Public Works (1899) Department.

RAILWAY BRANCH.

G.O., No. 1516-7. K.

DATED 13th Dec. 1899

60
2

[Despatch Abstract.]

Joint gas installation for the Bangalore City ~~Junction~~ Station

Conveying to the Agent, Madras Railway, a letter from the Govt. of India declining to sanction the estimate amounting to Rs 72,190 for the proposed ——.

P. W. 26.
200—30-8-99.

Indexed.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following papers:—

Extract from letter from—The Agent, South Indian Railway.
To—The Board of Directors.
Dated—16th March 1898, No. 577.

Re-arrangement of Tanjore Junction station.

By the Managing Director's letter, No. 159 of 8th November 1895, a sum of Rs. 1,20,000 was approved of for expenditure on this work. The question of the re-arrangement of the station was not however then thoroughly considered; the re-construction of this station has now been re-considered, with the result that the proposals on which the figure of Rs. 1,20,000 was based are not adequate to meet the traffic requirements. Plans have been prepared and estimates drawn up on the basis of the decisions arrived at, and it is found that the estimated expenditure on alterations and additions amounts to Rs. 3,72,248 chargeable in the proportions of Rs. 3,02,783 to Capital and Rs. 69,465 to Revenue. The only works that will remain of the present arrangements are the goods shed and adjoining buildings, the well, pump and shed, the sub-way and the staff quarters buildings. All other works disappear, and, with the exception of the main line, the position of sidings is altered. The principal works are: a new island platform on which will be constructed the station offices, waiting accommodation, refreshment-rooms, latrines, new engine shed suitable for ten engines, local ticket office, third-class waiting-shed with sleeping rooms upstairs for first and second class passengers, an overbridge to the platform, a new tank to hold 36,000 gallons and a large addition to the sidings. The estimate includes provision for the staff quarters that will be required to meet the alteration of engine running lengths, and the engine shed and tank have both been enlarged to suit the same purpose. The Board's approval to the expenditure is solicited.

From—The Offg. Agent, South Indian Railway.
To—The Consulting Engineer for Railways, Madras.
Dated—Trichinopoly, 24th August 1898, No. 789.

With reference to correspondence ending with your endorsement No. 1809, dated 20th June 1898, regarding land required for the re-arrangement of Tanjore Junction, I have the honour to forward, for information, an extract from my letter, No. 593, dated 6th July 1898, to the Managing Director, in which I applied for the sanction of the Board of Directors to an estimate, amounting to Rs. 4,01,353, for the re-arrangements of this junction, and as probably you would like to see the estimate and drawings as soon as possible, I send you copies of estimate, note, and drawings, sent to the Board.

Enclosure.

Extract from letter from—The Agent, South Indian Railway.
To—The Managing Director, South Indian Railway Company.
Dated—Trichinopoly, 6th July 1898, No. 593.

Re-arrangement of Tanjore Junction.

Adverting to the sanction communicated in your letter, No. 210 of 6th May 1898, to a provision of Rs. 3,72,248 being made in the Capital Budget for 1898-99 for the re-arrangement of this station, I forward in the packet a detailed estimate for the proposed work, together with 21 drawings showing details thereof, and shall be glad to receive the sanction of the Board of Directors to the expenditure of Rs. 4,01,353, which it is now found is necessary to carry out the work. I also send an explanatory note regarding the works to be carried out, and an abstract of the estimate giving the quantities and rates.

Provision has been made in the estimate for the accommodation required at Tanjore Junction in connection with the location of the running staff and revision of the running lengths referred to in your letter, No. 201 of 17th December 1897.

The increase over the amount given in the accompaniment to my letter No. 577 is mainly due to the cost of interlocking arrangements which, at the suggestion of the Consulting Engineer for Railways, have been embodied in the estimate.

Extract from letter from—The Board of Directors, South Indian Railway Company.
To—The Agent, South Indian Railway.
Dated—London, 21st October 1898, No. 217.

Re-arrangement of Tanjore Junction.

The Board approve of the estimate forwarded with your No. 593, amounting to Rs. 4,01,353, and, subject to the sanction of Government, authorise you to proceed with the works. It is noted that the excess of Rs. 29,105 over the estimate agreed to by Board's letter, No. 210 of 6th May 1898, is mainly due to the addition of interlocking arrangements now included on the suggestion of the Consulting Engineer for Railways, Madras. A report upon the proposals, dated 5th October 1898, has been obtained from the Company's Consulting Engineer, and a copy thereof is enclosed for your information. Sir George Bruce considers that the re-arrangement of the lines of rail and the general design of the yards and buildings have been skilfully and judiciously planned; and, having regard to the great increase which it is found necessary to provide for in the Locomotive Department and the station buildings generally, he is of opinion that the amount of the estimate is not excessive or more than would be required to make this junction station thoroughly effective.

