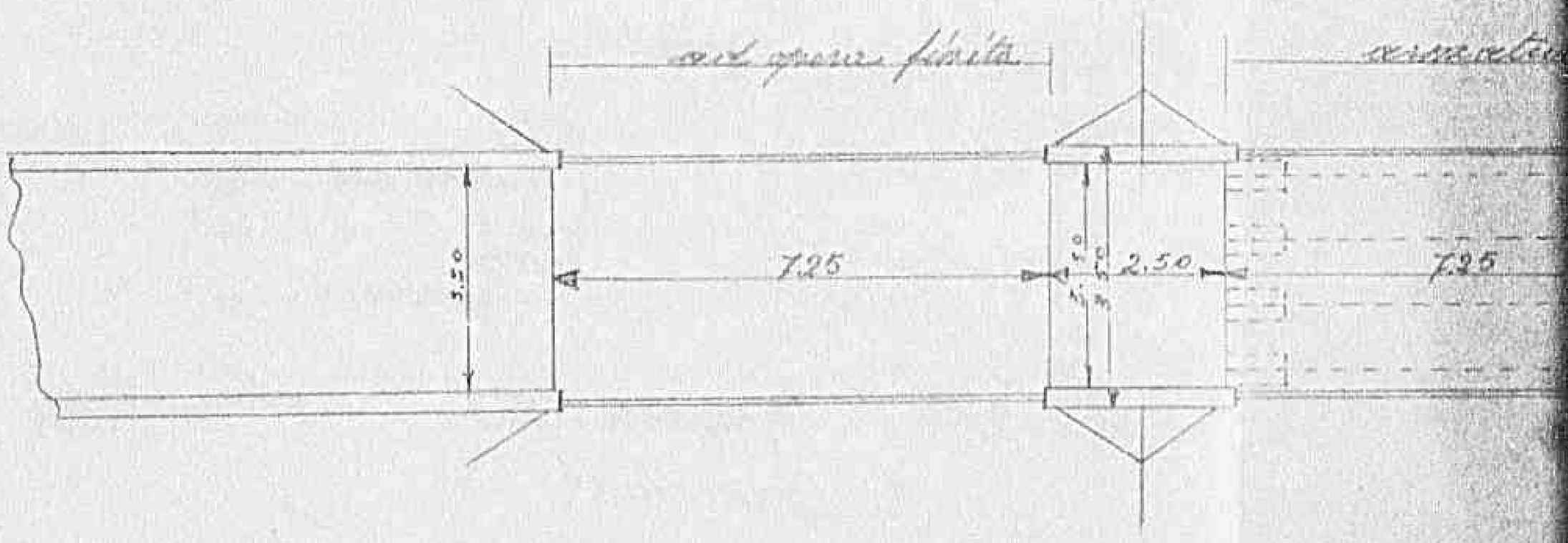


0820

Declassified E.O. 12356 Section 3.3/NND No. 785019

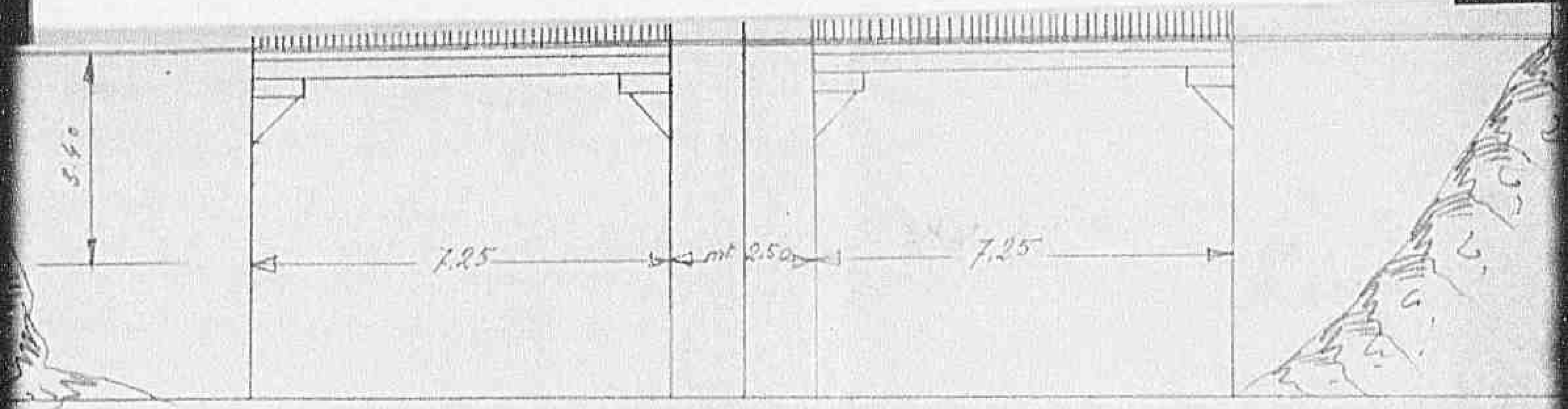


Separata.

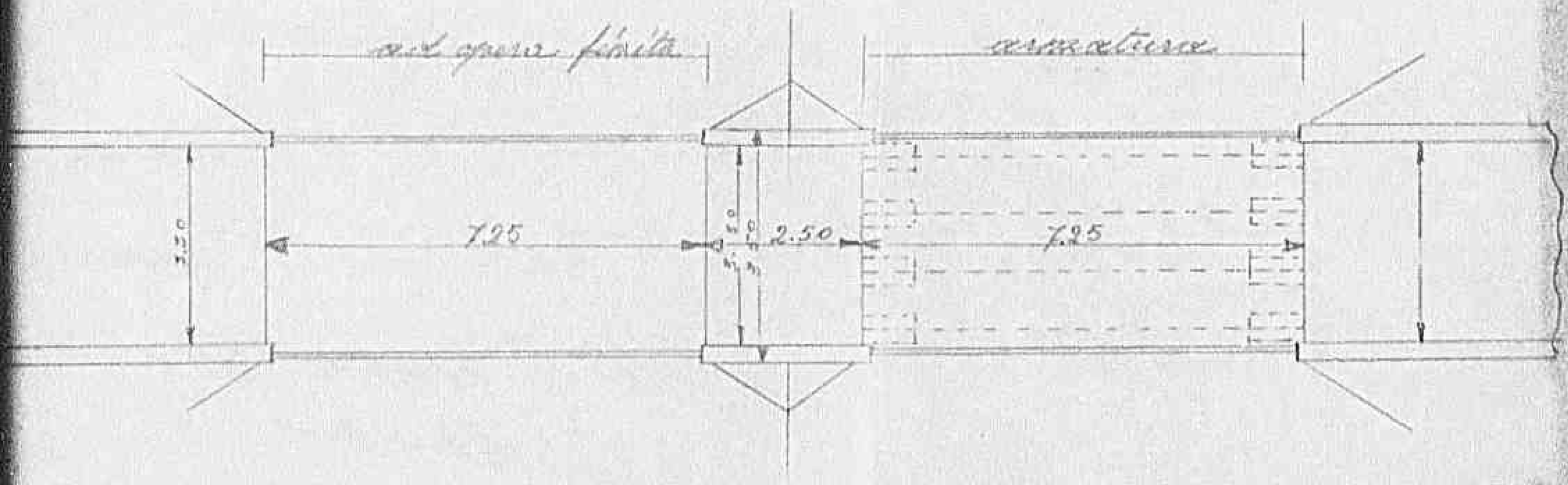


0821

Declassified E.O. 12356 Section 3.3/NND No. 785019

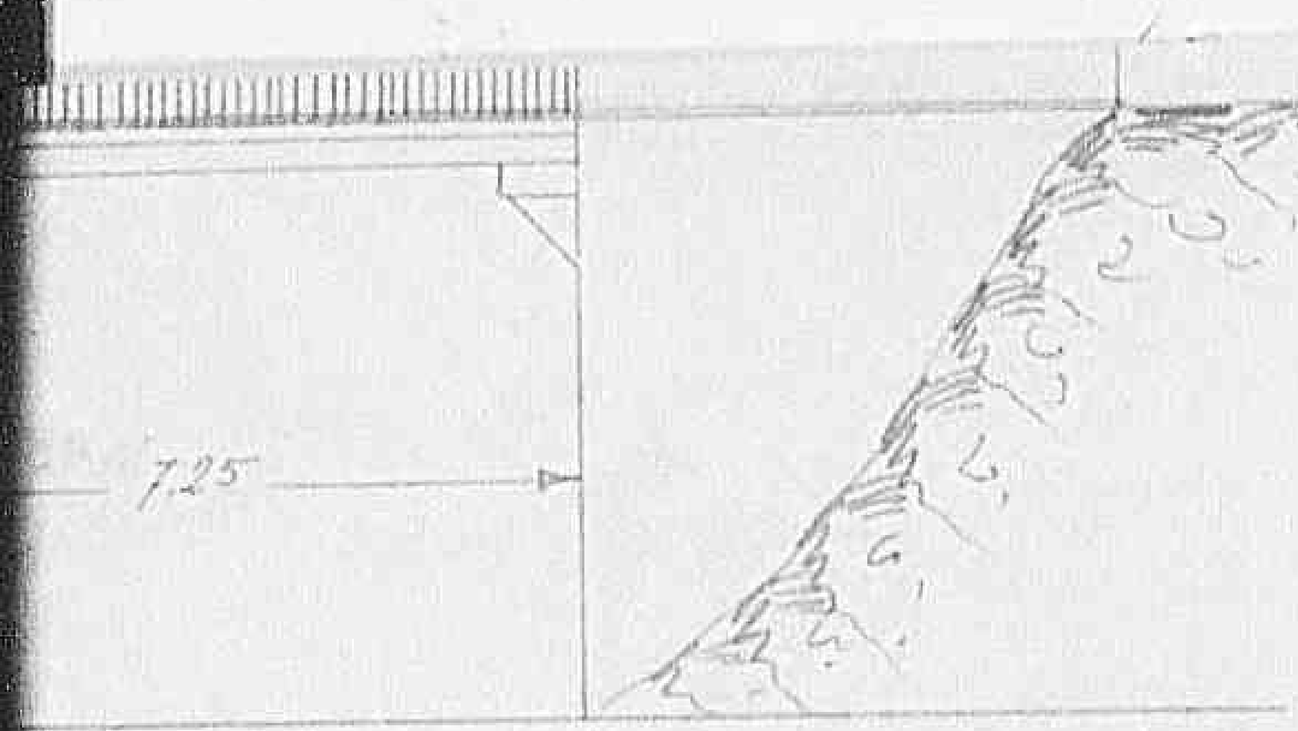


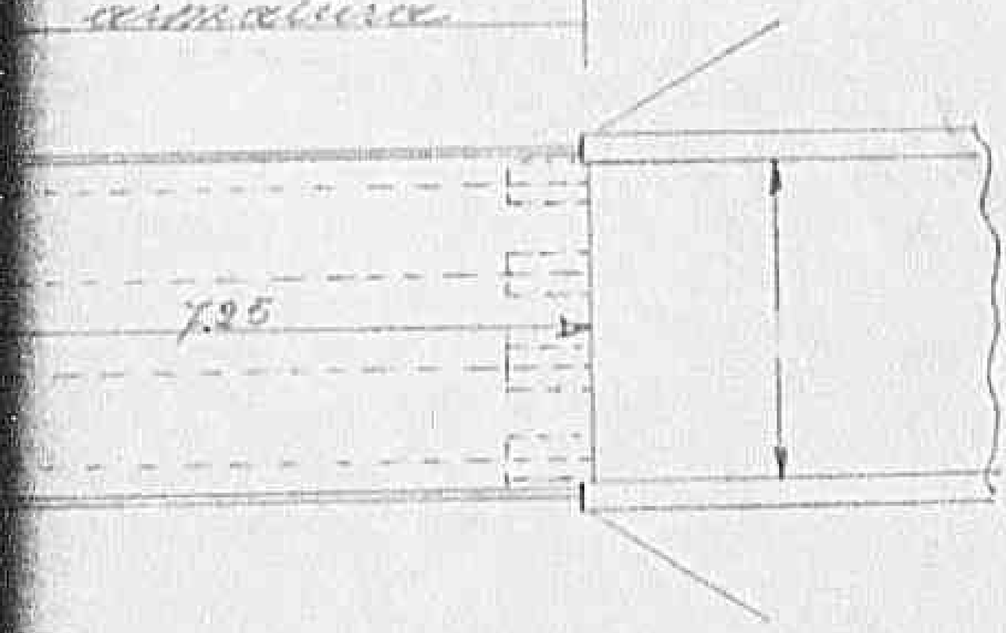
Pianta



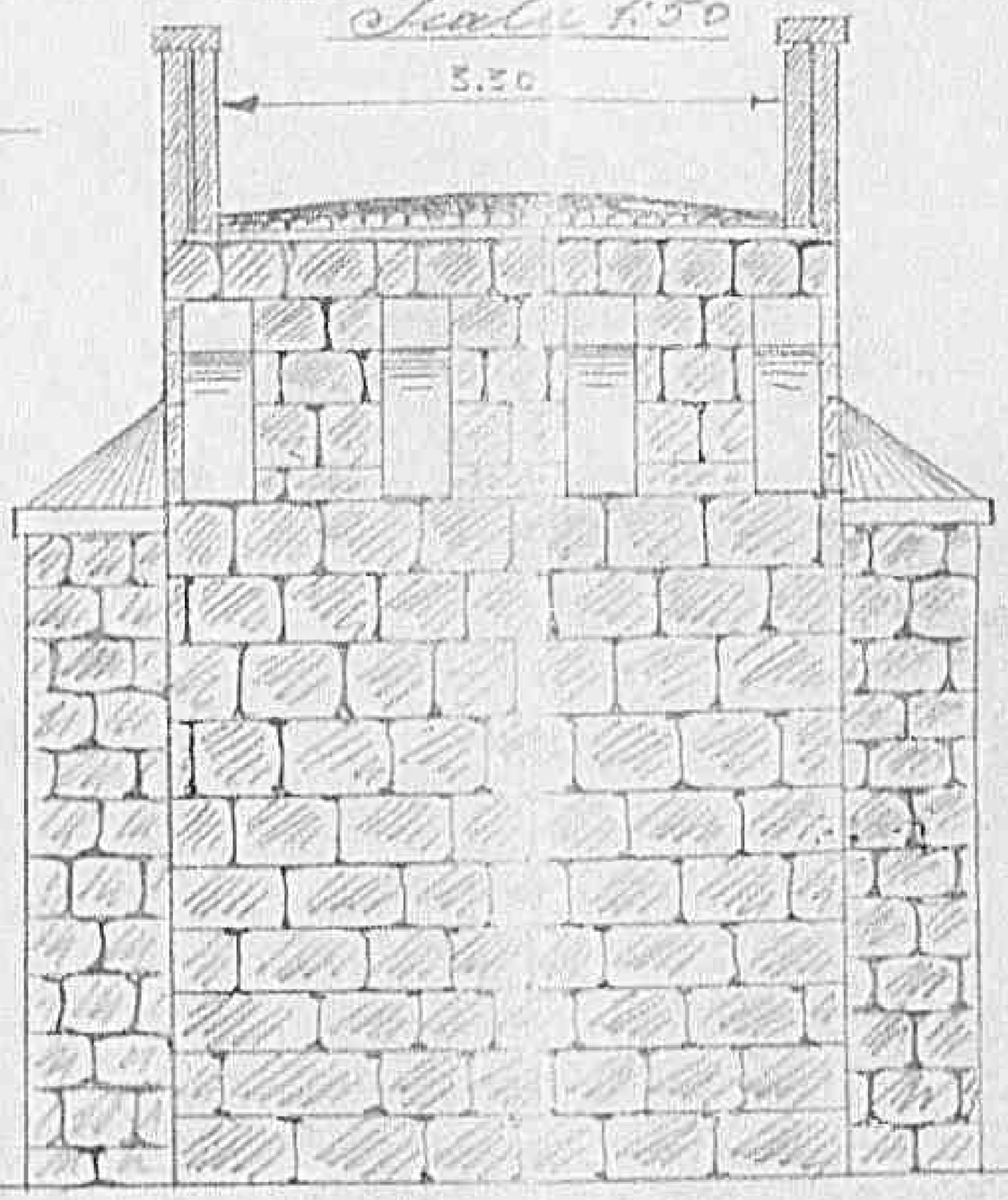
0 8 2 21

Declassified E.O. 12356 Section 3.3/NND No. 785019





Section transversale
Scale 1/50



93/au

M-622

COMPUTO DELLA SPALLA E DEI RELATIVI MURI ANDANTI

6.90 x 3.40 x 1.00	=	mc.	23.50
6.90 x 0.40 x 2.00	=	"	5.50
6.90 x 0.70 x 1.30	=	"	6.30
6.90 x 0.90 x 1.00	=	"	6.20
2 x 7.10 x 0.80 x 2.10	=	"	24.00
2 x 4.00 x 1.20 x 1.30	=	"	12.50
2 x 1.40 x 1.50 x 1.00	=	"	4.20
Totale mc:			82.20 ~ 85.00 mc.

L'INGEGNERE CAPO
(O. Goretti)

1915

MOD. DATA	
DIS.	FERROBETON — ROMA —
INS.	SOC. ANONIMA — 8 Via Catania

0 8 2 5 1

Declassified E.O. 12356 Section 3.3/NND No. 780018

6.90 x 0.40 x 2.00	=	"	5.50
6.90 x 0.70 x 1.30	=	"	6.30
6.90 x 0.90 x 1.00	=	"	6.20
2 x 7.10 x 0.80 x 2.10	=	"	24.00
2 x 4.00 x 1.20 x 1.30	=	"	12.50
2 x 1.70 x 1.50 x 1.00	=	"	4.20
Totale mc:			82.20 ~ 85.00 mc

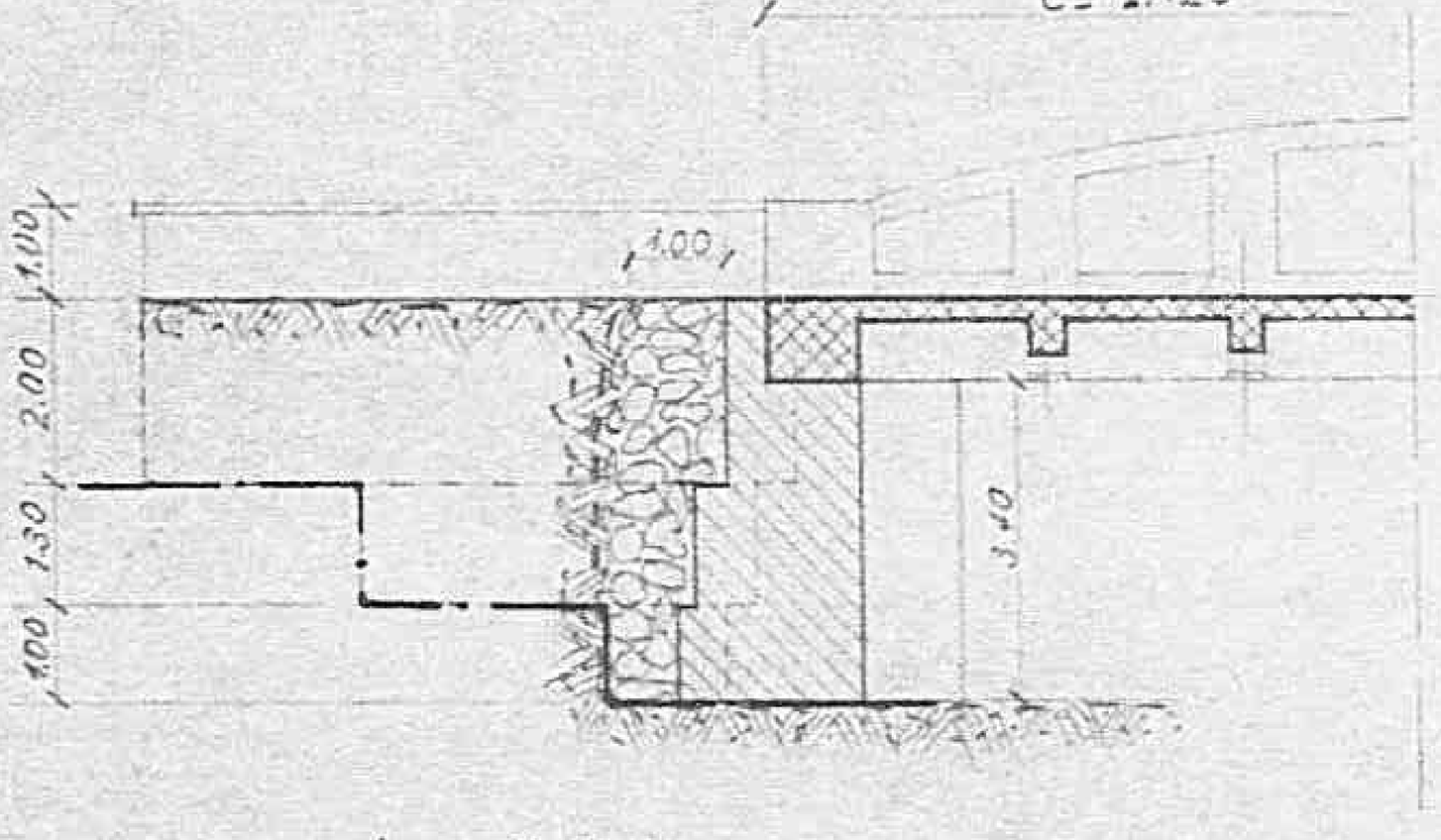
L'INGEGNERE CAPO
(O. Goretti)

1915

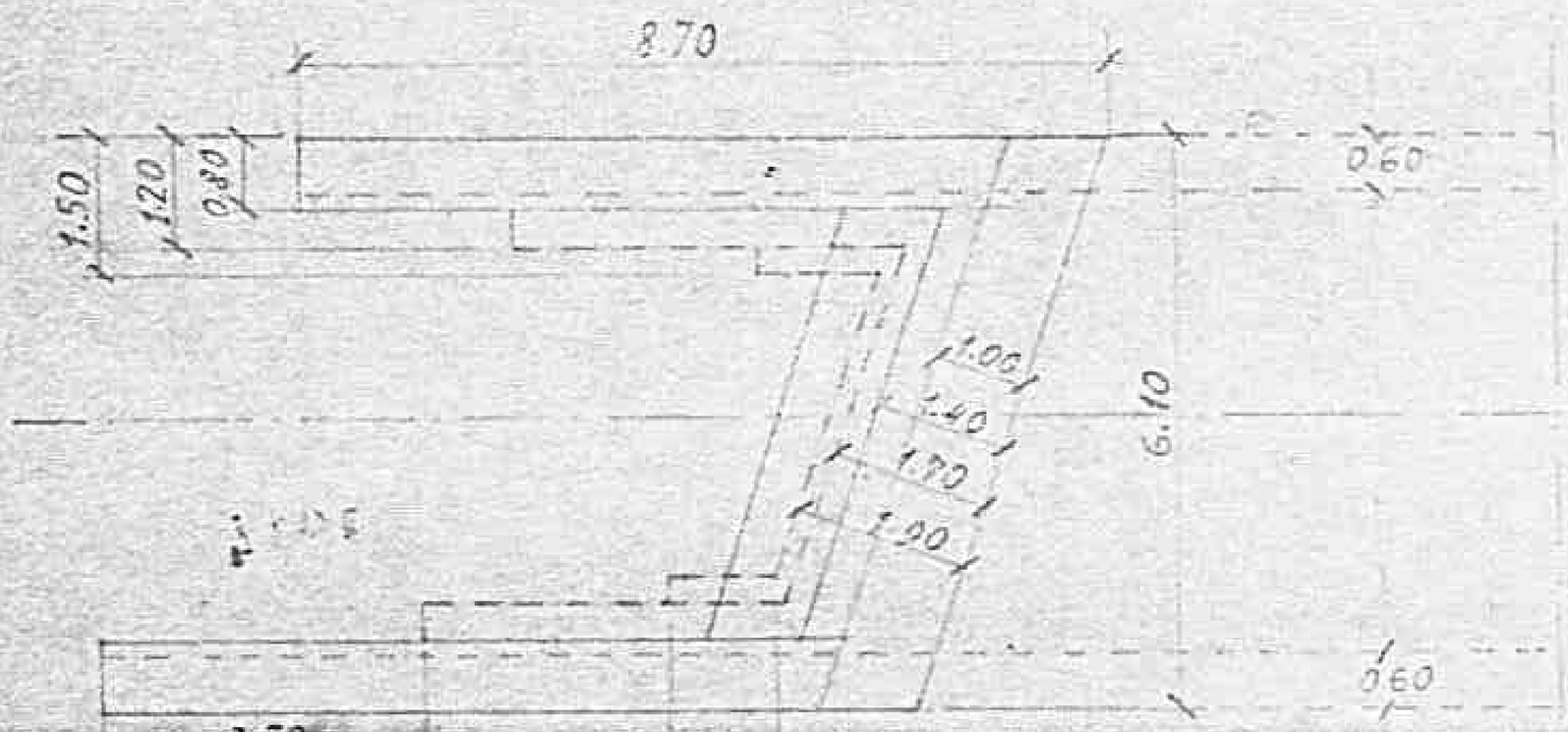
MOD. DATA DIS. ING.	FERROBETON — ROMA — SOC. ANONIMA — 9 Via Catania	DIS. N° 7706 F1/3
SCALA 1:100	PONTI SUL CANALE NAVE IN PROV. DI AREZZO PONTE OBLIQUO DI Mt. 17.20	5-12-1944

Declassified E.O. 12356 Section 3.3/NND No. 780019

ARE 114



——.—— Limite dell'offerta



0 8 2 51
Declassified E.O. 12356 Section 3.3/NND No.

0826

Declassified E.O. 12356 Section 3.3/NND No. 780019

0 8 2 71

Declassified E.O. 12356 Section 3.3/NND No. 780019

Vista in sen

longitudin

P = 120 To

2.60 2.60

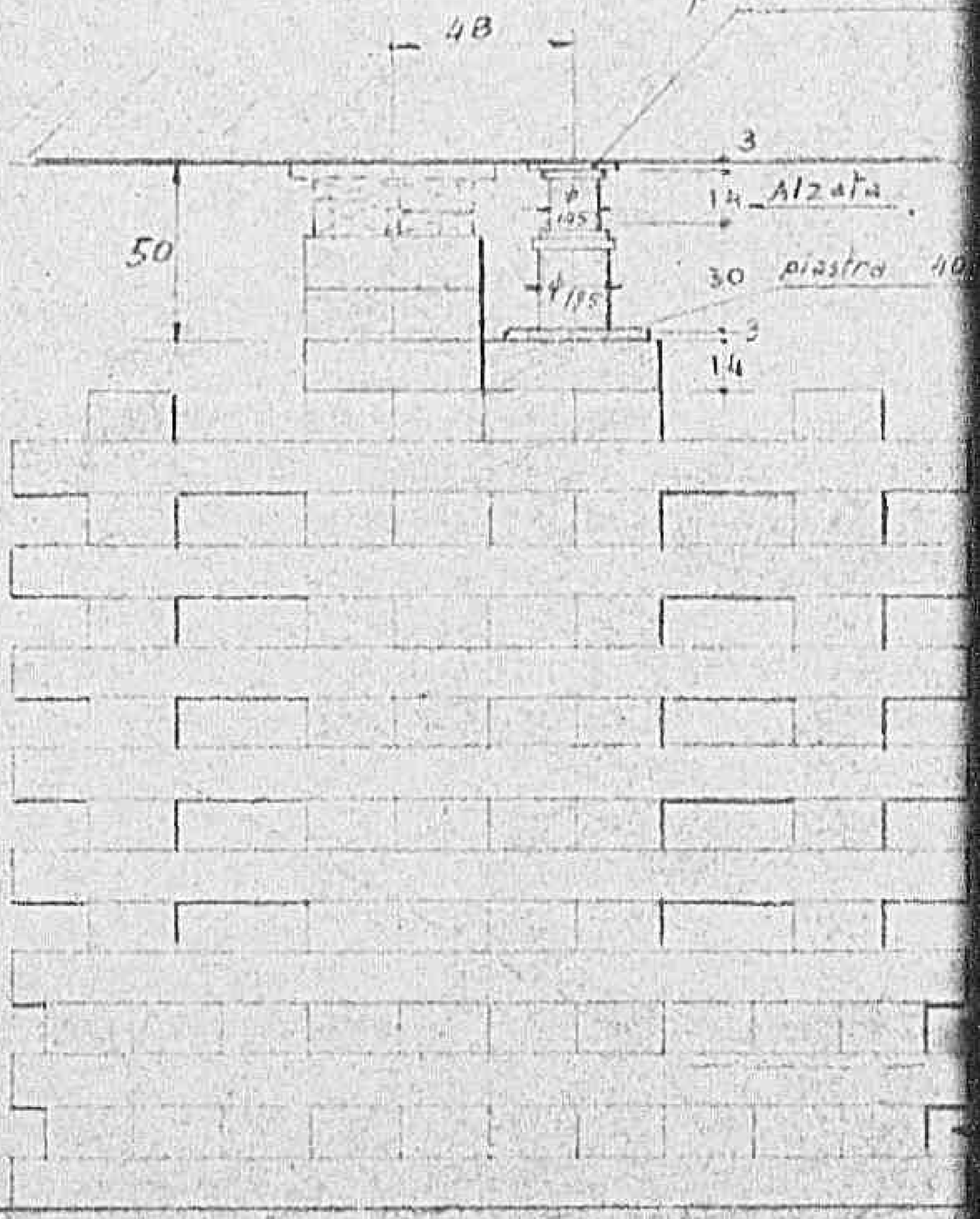
3.5 m.

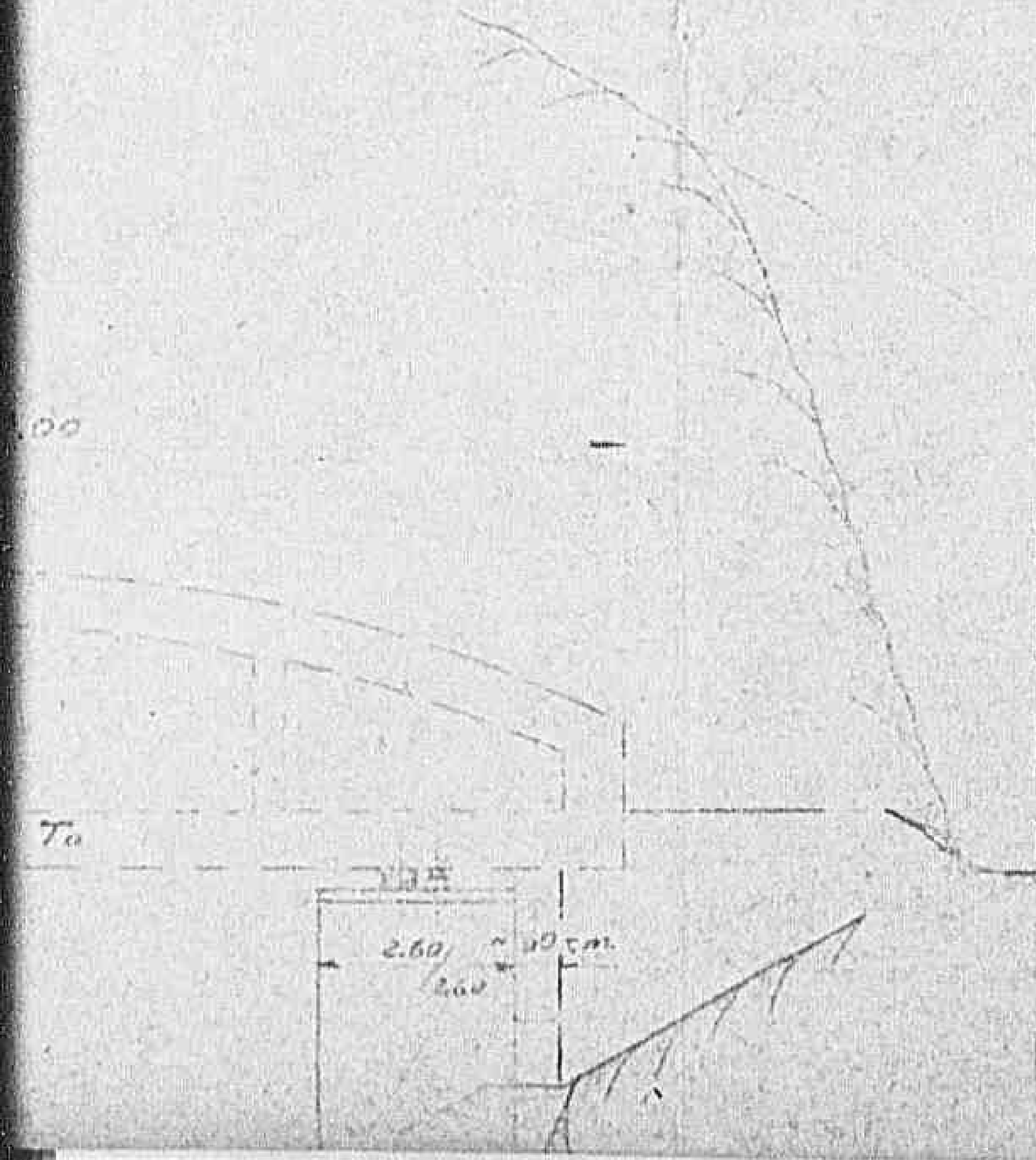
0828

Declassified E.O. 12356 Section 3.3/NND No.

Vista in senso longitudinale

$P_{max} = \frac{120.-}{4} = 30.-$ To.



