

ACC 078.3/11/LU

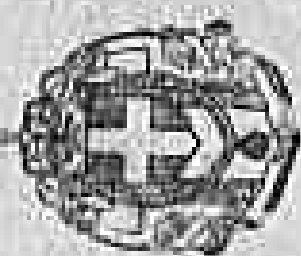
10000/150/271

BRIDGE
JULY - 0

10000/150/271

BRIDGES, LAZIO - UMBRIA
JULY - OCT. 1944

Lazio-Umbria - Bridges



MINISTERO DELLE CORPORAZIONI

UFFICIO STUDI E RICERCHE

D. 785019/111111

0703/1000



6 July Hh

18 Oct

o/a
des

Hh 10000 / 150/271

THIS FOLDER
CONTAINS PAPERS
FROM JULY 44
TO OCT 44
CATALOGUE -

Date	Ref	From	Subject
5.7.44	84/ENG	of Chunks	Amficio di Sear Bridge over Highway
2/2.7.44	91/26	Maj. Doby	Plans Bridge Geras
3/2.7.44		CDIST	Geras Bridge - Route 6
4 26.8.44	678/90	" "	Lin Bridge - Geras
5 16.8.44	CE4513	Capt. Doby	Design - Lin Bridge, Geras
6 23.8.44	123/90	CDIST	Bridge, Provincial Road
7 25.8.44	638/90	" "	Bridge, M.A. 5966
8 19.7.44	CE4513	Maj. Doby	Remont Bridge over Lin River, Geras
9 22.7.44		Light Chien	Bridge for Magat River construction. Province of Foz de
10 7.8.44		CDIST	Geras Bridge, M.A. 597273
11 31.8.44	84/ENG 50-2/6	Capt. Doby	Bridge Route #2

SUBJECT: CASSINO Bridge (1.867208) - Route 6.

20 OCT Recd

078
col

Chief Engineer
3 District CMF.
Tel: 1111 Extn 94.
CE 4513.

18 Oct 1944.

Lt-Col. V.S. Thompson, Highway Div, HQ ACC, ROME

Lt-Col. C de C E Findlay, VC MC RE, Reg Eng.,
Lazio Region.

82 CRE Works

*old Lazio Umbria
Bridges*

Ref your letter RWS/1a dated 13 Oct '44., the design of the above-mentioned bridge is approved with the following observations :-

1. As footpaths are not shown it is presumed that the 7m.80 between parapets will be entirely carriageway.
2. The new bridge levels involve embankment approaches 5'0" high, is it intended to provide retaining walls or normal sideslopes in which case, stone pitching will be necessary in the vicinity of the bridge?
3. An embankment with sideslopes will entail fascines where on marshy ground and the maintenance of single line traffic on filling after removal of the 60' TS Bailey for the second stage of the work may require particular attention.

AAC/CS.



[Signature]
(A.A. OSBORNE)
Major R.E.
For Brigadier,
Chief Engineer.

2315

SUBJECT:-- Culvert Reconstruction - Route 6.

Lt-Col. G de C E Findley, VC MC RE,
Regional Engineer, LAZIO Region, AGC.

Chief Engineer
3 District CMF.
Tel: 1111 Extra 94.
CE 4513A.

18 Oct 1944.

Lt-Col. V.S. Thompson, Highway Div., HQ AGC, ROME. {with copy of list of br & culverts}
82 CRE Works (for report as in para. 1.) " " " " " "

1. Ref 24/Eng/509.6 dated 13 Oct 44 enclosing list of culvert work suspended. It was not realised that work had commenced on some of the sites listed (Nos 29, 52, 53, 54, 56 and 57). This work will be suspended pending a report on existing culverts by 82 CRE Works.
 2. Culverts at Km 130+275 and 143+400 (not included in your list) had been approved originally.
 3. Culverts at one site between CASSINO Bridge and the sharp bend in CASSINO have been approved, the km ref is not available, but 82 CRE Works has requested the 1 metre precast concrete pipes. These are not available and an amended design is being prepared.
 4. Ref Km 144+900 and 148+670 (Project Nos 66 and 126), if these are at present Bailey bridge sites the work should proceed with all possible speed.
 5. The reconstruction at the 'hump back' culvert site is now well in hand and should continue but the height of the carriageway is reduced and the approach reggraded to eliminate 'hump'.
- It may be necessary to complete a road slab in concrete and finish with 1/2" bituminous macadam.
6. Attention is drawn to CE 4513 dated 11 Oct 44.

AGC/CS.

(A.A. OSBORNE)
Major R.E.
For Brigadier,
Chief Engineer.

231



[Handwritten signature]

LIST OF WORKS SUSPENDED (Bridges & Culverts Reconstruction).

<u>Project No</u>	<u>Item</u>	<u>Contractor</u>
89	Culvert at Km 78+265	Pantaleo
52	" " " 127+270	Daretti
53	" " " 127+397	"
54	" " " 127+305	"
55	" " " 130+275	"
56	" " " 134+965	"
57	" " " 137+305	"
58	" " " 139+270	"
59	" " " 139+320	"
66	" " " 144+900	ELSA
126	" " " 148+670	"

13 Oct 1944.

SUBJECT:- Bridge Reconstruction - Route 6.

Chief Engineer
3 District CMF
Tel: 1111 Extn 94
CE 4513.

Lt-Col.V.S.Thompson, Highway Div, HQ ACC, ROLE
Lt-Col.G de C E Findlay, VC MC, LAZIO Region ACC
Lt-Col.Hensley, Regional Eng., ACC Southern Region

// Oct 1944

22 ORD Works

1. Further to CE 4513 dated 6 Oct 44. The following list of flood washout gaps at present bridged with Baileys and awaiting immediate reconstruction work is as tabulated below including suggested approx dimensions of mass concrete semi-circular arches for permanent works to suit existing gaps and watercourse :-

Km Ref	Location	Bailey on Site	Gap		Arch Dimensions	
			Width	Depth at	Span	Thick Filling approx.
			fd level	Springing		
174	N.099999	70' TS	20'	16' 6"	15'	9" 8'
149	G.921167	50' TS	25'	10'	15'	9" 2'
145	G.903179	80' DD	30'	17' 6"	20'	9" 5' 6"
79	G.417405	100' DD	30'	16' 6"	20'	9" 5'

2. The above arch spans are wide enough to allow adequate provision for storm water flow by temporary troughs to ensure protection of the new foundations work and should be considered a maximum. Duplication of previous design can be accepted if economy in materials and provision for flood during construction is possible.

3. The reconstruction of bridge at G.899197 which collapsed at the crown due to supporting timber and stone crib being swept away) should be in mass concrete to suit existing abutments.

4. The priority of work will be as follows :-

1. Sites G.417405, G.899197 (Only arch required)
2. " G.903179
3. " G.921167, N.099999 (Bailey released by Flambo).

2312

5. The dimensions suggested in para.1 should not be considered a criterion for any future reconstruction plans as the need for limiting the carriageway excavation does not apply.

0

6. Your observations and information upon the availability of good contractors for this work is awaited.

is as tabulated below including suggested approx dimensions of mass concrete semi-circular arches for permanent works to suit existing gaps and watercourse :-

Km No.	Location	Bailey on Site	Gap		Arch Dimensions		
			Width	Depth at	Span	Thick	Filling approx.
			fd level	Springing			
174	N.099909	70' TS	20'	16' 6"	15'	9"	8'
149	G.921167	50' TS	25'	10'	15'	9"	2'
145	G.903179	80' DD	30'	17' 6"	20'	9"	5' 6"
79	G.417405	100' DD	30'	16' 6"	20'	9"	5'

- The above arch spans are wide enough to allow adequate provision for storm water flow by temporary troughs to ensure protection of the new foundations work and should be considered a maximum. Duplication of previous design can be accepted if economy in materials and provision for flood during construction is possible.
- The reconstruction of bridge at G.899197 which collapsed at the crown due to supporting timber and stone crib being swept away) should be in mass concrete to suit existing abutments.
- The priority of work will be as follows :-
 - Sites G.417405, G.899197 (Only arch required)
 - " G.903179
 - " G.921167, N.099909 (Bailey released by Flauto). 2313
- The dimensions suggested in para.1 should not be considered a criterion for any future reconstruction plans as the need for limiting the carriageway excavation does not apply.
- Your observations and information upon the availability of good contractors for this work is awaited.

AAO/CS.

(A.A. OSBORNE)

Major R.E.

for Brigadier,

Chief Engineer.

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

RWS/ls

Ref: ACC/073/PWU

14 October 1944

Subject: Bridge, Route 1, ALBEGNA.

To : Engineer Officer, P.B.S.
Forward Echelon.

Reference our letter of 6 October to D.D.W. A.A.I., with copy for your attention.

1. Attached is copy of reply from D.D.W. for your information. As will be noted, it appears that sufficient importance is not being attached to the need for an emergency structure at this site.
2. Every effort is being extended on our part to prepare the site for emergency use, including the building of the earth fill at one span.
3. If the importance of this matter warrants direct contact with A.A.I. by your Headquarters, advice of such action will be appreciated.

V.S. THOMPSON
Lt. Col. R.C.E.
Chief, Public Wks. Div.

2311

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

RWS/lb

13 October 1944

Subject: Cassino Bridge, Route 6.

