Janet T. Mills
Governor

Jeanne M. Lambrew, Ph.D.
Commissioner

Maine Department of Health and Human Services
Maine Center for Disease Control and Prevention
11 State House Station
286 Water Street
Augusta, Maine 04333-0011
Tel; (207) 287-8016; Fax (207) 287-9058
TTY: Dial 711 (Maine Relay)

April 18, 2024

Laura Flight
Maine Appalachian Trail Club
P.O. Box 7564
Portland, ME 04112

Regarding: Review of the MATC Accessible, double-bin moldering privy

Dear Ms. Laura Flight,

The Division of Environmental Health has completed a review of the accessible, double-bin moldering privy as designed by the Maine Appalachian Trail Club with the intention of installing several at various campsites along the Appalachian National Scenic Trail.

The designs consist of a wooden outhouse structure with an entrance flush to the ground, with two separate bins. One side of the bin is in use for approximately 5 years while the other side decomposes it, resulting in a 5-year or more period of decomposition before being spread on the forest floor. The design also requires the usage of pine shavings or saw dust being added to the pile as needed, with an impermeable barrier at the base to prevent liquids from entering the topsoil at the location regardless of the thickness of a 'duff' and wood shavings layer.

Based on the information provided, the product follows subsurface wastewater laws, 10-144 CMR 241 as an alternative toilet (section 4, part M). Based on the information, the Division has determined that the subject products are acceptable for use in the State of Maine, if they are installed, operated, and maintained in conformance with the plans as submitted.

Because installation and owner maintenance have a significant effect on the working order of onsite sewage disposal systems, including their components, the Division makes no representation or guarantee as to the efficiency and/or operation of the subject products. Further, review of this product for use in the State of Maine does not represent Division preference or recommendation for this product over similar or competing products.

If you have any questions, please feel free to contact me at (207) 592-2086.

Sincerely,
Alexander Pugh
Alexander Pugh
Sr. Environmental Hydrogeologist
Subsurface Wastewater Team
Drinking Water Program

Maine Department of Health and Human Services
Bureau of Health
Division of Health Engineering
Wastewater and Plumbing Control Program

APPLICATION FOR REGISTRATION OF EXPERIMENTAL SYSTEM/INNOVATIVE TECHNOLOGY OR ONSITE SEWAGE DISPOSAL SYSTEM PRODUCT

Please complete the following Sections. Please print or type.

Applicant

Company Name: Maine Appalachian Trail Club
Contact Person: Laura Flight, Volunteer Campsite Manager
Address: PO Box 7564
Town/City: Portland State/Province: ME Zip Code: 04112
Country: USA
Telephone: 207-215-5306 e-mail: campsite@matc.org

Product

Product Name: Accessible, double-bin moldering privy
Model: 2024 Revision

Product Classification (choose one)

Primary or Secondary Treatment Unit

[ ] Septic Tank [ ] Extended Aerobic Treatment Unit [ ] Recirculating Aerobic Unit

[ ] Aerobic Fixed Film Unit [ ] Other (specify) _____

Effluent Filter

[ ] Septic Tank Outlet Filter [ ] Post-Tank Filter [ ] Other (specify) _____

Disposal Device

[ ] Gravel-less Disposal Pipe [ ] Gravel-less Disposal Bed [ ] Chamber, Plastic

[ ] Chamber, Other [ ] Other (specify) _____

Miscellaneous

[ ] Pipe [ ] Effluent Flow Distribution Device X Other (specify) Accessible, double-bin moldering privy

Claim

Describe the product's features (attach additional sheets if necessary).

Accessible, double-bin moldering privy as described in the attached document.

Describe the product's performance (attach additional sheets if necessary).

Please refer to the attached document.

Has the product received National Sanitation Foundation or Canadian Standards Authority approval?

X No [ ] Yes (If "yes", enclose a copy of the certification.)

IMPORTANT NOTE!

Don't forget to enclose relevant product literature, engineering specifications, studies, and third party certifications with this application.

I, Laura E. Flight, am the [ ] applicant X agent for the applicant of the subject product.
(print name)

I state that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department to deny registration for use of the product in Maine.

Laura E Flight

[ ] Signature of Applicant
X Signature of Agent for Applicant

4/12/2024
Date

Maine Appalachian Trail Club Moldering Privies

— 4/12/2024 —

BACKGROUND ON MAINE APPALACHIAN TRAIL CLUB

The Maine Appalachian Trail Club (MATC) is a not-for-profit volunteer-run organization responsible for maintaining 267 miles of the Appalachian Trail (AT) from Grafton Notch to Katahdin, including 47 campsites and 60 miles of side trails. It is a maintaining club under the auspices of the Appalachian Trail Conservancy (ATC) in partnership with the National Park Service. A 19-member Executive Committee governs the 695-member organization. In 2023, 375 volunteers donated 17,183 hours to its mission.

MATC maintains 47 designated backcountry campsites each of which are served by one, or in one case, two privies. Before 2013, existing privies were either pit privies or single-bin moldering privies. MATC is replacing existing privies with new, accessible, larger capacity, two-bin moldering privies. This replacement program was necessitated by an aging privy network, compliance with federal accessibility standards, and increased use of the AT causing privies to reach capacity sooner than planned. These new moldering privies have an improved design over the single-bin moldering privies to promote the composting process. Moldering privies also have the benefit of a longer lifespan, less structural maintenance, and provide better protection of ecological and human health.

The first new accessible, double-bin moldering privy on the AT in Maine was installed in 2013, with 24 privies constructed to date. MATC typically builds three new privies per year. The rebuilding program is scheduled for completion in 2029. The work is done by volunteers. In 2023, volunteers donated 1,904 hours pre-cutting lumber, preparing the sites, hauling the materials, and building three privies. A completed privy is shown in Figure 1.

OVERVIEW OF MATC MOLDERING PRIVIES

With MATC's new privies, human excreta is deposited in a screened crib made of alternating pressure treated 4'x4's that allows free air circulation. Construction plans are given in Attachment A. The plans follow those developed by the U.S. Forest Service with only minor alterations to optimize constructability and durability.

The outside dimensions of the crib are 92 in. x 92 in. The foundation is pressure treated 4x6's that are embedded 5-½ in. below grade. The 4x6 foundation course and the next 4x4 course are continuous around the perimeter of the privy. The subsequent courses of 4x4's alternate, log-cabin style, to allow free air circulation. Screen and ½-in. hardware cloth keeps vermin and insects from accessing the waste pile. The crib extends 28 in. above grade. A four-sided structure with an overhanging metal roof is constructed over the crib.

Figure 1. Privy at Pierce Pond Lean-to Campsite.

The interior of the crib is divided into two halves (bins), with one side in use while waste continues to decompose on the other side. After a user defecates, they add a handful of pine shavings that are stockpiled at each privy by MATC volunteers. The interior capacity of one side is about 50 cu.ft. Experience to date is that the privies have about 5 years of capacity on a side. Thus, the full cycle of filling a side, then letting the waste decompose while the other side is in use, is about 10 years.

In addition to supplying shavings, MATC volunteers rake the waste to aerate the pile 3-5 times during the period May to October. The privy design includes two primary access points for this task; one through a removable hatch in the floor and the second from the outside of the crib by temporarily removing the hardware cloth and screen. A rake with a 5-foot handle is left at each privy and is dedicated to only mixing the pile. Maintainers are also instructed to add water to the pile if it is too dry.

At the end of a full cycle, the thoroughly decomposed waste from the first side is spread thinly and uniformly on the forest floor well away from the campsite and water sources. This is done through a cleanout hatch on the rear side of the crib. Photos of the privy bin at the Carl A. Newhall Campsite taken during cleanout in 2023 are shown in Figures 2 and 3. In both photos,

the left side, which had been composting for five years, had already been emptied. The pictures are taken through the hatch in the privy floor. The cleanout hatch in the back left side has been removed to facilitate removal of the composted waste.

Figure 2. Full right side of bin prior to raking.

Figure 3. Full right side of bin after raking.

THE COMPOSTING PROCESS AND MOLDERING PRIVIES

The primary guide for solutions to human waste in the backcountry is the 2nd Edition of the *Backcountry Sanitation Manual* (BSM) jointly developed by the Appalachian Trail Conservancy, USDA Forest Service, Green Mountain Club, and National Park Service. The 2nd Edition was published in 2014 and will be referenced as BSM (2014) in the following discussion.

The BSM (2014) defines composting as “a method of waste management in which materials of biological origin are decomposed by common soil microorganisms to a state where they can be applied to the land with little environmental stress.” Decomposition occurs either under anaerobic conditions (in the absence or shortage of oxygen) or aerobic conditions (with oxygen). Moldering is a special type of composting that is sometimes referred to as slow, cool, or continuous composting. BSM (2014) notes “The key to an effective composting process is oxygen, which powers aerobic bacteria and poisons anaerobic bacteria. With oxygen, aerobic bacteria thrive and outcompete anaerobic bacteria, which have slower metabolisms.” Variables affecting the composting process include the size of the particles, the voids between them, and the moisture content.

Traditional pit privies, where waste is deposited into a hole in the ground, are anaerobic environments. These are characterized by slow decomposition, foul odors, and high pathogen survival. Urination in these structures is discouraged because it promotes anaerobic conditions and creates foul odors (BSM, 2014). The BSM (2014) goes on to note that: “Complete decomposition of feces in an underground pit may require decades. Human pathogens may remain viable for decades in the cool, anaerobic conditions of the pit. If soil is shallow, or groundwater high, pathogens and nutrients can be transported from a site for many years after a pit has been abandoned.”

With moldering privies, waste is deposited in an above-ground crib and is thereby exposed to airflow to promote conditions favorable for aerobic bacteria. Maintainers rake the waste to reduce the particle size and thereby increase surface area for microbial activity. Moisture is maintained by urine contributions and water is added by maintainers if needed. Users add shavings as a bulking agent to promote voids between particles for aerobic conditions.

The first moldering privy was installed on the AT on the Green Mountain National Forest in 1997 BSM (2014). Since that time, moldering privies have been installed in every state through which the trail passes, except for Tennessee. There are now about 150 moldering privies on the AT.

In a moldering privy, waste is added slowly and is decomposed by common aerobic soil microorganisms to the point where it “can be applied to the land with little environmental stress” (BMS, 2014). It decomposes through mesophilic composting which takes place at temperatures from 50 to 112 degrees F. A moisture content of about 60% is optimum for aerobic composting. Moldering privies allow “the liquid effluent to pass through both [the] aerobic portions of the compost bed and the top biological layer of the soil, providing a high degree of treatment.” (BMS, 2014). A bulking agent, such as wood shavings, is added to the waste to increase the carbon:nitrogen (C:N) ratio thereby limiting the conversion of excess nitrogen to ammonia (BSM, 2014). In addition, the bulking agent helps to absorb urine and keeps the pile loose promoting access of the waste to oxygen, which is essential to aerobic decomposition. BSM (2014) states that: “Remote backcountry composting toilets have been shown capable of producing [EPA] Class A sludge even in the absence of high composting temperatures.” BSM (2014) recommends that waste be allowed to compost for a minimum of 3 years prior to removal and spreading.

