

ACC

AC 19

10000/148/1694

LINE 86
DEC. 1944

0000/148/1694

LINE 86 GENERAL
DEC. 1944 - AUG. 1945

Subject : Line 86 (Central)

Plant & M.T. loaned to
Civilian Contractors

to I.S.R. - Ancona
of Area - Tel. 2345 -
Date. 23 August 45 -
Ref. AC/Tn/86/G.53

To : Lt.Col. Street -
A.C.Tn. Sub - Comm.

1. Herewith in duplicate are the lists of the Plant, M.T. etc. loaned to the Contractors for the reconstruction of Line 86 (Central).

2. It will be noted that the "Fiorentini Crawler Crane" fitted with shovel No. 167 is still in use by Impresa Ghella.

EJH
E.J. Mole - Major
A.C.Tn. 4

ARMY FORM C 2136 (Large)

MESSAGE FORM

Register No.

Transmission Instructions

Call

Priority

Srt. No.

ABOVE THIS LINE FOR SIGNALS USE ONLY

Office Date Stamp

Date-Time of Origin

Originator

FROM

(A) MAJOR MOLE c/o I.S.R. 61 Area

19 JULY

For Action

TO Y.R.C. 2.4 c/o Tn. SIGNALS - BOLOGNA

(W) For Information (INFO)

Message Instructions: GR

Originator's No.

ANC/18/1/ (.) RESTRICTED (.) DISTEL IN SHOPS (.) UNABLE PROCEED
BARI IS ARRANGED (.) SUBJECT REPAIRS COMPLETED TODAY LEAVING 19
JULY 16.30 HRS. (.) COMPLETE TOUR BARI AREA 20 JULY AND LEAVE ON NEXT
RETURN TRIP SAME DAY (.) SHOULD ARRIVE OUR APPOINTED PLACE 20.00
HRS. 20 JULY (.) WOULD IT BE CONVENIENT FOR YOU MEET US THERE
ON 21 JULY OR SHALL I RETURN ANCONA AS PRESENT ARRANGEMENTS (.)
WILL CONFIRM PLAN ON RECEIPT YOUR REPLY

5193

Originator's No.

AJC/13/1/ (.) RESTRICTED (.) DIRECT IN SHOPS (.) UNABLE PROCEED
BARI AB ARRANGING (.) SUBJECT REPAIRS COMPLETED TODAY LEAVING 19
JULY 16.30 HRS. (.) COMPLETE YOUR BARI AREA 20 JULY AND LEAVE ON NEXT
RETURN TRIP SAME DAY (.) SHOULD ARRIVE OUR APPOINTED PLACE 20.00
HRS. 20 JULY (.) WOULD IT BE CONVENIENT FOR YOU TO MEET ME IN
CM 2: JULY OR SHALL I RETURN ANCONA AS PRESENT ARRANGEMENTS (.)
TILL CONFIRM PLAN ON RECEIPT YOUR REPLY

3103

This message may be used
as WILLITTEN by any means
except

WILLITTEN

WILLITTEN

MAJOR R.E.

If liable to be intercepted or to fall
into enemy hands this message must
be sent in cipher.

Signed

Originator's Instructions.
Degree of Priority.

IMMEDIATE

Type	Priority
THU 20	
Type Cleared	

18/002 To be collected

151 NWRO V NABA
FROM TN INC (TN SUB-COMM) - 181430B
TO MAJOR MOLE ISR ANCONA C/O SIGNAL OFFICE ~~ANCONA~~ ANCONA
BT
0.15 . RESTD . SEND URGENTLY DEBITS AGAINST CONTRACTORS ORTONA-ANCONA
FOR USE OF MECHANICAL EQUIPMENT .
BT
181430B
MITCHELL B .

*A
Warrant
105-118*



5194

0294

225

10/20/72

MADON PROBE
I.S.R. PROBE

1/2 PROBE PROBE

1/2 PROBE PROBE

1

Subject:- Plant on loan to Civilian Contractors.

HQ 1212 Rly Consr & Maint Co A.S.
A/SOE/313/1886
5 June 1945.

To:- Major WMS,

Herewith please find details of Plant etc. on
loan to contractors for weeks ending 5, 12, 19 and 26
May 1945.

5193

W. M. S.
Lt. Col. A.S.
HQ 1212 Rly Consr & Maint Co A.S.

Week ending 5 May 1949, and 12 May 49.

45. Mach 3.4pt (Tn) Pin 8.2

0297

to Civilian Contractor.

Line 86 central.

12 May 45.

45 Leon Ept (In) Pln R.S.

Plant	ACETYLENE			OXYGEN			Civ. Wks. Rate		Remarks.
	Acet. Recd.	Used.	Stock.	Oxy. Recd.	Used.	Stock.	Lab.	P.D.	
198									
99									
44									

5192

260

Welder 55 202
Wire p.d.

106 500 Cu.Ft. 300 500 3,100 1,300 1,500 Welders 150
Cu.Ft. Cu.Ft. Cu.Ft. Cu.Ft. Cu.Ft. Rate. 96 Wire P;D.

100

Working - E.W.
Working & Casting
Daily basis w.e.f. 6/5/45.

Details of Plant etc. loaned to Civilian Contractor.

Line #5 Central.

Period Week ending 19 May 1945.

45 Mech Supt (2d) Pln

Location. W/End.	Type Unit	Plant	ACETYLENE				OXYGEN		Div. Labour								
			Man Hrs.	Hrs.	Acet. Recd.	Used.	Stock.	Oxy. Recd.		Used.	Stock.						
Ancona Tunnel.	D.S.	}	}	}	}	}	}	}	}	}							
	A/D										}	}	}	}	}	}	}
	2 No.																
	D.7.	}	}	}	}	}	}	}	}	}							
	A/D.										}	}	}	}	}	}	
	1 No.																70
	19 R.B's	}	}	}	}	}	}	}	}	}							
	2 No.										}	}	}	}	}	}	
	225																102
	15 B.	}	}	}	}	}	}	}	}	}							
1 No.	14																

1 No. Sets Lighting & L.S.

1 No. Sets welding & Cutting

(Working daily basis w/e. 5/5/45.

0299

ed to Civilian Contractor.
May 1945.

Line 86 Central.

45 Mech Supt (En) PIA R.S.

At	Plant	ACETYLENE			OXYGEN		Civ.	Hrs.	Rate	Remarks.
		Acet. Recd.	Used.	Stock.	Oxy. Recd.	Used.				
26	115									
		200 cu.ft.	500.	300	3,000	2,400	500			
	70		cu.ft.	cu.ft.	cu.ft.	cu.ft.	cu.ft.			
								Welder	32	202 Lire per day.
	102									
328								Welders	32	150 Lire each per day.
								Mates.		
								2 No.		
	74									

Sets Lighting & R.S.

Sets welding & Casting

(Working daily basis was. f. 6/5/45.

Table 1. The sample characteristics.

45 Media

[illegible]

10301

to civilian Contractor).

Line 85 Central.

45 Mech Dept (Tn) Pln R.S.

245.

Plant	Acetylene Cu.Ft.	Oxygen Cu.Ft.	Civ. Hrs.	Date of Pay.	Remarks.
Wrs. Acet. Used.	Stock. Oxy. Used.	Stock. Labour			
Hand.	Recd.				

35	500	100	400	1600	500	1100		
----	-----	-----	-----	------	-----	------	--	--

Welder 48 202 Lira per day.
 1 No.
 Labourers 48 160 Lira per day.
 3 No. each

77

40

Sets. Lighting 4 H.W.
 Sets welding & putting
 on daily basis v.e.i. 6 May 1945.

Subject:- Plant on loan to Civilian Contractor.

HQ 1212 Rly Constr & Maint by R.E.
A/RCE/313/1945
7 June 1945.

To:- Major POLE,

Here with list of Plant loaned to Civilian Contractor on Line 86 Central for week ending 3 June 1945.

[Signature]
Capt Lt. Col. R.E.
RCE 1212 Rly Constr & Maint by R.E.

5189

Line 86 Cent

45 Dec 31 pt

Location	W/End.	Type	Unit	Plant	ACETYLENE			OXYGEN			Civ.
			Man Hrs.	Hrs.	Acet. Recd.	Used.	Stock.	Oxy. Recd	Used.	Stock	Labour
Ancona Tunnel	2/6/45	D.S) A/D) 2 No) D.7) A/D) 1 No) 19 RB) 2 No) 15 B) 1 No)	188 183	118 113	500	<u>200</u>	300	3800	<u>1600</u>	1200	Welder 2 Labour ers
										00 00 =1 20	

0304

to Civilian Contractor.

Line 85 Central.

45 Mech Dept (Ta) Pln R.E.

	Plant		ACETYLENE			OXYGEN						
Hrs.	Hrs.	Acet.	Used.	Stock.	Oxy.	Used.	Stock	Civ.	Hrs.	Rate		Remarks.
		Head.			Head			Labour		of		
										Pay		
8	118	500	<u>200</u>	300	2800	<u>1600</u>	1200	Welder	48	202		1 No. Sets
										Lire		Lighting 4 k.w.
										per		1 No. Sets
										day		Welding and Cutt-
												ing (Working on
3	113							2 Labour-	96	160		daily basis w.e.f
								ers		Lire		6/9/45).
										per		
										day		

8
160
120

Details of Plant etc. loaned to Civilian Contractor.Job. Arizona Tunnel.45 Mech. Equip. (In) Platoon A.E.

5187

S/Reled.	Type.	Unit Man Hrs.	Plant Hours.	OILS.			GRY.			Civil Labour.	Hours
				est. Reed.	Used.	Stock.	Qty. need.	Used.	Stock.		
Stk. June 1945.	B.B.)			Nil	200	300	Nil.	300	700	Welder.	43
	A/D.)				cu.	cu.		cu.	cu.		
	2 No.)				ft.	ft.		ft.	ft.		
	B.7.)	73.6	120							labours	96
	A/D.)									2 No.	
	1 No.)										
	10RB.)										
	2 No.)	31.2	63								
	13B.)										
	No.1.)										

In the field.
RAF/731.

E. J. J. 45 Mech. 1

0103

to Civilian Contractor.

45 Mech. Equip. (In) Platoon R.E.Line 66 Central.

5187

Plant Hours.	GALV.			OXYGEN			Civil Labour.	Hours.	Daily Pay.	Remarks.
	Cost. Used.	Used.	Stock.	Qty. Used.	Used.	Stock.				
	Nil	200 cu. ft.	300 cu. ft.	Nil.	500 cu. ft.	700 cu. ft.	Welder.	48	300 Lira	1 No. Geta, lighting 4 K.W.
20							Labourers 2 No.	96	160 Lira	1 No. Geta, welding & cutting. (working on daily basis. M.S.T.S./S/45.)
35										

End
 O.C. 45 Mech. Equip. Platoon R.E.
 Capt. A.E.

Details of Plant etc. On loan to Civilian Contractor.LineJob:- Ancona Tunnel.45 Mech. Equip. (Th) Pltn. R.E.

W/Ended.	Type.	Unit Man Hours.	Plant Hours.	ACETYLENE.			OXYGEN.			Civil Labour.	Hours.	Rate of Pay
				Acet Recd.	Used.	Stock.	Oxy. Recd.	Used.	Stock.			
23/6/45.	D.8.											
	A/D.	191	131	Nil	100	400	Nil	700	900	Welder		
	2 No.				c.ft.	c.ft.		c.ft.	c.ft.	1 No.	48	202
	D.7.	144	84									
	A/D.									Mates.		
	1 No.									2 No.	96	160 lir per day
	19 RB.											
	2 No.	134	74									
	15 B.											
	1 No.	112	52									

In the Field.
AWC/FJL.

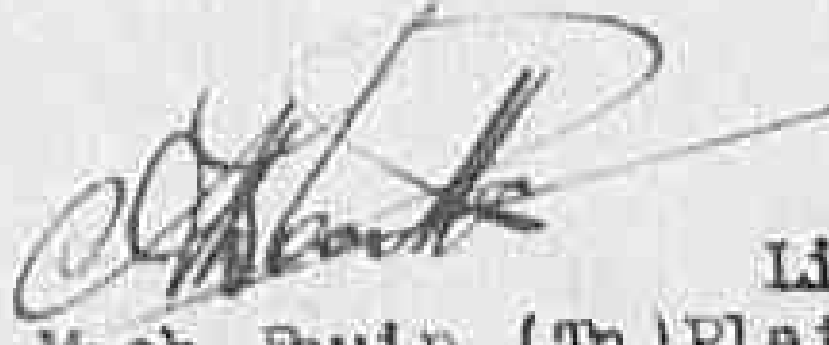
for O.C.45 Mech. E.

an to Civilian Contractor.

Line 86 Central.45 Mech. Equip. (Th) Pltn. R.E.

5183

Plant Hours.	ACETYLENE.			OXYGEN.			Civil Labour.	Hours.	Rate of Pay.	Remarks.
	Acet Recd.	Used.	Stock.	Oxy. Recd.	Used.	Stock.				
131	Nil	100	400	Nil	700	900	Welder	48	202	
84		c.ft.	c.ft.		c.ft.	c.ft.	1 No.			
							Mates.	96	160	
74							2 No.		lire	
52									per day.	


 for O.C. 45 Mech. Equip. (Th) Platoon R.E. Lieut. R.E.

Details of Plant etc. On loan to Civilian Contractor.Job:- Ancona Tunnel.45 Mech. Equip. (Th) Platoon R.E.

E/Ended.	Type.	Unit Man Hours.	Plant Hours.	ACETYLENE.			OXYGEN.			Civil Labo- ur.	Hours.	R P
				Acet. Recd.	Used.	Stock.	Oxy. Recd.	Used.	Stock.			
30/6/45.	D.8. A/D. 2. No.	112	93	800 c.ft	300 c.ft	500 c.ft.	1900 c.ft	600 c.ft	1300 c.ft.	Welder	48	20
	D.7. A/D. 1 No.	56	47							Labours		
	19 RB.									2 No.	96	12
	1 No.	24	12									
	15 B. 1 No.	-	-									

In the Field.
AWC/FJL.

for O.C.45 Mech. Equip

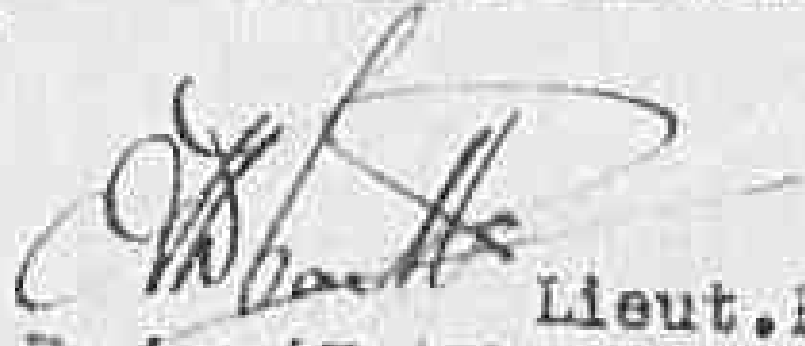
an to Civilian Contractor.

Line 66 Central.

45 Mech. Equip. (Tn) Platoon R.E.

5181

Plant Hours.	ACETYLENE.			OXYGEN.			Civil Labo- ur.	Hours.	Rate of Pay.	Remarks.
	Acet. Recd.	Used.	Stock.	Oxy. Recd.	Used.	Stock.				
93	800 c.ft	300 c.ft	500 c.ft.	1900 c.ft	600 c.ft	1300 c.ft.	Welder	48	202 Lire per day	
47							Labours			
12							2 No.	96	150 Lire per day.	
-										15.B.Luffing Sheave broken.


for O.C.45 Mech. Equip. (Tn) Platoon R.E. Lieut. R.E.

Details of Plant etc. Loaned to Civilian Contractor.Job:- Ancona Tunnel.45 Mech. Equip. (Th) Platoon R.E.

W/Exd.	Type.	Unit Man Hours.	Plant Hours.	ACETYLENE.			OXYGEN.			Civil Labour.	Rate of Pay.
				Acet. Recd.	Used. c.ft.	Stock. c.ft.	Oxy Recd.	Used. c.ft.	Stock. c.ft.		
7/7/45.	19 R.B. D/line.			500 c.ft.	100 c.ft.	400 c.ft.	1300 c.ft.	500 c.ft.	800 c.ft.	Welder 48hrs.	202 Lire p.day.
	1 No. D.8 A/D.	-	-							Labourers 96 hrs.	160 Lire p.day.
	1 No. D.7 A/D.	48	43								
	1 No.	48	48								

for O.C.45 Mech. E.

In the Field.
AWE/FJL.

0314

5182

Line 86 Central.

to Civilian Contractor.

45 Mech. Equip. (Th) Platoon R.E.

Plant Hours.	ACETYLENE.			OXYGEN.			Civil Labour.	Rate of Pay.	Remarks.
	Acet. Recd.	Used.	Stock.	Oxy Recd.	Used.	Stock.			
-	500 c.ft.	100 c.ft.	400 c.ft.	1300 c.ft.	500 c.ft.	800 c.ft.	Welder 48hrs.	202 Lire p.day.	
43							Labourers 96 hrs.	160 Lire p.day.	
48									

[Signature] Lieut. R.E.
for O.C. 45 Mech. Equip. (Th) Platoon R.E.

Office Translation

Ancona, 17 July 45

To : Major Mole A.C.Tn.4

Subject: Rebuilding of bridges on Line 86.

In order to enable me to charge the Contractors with the cost of transportation of cement and bricks done on their behalf by the Military with M.T., please let me know, at your earliest opportunity, details of M.T. loaned to contractors.

Please let me have as well details and cost of plant (excavators, bulldozers, concrete mixers, etc.) and materials (timber, etc.) loaned to Impresa Ghella for Castellano Tunnel reconstruction works.

WORKS SECTION - ANCONA I.S.R.

Sgd. Ing; Morgana

File
EAD

512



Ministero delle Comunicazioni

FERROVIE DELLO STATO

COMPARTIMENTO

ANCONA

SEZIONE LAVORI

Oggetto

Ancona, 17 Luglio 1953

N. LA. 10553 / 1^o Gr. Mu.

al N.

del

PER IL MAGGIORE MOLE

S. E. D. E.

Allegati: 11

Essendo già ultimate le liquidazioni dei lavori relativi

alle imprese che hanno eseguito la ricostruzione dei ponti nel tratto di linea Ancona-Ortona, sarebbe necessario provvedere all'addebito alle Imprese stesse degli autoveicoli forniti dal Comando Alleato per trasporto materiali, cemento, mattoni ecc.-

Si prega di fare conoscere con cortese sollecitudine che addebito verrà fatto per tali automezzi a questa Amm.ne per avere norma nello stabilire quello alle imprese.-

Si prega poi di indicare l'addebito dei mezzi d'opera (escavatori, bulldozer, betoniera ecc.) e materiali - (legnami - ecc.) forniti alla Impresa Costruzioni Industriali Lavori Pubblici per la ricostruzione della Galleria del Castellano.-

IL CAPO DELLA SEZIONE LAVORI

5181

Subject:- Detail of Plant etc. Loaned
to Civilian Contractors.

HQ 1212 Rly. Constr. & Maint. Gp. R.E.
A/RCE/313/1804
31st. May 1945

O.C. 45 MB (Tn) Pl. R.E.

Further to my A/RCE/313/1831 of 26th. Apr. 45.

In future will you please send the above return
direct to Major MOLE A.C.C. with a copy to this H.Q.

[Signature] Lt. Col. R.E.
RCE 1212 Rly. Constr. & Maint. Gp. R.E.

Copy to:- Major MOLE

Nad 5/5/45

7-10000-1000 100 000 000 1/45 000 (52 000)

MESSAGE FORM				Register No.
Call	Srl. No.	Priority	Transmission Instructions	
ABOVE THIS LINE FOR SIGNALS USE ONLY.				
FROM		Originator	Date-Time of Origin	Office Date Stamp
(A)		MAJOR WOLF C/O DETAIL For Action.	2 JUNE	
TO		TN IKO	Message Instructions	GR
		(W) For Information (INFO)		
Originator's No.				

ANG 2/1 (.) REFERENCED (.) FOR GREEN IN SUB COMM (.) REFERENCE
 BY SIGNAL AS 30/2 DATED 30 MAY (.) HAVE TODAY RECEIVED DRAFTS
 OF BIRMINGHAM AND OF ANTO BRIDGES WITH A LETTER DATED 22 MAY (.) YOUR
 OFFICE STILL ADDRESSING CORRESPONDENCE C/O IRCE 4 BOLOGNA WHO
 SENT SPECIAL D.R. TO DELIVER (.) THIS MAY EXPLAIN THE MISSING
 CORRESPONDENCE (.) REFERENCE MY SIGNAL AND 1/1 DATED 1 JUNE TIMING
 OF TOUR OF INSPECTION 3 JUNE KIDS TOO LATE PROCEED YOUR H.Q. SAME DAY
 (.) WILL LEAVE 4 JUNE INSPECTING TERNI -- Rieti LINE ON ROUTE (.)
 WILL REPORT 5 JUNE

5180

Cryptogram No.

ARG 2/1- (.) CRYPTORIGHTED (.) FOR SERVICE TO COM-TOM (.) RETERMINED
 MY SIGNAL AS 30/2 LATER 32 MAY (.) HAVE TODAY RECEIVED DRAGLAGE
 OF BIZENNO AND OFFICERS BRIGADES WITH A LETTER DATED 22 MAY (.) YOUR
 OFFICE STILL ADDRESSING CORRESPONDENCE a/o INCE 4 BOLOGNA WHO
 WERE SPECIAL D.R. TO DELIVER (.) THIS MAY EXPLAIN THE MISSING
 CORRESPONDENCE (.) REFERENCE MY SIGNAL ARG 1/1 DATED 1 JUNE TITING
 OF TOUR OF INSPECTION 3 JUNE KIDS TOO LATE PROTECTED YOUR R.D. SAME DAY
 (.) WILL LEAVE 4 JUNE INSPECTING TERNIT - RIOTI LINE ON ROUTE (.)
 WILL REPORT 5 JUNE

5180

This message may be sent
 as written by any means
 except

WIRELESS

If subject to be intercepted or to be
 into enemy hands this message must
 be sent by CIPHER

Original's instructions.
 Degree of priority.

Signed: MAJOR R.E. Signed.

IMPORTANT

Time
 This or TCR
 02 2250
 Time Cleared
 (W.D.)

Subject:- Line 86 (Central).

HQ 1212 Rly. Constr. & Maint. Gp. R.E.
A/RCE/313/1743
17th. May 1945

Major MOLE,
ANCONA

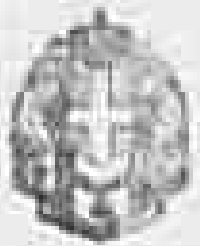
Herewith please find details of plant and M.T. etc.
loaned to contractors on line 86 (Central) by 159 Rly. Constr. Coy.

- (a) The days on which lorries were lent and to which
contractors - NIL
- (b) Details of lorries lent, to which contractors, for how many
kms., if on loan for less than a day. - 1 3-ton 130 kms.
for transport of timber to job 86/152.
It is presumed you have records of G.P. lorries detailed from
the platoon at BEPIDIO for ferrying of bricks, cement & coal.
- (c) Plant on loan to contractors:-
- | | | | |
|-------------------------|--------|---------|----------------------|
| 1 x No.4 Pumping Set | 86/175 | 3 days | |
| 1 x Concrete Mixer 10/7 | 86/151 | 20 days |) Believed also used |
| 1 x 4 kw. lighting Set | 86/151 | 22 days |) on 86/96. |

No cutting was done by unit operators except at the tunnel
86/175 2 men for 4 days.

[Signature]
Lt. Col. R.E.

RCE 1212 Rly. Constr. & Maint. Gp. R.E.



MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
COMPARTIMENTO DI Ancona

Sezione Lavori

Anno 1, 26-2-45 19 -A
n. LA/2338/Segr.

Al N. del

OGGETTO: Rebuilding of bridges on the
Ortona-Ancona Line.

TO

MAJOR MOIE

A N C O N A

In order to enable me to charge the Contractors with
the cost of transportation of cement and bricks done on their behalf
by the A.C. with military lorries, please let me know, if possible,
the cost per Ton/Km. of a/m transports.-

IL CAPO SEZIONE LAVORI

Mob E915

6128

Transmission

Ministry of Communications
Works Service
Line of Ancona.

Rome, 12th April 49
L. 13202/2

To the Transportation Sub-Commission
Major Street

Unilidina

1. In reply to your letter A2/un/10/89/10, dated 11th April, regarding the counter charges to be made against the contractors working on the Ancona line.

2. a) Use of 3 Ton lorries. Hire rate fixed by U.A.A.C. is 897 Lire each lorry, plus 1.33.24 by Kilometer with a maximum of 100-120 Kilometer per day, or 702 Lire per hour with a maximum of 8 working hours.

b) Use of Mercantini crawler cranes fitted with shovel. (73 H-1770). It is not possible to give details about the rate per 24 hours.

c) Use of Excavator substituted with dragline. It is not possible to supply details about the rate per 24 hours.

d) Use of angia Loezer D 8. It is not possible to supply details about the rate per 24 hours.

e) Use of concrete Mixer. It is not possible to supply details about the rate per 24 hours.

f) Use of portable lighting set. It is not possible to supply details about the rate per 24 hours.

g. The Railway Administration according to the instruction issued on the 3/1/38 No. 131 charges daily 1/co (one per thousand) of the value of the hired plant and equipment.

The value of the hired stores and equipment is not known. For the time being the average cost may be estimated 200 Lire per kg. of the weight of the equipment.

h) The cost of coal is 10 Lire per kg. 500 Lire per cart.

i) The cost of carbide is 30 Lire per kg. plus 2 Lire for cartage or 2.154.40 per cart.

For cartage of 2.154.40 per cart.

1. In reply to your letter A/IN/10/10/C.2, dated 11th April, regarding the counter charges to be made against the contractors working on the Ascom line.

2. a) Use of 2 Tan Lorries. Hire rate fixed at 344.00. 1.507 litre each lorry, plus 1.39.24 by kilometer with a maximum of 100-120 kilometer per day, or 772 litre per hour with a maximum of 8 working hours.

b) Use of Giorenchini crawler crane fitted with shovel. (73 001570). It is not possible to give details about the rate per 24 hours.

c) Use of Excavator submitted with a timeline. It is not possible to supply details about the rate per 24 hours.

d) Use of angle Dozer D.B. It is not possible to supply details about the rate per 24 hours.

e) Use of concrete mixer. It is not possible to supply details about the rate per 24 hours.

f) Use of portable lighting set. It is not possible to supply details about the rate per 24 hours.

g) The Railway Administration according to the instruction issued on the 6/1/38 No III charges daily 1/00 (one per thousand) of the value of the hired plant and equipment.

The value of the hired stores and equipment is not known. For the time being the average cost may be estimated 500 lire per kg. of the weight of the equipment.

h) The cost of coal is 10 lire per kg. 508 lire per cwt.

i) The cost of cartide is 30 lire per kg. plus 6 lire for cartage or 2.184.40 per cwt.

j) The cost of corrugated iron sheets is lire 214.40 per cwt.

k) The average cost of nails is lire 20 per kg. or 1.3.048 per cwt.

l) The average cost of timber 60/3 is lire 10 per kg. or 3.040 per cwt.

Due to the actual situation, the above prices may be increased.

THE CHIEF OF WORKS SERVICE
/s/ Lo Cigno

0324
 MBYW V MABA IMMEDIATE 272

FROM TN INC 081822

TO I.R.C.E. 4

QR208

900TNA4 . RESTD . FOR MAJOR MOLE . ORTONA - ANCONA RAIL PROJECT .
 CEMENT . REFERENCE YOUR A.C.2 DATED 070935A . ONE . SUPPLY SITUATION
 AS FOLLOWS . BACK LOG FROM BARLETTA FOR FEBRUARY (ABOUT 400 TONS)
 COMING FORWARD TOGETHER WITH FURTHER 1000 (ONE THOUSAND) TONS
 ALLOCATED FOR MARCH TOTAL 1400 (FOURTEEN HUNDRED) TONS EX BARLETTA .
 300 (THREE HUNDRED) TONS EX MODUGNO IN TRANSIT . 1000 (ONE THOUSAND)
 TONS ORDERED EX TN ALLOTMENT EX MODUGNO . TWO . A.C. CAN SUPPLY
 ONLY REPEAT ONLY 1000 (ONE THOUSAND) TONS EX BARLETTA . THREE . 1000
 (ONE THOUSAND) TONS EX MODUGNO FROM TN ALLOTMENT NOW IN DOUBT SO
 FOLLOWING ACTION TAKEN . 1000 (ONE THOU~~XXX~~ THOU~~XXX~~ THOUSAND) ~~TONEXX~~
 TONS RELEASED TO YOU EX 330 TN.S.D. AT ANCONA AND IMMEDIATE RELEASE
 BEING TELEPRINTED TO DEPOT ~~TOGXXX~~ TONIGHT FOR 500 (FIVE HUNDRED) TONS
 AND ~~FURTEXXX~~ FURHTER 500(FIVEHUNDRED) TONS WILL BE RELEASED ABOUT
 25 MARCH . PLEASE ARRANGE TO COLLECT ABOVE FIVE HUNDRED TONS SOONEST .
 FOUR . PROVISION OF 1000 (ONE THOUSAND) TONS EX TN ALLOTMENT AT
 MODUGNO BEING PRESSED AT HIGHEST LEVEL . FIVE . THEREFORE TOTAL SUPPLY
 ARRANGED SO FAR IS 2300 (TWO THOUSAND THREE HUNDRED) TONS FIRM PLUS
 BACK LOG FOR FEBRUARY PLUS POSSIBLY 1000 TONS MAKING FIRM TOTAL
 DELIVERY 2700 (TWO THOUSAND SEVEN HUNDRED) TONS AND POSSIBEL
 DELIVERY OF 3700 (THREE THOUSAND SEVEN HUNDRED) TONS . WILL INFORM
 YOU FURTHER

BT 081822

5176

RPTN IMM 272 081822 4 208 900 TNA4 AC2 070935A 400 1THOU 14HUN 3HUN
 1THOU AC 1THOU 1THOU 1THOU 330 5HUN 5HUN 25 1THOU 23HUN 1THOU 27HUN

37HUN 081800 WHM AR

Subject: Reconstruction of Line 86
Alcona - Ortona.

To: 1 Inc. to Sigas.
I.S.R.

Copy to: Major Street, S.O.
Major role (c/s I.S.R. 1.2.4.)
R.C.A. 1212.

Military Railway Service,
S.O.F.
Tel. Firebox 41.
Outside Line 84/36.
To. 4/1.5.
17 per 43.

1. It has been reported to me that acting on instructions received from your office, the design of the Genoa bridge at 275.702 km. has been altered, although work on the original design had already been put in hand.

2. Acting on these instructions, the state railway engineers at Areona, without consulting Major role, instructed the contractors to dismantle centering already erected, in order to replace it to the new design. The result is a serious delay to the works.

3. As you are aware, the reconstruction of this line is of the highest military importance, and delay cannot be tolerated for any reason. Please ensure that any alterations in design or plans of any sort are referred to the appropriate military authority, before instructions are issued either to the Department or to the contractors at site.

Ju
J. Gatter, Colonel,
Chairman,
Construction Sub-Committee
Allied railway board

(Reduced & translated
copy) Specification
same for all contracts.

TRANSPORTS MINISTRY

I.S.R.

GENERAL DIRECTION

WORKS & CONSTRUCTIONS SERVICE

CONTRACT

1 Article.

Contract concerning the reconstruction of the bridges, culverts, and minor works at Km. 248+821, 264+286, 256+028, 267+622, 271+530, 274+203, 275+367 along the line-section between Giulianova Station and Km. 276 .

2 Article - The Contract is being let to SOCIETA' ITALIANA CONDOTTE

D'ACQUA under the strictest compliance with the conditions and the rules fixed in the present act and the rates list detailed below.

The approximate amount of the adjudication is as follows:

Lt. 50.258.100

The Contractor will be therefore bound to this act, whatever the variation of the works extent may result.

The Articles No. 3, 4, 5, 6, 7, 8 (Observance of the specifications, technical prescriptions, general regulations, employment of the Labour, bail and social insurances) which are in no connection with the purpose of this translation, may be omitted.

3 Article - RATES LIST . The rates list, requested by the Contractor, under our calculations, investigations and estimations will be revised in accordance with all the possible and probable variations, regarding the Labour wages, which may occur after the 21st of December 1944.

- 1) Lifting of the line-level with gravelly materials to be supplied at the site by the Contractor. Lt. 650 per cubic meter . This rate includes any charge deriving from the rectification of the transversal slope of the road platform and the outlining of the same.
- 2) Supply of gravel for ballasting (cm. 20 in thickness) below the sleepers level, including the lifting of the track, the pressing & consolidating works in order to obtain an exact planimetric and altimetric position of the said track.

Lt. 755 per cubic meter.

Note. This work taken away from all Contractions ^{before} ~~and~~ commencement
of work in Dec under Clause 5173

- 3) Brickwork for arches and brick casings for concrete filling.
- of sand to be drawn from the river beds.

CONTRACT1 Article.

Contract concerning the reconstruction of the bridges, culverts, and minor works at Km. 248+821, 264+286, 256+028, 267+632, 271+530, 274+203, 275+367 along the line-section between Giulianova Station and Km. 276.

2 Article - The Contract is being let to SOCIETA' ITALIANA CONDOTTI D'ACQUA under the strictest compliance with the conditions and the rules fixed in the present act and the rates list detailed below.

The approximate amount of the adjudication is as follows:

Lt. 50.260.100

The Contractor will be therefore bound to this act, whatever the variation of the works extent may result.

The Articles No. 3, 4, 5, 6, 7, 8 (Observance of the specifications, technical prescriptions, general regulations, employment of the Labour, bail and social insurances) which are in no connection with the purpose of this translation, may be omitted.

3 Article - RATES LIST. The rates list, requested by the Contractor, under our calculations, investigations and estimations will be revised in accordance with all the possible and probable variations, regarding the Labour wages, which may occur after the 21st of December 1944.

- 1) Lifting of the line-level with gravelly materials to be supplied at the site by the Contractor. Lt. 650 per cubic meter. This rate includes any charge deriving from the rectification of the transversal slope of the road platform and the outlining of the same.
- 2) Supply of gravel for ballasting (cm. 20 in thickness) below the sleepers level, including the lifting of the track, the pressing & consolidating works in order to obtain an exact planimetric and altimetric position of the said track.
Lt. 755 per cubic meter.
- 3) Brickwork for arches and brick casings for concrete filling.
Kg. 400 of cement per cub. met. of sand to be drawn from the river beds.

Note. This work taken away from all Contractions ^{before} ~~at~~ commencement of work in Dec. under Clause 518x

The cement and the bricks required will be supplied by the Direction.

Lt. 3250 per cubic meter

Note: Above gives a mix by volume of 1 cement to 4 sand.

4) Concrete Mixes

a) For dry foundations and general concrete filling
Kg. 250 of cement per cub. met. of "inert" materials. Lt. 2560 p.c.m.

Note Above gives a mix by volume : cement to 6 ballast

b) For foundations in presence of water.

Kg. 300 of cement per cub. met. of "inert" materials. Lt. 2700 p.c.m.

Note Above gives a mix by volume : cement to 5.5 ballast

c) For all reinforced concrete work.

Kg. 350 of cement per cub. met. of "inert" materials. Lt. 2840 p.c.m.

Note Above gives a mix by volume : cement to 4.6 ballast

5) Concrete as above for artificial stone (cm. 4 in thickness) including the superficial layer.

Kg. 1000 of cement per cub. met. of the materials required.

Lt. 4500 p.c.m.

Note Above gives a mix of : cement to 1.6 parts sand

6) Centering for both brick & concretework.

Lt. 4500 per square meter

7) Demolitions and removals of the fractured spans, concrete plums and debris to be carried out either with chisels or with explosives, including an accurate selection of the salvaged and usable materials together with the stacking of the same in places adjacent to the work sites and the salvage of the iron structures as for the reinforced concrete bridges. The materials non usable will be tipped at Contractor's expenses in the said places.

Lt. 380 per each cub. met. of brickwork which has been demolished
(in accordance with the construction drawings)

Lt. 760 per each cub. met. of cement reinforced work which has been demolished (in accordance with the construction drawings).

Lt. 10 per Kilo of salvaged iron.

8) Cement rendering to arches to be 5 cm. in thickness and to be made with a percentage of Kg. 600 of cement per cubic meter of sand.

Note Above gives a mix of : cement to 2.6 sand

The rate below includes a 2 cm. thick top rendering of mortar .

(Kg. 1000 of cement per cub. met. of sand)

Note Above gives a mix of : cement to 1.6 sand

The said rendering of mortar will be properly smoothed as to appear a perfect smooth surface.

Lt. 300 per square meter.

Note Above gives a mix by volume 1 cement to 4.6 ballast.

- 5) Concrete as above for artificial stone (cm.4 in thickness) including the superficial layer.
Kg. 1000 of cement per cub.met. of the materials required.

Note Above gives a mix of 1 cement to 1.6 parts sand.
Lt. 4500 p.cim.

- 6) Centering for both brick & concretework.

Lt. 4500 per square meter

- 7) Demolitions and removals of the fractured spans, concrete plums and debris to be carried out either with chisels or with explosives, including an accurate selection of the salvaged and usable materials together with the stacking of the same in places adjacent to the work sites and the salvage of the iron structures as for the reinforced concrete bridges. The materials non usable will be tipped at Contractor's expenses in the said places.

Lt. 380 per each cub.met. of brickwork which has been demolished
(in accordance with the construction drawings)

Lt. 750 per each cub.met. of cement reinforced work which has been demolished (in accordance with the construction drawings).

Lt. 10 per Kilo of salvaged iron.

- 8) Cement rendering to arches to be 5 cm. in thickness and to be made with a percentage of Kg. 600 of cement per cubic meter of sand.

Note Above gives a mix of 1 cement to 2.6 sand.

The rate below includes a 2 cm. thick top rendering of mortar.
(Kg. 1000 of cement per cub.met. of sand)

Note Above gives a mix of 1 cement to 1.6 sand.

The said rendering of mortar will be properly smoothed as to appear a perfect smooth surface.

Lt. 300 per square meter.

- 9) Making and fitting up of iron bars for cement reinforced works.
The iron materials will be provided by the I.S.R. Direction.

Lt. 4 per Kilo.

- 10) Stone and natural gravel filling .

Lt. 600 per cubic meter.

11) Timber work (mining and erection of supports, scaffolding, trestles and boarding) including the iron fittings and the piles installing work.

Lt. 23.000 per cub. met.

Article 10 - The employer service will release, at Ancona Station Price list, the fuel and lubricants required for the static machinery and the vehicles belonging to the Contractor. The quantities of petrol, naphta and lubricating oils required for the vehicles will be compared to the tonnage and the mileage.
Cement and bricks will be released, free of charge, by the I.S.R. Direction.

Article 11 - The employer service will arrange for a daily supplementary ration of 120 "grammi" of flour and 23 "grammi" of soup to be issued to each labourer on the job. In the case the said ration should not be released, a rate of Lt. 5 per day will be paid by the I.S.R. Direction for each labourer on the job.

Article 12 - The work^s will be completed by the 30th of April 1945. For each day of delay in the completion of the works, the Contractor will be fined at a rate of Lt; 10.000.
In case of completion of the said works, Lt. 5.000 bonus will be paid to the Contractor for each day of completion before Contract date.