To : C.E., 3 District.

1. As requested in your letter C.E. 4513 dated 2.Oct.44, plans for the Cassino bridge (MR.867208) are transmitted herewith.
2. The contractor is proceeding with preparation and clearance of site pending receipt of your approval of the design.

V.S. THOMPSON
Lt. Col. R.C.E.
Chief, Public Wks. Div.

2319

- 6 OCT 1944 078

SUBJECT:-- Bridge & Culvert Reconstruction, Route 6
& other AAI Route

Chief Engineer
3 District CEF.
Tel: 1111 Extn 94.
CE 4513

1st Col. V. S. Thompson, Highway Div, ACC, ROME.
Regional Engineer, Region IV, ACC., ROME

2 Oct 1944

Regional Engineer, ACC Southern Region, NAPLES.
82 CRE Works

1. Further to Signal R81 dated 2 Oct 44 concerning a considerable number of unauthorised reconstruction of culverts on Route 6., the control of civilian contractors or AASS engaged upon works (other than routine road repair and maintenance already authorised) is now a matter of great concern.
2. The following procedure will be followed for all future bridge or culvert reconstruction on Route 6 or other AAI Routes :-
 - (a) Improvements to culverts and drainage not involving interference with the carriageway, such as construction of inverts or wingwalls, pitching or re-forming sideslopes of filling as protection against surface water or scour, strengthening existing timber box culverts etc., should be carried out by ACC (or military labour in an emergency) without reference to this office but approved by the CRE
 - (b) Reconstruction work involving extensive excavation and reinstatement of carriageway or single line traffic will be submitted to this office for approval. Failure or impending failure of an existing crossing necessitating immediate emergency action by the CRE responsible being exceptions.
3. It is confirmed that culvert reconstruction already commenced will proceed, except at the following site :-
 Km 148+50 (No. 416) Drainage can be diverted to ditch on North side, East of crossroads at G.930162.
4. A report upon the circumstances whereby contractors commenced work on Route 6 without approval of policy or detail plan by this office has been requested, but it must be pointed out to the AASS and all civilian authorities concerned that work will not commence until instructed by the Regional Engineer upon receipt of approval of works from this office.
5. The plans for the CASSINO Bridge (G 867208) are still awaited, but the contractor may proceed with preparation and clearance of site etc in the meantime.

2309

civilian contractors or AASS engaged upon works (other than routine road repair and maintenance already authorised) is now a matter of great concern.

2. The following procedure will be followed for all future bridge or culvert reconstruction on Route 6 or other AA1 Routes :-

(a) Improvements to culverts and drainage not involving interference with the carriageway, such as construction of inverts or wingwalls, pitching or re-forming sideslopes of filling as protection against surface water or scour, strengthening existing timber box culverts etc., should be carried out by ACC (or military labour in an emergency) without reference to this office but approved by ME (RE)

(b) Reconstruction work involving extensive excavation and reinstatement of carriageway or single line traffic will be submitted to this office for approval. Failure or impending failure of an existing crossing necessitating immediate emergency action by the CRE responsible being exceptions.

3. It is confirmed that culvert reconstruction already commenced will proceed, except at the following site :-

Km 148+50 (No.416) Drainage can be diverted to ditch on North side, East of crossroads at G.930162.

4. A report upon the circumstances whereby contractors commenced work on Route 6 without approval of policy or detail plan by this office has been requested, but it must be pointed out to the AASS and all civilian authorities concerned that work will not commence until instructed by the Regional Engineer upon receipt of approval of works from this office.

5. The plans for the CASSINO Bridge (G 867208) are still awaited, but the contractor may proceed with preparation and clearance of site etc in the meantime.

2309

AAO/CS.

C/PW.

Gen.

6/10.

Shedden

(A.A. CSHORNE)

Major R.E.

for Brigadier,

Chief Engineer.

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission.
APO 394

RWS/lr

11 October 1944

Subject: Bridge Civitavecchia.

To : Regional Engineer, Lazio-Umbria.

1. The Area Engineer of the Army Air Force Engineer Command has requested that we cause a contract to be let to rebuild a blown bridge on Route 1-B across the Retta River near Civitavecchia, M.R. F 1797.
2. A copy of the letter of request is attached together with two proposals which had been received by the Engineer Command.
3. Will you please include this bridge in your Military program and ensure that reconstruction is started with the minimum of delay.

V.S. THOMPSON
Lt. Col. R.C.E.
Chief, Public Wks. Div.

2308

ARMY AIR FORCE ENGINEER COMMAND
MPO (PROV)
V AVIATION ENGINEER AREA (ADV)
APO 568, US ARMY

11 October 1944

SUBJECT : Construction of Bridge at Civitavecchia.

TO : Public Works & Utilities Sub-Commission, Allied
Control Commission, APO 304, U.S. Army.

1. It is requested that a contract be let to rebuild the blown bridge on Highway 1B across the Rette River about two (2) miles North East of the town of Civitavecchia. This is a secondary highway that leads to the Army Air Force Ordnance Depot Number 12, and is necessary for the operation of this Depot.

2. This office has taken two bids, which are inclosed. After the bids were opened we were informed that the funds available could not be used for this purpose.

L. M. G. Dangremont
L. M. G. DANGREMONT
Lt. Colonel, CE
Area Engineer

Incls.

Bid from Ing CARLO ANSOLDI
6 page letter with 1 Drawing.
Bid from LUIGI SPERONI
2 page letter with 2 Drawings.

