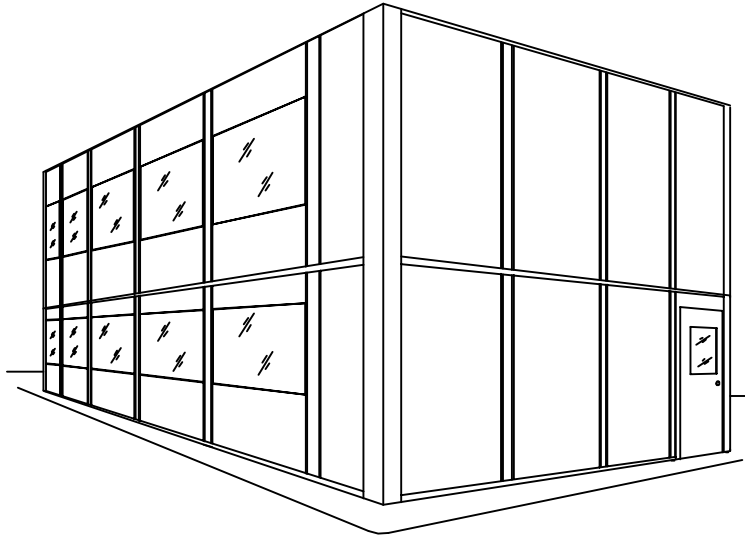
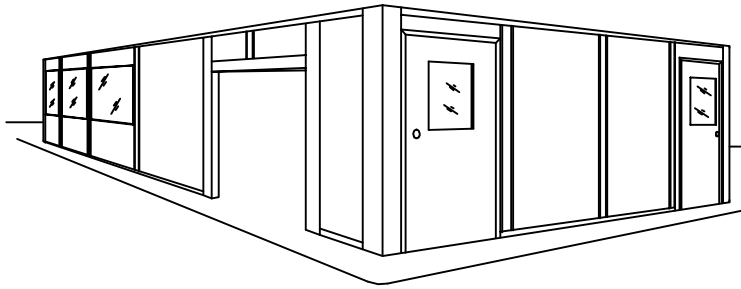




# NATIONAL<sup>®</sup> PARTITIONS

10300 Goldenfern Lane  
Knoxville, Tennessee  
(800) 996-7266

37931



## INSTALLATION MANUAL

### MODULAR OFFICE

service@n-p.com  
800-996-7266

# IMPORTANT

Use all necessary precautions to ensure your safety and those around you, and always use fall protection. Wear proper clothing, including protective work shoes, hard hat, safety glasses, gloves as needed, etc.

Prior to starting the installation:

1. Upon receiving the shipment: Compare the packages to the Bill of Lading's count and descriptions. Inspect all packages and material for damage or loss during transit. All irregularities must be marked on the Bill of Lading and the carrier notified immediately.
2. Compare the parts with our Bill of Materials, insure that the accurate number of each item has been shipped. Notify National Partitions Service Department at 800-996-7266 or service@n-p.com, if you experience any problems.
3. Read all instructions thoroughly before assembling.

Special Circumstances:

This manual is not meant to cover every possible installation circumstance. Please refer to National Partitions drawings and details provided for special assembly instructions.

**IMPORTANT NOTE:** If you cannot find proper instructions or have questions about what has been provided, **DO NOT PROCEED** and contact our Service Department for clarification. National Partitions will not reimburse additional costs for rework, improper assembly or anything beyond the parameters of our written warranty.

Site Requirements:

Adequacy of the existing structure, including the slab or other floor, to handle the additional applied loads from National Partitions structure is the responsibility of the end user.

During Installation:

1. Care must be exercised in handling these materials.
2. Securely fasten all material during lifts to prevent slippage or tilting.
3. Securely fasten all parts before proceeding to the next step.
4. Do not make any material or fastener substitutions.



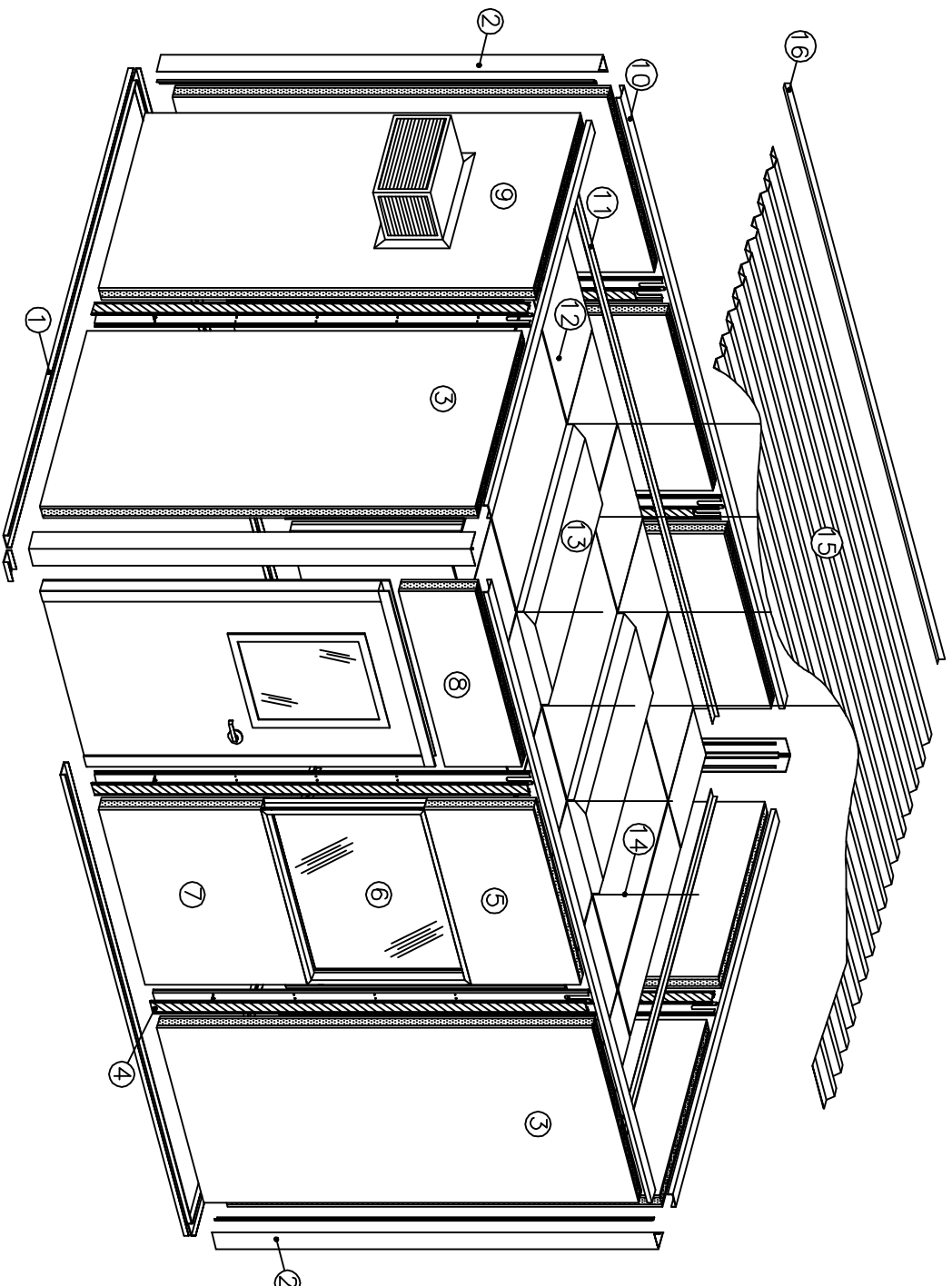
# CONTENTS

1. Cover
2. Safety
3. Contents
4. Parts Diagram
5. Fasteners Provided
6. Floor Track Installation
7. Corner Post and 3-Way Wall Connections
8. Typical Panel Connections
9. Window and Door Installation
10. Double Door (with and without framed support)
11. Electrical Locations
12. Electrical Installation
13. Electric Box at an Insert
14. Electrical Components
15. Modular Wiring Instructions
16. H-Mull Connections
17. Typical Steel Connections and Roof Deck Installation
18. Drop Ceiling Installation
19. Roof Panel Installation
20. Warranty Information

## Tools Needed For Installation:

Tape Measure  
Square  
4' Level  
Tin Snips  
Phillips Screw Driver #2  
Power Drill  
Flat and Phillips Head Screwdriver  
1/4" Concrete Drill Bit  
Chalk Line  
Hammer  
Rubber Mallet  
Razor Knife  
1/4" Hex Head Nut Driver





1. BASE CHANNEL
2. CORNER POST
3. SOLID PANEL
4. POST HALF w/ FEATURE STRIP
5. WINDOW HEADER PANEL

6. HALF LIGHT WINDOW
7. WINDOW BOTTOM PANEL
8. DOOR PANEL
9. AC PANEL
10. TOP CHANNEL

11. WALL ANGLE
12. ACOUSTICAL TILE
13. LIGHT FIXTURE (TROFFER)
14. TIE WIRE
15. CORRUGATED ROOF DECK
16. ROOF FASCIA




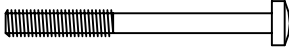


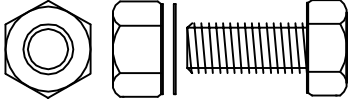
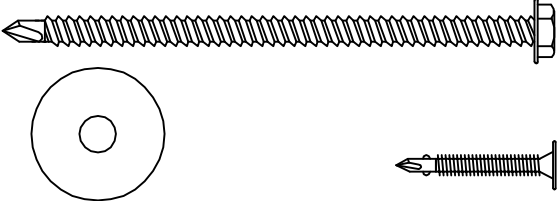

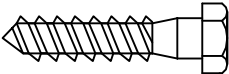
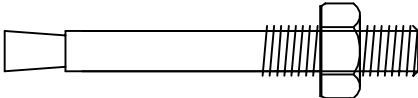
**NATIONAL<sup>®</sup>**  
**PARTITIONS**

10300 Goldenfern Lane  
Knoxville, Tennessee  
(800) 996-7266

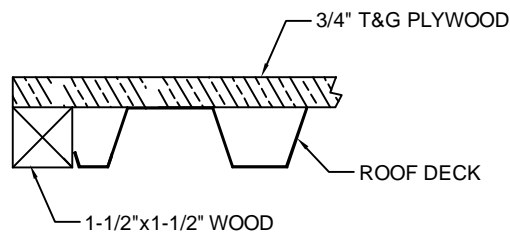
37931

COPYRIGHT ©2014 NATIONAL PARTITIONS. The design and detail drawings for this building and/or overall project are the intellectual property of NATIONAL PARTITIONS. All rights are reserved. Use for reproduction, construction or distribution is prohibited unless authorized in writing by NATIONAL PARTITIONS.

