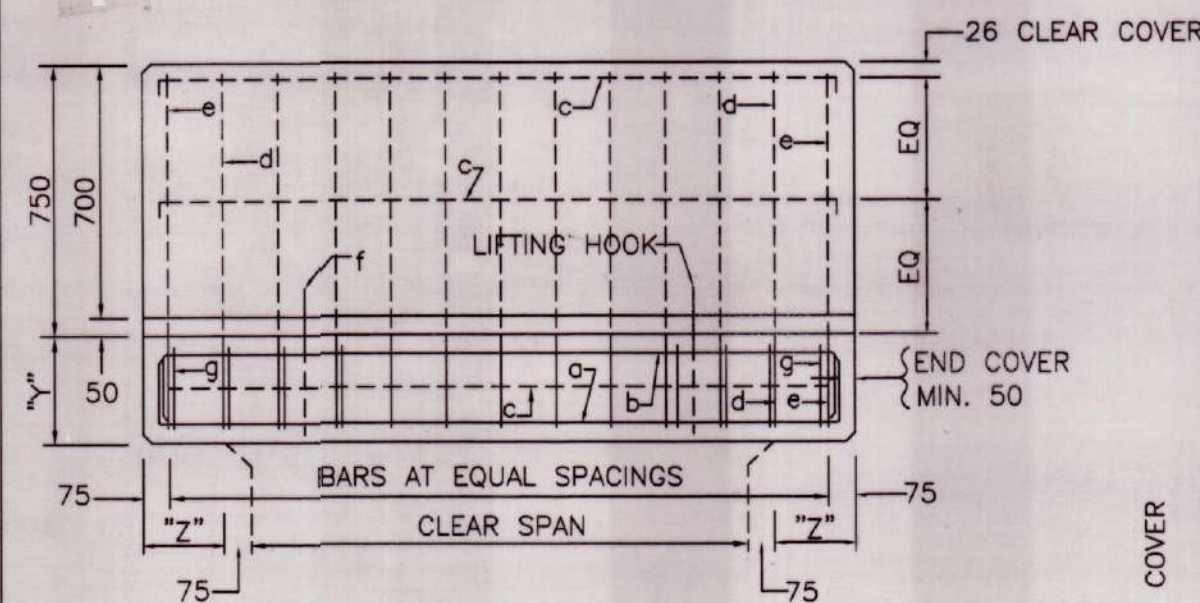
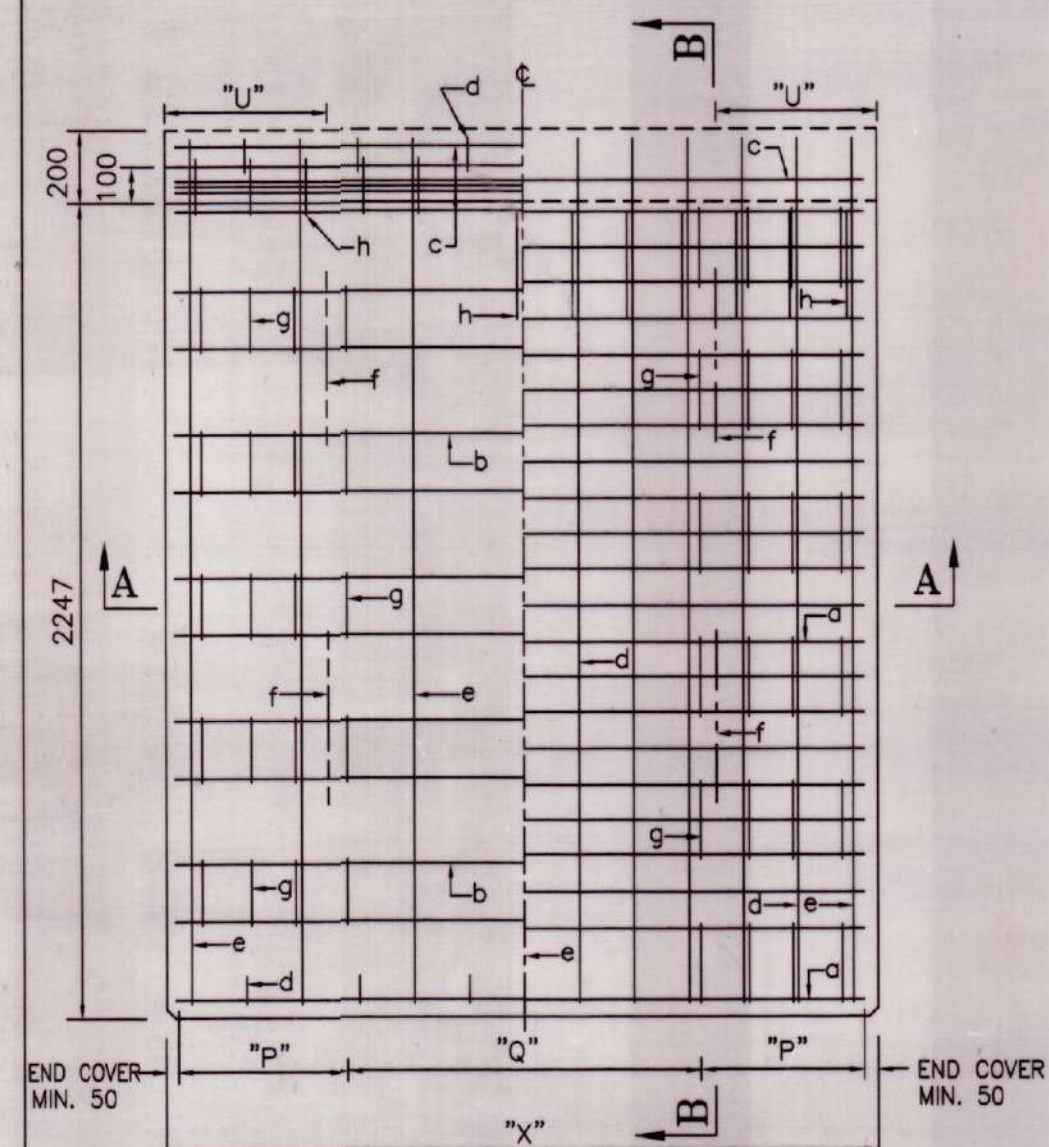
