

Bat Condo



Wisconsin Department of Natural Resources
Bureau of Natural Heritage Conservation
Wisconsin Bat Program

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WDNR: dnr.wi.gov

WI Bat Program: wiatri.net/inventory/bats



Introduction

This bat condo is designed to house little brown bats (*Myotis lucifugus*). Given the area and baffles, this condo can house up to 3,000 bats during their maternity season in summer. The condo mimics a barn or attic where little brown bats are often found roosting. This condo can be placed in conjunction with exclusion in barns and buildings and it not only keeps the beneficial animals in the area, it can also make the exclusion much more successful because the condo offers the bats an alternative place to roost.

Several bat condos of this design have been placed in areas throughout the state. Devil's Lake State Park, Kohle-Andrae State Park and Peninsula State Park have all installed condos over the past few years to help manage existing colonies and encourage bat habitation in the parks. Little brown bats will use these condos from April through October every year. Creating roost structures such as this condo offers the bats a safe, warm place to raise their young during a critical time in their life cycle.

The attached plans are adapted from those created by Pennsylvania Game Commission. The structure is half the size of Pennsylvania's Bat Condo which measures eight feet by eight feet, and is eight feet tall. The condo developed by Wisconsin Department of Natural Resources measures four feet by four feet, and is four feet tall.

Check out Pennsylvania's plans for more information on condos: http://www.batsnorthwest.org/bat_condo.pdf

Instructions and where to place the condo

There are a few tips that should be followed to increase the chance of bats using the condo.

- Do not use green treated lumber for the interior of the condo. Bats will generally avoid such wood because of the smell and potentially toxic materials used to treat the lumber.
- All interior surfaces should be scored or roughened so the bats have something to hang onto. This can be time and labor intensive, but it is critical to offer appropriate bat habitat.
- To maximize likelihood of bat usage, the condo should be **placed where the bottom is at least 8 feet from the ground, where the structure will get 10 or more hours of sun per day, located within 1/4 mile of water, within 30 yards of cover (trees, bushes), and in an area where it is reasonably protected from human disturbance.**
- This means the condo **should not be placed in a shaded location, near burn barrels or campfires, or close to busy roads or other high human traffic areas** to minimize disturbance.

Ways to build the bat condo:

- Hire a professional contractor
- Coordinate a group of volunteers or students with guidance from a carpenter

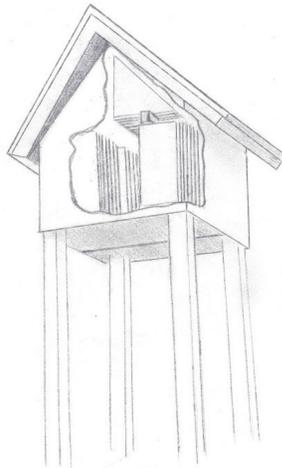
Please contact Heather Kaarakka with questions related to condo construction and placement.

Heather.kaarakka@wisconsin.gov or 608.266.2576

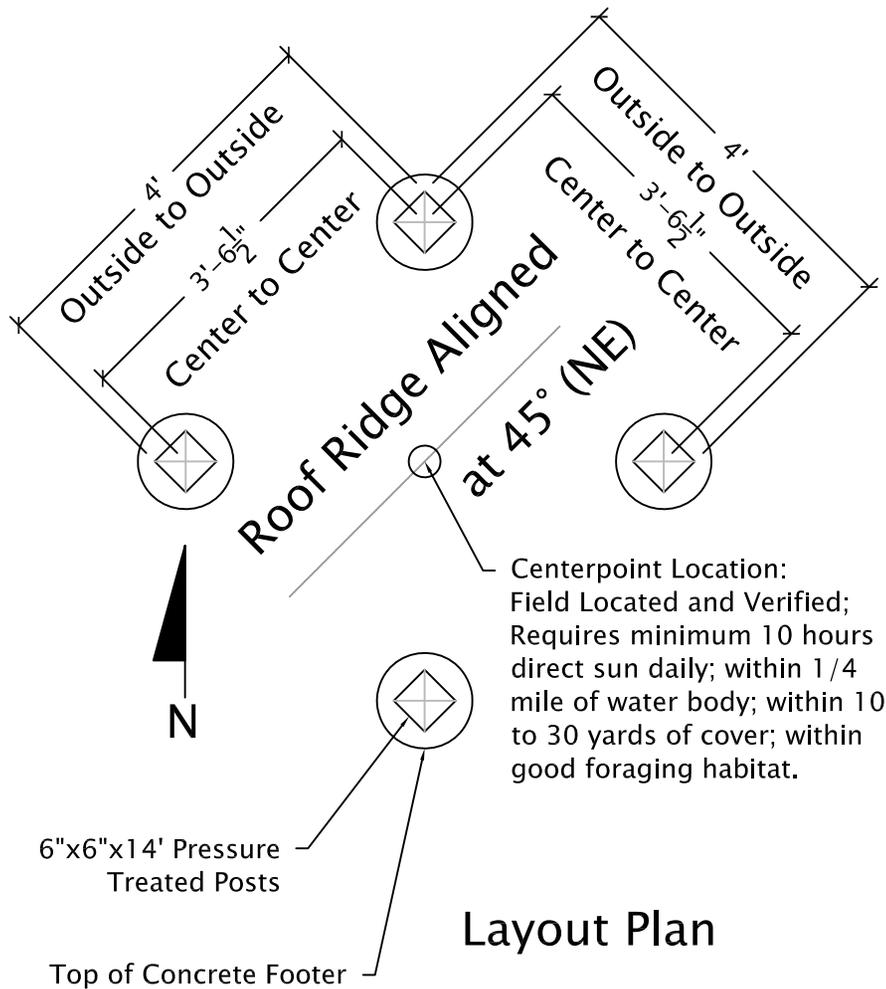


Gibraltar High School Ecology Club students pose inside the frame of the condo they helped build for Peninsula State Park. Kathleen Harris, WDNR

