ROOF VENTILATION

SECTION R806

R806.1 Ventilation required. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7.

R806.2 Minimum area. The total net free ventilating area shall not be less than 1/150 of the area of the space ventilated except that reduction of the total area to 1/300 is permitted provided that at least 50 percent and not more than 80 percent of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet (914 mm) above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilation area may be reduced to 1/300 when a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling. Exceptions:

1. Enclosed attic/rafter spaces requiring less than 1 square foot (0.0929 m2) of ventilation may be vented with continuous soffit ventilation only. 2. Enclosed attic/rafter spaces over unconditioned space may be vented with continuous soffit vent only.

SQUARE FOOTAGE OF ROOF TO BE VENTED = 1,959 SQ.FT.

NET FREE CROSS VENTILATION NEEDED:

WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 13.06 SQ.FT. WITH 50% TO 80% OF VENTING 3'-0" ABOVE EAVE; OR WITH CLASS I OR II VAPOR RETARDER ON WARM-IN-WINTER SIDE OF CEILING = 6.53 SQ.FT.

GUARD RAIL NOTES

SECTION R312

R312.1 Where required. Guards shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a *guard*.

R312.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads.

Exceptions:

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1. *Guards* on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.

2. Where the top of the *guard* also serves as a handrail on the open sides of stairs, the top of the *guard* shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

R312.3 Opening limitations. Required guards shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches (102 mm)in diameter. Exceptions:

1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a *guard*, shall not allow passage of a sphere 6 inches (153 mm) in diameter.

2. *Guards* on the open sides of stairs shall not have openings which allow passage of a sphere 43/8 inches (111 mm) in diameter.

AIR LEAKAGE

Section N1102.4

N1102.4.1 Building thermal envelope. The building thermal envelope shall be durably sealed with an air barrier system to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. For all homes, where present, the following shall be caulked, gasketed, weather stripped or otherwise sealed with an air barrier material or solid material consistent with Appendix E-2.4 of this code: 1. Blocking and sealing floor/ceiling systems and under knee walls

open to unconditioned or exterior space. 2. Capping and sealing shafts or chases, including flue shafts.

3. Capping and sealing soffit or dropped ceiling areas.

12

PLANS DESIGNED TO THE

MEAN ROOF HEIGHT: 15'-:	HEIGHT TO F	RIDGE:21'-6"	
CLIMATE ZONE	ZONE 3A	ZONE 4A	ZONE 5A
FENESTRATION U-FACTOR	0.35	0.35	0.35
SKYLIGHT U-FACTOR	0.55	0.55	0.55
GLAZED FENESTRATION SHGC	0.30	0.30	0.30
CEILING R-VALUE	38 or 30ci	38 or 30ci	38 or 30ci
WALL R-VALUE	15	15	19
FLOOR R-VALUE	19	19	30
* BASEMENT WALL R-VALUE	5/13	10/15	10/15
** SLAB R-VALUE	0	10	10
* CRAWL SPACE WALL R-VALUE	5/13	10/15	10/19

** INSULATION DEPTH WITH MONOLITHIC SLAB 24" OR FROM INSPECTION GAP TO BOTTOM OF

1001110, 11001			1016111			0011011	011001	Division m							
DESIGNED FOR WIND SPEED OF 120 MPH, 3 SECOND GUST (93 FASTEST MILE) EXPOSURE "B"															
COMPONENT	COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS														
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'							
ZONE 1	14.2	-15.0	14.9	-15.8	15.5	-16.4	15.9	-16.8							
ZONE 2	14.2	-18.0	14.9	-18.9	15.5	-19.6	15.9	-20.2							
ZONE 3	14.2	-18.0	14.9	-18.9	15.5	-19.6	15.9	-20.2							
ZONE 4	15.5	-16.0	16.3	-16.8	16.9	-17.4	17.4	-17.9							
ZONE 5	15.5	-20.0	16.3	-21.0	16.9	-21.8	17.4	-22.4							
DESIGNED FOR WIN	D SPEED	OF 130 MF	PH, 3 SECO	OND GUST	(101 FAS	TEST MILE) EXPOSU	IRE "B"							
COMPONENT	. & CLA	DDING	DESIG	NED FC	R THE	FOLLO	WING I	LOADS							
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'							
ZONE 1	16.7	-18.0	17.5	-18.9	18.2	-19.6	18.7	-20.2							
ZONE 2	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5							
ZONE 3	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5							
ZONE 4	18.2	-19.0	19.1	-20.0	19.8	-20.7	20.4	-21.3							
ZONE 5	18.2	-24.0	19.1	-25.2	19.8	-26.2	20.4	-26.9							



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SECTION R312

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AIR LEAKAGE

Section N1102.4

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open to unconditioned or exterior space. 2. Capping and sealing shafts or chases, including flue shafts.

3. Capping and sealing soffit or dropped ceiling areas.

_ 12_ 8 2'-0" X 2'-0"

PLANS DESIGNED TO THE

MEAN ROOF HEIGHT: 15'-1	HEIGHT TO R	RIDGE:21'-6"	
CLIMATE ZONE	ZONE 3A	ZONE 4A	ZONE 5A
FENESTRATION U-FACTOR	0.35	0.35	0.35
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** INSULATION DEPTH WITH MONOLITHIC SLAB 24" OR FROM INSPECTION GAP TO BOTTOM OF

	DESIGNED FOR WIND SPEED OF 130 MPH, 3 SECOND GUST (101 FASTEST MILE) EXPOSURE "B"													
COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOA														
	MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'					
	ZONE 1	16.7	-18.0	17.5	-18.9	18.2	-19.6	18.7	-20.2					
	ZONE 2	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5					
	ZONE 3	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5					
	ZONE 4	18.2	-19.0	19.1	-20.0	19.8	-20.7	20.4	-21.3					
	ZONE 5	18.2	-24.0	19.1	-25.2	19.8	-26.2	20.4	-26.9					







FOUNDATION STRUCTURAL

115 to 130 mph wind zone (1 story)

CONTINUOUS FOOTING: 16" wide and 8" thick minimum. 20" wide minimum at brick veneer. Must extend 2" to either side of supported wall. **GIRDERS:** (3) 2 X 10 girder unless noted otherwise.

PIERS: 8" X 16" with 4" solid masonry cap on 24" X 24" X 10" concrete footing with maximum pier height of 32" with hollow masonry and 80" with solid masonry. 16" X 16" piers with 4" solid masonry cap on 30" X 30" X 10" concrete footing with maximum pier height of 64" with hollow masonry and 160" with solid masonry.