Article 13 - The I.S.R. Direction will be able to take over the works whenever it will be necessary to do so. In such a case the Contractor will be paid only for the works already done. No Compensation or indemnity will therefore be granted.

The last 6 Articles relating to : Prohibition, legal infraction test of the works and various formalities as for the stipulation and the approval of the Contract, may be omitted.

(Reduced & translated
copy) Specification
same for all contracts.

TRANSPORTS MINISTRY

I.S.R.

GENERAL DIRECTION

WORKS & CONSTRUCTIONS SERVICE

1 Article.

Contract concerning the reconstruction of the bridges, culverts, and minor works at Km. 248+321, 254+286, 256+023, 267+337, 271+530, 274+203, 275+367 along the line-section between Giulianova Station and Km. 276.

2 Article - The Contract is being let to SOCIETA' ITALIANA CONDOTTA L'ACQUA under the strictest compliance with the conditions and the rules fixed in the present act and the rates list detailed below.

The approximate amount of the adjudication is as follows:

Lt. 50.263.100

The Contractor will be therefore bound to this act, whatever the variation of the works extent may result.

The Articles No. 3, 4, 5, 6, 7, 8 (Observance of the specifications, technical prescriptions, general regulations, employment of the labour, bail and social insurances) which are in no connection with the purpose of this translation, may be omitted.

3 Article - RATES LIST - The rates list, requested by the Contractor, under our calculations, investigations and estimations will be revised in accordance with all the possible and probable variations, regarding the labour wages, which may occur after the 28th of December 1944.

- 1) Lifting of the line-level with gravelly materials to be supplied at the site by the Contractor. Lt. 650 per cubic meter. This rate includes any charge deriving from the rectification of the transversal slope of the road platform and the outlying of the same.
- 2) Supply of gravel for ballasting (cm. 30 in thickness) below the sleepers level, including the lifting of the truck, the pressing & consolidating works in order to obtain an exact planimetric and altimetric position of the said track.

Lt. 755 per cubic meter. 5171

Note

This work taken away from all Contractors before
597. commencement of any site work (Dec. 1944) under Clause No

- 3) Brickwork for arches and brick casing for concrete filling.
Kg. 400 of cement per cub. met. of masonry to be drawn from the river bed.

Contract concerning the reconstruction of the bridges, culverts, and minor works at km. 268+800, 268+250, 268+200, 267+832, 271+520, 274+300, 275+367 along the line-section between Giulianova Station and km. 276.

Article - The Contract is being let to SOCIETA' ITALIANA COSTRUZIONI LACQUA under the strictest compliance with the conditions and the rules fixed in the present not and the rates list detailed below.

The approximate amount of the adjudication is as follows:

Lt. 50,000,000

The Contractor will be therefore bound to this not, whatever the variation of the works extent may result.

The Articles No. 3, 4, 5, 6, 7, 8 (Observance of the specifications, technical prescriptions, general regulations, employment of the labour, civil and social insurances) which are in no connection with the purpose of this translation, may be omitted.

Article - RATES LIST . The rates list, requested by the Contractor, under our calculations, investigations and estimations will be revised in accordance with all the possible and probable variations, regarding the labour wages, which may occur after the 21st of December 1944.

1) Lifting of the line-level with gravely materials to be supplied at the site by the Contractor. Lt. 650 per cubic meter . This rate includes any charge deriving from the rectification of the transversal slope of the road platform and the outlining of the same.

2) Supply of gravel for ballasting (cm. 30 in thickness) below the sleepers level, including the lifting of the track, the pressing & consolidating works in order to obtain an exact planimetric and altimetric position of the said track.

Lt. 725 per cubic meter. 5171

Note This work taken away from all Contractors before commencement of any site work (Dec 1944) under Clause No 2

3) Brickwork for arches and brick casings for concrete filling.
Kg. 400 of cement per cub. met. of masonry to be drawn from the river bed

The cement and the bricks required will be supplied by the direction

Lt. 2250 per cubic meter

Note Above gives a mix by volume of 1 cement to 4 sand

E.P.D.

4) Concrete mixes

- a) For dry foundations and general concrete filling
Kg. 250 of cement per cub.met. of "inert" materials. Lt. 2560 p.c.m.
- b) For foundations in presence of water.
Kg. 300 of cement per cub.met. of "inert" materials. Lt. 2700 p.c.m.
- c) For all reinforced concrete work.
Kg. 350 of cement per cub.met. of "inert" materials. Lt. 2840 p.c.m.

- 5) Concrete as above for artificial stone (cm. 4 in thickness) including the superimposed layer.
Kg. 1000 of cement per cub.met. of the materials required.
Lt. 4200 p.c.m.

- 6) Centering for both brick & concreteswork.

Lt. 1500 per square meter

- 7) Demolitions and removals of the fractured apshs, concrete plums and debris to be carried out either with chisels or with explosives, including an accurate selection of the salvaged and usable materials together with the stacking of the same in places adjacent to the work sites and the salvage of the iron structures as for the reinforced concrete bridges. The materials not usable will be tipped at contractor's expenses in the said places.

Lt. 380 per each cub.met. of brickwork which has been demolished
(in accordance with the construction drawings)

Lt. 760 per each cub.met. of cement reinforced work which has been demolished (in accordance with the construction drawings).

Lt. 10 per kilo of salvaged iron.

- 8) Cement rendering to arches to be 5 cm. in thickness and to be made with a percentage of Kg. 600 of cement per cubic meter of sand.

The rate below includes a 2 cm. thick top rendering of mortar.
(Kg. 1000 of cement per cub.met. of sand) 517

The said rendering of mortar will be properly smoothed as to appear a perfect smooth surface.

- 5) Concrete as above for artificial stone (cm.4 in thickness) including the superficial layer.
Rs. 1000 per cub.met. of the materials required.

Rs. 4500 per c.c.m.

- 6) Centering for both brick & concrete work.

Rs. 1500 per square meter

- 7) Demolition and removal of the fractured spalls, concrete pieces and debris to be carried out either with chisels or with explosives, including an accurate selection of the salvaged and usable materials together with the stacking of the same in places adjacent to the work sites and the salvage of the iron structures as for the reinforced concrete bridges. The materials non usable will be tipped at Contractor's expense in the said places.

Rs. 380 per each cub.met. of brickwork which has been demolished
(in accordance with the construction drawings)

Rs. 750 per each cub.met. of cement reinforced work which has been demolished (in accordance with the construction drawings).

Rs. 10 per kilo of salvaged iron.

- 8) Cement rendering to arches to be 5 cm. in thickness and to be made with a percentage of Rs. 600 of cement per cubic meter of sand.

The rate below includes 6.2 cm. thick top rendering of mortar.
(Rs. 1000 of cement per cub.met. of sand)

5170

The said rendering of mortar will be properly smoothed as to appear a perfect smooth surface.

Rs. 300 per square meter.

- 9) Making and fitting up of iron bars for cement reinforced works. The iron materials will be provided by the I.S.R. Direction.

Rs. 4 per kilo.

- 10) Stone and natural gravel filling.

Rs. 600 per cubic meter.

11) Timber work (make and erection of supports, scaffolding, trestles and boarding) including the iron fittings and the axes installation work.

15,25,000 per sub-set.

Article 10 -

The employer service will release, at means station price list, the fuel and lubricants required for the static machinery and the vehicles belonging to the Contractor. The quantities of petrol, kerosene and lubricating oils required for the vehicles will be compared to the tonnage and the mileage.

Cement and bricks will be released, free of charge, by the I.S.R. Direction.

Article 11 -

The employer service will arrange for a daily supplementary ration of 125 "gramm" of flour and 25 "gramm" of soup to be issued to each labourer on the job. In the case the said ration should not be released, a rate of 15.5 per day will be paid by the I.S.R. Direction for each labourer on the job.

Article 12 -

The work will be completed by the 30th of April 1945. For each day of delay in the completion of the works, the Contractor will be fined at a rate of 15,000.

In case of completion of the said work, 15,5,000 bonus will be paid to the Contractor for each day of completion before contract date.

Article 13 -

The I.S.R. Direction will be able to take over the works whenever it will be necessary to do so. In such a case the Contractor will be paid only for the work already done. No compensation or indemnity will therefore be granted.

The last 4 articles relating to : prohibition, legal infraction test of the work and various formalities as for the stipulation and the approval of the contract, may be omitted.

0 3 3 6

ARMY FORM C2100 (Large)

MESSAGE FORM

Regt No.

Transmission Instructions

Priority

Sol No.

Call

ABOVE THIS LINE FOR SIGNALS USE ONLY

FORM

(A)

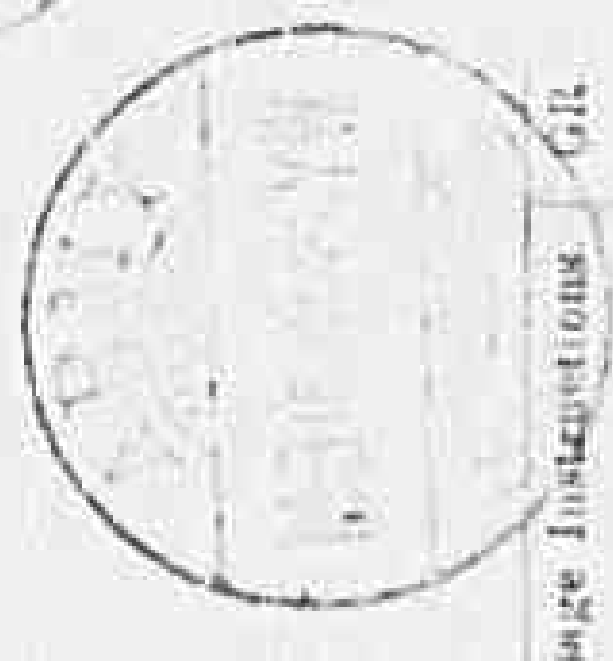
Originator

Date/Time of Origin

FOR ACTION

For Action

Office Date Stamp



Message Instructions: GR

TO

TH 110

(W) For Information (INFO)

Originator's No

A.O. 1/16 (.) REQUESTED (.) FOR BATTEN (.) XXXX L.S.B. 1972
SECTION ROUTE FOR ALTERING DESIGN OF BRIDGE LIKE 06 AND 010
NET XXXXXX DESIGN TO CPO XXXXX WITH INSTRUCTIONS TO AVOID
ACCORDINGLY (.) PREVIOUSLY THIS HAS NOT REPORTED PRESENCE OF LAR
AS INFORMATION HAS ALREADY REACHED LA AND LATERALITY REPAIR TAKEN (.)
FOR BRIDGE BRIDGE AT 275+702 KM, APPROX 13 MARCH 1972 DIVISION
ARRIVED FROM HOME (.) NOTHING HAS ALREADY REPORTED (.) L.S.B.
ENGINEERS HAVE WITHOUT CONSULTATION XXXX PROJECTED SITE AND
REQUESTED CONTRACTORS ALTER TO NEW DESIGN (.) RESULT AT 18.00
HRS. 15 MARCH ALL CENTERING DIMENSIONS (.) DESIGN INSTRUCTED TO
SECTION THAT THIS INTERFERENCE NOT BEAT NOT PARALLEL AND
DIRECT ORDERS OF SUCH INTERFERENCE WITHOUT APPROVAL AND INFORMATION
ALL CONCERNED NOT TO BE ISSUED

518

TO: Message Instructions: OR

TH: INFO (W) For Information (INFO)

Originator's No

2.0. 1/16 (.) RECORDED (.) FOR MATTER (.) LINE 1.2.3. 10023
ACTION HUNT ARE KILLING DOBING OF BRIDES LINE TO THE DAND
THE REAKERS DRIVING TO GARDEN AREA THE INSTRUCTIONS TO ARMS
ACCORDINGLY (.) PREVIOUSLY THIS HAS NOT APPEARED FROM THE OF THE
AS INFORMATION HAS ALREADY BEEN RECEIVED AND NECESSARY REASONS (.)
FOR RECOGNITION HUNTER AT 270+702 KM. APPROX 13 MARCH 1948
ARRIVED FROM HOME (.) JUNCTION AS ALREADY REPORTED (.) 1.0.0.
ENGILERS HAVE WITHOUT COORDINATION WITH PROCEEDING SITE AND
INSTRUCTED CONTRACTORS ALER TO THE DESIGN (.) HUNTER AT 18.00
HRS. 15 MARCH ALL ENTERING DISTRICTED (.) VEHICLE INSTRUCTED
ACTION THAT THIS INFORMATION HAS NOT BEEN RECEIVED AND
DIRECT ORDERS OF SUCH INFORMATION WITHOUT APPROVAL AND INFORMATION
ALL CONCERNED NOT TO BE ISSUED

5108

This message may be sent
AS WRITTEN by any means
except { WIRELESS

Signed

1977

1.5A "A" M 100 - 84,000 Pads 100 44

Originator's Instructions
Degree of Priority

URGENT

Time	System	Op.
THI or TOR		
16104		
Time Cleared		



112

MEMO V MABA 192

FROM TM INC

TO I R C E 4 ANCONA

CH 39 BT

78TH. A . 4 . RESTO . PLEASE PASS FOLLOWING MESSAGE TO MAJOR MOLE .
QUOTE . ~~SECRET~~ FROM DIRECTOR GENERAL I S R TO MAJOR MOLE . FRANCAVILLA
BOROUGH HAS LODGED PROTEST FOR BUILDING EMBANKMENT IN PLACE OF
SUBWAY NEAR STATION . IF POSSIBLE PLEASE ALLOW RECONSTRUCTION
OF ~~SECRET~~ SUBWAY . UNQUOTE .

BT 121438A

SENT NR ~~192~~ NR B

F107

P11720
28

Ref. No. AC/Tn/100/86/

H.Q. NO.4 Indian Rly. C & M Co. I.S.
C.M.F.
Tel. 63 Area Exchange 3345
Date. 7 March 1945

To : Ing. Morgana. Works Section. Ancona. I.S.R.

Subject : Ortona-Ancona line 86 Project.

1. The major works were inspected on 6 March.

2. Impresa Ghella. Work on the tunnel south of Ancona is proceeding very slowly. The situation will be reviewed in a few days time and it may be found necessary to allocate a certain section of the work to British Military Units in order to speed up the work.

3. Impresa Arganini.

River Potenza bridge. Work here was unsatisfactory. The demolition of the intermediate piers has not been completed. At the north end an attempt was being made to form a foundation on the old fractured work with piers (i.e. large pieces of broken concrete) piled round the old pier, the whole of which it was hoped to cover with concrete before any inspection was made. I ordered this work to be immediately stopped and the demolition to sound work to be continued.

4. S.I. Condotta d'Acqua. Progress on all work very slow. At the Rivers Chienti & Tenna work on demolishing both original superstructures continues in preference to completing the demolition of the piers for one track only and commencing the rebuilding of the piers for one track only. Contractors allege these are orders of the I.S.Rlys. I ordered that demolition for one track must be completed and the rebuilding started immediately. The progress of this firm is bad and it may be found necessary to take over certain bridge reconstructions by British Military Units.

5. Please take necessary action with regard to the above matters.

5106
S.J. Cole/ Major R.S.
A.C. Tn. 4
o/c I.S.R.S.4



61 MBYW V MABA IMPORTANT

QQX

FROM TN INC (TN SUB - COMMISSION) -241800A

TO IRCE 4 FOR MAJOR MOLE

GR 21 .

036 .RESTD . ADVISE AMOUNTS OF CONSTRUCTION TIMBER
CONTRACTORS HAVE FURNISHED FOR ANCONA-ORTONA WORK ,
EXCLUSIVE OF WHAT THEY HAD ON HAND

241015A

SENT MITCHELL B

5165

RD 61 1135A HP"B"

Ref. No.
AC/TN/100/06/1.3.

R.A. No. 4 In Can Aly. 844 Op. 1.3.
C.M.P.
Tel. 61 Area Exchange 2345
Date. 27 Feb. 1946

To : Società Fabbricazione Laterizi. Supramarittima.

Subject : Bricks.

- 1) Further^r my visit to your Kiln on 24 Feb.
- 2) Please arrange to deliver to Mt. Pargos of 183 G.T. Coy.
R.A.S.C. bricks for hauling to S.I. Condotte d'acqua.

A.J. Hole, Major R.A.

A.S. Tr. 4

c/o I.R.C. 1

5174

TRAMMISSIONE D'UFFICIO

17 Feb. 1949

A : Società Fabbricazione Laterizi. Supramartina.

Oggetto : Mattoni.

- 1) Reparto alla mia visita del 24 Febbraio.
- 2) Si prega di consegnare al Ten. Pyrgos della 133 D.T. Coy. E.A.S.C. i quantitativi di mattoni assegnati alla S.I. Condotte d'Acqua.

E.A. Major

5163

Subject: Reconstruction line 86,
Ortona - Ancona.

Military Railway Service,
C.M.F.
Tel. Firenze 43.
Outside line 843036.
In 2.4/145.
21 Feb 1945.

To : R.C.E. 1212.

Copy to: R.C.M. (Rly)
A.C. (T.M. Commission)
Major Mole, (c/o I.R.C.S.)
A.D.M. 4.
I.R.C. 2.
C.C. 11 Rly Mole. Coy. R. 511.
C.C. 40 R.M. Pl. Mole. Coy. R. 2. C.S.
R.C. 2.

1. With reference to minutes of meeting held at M. M. on 23 January and conversations (Col. Rutter - Lt. Col. Gentrell - Major Mole) held at Ortona on 30 January.

2. Arrangements will be made forthwith for the progressive transference of units of 1212 Railway Construction & Maintenance Group, R.C., to line 86 for employment on reconstruction works between Ortona and Ancona.

3. On arrival of his headquarters in the area, R.C. 2.1212 will be responsible as representative of R.C. 2.1212, at site, for the re-ordination and completion of all works on the line.

Major Mole will continue to be responsible for the control and execution of all civil contract works.

Allocation of all military units, contractors, I.S.A. and civil labour, transport, equipment and plant, to the various works on the line, will be decided by R.C. 2.1212 by agreement with Major Mole.

4. It is anticipated that the following units will arrive in the area during the first two weeks in March:-

R.C. 1212 Railway Construction & Maintenance Group, R.C.
159 Railway Construction Company, R.C.
160 Railway Construction Company, R.C.
7 Italian Railway Engineer Company.
Detachment 167 Mech. Engrs. (10) Company, R.C.
Up to 4 Italian Pioneer Companies.

5102

Detachment of 160 Railway Construction Company, R.C., No. 2 Railway Telegraph Company, R.C., No. 40 (1000) Railway Telegraph Company, S.A.C.S., and 20 Italian Railway Engineer Company, ... arrived at site.

5. It is agreed that the following works will be carried out by military units as soon as they arrive at site:-

(a) erection of trestle bridge.

(b) erection of all steel on foundations prepared by contractors.

2. With reference to minutes of meeting held on 23 January and conversation (tel. message - L. 201, 202, 203, 204) held at Orleans on 30 January.

2. Arrangements will be made forthwith for the immediate transportation of units of 1212 Railway Construction & Maintenance Group, R.C., to line 86 for employment on reconstruction work between Orleans and Angers.

3. On arrival of his headquarters in the area, R.C. 1212 will be responsible to representatives of I.R.C. at site, for the coordination and completion of all work on the line.

Major Gole will continue to be responsible for the control and execution of all vital contact work. Allocation of all military units, contractors, I.R.C. and civil labour, transport, equipment and plants, to the various tasks on the line, will be decided by R.C. 1212 by agreement with Major Gole.

4. It is anticipated that the following units will arrive in the area during the first two weeks in March:-

R.C. 1212 Railway Construction & Maintenance Group, R.C.
159 Railway Construction Company, R.C.
160 Railway Construction Company, R.C.
7 Italian Railway Engineer Company.
Detachment 107 Motor Signal (2nd) Company, R.C.
Up to 4 Italian Pioneer Companies.

5102

Detachment of 160 Railway Construction Company, R.C., No. 2 Railway Telegraph Company, R.C. 1212, No. 20 (2nd) Railway Telegraph Company, R.C. 1212, and 20 Italian Railway Engineer Company, R.C. 1212 arrived at site.

5. It is agreed that the following works will be carried out by military units as soon as they arrive at site:-

- (a) Protection of Pescara bridge.
- (b) Protection of all steel on foundations prepared by contractors.
- (c) Repairs to track and supervision of repairs to track carried out by I.R.C. personnel.

6. R.C. 1212 will report to M. G. as soon as possible the earliest dates at which movement of the units concerned can be arranged. He will further report to this office, the estimated date of completion of all work on the line as soon as all plans regarding the employment of military units have been drawn up.

(J. Gutter) Colonel,
for Brigadier,
Director, Military Railway Service.

0345

MESSAGE FORM

ARMY FORM 0210 (Small)

Register No.

Unit

Srl. No.

Priority

Transmit

Instructions

ABOVE THIS LINE FOR SIGNALS USE ONLY

FROM
(A)

Operator

Date-Time of Origin

MAJOR MOLE C/O INCE J
For Action

20 FEB.

Office Date Stamp



TO

TH INC

(W) For Information (INFO)

Message

Indirection

GRT

Originator's No.

U.S. - (...) RESTRICTED (...) FOR NO. 10000 (...) REFERENCE 065 74-44
 20 FEB. (...) DATES 20 FEB. 1950 WILL BE RELEASED AS AGREED WITH
 YOU (...) PREPARING DRAWINGS OF ALL BRIDGES BEING BUILT (...) ALL
 BEING SAME SOME AT THE END OF MONTH (...) CONFIRM POSSIBLE DATE
 CENTRE LINE OF STREET 2X1 TRUSTS 47 EAST CENTERS ON FIVE FOUNDATIONS
 10000 10000 10000 BRIDGE OVER RIVER FORD
 AT 353.05 KM

THIS MESSAGE MAY BE SENT AS WRITTEN
 BY ANY MEANS (PLAIN OR CIPHER)

IF LARGE TO BE TRANSMITTED OR TO
 FALL INTO ENEMY HANDS, THIS MESSAGE
 MUST BE SENT IN CIPHER

ORIGINATOR'S INSTRUCTIONS
 DEGREE OF PRIORITY

Time System Op.

THU TOR

20.1.00

NUMBER

20.1.00

SIGNED

5161

H.R. No. 4 Ind Ry C & M Group I.R.

C.M.F.

Date. 20 February 1935

To: Bonaccorsi Administration. Potenza Picena.

Subject:- Timber for line 86 Ancona-Ortona reconstruction works.

- 1) I have been informed that you are the owner of certain standing timber which is required for use on the reconstruction of the above railway line .
- 2) It is understood that you have been approached by the Contractor employed upon this important work of reconstructing the railway for the purchase of the timber but have refused to sell same.
- 3) It is therefore requested that you review this question of the proposed purchase again, remembering that the timber is to be used on a work of vital importance to the needs of your country .
- 4) It is hoped that this transaction can be amicably settled between yourselves without having to enlist any further action on the part of Military Authorities .

R.J. Mole. Major R.E.

A.C. Tn. 4

c/o I.R.C.S.4

5100

TRASMISSIONE D'UFFICIO

20 febbraio 1945

All : Amministrazione Bonaccorsi . Potenza Picena .

Oggetto : Legname per i lavori di ricostruzione della Linea SS
Ancona-Ortona.

- 1) Sono stato informato che voi siete il proprietario di legname in pianta richiesto e necessario nei lavori di ripristino della Linea ferroviaria sopra menzionata .
- 2) Come viene riferito, siete già stato avvicinato per quanto riguarda la vendita del legname in parola, dalla Impresa cui sono stati dati in contratto i lavori di ricostruzione delle Opere d'arte sulla Ancona-Ortona. La vendita è stata da voi stesso rifiutata.
- 3) Si richiede ora, conseguentemente, una revisione da parte vostra dell' affare, revisione che dovrà essere fatta tenendo ben presente questo punto : il legname verrà adoperato in lavori di vitale importanza per i bisogni della Nazione Italiana .
- 4) Si spera che la controversia riguardante la vendita possa essere sistemata amichevolmente tra voi e la Ditta Appaltatrice, senza bisogno di intervento alcuno da parte delle Autorità militari .

5179

168

MBYW V MABA NR 254 IMPORTANT
FROM RCE 1212 201645A
TO MAJOR MOLE C/O DDTN (RLYS)
QQX GR 40 BT

S/948 . RESTRICTED . BULLDOZER NOT AVAILABLE FROM PRESENT
JOBS UNTIL TOMORROW . WILL THEN BE SENT YOU BY 187
MECH EQUIP COY . THEY WILL CONTACT YOU REF DETAILS .
BURNING PLANT DISTRIBUTION BEING CONSIDERED TN HQ .
YOUR REQUIREMENTS HAVE BEEN SENT TO ~~THEY~~ THEM

BT 2013777 201645A

RPTN 254 1212 QQX 40 S/948 187 201645A JC B" 5158

*Rt
Pearls
1655*

0349

23

MEYV V MABA 30 31 QVR1/2 IMPORTANT
FROM OC 187 MECH EQUIP (TN) COY RE
TO OC 46 MECH EQUIP (TN) PLATOON RE RIMINI
INFO MAJOR MOLE C/O IRCE 4 ANCONA " RCE 1212 GROUP
QQX GR52 BT
187/98 . RESTD . REF MY 187/73 OF 6 FEB . HAVE YOU MADE
ANY ARRANGEMENTS FOR A/D WORK SOUTH OF ANCONA . IF NOT
TELEPRINT ME AND I WILL ARRANGE TO SEND A/D FROM HERE
BT 200855

~~RPTN 30 31 IMP 187 45 200855 4 1212 32 187/98 187/73 6 A/D 200855~~
200842 WHM-B3

5157

Pd 1020
282

Subject : U/S. Sleepers.

No. 270 WorksSection RE
CMF
Ref : 400

To : Maj Mole, Transportation, R
No. 4 Ind Rly Const & Mtce Gp.
CMF

Could permission please be given to draw U/S Sleepers from
Rail lines for use in Bridge Work.

These sleepers need only be 3'0" in length and would be used
as ~~factory~~ pieces.
PACKING

13/2/45

Alston Major SAEC,
DCRE No. 270 Works Section RE.

5156

ARMY FORM 2126 (Small)

MESSAGE FORM

Designation No.

Call

Srl. No.

Priority

Transmitted by

ABOVE THIS LINE FOR SIGNALS USE ONLY

FROM
(A)

Designator

Date/Time of Origin

MAJOR WOLF C/O ICSA

14 FEB.

TO

TH HQ

(W) For Information (INFO)



Message Instructions

Originator's No.

A.O. 2 (.) RESTRICTED (.) FOR THE SUB COMMISSION (.) REFERENCE YOUR
 25 DATED 13 FEB. (.) NO DATE FIXED (.) ONLY SIGN CLEARANCE PUT IN
 HAND (.) TO DATE SO BRICKS OR CEMENT AVAILABLE FOR THIS TYPE WORK (.)
 WILL ARRANGE PUT WORK IN HAND WHEN STORES AVAILABLE

THIS MESSAGE MAY BE SENT AS WRITTEN
BY ANY MEANS EXCEPT

WIRELESS

IS LIABLE TO BE INTERCEPTED OR TO
FALL INTO ENEMY HANDS. THIS MSG
MAY MUST BE SENT IN CIPHERORIGINATOR'S INSTRUCTIONS
DEGREE OF PRIORITY

Time System Of

TH HQ

SIGNED

MAJOR R. E.

SIGNED

5125

NORMAL

Time of day

14 FEB 51

BYW V MAB, 18 IMPORANT
FROM TN 1 151750
TO IRCE

QQX GR7 JT

865TN/ . RESTRICTED . FOR MAJOR MOLE . REFERENCE YOUR VAC1 DATED
151120 . CONFIRM STEELWORK WILL BE RELEASED AS AGREED WITH YOU HERE .
PLEASE CONFIRM THAT PIER CENTRES ON IMPRESA MONTELLA BRIDGE CAN BE
MAINTAINED FORTY SEVEN (47) FEET
B

I N 318 IMP 15174// 151750 36 865TNA4 151120A AC1 47 WHM BBB

ROWN
10 2245

MESSAGE FORM

ARMY FORM (M15) (Rev. 11-54)

Register No.

Call

Ref. No.

Priority

Transmittal Instructions

ABOVE THIS LINE FOR SIGNALS USE ONLY

FROM
(A)

MAJOR MOLE C/O I.R.C.N. 4

Date Time of Origin
19 FEB

OFFICE DATE STAMP

For Action

R.G. E. 1212 FLORENCE

TO

(W) For Information (INFO)

Message Instructions (M)

AC/1 (.) RESTRICTED (.) ORTONA-ANCONA LINE 86 (.) NO ANGLE DOZER
HAS ARRIVED FOR WORK (.) NECESSARY TO PROCEED IMMEDIATELY WITH
CUTTING UP OF FOUR WROUGHT IRON BRIDGES (.) THREE BRIDGES LATTER
GIRDERS OF 20 METRES (.) ONE BRIDGE 4 SPANS OF 21 METRES (.)
CONTRACTORS HAVE NO PLANT FOR THIS WORK (.) CAN YOU SUPPLY MEN
WITH ALL REPEAT ALL NECESSARY EQUIPMENT (.)

THIS MESSAGE MAY BE SENT AS WRITTEN
OR BY MESSAGE (SECRET)IF LIABLE TO BE INTERCEPTED OR TO
FALL INTO ENEMY HANDS, THIS MES-
SAGE MUST BE SENT IN CIPHERORIGINATOR'S INSTRUCTIONS
PRIORITY OR PRIORITY

SIGNED

Major R.E.

SIGNED

5154

Time System Op.

YHI or TOR

1005 P

Time cleared

K

45



95 MBYW V MABA

QZX

FROM TN INC (TN ~~SECRET~~ SUB-COMM) - 160900A

TO IRCE FOR MOLE -

GR7

025 . RSTD . SIGNAL DATE OF COMPLETION PESCARA RUNNING SHED .

161100A

RPTN 95-160900- IRCE 025 MITCHELL B .

1250

CABLE FORM 0-100 (Rev. 11-64)

MESSAGE FORM

Register No.

Call

Sd. No.

Priority

Transmission Instructions

ABOVE THIS LINE FOR SIGNALS USE ONLY

FROM
(A)

Originator

Date/Time at Origin

OFFICE DATE STAMP

MAJOR MOLF 9/0 IR02 4

15 FEB.

Per Assoc.

TO

TO INO

W: For information (INFO)

Message Instructions QB

Originator's No.

A.C. 1 (.) REQUESTED (.) FOR NO LUNDS (.) LINE 56 EXISTING
 FOUNDATIONS OF REINFORCED CONCRETE BEAMS INVESTIGATED (Y) INTERPRET
 INTERMEDIATE PILES 4 FT. WIDE WITH PILES 10' 6" WIDE ALL
 SUPPORTED ON TIMBER PILES (.) PERSON CONDUCTING STUDY ARE BEING
 RELEASING THIS PROJECT

THIS MESSAGE MAY BE SENT BY EITHER
BY ANY MEANS EXCEPT

WIRELESS

IF LIABLE TO BE INTERCEPTED OR TO
FALL INTO ENEMY HANDS, THIS MESSAGE
MAY BE SENT BY EITHERORIGINATOR'S INSTRUCTIONS
DEGREE OF PRIORITY

Sponsor

MAJOR R.E.

Signal

5133

MORNING

11231	
Time	System (Op.)
THI or TOR	218
Time cleared	

MSGY V MABA NR 142 QVR 2 IMMEDIATE

FROM TN IJC 051415

TO OC 187 MECH EQUIP (CTN) COY INFO MAJOR MOLE

ANCONA

QXX GR 150 BT

212TN.A4 . RESTRICTED . REFERENCE CONVERSATION TODAY

ENGLISH - MEMURDO .

ONE . PLEASE ARRANGE FOR DB ANGLE DOZER TO BE MADE

AVAILABLE FOR MAJOR MOLE AC BETWEEN ANCONA AND

ORTONA SOONEST . YOUR REPRESENTATIVE SHOULD CONTACT

11/27/54

MAJOR MOLE AT ISR BUILDING IN ANCONA . DOZER

REQUIRED FOR THE REMOVAL OF LUMPS OF REINFORCED

CONCRETE BRIDGES AND SHOULD HAVE SUPPLY OF SVR WITH IT.

TWO . PLEASE SEND 7 TO 10 TON LORRY MOUNTED CRANE

TO PIEVE SANONICA NEAR TERMI TO LIFT TRANSFORMERS

ON TO LORRY BEING PROVIDED BY (CND) . CRANE REQUIRED

FOR WORK ON THURSDAY 8 FEB . NAME OF CONTRACTOR

IS CISA VISCOSA AND LIFT IS BETWEEN 9 AND 10

TONS . ON COMPLETION OF WORK AT PIEVE SANONICA

LORRY MOUNTED CRANE TO ~~PROCEED~~ PROCEED TO ORTONA

REPEAT ORTONA STATION AND REPORT TO CAPT

MCCORMICK RE FOR WORK IN RAILHEAD . CRANE REQUIRED

AT ORTONA FOR ABOUT FORTNIGHT WHEN ~~IS~~ IT IS

HOPED IT WILL BE REPLACED BY CRANE EX DW .

BT 051443A

APTH 142 QVR 2 THRED 187 QXX 150 215TN.A4 DB

740 PIEVE SANONICA (CND) 8 9 10 EX ON 071445A

QX 12 AT 1111

11/27/54

ARMY FORM C 2135 (Large)

MESSAGE FORM

Register No.

Call

Sri. No.

Priority

Transmission Instructions

ABOVE THIS LINE FOR SIGNALS USE ONLY

FROM

(A) I.R.C.E. 4.

Originator

For Action

Date-Time of Origin

5 FEB

Office Date Stamp

TO RLY CONST COY R.E. - MONDOLFO.

TO

(W) For Information (INFO)

Message Instructions

GR

Copy by hand to Major, MOLF, R.E.

Originator's No.

ANC/139 (.) RESTRICTED (.) PLEASE DETAIL SIX ITALIAN FROM NO. 2 ITALIAN ENGINEER COY ~~XXXXXXXXXXXXXXX~~ FOR SUPERVISING DEMOLITION BY EXPLOSIVE OF SIX REINFORCED CONCRETE BRIDGES ON ORTONA ANCONA LINE (.) THE SIX ITALIAN WITH ITALIAN OFFICER SHOULD REPORT TO MAJOR MOLF AT ANCONA ON 6 FEB ~~IX~~ FOR INSTRUCTIONS (.) OFFICER IS ONLY REQUIRED FOR BILLETING MEN AND MAY RETURN TO HIS COY AT ONCE (.) MOLF IS SENDING ONE LORRY 3 TON TO REPORT TO YOU ON MORNING OF 6 FEB (.) YOU MAY MAINTAIN THIS LORRY FOR RATIONING SIX MEN (.)

J. Angarone

A. Cordella

5021

785021

Copy by Hand to Major, MOLE, R.M.

Chighefori No

ANC/139 (.) RESTRICTED (.) PLEASE DETAIL SIX ITALIAN
FROM NO. 2 ITALIAN ENGINEER COY KENXXXXXXXXXXXXXXXXXXXX
FOR SUPERVISING DEMOLITION BY EXPLOSIVE OF SIX REINFORCED
CONCRETE BRIDGES ON ORTONA ANCONA LINE (.) THE SIX ITALIAN
WITH ITALIAN OFFICER SHOULD REPORT TO MAJOR MOLE AT ANCONA
ON 6 FEB ~~XX~~ FOR INSTRUCTIONS (.) OFFICER IS ONLY REQUIRED
FOR HILLING MEN AND MAY RETURN TO HIS COY AT ONCE (.)
MOLE IS SENDING ONE LORRY 3 TON TO REPORT TO YOU ON MORNING
OF 6 FEB (.) YOU MAY RETAIN THIS LORRY FOR RATIONING SIX
MEN (.)

2. Epimachia
4. Cordata.

1. $\frac{1}{2}$

This message may be sent
AS WANTED by any means
except

WIRELESS

Stuffed

50000

If liable to be intercepted or to fall into enemy hands this message must

1974-1975

Time _____ Year _____

Vol. 103

Price Cleared

11. COL. R. S.

MSYV V WABA IMPORTANT NR 100

FROM TN INC 031030A

TO F R C E W

QXQ GR 00 BT

BBTN.AW . RESTRICTED . FOR MAJOR HOLE AC .

PLEASE SEND ^E STABLES OF STEEL SPANS YOU REQUIRE

AS ~~WABA~~ PROMISED . PLEASE ALSO SEND TPK BITTERS

AS OCCASION DEMANDS TO KEEP ME INFORMED WITH

REGARD TO ITEMS LIKE ARRIVAL OF RT OR STORES

OF CONTRACTORS PLANT ETC . WHEN ARE YOU VISITING

ROME . WILL ARRANGE ROOM AS BEFORE WHEN YOU SAY +

BT ~~WABA~~ 031130A

~~BBTN 100 1 00 00 BBTN 100 031130A~~

515
1956
1005

100 W.D. No. 4 Incld. 100 W.D. No. 100.

100 W.D. No. 4 Incld. 100 W.D. No. 100.

100 W.D. No. 4 Incld. 100 W.D. No. 100.

100 W.D. No. 4 Incld. 100 W.D. No. 100.

Ref. A.C./SW/100/10/100.

To : Mr. MORRIS, Dept. General Manager

Subject : Line 10 . Priority of bridge reconstruction.

- 1) The supply and erection of the steelwork for bridges having a steel or superstructure will be carried by British Military Units.
- 2) It is essential, with exception of the Pescara River Bridge, that all work by the contractors on such bridges shall be completed ready to receive the steelwork by 1st March.
- 3) The attached list gives all bridges where steel superstructures will be used.
- 4) Please instruct the contractors concerned as stated above.
- 5) The erection of the steelwork on the Pescara River Bridge will commence on 15 March.
- 6) The contractors, both for masonry and the temporary timber work for this bridge, should be therefore instructed accordingly.

