

# NOTE

ON THE

## PRESENT STATE OF THE RIVER CHANNELS AND FLOOD EMBANKMENTS OF THE PURI DISTRICT.

WITH

PROPOSALS FOR THE CONSTRUCTION OF PERMANENT ESCAPES.

BY

W. A. INGLIS,

SUPERINTENDING ENGINEER, ORISSA CIRCLE.



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*Not for sale.*

**APPENDIX I.**

*Note as to the rates at which rubble stone packing could be done at the proposed sites for escapes from the rivers in the Puri district from information furnished by RAI, PROBANNO KUMAR PAL, SAHIB, Honorary Assistant Engineer.*

Sites of proposed escapes.	Name of quarry from which stone to be had.	Distance.	Cost of carting per 100 cubic feet.	Cost of quarrying including Royalty) 100 cubic feet.	Loading, unloading and stacking.	Cost of packing 100 cubic feet.	Total cost per 100 cubic feet.
1	2	3	4	5	6	7	8
		Miles.	Rs. A.	Rs. A.	As.	Rs.	Rs. A.
A.—At Jogisahi, 1st mile, Kushbadra right.	Garh Jharpara.	4	2 4	1 12	8	1	5 8
B.—At 4th mile, Kushbadra left	Ditto	5	2 12	1 12	8	1	6 0
C.—At Adlabad, left bank of Bhargabi.	Dhowli Hill	6	3 4	1 12	8	1	6 8
D.—Bhargabi right opposite head of Ruthanchira.	Hurirajpur	13	6 12	1 12	8	1	10 0
E.—At 5½ mile, Daya left ...	Dhowli Hill	3	1 12	1 12	8	1	5 0
F.—At 11th mile, Daya left ...	Hurirajpur	4	2 4	1 12	8	1	5 8

*NOTE*—Rate for carting 1st mile 12 annas per 100 and 8 annas extra for every additional mile. Royalty annas 4 per 100.

Taking the rates as given in the above, the approximate cost of the escapes proposed may be taken as follows.

In the plan which accompanies, the quantity of rubble stone in the revetment is 3,789 cubic feet on each flank, which, to be on the safe side, may be taken as 4,000 cubic feet; while in the body the quantity is 175 cubic feet per foot run. The earthwork may be taken at 500 cubic feet per foot run—

Kushbadra, 1st mile, right bank. Length of escape required 280 feet—

	C. ft.
Rubble in flanks ...	8,000
„ „ body 280 x 175 = ...	49,000
<b>Total</b> ...	<b>57,000</b>

	Rs.	A.
At Rs. 5-8 per 100 = ...	3,135	0
Earthwork 280 x 500 = 14,000 at Rs. 2-8 per 1,000 ...	350	0
<b>Total</b> ...	<b>3,485</b>	<b>0</b>
Say ...	3,500	0

Kushbadra, 4th mile, left. Length of escape required 280 feet—

	Rs.	A.
Rubble as above, 57,000, at Rs. 6 per 100 = ...	3,420	0
Earthwork as above ...	350	0
<b>Total</b> ...	<b>3,770</b>	<b>0</b>
Say ...	3,800	0

Bhargabi left bank near Adlabad. Length of escape required 420 feet—

	C. ft.
Rubble in flanks ...	8,000
„ „ body $420 \times 125 =$ ...	73,500
<b>Total</b> ...	<b>81,500</b>

	Rs.	A.
At Rs. 6-8 per 100 = ...	5,297	5
Earthwork $420 \times 500 = 210,000$ , at Rs. 2-8 per 1,000 ...	425	0
<b>Total</b> ...	<b>5,722</b>	<b>5</b>
<b>Say</b> ...	<b>5,850</b>	<b>0</b>

Bhargabi at about 12th mile, right bank, near head of Rathanchira. Length required 420 feet—

	Rs.	A.
Rubble as above, 81,500, at Rs. 10 per 100 = ...	8,150	0
Earthwork as above ...	425	0
<b>Total</b> ...	<b>8,575</b>	<b>0</b>
<b>Say</b> ...	<b>8,700</b>	<b>0</b>