At the Carl A. Newhall Campsite in Maine, MATC found that the combined volume of human waste plus toilet paper and wood shavings deposited, after decomposition, was about 75 gallons (10 cu.ft.) per year. This was the average over a 5 year period. The hiking season is about 5-months (June-October) with peak use in July and August. This equates to about 0.5 gallons (0.07 cu.ft.) per day. Assuming 15 daily users, the deposition rate is 0.03 gallons (0.004 cu.ft.) per person per day.

Daily urine production of an average person is 1,200 grams (1.2 liters; 0.37 gallons) (BSM, 2014). Only a fraction of this would be deposited in the privy because hikers typically urinate in the woods while hiking along the trail as well as in the middle of the night. Generally, urination in

the privy is associated with defecation. A typical person urinates 6 or 7 times per day[1]. Thus, urine added to the privy would be about 200 grams (0.2 liters; 0.06 gallons) per user per day. This equates to 0.9 gallons per day for a site with 15 users. The volume of urine added is about twice the volume of feces plus toilet paper and shavings. These are rough estimates. In MATC's experience with 24 new moldering privies to date, the active waste pile is moist with no visible water present, and users add more than sufficient wood shavings after each use. Thus, the urine is mostly absorbed and retained by the solid waste and wood shavings, as well as lost due to evaporation from airflow through the screened-in crib. BSM (2014) suggests light watering of the waste. For the active crib, MATC volunteer campsite maintainers are instructed not to add water beneath the point of active deposition, but does add a small amount of water to the waste/shavings mixture that has been raked away from the deposition point if it is too dry to promote the composting process. For the inactive crib, the maintainer adds water to keep the pile moist. See Attachment B.

BSM (2014) recommends that a 6 to 12 in.-thick layer of wood shavings topped with decomposed leaf litter or forest duff be spread on the earth at the bottom of the privy. This will "ensure that liquids will filter through an aerated layer before reaching the soil" and will "introduce local decomposer organisms" supplied by the biologically active layer of the soil. BSM (2014) further states: "Liquid that seeps through the pile will be contaminated with pathogens from feces, but if it percolates slowly enough through aerobic and active regions in the lower part of the pile, it will be treated by contact with air and aerobic microorganisms. If pathogens are not entirely eradicated in the composting pile, liquid receives further treatment in the biologically active layer of soil into which it seeps."

BSM (2014) lists the following advantages of moldering privies over traditional pit privies and other types of composting systems.

- *Convenience* - Creates a "permanent spot for sanitation management, independent of soil depth" which is not the case for pit privies.
- *Reduced pollution* - Reduces the likelihood of water pollution and groundwater contamination since "the moldering privy sits on top of the surface of the soil and eliminates the need for a pit altogether. The composting mass cannot become waterlogged, so any liquid that drains through the pile is exposed to aerobic treatment before entering the soil."
- *Reduced maintenance* - Once installed, "maintenance can be accomplished by one volunteer visiting the site three to four times per year" because "the moldering privy relies more on natural processes than human manipulation of the excrement to facilitate its breakdown. Liquid separates by gravity out of the pile, so it requires no attention or effort."
- *Reduced odor* - The crib provides ample ventilation moreover the decomposition process is aerobic and produces an earthy odor. Hikers posting comments on FarOut (an app used by almost all long-distance AT hikers) note that the new composting privies in Maine are the best on the entire trail.

[1] https://www.medicalnewstoday.com/articles/321461, accessed on 2/29/2024.

SITING PRIVIES

The location of MATC's new moldering privies meet the setback requirements listed in 0-144 CMR Ch. 241§8¶A, Table 8[2]. Thus, they are located a minimum of 100 ft from a major water body/course, 50 ft from a minor water body/course, and 10 ft from slopes greater than 3(H):1(V). MATC prefers locations on side slopes with the door facing uphill as this minimizes the length of the access ramp needed to meet federal accessibility guidelines and promotes good surface drainage of the site. MATC further seeks sites where it will be possible to dig an 8-ft x 8-ft flat spot for the privy, plus an additional 5-½ inches around the perimeter for the base of 4x6's, using only hand tools. This means that the site must be free of large boulders and, ledge must be at least 5-½ inches below the bottom elevation of the privy. Moreover, the bottom of the 4x6 base must rest on mineral soil to provide sufficient, long-term structural support for the privy.

GUIDELINES FOR FUTURE MATC MOLDERING PRIVIES

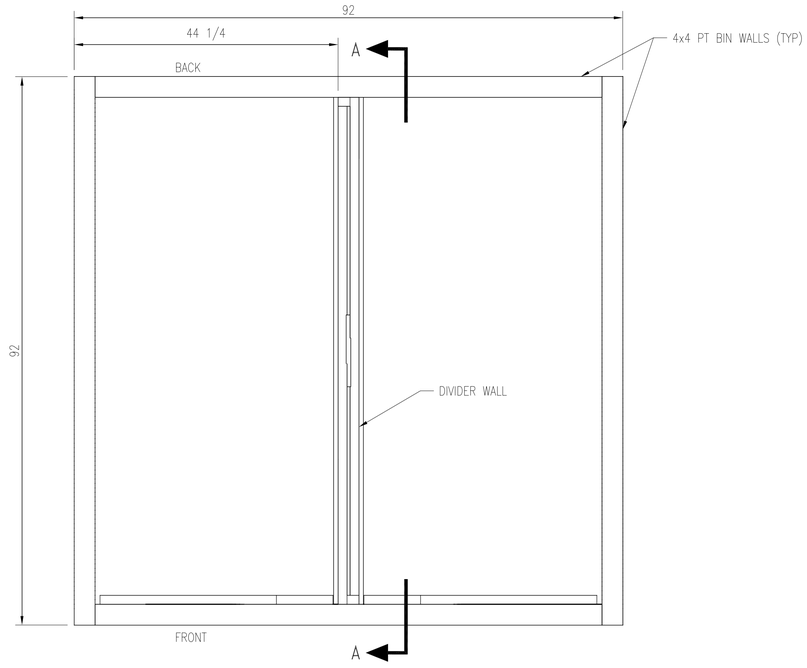
MATC agrees to comply with the following guidelines for siting, construction, maintenance, and operation of future moldering privies.

- Obtain a Disposal System Permit from the local plumbing inspector.
- Select locations that are a minimum of 100 ft from a major water body/course, 50 ft from a minor water body/course, and 10 ft from slopes greater than 3(H):1(V).
- Select locations that are not susceptible to ponding of water or susceptible to flooding.
- Have a minimum of 9 inches of soil between the bottom of the privy and ledge. At sites with shallow ledge this may not be fully possible, however, at the down-hill (back edge) there will always be a minimum of 9 inches of soil between the bottom of the privy and ledge.
- Build privies in accordance with the updated April 2924 version of the plans in given Attachment A.
- The door and privy seat will both be self closing (0-144 CMR Ch. 241§5¶M.3). Openings in the structure will be screened. A "sweep" will be installed at the bottom of the door so that there is no gap that vermin could use to access the privy structure.
- A 6-mil polyethylene sheet will be placed on the bottom of the privy. This will be covered by a minimum of 6 inches of wood shavings topped with 3 inches of forest duff. This will prevent "discharge [of] human excreta directly onto or into the soil" (0-144 CMR Ch. 241§5¶M.1.c). As such, a site evaluation is not required.
- Campsite maintainers will provide a supply of wood shavings so each user can add a handful upon completion of their business. In addition, maintainers will follow the maintenance guidelines given in Attachment B.
- Signage explaining proper use of the privy will be posted within the structure (Attachment C).

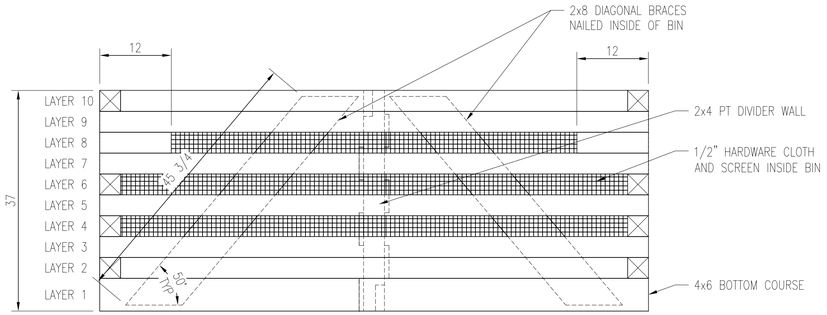
[2] 10-144 Code of Maine Rules, Chapter 241

- After switching to the other bin, the waste/toilet paper/wood shavings mixture shall be composted for a minimum of 3 years prior to being spread in the forest at a location at least 100 ft away from campsites and water sources.
- Prior to putting a bin into use, a new layer of 6 inches of wood shavings and 3 inches of forest duff shall be placed on the bottom of the privy.

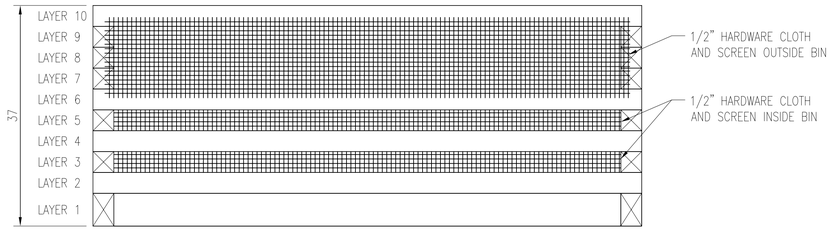
Attachment A
Privy Plans
Revised April 2024



