

## **ROOF JOIST BRIDGING DETAILS**

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- BI9007 - BOLTED HORIZONTAL BRIDGING
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-

BI9000 - FRAMING PLAN NOTE

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THIS IS THE JOIST FRAMING PLAN. FOR ALL JOIST BRIDGING REQUIREMENTS AND INSTALLATION DETAILS, REFERENCE THE SEPARATE JOIST BRIDGING PACKET.

Detailer Notes:

1) N/A

BI9001 - ROOF COVER PAGE

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# ROOF JOIST BRIDGING REQUIREMENTS AND INSTALLATION DETAILS

ROOF JOIST BRIDGING ERECTION NOTE:

*The manufacturer of the roof joists under the Nucor Building Group Contract for this project has determined the bridging requirements for stability and safety. The joist manufacturer has selected a bridging "Condition" for each bay of joist and has identified these conditions on the Joist Bridging Plan. Cross reference the plan with the details to determine the bridging requirements in each joist bay.*

Detailer Notes:

1) N/A

BI9002 - ROOF FRAMING PLAN NOTES

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**ERECTION NOTE:**  
IDENTIFY THE JOIST BRIDGING 'CONDITIONS' ON THIS PLAN FOR EACH BAY, AND REFER TO THE FOLLOWING DETAIL SHEETS FOR SPECIFIC INSTALLATION AND TERMINATION GUIDANCE. JOIST MUST BE ERECTED IN ACCORDANCE WITH O.S.H.A. SAFETY REGULATIONS AND WELDING PERFORMED BY A.W.S. QUALIFIED WELDERS FOR THE WELDING PROCESSES AND POSITIONS INDICATED.

**JOIST BRIDGING PLAN**

Detailer Notes:

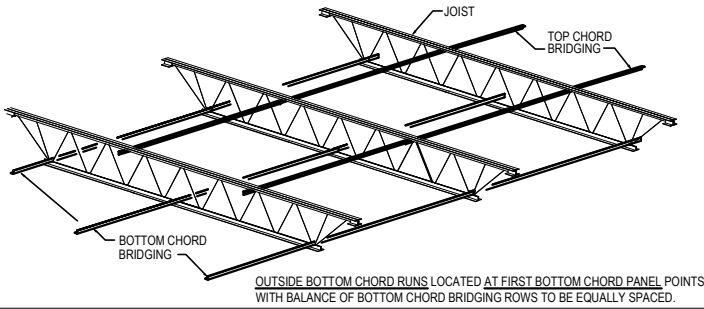
- 1) CONDITION "R" SHOWN FOR REFERENCE ONLY, ADJUST AS REQUIRED

BI9003 - WELDED ROOF BRIDGING

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

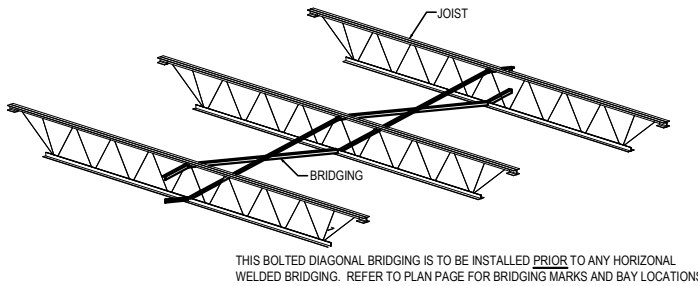
## WELDED HORIZONTAL

### JOIST BRIDGING DETAIL



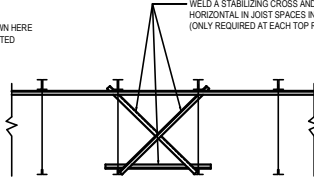
## BOLTED DIAGONAL

### JOIST BRIDGING DETAIL

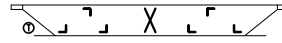


**ERECTION NOTE:**  
WELDED STABILIZING CROSSES SHOWN HERE ARE NOT TO BE CONFUSED WITH BOLTED DIAGONAL BRIDGING.

WELD A STABILIZING CROSS AND ADDITIONAL STABILIZATION HORIZONTAL IN JOIST SPACES INDICATED WITH \*\* ON THE BRIDGING PLAN. (ONLY REQUIRED AT EACH TOP RUN OF HORIZONTAL BRIDGING U.N.O.)

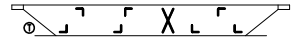


**CONDITION X**



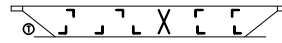
**CONDITION A**

2 ROWS H TOP, 4 ROWS H BOTTOM, 1 ROW X



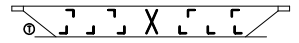
**CONDITION B**

3 ROWS H TOP, 4 ROWS H BOTTOM, 1 ROW X



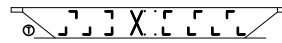
**CONDITION C**

4 ROWS H TOP, 5 ROWS H BOTTOM, 1 ROW X



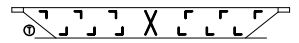
**CONDITION D**

4 ROWS H TOP, 6 ROWS H BOTTOM, 1 ROW X



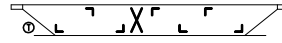
**CONDITION E**

5 ROWS H TOP, 7 ROWS H BOTTOM, 1 ROW X



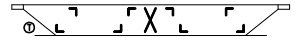
**CONDITION F**

6 ROWS H TOP & 6 ROWS H BOTTOM, 1 ROW X



**CONDITION G**

3 ROWS H TOP, 4 ROWS H BOTTOM, 1 ROW X



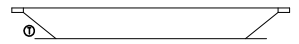
**CONDITION H**

4 ROWS H TOP, 4 ROWS H BOTTOM, 1 ROW X



**CONDITION J**

OTHER



**CONDITION K**

OTHER

### BRIDGING REQUIREMENT CONDITIONS FOR ROOF

**NOTES:**

H = HORIZONTAL WELDED BRIDGING  
X = BOLTED DIAGONAL BRIDGING

-LOCATE THE FIRST ROW OF BOTTOM CHORD BRIDGING AT THE FIRST BOTTOM CHORD PANEL POINT, AT EACH END.

