

AWM4
Australian Imperial Force unit war diaries,
1914-18 War

Engineers

Item number: 14/8/22 Part 1

Title: Headquarters 2nd Australian
Divisional Engineers

July 1918



AWM4-14/8/22PART1

CONFIDENTIAL.

ORIGINAL.
~~DUPLICATE.~~
~~TRIPLICATE.~~

80

Australian Imperial Force.

WAR DIARY

OF

HQ DIVISIONAL ENGINEERS
2nd Australian Division

FOR

July

191*8*

Signature of Officer compiling

Signature of Officer Commanding

WAR DIARY

Headquarters, Divisional Engineers, Army Form C. 2118.

or

INTELLIGENCE SUMMARY.

SECOND AUSTRALIAN DIVISION.

July 1918.

(Erase heading not required.)

aries and Intelligence
in F. S. Regs., Part II.
respectively. Title pages
manuscript.

Place	Hour	Summary of Events and Information	Remarks and references to Appendices
GLISY.	1st	Fine hot day. With Major Harris rode over to see C.R.E. 4th Aust. Div. regarding forthcoming operation, as 6th Field Company will be co-operating with 6th A.I.Bde. under orders of 4th Aust. Div. Nothing very elaborate arranged, and sapper work will consist principally of marking jumping-off lines. No strong points are being dug. Brigades are to dig one C.T. and Pioneers will do another; details of latter have not yet been fixed up.	
	2nd	Notification received in evening that Major Harris had been awarded the D.S.O. Fine hot day. Went out early and picked up Col. Annand near his camp and went forward to the several jobs that Pioneers are working on, dugouts for the most part. Also called at 7th Field Coy. H.Q. in Railway cutting at O.25.d.2.7.; visited A.D.S. in railway arch at O.27.d.7.8. where girders were reported to be showing deflection, and found that they had been effectively strutted by Pioneers. M.G. dugout nearby in railway embankment, under construction by Pioneers, has been giving trouble owing to loose ground. Camouflage of spoil excavated from dugouts has not been well done in many cases, frequently no attempt has been made to conceal it at all.	
	3rd	2nd/Lt. Eltis reported for duty, just arrived from Cadet school. Visited Pioneers' Sawmill, in afternoon, just started on the bank of the Somme. Portable engine was salvaged from Treux. Nothing of importance to record. Attack by 4th Aust. Div. takes place at 3 a.m. tomorrow.	
	4th	Fine day. Attack early this morning by 4th Aust. Div., assisted on our front by 6th A.I.Bde., was successful; all objectives including Hamel were gained. 7th A.I.Bde. also captured a post and got 90 prisoners. Total prisoners for the operation well over a thousand and 80 M.Gs. Some American infantry took part in the attack, on the 4th Div. front, the first occasion on which American troops have taken an active part with British troops. A high velocity gun has been shelling around Blangy Tronville today about noon; several casualties amongst Pioneers who were camped near there. 6th Field Coy. also have some men billeted in the village. I have given instructions for them to be billeted elsewhere. Papers give particulars of the number of American troops that have been transported to Europe to date, month by month. The monthly rate has increased very rapidly since March and the total for last month reached 275,000; there are, it is said, over a million Americans in France now. From appearances they look like first class material but will need experience. They are, however, fresh and have very fine spirit.	App 1. App 4.
	5th	Influenza is still very prevalent. Fine day but slightly overcast. Pioneers had 3 killed and 18 wounded on their C.T. job, but they successfully completed the work. 5th Bde. will relieve the 6th Bde. tomorrow night. 5th and 6th Field Coys. did not completely change over for the attack, so 5th Coy. will go in again with their Brigade.	App. 2.

Confidential.

Sheet 2.

Instructions regarding War Diaries and Intelligence
Summaries are contained in F. S. Regs., Part II.
and the Staff Manual respectively. Title pages
will be prepared in manuscript.

WAR DIARY Headquarters Divisional Engineers, Army Form C. 2118.
or
INTELLIGENCE SUMMARY. Second Australian Division.

(Erase heading not required.)

July 1918.

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Glisy.	5th		Lt Fidler, 7th Field Coy has been brought in to this office for the purpose of devoting special attention to following up all matters regarding deep dugouts. There are so many, that it is almost impossible to keep full and accurate details without it being some one person's special job.	
	6th		Fine day, hazy. 6th Bde. pushed posts out some distance further forward last night. Went out with Major Webb to front of his sector; rode up by bicycle to within couple of hundred yards of front line. It is possible to take transport up to quite close to front line in daylight without coming under observation. Visited some of the Company H.Q. dugouts also newly dug flank trench connecting to French C.T., also visited dugouts side of Villers-Brettonneux (No 105) under construction by Pioneers. Called at 26th and 25th Batt H.Q. in Quarry dugout (No 15), and several other dugouts on way back.	
	7th		Fine day. Moved our office to new quarters little further down line of shelters. Previous quarters being taken over by Div Signal Coy. These quarters are not as large but will be more convenient as mess will be close to the office.	
	8th		Went out at 6a.m. in car, picked up Major King and Lt Bartell, 2nd Pioneer Batt. on main road, thence to Batt H.Q. near Villers-Brettonneux. Visited two dugouts (No 104 & 105) under construction by Pioneers; both going on steadily, excavation in earth with bottom in chalk, good footing for pitprops. Also visited 20th Batt H.Q. in dugout No 69. Fine warm day. Notification that Lt Cartwright 7th Field Coy promoted to Captain. Lt Bell 4th Division also promoted Captain and posted to this Division, making a fourth Captain. Establishment of Captains for Divisional Engineers is four when the Adjutant is a Captain, and three otherwise. This appears to have been overlooked by the D.A.G. so that there is actually a spare Captain. Cartwright has been posted to the 6th Field Coy and Bell attached as supernumerary to the 7th Field Coy.	
	9th		Warm. Overcast in morning, light rain in afternoon. Situation on this front has not yet settled down. Enemy after being driven out from front line do not appear to have settled down on any definite line of resistance close to the line of our last advance. Our troops have been pushing forward bit by bit, feeling their way. 7th Bde report today that their patrols are in Monument Wood. Large number of applications for new dugouts are coming in, in consequence of alteration in position of front line. It is not much use starting until line settles down.	
	10th		Instructions received this morning that 500 Pioneers were to dig C.T. for 7th Bde tonight. No location or length stated. Saw G.O.C. and explained that Pioneers had already gone out to work and that it would be necessary to recall them in order to get them together for this job, and that I would like, if possible, to have better notice in future and to get particulars of the work to be done so there shall be no confusion or waste of men. Went up to 7th Bde H.Q. with Col. Annand and saw General Wisdom, who explained that work was conditional on the success of an attempt to occupy some ground north of Monument Wood tonight.	

Confidential.

WAR DIARY Headquarters Divisional Engineers Army Form C. 2118.

or

INTELLIGENCE SUMMARY.

2nd Australian Division.

July 1918.

Instructions regarding War Diaries and Intelligence
Summaries are contained in F. S. Regs., Part II.
and the Staff Manual respectively. Title pages
will be prepared in manuscript.

(Erase heading not required.)

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Glisy	10th		Communication trench will be about 700 yds long, point to point, just north of railway and parallel to it, 50 yds distant, forward of Villers-Bretonneux; it is also to serve as flank fire trench to South. If ground north of railway is not gained and C.T. is not required, the party is to be diverted to dig for extension of the buried cable. The provision of this party compels the suspension of all other work on hand and will cause the loss of greater part of three day's work. Have arranged with Pioneers to keep 150 men or thereabouts available for digging on the next few nights. Capt Bell reported today, and is returning tomorrow to take up duties with 7th Field Coy horselines.	
	11th		Fine day with occasional showers. Last night's attempt to advance was not successful as a good deal of opposition was met and the advance was not pressed. Pioneers were standing by until about 1a.m., before it was definitely known that they would not be able to get on with C.T., and it was then considered too late to go on with cable burying. A good deal of useful work has thus been lost but it is one of those interruptions that cause waste of time which cannot be avoided. Visited F Coy 108 Regt. U.S. Engineers in evening - Capt Harris O.C.	
	12th		Showery day. Visited some dugouts with Lt Fidler, also 7th Field Coy horselines and 6th Field Coy Bivouacs. French made an attack early this morning south of us and captured the village of Castel overlooking the Avre. With Lt Harris had dinner with R Coy. 108 Engineers, (U.S.)	
	13th		Fine day, bit dull. Nothing much of importance.	
	14th		Went out with Major Embleton, D.A.D.M.S. at 6 a.m. Went up left sector to inspect sites for proposed R.A.P. dugouts, also inspected proposed sites for Bn. Hdqrs of left Brigade. G.O.C., however, does not approve of these locations as they are too far apart as he wishes both Bn. Hdqrs. to be together.	
	15th		Fine day. Hot and close. Visited 172 Tunnelling Coy. H.Q. and discussed plan for double Bde and Artillery Group H.Q. which is proposed to be constructed near 028c8.5. just west of Villers-Bretonneux. Preliminary survey and plans being prepared by 7th Field Coy. G.O.C. is anxious to get this completed before we go out of the line, also a double Batt H.Q. for each Bde sector. Sites and plans for latter have not yet been fixed up. Proposed to put Tunnelling Coy on to double Bde H.Q. and Pioneers on to Batt H.Q. About 2000 Americans are to be attached to this Division in about 2 day's time for training, and they will afford very useful relief in the shape of making more labour available. Enemy commenced a fresh great offensive on a front of 85 Kms from Auvilly, 10 Kms S.W. of Rheims to Chateau Thierry and from six miles S of Rheims to Mossiges. Rheims thus not directly attacked. The Marne has been crossed in one place but the position is reported generally satisfactory. It is well to be cautious in accepting first reports but a serious failure by the enemy on such a big scale will be sure to have a great effect on further operations. The French appear to have learned the locality and time of the attack so were probably more or less prepared.	

Confidential.

Sheet 4.

WAR DIARY Headquarters Divisional Engineers

Army Form C. 2118.

Instructions regarding War Diaries and Intelligence
Summaries are contained in F. S. Regs., Part II.
and the Staff Manual respectively. Title pages
will be prepared in manuscript.

or
INTELLIGENCE SUMMARY. 2nd Australian Division.

(Erase heading not required.)

July 1918.

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Glisy	15th		No news what British troops are engaged but heard that XXII Corps went down there a few day's ago. On this front efforts are still being made to keep on edging forward by so called "peaceful penetrations". Monument Wood, which proved such an obstacle when Villers-Bretonneux was taken, has been penetrated and is now in our hands. Division has laid down the line to which it is desired to reach and remain on and on which policy of deep dugouts can be prepared.	
	16th		Conference of C.R.E's held at C.E's office today. No very vital questions raised. C.E. proposed a scheme of attaching N.C.O's from Field Coys to Searchlight Anti Aircraft Sections; support rather luke warm. He also wanted us to select and prepare sites for Field Coy horselines suitable for Winter. Think that it is too early for this as the situation will probably render alterations of dispositions necessary long before Winter. From map in G office enemy appear to have penetrated about $3\frac{1}{2}$ miles on a 15 mile front between Chateau-Thierry and Rheims. The attack was repulsed near Chateau-Thierry and also along the whole line east of Rheims: elsewhere the penetration has only been moderate and if any further advance can be prevented it would not be serious, and would amount to a German reverse. The Rheims Salient is however becoming very pronounced and any advance on the front where the line has held will render the position of Rheims very precarious. Lt Harris went on leave today. Rain fairly heavily during morning, hot and muggy during day.	
	17th		Went out 6-30 a.m. with Lt. Fidler to Bn. H.Q. in quarry near Villers Bretonneux and from there made a fairly extensive tour of dugouts in right brigade sector. 7th Field Coy. have a section camped in shelters in railway cutting at O.34.b.7.8., a place liable to shelling. Heavy gas shelling last night over a considerable portion of the area. Pioneers suffered a good many casualties among working parties, 2 officers and 17 other ranks evacuated and more probably affected. Heavy fighting is still taking place in the neighbourhood of Rheims but little news circulated. This side of Rheims the enemy have made no further advance and have if anything been pushed back a little. For about 6 miles East of Rheims, however, they have penetrated about 3 miles on a 15-mile front, this leaves Rheims in a more than ever pronounced salient and the position looks very precarious. Pioneers are a good deal below strength in officers, so I have detailed 5th and 6th Field Coys., who each have nine at present with unit, to send an officer each for temporary duty with Pioneers.	
	18th		Heavy showers during the day. Went to Pioneers and 5th Field Coy. H.Q. in afternoon. Col. Annand told me that over 50 of his men had been evacuated and about 20 more affected by gas shelling the night before last. News received of a big counter move by the French between a point West of Soissons to Chateau Thierry, thus tending to take the present German attack in right rear. Good progress appears to have been made on the whole front. Letter received through H.Q. from D.A.G., A.I.F. explaining the system of allotting reinforcements to various units.	

(A7092). Wt W12839/M1293. 75 .0.0. 1/17. D. D. & L., Ltd. Forms/C.2118/14.

Confidential.

WAR DIARY

Sheet 5.

Army Form C. 2118.

Instructions regarding War Diaries and Intelligence
Summaries are contained in F. S. Regs., Part II.
and the Staff Manual respectively. Title pages
will be prepared in manuscript.

or
INTELLIGENCE SUMMARY.

Headquarters Divisional Engineers
2nd Australian Division
July 1918

(Erase heading not required.)

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Glisy	18th		Heavy showers during day. Went to Pioneers and 5th Field Coy H.Q.. 20th The proposed system of reinforcing Pioneers will I think be fatal to their present degree of usefulness, as it is proposed to send to them all men unfit for Infantry and other arms who are yet not considered so unfit as to necessitate discharge. This policy will very rapidly deteriorate their present standard.	app. 14.
	19th		Fine day, fairly warm. Visited Pioneers Sawmill in morning, went over approaches to Glisy No2 and Blangy No 8 bridges. In the afternoon visited dugout at main D.S. on Villers-Bretonneux Road, and Transit Dump. G.O.C., General Rosethal, was wounded this morning while taking Brig. Gen. Robertson, new G.O.C. 6th A.I. Bde round the line. He was hit in left arm and wrist by a sniper, seems to have been due to rather careless exposure in a conspicuous position near the front line. Brig. Genl. Wisdom, G.O.C. 7th A.I. Bde is taking over command of the division temporarily. Brig. Genl. Paton 6th A.I. Bde has left to go back to Australia. 6th Bde are relieving 7th Bde in line tonight and 6th Field Coy took over from 7th Field Coy today. 7th Field Coy had 9 casualties, 3 killed, the day before yesterday in railway cutting near Villers-Bretonneux where the forward section was camped. 172 Tunnelling Coy have started on dugout at same place, and had two casualties there yesterday. Major Harris has decided not to place his forward section there.	app. 3.
	20th		Fine most of day, heavy shower in afternoon, raining in evening. Went to Vignacourt in afternoon with Major Webb to officers clothing store. Discussed proposed system of reinforcing Pioneers with General Wisdom this morning.	
	21st		Raining early in morning, fine later. French counter offensive has progressed well so far. 400 guns and 20,000 prisoners reported. Advance has nearly reached the line of the SOISSONS - Chateau-Thierry Road, from a few miles south of former place to some distance west of latter. Enemy, who had crossed the Marne between Chateau Thierry and Rheims, have retreated to north bank of river. British and French troops are attacking between Marne and Rheims but do not appear to have made much improvement there.	
	22nd		Fine day. Went out at 6.30 a.m. by car with C.E. to near Villers-Bretonneux. 172 Tunnelling Coy have commenced extension of dugouts at 0 28 c 8.5. to provide accommodation for two Infantry Bde and two Artillery Group H.Q.; we inspected this job. Went out and inspected other dugout works in progress in left sector, calling at 20th Bn H.Q. and also at 18th Bn H.Q.. There is a large number of dugouts in this area of which the excavation has been completed but which are not bunked or occupied. No attempt has been made by previous Divisions to get these properly scheduled so it is a fairly complicated business and requires the attention of one officer entirely for the present. Lt Fidler is looking after this.	App. 17-18.

WAR DIARY Headquarters Divisional Engineers, Army Form C. 2118.

or

INTELLIGENCE SUMMARY.

Second Australian Division.

(Erase heading not required.)

July 1918.

Instructions regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title pages will be prepared in manuscript.

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Glisy	23rd		<p>Showery all day. Heavy bombardment in morning just south of us. The French Corps on our right made an attack and advanced about 2,000 yards on a 6,000 yards front between Mailly and Aubvillers, and captured about 1,200 prisoners. Heavy enemy gas bombardment on forward area last night; about 400 evacuated today. Villers Bretonneux very heavily gassed. 6th Field Coy. forward section, located in O.36.b. all affected, including Lt. Sexton and 23 others. They have all been evacuated. Lt. Ingel and 2/Lt. Eltis who have been temporarily attached to the Pioneers are returning to duty with their companies.</p> <p>I have been detailed to attend school for Infantry Commanding Officers, from Aug. 11th to 18th, to be held at a place near Le Treport; one C.R.E. from each Corps in the 4th Army is being detailed to attend. Very little news from South; French advance appears to have practically come to a standstill. Efforts made from Rheims side seem to have made little impression, and enemy still holds bulk of the ground he gained on that side in his last attack, and Rheims is therefore still at the head of a dangerous salient. There is still talk of a projected enemy attack in the Ypres-Kemmel-Arras area. Pioneers had 15 gas casualties evacuated.</p>	
	24th		<p>Fine day. Visited 7th Field Coy H.Q. near Blangy-Tronville where they are mostly quartered in shelters dug into the bank. Also visited their transport lines on the north side of the Somme. The French have made further advance south of the Ourcq and have pushed the enemy further from Chateau-Thierry and that part of the Marne. No change between the Marne and Rheims.</p>	
	25th		<p>Fine day. Heavy shower about midday. Called at Pioneer H.Q. and went into the question of the number of men turned out for work. Their ration strength is about 800 and only about 330 have been turning out, which does not appear to be a fair proportion. Capt Patterson, Adjutant, went into the matter with me, and after allowing for all Batt and Coy H.Q. details, specialists, daily sick, cooks, gas guards etc only 365, including officers could be found available for work. It seems a very small percentage but I think they are trying to get all men available out to work. Only 80 to 100 are available for trench digging at present, the bulk of the remainder being employed on deep dugouts.</p>	
	26th		<p>Fine day, showers at night. Visited Transit Dump and 6th Field Coy in railway cutting, also called at 6th Bde H.Q. and met Brig. Gen. Robertson. Not much news from outside. 5th Aust. Div. front opposite Morlancourt is being taken over by 58th Division of III Corps, thus reducing this Corps frontage to two Divisions in line instead of three as hitherto. It takes place 27/28th inst. If only two Divisions are in line it will mean that the rest are longer out of the line. On the other hand it may only mean a rearrangement and this Corps may perhaps be taking over the Divisional frontage from the French south of us.</p>	
	27th		<p>Frequent heavy showers all day. 2/Lt R.H.M. Eltis was killed last night. Have not had full particulars yet but believe he was shot in mistake by one of our own sentries while out in front of our lines with a small working party. Went out early this morning with Lt Davies round right sector and visited a number of dugouts in progress.</p>	

Confidential.

Sheet 7.

WAR DIARY

Headquarters Divisional Engineers

Army Form C. 2118.

or

INTELLIGENCE SUMMARY.

2nd Australian Division.

(Erase heading not required.)

July 1918

Instructions regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title pages will be prepared in manuscript.

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Glisy	28th	28th	Fine day but overcast. Visited 172 Tunnelling Coy with Lt Fidler to try and square up several matters regarding dugouts. Two American Batts. are now attached to the Division and went into the line last night for the first time. They are 1st and 2nd Battns of 129 Regt and are to do a period of 6 wks training with the Division in the line, 1st fortnight by platoons attached to Aust Coys, then as Coys attached to Aust Battns and later as complete Battns to a Bde. The final training is for the Regt to take over and hold a Bde front. A platoon of 129 Regt H.Q. Coy is being attached to the Pioneers for training. 5th Division are making an attack tonight to capture enemy trench system about 500 yds in advance of present position. Apperas to me to be a very futile policy to keep on going forward 500 to 1,000 yds at a time, and having to reorganise dig new trenches, new dugouts and new everything and lose men as well. News from south indicates that enemy have withdrawn in the Rheims-Soissons Salient. The net result of the big attack which started on the 15th. may thus be regarded as a disastrous failure. The enemy still have large reserves in hand ready for immediate action, over 30 Divisions, I think, mostly in Prince Rupprecht's group of armies in the north so an attack there is still a possibility. The Labour position in England is very disturbed and a big strike has commenced among the munition workers. The Prime Minister has announced that exemptions granted to men of military age for munition work will be withdrawn as from tomorrow, for any who are not at work then.	
	29th		Fine day, sultry and overcast. Visited Pioneers sawmill also plank road approach to Glisy No 2 bridge. Went out in afternoon and inspected site suggested by C.E. for advanced Corps Dump. (R.E.) on broad guage railway about a mile forward from here. The site is in cutting and I do not think it would be very suitable. III Corps will take over from 5th Division and part of 3rd Divl. front on July 31st/August 1st.. Aust Corps northern boundary will then be the river Somme. There is to be a rearrangement of Tunnelling Coys and 172 Tunnelling Coy will be withdrawn on completion of jobs on hand. Do not yet know who will replace them. 5th Aust Div made an attack last night about 12.30 a.m. and all objectives were gained. They advanced about 500 yds on a 4000 yd front. No news from south today.	
	30th.		C.E. called in morning with Col. Allen, 108 Regt U.S. Engineers; the latter is coming tomorrow to stay a few days to study our methods. Lt D.B. Corfe reported today with orders to make a reconnaissance of railway from Glisy through Villers-Bretonneux as far forward as possible. Am going out with him in the morning and will pick up Major Harris at his H.Q.	

Confidential.

WAR DIARY

Sheet No 8.

Army Form C. 2118.

Instructions regarding War Diaries and Intelligence Summaries are contained in F. S. Regs., Part II. and the Staff Manual respectively. Title pages will be prepared in manuscript.

or Headquarters Divisional Engineers
2nd Australian Division.
INTELLIGENCE SUMMARY.

(Erase heading not required.)

July 1918.

Place	Date	Hour	Summary of Events and Information	Remarks and references to Appendices
Glisy	31st.		<p>Went out at 6a.m. by cycle to 6th Field Coy H.Q. with Corfe, picked up Major Harris, walked up along railway line to within about 600yds of front line, then turned into C.T. recently dug by Pioneers, walked up to front line and on to mound by the railway line. The railway, except for usual shell breaks and craters, is not very seriously damaged until the outskirts of Villers-Bretonneux are reached. Two or three dugouts in the embankment in rear of that place will perhaps be rather serious obstacles to rapid repair. From the western outskirts of Villers-Bretonneux forward the line is much broken by shell fire and in a couple of places is blocked by spoil from dugouts made in side of cutting. It will be possible to get single track past these blocks without an excessive amount of labour. Large numbers of rails are broken and the replacement of these or rather the getting of others on to the spot will be one of the chief difficulties of getting traffic through quickly. No clue was given as to the reason for this reconnaissance till tonight, though it was not hard to guess that something was in contemplation. An attack on a large scale is to be made in this locality shortly. III Corps, Australian Corps, Canadian Corps on our right and French Corps are to attack and so far as information is available the objectives are :- 1st; old French line 2000 or 3000 yds in front of our present line and 2nd; old Amiens outer defenses about 5 miles on. 2nd and 3rd Aust Divs are to capture first objectives for this Corps and 4th and 5th Aust Divs are then to capture second objective. 4th Division are taking over from the French on our right temporarily and then will be relieved by Canadians. 5th and 7th Bdes. are to attack for this Division and as a preliminary measure 6th Bde. are to take over the whole front on 2nd/3rd August. Two Field Coys are to be placed under orders of C.E. and two Coys of our Pioneer Btn. are to be placed at the disposal of 3rd Aust Div. whose Pioneers are being placed under C.E. Do not know when this latter takes effect. Not much news from south except conflicting official Communiqués. The enemy do not seem to be going back much now and are still holding the line along the Ourcq. Have to attend conference of C.R.E.'s at C.E.'s office tomorrow to discuss plans for offensive. Have asked General Staff to consider whether Infantry can be made available for attachment to the Field Coy that will be left to us. Heavy fog in morning, fine during day.</p>	
			<p style="text-align: right;"><i>W. C. L. L.</i> Lt. Colonel, C.R.E. 2nd Australian Division.</p>	

WAR DIARY

OF

Headquarters Divisional Engineers,
Second Australian Division.

FOR

J U L Y

1918.

LIST OF APPENDICES.

No.	Subject.
1. 3/133	Div. Engr. Order 51. (Operations July 4th).
2. 18/127a	" " " 52. (5th Bde. relieving 6th Bde.)
3. 18/130a	" " " 53. (6th Bde. relieving 7th Bde.)
4. 3/133c 23/92.	4th Div. C.R.E's. order for operations July 4th) In original Reconnaissance report by Pioneers.) only. " " " 6th Field Co.)
5. 6/44	Class of material excavated to be stated in Dugout report. (original only)
6. 19a/215	Unit constructing a dugout to gasproof and bunk it. (original only)
7. 11/108	Lt. Gillespie's invention of improvement of prismatic compass. (original only)
8. 24/156	Glisy group - Bridges and road mines. (original only.)
9. "	Villers Bretonneux group - Bridge and Road mines. (original only)
10. "	Blangy group - Bridge and Road mines. (original only)
11. "	Sketches of connections of demolitions on new bridges. (original only)
12. "	Report on preparations for demolition of Nord bridges near Glisy and Blangy Tronville.
13. 29/223	Suggestions regarding systems of wiring. (original & duplicate only)
14. 10/121	File re method of reinforcing units. (original only)
15.	Dugout progress reports and Analyses. (original only)
16.	General works reports for July. (original only)
17.	Sketches of dugouts in Divl. area. (original only)
18.	Dugout Map (3 sheets) shewing positions of dugouts in Divl. area. (original only).
18a.	Schedule of dugouts to accompany map.

* * * * *

29
SECRET.

Appendix 1
SECOND AUSTRALIAN DIVISION.

Appendix

10
CORPS. DIVISION
Copy No. 14
3/133
2nd AUSTRALIAN DIVISION

Divisional Engineer Order No. 51.....July 2nd 1918.

Issued under 2nd Aust. Division Order No. 200....July 1st 1918.

Reference Maps - Sheets 62D S.W. & S.E. - 1/20,000.

1. On a date and at an hour to be notified, an attack is to be carried out by the 4th Aust. Division with a view to the capture of the spur running from the main VILLERS - BRETTORREUX plateau at P.35.central, about 1,000 yards East of VAIRE and HAMEL Woods, East of HAMEL to the present front line at the South-east end of SOUZENCOURT.

2. (a) For this operation the 6th Aust. Inf. Bde. (less 2 Bns.) is placed at the disposal of the C.O.C., 4th Aust. Div., and will be used to capture the objectives on the 2nd Aust. Div. front.

(b) The 6th Field Coy. Engineers will work with the 6th A.I. Brigade

3. C.O. 6th Field Coy. will arrange direct with 6th A.I. Brigade regarding works on which they will assist.

4. 2nd Aust. Pioneer Battalion will dig a C.T. on night following attack from new front line at about P.21.a.3.3. back through crest of ridge to about P.20.b.5.0.

C.O. 2nd Aust. Pioneer Bn. will arrange particulars direct with 6th A.I. Brigade and communicate arrangements made to C.R.E.

Completion of C.T. will be notified to 6th A.I. Brigade and C.R.E. as soon as possible.

5. Acknowledge.

W. C. Clute

Lt. Colonel,

C.R.E. Second Australian Division.

DISTRIBUTION.
Over leaf.

DISTRIBUTION.

1. C.E. Aust. Corps
2. " 2nd Aust. Division.
3. C.R.E. 4th Aust. Division.
4. 5th Field Coy. A.E.
5. 8th " " "
6. 7th " " "
7. 5th A.I. Brigade
8. 8th " " "
9. 7th " " "
10. 2nd Aust. Pioneer Bn.
11. File
12. War Diary
13. " " "
14. " " "

80 SECRET.

Appendix 2
SECOND AUSTRALIAN DIVISION.

Appendix

Copy No.

Divisional Engineer Order No. 52.....6th July 1918. 18/127a.

Issued under 2nd Aust. Division Order No. 201...5th July 1918.

Reference Maps - Sheets 62D S.W. & S.E. - 1/20,000.

1. The 5th A.I.Bde. will relieve the 6th A.I.Bde. on the left brigade subsector of "A" Divisional front on the night 6th/7th July, 1918.
2. At the same time the inter-brigade boundary will be altered to run from P.25.d.5.3. along south side of road to cross-roads P.25.c.0.3. to O.30.b.6.0., thence as before, the 5th A.I.Bde. taking over from the 7th A.I.Bde. this extra portion of the front.
3. The 5th Field Coy. will relieve the 6th Field Coy. on the night 6th/7th July 1918.
4. Details of relief will be arranged direct between O.Cs. concerned.
5. Completion of relief to be notified to D.E.H.Q. by wire.
6. Acknowledge. (Field Coys. only).

H. H. H. Lt. & Adjt.,
for C.R.E. Second Australian Division.

DISTRIBUTION.
Over leaf.

DISTRIBUTION.

1. 5th Field Coy. A.E.
2. 6th " " "
3. 7th " " "
4. "G" 2nd Aust. Division.
5. 5th A.I. Brigade.
6. 6th " " "
7. File.
8. War Diary.
9. " " "
10. " " "

SECRET.*Appendix 3.*
SECOND AUSTRALIAN DIVISION.

Divisional Engineer Order No. 53.....17th July 1918.

Issued under 2nd Aust. Division Order No. 204.....17th July 1918.



1. The 6th Aust. Inf. Bde. will relieve the 7th Aust. Inf. Bde. in the Right Brigade sub-sector of "A" Divisional front on the night 19th/20th July 1918.
2. The 6th Field Company will relieve the 7th Field Company on night 19th/20th July 1918 under mutual arrangements between O.Cs. Coys. concerned.
3. On being relieved the 7th Field Company will take over the duties of the 6th Field Company.
4. Completion of relief to be notified to D.E.H.Q. by wire.
5. Field Coys. to acknowledge.

E.H. Davis Lt. & Adjt.,
for C.R.E. Second Australian Division.

DISTRIBUTION.

1. 2. 3. 5th 6th & 7th Field Coy.
4. 5. 6th & 7th A.I. Brigade.
6. "G" 2nd Aust. Division.
7. File
8. 9. 10. War Diary. ✓

C.R.E. 2nd and Division

Following receipt of G 1/915 & your
DE order NO 200, I had reconnaissance
of the locality made by three officers
this morning.

As the map references for our
proposed task did not seem
feasible or in conformity with the
scheme I referred to Lt. Bode
who said the forward point
should be P 21 C 2.8

The sketch attached hereto shows the
location as still further south.

I propose to send C Coy plus
a platoon of A Coy, giving approx
175-180 diggers ex effort & R.D.O.

A further daylight reconnaissance
will be made tomorrow.

