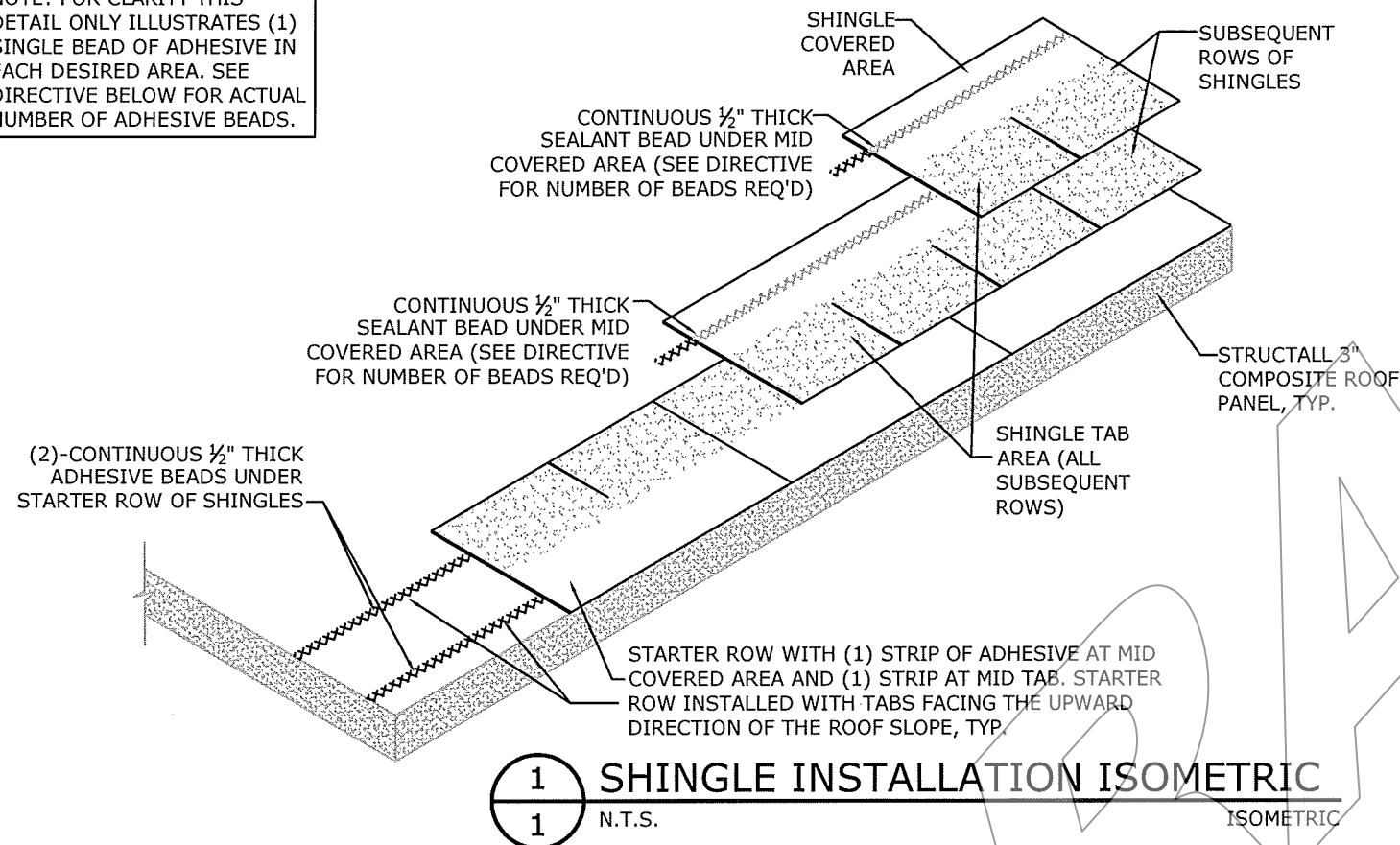


STRUCTALL BUILDING SYSTEMS

SHINGLE ATTACHMENT DIRECTIVE

NOTE: FOR CLARITY THIS DETAIL ONLY ILLUSTRATES (1) SINGLE BEAD OF ADHESIVE IN EACH DESIRED AREA. SEE DIRECTIVE BELOW FOR ACTUAL NUMBER OF ADHESIVE BEADS.