From—The Agent, South Indian Railway.
To—The Consulting Engineer for Railways, Madras.
Dated—Trichinopoly, 31st December 1898, No. 1172.

In forwarding herewith in duplicate the estimate for the re-arrangement of Tanjore Junction station, duly revised in the light of the Notes by the Examiner, Railway Accounts, Madras, received with your letter, No. 2725 of the 4th October 1898, I have the honour to also forward an extract from the Managing Director's letter, No. 217, dated 21st October 1898, communicating the approval of the Board of Directors to the proposed expenditure, and request the favour of the early sanction of Government being accorded to the re-arrangement being carried out.

I also forward a copy of the letter from Sir George Bruce (the Company's Consulting Engineer), dated 5th October 1898, referred to in the Managing Director's letter, and an explanatory note describing the various works to be carried out. Another set of the drawings to accompany the estimate will be forwarded to you on the 2nd January 1899.

SOUTH INDIAN RAILWAY Co., Ld.

Engineering Department.

Abstract of Estimate, No. 2012/66/98, *Plan No.* 25/98.

Proposed re-arrangement of Tanjore Junction Station.

Description of work.	Cash to be expended in India.	Value of stores.	Total value of work to be done.	Chargeable to Capital.		Chargeable to Revenue.	
				Cash.	Stores.	Cash.	Stores.
Capital Budget 1898-99 *to* 1900-1901. *Sanction will lapse at the close of the quarter ending* 31*st March* 1901.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
II. Land—							
Additional land required for station purposes ..	13,290	..	13,290	13,290	..	..	..
III. Formation—							
(*a*) Earthwork	8,303	..	8,303	8,303	..	..	..
V. Fencing, &c.—							
(*a*) Fencing	2,541	1,343	3,884	—*1,177*	1,343	3,718	..
VII. Ballast and Permanent-way—							
(*a*) Ballast	3,980	2,886	6,866	993	2,886	2,987	..
(*b*) Permanent-way	3,304	62,056	65,360	1,301	30,674	2,003	31,382
VIII. Stations and Buildings—							
(*a*) Stations and Offices—							
Booking office and waiting-shed	15,112	32,793	47,905	15,112	32,793	..	..
Station house and covered way	25,672	43,678	69,350	13,897	35,658	11,775	8,020
Corrugated iron latrine on north side	1,072	1,505	2,577	410	1,492	662	13
Do. do. south side	471	997	1,468	— *14*	997	485	..
Latrine for Europeans	149	584	733	149	584	..	..
Extension of goods-shed	3,616	8,644	1,2260	508	7,473	3,108	1,171
Overbridge for passengers	3,220	11,218	14,438	3,220	11,218	..	..
Extension of sub-way	943	769	1,712	349	707	594	62
Demolishing and rebuilding the Permanent-way Inspector's office and stores	784	1,277	2,061	— *593*	1,233	1,377	44
Passengers' platform	1,246	698	1,944	875	698	371	..
Transhipping platform	613	1,155	1,768	613	1,155	..	..
Passengers, goods approaches and fencing, &c. ..	812	695	1,507	748	199	64	496
(*c*) Staff quarters—							
Bungalow for Loco. Foreman	1,965	3,297	5,262	1,965	3,297	..	..
Out-houses for do.	532	489	1,021	532	489	..	..
Latrine for do.	127	182	309	127	182	..	..
Latrine for servants for Loco. Foreman	56	31	87	56	31	..	..
One double block for European and Eurasian drivers	2,504	4,150	6,654	2,504	4,150	..	..
Out-houses for do. do. ..	457	573	1,030	457	573	..	..
Latrine for do. do. ..	127	182	309	127	182	..	..
Latrine for servants for do. ..	95	51	146	95	51	..	..
Another double block for European and Eurasian drivers with out-houses and latrine, &c., complete.	3,183	4,956	8,139	3,183	4,956	..	..
Another double block for running drivers and guards same as above	3,183	4,956	8,139	3,183	4,956	..	..
One double block for Native drivers and rolling-stock inspector	1,118	1,761	2,879	1,118	1,761	..	..
Latrine for Native drivers and stock inspector ..	93	53	146	93	53	..	..
Fencing to staff quarters and approach road ..	625	1,479	2,104	616	1,479	9	..
(*d*) Station Machinery—							
Tank house	2,864	4,786	7,650	2,092	4,768	772	18
One ashpit, one water column, drip well drain, &c.	1,568	2,161	3,729	903	539	665	1,622
Coal stage	147	711	858	..	..	147	711
Extension of engine shed	8,404	19,240	27,644	5,383	17,222	3,021	2,018
Ashpits in engine shed	2,873	2,913	5,786	2,873	2,913	..	..
Wash out cock and piping in engine shed	92	134	226	55	17	37	117
Discharge drain and manhole from engine shed ..	229	155	384	229	155	..	..
Engine lift	927	4,228	5,155	927	4,228	..	..
Discharge drain for engine lift	195	135	330	195	135	..	..
Removing and rebuilding 42 ft. diar. engine turn-table (available at Chittoor)	1,158	—*1,543*	— *385*	..	—*2,150*	1,158	607
Man hole and drain for do.	36	21	57	..	..	36	21
Removing and rebuilding carriage turn-tables No. 2.	408	132	540	..	..	408	132
Wagon weigh-bridge and house	417	3,356	3,773	417	3,356	..	..
Points and crossings	1,276	20,726	22,002	488	8,993	788	11,733
Signals	3,955	24,682	28,637	3,807	24,469	148	213
Removing the existing weighing machine and refixing the same in booking office and waiting-shed ..	19	60	79	10	58	9	2
IX. Plant—							
(*e*) Station and office furniture	..	3,237	3,237	..	3,237	..	..
Total ..	1,23,761	2,77,592	4,01,353	89,419	2,19,210	34,342	58,382

