

 **Schofield, Barbini & Hoehn Inc.**
Land Surveying & Civil Engineering 

12 Surveyor's Lane, Box 339
Vineyard Haven, Mass.
508-693-2781
www.sbhinc.net
dhoehn@sbhinc.net
kabbott@sbhinc.net

Job # MV-2543

August 15, 2023

West Tisbury Zoning Board of Appeals
Town Hall
1059 State Road
PO Box 278
West Tisbury, MA 02575

Re: Proposed Improvements for Deanna Ahearn-Laird, 72 Vineyard Meadow Farms Road.

Dear Board Members,

On behalf of our client, Deanna Ahearn Laird, we are submitting a proposal for improvements on the above property for your review.

This property is a pre-existing, non-conforming lot created in 1972 as part of the Vineyard Meadow Farms subdivision. The lot area is 1.84± acres with 195' of frontage. Current Zoning requirements require a minimum of 3 acres and 100' of private road frontage. Minimum setbacks are 50' front, 50' side and 50' rear.

The proposal involves an in-ground swimming pool (16'x32'), a shed 12'x20'), an open-air pavillon (16'x18') and a garage (24'x24')

The pool, shed, pavilion and garage meet the minimum 50' setback requirements.

Sincerely,



Ken Abbott
PLS, Schofield, Barbini & Hoehn Inc.

 **Schofield, Barbini & Hoehn Inc.**
Land Surveying & Civil Engineering 

12 Surveyor's Lane, Box 339
Vineyard Haven, Mass.
508-693-2781
www.sbhinc.net
dhoehn@sbhinc.net
kabbott@sbhinc.net

Job # MV-2543

August 15, 2023

West Tisbury Zoning Board of Appeals
Town Hall
1059 State Road
PO Box 278
West Tisbury, MA 02575

Re: Proposed Improvements for Deanna Ahearn-Laird, 72 Vineyard Meadow Farms Road.

Dear Board Members,

The applicant, Deanna Ahearn Laird, wishes to construct a swimming pool (16'x32'), shed (12'x20'), open-air pavilion (16'x18') and garage (24'x24') on her property purchased in May of this year.

All the proposed structures will meet the current 50' setbacks from all property lines.

All proposed structures will adhere to existing MA building codes and lighting codes.

A landscape plan is provided to show proposed screening to the closest abutting dwelling.

The applicant believes this does not represent an unusual or detrimental use of the property and hopes for similar considerations of previous resemblant applications in West Tisbury.

Sincerely,



Ken Abbott

PLS, Schofield, Barbini & Hoehn Inc.

RECEIVED
AUG 6 2023
[Signature]

Received by the Town Clerk:

Date: BY:

Application complete _____

Application incomplete _____

Signed: _____

APPLICATION COVER PAGE

Date: AUGUST 15, 2023 Date Received by ZBA: 8/15/2023

Name of Applicant and Mailing Address: SCHOFIELD, BARBINI + HOEHN INC

12 SURVEYORS LANE, VINEYARD HAVEN, MA 02568

Email Address: kabbott@sbhinc.net Telephone Number: 508-693-2781

Name of Owner and Mailing Address (If not Applicant): DEANNA AHEARN-LAIRD

72 VINEYARD MEADOWS FARM ROAD, VINEYARD HAVEN MA 02568

Map and Lot #: 29-34

Street Address of Subject Property: 72 VINEYARD MEADOW FARMS ROAD

Applicant is: AGENT (Owner, Tenant, Purchaser, Other)

Nature of Application (Special Permit, Appeal, Variance): SPECIAL PERMIT

Applicable Section of Zoning Bylaw: POOL 8.5-4-C 11.2-2 J

Date of Denial by Building Inspector, Zoning Inspector, or Planning Board (If Applicable): _____

Plot Plan: Must provide a plan by a registered surveyor showing the total property with the existing buildings, including the proposed project, all setback distances to be provided.

Plans: 2 sets of scaled drawings of floor plans that show total sq. ft. per floor (measured from exterior of wall), at least 2 elevations with one showing proposed height to ridge. If the project is an addition to existing structure please clearly identify proposed work.

Description of proposed project: Please attach a detailed narrative.

I have read the overview of the ZBA process attached to this application and completed all sections of the application cover page and therefore request a hearing before the West Tisbury Zoning Board of Appeals with reference to the above noted application.

Signed: Kenneth Abbott

Title(s): PLS. SB+H INC

Application fee of \$200.00 is required. Date Paid: 8/15/2023

received

ck # 7405

FOR ZONING BOARD USE

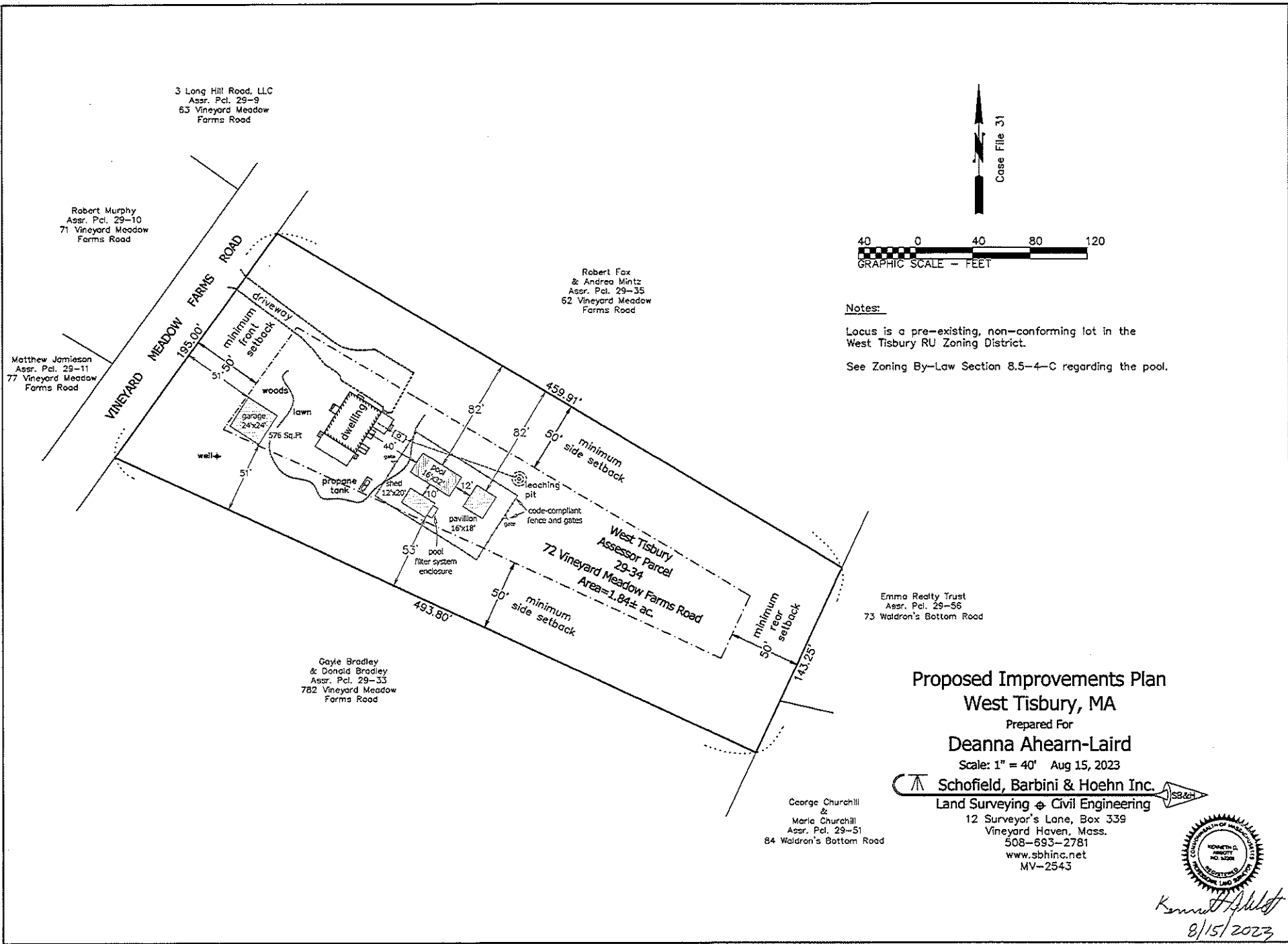
Size of Subject Lot: 1.84 AC Zoning District: RU

Registry Book and Page #'s and Date BK 1655, PG 98 5/15/2023

Other Boards Involved with the Permitting: BUILDING

Within an Overlay District? NO

Martha's Vineyard Commission Referral Required? NO If So, MV Checklist Items:



3 Long Hill Road, LLC
Assr. Pcl. 29-9
63 Vineyard Meadow Farms Road

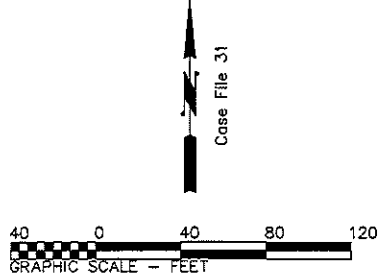
Robert Murphy
Assr. Pcl. 29-10
71 Vineyard Meadow Farms Road

Robert Fox & Andrea Wintz
Assr. Pcl. 29-35
62 Vineyard Meadow Farms Road

Matthew Jamieson
Assr. Pcl. 29-11
77 Vineyard Meadow Farms Road

Gayle Bradley & Donald Bradley
Assr. Pcl. 29-33
782 Vineyard Meadow Farms Road

George Churchill & Maria Churchill
Assr. Pcl. 29-51
84 Waldron's Bottom Road



Notes:
Locus is a pre-existing, non-conforming lot in the West Tisbury RU Zoning District.
See Zoning By-Law Section 8.5-4-C regarding the pool.

Emma Realty Trust
Assr. Pcl. 29-56
73 Waldron's Bottom Road

Proposed Improvements Plan
West Tisbury, MA
Prepared For
Deanna Ahearn-Laird
Scale: 1" = 40' Aug 15, 2023

 **Schofield, Barbini & Hoehn Inc.**
Land Surveying & Civil Engineering
12 Surveyor's Lane, Box 339
Vineyard Haven, Mass.
508-693-2781
www.sbhinc.net
MV-2543



Kenneth D. Barrett
8/15/2023

NOTES

PLAN BASED ON SURVEY BY ECHOFIELD, BARNES & HOEHN, DATED AUGUST 1, 2023.

CREATE A BACKYARD POOL AREA. THE POOL SURROUND IS TO MATCH THE EXISTING GRANITE PATIO. ALL STEPPING STONES THROUGHOUT THE PROPERTY WILL BE GRANITE FOR CONTINUITY.

ALL POOL FENCING WILL BE 4' HIGH TO CODE. ALL GATES WILL SWING OUT FROM POOL AREA AND HAVE SELF-LATCHING HARDWARE TO CODE.

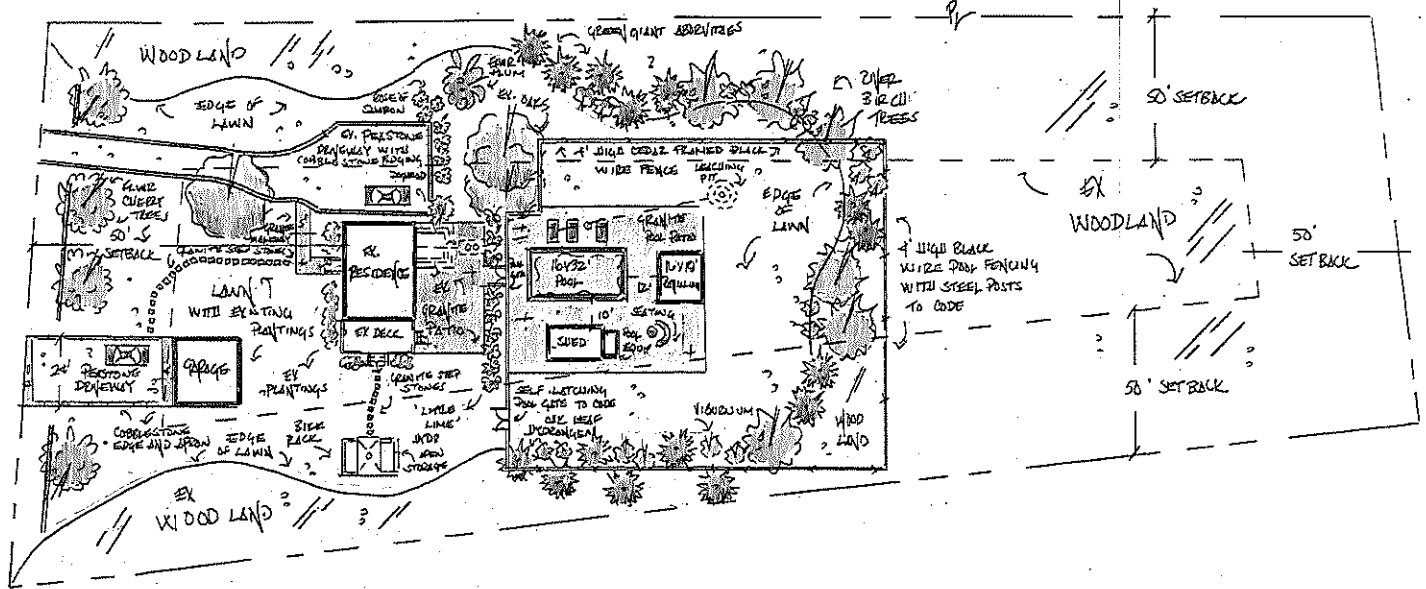
THE POOL AREA WILL BE SCREENED FROM NEIGHBORING VIEWS WITH PLANT MATERIAL. PLANT MATERIAL CHOICES INCLUDE BIRCH TREES, ARSORTAL, VIBURNUM, OAKLEAF HYDRANGEA, ETC. THAT WILL BLEND NICELY WITH THE EXISTING WOODLAND AND HAVE SEASONAL AND YEAR ROUND INTEREST.

INSTALL A PEA STONE WITH COBBLESTONE EDGING AND APRON DRIVEWAY AND PARKING AREA IN FRONT OF THE NEW GARAGE. LAY OUT A STEPPING STONE PATH FROM THE NEW DRIVEWAY. A SPLIT RAIL FENCE WITH CHERRY TREES COULD LINE THE PROPERTY ALONG VINEYARD MEADOW FARM ROAD.

ALL PLANTINGS AND LAWN AREAS WILL BE SUPPORTED BY AN UNDERGROUND AND AUTOMATIC IRRIGATION SYSTEM.

IN FIELD ADJUSTMENTS AS REQUIRED.

VINEYARD
MEADOW
FARMS
ROAD



CONCEPTUAL PLAN
Cammie Naylor

M A R T H A S

LAIRD
RESIDENCE

62 VINEYARD MEADOW
FARMS ROAD
WEST Tisbury

EST. 1977
Donaroma's
NURSERY
& LANDSCAPE SERVICES

BOX 2189 • EDGARTOWN • MASSACHUSETTS 02539 • 508 627 3036

North

SCALE 1" = 20'-0"

0 10 20 30 50

DATE
11 AUGUST 2023
17 JULY 2023

STREET
1 OF 1

V I N E Y A R D

Installation Guide

Model: Olympia 14



latham

The Pool Company™



Step 1. PLANNING FOR THE INSTALLATION

This list is not intended to be all inclusive but a general guideline.

RECOMMENDED TOOLS

1. Hammer
2. Neon nylon string 2 rolls
3. Yard marking spray paint
4. Strap kit (four 20' straps, one 33' strap, one 35' strap, four 2" to 3" shackles [U bolts], one large (4") shackle)
5. Two 2" ratchet straps
6. Laser transit/level
7. 2" duct tape
8. 2 – 50' ropes
9. Sharpie markers
10. A roll of paper towels
11. Shop Rags
12. Bi-metal Hole saws, 2-3/8", 1-1/2", 3", and 5" with centering bit
13. Reciprocating saw (Sawzall) or jig saw with extra 6" bi metal blades
14. Cordless drill (with multiple batteries charged)
15. A drill bit set (with multiple 1/4" bits)
16. Leather Gloves
17. Caulk gun. Optional: auto caulk gun
18. 1 – 35' rigid tape measure
19. 1 – 100' measuring tape
20. Utility Knife
21. PVC cutters that will cut 2" pipe
22. Phillips head screw driver (#2 to tighten skimmer screws)
23. Pen and grade work sheet
24. A box of 2" screws
25. A box of 3" screws

26. Pipe wrench
27. A 4" handheld grinder (for squaring up the skimmer hole and/or flattening the back side of the shell for return fittings and lights – is a must-have in case you accidentally cut through a hook or core location)
28. Shovels, level rake (no teeth/tines) , picks
29. Wheelbarrow
30. Bottle jack
31. Short 2x4's and short 4x6 boards
32. Crane
33. Skid steer - track driven preferred
34. Excavator
35. Dump truck
36. Safety fencing
37. Hoses (2)
38. Spreader Beam/Bar

CONSUMABLE MATERIALS LIST

1. 2 – 4' 2x4's
2. 1 – 10' 2x4's
3. 2 – 16' 2x4's
4. Plumbing
 - a. PVC Pipe and Fittings (that comply to FED, State, and Local codes)
 - b. PVC Cleaner and Glue
5. Electrical
 - a. Electrical conduit (pipe, elbows, unions)
 - b. Wire and Hardware (that comply to FED, State, and Local codes)
 - c. Rebar (42 three foot [3'] sticks) or 6"x6"W1.4 x

- w1.4 Wire Mesh
 - d. Rebar ties with pig tail
6. Pool Equipment
 - a. Pump
 - b. Filter
 - c. Chlorinator (if required)
 - d. Heater (if required)
 - e. Automation (if required)
 - f. Lighting (with transformer)
 - g. Handrail and/or ladder with escutcheons (and concrete anchors)
 - h. Equipment pad or Portland cement and form boards
 7. Tile Kit
 - a. Waterline tile, step/seal inlays, Inlaid mosaic tiles
 - b. Adhesive and grout for tile with scrubber sponges
 - c. Tile float
 - d. Extra tubes of silicon adhesive/sealant
 8. 1/2 inch crushed, washed clean angular stone or sand free of foreign material (for pool base and backfill)
 9. Forms for concrete
 10. Cantilever deck forms (Stegmier / Mortex) (if required)
 11. Extra ties for Forms
 12. Wood stakes
 13. Materials for brick or stone work
 14. Materials for concrete deck
 15. Materials for pavers

SITE PREPARATION AND PLANNING

In planning for the installation of a new Latham pool, there are many important considerations that must be evaluated in order to achieve a functional, long-lasting and aesthetic addition to a home. When choosing a location, consider the following:

1. Grade: Pools and decks are normally constructed on level ground. Extreme variations in grade should be resolved before the excavation of the pool begins. A relatively level and flat location is preferred so time and effort are not wasted on radical fluctuations in grade.
2. Excavation Equipment Access and Pool Delivery: Determine the most efficient route for equipment to enter and access the site. Also keep in mind that a well planned route can save time and money by enabling multiple pieces of equipment to work in unison. For example: Coordinate the delivery of the pool with the completion of the excavation and preparation of the hole. Use of a crane with four (4) 20-foot straps is recommended for the process of setting the pool shell in the excavated site. However, if a track excavator was used to prepare the site, in some cases it may also be utilized to unload and set the pool. Contact Latham for specific guidelines for setting pools with excavator equipment. Finally, consider the placement of the equipment. If possible, position the pool equipment so the pool shell can be unloaded and placed directly into the excavation without risking damage to the equipment.
3. Underground Utilities: Check with local authorities in advance for the locations of underground water, gas, power and sewer lines.
4. Overhead Power Lines.
5. Local Building Codes: Determine the setbacks from property lines, easements, house footings, etc.
6. Underground Water Conditions.
7. Water Drainage: Water should always drain away from the pool. Failure to keep ground water away from the exterior of the pool may result in damage to the pool that is not covered under warranty.
8. Local Fencing Codes.
9. Location of Pool Equipment.
10. Electrical Run for Pool Equipment.
11. Exposure to Sunlight.
12. Surrounding Foliage.
13. View from Residence.

LATHAM POOL PRODUCTS, INC. ("LATHAM") PROVIDES THIS INSTALLATION GUIDE IN ORDER TO ADVISE DEALER/BUILDERS OF LATHAM'S BEST PRACTICES RELATED TO INSTALLATION. THE INSTRUCTIONS AND RECOMMENDATIONS CONTAINED IN THIS GUIDE ARE ENTIRELY ADVISORY. INSTALLATION DECISIONS REMAIN WITHIN THE SOLE DISCRETION AND JUDGMENT OF THE DEALER/BUILDER AT ALL TIMES. WHERE THIS MANUAL STATES SPECIFIC DIRECTIONS OR REQUIREMENTS, SUCH DIRECTIONS AND REQUIREMENTS COMMUNICATE TO THE DEALER/BUILDER WHAT IS NECESSARY OR REQUIRED IF THE DEALER/BUILDER CHOOSES TO COMPLY WITH LATHAM'S BEST PRACTICES RELATED TO INSTALLATION. HOWEVER, DEALER/BUILDERS SHOULD BE AWARE THAT ANY WARRANTY CLAIM WHICH RESULTS FROM THE FAILURE TO COMPLY WITH THIS INSTALLATION GUIDE MAY BE EXCLUDED FROM WARRANTY COVERAGE BY THE EXPRESS LANGUAGE OF THE APPLICABLE WARRANTY.

