

(1) Number of pages 126

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 1327	Press
592-93	Mis.
Dated 30 . 4	1868 .

Not to be folded or roughly handled

*26-
30-6-13*

*Proceedings of the Madras Government, Public Works Department,
30th April 1868.*

No. 592. Read the following Proceedings of the Madras Government in the
Revenue Department :—

Communicating Proceedings of the Board of Revenue
on the subject of the Nellore and Cuddapah road,
and intimating that the Government consider
that the line in question should be retained in
the List of Imperial Works. (Here enter 7th April 1868, No. 925.)

No. 593. ORDER THEREON, 30th April 1868, No. 1,327.

CIVIL WORKS, No. 70.

1. Communicated to the Superin-
tending Engineer of the 2nd Division
for information and guidance.

2. The revised estimate of Rupees 1,04,737 for the Nellore and Dorenal
road is sanctioned, and as no funds have been allotted for the work in the current
year's Budget, the Superintending Engineer will apply for a grant in his statement
of incomplete works, which should be laid before Government with as little delay
as practicable.

(True Extract.)

(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

To the Superintending Engineer, 2nd Division.
.. Accountant General.
.. Controller of Public Works Accounts.
.. Revenue Department.

Ed. F. R. Bantleman.

*Proceedings of the Madras Government, Revenue Department,
7th April 1868.*

No. 166. Proceedings of the Board of Revenue, dated 28th February 1868,
No. 1,438.

Read the following letter from the Acting. Collector of Nellore, to the Secretary to the Board of Revenue, dated 3rd January 1868, No. 1:—

1. I have the honor to reply to the Board's Proceedings, dated 31st October 1867, No. 7101, calling on me for a report as to whether the Nellore and Dorenal road should henceforth be maintained as a District or Imperial line.

2. I have consulted Colonel Winscom, the Superintending Engineer, who states that he is of opinion that with reference to the views of the Supreme Government, as given in Government Order, No. 2,706, dated 3rd September 1867, this road should be regarded as a local line.

3. In another letter, dated 14th December 1867, No. 103, Colonel Winscom writes: "either the Dorenal or Cumbum roads should be retained as Imperial lines leading, as they do, from the west to the interior. At present the traffic on the Cumbum line is much the greatest, and I think as it opens out both Cuddapah and Kurnool it would be preferable that it should be the one chosen."

4. There are three roads for this district opening out communications westward, and I am certainly of opinion that one of them should be retained as an Imperial line:—

1. Ongole to Cumbum.

2. Nellore to Cuddapah *via* the Dorenal Pass.

3. From Trunk Road No. 6, Gudur to Cuddapah *via* the Rapur ghaut.

The first is the best made road which easily accounts for the largest amount of traffic existing upon it at present. The second road has never been properly made yet, and is at present for a great part of its length little more than a bandy track. I trust this year will see the road made, plans and estimates having now been laid before Government. The third is a good road except for three or four miles of difficult ghaut which have never been properly made, and are, therefore, impracticable for anything except pack bullocks.

5. The Board will remember that it was at the recommendation of the Superintending Engineer that in their Proceedings, dated 25th July 1867, No. 4,757, the transfer of the first and third lines were sanctioned from Imperial to Local Funds as regards maintenance. Colonel Winscom seems now inclined to make the Ongole and Cumbum road an Imperial line, and the Nellore and Dorenal road a Local one.

6. My own opinion is that the Dorenal road is the one which it would be preferable to retain as an Imperial line, opening up as it will communication between the principal towns of the Nellore and Cuddapah Districts. I would recommend having the road completed out of Imperial Funds, and maintained as an Imperial line for the next three years. If by that time the traffic on it does not exceed the traffic on the Ongole and Cumbum line, then their relative claims to be maintained as Imperial lines may be reconsidered. As the Ongole and Cumbum road and the Rapur Ghaut road have both been made Local lines, I would suggest an increase of the maintenance grant for the Dorenal road to Rupees 100 per annum for each for the sixty-one miles, or Rupees 6,100 per annum for the road.

7. I have the honor to forward, herewith, a skeleton map of the district shewing the Talook and Sub-Magistrate's stations, the Salt Stations and Munsiffs'

*Proceedings of the Madras Government, Revenue Department,
7th April 1868.*

Courts with the roads of the district Imperial and Local distinctly marked on it, as I would propose to divide them. This has been prepared in communication with the Superintending Engineer. The roads shew their classes, completed roads, roads in progress, and projected roads; all the roads so marked are second class roads, and the total length is 581½ miles. Allowing Rupees 100 a mile for the maintenance of these roads, when all have been completed the annual cost of maintenance will be Rupees 58,200. The estimated receipts of the district road cess are about Rupees 50,000 per annum.

8. With reference to the Board's Proceedings, dated 14th November 1867, No. 7,428, I am at present in communication with the Superintending Engineer, and hope soon to be able to submit a general scheme of local roads.

ENCLOSURE No. 1.—Skeleton Map.

1. Submitted to Government, with reference to their Endorsement, dated 7th October 1867, on a letter from the Superintending Engineer, 2nd Division, submitting plans and estimates for completing the Nellore and Dorenal road.

2. It will be observed that the Superintending Engineer of the division is of opinion that one or other of the roads

1. Nellore and Dorenal road.

2. Ongole and Cumbum road.

described in the margin should be retained as an Imperial line, and that as the traffic

on the second line is much the greatest, and as it opens out both Cuddapah and Kurnool, he would select it as an Imperial line.

3. The Acting Collector differs from the Superintending Engineer, and recommends the Dorenal road to be treated as an Imperial line, as it will open up communication between the principal towns of the Nellore and Cuddapah Districts, and suggests that it should be so maintained on the Imperial list, at least for the next three years. He suggests that if by that time the traffic on it does not exceed the traffic on the Ongole and Cumbum line, their relative claims to be maintained as Imperial lines may be re-considered.

4. The Board observe that the Ongole and Cumbum road has already been accepted as a Local line, and that its annual maintenance allowance, viz., Rupees 3,920, is also provided in the ensuing year's District Road Fund Budget, in accordance with their Proceedings printed with the Government Order, Revenue Department, dated 12th August 1867, No. 1,868. Moreover, the present reference from Government is not in regard to this road.

5. The Board, as already expressed in paragraph 9 of their Proceedings, dated 17th July 1867, No. 4,506, are decidedly of opinion that the road from the large salt station of Kistnapatam *via* Nellore and the Dorenal pass to Cuddapah, should continue to be regarded as an Imperial line. It connects the capitals of two large districts, and supplies of salt from Kistnapatam, Gungapatam, and Iskapully from eastwards are conveyed by it.

6. The Board are further of opinion that the Imperial lines of the district ought to be the—

1st—Great Northern Trunk road.

2nd—Branch of the same road towards Hyderabad.

*Proceedings of the Madras Government, Revenue Department,
7th April 1868.*

3rd—Salt lines from Doogarazpatam, Kistnapatam, Iskapully, and Kothapatam to the Great Northern Trunk Road.

4th—Road from Nellore to Cuddapah by the Dorenal Pass.

These lines aggregate about 350 miles, and the greater portion of them are already made. The district lines, taking only those connecting the Tahsil stations and large towns, aggregate 600 miles, and have mostly to be made still, which

must prove a very expensive undertaking, as the estimate* of Rupees 68,500 for one line (the Nellore and Someswaram road 46 miles in length) abundantly testifies. The making of these lines will cost fully five or six lacs of Rupees, leaving the maintenance allowances of the existing roads out of the question, and will quite absorb the Road Fund for several years to come.

7. The plans and estimates received from Government for completing the Nellore and Dorenal road are herewith returned.

No. 167.

* ORDER THEREON, 7th April 1868, No. 925.

Miscellaneous.

1. Ordered that the foregoing Proceedings of the Board of Revenue be communicated to the Public Works Department, with reference to the Endorsement of that Department, dated 5th October 1867, on the letter from the Superintending Engineer, 2nd Division, of 20th September, No. 92.

2. The Government concur in opinion with the Board that the Nellore and Cuddapah road, via the Dorenal Pass, should be retained in the list of Imperial works.

(True Extract.)

[Signature]

Secretary to Government.

lit

To the Public Works Department,
„ the Board of Revenue.

[Signature]

Exd. T. O' Connor.

20 Copies sent

1553. 207

226 5 1/2

5

~~112~~

6

~~131~~

61

$$\frac{81\frac{2}{3}}{110\frac{1}{2}}$$
~~12~~

~~1/2~~

7/2.

 $\frac{1}{12}$

933. $69\frac{3}{4}$ $1\frac{1}{2}$ $\frac{5}{4}$ $78\frac{3}{8}$

1002 $\frac{2}{3}$ 128 $\frac{1}{3}$ $\frac{1}{2}$ $\frac{3}{4}$

2

1448

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Probability Graph

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106. 5. 1/12

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$$\frac{249\frac{1}{2}}{44\frac{1}{6}}$$

Wm. S. Walling
G. S. Walling
G. S. Walling

 $\frac{1}{2}$

20

1/12

160

29/6

$$1000 \div 266\frac{2}{3} = 5 \frac{1}{12}$$

•

6/1/11

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Gauding
Good Order
Gullies

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1665/1735

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1362

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Edw. Howard Davis

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884/8/14888/18

Messrs. Loring & Co. 20 Pine
 St. New York
 20th October 1869
 Sir
 Will

Admiral
Admiral
Admiral

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	5	$\frac{1}{8}$			Remond
46	666 $\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	499 $\frac{1}{4}$	Charp & Davis
	2	1	1322 $\frac{3}{8}$		Remond

Red clover
along—

	5	$\frac{1}{8}$			207	Charp & Davis
						Remond
	666 $\frac{1}{3}$	475 $\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	356 $\frac{3}{4}$	
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	356 $\frac{3}{4}$		

1142	20	5	$\frac{1}{8}$		297 $\frac{7}{24}$	
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1162	1206 $\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	304 $\frac{3}{4}$		208	Charp & Davis
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	304 $\frac{3}{4}$			Remond

1568 $\frac{1}{3}$	20	5	$\frac{1}{8}$		253 $\frac{23}{24}$	
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Red clover
along small

	1538 $\frac{1}{3}$	171 $\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	128 $\frac{3}{4}$		209	Charp & Davis
	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	128 $\frac{3}{4}$			Remond

47	802	$\frac{1}{2}$	$\frac{1}{2}$	601 $\frac{1}{2}$		104 $\frac{7}{24}$	
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	$\frac{1}{2}$	$\frac{1}{2}$	601 $\frac{1}{2}$				Charp & Davis
	5	$\frac{1}{8}$					Remond

802	20				501 $\frac{1}{4}$		210	Charp & Davis
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White clover
along small

	822	513 $\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	385			Charp & Davis	
			$\frac{1}{2}$	$\frac{1}{2}$	385			Remond	
	5	$\frac{1}{8}$							
	1325 $\frac{1}{3}$	20				220 $\frac{5}{12}$		211	Charp & Davis

	1355 $\frac{1}{3}$	404 $\frac{2}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	203 $\frac{1}{2}$			Charp & Davis
			$\frac{1}{2}$	$\frac{1}{2}$	203 $\frac{1}{2}$			Remond

48	120	$\frac{1}{2}$	$\frac{1}{2}$	90		252 $\frac{1}{12}$		Charp & Davis
		$\frac{1}{2}$	$\frac{1}{2}$	90				Remond

	120	148 $\frac{2}{3}$	$\frac{3}{4}$	$\frac{1}{2}$	18 $\frac{1}{4}$			Charp & Davis
		$\frac{1}{2}$	$\frac{1}{2}$	36 $\frac{1}{2}$				Remond

	168 $\frac{2}{3}$	64 $\frac{2}{3}$	$\frac{1}{2}$	$\frac{1}{2}$	48 $\frac{1}{2}$			Charp & Davis
			5	$\frac{1}{8}$		30 $\frac{5}{12}$		Remond

	223 $\frac{1}{3}$	82 $\frac{1}{3}$	$\frac{3}{4}$	$\frac{1}{2}$	30 $\frac{1}{8}$			Charp & Davis
		$\frac{1}{2}$	$\frac{1}{2}$	60 $\frac{1}{4}$		40 $\frac{5}{12}$		Remond

