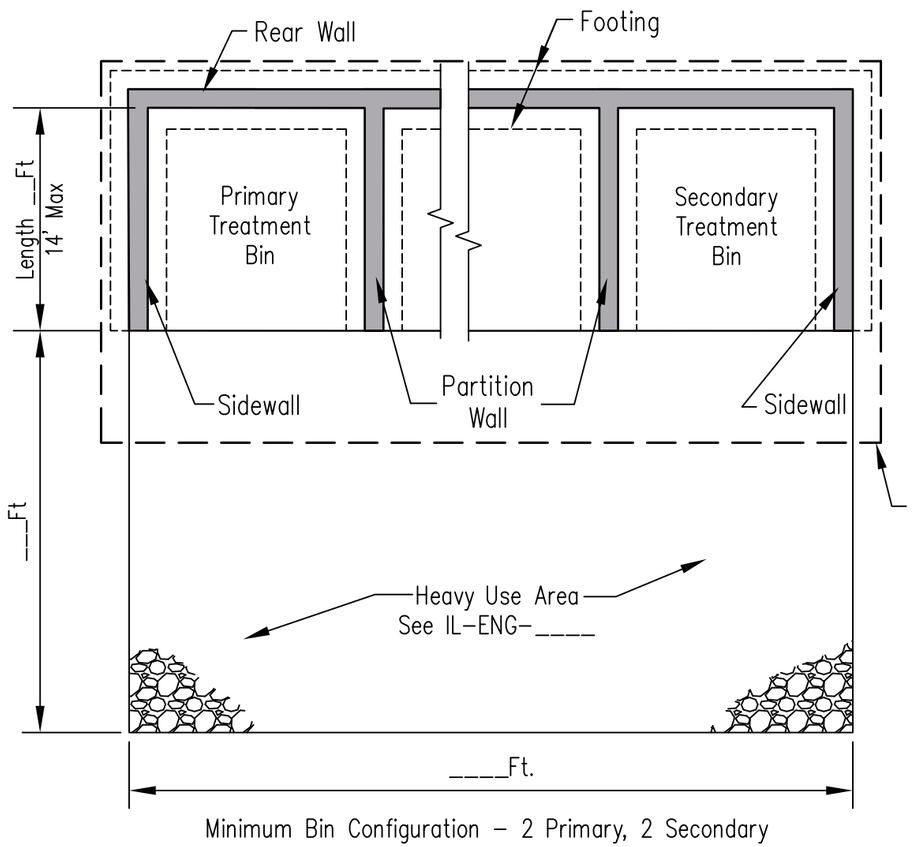
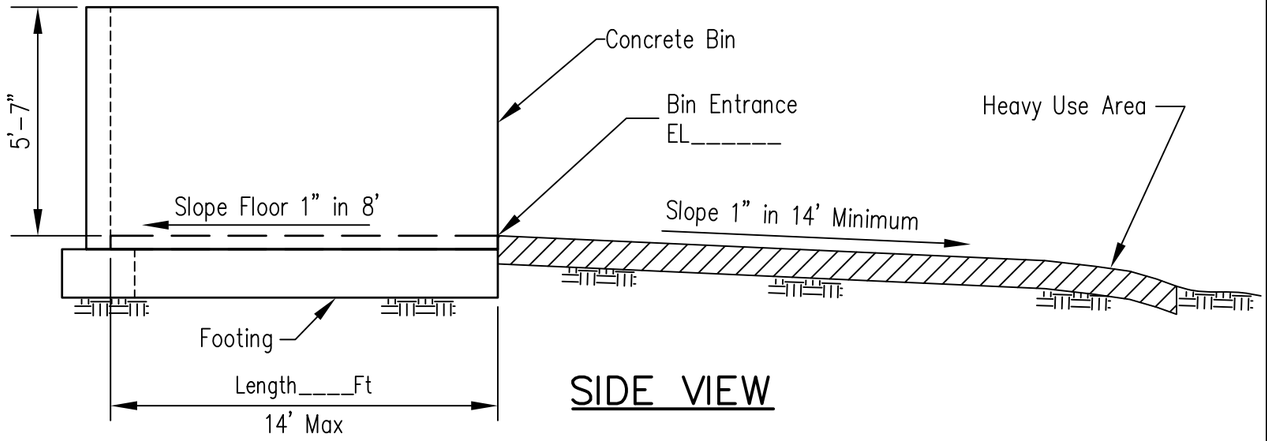
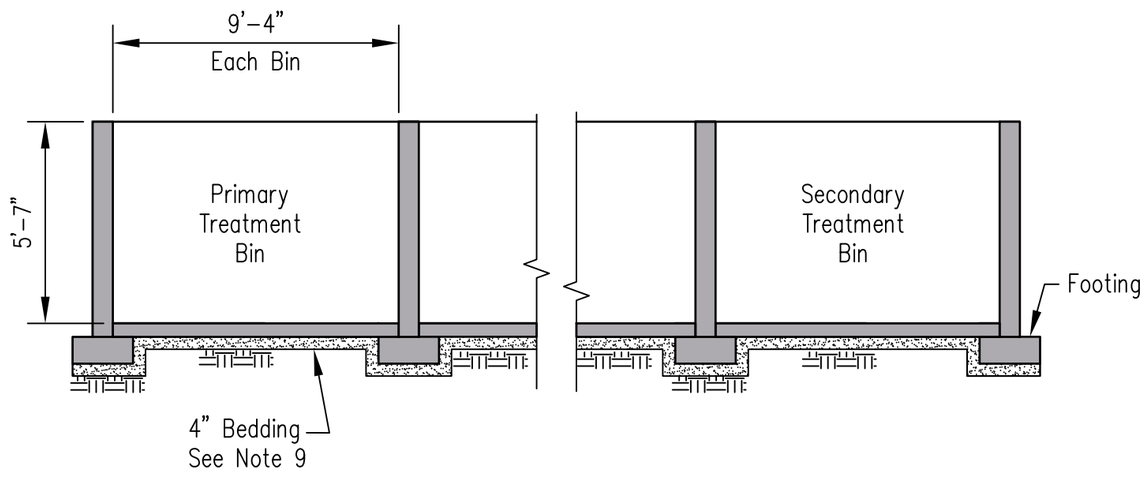


