Released March 1, 1949
Type-A
Architectural Plans, Sections, & Elevations

Quonset Buildings
Built with Stran-Steel Framing
A Sound Investment

Great Lakes Steel Corporation
Stran Steel Division
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<td>AST-83</td>
<td>12'-0&quot; X 12'-0&quot; SLIDING STEEL DOOR</td>
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<td>AST-77</td>
<td>FOUNDATION WALL, Poured CONCRETE OR CONCRETE BLOCK</td>
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<tr>
<td>AST-116</td>
<td>20'-0&quot; DIA. KNOCKDOWN GALVANIZED VENTILATOR</td>
<td>10-1-48</td>
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</tbody>
</table>
GENERAL NOTES
1. Foundation walls to be 2000 P.S.I. concrete.
2. Assumed soil bearing value 4000 P.S.F. if local soil bearing values vary from the above, foundation walls must be adjusted to suit.
3. If this dimension exceeds 4', foundation walls must be adjusted to suit increased vertical & lateral pressures.
4. See sheet AS-77 for recommended designs of foundation walls extending more than 4' above grade.

FOUNDATION PLAN SHOWING ANCHOR BOLT LOCATION

SECTION THRU END WALL

SECTION THRU SIDE WALL

PIECE NO. DESCRIPTION SIZE AND GAGE
ST-500 "U" ANCHOR BOLT 1/2" DIAMETER

NOTICE

STRAN STEEL DIVISION
GREAT LAKES STEEL CORPORATION
DETROIT, MICHIGAN
GUNSET "40 BUILDING
40 FT. LONG AND LONGER

TYPE B

FOUNDATION PLAN AND DETAILS

PRINTED IN U.S.A.
PLAN OF CHANNELS, RIBS & STUDS

NOTE: ATTACH RIB AND STUDS TO CHANNEL WITH 4-NO.14 SHEET METAL SCREWS.
**Developed Plan of Roof Sheets**

**Straight Sheets**
- General Notes:
  1. Seal all vertical & horizontal laps of sheets with a 1/4 to 1/2 inch diameter lead of mastic.
  2. Laps of corr. sheets between purlins & ribs to be stitched with No. 14 sheet metal screws & lead washers with 1/4 inch hole 1 1/16 inches (48 mm) O.C.
  3. Secure sheets to purlins and ribs with lead seal, galvanized nails 5/8 inch O.D.

**Curved Sheets**
- General Note:
  - Start bottom edge of sheets 5 feet below top of foundation wall.

**Laps of Curved Corrugated Sheets**
-用一把1/4英寸到1/2英寸直径的铅作为密封。
- 叠加钢筋时，钢筋之间使用14号金属螺丝和宽度为26 gage的铅螺丝。
- 使用1/4英寸的孔和16 mm的间隔来固定。

**Laps of Straight Corrugated Sheets**
- 用一把1/4英寸到1/2英寸直径的铅作为密封。
- 叠加钢筋时，钢筋之间使用14号金属螺丝和宽度为26 gage的铅螺丝。
- 使用1/4英寸的孔和16 mm的间隔来固定。
GALV LEAD SEAL NAIL AT EACH PURLIN. ATTACH FLASHING TO ROOFING SHEETS WITH NO.14 SHEET METAL SCREWS AND LEAD WASHERS BETWEEN PURLINS ABOUT 12" O.C.

SEE SHEET 632 FOR DETAILS.

NOTES
1. SEAL ALL VERTICAL & HORIZONTAL LAPS OF SHEETS WITH 2" TO 3" DIAM. BEAD OF MASTIC.
2. LAPS OF CORR. SHEETS BETWEEN STUDS TO BE STITCHED WITH NO.16 SHEET METAL SCREWS & LEAD WASHERS, WITH 2 HOLE, 12" O.C.
3. SECURE SHEETS TO STUDS WITH GALV. LEAD SEAL NAILS, 8" O.C.
4. ALL HORIZONTAL LAPS OF CORR. SHEETS TO BE 2" & VERTICAL LAPS TO BE 4".

