

Farabaugh Engineering and Testing Inc.

Project No. T330-11

Report Date: 11/10/11

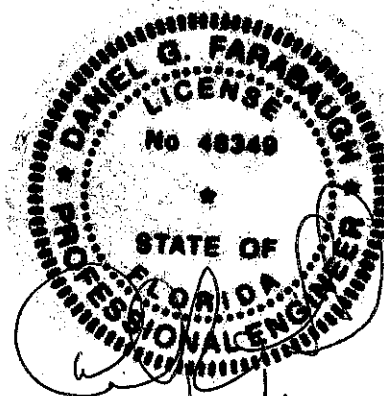
No. Pages: 15

TAS 100-95
TEST PROCEDURE FOR WIND AND WIND DRIVEN RAIN
RESISTANCE OF DISCONTINUOUS ROOF SYSTEMS
PERFORMANCE TEST REPORT

PANEL-LOC PLUS ROOF PANEL
36" WIDE X 29 GA. STEEL

FOR

CENTRAL STATES MANUFACTURING, INC.
302 JANE PLACE
LOWELL, AR. 72745



DANIEL G. FARABAUGH, P.E.
255 Saunders Station Rd.
Trafford, PA 15085
(412) 373-9238

Report Prepared by:

Paul G. Farabaugh

Approved by:

Daniel G. Farabaugh, PE



ACCREDITED
LABORATORY
TL-186



ACCREDITED
LABORATORY



ACCREDITED
LABORATORY



TEXAS DEPARTMENT
OF INSURANCE
ACCREDITED LABORATORY

Project No. T330-11

TAS 100-95
TEST PROCEDURE FOR WIND AND WIND DRIVEN RAIN
RESISTANCE OF DISCONTINUOUS ROOF SYSTEMS

Scope:

This test procedure provides a means for establishing the resistance of the discontinuous roof system, consisting of underlayment and a prepared roof covering. The testing was performed as per Florida Testing Application Standard (TAS) 100-95 and as provided.

Test Specimen

Manufacturer: Central States Manufacturing, Inc.
302 Jane Place
Lowell, AR. 72745

Specimen: PANEL-LOC PLUS ROOF PANEL,
36" w x 29ga. Steel

Deck

The test deck consisted of a 10' long x 8' wide base structure constructed from 2 x 10 wood perimeter supports and 2 x 10 wood intermediate supports 24" on center. Plywood sheathing 15/32" thick was installed over the framing supports and attached with 8d ring shank nails at 6" on center at panel edges and 12" on center at intermediate supports. The valley conditions (2 on 12 slope) was constructed at the front edge of the test deck.

Installation

The panels were installed on to plywood decking with #10 x 1-1/2" metal to wood screw w/washer and 1/4"-14 x 3/4" long self drill fasteners at lap seam. The roof panels and underlayment was attached to the plywood deck as shown on the attached details. (See attached drawings for all installation details)

Calibrations

Calibrations of the Windstream, Flow Meter and Water Distribution was performed per TAS 100-95

Test Witness

Daniel G. Farabaugh, P.E. (Florida PE #0048349)
255 Saunders Station Road
Trafford, PA. 15085

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Test Procedure

- The test assembly was positioned at a 2 on 12 slope and also with the 8 ft. eave facing the wind generator.
- The test assembly was subjected to wind speed and water spray intervals as follows.

Test Data

Test Date: 11-10-11

INTERVALS	WIND SPEED (MPH)	WATER SPRAY RATE (IN/HR)	WATER SPRAY	TIME (MIN)	OBSERVATIONS
1	35	8.8	ON	15	NO LEAKAGE
2	0	-	OFF	10	NO LEAKAGE
3	70	8.8	ON	15	NO LEAKAGE
4	0	-	OFF	10	NO LEAKAGE
5	90	8.8	ON	15	NO LEAKAGE
6	0	-	OFF	10	NO LEAKAGE
7	110	8.8	ON	5	NO LEAKAGE
8	0	-	OFF	10	NO LEAKAGE