Materials List

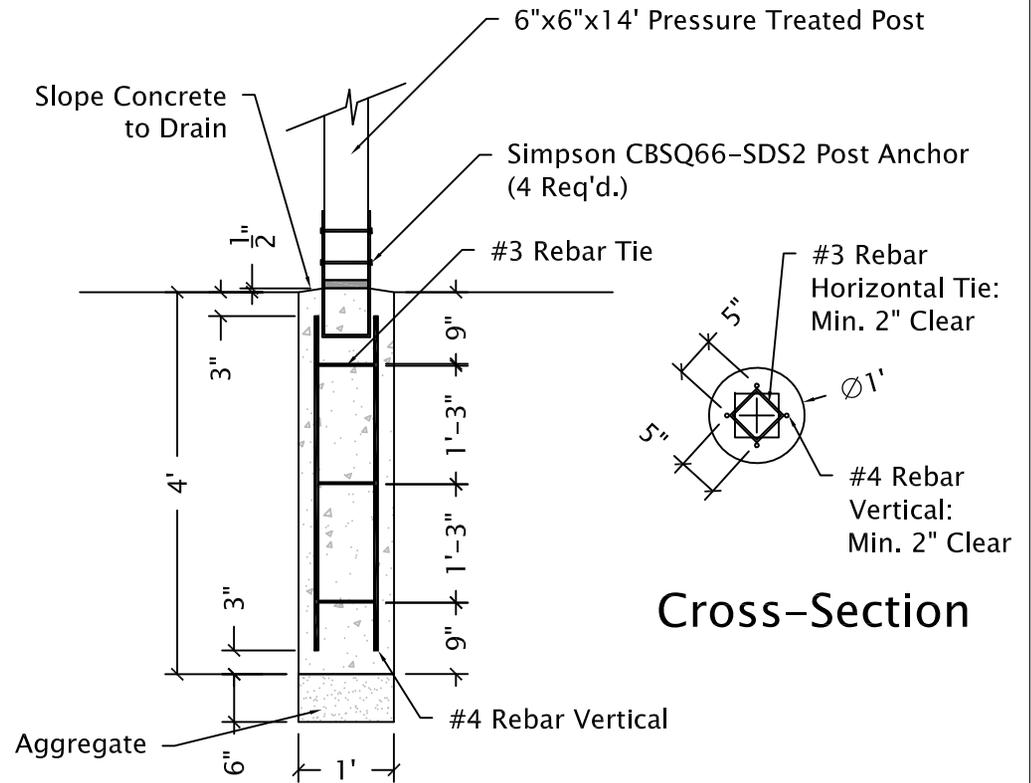
Item	Project Use	Item	Project Use
Posts & Anchors (changed to a "post in ground" installation)		(3) D style	Roof Edge (Black)
(4) 6" x 6" x 12'	treated posts	(4) (1) 4' x 8' x 1/4" BCX	Soffit Plywood
(4) 6" x 6" x 16'	treated posts	(1) Tar Paper	30 pound
(4) 6" x 6" professional	Post Anchors	(2) Bundles Shingles	Black Architectural
(12) ft 3/8" Rebar 10'	concrete reinforcement	(1) Hip Cover	Black 3 tab
(4) 16" Sona Tubes 4' long	concrete forms	Baffles	
(23) cu ft concrete (16" holes)	51 bags / .45 CF	(13) 4' x 8' x 1/4" BCX	Baffle Plywood
(9) cu ft concrete*	20 bags / .45 CF	(32) 3/8" x 2' threaded rod	Baffle supports
*13 cu feet – 4 cu feet = 9 cu ft	(4-12" diameter holes, 4 feet deep, with a 6" x 6" post installed full depth).	(64) 3/8" - 16 nuts	Baffle supports
Floor		(64) 3/8" washers	Baffle supports
(2) 4" x 6" treated x 8'	structural sill	(7) 3/4" PVC 10'	Baffle spacers
(4) 4" x 4" loose pin hinges	hinge	(1) 1" x 8" x 8' cedar	Lower baffle land board.
(1) 4" x 4" X 4' treated	sill spanner	(2) 2 x 4 8'	Upper Baffle Supports
(1) 1/2" exterior grade plywood	doors	Hardware	
(3) 2" x 3" x 8' treated	door stops	Siding Nails 8D	non-splitting
(4) 3" barrel blots	door locks	Roofing Nails 1 3/4"	
Walls		Roughing Nails 16D	
(2) 2" x 4" 8' treated	wall sill	Decking screws	
(8) 2" x 4" 8' treated	wall uprights	Black Stain	
(4) 2" x 4" 8' treated	wall top plate	* " = inches; ' = feet	
(2) 2" x 6" x 8' treated	roost bundle supports	Cost estimate for materials alone is between \$1,000 and \$1,500.	
Siding			
(4) 1" X 4" X 8' cedar	corner trim		
(13) 3/4" x 8" x 8'	Cedar Bevel Siding		
Trusses			
(4) 2" x 4" x 12'	Trusses & Fascia		
(2) 2" x 4" x 12'	Roof Extensions		
(3) (2) 4' x 8' x 1/2" CDX	Roof Plywood		





Layout Plan

Scale: 1/2" = 1'



Post Footer: Section

Scale: 1/2" = 1'

- Footer Material List**
- (4) Simpson CBSQ66-SDS2
 - (12) #3 Rebar - 20" (horizontal)
 - (16) #4 Rebar - 42" (vertical)
 - (4) 12" Diameter Sono-tubes - 5'
 - (0.5) Cubic Yards Concrete
 - (1.6) Cubic Feet Aggregate



Project Title:
Bat Condo - Version2

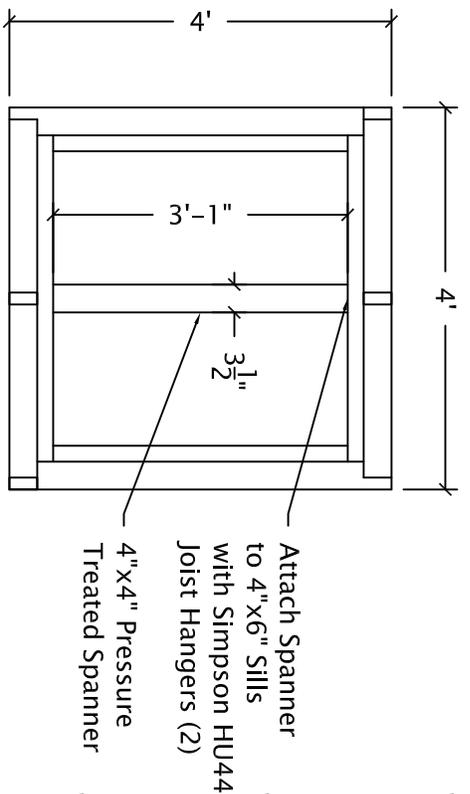
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Sheet Title:
**Post Footing Details -
Concrete Pier Option**

