

Public Works (1893) Department.

RAILWAY BRANCH.

G.O., No. 223. R

DATED 2nd February

[Despatch Abstract.]

Land — P.W.D. Revenue Department passing orders regarding acquisition of certain — in case of urgency, communicated to the Const. Engineer.

BACK PAPERS.

[illegible]

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

2ND FEBRUARY 1893, No. 223 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

G.O., dated 26th January 1893, Mis. No. 322, Revenue.

Read—Proceedings of the Public Works Department, dated 8th September and 20th December 1892, Nos. 2173 R. and 3052 R., respectively.

Order—dated 26th January 1893, Mis. No. 322, Revenue.

Referring to para. 112 of the Deputy Consulting Engineer's report, the Government observes that, in cases of urgency, any waste or arable land which is private property can, with the necessary sanction of Government, be taken possession of under section 17 of Act X of 1870 before a reference or an award is made.

2. On the East Coast of the Madras Presidency all unoccupied waste land vests in Government, and in respect of such waste no action beyond the Collector's transfer of possession is necessary. All waste land in proprietary estates is occupied.

(True Extract.)

(Signed) F. GIBSON,
Ag. Secretary to Government.

ORDER—dated 2nd February 1893, No. 223 R., Public Works.

Communicated to the Consulting Engineer for Railways, for information, with reference to Proceedings—

No. 2178 R., dated 8th September 1892.

„ 3052 R. „ 20th December „

(True Extract.)

(Signed) F. B. WALKER,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.

Engineer-in-Chief, East Coast Railway.

“ Engineer-in-Chief, East Coast Railway.
“ Examiner, Guaranteed Railway Accounts.

„ Examiner, Guaranteed Railway Accounts.
 „ „ East Coast Railway Accounts.

Ed. C. A. Muniswamy.

Spare Copies

RAILWAY.

Gobt. of {1893} Madras. PUBLIC WORKS.

Lated February, 2nd.

Recd.

Encl.

G.O., 2nd Feb. 1893, No. 223 R.

FEBRUARY.

Lands

Proceedings, Revenue Department, passing orders regarding acquisition of certain — in cases of urgency, communicated to the Consulting Engineer.

REPORT ON THE INSPECTION OF THE MADRAS RAILWAY FOR THE HALF-YEAR ENDED THE 30TH JUNE 1892.

THE inspection of the North-West Line was made between the 18th and 21st July both days inclusive, and that of the South-West Line and branches between the 31st July and 8th August both days inclusive, in company with the Agent and Manager, Heads of Departments and the District Officers.

2. To prevent confusion I have imagined both the North-West and South-West Lines and Branches to run due east and west.

3. **Earthwork**—Is everywhere full and well-maintained. At mile 239/12-14 the water from the bursting of the Kayalcheru tank has eroded the bank and this will now be pitched. The diversion of stream at 311/3-5 miles has been carried out. The estimate for easing the grades on the North-West Line is as follows:—

						Rs.
(1)	From	75½	to	77½	miles	33,669
(2)	"	95½	to	98½	"	1,47,778
(3)	"	153½	to	154½	"	54,817
Total						2,36,164

and, taking the train mileage cost as given in the Analysis of Working and the actual traffic for the month of July 1891 as a basis, a total annual saving of Rs. 30,000 is estimated on this capital expenditure. This is probably too sanguine a result to expect and I have suggested that another estimate based on actual savings of such items as running staff, fuel, oil and stores and allowing for the fewer number of engines and brakes required, be got out. The net saving would probably be a compromise between the two estimates.

4. **Bridges**.—The condition of the bridges inspected was excellent. The present girders of some of the bridges on the North-West Line and South-West Line are of the old weak type and in consequence of the increased weight of the engines now in use a general scheme for strengthening them is being carried out.

5. **North-West Line—Cheyár bridge, mile 136**.—The old girders from the Pápaghni and Thootha bridges are about to be inserted under the road, as the existing girders with 10-inch flanges are weak.

6. **Bonga bridge, mile 162/16**.—The old girders from the Rallavonka bridge will be used here for strengthening the existing road, two being added for each span as is to be done at the Cheyár bridge. An estimate for the work is before Government.

7. **Rallavonka bridge, mile 165/15**.—New girders from England, like those for the Thootha bridge, are erected and the new pattern permanent-way road is about to be put on; the bridge should be completed in six weeks.

8. **Pápaghni bridge, mile 174/13, fifteen 140 feet**.—This bridge was opened on the 1st July 1892. Had the girders been delivered in time, the bridge would have been completed in twelve months, during two of which cholera put a stop to the work. The work has been most expeditiously and economically carried out.

9. **South-West Line—Thootha bridge, mile 373/15**.—The stronger girders are being put up and the bridge should be completed in about 4 months. It is being raised about four feet.

