

Liftech Structural Details for Cranes

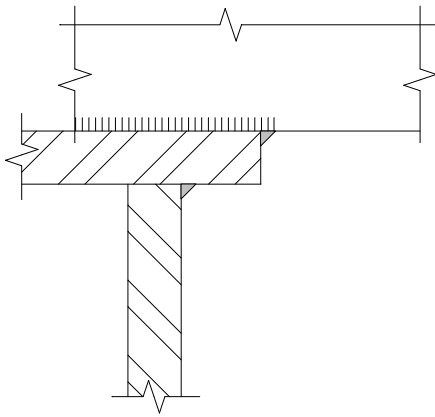
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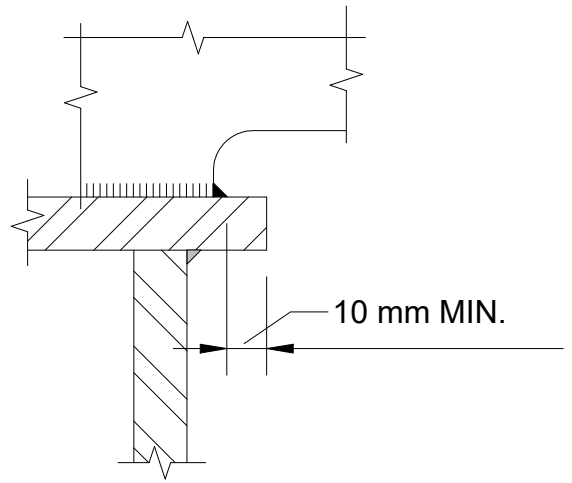
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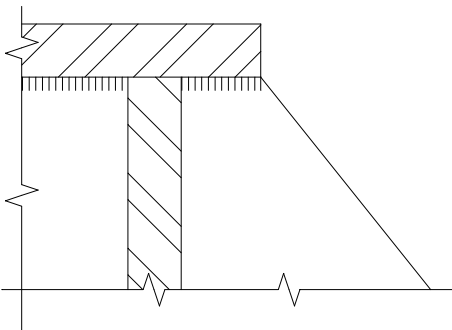
Structural Details



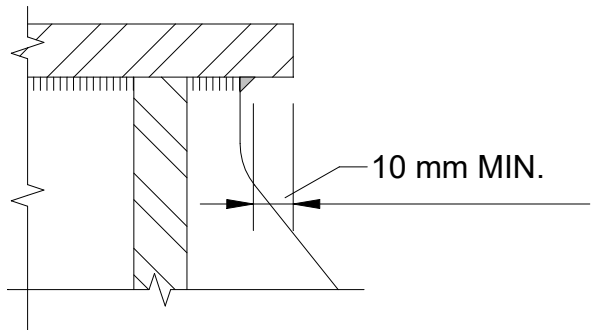
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Acceptable

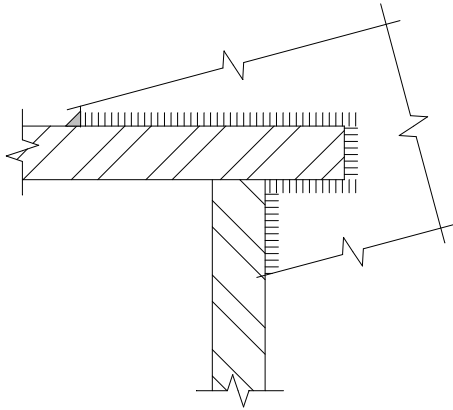


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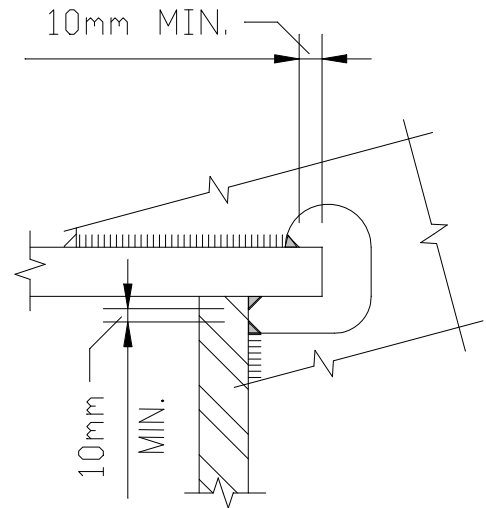


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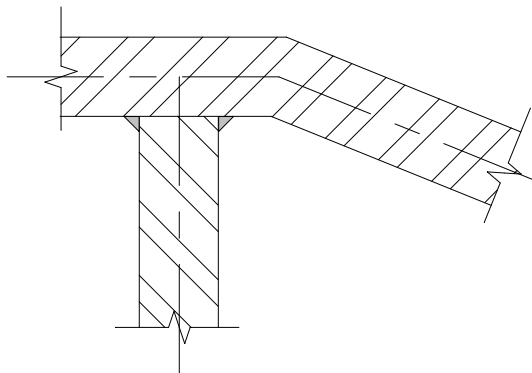
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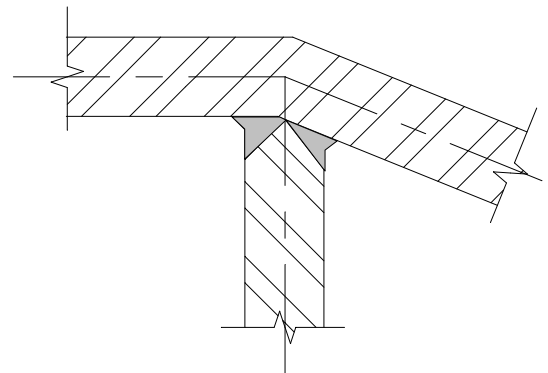
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Acceptable