W. J. Lunnard Lt Col
C.O. 2nd Aust. Pioneer Bn

3-7-18



SECRET

2nd Aust Pioneer

Pl. see attached &
return when finished with

3-7-18

W. J. Lunnard Lt Col
C.O.



Appendix

4

15

83

"A" Form.
MESSAGES AND SIGNALS.

Army Form C, 2121.
 (In pads of 100.)

Prefix	Code	m.	Words	Charge	No. of Message	Recd. at	m.
Office of Origin and Service Instructions.			Sent			Date	
			At			From	
			To				
			By			By	

TO

CRE 2nd Divt Div

Sender's Number.	Day of Month.	In reply to Number.	AAA
* F-94	2		

G.O.C. 6th Bde asked me to send you a sketch showing a C.T. on which a company of Pioneers, if available, might with advantage be employed. AAA Proposed trench is shown in pencil on attached sketch - it is impossible until the final objective has been captured to say what length is worth digging and if pioneers are allotted to this job it would be advisable for one of their officers to make a daylight reconnaissance on the 4th inst. AAA I am arranging for the overland track to be marked on the morning of 5th inst.

From	6th Field Coy A.E.		
Place			
Time			

The above may be forwarded as now corrected.

(Z)

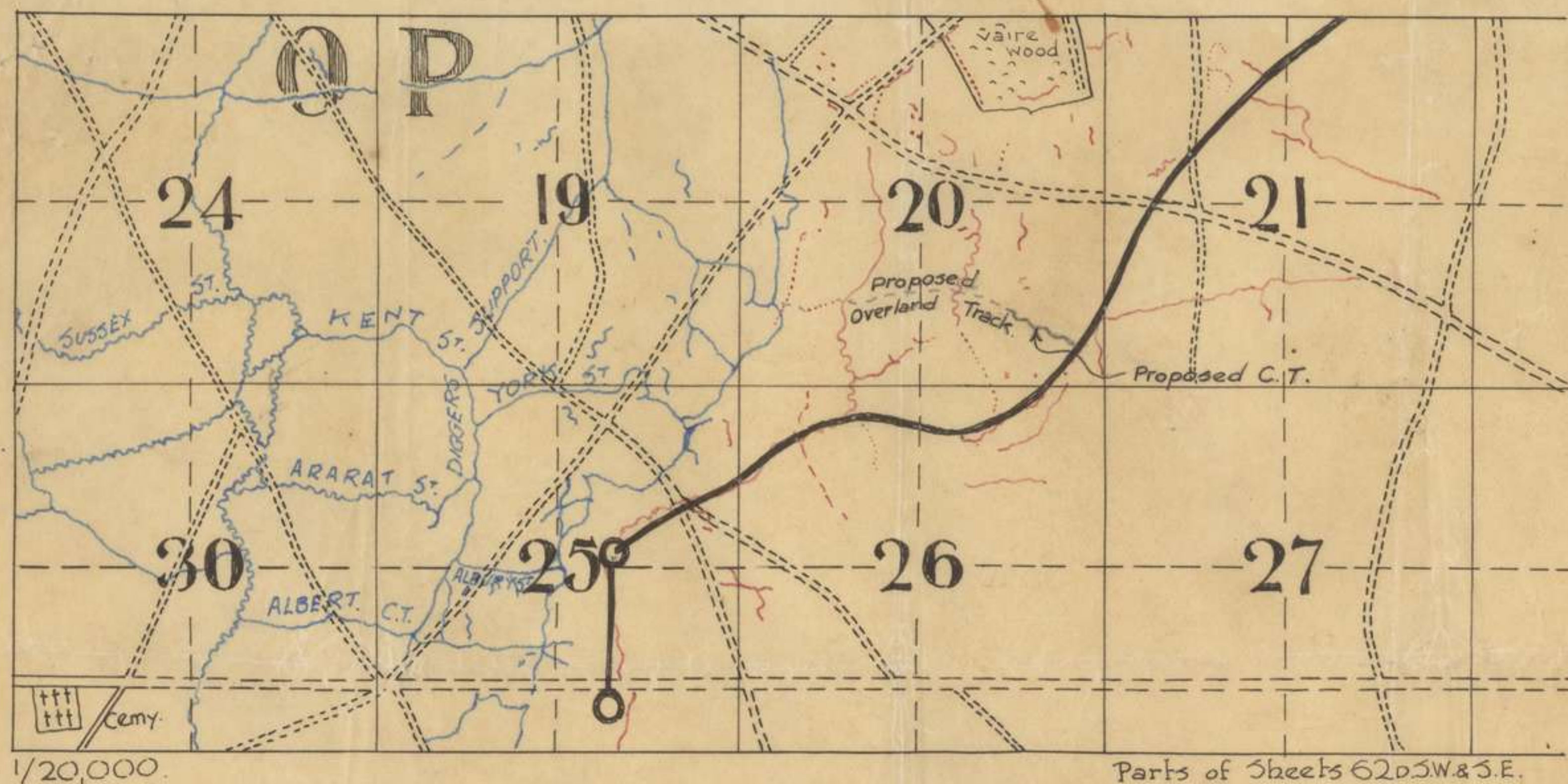
McHarris Harris

Censor.

Signature of Addressor or person authorised to telegraph in his name.

* This line, except AAA, should be erased if not required.

Wt. W 3253/P511. 500,000 Pads. 1/18. B. & S. Ltd. (E2389.)



Appendix 4

85

Army Form C. 4001.
(In pads of 100.)

No. of Message.....

Prefix.....	Code.....	m	Words.	Charge.	<i>This message is on a/c of :</i> <i>Services.</i>	Recd. at	m.	
Office of Origin and Service Instructions.							Date.....	
			Sent				From	
			At.....m.				By.....	
			To.....					
			By.....		(Signature of "Franking Officer.")			

TO	6 th Florida Coy			

Sender's Number. * E.W. 407	Day of Month. 4 July	In reply to Number. N.C. 6.	AAA
--------------------------------	-------------------------	--------------------------------	-----

Ref last para "Old enemy front line
from P. 20. a. 6. 8 to P. 20. a. 7. 3"
Will you pl. confirm the first map
ref. as G. suggest it may be intended
of P. 26. a. 6. 8.

From CRE 2nd Ave 7 D.V.

Place			
-------	--	--	--

The above may be forwarded as now corrected. (Z) 100000-9478

Censor.	Signature of Addressor or person authorised to telegraph in his nam
---------	---

* This line should be erased if not required.

(3796.) Wt. W492/M1647. 650,000 Pads. 5/17. H.W. & V., Ltd. (E. 1187.)

Prefix	Code	m.	Words	Charge	This message is on a/c of:	Reed. at..... m.	
Office of Origin and Service Instructions.						Sent	Date.....
							At..... m.
							To.....
By.....					(Signature of "Franking Officer.")	From.....	
						By.....	

TO

CHE 2nd Aust Div

Sender's Number.	Day of Month.	In reply to Number.	AAA
* NC-1	4 July		

L.O.T. completed 1.10 a.m.

From	6th Field Coy AC
Place	
Time	

The above may be forwarded as now corrected.

(Z)

11CH... ..

Censor.

Signature of Addressee or person authorised to telegraph in his name.

Prefix	Code	m.	Words	Charge	This message is on a/c of:	Reed. at..... m.	
Office of Origin and Service Instructions.						Sent	Date.....
							At..... m.
							To.....
By.....					(Signature of "Franking Officer.")	From.....	
						By.....	

TO

CHE 2nd Aust Div

Sender's Number.	Day of Month.	In reply to Number.	AAA
* NC-5	4		

The following is a report on captured defences by Reconnoitring Battalion of this company. AAA
I Old enemy front line from P.25.b.3.0 to P.26.a.60.85 - Fairly good traversed trenches 4' to 5' deep x 2' wide firebays 7 to 10 yds long & traverses 5 yds wide.
Field of Fire

P.25.b.3.0 to P.26.a.20.65 - forward slope - field 300 to 400 yds
P.26.a.20.65 to P.26.a.60.85 - reverse slope - field 100 yds at right to 500 yds at left.
Shelters:- Undercut bunk holes

From

Place

Appendix

4

19

Prefix	Code	m.	Words	Charge	This message is on a/c of:	Reed. at..... m.	
Office of Origin and Service Instructions.						Sent	Date.....
							At..... m.
							To.....
By.....					(Signature of "Franking Officer.")	From.....	
						By.....	

TO

Sender's Number.

Day of Month.

In reply to Number.

AAA

*

chiefly but 6 stepped dug out
entrances have been driven
about 6 to 8 sets each
Note:- German construction wise
from P.26.a.20.65 to P.26.a.60.85
has been carried forward to
enemy side of trench

FRONT LINE

P.26.b.4.8 to P.26.b.6.9 - 3' to 4' deep
x 3 ft wide at top & 1 ft wide at
bottom - not timbered. Field of
fire 40 to 60 yards.

P.26.b.6.9 - P.20.d.7.0 - Trench
5 ft deep x 3 ft wide at top and 1 ft
at bottom. Field of fire 70 to 100 yds

From

m.

	At..... m.	Service.	From.....
	To.....		
	By.....	(Signature of "Franking Officer.")	By.....

TO

Sender's Number.

Day of Month.

In reply to Number.

AAA

*

P.20.d.7.0 to P.20.d.8.1
Depth 4 ft x 3 ft wide at top &
1 ft at bottom. Field 80 to 100 yds
6-2 man jump holes dug with
5 ft cover and partly timbered.
P.20.d.8.1 to P.20.d.95.30
- Depth 4'6" x 4' wide at top & 18"
at bottom. Field 100 to 150 yds.

A block is established in CT
running ^{SW} from P.20.d.95.75.
Beyond this infantry state that
there are two dug outs with
chambers about 9x7x6 ft high.

From P.20.d.95.30 to road
at P.20.a.2.0 there were only a

From

Appendix 4

20

Office of Origin and Service Instructions.		This message is on a/c of:	Recd. at..... m.
	Sent		Date.....
	At..... m.	Service.	From.....
	To.....		By.....
	By.....	(Signature of "Franking Officer.")	

TO

Sender's Number.	Day of Month.	In reply to Number.	AAA
------------------	---------------	---------------------	-----

*
 few foot holes but 21st Bn
 have dug 7 new posts
 10 to 20 yds long x 4 ft deep
 and 2 to 3 ft wide with
 fields of fire of 150 yds on
 right down to 30 yds on
 left

There are also new posts
 about P.21.a.3.0 and P.21.d.6.1

There is no wire of any
 importance on left Bn front.

At P.20.d.85.30 there are
 two small dug outs with
 about 8 ft of cover - one
 being used as Coy HQ.

From	
Place	

Office of Origin and Service Instructions.		This message is on a/c of:	Recd. at..... m.
	Sent		Date.....
	At..... m.	Service.	From.....
	To.....		By.....
	By.....	(Signature of "Franking Officer.")	

TO

Sender's Number.	Day of Month.	In reply to Number.	AAA
------------------	---------------	---------------------	-----

*
 Support Line P.20.b.4.8 to P.20.b.35.05
 consists of four posts each
 about 50 yds long and 2 to 3 ft
 deep. The best is at P.20.d.2.2
 about 3 ft deep x 2 1/2 ft wide and
 is being occupied by 21st Bn
 This line has a field of
 fire varying from 100 yds at
 north to 200 yds at south. No wire

Old Enemy Trench Line from
 P.20.a.6.8 to P.20.a.7.3. North
 and centre 3 ft deep x 2 ft wide
 at top and 1 ft at bottom.
 South end 4 ft deep x 2 ft wide
 at top & 1 ft at bottom.

C.T. running N. of E. from P.20.c.6.05
 to P.20.d.85.30. Shallow & much damaged

From	
Place	
Time	

The above may be forwarded as now corrected.	(Z)
Censor.	Signature of Addressee or messenger

Appendix 4

21

5th 6th 7th Field Company A.E.
2nd Aust. Pioneer Bn. ~~TH~~



The intention of the last column of the weekly dugout report does not seem to be fully understood. The heading of this column should be "remarks affecting progress" and should always indicate the class of material excavated e.g., chalk, earth, and briefly any difficulty e.g., "bad standing ground", "long carry to dump" etc.

18/7/18.

C.R.E. Second Australian Division.

McClellan
Lt. Colonel,

89

5th 6th 7th Field Company A.E.
2nd Aust. Pioneer Bn.



When the excavation of a dugout is completed, the unit constructing will gas proof and bunk it.

Statement that the dugout has been gasproofed or bunked should be then forwarded. Total accommodation provided in bunks should be stated and if office or ~~xx~~ other accommodation is provided this should also be noted in order to account for any apparent shortage in the bunking.

Separate arrangements will be made for bunking dugouts constructed by Tunnelling Coy, who will only gas proof, completion of which should be similarly reported.

Wm. C. Collett

Lt. Colonel,

11/7/18.

C.R.E. Second Australian Division.

Copy to 172 Tunnelling Coy. R.E.



ref. Lt Gillespie's invention

Appendix 7

C.E.

Australian Corps.



Would you please read through the attached description of a proposed alteration to the service prismatic compass whereby true bearings would be read instead of magnetic.

The device is very simple and cheap and requires no fundamental alterations to existing pattern. I am of opinion that the proposal is an excellent one and would greatly simplify the use of the compass for all but especially for infantry officers.

Will you please forward to the War Office with any remarks you care to attach.

G.M.C.

9/7/18.

C.R.E. Second Australian Division.

Lt. Colonel,

War Diary

85

CRE 2 Aust Div

Ref your 24/156 of 10th
inst, Attached please
find Particulars as
requested

G. Patterson

Capt. & Adj

2ND AUSTRALIAN PIONEER BATTALION.	
No.	7/480
Date	12-7-18

File transferred

Appendix 8

86



27

2ND AUSTRALIAN PIONEER BATTALION.
No.
Date

GLISY

GROUP

BRIDGES Nos 1. 2. ~~3~~ 3. 4

ROAD MINE XB

NOTE

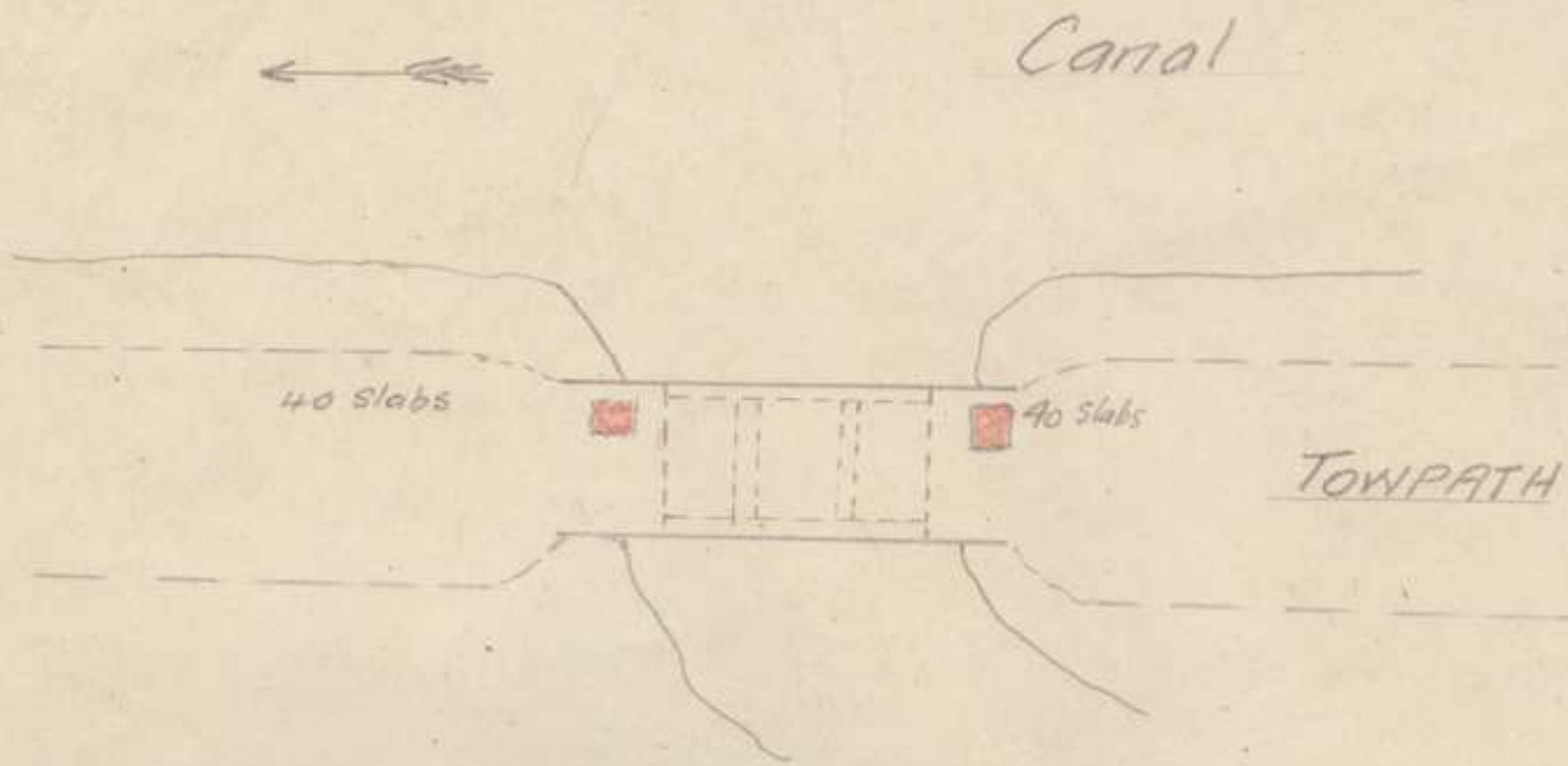
Detonators on bridges are
not placed in charge but
hanging ready

Responsibility for

<u>Actual Demolition</u>	<u>2nd Aust. Pioneer Bn</u>
<u>Orders for Demolition</u>	<u>2nd Aust. Division</u>

W. Mitchell
D. Coy 2nd Pioneer

85

TYPE

Concrete over Towpath

LOCATION

N. 14 d 33

CHARGES2 of 40 (15oz) slabs G.C.
in abutments as
shown aboveDETONATIONTimefuse detonators & primers
Kept with Guard at Glisy No 2EXAMINED

9718

CAPACITY

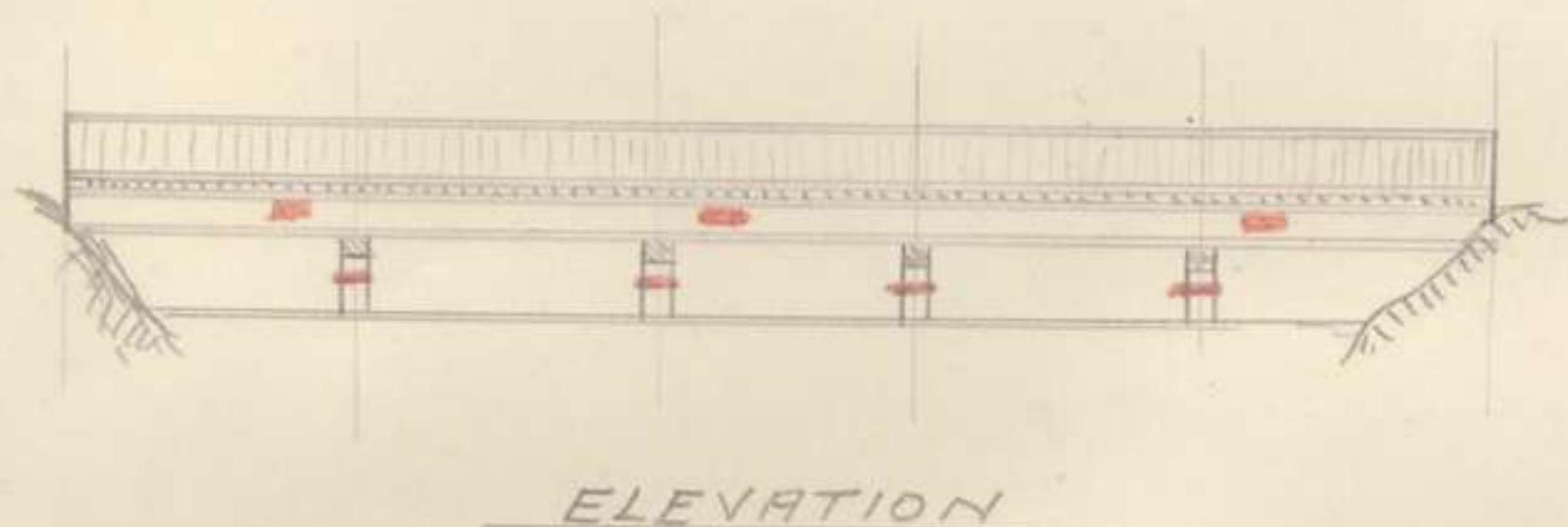
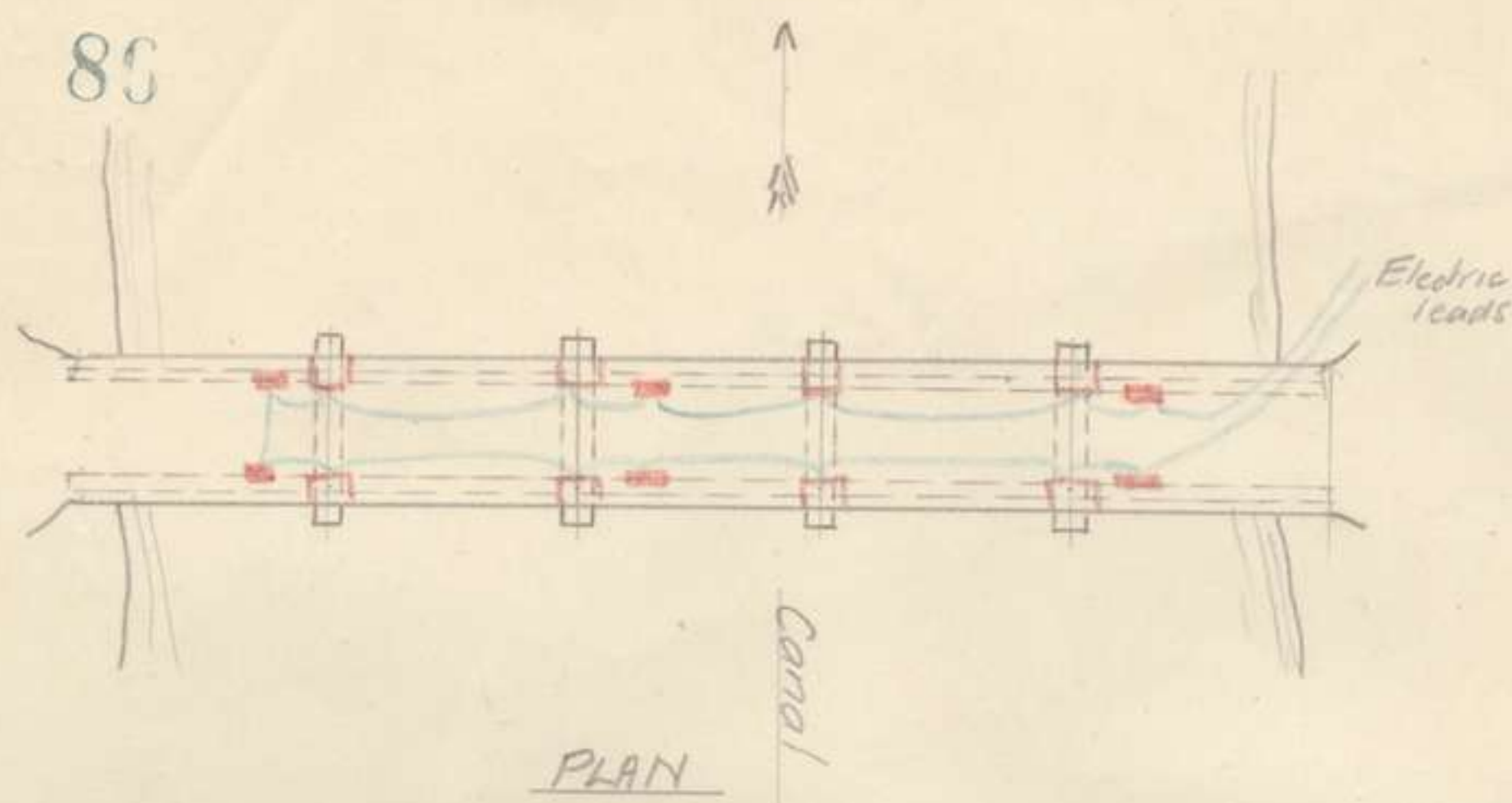
To Carry F.A.

GUARD

INCO 5men for Bridges Glisy 1.492

Charge W. H. H. H.

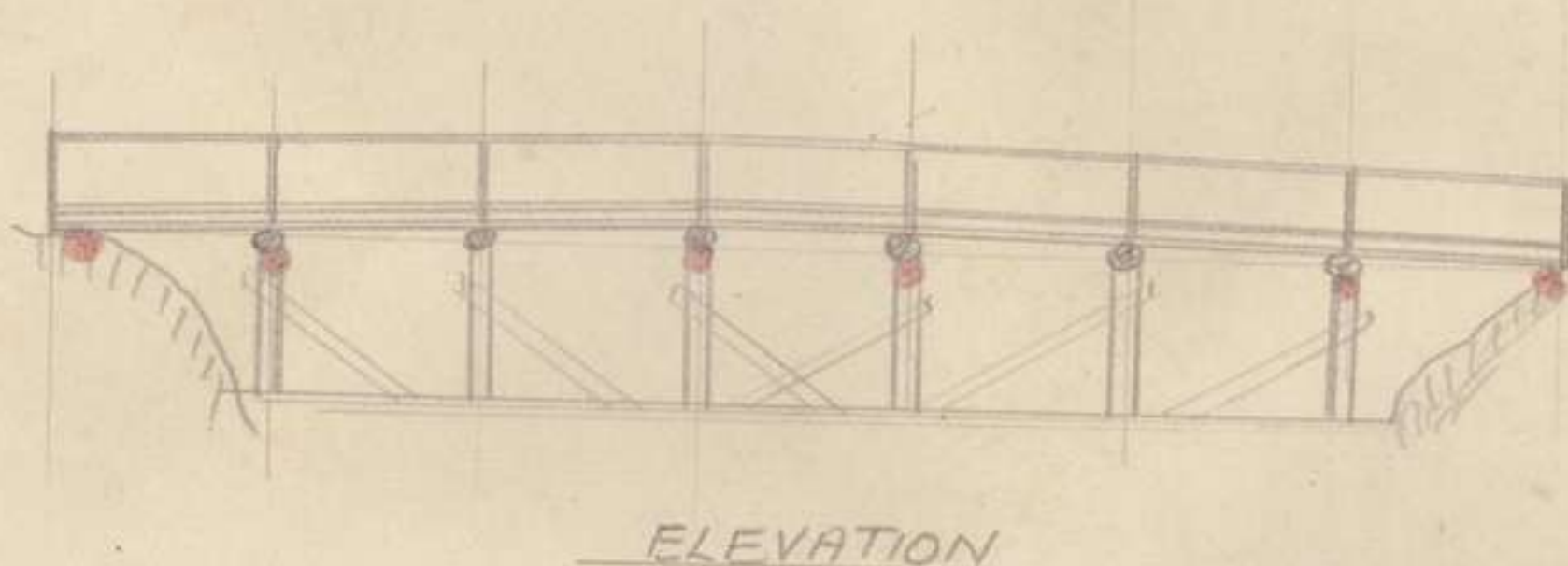
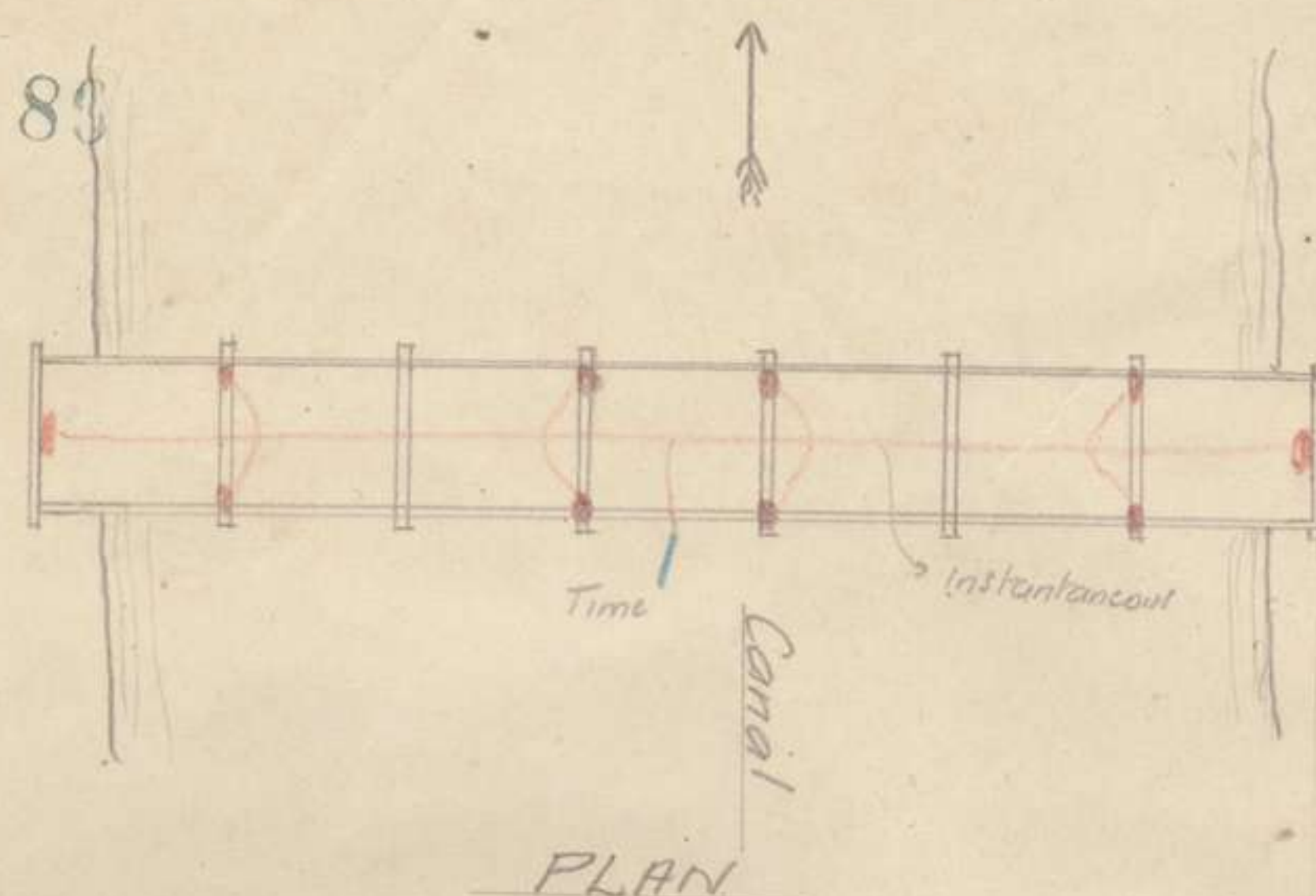
D. Coy
2nd Pioneer



TYPE	Steel girders Wooden Trestle
LOCATION	N 14 C 8.3
CHARGES	14 6 charges of 12 slabs each against inside of web of Girders 8 charges of 8 slabs of G.C. around legs of trestles 18" above water
DETONATION	Charges connected in Series 14 No. 13 Electric Detonators Service Exploder
Tested	Resistance of Circuit 8.7.18 Dry Cell 18.5 ohms Fusing Pt 41 ohms Exploder will fire thro 85 "
Alternative	None
Capacity	To carry TANKS
GUARD	1 NCO. 5 men. for Bridges Glisy 1.2.4.