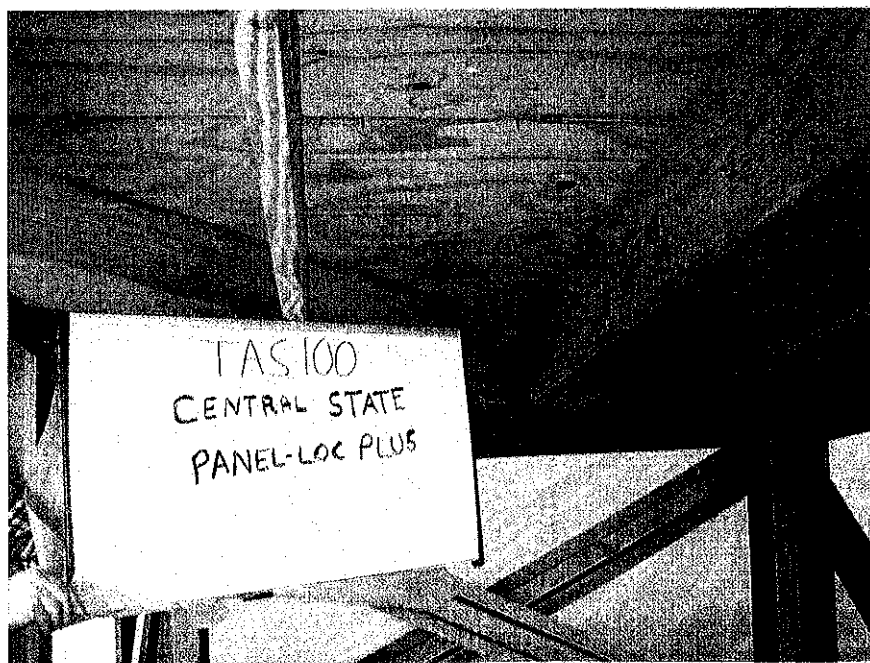
Summary of Observations

Upon completion of the test intervals, visual observation indicated that there was no damage to the roof system and no water infiltration on the underside of the sheathing.

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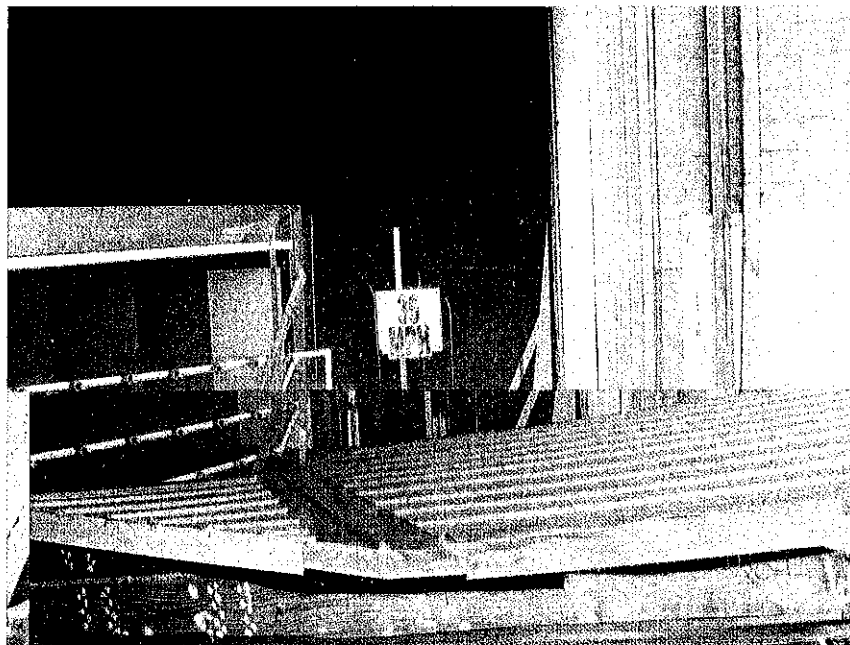