	213 $\frac{2}{3}$	43	$\frac{1}{2}$	$\frac{1}{2}$	32 $\frac{1}{4}$			Charp & Davis
			$\frac{1}{2}$	$\frac{1}{2}$	32 $\frac{1}{4}$	50 $\frac{5}{24}$		Remond

Black & White small & large	136 3/8 50 1 1/2 1/2	27 1/2	197	Black & White small & large	136 3/8 50 1 1/2 1/2	27 1/2	197
	5 1/2 1/2	20 5/8	198		5 1/2 1/2	20 5/8	198
	137 3/8 190 1 1/2 1/2	14 2 1/2	199		137 3/8 190 1 1/2 1/2	14 2 1/2	199
	5 1/2 1/2	17 1/2			5 1/2 1/2	17 1/2	
	138 3/8 51 1/2 1 1/2 1/2	118 3/4			138 3/8 51 1/2 1 1/2 1/2	118 3/4	
	5 1/2 1/2	21 1/2			5 1/2 1/2	21 1/2	
	161 3/8 141 3/8 1 1/2 1/2	106 1/4			161 3/8 141 3/8 1 1/2 1/2	106 1/4	
	5 1/2 1/2	59 1/2			5 1/2 1/2	59 1/2	
	45 1/2 1 1/2 1/2 1/2	88 1/2			45 1/2 1 1/2 1/2 1/2	88 1/2	
	5 1/2 1/2	3 1/8			5 1/2 1/2	3 1/8	

Black & White small & large	140 15	5 1/8	4 7/8	200	Black & White small & large	140 15	5 1/8	4 7/8	200
	421 135 3/8 1 1/2 1/2	101 3/4			421 135 3/8 1 1/2 1/2	101 3/4			
	5 1/2 1/2	139 3/8			5 1/2 1/2	139 3/8			
	140 15	239 1/2			140 15	239 1/2			
	5 1/2 1/2	183 3/8			5 1/2 1/2	183 3/8			
	506 3/8 148 1 1/2 1/2	111			506 3/8 148 1 1/2 1/2	111			
	5 1/2 1/2	92 1/2			5 1/2 1/2	92 1/2			
	104 3/8 24				104 3/8 24				
	128 3/8 270 1 1/2 1/2	207			128 3/8 270 1 1/2 1/2	207			
	5 1/2 1/2	28 1/2			5 1/2 1/2	28 1/2			
	100 3/8 24				100 3/8 24				
	128 3/8 231 1/2 1 1/2 1/2	548 1/2			128 3/8 231 1/2 1 1/2 1/2	548 1/2			
	5 1/2 1/2	548 1/2			5 1/2 1/2	548 1/2			

White Lacquering Pearl	117 18	2 1/2	185	White Lacquering Pearl				
White Lacquering Pearl	284 3/8	9 1/2	1 1/2	1 1/2	68 3/4			
	5	1/8	5	1/2	5	1/8		
	3 1/2	2 1/4	100 3/8	10 1/2	1 1/2	1 1/2	76 1/4	
	5	1/2	5	1/2	5	1/8	168	
Red Lacquering Pearl	50 22	4 8	7	1 1/2	5	1/2	20	
	5	1/2	5	1/8	5	1/8	30	
	550	192 3/8	1 1/2	1 1/2	144 1/2	429 3/4	80 5/8	120 5/24
	742 3/8	4	1 1/2	1 1/2	222 3/2	122 3/4	135 5/12	
White Lacquering Pearl	746 3/8	396 3/8	1 1/2	1 1/2	222 3/2	122 3/4	135 5/12	
	1000	9 1/8	7	1 1/2	32 3/8	3 1/4	5 1/8	
		5	1/2	5	1/8	122 3/4	135 5/12	
		5	1/2	5	1/8	122 3/4	135 5/12	

1052 3/8	267 3/8	1 1/2	1 1/2	200 3/4	400 1/2	11 1/4	36	167 1/2	188	White Lacquering Pearl
1320	40	3	1	120	45	6 1/4	9 1/4	190	White Lacquering Pearl	
1360	16	3	1	120	45	6 1/4	9 1/4	190	White Lacquering Pearl	
1375	11	3	1	120	45	6 1/4	9 1/4	190	White Lacquering Pearl	
1386	10 3/8	14	1	120	45	6 1/4	9 1/4	190	White Lacquering Pearl	
1396 3/8	36 3/8	7	1 1/2	128 3/8	155 5/10	16 5/10	22 5/10	191	White Lacquering Pearl	
5	1/2	5	1/8	133 3/4	16 5/10	22 5/10	191	White Lacquering Pearl		
5	1/2	5	1/8	133 3/4	16 5/10	22 5/10	191	White Lacquering Pearl		
5	1/2	5	1/8	133 3/4	16 5/10	22 5/10	191	White Lacquering Pearl		

[illegible][illegible]

179. *Brachyotus* 11 lines
2 of *Brachyotus*

Bland

2357/298 1/2 1/2 298/2

390

[illegible]

Reddish	3-1/6	11 1/4	Spreading
886 2/3 52	1/20 1/20		32 second
		46 1/2	

5- 1/6
225 2/3 400 2/3
5 1/2
Spreading
180. Supply Channel

Blandford.

$\frac{971}{6}$	$\frac{282}{3}$	$\frac{1\frac{1}{2}}{2}$	$\frac{21}{3}$	<i>St. Anne's</i>
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25	1/6	2587	1	Drumming
200 1/3	1/3	2589	1	Barrel
114 1/4				

Handwriting
187.
Budapest 1890

131. Bridge of Stones
- in grassy field -

[illegible]

182

<i>Chrysomelid</i>	100	5	10	1857	<i>Spartanburg Board</i>
<i>Meloidae</i>	100	10	10	1857	
<i>Cicadellidae</i>	100	5	10	1857	

Chadway

Wandering
 of the

Stetson

Wendell
Barry

Holdings.

Handing
(over)

[illegible]

183

[illegible]

187
 " *Nothing's
 so sweet as
 getting on
 the way*

[illegible][illegible]

Blackwell

1410 360 1/2 1/2

26 2/3

5 1/8

291 2/3

Born
Graveling

5 1/8

130 1/8

Metallurgy

36

211 2/3 1/2 1/2

138 1/2

130

Born

5 1/8

17 1/2

Graveling

5 1/8

17 1/2

Metallurgy

211 2/3 1/2 1/2

141

131

Good Band

211 2/3 1/2 1/2

141

131

Good Band

441 1/2

5 1/8

133

133

Born

633 1/2

5 1/8

147 2/3

133

Good Band

648 2/3 418 2/3 1/2 1/2

5 1/8

313 2/3

134

Graveling

648 2/3 418 2/3 1/2 1/2

5 1/8

313 2/3

134

Graveling

648 2/3 418 2/3 1/2 1/2

5 1/8

313 2/3

134

Graveling

648 2/3 418 2/3 1/2 1/2

5 1/8

313 2/3

134

Graveling

1066 2/3 50 2 1/2 1/3

1 1/2 1/2

91 2/3

551 2/3

135

Graveling

1066 2/3 50 2 1/2 1/3

1 1/2 1/2

91 2/3

551 2/3

135

Graveling

1066 2/3 50 2 1/2 1/3

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Graveling

1066 2/3 50 2 1/2 1/3

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91 2/3

551 2/3

135

Graveling

MacKenzie

1750 3/4 6 2/3 7 1 3/4

62 2/3

Draining

5 1/6

5 2/3

Attaching

5 1/6

5 2/3

Draining

5 1/8

6 2/3

Attaching

5 1/8

6 2/3

Draining

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5 1/8

6 2/3

Draining

5 1/8

6 2/3

Draining

5 1/8

6 2/3

Draining

5 1/8

6 2/3

Draining

Black with
white gravel.

150 1/3 192 2/3 5 1/2 1/2 88 1/8
1 1/2 1/2 14 1/2

Plowing
Barn
Metallurgy
Graveling
Plowing
Barn

33 86 1/3 5 1/2 1/2 37 1/2
1 1/2 1/2 650

Black
oil

386 2/3 100 7 1/2 350
485 1/2
112 1/2
112 1/2

Metallurgy
Graveling
Plowing

5 1/6

5 1/6

966 2/3 191 2/3 5 1/2 1/2 87 1/2
87 1/2
215 5/8
215 5/8

Plowing
Graveling
Plowing

1 1/2 1/2 143 3/4
143 3/4
422 1/4

Plowing

5 1/6

1158 1/3 30

Inferior Mud

1158 1/3 211 2/3 5 1/2 1/2
1 1/2 1/2

97 1/2
185 3/4
256 5/8

Graveling
Barn
Plowing

5 1/6

5 1/6

Black
oil

1400 266 2/3 5 1/2 1/2 122 1/2
1 1/2 1/2 200
200 2/3

Plowing
Graveling
Plowing
Barn

5 1/6

5 1/6

166 1/3 33 1/3 1 1/2 116 1/3

Metallurgy
Graveling
Plowing

5 1/6

1700 13 1/2 1 1 93 1/3
210

Plowing

5 1/6
5 1/6

1710 3 40

Metallurgy
Graveling
Barn

51

1 1/2 30

Charles Sumner.

38

Blackbird	5	1/6	16 2/3	Gravelly
1138 1/2	11 2/3	5 1/2	22 1/2	Raining
1 1/2	1/2	8 3/4		7/8 am

Grace Lloyd
Dwight
Horn

84

$\frac{1}{2}$ 1 $\frac{17}{2}$
 $\frac{17}{2}$
 Sheep drive.

55

85

Pretelling
Graveling
Daining
86.
Check & return

Metallurg.
Gravelling
Dairying
Cheese &c.

87

80

5	1/8	13 5/8	87	Hoteling
5	1/8	13 5/8		Craneling
11 6 2/3	14 12/3	5 1/2		Pricing
1 1/2	1/2	7 1/8		Leans
		125		
		20 1/2		
1 1/2	1	18		
		250		
		250		
		135 5/8		
5	1/8	135 5/8		

8

Hotelting
Traveling
Pairing
Leaving

Charles

And a Hug

Charles Darwin

18

Wm. A. King

Number	5	1/6	1388
1233 1/2	88 2/3	5 1/2	40 2/3

Traveling
Leaving.

Heating.

90

Chest drain

9.

17 crad

9

$\frac{135}{9}$
 $\frac{135}{9}$
 Matching
 Travelling
 Stirling in

93

Charles Darwin

94

[illegible]

Metallurg
Gymnasium
Pading
Bonn

5

$\frac{1}{2} \cdot \frac{1}{1352}$
 $5 \frac{1}{6}$
 $5 \frac{1}{6}$
 $\frac{755}{18}$
 $\frac{755}{18}$
 Check drawn
 Notelling?
 Granddaddy
 9d (Pard. 2 in)

*Theft done
by talking?
or walking?
or not doing*

1324	6 3/4	7	15 1/8	43 3/4	11 1/2	11 1/2	Whittling in straightening check
		1	1/3	14 1/2			Splicing hands graveling
		5	1/6			5 5/8	Priming
1340 1/3	66 2/3	5 1/2	1/6	61 1/2	50		Born
		1 1/2	1/2				Graveling Whittling in
1409 1/3	20	5 1/2	1/6	82 1/2	20 1/2	55 5/8	Born
		1 1/2	1/2			25	Graveling Priming
		5	1/6				Born
1437 1/3	302 2/3	5 1/2	1/6	295 7/8	240	245 5/8	Graveling Priming
		1 1/2	1/2				Born
		5	1/6				Graveling Priming
32	132 1/3	5 1/2	1/6	139 20/35	114 1/4		Born
		1 1/2	1/2			126 1/2	Graveling Whittling in
		5	1/6				Priming
152 1/3	14 1/3	7	1/2	50 1/2			Whittling in
		5	1/6			11 1/2	Priming
166 2/3	168	5 1/2	1/6	154	126		Whittling in
		1 1/2	1/2				Priming
		5	1/6			140	Whittling in
324 2/3	20	7	1/2	70			Whittling in

