TradeReady® Framing and Construction Reference Details

The technical information contained in this Guide was prepared to assist professional engineers and architects in the use of the Dietrich TradeReady® Steel Joist System and should be used only with the guidance and judgement of such architect or engineer.

The details provided herein should be reviewed for the following conditions:

Specific attachment requirements

- Attachments typically are screws, pins, nails, or other types of connectors.
- All attachment references should be reviewed for size, quantity, and manufacturer by the E.O.R.
- As a guide and reference only, some connection locations and size and quantity may be indicated by either a written note or by symbol (+) or both.
- Following the details section are specific connector values to assist in sizing the connections for some of the attachment details. For girder and beam attachments, please refer to the Support Clips tables.

Tables and Notes

- The tables reference specific construction conditions. The information in these tables should be addressed by the E.O.R.

  The sizing of clips and connectors may be effected.

- Notes are shown to address conditions that may be beyond the scope of the referenced detail. These conditions should be reviewed by the E.O.R.

Per Plan

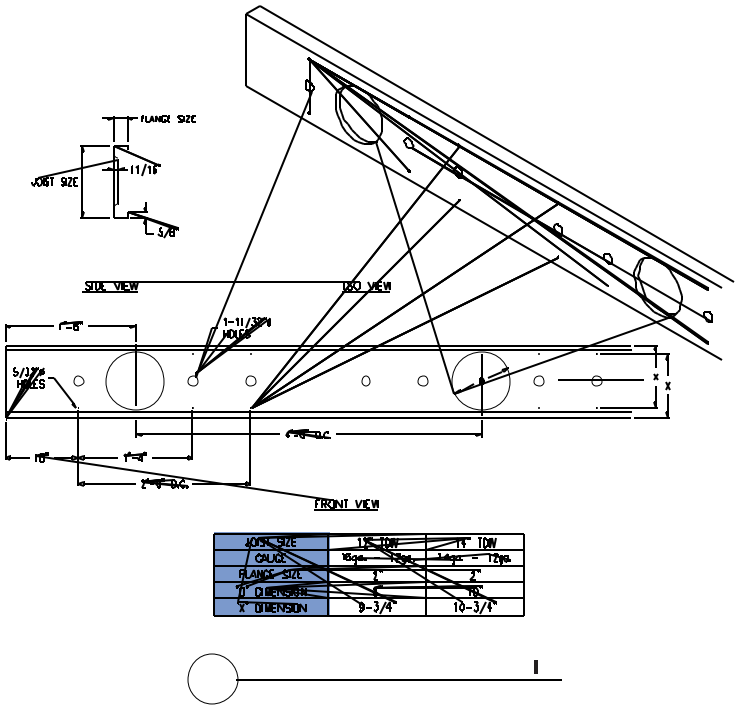
Many details are applicable to different building plans. Because specific member selection often changes from one application to another, several details include the note "per plan." The "per plan" citation may effect the framing members and the connectors used (see Specific Attachment Requirements above).

By Others

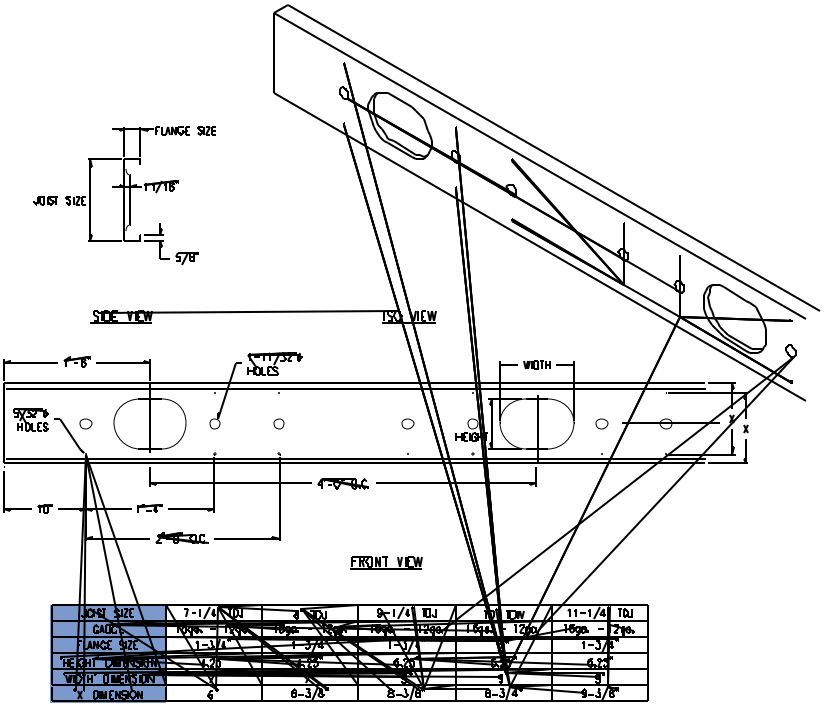
The following details show general framing and construction conditions applicable to the Dietrich TradeReady® Steel Joist System only.
All other building components and their interaction with the TradeReady® Steel Joist System should be reviewed and specified by the E.O.R.

NOTES: Reference all notes at the back of this design guide: General, Installation, and Material.

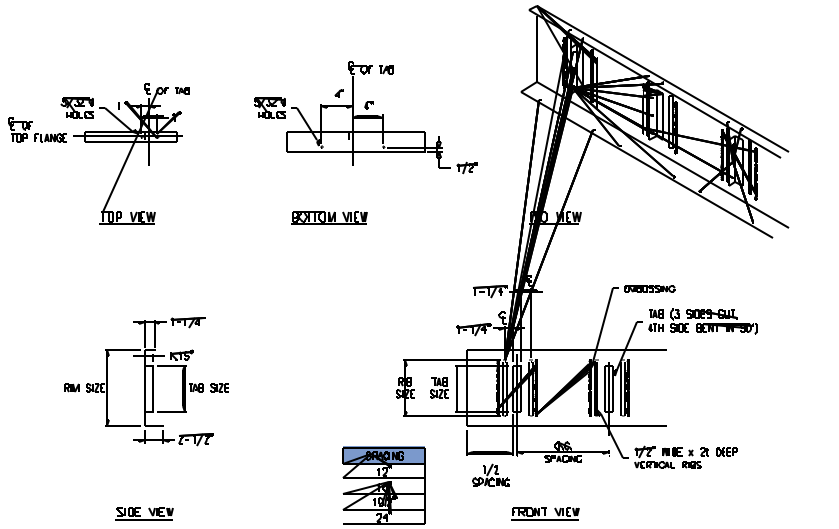
Details



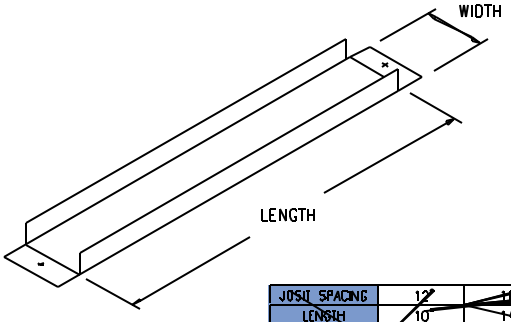
JOIST SIZE	13K TDW	15K TDW
GAUGE	18ga. - 18ga.	14ga. - 12ga.
FLANGE SIZE	2"	2"
"D" DIMENSION	8"	10"
"X" DIMENSION	9-3/4"	10-3/4"



JOIST SIZE	7-1/4" TDJ	9" TDJ	9-1/4" TDJ	11" TDW	11-1/4" TDJ
GAUGE	18ga. - 18ga.	18ga. - 18ga.	14ga. - 14ga.	14ga. - 12ga.	18ga. - 12ga.
FLANGE SIZE	1-3/4"	1-3/4"	1-3/4"	2"	1-3/4"
"HEIGHT DIMENSION"	4.25"	6.25"	4.25"	6.25"	6.25"
"WIDTH DIMENSION"	3"	3"	3"	3"	3"
"X" DIMENSION	6"	8-3/8"	8-3/8"	8-3/4"	9-3/8"



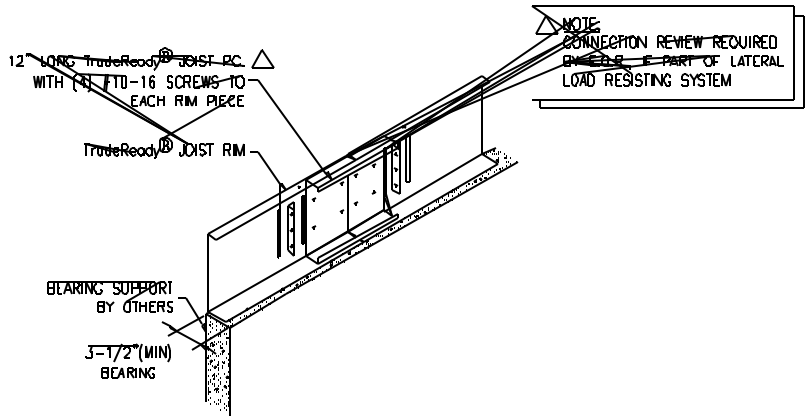
RIM SIZE	7-1/4"	9-1/4"	11-1/4"	12"	14"
TAB SIZE	4"		6"		8"
RIB SIZE	4"		6"		8"
GAUGE	18ga.	12ga.	18ga. - 10ga.		18ga. - 10g



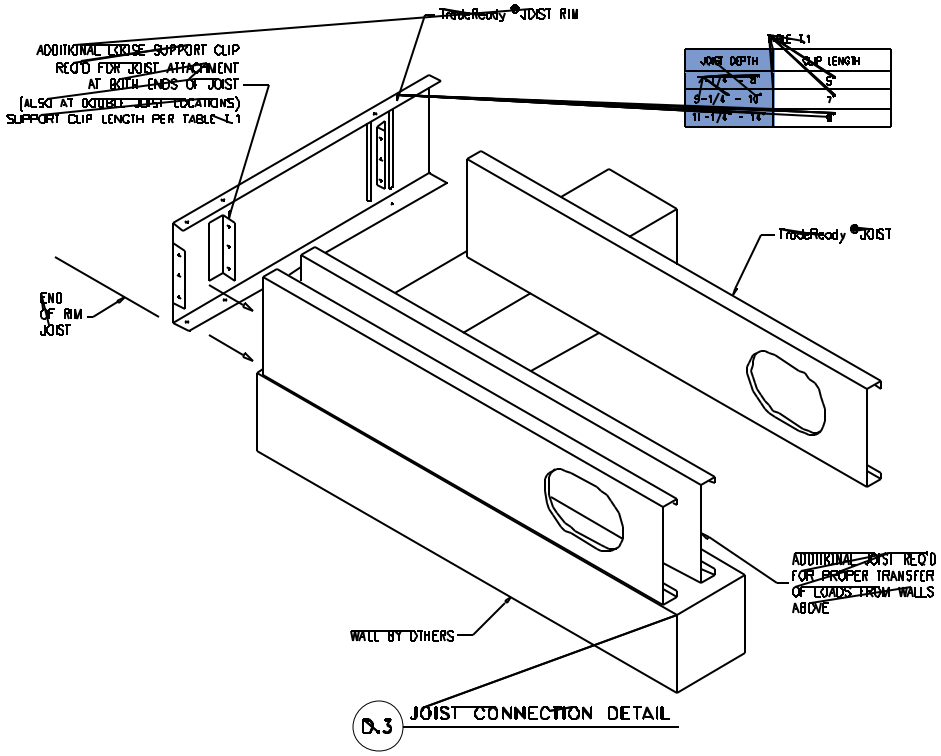
JOIST SPACING	12"	16"	12"	24"
LENGTH	10'	11'	17'	22'
WIDTH*	2-1/2"	3-1/2"	2-1/2"	2-1/2"
GAGE**	18ga.	18ga.	18ga.	10ga.