TOPSIDE OF ASSEMBLY PRIOR TO TEST



UNDERSIDE OF ASSEMBLY PRIOR TO TEST

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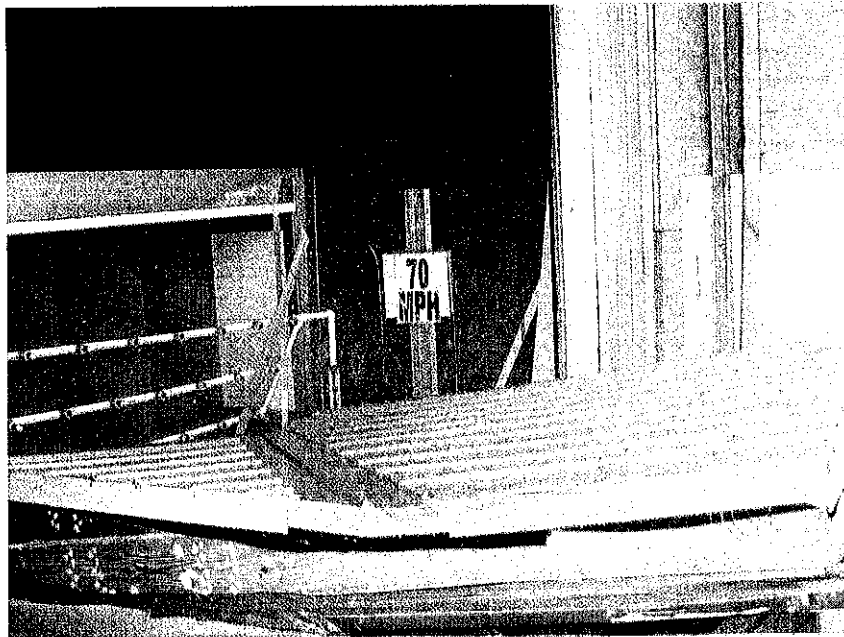


TOPSIDE OF ASSEMBLY AT 35 MPH



UNDERSIDE OF ASSEMBLY AT 35 MPH

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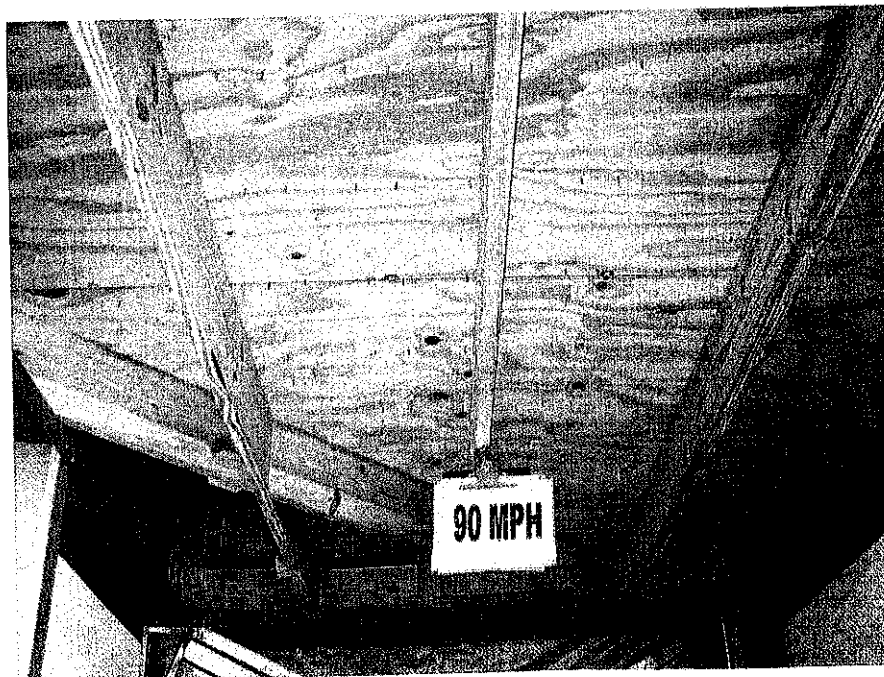
TOPSIDE OF ASSEMBLY AT 70 MPH



