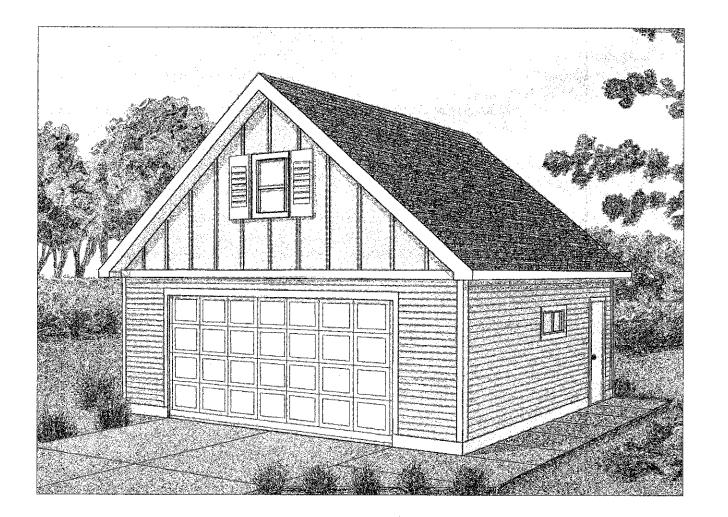
| Garage Size | 24' x 26' | 26' x 26' | 26' x 28' | |
|--|---|--|--|---|
| Description | Quantity | Quantity | Quantity | Material |
| Framing Sill Plates | 1 Pc. | | _ | 2x4-8' Treated |
| SIII Fidies | 5 Pcs. | | | 2x4-0 Treated |
| | 2 Pcs. | フ Pcs. | 7 Pcs. | 2x4-14' Treated |
| | 1 Pc. | | _ | 2x6-8' Treated |
| | 5 Pcs. | _ | ****** | 2x6-12' Treated |
| | 2 Pcs. | 7 Pcs. | 7 Pcs. | 2x6-14' Treated |
| Sill Sealer | 84 Lin. Ft. | 88 Lin. Ft. | 92 Lin. Ft. | |
| Studs | 96 Pcs. | 104 Pcs. | 112 Pcs. | Pre-Cut 2x4s |
| Top Plates | 12 Pcs. 4 Pcs. | 8 Pcs. | 4 Pcs. | 2x4-12' |
| Door & Window Headers | 3 Pcs. | 8 Pcs. 3 Pcs. | 12 Pcs. 3 Pcs. | 2x4-14' 2x8-8' |
| Door & Window Fiedders | 2 Pcs. | 2 Pcs. | 2 Pcs. | 2x8-10' |
| Door & Window Header Spacers | 4 Pcs. | 4 Pcs. | 4 Pcs. | 1/2"x8"-8' Plywood |
| Let-In Bracing | 6 Pcs. | 6 Pcs. | 6 Pcs. | 1×4-12' |
| Overhead Door Header | 1 Pc. | 1 Pc. | 1 Pc. | 3-1/2"x14"x16' Microlam |
| Surround | 2 Pcs. | 2 Pcs. | 2 Pcs. | 2×4-8' |
| f. г. · | 1 P c. | 1 Pc. | 1 Pc. | 2x6-16' |
| oft Framing | | - | <u> </u> | 011 5 |
| Support Columns Microlam Beam | 2 Pcs. 1 Pc. | 2 Pcs. 1 Pc. | 2 Pcs. | 3" Diameter |
| victorant beath | I FC. | rc. | 1 Pc. | 3-½"×11-%"-23' 3-½"×11-%"-25' |
| Rim Joists | 6 Pcs. | — 4 Pcs. | 2 Pcs. | 2x10-12' |
| - | 2 Pcs. | 4 Pcs. | 6 Pcs. | 2x10-12' |
| Floor Joists | 39 Pcs. | | | 2×10·12' |
| | | 39 Pcs. | 42 Pcs. | 2×10-14' |
| Plywood Subfloor | 18 Pcs. | 19 Pcs. | 21 Pcs. | 4x8x¾" Plywood |
| .oft Sill Plates | 6 Pcs. | 4 Pcs. | 2 Pcs. | 2x4-12' |
| Paul da y e f | 2 Pcs. | 4 Pcs. | 6 Pcs. | 2x4-14' |
| Stair Materials | 2 Dec | 2 P | 2 P | 010.141 |
| Stair Stringers Stair Treads | 3 Pcs. 14 Pcs. | 3 Pcs. 14 Pcs. | 3 Pcs. 14 Pcs. | 2x12-16' 2x12x4' |
| Stair Risers | 14 rcs. 15 Pcs. | 14 Pcs. 15 Pcs. | 14 Pcs. 15 Pcs. | 2x+2x4 1x8-4' |
| Hand Rail Posts | 2 Pcs. | 2 Pcs. | 2 Pcs. | 2x4-14' |
| Handrails | 2 Pcs. | 2 Pcs. | 2 Pcs. | 2x4-16' |
| Guardrail | 6 Pcs. | 6 Pcs. | 6 Pcs. | 2x4-14' |
| xterior Materials | | | | |
| Corner Trim Boards | 8 Pcs. | 8 Pcs. | 8 Pcs. | 1x4-8' Cedar |
| ap Siding | 672 Sq. Ft. | 704 Sq. Ft. | 756 Sq. Ft. | |
| rieze Boards | 4 Pcs. | | | |
| exterior Hardboard Siding | 15 Pcs. | 4 Pcs. 16 Pcs. | 4 Pcs. 18 Pcs. | 1x8-14' Cedar 4x8 Sheets |
| Window & Door Flashing | 32 Lin, Ft. | 32 Lin. Ft. | 32 Lin. Ft. | Metal Head Flashing |
| Prehung Service Door | 1 Pc. | 1 Pc. | 1 Pc. | 3'x7' |
| Vindow | 2 Pcs. | 2 Pcs. | 2 Pcs. | 16"x42" Sliding |
| | 1 Pc. | 1 Pc. | 1 Pc. | 24"x36" Single Hung |
| Asphali Impregnated Sheathing | 37 Sheets | 39 Sheets | 40 Sheets | 4'x8'-½" |
| Battens | 14 Pcs. | 14 Pcs. | 14 Pcs. | 1x2-12' Cedar |
| Decorative Shutters Dverhead Garage Door | 4 Pcs. | 4 Pcs. | 4 Pcs. | |
| Overhead Door Kit | 1 Pc. | 1 Pc. | 1 Pc. | 16 Feet Wide |
| Brick Molding | 32 Lin. Ft. | 32 Lin. Ft. | 32 Lin. Ft. | ro reer vylde |
| Door Jamb | 32 Lin. Ft. | 32 Lin. Ft. | 32 Lin. Ft. | |
| Door Stop | 32 Lin. Ft. | 32 Lin. Ft. | | • |
| lashing | 48 Lin. Ft. | 52 Lin. Ft. | 52 Lin. Ft. | Z Flashing |
| ave and Soffit Materials | | | | Ü |
| ascia | 17 Pcs. | 18 Pcs. | 19 Pcs. | 1x8-8' Cedar |
| Sub Fascia at Rake | 12 Pcs. | | — | 2x6-12' |
| Soffit | — 5 Sheets | 11 Pcs. 5 Sheets | 13 Pcs. 5 Shoots | 2x6-141 |
| edger Nailer | 5 Sheets 17 Pcs. | 5 Sheets 18 Pcs. | 5 Sheets 19 Pcs. | 4'x8'x1½" Plywood 2x2-8' |
| rieze Board | 17 Pcs. | 16 rcs. 18 Pcs. | 19 Pcs. | 2x2-8 1x1-8' Cedar |
| Soffit Lookouts | 6 Pcs. | 6 Pcs. | 6 Pcs. | 2x2-8' |
| Roofing Materials | | | | |
| | 140 Lin. Ft. | 150 Lin. Ft. | 160 Lin. Ft. | |
| Aetal Roof Edge | 34 | 36 | 38 | Squares |
| Shingles | | 0.40.4.C= E1 | 2584 Sq. Ft. | |
| Shingles 5# Wall & Roof Building Felt | 2328 Sq. Ft. | 2484 Sq. Ft. | | |
| Shingles 5# Wall & Roof Building Felt Coofing Starter Roll | 2328 Sq. Ft. | _ | 20 Cl | At 05 1/1 0 + + 0 - 1 0 |
| Shingles 5# Wall & Roof Building Felt Loofing Starter Roll Loof Sheathing | 2328 Sq. Ft. — 35 Sheets | — 36 Sheets | 38 Sheets | |
| Shingles 5# Wall & Roof Building Felt Loofing Starter Roll Loof Sheathing Lafters | 2328 Sq. Ft. — 35 Sheets 34 Pcs. | 36 Sheets 38 Pcs. | 38 Pcs. | 2×8-20' |