-TOP AND BOTTOM BRIDGING ROWS SHOULD BE EQUALLY SPACED AND ARE INDEPENDENT OF EACH OTHER, AND MAY NOT LINE UP

BI9003

**Detailer Notes:**

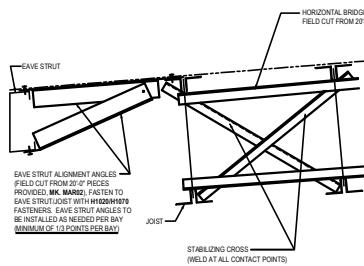
1) THIS DETAIL CAN BE USED FOR STANDING SEAM ROOFS, BUT CONSIDER USING DETAIL BI9005 TO HELP ELIMINATE CONFUSION IN THE FIELD ABOUT PROPER WELD LOCATIONS FOR HORIZONTAL BRIDGING.

BI9004 - WELDED ROOF BRIDGING TERMINATION

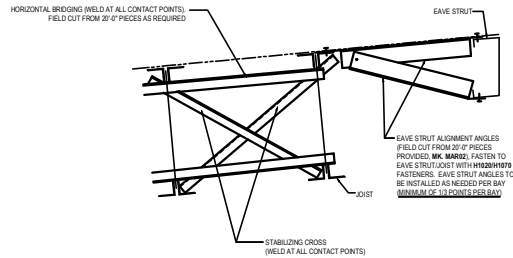
[Download the DWG file by clicking here.](#)

WELDED HORIZONTAL BRIDGING TERMINATION CONDITIONS

**NOTE:**  
IF TOP & BOTTOM CHORD HORIZONTAL BRIDGING DOES NOT LINE UP  
LOCATE BRIDGING "X" AT BOTH TOP & BOTTOM CHORD HORIZONTAL BRIDGING LOCATIONS.



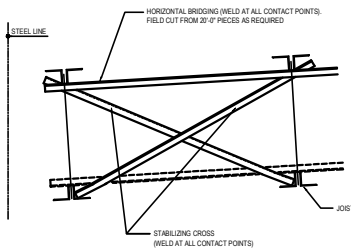
**CONDITION R**  
LOW EAVE AT EAVE STRUT



**CONDITION X**  
HIGH EAVE AT EAVE STRUT

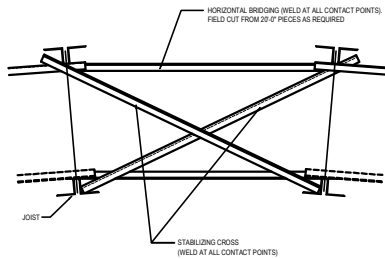
**NOTES: TERMINATION CROSS BRIDGING WILL BE LOCATED AT ALL TOP & BOTTOM CHORD ROWS. BRIDGING DOES NOT TYPICALLY LINE UP FROM TOP TO BOTTOM. PROVIDE ACCESSORIES TO ACCOMMODATE.**

**NOTE:**  
IF TOP & BOTTOM CHORD HORIZONTAL BRIDGING DOES NOT LINE UP  
LOCATE BRIDGING "X" AT BOTH TOP & BOTTOM CHORD HORIZONTAL BRIDGING LOCATIONS.



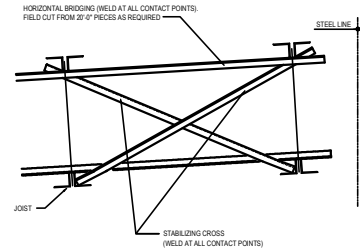
**CONDITION S**  
LOW EAVE AT SIMPLE WALL

**NOTE:**  
IF TOP & BOTTOM CHORD HORIZONTAL BRIDGING DOES NOT LINE UP  
LOCATE BRIDGING "X" AT BOTH TOP & BOTTOM CHORD HORIZONTAL BRIDGING LOCATIONS.



**CONDITION T**  
STANDARD RIDGE CONDITION

**NOTE:**  
IF TOP & BOTTOM CHORD HORIZONTAL BRIDGING DOES NOT LINE UP  
LOCATE BRIDGING "X" AT BOTH TOP & BOTTOM CHORD HORIZONTAL BRIDGING LOCATIONS.



**CONDITION U**  
HIGH EAVE AT SIMPLE WALL

BI9004

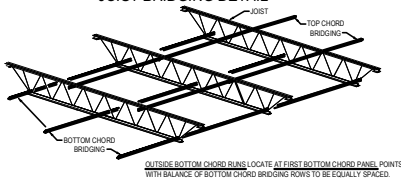
Detailer Notes:

- 1) N/A

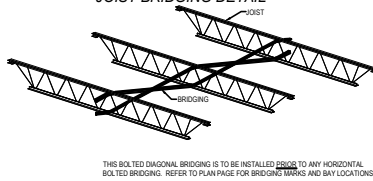
BI9005 - WELDED ROOF BRIDGING (STANDING SEAM ONLY)

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

**WELDED HORIZONTAL**  
JOIST BRIDGING DETAIL

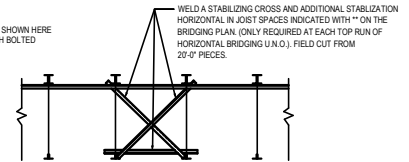


**BOLTED DIAGONAL**  
JOIST BRIDGING DETAIL



**ERECTION NOTE:**

WELDED STABILIZING CROSSES SHOWN HERE ARE NOT TO BE CONFUSED WITH BOLTED DIAGONAL BRIDGING.



**CONDITION X**

BI9005

Detailer Notes:

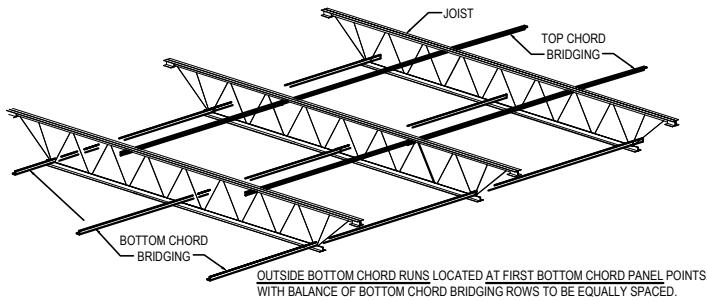
- 1) SEE THE WELDED BRIDGING EXAMPLE DRAWINGS. ALL THE JOISTS ARE SAVED AS BLOCKS IN MODEL SPACE. FOR LARGER PROJECTS YOU MAY NEED MORE THAN ONE OF THESE DETAILS.
- 2) THIS DETAIL IS TO ONLY BE USED AT STANDING SEAM ROOFS. THIS IS TO HELP THE ERECTORS TO PROPERLY LOCATE WELDED LOCATIONS OF THE HORIZONTAL BRIDGING.