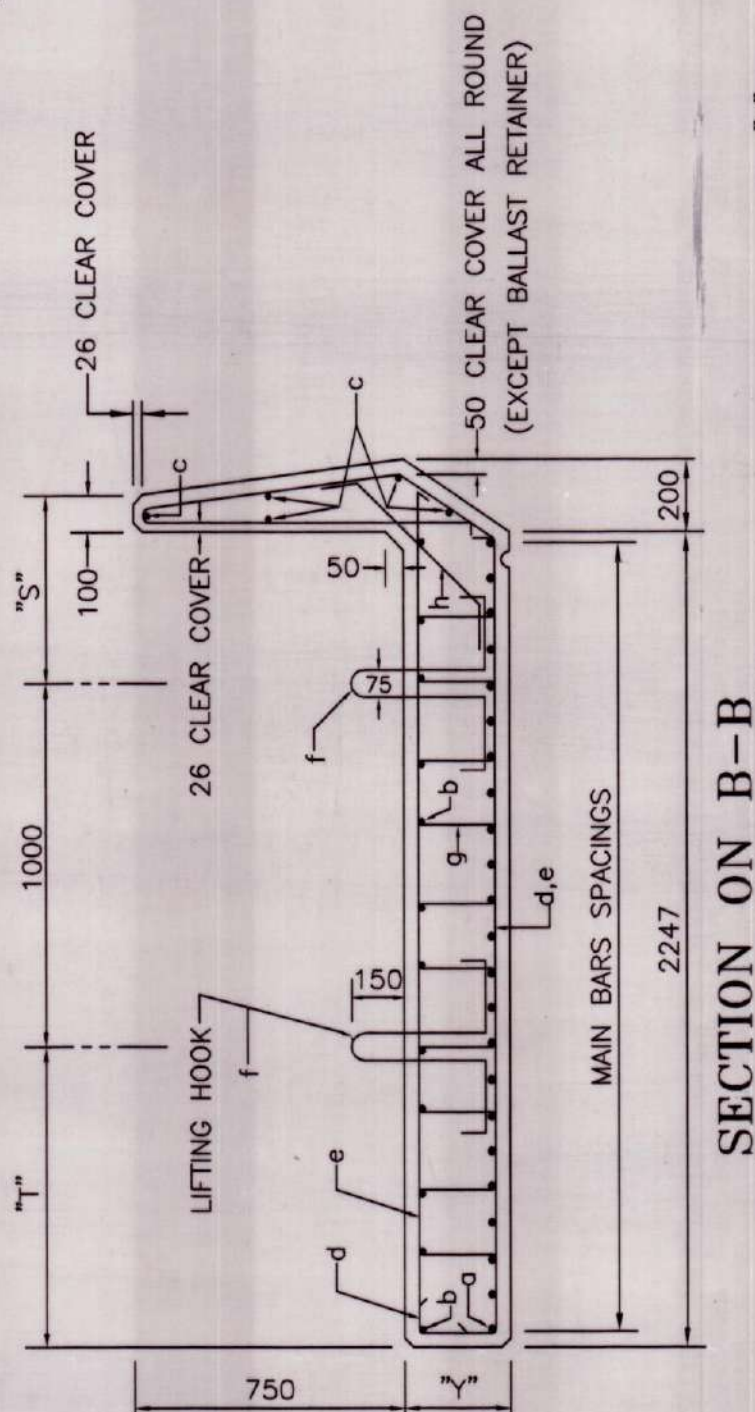