NOTICE:

Failure to read and follow specific instructions contained in this manual may void your pool warranty.

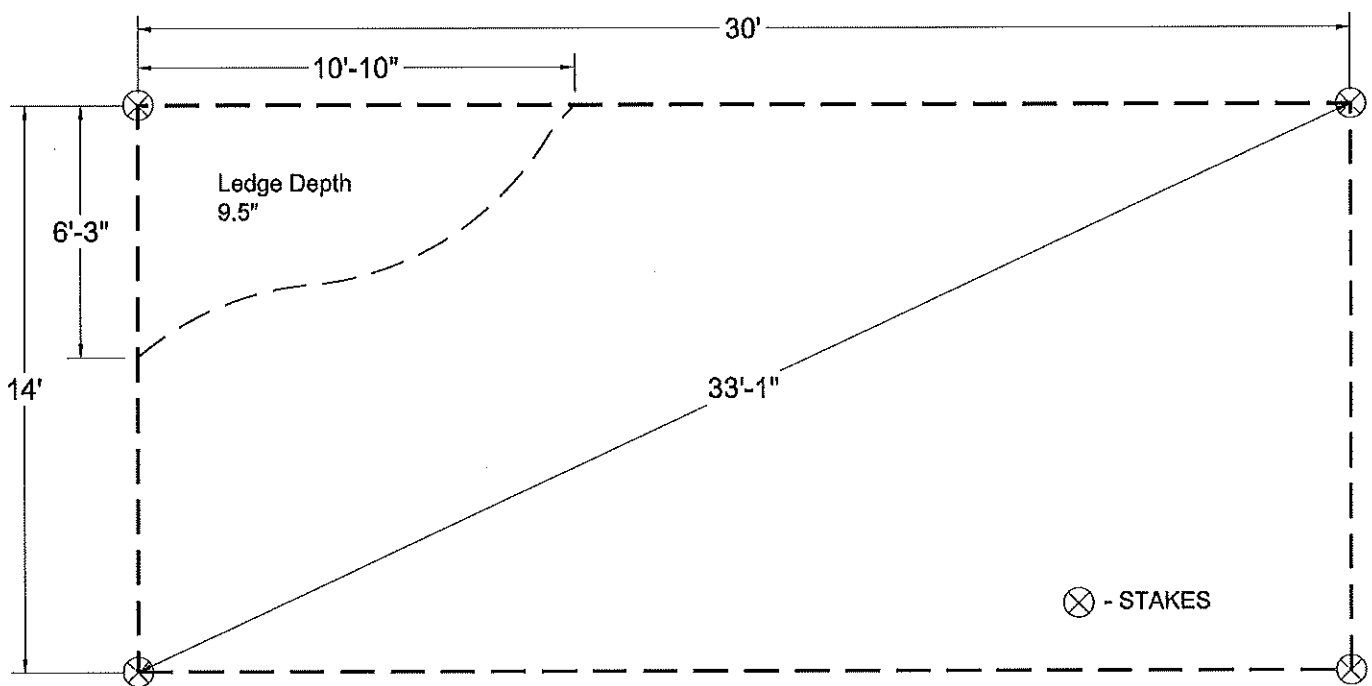
Step 2. POOL LAYOUT

When laying out the pool, note that the dimensions are to the outside edge of the pool beam. Most permit plans are measured to the water's edge. The beam of a Latham fiberglass pool is approximately 4" to 10" on all sides. Therefore, there is generally a difference of 8" to 20" between the length and width dimensions in the installation guide and those of the permit plans in most cases (see the Latham fiberglass pool specification document for inside and outside dimensions for each model). Overall length and width measurements may vary up to 3%. Depending on the customer and the local building inspector, this fact can be a critical consideration. Distances between the water's edge to most property lines, electrical lines, and other structures such as houses, garages, sheds and patios must be within plan specifications.

Start by laying out the pool template or with a 14' wide by 30' long rectangle with diagonal measurements of 33'-1". Next, layout the center point, making sure the center lines are at 90 degrees. Stake each point around the perimeter of the pool as shown in Figure 1. Connect each stake with string. Denote the location of the skimmer with a 2'x2' box outside of the pool layout. Use spray paint to follow the contour of the string. The outline will be the shape of the outside dimensions of the pool shell. Remove the string and stakes, leaving only the outline of the pool. Be sure to mark tanning ledge location, if any.

NOTE: Latham Pool Products offers yard templates for each pool model offered. The yard templates are reusable and are the dimensions of the shell. If using a yard template, simply lay the template out in the yard where the pool is to be set and paint a line on the edge of the template. Check price and availability. The template order form can be found in the Dealer Manual.

Figure 1 - Excavation Dimensions



Step 3. ELEVATION

Elevation and grade of the pool area are two of the most often overlooked or miscalculated variables in the installation process. While considering all the variables concerning elevation and grade, always remember that you want water to run away from the pool. Before excavation, use the provided Form 1 – INSTALLATION PLANNING GUIDE to calculate all critical measurements.

Check the four corners of the pool layout with the aid of a laser level or a sight level to determine the highest corner. This corner will be used in planning the elevation of the pool. In a typical installation, the elevation of the pool should be 4-6 inches above the highest point of the existing grade around the pool. However, careful consideration should be given to pool type, size and drainage of the future pool deck, as well as the elevation of the surrounding landscape and existing structures, patios and sidewalks.

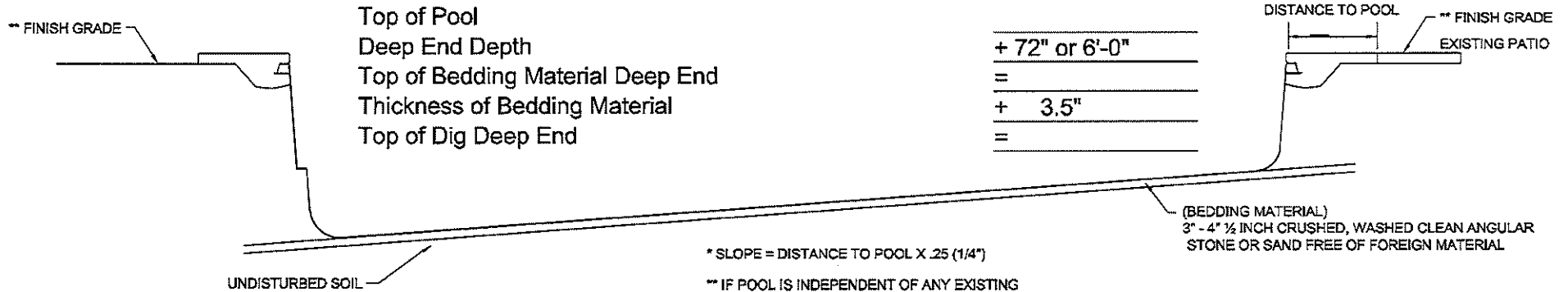
INSTALLATION PLANNING GUIDE

Job: _____ Pool: FR14 Date: _____

Finish Grade		
* Slope		-
Top of Concrete at Pool		=
Thickness of Concrete		+ 3.5"
Top of Pool		=
Shallow End Depth		+ 42" or 3'-6"
Top of Bedding Material Shallow End		=
Thickness of Bedding Material		+ 3.5"
<u>Top of Dig Shallow End</u>		=

Top of Pool		
Deep End Depth		+ 72" or 6'-0"
Top of Bedding Material Deep End		=
Thickness of Bedding Material		+ 3.5"
Top of Dig Deep End		=

4



* SLOPE = DISTANCE TO POOL X .25 (1/4)"

** IF POOL IS INDEPENDENT OF ANY EXISTING STRUCTURES OR PATIOS, FINISH GRADE IS TO BE 3 1/2" BELOW EDGE OF POOL DECK.

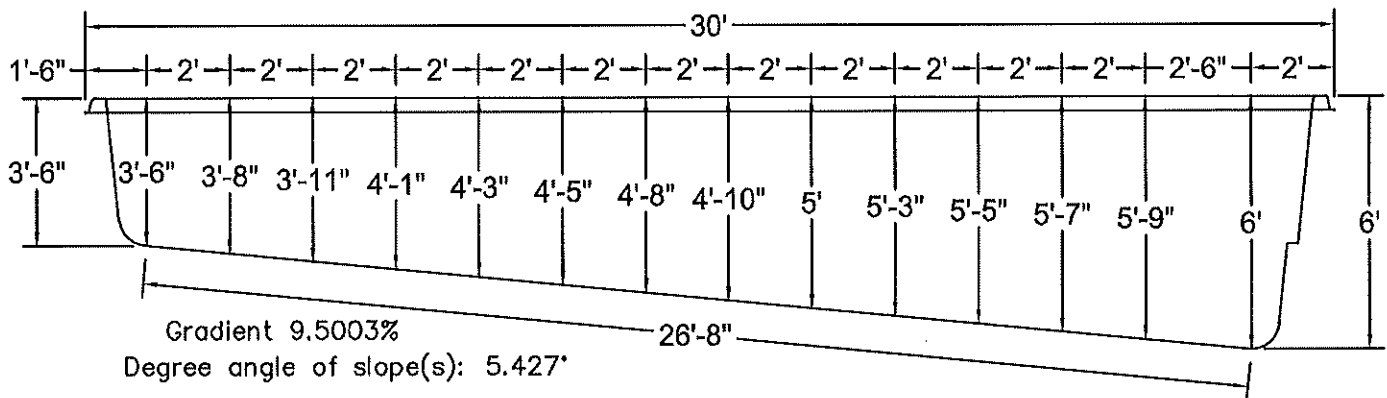
Step 4. EXCAVATION

Correct excavation of the pool is very important. A hole that is too small can mean hours of picking and shoveling by hand. A hole that is too large will require extra recommended backfill material, which if not dealt with properly, can result in settling or bulging of the pool.

The excavation should be dug very close to the pool size with a minimum disturbance to the unexcavated soil which will support the pool. The clearance is approximately 6" on the sides and 6" on the ends (see Figure 2). The use of an excavation bucket with a grading blade attached will cause less disturbance to the soil than an excavation bucket with teeth.

NOTE: THE MEASUREMENTS PROVIDED BELOW ENABLE THE BUILDER TO SET THE SHELL WITHIN A FEW INCHES OF LEVEL. LIFT THE SHELL AND ADJUST THE BASE AS NECESSARY TO ACHIEVE LEVELNESS OF THE SHELL WITHIN THE INDUSTRY STANDARD.

Figure 2 - Pool Shell Depth Dimensions



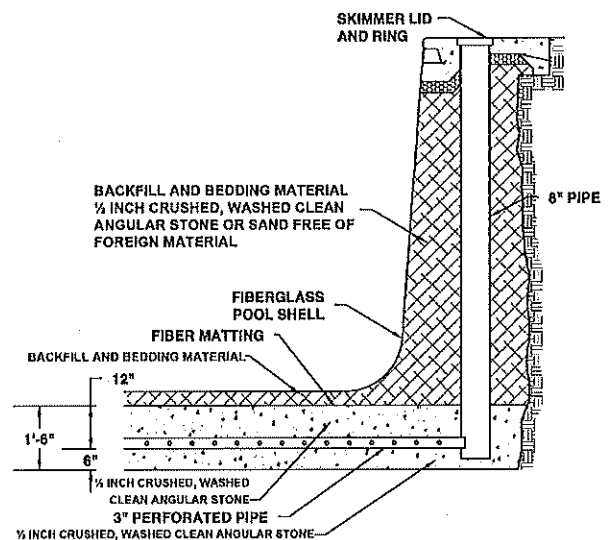
The depth of the excavation is determined with the use of a transit level and grade pole. The bottom of the excavation is over dug approximately 4". This size pool will require approximately 30 to 35 yards of ½ inch crushed, washed clean angular stone or sand free of foreign material for backfill (more may be required if the excavation is significantly over-dug).

The excavation should be 15' by 31', with a total depth of approximately 3'-10" (shallow end) to approximately 6'-4" (deep end) from the desired elevation of the pool. It can be helpful to give yourself extra room the first 6" in width and 12" in length of the hole, to get past the coping, and allow space for the skimmer and bottom suction fittings (if any). Also, keep in mind that the wall of our pools are tapered, usually 1" in for every 12" in depth. A place for the skimmer must also be dug in the side of the excavation wall. The skimmer cutout should be 2' by 2' and 3' deep. See Figure 1 for placement. Pools with tanning ledges require the tanning ledge area excavated to the depth stated in Fig. 1 plus 4" for bedding material.

Never use excavated material as fill or backfill in the hole; the material will settle. We suggest ½ inch crushed, washed clean angular stone or sand free of foreign material compacted thoroughly (a plate tamper is recommended for the pool base). The fill material used for the pool base must also be used to backfill around the sides of the pool shell. In the case of significant over excavation on the sides of the pool or in seasonal high water or poor drainage areas, you may want to mix 10% Portland cement with the backfill for stabilization.

In order to be in compliance with Latham's recommended guidelines Latham requires that a permanent sump pipe (see Figure 3) be installed on all pools. A gravity fed "daylight drain" is preferred to a permanent sump pipe installation, if applicable. The purpose of the sump pipe installation (or daylight drain) is to provide a means of checking for groundwater around the pool and allow for dewatering the site prior to any work on the pool that requires lowering the water level within the pool shell, thus minimizing potentially high hydrostatic pressure. Latham recommends the installation of a permanent sump pump in areas with a high water table and/or significant ground water. Latham suggests digging an 18" x 8' x 18" trench across the deep end of the excavation. Six inches of 1/2" clean gravel should be placed in the bottom of the trench. A section of 3" perforated PVC pipe is placed on the rock base and connected to a vertical stand of 8" PVC pipe running to the surface of the excavation. Cover the new sump line with landscaping fabric. The 8" PVC riser pipe should be trimmed with a skimmer ring and lid for aesthetics and safety. After the connection has been made to the vertical stand of 8" PVC, finish covering the 3" perforated PVC pipe with 1/2" to 1" clean gravel to the bottom of the excavation (see Figure 3). The bottom of the excavation is now ready for approximately 4" of base material. Be sure to secure the skimmer lid (with screws) to the ring attached to the top of the vertical 8" PVC.

Figure 3 - Sump Pipe Installation

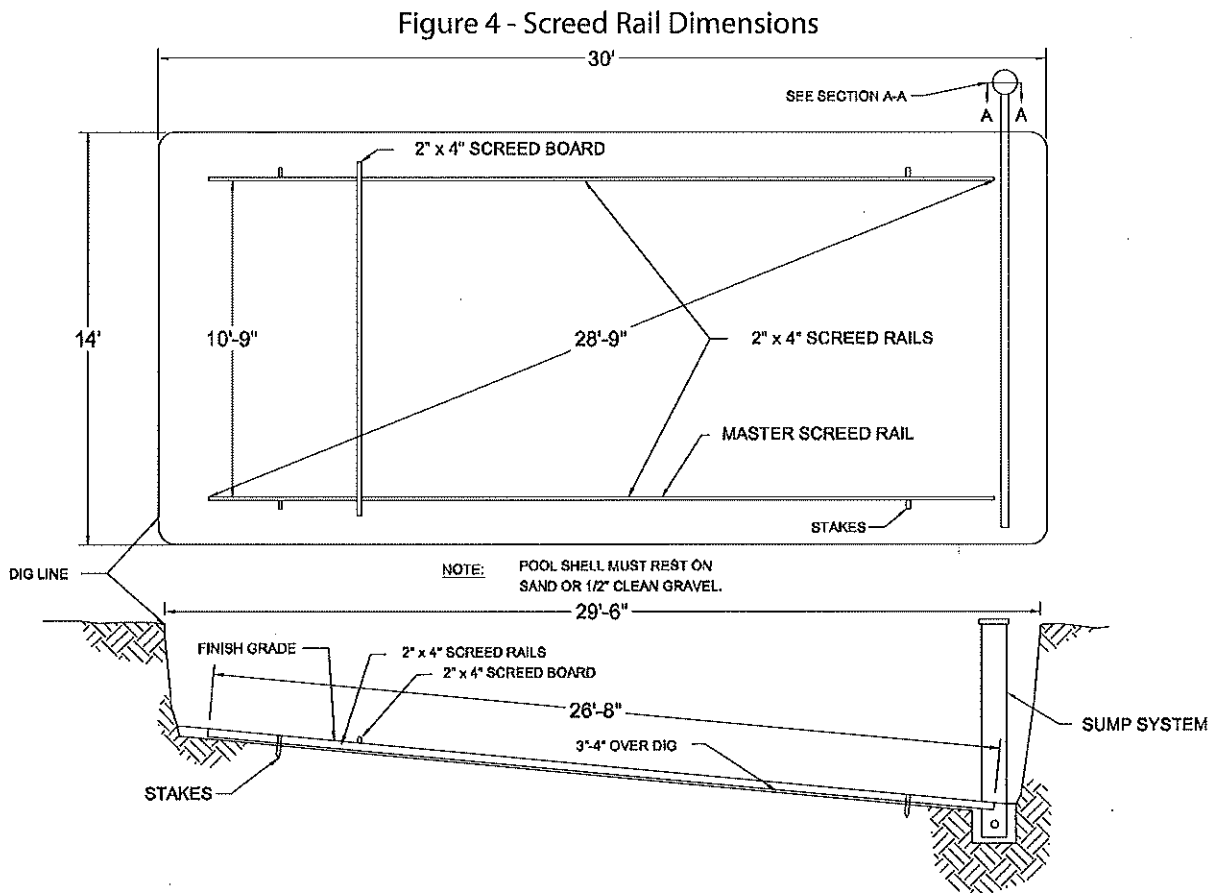


Step 5. PREPARATION OF THE BOTTOM SURFACE OF THE EXCAVATION

The preparation of the excavation bottom is critical so the pool will fit properly. Thorough preparation will reduce settling, stress cracks and a minimize the amount of time will be spent setting and leveling the pool.

First, install the 2" x 4" master screed rail(s) length wise in the excavation, using wood or metal stakes (See Figure 4). Make sure the diagonal measurement is exact to insure that the bottom is square. Adjust the master screed rail(s) to the appropriate height using a transit level (See Figure 2). Next, install the remaining screed rail(s) parallel to the master screed rail(s) using the offset dimensions as shown in Figure 4 and making sure that they are aligned to the Master screed rail(s) to insure that the bottom is square. Next, spread a layer of fill material approximately 4" deep evenly over the bottom of the excavation. Rake the fill material flat to the top of the screed rails (See Figure 3). Compaction of the fill material is generally achieved by screeding it into place, but depths of greater than 4" will require use of a plate tamper. Rake and compact the area until a stable base for the shell is achieved. Screenshot the bottom of the excavation, filling any low spots as you go. Remove the screed rails and fill in the voids with fill material, being careful not to disturb the fill.

NOTE: THE MEASUREMENTS PROVIDED BELOW ENABLE THE BUILDER TO SET THE SHELL WITHIN A FEW INCHES OF LEVEL. LIFT THE SHELL AND ADJUST THE BASE AS NECESSARY TO ACHIEVE LEVELNESS OF THE SHELL WITHIN THE INDUSTRY STANDARD.



Step 6. SETTING THE POOL

Upon arrival/delivery of your pool shell, be sure to inspect the pool for damage that may have occurred during transportation and for conformity to order specifications. The recommended method of setting the pool shell is by making use of a crane or boom truck. A track-mounted excavator can be used to lower the pool into the excavation, but directions should be obtained from Latham prior to setting the shell. Please note that Latham recommends lifting all pool models over 12' wide with a spreader bar and 20' lifting straps. Once the pool is set in the excavation, the pool should be checked for level and the bottom should be walked over to detect any voids in the fill material that might be present.

The pool is then lifted and reset as many times as necessary to achieve a "good fit." A good fit is realized by raking the surface of the fill material in order to see where the pool's perimeter is touching (footprint) and by walking around on the inside of the pool to detect low spots. It is normal to feel a slight void under the center of the pool, but walking in the pool should cause the floor to rest on the bed of fill material. The pool shell will conform to the base material under the weight of the water. It is important to make certain that the bottom, perimeter, and all transition points are sitting firmly upon the bed of fill material. The pool can be separated from the lifting equipment when the entire perimeter of the pool (including all transitions) is level within the industry guidelines.