BI9006 - BOLTED ROOF BRIDGING

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

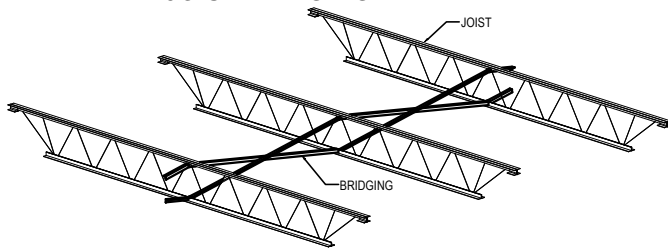
## BOLTED HORIZONTAL

### JOIST BRIDGING DETAIL



## BOLTED DIAGONAL

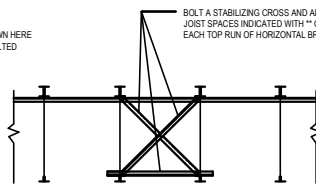
### JOIST BRIDGING DETAIL



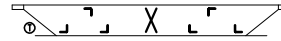
THIS BOLTED DIAGONAL BRIDGING IS TO BE INSTALLED PRIOR TO ANY HORIZONTAL BOLTED BRIDGING. REFER TO PLAN PAGE FOR BRIDGING MARKS AND BAY LOCATIONS.

**ERECTION NOTE:**  
BOLTED STABILIZING CROSSES SHOWN HERE ARE NOT TO BE CONFUSED WITH BOLTED DIAGONAL BRIDGING.

BOLT A STABILIZING CROSS AND ADDITIONAL STABILIZATION HORIZONTAL IN THE JOIST SPACES INDICATED WITH "\*" ON THE BRIDGING PLAN. (ONLY REQUIRED AT EACH TOP RUN OF HORIZONTAL BRIDGING U.N.O.)

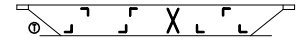


CONDITION X



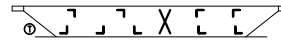
CONDITION A

2 ROWS H TOP, 4 ROWS H BOTTOM, 1 ROW X



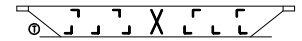
CONDITION B

3 ROWS H TOP, 4 ROWS H BOTTOM, 1 ROW X



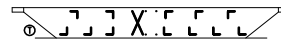
CONDITION C

4 ROWS H TOP, 5 ROWS H BOTTOM, 1 ROW X



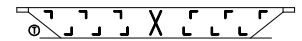
CONDITION D

4 ROWS H TOP, 6 ROWS H BOTTOM 1 ROW X



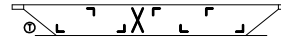
CONDITION E

5 ROWS H TOP, 7 ROWS H BOTTOM, 1 ROW X



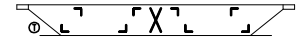
CONDITION F

6 ROWS H TOP & 6 ROWS H BOTTOM, 1 ROW X



CONDITION G

3 ROWS H TOP, 4 ROWS H BOTTOM, 1 ROW X



CONDITION H

4 ROWS H TOP, 4 ROWS H BOTTOM, 1 ROW X



CONDITION J

OTHER



CONDITION K

OTHER

### BRIDGING REQUIREMENT CONDITIONS FOR ROOF

**NOTES:**

H = HORIZONTAL WELDED BRIDGING  
X = BOLTED DIAGONAL BRIDGING

-LOCATE THE FIRST ROW OF BOTTOM CHORD BRIDGING AT THE FIRST BOTTOM CHORD PANEL POINT, AT EACH END.

BI9006

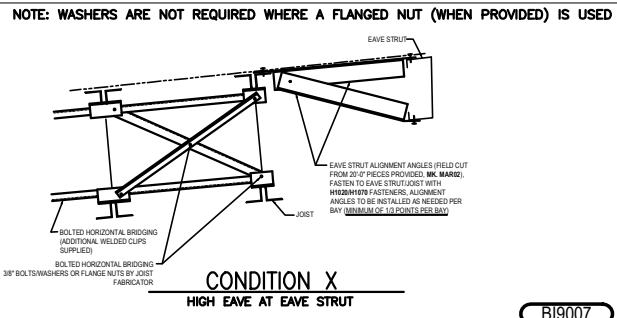
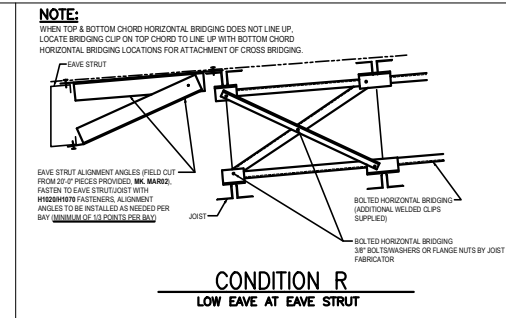
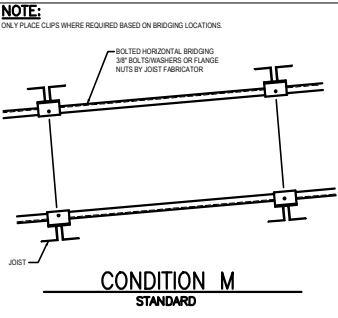
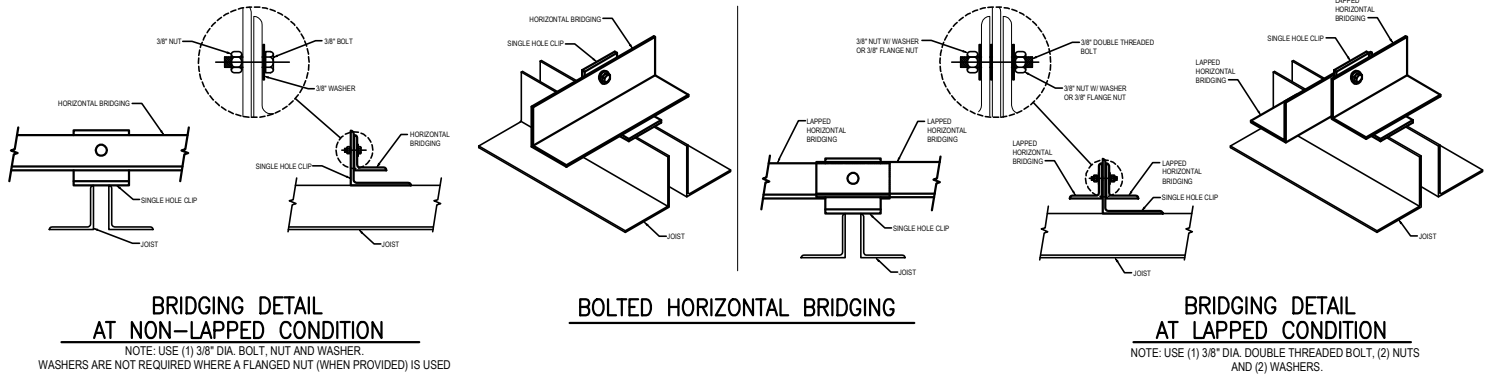
**Detailer Notes:**