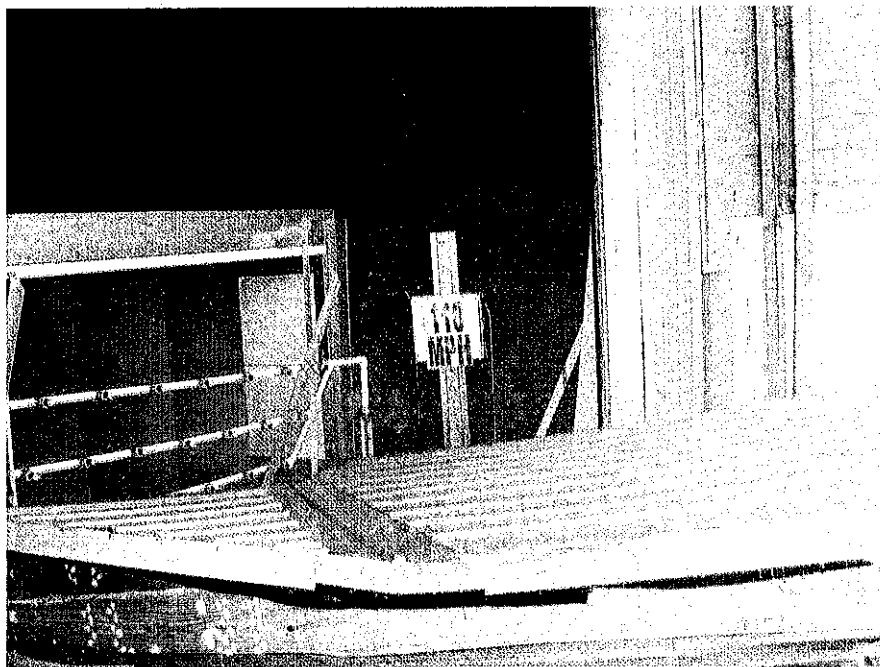
UNDERSIDE OF ASSEMBLY AT 70 MPH



TOPSIDE OF ASSEMBLY AT 90 MPH



UNDERSIDE OF ASSEMBLY AT 90 MPH

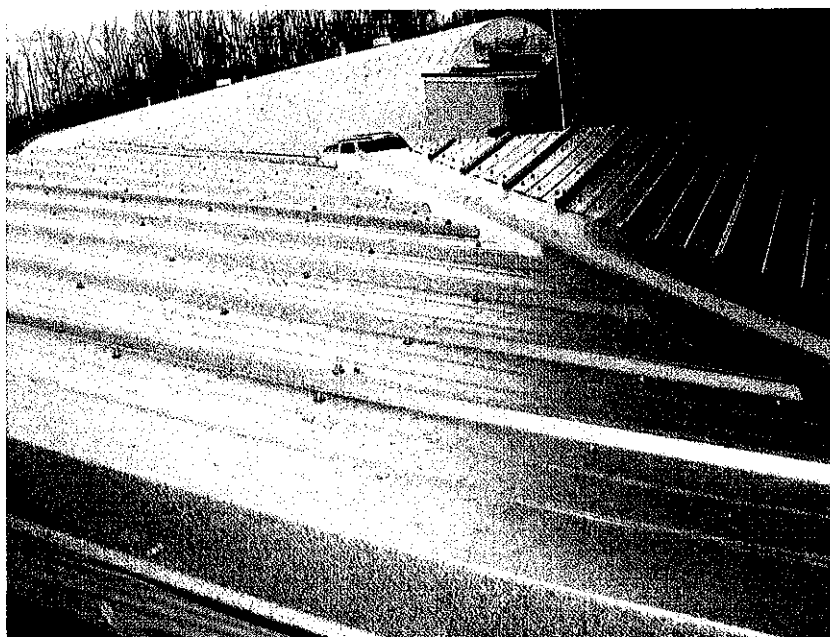


TOPSIDE OF ASSEMBLY AT 110 MPH



UNDERSIDE OF ASSEMBLY AT 110 MPH

