STANDARD DETAILS
STANDARD DETAILS

THIS IS A DESCRIPTION OF THE SYMBOL AND HOW TO LOCATE THE PROPER DETAIL IN THE STANDARD DETAIL PACK. STANDARD DETAIL SYMBOLS ARE SHOWN ON LUDWIG FRAMING PLANS.

INDEX

<table>
<thead>
<tr>
<th>SECTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>END FRAME DETAILS</td>
</tr>
<tr>
<td>2</td>
<td>BRACING SYSTEM DETAILS</td>
</tr>
<tr>
<td>3</td>
<td>PURLIN AND GIRT CONNECTIONS</td>
</tr>
<tr>
<td>4</td>
<td>FRAMED OPENINGS</td>
</tr>
<tr>
<td>5</td>
<td>MISC. STEEL DETAILS</td>
</tr>
<tr>
<td>6</td>
<td>MANSARD AND FASCIA DETAILS</td>
</tr>
<tr>
<td>7</td>
<td>ROOF EXTENSION AND CANOPY DETAILS</td>
</tr>
<tr>
<td>8</td>
<td>ROOF AND WALL SHEETING DETAILS</td>
</tr>
<tr>
<td>9</td>
<td>TRIM DETAILS</td>
</tr>
<tr>
<td>10</td>
<td>ACCESSORIES</td>
</tr>
</tbody>
</table>
BRACING SYSTEM
DETAILS
(STRUT TIE RODS & SAG ANGLES)

NOTE: DO NOT ATTACH STANDING SEAM ROOF PANEL CLIP TO PURLIN STRUT

PURLIN STRUT AT EAVE  S-2-2A

PURLIN STRUT AT INTERMEDIATE  S-2-2B

NOTE:
NO TIE ROD REQUIRED
IF LESS THAN 10'-0'

PURLIN STRUT AT PEAK  S-2-2C

SAG ANGLES  S-2-2D
BRACING SYSTEM DETAILS
(1/2' BRACE CABLE WITH REINF. PLATE)

- EAVE STRUT
- EAVE STRUT CLIP (RESR)
- WEB REINFORCING PLATE BRP-1
(2) 1/2" x 1-1/4" MACHINE BOLTS
- BRACE CABLE ASSEMBLY
- RIGID FRAME RAFTER
- RIGID FRAME COLUMN
- PURLIN
- PURLIN STRUT
- BRACE CABLE ASSEMBLY
- WEB REINFORCING PLATE BRP-1
(2) 1/2" x 1-1/4" MACHINE BOLTS
- RIGID FRAME RAFTER

AT HAUNCH S-2-7A
INTERMEDIATE S-2-7B

- BRACE CABLE ASSEMBLY
- WEB REINFORCING PLATE BRP-1
(2) 1/2" x 1-1/4" MACHINE BOLTS
- RIGID FRAME COLUMN
- ANCHOR BOLTS

COLUMN BASE S-2-7C
BRACE CABLE DETAIL S-2-7D

- BACK-UP PLATE BRP-1
(2) 1/2" x 1-1/4" A-307 MACHINE BOLTS WITH (1) WASHER PER BOLT
- 7/8" HILL-SIDE WASHER
- 7/8" DIA. CABLE
- 1/2" DIA. CABLE
- 7/8" DIA. WASHER
- 7/8" DIA. BOLT
- 7/8" DIA. EYE BOLT
- COLUMN OR RAFTER WEB
BRACING SYSTEM DETAILS

(1/2" BRACE CABLE & 1-1/4" BRACE ROD)

BRACE CABLE WEB REINF. PLATE BRP-1
(2) 1/2 x 1-1/4" MACHINE BOLTS

BRACE CABLE REINF. PLATE AT PEAK

RIGID FRAME RAFTER

BRACE CABLE ASSEMBLY

BRACE CABLE WEB REINF. PLATE BRW-1
(2) 1/2 x 1-1/4" MACHINE BOLTS

BRACE ROD WASHER AT PEAK

BRACE ROD
BRACING SYSTEM DETAILS
PORTAL FRAME

EAVE STRUT

PORTAL FRAME BEAM
PFB-

(8) 3/4 x 2' H.T. BOLTS
(UNLESS NOTED ON DRAWING)