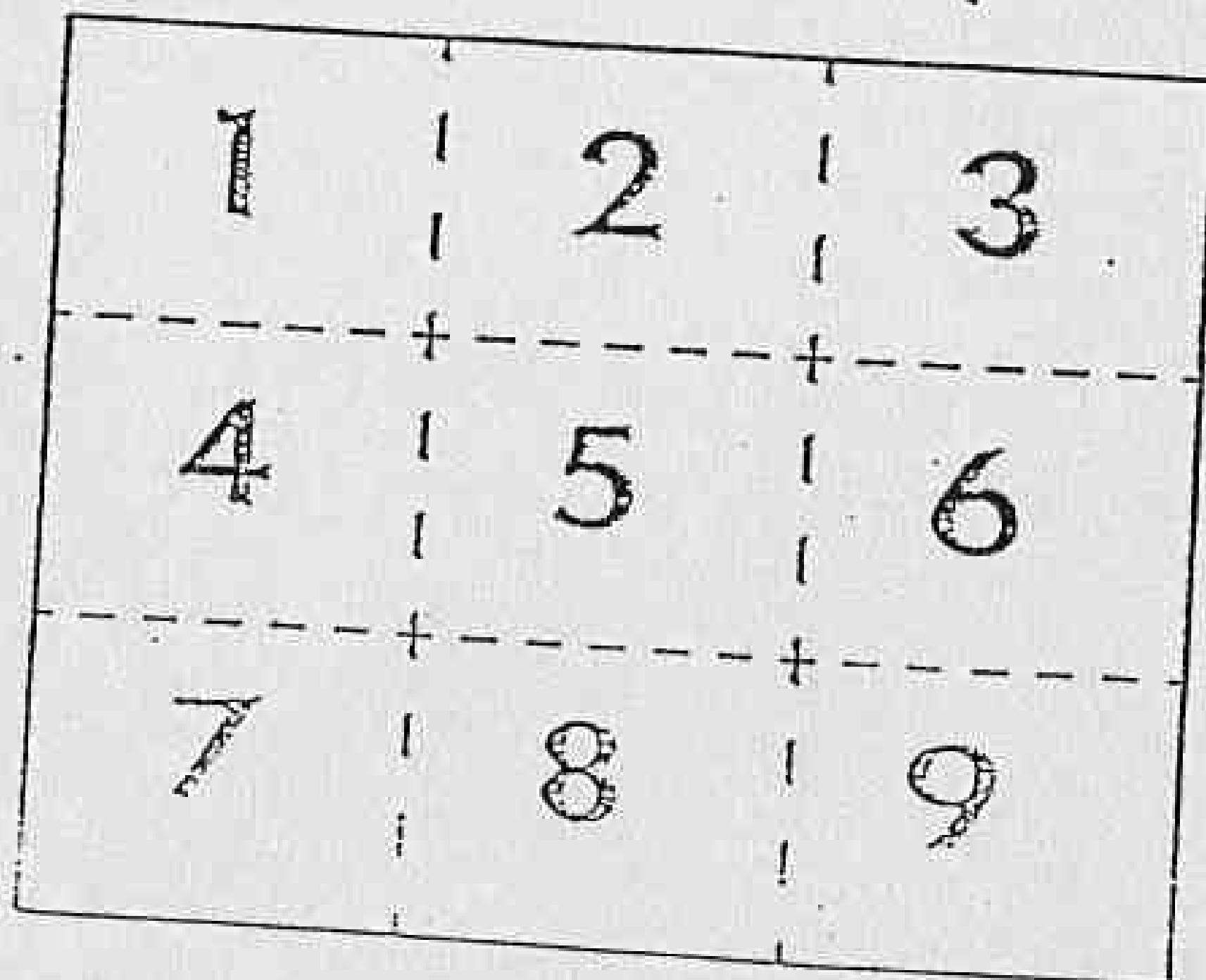
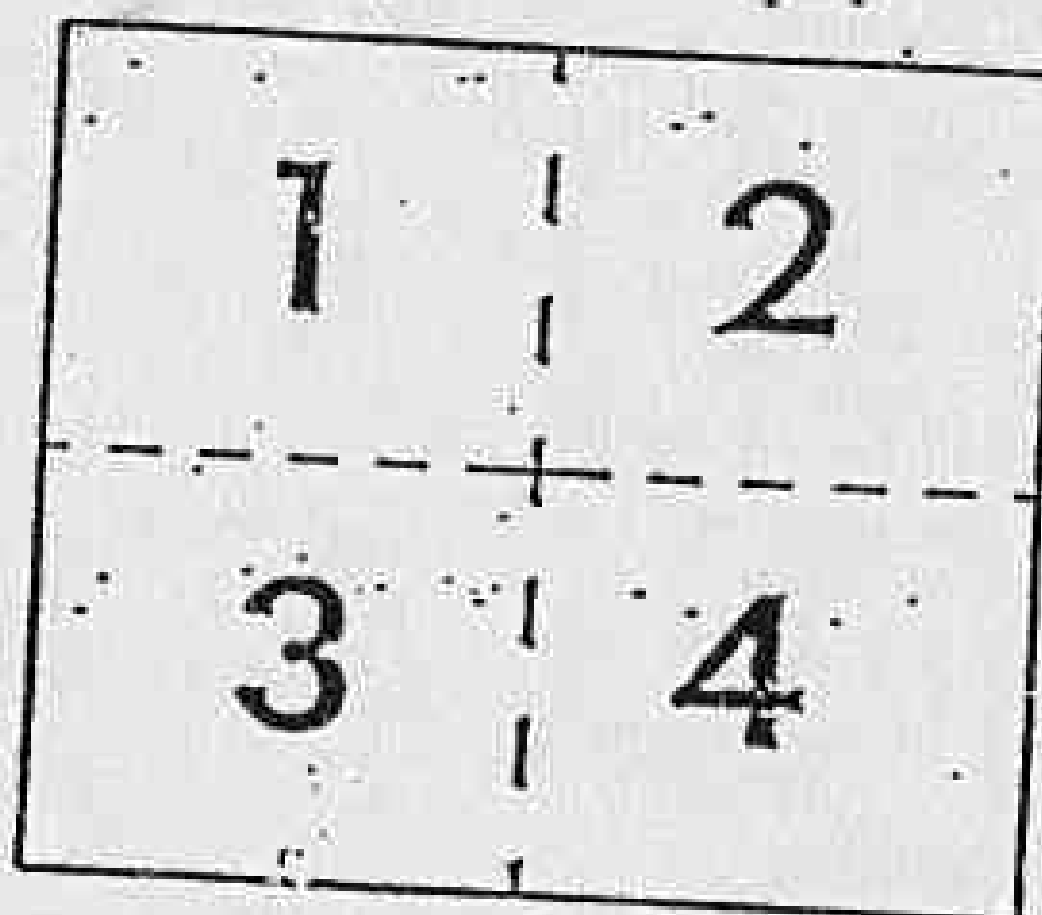
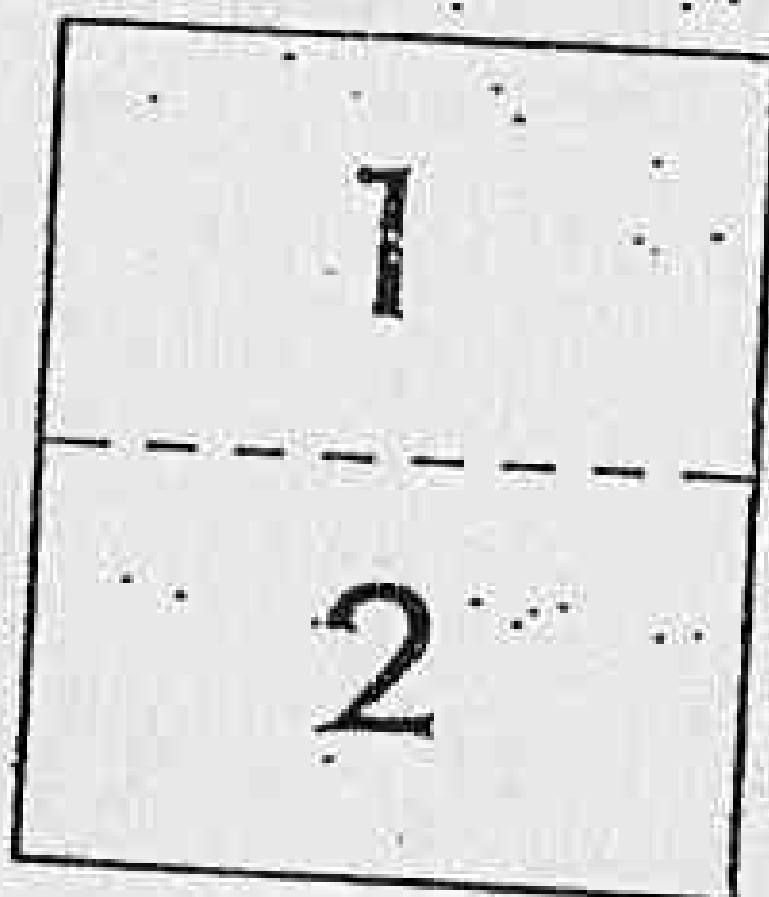
Distribution:

c.c. VIII Avn Engr Area
c.c. File

*all info. including Bids
+ copy of this letter sent
to Gentry by Maj. Evans
11/20/44*

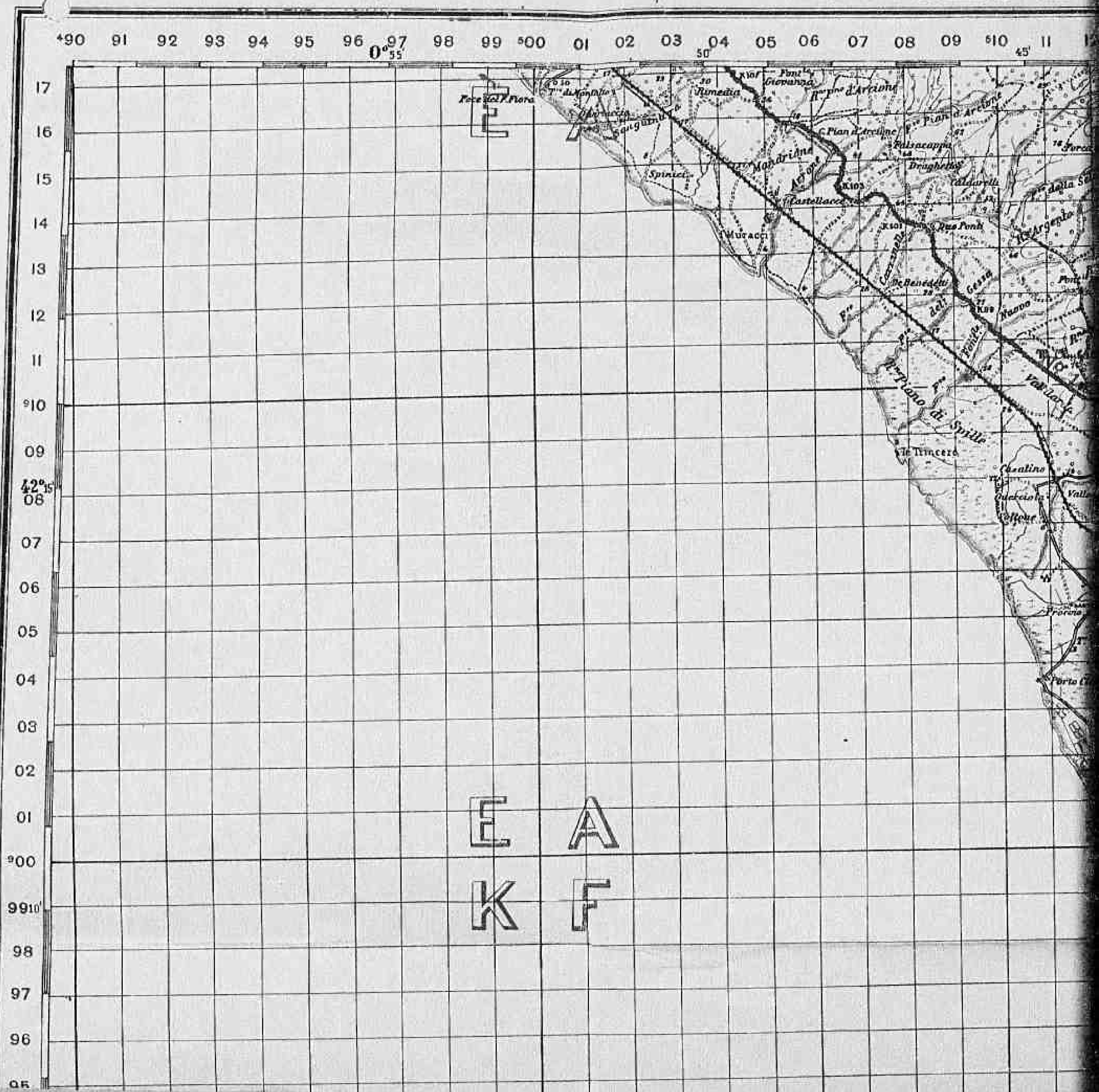
MAPS AND CHARTS TOO LARGE TO FILM
ON ONE EXPOSURE ARE FILMED CLOCKWISE
BEGINNING IN THE UPPER LEFT CORNER,
LEFT TO RIGHT, AND TOP TO BOTTOM.