| Shingles 5 # Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Cafters Cidge Board | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. | — 36 Sheets 38 Pcs. 2 Pcs. | 38 Pcs. 2 Pcs. | 2x8-20' 2x10-16' |
| Shingles 5 # Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Cafters Cidge Board Collar Ties | 2328 Sq. Ft. — 35 Sheets 34 Pcs. | 36 Sheets 38 Pcs. | 38 Pcs. | 2x8-20' 2x10-16' 2x4-10' |
| Shingles 5 # Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Cafters Cidge Board | 2328 Sq. Ft. ———————————————————————————————————— | — 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. | 38 Pcs. 2 Pcs. 6 Pcs. | 2x8-20' 2x10-16' 2x4-10' 2x4-8' |
| Shingles 5 # Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Cafters Cidge Board Collar Ties Cake Ladder Framing | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. | — 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. | 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. | 2x8-20' 2x10-16' 2x4-10' |
| Shingles 5# Wall & Roof Building Felt Loofing Starter Roll Loof Sheathing Lafters Lidge Board Collar Ties Lake Ladder Framing Sable Studs | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 16 Pcs. 10 Pcs. | — 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. — | 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. | 2x8-20' 2x10-16' 2x4-10' 2x4-8' 2x4-8' |
| Shingles 5# Wall & Roof Building Felt Loofing Starter Roll Loof Sheathing Lafters Lidge Board Collar Ties Lake Ladder Framing Sable Studs Loof Sheathing Lo | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 16 Pcs. | — 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. | 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. | 2x8-20' 2x10-16' 2x4-10' 2x4-8' 2x4-8' 2x4-12' |
| Shingles 5# Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Cafters Cidge Board Collar Ties Cake Ladder Framing Gable Studs The condition of the | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 16 Pcs. 10 Pcs. — 52 Lin. Ft. | — 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. — 52 Lin. Ft. | 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. 6 Pcs. 6 Din. Ft. | 2×10-16' 2×4-10' 2×4-8' 2×4-8' 2×4-12' |
| Shingles 1.5# Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Caffers Cidge Board Collar Ties Cake Ladder Framing Gable Studs The condition of the condition of the collar Shield Collar Shield Condition of the collar Shield Condition | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 16 Pcs. 10 Pcs. 52 Lin. Ft. | 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. 52 Lin. Ft. | 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. 6 Pcs. 60 Lin. Ft. | 2x8-20' 2x10-16' 2x4-10' 2x4-8' 2x4-8' 2x4-12' |
| Shingles 5# Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Cafters Cidge Board Collar Ties Cake Ladder Framing Cable Studs Ce and Water Shield Coated Sinker Nails Coated Sinker Nails | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 16 Pcs. 10 Pcs. 52 Lin. Ft. 30 Lbs. 50 Lbs. | 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. — 52 Lin. Ft. 35 Lbs. 55 Lbs. | 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. 6 Pcs. 60 Lin. Ft. 40 Lbs. 60 Lbs. | 2x8-20' 2x10-16' 2x4-10' 2x4-8' 2x4-8' 2x4-12' |
| Shingles 5 # Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Cafters Cidge Board Collar Ties Cake Ladder Framing Cable Studs See and Water Shield Coated Sinker Nails Coated Sinker Nails Coated Sinker Nails Coated Roofing Nails | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 16 Pcs. 10 Pcs. 52 Lin. Ft. 30 Lbs. 50 Lbs. 25 Lbs. | 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. 52 Lin. Ft. 35 Lbs. 55 Lbs. 30 Lbs. | 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. 6 Pcs. 60 Lin. Ft. 40 Lbs. 60 Lbs. 35 Lbs. | 2x8-20' 2x10-16' 2x4-10' 2x4-8' 2x4-8' 2x4-12' |
| Shingles 5# Wall & Roof Building Felt Coofing Starter Roll Coof Sheathing Cafters Cidge Board Collar Ties Cake Ladder Framing Cable Studs Ce and Water Shield Coated Sinker Nails Coated Sinker Nails | 2328 Sq. Ft. 35 Sheets 34 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 16 Pcs. 10 Pcs. 52 Lin. Ft. 30 Lbs. 50 Lbs. | 36 Sheets 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. — 52 Lin. Ft. 35 Lbs. 55 Lbs. | 38 Pcs. 2 Pcs. 6 Pcs. 13 Pcs. 12 Pcs. 8 Pcs. 6 Pcs. 60 Lin. Ft. 40 Lbs. 60 Lbs. | 2x8-20' 2x10-16' 2x4-10' 2x4-8' 2x4-8' 2x4-12' |

