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PROJECT: STANDARD PLANS FOR 12'x24' RECTANGLE HAMPTON PAVILION

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## **GENERAL NOTES**

All notes do not necessarily apply due to different requirements on each project. This plan is intended to reflect only the structural design of this building. The contractor shall review all applicable local, state, and federal building codes prior to the start of construction to ensure building conformance. Timber Tech Engineering, Inc. is not responsible for information pertaining to this project if not shown on drawings or listed below. Revisions to the plans shall be approved by engineer of record.

## DESIGN REQUIREMENTS

1. Governing Code:

Including, not limited to: IBC 2009

2. Dead Loads:

A. Roof 5 psf B. Floor n/a psf C. Other n/a psf 3. Live Loads: A. Roof (See also note #4) 30 psf B. Floor n/a C. Other n/a pef 4. Snow Loads: A. Ground Snow (Pg) 45 psf B. Flat Roof Snow (Pf) 30 psi C. Snow Exposure Factor (Ce) 1.0

D. Snow Load Importance Factor (I) 0.8
E. Unbalanced Snow
i. Windward Roof 0 pef
ii. Leeward Roof 36 pef
5. Wind Load

A. Basic Wind Speed (V)

B. Wind Load Importance Factor (I)

C. Wind Exposure Category

D. Enclosure Category

E. Components and Cladding:

6. Earthquake Design Data:

(Analysis based on equivalent lateral force procedure)

A. Spectral Response Acceleration at 1 sec. S 0.8

B. Spectral Response Acceleration at short periods, S 1.2

C. Seismic Occupancy Category 1
D. Occupancy Importance Factor, I 10

E. Site Class D. F. Seismic Design Category D.

G. Basic Structural System

Cantilevered Column: Timber Frame
H. Response Modification Factor (R) 1.

I. Deflection Amplification Factor (Cd) 1.5

**WOOD** 

1. General Requirements

A. Structural wood members and connections shall be of sufficient size or capacity to carry all design loads without exceeding the allowable design values specified in "The National Design specification for Wood Construction" (NDS), 2005 edition, and its "Supplement" by the American Forest and Paper Association (AF-PA).

B. Wood members used for load supporting purposes shall have the grade mark of a lumber grading agency certified by the American Lumber Standards Committee.

2. Dimension Lumber

A. All lumber species, graded visually or mechanically, shall comply with the NDS by AF+PA, and the "American Softwood Lumber Standard" (PS 20-94) by the U.S. Department of Commerce.

B. The minimum grade and species for posts, beams, headers, and other primary structural members shall be Dense Select Structural Southern Pine, unless specified otherwise.

C. Lumber used for secondary framing shall be #1 Southern Yellow Pine (SYP) or better.

D. Post frame headers shall be two-span continuous beams with all multiple ply headers overlapping so that the butt joints for each ply do not occur at the same post.

E. Mechanically laminated columns shall conform with ANSI/ASAE EP 559.

3. Pressure Preservative Treatment (PPT)

 A. Pressure treatment to be performed according to the American Wood Preservers' Association (AWPA) standards.

B. Pressure treated members shall have the inspection mark of an agency accredited by the American Lumber Standards Committee.

C. Preservative: Ammonia Copper Quaternary ammonia (ACQ) or Copper Boron Azole (CBA)

D. Minimum waterborne treatment retention shall be 0.4 pcf for members above ground, and 0.6 pcf for members in contact with earth.

E. Treat indicated items and the following:

1. Wood members exposed to weather or insect infestation.

2. Wood members in direct contact with earth or concrete.

Wood members exposed to high moisture content ()19% for dimension lumber, )16% for glued laminated timber).

4. Wood members less than 12 inches above grade.

F. Field treat newly exposed wood where cutting, drilling or notching pressure treated lumber.

G. Metal connectors used in treated wood shall be hot-dip galvanized as per ASTM A153-01a.

 Connections shall be designed and constructed according to the NDS by AF+PA and shall conform to the following:

A. The minimum connection shall be two 12 penny nails, or as detailed on the drawings

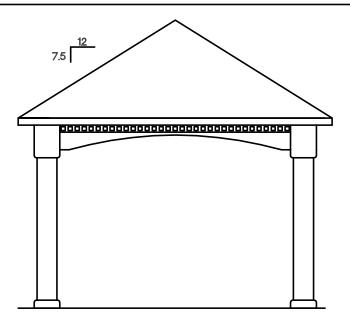
B. Other connections as per standard construction practice.

