

# **The Basics of Metal Roofing**

*Rooftop Quality Assurance*

**Metal Roofing**  
**“a general term that**  
**covers both low slope**  
**and steep slope type**  
**installations”**



# Low Slope Metal Roofs

- 1/12 to 3/12 – typically installed with a “secondary” membrane layer under the metal roofing.
- Seams are tightly formed
- Fasteners are hidden – “Concealed Fasteners”
- Joints are typically lapped – some installations allow “pressure bar” installation.

Check with Manufacturer regarding slope limitations – ties into warranty!



# Low Slope Metal Roofs



# Steep Slope Metal Roofs

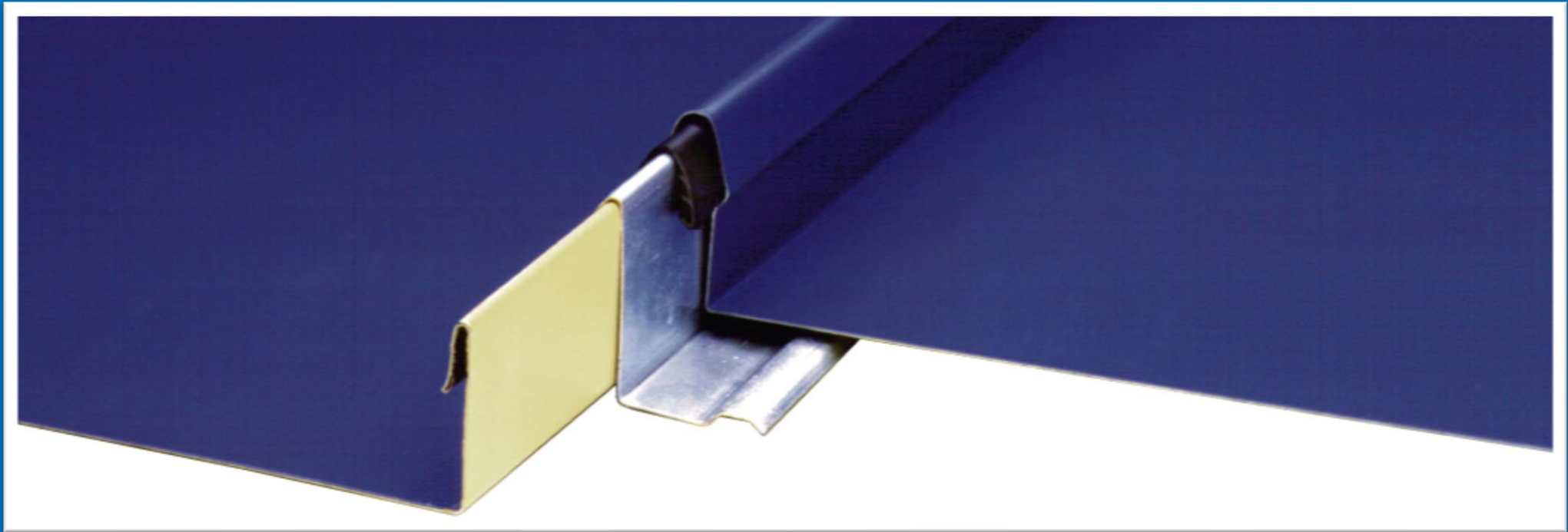
- 3/12 and Up – typically installed with a “secondary” membrane layer under the metal roofing.
- Seams are usually lapped or “snapped”
- Exposed fasteners
- Joints are typically lapped