1) N/A



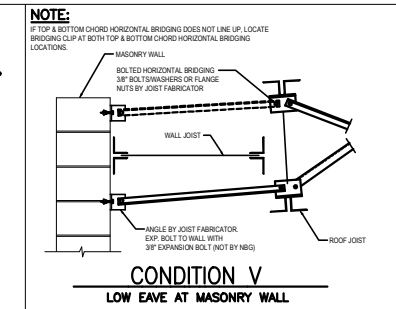
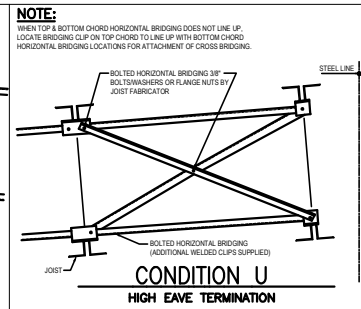
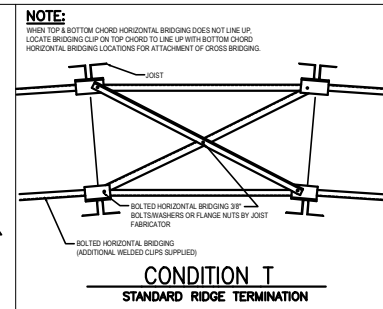
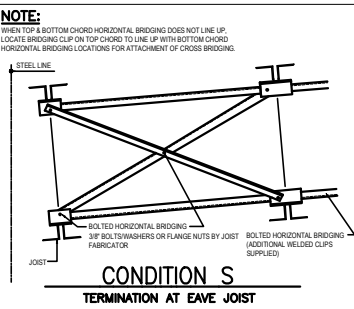
## BI9007 - BOLTED HORIZONTAL BRIDGING

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



BI9007

**NOTES:** TERMINATION CROSS BRIDGING WILL BE LOCATED AT ALL TOP & BOTTOM CHORD ROWS. BRIDGING DOES NOT TYPICALLY LINE UP FROM TOP TO BOTTOM. PROVIDE ACCESSORIES TO ACCOMMODATE.

