

Secure-Lock Steel SIP Assembly Guide

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Required Tools/Equipment

- ❖ Forklift for offloading (smaller jobs can be offloaded by hand)
- ❖ Ladders appropriate for scope of work (1 or 2 story)
- ❖ When installed on slab– 2 electric scissor lifts to work on high walls, set beams and set roof panels.
- ❖ When installing walls on deck – scaffold for high work
- ❖ Gloves, safety glasses
- ❖ Broom
- ❖ Chalk box with blue chalk (red and black stains)
- ❖ Carpenter pencils
- ❖ Extension cords
- ❖ SDS hammer drill – for wedge anchors in slab
- ❖ Small sledge hammer or maul with 2 x 4 x 4ft block of wood
- ❖ Level 4ft min. (magnetic preferable)
- ❖ Cordless driver/drills with ¼” drill bit, ¼” & 5/16” magnetic nut drivers
- ❖ T-30 torx bit or #2&3 sq. bits (come with SIP screws)
- ❖ Stainless Steel EPS cutter with handles (provided by Eco-\$mart)

Delivery Day

▣ Typical Load(s)



- ▣ On day of delivery panels come shrink wrapped in bundles. The end of each bundle identifies what is in each package.
- ▣ If truck is more than half a load it is advisable for customer to have a fork lift on site for quick off loading.
- ▣ If it is a small load and you manually off-load you will need 4 people.(do not rely on driver for any help, he's just the driver)