10. **Bridge at mile 395**.—A project for strengthening the bridge is under preparation. It is believed now no more waterway is required. There has been a 9-feet flood down the river which is 3 inches higher than any previous recorded flood and this has scoured the ends of the abutments which require pitching. The floor too probably will require strengthening.

11. **Permanent-way.**—The road is in its usual excellent condition making allowances for the old rails and weak fish-plates. If any difference was perceptible, it was on the Bangalore branch which struck me as not being quite as perfect as the rest of the line.

An appendix shows rails in line and renewals for the half-year.

12. **Steel rails—North-West and South-West Lines.**—The following table for the half-year ended the 31st March 1892 shows the number of miles of 75 lb. double-headed steel rails laid and the number of miles of each fished with new pattern steel fish-plates with four 1-inch bolts and with old type iron fish-plates and four 7-inch bolts:—

Divisions.		Steel rails fished with new type fish-plates.			Steel rails fished with old type fish-plates.		
		ms.	chs.	ft.	ms.	chs.	ft.
First division, North-West Line	..	3	30	65	51	20	11
Second " "	..	0	0	0	26	20	0
First " " South-West " "	..	4	43	30	102	32	64
Second " " " "	..	8	40	0	31	30	0
Third " " " "	..	2	74	4	30	34	29
Fourth " " " "	..	2	24	0	20	72	32
Total ..		18	54	33	274	70	4

The following remarks were made by the Acting Deputy Chief Engineer on his inspection for the half-year ended the 31st March 1892:—"I would recommend considering the advisability of replacing all the old pattern fish-plates now in use on steel rails with new type fish-plates fitted with 1" bolts, so as to save wear at the joints as much as possible and thus prevent as far as practicable the necessity for renewing steel rails worn at the joints, long before other portions of them had worn sufficiently to need removal." I fully endorse these views and would recommend that immediate action be taken to prevent the joints being further damaged. Personally I consider the new fish-plates with 4 bolts only to be none too strong and scarcely up to the standard of joints on other lines, but they are much stronger than the old plates and I believe it will be true economy to the road to fish the new rails at once with the plates and bolts designed for them. It was a mistake not to have got out the proper complement of plates and bolts when the new rails were ordered. The cost of replacements recommended is estimated by the Acting Deputy Chief Engineer to be about as follows:—

	RS.	A.	P.
New type fish-plates with bolts and Grover's washers, cost per mile	863	8	0
Less value of old fish-plates with bolts to be removed from the line	250	4	0
Net cost per mile	613	4	0
Which for 77½ miles on North-West Line amounts to	47,526	14	0
And for 197 miles on South-West Line	1,20,810	4	0
Total	1,68,337	2	0

This is a heavy expenditure to incur, but it is better to meet it at once than to postpone the evil day; 100,000 pairs of new fish-plates with one inch bolts have just been indented for

13. **Ballast.**—It is estimated that covering the double line between Madras and Arkonam with a skin 2 inches thick of stone ballast (and trials on this and other lines have shown that this depth of coating is required to prove effective), may cost Rs. 1,000 a mile, or, say, Rs. 40,000 for the 42 double-miles. Three miles have been done and a trial with laterite which is somewhat cheaper is now being made, but, whatever it costs, this section should be completed as quickly as possible. The remaining 90 miles up to Jalárpét, on which about 2 miles have only been done, are

estimated to cost Rs. 170 to Rs. 200 per mile only. The Chief Engineer is now having experiments made on the several divisions of the South-West Line in order to ascertain the cost, which varies with the locality, and he hopes shortly to be in a position to submit estimates for the whole line. At present the work is being proceeded with on the South-West Line on the portion and in order described in para. 4 of G.O., No. 615 R., dated 8th March 1892. About 15 miles at a cost of Rs. 150 per mile have been lately done between Jalárpét and Salem. Between Salem and Pólanúr, 56 out of 95 miles have been done at a cost of between Rs. 100 to Rs. 130 per mile. On the Nilgiri branch 9 miles at Rs. 110 per mile have been done. On the North-West Line estimates are also under preparation, and, judging by the look of the country for 50 miles north of Kénigunta, this piece could be done quickly and very cheaply. Wherever the cost comes within the sanction conveyed in G.O., No. 615 R. of the 8th March 1892, the work should be pushed on. The difference in comfort in those places where the sand has been covered compared with that on those where it has not been so treated is most marked.

14. **Fencing and level-crossings.**—In fair condition. The aloe fencing is dying out in many places and considerable expenditure on wire-fencing will have to be incurred. The continuous droughty seasons have killed a great many of the aloes and many of them have died from the effects of the hearts of them having been eaten by hungry villagers. I think a foot over-bridge should be given at the Elephant Bridge level-crossing in Madras, where the block to traffic is considerable.

