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M.R.O. 1—52,409—28-11-30.

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

Cons. 22.9.57

G.O. No. 1287 Press Mis.

62-63

Dated 21 — 5 — 1857

Not to be folded or roughly handled

Fort Saint George, Public Works Consultation of 22nd September 1857.

No. 62. Read the following letter from Colonel C. E. FABER, Chief Engineer; to H. FORBES, Esq., Acting Secretary to Government, dated 14th September 1857, No. 3657.

SIR,

With reference to Extract Minutes Consultation 15th August 1857, No. 1584, I have the honor to submit for transmission to the Government of India, the accompanying Statement of Roads and Canals opened for traffic since the year 1848, prepared in pursuance of the orders of the Honorable the House of Commons dated 3rd March last.

2. The Statement exhibits the information required under three heads.—1st. Trunk Roads, which may be considered to include all the first class roads referred to by the House of Commons as being continuously bridged and metalled.—2nd. District roads, which comprize all the other roads of the country that have in any degree been made available for traffic and—3rd, the Canals led off from the great Annicuts, which serve both for irrigation and navigation: as well as those formed from one tidal lagoon to another, which are at present used by flat bottomed boats, and may be easily navigated by steam boats of light draught.

3. Most of the Trunk roads having been opened for traffic long previous to the year 1845, when their formation and repair was systematically undertaken, the amount expended on their *construction* since 1848 alone, would not give a correct idea of the outlay incurred on them by Government. It has therefore been thought advisable to show also the amount of repairs executed during the period in question.

4. In the case of the District roads, it must be observed, that the amount set down against each road represents work of a character, varying from simple traces of the lines, to their imperfect and complete formation, and metalling in some instances. No general conclusion, therefore, can be drawn, either from the aggregates of the distances, or those of the expenditure as to the state of the roads represented, beyond affirming that so many miles have been opened or rendered practicable for wheeled traffic, since 1848. Many of the roads are being gradually bridged and otherwise improved, but a good deal remains to be done before they can be pronounced fully completed.

5. With regard to the Canals, it ought to be mentioned that, with the exception of the rudimentary East Coast Canal, and some of the Rajahmundry and Masulipatam channels, all the others are essentially of a local character, and that although they are not calculated to convey traffic to any great distances, still they may be rendered highly useful in the transport of local produce, from one part of a District to another. The depth of all these lines seldom exceeds 4 feet, so that boats of only a light draught can ply on them. Flats of considerable length, but of small beam, tugged by Steamers with paddles working midships, so as to be protected from collision, would probably be the most effective and economical way of working these water communications.

6. The short time allowed for the preparation of the Statement did not admit of more being done than a bare enumeration of the different roads on which work has been executed, and of collecting into one item, the expenditure incurred at different periods on each, since the year 1848. It would perhaps have been preferable if all the lines could have been represented on a Map, and the extreme length of each communication given, instead of only the portions included within the limits of each District separately. To do this accurately however, would have required far more time than the period allowed by the orders of Government. The Budget Map however, of which 40 copies were supplied to the Honorable Court, will doubtless greatly assist in determining the locality and the direction of the lines, in all cases where these cannot be gathered from the Statement itself.

7. An abstract is attached to the Statement, shewing at one view, the number of miles of Canal and District roads opened within each Collectorate, and the other roads &c., available for traffic; including in the case of the Trunk roads, the outlay on maintenance and repairs, in addition to that of construction.

Statement shewing the number of miles of Trunk and District roads and Navigable Canals open for traffic, and the total amount of money expended on their construction since the year 1848, as required for the information of the Honorable House of Commons agreeably to the orders of Government No. 1581, dated the 15th August 1857.

Name of work and locality.	Total length in miles.	Number of miles constructed previous to 1848.	Number of miles constructed since 1848.	Cost of construction since 1848.	Amount expended on repairs and maintenance since 1848.	Remarks.
			TRUNK ROADS.			
No. 1—From Madras to the Mysore Frontier beyond Oossoor.	189½	189½	none	Rs. 59,164	Rs. 7,26,577	This road is completed in its entire length the amount entered in Column 4 was for improvements and re-construction in part of the old road, this road though open to traffic prior to 1848 was so imperfectly constructed as to be almost impassable for wheeled traffic in wet weather.
„ 2—From Fraserpett viâ the Sumpagee Ghaut to Mangalore.	105	105	none	6,866	67,508	
„ 3—From the North Western Frontier of Mysore viâ Munzeerabad Ghaut to Buntwall.	46	33	13	38,583	5,917	This road is completed in its entire length.
„ 4—From tthe Mysore Frontier viâ the Periambaddy Ghaut to Cannanore.	68	none	68	2,03,616	44,200	This road is completed in its entire length with the exception of a bridge across the river Iretty near the foot of the Ghaut.
„ 5—From near Vaniembaddy on Trunk road No. 1 to Ponany on the Western Coast.	279	266½	12½	1,13,662	1,05,351	This road is open to traffic in its entire length, but the number of miles actually completed is only 83½ the distance between Coimbatore and Ponany.
„ 6—From Madras to the Bengal Frontier.....	686½	471	215½	6,71,938	2,10,821	The same remark applies to this road, the only distance actually completed being 108 miles from the limits of Madras to the 113 mile 53½ miles between Toonce and Soobarum and 54 miles between Itchapore and the Bengal Frontier.
„ 7—From near Ongole on Trunk road No. 6 to the Hyderabad Frontier at Pondigal on the south bank of the Kistnah.	91	.....	30	81,463	.....	This road prior to the year 1848 was a mere cart track quite impassable in wet weather.
„ 8—From Madras to Trichinopoly and the Salem boundary.	235	80	104	4,20,937	1,77,038	This road is open to traffic in its entire length but 18½ miles only are completed, and in them several large bridges are required.
No. 9—From Pauprumpett on Trunk road No. 8 to Combaconum.	75½	.....	75½	1,47,459	37,074	The same remarks apply to this road.
„ 10—From Arcot on Trunk road No. 1 to the Mysore Frontier beyond Palmanair.	65	.....	65	1,42,289	62,058	Completed in its entire length.
„ 11—From Chittoor on Trunk road No. 10 to Cuddapah.	99	.....	13½	1,56,138	9,201	This road is open to traffic in its entire length but the masonry works are very incomplete.
„ 12—From Mahal on Trunk road No. 11 to Bellary	119½	.....	20	43,897	2,925	With the exception of the 20 miles constructed but little has been done on this road.
„ 13—From Madras by Nuggery and Kircumbaddy to Cuddapah.	163	.....	31	58,091	3,900	The same remarks apply to this.
Total Rs.....	2,212	1,145	648	21,44,103	14,82,570	