## FASTENERS PROVIDED

	F-PS	#10x3/4" Hex Head Tek Screw (For Standard Sheet Metal Fastener)
	F-PBU	1/4"x2-1/2" Post Bolts (For Inside and Outside Post Halves)
	F-CPB	1/4"x4-3/4" Corner Post Bolts (For Inside and Outside Corner Post)
	F-TK12	#12-24x1-1/2" Tek Screw (For Roof Deck To Beam)
	F-B58	5/8"x1-1/2" Hex Head Bolt (A325) (With Nut and Washer) (For All Structural Steel Connection)
	Fender	1/4"x5" Tek Screw with Fender Washer (For Roof Panels)
	F-PLY	#10-24x1-7/16" Flat Head Wing Tek (For Plywood to Deck)
	F-LAGS	1/2"x2-1/2" Lag Screw (For 2nd Story Columns)
	F-RHA2	1/2" Hilti TZ Anchors

Two story buildings need the addition of  $\frac{3}{4}$ " plywood including  $1\frac{1}{2}$ " x  $1\frac{1}{2}$ " pressure treated wood around perimeter and fasteners for columns and thresholds as noted above.



Check floor to be even and level. Layout base channel using drawings provided making sure that layout is square.

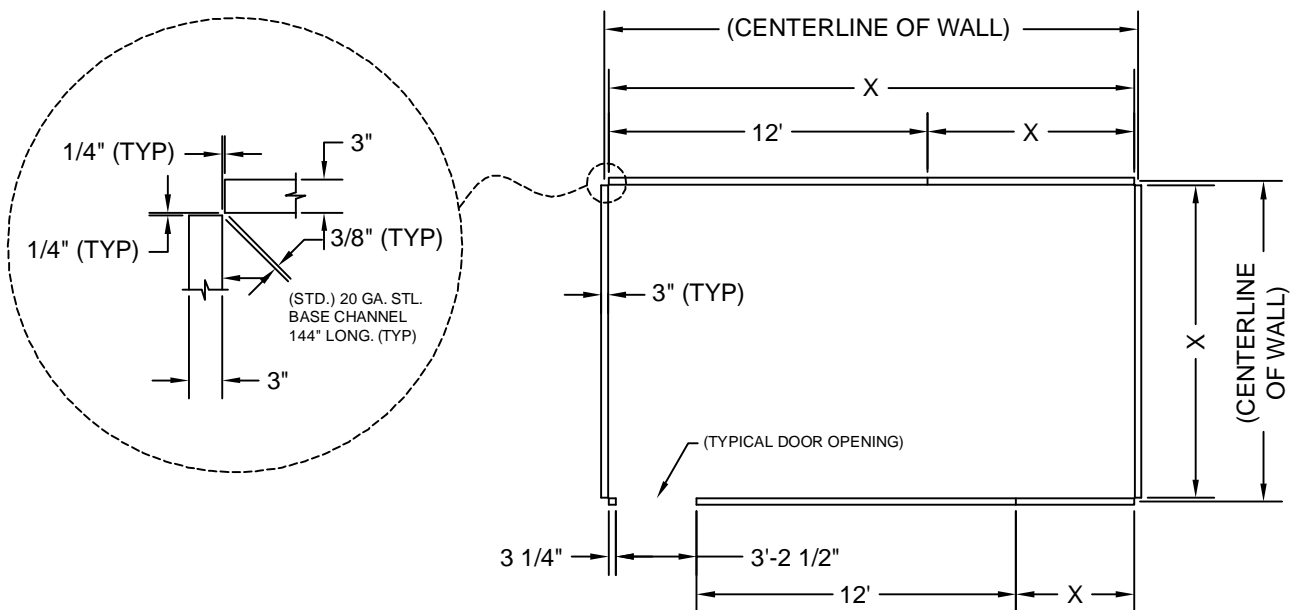
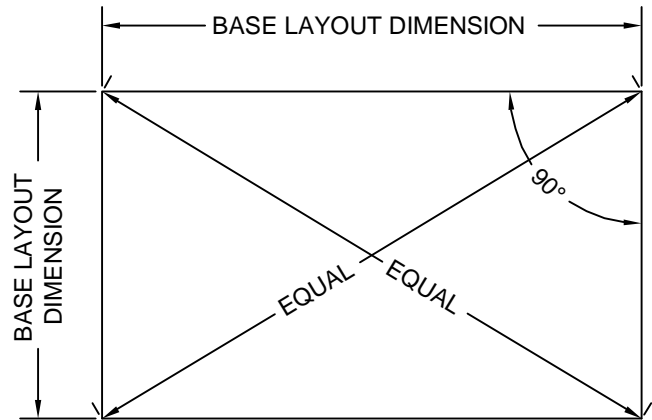
Diagonals should be equal in length so that corners are 90 degrees.

Note the locations of all steel supports inside the floor track and mark the respective column numbers inside the floor track.

**ALWAYS USING THE SAME  
REFERENCE POINT.**

Cut the base channel to length and allow  $\frac{1}{4}$ " clearance at all intersections and existing walls.

Anchors for base channel and wall start by others. Fastened every 12" c/c.



**TYPICAL BASE CHANNEL LAYOUT**

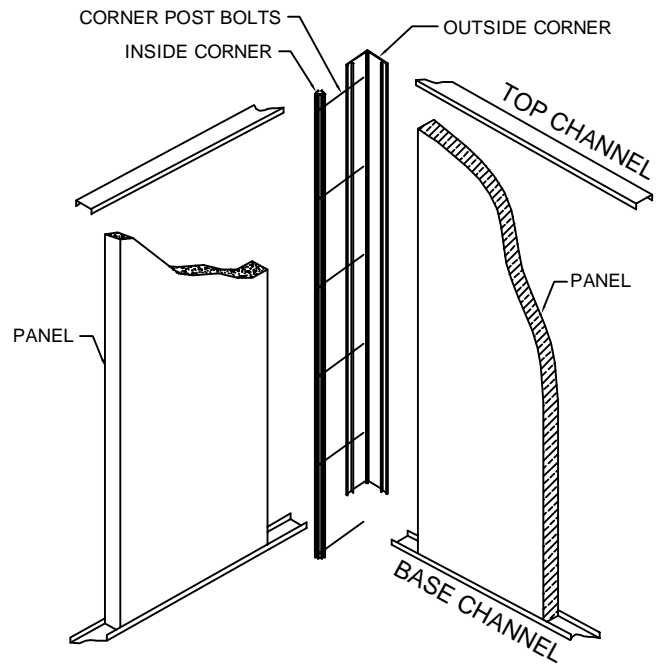
BASE CHANNEL IS FIELD CUT TO FIT, RECOMMENDED CLEARANCE FROM WALLS IS 1/4" AT INTERSECTIONS



Most buildings will have corners. The installation of the wall panels should start at the corner for stability and continue out.

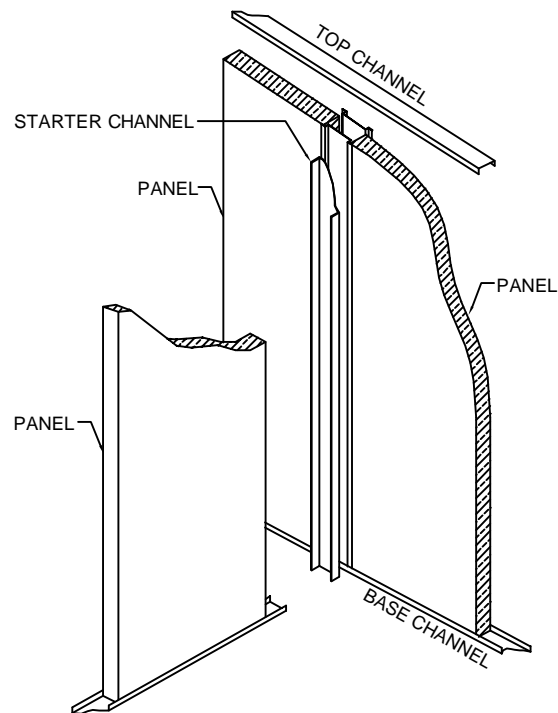
Bolt together the corners using  $\frac{1}{4}" \times 4\frac{3}{4}"$  bolts using the pre-drilled inside corner as a guide.

The corner post should set on the outside of the base channel.



CORNER CONNECTION

Installation of wall panel at an existing or intersecting wall will utilize a starting channel which is fastened to the perpendicular wall. Location of the starting channel can be found on the Floor Plan layout. Anchors for existing walls by others.



