



NJH/NJU SERIES INSTALLATION GUIDE



NJH/NJU SERIES I-JOISTS

U.S.A. VERSION

TABLE OF CONTENTS

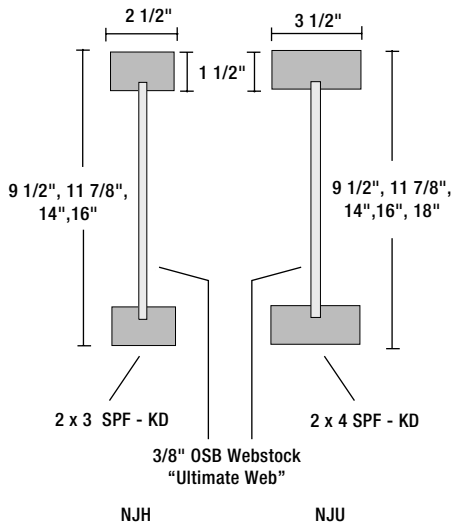
FEATURES & BENEFITS	3
HANDLING & STORAGE	4
SAFETY PRECAUTIONS	5
INSTALLATION PRECAUTIONS.....	6
FLOOR INSTALLATION DETAILS	7
CANTILEVER DETAILS.....	10
CANTILEVER LOAD TABLES	11
HOLE INSTALLATION	13
FLOOR SPAN TABLES	18
HANGER CHART.....	20
RAFTER SPAN TABLES.....	23
ROOF INSTALLATION DETAILS	26
PHYSICAL PROPERTIES	27
CONVERSION TABLES	28
MATERIAL WEIGHTS	29
GUARANTEE	
PRODUCT EVALUATIONS.....	

NASCOR'S WIDE FLANGE I-JOISTS

Our Wide Flange Series I-joists offer superior strength and rigidity coupled with numerous on-site benefits for the installer. These joists provide a wider glue and nailing surface and will sit upright on their bearing points prior to nailing, making it much easier for the framer to set and space the joists during installation. Available in 2 1/2" and 3 1/2" widths, these joists are ideal for both residential and light commercial applications.

No matter which Nascor I-joist you use, the results will be the same – a stronger floor that is easy to install, value priced and guaranteed for the life of the home.

FEATURES & BENEFITS



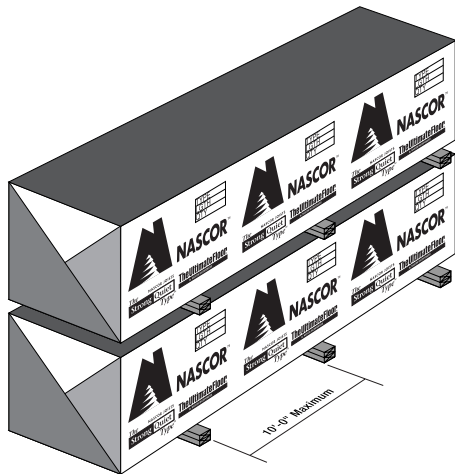
FLOOR PERFORMANCE

- DEEPER JOISTS WILL RESULT IN LESS DEFLECTION AND STIFFER FLOORS.
- A SUBFLOOR WHICH IS GLUED AS WELL AS NAILED TO THE JOISTS, WILL CREATE A STIFFER FLOOR AND REDUCE THE LIKELIHOOD OF SQUEAKS.
- THICKER SHEATHING MATERIAL WILL INCREASE FLOOR PERFORMANCE.
- SOLID BLOCKING, DIRECTLY APPLIED CEILINGS AND STRAPPING WILL ALL REDUCE FLOOR VIBRATION AND IMPROVE OVERALL FLOOR PERFORMANCE.
- ADEQUATE BEARING, AND PROPER INSTALLATION OF JOISTS AND ACCESSORIES IS ESSENTIAL TO FLOOR PERFORMANCE.
- TOTAL LOAD DEFLECTION SHOULD BE LIMITED TO 1/2".



HANDLING AND STORAGE

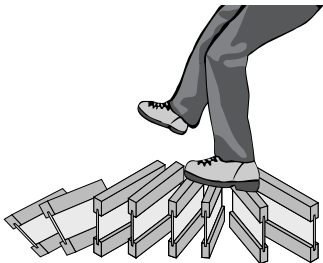
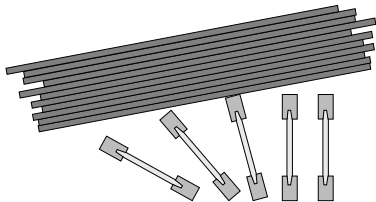
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NOTES

- KEEP NASCOR JOISTS ELEVATED AND PLACE ON A SOLID, DRY LEVEL SURFACE.
- AVOID PROLONGED EXPOSURE TO THE ELEMENTS (RAIN, SNOW, SUN).
- ENSURE DISTANCE BETWEEN BUNDLE SUPPORTS DOES NOT EXCEED 10'-0".
- DO NOT STACK BUILDING MATERIALS ON JOISTS THAT ARE NOT PROPERLY SUPPORTED, BRACED AND SHEATHED TO PROVIDE LATERAL SUPPORT.
- SHEATHING MUST BE PROPERLY ATTACHED TO THE JOISTS BEFORE ANY LOADS CAN BE APPLIED TO THE SYSTEM.
- BRACE THE ENDS OF CANTILEVERS TO PREVENT UNWANTED MOVEMENT.
- LOADING OR WALKING ON AN IMPROPERLY BRACED FLOOR SYSTEM CAN RESULT IN JOIST ROLL OVER OR BUCKLING, INCREASING THE CHANCE OF PERSONAL INJURY OR DAMAGE TO THE FLOOR JOISTS.

SAFETY PRECAUTIONS



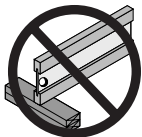
To help avoid injuries and accidents, certain minimum safety precautions should be observed while constructing a NASCOR floor joist system.

- **DO** PLACE ANY LOADS ON THE FLOOR SYSTEM SUPPORT WALLS OR BEAMS, AND ONLY ONCE THE FLOOR SHEATHING IS INTACT.
- **DO** BRACE EACH JOIST AS IT IS ERECTED.
- **DO** BRACE ENDS OF CANTILEVERS TO PREVENT UNWANTED MOVEMENT.
- **DO NOT** ALLOW WORKERS TO WALK ON UNBRACED FLOOR SYSTEM.
- **LOADING** OR WALKING ON AN IMPROPERLY BRACED FLOOR SYSTEM CAN RESULT IN JOIST ROLL OR BUCKLING, INCREASING THE CHANCE OF PERSONAL INJURY OR DAMAGE TO THE FLOOR JOISTS.
- **PROPER BRACING** INCLUDES RIM JOISTS, HANGERS, STRAPPING, BLOCKING AND SHEATHING.

INSTALLATION PRECAUTIONS

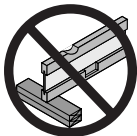
CAUTION

DO NOT...



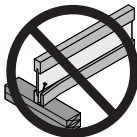
Drill any holes over a support.

DO NOT...



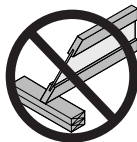
Cut or notch top or bottom chords.

DO NOT...



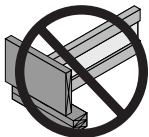
Split the flange. Ensure proper toe nailing.

DO NOT...



Bevel cut the joist past the inside face of wall.

DO NOT...



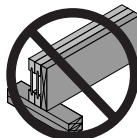
Use conventional lumber for structural rim or band board.

DO NOT...



Install joists on an angle.

DO NOT...



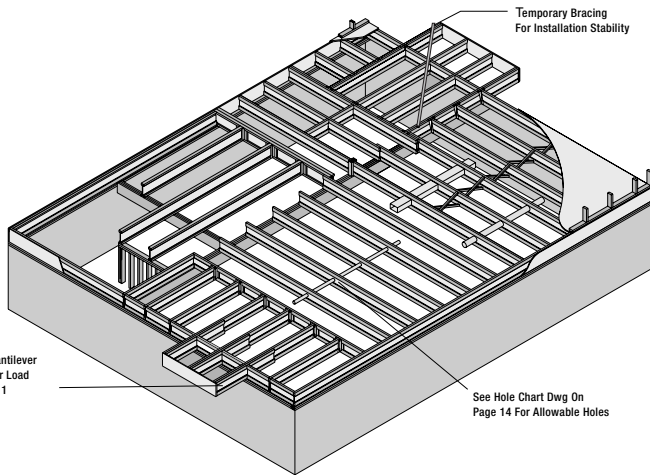
Use conventional lumber combined with Nascor joists as built-up.

DO NOT...

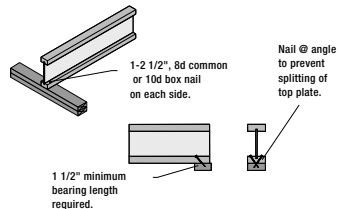


Prolong exposure to the elements, (rain, snow, sun) either on site or at the lumber yard.

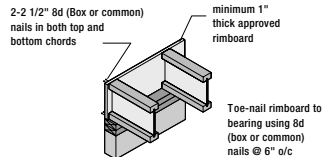
FLOOR INSTALLATION SAMPLE



U1 NAILING TO PLATE



U2 RIM BOARD



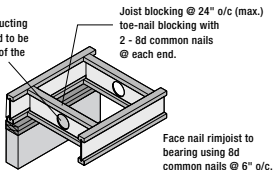
Check with local building codes for any variance.



