PERMIT

City of Napoleon
255 W. Riverview
Napoleon, OH 43545

Division of Building and Zoning
PH (419) 592-4010
FAX (419) 599-8393

Permit No: 002053 Date Issued: 03-09-04 Issued by: BND

Job Location: 980 HARMONY DR

Est. Cost: 85000.00

Lot #: 35 & 36

Subdivision Name: BRICKYARD

Owner: HARC
Address: 135 E MAUMEE ST
CSZ: NAPOLEON, OH 43545
Phone: 419-599-2892

Agent: TRI-AREA ENTERPRISES
Address: 03460 US 20
CSZ: EDON OH, 43518
Phone: 419-459-4343

Use Type – Residential:

Other:

ZONING INFORMATION

Dist: R-2 Lot Dim: 1484 Area: Fyrd: 30 Syrd: 7 Ryrd: 15
Max HT: 15 # Pkg Spaces: # Loading SP: Max Lot Cov:

BOARD OF ZONING APPEALS:

Work Type – New: X Replmnt: Addn'n: Alter: Remodel:

WORK INFORMATION

Size - Lgth: 80 Width: 26 Stories: 1 Living Area SF: 1484
Garage Area SF: 576 Height: 15 Bldg Vol Demo Permit:

WORK DESCRIPTION

NEW HOME

FEE DESCRIPTION	PAID DATE	FEE AMOUNT DUE
BUILDING PERMIT		207.00
ELECTRICAL PERMIT		25.00
PLUMBING PERMIT		9.00
MECHANICAL PERMIT		9.00
WATER TAP PERMIT		655.00
SEWER PERMIT		229.00

PAID
MAR 11 2004
CITY OF NAPOLEON

Total Fees Due 1134.00

3/11/04
Date

Applicant Signature

City of Napoleon

Electric Meter Base Release Form

THIS DOCUMENT ENTITLES THE HOLDER TO "ONE" ELECTRIC METER BASE.

(Please pickup at the City Operations Garage 1775 Industrial Drive).

Permit#002053

Date Issued: 03-09-2004

Job Location: 980 HARMONY DR

Work Description: NEW HOME

Owner: HARC

Address: 135 E MAUMEE ST NAPOLEON, OH 43545

Owner Phone: 419-599-2892

Contractor: TRI-AREA ENTERPRISES INC.

Address: 03460 US 20 EDON OH, 43518

Contractor Phone: 419-459-4343

Electric Service Upgrade_____ New Service Installation__X__

Industrial_____ Commercial_____ Residential__X__ 1 Phase__X__ 3 Phase_____

Size of Service 100 Amp____ 150 Amp_____ 200 Amp__X__ 400 Amp____ Other_____

Hub Size – 11/4" _____ 11/21" _____ 2" _____

Desired Voltage 120/240 __X__ Other _____

Underground Service __X__ Overhead Service_____

Date Completed: _____ Approved By: _____

Old Meter Number: _____ New Meter Number_____

Comments: _____

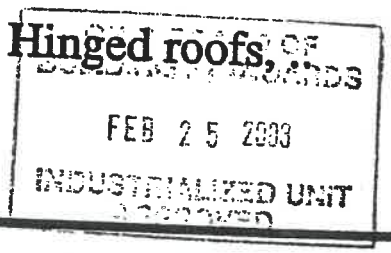
LIBERTY HOMES INSTALLATION MANUAL (MODULARS)

980 Harmony

12/18/02

This manual is designed to provide information about the setup of your home. This manual MUST be used in combination with your floor plan package which provides:
the foundation plans, tie down specifications, plumbing, electrical and other model specific information for the set up of your home. Also note:

Chapter 10: Typical foundation connections
Chapter 11: Completion of optional features: Hinged roofs,
Chapter 12: Cranning procedure.



A copy of this manual must remain with the home for reference by the home owner.