Funds required on Capital account during 1898–99, viz., cash Rs. 2,000 and stores Rs. 8,000, will be met from the unallotted grant for unsanctioned works Capital Budget Estimate of same year, and the balance, cash Rs. 87,419 and stores Rs. 2,11,210, will be provided for in the Capital Budget Estimates for 1899–1900 and subsequent official years. Funds on Revenue Account, viz., Rs. 500, will be met from heads II, III and IV, Abstract A, Revenue Budget Estimate for 1898–99 and the balance will be provided for in Revenue Budgets of subsequent years.

By Board's letter, No. 210 of 6th May 1898, sanction was given to the inclusion of this work in the budget for 1898–99. Sanction of the Board to this estimate was communicated to the Agent in Managing Director's letter, No. 217 of 21st October 1898.

From—Sir GEORGE B. BRUCE, Consulting Engineer, to the South Indian Railway Company.
To—H. W. NOTMAN, Esq., Managing Director, South Indian Railway Company.
Dated—3, Victoria Street, S.W., 5th October 1898.

Re-arrangement of Tanjore Junction.

I have examined the plans and estimates of the proposed re-arrangement forwarded with yours of July, 26th last.

The Tanjore station was originally only a passing station on the line between Trichinopoly and Negapatam which was opened in 1861. The station arrangements were thus of a very simple character. It became a junction station in 1877, when the line from Tanjore north to Madras was constructed. Even then it appears that only such additions were made to the station from time to time as the necessities of increasing traffic rendered absolutely necessary. It is not therefore a matter of surprise that, in the judgment of the authorities in India, the re-casting of the whole station should have now become a necessity.

The re-arrangement of the lines of rails and the general design of the yard and buildings appear to me to have been skilfully and judiciously planned, and having regard to the great increase which it is found necessary to provide for in the Locomotive Department and the station buildings generally, the amount of the estimate does not seem to me excessive or more than would be required to make this junction station thoroughly effective.

I will, as you suggest, retain the drawings which accompanied your letter under reply, and I return herewith the printed estimate and statements marked "C" and "D."

Note to accompany the plans and estimate for the re-arrangement of Tanjore station.

Preliminary Remarks.—When the Negapatam-Trichinopoly section of the then Great Southern of India Railway was first opened for traffic in the year 1861, the station arrangements consisted of one passenger platform, two through sidings, booking office, goods-shed, salt godown, carriage loading dock, two sixteen-foot turntables, urinals, tank house and Permanent-way Inspector's stores.

2. The station was worked with this accommodation up to the year 1877, when the construction of the so-called "Northern extension" was started and an island platform, sub-way, engine shed, turntable and about 1,700 lineal yards of sidings were added.