Not Acceptable



Acceptable

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Structural Details

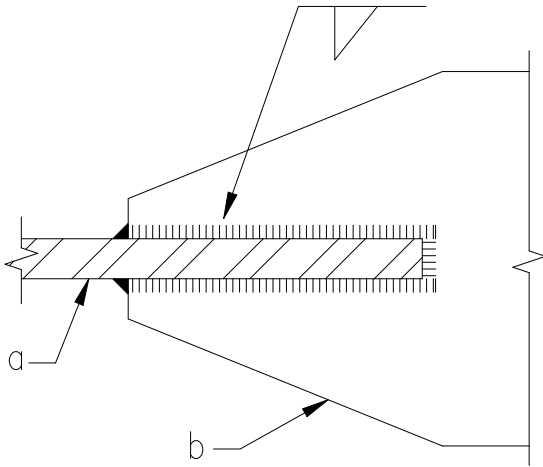


PLATE b SLOTTED

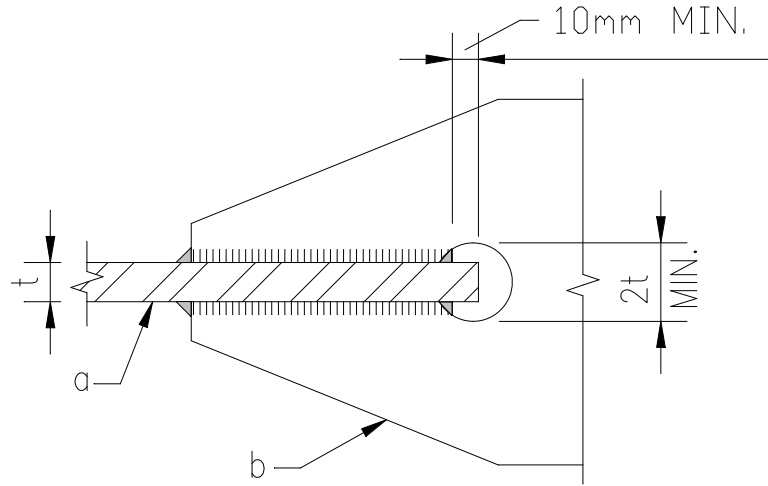
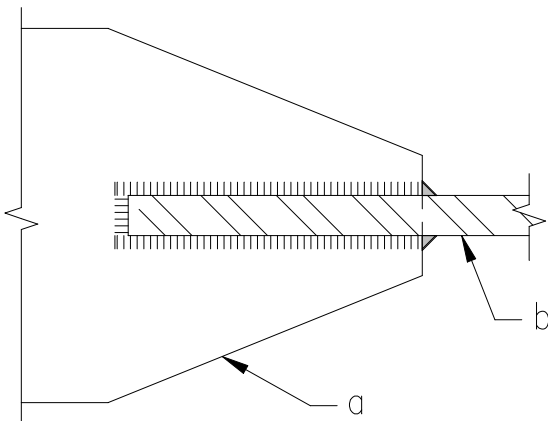
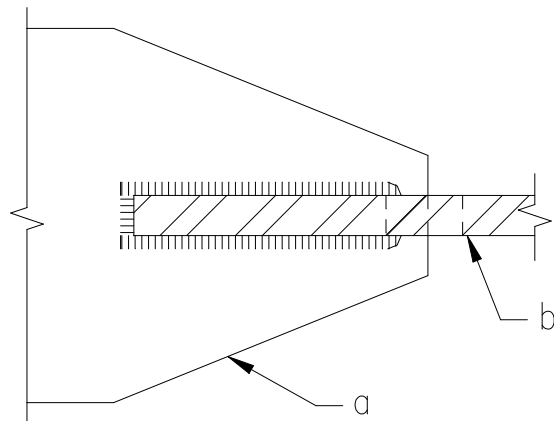