E. J. N. N. N. R. E.

Copy to Dept. General Manager

100 W.D. No. 4 Incld. 100 W.D. No. 100.

100 W.D. No. 4 Incld. 100 W.D. No. 100.

100 W.D. No. 4 Incld. 100 W.D. No. 100.

8415
 List of the bridges to have steel superstructure

CONTRACT	CONTRACTOR	ALLG. OR IN M.	PLANNED LOCATION	NAME OF BRIDGE	
SECTION No. 1	Imp. BONIVILLA	352.000	FRANCIVILLA	Fiume FORD	
SECTION No. 3 1st Contract	Imp. CIGALLO	234.800	N. OF TORTONETO	-----	
	" "	290.444	S. OF PORTO D'ASCOLI	Fiume TIGRIS	
		286.700	SAN MARCELLO	-----	
		258.574	"	-----	
SECTION No. 3 2nd Contract	Imp. CIGALLO D'ACQUA	274.203	S. OF PEDASO	Torrente CAMPANILE	
		265.737	N. OF PEDASO	Torrente S. Biagio	
		267.632	S. OF P.S. Giorgio	Torrente OLIVETTO	
		262.310	PORTO S. GI. ACIO	-----	
		236.029	S. OF SAN ELPIDIO	Fiume TERNA	
		240.322	S. OF P. CIVITANOVA	Fiume CILIBATI	
SECTION No. 4 1st Contract	Imp. ARGABILI	233.208	S. OF P. Recanati	Fiume POTENZA	
		220.426	N. OF TORTONETO	Fiume Ussal	
		217.370	N. OF COIMO	Torrente SCARICABASSO	

0362

COSTA RICA LINE 80

List of the bridges to have steel superstructure

848
318

	Bridge in km.	Province	Name of bridge	ORIGINAL INSTRUCTION
	352.000	PANAMA VILLA	Fiume FOMO	5 spans. A. Concrete each span 14 meters
	218.800	N. of TORTONITO	-----	One 3 meters W.I. span brick abutments
	255.494	S. of PORTO D'ASQUOLI	Fiume TRONTO	4 spans of 21 meters . W.I. girders on brick abutments and piers
	282.762	S. of TORTONITO	-----	One 6 meters span in A. Concrete
	285.774	"	-----	One span 6 meters . W.I. girder on brick abutment.
	274.303	S. of PADOVA	Torrente	One span 12 meters . W.I. girders on brick abutment.
	207.737	N. of PADOVA	Torrente S. Biagio	One span 22-3 meters. W.I. girders on brick abutment.
	267.032	S. of P.S. Giorgio	Torrente MOLINETTO	One span 21-2 meters . W.I. girders on brick abutments.
	262.318	PORTO S. GI. AGIO	-----	One span 5 meters . W.I. girders on brick abutments.
	298.029	S. of SAN EPIFANIO	Fiume TENNA	10 spans A. Concrete 6 spans of 10-37 meters and 4 spans of 8-75 meters
	295.322	S. of P. CIVITANOVA	Fiume CIENTI	14 spans A. Concrete 10 spans of 11-32 meters and 4 spans of 10 meters
	233.308	S. of P. Recanati	Fiume POHLEA	6 spans A. Concrete 4 spans of 10-3 meters and 2 spans of 12-4 meters.
	125.400	N. of TORRETO	Fiume BUSONE	8 spans A. Concrete 6 spans of 10-3 meters 2 spans of 12-4 meters.
	217.970	N. of COIMO	Torrente SCARICALASINO	One span of 14-5 meters W.I. girders on brick abutments

MINUTES OF MEETING HELD AT TN H.Q. TO DISCUSS
LINE 86 - ORTONA TO ANCONA PROJECT ON 23.1.45.

1. PRESENT.

Colonel J. Ratter	D.D.Tn (Const).
Lt. Col. A.W. McDermid	A.D.Tn.
Lt. Col. A.H. Cantrell	R.C.E. 1212.
Lt. Col. C.H. Lindberg	Tn Sub-Comm. A.O.
Major A.H. Street	" " "
Major E.J. Mole	" " "

2. OBJECT.

To discuss and decide the extent to which A.O. can be helped on the Ortona - Ancona project by military resources and to arrange for decisions to be carried out.

3. GENERAL.

D.D.Tn (Const) stated that:-

- (a) although the project was essentially the responsibility of A.O., it was now necessary for Tn. to take close interest in the project and to help as far as possible in view of the raise in priority of the project by A.F.H.Q.
- (b) the major problems were those of the supply of stores and additional M.T., and these would be discussed later.
- (c) apart from small parties, military labour was not available before 1st March, 1945.
- (d) military assistance in the supply of stores and extra M.T. would be given now.
- (e) military assistance, when supplied, would be No. 1212 ply construction & Maintenance Group, R.E.

4. RESPONSIBILITY

It was decided that:-

- (a) L.R.C.E. 4 will cease to be responsible in any way for the project, as his present commitments are too heavy to allow him to take any interest in the work.
- (b) R.C.E. 1212's Group will assist by carrying out clearly defined jobs.
- (c) The responsibility for the organisation and distribution of stores on the work will be undertaken by A.O., until 1212 Group arrives. When R.C.E. 1212 arrives he will take over responsibility for the

5147

2. 05JUN71.

To discuss and decide the extent to which A.C. can be helped on the Ortona - Anversa project by military resources and to arrange for decisions to be carried out.

3. GENERAL.

D.D.Tn (Const) stated that:-

- (a) Although the project was essentially the responsibility of A.C., it was now necessary for TC. to take closer interest in the project and to help as far as possible in view of the raise in priority of the project by A.F.H.Q.
- (b) The major problems were those of the supply of stores and additional M.T., and these would be discussed later.
- (c) Apart from small parties, military labour was not available before 1st March, 1945.
- (d) Military assistance in the supply of stores and extra M.T. could be given now.
- (e) Military assistance, when supplied, would be No. 1212 Rly Construction & Maintenance Group, R.E.

4. RESPONSIBILITY

5147

It was decided that:-

- (a) I.R.O.2.4 will cease to be responsible in any way for the project, as his present commitments are too heavy to allow him to take any interest in the work.
- (b) R.O.E. 1212's Group will assist by carrying out clearly defined jobs.
- (c) The responsibility for the organisation and distribution of stores on the work will be undertaken by A.C., until 1212 Group arrives. When R.O.E. 1212 arrives he will take over responsibility for the organisation and distribution of stores.

5. MILITARY ASSISTANCE.

D.D.Tn (Const) stated that the work fell into the following types, and it was decided that the work will be carried out as indicated over:-

/to sheet 2..

Sheet 2.

Type	Description	By whom to be carried out.
1.	Track, entirely new	Contractors.
2.	Track, repairs to 37 Km. existing track	R.O.B. 1212 by burning and cutting rails.
3.	Bridges, removals in brick arches and masonry	Contractors.
4.	Bridges, removals in brick and masonry piers and abutments with steel superstructure.	Contractors to build all brick and masonry work. R.O.B. 1212 to erect all steelwork.
5.	Pescara Bridge.	Contractors to build abutments, piers and false work for steel erection. R.O.B. 1212 to erect steelwork.
6.	Tunnels	Contractors.
7.	Water supply	Contractors.
8.	Telephones	2 Railway Telegraph Coy. R.Siga.

NOTES:

- (1) Falsework for steel erection at Pescara bridge to be made up of timber pile bents with a timber deck and to be finished by Contractor before 15 March, 1945.
- Action. A.C. to contact piling Contractor who is known to be in Rome and who has plant, with the intention of getting him to do this work. Th. to supply the timber on site.

- (11) Scrapers are required to clear spoil near the second tunnel south of Pescara.

Action Th. to arrange for 46 M.E. (Tn) platoon to carry out work with plant coming off Mendel's yard and Pescara are arriving line after March 15th.

6. STORES.

- (a) Personnel - Stores Officer and a few men required to organise and control M.T. and stores distribution.

Action R.O.B. 1212 to send 1 Officer, 2 M.O.s and 4 Sappers, with transport to report to Major Hale at Pescara on 27 January, 1945.

- (b) Cranes - 1 now on loan from Tn. at Pescara loading steel for Pescara. Second required in Ortona yard to handle stores - rail mounted cranes suitable.

5148

4. Bridges, revetments in brick and masonry piers and abutments with steel superstructure.

5. Peasara bridge.

6. Tunnels

7. Water supply

8. Telephones

Contractors to build abutments, piers and false work for steel erection. R.O.S. 1212 to erect steelwork.

Contractors.

Contractors.

2 Railway Telegraph Coy. R.S.S.

NOTES:

(1) Palaeowork for steel erection at Peasara bridge to be made up of timber pile bents with a timber deck and to be finished by Contractor before 15 March, 1945.

Action. A.C. to contact piling contractor who is known to be in Ruse and who has plant, with the intention of getting him to do this work. He is sure by the timber on site.

(11) Scrapers are required to clear spoil near the second tunnel south of Ancona.

Action Tn. to arrange for 45 M.E. (Tn) platoon to carry out work at the plant clearing off Mundolfo Yard and Palaeowork avoiding line after March 15th.

5116

6. STORES.

(a) Personnel - Stores Officer and a few men required to organise and control M.T. and stores distribution.

Action R.O.S. 1212 to send 1 officer, 2 N.O.Os and 4 sappers, with transport to report to Major Mola at Ancona on 27 January, 1945.

(b) Cranes - 1 now on loan from Tn. at Ancona loading steel for Peasara. Second required in Ortoma Yard to handle stores - rail mounted crane suitable.

Action Tn. to supply crane at Ortoma before 29th January, 1945.

(c) Track - 3 miles of single W.D. rail now at Peasara and can be collected now - sleepers and rails not required for this rail. 25 miles of W.D. track arranged to be delivered by rail to A.C. at Ortoma at rate of 2 miles per day. First 2 miles leaves Bari on 29 January, 1945.

(d) Cement - 6,000 tons required at rate of 2,000 tons/month. A.C. can supply only 1,500 tons at rate of 500 tons/month. Tn. can probably supply up to 3,000 tons at rate of 1,000 tons/month, but position not yet sure. A.C. to put up case to A.F.B.Q. for remainder.

/to sheet 3....

Sheet 3.

6. (a) (contd.).

Action. Tn. to investigate current situation and state what can be supplied. A.C. to put up case for remission to A.F.H.Q.

(e) Coal and bricks. - 2,000,000 bricks, fully burnt, are in works near sites. 3,000,000 bricks, unburnt, are also in works near sites and require 1,000 tons coal to prepare for use. This coal was promised by L.D.Tn (31/5) but Tn.2 authority required. I.R.C.2.4 is helping to transport coal but cannot continue to do so.

Action Tn. to give authority for issue of coal and to supply M.F. for coal and bricks.

(f) Bridging.

Tn. presented statements of bridging required and available.

D.D.Tn (Const) stated that:-

(i) Requirements had been ordered ex U.K. but would not be available in time.

(ii) Requirements had therefore to be met from existing Tn. stocks and anticipated arrivals.

(iii) The general bridging situation is tight and will be so until April.

(iv) Extended 40 ft. sectional bridges could be used for longer spans.

(v) Whole question must be investigated carefully but Tn. can probably meet all requirements.

Action. Tn. and Major Jais to investigate and submit recommendations to D.D.Tn (Const).

It was decided that:-

(i) Passera steel must be on site by 15th March, 1945.

(ii) Remainder of steel need not be on site before 1st March, 1945.

(iii) Extended 40 ft. sectional bridges to be ready by 1st March. 5125

(iv) Method of bracing Jais spans to be settled.

(v) Passera bridge steel to be sent to Ortona.

(vi) All other steel to pass through 330 Tn.S.D. at Ancona and be collected there.

Action A.C. to arrange items (i) and (v) above.
Tn. to arrange other items above.

Action Tn. to give authority for issue of coal and to supply M.T. for coal and bricks.

(f) Bridging.

Tn. presented statements of bridging required and available. D.D.Tn (Const) stated that:-

(i) Requirements had been ordered ex U.K. but would not be available in time.

(ii) Requirements had therefore to be met from existing Tn. stocks and anticipated arrivals.

(iii) The general bridging situation is tight and will be so until April.

(iv) Extended 40 ft. sectional bridges could be used for longer spans.

(v) Whole question must be investigated carefully but Tn. can probably meet all requirements.

Action. Tn. and Major Mole to investigate and submit recommendations to D.D.Tn (Const).

It was decided that -

(i) Pescara steel must be on site by 15th March, 1945.

(ii) Remainder of steel used not to be on site before 1st March, 1945.

(iii) Extended 40 ft. sectional bridges to be ready by 1st March.

(iv) Method of bracing joint spans to be settled.

(v) Pescara bridge steel to be sent to Ortona.

(vi) All other steel to pass through 350 Tn.S.D. at Ancona and be collected there.

Action A.C. to arrange items (i) and (v) above.
Tn. to arrange other items above.

7. M.T.

(a) Major Mole requires a jeep in order to control work efficiently.

Action Tn. to obtain release from A.P.H.Q.

(b) Tank transporters - A.P.H.Q. signalled that 12 No. requested would probably be released. These are required on site as soon as possible.

Action Tn. to arrange release and move to Ortona.

/to sheet 4.

5123

Sheet 4.

7. M.T. (contd).

(c) 3-ton lorries - A.P.H.Q. signalled that 120 No. requested have been released. These are required on site on 30 January, 1945.

Action Tn. to arrange. Major Mole to say exactly where they are to be stationed.

8. OPERATING FACILITIES.

A.C. stated that no decisions or requests had been made by D.D.Tn (Rlys) for special station layouts, water, phones or signalling.

Action Tn. to write to D.D.Tn (Rlys) and O.C. 2 Rly Tels. Coy. requesting them to make joint request with Major Mole as to submit requests and proposals to D.D.Tn (Const) as soon as possible. (D.D.Tn (Const) stated that all materials for phone system could be supplied).

9. REPORTS.

It was agreed that A.C. should make all progress reports and that these reports should be on the lines of the normal Tn. reports, using Tn. job numbers.

Action Tn. to issue job numbers now being prepared.

10. D.D.Tn (Const) stressed that all the above arrangements are subject to review and may have to be abandoned if operational priorities are changed.

Arthur C. M. Jones
(A.C. M. Jones) Lt. Col. R.B.
for Brigadier,
Director Military Railway Service.

Distribution:

D.D.Tn (Const)	1.
D.D.Tn (Rlys)	1.
O.C. 2 Rly Tels. Coy.	1.
A.C. (Tn Sub Comm)	1.
Major Mole	1.
A.D. Tn. 4	1.
War Diary	1.
File	1.
Spare	1.
I.R.C. 2.4	1.
O.C. 2 Rly Tels Coy.	1.
Tn. 2	1.

51/4

ARMY FORM 10-1 (Rev. 1-54)			MESSAGE FORM		Figure No.
Call	Sig. No.	Priority	Transmission District		
ABOVE THIS LINE FOR SIGNALS USE ONLY					
FROM	Originator	Date/Time of Origin			
(A)	MOLS A.C. TH 4 ANCONA For Action	26 17.00Z.			
TO	EN. INC.	(W) For information (INFO)	Message Instructions — GR		

Originator's No. 13 AN. TH. 4 RESTRICTED (.) FOR LINDBERG A.C. TH. (.) HAVE DISCOVERED THAT MOST OF ^{the} CONTRACTORS WORKING ON ANCONA-ORTONA PROJECT ARE TENDERING FOR AREZZO-FLORENCE LINE (.) SUGGEST INFORMATION AS TO AVAILABILITY OF PLANT EQUIPMENT M.T. BE MADE BEFORE AWARDED CONTRACTS (.) NO PLANT TIMBER OR M.T. CAN BE RELEASED FROM LINE 66 UNTIL COMPLETION

THIS MESSAGE MAY BE SENT BY AIR OR BY CABLE TO THE ORIGINATOR'S INSTRUCTIONS
BY ANY MEANS EXCEPT WIRELESS FALL INTO ENEMY HANDS THIS MESSAGE MUST BE SENT IN CODE

785021

K. G. M. M. M.

51 3

Time	Person	Op.
TH or TCR		
210810A		
Time elapsed		

(over) 70 per cent within 24 h. J. G. R. J. M. 40-500

~~27731 + 20742 + 27334 + 20743~~

I have already
asked 10 by if you
can supply.

1

514

~~Ad~~
2-5-1.

Red
Bentley
2135

MESSAGE OUT

FROM: TS-ING 241100A
TO : R.C.S.I.
INFO: MAJOR MOLE A.C. (BY HAND)

TS.A.4 (.) RESTRICTED (.) LINE 50 ORIONA - ARKONA (.)
MAJOR MOLE REQUESTED ASSISTANCE IN REGULATION OF BRIDGE DECKS (.)
PROBABLY ASSISTANCE REQUIRED WILL BE CONFIRMED TO TWO OR THREE
EXPERIENCED MEN TO SUPERVISE (.) HE WILL GET IN TOUCH WITH YOU
SHORTLY (.) PLEASE ASSIST AND ADVISE.

This message may be sent as written
by any means (except, wireless).

Originators instructions
Degree of priority

Matter
.....

.....

MESSAGE OUT

FROM: TM INC 231810A
 TO: O.C 2 RIX TELEGRAPH OUT R SIGS.
 INFO: DEPRAIL
 MAJOR ROLE (AD) BY HAND. /

478 TH.A.4 (.) RESTRICTED (.) LINE 86 OHTONA - ANXONA
 RECONSTRUCTION NOW IN HAND BY I.S.R UNDER ALLIED COMMISSION
 CONTROL (.) MEETING WAS HELD TODAY TO DECIDE WHAT MILITARY
 ASSISTANCE NECESSARY TO ASSURE COMPLETION BY 30 APRIL (.)
 DECIDED NECESSARY THAT YOU TAKE OVER RESPONSIBILITY FOR PROVISION
 OF COMMUNICATIONS THROUGHOUT (.) PLEASE DISCUSS WITH D.D. TH (RITS)
 HIS REQUIREMENTS AND CARRY OUT NECESSARY REORGANIZATIONS
 CONSULTING MAJOR ROLE AS NECESSARY (.) LET ME HAVE REPORT WHEN
 YOU HAVE COLLECTED INFORMATION STATING REQUIREMENTS OF STORES
 AND EFFECT OF WORK ON YOUR PRESENT COMMITMENTS.

This message may be sent as written
 by any means (except) wireless.

Originators instructions
 degree of priority

Matter

.....519

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
SEZIONE LAVORI DI ANCONA

Ancona, 23 Jan. 1945

URGENT

SUBJECT

CIRCOLARE No L.P. 12/Gv.

No 4 WORKS SECTION PESCARA

CAPISUGLI UFFICI I - II - III - PATRIMONIALE
CAPISUGLI GRUPPO RIPARTI LAVORI
CAPISUGLI RIPARTO LAVORI
SORVEGLIANTI DELLA LINEA dei Tronchi
IO-II-IZ della Sezione Lavori di

A N C O N A

and for knowledge:

SERVIZIO LAVORI E COSTRUZIONI	ROMA
al No PAG.II/93375 del 5 Jan. 1945	
CAPO COMPARTIMENTO	SEDE
UFFICIO PERSONALE COMPARTIMENTALE	SEDE
SEZIONE MOVIMENTO	SEDE
SEZIONE MATERIALE E TRAZIONE	SEDE
SEZIONE COMMERCIALE E TRAFFICO	SEDE
ISPELTORE SANITARIO	SEDE
UFFICIO I.R.S.	SEDE
CORPO ISPELTORE RAGIONERIA	SEDE
COMMISSARIO COMPARTIMENTALE P.S.	SEDE

General Direction with Routine No;Reg. 11/92375 dated 5 Jan. has informed us that Mr. VINCENZO PARRANZA has been appointed to the a/m Works Section. In the future he will be working to our Section.

518

IL CAPO DELLA SEZIONE LAVORI

MORGANA

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
SEZIONE LAVORI DI ANCONA

Ancona, li 23 gennaio 1945

URGENTE
: : : : : :

CIRCOLARE N° L.P. 12/Cv.

: : : : : :

4° Riparto Lavori Pescara.

: : : : : :

CAPI DEGLI UFFICI I - II - III - PATRIMONIALE

CAP. GRUPPO RIPARTI LAVORI

CAP. RIPARTO LAVORI

CON EGILIANI DELLA LINEA dei Tronchi

10° - 11° della Sezione lavori di

A. N. C. O. N. A.
: : : : : :

e per conoscenza :

INFORMAZIONE ALLE GLI

SERVIZIO LAVORI E COSTRUZIONI	- ROMA -
al N° PAG. 11/92375 del 5 gennaio 1945	
CAPO COMPARTIMENTALE	- SEDE -
UFFICIO PERSONALE COMPARTIMENTALE	- SEDE -
SEZIONE MOVIMENTO	- SEDE -
SEZIONE MA SERIALE E TRAZIONE	- SEDE -
SEZIONE COMMERCIALE E TRAFFICO	- SEDE -
ISPETTORATO SANITARIO	- SEDE -
UFFICIO I.E.S.	- SEDE -
CORPO IZENTIVO RAGIONERIA	- SEDE -
COMMISSARIO COMPARTIMENTALE P.S.	- SEDE -

La Direzione Generale con provvedimento N° PAG. 11/92375 in data 5 gennaio corrente ha stabilito che il 4° Riparto Lavori Eis (Pescara - i - Ternoli - e - tronchi 10° - 11° e 12°) assegnato all'Isp.Pr/le Vincenzo Ferrante, già temporaneamente aggregato alla Sezione Lavori di Bari, torni subito alle dipendenze di questa Sezione.

Essendo stato già provveduto in conformità, detto Riparto deve intendersi da ora in avanti far parte di questa Sezione.

IL CAPO DELLA SEZIONE LAVORI

[Handwritten signature]

FC.

5137

Arcena 24 Gennaio 1945

B.L.P.12/ Gr.

Sig. Maggiore M O L E

A.C.

S E D E

IL CAPO DELLA SEZIONE LAVORI

for information

MINISTERO DELLE OPERE PUBBLICHE
FERROVIE DELLO STATO
CONTARTAMENTO DI ANCONA
1° gennaio 1945

CAPITOLATO DI ANCONA
CANTIERI LAVORI
CANTIERI LAVORI
SEZIONE DELLA LINEA

Nella SEZIONE LAVORI di ANCONA

-OGGETTO-

Nuove assegnazioni
a posti di diri-
genza.

e per conoscenza :

SERVIZIO LAVORI E COSTRUZIONI R.O.M.A.
al N° E.123/23788 del 23/10/1944
CAPO CONTARTAMENTO
UFFICIO PERSONALE COMPARTIMENTALE
SEZIONE MOVIMENTO
SEZIONE MATERIALE E TRAZIONE
SEZIONE COMMERCIALE E TRAFFICO
ISPettorato SANITARIO
UFFICIO I.T.S.
COMPT. ISPETTIVO DI RAGIONERIA
COMMISSARIO CORR. P.S.

S E D

S E D

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Con decorrenza 1° gennaio 1945, si effettueranno le se-
guenti varianti di Funzionari nei posti di dirigenza:

CIVITARESE Cav. Uff. Ing. Filippo -Ispettore Capo-cessa nella Diri-
genza del I Gruppo via Riparti; e riprende quella del-
l'Ufficio 1° di Sezione-

PIANCA Ing. Cav. Uff. Ruben-Ispettore Principale -assumerà la tem-
poranea Dirigenza del I Gruppo via Riparti con sede
in Pescara-

PARINI Ing. Cav. Uff. Carlo-Ispettore Capo-Assumerà temporanea-
mente la dirigenza del II Gruppo Riparti con sede in An-
cone .-

ARENA Ing. Uff. Uff. Uff. Ispettore di II classe -assumerà temporaneamente
la Dirigenza del II Gruppo Lavori di Ancona con sede
in Ancona-

MURARI Ing. Cav. Uff. Giovanni -Ispettore Capo-passa tempora-
mente dall'Ufficio Patrimoniale al I° Gruppo Riparti
in ausilio a quel Capo Gruppo .

La presente modifica la precedente pari numero in da-
ta 1° dicembre 1944 .

IL CAPO DELLA SEZIONE LAVORI

5126

SEZIONE LAVORI
ANCONA

n.L.P.12/Gr.

Sig. Maggiore MOLE

S E D E

Ancona 18/1/1945

IL CAPO
DELLA SEZIONE LAVORI

for information

Subject:- BENT RAILS NOW AT VARANO ON ANCONA-ORTONA
SECTION.

Tel. No. 2345.
H.Q.No.4 Ind Rly C & M Group I.E.
C.M.F. 16th January, 1945.

4CMF/36/25

TR4,
In. Inc. C.M.F.

Brig. Waghorn asked me to send you the Profile of the bent rails at Varano Station, as he thinks you may need them urgently for tunnels being repaired either by RCE 1212 or RCE - SAEC.

Major Mole is certain to need these Sections when his Contractor has cleared the cut and covered portion of the tunnel near Ancona and then starts on the tunnel proper, in about 6 weeks time. But you of course will naturally decide priority.

I attach 3 copies of the Profile.

Waghorn
(J.R. SIMPSON) Lt.Col.R.E.
C.O. 4 Ind Rly C & M Group I.E.

Enc:- 3.

Copy to Major Mole. ✓

WC

5135

C/o H.2. Indian Railway Construction & Maintenance Group I E

C.M.F.

Reference : IC/Tn/100/96/M 7

1st January 1945

TO : Lt. Col. C.H. Lindberg
Tn.3.C. H.Q. I.C. Bails

SUBJECT : Orissa - Ansona Line 68
Reconstruction.

1. Further to IC/Tn/100/96/M, the following contracts have been let for the reconstruction of the various structures as detailed below.

2. By these contracts and those previously awarded the reconstruction of the whole section from Orissa to Ansona will be carried out.

3rd. SECTION GUILIANA, STATION TO CIVITANOVA STATION.

Contract let to two firms.

From Guiliana to 277 Km. Contractor : S.A. CONDOTTE D'OPERE
From 277 Km. to Civitanova Station, Contractor: CUDONIO, PELLE

Date of commencement : 1st January

Date of completion : 30 April.

1. At 311.393 Km. A 1 metre culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.

2. At 308.887 Km. No. 4 12 metre brick arch bridge. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Rebuild arches, span arches and parapets in brickwork.

3. At 308.308 Km. A 3 metre brick arch. Completely destroyed.

Rebuild in brickwork.

4. At 307.336 Km. A 1 metre culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.

5. At 307.452 Km. A 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

At 307.652 Km. A 1 metre culvert. Completely destroyed. Rebuild

SUBJECT : Orizaba - Amecan Line 55
Rac construction.

1. Further to AC/TM/100/86/M1, the following contracts have been let for the reconstruction of the various structures as detailed below.

2. By these contracts and those previously awarded the reconstruction of the whole section from Orizaba to Amecan will be carried out.

3rd. SECTION AMECAN STATION TO CIVITANOV STATION.

Contract let to two firms.

From Amecan to 277 Km. Contractor : S.A. CONDOTTE D'AGUE
From 277 Km. to Civitanova Station. Contractor: CIONO PISTO

Date of commencement : 1st January

Date of completion : 30 April.

1. At 311.583 Km. A 1 metre culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.

2. At 308.827 Km. A 2 metre brick arch bridge. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Rebuild arches, span rails and parapets in brickwork.

3. At 308.308 Km. A 2 metre brick arch. Completely destroyed. Rebuild in brickwork.

4. At 307.836 Km. A 1 metre culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.

5. At 307.462 Km. A 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

6. At 306.938 Km. A 1 metre culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.

7. At 306.521 Km. A 1 metre culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.

5134

8. At 307.293 Km. 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
9. At 301.410 Km. 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
10. At 300.294 Km. 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
11. At 299.109 Km. 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
12. At 298.980 Km. 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
13. At 294.780 Km. 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
14. At 291.543 Km. 1 metre culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
15. At 304.455 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
16. At 304.224 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
17. At 304.265 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
18. At 301.170 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
19. At 304.000 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
20. At 305.000 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
21. At 29.500 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
22. At 299.444 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
23. At 294.915 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
24. At 294.514 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
25. At 294.410 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

13. At 301.750 Km. concrete pipes, with concrete bed and casing. Rebuild with concrete pipes, with concrete bed and casing.
14. At 301.243 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
15. At 301.435 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
16. At 304.574 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
17. At 304.255 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
18. At 304.255 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
19. At 304.255 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
20. At 302.628 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
21. At 301.500 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
22. At 305.444 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
23. At 304.325 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
24. At 304.325 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
25. At 304.325 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
26. At 304.165 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
27. At 303.852 Km. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.

28. At 293.699 Km. 1. 3 metre brick arch bridge. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Arch, spandrels and parapet walls rebuild in brickwork.
29. At 293.644 Km. 1. 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipe with concrete bed and casing.
30. At 293.763 Km. 1. 6 metre span in reinforced concrete. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Bridge span with 24"x74" x 35 lb. R.S. J's.
31. At 293.730 Km. 1. 24 metre brick arch. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Arch, spandrels and parapet walls rebuild in brickwork.
32. At 298.674 Km. 1. wrought iron girder span of 6 metres carried on brick abutments. Girders destroyed beyond repair and one abutment demolished. Rebuild abutment with brick face work and concrete filling. Bridge span with 24"x74" x 35 lb. R.S. J's.
33. At 298.841 Km. 1. 4 metre brick arch. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Arch, spandrels and parapet walls rebuild in brickwork.
34. At 293.691 Km. 1. 6 span brick arch bridge, each span 19 metres. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Arches, spandrels and parapet walls rebuild in brickwork.
35. At 293.159 Km. 1. 6 span brick arch bridge. No 2 arches of 8 metres span and No 4 arches of 22 metres span. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Arches, spandrels and parapet walls rebuild in brickwork.
36. At 293.702 Km. 1. 3 span masonry bridge. Each span 24 metres. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Rebuild arches in mass concrete, spandrels and parapet walls in brickwork.
37. At 297.074 Km. 1. 3 span brick arch bridge, each span of 8 metres. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Arches, spandrels and parapet walls rebuild in brickwork.

31. At 268.730 Km. 1. 24 metre brick arch. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Arch, spondrels and parapet walls rebuild in brickwork.
32. At 268.674 Km. 1. wrought iron girder span of 8 metres carried on brick abutments. Mangers destroyed beyond repair and one abutment demolished. Rebuild abutment with brick face work and concrete filling. Bridge span with 24"x24"x36 lb. R.S. 3's.
33. At 268.611 Km. 1. 4 metre brick arch. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Arch, spondrels and parapet walls rebuild in brickwork.
34. At 268.661 Km. 1. 5 span brick arch bridge, each span 10 metres. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Arches, spondrels and parapet walls rebuild in brickwork.
35. At 268.159 Km. 1. 4 span brick arch bridge. No 2 arches of 8 metres span and No 4 arches of 12 metres span. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Arches, spondrels and parapet walls rebuild in brickwork.
36. At 278.702 Km. 1. 3 span masonry concrete bridge. Each span 25 metres. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Rebuild arches in mass concrete, spondrels and parapet walls in brickwork.
37. At 277.024 Km. 1. 3 span brick arch bridge, each span of 8 metres. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Arches, spondrels and parapet walls rebuild in brickwork.
- THIRD SECTION. FIRST CONTACT ENDS HERE.
38. At 275.867 Km. 1. 3 span brick arch. Structure each span of 8 metres. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Arches, spondrels and parapet walls rebuild in brickwork.
39. At 274.293 Km. 1. wrought iron span of 12 metres carried on brick abutments. Superstructure and abutments completely destroyed. Rebuild abutments with brick face work and concrete filling. Build or erect either a brick intermediate pier or timber trestle according to availability of material. Bridge spans with 24"x74"x36 lb. R.S. 3's.

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40. At 273.596 Km. A 6 metre brick arch. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Arch, spandrels and parapet walls rebuild in brickwork.
41. At 272.077 Km. A 5.25 metre brick arch. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Arch, spandrels and parapet walls rebuild in brickwork.
42. At 271.630 Km. A 6 span brick arch structure, each span of 20.5 metres. Rebuild abutments and piers with brick face work and concrete filling. Arches, spandrels and parapet walls rebuild in brickwork.
43. At 268.737 Km. A wrought iron span of 22.3 metres carried on brick abutments. Superstructure and abutments completely destroyed. Rebuild abutments with brick face work and concrete filling. Build or erect either intermediate brick pier or according to availability of material. Bridge spans with 24"x74"x95 lb. R.S.J's.
44. At 267.632 Km. A wrought iron span of 21.2 metres. Superstructure and abutments completely destroyed. Rebuild abutments with brick face work and concrete filling. Build or erect either intermediate brick piers or timber trestle according to availability of material. Bridge spans with 24"x74"x95 lb. R.S.J's.
45. At 264.296 Km. A 4 span brick arch, structure, each span 10 Mts. Completely destroyed. Rebuild abutment and piers with brick face work and concrete filling. Arches, spandrels and parapet walls rebuild in brickwork.
46. At 262.216 Km. A wrought iron span of 5 metres carried on brick abutments. Superstructure and abutments completely destroyed. Rebuild abutments with brick face work and concrete filling. Bridge span with 24"x74"x95 lb. R.S.J's.
47. At 256.400 Km. A 3 span brick arch structure, each span of 4.20 metres. One arch badly fractured. Cut out defective work and rebuild in brickwork.
48. At 256.029 Km. A reinforced concrete bridge of 10 spans, 6 spans 10.57 metres, and 4 spans of 9.75 metres. Completely destroyed. Rebuild abutments and 5 main piers with brick face work and concrete filling. Rebuild 5 intermediate piers in reinforced concrete with sawn steel bars and corrugated iron shuttering. Bridge spans with 24 inch deep Italian and British R.S.J. sections.

43. At 258.737 Km.
 1. Rebuild abutments and piers with brick face work and concrete filling. Arches, spandrels and parapet walls rebuilt in brickwork.
 2. Wrought iron span of 22.3 metres carried on brick abutments. Superstructure and abutments completely destroyed. Rebuild abutments with brick face work and concrete filling. Build or erect either intermediate brick pier or timber trestle according to availability of material. Bridge spans with 24"x74"x95 lb. R.S.J's.
 3. Wrought iron span of 21.2 metres. Superstructure and abutments completely destroyed. Rebuild abutments with brick face work and concrete filling. Build or erect either intermediate brick pier or timber trestle according to availability of material. Bridge spans with 24"x74"x95 lb. R.S.J's.
44. At 257.632 Km.
 1. Wrought iron span of 21.2 metres. Superstructure and abutments completely destroyed. Rebuild abutments with brick face work and concrete filling. Build or erect either intermediate brick pier or timber trestle according to availability of material. Bridge spans with 24"x74"x95 lb. R.S.J's.
45. At 264.286 Km.
 1. 2 span brick arch, structure, each span 10 Mts. Completely destroyed. Rebuild abutment and piers with brick face work and concrete filling. Arches, spandrels and parapet walls rebuilt in brickwork.
 2. Wrought iron span of 5 metres carried on brick abutments. Superstructure and abutments completely destroyed. Rebuild abutments with brick face work and concrete filling. Bridge span with 24"x74"x95 lb. R.S.J's.
46. At 262.213 Km.
 1. 3 span brick arch structure, each span of 4.20 metres. One arch badly fractured. Cut out defective work and rebuild in brickwork.
 2. Reinforced concrete bridge of 10 spans, 6 spans 10.37 metres, and 4 spans of 8.75 metres. Completely destroyed. Rebuild abutments and 6 main piers with brick face work and concrete filling. Rebuild 3 intermediate piers in reinforced concrete with salvaged steel bars and corrugated iron shuttering. Bridge spans with 24 inch deep Italian and British R.S.J. sections.
47. At 255.400 Km.
 1. 3 span brick arch. Completely destroyed. Rebuild abutments with brick face work and concrete filling. Arch, spandrels and parapet walls rebuilt in brickwork.
48. At 256.029 Km.
 1. 14 span reinforced concrete bridge. No 10 spans each 11.32 metres and No 4 spans each 10 metres. Completely destroyed. Rebuild abutments and No 7 main piers with brick face work and concrete filling. Rebuild No 7 intermediate piers in reinforced concrete with salvaged steel bars using corrugated iron shuttering. Bridge spans with 24 inch deep R.S.J's of Italian and British sections.
49. At 249.213 Km.
 1. 3 span reinforced concrete bridge. No 10 spans each 11.32 metres and No 4 spans each 10 metres. Completely destroyed. Rebuild abutments and No 7 main piers with brick face work and concrete filling. Rebuild No 7 intermediate piers in reinforced concrete with salvaged steel bars using corrugated iron shuttering. Bridge spans with 24 inch deep R.S.J's of Italian and British sections.
50. At 248.822 Km.
 1. 14 span reinforced concrete bridge. No 10 spans each 11.32 metres and No 4 spans each 10 metres. Completely destroyed. Rebuild abutments and No 7 main piers with brick face work and concrete filling. Rebuild No 7 intermediate piers in reinforced concrete with salvaged steel bars using corrugated iron shuttering. Bridge spans with 24 inch deep R.S.J's of Italian and British sections.

51. At 247.704 Km. 4 1 metre brick culvert. Completely destroyed. Rebuild in concrete pipes with concrete bed and casing.

END OF SECTION NO 3. SECOND CONTRACT.

FOURTH SECTION. CHIRANAVA STATION TO LACOMA STATION.

Connect 1st to the lines.

Chiraneva station to 289 Km. Contractor : LACOMME GASTON
289 Km. to Lacoma Station Contractor : BELL, FLORENCE
Both destroyed : Damaging date 1st January 1941.

Completion for opening was 30 April 1940.

1. At 245.419 Km. 2 span brick arch bridge. No arch 8 metres and the 8 metres completely destroyed. Rebuild in brick face work and concrete filling the supports and pier. Arches, spandrels and parapet walls rebuilt in brickwork. Note: Bridge will be for two tracks. Due to necessity of providing running loops for Chiraneva Station.
2. At 244.140 Km. 2 span brick arch structure, each span of 8 mts. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Arches, spandrels and parapet walls rebuilt in brickwork.
3. At 244.863 Km. 1. 2 span brick structure each span of 18 metres. Completely destroyed. Rebuild abutments and pier with brick face work and concrete filling. Arches, spandrels and parapet walls rebuilt in brickwork. 2. single 15.20 metre brick arch span. Completely destroyed. Rebuild abutments in brick face work and concrete filling. Arches, spandrels and parapet walls rebuilt in brickwork.
4. At 240.431 Km. Note: Bridge will be for two track has to necessity of providing a running loop.
5. At 237.600 Km. 2 span brick structure. Each span of 74 metres. Completely destroyed. Rebuild abutments and pier with brick face work and concrete filling. Arches, spandrels and parapet walls rebuilt in brickwork.
6. At 236.410 Km. 2 span brick structure each span of 4.75 metres. Completely destroyed. Rebuild with a single arch of 10 metres span. Abutments in brick face work and concrete filling, arch spandrels and parapet walls in brickwork.

8192

9. At 200.195 Km. A 6 span reinforced concrete bridge 6 spans of 10.2 metres and 2 spans 12 - 4 metres. Completely destroyed. Rebuilt abutments and 3 main piers with brick face work and concrete filling. Rebuilt 4 intermediate in other reinforced concrete using salvaged steel bars, or timber trestles. Bridge spans with 21" x 21" British and Italian R.S.J's. A single span brick structure of 4.6 metres. Arch very badly shattered. Demolish arch and rebuild in brickwork.

10. At 220.736 Km.

11. At 220.212 Km.

A 2 span brick structure each span of 4 metres. Completely destroyed. This bridge is not over a stream, flood openings or road. No reason can be given for its existence. Tip now embankment.

12. At 217.970 Km.

A wrought iron superstructure of 14.80 metres span, carried on brick abutments. Superstructure destroyed beyond repair and abutments demolished. Rebuilt abutments with brick face work and concrete filling. Built a new central pier in brickwork and concrete filling. Bridge spans with 21" x 74" x 95" R.S.J's.

13. At 214.231 Km.

A wrought iron girder bridge of 17 metres span carried on brick abutments. Superstructure damaged beyond repair. Abutments demolished. Rebuilt abutments with brick face work and concrete filling. Built arch abutments and parapet walls in brick work.

END OF FIRST CONTRACT.

At 200.392 to 200.802 Km. Brick lined tunnel. Tunnel completely demolished at southern end for 150 metres and at northern for 200 metres. Excavated at both ends to form cutting and rebuilt invert and part of side walls to act as retaining walls. This work to be ready by 30 April. After line is open for traffic complete the brick barrel by 31st July 1945.

At 200.765 Km. A single span wrought iron bridge of 2.5 metres span. Completely demolished. Rebuilt abutments in brick face work and concrete filling. Rebuilt span with R.S.J's.