POINT LOADS: designates significant point load and should have solid blocking to pier, girder or foundation wall.

115 and 120 MPH ANCHORS BOLTS: 1/2" diameter anchor bolts embedded minimum 7", maximum 6'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.

130 MPH ANCHORS BOLTS: 1/2" diameter anchor bolts embedded minimum 15", maximum 4'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.

CONCRETE: Concrete shall have a minimum 28 day strength of 3000 psi and a maximum 5" slump. Air entrained per table 402.2. All concrete shall be in accordance with ACI standards. All samples for pumping shall be taken from the exit end of the pump.

SOILS: Allowable soil bearing pressure assumed to be 2000 PSF. The contractor must contact a geotechnical engineer and a structural engineer if unsatisfactory subsurface conditions are encountered. The surface area adjacent to the foundation wall shall be provided with adequate drainage, and shall be graded so as to drain surface water away from foundation walls.





SCALE 1/4" = 1'-0"



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SOILS: Allowable soil bearing pressure assumed to be 2000 PSF. The contractor must contact a geotechnical engineer and a structural engineer if unsatisfactory subsurface conditions are encountered. The surface area adjacent to the foundation wall shall be provided with adequate drainage, and shall be graded so as to drain surface water away from foundation walls.



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DWELLING / GARAGE SEPARATION

REFER TO SECTIONS R302.5, R302.6, AND R302.7

WALLS. A minimum 1/2" gypsum board must be installed on all walls supporting floor/ceiling assemblies used for separation required by this section. **STAIRS.** A minimum of 1/2" gypsum board must be installed on the underside and exposed sides of all stairways.

CEILINGS. A minimum of 1/2" gypsum must be installed on the garage ceiling if there are no habitable room above the garage. If there are habitable room above the garage a minimum of 5/8" type X gypsum board must be installed on the garage ceiling. **OPENING PENETRATIONS.** Openings between the garage and residence shall be

equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors.

DUCT PENETRATIONS. Ducts in the garage and ducts penetrating the walls or ceilings separating the *dwelling* from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other *approved* material and shall have no openings into the garage.

OTHER PENETRATIONS. Penetrations through the separation required in Section R302.6 shall be protected as required by Section R302.11, Item 4.



IRST FLOOR
FOTAL
UNHEATED
GARAGE
RONT PORCH
Rear Porch
FOTAL

П	1305 SQ.FT. 1305 SQ.FT.
	423 SQ.FT. 141 SQ.FT. 104 SQ.FT. 668 SQ.FT.

STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2018 North Carolina Residential Building Code, plus all local codes and regulations. This document in no way shall be construed to supersede the code.

JOB SITE PRACTICES AND SAFETY: Haynes Home Plans, Inc. assumes no liability for contractors practices and procedures or safety program. Haynes Home Plans, Inc. takes no responsibility for the contractor's failure to carry out the construction work in accordance with the contract documents. All members shall be framed, anchored, and braced in accordance with good construction practice and the building code.

DESIGN LOADS	LIVE LOAD	DEAD LOAD	DEFLECTION
USE	(PSF)	(PSF)	(LL)
Attics without storage	10		L/240
Attics with limited storage	20	10	L/360
Attics with fixed stairs	40	10	L/360
Balconies and decks	40	10	L/360
Fire escapes	40	10	L/360
Guardrails and handrails	200		
Guardrail in-fill components	50		
Passenger vehicle garages	50	10	L/360
Rooms other than sleeping	40	10	L/360
Sleeping rooms	30	10	L/360
Stairs	40		L/360
Snow	20		

FRAMING LUMBER: All non treated framing lumber shall be SPF #2 (Fb = 875 PSI) or SYP #2 (Fb = 750 PSI) and all treated lumber shall be SYP #2 (Fb = 750 PSI) unless noted other wise. **ENGINEERED WOOD BEAMS**:

LADDER FRAMED

ledgers unless noted otherwise.

Laminated veneer lumber (LVL) = Fb=2600 PSI, Fv=285 PSI, E=1.9x10⁶ PSI Parallel strand lumber (PSL) = Fb=2900 PSI, Fv=290 PSI, E=2.0x106 PSI Laminated strand lumber (LSL) Fb=2250 PSI, Fv=400 PSI, E=1.55x106 PSI Install all connections per manufacturers instructions

TRUSS AND I-JOIST MEMBERS: All roof truss and I-joist layouts shall be prepared in accordance with this document, Trusses and I-joists shall be installed according to the manufacture's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Homes Plans, Inc. **LINTELS:** Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span. 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise. 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise. FLOOR SHEATHING: OSB or CDX floor sheathing minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, and minimum 3/4" thick for 24" on center joist spacing. **ROOF SHEATHING:** OSB or CDX roof sheathing minimum 3/8" thick. **CONCRETE AND SOILS:** See foundation notes.

BRACE WALL PANEL NOTES

EXTERIOR WALLS: All exterior walls to be sheathed with CS-WSP or CS-SFB in accordance with section R602.10.3 unless noted otherwise.

GYPSUM: All interior sides of exterior walls and both sides interior walls to have 1/2" gypsum installed. When not using method GB gypsum to be fastened per table R702.3.5. Method GB to be fastened per table R602.10.1.

REQUIRED LENGTH OF BRACING: Required brace wall length for each side of the circumscribed rectangle are interpolated per table R602.10.3. Methods CS-WSP and CS-SFB contribute their actual length. Method GB contributes 0.5 it's actual length.

Method PF contributes 1.5 times its actual length. HD: 800 lbs hold down hold down device fastened to the edge of the brace wall panel closets to the corner.

Methods Per Table R602.10.1

CS-WSP: Shall be minimum 3/8" OSB or CDX nailed at 6" on center at edges and 12" on center at intermediate supports with 6d common nails or $8d(2 1/2" \log x 0.113" diameter)$. CS-SFB: Shall be minimum 1/2" structural fiber board nailed at 3" on center at edges and 3" on center at intermediate supports with $1 \frac{1}{2}$ long x 0.12" diameter galvanized roofing nails.