354 2/3	428 2/3	5 1/2	1/6	392 17/18	32 1/2	16 2/3	Graveling Priming
		1 1/2	1/2				Born
		5	1/6			35 2/3	Graveling Whittling in
780 1/3	10	7	1/2	35		5 1/3	Graveling Priming
		5	1/6				Born
793 1/3	24 2/3	5 1/2	1/6	22 1/2	18 1/2		Graveling Whittling in
		1 1/2	1/2				Priming
		5	1/6	20 5/8	70		Born
818	20	7	1/2	80			Graveling Whittling in
		4	1				Priming
		5	1/6			16 2/3	Whittling in
838	88 2/3	5 1/2	1/6	81 5/8	66 1/2		Priming
		1 1/2	1/2				Born
		5	1/6			73 5/8	Graveling
906 2/3	20					120 2/3	Priming
							Born
946 2/3	171 2/3	5 1/2	1/2	149 1/2			Graveling Whittling in
		1 1/2	1/2				Priming
		5	1/6			140	Born
1118 1/3	20	7	1			83 4/24	Graveling Whittling in

Hand Recd
Stony

466 $\frac{2}{3}$ 100 1 $\frac{1}{2}$ 1 $\frac{1}{2}$ 75

Born

5 1/6

83 $\frac{1}{3}$

Graveling
Born

566 $\frac{2}{3}$ 1193 $\frac{1}{3}$ 1 $\frac{1}{2}$ 1 $\frac{1}{2}$ 898

5 1/6

994 $\frac{1}{2}$

Graveling
Raining

Red rock 21

114 $\frac{2}{3}$ 5 $\frac{1}{2}$ 1/6

1 1/2 1/2

106 $\frac{17}{18}$
8 $\frac{1}{12}$

Graveling
Born

5 1/6

97 $\frac{2}{9}$

Graveling
Raining

118 $\frac{2}{3}$ 53 $\frac{1}{3}$ 5 $\frac{1}{2}$ 1/6

1 1/2 1/2

48 $\frac{5}{9}$
40

Born

170 24

5 1/6

44 $\frac{4}{9}$

Graveling
78 Road Born

194 299 $\frac{1}{3}$ 5 $\frac{1}{2}$ 1/6

1 1/2 1/2

974 $\frac{1}{18}$
224 $\frac{1}{2}$

Raining
Born

493 $\frac{1}{3}$ 33 $\frac{1}{3}$ 5 $\frac{1}{2}$ 15 $\frac{1}{18}$

1 1/2 1/2

171 $\frac{7}{8}$
25

Graveling
Stilling in
Born

33 $\frac{1}{3}$ 1 1/2

16 $\frac{2}{3}$

Strengthening
Stony

526 $\frac{2}{3}$ 130 5 $\frac{1}{2}$ 1/6

1 1/2 1/2

119 $\frac{1}{8}$
97 $\frac{1}{2}$

Raining
Graveling

108 $\frac{1}{3}$

77 Road dam
Born

656 $\frac{2}{3}$ 30

1 $\frac{1}{2}$ 1/2

15 $\frac{1}{4}$

Raining
Graveling

686 $\frac{2}{3}$ 20 $\frac{1}{3}$ 5 $\frac{1}{2}$ 1/6

5 1/6

18 $\frac{2}{36}$

16 $\frac{17}{18}$

707 6 $\frac{2}{3}$ 5 $\frac{1}{2}$ 1/6

5 2/3

18 $\frac{1}{3}$
22 $\frac{1}{9}$

Stony
Born

1 1/2 1/2

5

713 $\frac{2}{3}$ 143 $\frac{1}{3}$ 5 1/6

5 1/6

131 $\frac{7}{18}$
107 $\frac{1}{12}$

5 $\frac{5}{9}$
119 $\frac{1}{9}$

Graveling
Graveling

857 10 7 1/2

5 1

50

25

Graveling
Stilling in

867 341 5 $\frac{1}{2}$ 1/6

1 1/2 1/2

312 $\frac{7}{12}$
255 $\frac{3}{4}$

8 $\frac{1}{3}$

Raining
Born

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

5 1/6

50

25

Graveling
Stilling in

1 1/2 1/2

25 45

58 Checkers
Graveling

Stone wall

333 1/3

7 2/3

777 2/3

27 2/3

884 1/2

59 Draining

1 1/2 3/4 18 1/2

60

Withdrawing checkers

6

500 13 1/3

7 1/2

46 2/3

500 Trenching

Draining

Black soil

513 1/3 40

553 2/3 1200 2/3

1 1/2 1/2

905

61 Trenching
62 Road drain

Gravelly

29

36 1/3

7 1/2

123 2/3

39 2/3

1005 5/9

1005 5/9

63 Graveling
Draining
Check drain

36 1/3 84 2/3

7 1/2

296 1/3

409 2/3

19 11/27

19 11/27

64 Graveling
Graveling
Draining

1 1/2 3/4

95 1/4

47 2/27

47 2/27

65 Check drain

Black soil
with gravel

120 63 1/3

7 1/2

222 2/3

355 2/27

522 2/27

66 Graveling
Draining
Graveling
Draining
Graveling
Draining
Graveling
Draining

183 1/3 11 2/3

7 1/2

405 8

81 2/3

344 1/2

81 2/3

1 1/2 3/4

13 1/2

13 1/2

13 1/2

13 1/2

13 1/2

13 1/2

13 1/2

13 1/2

13 1/2

Gravelly

195 40

235 106 1/2

1 1/2 1/2

195 1/2

58 2/3

58 2/3

58 2/3

58 2/3

58 2/3

Black soil
with gravel

341 25 2/3

7 1/2

1 1/2

89 2/3

169 1/2

85 2/3

85 2/3

85 2/3

85 2/3

85 2/3

69 Deepening drain

Adelphi. Dec 18 of 1867/68
Adelphi from Yellow Springs

Conductus Donald Ross from Yellow Town.

Wheat Village
British.

Description of
 surface of
 Nature Commerce & arts.
 Soil
 Products and density of population
 Climate

Gravel.
Earth work
Spreading
Crestal.
Installing
Graveling
Laying
Number

Shewy to 21st Dec

Henry Dade

Throns' Guide Alone

2. Harding gravel.
 Little Easton
 - McHenry -
 1820 - 1825

5. Production
of Crustaceans
by decapods

Strong's Bible Store

1000

8 Comp. to test
del.
do.
9 buckskins
to 3000
to 3000
to 3000

Green Hill Stone.

1157 2 1/2 6 1/6

275 1/2 July 1891

13 Sue Little

11. Wearies Metals.
(Collected last year)

15. Cravelling

See running

Am. M. 1. 1. 1.

de

Acc. Calling

10

Travellers

W. H. Thompson

our best

10

8

brotherly

the Academy District
collected last year

Dr. C. C. C. C.

Threading gun
electrode lead

In a letter No 92

From

The Superintending Engineer
2^d Division

To P. W. 13/6/68

The Secretary
Proc. 30th April 1868 and 392
to Government
R. H. Sec

Dated 20th September 1869

Received

Dec-2869/67

~~11-27-74-32/67~~
Rev-706/68

Detailed Estimate for
Constructing Dornal Road
from Kellav towards Curdys
Via Dornal Pass

Supr No 2004/67

57
Specification report to accompany plans
and estimates for Masonry Works on the Dornal Road
1 Barrel drain Pipes 148-4-4

1 The Barrel to be constructed 35' in an
average length, 2' inner diameter and of an uniform
thickness of $1\frac{1}{8}$ '. The Barrel will rest upon a bed of
Concrete 34' in length 8' in breadth and 2' in thickness
in an average

2 The retaining walls on both sides are to
be 8 $\frac{1}{2}$ ' in length $1\frac{3}{8}$ ' in an average breadth and $1\frac{3}{4}$ '
deep and pavement at each end to be 3' in length $4\frac{1}{4}$ '
in breadth and $1\frac{1}{4}$ ' in depth

3 The whole works to be constructed with bricking hammer

Tunnel of 15 segmental arch of $3\frac{3}{4}$ feet span
No 51 Pipes 93-4-4

Foundation

1 The Side walls to be 2' thick and 3' deep

2 The wing walls connected by retaining walls in
front and rear built of bricking hammer to be $1\frac{3}{4}$ ' in
average thickness and 3' in depth - The flooring under the
arch and between the wings to be 9" thick on a bed of
Concrete of 6"

3 The retaining walls connecting wings to
be $1\frac{1}{2}$ ' thick and 3' deep

Superstructure

4 The Side walls to be $1\frac{1}{2}$ ' thick and $\frac{3}{8}$ ' high

5 The arch to be $1\frac{1}{8}$ ' thick with a raised sine of $1\frac{1}{8}$ '

6 The wing walls to be $1\frac{1}{4}$ ' thick and $2\frac{1}{16}$ ' high in
an average

- 7 The parapets will be 10' thick and 7' high
- 8 The foundations will be 10' in clear between parapets
- 9 The work will be constructed of brick masonry and pointed walls.

Road Dam of 15 yards length. Pages 112-113

- 1 The Dam will be 15 yards in length the exclusion of wing walls which are to be of 3' at each end
- 2 The horizontal central portion will be 9' in length and 1' below the level of the roadway. The ramps will be each 18' long with a gradient of 1' in 18'

- 3 The body wall will be 4' below the level of the roadway and it will have a width of 2' at base and 1 1/2' at top.

- 4 The retaining wall will be 5' below the level of the roadway. Its breadth at top will be 1 1/2' and at bottom 1 3/4'.

- 5 The masonry flooring between the body and retaining wall will be 6' wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 6" below top of body wall.

- 6 The retaining wall will be protected by an outer apron of rubble stone 2 yards wide and 1' thick.

- 7 The roadway over the dam will be 18' wide in the clear and will be metalled 1' thick.

- 8 The foundations of the cross walls to be 7 1/2' in length 1 3/4' in breadth and 2 1/2' deep and superstructure to be 1 1/4' in an average thickness and 3/4' in an average height.

- 9 The whole masonry will be constructed

with rubble stone masonry and pointed neatly.

Road dams

N^o 131-132-133-136-137-147-200-202 at Rs. 147 each

" 150-156 at Rs. 137 each

" 158-215 at " 130 "

" 161 " 124

" 165 " 121

Similar to the above

Road Dam of 15 yards N^o 146 Pages 156

- 1 This Dam will be 15 yards in length the exclusion of wing walls which are to be of 3' at either end

- 2 The horizontal central portion will be 9' in length and 1' below the level of the roadway. The ramps will be each 18' long with a gradient of 1' in 18'

- 3 The body wall will be 4 1/2' below the level of the roadway and it will have a width of 2' at base and 1 1/2' at top.

- 4 The retaining wall will be 5 1/2' below the level of the roadway. Its breadth at top will be 1 1/2' and at bottom 1 3/4'.

- 5 The masonry flooring between the body and retaining wall will be 6' wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 1' below top of body wall.

- 6 The retaining wall will be protected by an outer apron of rubble stone 2 yards wide and 1' thick.

- 7 The roadway over the dam will be 18' wide in the clear and will be metalled 1' thick.

- 8 The foundations of the cross walls to be 7 1/2' in length 1 3/4' in breadth and 2 1/2' deep and superstructure

to be $1\frac{1}{4}'$ in an average thickness and $\frac{3}{4}'$ in an average height

9 The whole masonry will be constructed with rubble stone in human and pointed neatly

N^o 169. Rupees 120---

" 170-172-175 at Rs. 109----- each

" 195 " 156-----

Similar to the above

Road Dam of 40 yards N^o 62 Rupees 427-----

1 This dam will be 40 yards in length exclusive of wing walls which are to be of 3' at either end

2 The horizontal central portion will be 40' in length and 2' below the level of the roadway. The ramps will be each 40' long with a gradient of 1 in 20

3 The body wall will be 5' below the level of the roadway and it will have a width of 2' at base and $1\frac{1}{2}'$ at top

4 The retaining wall will be 6' below the level of the roadway. Its breadth at top will be $1\frac{1}{2}'$ and at bottom $1\frac{3}{4}'$

5 The masonry flooring between the body and retaining wall will be $10\frac{1}{2}'$ wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 6" below top of body wall

6 The retaining wall will be protected by an outer apron of rubble stone 3 yards wide and 1' thick

7 The roadway over the dam will be 18' wide in the clear and will be Metalled 1' thick

8 The foundations of the cross walls to be

12' in length 2' in breadth and $2\frac{1}{2}'$ deep and superstructure to be $1\frac{1}{2}'$ in an average thickness and $1\frac{1}{4}'$ in an average height

9 The whole masonry will be constructed with rubble stone in human and pointed neatly

N^o 145 Rupees 505-----

Similar to the above

Road Dam of 40 yards N^o 63 Rupees 450-----

1 This Dam will be 40 yards in length exclusive of wing walls which are to be of 3' at either end

2 The horizontal central portion will be 40' in length and 2' below the level of the roadway. The ramps will be each 40' long with a gradient of 1 in 20

3 The body wall will be $5\frac{1}{2}'$ below the level of the roadway and it will have a width of 2' at base and $1\frac{1}{2}'$ at top

4 The retaining wall will be $6\frac{1}{2}'$ below the level of the roadway. Its breadth at top will be $1\frac{1}{2}'$ and at bottom $1\frac{3}{4}'$

5 The masonry flooring between the body and retaining wall will be $10\frac{1}{2}'$ wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 1' below top of body wall

6 The retaining wall will be protected by an outer apron of rubble stone 3 yards wide and 1' thick

7 The roadway over the Dam will be 18' wide in the clear and will be Metalled 1' thick

8 The foundations of the cross walls to be 12' in length 2' in breadth and $2\frac{1}{2}'$ deep and superstructure to be $1\frac{1}{2}'$ in an average thickness and $1\frac{1}{4}'$ in an average height

9 The whole masonry will be constructed with rubble stone in human and pointed neatly

Similar to the above

Road Dam of 66 2/3 yards N^o 274. Pages 626

1 This Dam will be 66 2/3 yards in length exclusive of wing walls which are to be of 3' at either end.

2 The horizontal central portion will be 80' in length and 3' below the level of the roadway. The ramps will be each 60' long with a gradient of 1 in 20.