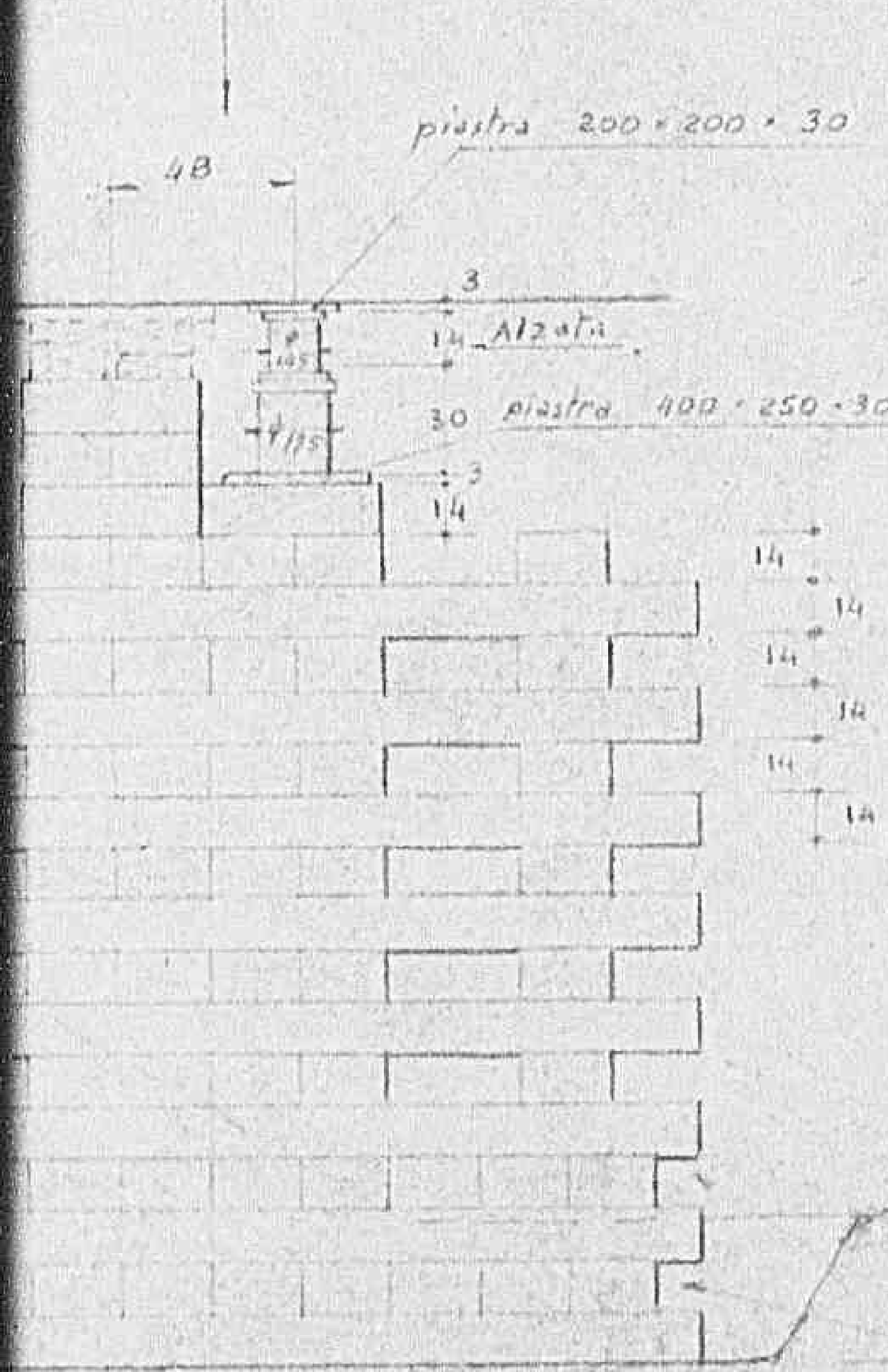


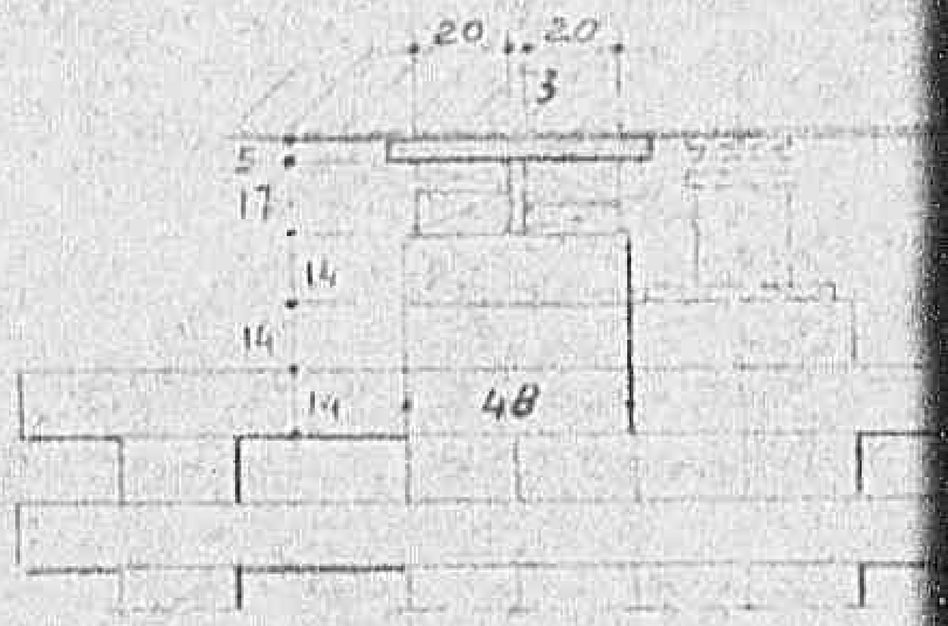
$\sigma_{terr.\ max.} = \frac{0.5\ Kg/cm^2}{2,60}$

0829

Declassified E.O. 12356 Section 3.3/NND No. 785014

$P_{max} = \frac{120.-}{4} = 30.- \text{ To.}$





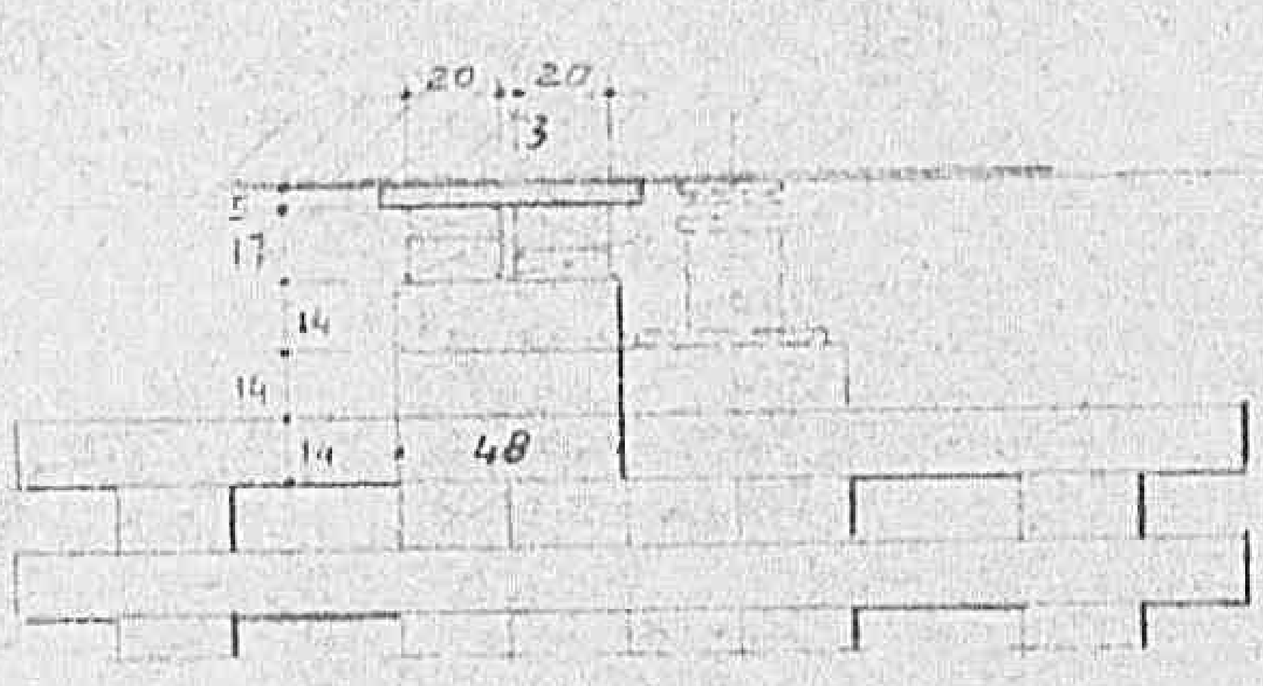
Scavo di ~ 30 ÷ 40 cm. per asportare lo

Nei primi 3 ÷ 4 strati le traverse sono n° 10

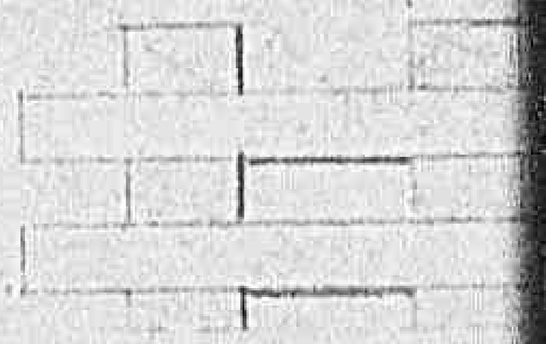
$\sigma_{t\,max} = \frac{0,5 \text{ Kg/cm}^2}{2,60}$

0 8 3 01

Declassified E.O. 12356 Section 3.3/NND No.



Altezza ~14 cm.



N°

N° 10

≃ N° 35

~30÷40 cm. per asportare lo strato superficiale poco consistente

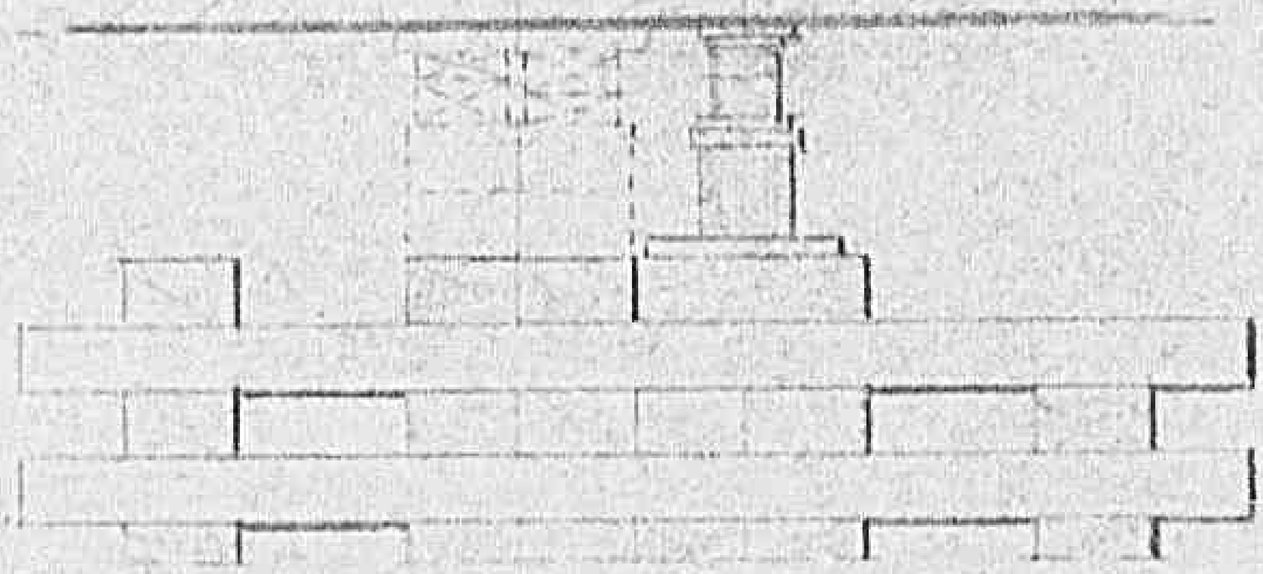
(di

4 strati le traverse sono n° 10 e devono stare accostate

0831

Declassified E.O. 12356 Section 3.3/NND No. 780018

Vista in sen
trasversale



N° delle traverse :

N° 10 ogni 28 cm. ≃

≃ N° 35 per ogni metro di altezza

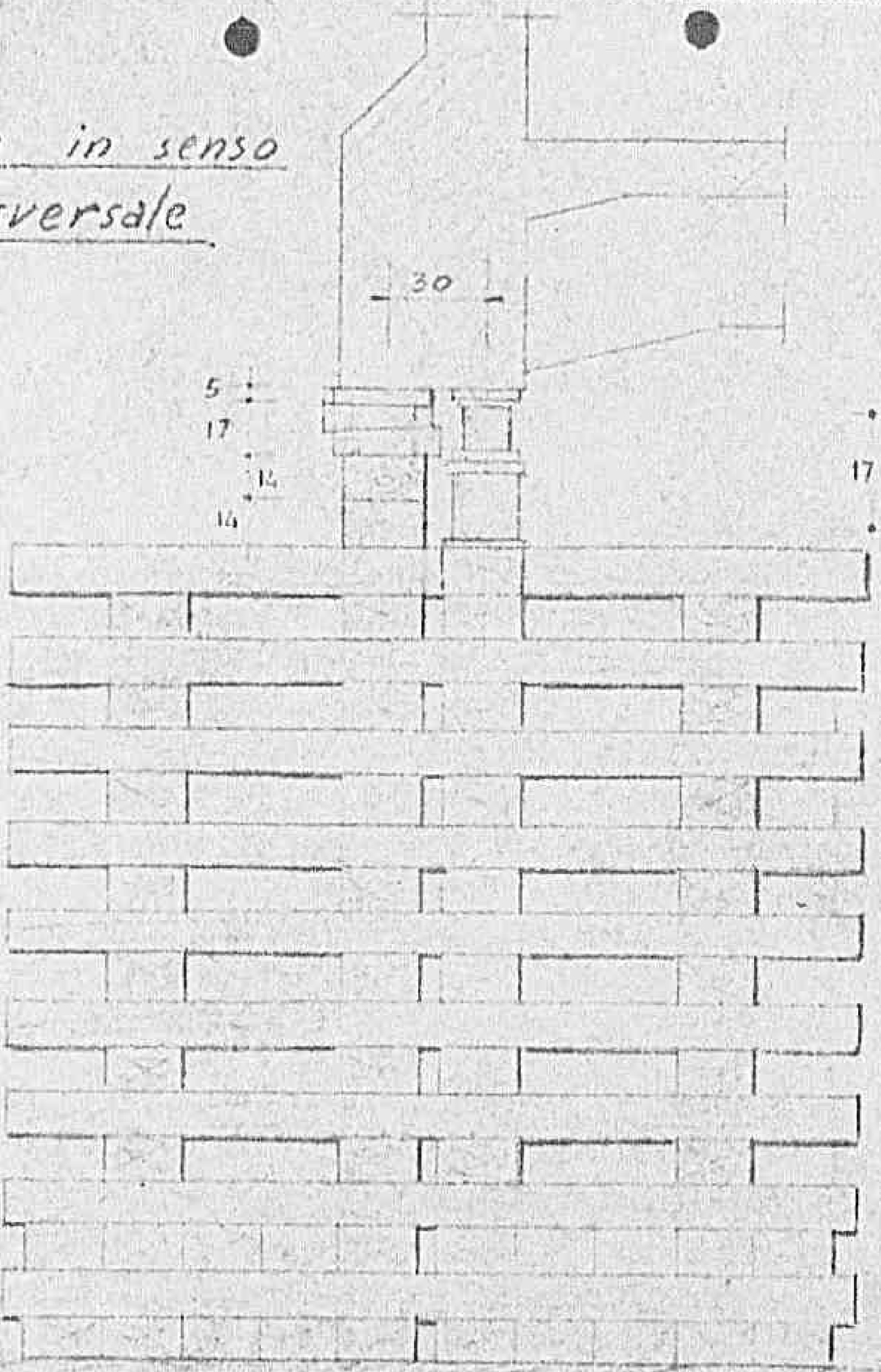
(oltre le traverse di fondo)

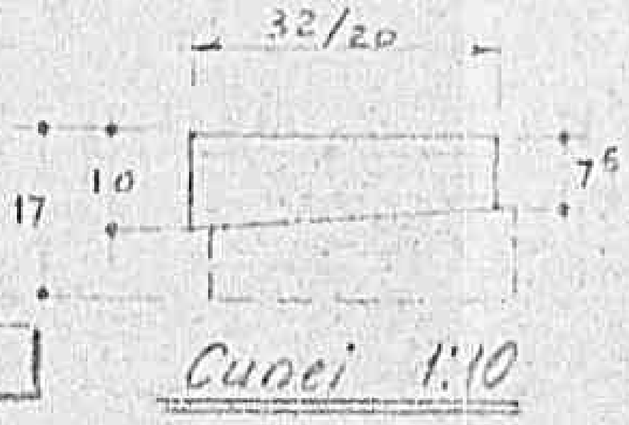
nsistrale

0 8 3 21

Declassified E.O. 12356 Section 3.3/NND No.

Vista in senso trasversale





Cuoci 1:10

MOD D
DISEG
ING:
SCAL
1:2
1:1
1:1

2,50

0831

Declassified E.O. 12356 Section 3.3/NND No. 780019

ARE 114 6

193/arc

MOD DATA	31-10-1944		
DISEGN:	CONTR:	FERROBETON-ROMA Soc. Anonima 9 - Via Catania	
ING: Mondi			
SCALA 1:20 1:100 1:10	SOLLEVAMENTO PONTI SUL CANALE NAVE - AREZZO SOLUZIONE A		DISEGNO N° 7706/1
			Sostituisce:
			Sostituito da:

32/20

76

Cunei 1:10

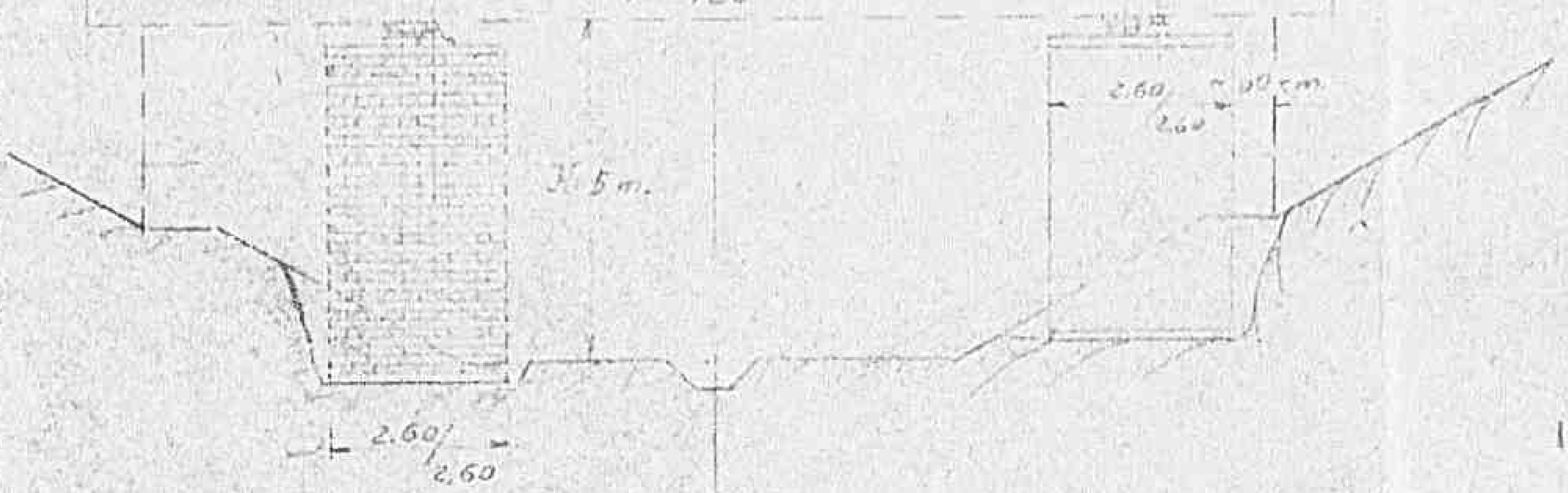
L'INGEGNERE CAPO
(O. Coretti)

1914

0834

Declassified E.O. 12356 Section 3.3/NND No.

P = 120 Ton



Posizione A

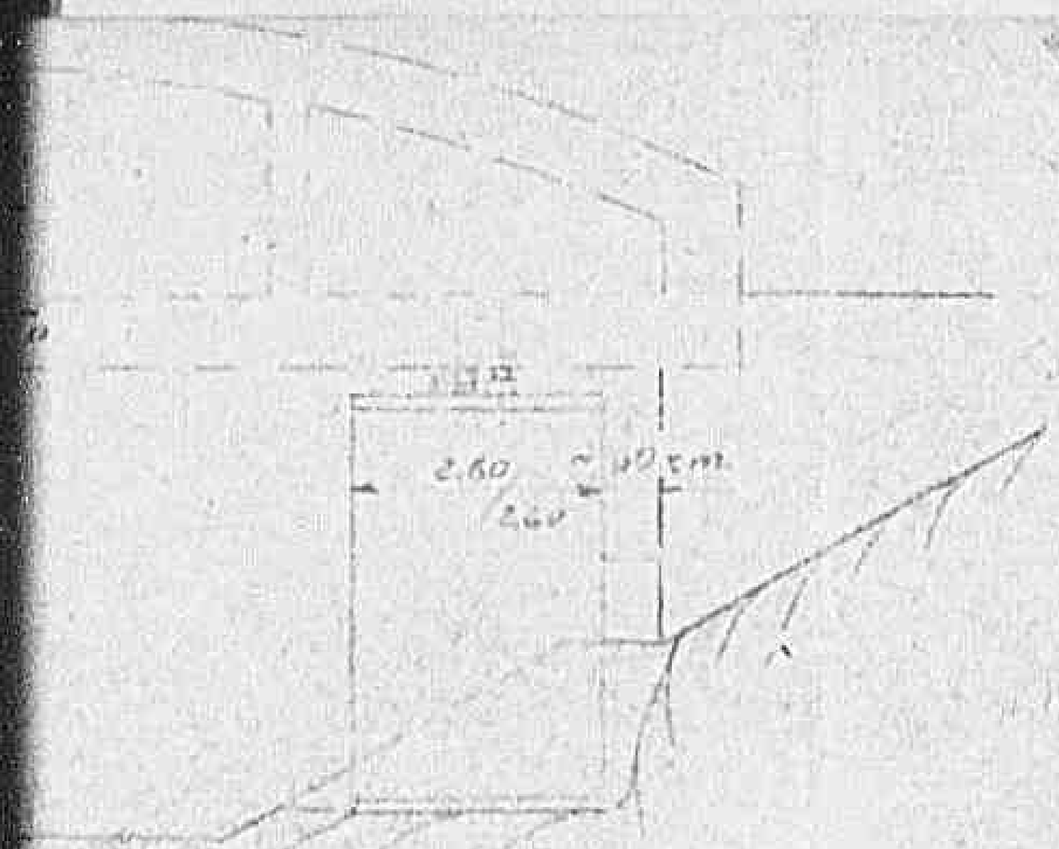
Posizione B

(preferibile)

2.60

0835

Declassified E.O. 12356 Section 3.3/NND No. 78 1011



$\sigma_{tir.max.} = \frac{0,5 \text{ Kg/cm}^2}{2,60}$

Posizione B

(preferibile)

1) - Appoggio sul marinetto a alzata 14 cm.

0836

Declassified E.O. 12356 Section 3.3/NND No.

Scavo di ~ 30 ÷ 40 cm. per asportare

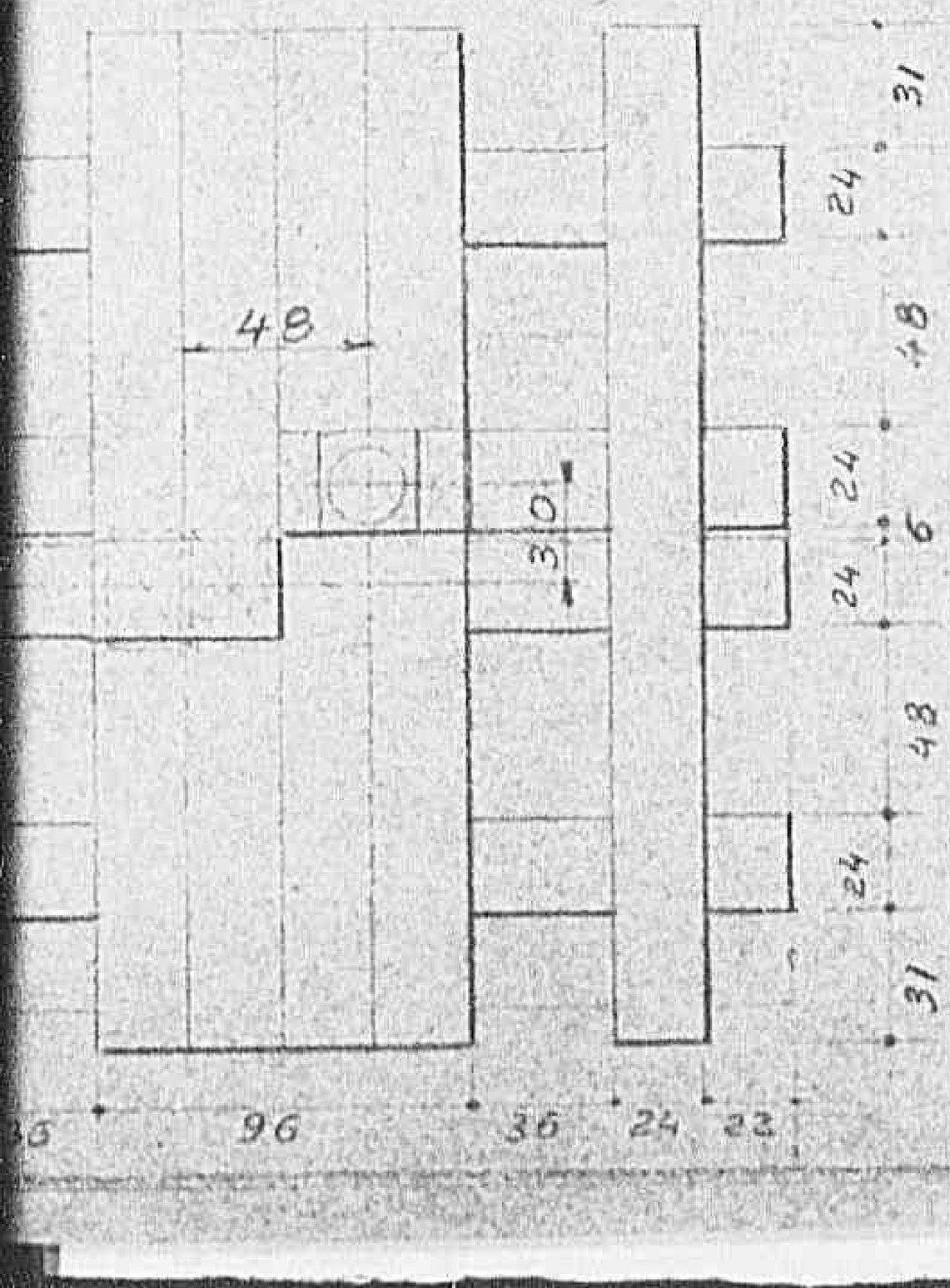
Nei primi 3 e 4 strati le traverse sono n° 10

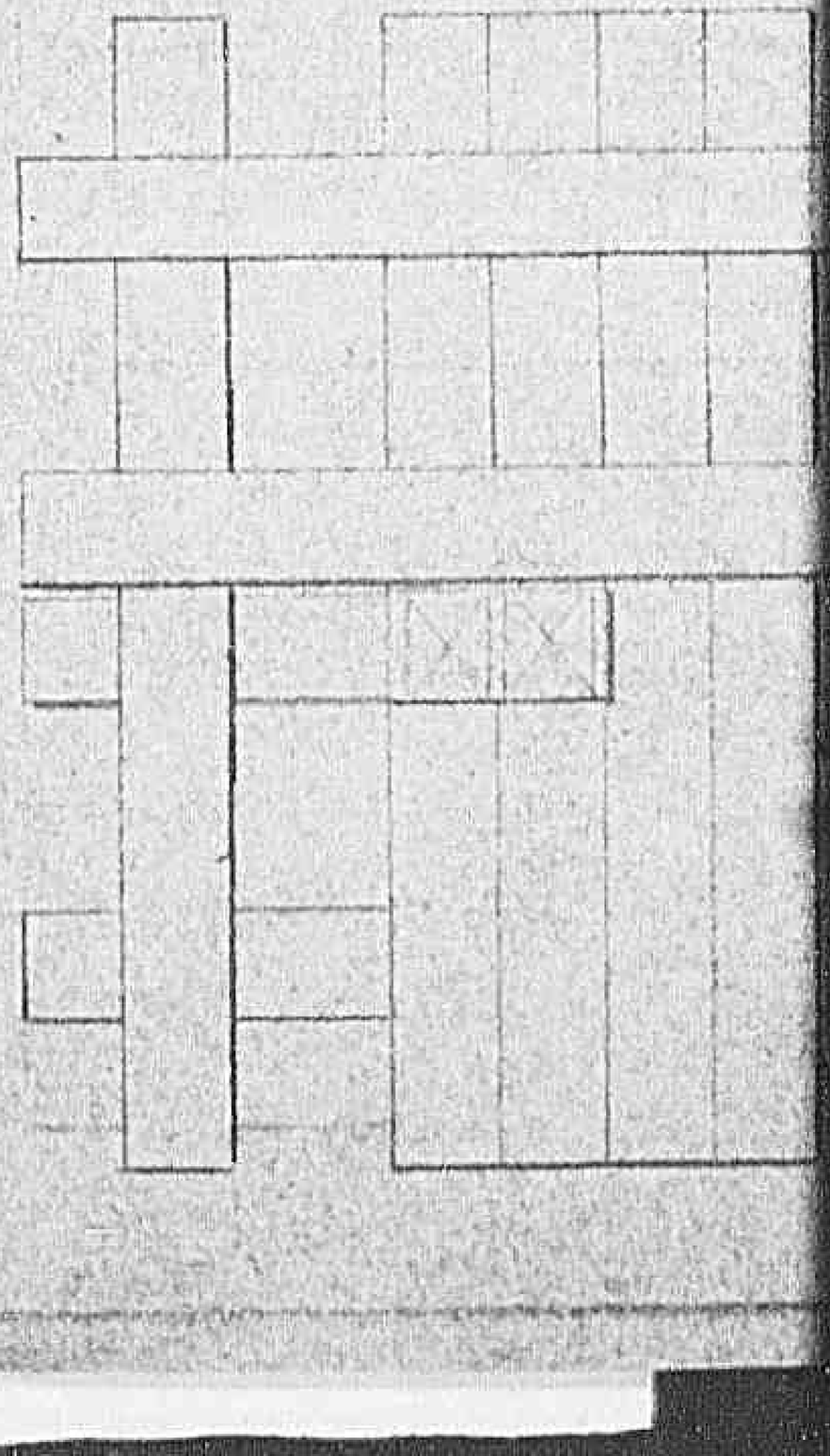
= 0,5 Kg /cm²

2,60

sul marciapiede e alzata 14 cm.

(2) - Appoggio sui cinati, posa tr





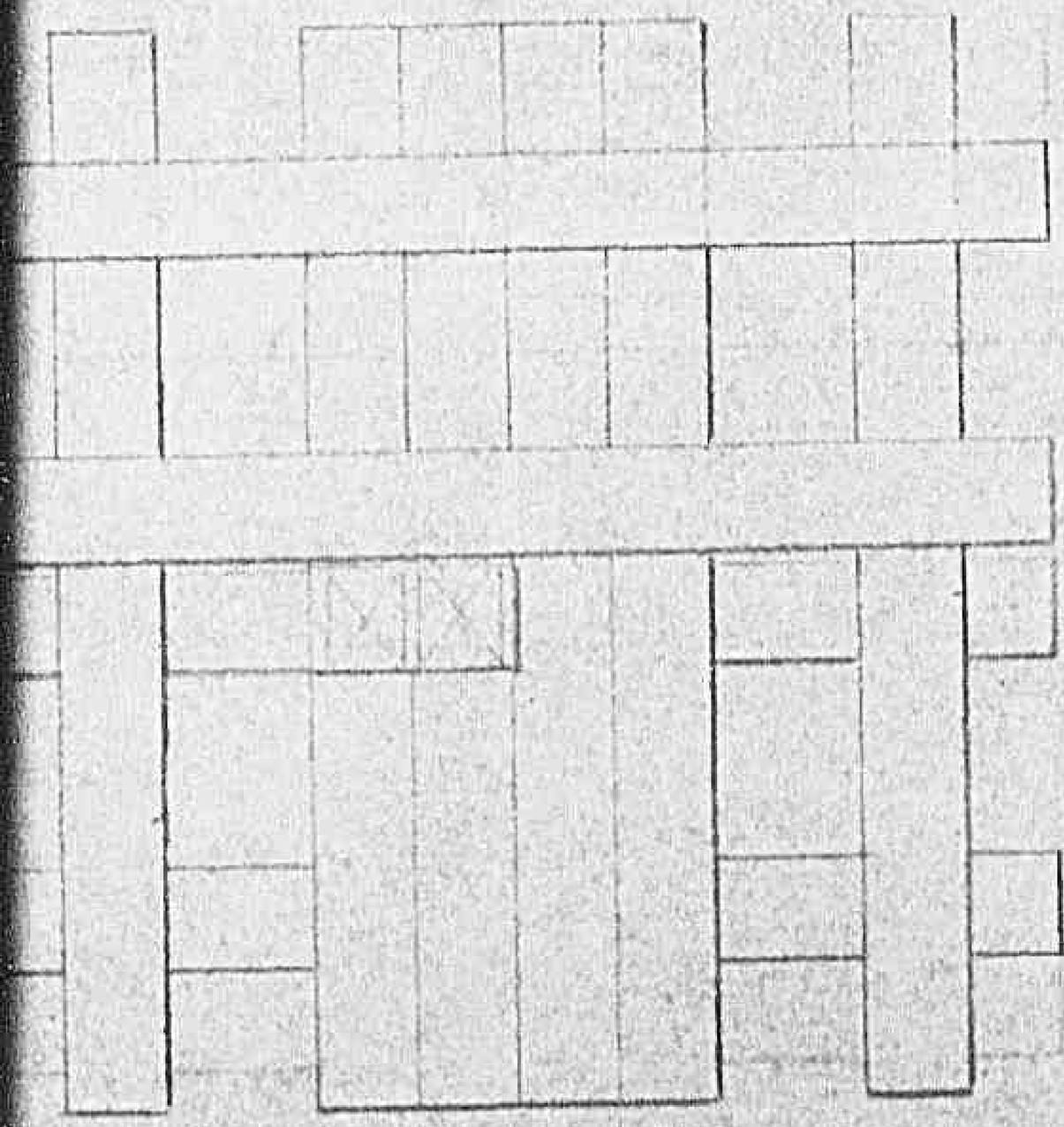
0837

Declassified E.O. 12356 Section 3.3/NND No.

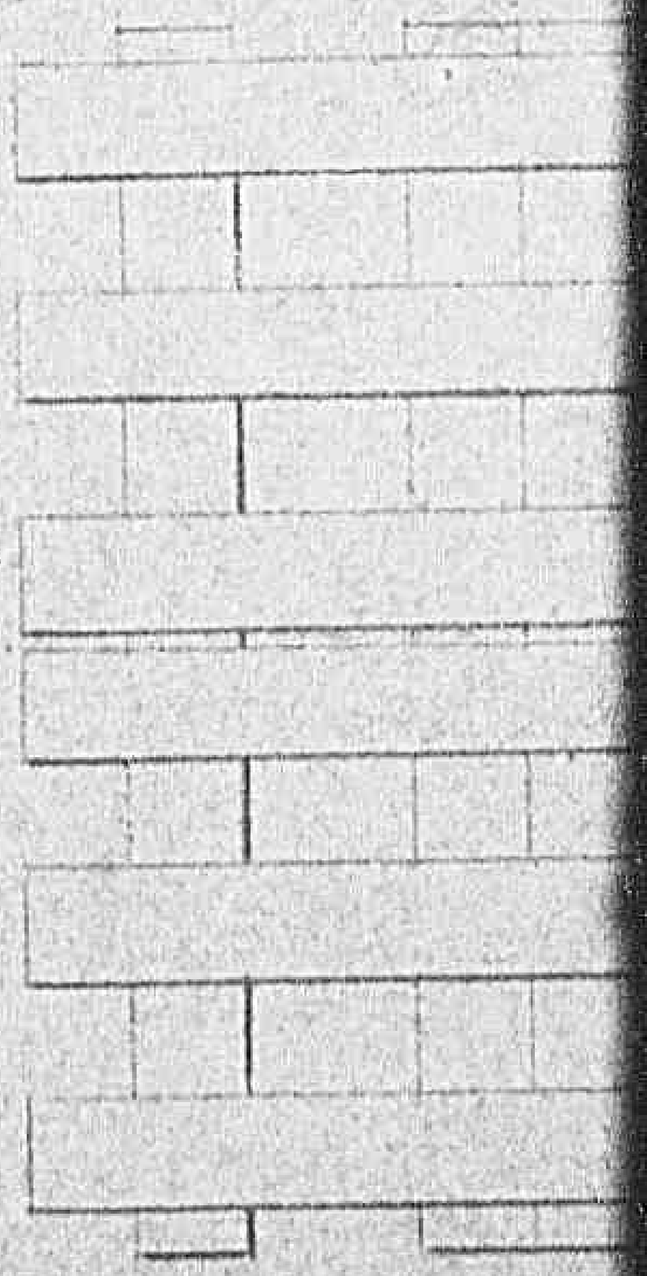
...40 cm. per superiore ... [illegible] ... (altre

...ati le traverse sono n° 10 e devono stare accostate

2) - Appoggio sui monti, poso traverse long.^{ti} (1ª metà)



3) - Appoggio sui martinetti



0838

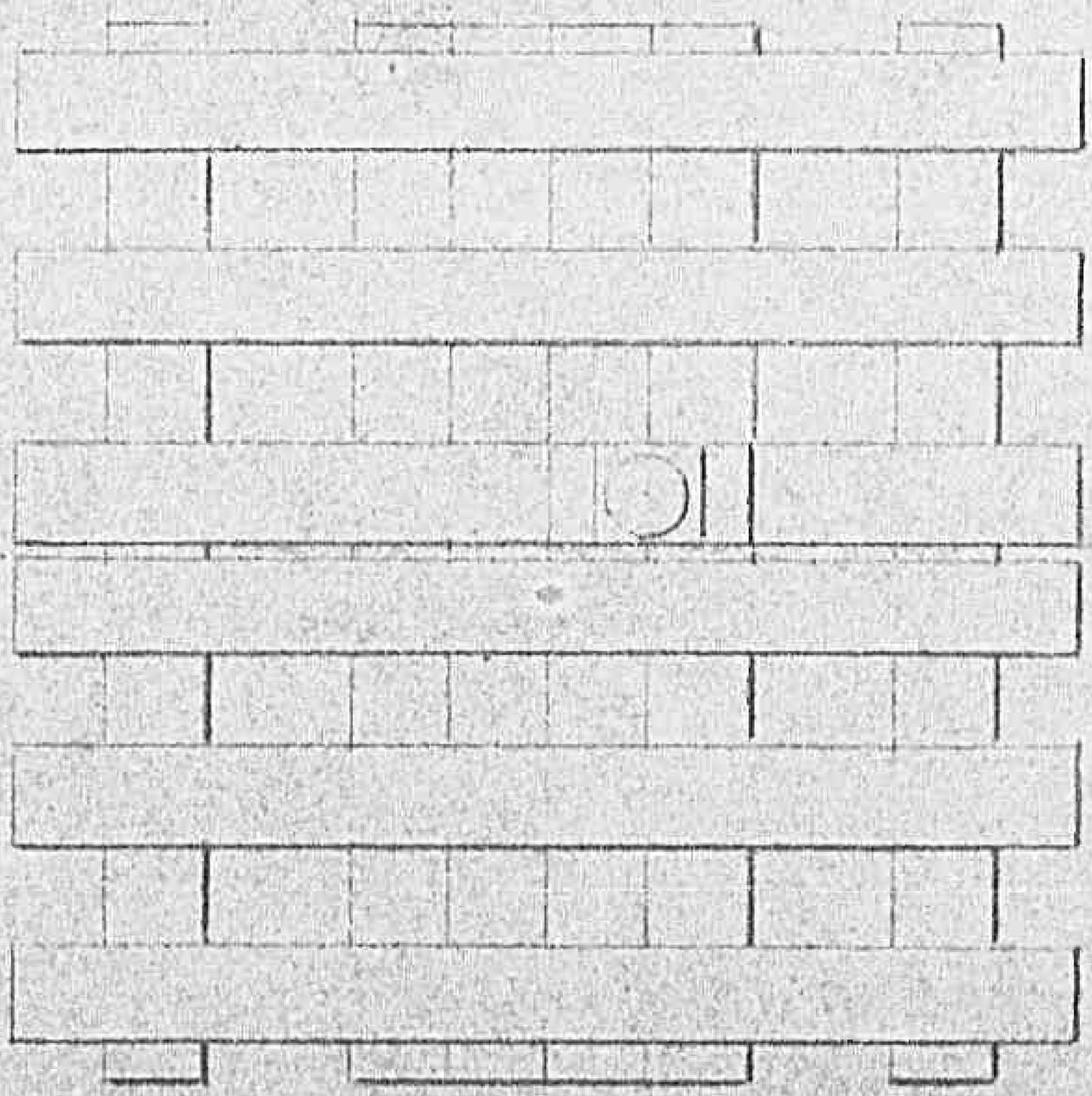
Declassified E.O. 12356 Section 3.3/NND No.

(oltre le traverse di fondo)

... stare accostate.