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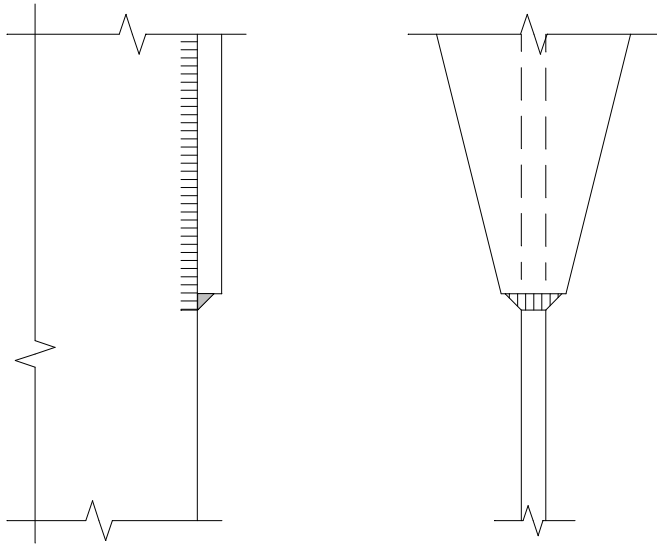
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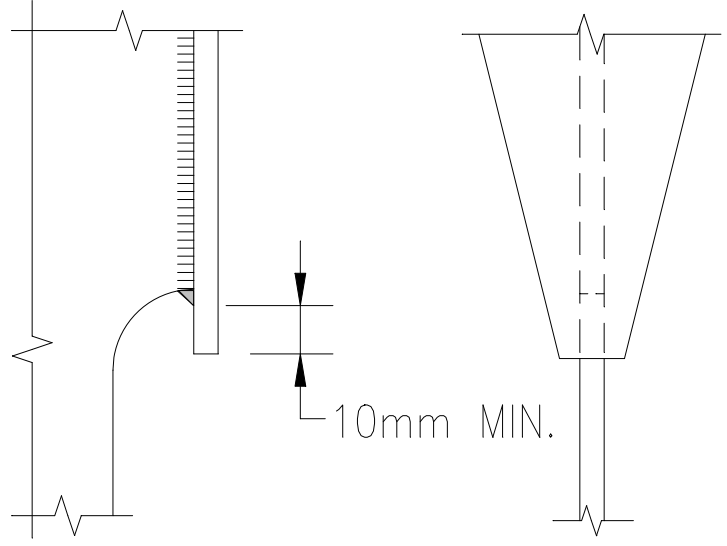
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Structural Details



Not Acceptable



Acceptable

Structural Details

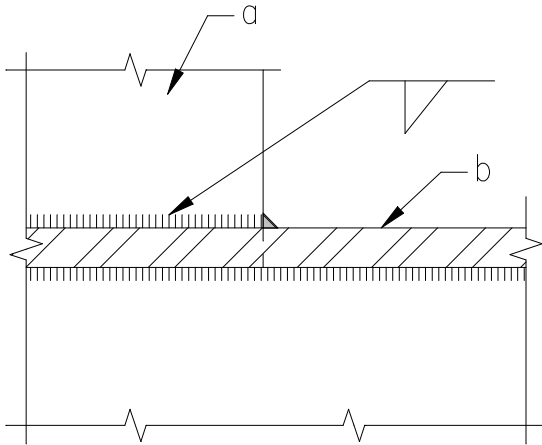


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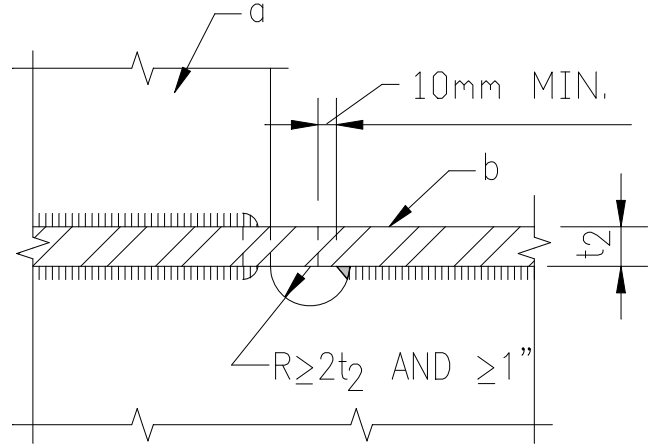
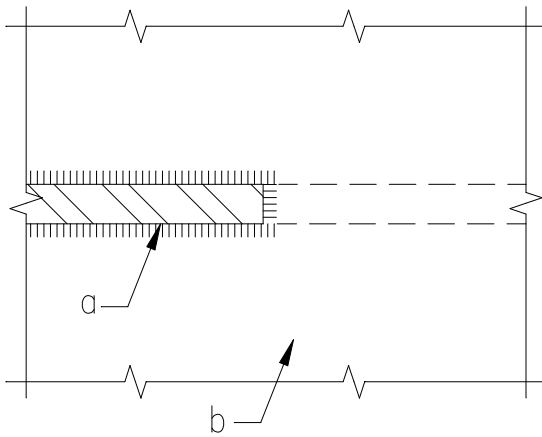
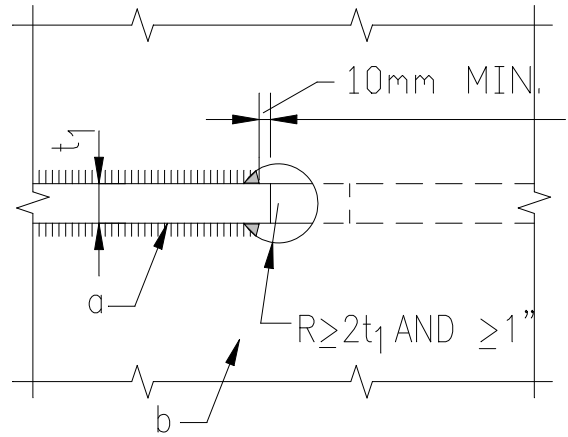


