

**File No. RDSO-CARR0CD(SCO)/1/2020-O/o ED/CARRIAGE/RDSO**

भारत सरकार &amp; रेल मंत्रालय

Government of India - Ministry of Railways

अनुसंधान अभिकल्प और मानक संगठन

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**Amendment to Speed Certificate for Operation of Train**

No. MC/LHB/COACH

Date: 16.09.2020

**महाप्रबन्धक (इंजीनियरिंग)**

पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700 001.

**Sub: Amendment no. 01 to Speed Certificate for operation of train consisting of maximum 24 LHB (EOG) coaches comprising of LHB AC Generator Van (LWLRRM), LHB (EOG) AC First class (LWFAC), LHB (EOG) AC First cum AC-2 Tier (LWFCWAC), LHB (EOG) AC 2-Tier Sleeper coach (LWACCW), LHB (EOG) AC 3-Tier coach (LWACCN), LHB (EOG) AC Hot Buffet Car (LWCBAC), LHB (EOG) Executive AC Chair Car (LWFCZAC), LHB (EOG) Second Class AC Chair AC Chair Car (LWSCZAC), LHB (EOG) Non AC Chair Car (LWSCZ), LHB (EOG) 3-Tier Sleeper (LWSCN), LHB (EOG) Second Class Non AC Unreserved coach with Vestibules (LWS), LHB (EOG) High Capacity Parcel Van (LVPH), LHB (EOG) Second Class Non AC Chair Car (LS3), LHB (EOG) Second Class Non AC Chair Car (LS5), LHB (EOG) Second Class Cum Luggage & Brake Van (LSLRD) with single WAP7 locomotive over Pradhankunta (PKA) – Sealdah (SDAH) & back, with maximum speed up to 130kmph between Pradhankunta (PKA) to Dankuni (DKAE) & back sections of Eastern Railway on track maintained to as per provisions of Indian Railways Permanent Way Manual, June – 2020, containing track geometry standards under Para – 522.**

Ref: (i) RDSO Speed Certificate no. MC/LHB/COACH dated 24.08.2020

(ii) Discussion with Eastern Railway

(iii) PS &amp; EMU directorate note no. EL/06.2/SCC, dated 08/09/2020

(iv) Track Design Directorate note no. CT/DHS/3/COACHES dt 9/9/2020 and 15/09/2020

Vide reference at (i) above, RDSO has issued "Speed Certificate for operation of train consisting of maximum 24 LHB (EOG) coaches comprising of LHB AC Generator Van (LWLRRM), LHB (EOG) AC First class (LWFAC), LHB (EOG) AC First cum AC-2 Tier (LWFCWAC), LHB (EOG) AC 2-Tier Sleeper coach (LWACCW), LHB (EOG) AC 3-Tier coach (LWACCN), LHB (EOG) AC Hot Buffet Car (LWCBAC), LHB (EOG) Executive AC Chair Car (LWFCZAC), LHB (EOG) Second Class AC Chair AC Chair Car (LWSCZAC), LHB (EOG) Non AC Chair Car (LWSCZ), LHB (EOG) 3-Tier Sleeper (LWSCN), LHB (EOG) Second Class Non AC Unreserved coach with Vestibules (LWS), LHB (EOG) High Capacity Parcel Van (LVPH), LHB (EOG) Second Class Non AC Chair Car (LS3), LHB (EOG) Second Class Non AC Chair Car (LS5), LHB (EOG) Second Class Cum Luggage & Brake Van (LSLRD) with single WAP7 locomotive, between Pradhankunta (PKA)- Sealdah (SDAH) & back with maximum speed up to 130 kmph between Dhaniyakhali Halt (DNHL) to Jhapandanga (JPQ), Khana (KAN) to Durgapur (DGR), Kalipahari (KPK) to Asansol (ASN), Kalubathan (KAO) to Pradhankunta (PKA) & back on sections of Eastern Railway on track maintained as per provisions of Indian Railway Permanent Way Manual, June-2020, containing geometry standards under Para 522".

Vide reference at (ii) above, Eastern Railway requested to amend the speed certificate for indicating the traffic section & vide reference (iii) above, PS & EMU directorate, RDSO, has communicated that "LDLRA" should not be used for regular services till the field service trials of

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this coach is cleared by RDSO. Accordingly Subject, Para no. 2, Para 2.7.6 of speed certificate, have been amended & "LHB Power Car with underslung DG set having compartment for passengers & Disabled passenger (LDLRA)" has been deleted from Para no. 2.3.5 (C), Para 2.7.10 & drawing no. CSC-1836 of LDLRA coach from Enclosures of speed certificate no. MC/LHB/COACH, dated 24.08.2020, which shall be read as under:

**Sub:**Speed Certificate for operation of train consisting of maximum 24 LHB (EOG) coaches comprising of LHB AC Generator Van (LWLRRM), LHB (EOG) AC First class (LWFAC), LHB (EOG) AC First cum AC-2 Tier (LWFCWAC), LHB (EOG) AC 2-Tier Sleeper coach (LWACCW), LHB (EOG) AC 3-Tier coach (LWACCN), LHB (EOG) AC Hot Buffet Car (LWCBAC), LHB (EOG) Executive AC Chair Car (LWFCZAC), LHB (EOG) Second Class AC Chair AC Chair Car (LWSCZAC), LHB (EOG) Non AC Chair Car (LWSCZ), LHB (EOG) 3-Tier Sleeper (LWSCN), LHB (EOG) Second Class Non AC Unreserved coach with Vestibules (LWS), LHB (EOG) High Capacity Parcel Van (LVPH), LHB (EOG) Second Class Non AC Chair Car (LS3), LHB (EOG) Second Class Non AC Chair Car (LS5), LHB (EOG) Second Class Cum Luggage & Brake Van (LSLRD) with single WAP7 locomotive over Pradhankunta (PKA) – Sealdah (SDAH) & back, with maximum speed up to 130kmph between Pradhankunta (PKA) to Dankuni (DKAE) & back sections of Eastern Railway on track maintained to as per provisions of Indian Railways Permanent Way Manual, June – 2020, containing track geometry standards under Para – 522.

**Para no. 2** Based on the above, it is certified that train consisting of maximum 24 LHB (EOG) coaches comprising of LHB AC Generator Van (LWLRRM), LHB (EOG) AC First class (LWFAC), LHB (EOG) AC First cum AC-2 Tier (LWFCWAC), LHB (EOG) AC 2-Tier Sleeper coach (LWACCW), LHB (EOG) AC 3-Tier coach (LWACCN), LHB (EOG) AC Hot Buffet Car (LWCBAC), LHB (EOG) Executive AC Chair Car (LWFCZAC), LHB (EOG) Second Class AC Chair AC Chair Car (LWSCZAC), LHB (EOG) Non AC Chair Car (LWSCZ), LHB (EOG) 3-Tier Sleeper (LWSCN), LHB (EOG) Second Class Non AC Unreserved coach with Vestibules (LWS), LHB (EOG) High Capacity Parcel Van (LVPH), LHB (EOG) Second Class Non AC Chair Car (LS3), LHB (EOG) Second Class Non AC Chair Car (LS5), LHB (EOG) Second Class Cum Luggage & Brake Van (LSLRD) with single WAP7 locomotive is fit for operation with maximum speed up to 130 kmph over Pradhankunta (PKA) – Sealdah (SDAH) & back, between Pradhankunta (PKA) to Dankuni (DKAE) & back sections of Eastern Railway on track maintained to as per provisions of Indian Railways Permanent Way Manual, June – 2020, containing track geometry standards under Para – 522. In this connection, the following conditions shall apply:

**Para no. 2.3.5 ( C )**

S. No.	Name of Coaches	Maximum Axle Load	Maximum Braking Force at Rail Level	CG height above Rail Level
1.	AC First cum AC-2 Tier (LWFCWACA)	16.25t	6.6t	Not exceeding 1830 mm
2.	Three Tier Sleeper coaches (LWSCNA)	16.25t	6.6t	
3.	Three Tier Sleeper coaches (LWSCN1)	16.25t	5.8t	
4.	Non AC Second class Chair Car (LWSCZA)	16.25t	5.4t	

**Para no. 2.7.6** Para no. 6.1.3 of policy circular no. 6 shall be followed by Zonal Railways for introduction of a passenger train having 24 coaches or more plus one inspection carriage (LHB or other types).