DISTRICT ROADS.—*(Continued.)*

	Name of work and locality.	Number of miles constructed since 1848.	Cost of construction since 1848.	Remarks.
	BELLARY—*(Continued.)*			
	Road from Bellary to Madavaram	75	14,72,509	
	Road from Alloor to Kodamoor	45		
	Road from the Mysore Frontier to the Kurnool Frontier viâ Pennaconda, Anantapoor and Gooty	112		
	Road from Bellary to Gooty	30		
	Road from Adony to Gooty	47		
	Road from Bellary to Culliandroog	20		
	Road from Bellary to the Mysore Frontier viâ Huryhall	14		
	Total.....	421	15,99,101	
	CANARA.			
Yellapoor Circuit.	Road from Yellapoor to Moondagode	25	2,798	
	Road from Yellapoor to Hullial and Frontier	35	8,056	
	Road from Yellapoor to Kirwutti and Frontier	16	6,473	
	Road from Yellapoor by Arbyle Ghaut to Meerjan and Tuddry	55	53,001	
	Road from Yellapoor to Sircy as far as the Baidthi Nullah	9	4,526	
Sircy Circuit.	Road from Sircy to the Dharwar Frontier viâ Moondagode...	40	11,715	
	Branch road from Eckumby to Sumusgee	7	4,792	
	Road from Sircy to Coompta by the Devamany Ghaut	38	93,981	
	Branch road from Coompta to Meerjan...	6	2,343	
	Road from Sircy to Siddapoor	21	12,504	
	Road from Sircy to Yellapoor as far as the Baidthi Nullah	25	2,525	
Haulandee Circuit.	Road from Agoomby Ghaut to Mood Bidderee.	40	4,010	
	Road from Agoomby Ghaut to Oodepee and Mulpy.	30	13,398	
	Road from Haulandee	18	4,095	
	Road from Jaula to Wundasee viâ Caloor Ghaut	30	14,166	
	Road from Haulandee to Wundasee...	15	1,515	
	Branch road from Haulkul to Byndoor...	17	2,406	
	Opening a new line of road across the Goorpoor Ghaut near Mangalore	9	12,687	

Opening a cart road from Siddapoor to Gairsoopah	16	22,965	
Constructing a road from Lapergode to Jalsoor	28	14,080	
Opening a road from Hullial to Mullapoor by the Singawaree Ghaut.	50	11,102	
Improving the Coast road from Bhatcul to Byndoor...	9	1,700	
Improving the Neelcoond Ghaut...	12	7,050	
Tracing the Charnady Ghaut	6	5,373	
Tracing road from Hullial to the Tinny Ghaut	25	5,169	
Road from Juggleput to Soopah...	5	1,106	
Total.....	590	3,23,566	
KURNOOL.			
Improving the road from Chagulmurry to the Frontier of Cuddapah	2	804	
Constructing road from Kurnool to Kodamoor on the line to Bellary...	20	20,028	
Constructing road from Kurnool to the Nudy Cunnama pass in a south east direction ...	52	78,639	
Constructing road from Kurnool to Dhone and the Frontier of Bellary	35	31,294	
Opening a passage over the Munteral Cunnama Ghaut on the Eastern Frontier	2	2,155	
Total.....	111	1,32,920	
CHINGLEPUT.			
Improving the road from Trivatore to Ennore...	5	9,056	
Reforming the road within the Cantonment of Palaveram	1	774	
Constrtucting and gravelling the road from Saint Thomas' Mount to Poonamallee... ...	7	51,183	
Improving the cross road from Ponnary to Trichoor on the Northern Trunk road	3	2,213	
Total.....	16	63,226	
NORTH ARCOT.			
Improving portion of 2nd class road from Vellore to Arnee	22	26,845	
Formation of road from Curcumbaddy to Pootelput on Trunk road No. 11	36	20,067	
Improving the road from Arnee through Arcot to Teroonamally in the neighbourhood of Poloor...	25	34,830	
Constructing 2nd class road from Palmanair to Vencatagherry Cotta...	23	16,892	Half finished.
Improving the Syenagoontah Ghaut...	8	5,737	Half finished.
Constructing a road from Wallajahnuggur to Ammoor Railway station...	2	5,805	
Road from Conjeveram to Thellar...	32	11,565	
Total.....	148	1,21,741	

