ACC AC281/100 10000/148/1881 AVELLINO
OCT. 194

10000/148/1881

AVELLINO - BENEVENTO
OCT. 1944 - APR. 1945

100/281 E

INTER-OFFICE MEMORANDUM

Tel.: 478704
442/3/Tn.3

23 April 1945

SUBJECT: Rail Construction Priorities

TO : Col. M.J.Sieff,
Chief, Movements Division.

1. This matter has been discussed with Rail Division and the following are our agreed recommendations for amendments to list published under reference 430/20/Tn 1 dated 18 April 45.

Line	Section	Existing Priority	Recommended priority	Remarks
279	Tarsoli-Campobasso	1	3	Reconstruction of rail lay out reported complete. ICE now engaged in clearance of rubble etc.
249	Pisa-Empoli-Florence	1	3	Complete and open for traffic. Permanent repairs continuing. Should not be higher than priority 3 unless MMS ask for adjustment, at Construction Sub-Committee, on basis of permanent repairs to bridge
246	Giulianova-Terneo	1	3	Neither Major Ping nor I have any knowledge o any demand for repairs to this line. It is possible it may have been confused with lin 242 - Albacina to Civi Nuova Marche-not shou

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279	Tarvoli-Corpolmaggo	1	3	Reconstruction of rail lay out reported complete. ISE now engaged in clearance of rubble etc.
249	Pisa-Empoli-Florence	1	3	Complete and open for traffic. Permanent repairs continuing. Should not be higher than priority 3 unless MRS ask for adjustment, at Construction Sub-Committee, on basis of permanent repairs to bridge
246	Civitanova-Teramo	1	3	Neither Major Ping nor I have any knowledge o any demand for repairs to this line. It is possible it may have been confused with lin 262 - Albacina to Civi tanova Marche-not shon on above quoted list, but which, having rega the importance of t Ancona wheat area, should be priority.
257	Roma Viterbo	2	3	Will be opened by end month. No priority needed.
283	Avellino-Benevento	2	3	Neither are as imports as
284	Avellino-Rocchetta	2	3	lines 83 or 277.
88	Roma-Avezzano	3	2	Should be on a par wit Teramo-Chieti (2) and will alternately provid a valuable lateral rou

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	- Ellero Bridge	2	3	permanent reconstruction and should have same priority as line 277 Termoli-Campobasso.
277	Terni-Rieti	3	1	Will ultimately provide access to Aquila, and unless we can reach the Provincial Capital by rail before next winter, difficulty in providing Road Transport is foreseen.
277	Antrodoco-Aquila	D	1	Shown as Pr.Ely when it is, in fact, continuation of line 277. See remarks in preceding para.
266	Roma-Champino-Albano	3	D	Not line 246 as shown. No hurry for this job and we are not interested. Being repaired by GRIVOPEX (Volunteer Organisation of Railways employees.)
pr.Ely.	Lauria-Viaduct.	3	1	Obviously Priority 1 to provide access to Castelluccio Lignite Mine.
pr.Ely	Terni-Todi-Perugia	3	1	Will provide access to Brick works and lignite mines are ties in very closely with line 244
244	Bastia-Ellera	D	1	There are arguments regarding cost of repairs to lineEllera-Pietrafitta.Fuel situation next winter will be serious and even through reconstruction of the mineral line may be delayed. Perugia Province is considered of sufficient importance to warrant Priority 1 for line 244.

J.W.BAKER, Lt.Col.

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	pr.Rly. Lauria-Viadmet.	3	1	Obviously Priority 1 to provide access to Castelluccio Lignite Mine.
	pr.Rly Terni-Todi-Perugia	3	1	Will provide access to Brick works and lignite mines are tied in very closely with line 244
	244 Bastia-Ellera	D	1	There are arguments regarding cost of repairs to line Ellera-Pietrafitta. Fuel situation next winter will be serious and even through reconstruction of the mineral line may be delayed. Perugia Province is considered of sufficient importance to warrant Priority 1 for line 244.

J.W.BAKER, Lt.Col.

Copy to:- Rail Division (Tn 4) (Attn.Major Ping).

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100/281

DATI DI TRAFFICO RELATIVI AL 1942 - 43

attach

BENEVENTO - AVELLINO	tonnellate-Km.	5.432.000
	prodotti merci	1.472.000
	viaggiatori-Km.	17.090.000
	prodotti viaggiatori	2.444.000
	prodotto complessivo	3.916.000
	per Km.	130.000

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EJM/em

100/281/2

HEADQUARTERS ALLIED COMMISSION
APO 394
TRANSPORTATION SUB -COMMISSION
RAILS

REF. : November 29th 1944

TO : Colonel D.S. ADAMS,
Director Transportation
Sub Commission, H.Q.,A.C.

SUBJECT : I.S.R. Line 281 Avellino to Benevento.

1. Further to my report on this section of line dated 19th Oct., the estimated cost of carrying out the reconstruction as detailed in the report is 18.300.000 lire (Eighteen Million Three Hundred Thousand Lire).