(1ª metà)

(3) - Appoggio sul martinetto, posa traverse long.ª (2ª metà), ultima fila



In luogo di 2
mettere 1 sola
nelle Fig. (1) e

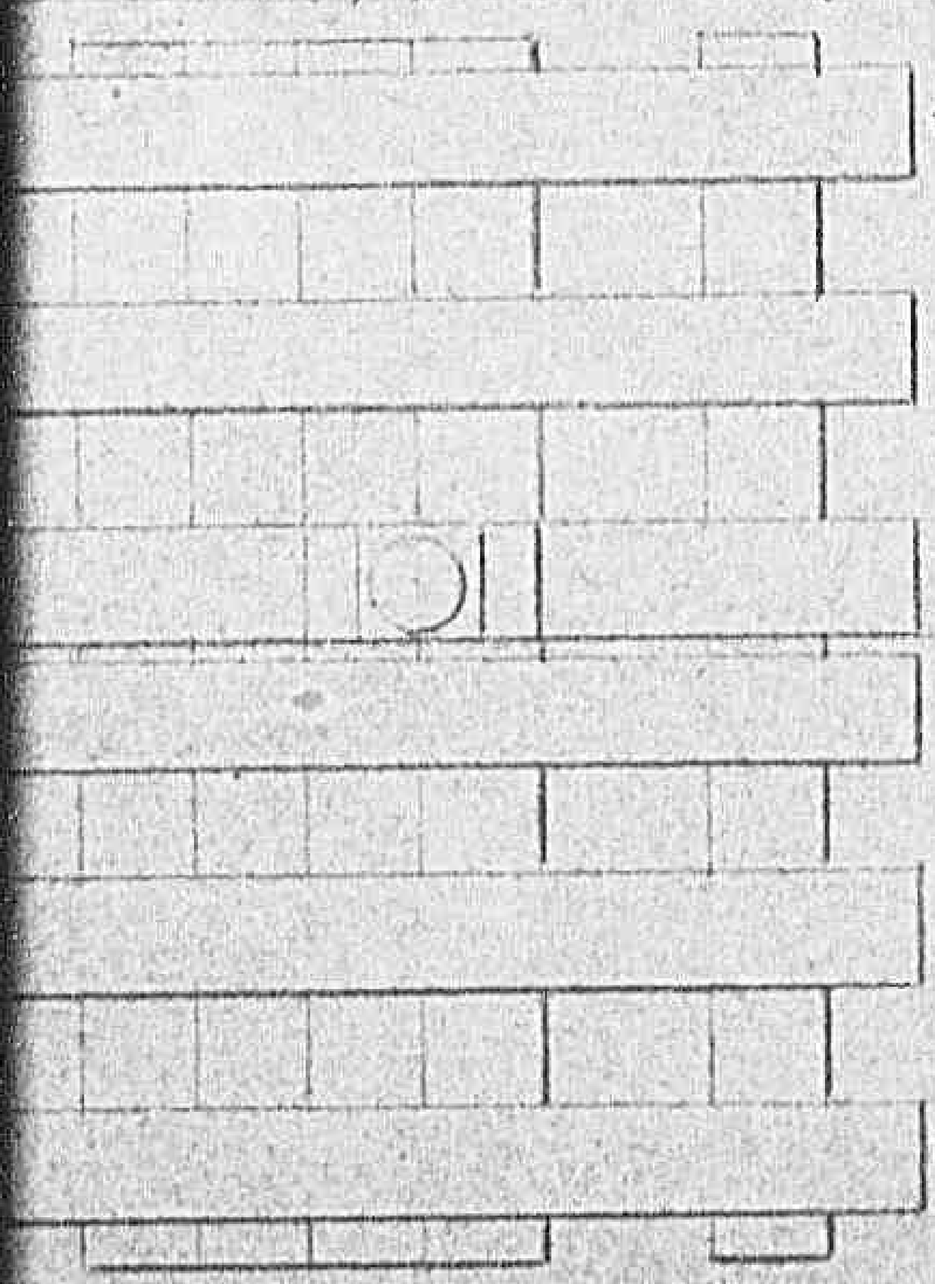
0839

Declassified E.O. 12356 Section 3.3/NND No.

(oltre le traverse di fondo)

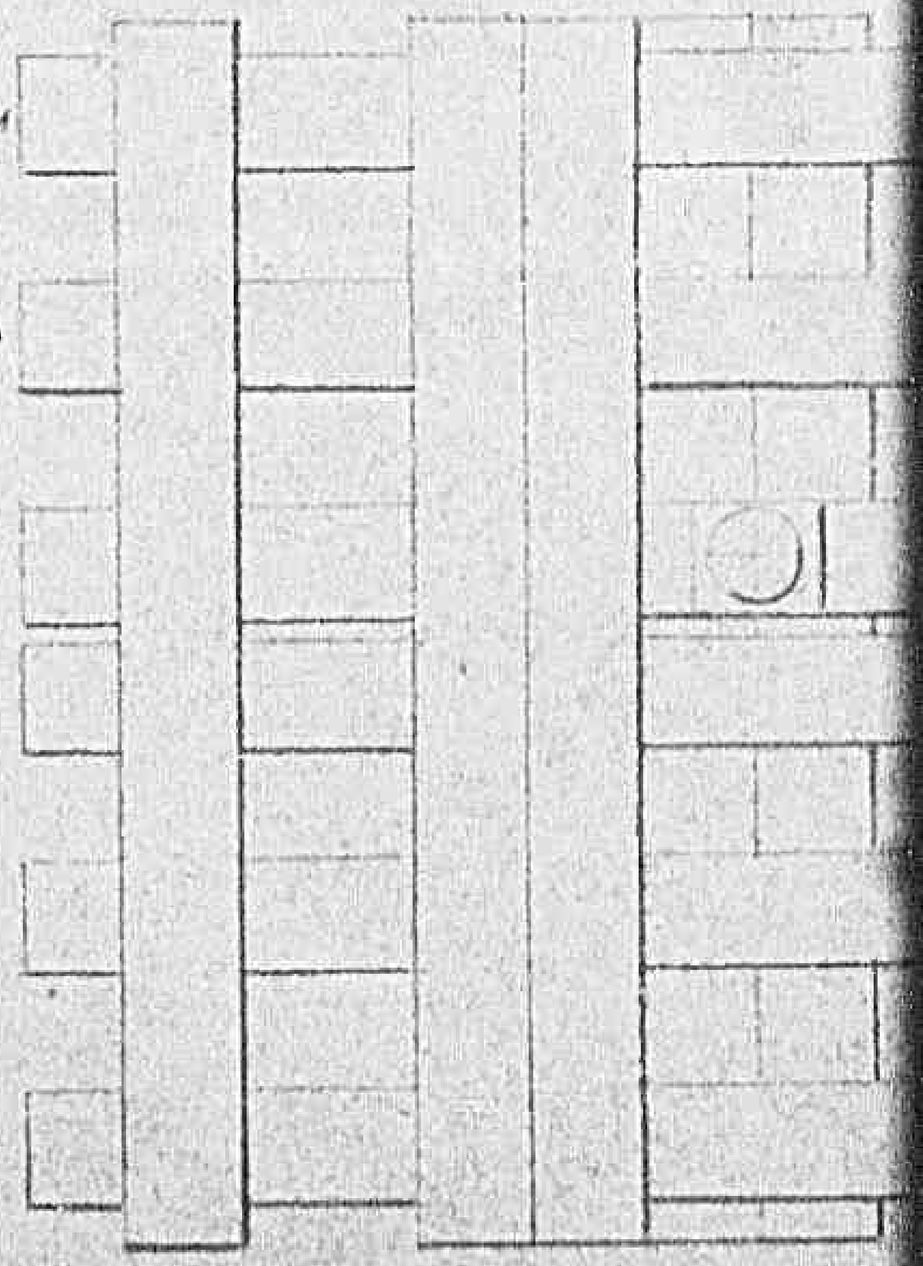
2.50

sul martinetto, posa traverse long. 4 (2ª metà), altezza 14cm.



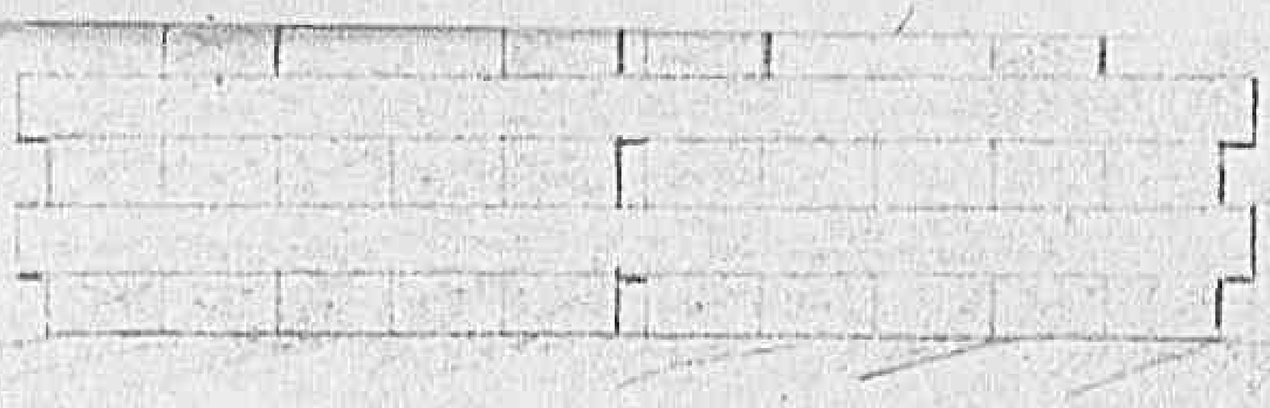
In luogo di 2 traverse mettere 1 sola come nelle Fig. (1 e (2)

(4 - Posa traverse trasversali (1ª



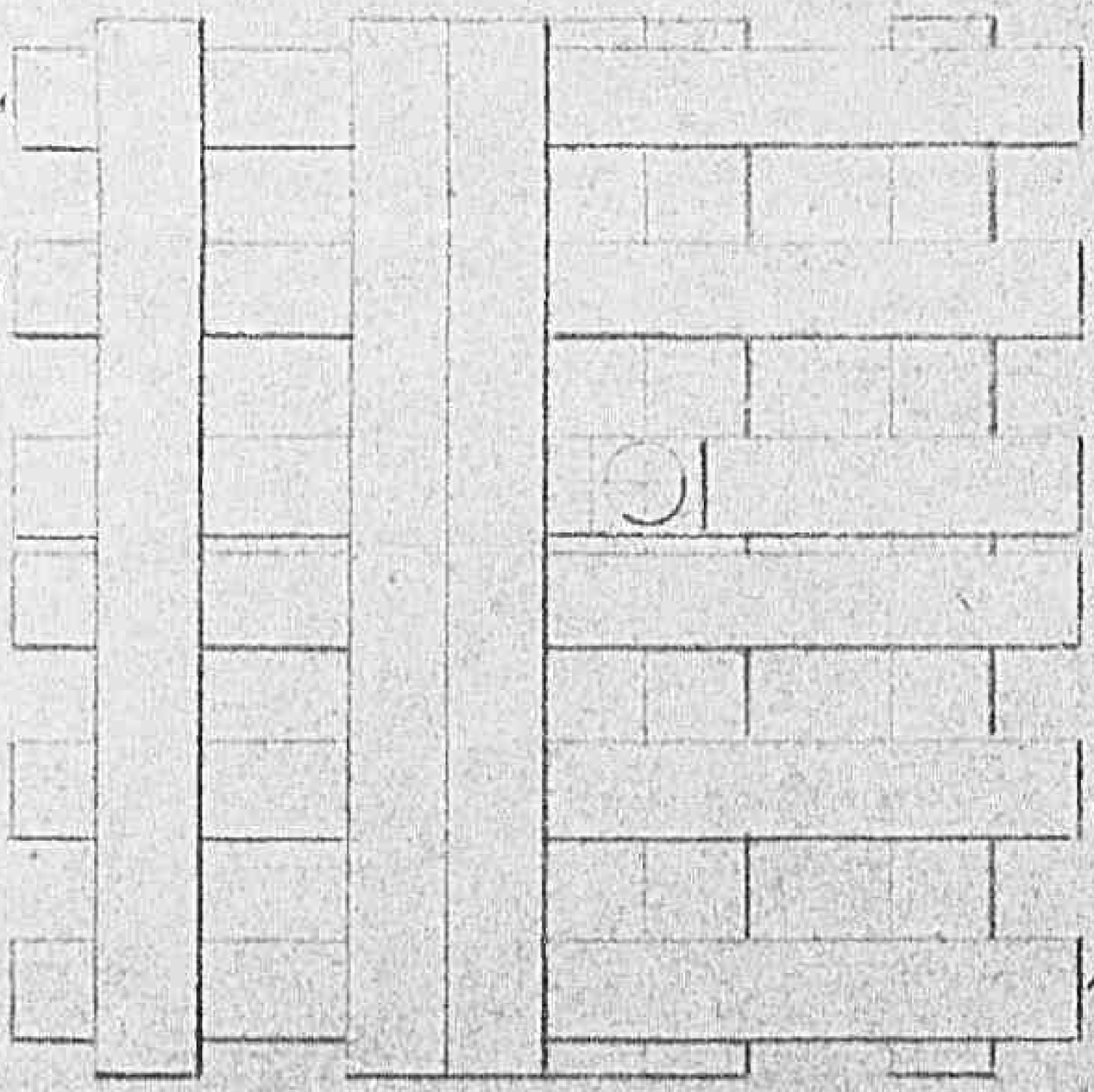
0840

Declassified E.O. 12356 Section 3.3/NND No.



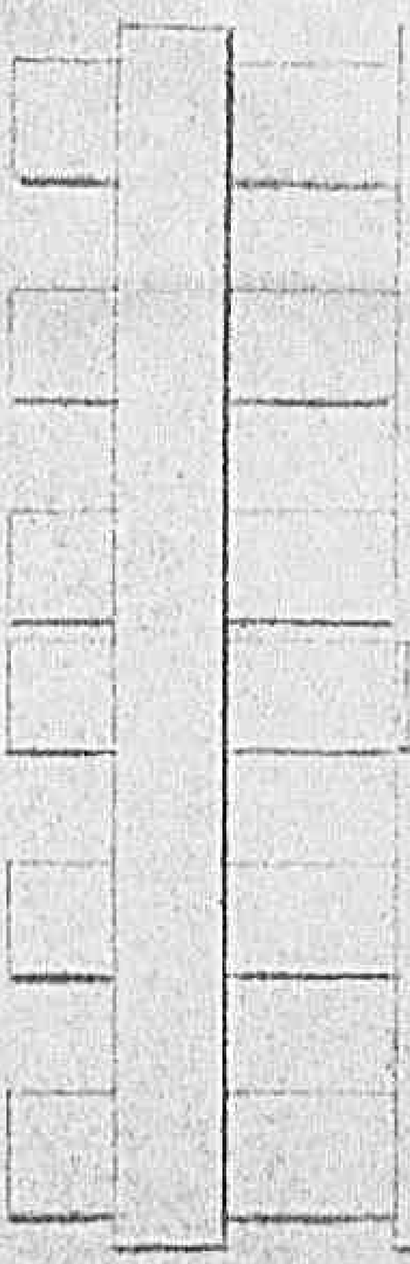
E. 50

4 - Posa traverse trasversali (1ª metà)



In luogo di 2 traverse metterne 1 sola come nelle Fig. 1 e 2

5 = 1 - Appoggio



0841

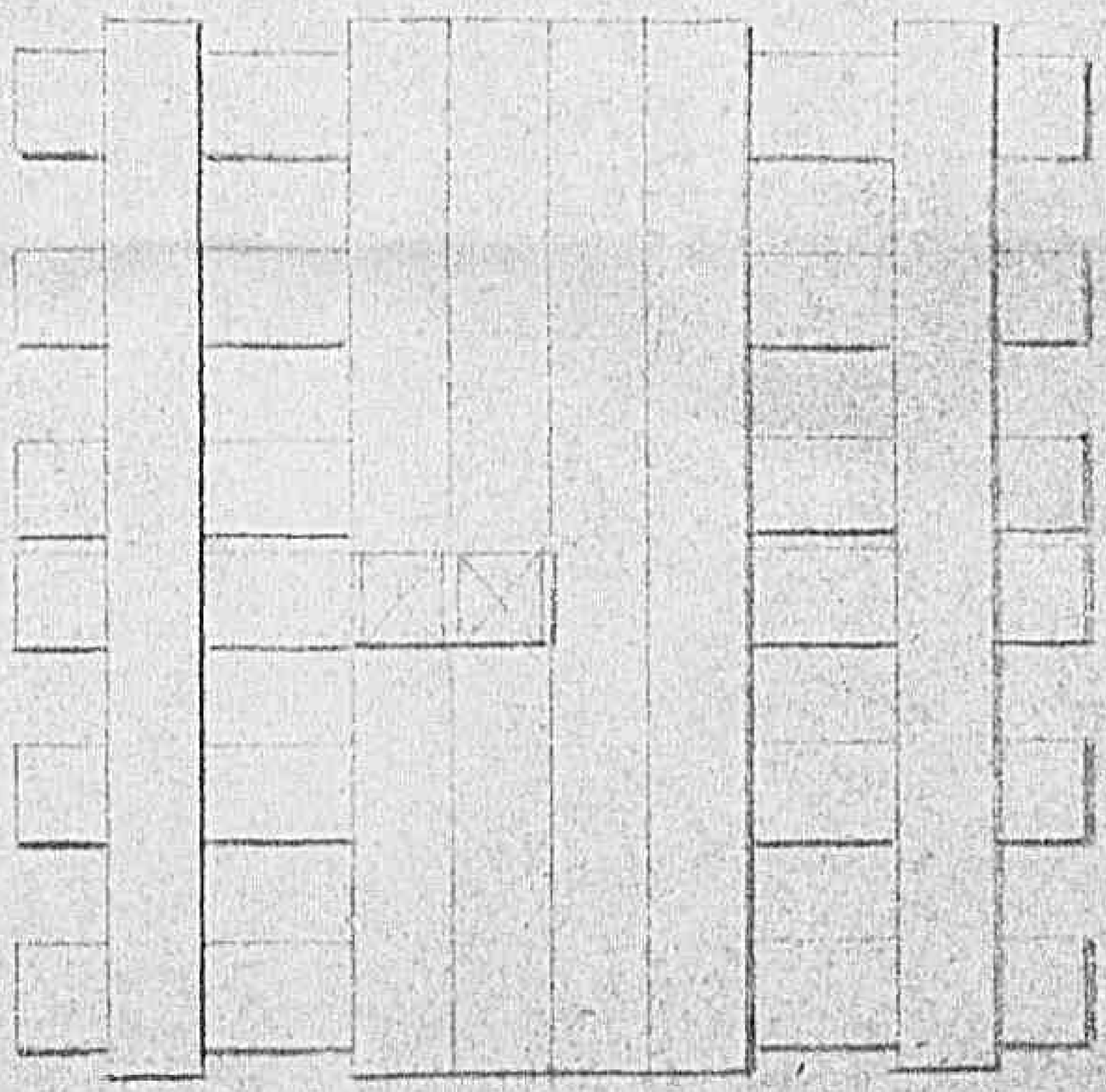
Declassified E.O. 12356 Section 3.3/NND No. 780019

UFFICIO GENIO CIVILE AREZZO

L'INGEGNERE CAPO
(O. Gorelli)

1914

5 = 1) - Appoggio sui cunei, pos. traverse trasversali (24 metri)



In luogo di 2 traverse
mettere 1 sola come
nelle Fig. 1 e 2

0 8 4 21

Declassified E.O. 12356 Section 3.3/NND No. 785019

PILE 111

M-623 02/01

0843

Declassified E.O. 12356 Section 3.3/NND No. 785019

ARE 111

M-623 1/2/81

COMPUTO DI C

4.20 x 3.

4.20 x 2.0

4.20 x 1.5

4.20 x 1.0

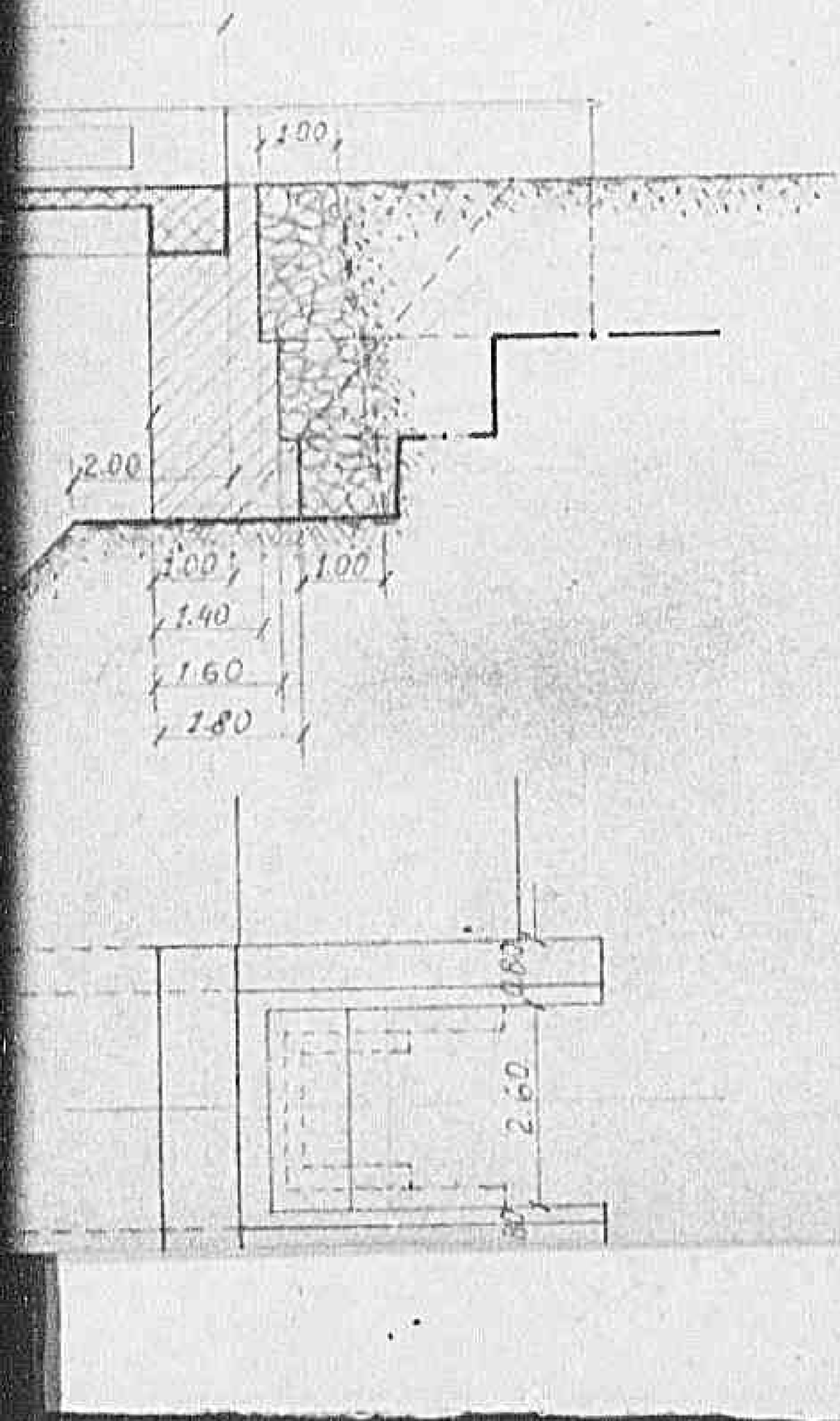
2 x 4.20 x 2.0

2 x 2.70 x 1.

2 x 1.40 x 1.0

0844

Declassified E.O. 12356 Section 3.3/NND No. 785019

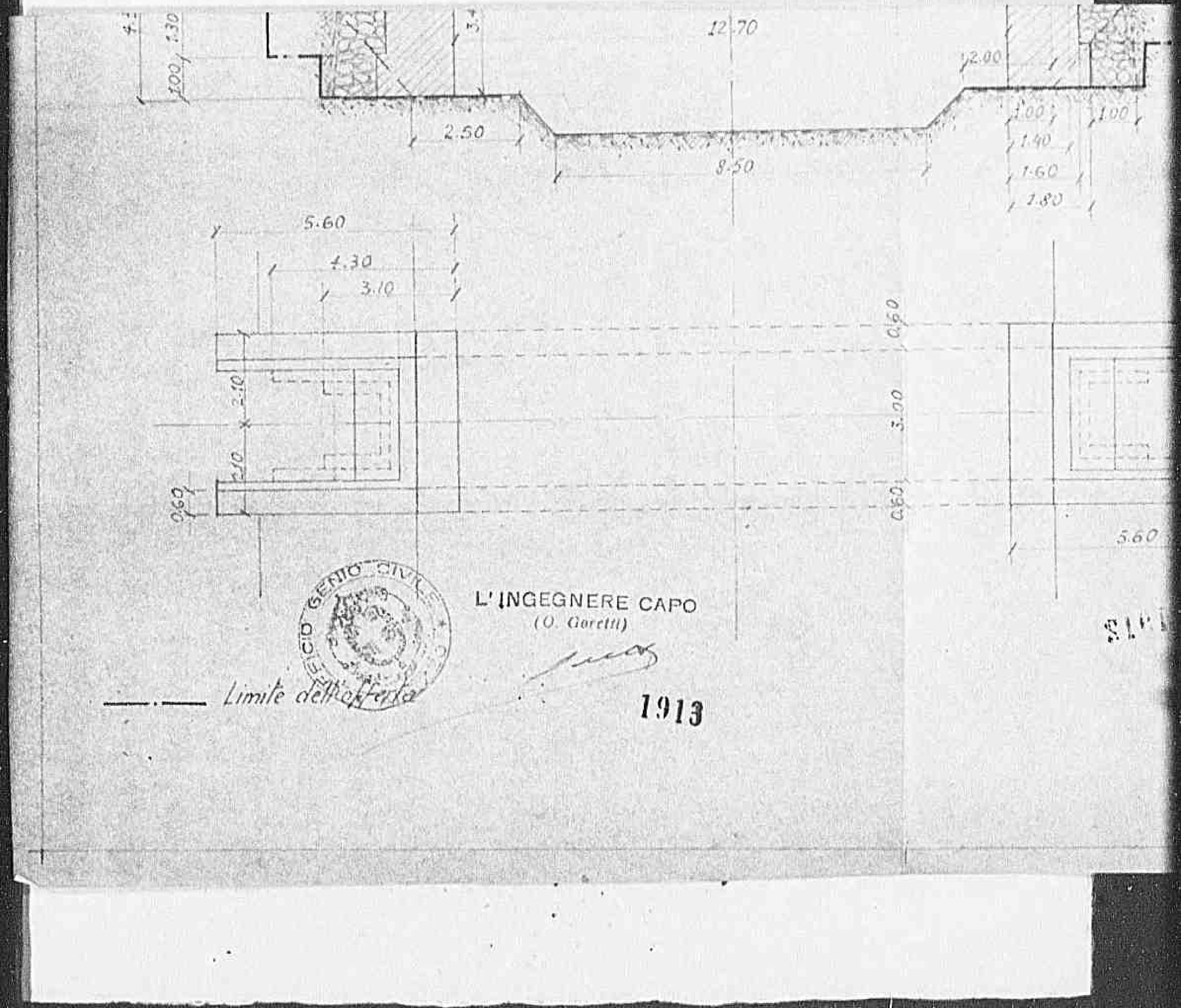


COMPUTO DI UNA SPALLA E DEI RELATIVI MURI ANDANTI

4.20 × 3.40 × 1.00	=	mc.	14.30
4.20 × 2.00 × 0.40	=	"	5.40
4.20 × 1.30 × 0.60	=	"	3.30
4.20 × 1.00 × 0.80	=	"	3.40
2 × 4.20 × 2.00 × 0.80	=	"	13.50
2 × 2.70 × 1.30 × 1.10	=	"	7.70
2 × 1.40 × 1.00 × 1.40	=	"	3.70
Totale		*mc.*	49.30 ~ 50.00

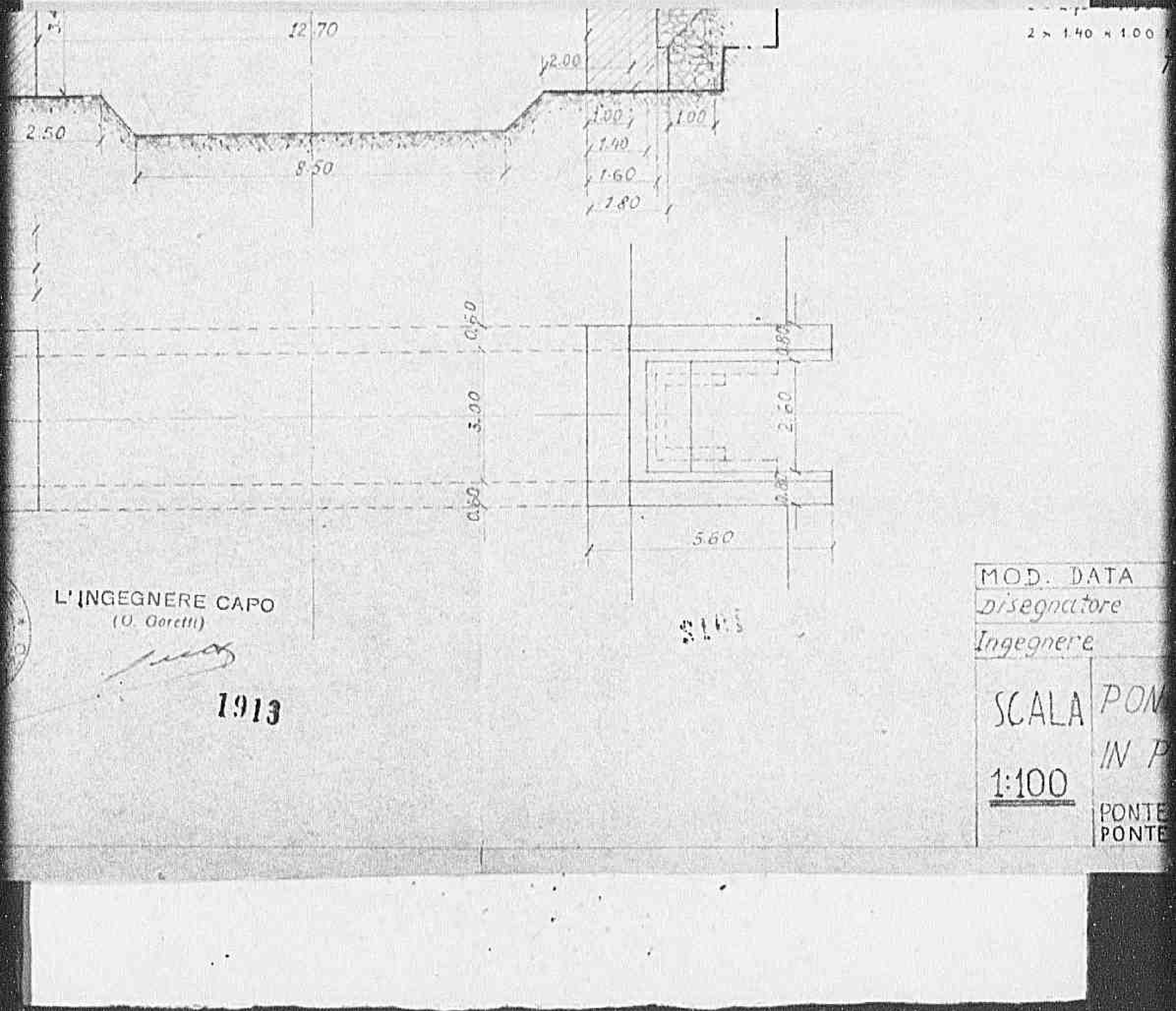
0845

Declassified E.O. 12356 Section 3.3/NND No. 780019



0 8 4 6

Declassified E.O. 12356 Section 3.3/NND No. 785019



L'INGEGNERE CAPO
(O. Goretti)

1913

MOD. DATA
Disegnatore
Ingegnere

SCALA
1:100

PON
IN P

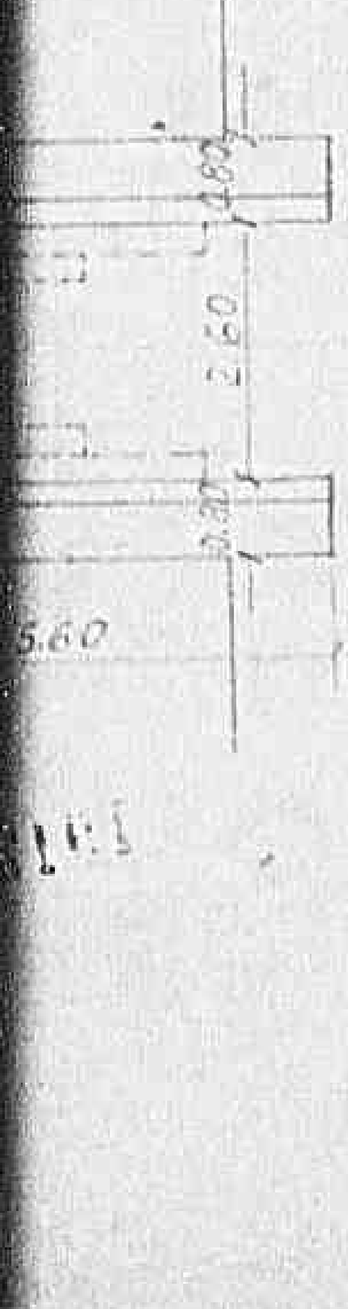
PONTE
PONTE

0847

Declassified E.O. 12356 Section 3.3/NND No. 785019

2 × 1.40 × 1.00 × 1.40 = " 3.70

Totale mc. 49.30 ~ 50.00



MOD. DATA *Disegnatore* *Ingegnere*	FERROBETON - ROMA - SOC. ANONIMA — 9 VIA CATANIA —	
SCALA 1:100	*PONTI SUL CANALE NAVE* *IN PROV. DI AREZZO* PONTE Nº 1 DI LUCE MT. 12.70 PONTE Nº 2 DI LUCE MT. 12.70	DIS. Nº 7706FI 4 5-12-1944

0848

Declassified E.O. 12356 Section 3.3/NND No. 785019

1912

0 8 4 91

Declassified E.O. 12356 Section 3.3/NND No. 780014

Vista in sens
longitudine

L = 18,00

P = 120 To

15,6 m.

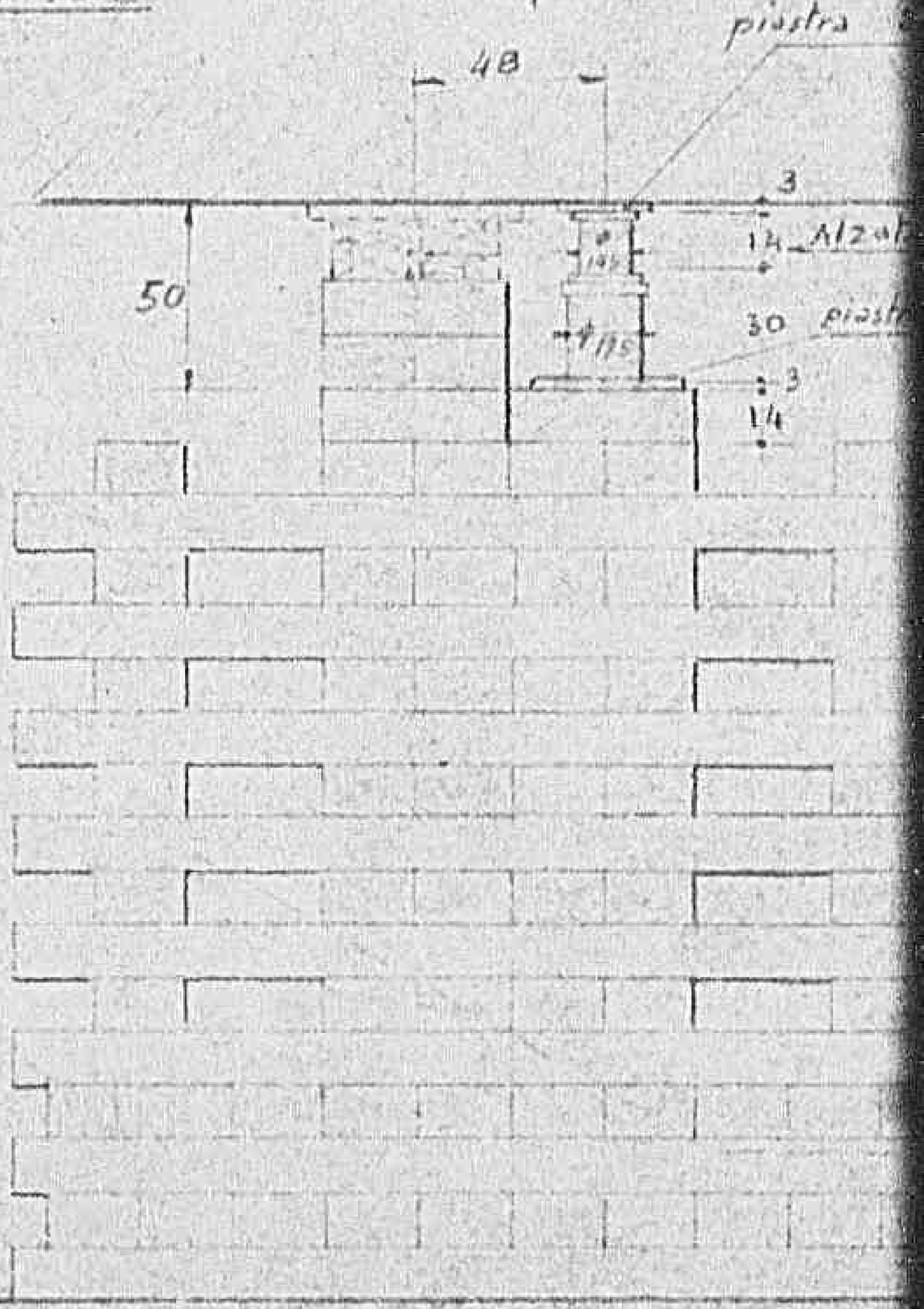
2,60 / 120 ≈ 20 cm.

