

## **GENERAL JOIST AND DECK NOTES**

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## BF1000 - JOIST HANDLING AND ERECTION NOTES

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### RECOMMENDATIONS FOR HANDLING AND ERECTING NBG STEEL JOISTS

- 1) CHECK QUANTITIES, MARK NUMBER, AND CONDITION OF JOIST AND ACCESSORIES ON ARRIVAL. NOTE ON THE DELIVERY TICKETS ANY SHORTAGES OR DISCREPANCIES. NUCOR BUILDINGS GROUP WILL NOT BE LIABLE FOR ANY SHORTAGES OR DAMAGE NOT NOTED.
- 2) WHEN UNLOADING BY CRANE, ALWAYS HOOK CHAINS OR SLING TO TOP OR BOTTOM CHORDS AT PANEL POINTS, PREFERABLY AT 1/3 POINTS. NEVER HOOK TO WEB MEMBERS OR JERK WHILE LIFTING. WHEN UNLOADING BY HAND, USE EXTREME CARE WHEN BREAKING BUNDLES AND UNLOAD EACH JOIST SEPARATELY.
- 3) STORE JOIST IN BUNDLES IN A VERTICAL POSITION ON WOOD BLOCKING PLACED AT PANEL POINTS. LIGHTER JOISTS SHOULD BE STACKED ON HEAVIER JOISTS IF MORE THAN ONE LAYER IS REQUIRED. STORE JOIST ON SIDES IF HEIGHT OF BUNDLE IS GREATER THAN TWICE ITS WIDTH. JOIST FROM BROKEN BUNDLES SHOULD BE LAID FLAT ON BLOCKING TO PREVENT SAGGING OF JOIST. COVER JOIST TO PROTECT PRIME COAT IF THEY ARE NOT ERECTED IMMEDIATELY.
- 4) ERECTION MUST BE DONE WITH PLANS NOTED "FOR CONSTRUCTION". REFERENCE ERECTION DRAWINGS FOR ORIENTATION OF TAGGED ENDS OF JOISTS.
- 5) NUCOR BUILDINGS GROUP MUST BE NOTIFIED AT ONCE IF JOISTS AND/OR ACCESSORIES CANNOT BE ERECTED ACCORDING TO THE FINAL CONSTRUCTION PLANS. NUCOR BUILDINGS GROUP WILL NOT BE RESPONSIBLE FOR ANY FIELD REPAIRS OR CHANGES MADE WITHOUT PRIOR CONSENT.
- 6) DO NOT COMPLETELY WELD JOIST TO BEARING SUPPORT UNTIL PROPERLY ALIGNED. AS SOON AS THE JOIST IS IN POSITION, ONE END OF THE JOIST SHALL BE ATTACHED TO ITS SUPPORT IN ACCORDANCE WITH THE NOTES BELOW BEFORE ALLOWING THE WEIGHT OF AN ERECTOR ON THE JOIST. ALIGN THE JOISTS WHILE INSTALLING THE BRIDGING, DO NOT ATTEMPT TO ALIGN OR STRAIGHTEN JOIST IN GROUPS AFTER INSTALLATION AND PERMANENT ATTACHMENT TO THE BEARING SUPPORTS HAS BEEN MADE.
  - 6a) JOISTS - ENDS OF JOISTS RESTING ON STEEL SUPPORTS SHALL BE CONNECTED THERE TO WITH A MINIMUM OF THE EQUIVALENT OF: SHORT SPAN - (2) 3/16" FILLET WELDS 2 1/2" LONG, OR WITH (2) 1/2"Ø BOLTS; LONGSPAN - (2) 3/16" FILLET WELDS 2 1/2" LONG, OR WITH TWO 3/4"Ø A325 BOLTS. WHEN BOLTED CONNECTIONS ARE USED, BOLTS MUST BE "SNUG TIGHTENED" PER THE LATEST AISC SPECIFICATION. THE NUCOR BUILDINGS GROUP CONSTRUCTION DRAWINGS SHOULD BE REVIEWED TO DETERMINE WHETHER ADDITIONAL WELDING IS REQUIRED DUE TO SPECIAL CONDITIONS.
  - 6b) BOTH ENDS OF ALL STEEL JOISTS OR COLD-FORMED JOISTS SHALL BE FULLY BOLTED AND/OR WELDED TO THE SUPPORT STRUCTURE BEFORE:
    - a) RELEASING THE HOISTING CABLES;
    - b) ALLOWING AN EMPLOYEE ON THE JOISTS; OR
    - c) ALLOWING ANY CONSTRUCTION LOADS ON THE JOISTS.
- 7) THE ERECTION STABILITY AND HANDLING REQUIREMENTS FOR K-SERIES AND LH-SERIES STEEL JOISTS REFLECT THAT ALL BRIDGING BOLTS ARE TO BE INSTALLED "SNUG TIGHTENED" PER THE LATEST AISC SPECIFICATION.
- 8) NUCOR BUILDINGS GROUP JOISTS ARE FABRICATED TO MEET THE ERECTION REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA). FIELD COMPLIANCE WITH THIS ACT IS NECESSARY. PER OSHA REQUIREMENTS, ALL JOISTS WITH A SPAN OF 40'-0" OR LONGER, AS WELL AS THE JOISTS LISTED IN THE CHART BELOW, ARE TO HAVE A ROW OF BOLTED DIAGONAL BRIDGING INSTALLED PRIOR TO SLACKENING THE HOISTING CABLES. ALL BRIDGING BOLTS ARE TO BE INSTALLED "SNUG TIGHTENED" PER THE LATEST AISC SPECIFICATION.
- 9) HORIZONTAL BRIDGING FOR WELDED CONNECTIONS ARE SHIPPED IN 20'-0" LENGTHS. HORIZONTAL BRIDGING FOR BOLTED CONNECTIONS WILL BE CUT TO LENGTH. ALL HORIZONTAL BRIDGING SHALL HAVE A STANDARD 3" LAP WITH A MINIMUM OF (2) 3/16" X 1" FILLET WELDS. ALL DROPS MUST BE USED. BRIDGING SHALL BE CONNECTED TO THE JOIST CHORDS WITH A MINIMUM OF: SHORTSPAN/LONGSPAN - 3/16" FILLET WELD 1" LONG OR (1) 3/8" BOLT.
- 10) DO NOT CUT AWAY ANY CHORDS OR WEBS.
- 11) JOIST CHORDS ARE NOT DESIGNED FOR CONCENTRATED LOADS. EITHER PLACE LOADS AT PANEL POINTS OR FIELD WELD AN EXTRA MEMBER FROM POINT OF LOAD TO NEAREST PANEL POINT ON OPPOSITE CHORD AT NO EXPENSE TO NUCOR BUILDINGS GROUP. SEE SPECIFIC DETAILS ON THESE DRAWINGS.
- 12) CONTRACTOR SHALL PROVIDE MEANS FOR ADEQUATE DISTRIBUTION OF CONCENTRATED LOADS SO THAT THE CARRYING CAPACITY OF ANY JOIST IS NOT EXCEEDED. DO NOT APPLY ANY LOADS TO JOISTS UNTIL ALL BRIDGING IS COMPLETELY INSTALLED AND JOISTS ARE PERMANENTLY FASTENED INTO PLACE.
- 13) METAL DECK OR CENTERING MUST BE ATTACHED TO THE TOP CHORD OF THE JOIST AT MAXIMUM OF 36" TO PROVIDE THE REQUIRED PERMANENT LATERAL BRACING. FOLLOW THE MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION OF DECK OR CENTERING. SEE DECK ATTACHMENT DETAIL.
- 14) FIELD WELDING SHALL NOT DAMAGE JOISTS.
- 15) ERECT BOTTOM CHORD BEARING JOIST WITH CAMBER UPWARD.
- 16) ONLY MATCHED HALVES OF BOLTED FIELD SPLICED JOISTS ARE TO BE BOLTED TOGETHER. REFERENCE INSTRUCTIONS PROVIDED ON NUCOR BUILDINGS GROUP CONSTRUCTION DRAWINGS.
- 17) NO HOLES ARE PROVIDED IN THE JOISTS FOR THE ATTACHMENT OF OTHER TRADES AND ARE DESIGNED AS SUCH.
- 18) IT IS RECOMMENDED THAT CFR BUNDLES BE PLACED DIRECTLY ABOVE THE RIGID FRAMES AS STATED IN THE NUCOR BUILDINGS GROUP CFR ERECTION MANUAL.