Charge with train

D. Coy
2nd Pioneer

TYPE

Timber trestle over canal

LOCATION

N. 13. C 8.3

CHARGES

8 charges of 7 slabs G.C
each under ends of transoms
1 charge 10 slabs in each
abutment
charges laid 9.7.18

DETONATION

Time & instantaneous fuze
Connections shown above

EXAMINED

10.7.18

CAPACITY

F.A. and 60 pounders

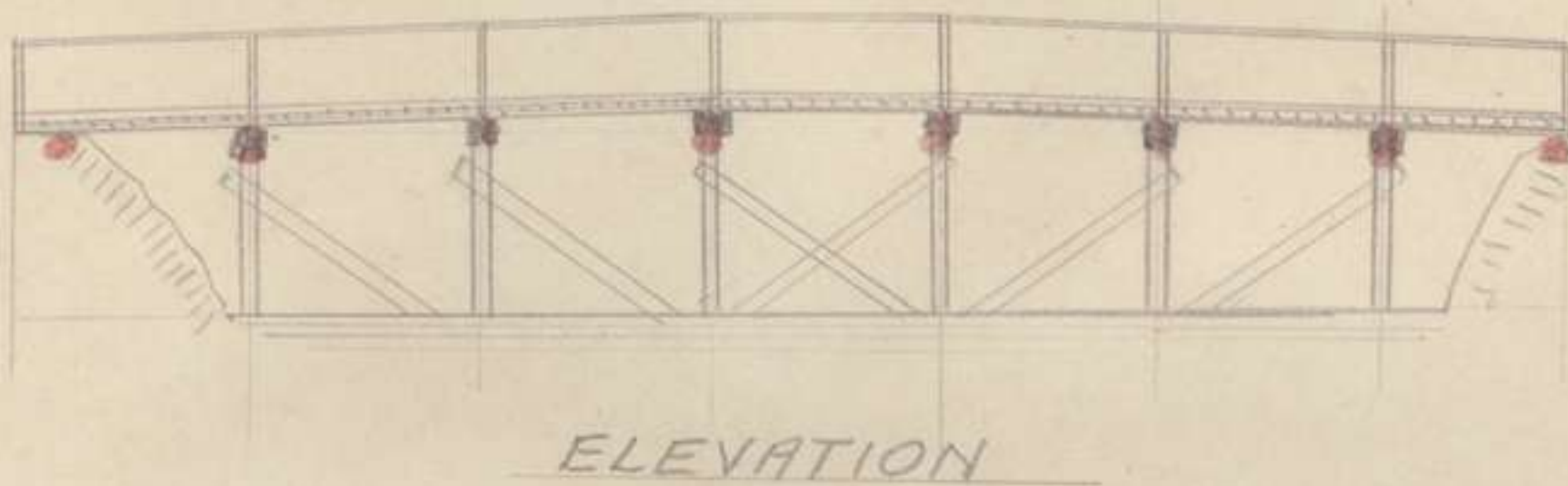
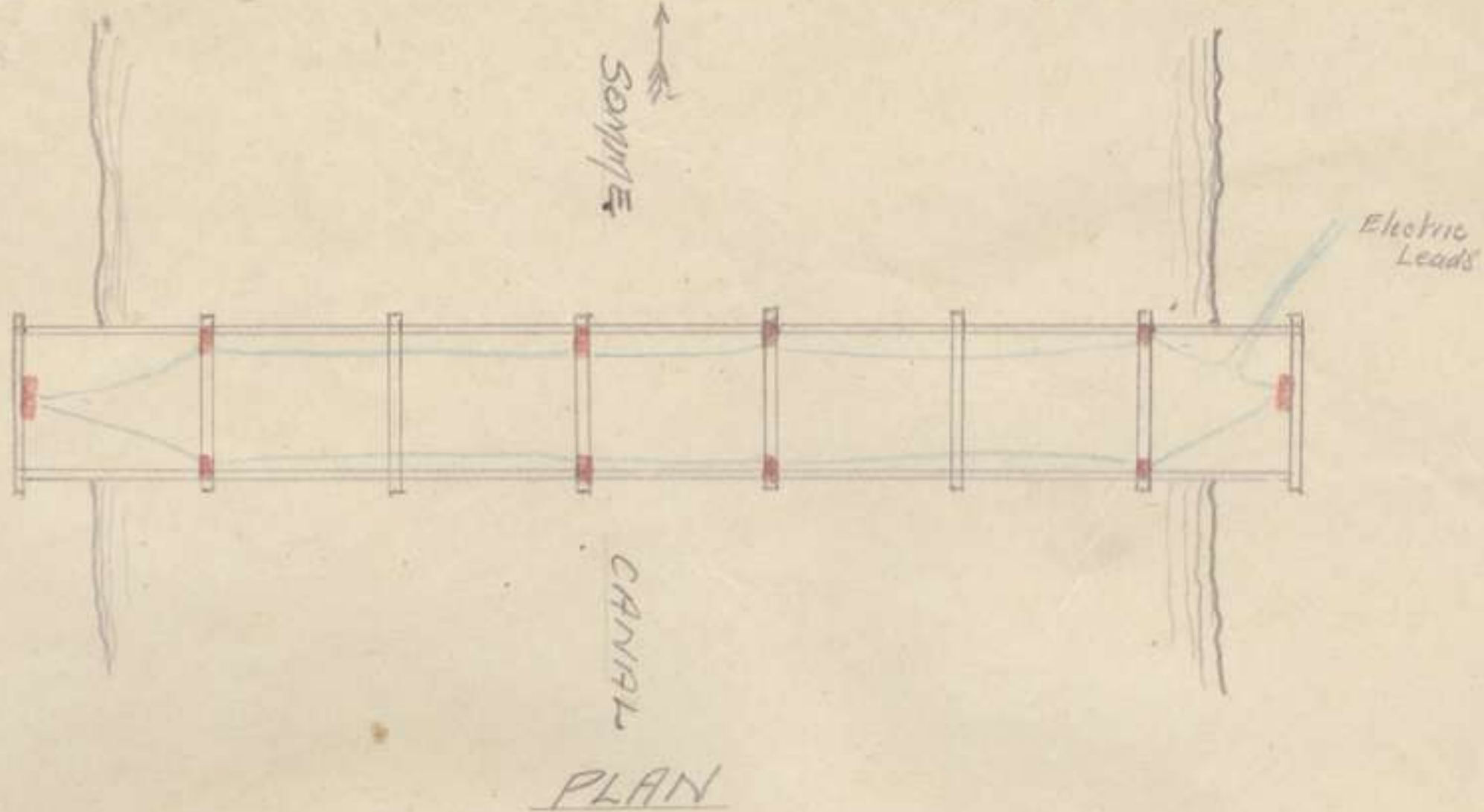
GUARD

1 NCO and 2 men.

Charge will blow

D. Coy
2nd Pioneer

80

TYPE

Timber Trestle over Canal.

LOCATION

N 14 d 03

CHARGES8 charges of 7 slabs of G.C.
each under ends of Transoms1 charge 10 slabs in each abutment
Charges laid 8.7.18DETONATIONCharges conned in series
10 No 13 Electric Detonator
Fired by Service ExploderTested

9.7.18

Resistance of circuit with Dry Cell 14 ohms
Fusing pl 30 ohms
Exploder will fire thro 85 ohm
ChargesALTERNATIVE

None

CAPACITY

To carry F.A. & 60 pounders

GUARD

INCO 5men for Bridges Glisy 1.4.42

Charge withdrawn

D. Coy
2nd Pioneer

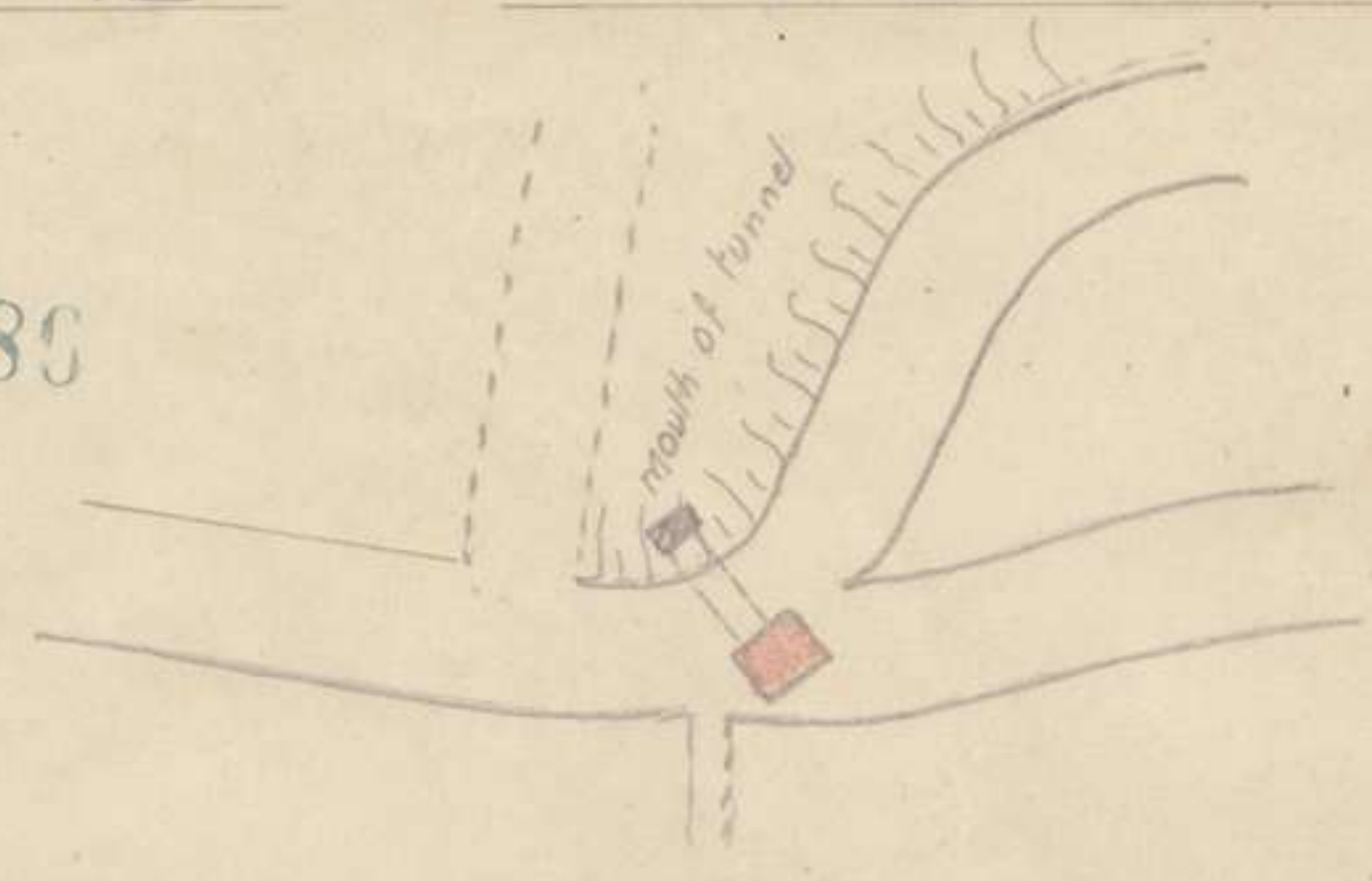
MINE

X B

Appendix

8

85



<u>TYPE</u>	<u>ROAD MINE</u>
<u>LOCATION</u>	<u>N 19 d. 8.6</u>
<u>CHARGE</u>	<u>10 case blasting</u>
<u>DETONATION</u>	<u>Charge relaid & tamped 11-7-18</u>
	<u>2 Time Fuses</u>
	<u>1 Electric</u>
<u>Tested</u>	<u>Exploder will fire tho' 80 ohms</u>
<u>GUARD</u>	<u>INCO & 2 men</u>

Charge withdrawn

D Coy
2nd Pioneer

Appendix 9

W D Lang

VILLERS-BRETONNEUX

GROUP

Responsibility for

	ACTUAL Demolition	orders for Dem
X F	2nd Aust. Pn. Bn	Right Brigade
X G	"	Right Brigade
V. D	"	2nd Aust Div
RIDGE MINE		
V. 2	"	2nd Aust. Div
V. 3	"	2nd " "
V. 4	"	Right BRIGADE

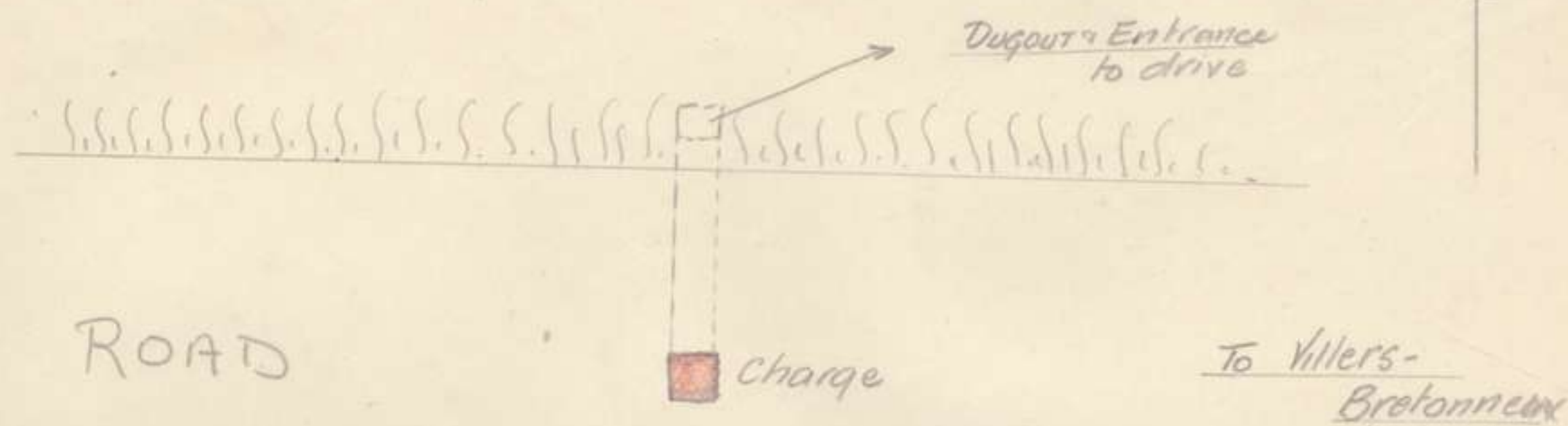
BRIDGE MINE

V. 2
V. 3
V. 4

All charges in this Group have been examined, related where necessary, tamped, circuits tested between. 29.6.18 & 11.7.18

Abraham L
D Corp 2nd Pm

89



shaft 30' long
" 12' underground

LOCATION

O 34 d 3.7

CHARGE

150 lbs Guncotton

DETONATION

2 electric lead
1. time & instantaneous

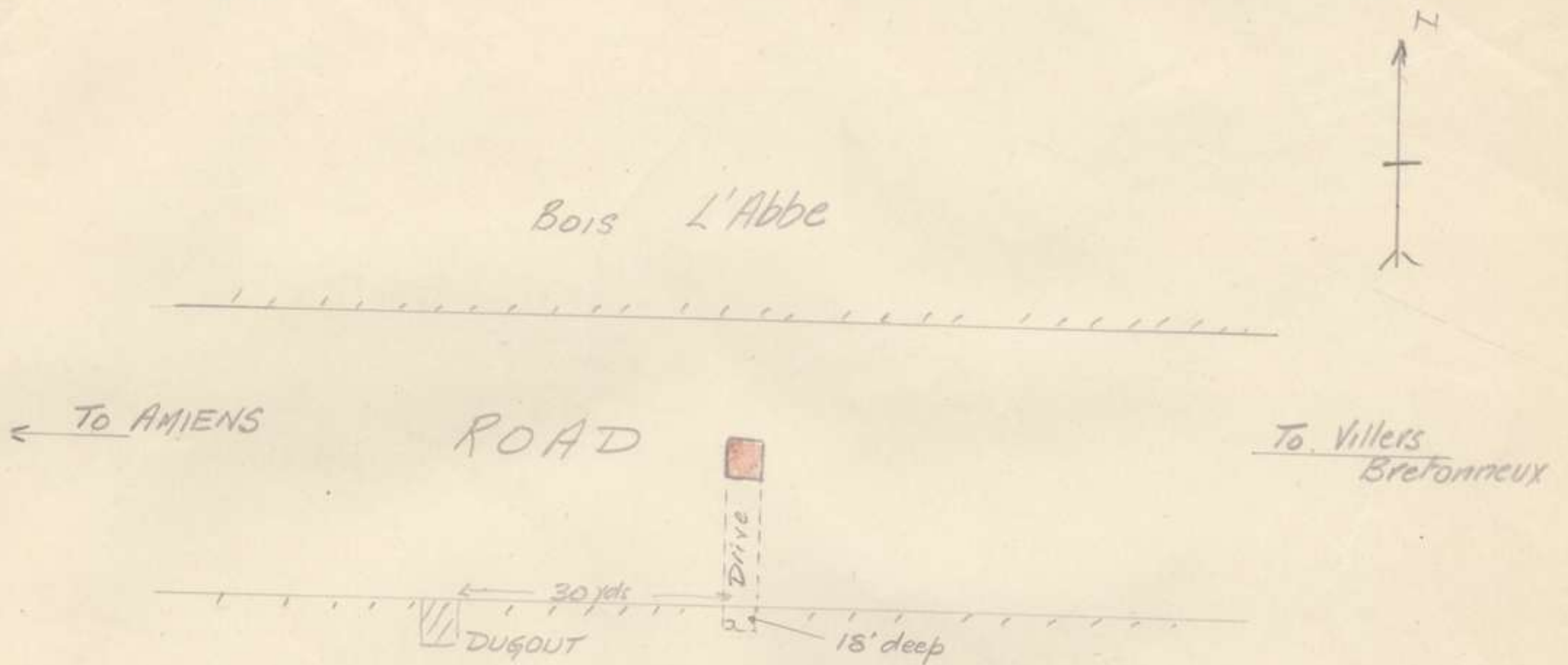
GUARD

1 NCO 3 men

Charge withdrawn

D. Coy
2nd Pioneer

83

LOCATIONO.27.C 0.3CHARGE

150 lbs Ammonal

250 " G.C

TampedDETONATION

2. Electric Leads

1. Time & Instantaneous Fuse 4 minute

GUARD1. NCO & 3 men.

Charge Withdrawn

D. Coy
2nd Pioneer

89

LOCATION

? 354.51.

CHARGE

500 lbs of G. Cotton

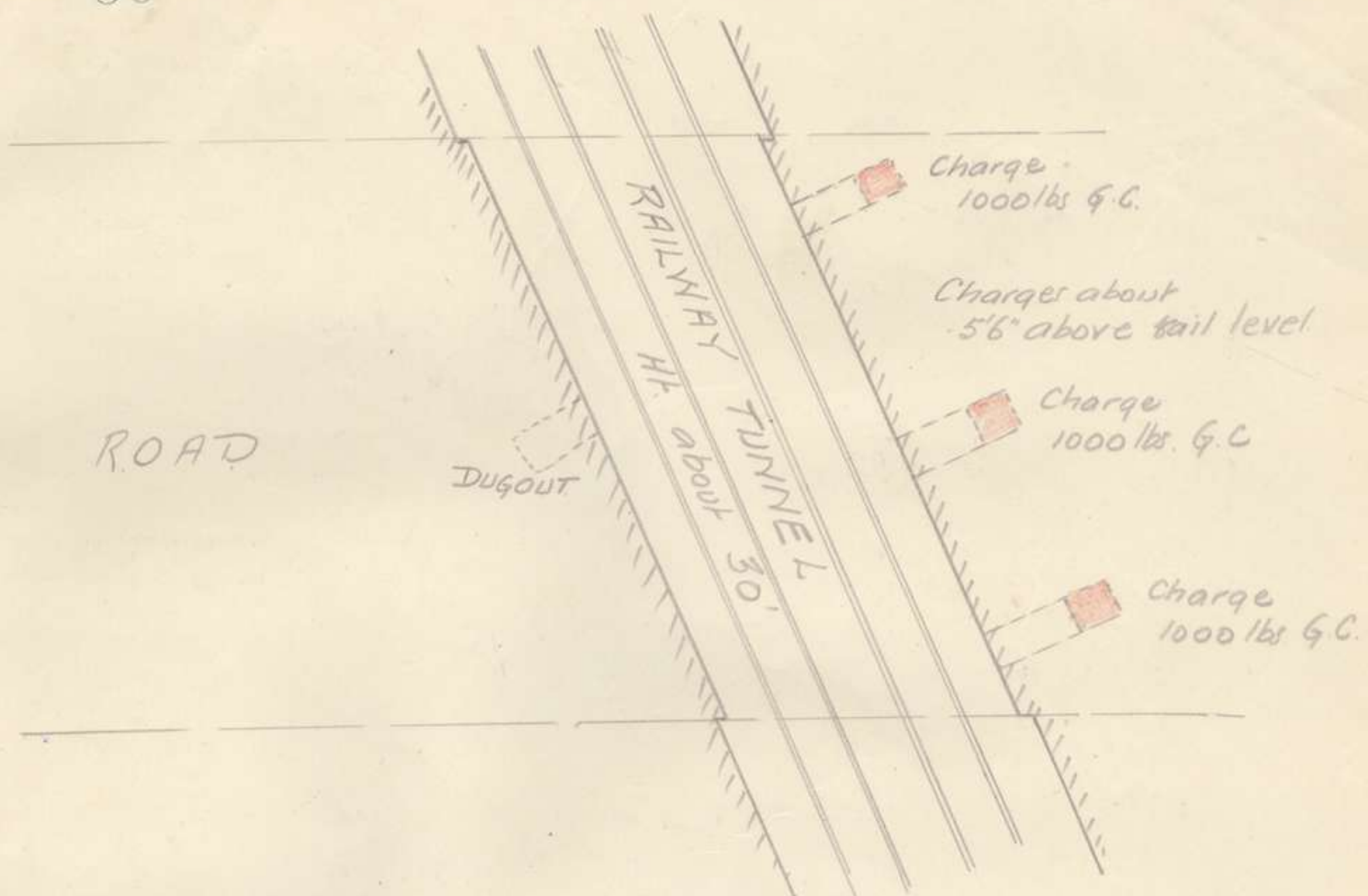
DETONATION1 inst. & time fuse 2 minute
1 electric lead 2 detonatorsGUARD

1 NCO 4 men.

Charge withdrawn

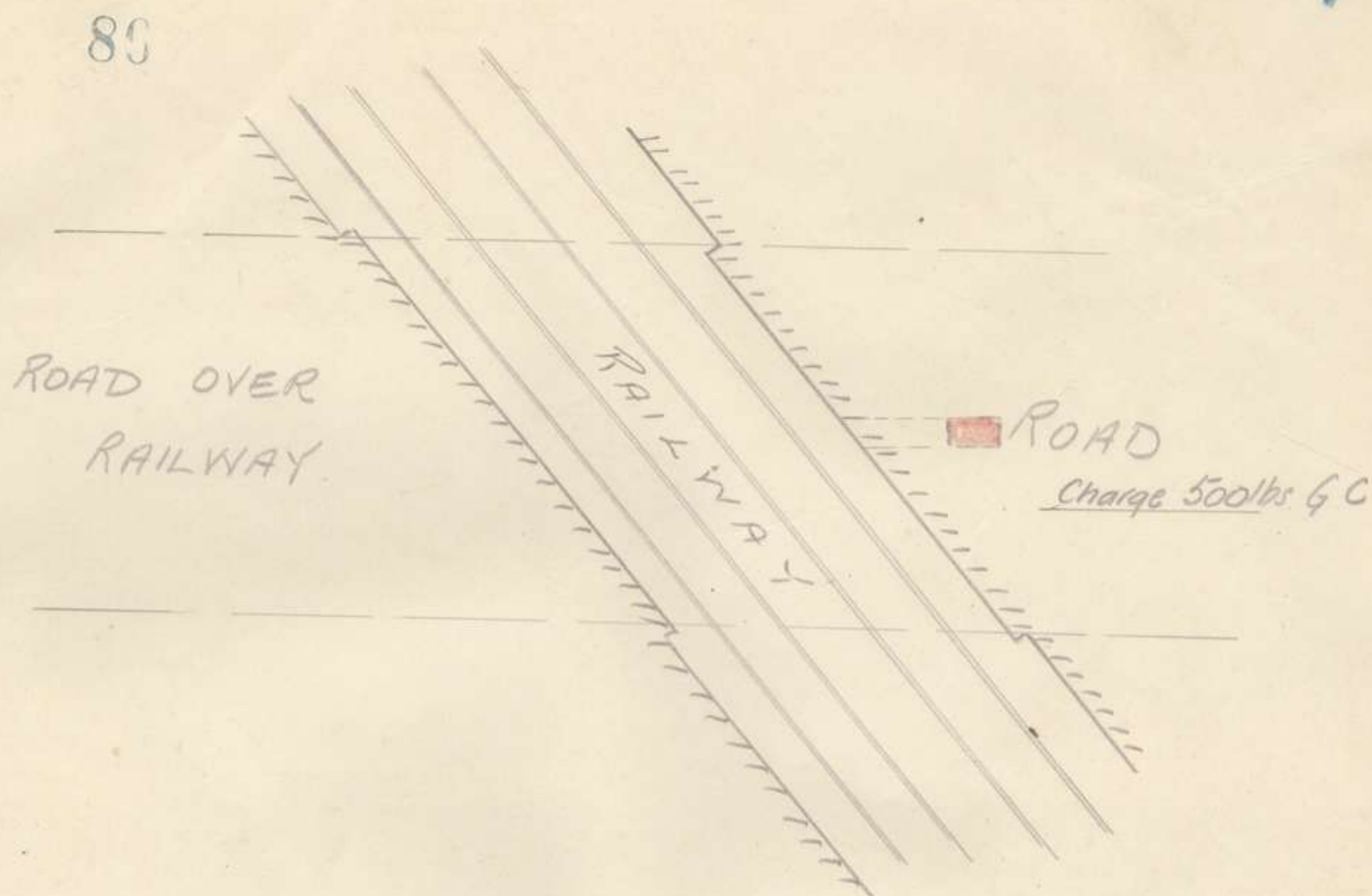
D. Coy
2nd Pioneer

89

LOCATION0.34 b 98CHARGES3. 1000 lbs G.C. in eachDETONATION1. Electric lead 6 Detonators
in Series
3. Time fusesGUARD1. NCO. & 4 men

Charge withdrawn

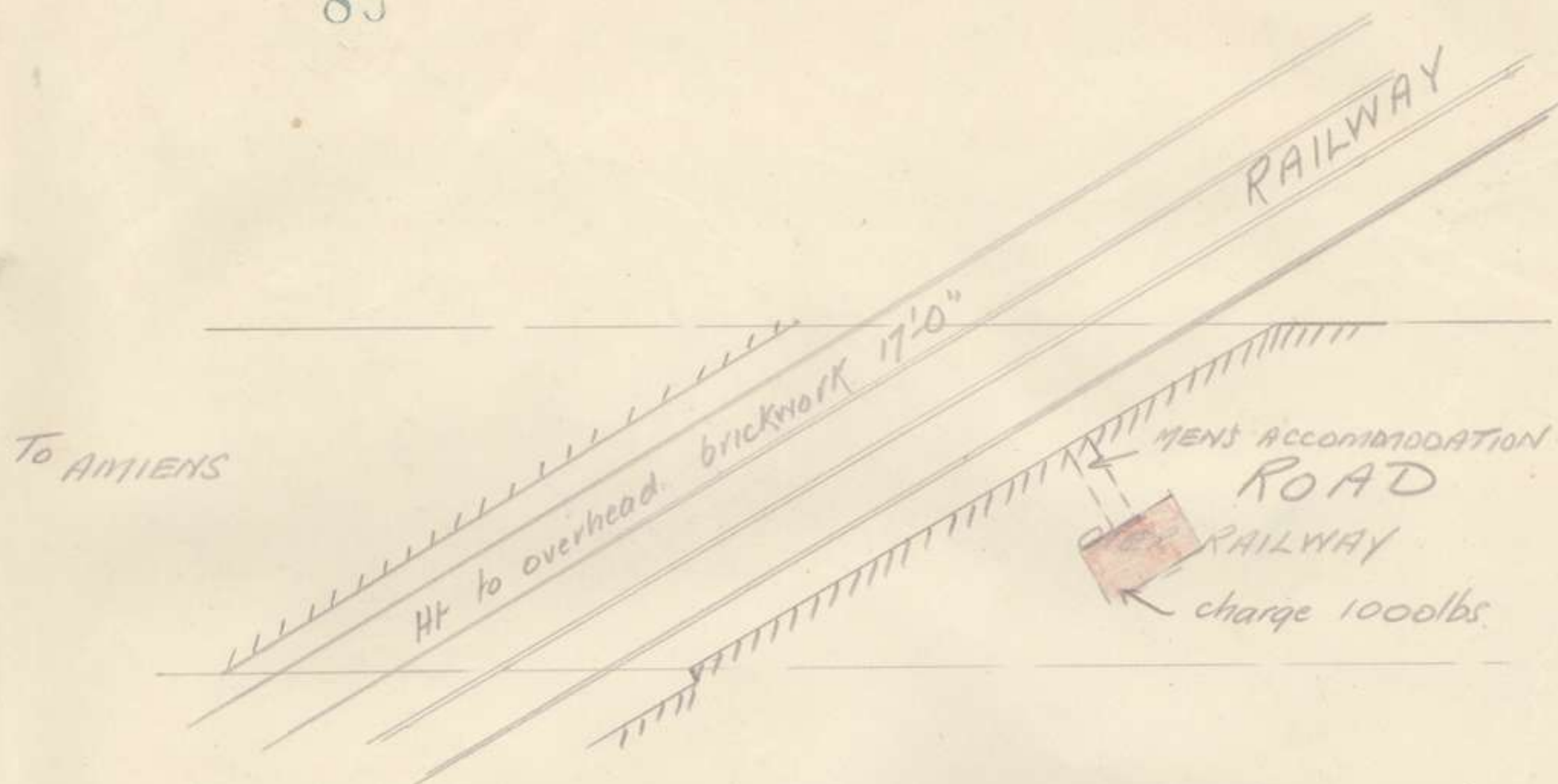
D. Coy
2nd Pioneer

LOCATIONO. 28 d 34CHARGE500 lbs GuncottonDETONATION1 electric lead. 2 detonators1 time & instantaneous fuse 2 minutesGUARD1 NCO. 5 men