GB: Interior walls show as GB are to have minimum 1/2" gypsum board on both sides of the wall fastened at 7" on center at edges and 7" on center at intermediate supports with minimum 5d cooler nails or #6 screws. **PF**: Portal fame per figure R602.10.1





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provided with an approved carbon monoxide alarm installed outside of each separate sleeping area in the immediate vicinity of the bedroom(s) as directed

requiring a permit occurs, or where one or more sleeping rooms are added or created, carbon monoxide alarms shall be provided in accordance with Section

R315.3 Alarm requirements. The required carbon monoxide alarms shall be audible in all bedrooms over background noise levels with all intervening doors closed. Single station carbon monoxide alarms shall be listed as complying with

shall not be less than 6 feet 8 inches (2032 mm) measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the

requirements of this section. For the purposes of this section all dimensions and dimensioned surfaces shall be exclusive of carpets, rugs or runners. R311.7.4.1 Riser height. The maximum riser height shall be 8 1/4 inches

R311.7.4.2 Tread depth. The minimum tread depth shall be 9 inches (229

planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. Winder treads shall have a minimum tread depth of 9 inches (229 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a

R311.7.4.3 Profile. The radius of curvature at the nosing shall be no greater than 9/16 inch (14 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid

R311.7.7 Handrails. Handrails shall be provided on at least one side of each

plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm)and not more than 38 inches (965 mm).

1. The use of a volute, turnout or starting easing shall be allowed over the

transition between flights, the transition from handrail to guardrail, or used at the start of a flight, the handrail height at the fittings or bendings shall

full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails

2. The use of a volute, turnout, starting easing or starting newel shall be

termination of the rails occurs within 6 inches (152 mm) of each other. If transitioning between a wall-mounted handrail and a guardrail/handrail, the



DATE 02/07/22 PAGE 1 **Reaction Summary of Order** 11 **REQ. QUOTE DATE ORDER #** J0222-0558 02/04/22 ORDER DATE **QUOTE #** 0000007228 DELIVERY DATE 11 **CUSTOMER ACCT #** ROOF & FLOOR DATE OF INVOICE 11 **CUSTOMER PO #** ComTech TRUSSES & BEAMS ORDERED BY Bryant Lockmy **INVOICE #** Harnett TERMS Reilly Road Industrial Park P.O. Box 40408 COUNTY Fayetteville, N.C. 28309 (910) 864-TRUS SUPERINTENDANT Bryant Lockmy SALES REP Lenny Norris JOBSITE PHONE # (919) 639-9672 Lenny Norris SALES AREA Southern Touch Homes JOB NAME: Lot 4 Neills Creek Rd. LOT # 4 SUBDIV: Neills Creek Rd. PO Box 2135 MODEL:ROOF TAG: Lindsay 1305 A JOB CATEGORY: Residential - Roof **DELIVERY INSTRUCTIONS:** Angier, NC 27501 (919) 524-3354 Southern Touch Homes SPECIAL INSTRUCTIONS: Lot 4 Neills Creek Rd. Like Lot 1 Adcock Farms (J0620-2480) ō Lillington, NC PLAN SEAL DATE: DATE BY **BUILDING DEPARTMENT OVERHANG INFO** HEEL HEIGHT 00-04-05 **REQ. LAYOUTS** QUOTE **REQ. ENGINEERING** 11 CQ 02/07/22 END CUT RETURN LAYOUT Roof Order GABLE STUDS 0 IN. OC MAIL 1 2 1 2 CQ 02/07/22 PLUMB NO JOBSITE MAIL JOBSITE CUTTING LOADING TCLL-TCDL-BCLL-BCDL STRESS INCR. **ROOF TRUSSES** ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.) INFORMATION 20.0,10.0,0.0,10.0 1.15 TYPE QTY PITCH BASE LUMBER PROFILE **OVERHANG** REACTIONS PLY ID O/A ТОР ВОТ TOP BOT LEFT RIGHT ROOF 37-00-00 Joint 10 Joint 15 37-00-00 2 X 4 2 X 6 00-10-08 5 3.50 0.00 A1 ٠. 1239.6 lbs. 1817.3 lbs. -81.1 lbs. -189.3 lbs. GABLE 37-00-00 Joint 2 Joint 22 Joint 23 Joint 24 Joint 25 A1GE 37-00-00 2 X 4 2 X 6 00-10-08 1 3.50 0.00 210.7 lbs. 167.2 lbs. 174.7 lbs. 237.6 lbs. 79.0 lbs. -145.4 lbs. -29.5 lbs -104.9 lbs. -77.7 lbs. -82.6 lbs COMMON 31-00-00 Joint 1 Joint 7 A2 31-00-00 2 X 6 2 X 6 7.00 0.00 1 ∇ 1341.4 lbs. 1280.4 lbs. -104.6 lbs. -80.5 lbs. ROOF 30-09-00 Joint 7 Joint 11 30-09-00 2 X 6 2 X 6 KOS 3 7.00 4.00 A3 908.6 lbs. 1539.7 lbs. -74.2 lbs -130.6 lbs. ROOF 30-09-00 Joint 1 Joint 7 Joint 11 NOS S 1 7.00 4.00 A4 30-09-00 2 X 6 2 X 6 323.3 lbs. 873.8 lbs. 1267.1 lbs. 3.5 lbs. -65.9 lbs. -147.2 lbs. ROOF 30-09-00 Joint 1 Joint 7 Joint 10 30-09-00 2 X 6 2 X 6 3 7.00 4.00 A5 431.5 lbs. 680.6 lbs. 1340.7 lbs. SUX3 -150.6 lbs. -13.1 lbs. -52.8 lbs. ROOF 44-07-00 Joint 1 Joint 11 Joint 14 44-07-00 2 X 6 2 X 6 00-10-08 1 7.00 4.00 A6 363.5 lbs. 1678.7 lbs. 1643 6 lbs -8.1 lbs. -264.0 lbs. -168.2 lbs. ROOF 44-07-00 Joint 1 Joint 11 Joint 17 44-07-00 2 X 6 2 X 6 00-10-08 5 7.00 0.00 A7 285 3 lbs 1650 5 lbs 1882 7 lbs -8.7 lbs. -222.9 lbs. -165.8 lbs. GABLE 44-07-00 Joint 1 Joint 25 Joint 27 Joint 28 Joint 29 44-07-00 2 X 6 2 X 6 00-10-08 A7GE 0.00 1 7.00 170.7 lbs. 202.1 lbs. 338.0 lbs. 80.5 lbs. 179.8 lbs. -32.7 lbs. -61.6 lbs. -110.8 lbs. -89.7 lbs. -112.0 lbs. GABI F 28-00-00 Joint 7 Joint 12 .n∰∖r∿ 1 8.00 0.00 B1 28-00-00 2 X 4 2 X 6 00-10-08 781.1 lbs. 1521.6 lbs. -208.4 lbs. -330.7 lbs.