Design Reaction Chart	
Max. Moment in column	3075 lb-ft.
Max. uplift at column base	800 lb
Max. downward force at column base	2850 lb
Max. shear at column base	400 lb

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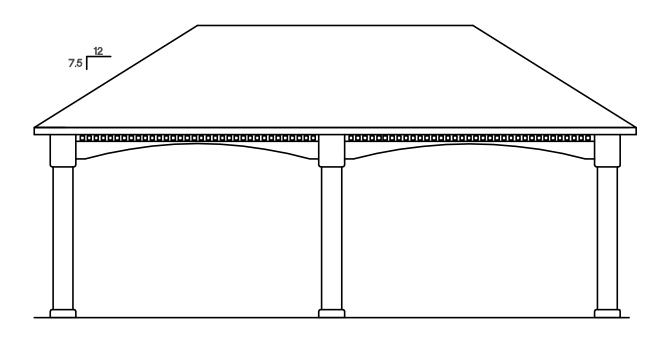
PROJECT: STANDARD PLANS FOR 12'x24' RECTANGLE HAMPTON PAVILION

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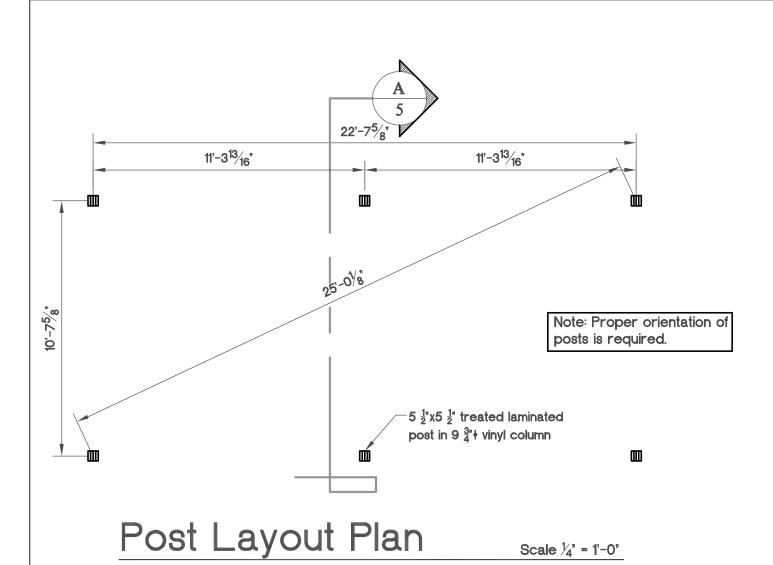
## **End Elevation**

Scale  $\frac{1}{4}$ " = 1'-0"



Side Elevation

Scale 1/4" = 1'-0"