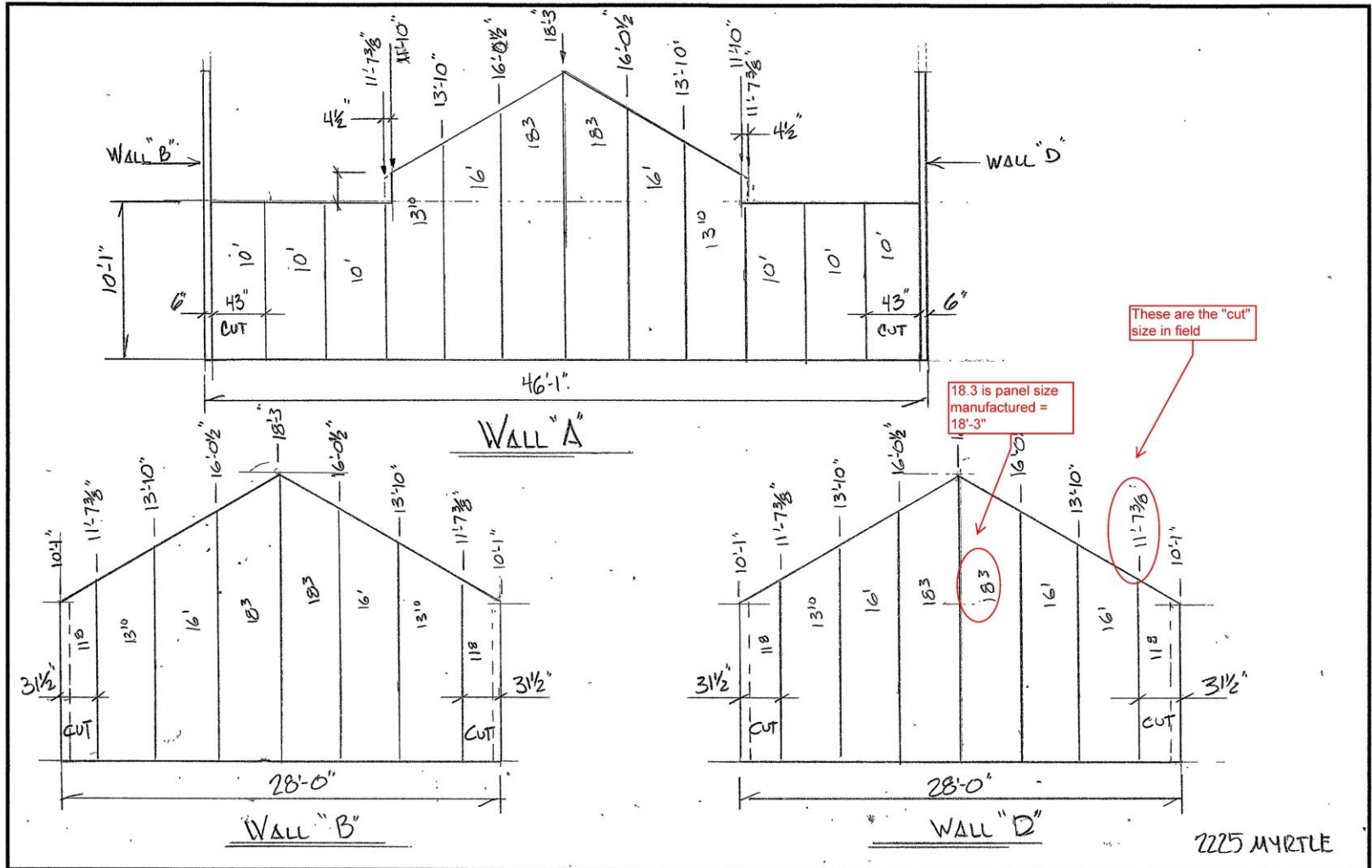


Base Track



Base channels are same thickness as walls , they can be 18 ga steel or .060 aluminum and can be installed on Concrete slab, Stem wall, wood floor or panel floor. Anchors according to the substrate and usually spaced no more than 18" o.c. or according to plan (plans take precedence) always use fender washers with fasteners. Use sealant under tracks and drill weepholes @ 4ft. o.c. around perimeter before wall installation. ***Do not install tracks across door openings.***

Panel Layout Plan: Example



Cutting Panels



With a regular 7-1/4" circular saw or smaller.

Use a
Lenox –Metal Max
Blade (Lowe's)

Or

Diablo –Diamond Disc
type blade (home
depot)

Cut 1/2" deep on each
side and use SS wire
cutter provided to cut
through EPS foam

***NOTE: continuously
check to make sure
the male and female
orientation is correct
for next cut***

Start walls in Corner



- Choose starting location (usually furthest point from wall panel pile) Must be plumb in both directions, attach to base with $\frac{3}{4}$ " SMS all sides, then corner SIP screws with 1-1/2" neo washers At maximum 12" oc. Or per plan (precedence) see next page

Corner Fasteners



Butt corner with 18 ga. channel attached with #10 x $\frac{3}{4}$ " SMS on first panel then thru screw with SIPLD screws with washer. Attach all panels to base track with #10 x $\frac{3}{4}$ " SMS

Continue with wall panels



with every 3 panels run add top channel and wind brace as required, at this time only attach the pitched wall cap on exterior side with $\frac{3}{4}$ " SMS, leaving interior side loose, Until after roof is attached

Complete Walls



Install all walls leaving one access point to interior (door opening) Attach all walls to base and top with $\frac{3}{4}$ " SMS screws.

Ridge Beams



Ridge Beams are field assembled with 2 vertical steel "C" members and a 18 ga. Track top and bottom attached with $\frac{3}{4}$ " SMS per plans.
Note: GlueLams or Laminated beams may also be used

Standard Flat/Stud Post



Place track on wall to receive beam end and then place flat stud(open side towards wall) under to support

Alternate Beam Hangers



Hangers can be purchased from Simpson or fabricated with 18 ga. angle



Install Roof Panels



Install Fascia and Corner trims



Fascia Cover – End of roof panels



Wall Corner covers

Water Proofing Window Installation



Tape window frame to panel
Start at bottom, then sides
And top last.....then apply
Final PVC or equal window trim

Electrical & Plumbing

Concealed Under drywall

- The interior surface of the wall and roof panel is typically furred out with 1 1/2" furring channels to promote conventional surface mounted installation of wiring and plumbing
- Ductwork can be placed in dropped ceiling areas
- Typically, plumbing is installed in interior walls and floors, but not in exterior walls. Where exterior wall vent pipes are necessary, chases can be formed in the foam cores or the wall framed out
- Installing island vents or loop vents is also a common practice



Electrical –Surface mount

- ▣ As shown in photos either with conduit or wire mould





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