Charge with drawn

D. Coy
2nd Pioneer

89

LOCATION

O. 25. C. 7. 4

CHARGE

1000 lbs Guncotton

DETONATION1 electric lead 3 detonators
1 time & instantaneous fuzeGUARD

1 NCO 5 men

Charge withdrawn

D. Coy
2nd Pioneer

89



Appendix

2ND AUSTRALIAN PIONEER BATTALION.	
No.	10
Date	40

Appendix 10

BLANGY

GROUP

BRIDGES Nos 1.2.5.6.7. & 8

ROAD MINES T' & T

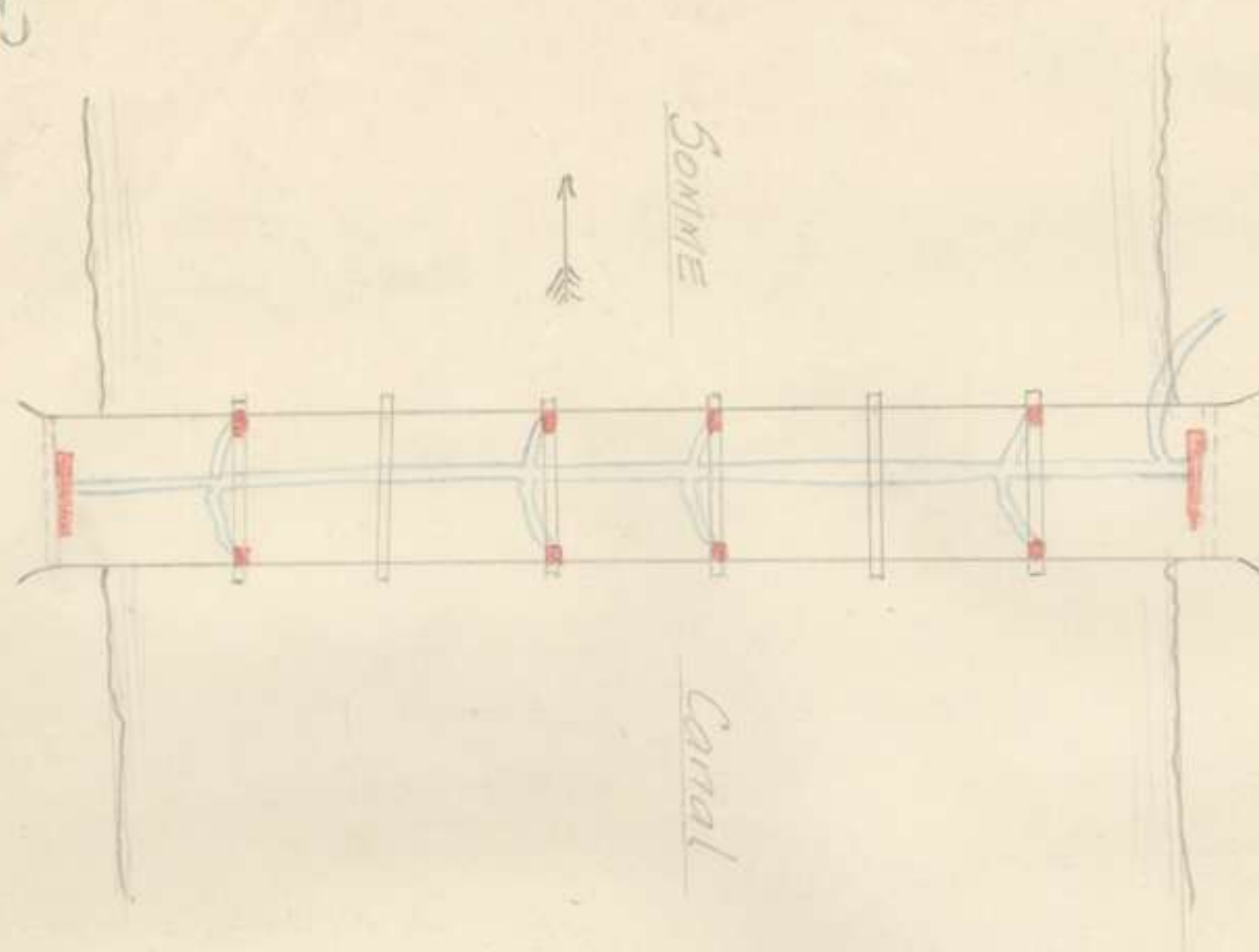
NOTE

Detonators on bridges are
not placed in charge but are
hanging ready

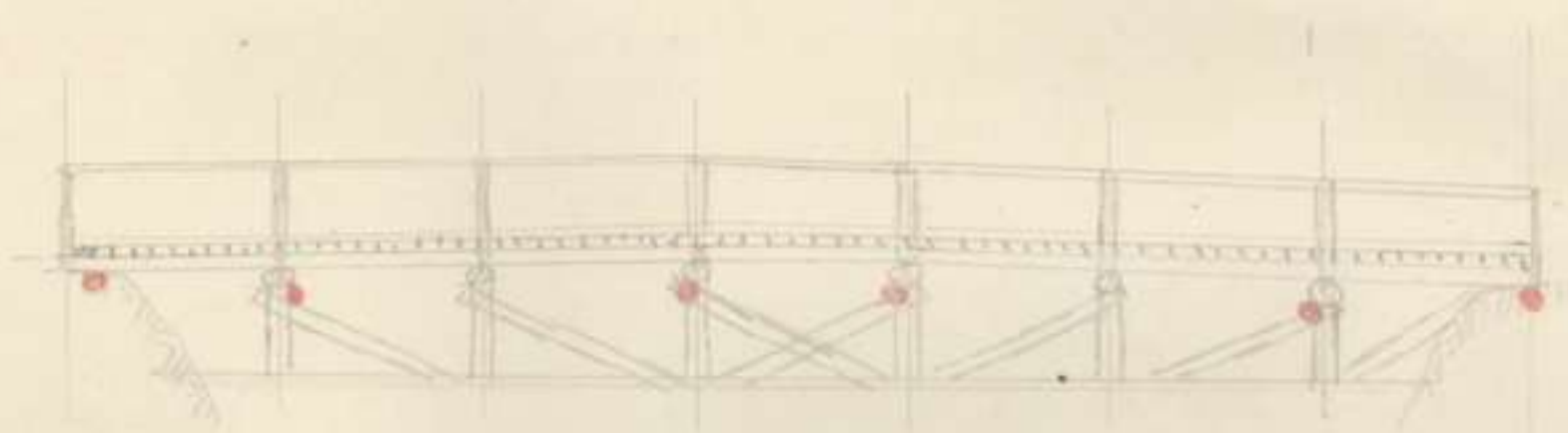
Responsibility for

<u>Actual Demolition</u>	<u>2nd Pioneer Bn. A.I.F</u>
<u>Orders for Demolition</u>	<u>2nd Aust Division</u>

Blithen
D. Coy
2nd Pioneer



PLAN



ELEVATION

TYPE

Timber Bridge over Canal

LOCATION

N. 17. C. 63

SHEET 62^DCHARGE

8 charges of 7 slabs (1502)
 Gun cotton each placed
 under ends of transoms
 1 charge 20 slabs G.C. each abutment

Detonation

Charges connected in series
 N°13 Electric Detonators
 Fired by Service Exploder

Tested

9.7.18

Resistance of circuit

Dry Cell 14 ohms

Fusing pt 30 "

Exploder

Fire thro 80 "

Alternative

Time fuse (not put in)

LOAD

F.A. & 60 Pounds

GUARD

1 NCO & 2 men

Charge and drawn

D. Coy
 2nd Pioneer

BRIDGE

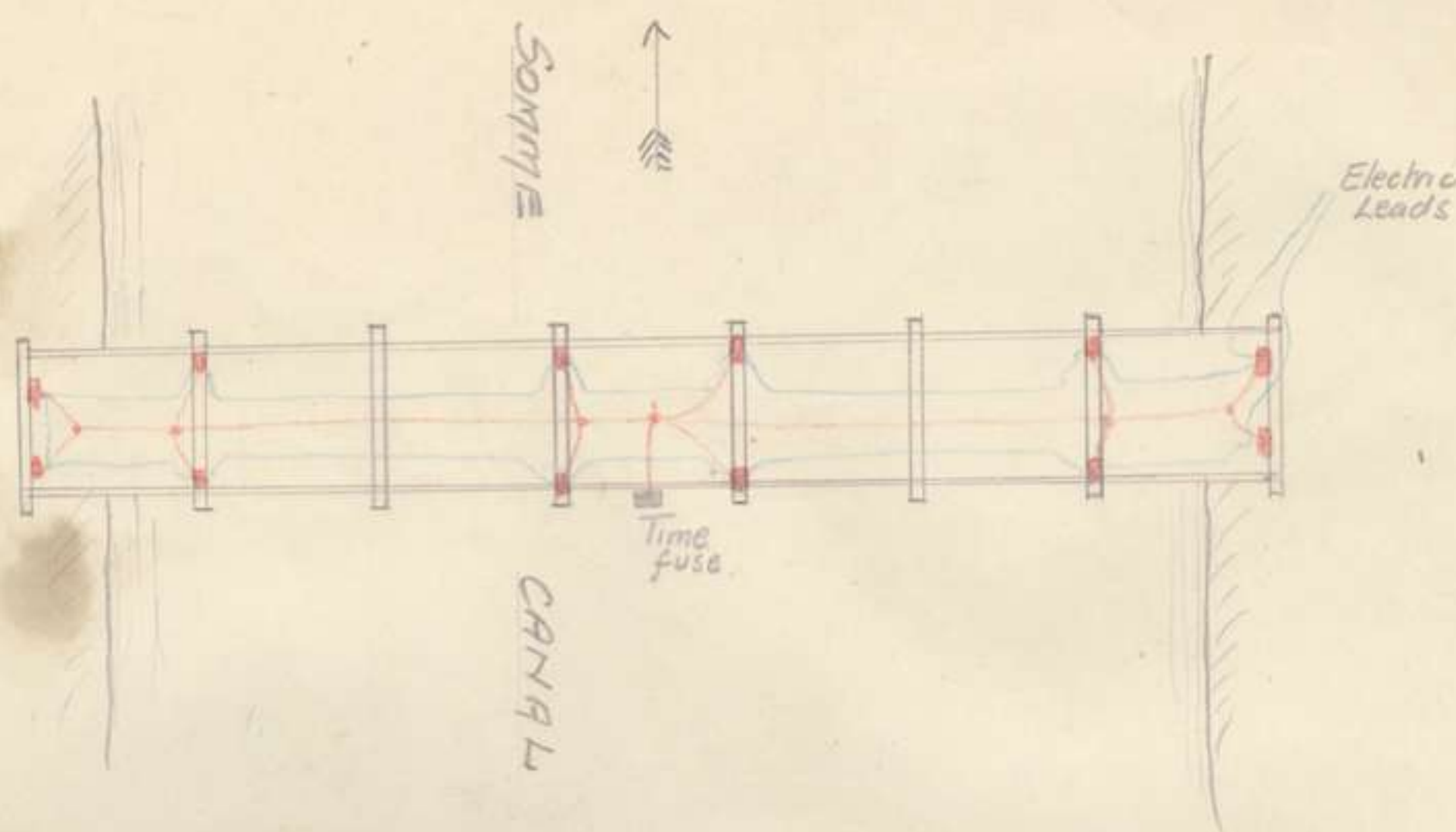
BLANGY No 2

Appendix

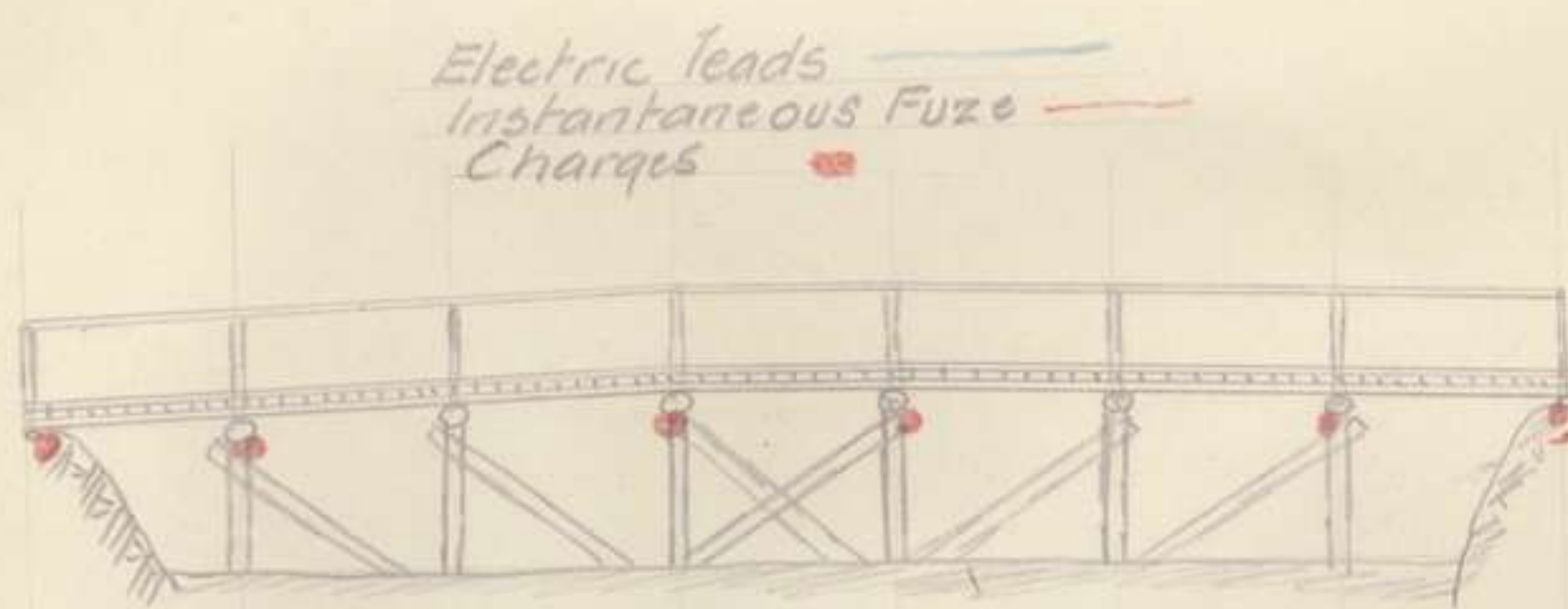
10

42

89



PLAN



ELEVATION

TYPE

Timber bridge over canal

LOCATION

N 16.C 63 SHEET 62^D

CHARGES

8 charges of 7 (15oz) slabs of
Guncotton each. under ends
of Transoms.
2 charges each 8 slabs of G.C.

DETONATION

Charges connected in series
12 No 13 Electric Detonators
Fired by Service Exploder

Tested

9.7.18

Resistance of circuit

Dry cell 15 ohms
Fusing pt. 35 ohms

Exploder. Same as Blangy No 1

Alternative

Time & Instantaneous Fuse as shown above

CAPACITY

F. A.

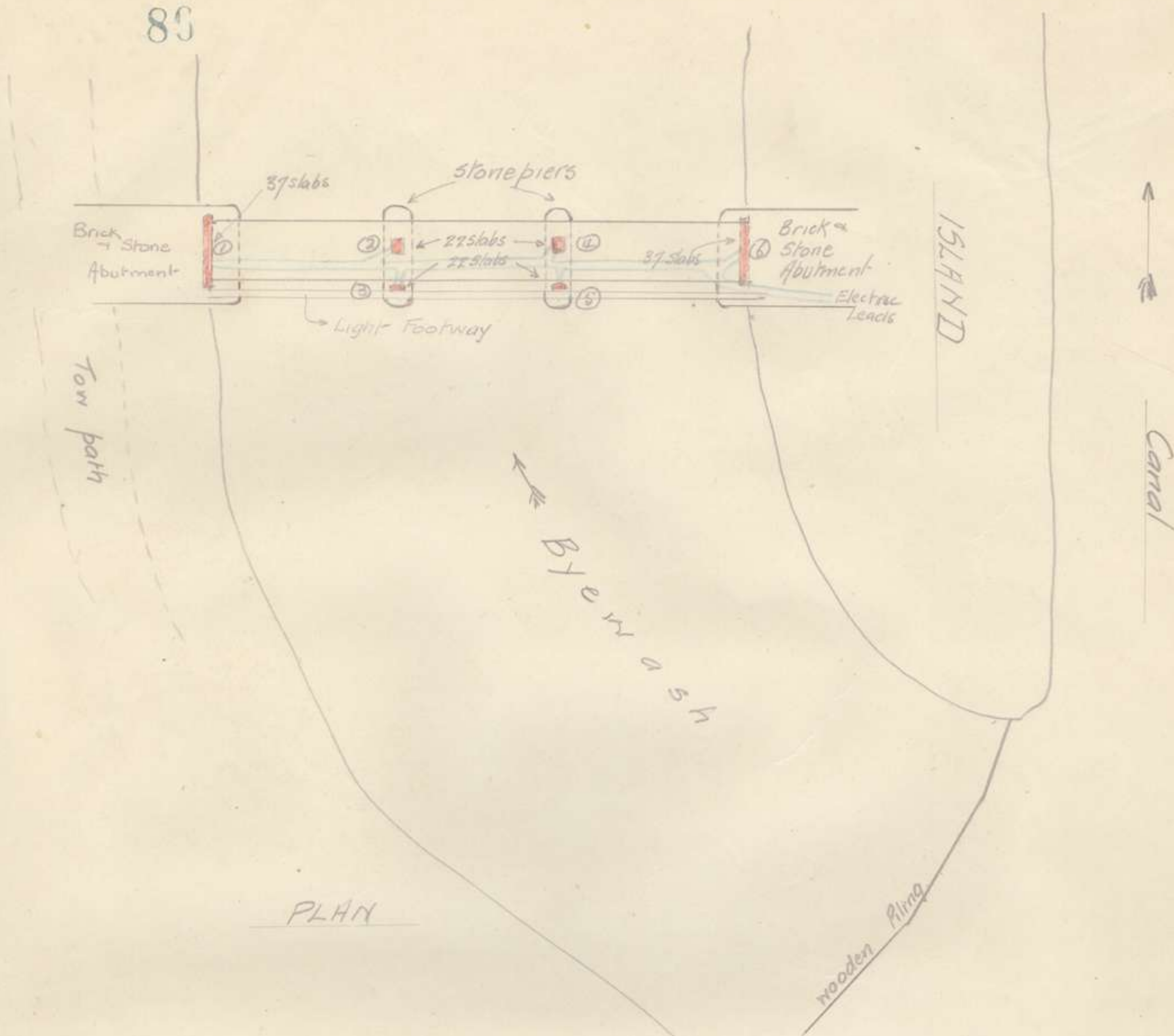
GUARD

3 men.

Charge withdrawn

D Coy
2nd Pioneer

89



PLAN

TYPE

Concrete & Stone

LOCATION? N 15 d 10 35 SHEET 62^D 5ECHARGES

6. 22 slabs Gun cotton in centre
of each pier
22 slabs Gun cotton in upstream
end of each pier
37 slabs Gun cotton in each Abutment

DETONATION

Charges connected in series

6 No 13 Detonator

Service Exploder

Tested

(7.7.18)

Charges relaid. Resistance of circuit, Dry Cell 9 ohms
Fusing pl 19 ohms

Alternative

Time & Instantaneous Fuse
connections thus



F. Art

CAPACITYGUARD

3 men

Charge and detonator

D Coy
2nd Pioneer

BRIDGE

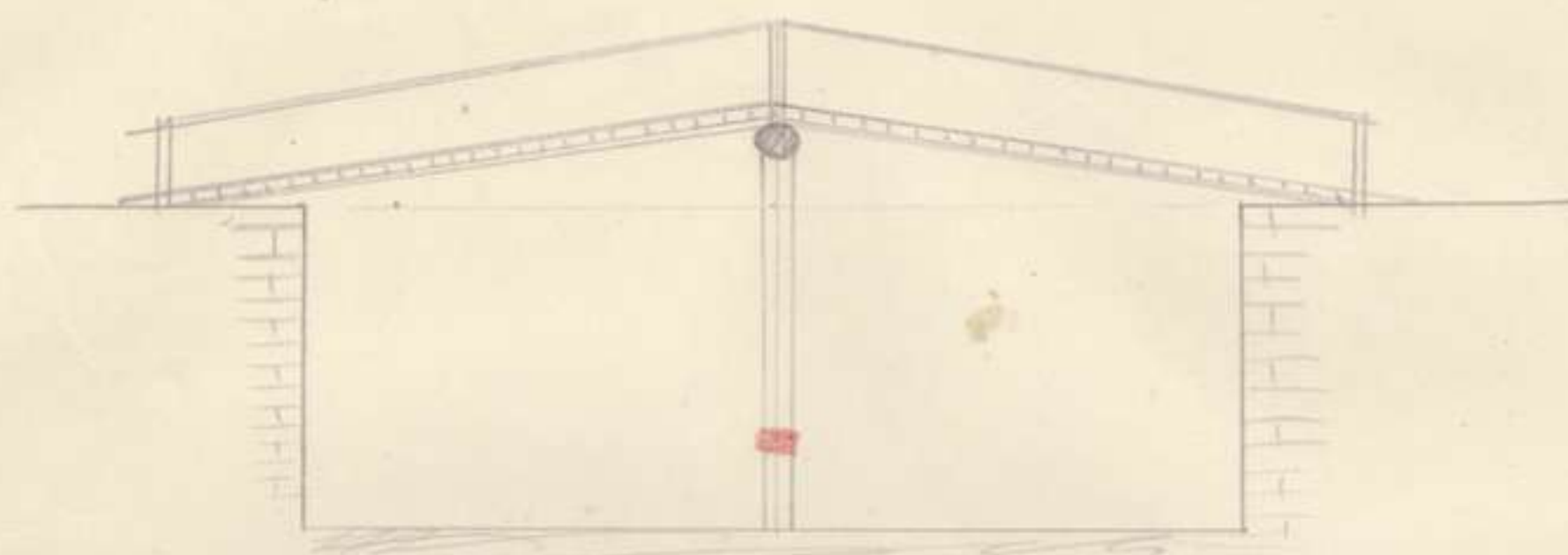
BLANGY N° 6

Appendix

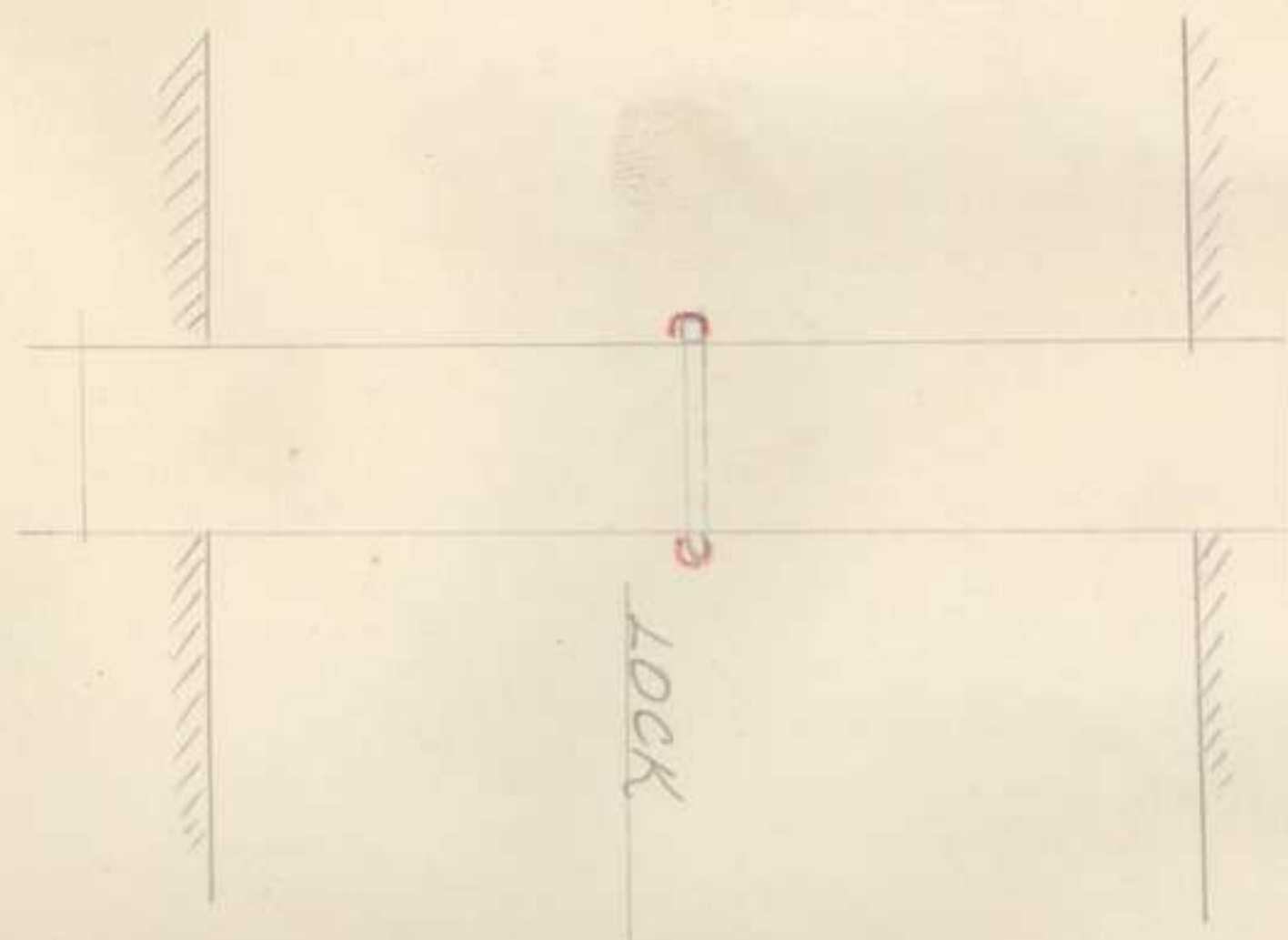
10

44

85



ELEVATION



LOCK

TYPE

Single Wooden Trestle over LOCK

LOCATION

N 15 C. 70.45

CHARGES

2. 45lbs Guncotton
on each leg of trestle

DETONATION

Short length time fuse each charge

EXAMINED

10.7.18

CAPACITY

Field Art.

GUARD

1 NCO + 3 men for Blangy 647

Charge withdrawn

D Coy
2nd Pioneer

BRIDGE

BLANGY N°7

85

TYPE

Reinforced Concrete Piers & Slabs

LOCATION

N 15 C 54

CHARGES

14

10 charges 8 slabs G.C. each
around piers 18" above water

1 charge 85 slabs } abutments
1 " 114 " }

2 charges 30 " in roadway

Detonation

charges connected in series

14 N°13 Detonators

Leads taken across canal
to opposite bank

Service Exploder

Tested (7.7.18)

Resistance of circuit

with Dry Cell 20 ohms

at Fusing Pt 43 "

Exploder will fire thro 80 ohms

Alternative

None

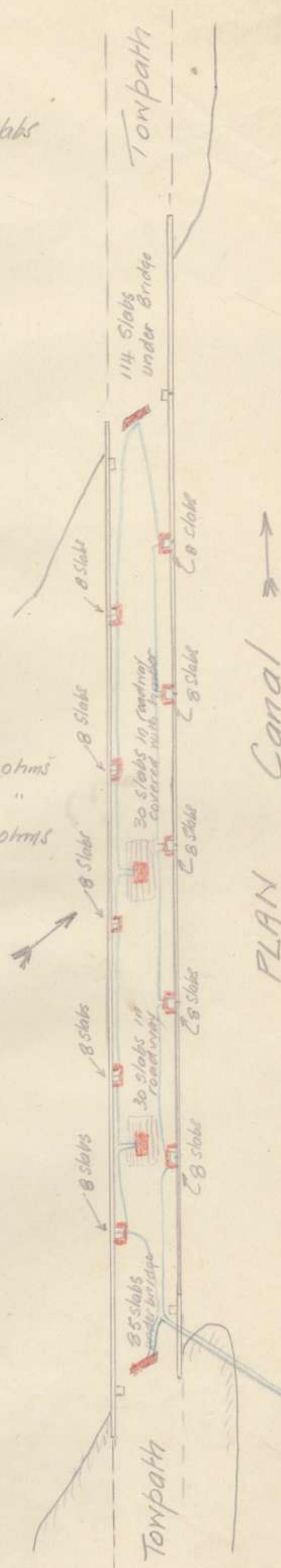
CAPACITY

F A

GUARD

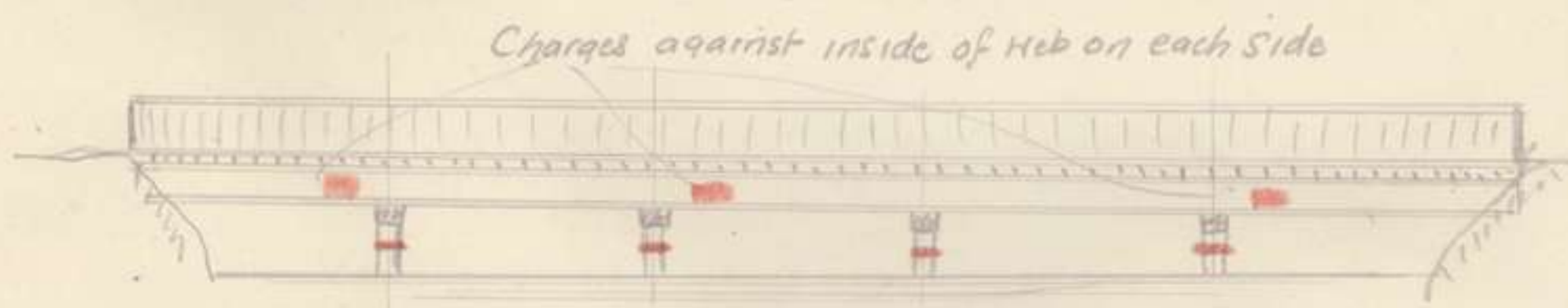
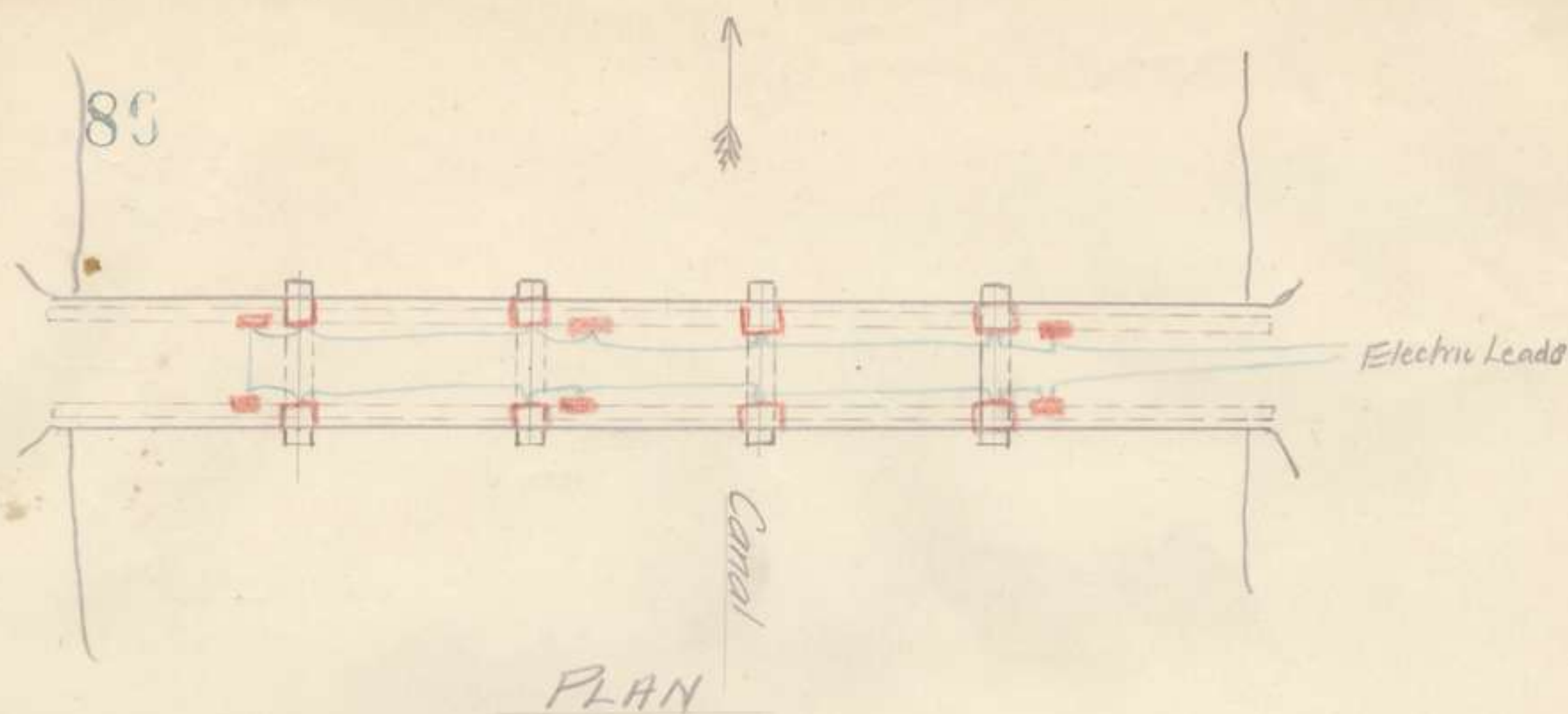
1 NCO 3 men

for Blangy 697



Charge with slabs

DCoy
2nd Pz

TYPESteel Girders 18" deep Wooden ~~post~~ trestlesLOCATION

N 15 C 24

CHARGES

14

8 charges 8 slabs GS on
legs of trestle 18" above water6 charges 12 slabs GC
on inside of web of GirdersDetonationCharges connected in series
No 13 Elect. Detonator
Service ExploderTested