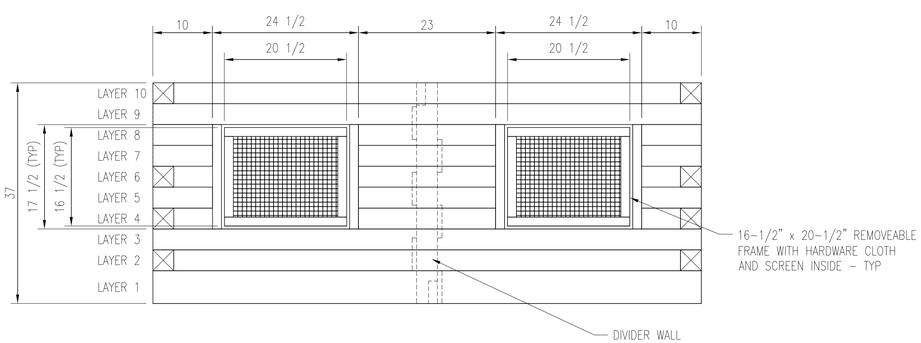
PLAN VIEW



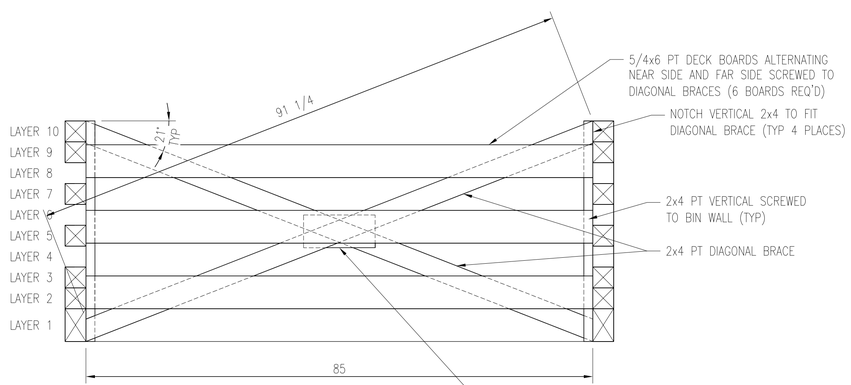
FRONT WALL ELEVATION



RIGHT AND LEFT SIDE WALL ELEVATION



BACK WALL ELEVATION



SECTION A-A
DIVIDER WALL ELEVATION

MOLDERING BIN MATERIAL LIST

QUANTITY	MATERIAL	PURPOSE
2	4 x 6 x 92" PT	LAYER 1, FRONT AND BACK
2	4 x 6 x 85" PT	LAYER 1, LEFT AND RIGHT SIDES
14	4 x 4 x 92" PT	BIN
4	4 x 4 x 85" PT	BIN
2	4 x 4 x 11" PT	LAYER 9, FRONT WALL
6	4 x 4 x 10" PT	BACK WALL, LEFT AND RIGHT OF OPENINGS
4	4 x 4 x 6 1/2" PT	BACK WALL, LEFT AND RIGHT OF OPENINGS
5	4 x 4 x 23" PT	BACK WALL, BETWEEN OPENINGS
4	2 x 4 x 17 1/2" PT (MEASURE FOR ACTUAL LENGTH)	BACK WALL, EITHER SIDE OF CLEANOUT
4	2 x 4 x 20 1/2" PT (MEASURE FOR ACTUAL LENGTH)	BACK WALL, TOP AND BOTTOM OF CLEANOUT COVER FRAME
4	2 x 4 x 13 1/2" PT (MEASURE FOR ACTUAL LENGTH)	BACK WALL, LEFT AND RIGHT OF CLEANOUT COVER FRAME
2	2 x 4 x 37" PT	BIN DIVIDER WALL VERTICAL
2	2 x 4 x 91 1/2" PT	BIN DIVIDER WALL DIAGONALS
1	5/4 x 6 x 12" PT	BIN DIVIDER WALL SPACER
6	5/4 x 6 x 84 3/4" PT	BIN DIVIDER WALL
2	2 x 8 x 45 3/4" PT	FRONT WALL DIAGONAL BRACES
2 EA	18 X 92 SCREEN AND HARDWARE CLOTH	SIDE WALLS INSIDE OF BIN; BOTTOM STARTS AT BOTTOM 4x4
2 EA	18 X 92 SCREEN AND HARDWARE CLOTH	SIDE WALLS OUTSIDE OF BIN; TOP STARTS AT TOP 4x4
1 EA	36 X 92 SCREEN AND HARDWARE CLOTH	FRONT WALL INSIDE
2 EA	CUT TO FIT SCREEN AND HARDWARE CLOTH	REAR HATCHES
200	FENDER WASHERS	FASTEN HARDWARE CLOTH TO BIN
200	2" DECK SCREWS	USE WITH FEENDER WASHER TO FASTEN HARDWARE CLOTH TO BIN
130	6" CONSTRUCTION LAG SCREWS	BIN BASE
30	10D GALVANIZED SMOOTH SHANK NAILS	TOENAIL BAND JOISTS TO TOP OF 4x4 BIN
1 BOX	3/8" OR 1/2" STAPLES	FASTEN SCREEN TO BIN

BIN CONSTRUCTION NOTES

1) BOTTOM COURSE (LAYER 1) OF BIN SHALL BE 4 x 6 TIMBERS ON EDGE WITH TOP APPROXIMATELY EVEN WITH GROUND LEVEL.

2) REMAINING COURSES OF BIN SHALL BE TWO PIECES PER COURSE ALTERNATING "LOG CABIN" STYLE TO ALLOW FOR SPACES BETWEEN COURSES.

3) ATTACH SCREEN WITH STAPLE GUN OR STAPLE HAMMER, THEN HARDWARE CLOTH WITH SCREWS AND FENDER WASHERS. COMPLETE BEFORE INSTALLING BIN DIVIDER AND DIAGONAL BRACES.

4) MEASURE ACTUAL DIMENSIONS OF OPENING FOR BACK HATCHES BEFORE CUTTING 2x4'S THAT GO ON EACH SIDE OF HATCH AND FOR THE HATCH ITSELF. ALLOW 1/4" OF CLEARANCE SO THAT THE HATCH FITS LOOSELY IN THE OPENING.

5) PLACE 6-MIL POLYETHYLENE SHEET THAT COVERS THE INTERIOR OF THE BASE OF THE CRIB.

6) PLACE 6" THICKNESS OF WOOD SHAVINGS TOPPED BY 3" OF FOREST DUFF ON THE BASE OF THE ACTIVE BIN.

7) ALL DIMENSIONS ARE IN INCHES.

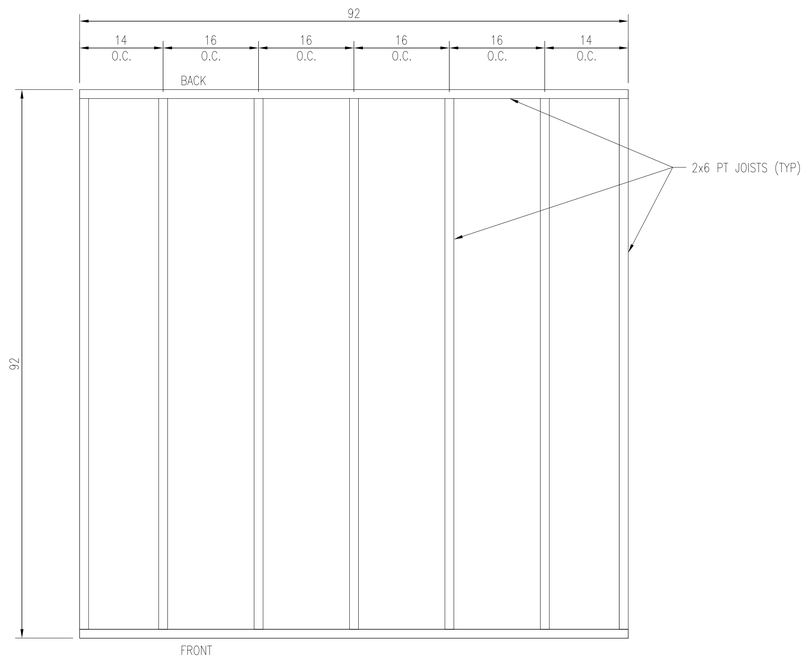
GRAPHIC SCALE

MAINE APPALACHIAN TRAIL CLUB

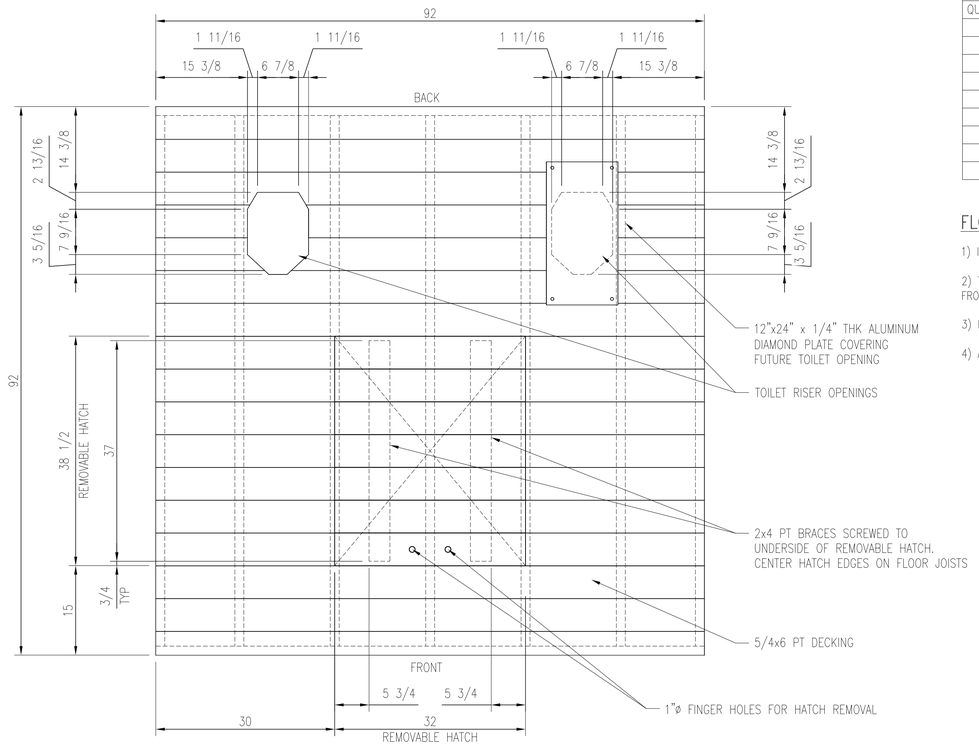
ACCESSIBLE
MOLDERING PRIVY

DRAWN BY: L. CHARTIER	DATE: 04/15/2024
SCALE: 1" = 1'-0"	-

SHEET 1 OF 6 - MOLDERING BIN



PLAN VIEW
FLOOR FRAMING



PLAN VIEW
FLOOR DECKING

FLOOR FRAMING MATERIAL LIST

QUANTITY	MATERIAL	PURPOSE
2	2 x 6 x 92" PT	FRONT AND BACK
7	2 x 6 x 89" PT	FLOOR JOISTS, MIDDLE
10	5/4 x 6 x 92" PT	DECKING, FULL WIDTH
14	5/4 x 6 x 30" PT	DECKING, LEFT AND RIGHT OF HATCH
7	5/4 x 6 x 32" PT	DECKING, HATCH
2	2 x 4 x 37" PT	TIES FLOOR HATCH TOGETHER
300	2" DECK SCREWS	FASTEN DECKING TO FLOOR FRAMING
1	1/4" x 12" x 24" DIAMOND PLATE	COVERS RISER OPENING NOT IN USE
1	RISER (STAINLESS STEEL WITH SELF-CLOSING SEAT)	