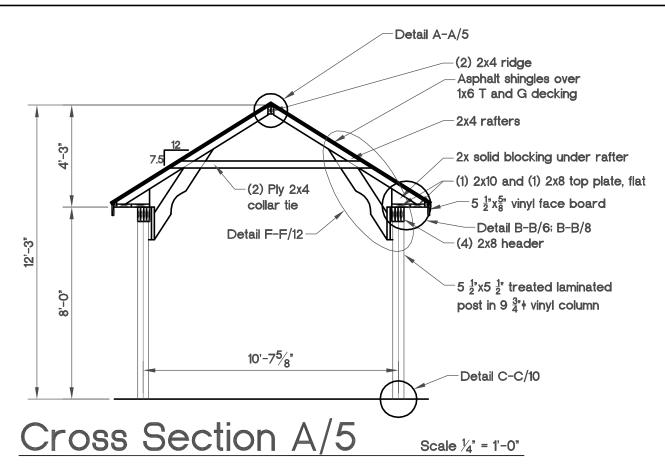


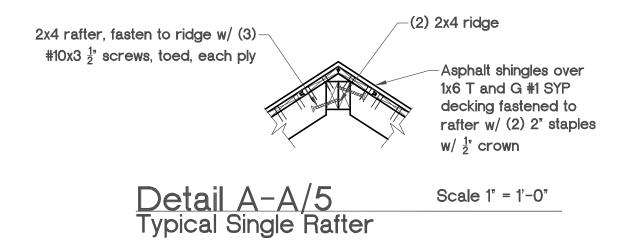
JOB NUMBER: E265-10 PROJECT: STANDARD PLANS FOR 12'x24' RECTANGLE HAMPTON PAVILION PAGE: 4 OF 15 This drawing is the property of Country Lane Woodworking, LLC, provided by Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Country Lane Woodworking, LLC is prohibited. Drawings shall not be scaled to obtain dimensions. The contractors and builders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.  $5\frac{1}{2}$ x $5\frac{1}{2}$ " treated laminated post in 9 3r vinyl column 1x6 T+G #1 SYP decking  $5\frac{1}{2}x\frac{5}{8}$  vinyl face board (1) 2x10 and (1) 2x8 top plate, flat, side by side (2) 2x4 hip rafter Detail D-D/11 Detail E-E/11 2x4 Collar tie, each side of double rafter 3'-6/2" Scale 1/4 = 1'-0" 2x4 rafter, spaced as shown Roof Framing Plan 2'-0" 25'-1" 2,-0 " [0 [7] 3'-6/23,-6<sup>1</sup>/<sub>2</sub>, 3,-6/5," 2,-0, 2,-0, \_...\_O\_.Z

13,-1<u>u</u>

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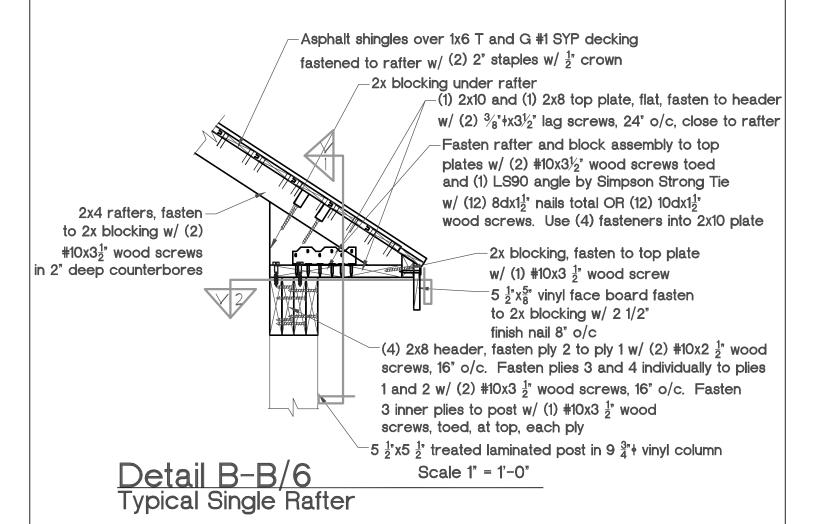
PROJECT: STANDARD PLANS FOR 12'x24' RECTANGLE HAMPTON PAVILION

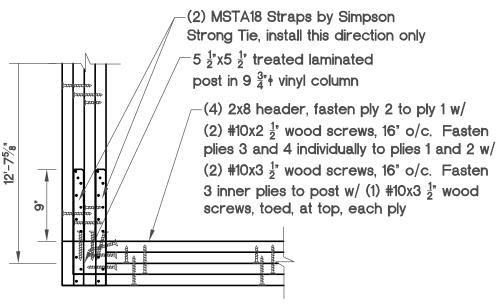




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View 2 Detail B-B/6

Scale 1" = 1'-0"

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 $\sqrt{4/4}$ 

direction

header from each

2x4 rafters

top of header

 $w/2l_2$ " finish nail 8" o/c

Post notched at top to accept outside ply of

 $5\frac{1}{2}x_8^5$  vinyl face board fasten to 2x blocking

Fasten outside ply of 2x8 header to post w/ (8)  $\pm 10x3\frac{1}{2}$  screws, concentrated near

View 1 Detail B-B/6

each face of post,

fasten to post w/ 2"