Minimum Bin Configuration – 2 Primary, 2 Secondary

PLAN



SIDE VIEW



FRONT VIEW

Notes:

1. Concrete mix should be design to yield 28 day compressive strength of 4000 psi.
2. The wall will be built with expansion joints (see expansion joint detail page 5). No section of wall will be over 30 foot long between expansion joints.
3. A construction joint must be placed anywhere the concrete placement is not continuous. See Construction Joint Notes on page 5.
4. All steel must have a minimum clear concrete cover over reinforcement of 2" except when concrete is on or against earth, then minimum clear cover is 3".
5. All rebar must be grade 60. Length of reinforcing bar lap splice must be at least 15 inches.
6. No earth backfill will be placed around the outside of these walls.
7. Compact the bedding material with the track or tire of the equipment used for construction to ensure a smooth uniform foundation without depressions or irregularities.
8. Place expansion joint filler between all concrete slab interfaces. The joint filler must conform to ASTM Specification D 994, D 1751 or D 1752 Type I, Type II or Type III. This includes joint between concrete heavy use area and bins.
9. Bedding under concrete must be IDOT Gradation No. FA 1, 2, 4, or CA 7, 8, 11, 13, 14, 15, 16.

_____ BIN COMPOSTER

Bench Mark El._____

Description_____

_____

_____

Not To Scale

Landowner		Location	

Date

Designed

Drawn M. QUINONES 7/1/16

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CONCRETE COMPOST BIN WITH WALL MOUNTED ROOF

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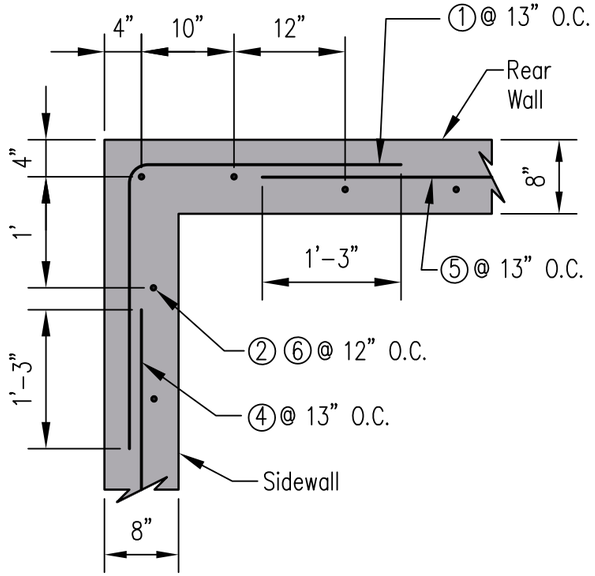
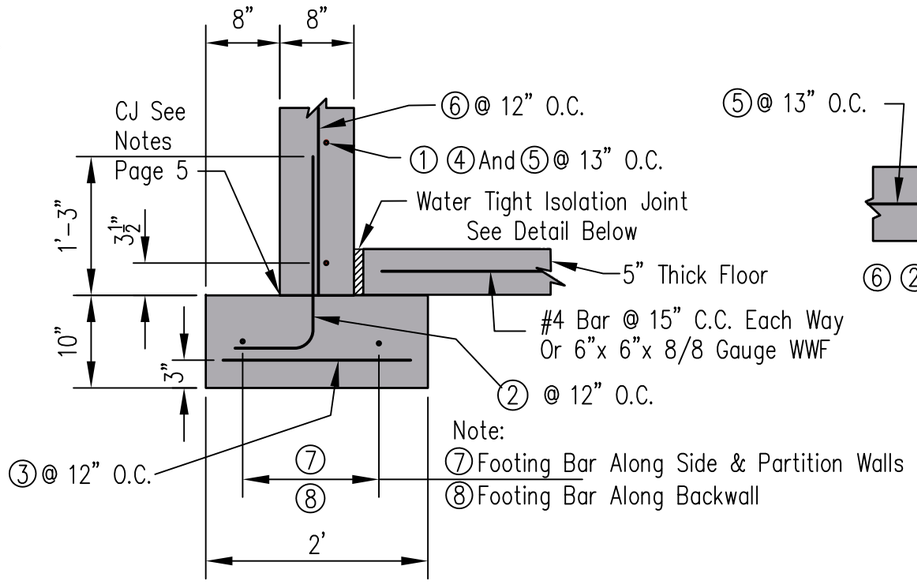
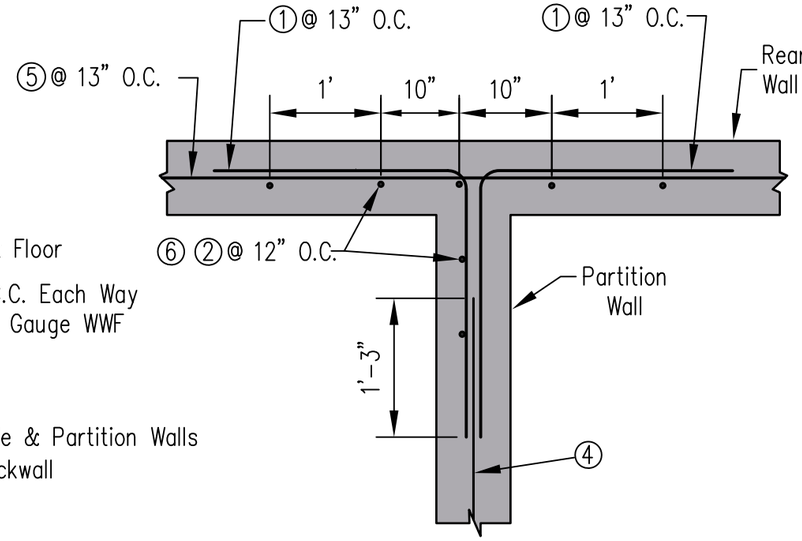


CORNER DETAIL
PLAN VIEW



FOOTING, FLOOR & WALL DETAIL

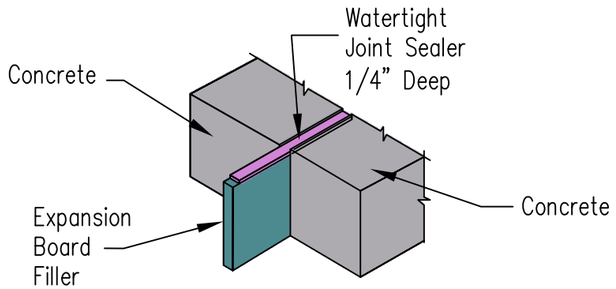


PARTITION WALL DETAIL
PLAN VIEW

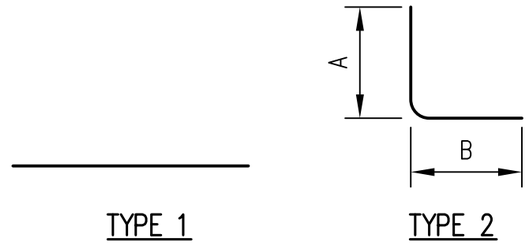
Isolation Joint Notes:

1. Expansion Joint Filler (See Page 1 Note 8)
2. Joint Sealer must be watertight, flexible, and capable for use on uncured concrete.