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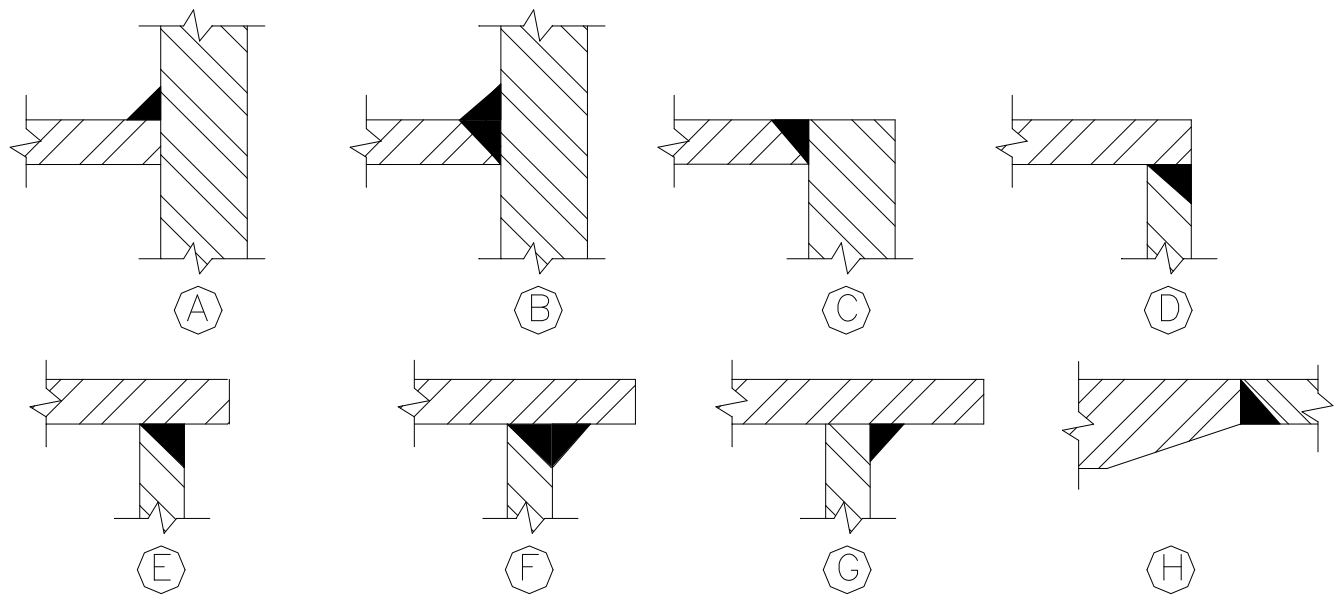
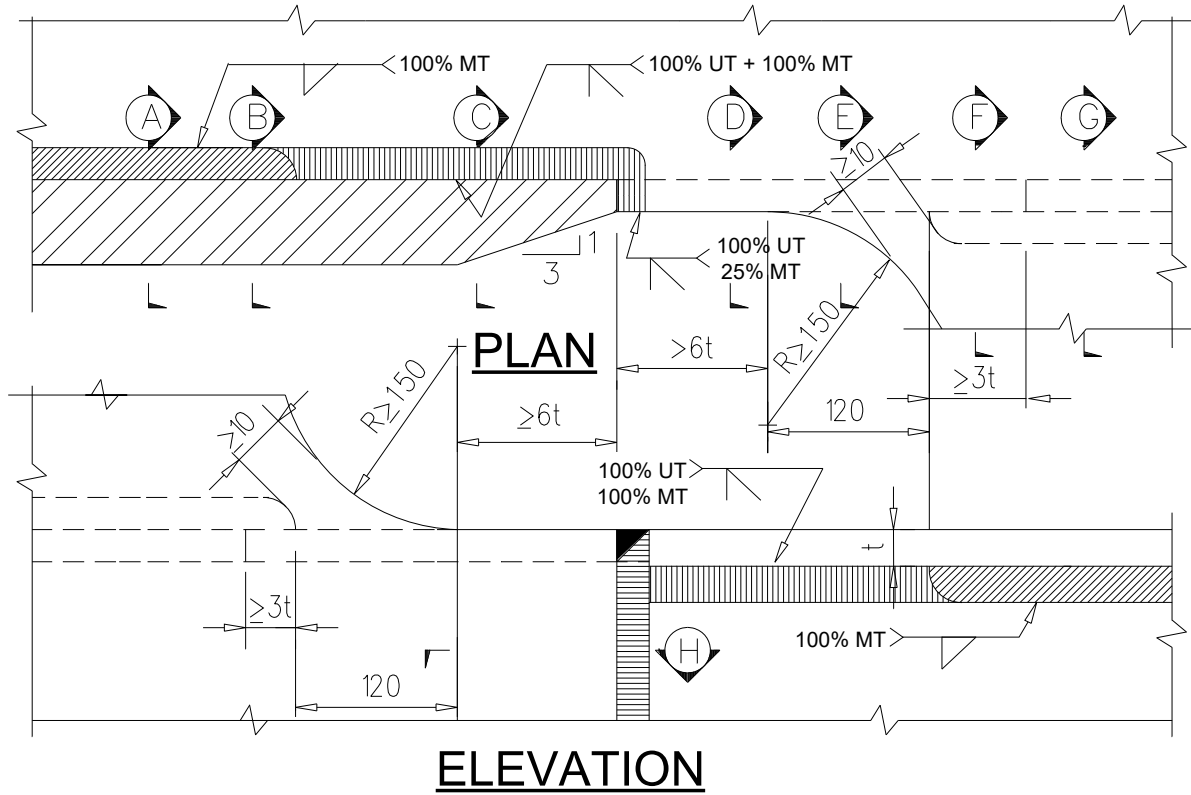
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Structural Details

**Avoidance of Wraparound Weld
Acceptable**

See Sht. 7 for isometric view.