FLOOR INSTALLATION DETAILS

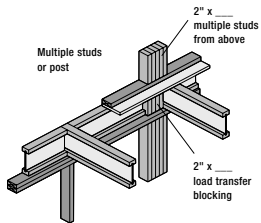
U3 PARALLEL RIM JOIST & BLOCKING

Holes for ducting are allowed to be full height of the web.

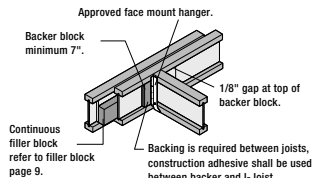


For exterior walls requiring lateral support. Spacing and nailing of blocking to provide lateral support for exterior walls to be as per local building codes.

U4 CONCENTRATED LOAD TRANSFER

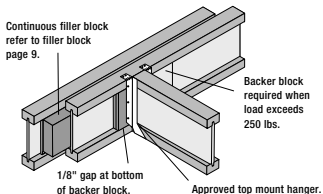


U5 FACE MOUNT HANGER



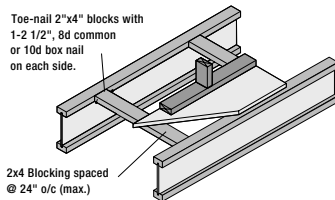
Construction adhesive is recommended in between joists to prevent squeaking. For lamination of joists, refer to page 9. Refer to hanger charts for hanger capacity.

U6 TOP MOUNT HANGER

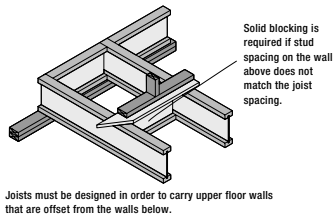


Construction adhesive is recommended in between joists to prevent squeaking. For lamination of joists, refer to page 9. Refer to hanger chart for hanger capacity.

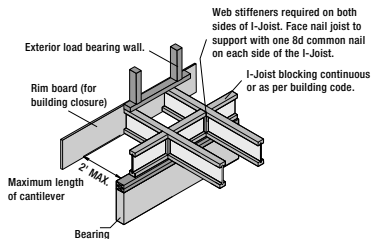
U7 NON-LOADING PARALLEL WALL



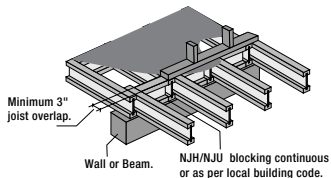
U8 OFF-SET LOAD BEARING WALL



U9 CANTILEVER

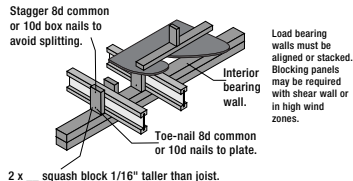


U10 OVERLAPPED AT BEARING



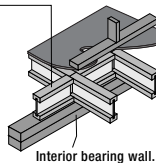
U10A CENTER BEARING

SQUASH BLOCKS



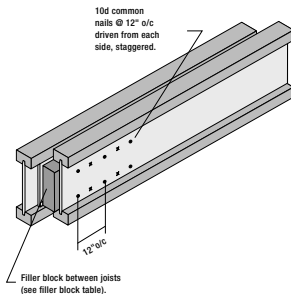
U10C CENTER BEARING BLOCKING

I-Joists blocking continuous or as per the local building code.



Load bearing walls must be aligned or stacked.

U11 MULTIPLE JOIST FASTENING



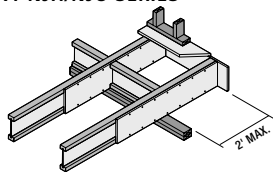
BACKER AND FILLER BLOCK REQUIREMENTS

JOIST TYPE	BACKER BLOCK DIMENSIONS		FILLER BLOCK DIMENSIONS	
	THICKNESS	DEPTH	THICKNESS	DEPTH
NJH10	1"	6-3/8"	2-1/8"	5-1/2"
NJH12	1"	8-3/4"	2-1/8"	7-1/4"
NJH14	1"	10-7/8"	2-1/8"	9-1/4"
NJH16	1"	12-7/8"	2-1/8"	11-1/4"
NJU10	1-1/2"	6-3/8"	3"	5-1/2"
NJU12	1-1/2"	8-3/4"	3"	7-1/4"
NJU14	1-1/2"	10-7/8"	3"	9-1/4"
NJU16	1-1/2"	12-7/8"	3"	11-1/4"
NJU18	1-1/2"	14-7/8"	3"	13-1/4"



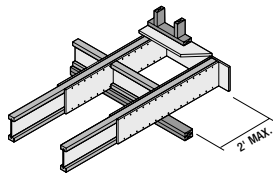
CANTILEVER DETAILS

A NJH/NJU SERIES



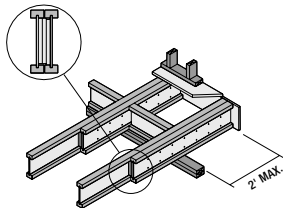
23 /32" OSB/PLYWOOD MIN. 48" LONG ATTACHED WITH TWO ROWS OF 8d COMMON NAILS @ 6" O/C TO ONE SIDE OF THE JOIST. OSB/PLYWOOD MUST BE CUT ALONG THE 8' LENGTH.

B NJH/NJU SERIES



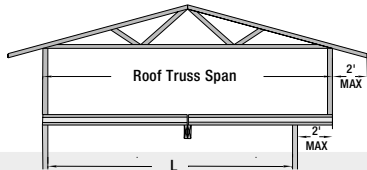
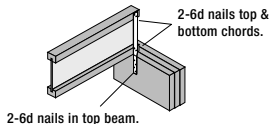
23 /32" OSB/PLYWOOD MIN. 48" LONG ATTACHED WITH TWO ROWS OF 8d COMMON @ 6" O/C TO BOTH SIDES OF THE JOIST. OSB/PLYWOOD MUST BE CUT ALONG THE 8' LENGTH.

C NJH/NJU SERIES



EXTRA JOIST MIN. 72" LONG ATTACHED WITH TWO ROWS OF 12d COMMON @ 12" O/C TO ONE SIDE OF THE JOIST. USE 3 ROWS OF NAILS FOR NJU JOISTS.

UPLIFT CONNECTOR



NOTES

- CANTILEVER REINFORCEMENT REQUIRES A MINIMUM 1 1/4" X 20 GAUGE FRAMING STRAPS AS SHOWN ABOVE.
- A MINIMUM INTERIOR BEARING LENGTH OF 3 1/2" IS REQUIRED.
- DETAILS REQUIRE A FRAMING STRAP AT THE INTERIOR BEARING.
- I-JOIST BLOCKING CONTINUOUS OR AS PER BUILDING CODE.

CANTILEVER LOAD TABLES

JOIST TYPE	ROOF TRUSS SPAN (FT.)	30 PSF LL JOIST SPACING				40 PSF LL JOIST SPACING				50 PSF LL JOIST SPACING				60 PSF LL JOIST SPACING			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
NJH/ NJU10	22	N	N	N	A	N	N	N	B,C	N	N	A	X	N	A	B,C	X
	24	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	A	X	X
	26	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	B,C	X	X
	28	N	N	N	A	N	N	A	X	N	A	B,C	X	N	B,C	X	X
	30	N	N	N	B,C	N	N	A	X	N	A	X	X	A	B,C	X	X
	32	N	N	A	B,C	N	A	B,C	X	N	B,C	X	X	A	X	X	X
34	N	N	A	X	N	A	X	X	N	B,C	X	X	B,C	X	X	X	
NJH/ NJU12	22	N	N	N	N	N	N	N	A	N	N	A	B,C	N	N	A	X
	24	N	N	N	N	N	N	N	A	N	N	A	B,C	N	A	B,C	X
	26	N	N	N	N	N	N	N	B,C	N	N	A	X	N	A	B,C	X
	28	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	A	X	X
	30	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	B,C	X	X
	32	N	N	N	A	N	N	A	X	N	A	B,C	X	N	B,C	X	X
	34	N	N	N	A	N	N	A	X	N	A	X	X	A	B,C	X	X
36	N	N	N	B,C	N	A	B,C	X	N	B,C	X	X	A	X	X	X	
NJH/ NJU14	24	N	N	N	N	N	N	N	WS	N	N	N	A	N	N	A	B
	26	N	N	N	N	N	N	N	A	N	N	WS	B,C	N	N	A	X
	28	N	N	N	N	N	N	N	A	N	N	A	B,C	N	WS	B,C	X
	30	N	N	N	N	N	N	N	A	N	N	A	X	N	A	B,C	X
	32	N	N	N	WS	N	N	WS	A	N	N	A	X	N	A	B	X
	34	N	N	N	WS	N	N	WS	B,C	N	WS	B,C	X	N	A	X	X
36	N	N	N	A	N	N	A	B,C	N	A	B,C	X	N	B,C	X	X	

NOTES

- DESIGN ASSUMPTIONS:
ROOF DEAD LOAD OF 10 PSF, WALL LOAD OF 80 PLF, AND A FLOOR LOAD OF 40 PSF LIVE AND 10 PSF DEAD.
- CONNECT OVERLAPPING JOISTS ON THE NON-CANTILEVERED END WITH 3" NAILS (SEE DETAIL PAGE 9).