Para no. 2.7.10	LHB AC First cum AC-2 Tier (LWFCWACA), Three Tier Sleeper coaches (LWSCNA), Three Tier Sleeper coaches (LWSCN1) & Non AC Second class Chair Car (LWSCZA) shall be included in this train only after successful completion of route proving run by Zonal railway as per Para 6.5.1.3 of Policy Circular-6 (Revised-2018) at maximum speed of 130 kmph and result should be found satisfactory as per Policy and criteria. The Report of Route Proving Run shall be sent to RDSO before operation of train with these coaches.
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Enclosures / संलग्नक:

i. RDSO Sketch 96077 ii. RCF's drawing no. LE90009 iii. RDSO drawing no. CG-11034 iv. RCF's drawing no. LG90010 v. RCF's drawing no. LJ90004 vi. RDSO drawing no.CSC-1844 vii. RDSO drawing no. CG-11034 viii. ICF drawing No.LGS/EOG/ASR-9-0-001 ix. RCF's drawing no. LJ90007 x. RDSO drawing CSC-1808 xi. RDSO drawing CSC-1840 xii. RCF's drawing no. WA90004 xiii. RDSO drawing no. CG-14045
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Digitally signed by VIRENDF  
SINGH YADAV  
Date:Wed Sep 16 16:18:57 IST  
**(वी. एस. यादव)**  
Reason: Approved

कार्यकारी निदेशक मानक/चालन शक्ति

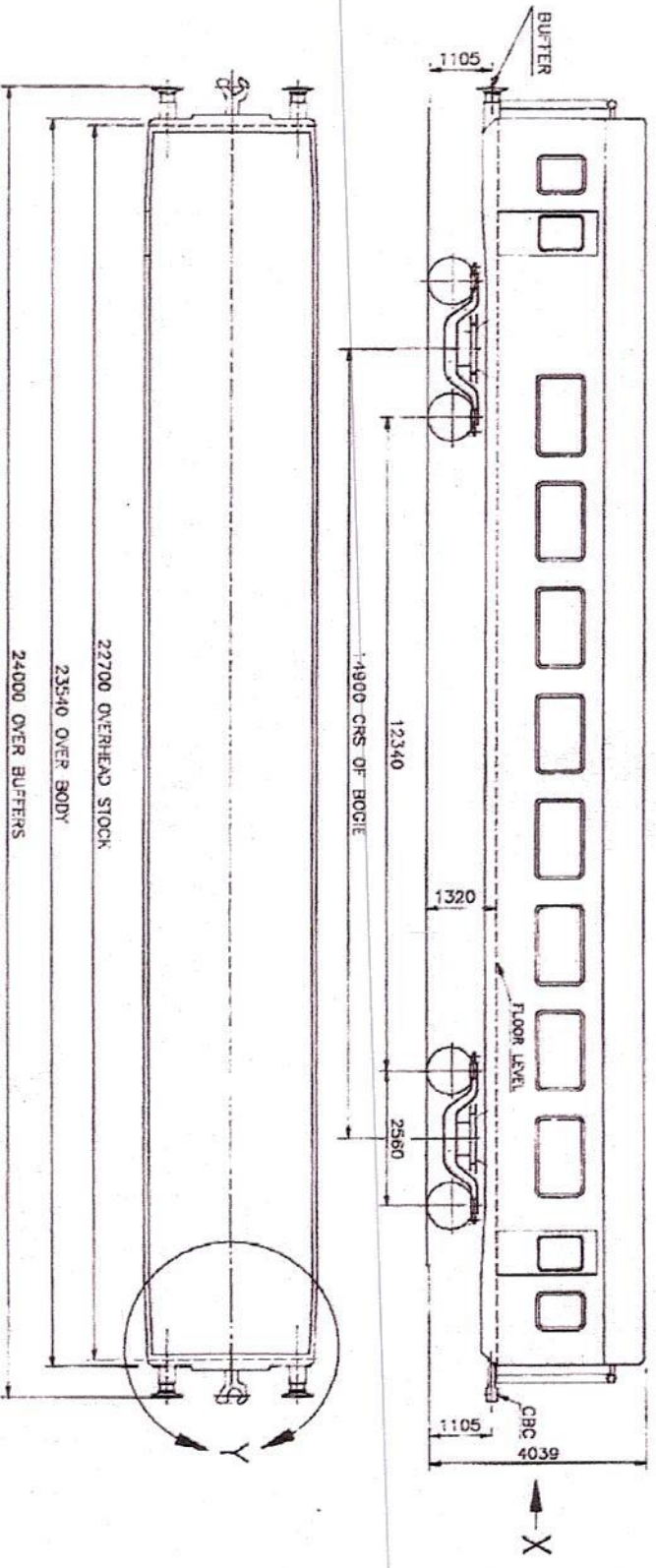
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2. मुख्य रेल संरक्षा आयुक्त, मण्डल रेल प्रबन्धक कार्यालय, पूर्वोत्तर रेलवे परिसर, अशोक मार्ग लखनऊ - 226 001.
3. महाप्रबंधक (यांत्रिक / विद्युत / परिचालन / संकेत एवं दूरसंचार) पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700 001.

Enclosures / संलग्नक: Nil

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**(वी. एस. यादव)**

कार्यकारी निदेशक मानक/चालन शक्ति

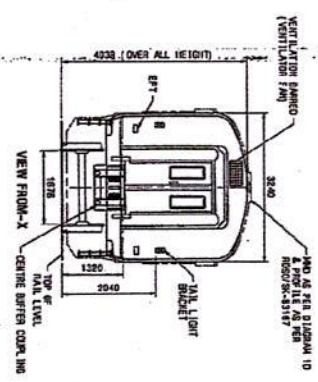
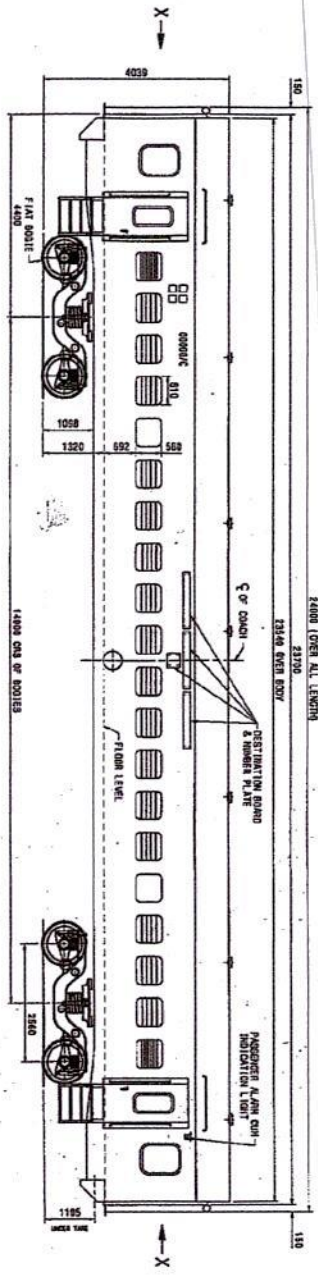
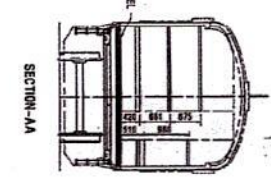
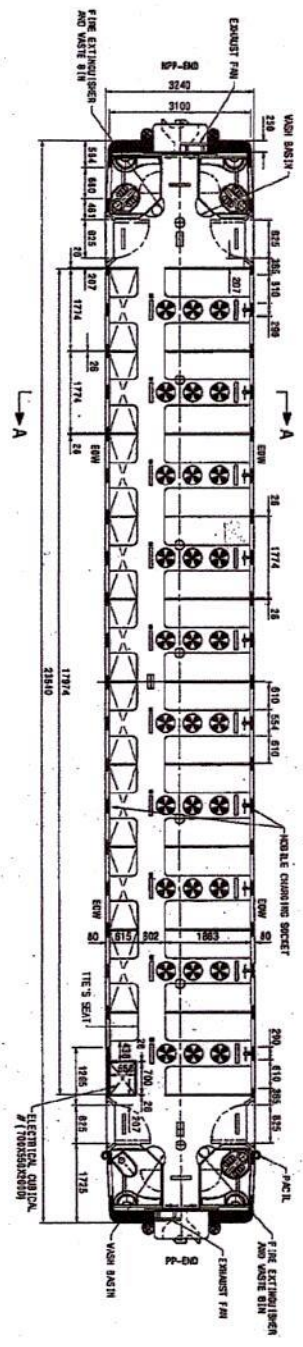


NOTE:--  
BUFFERS ARE TO BE PROVIDED ONLY  
IF POWER CAR.