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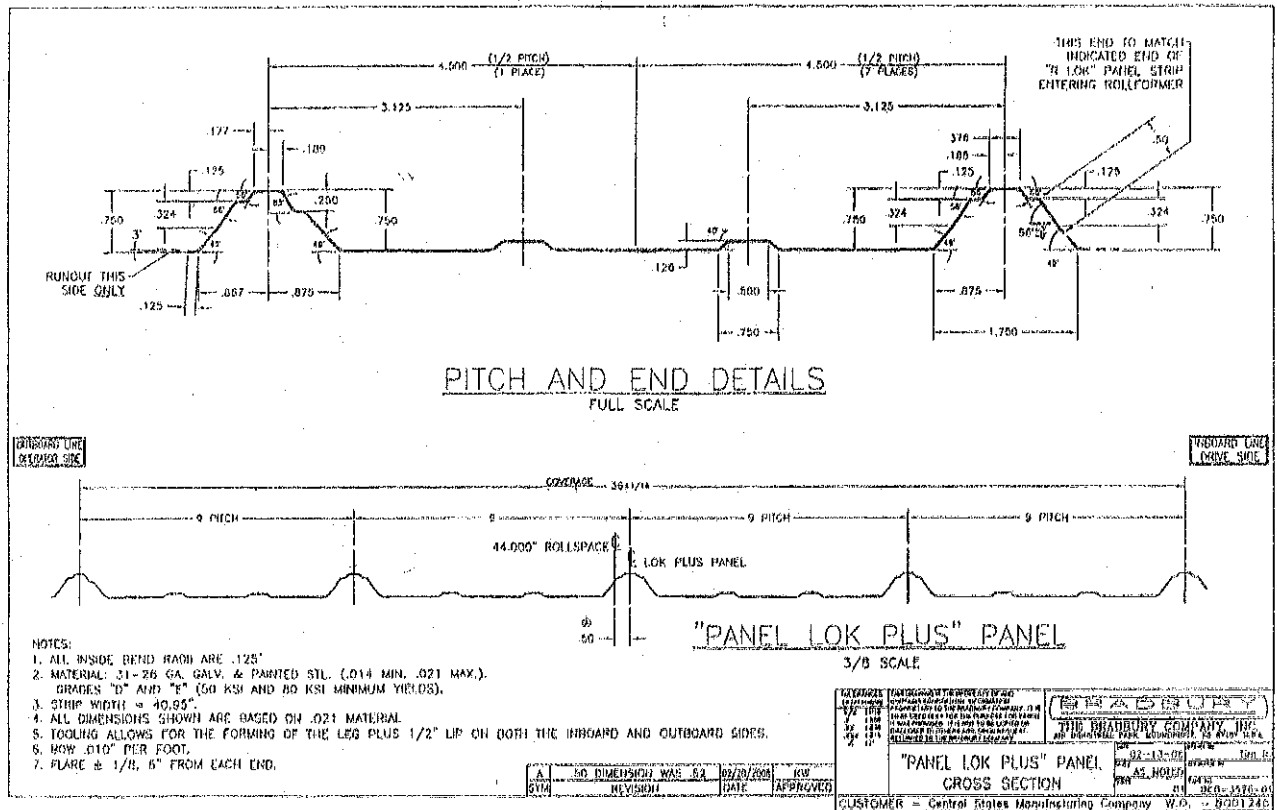
TOPSIDE OF ASSEMBLY AFTER TESTING



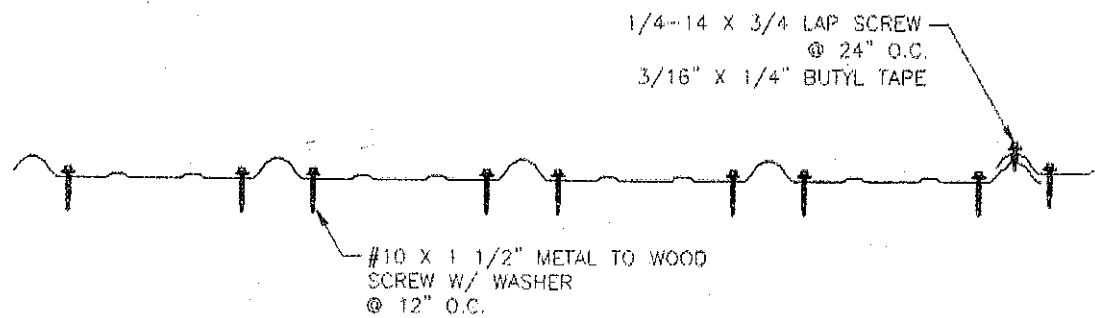
UNDERSIDE OF ASSEMBLY AFTER TESTING

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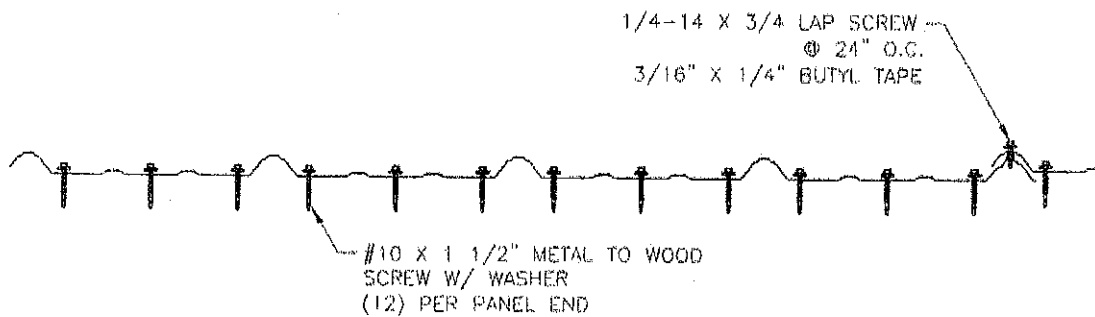
APPENDIX