Liberty HOMES, INC

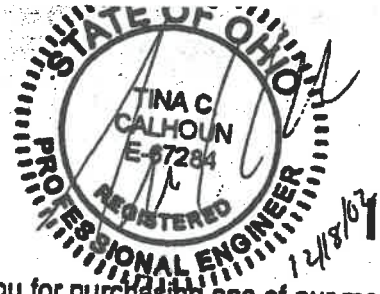
Over 60 years of leadership

APPROVED BY

JUL 03 2002

INC.

DAVID SHOUP



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TJH INC.

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DAVID SHOUP

INTRODUCTION

Thank you for purchasing one of our modular homes. This Installation Manual contains instructions that must be followed for the proper installation of your home. **PLEASE READ ALL INSTRUCTIONS PRIOR TO SET UP. NOTE: ALL OPERATIONS AND PROCEDURES CONTAINED WITHIN SHOULD BE PERFORMED BY QUALIFIED INDIVIDUALS ONLY AND ARE SUBJECT TO ALL LOCAL AUTHORITIES HAVING JURISDICTION.**

1. CHAPTER 1 - INTRODUCTION

1.1. ***HOW TO USE THIS MANUAL.*** This manual contains installation instructions, including specifications and procedures for erection and hookup of your modular home. It has been written in an objective and easy-to-understand manner so it can be understood by people without extensive technical training. It discusses the set-up of the home from preparing the site through final inspection. Careful adherence to this manual by the homeowner and installation crew, and consultation with a registered professional or structural engineer in those unusual circumstances it does not cover, will assure you of a quality, safe and affordable home for many years to come.

1.2. ***PRE-INSTALLATION CONSIDERATIONS.*** Prior to locating your home, contact the local authority having jurisdiction for installation to see if permits for such procedures as excavating and foundation construction or utility connections are required. Inspections may be required during installation. On private property, zoning or development covenants may apply and should be taken into consideration. (NOTE: Preparations of the site, when accomplished by others than the home installer, may not be in accordance with these instructions.)

1.3. ***SAFETY - ONLY TRAINED CREWS SHOULD INSTALL THE HOME. INSTALLERS SHOULD FOLLOW THE SAFETY INSTRUCTIONS PROVIDED IN THIS MANUAL.***

1.4. ***CONSUMER INFORMATION CARD.*** Fill out the CONSUMER INFORMATION CARD and return it to the plant which manufactured your home, so that you may be notified on revised instructions or new products.

2. CHAPTER 2 - DEFINITIONS

Footing: The part of the support system that sits directly below grade to support the foundation (per local code and frost lines).

Pier: That portion of the support system between the footing and the modular home, exclusive of caps and shims. Types of piers include, but are not limited to, the following:

1. Manufactured steel stands
2. Manufactured concrete stands, and
3. Concrete blocks (wet set only) (mortared)

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THIS HOME WEIGHS SEVERAL TONS.

USE ENOUGH TEMPORARY WOOD BLOCKING TO SUPPORT THE HOME DURING SET-UP OR WHEN LOCATED AT DEALER LOTS OR FACTORY FOR AN EXTENDED PERIOD OF TIME. NO ONE SHOULD BE ALLOWED UNDER THE HOME UNLESS IT IS SECURELY IN PLACE, EVEN IF IT IS NOT MOVING.

JUL 03 2

Site, Modular Homes: A parcel of land designed and designated for the location of one modular home, its accessory buildings or structures, and accessory equipment for exclusive use of the home's occupants.

Stand, Modular Home: That area of a modular home site which has been reserved for placement of a modular home.

Support System: A combination of footings, piers, caps and shims that will, when properly installed, support the modular home.

3. CHAPTER 3 - SITE PREPARATION

3.1. *LOCATION AND LAYOUT.*

3.1.1. ***USE OF ZONE MAPS.*** Your home is designed for certain weather conditions and roof loads (see zone maps near home's main electrical panel.) Do not site or relocate your home in a zone requiring greater wind, roof load, or heating/cooling capabilities than those for which it was designed. However, it is safe to locate your home in an area with lower load or weather requirements. For example, a home designed for a northern roof load or 40 psf may be sited in the southern roof load zone.