0850

Declassified E.O. 12356 Section 3.3/NND No. 78 D 14

$P_{max} = \frac{120.-}{4} = 30.-$ To.

Vista in senso longitudinale



18.00

120 To

215

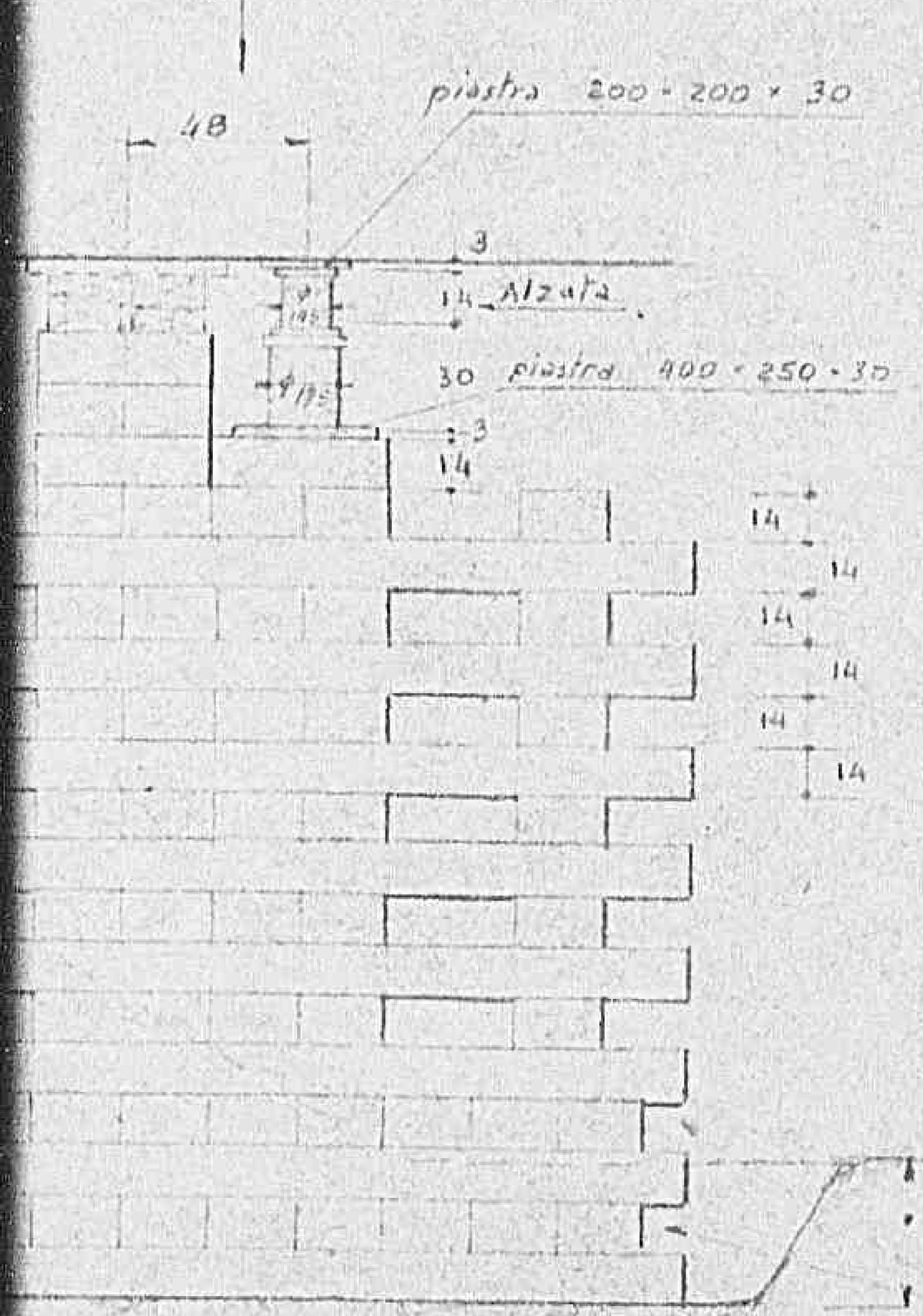
260 / 1260 = 20 cm

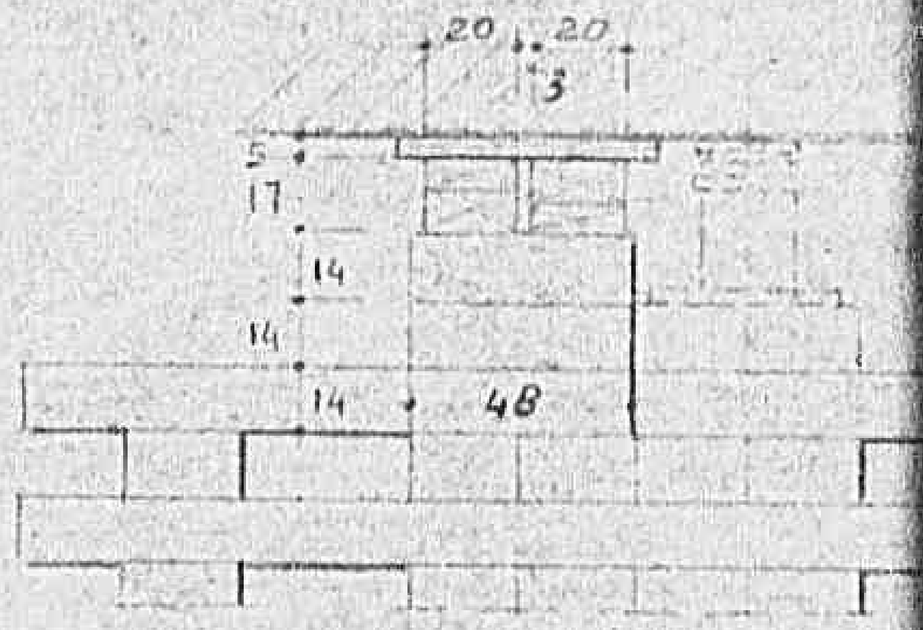
$\sigma_{terr.\ max.} = \frac{0.5\ Kg/cm^2}{2.60}$

0851

Declassified E.O. 12356 Section 3.3/NND No. 78 B 1

$P_{max} = \frac{120.-}{4} = 30.-$ To.





piastra 200 × 200 × 30

piastra 400 × 250 × 30

Scavo di ~ 30 ÷ 40 cm. per asportare lo

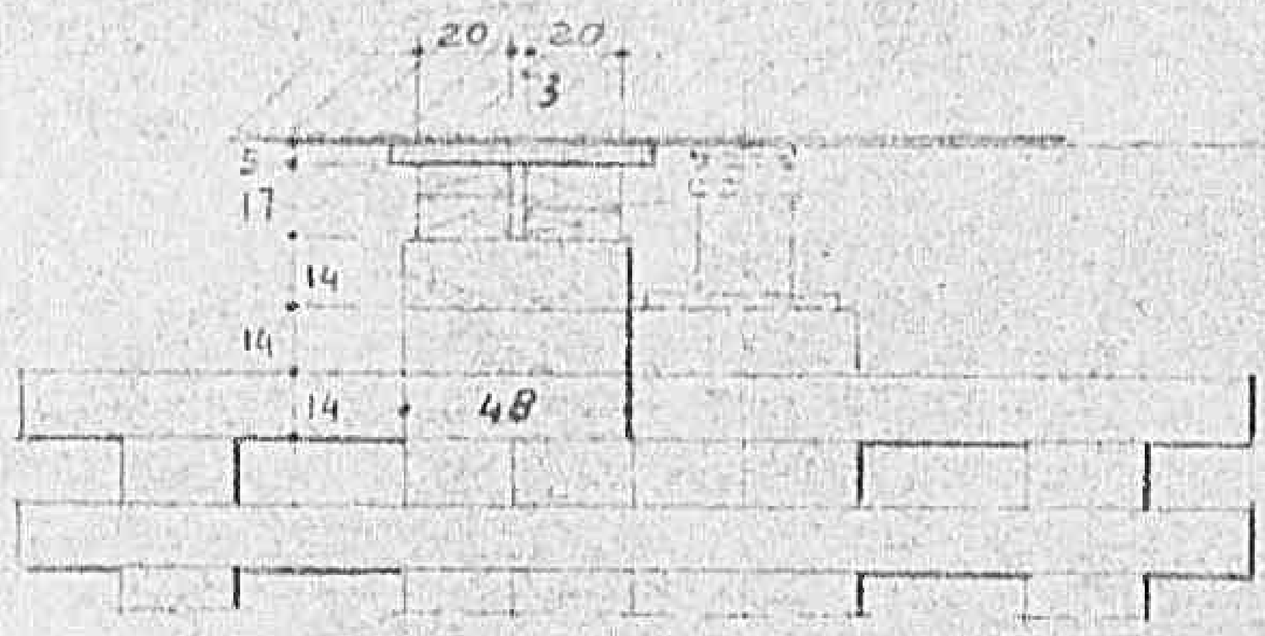
Nei primi 3 ÷ 4 strati le traverse sono n° 10

$\sigma_{max.} = \underline{0.5 \text{ Kg/cm}^2}$

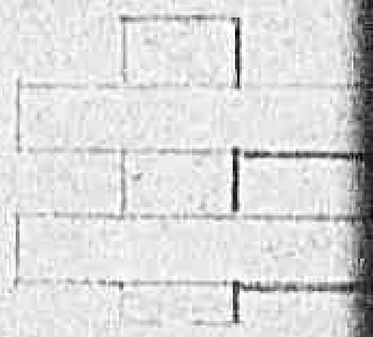
2,80

0852

Declassified E.O. 12356 Section 3.3/NND No. 785011



Alzata ~14 cm.



di ~30÷40 cm. per asportare lo strato superficiale poco consistente

3 - 4 strati le traverse sono n° 10 e devono stare accostate

0853

Declassified E.O. 12356 Section 3.3/NND No. 78501

Fascia ~14 cm.

N° delle traverse :

N° 10 ogni 28 cm. ≃

≃ N° 35 per ogni metro di altezza

(oltre le traverse di fondo)

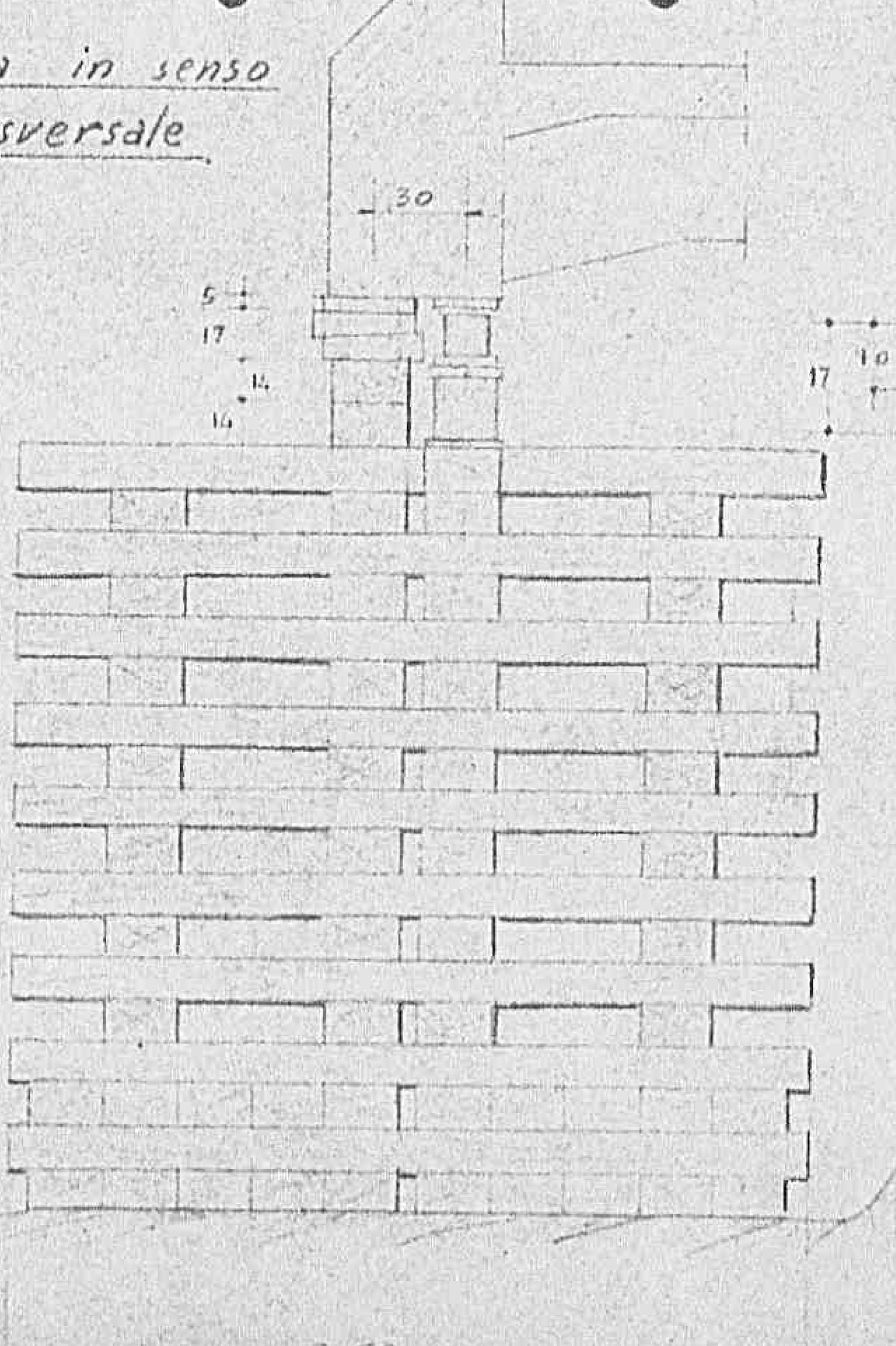
...iale pure consistente

...e accostate

0854

Declassified E.O. 12356 Section 3.3/NND No. 785414

Vista in senso trasversale



...ersa :

... cm. ≃

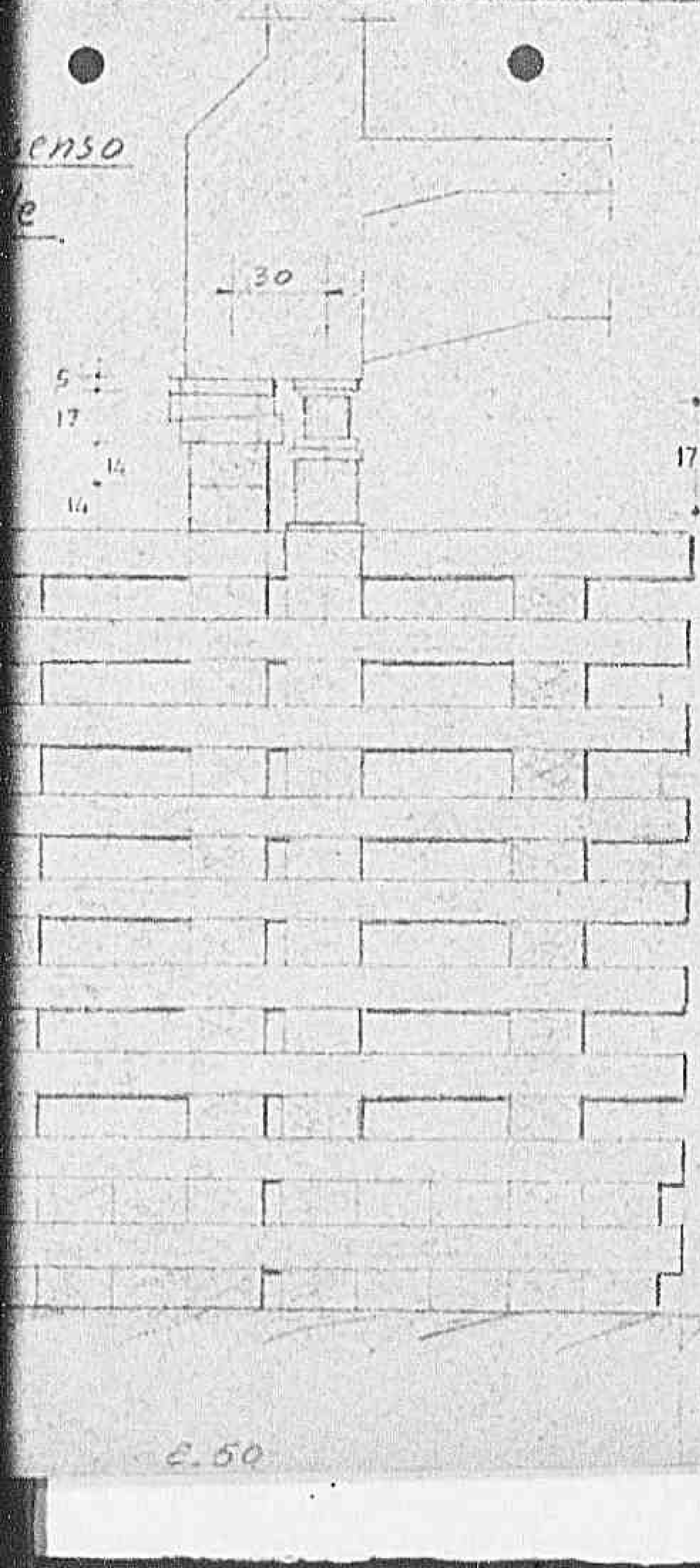
...etro di altezza

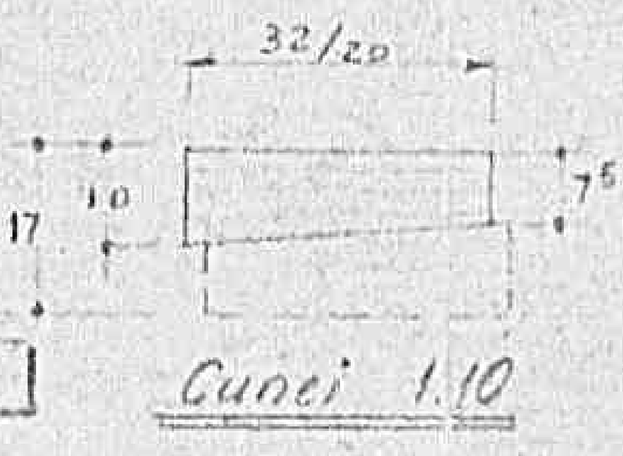
... di fondo)

0855

Declassified E.O. 12356 Section 3.3/NND No.

ARE





Cunei 1.10

MOD. DATA			
DISEGN:		CONTR:	F E Soc.
ING: Mon. L			
SCALA	SOLLEVAMENTO PO		
1:20	SUL CANALE NAVE -		
1:100			
1:10	SOLUZIONE A		

GENIO CIVILE

L'INGEGNE

2.50

0 8 5 6 1

Declassified E.O. 12356 Section 3.3/NND No. 78 0 0 1 8

ARE 111 6

MOD DATA	31 - 10 - 1944	
DISEGN:	CONTR:	FERROBETON-ROMA SOC. ANONIMA — 9 - VIA CATANIA
ING:		
SCALA 1:20 1:100 1:10	SOLLEVAMENTO PONTI SUL CANALE NAVE - AREZZO SOLUZIONE A	DISEGNO N° 7706 / 1
		Sostituisce:
		Sostituito da:

32/20

75

Cunei 1.10

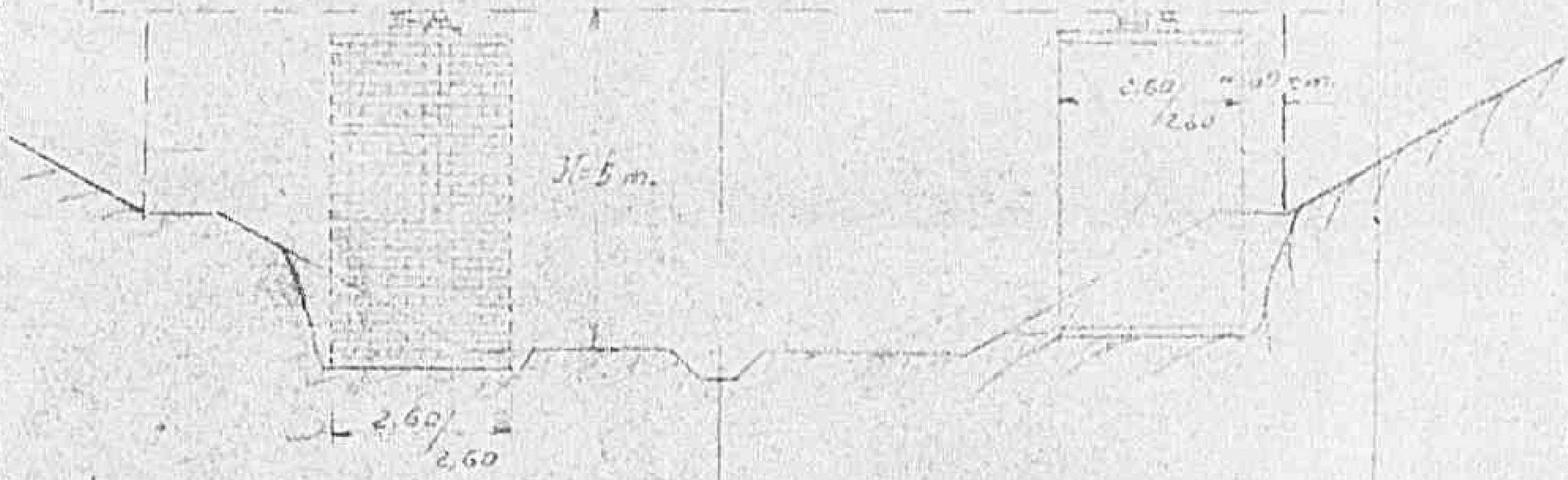
GENIO CIVILE

L'INGEGNERE CAPO

0857

Declassified E.O. 12356 Section 3.3/NND No.

P. 120 To



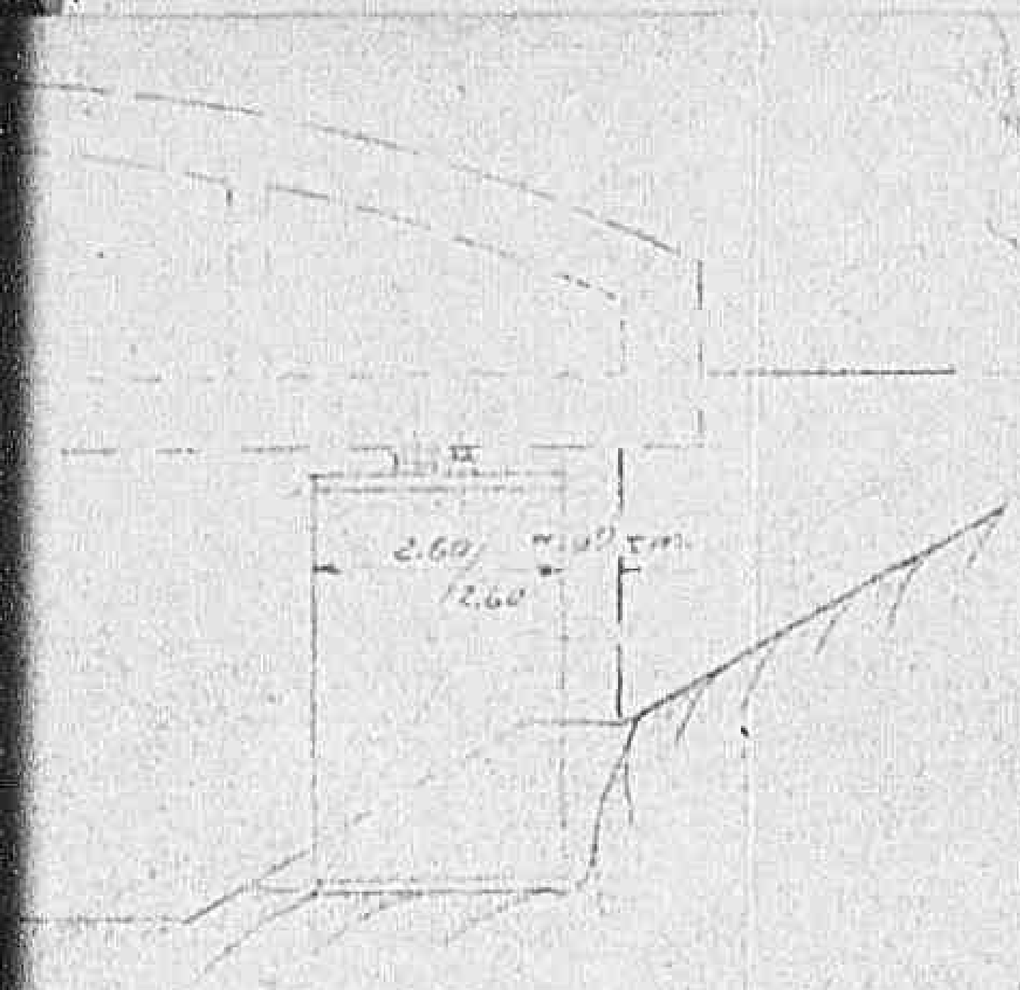
Posizione A

Posizione B

(preferibile)

0858

Declassified E.O. 12356 Section 3.3/NND No. 780014

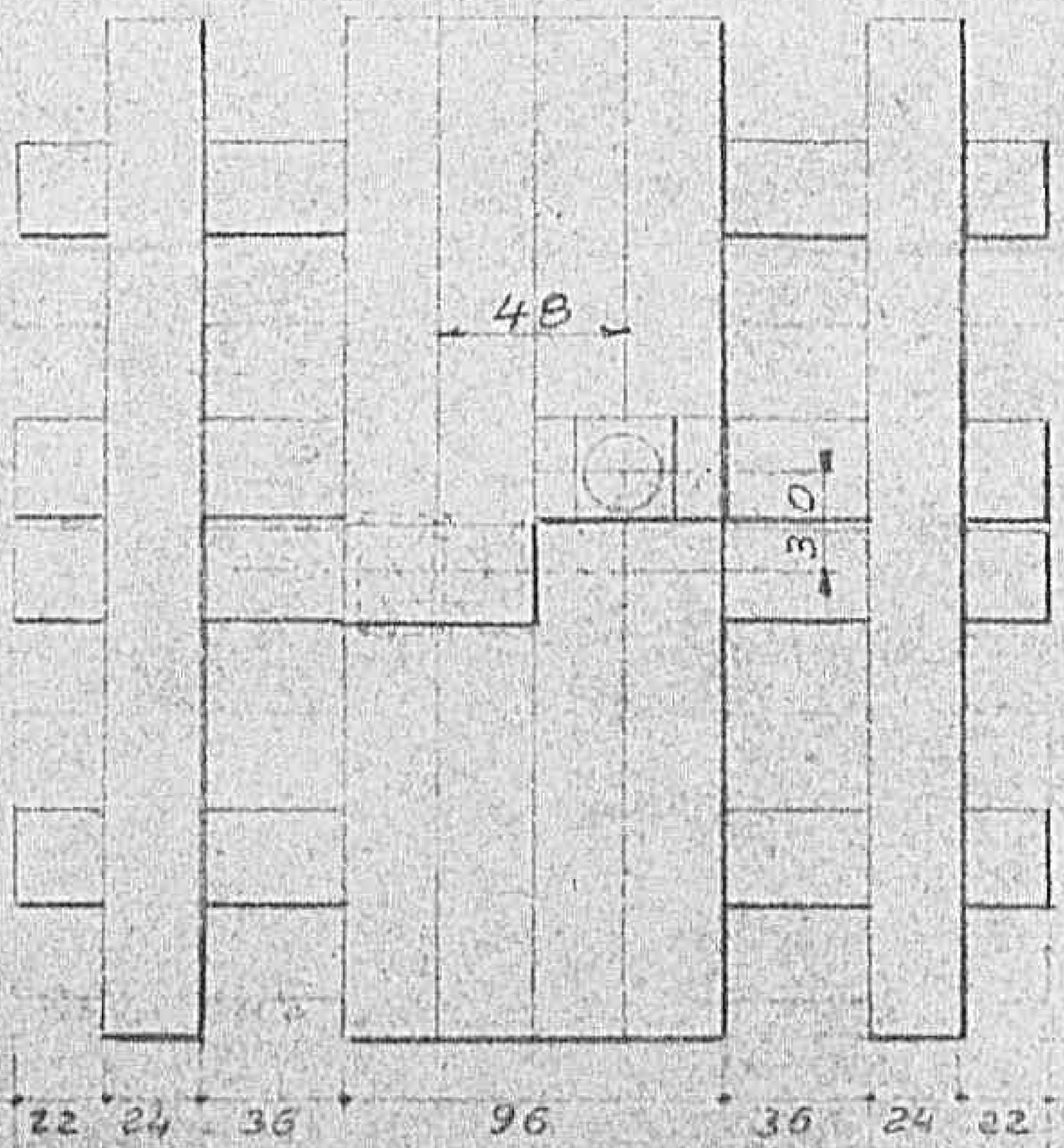


$\sigma_{terr.max.} = \frac{0,5 \text{ Kg/cm}^2}{2,60}$

Posizione B

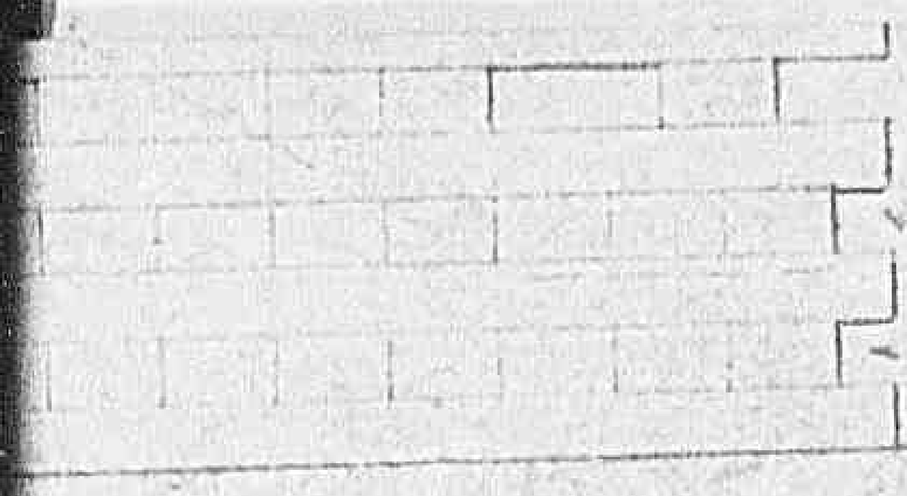
(preferibile)

1) - Appoggio sul martinetto a sbalzo 14 cm.



0 8 5 91

Declassified E.O. 12356 Section 3.3/NND No.



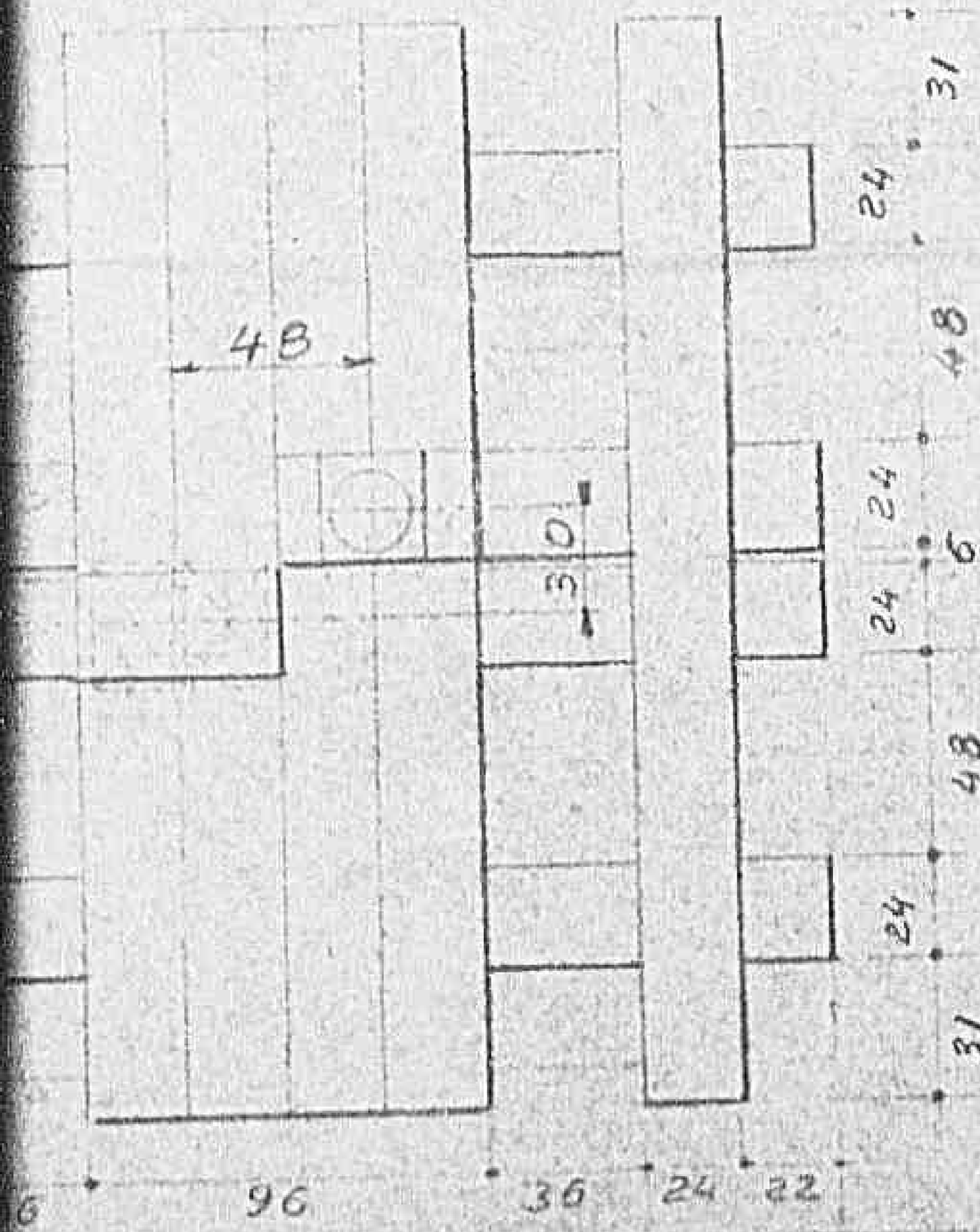
Scavo di ~ 30 ÷ 40 cm. per asportare lo

ai primi 3 ÷ 4 strati le traverse sono n° 10

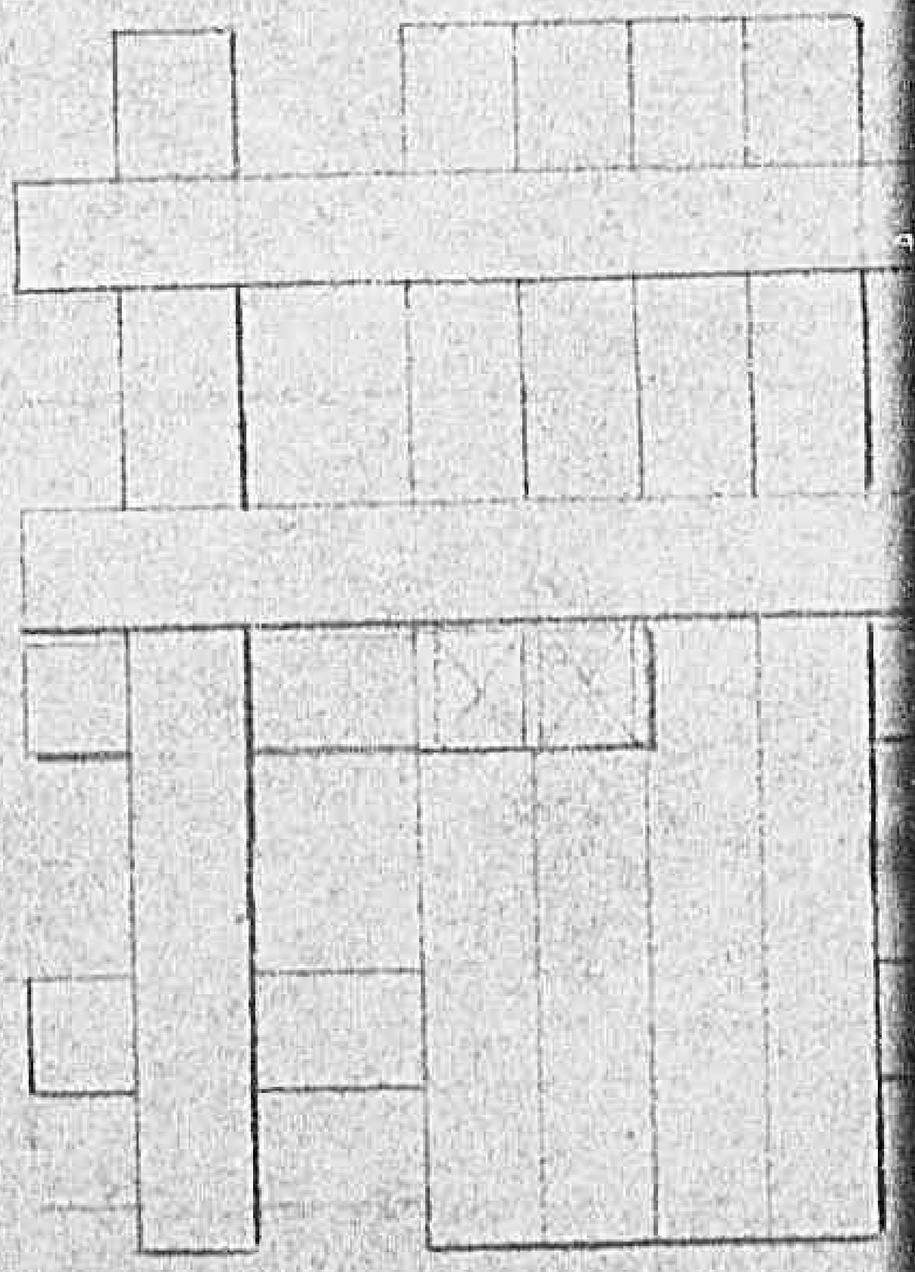
= 0,5 Kg/cm²

2,60

sul martinetto e alzato 14 cm.