Daya in 6th mile, left bank. Length of escape required 700 feet—

	C. ft.
Rubble in flanks ...	8,000
„ „ body $700 \times 175 =$ ...	122,500
<b>Total</b> ...	<b>130,500</b>

	Rs.	A.
At Rs. 5 per 100 = ...	6,525	0
Earthwork $700 \times 500 = 350,000$ at Rs. 2-8 per 1,000 = ...	875	0
<b>Total</b> ...	<b>7,400</b>	<b>0</b>
<b>Say</b> ...	<b>7,500</b>	<b>0</b>

Daya in 11th mile, left bank. Length of escape required 700 feet—

	Rs.	A.
Rubble as above, 130,500, at Rs. 5-8 per 100 ...	7,178	0
Earthwork as above ...	875	0
<b>Total</b> ...	<b>8,053</b>	<b>0</b>
<b>Say</b> ...	<b>8,200</b>	<b>0</b>

Some payments may have to be made in acquiring land. The amounts allowed above in excess of the estimated cost of rubble and earthwork should cover this.



— OUTLINE MAP OF THE PURI DISTRICT —

— SHOWING RIVER CHANNELS WITH EMBANKMENTS —

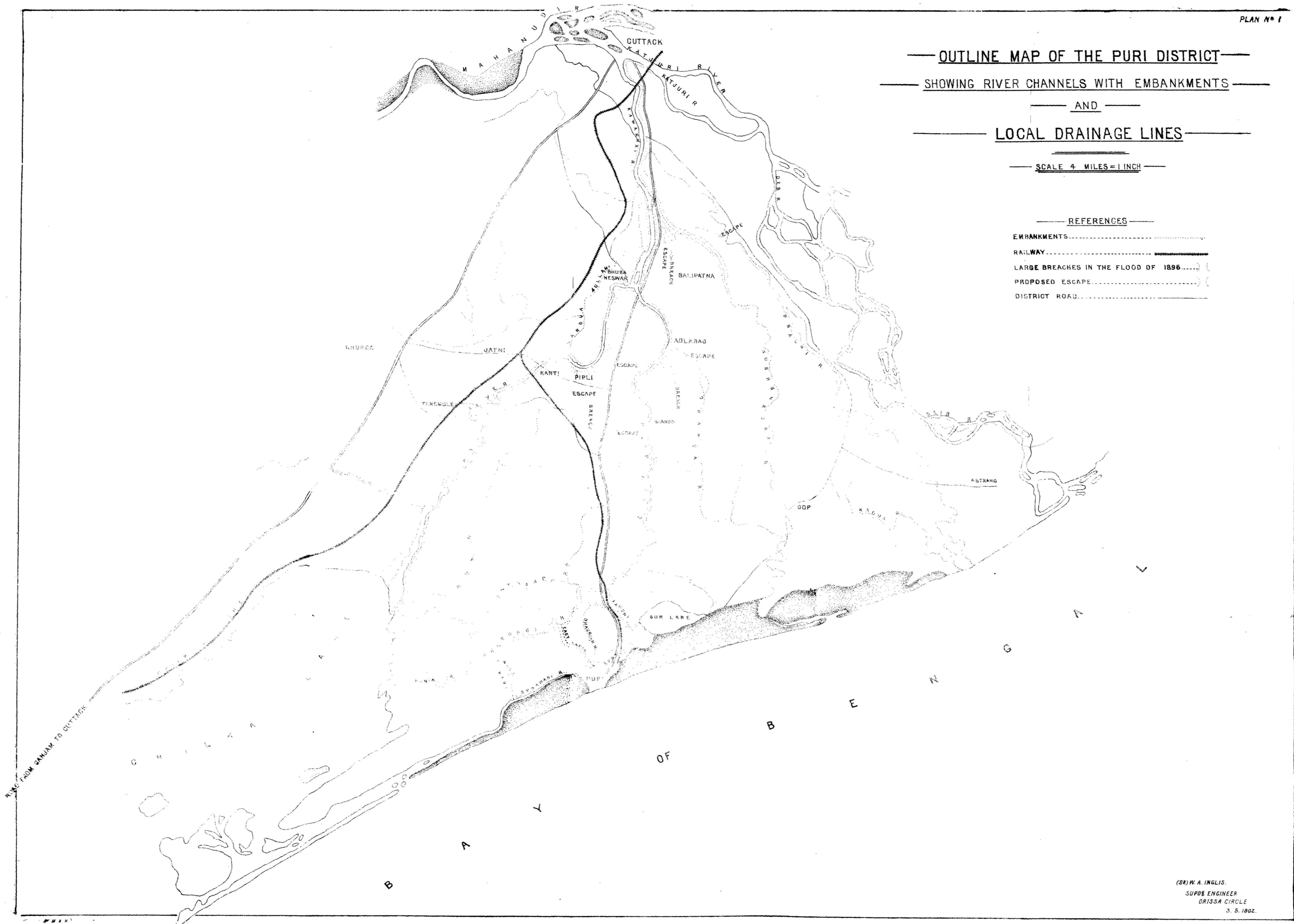
— AND —

— LOCAL DRAINAGE LINES —

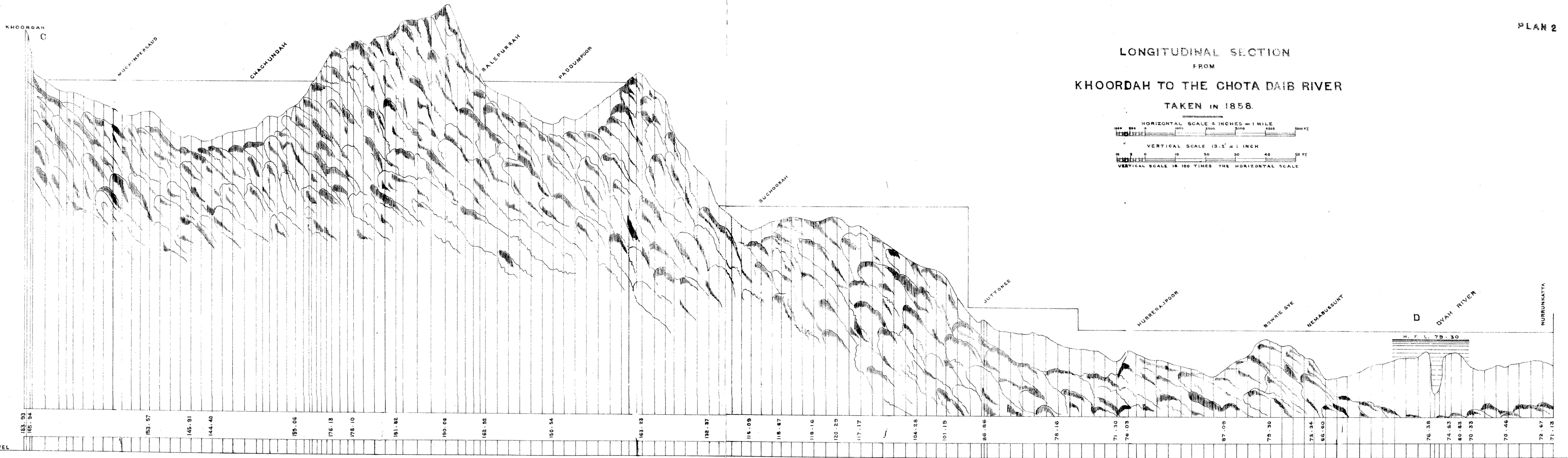
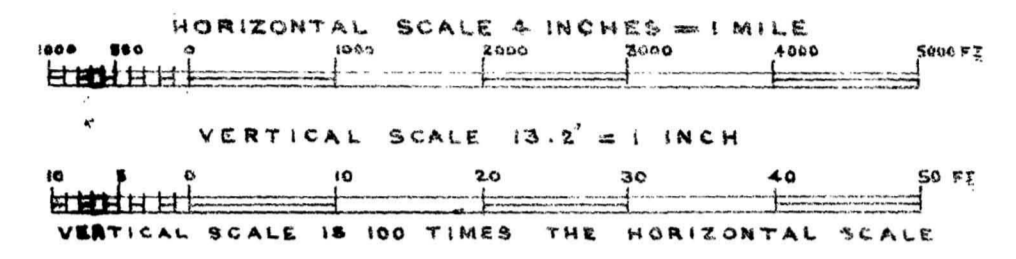
— SCALE 4 MILES = 1 INCH —

— REFERENCES —

- EMBANKMENTS.....
- RAILWAY.....
- LARGE BREACHES IN THE FLOOD OF 1896.....
- PROPOSED ESCAPE.....
- DISTRICT ROAD.....