3.1.2. ***ACCESS FOR TRANSPORTER.*** Before attempting to move your home to the installation site, be sure the transportation equipment can get through. Remove any overhanging branches and raise any overhead wires. Special transpiration permits may be required from state, county or city officials.

3.1.3. ***ENCROACHMENTS AND SETBACK DISTANCES.*** Obey local laws regarding encroachments in streets, yards and courts, and permissible setback distances from property lines and public roads. Consider future additions, such as awnings and screen rooms.

3.1.4. ***FIRE SEPARATION DISTANCE.*** The distance your home must be sited from other structures depends on its fire resistance rating in conformance with local requirements. Contact the home's manufacturer or the inspection agency identified on the data plate for fire resistance rating information.

3.1.5. ***ISSUANCE OF PERMITS.*** Be sure that all necessary local permits have been obtained and fees paid.

3.2. *SOIL CONDITIONS.*

FIG. 3.2 GENERAL DESCRIPTION OF SOILS

SOIL TYPE BASED ON THE UNIFIED CLASSIFICATION SYSTEM	ALLOWABLE PRESSURE (POUNDS PER SQUARE FOOT) *
ROCK OR HARD PAN	4,000 AND UP
SANDY GRAVEL AND GRAVEL	2,000
SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL, OR CLAYEY GRAVEL	1,500
CLAY, SANDY CLAY, SILTY CLAY, OR CLAYEY SILT	1,000
UNCOMMITTED FILL (TYPES OF SOIL NOT LISTED)	SPECIAL ANALYSIS IS REQUIRED
PEAT OR ORGANIC CLAYS	SPECIAL ANALYSIS IS REQUIRED

NOTE: THIS TABLE IS TO BE USED ONLY WHEN NONE OF THE FOLLOWING IS AVAILABLE:
A. SOIL TESTING INVESTIGATION AND ANALYSIS OF THE SITE.
B. COMPLIANCE WITH THE LOCAL BUILDING CODE.
C. COMPETENT OPINION BY A LOCAL ENGINEER OR BUILDING OFFICIAL.
* NO ALLOWANCES MADE FOR OVERBURDEN PRESSURE, EMBEDMENT DEPTH, WATER TABLE HEIGHT SETTLEMENT PROBLEMS

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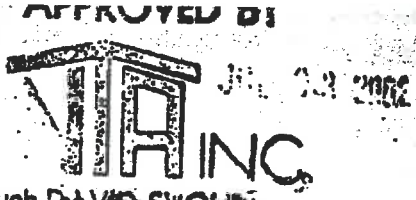
3.2.1. ***REQUIREMENTS.*** To help prevent settling of your home, site it on firm, undisturbed soil or fill compacted at least 90% of its maximum relative density. Installation on loose, uncompacted fill may invalidate the home's limited warranty.

3.2.2. ***BEARING CAPACITY.*** Test the bearing capacity of the soil at the depth of the footings after completing any grading and filling. Under usual conditions, or if the soil appears to be peat or uncompacted fill, consult a location geologist or professional engineer.

3.2.3. ***SOIL BEARING TESTING METHODS AND EQUIPMENT.*** A pocket penetrometer (available from engineering supply houses) or other methods acceptable to local jurisdictions may be used.

3.3. ***REMOVAL OF ORGANIC MATERIAL.*** Remove all decayable material such as grass, roots, and wood scraps from beneath the home, especially in areas where footings are to be placed, to minimize settling of footings and insect damage. Remove shrubs and overhanging



branches from the immediate vicinity of the homesite to prevent windstorm damage.

3.4. ***DRAINAGE.***

3.4.1. ***PURPOSE.*** Drainage prevents water buildup under the home which may cause settling of the foundation, dampness in the home, damage to siding, buckling of walls and floors, problems with the operation of doors and windows, AND COULD VOID YOUR WARRANTY.

3.4.2. ***ELIMINATION OF DEPRESSIONS.*** Grade the homesite to permit water to drain from under the home.

3.4.3. ***DRAINAGE STRUCTURES.*** Depending on the local landscape, ditches and culverts may be needed to drain surface runoff. If so, consult a registered professional engineer.