A properly prepared hole should not require the filling of large voids beneath the pool. Blindly adding fill material beneath a pool can cause more harm than good. It is important that any adjustments to the pool's elevation be made before water is added. If the hole was properly prepared, nothing more than a few minor adjustments should be needed.

LIFTS SHOULD BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE STANDARDS SUCH AS OSHA AND ASME. SPECIFIC STANDARDS THAT MAY BE APPLICABLE ARE LISTED BELOW. THIS IS NOT AN ALL-INCLUSIVE LIST AND OTHER REGULATIONS WHICH MAY APPLY DEPENDING HOW LIFT IS PERFORMED AND EQUIPMENT USED.
 ASME B30.5 OSHA 29 CFR 1910.133 OSHA 29 CFR 1910.179 OSHA 29 CFR 1910.180 OSHA 29 CFR 1926.753

IT IS THE RECIPIENT'S RESPONSIBILITY TO PROPERLY ASSESS THE SITUATION AND ACCOUNT FOR VARIABLES SUCH AS, BUT NOT LIMITED TO WEATHER, EQUIPMENT CONDITION, LOCAL REGULATIONS, ETC. BEFORE OFFLOADING CAN OCCUR. ANY DAMAGE RESULTING FROM THE LIFTING OF THE POOL SHELL IS THE RECIPIENT'S RESPONSIBILITY TO BEAR

Step 7. WATER AND BACKFILL

As backfill material is initially placed around the pool shell, care should be taken to ensure that the wall-floor and step-floor radiuses are tightly packed with fill material, this process is referred to as "locking in" the shell. Once the pool shell is "locked in," the fill/backfill process can continue. It is very important that the radiuses of the pool are properly compacted. Poorly packed radiuses can result in hairline cracks and/or structural cracks due to deflection. Be sure to backfill slowly and thoroughly.

Begin by filling the pool with 12" of water (measured at the deep end of the pool) and then while continuing to fill with water, maintain the level of the backfill material to be approximately 6" below the level of the water. As the water approaches the shallow end, pay particular attention to all the unsupported areas of the pool. Steps and benches tend to flex, so slight adjustments may need to be made with the leveringing device. Be sure you wait until a sufficient amount of water surrounds the area (usually 12") to keep the rest of the pool in place, or you may raise more than you intend. The walls of the pool may deflect inward if too much backfill has preceded the water in the pool, or outward if too much water precedes the backfill. If deflection does occur during the installation, the only remedy is to dig that area out and proceed correctly. A string line is very useful in determining the straightness of the pool walls during the backfilling process.

To mitigate the stress under steps, tanning ledges, and some seats potentially induced on the pool shell as a result of backfill settling, Latham recommends either a shallow dig under large steps, tanning ledges, and some seats (Figure 6) or in the event of an over-dig, the installation of concrete masonry unit (CMU) piers placed under the steps, integral tanning ledges and/or swim outs, and some seats may be needed (Figure 7).

Figure 5 - Backfill Detail

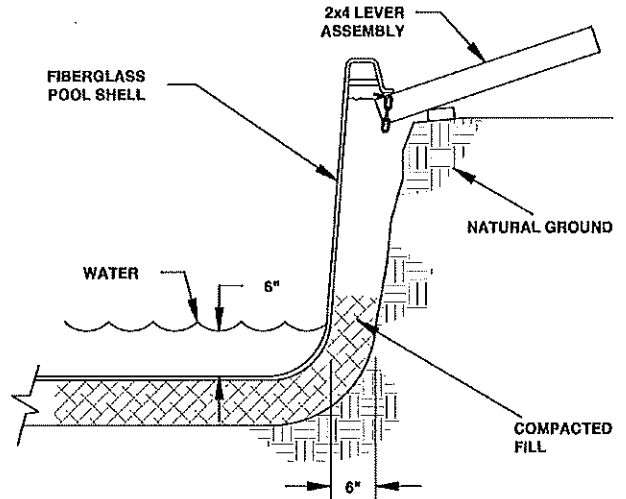


Figure 6 - Minimal Dig Stair Detail

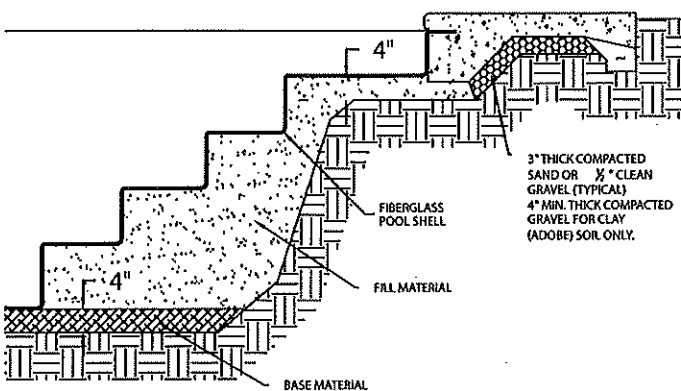
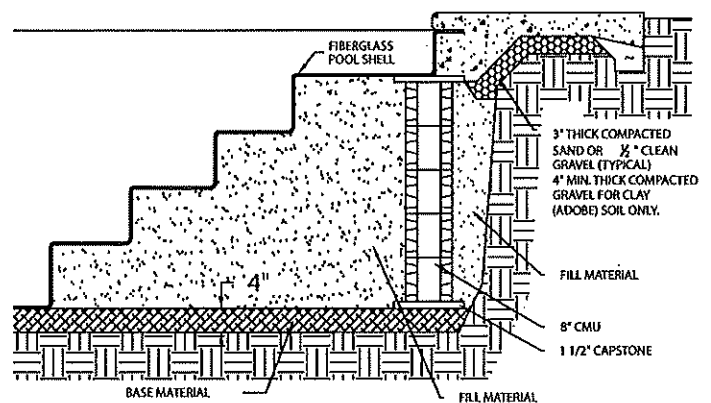


Figure 7 - CMU Pier Stair Detail



Blocking the steps is performed after the pool shell has been set within level and water reaches the tread of the next to last step tread (2nd from floor). When installing CMU piers, start by placing a 1-1/2" capstone block on the base material. On top of the capstone block, stack CMU's (cinder blocks) until they reach a point just under the outermost edge of the top step, tanning ledge or beam of the shell. Since the step area of the pool shell is often lower than the rest of the shell, jack the step package up using a bottle jack and a section of 2" x 6" lumber under the outside radius of the top step (where the top tread meets the top riser). Jack the steps to be level with the rest of the beam of the shell. Shim the gap between the top CMU and the bottom of the tread/riser radius with another capstone block and/or 1/4" concrete backer board. When the bottle jack is released, the pool shell should be level within industry guidelines. Bottle jacks should be removed from the job site once the piers are in place. Do not leave bottle jacks or organic material, such as wood under the pool shell for support. Properly placed piers should be 1/2 under the step of the shell, with the remaining portion of the top block/shim remaining outside the step/riser tread (See Figure 7 for detailed drawing of properly placed piers). Do not place piers completely under the top step or tanning ledge (swimout) as stress will be transferred to the radius between the horizontal and vertical surfaces, resulting in stress fractures.

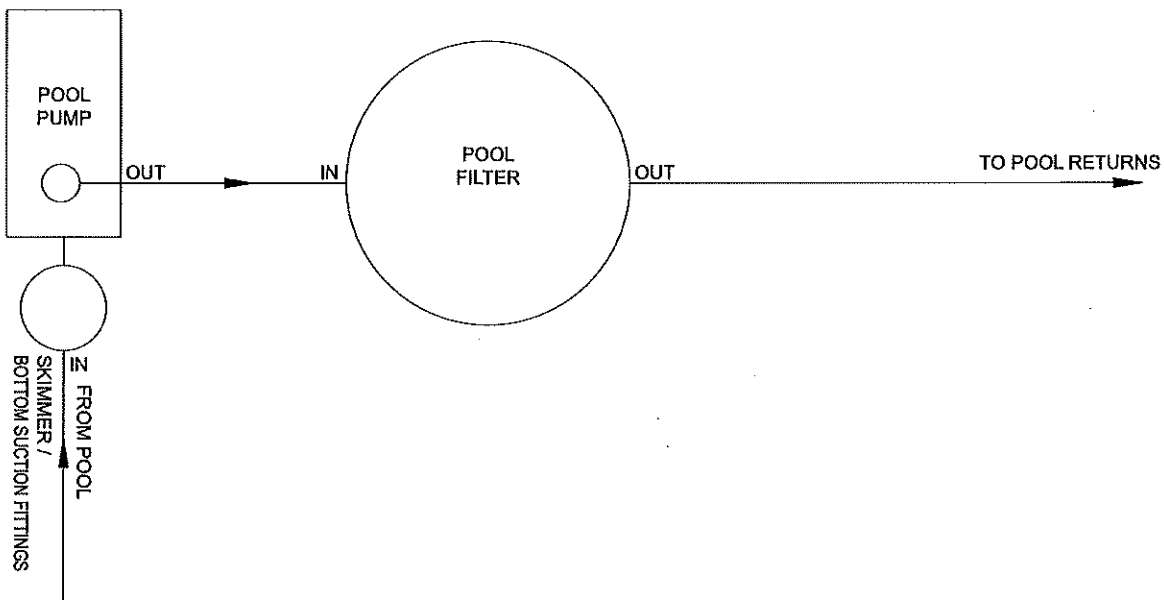
Step 8. PLUMBING

A basic swimming pool circulation system is relatively simple in operation. Water in the pool is drawn through the skimmer to the pump, which pushes it through the filter and back to the pool via the returns. See Figure 8 for a basic filtering system diagram. More advanced filtering systems may include sanitizers, jets, blowers, automatic pool cleaners, etc. Latham recommends the use of 2", schedule 40 PVC plumbing on most pools. The plumbing system must be designed to comply with ANSI/APSP-7 STANDARD FOR SUCTION ENTRAPMENT AVOIDANCE IN POOLS AND SPAS (latest revision). Visually inspect and pressure test all plumbing installed at the factory upon the delivery of the pool and during the backfill process.

Latham Pool Products suggests placing the equipment slightly above the elevation of the pool. If the equipment is placed below the water level, check valves or shut off valves must be installed to prevent accidental siphoning of the pool. The equipment becomes less efficient the greater the distance away from the pool. Check all connections for leaks and proper circulation before covering them. Local building codes may require pressure testing of the plumbing system before the installation is complete.

For alternative recirculation systems refer to the Latham Fiberglass engineering sheets

Figure 8 - Basic Filtering System



Step 9. ELECTRICAL

If the installer or homeowner is not qualified to do electrical work, an licensed electrician should be hired and a building official should inspect the work. All electrical work should be done to National Electric Code specifications and any local codes. Latham will not be held responsible for any electrical work.

Step 10. POURING CONCRETE

A standard cantilevered deck, as shown in Figure 9, requires that forms be placed on the inside perimeter of the pool. These forms are attached to the pool beam using double-sided tape. The forms are then held in place using supplied wire ties and screws. Cantilever forms are typically installed on the same day of the concrete pour. The backfill should be removed from the top 8 inches around the pool perimeter to a width of approximately 10 inches. In areas of sandy soil conditions, the material is typically removed just prior to pouring the deck. Care should be taken that the concrete is worked into the area under the beam of the shell so that air voids are minimized. If desired, 3/4" holes may be drilled every 36" to aid bleeding air. Rebar or wire mesh should be used in the concrete deck. For decks using pavers, as shown in Figure 10, the concrete deck should be poured up to approximately 1/4" of the top of the pool beam. Deck should fall 1/4" per 12 inches of horizontal deck to allow any surface water to be drained away from the pool.

Half inch holes may be drilled into the outside edge of the pool beam of the pool every 3'. Two foot lengths of 3/8" pre bent rebar are placed in each hole (see Figures 9 and 10). This will ensure a bonding or anchoring effect on the sides of the pool. The walkway may also be reinforced with 6" No. 10 wire mesh or No. 3 rebar on 2' centers (see Figures 9 and 10). It is advisable to use a lifting chair/shoe/dobie to elevate the wire mesh and/or rebar to ensure this reinforcement is centered in the depth of the pour. Concrete should be poured at least 3' around the perimeter of the pool to divert the water away from the excavation cavity. The typical thickness of a concrete deck around the pool is 4 inches. Latham will not be held responsible for any concrete work, cracking, or any other failure in deck installation.

In all climates 6"-8" of 1/2 clean gravel is recommended under the concrete deck.

Figure 9 -
Cantilever Concrete Deck (Typical)

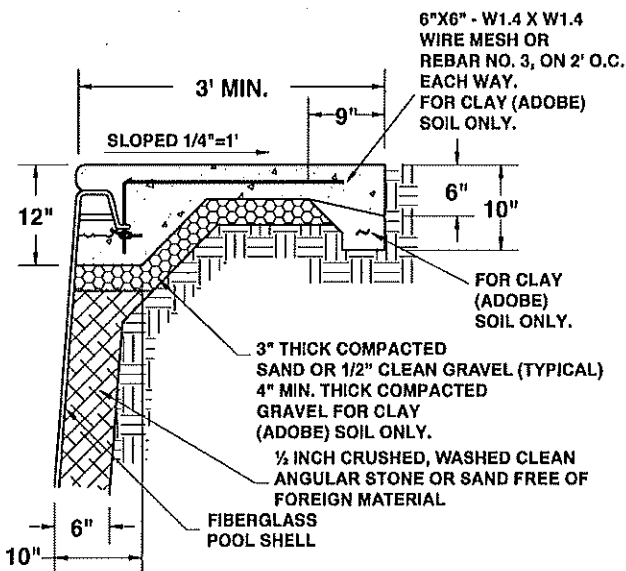


Figure 10 -
Concrete Deck with Brick or Stone

Deck size guide and additional deck installation details available on request.

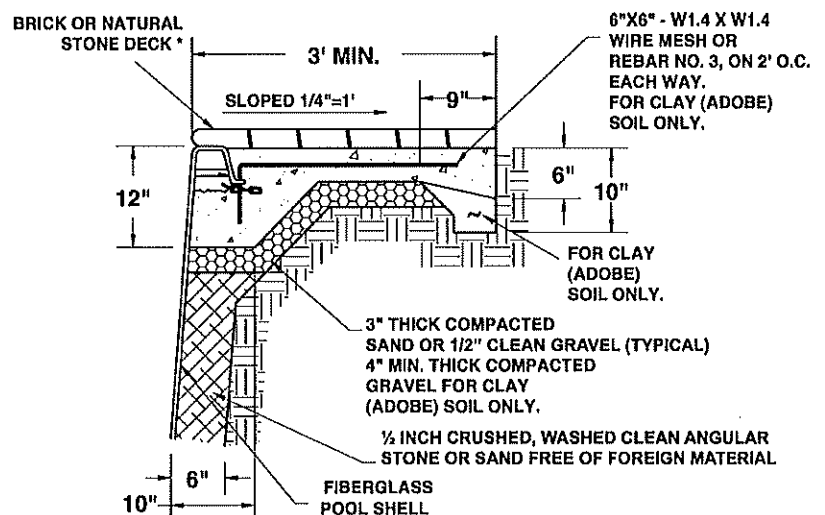
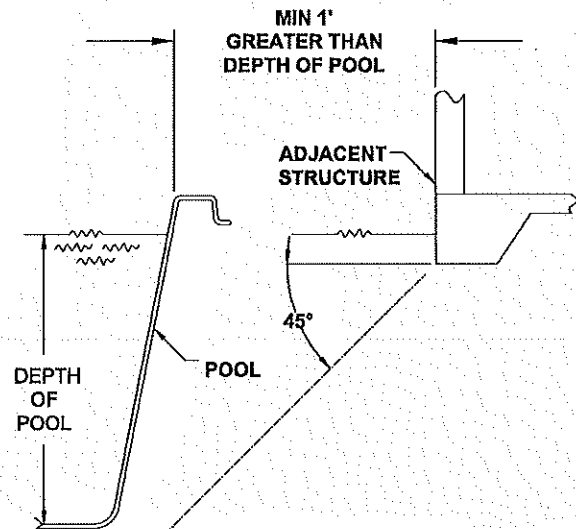
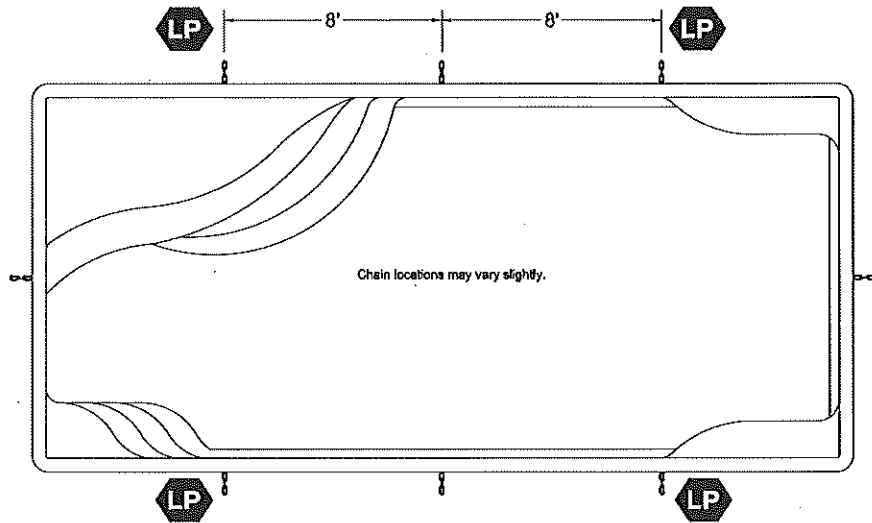


Figure 11 -
ANGLE OF REPOSE
(NO INCREASED PRESSURE ON POOL
WALLS FROM ADJACENT STRUCTURE)



To be in compliance with Latham's Installation practices and procedures, all Latham fiberglass pool shells must be installed using the materials noted in the Latham Installation Guides. Pools that are not installed using these materials are not in compliance and therefore any damage that occurs due to the use of improper materials is not covered by the Latham Limited Lifetime Warranty. The most recent Latham Installation Guide supersedes any and all previous Latham Installation Guides, conversations, emails, etc. If a situation presents itself on a jobsite that is outside of the scope of the methods, practices, procedures and materials specified in the Latham Installation Guide and requires the consultation and/or design of an independent expert (geotechnical engineer, structural engineer, etc.), the Builder and the independent expert assume all liability and responsibility for the structural integrity of the pool shell.

Figure 12 -
Chain Locations



LEGEND:

LP - Lifting Point

POOL LIFTING NOTE:

1. When being lifted from the trailer and/or set in the excavated installation site, four (4) 20' straps should be used. The 4 straps should be connected to a common lift point, typically the ball of the crane.

LIFTS SHOULD BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE STANDARDS SUCH AS OSHA AND ASME. SPECIFIC STANDARDS THAT MAY BE APPLICABLE ARE LISTED BELOW. THIS IS NOT AN ALL-INCLUSIVE LIST AND OTHER REGULATIONS WHICH MAY APPLY DEPENDING HOW LIFT IS PERFORMED AND EQUIPMENT USED.