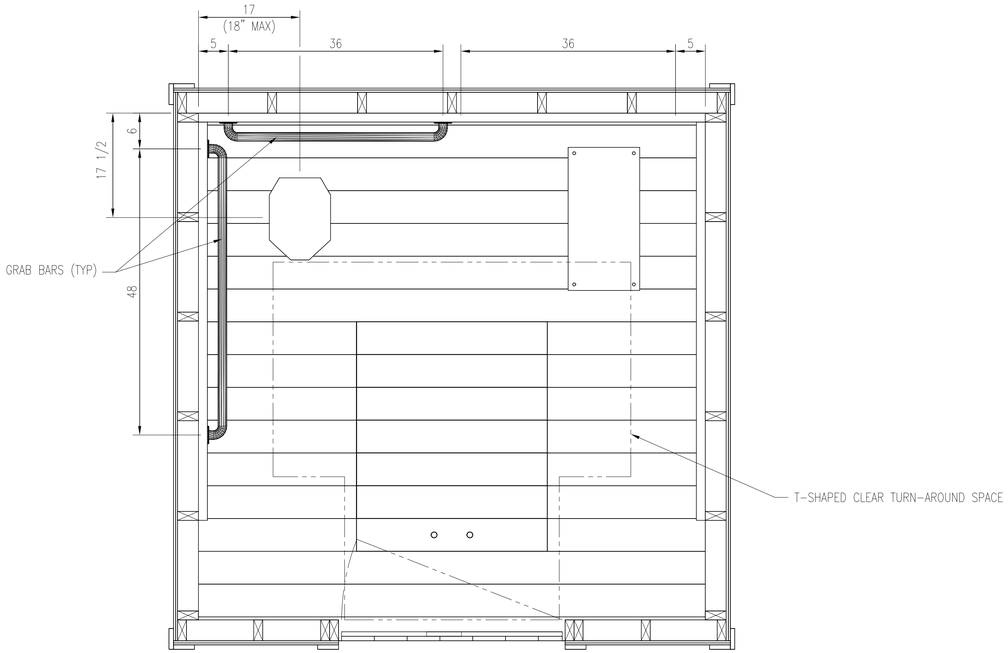
FLOOR FRAME AND FLOORING CONSTRUCTION NOTES

1) INSTALL 2 x 6 JOISTS PERPENDICULAR TO FRONT AND REAR OF PRIVY AS SHOWN IN PLAN VIEW.

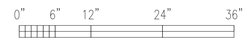
2) TOILET RISER OPENING SHALL BE CENTERED BETWEEN JOISTS, 16" MINIMUM AND 18" MAXIMUM FROM EDGE OF INSIDE WALL. VERIFY TOILET RISER DIMENSIONS BEFORE CUTTING OPENING.

3) FLOOR HATCH SHALL BE INSTALLED WITH EDGES CENTERED ON FLOOR JOISTS.

4) ALL DIMENSIONS ARE IN INCHES.



PLAN VIEW
TOILET RISER AND GRAB BARS



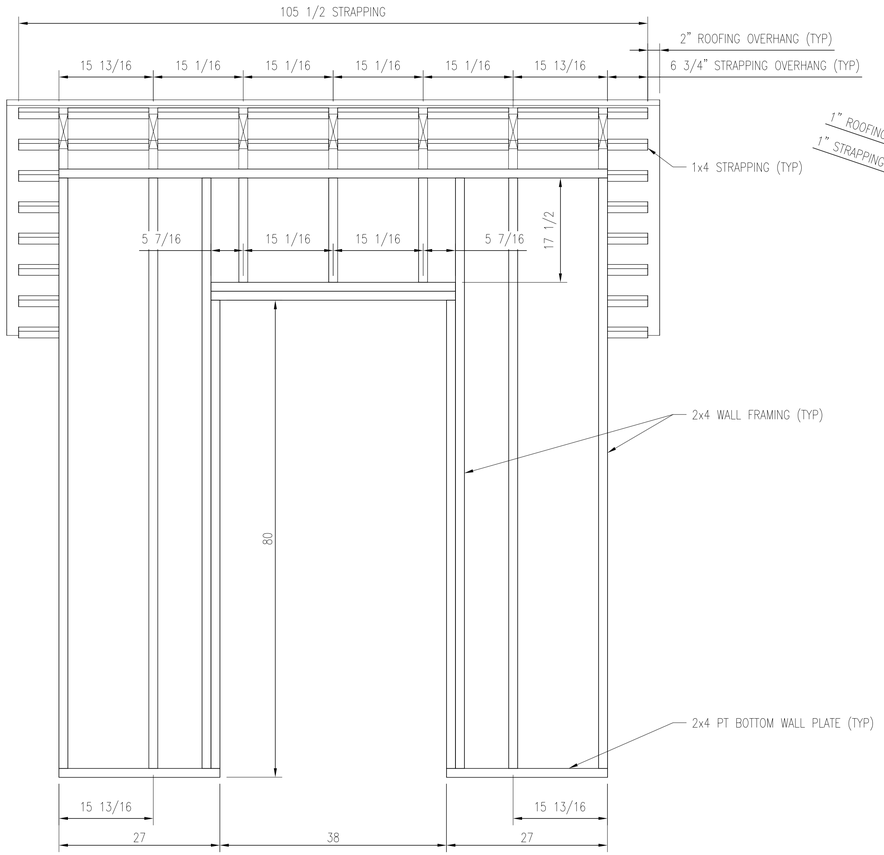
GRAPHIC SCALE

MAINE APPALACHIAN TRAIL CLUB

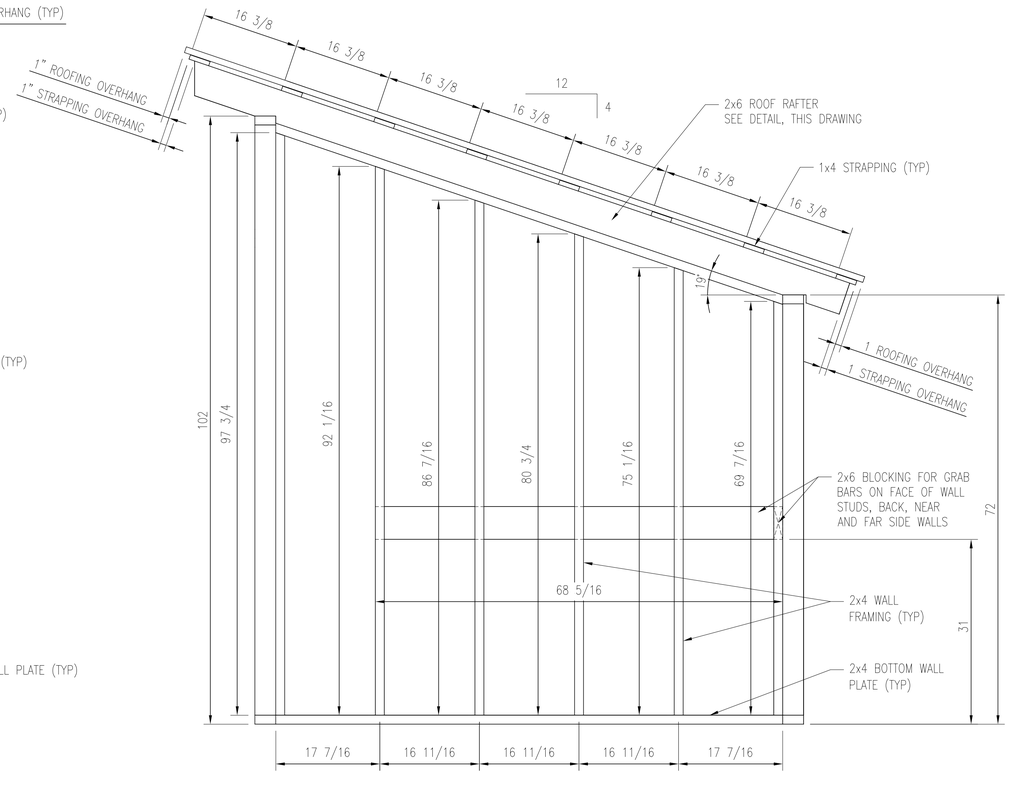
ACCESSIBLE
MOLDERING PRIVY

DRAWN BY: L. CHARTIER	DATE: 04/15/2024
SCALE: 1" = 1'-0"	-

SHEET 2 OF 6 - FLOOR FRAMING



FRONT ELEVATION
WALL AND ROOF FRAMING



TYPICAL SIDE ELEVATION
WALL AND ROOF FRAMING

WALL AND ROOF FRAMING MATERIAL LIST

QUANTITY	MATERIAL	PURPOSE
6	2 x 4 x 99" KD	FRONT WALL, FULL LENGTH STUDS
2	2 x 4 x 78 1/2" KD	FRONT WALL, JACK STUDS ON EITHER SIDE OF DOOR
2	2 x 4 x 41" KD	FRONT WALL, DOOR HEADER
3	2 x 4 x 17 1/2" KD	FRONT WALL, CRIPPLE STUDS OVER DOOR
3	2 x 4 x 92" KD	FRONT WALL TOP PLATE AND BACK WALL TOP AND
		BOTTOM PLATE
2	2 x 4 x 27" PT	FRONT WALL BOTTOM PLATE
7	2 x 4 x 69" KD	BACK WALL, STUDS
2	2 x 4 x 10' KD	SIDE WALLS, LONG STUD ADJACENT TO FRONT WALL,
		CUT LENGTH PER PLAN
10	2 x 4 x 8' KD	SIDE WALLS, STUDS, CUT LENGTH PER PLAN
2	2 x 4 x 85" KD	SIDE WALLS, BOTTOM PLATE
2	2 x 4 x 8' KD	SIDE WALLS, TOP PLATE, CUT LENGTH PER PLAN
1	2 x 6 x 82" KD	BACK WALL, BLOCKING FOR GRAB BAR
2	2 x 6 x 68 5/16"" KD	SIDE WALLS, BLOCKING FOR GRAB BAR
2	2 x 4 x 20" KD	RISER LID STOPS
7	2 x 6 x 10' KD	RAFTERS, CUT LENGTH PER PLAN
8	1 x 4 x 105 1/2" KD	ROOF STRAPPING
20 CLIPS	PASLODE 16D GALVANIZED SMOOTH SHANK	WALL FRAMING
3	3 FT. NOM. WIDTH x 10'-2" RAISED RIB	RIBBED ROOFING
	ROOFING	
130	2" ROOFING SCREWS	FASTEN ROOFING
30	10D GALVANIZED SMOOTH SHANK NAILS	TOENAIL RAFTERS TO TOP PLATE
1	36" STAINLESS STEEL GRAB BAR	AROUND RISER
1	48" STAINLESS STEEL GRAB BAR	AROUND RISER

WALL AND ROOF FRAMING CONSTRUCTION NOTES

1) ALL FRAMING IS NAILED.