 $1x4x77\frac{1}{2}$  long on

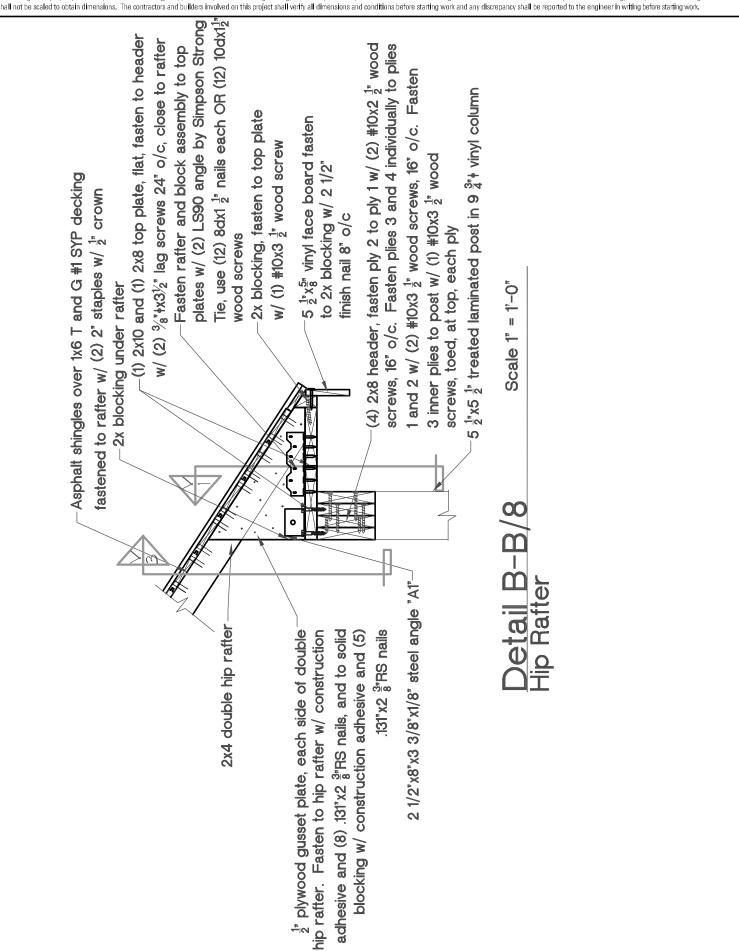
5½x5½ treated laminated post in 9¼ vinyl column

Notch post to accept plywood

Vinyl trim

staples w/ $\frac{1}{2}$  crown

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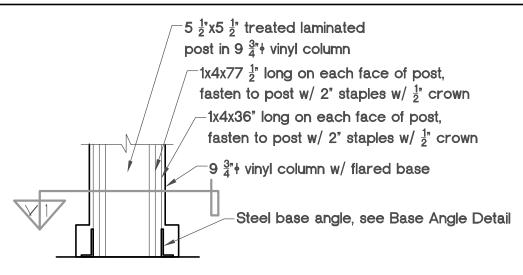


JOB NUMBER: E265-10 PROJECT: STANDARD PLANS FOR 12'x24' RECTANGLE HAMPTON PAVILION PAGE: 9 OF 15 This drawing is the property of Country Lane Woodworking, LLC, provided by Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Country Lane Woodworking, LLC is prohibited. Drawings shall not be scaled to obtain dimensions. The contractors and builders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work. plies 3 and 4 individually to plies 1 and 2 w/ (2) #10x2  $\frac{1}{2}$ " wood screws, 16" o/c. Fasten (4) 2x8 header, fasten ply 2 to ply 1 w/  $5\frac{1}{2}x5\frac{1}{2}$  treated laminated post in  $9\frac{3}{4}$ + vinyl column (2) #10x3  $\frac{1}{2}$  wood screws, 16" o/c (1) 2x10 and (1) 2x8 top plate, flat 2 1/2"x6"x3 3/8"x1/8" steel angle "A1" Scale  $1^n = 1^n - 0^n$ /jew 3 Detail B-B/8 lip Rafter 2x4 double hip rafter hip rafter. Fasten to hip rafter w/ construction adhesive and (8) .131"x2  $\frac{3}{8}$ "RS nails, and to solid blocking w/ construction adhesive and (5) .131"x2 3"RS nails  $\frac{1}{2}$  plywood gusset plate, each side of double