At 204.977 to 204.861 Km. Brick lined cut and cover tunnel. Completely demolished. Excavate as for cutting, rebuild invert and part of side walls to act as retaining walls. Work to be completed by 30 April ready for traffic. Complete brick barrel by 31st July 1945.

12.11.220.212 Km.

12.11.217.370 Km.

12.11.214.281 Km.

END OF FIRST CONTRACT

12.268.392 to 206.828 Km. Brick lined tunnel. Tunnel completely completed at south end for 120 metres at north end for 200 metres. Excavated at both ends to 1 m cutting and rebuilt invert and part of side walls to act as retaining walls. This work to be ready by 31st April. After line is open for traffic complete the brick barrel by 31st July 1945.

At 206.765 Km. A single span wrought iron bridge of 2.5 metres open. Completely finished. Rebuilt abutments in brick face work and concrete filling. Bridge span with R.S.J's. At 204.577 to 205.381 Km. Brick lined cut and cover tunnel. Completely finished. Excavated as far cutting. Rebuilt invert and part of side walls to act as retaining walls. Work to be completed by 30 April ready for traffic. Complete brick barrel by 31st July 1945.

DATA TO SECTION No 1

Possore River Bridge.

On line of original 12 brick arches now single span girder of 54 metres span with an approach spans salvaged on site. Repair abutment walls and rebuilt to brick face work piers with

very badly abraded. Tunnel arch and rebuild in brickwork.

2 span arch structure each span of 4 metres. Completely destroyed. This bridge to not over a stream. Place standing on a wall. No reason now to think for its existence. In new construction.

2. rebuilt iron superstructure of 11.00 metres span. carried on brick abutments. Brick structure built by a local mason and mason's completed. Rebuilt with brick face work and concrete filling. Built a new central pier in brickwork and concrete filling. Bridge spans with 24" x 24" x 33" R.S.J's.

2. or right iron girder bridge of 17 metres span carried on brick abutments. Superstructure damaged by mud repair. Rebuilt with brick face work and concrete filling. Built with brick face work and concrete filling. Built arch spans and parapet walls in brick work.

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concrete filling on pile foundations of original piers. This work to be carried out as extra to Section No 1 by Montella Edwards. Erection of superstructure to be carried out by S.A.C.F.E.M. (Already under contract to I.S.R.) with help of launching equipment to be supplied from Tn. Stores.

E J Mole

E.J. MOLE.

Major.

Tn. Sub- C W.A.C.

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BJM/em

H.Q. 4 INDIAN RAILWAY CONSTRUCTION
AND MAINTENANCE GROUP I.E.
C.M.F.

December 20th 1944

REF. : AG/tn/100/86/M.4

TO : Lt.Col. LINDBERG,
Tn. Sub-Comm., A.C. (Raile)SUBJECT : Line 86 Ortona-Ancona
Reconstruction.

1. The following contracts have now been let :

Contract N° 1 - Ortona to Pescara
Contractor MONTELLA Edmardo

Contract N° 2

1st Section

Contractor GIOVAGNONI Murgio

2nd Section

Contractor CARBARINO-SOLACCALUGA-MESSAGANE

Contract N° 3

1st Section

Contractor ARGANINI Olinto

2nd Section

Contractor GHIELLA Giovanni

2. It is essential that all the assistance possible
be given to these firms to obtain :

a)- Circulating permits for vehicles

b)- Petrol, naphta and oil to proceed to working sites

c)- Circulating permits for workmen and staff employed on
the work.d)- Transport either by rail, road or sea for the plant and
equipment required on the sites.

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B.J. MOLE, Major.

WORKS AND CONSTRUCTION SERVICE

REF. : N.L.C.6/14/23595

SUBJECT: Ancona - Foggia Line -
Giulianova-Porto Civitanova Section reconstruction.

TO : Allied Commission
Transportation Sub Commission (Rails)
Col. Lindberg.

We have transmitted to you the project for the rehabilitation of the Ortona-Pescara F.N. section with our letter No 6/14/23530 dated November 8th. The project for the Pescara C.-Giulianova section has been sent to you with our letter No 6/14/23549 dated 29th Nov. The project for the Ancona-Porto Civitanova section with our letter No 5/13/36713 dated 5th Dec. and the project for the reconstruction of the section between the stations of Pescara C. and Pescara F.N. with our letter No 6/16/23596 dated 15th Dec.

We herewith attach now the project for the rehabilitation of the Giulianova-Porto Civitanova Section, and so the rehabilitation project for all the section from Ancona to Ortona is completed.

To carry out the works the help of that Sub Commission is required, in order to obtain following materials :

- a - cement 50.000 Qls.
- b - timber poles for telegraphic lines No 1.500
- c - iron-wire for said 3 tons approx.
- d - various materials for telegraph and telephone plant as insulators, insulator-holders, terminal boxes, ground terminals, high capacity self-batteries, conductors, Morse telegraph plants with dials and gauges, as well as conductor, fuses, multi-air ports for outside and inside and other material for lighting plant
- e - iron tubes and other tools for water plant, 50 tons approx.
- f - ~~building~~ beams and ~~iron~~ flat iron 600 tons
- g - fuel or naphtha 80.000 lts. approx.

We have transmitted to you the project for the rehabilitation of the Ortona-Pescara P.N. section with our letter No 6/14/23530 dated November 8th. The project for the Pescara G.-Giulianova section has been sent to you with our letter No 6/14/23549 dated 29th Nov. The project for the Ancona-Porto Civitanova section with our letter No 5/13/86713 dated 5th Dec. and the project for the reconstruction of the section between the stations of Pescara G. and Pescara P.N. with our letter No 6/16/23598 dated 15th Dec.

We herewith attach now the project for the rehabilitation of the Giulianova-Porto Civitanova Section, and so the rehabilitation project for all the section from Ancona to Ortona is completed.

To carry out the works the help of that Sub Commissioner is required, in order to obtain following materials :

- a - cement 50.000 qts.
- b - Timber poles for telegraphic lines No 1.500
- c - iron-wire for said 8 tons approx.
- d- various materials for telegraph and telephone plant as insulators, insulator-holders, terminal boxes, ground terminals, high capacity bell-batteries, conductors, Morse telegraph plants with desks and gauges, as well as conductor, fuses, bulb-supporters for outside and inside and other material for lighting plant
- e - Iron tubes and other tools for water plant, 50 tons approx.
- f - ~~Exhaust~~ beams and ~~axm~~ flat iron 600 tons
- g - fuel or naphta 80.000 lts. approx.
- h - lubricating oil 4.000 lts. approx.

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Besides said materials appr. 1.500.000 bricks are required supplied by local brickworks; round iron for reinforced concrete to be collected on the site from former structures and timber required for supports, scaffolding and centres

The estimated cost is 166.000.000 lire, of which:

123.000.000	lire for bridges and buildings
14.000.000	" " ~~waterway~~ permanent way
5.500.000	" " water plant
23.500.000	" " telegraph, telephone, signalling, safety and lighting plants.

2

To carry out the works the firms stated in the attached ~~list~~
will be invited.

- 4 - Completion of work is foreseen within 6 months
Will you kindly take into consideration the project and send in
a reply on the subject as soon as possible

Copy of this project has been sent to Gen. Dir. M.R.3.

for Director General
Sd.: Lo Cigno.

Ref: 21/CRW/W/352Subject:- Work on BridgesDORE 270 Was Sent RE

Major MOLE of RE Transportation
will be contacting you regarding work
on D.133 and D.134 which he requires
moving over to one side.

Please carry out the work to his
instructions.

Report to this HQ the amount of
work it entails.

Field
16 Dec 44.
ACQ/LW

Herbelling
+Lieut Col RE
21 CRE Works

Cop to:- Major Mole RE Transportation
Arconia.

Please keep all Mr. Mole's work
under strictest control.

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1944

HEADQUARTERS ARMED COMMISSION
APO 994
TRANSPORTATION SUB - COMMISSION
RAILS

REF. : AC/Ya/100/65/M.I.

December 8th 1944

TO : Lt. Col. C.H. LINDBERG
Tn.S.C., H.Q.A.C., RAILS.

SUBJECT : Ortona - Ancona Line No 86
Reconstruction.

1. The following contracts have been let for the reconstruction of the various structures as detailed below.

FIRST SECTION ORTONA - PASCARA

Contractor : MONTILLA EDUARDO - NAPLES.

Dates of commencement 1st December, completion 31st March.

- 1). At 371.105 Km. to 371.419 Km. Tunnel brick lined
80 metres filled with muck. Clear muck
5 metres of arch demolished. Rebuild in brickwork.
40 metres of arch damaged. Spot patching of brickwork.
- 2). At 367.621 Km. to 368.317 Km. Tunnel brick lined.
114 metres filled with muck. Clear muck.
48 metres of arch damaged. Partially rebuild in brickwork.
48 metres of walls and roof damaged. Partially rebuild in brickwork.
- 3). At 267.481 Km. No 3/8 metre brick arch bridge.
Structure completely demolished. Rebuild in brick and concrete filling to abutments piers and arch haunches.
- 4). At 366.992 Km. A one 3 metre brick arch bridge.
Structure completely demolished. Rebuild in brick with concrete filling to abutments.
- 5). At 366.004 Km. No 5/8 metre brick arch bridge. 5127
Structure completely demolished. Rebuild in brick. Concrete filling to brick faced abutments and piers.
- 6). At 365.326 Km. One 6 metre brick arch bridge.
Structure completely demolished. Rebuild in brick. Concrete filling to abutments.

1. The following contents have been let for the reconstruction of the various structures as detailed below.

FIRST SECTION ORTONA - PESCARA

Contractor : MONTILLA RUARDO - NAPLES.

Dates of commencement 1st December, completion 31st March.

- 1). At 371.185 Km. to 371.419 Km. Tunnel brick lined
80 metres filled with muck. Clear muck
5 metres of arch demolished. Rebuild in brickwork.
40 metres of arch damaged. Spot patching of brickwork.
- 2). At 367.631 Km. to 368.317 Km. Tunnel brick lined.
11½ metres filled with muck. Clear muck.
48 metres of arch damaged. Partially rebuild in brickwork.
48 metres of walls and roof damaged. Partially rebuild in brickwork.
- 3). At 367.491 Km. No 5/8 metre brick arch bridge.
Structure completely demolished. Rebuild in brick and concrete filling to abutments piers and arch haunches.
- 4). At 366.982 Km. A one 8 metre brick arch bridge.
Structure completely demolished. Rebuild in brick with concrete filling to abutments.
- 5). At 366.004 Km. No 5/8 metre brick arch bridge. 5427
Structure completely demolished. Rebuild in brick. Concrete filling to brick faced abutments and piers.
- 6). At 365.328 Km. One 6 metre brick arch bridge.
Structure completely demolished. Rebuild in brick. Concrete filling to abutments.
- 7). At 363.675 Km. One 3 metre brick arch. Structure completely demolished. Rebuild in brick with concrete filling to abutments.
- 8). At 363.417 Km. One 3 metre brick arch. Structure completely demolished. Rebuild in bricks and concrete filling to abutments.

- 9). At 363.053 Km. A reinforced concrete bridge of 5 spans each of 14 metres. Superstructure and trestles completely demolished. Rebuild with timber trestles off of original foundations. Deck with R.S.J's.
- 10). At 363.174 Km. One 4 metre brick arch bridge. Structure completely demolished. Rebuild in brick. Brick faced abutments to have concrete backing.
- 11). At 361.756 Km. One 2 metre brick arch bridge. Structure completely demolished. Rebuild in brick. Brick faced abutments to have concrete backing.
- 12). At 358.400 Km. Reinforced concrete bridge of 3 spans. Formerly accommodation bridge now not required. Fill and tip to adjacent embankment level.
- 13). At 359.307 Km. No 7/8 metre brick arch bridge. Completely demolished. Rebuild in brick. Abutments to have concrete backing and piers to be concrete filled.
- 14). At 357.642 Km. One 3 metre brick arch. Completely destroyed. Rebuild in brick. Abutments to have concrete backing.
- 15). At 354.349 Km. No 2/8 metre brick arch bridge. Completely demolished. Rebuild in brick. Abutments to have concrete backing and piers to be concrete filled.

SECOND SECTION - PESCARA STATION TO GIULIANOVA STATION.

Section let to two firms.

From 349.688 Km. (Pescara Station) to 326.233 Km. Contractor GIOVAGNONI MORGO.

From 326.233 Km. to 312.355 Km. (Giulianova Station) Contractor CARBARIRO - SOLACCAUDU - MIZZAGANI.

Date of commencement: 16 December 1944) Both contracts. 3128
Date of completion : 14 April 1945)

- 1). At 348.505 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
- 2). At 348.120 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
- 3). At 347.946 Km. A 2 metre brick arch culvert. Arch destroyed. Rebuild in brickwork from springing level.
- 4). At 347.774 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.

- 11). At 361.756 Km. One 3 metre brick arch bridge. Structure completely demolished. Rebuild in brick. Brick faced abutments to have concrete backing.
- 12). At 358.409 Km. Reinforced concrete bridge of 3 spans. Formerly accommodation bridge now not required. Fill and tip to adjacent embankment level.
- 13). At 358.307 Km. No 7/2 metre brick arch bridge. Completely demolished. Rebuild in brick. Abutments to have concrete backing and piers to be concrete filled.
- 14). At 357.642 Km. One 3 metre brick arch. Completely destroyed. Rebuild in brick. Abutments to have concrete backing.
- 15). At 354.349 Km. No 2/8 metre brick arch bridge. Completely demolished. Rebuild in brick. Abutments to have concrete backing and piers to be concrete filled.

SECOND SECTION - PESCARA STATION TO GIULIANOVA STATION.

Section let to two firms.

From 349.868 Km. (Pescara Station) to 326.238 Km. Contractor GIOVAGHONI BRGO.

From 326.238 Km. to 312.555 Km. (Giulianova Station) Contractor CARBARIRO - SOLUGARINA - M822ADANE.

Date of commencement: 18 December 1944)
Date of completion : 14 April 1945) Both contracts. 5126

- 1). At 348.505 Km. A 14 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
- 2). At 348.120 Km. A 14 metre brick culvert. Completely destroyed. Rebuild with concrete pipes with concrete bed and casing.
- 3). At 347.946 Km. A 2 metre brick arch culvert. Arch destroyed. Rebuild in brickwork from springing level.
- 4). At 347.774 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 5). At 347.554 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 6). At 347.380 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 7). At 347.257 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 8). At 345.981 Km. A 3 metre brick culvert. Arch demolished. Rebuild arch in brickwork from springing level.

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- 9). At 346.722 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 10). At 346.368 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 11). At 346.113 Km. A 7 metre brick arch bridge. Arch destroyed. Rebuild in brickwork from springing level.
- 12). At 345.842 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 13). At 345.359 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 14). At 345.252 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 15). At 345.053 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 16). At 344.845 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 17). At 344.582 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 18). At 344.424 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 19). At 343.973 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 20). At 343.628 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete walls and brick arch.
- 21). At 343.513 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 22). At 342.276 Km. No 12/12 metre brick arch bridge. Former structure completely demolished. C.R.E. has already rebuilt abutments and piers for the road bridge. Rebuild in brickwork No 12 arches with spandrel and parapet walls. Provision will be made for one track only. (Note - Original contract called for double track bridge).
- 23). At 340.861 Km. No 4/12 metre brick arch bridge. Arches completely demolished, piers damaged. Repair piers and rebuild arches spandrel and parapet walls in brickwork.

- 12). At 845.842 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 13). At 845.369 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 14). At 845.262 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 15). At 845.052 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 16). At 844.845 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 17). At 844.582 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 18). At 844.424 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 19). At 843.973 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 20). At 843.833 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete walls and brick arch.
- 21). At 843.513 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 22). At 842.276 Km. No 12/12 metre brick arch bridge. Former structure completely demolished. C.R.S. has already rebuilt abutments and piers for the road bridge. Rebuild in brickwork No 13 arches with spandrel and parapet walls. Provision will be made for one track only. (Note - Original contract called for double track bridge).
- 23). At 840.861 Km. No 4/12 metre brick arch bridge. Arches completely demolished, piers damaged. Repair piers and rebuild arches spandrel and parapet walls in brickwork.
- 24). At 840.887 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 25). At 840.215 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 26). At 839.910 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 27). At 839.476 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

- 8). At 338.983 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 29). At 338.656 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 30). At 338.463 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 31). At 338.384 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 32). At 338.026 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 33). At 337.927 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 34). At 337.781 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 35). At 336.937 Km. A 2 metre brick culvert. Completely destroyed.
Rebuild in brickwork.
- 36). At 336.587 Km. A 3 metre brick culvert. Completely destroyed.
Rebuild in brickwork.
- 37). At 336.205 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 38). At 335.355 Km. A 1 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 39). At 335.505 Km. A 4/8 metre brick arch bridge. 2 arches
demolished. Rebuild 2 arches only spandrel and parapet walls
to same.
- 40). At 332.372 Km. A 14 metre brick culvert. Completely destroyed.
Rebuild with concrete pipes, with concrete bed and casing.
- 41). At 332.125 Km. A 3 metre brick culvert. Completely destroyed
Rebuild in brickwork.
- 42). At 331.943 Km. A 2 metre brick culvert. Completely destroyed
Rebuild in brickwork.
- 43). At 331.682 Km. A 3 metre brick culvert. Completely destroyed
Rebuild in brickwork.
- 44). At 331.309 Km. A 1 metre brick culvert. Completely destroyed
Rebuild with concrete pipes, with concrete bed and casing.
- 45). At 330.982 Km. A 3 metre brick culvert. Completely destroyed

- 31). At 336.884 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 32). At 336.926 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 33). At 337.927 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 34). At 337.781 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 35). At 338.937 Km. A 2 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 36). At 338.677 Km. A 3 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 37). At 338.205 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 38). At 335.958 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 39). At 335.505 Km. A 4/8 metre brick arch bridge. 3 arches demolished. Rebuild 2 arches only spandrel and parapet walls to same.
- 40). At 332.072 Km. A 10 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 41). At 332.125 Km. A 3 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 42). At 331.943 Km. A 2 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 43). At 331.682 Km. A 3 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 44). At 331.309 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 45). At 330.962 Km. A 3 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 46). At 330.978 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 47). At 330.513 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 48). At 330.419 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

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- 3 -

- 49). At 330.158 Km. No 3/8 metre brick arch bridge. No 9 arches badly damaged beyond repair. Demolish arches and rebuild in brickwork.
- 50). At 323.297 Km. A 3 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 51). At 327.005 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 52). At 326.236 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- Second Section First Contract ends here.
- 53). At 326.233 Km. A 2 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 54). At 325.820 Km. A 2 metre brick culvert. Completely destroyed. Rebuild in brickwork.
- 55). At 325.467 Km. A 11 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 56). At 324.858 Km. No 19/11 metre brick arch bridge. All arches and piers destroyed, abutments damaged. Repair abutments. Build new brick faced piers filled with concrete. Rebuild arches, spandrels and parapets in brickwork.
- 57). At 319.076 Km. No 3/8 metre brick arch bridge. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Rebuild arches, spandrels and parapets walls in brickwork.
- 58). At 315.719 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 59). At 315.012 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 60). At 314.347 Km. No 14/11 metre brick arch bridge. No 7 arches demolished, one badly fractured. Rebuild No 7 arches in brickwork. Repair damaged arch in brickwork.
- 61). At 314.130 Km. A 11 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 62). At 313.710 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.
- 63). At 313.320 Km. A 1 metre brick culvert. Completely destroyed.

51). At 327.000 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

52). At 329.238 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

Second Section First Contract ends here.

53). At 329.238 Km. A 2 metre brick culvert. Completely destroyed. Rebuild in brickwork.

54). At 329.620 Km. A 2 metre brick culvert. Completely destroyed. Rebuild in brickwork.

55). At 329.467 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

56). At 324.558 Km. No 19/20 metre brick arch bridge. All arches and piers destroyed, abutments damaged. Repair abutments. Build new brick faced piers filled with concrete. Rebuild arches, spandrels and parapets in brickwork.

57). At 319.973 Km. No 3/8 metre brick arch bridge. Completely destroyed. Rebuild abutments and piers with brick face work and concrete filling. Rebuild arches, spandrels and parapets walls in brickwork.

58). At 315.713 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

59). At 315.019 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

60). At 314.347 Km. No 14/15 metre brick arch bridge. No 7 arches demolished, one badly fractured.

Rebuild No 7 arches in brickwork. Repair damaged arch in brickwork.

61). At 314.230 Km. A 1 1/2 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

62). At 313.710 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

63). At 313.070 Km. A 1 metre brick culvert. Completely destroyed. Rebuild with concrete pipes, with concrete bed and casing.

End of Second Section - Second Contract.

E.J. WOLK, Major,
Tn.S.C., A.C. (Rails).

Copy to : Col. RATHER

" " Ing. LO CIGNO

Roma, 15 / 12 / 1944

N.L.C. 6/14/23396

OGGETTO

LINEA ANCONA-FOGGIA
Ripristino tratto Giulianova-Porto Civitanova.

ALLA COMMISSIONE ADEUNTA

SOTTOCOMMISSIONE TRASPORTI (FERROVIE)

*Colonnello Sind. Ferd.*S. M. D. I.

All. n. 19

Con lettera n. 5/14/23390 dell'8 novembre s. è stato trasmesso il progetto per la riattivazione del tratto di linea Ortona - Pescara P.M.; con lettera n. 5/14/23349 del 29 novembre s. quello relativo al ripristino del tratto Pescara C.-Giulianova, con lettera n. 5/13/35713 del 5 dicembre corr. il progetto relativo al tratto Ancona-Porto Civitanova e infine con lettera n. 6/16/23396 del 15 dicembre il progetto per il ripristino del tratto fra le due stazioni di Pescara C. e Pescara P.M.

Si trasmette ora l'unito progetto per la riattivazione del tratto Giulianova-Porto Civitanova con il quale viene completato il tratto di ripristino dell'intero tratto da Ancona ad Ortona.

Per eseguire i lavori occorrerebbe l'aiuto di questa Commissione, giacchè si dovrebbero ottenere i seguenti materiali:

- | | |
|--|----------|
| a - cemento q.li | 50.000 |
| b - pali di legno per linee telegrafiche | N. 1.500 |
| c - filo di ferro per dette linee | 8 |
| d - materiale diverso per l'impianto telegrafico come, isolatori, portaisolatori, cassette capolinea, prese di terra, pile di alta capacità, cavi conduttori, apparecchi telegrafici Morse con relativi tavoli e apparecchi visuratori, nonché cordocchino, valvole, portalampe per esterno ed interno, ed altro per impianto illuminazione. | |

5122

- 2 -

e - tubi di ferro, meccanismi ed altro per il servizio d'acqua, circa Tonn. 50

f - Travi e ferri laminati Tonn. 600

g - benzina e nafta circa

litri 80.000 .-

h - lubrificanti circa litri 4.000..

Oltre ai detti materiali sarebbero impiegati circa 1.500.000 di mattoni da prelevarsi dalle locali fornaci; ferro in tonelli per cementi armati da prelevarsi sul posto dalle strutture preesistenti ed i legnami occorrenti per stilata, ponteggi e cantinatura .-

L'importo dei lavori ammonta a L. 185 milioni di cui

L. 123 milioni per i ponti e fabbricati;

" 14 " per il ripristino dell'armamento;

" 5.500.000 per il servizio d'acqua;

" 23.500.000 per gli impianti telegrafonici, di segnalamento, di sicurezza e di illuminazione .-

Per l'affidamento dei lavori verrebbero interpellate le Ditte di cui all'unito elenco .-

4) La durata del lavoro si può presumere di mesi sei .-

Si prega di volere esaminare il progetto con benevolenza e favorire cortese risposta .-

Copia del progetto di cui trattasi è stata inviata alla Direzione Generale Military Service .-

DIRETTORE GENERALE

Macqu

5421

LINE ANCONA-FOGGIA

temporary reconstruction of the bridge over the Pescara river at Km 350+691,93, between the station Pescara C. and Pescara P.N.

SUMMARY PROPOSAL.

War actions have damaged and partially destroyed the steel girders over the Pescara river.

As the Allied Command issued instruction to open the line for traffic from the Ortona station to the Ancona station, we submit you the proposal regarding the temporary reconstruction of the Pescara river bridge between the station Pescara P.N. and Pescara C.

As a girder of a capacity of 64.176 m between the center of the support apparatus, constructed by the work shops in Arezzo for the bridge over the Po near Borgoforte is available, it is foreseen to use same in the center truss of the 64m span, between masonry of the abutments. Owing to the fact, that the capacity of the 64.176 m span has to be increased to 66.00 m in order to use it for the 64.00 m span, the lengthen of both heads of approximately 0.90 m doesn't guarantee the necessary stability etc. Therefore it is suggested not to take away one of the girders of the Po river, which can probably be used for the bridge same.

It is therefore decided to make a temporary arrangement, using girders with rolled J beams. As it results from the alleged drawings the said bridge consists of three trusses:

1. The side truss (Ancona side) 20 m span, on which it is foreseen to utilize one of the two girders, viz., the less damaged, repairing same with steel recovered from the center girder;
2. The central truss of 64 m span, on which existed a girder, ~~xxxxxx~~ has been damaged and ~~xxxxxx~~ collapsed in the river bed. It is foreseen to substitute same with four girder (which can be dismantled) with rolled J beams ~~xxxxxx~~ spanning over the abutments and over the three intermediate supports in timber.
3. The side truss (Foggia side) of 12 m span, for which as well as for the other truss the use of one of the girders is foreseen, will be repaired with material which can be recovered from the central span.

It will be necessary for the supply of materials, that the Allied Command authorize the release of steel materials, timber, fuel, lubricating, varnishes, ~~xxxxxxxxxxxx~~ supplying the steel girders for the temporary bridges.

The estimated time for carrying out the work is 60 days. The foreseen cost is 2.880.000 lire.

Materials.

In order to carry on said works, following materials are necessary:

- a) Timber for scaffolding, square and round 70 cubic M;
- b) J beams, 70 cm height and 19m long 78000 Kg.

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3412

c) Various rolled iron for the construction of nails, bolts, connections,, bearing plates, bows and shoes	7000 Kg
d) Petrol for engines and transports	7000 Kg
e) Lubricating oil for same	700 Kg
f) Pit coal for workshops	500 Kg
g) Carbide for oxy-actelyne flame	150 Kg
h) Oxygen for same	200 Kg
i) Boiled linseed oil	300 Kg
l) Lead in powder	300 Kg
m) White lead	200 Kg.

Rome, 15.12.44

The Chief of the Works Section
s/s Lo Cigno

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO

- Il Direttore Generale -

Roma, 11-11-1955

N°-L.C.6/16/23598-

= OGGETTO =

Linea Ancona-Foggia-
Ripristino provvisorio del ponte
sul fiume Pescara al km-350+891-

-Alleg.4

COMMISSIONE ALLETA DI
CONTROLLO - Sottocommissione
Trasporti (Ferrovie)

Al. Valomello Linea Ferro

S E D E

+==+==+==+==+==+==+

1) E' stato compilato e si trasmette all'esame di codesta
Commissione l'unito progetto di massima per il ripri-
stino del ponte sul fiume Pescara al km-350+891 della li-
nea Ancona-Foggia;

2) Il ripristino ~~del ponte~~ riveste grande interesse poichè
senza di esso, essendo detto ponte compreso fra le trat-
te Ortona-Pescara e Pescara-Ancona, non può essere riat-
tivata l'intero tratto Ortona-Ancona;

3) Per eseguire i lavori si rende necessario l'intervento
di codesta Commissione giacchè dovrebbero ottenersi i
seguenti materiali:

a) Legnami per ponteggi, in squadri e tondoni	me. 70
b) Travi a doppio T di cm.70 di altezza e metri 19 di lunghezza.....	Kg.78000
e) ferro in profilati diversi per la costruzione di collegamenti, chiodi, chiavarda, piastre, staf- fe e puntazze.....	" 7000
d) benzina per l'azionamento dei motori e per i trasporti.....	" 7000
e) olio lubrificante per detti.....	" 700
f) carbone fossile per forgie.....	Kg. 500
g) carburante per fiamma ossiacetilenea.....	" 160
h) ossigeno per detta.....	me. 200
i) olio di lino cotto.....	Kg. 300
l) minio in polvere.....	" 300
m) biacca di zinco.....	" 200

4) L'importo dei lavori ammonta a L.2.880.000,-;

5) La durata dei lavori si presume in giorni 60.

Si prega di voler esaminare il progetto con benevolenza e favorire cortese risposta.

Sul fiume Pescara al km-350+891-

trasporti (ferrovie)

Al Vettorello Lina Lora

S E D E

+++++++=+=+=+

-Alleg.4

1) E' stato compilato e si trasmette all'esame di codesta Commissione l'unito progetto di massima per il ripristino del ponte sul fiume Pescara al km-350+891 della li-
nea Ancona-Foggia;

2) Il ripristino ~~del ponte~~ riveste grande interesse poiche senza di esso, essendo detto ponte compreso fra le tratte Ortona-Pescara e Pescara-Ancona, non può essere riattivata l'intero tratto Ortona-Ancona;

3) Per eseguire i lavori si rende necessario l'intervento di codesta Commissione giacche dovrebbero ottenersi i seguenti materiali:

- | | |
|---|----------|
| a) Legnami per ponteggi, in squadriati e tondoni | mc. 70 |
| b) Travi a doppio T di cm.70 di altezza e metri 19 di lunghezza..... | Kg.78000 |
| c) ferro in profilati diversi per la costruzione di collegamenti, chiodi, chiavard, piastre, staffe e puntazze..... | " 7000 |
| d) benzina per l'azionamento dei motori e per i trasporti..... | l.7000 |
| e) olio lubrificante per detti..... | " 700 |
| f) carbone fossile per forgie..... | Kg. 500 |
| g) carburato per fiamma ossiacetilica..... | " 160 |
| h) cesigeno per dette..... | me. 200 |
| i) olio di lino cotto..... | Kg. 300 |
| l) minio in polvere..... | " 300 |
| m) biacca di zinco..... | " 200 |
| 4) L'importo dei lavori ammonta a L.2.880.000.- | |
| 5) La durata dei lavori si presume in giorni 60. | |

Si prega di voler esaminare il progetto con benevolenza e favorire cortese risposta.

Si allega l'elenco delle ditte da invitarsi alla gara di appalto.-

Copia del progetto di cui trattasi è stata inviata alla Direzione Generale Military Railway Service.

EL DIRETTORE GENERALE

Delegato

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
DIREZIONE GENERALE
SERVIZIO LAVORI E COSTRUZIONI

Linea FOGGIA - ANCONA - (Tratto Pescara-Giulianova)

Ripristino delle opere d'arte, fabbricati, armamento
e impianti accessori danneggiati a seguito di azioni
belliche.

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PROPOSTA SOMMARIA

A seguito di azioni belliche nel tratto Pescara G.-Giulianova sono rimasti distrutti e in gran parte danneggiati:

- 1) n° 7 ponti di luce notevole completamente distrutti;
- 2) Altri ponticelli di luce inferiore compresa fra 1.0 m. e 4.0 metri anche essi distrutti;
- 3) Alcuni fabbricati e case cantoniere gravemente danneggiati;
- 4) Parte dell'armamento completamente dissestato, con molte traverse spezzate e le rotaie deformate dalle esplosioni;
- 5) Gli impianti telegrafici e quelli di segnalamento e di sicurezza seriamente danneggiati.

Proseguendo i lavori per il totale ripristino della linea Foggia-Ancona, una fra le più importanti arterie per il traffico italiano, considerato che il tratto Lecce-Ortona è attualmente riaperto all'esercizio e che per il tratto Ortona-Pescara P.M. sono già in corso le pratiche per l'appalto dei lavori, si è allestito l'unico progetto di massima per il ripristino del tratto fra Pescara G. e Giulianova, progetto al quale faranno seguito quelli relativi ai tratti successivi fino ad Ancona, già in avanzato corso di studio.

Per la ricostruzione delle opere d'arte è stato previsto di adottare, in linea di massima, modalità tecniche analoghe a quelle preesistenti, salvo alcune modifiche riguardanti principalmente la diminuzione dell'eccessivo ribassamento dei volti.

Per il ponte sul fiume Tordino e sul fiume Salino al km-314+347 e 342+270 si è tenuto conto di quanto è stato già fatto per disposizione delle Autorità Alleate, dall'Amministrazione dei Lavori Pubblici per utilizzare parte del non-

PROPOSTA SOMMARIA

A seguito di azioni belliche nel tratto Pescara C.-Giulianova sono rimasti distrutti e in gran parte danneggiati:

- 1) n° 7 ponti di luce notevole completamente distrutti;
- 2) Altri ponticelli di luce inferiore compresa fra 1.0 m. e 1 4.0 metri anche essi distrutti;
- 3) Alcuni fabbricati e case cantoniere gravemente danneggiati;
- 4) Parte dell'armamento completamente disassato, con molte traverse spezzate e le rotule deformate dalle esplosioni;
- 5) Gli impianti telegrafici e quelli di segnalamento e di sicurezza seriamente danneggiati.

Proseguendo i lavori per il totale ripristino della linea Foggia-Ancona, una fra le più importanti arterie per il traffico italiano, considerato che il tratto Lecce-Ortona è attualmente riaperto all'esercizio e che per il tratto Ortona-Pescara P.A. sono già in corso le pratiche per l'appalto dei lavori, si è allestito l'unico progetto di massima per il ripristino del tratto fra Pescara C. e Giulianova, progetto al quale faranno seguito quelli relativi ai tratti successivi fino ad Ancona, già in avanzato corso di studio.

Per la ricostruzione delle opere d'arte è stato previsto di adottare, in linea di massima, modalità tecniche analoghe a quelle preesistenti, salvo alcune modifiche riguardanti principalmente la diminuzione dell'eccessivo ribassamento dei volti.

Per i ponti sul fiume Tordino e sul fiume Salino ai km-314+347 e 342+270 si è tenuto conto di quanto è stato già fatto per disposizione delle Autorità Alleate, dall'amministrazione dei Lavori Pubblici per utilizzare parte dei ponti stessi a sede della strada ordinaria.

Ritenuto che a mezzo del Comando Alleato potrà essere ottenuto lo sblocco e la fornitura del cemento per la confezione delle malte, nonché l'assegnazione della benzina e dei lubrificanti necessari per il trasporto dei materiali

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dal posto di produzione a quello di impiego, la spesa occorrente ammonta a £.117.000.000- di cui £.90.000.000-circa, per il ripristino delle opere d'arte e dei fabbricati, £.9.000.000 circa, per il ripristino dell'armamento, £.5.500.000- circa, per l'impianto del servizio d'acqua e £.12.500.000- circa per gli impianti telegrafici, di segnalamento, di sicurezza e di illuminazione.

MATERIALI E MANO D'OPERA

Per eseguire i lavori occorrono i seguenti materiali:

- a) cemento circa quintali 24.700 da prelevarsi dalle cementerie locali;
- b) benzina o nafta circa litri 89.500 per il trasporto dei materiali;
- c) lubrificanti circa litri 4.500-;
- d) pali per linee telegrafiche circa m²-800-;
- e) filo di ferro per dette circa tonn.4,5 oltre ai materiali diversi come isolatori, portalisolatori, cassette capolinea, prese di terra, pile di alta capacità, cavetti, conduttori, apparecchi telegrafici Morse con relativi tavoli e apparecchi misuratori ed altro;
- f) cordoncino, valvole, portalampade per esterno e per interno, riflettori ecc. per gli impianti di illuminazione;
- g) tubi di ferro, meccanismi e rifornitori circa tonnellate 50 per il servizio d'acqua;
- n) oltre ai detti materiali sarebbero impiegati circa 3.300.000 di mattoni da prelevarsi dalle locali fornaci;
- 1) i legami occorrenti per i ponteggi e centinature verranno forniti dalle Ditte assuntrici dei lavori;
- 1) la mano d'opera verrà prelevata sul posto.

