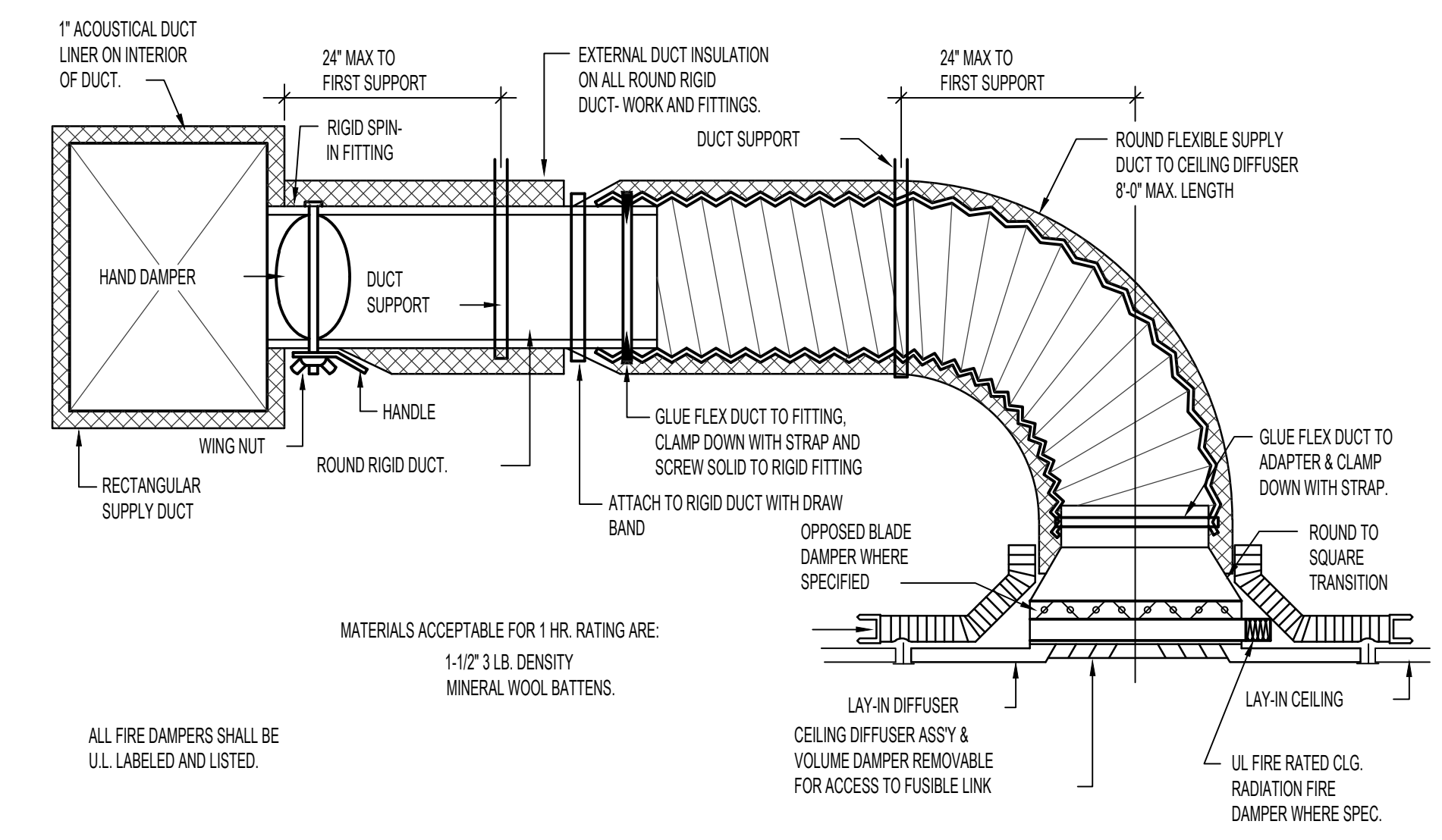


**SQUARE TO ROUND TAKE-OFF DETAILS**



**CEILING DIFFUSER DETAIL WITH FLEXIBLE DUCT**

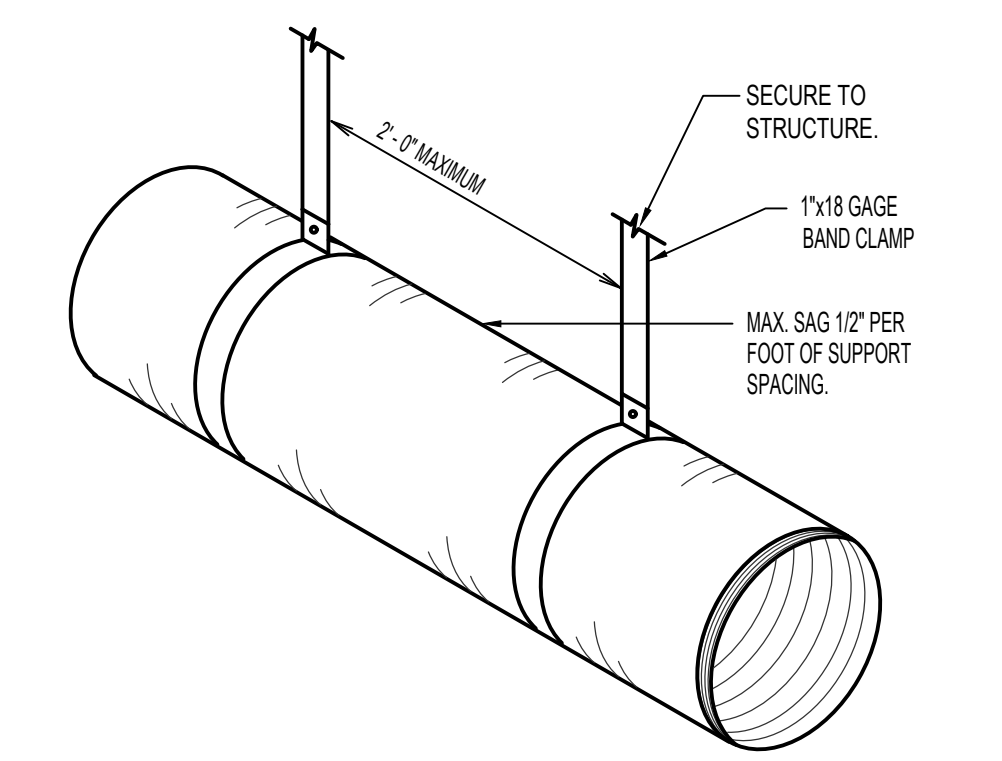
NOTES:

- USE ECONOMIZER. SEE SPECIFICATIONS FOR EXHAUST TYPE.
- INSTALL WITH FACTORY MANUFACTURED CURBS MADE FOR EACH ROOF TOP UNIT. SEE DETAIL EMS02.
- STATIC PRESSURE LOSSES DO NOT INCLUDE LOSSES THROUGH FILTERS, COILS, AND DAMPERS.
- WITH SEACOAST COATING, HEATING TO BE TURNED OFF
- AT SEA LEVEL.
- WITH CUSTOM ROOF CURBS