6.7.18

Resistance of circuit

with Dry Cell 18 ohms

fusing pt 40 ohms

Exploder will fire two 75 ohms

Alternative

None

CAPACITY

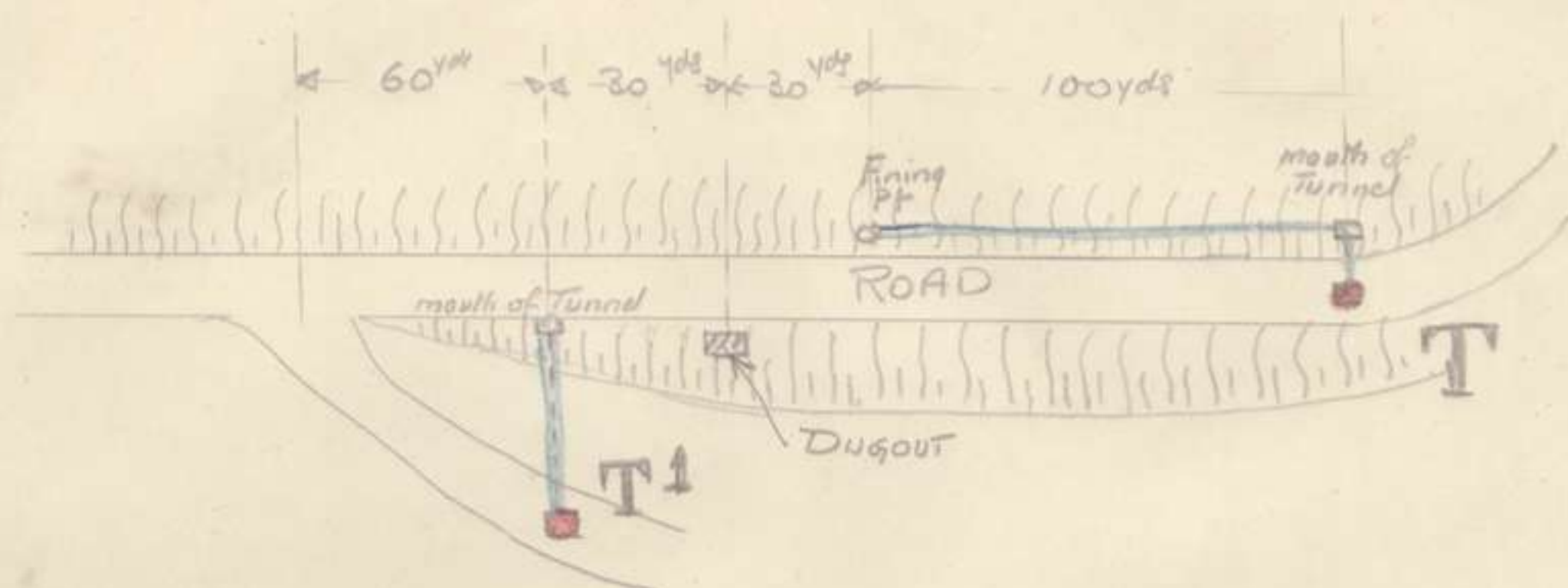
TANKS

GUARD

3 men

Charge withdrawn

D Coy
2nd Pioneer



<u>MINE</u>	<u>T</u>
<u>LOCATION</u>	N. 24 a. 85.
<u>DETAILS</u>	25 ft from charge to mouth of tunnel Tunnel 10' below road level Galleries 3'6" x 2'6"
<u>CHARGE</u>	Unknown Tamped.
<u>Detonation</u>	One 1½ minute time fuse One electric

Charge with time

<u>MINE</u>	<u>T.1</u>
<u>LOCATION</u>	N. 24 a. 7.2.
<u>Details</u>	20 ft from charge to mouth of tunnel Gallery 3'6" x 2'6"
<u>CHARGE</u>	Unknown Tamped
<u>Detonation</u>	One 2 minute Time fuse One electric

Charge with time

<u>GUARD</u>	1. NCO 3 men For both mines
--------------	-----------------------------

D Coy
11th July 18

To: Adjutant
2nd Pioneer Bn **War Draw**

In reply to 7/331 re Bridges
Herewith sketches showing
connection of new Bridges at
Daisy

Draw No 3 N 14 C 93 is connected
to be fired electrically. Line
fuse will be added as soon
as possible

Draw No 4 N 13 C 74 is connected
to be fired by line fuse. Electrical
connections will be added

J. B. H. B. L.
for D Coy

Appendix 11

ERE

For your
information
please

G. B. H. B. L.

Adl

2 ND AUSTRALIAN PIONEER BATTALION.	
No.	7/449
Date	11-7-18

File with other plan
of bridge design

SECOND AUSTRALIAN PIONEER BATTALION.

O/C "D" Company.

Ref. BRIDGES.

C.R.E. has requested that a drawing showing connections,
etc., of Demolition on new Bridges be prepared for perusal by
C.E., Corps,

Please have drawing prepared and forwarded to B.H.Q.
as soon as possible.

Adl

Battalion Headquarters.
9th July 1918.

AUSTRALIAN
PIONEER BATTALION.

No. 7/321
Date



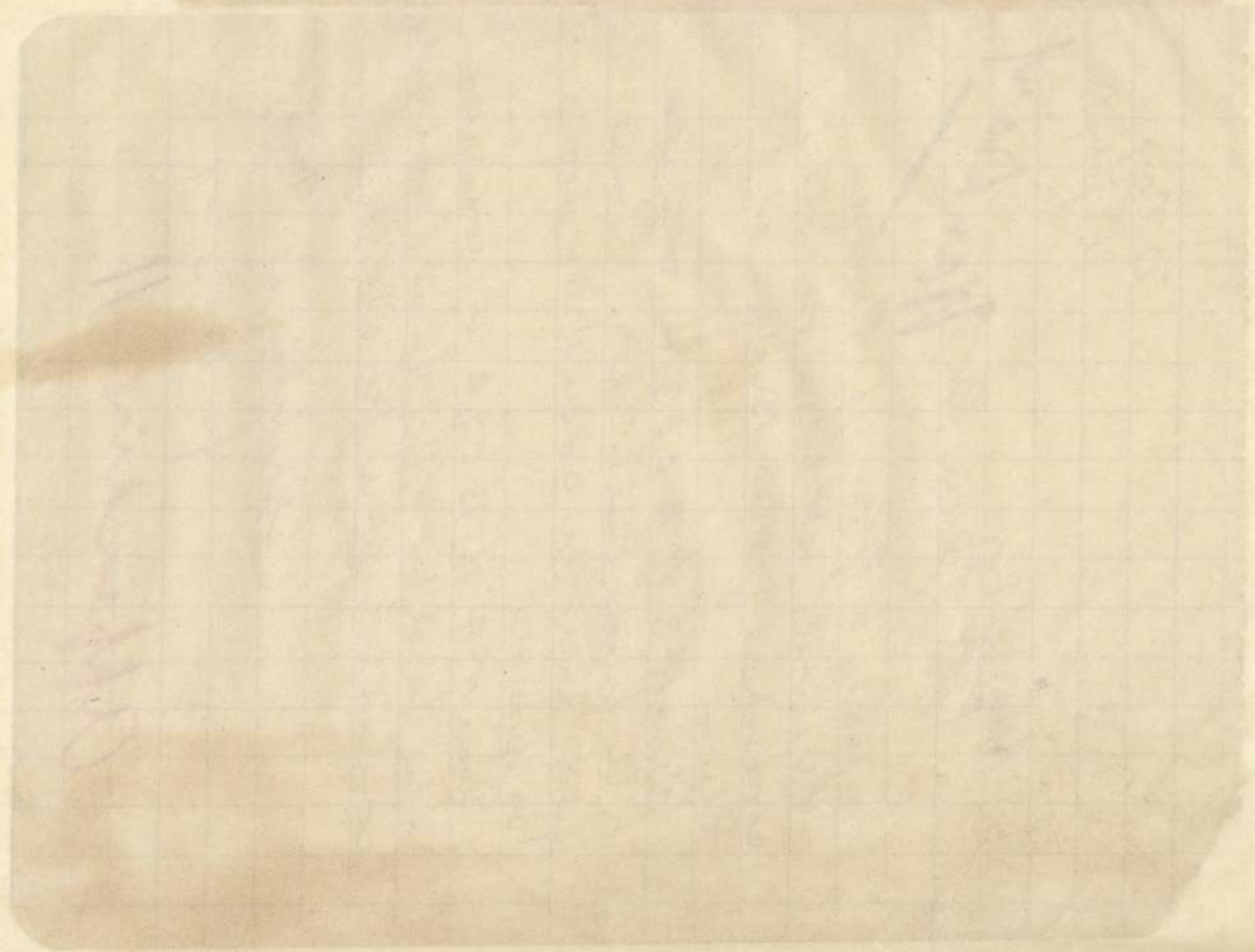
PH

II

xibnaga

28

Gift to
Narrow



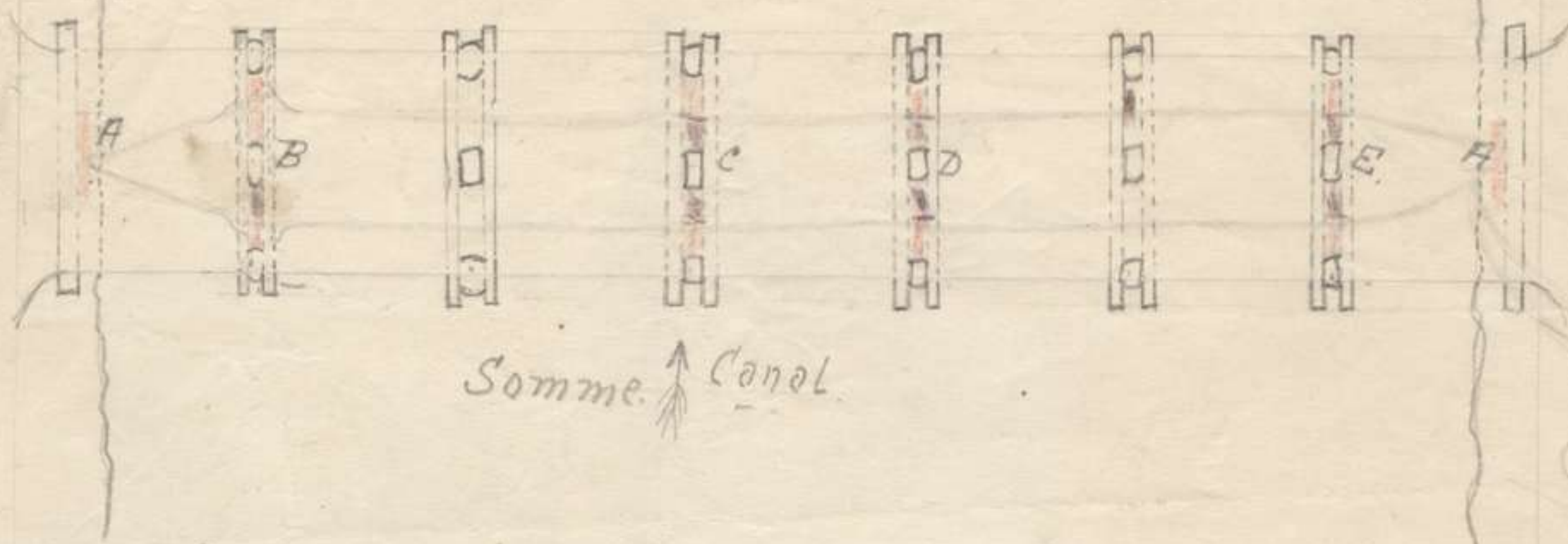
GLISY N°3 N.14 c.9.3

Appendix

1149

89

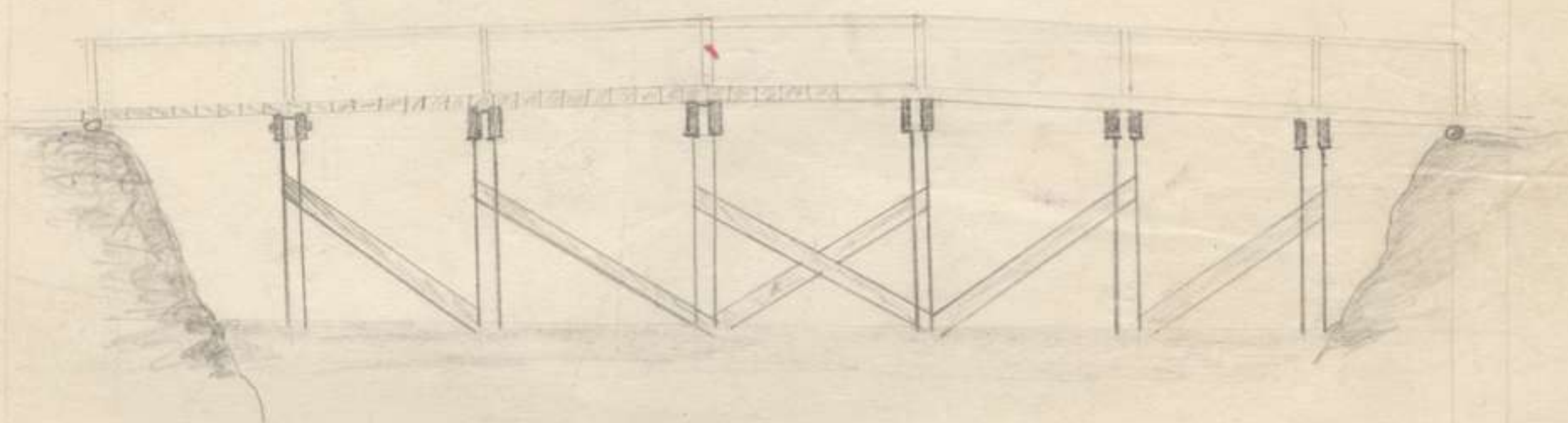
Plan.



Somme. Canal.

Location. N.14. c.9.3.

Elevation.

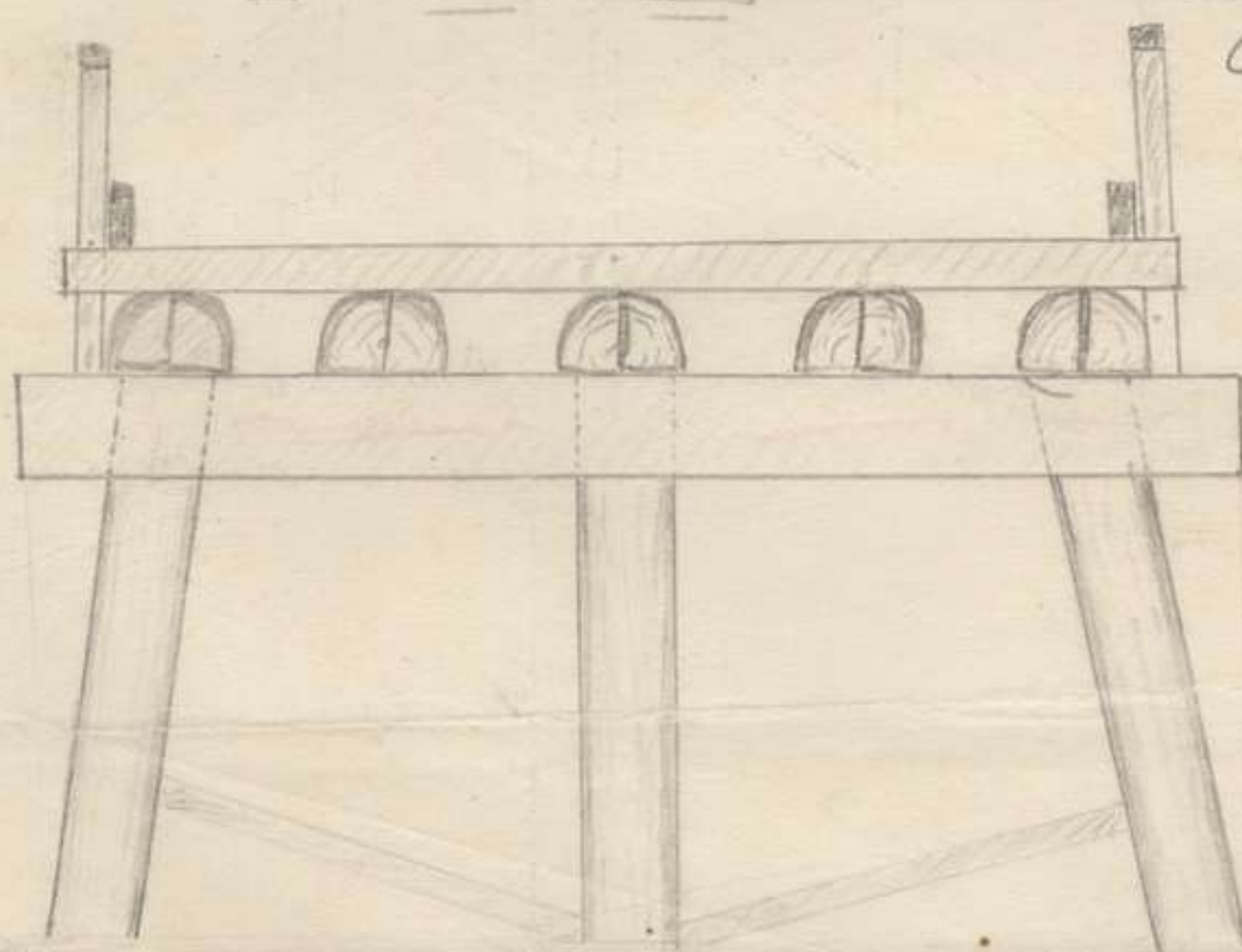


Proposed charge: One charge in each abutment of 20 (150g) slabs of guncotton as shown by red pencil at A.A.

Two charges of 9 (150g) slabs of guncotton, each, in piers marked in red pencil. at B.C.D. & E.

Section of Bridge

Method of firing:



Charges to be connected in series, and fired by service electric Exploder.

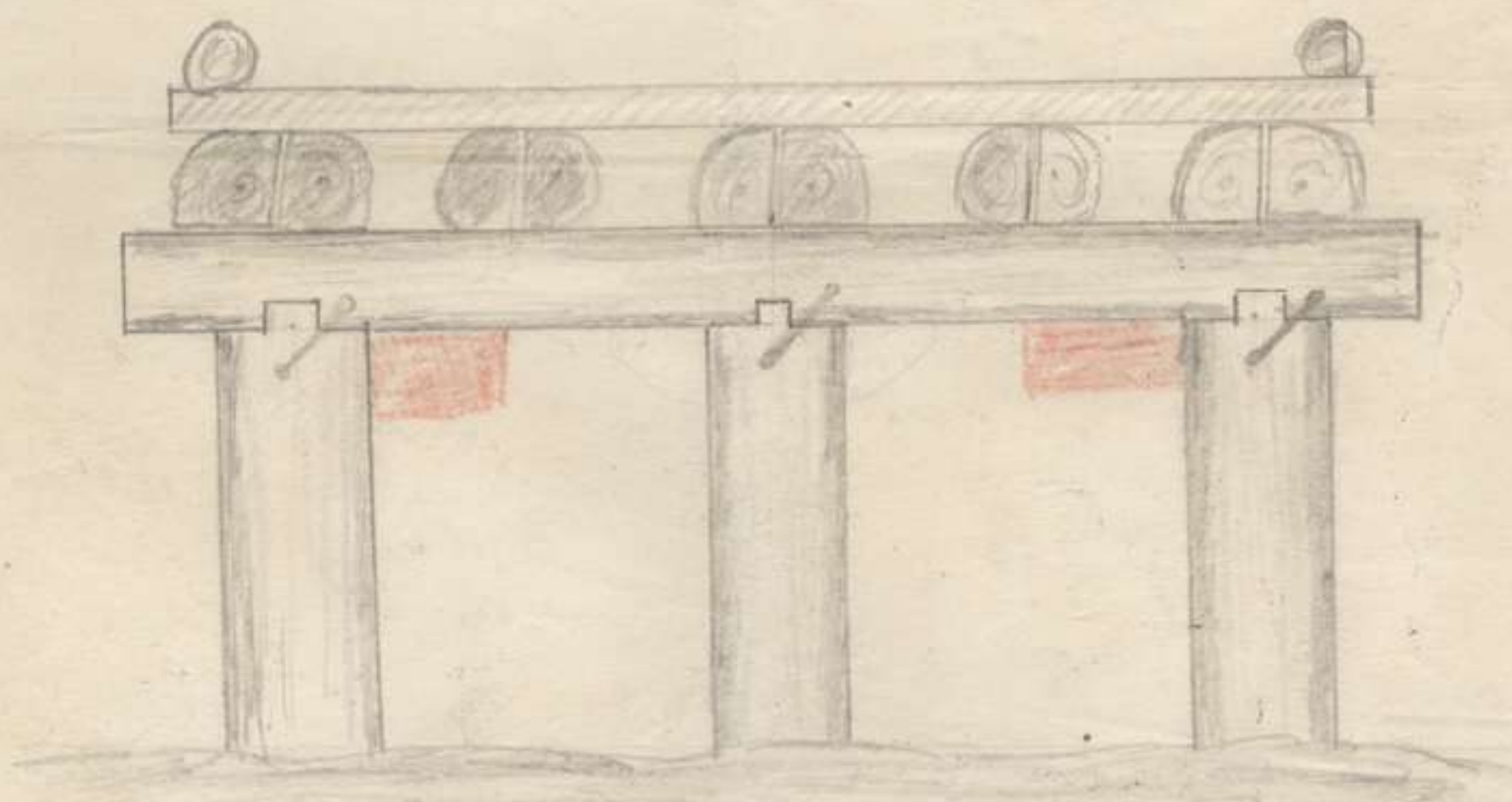
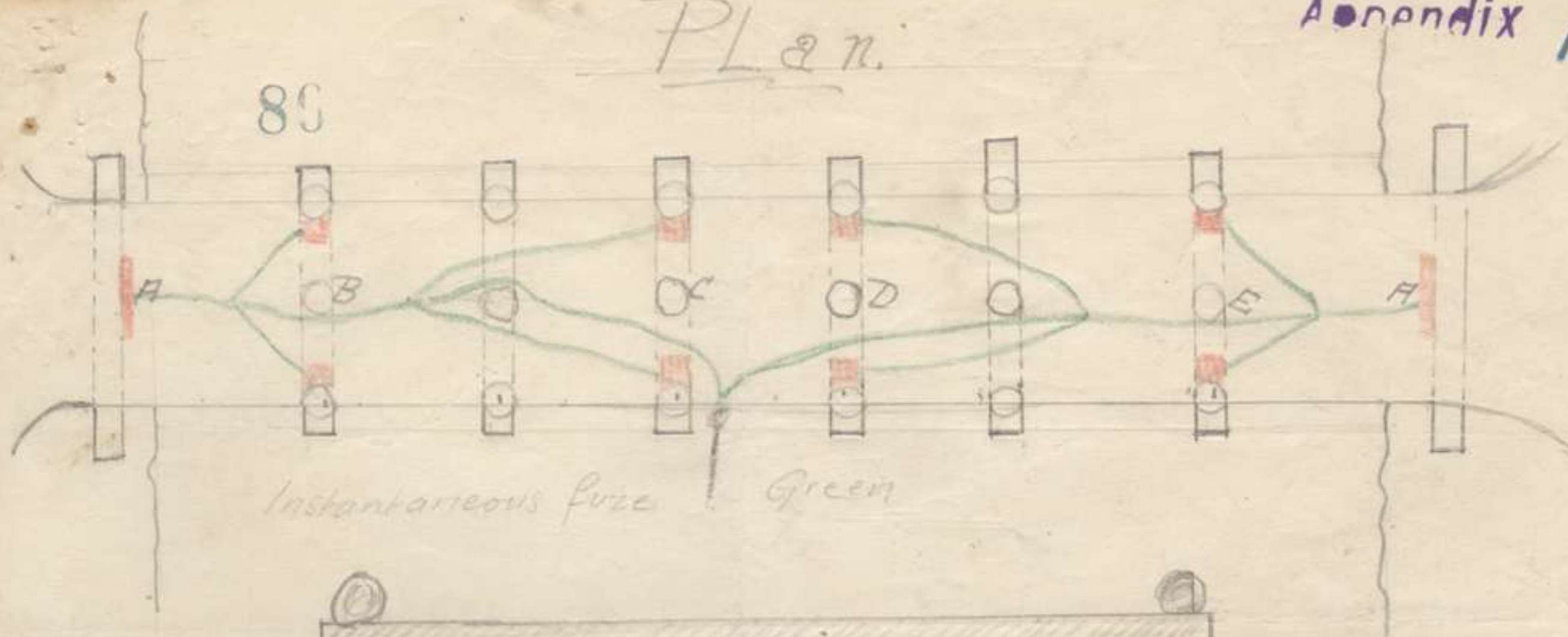
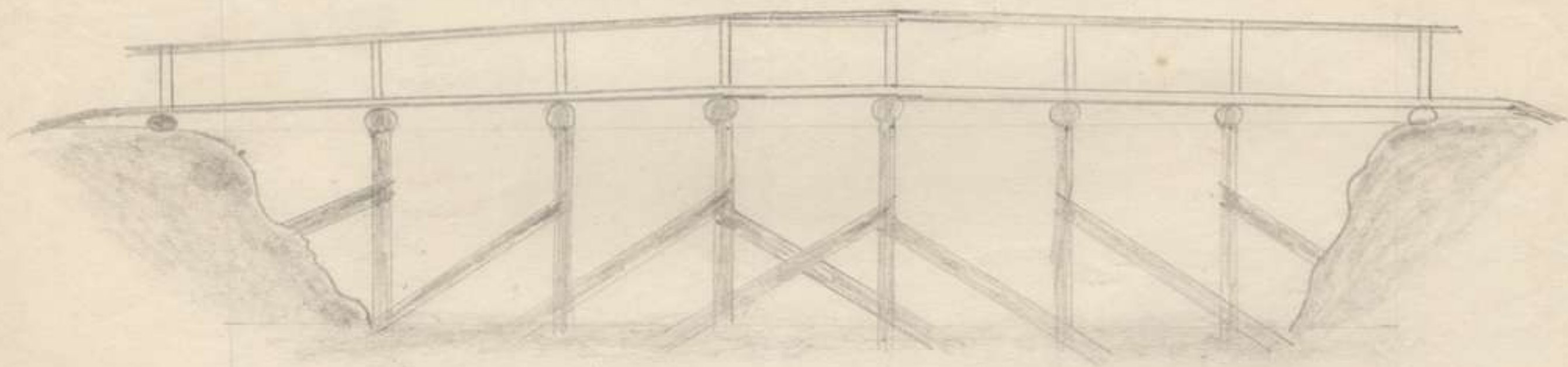
Total Charge.
112, (150g) slabs of guncotton.

Plan of Transom & Piles



Charge placed close to leg

This bridge will be filled with alternative method with some of the same material as shown

Plan.Section of BridgeElevation.

Location. N. 13. c. 74.

Proposed Charge. One charge in each abutment
of 25. (1503) slabs of guncotton, as shown
by red pencil at A. A.

Two charges of 11 (1503) slabs of guncotton
each on piers B. C. D. E. as shown by red pencil
Total Charge of 138. (1503) slabs of
guncotton.

Method of Firing. Charge to be connected up in
series, and fired by Service
Electric Exploder.

PS This bridge at present is only connected to be fired
by time or instantaneous fuze.

G-X-1

War Diary

GLISTY

13 June 1918

C.R.E.

3rd Australian Div.