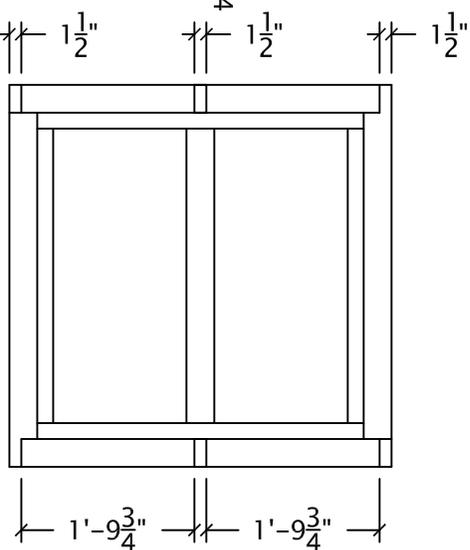
Agency / Institution:
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Sheet Number	C1

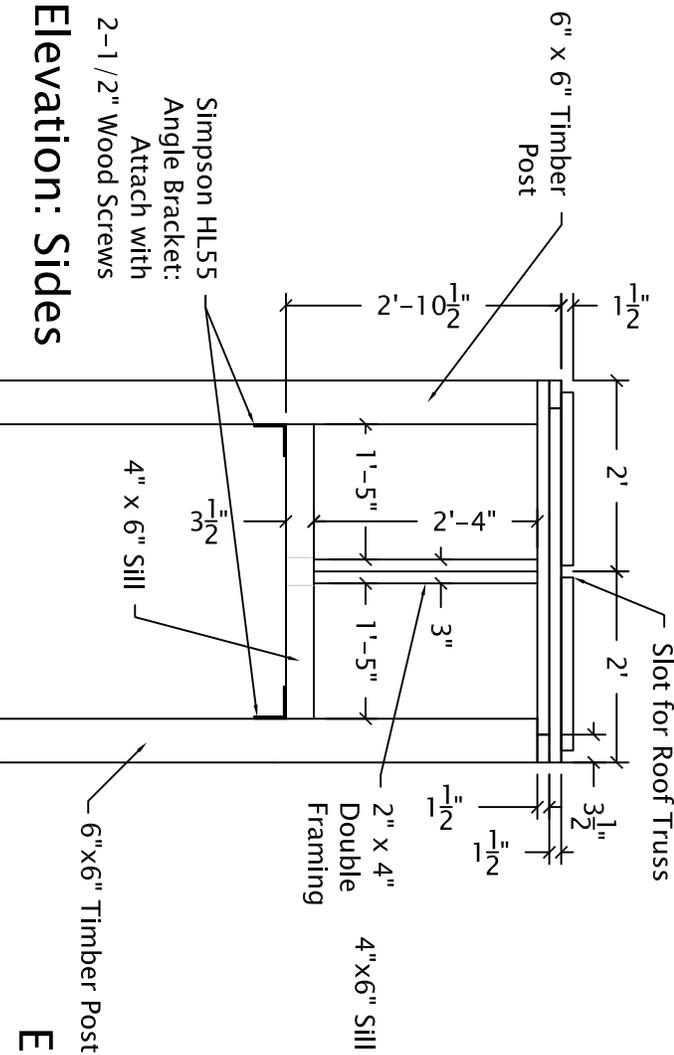
Top View: Side Orientation



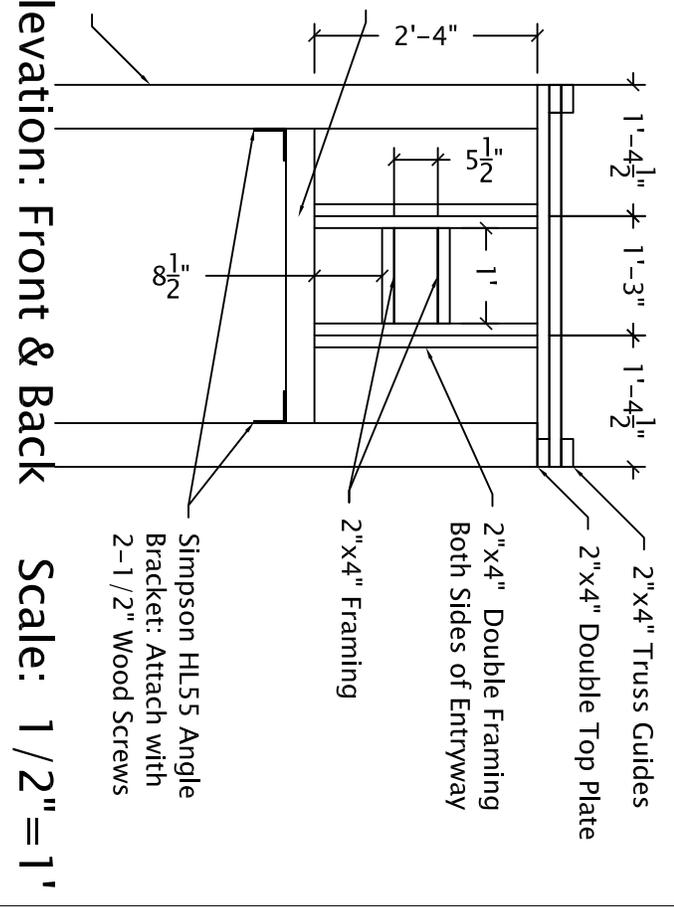
Top View: Front Orientation



Elevation: Sides



Elevation: Front & Back



Scale: 1/2" = 1'



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Project Title:

Bat Condo – Version2

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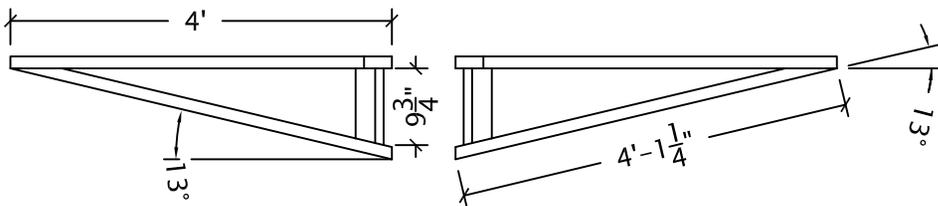
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Sheet Title:

**Structure Framing
Detail Sheet**

Agency / Institution:
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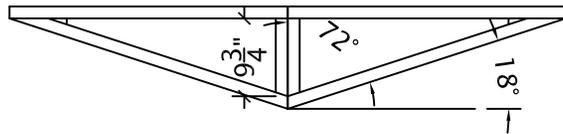
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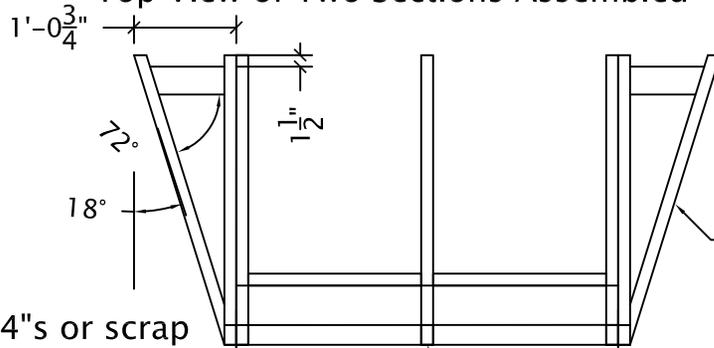
Top View of Extension



Front View of Extension



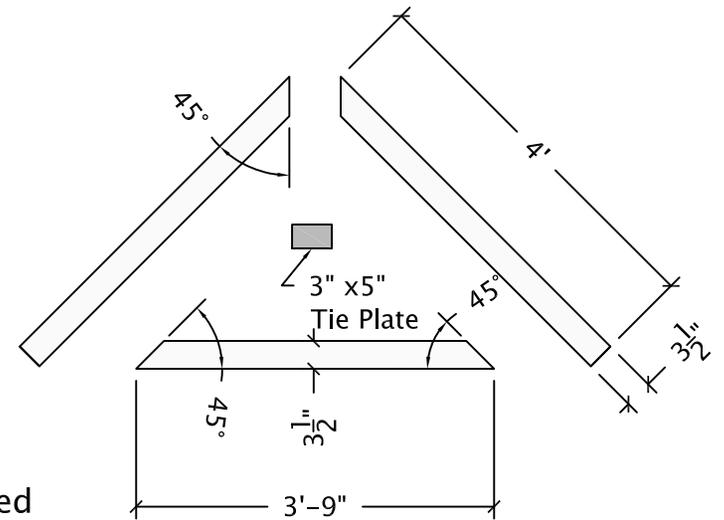
Top View of Two Sections Assembled



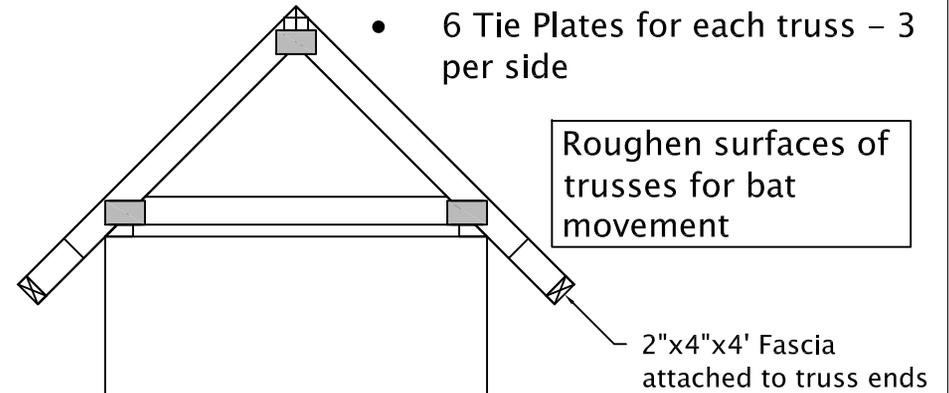
Use 2"x4"s or scrap lumber to brace trusses temporarily

Side View

Extensions Constructed of 2"x4" Lumber



- 3 Roof Trusses Req'd.
- Constructed of 2"x4" Lumber
- 6 Tie Plates for each truss – 3 per side



Roof Truss Detail
Scale: 1/2" = 1'



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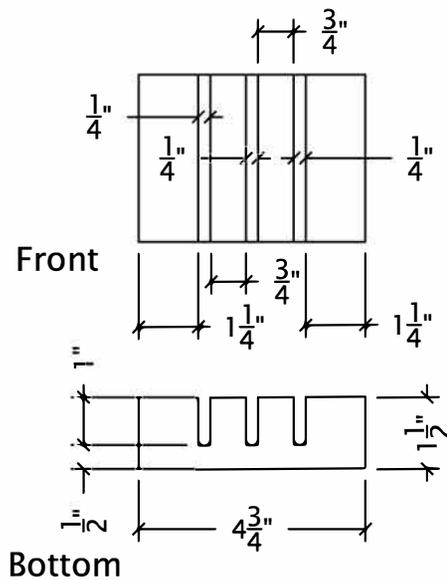
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Sheet Title:
**Roof Framing
Detail Sheet**

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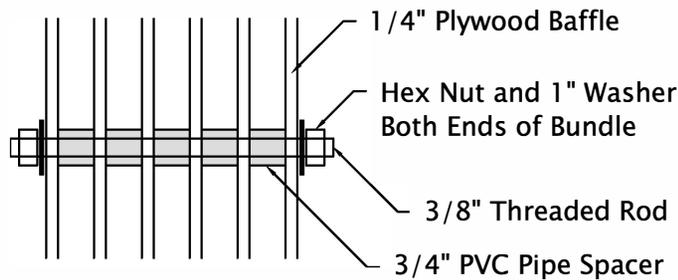
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Sheet Number	C3