3.5. ***GROUND MOISTURE CONTROL.***

3.5.1. ***IMPORTANCE.*** A vapor retarder that keeps ground moisture out of the home should be emplaced.

3.5.2. ***ACCEPTABLE TYPES OF GROUND COVER.*** Use polyethylene sheeting or its equivalent, at least six mils thick.

3.5.3. ***PROPER INSTALLATION.*** Cover the entire area under the home with sheeting and overlap it at least 6" at all joints. Where soil and frost condition permit placement of footings at grade level, place the sheeting directly beneath them.

4. CHAPTER 4 - FOUNDATIONS

4.1. ***PIERS.***

4.1.1. ***IMPORTANCE.*** Incorrect size, location or spacing of piers may cause serious structural damage to your home. Failure to do so may lead to sagging floors, walls and roofs.

4.1.2. ***ACCEPTABLE TYPES.*** Piers may be concrete blocks capped and shimmed with wedges, or adjustable manufactured metal or concrete devices.

4.1.3. ***DESIGN REQUIREMENTS.***

4.1.3.1. ***LOAD-BEARING CAPACITY.*** The load that each pier must carry depends on factors such as the dimensions of the home, the roof live load, the spacing of the piers, and the way they are used to support the home. Center beam/marriage wall blocking is required.

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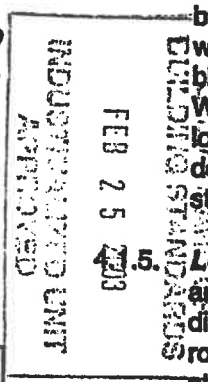
4.1.4. ***DESIGN PROCEDURES.***

4.1.4.1. ***PIERS LESS THAN 36" HIGH.*** You may construct piers less than 36" high out of single, open or closed-cell concrete blocks, 8" x 8" x 16". Install them so that the long side is at right angles to the supported I-beam. Position open cells at right angles to the footers. Horizontal offsets should not exceed 1/2" top to bottom. Mortar is required. Manufactured piers should be listed and labeled. Do not extend their adjusting studs beyond the limits specified by the manufacturer.

4.1.4.2. ***PIERS 36" TO 80" HIGH.*** Construct all piers between 36" and 80" high, and all corner piers over three blocks high, out of double, interlocked concrete blocks. Mortar will be required.

4.1.4.3. ***PIERS OVER 80" HIGH.*** Where permitted by local codes, lay them in concrete mortar with steel reinforcing bars inserted in the block cells and fill the cells with concrete. Where such construction is not permitted by local codes, have piers over 80" high designed by a registered professional or structural engineer.



4.1.5. ***LOCATION AND SPACING.*** The location and spacing of piers depends upon the dimensions and weight of the home, the roof load zone, the type of construction and other factors such as the locations of doors or other openings and heavy pieces of furniture. In general, locate piers as per foundation plan.

4.1.5.1. ***UNDER DOORS AND HEAVY FURNITURE.*** Place piers on both sides of sidewall opening wider than 4' (such as entry and sliding glass doors), under porch posts, fireplaces and wood stoves, and under the expected locations of heavy pieces of furniture such as pianos, waterbeds, etc.

4.2. ***FOOTINGS.*** Support every pier with a properly designed footing as follows:

4.2.1. ***ACCEPTABLE TYPES OF FOOTINGS.***

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4.2.1.1. ***CONCRETE.*** Footings may consist precast of poured-in-place concrete, with a 28-day compressive strength of at least 3,000 psi.

4.2.1.2. ***OTHER MATERIALS.*** You may also use other materials approved for this use by local authorities if they provide equal load-bearing capacity and resistance to decay.

4.2.1.3. ***PLACEMENT IN FREEZING CLIMATES.***

4.2.1.4. ***CONVENTIONAL FOOTINGS.*** To preclude the harmful effects of the ground frost heave, footings should usually be placed below the frost line. Consult local authorities to determine frost penetration.