DIAGRAM SHOWING MAIN DIMENSIONS  
OF LHB-IR COACH

SKETCH-96077





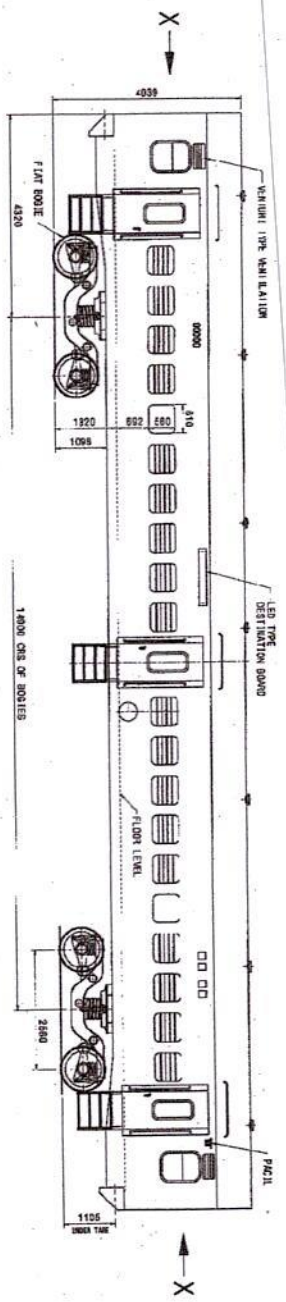
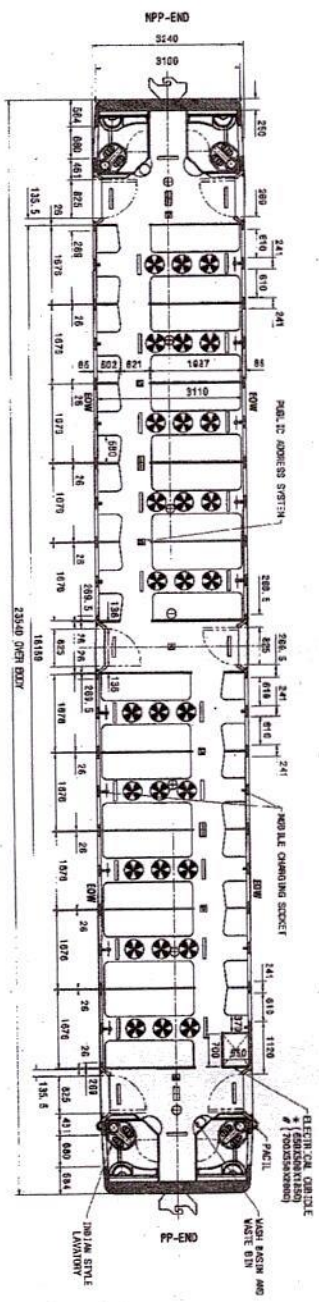
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- BB COACH NUMBER
- ⊕ VENTILATION
- ⊕ FAN FIXED TYPE (DOWN DRAFT)
- ⊕ FLOORESCENT LIGHT
- ⊕ NIGHT LIGHT
- ⊕ DISORDER EMERGENCY LIGHT (LUB TYPE)
- ⊕ ALARM PULL
- ⊕ PICT.
- ⊕ EMERGENCY OVERHAUL WINDOW
- ⊕ MOBILE CHARGING SOCKET (20 Nos. IN EACH BAY)

NOTE:-

1. NO. OF PASSENGERS TO SLEEP -78
2. NO. OF PASSENGERS TO SIT -10
3. NO. OF BURN ASIDE -02
4. NO. OF LAMINATES -04
5. NO. OF EMERGENCY OVERHAUL WINDOWS -04
6. WINDOW TO BE PROVIDED WITH CURT SCREEN.
7. INDICATE CLEAR SPACE (20MM)

SL. NO.	REV./DATE	DESCRIPTION	CHG. DATE	APPROVED BY:-	DESIGNED BY:-	SCALE	PROJECT NO. :-
1	27-07-2011	ISSUED FOR CONSTRUCTION	27-07-2011	[Signature]	[Signature]	1:10	CG-11034
2	27-07-2011	ISSUED FOR CONSTRUCTION	27-07-2011	[Signature]	[Signature]	1:10	CG-11034

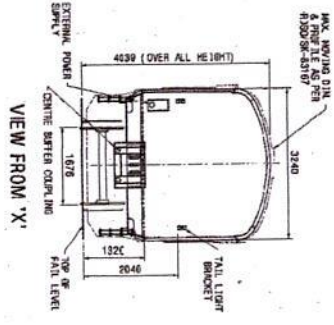
APPROVED BY:-  
 SUPERVISOR  
 NON AC (EOG) LTB VARIANT COACHES  
 PROPOSED LAYOUT OF  
 THREE TIER SLEEPER NON AC (EOG) COACH  
 CG-11034



- HALLWAY SEAT
- □□ HALLWAY
- COACH SEATER
- VENTILATOR
- FAN FRESH TYPE (ROOM SEPT)
- FLOORLIGHT LIGHT
- DIAGONAL EMERGENCY LIGHT (LHB TYPE)
- ALARM PULL
- FACIL
- EMERGENCY OVERVIEW WINDOW
- MOBILE CHARGING SOCKET
- MOBILE ADDRESS SYSTEM (PAS)

NOTE:-

- 1. NO. OF PASSENGERS TO SIT
- 2. NO. OF DOOR ASIDE
- 3. NO. OF LAVATORIES
- 4. NO. OF EMERGENCY OVERVIEW WINDOWS
- 5. SHOW ELECTRIC DIMENSIONS (LAMB)
- 6. SHOW CLEAR SPACE (LAMB)

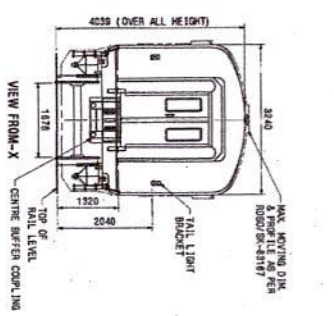
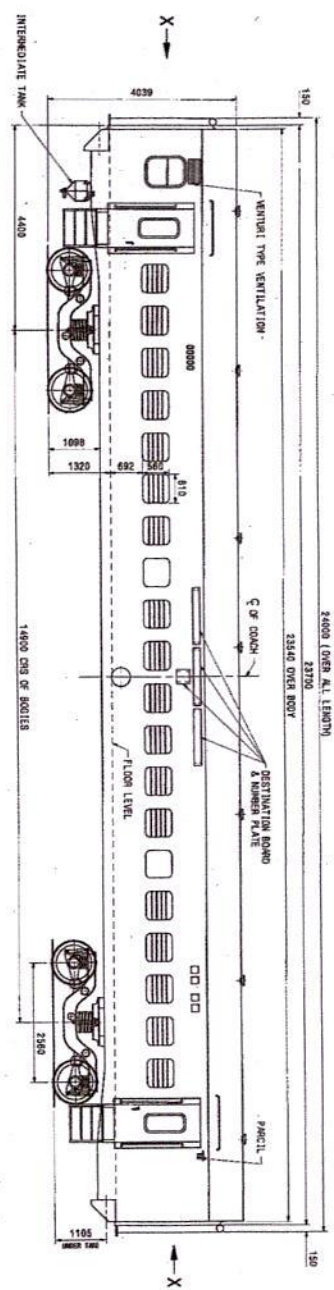
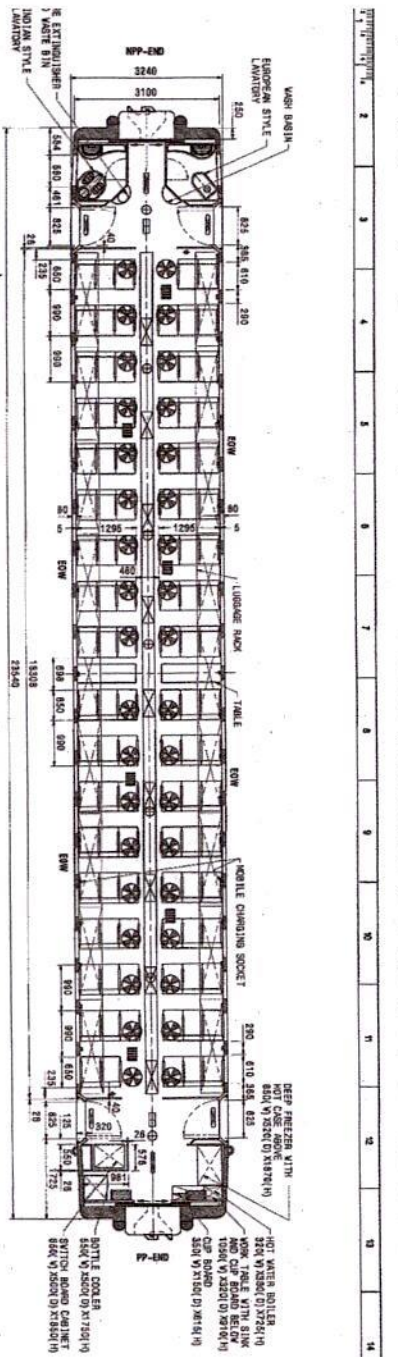


ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.  
 FOR UNTOLERANCED DIMENSIONS REFER HQ30303  
 DATE OF FIRST ISSUE: 14/12/2010  
 DESIGNED BY: [Signature]

REVISED	REVISION	DATE	BY

23/10/2010  
 P. NO. NIL  
 DRG. NO. LG90010  
 IRS  
 (LHB SHELL ON FLAT BODGES)  
 GAS COACH (E00)  
 HAL GOAST FACTORY, LAHORE/PUNJAB

DESIGNED BY	DATE	4-DIGITING	APPROVED BY
NIL	NIL	NIL	NIL



- RAILWAY CRIST
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- 0000 COACH NUMBER
- ⊕ VENTILATOR
- ⊕ FAN FIXED TYPE (400W SWEP)
- ⊕ FLOORESCENT LIGHT (200W)
- ⊕ COMPACT FLOORESCENT LIGHT (200W)
- ⊕ FLOORESCENT LIGHT (200W)
- ⊕ LAVATION LIGHT
- ⊕ OUTRIDER EMERGENCY LIGHT (14W TYPE)
- ⊕ OUTRIDER FOR BALLAST
- ⊕ LOAD BREAKER
- ⊕ ALARM PULL
- ⊕ PARCEL
- ⊕ EMERGENCY OPENABLE WINDOW
- ⊕ MOBILE CHAINING SOCKET

**NOTE:-**

1. NO. OF PASSENGERS TO SEAT -----106
2. NO. OF ROOM ASSE -----02
3. NO. OF LANTERNES -----02
4. NO. OF EMERGENCY OPENABLE WINDOWS ----- 04
5. NO. OF EMERGENCY OPENABLE WINDOWS ----- 04

THE DIMENSIONS SHOWN IN THIS DRAWING ARE SUBJECT TO CHANGE WITHOUT NOTICE. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE DIMENSIONS OF THE EQUIPMENT TO BE USED IN THE INSTALLATION. THE DIMENSIONS SHOWN IN THIS DRAWING ARE SUBJECT TO CHANGE WITHOUT NOTICE. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE DIMENSIONS OF THE EQUIPMENT TO BE USED IN THE INSTALLATION.

MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.

UNINTENTIONAL DIMENSIONS REFER 000000.

DATE OF FIRST ISSUE: 28/06/2010

DATE OF FIRST ISSUE: 28/06/2010

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100		NIL LEVEL OF LEBE ISLAND				

**LAYOUT OF 2ND CLASS NON AC CHAIR CAR (E06) (LHB SHELL ON FLAT BOGIES)**

DATE: 28/06/2010

BY: [Signature]

CHECKED: [Signature]

APPROVED: [Signature]

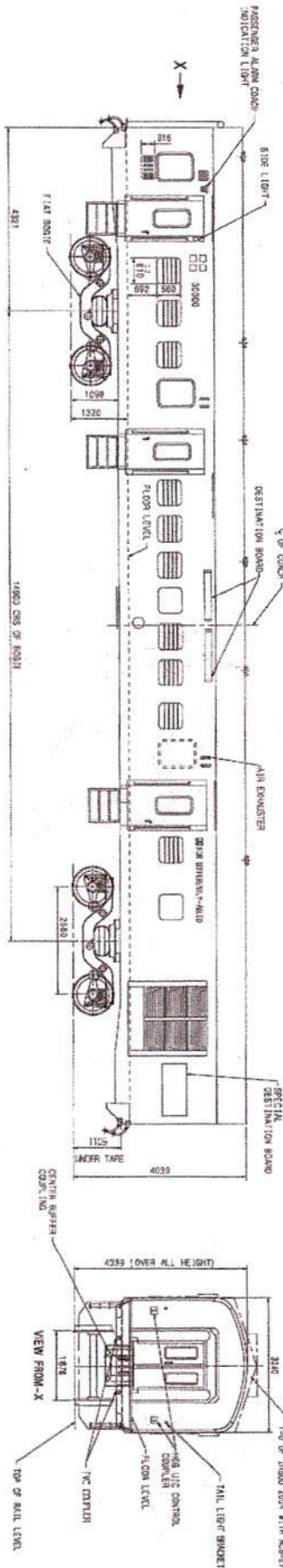
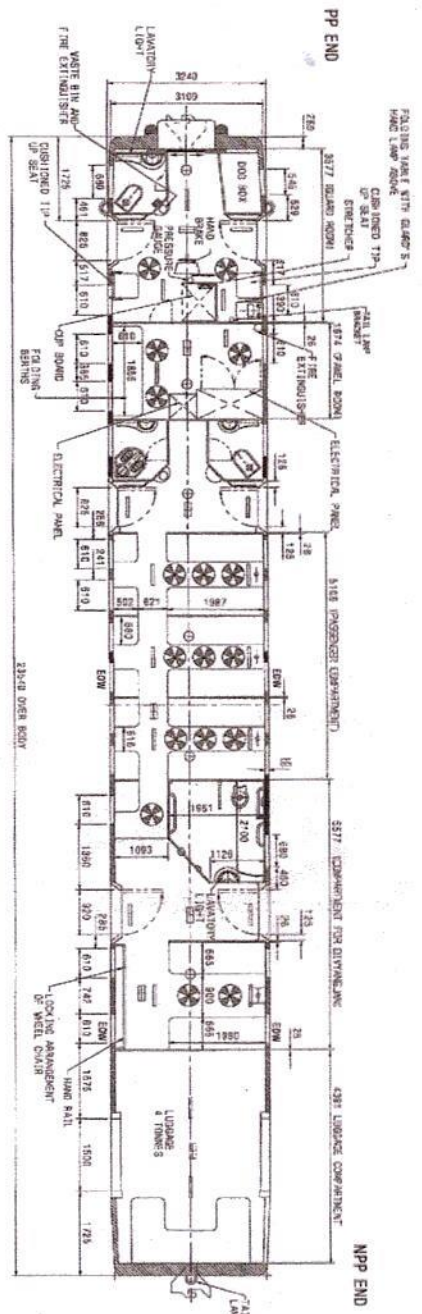
PL. NO. NIL

DRG. NO. L190004

3 0 30W 2010



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- 00000 --- COACH NUMBER
- --- RAILWAY CREST
- --- BALUN
- --- FAN VENTILATION
- --- FAN FIXED TYPE (DOWN SHEET)
- --- FAN SWIVEL TYPE (DOWN SHEET)
- --- ALARM (OR RAIL BORN)
- --- LED LIGHT FITTING
- --- TAIL LIGHT FITTING
- --- EMERGENCY ORANGE WINDOW
- --- SIDE LIGHT FITTING (40X40)
- --- DISASTER EMERGENCY LIGHT

1. NO. OF OTHER PASSENGERS TO SEAT
  2. NO. OF DIVAN/LANG PASSENGERS/ATTENDANT TO SEAT
  3. NO. OF LAVATORY FOR DIVAN/LANG/ ATTENDANT
  4. NO. OF TOILET FOR DIVAN/LANG/ ATTENDANT
  5. NO. OF LAVATORY FOR OTHER PASSENGERS
  6. NO. OF LAVATORY FOR GUARD
  7. NO. OF OTHER PASSENGERS PER LAVATORY
  8. NO. OF PASSENGERS PER LAVATORY
  9. LUNGEON CAPACITY
  10. NO. OF EMERGENCY WINDOWS
- of TONNES
- of NOS.

NOTE: -  
 1. THE GENERAL ARRANGEMENT OF PART'S COMPARTMENT AND LAVATORY SHALL BE SIMILAR TO ROSSO DRAWING CSC-1732.  
 2. NECESSARY ANNOTATIONS IN PANEL ROOM TO BE PROVIDED AS PER EXISTENT POLICY.  
 3. MOBILE CHARGING POINT SHALL BE PROVIDED AS PER EXISTENT POLICY.  
 4. UNDER-SLING ELECTRICAL EQUIPMENTS LIKE BATTERIES, REG. TRANSFORMER, FUSE BOXES ETC. SHALL BE PROVIDED AS PER REQUIREMENTS.

APPROVED BY: RAILWAY BOARD'S LETTER NO. 2007/MC/18/16 VOL.-(XII)  
 DATED 05.04.2009 (ISSUE FILE NO. MC/18/18/167 S.D. 1173)

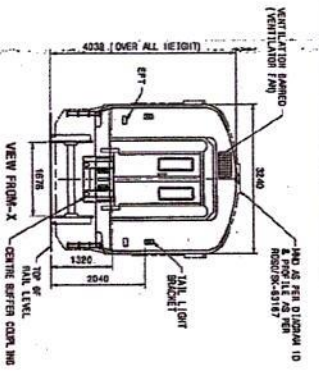
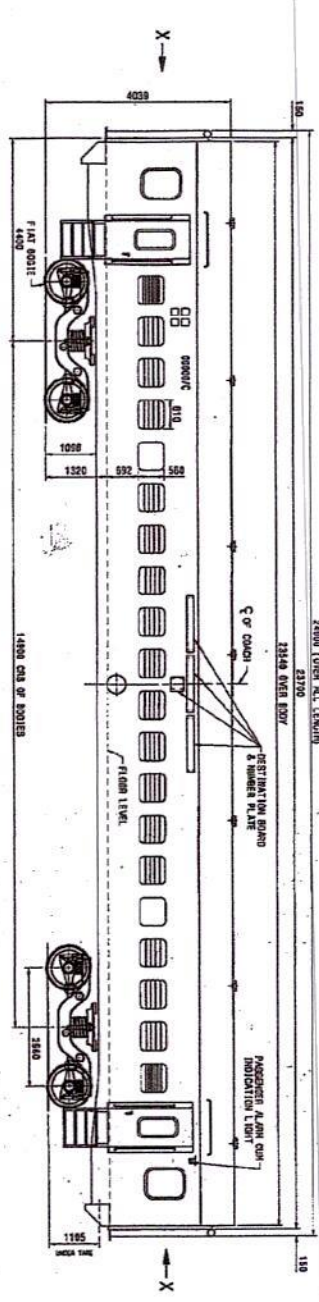
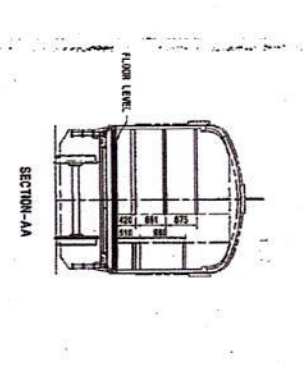
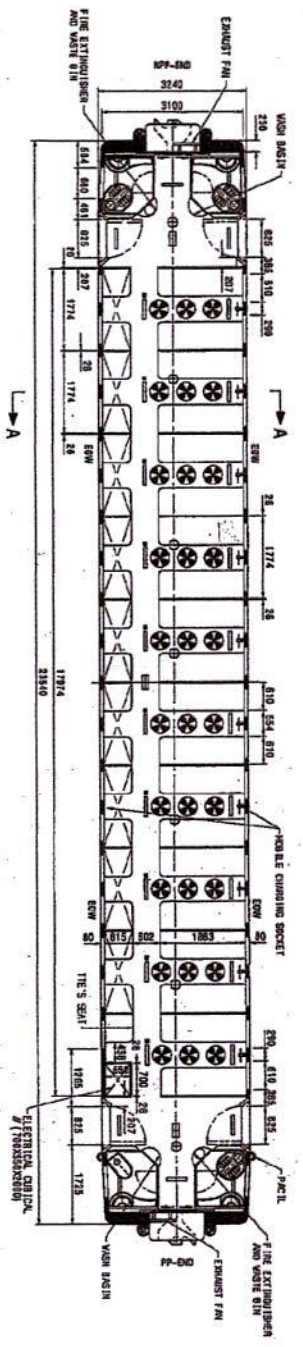
1	19/07/20	DRAWING REVISED & REISSUED	CDL	DATE	09/7/18	CDSC NO. -K903
1	19/07/20	DRAWING REVISED & REISSUED	CDL	DATE	09/7/18	CDSC NO. -K903