Peak Baffle Spacer



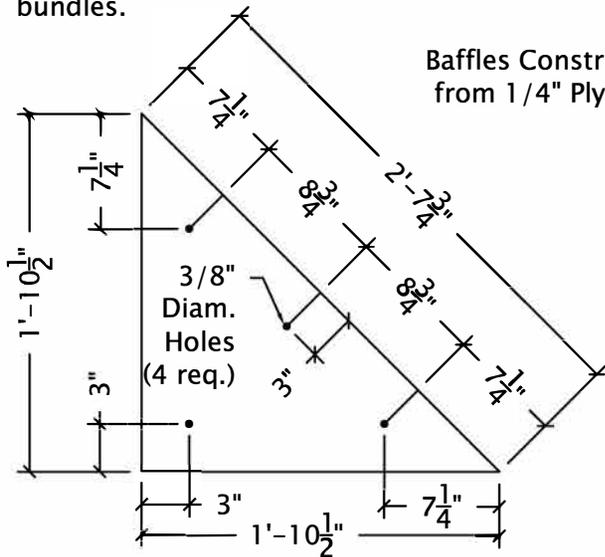
Eight Baffle Spacers are needed: two near the roof peak and two near the bottom of the trusses for each section. After attached, slide three 2' high in from the bottom. Secure at the bottom with 1-1/4" multi-purpose screws. Width of baffles should be measured and cut following placement of spacers: Approx. 1'-8 3/4".

Roost Bundle Attachment

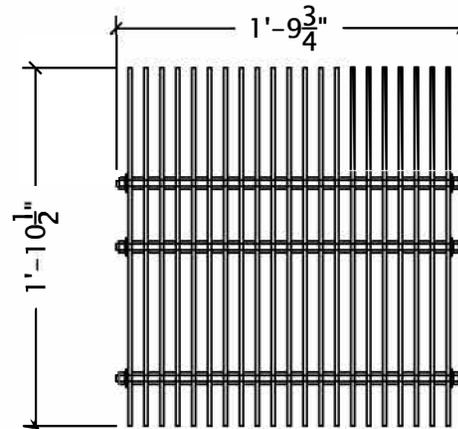


Roost Baffles are bundled together with 3/8" rod and 3/4" long pieces of Schedule 40, 3/4" PVC pipe.

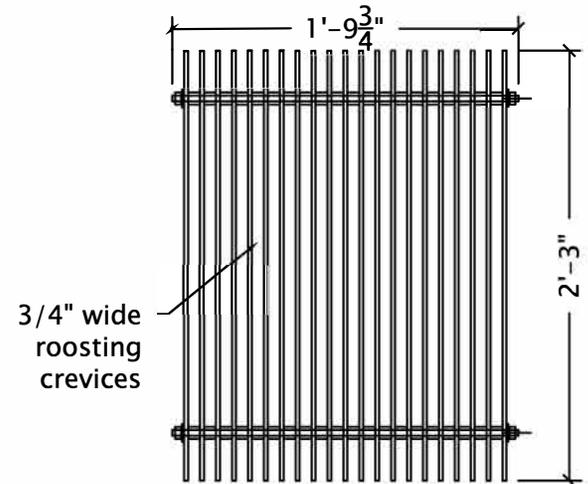
All surfaces of the baffles should be scored or grooved to allow the bats to hang. Use a utility knife or other sharp object to rough all baffles prior to making the bundles.



Upper Roost Baffles: 4 Bundles needed (21 Baffles per Bundle)



Lower Roost Baffles: 4 Bundles needed (21 Baffles per Bundle)