INTERSECTION OR EXISTING CONNECTION



National Partitions ® 2 piece post halves are bolted snug tight every 20" in a staggered pattern from the same side.

**\*\* Do Not Over Tighten \*\***

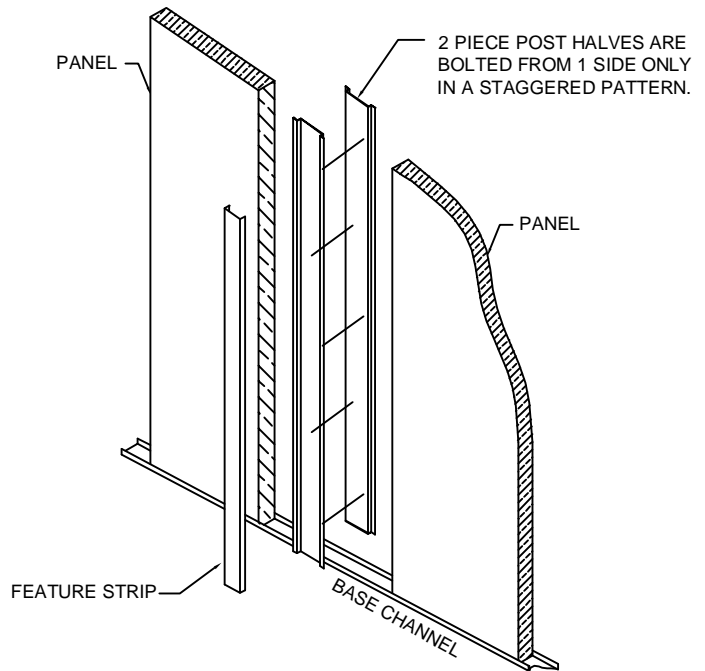
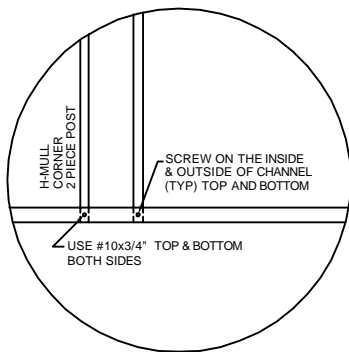
Posts halves are constructed in a way that allows for standard or modular electric to be run inside the posts halves. This design also allows for steel support for a loaded roof or span greater than 12'. All parts fit inside the base channel.

Panels are typically 48" center of post to center post, any variance from this will accumulatively add or subtract from the overall length of the walls. Make sure to fasten the post halves to the base channel and top channel according to the diagram below. 2 piece posts halves are to be installed inside of the base channel.

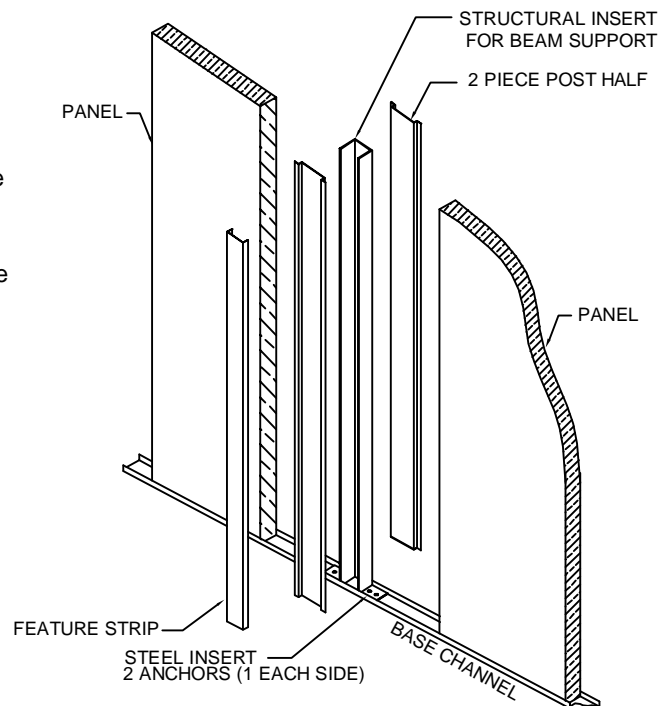
Use 4' level to ensure that the walls panels and post are plumb and square. Last, for a finished look, install the feature strip into the designed slot of the post halves to cover bolts.

See pages 11, 12, & 13 for electrical assembly. Electric must be installed before attaching post halves.

When your building has a requirement for tube steel columns and/or structural inserts the steel should be installed as you go along and not beforehand. The base plates should be securely mounted to the floor using an appropriate Hilti-TZ or equivalent anchor, one on each ear of the base plates. Be certain to check the newly installed column or insert for plumb as this will impact the rest of your installation. If the floor is uneven make sure to shim the baseplate with metal strips to bring the column or insert back into plumb. It's very important to always keep the walls, 2-piece posts, columns and inserts plumb.



### STANDARD PANEL CONNECTION



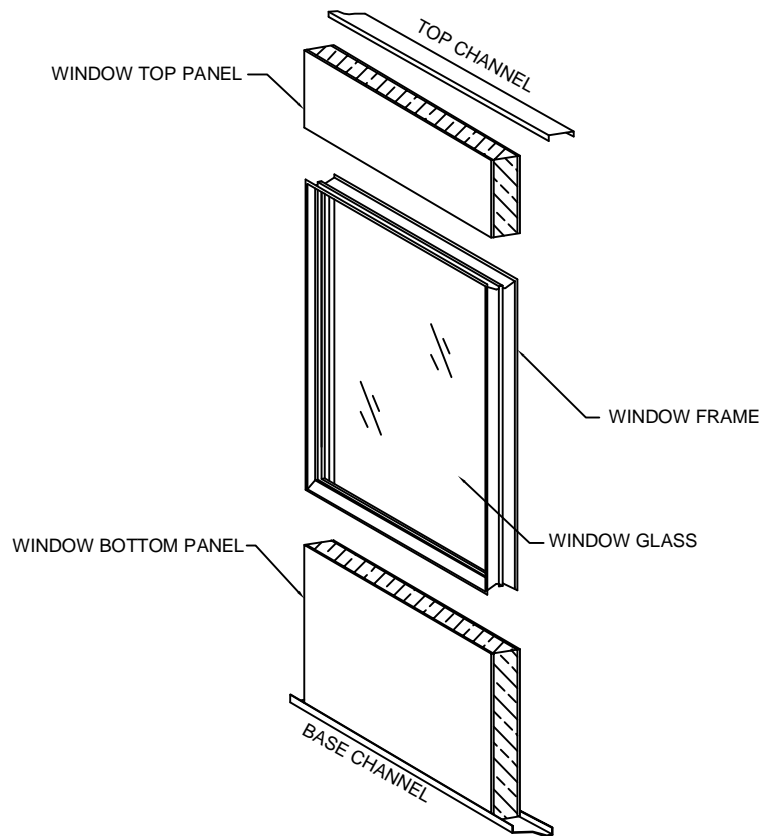
### STANDARD PANEL CONNECTION WITH STRUCTURAL INSERT





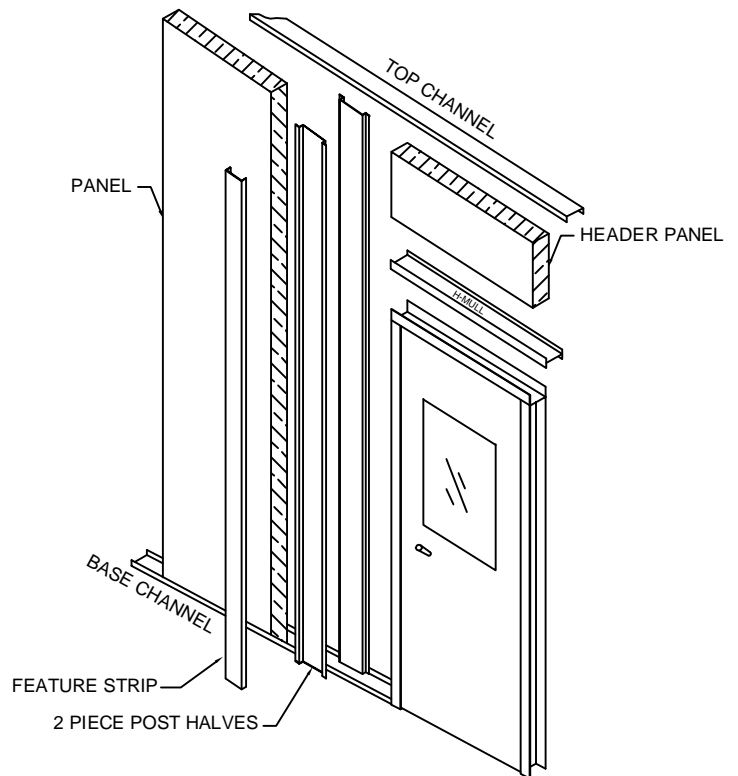
National Partitions windows are three piece units consisting of a bottom panel, framed window, and a top panel.

Make sure that the window unit is completely inside the connecting post halves.



3 PIECE WINDOW PANEL

Door and jamb assembly is provided either pre-installed in a standard panel or knock-down with a header panel as shown in the diagram to the right. It is strongly suggested to remove the door slab from the jamb assembly prior to installation when a pre-installed door is used on your project. Removing the slab will make the panel lighter to maneuver and help to prevent damage caused by mishandling. The door slab can be removed by loosening (12) Phillips head screws on the hinge side of the door jamb.