The materials and quantities listed for this plan are estimates only. We suggest you carefully review the above materials and quantities before purchasing. Your building materials supplier will help with any questions concerning materials, availability and quantities.



THE WILLISTON Two-Car Gable Entry Garage with Loft

Instructions

Save time and avoid mistakes later... take a moment to carefully study each plan sheet now.

Evaluate Your Needs

When evaluating your needs, consider the purpose of your new garage. Will it be used as shelter for your cars and a workshop, or for storage of bicycles, a lawn mower, gardening equipment and household items?

Once you determine the purpose of your garage, it is recommended that you check with your local building department concerning local restrictions that may limit its size. Then, obtain a building permit from the appropriate officials.

Your successful garage begins with proper site planning. Consider the proximity of the structure in relation to the house, location of the driveway and the size of the garage, in comparison to your lot size and dimensions. It's also a good idea to fit your garage around your land-scaping and your neighbors' buildings. Also, determine the locations of all windows and doors to ensure optimum light, storage and security.

Before starting construction, contact your local utility companies to locate and identify underground utilities (gas, water, sewer, septic system, cable television lines, etc.).

Options

As you examine this plan and your needs concerning the use of this garage, you may wish to keep in mind the many available options. Some options to consider before building are: trusses, electrical switch and outlet placement, siding type, a walkway around the garage, insulation, sewer and water, and the many different styles of windows, skylights and privacy doors. Take a moment to consider these and other options before you begin construction.

Remember, take your time in making your decisions. If you make an error in a project this big, the mistake can be huge and expensive.

Tip from the Pros: Before building, use stakes and string to mark the area where your garage and driveway will be constructed. This will give you a better picture of the exact size and location of the garage on your building site, and ensure continuity with your neighbors' buildings.

Please Note:

This plan has been developed for the experienced do-it-your-selfer, and is intended for use by knowledgeable persons trained in and familiar with generally accepted construction methods, techniques and standards. This project should not be attempted by anyone without these qualifications.

Although the architectural drawings in this plan carefully follow professional building standards and requirements, your building codes may differ. Somerset Publishing strongly recommends that you have your local building inspector review these plans before beginning construction, and have your work inspected at different stages. All building codes supersede the enclosed architectural drawings and step-by-step construction information.

Read through and understand these instructions completely before you begin construction. The instructions included in this plan are as clear, concise and comprehensive as possible, however, they are not intended to be the final word in construction. It may be wise to obtain a good reference book to aid you in the understanding of these instructions.

Tip from the Pros: When ordering materials include an extra 12 studs and 12 extra 16-ft 2x4's to use as temporary braces and to replace any badly warped wood. Also, order the framing materials, including roofing plywood and shingles, for delivery first. Then, call for the finish materials after you get the garage roof on and have a place to store them



Construction

Check building code requirements for side and rear building set backs from property lines. Then check the drainage of your location and make any landscaping changes necessary to direct moisture away from the site.