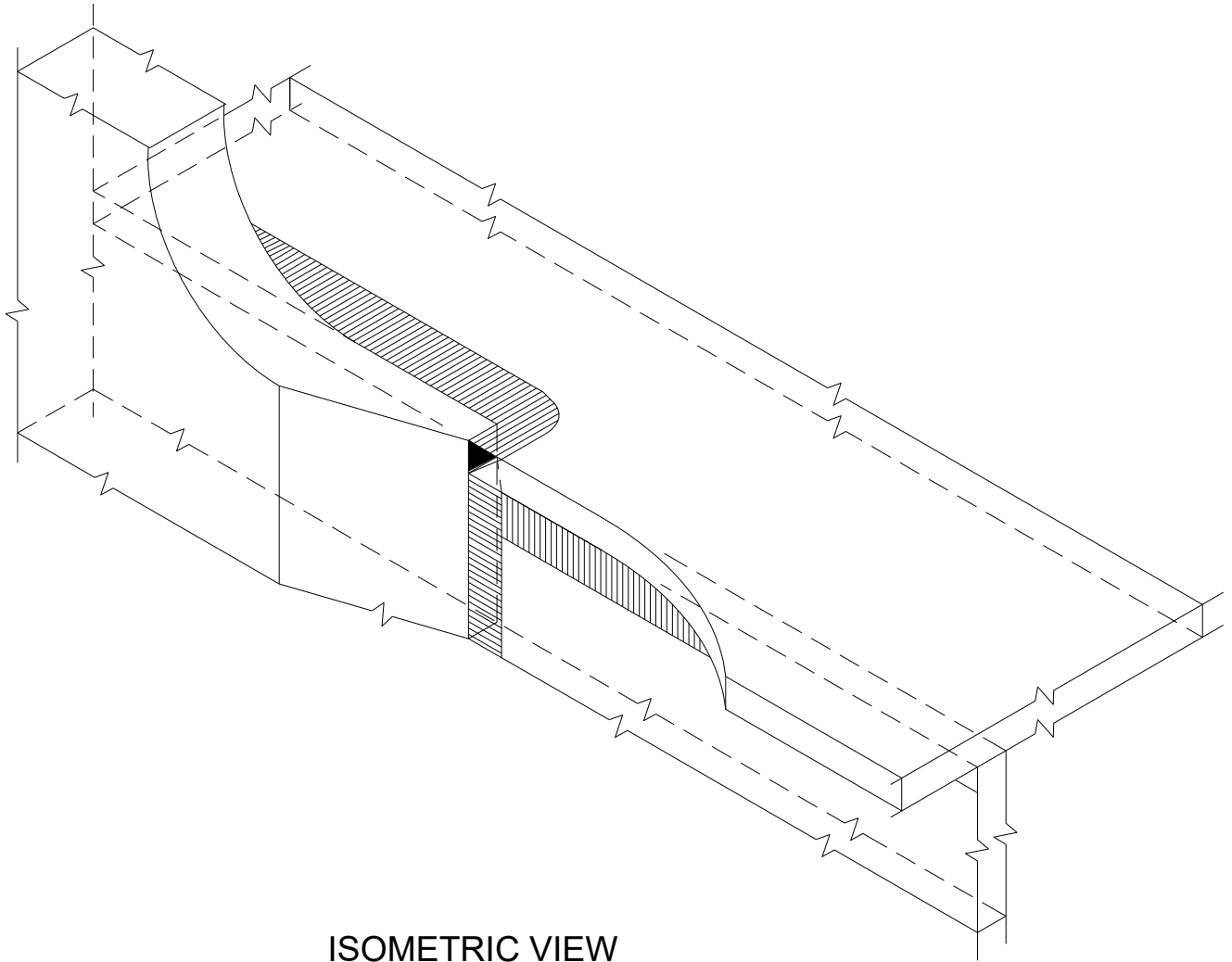
Note: Welds shall conform to the most recent edition of AWS D1.1, including the requirements for cyclically loaded structures.

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Structural Details

Continued from Sht. 6.