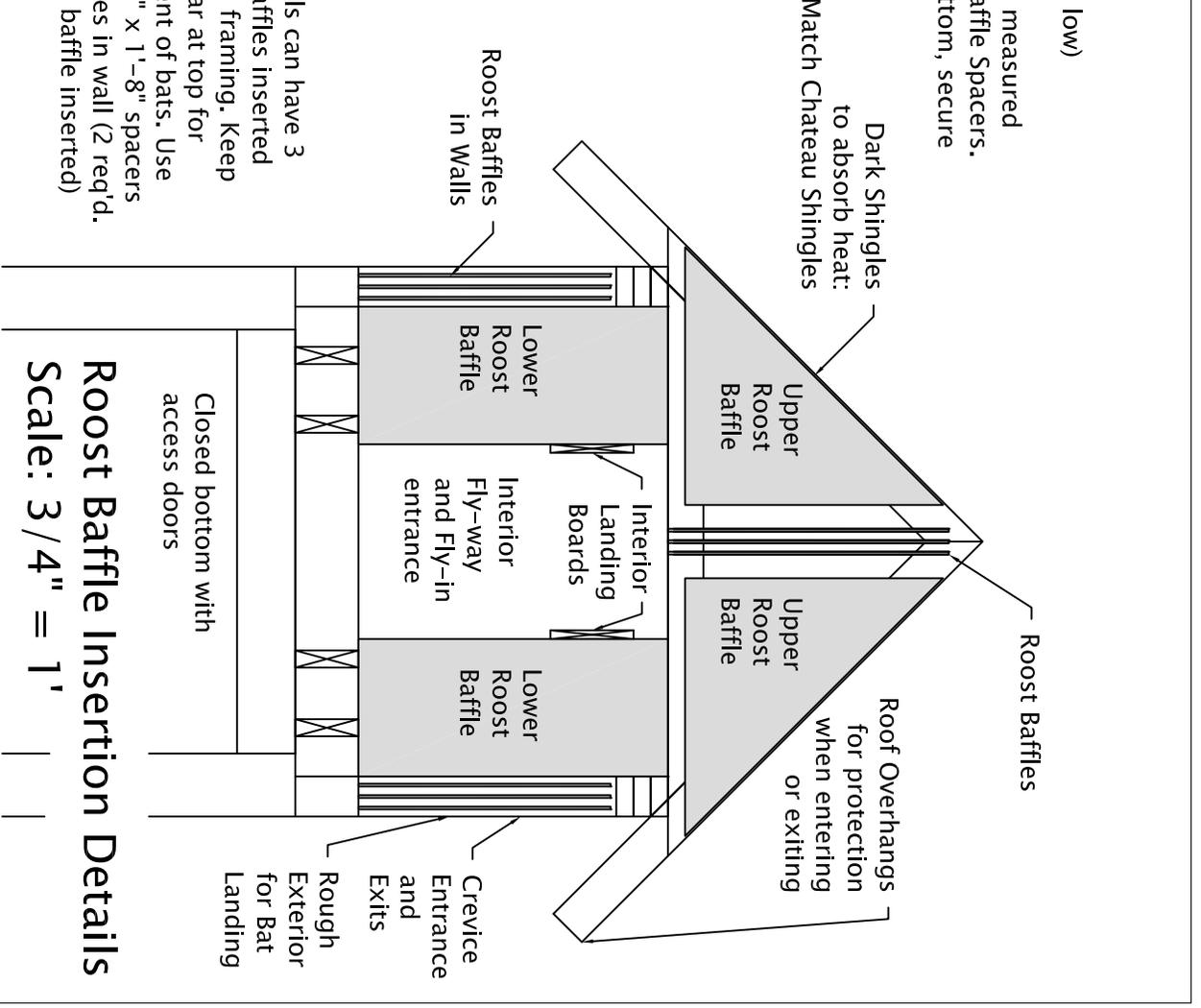
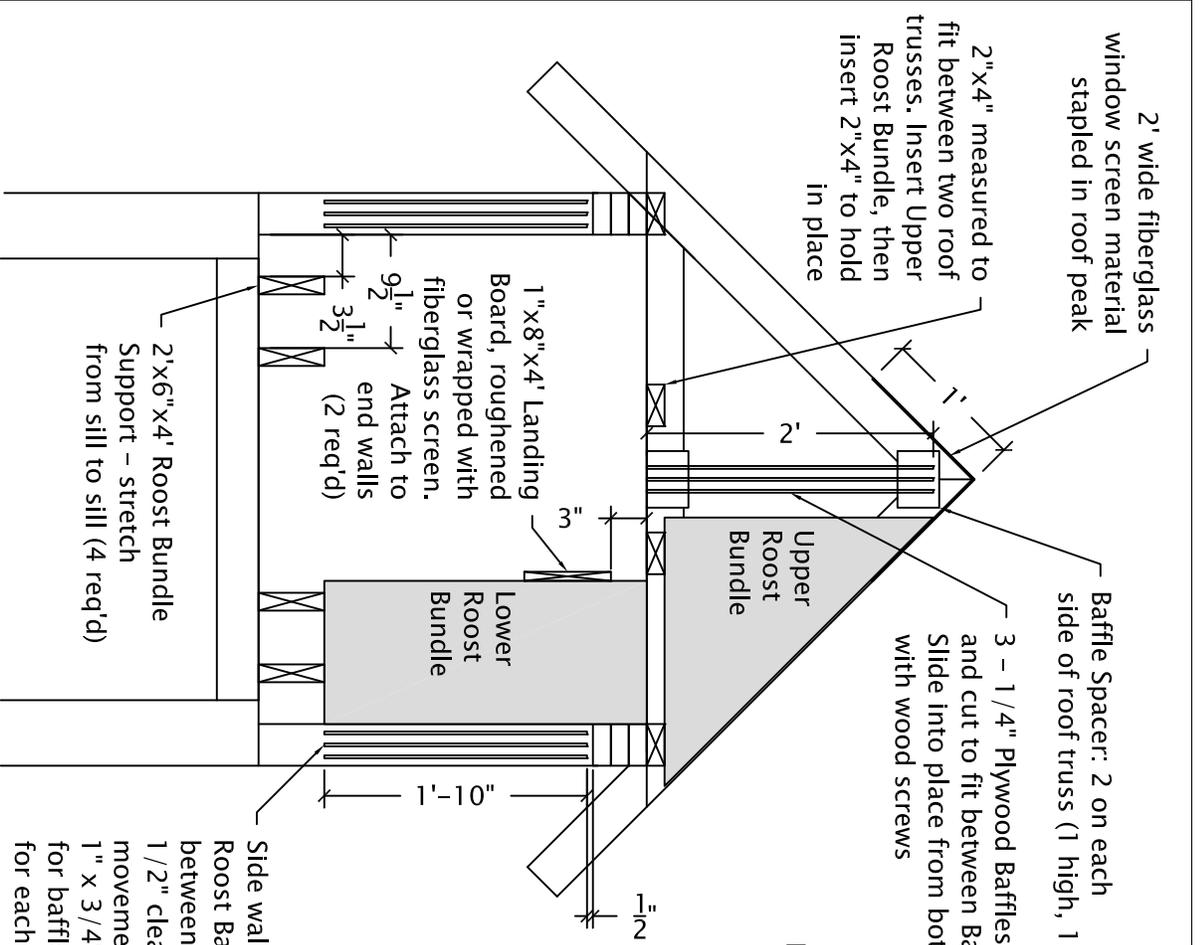
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Bat Condo – Version2