Foundation and Floor

This plan has three foundation options: floating slab, concrete block wall, and a poured concrete wall. See Details A, B and C. When determining which foundation plan is best for you, consider your climate, resources and local building codes. Check with your local building department, or inspector, on which option applies to the building codes in your area.

Accurate foundation work is critical to the success of this garage. In order for the walls and roof to be constructed as this plan calls for, the garage foundation must be level, square, and built to the exact dimensions as specified in this plan. To successfully work with concrete you are dependent upon many factors, which include: building of proper forms, depth and thickness of the concrete, the concrete mix, and setting time. Because of this, we strongly recommend you hire a contractor who specializes in concrete work.

Framing the Structure Wall Framing

Tip from the Pros: Before you begin assembling the wall frame, make sure you have chosen the windows, overhead garage door and entry doors for your structure. Then use the manufacturer's rough opening and installation guidelines when constructing the wall frame.

1. Check the foundation to make sure it is square. Measure the diagonals between the opposite corners of where the sill plates will attach to the foundation. In order to maintain square, the lengths of these diagonals must match exactly when the sill plates are installed. If not, placement of the sole plates on the foundation can be adjusted slightly to square the framing.

Continued to page 2

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THE WILLISTON

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Tip from the Pros: Building codes require that any wood within 8" of the ground (6" in some regions) be either pressure treated or a rot resistant species like heartwood of cedar or redwood. Pressure treated wood is much less expensive.

3. Refer to Wall Framing Elevations. Assemble and erect wall frames one side at a time, and if you don't have many helpers, assemble larger walls in smaller sections. Start with a side wall and cut the top plates and the 2x4 sill plates to length and lay them next to each other. Make sure the joints of the top plates and the sill plates are staggered by at least four feet, and are located over the center of a wall stud. Now mark stud locations for both the top and sill plates. Consider window and door placement at this time.

Money Saving Tip: One way to cut costs is to select a wall sheathing with a finished exterior, so you don't have to add siding.

4. Lay the top and sill plates apart and on edge, parallel to each other, and place studs in between the plates where marked. Attach the sill and top plates to the studs by nailing through the plate and into the stud with 16d (3-1/2") nails. If fire blocks are required, install them 4' above the bottom of the sole plate in a staggered pattern. For door and window placement, check the manufacturer's rough opening dimensions and installation guidelines and install rough openings now.

Tip from the Pros: The first stud after the corner stud (or studs) should start 15-1/4" from the corner of the garage, so the edges of the sheathing fall on the centers of the studs.

- 5. Nail together two 2x8s with a ½" plywood spacer to use as headers over the service door and windows.
- 6. Install extra studs at one corner where the wall frames meet. See Corner Framing Detail D.
- 7. Now is a good time to add a section of the second top plate over any joints on the longer walls. This helps to make the wall frame more stable as it is raised.
- 8. With the frame still lying on its side, check for square by measuring corner to corner diagonally. These measurements must be equal. If not, adjust the frame until the measurements are equal. To keep the frame square, install 1x4 let-in bracing, see Framing Detail.
- 9. Transfer anchor bolt placement to the 2x4 framing sill plates.

Important: In this garage design, the side wall opposite the stairs supports the loft beam. To accomplish this, three 2x4 studs are nailed together in the side wall. See the garage Floor Plan, Framing Elevations and Building Cross Section H for additional details.

- 10. You can add sheathing to the wall now, or after it has been raised. If you add sheathing at this point, it will add a lot of weight and you will need plenty of help in raising the wall. Sheathing is recommended on the front of the garage, let-in bracing is impractical because of the garage door opening.
- 11. Raise the wall. For this step get some helpers to assist you in "walking up" the wall to its correct position. Once the wall is in place, brace the wall with 2x4 braces and check the wall for plumb, start with the ends first, then check the middle of the wall. Make any corrections by adjusting the braces. Check the wall for square, measure the diagonals and make any necessary adjustments.
- 12. Frame and raise the other walls in the same manner.
- 13. When each wall is aligned and square, secure the sill plates to the foundation by tightening the nuts and washers to the anchor bolts. Check the corners for plumb, then nail the end walls into the corner posts.
- 14. When the corners have been secured, add the second top plate to all walls. Make sure the joints are staggered from the first top plate joints by at least 4. Remember to overlap the second top plate at the corners, as shown in the **Framing Detail**.

Setting the Overhead Door Header

Installing the overhead door header is easy, however, we recommend you hire a professional to install the overhead garage door. Installing the garage door's tension spring is very tricky and can be very dangerous when done incorrectly.

- 1. Move to the front of the garage and frame the two short walls on each side of the garage door. Make sure each side of the garage door has two trimmer studs.

 Refer to the overhead door manufacturer's rough opening instructions for exact measurements.
- 2. Cut the Microlam header to length and place it on top of the trimmers. Once it is in place, nail through the king stud into the header.
- 3. The header is heavy, make sure you securely brace the short walls to keep them stable.
- 4. Measure, cut, and install the cripple studs every 16" o.c. on the top of the header. Then install the top plates over the cripple studs.

Sheathing

Install the sheathing on the wall frames if you have not done so already. Start at one corner of the building and work your way around. Make sure the sheathing hangs below the foundation's 2x6 sill plate by at least ½!

Install the Steel Support Columns and Interior Beam

- 1. **See Sections E and F** for steel column and beam installation. Install the steel columns over the footings according to manufacturer's instructions.
- 2. Install the loft beam over the bearing column and the support beams.