15. **Stations and buildings, South-West Line—Central station.**—A siding for washing carriages has been completed. A tank on the top of the station building has been erected. It holds about 13,500 gallons. It is suggested that a joint dispensary and apothecary's quarters shall be built between the Engineer's store yard and coach-house, as the existing arrangements outside of Company's limits are unhealthy and unsatisfactory. The stationmaster's office is very hot and requires attention. The opening of an ice depôt would be appreciated by the public.

16. **Salt cotours.**—The siding, &c., for loading coal at Salt cotours has been completed. Some sidings and turn-tables in the Government salt yard at Madras are awaiting sanction if the Board of Revenue, for whose convenience the work is undertaken, agrees to bear the cost.

17. **Veyisarpandy junction.**—The lengthening of the through siding has been completed.

18. **Rayapuram.**—The extension of platform and alteration of sidings has been completed. An estimate for a 30-ton weigh-bridge and siding has been sanctioned. The petroleum tanks for the storage in bulk of petroleum have been half built by Messrs. Best and Company.

19. **Perambúr works.**—The bungalow for the Assistant Locomotive Superintendent sanctioned in September 1891 has not yet been started owing to difficulties experienced in obtaining the land. Four sheds at the west end of the carriage shops at Perambúr works are nearly completed. A small additional room for lithographic purposes is to be added to the drawing office. An estimate for paving with Portland cement and fixing sky lights in five bays of carriage shop for use as a paint shop has been sanctioned. A connection between the two stationary boilers at the south end of the lathe shop and the chimney stack at the south end of the tyre shop is required.

20. **Perambúr.**—The alterations to the level-crossing are nearly finished.

21. **Connur.**—A sorting siding on the far side of north platform is wanted and an estimate is under sanction.

22. **Ambalúr.**—A stationmaster's house is being built.

23. **Aradi.**—An extension of platform is in progress; a small piece of waste land lying to the south-west of yard should be acquired for sanitary purposes and to prevent squatting.

24. **Tirnanúr.**—An extension of platform is in hand.

25. **Tiruvallúr.**—The over-bridge made of old rails has been completed. The south boundaries of the station yard might be straightened. The yard is very cramped to the south and should be slightly enlarged.

26. *Kalambatur*.—A road goods room has been sanctioned. The extension of platform has been completed. The feeder road suggested in last and previous inspection reports has been placed on the district programme of famine relief works. A small piece of waste land at south-west end of yard behind the extension of platform should be taken up.

27. *Manur and Mosur*.—Estimates for platforms are under sanction. These trial stations are said to be doing well.

28. *Arkónam Junction*.—An estimate for a guards' bungalow has been sanctioned. The alteration of sidings at the east and west end of the yard, the lengthening of the platform to the east, the removal of goods-shed situated thereon and its rebuilding on the north-west end are completed. A house for the Assistant Traffic Manager is practically finished. In this case, as elsewhere, the number of servants' quarters provided, viz., three, appears insufficient to meet requirements. The old engine turn-table has been renewed. Two rooms are required to be added to one of the three-roomed signallers' blocks where three bachelors are living in one small room and two married men in one room apiece. The joint apothecary's quarters and dispensary are small, and the latter especially requires enlarging and making more convenient for patients. A tank on top of station building is about to be commenced.

29. *Nunnal*.—A small road goods room has been sanctioned.

30. *Arcoi*.—The removal of the catch-siding sanctioned in January 1892 has been completed. The question of pulling down the narrow verandah at the station building, removing the brick pillars which are only 3 feet 10 inches from the edge of the platform and putting up a high cantilever platform cover, as has been done at Ajmere on the Rajputana Railway, is worth considering.

31. *Kátpádi*.—Four scavengers' huts have been completed. The crane-siding is finished and the crane is ready for use. The tank-house has been raised to give a head of 30 feet above rail level. The well has been enlarged and a steam pump is under supply. The conversion of a portion of the old station building into staff quarters has also been done. An estimate for a double bungalow for signallers is under submission. The west ash-pit and crane require shifting eastward to the end of the passenger platform if this can be done.

32. *Virinjipuram*.—Extra waiting accommodation is said to be required.

33. *Ulli*.—An extension of platform is in hand.

34. *Mailpati*.—A temporary latrine for the subordinate staff is required.

35. *Vinnamangalam*.—Land for a fifth-class station should be taken up.

36. *Vániyambádi*.—An extension of the lay-bye has been completed.

37. *Kéándopatti*.—The land applied for for a fifth-class station is about to be made over.