Project Location:
Statewide Properties

Sheet Title:
**Roost Baffles
Detail Sheet**

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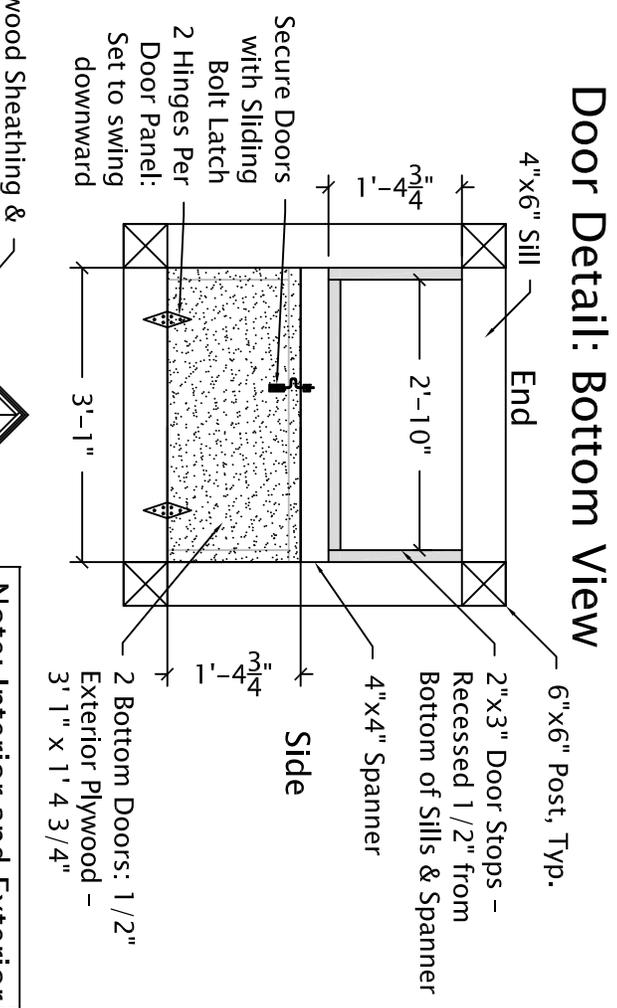
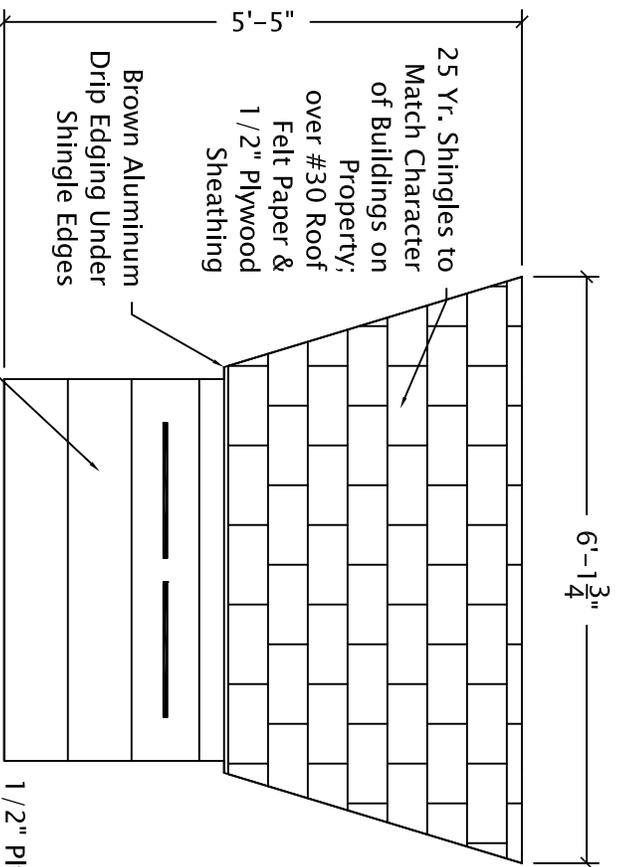
Project Title:
Bat Condo – Version2

Project Location:
Statewide Properties

Sheet Title:
Roost Baffle Insertion
Detail Sheet

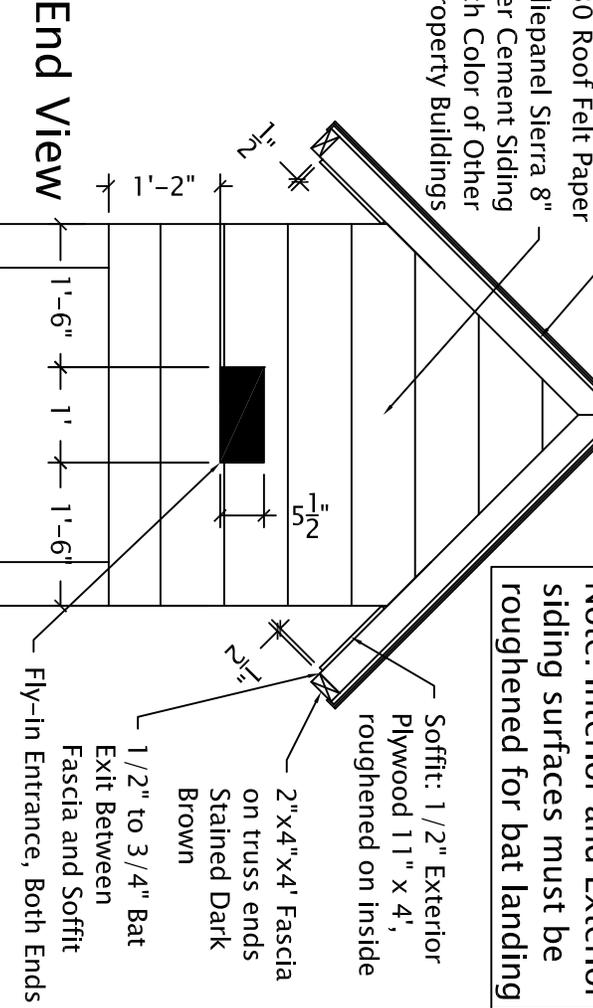
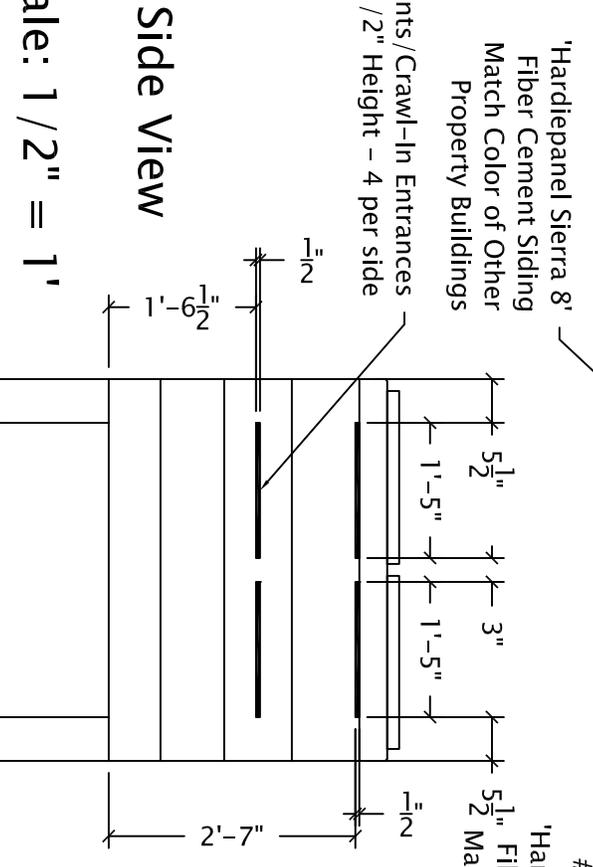
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Door Detail: Bottom View

Note: Interior and Exterior siding surfaces must be roughened for bat landing



Side View

Scale: 1/2" = 1'



