Supplementary Information

The following information is associated with Network Rail Standard:
NR CIV/SD/1032 Rev B

Additional Content Access

Click the link below to access CAD version of this drawing.

CAD Drawing

- CIV/SD/1032

If you have any questions, or need assistance, please contact **IHS Support**

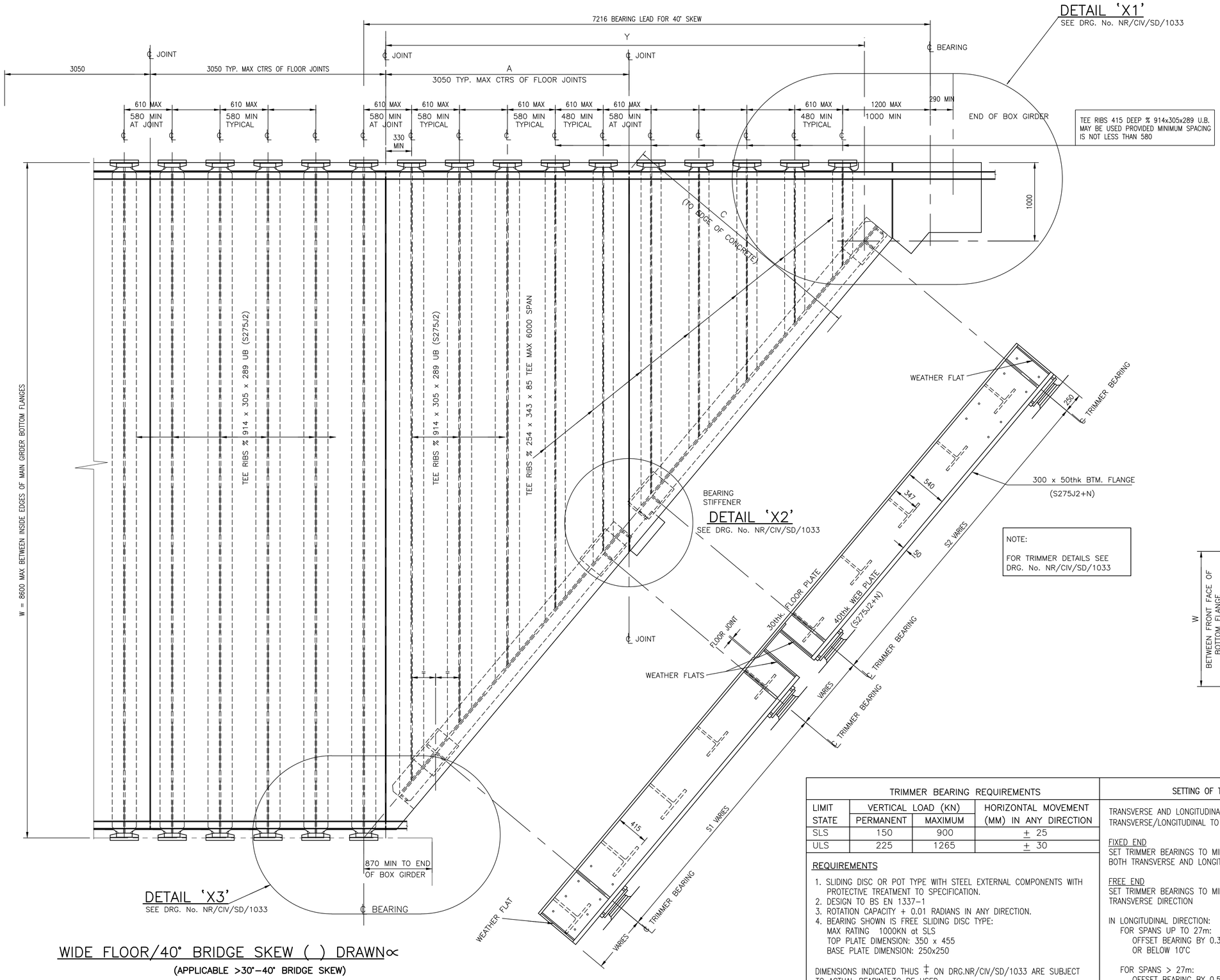
Information accessed via the links above is the property of the Copyright holder

IHS Additional Content Page

Documents
Document Sharing Hub

Copyright Network Rail
Provided by IHS under license with Network Rail
No reproduction or networking permitted without license from IHS
Full document details: NR NR-CIV-SD-1032 ISSUE B 2010

Licensee=Weston Williamson/5989497001, User=sam, albett
Not for Resale, 03/27/2016 21:05:34 MDT



WIDE FLOOR/40° BRIDGE SKEW ( ) DRAWN∝

(APPLICABLE >30°–40° BRIDGE SKEW)

(SCALE 1:25)

DETAIL 'X1'

SEE DRG. No. NR/CIV/SD/1033

TEE RIBS 415 DEEP % 914x305x289 U.B. MAY BE USED PROVIDED MINIMUM SPACING IS NOT LESS THAN 580

TRIMMER SETTING OUT

TRIMMER LENGTHS TO BE MADE APPROXIMATELY EQUAL USING THE FOLLOWING FORMULA:

$$\frac{Y}{2} - 300 < A < \frac{Y}{2} + 300$$

IF A OR C EXCEED 3500mm* THEN TRIMMER IS TO SPLIT INTO THREE SECTIONS AS FOR 35°–55° RANGE.