DISTRICT ROADS—*(Continued.)*

Name of work and locality.	Number of miles constructed since 1848.	Cost of construction since 1848.	Remarks.
SOUTH ARCOT.			
Constructing road from the Salem boundary to Cuddalore through Virdachellum	67	66,258	
Cross road from the Veeranum tank to Chellumbrum...	9	3,087	
Reformation of road from Oolundoor pett to Tullavassel via Cuttacoorchy...	36	18,847	
Road from Pondicherry to the limits of Mylum...	19	15,197	
Improvement of road from Cuddalore to the Vellaur river in the direction of Chellumbrum. ...	17	65,465	
Road from Trinomallee to Mercaunum through Ginjee and Tindevanum...	39	63,515	
Road from Cuddalore to Pondicherry...	16	12,511	
Road from Cuddalore through Trivady to Trunk road No. 8....	28	11,000	
Road from Teroocovooloor to Chungamah	19	2,000	
Constructing road from Tindevanum to Chiraloor...	9	5,005	
Road from Oolundoorpett to Virdachellum...	12	1,000	
Completing road from Villeapoorum on Trunk road No. 8 to Pondicherry...	30	28,916	
Road from Tindevanum to Pondicherry...	20	2,017	
	24	3,532	
Total.....	345	2,98,683	
TANJORE.			
Improving the road from Tanjore to Tranquebar via Coombaconum...	34	19,425	
Constructing 3rd class road from the frontier of Trichinopoly to Adrampatam on the Southern Coast...	47	18,591	
Improving the road between Tanjore and Negapatam...	48	4,327	
Improving the road from Tranquebar to Sheally...	15	3,308	
Formation of new road along the right bank of the Trimulrajenar.	5	7,571	
Constructing road from Punthanellore to Vyde Esuren Covil...	14	11,645	
Improving the road from Adrampatam to Munnargoody...	23	12,320	
Constructing road No. 7 from Tanjore to Munnargoody..	22	7,877	
Improving the road from Tritrapoondy to Trivalore and constructing tunnels across the channels intersecting it...	11	34,121	
Constructing a road from Ammapettah to Paupanassum and constructing bridges and Tunnels, &c....	10	43,310	
Constructing a road along the left bank of the Vettaur from Cungalancherry to Nagore. ...	11	11,192	
Raising and improving the road from Coottalum to the Lower Coleroon annicut, passing through Punthanellore and joining the Trunk road No. 9...	12	5,552	
Metalling road No. 9 from Tanjore to Poodoocottah...	14	6,294	
Improving the road between Valangaman and Paupanassum..	7	3,291	
Constructing a large bridge across the Coleroon at Aunacaran Chuttrum, and numerous bridges and tunnels on the roads...	.....	1,38,720	
Total.....	273	3,27,544	
TRICHINOPOLY.			
Improving the 2nd class road from Trichinopoly to Tanjore...	12	3,982	The entire distance is 30 miles.
Constructing a road along the north bank of the Iyenvoikal from the Coleroon bridge ...	1½	4,800	
Improving and repairing the road from Trichinopoly towards Combaconum and Madras... ...	8	10,237	
Improving the road from Trichinopoly to Tanjore viz. from Thoovagoody to the Tanjore boundary...	3	5,478	
Improving the road No. 5 from Trichinopoly towards Madura...	28	11,474	
Constructing a road from Poodoopolliem to Koolitullay...	3⅓	8,209	
Constructing the road from Trichinopoly to Dindigul as far as the frontier...	38	18,946	Nearly completed.
Road from Trichinopoly to Arrialore via Laulgoody.	25	10,191	
Road from Trichinopoly to Poodoocottah as far as the frontier...	8	2,115	
Constructing bridges on the road from Trichinopoly towards Salem within the frontier...	.....	4,321	
Total.....	127	79,753	
MADURA.			
Improving the road from Dindigul to Pulney and the passes to the Palney Hills... ...	32	12,932	
Branch Cotton road between Aroopoocottah and Ettiapoorum	9	35,595	
Improving various old roads and constructing numerous bridges and tunnels on them ...	.....	71,228	
Total.....	41	1,19,755	
TINNEVELLY.			
Constructing and improving the great North and South road No. 4 through Palamcottah ...	98	1,17,074	
Improving road No. 11 from Tinnevelly to Shermadavy...	11	607	
Improving and repairing a portion of road No. 22 from Palamcottah to Calcaud	1	151	The entire length is 15 miles.
Improving and repairing the road No. 12 from Palamcottah to Trichendore	7	3,343	

DISTRICT ROADS—*(Continued.)*

Name of work and locality.	Number of miles constructed since 1818.	Cost of construction since 1818.	Remarks.
		Rs.	
NAVIGABLE CANALS—RAJAHMUNDRY.			
Improvement of Upper Godavery...	.....	1,40,518	The improvement here referred to is very slight an estimate of nearly half a million pounds has been recently submitted for rendering this important river navigable as far as the Cotton Districts of Berar.
The Palcole Channel extending from near the Dowlaishwerum Annicut to Nursapoor... ...	30	1,61,382	These channels subserve the purposes both of navigation and irrigation.
The Thooliah Bagah Channel from Tuddum to Cocanada...	26	3,80,817	
The Rallee Channel...	28	1,45,508	
Constructing the Samulcottah Channel...	28	1,19,021	This is being extended to Toonee which will make an addition of 30 miles to the navigation.
Total.....	112	9,47,246	
MASULIPATAM.			
The high level Channel from the Approw Channel near the Godavery Annicut and extending to Ellore...	38	1,92,479	These Channels are both for irrigation and navigation. The Ellore Channel will be extended eventually to Bezwada.
The Approw Channel or mainduct from the Godavery on the right bank...	7	34,814	
The Bodemair Channel...	23	89,517	
The Wevairoo Channel...	29	2,42,319	
The Poolairoo Channel...	32	1,76,631	
The Mopedavy Channel...	22	45,564	
Total.....	151	7,81,384	
GUNTOOR.			
The Toombuddra Channel...	40	76,599	It has been proposed to continue the high level Channel through this District to join the Eastern Coast Canal at Inganampaud, but the work is not yet commenced.
The Nizampatam Channel...	32	1,62,604	
Total.....	72	2,39,203	
SOUTH ARCOT.			
Improving the Khan Saib Channel...	20	5,760	
Improving the Harbour of Cuddalore and cutting a Canal from it to the river Vellaur near Porto Novo	12	1,06,282	
Total.....	32	1,12,042	
TANJORE.			
Cutting a Canal from the Umbenaur at Trimulvassel to the Coleroon river...	10	42,267	
Improving the Munyaur river for navigation...	36	35,000	
Total.....	46	77,267	
MALABAR.			
Opening a Canal communication between Ponany and Tiroovangaddy	12	5,139	
Opening the Calicut Canal	8	19,360	
Opening a Canal from the South bank of Ponany river to the backwater	12	14,500	
Connecting the Pooraparumba cut and lake with the Tanoor Canal	2	8,377	
Total.....	34	47,376	
MADURA.			
Improving Paumben channel	3	50,591	
EASTERN COAST CANAL.			
Eastern Coast Canal	62	3,16,851	This length shews the extent of new Canal opened within the last few years, when completed, the entire length of the Eastern Coast Canal from Toonee in the Rajahmundry District to Point Calemere in Tanjore will be about 588 miles. The distance now open for traffic may be reckened at 174 miles in all, of which the longest continuous portion is 60 miles.

(Signed) C. E. FABER, Colonel,
Chief Engineer.

Central office P. W.,
Fort Saint George, 14th Sept. 1857.

ABSTRACT STATEMENT.