INDIAN RAILWAYS STANDARDS  
 LHB SHELL ON FLAT BOGIES  
 LAYOUT OF SECOND CLASS COACH LUNGEON AND BANG PAN WITH COMPARTMENT FOR DIVAN/LANG PASSENGER (ROD COMPLIANT SHD COACH)

SCALE: P  
 1:50  
 D  
 1:50  
 1:50

DATE: 18/07/2018  
 BY: B.G.  
 CHECKED: G.C.

CSC-1844



- --- RAILWAY CREST
- BB --- RAILWAY
- COACH NUMBER
- VENTILATION
- FAN FIXED TYPE (KOHU SHEET)
- FLOURESCENT LIGHT
- NIGHT LIGHT
- DISASTER EMERGENCY LIGHT (LUB TYPE)
- ALARM PULL
- PANEL
- EMERGENCY PERSONAL WINDOW
- PORTABLE COMPRESSOR SOCKET (SEE REG. IN DRAWING)

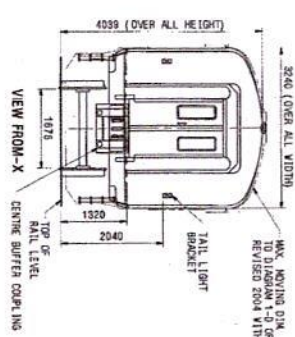
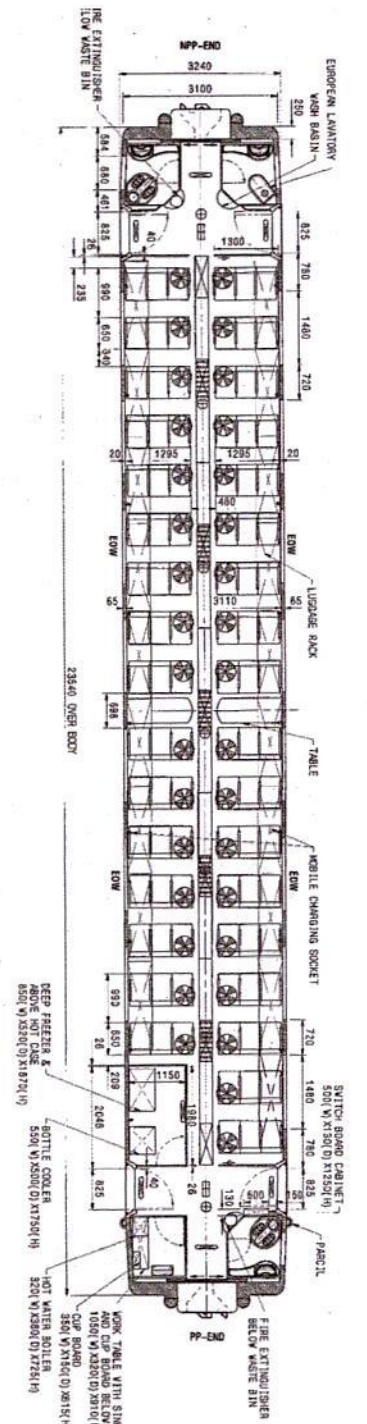
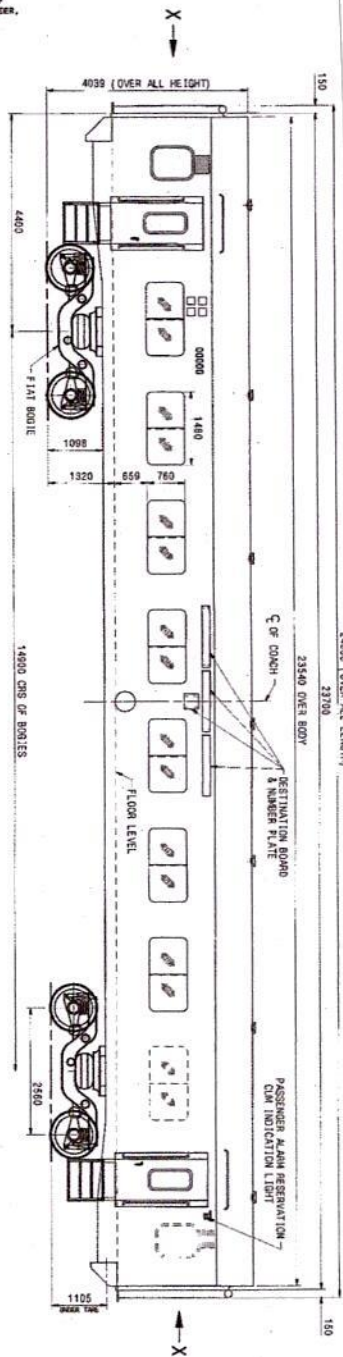
- NOTE:-
1. NO. OF PASSENGERS TO SEAT
  2. NO. OF PASSENGERS TO SIT
  3. NO. OF SEAT
  4. NO. OF LAMINATES
  5. NO. OF EMERGENCY PERSONAL WINDOWS
  6. NO. OF EMERGENCY LIGHTS
  7. INDICATE CLEAN SPACE (LAMP TYPE)

NO.	SYMBOL	DESCRIPTION	DATE	BY	CHKD.	APP'D.
1	SYMBOL	NAME OF PASSENGERS TO SEAT/ALD	04/04/2011	...	...	...
2	SYMBOL	NAME OF PASSENGERS TO SEAT/ALD	27/07/2011	...	...	...

APPROVED BY:-  
 NOUN PAL WAYS STANDARDS  
 NON AC (EOG) 11B VARIANT COACHES  
 PROPOSED LAYOUT OF  
 THREE TIER SLEEPER NON AC (EOG) COACH  
 CG-11034



THIS DRAWING SHOULD NOT BE REPRODUCED, ALTERED, USED FOR MANUFACTURING OF COMPONENTS, SOLD OR TRANSFERRED WITHOUT PERMISSION FROM CHIEF DESIGN ENGINEER, RAIL COACH FACTORY, RAJOURHALA.



- RAILWAY CREST
- □ RAILWAY
- 00000 COACH NUMBER
- ⊕ VENTILATOR
- ⊕ FAN FIXED TYPE (400W DREF)
- ⊕ FLOURESCENT LIGHT (SINGLE)
- ⊕ FLOURESCENT LIGHT (DOUBLE)
- ⊕ LAVATORY LIGHT
- ⊕ DISASTER EMERGENCY LIGHT (LHB TYPE)
- ⊕ ALARM BELL
- ⊕ PARCEL
- ⊕ EMERGENCY OPENABLE WINDOW
- ⊕ MOBILE CHARGING SOCKET

- NOTE:-**
1. NO. OF PASSENGERS TO SIT -102
  2. NO. OF DOOR ASSE -03
  3. NO. OF LAVATORIES -04
  4. NO. OF EMERGENCY OPENABLE WINDOW -04

