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A Self-Help Process For Low Cost Housing Construction in Pittsburgh

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by Dennis H. Parr¹

INTRODUCTION

A unique self-help program for low cost housing construction has become extremely popular in Western Pennsylvania and Northern West Virginia. In addition, this type of housing construction has provided an excellent, low cost, high quality home at a significant savings over comparable tailor-made structures.

In this type of construction process, the component parts of each new home are built to the specifications and blueprints of the individual customer at the main assembly plant of Lincoln Homes in Elizabeth, Pennsylvania. The largest components built at the Lincoln Plant are the exterior walls. These are preassembled in a special jig where the siding, if desired, is applied and primed. Windows are hung and glazed, and all roof trusses fabricated from select structural grade lumber. Prefabricated door headers and interior partition walls, along with prehung exterior doors are also assembled at the plant.

THE BASIC HOME

Each home is designed for a full basement, crawl space or concrete slab foundation. Supporting girders furnished are 6 x 10 wood laminated Douglas Fir. Sill plates are 2 x 6 with 2 x 8 optional at extra cost. Floor joists are 2 x 8 with increased dimensional sizes provided as required by increased span lengths. Metal or wood bridging is furnished as required. Sub-floor sheathing is 1/2 inch CD plywood or 1 x 8 wood sheathing. Basement stairs are prefabricated with 2 x 10 wood treads.

All exterior walls are completely factory assembled with grade stamped lumber, consisting of 2 x 4 bottom plates, 2 x 4 studs on 16 inch centers and double 2 x 4 top plates. Sheathing is 1/2 inch asphalt impregnated insulation board. Clear beveled wood siding 3/4 inch by 10 inches is factory applied and primed with one coat of white paint. Exterior door and window openings are framed with two 2 x 10 headers. Corner bracing is 1 x 4, let-in. All windows are glazed and installed. Each wall panel comes completely assembled for rapid erection at the particular homesite.

Standard windows provided are the aluminum sliding type with screens. Wood double-hung, awning or casements are available at additional cost. All glass meets industry and specification standards, with insulated glass optional at additional cost.

Gable and roof ends are completely assembled with louvers or windows installed according to the individual plan requirements.

The roof and ceiling includes 2 x 6 roof rafters, spaced on 16 inch centers. Each rafter is factory precut to exact dimensions with all required angle cuts and notches. Two by four collar ties are supplied as required. Ceiling joists are 2 x 6 spaced 16 inches on centers and, when design indicates longer spans, 2 x 8 joists are furnished. Lincoln Homes use standard 1/2 inch CD plywood or 1 x 8 sheathing. Shingles are 240 lb. asphalt seal down over 15 lb. roofing felt. Aluminum gutters and downspouts to sill plate are furnished per plans.

Interior partitions are preconstructed using 2 x 4 studs on 16 inch centers. Each is factory cut to precise dimensions. Two by four double top plates are furnished for all bearing walls. All door openings are framed with double headers.

Entrance doors are 1-3/4 inches thick flush or panel types. Many styles are available. Doors are completely assembled, hinged, hung and ready to place in individual openings. Door jambs, weather stripping, aluminum thresholds and hardware are included. All exterior trim mouldings, fascia, and window and door casings are included per plans.

For all multi-level homes, finished stairs are factory assembled with oak-treads.

Two-inch thick blanket type insulation, for application between joists, is furnished for ceilings. Standard exterior wall construction provides 1/2 inch asphalt impregnated sheathing.

Interior Trim

Oak flooring, 25/32 inch x 2-1/4 inches standard and better grade is furnished for the entire main floor area, excluding kitchen and bath, where 5/8 inch Premium Grade Plywood underlay is supplied. Heavy duty building paper under finished flooring is also included.

Interior doors are flush type birch, furnished with prefit wood jambs, stops and complete with hardware. Sliding doors and louver doors are included per plans.

Ranch type casings, baseboards and shoe mouldings are of clear white pine or equal. Bases are 1 inch x 3 inches, casings are 11/16 inch x 2-1/4 inches and shoe moulds are 1/2 inch x 3/4 inch.

Window sills are white Italian marble, 3/4 inch x 5 inches for all homes with aluminum sliders. When specifications call for wood windows, wood sills are furnished. Closet shelves and supports of white pine or equal are furnished.

All finish and flooring nails are furnished as required for each individual home. All door and window hardware is of top quality brass or chrome. All door locks and butts are installed at the factory.

ASSEMBLY

The next step in the construction process is to ship the individual prefabricated component parts to the homesite where a team of company assemblymen arrive at the site at the same time the truck arrives. The complete shell of the home is up and the house enclosed normally within one day. Some customers choose to erect the home themselves with the aid of friends and relatives in order to take advantage of even greater savings.

At this stage, it is left to the homeowner to finish the job. Depending on his proficiency, he will normally elect to enlist the services of local craftsmen to assist him with some of the remaining tasks leading to completion of the structure. This might include electrical wiring, plumbing, and heating services and so on. If desired by the homeowner, Lincoln Homes will furnish a list of sub-contractors used by previous customers.

Here it should be stressed that in addition to supplying the basic home, the company will also contract to erect the basic home, if desired by the owner. However, all other work must be completed by the owner or he may do any of the work himself.

The company also furnishes plumbing, wiring and heating packages at additional cost if desired by the owner.

The standard plumbing package includes a cast iron bathtub, lavatory, closet, laundry tray and all necessary fittings and supplies to complete the interior plumbing. Water lines are of copper and the soil pipe extends to the drain in the basement floor. A forty-gallon, gas-fired automatic water heater with glass lined tank is also provided. Electric water heaters and larger sizes are optional at extra cost.

The standard wiring package includes all the necessary romex wiring receptacles, silent switches, doorbell and chimes, 16-circuit breaker box and a lighted medicine cabinet.

The standard heating package furnishes a completely pre-engineered gas-fired, forced warm air system, with fabricated duct work, grilles and automatic controls. An oil-fired heating system, including fuel oil storage tank and fittings is also available at extra cost.

Purchase of any or all of these packages is particularly convenient if the homeowner is doing most of the installation himself. Each of the items is also very competitively priced since they are purchased by the company in large lots.

One thing the company does demand before entering into a contract to build the home is that the owner own a lot. Once this is settled, the customer then selects one of the homes from the firm's catalogue, or if he supplies his own plans, the company will use these for the development of working drawings.

The factory built components truly do eliminate the need for full carpenter skills. It is fairly simple for an owner, with a little help from friends and a Lincoln Home supervisor to erect the complete basic home.

The company offers the potential homeowner help and information in obtaining the financial aid needed to buy and build the home. A free consulting service is also offered to assist and provide guidance to the homeowner. This service is particularly valuable to those with no previous experience in this type of endeavor.

CONCLUSIONS

By acting as his own general contractor, the purchaser saves the usual profit resulting from this service. By doing much of the finishing work himself, he saves the wages involved in this portion of the job.

These savings are no myth. More than 20,000 families have saved up to \$5,000 through the purchase of this type of home and by doing much of the finishing work themselves. Many owners have found that this self-help program permits them to own a home much finer than they could ever possibly afford to purchase on the open market.

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