DATE 02/07/22 PAGE 2 **Reaction Summary of Order** 11 **REQ. QUOTE DATE ORDER #** J0222-0558 02/04/22 ORDER DATE **QUOTE #** DELIVERY DATE 0000007228 11 **CUSTOMER ACCT #** ROOF & FLOOR DATE OF INVOICE 11 **CUSTOMER PO #** ComTech TRUSSES & BEAMS ORDERED BY Bryant Lockmy **INVOICE #** Harnett TERMS Reilly Road Industrial Park P.O. Box 40408 COUNTY Fayetteville, N.C. 28309 (910) 864-TRUS SUPERINTENDANT Bryant Lockmy SALES REP Lenny Norris JOBSITE PHONE # (919) 639-9672 Lenny Norris SALES AREA Southern Touch Homes JOB NAME: Lot 4 Neills Creek Rd. LOT # 4 SUBDIV: Neills Creek Rd. PO Box 2135 MODEL:ROOF TAG: Lindsay 1305 A JOB CATEGORY: Residential - Roof **DELIVERY INSTRUCTIONS:** Angier, NC 27501 (919) 524-3354 **Southern Touch Homes** SPECIAL INSTRUCTIONS: Lot 4 Neills Creek Rd. Like Lot 1 Adcock Farms (J0620-2480) Lillington, NC PLAN SEAL DATE: DATE BY **BUILDING DEPARTMENT OVERHANG INFO** HEEL HEIGHT 00-04-05 **REQ. LAYOUTS** QUOTE **REQ. ENGINEERING** 11 CQ 02/07/22 END CUT RETURN LAYOUT Roof Order GABLE STUDS 0 IN. OC MAIL 1 2 1 2 CQ 02/07/22 PLUMB NO JOBSITE MAIL JOBSITE CUTTING LOADING TCLL-TCDL-BCLL-BCDL STRESS INCR. **ROOF TRUSSES** ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.) INFORMATION 20.0,10.0,0.0,10.0 1.15 QTY PITCH TYPE BASE LUMBER PROFILE **OVERHANG** REACTIONS PLY ID O/A ТОР ВОТ TOP BOT LEFT RIGHT COMMON 28-00-00 Joint 7 Joint 12 28-00-00 2 X 4 2 X 6 00-10-08 2 8.00 0.00 B2 781.1 lbs. 1521.6 lbs. -84.3 lbs. -117.6 lbs. COMMON 26-07-08 Joint 6 Joint 10 2 Ply B3GR 26-07-08 2 X 4 2 X 10 8.00 0.00 2123.6 lbs. 3191.0 lbs. -157.1 lbs. -118.1 lbs. COMMON 24-06-00 Joint 6 Joint 2 C1 24-06-00 2 X 4 2 X 6 00-10-08 7.00 0.00 1 1030.9 lbs. 967.0 lbs. -92.8 lbs. -78.3 lbs. GABLE 24-06-00 Joint 2 Joint 14 Joint 15 Joint 16 Joint 17 24-06-00 2 X 4 2 X 6 00-10-08 C1GE 1 7.00 0.00 167.3 lbs. 106.7 lbs. 220.0 lbs. 162.0 lbs. 176.9 lbs. -45.0 lbs -7.6 lbs -122.0 lbs. -74.7 lbs. -82.6 lbs COMMON 24-06-00 Joint 2 Joint 6 2 7.00 0.00 C2 24-06-00 2 X 4 2 X 10 00-10-08 1030.9 lbs. 967.0 lbs. 0~ -93.4 lbs. -78.8 lbs. COMMON 24-06-00 Joint 1 Joint 5 24-06-00 2 X 4 2 X 10 СЗ 2 7.00 0.00 968.3 lbs. 968.3 lbs. -78.9 lbs. -78.9 lbs. COMMON 24-06-00 Joint 1 Joint 5 24-06-00 2 X 4 2 X 6 1 7.00 0.00 C4 968.3 lbs. 968.3 lbs. -78.3 lbs. -78.3 lbs COMMON 20-08-00 Joint 2 Joint 6 20-08-00 2 X 4 2 X 6 00-10-08 00-10-08 $\langle N \rangle$ 2 8.00 0.00 D1 876 3 lbs 876 3 lbs -76.4 lbs. -76.4 lbs. GABLE 20-08-00 Joint 2 Joint 12 Joint 14 Joint 15 Joint 16 20-08-00 2 X 4 2 X 6 00-10-08 00-10-08 միր D1GE 0.00 1 8.00 177.5 lbs. 156.1 lbs. 214.4 lbs. 167.2 lbs. 178.1 lbs. -48.0 lbs. -11.9 lbs. -134.9 lbs. -83.7 lbs. -95.4 lbs. VALLEY 24-06-06 Joint 1 Joint 7 Joint 8 Joint 9 Joint 11 8.00 0.00 VB1 24-06-06 2 X 4 2 X 4 1 167.0 lbs. 142.2 lbs. 366.5 lbs. 411.4 lbs. 391.7 lbs. -21.5 lbs. 15.5 lbs. -108.6 lbs. -107.5 lbs. 55.0 lbs.