5117

La durata dei lavori si può presumere di circa mesi sei.-

Roma, 12-23/11/1944-

LINCA FORIA - ANCONA

RIPIRISTINO DEI PONTI E DI TUTTA LA LINEA OPERA D'ARTE ED
 IMPIANTI ACCESSORI PER LA RISTRUTTURAZIONE DEL TRATTO DI LI-
 NEA GIULIANOVA - PORTO CIVITANOVA .-

PROPOSTA SOMMARIA

A seguito di azioni belliche nel tratto GIULIANOVA -

PORTO CIVITANOVA sono rimasti distrutti o in gran parte

danneggiati :

1) N° 11 ponti di luce notevole , e volti in muratura o
 ad impalcature in cemento armato completamente distrutti ;

2) N° 4 ponti di luce notevole a struttura metallica così
 gravemente danneggiati da non potere essere sollecitamen-

te riparati ;

3) Numerosi altri ponticelli minori di luce compresa fra

m. 1,00 e m. 5,00 distrutti o gravemente danneggiati;

4) Alcuni fabbricati e case cantoniere gravemente danneggiate;

5) Parte dell'armamento completamente dissestato con molte
 traverse spezzate e le rotaie deformate dalle esplosioni;

Proseguendo l'attuazione del programma di completare il

ripristino della linea ANCONA-ANCONA , una fra le più impor-

tanti arterie del sistema ferroviario italiano e della quale

è stato riservato all'esercizio il tratto FORIA-ORTONA , sono

5116

PROPOSTA SOMMARIA

A seguito di azioni belliche nel tratto GIULIANOVA -
PORTO CIVITANOVA sono rimasti distrutti o in gran parte
danneggiati :

- 1) N° 11 ponti di luce notevole , a volti in muratura o
ad impalcature in cemento armato completamente distrutti ;
- 2) N° 4 ponti di luce notevole a struttura metallica così
gravemente danneggiati da non potere essere sollecitamen-
te riparati ;
- 3) Numerosi altri ponticelli minori di luce compresa fra
m. 1,00 e m. 5,00 distrutti o gravemente danneggiati;
- 4) Alcuni fabbricati e case cantoniere gravemente danneggiate;
- 5) Parte dell'armamento completamente disassato con molte
traverse spezzate e le rotaie deformate dalle esplosioni;

Proseguendo l'attuazione del programma di completare il
ripristino della linea FOGGIA-ANCONA , una fra le più impor-
tanti arterie del sistema ferroviario italiano e della quale
é stato riaperto all'esercizio il tratto FOGGIA-ORTONA , sono
stati già appaltati i lavori per la riparazione delle opere

d'arte del tratto CANTARA-PESCARA e sono in corso le pratiche per l'appalto di quelli relativi al tratto PESCARA-GIULIANOVA, si è allestito l'unito progetto di massima per il ripristino dei ponti e di tutte le altre opere d'arte nonché degli impianti accessori per la riattivazione del successivo tratto di linea da Giulianova e Portocivitanova .-

Per la ricostruzione dei ponti ad arco di luce non rilevante, è stato previsto di adottare, in linea di massima, modalità tecniche analoghe a quelle preesistenti, salvo alcune modifiche riguardanti principalmente la diminuzione dell'eccessivo ribassamento dei volti .- Per il ponte sul fiume Salinello al Km. 308 + 886, si è tenuto conto di quanto è stato già fatto, per disposizione delle Autorità alleate, dall'Amministrazione dei Lavori Pubblici, per utilizzare parte del ponte stesso a sede di strada ordinaria .-

Per i due ponti ad impalcature in cemento armato sui fiumi Chienti e Tenna, nonché per i ponti a struttura metallica sui torrenti Molinetto, S. Biagio e Campofilone e sul fiume Tronto, per i quali non sarebbe possibile nell'attuale momento adottare strutture eguali a quelle preesistenti, e neppure per ragioni idrauliche, la struttura ad archi in muratura, è stato previsto di ricorrere all'impiego di strut-

si è allestito l'unito progetto di massima per il ripristino dei ponti e di tutte le altre opere d'arte nonché degli impianti accessori per la riattivazione del successivo tratto di linea da Giulianova a Portocivitanova .-

Per la ricostruzione dei ponti ad arco di luce non rilevante, è stato previsto di adottare, in linea di massima, modalità tecniche analoghe a quelle preesistenti, salvo alcune modifiche riguardanti principalmente la diminuzione dell'eccessivo ribassamento dei valli .- Per il ponte sul fiume Salinello al km. 303 + 666, si è tenuto conto di quanto è stato già fatto, per disposizione delle Autorità Alienate, dall'Amministrazione dei Lavori Pubblici, per utilizzare parte del ponte stesso a sede di strada ordinaria .-

Per i due ponti ad impalcature in cemento armato sui fiumi Chienti e Tenna, nonché per i ponti a struttura metallica sui torrenti Molinetto, S. Biagio e Campofilone e sul fiume Trento, per i quali non sarebbe possibile nell'attuale momento adottare strutture eguali a quelle preesistenti, e neppure per ragioni irrazionali, la struttura ad archi in muratura, è stato previsto di ricorrere all'impiego di strutture provvisorie costituite da travi laminate, posizionate sui piedritti esistenti da ricostruirsi, e su stilate in legno

provvisorie intermedie .-

Analoga struttura provvisoria si è ritenuto opportuno adottare anche per i ponti ad arco di notevole luce , sui fiumi Aso, Menocchio e Tesino , considerate le difficoltà che si incontrerebbero per l'approvvigionamento del legname per la centinatura , la notevole quantità di materiali occorrenti , e , soprattutto , il lungo tempo che sarebbe necessario per l'esecuzione dei lavori .-

Ritenuto che a mezzo del Comando Alleato potrà essere ottenuto lo sblocco o la fornitura del cemento per la confezione dei calcestruzzi e delle malte , lo sblocco dei legnami , della ferramenta occorrenti , la fornitura delle travi laminate per le suddette strutture provvisorie , nonché l'assegnazione della benzina e dei lubrificanti necessari per il trasporto dei materiali dal posto di produzione a quello di impiego , la spesa occorrente ammonta a 166 milioni , di cui : 5112

£. 123 milioni , circa, per il ripristino delle opere d'arte e dei fabbricati , £. 14 milioni per il ripristino dell'arsenale , £. 5.500.000 circa per gli impianti del servizio d'acqua , e £. 23.500.000 circa per gli impianti telefonici, di segnalamento , di sicurezza e di illuminazione .-

MATERIALI E MANO D'OPERA

Per eseguire i lavori occorrono i seguenti materiali :

tenocchio e resino, considerate le difficoltà che si presenterebbero per l'approvvigionamento del legname per la centinatura, la notevole quantità di materiali occorrenti, e, soprattutto, il lungo tempo che sarebbe necessario per l'esecuzione dei lavori.-

Ritenuto che a mezzo del comando alligato potrà essere ottenuto lo sblocco o la fornitura del cemento per la confezione dei calcestruzzi e delle malte, lo sblocco dei legnami, della ferramenta occorrenti, la fornitura delle travi laminate per le suddette strutture provvisorie, nonché l'assegnazione della benzina e dei lubrificanti necessari per il trasporto dei materiali del posto di produzione a quello di impiego, le spese occorrenti ammonta a 166 milioni, di cui:

5112

2. 123 milioni, circa, per il ripristino delle opere d'arte e dei fabbricati, E. 14 milioni per il ripristino dell'armamento, E. 5.500.000 circa per gli impianti del servizio d'acqua, e E. 23.500.000 circa per gli impianti telefonici, di segnalamento, di sicurezza e di illuminazione.-

MATERIALI E MANO D'OPERA

Per eseguire i lavori occorrono i seguenti materiali:

a) cemento, circa q.li. 50.000 da prelevarsi dalle comen-

-10 locali:

b) benzina o nafta, litri 80.000 per il trasporto dei ma-

teriali ;

c) lubrificanti litri 4.000 circa ;

d) travi e ferri laminati Tonn. 600 ;

e) pali in legno per linee telegrafiche N° 1500 ;

f) filo di ferro per dette, circa Tonn. 3 ;

g) materiale diverso per l'impianto telegrafico, come iso-
latori, portaisolatori, cassette capolinea, prese di
terra, pile di alta capacità, cavetti, conduttori, appa-
recchi telegrafici Morse con relativi tavoli e apparecchi
misuratori, nonché cordoncino, valvole, portalampe
per esterno ed interno, ed altro per impianto illumina-

zione ;

h) tubi di ferro, meccanismi ed altro per il servizio d'ac-

qua, circa Tonn. 50 .

Oltre ai detti materiali sarebbero impiegati circa

1.500.000 mattoni da prelevarsi dalle locali fornaci,

ferro in tonni per cementi armati da prelevarsi sul

posto dalle strutture preesistenti ;

i) i legnami occorrenti per stilate, ponteggi e cantinature.-

La mano d'opera verrà prelevata sul posto .

La mano d'opera verrà prelevata sul posto .

b) benzina o nafta, litri 80.000 per il trasporto dei ma-

teriali ;

c) lubrificanti litri 4.000 circa ;

d) travi e ferri laminati Tonn. 600 ;

e) pali in legno per linee telegrafiche N° 1500 ;

f) filo di ferro per dette, circa Tonn. 8 ;

g) materiale diverso per l'impianto telegrafico, come isolatori, portaisolatori, cassetta capolinea, prese di terra, pile di alta capacità, cavetti, conduttori, apparecchi telegrafici forse con relativi tavoli e apparecchi misuratori, nonché cordoncino, valvole, portalampe per esterno ed interno, ed altro per impianto illuminazione ;

h) tubi di ferro, meccanismi ed altro per il servizio d'acqua, circa Tonn. 50 .

Oltre ai detti materiali sarebbero impiegati circa 1.500.000 mattoni da prelevarsi dalle locali fornaci, ferro in tondi per cementi armati da prelevarsi sul posto dalle strutture preesistenti ;

i) i legnami occorrenti per stilate, ponteggi e centinature.-

La mano d'opera verrà prelevata sul posto .

La durata dei lavori si può presumere di circa mesi sei.

LA DIREZIONE GENERALE

Delugas

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
DIREZIONE GENERALE
SERVIZIO LAVORI E COSTRUZIONI

ALLEGATO No. 1

LIVIA ANCONA-POGGIA

Ripristino provvisorio del ponte sul fiume Pescara
al km-350+891,93 fra le stazioni di Pescara C. e
Pescara P.N.

=====0000=====

PROPOSTA SOMMARIA

A seguito delle azioni belliche le travate metalliche sul fiume Pescara sono rimaste danneggiate ed in parte distrutte.

Dovendosi, per disposizione del Comando Allato ripristinare l'esercizio dalla stazione di Ortona a quella di Ancona, si è allestita la presente proposta che prevede la sistemazione provvisoria del ponte sul fiume Pescara fra le stazioni di Pescara P.N. e Pescara C. a completamento delle proposte che riguardano il tronco da Ortona a Pescara P.N. e quello da Pescara C. ad Ancona.

Traendo profitto della disponibilità di una travata della portata di m.64,176 fra i centri degli apparecchi di appoggio costruita dalle officine di Arezzo per il ponte sul Po presso Borgoforte, si è esaminata la possibilità di impiego - previa opportuni adattamenti delle testate - nella campata centrale del ponte di luce libera m.64 fra i vivi delle murature della spalle.

Dopo accurato esame si è però riconosciuto che dovendosi aumentare la portata della travata da m.64,176 a m.66,00, per renderla impiegabile nella luce libera di m.64,00 l'eccessivo prolungamento di circa m.0;90 di ambo le testate avrebbe, per il conseguente aumento di portata, non solo ridotto in effetti di molto il valore del carico circolante ma non offrirebbe le necessarie garanzie di stabilità per la lunghezza notevole degli sbalzi oltre i nodi di testata dove si verifica il massimo sforzo tagliante. Pertanto si ritiene che non sia il caso di sottrarre una delle travate del Po che probabilmente potrà trovare impiego nel ponte stesso per cui era stata originariamente costruita ed in ogni caso sempre con maggior convenienza in altro ponte di luce maggiore.

Ripristino provvisorio del ponte sul fiume Pescara
al km-350+891,93 fra le stazioni di Pescara C. e
Pescara P.M.

=====0000=====

PROPOSTA SOMMARIA

A seguito delle azioni belliche le travate metalliche sul fiume Pescara sono rimaste danneggiate ed in parte distrutte.

Dovendosi, per disposizione del Comando Alleato ripristinare l'esercizio dalla stazione di Ortona a quella di Ancona, si è allestita la presente proposta che prevede la sistemazione provvisoria del ponte sul fiume Pescara fra le stazioni di Pescara P.M. e Pescara C. e completamento delle proposte che riguardano il tronco da Ortona a Pescara P.N. e quello da Pescara C. ad Ancona.

Tramando profitto della disponibilità di una travata della portata di m.64,176 fra i centri degli apparecchi di appoggio costruita dalle officine di Arezzo per il ponte sul Po presso Borgoforte, si è esaminata la possibilità di impiego - previa opportuni adattamenti delle testate - nella campata centrale del ponte di luce libera m.64 fra i vivi delle murature della spalle.

Dopo accurato esame si è però riconosciuto che dovendosi aumentare la portata della travata da m.64,176 a m.66,00, per renderla impiegabile nella luce libera di m.64,00 l'eccessivo prolungamento di circa m.0,90 di abaco le testate avrebbe, per il conseguente aumento di portata, non solo ridotto in effetti di molto il valore del carico circolante ma non offrirebbe la necessarie garanzie di stabilità per la lunghezza notevole degli sbalzi oltre i nodi di testata dove si verifica il massimo sforzo tagliante. Pertanto si ritiene che non sia il caso di sottrarre una delle travate del Po che probabilmente potrà trovare impiego nel ponte stesso per cui era stata originariamente costruita ed in ogni caso sempre con maggior convenienza in altro ponte di luce adeguata.

Si è quindi deciso di provvedere ad una sistemazione provvisoria mediante l'impiego di travate ~~travate~~ ^{travate} a doppio T.

5112

- 2° Foglio -

Come risulta dal disegno allegato il ponte in oggetto era costituito da tre campate:

- 1) La campata laterale, lato Ancona, di m. 20 di luce sulla quale si prevede di utilizzare una delle due travate esistenti e cioè quella meno danneggiata riparandola con ferro recuperabile dalla travata centrale;
- 2) La campata centrale di m. 64 di luce sulla quale esisteva una travata che danneggiata prima dei bombardamenti e tagliata in fine delle mine è crollata sull'alveo del fiume. Si prevede la sostituzione con quattro travate smontabili a travi laminato a doppio T poggiate sulle spalle e con tre stilate intermedie in legname;
- 3) La campata laterale, lato Foggia, di m. 12 di luce per la quale si prevede, come per l'altra campata laterale, la utilizzazione di una delle due travate gemelle che esistevano prima riparando anche questa con materiale recuperabile dalle travate centrali.

Per la fornitura dei materiali, di cui la distinta che segue sarà necessario che la parte del Comando Alleato sia provveduto allo snocco dei materiali metallici, dei legnami, dei carburanti, dei lubrificanti, delle vernici ed alla assegnazione delle travi di ferro per ponti provvisori.

Per l'esecuzione dei lavori sono stati previsti giorni 60. L'importo dei lavori è previsto in L. 2.580.000.-.

MATERIALI

5141

Per eseguire i lavori occorrono i seguenti materiali:

a) Legnami per ponteggi, in squadretti e tondoni.....mc.	70
b) travi a doppio T di cm. 70 di altezza e metri 19 di lunghezza.....Kg.	73000
c) ferro in profilati diversi per la costruzione di collegamenti, chiodi, chiavette, piastre, staffe e punte.....	7000
d) benzina per l'azionamento dei motori e per trasporti.....	7000
e) olio lubrificante per detti.....	700
f) carbone fossile per forgie.....	500
g) carburante per fiamme ossiacetileniche.....Kg.	160
h) ossigeno per dette.....	

- 2) La campata centrale di m. 64 di luce sulla quale esisteva una travata che danneggiata prima dei bombardamenti è stata in fine dalle mine è crollata sull'alveo del fiume. Si prevede la sostituzione con quattro travate monocabili a travi laminato a doppio T poggiate sulle spalle e su tre pile intermedie in legno;
- 3) La campata laterale, lato Poggia, di m. 12 di luce per la quale si prevede, come per l'altra campata laterale, la utilizzazione di una delle due travate gemelle che esistevano prima riparando anche questa con materiale recuperabile dalla travata centrale.

Per la fornitura dei materiali, di cui la distinta che segue sarà necessario che fa parte del Comando Allievo sia provveduto allo sblocco dei materiali attesi; dei legnami, dei carburanti, dei lubrificanti, delle vernici ed alla assegnazione delle travi di ferro per ponti provvisori.

Per l'esecuzione dei lavori sono stati previsti giorni 60. L'importo dei lavori è previsto in L. 2.800.000.-.

MATERIALI

511

Per eseguire i lavori occorrono i seguenti materiali:

a) Legnami per ponteggi, in squadriati e tondoni.....mc.	70
b) travi a doppio T di cm. 70 di altezza e metri 19 di lunghezza.....mc.	78000
c) ferro in profilati diversi per la costruzione di collegamenti, chiodi, chiodi, piastre, staffe e punte.....mc.	7000
d) benzina per l'azionamento dei motori e per trasporti.....l.	7000
e) olio lubrificante per detti.....l.	700
f) carbone fossile per forgi....." 500	160
g) carburante per fiamma ossiacetilenica.....kg.	200
h) ossigeno per detta.....mc.	300
i) olio di lino cotto.....kg.	300
l) minio in polvere....."	200
m) blacca di zinco....."	200

Roma, 11. 12. 1944

IL CAPO DEL SERVIZIO

Delegue

MINISTRY OF COMMUNICATIONS
ITALIAN STATE RAILWAYS
GENERAL DIRECTION
WORK AND CONSTRUCTION SERVICE.

LIVORNO - ANCONA (PESCARA - GALLANOVIA SECTION)

Reconstruction of bridges, buildings, permanent way and auxiliary plants damaged by war actions.

fr

GENERAL PROPOSAL:

1. Further to war action on the line Pescara 3. - Gallanovia, have been destroyed or partially damaged:
1. 7 large span bridges, completely destroyed.
2. Other little bridges, inferior span from one to four meters destroyed.
3. Some buildings and line keeper's houses badly damaged.
4. Part of the permanent way badly damaged with many sleepers broken and rails damaged by explosions.
5. Telegraph- and telephone, signal and safety plants badly damaged.

In order to carry out the works for the complete reconstruction of the Pescara-Ancona line, one of the most important for the Italian traffic considering that the Pescara-Ancona Section is now open for traffic, and that practices to entrust the works are in course, we allege the general plan for the reconstruction of the Pescara 3 - Gallanovia section. Further to ~~XXXXXX~~ other plans, will be submitted.

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

5149

For the bridges reconstructions, it is foreseen to use technical schemes similar to the former one, except some modifications regarding the reduction of the lowering of the arches.

For the bridges over the Tredino and Salino rivers at 314-347 km and 275 km it has been taken into consideration, what has already been done by the Public Works Administration according to Allied Authorities instruction, in order to use a part of same bridges on the normal road level.

Considering that the Allied Command will release and supply cement for the forming of the mortar, as well as the supply of petrol and lubricating oil, required to transport material to the site, the estimate is 117.000.000 Lire, of which approximately 90.000.000 Lire for the repair of the bridges and buildings, 9.000.000 L. for the

GENERAL PROPOSAL:

1. Further to war action on the line Pescara C. - Giulianova, have been destroyed or partially damaged:
1. 7 large span bridges, completely destroyed.
2. Other little bridges, inferior span from one to four meters destroyed.
3. Some buildings and line keeper's houses badly damaged.
4. Part of the permanent way badly damaged with many sleepers broken and rails damaged by explosions.
5. Telegraph- and telephone, signal and safety plants badly damaged.

In order to carry out the works for the complete reconstruction of the Pescara-Ancona line, one of the most important for the Italian traffic, considering that the Ince-Ancona Section is now open for traffic, and that practices to entrust the works are in course, we allege the general plan for the reconstruction of the Pescara C. - Giulianova section. Further to ~~xxxxxx~~ other plans, will be submitted.

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

5119

For the bridges reconstructions, it is foreseen to use technical schemes similar to the former one, except some modifications regarding the reduction of the lowering of the arches.

For the bridges over the Tredino and Salino rivers at 114+247 km and 276 km it has been taken into consideration, what has already been done by the Public Works Administration according to Allied Authorities instructions, in order to use a part of same bridges on the normal road level.

Considering that the Allied Command will release and supply cement for the forming of the mortar, as well as the supply of petrol and lubricating oil, required to transport material to the site, the estimate is 117.000.000 lire, of which approximately 90.000.000 lire for the repair of the bridges and buildings, 9.000.000 l. for the reconstruction of the permanent way and 5.500.000 for the water plants and approx. 12.500.000 for the telegraph-~~xxx~~ telephone, signal and safety, and light plants.

MATERIAL AND LABOUR.

To carry out the works, following material are requested:

- a) Cement (approximately 24.700 qds, obtainable ~~xxxxxx~~ locally.
- b) Petrol or naphtha, approx. 89.500 liters for material transport.
- c) Lubricating approximately 4500 liters.

- 0 4 3 2
- d) Poles for telegraph and telephone lines, approximately 500.
 - e) Iron wire for sold lines, approximately 4.5 tons, and insulators, insulator holders, end-boxes, earth protection covers, high capacity batteries, lifeline cables, wires, Morse telegraph with relative tables and measuring instruments etc.
 - f) Electrical small cords, tubes, lamp holders for interior and external lighting, and other material for lighting plants.
 - g) Approximately 50 tons for iron pipes, mechanism and water tanks.
 - h) 3,300,000 bricks obtainable locally, are necessary.
 - i) Timber for the scaffolding and centers will be supplied by the contractors.

1; Labour will be furnished on the site.

Six months are foreseen to carry out the works.

Rome, 23.11.1944

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STA. J

Il Direttore Generale

Roma, 14. 15 e 16 Settembre 1944

N°-L.C.6/14/23589-

= OGGETTO =

Linea Ancona-Poggia.
Riattivazione tratto Pescara C.-
Giulianova.-

COMMISSIONE ALLEATA
Sottocommissione Trasporti (Ferrovie)

Colonello Fredberg

S E D E

+==+==+==+==+==+

-Alleg. 10

1 - Si trasmette all'esame di codesta Commissione l'unito progetto di massima per la riattivazione del tratto Pescara C.-Giulianova, della linea Ancona-Poggia.

2 - Per la riattivazione della linea Adriatica, una delle più importanti del sistema ferroviario italiano, già in esercizio da Lecce ad Ortona e per la quale sono in corso le pratiche per l'appalto dei lavori di ripristino del tratto Ortona-Pescara P.N., sarebbe opportuno proseguire il ripristino dei rimanenti tratti successivi fino ad Ancona.

Si ritiene pertanto che la necessità dell'esecuzione dei lavori compresi nel progetto di cui sopra sia condizionala da codesta Commissione.

3 - Per eseguire i lavori occorrerebbe l'aiuto di codesta Commissione, giacchè si dovrebbero ottenere i seguenti materiali:

- a) Cemento circa quintali 24700;
- b) Benzina e nafta circa litri 89500;
- c) Lubrificanti circa litri 4500;
- d) Pali per linee telegrafiche circa n°-800;
- e) Filo di ferro per dette circa tonn. 4,5
- f) Materiale diverso per l'impianto telegrafico come isolatori, portaisolatori, cassette capolinea, prese di terra, pile di alta capacità, cavetti, conduttori, apparecchi telegrafici Morse con relativi tavoli e apparecchi misuratori,, nonché cordonecine, valvole, portalampe per esterne e interne ed altro per l'impianto di illuminazione;
- g) Tubi di ferro, meccanismi e rifornitori per il servizio

Giulianova.

Coronello Giuliano

S E D E

+++++

-Alleg. 10

- 1 - Si trasmette all'esame di codesta Commissione l'unito progetto di massima per la riattivazione del tratto Pescara C.-Giulianova, della linea Ancona-Foggia.
- 2 - Per la riattivazione della linea Adriatica, una delle più importanti del sistema ferroviario italiano, già in esercizio da Lecce ad Ortona e per la quale sono in corso le pratiche per l'appalto dei lavori di ripristino del tratto Brtona-Pescara P.N., sarebbe opportuno proseguire il ripristino dei rimanenti tratti successivi fino ad Ancona.
- Si ritiene pertanto che la necessità dell'esecuzione dei lavori compresi nel progetto di cui sopra sia condiziona da codesta Commissione.
- 3 - Per eseguire i lavori occorrerebbe l'aiuto di codesta Commissione, giacchè si dovrebbero ottenere i seguenti materiali:
 - a) Cemento circa quintali 24700;
 - b) Benzina o nafta circa litri 89500;
 - c) Lubrificanti circa litri 4500;
 - d) Pali per linee telegrafiche circa n°-800;
 - e) Filo di ferro per dette circa tonn. 4,5
 - f) Materiale diverso per l'impianto telefonico come isolanti, portaisolatori, cassette capolinea, prese di terra, pile di alta capacità, cavetti, conduttori, apparecchi telegrafici Morse con relativi tavoli e apparecchi misuratori,, nonché cordoneine, valvole, portalampe per esterne e interno ed altro per l'impianto di illuminazione;
 - g) Tubi di ferro, meccanismi e rifornitori per il servizio d'acqua, circa tonnellate 50;
 - h) oltre ai detti materiali saranno impiegati circa ~~mmmm~~ 3.300.000 mattoni da prelevarsi dalle locali fornaci;
 - i) I legnami occorrenti per ponteggi e cantinature verranno forniti dalle Ditte assuntrici dei lavori.
- 4 - L'importo dei lavori ammonta a L. 117.000.000- di cui lire 90.000.000- circa, per i ponti e fabbricati, L. 9.000.000 circa, per il ripristino dell'armamento, L. 5.500.000- circa per il servizio d'acqua e circa L. 12.500.000- per gli impianti telegrafici, di segnalamento, di sicurezza e

./.

12

" 2° Foglio "

di illuminazione.

5 - Per l'affidamento dei lavori verrebbero interpellate le Ditte di cui all'unito elenco.

6 - La durata dei lavori si può presumere di mesi sei. .

Si prega di voler esaminare il progetto con benevolenza e favorire cortese risposta.--

L IL DIRETTORE GENERALE

Luigi Raimondo

519

Rome, 23 ed. November 1944

N. L.6/14/23569

To Allied Commission
Transportation Sub - Commission (Rails)

-SUBJECT-

Ancona-Foggia Line
Section of line Pescara C.-
Giulianova rehabilitation

BUILDING

- 1) We put under your examination herewith preliminary scheme for the rehabilitation of section of line Pescara C.-Giulianova on the Ancona-Foggia line.
- 2) For Adriatic line rehabilitation, one of most important of Italian railway system, that is already in working order from Lecce to Ortona and for which dealings for the contract of restoration works of section of line Ortona-Pescara P.M. are in course of execution, it would be advisable to pursue restoration of remaining sections of line until Ancona.

We think therefore that necessity of carrying out works included in above contract be partaken also by you.

3) For works carrying out your aid is necessary, as following materials would be to obtain:

- a) about 2470 tons cement
- b) about 89500 litres petrol and oil
- c) about 4500 litres lubricating-oil
- d) about 800 poles for telegraph lines
- e) about 4,5 tons wire for said telegraph lines
- f) materials for telephonic installations as insulators, insulator-holders, end-boxes, earthed protecting covers,

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Transportation Sub - Commission (Rails)

-SUBJECT-

BUILDING

Ancona-Foggia Line
 Section of line Pescara C.-
 Giulianova rehabilitation

- 1) We put under your examination herewith preliminary scheme for the rehabilitation of section of line Pescara C.-Giulianova on the Ancona-Foggia line.
- 2) For Adriatic line rehabilitation, one of most important of Italian railway system, that is already in working order from Lecce to Ortona and for which dealings for the contract of restoration works of section of line Ortona-Pescara P.M. are in course of execution, it would be advisable to pursue restoration of remaining sections of line until Ancona.

We think therefore that necessity of carrying out works included in above contract be partaken also by you.

- 3) For works carrying out your aid is necessary, as following materials would be to obtain:

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- a) about 2470 tons cement
- b) about 89500 litres petrol and oil
- c) about 4500 litres lubricating-oil
- d) about 800 poles for telegraph lines
- e) about 4,5 tons wire for said telegraph lines
- f) materials for telephonic installations as insulators, insulator-holders, end-boxes, earthen protecting covers, high capacity piles, little cables, wires, morse telegraphs with relative tables and measurement instruments, as well as electric small cords, lamp-holders for interior and external lighting and other materials for lighting installation.

./.

- g) About 50 tons vion pipes, mechanisms and water-tanks.
- h) Besides about 3.300.000 bricks, that will be collected from local brick-kilns.
- i) timber necessary for scaffolding and centering will be supplied by Firms, that will carry out works.
- 4) Amount of works is £. 117.000.000, of which about £. 90.000.000 for bridges and buildings, about £. 9.000.000 for permanent way restoration, about £. 5.500.000 for water installation and about £. 12.500.000 for telegraphic, signalling and lighting installations.
- 5) To allot works, Firms, named in herewith list, would be invited.
- 6) Works will supposedly last six months.
- Please examine favorably preliminary scheme and kindly answer.

The Director General



MINISTERO DELLE COMUNICAZIONI

FERROVIE DELLO STATO

CAPO DELLA SEZIONE LAVORI

Ancona, December 6th 1944Major Mole
A.C.C. Rome

1. The bearer sig. SCATAGLINI is charged with collecting the Tires you kindly supplied for use of the ISR works sections motor-cars.
2. Please, let sig. Scatagliini have a regular permit to carry the above tires in order to avoid trouble on the way to Ancona at the Police Control Points. -
3. Attached herewith I send you the list of Steel double T girders required for the entire length Ortona - Ancona, to be used in substitution of military girders for Temporary bridges on Timber trestles.
4. I inform you that to-day I forward to my Chief Engineer sig. GO CIGNO drawings

51.6 %

and form of contract respecting the rebuilding
of the section from QIVIRANOVA to Km. 277.

Drawings and form of contract concerning
with the last section i.e. Km. 277 to CIVIRANOVA
will follow within five days. -

Yours truly

Alfonso

BEST COPY POSSIBLE

04.431

STABILIMENTO DI LAVORO
CASA IN BILLO 22400

STABILIMENTO DI LAVORO

STABILIMENTO DI LAVORO - CANTIERI

Troncate per il riordinamento delle opere d'arte, dei fabbricati e
della fonderia ed eccettuati l'ammontare e l'importo di alcuni del-
le opere nel bilancio di bilancio (a) - Faccare P.M. (P).

1. ANALISI

A essere di natura bellica, se in presenza di opere del genere
e sebbene, il tratto di linea fra l'istituzione e l'istituzione P.M. ha
riferito negli anni alle opere d'arte, al fabbricato, alla fonderia
e alla ed agli impianti eccettuati. I dati di bilancio rilievo sono
i seguenti:

1) CANTIERI

7) Sono stati completamente distrutti, oltre a numerosi ponticelli di
lode inferiore al 10 metri, i principali ponti in struttura fra cui:
- Ponte sul torrente Verduccio (Km. 319+075) 3 luci da m. 8
- Ponte sul torrente Verduccio (Km. 324+347) 14 luci da m. 12
- Ponte sul torrente Verduccio (Km. 324+838) 13 luci da m. 12
- Ponte sul torrente Verduccio (Km. 330+158) 9 luci da m. 8
- Ponte sul torrente Verduccio (Km. 340+255) 4 luci da m. 12
- Ponte sul torrente Verduccio (Km. 342+276) 12 luci da m. 12
- Ponte sul torrente della Fortezza (Km. 352+564) 4 luci da m. 9

2) Inoltre sono state distrutte le opere d'arte le braccia antelunghe
di luce 54 m. sul fiume Verduccio: esse si trovano con la parte cen-
trale immerse nel fiume e la levante a ridosso delle pile suole.

2) FABBRICATI

Si ritiene distrutti quasi tutti i fabbricati delle stazioni di
Faccare C. e l'istituzione.

Inoltre, specie di tratti edificati, hanno riferito i fabbri-
cati delle rimanenti stazioni e le loro emittenti.

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3) ARRETRATI

Il bilancio di conto non ha subito la parte gravi danni, ed ecce-
zione del tratto Silvi-Faccare C. nel quale sono state tutte a sola
tutte le traversie; del tratto Faccare C. Faccare P.M. nel quale le
traversie sono state spezzate con mine e dei tratti in corrispondenza
della opera d'arte distrutte.

In genere sono i danni delle addizioni non danni molto gravi
danni ed eccezione di quelli di Faccare P.M. dove tutti gli danni
e numerose rotte sono state fatte saltare, e quelli di Faccare C.

la ricostruzione dei medesimi per lo svolgimento di un servizio ridotto al minimo indispensabile.

- 3) Il ripristino dei binari di corsa
- 4) Il ripristino, nella misura limitata allo stretto indispensabile, degli impianti telegrafici, di segnalamento, di sicurezza, e del servizio acqua.

In merito alla particolarità di ordine tecnico relative alla esecuzione dei lavori, data la difficoltà di approvvigionamento di mattoni, è stato previsto di ricostruire i manufatti di luce superiore a m. 10 interamente con conglomerato cementizio, utilizzando le vecchie fondazioni che generalmente si trovano in buone condizioni di efficienza. - Il cemento verrà approvvigionato a cura dell'Amministrazione Ferroviaria.

Per le opere minori invece si prevede di eseguirle a muratura di mattoni, per i quali l'Amministrazione Ferroviaria fornirà il materiale necessario alla cottura.

L'attraversamento del fiume Pescara, verrà effettuato con travate militari smontabili di luce m. 32, appoggiate alle attuali pile spalle, in buone condizioni, e su di una stilata centrale in legname su pali da costruirsi. Alle estremità di dette travate, lato Ancona, e lato Ortona, verranno mantenute le due travate esistenti delle quali, quella lato Ancona (luce m. 20) e travate composte a parete piena, non hanno subito danni, e quella lato Ortona (luce m. 12) ha subito danni di non grave entità che potranno essere riparati. Le travate smontabili verranno sistemate in corrispondenza della posizione occupata dalla vecchia travata a valle.

Per la sistemazione dell'armamento si è previsto di provvedere come segue:

1) Le rotaie e parte dei materiali metallici minuti verranno ricavati da demolizioni di binari secondari nelle stazioni limitrofe a ciascun tratto di lavoro. Per quanto sarà possibile verrà adoperato materiale di modello pesante, per il resto verrà utilizzato materiale di tipo leggero, nell'intesa di poterlo in un secondo tempo sostituire con altro materiale di tipo pesante. La parte di materiali minuti che non sarà possibile ricavare come sopra detto, e che è stata esposta nella distinta, (All. N. 3) dovrà essere inviata da altre località.

2) Delle 14.000 traversine occorrenti, circa 9000 potranno essere ricavate dalla demolizione di binari secondari dalle stazioni; le rimanenti 5000 dovranno essere inviate da altre località.

La spesa prevista per l'attuazione dei provvedimenti sopra indicati ammonta, giusta unita perizia (All. N. 2) a L. 92.000.000 di cui si chiede l'approvazione a carico del capitolo 37 (Spese per riparazioni danni di guerra) di cui da azioni belliche.

All'esecuzione dei lavori si propone di provvedere come segue:

- 1) Ad appalto a licitazione privata la ricostruzione degli 8 mag-

esecuzione dei lavori, sono stati fatti di luce di mattoni, è stato previsto di ricostruire i manufatti di luce superiore a m. 10 interamente con conglomerato cementizio, utilizzando le vecchie fondazioni che generalmente si trovano in buone condizioni di efficienza. - Il cemento verrà approvvigionato e cura dell'Amministrazione Ferroviaria.

Per le opere minori invece si prevede di eseguirle a muratura di mattoni, per i quali l'Amministrazione ferroviaria fornirà il carbone necessario alla cottura.

L'attraversamento del fiume Pescara, verrà effettuato con travate militari smontabili di luce m. 32, appoggiate alle attuali pile spalle, in buone condizioni, e su di una stilata centrale in legname su pali da costruirsi. Alle estremità di dette travate, lato Ancona, e lato Ortona, verranno mantenute le due travate esistenti delle quali, quella lato Ancona (luce m. 20) e travi composte a parete piena, non hanno subito danni, e quello lato Ortona (luce m. 12) ha subito danni di non grave entità che potranno essere riparati. Le travate smontabili verranno sistemate in corrispondenza della posizione occupata dalla vecchia travata a valle.

Per la sistemazione dell'armamento si è previsto di provvedere come segue:

f) Le rotaie e parte dei materiali metallici minuti verranno riciclati da demolizioni di binari secondari nelle stazioni limitrofe a ciascun tratto di lavoro. Per quanto sarà possibile verrà adoperato materiale di modello pesante, per il resto verrà utilizzato materiale di tipo leggero, nell'intesa di poterlo in un secondo tempo sostituire con altro materiale di tipo pesante. La parte di materiali minuti che non sarà possibile riciclare come sopra detto, e che è stata esposta nella distinta, (All. N. 3) dovrà essere inviata da altre località.

2) Delle 14.000 tra erse occorrenti, circa 9000 potranno essere ricavate dalla demolizione di binari secondari delle stazioni; le rimanenti 5000 dovranno essere inviate da altre località.

La spesa prevista per l'attuazione dei provvedimenti sopra indicati ammonta, giusta unita perizia (All. N. 2) a L. 92.000.000 di cui si chiede l'approvazione e carico del conto 57 (Spese per riparazioni dei ponti di guerra diretti da azioni belliche).

All'esecuzione dei lavori si propone di provvedere come segue:

1) Ad appalto a licitazione privata la ricostruzione degli 8 saggi ponti in muratura e l'impianto delle travate smontabili sul fiume Pescara. Si osserva che per l'esecuzione dei lavori ad appalto non è stata indicata la spesa per noleggio automezzi dovendosi ritenere l'impresa appaltatrice sufficientemente attrezzata per lavori del genere.

- 2) Ad economia per costi d'importo anche superiori alle £.90.000, la ricostruzione delle opere d'arte minori, la sistemazione dei fabbricati di stazione e lungo linea, la sistemazione dell'armamento, ed il ripristino degli impianti telefonici, d'illuminazione di segnale, e di sicurezza, il ripristino del servizio acqua e il noleggio degli automezzi per il trasporto dei materiali occorrenti all'esecuzione dei lavori a cottimo.
- 3) Ad economia in Amministrazione: le prestazioni del personale di linea per l'assistenza ai lavori di sistemazione di armamento e le prestazioni degli operai della squadra ponti in ferro per la riparazione della travata ~~in opera~~ sul fiume Pescara.
- 4) Mediante fornitura da parte dei ragazzini, o da altre sezioni, del materiale minuto d'armamento e delle traverse che non sarà possibile ricevere da demolizioni di altri impianti.
- 5) Mediante fornitura da parte dell'Amministrazione Ferroviaria:

- a) del cemento
- b) della benzina e dei lubrificanti occorrenti per il trasporto dei materiali da costruzione dai luoghi di produzione o di consegna ai luoghi d'impiego e dei materiali d'armamento, e per l'azionamento di betoniere ed altri mezzi d'opera
- c) del carbone per la cottura dei mattoni

Non occorrono espropriazioni.

I lavori che verranno eseguiti nell'interesse del servizio lavori, si svolgeranno nell'ambito delle provincie di Pescara e Teramo.

Compongono la proposta i seguenti documenti :

- 1) Relazione
- 2) Perizia della spesa
- 3) Perizia della spesa relativa all'armamento
- 4) Distinta dei materiali metallici d'armamento occorrenti
- 5) Disegno del ponte al Km. 314+347 (Tordino)
- 6) " " " 319+075 (Versacchio)
- 7) " " " 324+818 (Vomano)
- 8) " " " 330+158 (Calvano)
- 9) " " " 335+505 (Gerano)
- 10) " " " 340+851 (Piombe)
- 11) " " " 342+876 (Sallino)
- 12) " " " 350+564 (Ponte della Fortezza)
- 13) Stipata in legno per le traverse smontabili sul fiume Pescara.

AUCONA 16. Novembre 1944.

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prestazioni degli operai della squadra ponti in ferro per la riparazione della travata *in opera* sul fiume Pescara.

4) Mediante fornitura da parte dei magazzini, o da altre sezioni, del materiale minuto d'armamento e delle traverse che non sarà possibile ricevere da demolizioni di altri impianti.

5) Mediante fornitura da parte dell'Amministrazione Perroviaria:

- a) del cemento
- b) della benzina e dei lubrificanti occorrenti per il trasporto dei materiali da costruzione dai luoghi di produzione o di consegna ai luoghi d'impiego e dei materiali d'armamento, e per l'azionamento di betoniere ed altri mezzi d'opera
- c) del carbone per la cottura dei mattoni

Non occorrono espropriazioni.

I lavori che verranno eseguiti nell'interesse del servizio lavori, si evolveranno nell'ambito delle provincie di Pescara e Teramo.

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- 6) " " " " 313+075 (Versoche)
- 7) " " " " 324+838 (Vomano)
- 8) " " " " 330+158 (Calvano)
- 9) " " " " 335+505 (Caramo)
- 10) " " " " 340+861 (Piombo)
- 11) " " " " 342+276 (Salino)
- 12) " " " " 350+564 (Posso della Portezza)
- 13) Stilate in legno per le travate smontabili sul fiume Pescara.

ANCONA 16. Novembre 1944.

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IL CAPO DEL GRUPPO RIVANTI

IL CAPO DELLA SEZIONE LAVORI

[Signature]

[Signature]

FOGGIA - ANCONA LINERECONSTRUCTION OF BRIDGES, VIADUCTS, TUNNELS AND AUXILIARY PLANTS FOR THE REHABILITATION OF THE GIULIANOVA - PORTO CIVITANOVA SECTION.SUMMARY PROPOSAL

Further to war actions on the GIULIANOVA-PORTO CIVITANOVA section have been destroyed or badly damaged:

- 1) No 11 big span bridge, masonry faced or reinforced concrete scaffolding, completely destroyed;
- 2) No 4 big span bridge, iron structure, so badly damaged that quick repair is impossible;
- 3) Several other culverts of 1.00 mt. to 5.00 mt. span destroyed or badly damaged;
- 4) Some buildings and linekeepers' houses badly damaged
- 5) Part of permanent way completely destroyed with many sleepers broken and rails damaged by explosions.

In order to carry out the Foggia-Ancona line reconstruction - one of the most important of the railway system Italian railway system and of which the Foggia-Ortona section has been reopened for traffic - the works for the reconstruction of the bridges on the Ortona-Fossate section have already been awarded and practices for works concerning the Pescara-Giulianova section are at hand. The attached general scheme for the reconstruction of bridges, tunnels and subways has been prepared, as well as for the auxiliary plants for the rehabilitation of the further section from Giulianova to Portocivitanova.