Herewith Report on the
preparations made for the
Demolition of Bridges
on NORD RLY at the
following places - please

N 20 - d - 2 - 9 -

N 20 - d - 6 - 9 -

N 21 - c - 8 - 8

O 25 - c - 1 - 1

62^D S.W

B

F. A. L. C. H. M.

Lieutenant RE

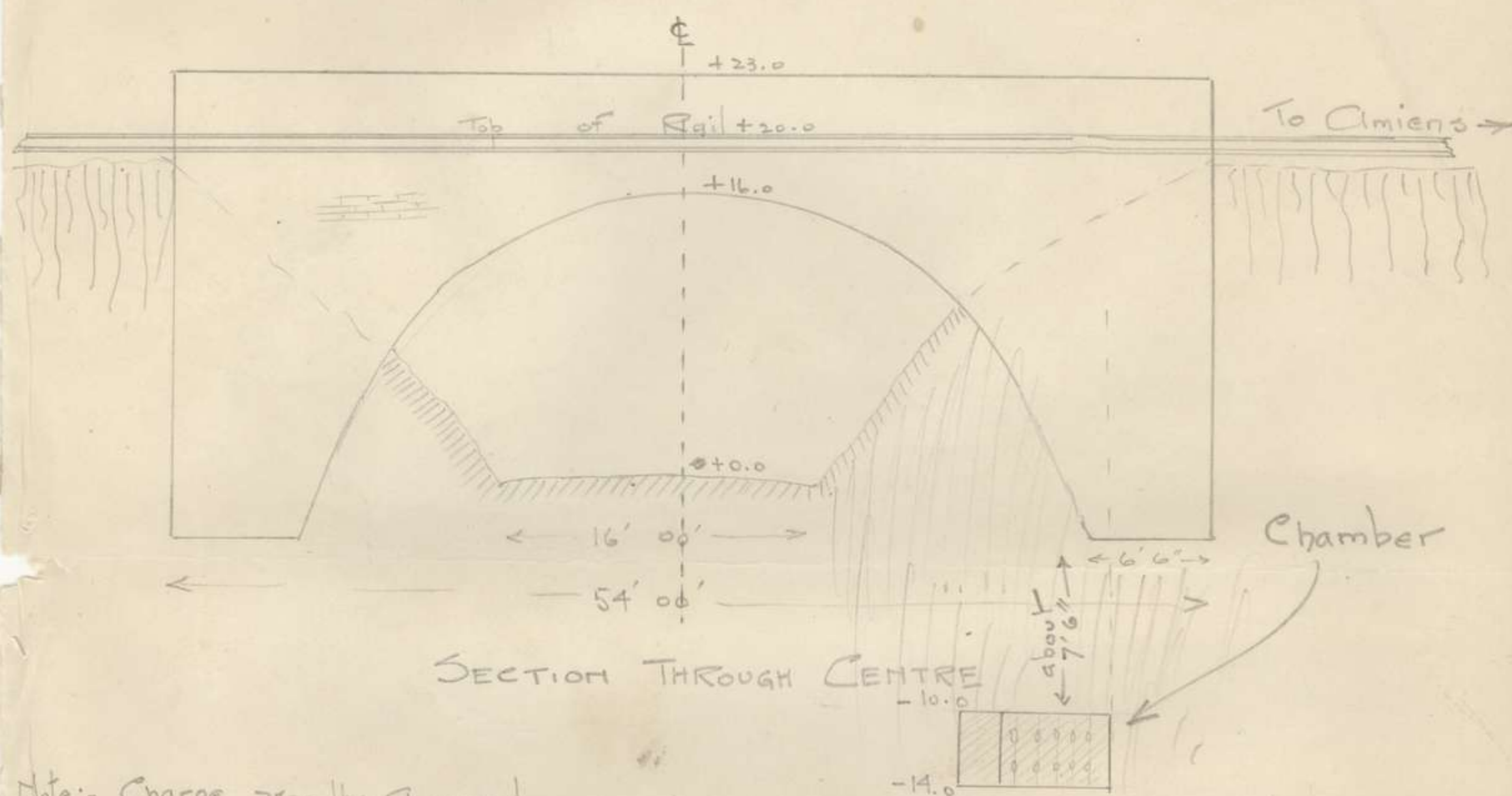
of Detachment 213rd Rly Co. RE
GLISTY

REPORT ON PREPARATION FOR DEMOLITION OF

NORD RAILWAY BRIDGES AT GLISY - BLANGY - and near Bois de L'ABBE

263rd Railway Compy.
R. E.

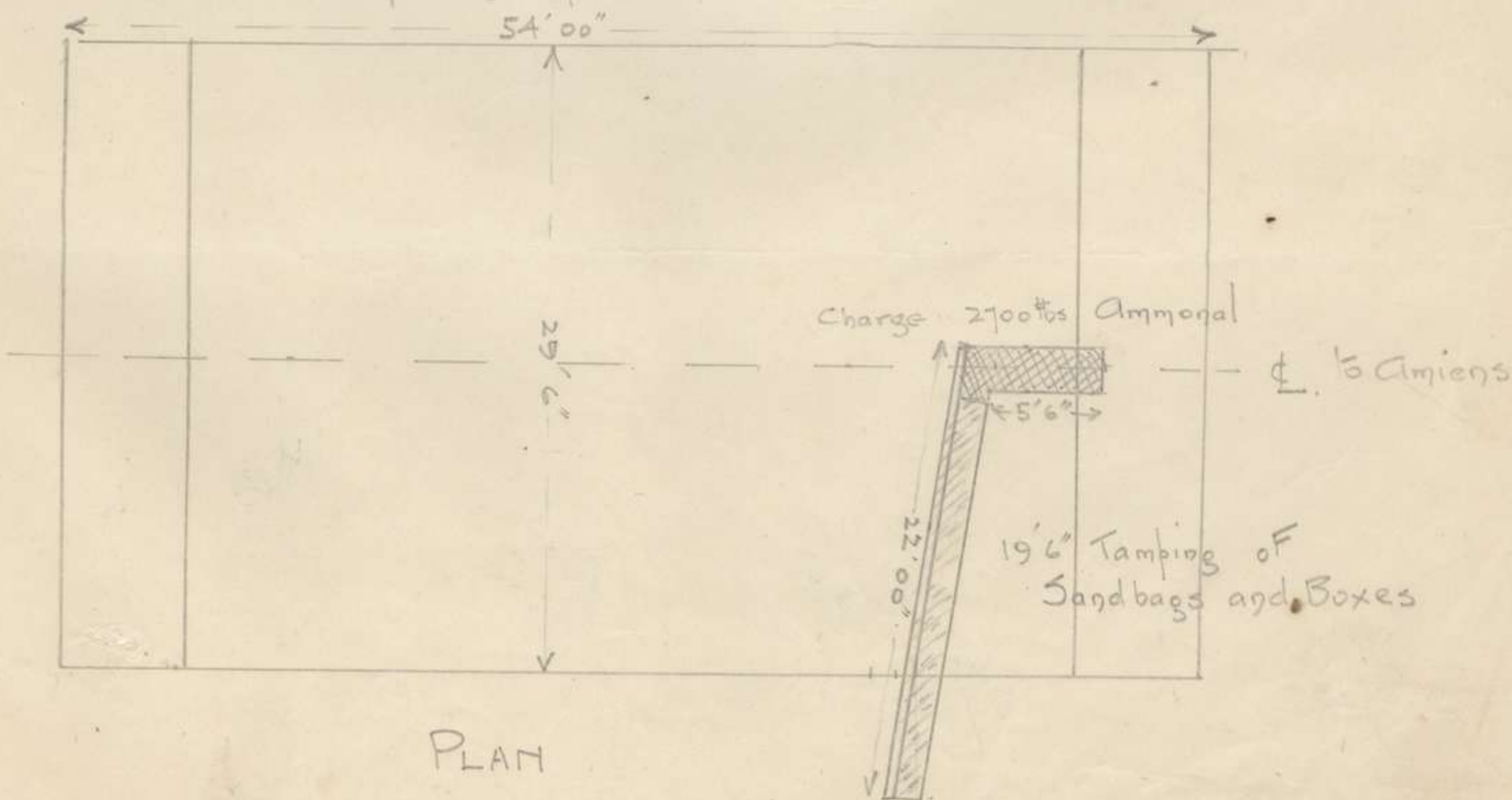
BRIDGE No 1 at Kil. 7.00 (Map Ref. N. 20. d. 2.9)



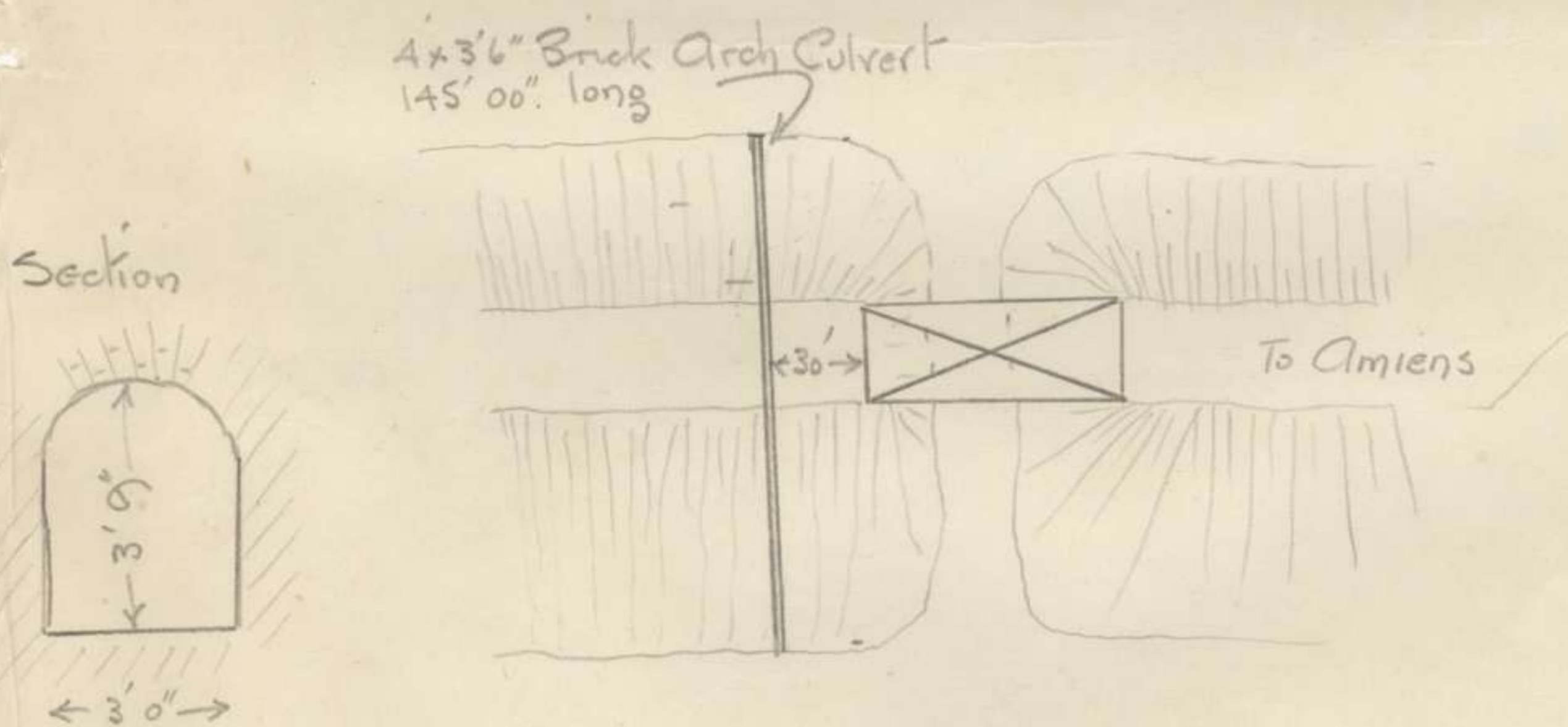
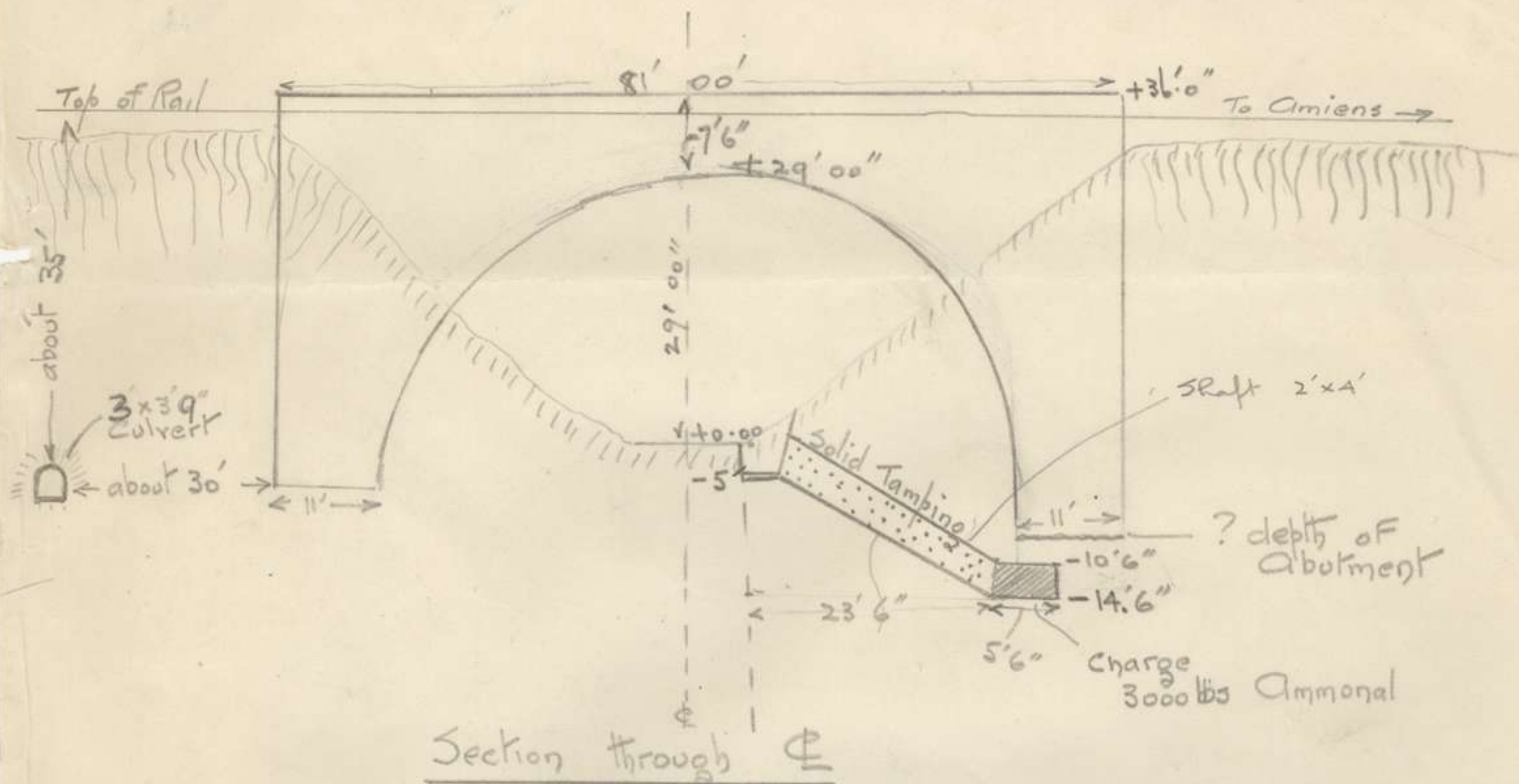
Note:- Charge 2700 lbs Ammonal.

2 Instantaneous Fuzes - 100yds each

The detonators are placed in dry primers of G.C. and the primers are in slabs of Wet G.C. which are in close contact with the Charge. Thus avoiding the necessity of opening up Tins.



85
N^o 2 BRIDGE and CULVERT at Kil. 7.180 (N.20.d.6.q.)
62^D S.W.



The Culvert is charged with 6000 lbs Blasting laid in two main chambers divided by a 6' block of Bags, but rendered continuous by a connecting course of Explosive. The charge is in centre of Bridge Abutment. Detonators (with Primers) are placed directly into Blasting Tins. There are 4 100 yard lengths of Instantaneous Fuse, which are all led to the NORTH ENTRANCE Charge laid 20-May 1918
Tamping - about 60% Solid 40% Airspaces

BRIDGE CHARGE 3000 lbs Ammonal. Two detonators set in 5 Slabs Wet G.C. 2 100 yard lengths of Instantaneous Fuse. Charge Laid 23rd May-

DEMOLITION REPORT

263rd RLY Co. RE

80

SHEET 3

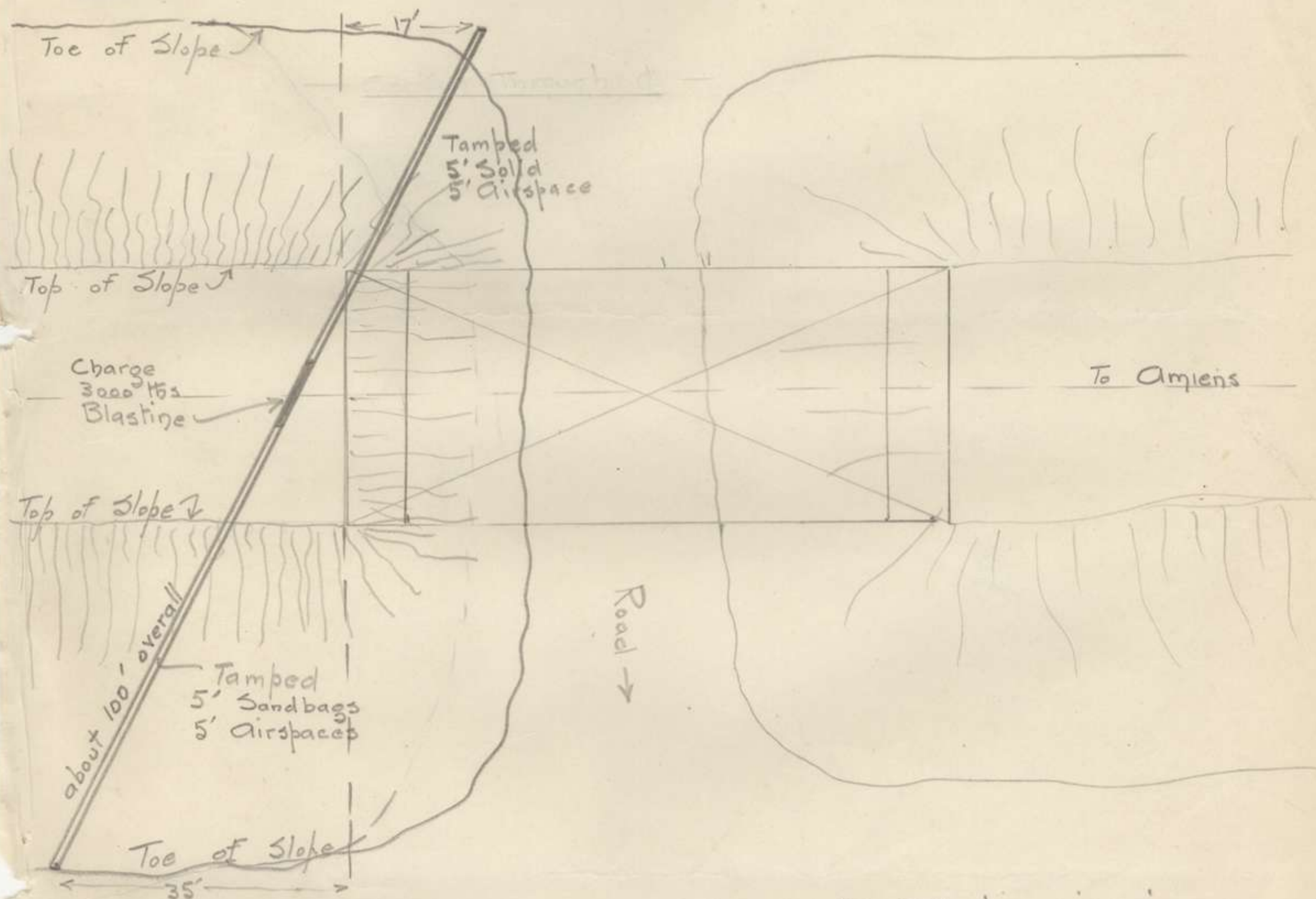
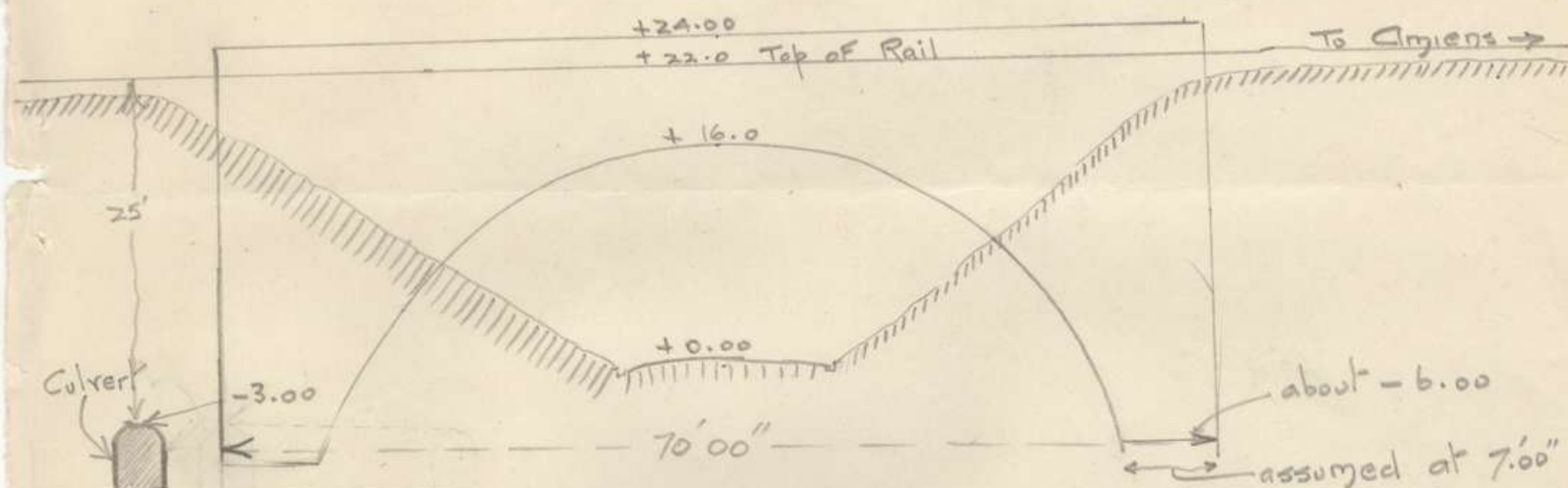
Appendix

12⁵⁴

BRIDGE and Culvert No 3

(Map Ref. N. 21. c. 8. 8)

b2 P. S. W.



a Charge of 3000 lbs Blastine is in Culvert at Centre of Bridge - 2 Fuzes (Instantaneous - each 100 yds long) are used - and the detonators and primers are placed in a Tin of Blastine in each case. Both Fuzes are led to the NORTH entrance of Culvert.

Charge placed on 19th May 1918.



Typical Cross Section

DEMOLITION REPORT

263rd RLY Co RE

SHEET 4

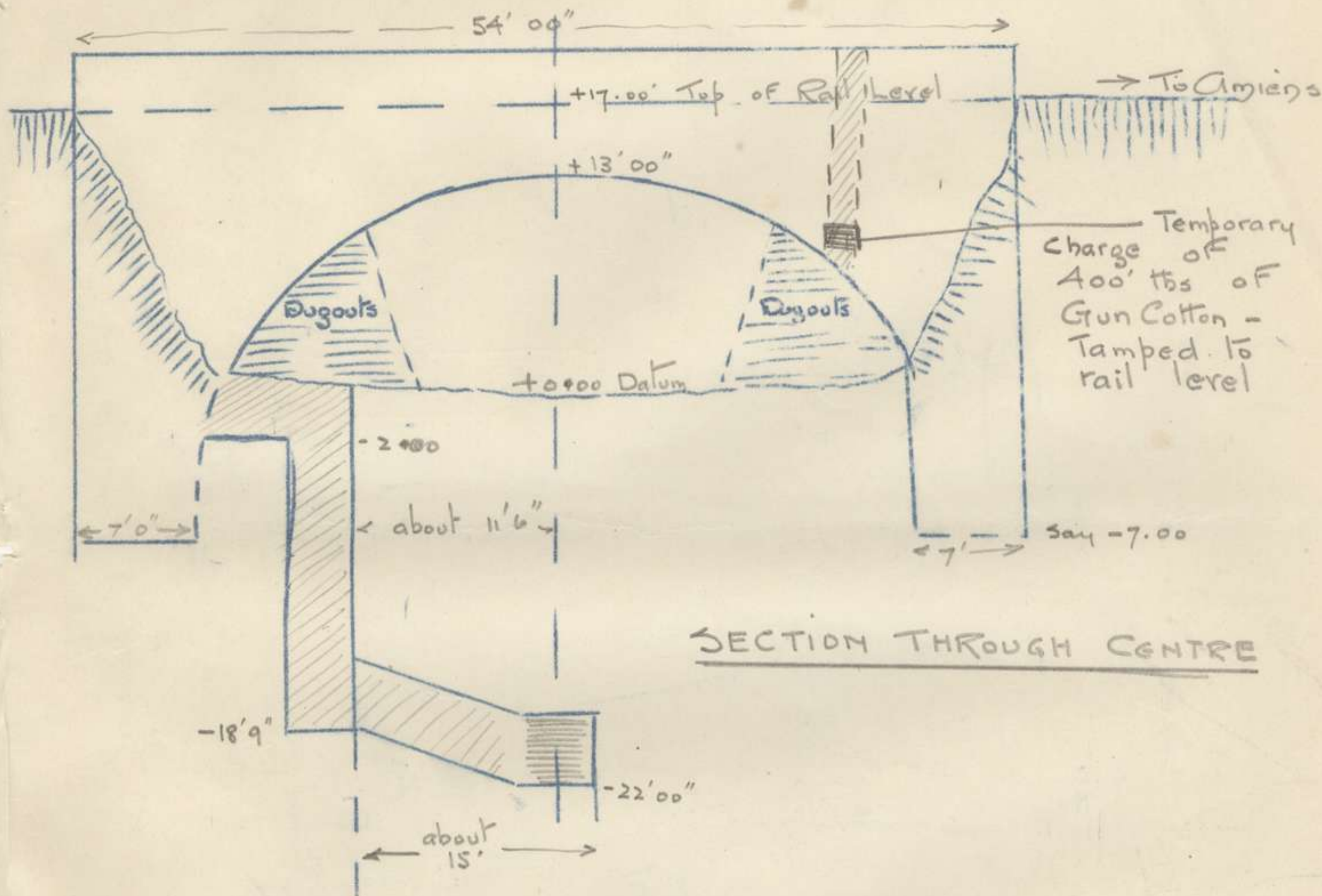
Appendix

12⁵⁵

85

BRIDGE No 4 near Bois DE L'ABBE

(Map Ref. O.25.c.1.1. 62° S.W)



It is proposed at once to place a charge of 1850 ~~lb~~ Ammonal. Further details will be rendered later

John Silcock
Lieutenant R.E.
of Detachment 263rd Railway Co.
R.E.

GLISY.

Appendix 13
83

Appendix

1356



"G"

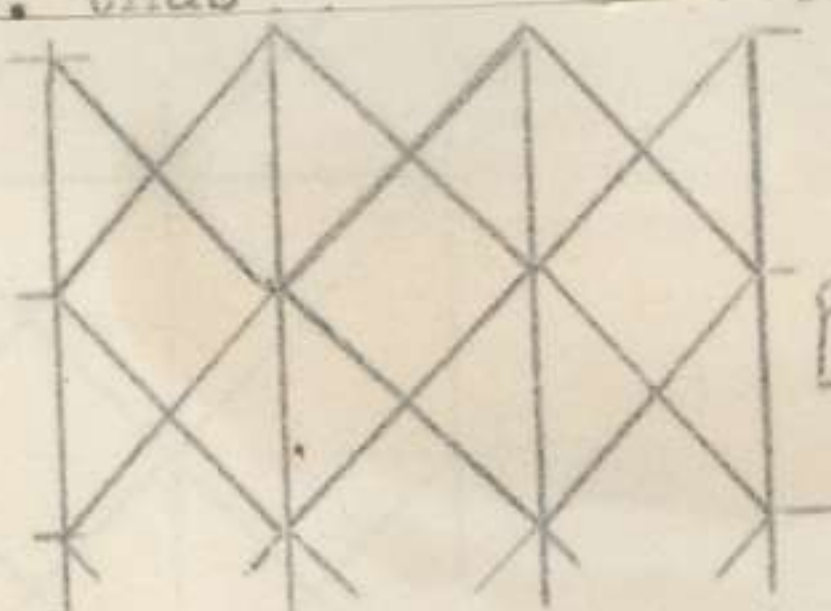
2nd Australian Division.

Reference G.25/518, regarding systems of wiring.
I attach copies of replies on subject received from Field Company Commanders.

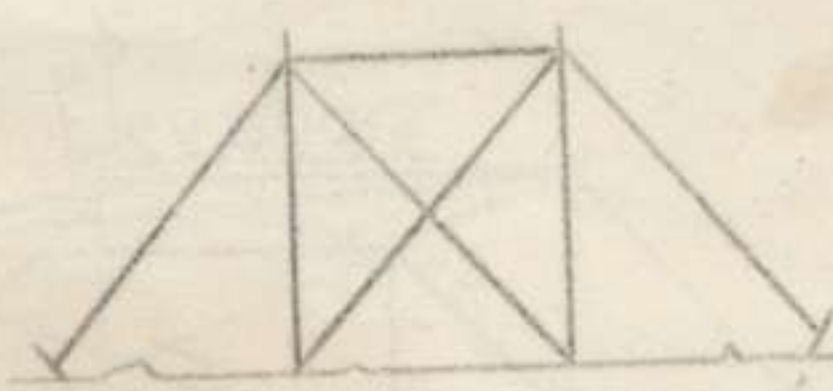
1. It is recommended that the principle of 2 men being detailed to carry out one task throughout be adopted.

2. I think the modification of the ordinary double apron fence suggested by O.C. 6th Field Company is best and simplest. It consists in using long pickets instead of short for anchors and making fences with them.

The double apron fence as commonly constructed is not in my opinion a very formidable obstacle. It is frequently made so low that it can be walked through and its parallel wires are about as simple as possible for cutting by hand. I consider that it should be regarded as a standard only where wiring has to be done in close contact with the enemy, where simplicity and quickness of erection at night are essential. It has however come to be regarded as the standard for all conditions and when a belt of double apron fence has been erected a position is regarded as sufficiently wired. Where it is possible to do wiring deliberately I think this is wrong and that a more effective class of wiring should be erected. For quickness probably two interlocked double apron Belts with wires added to connect tops of vertical pickets would form a good obstacle. thus -



PLAN



ELEVATION

The above would form a single belt difficult to get through. I believe the most difficult type of deliberately constructed wiring to destroy by shell fire is one which forms a series of enclosures, the sides of which in their simplest form would be simple vertical fences about 4' high with 5 or 6 wires. In order that a passage may be made right through such an obstacle it would be necessary for several adjoining fences to be cut by separate shells. Geometrically regular types would be as illustrated in (a) and (b), though probably an irregular pattern such as (c) would be better.