# Steep Slope Metal Roofs

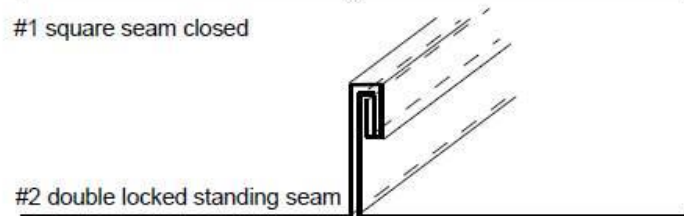
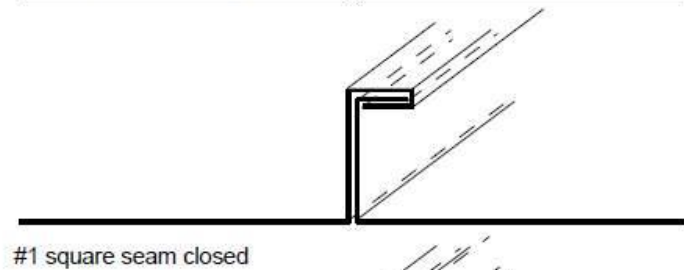
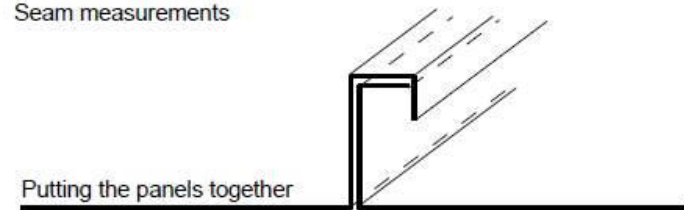
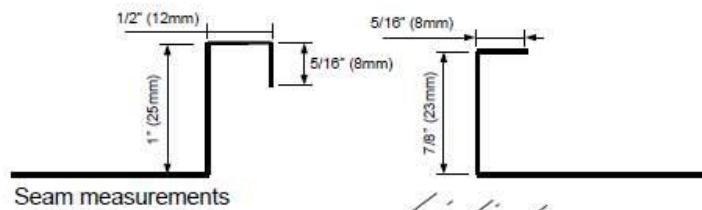