3. Since that date additions of buildings and sidings have been made from time to time as the want for them was felt, but owing to the piecemeal manner in which they have been introduced, the general result as regards convenience of working the increased traffic is not satisfactory and a complete re-arrangement of the station has been felt for some years past to be an absolute necessity.

4. A design was prepared a short time ago on the principle of ignoring entirely the existing buildings and the two natural boundaries of the present yard in the form of a public road at the east end and a deep nullah at the west, as it was not thought possible to work them in satisfactorily with the proposed re-arrangements; but the amount of the estimate was considered prohibitive to such a scheme and a revised design was undertaken and is now submitted for sanction.

5. The present scheme has been prepared in consultation from time to time with the Deputing Consulting Engineer and has been discussed at several officer's meetings; it is therefore believed to meet the views of all those who are concerned in the working of it.

6. The following description of what is to be done under each head of account will explain, in conjunction with the plans, how the existing buildings are to be utilized.

The following statement showing in three columns the original, subsequent and proposed additional accommodation side by side will assist in explaining the growth of the station.

Statement showing buildings.

Provided originally.	Added subsequently.	Now proposed.
Stationmaster's house ..	....	Original stationmaster's house will remain as it stands.
Station house	....	The existing station house will be removed entirely, and the accommodation provided on the island platform.
One platform	....	The original platform is to be removed to make room for sidings.
Passenger shed	....	Do. do. do.
Latrine	....	Do. do. do.
Salt godown	....	Salt godown to remain intact.
Covered goods shed	....	Do. do.

Statement showing buildings—cont.

Provided originally.	Added subsequently.	Now proposed.
Inspector's office and stores ..	....	Inspectors' office and stores to be removed, to make room for sidings and will be erected elsewhere.
Carriage dock	....	Do. do. do.
2–16 ft. turntables	....	Do. do. do.
....	Island platform	Island platform to be increased by 524 per cent.
....	Sub-way	Sub-way to be extended.
....	Tank on rails	Tank to be removed and a fresh cast iron tank on masonry foundations to be built.
....	Engine turntable	Engine turntable to be removed and re-erected.
....	Engine shed	Engine shed to be enlarged by 311 per cent.
....	Open goods shed	Open goods-shed to remain in tact.
....	Apothecary's quarters	Do. do.
....	Assistant Traffic Manager's office.	Do. do.
....	One block for Locomotive staff ..	Do. do.
....	P.W. Inspector's bungalow ..	Do. do.
....	Refreshment room (a semi-permanent structure).	Refreshment-room will be demolished and be provided for in the main building in the island platform.
....	Latrine on original platform ..	Latrine to be demolished.
....	Latrine on island platform ..	Latrine to be demolished, and be provided for in the island platform.
....	....	A Locomotive Foreman's bungalow, three double block of European and Eurasian quarters.
....	....	One block for native quarters.
....	....	Weigh-bridge.
....	....	Transhipping platform.
....	....	Platform for Pulliarpatti branch.
....	....	Overbridge.
....	....	Local Booking office with staff quarters over it.

Land.—The additional land is required on the south side of the station for a platform for the Pulliarpatti branch and for additional sidings ; the triangle between the Pulliarpatti siding and the main line to the south-west of the existing station is required for the coal and laterite sidings and for the additional staff quarters.

Formation.—Earthwork.—The earthwork which consists chiefly of cutting is necessitated in the neighbourhood of the engine-shed and sidings to the west of it, the ground beyond the present compound wall being at a higher level than the rails in the station yard.

Fencing.—As some of the additional sidings and new buildings extend beyond the present boundary wall, the latter has to be demolished and re-built ; the wire fencing is required for enclosing additional land acquired for staff quarters.

Ballast and Permanent-way.—The gross length of sidings when the line was first opened for traffic in 1861 was 1,760 lineal yards ; at the present date the length is 9,680 lineal yards ; the present estimate provides for increasing the sidings up to 12,017 lineal yards.

The alterations are so extensive that, with the exception of the main line through the station and a comparatively short length of road near the goods-shed, the whole of the tracks in the yard have to be moved.

In the plan, the main line only is shown to remain in its existing position, and as the sidings near the goods-shed are to be re-laid with 50 lb. rails, they are shown as new.

Provision has been made to lay a through siding adjacent to each of the three platform lines, all arrangements for goods shunting being carried out with a shunting neck, so that in the formation of goods trains, the main line will always be kept clear.