2) INSTALL 2x6 BLOCKING AND GRAB BARS AS SHOWN IN THE PLANS. INSTALL BLOCKING ON SIDE WALLS BEFORE BLOCKING ON BACK WALL.

3) INSTALL RAFTERS AS SHOWN ON PLANS.

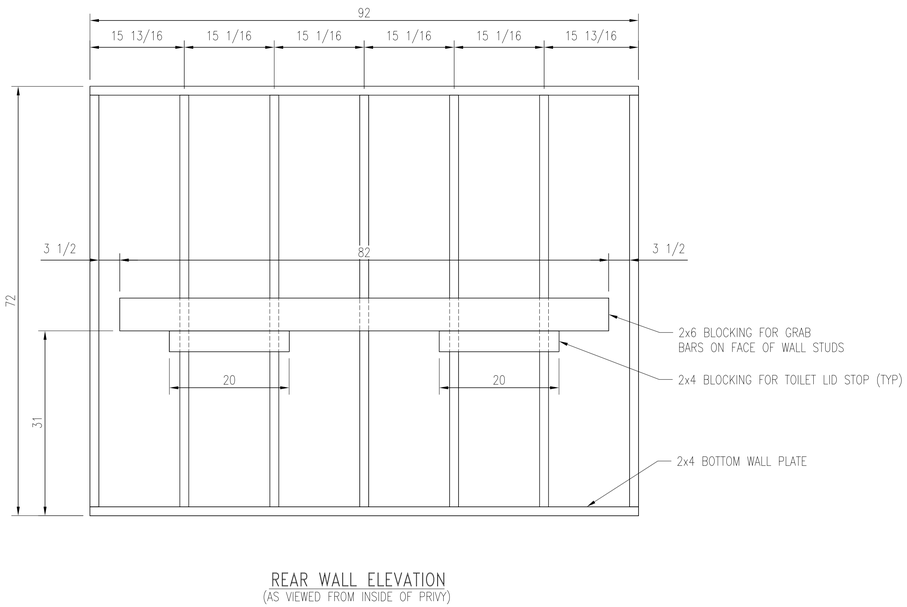
4) INSTALL 1x4 PINE STRAPPING PERPENDICULAR TO RAFTERS AS SHOWN ON THE PLANS, EVENLY SPACED AND OVERHANGING AS SHOWN. DURING PREBUILD TREAT EXPOSED ENDS AS WELL AS OUTER EDGE OF TOP AND BOTTOM STRAPPING WITH WOOD PRESERVATIVE.

5) INSTALL ROOFING PERPENDICULAR TO THE STRAPPING.

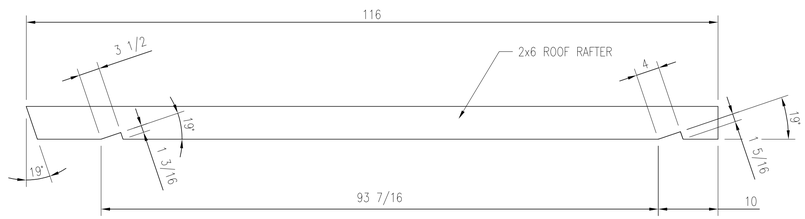
6) STRAPPING DIMENSIONS ARE FOR 3 FT. NOM. WIDTH RIBBED GALVANIZED STEEL ROOFING PANELS.

7) DURING PREBUILD MARK THE TOPS OF THE RAFTERS WITH THE LOCATION OF THE STRAPPING AND THE EDGES OF THE STRAPPING WITH THE INTERSECTIONS WITH THE RAFTERS.

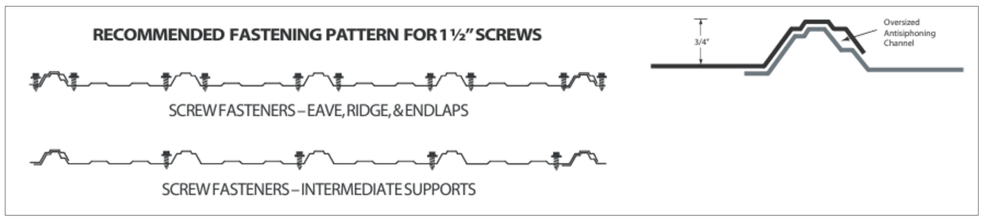
8) ALL DIMENSIONS ARE IN INCHES.



REAR WALL ELEVATION
(AS VIEWED FROM INSIDE OF PRIVY)



TYPICAL ROOF RAFTER DETAIL



ROOF FASTENING DETAIL

0" 6" 12" 24" 36"

GRAPHIC SCALE

MAINE APPALACHIAN TRAIL CLUB

ACCESSIBLE
MOLDERING PRIVY

DRAWN BY: L. CHARTIER	DATE: 04/15/2024
SCALE: 1" = 1'-0"	-

SHEET 3 OF 6 – WALL AND ROOF FRAMING

SIDING AND TRIM MATERIAL LIST

QUANTITY	MATERIAL	PURPOSE
45	1 x 6 x 91 3/4" KD SHIPLAP (6 5/8" COVERAGE)	SIDING, BACK AND BOTH SIDE WALLS
42	1 x 6 x 27" KD SHIPLAP (6 5/8" COVERAGE)	SIDING, FRONT WALL
7	1 x 6 x 78 1/2" KD SHIPLAP	DOOR, VERTICAL BOARDS
1	1 x 6 x 8' KD	DOOR, DIAGONAL BRACE, CUT TO FIT
2	1 x 6 x 37 1/2" KD	DOOR, HORIZONTAL BRACES
1	1 x 6 x 12" KD	DOOR, BLOCKING FOR LATCH
4	1 x 4 x 10' KD	FRONT CORNERS, CORNER TRIM, CUT TO FIT
2	1 x 4 x 10' KD	DOOR, SIDE TRIM BOARDS, CUT TO FIT
4	1 x 4 x 8' KD	BACK CORNERS, CORNER TRIM, CUT TO FIT
1	1 x 4 x 8' KD	SCREEN OVER DOOR, TOP AND BOTTOM TRIM, CUT TO FIT
2	1 x 4 x 92" KD	ENDS OF RAFTERS, TOP AND BOTTOM TRIM
2	1 x 4 x 8' KD	TOP OF SIDE WALLS, TRIM TO HOLD SCREEN, CUT TO FIT
1	1 x 4 x 79" KD	DOOR STOP – RIP IN HALF TO YEILD 2 PIECES
1 BOX	PASLODE 6D GALVANIZED RING SHANK	ATTACH SIDING
2 EA	SCREEN AND HARDWARE CLOTH, 33" x 92" X 97 3/4" (TRIANGLE)	SIDE WALLS
2	SCREEN, 24" x 108"	AROUND ENDS OF RAFTERS, FRONT AND BACK
1	SCREEN, 21" x 45"	FRONT WALL, ABOVE DOOR
2	6" ZINC PLATED EXTRA HEAVY T-HINGES	DOOR
8	1/4" x 2" ZINC PLATED CARRIAGE BOLTS WITH NUTS AND WASHERS	ATTACH HINGES TO DOOR
8	#10 x 1 1/2" WOOD SCREWS	ATTACH HINGES TO DOOR FRAME
1	CLOSURE LATCH PLATE	DOOR
2	6" ZINC PLATED DOOR HANDLE	DOOR
2	4" ZINC PLATED BARREL BOLTS	DOOR, PRIVACY LATCH INSIDE AND SECURE DOOR OUTSIDE

SIDING, TRIM, DOOR AND SCREEN CONSTRUCTION NOTES

ALL DIMENSIONS ARE IN INCHES.

SIDING AND TRIM BOARDS

1) INSTALL SIDING ON SIDE AND REAR WALLS SO THAT BOTTOM EDGE OF FIRST SIDING BOARD IS 1/2" BELOW TOP OF FLOOR DECKING.

2) INSTALL SIDING ON FRONT WALL SO THAT BOTTOM EDGE OF FIRST SIDING BOARD IS 1" ABOVE FLOOR DECKING.

3) ENDS OF SIDING BOARDS AT CORNERS NEED NOT BE PERFECT AS TRIM BOARDS WILL COVER ANY IMPERFECTIONS.

4) INSTALL 1x4 TRIM BOARDS AT EACH CORNER TO PROTECT ENDS OF SIDING BOARDS.

5) 1X8 OR 1X10 SHIPLAP SIDING MAY BE SUBSTITUTED FOR 1X6 SHIPLAP. ADJUST THE NUMBER OF COURSES TO ACHIEVE THE SAME COVERAGE.

DOOR

1) DOOR IS CONSTRUCTED OF VERTICAL 1x6 SHIPLAP BOARDS FASTENED TOGETHER BY 1x6 BOARDS NEAR TOP AND BOTTOM AND A 1x6 BOARD FASTENED DIAGONALLY AS SHOWN ON THE PLANS. FASTEN HORIZONTAL AND DIAGONAL BOARDS ON INSIDE FACE OF DOOR WITH 1-5/8" SCREWS.

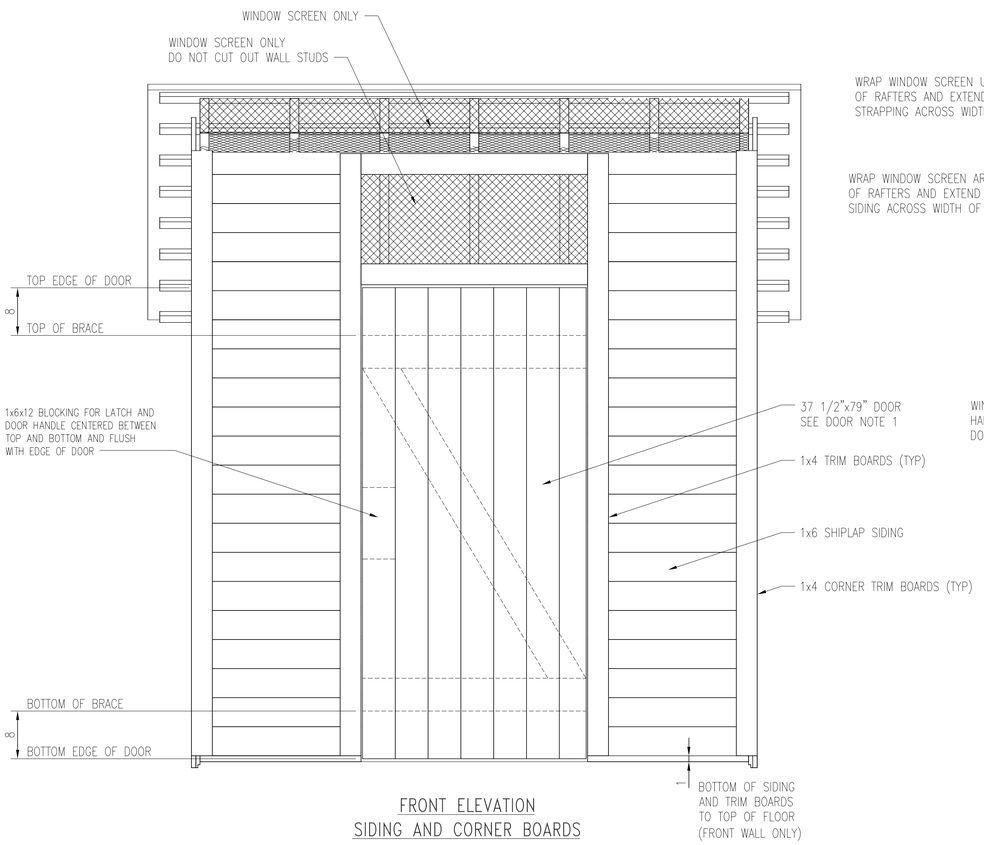
2) DOOR IS 1/2" SMALLER THAN FRAMED OPENING TO ALLOW FREE SWING WITHOUT JAMMING. INSERT TEMPORARY SHIMS AROUND DOOR WHILE FASTENING TO ENSURE EQUAL SPACING AROUND EDGES.