SEE DIAGRAMS BELOW.



ITALY 1:100,000

CIVITAVECCHIA

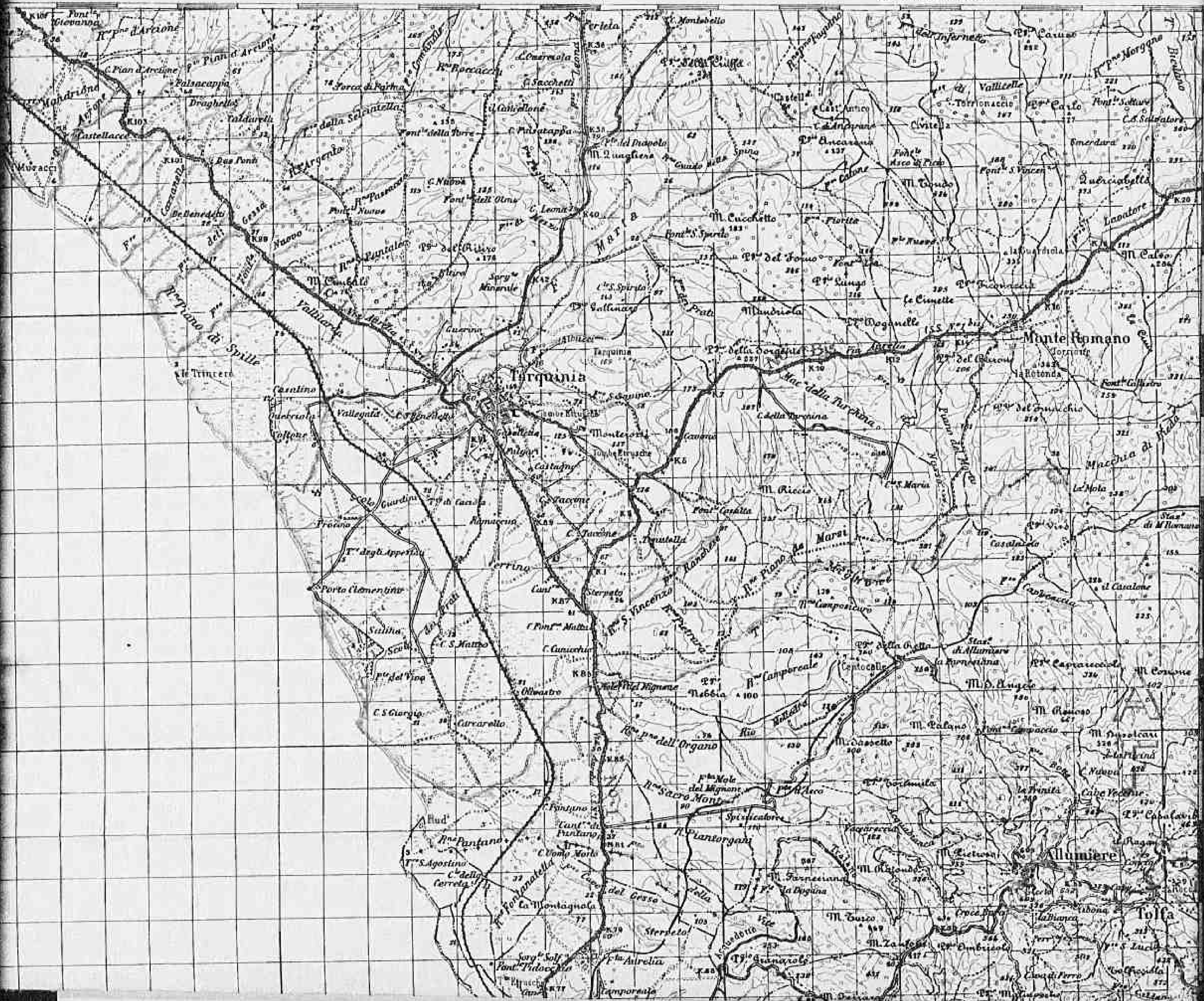


CIVITAVECCHIA

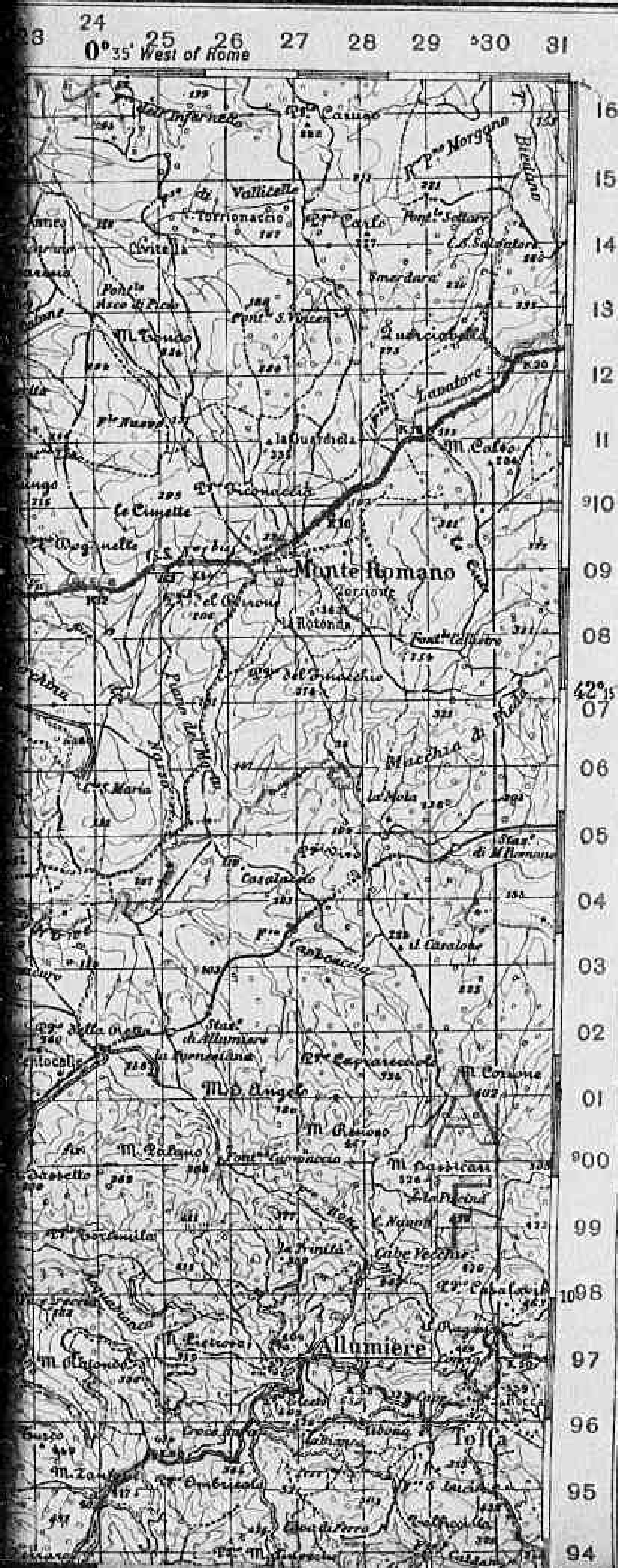
SECOND EDITION

SHEET 142

04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
0° 35' West of Rome



SHEET 142



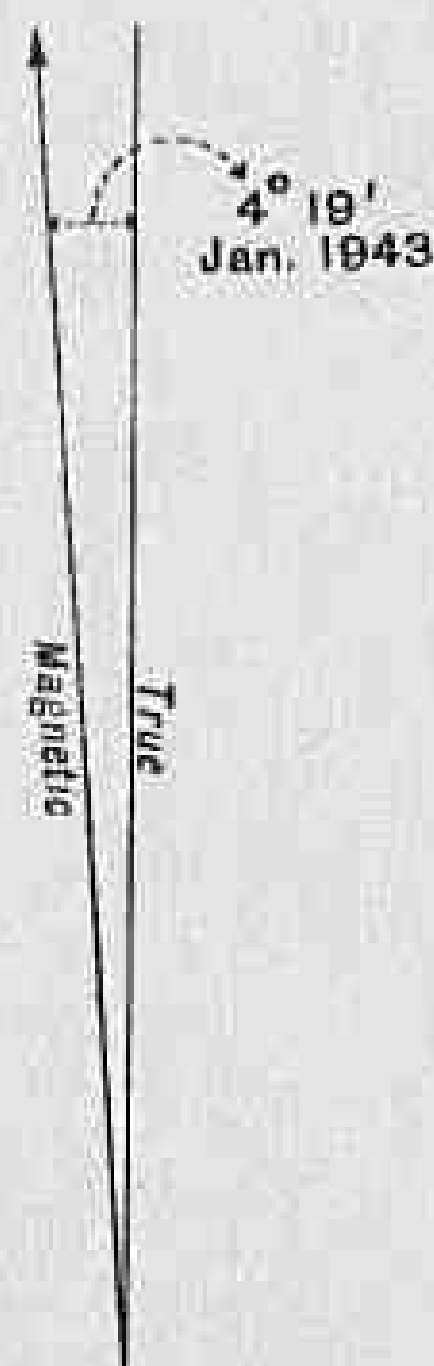
SOUTH ITALY GRID (BLUE)

TO GIVE A GRID REFERENCE ON THIS SHEET Pay no attention to the smaller co-ordinate figures at the corners and in margins. They are for finding full co-ordinates.			
PAY ATTENTION TO LARGER MARGINAL FIGURES AND TO THOSE PRINTED ON THE FACE OF THE MAP.			
POINT	Olivastro		A 154012
East	15	North	01
Take west edge of square in which point lies and read the figures printed opposite this line on north or south margin or on the line itself (on the face of the map)	4	Take south edge of square in which point lies and read the figures printed opposite this line on east or west margin or on the line itself (on the face of the map)	2
Estimate tenths eastwards	154	Estimate tenths northwards	012
East		North	

Nearest similar reference on this grid 500 Km. distant.