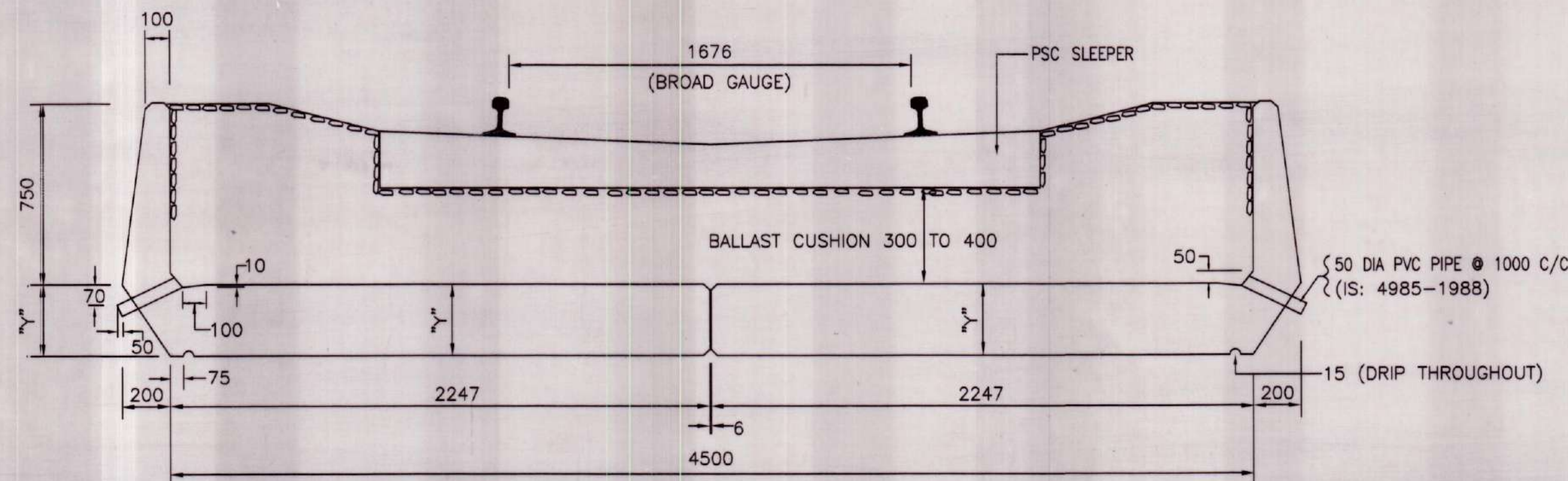
SECTIONAL ELEVATION ON A-A



HALF TOP HALF BOTTOM
TYPICAL SECTIONAL PLAN



SECTION ON B-B

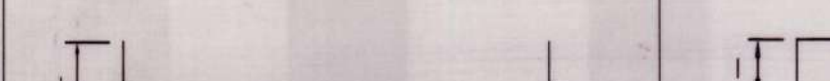
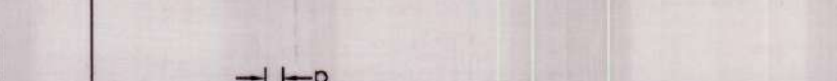
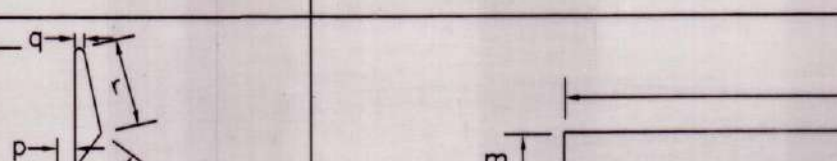
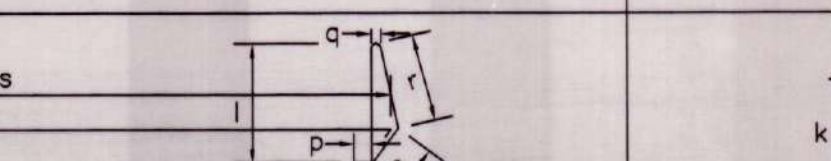
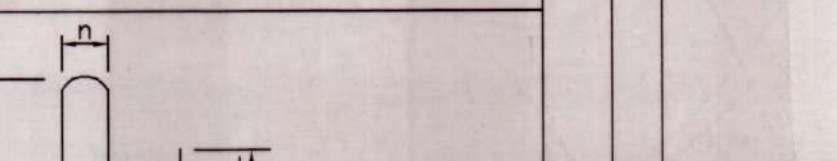


GENERAL ARRANGEMENT FOR SINGLE TRACK

QUANTITY SCHEDULE FOR EACH UNIT

DESCRIPTION		CLEAR SPANS				
		0.610m	0.915m	1.22m	1.83m	2.44m
WEIGHT (kN)		22.26	29.64	41.46	59.53	80.77
CUBICAL QUANTITY (cu m)		0.89	1.19	1.66	2.38	3.23
NET WEIGHT OF BARS # 8 (kg)		27.51	36.55	51.04	—	—
NET WEIGHT OF BARS # 10 (kg)		13.63	15.49	21.69	103.21	142.16
NET WEIGHT OF BARS # 12 (kg)		33.94	47.66	64.69	—	—
NET WEIGHT OF BARS # 16 (kg)		—	—	—	112.10	162.71
NET WEIGHT OF STEEL + 10% WASTAGE (kg)		82.59	109.66	151.16	236.84	335.36
NET WEIGHT OF STEEL + 10% WASTAGE (kN)		0.81	1.08	1.48	2.32	3.29

BAR BENDING SCHEDULE FOR EACH UNIT

CLEAR SPAN (m)	DEPTH "Y" (mm)	BAR "a"						BAR "b"						BAR "c"						BAR "d"										BAR "e"										BAR "f"										
																																																		