DATE 02/07/22 PAGE 3 **Reaction Summary of Order** 11 **REQ. QUOTE DATE ORDER #** J0222-0558 02/04/22 ORDER DATE **QUOTE #** 000007228 DELIVERY DATE 11 **CUSTOMER ACCT #** ROOF & FLOOR DATE OF INVOICE 11 **CUSTOMER PO #** ComTech TRUSSES & BEAMS ORDERED BY Bryant Lockmy **INVOICE #** Harnett TERMS Reilly Road Industrial Park P.O. Box 40408 COUNTY Fayetteville, N.C. 28309 (910) 864-TRUS SUPERINTENDANT Bryant Lockmy SALES REP Lenny Norris JOBSITE PHONE # (919) 639-9672 Lenny Norris SALES AREA Southern Touch Homes JOB NAME: Lot 4 Neills Creek Rd. LOT # 4 SUBDIV: Neills Creek Rd. PO Box 2135 MODEL:ROOF TAG: Lindsay 1305 A JOB CATEGORY: Residential - Roof Angier, NC 27501 **DELIVERY INSTRUCTIONS:** (919) 524-3354 **Southern Touch Homes** SPECIAL INSTRUCTIONS: Lot 4 Neills Creek Rd. Like Lot 1 Adcock Farms (J0620-2480) ō Lillington, NC PLAN SEAL DATE: DATE BY **BUILDING DEPARTMENT OVERHANG INFO** HEEL HEIGHT 00-04-05 **REQ. LAYOUTS** QUOTE **REQ. ENGINEERING** 11 CQ 02/07/22 END CUT RETURN LAYOUT Roof Order GABLE STUDS 0 IN. OC MAIL 1 2 1 2 CUTTING CQ 02/07/22 PLUMB NO JOBSITE MAIL JOBSITE LOADING TCLL-TCDL-BCLL-BCDL STRESS INCR. **ROOF TRUSSES** ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.) INFORMATION 20.0,10.0,0.0,10.0 1.15 TYPE QTY PITCH BASE LUMBER PROFILE **OVERHANG** REACTIONS PLY ID O/A TOP BOT TOP BOT LEFT RIGHT VALLEY 21-00-06 Joint 7 Joint 8 Joint 9 Joint 11 Joint 1 21-00-06 2 X 4 2 X 4 1 1 8.00 0.00 VB2 103.3 lbs. 79.6 lbs. 279.9 lbs. 431.8 lbs. 378.0 lbs. -35.6 lbs. -4.0 lbs -83.7 lbs. -113.3 lbs. 50.6 lbs. VALLEY 17-06-06 Joint 1 Joint 5 Joint 6 Joint 8 Joint 9 VB3 17-06-06 2 X 4 2 X 4 1 8.00 0.00 447.6 lbs. Λ DN 157.4 lbs. 155.8 lbs. 340.5 lbs. 447.8 lbs. -6.3 lbs. 6.7 lbs. -128.7 lbs. 44.2 lbs. -128.9 lbs. VALLEY 14-00-06 Joint 5 Joint 6 Joint 8 Joint 1 Joint 7 VB4 14-00-06 2 X 4 2 X 4 8.00 0.00 1 101.4 lbs. 87.2 lbs. 335.1 lbs. 260.7 lbs. 335.3 lbs. -104.2 lbs. -15.0 lbs. -104.1 lbs. 38.3 lbs. 5.7 lbs. VALLEY 10-06-06 Joint 1 Joint 3 Joint 4 10-06-06 2 X 4 2 X 4 VB5 1 8.00 0.00 191.3 lbs. 191.3 lbs. 388.2 lbs. -27.6 lbs. -35.1 lbs -5.2 lbs. VALLEY 07-00-06 Joint 1 Joint 3 Joint 4 1 8.00 0.00 VB6 07-00-06 2 X 4 2 X 4 133.4 lbs. 224.0 lbs. 133.4 lbs. 8.4 lbs. -23.4 lbs. -28.2 lbs. VALLEY 03-06-06 Joint 1 Joint 3 VB7 03-06-06 2 X 4 2 X 4 1 8.00 0.00 105.4 lbs. 105.4 lbs. -8.2 lbs. -8.2 lbs. VALLEY 11-07-00 Joint 1 Joint 5 Joint 6 Joint 7 Joint 8 11-07-00 2 X 4 2 X 4 1 7.00 0.00 VC1 45 0 lbs 30.7 lbs. 313.9 lbs. 273.7 lbs. 314.3 lbs. -43.8 lbs. -29.0 lbs. -89.5 lbs. 17.5 lbs. -89.8 lbs. VALLEY 07-07-00 Joint 1 Joint 3 Joint 4 VC2 07-07-00 2 X 4 2 X 4 7.00 0.00 1 138.2 lbs 248 8 lbs 138.2 lbs -24.5 lbs. -29.0 lbs. 5.9 lbs. VALLEY 03-07-00 Joint 1 Joint 3 03-07-00 2 X 4 2 X 4 VC3 0.00 1 7.00 102.6 lbs. 102.6 lbs. -8.4 lbs. -8.4 lbs.

ITEMS

QTY ITEM TYPE SIZE LENGTH PART N FT-IN-16	IBER NOTES
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Reaction Summary of Order REQ. QUOTE DATE 11 **ORDER #** J0222-0558 02/04/22 ORDER DATE **QUOTE #** 000007228 DELIVERY DATE 11 CUSTOMER ACCT # ROOF & FLOOR DATE OF INVOICE 11 **CUSTOMER PO #** ComTech TRUSSES & BEAMS Bryant Lockmy **INVOICE #** ORDERED BY COUNTY Harnett TERMS Reilly Road Industrial Park P.O. Box 40408 Fayetteville, N.C. 28309 (910) 864-TRUS SUPERINTENDANT Bryant Lockmy SALES REP Lenny Norris JOBSITE PHONE # (919) 639-9672 SALES AREA Lenny Norris **Southern Touch Homes** JOB NAME: Lot 4 Neills Creek Rd. LOT # 4 SUBDIV: Neills Creek Rd. PO Box 2135 MODEL:ROOF TAG: Lindsay 1305 A JOB CATEGORY: Residential - Roof DELIVERY INSTRUCTIONS: Angier, NC 27501 O (919) 524-3354 **Southern Touch Homes** SPECIAL INSTRUCTIONS: Lot 4 Neills Creek Rd. Like Lot 1 Adcock Farms (J0620-2480) Lillington, NC ō PLAN SEAL DATE: DATE ΒY

DATE 02/07/22

PAGE 4

BUILDING DEPARTMENT	OVERHANG INFO		HEEL HEIGHT	00-04-05	R	EQ.	AYOUTS		REQ.	EN	GINEERING		QUOTE		11
Roof Order	END CUT	RETURN											LAYOUT	CQ	02/07/22
	PLUMB	NO	GABLE STUDS	0 IN. OC	MAIL	1	JOBSITE	2	MAIL	1	JOBSITE	2	CUTTING	CQ	02/07/22

ITEMS

QTY	ITEM TYPE SIZE		LENGTH FT-IN-16	PART NUMBER	NOTES
10	Hangers	HUS28			USP (HUS28)
4	LVL Beams (Sized)	LVL, 1-3/4" x 9-1/4" (S)	07-00-00		2852 TWIN FRONT & REAR
2	LVL Beams (Sized)	LVL, 1-3/4" x 11-7/8" (S)	22-00-00		GDH16'