GRID DATA
Southern Italy Grid

Colour.....Blue
 Projection.....Lambert Conical Orthomorphic
 Spheroid.....Bessel
 Origin.....39°30' N., 14° E. of Greenwich
 False Co-ordinates of origin.....700,000 metres E.
 600,000 metres N.



Annual change 8 East

CONVERGENCE

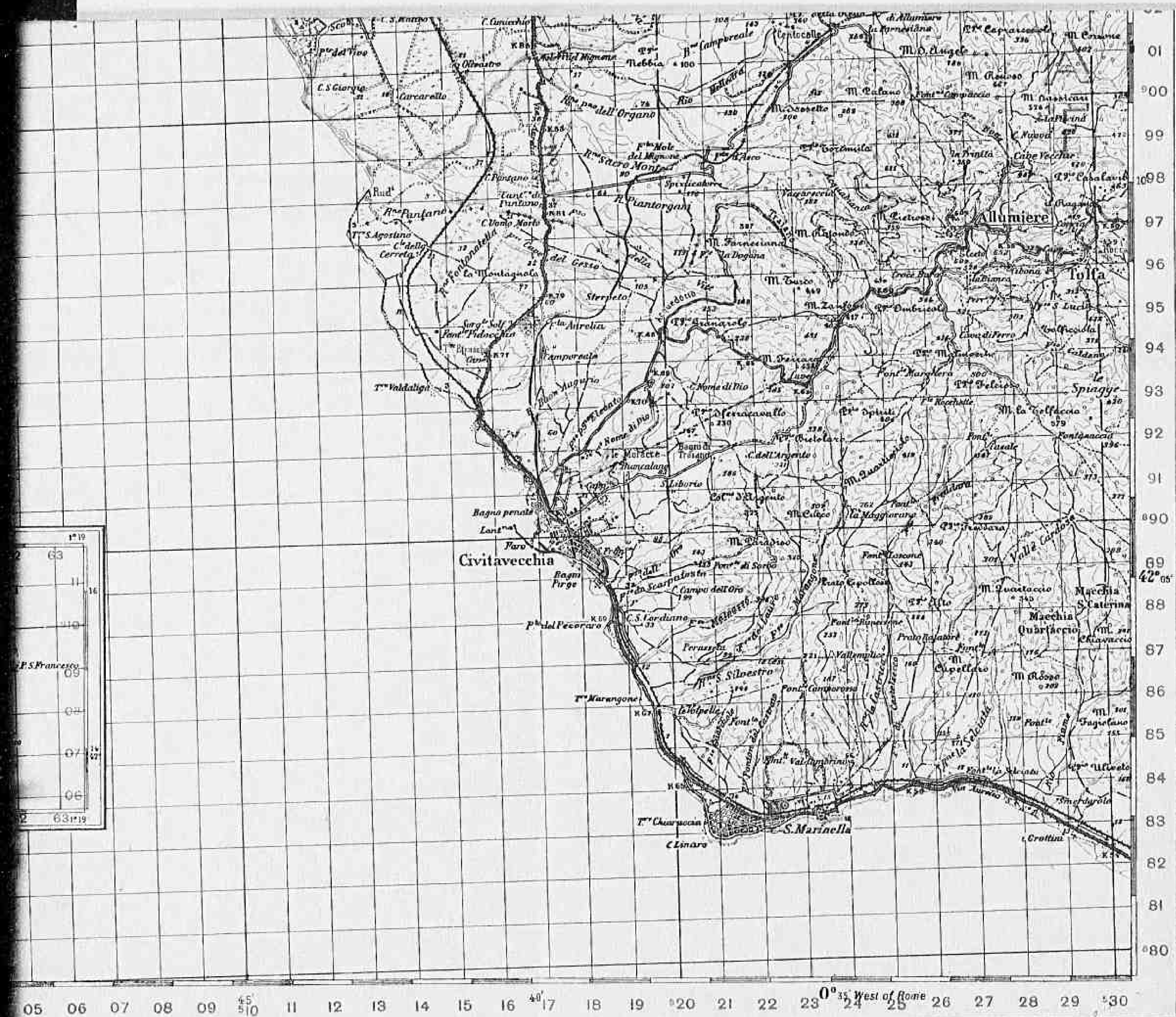
At the West Edge of this sheet Grid North is 1°37' West of True North
 At the East Edge of this sheet Grid North is 1°18' West of True North

REFERENCE

- Railway: two or more tracks with station - single track and electrified - narrow gauge or Tramway - Fram lines on a road - Cable railway - National Highways (Autostrade) 8 Metres wide, metalled - Main Roads (Strade Statali with route numbers) 6 Metres wide or over, metalled	(2-way M.T.) - No 1 (Mostly 0-way)
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Other Main Roads (Strade Statali) (Mostly 0-way)

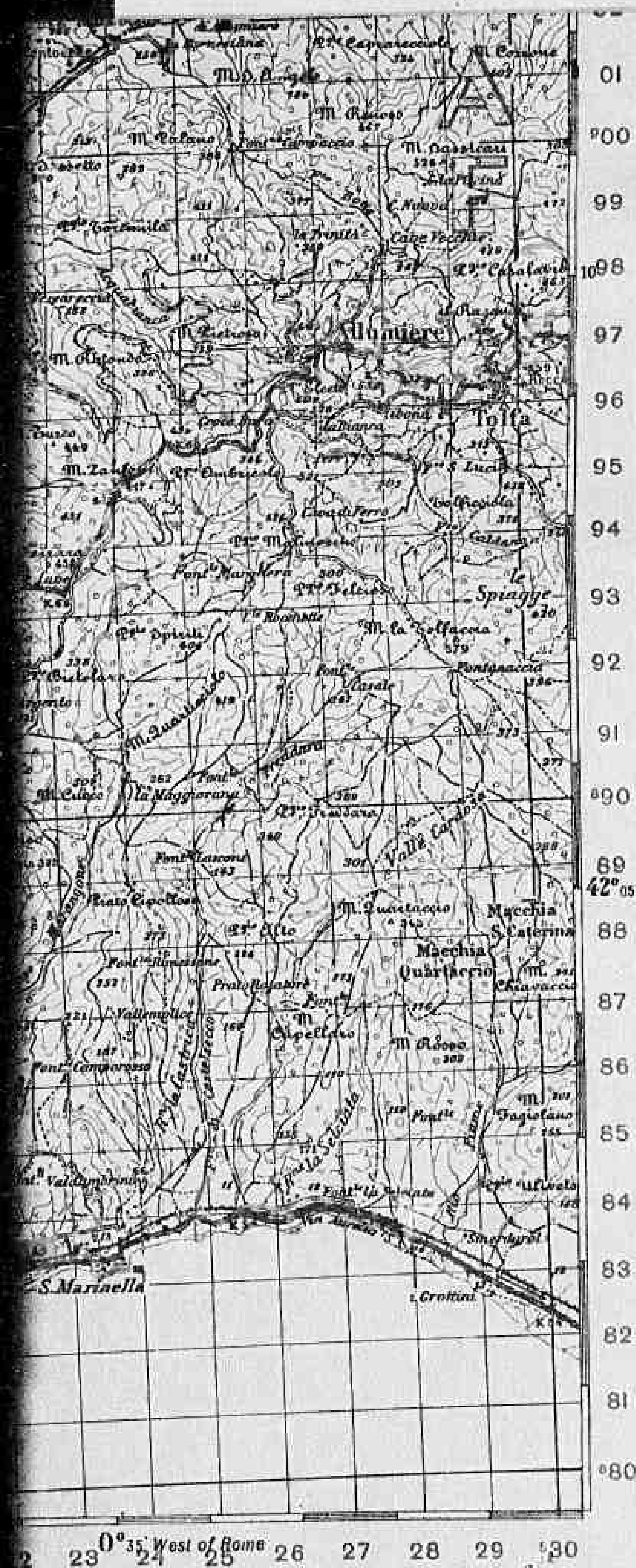
Road class
as shown



Scale 1:100,000.

Photolithographed by O.S., 1943.

Longitudes are based on the meridian of Rome, which is $12^{\circ} 27' 71''$ East of Greenwich.



Photolithographed by O.S., 1943.