		DIA (mm)	NOS REQD	k	l	LENGTH OF ONE BAR	TOTAL LENGTH (mm)	DIA	NOS REQD	k	l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	l	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	l	m	n	p	q	r	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	l	m	n	p	q	r	s	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	l	m	n	LENGTH OF ONE BAR	TOTAL LENGTH
0.610	265	12	25	1110	141	1320	33000	8	14	1086	137	1312	18368	8	5	1110	75	1260	6300	8	3	2147	923	165	259	75	48	727	4395	13185	8	4	2147	923	165	259	75	48	727	2342	6713	26852	12	4	345	75	250	99	1306	5224
0.915	285	12	29	1415	161	1665	48285	8	16	1391	157	1657	26512	8	5	1415	75	1565	7825	8	4	2147	938	185	276	75	48	727	4447	17788	8	5	2147	938	185	276	75	48	727	2342	6765	33825	12	4	365	75	250	99	1346	5384
1.220	310	12	31	1870	186	2170	67270	8	16	1846	182	2162	34592	8	5	1870	75	2020	10100	8	6	2147	956	210	298	75	48	727	4461	26766	8	7	2247	956	210	298	75	48	727	2342	6830	47810	12	4	390	75	250	99	1396	5584
1.830	345	16	23	2480	221	2826	64998	10	12	2448	209	2806	33672	10	5	2480	75	2630	13150	10	6	2147	983	245	328	75	48	727	4598	27588	10	7	2147	983	245	328	75	48	727	2342	6910	48370	16	4	429	95	250	107	1488	5952
2.440	370	16	27	3190	246	3586	96822	10	14	3158	234	3566	49924	10	5	3190	75	3340	16700	10	8	2147	1001	270	351	75	48	727	4665	37320	10	9	2147	1001	270	351	75	48	727	2342	6977	62793	16	4	454	95	250	107	1540	6160