LEGEND
CJ = Construction Joint



WATERTIGHT
ISOLATION JOINT



TYPE 1 TYPE 2

REINFORCING STEEL SCHEDULE–WALLS & FOOTINGS							
Mark	Size	Quantity	Length	Type	A	B	Tot. Ft.
1	#4		4'–8"	2	2'–4"	2'–4"	
2	#4		2'–6"	2	1'–9"	0'–9"	
3	#4		1'–6"	1	--	--	
4	#4			1	--	--	
5	#4	6		1	--	--	
6	#4		5'–10"	1	--	--	
7	#4			1	--	--	
8	#4	2		1	--	--	

Steel_____Lin Ft_____pounds

Scale 3/4" = 1'–0"
Unless Noted

Date
Designed
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CONCRETE COMPOST BIN
WITH WALL MOUNTED ROOF

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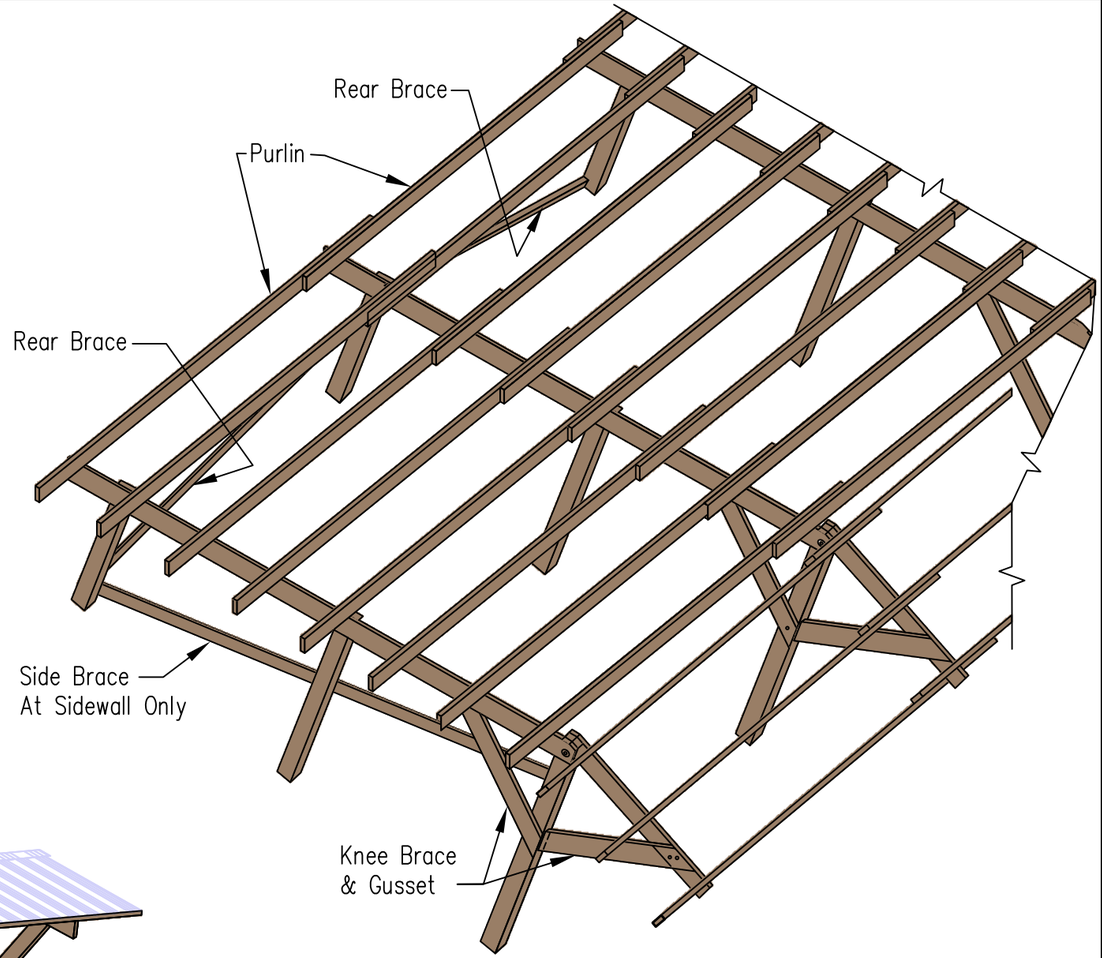
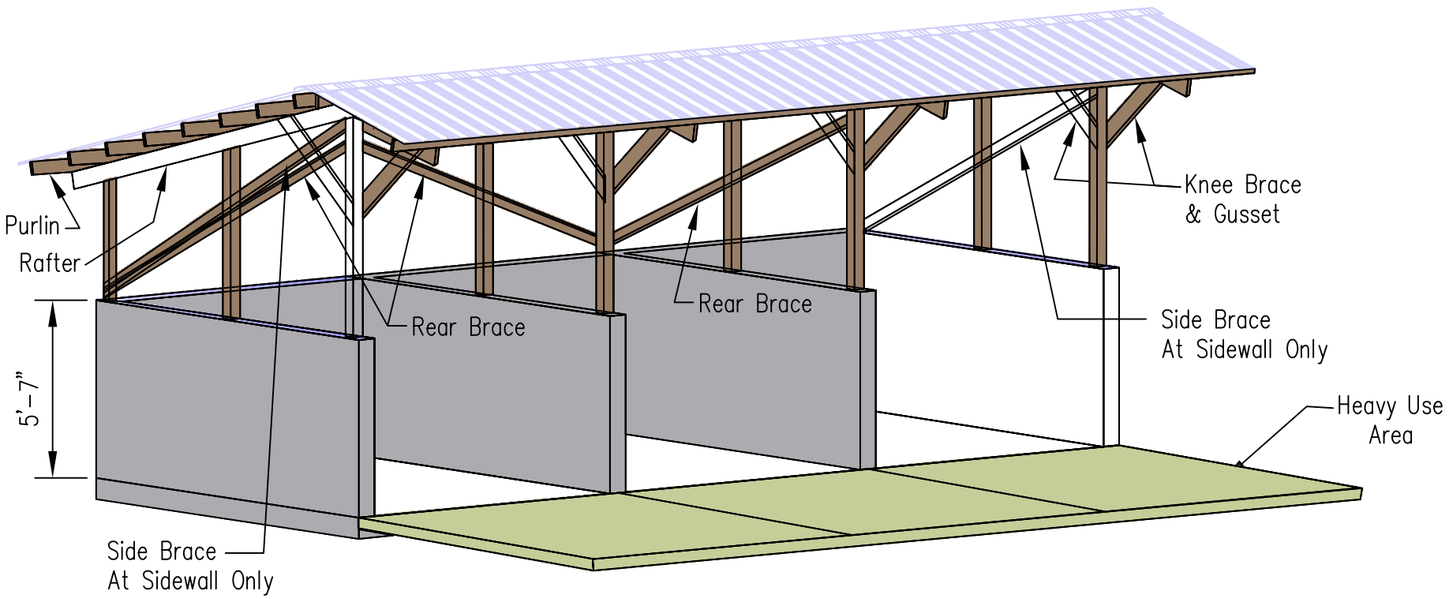