3 The body wall will be 6' below the level of the roadway and it will have a width of 2' at base and 1 1/2' at top.

4 The retaining wall will be 7' below the level of the roadway. Its breadth at top will be 1 1/2' and bottom 1 3/4'.

5 The Masonry flooring between the body and retaining wall will be 10 1/2' wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 6" below top of body wall.

6 The retaining wall will be protected by an outer apron of rubble stone 3 yards wide and 1' thick.

7 The roadway over the dam will be 18' wide in the clear and will be Metalled 1' thick.

8 The foundations of the cross walls to be 12' in length 2' in breadth and 2 1/2' deep and superstructure to be 1 1/2' in an average thickness and 1 1/4' in an average height.

9 The whole Masonry will be constructed with rubble stone in flumour and pointed neatly.

Road Dam of 24 yards N^o 221. Pages 197

1 This Dam will be 24 yards in length exclusive of wing walls which are to be of 3' at either end.

2 The horizontal central portion will be 18' in length and 1 1/2' below the level of the roadway. The ramps will be each 27' long with a gradient of 1 in 18.

3 The body wall will be 4 1/2' below the level of the roadway and it will have a width of 2' at base and 1 1/2' at top.

4 The retaining wall will be 5 1/2' below the level of the roadway. Its breadth at top will be 1 1/2' and at bottom 1 3/4'.

5 The Masonry flooring between the body and retaining wall will be 6 1/2' wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 6" below top of body wall.

6 The retaining wall will be protected by an outer apron of rubble stone 2 yards wide and 1' thick.

7 The roadway over the dam will be 18' wide in the clear and will be Metalled 1' thick.

8 The foundations of the cross walls to be 8' in length 1 1/2' in breadth and 2 1/2' deep and superstructure to be 1 3/8' in an average thickness and 1 1/4' in an average height.

9 The whole Masonry will be constructed with rubble stone in flumour and pointed neatly.

Road Dam of 24 yards N^o 276. Pages 177

1 This Dam will be 24 yards in length exclusive of wing walls which are to be of 3' at either end.

2 The horizontal central portion will be 18' in length and 1 1/2' below the level of the roadway. The ramps will be each 27' long with a gradient of 1 in 18.

3 The body wall will be 5' below the level of the roadway and it will have a width of 2' at base and $1\frac{1}{2}'$ at top

4 The retaining wall will be 6' below the level of the roadway. Its breadth at top will be $1\frac{1}{2}'$ and at bottom $1\frac{3}{4}'$

5 The Masonry flooring between the body and retaining wall will be $6\frac{1}{2}'$ wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 1' below top of body wall

6 The retaining wall will be protected by an outer apron of rubble stone 2 yards wide and 1' thick

7 The roadway over the dam will be 18' wide in the clear and will be Metalled 1' thick

8 The foundations of the cross walls to be 8' in length $1\frac{1}{2}'$ in breadth and $2\frac{1}{2}'$ deep and superstructure to be $1\frac{3}{8}'$ in an average thickness and $1\frac{1}{2}'$ in an average height

9 The whole Masonry will be constructed with rubble stone in luncheon and pointed neatly

N^o 185 Rupas 229—

" 204-206 at Rupas 245— each

similar to the above

Road Dam of 30 yards N^o 77 Rupas 235—

1 This Dam will be 30 yards in length to exclusion of wing walls which are to be of 3' at either end

2 The horizontal central portion will be 30' in length and $1\frac{1}{2}'$ below the level of the roadway. The ramps will be each 30' long with a gradient of 1 in 20

3 The body wall will be $4\frac{1}{2}'$ below the level of the roadway and it will have a width of 2' at base and $1\frac{1}{2}'$ at top

4 The retaining wall will be $5\frac{1}{2}'$ below the level of the roadway. Its breadth at top will be $1\frac{1}{2}'$ and at bottom $1\frac{3}{4}'$

5 The Masonry flooring between the body and retaining wall will be $7\frac{1}{2}'$ wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 6" below top of body wall

6 The retaining wall will be protected by an outer apron of rubble stone $2\frac{1}{2}$ yards wide and 1' thick

7 The roadway over the Dam will be 18' wide in the clear and will be Metalled 1' thick

8 The foundations of the cross walls to be 9' in length 2' in breadth and $2\frac{1}{2}'$ deep and superstructure to be $1\frac{1}{2}'$ in an average thickness and 1' in an average height

9 The whole Masonry will be constructed with rubble stone in luncheon and pointed neatly

N^o 166 Rupas 247—

similar to the above

Road Dam of 30 yards N^o 79 Rupas 235—

1 This Dam will be 30 yards in length exclusive of wing walls which are to be of 3' at either end

2 The horizontal central portion will be 30' in length and $1\frac{1}{2}'$ below the level of the roadway. The ramp will be each 30' long with a gradient of 1 in 20

3 The body wall will be 5' below the level of the roadway and it will have a width of 2' at base and $1\frac{1}{2}'$ at top

4 The retaining wall will be 6' below the level of the roadway. Its breadth at top will be $1\frac{1}{2}'$ and at bottom $1\frac{3}{4}'$

5 The masonry flooring between the body and retaining wall will be 6' wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 1' below top of body wall

6 The retaining wall will be protected by an outer apron of rubble stone 2 yards wide and 1' thick

7 The roadway over the dam will be 18' wide in the clear and will be metalled 1' thick

8 The foundations of the cross walls to be $7\frac{1}{2}'$ in length $1\frac{3}{4}'$ in breadth and $2\frac{1}{2}'$ deep and superstructure to be $1\frac{1}{4}'$ in an average thickness and $1\frac{1}{4}'$ in an average height

9 The whole masonry will be constructed with rubble stone in Chunar and pointed neatly

Road Dam of 30 yards Rs. 1400 Rupees 317-"

1 This Dam will be 30 yards in length exclusive of wing walls which are to be of 3' at either end

2 The horizontal central portion will be 18' in length and 2' below the level of the roadway. The ramps will be each 36' long with a gradient of 1 in 18

3 The body wall will be 5' below the level of the roadway and it will have a width of 2' at base and $1\frac{1}{2}'$ at top

4 The retaining wall will be 6' below

the level of the roadway. Its breadth at top will be $1\frac{1}{2}'$ and at bottom $1\frac{3}{4}'$

5 The masonry flooring between the body and retaining wall will be 7' wide and 1' thick and will be laid on a concrete of 6" thick. Its surface will be 6' below top of body wall

6 The retaining wall will be protected by an outer apron of rubble stone 2 1/2 yards wide and 1' thick

7 The roadway over the dam will be 18' wide in the clear and will be metalled 1' thick

8 The foundations of the cross walls to be 9' in length 2' in breadth and $2\frac{1}{2}'$ deep and superstructure to be $1\frac{1}{2}'$ in an average thickness and $1\frac{1}{4}'$ in an average height

9 The whole masonry will be constructed with rubble stone in Chunar and pointed neatly

Road Dam of 30 yards Rs. 102 Rupees 280 -

1 This Dam will be 30 yards in length exclusive of wing walls which are to be of 3' at either end

2 The horizontal central portion will be 18' in length and 2' below the level of the roadway. The ramps will be each 36' long with a gradient of 1 in 18

3 The body wall will be 5' below the level of the roadway and it will have a width of 2' at base and $1\frac{1}{2}'$ at top

4 The retaining wall will be 6' below the level of the roadway. Its breadth at top will be $1\frac{1}{2}'$ and at bottom $1\frac{3}{4}'$

5 The masonry flooring between the body and retaining wall

wall will be $7\frac{1}{2}'$ wide and $1'$ thick and will be laid on a concrete of $6"$ thick. Its surface will be $1'$ below top of body wall.

6 The retaining wall will be protected by an outer apron of rubble stone $2\frac{1}{2}$ yards wide and $1'$ thick.

7 The roadway over the dam will be $18'$ wide in the clear and will be metalled $1'$ thick.

8 The foundations of the cross walls to be $9'$ in length $2'$ in breadth and $2\frac{1}{2}'$ deep and superstructure to be $1\frac{1}{2}'$ in an average thickness and $1\frac{1}{2}'$ in an average height.

9 The whole masonry will be constructed with rubble stone in flumam and pointed neatly.

2 Road Dam of 40 yards at No 106 Rupas 434--

1 This dam will be 40 yards in length exclusive of wing walls which are to be of $3'$ at either end.

2 The horizontal central portion will be $40'$ in length and $2'$ below the level of the roadway. The ramps will be each $40'$ long with a gradient of 1 in 2.0 .

3 The body wall will be $6\frac{1}{2}'$ below the level of the roadway and it will have a width of $2'$ at base $1\frac{1}{2}'$ at centre and $1\frac{1}{2}'$ at top.

4 The retaining wall will be $7'$ below the level of the roadway. Its breadth at top will be $1\frac{1}{2}'$ and at bottom $1\frac{3}{4}'$.

5 The masonry flooring between the body and retaining wall will be $10\frac{1}{2}'$ wide and $1'$ thick and will be laid on a concrete of $6"$ thick. Its surface will be $1'$ below top of body wall.

6 The retaining wall will be protected by an outer apron of rubble stone 3 yards wide and $1'$ thick. Its surface will be $1'$ below top of retaining wall.

7 The roadway over the dam will be $18'$ wide in the clear and will be metalled $1'$ thick.

8 The foundations of the cross walls to be $12'$ in length $2'$ in breadth and $2\frac{1}{2}'$ deep and superstructure to be $1\frac{1}{2}'$ in an average thickness and $1\frac{1}{2}'$ in an average height.

9 The whole masonry will be constructed with rubble stone in flumam and pointed neatly.

Bridge of 11 feet span at No 179 Rupas 460--

1 Bridge to consist of one semicircular arch of $6'$ span the thickness of the arch being $1\frac{1}{2}'$.

2 The foundations of the abutments to be $3'$ at the floor level and $4'$ deep which will be increased by 4 offsets of $3"$ at the depth of every $1'$ on each side and superstructure to be $3'$ thick all along and $3'$ high.

3 The foundations of the wing walls to be $3'$ at the floor level and $4'$ deep which will be increased by 4 offsets of $3"$ at the depth of every $1'$ on each side and superstructure to be $3'$ at the floor level $1\frac{1}{2}'$ at top and $8'$ high.

4 Retaining wall connected with two abutments to be $3'$ at bottom $1\frac{1}{2}'$ at the floor level and $3'$ deep and flooring between two retaining walls to be $5\frac{1}{2}'$ in breadth and $1'$ in thickness.

5 Face walls to be 1 1/2' thick, and 1' high on an average and parapets to be 1' thick, and 1' high

6 The roadway to be 16' wide between parapets to be Metalled 6" in average thickness

7 The foundation and superstructure to be of rubble masonry, excepting arch work which is to be of brick in chain and the whole work to be pointed neatly

N^o 181-187 at Prices 1600 - - - 2 each
Similar to the above

Superintending Engineer
Madras Port

20th September 1867

RSC
21/9/67

Commissioner
Superintendent Engineer
South Coast R.S.