Enclosure

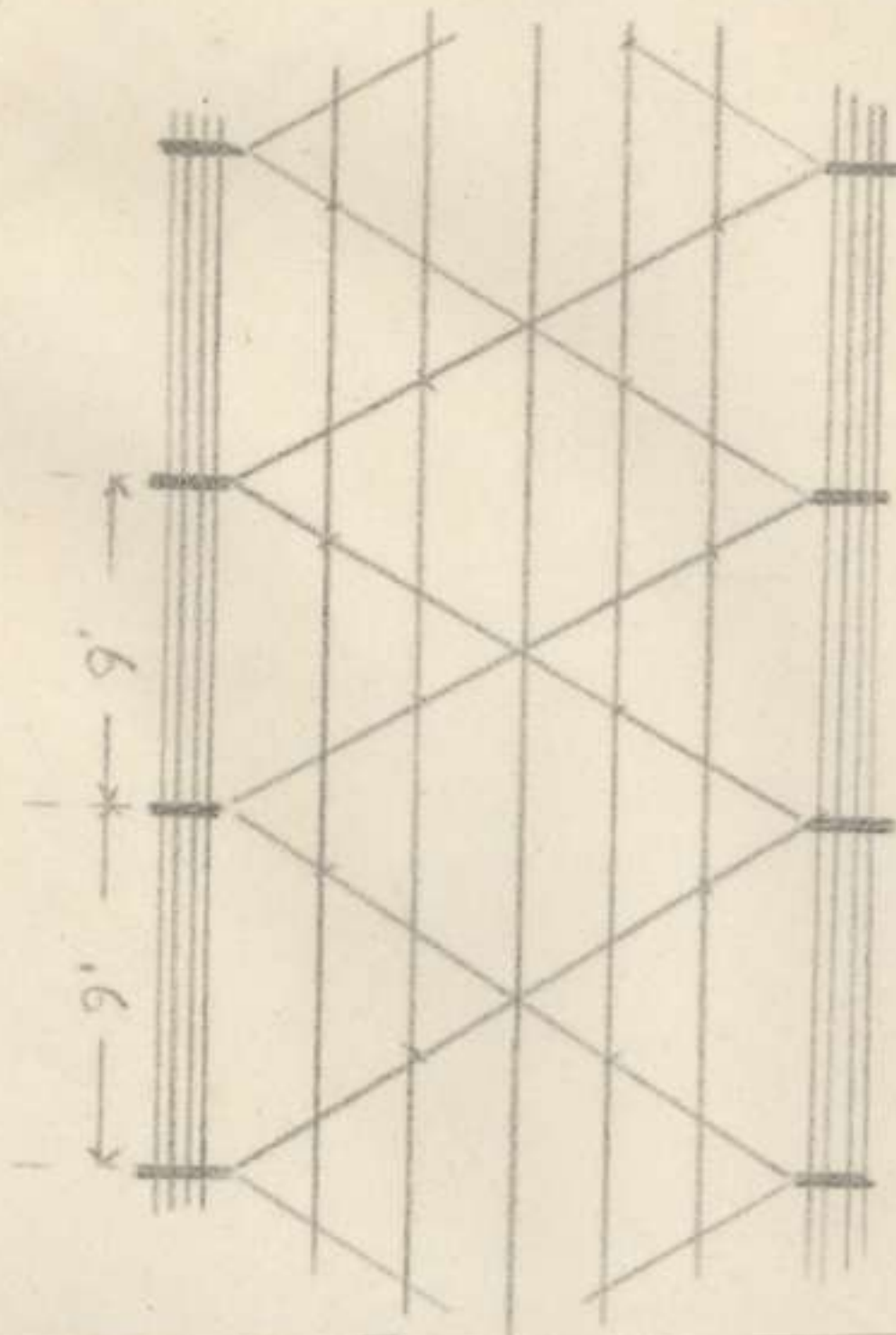
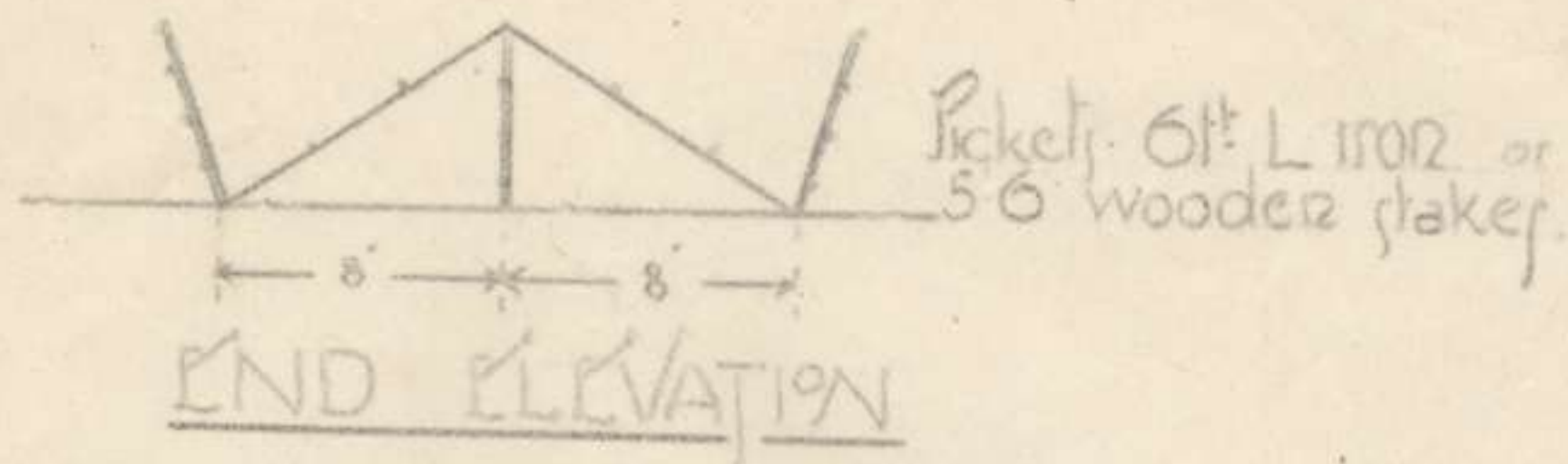
Lt. Colonel,

C.R.E. Second Australian Division.

25/7/18.

(Sketches (a) (b) & (c) referred to are attached)

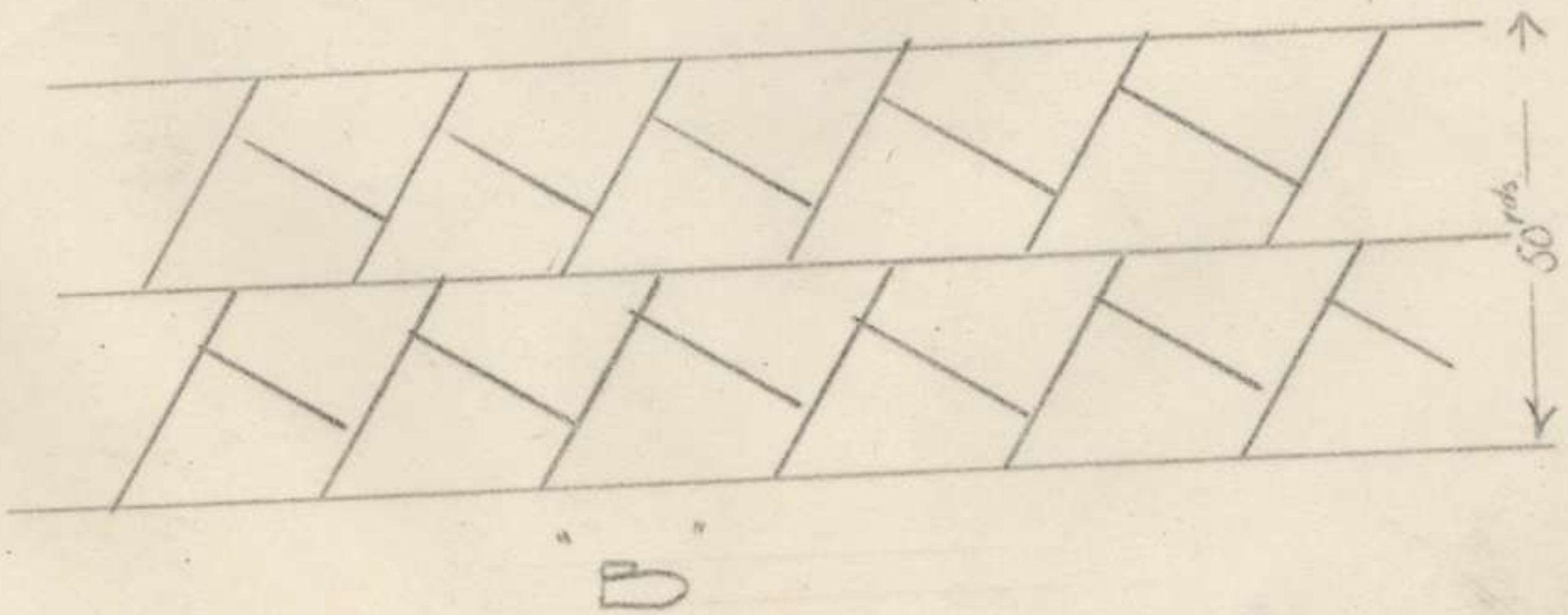
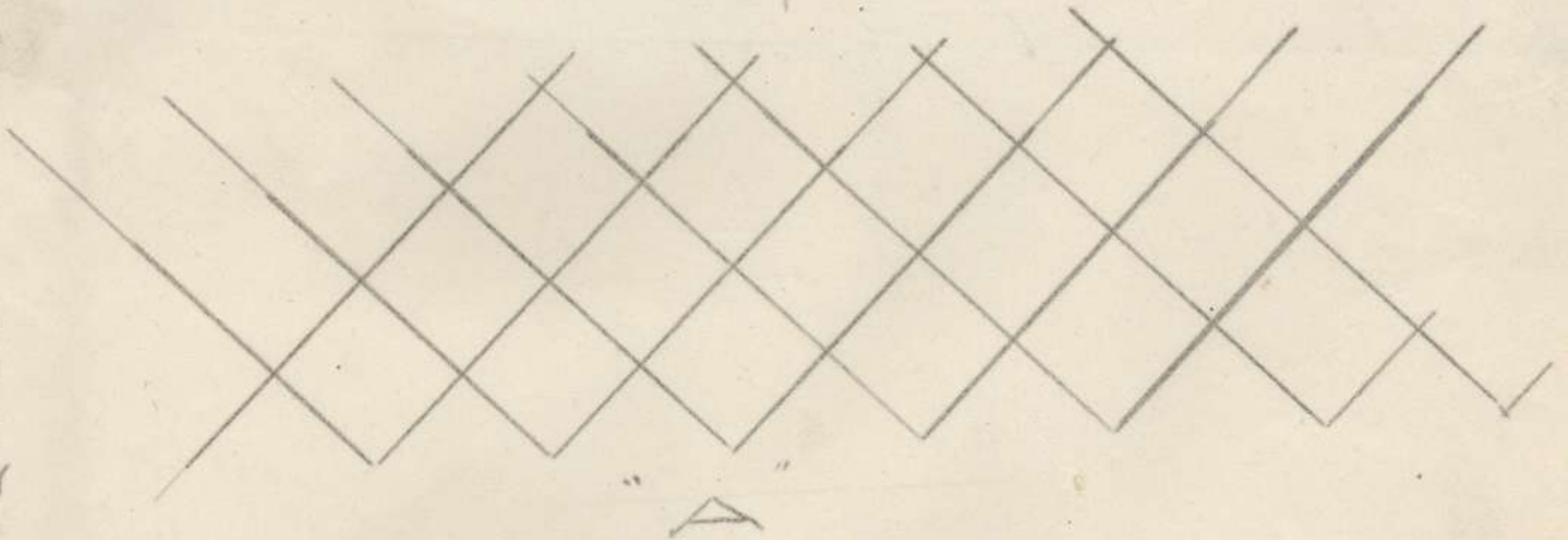
89 ✓



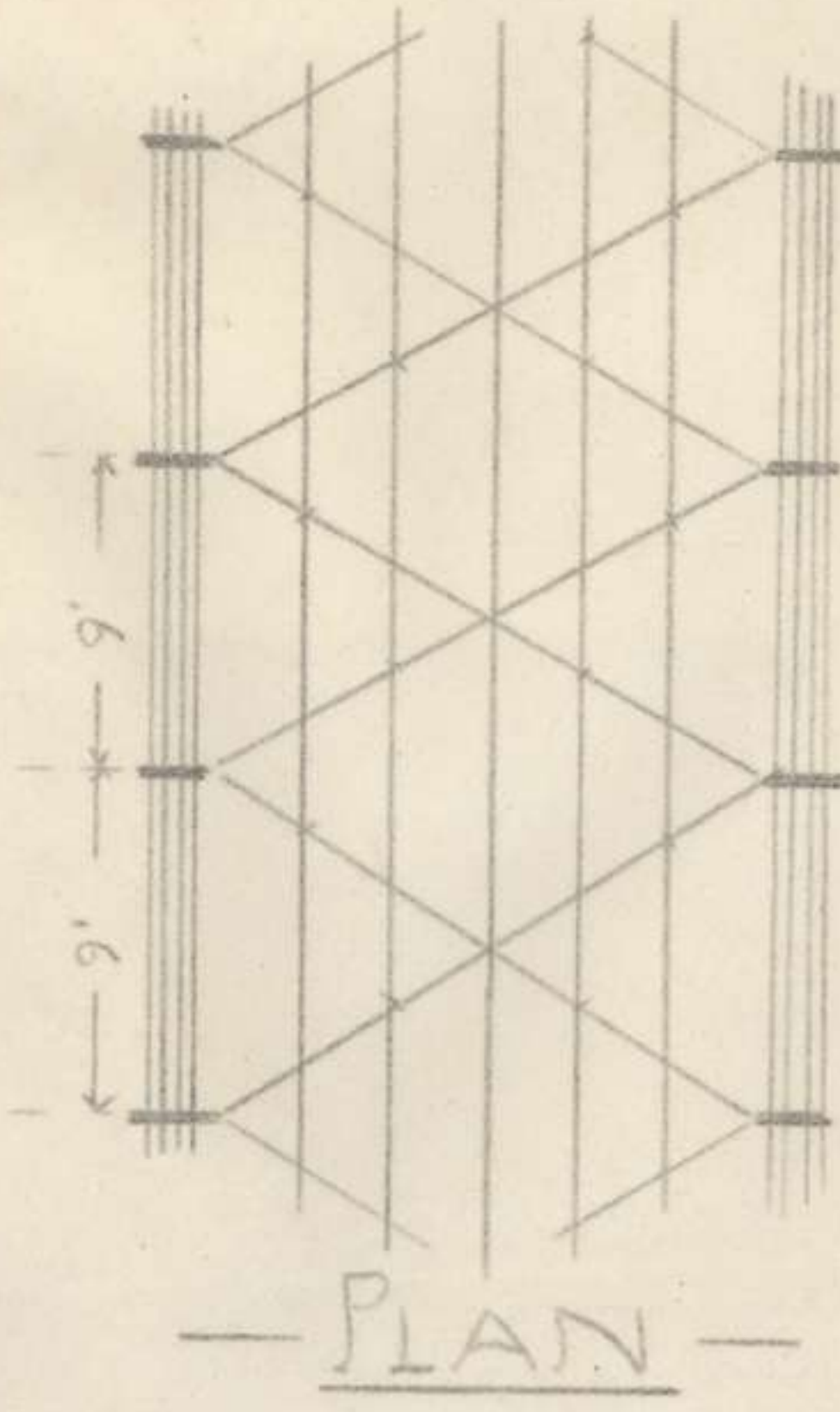
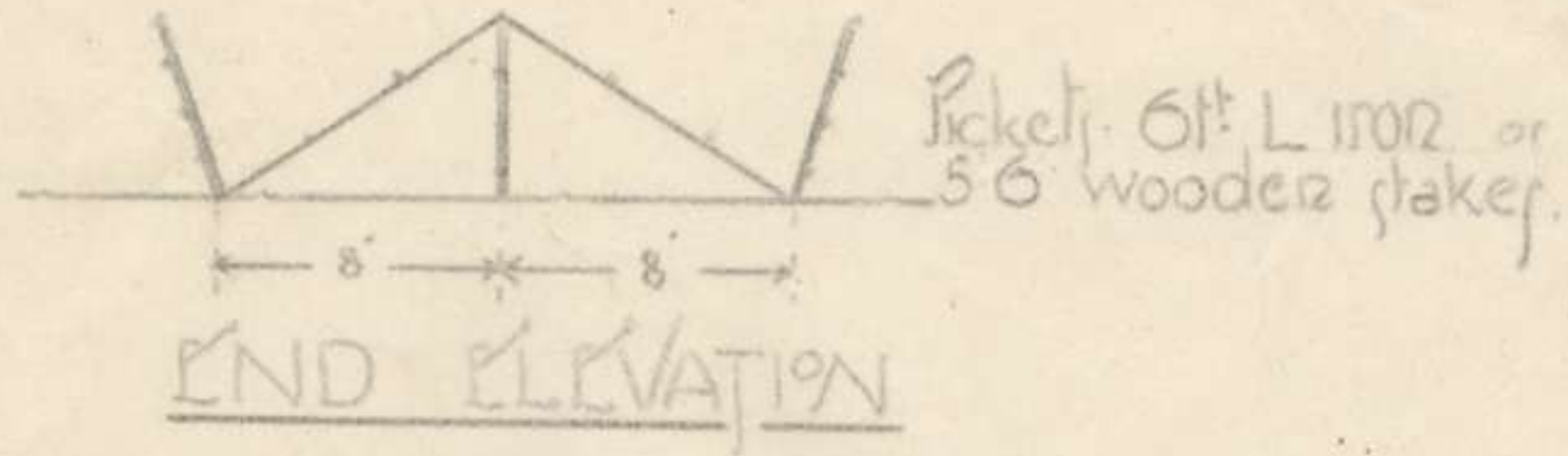
0th FIELD Coy A.E.
STANDARD TYPE RAPID WIRING.
Scale 10 ft to 1 in.

enemy

50 yds

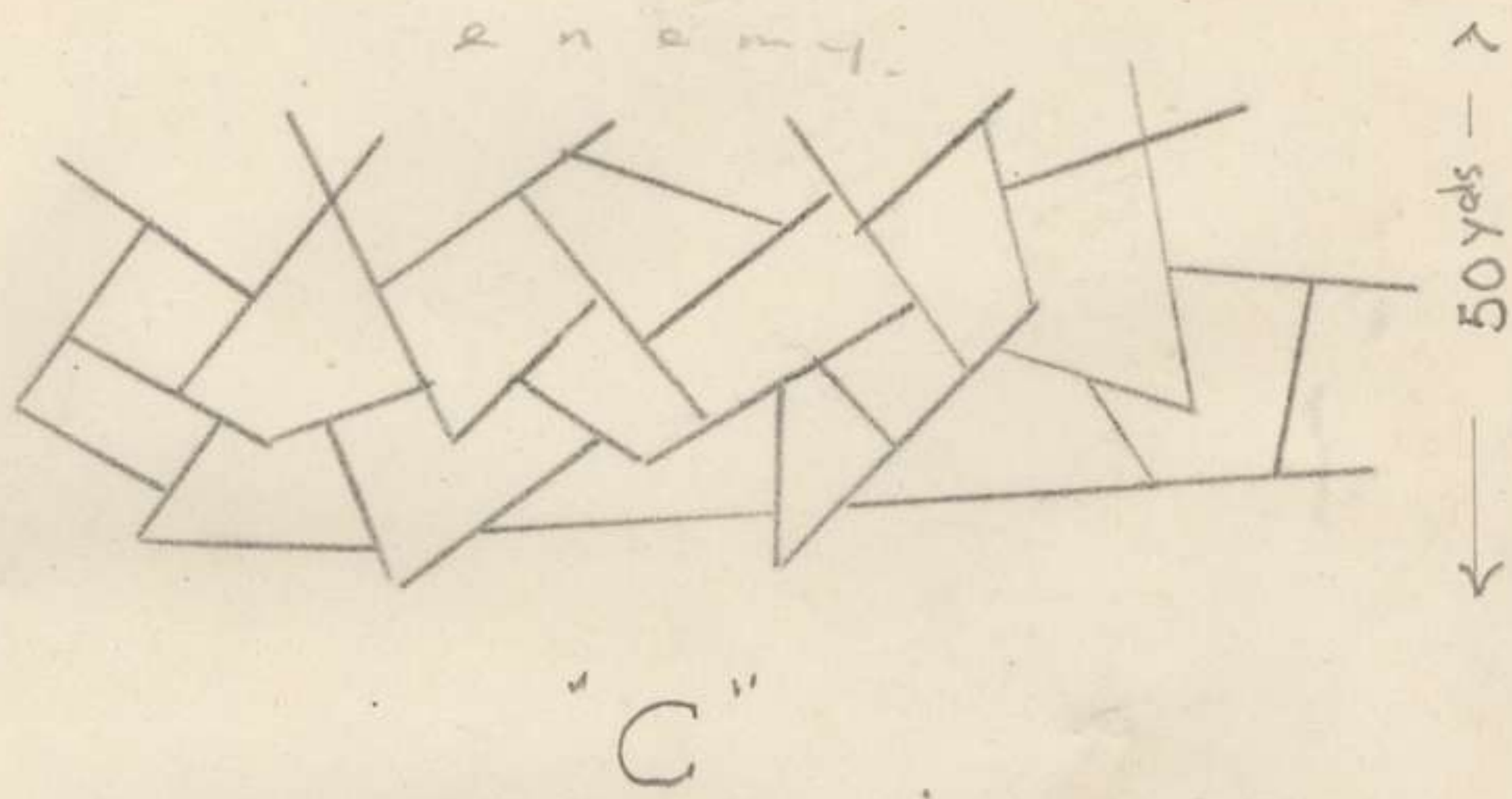


85 ✓



0th FIELD Coy A.E.
STANDARD TYPE RAPID WIRING.
Scale 10ft to 112.

88 ✓



COPY.

86

Appendix 14

61

SECOND AUSTRALIAN PIONEER BATTALION.

Battalion Headquarters,
July 18th 1918.

7/655.

TO -
2nd Aust. Division.



Appendix 14

Reference your confidential memo 126/551, and particularly to para 14 thereof.

I desire respectfully to point out that if the policy therein laid down is practised, a time will inevitably arrive when it will be imperative to revise the conception that now prevails as to the scope of work and duties of a Pioneer Battalion.

A certain measure of success has been attained in the Australian Corps in making the Pioneer Battalions of men organised and fit to fight, and competent to carry out any of the usual field engineering works that pertain to the present campaign, including reinforced concrete, deep dugouts, M.G. emplacements, light railways, demolitions, hutting, wiring and entrenching. I know that at least three of the battalions have successfully run sawmills and technical workshops, where the manufacture of new appliances and repair of vehicles and other stores have been effected, to the advantage of the Divisions and the Corps.

By the selection and appointment of technically well qualified officers and N.C.Os. the Pioneers have been getting near to the ideal of battalions of competent field engineers.

A special feature has been made of entrenching work, and found very useful in the critical period of 'consolidation' following an advance.

The works outlined above will be impossible of accomplishment to the extent hitherto practised if the reinforcements are to be the men rejected by every other arm of the Service. Eliminate the tradesmen and the result will be a labour battalion only; draw the men from the aged and physically inferior who are rejected by the infantry and there will not be even a decent labour battalion.

Many of the most important tasks hitherto allotted to the Pioneer Battalion, have required not only men of constructive skill but also first rate physical condition. To take only one instance. In the operations on the BROODSEINDE ridge in October last, our men carried duckboards from BIRR X Roads to well beyond Zonnebeken doing at least two trips in the day, through country that often bogged the ammunition mules. As the distance was fully three miles, it required good men to do the twelve miles carrying a duckboard each on the outward journeys. This is just one example of the strenuous tasks that have at times fallen to the Pioneers.

sgd F.W.G. ANNAND, Lt. Colonel,
C.O., 2nd Australian Pioneer Battalion.

CONFIDENTIAL.*W. D. Dwyer*

D.H.Q.

2nd Australian Division.

Reference 126/551, copy of circular issued by headquarters, A.I.F. Depots in U.K., para 14.

I am afraid the policy of drafting men unfitted for infantry to Pioneers will have disastrous results for the effectiveness of the latter. The medical officers responsible for classifying the men are not likely to know or realise what constitutes the work of Pioneers and will naturally have an impression that any weakling, man who cannot march etc., is fit for Pioneers.

In order to be useful and be capable of doing the heavy muscular work of digging etc. the rank and file of Pioneers should be physically strong men. They have to do more walking than infantry as they usually march anything from 2000 to 7000 yards each way to their work daily.

In order to maintain their general usefulness too, it is necessary that the proportion of tradesmen and skilled labourers should be kept up as much as possible. I think that the Field Engineers should, as prescribed, have first call on tradesmen available, but Pioneers should have also a right to select men with specially suitable civil qualifications after the requirement of Field Engineers have been satisfied.

Pioneer Battalions with the Australian Corps have hitherto been much more than mere unskilled labour battalions, they have been capable of handling most skilled jobs of construction, running sawmills etc. The policy proposed to be adopted in allotting reinforcements will tend to more or less rapidly bring them on to the plane of the ordinary Labour units who are not employed on either skilled or strenuous work.

McCarter

18/7/18.

G.R.E. Second Australian Division.

Lt. Colonel,

Copy to :- 2nd Aust. Pioneer Bn.
G.E. Aust. Corps.

War Diary

Appendix

14 63

83

SECOND AUSTRALIAN DIVISION.

CONFIDENTIAL

Divisional Headquarters,
16th. July, 1918.

C.R.A.

C.R.E.

2nd. Aust. Div. Sig. Coy.

5th. Aust. Inf. Brigade.

6th. Aust. Inf. Brigade.

7th. Aust. Inf. Brigade

2nd. Aust. Pioneer Bn.

2nd. Aust. M. G. Bn.



126/551.

The following copy of circular issued by Headquarters A.I.F. Depots in U.K. is passed for information :-

1. Reinforcements from Australia were until recently despatched for named Arms, and in the case of Infantry and Pioneers, for named Battalions. Except in a few cases the foregoing system has been abandoned in Australia, and reinforcements are now despatched as "General Reinforcements" in a separate numerical series of drafts from each State. The normal number in each draft is 150.
2. These general reinforcements are liable for service in any Arm or Department.
3. The normal procedure on the arrival of a draft of general reinforcements in the U.K. is for Headquarters A.I.F. Depots to allot the draft to, or between, Infantry Battalions in the Field and belonging to the State from which the draft comes, and the reinforcements accordingly join the Training Battalion and Company Training for the Field Battalion concerned.
4. The individual man is permitted in Australia to express a preference for service in a particular Arm or Department. This is recorded on the man's papers, where also is recorded his having passed in riding if he has so passed. Particulars as to preference and riding will hereafter be supplied on nominal rolls to the Infantry Training Units to which the drafts are primarily allotted.
5. It is obvious that if nothing further were done, training units other than Infantry Training Units would cease to receive reinforcements. The procedure set down in the following paras. hereof (6 to 17) will therefore be followed.
6. Artillery, Field Engineers, Signal Engineers, Machine Gunners and Divisional Signal Schools will be notified of a standard number who should be undergoing training in the unit. When the numbers under training fall below the specified number by 30 or more, the training unit will draw on Infantry Training Units for reinforcements, drawing as nearly as practicable 30 or the multiple of 30 nearest to the actual shortage. Field Engineers and Signal Engineers may also draw for shortages in tradesmen with suitable civil qualifications irrespective of the extent of the shortage.

P.T.O.

7. In all cases the first men drawn from Infantry Training Units pursuant to para. 6 will be those who have on enlistment in Australia expressed a preference for the Arm or Department drawing them, provided that they satisfy proviso (a) of para. 11.

8. No man will be drawn for training as a driver in any Arm or Department unless he has passed in riding in Australia.

9. Acting N.C.Os. (i.e., - reinforcements who reach U.K. with Acting rank of N.C.O.) will not be drawn in excess of the following scale :-

1 Acting Sergeant to 30 - 1 Acting Corporal to 20.

10. Substantive N.C.Os. will not be drawn unless they already belong to the Arm or Department drawing them, and if drawn will be in diminution of the allowance in para. 9.

11. Where the number available to draw from is greater than the number to be drawn after those who have expressed a preference and are qualified have been taken, those drawn are not to be specially picked out and all the best men taken, but are to be drawn as reached by the Selecting Officer subject to the following provisos :-

- (a) Machine Gunners, Field Engineers and Signal Engineers need not take any man who though 'A' Class is physically or intellectually below the average of the party being drawn from.
- (b) Field Engineers and Signal Engineers may select those with special civil qualifications irrespective of the restrictions imposed by this paragraph.

12. Questions of character or conduct are not to be taken into account.

13. Training Units with a Territorial organisation, i.e. - Field Engineers and Machine Gunners, must draw territorially for their respective territorial training companies. Attached for their information is a copy of the territorial allotment of Infantry Battalions

14. Reinforcements which arrive and appear to S.M.Os. to be below infantry requirements through age or other causes, though not classified as unfit for general service will be transferred to Pioneers as follows :-

FROM New South Wales	-	to 1st Pioneer Training Bn
Victoria	-	to 3rd. -do-
Queensland	-	to 4th. -do-
South Australia	-	to 5th. -do-
W.A. and Tasmania	-	to 2nd. -do-

Any further transfers to Pioneers which may be required will be the subject of special instructions.

15. The A.D. of S. and T. may draw from any general reinforcements at any time, M.T. Artificers, M.T. mechanics and M.T. Drivers to numbers approved from time to time by 'A' Branch Headquarters.

16. Men with specific physical defects making them unfit for general service with combatant arms, but who are otherwise 'A' Class will be transferred to A.A.M.C.

17. Special arrangements will be made from time to time for other A.A.S.C. and A.A.M.C. reinforcements."

W. J. Waddell
Major,
A.A.M.C.

Second Australian Division.

85

W.D.



2nd Australian Division.

Reference 126/551. I think this is a logical statement of the position, recognising that someone has to suffer a loss of efficiency, that the available men must be graded and allotted in such a way as (1) to maintain the highest possible degree of efficiency in the most important branches and (2) ensure that the lowering of the efficiency of other branches should be as little as possible by careful grading of men according to degree of physical exertion and conditions of living required of the personnel of each branch.

At the same time it must be recognised that there will be a lowering of efficiency which is inevitable and that the standard of the branches which suffer most cannot be expected to be up to the standard of the present or past.

As the statement of the system for reinforcing Pioneers now stands I think it inevitable that those who classify the reinforcements, (unless they very clearly understand what Pioneers are expected to do), will get a false impression, and think that weaklings and men with serious physical defects may be suitably drafted to Pioneers. It should be made clear that strong sound men are necessary and that men who have not the muscular power to dig well or are not able to march will be worse than useless; also that as many men as practicable with trade training should be given to them.

Quee

Lt. Colonel,

23/7/18.

C.R.E. Second Australian Division.

SECOND AUSTRALIAN DIVISION.

Analysis of work on Deep Dugouts for period 6 a.m. 29:6:18 to 6 a.m. 3:7:18. (4 days only).