LONGITUDINAL SECTION  
FROM  
KHOORDAH TO THE CHOTA DAIB RIVER  
TAKEN IN 1858.



DATUM LINE 35.60 ABOVE MEAN SEA LEVEL

(S<sup>r</sup>) W. D. SHORT CAPTAIN  
OFF<sup>r</sup> SURVY EMBANKMENTS L.P.

(S<sup>r</sup>) J. W. BEADLE  
SURVY EMB<sup>r</sup>  
20.8.1858.

(S<sup>r</sup>) JOHN HARRIS LIEN<sup>r</sup> (S<sup>r</sup>) W. A. ENGLIS.  
IN CHARGE SURVY  
CUTTACK RIVER.  
ORISSA CIRCLE  
3. 8. 1902.

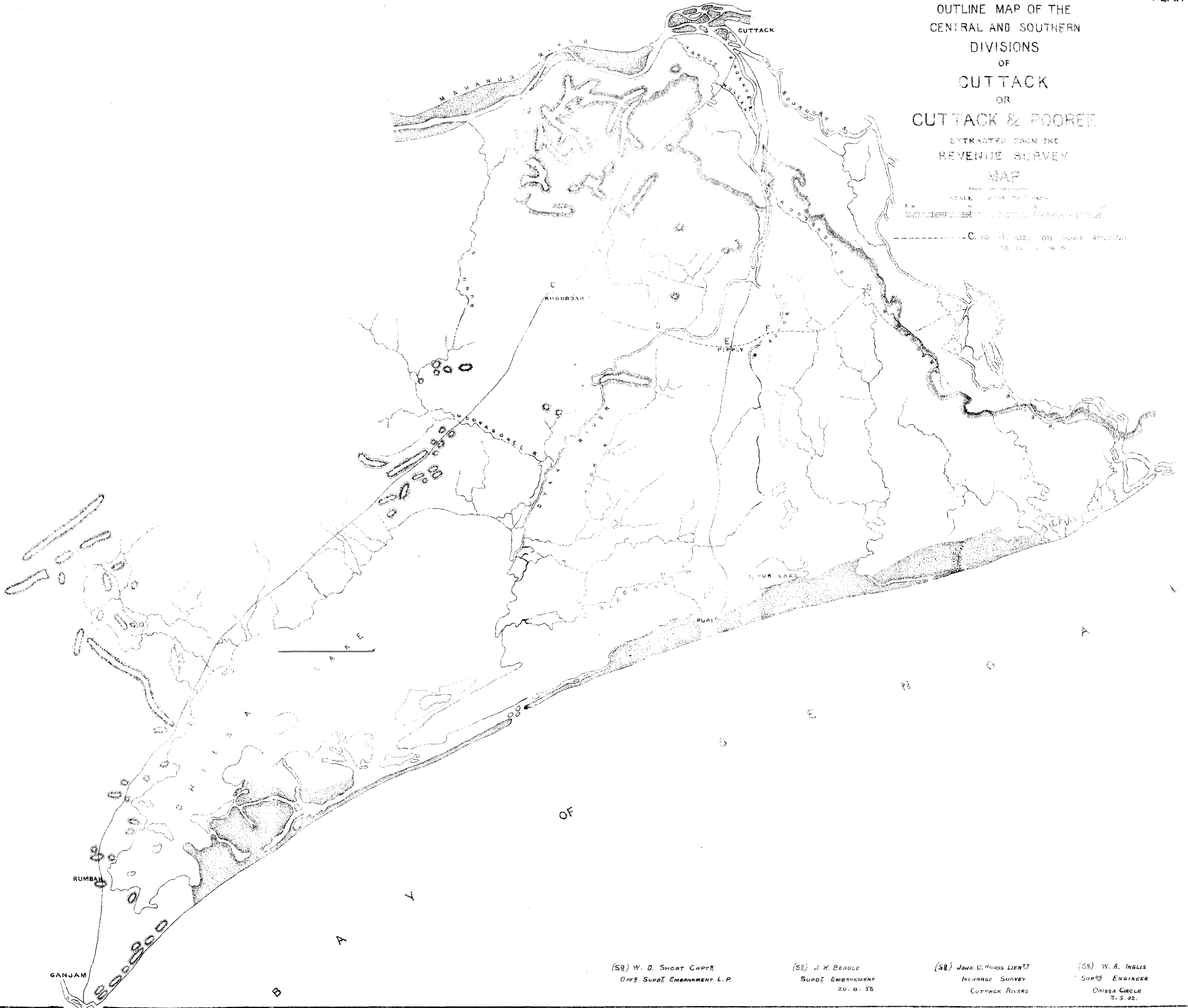
OUTLINE MAP OF THE  
CENTRAL AND SOUTHERN  
DIVISIONS  
OF  
CUTTACK  
OR  
CUTTACK & POOREE