Invoice No 92

From

The Superintending Engineer
2^d Division

To

The Secretary
to Government
P. W. D.

Dated 20th September 1867

Received Rs 13/6/68

Rev. 2669/67

Rs 3732/17

Rev. 708/68

From 30th April 1868 to Rs 592.-

Specification Report
to accompany Plans & Estimates
for masonry works on the
Dornal Road

Sept 10th 2006/67

ABSTRACT ESTIMATE No. 18 of 1867/68
Willow District

Work

Constructing Road from Allone towards Cuddapah, via
Dornal from 2nd to 57th mile including masonry works

Quantity.	Description of Charges.	Rate.	Amount.	Total.
	<u>From 2nd to 21st mile</u>			
	Construction		13250	
	Masonry Works		148	
				13398
	<u>From 25th to 52nd mile</u>			
	Construction		23470	
	Masonry Works		11877	
				35347
	<u>From 52nd to 57th mile</u>			
	Construction		460	
	Masonry Works		2795	
				3255
	Grand Total of Construction and Masonry			52000

Superintendent
Municipal
20th September 1867.
Sd/-
M

Accepted by
Sd/- Engineer & District
R. E.

Price per Cubic Yards	Cubic Yards	Price per Cubic Yards	Cubic Yards	Price per Cubic Yards	Cubic Yards	Price per Cubic Yards	Cubic Yards
Stoney Works.	75	1100 $\frac{23}{24}$	143	794 $\frac{1}{2}$			
	93	131 $\frac{1}{4}$	168	5661 $\frac{1}{6}$			
	178	788 $\frac{1}{4}$	176	45			
		2649 $\frac{13}{24}$		23821 $\frac{11}{36}$			
		" " 9		" " 9			
60	2358 $\frac{11}{28}$		113	1516 $\frac{2}{3}$			
66	344 $\frac{1}{6}$		115	77 $\frac{1}{2}$			
95	1079 $\frac{11}{18}$		118	307 $\frac{5}{12}$			
104	322 $\frac{2}{9}$		120	432 $\frac{7}{24}$			
173	1366 $\frac{3}{4}$		122	405			
	5470 $\frac{13}{36}$	" " 9		2738 $\frac{7}{8}$	" " 8		
61	234 $\frac{1}{6}$		58	25			
67	13 $\frac{1}{8}$		83	30			
97	488 $\frac{1}{2}$		85	17 $\frac{1}{2}$			
99	87 $\frac{61}{12}$		87	25			
101	143 $\frac{3}{4}$		89	250			
105	210		123	2527 $\frac{2}{9}$			
183	861 $\frac{2}{4}$		126	87 $\frac{1}{2}$			
188	600 $\frac{11}{12}$		142	280 $\frac{2}{3}$			
	2637 $\frac{1}{10}$	" " 10	144	227			
194	697 $\frac{1}{12}$	" " 11	174	37 $\frac{3}{4}$			
98	112 $\frac{1}{2}$		186	439 $\frac{3}{4}$			
100	215 $\frac{3}{8}$		193	200			
184	30 $\frac{1}{3}$			4153 $\frac{51}{54}$	10		
190	120						
220	7447 $\frac{5}{8}$		192	997 $\frac{1}{2}$	" " 11		
	7926 $\frac{1}{12}$	" " 1	2	830			
224	150 $\frac{1}{2}$	" " 1 2	7	3360			
225	952 $\frac{35}{36}$		11	3145			
230	78 $\frac{3}{8}$		16	3278 $\frac{1}{6}$			
	1031 $\frac{25}{72}$	" " 1 2 1/2	21	850			
			28	1098 $\frac{5}{8}$			
			32	2477 $\frac{7}{16}$			
			47	1600			
			191	381 $\frac{1}{3}$			
			222	7523 $\frac{5}{6}$	" " 1		
				24544 $\frac{2}{3}$			

In a letter of 7th
 From
 The Superintending Eng^r
 2^d Division

To -
 The Secretary
 to Government
 P. W. Sec

Dated 20th September 1864
 Received

Pr 13/6/60
 Pro. 30 April 1868 du 1392
 Rev. 2667/67
 Pr 37.22/67
 Rev. 706/68

Abstract Estimate of Earthwork
 Metalling, Graveling &cⁿ
 of Gornel Road from 7th to
 57th mile.

Sept 16/10 2004/67

Work

Constructing Road from Bellin towards Cuddapah
 via Gornel from 7th to 57th mile stone including draining &cⁿ.

Quantity.	Description of Charges.	Rate.	Amount.	Total.
	From 7 th to 21 th Mile -			
	Earth Works -			
16639 $\frac{1}{2}$	Cut of Earth Works -	1 "	1039 15 3	1039 15 3
	Gravel -			
10	Do of spreading gravel	2 "	1 4 "	
910	Do of - Do - Do	2 8	151 10 8	152 14 8
	Spreading Metal -			
207 $\frac{1}{2}$	Do of spreading Metal	2 "	25 14 "	25 14 "
	Graveling -			
1416 $\frac{2}{3}$	Do of Graveling	3 "	265 10 "	
736 $\frac{2}{3}$	Do of - Do -	6 6	299 4 4	
586 $\frac{2}{3}$	Do of - Do -	7 6	275 " "	
289 $\frac{1}{4}$	Do of - Do -	8 "	144 10 "	
100	Do of - Do -	9 "	56 4 "	
586 $\frac{2}{3}$	Do of - Do -	11 "	403 5 4	
277 $\frac{1}{2}$	Do of - Do -	12 8	219 11 "	
586 $\frac{2}{3}$	Do of - Do -	14 "	513 5 4	
119 $\frac{1}{4}$	Do of - Do -	1 1 8	131 10 9	
167 $\frac{1}{2}$	Do of - Do -	1 3 6	204 2 3	
291 $\frac{1}{2}$	Do of - Do -	1 4 "	364 6 "	2877 5 "
	Metalling -			
340	Do of Metalling	5 10	123 15 4	
1173 $\frac{1}{2}$	Do of - Do -	8 "	586 10 8	
300	Do of - Do -	8 4	156 4 "	
1173 $\frac{1}{2}$	Do of - Do -	9 "	660 " "	
266 $\frac{2}{3}$	Do of - Do -	10 4	172 3 6	
1120	Do of - Do -	11 4	793 5 4	
Carried forward			2492 6 10	4096 " 11

Quantity.	Description of Charges.	Rate.	Amount.	Total.
	<i>Brought forward</i>		2492 610	4096 11
1170 3/4	Cyds of Metalling	12	880	
133 3/4	do of do	12 4	102 12 5	
1173 3/4	do of do	15 6	1136 10 8	
1110	do of do	1	1110	
1166	do of do	1 3	1384 10	
277 3/4	do of do	1 3 4	335 9 10	
670	do of do	1 4	837 8	
129 1/4	do of do	1 7 4	188 7 10	8468 17
	<i>Surfing</i>			
13405	Spraying of Surfing	3	209 7 3	209 7 3
	Repairing Pitula Cops Road		127 3 9 9	
	do Kangery do		50	
	Surries at 2 1/2 per Cent		326 6 3	
	<i>From 25th to 52nd Mile</i>			
	<i>Stoney</i>			
6470 3/4	Cyds of Stoney at	9	256 6 9	
2637	do of do	10	137 5 6	
667	do of do	11	39 14 11	
7926 1/2	do of do	1	495 6 1	
150 1/2	do of do	1 2	10 15 7	940 10
	<i>Gravel</i>			
2649 1/2	do of Gravel	9	124 3 2	
2985	do of do	10	150 4 2	
245 1/2	do of do	1	15 5 6	289 12 10
	<i>Earth Work</i>			
2738 3/4	do of Earth Work	8	114 1 11	
2282 1/3	do of do	9	1116 10	
4154	do of do	10	216 5 8	
997 1/2	do of do	11	57 2 5	
7904 1/2	do of do	1	494 6	1998 4 6
	<i>Brought forward</i>			3228 2 2

	<i>Brought forward</i>				3228 2 2
	<i>Metalling</i>				
1193	Cyds of Metalling	1 8	124 4 4		
2128	do of do	2 6	332 8		
919	do of do	2 8	153 2 8		
646	do of do	3	121 2		
250 1/2	do of do	4	625 6		
221 3/4	do of do	4 6	62 5 6		
1232 1/2	do of do	5 6	423 10 9		
55 3/4	do of do	6 4	218 14 4		
2451 1/2	do of do	6 8	1021 4 9		
1625	do of do	7 8	778 10 4		
1067	do of do	9 8	644 10 4		
723 3/4	do of do	11 8	527 10 9	5033 9 9	
	<i>Gravel</i>				
2830 1/2	do of Gravel	2 8	471 12		
263	do of do	4	63 4		
986 1/2	do of do	6 4	390 7 10		
8096 1/2	do of do	7 8	3879 9 2		
3987 3/4	do of do	9 8	2406 7		
1441 3/4	do of do	11 8	1051 3 5		
14935	do of do	6 8	6222 14 8	14485 10 1	
	<i>Surfing</i>				
4808	Spraying of Surfing	6	150 4	150 4	
	Surries at 2 1/2 per Cent			572 6	
	<i>From 52nd to 57th Mile</i>				
	<i>Stoney</i>				
1031 1/3	Cyds of Stoney	1 2 1/2	77 14 2		
	<i>Gravel</i>				
1107 1/2	do of Gravel	1 7	10 14 4		
	<i>Gravel</i>				
1654 1/3	do of Gravel	3 2	333 5 9		
	<i>Brought forward</i>				422 2 3

		Brought forward		422	2	3	
Earth Works							
294 3/4	Cyds of Earth Work	1	5	26	8		
				448	2	11	
Sunries at 2 1/2 per Cent				11	13	1	
		Total Estimate Proper		460			
		Total Proper for Construction		371	80		
Masonry Works							
Barrel Drain on 2nd Mile							
466 1/2	Cft brick in Chunam at	2	3	65	9	8	
592	do of Concrete	2		74			
50	Cyds of Excavation and filling in	1	6	4	11		
Sunries				3	11	4	
		Total Estimate Proper		148			
From 25th to 52nd Mile							
No 51 Irrigation sluice							
23 2/3	Cyds Rough stone in Chunam	2	6	56	3	4	
5	do Brick in Chunam	4	3	6	21	1	6
2	do Concrete in Chunam	1	8		3		
2	Squares Pointing in Chunam	1	8		3		
2 2/3	Cyds Metalling	2	6		6	8	
6 1/4	do Earth Work	1		4			
4	Guard Stones	1		4			
Sunries				1	4	6	
No 54 Road Dam of 15 Yards							
33 2/3	Cyds Rough stone in Chunam	2	4	75	12		
10	do Loose stone		8	5			
4 3/4	do Concrete	1	8		7	2	
2 1/4	Squares of pointing in Chunam	1	8		3	6	
34	Cyds of Metalling		6		12	12	
100	do of Earth Work		1		6	4	
Sunries					1	12	
No 165 Road Dam of 15 Yards							
33 2/3	Cyds Rough stone in Chunam	2	8	84	2	8	
10	do Loose stone		10	6	4		
4 2/4	do Concrete	1	8		7	2	
2 1/4	Squares pointing Chunam	1	8		3	6	
Carried forward				100	14	8	205

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		Brought forward				14827	
No 185 Road Dam of 24 Yards							
56 3/4	Cyds Rough stone in Chunam	3	-	170	4	-	
16	do Coarse stone	1	-	16	-	-	
8	do Concrete	1	7	11	8	-	
4	Squares Pointing in Chunam	1	8	6	-	-	
52	Cyds Metalling	-	3	9	12	-	
206	do Earth Work	-	1	12	14	-	
Sundries						2	10
No 204 Road Dam 24 Yards							229
56 3/4	Cyds Rough stone in Chunam	3	2	177	5	6	
16	do Coarse stone	1	2	18	-	-	
8	do Concrete	1	8	12	-	-	
4	Squares pointing in Chunam	1	8	6	-	-	
52	Cyds Metalling	-	5	16	4	-	
206	do Earth Work	-	1	12	14	-	
Sundries						2	8
Similar to 206						245	
						245	
No 207 Road Dam of 30 Yards							490
70	Cyds Rough stone in Chunam	2	4	157	8	-	
23 3/8	do Coarse stone	-	8	11	10	8	
12	do Concrete	1	8	18	-	-	
4 1/4	Squares Pointing in Chunam	1	8	6	6	-	
64	Cyds Metalling	-	6	24	-	-	
239	Cyds Earth Work	-	1	14	15	-	
Sundries						2	8
							235
No 166 Road Dam of 30 Yards							
70	Cyds Rough stone in Chunam	2	8	175	-	-	
23 3/8	do Coarse stone	-	10	14	9	4	
Carried forward						189	9 4 5781