38. *Jalárpét Junction*.—An addition and alteration to an engine driver's bungalow converted from a swimming-bath has been made, and a double bungalow for married guards has been built. The flagging of the covered portion of platform is half done. The alterations to the building which is being converted into a dispensary are completed. An estimate for bringing water from the large well at mile 133 and letting it gravitate to the tank at the east end of the station is under sanction, as also one for a small carriage shed. An estimate for a double bungalow for guards is under submission. A small room for the Prosecuting Inspector requires to be added to one end of the Traffic office.

39. *Patchur*.—An estimate for a small oil and store room has been sanctioned.

40. *Múlánur*.—An estimate for a small oil and store room has been sanctioned, as also one for a latrine. Two additional lay-byes, five houses for pointsmen and a road goods room have been completed. The tank-house has been raised.

41. *Kuppam*.—A goods-shed lay-bye has been completed.

42. *Gudupalli*.—A house for the station master and his assistant and huts for pointsmen are in hand. A lay-bye is required and an estimate for this work is under submission. Land for a fifth-class station is required.

43. *Kamasamudram*.—A house for the station master is in progress.

44. *Kolar Road*.—A rail staging and bucket lift at the 184th mile have been completed, as also an extension of two lay-byes. The Government of India has sanctioned the branch railway from Kolar Road station to the Kolar gold mines. The Joint Secretary to the Government of Mysore, Railway Branch, met the Inspection party here. Both he and the Madras Railway authorities consider that to start with, for purposes of economy, the junction of the Kolar branch may be tried as a single line junction and that the existing passenger platform should be used for both railways. There would be no objection to try this on the understanding that a double line junction may have to be made with the branch line coming in at the back of the platform upon a second line of rails over the Madras Railway girder bridge outside of the points, the latter having been built for a double line, and my own opinion is that the latter arrangement will be found necessary. To meet this Mr. Groves will make up the branch line embankment so as to fit in with this contingency. It was understood that some preliminary works and general working arrangements had been agreed upon by the two Railways, and these, so far as the Madras Railway is concerned, should be submitted to Government for approval.

45. *Mádur*.—An extension of the through siding is in progress.

46. *Devankundi*.—A latrine is required.

47. *Krishnarájpuram*.—The existing temporary rail waiting-shed which is out of repair is to have a Mangalore tiled roof put on. Sanction was given to do this at the cost of Revenue. The estimate comes to about Rs. 250.

48. *Bangalore Cantonment*.—The new well of 20 feet diameter sanctioned in March last has been sunk, but it is doubtful if it will give much water, though it will help by easing the demand on the other wells. The paving of the sides of the engine-shed and filling up the pits to standard depths is about to be commenced. The station building which consists of four lines of way under a corrugated iron double-span roof is dark. It might be improved by glazing the whole of the two skylights, one side of each of which is now louvred, and by extending this skylight. The underside of the iron roof might also be given a coat of white paint, and, if this is not enough, more openings might be inserted in the north boundary wall.

49. *Bangalore City*.—The sinking of a well 15 feet in diameter close by the existing one and the increasing of the capacity of the latter by enlarging the water-chamber have been carried out, but the new well has turned out a failure. The extension of the local goods-shed and loading bank has been completed.

50. The necessary alterations and improvements including certain revisions in the arrangement, platform buildings and sidings of the joint station are now said to be before the Government of Mysore, who suggest, amongst other additions, a second approach road to the west end of the yard, and the addition of a roof over some of the lines of way. It is to be hoped that a final plan may soon be agreed to, and that these additions may not delay the construction of the new yard and stations which in consequence of the approaching opening of the Bangalore-Guntakal section require to be taken in hand as soon as possible.

51. Estimates are under preparation for some subordinates' houses to be built on the plot of the land adjoining the sandalwood koti which has been made over by the Durbar, and alterations to this building itself are to be carried out to accommodate some of the employés. It is understood that the Southern Mahratta Railway authorities will sell the foreman's house adjoining this building, but they still refuse to give up the land and District officer's house and office on the west side of the approach road. The Madras Railway Company, however, still press for the relinquishing of this property so as to have the whole of the land on the south of the yard in their possession and the request seems reasonable as the Southern Mahratta Railway possess a large property on the north side.

52. *Tirupatúr*.—The carrying out of the extension of lay-bye and loading bank is deferred until the land applied for in February last has been made over. The conversion of a portion of the coke-shed into quarters for the assistant stationmaster has been completed.

53. *Kágankarai*.—The construction of the feeder road asked for by the Railway authorities between Kágankarai and Tarampet and the repair of the road between Kágankarai village and station have been refused by the Civil authorities.

