



ELESTOMERIC BEARING TYPE	PLAN SIZE		SIDE COVER	TOP & BOTTOM COVER	INTERMEDIATE ELSTOMER LAYERS		STEEL LAMINATES		TOTAL THICKNESS (h)
	a (mm)	b (mm)	c (mm)	he (mm)	ne	THICKNESS hi (mm)	ns	THICKNESS hs (mm)	$h = 2 \times he + ne \times hi + ns \times hs$
STANDARD	400	400	6	6	4	12	5	4	80

⊗ — BEARING  
⊗ — JACKING POSITION

## NOTES:

- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE MENTIONED.
- DO NOT SCALE THE DRAWING. FOLLOW FIGURED DIMENSIONS ONLY.
- ALL BEARINGS SHALL BE LAMINATED NEOPRENE TYPE.
- ALL BEARINGS SHALL BE TEST CERTIFIED BY MANUFACTURER. MATERIAL, FABRICATION, TESTING AND ACCEPTANCE SHALL BE AS PER IRC-83 (PART-II) LATEST EDITION.
- BEARING SHALL BE INSTALLED AS PER GUIDELINES LISTED IN IRICEN PUBLICATION AND CLAUSE 2005.6 OF MORTH. HOWEVER THE FOLLOWING PRECAUTIONS SHALL BE TAKEN DURING INSTALLATION.
  - SURFACES OF BEARING AND PEDESTAL SHALL BE FREE FROM ANY OIL, GREASE, DIRT ETC..
  - BEARING MUST BE PLACED BETWEEN TRUE HORIZONTAL SURFACES (MAXIMUM TOLERANCE 0.2% PERPENDICULAR TO LOAD) AND AT TRUE PLAN POSITION OF THEIR CONTROL LINES MARKED ON RECEIVING SURFACES (MAXIMUM TOLERANCE  $\pm 3$ mm)
  - CONCRETE SURFACE SHALL BE FREE FROM LOCAL IRREGULARITIES (MAXIMUM TOLERANCE  $\pm 1$ mm IN HEIGHT)
  - EASY REMOVING SOFT FORMS SHALL BE USED AROUND THE BEARINGS DURING CONCRETING OF THE CAST-IN-SITU SUPERSTRUCTURE. FORMS SHALL SNUGLY FIT THE BEARINGS TO PREVENT LEAKAGE OF MORTAR GROUT. HOWEVER, ANY MORTAR GROUT CONTAMINATING THE BEARINGS DURING CONCRETING SHALL BE COMPLETELY REMOVED BEFORE IT SETS.
- SPECIAL CARE SHOULD BE TAKEN DURING PACKING, TRANSPORTATION STORAGE AND HANDLING OF BEARING TO AVOID ANY MECHANICAL DAMAGE, CONTAMINATION WITH OIL, GREASE DIRT AND UNDUE EXPOSURE TO SUNLIGHT AND WEATHER.
- GRADES OF RAW ELASTOMER OF PROVEN USE IN ELASTOMERIC BEARINGS. WITH LOW CRYSTALLISATION RATES AND ADEQUATE SHELF LIFE SHALL BE USED.
- BEARINGS SHALL BE HANDLED CAREFULLY. THESE SHALL BE PROTECTED FROM BRIGHT SUN LIGHT AND EXTREME COLD. THESE SHALL BE STORED NEATLY UNDER COVER TILL INSTALLATION.
- THE ELASTOMER USED IN MANUFACTURE OF ELASTOMERIC BEARING SHOULD BE EITHER NATURAL RUBBER (NR) OR CHLOROPRENE RUBBER (CR).IT SHOULD BE IN ACCORDANCE TO RELEVANT PROVISION OF IRC-83 (PART-II) LATEST EDITION.

IMPORTANT POINTS ARE GIVEN AS BELOW:

  - IN CASE OF CHLOROPRENE RUBBER (CR), THE GRADE OF RAW ELASTOMER SHALL BE:
    - NEOPRENE WRT, BAYPREN 110, SKYPRENE B-5 AND DENKA S-40 V GRADE ARE TO BE USED AS RAW ELASTOMER IN CASE OF CHLOROPRENE RUBBER FOR THE MANUFACTURING OF THE ELASTOMERIC BEARINGS AND NO OTHER CHLOROPRENE SHOULD BE ACCEPTED AS EQUIVALENT OF NEOPRENE WRT.
    - THE FIRM FOR ELASTOMERIC BEARINGS SHALL EITHER IMPORT CHLOROPRENE DIRECTLY, OR WILL PURCHASE THE MATERIAL FROM AN AUTHORIZED AGENT OF THE FOREIGN MANUFACTURER.
  - IN CASE OF NATURAL RUBBER, GRADE OF RAW ELASTOMER SHALL BE RSS 1X CONFORMING IS :5561
  - LAMINATES OF STEEL CONFORMING TO IS: 2062/IS: 1079 OR EQUIVALENT INTERNAL GRADE SHALL BE USED. THE YIELD STRESS SHALL NOT BE LESSER THAN 250 MPa.

DESIGN LIFE SHALL BE MINIMUM 50 YEARS

MAXIMUM ULS VERTICAL LOAD(MT)	195
MAXIMUM ULS HORIZONTAL LOAD(MT)	18.5
ROTATION ULS (RADIAN)	0.008

## NOTE :-

- DESIGNED AS PER : UIC:772 - 2R-1989
- STEEL LAMINATES : E250 GRADE CONFORMING TO IS : 2062/IS : 1079
- ELASTOMER : CHLOROPRENE RUBBER COMPOUND
- SHORE HARDNESS :  $70 \pm 5$
- SHEAR MODULUS :  $1.1 \pm 0.165$

## CONCEPTUAL / TENDER DRAWING

EMPLOYER :  
 RAIL INFRASTRUCTURE DEVELOPMENT COMPANY (KARNATAKA) LIMITED  
GENERAL CONSULTANTS :  
   AECOM-EGIS-WSP

PROJECT : **BENGALURU SUBURBAN RAILWAY PROJECT (BSRP)**  
**K-RIDE CORRIDOR - 4**

DRAWING TITLE : **DETAILS OF ELASTOMERIC BEARINGS FOR STRAIGHT 31M SPAN SUPERSTRUCTURE**

DRAWING NO. : **O22077-BSRP-CR4-C-VD-GEN-10-1201**

PRELIMINARY DWG (P), DEFINITIVE DWG (D), CONSTRUCTION DWG (C), AS BUILT DWG (B), SHOP DWG (S), MANUFACTURED DWG (M) SHEET SIZE - A2