TOP VIEW ISO



SIDE VIEW ISO

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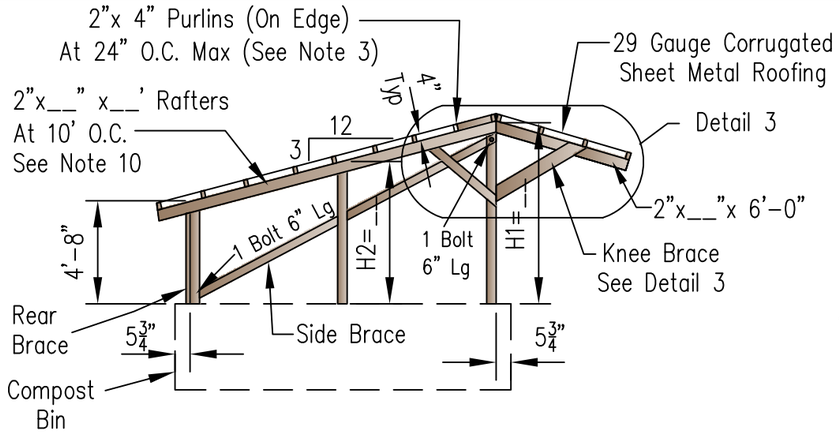
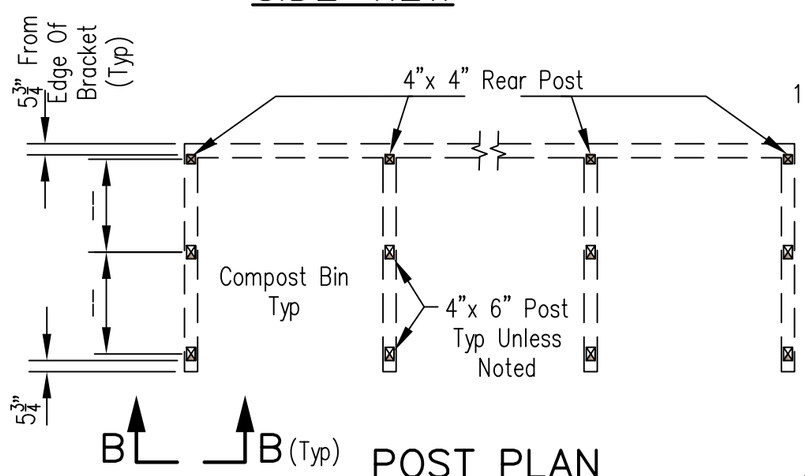
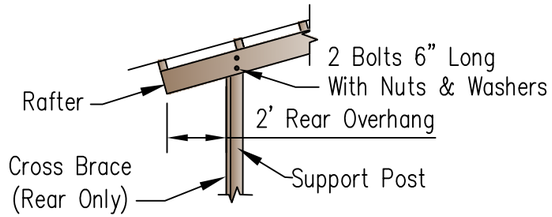