PORTAL FRAME COLUMN
PFC-

1/2 x 1 1/4' H.T. BOLTS
(UNLESS NOTED ON DRAWINGS)

(2) OR (4) ANCHOR BOLTS

FINISHED FLOOR

SECTION 'A - A'

SEE ANCHOR BOLT PLAN
PURLIN AND GIRT CONNECTIONS
(FLUSH)

ALL BOLTS SHOWN
1/2" x 1-1/4"
MACHINE BOLTS

ALL BOLTS SHOWN
1/2" x 1-1/4"
MACHINE BOLTS

COLUMNS W/ 5' & 6' FLANGES S-3-5A
COLUMNS W/ 8' & 10' FLANGES S-3-5B

COLUMNS W/ 5' & 6' FLANGES S-3-5C
COLUMNS W/ 8' & 10' FLANGES S-3-5D
EAVE STRUT

GIRT

FIELD LOCATE AND DRILL (2) 9/16" DIA. HOLES

1/4"

3/8"

EAVE STRUT

GIRT

1/2 x 1-1/4" MACHINE BOLTS

ENDWALL GIRT TO EAVE STRUT
EAVE STRUT
EAVE STRUT CLIP
(3) 1/2 x 1-1/4" H.T. BOLTS
RIGID FRAME COLUMN
RIGID FRAME RAFTER

EAVE STRUT
EAVE STRUT CLIP
CORNER COLUMN CLIP 1-CCC-7L/R
CORNER COLUMN
ENDWALL RAFTER

7" or 8"

ALL BOLTS SHOWN
1/2 x 1-1/4" H.T. BOLTS

COLD-FORMED
S-5-1C

COLD-FORMED
S-5-1D

RIGID FRAME / BUILT-UP
S-5-1C
MANSARD & FASCIA DETAILS
(SHEETING AND TRIM)

**FASCIA RETURN (END)**

- #12 x 3/4" PIERCE POINT SCREW AT 12" D.C.
- #12 x 1" SD SCREW 12" D.C.
- BACK PANEL
- JAMB TRIM JTR-10
- TRIM FCT-10
- GIRT
- BA-20
- FASCIA PANEL
- #12 x 3/4" PIERCE POINT SCREW AT 12" D.C.

**FASCIA RETURN (END)**

- #12 x 3/4" PIERCE POINT SCREW AT 12" D.C.
- #12 x 1" SD SCREW 12" D.C.
- "R" BACK PANELS
- JAMB TRIM JTR-10
- TRIM FCT-10
- JAMB TRIM JTR-10
- GIRT
- BA-20
- FLAIR FASCIA PANEL
- #12 x 3/4" PIERCE POINT SCREW AT 12" D.C.

**BACK PANEL AT ROOF**

- #12 x 1" SD SCREW 12" D.C.
- BACK PANEL
- INSIDE CLOSURE
- TRIM RHCF-10
- GA-20 GABLE ANGLE
- ROOF PANEL
- PURLIN
- 1/4"
- #12 x 3/4" PIERCE POINT SCREW AT 6" D.C. W/ ONE CONTINUOUS ROW OF MASTIC

**BACK PANEL AT ROOF**

- #12 x 1" SD SCREW AT EACH PURLIN
ROOF EXTENSION & CANOPY DETAILS
(SHEETING AND TRIM)

ENDWALL ROOF EXTENSION AT EAVE

ENDWALL ROOF EXTENSION AT RIDGE
#12 x 3/4" PIERCE POINT SCREWS AT 20" O.C. MAX.

WALL PANEL

STEEL LINE

WALL PANEL SIDE LAPS

#12 x 3/4" PIERCE POINT SCREWS AT 20" O.C. MAX.

ROOF PANEL

SEAM MASTIC

STEEL LINE

EXTENDED LEG

ROOF PANEL SIDE LAPS

#12 x 1" SELF-DRILLING SCREWS AT 12" O.C.

#12 x 3/4" PIERCE POINT LAP SCREWS AT 20" O.C. MAX.

SEE DIAGRAMS BELOW FOR FASTENER SPACING

FASTENER LOCATIONS AT INTERMEDIATE GIRTS & PURLINS

#12 x 3/4" PIERCE POINT SCREWS AT 20" O.C.