		Brought forward				189	9 4 5781
12	Cyds of Concrete	1	8	18	-	-	
4 1/4	Squares pointing Chunam	1	8	6	6	-	
64	Cyds Metalling	-	4	16	-	-	
239	do Earth Work	-	1	14	15	-	
Sundries						2	1 8
No 79 Road Dam of 30 Yards							247
73 3/8	Cyds of Rough stone in Chunam	2	4	165	-	-	
23 3/8	do Coarse stone	-	8	17	10	8	
12	do Concrete	7	6	16	8	-	
5	Squares pointing in Chunam	1	8	7	8	-	
64	Cyds Metalling	-	4	16	-	-	
253	do Earth Work	-	1	15	13	-	
Sundries						2	8 4
No 96 Road Dam of 30 Yards							235
73 3/8	Cyds Rough stone in Chunam	2	8	183	5	4	
23 3/8	do Coarse stone	-	10	14	9	4	
12	do Concrete	1	8	18	-	-	
5	Squares pointing in Chunam	1	8	7	8	-	
64	Cyds Metalling	-	4	16	-	-	
253	do Earth Work	-	1	15	13	-	
Sundries						2	12 4
No 81 Road Dam of 20 Yards							258
46	Cyds Rough stone in Chunam	2	8	115	-	-	
13 3/8	do Coarse stone	-	10	8	5	4	
6 1/8	do Concrete	1	8	9	8	-	
3 1/2	Squares pointing in Chunam	1	8	5	4	-	
44	Cyds Metalling	-	4	11	-	-	
157	do Earth Work	-	1	9	13	-	
Sundries						1	1 8
No 102 Road Dam of 30 Yards							160
75	Cyds Rough stone in Chunam	2	12	206	4	-	
Carried forward						206	4 6681

23 1/3		Drought furrow							
12		Cyds Loose stone				206	4	681	
5		do Concrete	1	12		17	8		
64		Squares pointing in Chumam	1	6		16	8		
243		Cyds Metalling	1	8		7	8		
		do Earth Work		3	4	13	5	4	
		Sundries		1		15	3		
						3	11	8	

125		No 106 Road Dam of 40 yards						280	
40		Cyds Rough stone in Chumam	2	12		343	12		
23 1/4		do Loose stone		12		30			
6 1/2		do Concrete	1	6		31	15	6	
84		Squares pointing in Chumam	1	8		9	12		
271		Cyds Metalling		3	4	17	8		
		do Earth Work		1		16	15		
		Sundries				4	1	6	

44		No 217 Road Dam of 20 yards						454	
13 1/2		Cyds Rough stone in Chumam	2	14		126	8		
6 3/4		do Loose stone		14		11	10	8	
3		do Concrete	1	6		8	11	4	
44		Squares of pointing in Chumam	1	8		4	8		
147		Cyds Metalling		2		5	8		
		do Earth Work		1		9	3		
		Sundries				1	15		

		Similar No 218				168			
						168			

44		No 128 Road Dam of 20 yards						336	
13 1/3		Cyds Rough stone in Chumam	3			132			
6 3/4		do Loose stone	1			13	5	4	
		do Concrete	1	6		8	11	4	

Carried forward 154 - 8 7751

3		Drought furrow						154	-	8	7751	
44		Squares Pointing in Chumam	1	8		4	8					
147		Cyds Metalling		2		5	8					
		do Earth Work		1		9	3					
		Sundries				1	12	4				
						175						
						350						
		Similar No 153 - 214									525	

44		No 199 Road Dam of 20 yards						137	8			
13 1/3		Cyds Rough stone in Chumam	3	2		15						
6 3/4		do Loose stone	1	2		8	11	4				
3		do Concrete	1	6		4	8					
44		Squares Pointing in Chumam	1	8		5	8					
147		Cyds Metalling		2		2	3					
		do Earth Work		1		1	9	8				
		Sundries				182						
						728						
		Similar No 208-209-210-211									910	

72		No 140 Road Dam of 30 yards						225				
23 1/3		Cyds Rough stone in Chumam	3	2		26	4					
12		do Loose stone	1	2		18						
5		do Concrete	1	8		7	8					
64		Squares Pointing in Chumam		6		24						
243		Cyds Metalling		1		15	3					
		do Earth Work				3		8				
		Sundries									319	

35 1/2		No 170 Road Dam of 15 yards						79	14			
10		Cyds Rough stone in Chumam	2	4		5						
		do Loose stone		8								

Carried forward 84 14 - 9505

Drought form									
4 2/3	Cyds of Concrete	1	6	84	14	9505	"		
3	Squares pointing in Chumam	1	8	6	8				
3 1/4	Cyds Metalling	"	2	4	4				
126	do Earth Work	"	1	7	14				
	Sundries			1	14				
Similar No 172.175				109					
				218					
No 169 Road Dam 15 Yards									
3 5/2	Cyds Rough stone in Chumam	2	8	88	12	327	"		
10	do Loose stone	"	10	6	4				
4 2/3	do Concrete	1	6	6	6				
3	Squares pointing in Chumam	1	8	4	8				
3 1/4	Cyds Metalling	"	2	4	4				
126	do Earth Work	"	1	7	14				
	Sundries			1	15				
No 166 Road Dam 15 Yards									
3 5/2	Cyds Rough stone in Chumam	3	2	111	2	120	"		
10	do Loose stone	1	2	11	4				
4 2/3	do Concrete	1	8	7					
3	Squares pointing in Chumam	1	8	4	8				
3 1/4	Cyds Metalling	"	6	12	12				
126	do Earth Work	"	1	7	14				
	Sundries			1	8				
Similar No 195				156					
				156					
No 179 Bridge of 6 feet Span									
120	Cyds Rough stone in Chumam	3		360		3 1/4			
Carriage Road				360		10264	"		

Drought form									
11 1/2	Cyds Brick in Chumam	4	3	6	48	8	3	360	10264
11 1/4	Squares Pointing in Chumam	1	8		16	14			
11 1/4	Cyds Metalling	"	3		2	1	9		
22 1/2	do Earth Work	"	1		13	14			
					10				
	Continued	1			4				
4	Guard Stones				4	10			
	Sundries								
Similar No 181.187				460					
				920					
No 221 Road Dam 2 1/2 Yards									
5 1/4	Cyds Rough stone in Chumam	2	12		148	8			
16	do Loose stone	"	12		12				
8 1/4	do Concrete	1	6		11	5	6		
3 1/2	Squares pointing in Chumam	1	8		5	4			
5 1/2	Cyds Metalling	"	2		6	8			
185	do Earth Work	"	1		11	9			
	Sundries				1	13	6		
Total Estimate Proper				197	"				
6	Mill Boards	6			36			36	
From 52nd 657 Miles				2795				2795	
Small Masonry Works				14820	"				
Grand Total of Constructing Masonry				52000	"				

Supd Engineer D D
 20th September 1867
 Commr. C. V. C. R.
 Supd Engineer D D

In a letter No 92

From

The Superintending Engineer
to Government

To

The Secretary
to Government
S. D. S.

Dated 20th September 1869

Received 27th 1869
Pro: 30th April 1868 in 1892

Rev 2669/67

~~222227~~
Rev 706/68

Abstract Estimate for
Constructing Road from Killa
towards Cuddapah via Dornab
from 22 to 57th mile stone including
Masonry work & stone masonry
to Rupees 52000

Supd No 2004/67

Detailed Estimate No 17 of 1867/68

37

Nellore District

Work. Constructing masonry works on Road from Nellore
to Cuddapah via Dornab from 22 mile to 57th mile

Particulars of Work	Measurement in feet	Cubic Square S. D. S. Constant Content
1 Barrel Drain of 2' Dia number in the 20 miles		
Retaining Walls	2 8 1/2 1 3/4 1 3/4 40 3/4	
1 Barrel	1 35 10 1 3/4 39 3/4	
Drainage at end	1 6 1 1/4 1 1/4 31 1/2	
Total Brick in masonry		166 1/2

Concrete under drain	1 37 8 2 592
Total Concrete C. ft	592

Excavation and filling Culiv Gerd 50

2251 Irrigation Main Work					
3 3/4 feet span					
Foundations to side walls	2 18 2 3 216				
" " to wings	1 7 1/2 1 3/4 3 157 1/2				
Retaining Walls	2 6 1/2 1 1/4 3 61 1/2				
Masonry under arch	18 2 7/8 3/4 38 1/8				
Dr. between wings	2 5 1/2 4 7/8 3/4 40 3/2				
Superstructure side walls	2 18 1 1/2 3/4 20 1/4				
Wings	4 7 1/2 1 1/4 2 7/8 74 1/4				
Flow Walls	6 1 1/2 1 1/2 13 1/2				
Blocking Course	2 6 1 3/4 9				
Garapaks	2 5 3/4 3/4 3/4 6 1/2				
Total Culiv feet masonry				638 35 1/4	
or Culiv Gerd				23 3/4	

<u>Concrete</u>				
Under Arch				
Belmont wings	2	18	2 1/2	25 1/2
		5 1/2	4 1/2	26 1/2
Total Cubic feet Concrete in Channel				52 1/2
or Cubic Yards				125 1/2
<u>Arch</u>				
Total Cubic feet Brick in Channel	18	7 1/2	1 1/2	131 1/2
or Cubic Yards				14 23/4
<u>Painting</u>				
Side walls				
Top walls	2	18	3/4	27
Wings	2	6	3 3/4	15
Parapets	4	7 1/4	3 5/8	46 1/8
Total Square feet Painting in Channel	2	5 3/4	2 1/4	25 1/8
Painting Square				3
<u>Metalling</u>				
Roadway				
Total Cubic feet Metalling	15	6	3/4	72
or Cubic Yards				2 3/4
<u>Excavations</u>				
Cubic Yards of Earth Work				64
<u>Guard Stones</u>				
11				
<u>1061 Road Dam 15 Yards</u>				
Foundation to body &c				
Walls under Parapets	2	45	1 3/4	3
Cross walls	2	3	1 3/4	3
Retaining wall	2	7 1/2	1 3/4	2 1/2
Inner Apron		44 1/2	1 5/8	3 1/2
Superstructure Ramp		44 1/2	6	1
Walls under Parapets	2	18	1 1/2	1 1/2
Cross walls	2	3	1 1/2	1
	2	7 1/2	1 1/4	2 1/2

Parapets	2	3	1	1	6
Total					909 1/2
or Cubic Yards					33 18 1/2

<u>Lower Stone</u>				
Under Apron		45	6	1
Total Cubic feet in Stone				270
or Cubic Yards				10

<u>Concrete</u>				
Under inner Apron		44 1/2	5 1/4	1 1/2
Total				127 1/2
or Cubic Yards				1 19 1/2

<u>Painting</u>				
Ramp	2	18	2 1/2	90
Walls under Parapets	2	3	1 1/2	9
Cross Walls	2	7 1/2	1 1/2	22 1/2
Retaining wall		45	1 1/2	67 1/2
Parapets	2	3	3	18
Woody Centre		9	2	18
Total				225
Square				2 1/4

<u>Metalling</u>				
Roadway		51	18	1
Total				918
or				34
Yards				100

Excavations
Similar Road Dam in
131-132-133-136-137-147-150-156-158-161-165
200-202-215

<u>1062 Road Dam 10 Yards</u>				
Foundation to Woody &c		120	1 3/4	3
Walls under Parapets	2	3	1 3/4	3
Cross Walls	2	12	2	2 1/2
Retaining wall		119 1/2	1 5/8	5 1/2

Inner Apron		119 1/2	10 1/2	1	1254 3/4
Superstructure Ramps	2	40	1 1/2	1	120
Walls under Parapets	2	3	1 1/2	2	18
Cross Walls	2	12	1 1/2	1 1/4	145
Parapets	2	3	1	1	6

Total Cft. stone in Chuan 2904 29/32

Cube Yards 107 15 2/3

Loose Stone

Outer Apron		120	9	1	1080
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Total Cft. dry stone 1080

Cube Yards 40

Concrete

Under inner Apron		119 1/2	10 1/4	1/2	612 7/16
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Total Cft. Concrete Chuan 612 7/16

Cube Yards 22 18 7/16

Painting

Ramps	2	40	3		240
Walls under Parapets	2	3	2 1/2		15
Cross Walls	2	12	2 1/4		54
Retaining wall top		120	1 1/2		180
Parapets	2	3	3		18
Doory Centre		40	2		80

Total Cft. Painting in Chuan 587

Painting Squares 60

Metalling

Roadway		126	18	1	2268
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Total Cft. Metalling 2268

Cube Yards 84

Cy 355

Excavations

Similar Road Dam

No 145.