Stations and Buildings.—Stations and offices.—The station being an important junction, an island platform with all the offices and accommodation required for through passenger traffic thereon is imperative. The existing island platform is only 20 feet wide and is quite inadequate for the work of transhipping passengers from branch to main line trains and *vice versâ* ; it will form part of the new platform. The original platform on the north side of the station with the station-house, refreshment-room and latrines thereon could not be worked into the new scheme and will therefore be entirely removed ; the new island platform will be 1,300 feet long by 74 feet wide and the block of building thereon, measuring 362 feet by 23, provides accommodation for first, second and third class waiting-rooms, refreshment-rooms, stationmaster's office, telegraph office, train inspector, ticket clerks, lamp-rooms, &c., on the ground floor ; on the upper floor extending over an area of 118 feet by 23 feet, there will be a large refreshment-room for third-class passengers and cook-room for the corresponding refreshment-rooms on the ground floor. Above the second storey, there will be a cabin to contain 39 levers for working the signals throughout the yard and the scissors crossings opposite the centre of the platform and on both sides of it.

Latrines will be provided at both ends of the platform at some little distance from the station and office for Native passengers, and closets will also be provided on the platform for Europeans ; retiring-rooms for ladies are attached to the waiting-rooms in the main building.

The platform on either side of the station and offices will be covered by a cantilever roof extending up to the adjacent tracks.

An overbridge will connect the island platform with the local booking office.

The sub-way, which is to be extended, will afford an exit for passengers going to the town. Allusion is made above to the removal of the old ticket office, refreshment-room and latrines on the original platform on the north side of the station ; for the two latter, accommodation will be provided on the island platform and the old ticket office will be replaced by an entirely new building consisting on the ground floor of one large room, in the centre of which there is an enclosure from which tickets are issued to third-class passengers on one side and to first and second on the other ; there will also be accommodation for weighing and registering luggages. There will be an upper floor to this building which provides a sitting-room, three bed-rooms and bath-rooms for the use of the staff and public.

A drain already exists throughout the greater length of the yard, this is to be extended and will provide all the extra drainage required.

The present permanent-way inspector's office and stores occupies space required for sidings, it will therefore be rebuilt to the north of its present site.

Goods-shed.—One closed goods-shed, a salt godown and two open sheds exist, these will be utilized as they stand and provision is made for extending the closed shed by adding to it an area of 4,480 square feet.

Owing to the supply of gravel required for metalling most of the roads in the Tanjore district being drawn from the Pulliarpatti ballast depot which is 4 miles away from Tanjore, special provision in the way of sidings for this traffic will be made. At present a good deal of goods work is carried out on the south side of the station ; by the proposed arrangement, most of it will be confined to the specially appointed goods sidings.

An entirely new transhipping platform required for making up through loads is provided.

Approaches to the Goods-shed.—Owing to the extension of goods accommodation being provided westward of the existing buildings, some expenditure is required on the formation of new roads and for fencing off the goods portion of the yard from the passengers' approach.

Staff Quarters.—Accommodation exists for the stationmaster, Assistant Traffic Manager's office, apothecary, permanent-way inspector and one block of buildings for the Locomotive Department ; it is considered necessary to build three additional blocks for the European and Eurasian drivers, and one block for the Native staff of the Locomotive Department. These buildings are to be constructed on newly acquired land at the west end of the station.

Station Machinery.—Two existing 16-foot turn-tables are to be moved a little to the north-west of the present position.

A weigh-bridge (on a convenient loop siding), the want of which has been much felt for some years past, is to be built.

A few years ago the tank accommodation for watering engines was found to be insufficient and in view of the probable further extension of the station the extra provision then made was in the form of six wrought iron tanks erected on a rail staging, this will now be removed, the permanent accommodation will be provided in the form of a large cast iron tank on a masonry base.

One water column only is provided in the present estimate, it is probable that more will be required.

The existing engine-shed is to be enlarged by an additional area of 9,071 square feet, one side wall and part of one end wall of present building being utilized.

The existing engine turn-table being in the way of the new sidings, is to be removed to the west end of the engine-shed, and in close proximity to it a new coal stage is to be constructed.

An engine lift and ashpit under it is to be built at the west end of the shed.

Points and Crossings.— The extension of sidings involves an addition of 25 sets of points, but it is anticipated that by the introduction of interlocking signals and points, the number of pointsmen employed will not be increased and may probably be diminished.

Signals.— The estimate provides for the introduction of Dutton's system of signals interlocked with points, by which the approaches to each platform and the corresponding through sidings will be rendered as safe as practicable. The signals will be worked from a cabin erected over the stationmaster's room on the island platform and will be so arranged that they will be, by a system of locking, completely under his control.