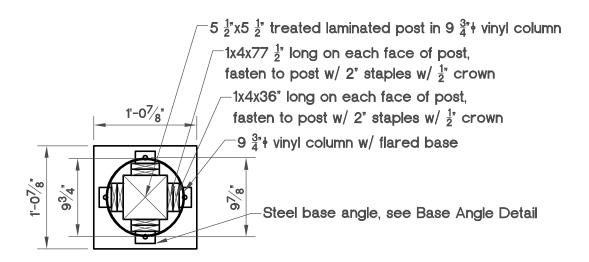
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PROJECT: STANDARD PLANS FOR 12'x24' RECTANGLE HAMPTON PAVILION

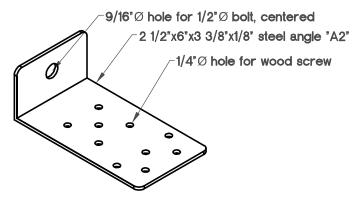
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Detail C-C/10 Scale 1" = 1'-0"



## View 1 Detail C-C/10 Scale 1" = 1'-0"



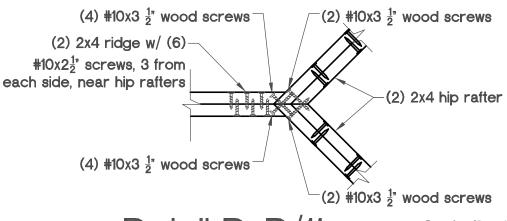
Angle "A1"

Scale 3" = 1'-0"

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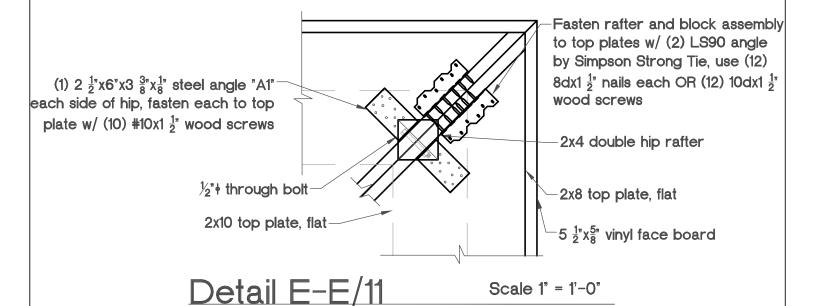
PROJECT: STANDARD PLANS FOR 12'x24' RECTANGLE HAMPTON PAVILION

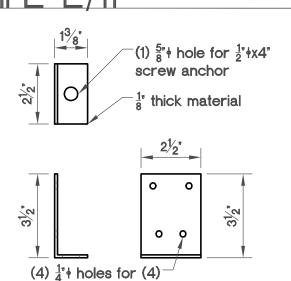
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Detail D-D/11

Scale 1" = 1'-0"





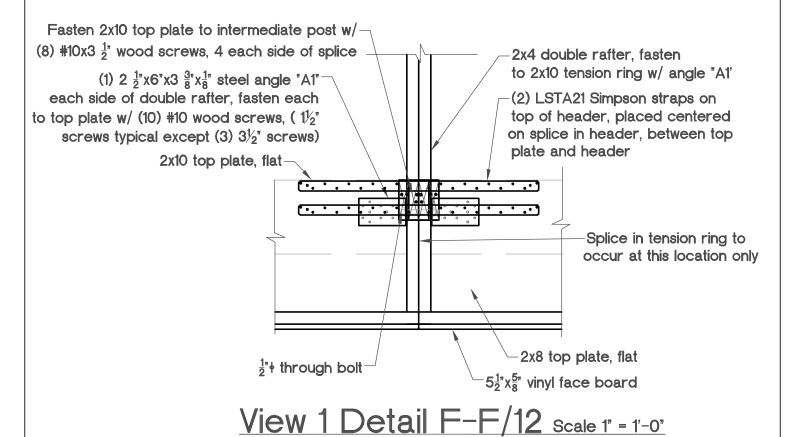
Base Angle Detail

# $10x3\frac{1}{2}$  wood screws

Scale 3" = 1'-0"