(2) - Appoggio sui cunei, posa trav



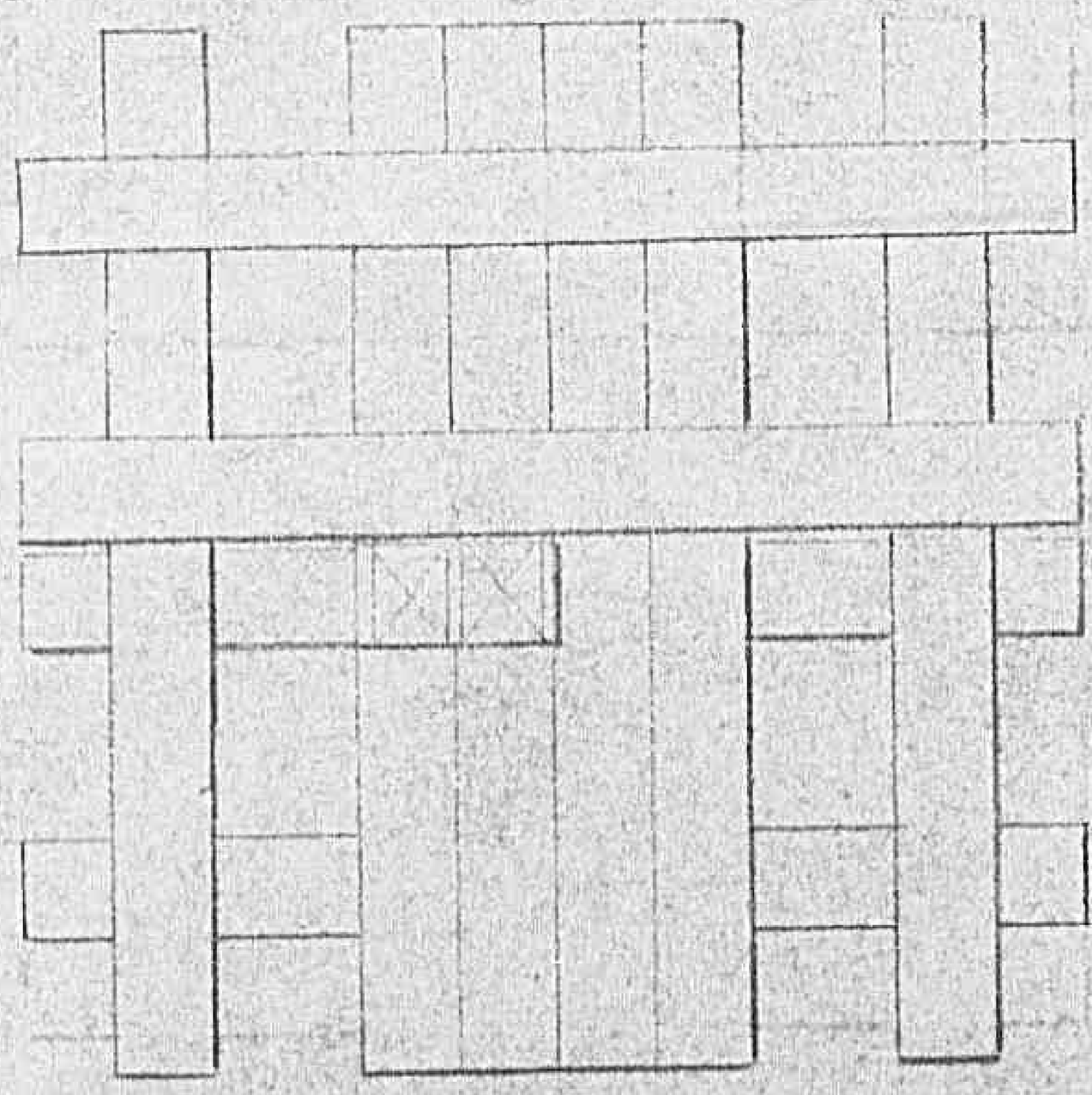
0860

Declassified E.O. 12356 Section 3.3/NND No.

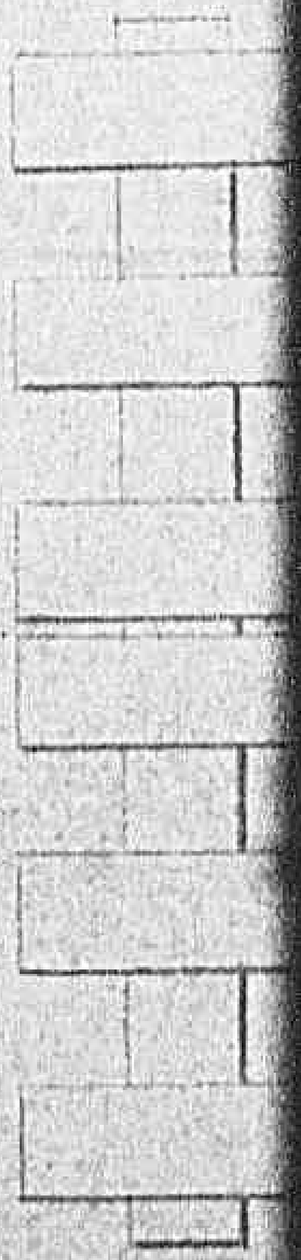
...ro di ~30÷40 cm. per asportare lo strato superficiale poco consistente

...rimi 3 : 4 strati le traverse sono n° 10 e devono stare accostate

(2) - Appoggio sui cunei, posa traverse long.ri (1ª metà)



3) - Appoggi



0861

Declassified E.O. 12356 Section 3.3/NND No. 78

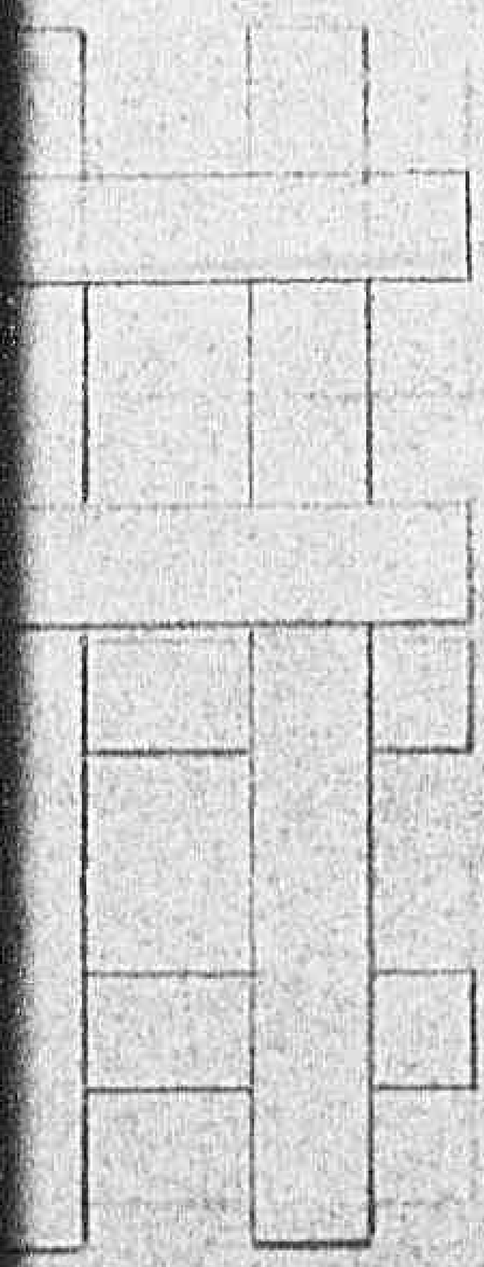
lo strato superficiale poco consistente

= N° 35 per ogni metro di altezza

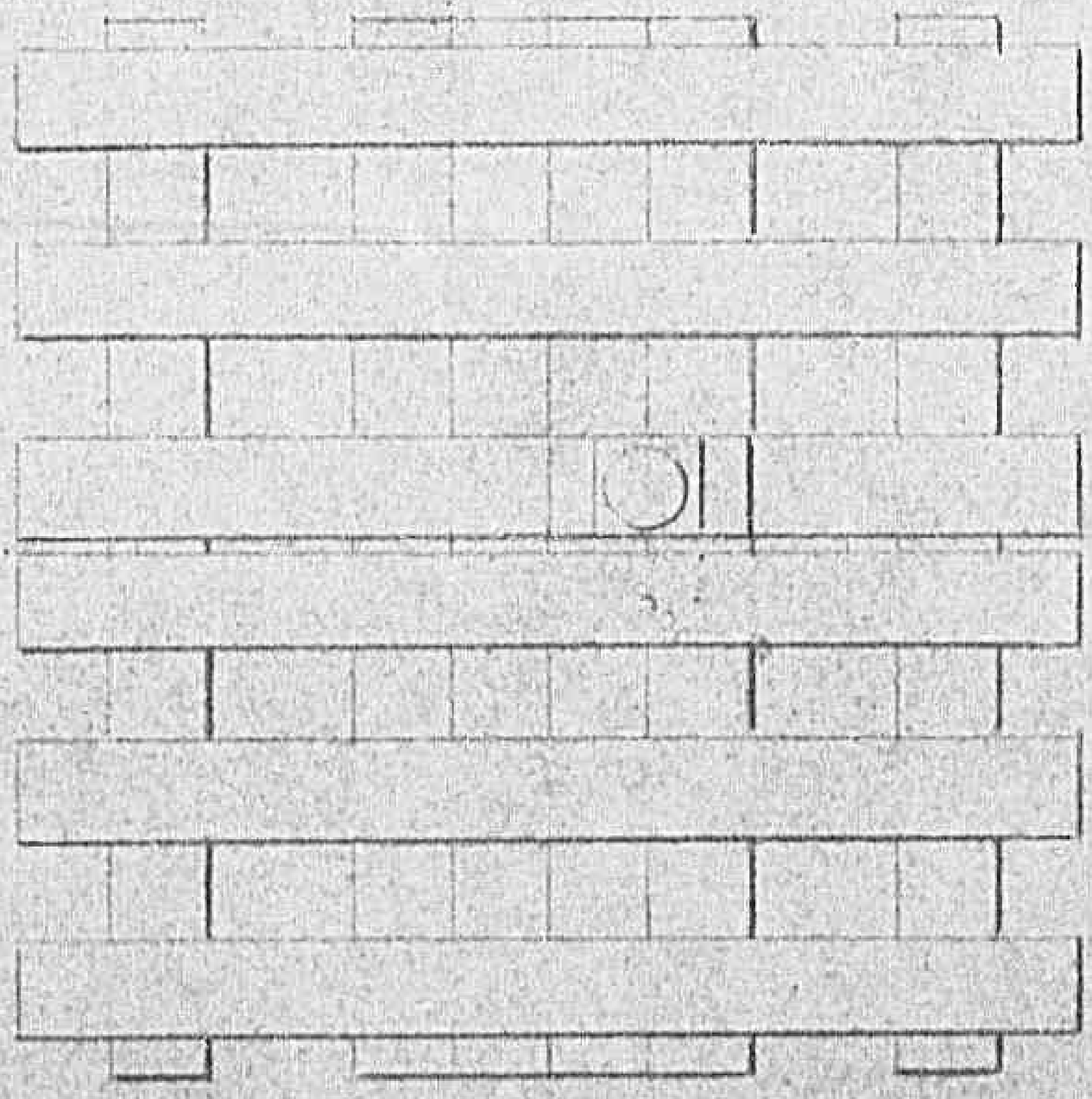
(oltre le traverse di fondo)

10 e devono stare accostate

traverse long. $\frac{L}{2}$ (1ª metà)



3) - Appoggio sul martinetto, passo traverse long. $\frac{L}{2}$ (2ª



0862

Declassified E.O. 12356 Section 3.3/NND No.

≃ R° 35 per ogni metro di altezza

(oltre la traversa di fondo)

E. 6

1 - Appoggio sul martinetto, posa traverse long. ½ (2ª metà), distr. 14cm.

4 - Posa traverse tra

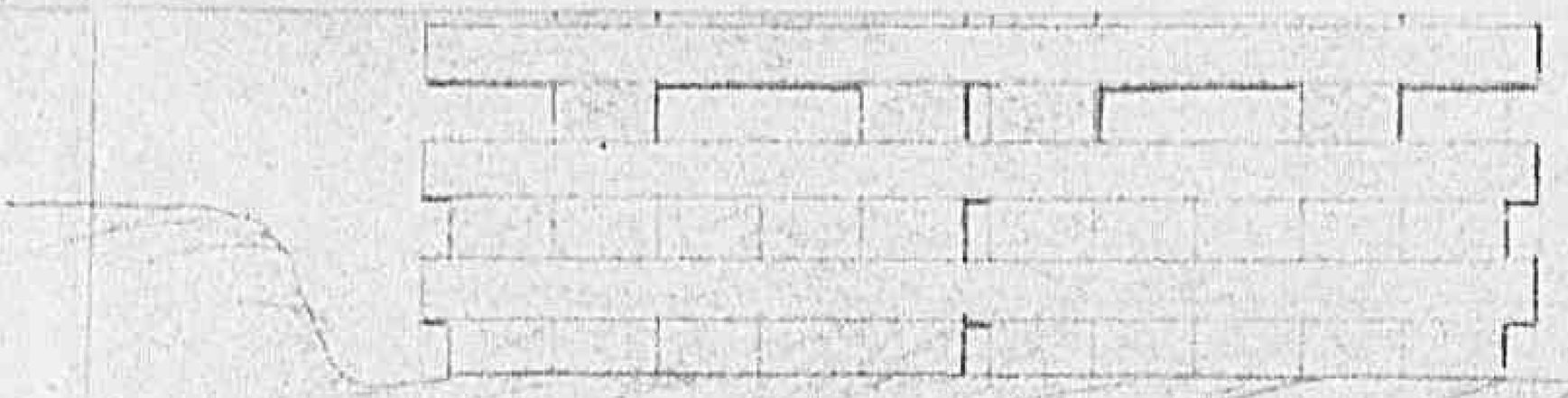
In luogo di 2 traverse

mettere 4 pali come

nelle Fig. (1) e (2)

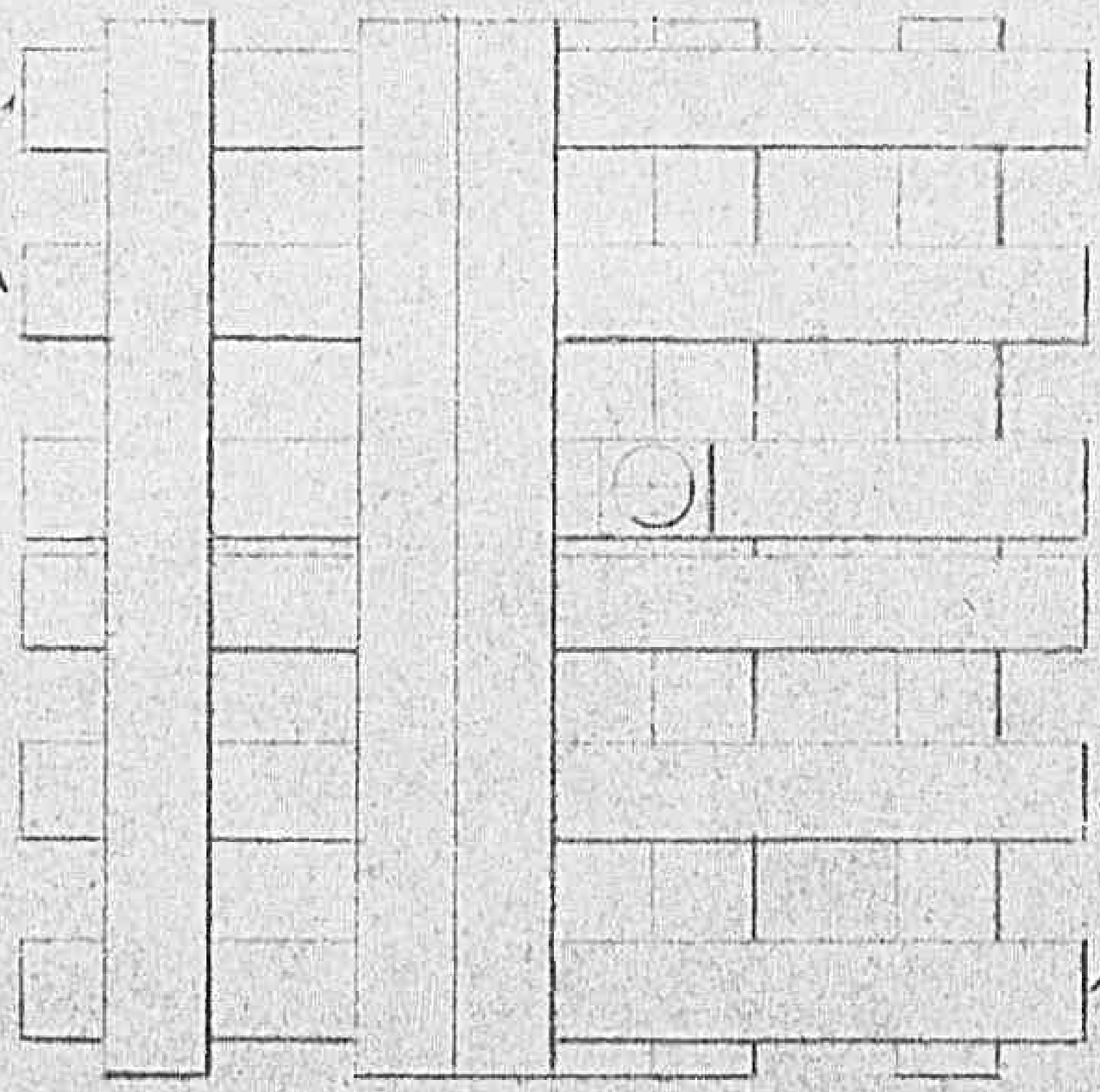
0863

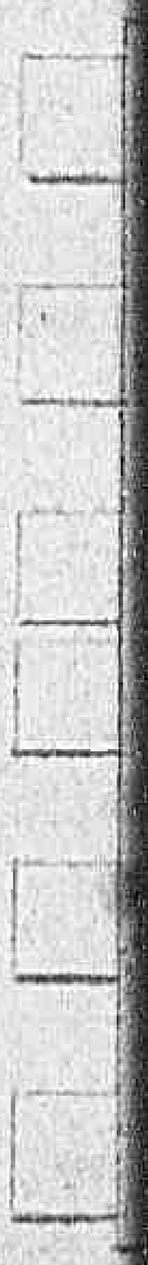
Declassified E.O. 12356 Section 3.3/NND No.



c. 60

), altezza 14cm





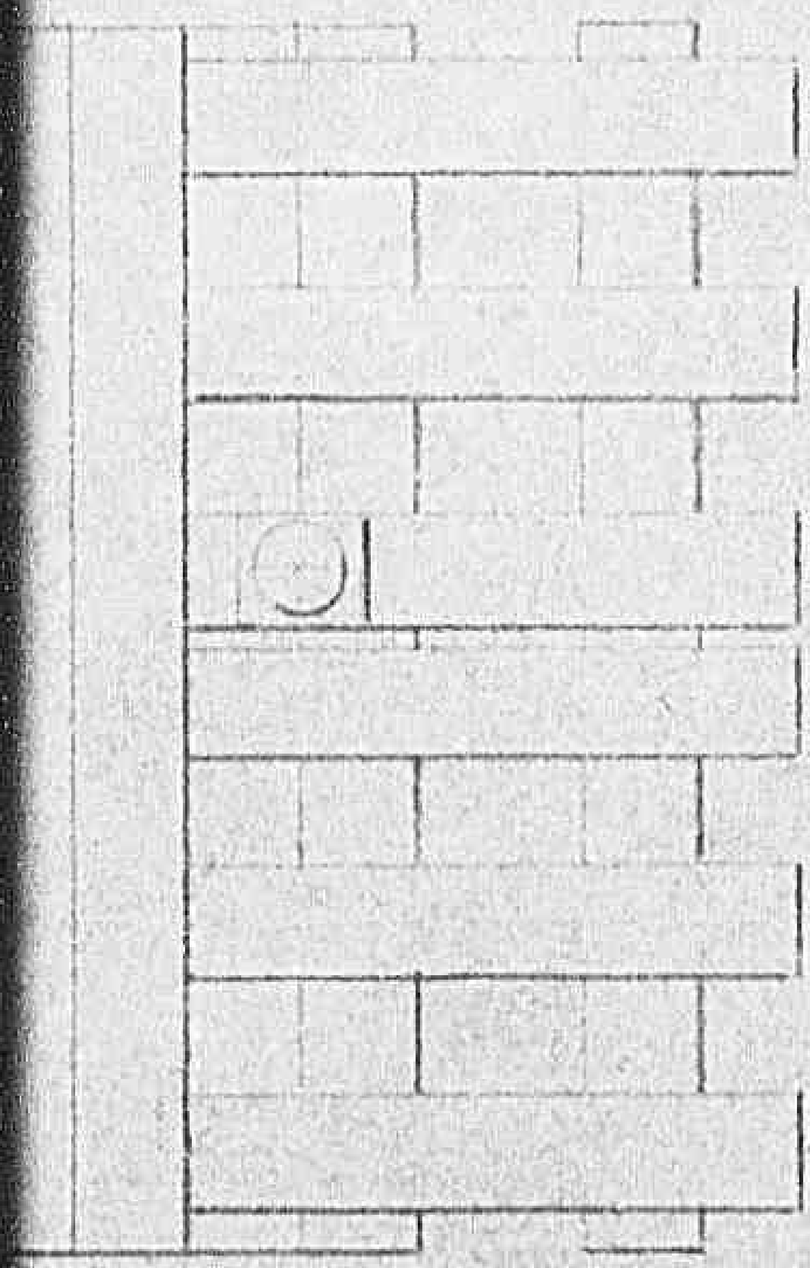
0864

Declassified E.O. 12356 Section 3.3/NND No. 780019

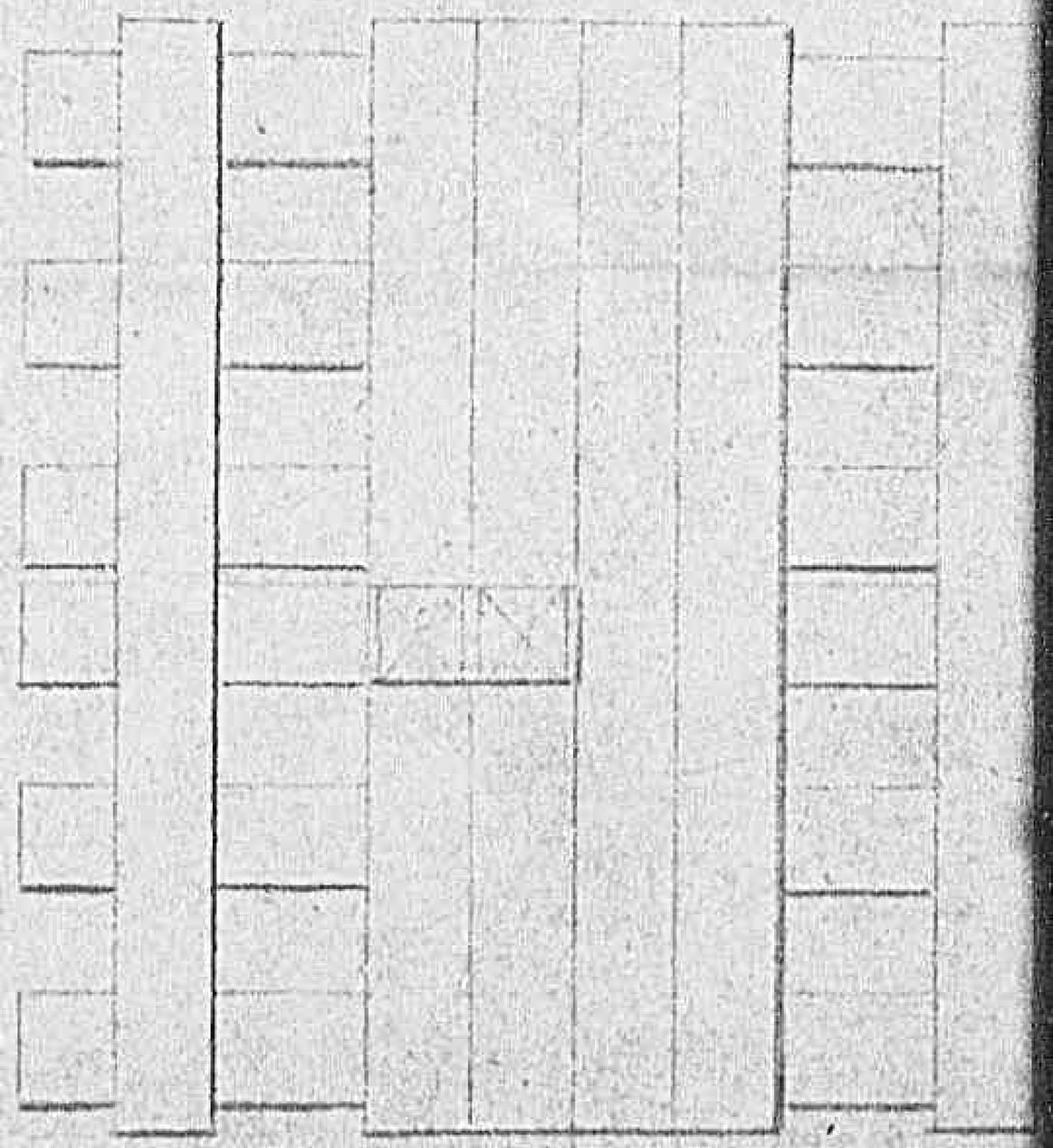
2.50

L'INGEGNERE CAPO
(O. Corelli)

trasversali (1ª metà)



5 = (1) - Appoggio sui cunei, poco traverse



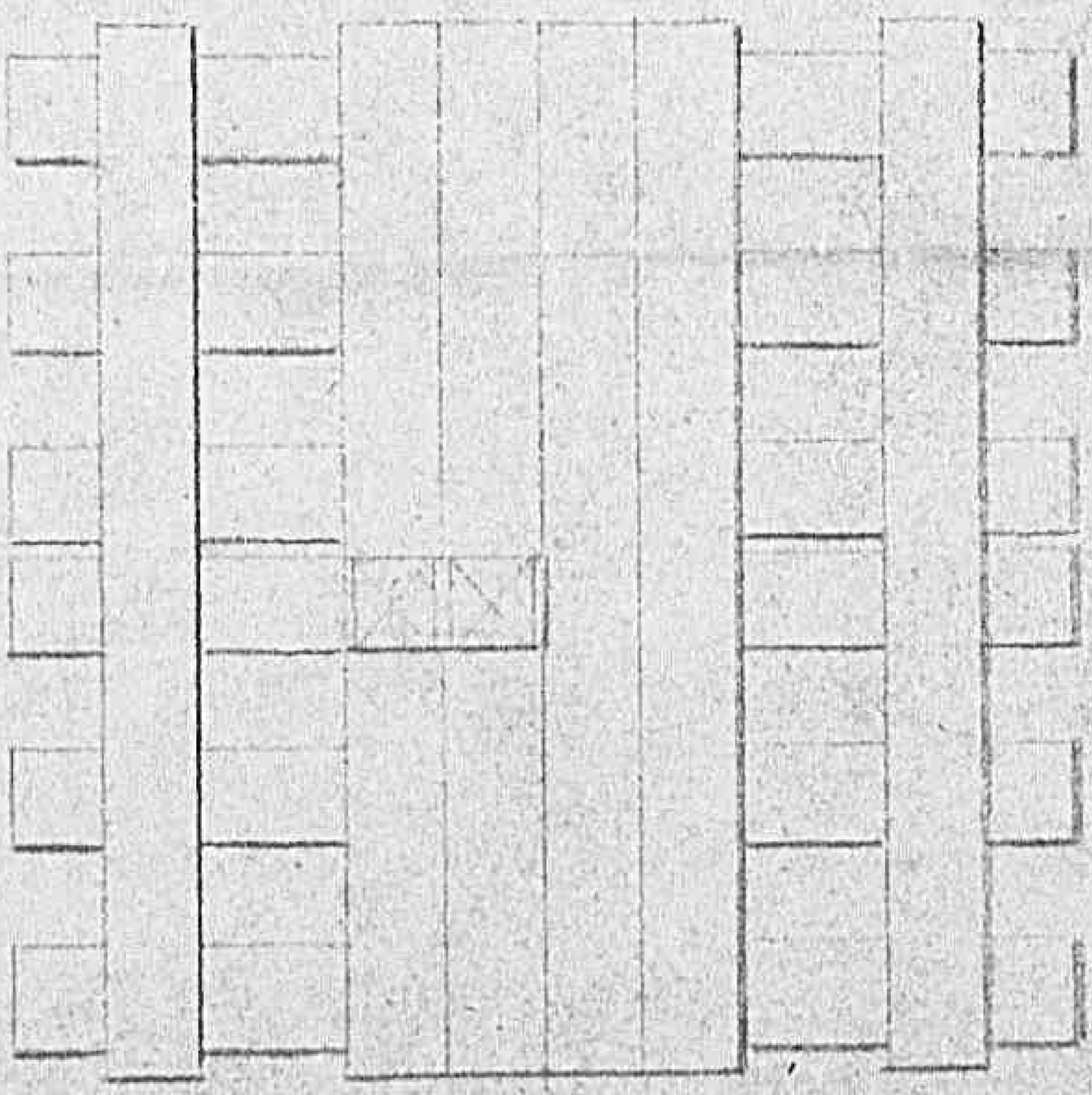
In luogo di 2 traverse mettere 1 sola come nelle Fig. 1 e 2

0865

Declassified E.O. 12356 Section 3.3/NND No.

L'INGEGNERE CAPO
(O. Corelli)

5 = 1) - Appoggio sui cunei, posa traverse trasversali (2ª metà)



In luogo di 2 traverse mettere 1 sola come nelle Fig. 1 e 2

N. 115 di Presentazione

N. di Approvazione

Pisa 228 All.5

MINISTERO DEI LAVORI PUBBLICI

UFFICIO SPECIALE DEL GENIO CIVILE

CON SEDE IN FIRENZE PER LA VIABILITA' STATALE NELLE PROVINCIE

DI APUANIA - AREZZO - FIRENZE - GROSSETO - LIVORNO - LUCCA

PISTOIA - SIENA - PISA

PROVINCIA DI PISA

STRADA STATALE N° 68

TRONCO: S.Pietro in Palazzi-Ponte Nuovo

PROGETTO DI LAVORI DI ricostruzione dei ponti sul fosso Catrino Km. 19+800 e fosso Grande - Km.20+310.

DISEGNI

E CALCOLI STATICI

Firenze, li 21 marzo 1945 Redatto da ing. [illegible]

1911

0 8 6 6 1

Declassified E.O. 12356 Section 3.3/NND No.

UFFICIO SPECIALE DEL GENIO CIVILE

CON SEDE IN FIRENZE PER LA VIABILITA' STATALE NELLE PROVINCIE DI APUANIA - AREZZO - FIRENZE - GROSSETO - LIVORNO - LUCCA PISTOIA - SIENA - PISA

M-626

PROVINCIA DI PISA

STRADA STATALE N° 68

TRONCO: S.Pietro in Palazzi-Ponte Nuovo

PROGETTO DI LAVORI DI ricostruzione dei ponti sul Fosso Catrino Km. 19+800 e Fosso Grande - Km.20+310.

DISEGNI

E CALCOLI STATICI

Firenze, li 21 marzo 1945

Redatto da ing. Aurelio ...

1911

Visto: l'Ingegnere Capo
(Giunta Giuseppe)

e dall'Ing.Principale di Sezione

ing. Dante Pardeschi

Declassified E.O. 12356 Section 3.3/NND No. 785019

Allegato n°6

STRADA STATALE N°68 (DI VAL DI CECINA)

Ponte sul Botro Catrino di luce metri 6.00

alla progr.Km.19+800

Ponte sul Botro Grande di luce metri 6.00

alla progr.Km. 26+310

C A L C O L I S T A T I C I

Declassified E.O. 12356 Section 3.3/NND No. 780019

Ponte sul Botro Catrino di luce metri 6.00
alla progr.Km.19+800

Ponte sul Botro Grande di luce metri 6.00
alla progr.Km. 26+310

C A L C O L I S T A T I C I

1910

Declassified E.O. 12356 Section 3.3/NND No. 785019

STRADA STATALE N°68 (DI VAL DI CECINA)

PONTE SUL BOTRO CATRINO AL KM.19+800

PONTE SUL BOTRO GRANDE AL KM. 26+310

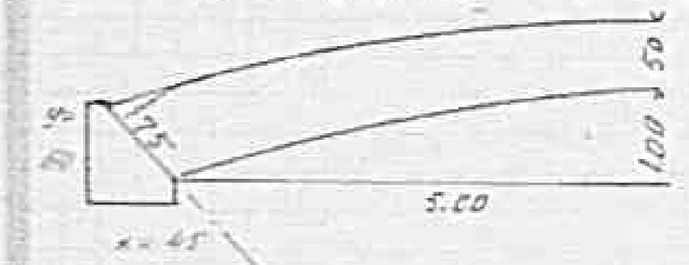
C A L C O L I S T A T I C I

I ponti sono completamente demoliti: è rimasta in piedi del primo la sola spalla verso Volterra, ma tanto lesionata che occorrerà demolirla e ricostruirla, tanto più che la larghezza del ponte ed i carichi mobili sono aumentati. Altrettanto dicasi dei muri d'ala.

Tenendo conto della sezione del fiume e della poca altezza disponibile si è progettato per ambedue un arco ribassato di m.6.00 di luce e/ m.1 di freccia all'intradosso in chiave. Lo spessore dell'arco in chiave 0.50 m. all'imposta 0.75 m. - Le altre dimensioni risultano :

l = 6.00 m. f = 1.00 x 75 = 300 : 500 $x = \frac{22.50}{5.00}$ = 45 cm.

y 75 = 400 : 500 $y = \frac{30.00}{5.00}$ = 60 cm.



$r_{centro} = \frac{3.225^2+0.95^2}{1.90} = \frac{10.40+0.90}{1.90} \frac{11.30}{1.90} = 5.95$ m.

$r_c = \frac{3.45^2 + 0.90^2}{1.80} = \frac{11.90+0.81}{1.80} = \frac{12.71}{1.80} = 7.06$ m.

lunghezza intr. $\frac{f}{l} = \frac{1}{6} = 0.166$ = 1.0719x6 = 6.43 m.

asse $\frac{f}{l} = \frac{0.95}{6.45} = 0.147$ = 1.0566x6.45 = 6.82 m.

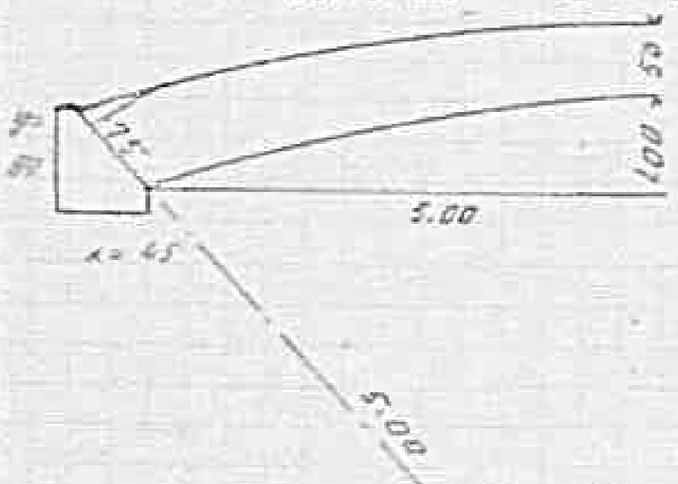
lungh.dei conci
6.82 . 6 . 1.14 m.

In conformità alle normali n°8 del 15/11/1933 del Ministero dei Lavori Pubblici, prescriventi un carico accidentale uniformemente distribuito di Kg.800/m.^{2} della carreggiata per un carico mobile di 20 tonn.distribuito su 4.60 m.; in proporzione al carico attuale di un traino della classe 70 si adotta un carico accidentale uniforme-

Declassified E.O. 12356 Section 3.3/NND No. 785019

I ponti sono completamente demoliti: è rimasta in piedi del primo la sola spalla verso Volterra, ma tanto lesionata che occorrerà demolirla e ricostruirla, tanto più che la larghezza del ponte ed i carichi mobili sono aumentati. Altrettanto dicasi dei muri d'ala.

Tenendo conto della sezione del fiume e della poca altezza disponibile si è progettato per ambedue un arco ribassato di m.6.00 di luce ed m.1 di freccia all'intradosso in chiave. Lo spessore dell'arco in chieve 0.50 m. all'imposta 0.75 m. - Le altre dimensioni risultano :



ℓ = 6.00 m. f = 1.00 x 75 = 300 : 500 $x = \frac{22.50}{5.00}$ = 45 cm.

y 75 = 400 : 500 $y = \frac{30.00}{5.00}$ = 60 cm.

raggio = $\frac{3.225^2+0.95^2}{1.90} = \frac{10.40+0.90}{1.90} = \frac{11.30}{1.90}$ = 5.95 m.

$r_e = \frac{3.45^2 + 0.90^2}{1.80} = \frac{11.90+0.81}{1.80} = \frac{12.71}{1.80}$ = 7.06 m.

lunghezza intr. $\frac{f}{\ell} = \frac{1}{6}$ = 0.166 = 1.0719x6 = 6.43 m.

asse $\frac{f}{\ell} = \frac{0.95}{6.45}$ = 0.147 = 1.0566x6.45 = 6.82 m.

lungh.dei conci
6.82 . 6 . 1.14 m.