For the reconstruction of bridges of small span, it is foreseen to use technical means similar to the former ones, excluded some variations concerning especially the diminution of the exaggerated lowering of arches. For the bridge over the Salinello river at 308 + 836 Km., what has already been done - according with Allied Authorities instructions - from the Public Works Administration has been considered, in order to use part of same bridge on normal road level.

For the two reinforced concrete scaffolding bridges over Chienti and Tenna rivers, as well as for the iron structure bridges over the S. Biagio, Campofilone and Tronto river - for which it would be impossible, for the time being, to use same structures as former ones, or, due to hydraulic causes, the masonry arches structure - it is foreseen to use temporary structures formed by rolled beams, lying on ~~existing~~ existing arch-piers to be reconstructed and on temporary timber supports in the centre.

Similar temporary structure also fore

- 2) No 4 bridge bridge, iron structure, so badly damaged that quick repair is impossible;
- 3) Several other culverts of 1.00 mt. to 5.00 mt. span destroyed or badly damaged;
- 4) Some buildings and linekeepers' houses badly damaged;
- 5) Part of permanent way completely destroyed with many sleepers broken and rails damaged by explosions.

In order to carry out the Foglia-Tenna line reconstruction - one of the most important of the railway system and of which the Foglia-Ortona section has been reopened for traffic - the works for the reconstruction of the bridges on the Ortona-Tenna section have already been awarded and practices for works concerning the Pescara-Umbria section are at hand. The attached general scheme for the reconstruction of bridges, tunnels and subways has been prepared, as well as for the auxiliary plants for the rehabilitation of the further section from Giulianova to Portocivitanova.

For the reconstruction of bridges of small span, it is foreseen to use technical means similar to the former ones, excluded some variations concerning especially the diminution of the exaggerated lowering of arches. For the bridge over the S. Irsilo river at 308 + 686 km., what has already been done - according with Allied Authorities instructions - from the Public Works Administration has been considered, in order to use part of same bridge on normal road level.

For the two reinforced concrete scaffolding bridges over Chienti and Tenna rivers, as well as for the iron structure bridges over the S. Biagio, Campofilone and Tronto river - for which it would be impossible, for the time being, to use same structures as former ones, or, due to hydraulic causes, the masonry arches structure - it is foreseen to use temporary structures formed by rolled beams, lying on ~~existing~~ existing arch-piers to be reconstructed and on temporary timber supports in the centre.

It is foreseen to adopt similar temporary structure also for big span arch bridges over Aso, Manocchia and Tenna rivers, due to the difficulties which would be found ~~now~~ to supply the timber for the centres, the considerable amount of materials required and the long time which would be necessary to carry out the works.

Foreseeing that through Allied Authorities it will be possible to obtain the release and supply of cement for the making of limeconcrete and mortars, the release of timber and of iron required, the supply of rolled beams for said temporary structures, as well as fuel and lubricating oil supply to transport materials to the site, the estimated cost is of 166.000.000 lire, of which :

- 2 -

123.000.000 lire approx. for bridges and buildings reconstruction,
14.000.000 lire for permanent way reconstruction, 5.500.000 lire
approx. for water plant and 23.500.000 approx. for telegraph,
telephone, signalling, safety and lighting plants.

MATERIALS AND LABOUR

To carry out the works following materials are required :

- a) Cement - 50.000 qts. to be collected from the local cement-works
- b) Petrol or naphtha - 80.000 lts. for materials transport
- c) Lubricating oil 4.000 lts. approx.
- d) Rolled beams and iron 500 tons
- e) Timber

MINISTRY OF COMMUNICATIONS STATE RAILWAYS

ANCONA - IMBROARA LINE

SCHEME for the reconstruction of the bridges, buildings, and permanent way and auxiliary plants damaged by war actions, for the rehabilitation of the one-track line between Ancona (excluded) and Civitanova Marche (included) stations.

REPORT

For the reconstruction of the single-track line between the Ancona and Civitanova Marche stations it is essential to provide to the reconstruction of the bridges, buildings, permanent way and auxiliary plant damaged by war actions.

The works included in this scheme are the following:

- Reconstruction of bridges and tunnels on the Ancona-Civitanova section;
- Put in order of passenger stations;
- Put in order or reconstruct central tower;
- Reconstruct or put in order the permanent way;
- Reconstruction of water plant;
- Reconstruction of telephone and lighting plants;
- Reconstruction of signalling and safety plant.

For the works specified in para a) the reconstruction of all the bridges for single-track only is foreseen, while the abutments are foreseen with a double track. For the bridge over the Aspio, at 214.281 Km., with former iron girder, the reconstruction is foreseen with a masonry arch as it has been ascertained that this is not high enough for water flow to Torosoverdone, while the iron girder, damaged at one end, will be used for the inner span of the bridge over the Scariolelino torrente, at 217.979 Km. In order to reopen the line within the fixed date the layout of a temporary military girder over the Scariolelino is foreseen.

For the two reinforced concrete bridges over the Aspio and the torrente the abutments and the pier-abutments for double track are to be built and military iron girders, with subtrack, will be laid out on main abutments. In the course of the exercise the construction of the piers, the reconstruction of the reinforced concrete bridge with single-track, according to drawings of former bridge, and the dismantling of military girder will be provided.

All the other bridges not specified on the Ancona - Civitanova section will be rehabilitated in conformity according to the drawings of former bridges.

Andona and Cliternova Marche stations it is essential to provide to the reconstruction of the bridges, buildings, permanent way and auxiliary plant damaged by war actions.

The works included in this scheme are the following :

- a). Reconstruction of bridges and tunnels on the Ancona-Cliternova section;
- b). Put in order of passenger stations;
- c). Put in order or reconstruct aerial tower;
- d). Reconstruction or put in order the permanent way;
- e). Reconstruction of water plant;
- f). Reconstruction of telephone and lighting plants;
- g). Reconstruction of signaling and safety plant.

For the works specified in para a) the reconstruction of all the bridges for singltrack only is foreseen, while the abutments are foreseen with a double track. For the bridge over the Apio, at 214.281 Km., with former iron girder, the reconstruction is foreseen with a masonry arch or it has been ascertained that this arch high enough for water flow a temporary while the iron girder, damaged at one end, will be used for the repair of the bridge over the Scarpelluccio torrent, at 217.976 Km. In order to reopen the line within the fixed date the layout of a temporary railway girder over the Scarpelluccio is foreseen.

For the two reinforced concrete bridges over the Ancona and the Tolena the abutments and the pier-abutments for double track are to be built and masonry iron girders, with existing, will be layed out on same abutments. In the course of the execution the construction of the piers, the reconstruction of the reinforced concrete bridge with singltrack, according to drawings of former bridge, and the dismantling of military ~~girders~~ will be provided.

All the other bridges not specified on the Ancona - Cliternova section will be rebuilt in masonry according to the drawings of former bridges.

The work regarding the permanent way reconstruction, considered in para d) are the following :

- a) dismantling of sills where rails are completely or partly broken;
- b) reconstruction of said sills with standard rails or with pieces of rail of less more than 4 ml. length, obtained from said dismantling and with normal rail of light or heavy standard obtained from dismantling of second tracks of the stations on each section.

Rails and part of permanent way material required will be supplied from the dismantling of some second tracks with heavy rails. In the stations on each stretch, and for the remaining used with light rails.

For the repair of damaged stretches of track the use of broken or twisted rails obtained from the dismantling of second tracks, not necessary for. Of these rails pieces long no less than 4 m. and light rails will be used.

When the great difficulties of this moment will be over it will be possible to provide to renew the stretches of track on which the above pieces of rail have been used and light rail have been used.

Due to the fact that the amount of permanent way steel materials which can be obtained on the site is not sufficient for the rehabilitation of the whole section Ancona-Civitavecchia, the supply of materials specified in the attached list (3) is essential. Sleepers will be obtained from the dismantling of second station tracks and, if requested, from other station tracks, which it is foreseen are not to be used for the time being.

For carrying out the works it is required:

1.- to provide to the most important works through private competition, the reconstruction of the artificial tunnel at 204+505/204+675 and of the Castellano tunnel at 205+323/208+392 Km., of the bridges over the Aspio (214+281 Km.), over the Scariollesino (217+970 Km.), over the Musone (225+496 Km.) over the Potosa (233+208 Km.) over the Pilocco I (235+236+004 Km.) over the Pilocco II (236+440 Km.) over the Acquedona (237+680 Km.) over the Fosso a Mare (240+431 Km.) over the Asola (241+963 Km.) over the Pontespina (244+148 Km.) over the Castellano (246+449 Km.)

2.- To provide through separated contracts, the cost of each one must not exceed 90.000 lire to the following works:

- a) removal of the steel girder
- b) put in working order or reconstructing the little bridges
- c) repair to the buildings
- d) permanent way works
- e) supply and unloading of the gravel necessary for the ballast
- f) telegraph, telephone and lighting plants
- g) safety and signalling plants
- h) putting in working order the water plants
- i) hiring of motor vehicles.

3) - to provide by the administration to labour for the putting in working order the water plants and supervising the works.

We ask ~~you~~ the administration to commit the works mentioned in para n.1.

As specified in the attached forms No 2,3,4 materials of the amount of 3.816.164 lire will be drawn from the Administration Stores.

The cost of works of this scheme, for which no expropriation is need, is 147.413.000 lire, as stated in the alleged scheme No2.

For said expense we ask the authorization to the bill No77 "Expenses for repairing damages due to war actions".

Permanent way steel materials will be recovered for 480.000 lire.

5098

MINISTRY OF COMMUNICATIONS
G.D.I.S.R.
The Chief of Works and
Construction Section.

Rome, December 5th 1944

REF. : L.5/13/86713

TO : Col. LIDBERG
Tn.S.C.
Col. RATTNER
G.D.N.R.S.

SUBJECT: ANCONA - PESCARA line rehabilitation.

1. Due to reasons specified in the attached report, it is essential to provide to the rehabilitation of the line Ancona-Pescara as soon as possible.

We transmit therefore a general scheme regarding the Ancona-Civitanova Marche Section.

2. The estimated cost for said works is 147.413.000 lire.

3. We will transmit the drawings for the reconstruction of the bridges, tunnels and subways as soon as the Works Section - Ancona send them.

4. Two tenders will be held on Wednesday 13th Dec. : one for the tunnels and one for the bridges.

The Chief of the Works
and Construction Section.
Sd.: Lo Cigno.

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
DIREZIONE GENERALE

Rome, 1 November 1944

N° L.C.6.14.23530

THE GENERAL DIRECTOR

SUBJECT:

REHABILITATION OF LINE PESCARA P.N.
ORTONA.

TO: ALLIED COMMISSION
Transportation Sub Commission
Rails

R O M E

To Col. Lindberg

1. We attach herewith the plan of the rehabilitation of the line Pescara P.N. - Ortona (line Ancona - Foggia).
2. The reconstruction of said line, which is one of the most important of the Italian railway system, from Lecce to Ortona, is very important, and for the fact, that the works included in the attached plan might allow to reconstruct another stretch of line from Ortona to Pescara P.N. it is hoped that you take into consideration the opportunity of said works.
3. In order to carry out the above stated works, we shall need the aid of the Allied Commission, for the fact that we need the following materials:
 - a) approx. 400 quintals of cement
 - b) approx. 27500 litres of gasoline and naphta
 - c) approx. 1000 litres lubricating oil
 - d) homogeneous iron in rolled steel joists, and approx. 60 tons of bolts necessary for a temporary crossing over the Foro river. If it should be impossible to obtain said iron, the trains could pass over a street bridge near the railway line.
 - e) We need approx. 1.500.000 tiles, which can be bought on the site.
 - f) The timber necessary for the scaffolding, supports and centering will be furnished by the contractors.
4. The cost of the works is 36.000.000 Lire, of which approx. 24.000.000 for the bridges, tunnels and buildings, and approx. 9.000.000 lire for the rehabilitation of the permanent way and accessories plants.
5. The Firms mentioned on the attached list, will carry out the works.
6. It is foreseen, that the works will be completed within 6 months. Please examine the plan, and kindly give us an answer.

THE DIRECTOR GENERAL 96
s/s Di Raimondo

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
DIREZIONE GENERALE
SERVIZIO LAVORI E COSTRUZIONI

LINE FOGGIA - ANCONA

Stretch of line Ortona - Pescara P.N.

Reconstruction of bridges, buildings, permanent way and accessories plants, damaged by war action.

-----c00-----

SUMMARY PROPOSAL

War actions have damaged on the stretch of line Ortona - Pescara P.N. :

1. 5 bridges, large span, completely destroyed.
2. Several little bridges, 10 m span, are destroyed.
3. Some of the line keeper's houses are heavily damaged.
4. The permanent way completely deranged. All the sleepers are broken, and the rails deformed.
5. The telegraph - and telephone plants, as well as the signal and security plants are heavily damaged.

The reconstruction of the Adriatic line is one of the most important of the Italian Railway System. At the present time the working of the railway has been rehabilitated from Ortona to Pescara P.N.

The proposals for the reconstruction of the Pescara crossing; between Pescara P.N. and Pescara C., and for the reconstruction of the stretch of line between Ancona and Porto Civitanova are in course. For the reconstruction of the bridges, it is foreseen to adopt the same technical modalities as adopted for the preexisting ones, except of some changes, viz., diminution of the excessive lowering of the arches, which is in some cases 1/8, enlargement of the ~~arches~~ *arches* and all the other changes which might be necessary.

Regarding the crossing of the Foro river, for which existed a bridge for a double track line, in cement scaffolding, 5 span, each 14 metres, and which can for the time being not be reconstructed, due to lack of materials, it is foreseen to use a temporary structure in rolled steel joists NF 60, 14 metres long lying on timber scaffold and which are near the collapsed arch piers.

- 2 -

Later on it is intended to construct the bridge in cement, without interrupting the working of the railways. If it is not possible to obtain the said beams from the Allied Command, the line could be provisionally deviated on the adjacent street bridge, which is in course of reconstruction. The same method was adopted in 1935, when the railway bridge collapsed.

It is hoped, that through the Allied Command it will be possible to obtain the release and the direct supply of cement for the mortars as well as the assignment of gasoline, lubricating for the transports of the materials and steelbeams, necessary for the Foro river crossing. The cost is 35.000.000, 24.000.000 of which is for the bridges, tunnels, and buildings, & approximately 9.000.000 Lire for the rehabilitation of the permanent way and accessories plants.

MATERIALS AND LABOUR.

In order to carry out the works, we need following materials:

- a) approximately 4500 quintals of cement, obtainable on the site.
- b) approximately 27.500 litres of gasoline or naphta, necessary for the transport of materials.
- c) approximately 1000 Litres Lubrificating.
- d) approximately 1.500.000 tiles, obtainable on the site.
- e) the timber necessary for the scaffolding, supports and centering will be furnished by the contractors.
- f) Homogeneous iron in rolled steel joists, and approximately 50 tons of bolts necessary for a temporary crossing over the Foro river.
- g) The labour will be furnished on the site.

The works will be completed within 6 months.

THE DIRECTOR GENERAL

5094

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
DIREZIONE GENERALE

=====0000=====

Il Direttore Generale

Indicatore

Roma, 14-1°-11-1944
N°-L.C.6/14/23530-

= OGGETTO =

Riattivazione della linea Pescara P.N. - Ortona.-

- Alleg. 10

COMMISSIONE ALLEATA DI CONTROLLO

Sottocommissione Trasporti

Colonello Lindberg

S E D E

+==+==+==+==+==+

1) - E' stato compilato e si trasmette all'esame di codesta Commissione, l'unito progetto di massima per la riattivazione del tratto Pescara P.N.-Ortona, della linea Ancona - Foggia.

2) - La riattivazione della linea Adriatica, una delle più importanti del sistema ferroviario italiano, e il cui esercizio attualmente si estende da Lecce ad Ortona, sarebbe di grande interesse, e poichè i lavori compresi nel presente progetto consentirebbero il ripristino di un altro tratto della linea stessa, da Ortona a Pescara P.N., si ritiene che l'opportunità di tali lavori ~~non~~ sia condivisa da codesta Commissione.

3) - Per eseguire i lavori occorrerebbe l'aiuto di codesta Commissione, giacchè dovrebbero ottenersi i seguenti materiali:

- a) cemento circa quintali 4600;
- b) benzina o nafta circa litri 27500;
- c) lubrificanti circa litri.....1000;
- d) ~~M~~ ferro omogeneo in travi profilate e chiavarde circa tonnellate 60, per l'attraversamento provvisorio del fiume Foro, avvertendo che in caso d'impossibilità di ottenere il detto ferro, si potrebbe effettuare il transito sul ponte stradale, molto vicino alla linea ferroviaria, deviando quest'ultima analogamente a quanto venne fatto nel 1935 in occasione del crollo del ponte ferroviario su detto fiume.

di Cornelli (Ferrovia)

S E D E

++++++

- 1) - E' stato compilato e si trasmette all'esame di codesta Commissione, l'unito progetto di massima per la riattivazione del tratto Pescara P.N.-Ortona, della linea Ancona - Poggia.
- 2) - La riattivazione della linea Adriatica, una delle più importanti del sistema ferroviario italiano, e il cui esercizio attualmente si estende da Lecce ad Ortona, sarebbe di grande interesse, e poichè i lavori compresi nel presente progetto consentirebbero il ripristino di un altro tratto della linea stessa, da Ortona a Pescara P.N., si ritiene che l'opportunità di tali lavori ~~non~~ sia condivisa da codesta Commissione.
- 3) - Per eseguire i lavori occorrerebbe l'aiuto di codesta Commissione, giacchè dovrebbero ottenersi i seguenti materiali:
 - a) cemento circa quintali 4600;
 - b) benzina o nafta circa litri 27500;
 - c) lubrificanti circa litri.....1000;
 - d) ~~il~~ ferro omogeneo in travi profilate e chiavere circa tonnellate 60, per l'attraversamento provvisorio del fiume Foro, avvertendo che in caso d'impossibilità di ottenere il detto ferro, si potrebbe effettuare il transito sul ponte stradale, molto vicino alla linea ferroviaria, dovendo quest'ultima analogamente a quanto venne fatto nel 1935 in occasione del crollo del ponte ferroviario su detto fiume.
 - e) Oltre ai detti materiali sarebbero impiegati circa 1.500.000 di mattoni da prelevarsi dalle locali fornaci.
 - f) I legnami occorrenti per ponteggi, stilate e centinature verranno forniti dalle Ditte assuntrici dei lavori.

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593

= 2 Foglio =

- 4) - L'importo dei lavori ammonta a £.36.000.000- di cui £.24.000.000- circa per i ponti, Gallerie e fabbricati e £.9.000.000- circa, per il ripristino dell'armamento e £.3.000.000- circa, per quello degli impianti accessori.
- 5) - Per l'affidamento dei lavori verrebbero interpellate le Ditte di cui all'unito elenco.
- 6) - La durata dei lavori si presumere di mesi sei.

Si prega di voler esaminare il progetto con benevolenza e favorire cortese risposta.-

2^o II DIRETTORE GENERALE

Luigi D'Amico

le Ditte di cui all'unito elenco.

6) - La durata dei lavori si può presumere di mesi sei.

Si prega di voler esaminare il progetto con benevolenza e favorire cortese risposta.-

IL DIRETTORE GENERALE

Indi D'Amico

5092

MINISTERO DELLE COMUNICAZIONI
FERROVIE DELLO STATO
DIREZIONE GENERALE
SERVIZIO LAVORI E COSTRUZIONI
=====

LINEA FOGLIA - ANCONA

Tratto Ortona - Pescara P. N.

Ripristino delle opere d'arte, fabbricati, armamento
e impianti accessori danneggiati a seguito di azio-
ni belliche.-

=====0000=====

PROPOSTA SOMMARIA

A seguito di azioni belliche nel tratto Ortona-Pesca-
ra P.N. sono rimasti danneggiati ed in gran parte distrut-
ti:

- 1) - No-5 ponti di luce notevole completamente distrutti;
- 2) - altri ponticelli di luce inferiore a 10 m. anch'essi
distrutti;
- 3) - alcuni fabbricati di case cantoniere gravemente dan-
neggiati;
- 4) - l'armamento completamente dissestato, con tutte le
traverse spezzate e le rotaie deformate dalle esplo-
sioni;
- 5) - gli impianti telegrafonici e quelli di segnalamento
e di sicurezza seriamente danneggiati.

Dato il grande interesse della riattivazione della li-
nea Adriatica, una fra le più importanti del sistema ferro-
viario italiano, e il cui esercizio è attualmente ripristi-
nato da Lecce sino ad Ortona, si è allestita la presente pro-
posta che prevede la riattivazione da Ortona sino a Pescara
P.N., Sono già in corso di studio le proposte per il ripri-
stino dell'attraversamento del Pescara, fra Pescara P.N. e
Pescara C. e per la riattivazione del tratto di linea fra
Ancona e Porto Civitanova. A queste farà subito seguito quel-
la relativa al rimanente tratto fra Porto Civitanova e Pesca-
ra C.

Per la ricostruzione delle opere d'arte è stato previsto
di adottare in linea di massima, modalità tecniche analoghe

Ripristino delle opere d'arte, fabbricati, armamento
e impianti accessori danneggiati a seguito di azioni
belliche.

=====0000=====

PROPOSTA SOMMARIA

A seguito di azioni belliche nel tratto Ortona-Pescara P.N. sono rimasti danneggiati ed in gran parte distrutti:

- 1) - N° 5 ponti di luce notevole completamente distrutti;
- 2) - altri ponticelli di luce inferiore a 10 m. anch'essi distrutti;
- 3) - alcuni fabbricati di case cantoniere gravemente danneggiati;
- 4) - l'armamento completamente dissestato, con tutte le traverse spezzate e le rotaie deformate dalle esplosioni;
- 5) - gli impianti telegrafonici e quelli di segnalamento e di sicurezza seriamente danneggiati.

Dato il grande interesse della riattivazione della linea Adriatica, una fra le più importanti del sistema ferroviario italiano, e il cui esercizio è attualmente ripristinato da Lecce sino ad Ortona, si è allestita la presente proposta che prevede la riattivazione da Ortona sino a Pescara P.N., Sono già in corso di studio le proposte per il ripristino dell'attraversamento del Pescara, fra Pescara P.N. e Pescara C. e per la riattivazione del tratto di linea fra Ancona e Porto Civitanova. A queste farà subito seguito quella relativa al rimanente tratto fra Porto Civitanova e Pescara C.

Per la ricostruzione delle opere d'arte è stato previsto di adottare, in linea di massima, modalità tecniche analoghe a quelle preesistenti, salvo alcune modifiche di progetto, diminuzione dell'eccessivo ribassamento dei volti, che in qualche caso raggiungeva il rapporto di 1/8, allargamento delle canne dei manufatti, che risultavano di lunghezza deficiente e tutte quelle altre modifiche che dal lato tecnico ed economico risulteranno, all'atto della esecuzione dei lavori, più convenienti.

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r o'

= 2 Foglio =

Soltanto per l'attraversamento del fiume Foro, per il quale esisteva un ponte per linea a doppio binario a impalcature in cemento armato a 5 luci di m. 14 ciascuna, non ritenendosi per il momento di poter ripristinare la preesistente opera, a causa della deficienza dei materiali occorrenti, e non potendosi, a causa del regime del fiume, adottare altro tipo di struttura muraria oppure un'opera completamente in legname, che con i suoi numerosi sostegni ostruirebbe troppo l'alveo del fiume a carattere torrentizio, è stato previsto l'impiego di una struttura provvisoria costituita da travi di ferro profilato NP. 60 lunghe m. 14 poggiate su stilate in legname, situate in corrispondenza dei piedritti crollati, ma occupanti solo la zona a monte del ponte preesistente, in modo da lasciare la possibilità di ricostruire, a suo tempo, in due fasi successive, l'opera in cemento armato, senza dover interrompere l'esercizio.

Qualora non fosse possibile ottenere tali travi dal Comando Alleato, si potrebbe deviare provvisoriamente la linea sull'adiacente ponte stradale che si trova in avanzato corso di ricostruzione e che ha un'ampiezza sufficiente per le due sezioni ferroviaria e stradale, come fu fatto nel 1935 in occasione del crollo del ponte ferroviario.

Ritenuto che il Comando Alleato potrà essere ottenuto lo sblocco C la fornitura diretta del cemento per la confezione delle malte, nonché l'assegnazione della benzina, dei lubrificanti per il trasporto dei materiali e delle travi di ferro per l'attraversamento del fiume Foro, la spesa occorrente ammonta a £. 36.000.000, di cui £. 24.000.000, circa, per il ripristino delle opere d'arte e dei fabbricati, £. 9.000.000 circa per il ripristino dell'armamento, £. 3.000.000, circa, per gli impianti telegrafonici e di segnalamento.

MATERIALI E MANO D'OPERA

Per eseguire i lavori occorrono i seguenti materiali:

- a) - cemento circa quintali 4600 da prelevarsi dalle cementerie locali;
- b) - benzina o nafta circa litri 27500 per il trasporto dei materiali;
- c) - lubrificanti circa litri 1000;
- d) - ferro omogeneo in travi profilate e chiavarde circa ton-

a causa del regime del fiume, adottare altro tipo di struttura muraria oppure un'opera completamente in legname, che con i suoi numerosi sostegni ostuirebbe troppo l'alveo del fiume a carattere torrentizio, è stato previsto l'impiego di una struttura provvisoria costituita da travi di ferro profilato NP.60 lunghe m.14 poggiate su stilate in legname, situate in corrispondenza dei piedritti crollati, ma occupanti solo la zona a monte del ponte preesistente, in modo da lasciare la possibilità di ricostruire, a suo tempo, in due fasi successive, l'opera in cemento armato, senza dover interrompere l'esercizio.

Qualora non fosse possibile ottenere tali travi dal Comando Alleato, si potrebbe deviare provvisoriamente la linea sull'adiacente ponte stradale che si trova in avanzato corso di ricostruzione e che ha un'ampiezza sufficiente per le due sezioni ferroviaria e stradale, come fu fatto nel 1935 in occasione del crollo del ponte ferroviario.

Ritenuto che ^{a mezzo} del Comando Alleato potrà essere ottenuto lo sblocco o la fornitura diretta del cemento per la confezione delle malte, nonché l'assegnazione della benzina, dei lubrificanti per il trasporto dei materiali e delle travi di ferro per l'attraversamento del fiume Foro, la spesa occorrente ammonta a £.36.000.000 di cui £.24.000.000, circa, per il ripristino delle opere d'arte e dei fabbricati, £.9.000.000 circa per il ripristino dell'armamento, £.3.000.000, circa, per gli impianti telegrafonici e di segnalamento.

MATERIALI E MANO D'OPERA

Per eseguire i lavori occorrono i seguenti materiali:

- a) - cemento circa quintali 4600 da prelevarsi dalle cementerie locali;
- b) - benzina o nafta circa litri 27500 per il trasporto dei materiali;
- c) - lubrificanti circa litri 1000;
- d) - ferro omogeneo in travi profilate e chisavarde ⁵⁰⁰⁰ circa tonnellate 60 per l'attraversamento provvisorio del fiume Foro;
- e) - oltre ai detti materiali sarebbero impiegati circa 1.500.000 di mattoni da prelevarsi dalle locali fornaci;
- f) - i legnami occorrenti per i ponteggi, stilate e centinaturre verranno forniti dalle Ditte assuntrici dei lavori;

3 4 7 0

g) - la mano d'opera verrà prelevata sul posto.

La durata dei lavori si può presumere di mesi sei.-

IL DIRETTORE GENERALE

Roma, li-.....

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Spave
REPORT BY LT. COL. J.R. SUDSON R.E. OF REGUS ANCONA - OPTOMA.

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5088

2	Bridging -		
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Report on Recce Ancona (Km. 204.) - Ortona (Km. 371)

by Lt. Col. J.R. Simpson R.E. carried out on
17th to 22nd Oct. '44 accompanied by Mr. Korkana
Divisional Engineer I.S.R. Ancona.

1. Object.

To ascertain whether the railway line could be repaired for military traffic in 6 months (by 30.4.45) - all work being carried out by contractors under the I.S.R. with a minimum assistance from the British Army in personnel and material.

2. Distance.

The total distance Ancona to Ortona is approximately 104 miles in which there are the following:-

- (a) 32 major bridges - a major bridge being 1 - 40 ft span or 60 ft run of waterway in multiple spans.
- (b) 14 minor bridges - a minor bridge being less than a major span, but not less than 4 metres waterway.
- (c) 23 spans of less than 4 metres (not inspected).
- (d) 26 intermediate stations of which 5 are watering stations and 4 are loco shed stations. Pescara Centrale being the main station with an extensive loco and goods yard.
- (e) 6 tunnels all within 7 kms. of Ancona or Ortona.

3. Damage.

- (a) points and crossings. All points and crossings at all stations except Pescara Centrale Loco yard, had been blown with very few exceptions or had been removed by S.A.R.C. for work elsewhere. This will require about 140 points and crossings to make the line fit for military traffic.
- (b) track. In all about 65 $\frac{1}{2}$ kms. of rails have been blown mostly in their centre and 27 kms. of sleepers have been completely cut by use of the Rocket.
As we will be unable to use cut rails of less than 4 metres, we will require 20 kms. of track rails and 45,000 sleepers to make good the damage.
- (c) bridges. 30 bridges in all have been completely demolished, of which 28 are major bridges, 14 minor bridges and 26 are less than 4 metres span. Among these bridges are 6 reinforced concrete bridges of from 6 to 14 spans each of 12 metres also 6 steel girder span bridges of from one to four spans of at least 12 metres each span, and 5 brick arch bridges with from 4 to 19 arches each of about 12 metres span.
In addition there is the Pescara Bridge consisting of 1/12, 1/20 and 1/64 metre steel girders. I recommend that all masonry bridges be rebuilt in brick and cement, but as sufficient bricks are not likely to be available, cement concrete would have to be used instead of bricks.
Standard military girders would have to be erected to replace steel girders and to replace the reinforced concrete arches. This will entail 6000 tons of military girders, 6000 tons cement and 9,000,000

The total distance Ancona to Ortona is approximately 104 miles in which there are the following:-

- (a) 36 major bridges - a major bridge being 1 - 40 ft span or 60 ft run of waterway in multiple spans.
- (b) 14 minor bridges - a minor bridge being less than a major span, but not less than 4 metres waterway.
- (c) 28 spans of less than 4 metres (not inspected).
- (d) 26 intermediate stations of which 5 are watering stations and 4 are loco shed stations. Pescara Centrale being the main station with an extensive loco and goods yard.
- (e) 6 tunnels all within 7 kms. of Ancona or Ortona.

3. Damages.

- (a) Points and Crossings. All points and crossings at all stations except Pescara's Centrale Loco Yard, had been blown with very few exceptions or had been removed by S.A.E.C. for work elsewhere. This will require about 140 points and crossings to make the line fit for military traffic.
- (b) Track. In all about 65½ kms. of rails have been blown mostly in their centre and 27 kms. of sleepers have been completely cut by use of the Rocket. As we will be unable to use cut rails of less than 4 metres, we will require 20 kms. of track rails and 45,000 sleepers to make good the damage.
- (c) Bridges. 80 bridges in all have been completely demolished, of which 36 are major bridges, 14 minor bridges and 28 are less than 4 metres span. Among these bridges are 6 reinforced concrete bridges of from 6 to 14 spans each of 12 metres also 6 steel girder span bridges of from one to four spans of at least 12 metres each span, and 5 brick arch bridges with from 4 to 19 arches each of about 12 metres span. In addition there is the Pescara Bridge consisting of 1/12, 1/20 and 1/64 metre steel girders. I recommend that all masonry bridges be rebuilt in brick and cement, but as sufficient bricks are not likely to be available, cement concrete would have to be used instead of bricks. Standard military girders would have to be erected to replace steel girders and to replace the reinforced concrete arches. This will entail the use of 1890 feet of military girders, 6000 tons cement and 9,000,000 bricks. For the Pescara Bridge 2/32 metre girders will be required to replace the 64 metre span, and will have to be supported on a pier in the river founded on caissons feet or piles.
- (d) Tunnels. the 4 tunnels near Ortona have all nearly been completed by S.A.E.C. and now only require about one month's work by contractors to complete them.

...../Sheet 2.

3. Damage (contd).(d) Tunnels (contd).

The first tunnel from Ancona is a cut and cover one completely fallen in and will require about 30,000 cubic metres of excavation and should be safe as a cutting for the duration.

The second tunnel from Ancona is a troublesome one. Total length is $1\frac{1}{2}$ kms. About 90 metres from one portal and 196 metres from the other portal, consisting of the cut and cover portions of the tunnel have completely fallen in and will require about 110,000 cubic metres excavation, and should stand as cuttings for the duration of the war. The whole hillside is gradually moving over a period of years and the cuttings will probably require much attention. In the central portion of the tunnel is a length of 136 metres completely filled with earth and which probably means that the lining has been blown. This will probably mean the employment of one section of a tunnelling Coy, but may be able to be done by contractor.

(e) Stations. Damage in stations consists of extensive damage to buildings for about half the total number of stations, and complete destruction of water supply and loco facilities at all stations except Pescara Centrale. All damage at Pescara Centrale has been caused by bombing, and although buildings and track have been damaged, the water supply and loco facilities will not require extensive work to make them good. Water pumps at Pescara are intact, but worked by electricity. The D.W. will be consulted about date electricity will be made available at the station. Loco shed machinery at Pescara appears to have suffered only minor damage. All turntables at all stations are intact.

(f) Telegraph, Telephones and Signals.

All telegraph and telephone instruments have been destroyed except in one or two cases where the I.S.R. have removed them. About half the telephone wires have been destroyed.

Signals at about half the stations are of the semaphore type and the remainder are electric. The Signal Engineer I.S.R. states that he will require to be supplied with 30 semaphore signals and 40,000 metres signal wire 2 bring 2 signals at each station into use. He also states that he will require 71 telegraph instruments and 500 kms. of telegraph wire to bring the telegraph into use, but I consider that by salvaging he need only use about 100 kms. of new wire.

4. Contractors.

Names of 15 contractors were obtained, of which one is a big contractor, another is a medium contractor and the remainder are very small incapable of doing more than one arch bridge at a time. It will be necessary to employ at least 3 A.W. Coys to take 1/8th where contractors are not available.

5. I.S.R.

The I.S.R. will require the following staff to undertake the work:-

- 1 Divisional Engineer.
- 2 Assistant Engineers (Inspector Capo) in addition to the one at Pescara.
- 5 Ingegnieri (survey or draughtsmen).

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Names of 15 contractors were obtained, of which one is a big contractor, another is a medium contractor and the remainder are very small incapable of doing more than one arch bridge at a time. It will be necessary to employ at least 3 A.W. Coys to take/w8P where contractors are not available.

5. I.S.R.

The I.S.R. will require the following staff to undertake the work:-

- 1 Divisional Engineer.
- 2 Assistant Engineers (Inspectorate Coy) in addition to the one at Pescara.
- 5 Ingenieri (survey or draughtsmen).
- 20 Assistant Insp. of Works (Assistant).
- 30 Sorveglianti al Lavoro.
- 60 Overseers (Plantoni)

In addition clerical staff will be required for accounts. Mr. Morgana is preparing a list.

6. Contracts.

At present Mr. Morgana is only empowered to accept the lowest tender irrespective of contractor's abilities. Arrangements should be made to allow him to accept any tender.

7. Method of Work.

- (a) Contractors. Would have to be appointed, paid and supervised by I.S.R.

7. Method of Work (cont'd).

- (b) A.E. Companies. Would work where contractors are not available, but each A.E. Coy would have to be supervised by one Railway Construction Officer and a detachment of 6 men.

8. Bricks.

Ample brick kilns are available but stocks of unburnt bricks are limited, as no more unburnt bricks can be made until the warm weather arrives about April, as all bricks are sun-dried. If supply of bricks is inadequate more work will have to be done in concrete.

9. Rations.

With the large number of men necessary for the work, it is possible that sufficient food cannot be obtained locally, in which case rations will have to be supplied.

10. Clothing.

If work is to be carried out during inclement weather, it will be necessary to supply waterproof clothing and boots to workmen on a large scale - about 2,000.

11. Time Factor.

Owing to the leisurely manner in which the I.E.R. usually carry out their work, no guarantee can be given that the work will be complete by 30.4.45. I however consider that if the work is carried out as outlined in para. 7 and if transport, material, rations and clothing are supplied in adequate amount, there is every hope of the work being completed as scheduled.

12. This report.

This report has been very hastily framed with no time for typing - error and omissions will be corrected in a revised report which will be submitted as soon as possible.

30.10.44.

(sgd) J.R. Simpson.
Lt. Colonel, R.E.

ENDING - TOTAL MATERIAL REQUIRED.

Item.	Quantity.	Unit.
1. Cement. add for 26 bridges under 4 m. span.	4530 1500 = 6030 tons.	tons.
2. Bricks. add for 26 bridges under 4 m. span	7,600,000 1,400,000 = 9,000,000	No.
3. Military girders	1,889	ft. run.
4. Military trestling	434	ft. run.
5. R.S.J.s (Sises from 24" x 7" to 18" x 6")	492	complete with RSJs ft. run.

10. Clothing.

If work is to be carried out during inclement weather, it will be necessary to supply waterproof clothing and boots to workmen on a large scale - about 2,000.

11. Time Factor.

Owing to the temporary nature in which the I.S.R. usually carry out their work, no guarantee can be given that the work will be complete by 30.4.45. I however consider that if the work is carried out as outlined in para. 7 and if transport, material, rations and clothing are supplied in adequate amount, there is every hope of the work being completed to schedule.

12. This report.

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30.10.44.

(Sgd) J.R. Simpson.
Lt. Colonel. R.E.

BRIDGE - TOTAL MATERIAL REQUIRED.

<u>Item.</u>	<u>Quantity.</u>	<u>Unit.</u>
1. <u>Cement.</u> add for 26 bridges under 4 m. span.	4530 1500 = 6030	tonn.
2. <u>Bricks.</u> add for 26 bridges under 4 m. span	7,600,000 1,400,000 = 9,000,000	No.
3. <u>Military girders</u>		ft. run.
4. <u>Military trestling</u>		ft. run 4 verticals wide complete with RSJs ft. run.
5. <u>R.S.J.s (Sizes from 24" x 7 1/2" to 18" x 6")</u>	1,389	No.
6. <u>Oxy acetylene cutting plant with 12 bottles on set.</u>	434	Nos.
7. <u>Compressors</u>	492	Nos.
8. <u>Jack hammers with drills.</u>	5	cu. metres.
9. <u>Timber for centering</u>	13	Nos.
10. <u>C.I. sheets for centering.</u>	22	Nos.
11. <u>Bulldozers</u>	483	Nos.
12. <u>Explosive</u>	5,000	Nos.
13. <u>Camels feet</u>	5	Tons.
14. <u>Sheet piling 10' deep.</u>	3	Nos.
15. <u>Jacks 50 ton</u>	12	ft. run.
16. <u>Winches</u>	100	Nos.
17. <u>S.W.R. 2" diameter.</u>	20	Nos.
18. <u>Concrete mixers.</u>	2	Yards.
(If bricks cannot be obtained in sufficient quantity then cement, concrete mixers, timber and C.I. sheets will be greatly increased).		Nos.
	1,400	
	20	

BRIDGES

Serial No.	Km.	Name of Bridge.	Type of Bridge	Damage.	Proposals for rebuilding.	Me
1.	204+369	~~RAILROAD BRIDGE~~ ~~XXXXXXXXXX~~ Road over rly. bridge in Ancona.	Reinforced concrete 14 metre span.	Blown, span on railway.	No need to rebuild. Debris to be removed.	On ha
2.	206+778	Nil.	5 m. steel girder	Girder cut and abutments blown.	Rebuild bridge in reinforced concrete using rails as reinforcement.	10 20
3.	214+300	Aspio	1/63' skew through girder	Girder cut in centre and fallen on to bed of stream. Abutments blown.	Rebuild abutments in brick. Erect 63' run of military girder, skew ends. Note. C.R.E. has built 41' brick arch (41' sq. measurement) about 100 yards upstream. Investigate possibility of building 41' brick arch instead of using girders, also possibility of repairing existing girders (girder damaged over 10 ft. run).	6 w 1 1 3 6 1 a
4.	217+970	Sagricalasino	1/14.8 m. girder. CJ? C GO 2	Girder completely destroyed. Abutments blown.	C.R.E. has built new road bridge about 15 yds. upstream of 1/8.9 m. and 2/2.36 m. arches. So build new rly. arch bridge with 14. m. span in brick.	1 1 1
5.	219+186	Stazione di Osimo	Reinforced concrete. 2/12.5 m. 4/10 m. spans.	Complete.	Build up piers in concrete and erect 74 metres run of military girders (through type).	