CANTILEVER LOAD TABLES CONT'D

JOIST TYPE	ROOF TRUSS SPAN (FT.)	30 PSF LL				40 PSF LL				50 PSF LL				60 PSF LL			
		JOIST SPACING				JOIST SPACING				JOIST SPACING				JOIST SPACING			
		12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"	12"	16"	19.2"	24"
NJH/ NJU16	26	N	N	N	N	N	N	N	WS	N	N	WS	A	N	N	A	B,C
	28	N	N	N	N	N	N	N	WS	N	N	WS	A	N	WS	A	X
	30	N	N	N	WS	N	N	N	WS	N	N	WS	B,C	N	WS	A	X
	32	N	N	N	WS	N	N	WS	A	N	N	A	B,C	N	WS	B,C	X
	34	N	N	N	WS	N	N	WS	A	N	WS	A	X	N	A	B,C	X
	36	N	N	N	WS	N	N	WS	A	N	WS	A	X	N	A	B	X
	38	N	N	N	WS	N	N	WS	B,C	N	WS	A	X	N	A	X	X
	40	N	N	WS	WS	N	WS	WS	B,C	N	WS	B,C	X	N	A	X	X
NJU18	26	N	N	WS	WS	N	WS	WS	WS	N	WS	WS	A	WS	WS	WS	B
	28	N	WS	WS	WS	N	WS	WS	WS	N	WS	WS	A	WS	WS	WS	B
	30	N	WS	WS	WS	N	WS	WS	WS	WS	WS	WS	A	WS	WS	A	X
	32	N	WS	WS	WS	N	WS	WS	WS	WS	WS	WS	B	WS	WS	A	X
	34	N	WS	WS	WS	N	WS	WS	A	WS	WS	WS	B	WS	WS	A	X
	36	N	WS	WS	WS	WS	WS	WS	A	WS	WS	A	B	WS	A	B	X
	38	N	WS	WS	WS	WS	WS	WS	A	WS	WS	A	X	WS	A	B	X
	40	N	WS	WS	WS	WS	WS	WS	B	WS	WS	B	X	WS	A	X	X

N NO REINFORCEMENT REQUIRED.

A NASCOR JOIST REINFORCED WITH 23/32" THICK PANEL ON ONE SIDE ONLY.

B NASCOR JOIST REINFORCED WITH 23/32" THICK PANEL ON BOTH SIDES.

C NASCOR JOIST REINFORCED WITH NASCOR JOIST.

WS WEB STIFFENER REQUIRED AT INTERIOR BEARING.

X WILL NOT WORK. REDUCE JOIST SPACING OR TRY A DEEPER JOIST DEPTH.

HOLE INSTALLATION

GENERAL

- NO HOLES ARE ALLOWED OVER A SUPPORT.
- DO NOT CUT OR NICK FLANGES WHEN CUTTING HOLES IN THE WEB.
- OPENINGS SIZES ARE NOT NECESSARILY RESTRICTED TO THOSE STATED ON PAGE 14-17.
- MINIMUM DISTANCE FROM EDGE OF HOLE TO FLANGE IS REQUIRED (1/4" UN CUT WEB TO FLANGE).

ROUND HOLES

- A 1 1/2" DIAMETER HOLE CAN BE DRILLED ANYWHERE IN THE WEB EXCEPT DIRECTLY OVER A SUPPORT.

RECTANGULAR OPENINGS

- CUTTING A RADIUS ON THE CORNERS OF A RECTANGULAR OPENING IS RECOMMENDED.
- THE LENGTH OF A RECTANGULAR OPENING (PARALLEL TO THE FLANGES) MUST NOT EXCEED 1 1/2 TIMES THE OPENING HEIGHT.

MULTIPLE HOLES

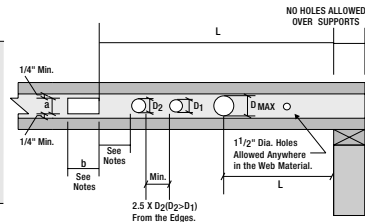
- THE SPACING REQUIRED BETWEEN THE EDGES OF ROUND HOLES MUST BE A MINIMUM OF 2 1/2 TIMES THE DIAMETER OF THE LARGEST HOLE.
- THE SPACING REQUIRED BETWEEN THE EDGES OF RECTANGULAR OPENINGS MUST BE 5 TIMES THE LENGTH OF THE LARGEST RECTANGULAR OPENING.
- THE SPACING REQUIRED BETWEEN THE EDGES OF A ROUND HOLE AND A RECTANGULAR OPENING MUST BE 5 TIMES THE DIAMETER OF THE HOLE OR LENGTH OF THE RECTANGULAR OPENING, WHICH EVER IS GREATER. VALID FOR SIMPLY SUPPORTED SPANS WHERE LOADS ARE UNIFORMLY DISTRIBUTED.



HOLE INSTALLATION CONT'D

ALLOWABLE ROUND HOLE LOCATION FOR NJH/NJU SERIES

JOIST TYPE	JOIST SPAN (FT-IN.)	HOLE HEIGHT (INCHES)										
		2	4	5	6	7	8 3/8	10	10 1/2	12	12 1/2	13
MINIMUM DISTANCE FROM THE INSIDE EDGE OF THE SUPPORT TO CENTER OF THE HOLE (FT-IN)												
NJH/ NJU10	12-0	1-0	2-6	3-0	3-6							
	12-7	1-6	3-0	3-6	4-0							
	14-0	1-0	2-6	3-0	4-0							
	14-1	1-0	2-6	3-0	4-0							
	15-5	1-0	2-0	2-6	3-6							
	16-0	1-0	1-0	1-0	1-6							
	17-3	1-0	1-0	1-6	2-0							
NJH/ NJU12	14-0	1-6	2-6	3-6	4-0	4-6	5-0					
	14-11	1-6	3-0	4-0	4-6	5-0	5-6					
	16-0	1-0	2-6	3-0	4-0	4-6	5-0					
	16-8	1-0	2-6	3-6	4-0	4-6	5-6					
	18-0	1-0	2-0	3-0	3-6	4-6	5-0					
	18-3	1-0	2-0	3-0	4-0	4-6	5-0					
	20-0	1-0	1-0	1-6	2-6	3-6	4-6					
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20-0		1-0	1-0	1-0	1-6	2-6	4-6	7-0	7-6			
21-0		1-0	1-0	1-0	2-0	2-6	5-0	7-6	8-0			
22-0		1-0	1-0	1-0	1-0	1-0	3-0	6-0	7-0			
23-1		1-0	1-0	1-0	1-0	1-6	3-6	6-6	7-6			



ALLOWABLE ROUND HOLE LOCATION FOR NJH/NJU SERIES

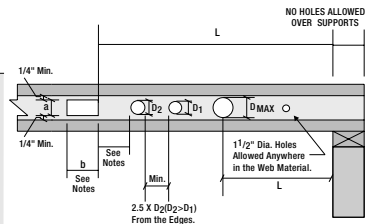
JOIST TYPE	JOIST SPAN (FT-IN.)	HOLE HEIGHT (INCHES)											
		2	4	5	6	7	8 ¾	10	10½	12	12½	13	14½
MINIMUM DISTANCE FROM THE INSIDE EDGE OF THE SUPPORT TO CENTER OF THE HOLE (FT-IN)													
NJH/ NJU16	18-0	1-0	2-6	3-6	4-0	4-6	5-6	6-6	7-0	7-6	7-6		
	19-9	1-6	3-6	4-0	5-0	5-6	6-6	7-6	7-6	8-6	8-6		
	20-0	1-0	1-6	2-6	3-6	4-6	5-6	6-6	7-0	7-6	8-0		
	21-10	1-0	2-6	3-6	4-6	5-0	6-6	7-6	8-0	8-6	9-0		
	22-0	1-0	1-0	1-6	3-0	4-0	5-6	6-6	7-0	8-0	8-0		
	23-2	1-0	1-0	2-6	3-6	4-6	6-0	7-0	7-6	8-6	9-0		
	24-0	1-0	1-0	1-0	1-0	2-0	4-0	5-6	6-0	7-6	7-6		
	25-6	1-0	1-0	1-0	1-6	3-0	4-6	6-6	7-0	8-6	8-6		
NJU18	20-0	1-0	1-0	1-6	2-0	2-6	3-6	4-6	5-0	6-0	6-6	7-0	8-0
	22-0	1-0	2-0	2-6	3-0	3-6	4-6	5-6	6-0	7-0	7-6	8-0	9-0
	23-6	1-6	2-6	3-0	3-6	4-6	5-0	6-6	6-6	8-0	8-6	8-6	10-0
	24-0	1-0	1-0	1-0	1-6	2-6	3-6	5-0	5-6	7-0	7-6	8-0	9-6
	26-0	1-0	1-0	2-0	2-6	3-6	4-6	6-0	6-6	7-6	8-6	9-0	10-6
	26-3	1-0	1-0	2-0	2-6	3-6	4-6	6-0	6-6	8-0	8-6	9-0	10-6
	28-0	1-0	1-0	1-0	1-0	2-0	3-6	5-0	5-6	7-6	8-0	8-6	10-6
	28-9	1-0	1-0	1-0	1-6	2-6	4-0	5-6	6-0	7-6	8-6	9-0	11-0
	30-0	1-0	1-0	1-0	1-0	1-0	1-0	2-6	3-6	5-6	6-6	7-0	9-6