* ABSOLUTE MAXIMUM FOR TRANSPORTATION

WORKED EXAMPLE:

SKEW : ∝ = 40°
FLOOR WIDTH : W = 8600
BEARING LEAD : BL = 7216

Y = 7216 – (610–330) – (1000 tan 40°)
= 6097

A = 2749 < A < 3349

CHOOSE TEE RIB SPACING TO SUIT 'A' AND TO GIVE APPROXIMATELY EQUAL TRIMMER SPANS. S1 TO BE LESS THAN S2
A (SHOWN) = 3050
C (SHOWN) = 3257
S1(SHOWN) = 3321
S2(SHOWN) = 4227

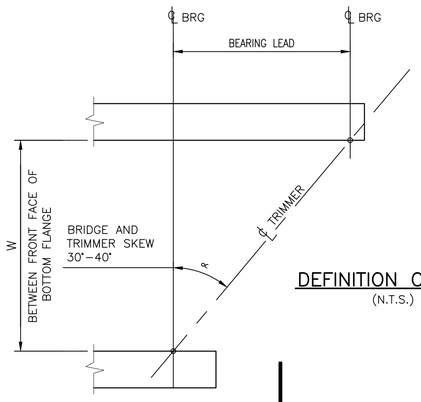
E.G. $S1 = [\sin^{-1}\propto(A-330-\frac{610}{2}-(610-330)]$

$= [\sin^{-1} 40(3050-330-\frac{610}{2}-(610-330)]$

= 3321

NOTE:

FOR TRIMMER DETAILS SEE DRG. No. NR/CIV/SD/1033



DEFINITION OF SKEW

(N.T.S.)

TRIMMER BEARING REQUIREMENTS			
LIMIT STATE	VERTICAL LOAD (KN) PERMANENT	VERTICAL LOAD (KN) MAXIMUM	HORIZONTAL MOVEMENT (MM) IN ANY DIRECTION
SLS	150	900	± 25
ULS	225	1265	± 30

REQUIREMENTS

1. SLIDING DISC OR POT TYPE WITH STEEL EXTERNAL COMPONENTS WITH PROTECTIVE TREATMENT TO SPECIFICATION.
2. DESIGN TO BS EN 1337–1
3. ROTATION CAPACITY + 0.01 RADIANS IN ANY DIRECTION.
4. BEARING SHOWN IS FREE SLIDING DISC TYPE:
   MAX RATING 1000KN at SLS
   TOP PLATE DIMENSION: 350 x 455
   BASE PLATE DIMENSION: 250x250

DIMENSIONS INDICATED THUS ‡ ON DRG.NR/CIV/SD/1033 ARE SUBJECT TO ACTUAL BEARING TO BE USED.

SETTING OF TRIMMER BEARINGS

TRANSVERSE AND LONGITUDINAL DIRECTIONS ARE DEFINED AS TRANSVERSE/LONGITUDINAL TO AXIS OF MAIN GIRDER

FIXED END
SET TRIMMER BEARINGS TO MID POINT OF MOVEMENT RANGE IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS

FREE END
SET TRIMMER BEARINGS TO MIDPOINT OF MOVEMENT RANGE IN TRANSVERSE DIRECTION

IN LONGITUDINAL DIRECTION:
FOR SPANS UP TO 27m:
OFFSET BEARING BY 0.33mm FOR EACH DEGREE ABOVE OR BELOW 10°C

FOR SPANS > 27m:
OFFSET BEARING BY 0.5mm FOR EACH DEGREE ABOVE OR BELOW 10°C

1. TEE RIBS SHALL BE FORMED IN ONE LENGTH. INTERMEDIATE WELD JOINTS ARE NOT PERMITTED.
2. 580 RIB SPACING IS DESIRABLE MINIMUM TO ALLOW WELDING, PROTECTIVE TREATMENT AND MAINTENANCE.
3. SEE DRG NO. NR/CIV/SD/1020 FOR LOCATION OF FLOOR PLATE BUTT WELDS.

Rev	Date	Description of revision	Design'd	C'kd
B	Dec 10	EUROCODE ISSUE	CH	MM
A	Dec 09	ORIGINAL ISSUE	CH	MM

Network Rail
Network Rail Infrastructure Ltd
Registered Office:
Kings Place
90 York Way
London
N1 9AG

Approved	P Clark	Senior Programme Engineering Manager (Building & Civils)	P.C.	Dec–10
	Name	Position	Signature	Date

Master copy with original signatures held by Network Rail HQ CIVIL ENGINEERING STANDARD DESIGN

© COPYRIGHT NETWORK RAIL 2009

STANDARD HALF THROUGH UNDERBRIDGES
BOX GIRDERS & TRANSVERSE RIBBED FLOORS

DOUBLE TRACK – 2 GIRDERS ALTERNATIVE TRIMMER WIDE FLOOR >30° – 40° SKEW SHEET 1 OF 2

Scale	1:25	
Drawing Number	NR/CIV/SD/1032	B

Full document details: NR NR-CIV-SD-1032 ISSUE B 2010
Documents Document Sharing Hub
Licensee:Helpline Willowbrook0884(100) User:sam, allnet
Uncontrolled copy printed on 15/04/2010
Copyright Network Rail
Provided by IHS under licence with Network Rail
No reproduction or networking permitted without licence from IHS