EXTRACTED FROM THE  
REVENUE SURVEY

MAP

SCALE 1 INCH TO 1 MILE  
1:62,500

C. TO H. LINE ON ROAD SOUTH  
TA 27 OF 1905



(Sg) W. D. SHORT CAPT  
OFFS SUPD EMBANKMENT L.P.

(Sg) J. W. BEADLE  
SUPD EMBANKMENT  
20. 8. 58

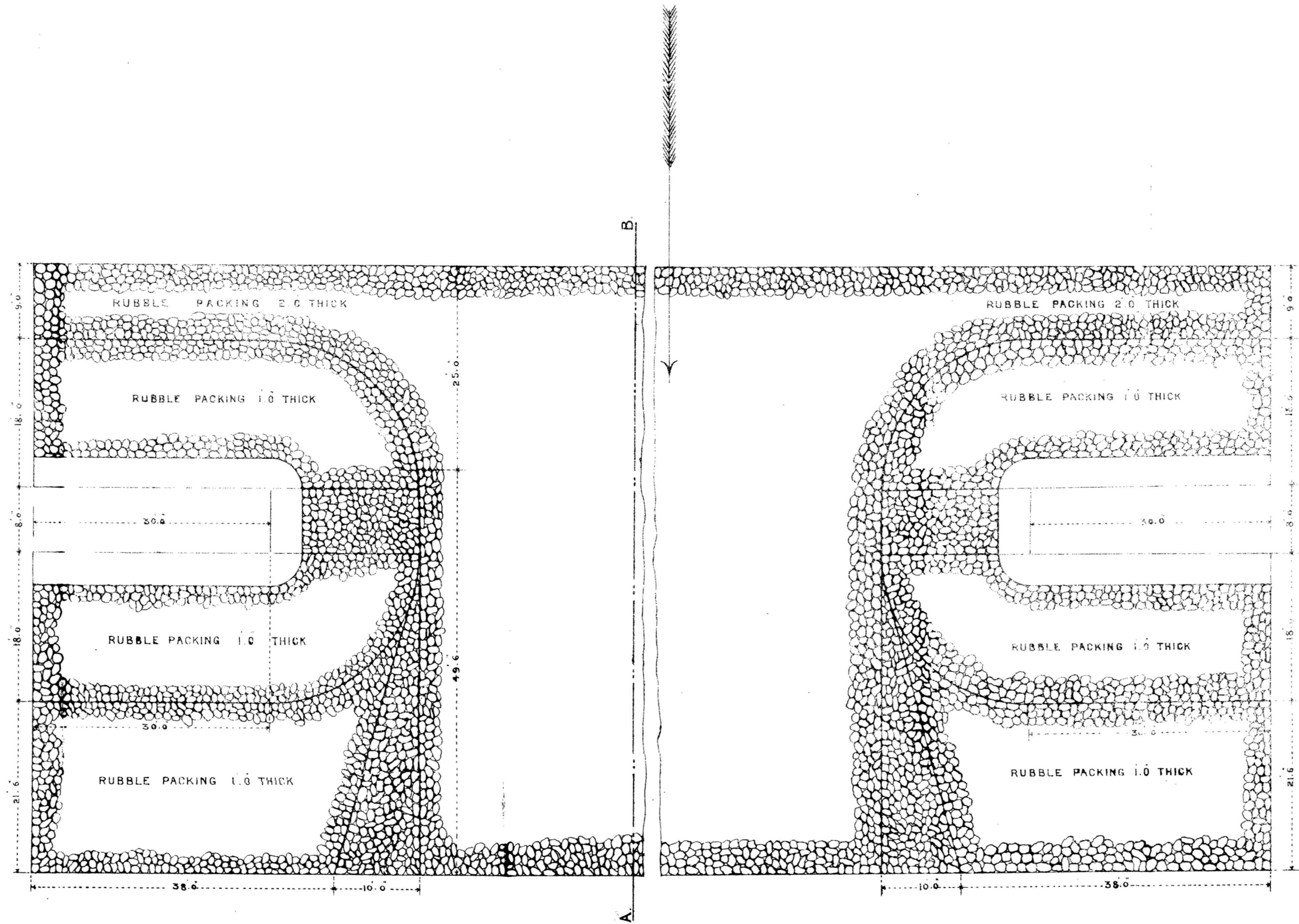
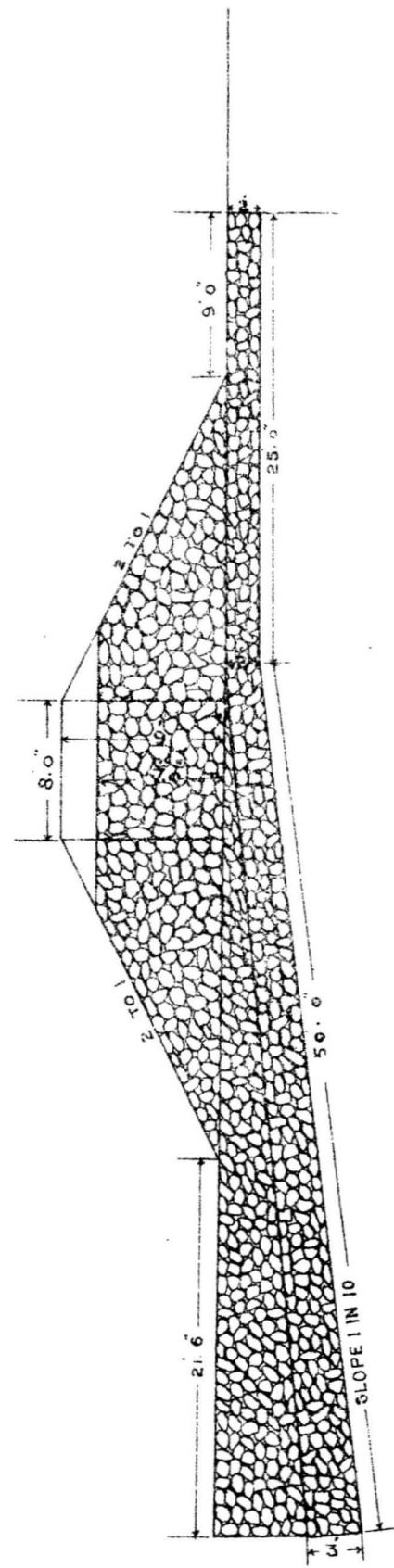
(Sg) JOHN C. HARRIS LIENT  
INCHARGE SURVEY  
CUTTACK RIVERS

(Sg) W. A. INGLIS  
SUPD ENGINEER  
ONISSA CIRCLE  
3. 5. 02.

# TYPE PLAN OF ESCAPE

SCALE 10 FEET = 1 INCH

CROSS SECTION ON A. B.



(SA) W. A. HIGLIS,  
SUPER ENGINEER,  
ORISSA CIRCLE,  
3. 5. 02.