PANEL-LOC PLUS TYPICAL FASTENER DETAILS OVER 15/32" PLYWOOD



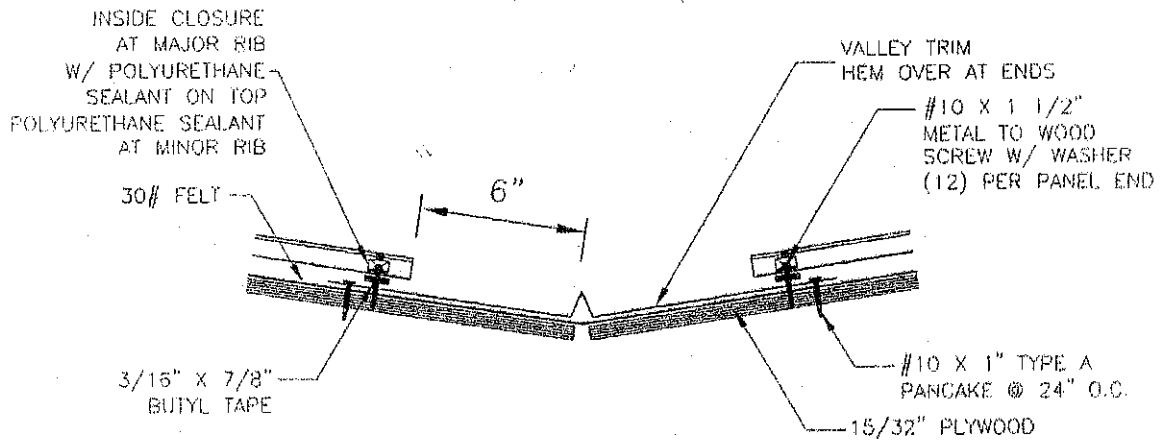
CORNER ZONE / EDGE ZONE FASTENER PATTERN



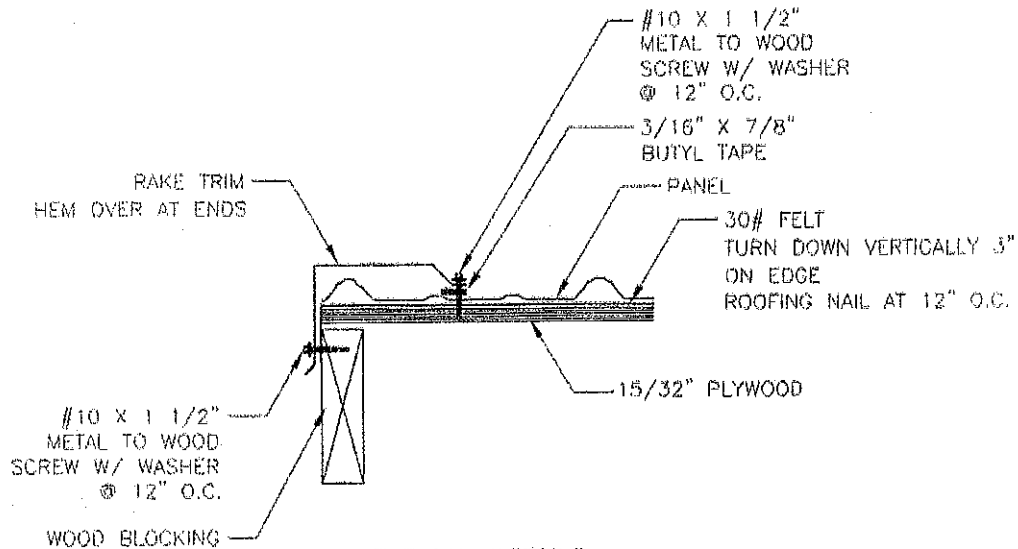
EAVE & VALLEY FASTENER PATTERN

PROJECT:		 302 June Place - Lowell, AR 72745 Phone 800.350.2733 - Fax 800.350.2071 www.centralstatesmfg.com	<table border="1"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>														Sheet
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FASTENER PATTERN																	
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PANEL-LOC PLUS TYPICAL DETAILS OVER 15/32" PLYWOOD