HOLE INSTALLATION CONT'D

ALLOWABLE RECTANGULAR HOLE LOCATION FOR NJH/NJU SERIES

JOIST TYPE	JOIST SPAN (FT-IN.)	HOLE HEIGHT (INCHES)											
		2	4	5	6	7	8 3/8	10	10 1/2	12	12 1/2	13	14 1/2
		MINIMUM DISTANCE FROM THE INSIDE EDGE OF THE SUPPORT TO EDGE OF THE HOLE (FT-IN.)											
NJH/ NJU10	12-0	2-0	3-6	4-0	4-6								
	12-7	2-0	4-0	4-6	5-0								
	14-0	1-6	3-6	4-6	5-0								
	14-1	1-6	3-6	4-6	5-0								
	15-5	1-0	3-6	4-6	5-0								
	16-0	1-0	1-6	3-6	4-0								
	17-3	1-0	2-0	4-0	5-0								
NJH/ NJU12	14-0	2-0	4-0	4-6	5-0	5-6	6-0						
	14-11	2-0	4-0	5-0	5-6	6-0	6-6						
	16-0	1-6	3-6	4-6	5-6	6-0	6-6						
	16-8	1-6	4-0	5-0	5-6	6-6	7-0						
	18-0	1-0	3-6	4-6	5-6	6-6	7-0						
	18-3	1-0	3-6	5-0	6-0	6-6	7-6						
	20-0	1-0	2-6	4-0	5-0	6-0	7-0						
	20-6	1-0	2-6	4-0	5-6	6-6	7-6						
	NJH/ NJU14	16-0	1-6	3-6	4-6	5-0	5-6	6-6	7-0	7-6			
18-0		2-6	4-6	5-6	6-0	6-6	7-6	8-0	8-6				
18-1		2-6	4-6	5-6	6-0	6-6	7-6	8-0	8-6				
19-9		1-0	3-6	5-0	6-0	6-6	7-6	8-6	8-6				
20-0		1-0	2-6	3-6	5-0	6-0	7-0	8-0	8-6				
21-0		1-0	3-0	4-0	5-6	6-0	7-6	8-6	9-0				
22-0		1-0	1-0	2-6	4-0	5-0	6-0	8-0	8-6				
23-1		1-0	1-0	3-0	4-6	6-0	7-6	8-6	9-0				



ALLOWABLE RECTANGULAR HOLE LOCATION FOR NJH/NJU SERIES

JOIST TYPE	JOIST SPAN (FT-IN.)	HOLE HEIGHT (INCHES)											
		2	4	5	6	7	8 ¾	10	10½	12	12½	13	14½
MINIMUM DISTANCE FROM THE INSIDE EDGE OF THE SUPPORT TO EDGE OF THE HOLE (FT-IN)													
NJH/ NJU16	18-0	1-6	4-0	5-0	6-0	6-6	7-6	8-0	8-6	8-6	8-6		
	19-9	2-6	4-6	5-6	6-6	7-6	8-6	9-0	9-0	9-6	9-6		
	20-0	1-0	3-6	4-6	5-6	6-6	7-6	8-6	9-0	9-0	9-0		
	21-10	1-6	4-0	5-6	6-6	7-6	8-6	9-6	9-6	10-0	10-0		
	22-0	1-0	2-6	4-0	5-6	6-6	8-0	9-0	9-6	10-0	10-0		
	23-2	1-0	3-6	5-0	6-0	7-6	8-6	9-6	10-0	10-6	10-6		
	24-0	1-0	1-0	2-6	4-6	6-0	7-6	9-0	9-6	10-0	10-0		
	25-6	1-0	1-6	3-6	5-0	6-6	8-6	10-0	10-0	10-6	11-0		
NJU18	20-0	1-6	3-6	4-6	5-6	6-0	7-0	8-0	8-0	8-6	8-6	9-0	9-0
	22-0	2-6	4-6	5-6	6-6	7-0	8-0	9-0	9-0	9-6	9-6	9-6	10-0
	23-6	3-0	5-6	6-0	7-0	7-6	8-6	9-6	9-6	10-0	10-6	10-6	10-6
	24-0	1-0	3-6	4-6	6-0	6-6	8-0	9-0	9-0	10-0	10-0	10-0	10-6
	26-0	2-0	4-6	5-6	7-0	7-6	9-0	10-0	10-0	11-0	11-0	11-0	11-6
	26-3	2-0	4-6	6-0	7-0	8-0	9-0	10-0	10-6	11-0	11-0	11-6	11-6
	28-0	1-0	3-6	5-0	6-6	7-6	9-0	10-0	10-6	11-0	11-6	11-6	12-0
	28-9	1-0	4-0	5-6	6-6	8-0	9-0	10-6	11-0	11-6	11-6	12-0	12-0
	30-0	1-0	1-0	2-6	4-6	6-0	7-6	9-6	10-0	11-0	11-0	11-6	11-6

NOTES

- BASED ON A MAXIMUM FLOOR LOADING OF 40 PSF AND 25 PSF DEAD LOAD.
- MAXIMUM HOLE DEPTH MUST LEAVE 1/4" MINIMUM OF WEB MATERIAL BETWEEN THE TOP AND BOTTOM OF HOLE AND FLANGE.
- THE MAXIMUM ALLOWABLE HOLE WIDTH (DISTANCE PARALLEL TO FLANGE) IS TO BE 1.5 TIME THE HOLE DEPTH.
- FOR SITUATIONS BEYOND THE SCOPE OF THIS TABLE, PLEASE CONTACT YOUR NASCOR SUPPLIER.



FLOOR SPAN TABLES

JOIST DEPTH	JOIST TYPE	O/C SPACING			
		12"	16"	19.2"	24"
SIMPLE SPANS 40 PSF LL / 10 PSF DL L/480					
10"	NJH10	18'-0"	16'-3"	15'-4"	14'-2"
	NJU10	19'-8"	17'-10"	16'-9"	15'-6"
12"	NJH12	21'-4"	19'-4"	18'-2"	16'-10"
	NJU12	23'-4"	21'-2"	19'-10"	18'-5"
14"	NJH14	24'-1"	21'-10"	20'-6"	18'-11"
	NJU14	26'-5"	23'-11"	22'-6"	20'-10"
16"	NJH16	26'-7"	24'-1"	22'-8"	20'-11"
	NJU16	29'-2"	26'-5"	24'-10"	23'-0"
18"	NJU18	31'-11"	28'-11"	27'-2"	25'-2"
SIMPLE SPANS 40 PSF LL / 25 PSF DL L/480					
10"	NJH10	17'-10"	15'-5"	14'-1"	12'-7"
	NJU10	19'-8"	17'-3"	15'-9"	14'-1"
12"	NJH12	21'-1"	18'-3"	16'-8"	14'-11"
	NJU12	23'-4"	20'-4"	18'-7"	15'-4"
14"	NJH14	24'-1"	21'-10"	20'-3"	18'-1"
	NJU14	26'-5"	23'-6"	21'-5"	19'-2"
16"	NJH16	26'-7"	24'-1"	22'-1"	19'-9"
	NJU16	29'-2"	26'-1"	23'-9"	21'-3"
18"	NJU18	31'-11"	28'-9"	26'-3"	21'-6"

JOIST DEPTH	JOIST TYPE	O/C SPACING			
		12"	16"	19.2"	24"
CONTINUOUS SPANS 40 PSF LL / 10 PSF DL L/480					
10"	NJH10	20'-4"	17'-7"	16'-1"	14'-4"
	NJU10	22'-3"	19'-9"	18'-0"	16'-0"
12"	NJH12	24'-1"	20'-10"	19'-0"	17'-0"
	NJU12	26'-5"	23'-2"	21'-2"	18'-2"
14"	NJH14	27'-3"	24'-8"	23'-1"	20'-8"
	NJU14	29'-11"	26'-9"	24'-5"	21'-7"
16"	NJH16	30'-1"	27'-3"	25'-2"	22'-6"
	NJU16	33'-1"	29'-9"	27'-2"	24'-1"
18"	NJU18	36'-2"	32'-9"	29'-11"	25'-7"
CONTINUOUS SPANS 40 PSF LL / 25 PSF DL L/480					
10"	NJH10	17'-10"	15'-5"	14'-1"	12'-3"
	NJU10	20'-0"	17'-3"	15'-4"	12'-3"
12"	NJH12	21'-1"	18'-3"	16'-8"	14'-0"
	NJU12	23'-6"	20'-4"	17'-6"	14'-0"
14"	NJH14	25'-7"	22'-2"	20'-3"	16'-7"
	NJU14	27'-1"	23'-6"	20'-9"	16'-7"
16"	NJH16	27'-11"	24'-2"	22'-1"	18'-7"
	NJU16	30'-1"	26'-1"	23'-2"	18'-7"
18"	NJU18	33'-3"	28'-9"	24'-7"	19'-8"

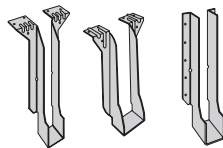
NOTES

- SPAN LENGTHS ARE BASED ON THE CLEAR SPAN, MEASURED FROM THE INSIDE OF THE SUPPORTS.
- SPANS ARE BASED ON UNIFORM LOADING CONDITIONS ONLY. FOR OTHER LOADING CONDITIONS CONSULT NASCOR.
- MINIMUM BEARING LENGTHS FOR END AN INTERIOR SUPPORTS ARE 1 1/2" AND 3 1/2", UNLESS OTHERWISE NOTED.
- DARKER SHADED AREA FOR SIMPLE SPANS: MINIMUM END BEARING LENGTH OF 2 1/2" IS REQUIRED.
- DARKER SHADED ARE FOR CONTINUOUS SPANS: MINIMUM INTERIOR BEARING LENGTH OF 5" PLUS WEB STIFFENERS IS REQUIRED.
- END SPANS OF CONTINUOUS I-JOISTS MUST BE AT LEAST 45% OF THE ADJACENT SPAN.
- DEFLECTION UNDER TOTAL LOAD LIMITED TO L/240.
- A 7% REPETITIVE MEMBER INCREASE HAS BEEN APPLIED TO THE SPANS.
- SPANS ARE BASED ON COMPOSITE ACTION FOR SHEATHING GLUED AND NAILED TO THE I-JOISTS. SPANS FOR COMPOSITE ACTION ARE BASED ON A 3/4" THICK SHEATHING. THE ADHESIVE SHALL COMPLY WITH APA SPECIFICATION AFG-01 AND/OR ASTM D3498. THE SPANS ARE NOT APPLICABLE WHEN THE SHEATHING IS NAILED ONLY TO THE I-JOISTS.