No 68 Road Dam 10 Yards.

Foundation to Doory Yee		120	13 1/4	3 1/2	735
Walls under Parapets	2	3	13 1/4	3 1/2	36 3/4
Cross walls	2	12	2	2 1/2	120

Retaining Wall		119 1/2	1 5/8	3 1/2	679 3/16	101
Inner Apron		119 1/2	10 1/2	1	1254 3/4	
Superstructure Ramps	2	40	1 1/2	1	120	
Walls under Parapets	2	3	1 1/2	2	18	
Cross Walls	2	12	1 1/2	1 1/2	54	
Parapets	2	3	1	1	6	

Total Cft. stone in Chuan 3024

Cy 112

Loose Stone

Centre Apron		120	9	1	1080
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Total Cft. dry stone 1080

Cy 40

Concrete

Under inner Apron		119 1/2	10 1/4	1/2	612 7/16
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Total Cft. Concrete Chuan 612 7/16

Cy 22 2/3

Painting

Ramps	2	40	3 1/2		280
Walls under Parapets	2	3	3		18
Cross Walls	2	12	2 1/2		60
Retaining wall		120	1 1/2		180
Parapets	2	3	3		18
Doory Centre		40	2 1/2		100

Total Cft. Painting in Chuan 656

Painting Squares 6 1/2

Metalling

Roadway		126	18	1	2268
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Total Cft. Metalling 2268

Cy 84

Cy 368

Excavations

Similar Road Dam

No 189

No 74 Road Dam 66 1/2 Yards

Foundation to Doory Yee		200	13 1/4	3	1050
Walls under Parapets	2	3	13 1/4	3	31 1/2

Asls Walls	2	12	2	2 1/2	120
Retaining Walls		199 1/2	1 5/8	3 1/2	1134 21/32
Inner Apron		199 1/2	10 1/2	1	2094 1/4
Superstructure Ramps	2	60	1 1/2	1 1/2	270
Walls under parapets	2	3	1 1/2	3	27
Asls Walls	2	12	1 1/2	1 3/4	63
Parapets	2	3	1	1	6

Total Cfl. Stone in Chumam 4796 32/32
 " Cubic Yards 177 2/7

Loose Stone					
Center Apron		200	9	1	1800
Total Cfl. Dry Stone					1800
					Cyds. 66 2/3

Concrete					
Under Inner Apron		199 1/2	10 1/4	1 1/2	1022 7/16
Total Concrete in Chumam					Cyds. 37 23/16

Pointing					
Ramps	2	60	3 1/2		420
Walls under parapets	2	3	3		18
Wing walls	2	12	2 3/4		66
Retaining Wall top		200	1 1/2		300
Parapets	2	3	3		18
Body Centre		80	2		160
Total Sq. ft. Pointing in Chumam					982
Pointing Squares					10

Metallizing					
Roadway		206	18	1	3708
Cfl. Metallizing					3708
					Cyds. 137 3/32
Excavation					Cyds. 580

Excavation					
For 76 Road Dam 24 Yards					
Foundation to Body Yee		72	1 3/4	3 1/2	441
Walls under Parapets	2	3	1 3/4	3 1/2	36 3/4
Cross Walls	2	8	1 7/8	2 1/2	75
Retaining Wall		7 1/2	1 5/8	3 1/2	406 31/32
Inner Apron		7 1/2	6 1/2	1	464 3/4
Superstructure Ramps	2	27	1 1/2	3/4	60 3/4

Walls under Parapets	2	3	1 1/2	1 1/2	13 1/2	103
Cross Walls	2	8	1 3/8	1 1/4	27 1/2	
Parapets	2	3	1	1	6	
Cfl. stone in Chumam					1531 29/32	
					Cyds. 19 29/32	

Loose Stone						
Outer Apron		72	6	1	432	
Total Cfl. Dry Stone					432	
					Cyds. 16	

Concrete						
Under Inner Apron		7 1/2	6 1/2	1/2	223 7/16	
Total Concrete in Chumam					223 7/16	
					Cyds. 8.7 16/27	

Pointing						
Ramps	2	27	3 1/4		178 1/2	
Walls under parapets	2	3	2 1/2		15	
Cross walls	2	8	2 1/8		34 1/4	
Retaining Wall		72	1 1/2		108	
Parapets	2	3	3		18	
Body Centre		18	2 1/2		45	
Total Square ft. Pointing in Chumam					395 3/4	
Pointing Sq. ft.					4	

Metallizing						
Roadway		206	18	1	1404	
Total Cfl. Metallizing					1404	
					Cyds. 52	
					Cyds. 206	

Excavation						
Similar Road Dam						
For 184.204.206						
For 76 Road Dam 30 Yards						
Foundation to Body Yee		90	1 3/4	3	472 1/2	
Walls under Parapets	2	3	1 3/4	3	31 1/2	
Cross Walls	2	9	2	2 1/2	90	
Retaining Wall		89 1/2	1 5/8	3 1/2	509 1/32	
Inner Apron		89 1/2	7 1/2	1	671 1/4	

Superstructure Ramps	2	30	1 1/2	3/4	67 1/2
Walls under Parapets	2	3	1 1/2	1 1/2	13 1/2
Cross Walls	2	9	1 1/2	1	27
Parapets	2	3	1	1	6

Total Cft. stone in Chumam - 1888 2/2

Cos - 69 25/27

<u>Loose stone</u>					
Outer Aprons		90	7	1	630
Total Cft dry Stone					630
Cos					23 1/3

<u>Concrete</u>					
Under Inner Aprons		89 1/2	7 1/4	1/2	324 7/16
Total concrete in Chumam Cft.					324 7/16
Cos					12

<u>Painting</u>					
Ramps	2	30	2 3/4		165
Walls under Parapets	2	3	2		12
Cross Walls	2	9	2		36
Retaining Wall		90	1 1/2		135
Parapets	2	3	3		18
Door Centre		30	2		60
Total Sq. ft. Painting in Chumam					426
Painting Squares					4 1/4

<u>Metalling</u>					
Roadway		96	18	1	1728
Total Cft. Metalling					1728
Cos					64

Excavations
Similar Road Dam
No 166.

No 99 Road Dam 30 Yards					
Foundation to Door Yce		90	1 1/2	3/2	581 1/4
Walls under Parapets	2	3	1 1/2	3/2	26 3/4
Cross Walls	2	9	2	2 1/2	90
Retaining Wall		89 1/2	1 1/2	3/2	509 3/2
Inner Aprons		89 1/2	7 1/2	1	671 1/4

Superstructure Ramps	2	30	1 1/2	3/4	67 1/2
Walls under Parapets	2	3	1 1/2	1 1/2	13 1/2
Cross Walls	2	9	1 1/2	1 1/4	33 3/4
Parapets	2	3	1	1	6
Total Cft. stone in Chumam					1979 1/2
Cos					73 1/3

<u>Loose stone</u>					
Outer Aprons		90	7	1	630
Cft dry stone					630
Cos					23 1/3

<u>Concrete</u>					
Under Inner Aprons		89 1/2	7 1/4	1/2	324 7/16
Total Cft Concrete in Chumam					324 7/16
Cos					12

<u>Painting</u>					
Ramps	2	30	3 1/4		195
Walls under Parapets	2	3	2 1/2		15
Cross Walls	2	9	2 1/2		40 1/2
Retaining Wall		90	1 1/2		135
Parapets	2	3	3		18
Door Centre		30	2 1/2		75
Total Sq. ft. Painting in Chumam					478 1/2
Painting Squares					5 1/2

<u>Metalling</u>					
Roadway		96	18	1	1728
Total Cft. Metalling					1728
Cos					64
Cos					25 1/3

Excavations
Similar Road Dam
No 96.

No 81 Road Dam 30 Yards					
Foundation to Door Yce		60	1 1/2	3/2	367 1/2
Walls under Parapets	2	3	1 1/2	3/2	26 3/4
Cross Walls	2	7 1/2	1 1/4	2 1/2	65 5/8
Retaining Wall		59 1/2	1 1/2	3/2	338 1/2

Inner Aprons		59 1/2	6	1	357 1/8
Superstructure Ramps	2	20	1 1/2	3/4	45
Walls under Parapets	2	3	1 1/2	1 1/2	13 1/2
Cross Walls	2	7 1/2	1 1/4	1 1/4	23 7/8
Parapets	2	3	1	1	6
Total Cft. Stone in Chumam					1239 11/32
Cft. 45 11/17					

<u>Loose stone</u>					
Centre Aprons		60	6	1	360
Total Cft. dry stone					360
Cft. 73 1/3					

<u>Concrete</u>					
Under Inner Aprons		59 1/2	5 1/4	1/2	171 7/8
Total Cft. Concrete in Chumam					171 7/8
Cft. 6 1/2					

<u>Painting</u>					
Ramps	2	20	3 1/4		130
Walls under Parapets	2	3	2 1/2		15
Cross Walls	2	7 1/2	2		30
Retaining Wall	1	60 1/2	1 1/2		90 1/8
Parapets	2	3	3		18
Dray Centre		20	2 1/2		50
Total Sq. ft. Painting in Chumam					333
Painting Sq. 3 1/2					

<u>Metalling</u>					
Roadway		66	18	1	1188
Total Cft. Metalling					1188
Cft. 44					
Cft. 157					

<u>Excavation</u>					
In 102 Road Dam 30 Yards					
Foundation to Dray		90	13 1/4	3 1/2	581 1/4
Walls under Parapets	2	3	13 1/4	3 1/2	26 3/4
Cross Walls	2	9	2	2 1/2	90
Retaining Wall		89 1/2	7 1/8	3 1/2	509 3/4
Inner Aprons		89 1/2	7 1/2	1	671 1/4
Superstructure Ramps	2	36	1 1/2	1	108
Walls under Parapets	2	3	1 1/2	2	18
Cross Walls	2	9	1 1/2	1 1/2	40 1/2

Parapets		2	3	1	1	6	107
Total Cft. stone in Chumam							2030 23/32
Cft. 78 5/27							

<u>Lose stone</u>					
Centre Aprons		90	7	1	630
Total Cft. dry Stone					630
Cft. 23 1/2					

<u>Concrete</u>					
Under Inner Aprons		89 1/2	7 1/4	1/2	324 7/8
Total Cft. Concrete in Chumam					324 7/8
Cft. 12					

<u>Painting</u>					
Ramps	2	36	3 1/2		252
Walls under Parapets	2	3	3		18
Cross Walls	2	9	1 1/2		45
Retaining Wall	2	90	1 1/2		135
Parapets	2	3	3		18
Dray Centre		18	2 1/2		45
Total Sq. ft. Painting in Chumam					513
Painting Squares 5					

<u>Metalling</u>					
Roadway		96	18	1	1728
Total Cft. Metalling					1728
Cft. 64					
Cft. 243					

<u>Excavation</u>					
In 106 Road Dam 40 Yards					
Foundation to Dray	1	120	2	1 1/2	360
		120	1 3/4	1	210
		120	1 1/2	2	300
		3	2	1 1/2	18
		3	1 3/4	1	10 1/2
		3	1 1/2	2	18
		12	2	3 1/2	168
		119 1/2	15 1/8	4	776 3/4
		119 1/2	10 1/2	1	254 3/4
		40	1 1/2	1	120
		3	1 1/2	2	18

Cross Walls	2	12	1/2	1/2	54
Parapets	2	3	1	1	6
Total Cfl. stone in Chumam					337 1/4
Cfl.					125