# Seam Types

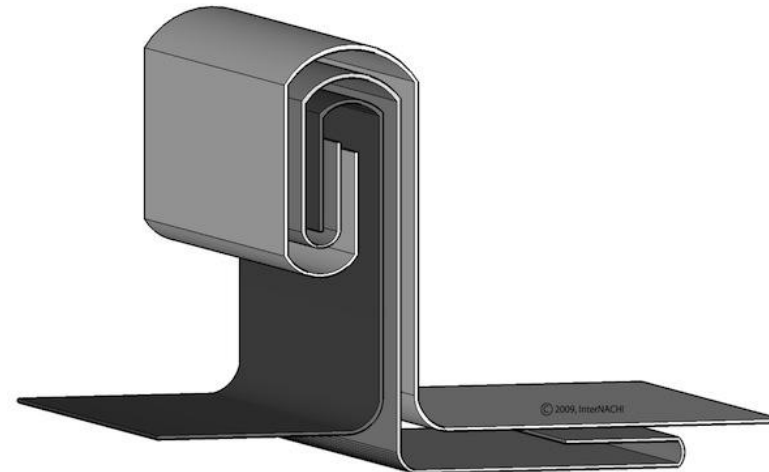
## Snap Fit Seams



# Roll Form Seams



Roll formed standing seam panels

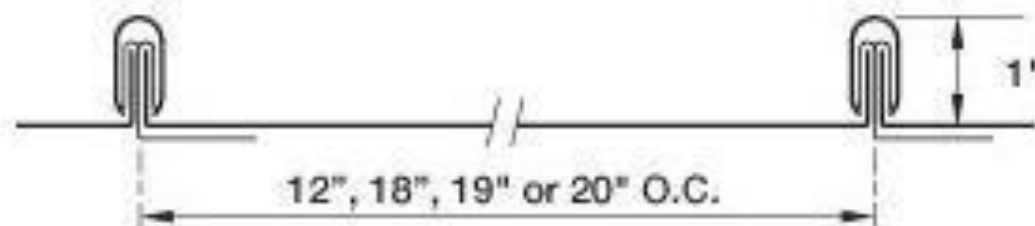




# Batten Strip Seams

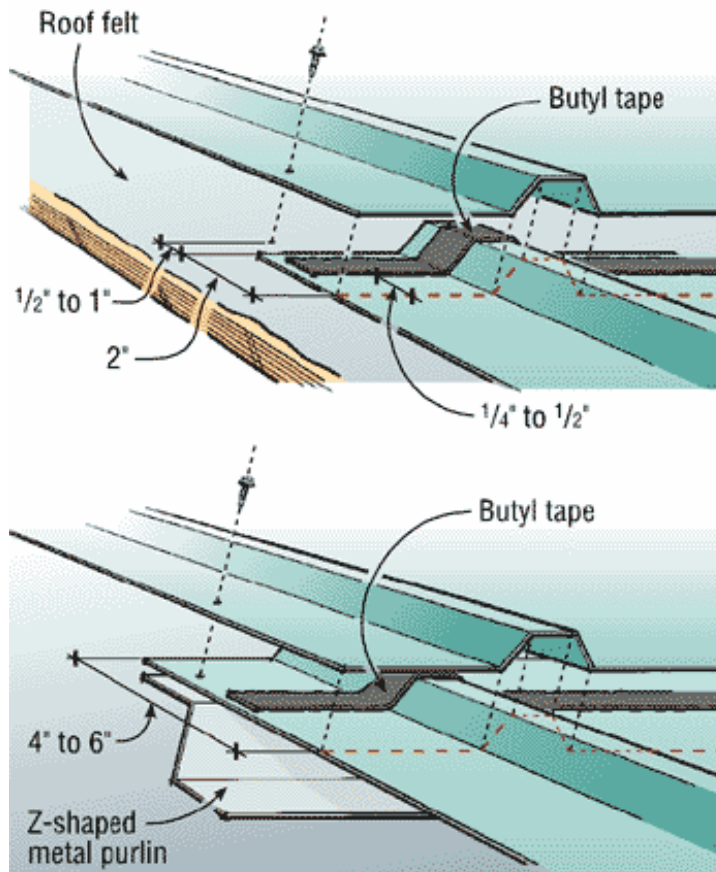


UL 90  
CLASSIFIED



# End Lap Seams

## Sealing Panel Endlaps

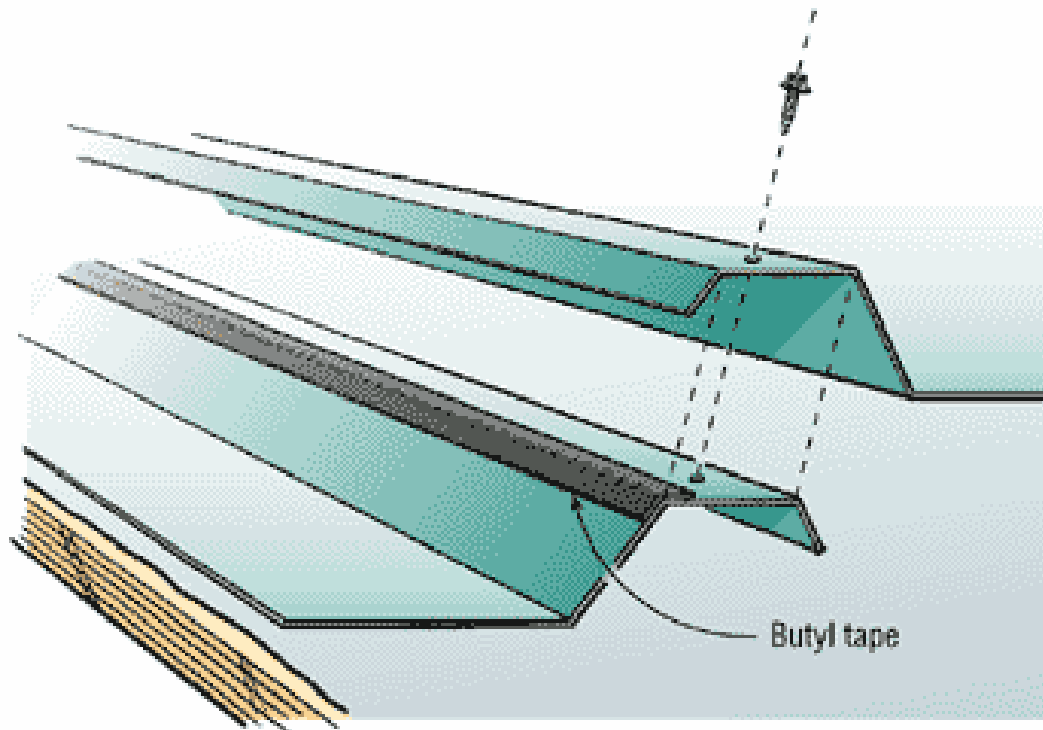


- Determined by the manufacturer
- Shingled
- Typically with sealant
- Remember - “the lower the pitch the longer the lap”

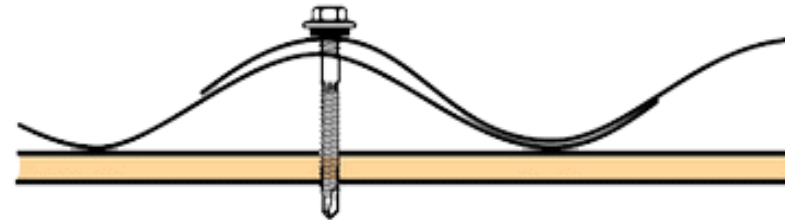


# Side Lap Seams

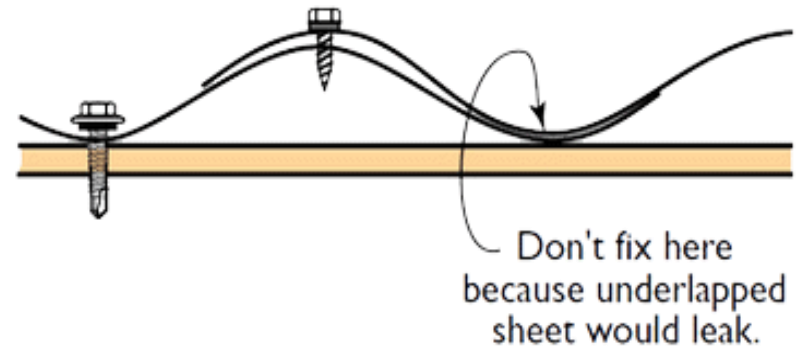
## Sealing Side Seams



Crest fixing for roof or walls



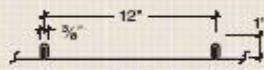
Valley fixing for walls only



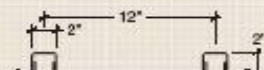
# Metal Roof Profiles

## PANEL PROFILES

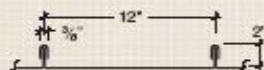
### Craftsman™ Series



SB-12



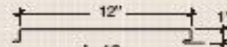
LB-12



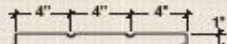