Plant.— The expenditure under this head is small and does not appear to call for remarks.

From—The Consulting Engineer for Railways.
To—The Agent, South Indian Railway.
Dated—Madras, 8th February 1899, No. 429.

I have the honour to acknowledge the receipt, with your letter No. 1172, dated 31st December 1898, of an estimate and design for an entire recasting of the Tanjore station arrangements at a cost of over four lakhs. I notice that your Board have approved of the scheme. It appears to me to be a well thought out scheme, and the design and estimates appear to have been very carefully got up, and I have little doubt but that if carried out it will greatly facilitate working at Tanjore junction.

2. Still four lakhs practically means about Rs. 1,000 per mensem in interest, and I hesitate to recommend Government, who own the line leased to your Company, to incur this expenditure unless I can bring forward some arguments to show that the expenditure will be in one way or another directly or indirectly remunerative. Can you furnish me with any such arguments?

3. Another matter worthy of consideration is that the Madras loop line, or suburban scheme, appears to me to be far more urgently needed in the interests of public convenience than is the remodelling of Tanjore junction. There may perhaps be funds available for both this and the Tanjore scheme; on the other hand there may not; and I am disposed to think that you would be wise, in the interest of your shareholders as well as of Government, to press for the loop scheme first and to try for the other later.

4. I shall be glad to hear what your views are on these points after you have carefully considered them.

From—The Agent, South Indian Railway.
To—The Consulting Engineer for Railways, Madras.
Dated—Trichinopoly, 9th March 1899, No. 218.

With reference to your letter No. 429, dated 8th February 1899, regarding the proposed expenditure on the enlargement and re-arrangement of Tanjore junction, I have the honour to point out that of the total estimate of Rs. 4,01,353, Rs. 95,000 is for expenditure in connection with the re-arrangement of the locomotive running lengths, the scheme for which has received your approval. The balance of Rupees 3,06,353 is mainly made up of the following items:—

Sidings, Rs. 95,500.—As already pointed out in a previous half-yearly inspection report, the existing arrangement of sidings makes the yard a cramped one, and the proposed re-arrangement, though perhaps some reduction might be possible, is necessary for facility of working and in the interests of public safety. It must also be borne in mind that the rails in the existing sidings are practically worn out.

Interlocking of Signals, Rs. 28,640.—This expenditure is necessary for safety of working.

Booking office, Rs. 47,900, *Station-house, Rs.* 69,350.—The existing station-house was built some 37 years ago and requires renewal, it is moreover far too small for the present traffic, Tanjore being a festival station and it is considered desirable that the proposed accommodation should be provided.

Native latrines, Rs. 4,050.—Many adverse remarks having been made regarding the type of our station latrines, advantage has been taken in designing those to be provided for at Tanjore to comply with sanitary requirements.

Extension of goods-shed, Rs. 12,260.—This is necessary to accommodate the traffic now dealt with at the station.

Overbridge, Rs. 14,440.—Required in the interests of public safety.

Platforms, Rs. 3,710.—The existing platforms do not afford the necessary accommodation at festival times when they are overcrowded to a dangerous extent.

From—The Agent, South Indian Railway.
To—The Consulting Engineer for Railways, Madras.
Dated—Trichinopoly, 28th March 1899, No. 268.