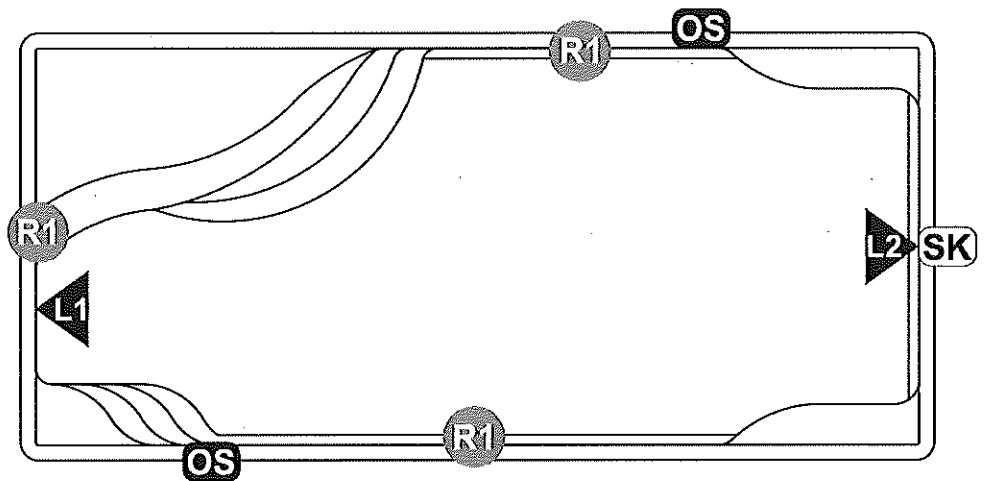
ASME B30.5 OSHA 29 CFR 1910.133 OSHA 29 CFR 1910.179 OSHA 29 CFR 1910.180 OSHA 29 CFR 1926.753

IT IS THE RECIPIENT'S RESPONSIBILITY TO PROPERLY ASSESS THE SITUATION AND ACCOUNT FOR VARIABLES SUCH AS, BUT NOT LIMITED TO WEATHER, EQUIPMENT CONDITION, LOCAL REGULATIONS, ETC. BEFORE OFFLOADING CAN OCCUR. ANY DAMAGE RESULTING FROM THE LIFTING OF THE POOL SHELL IS THE RECIPIENT'S RESPONSIBILITY TO BEAR

Figure 13 -
Standard Fitting
Locations

LEGEND:

- SK - Skimmer
- R - Return Fitting
- L - Light
- OS - Optional Skimmer Location for Auto Cover Bundle

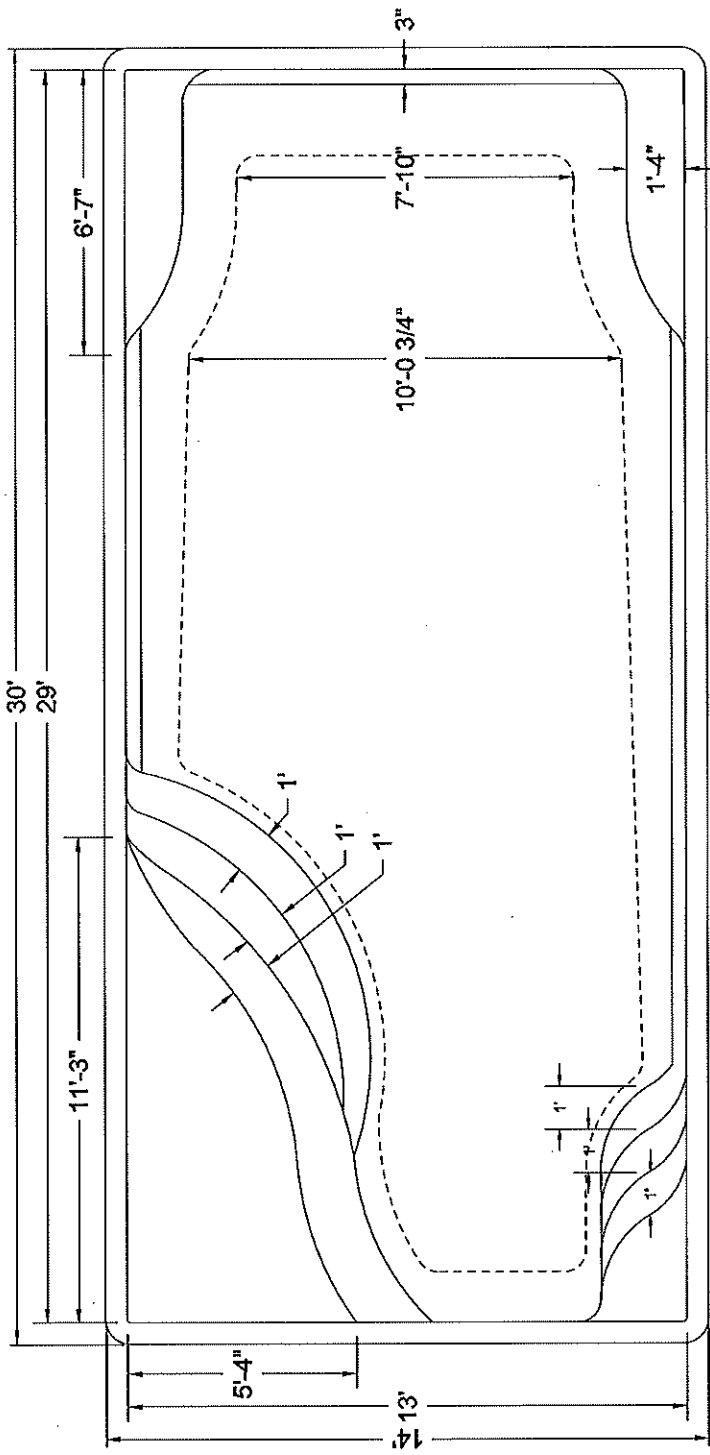


Drawing denotes approximate standard outfitting locations. Additional fittings and custom outfitting not shown.

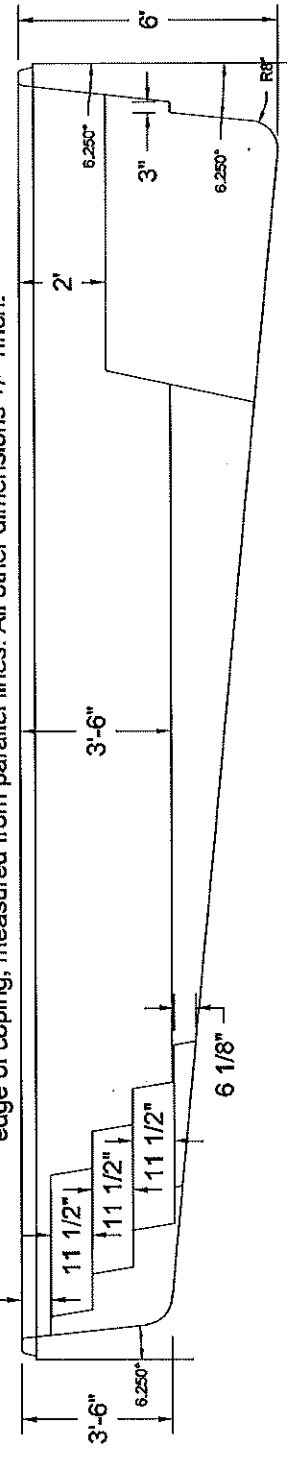
WARNING TO THE BUYER:

The pool is designed to be kept full at all times. The shell can be damaged if the water level is allowed to drop below the skimmer. When appreciable draw-down is noticed, or if it becomes necessary to drain the pool, contact Latham Pool Products, or their agents for instructions. The pool shell may be damaged and separation from the concrete may occur if the pool is allowed to overflow or if heavy water drainage is allowed to over-run the deck to pool shell connection. Keep the water level in the middle of the skimmer. Latham Pool Products will not be held responsible for any unforeseen problems or circumstances which arise from inadequate site drainage or incorrect deck installation. Refer to the Latham Warranty for conditions, circumstances, or installation practices that may void the pool's warranty.

POOL	CODE	SIZE - WIDTH x LENGTH	DEPTH - SHALLOW	DEPTH - DEEP	GALLONS APPROX.	WATER SURFACE AREA (SF)	PERIMETER - LINEAR FEET	STEPS	LINEAR FEET - SEATS	WEIGHT
Olympia 14	FR14	14' x 30'	3'-6" x 6'	6'	11,200	377	84	61	19	2,935



Length, width and depth may vary up to 3% - all dimensions are to outside edge of coping, measured from parallel lines. All other dimensions +/- 1 inch.



Notes

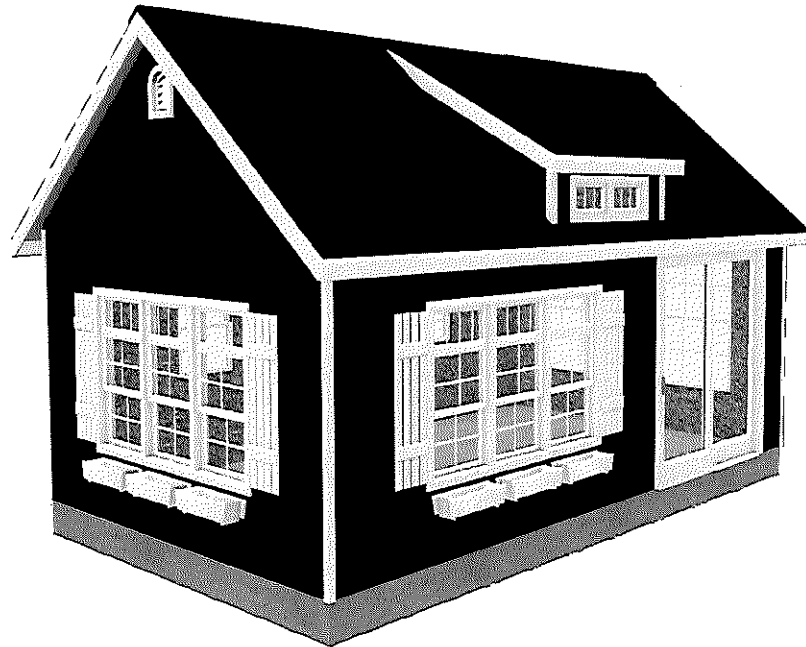
latham

The Pool Company™

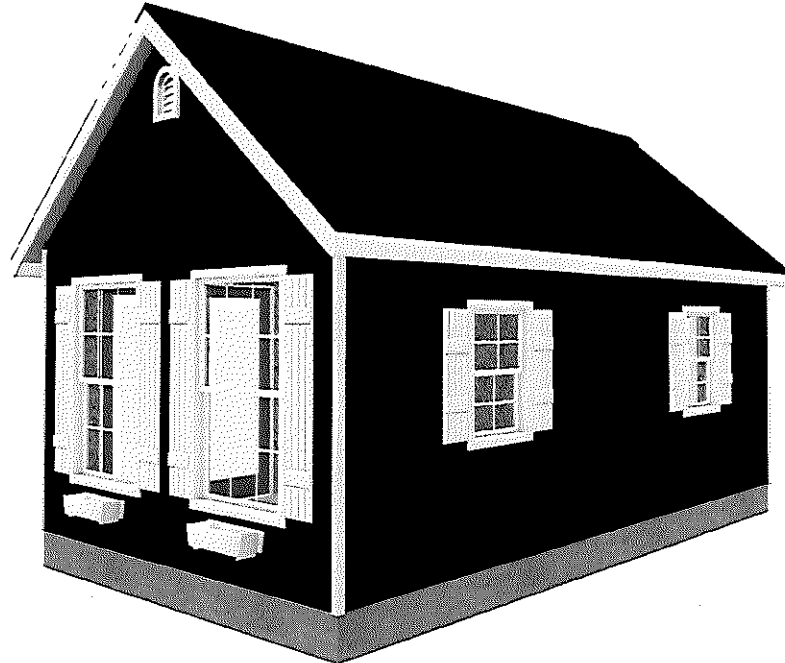
www.lathampool.com

Latham Pool Products, Inc.
© 2021. All Rights Reserved.

01/2021



IMAGES ARE NOT TO
SCALE AND COLORS
ARE EXAMPLES ONLY



SEAL:

REVISIONS:

SS Est. #1018992 Job Name:

Deanna Ahearn Laird
72 Vineyard Meadow
Farms Road
Vineyard Haven, MA 02568

Sheds Unlimited LLC
2025 Valley Road
Morgantown, PA 19543

Drawn By: Eric Mannering
Sales Rep: Andrew DiRofalo

DATE:

5/12/2023

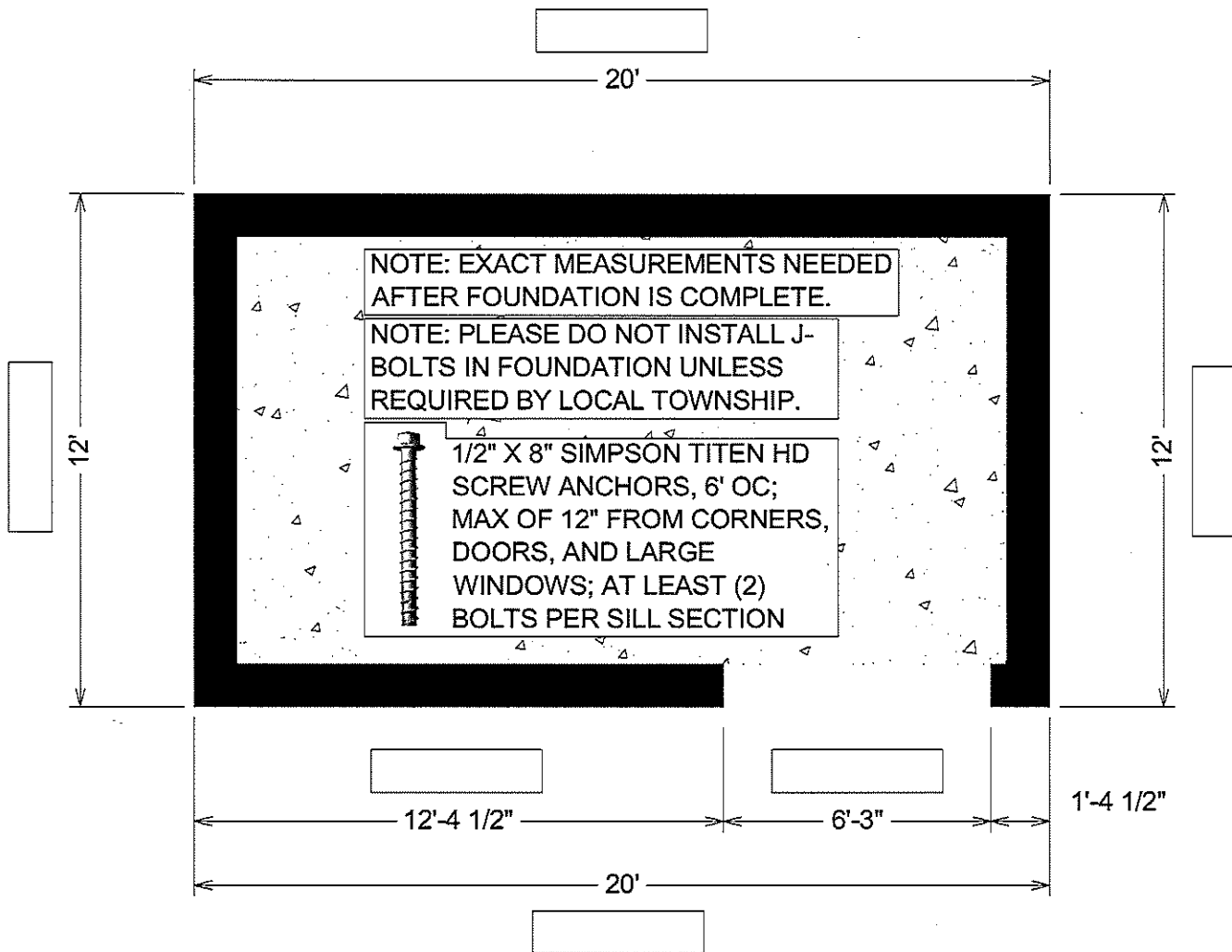
SCALE:

NTS

SHEET:

A2.2

FOUNDATION



NOTE: EXACT MEASUREMENTS NEEDED AFTER FOUNDATION IS COMPLETE.

NOTE: PLEASE DO NOT INSTALL J-BOLTS IN FOUNDATION UNLESS REQUIRED BY LOCAL TOWNSHIP.



1/2" X 8" SIMPSON TITEN HD SCREW ANCHORS, 6' OC; MAX OF 12" FROM CORNERS, DOORS, AND LARGE WINDOWS; AT LEAST (2) BOLTS PER SILL SECTION

SEAL:

REVISIONS:			

SS Est. #1018992 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow
 Farms Road
 Vineyard Haven, MA 02568

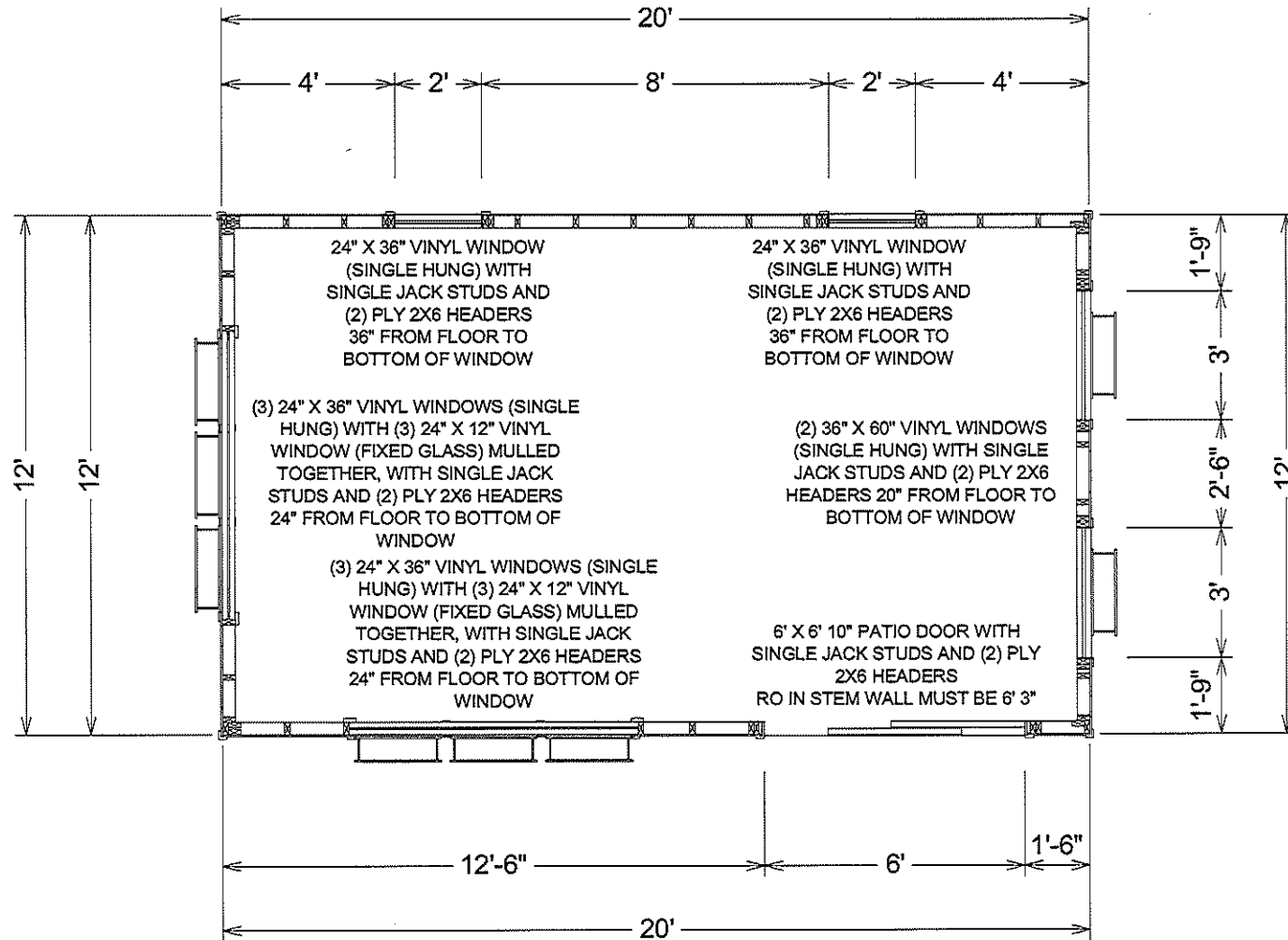
Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannerling
 Sales Rep: Andrew DiRollo

DATE:
 5/12/2023

SCALE:
 1/4" = 1'

SHEET:
A1.1

FLOOR AREA



SEAL:

REVISIONS:

SS Est. #1018992 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow
 Farms Road
 Vineyard Haven, MA 02568

