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MADRAS RECORD OFFICE.**Government of Madras.***Public works* **DEPARTMENT.**

G.O. No. 591	Press ~~Mis.~~
66-67	
Dated 4 3	1872.

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
4th March 1872.*

No. 66. Read the following Circular from the Government of India, Public Works Department, (Railway,) to the Governments of Madras and Bombay in the Public Works Department, (Railway); the Chief Commissioners of the Central Provinces, Mysore, and British Burmah; the Resident at Hyderabad; the Consulting Engineers to the Government of India for Guaranteed Railways, Calcutta, Lahore, and Lucknow; the Engineer-in-Chief, Indus Valley (State) Railway; and the Superintending Engineers, Agra and Delhi Districts, Rajpootana (State) Railway, Indore (State) Railway, and Neemuch (State) Railway Survey, dated Fort William, 29th January 1872, No. 5:—

In continuation of Circular No. 7 R. of 13th June 1870, Engineers in charge of State Railways are now informed that they are required, in addition to the ordinary progress returns, to furnish monthly to the Consulting Engineer to the Government of India for State Railways, progress sections, as well as detailed progress diagrams, of all large works, such as tunnels or large bridges. The prescribed forms are now circulated, and a reference to these diagrams of supposititious cases will explain their object.

2. In the instance of the tunnel, the diagram shows that the south approach cutting is finished for a length of about 20 metres, and that it is gullested out to the mouth of the tunnel. The south heading has been driven a distance of 72 metres, and the tunnel is partially bottomed out to a length of 30 metres from the south end, totally bottomed out for about 23 metres, and lined for a distance of about 13 metres. At the north end the cutting is gullested out to the mouth of the tunnel, the heading has been driven a distance of 30 metres, and the bottoming partially carried out to a distance of about an average of 7 metres.

3. The bridge diagram shows that the average depth to which the foundations of the right abutment have been carried below the bed of the river is about 14 metres—

Pier No. 1 is carried down 13 metres.				
"	"	2	"	" 10 "
"	"	3	"	" 6 "
"	"	4	"	" 5 "
"	"	8	"	" 3 "
"	"	9	"	" 10 "
"	"	10	"	" 17 "

and partly hearted. No. 11 to 18 metres completely hearted, and the pier nearly built. No. 12 to 19 metres, and pier completed; No. 13 to 18 metres, and pier completed. The left abutment to an average of 17½ metres, and the abutment partially completed. No. 12, girders are erected; No. 13, girders are raised and in place; No. 14, girders are completed. The permanent way is laid up to the bridge, and the rails partially laid over span No. 14.

4. A from of daily register of foundations, which should be kept by the Executive Engineers in charge of all large bridges, is also forwarded. This case is also supposititious and merely suggestive, as it may be necessary to give greater details when there are two or more wells, and also to give more details with regard to the abutments. The daily registers need not necessarily be sent on to the

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Consulting Engineer, but they should be sent regularly every month to the Engineer in charge of each line, who will be liable to be called upon to forward them to Government at any time if required.

5. The type form of longitudinal section to show progress is drawn to a metrical scale of 10,000 horizontal and 1,000 vertical, but where the working sections have been already prepared in feet, the progress section may be also in feet, keeping, however, the same proportions, namely, 10,000 horizontal and 1,000 vertical. In very flat districts with light earth-work, the vertical scale may be doubled, keeping, however, the same horizontal scale. Progress sections should be submitted by the Engineers in charge of State Railways for approval so soon as the working section has been sanctioned, and as uniformity in such returns is desirable, they should confine their sections to sheets of the foolscap size, giving 12 kilometres, or about $7\frac{1}{2}$ miles per sheet. The arbitrary signs given in the type should also be adopted, as well as the mode of dividing the sheet in three sections, for the purpose of mounting them continuously, if required.

6. The Engineers in charge of the State Railways should now prepare for approval, diagrams of all large works similar to those now circulated, as soon as the designs have been sanctioned. Executive Engineers will merely have to colour in the progress every month, and send it through the Chief Engineer to the Consulting Engineer for State Railways. All such diagrams are to be drawn of such a size that they can be contained in a sheet of paper of foolscap size, or $16\frac{1}{2} \times 13\frac{1}{2}$. When the bridges or tunnels are not of great length, several of them may be drawn on one sheet.

The diagrams may be drawn with an exaggerated vertical scale, when the total length is so great that the depths cannot otherwise be shown with tolerable exactitude. The vertical scale should be such that each metre of depth may easily be read of.

(By Order,)

(Signed)

ALFRED H. VAUX,

Under Secretary.

No. 67.

ORDER THEREON, 4th March 1872, No. 591.

RAILWAY, No. 10.

COMMUNICATED to the Consulting Engineer for Railways, in continuation of G. O., No. 1,558, dated 29th June 1870.

(True Extract.)

Colonel, R.E.,

Secretary to Government.

To the Acting Consulting Engineer for Railways.

Jrd. F. C. Shunker.

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Govt. of 1872 Madras.

PUBLIC WORKS.

To the Consulting Eng^r
for Railways

Date:

Recd.

Encl.

G. O. 4th March 72, No. 591.

Nos. 66467

Progr. Reports. Circulars for
the Govt. of India regarding
that certain ~~additional~~
information may be
furnished ~~in addition~~
to ordinary progress
reports, and to the
Commissioner for Ry.