U N I T.	Average No. of men per shift.		Man shifts per week.			No. shifts per week.			Total cubic footage.			Average cubic footage per shift.			Average cubic footage per man per shift.		
	Saps.	Infy.	Approx. size face.			Approx. size face.			Approx. size face.			Approx. size face.			Approx. size face.		
			7'x 3'	6'x 7'	9'x 7'	7'x 3'	6'x 7'	9'x 7'	7'x 3'	6'x 7'	9'x 7'	7'x 3'	6'x 7'	9'x 7'	7'x 3'	6'x 7'	9'x 7'
5th Field Coy.	5	8	96	-	110	6	-	11	360	-	858	60	-	78	3.8	-	7.8
6th Field Coy.	1.7	6	194	80	48	25.75	10	8	1243	889	532	48.3	89	66.5	5.9	8.9	11.1
7th Field Coy.	2.8	2.8	105	20	226	18	5	34	506	208	1287	28.1	41.6	37.8	4.8	10.4	5.7
2nd Aust. Pioneers.	5.4	-	360	-	482	66.50	-	84.50	2749	-	5103	41.2	nil	60.4	7.6	-	10.6
Totals and Averages.	7.9		755	100	866	116.25	15	137.50	4858	1097	7780	44.4	32.7	60.7	5.5	9.7	8.8

Note :- Shifts worked, 6 hours on, 18 hours off.

Totals

			Aver. No. employed per 24 hours	
			Saps.	Infy.
5th Field Coy.	1218 cub.ft.	206 man shifts	20	31.
6th Field Coy.	2664 " "	340 " "	19	66
7th Field Coy.	2001 " "	302 " "	37.7	37.7
2nd Pioneers	7852 " "	841 " "	210 Pnrs.	
Total	13735 " "	1689 " "		

)Work delayed by
)preparations for
)operations.

5th 6th 7th Field Company A.E.
2nd Aust. Pioneer Bn.

Forwarded for your information.

G.R.E. Second Australian Division Lt. Colonel,

Appendix

15-6

SECOND AUSTRALIAN DIVISION.

Analysis of work on Deep Dugouts for period 6 a.m. 3:7:18 to 6 a.m. 10:7:18.



U N I T	Average No. of men per shift.		Man shifts per week.			No. shifts per week.			Total cubic footage.			Average cubic footage per shift.			Average cubic footage per man per shift.			
	Saps.	Infy.	Approx. size face.			Approx. size face.			Approx. size face.			Approx size face.			Approx size face.			
	7'x 3'	6'x 7'	5'x 7'	7'x 3'	6'x 7'	5'x 7'	7'x 3'	6'x 7'	5'x 7'	7'x 3'	6'x 7'	5'x 7'	7'x 3'	6'x 7'	5'x 7'	7'x 3'	6'x 7'	5'x 7'
5th Field Coy.	2.3	6.2	32	-	246	15	-	32	337	-	2047.50	30	-	64	4.7	-	8.3	
6th Field Coy.	1.5	7	7	36	331	1	4	33	42	432	2274	42	108	69	6	12	8.1	
7th Field Coy.	2.3	4	127	42	353	29	10	56	843.25	632	2736.50	29	63.2	48.9	6.7	15	7.3	
2nd Aust. Pioneer Bn.	5.4	-	525	-	422	112	-	72	3210	-	5764.50	23.7	-	30	6.1	-	13.7	
Totals and Averages.	4.2		741	78	1302	155	14	193	4482.25	1064	12622.50	32.4	35.6	65.5	5.9	13.5	9.5	

Note:- Shifts worked 6 hours on 18 hours off.

Totals

	Aver. No. employed per 24 hours.	
	Saps.	Infy.
5th Field Coy.	2434 ^{.50} cub.ft	323 man shifts
6th " "	2721 " "	324 " "
7th " "	4211.75 " "	522 " "
2nd Pioneers	8974.50 " "	947 " "
Total	18,341.75 " "	2121 " "

) Changed) work
) over.) delayed
) by
) operation.

5th 6th 7th Field Company A.E.
and Aust. Pioneer Bn.

Forwarded

McClure Lt Col

Appendix 95

Weekly Dugout Report - Week 3:7:18 to 10:7:18.

68

1.	2.	3.	4.	5.	6.	7.	8.	9.
Descriptn.	Location	Size of face	6 hour shifts for week	Adv. for week L.ft	Cubic feet excav ated.	No. of men per shift	Cubic ft per shift Average.	Remarks re progress.
Mined D.O. No. 92.	0.21.233	9'x7'	14	4'	252	2	2	
		9'x7'	14	11'	693	2	2	
ADS No 107	N27C22	6'x3'	7	11'6" on 2 faces	207	2	6	4 shifts making winch. rails.
		9'x7'	8	7'	441	2	6	2 shifts do
MG Dugout	0.34b.22	5'x6'	6	6'	180	1	5	cleaned up spoil left in D.O. Infantry party for one day only. Excavation complete. Bunking commenced
						(4 shifts only)		All spoil removed in sandbags
RAP MINED Dugout No 77	0.24c.13	9'x7'	10	10'6"	661½	2	5	Drive broken through

6th Field Company A.E.

Weekly Deep Dugout Report for week ending 6 aam 10/7/18.

1	2	3	4	5	6	7	8	9.
Descriptn.	Location	Size of face	6 hours shifts for week	Advance for week Lin. ft.	Cubic feet excav ated.	No. men per shift.	Cubic feet per shift.	Remarks re progress.
Extension to 26th Bty AFA D.O.	0.27a.70.75	7'x7'	4.	8'	432	1	8	Serial 99
Mined D.O. for 1605 Bty RGA	0.15b.8.8.	3'x7' } 9'x7' }	8	{ 2' } { 4' }	42 252	1	6	" 63
RAP Dugout D.O.	0.24c.05.25	9'6"x7'6"	14.	16'	1140	2	6	" 77.
RAP Dugout D.O.	N27C22	9'6"x7'6"	12	12	855	2	8	" 107

7th Field Coy Aust. Engineers.

WEEKLY DUGOUT REPORT

7TH FIELD COY
ENGINEERS, A.I.F.

No. 244/64

Week Ending 6am 10/7/18

1.		2	3	4	5	6	7		8	9	
Description & Serial Number		Location	Size of face.	6hr. Shifts for Week	Advance for Week L. Ft	Cubic feet Excavated	No of men per shift: Saps. Inf		Cubic ft per shift Average	Remarks.	re Progress.
Coy. H.Qrs.	N 25	0.34 C 50.05	66" x 9'	20	13	760	2	4	38	Progress good - chalk rather bad - stairway dug	
ditto	" 84	0.35 d. 1.4	66" x 3'	3	7'6"	146 1/4	2	4	49	" " good chalk	
ditto	" 84	0.35 d. 1.4	66" x 9'	13	19'3"	1126	2	5	86 1/2	" excellent, chalk good - only short carry with spoil	
Accommodation	" 121	0.25 d. 1.5	7' x 6'	3	4	168	3	-	56	Sappers working as gas picquet - details etc.	
Signal. Cabin at Bn. H.Q.	" 15	0.28 c. 8.5	6' x 6'	4	3'6"	126	2	3	31 1/2	Chalk bad - breaking out from narrow passages.	
Battn. H.Q.	" 27	0.26 c. 8.3	9' x 7'	16	10	630	1	6	39 1/2	Inf parties continually being taken off to "Stand To"	
Field Coy. H.Q.	" 52	0.25 d. 3.7	9' x 7'	7	3'6"	220 1/2	4 & odd camp details. when available.		31		
Coy. H.Q.	" 86	P 25. C 25.70	56" x 36"	7	9'9"	188	2 for 5 shifts 4 " 2 "		27		
Accommodation	" 121	0.25 d. 0.5	56" x 36"	5	6'9"	129	4 -		25		
Double Coy. H.Q.	" 136	0.30 d. 0.25	6'6" x 3'6"	6	6'9"	153	2 for 5 shifts 1 for 3 shift		25		
ditto	"	"	66" x 36"	5	5'3"	119	2 for 4 shifts 1 for 3 shift		24		
Coy. H.Q. Extension		0.30 b 30.25	66" x 66" 6' x 3'	3 3	8' 6	338 108	3 1 shift 5 2 shifts 7 -		112 36	also 3 bunks & 2 strengthening eiders	
<u>Bunking</u>											
M.G. H.Q.	N 27	0.27 c. 3.4	-		16	bunks erected & wired	(Complete)				
M.G. dugout	" 6	0.32 c. 8.1	-		18	"	(Complete)				
M.G. dugout		T. 6. b. 1.2	-		18	"	(Complete)				
Artillery. H.Q.		T. 6. b. 1.7	-		9	"					

Appendix 15

Appendix

15

for O.C. 7th Field Coy Aust Engrs

WEEKLY DEEP DUGOUT REPORT TO ACCOMPANY PLANS. Week 3: 7: 18 to 6 a.m. 10: 7: 18.
SECOND AUSTRALIAN PIONEER BATTALION.

1.	2.	3.	4.	5.	6.	7.	8.	9.
Description.	Location.	Size of face.	6 hour shifts per week	Advance for week L. Feet.	Cub. Ft. Excavated.	No. of men per shift.	Cub.Ft. Per Shift. Average.	Remarks re progress.
M.G.Position. (90)	O.34.a.7.1.	5'8" x 3'6"	8	11'9"	231	4	38.5	
"	O.34.a.7.1.	7' x 3'6"	22	33'	931	4	42.3	
M.G.Position. (19)	O.35.d.O.8.	5'8" x 3'6"	28	25'9"	530	4.75	19.4	On 8th & 9th work delayed owing to enemy shelling.
Platoon Dugout. (50)	O.24.d.2.8.	9' x 7'6"	23	31'6"	2128.25	4	78	5 men carrying spoil per shift
Platoon Dugout. (55)	O.30.b.4.7.	9' x 7'6"	20	24'	1820	4	81	5 men carrying spoil per shift
Res. Arty D.O. (35)	O.19.d.5.8.	9' x 6'6"	19	30'	1755	10	92.3	
Accom. Dugout. (46)	O.15.d.O.7.	9' x 6'6"	5	4'6"	263.25	8	52.55	
Accom. Dugout. (126)	O.23.b.9.3.	5'8" x 3'3"	20	27'3"	486	5	24.3	No. 1 Drive.
		7' x 3'3"	8	12'	273	5	34.1	
	O.23.b.9.3.	5'8" x 3'3"	20	27'3"	486	5	24.3	No. 2 Drive.
		7' x 3'3"	8	12'	273	5	34.1	

8974.50

E. Patterson
 Capt. & Adjt.
 2nd Australian Pioneer Battalion.

Appendix

1570

SECOND AUSTRALIAN DIVISION.

Analysis of work on Deep Dugouts for period 6 a.m. 10:7:18 to 6 a.m. 17:7:18.



U N I T.	Average No. of men per shift.		Man shifts per week.			No. of shifts per week.			Total cubic footage.			Average cubic footage per shift.			Average cubic footage per man per shift.		
	Saps.	Infy.	Approx. size face.			Approx. size face.			Approx. size face.			Approx. size face.			Approx. size face.		
			7'x3'	6'x7'	9'x7'	7'x3'	6'x7'	9'x7'	7'x3'	6'x7'	9'x7'	7'x3'	6'x7'	9'x7'	7'x3'	6'x7'	9'x7'
5th Field Coy.	3.7	4.3	120	42	91	12	8	13	488	156	850	40.5	26	65.4	4.1	3.8	9.3
6th Field Coy.	1	4.5	18	10	40	8	2	10	189	105	504	23.6	52.5	50.4	11.8	10.5	12.6
7th Field Coy.	3.3	4	180	9	192	45	1	24	1088	108	992	24.2	108	41.3	6	12	5.2
2nd Pioneer Bn.	Pnrs. 7	-	300	-	314	37.5	-	66	1554	-	4586	41.4	-	69	5.2	-	14.5
Totals & Averages.	7		616	61	637	102.5	9	113	5317	369	6912	52.4	62	56.5	6.8	8.8	10.4

Note :- Shifts worked 6 hours on 18 hours off.

Totals.

						Average No. employed per 24 Hours.	
						Saps.	Infy.
5th Field Coy.	1492 cub. ft.	253	man shifts			16.7	19.3
6th Field Coy.	798 " "	66	" "			1.6	7.7
7th Field Coy.	2188 " "	381	" "			24.6	29.9
2nd Pioneer Bn.	6120 " "	614	" "			88 Pnrs.	
Total	10598 " "	1314	" "			32.7	19

Field Coys. work delayed by operations and Pioneers were withdrawn from dugout work to construct forward communication trenches.

5th 6th 7th Field Company A.E.
2nd Aust. Pioneer Bn.

For information.

G.R.E. Second Australian Division.

Lt. Colonel,

DUGOUT REPORT

For week ending

17.7.18.

5th F.C.

85

Description	Location	Size of Face	Six hr Shifts for Week	Advance for Week L.F.	Cubic feet Excavated	No of Men per Shift		Cubic feet per Shift	Remarks re Progress
Nº 92	O21.C.33.	9'x7' 2 faces	13	13'6"	850	7	—		
Nº 85	P.25.C.2.7.	6'x3' 2 faces	12 right 12 left	10'6" 16'6"	486	1 1	4 4		
Coy H.Q. Top Chamber	P.26.2.2.7.	6'x6'6"	6	4	156	2	5		
				Total	1492				

Appendix 15-42

6th FIELD CO AUSTR. ENGRS.

Weekly Deep Dugout Report to accompany plans.

week ending 17.7.18

1	2	3	4	5	6	7		8	9
Description	Location	Size of face	6 hour shifts for week	Advance for week L. ft.	Cubic feet excavated.	No of men per shift		Cubic feet per shift average.	Remarks re progress.
						Spr.	Inf.		
Deep dugout.	O. 15. b. 8. 8.	9' x 7' 3' x 7'	10 8	8' 9'		{	Arty. 5.		
Deep dugout for R.A.P.	N. 27. c. 2. 2	6' x 7'	2	2' 6"		1	4.		

W. Harris Major
6th FIELD COMPANY ENGINEERS A.I.F.

7th Field Coy. Aust. Engrs

7TH FIELD COY
ENGINEERS, A.I.F.

No. 24/78

Weekly Dugout Report

To 6 am. 17/7/1918

1	2	3	4	5	6	7	8	9
Description	Location	Size of face	hours shifts per week	advance for week L. Ft.	Cubic ft excavated	no. of men per shift Saps Inf Average	Cubic ft per shift Average	Remarks
No 136. Double Coy HQ.	O. 30. d. 00.25	6'6" x 3'6"	9	12 1/2	273	3 for 3 shifts	30	
"	"	"	8	10'6"	239	3 for 3 shifts 1 " 1"	29	
No 121. Extension	O. 25. d. 0.5	6'6" x 3'6"	10	4'	91	3 -	9	12 sets exchanged.
"	"	"	5	5'	101	3 -	20	Long carry with spoil
No 15. Battn. HQ. Signal Cabin	O. 28. e. 2.5	6' x 6'	1	3'	108	2 7	108	
No 27 Bn. HQ	O. 26. e. 9.3	9' x 7'	6	4'	252	1 6	42	Completed. - (bunking not completed - gas proofing complete)
No 136. Double Coy. HQ	O. 30. d. 00.25	7' x 3'	11	16'	336	4 2	30.	
No 52. Field Coy. HQ	O. 25. d. 3.7	9' x 7'	3	1 1/2	95	5 -	32	Work. suspended
No 84 Coy. HQ	O. 35. d. 1.4	9' x 6'6"	7	4'	234	4 -	33 1/2	
"	"	9' x 6'6"	4	4'	234	5 18	59	
"	"	8' x 3'	2	2'	48	2 10	24	
No 25 Coy. HQ	O. 34. e. 5.0	9' x 6'6"	1	1'	60	3 -	60	Taking off corner at junction
(correct location - U. 4 a. 5.9)	"	"	3	2'	117	4 -	39	cleaning out chamber
								Breaking through to other chamber
								4 shifts in cleaning - gas proofing etc
					2188			

for A. B. 7th Field Company. A.E. Captain.

Appendix

15-14

SECOND AUSTRALIAN PIONEER BATTALION.

WEEKLY DEEP DUGOUT REPORT TO ACCOMPANY PLANS. Week 10: 7: 18 to 17: 7: 18.

Description.	Location.	Size of face.	6 hour shifts per week	Advance for week. L. Feet.	Cubic Feet Excavated.	No. of men per shift.	Cub. Ft. per shift.	Remarks re progress.
1.	2.	3.	4.	5.	6.	7.	8.	9.
Platoon D.O. Serial No.104	0.24.d.2.8.	9' x 7'6"	23½	21'6"	1451.25	4	63	7 men carrying spoil per shift <i>Chalk</i>
Platoon D.O. Serial No.105	0.30.b.4.7.	9' x 7'6"	23½	29'6"	1991.25	4	85	10 men carrying spoil per shift <i>Good earth</i>
Res. Arty D.O. Serial No.35	0.19.d.5.8.	9' x 6'6"	5	7'	409.5	8.4	81.9	
M.G.Emplacement Serial No. 79	0.35.d.0.8.	6' x 2'9"	5	9'	409.5	10	29.7	
		6'6" x 3'3"	8	9'	148.5	7.5	23.76	
		7' x 3'	6	10'	190.12	7	35	
M.G.Dugout. Serial No.90.	0.34.a.7.1.	5'6" x 3'3"	14.5	35'6"	634.53	8	45	
		7' x 3'6"	4	7'	171.5	8	42.87.	
Accommodation D.O. Ser.No.126	0.23.b.9.3.	9' x 7'	14	11'4"	714	8	51.	

6/20.18

G. B. Patterson
Capt. & Adjt.
2nd Australian Pioneer Battalion.

Appendix

15

SECOND AUSTRALIAN DIVISION.

Analysis of work on Deep dugouts for period 6 a.m. 17:7:18 to 6 a.m. 24:7:18.



U N I T	Average No. of men per shift.	Man shifts per week.	No. of shifts per week.	Total cubic footage.	Average cubic footage per shift.	Average cubic footage per man per shift.
Saps: Infy.	Approx. size face	Approx. size face	Approx. size face	Approx. size face	Approx. size face	Approx. size face
	7'x 3': 6'x 7': 9'x 7'	7'x 3': 6'x 7': 9'x 7'	7'x 3': 6'x 7': 9'x 7'	7'x 3': 6'x 7': 9'x 7'	7'x 3': 6'x 7': 9'x 7'	7'x 3': 6'x 7': 9'x 7'
5th Field Coy.	3 : 2 : 60 : - : 77.5 : 12 : - : 15.5 : 324 : - : 945 : 27 : - : 61 : 5.4 : - : 12.2					
6th Field Coy.	5 : 6.3 : 140 : - : 57 : 28 : - : 11.5 : 1250 : - : 703 : 44.5 : - : 61.1 : 8.9 : - : 12.3					
7th Field Coy.	3.8 : 1.7 : 81 : - : 46 : 14 : - : 6.75 : 505 : - : 509 : 36 : - : 75.4 : 6.2 : - : 11					
2nd Aust. Pioneer Bn.	4.3 : - : 238 : 75 : 254 : 58 : 10 : 46 : 2824 : 564 : 2184 : 48.7 : 56.4 : 47.5 : 11.8 : 7.5 : 8.6					
Totals and averages:	5.7 : 519 : 75 : 434.5 : 112 : 10 : 79.75 : 4903 : 564 : 4341 : 39 : 56.4 : 61.2 : 8.1 : 7.5 : 11					

Note:-Shifts worked 6 hours on 18 hours off.

Totals.

U N I T.	Aver. No. employed per 24 hours:
	Sappers Infantry.
5th Field Coy.	1269 cubic ft. : 137.5 man shifts : 12 : 8
6th " "	1955 " " : 197 " " : 12.4 : 15.7
7th " "	1014 " " : 127 " " : 12.6 : 5.6
2nd Pioneer Bn.	5672 " " : 567 " " : 81 Pnrs. :
Total	9808 " " : 1028.5 " " : 29.5 : 9.5

Work delayed by change over of 6th and 7th Coys. and also by enemy gas bombardment of forward areas. Infantry labour very short.

5th 6th 7th Field Company A.E.
2nd Aust. Pioneer Bn.

Forwarded.

b.l.b 2nd Aust Division

Lt Colonel

Appendix 15



5th Field Coy.
 Aust. Engineers
 Weekly Deep Dugout Report 6am.17.7.18 to 6am.24.7.18

1	2	3	4	5	6	7		8	9
Description	Location	Size of face	How shifts for week	Adv. for week L. Ft.	Cubic ft. excav.	No of men per shift		Cubic ft. per shift.	Remarks or progress.
						Sap.	Inf.		
N ^o 92	O.21.C.3.3	2 faces 9x7'	15½	15'	945	5	-		Chalk - easy.
N ^o 85	P.25.C.1.7	2 faces 6x3'	12	18'	324	1	4		Work delayed on several occasions owing to enemy gas. 1 shift lost on Batt. change over. all spoil evacuated per sandbag clay.
					1269				

Map 620.

Week - ending 24.7.18

6th FIELD CO AUSTR. ENGRS.

24/7/18

Weekly Deep dugout Report to accompany plans.

1	2	3	4	5	6	7	8	9
Description	Location	Size of face	6 hour shifts for week	Advance for week Lin. Ft.	Cubic feet excavated	No of men per shift	Cubic feet per shift	Remarks re progress
Mined Arty. D.O.	O. 15. b. 8. 8.	6' x 3'	4	7' 6"		1	3.5 ARTY.	
Deep dugout	U. 5. b. 1. 8.	6' x 3'	4	10' 0"		2	4	Hard Hand going
" "	O. 25. d. 0. 5.	7' x 3 3/4" 9' x 7'	6 4	11' 0" 5'		3.5 5		Hard Chalk
L Bn. D.O.O.	O. 30. d. 0. 3.	9' x 7'	1	1'		3	4	
		9' x 7' (less 5' 6" x 2' pilot gallery)	6 1/2	6' 3"		1	3.5	Clay
		5' 6" x 2' (pilot gallery)	9	37'		2	3.5	
		7' x 3 3/4"	5	12' 3"		2	3.5	

McHavens Major

OC 6TH FIELD COMPANY ENGINEERS A.I.F.

7TH FIELD COMPANY AUSTRALIAN ENGINEERS.

Weekly Dugout Report			for		Week ending 24th July 1918.			
1	2	3	4	5	6	7	8	9
Description .	Location.	Size of face.	No. of 6-hour shifts.	Advance for week. L.feet.	Cubic feet excavtd.	No. of men per shift. Saps. Inf.	Cubic feet per shift. Avge.	REMARKS.
Srl. No.								
121	Extension of D.O.	6'6"x3'6"	4	5ft	114	4 -	28.5	Chalk - long carry.
	1st sht- 0.25.d.0.5.	3'6"						
121	-do- 2nd sht.	-do-	2	3ft	68	4 -	34	-do-
	Accomodation N.22.d.4.9.	9'x7'	3	2'9"	173	4 -	58	Chalk - easy carry.
	" " " " " "	9'x7'	1	10"	52	4 -	52	Chalk.
63	Arty.D.O.0.15.b.8.8.	6'6"x3'3"	5	6ft	127	1 4	25	Working party only available 2/3rd of time.
15	Recess in 0.28.c.8.4.	6'6"x3'3"	1	2ft	42ft	2 3	42	Chalk.
	tunnel Bn.H.Q.	3'3"						
136	Double Coy.H.Q.	6'6"x3'6"	4 1/2	(6'9"	154	4 3	92	Work expedited - urgent.
	0.30.d.00.25.	3'6"		(
"	" " " " " "	9'x7'		(4'6"	284)		



for T/O.C. 7th Field Company Australian Engineers.

John D. Moran. Lieut. Captain,

Appendix 1549

SECOND AUSTRALIAN PIONEER BATTALION.

WEEKLY DEEP DUGOUT REPORT TO ACCOMPANY PLANS. Week ending 6 a.m. 24: 7: 18.

2ND
AUSTRALIAN
PIONEER BATTALION.

No. 7/841

80

1.	2.	3.	4.	5.	6.	7.	8.	9.
Description.	Location.	Size of face.	8 hour shifts for week.	Advance for Week.L Ft.	Cub. Ft. Excavated	No.of men per shift	Cub.Ft. per shift.	Remarks re progress
M.C.Emplace- ment.Ser.No.79	O.35.d.O.8.	7' x 3'3" 9' x 7'	20 18.6	21 10	473 630	4.7 4.3	23.9 33.75	Very hard. Chalk.
M.G.Dugout. Serial No.90	O.34.a.7.1.	5'6" x 3'3" 7' x 3'3" 5'6" x 8'8" 5'9" x 7' 3'3"x2'9" } x 3'	9.5 7 3 10 1	17' 7'6" 5' 14' -	304 170.6 179 583.5 27	4.7 3.7 6.33 7.5 2	32 24.37 59.6 53.35 27	Clay. Clay. M.G.Emplacement.Clay 9'x 7' chamber less 3'3" already taken out. Clay. M.G.Recess. Clay.
Accommodation D.O.Serial No. 128.	O.26.b.9.3.	9' x 7'	27.5	24'8"	1554	8	58.5	Fairly good, chalk.
Double Bn.H.Q. Serial No.143	O.30.b.88.20	7' x 3'6"	17.5	63'	1000 5572	8	95	10 men carrying spoil per shift-21 ft.of excavation was on the level into bank.Remainder 1 1 slope. Soft lo

2nd Australian Pioneer Battalion.

Capt & Adjt

Appendix / 580

SECOND AUSTRALIAN DIVISION.

Analysis of work on Deep dugouts for period 6 a.m. 24:7:18 to 6 a.m. 31:7:18.



2nd AUSTRALIAN DIVISION											
UNIT:	Average No. of men per shift.	Man shifts per week.	No. of shifts per week.	Total cubic footage.	Average cubic footage per shift.	Average cubic footage per man per shift.					
Saps. Infy.	Approx. size face	Approx. size face	Approx. size face	Approx. size face	Approx. size face	Approx. size face					
	7'x 5':6'x 7':9'x 7'	7'x 5':6'x 7':9'x 7'	7'x 5':6'x 7':9'x 7'	7'x 5':6'x 7':9'x 7'	7'x 5':6'x 7':9'x 7'	7'x 5':6'x 7':9'x 7'					
5th Field Coy.	2.5 : 2.5	105 : -	97 : 15	- : 23.25	542 : -	1009 : 23	- : 43.4	5.4 : -	10.4		
6th Field Coy.	2.1 : 6.2	108 : -	151 : 28	- : 14	990 : -	1508 : 35.4	- : 108	6 : -	10		
7th Field Coy.	10 : -	- : -	55 : -	- : 5.5	- : -	714 : -	- : 180	- : -	13		
2nd Pion-er Bn.	10 : -	236 : -	195 : 57	- : 31	3494 : -	1858 : 61.3	- : 60	10.4 : -	9.5		
Totals & Averages	5.6	609	498	100	73.75	4826	5089	40	85	6.6	10.7
Note :- Shifts worked 6 hours on 12 hours off.											

Note :- Shifts worked 6 hours on 13 hours off.

Totals.

UNIT	Aver No. employed per 24 hours	Sappers.	Infantry.	
5th Field Coy.	1351 cubic feet	202 man shifts	14.5	14.5
6th " "	1508 " "	319 " "	11.5	33
7th " "	714 " "	55 " "	8	-
Pioneers	5353 " "	331 " "	78	7
Total	3925 " "	1107 " "	27.5	24

Work delayed by gas bombardments in forward area. Infantry labour very short.

5th 6th 7th Field Company A.R.
2nd Aust. Pioneer Bn.

Forwarded.

C.R.E. Second Australian Division.

Lt. Colonel,

Appendix 15/81



Appendix

15 82

5th Field Company A.E.WEEKLY DEEP DUGOUTS REPORT - 6 a.m. 25:7:18 to 6 a.m. 31:7:18.

1.	2	3	4	5	6	7	8	9
Descript ion.	Location	Size of face	6 hour shifts for for week. week. L ft.	Adv. for week L ft.	Cubic feet excav ated.	No. of man per shift.	Cubic feet per shift.	Remarks affecting pro- gress.
85	P.25.c. 2.7.	6'x 3' 2 faces	15	19'	342	<u>Sap.</u> 1	<u>Inf.</u> 6	Gravel and clay Cover 24' Night 26/27th delayed by enemy action.
		9'x 7'	4	3'	189	1	4	
92	O.21.c. 3.3.	9'x 7'	7/4	4'6"	284	4	-	Chalk. Fair standing ground. Cover 20'.
		9'x 7'	12	8'6"	536	4	-	

sgd. R.S.REID
O.C. 5th Field Coy.

Major,

Ref. Map 620.

Week-ending. 31.7.1918.

6th. FIELD CO. AUSTRALIAN ENGINEERS.

Weekly Deep dugout report to accompany plans.

O.C.

Ac Harris

Major.

7TH FIELD COMPANY AUSTRALIAN ENGINEERS.

Weekly Deep Dugout Report

for

Week ending 31st July 1918.

Srl. No.	Description.	Location.	Size of face.	6 hour shifts for week.	Advance for week. L.feet.	Cubic feet excavtd.	No. of men per shift.	Cubic feet per shift.	Remarks re Progress.
							Saps. Inf.	Avge.	
	Accomodation.	N. 22. d. 4. 9. 9' x 7'	6	6' 4"	399	5	-	66) Working in
	"	"	5	2ft	315	5	-	63.) chalk.



T/O.C. 7th Field Company Australian Engineers.

Special Captain,

Appendix

15

84

SECOND AUSTRALIAN PIONEER BATTALION.

WEEKLY DEEP DUGOUT REPORT TO ACCOMPANY PLANS.

Week 6 a.m. 24:7:18 to 6 a.m. 31:7:18.

2ND
AUSTRALIAN
PIONEER BATTALION.

No. 7/1089
Date

1.	2.	3.	4.	5.	6.	7.	8.	9.
Description.	Location.	Size of face.	6 hour shifts per week.	Total for week L. Ft.	Cubic ft. excavated	No. of men per shift.	Cubic feet per shift. Average.	Remarks re progress.
M.G. Emplacem't Serial No. 79	O. 35.d. 00.80.	9' x 7'	3	3'6"	220.5	8.3	73.5	Very hard chalk.
M.G. Dugout. Serial No. 90.	O. 34.a. 65.10.	5'6" x 3'3" 5'6" x 6'6"	1 3	1' 5'	17.9 178	2 6.3	17.9 59.3	Clay. Emplacement.
Accommodation D.O. Ser. No. 126	O. 26.b. 85.25	9' x 7'	28	26'	1638	6.1	58.5	Fairly good chalk.
Accom. Dugout Serial No. 163	P. 25.b. 7.8.	7' x 3'3" 6'6" x 3' 5'6" x 3'3"	12 4 10	21.5 5.5 36'	489.12 107 643.5	8.4 5 11.2	40.76 26.75 64.35	Loam.
Double Bn. H.Q. Serial No. 148	O. 36.b. 85.10	7' x 3'6" 7' x 3'6" 7' x 3'6"	28 28 28	24 29 31	588 710 759.5	1 1 1	21 25 27	Left entrance. 4 men carrying spoil per shift. Middle entrance. 3 men carrying spoil per shift. Right Entrance. 3 men carrying spoil per shift. Class of soil from loam through gravel and chalk

2nd Australian Pioneer Battalion.

Capt. & Adjt.

Appendix

1585