4.2.1.5. ***INSULATED FOUNDATIONS.*** Footings may also be placed above the frost line when the home is provided with a perimeter foundation having insulation properties sufficient to prevent freezing of the soil under or adjacent to every load-bearing component of the foundation and acceptable for this purpose to the local authority having jurisdiction. Insulation systems should be compatible with the requirement to cross-ventilate the entire space under the home.

4.2.2. ***PROPER SIZING OF FOOTINGS.*** Proper sizing of footings depends upon the load-carrying capacity of both the piers and the soil. See floor plan specific foundation layout provided with your home for minimum size of footing.

4.3. ***PERMANENT FOUNDATIONS.*** Check local building codes and regulations and consult a registered professional or structural engineer when you are setting your home on a permanent foundation (such as a full basement, crawl space or load-bearing perimeter foundation.) You may get a permanent foundation design that meets most local codes by writing to the manufacturer listed on the back cover of this manual.

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4.4. SPECIAL CONSIDERATIONS

4.4.1. ***FLOOD-PRONE AREAS.*** We do not recommend sitting your home in river or coastal flood-prone areas. Special local regulations or flood insurance provisions may apply. Special elevation and anchoring techniques are required when locating in a flood-prone area. Consult a registered professional or structural engineer to make sure that home design and construction conform to applicable federal, state and local codes and regulations.

4.4.2. ***SEVERE WIND AREAS.*** Special foundation and anchoring techniques are required when locating in a severe wind area is unavoidable. Consult a registered professional or structural engineer. Do not place your home in a wind zone more severe than the one indicated on the data plate.

4.4.3. ***SPECIAL SNOW LOAD CONDITIONS.*** Homes designed for and located in heavy snowfall areas or subject to other extreme loading conditions may require special piers or footings. See table and/or special manufacturer's instructions provided with your home.

4.5. IMPORTANT REFERENCE DOCUMENTS.

4.5.1. ***"BUILDING FOUNDATION DESIGN GUIDEBOOK,"*** Document No. DE88013350, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

NOTE: Along with this manual each model will have:

1. A specific basement or crawl space foundation plan designed for either the perimeter frames or home without frame.
2. Complete drain, pressure system, electrical, gas line and elevation. These drawings must be reviewed prior to set-up.
3. Consult your local authorities for all other requirements (such as tie down, frost level, etc.)

5. CHAPTER 5 - SET-UP PROCEDURES

5.1. ***MOVING HOME TO LOCATION.*** Make sure the following items are completed before placing the home:

1. The site is properly prepared.
2. All concrete work necessary to setting the home is finished.
3. Utilities are installed or available.
4. Any trenching, for crossover drain lines is complete.
5. Items that could be difficult to install after the home is sited (such as ground moisture retarders) are in proper locations.

CAUTION: THE HOME WEIGHS SEVERAL TONS. USE ADEQUATE TEMPORARY SUPPORT BLOCKING TO SAFEGUARD WORKERS. WOOD BLOCKING FOR YOUR HOME IS RECOMMENDED.

5.1.1. ***POSITIONING MULTI-SECTION HOMES.***

1. Place the second section near the first (2-4) feet.
2. Remove all shipping materials and items that stick out from the mating surfaces of both sections.
3. Reference detail.

5.1.1.1. ***INTERIOR CLOSURE.*** Manufacturer to insert specific instructions and illustrations about the materials and procedures needed to effect the interior closure of this product.

5.1.1.2. ***EXTERIOR CLOSURE.*** Manufacturer to insert specific instructions and illustrations about the materials and procedures needed to effect the exterior closures of his product.

5.2. ***CROSSOVER CONNECTIONS.***

5.2.1. ***UTILITY CROSSOVERS.*** Connect water, drainage, gas, electricity and telephone utility crossovers.

5.2.2. ***DUCTWORK CROSSOVERS (WHERE APPLICABLE).*** All flexible duct crossovers are marked and suspended in floor cavity for easy on-site connection at mating line. Once crossovers are located, the connection(s) may be above or below the center wall I-beam (do not cut through center wall I-beam). Clamp the flexible air conditioning and/or heating crossovers together with sleeve (supplied at one end of crossover) and seal connection with several wraps of duct tape and suspend the duct within the floor cavity. Note: Each register on the non-furnace section will have a crossover connection.)