3) DOOR SWINGS INWARD.

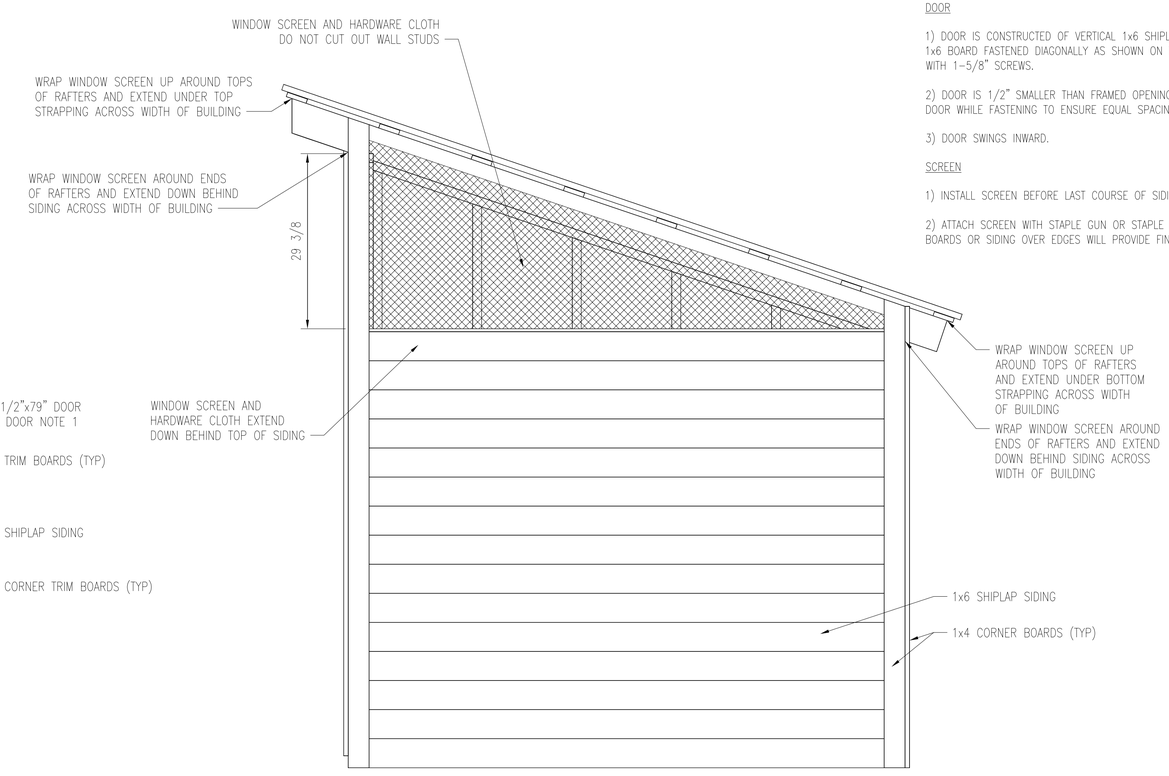
SCREEN

1) INSTALL SCREEN BEFORE LAST COURSE OF SIDING AND TOP AND BOTTOM ROOF STRAPPING.

2) ATTACH SCREEN WITH STAPLE GUN OR STAPLE HAMMER THEN HARDWARE CLOTH WITH SCREWS AND FENDER WASHERS. TRIM BOARDS OR SIDING OVER EDGES WILL PROVIDE FINAL FASTENING. ONLY SCREEN REQUIRED AROUND FRONT AND BACK ROOF RAFTERS.



FRONT ELEVATION
SIDING AND CORNER BOARDS



TYPICAL SIDE ELEVATION
SIDING AND CORNER BOARDS

0" 6" 12" 24" 36"

GRAPHIC SCALE

MAINE APPALACHIAN TRAIL CLUB

ACCESSIBLE
MOLDERING PRIVY

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SCALE: 1" = 1'-0"	-

SHEET 4 OF 6 – SIDING AND TRIM

ENTRY PORCH MATERIAL LIST – STAIRS NOT INCLUDED		
QUANTITY	MATERIAL	PURPOSE
5	2 x 6 x 63 1/2" PT	PORCH, INSIDE JOISTS
1	2 x 6 x 92" PT	PORCH, INSIDE LEDGER
2	2 x 8 x 63 1/2" PT	PORCH, OUTSIDE JOISTS
1	2 x 8 x 99" PT	PORCH, OUTSIDE LEDGER
2	2 x 8 x 13 1/2" PT	BLOCKING
13	5/4 x 6 x 92" PT	PORCH BOARDS
2	4 x 4 x 42 1/4" PT	POSTS ADJACENT TO FRONT WALL
4	4 x 4 x 8' PT	FRONT POSTS, CUT ON SITE
2	2 x 6 x 59 1/2" PT	PORCH, TOP SIDE RAILS
2	2 x 6 x 31 1/2" PT	PORCH, TOP FRONT RAILS TO END
4	2 x 4 x 59 1/2" PT	PORCH, MID AND BOTTOM SIDE RAILS
4	2 x 4 x 31 1/2" PT	PORCH, MID AND BOTTOM FRONT RAILS TO END
10	2 x 6 x JOIST HANGERS	PORCH, INSIDE JOISTS
2	REINFORCING ANGLES	ATTACH OUTSIDE JOISTS TO FRONT LEDGER
80	#9 x 1 1/2" SIMPSON STRONG	FOR PRECONSTRUCTED JOIST HANGERS AND
	TIE SCREWS	REINFORCING ANGLES
50	#9 x 1 1/2" SIMPSON STRONG	FOR SITE INSTALLED JOIST HANGERS AND
	TIE SCREWS	REINFORCING ANGLES
40	#9 x 2 1/2" SIMPSON STRONG	CROSS NAIL FOR JOIST HANGERS
	TIE SCREWS	
40	4" LAG SCREWS	ATTACH JOISTS TO POSTS
50	3" DECK SCREWS	ATTACH RAILINGS TO POSTS
200	2" DECK SCREWS	ATTACH PORCH BOARDS TO JOISTS

ENTRY PORCH AND STAIRS CONSTRUCTION NOTES

1) FOR ACCESSIBILITY, PRIVY BUILDING SHALL BE CONSTRUCTED WITH A LEVEL ENTRY PLATFORM AND RAMP WITH A MAXIMUM SLOPE OF 1:12. THE RAMP SHALL TERMINATE AT GRADE. IF SITE CONDITIONS PERMIT, A PATH WITH A SLOPE NOT EXCEEDING 1:12 MAY BE USED IN LIEU OF A RAMP.

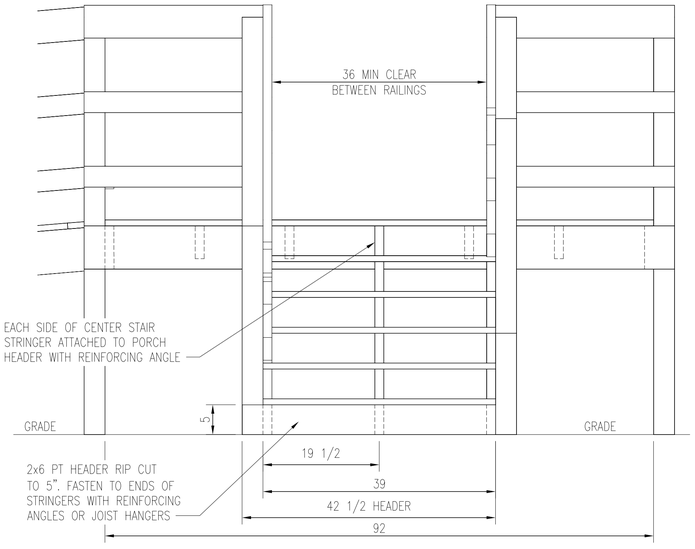
2) IF A RAMP OR PATH IS NOT FEASIBLE DUE TO SITE CONDITIONS, THEN STAIRS MAY BE CONSTRUCTED AS AN ALTERNATIVE. THE BOTTOM CORNERS OF THE STAIRS SHALL BE SUPPORTED BY FLAT ROCKS WITH TYPICAL DIMENSIONS OF 10" X 10". THE BOTTOM OF THE ROCKS SHALL BE EMBEDDED BELOW THE LAYER OF SURFACE DUFF. TO FACILITATE TRANSFER FROM A WHEELCHAIR, AN 18" TRANSFER HEIGHT IS PROVIDED AT THE THIRD STEP ON ONE SIDE OF THE STAIRS. AN AT-GRADE 3' X 4' LEVEL TRANSER PAD MUST BE PROVIDED ADJACENT TO THE THIRD STEP.

3) SLOPED PATH, RAMP OR STAIRS CAN BE TO EITHER SIDE OR FRONT OF PLATFORM DEPENDING ON SITE CONDITIONS.