In conformità alle normali n°8 del 15/11/1933 del Ministero dei Lavori Pubblici, prescriventi un carico accidentale uniformemente distribuito di Kg.800/m.^{2} della carreggiata per un carico mobile di 20 tonn.distribuito su 4.60 m.; in proporzione al carico attuale di un traino della classe 70 si adotta un carico accidentale uniformemente distribuito p. = 5000 Kg/m^2 -
Diviso l'arco in 6 conci si ottiene la seguente tabella dei pesi, dopo ridotto sia il carico del riempimento che quello del carico accidentale al peso della murature.

1909

Declassified E.O. 12356 Section 3.3/NND No. 785015

Peso proprio P	Rinfianco (b)	carico accidentale	(b)+(c)
1) 1.14x54x2.2=1354	$1.18 \times \frac{0.50+0.59}{2} \times 1.8 = 1.158$	1.18x5=5900	7.058
2) 1.14x62x2.2=1555	$1.16 \times \frac{0.59+0.90}{2} \times 1.8 = 1.555$	1.16x5=5800	7.355
3) 1.14x70x2.2=1756	$1.11 \times \frac{0.90+1.40}{2} \times 1.8 = 2.298$	1.11x5=5550	7.848
4,665	5,011	17,250	22.261

Con questi dati si costruisce il poligono funicolare. Da questo e dal disegno delle volte si ricavano i valori di η di y , che servono a comporre la seguente tabella :

y	η	c	$\frac{1}{c}$	$\frac{1}{c^3}$	$\frac{y}{c^3}$	$\frac{y^2}{c^3}$	$\frac{y^3}{c^3}$
1) 0.03	ø	0.54	1.85	6.33	ø	0.19	ø	ø
2) 0.24	0.31	0.62	1.61	4.17	1.29	1.00	0.24	0.31
3) 0.68	0.90	0.70	1.43	2.92	2.63	1.99	1.35	1.79
			4.89	13.42	3.92	3.18	1.59	2.10
				B	A	C		D

$= \frac{1.59+4.89}{12} = 2.00$

$= 1.59+0.41 = 2.00$

$$Z = \frac{A.B.-D.C.}{B.D.-A.C.} = \frac{3.92\ 2.00-2.10\ 3.18}{13.42\ 2.10-3.92\ 3.18} = \frac{7.84-6.68}{28.18-12.46} = \frac{1.16}{15.72} = 0.074$$

$$t = \frac{B.E.-C^2}{15.72} = \frac{13.42\ 2.00-3.18^2}{15.72} = \frac{26.84-10.11}{15.72} = \frac{16.73}{15.72} = 1.06$$

$$H = \frac{H}{t} = \frac{30}{1.06} = 28.30\ ^t$$

Tracciata la curva delle pressioni si esaminano le 2 sezioni di chiave e d'imposta, che dal disegno risultano le più sollecitate: Sez.II (chiave)

in chieve $\sigma_c = -\frac{28.300}{5.000}\left(1+\frac{6.74}{50}\right) = -5.66\ (1+0.89) = -1070$ Kg/mq.

$\sigma_i = -\frac{28.300}{5.000}\left(1-\frac{6.74}{50}\right) = -5.66\ (1-0.89) = -\ 062$ "

all'imposta $\sigma_c = -\frac{39000}{7500}\left(1-\frac{6.26}{75}\right) = -5.2\ (1-2.08) = +5,62$ "

$\left(1-\frac{6.26}{75}\right) = -5.2\ (1+2.08) = -1602$ "

Declassified E.O. 12356 Section 3.3/NND No. 918087

4,665		5,011	17,250	22.261

Con questi dati si costruisce il poligono funicolare. Da questo e dal disegno delle volte si ricavano i valori di η di y , che servono a comporre la seguente tabella :

y	η	c	$\frac{1}{c}$	$\frac{1}{c^3}$	$\frac{y}{c^3}$	$\frac{y}{c^3}$	$\frac{y^2}{c^3}$	$y\frac{1}{c^3}$
1) 0.03	ø	0.54	1.85	6.33	ø	0.19	ø	ø
2) 0.24	0.31	0.62	1.61	4.17	1.29	1.00	0.24	0.31
3) 0.68	0.90	0.70	1.43	2.92	2.63	1.99	1.35	1.79
			4.89	13.42	3.92	3.18	1.59	2.10
				B	A	C		D

$x = 1.59 + \frac{4.89}{12}$ = 1.59+0.41 = 2.00

$$z = \frac{A.B.-D.C.}{B.D.-A.C.} = \frac{3.92\ 2.00-2.10\ 3.18}{13.42\ 2.10-3.92\ 3.18} = \frac{7.84-6.68}{28.18-12.46} = \frac{1.16}{15.72} = 0.074$$

$$t = \frac{B.E.-C^2}{15.72} = \frac{13.42\ 2.00-3.18^2}{15.72} = \frac{26.84-10.11}{15.72} = \frac{16.73}{15.72} = 1.06$$

$$H = \frac{H}{t} = \frac{30}{1.06} = 28.30\ ^t$$

Tracciate la curva delle pressioni si esaminano le 2 sezioni di chiave e d'imposta, che dal disegno risultano le più sollecitate: Sez.II (chiave)

in chiave $\sigma_c = -\frac{28.300}{5.000}\left(1+\frac{6.74}{50}\right) = -5.66\ (1+0.89) = -10{,}70$ Kg/cmq.

$\sigma_c = -\frac{28.300}{5.000}\left(1-\frac{6.74}{50}\right) = -5.66\ (1-0.89) = -0{,}62$ "

all'imposta $\sigma_c = -\frac{39000}{7500}\left(1-\frac{6.26}{75}\right) = -5.2\ (1-0.08) = +5{,}62$ "

$\sigma_c = -\frac{39000}{7500}\left(1+\frac{6.26}{75}\right) = -5.2\ (1+2.08) = -16{,}02$ "

Considerando attiva la sola parte compressa, avremo in questa

$$\sigma_{max} = \frac{2}{3}\ \frac{39000}{1150} = 22.60\ \text{Kg/cmq.}$$

Declassified E.O. 12356 Section 3.3/NND No. 78 5 0 19

Considerando ora la volta carica sola a metà, dato che l'arco è molto ribassato si può usare per la ricerca della spinta la formula usata per gli archi parabolici ed applicare la spinta al centro della sezione chiave.

$H_2 = \frac{p.l^2}{16\,f} = \frac{5.36}{16} = 11.25$ che sottratto dal valore reale della volta semicaricata

$H_1 = H - H_2 = 28.30 - 11.25 = 17.05$

Pel calcolo dello sforzo di taglio si appresta la seguente tabella, ricavando gli x del disegno

$$F_1 = \frac{p}{4}\,\frac{\Sigma\,\frac{x^3}{c^3}}{\Sigma\,\frac{x^3}{c^3}} = \frac{5}{4}\,\frac{80.06}{35.40} = \frac{400.30}{141.60} = 2.82^t$$

	$\frac{1}{c^3}$	x	x^2	x^3	$\frac{x^2}{c^3}$	$\frac{x^3}{c^3}$
1	6.33	0.56	0.31	0.18	1.96	1.14
2	4.17	1.66	2.76	4.57	11.51	19.06
3	2.92	2.74	7.51	20.57	21.93	59.86
					35.40	80.06

Disegnata la curva delle pressioni con i dati trovati, esaminiamo le sollecitazioni nelle 2 sezioni già esaminate.

in chiave

$\sigma_e = -\frac{17050}{5000}\left(1+\frac{6.74}{50}\right) = -3.41.1.89 = -6.44$ Kg.cmq.

$\sigma_i = -\frac{17050}{5000}\left(1-\frac{6.74}{50}\right) = -3.41.0.11 = -0.38$ " "

alle reni

$\sigma_e = -\frac{18500}{5400}\left(1+\frac{6.15}{54}\right) = -3.42.2.66 = -9.10$ " "

$\sigma_i = -\frac{18500}{5400}\left(1-\frac{6.15}{54}\right) = -3.42.0.66 = +2.26$ " "

all'imposte

$\sigma = -3050\,(1+1.48) = -3.03\,(1+1.36) = +9.27$ "

Declassified E.O. 12356 Section 3.3/NND No. 786019

$H_1 = H - H_2 = 28.30 - 11.25 = 17.05$

Pel calcolo dello sforzo di taglio si appresta la seguente tabella, ricavando gli x dal disegno

$$F_1 = \frac{b}{4} \frac{\Sigma \frac{x^3}{c^3}}{\Sigma \frac{x^2}{c^2}} = \frac{6}{4} \frac{80.06}{35.40} = \frac{480.36}{141.60} = 2.82^t$$

	$\frac{1}{c^3}$	x	x^2	x^3	$\frac{x^2}{c^3}$	$\frac{x^3}{c^3}$
1	6.33	0.56	0.31	0.18	1.96	1.14
2	4.17	1.66	2.76	4.57	11.51	19.06
3	2.92	2.74	7.51	20.57	21.93	59.86
					35.40	80.06

Disegnata la curva delle pressioni con i dati trovati, esaminiamo le sollecitazioni nelle 2 sezioni già esaminate.

in chiave

$\sigma_e = -\frac{17050}{5000}\left(1+\frac{6.74}{50}\right) = -3.41.1.89 = -6.44$ Kg.cmq.

$\sigma_i = -\frac{17050}{5000}\left(1-\frac{6.74}{50}\right) = -3.41.0.11 = -0.38$ " "

alle reni

$\sigma_e = -\frac{18500}{5400}\left(1+\frac{6.15}{54}\right) = -3.42.2.66 = -9.10$ " "

$\sigma_i = -\frac{18500}{5400}\left(1-\frac{6.15}{54}\right) = -3.42.0.66 = +2.26$ " "

all'imposte

$\sigma_e = -\frac{29500}{7500}\left(1-\frac{6.42}{75}\right) = -3.93\ (1-3.36) = +9.27$ "

$\sigma_i = -\frac{29500}{7500}\left(1+\frac{6.42}{75}\right) = -3.93\ (1+3.36) = -17.13$ "

alle reni σ mass $= \frac{2}{3}\ \frac{18500}{1200} = 10.30$ " "

1908

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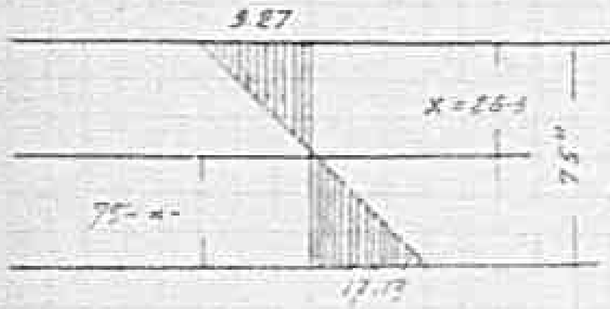
all'imposta occorre impiegare del ferro. Per calcolare il quantitativo necessario troviamo la superficie della parte di sezione tesa.



$x : 3.27 = (75 - x) : 17.13$

$17.13\,x = 3.27 \cdot 75 - 3.27x$

$26.4\,x = 695.25$

$x = 26.3$

Le tensioni nelle sezioni ammontano

$$\frac{9.27 \times 26.3 \times 100}{2} = \frac{243 \times 80 \times 100}{2} = 121.90 \text{ Kg.}$$

facendo lavorare il ferro a 1200 Kg/cmq. occorrono

$\frac{12190}{1200} = 10.2$ cmq. di ferro si impiegheranno

per ogni metro lineare 5 ϕ 11 m/m = 4.75 cmq.

5 ϕ 12 " = 5.65 "

10.40 "

con le relative staffe da 6 m/m

Spalla lo spessore al piano d'imposta è dato dalla formula del Lesguiller -

$$e = \sqrt{L}\,(0.40 + 0.1\,\frac{l}{f} + 0.04\,h)$$

$$= \sqrt{6.}\,(0.40 + 0.1\,\frac{6}{1} + 0.04 \cdot 2.2)$$

$= 2.45\,(0.40 + 0.6 + 0.09) = 2.67$ m. 2.70 m/

Il peso proprio è $\frac{2.70 + 2.04}{2} \cdot 2.20 \times 2 =$ 10.43

$\frac{2.04 + 1.41}{2} \cdot 0.60 \times 2 =$ 2.07 12.50 t

quello del rinterro superiore $1.41 \times 1.40 \times 1.80 =$ 3.55 t

sullo scivolo $\frac{1.40 + 4.20}{2} \times 0.84 \times 1.80 =$ 4.23 t

$\frac{N}{F} = \frac{47000}{27000} = 1.74$ Kg/cmq.

$\sigma_{max} = \frac{2}{3}\,\frac{47000}{5100} = 6.46$ Kg/cmq.

Declassified E.O. 12356 Section 3.3/NND No. 785019

facendo lavorare il ferro a 1200 Kg/cmq. occorrono

$\frac{12190}{1200}$ = 10.2 cmq. di ferro si impiegheranno

per ogni metro lineare

5 ϕ 11 m/m	=	4.75 cmq.
5 ϕ 12 "	=	5.65 "
		10.40 "

con le relative staffe da 6 m/m

Spalla lo spessore al piano d'imposta è dato dalla formula del Lesguiller -

$e = \sqrt{l}\,(0.40+0.1\,\frac{l}{f}+0.04\,h)$

$= \sqrt{6}.(0.40+0.1\,\frac{6}{1}+0.04.2.2)$

$= 2.45\ (0.40+0.6+0.09) = 2.67$ m. 2.70 m/

Il peso proprio è $\frac{2.70+2.04}{2}.2.20x2$ = 10.43

$\frac{2.04+1.41}{2}.0.60x2$ = 2.07 12.50 t

quello del rinterro superiore sullo sbivolo $1.41x1.40x1.80$ = 3.55 t

$\frac{1.40+4.20}{2}x0.84x1.80$ = 4.23 t

$\frac{N}{F} = \frac{47000}{27000} = 1.74$ Kg/cmq.

$\sigma_{max} = \frac{2}{3}\ \frac{47000}{5100} = 6.46$ Kg/cmq.

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0878

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1907

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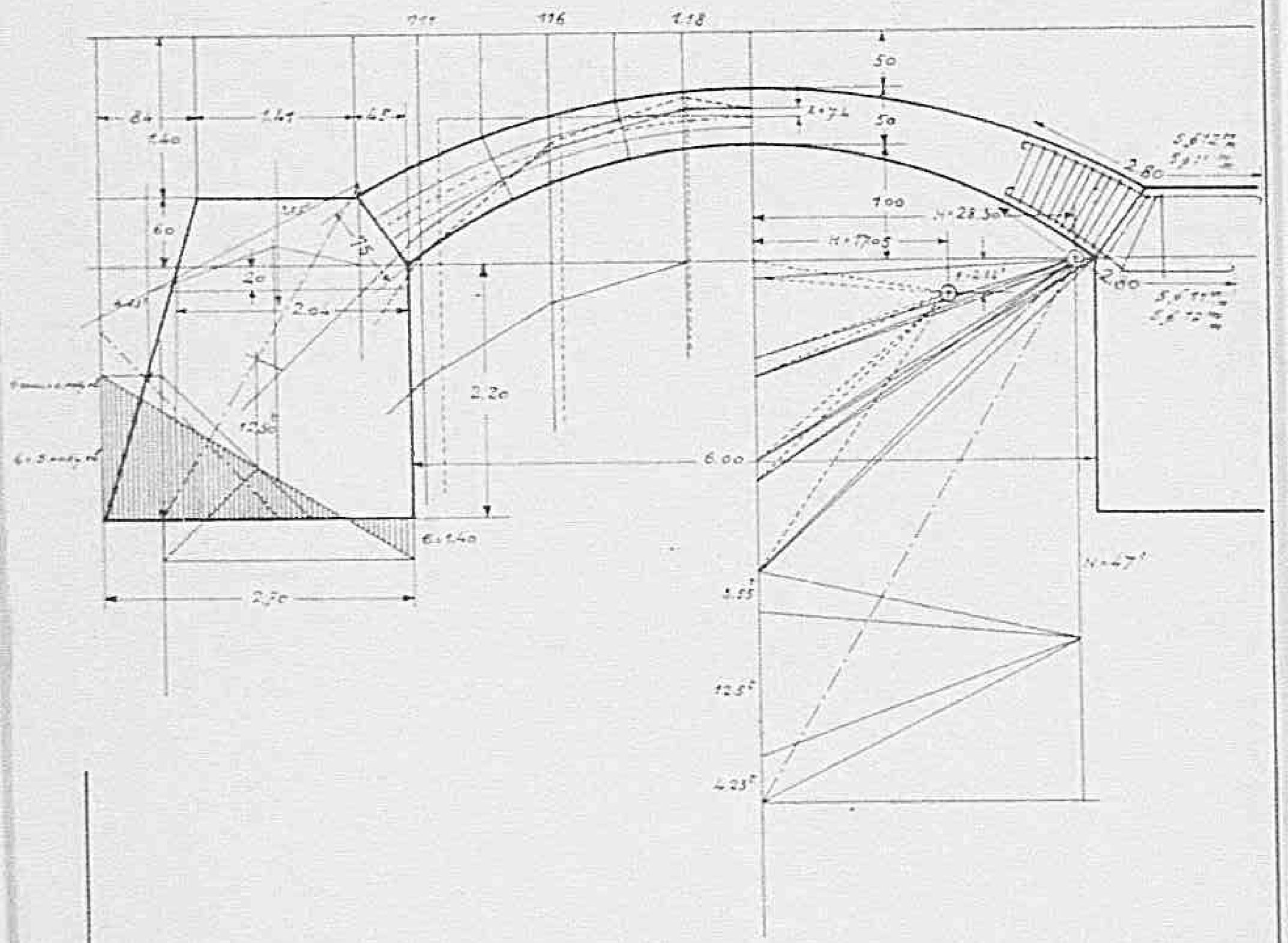
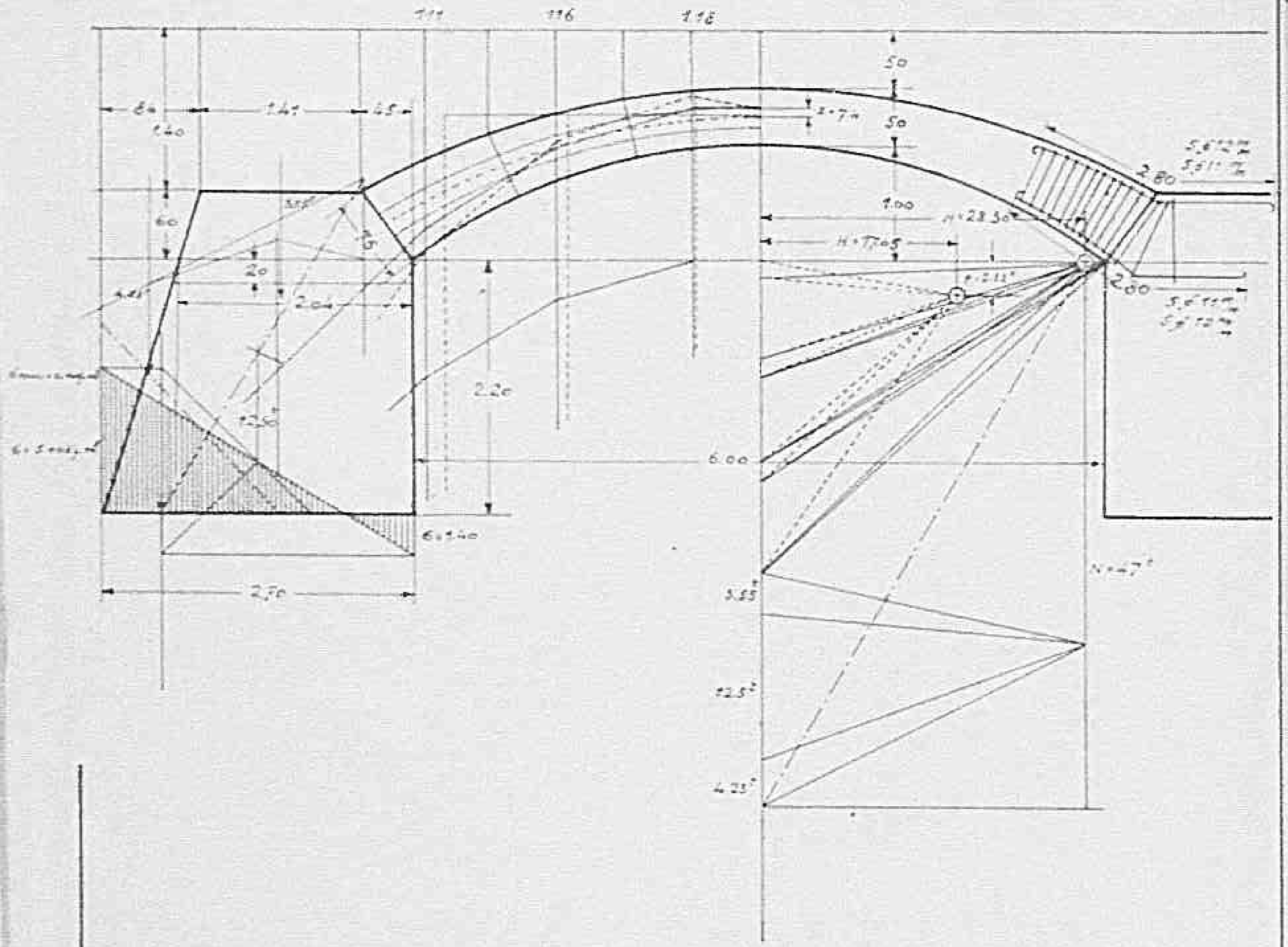


S.S. N 68 di VAL DI CECINA

RICOSTRUZIONE DEI PONTI SUL BOTRO CATRINO Km 19+800



S.S. N 68 di VAL DI CECINA

RICOSTRUZIONE DEI PONTI SUL BOTRO CATRINO Km 19+800

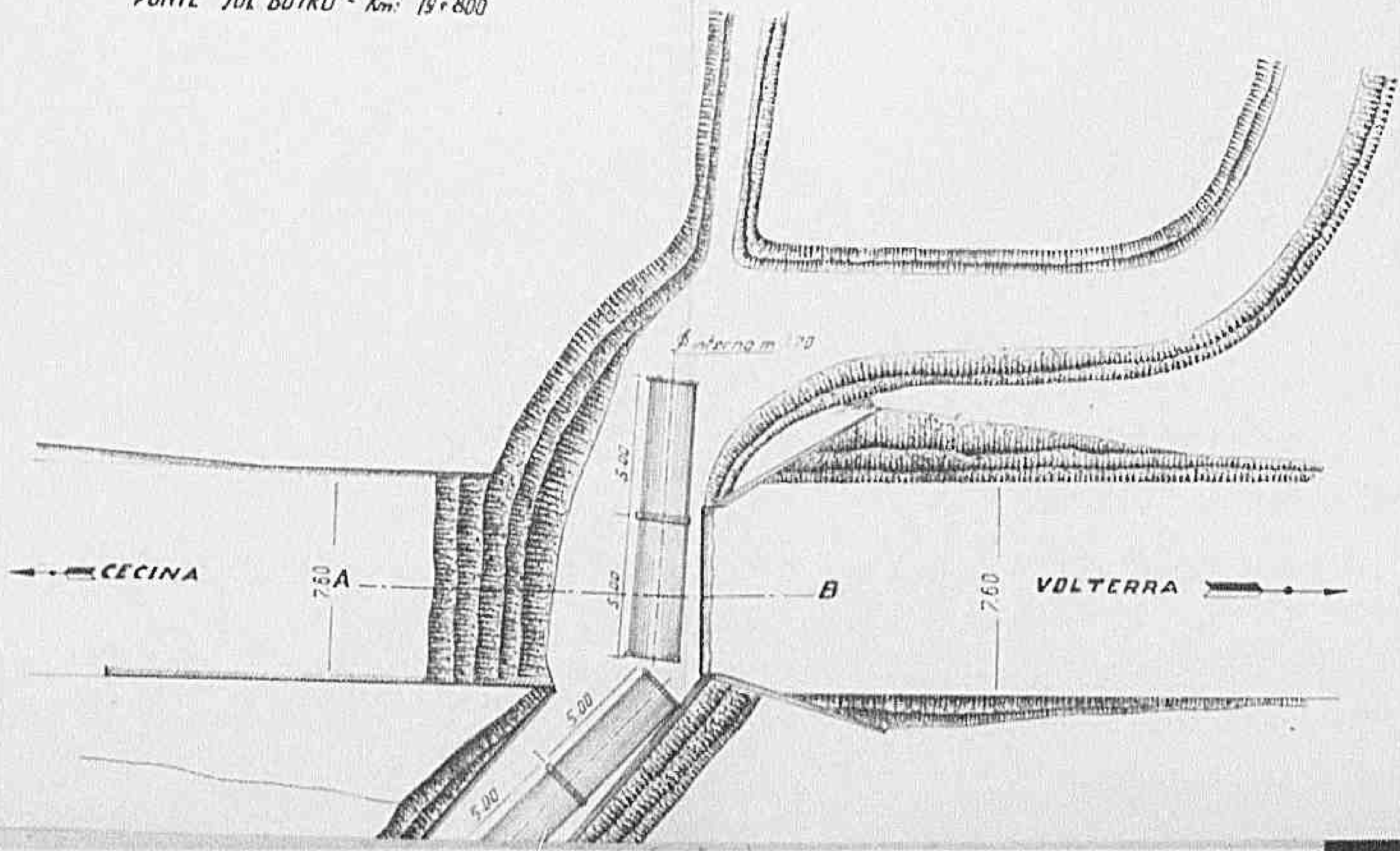
E SUL BOTRO GRANDE Km 26+310

Declassified E.O. 12356 Section 3.3/NND No. 786019

0881

Declassified E.O. 12356 Section 3.3/NND No. 785019

PONTE SUL BOTRO - Km. 19+800



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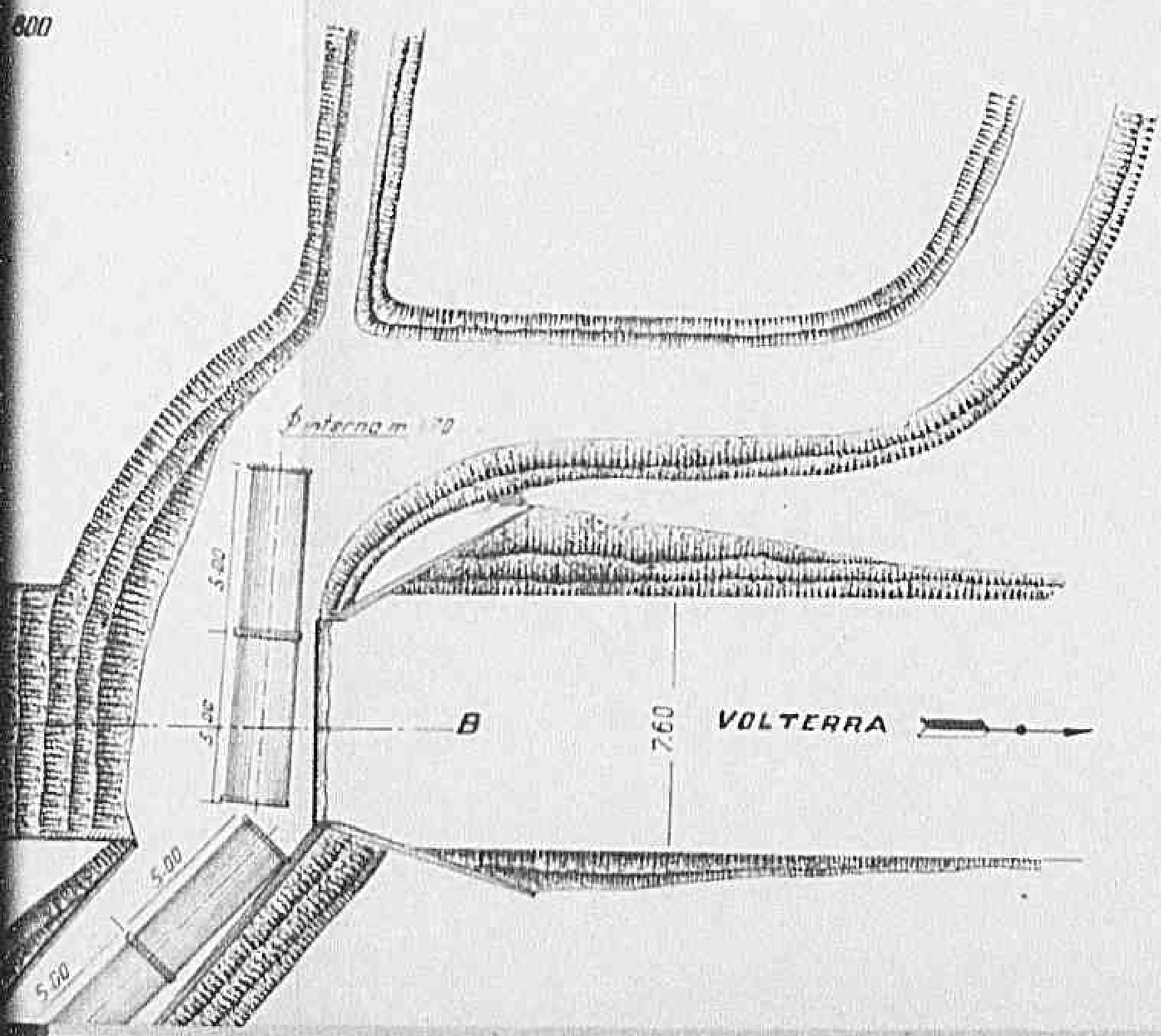
Declassified E.O. 12356 Section 3.3/NND No. 785019



0831

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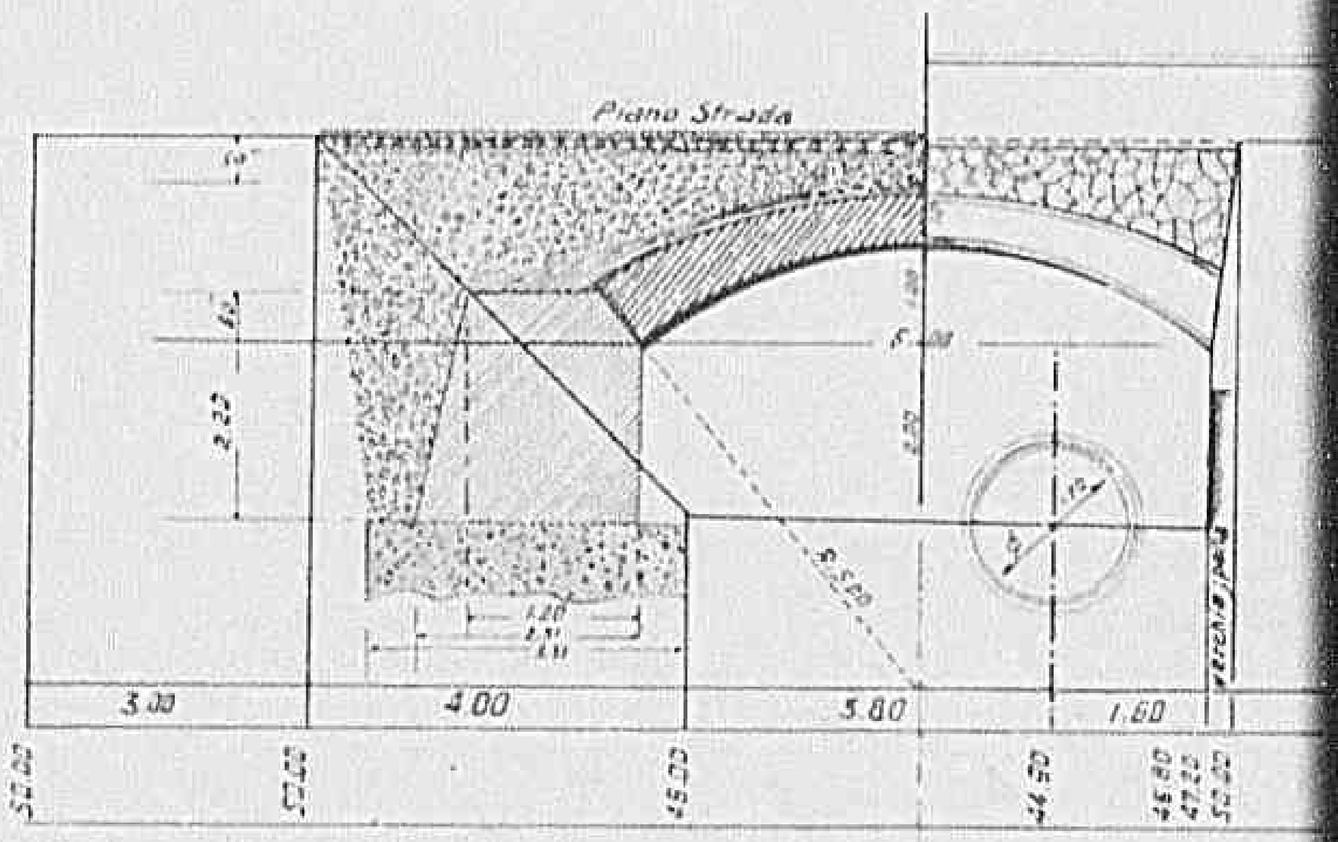
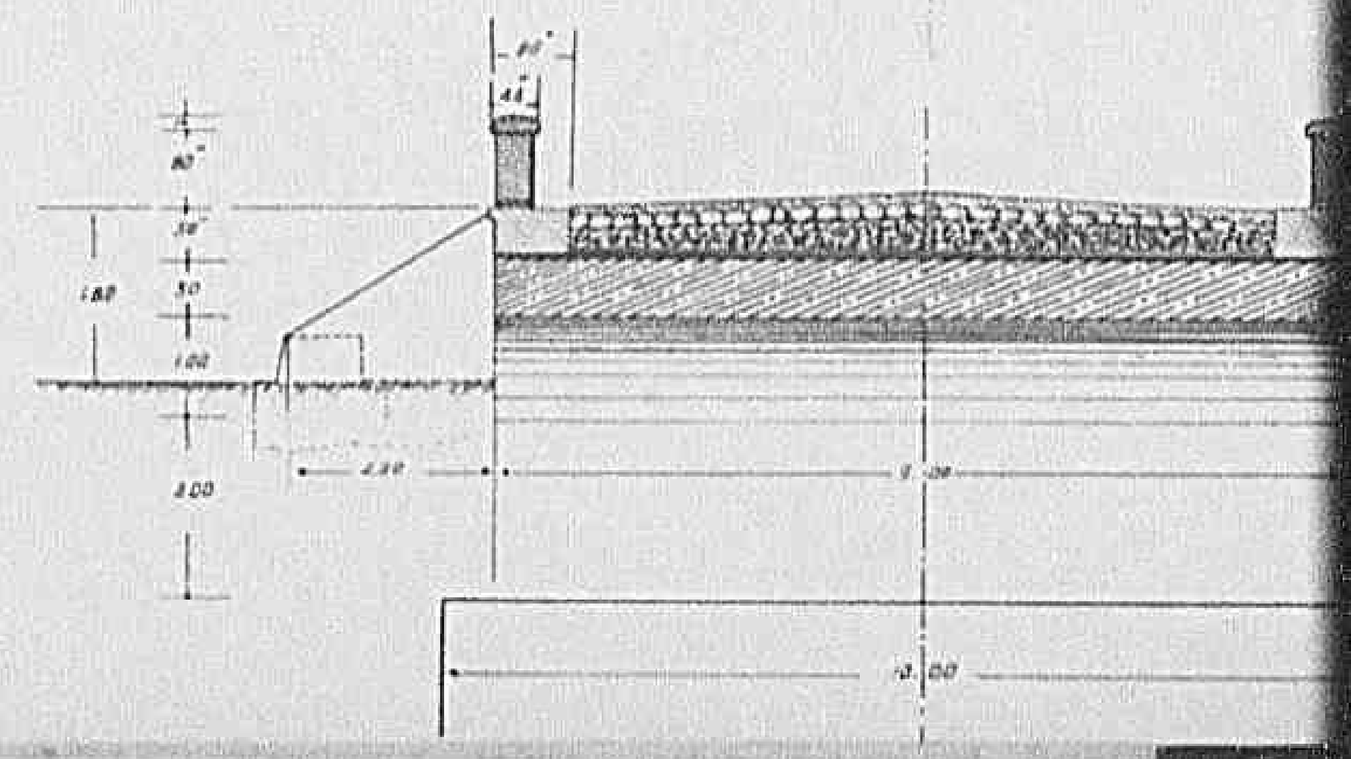
SEZIONE - A - B scala 1:100