Districts.	District roads. No. of miles constructed since 1818.	District roads. Cost of construction since 1818.	Navigable Canals. No. of miles excavated since 1818.	Navigable Canals. Cost of excavation since 1818.	Remarks.
		Rupees.		Rupees.	
Ganjam, ...	140	1,34,972	...	...	
Vizagapatam, ...	231	2,20,058	...	...	
Rajahmundry, ...	50	25,181	112	9,47,246	
Masulipatam, ...	103	40,932	151	7,81,384	
Guntoor, ...	47	15,698	72	2,39,203	
Nellore, ...	204	5,57,961	...	...	
Cuddapah, ...	203¾	3,21,609	...	...	
Bellary, ...	424	15,99,101	...	...	
Canara, ...	590	3,23,566	...	...	
Kurnool, ...	111	1,32,920	...	...	
Chingleput, ...	16	63,226	...	...	
North Arcot, ...	148	1,21,741	...	...	
South Arcot, ...	345	2,98,683	32	1,12,012	
Tanjore, ...	273	3,27,544	46	77,267	
Trichinopoly, ...	127	79,753	...	...	
Madura, ...	41	1,19,755	3	50,591	
Tinnevelly, ...	171	3,41,831	...	...	
Coimbatore, ...	238	2,15,995	...	...	
Salem, ...	59	36,361	...	...	
Malabar, ...	184	1,16,718	34	47,376	
Madras, ...	4¼	1,53,039	..	...	
East Coast Canal, ...	...	...	62	3,16,851	
Total...	3,709¾	52,16,944	512	25,71,960	
Trunk road. Construction...	648	21,14,103	...	...	
Trunk road. Repairs.....	...	14,82,570	...	...	
Grand Total...	4,357¾	88,73,617	512	25,71,960	

Central Office P. W.,
14th September 1857. }

(Signed) C. E. FABER, Colonel,
Chief Engineer

No. 63. Ordered in consequence that the following letter be despatched.

From H. FORBES, Esq., Acting Secretary to the Government of Fort Saint George; to Lieutenant Colonel W. E. BAKER, Secretary to the Government of India, dated 21st September 1857, No. 1787.

SIR,

With reference to your letter of the 31st July last, No. 3716, I am directed by the Right Honorable the Governor in Council to forward copy of a letter from the Chief Engineer dated 14th Instant, giving cover to a return furnishing the information required by the Honorable the House of Commons, regarding roads and Navigable Canals in this Presidency.

Central Office of P. Works
Fort Saint George
14th September 1857.

No. 3657.

From,

The Chief Engineer

To

The Secretary to Government Fort St. G.

Sir,

With reference to Extract Minutes Consultation 15th August 1857 No. 1584, I have the honor to submit for transmission to the Government of India, the accompanying Statement of roads and Canals opened for traffic since the year 1848, prepared in pursuance of the orders of the Honble the House of Commons dated 3d March last.—

2. The Statement exhibits the information required under three heads—

1st. Trunk roads, which may be considered to include all the first class roads referred to by the House of Commons as being continuously bridged and metalled.

2d. District roads, which comprise all the other roads of the country that have in any degree been made available for traffic.

3rd. The Canals led off from the great

anicuts, which serve both for irrigation and navigation; as well as those formed from one tidal lagoon to another, which are at present used by flat bottomed boats, and may be easily navigated by steam boats of light draught.—

3. Most of the Trunk roads having been opened for traffic long previous to the year 1845, when their formation and repair was systematically undertaken, the amount expended on their construction since 1848 alone, would not give a correct idea of the outlay incurred on them by Government. It has therefore been thought advisable to show also the amount of repairs executed during the period in question.

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that so many miles have been opened or rendered practicable for wheeled traffic, since 1848—Many of the roads are being gradually bridged and otherwise improved, but a good deal remains to be done before they can be pronounced fully completed.—

5 With regard to the Canals, it ought to be mentioned that, with the exception of the rudimentary East Coast Canal, and some of the Rajahmundry and Masulipatam channels, all the others are essentially of a local character, and that, although they are not calculated to convey traffic to any great distances, still they may be rendered highly useful in the transport of local produce, from one part of a District to another. The depth of all these lines seldom exceeds 4 feet, so that boats of only a light draught can ply on them.— Flats of considerable length, but of small beam, tugged by steamers with paddles working midships, so as to be protected from collision, would probably be the most effective and economical way of working these water communications.

6 The short time allowed for the

preparation of the Statement did not admit of more being done than a bare enumeration of the different Roads on which work has been executed, and of collecting into one item, the expenditure incurred at different periods on each, since the year 1848.. It would perhaps have been preferable if all the lines could have been represented on a Map, and the extreme length of each communication given, instead of only the portions included within the limits of each District separately.. To do this accurately however, would have required far more time than the period allowed by the orders of Government.— The Budget Map however, of which 40 copies were supplied to the Honble Court, will doubtless greatly assist in determining the locality and the direction of the lines, in all cases where these cannot be gathered from the statment itself.—

An abstract is attached to the statment, shewing at one view, the number of miles of Canal and District roads opened within each Collectorate, and the other roads (if available) for

traffic, including in the case of the Trunk Roads, the outlay on maintenance and repairs, in addition to that of construction.

I have the honor to be
Sir
Your most Obedt Servt
Alfd Fraser Colonel
Chief Engineer

Central Office of PW
Fort St George
14th September 1853

E Blaney

Statement shewing the number of miles of Trunk and District Roads and of Navigable Canals open for traffic, and the total Amount of money expended on their construction since the Year 1848, as required for the information of the Honorable House of Commons agreeably to the orders of Government of the 15th August 1854.

Name of work and locality	Total Length in Miles	Number of miles constructed previous to 1848	Number of miles constructed since 1848	Cost of construction since 1848	Amount expended on repairs and maintenance since 1848	
Trunk Roads				Rupees	Rupees	
No 1 From Madras to the Mysore frontier beyond Oossoor	189½	189½	None	59164	26541	This road is completed in its entire length the amount entered in Columns 4 was for improvements and reconstruction in part of the old road, this road though open to traffic prior to 1848 was so imperfectly constructed as to be almost impassable for wheeled traffic in wet weather.

2.

