

R337
64-2-10

EASTERN RAILWAY
(CONSTRUCTION DEPARTMENT)

No.CAO/Con/W/156 Pt.XVI (21)

Dated:02.02.2010.

Dy.CE/Con – SDAH-I/II, HWH-I/II/III, ASN-I/II/III
JMP, BGP, Malda, JB/SDAH
Eastern Railway.

Sub: Development of freight terminals.

Ref: Railway Board's letter No.2007/PL/25/1 dated
5.6.07.

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Vide above mentioned letter of ED/Planning, Railway Board, the standard of construction for flooring of goods platform and approach road of goods shed as prescribed by L&A Directorate of Railway Board, had been intimated to all the Zonal Railways for adoption.

2. These standards of construction have been laid down depending upon the commodity being handled, as detailed below: -

- i) Bulk consignments i.e. cement, food grain, salt, fertilizer etc.
- ii) Coal and iron ore and other loose consignments in bulk.
- iii) Iron and steel consignments, also called crane consignments as the consignments are normally to be handled by cranes.
- iv) Approach road to goods handling areas.

3. The copy of the annexure (4 pages) in regard to above as enclosed with above mentioned letter of ED/Planning, Railway Board is enclosed herewith for information and compliance. This will apply to all future works where tenders has not yet been invited. Any deviation will need specific approval of concerned CE/Con under intimation to CAO/C.

Encl: As stated


(A.K.Harit)
Chief Administrative Officer/Con

Copy to: -
CE/C-I, CE/C-II, CE/C-III, CE/C-IV, CE/C-V
Dy.CE/C/PRD, Dy.CE/C/W-I, Dy.CE/C/W-II, Dy.CE/C/Plg,

Annexure from Board's Letter No. 2007/PL/25/1 dt 5.8.07

Annexure II

STANDARDS OF CONSTRUCTION FOR FLOORING & APPROACH ROADS.

S. No	Type of consignment	Handling area	Requirements of handling area	Standards for flooring	Expected Life (Years)
1.	Bagged consignments: e.g. cement, food grains, salt, fertilizer, etc.	(a) High level platform with covered shed Or (b) In open on RL platform along the goods siding	1. Handling normally manual. 2. No water stagnation in the area and easy drain off of water 3. Amenable to easy cleaning by sweeping or vacuum cleaning. 4. Non eroding firm surface. 5. Prone to misuse by labour for cooking, etc. causing frequent damage to black top bituminous surface. 6. The consignments are likely to be damaged when exposed to water. Some covering is therefore required.	1. Well consolidated sub grade with a cross slope of 1 in 60. 2. In case of poor formation soils a layer of blanketing material/ moorum to be provided for 150 mm. thickness. 3. Overlay of 150 mm thick well consolidated stone soling using 75 mm nominal graded stone aggregate. 4. Overlay of 75 mm. thick PCC 1:3:6 layer, well compacted, with 40 mm. nominal stone aggregate.. 5. 75 mm. thick plain concrete flooring with M-25 concrete/20 mm nominal size stone aggregate, using vibrator and finished smooth and cured well. 5(a) In case of mechanical handling involving movement of forklift etc, and in case of open RL unloading platforms, the top layer will consist of 100 mm thick M- 30 concrete with 20 mm nominal size stone aggregate, vacuum de-watered and smooth finished and nominal reinforcement of 6 mm at top and use of hardonite material in the top 35 mm with 10 mm nominal stone aggregate. Proper cross slope should be provided to ensure around that there is no stagnation of water on the platform. 6. The length of the platform should be full length for stacking area and width of the Platform normally not less than 14 mtr.	Not less than 10 years with minimal maintenance requirement

BSB	MAA	1			1			1	3		1				1	1	
	KFK								0			1	2	2		5	
	KMDR								0					1		1	
	KER							1	1						0	0	
	MAU	9			1	2			12		1						