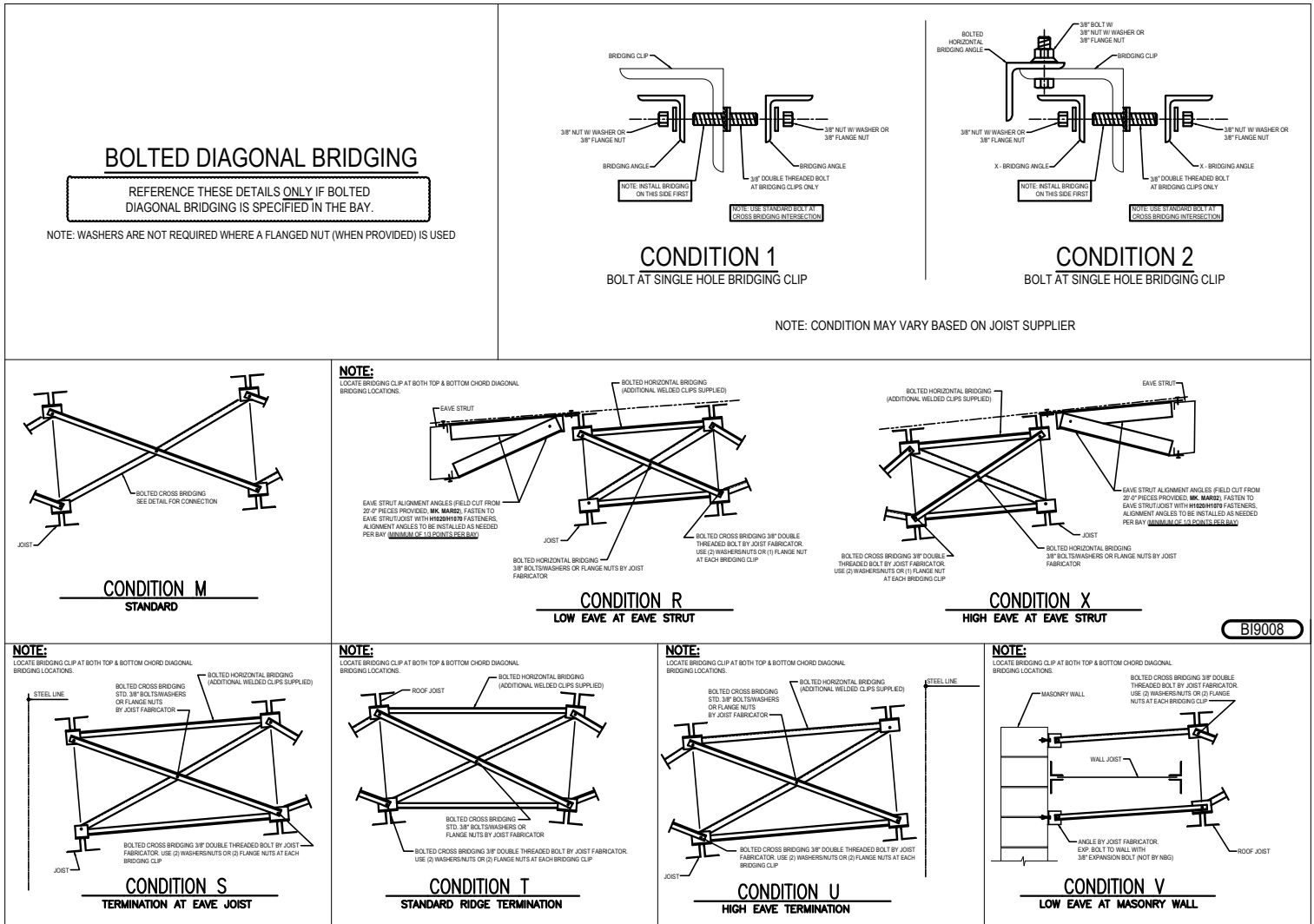


### Detailer Notes:

- 1) N/A

### BI9008 - BOLTED DIAGONAL BRIDGING

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



#### Detailer Notes:

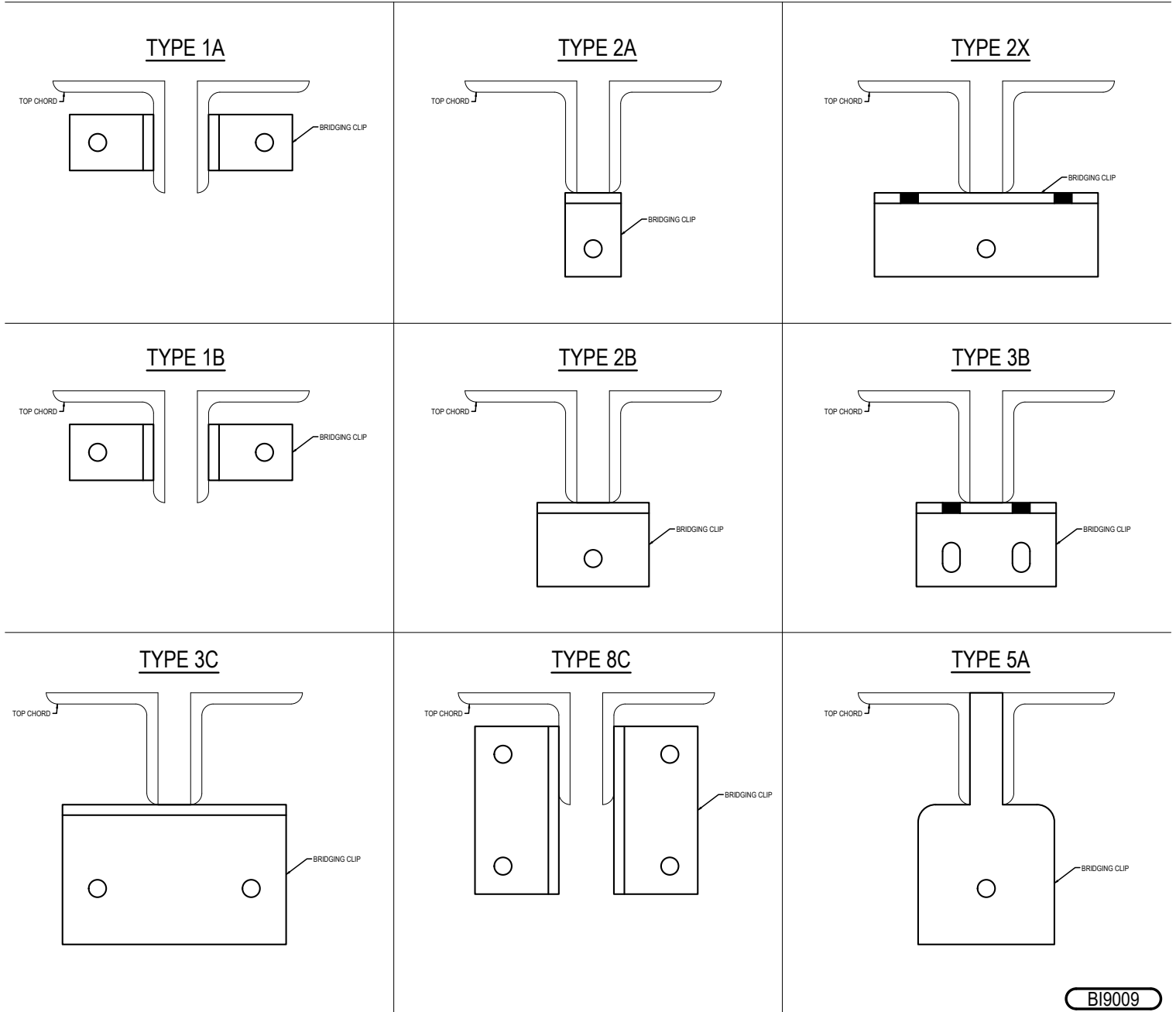
- 1) CONDITION STYLES VARY PER VULCRAFT DIVISION.

BI9009 - BOLTED BRIDGING CLIP STYLES

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

## BOLTED BRIDGING CLIP STYLES

NOTE: STYLES MAY VARY DEPENDING ON JOIST SUPPLIER.  
(TOP CHORD SHOWN / BOTTOM CHORD SIMILAR)



BI9009

Detailer Notes:

- 1) BRIDGING CLIP STYLES VARY PER VULCRAFT DIVISION.