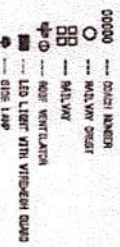
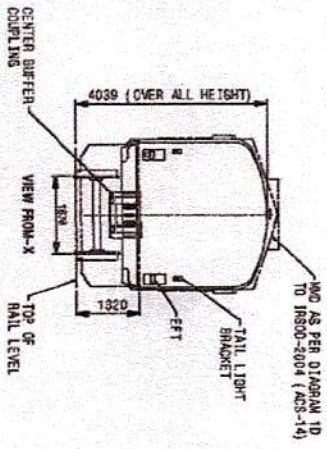
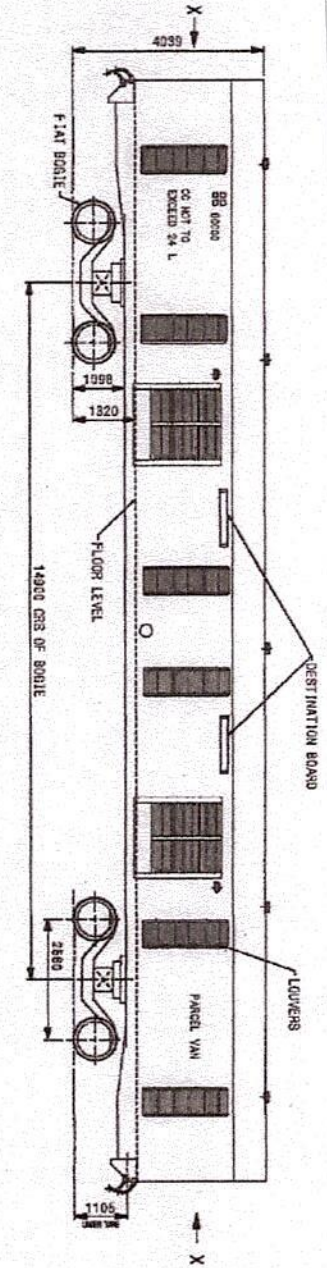
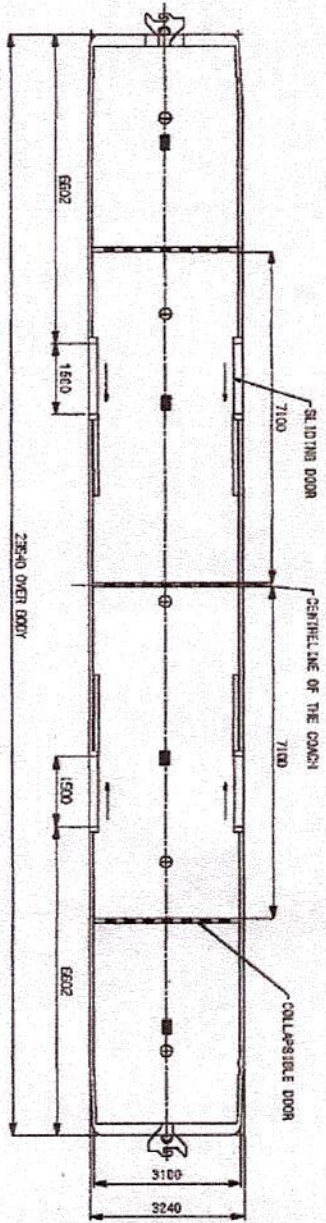
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID.															DETAIL DRS STARTING WITH 'L1' ARE INTERNAL REFERENCE LISTS ONLY AND ARE NOT FOR ISSUE.				
UNTOLERANCED DIMENSIONS REFER MCG003															DATE OF FIRST ISSUE				
29/03/2013															CORR BY				

REV.	DATE	BY	DESCRIPTION	APPROVED BY
0	29/03/2013	S-H	1. WINDOWS HEIGHT FROM FLOOR LEVEL WAS 892mm.	DIC NO. M0120032
1	12-0		2. DOUBLE LEAF DOOR REPLACED WITH 1-2-0	
2	12-0		3. CHANGEMD CORNER PARTITION REPLACED WITH SHARP CORNER IN PANTRY AREA.	
3	13/10/2018	M-14	1. FLAT BOGIES WITH AIR SUSPENSION PROVIDED.	DIC NOS. M018005 & M0180015
4	3-12-0		2. FIRE EXTINGUISHER BELOW WASTE BIN PROVIDED ON BOTH ENDS.	
5	5-8		3. AISLE WIDTH CORRECTED.	
6	10-K		4. TITLE DESCRIPTION UPDATED.	

DATE: 15 OCT 2018

FIELD	VALUE	FIELD	VALUE	FIELD	VALUE
FILE	LN-80007S-CR-1201	DATE	15 OCT 2018	DESIGNER	IRS
WEIGHT	80	SCALE	1:50	CHECKER	PL NO. NIL
DATE	29/03/2013	APPROVED	DRG. NO. L190007		
DESCRIPTION	LAYOUT OF SECOND CLASS NON-AC CHAIR CAR (LHB/EOG) 702 SEATER FOR JAN SHATADH TRAIN WITH AIR SUSPENSION				
DRAWING NO.	DRG. NO. L190007				





NOTE:-  
 1. LUBRICATION CAPACITY - 24 TONNES  
 2. COVERED POCKETS FOR THE SLIDING DOORS TO BE PROVIDED.

APPROVED VICE RAILWAY BOARD'S LETTER NO. 87/M/CI/2021/4 Pt. (1)  
 DATED 06/05/2018 IRSO FILE NO./LHB/LAYOUT, S. NO. 1312

S. NO.	REV.	DESCRIPTION	DATE
1	INITIAL	ISSUE FOR DESIGN REVIEW	20/18
2	REVISED	FOR APPROVAL	20/18

TRANSPORTATION CODE	LYPH
REFERENCE	DD-10218
SUPERSEDED BY	
ISSUED	18/05/18
BY	
FOR	
REASON	LAYOUT OF LHB DESIGN HIGH CAPACITY PARCEL VAN WITHOUT LUBRICATION RACKS
CODE NO.	B.G. 1331
DATE	
DESIGNER	
CHECKER	
APPROVER	

INDIAN RAILWAYS STANDARDS
IRSO-2004 (ACS-14)
CSC-1840

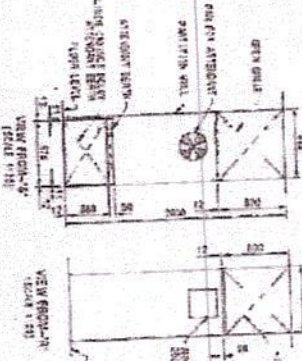
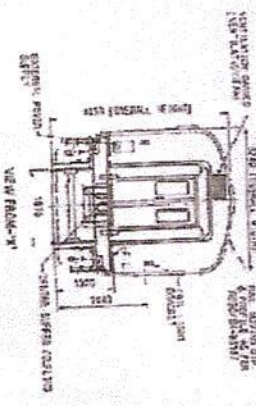
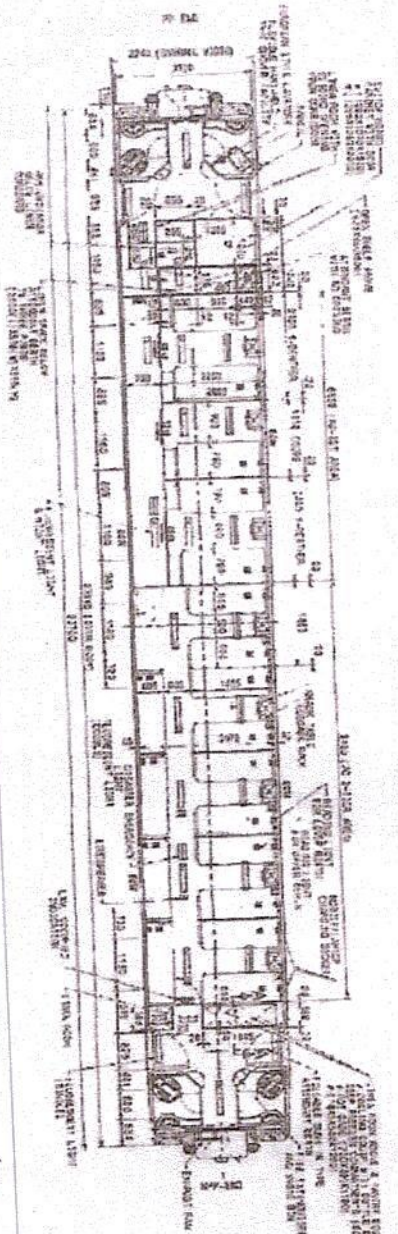
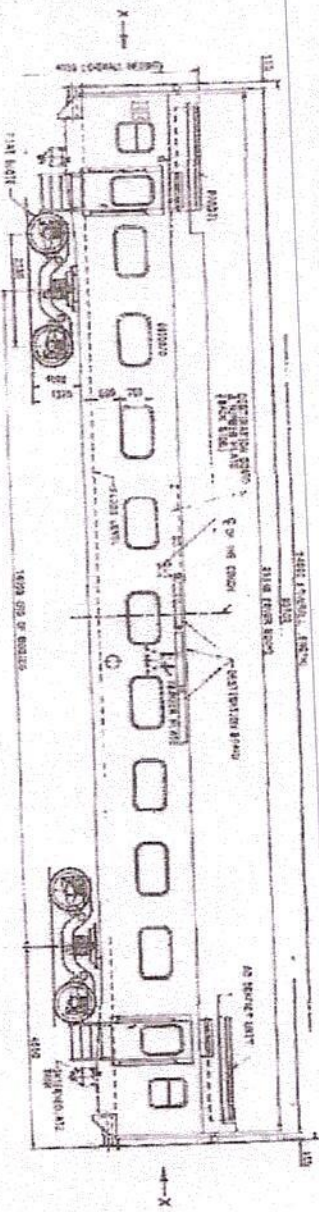
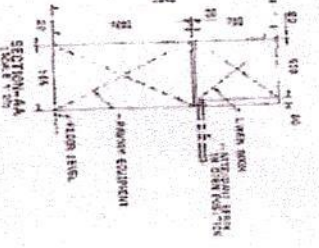
ANY MATERIAL OR CONDITION SHALL BE CONSIDERED UNLESS OTHERWISE SPECIFIED.  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES FOUND DURING THE COURSE OF THE WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES FOUND DURING THE COURSE OF THE WORK.