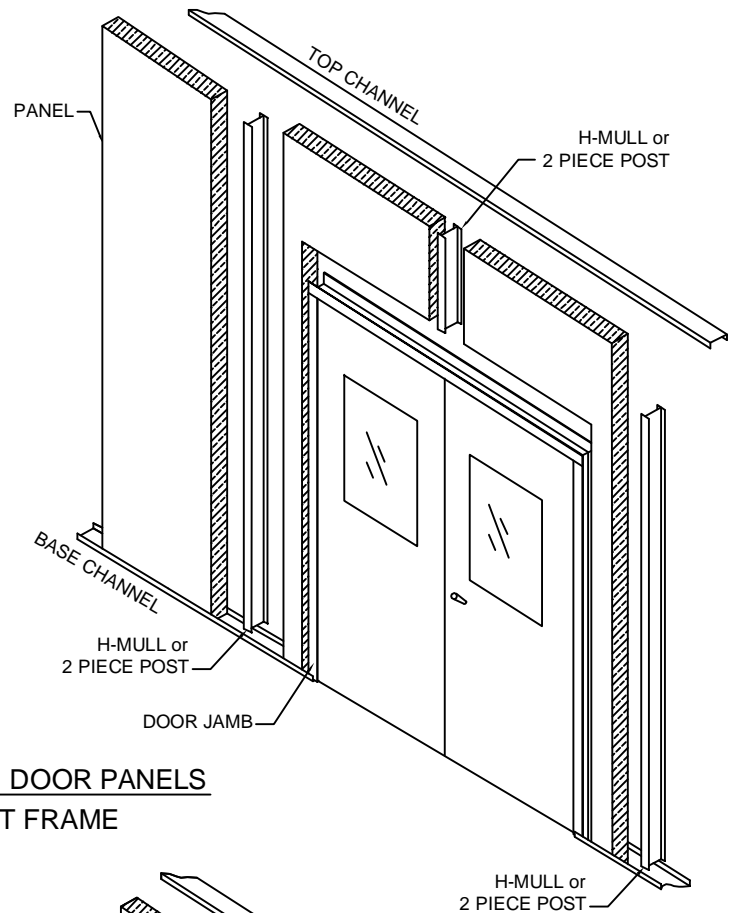
DOOR PANEL



National Partitions' double doors are shipped knock down with panels, jambs, door leafs, and hardware necessary to installation.

Install panels and door jambs first making sure that they are plumb and square.

Door sizes will vary in width and height, refer to drawings of your building to verify size.

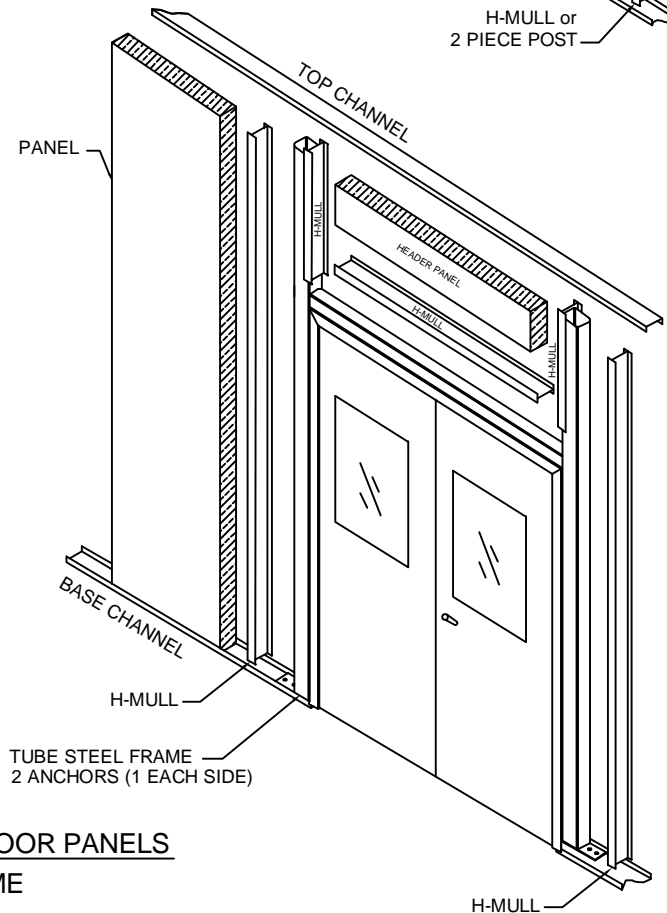


**DOUBLE DOOR PANELS  
WITHOUT FRAME**

For a loaded roof there is an additional tube steel frame for support with wood for the door jamb. Attach door jamb to steel frame by placing wood between jamb and frame and attaching with screws.

Panel configuration will vary, refer to drawings and details provided with your building.

Door sizes will vary in width and height, refer to drawings of your building to verify size.



**DOUBLE DOOR PANELS  
WITH FRAME**



National's Partitions electrical positions in the 2 piece post halves are shown in the diagram to the right.

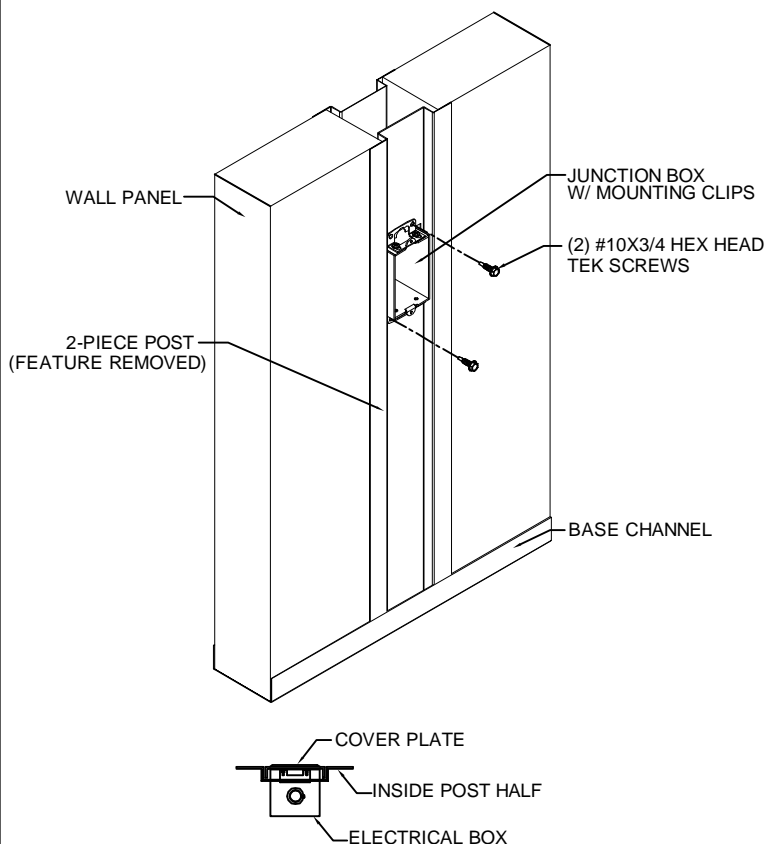
The standard positions are pre-punched and the knock out is easily removed to place the electrical boxes.

The boxes have tabs that allow flush mount for a finished look.

Cut feature strips to fit between any utilized electrical positions.

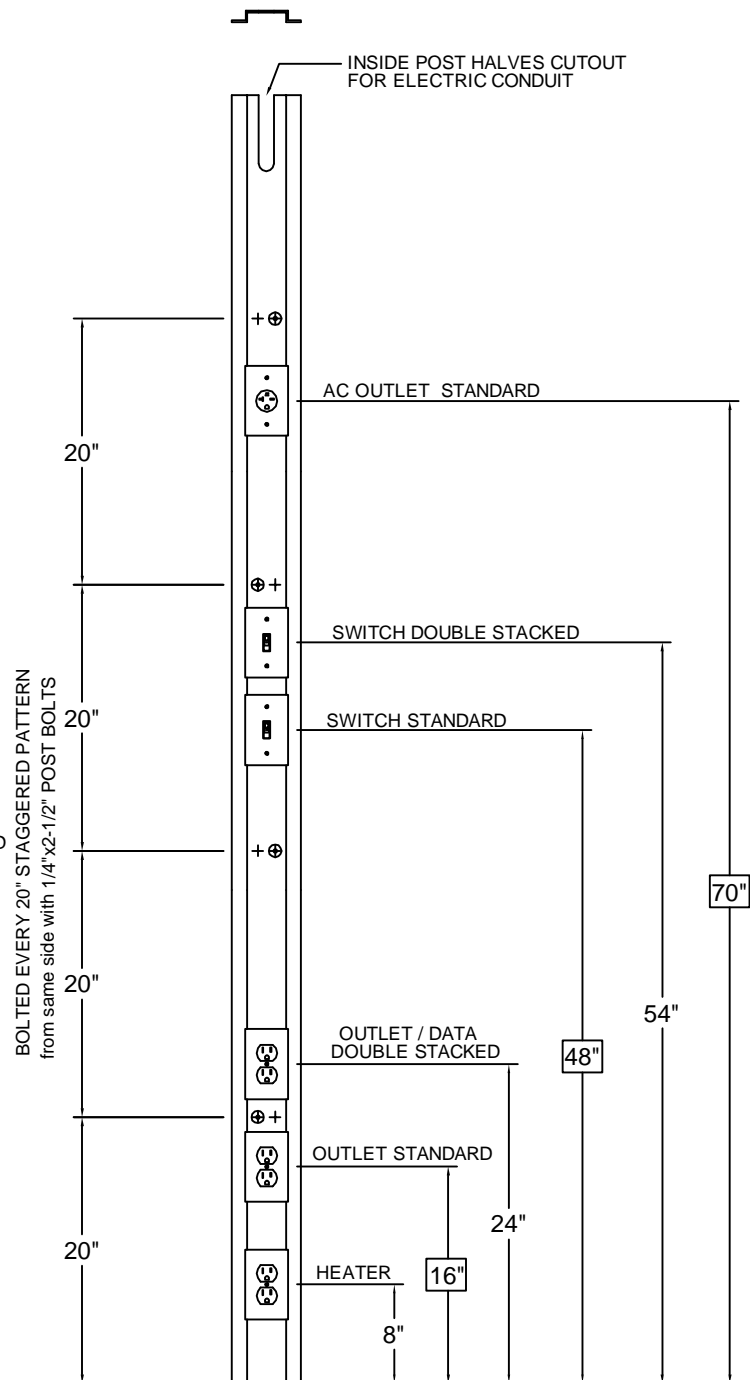
Assemble electrical to the post halves before attaching post halves to the wall.