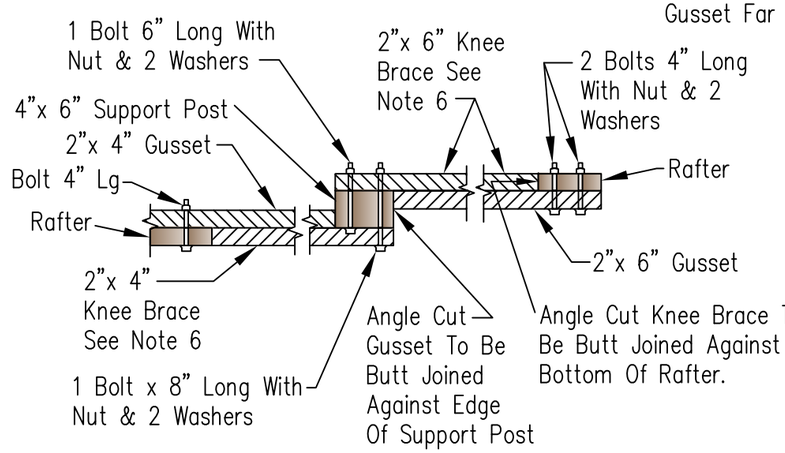
SIDE VIEW



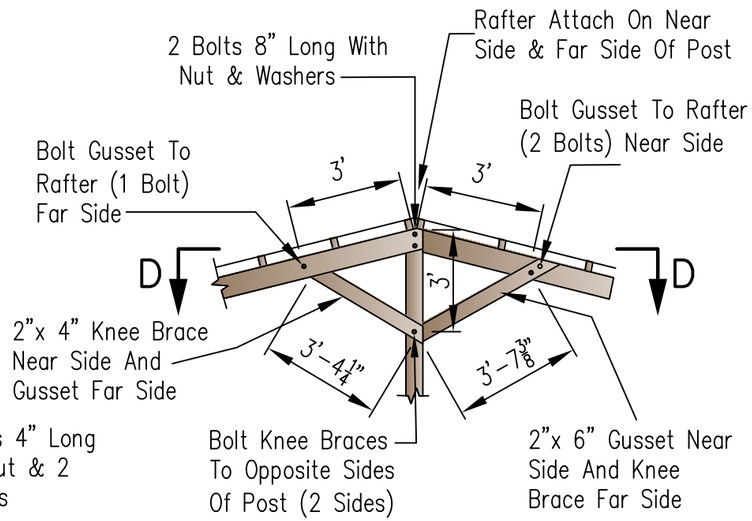
POST PLAN



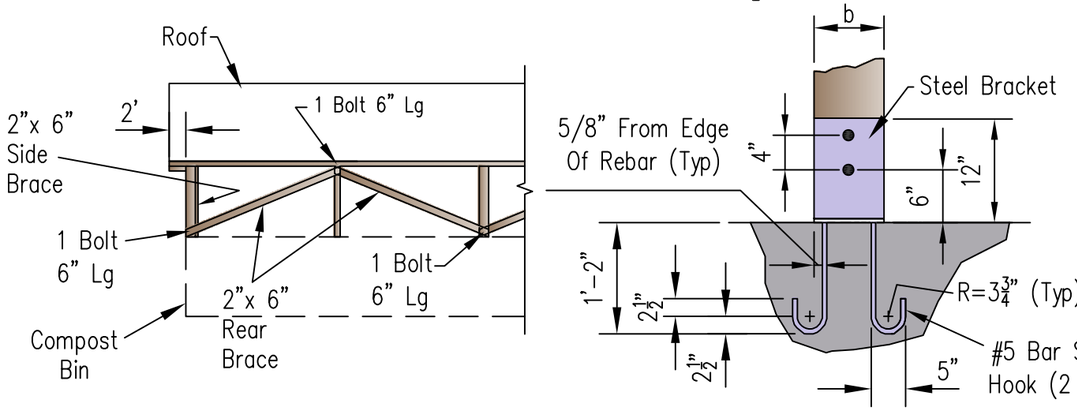
REAR/MIDDLE POST DETAIL



SECTION D–D

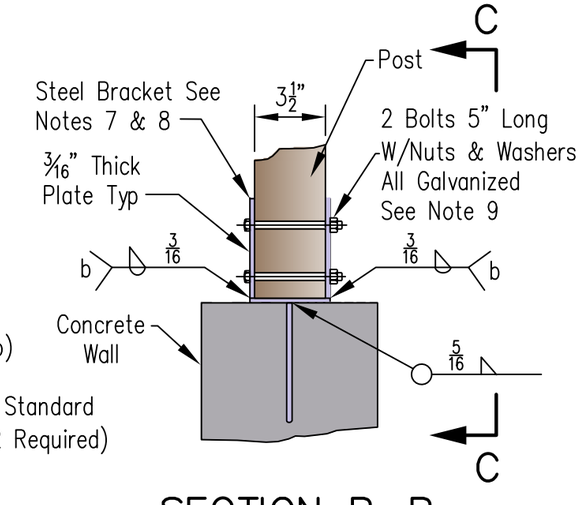


DETAIL 3



PARTIAL REAR ELEVATION

SECTION C–C



SECTION B–B

ROOF NOTES:

1. There must be no siding attached to the structure. All four sides are to be open.
2. All posts and cross braces must be pressure treated with a preservative approved by the AWPA for ground contact.
3. Attach purlins to rafters with manufactured galvanized framing anchors. Purlin joints must overlap above rafters.
4. All bolts must be galvanized and 5/8" diameter with galvanized washers at both ends.