5.3. ***INSTALLATION OF ON-SITE ATTACHED STRUCTURES.*** Design all attached building and structures to support all of their own live and dead loads, and to have fire separation as required by state or local ordinances.

5.3.1. ***ATTACHED GARAGES.*** Attached garages must be installed according to the manufacturer's instructions and to all applicable local codes. They must be supported independently of the factory-built portion of the home. Electrical circuits in garages should be provided with ground fault interruption.

5.3.2. ***PORCHES.*** Site-constructed porches must be constructed and inspected according to applicable local building codes.

5.3.3. ***STEPS, STAIRWAYS AND LANDINGS.*** Steps, stairways and landings must be constructed and inspected according to applicable local building codes.

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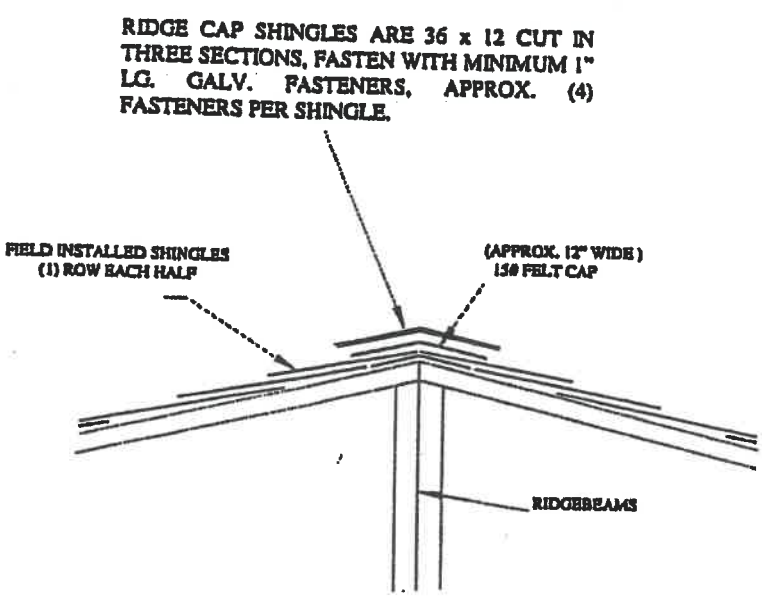
FIGURE 5.5 - SHINGLE ROOF CLOSE-UP



NOTE:
WHEN SHIPPING STRAPS ARE REMOVED FROM THE ROOF THE NAIL OR STAPLE HOLES MUST BE SEALED WITH A ROOFING CEMENT. LIFT THE SHINGLE TAB WHERE THE HOLE IS AND APPLY CEMENT ON THE UNDER SIDE OF THE FASTENER HOLE.

SHINGLE FASTENING DETAIL
0.407 x 1" x 12 GA. (MIN) ROOFING NAILS
6 PER SHINGLE
X = 1" +/- 1"
Y = 1" FROM END OF SHINGLE
Z = 5 5/8" FROM EDGE OF SHINGLE
FASTENERS ARE NOT TO BE ABOVE TAR STRIP OR BELOW RAIN SLOTS