Annual change @ East

CONVERGENCE

At the West Edge of this sheet Grid North is $1^{\circ}37'$ West of True North
At the East Edge of this sheet Grid North is $1^{\circ}18'$ West of True North

REFERENCE

[illegible]

ADJOINING SHEETS

135 E	136	137 A
	142	143 F
K		149

AREA REVISED
FROM AIR PHOTOS



COMPARATIVE INDEX

G.8.G.8.4229 A G.8.G.8.4220

IV	NW	NE	50,000 1	4,500 4,228
	SW	SE		
	NW	NE		
	SW	SE		

AUTHORITIES

*Copied from Carta Topografica
1/100,000 Sheet 142 1936
Istituto Geografico Militare
Partially revised for communications, 1943.*

Cdt. Dangremond
Area Engr. 5 Aviation Engr.
Area.

A.A.F.E.C.

46 Botteghe Oscrow
5th floor.

Phone 66075-6

File - with letter to
Lazio Region - directing
this job (Bridge)

11 OCT 1944
108.

AJG/mp

60 6/4

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
Lazio-Umbria Region
(Engineering Division)
APO 394

File

10 October 1944

TO : HQ. A.C.C. - Public Works & Utilities
Sub-Commission

SUBJECT : Bridges Route 3

REF. : R4/ENG/509.3

1. Herewith ACC 1s and plans covering projects on Route 3 at the following locations:

Km. 52+350
65+230
66+395
67+350

2. For your consideration and approval.

W. P. Entry Capt. CMP
For Regional Engineer
Lazio-Umbria Region AMG



2305

11 OCT 1944
07

AJG/mp

Co 615

HEADQUARTERS
ALLIED MILITARY GOVERNMENT
Lazio-Umbria Region
(Engineering Division)
APO 394

9 October 1944

TO : Public Works & Utilities
Sub-Commission ACC

SUBJECT : Highway 1
Km. 111+700

REF. : R4/ENG/509.1

1. With ref. to the bridge over Fiore River Km. 111+700 on Route 1. The contracting firm of SACAE has completed the work of cleaning debris from the bed of the stream and a satisfactory channel now exists.

2. A cost plus contract has been arranged with contractor Luigi Cidonio for reconstruction of rock wing walls and revetment along the banks of the river as requested. Preparatory work has started and methods to be used with regard to the masonry will be decided this week.

3. For your information.



W.D. Fentley Capt. CMP
For Regional Engineer
Lazio Umbria Region AMG

2302

E.L.S.
SUBJECT:- Culvert Reconstruction - Route 6.

07⁸ccs
8 OCT Recd

Chief Engineer
3 District CMF
Tel: 1111 Extn 94
CE 4513.

6 Oct 1944.

Lt-Col. V.S. Thompson, Highway Div, HQ ACC, ROME.
Lt-Col. Hensley, Regional Engg, Southern Region.
Lt-Col. G de C E Findlay, V.C. M.C., LAZIO Region ACC.

CE AFHQ
CE HQ AAI
82 CRE Works

1. Further to CE 4513 dated 2 Oct 44. Recent floods have caused washouts of filling on sites of improvised culverts, in some cases where contractors had commenced work. These emergencies have necessitated the use of Bailey bridging and further failures may entail continued use of this operational equipment which must be recovered as soon as possible.
2. The employment of contractors for bridge and culvert reconstruction on Route 6 must consequently be arranged to ensure that all sites having Bailey bridges are given priority in every respect.
3. Contractors with plant and experienced personnel who are able to erect a mass concrete arch and spandrel walls in the minimum time, such as on the CEPRANO Bridge should be allotted this work.
4. Duplication of the previous structure may obviate further plans but unless the construction is economical and can be built rapidly, the design must be adapted to suit the gap and not involve interference with the Bailey bank seats or lengthening the Bailey unless fully justified.
5. It is considered that mass concrete semi-circular arches with concrete spandrel walls to road level are most suitable for expeditious construction since high abutments are avoided and Cl.70 design is always possible. Standard arch centering may be practicable if one contractor has several jobs.
6. The first site available under conditions mentioned in para.1 is near VAIRANO N.099999 and plans submitted for approval can be in pencil initially and should show the limits of the existing gap under the Baileys.
7. Your co-operation in mobilising all the best available civilian resources for this task would be much appreciated.

AAO/CS.

Robb
Major
The Brigadier,
Chief Engineer.

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

RMS/ir

25 September 1944

ACC/C78/PWU

Subject: Bridges and Culverts, Route 6.

To : C.E. 3 District.

1. In accordance with your verbal request, estimated completion dates are shown below for three bridges on Route 6.

- (a) Ceprano, M.R. 601272 - 20 Oct. 44.
- (b) Cassino, M.R. 867208 - 30 Oct. 44.
- (c) Melfa, M.R. 706259 - 15 Oct. 44.

2. Contracts for all culverts have been awarded. Work on these structures will be prosecuted vigorously, with special emphasis on those carrying highest priority as designated by 3 District.

V.S. THOMPSON
Lt. Col. R.C.E.
Chief, Public Wks. Div.

2302

P.W. & U.

HEADQUARTERS REGION IV
 Allied Control Commission
 (Engineering Division)
 APO 394

20 SEP Recd 2114

AGE/cv

1004
af

file

20th September 1944

TO : HQ/ACC (PWU Sub-Commission)

SUBJECT: PROSINONE PROVINCE - Reconstruction of Bridge N.8 near GUARCINO

IN REPLY QUOTE: R4/ENG/M.103.6

Reference your letter of 17 August 44 approving -
 (under number M 31-) - expenditure of L.2.600.000 on this project.

Forms ACC/2 in triplicate are forwarded herewith
 for approval and distribution (one copy to this office).

A. G. Evans.

A.G. EVANS, Major R.E.
 for Regional Engineer ACC/4

Enclosures: 3 ACC/2 Forms

W. J. Thompson

20/9

21/9

4301

AGE/ph

18 SEP Recd

108

HEADQUARTERS REGION IV
Allied Control Commission
(Engineering Division)

APO 394

18th September 1944

TO : Ispettore Generale Compartimentale
del Genio Civile per il Lazio & Umbria
ROMA - Via Monzambano 10

SUBJECT : FROSINONE PROVINCE - Reconstruction bridge No 35 on
"FIBRENO" river.

IN REPLY QUOTE : R4/ENG/103.45

1. Reference your letter No 2117 of 7 September 1944 and my R4/ENG/103.45 of 15 September 1944 approving in principle the reconstruction of this bridge at £. 910,000.

2. You will recall that on 16 September 1944 we visited the site of this bridge together, and agreed that the temporary wooden bridge already constructed would be adequate for the winter.

3. The approval referred to, in Para 1 above is therefore withdrawn.

Lt Col Thompson

17/9

A. S. Evans

A.G. EVANS, Major R.E.
for Regional Engineer ACC.IV

Copy to:

H.Q. ACC (Public Works and Utilities Sub-Commission)

2300

Ufficio Generale Compartimentale
del Genio Civile per il Lazio & Umbria
ROMA - Via Monzambano 10

SUBJECT : FROSINONE PROVINCE - Reconstruction bridge No 35 on
"FIBRENO" river.

IN REPLY QUOTE : R4/ENG/103.45

1. Reference your letter No 2117 of 7 September 1944 and my R4/ENG/103.45 of 15 September 1944 approving in principle the reconstruction of this bridge at L. 510.000.
2. You will recall that on 16 September 1944 we visited the site of this bridge together, and agreed that the temporary wooden bridge already constructed would be adequate for the winter.
3. The approval referred to, in Para 1 above is therefore withdrawn.

Edgar Thompson

Aug. 19/4

A. S. Evans
A. S. EVANS, Major R.E.
for Regional Engineer ACC.IV

Copy to:

1. E.Q. ACC (Public Works and Utilities Sub-Commission)
Provincial Commissioner of FROSINONE PROV.
for Genio Civile - FROSINONE PROVINCE.

2300



10

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

RWS/fr

7 September 1944

Subject: Ceperano Bridge, M.R. 6597273.

To : Regional Engineer, Region IV.

1. Attached hereto are plans for the above bridge which have been approved in this Headquarters and by C.E., 3 District.
2. These plans are forwarded for your information and record.

V.S. THOMPSON
Lt. Col. R.C.E.
Chief, Public Wks. Div.

2294

SUBJECT:- CEPRANO Bridge

SEP Recd

078
C.B.

Chief Engineer,
3 District, CMF.
Tel: 1111 Extn 94.
CE 4513.

5 Sep 1944.

Lt-Col.V.S.Thompson,
Highway Div., HQ ACC.

Further to CE 4513 dated 18 Aug '44.

1. The design for the CEPRANO Bridge G.597273 is approved in accordance with the drawings and calculations enclosed herewith.

V.S. Thompson
Chd 4/9

A.T. Davies Capt.

(A.T.DAVIES)

Capt R.E.

for Brigadier,

Chief Engineer.

ATD/CS.

Encl: As stated.