HB-12

16" also available

### Artisan® Series



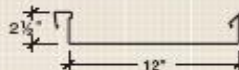
L-12



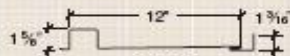
L-12 (with Beads)

8" and 10" also available

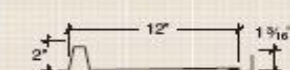
### QwikLok™



### Traditional® Series



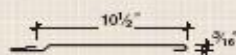
S-12C



B-12C

12" only

### FlexLoc®



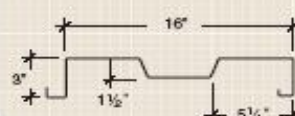
8 1/2" and 9 1/2" also available

### Classic® Series



16" also available

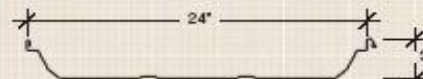
### ShadowRib™



### STANDING SEAM

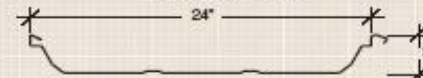
#### Trapezoidal Leg

#### Ultra-Dek®



Snap-Together System  
12" and 18" also available

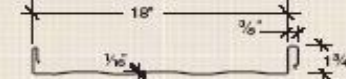
#### Double-Lok®



Field Seamed System  
12" and 18" also available

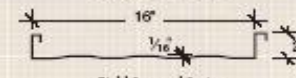
#### Vertical Leg

#### LokSeam®



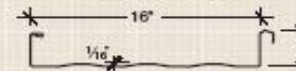
Snap-Together System  
12" and 10" also available