* - SPECIAL ORDER OF 3-5/8" AVAILABLE
** - SPECIAL ORDER OF 16ga. AVAILABLE

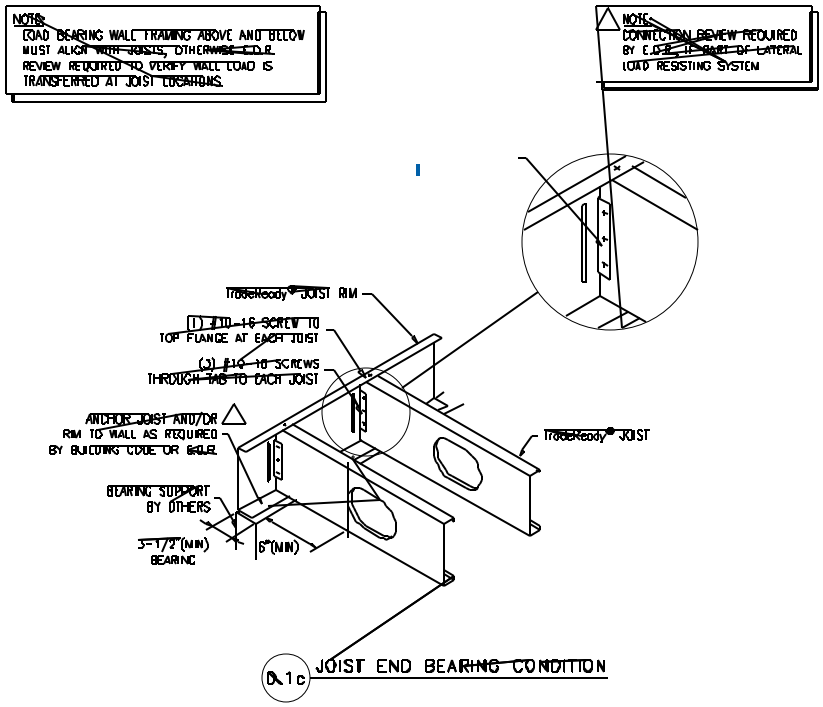
This Space is Intentionally Left Blank



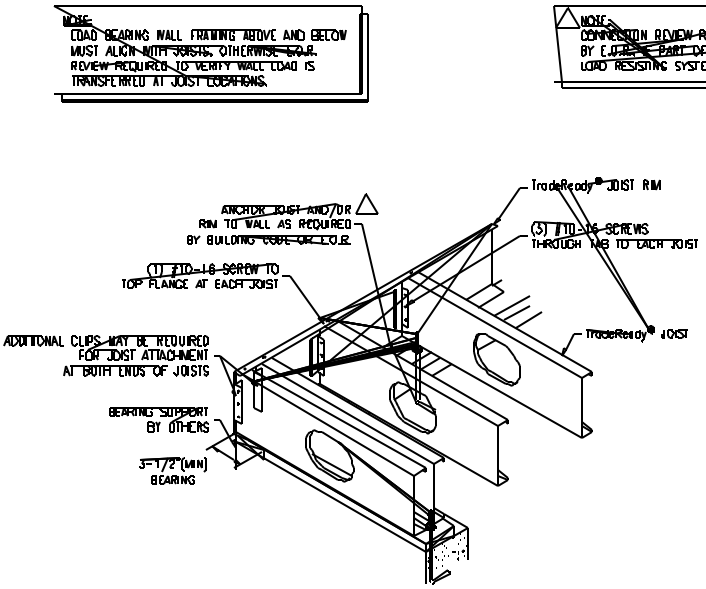
CS.11 RIM SPLICE CONDITION



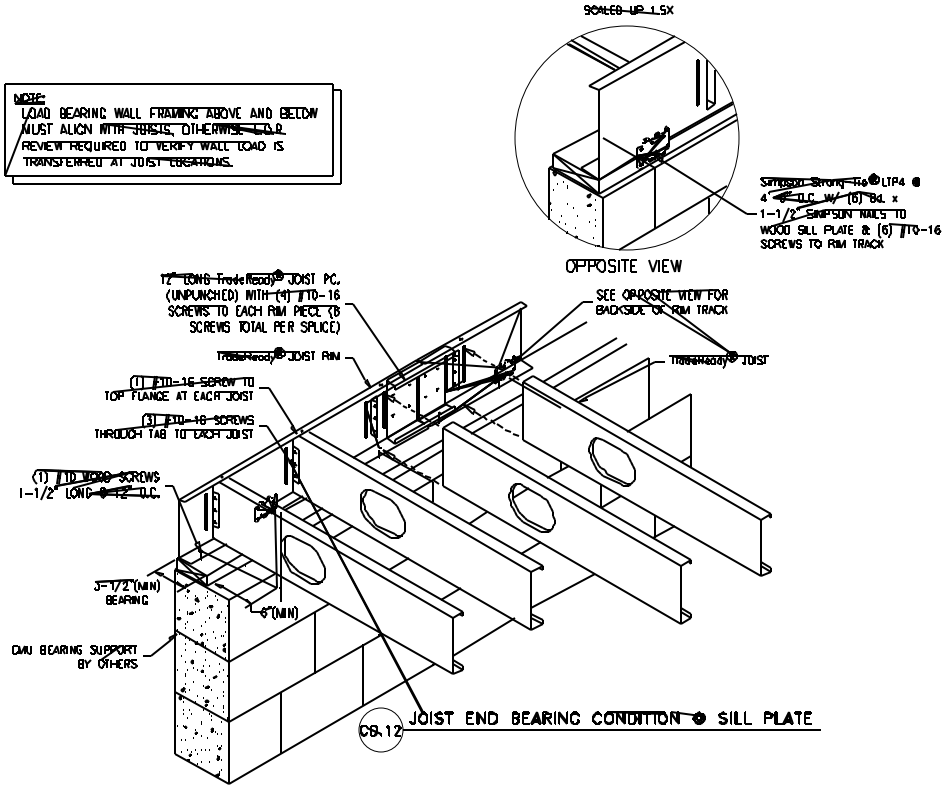
D.3 JOIST CONNECTION DETAIL



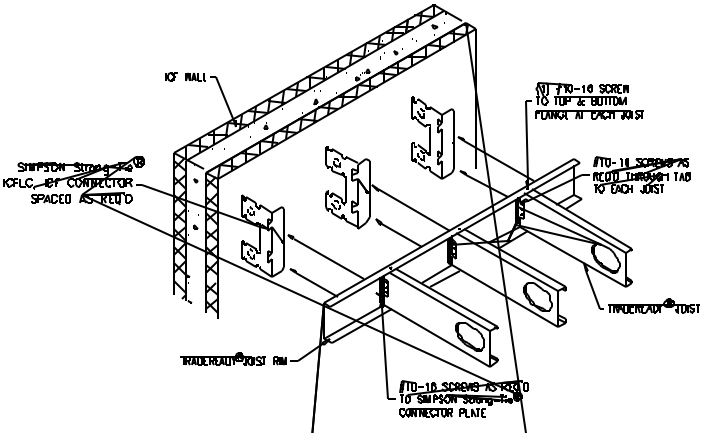
D.1c JOIST END BEARING CONDITION



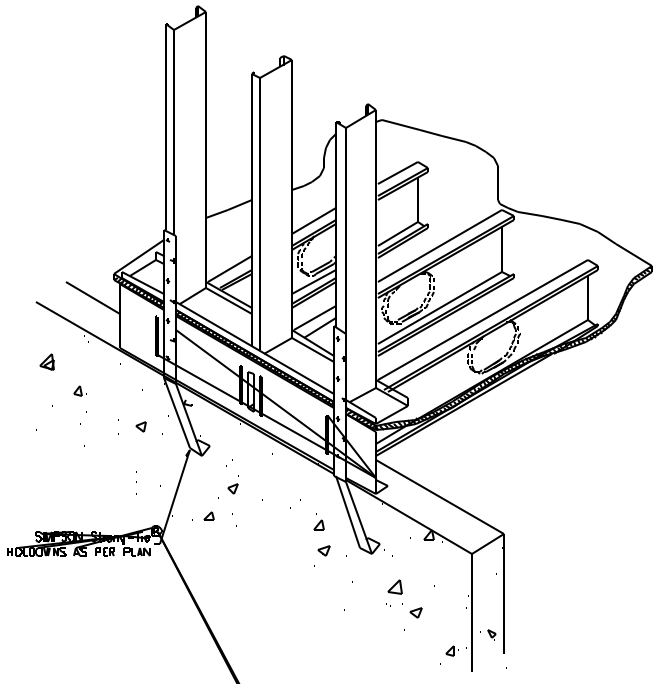
B.3 JOIST END BEARING CONDITION



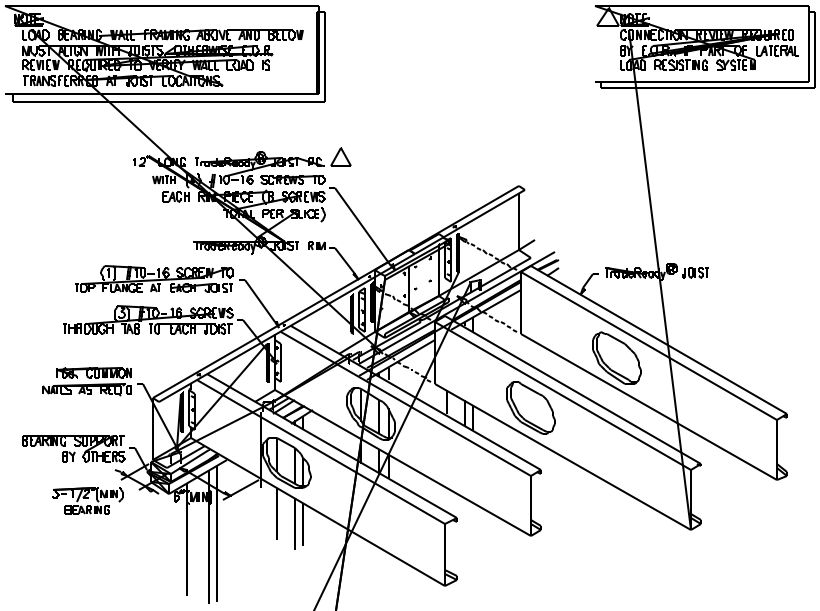
CB.12 JOIST END BEARING CONDITION @ SILL PLATE