5. All nails must be 16d galvanized ring shanked.
6. Nail gusset and knee brace together, use galvanized nails
7. Paint brackets with 2 coats of zinc–rich galvanizing paint.
8. Fabricate and install brackets to fit tightly against post.
9. Nuts must be kept snug throughout the life the structure or serious damage could result.
10. Rafters must be nominal 2"x 6" lumber for bin lengths 12 ft and shorter. Rafters must be nominal 2"x 8" lumber for bin lengths greater than 12 ft.
11. Use sixty six (66) nails or screws per 100 square feet to secure the roofing.

Not To Scale

Adapted From Indiana
Drawing IN–ENG–60

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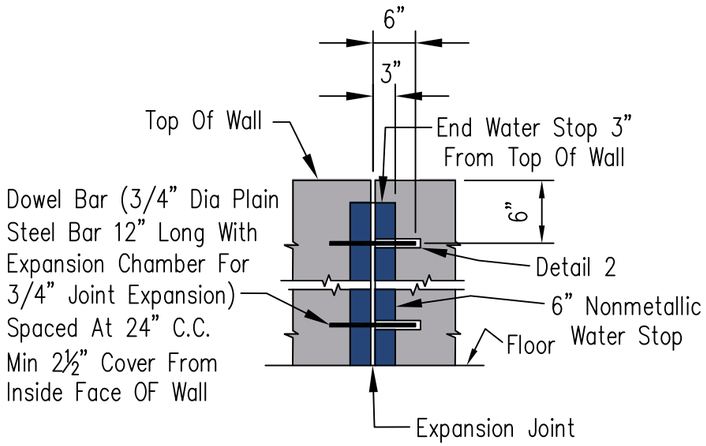
TABLE OF QUANTITIES–ROOF STRUCTURE