Important: The beam called for in this plan is a different height than the loft floor joists. You will have to notch the top plates over the wall's support column to receive the beam. This will keep the top of the beam level with the top of the joists.

3. Adjust the columns to level and support the beam.

Room in the Attic Truss Option

The "Room in the Attic" truss allows you to build a garage, with a loft, without installing floor joists and building rafters. This truss option does not provide all of the storage space that we have designed in this plan, but it is much simpler, less costly and less time consuming to build. Consult with your building materials supplier about pitch and span availability.

Flooring Joists for the Loft

- 1. See Floor Joist Framing Plan. Across the front of the garage, lay out the locations of the flooring joists every 16" o.c. across the double top plate and transfer these locations to the interior beam, making sure the joists are square to the beam.
- 2. Measure each joist and cut to length, allowing 1-1/2" for the rim joist. Nail joist hangers on one end of the joist and install the joists in their locations. Don't forget the double joist and header for the stairs.
- 3. On the front of the building, install the loft rim beam on the double top plate and nail through the loft rim beam into the floor joists.
- 4. On the other side of the loft floor, transfer the joist locations from the beam to the double top plate. Finish this side as the first.
- 5. After the floor joists are up, install the bridging between the joists. Bridging keeps the joists from twisting and adds strength to the structure.

Laying the Loft Floor

- 1. See Section H, Framing Elevations and the Floor Joist Framing Plan. Flooring must be installed perpendicular to the joists. From the front of the building, measure 48" out from the rim joist on both sides of the garage and snap a chalk line across the joists. Lay the first row of flooring with edges flush to the chalk line, making sure the flooring joints fall on a joist, and nail into place.
- 2. Begin the second row with a half sheet of flooring. This will stagger the joints from row to row. Finish the flooring.
- 3. Next, add the loft sill plates around the edges of the loft flooring. The rafters and gable end studs will be toe nailed into the sill plates.

Installing the Stairs

See Stair Detail in Section H. This plan assumes that there will be fourteen risers and thirteen steps. It is likely that your garage may be different. Building codes for stairs and railings vary in different parts of the country. Check your local codes and with your building inspector before and during stair construction. Also, get yourself a good reference book to supplement the stair detail.

Tip from the Pros: Here are some general step building rules to follow. Keep each step the same height. The standard height for each step is from 7 to 7-1/2 inches; the standard tread is from 11 to 12 inches deep. You can reduce the height of each step to as little as 5 inches. If you do this, increase the tread depth by the same amount you reduce the height

An option you may wish to consider are folding stairs. Folding stairs come in a kit and attach to the loft joists or trusses. When you need access to the loft, you simply pull the stairs down from the garage ceiling. When you are finished, the stairs fold up neatly, back into the ceiling. Folding stairs are very convenient and will provide you with more floor space in your garage.

Framing the Roof Hand Framed Rafter

Choose the roof pitch option you prefer. These instructions are based on the assumption that you have built your garage to the exact width of the plan. Caution: If the width of the garage varies by more than 1," the correct rafter length will have to be determined. Use a reference book that details roof construction in addition to these instructions.

- 1. See Rafter Templates. Cut one rafter and use as a template. Temporarily install this rafter and check the fit of the bird's-mouth and tail cuts. If the first rafter is cut correctly, use it as a pattern in building the rafter for the other side. Hold the rafters in place with a scrap of wood the thickness of the ridgebeam. Then, check the fit of the rafters at both sides of the building and their slope. If the fit is correct, use the first rafter as a pattern for the others.
- 2. The gable endwalls require framing different from the rafters. Do not set the first rafter on the end of the building, the first rafter should be placed no more than 24" in from the end of the garage.
- 3. Starting on one side of the garage, toenail the rafter into the loft sill plate and use a metal anchor to fasten the rafter to the loft rim beam. At the ridge, toenail through the rafter into the ridge board or through the face of the ridge board into the rafter. Remember the ridge board must extend over the edge of the garage to support the rake ladder framing. See Detail G.
- 4. Support the other end of the ridge board with a temporary brace, making sure the ridge board is level.
- 5. From the first rafter, lay out the other rafter positions (usually 24" o.c.) on the loft sill plate. The last rafter placement will vary depending on the length of your garage, but must be no more than 24 inches.
- 6. Transfer the rafter locations to the other end of the garage and to the ridge board. Now construct and install the remaining rafters.
- 7. See Section H. Install collar ties. Make sure when you install the collar ties, you give yourself plenty of headroom. Nail the collar ties into the rafter as shown on the plan.

Gable End Wall Framing

- 1. See Detail G. The easiest way to build the gable end wall and the rake is to first construct the 2x4 ladder framing for the rake. Determine the length of the 2x4 ladder by measuring from the rafter to the edge of the rake. Take into consideration the thickness of the fascia and the sub fascia.
- 2. To determine the length of the 2x4 gable end wall top plate, measure from a rafter tail to the ridge board. This will be the length of the top plate.
- 3. Pre-assemble the ladder framing by nailing the 2x4 lookouts to the 2x4 gable endwall top plate every 16" o.c. Then, with some help, lift the ladder framing into place and temporarily brace. Nail through the rafter into the end of the lookouts with 16d nails.
- 4. Each gable end wall stud must be individually measured, cut, and beveled then placed directly over a wall framing stud. Toe nail the studs into the loft sill plate and into the gable wall top plate

Now the Roofing

Tip from the Pros: If your roof has a steep pitch or if you feel somewhat insecure about working on a roof, nail 2x4 cleats to the roof to provide safer footing. Also, sawdust on the roof sheathing makes for a very slippery surface, use caution.