REVERSIBLE MOUNTING CLIPS ARE SUPPLIED TO BACK SET ELECTRICAL BOX. MOUNT BOX FLUSH WITH FEATURE STRIP ON POST HALVES.



STANDARD ELECTRIC BOX SIZE IS 3"Hx2"Wx2-3/4" DEEP  
REQUIRES KNOCK OUT ON BOTH INSIDE & OUTSIDE POST  
USE 3"Hx2"Wx2" DEEP BOX at INSERT LOCATIONS.

### STANDARD ELECTRICAL POSITIONS 2 PIECE POST HALF



**NATIONAL<sup>®</sup>  
PARTITIONS**

10300 Goldenfern Lane  
Knoxville, Tennessee  
(800) 996-7266

37931

COPYRIGHT © 2014 NATIONAL PARTITIONS. The design and detail drawings for this building and/or overall project are the intellectual property of NATIONAL PARTITIONS. All rights are reserved. Use for reproduction, construction or distribution is prohibited unless authorized in writing by NATIONAL PARTITIONS

All electrical wiring is to run in the raceway created by the 2 piece post halves with overhead wire to run in the plenum between roof deck and drop ceiling.

National Partitions manufactures a UL listed modular wiring system that plugs together with the final connection to the breaker panel made by an electrician.

Modular wiring is run in the same place as standard electric, installed at the same time as the walls panels.

All modular components are displayed on the page 12.

Some conditions may require surface mounted extension covers. (Field Applied)  
(Noted by SME on the drawings plans.)

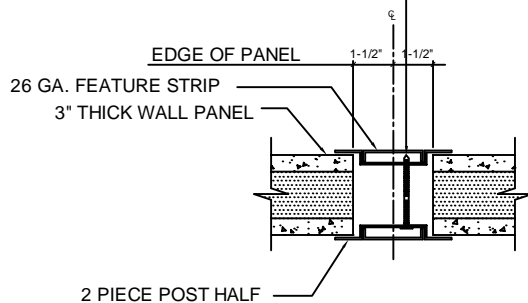
Conduit clips are provided to mount electric to the post halves.



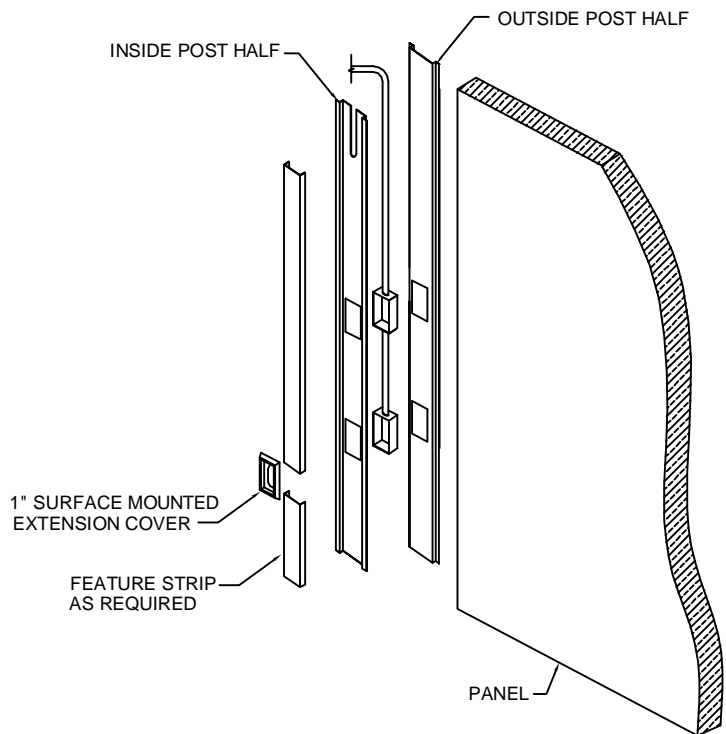
1/4"x2-1/2" PAN HEAD F POINT POST BOLT, (TYP.) @ 20" O.C. STAGGERED.