Avoidance of Wraparound Weld
Acceptable

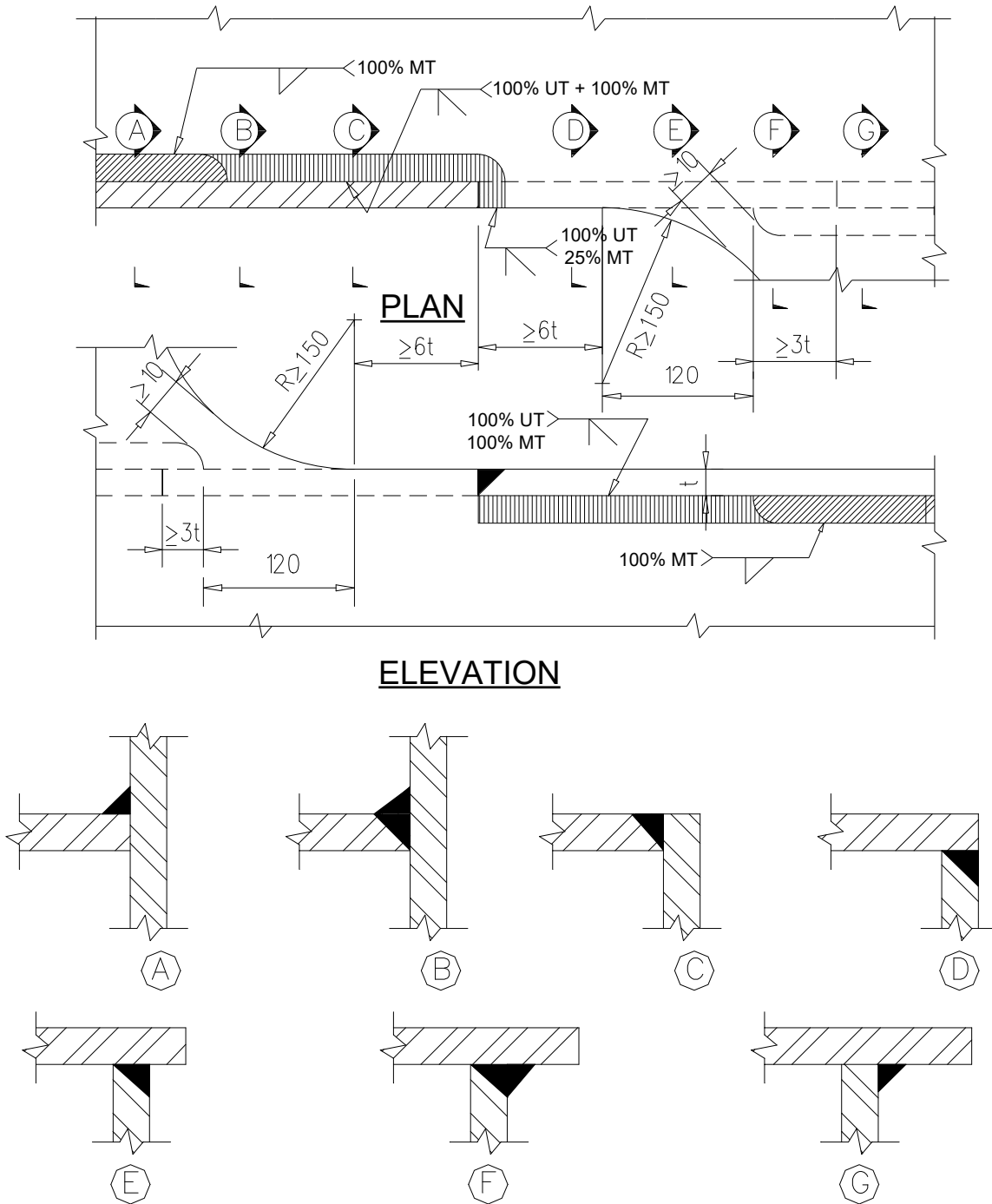


ISOMETRIC VIEW

Structural Details

See Sht. 9 for Isometric View

Avoidance of Wraparound Weld
Acceptable

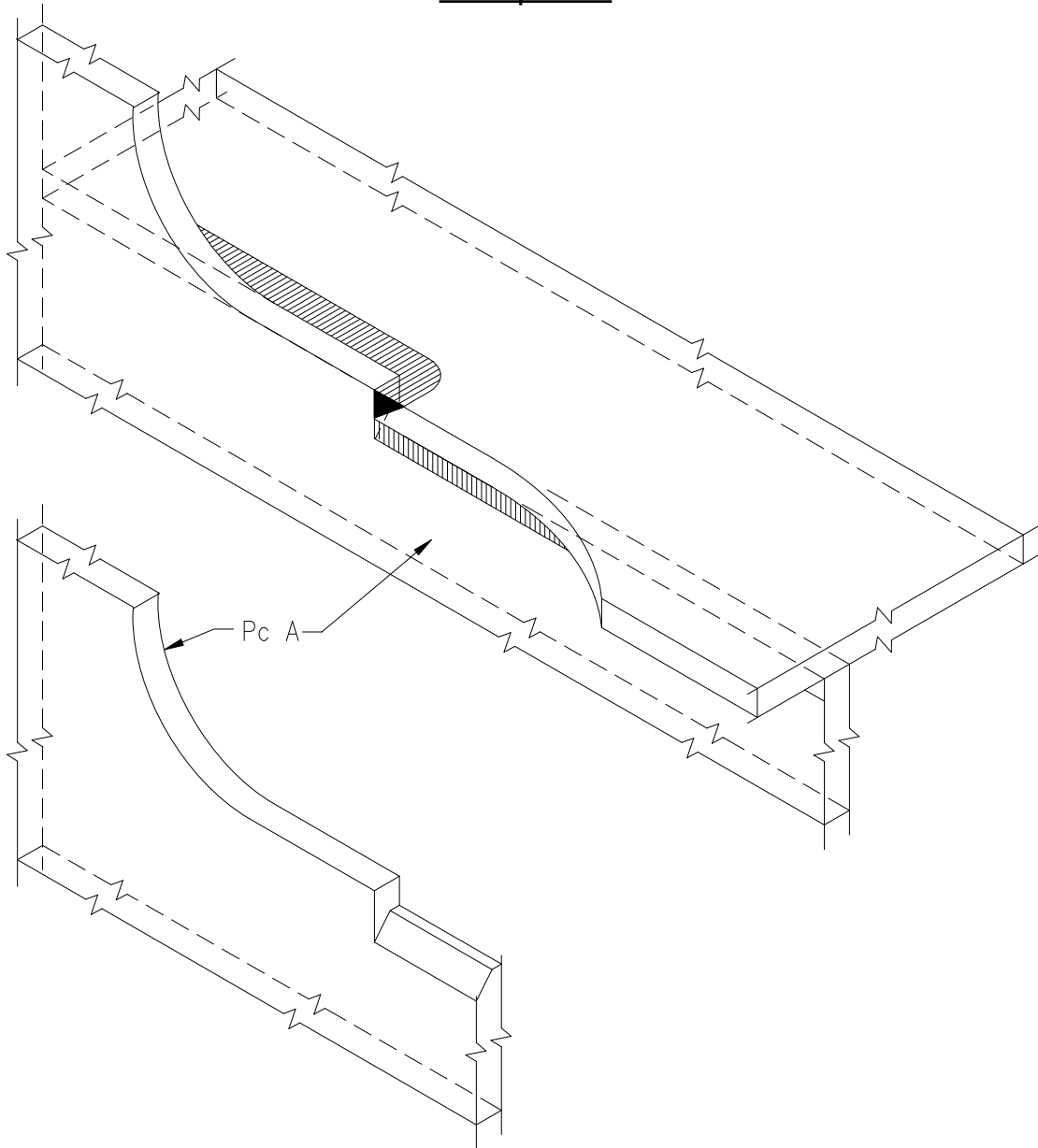


Note: Welds shall conform to the most recent edition of AWS D1.1, including the requirements for cyclically loaded structures.

Structural Details