HANGER CHART

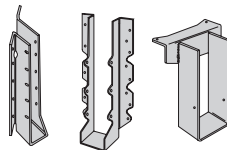
JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT (LBS) (133)	DOWNLOAD (LBS)	
		HEADER	JOIST		DF	SPF
SINGLE TOP MOUNT HANGERS NJH SERIES						
9 1/2	ITT39.5	6-10d	2-10dx1 1/2	245	1450	1200
11 7/8	ITT311.88	6-10d	2-10dx1 1/2	245	1450	1200
14	ITT314	6-10d	2-10dx1 1/2	245	1450	1200
16	ITT316	6-10d	2-10dx1 1/2	245	1450	1200
SINGLE TOP MOUNT HANGERS NJU SERIES						
9 1/2	ITT49.5	6-10d	2-10dx1 1/2	245	1450	1200
11 7/8	ITT411.88	6-10d	2-10dx1 1/2	245	1450	1200
14	ITT414	6-10d	2-10dx1 1/2	245	1450	1200
16	ITT416	6-10d	2-10dx1 1/2	245	1450	1200
18	MIT418	6-10d	2-10dx1 1/2	240	2400	1665
SINGLE FACE MOUNT HANGERS NJH SERIES						
9 1/2	IUT310	8-10d	2-10dx1 1/2	245	890	770
11 7/8	IUT312	10-10d	2-10dx1 1/2	245	1110	960
14	IUT314	14-10d	2-10dx1 1/2	245	1555	1345
16	IUT316	16-10d	2-10dx1 1/2	245	1775	1535
SINGLE FACE MOUNT HANGERS NJU SERIES						
9 1/2	IUT410	8-10d	2-10dx1 1/2	245	890	770
11 7/8	IUT412	10-10d	2-10dx1 1/2	245	1110	960
14	IUT414	14-10d	2-10dx1 1/2	245	1555	1345
16	IUT416	16-10d	2-10dx1 1/2	245	1775	1535
18	IUT416	16-10d	2-10dx1 1/2	245	1775	1535



ITT

MIT

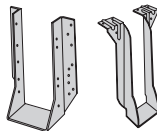
IUT



SUL

U

WP/WPI



HU

MIT

HANGER CHART CONT'D

JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT (LBS) (133)	DOWNLOAD (LBS)	
		HEADER	JOIST		DF	SPF
SINGLE 45° SKEW HANGERS NJH SERIES						
9 1/2	SUR/L310	14-16d	6-10dx1 1/2	720	1860	1610
11 7/8	SUR/L310	14-16d	6-10dx1 1/2	720	1860	1610
14	SUR/L314	18-16d	8-10dx1 1/2	960	2395	1795
16	SUR/L314	18-16d	8-10dx1 1/2	960	2395	1795
SINGLE 45° SKEW HANGERS NJU SERIES						
9 1/2	SUR/L410	14-16d	6-16d	1065	1860	1610
11 7/8	SUR/L410	14-16d	6-16d	1065	1860	1610
14	SUR/L414	18-16d	8-16d	1420	2395	1795
16	SUR/L414	18-16d	8-16d	1420	2395	1795
18	SUR/L414	18-16d	8-16d	1420	2395	1795
DOUBLE 45° SKEW HANGERS NJH SERIES						
9 1/2	HU310-2X	14-16d	6-10d	680	1875	1625
11 7/8	HU312-2X	16-16d	6-10d	680	2145	1855
14	HU314-2X	18-16d	8-10d	905	2410	2090
16	HU314-2X	18-16d	8-10d	905	2410	2090
DOUBLE 45° SKEW HANGERS NJU SERIES						
9 1/2	HU410-2X	18-16d	8-16d	1070	2410	2090
11 7/8	HU412-2X	22-16d	8-16d	1070	2950	2550
14	HU414-2X	26-16d	12-16d	1610	3485	3015
16	HU414-2X	26-16d	12-16d	1610	3485	3015
18	HU414-2X	26-16d	12-16d	1610	3485	3015

NOTES ON HANGER CHARTS

DARK SHADED HANGERS REQUIRE WEB STIFFENERS AT JOIST ENDS. WEB STIFFENERS MAY BE REQUIRED FOR NON-SHADED HANGERS BY I-JOIST MANUFACTURER.

LOADS LISTED ARE BASED ON HANGER ATTACHMENT TO A DF SPECIES OF LVL OR SOLID SAWN HEADER OR SPF SOLID SAWN HEADER.

HU HANGERS USE BOTH ROUND AND TRIANGLE HOLES.

DOWNLOAD COLUMN REPRESENTS 100% LOAD DURATION.

UPLIFT LOADS HAVE BEEN INCREASED 33% FOR WIND AND EARTHQUAKE LOADING WITH NO FURTHER INCREASE ALLOWED. REDUCE ACCORDING TO THE CODE FOR NORMAL LOADING CRITERIA LIKE CANTILEVER CONSTRUCTION.

TOP FLANGE HANGER LOADS LISTED REQUIRED A MINIMUM HEADER WIDTH OF 3" FOR ITT AND MIT HANGERS AND 3 1/2" FOR ALL OTHERS.



HANGER CHART CONT'D

JOIST HEIGHT	MODEL	FASTENER TYPE		UPLIFT (LBS) (133)	DOWNLOAD (LBS)	
		HEADER	JOIST		DF	SPF
DOUBLE TOP MOUNT HANGERS NJH SERIES						
9 1/2	MIT39.5-2	6-16d	2-10dx1 1/2	240	2400	1665
11 7/8	MIT311.88-2	6-16d	2-10dx1 1/2	240	2400	1665
14	MIT314-2	6-16d	2-10dx1 1/2	240	2400	1665
16	WPI316-2	3-16d	2-10dx1 1/2	-	3255	2600
DOUBLE TOP MOUNT HANGERS NJU SERIES						
9 1/2	WPI49.25-2	3-16d	2-10dx1 1/2	-	3255	2600
11 7/8	WPI411.88	3-16d	2-10dx1 1/2	-	3255	2600
14	WPI414-2	3-16d	2-10dx1 1/2	-	3255	2600
16	WPI416-2	3-16d	2-10dx1 1/2	-	3255	2600
18	WPI418-2	3-16d	2-10dx1 1/2	-	3255	2600
DOUBLE FACE MOUNT HANGERS NJH SERIES						
9 1/2	MIU39-2	14-16d	2-10dx1 1/2	240	1860	1610
11 7/8	MIU311-2	16-16d	2-10dx1 1/2	240	2130	1840
14	MIU314-2	18-16d	2-10dx1 1/2	240	2395	2070
16	MIU314-2	20-16d	2-10dx1 1/2	240	2660	2300
DOUBLE FACE MOUNT HANGERS NJU SERIES						
9 1/2	HU410-2	18-16d	8-16d	1430	2410	2090
11 7/8	HU412-2	22-16d	8-16d	1430	2950	2550
14	HU414-2	26-16d	12-16d	2145	3485	3015
16	HU414-2	26-16d	12-16d	2145	3485	3015
18	HU414-2	26-16d	12-16d	2145	3485	3015

NOTES ON HANGER CHARTS

MINIMUM NAIL PENETRATION REQUIRED TO ACHIEVE LOADS LISTED FOR FACE MOUNT HANGERS:

- 1 3/4" (10d COMMON)
- 2" (16d COMMON)

TOP FLANGE HANGER CONFIGURATION AND THICKNESS OF TOP FLANGE NEED TO BE CONSIDERED FOR FLUSH FRAME CONDITIONS.

REFER TO THE CURRENT COMPOSITE WOOD PRODUCTS CONNECTORS CATALOG FOR HANGER MODELS AND JOIST SIZES NOT SHOWN.

I-JOIST TALLER THAN 14" REQUIRE LATERAL RESTRAINT AT THE TOP CHORD (OR NEAR THE TOP) WHEN USED WITH THE THAI HANGER. LATERAL RESTRAINT CAN BE ACCOMPLISHED WITH BLOCKING.

WHEN WEB STIFFENERS ARE REQUIRED, THE THICKNESS OF THE WEB STIFFENERS SHOULD PROVIDE AN OUTSIDE SURFACE EVEN WITH THE OUTSIDE EDGE OF THE FLANGE.