Trunk Roads

Name of work and locality	Total Length in Miles	Number of miles constructed previous to 1848	Number of miles constructed since 1848	Cost of construction since 1848	Amount expended on repairs and maintenance since 1848	Remarks
				Rupees	Rupees	
No. 2 From Fraserpett via the Sumlagee Ghaut to Callangaloo	105	105	None	6,0865	67,500	
No. 3 From the north western frontier of Mysore via Munzeerabad Ghaut to Bunhaul	46	33	13	3,3583	5917	This road is completed in its entire length
No. 4 From the Mysore frontier via the Periambaddy Ghaut to Cannanore	68	None	68	203616	44200	This road is completed in its entire length with the exception of a bridge across the river Shelly near the foot of the Ghaut.
No. 5 From near Periambaddy on Trunk Road No. 4 to Tellicherry on the Western Coast	279	266½	12½	113662	105351	This road is open to traffic in its entire length but the number of miles actually completed is only 83½ the distance between Cannibaddy and Tellicherry
No. 6 From Madras to the Bengal frontier	606½	471	215½	671938	240821	The same remark applies to this road, the only distance actually completed being 108 miles from the limits of Madras to the 113 mile 53½ miles between Tonnee and Sooraroom and 54 miles between Nellapore and the Bengal frontier
No. 7 From near Ongole on Trunk road No. 6 to the Hyderabad frontier at Pondigal on the South bank of the Kistna	91	"	30	81463	"	This road prior to the year 1848 was a mere Cart track quite impassable in wet weather.
No. 8 From Madras to Trichinopoly and the Salem Boundary	225	80	104	420934	177038	This road is open to traffic in its entire length but 184 miles only are completed, and in them several large bridges are required.
No. 9 From Paulrumpett on Trunk road No. 8 to Combaconum	45½	"	45½	147459	37074	The same remarks apply to this road.

Trunk Roads

Name of work and locality	Total length in Miles	Number of miles constructed previous to 1848	Number of miles constructed since 1848	Cost of construction since 1848	Amount expended on repairs and maintenance since 1848.	Remarks
				Rupees	Rupees	
No. 10 From Straton in Trunk road No. 1 to the Mysore frontier beyond Palmanair	65	"	65	1,42,289	62,058	Completed in its entire length
No. 11 From Chittoor on Trunk road No. 7 to Cuddapah	99	"	13½	15,613	9,201	This road is open to traffic in its entire length but the masonry works are very incomplete.
No. 12 From Muchal on Trunk road No. 11 to Bellary	119½	"	20	13,807	2,025	With the exception of the 20 miles constructed but little has been done on this road.
No. 13 From Madras by Nargeyand Kurumbaddy to Cuddapah	163	"	31	50,091	3,910	The same remarks applicable to this road.
Total Rupees	2,212	1,145	668	27,44,103	14,82,510	

District Roads

Name of work and locality	Number of miles constructed since 1848	Cost of Construction since 1848	Remarks
		Rupees	
Ganjam			
Formation of road between Chicacole and Calingapatam	15	12,266	
Completing a branch road between the high northern road and Gopalpore	5	5,302	
Constructing a new road from the town of Palcondah to Gaura	30	50,584	
do do from Purla Kimedy to Pondy	25	21,463	
Road from Berhampore to Aska with bridges at Injelly and Aska	24	26,027	Half finished. The Estimate is a supplemental one.
Constructing a new road from Nursanapet to Calingapatam	7	1,000	One quarter finished
Opening road from Russelcondah to Hinjeree over the Corminjia Ghaut (3 Miles)	34	18,334	Two thirds completed
Total	140	1,34,972	
Vizagapatam			
Constructing a branch road No. 2 from Vizagapatam to Anakapilly	19	9,341	
do do No. 11 from Vizagapatam to Tamaracsulsah	14	19,786	

District Roads

Name of work and locality	Miles opened since 1848	Cost of construction since 1848.	Remarks.
Vizadapatam Continued			
Constructing branch roads as follows.—	3	2	
From Palcondah to Cheepurpilly in the Vizianagrum Estate	24		
From the Jeypore frontier through Parvatepore to Palcondah with bridges and tunnels	32		
From Maduguda, the principal depot for the Jeypore produce to Vizagapatam via Anakapilly	40		
From Golcondah to Thalapollem by Narsipatam	30	162,859	
From Narsipatam to the Trunk road at Yellamanchelly and from thence to the Port of Poodemadaka	14		
From Narsipatam to near Vakkapilly and from thence to the Port of Bolarum	20		
Branch road from Parvatepore through Bobilly Rajahs' Territory to Cheepurpilly	38	28,072	
Total	231	220058	
Rajahmundry			
Constructing cross road from Kaparcum to Parvatpoor with bridges and tunnels	22	13120	
Gravelling the road leading to Cocanada	8	2310	
Making a road from Yerraveram to Juddengy	20	10,035	Two thirds completed
Total	50	25481	
Masulipatam			
Road from Masulipatam to the Nizams frontier through Bezwada	103	40,932	Open for traffic, but not yet completed.—
Guntoor			
Improving cross road from Guntoor through Pannoor to Bunputtu	30	1,500	
Improving the road from Guntoor to Pannoor through the Village of Munchalla	16	12,916	
Constructing a road across the wet land under the Sandole bank	1	1,282	
Total	47	15,698	

District Roads

Name of Work and locality	Number of Miles constructed since 1848	Cost of construction since 1848.	Remarks
Vellore			
Branch road from Goodoor westwards to the frontier of Cuddapah	30	85,482	
Road from Kistnapatam to the Dorenal pass through Vellore and Singarum	41	301,341	
Improving the road from Vellore to Ramapatam	34	8,000	This is a part of the old trunk road and is now merely kept up as a second class road.
The Ongole and Cumbum line of road	69	162,838	
Total	204	557,961	
Cuddapah			
Improving a part of the 2nd Class road from Cuddapah to Cumbum	30	10,185	The distance from Cuddapah to Cumbum is 44 Miles
New road from Cumbum to the Mundy Cunnama pass on the Kurnool frontier	36	101,030	
Road from Cuddapah to the Bellary frontier	30	60,328	
Road from Cuddapah to the Nundyal Pass including the Pass of Gandicotta	48	114,447	This is the continuation of a line in the Nellore district
Improving a portion of the high road from Cuddapah to Kurnool	12	4,478	
Road from Rautoor to Pundapatlum, &c.	18	21,921	
Total	203	321,609	
Bellary			
Making road from Bellary to Ramanahully	28	22,925	
Constructing drains &c. on the road from Bellary to Rumpasagur on the Bombay frontier	45	90,337	The entire distance is 62 Miles
Road from Koortinny to Darojee	7	13,199	
Formation of road connecting the Bellary tank bund with the Perahall high road	1	131	
Road from Bellary to Madavaram	45		
Road from Adoor to Hodamoor	45		
Road from the Mysore frontier to the Kurnool frontier via Pennacunda Anantapore and Gooty	112		
Road from Bellary to Gooty	30	114,509	
Road from Adony to Gooty	47		