PIECE # | DESCRIPTION | SIZE AND GAGE
--- | --- | ---
AST-5 | METAL LOUVER 4'-0" X 4'-0"
AST-66 | SLIDING DOOR 4'-0" X 3'-0"
AST-67 | METAL WINDOW 3'-4" X 3'-4"
ST-1486 | STUD 3" X 16GA.
ST-1487 | STUD 3" X 16GA.
ST-1488 | STUD 3" X 16GA.
ST-1489 | FLASHING, CURVED 26 GA. GALV.
ST-1490 | FLASHING, CURVED 26 GA. GALV.
ST-17 | RIBBON WIND ORM CRL VOL. 4" X 3'-6" GALV.
ST-1511 | CHANNEL 3'-0" X 16GA.
ST-1512 | TOP CHANNEL 3'-0" X 16GA.
ST-1513 | STUD 3'-0" X 16GA.
ST-1514 | FLASHING 26 GA GALV.
ST-1515 | RAFTER CLIP 16GA.
ST-1460 | END WALL GUT. 4'-0" X 3'-6" 16GA.
ST-1516 | DOOR JAMB STUD 3'-0" X 16GA.
ST-1517 | BRACE 2'-0" X 16GA.
ST-1518 | CORR. STRIP 3'-0" X 16GA.
ST-1519 | SPLICE PLATE 4'-0"

ALL CORRUGATED SHEETS 26GA. X 3'-6" CORR.

ELEVATION OF END WALL FRAMING WITH DOOR

STRAN STEEL DIVISION
GREAT LAKES STEEL CORPORATION
DETROIT, MICHIGAN
GUARDSET 40' BUILDING
40 FT. LONG AND LONGER
TYPE 'A'
END WALL FRAMING WITH DOOR

AS SHOWN

PRINTED IN U.S.A.
NOTE
FASTEI FLAT SHEETS TO STUD WITH 6d GALVANIZED NAILS WITH LEAD WASHERS 8 O.C.
LAPS OF FLAT SHEETS NOT ON STUD
TO RECEIVE 14 SHEET METAL
SCREWS & LEAD WASHERS B.O.C.
SEAL ALL VERTICAL & HORIZONTAL
LAPS OF FLAT SHEETS & FLASHING
WITH 21/2 DIA. BEAD OF MASTIC.

EXTRA RIB ALONGSIDE OF
PRESENT RIB. SEE PLANS

FOR DETAILS SEE AST-67 SHEET 2
FOR BILL OF MATERIALS SEE AST-67 SHEET 4
FOR FRAMING & FIELD WORK SEE AST-67 SHEET 3.
FOR POSSIBLE ARRANGEMENT OF SIDE WALL DOORS SEE AST-67 SHEET 4.

STRAN STEEL DIVISION
GREAT LAKES STEEL CORPORATION
DETROIT, MICHIGAN

GREAT LAKES STEEL CORPORATION
DOOR ASSEMBLY
12'X12' SLIDING DOOR IN CURVED WALLS
PLANS, FRONT AND SIDE ELEVATION

AST-67 SHEET 1 OF 4
**CHANNEL BRIDGING ST-1226 REWORKED**

This reworking is necessary because of extra rib.

- Channel bridging shown dotted is the condition when door opening is on opposite side. Replace number of channel bridging in both 4'-0" spaces adjacent to door openings as shown.

**NOTE:**

- Channel bridging shown dotted is the condition when door opening is on opposite side. Replace number of channel bridging in both 4'-0" spaces adjacent to door openings as shown.

**REWORK THIS END AS SHOWN**

- Punch new dia. holes in rib for fastening.

**DETAIL**

- Punch new dia. holes in rib for fastening.

**SECTION**

- Additional punching required to present rib and extra rib at side of door opening.

**TYPE "B" BUILDING**

- Floor line

**TYPE "A" BUILDING**

- Floor line

**ADDITIONAL PUNCHING REQUIRED TO PRESENT RIB AND EXTRA RIB AT SIDE OF DOOR OPENING**

**NOTE:**

- For location of channel bridging ST-1226 see cross section of the building.

**CHANNEL BRIDGING ST-1226 TO BE REWORKED AS SHOWN ON THIS SHEET**

- Punch new dia. holes in rib for fastening.

- Move channel bridging down 1/and punch new holes in rib for fastening.

- Punch new dia. holes in rib for fastening.

- Measure on inside of rib.

- Measure on outside of rib.

- Punch new holes in rib for fastening.

**DEVELOPED VIEW OF RIBS & CHANNEL BRIDGING AROUND DOOR OPENINGS**

- Channel bridging shown dotted is the condition when door opening is on opposite side. Replace number of channel bridging in both 4'-0" spaces adjacent to door openings as shown.