AGE/eb

1615

5 1/2 Recd

108

HEADQUARTERS REGION IV
Allied Control Commission
(Engineering Division)
APO 394

4 September 1944

TO : HQ. ACC.) Public Works & Utilities Sub-Commission). ✓

SUBJECT : Definitive Reconstruction of "COTTANELLO" Bridge No. 2 on the
Provincial Road Fontecerro (Rieti Province)

IN REPLY QUOTE: R4/ENG/103.36

1. Enclosed is Form ACC/1 in triplicate, please return in duplicate
with approval (Lire : 3,300.000)

2. Enclosed is copy of following for retention by you:

- a) Relazione
- b) Analisi dei prezzi
- c) Computi metrici & stima
- d) Capitolato speciale d'appalto
- e) Disegni

3. Controlled materials required:

130 Tons PORTLAND CEMENT.

Let Col Thompson
We should insist on the
Regional Engineer signing
these requests and countersigning
so as to make sure he knows
what is going on. Pls. follow
up.
A.G. Evans

A.G. EVANS, Major R.E.
for Regional Engineer ACC.IV.

Enclosures: 6

Copy to:

Genio Civile RIETI for information.



HEADQUARTERS REGION IV
Allied Control Commission
(Engineering Division)
APO 394

File ¹¹

31st August 1944

TO : H.Q. ACC. (Public Works and Utilities Sub-Commission)

SUBJECT: Bridges Route N°2.

FILE : R4/ENG/500-2/G

1. Enclosed are forms ACC/1 in triplicate covering Bridges and culverts on the above Route at Km. 35 + 643, 112 + 362, 113 + 651, 123 + 733, 135 + 893 and Km. 136 + 752.

2. These bridges and culverts although costing less than 1.000.000 lire (one million), are of greater Span than can be approved by this office or require controlled material.

3. Enclosed with each project stipulated above, are the required ACC Mat. 10 forms plans and engineering estimates.

4. Route 2 is now under the Jurisdiction of I Engineer District, which has made arrangements whereby their Major Gunnell will approve all Bridge plans. Therefore, please return designs enclosed herewith to this office for processing thru these channels.

W.R. Gentry
W.R. GENTRY, CAPT. CMB.
For Regional Engineer ACC. IV

HEADQUARTERS

ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission

AWC 354

RWS/IT

ACC/OTB/WHU

25 August 1944

Subject: Bridge N.R. 5966.

To : Regional Engineer Officer, Region IV.

1. A rest camp for B.M.'s and O.R.'s has been established at Peregone.
2. In order that this camp may be reached with the minimum use of transport facilities, the Headquarters Commandant has requested our assistance in, having repairs made to a bridge at NR 5966 on the road leading from Route 1 to Peregone
3. Will you please have this site investigated and arranged with the Genio Civico to have this work accomplished.

Copy to:
Lt. Col. Jenny
Major, Marie
File

V. S. THOMPSON
Lt. Col. H.C.F.
Chief, Public Works Div.

B/F

229

→ Lt. Col Rhodes file

In view I regret to withdraw
my request. Thank you for
the trouble you have taken.

11/9/44

Robertson, Lt Col
R. C. Smith

HQ COMMANDANT
FILE HQC
10 SEP 1944
SEEN
COMDT <i>MX</i>
ASST
cc

W. L. Robertson

H. Q. Commandant

*Re the bridge you
spoke to me about.*

*Please see report
attached. Does it
modify your report?
Let me know.*

9/9/44.

G. E. Rhodes

*2295
H. Q. RB*

9 Aug. '44

To: Lt. Col. Thompson

At my request, Capt. Gentry sent Capt. Green to inspect the road and bridge on the cut-off route from Route 1 to Eugene. He has just reported by telephone as follows:

Bridge can be reconstructed without difficulty but the road is through lowland and is in extremely bad condition. It is an unimproved road, consisting mainly of parallel sand "ruts" and almost impassable even at low speed. Since the existing alternate route is in good condition, all weather and only 6 miles greater in distance, the advisability of rebuilding the bridge is seriously questioned. A major road improvement is certainly indicated, if the bridge is to be repaired and used.

W. C. Rhoades
for info. 9/9

R. B. Rhoades
229/44.

Riferimento No. della Carta	PONTI in ordine di precedenza.	Lunghezza appross. da ricostruire	Costo approssimati- vo	Trasporto totale.			Cemento tonn.	Note
				Peso tonn.	Distanza km.	Tonn/ Km.		
14	Ponte sulla Prenestina a Colle Borano presso Fuggi Ponte nel tratto ALATRI- ACUTO		1,650,000 3,000,000	80	25	2000	35	
34	Ponte sul Liri a Pontecorvo sulla PONTECORVO - ESPERIA		5,000,000	120	30	3600	50	
35	Rasecello sul Liri a Pontecorvo per passaggio provvisorio		2,000,000 1,200,000	80	80	6400	—	
	SECONDA PRECEDENZA		33,200,000	1090	368	33602	492	
22	Ponte sul Sacco a CECCANO		6,000,000	124	30	3720	60	
36	Ponte sul Liri sulla Strada AUSONIA- fra PIGNATARO e SAN GIORGIO AL LIRE		5,500,000	100	60	6000	50	
46	Ponte in muratura fra PIGNATARO e SAN GIORGIO AL LIRI		4,000,000	340	65	22100	26	
54	Ponte sulla strada di SANT'APPOLLINARE- SANT' AMEROGIO		6,500,000	172	65	11180	80	
12	Ponte sulla strada FIGLIO - ARGINEAZZO		2,500,000	400	60	24000	31	
11	Ponte sulla strada ANAGNI - FALIANO		3,000,000	500	55	27500	40	
			77,500,000	1636	335	44500	287	

Comuna.	Lunghezza appross. da ricostruire	Costo approssimati- vo	Trasporto totale.			Materiali controllati.				Note
			Peso tonn.	Distanza km.	Tonn/ Km.	Cemento tonn.	Ferro tonn.	Legno m.cubi	Mattone 1.000	
Colle Boraso		1,650,000								
Matto ALATRI-		3,000,000	80	25	2000	35	2	30	8	approved 27 th July 44 Ref. ACC. 204 X
to sulla		5,000,000	120	30	3600	50	5	45	12	
ricorvo per		2,000,000								
		3,500,000	80	80	6400	---	4	130	---	approved 14 th Aug. 44 Ref. ACC. M. 30 X
ENZA		33,200,000	1090	368	33602	492	40	588	112	
		6,000,000	124	30	3720	60	10	40	10	
a SUBONIA-		5,500,000	100	60	6000	50	8	35	6	
O AL LIRI		4,000,000	340	65	22100	26	2	20	100	
ATARO e SAN		6,500,000	172	65	11180	80	15	45	15	
APPOLLINARE-		2,500,000	400	60	24000	31	2	15	150	
ARGINAZZO		3,000,000	500	55	27500	40	3	25	200	
PALIANO		27,500,000	1536	335	94500	287	40	180	401	

Riferimento N. della Carta	P O N T I in ordine di precedenza.	Lunghezza appr. da ricostruire	Costo approssimati- vo	Trasporto totale.			Materiali	
				Peso tonn.	Distanza Km.	Tonn/ Km.	Cemento Tonn.	Ferro Tonn.
	PRIMA PROCEDENZA.							
13	Ponte sulla strada Provinciale Prenesti- na nel tratto ACUTO-FIGLIO		1,200,000 1,300,000	129	30	3870	100	14
41	Ponte sul Rapido nella strada Provinciale Attina - CASSINO		1,500,000	100	20	2000	40	1
35	Ponte sul Fibreno detto Tapino lungo la strada Provinciale SORA-ATINA o SFERRA- CAVALLI		1,000,000	52	35	1820	35	1
43	Ponte sul Liri in Sora sul prolungamen- to della SORA - ATINA		6,000,000	100	40	4000	45	3
44	Ponte sul Liri in Sora sul prolungamen- to della SORA - FROSINONE		2,500,000	105	40	4200	40	3
3	Ponte Bacciano sul fiume Amaseno presso Casamari ricadente lungo la strada FROSINONE - CASTEL LIRI		1,800,000	90	20	1800	42	2
1	Ponte alla Madonna del Giglio sul Fosso Bagno al Bivio della FROSINONE- SORA con la comunale per VEROLI		1,500,000	84	18	1512	35	1
2	Ponte della Tenacella sul sacco lungo la strada FROSINONE - SORA		3,500,000	90	20	1800	40	2
23	Ponte della Mola sul Sacco nel tratto della Provinciale FOPI-BIVIO-VALLECORSA		2,700,000	60	10	600	30	2

I precedenza.	Lunghezza appr. da ricostruire	Costo approssimati- vo	Trasporto totale.			Materiali controllati.				Note.
			Peso tonn.	Distanza Km.	Tonn/ Km.	Cemento Tonn.	Ferro Tonn.	Legno M.cubo	Mattoni 1.000	
SENZA.										
Strada Provinciale		1,200,000 1,300,000	129	30	3870	100	14	40	5	Approved 17 th Aug. 44 Ref. ACC - M 29
Tapino lungo la LATINA o SPERANZA		1,500,000	100	20	2000	40	1	40	15	
sul prolungamen-		1,000,000	52	35	1820	35	1	25	10	
sul prolungamen-		6,000,000	100	40	4000	45	3	45	15	
TE		2,500,000	105	40	4200	40	3	100	10	
Amaseno presso la strada		1,800,000	90	20	1800	42	2	30	8	
aglio sul la FROSINONE- VEROLI		1,500,000	84	18	1512	35	1	30	10	
il sacco lungo RA		3,500,000	90	20	1800	40	2	35	9	
co nel tratto BIVIO-VALLECORA		2,700,000	60	10	600	30	2	30	10	

CORPO REALE del GENIO CIVILE.