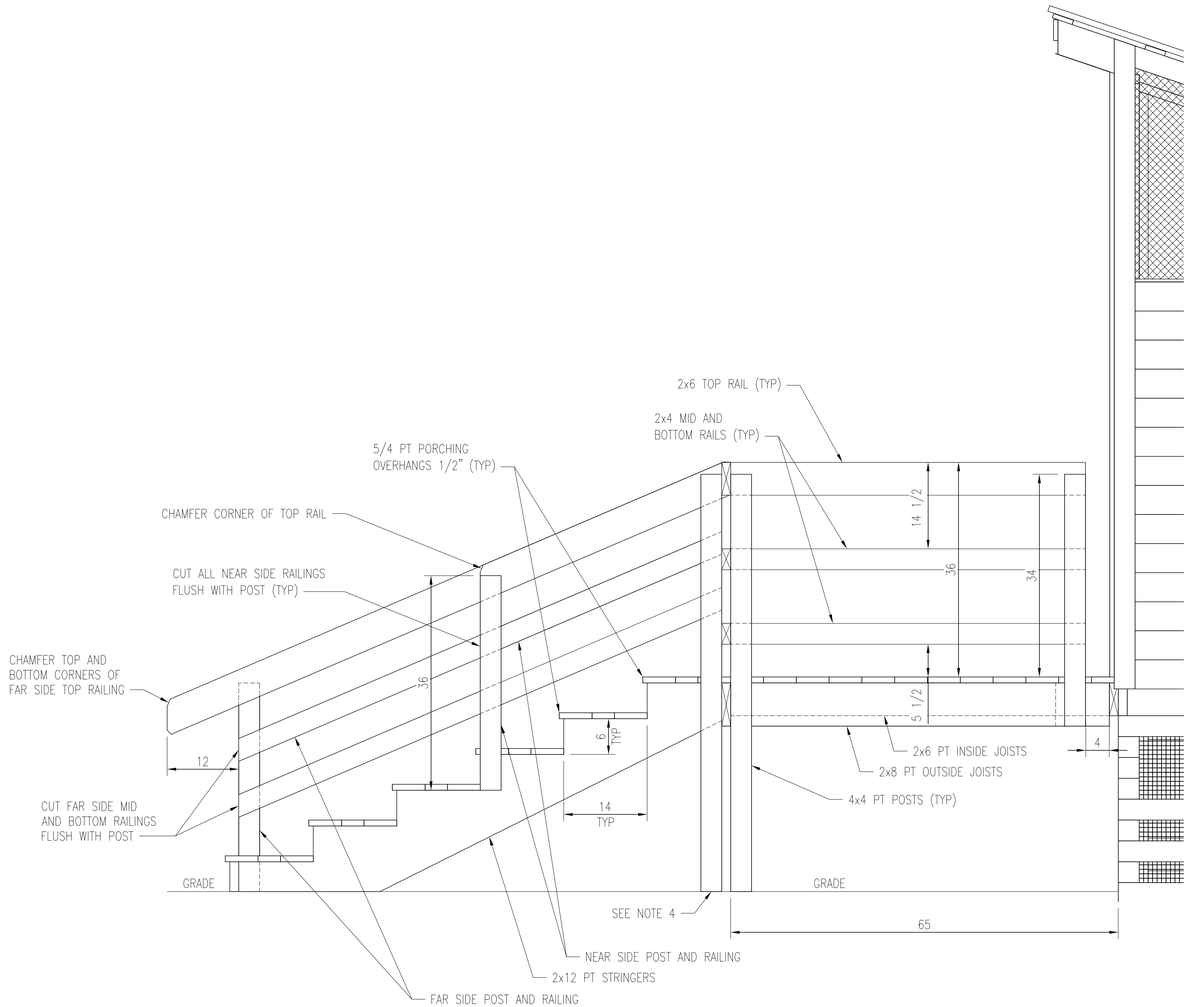
4) POSTS SUPPORTING FRONT OF PORCH SHALL TERMINATE AT OR SLIGHTLY BELOW GRADE AND BE SUPPORTED BY A FLAT ROCK WITH TYPICAL DIMENSIONS OF 10" X 10". THE BOTTOM OF THE ROCK SHALL BE EMBEDDED BELOW THE LAYER OF SURFACE DUFF.

5) RAILING QUANTITIES AND LENGTHS ARE FOR RAMP OR STAIRS CENTERED ON FRONT OF PORCH.

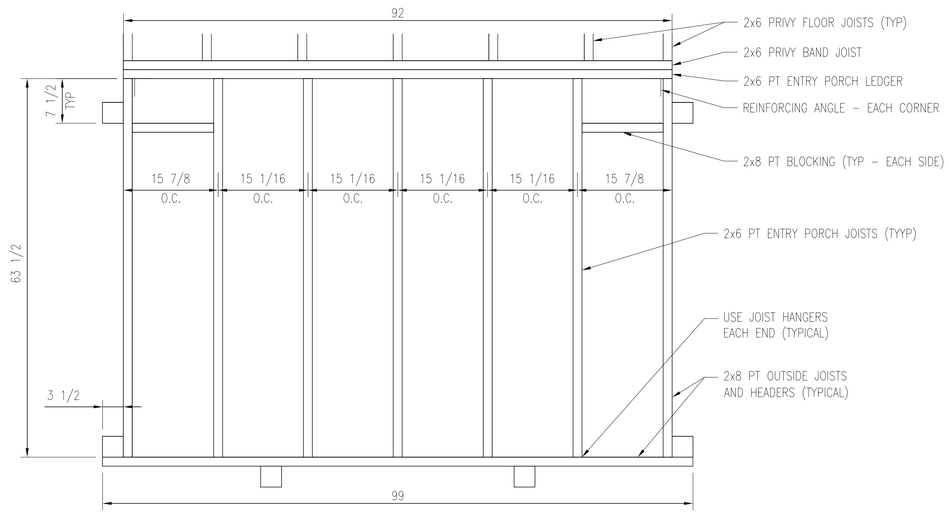
6) ALL DIMENSIONS ARE IN INCHES.



FRONT ELEVATION



SIDE ELEVATION



ENTRY PORCH FRAMING PLAN

0" 6" 12" 24" 36"

GRAPHIC SCALE

MAINE APPALACHIAN TRAIL CLUB

ACCESSIBLE
MOLDERING PRIVY

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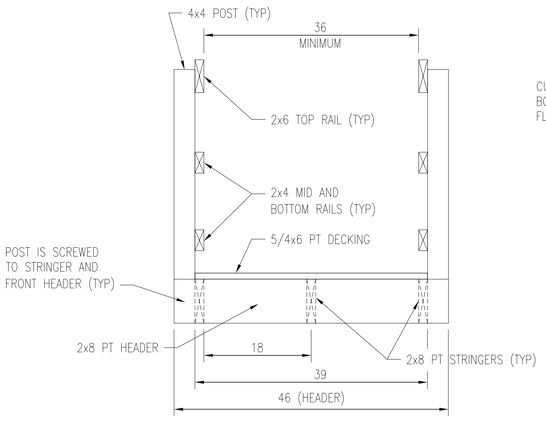
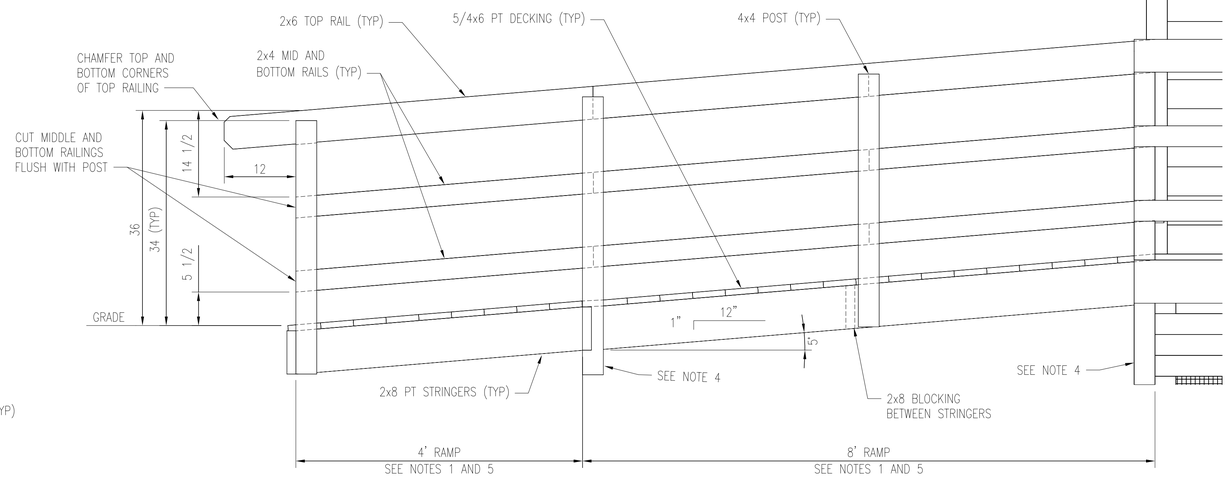
SCALE: 1" = 1'-0"	–

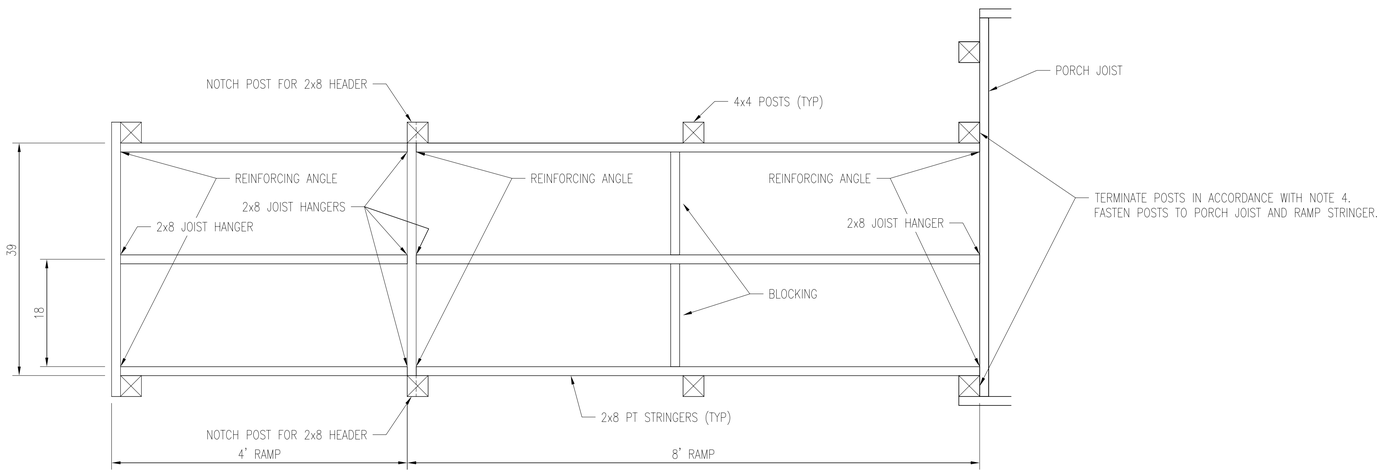
SHEET 5 OF 6 – ENTRY PORCH AND STAIRS



END VIEW



SIDE ELEVATION



PLAN – RAMP FRAMING

EXAMPLE MATERIAL LIST FOR 8 FT RAMP
INTERMEDIATE SUPPORT OR SECOND SECTION NOT INCLUDED

QUANTITY	MATERIAL	PURPOSE
3	2 x 8 x 8' PT	RAMP STRINGERS, CUT AS SHOWN ON PLANS
1	2 x 8 x 46" PT	HEADER AT BOTTOM OF RAMP
2	2 x 8 x 17 1/4" PT	BLOCKING
2	4 x 4 x 8' PT	2 END POSTS AND 2 INTERMEDIATE POSTS, CUT TO LENGTH
2	2 x 6 x 10' PT	2 TOP RAILINGS, CUT TO LENGTH
4	2 x 4 x 8' PT	2 MID AND 2 BOTTOM RAILINGS – CUT TO LENGTH
18	5/4 x 6 x39" PT	RAMP BOARDS
10	4" LAG SCREWS	ATTACH POSTS TO STRINGERS
40	3" DECK SCREWS	ATTACH RAILINGS TO POSTS
120	2" DECK SCREWS	ATTACH RAMP BOARDS TO STRINGERS
2	2 x 8 JOIST HANGERS WITH SCREWS	ATTACH MIDDLE STRINGERS TO HEADERS