**NOTE:**

- Channel bridging shown dotted is the condition when door opening is on opposite side. Replace number of channel bridging in both 4'-0" spaces adjacent to door openings as shown.
NOTE:

1. WHEN WINDOWS ARE 4'-0" O.C., MULLION FLASHING ST-1500 IS REQUIRED TO BE ORDERED SEPARATELY IN QUANTITIES OF ONE. LESS THAN THE NUMBER OF WINDOWS 4'-0" O.C. - ALSO ORDER TEN 3" X 2" X 1/2" GALK STOVE BOLTS TO FIT LEAD WASHERS ST-500 WITH EACH PIECE OF FLASHING. ST-1500 embodIE TOTAL QUANTITY OF CORR. SHEET AT JAMB, ST-1360 FOR EACH PIECE OF FLASHING ST-1500.

2. WHICH WINDOW ARE 6'-0" O.C. ONE PIECE OF MULLION STIFFENER ST-1499 IS REQUIRED FOR EACH MULLION, MULLION STIFFENERS TO BE ORDERED SEPARATELY. WHEN SINGLE WINDOW IS REQUIRED IN SPAN WHERE CHANNEL BRIDGING IS 6'-0" FROM FLOOR, ONE PIECE OF CHANNEL BRIDGING ST-1499 IS REQUIRED.

CHANNEL BRIDGING ST-1499 TO BE ORDERED SEPARATELY.

STRAH STEEL DIVISION

GREAT LAKES STEEL CORPORATION
DETROIT, MICHIGAN

WINDOW ASSEMBLY

2-6' X 7' STEEL WINDOW WITH 6" RIBS CURVED TO 20'-0"
**SECTION A**

".14 SHEET METAL SCREWS & LEAD WASHERS AT LAPS OF FLASHING ST-1367

".14 SHEET METAL SCREWS & LEAD WASHERS 8" ON CENTERS. MASTIC BETWEEN

FOURDRY NAILS & LEAD WASHERS 6" ON CENTERS. SEND AROUND RIB.

**SECTION A**

CURVED CORR. ROOF SHEET

MASTIC

6" CURVED RIB

 FLASHING ST-1367 SEE CUTTING & BENDING DIAGRAM THIS SHEET.

".14 SHEET METAL SCREWS & LEAD WASHERS 12" ON CENTERS.

CORR. END WALL SHEETS

FLASHING ST-1367 SEE CUTTING & BENDING DIAGRAM THIS SHEET.

6" CURVED RIB

**DETAD OF FLASHING AT CURVED & HORIZONTAL ROOF SHEETS AT END WALL**

**CUTTING DIAGRAM FOR FLASHING ST-1367**

FOR FLASHING ST-1367

MASONRY NAILS 12" ON CENTERS.

**BENDING DIAGRAM FOR FLASHING ST-1367**

\[ 6" RIB \]

\[ 6" CURVED RIB \]

\[ FLASiHG ST-1367 \]

BEND DOWN & SCREW IN PLACE. SEE DETAIL THIS SHEET.

BEND BACK & BUTTER BOTH SIDES WITH MASTIC

CUT AFTER FLASHING IS IN PLACE ON BUILDING.

**STRAN STEEL DIVISION**

GREAT LAKES STEEL CORPORATION

BENTLY, IOWASIA

FLASHING INSTALLATION

FIELD INSTALLATION AT END WALL AND SIDE OF BUILDING

AS SHOWN
GENERAL NOTES:
1. CONCRETE SPECIFICATION: 2500 lbs. per sq. ft. of concrete.
   - Portland cement: 2 tons
   - Sand: 2 tons
   - Aggregate (actual): 4 tons
2. Add water per sack of cement: 2 gallons
3. ASSUMED SOIL BEARING VALUE: 4000 lbs. per sq. ft.
4. FOUNDATION WALLS MUST BE POUR ED IN UNDISTURBED EARTH OR TAMPED BACKFILL.
5. IF THE DIFFERENCE BETWEEN GRADE AND FLOOR LEVEL IS MORE THAN 12," THE WALLS SHOULD BE INVESTIGATED AND INCREASED SCALE OF DETAILS TO ADDRESS HORIZONTAL THRUST DUE TO EARTH PRESSURE.
7. LINE UP CORES OF BLOCKS AND POUR REINFORCED CORES IN A SINGLE CONTINUOUS OPERATION. REINFORCING STEEL MUST BE ENTIRELY SURROUNDED WITH CONCRETE.
8. UNREINFORCED CORES NEED NOT BE FILLED WITH CONCRETE.
9. FOR ANCHOR BOLT LAYOUT SEE FOUNDATION PLANS.