Name of work and locality	No. of miles constructed since 1848	Cost of construction since 1848	Remarks.
Bellary Continued			
Road from Bellary to Culliandroog	3	Rupees 20	
Road from Bellary to the Mysore frontier via Hurryhall	20		
	14		
Total	424	15,99,101	
Canara			
Vellapoor Circuit. Road from Vellapoor to Moondagode	25	2,798	
Road from Vellapoor to Hullial and frontier	35	8,056	
Road from Vellapoor to Kirwutti and frontier	16	6,473	
Road from Vellapoor by Arbyle Ghaut to Mirjans and Judday	55	53,001	
Road from Vellapoor to Sirsy as far as the Baidthi Nullah	9	4,526	
Road from Sirsy to the Dharwar frontier via Moondagode	40	11,715	
Branch road from Ectumby to Sumusgee	7	4,792	
Sirsy Circuit. Road from Sirsy to Kompta by the Devamany Ghaut	38	23,981	
Branch road from Compta to Mirjan	6	2,343	
Road from Sirsy to Siddapoor	24	12,504	
Road from Sirsy to Vellapoor as far as the Baidthi Nullah	25	2,525	
Haulandee Circuit. Road from Agoomby Ghaut to Mood Bidderee	40	4,040	
Road from Agoomby Ghaut to Oodepee and Mulpy	30	13,398	
Road from Agoomby Ghaut to Haulandee	18	4,095	
Road from Saula to Wundasee via Colour Ghaut	30	14,166	
Road from Haulandee to Wundasee	15	1,575	
Branch Road from Haulkul to Byndoor	17	2,406	
Opening a new line of road across the Gompoor Ghaut near Manegalee	9	12,687	
Opening a Cart road from Siddapoor to Gairsoppah	16	22,965	
Constructing a road from Kaperyoor to Salsoor	28	14,080	
Opening a road from Hullial to Mullapoor by the Singawaree Ghaut	50	11,102	
Improving the Cart road from Bhatkul to Byndoor	9	1,700	
Improving the Veelcond Ghaut	12	7,050	
Tracing the Charmady Ghaut	6	5,373	
Tracing road from Hullial to the Jenny Ghaut	25	5,769	

Name of work and locality	Number of miles constructed since 1848	Cost of construction in or since 1848	Remarks.
Cuddapah (Continued)			
Road from Juggerpet to Sooparh	5	1106	
Total	590	323566	
Kurnool			
Improving the road from Chagulmurry to the frontier of Cuddapah	2	804	
Constructing road from Kurnool to Kodamoor on the road to Bellary	20	20028	
Constructing road from Kurnool to the Tondai Cunnama pass in a South East direction	32	29639	
Constructing road from Kurnool to Yhone and the frontier of Bellary	65	31294	
Opening a passage over the Mustiral Cunnama Thank on its Eastern frontier	2	2158	
Total	111	132920	
Chingleput			
Improving the road from Trivatoor to Connore	5	9056	
Repairing the road within the Cantonment of Palaveram	1	774	
Constructing and gravelling the road from Saint Thomas Mount to Poonamallee	1	51183	
Improving the cross road from Ponnary to Tiruttoor on the Northern Trunk road	3	2213	
Total	16	63226	
North Arcot			
Improving portion of 2nd class road from Vellore to Arnee	22	26845	
Formation of road from Curcumbaddy to Pootelpet on Trunk road No. 11	36	20064	
Improving the road from Arnee through Arcot to Jeroonamally in the neighbourhood of Polour	25	34830	
Constructing 2nd class road from Palmanair to Venkatasherry Cottah	23	16892	Half finished
Improving the Tyenagoontah Ghaut	8	5734	Half finished
Constructing a road from Wallajahnuggur to Arnmoor Railway Station	2	5805	
Road from Conjeveram to Shellar	32	11565	
Total	148	121741	

Name of work and locality	Number of miles constructed since 1848	Cost of construction since 1848.	Remarks
South Arcot			
Constructing road from the Salem boundary to Cuddalore through Virdachellum	64	66258	
Cross road from the Veranum Tank to Chellumbrum	9	3084	
Reformation of road from Colundoorpett to Tullavassol via Cullacoorchy	36	18847	
Road from Pondicherry to the limits of Oulgaret	19	15404	
Improvement of road from Cuddalore to the Vellaur river in the direction of Chellumbrum	17	6365	
Road from Trinomallee to Mercaumum through Gingee and Tenderamum	39	63575	
Road from Cuddalore to Pondicherry	16	12544	
Road from Cuddalore through Trivady to Trunk road No. 8	28	11000	
Road from Tiruvannamalai to Chingamah	19	2000	
Constructing road from Tenderamum to Chiralaur	9	5005	
Road from Colundoorpett to Virdachellum	12	1000	
Road from Porto Novo to Virdachellum	30	28016	
Completing road from Villupooram on Trunk road No. 8 to Pondicherry	20	2014	
Road from Tenderamum to Pondicherry	24	3532	
Total	345	298683	