	•	C	lient:	SOUTHERN T	OUCH		Date	:	2/7/2022				Pag	e 1 of 6
-		P	Project:				Input	by:	Lenny Nor	is				
is	Design	А	ddress:				Job N	Name:	1305 LIND	SAY				
							Proje	ect #:						
2852 TWI	N FRONT	Kerto-S		1.750" X 9	9.250"	2-Plv -	PASSED	Le	vel: Level					
						_ · · ,								
•	Colores Parts	•		•	•		•						N A A	
													X X	0.1//
	Critica.			at the second	Fin France	aligne a							/ /	9 1/4
	and the second s	and the second				and a carried	Service A Street Service							\rightarrow
1 SPF Er	nd Grain					2 5	PF End Grain							
/			5'	11"				\rightarrow					3 1/:	2"
 				14"				\rightarrow						
			5'	11				I						
L														
Member Infe	ormation						Reactions	UNP	ATTERNE	D lb (Uplift))			
Туре:	Girder		Applicat	on: Flo	or		Brg	Live	Dea	d Snow	W	/ind	Const	
Plies:	2		Design I	Aethod: AS	D		1	0	138	2 1361		0	0	
Moisture Condi	tion: Dry		Building	Code: IBC	C/IRC 2015		2	0	138	2 1361		0	0	
Deflection LL:	480		Load Sh	aring: No										
Deflection TL:	360		Deck:	No	t Checked									
Importance:	Normai	00°E												
remperature.	Temp <= 1	00 F					Bearings							
							Bearing Le	nath	Can	React D/L lb	Total I	d Case	I.d. Con	h
							1 - SPE 30	000"	.30%	1382 / 1361	2743	_u. 0asc	D+S	ID.
							End	000	0070	10027 1001	2110	-	2.0	
Analysis Res	ults						Grain							
Analysis	Actual	Location A	llowed	Capacity	Comb.	Case	2-SPF 3.0	000"	30%	1382 / 1361	2743 l	-	D+S	
Moment	3559 ft-lb	2'11 1/2" 1	4423 ft-lb	0.247 (25%)	D+S	L	Grain							
Unbraced	3559 ft-lb	2'11 1/2" 1	1027 ft-lb	0.323 (32%)	D+S	L								
Shear	1854 lb	11 1/2" 7	943 lb	0.233 (23%)	D+S	L								
LL Defl inch	0.027 (L/2425)	2'11 1/2" 0	.139 (L/480) 0.200 (20%)	S	L								
TL Defl inch	0.055 (L/1203)	2'11 1/2" 0	.185 (L/360) 0.300 (30%)	D+S	L								
Design Note	es													
1 Fasten all pli	ies using 2 rows	of 10d Box nails	s (.128x3") a	at 12" o.c. Maxii	mum end d	istance not	1							
to exceed 6"		iono for footonor	o required f	or opposition loo	do									
3 Girders are d	designed to be s	upported on the	bottom edg	e only.	u3.									
4 Top loads m	ust be supported	equally by all p	lies.	-										
5 Top braced a	at bearings.													
7 Lateral slend	lerness ratio bas	sed on single ply	width.											
ID	Load Type	<u>5_1/5</u>	ocation .	Trib Width	Side	Dead 0.9	Live 1	Snow	1.15 W	ind 1.6 Cons	t. 1.25	Commen	its	
1	Uniform			-	Гор	460 PLF	0 PLF	460) PLF	0 PLF	0 PLF	A1 TRUS	S	
	Self Weight					7 PLF								
					-				lanufacturer	Info	Com	lech, Inc.		
Notes Calculated Structured D	esigns is responsible or	chemicals hly of the Handling	s & Installatio	n	For fla pondir	at roofs provide p ng	roper drainage to prev	vent N	letsä Wood		1001 Faye	S. Reilly Roa tteville, NC	d, Suite #639	
structural adequacy of design criteria and	this component based loadings shown. It	Ion the 1. LVL bean is the 2. Refer t	ns must not be cu o manufacturer	t or drilled 's product informa	tion			3	01 Merritt 7 B	uilding, 2nd Floor	USA 2831	4		
responsibility of the cus ensure the component	stomer and/or the contint suitability of the	ractor to regarding intended fastening	installation details, beam s	requirements, multi trength values, and c	-ply ode			(8	300) 622-5850		910-8	304-1 RUS		
Lumber	are unrensions and loa	 approvals 3. Damaged A Davier 	s d Beams must not	be used				W IC	ww.metsawo	a.com/us 8633				
 Dry service condition LVL not to be treated 	ns, unless noted otherwis d with fire retardant or o	se 5. Provide l corrosive lateral dis	sources top edge lateral support a splacement and m	t bearing points to a btation	void	doolan in!' '	until 2/26/2022					con	птес	H
		iaterai US			This	aesign is valid	until 2/26/2023							

Version 20.20.044 Powered by iStruct™

	Client:	SOUTHERN TOUCH		Date:	2/7/2022	Page 2 of 6
TisDesign	Project: Address:			Input by: Job Nan	: Lenny Norris ne: 1305 LINDSAY	
	, (201000)			Project #	#:	
2852 TWIN FRONT	Kerto-S LVL	1.750" X 9.250'	2-Ply	PASSED	Level: Level	
					1	
• •	•	•	•	• •	1/2"	
• •	•	•	•	• • -	<u> </u>	
1 SPF End Grain			23	SPF End Grain	Λ	
		5'11"			,	13 1/2"
1		011		I		
Nulti-Ply Analysis						
asten all plies using 2 ro	ows of 10d Box nail	s (.128x3") at 12" o.c.	. Maximum	end distance r	not to exceed 6"	
padi	0.0 % 0.0 PLF					
ield Limit per Foot	163.7 PLF					
ield Limit per Fastener	81.9 lb.					
ield Mode	IV 1.1/2"					
lin End Distance	3"					
oad Combination	0					
Juration Factor	1.00					
					Manufacture - 1-5-	Comtach Inc
Notes	chemicals	6. Fo	r flat roofs provide nding	proper drainage to prevent	wanutacturer Info	1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible of structural adequacy of this component base	only of the Handling & Instal of on the 1. LVL beams must not	be cut or drilled			Metsä Wood 301 Merritt 7 Building, 2nd Floor	Payetteville, NC USA
design criteria and loadings shown. It responsibility of the customer and/or the cor	is the 2. Refer to manufa	cturer's product information			Norwalk, CT 06851	28314 910-864-TRUS
	regarung installat	on requirementa, multi-piy			(000) 000 5050	

Notes	chemicals	6. For flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the interded application, and to verify the dimensions and loads. Lumber 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive	Handling & Installation 1. LVL beams must not be cut or drilled 2. Refer to manufacturer's product information regarding installation requirements, multi-pily fastening details, beam strength values, and code approvals 3. Damaged Beams must not be used 4. Design assumes top edge is laterally restrained 5. Provide lateral support at bearing points to avoid lateral displacement and rotation	ponding This design is valid until 2/26/2023	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	Fayetteville, NC USA 28314 910-864-TRUS