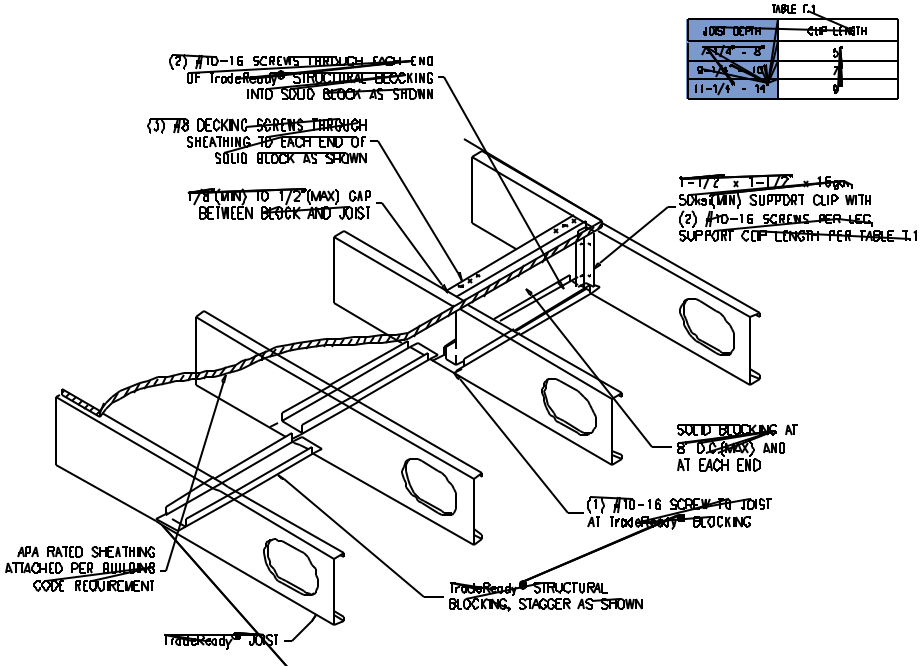
CB.5 JOIST CONNECTION TO ICF WALL



CB.6 JOIST END BEARING CONDITION W/HOLDOWNS



CD1.6 JOIST END BEARING CONDITION

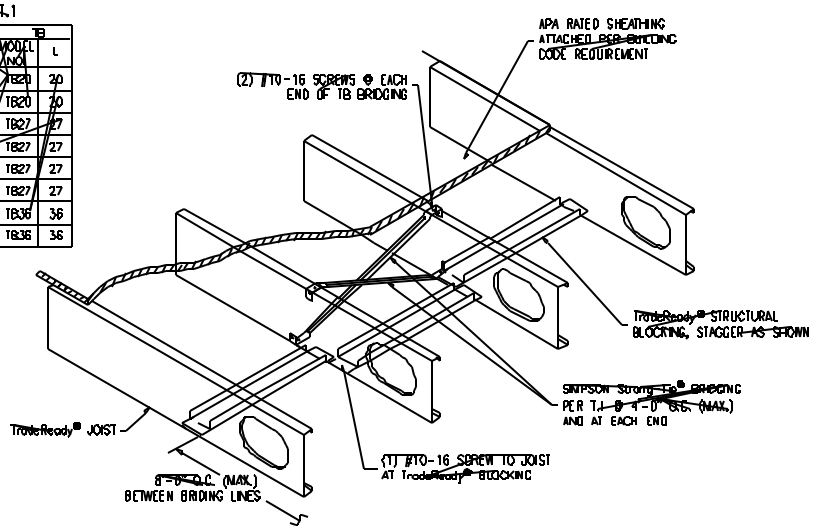


D.2 TradeReady® STRUCTURAL BLOCKING DETAIL

TB = Tension-type bridging with maximum fastener flexibility
Use two of the screw holes at each end
MATERIAL: TB = 20 gauge
FINISH: Galvanized
INSTALLATION: Bridging will fit flange widths from 1-5/8" to 3"

TABLE T.1

TradeReady® JOIST DEPTH	SPACING	TB MODEL NO.	L
7-1/4"	12" O.C.	TB20	20
9-1/4"	12" O.C.	TB20	20
11-1/4"	12" O.C.	TB27	27
7-1/4"	16" O.C.	TB27	27
9-1/4"	16" O.C.	TB27	27
11-1/4"	16" O.C.	TB27	27
9-1/4"	24" O.C.	TB36	36
11-1/4"	24" O.C.	TB36	36

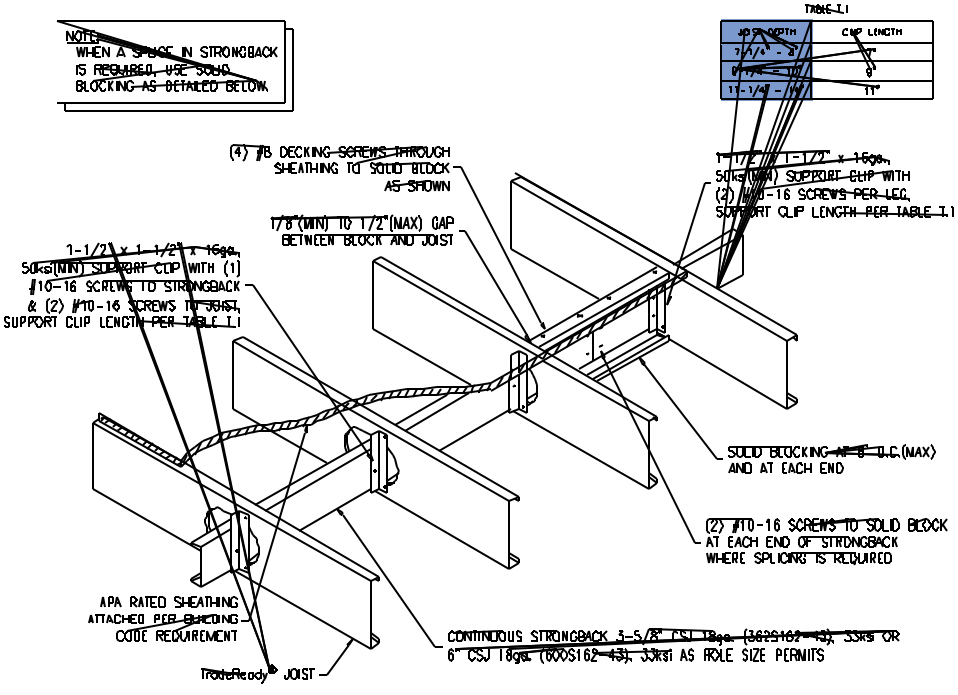


D.2b

NOTE:
WHEN A SPLICE IN STRONGBACK IS REQUIRED, USE SOLID BLOCKING AS DETAILED BELOW.

TABLE T.1

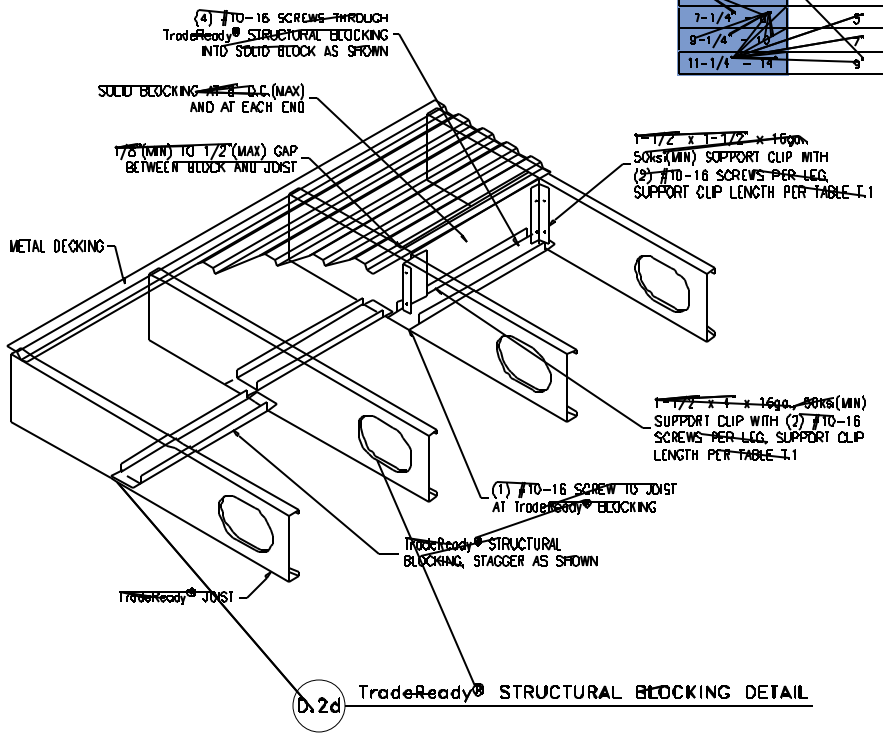
JOIST DEPTH	CLIP LENGTH
7-1/4" - 9"	7"
9-1/4" - 11"	9"
11-1/4" - 14"	11"