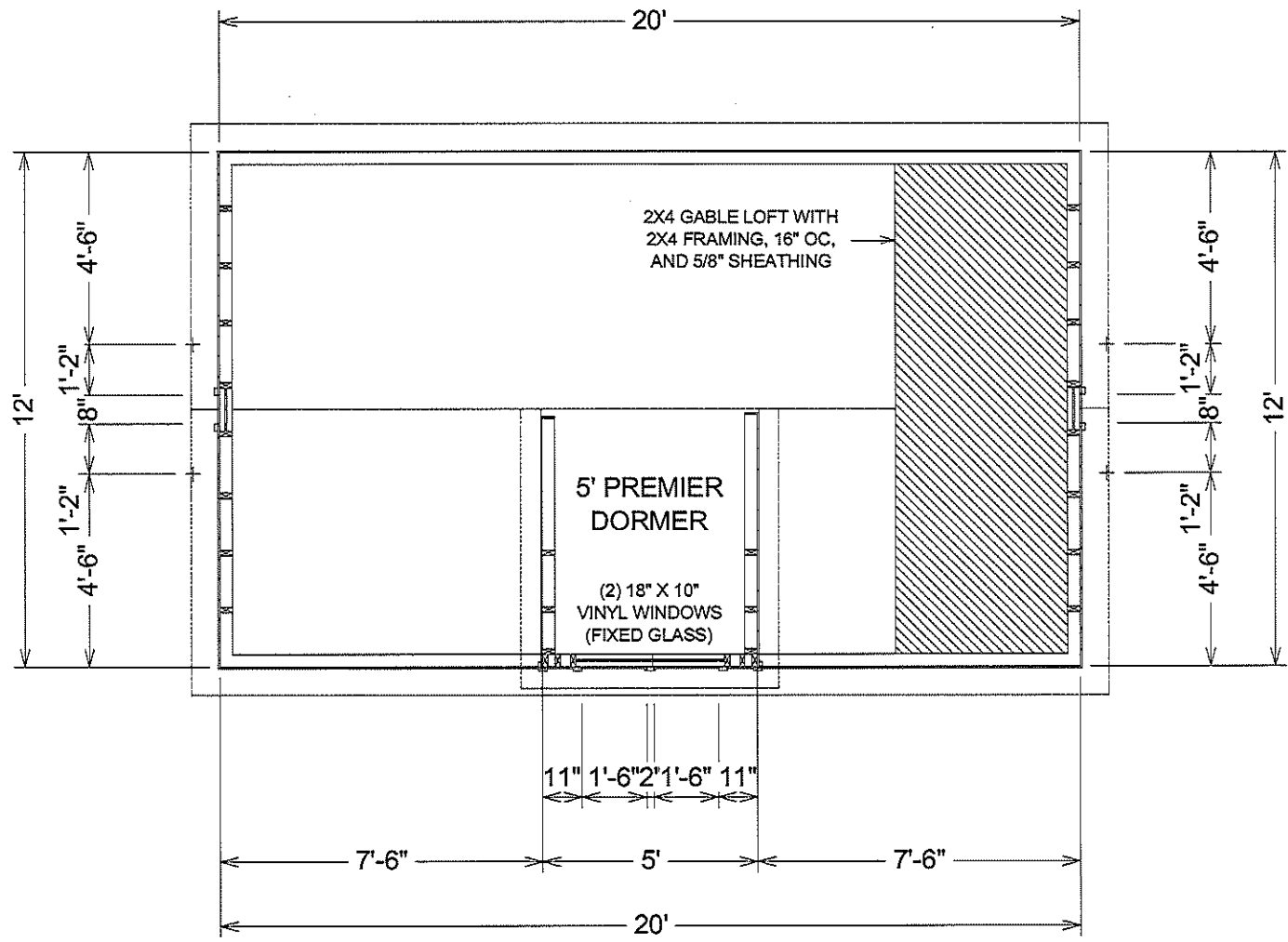
Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannerling
 Sales Rep: Andrew DiRollo

DATE:
 5/12/2023

SCALE:
 1/4"=1'

SHEET:
A1.2

ROOF AREA



SEAL:

REVISIONS:

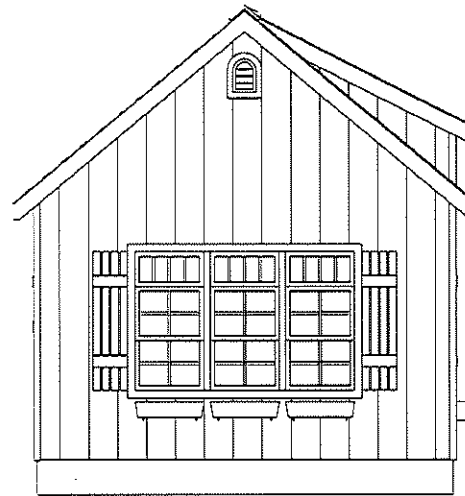
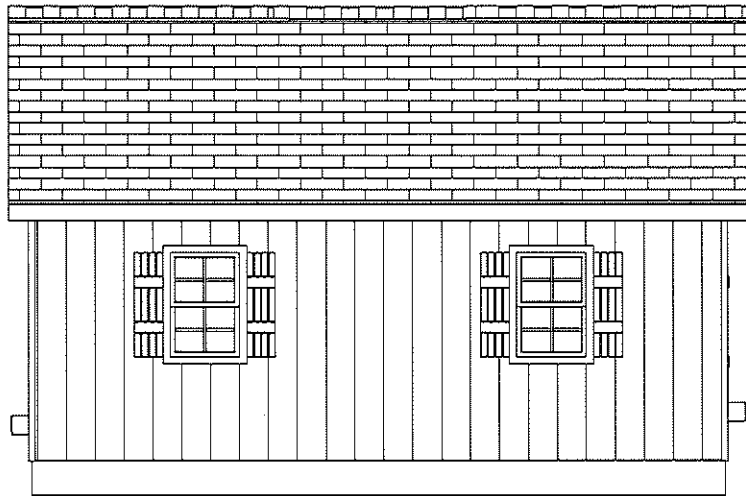
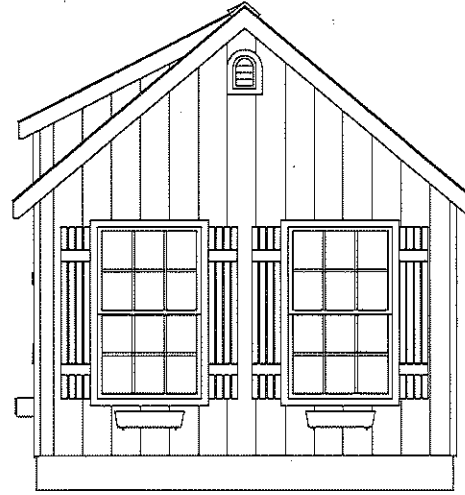
SS Est. #1018992 Job Name:
Deanna Ahearn Laird
72 Vineyard Meadow
Farms Road
Vineyard Haven, MA 02568

Sheds Unlimited LLC
2025 Valley Road
Morgantown, PA 19543
Drawn By: Eric Mannerling
Sales Rep: Andrew DiRollo

DATE:
5/12/2023

SCALE:
1/4"=1'

SHEET:
A1.3



SEAL:

REVISIONS:

SS Est. #1018992 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow
 Farms Road
 Vineyard Haven, MA 02568

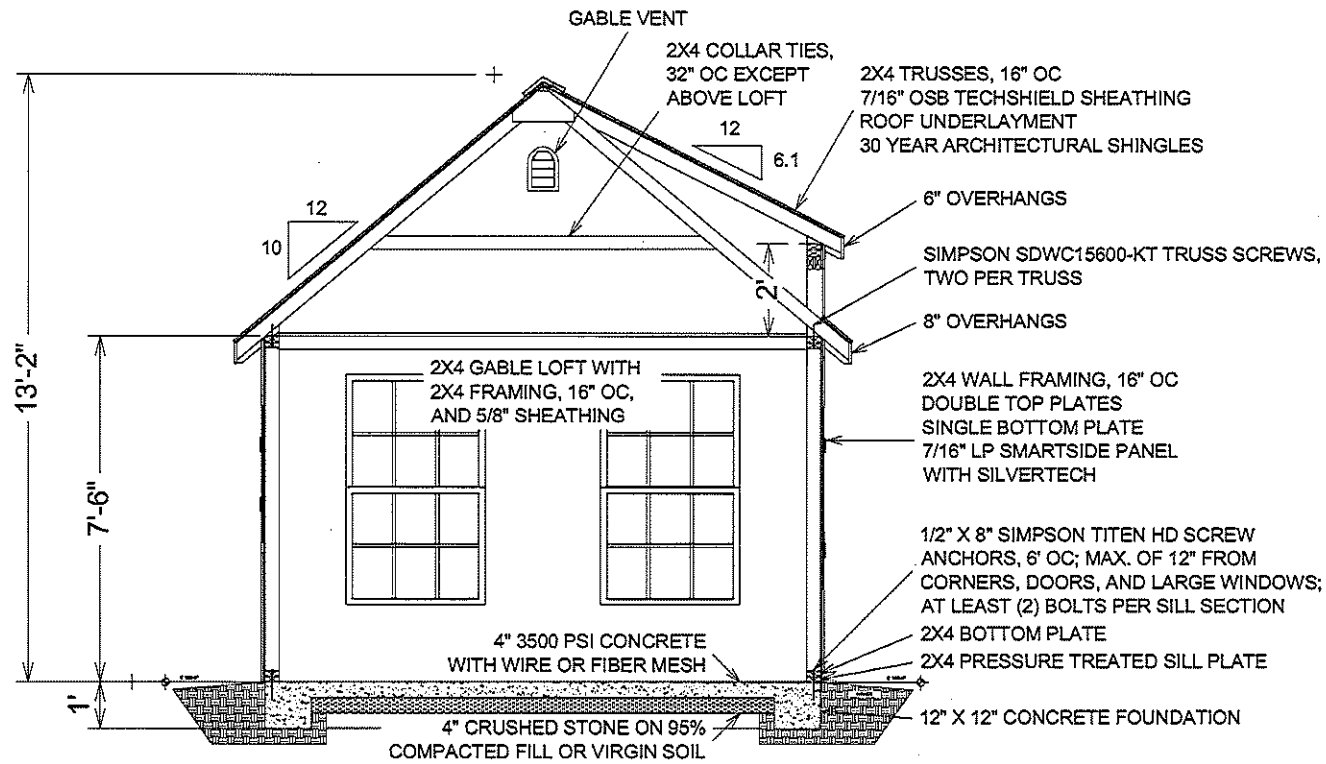
Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannering
 Sales Rep: Andrew DiRofalo

DATE:
 5/12/2023

SCALE:
 3/16"=1'

SHEET:
A2.1

SEAL:



REVISIONS:

SS Est. #1018992 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow
 Farms Road
 Vineyard Haven, MA 02568

Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannerling
 Sales Rep: Andrew DiRodio

DATE:
 5/12/2023

SCALE:
 1/4"=1'

SHEET:
A3.1

18'x16' Vinyl A-Frame Pavilion

Deanna Aheam Laird
72 Vineyard Meadow Farms Road
West Tisbury, MA 02575

DESIGN ENGINEER:



East: 22 Denver Road, Suite B Denver, PA 17517
717.335.2750 Fax: 717.335.2753

West: 406 S Main Street, PO Box 509 Kouts, IN 46347
219.766.2499 Fax: 219.766.2394

Southeast: 172 Luyben Hills Road, Kingston Springs, TN 37082
615-378-1535 Fax: 615-378-1587

www.timbertecheng.com

a creative engineering firm, providing solutions
and building relationships

Drawing Index

Cover Page - Notes

Page 1 - Elevations

Page 2 - Post Layout Plan

Page 3 - Roof Framing Plan

Page 4 - Cross Section A/4, Cross Section B/4, Detail A-A/4

Page 5 - Detail B-B/5

Page 6 - Detail C-C/6, Detail D-D/6, Detail E-E/6,

Detail F-F/6, Base Angle Detail

Page F1 - Foundation Details

Page F2 - Foundation Notes

GENERAL NOTES

All notes do not necessarily apply due to different requirements on each project. This plan is intended to reflect only the structural design of this building. The contractor shall review all applicable local, state, and federal building codes prior to the start of construction to ensure building conformance. Timber Tech Engineering, Inc. is not responsible for information pertaining to this project if not shown on drawings or listed below. Revisions to the plans shall be approved by engineer of record.

DESIGN REQUIREMENTS

- Governing Code:
Including, not limited to: IBC 2015
Risk Category II
- Dead Loads:

A. Roof	10 psf
B. Floor	n/a psf
C. Other	n/a psf
- Live Loads:

A. Roof (See also note #4)	37.8 psf
B. Floor	n/a psf
C. Other	n/a psf
- Snow Loads:

A. Ground Snow (Pg)	45 psf
B. Flat Roof Snow (P _f)	37.8 psf
C. Snow Exposure Factor (C _e)	1.0
D. Snow Load Risk Factor (I)	1.0
E. Unbalanced Snow	
i. Windward Roof	0 psf
ii. Leeward Roof	45 psf
- Wind Load (ASCE 7-10)

A. Ultimate Wind Speed (V _{ult})	130 mph
B. Wind Exposure Category	C
C. Enclosure Category	Open
- Earthquake Design Data:
(Analysis based on equivalent lateral force procedure)

A. Spectral Response Acceleration at 1 sec, S	0.25
B. Spectral Response Acceleration at short periods, S	0.34
C. Seismic Importance Factor, I	1.0
D. Site Class	D
E. Seismic Design Category	D
F. Basic Structural System	Cantilevered Column: Timber Frame
G. Response Modification Factor (R)	1.5
H. Deflection Amplification Factor (C _d)	1.5

WOOD

- General Requirements
 - Structural wood members and connections shall be of sufficient size or capacity to carry all design loads without exceeding the allowable design values specified in "The National Design Specification for Wood Construction" (NDS), and its "Supplement" by the American Wood Council (AWC).
 - Wood members used for load supporting purposes shall have the grade mark of a lumber grading agency certified by the American Lumber Standards Committee.
- Heavy Timbers
 - Structural solid sawn timbers shall be designed, fabricated and installed in accordance with the NDS by AWC.
 - Structural glued laminated soft wood timbers shall conform with the "American National Standard or Structural Glued Laminated Timber", (ANSI/AITC 190.1).
 - Structural decking shall conform to the NDS.
 - Glued laminated columns shall be manufactured with laminating combinations that will provide a minimum design value of 1,850 psi for compressive stress (F_c), and 2,200 psi for bending stress (F_b).
- Dimension Lumber
 - All lumber species, graded visually or mechanically, shall comply with the NDS by AWC, and the "American Softwood Lumber Standard" (PS 20) by the U.S. Department of Commerce.
 - The minimum grade and species for posts, beams, headers, and other primary structural members shall be Dense Select Structural Southern Pine, unless specified otherwise.
 - Lumber used for secondary framing shall be #1 Southern Yellow Pine (SYP) or better.
 - Mechanically laminated columns shall conform with ANSI/ASAE EP 559.
- Pressure Preservative Treatment (PPT)
 - Pressure treatment to be performed according to the American Wood Preservers' Association (AWPA) standards.
 - Pressure treated members shall have the inspection mark of an agency accredited by the American Lumber Standards Committee.
 - Preservative: Ammonia Copper Quaternary ammonia (ACQ) or Copper Boron Azole (CBA)
 - Minimum waterborne treatment retention shall be 0.4 pcf for members above ground, and 0.6 pcf for members in contact with earth.
 - Treat indicated items and the following:
 - Wood members exposed to weather or insect infestation.
 - Wood members in direct contact with earth or concrete.
 - Wood members exposed to high moisture content (>19% for dimension lumber, >16% for glued laminated timber).
 - Wood members less than 12 inches above grade.
 - Field treat newly exposed wood where cutting, drilling or notching pressure treated lumber.
 - Metal connectors used in treated wood shall be hot-dip galvanized as per ASTM A153.
- Connections shall be designed and constructed according to the NDS by AWC and shall conform to the following:
 - The minimum connection shall be two #10x3 1/2" wood screws, or as detailed on the drawings.
 - Other connections as per standard construction practice.

Polyvinyl Chloride Compound (PVC)

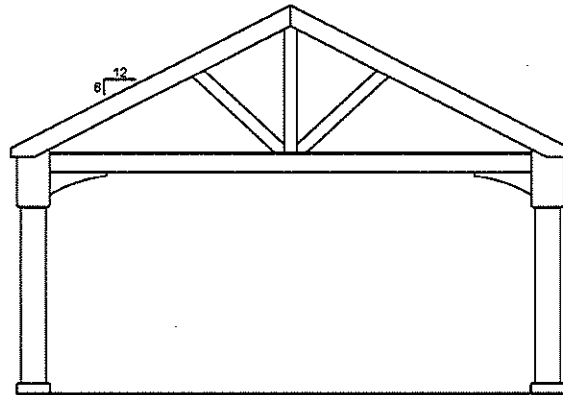
- General Requirements
 - PVC sleeve material used to wrap wood members to be supplied according to Certified corporation specifications or equivalent.
 - PVC sleeve material to be 0.160" thick for posts, and 0.105" thick for other structural members

TTE DRAWING NUMBER: E185-23

5/8/23

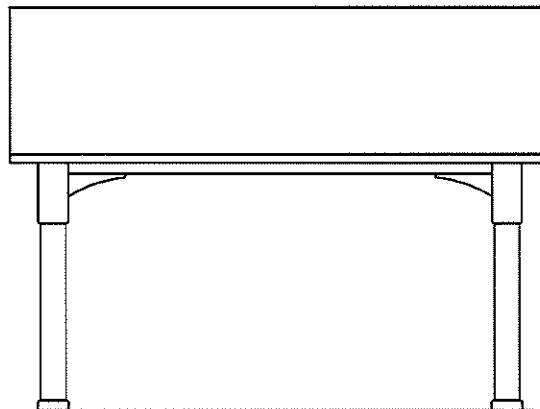


Timothy R. Royer, P.E. MA Eng.# 45614
Expiration Date: 06/30/2024



End Elevation

Scale 1/4" = 1'-0"



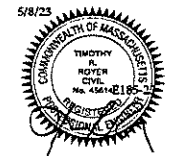
Side Elevation

Scale 1/4" = 1'-0"



East: 22 Denver Road, Suite B Denver, PA 17517
 Ph: 717-335-2700 Fax: 717-335-2703
 West: 436 S Main Street, PO Box 583 Kona, HI 96747
 Ph: 219-768-2489 Fax: 219-768-2394
 Southeast: 172 Luyten Hills Road, Kington Springs, TN 37082
 Ph: 615-378-1535 Fax: 615-378-1587
 www.timbertecheng.com
 a creative engineering firm, providing solutions
 and building relationships

This drawing is the property of Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Timber Tech Engineering, Inc. is prohibited. Drawings shall not be copied to obtain dimensions. The contractors and builders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.



Timothy R. Royer MA Eng. Cert # 45614
 Expiration Date: 06-30-2024

Contractor:
 Country Lane Woodworking
 540 Hollander Road
 New Holland, PA 17557
 PH: (717) 351-9250

Drawing Title:
 Elevations

Project:
 18'x16' Vinyl A-Frame Pavilion for
 Deanna Aheam Laird
 72 Vineyard Meadow Farms Road
 West Tisbury, MA 02575

Revision:	Date:	By:

Drawing Number: E-185-23 Page 1 of 6
 Engineered By: T. Royer Start Date: 5/8/23
 Drawn By: K. Salyer Certified Date: 5/8/23



Est: 22 Denver Road, Suite B, Denver, PA 17817
 Ph: 717-351-2750 Fax: 717-351-2753
 West: 468 S Main Street, PO Box 520 Kott, IN 46347
 Ph: 219-766-2499 Fax: 219-766-2384
 Southeast: 172 Lupton Hills Road, Dayton Springs, TN 37082
 Ph: 615-478-1533 Fax: 615-478-1587
 www.timbertecheng.com
 a creative engineering firm, providing solutions and building relationships

This drawing is the property of Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Timber Tech Engineering, Inc. is prohibited. Drawings shall not be scaled to obtain dimensions. The contractors and outsiders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.



