

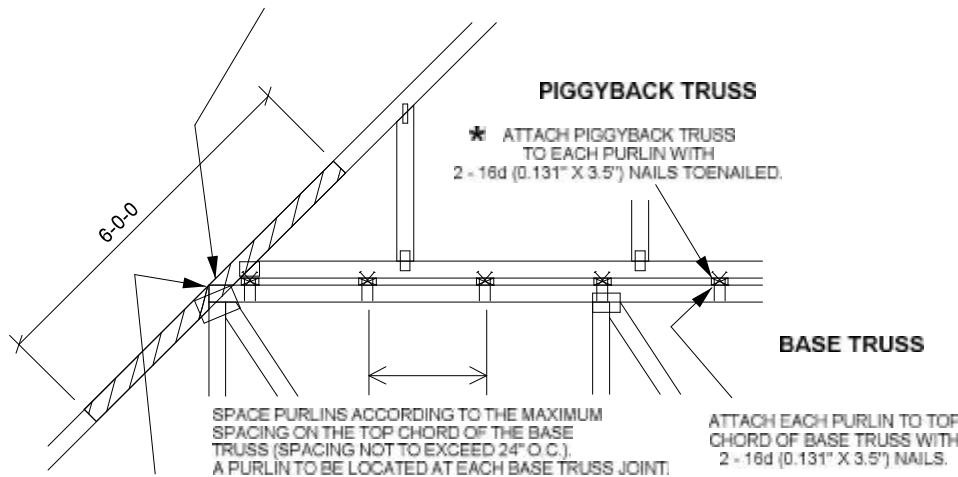
OCT 29, 2004

**STANDARD PIGGYBACK TRUSS CONNECTION DETAIL**

**ST-PIGGY**



\* 2 x  $\text{---}$  x 6'-0" SIZE TO MATCH TOP CHORD OF PIGGYBACK. ATTACHED TO ONE FACE OF CHORD WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.



SPACE PURLINS ACCORDING TO THE MAXIMUM SPACING ON THE TOP CHORD OF THE BASE TRUSS (SPACING NOT TO EXCEED 24" O.C.). A PURLIN TO BE LOCATED AT EACH BASE TRUSS JOINT.

ATTACH EACH PURLIN TO TOP CHORD OF BASE TRUSS WITH 2 - 16d (0.131" X 3.5") NAILS.

\* FOR PIGGY BACK TRUSSES WITH SPANS < 12' SCAB MAY BE OMITTED PROVIDED THAT: ROOF SHEATHING TO BE CONTINUOUS OVER JOINT (SHEATHING TO OVERLAP MINIMUM 12' OVER JOINT)

\* CAP CONNECTION IS MADE TO RESIST UPLIFT. SEE MAXIMUM CONNECTION CAPACITIES AND COMPARE WITH ENGINEERING DRAWING CONNECTION CAPACITIES FOR SCABS, PURLINS, AND SHEATHING MAY BE COMBINED WHEN DETERMINING OVERALL UPLIFT CAPACITY.

ALL VALUES SHOWN BELOW ARE BASED ON LOAD DURATION OF 1.33

MAXIMUM UPLIFT SCAB CAPACITY USING (10) 10d (0.131" X 3") NAILS:

SYP = 1409 LBS  
 SPF = 1090 LBS  
 DF = 1290 LBS  
 HF = 1117 LBS  
 SPF-S = 957 LBS

MAXIMUM UPLIFT PURLIN CAPACITY USING (2) 16d (0.131" X 3.5") NAILS:

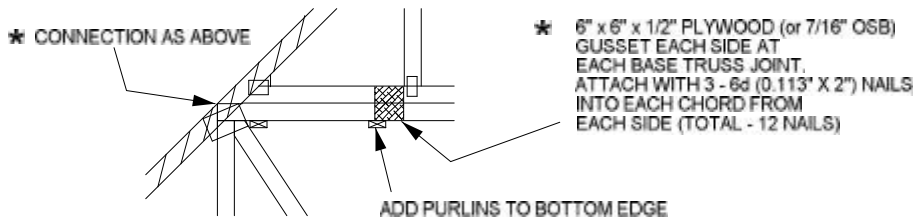
SYP = 155 LBS  
 SPF = 79 LBS  
 DF = 122 LBS  
 HF = 83 LBS  
 SPF-S = 54 LBS

MAXIMUM UPLIFT SHEATHING CAPACITY USING 1/2" SHEATHING AND (2) 8d (0.131" X 2.5") NAILS:

SYP = 109 LBS  
 SPF = 55 LBS  
 DF = 85 LBS  
 HF = 58 LBS  
 SPF-S = 37 LBS

**IF NO GAP EXISTS BETWEEN CAP TRUSS AND BASE TRUSS:**

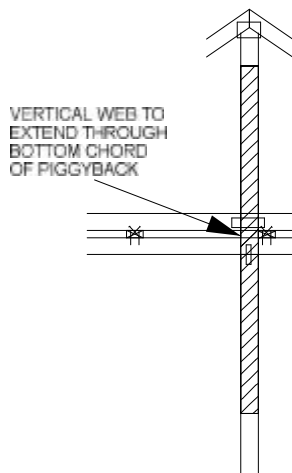
REPLACE THE NAILING OF CAP TRUSS TO PURLINS WITH GUSSETS AS SHOWN, AND APPLY PURLINS TO LOWER EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS DESIGN DRAWING.



MAXIMUM UPLIFT GUSSET CAPACITY USING 7/16" GUSSETS AND (6) 6d (0.113" X 2") NAILS:

SYP = 399 LBS  
 SPF = 367 LBS  
 DF = 391 LBS  
 HF = 367 LBS  
 SPF-S = 343 LBS

**FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:**



VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) VERTICAL WEBS OF PIGGYBACK MUST RUN THROUGH BOTTOM CHORD SO THAT THERE IS FULL WOOD TO WOOD CONTACT BETWEEN WEB OF PIGGYBACK AND THE TOP CHORD OF THE BASE TRUSS.
- 3) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS.
- 4) ATTACH 2 x  $\text{---}$  x 6'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 5) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 6) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.

MAXIMUM UPLIFT SCAB CAPACITY USING (20) 10d (0.131" X 3") NAILS:

SYP = 2819 LBS  
 SPF = 2181 LBS  
 DF = 2580 LBS  
 HF = 2234 LBS  
 SPF-S = 1915 LBS