

Subject: Floor Truss Information

Just as with our roof trusses the floors are designed and engineered on a truss by truss basis which allows us to customize them to specific demands of each project. Below you will see some advantages over traditional i-joist systems as well as information regarding sizes and spans.

- Trusses are designed specifically for each project.
- All design criteria including loading and deflection are customizable.
 - Loading can vary over different locations.
 - Deflection limits can be increased to provide a stiffer floor.
- Trusses are notched for a 2x ribbon band at exterior walls for transferring shear loads without more expensive rim board or LVL material. (see attached standard floor truss detail 1).
- Trusses can be designed to accommodate a variety of different exterior and interior bearing conditions (see attached standard floor truss details).
- Openings for mechanical chases can be designed for duct size and alignment.

Floor Truss Max Span Table

Deflection: L/480 (Max LL)

Lumber: DF MSR 1800 or DF MSR 2400 (Top & Bottom Chords)

Plates: 20 Gauge, Single Dip Galvanized

Depth: 12" to 24" (Depths of 11-1/4" & 11-7/8" can also be fabricated with similar results as 12" below)

Orientation: 4x2 with single top & bottom chords

Load (psf)	SPACING	FLOOR TRUSS DEPTH							MAX SPANS PER LOAD, SPACING, TRUSS DEPTH, & SINGLE CHORDS
	O.C.	12"	14"	16"	18"	20"	22"	24"	
<u>Residential</u>	24"	19'-6"	22'-0"	24'-3"	26'-3"	28'-3"	29'-10"	32'-0"	
40 TCLL	19.2"	21'-0"	23'-6"	26'-0"	28'-4"	30'-4"	31'-4"	34'-6"	
10 TCDL	16"	22'-6"	25'-3"	27'-6"	30'-6"	32'-6"	34'-0"	36'-8"	
5 BCDL	12"	24'-0"	27'-0"	30'-0"	32'-6"	35'-3"	37'-10"	40'-0"	
<u>Commercial</u>	24"	18'-0"	20'-6"	22'-6"	24'-6"	26'-0"	27'-10"	29'-10"	
50 TCLL	19.2"	19'-6"	22'-2"	24'-4"	26'-6"	28'-0"	30'-0"	32'-0"	
20 TCDL	16"	21'-2"	24'-0"	26'-2"	28'-4"	30'-10"	32'-6"	34'-8"	
5 BCDL	12"	22'-8"	25'-8"	28'-6"	31'-0"	32'-6"	36'-2"	38'-0"	
<u>Commercial</u>	24"	14'-0"	15'-8"	17'-6"	19'-0"	20'-6"	21'-2"	22'-3"	
100 TCLL	19.2"	15'-8"	17'-4"	19'-4"	20'-8"	22'-0"	22'-10"	24'-2"	
20 TCDL	16"	16'-8"	18'-8"	21'-0"	22'-6"	23'-6"	24'-6"	26'-2"	
5 BCDL	12"	18'-4"	20'-6"	22'-6"	24'-6"	25'-6"	28'-0"	29'-6"	

Additional Notes:

Five to six feet can be added to spans without exceeding 40'-0" if double top & bottom chords are acceptable.

Spans assume a minimum of one 10" square mechanical chase centered in truss.

TCLL = Top Chord Live Load, TCDL = Top Chord Dead Load, BCDL = Bottom Chord Dead Load.

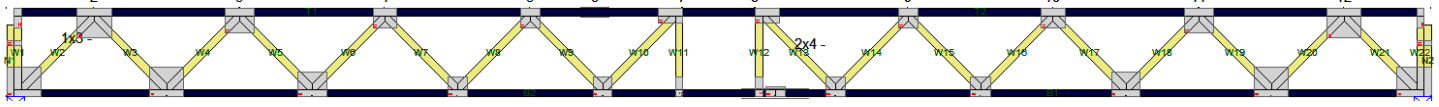
Example Floor Trusses

12" DEEP FLOOR TRUSS

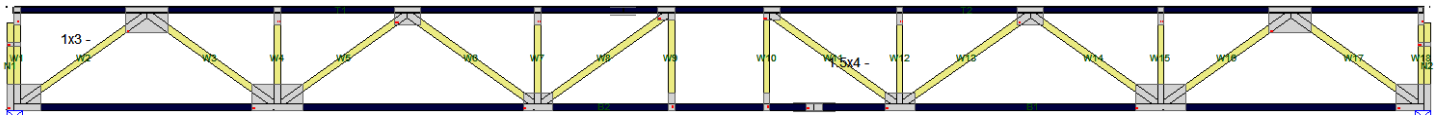


Example Floor Trusses cont...