\* THESE ARE GENERAL NOTES ONLY. IF A DISCREPANCY EXISTS BETWEEN THE FINAL PLANS FOR FIELD USE AND THESE NOTES, THEN THE FINAL PLANS TAKE PRECEDENCE.

UNDER NO CIRCUMSTANCES ARE DECK BUNDLES OR CONSTRUCTION LOADS OF ANY DESCRIPTION TO BE PLACED ON UNBRIDGED JOISTS.

SHORT SPAN (K-series joists):  
(One row must be installed)

8K thru 12K	23 feet
14K thru 16K	27 feet
18K thru 20K	31 feet
22K thru 24K	34 feet
26K	38 feet
28K and up	40 feet

LONG SPAN (LH-series joists):  
(Two rows must be installed)

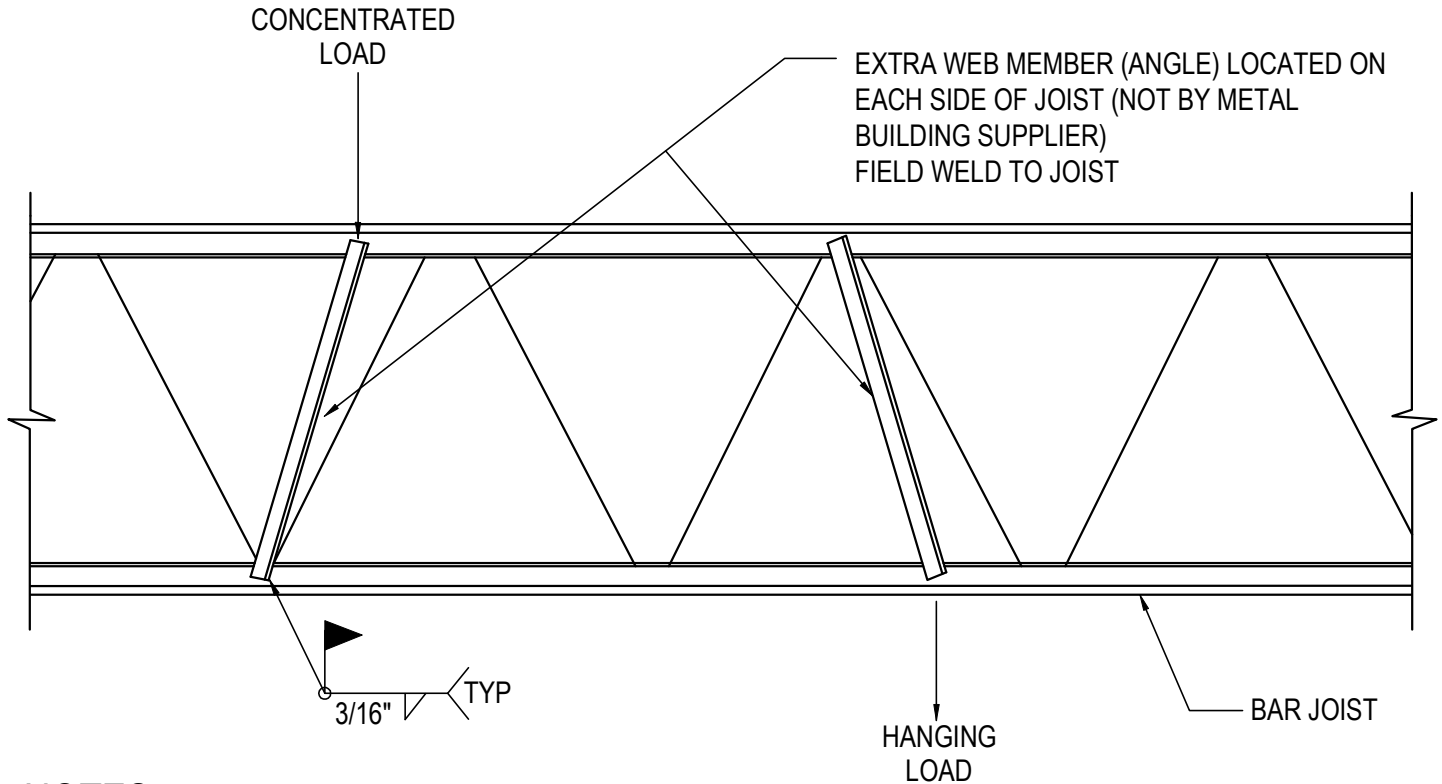
18LH thru 24LH	33 feet
28LH and up	40 feet