GENERAL NOTES:

- THIS DESIGN COMPLIES WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE FIFTH EDITION (2014). DESIGN CRITERIA CONSIDERS A MAXIMUM $V_{ult}=180$ MPH, EXPOSURE 'C', 30'MRH, RISK CATEGORY I PER ASCE 7-10 (V_{asd} EQUIVALENT= 140 MPH).
- THIS SHEET CERTIFIES STRUCTURAL DESIGN OF THE ADHESIVE ATTACHMENT OF ROOF SHINGLES TO THE COMPOSITE ROOF PANEL ONLY (WATERPROOFING BY OTHERS). ALL ROOF PANEL ALLOWABLE SPANS AND CORRESPONDING ALLOWABLE DESIGN PRESSURES SHALL BE PER SEPARATE CERTIFICATION. TOTAL SUPERIMPOSED DEAD LOAD ON ANY PANEL SHALL NOT EXCEED 5 PSF, AND THIS WEIGHT SHALL BE SUBTRACTED FROM THE LIVE LOAD ALLOWABLE VALUES IN THE PANEL ROOF SPAN CHARTS WHEN USING THIS INSTALLATION METHOD (SEE PANEL APPROVAL FOR ROOF SPANS).
 - EXAMPLE: IN A 25 PSF WIND PRESSURE/SNOW LOAD ZONE, WITH THE ADDITION OF THE MAXIMUM ALLOWABLE 5PSF DEAD LOAD, THE MODIFIED MAXIMUM ALLOWABLE PANEL SPAN SHALL BE GOVERNED BY LOADING CRITERIA OF 30PSF.
- INSTALL COMPOSITE ROOF PANELS IN ACCORDANCE WITH STRUCTALL BUILDING SYSTEMS MASTER PLAN SHEETS & SPAN TABLES PER SEPARATE DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- PANELS TO BE STRUCTALL BUILDING SYSTEMS EPS FOAM CORE ROOF PANELS ONLY. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- ** ALTERATIONS, ADDITIONS, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION.

DECORATIVE SHINGLE ADHESIVE ATTACHMENT DIRECTIVE:

ATTACH SHINGLES TO COMPOSITE ROOF PANELS WITH STRUCTURAL GRADE ADHESIVE*. APPLY ADHESIVE IN A CONTINUOUS $\frac{1}{2}$ "- $\frac{5}{8}$ " THICK BEAD SO THAT THERE IS A 1" WIDE STRIP OF ADHESIVE WHEN SHINGLE IS PUT IN PLACE. CLEAN ALL JOINTS AND ROOF PANEL SURFACES WITH XYLENE (XYLOL) OR OTHER SOLVENT BASED CLEANER.

FOR WIND ZONES UP TO 155 MPH, EXPOSURE 'C' (MAX 58PSF UPLIFT)
(SEE GENERAL NOTES FOR DESIGN CRITERIA):

- STARTER ROWS OF SHINGLES SHALL HAVE (1) STRIP OF ADHESIVE UNDER THE SHINGLE AT MID COVERED AREA AND (1) ONE UNDER THE SHINGLE AT MID TAB AREA. STARTER SHINGLE ROW INSTALLED WITH THE TABS FACING IN THE UPWARD DIRECTION OF THE ROOF SLOPE.
- SUBSEQUENT ROWS OF SHINGLES INSTALLED WITH THE TABS FACING IN THE DOWNWARD DIRECTION OF THE ROOF SLOPE WITH (1) STRIP OF ADHESIVE UNDER THE SHINGLE AT MID COVERED AREA AS ILLUSTRATED ABOVE.

FOR WIND ZONES UP TO A MAXIMUM 180 MPH, EXPOSURE 'C' (MAX 78 PSF UPLIFT)
(SEE GENERAL NOTES FOR DESIGN CRITERIA):

- STARTER ROWS OF SHINGLES SHALL HAVE (2) STRIPS OF ADHESIVE UNDER THE SHINGLE AT MID COVERED AREA AND (2) STRIPS AT MID TAB AREA. SHINGLE ROW INSTALLED WITH THE TABS FACING IN THE UPWARD DIRECTION OF THE ROOF SLOPE.
- SUBSEQUENT ROWS OF SHINGLES INSTALLED PER PREVIOUS SPECIFICATION WITH (2) STRIPS OF ADHESIVE AT MID COVERED AREA.

* ADHESIVE: SHALL BE STRUCTURAL GRADE WITH A MINIMUM ALLOWABLE BOND STRENGTH OF 500 PSI.

FRANK L. BENNARDO, P.E.
PE# 0046549

07/07/2015

IF CHECKED, CERTIFYING P.E. APPEARS IN GENERAL NOTES

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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CSL	TSB	09-19-13
REV FOR FBC 5TH EDITION	JAC	CSL	7/7/2015

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