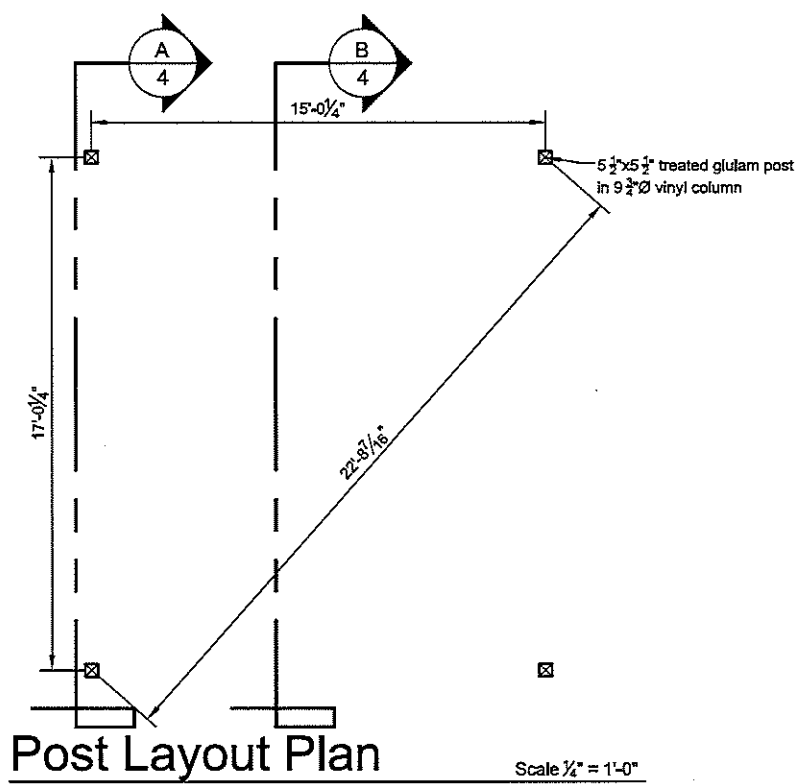
Timothy R. Royer MA Eng. Cert #45614
 Expiration Date: 06-30-2024

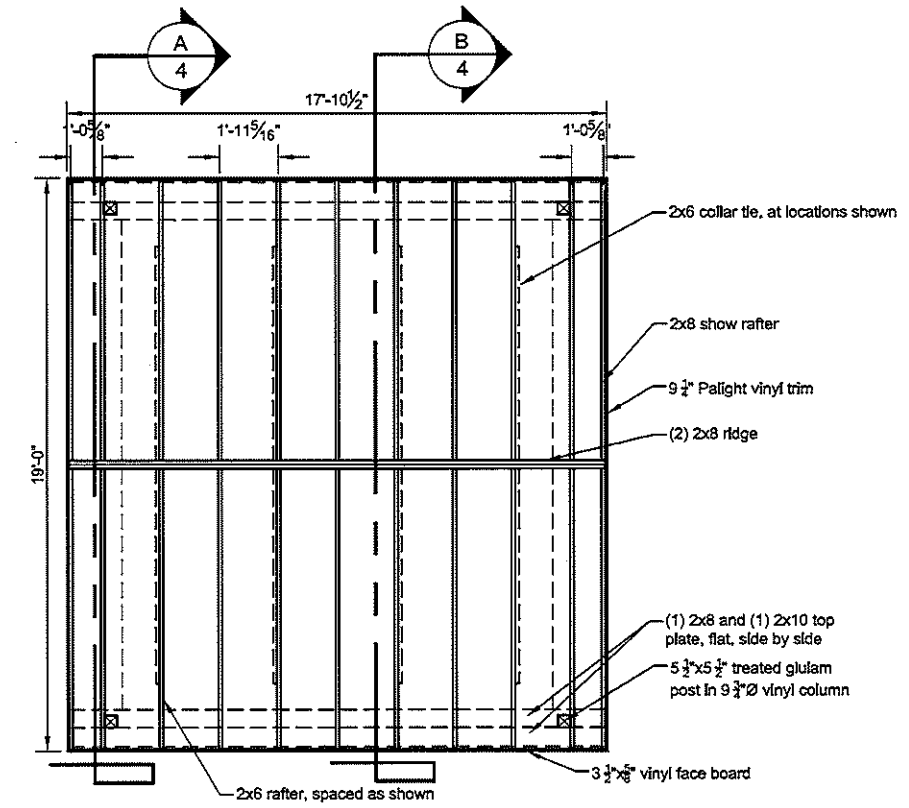
Contractor:
 Country Lane Woodworking
 540 Hollander Road
 New Holland, PA 17557
 PH: (717) 351-9250

Drawing Title:
 Post Layout Plan

Project:
 18x18' Vinyl A-Frame Pavilion for
 Deanna Aheam Laird
 72 Vineyard Meadow Farms Road
 West Tisbury, MA 02575

Revisors:	Date:	By:
Drawing Number: E185-23	Page: 2 of 6	
Engineered By: T. Royer	Start Date: 5/8/23	
Drawn by: K. Sawyer	Certified Date: 5/8/23	





Roof Framing Plan Scale 1/4" = 1'-0"



ENGINEERING
 East: 22 Denver Road, Suite B, Denver, PA 17837
 PH: 717-335-2729 Fax: 717-335-4753
 West: 458 S Mohl Street, PO Box 599, Kouts, IN 46347
 PH: 219-784-2429 Fax: 219-784-2384
 Southeast: 172 Layton Hills Road, Virginia Springs, TN 37382
 PH: 615-378-1535 Fax: 615-378-1507
 www.timbertecheng.com
 a creative engineering firm, providing solutions
 and building relationships

This drawing is the property of Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Timber Tech Engineering, Inc. is prohibited. Drawings shall not be scaled to obtain dimensions. The contractors and builders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.



Timothy R. Royer MA Eng. Cert # 45614
 Expiration Date: 06-30-2024

Contractor:
 Country Lane Woodworking
 540 Hollander Road
 New Holland, PA 17557
 PH: (717) 351-9250

Drawing Title:
 Roof Framing Plan

Project:
 18'x16' Vinyl A-Frame Pavilion for
 Deanna Aheam Laird
 72 Vineyard Meadow Farms Road
 West Tisbury, MA 02575

Revised:	Date:	By:

Drawing Number: E185-23	Page: 3 of 6
Engineered By: T. Royer	Start Date: 5/8/23
Drawn By: K. Sawyer	Certified Date: 5/8/23



ENGINEERING
 East: 22 Denver Road, Suite B, Denver, PA 17517
 Ph: 717-335-2700 Fax: 717-335-2753
 West: 406 S Main Street, PO Box 599, Kutztown, PA 19534
 Ph: 215-768-2499 Fax: 215-768-2384
 Southeast: 172 Layton Hills Road, Kingsport, TN 37682
 Ph: 615-378-4335 Fax: 615-378-1587
 www.timbertecheng.com
 a creative engineering firm, providing solutions
 and building relationships

This drawing is the property of Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Timber Tech Engineering, Inc. is prohibited. Drawings shall not be scaled to obtain dimensions. The contractors and builders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.

5/8/23



Timothy R. Royer MA Eng. Cert # 45614
 Expiration Date: 06-30-2024

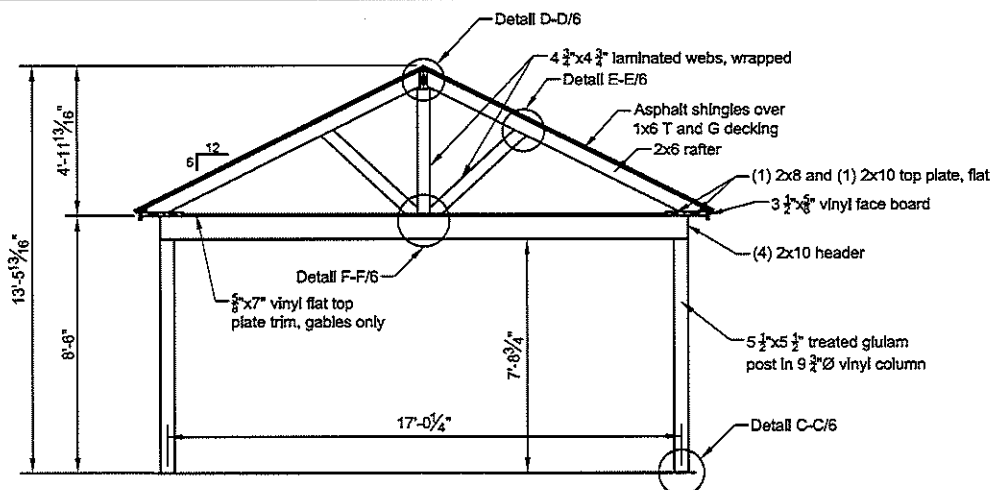
Contractor:
 Country Lane Woodworking
 540 Hollander Road
 New Holland, PA 17557
 PH: (717) 351-9250

Drawing Title:
 Cross Section A/4
 Cross Section B/4
 Detail A-A/4

Project:
 18'x18' Vinyl A-Frame Pavilion for
 Deanna Ahearn Laird
 72 Vineyard Meadow Farms Road
 West Tisbury, MA 02575

Revised:	Date:	By:

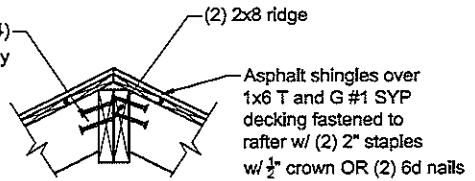
Drawing Number: E-185-23 Page 4 of 6
 Engineered by: T. Royer Start Date: 5/8/23
 Drawn by: K. Salyer Certified Date: 5/8/23



Cross Section A/4

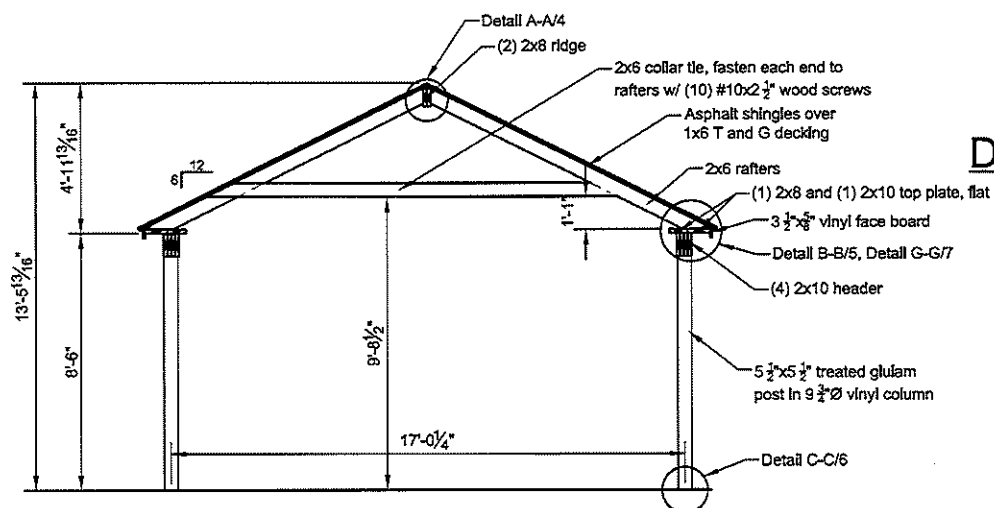
Scale 1/2" = 1'-0"

2x6 rafter, fasten to ridge w/ (4) #10x3 1/2" screws, toed, each ply



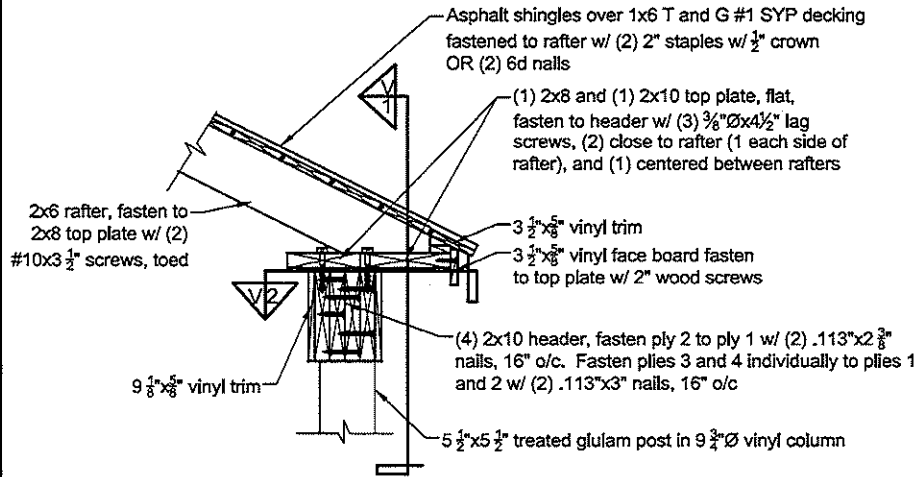
Detail A-A/4

Scale 1" = 1'-0"

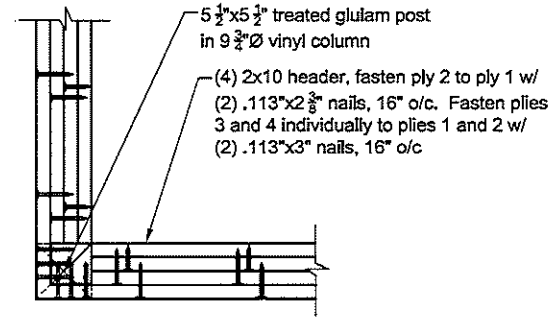


Cross Section B/4

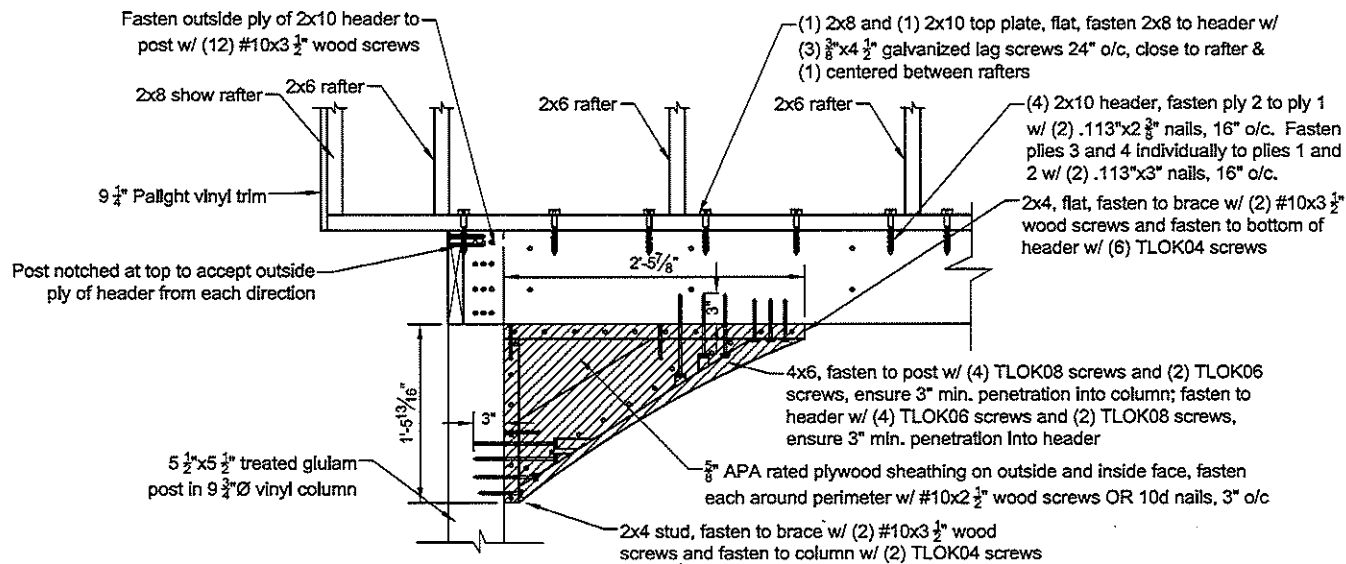
Scale 1/2" = 1'-0"



Detail B-B/5 Scale 1" = 1'-0"



View 2 Detail B-B/5 Scale 1" = 1'-0"



View 1 Detail B-B/5 Scale 1" = 1'-0"

timbertech
ENGINEERING

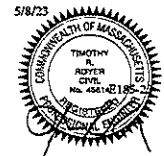
East: 22 Denver Road, Suite B, Denver, PA 17517
Ph: 717-255-2750 Fax: 717-255-2753

West: 406 S Main Street, PO Box 520, Ketchikan, AK 99901
Ph: 219-766-2199 Fax: 219-766-2334

Southeast: 172 Lybren Hills Road, Kingstons Springs, TN 37082
Ph: 615-378-1523 Fax: 615-378-1587

www.timbertecheng.com
a creative engineering firm, providing solutions and building relationships

This drawing is the property of Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Timber Tech Engineering, Inc. is prohibited. Drawings shall not be scaled to obtain dimensions. The contractor and builders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.



Timothy R. Royer MA Eng. Cert # 45614
Expiration Date: 06-30-2024

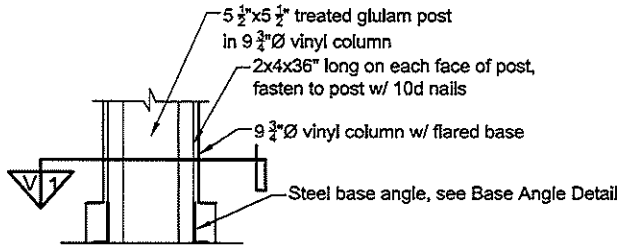
Contractor:
Country Lane Woodworking
540 Hollander Road
New Holland, PA 17557
Ph: (717) 351-9250

Drawing Title:
Detail B-B/5

Project:
18'x16' Vinyl A-Frame Pavilion for
Deanna Abeam Laird
72 Vineyard Meadow Farms Road
West Tisbury, MA 02575

Revision:	Date:	By:

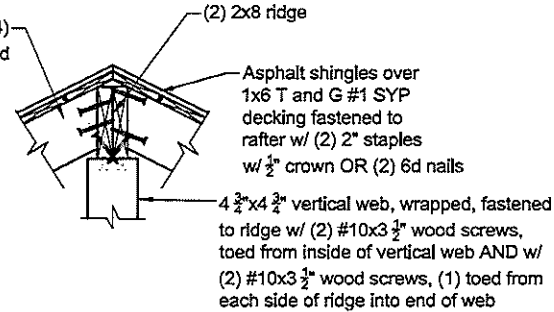
Drawing Number: E185-23 Page 5 of 6
Engineered By: T. Royer Start Date: 5/8/23
Drawn By: K. Salyer Certified Date: 5/8/23



Detail C-C/6

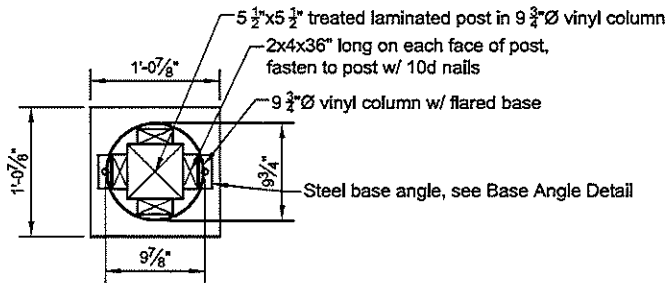
Scale 1" = 1'-0"

2x6 rafter, fasten to ridge w/ (4) #10x3 1/2" screws, toed



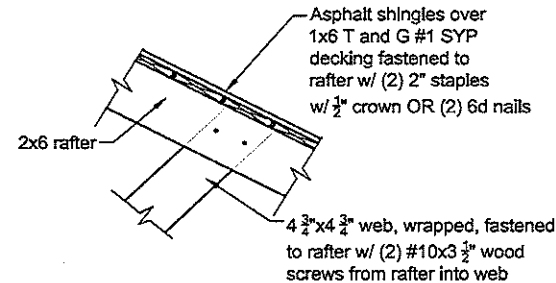
Detail D-D/6

Scale 1" = 1'-0"



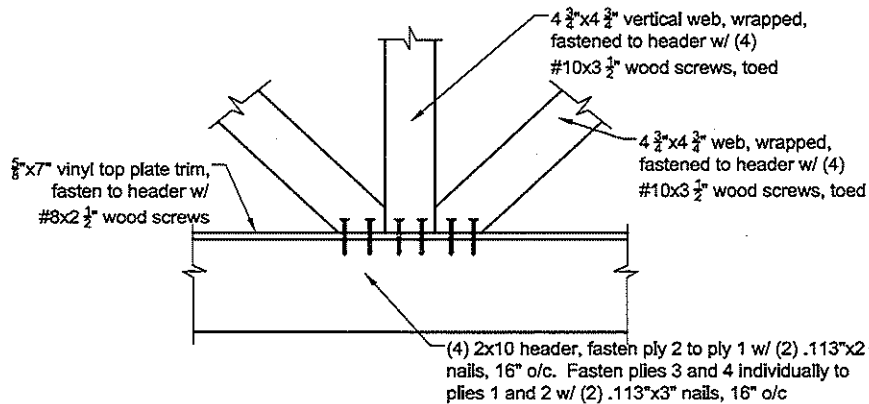
View 1 Detail C-C/6

Scale 1" = 1'-0"



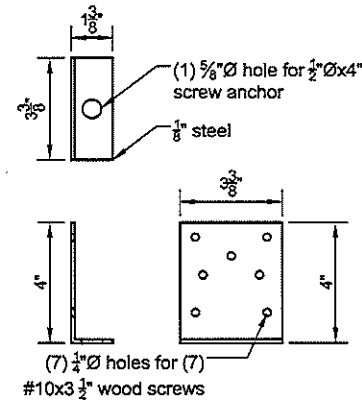
Detail E-E/6

Scale 1" = 1'-0"



Detail F-F/6

Scale 1" = 1'-0"



Base Angle Detail

Scale 3" = 1'-0"



ENGINEERING
 East: 22 Dever Road, Suite 9, Dever, PA 17517
 Ph: 717-335-2785 Fax: 717-335-2753
 West: 426 S Main Street, PO Box 589, Kouts, IN 46547
 Ph: 219-785-2498 Fax: 219-786-2384
 Southeast: 172 Layton Hills Road, Morgan Springs, TN 37082
 Ph: 615-378-1535 Fax: 615-378-1587
 www.timbertecheng.com
 a creative engineering firm, providing solutions
 and building relationships

This drawing is the property of Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Timber Tech Engineering, Inc. is prohibited. Drawings shall not be scaled to obtain dimensions. The contractor and subletors involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.