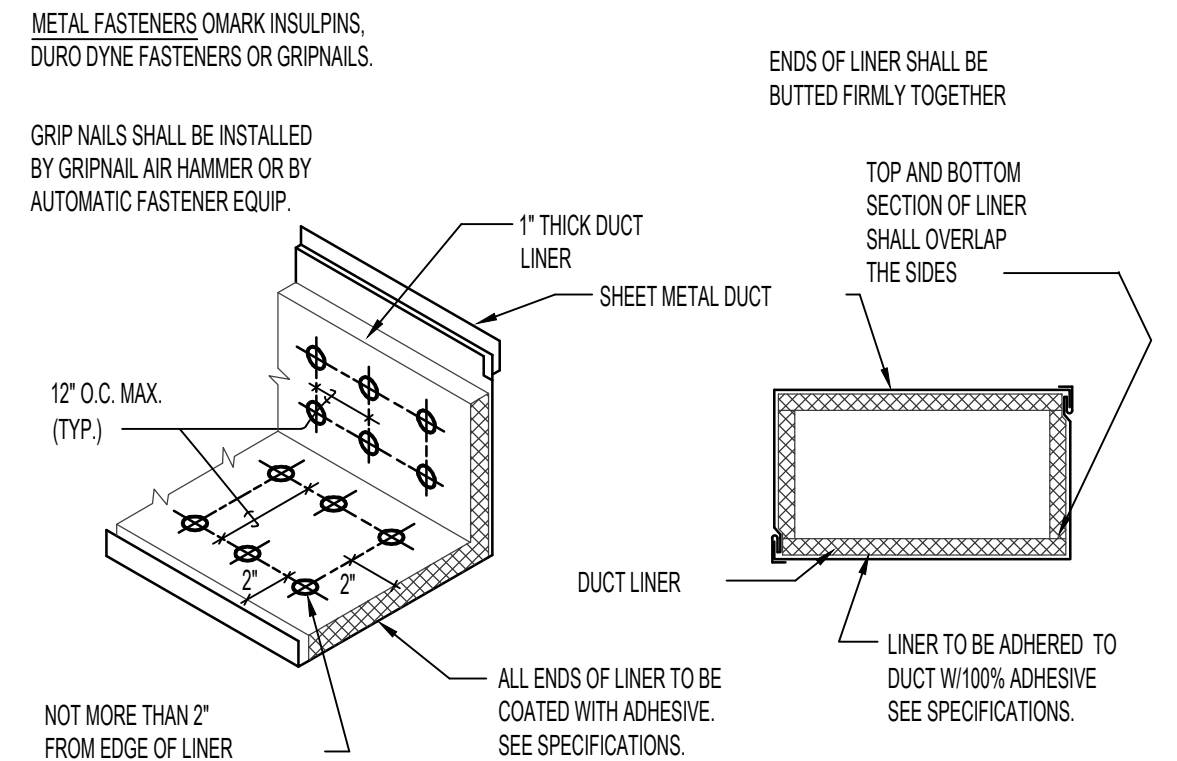
DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAUGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS & OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1)				
			AT JOINTS				
			MIN. H. IN.	DRIVE SLIP	HEIMED S SLIP	ALTERNATE BAR SLIP	REINFORCED BAR SLIP
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13-18	24	NONE REQUIRED	1	24	24	24	24
19-30	24	1"x1"x18" @ 60 IN	1	-	24	24	24
31-42	22	1"x1"x18" @ 60 IN	1	-	-	22	22