Continued from Sht. 8.

Avoidance of Wraparound Weld
Acceptable



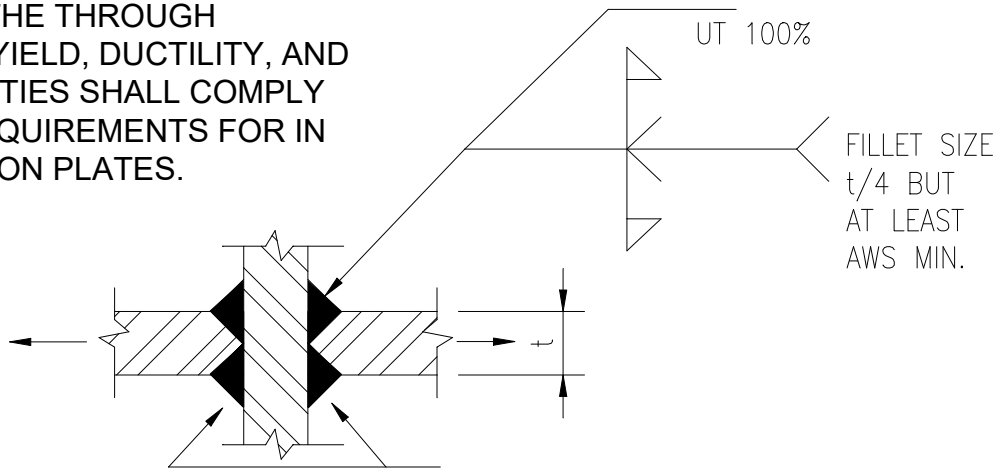
ISOMETRIC VIEW

Structural Details

Cruciform Weld

FOR COMPONENTS
CARRYING CALCULATED
AXIAL STRESS

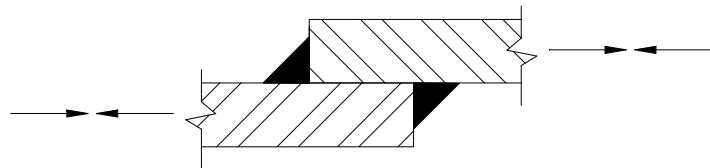
FOR FCMS: THE THROUGH
THICKNESS, YIELD, DUCTILITY, AND
CVN PROPERTIES SHALL COMPLY
WITH THE REQUIREMENTS FOR IN
PLANE TENSION PLATES.