**INSTALL POST BOLTS FROM ONE SIDE ONLY.**

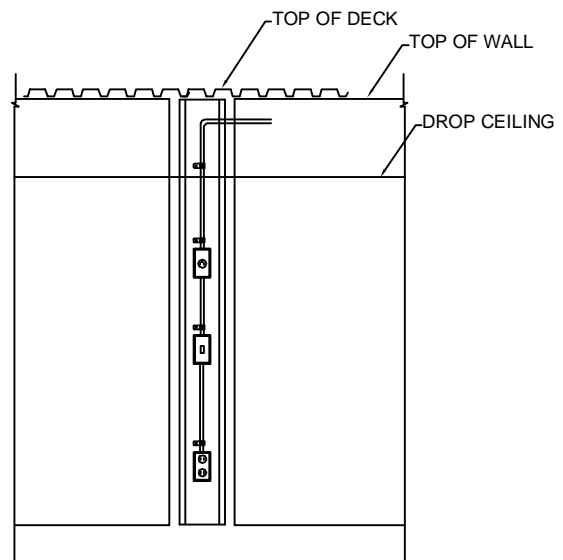
**\*\*DO NOT OVER TIGHTEN\*\***



SECTION THRU POST

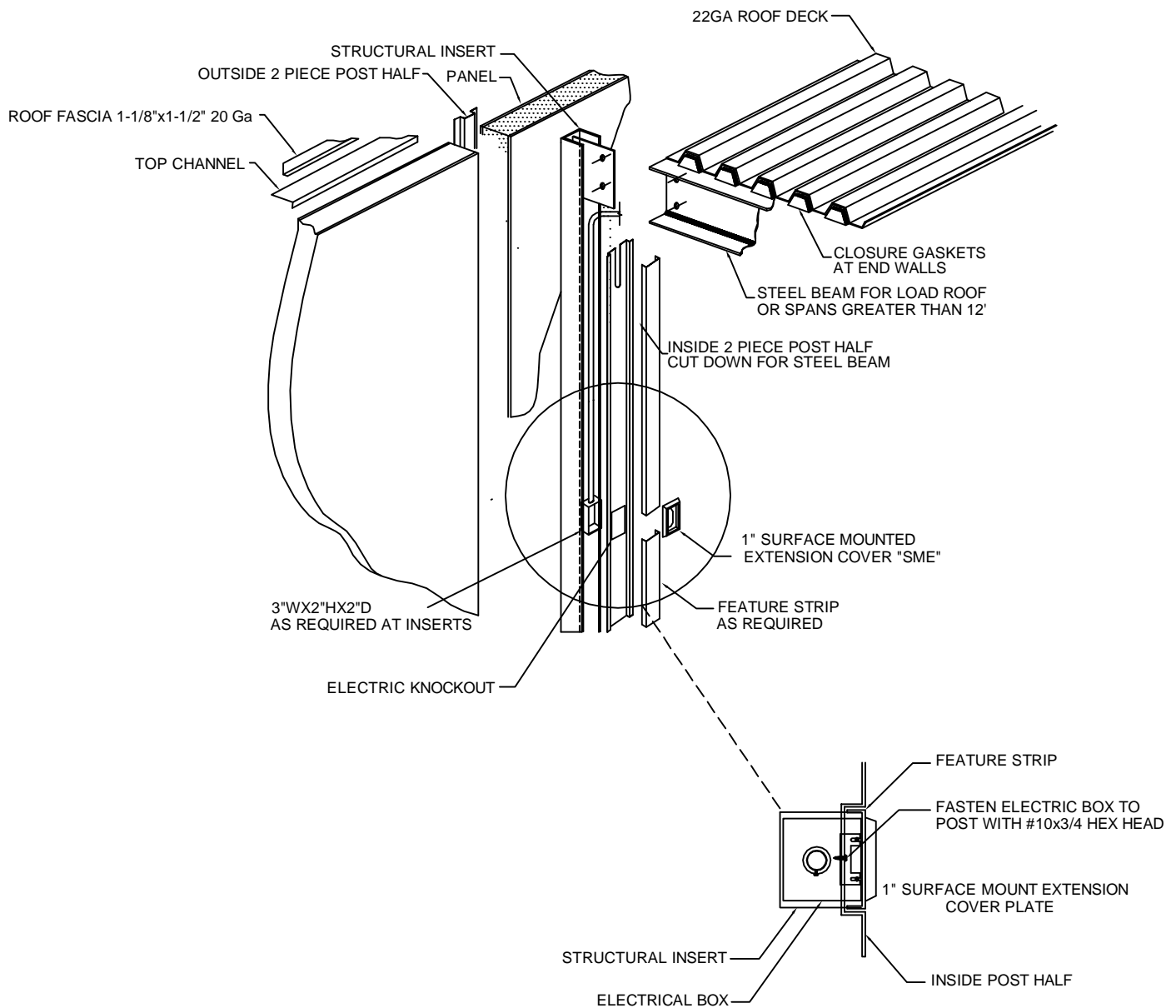


ELECTRICAL AT POST HALVES



ELECTRICAL INSIDE PLENUM





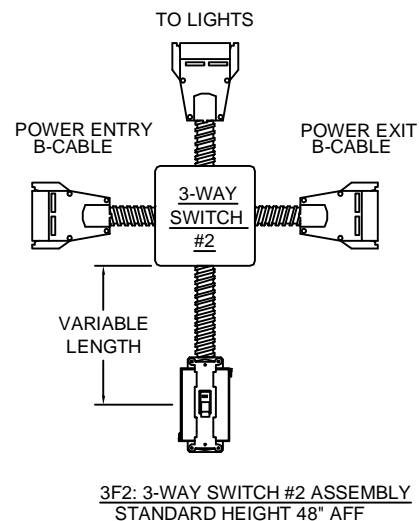
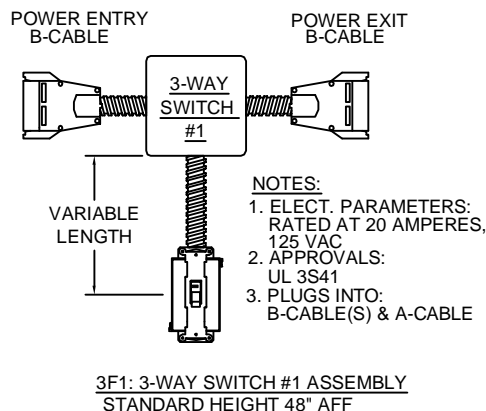
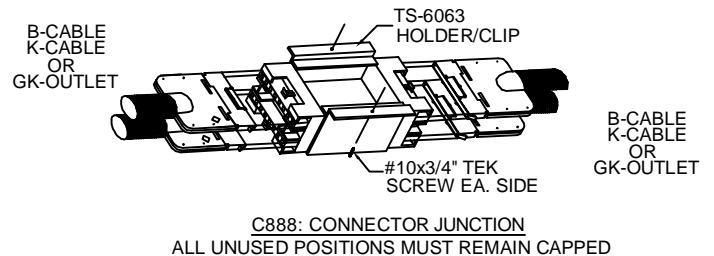
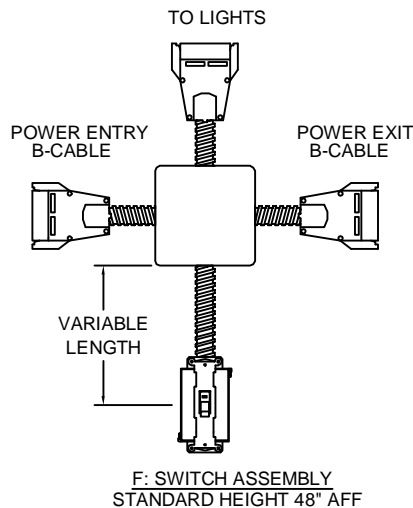
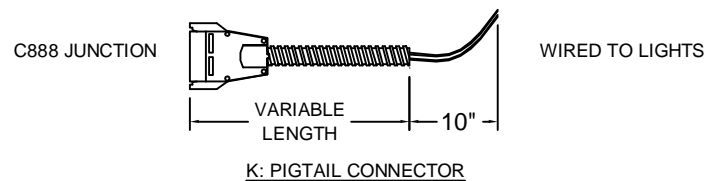
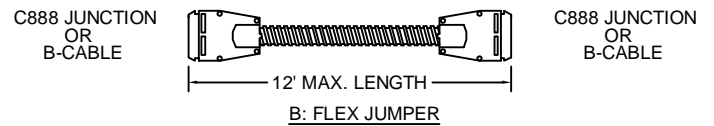
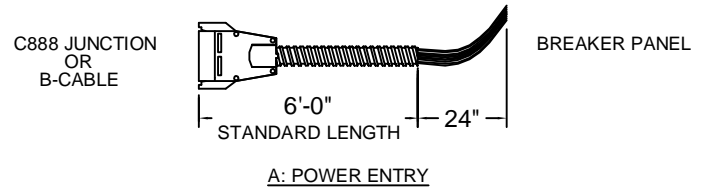
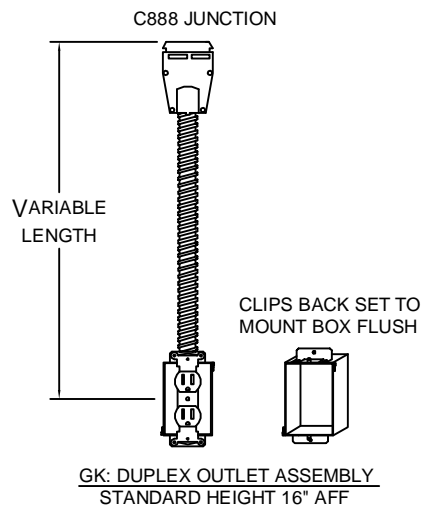
Standard electric box size is 3"Hx2"Wx2-3/4" deep.  
Requires Knock out on both inside & outside posts.

Use 3"Hx2"Wx2" Deep Box at INSERT locations.  
To meet code a surface mounted  
1" extension cover is required note as "SME".



# MODULAR WIRING COMPONENTS

RATED AT 20 AMPERES, 125/250 VAC.  
UL Listed



# MODULAR WIRING INTRUCTIONS

National Partitions® Modular Wiring is custom designed snap together wiring system that snaps together as the building is being assembled. The male and female connectors used are directional. This insures the system cannot be assembled incorrectly. 3-way switches must be assembled in accordance to the layout provided with each building. All other pieces are interchangeable allowing for last minute field alterations.

NOTE: 3-way switches use circuits C/2 and C/3 and no other item can be placed on the circuits with a 3-way switch.

## Specifications

7 wire system utilizing three separate circuits for 110 volts 20 amps only.

Circuit 1 C/1 typically for outlets uses Red-Hot, White-Neutral, Green Ground.

Circuit 2 C/2 typically for lights uses Black-Hot, Gray-Neutral, Green Ground.

Circuit 3 C/3 typically for 110 volt AC units or isolated lines uses Blue-Hot, Black with 3 white stripes-Neutral, Green ground.

All wiring is 12 gauge, THHN type, Stranded copper and all conduit is ½" flexible type.

The system conforms to the NEC and all Components are UL listed and Recognized (UL File # E184535 / 183)

220 volt outlets may be provided as separate dedicated run to the breaker box.

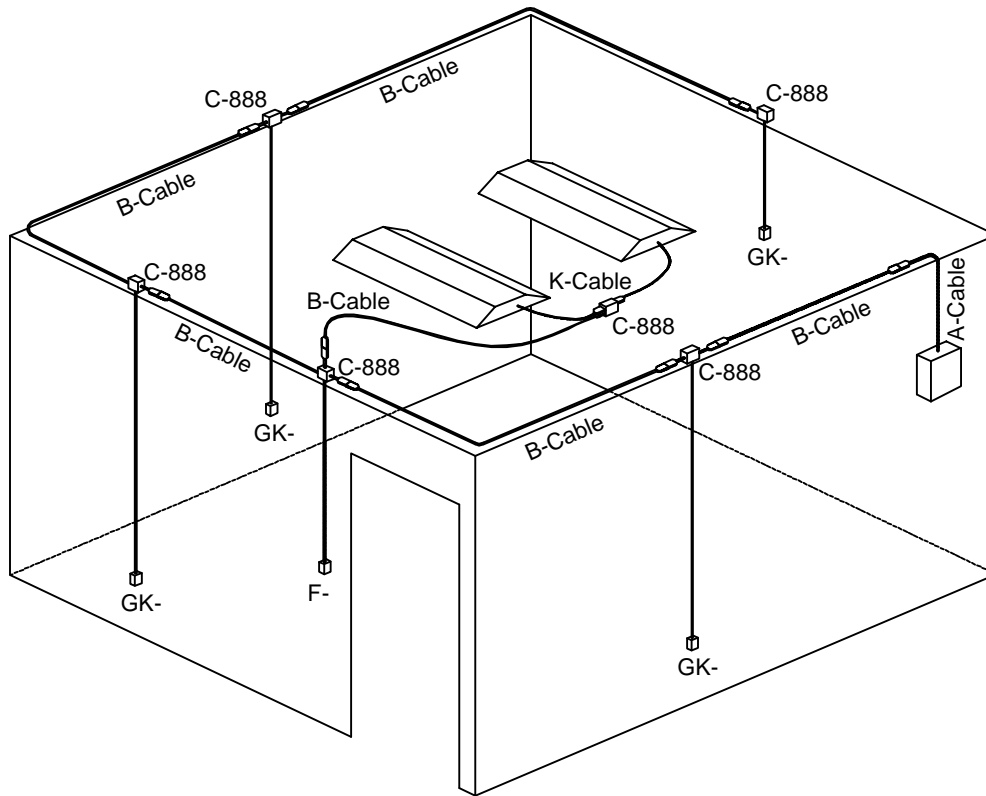
Conduit clips are provided for fastening the cabling and junctions boxes to the roof every 36" and within 12" of every junction box connector. All runs shall not exceed 144" without having a junction box connector.

An electrician will only be required to bring power to the building and complete the hook-up at the breaker box. No other field wiring will be necessary. A complete bill of materials and electrical schematic are provided with each building.

COMPONENT	DESCRIPTION
A-Cable	Power entry, pig tail to the breaker panel (always female connector.)
B-Cable	Flex jumper between outlets lights ect. (always female connector both ends.)
C888	Universal connector junction box (male connectors) leave unused caps in place.
G-Cable	Outlet assembly (always female connector.)
F-Cable	Switch assembly (always female connector.)
H-Cable	220 volt direct wire outlet assembly (always pig tail.)
K-Cable	Lights (always female connector.)