54. *Sámalpati*.—The tank-house has been raised 4 feet.
55. *Kallávi*.—A through siding is nearly finished. The construction of a feeder road from Ananthur to the Kallávi station and the repair of the famine road from Ananthur to Kambai Nellore which were asked for by the Company have been refused by the Civil authorities.
56. *Mórappúr*.—The additions to the Assistant Inspector's quarters have been completed.
57. *Baddireddipatti*.—A well designed cantilever verandah has been added.
58. *Kadiampatti*.—Upstairs rooms on top of the station building have been built for the stationmaster.
59. *Thinnapatti*.—An extension of the through siding has been completed, and a small booking office is in hand. The construction of a feeder road has been postponed as relief works are not likely to be opened now.
60. *Salem*.—The steam pump from the station has been moved to the site of the water-supply situated about two miles east of the station, whence pipes are laid to the engine-shed tank. A goods-shed loading bank has been extended. An additional goods shed line has been completed, as also a back wall to the loading bank. Some additions to the stationmaster's house are in hand.
61. *Erode*.—A running guards' bungalow is half built. A 30-ton weigh-bridge is required just east of the disused engine-shed.
62. *Totiyapalaiyam*.—The question of a feeder road to connect the main road and the station is under consideration. The Taluk Board think the Railway Company should make it.
63. *Vijayamangalam*.—An estimate for a small goods godown and loading bank facing the station on the north side is under submission.
64. *Tirupúr*.—An extension of the through siding has been completed.
65. *Mangalam*.—Some more land to the south is required. When this has been acquired, a house for the assistant stationmaster already sanctioned will be built.
66. *Singánallúr*.—Some land is required.
67. *Pódanúr Junction*.—The extension of sidings and platforms sanctioned in October 1891 have been completed. An estimate for further additions and alterations to the main line sidings is under submission. A double bungalow for married guards has been completed. An estimate for a guards' bungalow has been sanctioned. An estimate for an office for the Assistant Traffic Manager is under sanction. A house for the Sergeant-Instructor of Volunteers is required. Some slight rearrangements of the sidings to the west of the goods-shed are necessary; they will cost but little.
68. *Coimbatore*.—A small office for the Postal Department has been built. An extension of the goods-shed has been sanctioned and a small goods office and loading bank has been begun.
69. *Tudiyalúr*.—An extension of the through siding has been completed.
70. *Karaimadai*.—An extension of the through siding is nearly done.
71. *Mettupalaiyam*.—The joint station scheme is said to have been agreed to.
72. *Kanyikod*.—Five houses for the subordinate staff have been completed; one of the two cranes is being removed to Pattambi.
73. *Olavakóde*.—The sidings at west end of yard on the south side of island platform from which the branch train is to start had been completed and I passed them for traffic. The arrangement is exactly such as probably will ultimately be required at Kolar road. An estimate for the alterations and additions to sidings at the east end of yard has been sanctioned as also one for some alterations and additions to the Signallers' bungalow. Six houses for the subordinate staff have been built.
74. *Pálghat*.—The Stationmaster's bungalow is finished. The removal of the permanent goods shed from Olavakód to Pálghat and the extension of a siding at the latter station have been commenced. The temporary station building might have a cheap tiled roof substituted for the thatch now covering it. An estimate for a 30-ton weigh bridge and siding has been sanctioned. An approach road to the goods shed is about to be made.

75. *Mankarai*.—A platform wall and platform have been built. A station building has been started.
76. *Ottapalam*.—An extra water column at west end of platform has been put up.
77. *Shoranur*.—The raising of the tank house has been completed. The alterations in the water column and fuel stage are also done.
78. *Pattambi*.—The provision of a loading bank and crane, the latter of which has been removed from Kanyikod, is in hand.
79. *Edakkolam*.—An estimate for a station building is under submission. The land being valuable, a limited portion has been acquired.
80. *Parpanangádi*.—The transfer and lengthening of the lay-bye to a site opposite the station building and the provision of a goods godown and loading bank are in hand.
81. *Kadalundi*.—The question of making the feeder road to Beypore, using the old Railway bank, is still under consideration by the Taluk Board of Mallapuram.
82. *Firók*.—A goods godown, turn-table, siding and wharf wall have been completed as also the additions to the station-house. An estimate for a third line and two extra godowns for merchants is under submission.
83. *Kallai*.—A siding and turn-table and shed and wharf office for wharf clerk and another shed for a merchant have been completed. It is proposed to put a short siding into Messrs. Brown and Company's timber depót.
84. *Calicut*.—Provision is made in next year's budget for a Driver's bungalow and for a Telegraph Inspector's bungalow and office.
85. *North-West Line—Ponpudi*.—The land applied for in March 1892 for the trial station has not yet been handed over.
86. *Nagari*.—A godown for Messrs. Parry and Company has been completed; a small salt godown is said to be required.
87. *Vepagunta*.—The platform and lay-bye sanctioned in July 1891 is only partly done, as the land notified in February 1892 has not yet been handed over.
88. *Puttúr*.—The station yard boundary wire fence replacing the aloe fence has been extended to the west end of the yard.
89. *Pudi*.—An extension of platform is in hand.
90. *Rénigunta*.—The turn-table, ash-pits and lengthening of engine shed to accommodate eight engines are three-fourths done. Scavengers' huts are finished. The land to the north of the station has not all been made over; that required for the diversion of the main road is required at once. An estimate for a guard's double bungalow as well as one for a block of four rooms for European and Eurasian firemen has been sanctioned.
91. *Mámandúr*.—An extension of through siding has been completed.
92. *Kódúr, Reddipalle, Rájampet, Nandalúr and Vontimitta*.—The extensions of platform sanctioned at these stations are either in progress or completed. At Vontimitta a house for the Assistant Stationmaster is commenced.
93. *Siddhavattam*.—An extension of platform and through siding and a lay-bye and approach road have been completed. The construction of the proposed feeder road to this station is considered unnecessary by the Collector and the Local Fund Board.
94. *Cuddapah*.—The moving of the steam-pump to the south well and its connection with the engine shed tank has been completed. The scavengers' huts are in progress. An addition to the Stationmaster's office has been completed. A portion of the land applied for lying to the south-east or Madras end of yard has not yet been made over.
95. *Kristnapuram*.—A through siding is in progress. An Assistant Stationmaster's house has been completed.
96. *Vallur*.—An estimate for a station-house is under submission. A feeder road has been asked for, but has been refused by the Civil authorities.