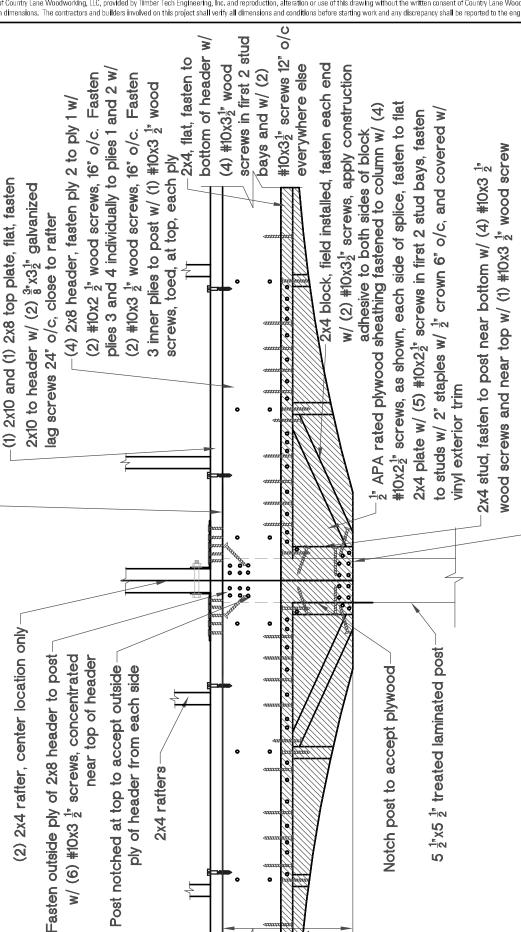
JOB NUMBER: E265-10 PAGE: 12 OF 15 his drawing is the property of Country Lane Woodworking, LLC, provided by Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Country Lane Woodworking, LLC is prohibited. Drawings shall not be scaled to obtain dimensions. The contractors and builders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work Fasten rafter and block assembly to top Asphalt shingles over 1x6 T and G #1 Strong Tie, use (12) 8dx1½" nails total OR #10x23 wood screws, 16" o/c. Fasten plies 3 SYP decking fastened to rafter w/ plates w/ (1) LS90 angle by Simpson 2x blocking, fasten to top plate (4) 2x8 header, fasten ply 2 to ply 1 w/ (2) (12)  $10dx1\frac{1}{2}$  wood screws. Use (4) 3 inner plies to post w/ (1)  $\pm 10x3\frac{1}{2}$  wood -(1) 2x10 and (1) 2x8 top plate, flat and 4 individually to plies 1 and 2 w/ (2)fasten to 2x blocking w/ 2%w/ (1) #10x3  $\frac{1}{2}$  wood screw # $10x3\frac{1}{2}$  wood screws, 16° o/c. Fasten (2) LSTA21 Simpson straps on top of header, (2) 2" staples w/  $\frac{1}{2}$ " crown  $5\frac{1}{2}x\frac{5}{8}$  vinyl face board fasteners into 2x10 plate screws, toed, at top, each ply angle "A1" w/ (1)  $\frac{1}{2}$  thru bolt placed centered on splice in header finish nail 8" o/c 2 1/2"x6"x3 3/8"x1/8" steel  $5\frac{1}{2}x5\frac{1}{2}$ " treated laminated 2x blocking under rafter post in 937 vinyl column Scale  $1^n = 1^n - 0^n$ 1,-41/4" Detail F-F/12 **Center Double Rafter** (10) #10x3<sup>1</sup> wood screws, 5 each side of splice Fasten 2x10 top plate to intermediate post w/ (2)  $2x6x1'-6\frac{3}{4}$  blocks, fasten to (2) 2x4 rafter, fasten to top plate w/ (2) Angle "A1", 1 each side post w/ (6) TLOK006 screws by FastenMaster (2) 2x8 kneebrace, fasten at bottom w/ (6) TLOK004 screws by FastenMaster, (3) each ply #10x3 ½ wood screws in 2" deep counterbores 2x4 rafters, fasten to 2x blocking w/ (2)FastenMaster, (1) each ply, and to collar tie w/ (5)  $\pm 10x3\frac{1}{2}$  wood screws each side at top w/ (2) TLOK004 screws by (2) 2x8 kneebrace, fasten to rafter wood screws each end (2) 2x4 collar tie, fasten each ply to rafter w/ (6) #10x3⅓

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header, between top plate and header header, placed centered on splice in (2) LSTA21 Simpson straps on top of

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View 2 Detail F-F

Scale 1" = 1'-0"

Fasten plywood to stud w/ (2) # $10x2\frac{1}{2}$  screws,

near bottom, inside and outside plywood

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