(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

**DUCT CONSTRUCTION DETAIL**



**FLEXIBLE DUCT SUPPORT DETAIL**



**DUCT LINER DETAIL**

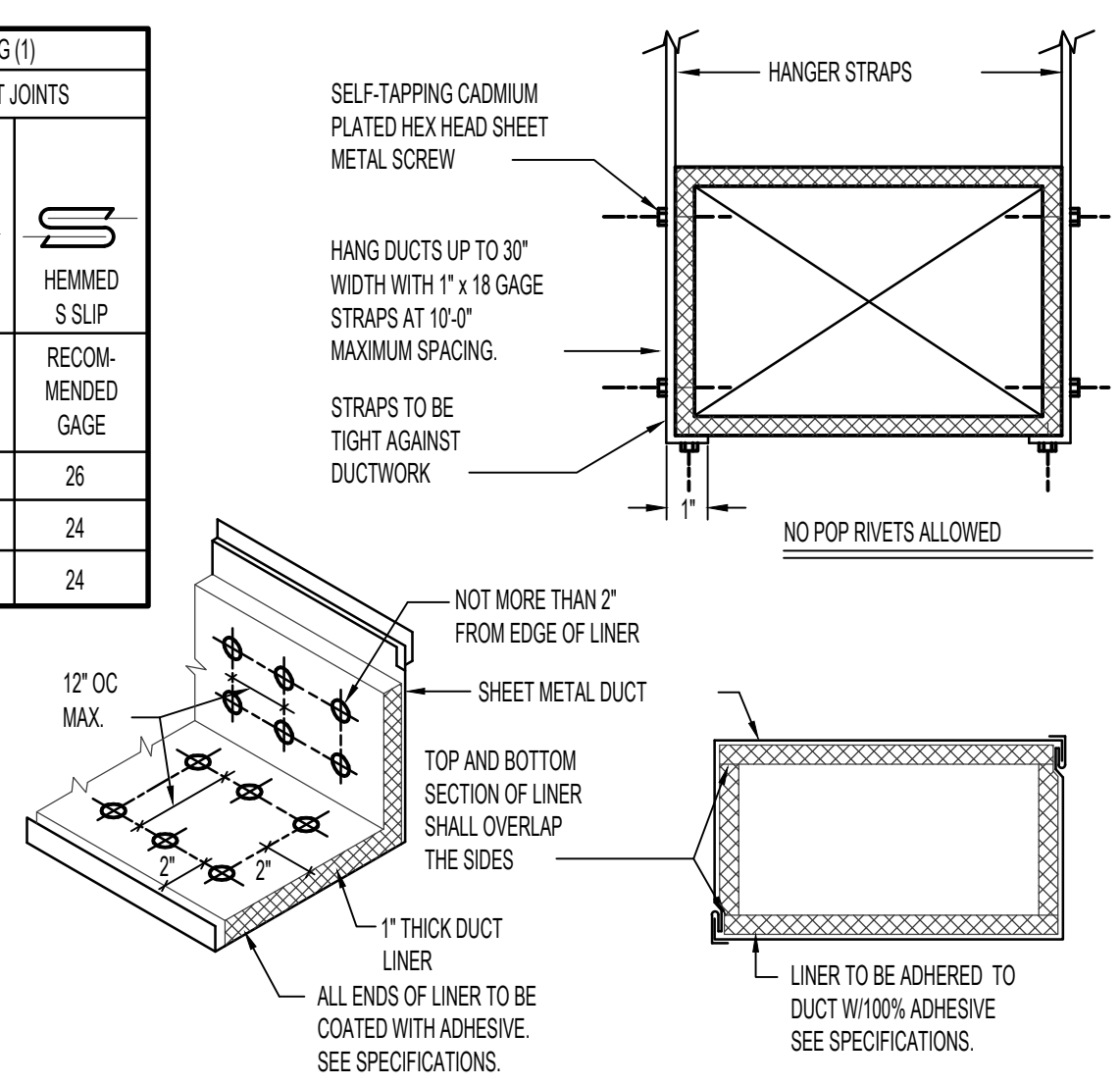
DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAUGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS & OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1)	
			DRIVE SLIP	HEIMED S SLIP
UP THRU 12	26	NONE REQUIRED	26	26
13-18	24	NONE REQUIRED	24	24
19-30	24	1"x1"x18" @ 60 IN	-	24