97. *Kamalapuram*.—Some re-arrangements of the rooms in the station-house seems necessary.

98. *Terragudipadu*.—Land should be taken up for the permanent station or if not, the village is likely to extend up to the Railway fence close to the Booking office.

The Railway authorities suggested that a feeder road to Kokatam, a village in close proximity, might be undertaken as a famine-relief work, but the Civil authorities say it is unnecessary.

99. *Terraguntla*.—A small extension of the through siding has been completed. An extension of the third-class waiting room is in progress.

100. *Vanganur*.—The Railway authorities asked for a feeder road connecting this station with Kondapalli, Langula, Gúdur and Puttur, but the Civil authorities say it is unnecessary.

101. *Tadpatri*.—A cross over road has been put in.

102. *Pennér and Ráyalcheru*.—Stationmasters' houses have been completed.

103. *Gooty*.—The wash-out pit in carriage shed is practically completed; a block of four rooms for native drivers has been sanctioned. The Military rest-house land to be transferred to the Railway has not yet been handed over. The same remark was made six months ago.

104. *Guntakal Junction*.—A goods godown and loading bank have just been completed. It was empty. A road from this goods godown to the main Bellary road, a few hundred yards west of the limits of the station yard is required, and the Civil authorities might be addressed on the subject. Two more rooms for Signallers for the Madras Railway are required.

105. *Nancherla*.—The extension of the through siding is finished.

106. *Molagaralli*.—A platform is asked for and an estimate is under submission. A feeder road is being constructed to Alúr.

107. *Kóogi*.—An extension of through siding has been completed.

108. *Raichúr Junction*.—The tranship goods-shed, platform and necessary lines and sidings sanctioned as a joint work are in progress. An open shed over part of the loading bank is in hand. The through siding on the west of the island platform, which will not hold a full train, should be lengthened. The matter should be taken up by the Company with the Great Indian Peninsula Railway authorities.

109. *Watering arrangements other than those at or close by stations*.—A house for the pumping engine driver is required at mile 204½, South-West Line. The temporary watering arrangement at mile 204-Bangalore branch is to be converted into a permanent one. An iron cylinder has been sunk in the bed of the Cudgoodi river and this promises to give a permanent supply. The well at 230½ miles near Sankaridrug sanctioned in March 1892 has turned out well and it will now be connected by piping with the tank house at the station. Water is plentiful now all over the Line.

110. *Station Machinery*.—The programme for providing distant signals has been nearly worked up to.

111. Mr. Stoney has fitted up an hydraulic arrangement for working an inter-locked point and signals in the Ráyapuram yard, and it may be worth while making a trial of this mechanism for working all the points and signals in this yard.

112. *Land*.—Since the adoption of the ruling that all land must be acquired under the Land Act, the Railway authorities complain of the increased delay that occurs in the acquisition of even the smallest plot of waste land.

113. *Schools*.—They are well looked after. There are at present eight Railway schools maintained, the number of children on the rolls being 353 and the average daily attendance 290.99.