In continuation of my letter No. 218, dated 9th March 1899, and with reference to our recent conversation, I have the honour to offer the following remarks in further justification of the expenditure proposed in connection with the re-arrangement of Tanjore station. Eliminating the cost of that portion of the work included in the estimate which relates to the scheme for economically revising the engine running lengths, the expenditure to be dealt with is roughly three lakhs of rupees. Of this amount, Rs. 95,000 is proposed to be spent on *renewing old permanent-way and on new sidings required for facilitating shunting and for trapping, shunting, and goods lines.* About Rs. 42,000 must, under any circumstances, be expended on the replacement of worn out permanent-way, so that the cost of making the yard safe and suitable for economical working is, say, Rs. 53,000. It is difficult to state definitely that this expenditure will be remunerative, but there is no doubt that even if it saves one serious accident the outlay will be amply justified. The cost of *interlocking* the new yard is Rs. 28,640, but I presume in the case of this expenditure you do not require me to offer any remarks as no interlocking can ever be directly remunerative to any large degree. The *booking office* is estimated to cost Rs. 47,900. This amount can be reduced if the sleeping accommodation on the upper storey is not provided. I would point out that these rooms have been given at the suggestion of the Government Inspector—*vide* paragraph 9 of the half-yearly inspection report for the half-year ended 31st December 1895. In my opinion they are more of a luxury than a necessity, but they may tend to popularize the line by making it more attractive and so prove indirectly remunerative. The cost of the new *station-house* is estimated at Rs. 69,350. Even if this work is not approved a good deal of money must be spent in re-roofing the existing station-house and rebuilding the present temporary refreshment-room. The existing station building, as I before mentioned, is much too small for requirements, and there are no proper conveniences, either for the public or for the handling of traffic. The expenditure on additional accommodation can, however, hardly be expected to prove remunerative. The somewhat heavy proportionate outlay of Rs. 4,050 on *native latrines* can only be justified on the grounds of sanitation and of convenience to passengers. If you so wish a cheaper type of latrine could be provided; but from the numerous complaints made against our present structures, I do not recommend economy in the matter. The extension of the *goods shed* will cost Rs. 12,260, and I am informed by the Traffic Manager that his staff is much handicapped by the insufficient extent of the present building which is not large enough to house the traffic that now offers. The *overbridge* is an expensive work estimated at Rs. 14,440, which could, I understand, be reduced in cost if the sleeping accommodation for passengers be given up. It is, of course, an unremunerative work, except as regards the possible prevention by its provision, of claims on account of injury to passengers crossing the lines. The *platforms* in the new arrangements will cost Rs. 3,710, and are, I think, necessary whether they are remunerative or not. The present island platform is very narrow and it is fortunate that no accidents have so far occurred by people being forced over the edges during occasions of festival.

In the foregoing paragraph I have touched on all the principal works embodied in the estimate and I trust the explanations I have given may prove sufficient to enable you to dispose of the question.

Note by the Consulting Engineer for Railways, Madras.

This is a very important project, and a large estimate, viz., the improvement and enlargement of Tanjore station of the South Indian Railway at a cost of Rs. 4,01,353. A proposal involving interest charges at the rate of Rs. 1,000 per mensem as a permanency must be treated with much circumspection.

2. The proposal has been in contemplation during the last three or four years. In November 1895, the Agent received his Board of Directors' consent to spend Rupees 1,20,000 on the work; but when plans and estimates had been got out it appeared that the cost would be Rs. 3,72,248. Meanwhile, in November 1896 the Agent asked that the requisite area of land might be acquired. The land as a matter of fact has since been acquired.

3. In their letter No. 210 of the 6th May 1898, the Board sanctioned an expenditure of Rs. 3,72,248. But with his letter No. 593, dated 6th July 1898, the Agent asked for sanction to the latest proposed expenditure, viz., Rs. 4,01,353, explaining that the increase over the sum already approved by the Board was for interlocking.

4. In their letter to their Agent No. 217, dated the 21st October 1898, the Board sanctioned the estimate of Rs. 4,01,353, and communicated the opinion of the Company's Consulting Engineer, Sir George Bruce, that "the re-arrangement of the lines of railway and the general design of the yards and buildings have been skilfully and judiciously planned; and, having regard to the great increase which it is found necessary to provide for in the Locomotive Department and the station buildings generally, the amount of the estimate is not excessive or more than would be required to make the junction station thoroughly effective."

5. I may add that this office has all along, from time to time, had its say in regard to the proposals, and that I am personally satisfied that the design is good and that the estimate is not extravagant.

6. Rs. 95,000, or nearly one-fourth of the estimate, has been rendered necessary by the decision to introduce a better system of engine running lengths throughout the South Indian Railway. The existing system of engine running grew up as the line and its branches grew up, in a somewhat haphazard way, and the new system is intended to effect heavy economies, throwing many engines out of work, and rendering the train service throughout the system more efficient all round. It has been gone into very thoroughly, and is to be gradually brought into use as circumstances permit.

7. The remainder of the expenditure has become necessary owing to the steady and continuous improvement in the weight of traffic passing through the junction, which has rendered inadequate the existing buildings, platforms, lines and sidings.

8. The Government Examiner reports that the proposed allocation of Rs. 3,08,629 to Capital and Rs. 92,724 to Revenue is correct.

9. I recommend therefore that the Government of India be asked to sanction the estimate and to allow the work to proceed forthwith.

(Signed) Francis J. E. Spring,
Consulting Engineer for Railways.

6th April 1899.