D.2c

TABLE T.1

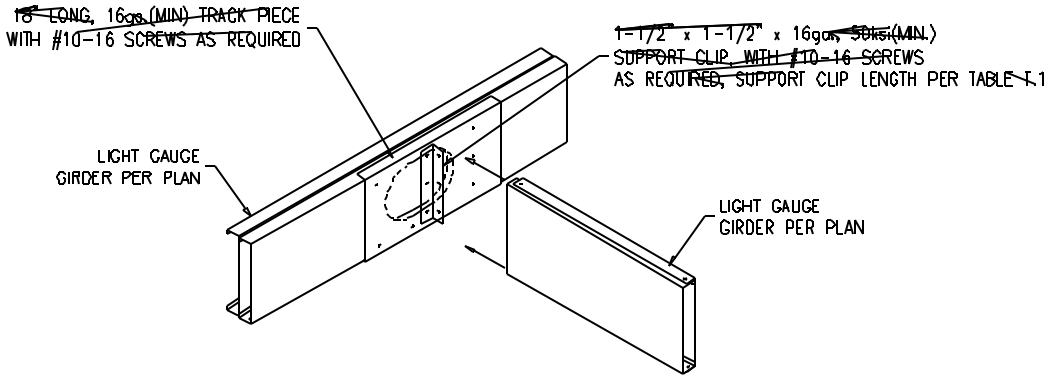
JOIST DEPTH	CLIP LENGTH
7-1/4"	5"
9-1/4" - 12"	7"
11-1/4" - 14"	9"

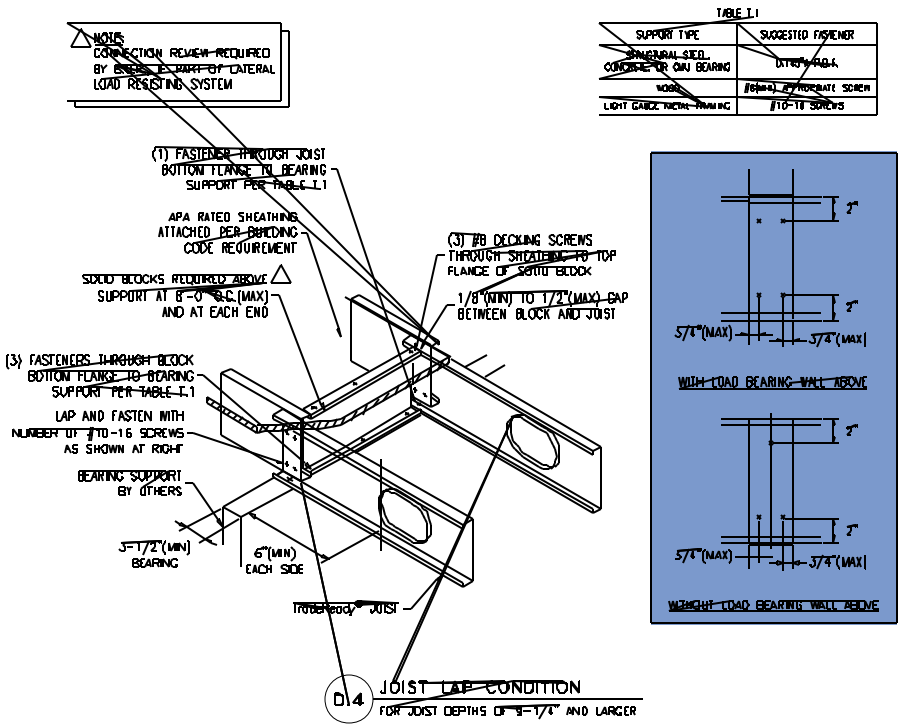


D.2d TradeReady® STRUCTURAL BLOCKING DETAIL

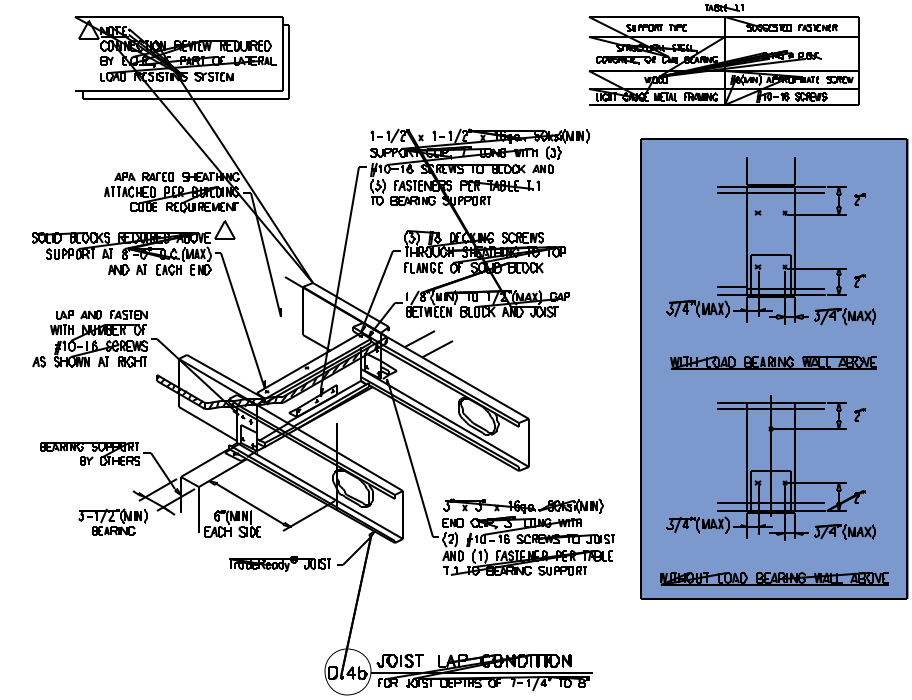
TABLE T.1

JOIST DEPTH	CLIP LENGTH
7-1/4" - 8"	5"
9-1/4" - 12"	7"
11-1/4" - 14"	9"

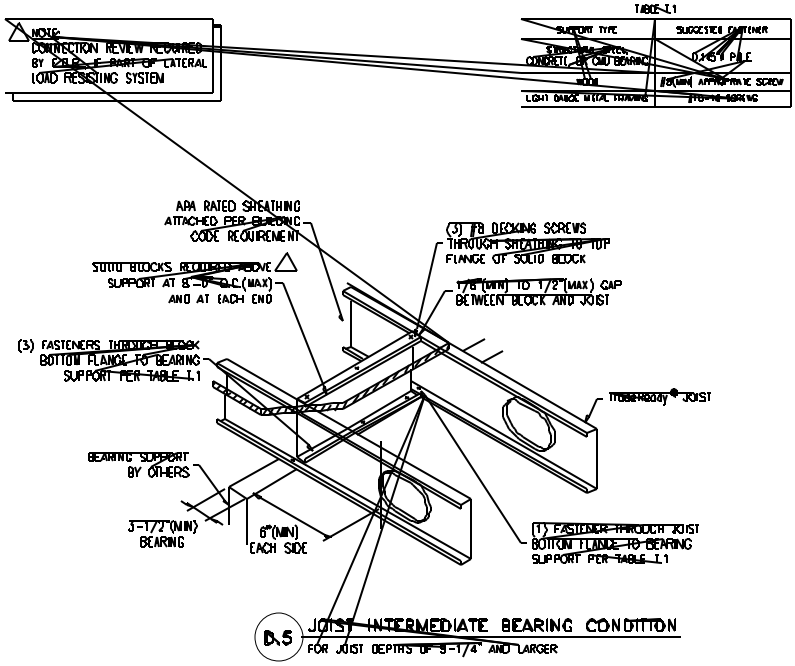


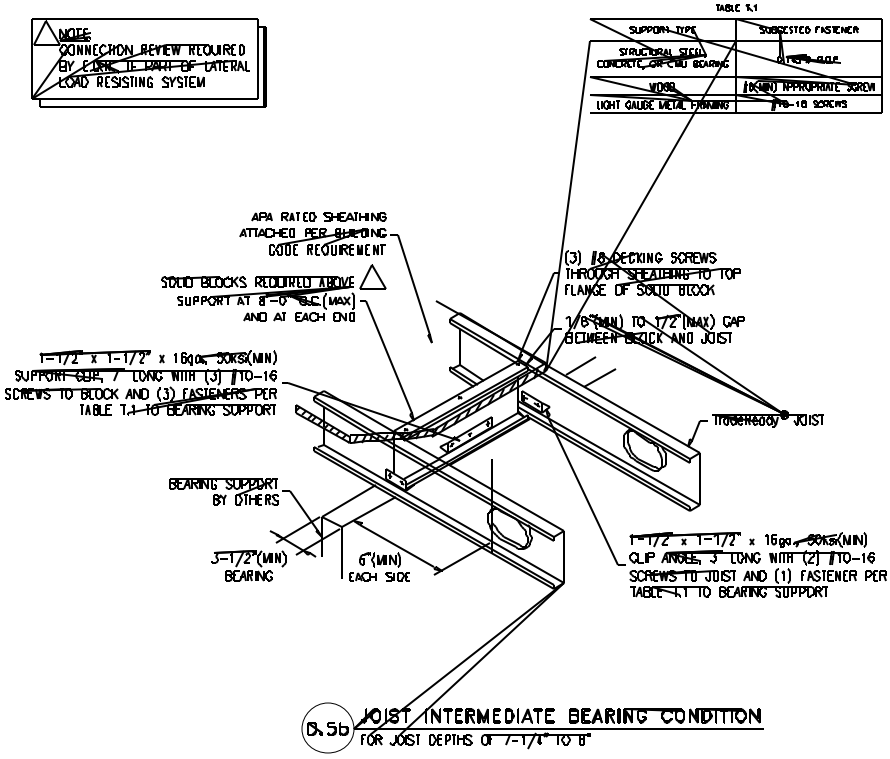


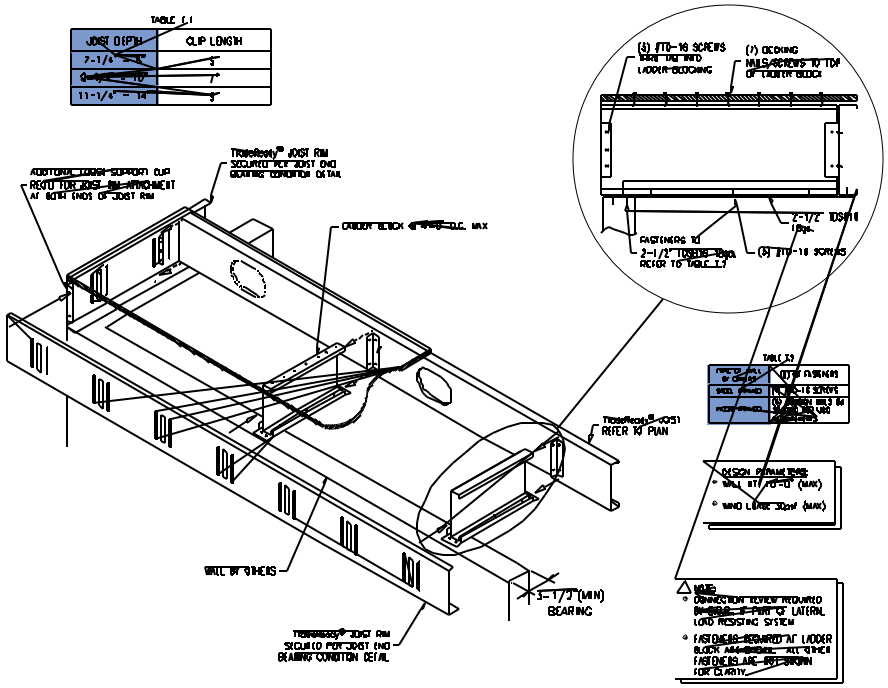
D.4 JOIST LAP CONDITION
FOR JOIST DEPTHS OF 9-1/4" AND LARGER