- FLOOR FINISH
- WALL FINISH
- CEILING FINISH
- DOOR
- WINDOW
- ROOF FINISH
- EXTERIOR FINISH
- CONCRETE
- REINFORCED CONCRETE
- STEEL
- BRICK
- BLOCK
- MASONRY
- PAINT
- GLASS
- METAL
- WOOD
- INSULATION
- MECHANICAL
- ELECTRICAL
- PLUMBING
- PAVEMENT
- LANDSCAPE
- FURNITURE
- EQUIPMENT
- SIGNAGE
- LIGHTING
- SECURITY
- ACCESSIBILITY
- SUSTAINABLE

NOTE: 1. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
 3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.

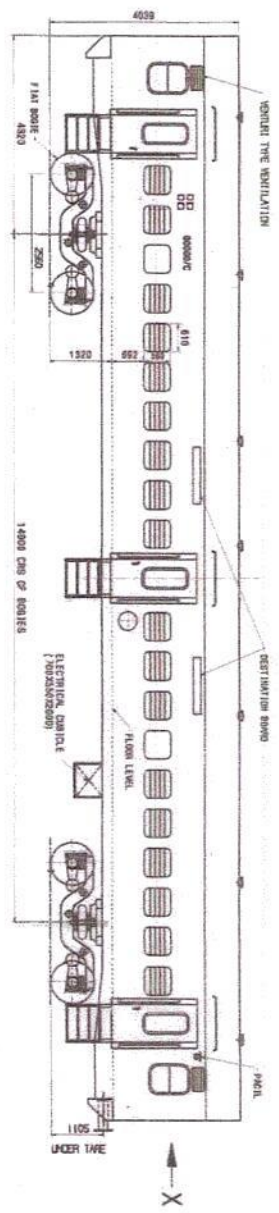
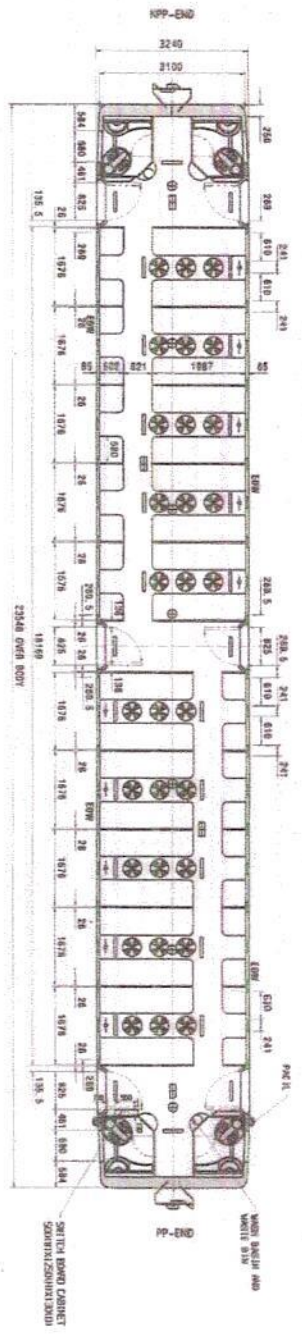
GENERAL NOTES:  
 1. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
 3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.



NO.	DESCRIPTION	QUANTITY	UNIT	AMOUNT
1	CONCRETE	100	CU YD	100
2	REINFORCEMENT	50	TON	50
3	FORMWORK	200	SQ YD	200
4	PAINT	500	SQ YD	500
5	GLASS	100	SQ FT	100
6	DOOR	10	EA	10
7	WINDOW	20	EA	20
8	ROOFING	500	SQ FT	500
9	MECHANICAL	100	EA	100
10	ELECTRICAL	200	EA	200
11	PLUMBING	100	EA	100
12	PAVEMENT	1000	SQ YD	1000
13	LANDSCAPE	500	SQ YD	500
14	FURNITURE	100	EA	100
15	EQUIPMENT	50	EA	50
16	SIGNAGE	100	EA	100
17	LIGHTING	200	EA	200
18	SECURITY	100	EA	100
19	ACCESSIBILITY	100	EA	100
20	SUSTAINABLE	100	EA	100

20 FEB 2012

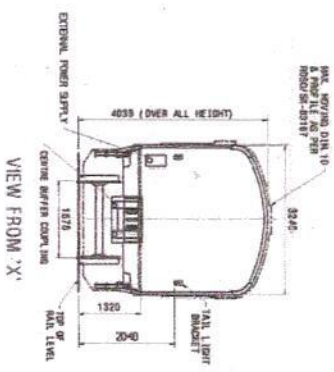
NO.	DESCRIPTION	QUANTITY	UNIT	AMOUNT
1	CONCRETE	100	CU YD	100
2	REINFORCEMENT	50	TON	50
3	FORMWORK	200	SQ YD	200
4	PAINT	500	SQ YD	500
5	GLASS	100	SQ FT	100
6	DOOR	10	EA	10
7	WINDOW	20	EA	20
8	ROOFING	500	SQ FT	500
9	MECHANICAL	100	EA	100
10	ELECTRICAL	200	EA	200
11	PLUMBING	100	EA	100
12	PAVEMENT	1000	SQ YD	1000
13	LANDSCAPE	500	SQ YD	500
14	FURNITURE	100	EA	100
15	EQUIPMENT	50	EA	50
16	SIGNAGE	100	EA	100
17	LIGHTING	200	EA	200
18	SECURITY	100	EA	100
19	ACCESSIBILITY	100	EA	100
20	SUSTAINABLE	100	EA	100



- RAILWAY CREST
- ▢ RAILWAY
- COACH NUMBER
- VENTILATION
- FAN FUSED-TYPE (DOWN SHEET)
- FLOODESCENT LIGHT
- DIMENSION EMERGENCY LIGHT (LAMB TYPE)
- ALARM HALL
- MAIL
- EMERGENCY OPTIMALE WINDOW

NOTE:-

1. NO. OF PASSENGERS TO SEAT -100
2. NO. OF DOOR ASIDE -02
3. NO. OF LAMPS/SEAT -24
4. NO. OF EMERGENCY OPTIMALE WINDOWS -24



ALTERNATIVE	DESCRIPTION	COIL DATE	DATE	NO. OF	BY	FOR
<b>INDIAN RAILWAY STANDARDS</b> <b>LHB COACH WITH FLY BOARDS</b> <b>PROPOSED LAYOUT OF 2nd CLASS NON-AC</b> <b>EGG CRASHWORTHY COACH</b> <b>(WITH MAIN SECONDARY AIR SPRING)</b>						
B.G.		R.D.S.O.		CG-14045		





**File No. RDSO-CARR0CD(SCO)/1/2020-O/o ED/CARRIAGE/RDSO**

भारत सरकार & रेल मंत्रालय

Government of India - Ministry of Railways

अनुसंधान अभिकल्प और मानक संगठन

Research Designs & Standards Organisation

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LUCKNOW - 226 011

EPBX +91 (522) 2451200

DID +91 (522) 2450115

FAX +91 (522) 2458500

DID +91 (522) 2450110



**Amendment to Speed Certificate for Operation of Train**

No. MC/LHB/COACH

Date: 16.09.2020

**महाप्रबन्धक (इंजीनियरिंग)**

पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700 001.