- ALL DIMENSIONS ARE IN MILLIMETRES EXCEPT OTHERWISE SHOWN.
- ALL REINFORCEMENT BARS SHALL BE OF HIGH STRENGTH DEFORMED BARS (HSD/TMT) CONFORMING TO IS:1786.
- SPACING OF REINFORCEMENT ARE WITH REFERENCE TO THE CENTRE LINES OF BARS.
- CLEAR COVER TO THE REINFORCEMENT AT TOP AND BOTTOM OF THE SLAB WILL BE AS PER CLAUSE No. 15.9.2 OF IRS CONCRETE BRIDGE CODE.
- THE DESIGN IS SUITABLE FOR MODERATE ENVIRONMENT EXPOSURE CONDITIONS (i.e., DESIGN CRACK WIDTH NOT TO EXCEED 0.20 mm AS PER CLAUSE No. 10.2.1(a) OF IRS CONCRETE BRIDGE CODE).
- SLABS HAVE BEEN DESIGNED FOR 400 mm BALLAST CUSHION AND CHECKED FOR 300 mm BALLAST CUSHION VIDE CLAUSE NO. 2.2.2 OF IRS BRIDGE RULES.
- CONTROLLED CONCRETE GRADE M-25 SHALL BE USED. THE LETTER 'M' REFERS TO THE MIX AND NUMBER INDICATES THE CHARACTERISTIC CUBE STRENGTH AT 28 DAYS IN N/mm².
- MAXIMUM SIZE OF AGGREGATE TO BE USED IS 20 mm.
- WEIGHT OF REINFORCED CONCRETE HAS BEEN ASSUMED AS 25 kN/Cu m.
- 'DIA' INDICATED IN THIS DRAWING REFERS TO NOMINAL DIAMETER OF THE HSD/TMT BARS AS PER IS:1786.
- ALL CORNERS OF SLAB SHALL HAVE A CHAMFER OF 25 mm UNLESS OTHERWISE SHOWN. HOWEVER ABUTMENT WILL HAVE A CHAMFER OF 75mm.
- BAR BENDING DIMENSIONS ARE OVER OUTER EDGES. ALL BARS SHOULD BE PLACED IN ACCORDANCE WITH THE TABLE SHOWN ABOVE FOR EACH SPAN.
- TOP SURFACE OF THE SLAB SHOULD BE GIVEN A FEW COATS OF COAL TAR/BITUMEN OR ANY OTHER SUITABLE WATER PROOFING TREATMENT BEFORE THE TRACK IS LAID ON THEM.
- UNITS SHOULD BE PROVIDED WITH A UNIFORM BEDDING BY PLACING IT OVER A LAYER OF CEMENT AND CAST IRON BORINGS IN 1:1 PROPORTION. THE PASTE SHOULD BE OF STIFF CONSISTENCY.
- THESE SLABS ARE SUITABLE FOR CURVED TRACK UP TO 10 DEGREE.
- THESE SLABS CAN ALSO BE USED FOR REPLACEMENT OF EXISTING SLABS, IF CLEAR SPAN OF EXISTING SLAB IS LESS THAN THAT OF THE PROPOSED SLABS SUBJECT TO AVAILABILITY OF BEARING ON ABUTMENT/PIER.
- BALLAST CUSHION MAY BE ADJUSTED TO CATER FOR SUPER ELEVATION WHILE PLACING THE SLABS ON CURVES.
- DATE OF CASTING AND NAME OF CASTING DEPOT SHOULD BE ENGRAVED ON EACH UNIT.
- THESE SLABS CAN BE USED IN YARDS, CARRYING TURNOUT OR MULTIPLE LINE SECTIONS ELIMINATING BALLAST RETAINER PORTION AND SHAPE OF BAR "d" AND "e" MAY BE MODIFIED, BAR "h" MAY BE REMOVED, IF NECESSARY.
- FOR NEW CONSTRUCTION, MINIMUM SPAN SHALL NOT BE LESS THAN 1.0 METRE.
- TO FACILITATE THE WORKING OF BALLAST CLEANING MACHINE, LIFTING HOOKS SHALL BE CUT AFTER THE PLACEMENT OF THE SLAB AND SUITABLE WATER PROOFING COAT SHALL BE APPLIED ON THE CUT.