## Warnings:

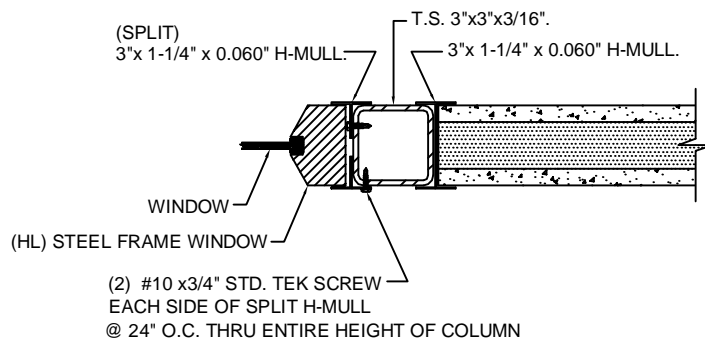
Risk of fire or electric shock. Do not electrically connect to more than one source of supply. Always determine that the wiring assembly is connected to one and only one source of supply.



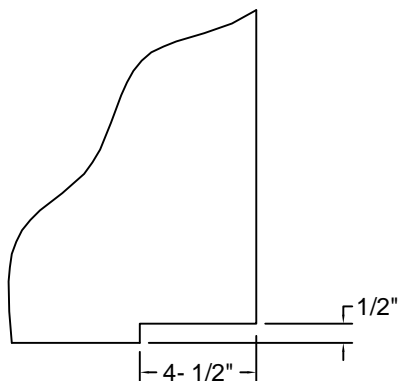
National Partitions® H-mull connection system for some applications.

H-mull is also used to connect tube steel columns or framing to the wall panels.

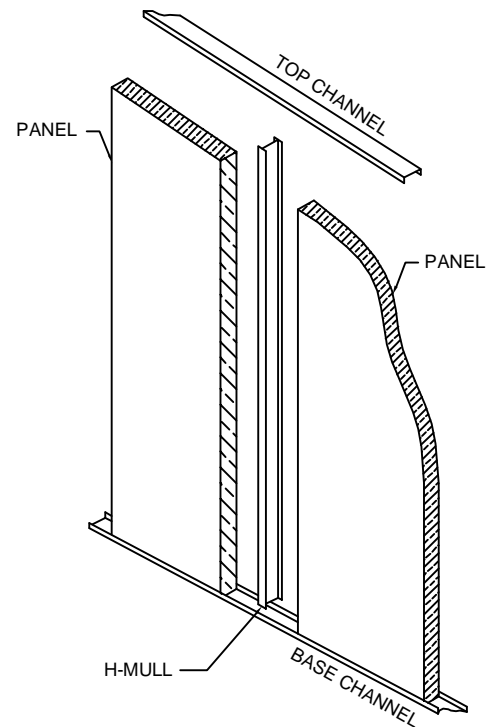
Split h-mull is required when next to a window.  
See detail below.



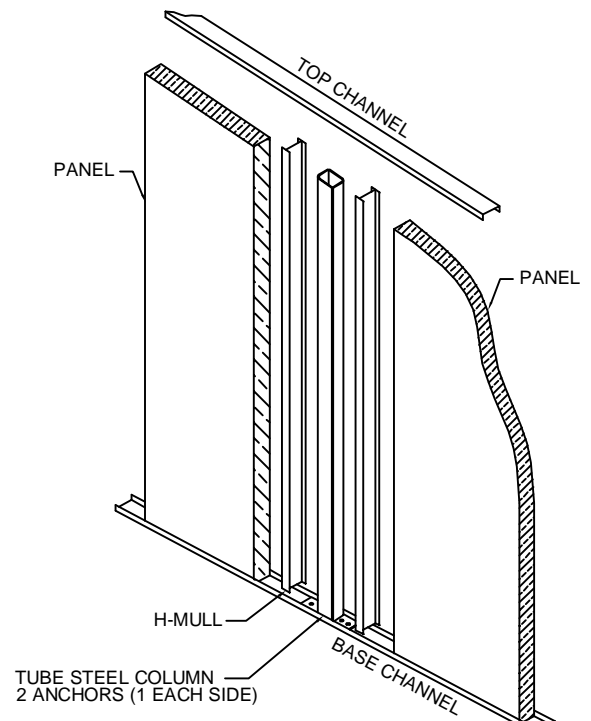
SPLIT H-MULL DETAIL AT HL WINDOWS



PANEL FIELD CUTTING FOR COLUMN BASES



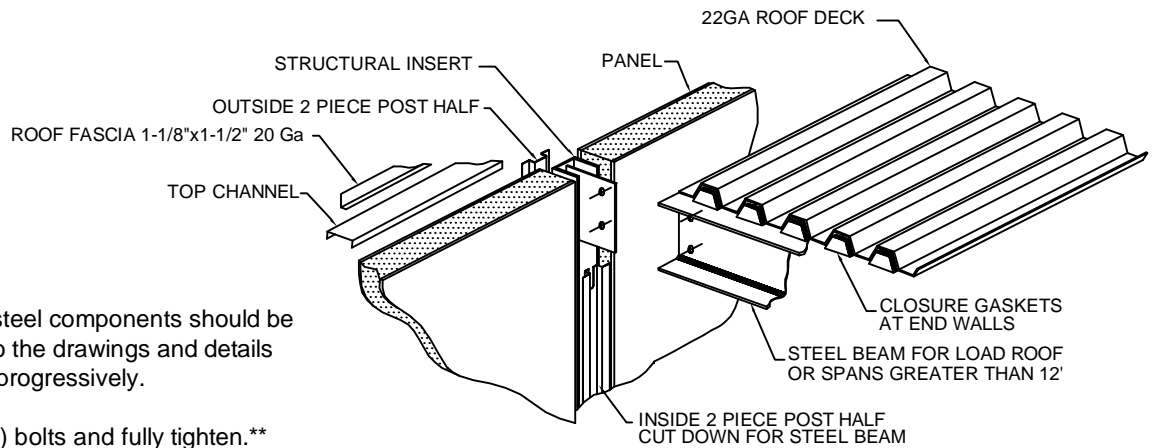
H-MULL CONNECTION



H-MULL CONNECTION  
WITH TUBE STEEL COLUMN







Installation of all steel components should be done according to the drawings and details provided moving progressively.

**\*\*Only use (A325) bolts and fully tighten.\*\***

Bridging may be required on the bottom flanges of support beams as shown below.

Installation of roof deck or dust cover is perpendicular to the steel beams if present (1-1/2" min. bearing for deck). Roof deck is design to go from center wall panel to center of Walls panels and beams.

Fasten the roof deck every 6" to steel beams with #12-24x1-1/2" Tek Screw. Fasten the roof deck every 12" with #10x3/4" Tek screw on roof deck side overlap and perimeter. Start with the small lip on the centerline of the wall. Overlap sides on the minor rib only.

Closure gaskets are placed at the end of the steel deck runs only.

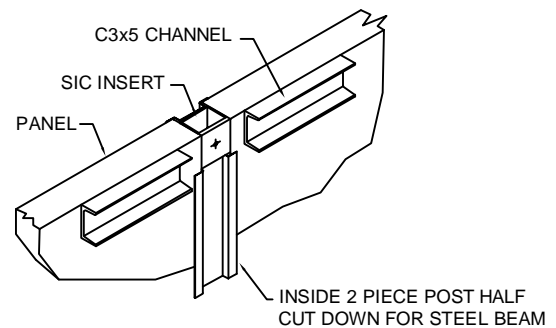
If roof deck is to be fastened to an existing wall, roof angle will be provided.

Roof fascia is provided to cover edges for a finished look.

#### NOTE:

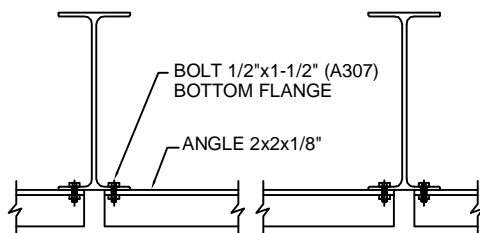
Unless the building has been designed for a specific load, it is not load bearing and is not intended to support the weight of a person.

#### BEAM TO INSERT CONNECTION LOADED ROOF

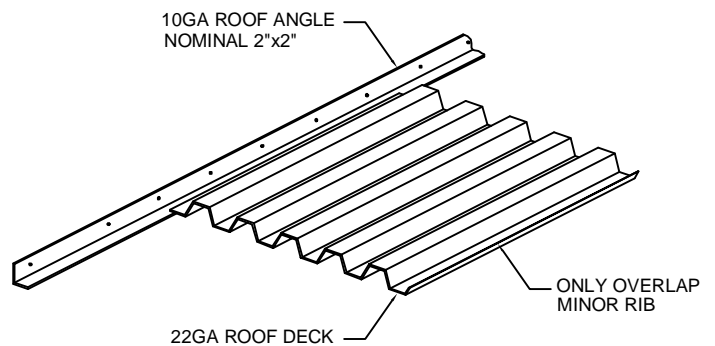


Inside post half shortened to clear C3x5 Channel. Channel at sic insert not shown for clarity.