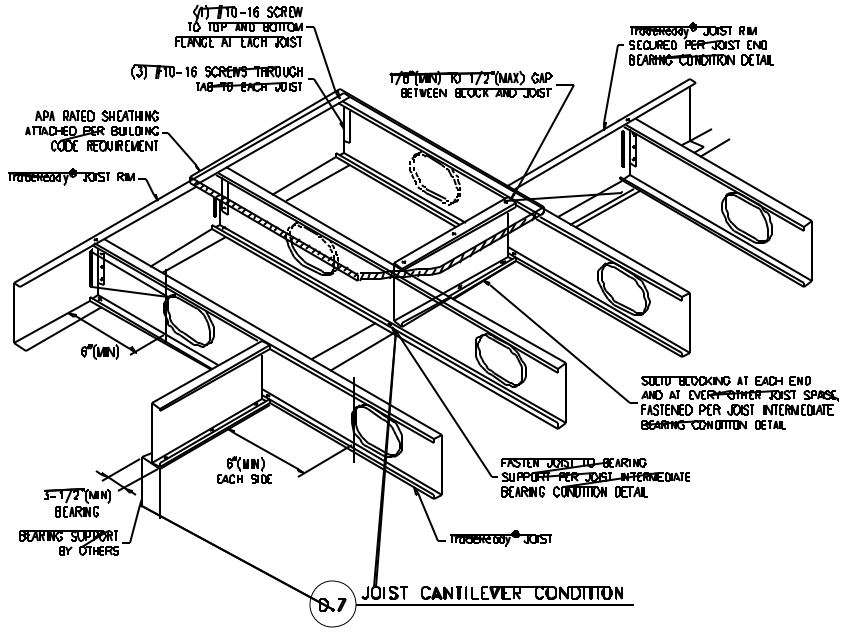
D.4b JOIST LAP CONDITION
FOR JOIST DEPTHS OF 7-1/4" TO 8"


NOTE:
CONNECTION REVIEW REQUIRED BY ENGR. IF PART OF LATERAL LOAD RESISTING SYSTEM
TABLE 7.1
SUPPORT TYPE
SUGGESTED FASTENER
STRUCTURAL STEEL, CONCRETE OR CMU BEARING
#10 SDS PILE
WOOD
#8 (MIN) APPROPRIATE SCREW
LIGHT GAUGE METAL FRAMING
#10-16 SCREWS
APA RATED SHEATHING ATTACHED PER SHEATHING CODE REQUIREMENT
(3) #8 DECKING SCREWS THROUGH SHEATHING TO TOP FLANGE OF SOLID BLOCK
SOLID BLOCKS REQUIRED ABOVE SUPPORT AT 8'-0" O.C. (MAX) AND AT EACH END
1/8" (MIN) TO 1/2" (MAX) GAP BETWEEN BLOCK AND JOIST
(3) FASTENERS THROUGH WEB BOTTOM FLANGE TO BEARING SUPPORT PER TABLE 7.1
TrusWeb® JOIST
BEARING SUPPORT BY OTHERS
3-1/2" (MIN) BEARING
6" (MIN) EACH SIDE
(1) FASTENER THROUGH JOIST BOTTOM FLANGE TO BEARING SUPPORT PER TABLE 7.1
D.5 JOIST INTERMEDIATE BEARING CONDITION
FOR JOIST DEPTHS OF 8-1/4" AND LARGER

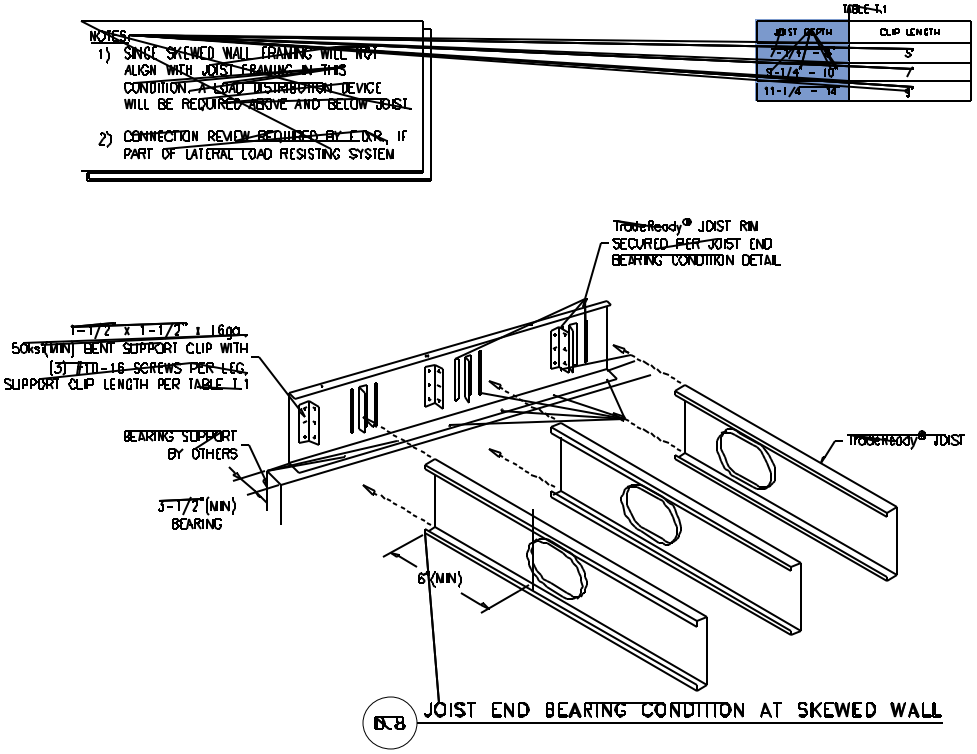

NOTE:
CONNECTION REVIEW REQUIRED BY ENGR. IF PART OF LATERAL LOAD RESISTING SYSTEM
TABLE 7.1
SUPPORT TYPE
SUGGESTED FASTENER
STRUCTURAL STEEL, CONCRETE OR CMU BEARING
#10 SDS PILE
WOOD
#8 (MIN) APPROPRIATE SCREW
LIGHT GAUGE METAL FRAMING
#10-16 SCREWS
APA RATED SHEATHING ATTACHED PER SHEATHING CODE REQUIREMENT
(3) #8 DECKING SCREWS THROUGH SHEATHING TO TOP FLANGE OF SOLID BLOCK
SOLID BLOCKS REQUIRED ABOVE SUPPORT AT 8'-0" O.C. (MAX) AND AT EACH END
1/8" (MIN) TO 1/2" (MAX) GAP BETWEEN BLOCK AND JOIST
1-1/2" x 1-1/2" x 16ga, 50ksi (MIN) SUPPORT CLIP, 7" LONG WITH (3) #10-16 SCREWS TO BLOCK AND (3) FASTENERS PER TABLE 7.1 TO BEARING SUPPORT
TrusWeb® JOIST
BEARING SUPPORT BY OTHERS
3-1/2" (MIN) BEARING
6" (MIN) EACH SIDE
1-1/2" x 1-1/2" x 16ga, 50ksi (MIN) CLIP ANGLE, 3" LONG WITH (2) #10-16 SCREWS TO JOIST AND (1) FASTENER PER TABLE 7.1 TO BEARING SUPPORT
D.5b JOIST INTERMEDIATE BEARING CONDITION
FOR JOIST DEPTHS OF 7-1/4" TO 8"