Description		Quantity
Posts	4"x 6"x __" (H1) – Front	
	4"x 6"x __" (H2) – Middle	
	4"x 4"x 4'–8" – Rear	
Cross Braces	2"x 6" x 12' Long – Back	
	2"x 6"x 16' Long – Side (Each End)	2
Rafters	2"x ___"x ___'	
	2"x ___"x 6'–0" Overhang	
Purlins	2"x 4"x ____'	
Knee Brace/ Gusset	2"x 4"x 4'–0"	
	2"x 6"x 4'–0"	
5/8" Diameter Galvanized Bolts And Nuts	4" Long	
	5" Long	
	6" Long	
	8" Long	
	Washers	
Fabricated Post Anchorage – Steel Brackets With Hooks (Page 4)		
Framing Anchors (See Note 3 Page 4)		
Roofing Materials 29–Ga. Corrugated Sheet Metal (Sq Ft)		

TABLE OF QUANTITIES–BINS

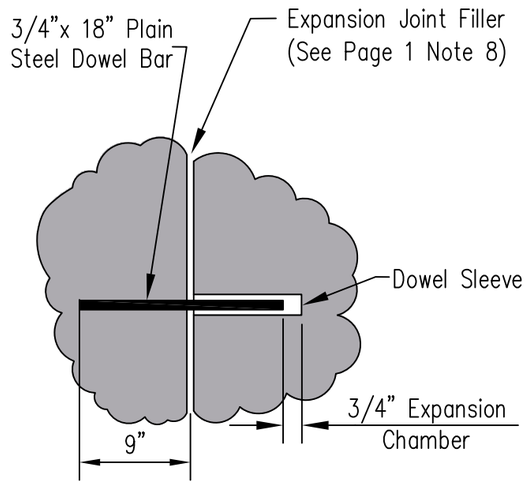
Description	Quantity	Units
Concrete		Cu Yd
Welded Wire Fabric		Sq Ft
Reinforcing Steel – Floor		Lin Ft
Bedding		Tons
Expansion Board		Lin Ft
Water Stop		Lin Ft
Steel Dowel Bars 3/4" Dia x 12" Long		Each

*Refer to steel schedule (Page 2) for walls and footings.



EXPANSION JOINT DETAIL WALL & FOOTING

Spacing Not Greater Than 30' C.C.



DETAIL 2

Not To Scale

Construction Joint Notes

1. A construction joint must be prepared when the concrete pour is not continuous, typically between the floor and wall.
2. Prepare all surfaces that will be in contact with new concrete as per note 5.
3. Let concrete cure at least 12 hours prior to steel tying and form construction for the next pour.
4. New concrete must not be placed until the hardened concrete has cured at least 12 hours.
5. Construction joints must be prepared using one of the following two methods:
   Method 1 – Water–Air or Sandblasting. Clean the joint surface of all unsatisfactory concrete, laitance, coating, stains, and debris by sandblasting or high–pressure air–water cutting, or both. Sandblasting can be used after the concrete has gained sufficient strength to resist excessive cutting, and high–pressure air–water cutting can be used as soon as the concrete has hardened sufficiently to prevent the jet from displacing the coarse aggregates. The surface of the concrete in place must be cut to expose clean, sound aggregate, but not so deep as to undercut the edges of larger particles of the aggregate. Cut the surface to at least 1/4" depth. Thoroughly wash the surface to remove all material after cutting.
   Method 2 – Mechanical. Clean the joint surface of all unsatisfactory concrete, laitance, coatings, stains, and debris by washing and scrubbing with a wire brush, wire broom, or other means approved by the engineer to expose coarse aggregate without displacing it. The surface must be roughened to at least 1/4" depth.
6. All construction joints must be wetted and standing water removed immediately before new concrete is placed.
7. New concrete must be sufficiently vibrated to ensure good contact into the prepared joint.
8. Keyways or steel plates cannot be substituted for the construction joint methods above.

Date
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