EXAMPLE MATERIAL LIST FOR 4 FT RAMP
INTERMEDIATE SUPPORT OR SECOND SECTION NOT INCLUDED

QUANTITY	MATERIAL	PURPOSE
2	2 x 8 x 8' PT	RAMP STRINGERS AND HEADER AT BOTTOM OF RAMP, CUT TO LENGTH
1	4 x 4 x 8' PT	2 POSTS AT END, CUT TO LENGTH
1	2 x 6 x 10' PT	2 TOP RAILINGS, CUT TO LENGTH
2	2 x 4 x 8' PT	2 MID AND 2 TOP RAILINGS, CUT TO LENGTH
9	5/4 x 6 x 39" PT	RAMP BOARDS
10	4" LAG SCREWS	ATTACH POSTS TO STRINGERS
30	3" DECK SCREWS	ATTACH RAILINGS TO POSTS
60	2" DECK SCREWS	ATTACH RAMP BOARDS TO STRINGERS
2	2 x 8 JOIST HANGERS WITH SCREWS	ATTACH MIDDLE STRINGERS TO HEADERS

RAMP CONSTRUCTION NOTES

1) RAMP LENGTH IS DEPENDANT ON SITE CONDITIONS. THE PRIVY SHALL BE SITED AND RAMP DIRECTION CHOSEN TO MINIMIZE RAMP LENGTH. THIS SHEET GIVES AN EXAMPLE AS WELL AS IMPORTANT CONSIDERATIONS FOR RAMP DESIGN.

2) RAMP MAY BE LOCATED ON EITHER SIDE OR FRONT OF ENTRY PORCH DEPENDING ON SITE CONDITIONS. IF THE RAMP IS LOCATED ON ONE OF THE SIDES, THE FRONT OF THE PORCH SHALL BE SUPPORTED BY AN ADDITIONAL POST LOCATED AT MID POINT AND TERMINATED IN ACCORDANCE WITH NOTE 4

3) RAMP GRADE NOT TO EXCEED 1:12.

4) POSTS SUPPORTING THE RAMP SHALL BE TERMINATED AT OR SLIGHTLY BELOW GRADE AND SUPPORTED BY A FLAT ROCK WITH TYPICAL DIMENSIONS OF 10" X 10". THE BOTTOM OF THE ROCK SHALL BE EMBEDDED BELOW THE SURFACE DUFF.

5) RAMPS LONGER THAN 10 FEET REQUIRE INTERMEDIATE POSTS TO SUPPORT THE STRINGERS. RAMPS LONGER THAN 30 FEET OR NEEDING AN INTERMEDIATE 90 OR 180 DEGREE TURN REQUIRE A RESTING OR TURNING PLATFORM WITH DIMENSIONS MEETING ADA REQUIREMENTS.

6) ALL DIMENSIONS ARE IN INCHES.

0" 6" 12" 24" 36"

GRAPHIC SCALE

MAINE APPALACHIAN TRAIL CLUB

ACCESSIBLE
MOLDERING PRIVY

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SCALE: 1" = 1'-0"	–

SHEET 6 OF 6 – RAMP

Attachment B

MATC Accessible Moldering Privy Maintenance Tip Sheet

MATC Accessible Moldering Privy Maintenance Tip Sheet

This tip sheet is for maintainers of accessible moldering privies. It includes items to bring, duties to perform, and expected maintenance frequencies. A clean privy ensures hiker compliance, good health, and structure longevity.

Background Information
FMI: See ATC's Backcountry Sanitation Manual (Chapter 5 on moldering privies): Link
Safety: See "Waste Facility (Privy) Management" Job Hazard Analysis (JHA): Link

Human waste is actively deposited in one of the two bins in the above-ground crib. Users add a bulking agent (planar/flake wood shavings) with each "solid" deposit. The decomposition process is aerobic (with oxygen). This environment is more inviting to critters that break-down waste. Urination is encouraged to keep the pile moist.

The overall idea is after bin #1 fills, the seat/riser are moved to bin #2. Meanwhile, bin #1 composts and bin #2 fills. When bin #2 is then full, materials in bin #1 are composted. Then materials in bin #1 are removed using the rear hatches and the seat/riser are moved to bin #1. And repeat.

Items to Keep in the Privy:

- Broom and dust pan
- Planar wood shavings (**no sawdust!)**. "Bales" can be purchased at a Tractor Supply store (link)
- Long-handled rake (typically affixed to the crib divider wall under the floor)
- "Welcome to a Moldering Privy" sign[3] (e-mail: campsite@matc.org if you need one)

Items to Bring for a Maintenance Visit:

- Driver (battery powered preferred) with Torx tips (20 and 25), Phillips bits, and ¼-inch hex tips
- Personal Protective Equipment: Rubber gloves, eye protection, mask (recommended), soap or hand sanitizer (see Job Hazard Analysis at the end of this document)
- Cleaning agent (7th Generation Disinfecting Bathroom Cleaner) **Nothing w/bleach!**
- Paper towels
- Garbage bag to collect trash left by hikers in the privy (but not in the bin)
- Artificial light (inside can be dark; headlamp, smart phone, or one on a driver will suffice)
- Shavings (if needed)
- For a bin switch, the above plus:
    - Two 5-gallon buckets
    - Spade, hoe

Portals to the Pile

- Hatch in the floor
    - ~3x2-foot removable section of the floor, located 3-4 boards in from the privy door. Newer privies have finger hole(s) to lift it out. On older privies, it may be screwed down.

[3] Sign is given in Attachment C.

- Side of the active crib
    - Hardware cloth and screen typically affixed with Torx head fasteners (but possibly Phillips) and fender washers. Remove all except the few at the end closest to the seat.
- Rear hatches
    - On the back-side of the crib. Some privies will have nails as “keepers” and can be removed by hand or with a hammer. Some privies the hatch frames are screwed in with Torx head fasteners (but possibly Phillips)
        - This access will not be as useful for raking the pile; primary purpose is for removing fully composted materials.

Maintenance Actions and Frequency

If there is trash in the active crib, there is **no need** to remove it; it can be removed after the pile is fully composted.

Every Visit (assuming visits are at most monthly):

- Ensure adequate supply of wood shavings.
- Sweep the privy.
- Clean the grab bars.
- Clean the toilet seat (separate cloth than used for grab bars).
- Use the long-handled rake through the floor and/or the side of the crib to rake the pile flat.
- After maintenance is complete, wash hands thoroughly with soap and warm water.

Two to Four Times a Season:

- Turn and rake the active pile flat.
- Turn and rake pile (if present) in the inactive crib.
- Add water to the active and inactive piles if they are too dry. Desired moisture level is like a wrung-out sponge. The goal is the compost pile should be glistening but never dripping when picked up with a fork.
    - For the active pile, only add water to the end of the bin closest to the door, opposite to the end under the seat and riser, as urine provides enough moisture to the area under the seat.

As Needed (~3-5 Years):

- If the active crib is 3/4 full raked flat:
    - Remove the metal plate over the inactive bin and swap it with the riser/seat
    - Move the grab bars to the side with the riser/seat.
- If there are materials in the inactive crib:
    - Use the rear hatches to remove the materials (if not fully composted, email campsite@matc.org)
    - Scatter materials in the woods away from water sources and human activities.
    - Remove any trash and carry it out.
    - Prior to putting a bin into use, a new layer of 6 inches of wood shavings and 3 inches of forest duff shall be placed on the bottom of the privy.
- Material that is not fully composted can be moved to the active bin.

Appendix 1: Job Hazard Analysis / Safety Plan

Job Hazard Analysis (JHA) **Moldering Privies**		Date: 6/28/2005	**New JHA** / Revised JHA
Park Unit: **KLGO**	Division: **Rangers**	Branch: **Backcountry**	Location: **Sheep Camp**
JOB TITLE: **Trail Ranger**		JHA Number:	Page 1 of 1
Job Performed By: **Field Staff**	Analysis By: **Tim Steidel**	Supervisor: **Reed McCluskey, Chief Ranger**	Approved By: **Jim Coreless, Supt.**
Required Standards and General Notes:	Minimum 100' horizontal separation from water sources and 4' minimum vertical separation. Complete Hepatitus B vaccinations for field staff handling wastes.		
Required Personal Protective Equipment:	Rubber gloves; surgical type masks not required, but available. Hearing protection, eye protection, and chaps for use with chainsaws.		
Tools and Equipment:	Composting rake with minimum of four foot long handle. Composting Thermometer with 3 meter solid probe. Harvest shovels and gravel bags.		

Sequence of Job Steps	Potential Hazards/Injury Sources	Safe Action or Procedure
Construction and Installation	Aircraft accident/emergencies Lifting outhouse onto crib	Adhere to Aviation Safety Plan Use minimum of four persons with proper lifting techniques.
Daily/Weekly Maintenance	Contact with Biological Contaminants	Use proper PPE and tools supplied. Maintain appropriate innoculations Wash hands thoroughly with soap and warm water and/or use waterless hand sanitizers. Rinse contaminated tools into the crib with water and store out of contact with public. Decontaminate w/ bleach water.
Harvest of Final Waste Product	Aircraft accident/emergencies Contact with Biological Contaminants Skidding of outhouse structure	Adhere to Aviation Safety Plan Use proper PPE and tools supplied. Maintain appropriate innoculations Wash hands thoroughly with soap and warm water and/or use waterless hand sanitizers. Use minimum of two persons or mechanical advantage with stabilizers.

Attachment C

“Welcome to a Moldering Privy!” Sign

Welcome to a Moldering Privy!

This moldering privy is an above-ground, low-temperature, aerobic (uses oxygen) composting system. These conditions, in combination with "raking the pile" 2-3 times annually, allow for continuous composting unlike traditional pit privies. As a result, waste naturally decays and pathogens are reduced over time.

To ensure proper conditions, **PLEASE**:

- Add only human waste (including pee) and toilet paper to the pile.
- Add a handful of wood shavings to help reduce odors and improve decomposition rates. "One scoop when you poop."
- Pack out trash, including feminine hygiene products, and food waste.
- Close the lid to keep flies away and reduce the spread of pathogens.
- Latch the door to keep the critters out.

If you have any questions or comments, please contact:

Maine Appalachian Trail Club (MATC)
www.matc.org