RAFTER SPAN TABLES

NJH SERIES RAFTER SPANS

SPACING TYPE	JOIST	ROOF SLOPE	NON-SNOW (125%) LIVE/DEAD LOAD (PSF)			SNOW (115%) LIVE/DEAD LOAD (PSF)									
			20/10	20/15	20/20	20/10	20/15	30/10	30/15	40/10	40/15	50/10	50/15	50/20	
12" o.c.	NJH10	Low	24'-6"	23'-2"	22'-1"	24'-6"	23'-2"	22'-2"	21'-4"	20'-5"	20'-0"	18'-11"	18'-10"	18'-1"	
		High	21'-11"	20'-7"	19'-7"	21'-11"	20'-7"	20'-2"	19'-2"	18'-10"	18'-1"	17'-6"	17'-2"	16'-7"	
	NJH12	Low	29'-3"	27'-8"	26'-4"	29'-3"	27'-8"	26'-7"	25'-6"	24'-5"	23'-11"	22'-7"	22'-4"	21'-6"	
		High	26'-3"	24'-8"	23'-4"	26'-3"	24'-8"	24'-1"	22'-11"	22'-6"	21'-7"	20'-11"	20'-6"	19'-10"	
	NJH14	Low	33'-0"	31'-3"	29'-9"	33'-0"	31'-3"	30'-1"	28'-10"	27'-7"	27'-0"	25'-7"	25'-7"	24'-10"	
		High	29'-8"	27'-10"	26'-5"	29'-8"	27'-10"	27'-2"	25'-10"	25'-5"	24'-4"	23'-8"	23'-2"	22'-5"	
	NJH16	Low	36'-7"	34'-7"	33'-0"	36'-7"	34'-7"	33'-4"	31'-11"	30'-6"	29'-11"	28'-4"	28'-4"	27'-6"	
		High	32'-10"	30'-10"	29'-3"	32'-10"	30'-10"	30'-1"	28'-8"	28'-1"	27'-0"	26'-3"	25'-8"	24'-10"	
16" o.c.	NJH10	Low	22'-2"	21'-0"	20'-0"	22'-2"	21'-0"	20'-3"	19'-4"	18'-6"	17'-8"	17'-1"	16'-4"	15'-8"	
		High	19'-11"	18'-9"	17'-9"	19'-11"	18'-9"	18'-3"	17'-5"	17'-1"	16'-5"	15'-11"	15'-7"	15'-1"	
	NJH12	Low	26'-6"	25'-1"	23'-11"	26'-6"	25'-1"	24'-2"	23'-2"	22'-1"	21'-0"	20'-3"	19'-4"	18'-7"	
		High	23'-10"	22'-4"	21'-2"	23'-10"	22'-4"	21'-10"	20'-9"	20'-5"	19'-7"	19'-0"	18'-7"	17'-10"	
	NJH14	Low	30'-0"	28'-4"	27'-0"	30'-0"	28'-4"	27'-3"	26'-2"	25'-0"	24'-6"	23'-2"	23'-2"	22'-7"	
		High	26'-11"	25'-3"	23'-11"	26'-11"	25'-3"	24'-8"	23'-6"	23'-1"	22'-1"	21'-6"	21'-0"	20'-4"	
	NJH16	Low	33'-2"	31'-5"	29'-11"	33'-2"	31'-5"	30'-3"	28'-11"	27'-8"	27'-1"	25'-8"	25'-7"	24'-7"	
		High	29'-10"	28'-0"	26'-6"	29'-10"	28'-0"	27'-4"	26'-0"	25'-6"	24'-6"	23'-10"	23'-3"	22'-6"	
19.2" oc.	NJH10	Low	20'-11"	19'-9"	18'-10"	20'-11"	19'-9"	19'-0"	17'-10"	17'-0"	16'-2"	15'-7"	14'-11"	14'-4"	
		High	18'-9"	17'-7"	16'-8"	18'-9"	17'-7"	17'-2"	16'-4"	16'-1"	15'-5"	15'-0"	14'-5"	13'-9"	
	NJH12	Low	24'-11"	23'-7"	22'-6"	24'-11"	23'-7"	22'-6"	21'-1"	20'-2"	19'-2"	18'-5"	17'-0"	17'-0"	
		High	22'-5"	21'-0"	19'-11"	22'-5"	21'-0"	20'-7"	19'-6"	19'-2"	18'-5"	17'-11"	17'-1"	16'-4"	
	NJH14	Low	28'-2"	26'-8"	25'-5"	28'-2"	26'-8"	25'-8"	24'-7"	23'-6"	23'-0"	21'-10"	21'-5"	20'-7"	
		High	25'-4"	23'-9"	22'-6"	25'-4"	23'-9"	23'-3"	22'-1"	21'-8"	20'-9"	0'-2"	19'-9"	19'-2"	
	NJH16	Low	31'-3"	29'-6"	28'-2"	31'-3"	29'-6"	28'-5"	27'-3"	26'-1"	25'-4"	24'-2"	23'-4"	22'-5"	
		High	28'-0"	26'-4"	24'-11"	28'-0"	26'-4"	25'-9"	24'-5"	24'-0"	23'-0"	22'-4"	21'-11"	21'-2"	
24" o.c.	NJH10	Low	19'-4"	18'-4"	17'-5"	19'-4"	17'-11"	17'-0"	15'-11"	15'-3"	14'-5"	13'-11"	13'-4"	12'-9"	
		High	17'-5"	16'-4"	15'-6"	17'-5"	16'-4"	15'-11"	15'-2"	14'-9"	13'-11"	13'-7"	12'-11"	12'-4"	
	NJH12	Low	23'-2"	21'-11"	20'-8"	23'-2"	21'-4"	20'-1"	18'-10"	18'-0"	17'-2"	16'-6"	15'-9"	15'-2"	
		High	20'-9"	19'-6"	18'-6"	20'-9"	19'-6"	19'-1"	18'-0"	17'-6"	16'-6"	16'-1"	15'-3"	14'-7"	
	NJH14	Low	26'-2"	24'-9"	23'-7"	26'-2"	24'-9"	23'-10"	22'-9"	21'-10"	20'-9"	20'-0"	19'-2"	18'-5"	
		High	23'-6"	22'-0"	20'-11"	23'-6"	22'-0"	21'-6"	20'-6"	20'-1"	19'-3"	18'-9"	18'-4"	17'-8"	
	NJH16	Low	28'-11"	27'-5"	26'-1"	28'-11"	27'-5"	26'-4"	25'-0"	23'-10"	22'-8"	21'-10"	20'-1"	20'-1"	
		High	26'-0"	24'-5"	23'-2"	26'-0"	24'-5"	23'-10"	22'-8"	22'-3"	21'-4"	20'-9"	20'-3"	19'-3"	