#### Detailer Notes:

- 1) N/A

## BF1010 - JOIST REINFORCING DETAIL

[Download the DWG file by clicking here.](#)



### NOTES:

1. A MAXIMUM OF 100 POUNDS CAN BE PLACED ANYWHERE ON JOISTS CHORDS BEFORE ADDING REINFORCING ANGLES, PROVIDED THE LOAD IS ACCOUNTED FOR IN THE ORIGINAL UNIFORM COLLATERAL DEAD LOAD.
2. NO HOLES MAY BE DRILLED IN CHORD ANGLES.
3. LOADS MUST BE EQUALLY SUPPORTED BY BOTH CHORD ANGLES.
4. DO NOT EXCEED 80 POUNDS MAXIMUM FOR ANY LOAD HANGING FROM A PIPE CLAMP FROM ONE ANGLE OF THE TOP OR BOTTOM CHORD.
5. A POINT LOAD GREATER THAN 100 POUNDS BUT LESS THAN 500 POUNDS MUST BE APPLIED AT A POINT OR HAVE EXTRA WEB MEMBERS TRANSFERRING THE LOAD TO WITHIN 3" OF THE OPPOSITE CORD PANEL POINT. THE ERECTOR IS RESPONSIBLE FOR OBTAINING AND FIELD INSTALLING THE EXTRA REINFORCED ANGLE. LOADS OVER 500 POUNDS SHOULD NOT BE INSTALLED UNTIL AUTHORIZED BY METAL BUILDING SUPPLIER.

## JOIST REINFORCING DETAIL

**BF1010**

### Detailer Notes:

- 1) THIS DETAIL IS REQUIRED ON ALL JOIST PROJECTS
- 2) NUCOR BUILDINGS GROUP DOES NOT NEED TO PROVIDE ANGLE FOR THIS DETAIL ANY LONGER.