<u>Loose stone</u>					
Outer Apron	120	9	1		1080
Total Cfl. dry stone					1080
Cfl.					40

<u>Concrete</u>					
Under Inner Apron	119 1/2	10 1/2	1/2		627 3/8
Total Cfl. Concrete in Chumam					627 3/8
Cfl.					23 1/4

<u>Painting</u>					
Ramps	2	40	3/2		280
Walls under Parapets	2	3	3		18
Cross Walls	2	12	2 1/2		60
Retaining Wall		120	1 1/2		180
Parapets	2	3	3		18
Woody Center		40	2 1/2		100
Total Cfl. painting in Chumam					656
Painting Squares					6 1/2

<u>Installing</u>					
Roadway	126	18	1		2268
Cfl. Installing					2268
Cfl.					84

<u>Excavation</u>					
Cfl.					271

<u>No 128 Road Dam 20 yards</u>					
Foundation to Woody	60	13/4	0		315
Walls under Parapets	2	3	13/4	3	31 1/2
Cross Walls	2	7 1/2	13/4	2 1/2	65 5/8
Retaining Wall		59 1/2	15/8	3 1/2	338 13/32
Inner Apron		59 1/2	6	1	357
Superstructure Ramps	2	20	1 1/2	3/4	45
Walls under Parapets	2	3	1 1/2	1 1/2	13 1/2

Cross Walls	2	7 1/2	1 1/4	1	18 3/4
Parapets	2	3	1	1	6
Total Cfl. stone in Chumam					1190 25/32
Cfl.					44 2 25/32
Cfl.					27

<u>Loose stone</u>					
Outer Apron	60	6	1		360
Total Cfl. dry stone					360
Cfl.					13 1/3

<u>Concrete</u>					
Under Inner Apron	59 1/2	5 1/4	1/2		171 1/8
Total Concrete in Chumam					6 3/8

<u>Painting</u>					
Ramps	1	20	2 3/4		110
Walls under Parapets	2	3	2		12
Cross Walls	2	7 1/2	1 1/4		26 1/4
Retaining Wall		60	1 1/2		90
Parapets	2	3	3		18
Woody Center		20	2		40
Total Cfl. Painting in Chumam					294 1/4
Squares					3

<u>Installing</u>					
Roadway	66	18	1		1188
Total Cfl. Installing					1188
Cfl.					44
Cfl.					147

<u>Excavation</u>					
<u>Similar Road Dam</u>					
<u>No 163-199-208-209-210-211-214-217-218</u>					
<u>No 140 Road Dam 30 yards</u>					
Foundation to Woody	90	13/4	3		47 1/2
Walls under Parapets	2	3	13/4	3	31 1/2
Cross Walls	2	9	2	2 1/2	90
Retaining Wall		89 1/2	15/8	3 1/2	569 1/32
Inner Apron		89 1/2	7 1/2	1	671 1/4
Superstructure Ramps	2	36	1 1/2	1	108
Walls under Parapets	2	3	1 1/2	2	18
Cross Walls	2	9	1 1/2	1 1/4	33 3/4

Parapets ————— 2 3 1 1 6
 Total Cft stone in Chumam 1940 $\frac{1}{32}$
 Cps 71 $\frac{23}{7}$

Loose stone
 Outer Aprons ————— 90 7 1 630
 Total Cps 23 $\frac{1}{3}$

Concrete
 Under Inner Aprons ————— 89 $\frac{1}{2}$ 7 $\frac{1}{4}$ $\frac{1}{2}$ 324 $\frac{7}{18}$
 Total concrete in flum Cps 12

Painting
 Ramps ————— 2 36 3 216
 Walls inner Parapets ————— 2 3 2 $\frac{1}{2}$ 15
 Crops Walls ————— 2 9 2 $\frac{1}{4}$ 40 $\frac{1}{2}$
 Retaining walls ————— 90 1 $\frac{1}{2}$ 35
 Parapets ————— 2 3 3 18
 Woody Centre ————— 18 2 36
 Total Sft Painting in Chumam 460 $\frac{1}{2}$
 Squares 5

Installing
 Roadway ————— 96 18 1 1728
 Total Cft Installing 1728
 Cps 64

Excavation ————— Cps 240

Well Road Dam 15 Yards
 Foundation to Woody ————— 45 1 $\frac{3}{4}$ 3 $\frac{1}{2}$ 275 $\frac{5}{8}$
 Walls inner Parapets ————— 2 3 1 $\frac{3}{4}$ 3 $\frac{1}{2}$ 36 $\frac{3}{4}$
 Crops Walls ————— 2 7 $\frac{1}{2}$ 1 $\frac{3}{4}$ 2 $\frac{1}{2}$ 65 $\frac{5}{8}$
 Retaining walls ————— 44 $\frac{1}{2}$ 1 $\frac{5}{8}$ 3 $\frac{1}{2}$ 253 $\frac{3}{32}$
 Inner Aprons ————— 44 $\frac{1}{2}$ 6 1 267
 Superstructure Ramps ————— 2 18 1 $\frac{1}{2}$ 1 $\frac{1}{2}$ 27
 Walls inner Parapets ————— 2 3 1 $\frac{1}{2}$ 1 9
 Crops Walls ————— 2 7 $\frac{1}{2}$ 1 $\frac{1}{4}$ 1 15 $\frac{3}{4}$
 Parapets ————— 2 3 1 1 6
 Total Cft stone in Chumam 958 $\frac{27}{32}$
 Cps 35 $\frac{1}{2}$

Loose Stone
 Outer Aprons ————— 45 6 1 270
 Total Cft dry stone 270
 Cps 10

Concrete
 Under Inner Aprons ————— 44 $\frac{1}{2}$ 5 $\frac{3}{4}$ $\frac{1}{2}$ 127 $\frac{15}{16}$
 Total Cft Concrete in Chumam 127 $\frac{15}{16}$
 Cps 4 $\frac{2}{3}$

Painting
 Ramps ————— 2 18 3 108
 Walls inner Parapets ————— 2 3 3 18
 Crops Walls ————— 2 7 $\frac{1}{2}$ 1 $\frac{3}{4}$ 26 $\frac{1}{4}$
 Retaining wall ————— 2 46 1 $\frac{1}{2}$ 67 $\frac{1}{2}$
 Parapets ————— 2 3 3 22 $\frac{1}{2}$
 Woody Centre ————— 9 2 $\frac{1}{2}$ 260
 Total Sft Painting in Chumam 260
 Squares 3

Installing
 Roadway ————— 51 18 1 918
 Total Cft Installing 918
 Cps 34
 Cps 126

Excavations
 Similar Road dams.
 Nos 169. 170. 172. 175. 195

179 Bridge 10 ft 6 feet span
 Foundation to abutments ————— 2 24 $\frac{1}{4}$ 4 $\frac{1}{4}$ 4 824 $\frac{1}{2}$
 Wing walls ————— 4 13 3 $\frac{3}{4}$ 4 780
 Retaining wall ————— 2 5 2 $\frac{1}{4}$ 3 67 $\frac{1}{2}$
 Flooring ————— 2 15 $\frac{1}{2}$ 5 $\frac{1}{2}$ 1 107 $\frac{1}{4}$
 Superstructure Abutment ————— 2 23 3 3 414
 Wing walls ————— 4 1 $\frac{1}{2}$ 3 2 $\frac{3}{4}$ 677 $\frac{1}{2}$
 49 $\frac{1}{2}$
 Face walls ————— 2 9 1 $\frac{1}{2}$ 1 27
 Stem walls ————— 2 18 1 $\frac{1}{2}$ 1 13 $\frac{1}{2}$
 58 $\frac{1}{2}$
 Draining of arches ————— 2 18 1 $\frac{1}{2}$ 1 72
 72
 Draining of arches ————— 2 43 1 $\frac{1}{4}$ 1 $\frac{1}{2}$ 75 $\frac{1}{4}$
 86
 Parapets ————— 2 43 1 1 86
 Cps ————— 2 2 1 $\frac{1}{3}$ 2 $\frac{1}{3}$ 4 $\frac{2}{3}$
 Total Cft stone in Chumam 3256 $\frac{17}{18}$
 Cps 120 $\frac{11}{17}$

Arch Work
 Arch 18 11½ 1½ 310½
 Total Cft Brick in Churn 310½
 Cps 11½

Metalling
 Roadway 38 16 ½ 304
 Cft Metalling 304
 Cps 11½

Painting
 Abutments 2 23 3 138
 Wings 4 13 8 176
 Retaining Walls top 2 6 ½ 18
 Side Walls 2 12 7½ 180
 Interval of Arch 18 9½ 171
 Parapets 2 43 3 258
 1181
 Doubt the area for Sigmunt 64
 Total Cft Painting in Churn 1117
 Squares 11
 Cps 222

Excavation
 Guard Stones 4
 Cuttings
 Similar to 181. 187.

In 221 Road on the yard etc.
 Foundation to P.W. on 7/2 72 13¼ 3 378
 Walls under Parapets 2 3 13¼ 3 31½
 Cross Walls 2 8 17/8 2½ 75
 Retaining Wall 7½ 15/8 3½ 406½
 Inner Apron 7½ 6½ 1 464¼
 Superstructure Ramp 2 27 1½ ¾ 60¾
 Walls under Parapets 2 3 1½ 1½ 13½
 Cross Walls 2 8 13/8 1 22
 Parapets 2 3 1 1 6
 Total Cft stone in Churn 1458½
 Cps 54

113
Course stone
 Outer Aprons 72 6 1 432
 Total Cft dry stone 432
 Cps 76

Concrete
 Inner Aprons 7½ 6¼ ½ 223½
 Total Cft Concrete in Churn 223½
 Cps 8½

Painting
 Ramps 2 27 2¾ 148½
 Wall under Parapets 2 3 2 12
 Cross Walls 2 8 17/8 30
 Retaining Walls 72 1½ 108
 Parapets 2 3 3 18
 Body Centre 18 2 36
 Total Cft Painting in Churn 352½
 Squares 3½

Metalling
 Roadway 78 18 1 1404
 Total Cft Metalling 1404
 Cps 52
 Cps 185

Earth Work

Sup Engineer & Surveyor
 Municipal Engineer & Surveyor
 20th September 1867
 Sup Engineer & Surveyor
 Municipal Engineer & Surveyor

In a letter No 92

From

The Superintendent of
the Division

To

The Secretary
to Government
P. W. D.

Dated 20th September 1869

Received

J. H. 13/10/69

Pro. 30th April/68 in J. 592-

Recd. 2669/67

J. H. 3732/67

Recd. 706/68

Detailed Estimate for
Constructing Masonry Works
on Road from Kollur towards
Cuddapah via Dornakal
from 22 to 34 1/2 Miles

Jul 1869 No 2004/67

N 1868 Depd
Pro of Govt for April
No 1316.

Pr: of the Madras Govt
Rev: Depd

26 April/68
No 592
Re: 19.11

Communicating Pr:
of the B.R. Revenue on the sub.
ject of the Mellore and
Gundalah roads, and
intimating that the Govt
consider that the line in
question should be re-
tained in the list of
Imperial Works.

No 592

e. 17th April 1868 R. 214m

e. 1327 - 30th April/68

Public Works Dept.

1327

Proceedings of the Madras Government

Under date the 30th April 1868 No 92

Read the following

Proceedings Madras Govt

Revenue Dept. (Here enter 7th April 1868
No 925)

Comm. to the
Supy Engineer of
the 2nd Div. for infor-
-mation and
guidance -

2. The revised esti-
-mate of Rs 1,04,737
for the Mellore and
Doremal road
is sanctioned, and
as no funds have
been allotted for
the work in the
current year's
budget, the Supy
Engineer will

appears in a statement
in his statement
of principle to
works, which should
be laid before
Spart with as little
delay as practicable

[Signature]

$\frac{40}{5}$

to be 20 on 10th day
at 8/1
at 10th day
New Day

Dec 21/5/68

Dec 22/5/68 with 8/1/68
of 18/68

Public Works Department

Proc. Govt for April

No. 1327

Proc. of the Madras Govt.

Of 30th April 1868

Sanctioning with remarks
the revised estimate of Rs. 10,4737
for the Bellare and Corrnal
Road and furnishing the dupg.
Engrs. of the 2^d Division with
a copy of Proc. in the Public
Department regarding the
restoration of the road to the
List of Imperial Works.

No 592-593

Madras 1868 A. 24