18" DEEP FLOOR TRUSS

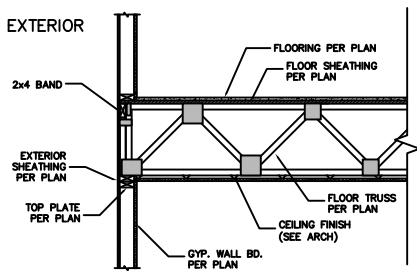


24" DEEP FLOOR TRUSS

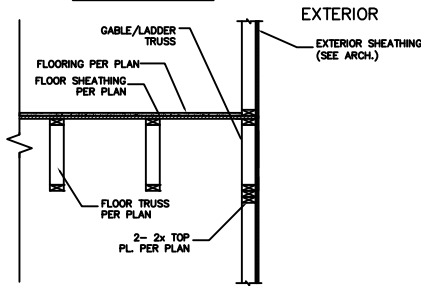


Example Floor Truss Details

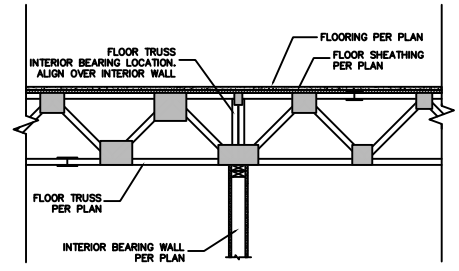
TYP. EXTERIOR BEARING WALL



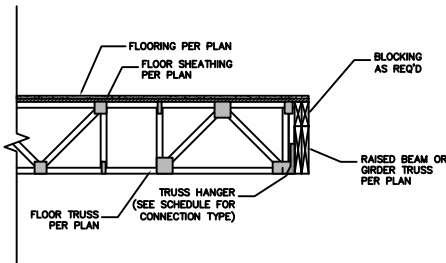
TYP. GABLE END



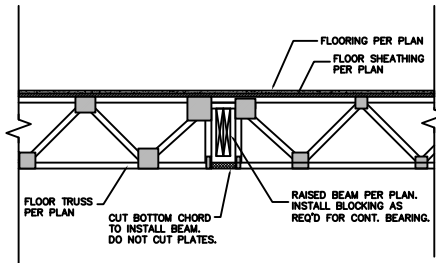
TYP. INTERIOR BEARING



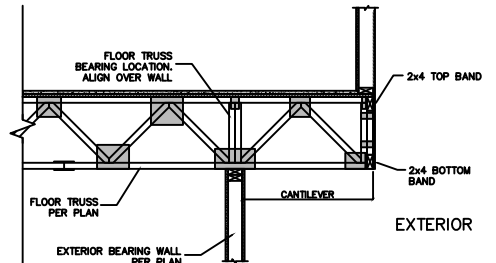
TYP. RAISED/FLUSH BEARING



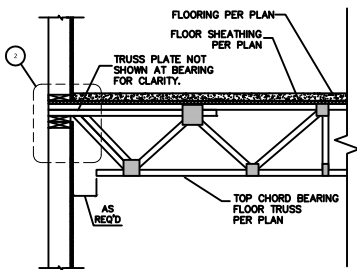
TYP. BEAM POCKET INSTALLATION



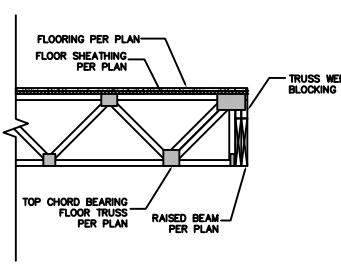
TYP. CANTILEVER



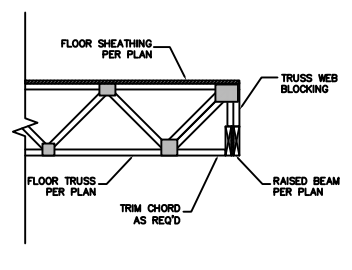
TOP CHORD BEARING



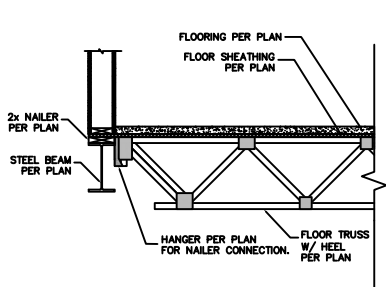
TOP CHORD BEARING



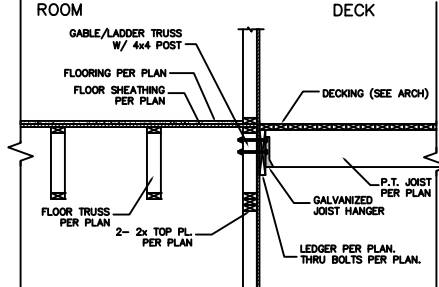
TOP CHORD BEARING



TOP CHORD BEARING



DECK ATTACHMENT



DECK ATTACHMENT