## BF1020 - STEEL DECK HANDLING AND ERECTION

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### RECOMMENDATIONS FOR HANDLING AND ERECTING OF NBG STEEL DECK\*

- 1) CHECK QUANTITIES OF DECK AND ACCESSORIES ON ARRIVAL. NOTE ON THE DELIVERY TICKET ANY SHORTAGES OR DISCREPANCIES. NUCOR BUILDINGS GROUP WILL NOT BE LIABLE FOR ANY SHORTAGES OR DAMAGE NOT NOTED.
- 2) WHEN UNLOADING NUCOR BUILDINGS GROUP STEEL DECK USE CARE TO AVOID ANY DAMAGE TO THE MATERIAL. NUCOR BUILDINGS GROUP IS NOT RESPONSIBLE FOR DAMAGE INCURRED WHILE UNLOADING.
- 3) NUCOR BUILDINGS GROUP STEEL DECK SHOULD BE STORED OFF THE GROUND WITH ONE END ELEVATED TO PROVIDE DRAINAGE. A WATERPROOF COVER SHOULD BE PROVIDED WITH PROPER VENTILATION TO AVOID CONDENSATION.
- 4) DECK BUNDLES NORMALLY WEIGH 4000 POUNDS. CARE MUST BE TAKEN TO AVOID OVERLOADING OF STRUCTURAL ELEMENTS WHEN PLACING BUNDLES ON THE ROOF OR FLOOR.
- 5) DO NOT USE NUCOR BUILDINGS GROUP STEEL DECK AS A WORKING PLATFORM UNTIL THE DECK IS WELDED IN PLACE. LOOSE DECK SHEETS SHALL BE SECURED TO PREVENT THE WIND FROM DISPLACING THE SHEETS AND CAUSING INJURY TO PERSONS OR PROPERTY.
- 6) NUCOR BUILDINGS GROUP STEEL DECK SHALL BE ERECTED WITH A MINIMUM BEARING OF 1 1/2" UNLESS OTHERWISE SHOWN.
- 7) CUTTING AND FRAMING OF OPENINGS NOT SHOWN ON NUCOR BUILDINGS GROUP ERECTION DRAWINGS SHALL BE THE RESPONSIBILITY OF THE TRADES INVOLVED.
- 8) SKEW CUTS SHALL BE RESPONSIBILITY OF THE DECK ERECTOR.
- 9) ALL CONSTRUCTION LIVE LOADS DURING ERECTION, ROOFING, OR POURING OF CONCRETE MUST BE DISTRIBUTED APPROPRIATE MEANS TO PREVENT DAMAGE TO NUCOR BUILDINGS GROUP STEEL DECK AS WELL AS ALL STRUCTURAL COMPONENTS.
- 10) WHEN USING NUCOR BUILDINGS GROUP STEEL DECK WITH INTERLOCKING SIDELAPS, CORRECTLY ALIGN SHEETS TO OBTAIN PROPER COVERAGE. DO NOT BUTTON-PUNCH SIDELAPS UNTIL ALL DECK IS WELDED IN PLACE.
- 11) NUCOR BUILDINGS GROUP 1.5C AND 1.5VLR DECK IS BUNDLED "UPSIDE-DOWN" AND MUST BE INVERTED WHEN IT IS ERECTED.
- 12) THE ENDS OF NUCOR BUILDINGS GROUP COMPOSITE DECK SHALL BE BUTTED (NOT LAPPED) TO FACILITATE THE USE OF STUDS WHEN REQUIRED.
- 13) IF STUDS ARE BEING APPLIED THROUGH THE DECK ONTO THE STRUCTURAL STEEL, THE STUD WELDS CAN BE USED TO REPLACE THE PUDDLE WELDS.
- 14) NUCOR BUILDINGS GROUP DECK ACCESSORIES ARE TO BE POSITIVELY ATTACHED BY WELDING, SCREWING, OR BUTTON-PUNCHING AS FOLLOWS:
  - A) POUR STOP AT 12" ON CENTER.
  - B) GIRDER FILLERS AND SPLIT DECK SHEETS AT 18" ON CENTER.
  - C) END CLOSURES AT 36" ON CENTER.
  - D) SUMP PANS AT 6" ON CENTER.
  - E) FLAT, RIDGE AND VALLEY PLATE AT 12" ON CENTER.
- 15) NUCOR BUILDINGS GROUP STEEL DECK IS FABRICATED AND PAINTED IN ACCORDANCE WITH SDI SPECIFICATIONS AND TOLERANCES. THE STANDARD FACTORY APPLIED PAINT FOR DECK IS A PRIMER PAINT AND IS NOT INTENDED TO WEATHER FOR AN EXTENDED PERIOD OF TIME. FIELD PAINTING, TOUCH-UP ABRASIONS AND DETERIORATION OF THE PRIMER COAT OR OTHER PROTECTIVE FINISHES ARE THE RESPONSIBILITY OF THE BUILDER. NUCOR BUILDINGS GROUP DOES NOT OFFER WARRANTIES FOR DECK.

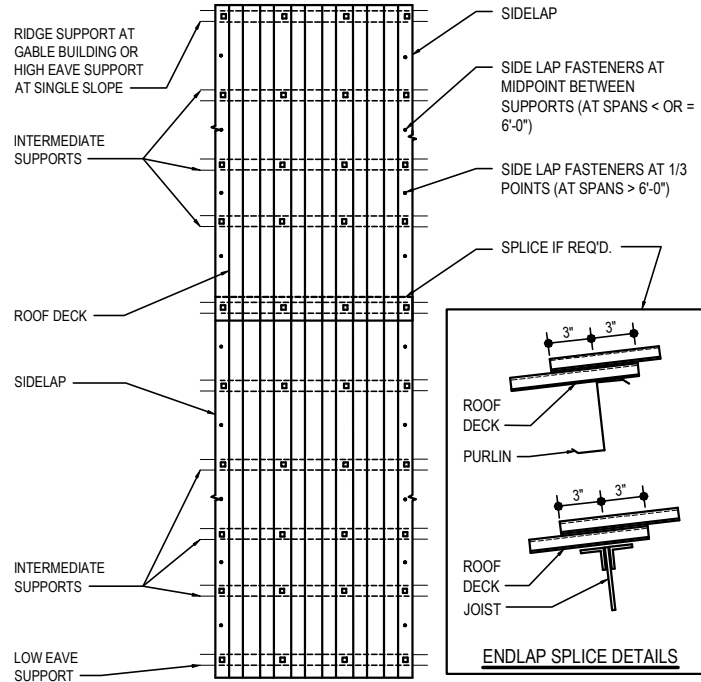
\*THESE ARE GENERAL NOTES ONLY. IF A DISCREPANCY EXISTS BETWEEN THE FINAL PLANS FOR FIELD USE AND THESE NOTES, THE THE FINAL PLANS TAKE PRECEDENCE.