		C	lient [.] S	OUTHERN T	OUCH		D	ate:	2/7/2022			Page 3 of 6
		P	roject:				- Ir	put by:	Lenny Nor	ris		
isD	Design	A	ddress:				Jo	b Nam	e: 1305 LIND	SAY		
							Р	roject #	:			
2852 TWI	N REAR	Kerto-S	LVL 1	.750" X	9.250"	2-Plv	- PASS	SED	Level: Level			
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lember Info	ormation						Reaction	ns UN	PATTERNE	D lb (Uplift)		
Туре:	Girder		Application	n: Fle	oor		Brg	Liv	e Dea	d Snow	Wind	Const
Plies:	2		Design Me	ethod: AS	SD		1		0 141	5 1393	0	0
Moisture Condit	ion: Dry		Building C	ode: IB	C/IRC 2015		2		0 141	5 1393	0	0
Deflection LL:	480 360		Load Shar	ing: No No) ot Checked							
Importance:	Normal		DCOK.		of Officerced							
Temperature:	Temp <= 1	00°F										
							Bearing	s				
							Bearing	Lengt	h Cap.	React D/L lb	Total Ld. Ca	ase Ld. Comb.
							1 - SPF	3.000'	' 31%	1415 / 1393	2808 L	D+S
nalysis Bos	ulte.						End Grain					
		Location A	llowed	Capacity	Comb	Case	2 - SPF	3.000'	' 31%	1415 / 1393	2808 L	D+S
Moment :	3644 ft-lb	2'11 1/2" 1	4423 ft-lb	0 253 (25%)	D+S	l	End					
Unbraced 3	3644 ft-lb	2'11 1/2" 1	1027 ft-lb	0.330 (33%)	D+S	L	Grain					
Shear	1898 lb	4'11 1/2" 7	943 lb	0.239 (24%)	D+S	L						
LL Defl inch	0.028 (L/2368)	2'11 1/2" 0	.139 (L/480)	0.200 (20%)	S	L						
TL Defl inch	0.057 (L/1175)	2'11 1/2" 0	.185 (L/360)	0.310 (31%)	D+S	L						
esian Note	c											
1 Fasten all plie	es using 2 rows	of 10d Box nails	s (.128x3") at	12" o.c. Max	imum end dis	stance not						
to exceed 6".												
3 Girders are d	page of calculat lesigned to be s	upported on the	s required for bottom edge	specified loa	ads.							
4 Top loads mu	ist be supported	d equally by all p	lies.									
5 Top braced a	t bearings.											
7 Lateral slende	erness ratio bas	sed on single ply	width.									
ID	Load Type	L	ocation Tr	ib Width	Side	Dead 0.9	Live	1 Sno	ow 1.15 V	/ind 1.6 Const	. 1.25 Comm	nents
1	Uniform				Тор	471 PLF	0 PL	F ·	471 PLF	0 PLF	0 PLF A7 TRU	USS
	Self Weight					7 PLF						
	-											
lotes		chemical	8		6. For flat	roofs provide pr	oper drainage to	prevent	Manufacturer	Info	Comtech, Inc.	Baad Quite #000
Calculated Structured De	esigns is responsible or	hly of the Handling	& Installation		ponding			2101011	Metsä Wood		Fayetteville, N	Road, Suite #639 C
esign criteria and esponsibility of the cus	loadings shown. It tomer and/or the cont	is the 2. Refer t	o manufacturer's	r drilled product inform	ation				301 Merritt 7 E Norwalk, CT 0	uiiding, 2nd Floor 3851	28314 910-864-TRUS	3
pplication, and to verify	t suitability of the the dimensions and loa	intended fastening ds. approvals	details, beam stre	ngth values, and	code				(800) 622-585 www.metsawo) od.com/us		
umber	s unless noted otherwi	3. Damageo 4. Design a	Beams must not be ssumes top edge is I	used aterally restrained					ICC-ES: ESR-	3633		
. LVL not to be treated	d with fire retardant or	corrosive 5. Provide lateral dis	ateral support at b placement and rotal	earing points to a ion	avoid This d	lesign is valid i	until 2/26/202	3			CO	отесн
									I			

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	Client: Project:	SOUTHERN TOUCH	Date: Input by	2/7/2022 : Lenny Norris	Page 4 of 6
isDesign	Address:		Job Nan Project i	ne: 1305 LINDSAY #:	
2852 TWIN REAR	Kerto-S LVL	1.750" X 9.250	2-Ply - PASSED	Level: Level	
• •	•	•	• • •	/2"	
• •	•	٠	• • • –		9 1
1 SPF End Grain		5'11"	2 SPF End Grain		3 1/2"
<u> </u>		5'11"			1 10 112
/ulti-Ply Analysis					
asten all plies using 2 rc ^{apacity}	ows of 10d Box nails	s (.128x3") at 12" o.c	Maximum end distance r	not to exceed 6"	
oad eld Limit per Foot	0.0 PLF 163.7 PLF				
eld Limit per Fastener eld Mode	81.9 lb. IV				
dge Distance in End Distance	1 1/2" 3"				
oad Combination	0				
uration Factor	1.00				
Notes	chemicals	6. For	flat roofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible of structural adequacy of this component base	d on the 1. LVL beams must not b	e cut or drilled	aing	Metsä Wood 301 Merritt 7 Building. 2nd Floor	Fayetteville, NC USA
Jesign criteria and loadings shown. It responsibility of the customer and/or the con- ensure the component suitability of the	is the 2. Refer to manufac tractor to intended regarding installatio	turer's product information n requirements, multi-ply		Norwalk, CT 06851 (800) 622-5850	28314 910-864-TRUS
application, and to verify the dimensions and lo.	ads. tastening details, bea approvals 3. Damaged Beams mus	t not be used		www.metsawood.com/us	
Dry service conditions, unless noted otherw LVL not to be treated with fire retardant or	4. Design assumes top e corrosive 5. Provide lateral suppo	dge is laterally restrained rt at bearing points to avoid		100-LO. LOR-3033	сотесн
	iateral displacement a	nu rotation Thi	is design is valid until 2/26/2023	1	