Name of work and locality	Number of miles constructed since 1848	Cost of construction since 1848.	Remarks
Tanjore			
Improving the road from Tanjore to Tranquebar via Combaconum	34	19425	
Constructing 3d class road from the frontier of Trichinopoly to Adrampatam on the Southern East	47	18591	
Improving the road between Tanjore and Negapatam	48	1327	
Improving the road from Tranquebar to Sheally	15	3308	
Formation of new road along the right bank of the Trimulrajenar	5	2541	
Constructing road from Punthanellore to Vyde Esuren Covil	14	11645	
Improving the road from Adrampatam to Munnargoody	23	12320	
Constructing road No. 7 from Tanjore to Munnargoody	22	7877	
Improving the road from Tuttra poondy to Trivalore and constructing tunnels across the Channels intersecting it	11	34121	X
Constructing a road from Ammapettah to Paupanassum and constructing bridges and Tunnels &c.	10	43310	
Constructing a road along the left bank of the Vettaur from Cungalancherry to Nagore	11	11192	
Raising and improving the road from Coottaulum to the Lower Coleroon Anicut, passing through Punthanellore and joining the Trunk road No. 9	12	5552	
Metalling road No. 9 from Tanjore to Poodoocottah	14	6294	
Improving the road between Valangaman and Paupanassum	7	3291	

District Roads

Name of work and locality	Number of miles constructed since 1848	Cost of construction since 1848	Remarks.
Tanjore Continued 21			
Constructing a large bridge across the Coleroon at Anaicaran Kuttrum, and ascertaining	3	Rupees	
bridges and tunnels on the old roads	"	68,720	21
Total	243	3,27,544	
Trichinopoly			
Improving the 2nd class road from Trichinopoly to Tanjore	12	39,82	The entire distance is 30 miles
Constructing a road along the north bank of the Vycovicottai from the Coleroon Bridge	1½	4,800	
Improving and repairing the road from Trichinopoly towards Combaconum and Madras	8	10,237	
Improving the road from Trichinopoly to Tanjore 6th from Thoorayoody to the Tanjore boundary	3	5,479	
Improving the road No 5 from Trichinopoly towards Madura	28	11,474	
Constructing a road from Poodoocottah to Koolitullay	3½	9,209	
Constructing the road from Trichinopoly to Dindigul as far as the frontier	38	18,946	Nearly completed
Road from Trichinopoly to Perialore via Tanjoody	25	10,191	
Road from Trichinopoly to Poodoocottah as far as the frontier	3	2,115	
Constructing bridges on the road from Trichinopoly towards Salem within the frontier	.	4,321	
Total	124	79,753	
Madura			
Improving the road from Dindigul to Palney and the passes to the Palney Hills	32	12,932	
Branch Cotton road between Aroppoocottah and Ettiapooram	9	35,595	
Improving various old roads and constructing numerous bridges and tunnels on them	.	71,228	
Total	41	1,19,755	
Tinnevelly			
Constructing and improving the great north and south road No 4 through Palamcottah	98	1,17,074	
Improving road No 11 from Tinnevelly to Shermadavy	11	604	
Improving and repairing a portion of road No 22 from Palamcottah to Calcaud	1	151	The entire length is 15 miles
Improving and repairing the road No 12 from Palamcottah to Trichendore	7	3,343	

37

District Roads

Name of work and locality	No. Number of miles constructed since 1848	Cost of construction since 1848	Remarks
Tinnevelly (continued)	210	3	21
Cotton road from Ettiapooram to Periacottah within the limits of the District	17	90740	
Grand Cotton road from Sivagunga to Ettiapooram via Sivagunga and Sautoor	34	114378	Only a small portion of the Expenditure on this road was defrayed out of the Pagoda Funds
Bridges and Tunnels on different old roads	"	12530	
Total	171	341031	
Coimbatore			
Opening a new line of road from Poolanchi to Panjalmut	22	3486	
Improving the road between Coimbatore and Hongyum	34	9096	The entire distance is 41 Miles
Forming the road, from Coimbatore to Pollachy	24	4906	"
Improving and completing the Bhavanoor Chaut, and constructing bridges over the Bowany river	8	39305	
Completing cut through the Elk Hill at Polacamund	"	19001	A short but deep cutting
Opening a new line of road between Coyel and Mallapollium	11	2236	
Improving the road from Tuckinpoly to Coimbatore between Carour and Metapollium	82	11275	
Improving the road from Pollachy to Machinaikenpollium	6	5100	
Constructing road from the foot of the Bhavanoor Chaut to Vellamadee via Dunakencottah	26	5401	
Road from Machinaikenpollam to Ainamullay	3	700	
New road from Polacamund to Jackatullah	12	36284	
Road from Polacamund to the Segoor Ghaut	10	4648	
Bridges and tunnels on various roads		39401	
Total	239	215995	
Salem			
Opening a road from Salem to Nerinjeepet in a westerly direction	10	1212	The entire length is 20 Miles
Metalling the road from Salem to Namkul, from the 12th mile stone	14	3064	Half finished
Road from Yercaud on the Shervaroy hills to Adamancottah on Trunk road No 5, via Mallapooram	25	24125	
Connecting the Darampoory and Tengincottah road with the Moraspoor Station on the Railway	7	995	Recently commenced
Constructing bridges, tunnels &c on old lines		6962	
Total	59	36361	

Carried

37

District Roads

Name of work and locality	Number of Miles constructed since 1848	Cost of construction since 1848	Remarks
Malabar	24	8	21
Metalling the Coast road and otherwise improving it in different places	20	8,424	
Improving the road from Kongode near Palghaut to Pattipala	2	1,165	
Improving the branch road between Vaniencolum and Cherpelcherry	9	1,950	
Metalling the road between Betalpoodiangady and Tanoor	8	5,643	
Improving the road from Colangode to Polachy	7	975	
Opening and improving the road in Wynaad	12	1,024	
Marking a Sandy road from Mundoor via Munnarcaud &c. to Calicut	64	26,244	
Tracing a road from Cholacul to Angaddypooram by Tanoor	"	205	The distance traced is 19 miles
Improving the road between Mutanoor and Pottaparamba to connect Trunk road No. 5 to the Port of Tellicherry	4	16,511	
Construction of road from Tanoor to Cherpelcherry	10	1,007	
Improving the road from Cuddacandy to Tullemungalum	16	2,199	
Road from Sultans battery to Calicutt	11	1,027	
Improving the Angaddypooram and Tirtalla road	15	2,108	
Improving the Moodapalacherry and Cholakal road	3	1,054	
Minor improvements to sundry old roads and constructing small bridges and tunnels	-	4,146	
Total	184	116,418	