114. *Rolling stock*.—The locomotive and rolling stock is in good order and maintains its high standard. The Company is still waiting to see the results of the experiments made with Pintch's gas for carriages before deciding to adopt this system of lighting. One carriage so fitted up is running on the North-West Line mail train and the results are considered satisfactory. There is but little doubt that success

will attend the experiments and no time should be lost in applying the system to the mail service. Eight additional locomotives chargeable to Capital have been sanctioned, thus increasing the authorised number of engines from 158 to 166. An estimate for six wooden covered goods wagons brake vans is also under disposal. An estimate for six wagons of the old fashioned type proposed to be constructed in replacement of six wagons has been sanctioned. An estimate for the construction of four tank wagons for the inland conveyance of kerosine oil has been sanctioned.

115. The substitution of revolving chairs for couches in two of the day coaches is an improvement.

116. *General Remarks*.—The traffic is still very slack and most of the goods sheds and godowns are empty. The impression conveyed to me on last inspection, viz., that goods shed and goods siding accommodation provided, the former especially, is ahead of the actual traffic to be dealt with is confirmed. The Railway Company should be able to deal with two or three times the present volume of traffic with very little extra expenditure on Capital works.

117. The Railway property is as carefully looked after as ever and it seems superfluous to comment again on the standard maintained. The state of cleanliness of every yard and building is remarkable and this is the result of strict discipline and much supervision.

(Signed) W. V. CONSTABLE, Major, R.F.,
Deputy Consulting Engineer for Railways.

MADRAS,
18th August 1892.

APPENDIX.

MADRAS RAILWAY.

STATEMENT showing rails in line and renewals for the half-year ended 30th June 1892.

Length of divisions.				Length laid with steel rails.				Balance length of iron rails in main line including sidings of each sort by weight in rails.				RENEWALS INCLUDING RAILS FROM SIDINGS FOR FOUR HALF-YEARS.			
Divisions.				Main line.	Sidings.	Total.	Steel rails, 75 lb.	Flat bottom rails.	65 lb.	75 lb.	64 lb.	Dec. 1890.	June 1891.	Dec. 1891.	June 1892.
				MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	MILES.	Nos.	Nos.	Nos.	Nos.
First division, South-West Line	..	..	..	176-0177	35 3668	211-3845	107-4817	4600	39-1377	14 7526	49-4525	1,434	1,468	1,574	1,523
Second do.	..	..	..	136-3763	21 2490	157-6253	48-9341	..	36-2101	72-4811	..	1,080	808	977	1,034
Third do.	..	..	..	121-3700	11-5871	132-9571	41-4071	..	60-8000	39-8400	..	1,167	625	1,237	1,036
Fourth do.	..	..	..	139-5850	20-6264	160-2114	39-0544	..	90-3020	30-2570	..	1,096	972	430	1,212
First do. North-West Line	..	..	..	168-0110	19-1436	187-1546	64-8573	..	2 9450	117-0638	1-1609	1,973	1,467	1,995	2,222
Second do.	..	..	..	140-3442	19-1334	159-4776	23-1760	2 3727	7898	131 1235	..	261	272	698	832
Total	..	..	..	881 7042	127 0081	1,008 7103	326 7714	6 0700	210 1846	405 3169	51 1674	7,011	6,608	6,808	7,499

(Signed) H. R. P. CARTER,
Chief Engineer.MADRAS,
18th August 1892.

8TH SEPTEMBER 1892, No. 2178 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Railway.

Read the following paper:—

From the Consulting Engineer for Railways, dated Madras, 22nd August 1892,
No. 645.

Report on the inspection of the Madras Railway for the half-year ended 30th June 1892.

Submitted for the information of Government.

2. It is requested that 35 copies of the report, together with a similar number of copies of the orders of Government passed thereon, may be forwarded to the Government of India.

ORDER—dated 8th September 1892, No. 2178 R., Public Works.

The report of inspection of the Madras Railway will be communicated to the Agent and Manager with the following observations.

2. Para. 12.—The Government approves of the proposal herein made of fishing all the new 75 lb. rails in the road with their heavy fishplates and bolts. A programme and estimate for the work should be submitted.

3. Para. 13.—The Government wishes that every endeavour should be made to complete as soon as possible the skin of stone over the South-West line, and, where the cost is not more than Rs. 100 to Rs. 200 a mile, work should be pushed on on the North-West line and Bangalore branch. The submission of estimates for the whole line should be expedited.

4. Para. 14.—An estimate for a foot-overbridge over the Elephant bridge level-crossing in Madras should be submitted.

5. Para. 44—Kolar road.—A plan and estimate for the joint works agreed upon by the two railways concerned should be submitted and the difference in cost between a single and double line junction should be stated. The terms on which it is proposed to work the junction and the branch should come forward for approval.

6. Paras. 50 and 51—Bangalore city.—A copy of these remarks will be forwarded to the Governments of Bombay and Mysore for information.

7. Para. 71—Mettupalaiyam.—The plan and estimates and a copy of the conditions and terms on which the works will be constructed as well as the working agreement approved of by both railways should be submitted.