#### CHANNEL TO INSERT CONNECTION LOADED ROOF AT ENDWALL



#### BEAM BRIDGING CONNECTION



#### ROOF DECK AGAINST EXISTING WALL NO LOAD ROOF



**NATIONAL<sup>®</sup>  
PARTITIONS**

10300 Goldenfern Lane  
Knoxville, Tennessee  
(800) 996-7266

37931

COPYRIGHT © 2014 NATIONAL PARTITIONS. The design and detail drawings for this building and/or overall project are the intellectual property of NATIONAL PARTITIONS. All rights are reserved. Use for reproduction, construction or distribution is prohibited unless authorized in writing by NATIONAL PARTITIONS

Installation of the drop ceiling should start with determining the ceiling height and allowing 4 ½" minimum clearance for installation of lights.

IBC and Most building codes requires a 90" minimum ceiling height.

Care should be taken to install a level ceiling, starting with the perimeter wall angle. Refer to drawing provided for ceiling layout.

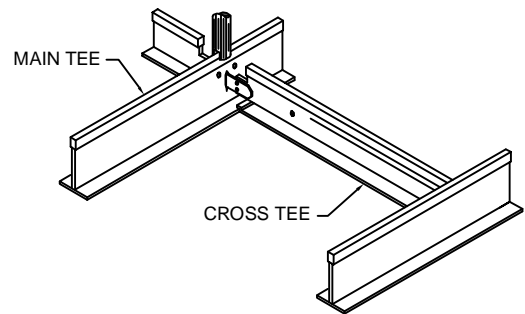
Main tees should be installed next. Wire ties provided should be installed every 48" to the roof deck to support the ceiling grid.

Install the cross tees and insert ceiling tiles.

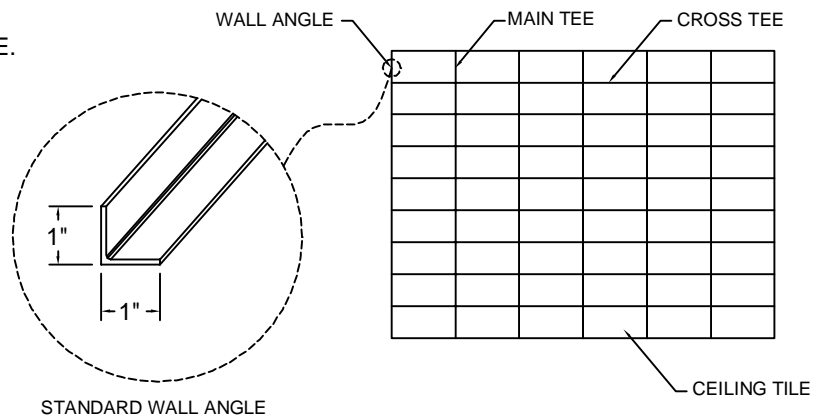
When seismic ceiling is supplied the wall angle 2" leg should be horizontal and double the tie wire connection.

Where main tees rest on the wall angle, end tabs must be cut to lay flat.

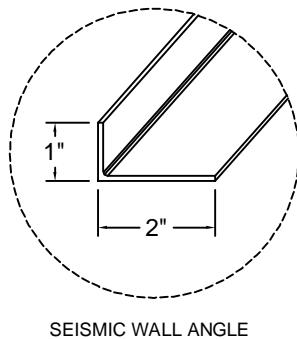
REFER TO LOCAL BUILDING CODE.



DROP CEILING GRID



DROP CEILING WALL ANGLE



SEISMIC WALL ANGLE



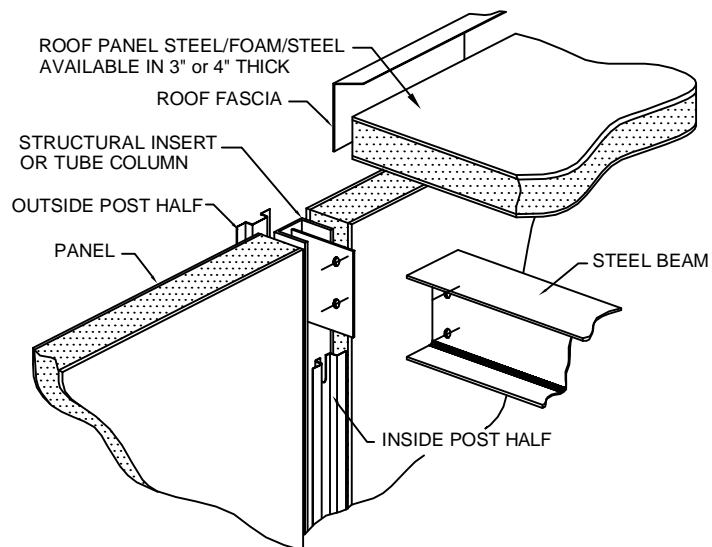
National Partitions manufactures optional roof panels for buildings that can be installed with or without steel beams.

Installation of roof panels on top of the beams is similar to roof deck installation. Roof panels are attached with  $\frac{1}{4}$ "x5" tek screw and fender washers every 12" at perimeter walls utilizing h-mull between panels.

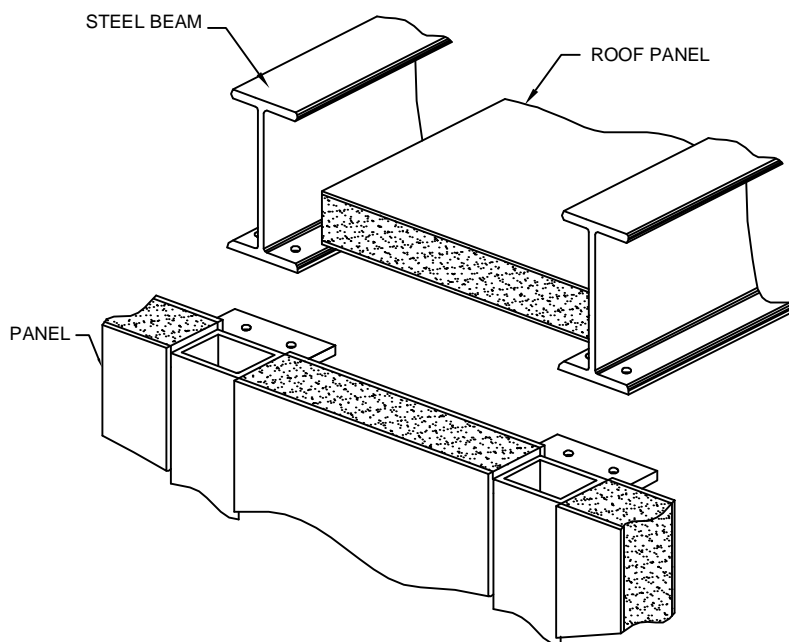
Roof panels can also be installed on the bottom flange of beams with less exposed steel on the interior of the building. panels are installed from the end between the beams and fastened from the underside of the bottom flange using #10x  $\frac{3}{4}$ " tek screws every 12".

Roof panel design is from outside of wall to outside of wall less  $\frac{1}{2}$ ". (each side  $\frac{1}{4}$ ")

Roof fascia is provided for a finished look.



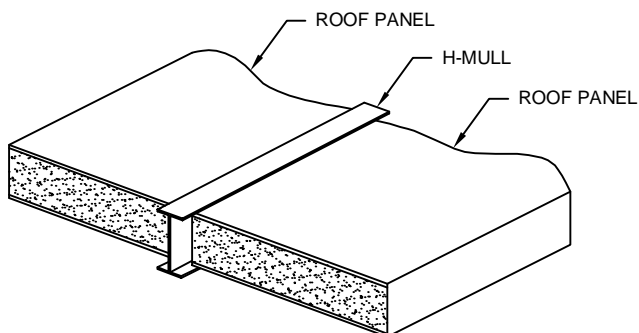
ROOF PANEL ON TOP OF BEAM



ROOF PANEL ON FLANGE OF BEAM

**\*\* NO LOAD ROOF ONLY \*\***  
**\*\* NON SEISMIC ONLY \*\***

For loaded roofs or seismic conditions all beam to column connections will be our standard beam web connection and require progressive construction. Panels cannot be inserted from the end. See page 15 (TYP)



ROOF PANEL WITHOUT BEAM  
Limited Span



# LIMITED WARRANTY

Limited Warranty - All products sold, except those manufactured by other companies, shall have the following limited warranty:

Manufacturer warrants that the products furnished by the manufacturer shall be free from defects in workmanship and material for (10) years on interior buildings and (1) year on exterior buildings after delivery to the end user. Written notice on any claim defect must be furnished in writing within (30) days of knowledge of same. Upon satisfactory demonstration of the merits of the claim, manufacturer will, within a reasonable time, make any necessary repair or correction, or at the option of the manufacturer, replace defective article free of charge. Charges for correcting defects will not be allowed, unless manufacturer is first notified in writing and the correction is authorized in writing. Any and all charges to correct an item shall be limited to the amount charged for that item, all amounts in excess of that amount shall not be covered by this warranty or reimbursed by the manufacturer. This warranty will not apply to defects caused by improper installation or to any manufactured products which have been repaired or altered by anyone other than manufacturer, with manufacturers written consent, or which have been subject to misuse, neglect or accident. NO FURTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOT SPECIFIED HEREIN, ARE MADE BY THE MANUFACTURER, and this paragraph sets forth the full extent of the liability arising from the manufacturer, use or sale of the products, and materials sold hereunder. No allowances will be made for delays or loss of profit, nor for any special indirect or consequential damages or injuries, whether based on tort or contract.

## SERVICE POLICY:

If you have a service issue, please review the above warranty carefully, then contact our Service Department; call: 800-996-7266 or email: [service@n-p.com](mailto:service@n-p.com). DO NOT ATTEMPT TO MAKE ANY REPAIRS OR MODIFICATIONS TO OUR PRODUCT WITHOUT WRITTEN AUTHORIZATION. Failure to contact National Partitions first and receive our written authorization could VOID your warranty. Claims made for work performed without our authorization will be denied.