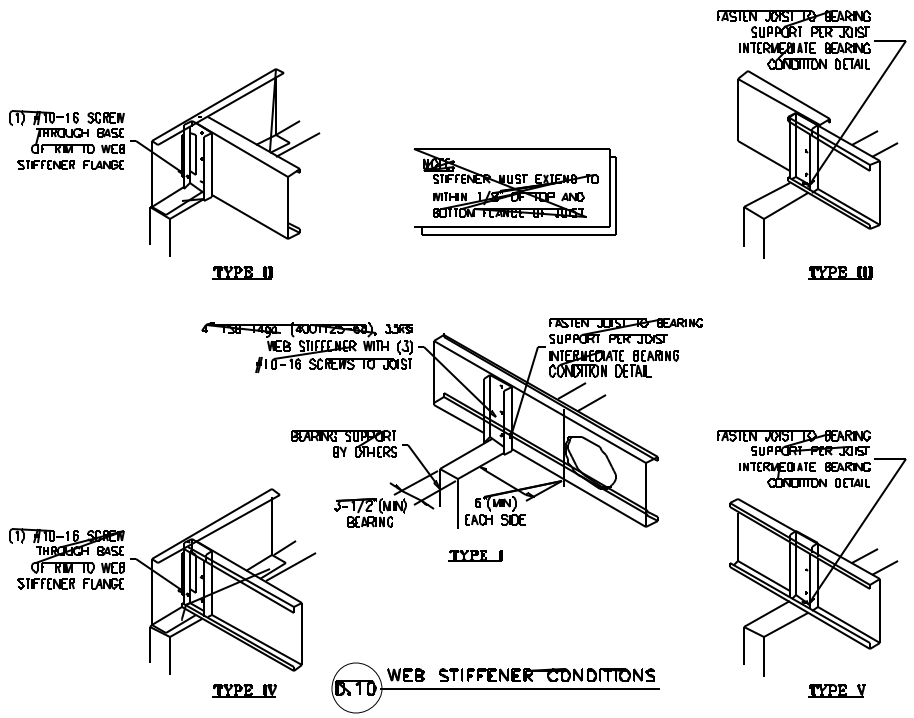
D.6 LADDER BLOCKING CONDITION



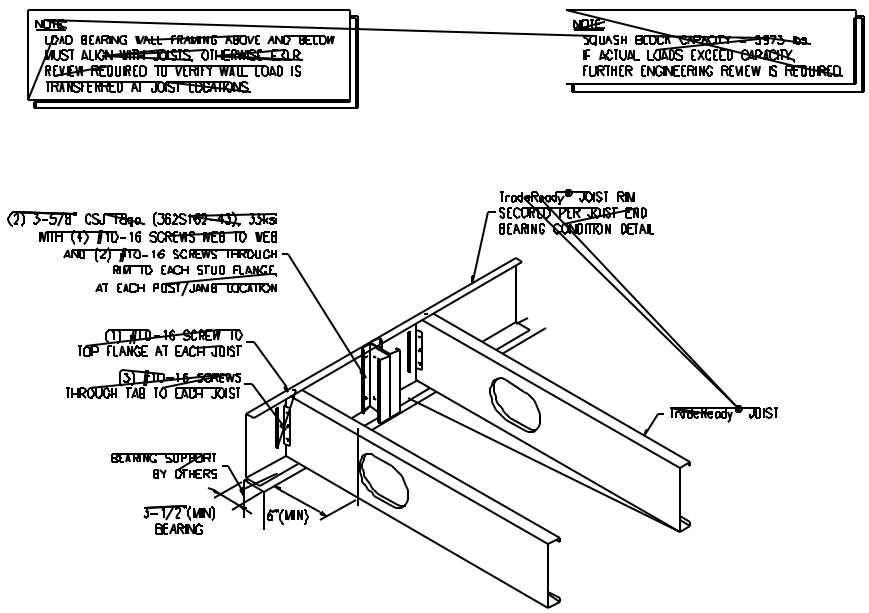
D.7 JOIST CANTILEVER CONDITION



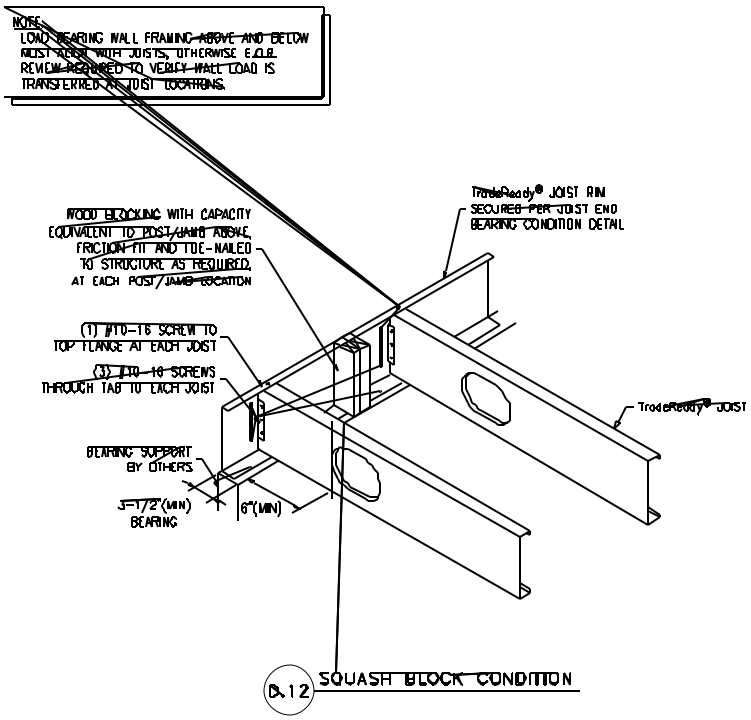
D.8 JOIST END BEARING CONDITION AT SKEWED WALL