- 1. Install the 1x8 cedar fascia to the ends of the rafter tails, the 2x6 sub fascia and 1x8 fascia to the gable ladder ends as shown in **Detail G.** Miter the corners for a neater appearance.
- 2. To install the roof sheathing, measure up 48-1/4" from the ends of the eaves and snap a chalk line as a guide when installing the first row of sheathing. This will keep the sheathing square to the trusses. The ends of the plywood sheathing should fall on the center of a truss and overlap the gable overhangs.

Tip from the Pros: Rafters have a tendency to warp a bit. It is a good idea to mark the upper edge of the sheathing every 24" and align the center of the rafters with your marks to keep them running straight.

- 3. Attach the sheathing, starting at the rafter tail ends and work up. As you work up, stagger the sheathing joints so they don't align on the same rafter as the previous row. Use 8d nails to fasten the sheathing to the trusses spaced 6" along the edges and 12" elsewhere.
- 4. Snap a chalk line along the outside edge of the gable overhang and trim the overlapping sheathing.
- 5. Attach the metal drip edge along the lower roof edges.
- 6. Install the roofing starter material over the lower roof edges to at least 12" over the stud wall. Cover the remainder of the sheathing with 15 lb. roofing felt. Starting at the base, work up, stapling or tacking each row. Overlap the previous row by 12."
- 7. Then nail the metal roof edge up the gable edges of the roof, placing it over the felt.
- 8. Now comes the fun part, shingling. Follow the manufacturer's instructions closely, they are printed on each bundle of shingles.

Next the Soffits

- 1. See the soffit detail in Construction Section H and Detail G. Install a 2x2 ledger board on all sides of the garage. The bottom of the ledger should be level with the bottom of the rafter tails. Install the fascia over the rafter tail.
- 2. Place the lookouts next to each rafter tail and between the fascia and the ledger, making sure it is level. Toe nail the lookout to the ledger and nail to the rafter tail and fascia. Install the soffit, nailing to each lookout and rafter tail.
- 3. The frieze board is installed after the sheathing and before the siding.

Continued to page 4

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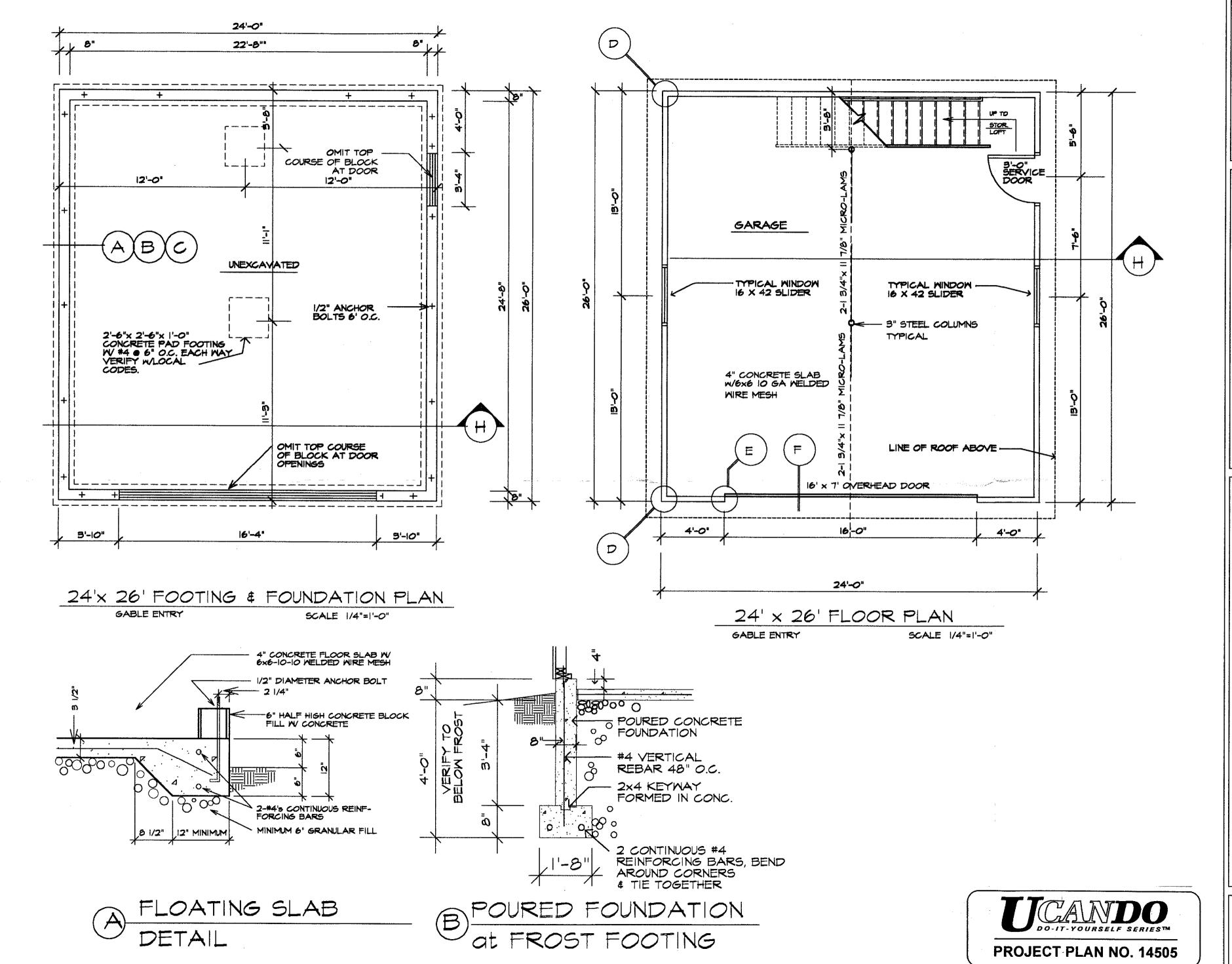
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The Siding is Next

Tip from the Pros: The siding you choose determines when you can install optional doors and windows. Follow the manufacturer's instructions when installing the siding.