BI9026 - MEZZANINE COVER PAGE

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

# MEZZANINE BRIDGING REQUIREMENTS AND INSTALLATION DETAILS

MEZZANINE JOIST BRIDGING ERECTION NOTE:

*The manufacturer of the mezzanine joists under the Nucor Building Group Contract for this project has determined the bridging requirements for stability and safety. The joist manufacturer has selected a bridging "Condition" for each bay of joist and has identified these conditions on the Joist Bridging Plan. Cross reference the plan with the details to determine the bridging requirements in each joist bay.*

Detailer Notes:

1) N/A

BI9027 - MEZZANINE FRAMING PLAN NOTES

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



**ERECTION NOTE:**  
IDENTIFY THE JOIST BRIDGING 'CONDITIONS' ON THIS PLAN FOR EACH BAY, AND REFER TO THE FOLLOWING DETAIL SHEETS FOR SPECIFIC INSTALLATION AND TERMINATION GUIDANCE. JOIST MUST BE ERECTED IN ACCORDANCE WITH O.S.H.A. SAFETY REGULATIONS AND WELDING PERFORMED BY A.W.S. QUALIFIED WELDERS FOR THE WELDING PROCESSES AND POSITIONS INDICATED.

**JOIST BRIDGING PLAN**

Detailer Notes:

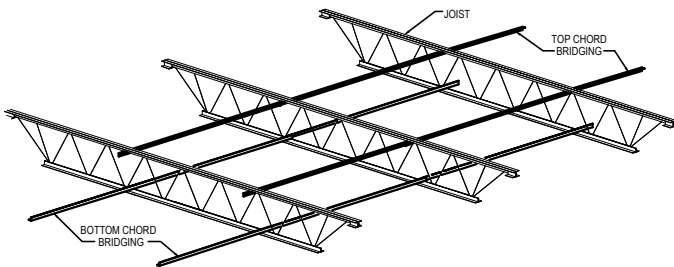
- 1) CONDITION "R" SHOWN FOR REFERENCE ONLY, ADJUST AS REQUIRED.

BI9028 - STANDARD MEZZANINE BRIDGING

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

## WELDED HORIZONTAL

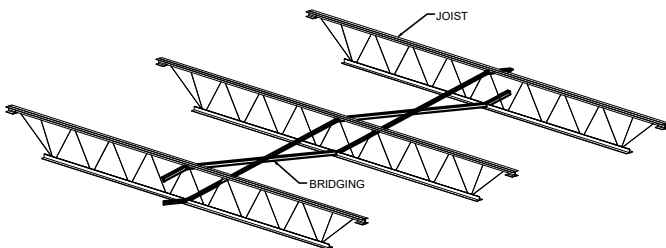
### JOIST BRIDGING DETAIL



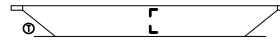
WELD HORIZONTAL BRIDGING AT ALL CONTACT POINTS.  
FIELD CUT FROM 20'-0" PIECES AS REQUIRED.

## BOLTED DIAGONAL

### JOIST BRIDGING DETAIL

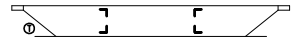


THIS BOLTED DIAGONAL BRIDGING IS TO BE INSTALLED PRIOR TO ANY HORIZONTAL WELDED BRIDGING. REFER TO PLAN PAGE FOR BRIDGING MARKS AND BAY LOCATIONS.



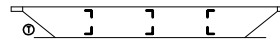
#### CONDITION A

1 ROW H TOP, 1 ROW H BOTTOM



#### CONDITION B

2 ROWS H TOP, 2 ROWS H BOTTOM



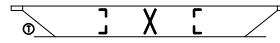
#### CONDITION C

3 ROWS H TOP, 3 ROWS H BOTTOM



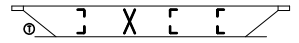
#### CONDITION D

4 ROWS H TOP, 4 ROWS H BOTTOM



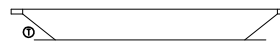
#### CONDITION E

2 ROWS H TOP & BOTTOM, 1 ROW X



#### CONDITION F

3 ROWS H TOP & BOTTOM, 1 ROW X



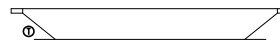
#### CONDITION G

OTHER



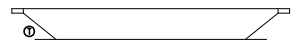
#### CONDITION H

OTHER



#### CONDITION J

OTHER



#### CONDITION K

OTHER

### BRIDGING REQUIREMENT CONDITIONS FOR MEZZANINE

**NOTES:** H = HORIZONTAL WELDED BRIDGING  
X = BOLTED DIAGONAL BRIDGING

- TOP AND BOTTOM BRIDGING ROWS SHOULD BE EQUALLY SPACED  
AND BOTTOM CHORD BRIDGING IS ALIGNED WITH TOP CHORD BRIDGING.

BI9028

Detailer Notes:

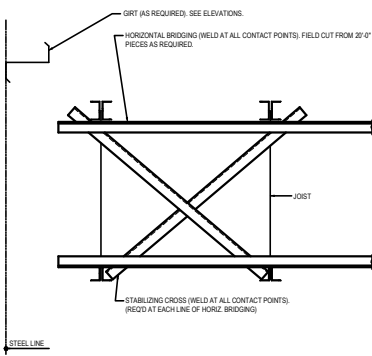
1) N/A

BI9029 - WELDED MEZZANINE BRIDGING TERMINATIONS

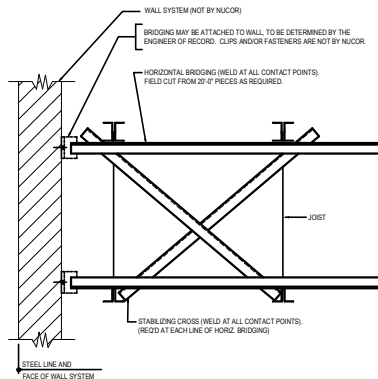
[Download the DWG file by clicking here.](#)

WELDED HORIZONTAL BRIDGING TERMINATION CONDITIONS

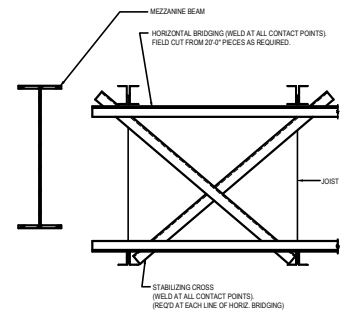
REFERENCE THESE DETAILS ONLY IF WELDED DIAGONAL BRIDGING IS SPECIFIED IN THE BAY.