E.J. Noble Major

for O.H. LINDBERG, Lt.Col., R.E.,
Transportation Sub Commission
Rails.

100/281/1

19 Oct. 44.

Report on I.S.R. Line N° 281 Avellino - Benevento.

General — The line is single track, standard guage laid with 36 kilogram per metre rail. Running loops and sidings exist at stations of which there are four between Benevento and Avellino.

Survey of condition of line.

Note. All distances are measured from Avellino.

The whole of the earthworks are undamaged. The permanent way is in serviceable condition with the exception of a few minor small lengths and over the damaged structures.

P&C. work requires only the normal maintenance to be fit for operation.

Eleven bridges have been mined, two overbridges which do not effect the operation of the line and 9 underbridges.

1) At 4.623 km. A three span 8 metre brick arch bridge. The three arches and two piers have been completely demolished but the abutments are undamaged.

Restoration. Rebuild three arches and two piers, spandrel and parapet walls. Ballast and relay track over a length of 160 feet.

2) At 10.633 km. A wrought iron lattice girder span of 115 feet, with cross girders carried on stone abutments. This structure has been mined at each end, shattering the trusses which now rest on the dried up stream bed.

Restoration. At the damaged ends, in view of the fact that the top and bottom flange plates can be reused and the only renewal required is that of the lattice bars and end plates, it is suggested that the trusses be jacked up to correct level on timber birdcage cribs and a straightforward steelwork repair be undertaken.

3) At 13.029 km. A three span wrought iron lattice girder construction, each span of 92 feet carried on abutments and

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Restoration. At the damaged ends, in view of the fact that the top and bottom flange plates can be reused and the only renewal required is that of the lattice bars and end plates, it is suggested that the trusses be jacked up to correct level on timber birdcage cribs and a straightforward steelwork repair be undertaken.

3) At 13.029 km. A three span wrought iron lattice girder construction, each span of 92 feet carried on abutments and stone piers. All three spans have been mined at the ends of each individual span and girders now rest on the river bed.

Restoration. The first span Avellino end is very badly damaged but it is known that even in flood time thissection was not used by the escaping water. It is therefore suggested that this span be abolished. The first pier from the Avellino end would therefore be built as an abutment wall and muck tipped behind to make an embankment to join the existing earth-works. Jack up two remaining spans to correct level on timber birdcage cribs . Repair damaged ends with material obtained from first span. Rebuild seatings on pier and abutment and lower girders into final position. Relay track for a length of 350 feet.

4) At 14.887 km. A 14 span stone and brick arch viaduct, 13 spans of 8 metres and one of 14 metres. N° 5 8-metre arches have been completely demolished and 4 piers partially so down to 12 feet below springing level.

Restoration. Rebuild 4 piers in stone, turn N° 5 new arches in brickwork, rebuild spandrels and parapet walls in stone.

5) At 16.935 km. A wrought iron lattice girder span of 92 feet span with cross girders carried on stone abutments. The lattice girders have been mined at the Avellino end and girders now rest on Benevento end abutment and bed of stream.

Restoration. Jack up girders to correct level on timber birdcage cribs. Partially rebuild Avellino end abutment wall. Cut out defective bracings and renew same. Provide and fix new end plates, new end ~~the~~ cross girder and 60 feet of rail bearers. Lower girders onto new bearings at Avellino end and relay track for 150 feet.

6) At 19.273 km. A three span bridge of wrought iron lattice main girders and cross girders each span being 60 feet. The abutment and lattice girders have been mined at the Avellino end also the first stone pier from the Avellino end has been completely destroyed, thus the first span rests on the dried up flood water escape channel. The second span is only slightly damaged near the second pier and rests on the pier and the dried up stream bed. The abutment and lattice girders have been mined at the Benevento end and the span rests on the second pier and the stream bed.

Restoration. Jack up all three spans to correct level on timber birdcage cribs. Partially rebuild in stone both abutment walls and totally rebuild the first pier from Avellino end from ground level. 1st span . Replate top and bottom flanges of both main girders for a length of 18 feet. Provide and fix new end plates and new lattice bars for a length of 18 feet to each main girder. Provide and fix new rail bearers for 40 feet and N° 3 new cross girders with bracings.
2nd. span Replace over a length of 10 feet of each main girder the existing lattice bars.
3rd. span Replate top and bottom flanges of both main girders

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Restoration. Jack up all three spans to correct level on timber birdcage cribs. Partially rebuild in stone both abutment walls and totally rebuild the first pier from Avellino end from ground level. 1st span . Replate top and bottom flanges of both main girders for a length of 18 feet. Provide and fix new end plates and new lattice bars for a length of 18 feet to each main girder. Provide and fix new rail bearers for 40 feet and N° 3 new cross girders with bracings.
2nd. span Replace over a length of 10 feet of each main girder the existing lattice bars.
3rd. span Replate top and bottom flanges of both main girders for a length of 12 feet at the Benevento end. Provide and fix new end plates and new lattice bars for a length of 18 feet to each main girder.
Provide and fix two new cross girders and new rail bearers for a length of 36 feet. After steelwork repairs are completed lower girders onto bearings and relay track for 200 feet.