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162

S. No	Type of consignment	Handling area	Requirements of handling area	Standards for flooring	Expected Life (Years)
2	Coal and iron ore and other loose consignments in bulk	Normally in the open on RL platform along siding	<ol style="list-style-type: none"> 1. Normally unloading manual, & loading into road trucks through loaders with grabs from unloading area. 2. Partly manually involving use of hand shovels, rakers, phowrah, etc. 3. Surface should be able to withstand attrition due to grab tooth rubbing/shovels Rubbing 4. should be strong enough to withstand tyred crane working 5. Should require less frequent maintenance. 6. Surface finish should be smooth with minimal number of joints and the joints should not have projections so as to get with the grab 	<ol style="list-style-type: none"> 1. Well consolidated sub grade with a cross slope of 1 in 60. 2. In case of poor formation soils a layer of blanketing material/ moorum to be provided for 150 mm. thickness. 3. Overlay of 150 mm thick well consolidated stone soling using 75 mm nominal graded stone aggregate. 4. Overlay of 75 mm. thick PCC 1:3:6 layer, well compacted, with 40 mm. nominal stone aggregate. 5. The top layer will consist of 100 mm thick flooring, M-30 concrete with 20 mm nominal size stone aggregate vacuum de-watered and smooth finished and nominal reinforcement of 6 mm at top and use of hardonite material in the top 35 mm with 10 mm nominal stone aggregate. <p>All joints shall be filled with sand and sealed with bitumen in top 15 mm.</p> <p>Proper cross slope should be provided to ensure that there is no stagnation of water on & around the platform.</p> <ol style="list-style-type: none"> 6. The length of the platform should be normally full rake length as far as possible for stacking area and width of the Platform normally not less than 14 mtr. 	Not less than 10 years with minimal maintenance requirement

S. No	Type of consignment	Handling area	Requirements of handling area	Standards for flooring	Expected Life (Years)
3.	Iron & Steel consignments which include structural invert, also called 'Crane Consignments' as these consignments are normally to be handled by cranes	Normally in the open on RL platform along siding.	<ol style="list-style-type: none"> 1. Normally handled with cranes. 2. The surface would be impact resistant. 3. Facility for movement of crane for on loading of consignments for the rolling stock. 	<ol style="list-style-type: none"> 1. Well consolidated subgrade with a cross slope of 1 in 60. 2. In case of poor formation soils a layer of blanketing material/ moorum to be provided for 150 mm thickness. 3. Overlay of 150 mm thick well consolidated stone soling using 75 mm nominal graded stone aggregate. 4. Overlay of 75 mm thick PCC 1:3:6 layer, well compacted, with 40 mm nominal stone aggregate. 5. The top layer will consist of 100 mm thick flooring, M-30 concrete with 20 mm nominal size stone aggregate vacuum de-watered and smooth finished and nominal reinforcement of 6 mm at top and use of hardonite material in the top 35 mm with 10 mm nominal stone aggregate. All joints shall be filled with sand and sealed with bitumen in top 15 mm. Proper cross slope should be provided to ensure that there is no stagnation of water on & around the platform. 6. The length of the platform should be normally full rake length as far as possible for stacking area and width of the Platform normally not less than 20 mtr. 	Not less than 10 years with minimal maintenance requirement

4.	Approach Road	<u>Requirements of Handling area</u>	<u>Standards for Approach Road</u>	<u>Expected Life (Years)</u>
		<ol style="list-style-type: none"> 1 Heavy duty road for movement of loaded trucks, 2 Proper drainage ensuring no stagnation of water over the road 3 Edge protection by providing curb stones 	<p>a) Well consolidated subgrade with a cross slope of 1 in 40. In case of poor formation soils a layer of blanketing material/ moorum to be provided for 150 mm thickness.</p> <p>b) Overlayed by three layers of stone aggregate of various gradings which are as under:</p> <ol style="list-style-type: none"> i) Bottom layer- stone aggregate of size 106 mm to 75 mm - 230 mm thick ii) Middle layer - stone aggregate of size 63 mm to 45 mm - 100 mm thick iii) Upper layer - stone aggregate of size 53 mm to 22.4 mm - 75 mm thick <p>c) Top layer to be laid with 40 mm thick premix carpet surface and seal coat.</p> <ol style="list-style-type: none"> i) Proper drainage to be provided ensuring no stagnation of water over the road ii) Edge protection by providing curb stones iii) Rolling with 8-10 T road roller is must and no hand rolling will be acceptable. 	<p>The frequency of maintenance for re-topping of bituminous 40mm thick carpet being once in 2-3 years. If good drainage conditions are maintained life could be more than 3 years</p>

GOVERNMENT OF INDIA (भारत सरकार)
MINISTRY OF RAILWAYS (रेल मंत्रालय)
Railway Board (रेलवे बोर्ड)