GABLE ENTRY

Stucco Board, Plywood or Sheet Siding

1. Start installing the siding where you began the framing layout. Make sure the first sheet you lay is plumb and square to the building. Extend the siding ½" below the sole plate.

2. Make sure the siding edges meet over a stud. If the siding does not have overlapping joints, install a "batten" over the joint to keep the weather out.

SCALE 1/4"=1'-0"

- 3. If your garage needs more than one row of siding, make sure to install flashing between the top and lower panels.
- 4. Install trim on the corners of the building and where the siding meets the soffit.

Lap Siding

- 1. Lap siding must go over sheathing. Follow manufacturer's instructions.
- 2. Begin at the bottom of the building making sure the siding is level and straight. Use a chalk line and level to check your work. The first row of siding must extend ½" below the sole plate.

Details, Details, Details

Caulk the joints between the siding and all trim, and on any exposed joints. Seal the concrete floor, paying attention to the concrete supplier's instructions. Add electricity if desired. Paint or stain the exterior. Install any gutters and downspouts after painting. Enjoy your new garage!

Specifications

GABLE ENTRY

Design Loads

This structure is designed to withstand a live load of 40 pounds per square foot (P.S.F.). Roof bearing capacity can be altered by changing the size and spacing of the rafters. Check your local building code for local requirements. The size of the footings shown is based on a soil bearing pressure of 2000 P.S.F. Uplift has not been considered in the design of this building. All concrete must reach a minimum 28-day compressive strength of 3000 P.S.I. All lumber should be exterior grade with an allowable elasticity (e) of 1,400,000 P.S.I. and Fiber Stress in Bending of 1150 P.S.I.

Dimensions

SCALE 1/4"=1'-0"

Written dimensions take precedence over scale dimensions. Plan drawings take precedence over written instructions. For questions concerning the interpretation of this plan call 612-789-0618.

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26' × 26' LOFT PLAN

SCALE 1/4"=1'-0"

GABLE ENTRY

26' × 26' FLOOR FRAMING PLAN

GABLE ENTRY

SCALE 1/4"=1'-0"

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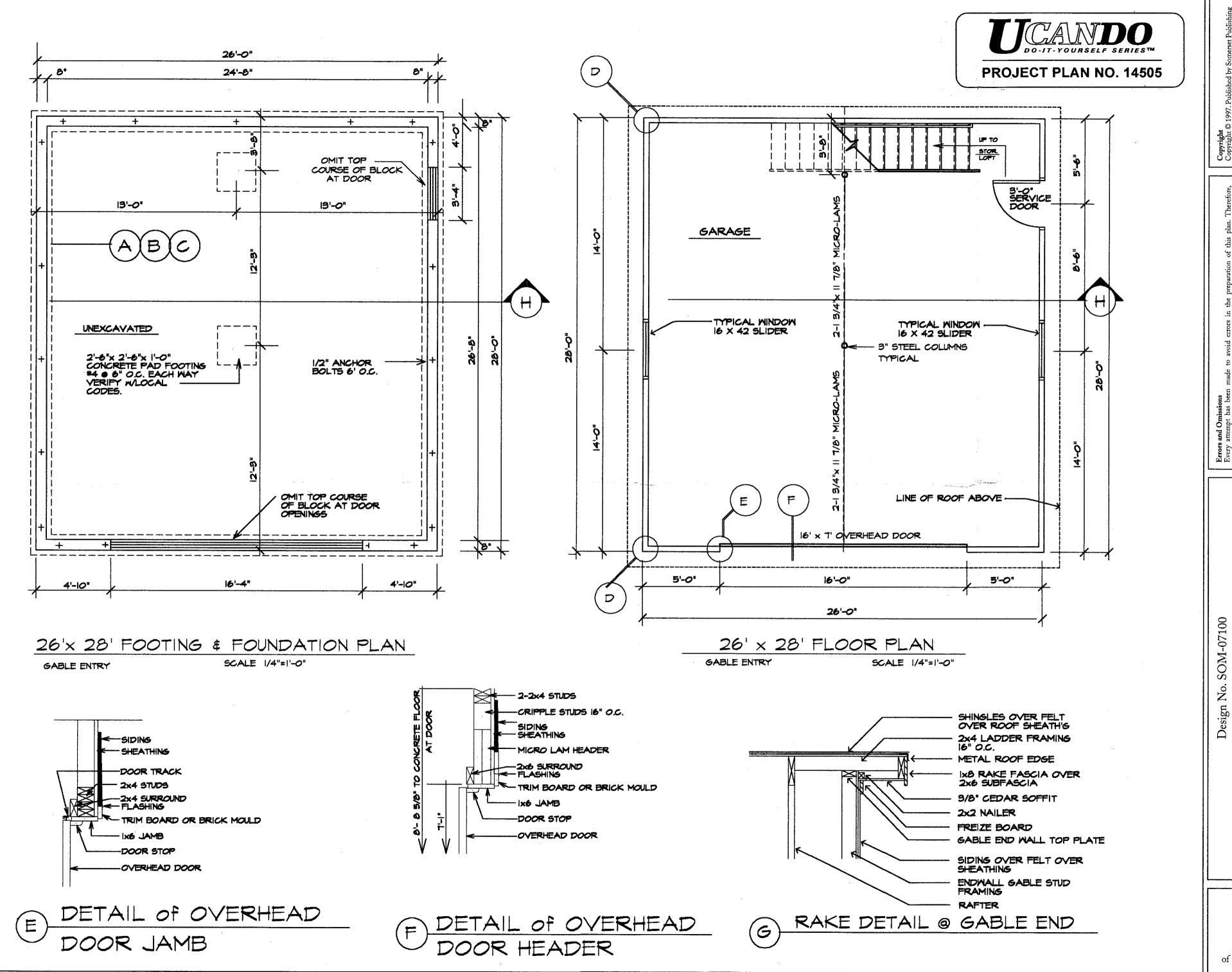
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26' x 28' LOFT PLAN