NOTES:
- Concrete block not recommended for higher than 3'.
- Standard hook for reinforcing steel.
- Concrete floor optional.
- Reinforcing steel bars: 6/8".
- Concrete floor variable.
- Reinforcing steel bars: 6/8".
- Poured concrete to 3' above grade.
- Section A-A
- Section B-B
- All cores with reinforcing filled with concrete to top of wall.
- Wall 3'-1" above grade.
- Wall 2'-5" above grade.

ENTIRELY SURROUNDED WITH CONCRETE.
GENERAL NOTES

1. CONCRETE SPECIFICATION: 2500 LBs PER SQ INCH CONCRETE (PORTLAND CEMENT), SAND, 2/3 COARSE AGGREGATE: TO 6 GALLONS OF WATER PER SACK OF CEMENT.

2. ASSUMED SOIL BEARING VALUE: 4000 LBS PER SQ FT. FOUNDATION WALLS MUST BE POURED IN UNDISTURBED EARTH OR SUPPORTED LATERALLY BY PUDGED AND TAMPERED BACKFILL.

3. WALLS SHOULD BE POURED IN A SINGLE CONTINUOUS OPERATION WITH NO HORIZONTAL JOINTS. VERTICAL EXPANSION AND CONTRACTION JOINTS SHOULD BE PLACED ABOUT EVERY 30 FT. TO 40 FT. LENGTHWISE OF WALLS, PREFERABLY NOT AT CHIMNEY RIBS.

4. ALL STEEL SHOWN IS TEMPERATURE REINFORCING (NOT FURNISHED BY STRAN STEEL). 

5. IF THE DIFFERENCE BETWEEN GRADE AND FLOOR LEVEL IS MORE THAN 12", THE WALLS SHOULD BE INVESTIGATED FOR INCREASED HORIZONTAL THRUST DUE TO EARTH PRESSURE.

6. FOR ANCHOR BOLT LAYOUT, SEE FOUNDATION PLAN.

SECTION THRU END WALL
WITH 14'0"X15'-6" HIGH SLIDING DOOR

SCALE OF DETAILS
INSTALLATION INSTRUCTIONS

1. BOLT THE CHANNEL CLIPS ST-413 TO THE ANGLE JAMS OF THE STEEL WINDOW FRAME USING TWO CLIPS AT EACH JAMB. SEE ELEVATIONS FOR POSITION OF CLIPS.

2. PLACE WINDOW FRAME IN POSITION BETWEEN THE STUDS WITH TOP OF WINDOW SILL AT DIMENSION SHOWN ON ERECTION DRAWING AND NAIL THE CLIPS INTO NAILING GROOVE OF THE STUD.

3. APPLY MASTIC TO INSIDE OF WINDOW FRAME AND A PORTION OF SASH FOR A CONTINUOUS LAP WIDTH OF ONE HALF INCH SO AS TO SEAL THE JOINT BETWEEN SASH AND FRAME.

4. INSTALL STEEL SASH FROM INSIDE OF BUILDING BY BOLTING THE TWO KEEPER BARS ST-317 TO THE WINDOW FRAME TO SECURE THE SASH IN THE PROPER POSITION. (TWO KEEPER BARS ST-317 AT HEAD.)

5. INSERT THE FLAT STRIPS ST-320 OVER CORRUGATED METAL SHEETS UNDER SILL, CAULK WITH MASTIC AT EACH END OF SILL. INSERT SEVEN BOLTS THRU WINDOW SILL AND CORRUGATED SHEETS.

6. AT JAMBS (EXCEPT MULLIONS) DRILL 1⁄2 DIA. HOLES THRU CORRUG SHEET, CORRUGATED STRIP AND FRAME FOR 1⁄2 DIA. X 1/2 STOVE BOLT & LEAD WASHER 8" O.C. (IN VALLEY OF CORR. SHEETS). ATTACH 4 KEEPER BARS ST-317 TO 4 OF THESE BOLTS OF EACH JAMB.

7. IF WINDOWS OCCUR IN ADDING 4'-0" SPACES BETWEEN STUDS THEN A METAL FLASHING SHEET ST-1365 IS TO BE BOLTED TO THE ANGLE MEMBERS OF WINDOW FRAME AS WELL AS AT SILL MEMBER. SEE MULLION DETAIL.