(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

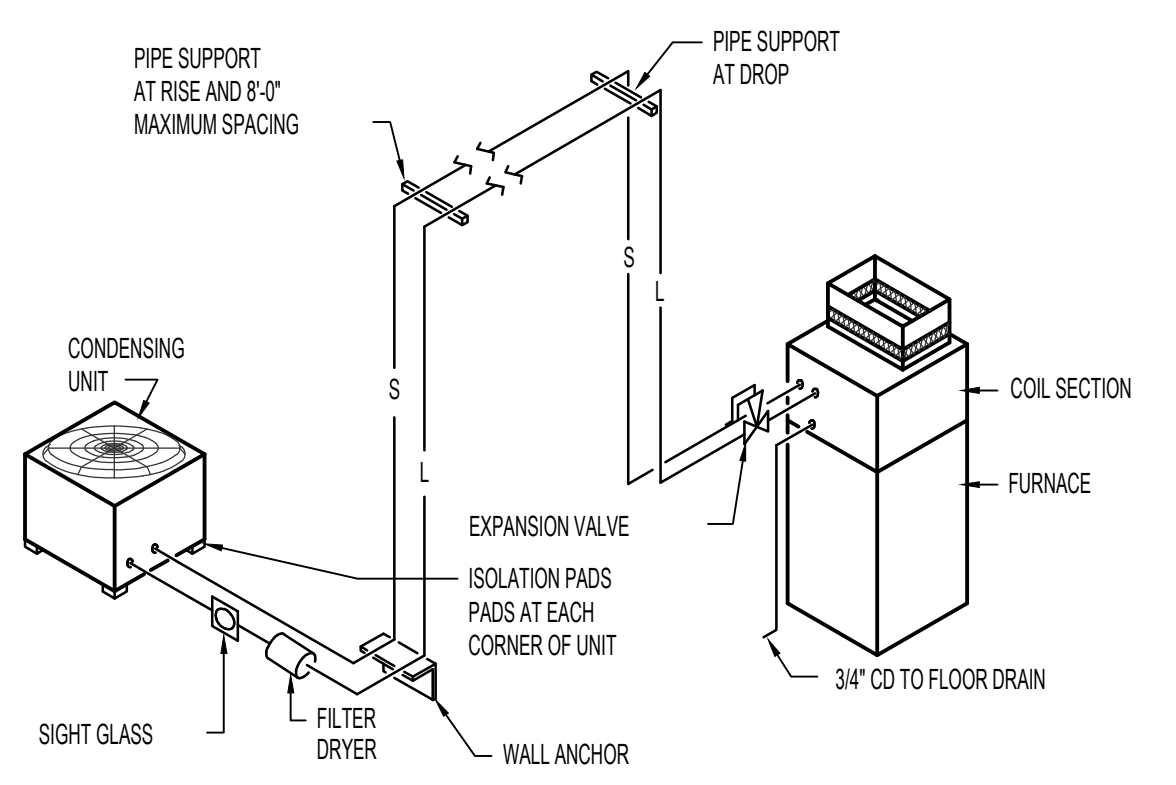
METAL FASTENERS - O.M.A.K. INSULPINS, DURO DYNE FASTENERS OR GRIPNAILS.

GRIP NAILS SHALL BE INSTALLED BY GRIPNAIL AIR HAMMER OR BY AUTOMATIC FASTENER EQUIP.