No. 2007/PL/25/1

New Delhi, dated 05.06.2007

The General Manager,

- | | |
|---|---|
| 1. Central Railway, Mumbai. | 9. North Western Railway, Jaipur. |
| 2. Eastern Railway, Kolkata. | 10. Southern Railway, Chennai. |
| 3. East Central Railway, Hazipur. | 11. South Central Railway, Secunderabad. |
| 4. East Coast Railway, Bhubaneswar. | 12. South Eastern Railway, Kolkata. |
| 5. Northern Railway, New Delhi. | 13. South East Central Railway, Bilaspur. |
| 6. North Central Railway, Allahabad. | 14. South Western Railway, Hubli. |
| 7. North Eastern Railway, Gorakhpur. | 15. Western Railway, Mumbai. |
| 8. Northeast Frontier Railway, Guwahati | 16. West Central Railway, Jabalpur. |

Sub: Development of Freight Terminals

In pursuance of Hon'ble MR's announcements during budget 2007-08 regarding development of freight terminals, a meeting was held on 16.04.2007 with CTPMs of Zonal Railways in which 50 goods sheds were identified for upgradation (List enclosed as Annexure I).

2. The norms for the number of goods shed lines required for handling the traffic in the identified goods shed is as under:
- | | |
|-------------------------------|--|
| a. Less than 15 rakes/month : | 1 full length line |
| b. 15-29 rakes/month : | 2 full length lines |
| c. > 30 rakes/month : | 3 full length lines with atleast 1 High level PF with covered shed |

3. The desirable facilities in each of these goods sheds are listed below :
- Rail level /High level platform with/without covered shed depending upon the commodity handled. In case there is only one line, it shall have only open RL platform unless it is such that on one side direct delivery and on the other side a HL PF is possible with sufficient circulating area.
 - A pucca circulating/handling area.
 - All weather approach road.
 - Lighting including lighting for facilitating night unloading/loading.
 - Merchant room with vitrified tiling, air-conditioning, drinking water and modern toilets, etc.
 - TMS/FOIS connection.
 - DOT Phone with STD facilities.
 - Coffee/tea vending machines.
 - Corporate style durable furniture.
 - Cool drinking water, wash room & toilets for the labour.

4. The standards of construction for the circulating area which are commodity specific have been prescribed by L & A Dte. of Railway Board. These are enclosed

as Annexure-II. The adoption of these standards on all over Indian Railways would become possible provided the cost works out to be reasonable and worthwhile.

5. At some of the locations works have been sanctioned for improvement to goods shed either in Pink Book or under GM/DRM's powers. Zonal Railways should take care to ensure that there is no duplication of works. The old sanctioned works should be dropped in case a new work is required to be sanctioned as per the specifications prescribed.

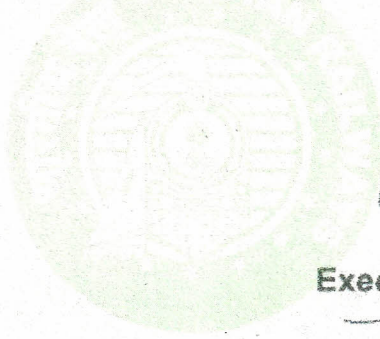
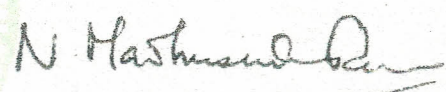
6. A committee of Sr. DCM, Sr. DEN (Coord.), Sr. DFM and Sr. DEE of the concerned Division should inspect the infrastructure existing in the goods sheds and quantify the requirements to prevent over or under provisioning of works.

7. Zonal Railways must exercise utmost care while preparing the estimates so that cost of the work is kept to an absolute minimum. If this is done, it shall go a long way in taking up more such works in future.

8. Zonal Railway should move proposals for development of goods shed and submit them to Board for inclusion in the Supplementary Works Programme by 30th of June, 2007. Zonal Railways should ensure compliance of the time limit.

This issues with the concurrence of the Finance and L & A Directorates of the Ministry of Railways.


DA: As above



(N. Madhusudan Rao)
Executive Director (Planning)
Railway Board
5/6/07

No. 2007/PL/25/1

New Delhi, dated 05.06.2007

1. FA&CAOs All Indian Railways
2. Deputy Comptroller and Auditor General of India (Railways), New Delhi


For Financial Commissioner (Railways)

No. 2007/PL/25/1

New Delhi, dated 05.06.2007

Chief Commercial Managers, All Indian Railways
Chief Operations Managers, All Indian Railways