**Sub: Amendment no. 01 to Speed Certificate for operation of train consisting of maximum 24 LHB (EOG) coaches comprising of LHB AC Generator Van (LWLRRM), LHB (EOG) AC First class (LWFAC), LHB (EOG) AC First cum AC-2 Tier (LWFCWAC), LHB (EOG) AC 2-Tier Sleeper coach (LWACCW), LHB (EOG) AC 3-Tier coach (LWACCN), LHB (EOG) AC Hot Buffet Car (LWCBAC), LHB (EOG) Executive AC Chair Car (LWFCZAC), LHB (EOG) Second Class AC Chair AC Chair Car (LWSCZAC), LHB (EOG) Non AC Chair Car (LWSCZ), LHB (EOG) 3-Tier Sleeper (LWSCN), LHB (EOG) Second Class Non AC Unreserved coach with Vestibules (LWS), LHB (EOG) High Capacity Parcel Van (LVPH), LHB (EOG) Second Class Non AC Chair Car (LS3), LHB (EOG) Second Class Non AC Chair Car (LS5), LHB (EOG) Second Class Cum Luggage & Brake Van (LSLRD) with single WAP7 locomotive over Pradhankunta (PKA) – Sealdah (SDAH) & back, with maximum speed up to 130kmph between Pradhankunta (PKA) to Dankuni (DKAE) & back sections of Eastern Railway on track maintained to as per provisions of Indian Railways Permanent Way Manual, June – 2020, containing track geometry standards under Para – 522.**

Ref: (i) RDSO Speed Certificate no. MC/LHB/COACH dated 24.08.2020

(ii) Discussion with Eastern Railway

(iii) PS & EMU directorate note no. EL/06.2/SCC, dated 08/09/2020

(iv) Track Design Directorate note no. CT/DHS/3/COACHES dt 9/9/2020 and 15/09/2020

Vide reference at (i) above, RDSO has issued "Speed Certificate for operation of train consisting of maximum 24 LHB (EOG) coaches comprising of LHB AC Generator Van (LWLRRM), LHB (EOG) AC First class (LWFAC), LHB (EOG) AC First cum AC-2 Tier (LWFCWAC), LHB (EOG) AC 2-Tier Sleeper coach (LWACCW), LHB (EOG) AC 3-Tier coach (LWACCN), LHB (EOG) AC Hot Buffet Car (LWCBAC), LHB (EOG) Executive AC Chair Car (LWFCZAC), LHB (EOG) Second Class AC Chair AC Chair Car (LWSCZAC), LHB (EOG) Non AC Chair Car (LWSCZ), LHB (EOG) 3-Tier Sleeper (LWSCN), LHB (EOG) Second Class Non AC Unreserved coach with Vestibules (LWS), LHB (EOG) High Capacity Parcel Van (LVPH), LHB (EOG) Second Class Non AC Chair Car (LS3), LHB (EOG) Second Class Non AC Chair Car (LS5), LHB (EOG) Second Class Cum Luggage & Brake Van (LSLRD) with single WAP7 locomotive, between Pradhankunta (PKA)- Sealdah (SDAH) & back with maximum speed up to 130 kmph between Dhaniyakhali Halt (DNHL) to Jhapandanga (JPQ), Khana (KAN) to Durgapur (DGR), Kalipahari (KPK) to Asansol (ASN), Kalubathan (KAO) to Pradhankunta (PKA) & back on sections of Eastern Railway on track maintained as per provisions of Indian Railway Permanent Way Manual, June-2020, containing geometry standards under Para 522".

Vide reference at (ii) above, Eastern Railway requested to amend the speed certificate for indicating the traffic section & vide reference (iii) above, PS & EMU directorate, RDSO, has communicated that "LDSLRA" should not be used for regular services till the field service trials of

**File No.RDSO-CARR0CD(SCO)/1/2020-O/o ED/CARRIAGE/RDSO**

this coach is cleared by RDSO. Accordingly Subject, Para no. 2, Para 2.7.6 of speed certificate, have been amended & "LHB Power Car with underslung DG set having compartment for passengers & Disabled passenger (LDLRA)" has been deleted from Para no. 2.3.5 (C), Para 2.7.10 & drawing no. CSC-1836 of LDLRA coach from Enclosures of speed certificate no. MC/LHB/COACH, dated 24.08.2020, which shall be read as under:

**Sub:**Speed Certificate for operation of train consisting of maximum 24 LHB (EOG) coaches comprising of LHB AC Generator Van (LWLRRM), LHB (EOG) AC First class (LWFAC), LHB (EOG) AC First cum AC-2 Tier (LWFCWAC), LHB (EOG) AC 2-Tier Sleeper coach (LWACCW), LHB (EOG) AC 3-Tier coach (LWACCN), LHB (EOG) AC Hot Buffet Car (LWCBAC), LHB (EOG) Executive AC Chair Car (LWFCZAC), LHB (EOG) Second Class AC Chair AC Chair Car (LWSCZAC), LHB (EOG) Non AC Chair Car (LWSCZ), LHB (EOG) 3-Tier Sleeper (LWSCN), LHB (EOG) Second Class Non AC Unreserved coach with Vestibules (LWS), LHB (EOG) High Capacity Parcel Van (LVPH), LHB (EOG) Second Class Non AC Chair Car (LS3), LHB (EOG) Second Class Non AC Chair Car (LS5), LHB (EOG) Second Class Cum Luggage & Brake Van (LSLRD) with single WAP7 locomotive over Pradhankunta (PKA) – Sealdah (SDAH) & back, with maximum speed up to 130kmph between Pradhankunta (PKA) to Dankuni (DKAE) & back sections of Eastern Railway on track maintained to as per provisions of Indian Railways Permanent Way Manual, June – 2020, containing track geometry standards under Para – 522.

**Para no. 2** Based on the above, it is certified that train consisting of maximum 24 LHB (EOG) coaches comprising of LHB AC Generator Van (LWLRRM), LHB (EOG) AC First class (LWFAC), LHB (EOG) AC First cum AC-2 Tier (LWFCWAC), LHB (EOG) AC 2-Tier Sleeper coach (LWACCW), LHB (EOG) AC 3-Tier coach (LWACCN), LHB (EOG) AC Hot Buffet Car (LWCBAC), LHB (EOG) Executive AC Chair Car (LWFCZAC), LHB (EOG) Second Class AC Chair AC Chair Car (LWSCZAC), LHB (EOG) Non AC Chair Car (LWSCZ), LHB (EOG) 3-Tier Sleeper (LWSCN), LHB (EOG) Second Class Non AC Unreserved coach with Vestibules (LWS), LHB (EOG) High Capacity Parcel Van (LVPH), LHB (EOG) Second Class Non AC Chair Car (LS3), LHB (EOG) Second Class Non AC Chair Car (LS5), LHB (EOG) Second Class Cum Luggage & Brake Van (LSLRD) with single WAP7 locomotive is fit for operation with maximum speed up to 130 kmph over Pradhankunta (PKA) – Sealdah (SDAH) & back, between Pradhankunta (PKA) to Dankuni (DKAE) & back sections of Eastern Railway on track maintained to as per provisions of Indian Railways Permanent Way Manual, June – 2020, containing track geometry standards under Para – 522. In this connection, the following conditions shall apply:

**Para no. 2.3.5 ( C )**

S. No.	Name of Coaches	Maximum Axle Load	Maximum Braking Force at Rail Level	CG height above Rail Level
1.	AC First cum AC-2 Tier (LWFCWACA)	16.25t	6.6t	Not exceeding 1830 mm
2.	Three Tier Sleeper coaches (LWSCNA)	16.25t	6.6t	
3.	Three Tier Sleeper coaches (LWSCN1)	16.25t	5.8t	
4.	Non AC Second class Chair Car (LWSCZA)	16.25t	5.4t	

**Para no. 2.7.6** Para no. 6.1.3 of policy circular no. 6 shall be followed by Zonal Railways for introduction of a passenger train having 24 coaches or more plus one inspection carriage (LHB or other types).

File No.RDSO-CARR0CD(SCO)/1/2020-O/o ED/CARRIAGE/RDSO

Para no. 2.7.10	LHB AC First cum AC-2 Tier (LWFCWACA), Three Tier Sleeper coaches (LWSCNA), Three Tier Sleeper coaches (LWSCN1) & Non AC Second class Chair Car (LWSCZA) shall be included in this train only after successful completion of route proving run by Zonal railway as per Para 6.5.1.3 of Policy Circular-6 (Revised-2018) at maximum speed of 130 kmph and result should be found satisfactory as per Policy and criteria. The Report of Route Proving Run shall be sent to RDSO before operation of train with these coaches.
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Enclosures / संलग्नक:

i. RDSO Sketch 96077 ii. RCF's drawing no. LE90009 iii. RDSO drawing no. CG-11034 iv. RCF's drawing no. LG90010 v. RCF's drawing no. LJ90004 vi. RDSO drawing no.CSC-1844 vii. RDSO drawing no. CG-11034 viii. ICF drawing No.LGS/EOG/ASR-9-0-001 ix. RCF's drawing no. LJ90007 x. RDSO drawing CSC-1808 xi. RDSO drawing CSC-1840 xii. RCF's drawing no. WA90004 xiii. RDSO drawing no. CG-14045	
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/  
(वी.एस.यादव)

कार्यकारी निदेशक मानक/चालन शक्ति

प्रतिलिपि:

1. सचिव {यांत्रिक / इलेक्ट्रिकल / इंजीनियरिंग (जी)}, रेलवे बोर्ड, रेल भवन, नई दिल्ली - 110 001.
2. मुख्य रेल संरक्षा आयुक्त, मण्डल रेल प्रबन्धक कार्यालय, पूर्वोत्तर रेलवे परिसर, अशोक मार्ग लखनऊ - 226 001.
3. महाप्रबंधक (यांत्रिक / विद्युत / परिचालन / संकेत एवं दूरसंचार) पूर्व रेलवे, फेयरली प्लेस, कोलकाता - 700 001.

Enclosures / संलग्नक: Nil

Digitally signed by VIRENDR  
SINGH YADAV

Date: Wed Sep 16 16:20:12 IST  
2020 (वी.एस.यादव)

कार्यकारी निदेशक मानक/चालन शक्ति