### Detailer Notes:

- 1) N/A

## BF1030 - STEEL ROOF DECK ERECTION NOTES

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### WELDED DECK:

- SIDE LAP FASTENERS H1060
  - WELD LOCATIONS:  
1.5B-5/8" Ø PUDDLE WELD  
1.5F-5/8" Ø PUDDLE WELD  
0.6C-3/8" Ø PUDDLE WELD WITH WELD WASHERS
- (NOTE: \*\* WELD WASHERS SHOULD BE 16 GA WITH 3/8" DIAMETER HOLES).

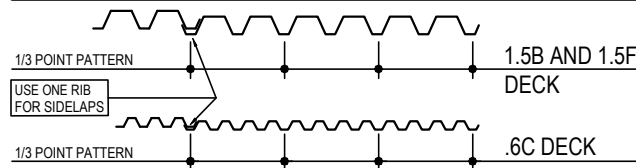
### SCREW DOWN DECK:

- SIDE LAP FASTENERS H1060
- STRUCTURAL FASTENERS H1070 AT JOISTS H1020 AT PURLINS & EAVE STRUTS

### DECK INFORMATION

TYPE:	???
GAUGE:	???
FINISH:	???
COVERAGE:	???

ERECTOR NOTE: PARTIAL SHEETS SHOULD BE ATTACHED IN EVERY FLUTE. END LAPS TO OCCUR AT SUPPORTS ONLY, MINIMUM 3" LAP.



## STEEL ROOF DECK ERECTION NOTES

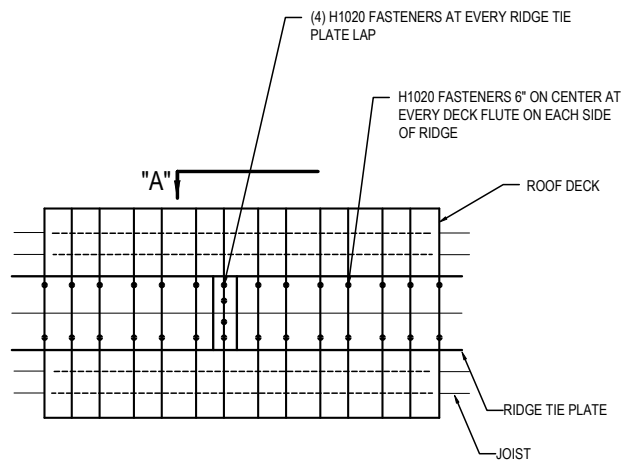
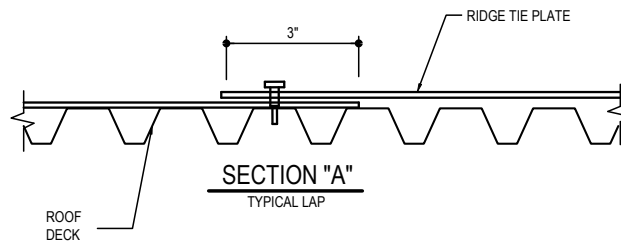
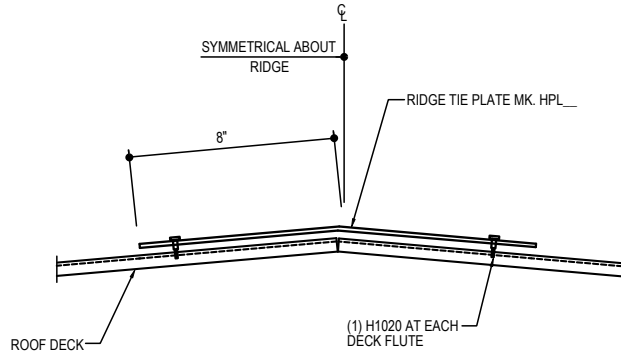
**BF1030**

### Detailer Notes:

- 1) DETAIL BF1030 IS NOT TO BE USED BY NBGUT. CONSULT DESIGN ENGINEER FOR ALTERNATIVE DECK MATERIAL AND FASTENER REQUIREMENTS.
- 2) THIS DETAIL UTILIZES ATTRIBUTES. TO ACCESS ATTRIBUTES DOUBLE CLICK ON THE DETAIL.