RAFTER SPAN TABLES

NJU SERIES RAFTER SPANS

24

SPACING TYPE	JOIST	ROOF SLOPE	NON-SNOW (125%) LIVE/DEAD LOAD (PSF)						SNOW (115%) LIVE/DEAD LOAD (PSF)						
			20/10	20/15	20/20	20/10	20/15	30/10	30/15	40/10	40/15	50/10	50/15	50/20	
12" o.c.	NJU10	LOW HIGH	27'-2" 24'-5"	25'-8" 22'-11"	24'-6" 21'-8"	27'-2" 24'-5"	25'-8" 22'-11"	24'-9" 22'-4"	23'-8" 21'-3"	22'-8" 20'-11"	22'-2" 20'-0"	21'-0" 19'-6"	21'-0" 19'-0"	20'-4" 18'-5"	
	NJU12	LOW HIGH	32'-5" 29'-1"	30'-8" 27'-3"	29'-3" 25'-11"	32'-5" 29'-1"	30'-8" 27'-3"	29'-6" 26'-8"	28'-3" 25'-4"	27'-0" 24'-11"	26'-6" 23'-11"	25'-1" 23'-3"	24'-10" 22'-8"	23'-10" 22'-0"	
	NJU14	LOW HIGH	36'-9" 33'-0"	34'-9" 31'-0"	33'-2" 29'-5"	36'-9" 33'-0"	34'-9" 31'-0"	33'-6" 30'-3"	32'-1" 28'-10"	30'-8" 28'-3"	30'-1" 27'-2"	28'-6" 26'-4"	28'-5" 25'-9"	27'-7" 25'-0"	
	NJU16	LOW HIGH	40'-9" 36'-7"	38'-6" 34'-4"	36'-9" 32'-7"	40'-9" 36'-7"	38'-6" 34'-4"	37'-1" 33'-7"	35'-6" 31'-11"	34'-0" 31'-4"	33'-3" 30'-1"	31'-6" 29'-2"	31'-6" 28'-7"	30'-7" 27'-8"	
	NJU18	LOW HIGH	44'-6" 40'-0"	42'-2" 37'-6"	40'-2" 35'-7"	44'-6" 40'-0"	42'-2" 37'-6"	40'-7" 36'-8"	38'-10" 34'-11"	37'-2" 34'-3"	36'-5" 32'-10"	34'-6" 31'-11"	34'-5" 31'-3"	33'-6" 30'-3"	
	16" o.c.	NJU10	LOW HIGH	24'-8" 22'-2"	23'-4" 20'-9"	22'-3" 19'-8"	24'-8" 22'-2"	23'-4" 20'-9"	22'-5" 20'-4"	21'-6" 19'-4"	20'-7" 18'-11"	19'-10" 18'-2"	19'-1" 17'-8"	18'-4" 17'-3"	17'-7" 16'-9"
NJU12		LOW HIGH	29'-5" 26'-5"	27'-10" 24'-9"	26'-6" 23'-6"	29'-5" 26'-5"	27'-10" 24'-9"	26'-9" 24'-2"	25'-8" 23'-0"	24'-6" 22'-7"	23'-4" 21'-8"	22'-6" 21'-1"	21'-6" 20'-7"	20'-8" 19'-10"	
NJU14		LOW HIGH	33'-5" 30'-0"	31'-7" 28'-2"	30'-1" 26'-8"	33'-5" 30'-0"	31'-7" 28'-2"	30'-5" 27'-6"	29'-1" 26'-2"	27'-10" 25'-8"	26'-11" 24'-7"	25'-10" 23'-11"	24'-10" 23'-5"	23'-10" 22'-8"	
NJU16		LOW HIGH	37'-0" 33'-2"	35'-0" 31'-2"	33'-4" 29'-6"	37'-0" 33'-2"	35'-0" 31'-2"	33'-8" 30'-5"	32'-3" 29'-0"	30'-10" 28'-5"	29'-11" 27'-3"	28'-7" 26'-6"	27'-7" 25'-11"	26'-6" 25'-1"	
NJU18		LOW HIGH	40'-5" 36'-4"	38'-3" 34'-1"	36'-6" 32'-4"	40'-5" 36'-4"	38'-3" 34'-1"	36'-10" 33'-4"	35'-3" 31'-8"	33'-9" 31'-1"	33'-0" 29'-10"	31'-3" 29'-0"	30'-5" 28'-4"	29'-3" 27'-5"	
19.2" o.c.		NJU10	LOW HIGH	23'-2" 20'-10"	21'-11" 19'-6"	20'-11" 18'-6"	23'-2" 20'-10"	21'-11" 19'-6"	21'-1" 19'-1"	19'-11" 18'-2"	19'-1" 17'-10"	18'-1" 17'-1"	17'-5" 16'-7"	16'-8" 16'-2"	16'-0" 15'-5"
	NJU12	LOW HIGH	27'-8" 24'-10"	26'-2" 23'-4"	24'-11" 22'-1"	27'-8" 24'-10"	26'-2" 23'-4"	25'-0" 22'-9"	23'-6" 21'-3"	23'-6" 21'-3"	22'-5" 20'-5"	21'-4" 19'-10"	19'-8" 19'-0"	18'-10" 18'-2"	
	NJU14	LOW HIGH	31'-5" 28'-2"	29'-8" 26'-5"	28'-4" 25'-1"	31'-5" 28'-2"	29'-8" 26'-5"	28'-7" 25'-10"	27'-1" 24'-7"	25'-11" 24'-2"	24'-7" 23'-2"	23'-8" 22'-6"	22'-8" 21'-11"	21'-9" 20'-11"	
	NJU16	LOW HIGH	34'-9" 31'-3"	32'-11" 29'-4"	31'-4" 27'-9"	34'-9" 31'-3"	32'-11" 29'-4"	31'-8" 28'-8"	30'-1" 27'-3"	28'-9" 26'-9"	27'-4" 25'-8"	26'-4" 24'-11"	25'-2" 24'-4"	24'-2" 23'-3"	
	NJU18	LOW HIGH	38'-0" 34'-2"	36'-0" 32'-1"	34'-3" 30'-5"	38'-0" 34'-2"	36'-0" 32'-1"	34'-7" 31'-4"	33'-2" 29'-9"	31'-9" 29'-3"	30'-2" 28'-0"	29'-0" 27'-3"	27'-9" 26'-8"	26'-8" 25'-8"	
	24" o.c.	NJU10	LOW HIGH	21'-6" 19'-4"	20'-4" 18'-1"	19'-5" 17'-2"	21'-6" 19'-4"	20'-2" 18'-1"	19'-0" 17'-8"	17'-10" 16'-10"	17'-1" 16'-6"	16'-2" 15'-7"	15'-7" 15'-3"	14'-11" 14'-5"	14'-4" 13'-9"
NJU12		LOW HIGH	25'-8" 23'-0"	24'-3" 21'-7"	23'-0" 20'-5"	25'-8" 23'-0"	23'-8" 21'-7"	22'-4" 21'-1"	21'-0" 20'-1"	20'-1" 19'-6"	19'-0" 18'-4"	18'-4" 17'-11"	17'-7" 17'-0"	16'-10" 16'-3"	
NJU14		LOW HIGH	29'-1" 26'-2"	27'-6" 24'-6"	26'-3" 23'-3"	29'-1" 26'-2"	27'-4" 24'-6"	25'-10" 22'-10"	24'-3" 22'-5"	23'-2" 21'-2"	22'-0" 21'-2"	21'-2" 20'-8"	20'-3" 19'-8"	19'-6" 18'-9"	
NJU16		LOW HIGH	32'-3" 29'-0"	30'-6" 27'-2"	29'-1" 25'-9"	32'-3" 29'-0"	30'-4" 27'-2"	28'-8" 26'-7"	26'-11" 25'-3"	25'-9" 24'-9"	24'-5" 23'-6"	23'-6" 23'-0"	22'-6" 21'-10"	21'-7" 20'-9"	
NJU18		LOW HIGH	35'-3" 31'-8"	33'-4" 29'-9"	31'-9" 28'-2" ³	35'-3" 31'-8"	33'-4" 29'-9"	31'-8" 29'-1"	29'-8" 27'-7"	28'-5" 27'-1"	26'-11" 25'-11"	25'-11" 25'-3"	24'-10" 24'-1"	23'-10" 22'-11"	

- SPANS SHOWN ARE HORIZONTAL CLEAR DISTANCE BETWEEN SUPPORTS, UNIFORMLY LOADED JOISTS AND INCLUDE ALLOWABLE INCREASE FOR REPETITIVE MEMBERS. SPANS APPLY TO SIMPLY SUPPORTED JOISTS ONLY.
- LOW SLOPE IS DEFINED AS ANY ROOF SLOPE LESS THAN OR EQUAL TO 6 IN 12.
- HIGH SLOPE IS DEFINED AS ANY ROOF SLOPE GREATER THAN 6 IN 12 AND LESS THAN OR EQUAL TO 12 IN 12.
- DEFLECTION LIMITS: LIVE LOAD DEFLECTION EQUAL TO $L/240$ AND TOTAL LOAD DEFLECTION EQUAL TO $L/180$.
- MINIMUM END BEARING LENGTH IS 2 1/2", UNLESS OTHERWISE NOTED.
- ORANGE SHADED AREAS: MINIMUM END BEARING LENGTH IS 4".

INSTALLATION NOTES

- VERIFY CAPACITY AND FASTENING REQUIREMENTS OF HANGERS AND CONNECTORS.
- MAXIMUM SLOPE 12:12. UPLIFT ANCHORS MAY BE REQUIRED.
- CANTILEVER: TO A MAXIMUM OF 24" IF SUPPORTING ROOF LOADS.
- THE NJH AND NJU SERIES JOISTS FLANGE MAY BE BIRD'S MOUTH CUT ONLY AT THE LOW END OF THE JOIST. BIRD'S MOUTH CUT MUST NOT OVERHANG THE INSIDE FACE OF THE BEARING PLATE. THE NJH AND NJU SERIES JOISTS WITH BIRD'S MOUTH CUT MUST BE BEAR FULLY ON PLATE.
- SOME WIND OR SEISMIC LOADS MAY REQUIRE DIFFERENT OR ADDITIONAL DETAILS AND CONNECTIONS.



ROOF INSTALLATION DETAILS

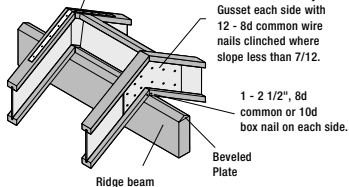
UR1 RAFTER CONNECTION AT

RIDGE BEAM

1 1/4" x 36" long framing strap (minimum 20 gauge) where slope exceeds 7/12.

3/4" x 2'0" OSB/ Plywood Gusset each side with 12 - 8d common wire nails clinched where slope less than 7/12.

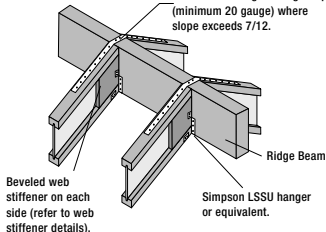
1 - 2 1/2", 8d common or 10d box nail on each side.



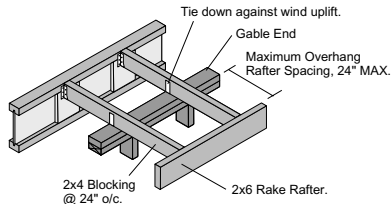
UR2 RAFTER TO RIDGE BEAM

CONNECTION

1 1/4" x 36" long framing strap (minimum 20 gauge) where slope exceeds 7/12.



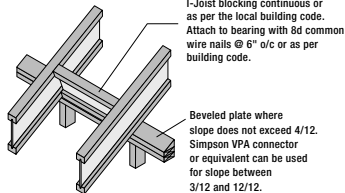
UR3 OVERHANG AT GABLE END



UR4 CANTILEVERED RAFTER

I-Joist blocking continuous or as per the local building code. Attach to bearing with 8d common wire nails @ 6" o/c or as per building code.

Beveled plate where slope does not exceed 4/12. Simpson VPA connector or equivalent can be used for slope between 3/12 and 12/12.



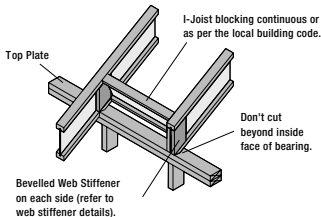
UR5 SEAT CUT FOR EAVES

I-Joist blocking continuous or as per the local building code.

Top Plate

Don't cut beyond inside face of bearing.

Bevelled Web Stiffener on each side (refer to web stiffener details).