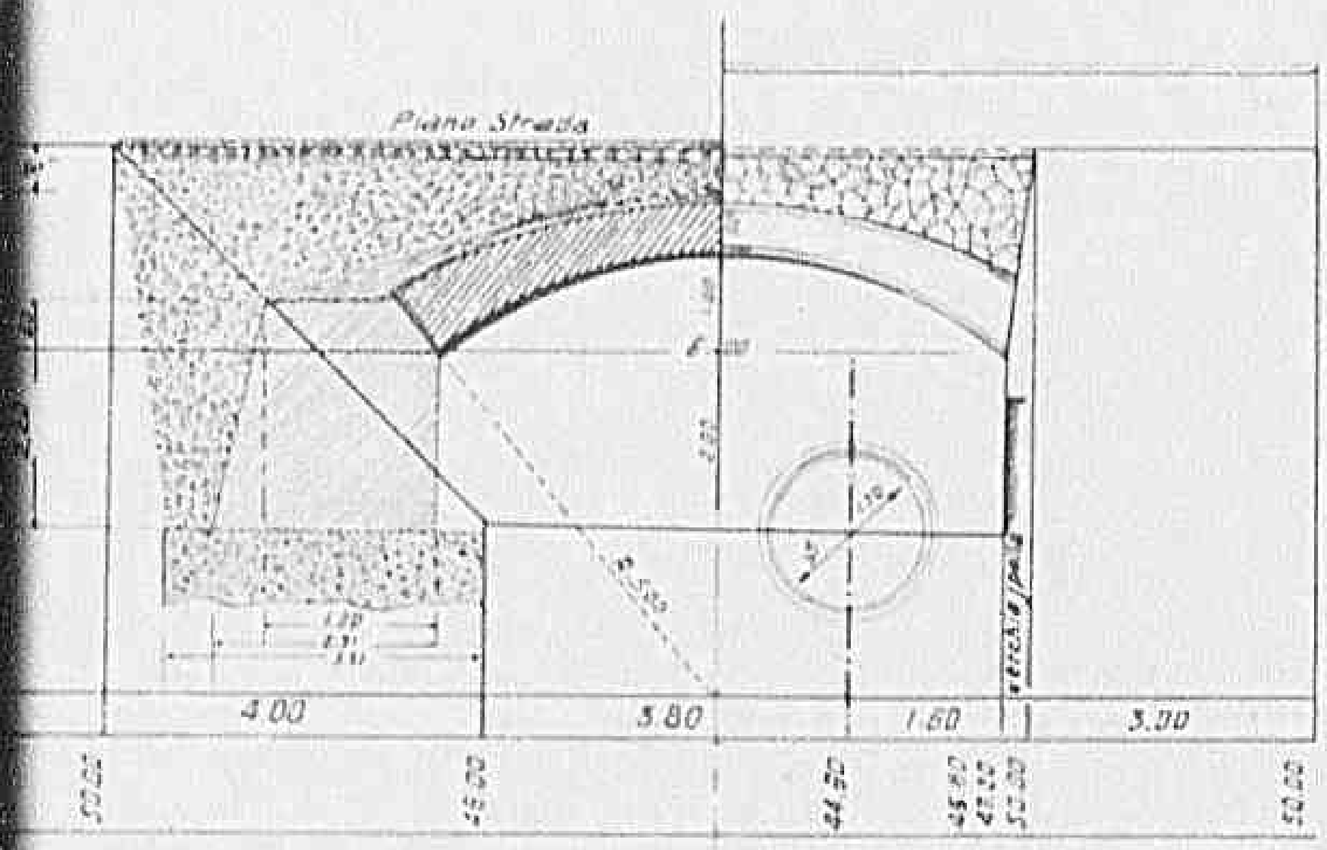
SEZIONE - C - D



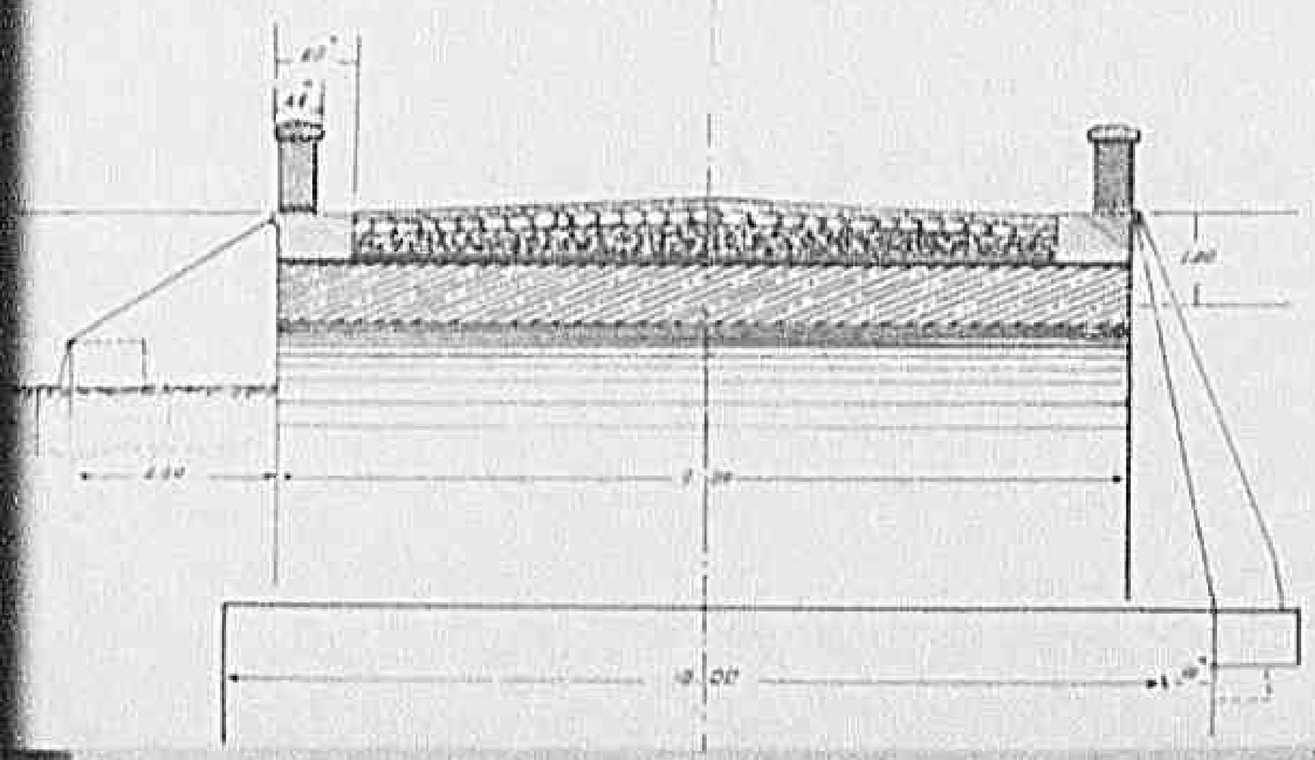
0841

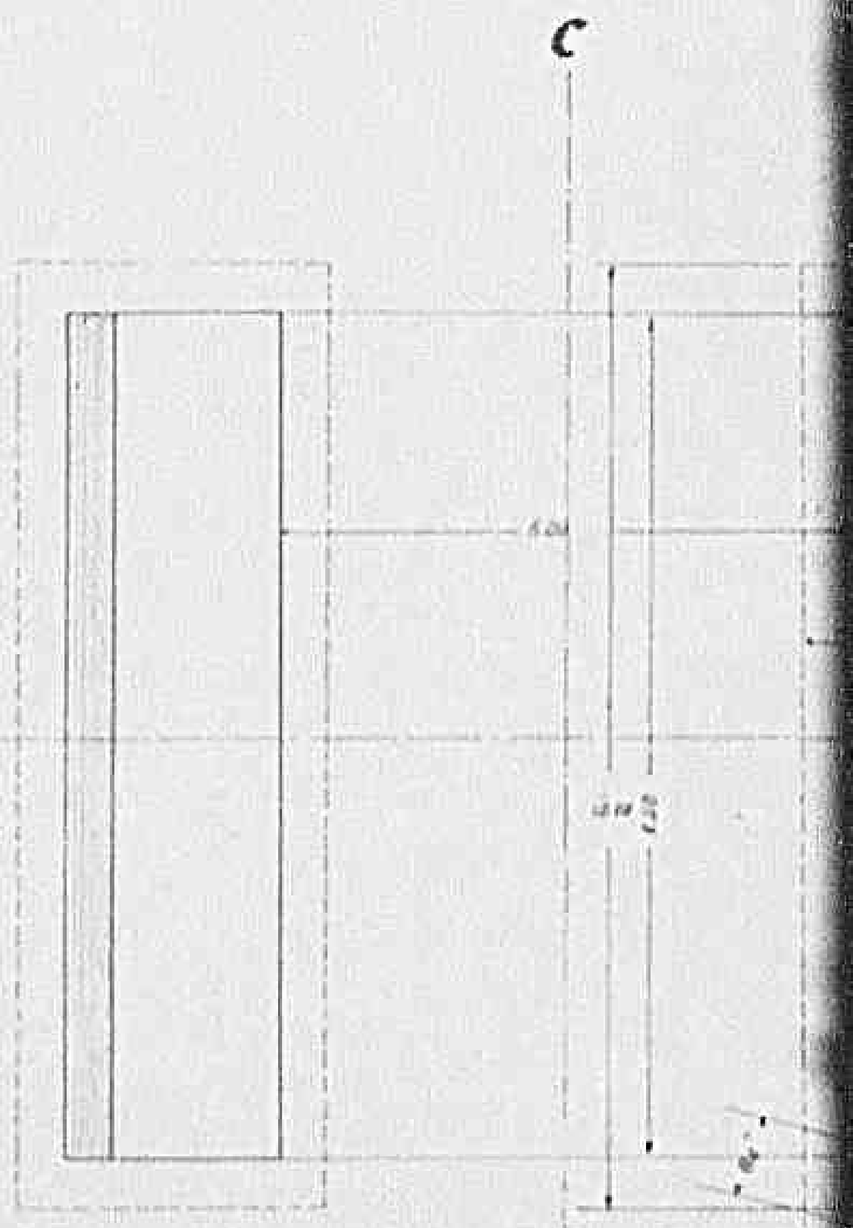
Declassified E.O. 12356 Section 3.3/NND No. 785015

SEZIONE - A - B scala 1:100



SEZIONE - C - D





Sez: A-A

0885

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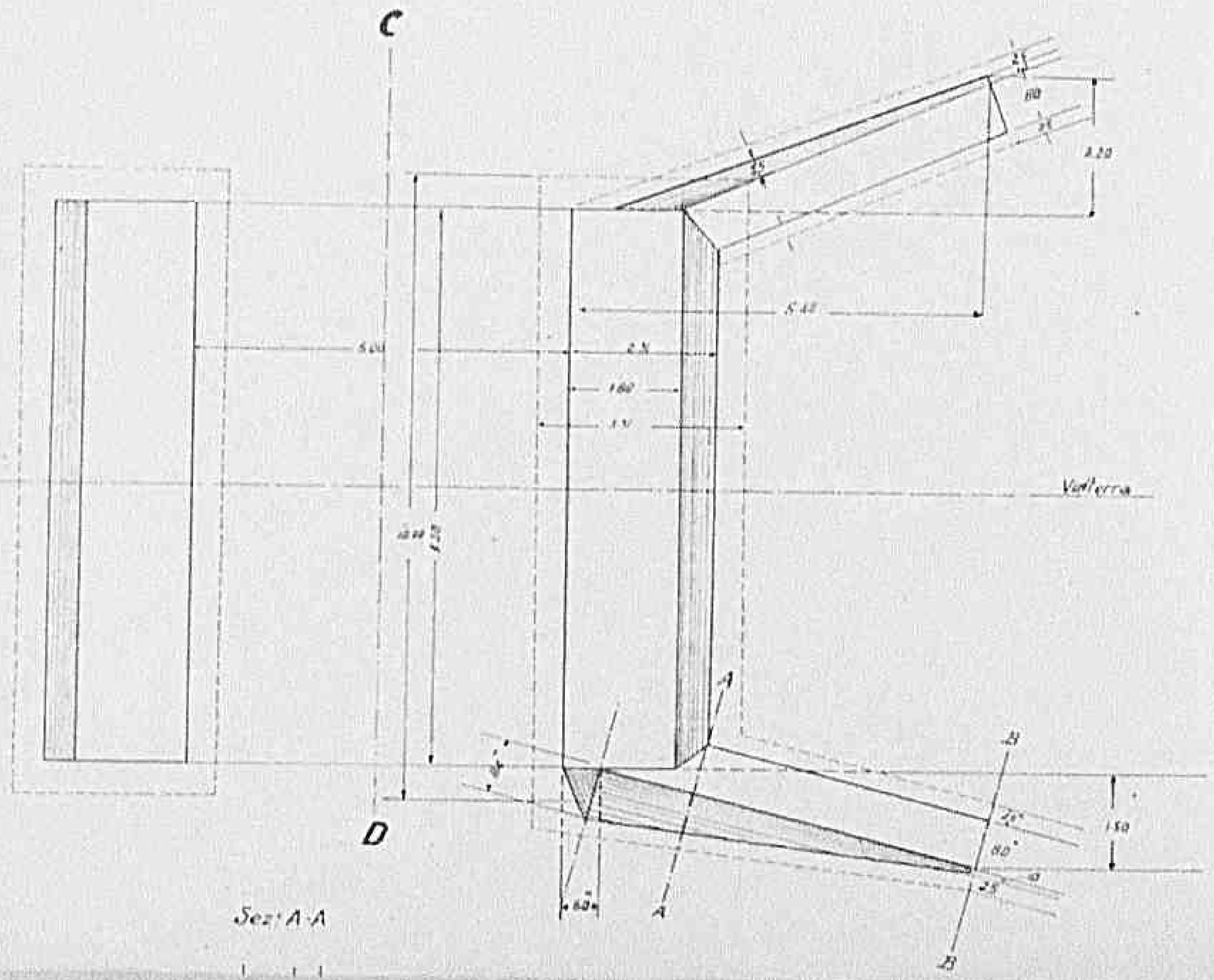

0 8 8 6

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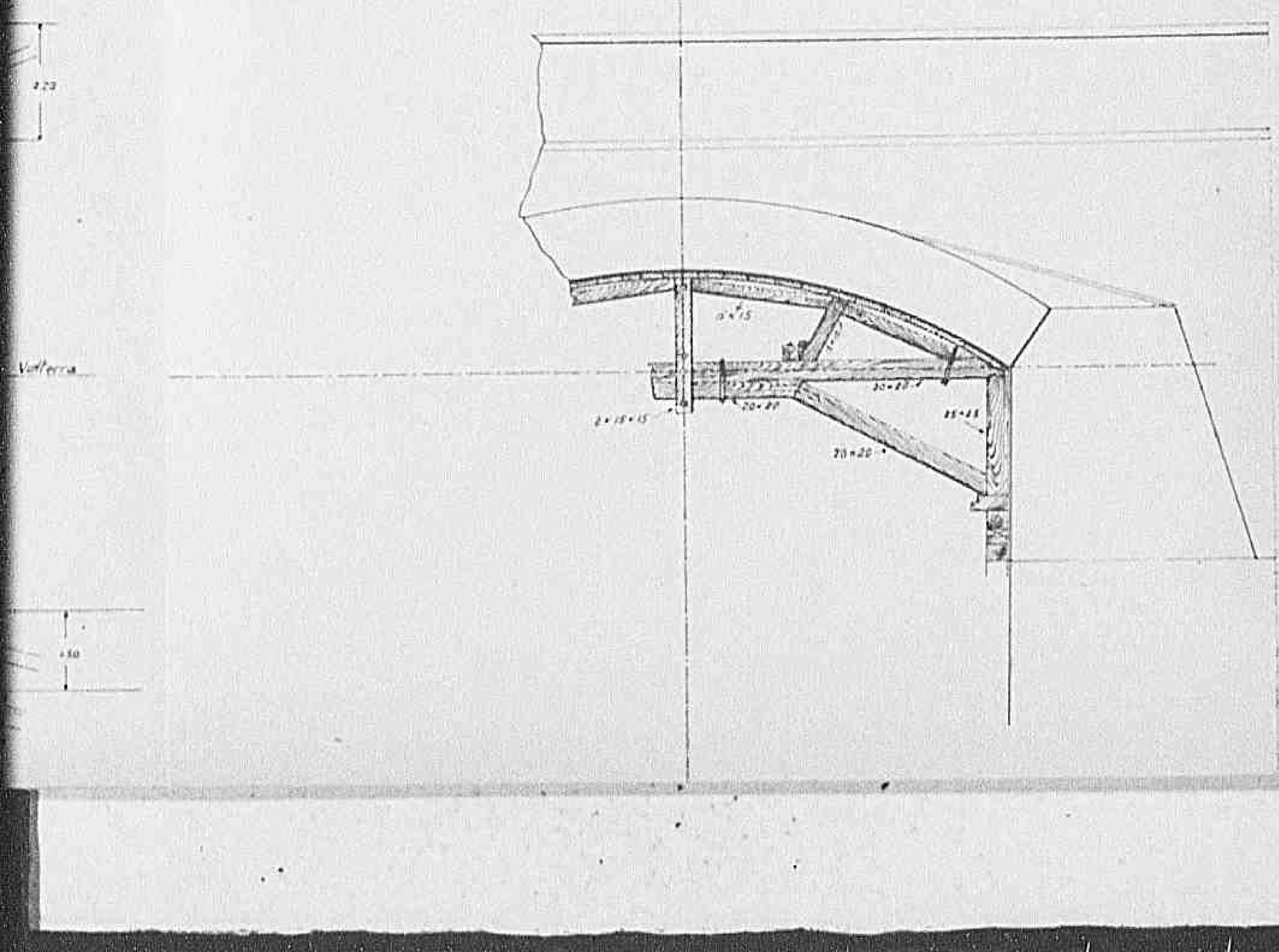

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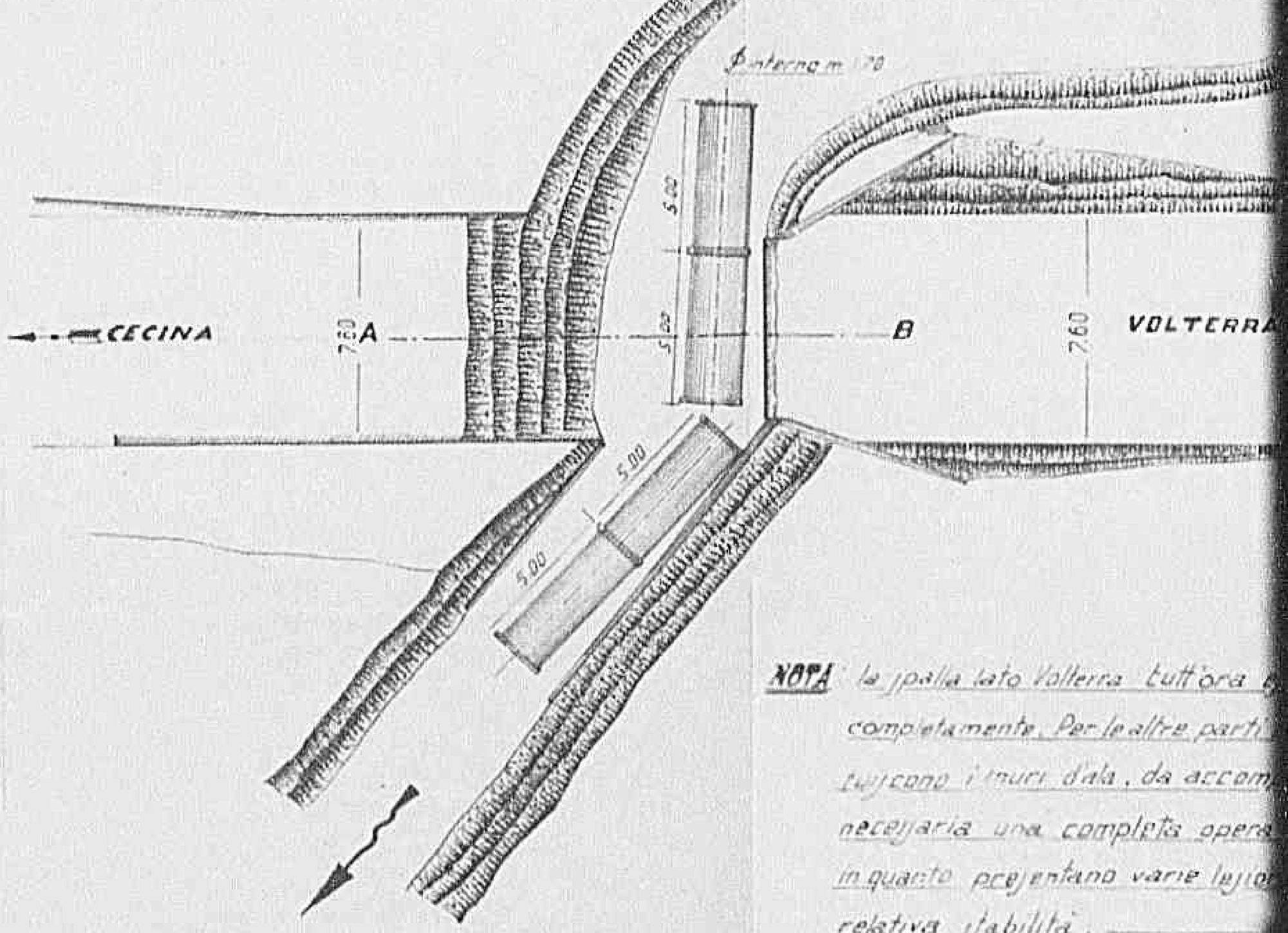

NOTA: la spalla lato Volterra tuttora
completamente. Per le altre parti
lajcono i ruori d'ala, da accom
necejaria una completa opera
in quanto pcejentano varie lajio
relativa jtabilità. ———

0881

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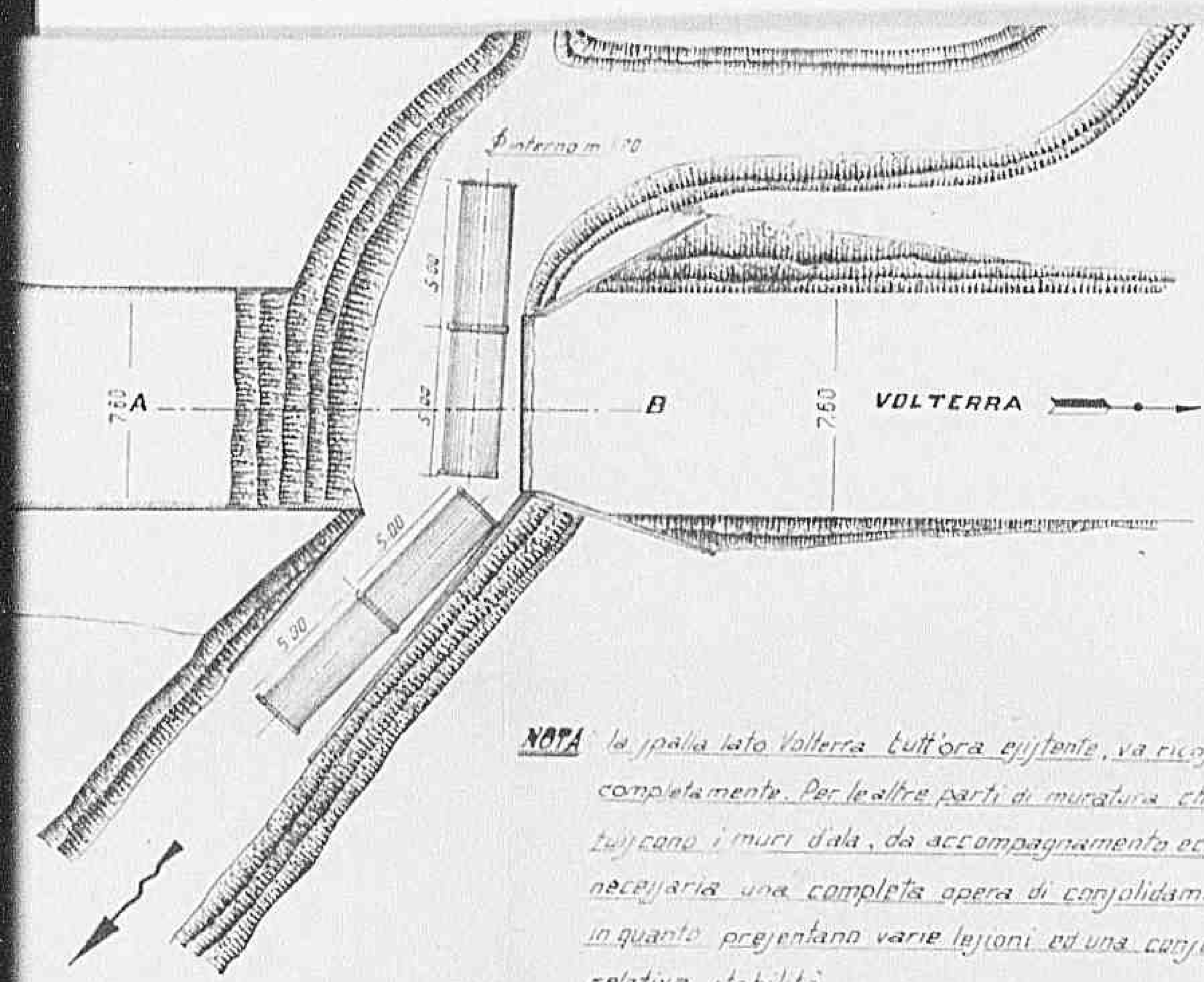

NOTA *la spalla lato Volterra tutt'ora esistente, va ricostruita completamente. Per le altre parti di muratura che costituiscono i muri d'ala, da accompagnamento ecc., è necessaria una completa opera di consolidamento in quanto presentano varie lesioni ed una conseguente relativa stabilità.*

0889

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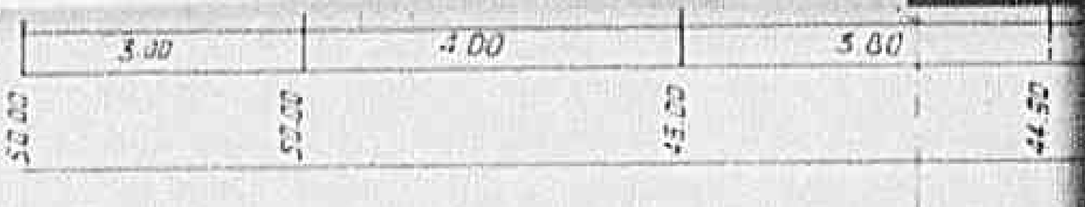
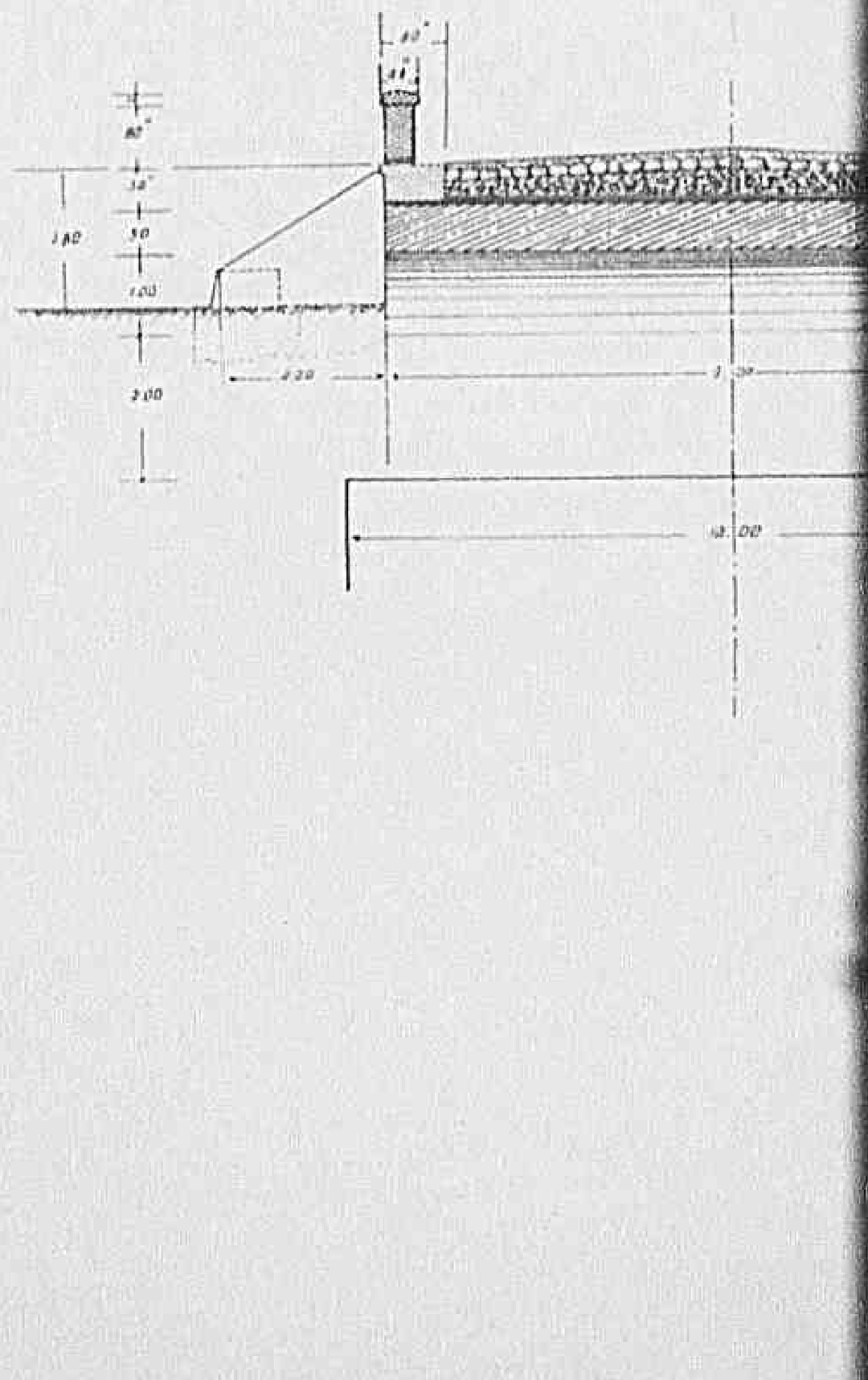


SEZIONE C-D

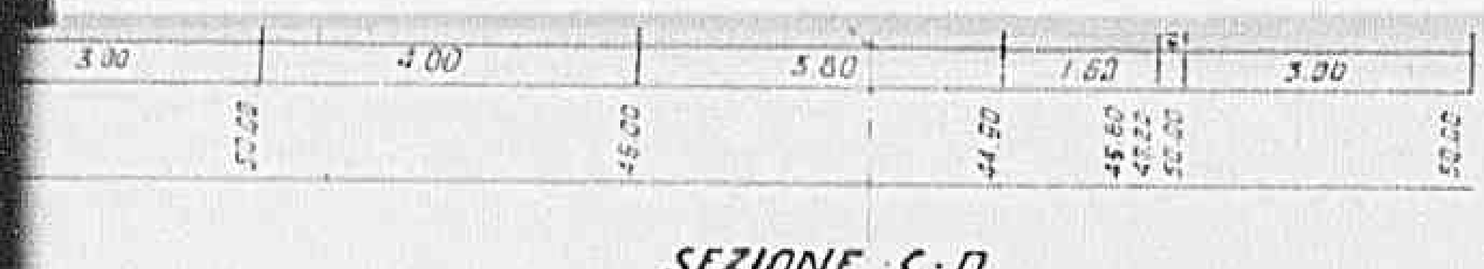


RRA

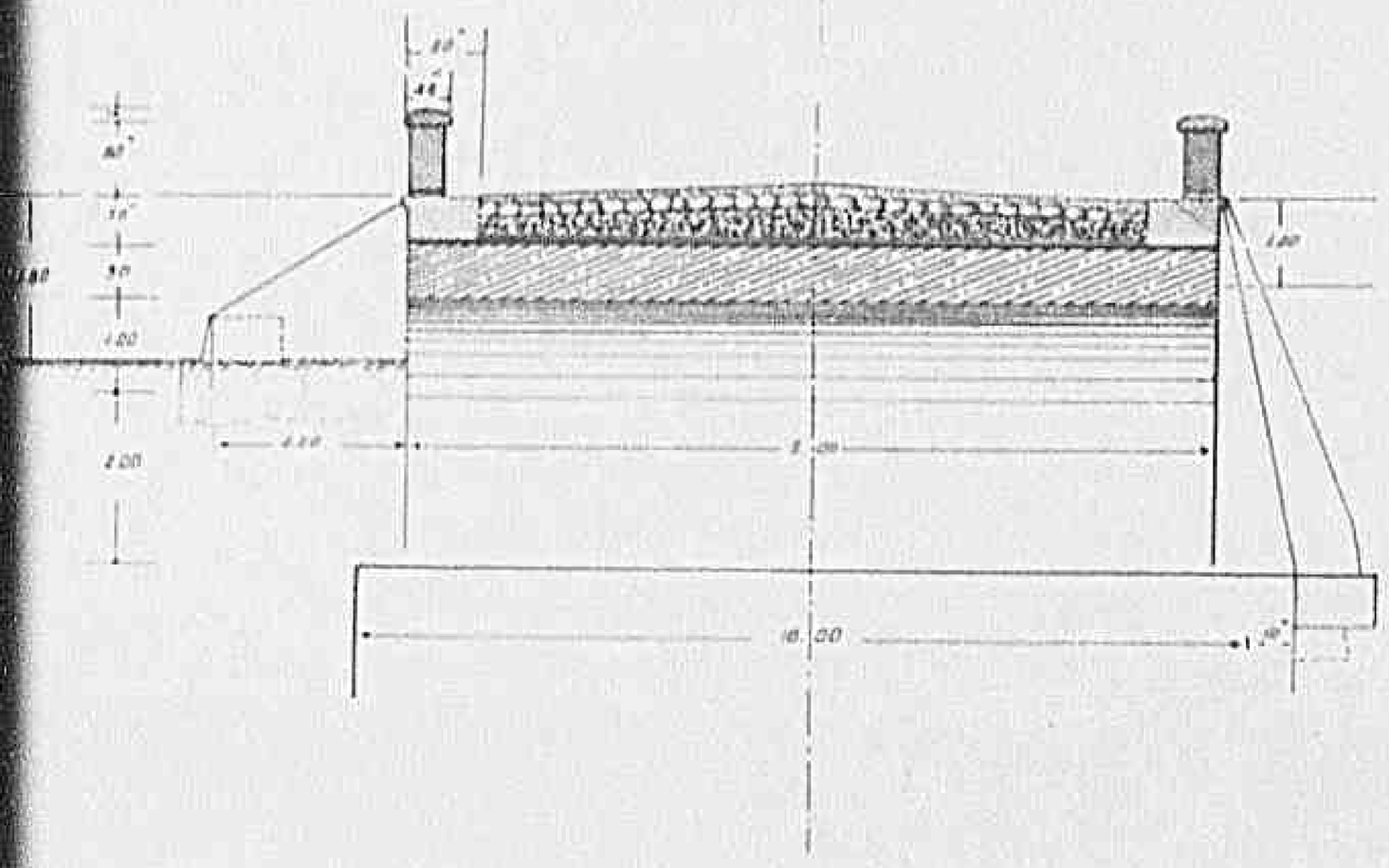
...ra esistente, va ricostruita.
...rti di muratura che costi-
...compagnamento ecc., è
...pera di consolidamento
...lesioni ed una conseguente