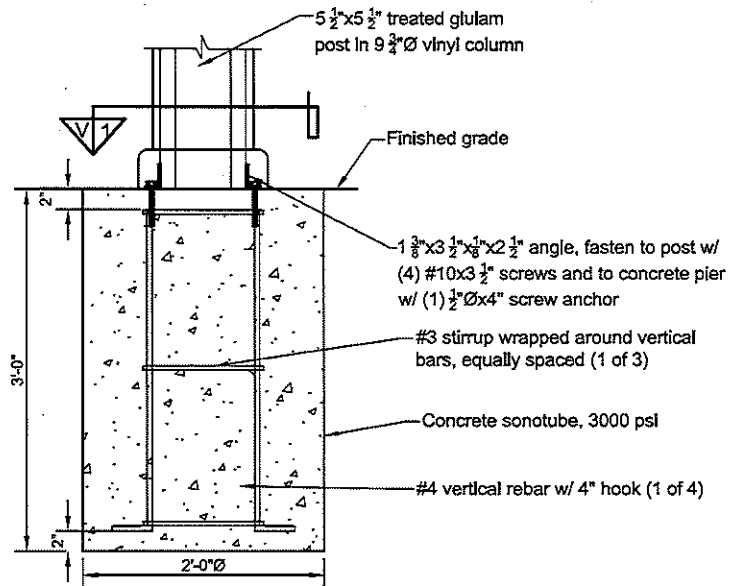
5/8/23
 Timothy R. Royer MA Eng. Cert # 45614
 Expiration Date: 06-30-2024
 Contractor:
 Country Lane Woodworking
 540 Hollander Road
 New Holland, PA 17557
 PH: (717) 351-9250

Drawing Title:
 Detail C-C/6
 Detail D-D/6
 Detail E-E/6
 Detail F-F/6
 Base Angle Detail

Project:
 18'x16' Vinyl A-Frame Pavilion for
 Deanna Aheam Laird
 72 Vineyard Meadow Farms Road
 West Tisbury, MA 02575

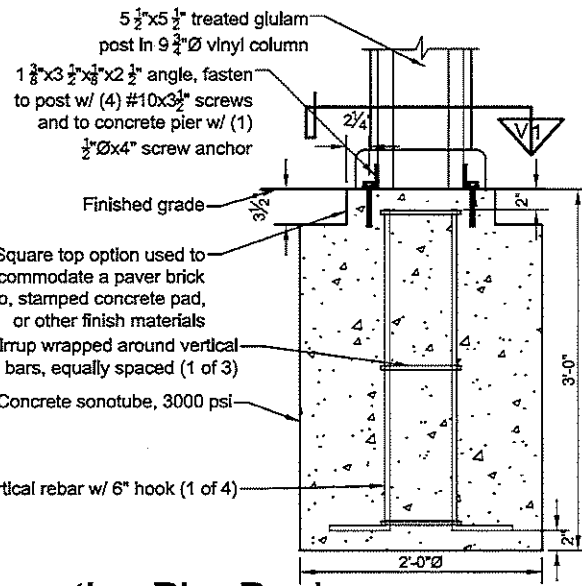
Reviewer	Date	By

Drawing Number: E185-23 Page: 6 of 6
 Prepared by: T. Royer Start Date: 5/8/23
 Drawn by: K. Salyer Certified Date: 5/8/23



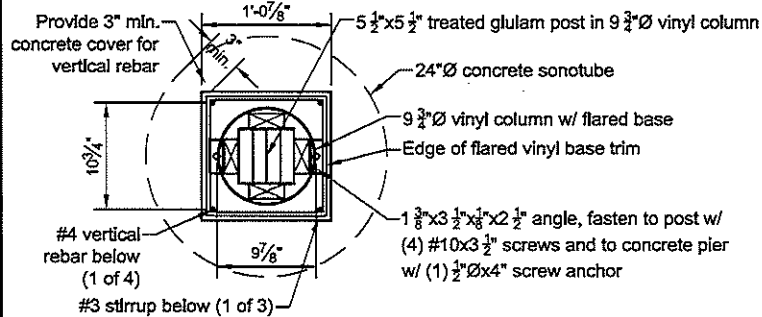
Pier Design

Scale 1" = 1'-0"



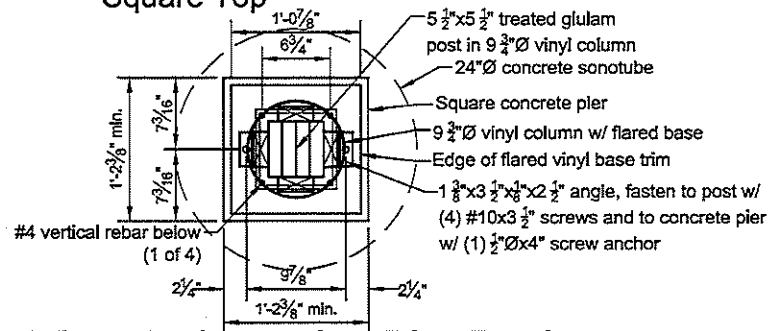
**Alternative Pier Design
Square Top**

Scale 1" = 1'-0"



View 1 Pier Design

Scale 1" = 1'-0"



**View 1 Alternative Pier Design
Square Top**

Scale 1" = 1'-0"



ENGINEERING

East: 22 Denver Road, Suite B, Denver, PA 17517
 Tel: 717-335-0739 Fax: 717-335-4703
 West: 408 S Main Street, PO Box 529, Kocka, IN 46347
 Tel: 219-766-2498 Fax: 219-766-2394
 Southeast: 172 Layden Hill Road, Kingsport Springs, TN 37682
 Tel: 615-378-1535 Fax: 615-378-1567

www.timbertecheng.com

a creative engineering firm, providing solutions
 and building relationships

This drawing is the property of Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Timber Tech Engineering, Inc. is prohibited. Drawings shall not be scaled to obtain dimensions. The contractor and builders involved on this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.

5/8/23



Timothy R. Royer MA, Eng. Cert # 45614
 Expiration Date: 06-30-2024

Contractor:
 Country Lane Woodworking
 540 Hollander Road
 New Holland, PA 17557
 PH: (717) 351-9250

Drawing Title:
 Foundation Details

Project:
 18'x18' Vinyl A-Frame Pavilion for
 Deanna Aheam Laird
 72 Vineyard Meadow Farms Road
 West Tisbury, MA 02575

Revised:	Date:	By:

Drawing Number: E185-23 Page: F1
 Engineer: T. Royer Start Date: 5/8/23
 Drafted By: K. Salver Check Date: 5/8/23

EARTHWORK

1. Requirements

- A. Provide a construction grade extending ten feet beyond building exterior walls or an alternative method per Section 1804 of the IBC.
- B. Excavate for foundations to subgrade elevations regardless of character of materials and obstructions encountered, unless otherwise approved by the structural engineer.
- C. Perform excavation work in compliance with applicable requirements of authorities having jurisdiction.

2. Materials

- A. Satisfactory soil: ASTM D2487 unified soil classification groups GW, GP, GM, SW, SP, and SM; free of rock or gravel larger than two inches in any dimension, debris, waste, frozen materials, vegetation, or other deleterious matter.
- B. Unsatisfactory soil: ASTM D2487 unified soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT.
- C. Backfill and fill: satisfactory soil materials.

3. Execution

- A. Footings have been designed for an assumed allowable loadbearing pressure of 2,000 psf. (No increases permitted.) The contractor shall verify this assumption, and shall immediately notify the structural engineer in writing of any deficiency.
- B. Place backfill and fill in layers not more than eight inches in loose depth at optimum moisture content. Compact each layer under footings and slabs to a dry density of at least 95 percent of maximum dry density as determined by ASTM D1557.
- C. Bottom of exterior footings shall be a minimum of 36 inches below finished grade, unless noted otherwise

Structural Steel

1. Connections shall be designed and constructed according to AISC, and shall conform to the following:

- A. Screw Anchors (exterior applications): Use screw anchors of the diameter and length indicated on the drawings as manufactured by Red Head or approved equal. Use LDT Stainless Steel bolts, or LDT bolts with EnviroX coating in concrete and CMU. Fill CMU cells at all bolt locations.
- B. Connections exposed to weather or high relative humidity shall be hot-dip galvanized per ASTM A153 / A153M.

CAST-IN-PLACE CONCRETE

1. Concrete work shall conform to the following specifications by The American Concrete Institute (ACI).

- A. "Building Code Requirements for Structural Concrete" (ACI 318).
- B. "Hot Weather Concreting" (ACI 318).
- C. "Cold Weather Concreting" (ACI 318).

2. Materials used shall adhere to the following:

- A. Portland Cement: ASTM C150, type 1.
- B. Fly Ash: ACI 318.
- C. Aggregates: ASTM C33, maximum aggregate size is one inch.
- D. Fiberglass reinforcement: PCI MNL 128 Standard.
- E. Air-entraining admixture: ACI 318.
- F. Chemical admixtures: ASTM C494, water reducing. All concrete, except footings, shall contain a water reducing admixture. No admixtures containing calcium chloride are permitted. All other additives shall not be used without prior approval of the structural engineer.
- G. Vapor retarder: Clear 8-mil thick polyethylene.

3. Proportion normal-weight (145 pcf) concrete mixes to provide the following properties:

- A. Compressive strength: 3,000 psi at 28 days (unless noted otherwise).
- B. Slump limit: 4 inches (3 inches for slab-on-grade) at point of placement.
- C. Water-cement ratio: 0.45 maximum at point of placement.
- D. Air content: 5 to 7 percent for concrete exposed to freezing and thawing, 2 to 4 percent elsewhere.

4. Reinforcing steel shall be fabricated, detailed and placed in accordance with the ACI 318, and shall conform to the following:

- A. Deformed reinforcing bars: ASTM A615/A 615M with a minimum yield strength of 60,000 psi (grade 60).
- B. Welded wire fabric (WWF): ASTM A1064, flat sheets, not rolls.
- C. Ties/Stirrups: ASTM A615/A615M, grade 40.

5. Concrete work shall be executed according to the following:

- A. Maintain tolerances and surface irregularities within ACI 117 limits of class A for concrete exposed to view, and class C for other concrete surfaces. Floor slabs shall be screeded, floated and steel troweled to a smooth, dense and plane surface.
- B. Accurately position, support, and secure reinforcement.
 - 1. Reinforcing bars shall lap 48 bar diameters at splices in concrete unless otherwise noted.
 - 2. Provide corner bars to match all continuous reinforcing in concrete and masonry.
 - 3. Reinforcing bar hooks shall be ACI standard.
 - 4. WWF shall have ends lapped one full mesh, and shall extend onto supporting walls.
 - 5. Chairs, bolsters, bar supports, and spacers shall be sized and shaped for strength and support of reinforcement during concrete placement.
- C. Provide minimum concrete cover on reinforcing bars as follows:

- 1. Cast against earth.....3"
- 2. Exposed to earth or weather (#5 or smaller).....1 1/2"
- 3. Exposed to earth or weather (#6 or larger).....2"
- 4. Slabs and walls not exposed.....3/4"

D. The contractor shall be responsible for stability and integrity of all excavations and existing structures.



East: 22 Diner Road, Suite B, Berwyn, PA 19317
 P: 717-315-2759 F: 717-333-4733
 West: 408 S Main Street, PO Box 609, Kootenai, ID 83247
 P: 218-768-2489 F: 218-766-0294
 Southeast: 172 Lupton Hills Road, Kingston Springs, TN 37082
 P: 615-376-1535 F: 615-376-1567

www.timbertecheng.com
 a creative engineering firm, providing solutions and building relationships

This drawing is the property of Timber Tech Engineering, Inc. and reproduction, alteration or use of this drawing without the written consent of Timber Tech Engineering, Inc. is prohibited. Drawings shall not be scaled to obtain dimensions. The contractors and sub-contractors involved in this project shall verify all dimensions and conditions before starting work and any discrepancy shall be reported to the engineer in writing before starting work.



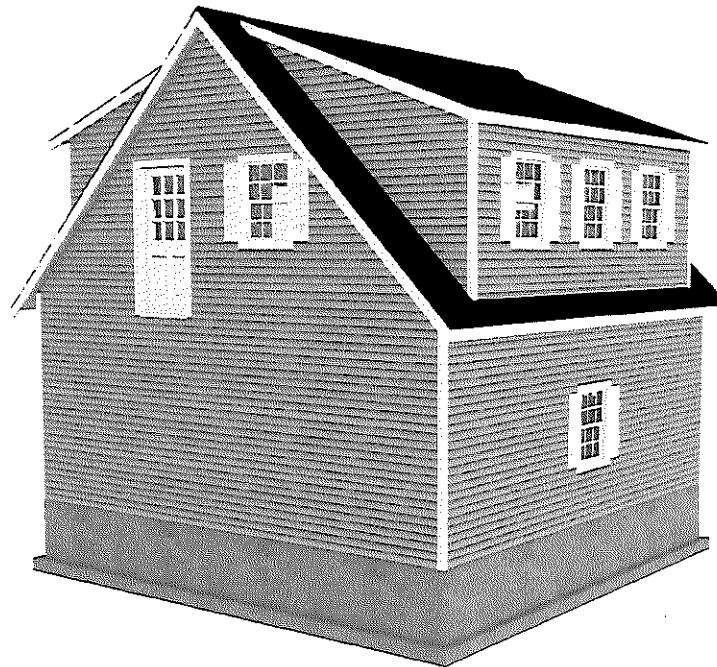
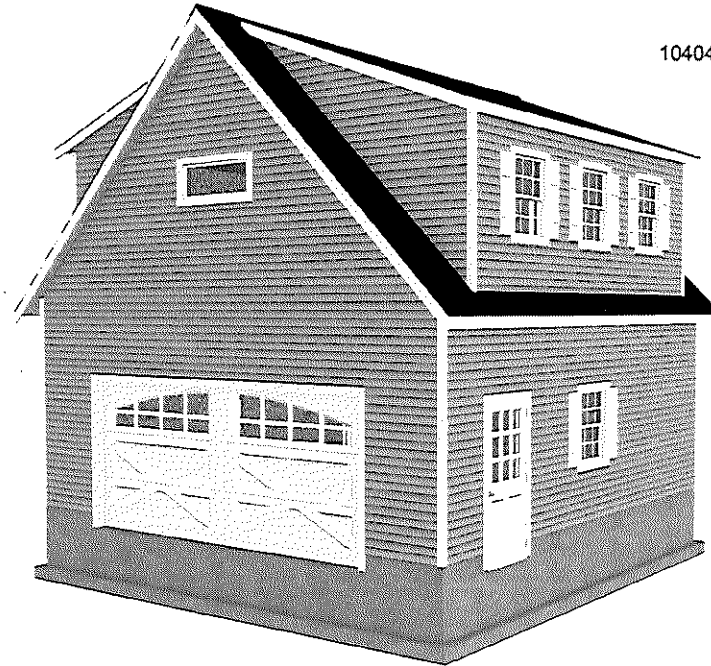
Timothy R. Royer MA Eng. Cert # 45614
 Expiration Date: 06-30-2024

Contractor:
 Country Lane Woodworking
 540 Hollander Road
 New Holland, PA 17557
 PH: (717) 351-9250

Drawing Title:
 Foundation Notes

Project:
 18'x16' Vinyl A-Frame Pavilion for
 Deanna Aheam Laird
 72 Vineyard Meadow Farms Road
 West Tisbury, MA 02575

Revised:	Date:	By:
Drawing Number: E185-23	Page: F2	
Engineered By: T. Royer	Start Date: 5/8/23	
Drawn By: K. Salyer	Certified Date: 5/8/23	



IMAGES ARE NOT TO
SCALE AND COLORS
ARE EXAMPLES ONLY

Naeem Akhter, P.E.
Consulting Structural Engineer
10404 W 154th, Overland Park, KS 66221
email: sofianaem@aol.com
Phone: 913-685-2015

SEAL:



LEGAL NOTES:

1. USING THESE PLANS, DRAWINGS, AND SPECIFICATIONS TO CONSTRUCT THE STRUCTURES OR FOUNDATIONS CONSTITUTE AGREEMENT BY THE CLIENT TO THE FOLLOWING.
2. INDEMNIFICATION
 - 2.1. THE CLIENT SHALL INDEMNIFY AND HOLD HARMLESS THE DESIGNER AND OFF OF ITS PERSONNEL & SUBCONTRACTORS FROM AND AGAINST ANY AND ALL CLAIMS, DAMAGES, LOSSES & EXPENSES (INCLUDING REASONABLE ATTORNEY'S FEES) ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE SERVICES, PROVIDED THAT ANY SUCH CLAIMS, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY THE NEGLIGENT ACT OR OMISSION AND/OR STRICT LIABILITY OF THE CLIENT, ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE CLIENT OR ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE. THIS INDEMNIFICATION SHALL INCLUDE ANY CLAIM, DAMAGE OF LOSSES DUE TO THE PRESENCE OF HAZARDOUS MATERIALS.
3. RISK ALLOCATION
 - 3.1. IN RECOGNITION OF THE RELATIVE RISKS, REWARDS & BENEFITS OF THE PROJECT TO BOTH THE CLIENT & THE DESIGNER THE RISKS HAVE BEEN ALLOCATED SO THAT THE CLIENT AGREES THAT TO THE FULLEST EXTENT PERMITTED BY LAW, THE DESIGNER'S TOTAL LIABILITY TO THE CLIENT, FOR ANY & ALL INJURIES, CLAIMS, LOSSES, EXPENSES, DAMAGES OR CLAIM EXPENSES ARISING OUT OF THIS AGREEMENT, FROM ANY CAUSE OF CAUSES, SHALL NOT EXCEED THE TOTAL AMOUNT OF \$50,000.00, THE AMOUNT OF THE DESIGNER'S FEE (WHICHEVER IS LESS) OR OTHER AMOUNT AGREED UPON WHEN ADDED UNDER SPECIAL CONDITIONS. SUCH CAUSES INCLUDE, BUT ARE NOT LIMITED TO, THE DESIGNER'S NEGLIGENCE, ERRORS, OMISSIONS, STRICT LIABILITY, BREACH OF CONTRACT OR BREACH OF WARRANTY.
4. OWNERSHIP DOCUMENTS
 - 4.1. ALL DOCUMENTS PRODUCED BY THE DESIGNER UNDER THIS AGREEMENT REMAIN THE PROPERTY OF THE DESIGNER & MAY NOT BE USED BY THE CLIENT FOR ANY OTHER ENDEAVOR WITHOUT THE WRITTEN CONSENT OF THE DESIGNER.
5. DISPUTE RESOLUTION
 - 5.1. ANY CLAIM OR DISPUTE BETWEEN THE CLIENT AND THE DESIGNER SHALL BE SUBMITTED TO NON-BINDING MEDIATION SUBJECT TO THE PARTIES AGREEING TO A MEDIATOR(S). THIS AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE PRINCIPAL PLACE OF BUSINESS OF THE DESIGNER.

REVISIONS:			
	7/25/2023		

LS Est. #1015257

Job Name:

Deanna Ahearn Laird
72 Vineyard Meadow
Farms Road
Vineyard Haven, MA 02568

Sheds Unlimited LLC
2025 Valley Road
Morgantown, PA 19543

Drawn By: Eric Mannering
Sales Rep: Andrew DiRodio

DATE:
05/10/2023

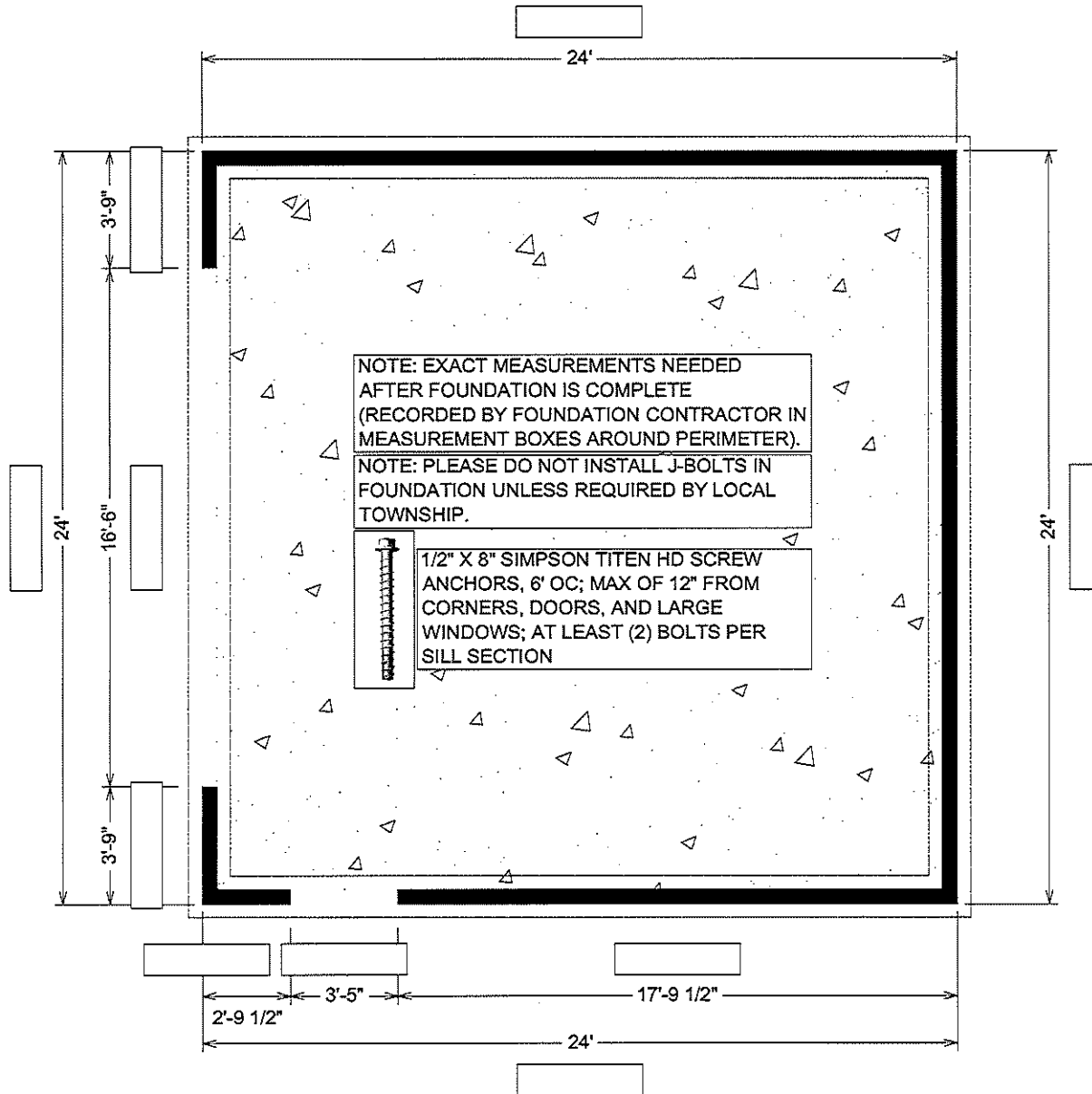
SCALE:
NTS

SHEET:
A2.2

FOUNDATION


Naeem Akhter, P.E.
 Consulting Structural Engineer
 10404 W 154th, Overland Park, KS 66221
 email: sofianaem@aol.com
 Phone: 913-685-2015

SEAL:



NOTE: EXACT MEASUREMENTS NEEDED AFTER FOUNDATION IS COMPLETE (RECORDED BY FOUNDATION CONTRACTOR IN MEASUREMENT BOXES AROUND PERIMETER).