**CONDITION N**  
MEZZANINE TERMINATION  
@ GIRT WALL



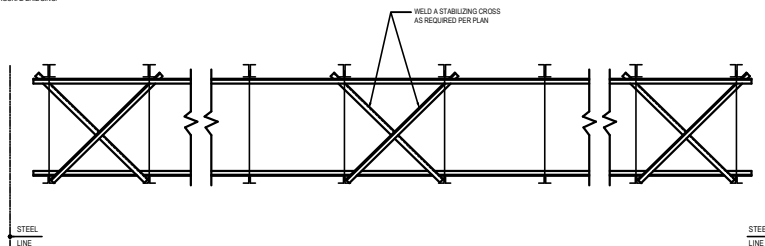
**CONDITION P**  
MEZZANINE TERMINATION  
@ ALTERNATE WALL



**CONDITION R**  
MEZZANINE TERMINATION  
@ MEZZANINE BEAM

**ERECTION NOTE:**

WELDED STABILIZING CROSSES SHOWN HERE ARE NOT TO BE CONFUSED WITH BOLTED DIAGONAL BRIDGING.



**CONDITION S**

BI9029

**Detailer Notes:**

- 1) N/A

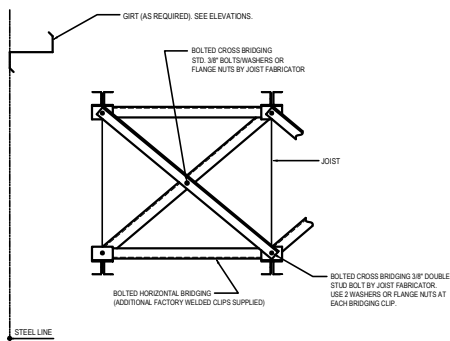
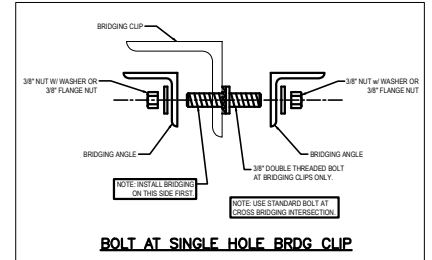
## BI9030 - BOLTED MEZZANINE BRIDGING TERMINATIONS

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

### BOLTED DIAGONAL BRIDGING TERMINATION CONDITIONS

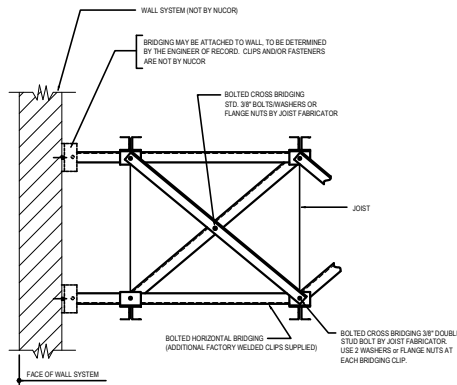
REFERENCE THESE DETAILS ONLY IF BOLTED DIAGONAL BRIDGING IS SPECIFIED IN THE BAY.

NOTE: WASHERS ARE NOT REQUIRED WHERE A FLANGED NUT (WHEN PROVIDED) IS USED



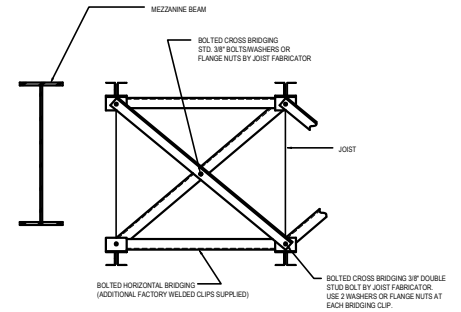
### CONDITION N

MEZZANINE TERMINATION  
@ GIRT WALL



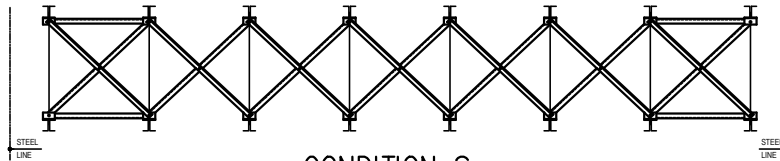
### CONDITION P

MEZZANINE TERMINATION  
@ ALTERNATE WALL



### CONDITION R

MEZZANINE TERMINATION  
@ MEZZANINE BEAM



### CONDITION S

BI9030

#### Detailer Notes:

- 1) N/A

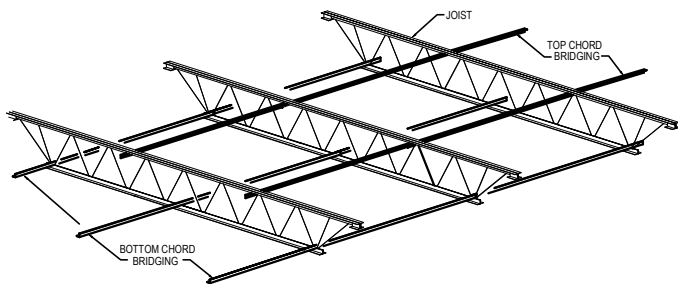


BI9031 - BOLTED MEZZANINE BRIDGING

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

## BOLTED HORIZONTAL

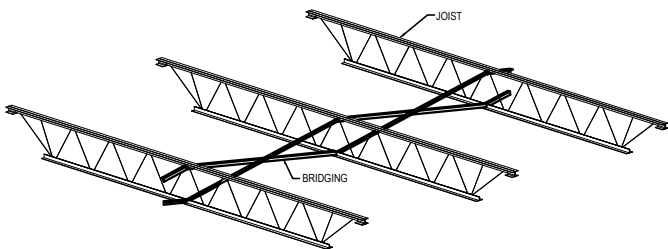
### JOIST BRIDGING DETAIL



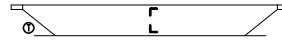
OUTSIDE BOTTOM CHORD RUNS LOCATED AT FIRST BOTTOM CHORD PANEL POINTS.  
WITH BALANCE OF BOTTOM CHORD BRIDGING ROWS TO BE EQUALLY SPACED