NOTE

BAR "g"										BAR "h"					
DIA	NOS REQD	OF LEGS	a	b	c	d	e	LENGTH OF ONE BAR	TOTAL LENGTH	DIA	NOS REQD	k	p	LENGTH OF ONE BAR	TOTAL LENGTH
10	6	12	75	117	165	167	207	3681	22086	8	7	505	100	705	4935
10	6	14	75	105	185	141	181	4183	25098	8	9	530	100	730	6570
10	8	14	75	100	210	131	171	4393	35144	8	13	565	100	765	9945
10	8	10	75	138	245	197	244	4237	33896	10	13	615	100	815	10595
10	10	12	75	120	270	162	208	4922	49220	10	17	650	100	850	14450

IRS BRIDGE RULES
IRS CONCRETE BRIDGE CODE
IS: 1786

MILLIMETRES
200 100 0 200 400 600 800
1:20

2. APPROVED BY B.O. BSC
VIDE REVIEW ITEM NO 1009
DRAWING NO. CHANGED
1. ADE/CB-II
31-03-09

SPECIFICATION

SCALE

ALT

DESCRIPTION

DATE

DESCRIPTION FOR EACH UNIT

DIMENSION OF SLAB			POSITION OF LIFTING HOOK			BEARING PRESSURE AT SUPPORT	
CLEAR SPAN (m)	LENGTH "X"	DEPTH "Y"	"S"	"T"	"U"	SUPPORT "Z"	kN/m ²
0.610	1210	265	495	852	375	225	646
0.915	1515	285	506	841	375	225	639
1.220	1970	310	517	830	450	300	491
1.830	2580	345	531	816	450	300	516
2.440	3290	370	540	807	500	350	458

ARRANGEMENT FOR SHEAR REINFORCEMENT

SPAN (m)	PORTION "P"		PORTION "Q"		TOTAL Nos OF STIRRUPS (BAR-"g")
	LENGTH (mm)	Nos OF STIRRUPS	LENGTH (mm)	Nos OF STIRRUPS	
0.610	270	3	570	—	6
0.915	333	3	750	—	6
1.220	435	4	1000	—	8
1.830	485	4	1510	—	8
2.440	710	5	1770	—	10

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अ. अ. मा. सं.
R D S O

25 टन भारण - 2008 के लिए
0.61, 0.915, 1.22, 1.83 और 2.44 मी. मानक पाट के लिए उपयुक्त
पूर्व निर्मित प्रबलित कंक्रीट पुल स्लैब
(कंक्रीट ग्रेड एम-25)

PRECAST R C BRIDGE SLAB
STANDARD SPANS 0.61, 0.915, 1.22, 1.83 & 2.44m
FOR 25t LOADING - 2008 (CONCRETE GRADE M-25)

अस्थाई/PROVISIONAL दिनांक/DATE: 15-01-2009

अ.अ.मा.सं./बी-10061-10063 RDSO/B-10061

13.01.2012 ALT BA-10063

CALCULATION REGISTER REFERENCE: DIC NO. BS-72	0.61m	0.915m	1.22m	1.83m	2.44m
DOE BY: ADMIVED (JE/D)	ADMIVED (JE/D)	ADMIVED (JE/D)	ADMIVED (JE/D)	ADMIVED (JE/D)	ADMIVED (JE/D)
CHG. BY: SDAVAL (JE/D)	S. D. K. (JE/D)	S. D. K. (JE/D)	S. D. K. (JE/D)	S. D. K. (JE/D)	S. D. K. (JE/D)

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