NOTE: PLEASE DO NOT INSTALL J-BOLTS IN FOUNDATION UNLESS REQUIRED BY LOCAL TOWNSHIP.

 1/2" X 8" SIMPSON TITEN HD SCREW ANCHORS, 6' OC; MAX OF 12" FROM CORNERS, DOORS, AND LARGE WINDOWS; AT LEAST (2) BOLTS PER SILL SECTION

REVISIONS:	
7/25/2023	

LS Est. #1015257 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow Farms Road
 Vineyard Haven, MA 02568

Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannerling
 Sales Rep: Andrew DiRodio

DATE:
 05/10/2023

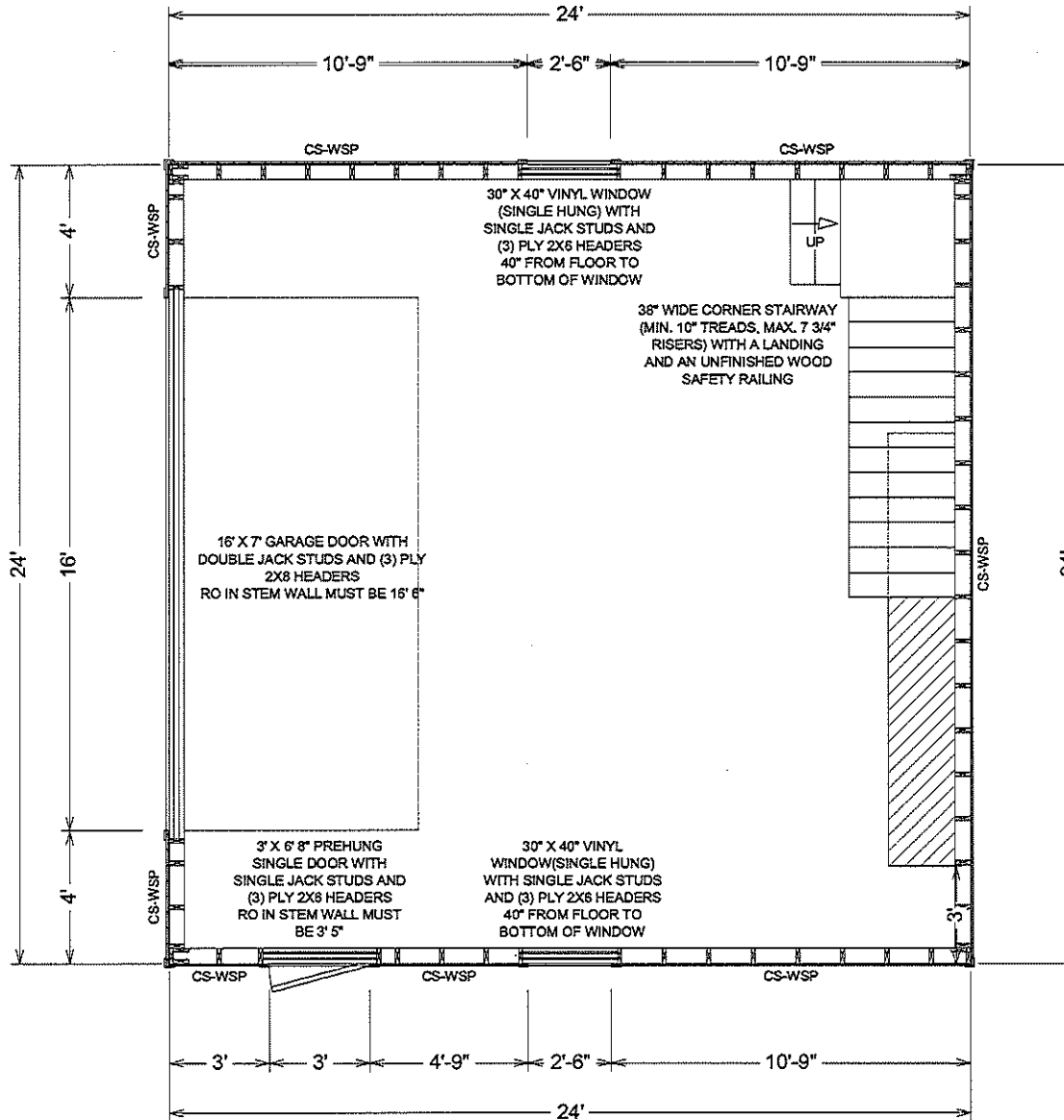
SCALE:
 3/16"=1'

SHEET:
A1.1

FIRST FLOOR

Naeem Akhter, P.E.
 Consulting Structural Engineer
 10404 W 154th, Overland Park, KS 66221
 email: sofianaem@aol.com
 Phone: 913-685-2015

SEAL:



REVISIONS:

7/25/2023	
-----------	--

LS Est. # 1015257 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow Farms Road
 Vineyard Haven, MA 02568

Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannering
 Sales Rep: Andrew DiRodio

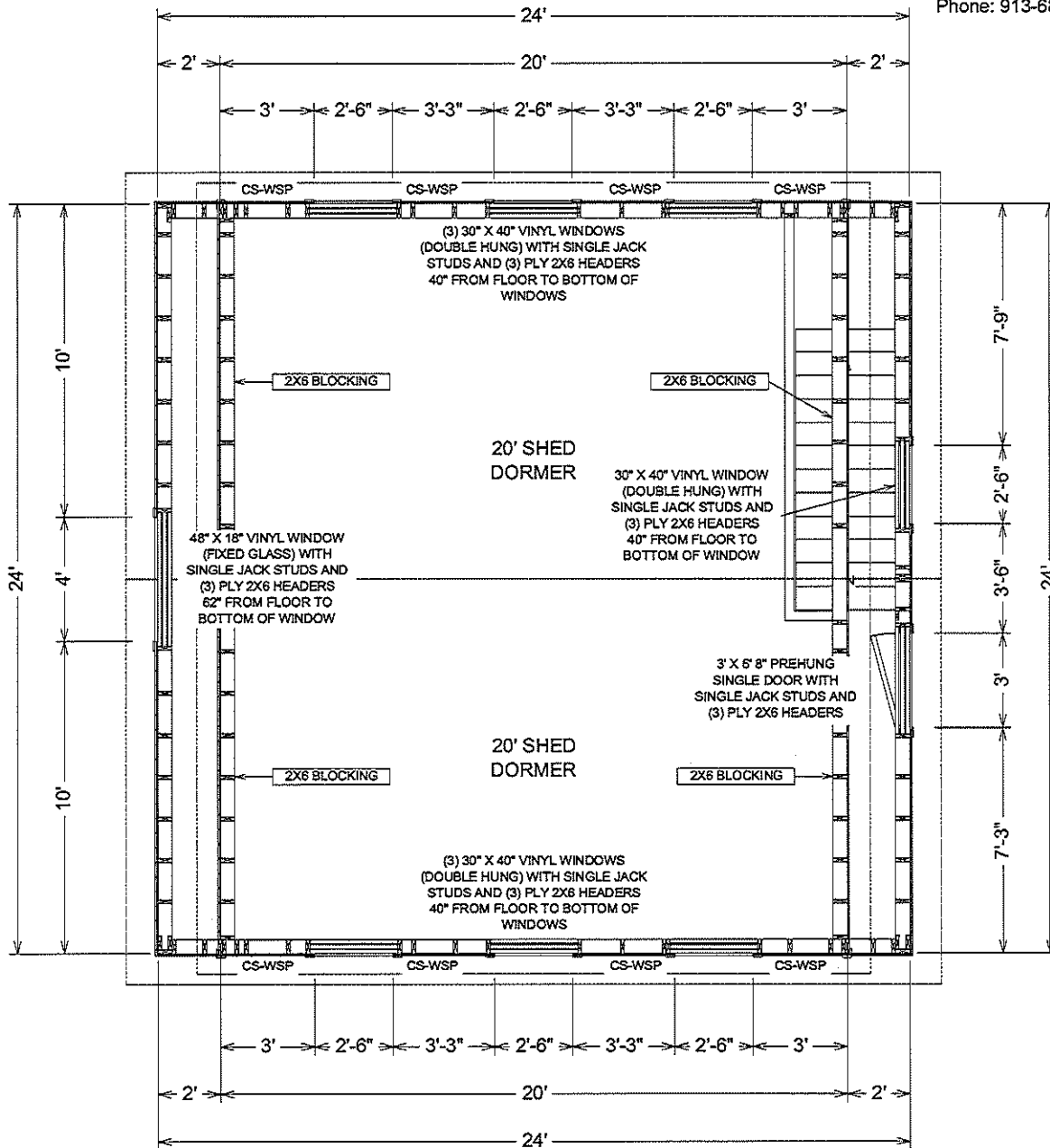
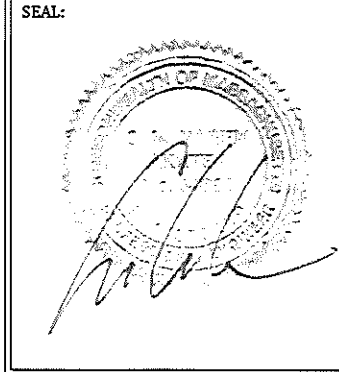
DATE:
 05/10/2023

SCALE:
 3/16"-1'

SHEET:
A1.2

SECOND FLOOR/GYM & OFFICE

Naeem Akhter, P.E.
 Consulting Structural Engineer
 10404 W 154th, Overland Park, KS 66221
 email: sofianaem@aol.com
 Phone: 913-685-2015



REVISIONS:	
	7/25/2023

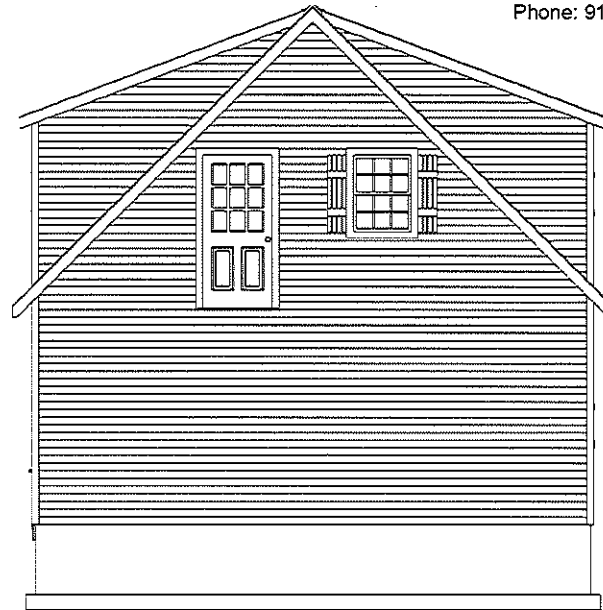
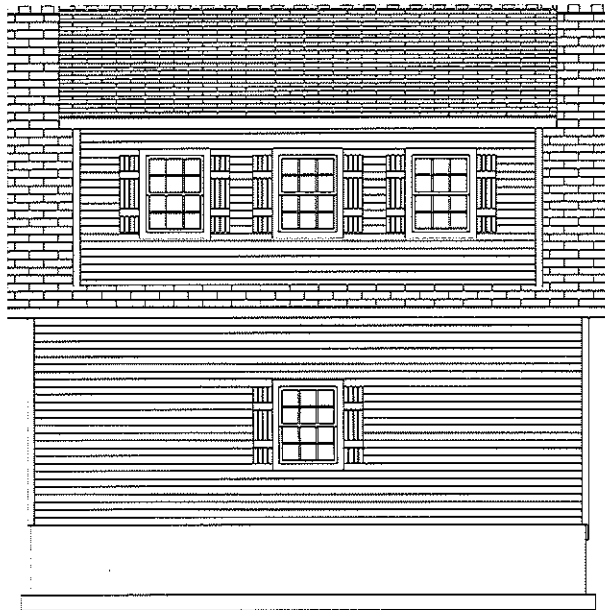
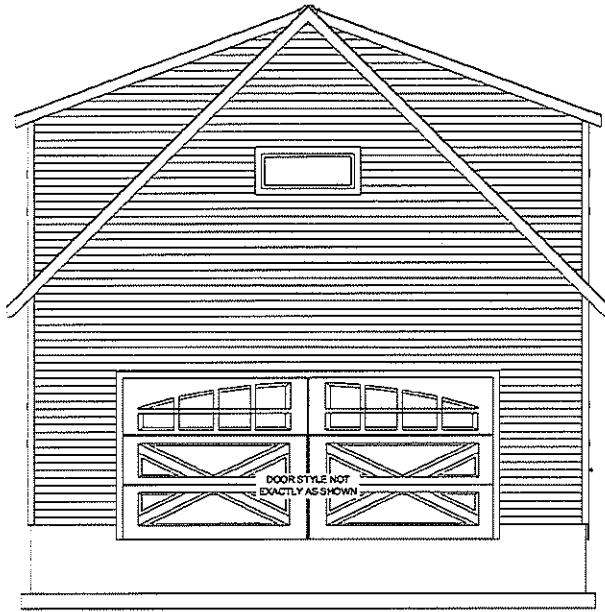
LS Est. #1015257 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow Farms Road
 Vineyard Haven, MA 02568

Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannering
 Sales Rep: Andrew DiIrodio

DATE:
 05/10/2023

SCALE:
 3/16"=1'

SHEET:
A1.3



Naeem Akhter, P.E.
 Consulting Structural Engineer
 10404 W 154th, Overland Park, KS 66221
 email: sofianaem@aol.com
 Phone: 913-685-2015

SEAL:



REVISIONS:	
	7/25/2023

LS Est. # 1015257 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow
 Farms Road
 Vineyard Haven, MA 02568

Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannerling
 Sales Rep: Andrew DiRodio

DATE:
 05/10/2023

SCALE:
 1/8"=1'

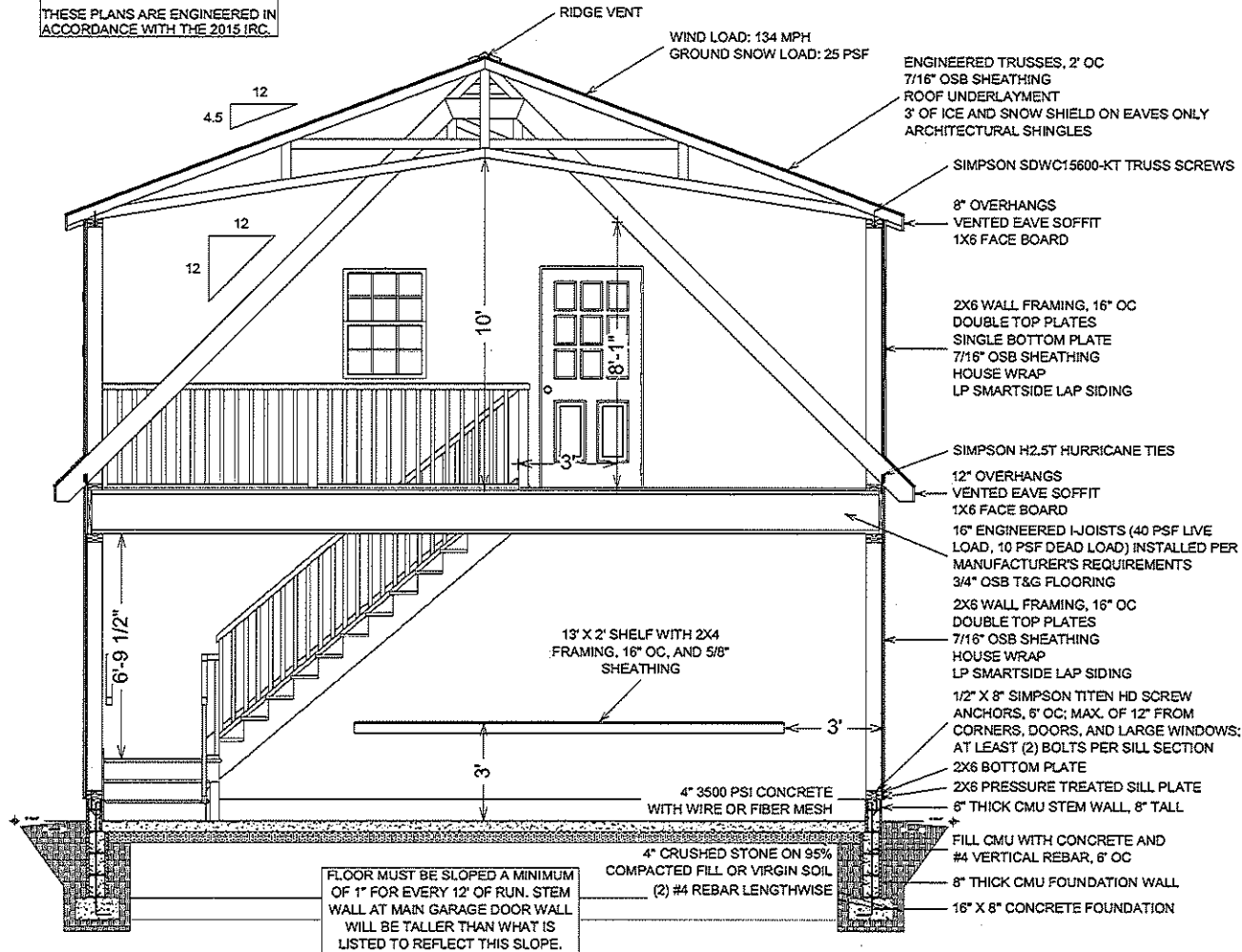
SHEET:
A2.1

Naeem Akhter, P.E.
 Consulting Structural Engineer
 10404 W 154th, Overland Park, KS 66221
 email: sofianaem@aol.com
 Phone: 913-685-2015

SEAL:



THE FASTENING SCHEDULE TO BE IN ACCORDANCE WITH THE 2015 IRC UNLESS OTHERWISE NOTED.
 THESE PLANS ARE ENGINEERED IN ACCORDANCE WITH THE 2015 IRC.



FLOOR MUST BE SLOPED A MINIMUM OF 1" FOR EVERY 12" OF RUN. STEM WALL AT MAIN GARAGE DOOR WALL WILL BE TALLER THAN WHAT IS LISTED TO REFLECT THIS SLOPE.

REVISIONS:		
	7/25/2023	

LS Est. # 1015257 Job Name:
 Deanna Ahearn Laird
 72 Vineyard Meadow
 Farms Road
 Vineyard Haven, MA 02568

Sheds Unlimited LLC
 2025 Valley Road
 Morgantown, PA 19543
 Drawn By: Eric Mannerberg
 Sales Rep: Andrew Difrodio

DATE:
 05/10/2023

SCALE:
 3/16"=1'

SHEET:
A3.1