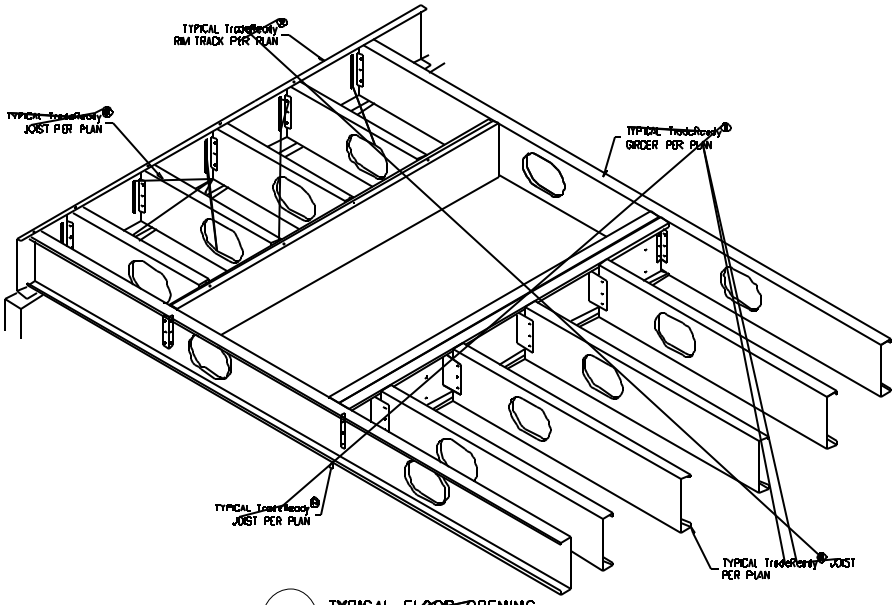
D.10 WEB STIFFENER CONDITIONS



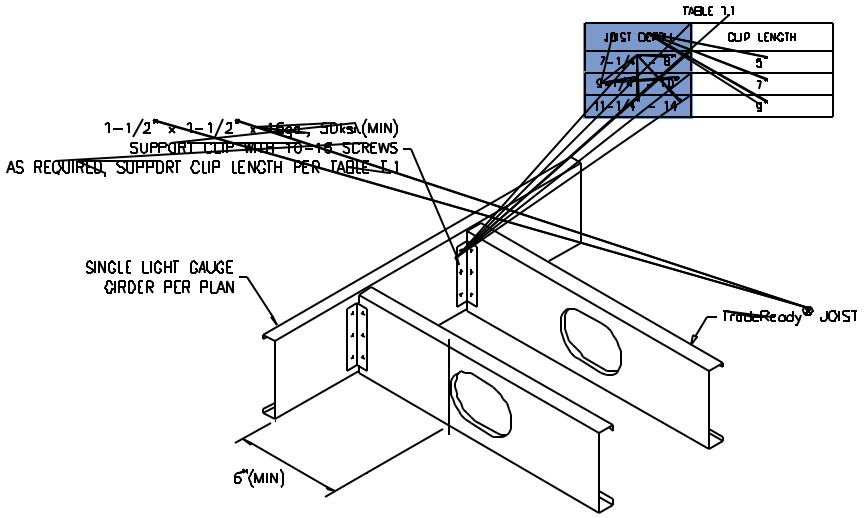
D.11 SQUASH BLOCK CONDITION



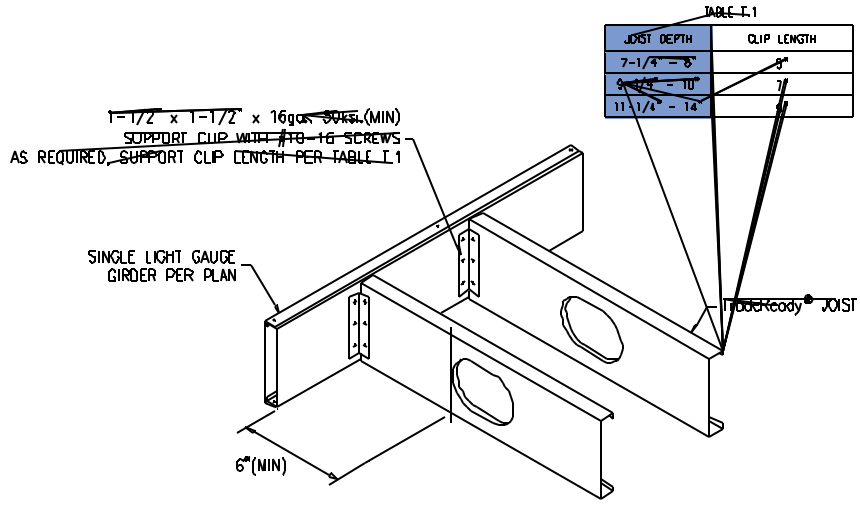
D.12 SQUASH BLOCK CONDITION



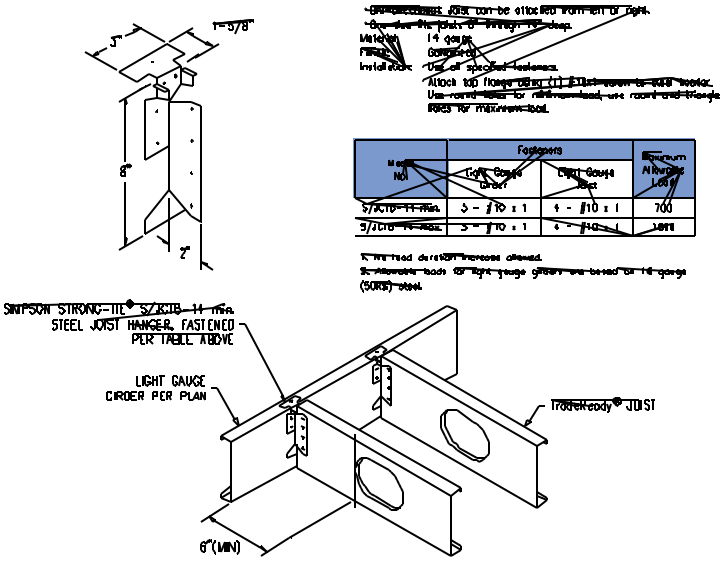
CS.7 TYPICAL FLOOR OPENING



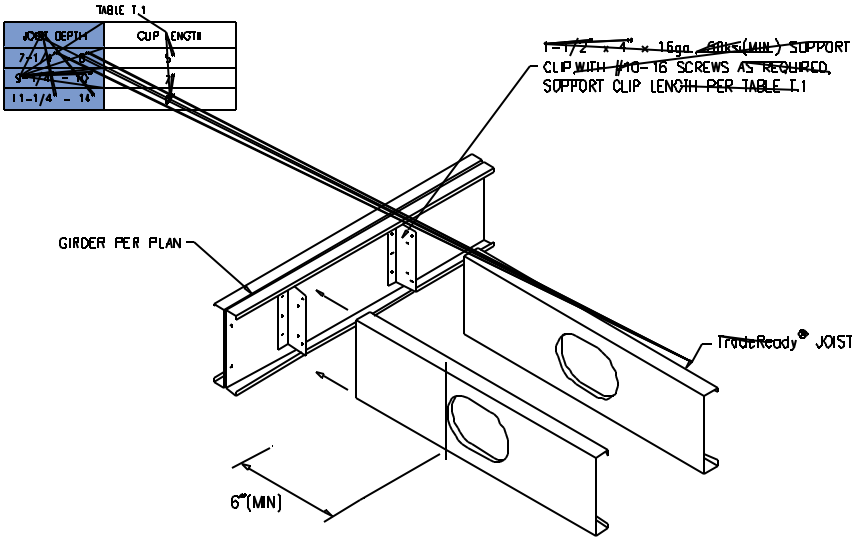
S.13 JOIST/SINGLE PLY GIRDER TO SINGLE PLY GIRDER CONNECTION



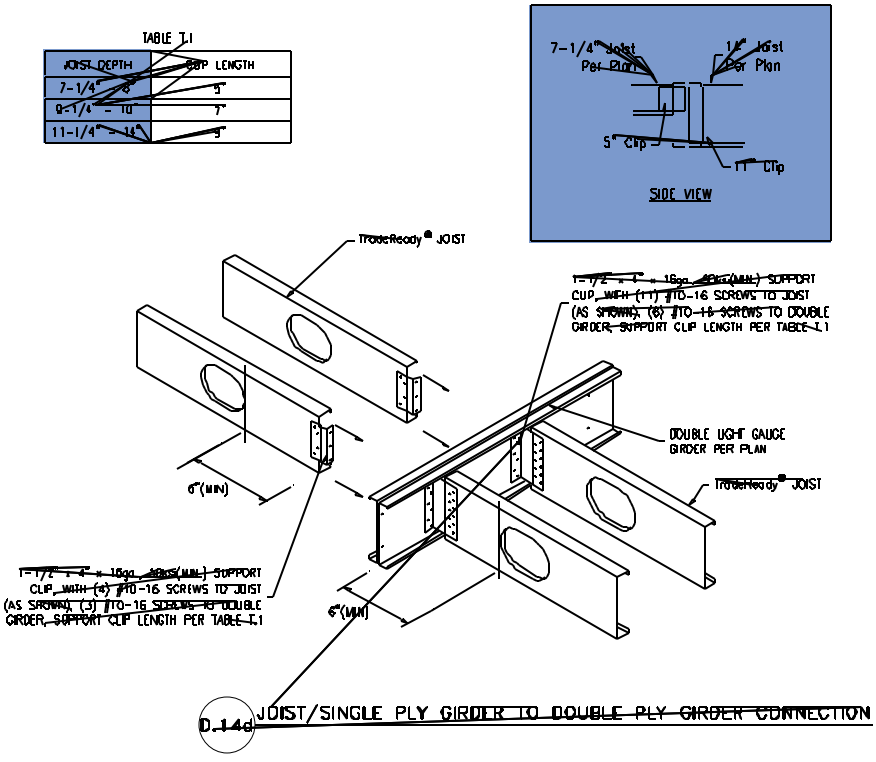
D.13b JOIST/SINGLE PLY GIRDER TO SINGLE PLY GIRDER CONNECTION



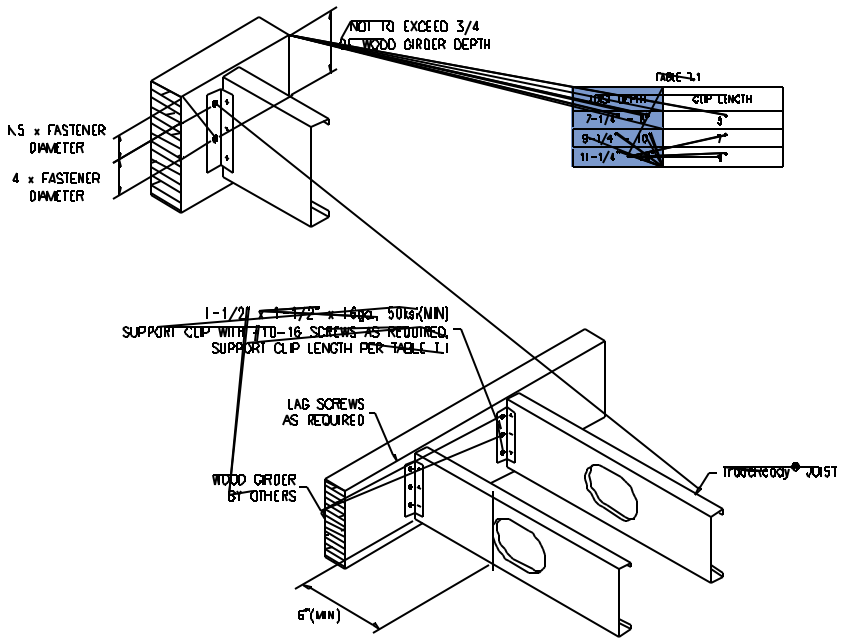
D.13c JOIST/SINGLE GIRDER HANGER CONDITION