## BF1040 - RIDGE TIE PLATE

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### RIDGE TIE PLATE DETAIL

"DECK ROOF" WITH RIDGE TIE PLATE

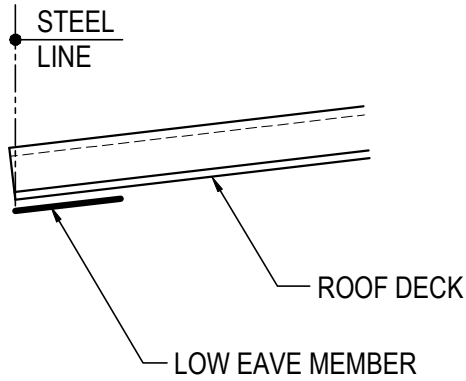
**BF1040**

#### Detailer Notes:

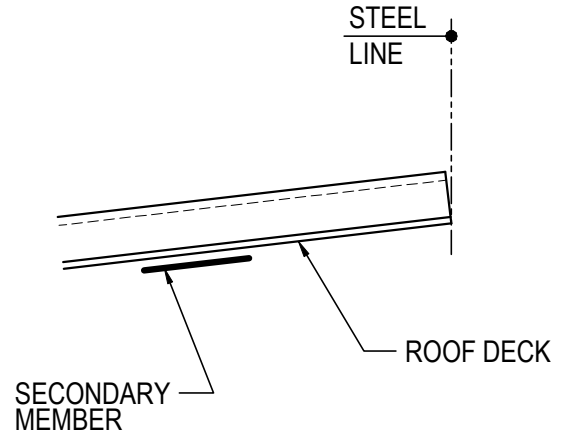
- 1) THIS DETAIL SHOULD ONLY BE USED WHEN SPECIFIED BY THE ENGINEER IN THE DESIGN PACKET

## BF1050 - ROOF DECK TERMINATION DETAILS

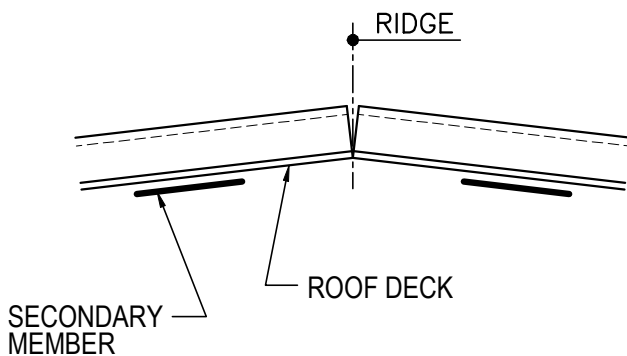
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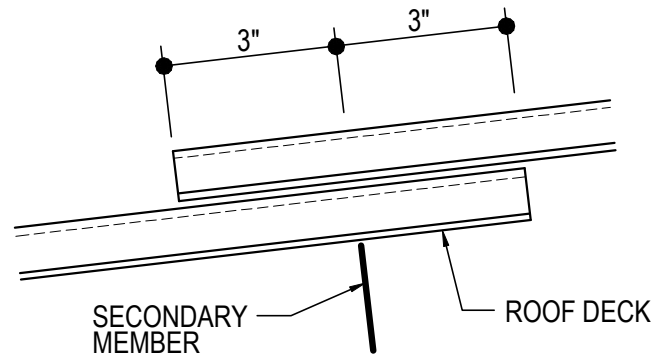
LOW EAVE



HIGH EAVE



RIDGE



ENDLAP SPLICE

## ROOF DECK TERMINATION DETAILS

DECK SUPPLIED BY NUCOR BUILDINGS GROUP  
FINISHED ROOFING MATERIALS BY OTHERS  
SEE "STEEL ROOF DECK ERECTION NOTES" FOR FASTENER REQUIREMENTS

**BF1050**

### Detailer Notes:

- 1) ADD THIS DETAIL TO DRAWING SET WHEN SUPPLYING ROOF DECK ONLY (FINISHED ROOFING MATERIALS BY OTHERS)
- 2) U.N.O. IN CONTRACT, END OF ROOF DECK TERMINATES AT STEEL LINE AS SHOWN ABOVE.