## BOLTED DIAGONAL

### JOIST BRIDGING DETAIL



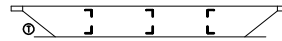
THIS BOLTED DIAGONAL BRIDGING IS TO BE INSTALLED PRIOR TO ANY HORIZONTAL  
BOLTED BRIDGING. REFER TO PLAN PAGE FOR BRIDGING MARKS AND BAY LOCATIONS



**CONDITION A**  
1 ROW H TOP, 1 ROW H BOTTOM



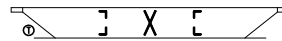
**CONDITION B**  
2 ROWS H TOP, 2 ROWS H BOTTOM



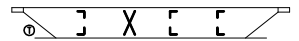
**CONDITION C**  
3 ROWS H TOP, 3 ROWS H BOTTOM



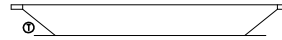
**CONDITION D**  
4 ROWS H TOP, 4 ROWS H BOTTOM



**CONDITION E**  
2 ROWS H TOP & BOTTOM, 1 ROW X



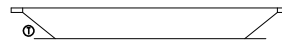
**CONDITION F**  
3 ROWS H TOP & BOTTOM, 1 ROW X



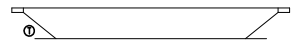
**CONDITION G**  
OTHER



**CONDITION H**  
OTHER



**CONDITION J**  
OTHER



**CONDITION K**  
OTHER

### BRIDGING REQUIREMENT CONDITIONS FOR MEZZANINE

**NOTES:** H = HORIZONTAL BOLTED BRIDGING  
X = BOLTED DIAGONAL

- TOP AND BOTTOM BRIDGING ROWS SHOULD BE EQUALLY SPACED.  
AND BOTTOM CHORD BRIDGING IS ALIGNED WITH TOP CHORD BRIDGING.

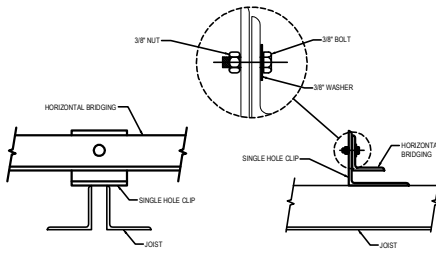
BI9031

Detailer Notes:

1) N/A

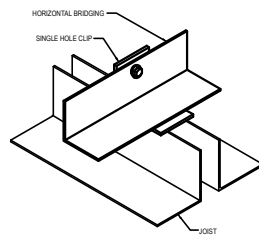
**BI9032 - BOLTED MEZZANINE BRIDGING**

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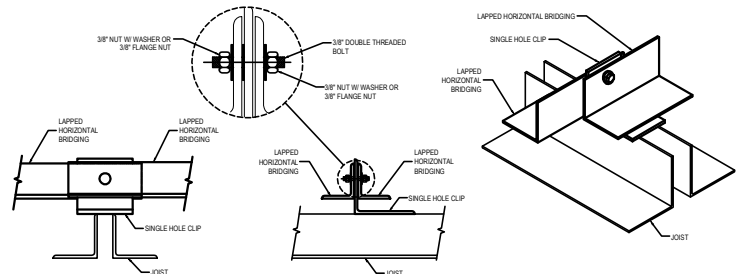


**BRIDGING DETAIL  
AT NON-LAPPED CONDITION**

NOTE: USE (1) 3/8\"/>

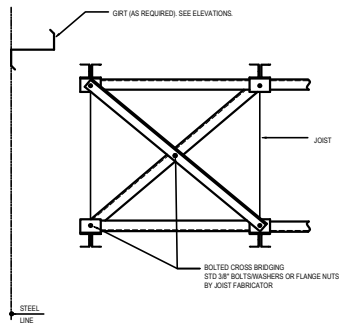


**BOLTED HORIZONTAL BRIDGING**



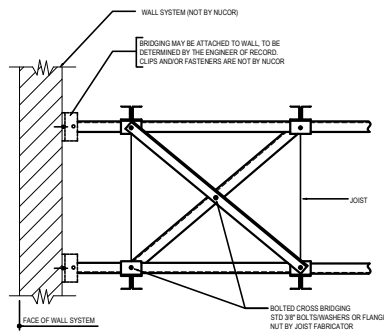
**BRIDGING DETAIL  
AT LAPPED CONDITION**

NOTE: USE (1) 3/8\"/>



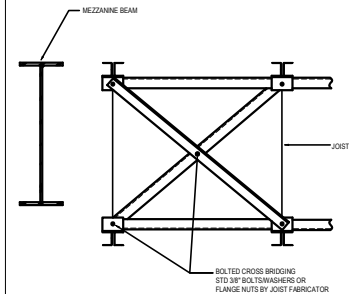
**CONDITION N**

MEZZANINE TERMINATION @ GIRT WALL



**CONDITION P**

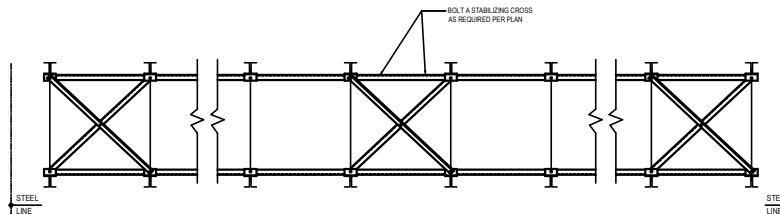
MEZZANINE TERMINATION @ ALTERNATE WALL



**CONDITION R**

MEZZANINE TERMINATION @ MEZZANINE BEAM

**CONDITION S**



**ERECTION NOTE:**  
BOLTED STABILIZING CROSSES SHOWN HERE ARE NOT TO BE CONFUSED WITH BOLTED DIAGONAL BRIDGING.

BI9032

**Detailer Notes:**

- 1) N/A