Madras

Making a new road across the Garrison Hospital, or west Esplanade	½	250
Forming a road round the Eastern side of the Fort	¾	3829
Clives Battery road	¼	20,742
Improving Seremuhs road at Vepery	¼	7145
Opening a new road from Mowbray road Eastward to the South Beach	¼	10,406
New road from Coopum to Triplicane	½	10,963
New road from Comaleshwaram Covil to the Coopum river	¾	58,440
Forming new road from Commander in Chiefs Bridge to Saint Andrews Church	1	12,557
Sundry bridges and other improvements	"	28,647
Total	4¼	153039

Name of work and locality	Number of miles excavated since 1848	Cost of excavation since 1848	Remarks.
Navigable Canals		Rupees	
Rajahmundry			
Improvement of the Upper Godavery	"	140,578	The improvement here reported to is very slight the Estimate of nearly half a million pounds has been recently submitted for rendering this important river navigable as far as the Cotton Districts of Berar
The Palcole Channel extending from near the Dowlaishwarum Anicut to Narsapoor	30	161,382	These channels subserve the purposes both of Navigation and irrigation
The Thorliah Bygah Channel from Juddum to Ecanada	26	380,814	
The Ralie Channel	28	145,508	
Constructing the Sainalcottah Channel	28	110,021	This is being extended to Tuna which will make an addition of 30 miles to the navigation
Total	112	947,246	
Masulipatam			
The high level Channel from the Attaroo Channel near the Godavery Anicut and extending to Ellore	38	192,479	These Channels are both for irrigation and navigation. The Ellore Channel will be extended eventually to Bezwada
The Attaroo Channel or mainduct from the Godavery on the right bank	7	34,814	
The Bodemair Channel	23	89,634	
The Weyairoo Channel	29	242,349	
The Poolairoo Channel	32	176,631	
The Mopedavy Channel	22	45,564	
Total	157	781,384	
Guntoor			
The Toombuddra Channel	40	76,549	It has been proposed to continue the high level channel through this District to join the Eastern Coast Canal at Ongole and Cumbum, but the work is not yet commenced.
The Nizampatam Channel	32	162,604	
Total	72	239,203	

Navigable Canals

Name of work and locality	Number of miles of canals & excavations since 1848.	Cost of do. since 1848	Remarks
South Arcot		Rupees	
Improving the Khan Sail Channel	20	5,760	
Improving the Harbour of Cuddalore and cutting a Canal from it to the river Vellaur near Porto Novo	12	106,282	
Total	32	112,042	
Tanjore			
Cutting a Canal from the Umbenaur at Trimulvasel to the Coleroon River	10	42,264	
Improving the Mungaur river for navigation	36	35,000	
Total	46	77,264	
Malabar			
Opening a Canal communication between Ponany and Tirovangaddy	12	5139	
Opening the Calicut Canal	8	10,360	
Opening a Canal from the South bank of Ponany river to the backwater	12	14,500	
Connecting the Poonaparumba cut and lake with the Tanoor Canal	2	8,377	
Total	34	47,376	
Madura			
Improving Paumben Channel	3	50,591	
Eastern Coast Canal			
Eastern Coast Canal	62	316,851	

This length shows the extent of new Canal opened within the last few years. When completed, the entire length of the Eastern Coast Canal from Tonnee in the Rajahmundry District to Point Calimere in Tanjore will be about 588 miles. The distance now open for traffic may be reckoned at 176 miles in all, of which the longest continuous portion is 60 miles.

Central Office of P.W.
Fort Saint George
14th September 1854.

A.E. Taylor, Colonel
Chief Engineer

Abstract Statement

Districts	District Roads: Number of Miles constructed since 1848	District Roads: Cost of Construction since 1848 Rupees	Navigable Canals: Number of Miles excavated since 1848	Navigable Canals: Cost of Excavation since 1848 Rupees	Remarks
Ganjam	140	134972	"	"	
Vizagapatam	231	220058	"	"	
Rajahmundry	50	25481	112	947246	
Masulipatam	103	40932	157	781384	
Guntoor	47	15698	72	239203	
Nellore	204	55961	"	"	
Cuddapah	203½	321609	"	"	
Bellary	624	189101	"	"	
Canara	590	323566	"	"	
Kurnool	111	132920	"	"	
Chingleput	16	63226	"	"	
North Arcot	188	121741	"	"	
South Arcot	365	200683	32	112042	
Tanjore	243	324524	46	77264	
Trichinopoly	124	79753	"	"	
Madura	41	119455	3	50591	
Tinnevelly	171	361831	"	"	
Coimbatore	238	245095	"	"	
Salem	59	36361	"	"	
Malabar	184	116718	34	47376	
Madras	4½	153039	"	"	
Eastern Coast Canal	"	"	62	316857	
Total	3709¼	5246944	572	2571960	
Trunk Road { Construction	668	2144103	"	"	
Trunk Road { Repairs	"	148570	"	"	
Grand Total	4377¼	8873617	572	2571960	

A. H. L. Fraser Colonel
Chief Engineer

Central Office P.W.
14th September 1857.

Canara

No. 1787

Public Works Department

12 Copies
Per P.S.S.
Steamer

To:

Colonel W. E. Baker
Secretary to the Government of
India. P.W.D.

Sir,

With reference to
your letter of the 31st July
last. No. 3716, I am directed
by the Right Honorable
the Governor in Council
to forward copy of a
letter from the Chief Engi-
neer dated 11th Instant,
giving cover to a Return
furnishing the informa-
tion required by the
Honorable the House
of Commons, regarding
Roads and Navigable co
Canal

Enclosure

Dated 11th August 1857

No. 3657

Colonel W. E. Baker
Secretary to the Government of India
Public Works Department

Calcutta

1857 August

Canals pin Mis. Presidency.

Fort Saint George
21st September 1857

Public Works 1857 Sept.
Dr to Cons: 22 Sept.

No 1787

To the Secretary to the Govt of
India. D. P. W.
Dr 21st Sept. 57.

E. In Co. Mil. Dept. Dr 18 Aug. 57
& No 1704 in Cons 12 Sept.

Forwarding copy of a letter from the Ch. Engr giving cover to a return furnishing the information required by the Hon. the House of Commons regarding roads & Navigable Canals in this Presidency. -

No 62 & 63.