#12 x 1" SELF-DRILLING SCREWS AT 12" O.C.

#12 x 3/4" PIERCE POINT SCREWS AT 6" O.C.

STEEL LINE

ROOF AND WALL FASTENER LOCATIONS AT PANEL BASE, EAVE, END LAPS AND RIDGE
ROOF PANEL SIDE LAPS

#12 x 3/4" PIERCE POINT SCREWS AT 20° O.C. MAX.

SEAM MASTIC

STEEL LINE

EXTENDED LEG

#12 x 3/4" PIERCE POINT SCREWS AT 20° O.C.

#12 x 1" SELF-DRILLING SCREWS AT 6° O.C.

STEEL LINE

FASTENER LOCATIONS AT PANEL END LAPS, EAVE AND RIDGE

#12 x 3/4" PIERCE POINT SCREWS AT 20° O.C.

#12 x 1" SELF-DRILLING SCREWS AT 12° O.C.

STEEL LINE

FASTENER LOCATIONS AT INTERMEDIATE

#12 x 3/4" PIERCE POINT LAP SCREWS (AT 2'-0" MAX.)

SEE DIAGRAMS BELOW FOR FASTENER SPACING

FOR SIDE LAP FASTENERS
UP TO 7'-0" USE POP RIVETS

#12 x 1" SELF-DRILLING SCREWS AT 12° O.C.

STEEL LINE

WALL FASTENER LOCATIONS AT STEEL FRAMING

#12 x 3/4" PIERCE POINT AT 20° O.C.
OR 1/8" POP RIVETS AT 20° O.C.

WALL FASTENER LOCATIONS AT SIDE LAPS
INSTALLATION SEQUENCE
(INSTALL SKYLIGHT IN ROOF PANELS IN SEQUENCE AS SHOWN)

NOTE: SKYLIGHTS SHALL BE INSTALLED AS ROOF IS SHEETED. PROTECTIVE MEASURES SHOULD BE TAKEN TO PREVENT PERSONNEL FROM FALLING THROUGH SKYLIGHT. DO NOT WALK ON SKYLIGHT PANEL.


**INSTALLATION SEQUENCE**

(INSTALL SKYLIGHT IN ROOF PANELS IN SEQUENCE AS SHOWN)

NOTE: SKYLIGHTS SHALL BE INSTALLED AS ROOF IS SHEETED. PROTECTIVE MEASURES SHOULD BE TAKEN TO PREVENT PERSONNEL FROM FALLING THROUGH SKYLIGHT. DO NOT WALK ON SKYLIGHT PANEL.
TRIM DETAILS
(GABLE & EDGE TRIMS)

GABLE TRIM INSTALLATION

HIGH SIDE EDGE TRIM INSTALLATION
IF INSULATION IS REQUIRED
IT SHOULD TERMINATE ABOVE
THE TOP OF THE SLAB TO
PREVENT WICKING OF MOISTURE

HOLD THE BOTTOM OF THE WALL PANELS A MINIMUM OF 1/8" ABOVE AND AWAY FROM THE SHEETING NOTCH TO HELP PREVENT CORROSIVE ELEMENTS IN THE CONCRETE FROM CONTACTING THE WALL PANEL.

THE BOTTOM OF THE SHEETING NOTCH SHOULD SLOPE AWAY FROM THE BUILDING A MINIMUM OF 1/16" TO PREVENT STANDING WATER.

ALL METAL SHAVINGS AND OTHER DEBRIS SHOULD BE SWEEP CLEAN FROM THIS AREA TO CREATE PROPER DRAINAGE.

SHEETING NOTCH

S-9-3A

WITHOUT SHEETING NOTCH

S-9-3B

IF INSULATION IS REQUIRED
IT SHOULD TERMINATE ABOVE
THE TOP OF THE SLAB TO
PREVENT WICKING OF MOISTURE

SHIM BASE GIRT OUT FROM COLUMN WITH 0.125" DIAMETER WASHER TO PREVENT WALL PANEL FROM CONTACTING THE CONCRETE.

HOLD THE BOTTOM OF THE WALL PANELS A MINIMUM OF 1/8" ABOVE AND AWAY FROM THE SHEETING NOTCH TO HELP PREVENT CORROSIVE ELEMENTS IN THE CONCRETE FROM CONTACTING THE WALL PANEL.