SCALE 1/4"=1'-0"

GABLE ENTRY

26' x 28' LOFT FRAMING PLAN

GABLE ENTRY

SCALE 1/4"=1'-0"

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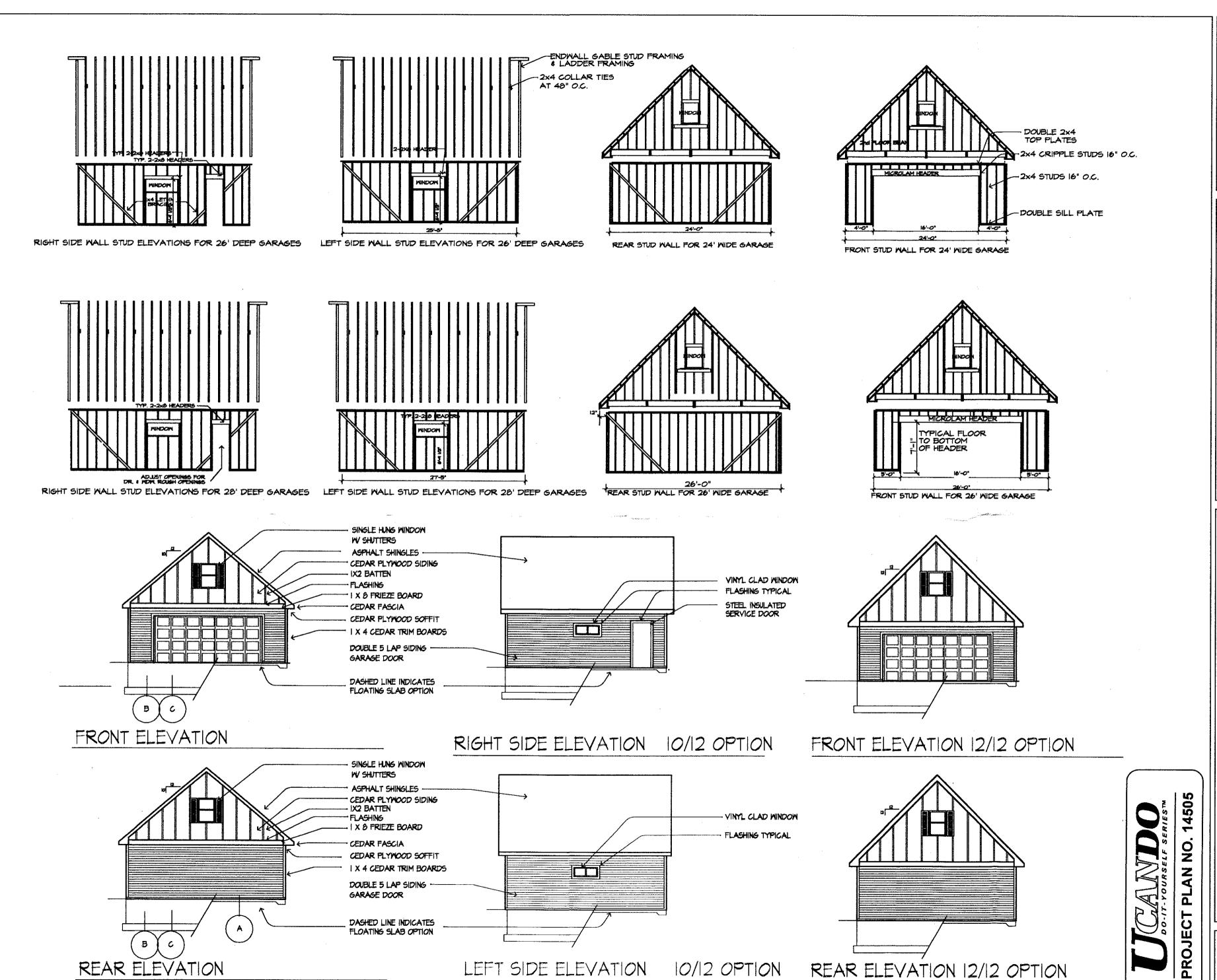
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LEFT SIDE ELEVATION

10/12 OPTION

REAR ELEVATION 12/12 OPTION

DASHED LINE INDICATES FLOATING SLAB OPTION

B

REAR ELEVATION

WILLISTON

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