	•		Client:	SOUTHERN	I TOUCH		Da	ate:	2/7/202	22				Page 5 of 6
			Project:				In	put by:	Lenny	Norris				Ū.
is	Design		Address:				Jo	b Name	e: 1305 L	INDSAY				
							Pr	roject #:						
GDH16'	FRONT	Kerto-S L	.VL 1	.750" X	11.875"	2-Ply	- PASSI	ED	Level: Lev	/el				
						-								
					1									
• • •	•	•	•			•	•	•	•	•	•	•		π $+$
	a ritta	and the second	1000		alt for your			-	- Miles			-		11 7/8"
	•					•••	Service Street	•	•		Jan Strange	14.4.4.	•	
1 SPF En	d Grain										2 SPF	End Grai	in j	1.1
/					17'								_/ ·	2 1/2"
,					17									3 1/2
1					17								1	
Member In	formation						Reaction	ns UN	PATTER	RNED I) (Uplif	t)		
Type:	Girder		Applica	tion:	Floor		Bra	Live	e [Dead	Snow		Wind	Const
Plies:	2		Design	Method:	ASD		1	C	D	1779	C)	0	0
Moisture Cond	dition: Dry		Building	g Code:	IBC/IRC 2015		2	C	D	1779	C)	0	0
Deflection LL:	480		Load S	haring:	No									
Deflection TL:	360		Deck:		Not Checked									
Importance:	Normal													
Temperature:	Temp <=	100°F					Popring	-						
							Беагіндз	5						
							Bearing	Lengtr	n C	ар. кеа	Ct D/L ID	Iotal	Ld. Case	Ld. Comb.
							End	3.500	I	7 %	177970	1779	Uniform	D
Analysis Re	sults						Grain							
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case	2 - SPF	3.500"	1	7%	1779 / 0	1779	Uniform	D
Moment	7157 ft-lb	8'6"	17919 ft-lb	0.399 (409	%) D	Uniform	End							
Unbraced	7157 ft-lb	8'6"	7161 ft-lb	0.999	D	Uniform	Grain							
				(100%)										
Shear	1524 lb	1'2 5/8"	7980 lb	0.191 (199	%) D	Uniform								
LL Defl inch	0.000 (L/999)	0	999.000 (L/	0) 0.000 (0%) 									
TL Defl inch	0.381 (L/521)	8'6 1/16"	0.551 (L/360	0) 0.690 (69	%) D	Uniform	-							
Design Not	es						l							
1 Fasten all p	olies using 2 row	/s of 10d Box na	ils (.128x3")	at 12" o.c. Ma	aximum end di	stance not								
2 Refer to las	, st page of calcul	ations for fasten	ers required	for specified	oads.									
3 Girders are	designed to be	supported on th	e bottom ed	ge only.										
4 Top loads r	nust be support	ed equally by all	plies.											
6 Bottom bra	e laterally brace	a a maximum	101 137 7/8	0.C.										
7 Lateral sler	nderness ratio b	ased on single p	ly width.											
ID	Load Type)	Location	Trib Width	Side	Dead 0.9	Live	1 Sno	w 1.15	Wind	1.6 Con	st. 1.25	Comment	ts
1	Uniform				Тор	200 PLF	0 PLF	F	0 PLF	0 F	PLF	0 PLF	WALL WEI	IGHT
	Self Weight	t				9 PLF								
Notes	Destaura la 111	chemi	cals	on	6. For fla pondin	t roofs provide p g	roper drainage to	prevent	Manufact	urer Info		10	01 S. Reilly Road	, Suite #639
calculated Structured structural adequacy design criteria and	of this component bas loadings shown	sed on the 1. LVL be	ams must not be o	ut or drilled					301 Merrit	t 7 Buildin	g, 2nd Floor	-a US 28	3A 314	
responsibility of the of ensure the component	customer and/or the co ient suitability of the	e intended factor	to manufacture ling installation ing details beam	requirements, info strength values or	multi-ply				Norwalk, ((800) 622-	CT 06851 -5850		91	0-864-TRUS	
application, and to ver	ify the dimensions and	loads. appro 3. Dama	/als ged Beams must n	ot be used	0000				www.mets	awood.co	m/us			
1. Dry service condit	ions, unless noted other ited with fire retardant of	wise 4. Design 5. Provid	n assumes top edg e lateral support	e is laterally restrain at bearing points t	ed o avoid				100-L'O. E				lcon	птесн
2. LVL HULIU DE (FEB		lateral	displacement and	rotation	This	design is valid	until 2/26/2023	3						

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	Client			Date:	2/7/2022	Page 6 of 6
	Project:	SOUTHERN TOOL		Input by:	Lenny Norris	Fage 0 01 0
isDesign	Address	:		Job Nam	ne: 1305 LINDSAY	
		4 750" X 44 0	7.511 0 01.	Project #		
GDH16 FRONT	Kerto-S LVL	1.750" X 11.8	75" 2-Ply	- PASSED		
• • •	• • •	• •	• •	• • •	• • •	
						Σ 11 7/8"
	• • •	• •	• •	• • •	• • •	
1 SPF End Grain					2 SPF E	nd Grain ()
1			17'			3 1/2"
/			17'			ł
Multi-Ply Analysis						
Fasten all plies using 2	rows of 10d Box nai	ils (.128x3") at 12"	o.c Maximum	end distance n	ot to exceed 6"	
Capacity	0.0 %					
Load Yield Limit per Foot	0.0 PLF 163.7 PLF					
Yield Limit per Fastener	81.9 lb.					
Yield Mode	IV					
Edge Distance	1 1/2"					
Min. End Distance	3					
Duration Factor	1 00					
Nataa			6 Ear flat racks	vropor drainene tr	Manufacturer Info	Comtech, Inc.
Notes Calculated Structured Designs is responsib	chemicals ole only of the Handling & Insta	allation	 b. For flat roofs provide p ponding 	proper drainage to prevent	Metsä Wood	1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequacy of this component b design criteria and loadings shown.	lt is the 2. Refer to manuf	ot be cut or drilled facturer's product information			301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	USA 28314 010 864 TRUS
responsibility of the customer and/or the ensure the component suitability of application, and to verify the dimensions on	contractor to regarding installa the intended fastening details, b	ation requirements, multi-ply beam strength values, and code			(800) 622-5850	910-804-1KUS
Lumber	3. Damaged Beams m 4. Design assumes to	nust not be used p edge is laterally restrained			www.metsawood.com/us ICC-ES: ESR-3633	
 Dry service conditions, unless noted oth LVL not to be treated with fire retardant 	t or corrosive 5. Provide lateral sup lateral displacemen	poprt at bearing points to avoid t and rotation	This design is valid	until 2/26/2023		соттесн
L	•		This acaign is valid	L/LU/LU/LU		