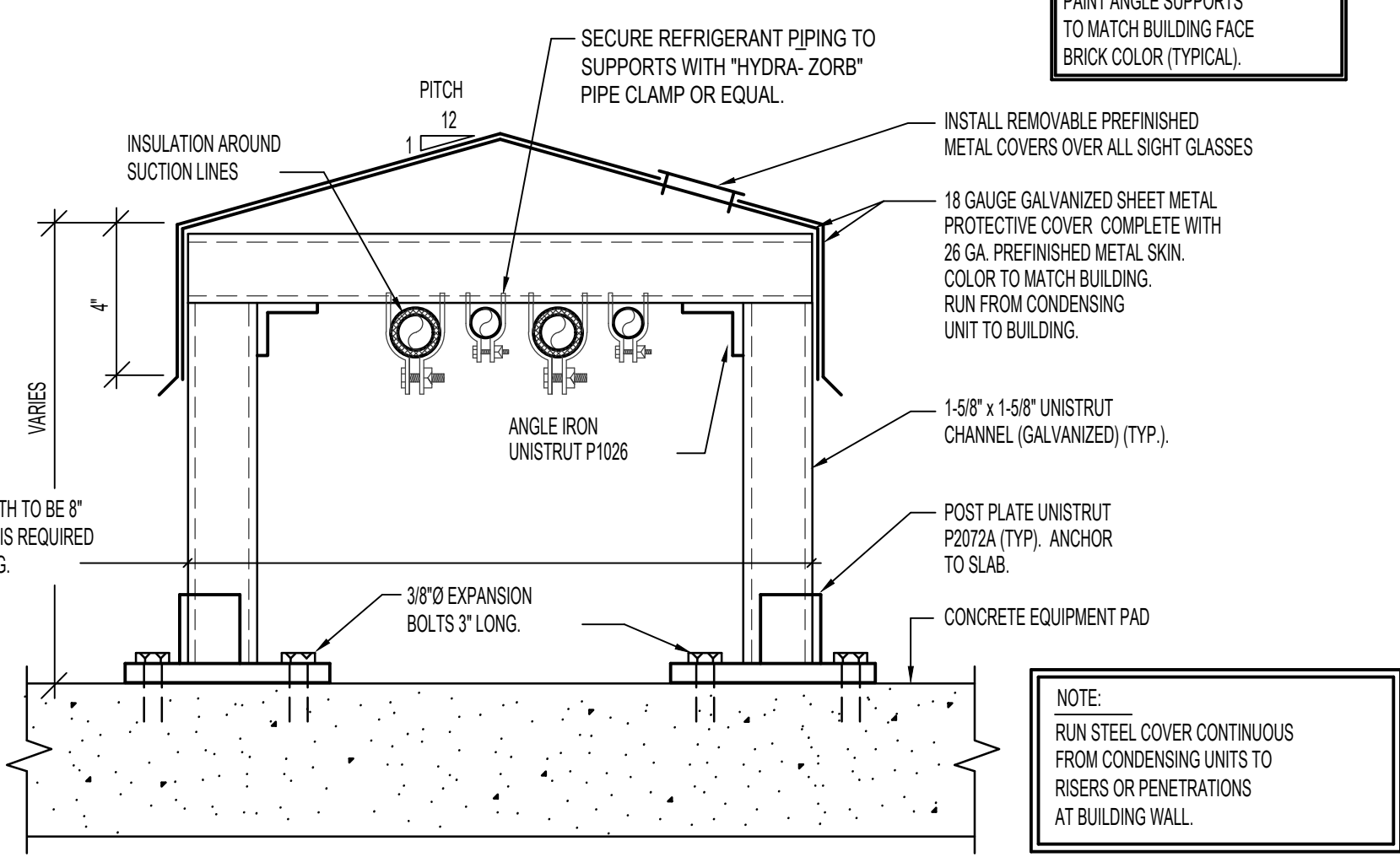
ENDS OF LINER SHALL BE BUTTED FIRMLY TOGETHER