BRIDGES

Sheet 4.

Type of Bridge	Damage.	Proposals for rebuilding.	Materials reqd. for rebuilding.
Reinforced concrete 14 metre span.	Blown, span on railway.	No need to rebuild. Debris to be removed.	One compressor and two hammers.
5 m. steel girder	Girder cut and abutments blown.	Rebuild bridge in reinforced concrete using rails as reinforcement.	10 rails. 2 tons cement. 200 bricks.
1/63' skew through girder	Girder cut in centre and fallen on to bed of stream. Abutments blown.	Rebuild abutments in brick. Erect 63' run of military girder, skew ends. Note. C.R.B. has built 41' brick arch (41' sq. measurement) about 100 yards upstream. Investigate possibility of building 41' brick arch instead of using girders, also possibility of repairing existing girders (girder damaged over 10 ft. run).	63 ft. run of military girder with skew ends. 16 ft. run of trestle for launching ~~grrr~~ girder. 36 tons cement. 60,000 bricks. 4 jacks 50 ton. 1000 sleepers. 1 set oxy - acetylene cutting plant.
1/14.8 m. girder.	Girder completely destroyed. Abutments blown.	C.R.B. has built new road bridge about 15 yds. upstream of 1/8.9 m. and 2/2.36 m. arches. So build new rly. arch bridge with 14. m. span in brick.	48 tons cement. 100,000 bricks 14 cubic metres wood for centering.
Reinforced concrete. 2/12.5 m. 4/10 m. spans.	Complete.	Build up piers in concrete and erect 74 metres run of military girders (through type).	70 tons cement. 500 sq.ft. wood planks. 20 metres run trestling. 74 m. run military girders. 2 compressors. 4 jack hammers. 1 ton explosive. 1 bulldozer or tractor. 200 yds S.W.R. 2" diam.

to Sheet 5.

Serial. No.	Km.	Name of bridge.	Type of bridge.	Damage.	Proposals for rebuilding.
6.	233+160	Portensa.	Reinforced concrete 2/12.5 m. 4/10.5 m. spans.	Complete.	Rebuild piers in cement concrete and erect 76 metres run of military through girders. (Sand and shingle available at site.)
7.	237+660	Acquabona.	2/7.5 m. brick arches.	Complete.	Rebuild 2/7.5 m. arches in brick.
8.	240+431	Pesce al Mare.	1/15.2 m. brick arch.	Complete.	Rebuild 1/15.2 m. brick arch.
9.	241+363	Anola.	2/18 m. arches.	Complete.	Rebuild 2/18 m. brick arches.
10.	244+148	Fontespina.	3/8 m. arches.	Complete.	Rebuild 3/8 m. arches in brick.
11.	246+449	Castellaro.	1/3 m. 2/6 m. spans in reinforced concrete.	Complete.	Bridge is in station yard carrying 2 tracks (through and loop). Rebuild for one line and reduce loop by 50 yds. Close 3 m. span which is for road only. Alternative Road exists. Use 24" x 7 1/2" R.S.J.s for 2/6 m. spans.

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Sheet 5.

Type of bridge.	Damage.	Proposals for rebuilding.	Materials reqd. for rebuilding.
Reinforced concrete 2/12.5 m. 4/10.5 m. spans.	Complete.	Rebuild piers in cement concrete and erect 76 metres run of military through girders. (Sand and shingle available at site.)	70 tons cement. 500 sq.ft. wood planks. 20 m. run of trestling. 76 m. run of military through girders. 2 compressors. 4 Jack hammers. 1/2 ton explosive. 1 bulldozer. 200 yds. S.F.R. 2" diam.
2/7.5 m. brick arches.	Complete.	Rebuild 2/7.5 m. arches in brick.	43 tons cement. 100,000 bricks. 1/4 cubic metres for centering.
1/15.24 m. brick arch.	Complete.	Rebuild 1/15.24 m. brick arch.	48 tons cement. 100,000 bricks. 1/4 cubic metres timber for centering.
2/13 m. arches.	Complete.	Rebuild 2/13 m. brick arches.	90 tons cement. 200,00 bricks. 1/4 cubic metres timber for centering.
3/8 m. arches.	Complete.	Rebuild 3/8 m. arches in brick.	70 tons cement. 150,000 bricks. 10 cubic metres timber for centering.
1/3 m. 2/6 m. spans in reinforced concrete.	Complete.	Bridge is in station yard carrying 2 tracks (through and loop). Rebuild for one line and reduce loop by 50 yds. Close 3 m. span which is for road only. Alternative Road exists. Use 24" x 7 1/2" R.S.J.s for 2/6 m. spans.	8 R.S.J.s 25' x 22" x 7 1/2" with bracing. 20 tons cement. 40,000 bricks. 1/2 cwt. explosive.

/to sheet 6.

Serial No.	Km.	Name of Bridge.	Type of Bridge.	Damage.	Proposals for rebuilding.	Material
12.	248+821	Chienti	Reinforced concrete 14 spans. 4/10 m. 10/10.97 m. spans.	Complete.	Rebuild piers in cement concrete. Erect 165 metres run military girders. (Sand and shingle available at site).	120 to planks 165 m press expla S.W.R.
13.	250+512	-	3 metre brick arch over road.	Complete.	Rebuild 1/3 metre brick arch.	28 to 7 cub cent
14.	250+916	-	Reinforced concrete 4 m. span.	Complete. (not inspected)	Rebuild using R.S.J.s.	4 R.S. 15 to 1/2 cwt.
15.	252+999	-	3 spans 1/4.5 m. steel girder. 2/1.5 m. reinforced concrete.	Complete(not inspected.	Rebuild using R.S.J.s for 4.5 m. span and rails in concrete for 1.5 m. spans.	4 R.S. 18 to
16.	254+232	Fosso Palo.	1/4 m. steel span.	Complete (not inspected.)	Rebuild using R.S.J.s	4 R.S. cemen
17.	256+029	Tenna.	Reinforced concrete 10 m. span. 4/8.75 m. 6/10.37 m.	Complete.	Rebuild piers in cement concrete and erect 108 m. of military girders.	90 to 20 m. 4 Jac 1 bul
18.	262+234	In Porto St. Giorgio str.yd.	3/4 m. spans for 3 tracks over road.	Abutments blown. All girders us- able.	Rebuild abutments in bricks.	Nil.
19.	264+286	Eteviso	4/10 m. brick arches.	Complete.	Rebuild 4/10 m. arches in brick. (no ballast or sand at site.)	100 t 14 cu

Sheet 6.

Type of Bridge.	Damage.	Proposals for rebuilding.	Materials required for rebuilding.
Reinforced concrete 14 spans. 4/10 m. 10/10.97 m. spans.	Complete.	Rebuild piers in cement concrete. Erect 165 metres run military girders. (Sand and shingle available at site).	120 tons cement. 1000 sq. ft. wood planks. 20 metres run of trestling. 165 metres military girders. 2 com- pressors. 4 jack hammers. $\frac{1}{2}$ ton explosive. 1 bulldozer. 200 yds. S.W.R. 2" diameter.
3 metre brick arch over road.	Complete.	Rebuild 1/3 metre brick arch.	28 tons cement. 55,000 bricks. 7 cubic metres timbering for centering.
Reinforced concrete 4 m. span.	Complete. (not inspected)	Rebuild using R.S.J.s.	4 R.S.J.s 18' x 18" x 6" with bradr 15 tons cement. 30,000 bricks. $\frac{1}{2}$ cwt. explosive.
3 spans 1/4.5 m. steel girder. 2/1.5 m. reinforced concrete.	Complete(not inspected.)	Rebuild using R.S.J.s for 4.5 m. span and rails in concrete for 1.5 m. spans.	4 R.S.J.s 19' x 18" x 6" with bracing. 18 tons cement. 30,000 bricks.
1/4 m. steel span.	Complete (not inspected.)	Rebuild using R.S.J.s	4 R.S.J.s 18' x 16" x 6". 15 tons cement. 30,000 bricks.
Reinforced concrete 10 m. span. 4/8.75 m. 6/10.37 m.	Complete.	Rebuild piers in cement concrete and erect 108 m. of military girders.	90 tons cement. 500 sq.ft. wood planks. 20 m. run of trestling. 2 compressors. 4 Jack hammers. $\frac{1}{2}$ ton explosive. 1 bulldozer. 200 yds S.W.R. 2" diam.
3/4 m. spans for 3 tracks over road.	Abutments blown. All girders us- able.	Rebuild abutments in bricks.	Nil.
4/10 m. brick arches.	Complete.	Rebuild 4/10 m. arches in brick. (no ballast or sand at site.	100 tons cement, 200,000 bricks. 14 cubic metres timber for centering.

/to sheet 7.

Serial No.	Km.	Name of Bridge.	Type of Bridge.	Damage.	Proposals for rebuilding.
20.	266+608	-	Reinforced concrete 1/4 m. span.	Complete(not inspected).	Rebuild using R.S.J.s.
21.	266+425	Palme	1/4 m. brick arch.	Complete (not inspected.)	Rebuild 1/4.4 m. brick arch.
22.	267+632	Molinetto	1/21.2 m. steel lattice girder.	Abutments blown. 4 cross gdrs and top & bottom beams damaged for 10 ft. run.	Rebuild abutments, erect military girders. Existing girders repairable but will take time.
23.	268+737	Biagio	1/22.5 m. steel through lattice girders	Same as Bridge 22.	Same as bridge 22.
24.	269+571	~~XXXXXX XXXXXXXX~~	1/7 m. brick arch.	Complete(not inspected).	Rebuild 1/7 m. brick arch.
25.	271+530	Aso.	6/20.5 m. brick arches.	Complete.	Rebuild 6/20.5 m. arches. Contractor building C.R.M.s bridge is making a nice job of it. Cont. CIGFRIM. Bridge 25. About 10 German damaged R.S.J.s 3' 3" x 1' 1 1/2" x 30' are at site.
~~26.~~					
26.	272+902				
27.	274+230	Comofitene.	1/18 m. through steel plate girder. CT C OO H	About 10ft. lgth of gdr. damaged about centre, also 5 cross gdrs and 4 panels & stringers damaged.	Rebuild abutments and erect through military girders. I.S.R. girder can be repaired but will take time.

Sheet 7.

Type of Bridge.	Damage.	Proposals for rebuilding.	Materials required for rebuilding.
Reinforced concrete 1/4 m. span.	Complete(not inspected).	Rebuild using R.S.J.s.	4 R.S.J.s 18' x 18" x 6". 15 tons cement. 30,000 bricks. 1/2 cwt. explosive.
1/4 m. brick arch.	Complete (not inspected.)	Rebuild 1/4 m. brick arch.	28 tons cement. 55,000 bricks. 7 cu. metres timber centering.
1/21.2 m. steel lattice girder.	Abutments blown. 4 cross gdrs and top & bottom beams damaged for 10 ft. run.	Rebuild abutments, erect military girders. Existing girders repair- able but will take time.	76 ft. run military girders. 25 ft. run trestling. 25 tons cement. 40,000 bricks. 4 Jacks 50 ton. 1 oxy-acetylene cutting plant.
1/22.3 m. steel through lattice girders	Same as Bridge 22.	Same as bridge 22.	Same as for bridge 22 except 24 metres of bridging required.
1/7 m. brick arch.	Complete(not inspected).	Rebuild 1/7 m. brick arch.	55 tons cement. 60,000 bricks. 10 cubic metres timber centering
6/20.5 m. brick arches.	Complete.	Rebuild 6/20.5 m. arches. Contractor building C.R.X.s bridge is making a nice job of it. Cont. CIGERINI. Bridge 25. About 10 German damaged R.S.J.s 5' 3" x 1' 1 1/2" x 30' are at site.	400 tons cement. 600,000 bricks. 28 cubic metres timber centering.
1/18 m. through steel plate girder.	About 10ft. lgth of gdr. damaged about centre, also 5 cross gdrs and 4 panels & stringers damaged.	Rebuild abutments and erect through military girders. I.S.R. girder can be repaired but will take time.	20 m. run of military through girder. 18 tons cement. 40,000 bricks. 7 metres run of trestling 1 oxy-acetylene cutting plant.

To sheet 8.

Serial No.	Km.	Name of bridge.	Type of Bridge.	Damage.	Proposals for rebuilding.	M.
28.	275+367	Nina	5/6 m. brick arches.	Complete.	Road bridge 50 yards upstream consists of 2/18' R.S.J. spans, so only rebuild 5/6 m. arches in rly. bridges.	60 10
29.	277+074	Massignano	3/8 m. arches.	Complete.	Road bridge upstream has 6/2 pipes only. Rebuild 3/8 m. arches for railway.	50 10
30.	278+702	Menocchie	3/25 m. brick arches.	Complete except for 1 pier.	Road bridge upstream has 2/25 m. girders. Rebuild 3/25 m. arches for railway.	22 12
31.	280+159	Egidio	6 brick arches. 2/8 m. 4/7 m.	Complete.	Rebuild 2/8 m. and 4/7 m. arches.	10 20
32.	285+681	Tesino	6/19 m. brick arches.	Complete.	Rebuild 6/19 m. brick arches.	40 20
33.	289+084	Acber	4/8 m. brick arches.	Complete.	Rebuild 4/8 m. brick arches.	75 10
34.	291+210	Ragnolo.	1/10 m. brick arch.	Complete (not inspected).	Rebuild.	35 10
35.	295+444	Toronto.	4/21 m. truss of steel girders.	Piers and abutments blown. All girders cut.	Rebuild piers and abutments in brick and erect military girder. Reduce to 3 spans as 4 spans not necessary. Remains of girders should produce 1 1/2 spans in time.	60 7 70 1

Sheet 8.

Type of Bridge.	Damage.	Proposals for rebuilding.	Materials required for rebuilding.
5/8 m. brick arches.	Complete.	Road bridge 50 yards upstream consists of 2/18' R.S.J.s spans, so only rebuild 3/8 m. arches in rly. bridges.	60 tons cement. 130,000 bricks. 10 cubic metres timber centering.
3/8 m. arches.	Complete.	Road bridge upstream has 6/2 pipes only. Rebuild 3/8 m. arches for railway.	50 tons cement. 100,000 bricks. 10 cubic metres timbering.
3/25 m. brick arches.	Complete except for 1 pier.	Road bridge upstream has 2/25 m. girders. Rebuild 3/25 m. arches for railway.	22 tons cement. 350,000 bricks. 14 cubic metres timber centering.
6 brick arches. 2/8 m. 4/7 m.	Complete.	Rebuild 2/8 m. and 4/7 m. arches.	100 tons cement. 200,000 bricks. 20 cu. metres centering.
6/19 m. brick arches.	Complete.	Rebuild 6/19 m. brick arches.	400 tons cement. 600,000 bricks. 28 cubic metres timber centering.
1/8 m. brick arches.	Complete.	Rebuild 1/8 m. brick arches.	75 tons cement. 150,000 bricks. 10 cubic metres timber centering.
1/10 m. brick arch.	Complete (not inspected).	Rebuild.	35 tons cement. 60,000 bricks. 10 cu. metres centering.
4/21 m. thro(steel girders.	Piers and abutments blown. All girders cut.	Rebuild piers and abutments in brick and erect military girder. Reduce to 3 spans as 4 spans not necessary. Remains of girders should produce 12 spans in time.	69 metres run military bridging. 7 metres trestling. 35 tons cement. 70,000 bricks. 4 jacks 50 ton. 1 oxy-acetylene cutting plant.

To sheet 9.

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Serial No.	Km.	Name of Bridge.	Type of Bridge.	Damage.	Proposals for rebuilding.
36.	302+03	Vibrata	4/12 m. reinforced concrete arches for 2 tracks.	Complete (one set of pte. & crossings on bridge not damaged).	Close one spans over road - alternative road available. Rebuild 3 spans in reinforced concrete with bars salvaged from debris. Cont. says he can do it in 4 months.
37.	308+886	Salinello	4/12 m. brick arches.	Complete. C.R.E. has rebuilt piers and erected Bailey bridges. (Rly. is 6' higher than road).	Enough room on piers for road and rail. Piers are 34' wide. C.R.E. to move Bailey girders to end of piers. Rly to build arches on remaining half piers.
38.	314+347	Tordino	14/12 m. brick arches.	7 spans destroyed or damaged and need rebuilding.	C.R.E. is using half of piers for road bridge. Railway to rebuild arches on remaining half piers.
39.	319+075	Versacchio	3/8 m. brick arches.	Complete.	Rebuild.
40.	324+838	Vomano	19/12 m. brick arches.	Part of both abuts. and 3 piers exist. Remainder completely demolished and debris removed by C.R.E.	Rebuild.
41.	330+158	~~XXXXXX~~ Calvano.	6/8 m. brick arches.	All except one arch standing but partially damaged.	Rebuild.
42.	335+505	Cesano	4/8 m. brick arches.	Two arches demolished.	Rebuild 2 arches.
43.	336+449	Silvi	1/10 m. brick arch.	Complete(not seen)	Rebuild

Sheet 9.

Type of Bridge.	Damage.	Proposals for rebuilding.	Materials required for rebuilding
4 1/2 m. reinforced concrete arches for 2 tracks.	Complete (one set of piers & crossings on bridge not damaged).	Close one span over road - alternative road available. Rebuild 3 spans in reinforced concrete with bars salvaged from debris. Cont. says he can do it in 4 months.	150 tons cement. 1 ton explosives.
4 1/2 m. brick arches.	Complete. C.R.E. has rebuilt piers and erected Bailey bridges. (Rly. is 6' higher than road).	Enough room on piers for road and rail. Piers are 34' wide. C.R.E. to move Bailey girders to end of piers. Rly. to build arches on remaining half piers.	72 tons cement. 160,000 bricks. 14 cu. metres timber centering.
1 1/2 m. brick arches.	7 spans destroyed or damaged and need rebuilding.	C.R.E. is using half of piers for road bridge. Railway to rebuild arches on remaining half piers.	180 tons cement. 400,000 bricks. 28 cubic metres timber.
3/8 m. brick arches.	Complete.	Rebuild.	70 tons cement. 150,000 bricks. 10 cu. metres timber centering.
19/12 m. brick arches.	Part of both abuts. and 3 piers exist. Remainder completely demolished and debris removed by C.R.E.	Rebuild.	600 tons cement. 1,250,000 bricks. 70 cubic metres timber.
6/8 m. brick arches.	All except one arch standing but partially damaged.	Rebuild.	48 tons cement. 100,000 bricks.
4/8 m. brick arches.	Two arches demolished.	Rebuild 2 arches.	48 tons cement. 100,000 bricks. 10 cu. metres timber centering.
1/10 m. brick arch.	Complete(not seen)	Rebuild	35 tons cement. 60,000 bricks. 10 metres timber centering.

To sheet 10.

Serial No.	Km.	Name of Bridge.	Type of Bridge.	Damage.	Proposals for rebuilding.
44.	340+861	Picoba	4/12 m. brick arches.	Complete.	Rebuild.
45.	342+276	Salino.	12/12 m. brick arches.	Complete.	C.R.E. has closed 2 spans, rebuilt piers and has erected Bailey girders on half of piers. We should complete 10 arches.
46.	346+113	Maciosche	1/7 m. brick arch.	Complete (not inspected)	Rebuild.
47.	350+664	Portessa	4/6 m. brick arches.	Complete (not inspected)	Rebuild.
48.	350+891	Pescara.	1/20 m. 1/6 m. 1/12 m. three girders.	Abuts. and piers blown. 64 m. span cut about centre. 20 & 12 m. spans repairable. Standing water 130' across exists all the year round.	Repair and erect 20 & 12 m. spans. Erect 2/32 m. military spans with trestle pier in centre of river. Trestle pier to be founded on 12 caissons feet.
50.	354+349	Vallalunga	2/8 m. brick arches.	Complete (not inspected).	Rebuild.
51.	358+307	Alento.	3/8 m. brick arches.	2 arches partially standing.	Rebuild.
52.	363+053	Però	5/12 m. reinforced concrete spans.	Complete. Founds of two piers appear to have been uprooted. Standing water difficult to repair.	Rebuild abuts. and piers and erect 60 m. run military bridging. Use steel sheet piling for two piers with uprooted founds.
53.	366+489	Ariello	5/8 m. brick arches.	Complete (not inspected)	Rebuild.
54.	367+481	Riccio	3/8 m. brick arches.	Complete (not inspected)	Rebuild.

Sheet 10.

of Bridge.	Damage.	Proposals for rebuilding.	Materials required for rebuilding.
2 m. brick arches.	Complete.	Rebuild.	100 tons cement. 200,000 bricks. 14 cubic metres timber centering.
2 m. brick arches.	Complete.	C.R.E. has closed 2 spans, rebuilt piers and has erected Bailey girders on half of piers. We should complete 10 arches.	280 tons cement. 600,000 bricks. 28 cu. metres timber.
1 m. brick arch.	Complete (not inspected)	Rebuild.	55 tons cement. 60,000 bricks. 10 cu. metres timber.
1 m. brick arches.	Complete (not inspected)	Rebuild.	90 tons cement. 200,000 bricks. 7 cu. metres timber.
1 m. 1/2 m. m. three arches.	Abuts. and piers blown. 6 m. span out about centre. 20 & 12 m. spans repairable. Standing water 130' across exists all the year round.	Repair and erect 20 & 12 m. spans. Erect 2/32 m. military spans with trestle pier in centre of river. Trestle pier to be founded on 12 camels feet.	6 m. run military girder. 18 ft. run trestling. 12 camels feet. 2 oxy-acetylene cutting plants. 8 jacks 50 ton. 25 tons cement. 50,000 bricks. 2 winches. 400 yds. S.W.R. about 2" diam.
1 m. brick arches.	Complete (not inspected).	Rebuild.	48 tons cement. 100,000 bricks. 14 cu. metres timber.
1 m. brick arches.	2 arches partially standing.	Rebuild.	70 tons cement. 150,000 bricks. 10 cu. metres timber centering.
1 m. reinforced concrete spans.	Complete. Pounds of two piers appear to have been uprooted. Standing water difficult to repair.	Rebuild abuts. and piers and erect 68 m. run military bridging. Use steel sheet piling for two piers with uprooted pounds.	68 m. military bridging. 12 metres trestling. 2 compressors. 4 jack hammers. 1/2 ton explosive. 1 bulldozer. 200 yds S.W.R. 2" diam. 60 tons cement. 100 ft. run of 10' deep sheet piling. 1 concrete mixer.
1 m. brick arches.	Complete (not inspected)	Rebuild.	120 tons cement. 250,000 bricks. 14 cu. metres timber.
1 m. brick arches.	Complete (not inspected)	Rebuild.	70 tons cement. 150,000 bricks. 10 cu. metres timber.

Sheet 11.

TUNNELS

Ser. No.	Km.	Name.	Damage.	Proposals for repairs	M
1.	204+561 206+678	Near Ancona	Cut and cover tunnel 117 m. long. Arch of tunnels appears to be blown as earth above tunnel has completely fallen into tunnel.	1. Remove earth and convert tunnel into a cutting, abt. 40 ft. deep. 2. 100 ft. long dry stone wall.	1 6 2
2.	206+823 208+392	Del Castellano.	1. 90 m. cut and cover completely fallen in. 2. 156 m. NOT cut and cover, filled with earth cannot be inspected. Arch probably blown. 3. 1117 m. O.K. 4. 30 m. needs minor repairs to arch. 5. 196 m. cut & cover completely fallen in.	1. Remove earth and convert 1 & 5 into cutting about 40' deep. 2. Repair 2 & 4 with Dct. Tunnel Coy. 3. Construct ditch water drains above 1 and 5. <u>Note.</u> Whole area shows signs of moving gradually over period of years.	1 6 2 1 6
3.	367+621 368+317	Riccio	1. About 90% repaired by S.A.E.C. 2. About 20 x 6 x 4 m. earth still to be removed from centre of tunnel. 3. About 20 m. of tunnel may need minor repairs.	Remove earth by ballast train and repair arch lining as necessary.	
5. ~~4.~~	369+504 369+810	-	Repaired by S.A.E.C.		
4. ~~3.~~	369+001 369+382	Ferruccio	Repaired by S.A.E.C.		
6.	371+185 371+419	Ortona.	S.A.E.C. have laid diversion outside tunnel. Diversion liable to be scoured out by sea and 60' high cutting above diversion liable to fall on diversion. <u>In Tunnel</u> 1st 75 m. O.K. 2. Next 20 m. filled with earth but arch roof exposed. Arch roof needs repairs for 5 m. but remaining 75 m. O.K. 3. Next 75 m. O.K.	Repair 5 m. of arch roof and remove earth by ballast train.	6 4

Sheet 11.

TUNNELS

	Proposals for repairs	Materials required for repair.
Damage.		
at and cover tunnel 117 m. long. Arch of tunnels appears to be blown as earth above tunnel has completely fallen into tunnel.	1. Remove earth and convert tunnel into a cutting, abt. 40 ft. deep. 2. 100 ft. long dry stone wall.	1. Mech. excavating machinery to excavate 117 x 20 metres earthwork. 2. Stones 30 x 1 x 2 metres.
90 m. cut and cover completely fallen in.	1. Remove earth and convert 1 & 5 into cutting about 40' deep.	1. Mech. excavating machinery to excavate (90 + 196) x 12 x 30 m.
136 m. NOT cut and cover, filled with earth cannot be inspected. Arch probably down.	2. Repair 2 & 4 with Det. Tunnel Coy.	2. 200 tons cement. 100,000 bricks.
1117 m. O.K. 4. 30 m. needs minor repairs to arch. 5. 196 m. cut & cover completely fallen in.	3. Construct ditch water drains above 1 and 5. <u>Note.</u> Whole area shows signs of moving gradually over period of years.	3. 6 trucks - 300 m. track - 6 pts & crossings. Desquville track for removing earth from 2.
1. About 90% repaired by S.A.E.C.	Remove earth by ballast train and repair arch lining as necessary.	
2. About 20 x 6 x 4 m. earth still to be removed from centre of tunnel.		
3. About 20 m. of tunnel may need minor repairs.		
Repaired by S.A.E.C.		
Repaired by S.A.E.C.		
S.A.E.C. have laid diversion outside tunnel. Diversion liable to be secured out by sea and 60' high cutting above diversion liable to fall on diversion.	Repair 5 m. of arch roof and remove earth by ballast train.	6 tons cement. 13,000 bricks.
In Tunnel 1st 75 m. O.K. 2. Next 20 m. filled with earth but arch roof exposed. Arch roof needs repairs for 5 m. but remaining 75 m. O.K. 3. Next 75 m. O.K.		

To sheet 12.

PERMANENT WAY DAMAGED (Main Line)

Serial No.	Km.		Total length damaged in Kms.	Whether damaged by blowing rail centres.	Length in Km.		Whether damaged by Rooter.	Lgth in Kms.		Proposals for re
1.	204+400	204+561	0+161	Yes	0+161		-	-		Rails and fitti
2.	204+676	206+823	2+147	Yes	2+147		-	-		to Ortona, 65 +
3.	208+392	218+800	10+408	Yes	10+408		-	-		of damaged rail
4.	219+577	226+900	7+323	Yes	7+323		-	-		under 4 metres
5.	227+850	231+500	3+650	Yes	3+650		-	-		track rails wit
6.	233+800	240+400	6+600	Yes	6+600		-	-		road).
7.	293+780	305+600	11+820	Yes	11+820		-	-		Sleepers. At 1
8.	306+300	312+150	5+850	Yes	5+850		-	-		sleepers over 2
9.	314+450	314+750	0+300	Yes	0+300		-	-		include bridge
10.	324+650	325+050	0+400	Yes	0+400		-	-		we require 3800
11.	337+950	342+700	4+750	-	-		Yes.	4+750		
12.	344+000	349+450	5+450	-	-		Yes.	5+450		Tools. Lists o
13.	350+800	367+660	16+860	Yes	16+860		Yes.	16+860		separately and
					65+519		27+060		Oxy-Acetylene C	

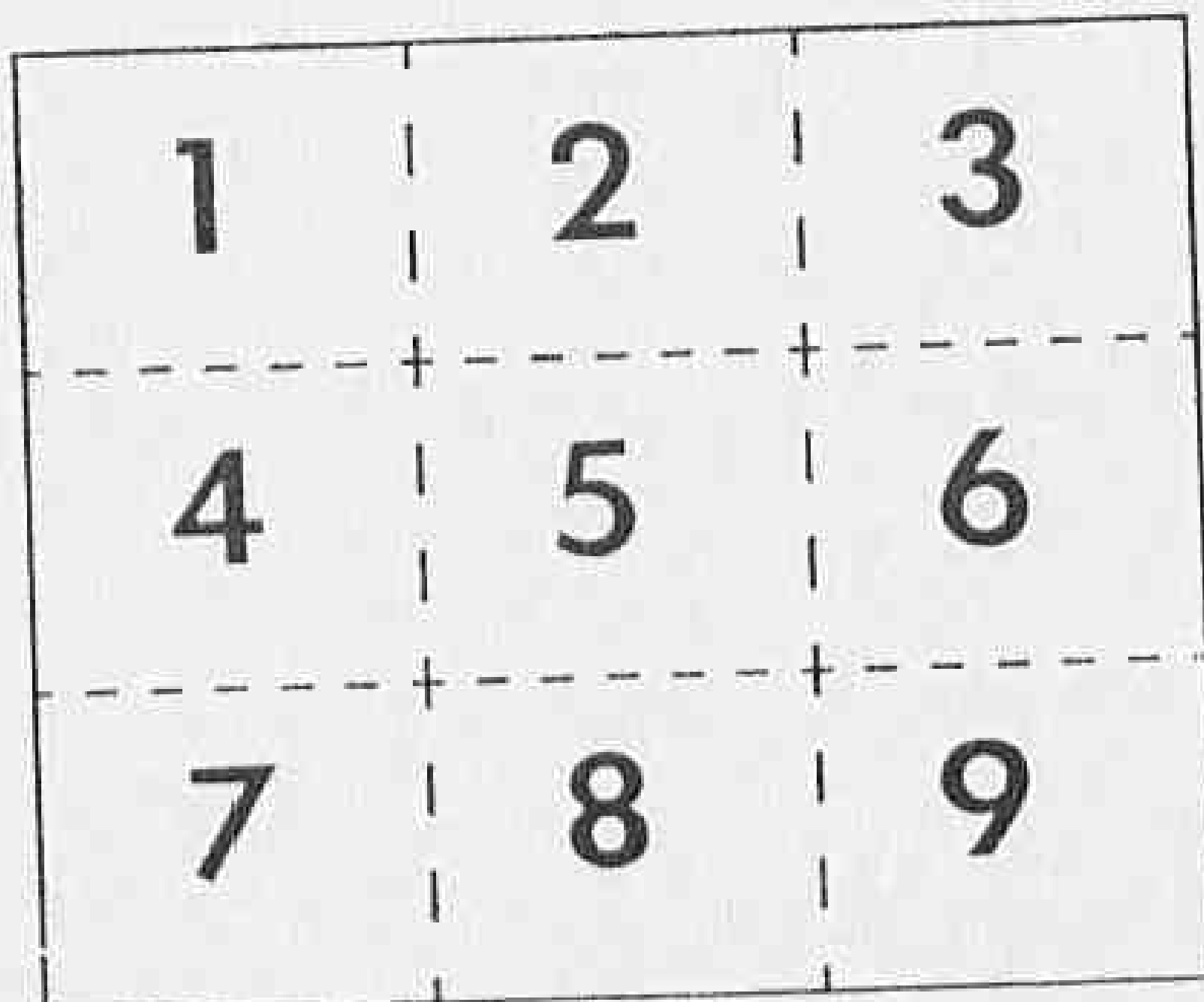
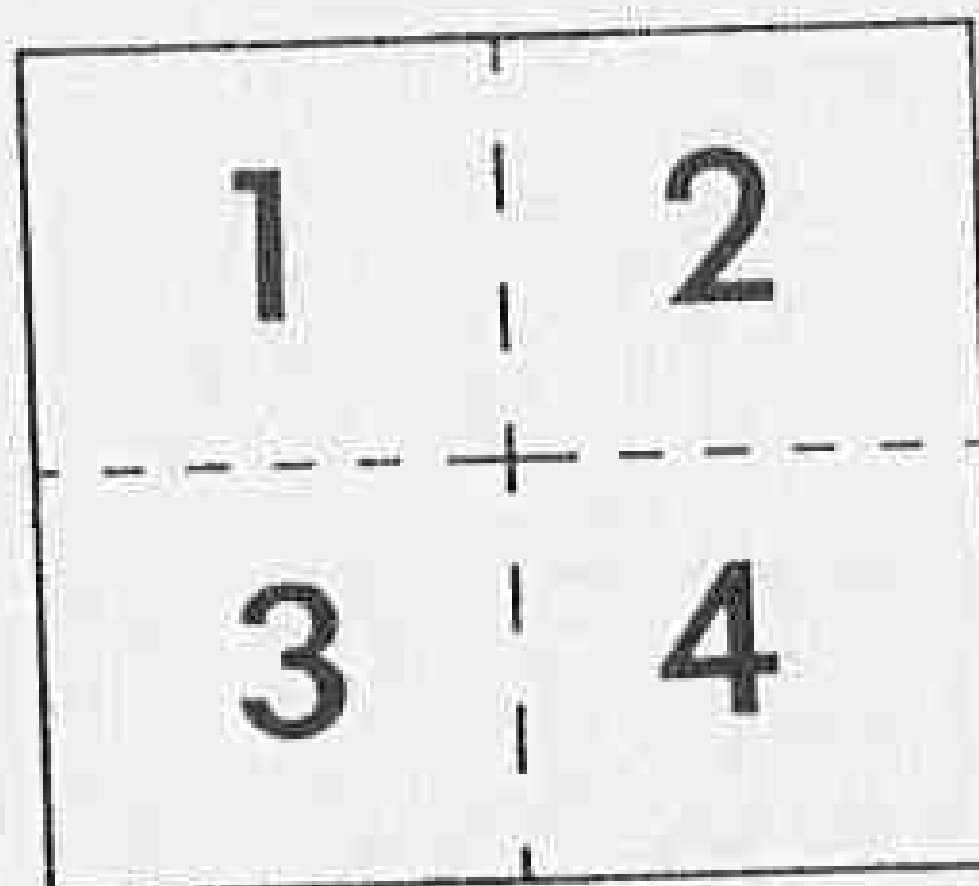
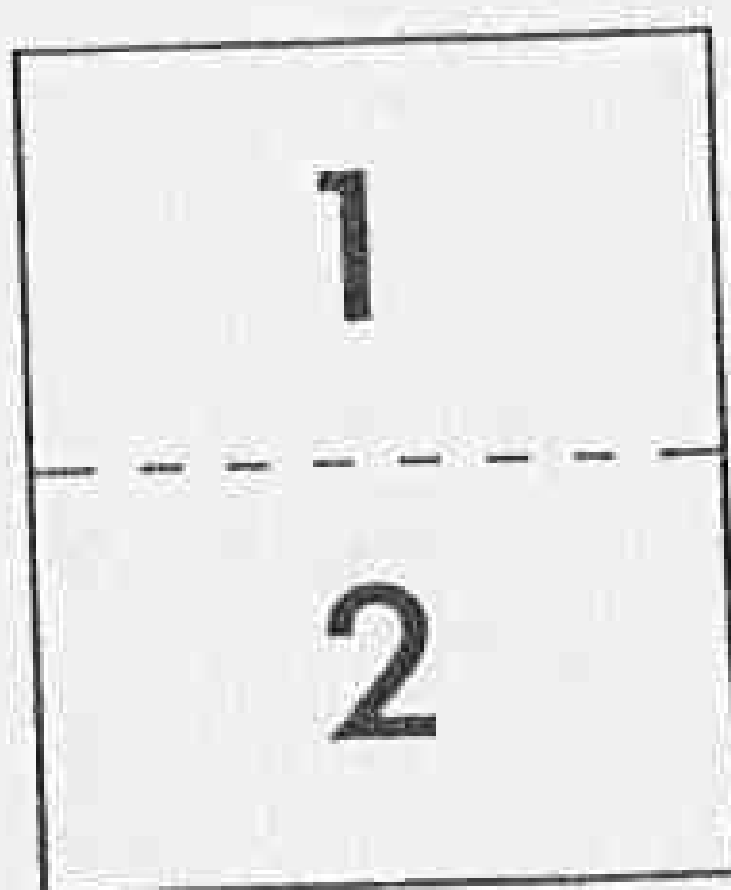
Sheet 12.

PERMANENT RAY DAMAGED (Main Line)

Length in Kms.	Whether damaged by blowing rail centres.	Whether damaged by Rooter.	Proposals for repairing.
	<u>Length in Km.</u>	<u>Length in Kms.</u>	
Yes	0+161	-	<u>Rails and fittings.</u> Of the 168 Kms. from Ancona to Ortona, 65 + 519 kms. are damaged. About $\frac{1}{3}$ of damaged rails cannot be used owing to being under 4 metres length. We thus require 20 kms. track rails with fittings. (40 kms of single road).
Yes	2+147	-	
Yes	10+408	-	
Yes	7+323	-	
Yes	3+650	-	
Yes	6+600	-	
Yes	11+820	-	
Yes	5+850	-	
Yes	0+300	-	
Yes	0+400	-	
-	-	Yes. 4+750	<u>Sleepers.</u> At 1400 sleepers per Km. 38,000 Nos. sleepers over 27 kms. have been damaged. To include bridge sleepers and sleepers in yard, we require $38000 + 7000 = 45,000$ sleepers in all.
-	-	Yes. 5+450	
Yes	16+860	Yes. 16+860	
	<u>65+519</u>	<u>27+060</u>	<u>Tools.</u> Lists of tools required will be submitted separately and will consist of 7 complete sets of I.S.R. tools for 7 gangs each 20 strong.
			<u>Oxy-Acetylene Cutting Plant.</u> 7 sets for cutting fishplates.

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.