UFFICIO di FROSINONE.

PROVINCE OF FROSINONE.

BRIDGES FOR URGENT RECONSTRUCTION.

Fiuggi, 22 luglio 1944

L'ing.re Capo

(eg.) Ing. Ugo del Chicco

File
Reg. IV

SUBJECT:- Permanent Bridge over LIRI River, CEPRANO - 1 mile 6.

51 JUL Recd
678000

Chief Engineer,
3 District, CMF.
Tel: 1111 Extn 94.
CE 4513.

Lt-Col. V.S. Thompson,
Highway Div.,
Public Wks & Utilities Sub-Commission, ACC.

29 Jul, 1944.

52 CRE Works. (For report on action already taken).

Ref RWS/fr dated 17 July '44 enclosing sketch plan for arch over LIRI River at CEPRANO - Route 6.

1. It is presumed that only general approval of this type of bridge is required since only a sketch plan is submitted. A mass concrete arch, span 98'6", rise 22'9", thickness of arch at crown 2'8", will require a detailed analysis for stress under Cl 70 loads.
2. The sketch plan gives no indication of river bed or water levels and is insufficient for approval of design. General approval is given subject to receipt of a proper plan including a copy of the computation of the live and dead load analysis according to force polygons and corresponding lines of pressure.
3. Your attention is drawn to letter CE 4014 dated 9 March '44 when extracts of the British Load Classifications for 70, 40 & 30 Classes were forwarded for your information. It is presumed that copies of this military loading have been sent as then suggested to all the Italian Engineers concerned with submitting bridge designs.
4. It is noted that the sketch plan gives no indication of source of origin and it is recommended that any bridge plans not emanating from the AASS should be passed to them for approval initially in view of their experience of the river conditions for any particular site.

*Detailed plans delivered to 3 Dist.
on 10 Aug. 44*

Rev. B. 1. 5/4

A.A. Osborne
(A.A. OSBORNE)

Major R.E.
for Brigadier,
Chief Engineer.

AAO/CS.

Encl. Sketch retained as usual.

Ref RWS/fr dated 17 July '44 enclosing sketch plan for arch over LIRI River at CEPRANO - Route 6.

1. It is presumed that only general approval of this type of bridge is required since only a sketch plan is submitted. A mass concrete arch, span 98'6", rise 22'9", thickness of arch at crown 2'8", will require a detailed analysis for stress under C1 70 loads.
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4. It is noted that the sketch plan gives no indication of source of origin and it is recommended that any bridge plans not emanating from the AASS should be passed to them for approval initially in view of their experience of the river conditions for any particular site.

*Detailed plans delivered to 3 Dist.
on 10 Aug. 44.*

Rev. B. 1547

A.A. Osborne

(A.A. OSBORNE)

Major R.E.

for Brigadier,

Chief Engineer.

AAO/CS.

Encl.

Sketch returned General

229

Col. Thompson

*Have you given full data
to Italian Enginrs on this matter
they are doing the designing?*

Rev. 31/7

Whatson

HEADQUARTERS

ALLIED CONTROL COMMISSION

Public Works and Utilities Sub-Commission

APO 394

RWS/Dr

23 August 1944

ACC/078/PWU

Subject: Bridge, Provincial Road.

To : Regional Engineer Officer, Region IV.

1. The Utilities Division of this Sub-Commission advises that a bridge on provincial road near Ottaducalo, MR 150492 must be reconstructed before critical electrical equipment can be moved from a power plant located near there.

2. For this purpose the structure need only be one way, but must be class 40.

3. Will you please take the action necessary to ensure that reconstruction is started immediately?

4. We are enclosing sheet 16 of map of Italy upon which the location of this bridge has been marked for your ready reference.

V.S. THOMPSON
Lt. Col. R.O.B.
Chief, Public Works Div.

SUBJECT:- Design - LIRI ridge, CEPRANO.

20 AUG Recd

078 Cel

Lt-Col.V.S.Thompson,
HQ ACC (Highway Division).

Chief Engineer,
3 District, CMF.
Tel: 1111 Extn 94.
CE 4513.

18 Aug. 1944.

1. An examination of the above bridge design shows on Page 1 that the loading used is one known as the "Normale No.8" of Ministry of Public Works.
2. A copy of "Carichi Da Considerare Nel Calcolo Dei Ponti Per Strade Ordinarie" is held in this office, but this publication does not give the loading referred to above.
3. A revised copy of the above publication would be appreciated in order that "Normale No.8" may be checked against the British Standard Cl.70 Loading for wheeled vehicles.

Lt Col Thompson

Have you copies of these publications? If not you should get them and study them so as to be in a position to judge accordingly.

ATD/CS.

J. T. Davies Capt
(A. T. DAVIES)
Capt. R.E.
for Brigadier,
Chief Engineer.

20/8
Asked Regiani for this
M. 21/8

2284

4

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

VST/fr

26 August 1944

ACC/078/PWU

Subject: Liri Bridge - Ceperano.

To : Chief Engineer - 3 District CMF.

1. Reference your letter C.E. 4513 of 18 August 1944.
2. The bridge was designed in accordance with the pamphlet in your possession which is referred to as "Normale No. 8" i.e. Specification No. 8.

3. You will note that the actual tank load of 70 tons is used as concentration at the crown of the arch while a uniformly distributed load of 800 kg. per sq. meter on the roadway and 400 kg. per sq. meter on the sidewalk has been used over such portions of the span as must be loaded to give maximum stress in the arch rib. (See p.5 of pamphlet lines 17 to 21).

4. These loaded lengths are shown to scale in the Influence Line diagrams.

5. Such uniformly distributed loading is the maximum due to distribution of concentrated loads through the earth fill at all points.

APO 394

26 August 1944

ACC/078/PWU

Subject: Liri Bridge - Ceprano.

To : Chief Engineer - 3 District CMF.

1. Reference your letter C.E. 4513 of 18 August 1944.
2. The bridge was designed in accordance with the pamphlet in your possession which is referred to as "Normale No. 8" i.e. Specification No. 8.
3. You will note that the actual tank load of 70 tons is used as concentration at the crown of the arch while a uniformly distributed load of 800 kg. per sq. meter on the roadway and 400 kg. per sq. meter on the sidewalk has been used over such portions of the span as must be loaded to give maximum stress in the arch rib. (See p.5 of pamphlet lines 17 to 21).
4. These loaded lengths are shown to scale in the Influence Line diagrams.
5. Such uniformly distributed loading is the maximum due to distribution of concentrated loads through the earth fill at all points except at the crown of the arch.

V.S. THOMPSON
 Lt. Col. R.C.E.
 Chief, Public Wks. Div.

228*

HEADQUARTERS
ALLIED CONTROL COMMISSION
Public Works and Utilities Sub-Commission
APO 394

RWS/fr

17 July 1944

Subject: Ceprano Bridge - Route 6.

To : Chief, Engineer, 3 District.

1. Submitted herewith for your approval is sketch plan for arch over Liri River at Ceprano on Route 6. This bridge is to be of plain concrete arch construction with reinforced concrete walkways and stone masonry walls.

2. Demands for materials will follow since final estimates are not yet complete.

3. Your early advice will be appreciated.

V.S. THOMPSON
Lt. Col. R.C.E.
Chief, Public Works Div. ACC.

228'

HEADQUARTERS REGION IV
Allied Control Commission
APO 394

15 JUL Recd

CCB. 108

12 July 1944

TO : CHIEF PUBLIC WKS. DIV. P.W. & U. S.C. - ACC
SUBJECT: Plans Bridge Ceprano
FILE : 411/2-6

Here with plans for reconstruction of Bridge at Ceprano.

Plan n°1 is as the bridge was originally built n° 2 is recommended for reconstruction.

The plans call for steel only in the overhanging walkway and bridge capacity is based on 50 tons per vehicle wheel.

Work clearing the demolition is to commence 14 July.

The estimate will not be available (for a few days) until some of the debris has been removed to ascertain whether the piers on the north side of the river are in tact.

May the plans be approved, please.

At Col Thompson

Where are the plans?

15/7

A.G. PERLEY MAJOR
CHIEF ROADS ENGINEER
REGION IV

228

14 Jul 44

EJE/es

File

HEADQUARTERS REGION IV
Allied Control Commission
APO 394

5th July 1944

TO : Public Works & Utilities Sub Commission

SUBJECT: Bonifica di Sessa & Bridge over River Garigliano

FILE NO: R4/Eng/11

1. The bonifica di Sessa around the Mouth of River GARIGLIANO would appear to be in Region III but naturally questions might arise affecting lands both in Region IV and Region III.

2. The head office of the Company concerned is said to be in Naples and similarly to your decision regarding the bridges over the RIVER GARIGLIANO it is requested that Region III handle this matter entirely themselves as one problem.

[Signature]
Colonel
Regional Engineer *an.*

Copy to Region III

Yes. Reg III will take care.

*all Bridges on Garigliano shall be
Region III. Copy to Hyland, Edwards
Harris -*

1500

1500