8. Paras. 26, 55, 59, 93 and 112.—The attention of the Revenue Department will be drawn to the alleged delay in acquiring land brought to notice.

9. Paras. 53, 55, 59, 62, 81, 93, 96, 98, 100 and 104.—The attention of the Local and Municipal Department will be invited to the subject of providing feeder roads.

10. *Paras. 3, 30, 43, 108 and 111.*—The Agent's attention will be called to these.

11. A copy of these Proceedings will be forwarded for the information of the Government of India.

(Here enter No. 2179 R., Public Works, dated 8th September 1892.)

(True Extract.)

(Signed) F. B. WALKER,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.

- " Examiner, Guaranteed Railway Accounts.
- " Political Department, for communication to the Government of Mysore.
- " Revenue Department.
- " Local and Municipal Department.
- " Secretary to the Government of Bombay, Public Works Department, Railway.
- " Military Department.

RAILWAY.

Govt. of {1892} Madras.
PUBLIC WORKS.

Dated September, 8th.

Read.

Encl.

G.O., 8th Sept. 1892, No. 2178 R.

SEPTEMBER.

Madras Railway

Passing orders on the report on the inspection of the — for the half-year ended 30th June 1892.

20TH DECEMBER 1892, No. 3052 R., PUBLIC WORKS.

GOVERNMENT OF MADRAS.
PUBLIC WORKS DEPARTMENT.

Railway.

Read again the following paper:—
G.O., dated 19th October 1892, No. 2490 R., Public Works.

Read also the following paper:—
Memorandum from the Revenue Department, dated 16th December 1892, No. 381 R.

ORDER—dated 20th December 1892, No. 3052 R., Public Works.

Erratum.—In para. 8 of the order on the Report on the Inspection of the Madras Railway for the half-year ended 30th June 1892, embodied in Proceedings of Government No. 2178 R., dated 8th September 1892, for "paras. 26, 55, 59, 98 and 112" read "para. 112."

2. A copy of these Proceedings will be forwarded for the information of the Government of India.

[Here enter No. 3053 R., Public Works, dated 20th December 1892.]

(True Extract.)

(Signed) F. B. WALKER,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

To the Consulting Engineer for Railways.
" Examiner, Guaranteed Railway Accounts.
" Political Department.
" Revenue Department.
" Local and Municipal Department.
" Secretary to the Government of Bombay,
Public Works Department (Railways).
" Military Department.

ENDORSEMENT—dated 20th December 1892, No. 3053 R., Public Works.

Forwarded.

(By Order.)

(Signed) F. B. WALKER,
Offg. Joint Secy. to Govt., P.W.D.,
Railway Branch.

Exd. A. D. Xavier.
Spare Copies

RAILWAY.

Govt. of {1892} Madras.
PUBLIC WORKS.

Dated December, 20th.

Recd.

Encl.

G.O., 20th Dec. 1892, Nos. 3052,
3053 R.

223 N

DECEMBER.

Inspection of the Madras
Railway

Forwarding copy of Proceedings issuing
an erratum in para. 8 of the order on the
Report on the — for the half-year ended
30th June 1892.

REVENUE DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read Proceedings of the Public

works Department, dated 8th September and 20th December
1892 Nos. 2178 R and 3052 R respectively.

Order thereon, 26th January 1893, No. 322 Misc.

Referring to Para 112 of the
Deputy Consulting Engineer's report the Govern-
ment observes that in cases of urgency any
waste or arable land which is private
property can with the necessary sanction of
Government be taken possession of under
Section 17 of Act X of 1870. before a reference
or an award is made.

2. On the East Coast of the Madras Presidency
all unoccupied waste ^{land} vests in Government
and in respect of such waste no action
beyond the Collector's transfer of
possession is necessary. All waste
land in proprietary estates is
occupied

(True Extract.)

Libra

ap. Secretary to Govt.

To the P.W.D. ✓
the Commr. of L.R.

P. W. CURRENT No. 796

Govt. of 1893 Madras.

REVENUE.

To

The P. & D.

A No. 223 R of 2^d Feb 73.

Dated

Recd. 27.1.93

Encl.

Mis. G.O., 26.1.1893 No. 322

SUBJECT.

Passing orders on the Pass
of the Consulting Engineer's
report on the inspection
of the Madras Railway

No. 223 R of 2^d Feb 73.

Communicated
to the Consulting Engineer
for Railways for information
with reference to Props.

No. 2178 R of 8 Sept 1892

No. 3052 R of 20 Dec. 1892

R

No. 2175 R of 8.9.92
No. 3052-3 R of 20.12.92

To The Consulting Engineer
- Engr. in Ch. & C. Ry.
- Engr. in Charge
- Engr. B. C. Ry. & C. Ry.

2/16/2