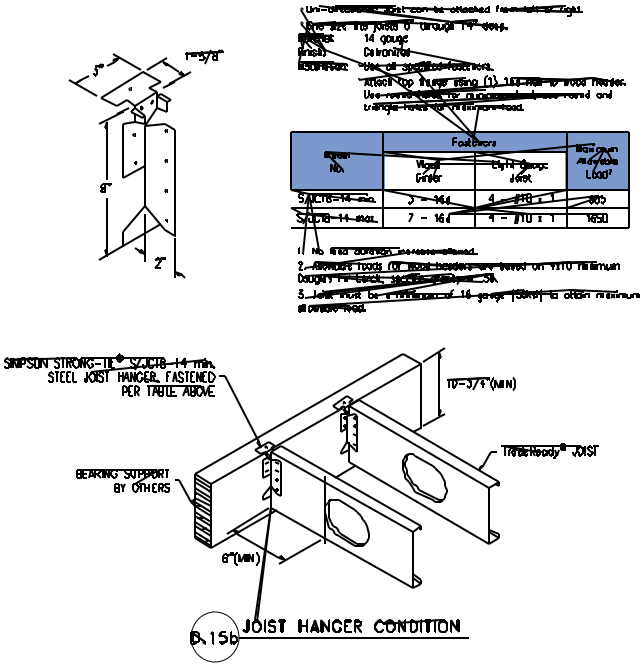
D.14 JOIST/SINGLE PLY GIRDER TO DOUBLE PLY GIRDER CONNECTION



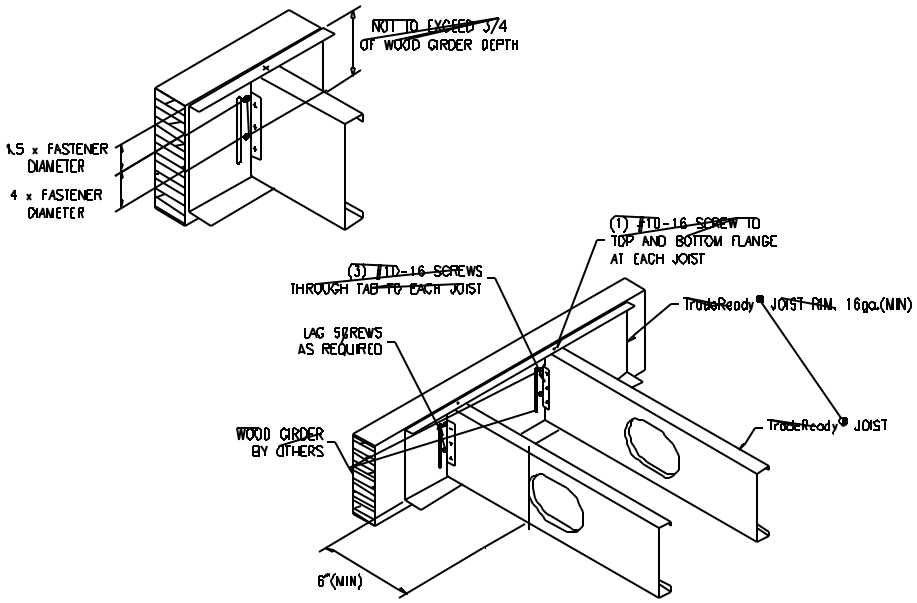
D.14d JOIST/SINGLE PLY GIRDER TO DOUBLE PLY GIRDER CONNECTION



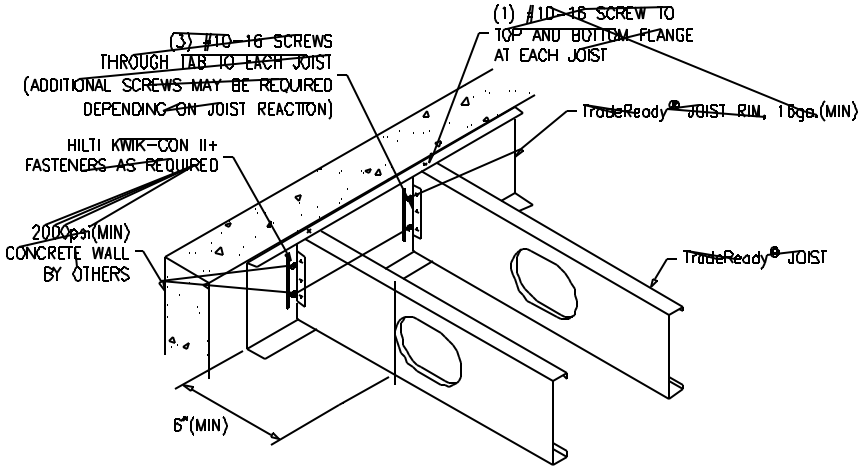
D.15 JOIST CONNECTION TO WOOD GIRDER



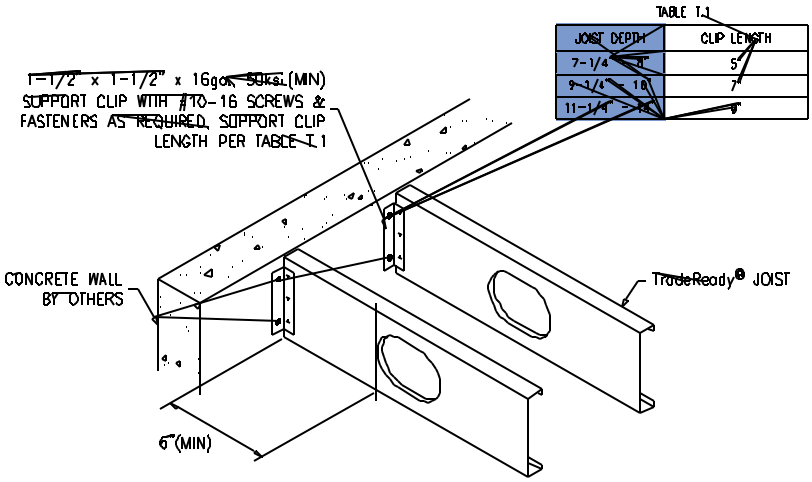
D.15b JOIST HANGER CONDITION



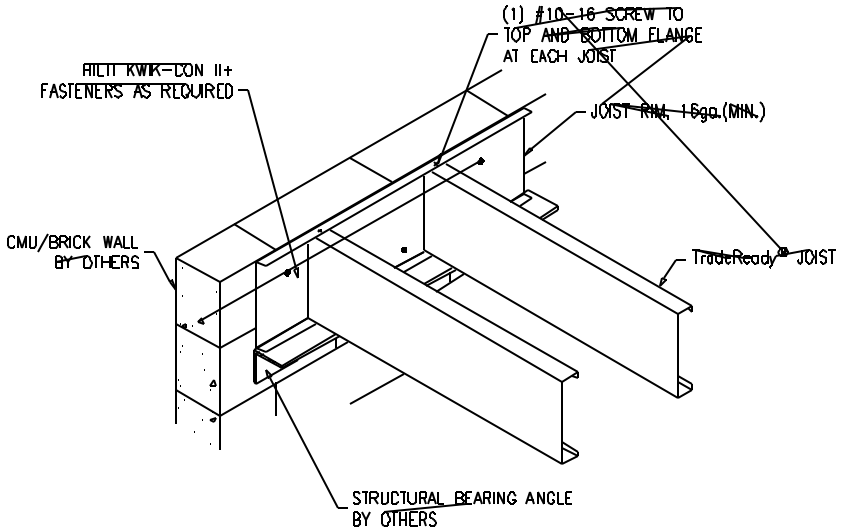
D.15c JOIST CONNECTION TO WOOD GIRDER



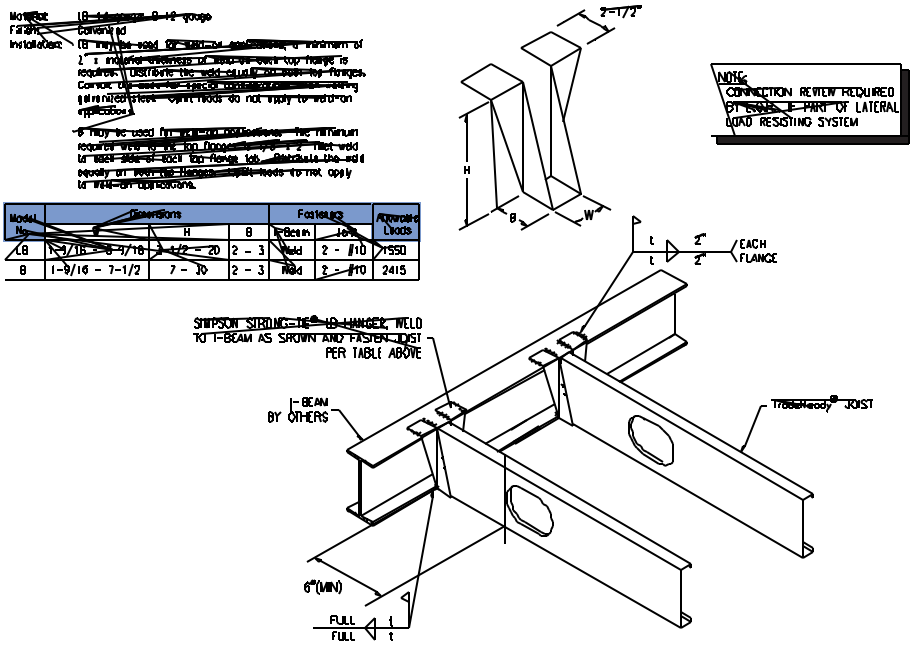
D.16 JOIST/SINGLE PLY GIRDER CONNECTION TO CONCRETE WALL



D.T6b JOIST/SINGLE PLY GIRDER CONNECTION TO CONCRETE WALL

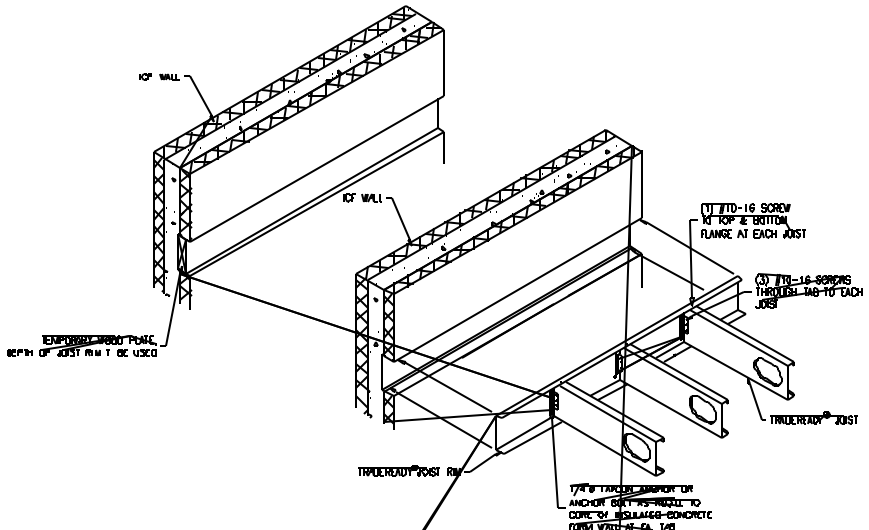


D.T7 JOIST/SINGLE PLY GIRDER CONNECTION TO CMU/BRICK WALL

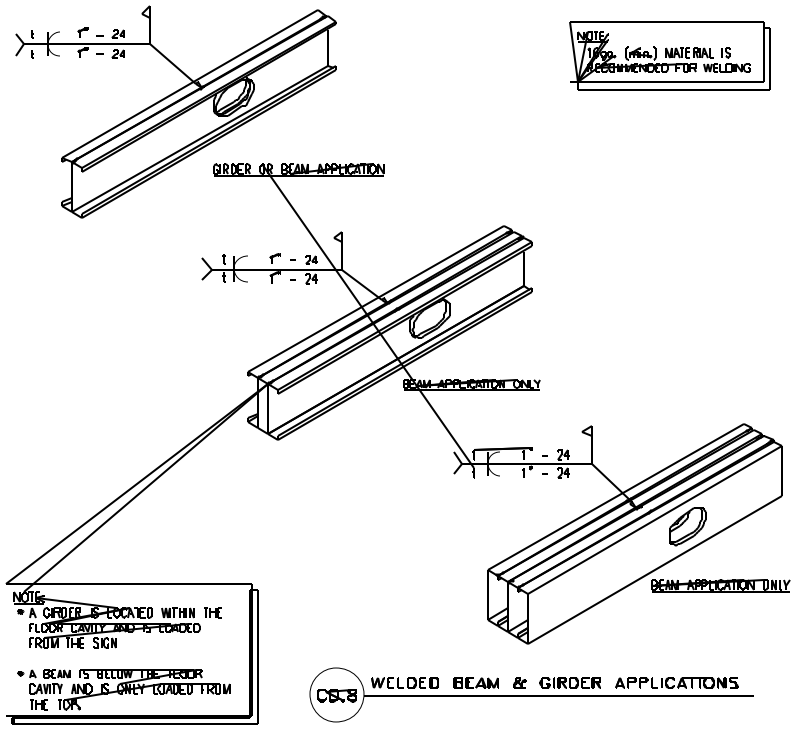


Model No.	Dimensions			Fasteners		Allowable Loads
	B	H	θ	T-Beam	Joist	
LG	1-9/16 - 3-7/16	3-1/2 - 20	2 - 3	Weld	2 - #10	1550
G	1-9/16 - 7-1/2	7 - 30	2 - 3	Weld	2 - #10	2415

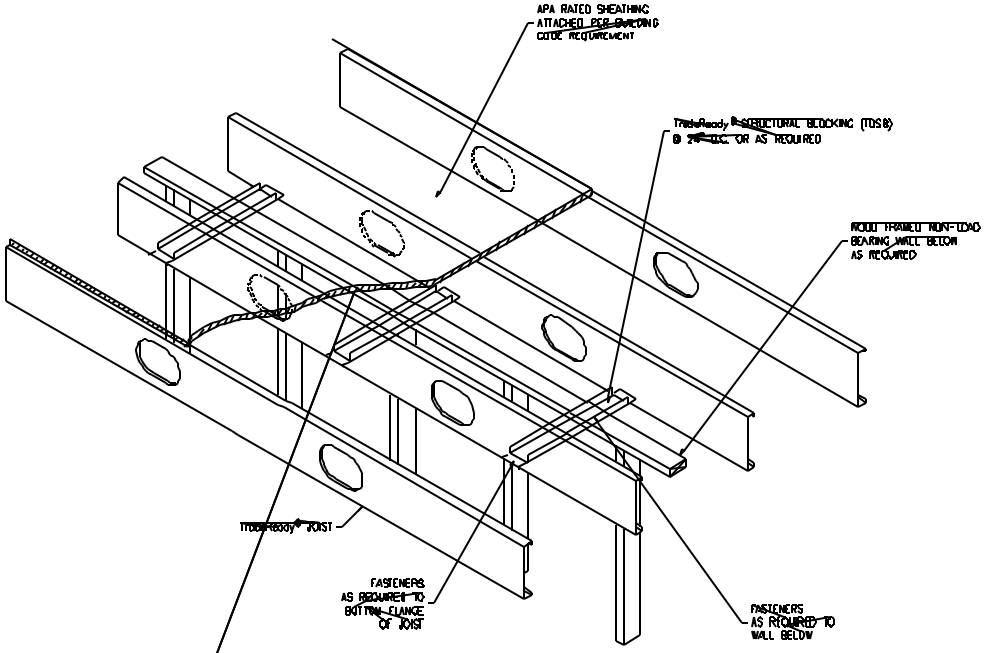
B.18 JOIST/SINGLE GIRDER HANGER CONDITION



B.19 JOIST CONNECTION TO ICF WALL



CS.8 WELDED BEAM & GIRDER APPLICATIONS



CS.9b NON-LOAD BEARING WALL PARALLEL TO JOIST