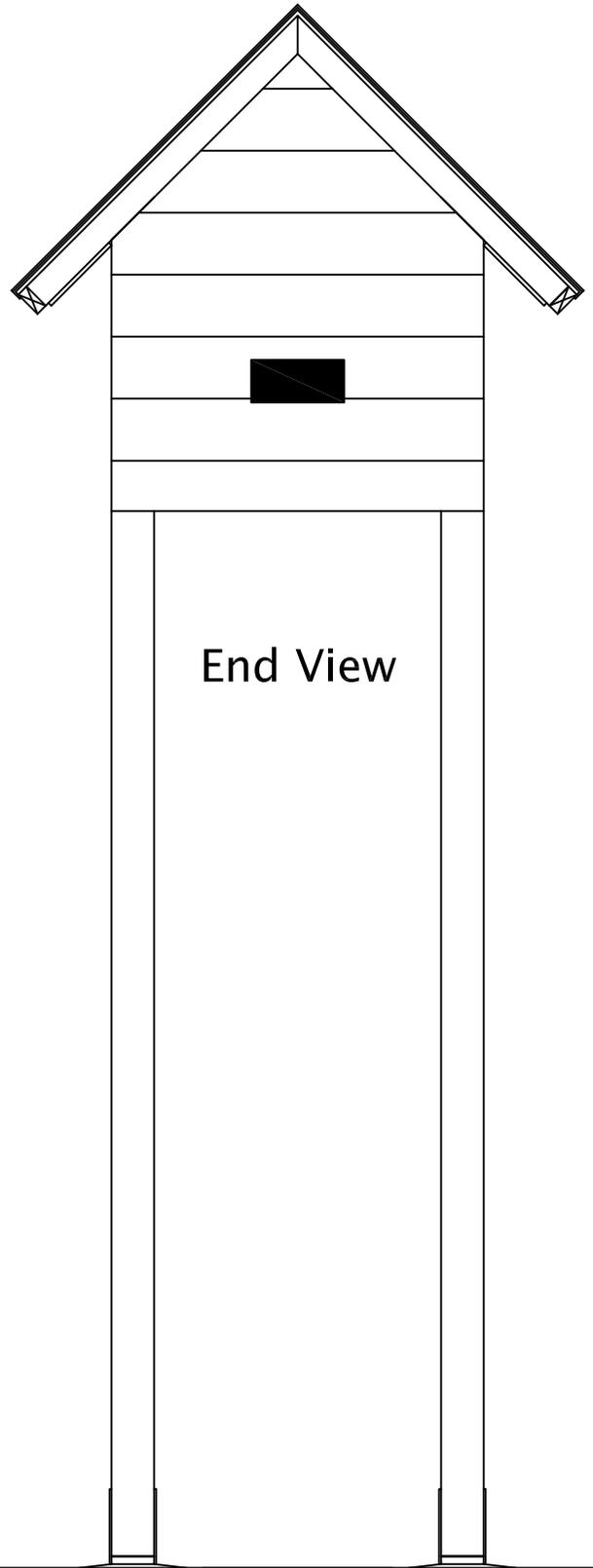
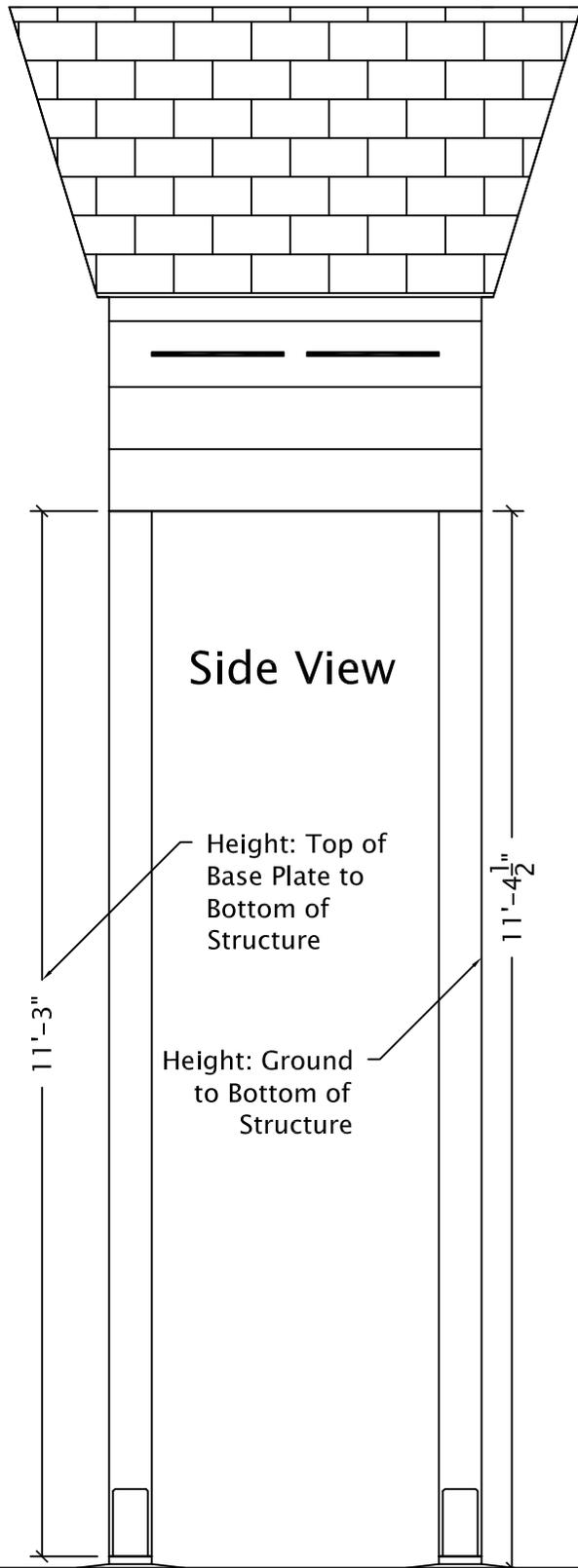
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Project Location:
Statewide Properties

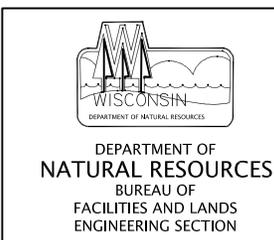
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**Exterior Finishes
Detail Sheet**

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Sheet Number	C6



Scale: 1/2" = 1'



Project Title:
Bat Condo – Version2

Project Location:
Statewide Properties

Sheet Title:
Elevations

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Designer	KMK
Drafter	KMK
Set Type	CD
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Sheet Number	C7