Order—No. 504 Ry., dated 29th April 1899.

The Government of India will be addressed.

[Here enter No. 505 Ry., dated 29th April 1899.]

(True Extract.)

Francis J. E. Spring,
Joint Secretary.

To the Agent, South Indian Railway.
" Consulting Engineer for Railways.
" Examiner, Guaranteed Railway Accounts.

Exd. Shaik Karim.

PUBLIC WORKS DEPARTMENT.

Railway.

Letter—from

Francis J. E. Spring, Esq., C.I.E.,
Joint Secretary to the Government of Madras,
Public Works Department,
Railway Branch,

To

The Secretary to the Government of India,
Public Works Department.

Sir,

I am directed to invite a perusal of this Government's Proceedings, No. 504 Ry., dated the 29th April 1899, on the subject of a proposed expenditure of about 4 lakhs on the remodelling of Tanjore station of the South Indian Railway. The note contained in the Proceedings by this Government's Consulting Engineer for Railways explains the position, so it seems unnecessary to enter into separate explanations here. There has been no previous correspondence with the Government of India on the subject.

2. I am instructed to forward a copy of the estimate as well as of the set of plans, and to ask that sanction may be accorded to the work being undertaken at a total cost of Rs. 4,01,353, of which Rs. 3,08,629 will be debitable to Capital and Rs. 92,724 to Revenue.

I have the honour to be,
Sir,
Your most obedient servant,

Francis J. E. Spring,
Joint Secretary.

Ootacamund,
29th April 1899.

Documents accompanying.
G.O., referred to with estimate and set of plans.

Exd. A. F. Eccleston.

RAILWAY.

Government {1899} of Madras.

PUBLIC WORKS.

Recd. } 1899. *Enclosures*

Regd. *Spare copies*

Letter, No. 505 Ry., 29th April 1899.

APRIL.

Remodelling of Tanjore Junction Station, South Indian Railway

Forwarding, for sanction, an estimate, amounting to Rs. 4,01,353, for —.

South Indian Railway Co., Ld.

Extract from the Agent's Letter No. 652, dated Trichinopoly, the 23rd August 1899 to the Managing Director.

STAFF.

Temporary Assistant Engineer. The Acting Chief Engineer in a letter to me (No. S/$\frac{2471}{1830}$ of 21st August, copy enclosed) has applied for the addition to his staff temporarily of an Assistant Engineer on the pay of Class D, Rs. 350—25—400. The Engineering Establishment is at present one Officer short by my having taken up the Agent's work, while at the same time extra work has been thrown on the Department and I am quite of his opinion it will be necessary to place an officer in special charge of the re-arrangement of the Tanjore station, with its expenditure of 4 lakhs of rupees. Mr. H. P. O'Shaughnessy, the officer he recommends for the post, has now been employed on construction and survey since 1st April, 1898, and I can endorse the Acting Chief Engineer's opinion as to his suitability for the post applied for. The re-arrangements of the Tanjore station will probably take 2 years to complete and I therefore request the sanction of the Board to the temporary engagement of Mr. O'Shaughnessy on Rs. 350 per mensem, it being understood he will be required for 2 years. In asking for sanction to the period of 2 years I do not lose sight of the fact that I shall return to the Engineering Department at the commencement of October 1900, but as the works at Tanjore will then be in full swing it will be advisable not to change Engineers at that time.

AGENT'S OFFICE,
TRICHINOPOLY,
9th November 1899

True Extract.

J. W. de Mesquita
ag.
for Agent.

Accompaniment to the Agent's letter
No. 1104 of 9-11-99

ENG. No. [illegible] S.I.R's. C. No. 5873 1899
LETTER No. 1104 & 2/11/99
FROM A. [illegible]

South Indian Railway Company, Limited.

Extract from the Managing Director's Letter No. 238 , dated London, the 20th October 1899.

Subject.

Temporary Assistant Engineer.

Extract:—

The proposal contained in your No. 652, of 23rd August 1899, viz- that a temporary Assistant Engineer should be engaged to carry out the important new Works for Tanjore Station alterations, is agreed to by the Board; and they sanction the appointment of Mr. H.P. O'Shaughnessy on the pay recommended by you, viz- Rs. 350 per month the initial rate of pay of the Engineers of the "D" Class, it being understood that he will be required for two years.

(True Extract)
J H Le Mesurier
for Ag: Agent

AGENT'S OFFICE,
TRICHINOPOLY,
8th November 1899.

Accompaniment to the Agent's letter No.
of 189 .