#### BattenLok®



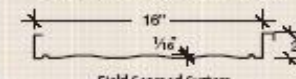
Field Seamed System  
12" also available

#### SuperLok®



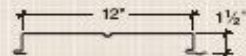
Field Seamed System  
12" also available

#### Curved BattenLok®

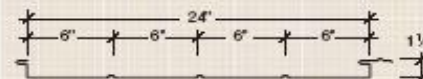


Field Seamed System

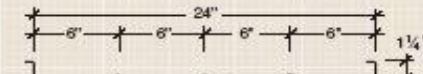
### Architectural Wall Panels



FW 120-1 (with Bead)

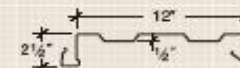


ILM-240-3 (with Beads)

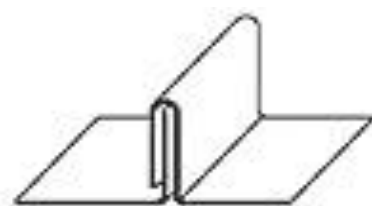


ILM-240-2 (with Beads)

### NuWall®







OVERLAP



SINGLE LOCK



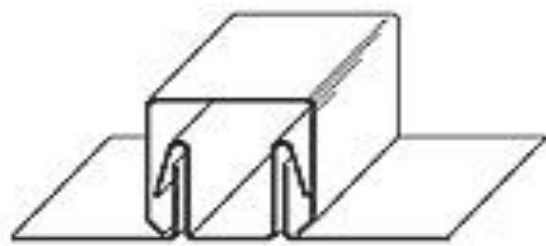
SINGLE LOCK



DOUBLE LOCK



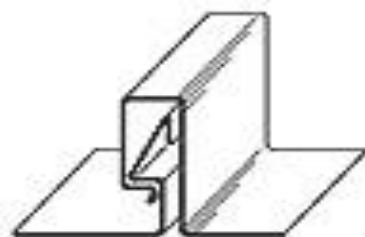
SNAP-ON CAP WITH CLIP



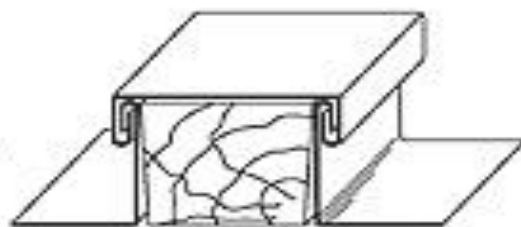
SNAP-ON BATTEN WITH CLIP



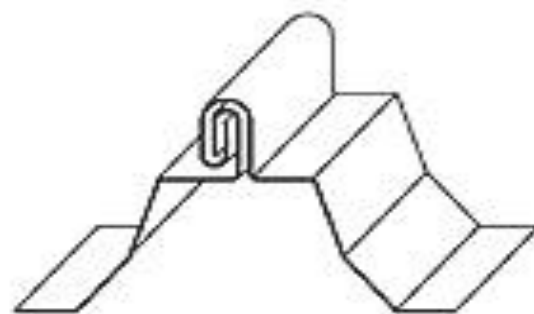
TEE



SNAP LOCK



BATTEN



TRAPEZOIDAL

# Metal Shingles



# Flat Copper Roofs



# Seam Types





# Metal Roof Assemblies

- Assembly Type - Insulated or Non-Insulated
- Vented or Non-vented?
- Gauge?
- High Temperature Underlayment or Not?
- Internal Gutters or External?
- Snow Guards?
- UL 580 Class 90 Compliant?