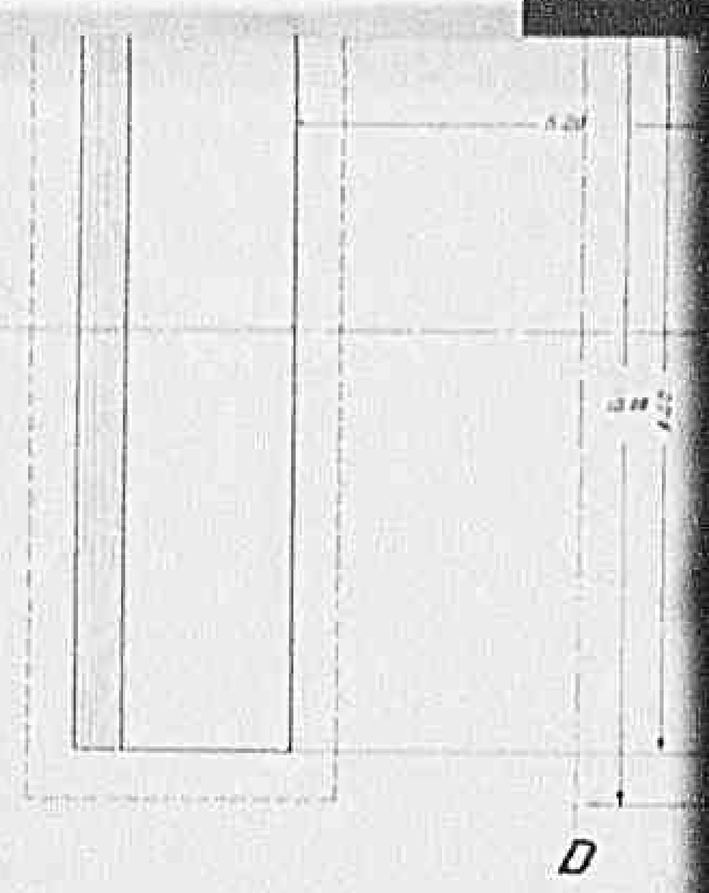
0890

Declassified E.O. 12356 Section 3.3/NND No. 785019

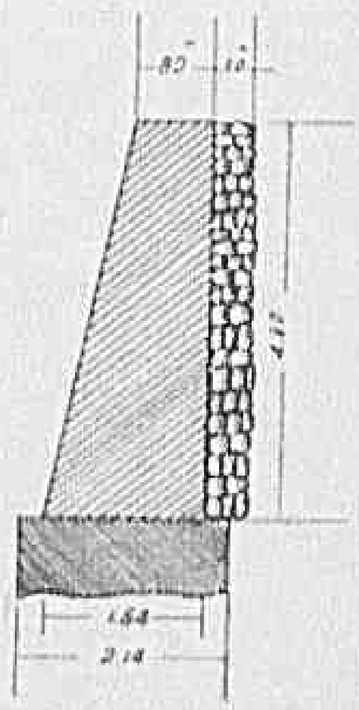


SEZIONE · C · D



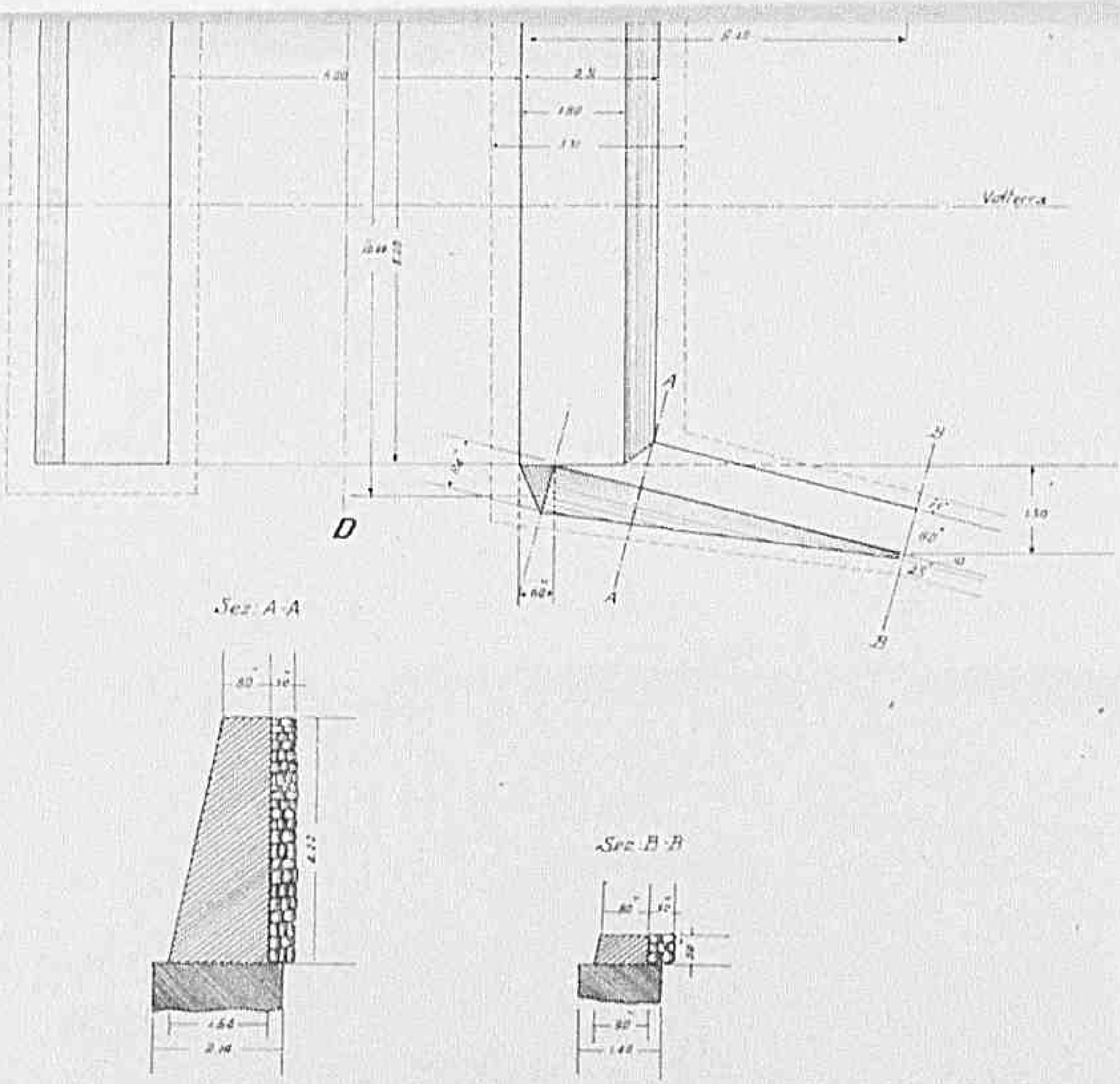


Sez: A·A



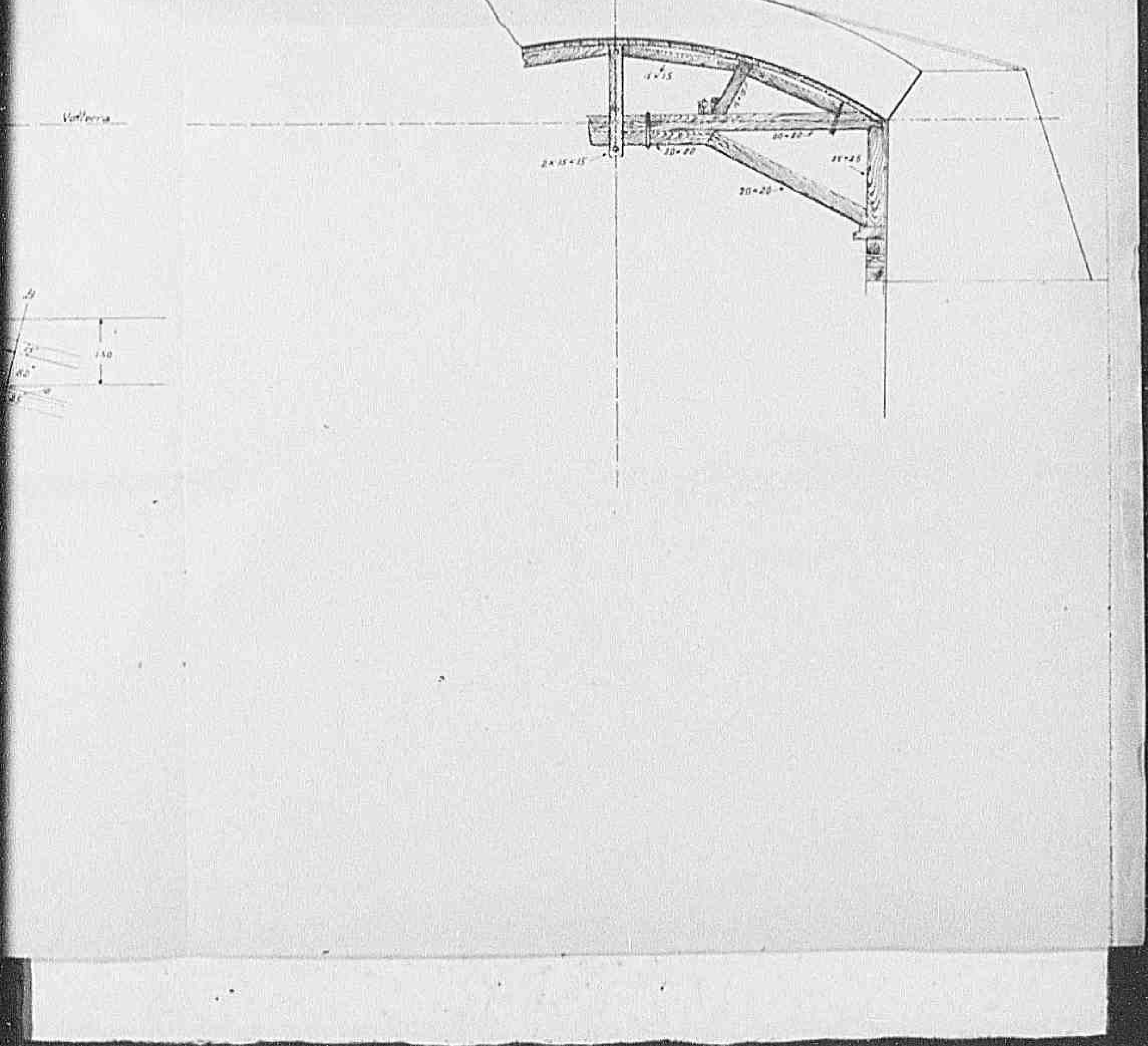
0 8 9 11

Declassified E.O. 12356 Section 3.3/NND No. 785019



089121

Declassified E.O. 12356 Section 3.3/NND No. 785019



0 8/9 3

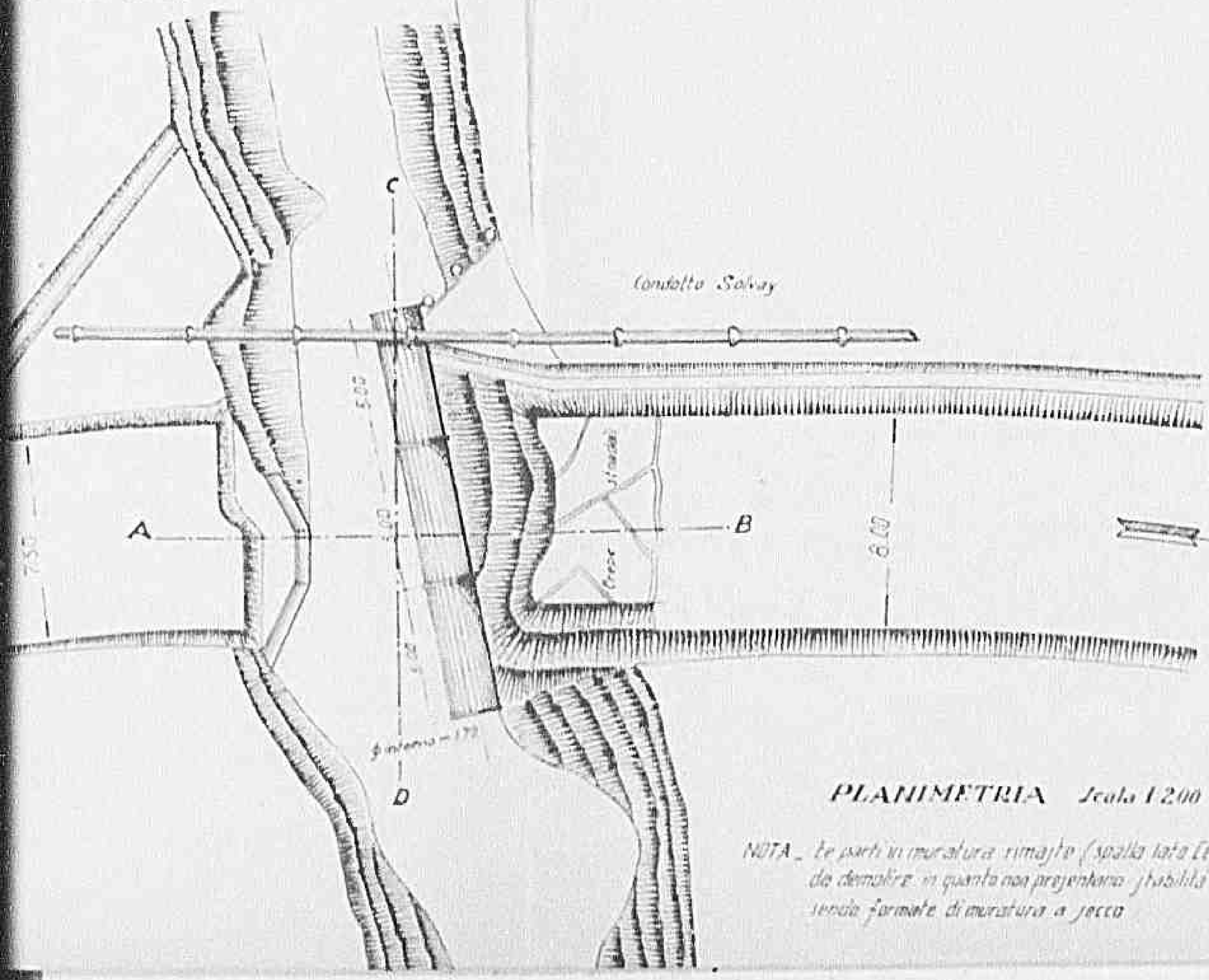
Declassified E.O. 12356 Section 3.3/NND No. 785019

PONTE JUL BOTRO GRANDE - Km 21+510

0894

Declassified E.O. 12356 Section 3.3/NND No. 785019

NDE - Km: 26+510



PLANIMETRIA *Scala 1:200*

NOTA - le parti in muratura rimaste (sopra lato destro) sono da demolire in quanto non presentano stabilità alcuna essendo formate di muratura a secco

0 8 9 5 1

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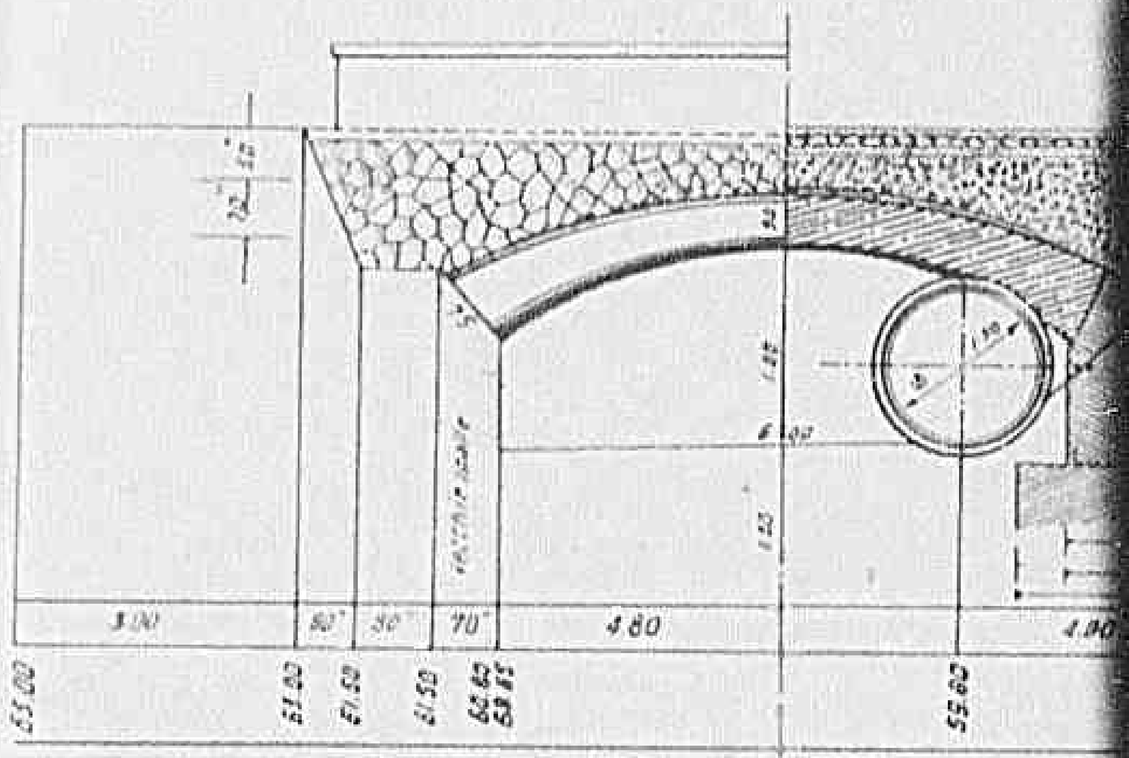
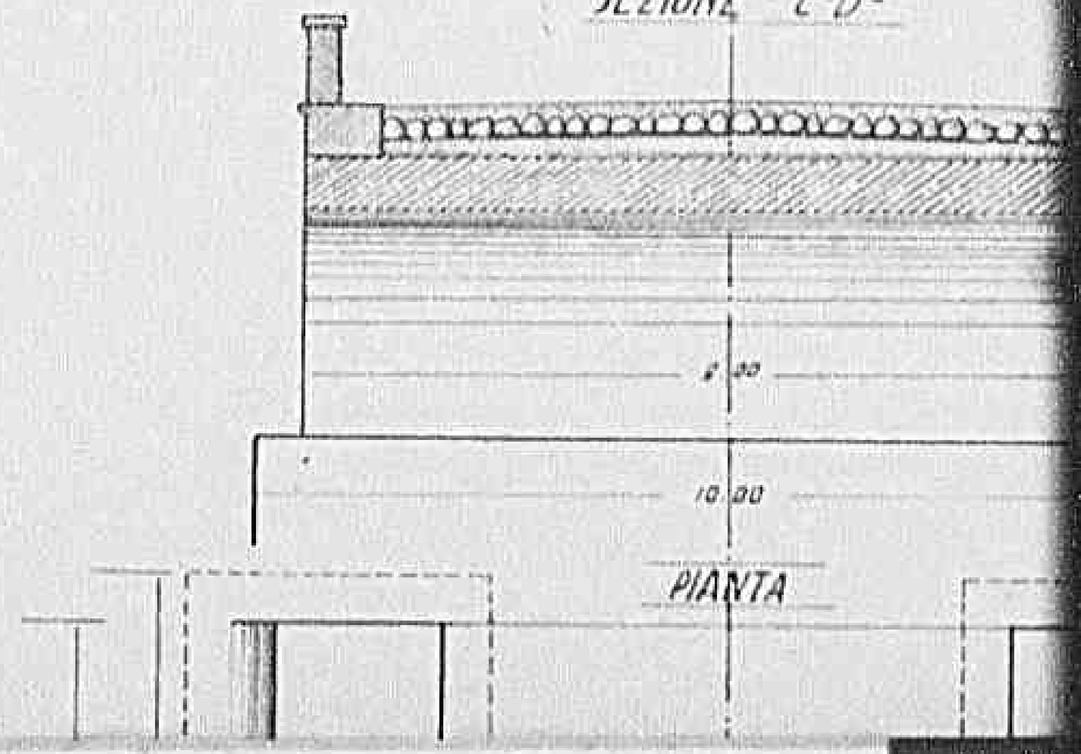
SEZIONE A-B Scala 1:



METRIA Scala 1:200

stura rimasta (scalla lato Cecina) poco
quanto non presentano stabilità alcuna es.
di muratura a secca

SEZIONE C-D-



0896

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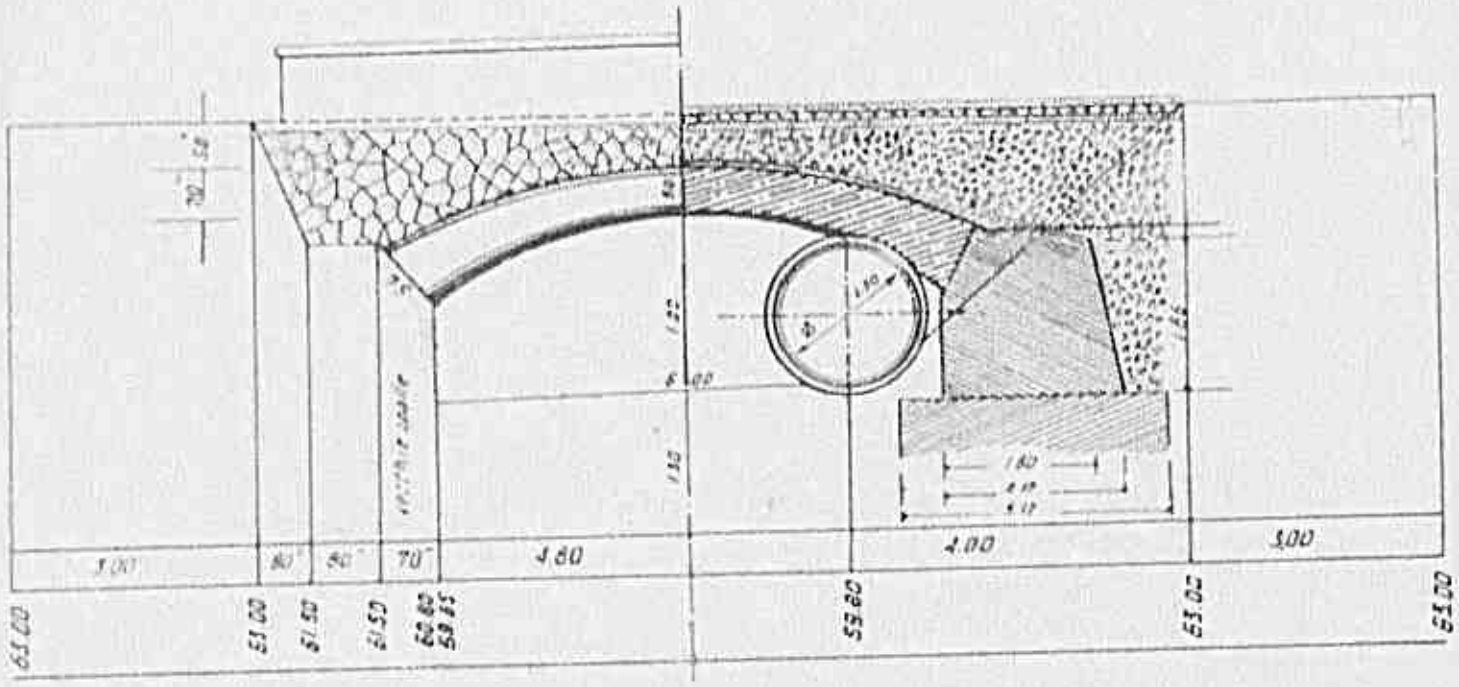
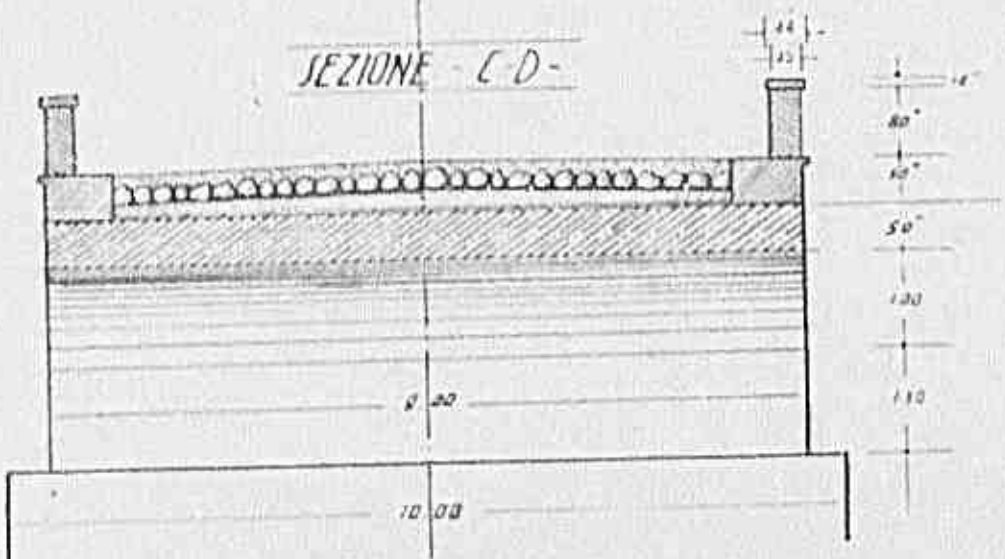
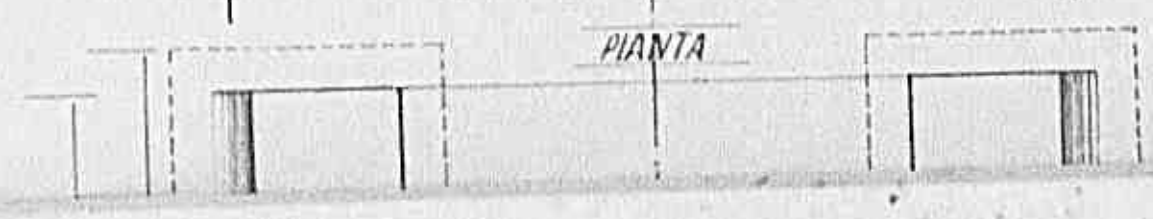
SEZIONE A-B Scala 1:100



SEZIONE C-D-



PIANTA



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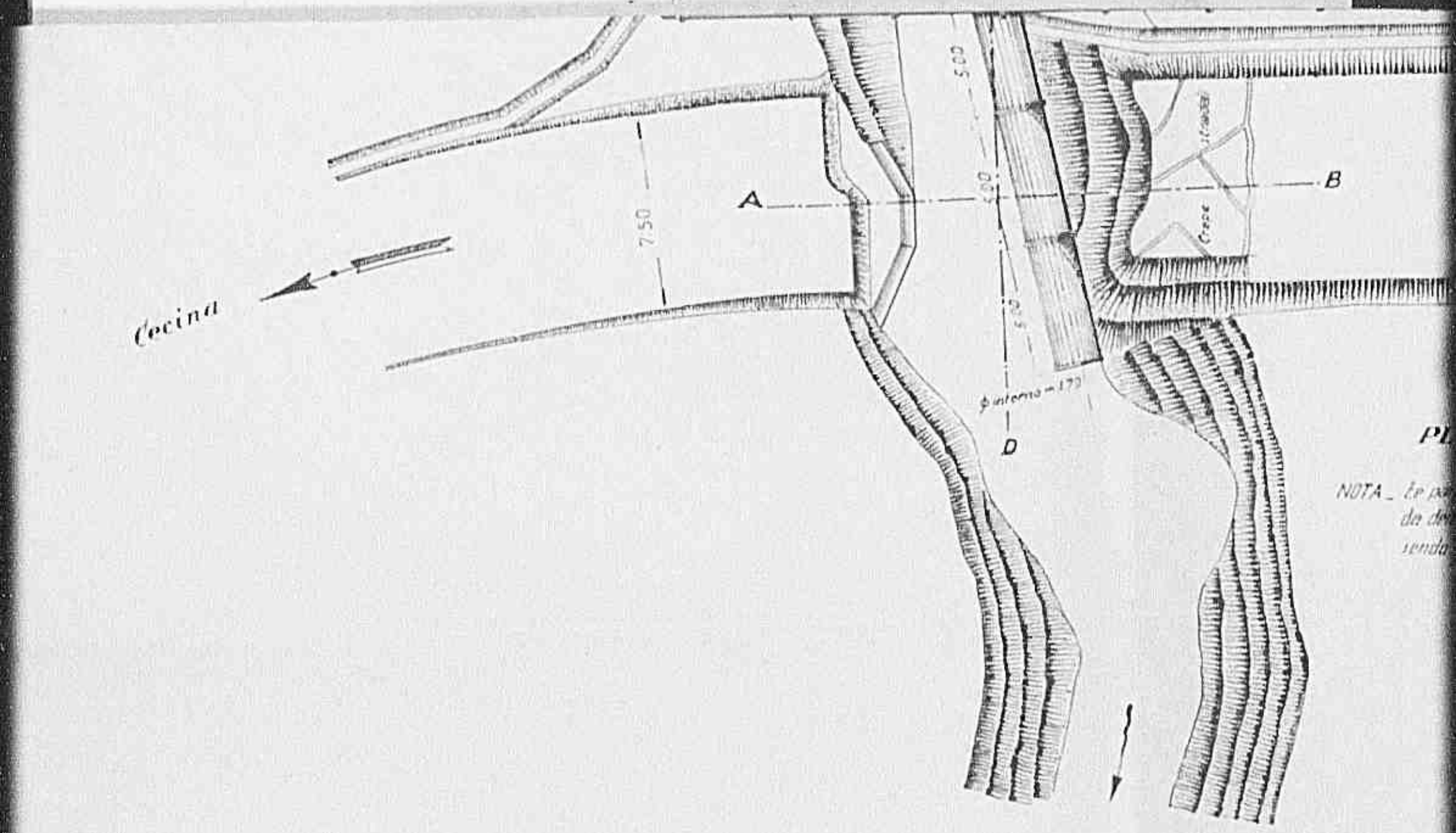
Declassified E.O. 12356 Section 3.3/NND No. 785019



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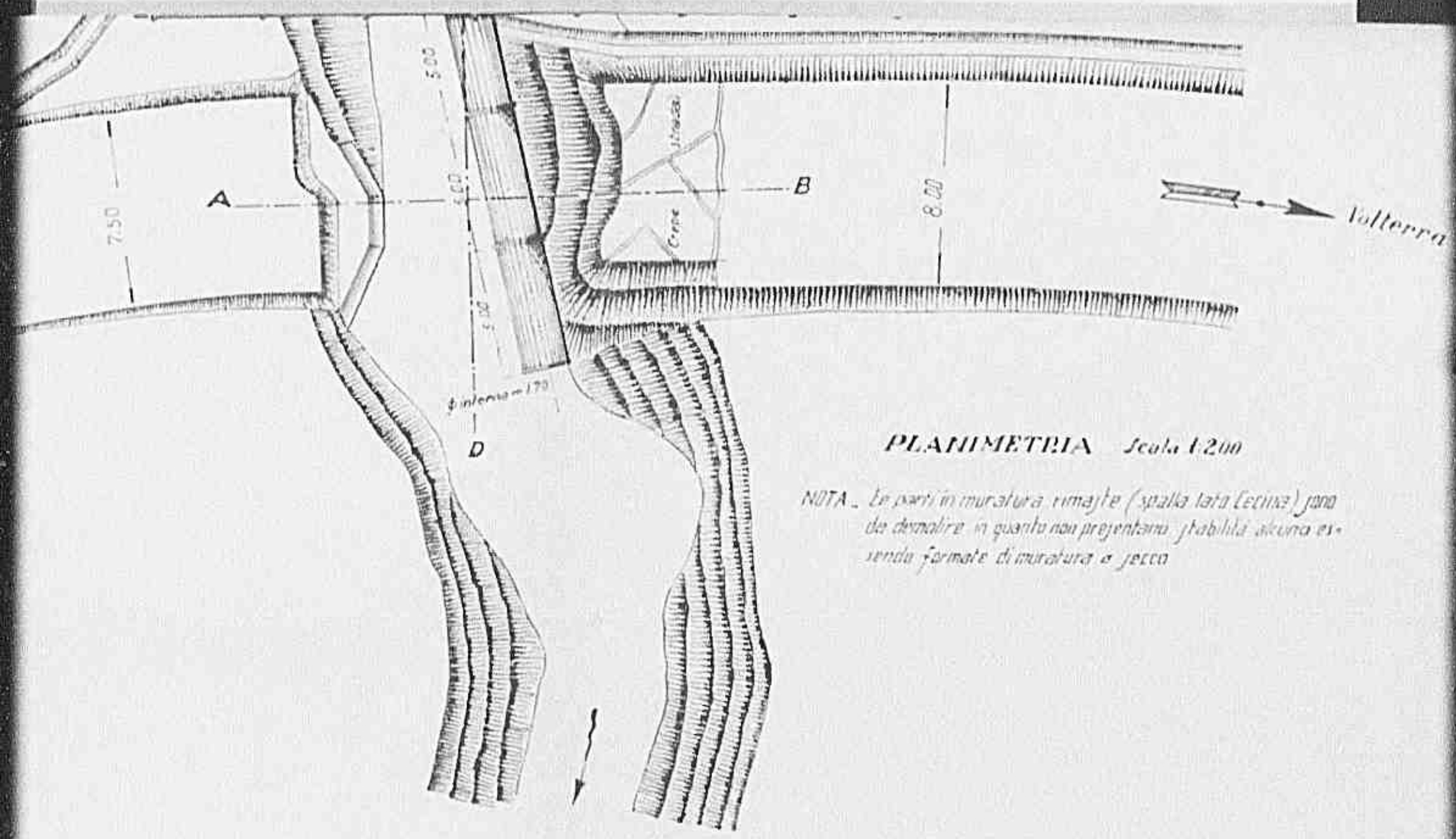
Declassified E.O. 12356 Section 3.3/NND No. 785019



PLANIMETRIA Scala 1:200

NOTA - Le parti in muratura rimaste (spalla lato Cecina) sono da demolire in quanto non presentano stabilità alcuna essendo formate di muratura a secco

0 8 9 9

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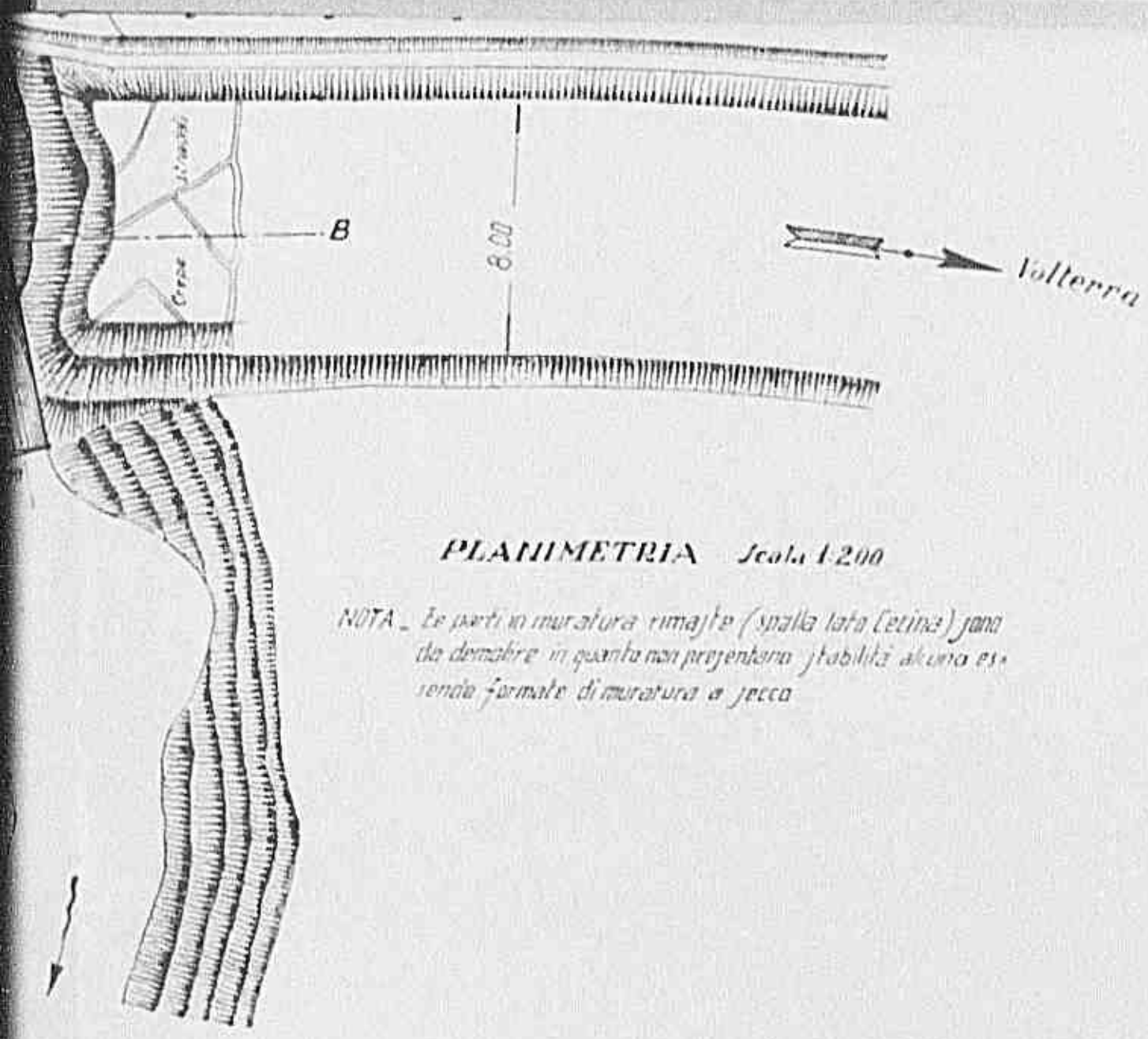

PLANIMETRIA *Scala 1:200*

NOTA_ *Le parti in muratura rimaste (spalla lato Cetina) sono da demolire in quanto non presentano stabilità alcuna essendo formate di muratura a secco*

0900

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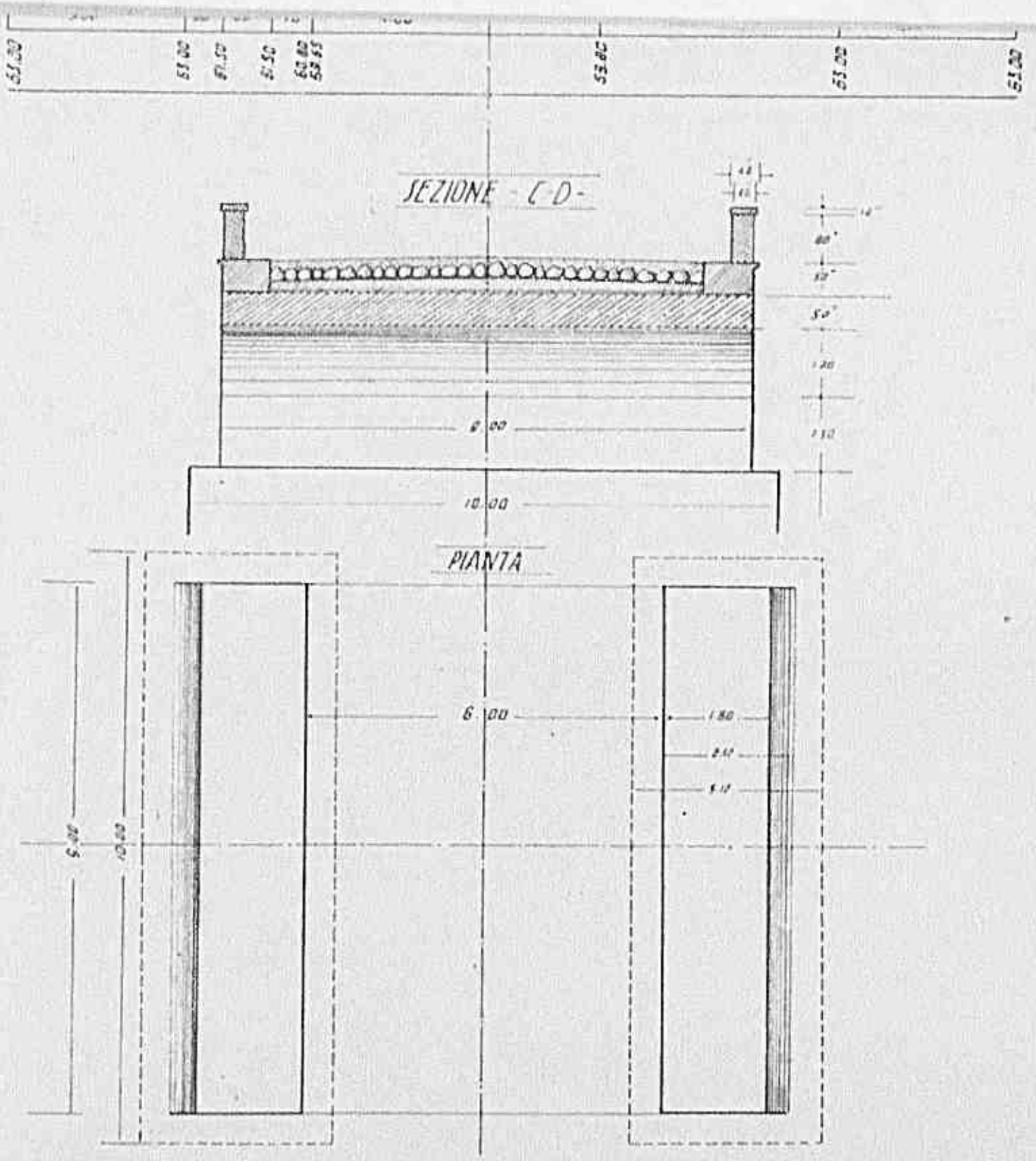

11060