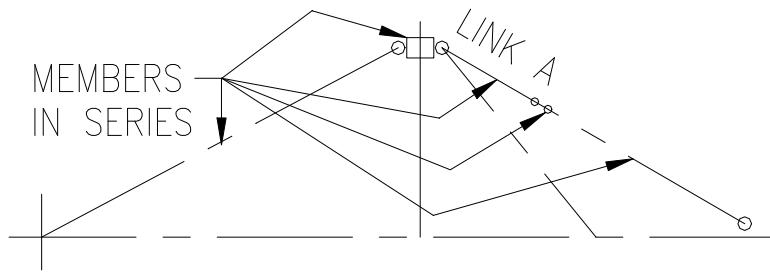
U.T. TO CHECK FOR LAMELLAR TEARS
BEFORE WELDING AND 36 HOURS
AFTER WELDING.

Eccentric Lap Joints

ECCENTRIC LAP JOINTS
BOLTED OR WELDED
ARE NOT ACCEPTABLE
ON COMPONENTS CARRYING
CALCULATED AXIAL STRESS.



NOT ACCEPTABLE



**Structural Details
Members in Series**

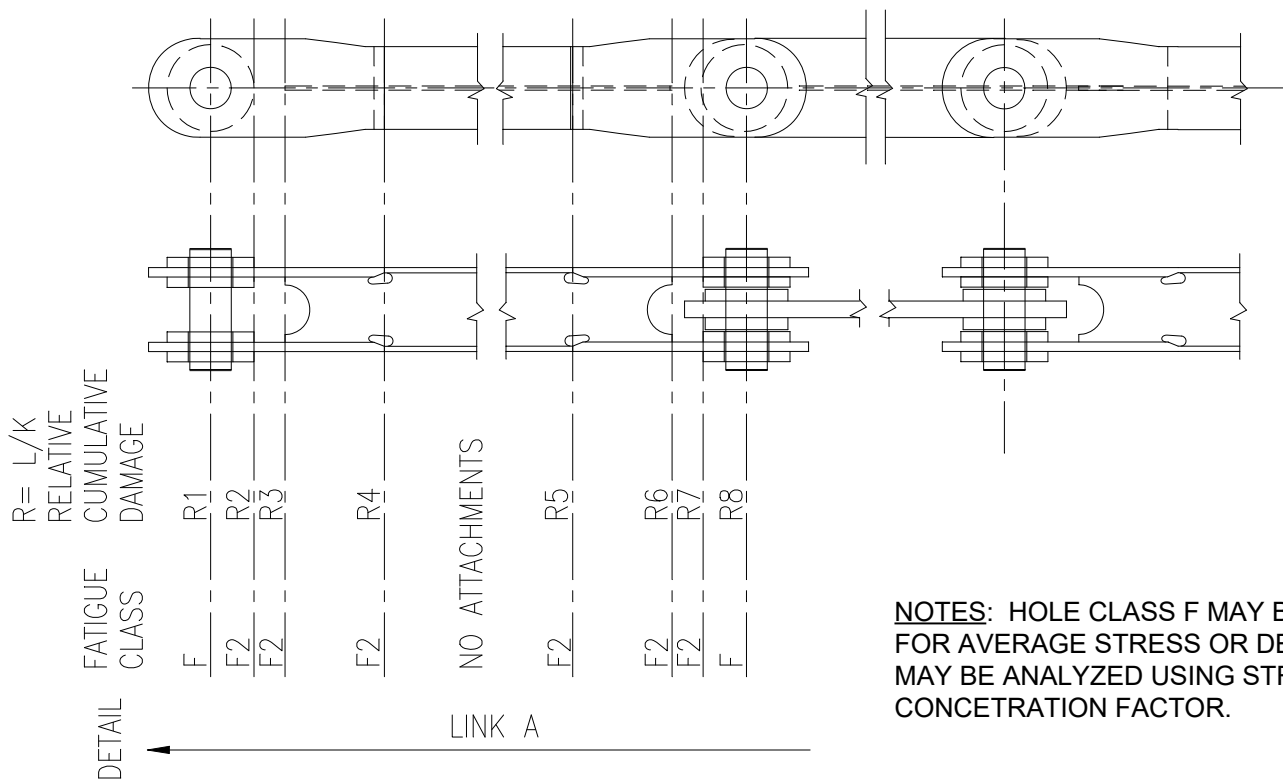
RELIABILITY OF SYSTEM SHALL BE CALCULATED BY DETERMINING THE RELIABILITY "D" OF EACH LINK INCLUDING ALL CONNECTION DETAILS, AND CALCULATING THE RELIABILITY OF THE SYSTEM USING:

$$D_{SYSTEM} = D_A \times D_B \times D_C \dots D_N$$

FOR EXAMPLE, THE RELIABILITY OF LINK A IS
 $D = D_1 \times D_2 \times D_3 \times D_4 \times D_5 \times D_6 \times D_7 \times D_8$
 THE VALUES OF D_i ARE FOUND FROM TABLE FOR EACH R_i .

TYPICAL FORESTAY EXAMPLES

NOTICE WHEN $R \leq 0.4$, $D = 1$
 AND WHEN THE CALCULATED STRESS RANGE IS $\leq 0.74 \times$ ALLOWABLE STRESS RANGE, $R \leq 0.4$.



NOTES: HOLE CLASS F MAY BE USED FOR AVERAGE STRESS OR DETAIL MAY BE ANALYZED USING STRESS CONCENTRATION FACTOR.