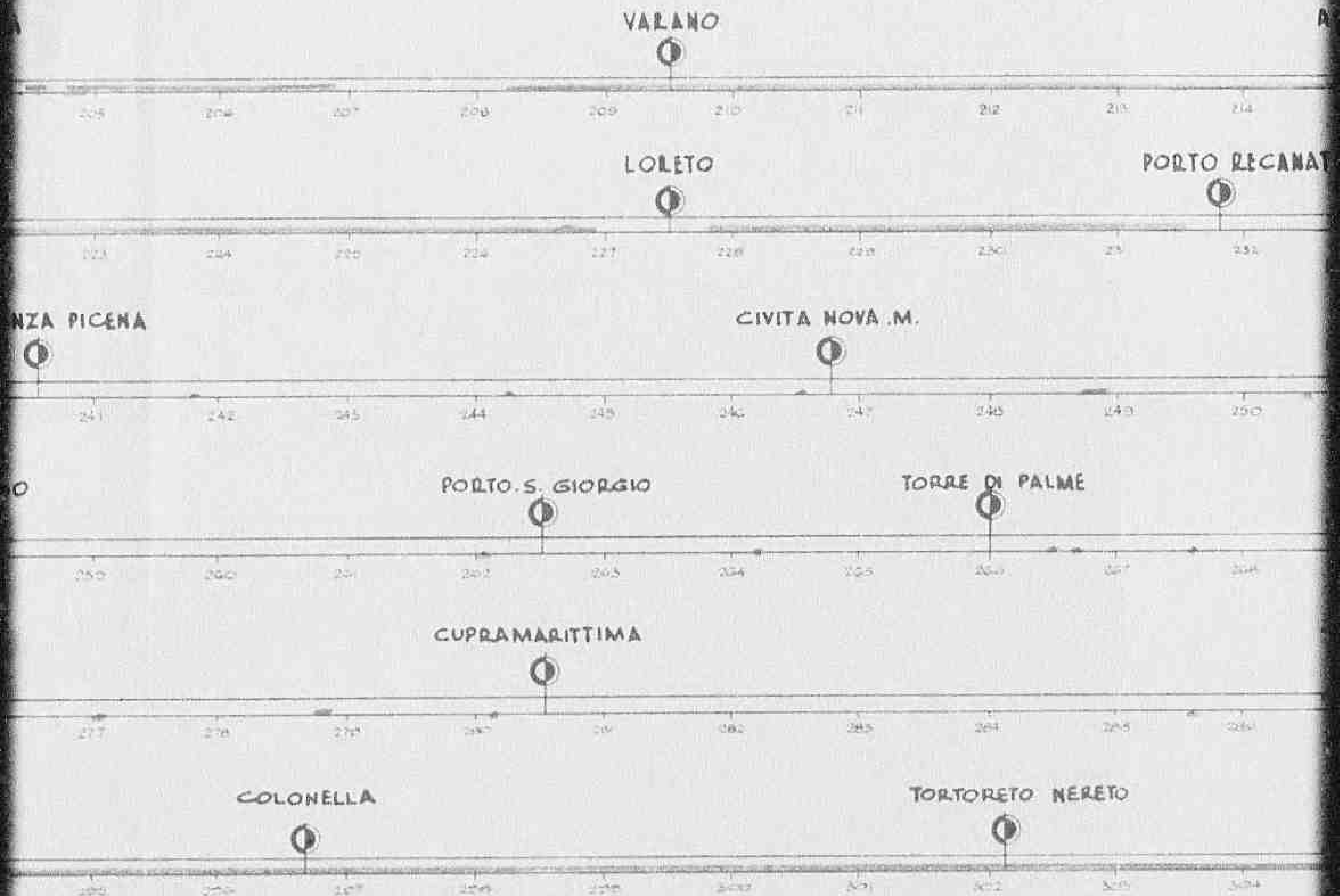
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ANCONA to ORTONA.

DETAILS OF TRACK DAMAGE.



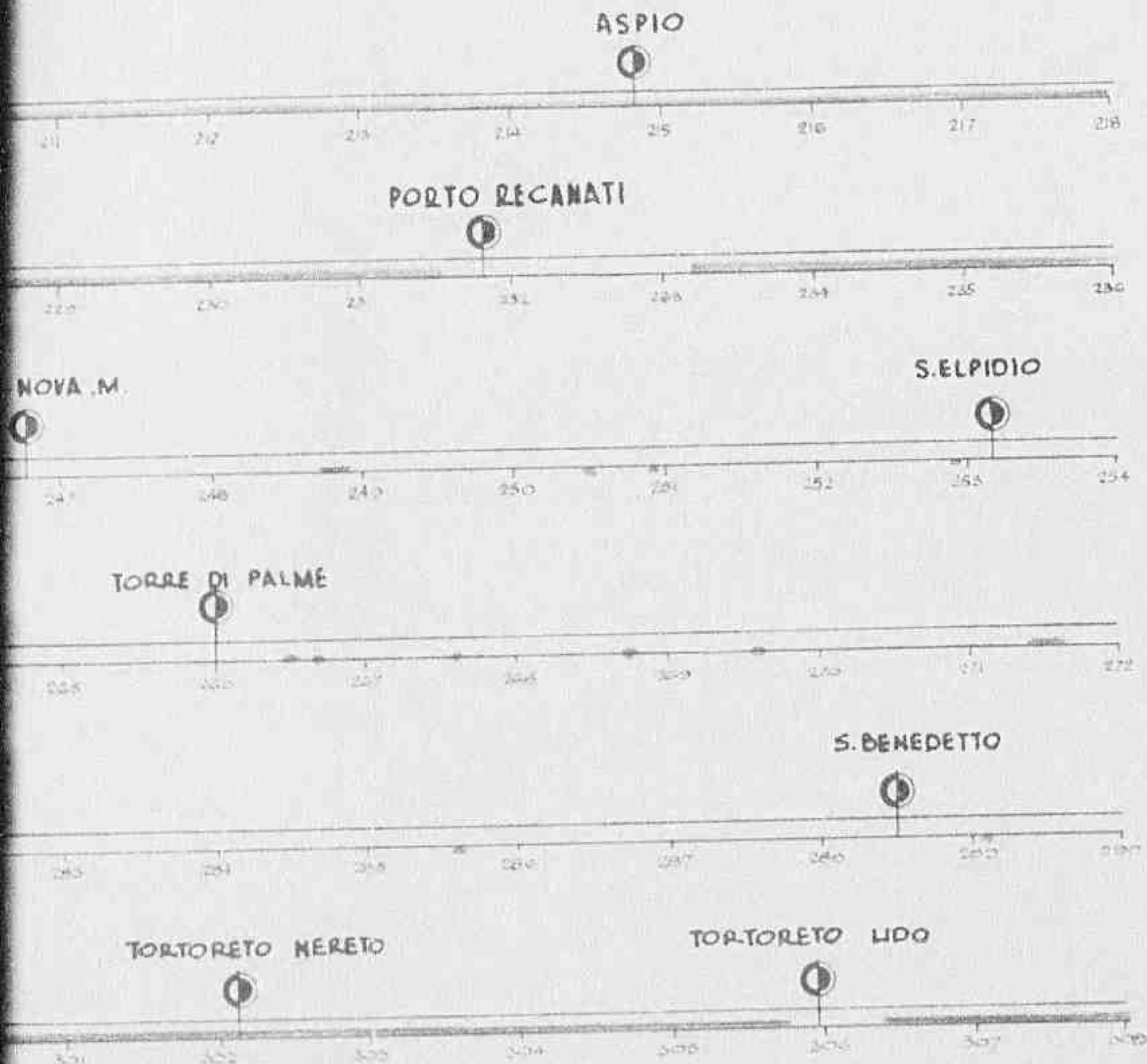
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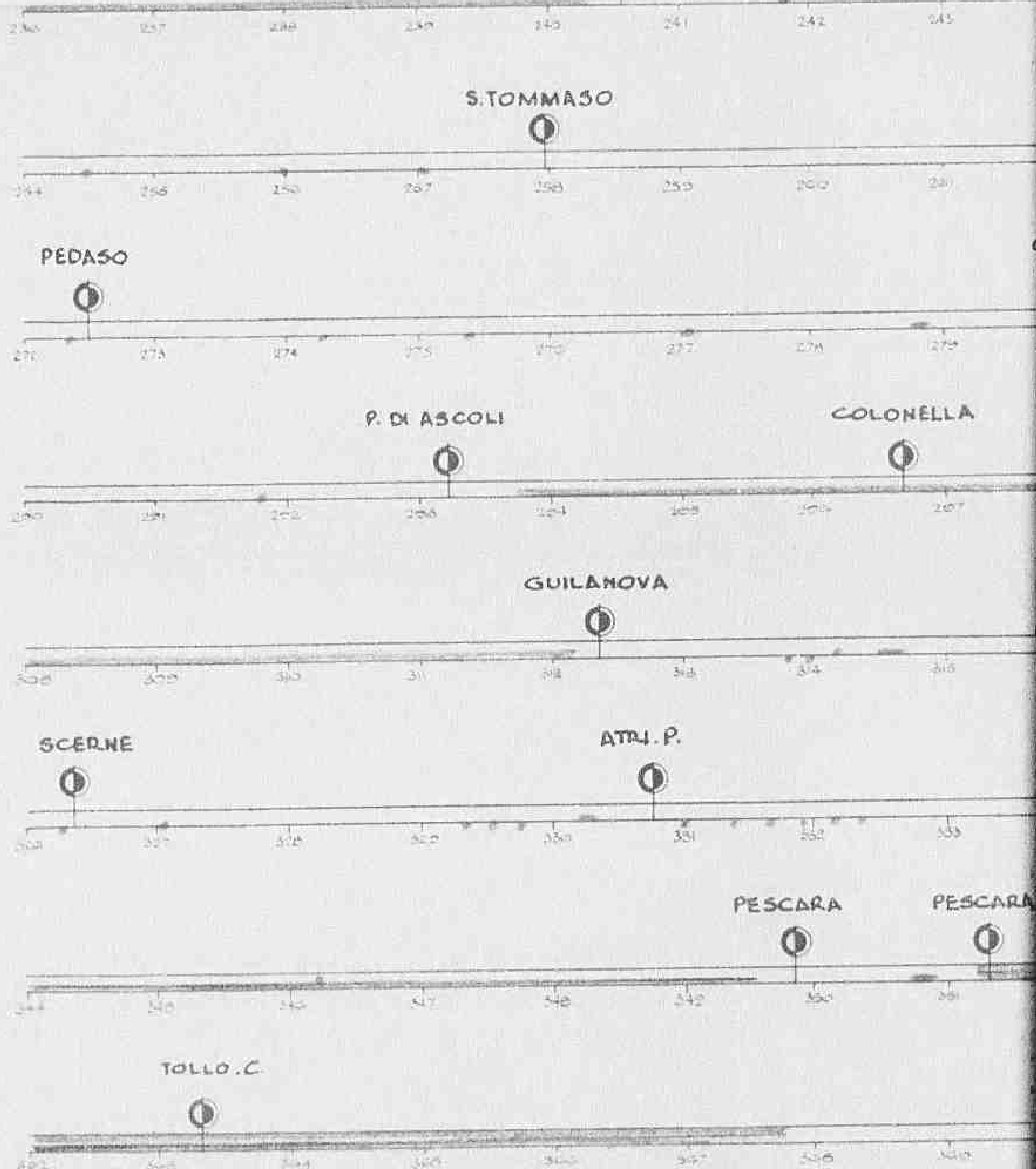
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- RAILS BLOWN.
- TRACK DAMAGED BY ROOTER.
- LOCAL DAMAGE.

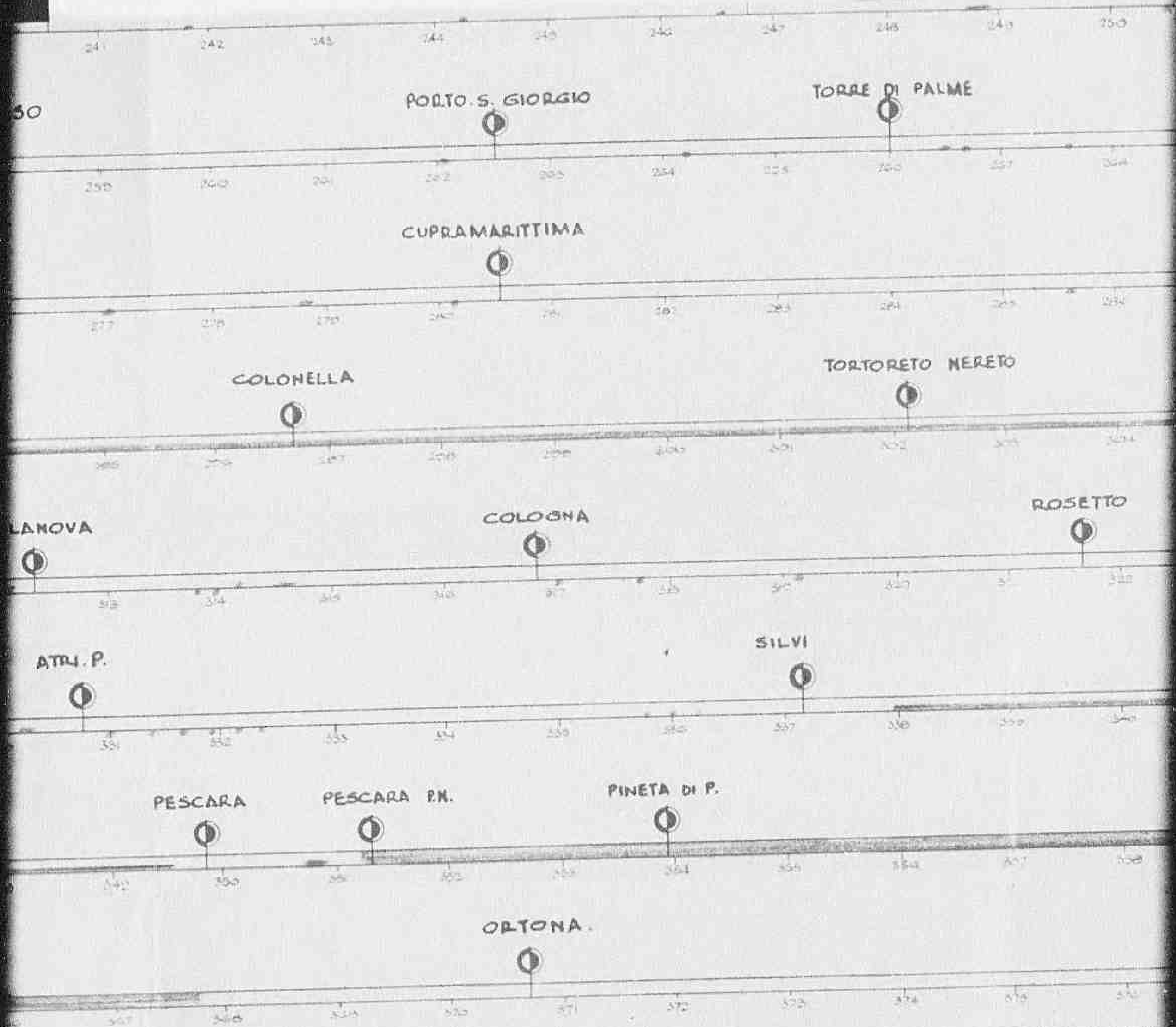


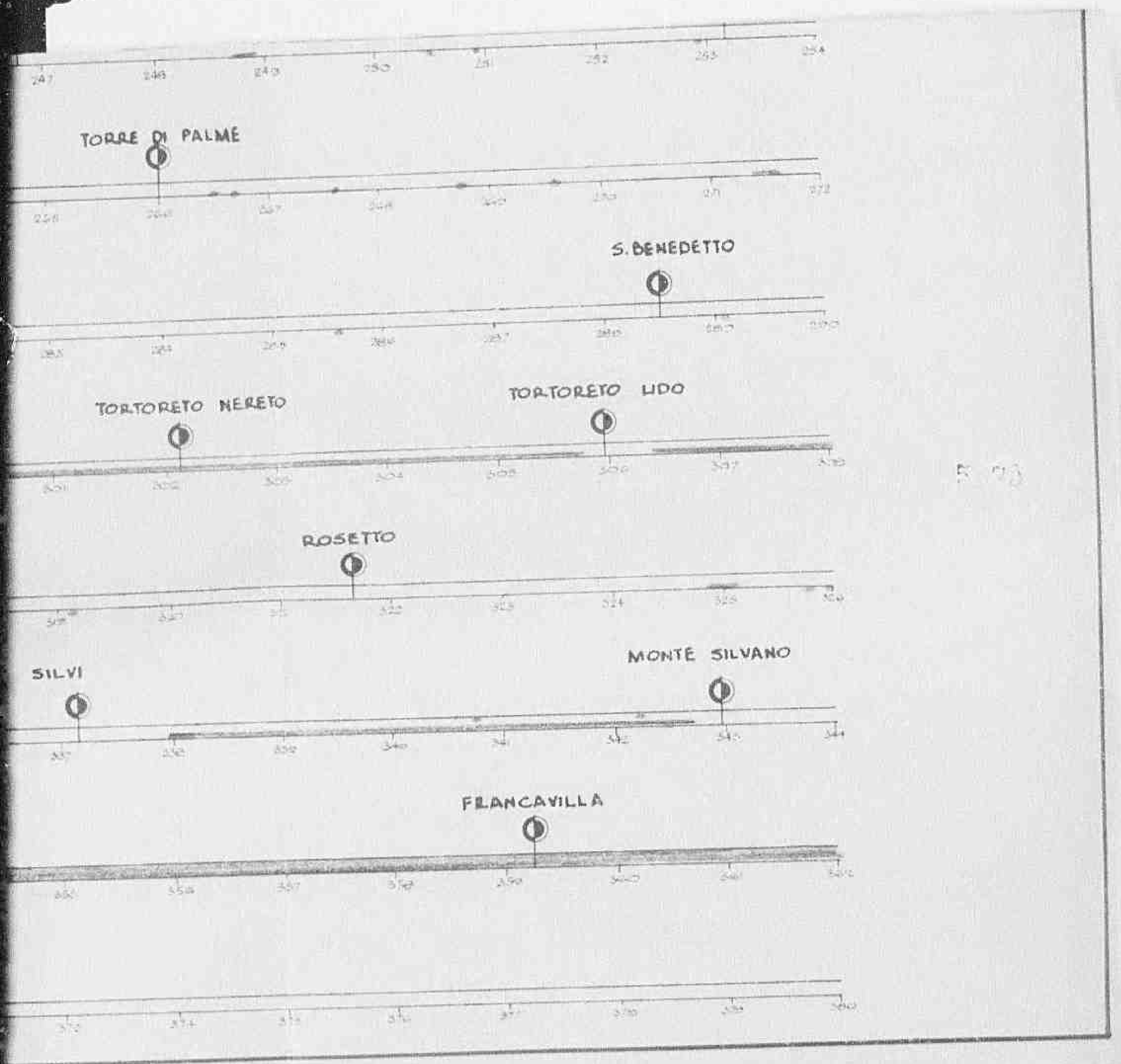
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STATIONS

All points and crossings blown at all stations (very few exceptions) except Loco Yard Pescara G.
No telegraph instruments or telephones exist at any station.

Serial No.	Km.	Name of Stn.	Original lines in station and state.	Propose to relay following track.	Pte & crossings required.	State of Stn. Bldg & Gds. Sd.	State Loco & Suppl.
1.	209+497	Varano	1 through. 4 loops. 5 dead ends. 100 yds crater otherwise little damaged rails.	1 through. 2 loops. 1 dead end.	Mil. Reserve at site.	Slight damage.	-
2.		Cassano Aspio.	1 through. 1 loop. Rails blown.	1 through 1 loop	2	O.K.	-
3.	219+186	Osimo - Castelfidardo.	1 through. 2 loops. 4 dead ends. Rails blown 50% fish-plates missing.	1 through 2 loops 1 dead end.	5	O.K. except for doors, windows and minor damage	-
4.	226+893	Loretto	1 through. 3 loops. 4 dead ends. S.A.E.C. have removed 50% track.	1 through 3 loops 3 dead ends.	9	O.K. except doors blown windows & roof damage.	40 of W.C. Crav. suppl.
5.	231+809	Potere Canali. (Cement factory with edg. needs investigation machy reptd. broken.)	1 through. 3 loops. 1 dead end. 50% through line removed by S.A.E.C.	1 through 2 loops 1 dead end.	5	O.K. except for minor repairs.	-
6.	240+500	Potenza Picena	1 through. 3 loops. 2 dead ends. 75% track missing.	1 through 2 loops. 1 dead end.	5	O.K. except doors & windows.	-

Sheet 13.

STATIONS

crossings blown at all stations (very few exceptions) except Loco Yard Pescara Centrale.
No telegraph instruments or telephones exist at any station.

Original lines in station state.	Proposed to relay following track.	Pts & crossings required.	State of Stn. Bldg & Gds Bld.	State of Loco Water Supply.	Rqmts for State of Loco Loco Wtr supply.	Rqmts including water.
through. 4 loops. 5 dead ends. 0 yds crater otherwise little damaged rails.	1 through. 2 loops. 1 dead end.	Nil. Reserve at site.	Slight damage.	-	-	-
through. 1 loop. rails blown.	1 through 1 loop	2	O.K.	-	-	-
through. 2 loops. dead ends. rails blown 50% fish- plates missing.	1 through 2 loops 1 dead end.	5	O.K. ex- cept for doors, win- dows and minor da- mage	-	-	-
through. 3 loops. dead ends. A.E.C. have removed 0% track.	1 through 3 loops 3 dead ends.	9	O.K. ex- cept doors windows & roof da- mage.	40 cm. tank blown. 2 W.C. blown. Gravity supply	1/10000 gln. tk. 2 W.C.s	-
through. 3 loops. dead end. 0% through line removed by S.A.E.C.	1 through 2 loops 1 dead end.	5	O.K. ex- cept for minor repairs.	-	-	-
through. 3 loops. 2 dead ends. 75% track missing.	1 through 2 loops. 1 dead end.	5	O.K. ex- cept doors & windows.	-	-	-

To sheet 14.

Serial No.	Km.	Name of Stn.	Original lines in stn. and state.	Propose to relay following track.	Pts & Cags. required.	State of stn. bldgs. and Gds. Shed.	State of Loco Wtr Supply.	Reqt loco supp
7.	246+700	Civitaneva	1 through. 3 loops. Loco yard. Track good.	1 through 2 loops. P ₂ rt of loco yard.	7	No roof. No doors No windows.	4 W.C. blown. 1/60 m. ~~1/30 m.~~ with Water tks. mgs. destroyed. W.C. Pumps dest.	1/10 1/50 gln.
8.		St.S. Ripidion	1 through. 2 loops 1 dead end. Track good.	1 through. 2 loops. 1 dead end.	5	No doors & windows. 30% atn. bldgs. destroyed.	-	-
9.	262+294	Porto S. Gioglio.	1 through. 3 loops. 2 dead ends. Track good.	1 through. 2 loops. 1 dead end.	5	O.K. except for glass in windows.	-	-
10.		Torre di Palme. Engine cap- sized in yd.	1 through. 1 loop Good.	1 through 1 loop.	2	O.K. except no doors & windows.	-	-
11.	272+500	Pedaseo.	1 through. 2 loops. 2 dead ends. Track good.	1 through. 2 loops. 1 dead end.	5	Very good except glass in windows.	-	-
12.	280+582	Cupramar- ittima.	1 through. 2 loops. 2 dead ends. Track good.	1 through 2 loops. 1 dead end.	5	Undamaged. E.L. works.	-	-
13.	283+968	Crottam- mare.	1 through. 2 loops. 2 dead ends.	1 through. 2 loops. 1 dead end.	5	No tiles on goods shed roof.	-	-

Sheet 14.

Lines in stn.	Propose to relay following track.	Pts & Cops. required.	State of Stn. bldgs. and Cds. Shed.	State of Loco Wtr Supply.	Reqs. for loco wtr supply.	State of loco reqts. including water.
h. 3 loops. d. od.	1 through 2 loops. Part of loco yard.	7	No roof. No doors No windows.	L. W.C. blown. 1/60 m. 1/30 m. Water tks. 3 destroyed. W.C.s. Pumps dest.	1/10000 1/5000 gln. tks. with pu	30' diam. turntable O.R. No roof on loco shed, and workshops.
h. 2 loops nd. od.	1 through. 2 loops. 1 dead end.	5	No doors & windows. 30% stn. bldgs. destroyed.	-	-	-
h. 3 loops. nds. od.	1 through. 2 loops. 1 dead end.	5	O.K. except for glass in windows.	-	-	-
h. 1 loop	1 through 1 loop.	2	O.K. except no doors & windows.	-	-	-
h. 2 loops. nds. od.	1 through. 2 loops. 1 dead end.	5	Very good except glass in windows.	-	-	-
h. 2 loops. nds. od.	1 through 2 loops. 1 dead end.	5	Undamaged. E.L. works.	-	-	-
h. 2 loops. nds.	1 through. 2 loops. 1 dead end.	5	No tiles on goods shed roof.	-	-	-

To sheet 15.

P. 205

Serial No.	Km.	Name of Stn.	Original lines in stn. and state.	Propose to relay following track.	P. & C. reqd.	State of Stn. bldgs. and Goods Shed.	State of Loco Wtr Supply.	Reqd loco
14.	268+489	Benedetto del Tronto	1 through. 4 loops. Loco. Yard. Track has craters and debris.	1 through. 3 loops. Loco Yard of 4 dead ends.	10	Gds. Shed burnt out. Stn. bldgs 70% doors & windows missing. 20% of roof destroyed.	All W.C. blown. Drinking water. Gravity feed 1/11000 gln. tk. full of shellholes. 1/3000 gln. tk. O.K. except outlet pipe bkn. Loco wtr. pumped from R. Tisino. State of pumps not known. 1/33000 gln tk. O.K. 1/13000 gln tk. can be filled 2/3.	2/1 tk. 100 pip
15	293+273	Porto d'Ascoli	1 through. 2 loops.	1 through. 2 loops.	4	Undamaged.	-	-
16.	302+189	Tertoreto	1 through. 2 loops. One P & C not blown	1 through 2 loops.	3	Roof damaged needs new tiles.	-	-

Sheet 15.

al lines in stn. nd state.	Propose to relay following track.	P. & C. State of Stn. bldgs. reqd. and Goods Shed.	State of Rqmts. for Loco Wtr loco water Supply. supply.	State of loco reqmts. including water.
ugh. 4 loops. Yard. as craters ria.	1 through. 5 loops. Loco Yard of 4 dead ends.	10 Gas. Shed burnt out. Stn. bldgs 70% doors & win dows missing. 20% of roof destroyed.	All W.C. 2/12000 gln blown. tka. 3 W.C. Drinking 100 yds 6" water. piping .3 Gravity feed valves. 1/11000 gln. tk. full of shellholes. 1/3000 gln. tk. O.K. ex- cept outlet pipe bkn. Loco wtr. pumped from R. Taino. State of pumps not known 1/33000 gln tk. O.K. 1/ 13000 gln tk. can be filled 2/3.	1/30' turntable in working order. Loco shed roof damaged, and no doors and windows.
h. 2 loops.	1 through. 2 loops.	4 Undamaged.	-	-
h. 2 loops. C not blown	1 through 2 loops.	3 Roof damaged needs new tiles.	-	-

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13
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Serial No.	Rm.	Name of Stn.	Original lines in Stn. & State.	Proposed to relay following track.	P & C road.	State of Stn. Bldgs. and Goods Shed.	State of Loco Wtr. Supply	Re W
17.	342+355	Giulianova	1 thro. 4 loops 5 dead ends in loco yd. Plain tk of branch to Teramo is undamaged for 8 kms. Salvage will make 1 turnout.	1 through. 3 loops. 4 dead ends.	11	Gds. Shed completely destroyed. 60% of roof stn. bldgs destroyed.	All 3 W.C. blown. 50 metres and staging destroyed. Tank probably repairable. Feed from well below tank pump destroyed.	17/
18.	331+360	Roseto degli Abruzzi	1 through. 2 loops. 1 dead end.	1 through 2 loops 1 dead end.	5 (comp. T.O. wanted)	Goods shed - good. Stn. Bldg. good except glass.	-	
19.	330+730	Atri Pineto	1 through 2 loops. 1 dead end.	1 through 2 loops. 1 dead end.	5 (comp)	No notes taken. Probably OK.	-	
20.	337+137	Di Silvi	1 through 2 loops. 1 dead end. 1 T.O. intact	1 through 2 loops. 1 dead end.	5	Minor damage.		
21.	342+987	Montesilvano	1 through 2 loops. 4 T.O. intact also 1 material trolley.	1 through 2 loops.	-	Goods shed has no roof & walls damaged. Stn roof been repaired. Doors & windows needed.	NOTE. 95 c.m. gauge to be in good condition and roofs of 6 stations and 10 wagons in station. About 500 light	

Sheet 16.

nal lines n. & State.	Propose to relay P & C following track. reqd.		State of stn. Bldgs. and Goods Shed.	State of Loco Wtr. Supply	Repts. for Loco Water supply.	State of loco repts. including wtr. repair
4 loops d ends in yd. Plain branch to is unus- for 8 hrs. go will make hout.	1 through. 3 loops. 4 dead ends.	11	Gds. Shed completely destroyed. 60% of roof stn. bldgs destroyed.	All 3 W.C. blown. 50 cu. metres and staging destroyed Tank probably re- pairable. Feed from well below tank pump destroyed.	1/1200 gln. tk and 40' high staging. 2 sets pumping machy. 3 Wtr Coils. 200 yds 6" pipe. 6/6" valves.	Wagon ~~xxxx~~ bldg. has no roof and half walls destroyed. Engine shed needs tiles doors and windows.
ough. ps. d end.	1 through 2 loops 1 dead end.	5 (comp. T.O. wanted)	Goods shed - good. Stn. Bldg. good ex- cept glass.	-	-	-
ough ps. d end.	1 through 2 loops. 1 dead end.	5 (comp)	No notes taken. Probably OK.	-	-	-
ough ps. d end. intact	1 through 2 loops. 1 dead end.	5	Minor damage.			
ough ps. intact 1 mat- trolley.	1 through 2 loops.	-	Goods shed has no roof & walls dam- aged. Stn roof been repaired. Doors & windows needed.	NOTE. 95 c.m. gauge branch line to Fenne reported to be in good condition except one bridge of 8 arches and roofs of 6 station buildings. Also 3 electric locos and 10 wagons in station reported to be in good condi- tion. About 500 light section rails in station.		

/to Sheet 17.

Serial No.	Ln.	Name of Stn.	Original lines in stn. & state.	Propose to relay following track.	P & C reqd.	State of Stn. bldg & Cds. Shed.	State of Loco. Water Supply.	Remarks
22.	349+868	Pescara Centrale.	1 thro. 12 loops. 13 dead ends and a large loco and marshalling yd. All damage caused by bombing. About 6 T.O.s in stn. yard intact and nearly all T.O.s in loco and Marshalling Yds. intact. Whole stn. area badly pitted with craters.	Should be able to supply operating with all lines required with material at site.	-	Stn. Bldg. Badly damaged but sufficient rooms available in good condition for military service. Transit Shed. Good except 5000 tiles wanted.	10 W.C.s and 2/75 cu. metre water tanks in good condition except where underground pipes cut by craters. Water pumped from river one mile away. Electric water pumps reported in good condition. Electricity is due to arrive Pescara shortly.	100 6" arr. ele. to art. Tn.
23.	351+309	Pescara P.R. Not inspected.	1 through. 2 loops. 1 dead end.	1 through 2 loops. 1 dead end.	5	Damaged but repairable locally.	-	
24.	359+235	Francoavilla.	1 through 2 loops. 90% of track removed.	1 through 2 loops.	4	Completely demolished.	-	
25.	364+	Tellicanosa	1 through 2 loops. All track removed.	1 through 2 loops.	4	Completely demolished.	-	
26	371+717	Ortona	Railhead.	Operating to say what extra lines are required. Allow for 2 loops 1 dead end.	+ 5	In use.	2 Water columns fed by gravity exist.	Note making

Sheet 17.

Proposed to relay following track.	P & C reqd.	State of Stn. bldgs & Cds. Shed.	State of Loco. Water Supply.	Reqs. for Loco water supply.	State of Loco. reqs. including water.
re. 12 loops. Should be able lead ends and to supply op- erage loco and crating with halling yd. all lines re- damage caused by quired boring. About with material 0.5 in stn. at site. intact and ly all P.O.s oco and M ₂ r- ling Yds. in t. Whole stn. badly pitted craters.	-	Stn. Bldg. B. dly damaged but sufficient rooms available in good condition for military service. Transit Shed. Good except 5000 tiles wanted.	10 W.C.s and 2/75 cu. metre water tanks in good condition except where underground pipes cut by craters. Water pumped from river one mile away. Electric water pumps reported in good condition. Electr- icity is due to arrive Pescara shortly.	100 yds. x 2 6" piping. The date of arrival of electricity to be asc- ertained by Tn. 4.	1/12 m. and 1/21 m. turntable intact. 17 engines in yard mostly in craters. 6 engines reported to be repairable. Loco Shed. No roof covering. Roof trusses and purlins can be paired. Various mach, in Loco Shed appears intact except for minor damage.
through. loops. lead end.	1 through 2 loops 1 dead end.	5	Damaged but repairable locally.	-	-
through loops. of track moved.	1 through 2 loops.	4	Completely demolished.	-	-
through loops track moved.	1 through 2 loops	4	Completely demolished.	-	-
ahead.	Operating to say what extra lines are re- quired. Allow for 2 loops 1 dead end.	+ 5	In use.	2 Water columns fed by gravity exist.	Note + Total 121 - add 19 for Ancona making a Total of 140 Turnouts required.

/to Sheet 18.

STATIONSTotal materials required.

Turnouts complete	34	Nos.	6" pipe	400 yds.
Turnouts (P & C only)	106	Nos.	Cement.	3000 tons.
12000 gln. water tanks	3	Nos.	Bricks	2000,000 Nos.
10000 gln. " "	2	Nos.	C.I. Sheets	20,000 Nos.
5000 " " "	1	No.	G.I. sheets 1 m. wide	1,000 metres run
40' staging for wtr. tr.	1	No.	Timber.	500 cu. metres
20' " " " "	1	No.		
Water columns 6"	8	No.		
Engines and pumps	4	Sets.		
6" valves	9	Nos.		

STATIONS

Sheet 18.

Total materials required.

34 Nos.	6" pipe	400 yds.
106 Nos.	Cement.	3000 tons.
3 Nos.	Bricks	2000,000 Nos.
2 Nos.	C.I. Sheets	20,000 Nos.
1 No.	G.I. sheets 1 m. wide	1,000 metres run.
1 No.	Timber.	600 cu. metres.
1 No.		
8 No.		
4 Sets.		
9 Nos.		

Sheet 19

TOTAL MATERIALS REQUIRED FOR TUNNELS, BRIDGES, BUILDING AND WATER SUPPLY.

ITEM.	QUANTITY	UNIT.
1. Cement 6000 + 3000 tons	9,000	tons.
2. Bricks 9 + 2 million.	11,000,000	Nos.
3. Military girders	1,829	ft. run.
4. Military trenching	434	ft. run.
5. R.S.J.s from 24" x 7 1/8" to 18" x 6"	492	ft. run.
6. Oxy acetylene cutting plant with 12 bottles each set.	12	Nos.
7. Compressors	13	Nos.
8. Jack hammers with drills.	22	Nos.
9. Timber 423 + 600 c. metres	1,033	cu. metres.
10. C.I. sheets 4,000 + 1,000	5,000	Nos.
11. Bulldozers	10	Nos.
12. Explosives	3	Tons.
13. Camels feet	12	Nos.
14. Sheet piling 10' deep	100	ft. run.
15. Jacks 50 ton.	20	Nos.
16. Winches 60 ton.	2	Nos.
17. S.W.R. 2" diameter	1,400	ft. run.
18. Concrete mixers	20	Nos.
19. Turnouts complete	34	Nos.
20. Turnouts (points and crossings only)	106	Nos.
21. 12,000 gallon water tanks.	3	Nos.
22. 10,000 " " "	2	Nos.
23. 5,000 " " "	1	No.
24. 40 ft. staging water tank	1	No.
25. 20 ft. " " "	1	No.
26. Water columns 6"	8	Nos.
27. Engines and pumps for water	4	Sets
28. Valves 6"	9	Nos.
29. Pipes C.I. 6"	400	yds.
30. 40,000 metres single rail 46 kg with fittings.	40,000	metres.
31. Sleepers	45,000	Nos.
32. Lorries 3 ton.	150	Nos.
33. Bicycles	30	Nos.
34. Lorries 15 cwt.	4	Nos.
35. Tank transporters with tractor.	8	Nos.
36. Decauville loco.	2	Nos.
37. Decauville trucks.	6	Nos.
38. Decauville track.	300	metres.
39. Mechanical excavating machinery for excavating 150,000 cubic metres earthwork. Suggest 5 draglines and 5 dumpers.		

Notes.

1. If bricks cannot be obtained in sufficient quantity the cement, concrete mixers, timber and C.I. sheets will be vastly increased.

2. Items 30 and 31 could be obtained from dismantling GIULIANOVA - TERAMO and PORTOCIVITANOVA - ALBANIN. branch lines provided

(a) Use of 36 kilo rails were approved.

(b) Road access could be obtained to both branch lines. Branch lines NYR

12.	Oxy acetylene cutting plant with 12 bottles each set.	12		
13.	Compressors	13		
14.	Jack hammers with drills.	22		
15.	Timber 485 + 500 c. metres	1,083	cu. metres.	
16.	C.I. sheets 4,000 + 1,000	5,000	Nos.	
17.	Bullhooks	10	Nos.	
18.	Explosives	3	Tons.	
19.	Camels feet	12	Nos.	
20.	Sheet piling 10' deep	100	ft. run.	
21.	Jacks 50 ton.	20	Nos.	
22.	Winches 60 ton.	2	Nos.	
23.	S.W.R. 2" diameter	1,400	ft. run	
24.	Concrete mixers	20	Nos.	
25.	Turnouts complete	34	Nos.	
26.	Turnouts (points and crossings only)	106	Nos.	
27.	12,000 gallon water tanks.	3	Nos.	
28.	10,000 " "	2	Nos.	
29.	5,000 " "	1	No.	
30.	40 ft. staging water tank	1	No.	
31.	20 ft. " "	1	No.	
32.	Water columns 6"	8	Nos.	
33.	Engines and pumps for water	4	Sets	
34.	Valves 6"	9	Nos.	
35.	Pipes C.I. 6"	400	yds.	
36.	40,000 metres single rail 45 kg with fittings.	40,000	metres.	
37.	Sleepers	45,000	Nos.	
38.	Larries 3 ton.	150	Nos.	
39.	Bicycles	30	Nos.	
40.	Lorries 15 cwt.	4	Nos.	
41.	Tank transporters with tractor.	8	Nos.	
42.	Decauville locos.	2	Nos.	
43.	Decauville trucks.	6	Nos.	
44.	Decauville track.	300	metres.	
45.	Mechanical excavating machinery for excavating 150,000 cubic metres earthwork. Suggest 5 draglines and 5 dumpers.			

Notes. 1. If bricks cannot be obtained in sufficient quantity the cement, concrete mixers, timber and C.I. sheets will be vastly increased.

2. Items 30 and 31 could be obtained from dismantling GIULANOVA - TERAO and PORTOCIVITANOVA - ALBAVINO branch lines provided

(a) Use of 36 kilo rails were approved.

(b) Road access could be obtained to both branch lines. Branch lines NOT yet received.

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40. Standard scale of I.S.R. permanent way tools for 20 men 7 sets.