8. APPLY CORRUGATED METAL SHEETS OVER FLAT STRIP ST-320 AT HEAD OF WINDOW & BOLT TO HEAD MEMBERS OF WINDOW FRAME. APPLY MASTIC TO FACE OF FLAT STRIP TOUCHING FRAMES BEFORE INSTALLING.

BILL OF MATERIAL

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<th>DESCRIPTION</th>
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<tr>
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<td>STEEL SASH, FENESTRA OR EQUAL, COMPLETED WITH HARDWARE &amp; GLAZING CLIPS, GLASS BY OTHERS.</td>
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<tr>
<td>1</td>
<td>1/20 GA. WELDED FRAME, NO. 14 GA.</td>
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<tr>
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<td>CHANNEL CLIPS, NO. 16 GA.</td>
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<tr>
<td>10</td>
<td>CRIMP KEEPER BAR, NO. 12 GA.</td>
</tr>
<tr>
<td>4</td>
<td>CORRUG STRIP,</td>
</tr>
<tr>
<td>4</td>
<td>FLAT STRIP, 2&quot; X 2&quot; LG.</td>
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<tr>
<td>16</td>
<td>1/2 DIA. X 1/2 STOVE BOLT &amp; NUTS</td>
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<tr>
<td>16</td>
<td>1/2 DIA. X 1/2 STOVE BOLT &amp; NUTS</td>
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<tr>
<td>10</td>
<td>8X COMMON NAILS</td>
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<tr>
<td>24</td>
<td>5/8 DIA. LEAD WASHER WITH 18 DIA. HOLE</td>
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<tr>
<td>1</td>
<td>1/2 LBE. GLASS MASTIC</td>
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STRAN STEEL DIVISION
GREAT LAKES STEEL CORPORATION
DEERFIELD, MICHIGAN

WINDOW ASSEMBLY
3'-3" X 4'-3" STEEL WINDOW IN STRAIGHT WALLS.

REVISED: 10-11-68
AS SHOWN
IN STOCK: 1 R.

PRINTED IN U.S.A.
STEP NO. 1
FIT ENDS OF VENT ST-764 TOGETHER AND CLOSE SEAM WITH WOOD BLOCK AND HAMMER

STEP NO. 2
ATTACH FIVE BRACKETS ST-768 TO CLOSED VENT RING ST-764 WITH 2 SHEET METAL SCREWS IN EACH BRACKET AS SHOWN

STEP NO. 3
ATTACH SCREEN VENT ST-767 TO ASSEMBLY, AS SHOWN IN ENLARGED SECTION BELOW. ATTACH LOCK WASHER SHEET METAL SCREW INTERNAL TYPE LOCK WASHER.

STEP NO. 4
CLOSE SEAM OF CONE ST-766 WITH WOOD BLOCK AND HAMMER, SIMILAR TO STEP NO. 1, AND ATTACH TO ASSEMBLY.

BIL OF MATERIAL

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<td>ST-764</td>
<td>Vent Pipe - 26 GA. BR. GALV.</td>
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<td>ST-765</td>
<td>Collar - 26 GA. BR. GALV.</td>
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<td>Cone - 26 GA. BR. GALV.</td>
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<td>ST-767</td>
<td>Screen Vent</td>
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<td>ST-768</td>
<td>Bracket - 24 GA. BR. GALV.</td>
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<td>ST-166</td>
<td>27&quot; X 26 GA. Roof Sheet with Collar</td>
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<td>ST-521</td>
<td>Lead Seal Nails</td>
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<td>ST-570</td>
<td>#4 Sheet Metal Screws</td>
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<td>ST-527</td>
<td>3/8 X 1/2 X 1/6 Lead Washer</td>
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<td>INTERNAL TYPE LOCK WASHER SHEET-PROOF #2 X 0.062</td>
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STRAN STEEL DIVISION
GREAT LAKES STEEL CORPORATION
DEER HILL, MICHIGAN

VENTILATOR ASSEMBLY
20" DIA. KNOCK DOWN GALV. VENTILATOR

ASTM 11-48
VENTILATOR ASSEMBLY

VENTILATOR

CUT GROWN SHEET TO DIMENSIONS SHOWN TO PROVIDE THE OPENING FOR VENTILATOR. THEN ATTACH FLASHING SHEET WITH COLLAR ON TOP OF CUT GROWN SHEETS WITH LEAD SEAL NAILS. STITCH LAPS IN REGULAR MANNER WITH S...