THE BOTTOM OF THE SHEETING NOTCH SHOULD SLOPE AWAY FROM THE BUILDING A MINIMUM OF 1/16" TO PREVENT STANDING WATER.

ALL METAL SHAVINGS AND OTHER DEBRIS SHOULD BE SWEEP CLEAN FROM THIS AREA TO CREATE PROPER DRAINAGE.

BASE GIRT W/ NOTCH

S-9-3C

BASE TRIM W/ NO NOTCH

S-9-3D
IF INSULATION IS REQUIRED IT SHOULD TERMINATE ABOVE THE TOP OF THE SLAB TO PREVENT WICKING OF MOISTURE

HOLD THE BOTTOM OF THE WALL PANELS A MINIMUM OF 1/8" ABOVE AND AWAY FROM THE SHEETING NOTCH TO HELP PREVENT CORROSION ELEMENTS IN THE CONCRETE FROM CONTACTING THE WALL PANEL.

THE BOTTOM OF THE SHEETING NOTCH SHOULD SLOPE AWAY FROM THE BUILDING A MINIMUM OF 1/16" TO PREVENT STANDING WATER.

ALL METAL SHAVINGS AND OTHER DEBRIS SHOULD BE SWEPT CLEAN FROM THIS AREA TO CREATE PROPER DRAINAGE.

BASE GIRT / NO NOTCH  S-9-4A  

BASE GIRT & TRIM W/ NO NOTCH  S-9-4B
<table>
<thead>
<tr>
<th>FLAIR PANEL</th>
<th>S-9-7A</th>
<th>FLAIR PANEL</th>
<th>S-9-7B</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>FLAIR PANEL</th>
<th>S-9-7C</th>
<th>FLAIR PANEL</th>
<th>S-9-7D</th>
</tr>
</thead>
</table>

**Diagram: Jamb Trim (JTF-10)**

- **#12 x 1" SD Screw 12" O.C.**
- **Jamb Trim JTF-10**
- **Flair Wall Panel**

**Diagram: Jamb Trim (JTF-10)**

- **#12 x 1" SD Screw 12" O.C.**
- **Jamb Trim JTF-10**
- **Flair Wall Panel**

**Diagram: Jamb Trim (JTF-10)**

- **#12 x 3/4" Pierce Point Screw 12" O.C.**
- **Jamb Trim JTF-10**
- **Flair Wall Panel**

**Diagram: Jamb Trim (JTF-10)**

- **#12 x 1" SD Screw 12" O.C.**
- **Jamb Trim JTF-10**
- **Flair Wall Panel**

**Diagram: Jamb Trim (JTF-10)**

- **#12 x 1" SD Screw 12" O.C.**
- **Jamb Trim JTF-10**
- **Flair Wall Panel**

**Diagram: Jamb Trim (JTF-10)**

- **#12 x 1" SD Screw 12" O.C.**
- **Jamb Trim JTF-10**
- **Flair Wall Panel**
TRIM DETAILS
(MASONRY WALL)

Ledge with Drip Trim S-9-12A

Ledge S-9-12B

Ledge with Drip Trim S-9-12C

Ledge S-9-12D

ATTACH TO CMU W/ CONCRETE FASTENER
2'-0" D.C. (1/4" x 1-1/2" MUSHROOM HEAD
NAILINS OPTIONAL)
( NOT BY LUDWIG BUILDINGS )

ATTACH TO CMU W/ CONCRETE FASTENER
2'-0" D.C. (1/4" x 1-1/2" MUSHROOM HEAD
NAILINS OPTIONAL)
( NOT BY LUDWIG BUILDINGS )

ATTACH TO CMU W/ CONCRETE FASTENER
2'-0" D.C. (1/4" x 1-1/2" MUSHROOM HEAD
NAILINS OPTIONAL)
( NOT BY LUDWIG BUILDINGS )

ATTACH TO CMU W/ CONCRETE FASTENER
2'-0" D.C. (1/4" x 1-1/2" MUSHROOM HEAD
NAILINS OPTIONAL)
( NOT BY LUDWIG BUILDINGS )