TYPICAL DETAILS
VALLEY



TYPICAL DETAILS
RAKE

PROJECT:
PANEL-LOC PLUS
VALLEY & RAKE DETAILS

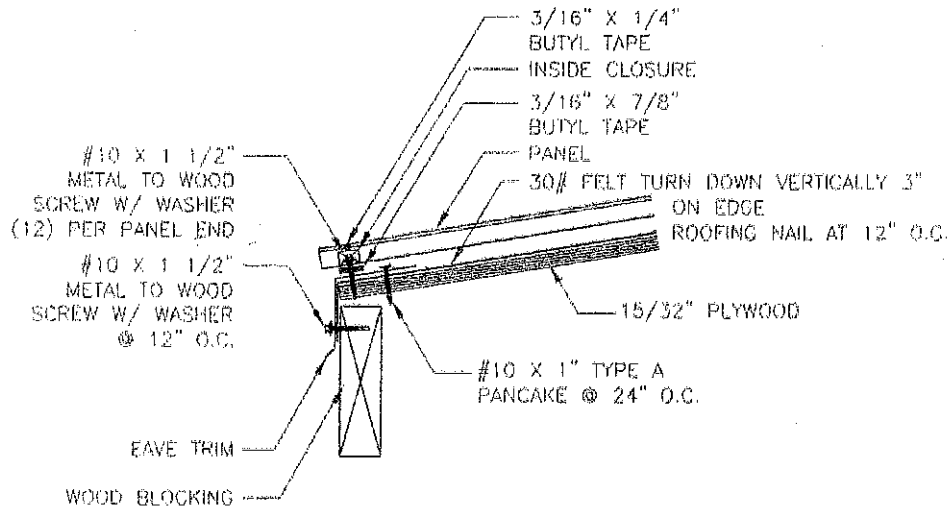
CENTRAL STATES
BLUESCOPE, INC.

202 John Place - Lowell, AR 72745
Phone 800.356.2733 - Fax 800.356.2971
www.centralstatesbluescope.com


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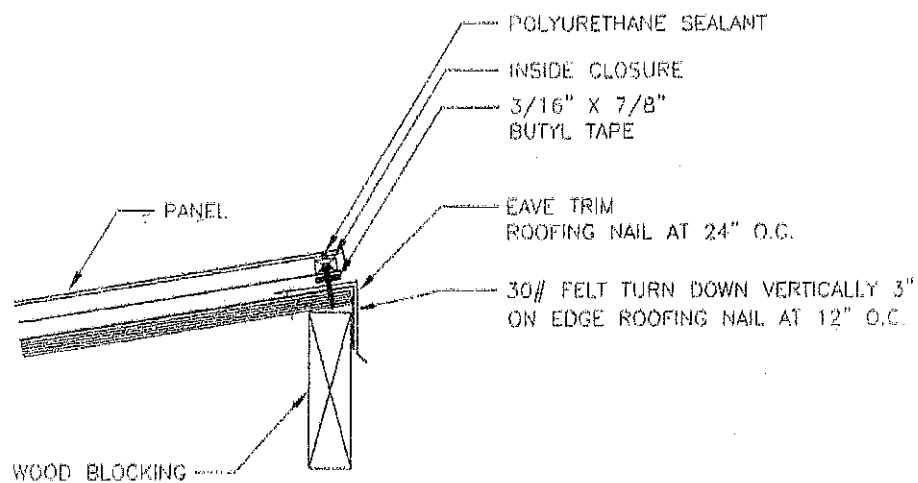
PANEL-LOC PLUS TYPICAL DETAILS OVER 15/32" PLYWOOD




TYPICAL DETAILS
RAKE

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LOW EAVE DETAIL																					

PANEL-LOC PLUS TYPICAL DETAILS OVER 15/32" PLYWOOD



TYPICAL DETAILS
HIGH EAVE

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PANEL-LOC PLUS					
HIGH EAVE DETAIL					
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