# Gauge & Material

- Typical – 22 & 24 gauge
- 26 gauge (more for farm and storage buildings)
- Thicker gauges are available from some manufacturers (check to verify)
- Finishes:
  - Galvalume (55% Alum + 45% zinc) ,
  - Zincalume (55% Alum + 43.5% Zinc + 1.6% Silicon),
  - PVDF (Kynar or Hylar 500 finish)
- Base Materials
  - steel, stainless steel, aluminum, copper

# Underlayment



# Snow Guards



Clip Type

[www.snowguards.biz](http://www.snowguards.biz)

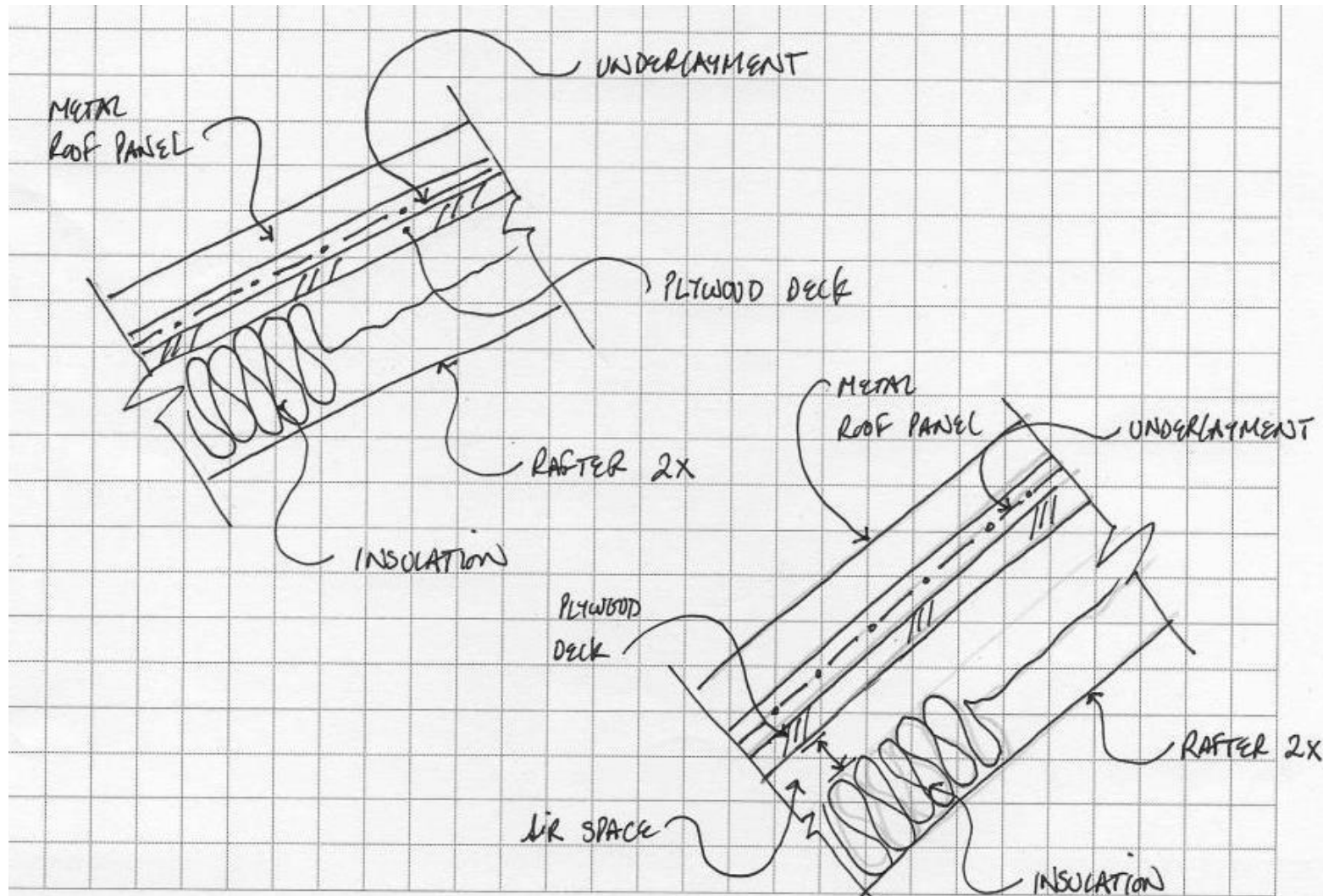


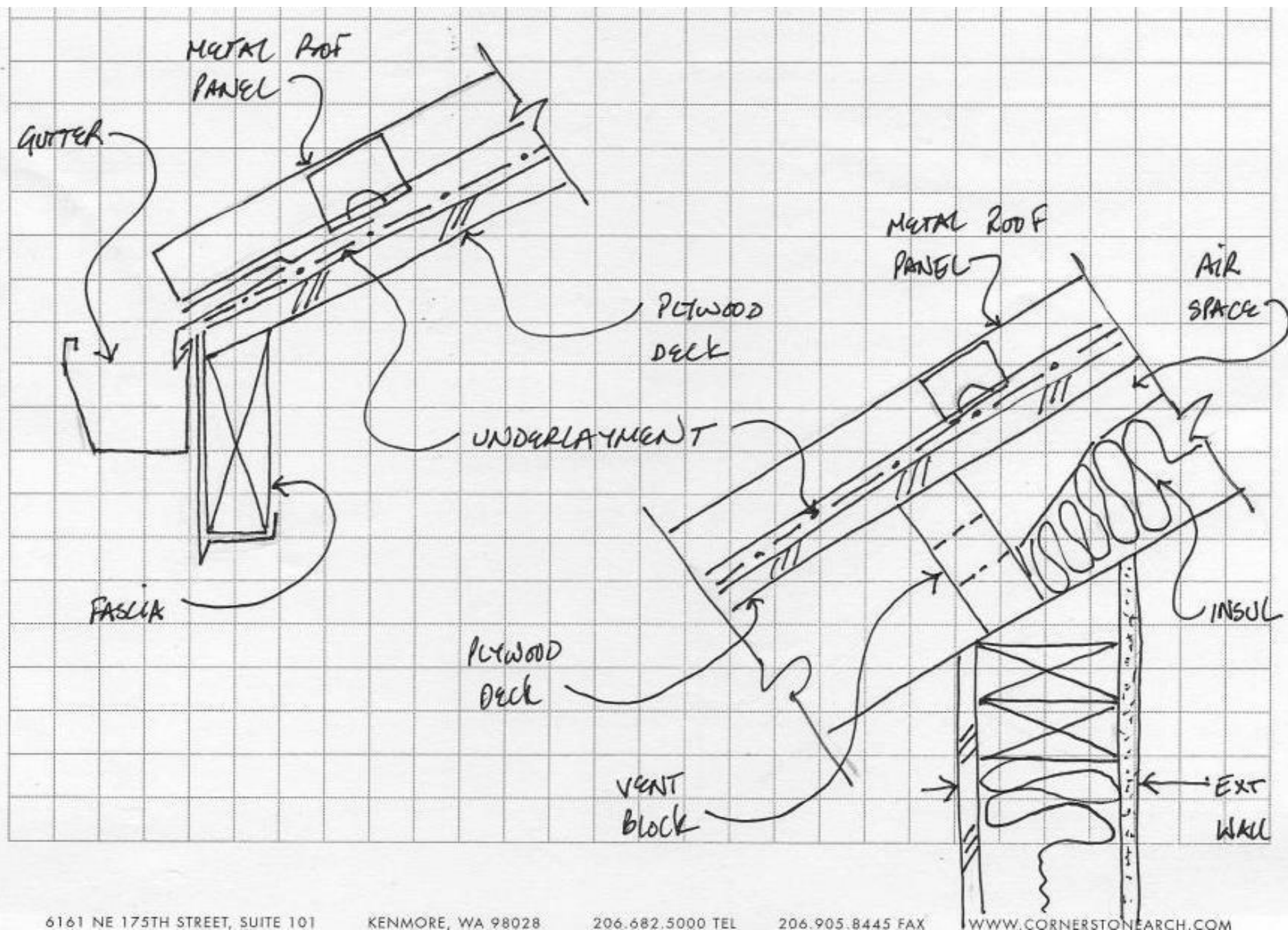
Bar Type

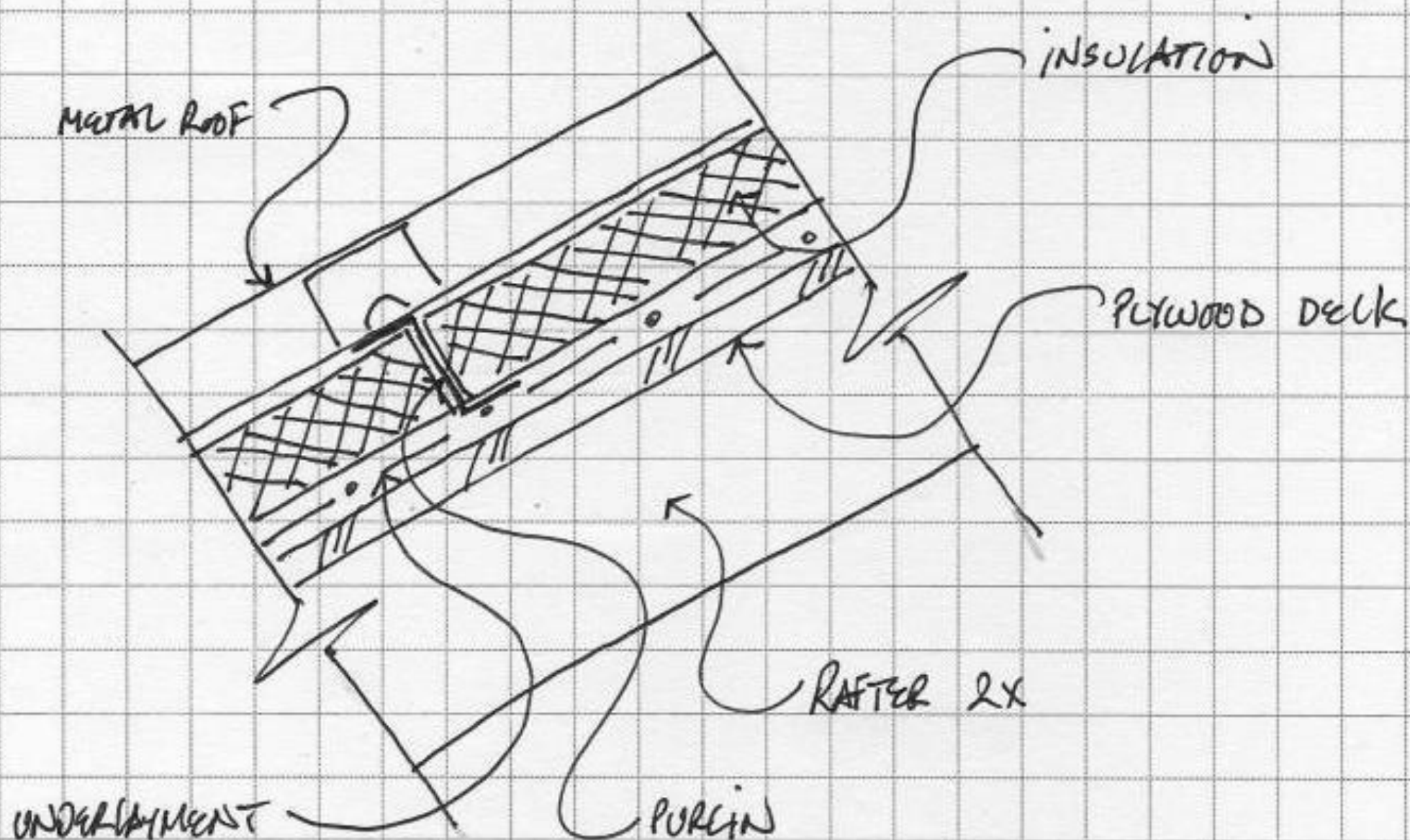
[www.alpinesnowguards.com](http://www.alpinesnowguards.com)



# Details











# Questions and Discussion