PHYSICAL PROPERTIES

DESIGN PROPERTIES FOR NASCOR I-JOISTS

JOIST TYPE	JOIST DEPTH (INCHES)	JOIST WEIGHT (PLF)	MOMENT (LBS-FT)	SHEAR (LBS)	END REACTION (LBS)				INTERMEDIATE REACTION (LBS)				Ei x106 (LBS-IN ²)	K (LBS)
					1½" BEARING		2½" BEARING		3½" BEARING		5½" BEARING			
					WEB STIFF. No	WEB STIFF. Yes	WEB STIFF. No	WEB STIFF. Yes	WEB STIFF. No	WEB STIFF. Yes	WEB STIFF. No	WEB STIFF. Yes		
NJH10	9 1/2	2.30	2,420	1,000	960	1000	1000	1000	2000	2000	2000	2000	175	11.60
NJH12	11 7/8	2.70	3,400	1,140	1000	1140	1140	1140	2200	2280	2280	2280	298	14.50
NJH14	14	3.00	5,000	1,350	1100	1350	1300	1350	2200	2700	2500	2700	430	15.08
NJH16	16	3.30	5,940	1,510	1100	1500	1400	1510	2200	2700	2500	3020	584	16.93
NJU10	9 1/2	2.70	3,040	1,000	900	900	1000	1000	1500	2000	2000	2000	240	11.11
NJU12	11 7/8	2.90	4,200	1,140	900	900	1000	1000	1500	2280	2280	2280	406	13.75
NJU14	14	3.20	5,600	1,350	1200	1200	1350	1350	1500	2500	2500	2700	594	15.76
NJU16	16	3.40	6,900	1,510	1200	1200	1400	1400	1500	2500	2500	3020	807	17.15
NJU18	18	3.60	8,400	1,600	1200	1200	1400	1400	1500	2500	2500	3200	1,054	20.04

NOTES

- EI, IS THE BENDING STIFFNESS OF THE SINGLE I-JOIST.
- K, IS THE SHEAR CONSTANT FOR THE SINGLE I-JOIST.
- THE DEFLECTION OF A SIMPLE SPAN I-JOIST CAN BE CALCULATED AS FOLLOWS:

(1) UNIFORM LOAD

$$\Delta = \frac{5wL^4}{384EI} + \frac{wL^2}{K}$$

(2) CONCENTRATED LOAD AT MID-SPAN

$$\Delta = \frac{PL^3}{48EI} + \frac{2PL}{K}$$

WHERE,

Δ = I-JOIST DEFLECTION (INCHES)

EI = I-JOIST BENDING STIFFNESS (POUNDS-SQUARE INCH)

K = I-JOIST SHEAR CONSTANT (POUNDS)

L = I-JOIST CLEAR SPAN (INCHES)

W = APPLIED UNIFORM LOAD (POUNDS PER LINEAR INCH)

P = APPLIED CONCENTRATED LOAD (POUNDS)



CONVERSION TABLES

METRIC UNITS	IMPERIAL EQUIVALENTS	IMPERIAL UNITS	METRIC EQUIVALENTS
LENGTH		LENGTH	
1 MILLIMETER (mm)	= 0.0393701 INCH	1 INCH	= 25.4 mm
1 CENTIMETER (cm)	= 0.3937010 INCH	1 INCH	= 2.54 cm
1 METRE (m)	= 3.2808400 FEET	1 FOOT	= 0.3048 m
AREA		AREA	
1 MILLIMETER ² (mm ²)	= 0.001550 INCH ²	1 SQUARE INCH	= 645.06 mm ²
1 CENTIMETER ² (cm ²)	= 0.155000 INCH ²	1 SQUARE INCH	= 0.0929030 m ²
1 METRE ² (m ²)	= 10.76390 FEET ²	1 SQUARE FOOT	= 0.8361 m ²
MASS		MASS	
1 GRAM (g)	= 0.035274 OUNCES	1 OUNCE	= 28.3495 g
1 KILOGRAM (kg)	= 2.204620 POUNDS	1 POUND	= 0.45359 kg
1 TONNE (t)	= 1.102310 TONS	1 TON	= 0.90718 t
ENGINEERING UNITS		ENGINEERING UNITS	
1 kg/m	= 0.671969 LBS/FT	1 PLF	= 1.48816 kg/m
1 kg/m ²	= 0.204816 LBS/FT ²	1 PSF	= 4.88243 kg/m ²
1 kg/m ³	= 0.062428 LBS/FT ³	1 PCF	= 16.0185 kg/m ³
1 KILONEWTON (kN)	= 224.8090 LBS	1 LB	= 4.44822 N
1 kN-m	= 737.562 LBS-FT	1 LBS-FT	= 0.00135582 kN-m
1 kN-m = (1 N/mm)	= 68.5218 LBS/FT	1 PLF	= 0.0145939 kN/m
1 kN/m ²	= 20.8855 LBS/FT ²	1 PSF	= 0.04788 kN/m ²
1 kN/m ³	= 6.36590 LBS/FT ³	1 PCF	= 16.0185 kN/m ³
1 KILOPASCAL (kPa)	= 20.88540 LBS/FT ²	1 PSI	= 6.89476 kPa
1 MPa = (1 N/mm ²)	= 145.038 LBS/IN ²	1 PSI	= 0.00689476 kPa
VOLUME		VOLUME	
1 MILLIMETER ³ (mm ³)	= 0.000061 INCH ³	1 CUBIT INCH	= 16387.1 mm ³
1 CENTIMETER ³ (cm ³)	= 0.061023 INCH ³	1 CUBIT INCH	= 0.02831 m ³
1 METRE ³ (m ³)	= 35.31470 FEET ³	1 CUBIT FOOT	= 0.76455 m ³
1 N = 9.81 kg-m/s ²	= 737.562 LBS-FT	1 LBS-FT	= 0.00135582 kN-m

MATERIAL WEIGHTS

ITEM	DEAD LOAD VALUE	ITEM	DEAD LOAD VALUE
FLOORING		FRAMING MEMBERS (10 PCF)	
HARDWOOD (NOMINAL 1")	3.80 PSF	2x4	1.1 PLF
CONCRETE (1½" THICK)		2x6	1.7 PLF
REGULAR	17.5 PSF	2x8	2.2 PLF
LIGHTWEIGHT	12.5 PSF	2x10	2.8 PLF
LINOLEUM	1.50 PSF	2x12	3.3 PLF
¾" CERAMIC TILE	10.0 PSF		
INSULATION		COMPOSITION ROOFING	
ROCK WOOL (1" THICK)	0.2 PSF	5-15 LB AND 1-90 LB	1.8 PSF
GLASS WOOL (1" THICK)	0.3 PSF	3-15 LB AND 1-90 LB	2.2 PSF
STYROFOAM (1" THICK)	0.2 PSF	3-PLY AND GRAVEL	5.6 PSF
FOAMGLASS	0.8 PSF	4-PLY AND GRAVEL	6.0 PSF
RIGID FIBRE GLASS	1.5 PSF	5-PLY AND GRAVEL	6.5 PSF
SHEATHING		CEILING	
¾" OSB	1.3 PSF	ACOUSTIC FIBRE TILE	1.0 PSF
½" OSB	1.8 PSF	½" GYPSUM BOARD	2.0 PSF
¾" OSB	2.2 PSF	¾" GYPSUM BOARD	2.5 PSF
¾" OSB	2.7 PSF	PLASTER (1" THICK)	8.0 PSF
¾" OSB	3.1 PSF	METAL SUSPENSION SYSTEM	0.5 PSF
1" SHEATHING (OSB)	3.5 PSF		
¾" PLYWOOD	1.1 PSF		
½" PLYWOOD	1.5 PSF		
¾" PLYWOOD	1.8 PSF		
¾" PLYWOOD	2.0 PSF		
¾" PLYWOOD	2.6 PSF		
1" SHEATHING (PLYWOOD)	2.1 PSF		

FLOOR DEAD LOAD SAMPLE CALCULATION

2.1 PSF	CARPET
2.7 PSF	¾" OSB
2.7 PSF	NJU 12 JOISTS @ 12" o/c
2.0 PSF	½" GYPSUM BOARD
9.5 PSF	DEAD LOAD
<hr/>	
3.8 PSF	HARDWOOD
1.8 PSF	¾" OSB
2.9 PSF	NJU 12 JOISTS @ 16" o/c
2.0 PSF	½" GYPSUM BOARD
10.5 PSF	DEAD LOAD

8FT WALL DEAD LOAD SAMPLE CALCULATION

	2x6 STUDS @ 16" o/c
	1.7 PLF X 8FT = 13.6 LBS
	<u>13.6 LBS X 12/16 = 10.2 PLF</u>
10.2 PLF	2x6 STUDS
14 PLF	½" OSB
15 PLF	6" INSULATION
16 PLF	½" GYPSUM BOARD
55 PLF	DEAD LOAD
	(PLUS SIDING)







GUARANTEED FOR LIFE

NASCOR FLOOR PRODUCTS ARE GUARANTEED TO MEET EXACT TOLERANCES. JOISTS WILL REMAIN STRAIGHT, WARP FREE, CONTAIN NO TWISTS OR CROWNS, AND WILL NOT SHRINK. THIS GUARANTEE IS EXTENDED OVER THE ENTIRE LIFE OF THE HOME.



The NASCOR JOISTS
Strong Quiet
Type™

The Ultimate Floor.
by NASCOR INCORPORATED

NASCOR™, The Ultimate Floor™, The Strong Silent Type™ and The Easy-I™ are trademarks of NASCOR Incorporated.



PRODUCT EVALUATIONS



BOCA EVALUATION SERVICE INC.
BUILDINGS OFFICIALS AND CODE
ADMINISTRATORS INTERNATIONAL
BOCA 21-22

NASCOR INCORPORATED
RETAINS INTERTEK TESTING
SERVICES-WARNOCK HERSEY
AS A THIRD PARTY INSPECTION
AGENCY FOR AUDITING THE
TESTING AND QUALITY
ASSURANCE PROGRAM.



ICBO EVALUATION SERVICE INC.
INTERNATIONAL CONFERENCE AND
BUILDINGS OFFICIALS
ICBO PFC-5138
ICBO PFC-5241



SBCCI PUBLIC SAFETY TESTING
AND EVALUATION SERVICES INC.
SBCCI 9920-A

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