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7) At 19.964 km. A wrought iron plate girder construction carried on stone abutments. Clear span. 12 feet 6 inches. The girders have been mined and completely destroyed and a part of the Benevento abutment is also demolished.

Restoration. The span is small so two methods are suggested according to availability of material.

A) Partially rebuilt Benevento abutment, provide and fix new steel waybeams.
B) Cut down Avellino side abutments down to height of the partially demolished Benevento abutment. Turn a new brick arch, build spandrel and parapet walls. Ballast and relay track.

8; At 23.936 km. A two span 7.80 metre brick arch bridge. Both arches have been completely destroyed.
Restoration. Rebuild two brick arches and spandrel walls.

9. At 23.749 km. Formerly this bridge consisted of a skew span wrought iron main lattice girders with cross girders and rail bearers. Span 45 feet along centre line of bridge. The girders are damaged beyond repair.
Restoration. Owing to the considerable tonnage of steel that would be required to renew the superstructure, it is suggested that it be replaced by a brick structure. The existing abtuments could be used. A new central pier would have to be constructed and two 5.80 metre brick arches turned with spandrel and parapet walls.

Labour and Materials.

Bricks

The total quantities required for all the works is estimated at 275.000. These can be obtained locally and from Casalvallino.
Cement. The estimated quantity is 300 tons and it is suggested could be supplied from the Salerno Cement Works.
Sand, Ballast and Pozzolana. This is all available locally.

Timber. The estimated total of timber required is 300 cubic metres. There are several sources of supply in the surrounding country.

Steel The total quantities required for the reconstruction of the bridges as suggested in the report is 51 tons, most of which is flats or plate. This will have to be obtained from the various stocks around the Naples area.

Oxygen and Acetyline. This would be required for cutting the damaged trusses and preparing the new work. Some 240 bottles of Oxygen and 64 bottles of acetylene are required. The supply of oxygen is a problem but the requirements would have to be met from the plant at Naples.

Restoration. Owing to the considerable tonnage of steel that would be required to renew the superstructure, it is suggested that it be replaced by a brick structure. The existing abtuments could be used. A new central pier would have to be constructed and two 3.30 metre brick arches turned with spandrel and parapet walls.

Labour and Materials.

Bricks

The total quantities required for all the works is estimated at 275.000. These can be obtained locally and from Casalvellino.

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Steel The total quantities required for the reconstruction of the bridges as suggested in the report is 51 tons, most of which is flats or plate. This will have to be obtained from the various stocks around the Naples area.

Oxygen and Acetyline. This would be required for cutting the damaged trusses and preparing the new work. Some 240 bottles of Oxygen and 84 bottles of acetylene are required. The supply of oxygen is a problem but the requirements would have to be met from the plant at Naples.

The reconstruction of this line presents very difficult engineering problems. Likewise local labour is available and numerous contractors firms are prepared to tender for the work.

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The total reconstruction is estimated to take six months.
The estimated cost of the work is being prepared and will be submitted in due course.

E J Noble Mgr.

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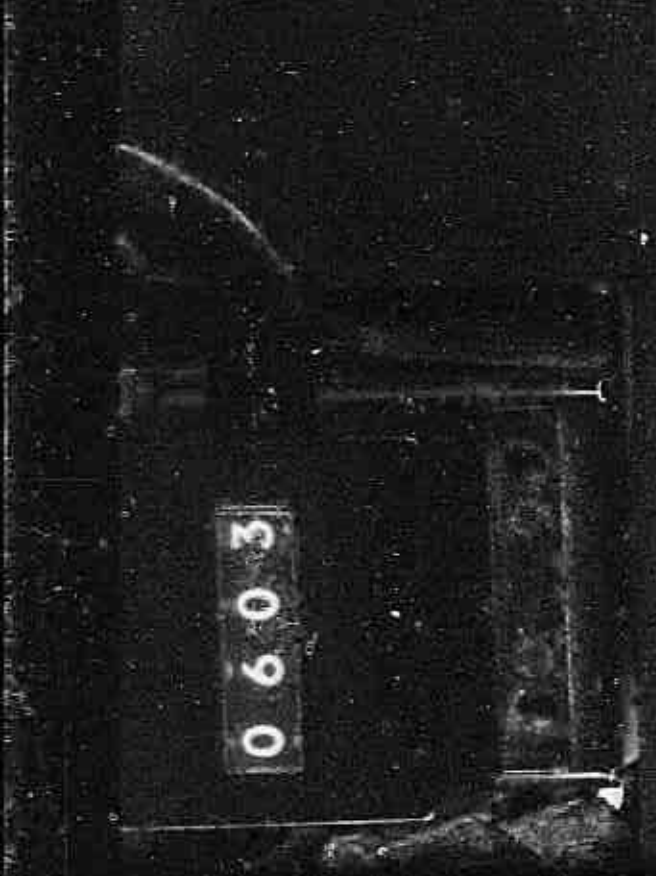
E J Mole Major.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