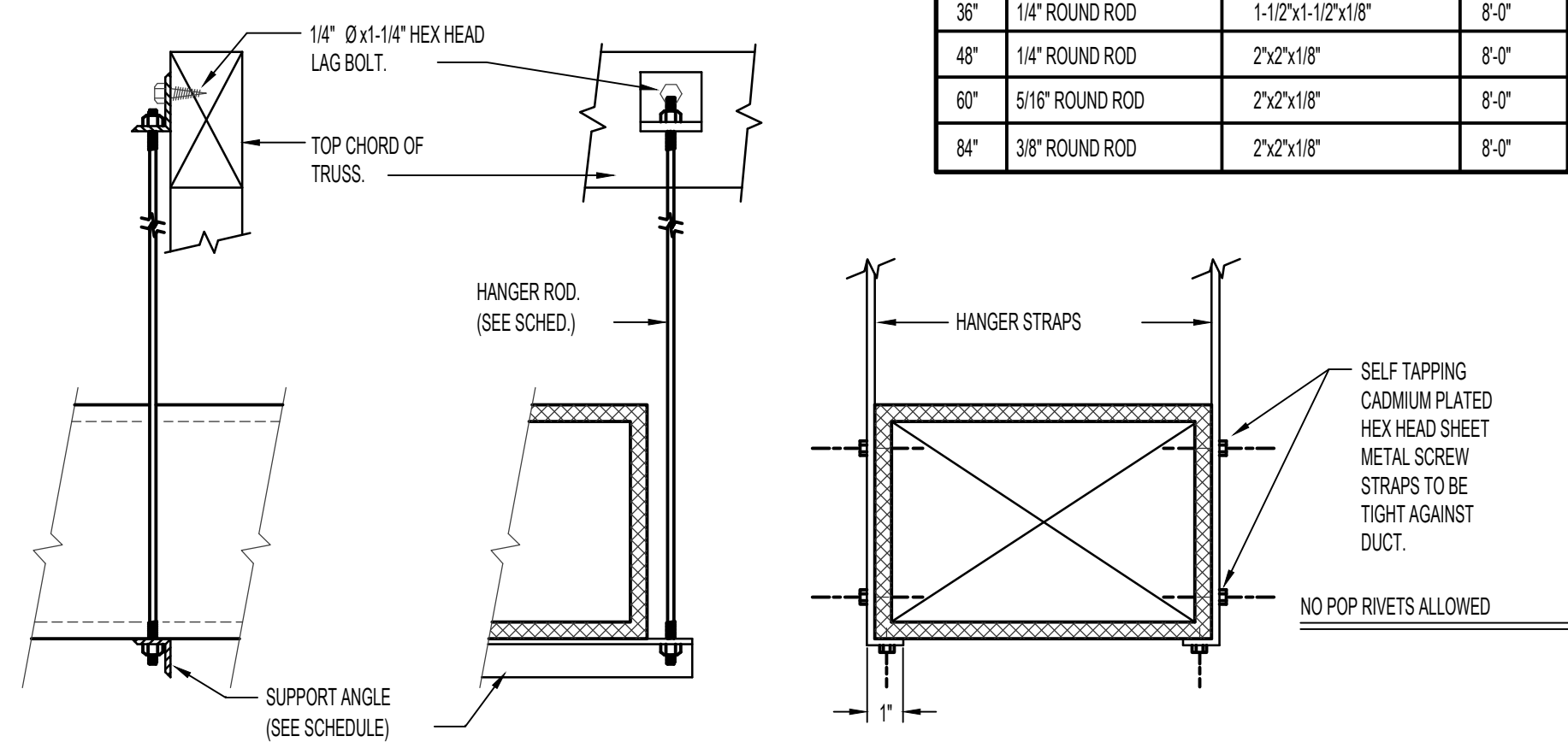
**DUCT CONSTRUCTION AND HANGER DETAIL**



**REFRIGERANT PIPING DIAGRAM**

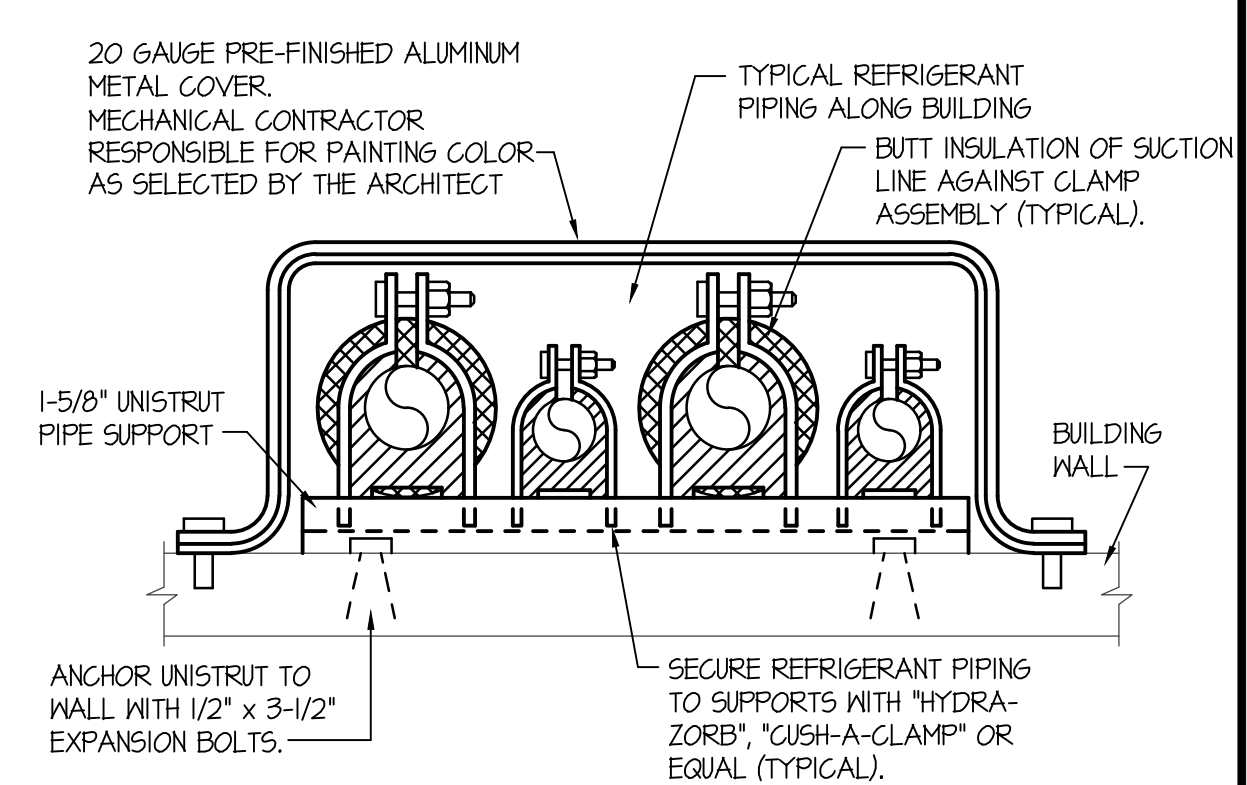


**REFRIGERANT PIPE SUPPORT DETAIL**



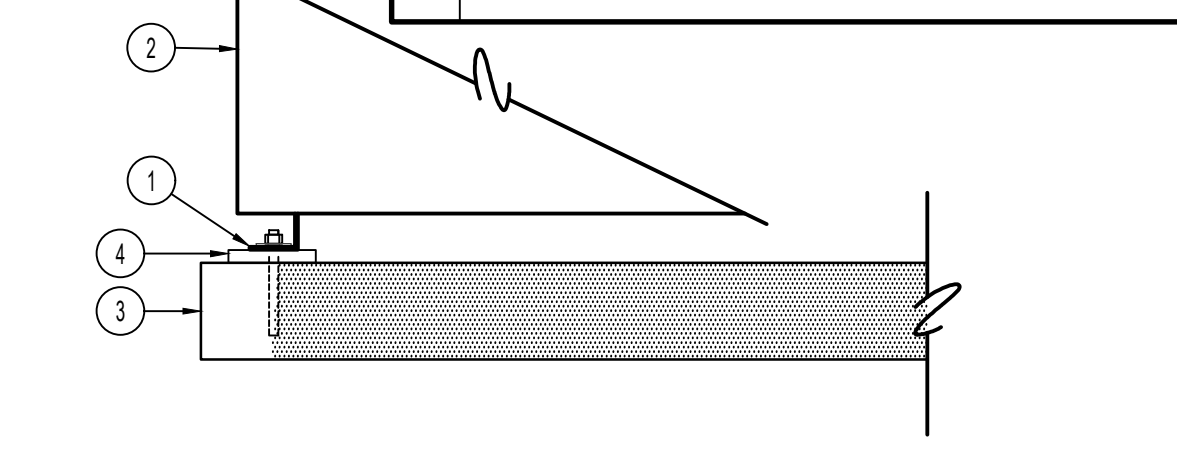
**DUCT STRAP HANGER DETAIL**

HANGER SIZES FOR RECTANGULAR DUCT			
MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
30"	1"x18 GAGE STRAP	NONE REQUIRED	10'-0"
36"	1/4" ROUND ROD	1-1/2"x1-1/2"x18"	8'-0"
48"	1/4" ROUND ROD	2"x2"x18"	8'-0"
60"	5/16" ROUND ROD	2"x2"x18"	8'-0"
84"	3/8" ROUND ROD	2"x2"x18"	8'-0"

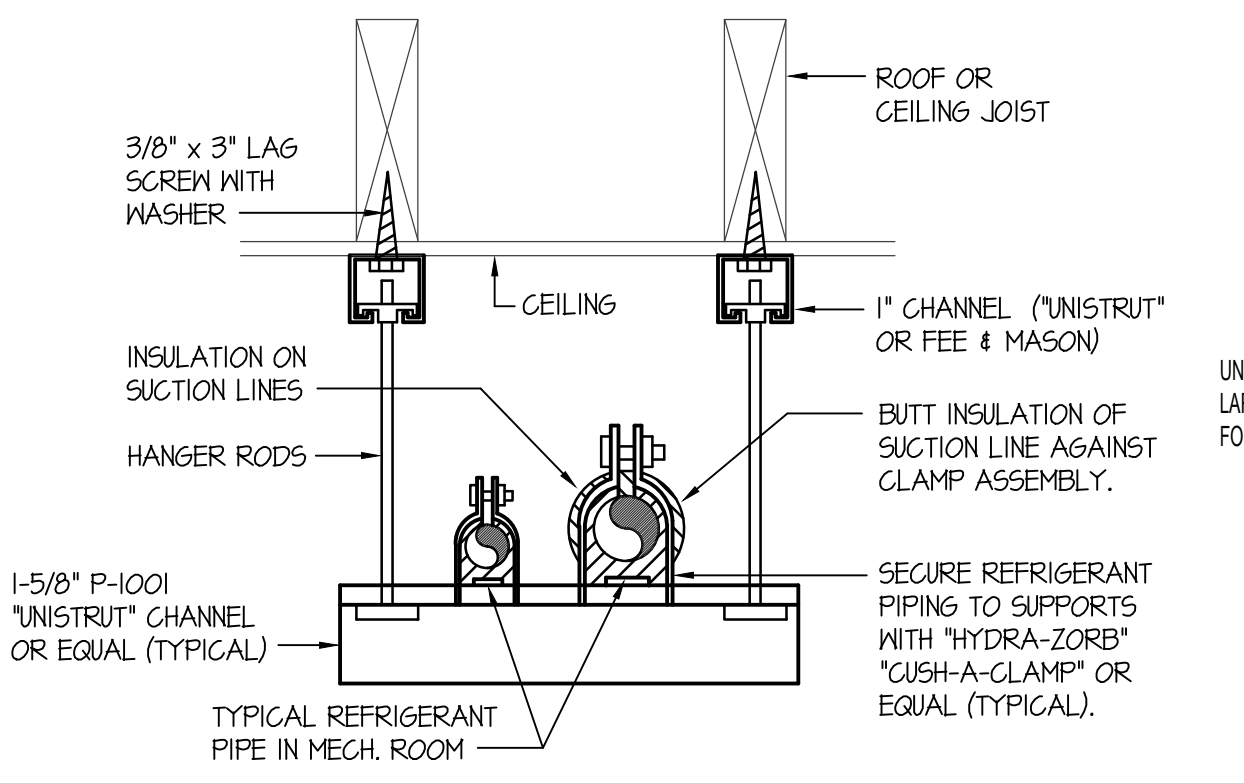


**PIPE SUPPORT ALONG BUILDING**

- KEYNOTES:**
- HILTI HIT-RE 500 V3 EPOXY SYSTEM W/ (1) HAS-R 316SS3/8 ANCHOR. INSTALL PER MANUFACTURER RECOMMENDATIONS, SPECIAL INSPECTION REQUIRED. BOLTS TO BE 3/16 SS, 3/8" DIA X 2-1/2"
  - CONDENSING UNIT BY CONTRACTOR
  - CONCRETE PAD BY CONTRACTOR
  - 1" THICK NEOPRENE PADS BELOW UNIT, EACH CORNER



**CONDENSING UNIT MOUNTING DETAIL**



**SUSPENDED PIPE SUPPORT**

Architect / Engineer:  
**P.C. Architects Inc.**  
Dennis B. Patten, AIA  
P.O. Box 217  
St. George, UT 84771  
(435) 673-6579

Expiration date of license: 04/30/22  
This work was prepared by me or under my supervision. Construction of this project will be under my observation.  
**Dwayne C. Sudweeks**  
Professional Engineer License No. 12830-M  
Professional Engineer License No. 12830-M

Project Name:  
**KALIHI RE-ROOF AND HVAC REFURBISHMENT**  
HONOLULU, HAWAII WEST STAKE  
TMK: 1-3-005-17  
1120 Kalia St. (1723 Beckley St.) Honolulu, HI 96819

Owner:  
**THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS**

1	09-01-2021	BID SET	Description

Project Number:  
PCA-2013  
Plan Series:  
EXISTING  
Property Number:  
500-0031-919010101

Sheet Title:  
**MECHANICAL DETAILS**

Sheet:  
**M202**

**Engineered Systems Associates**  
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Aug 27, 2021