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FIGURE 5.6 - TYPICAL FASTENING AT MARRIAGE WALL COLUMNS

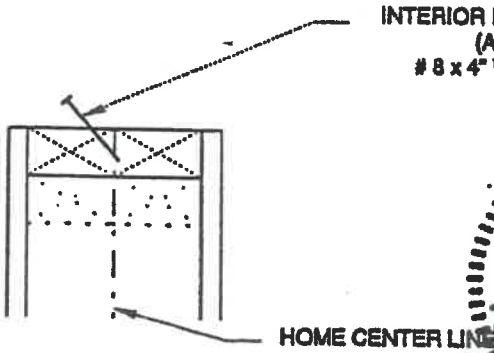

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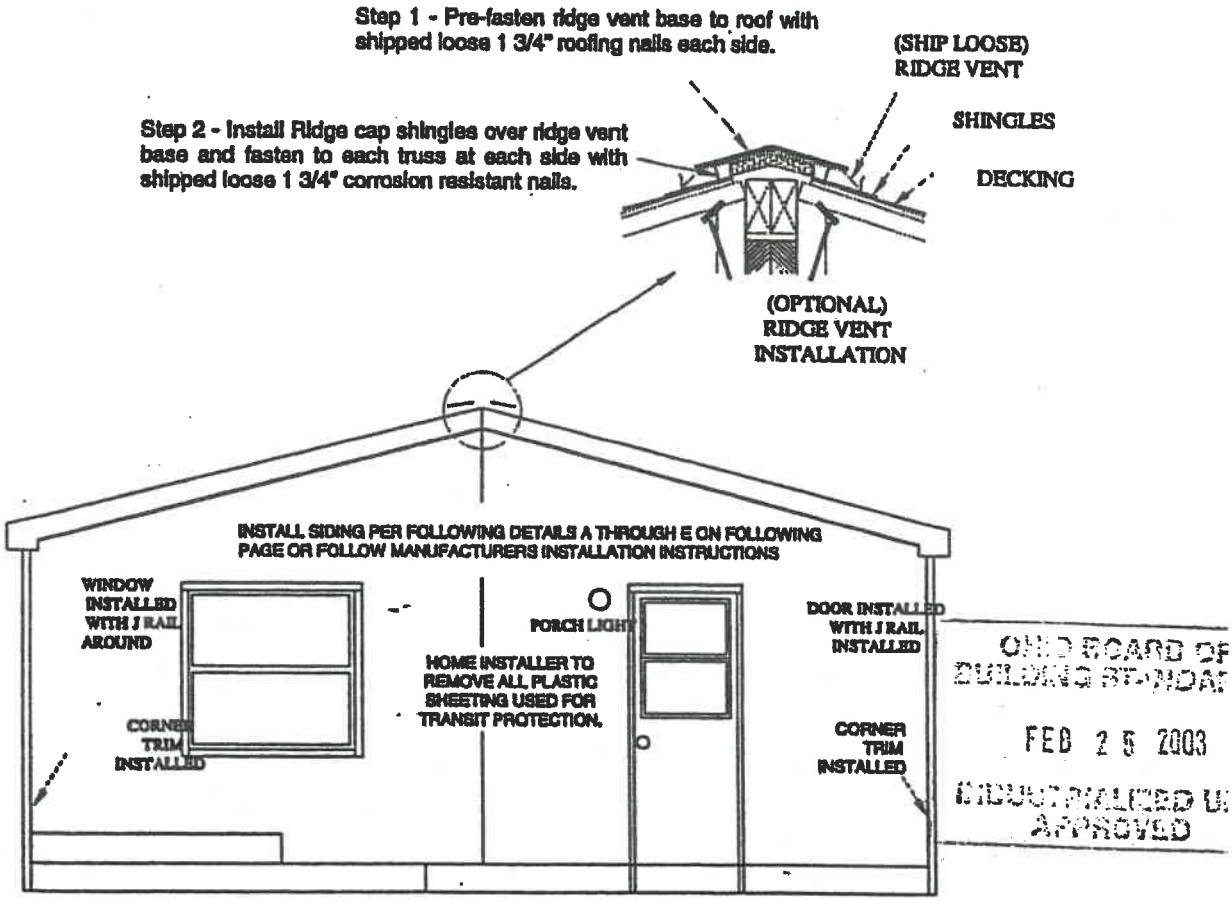
FIGURE 5.7 - FIELD APPLIED HORIZONTAL LAP SIDING



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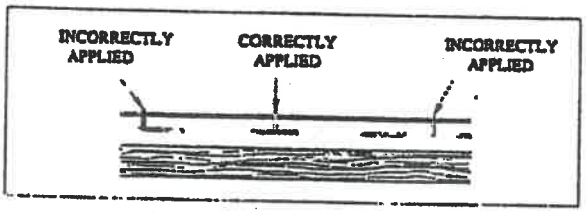
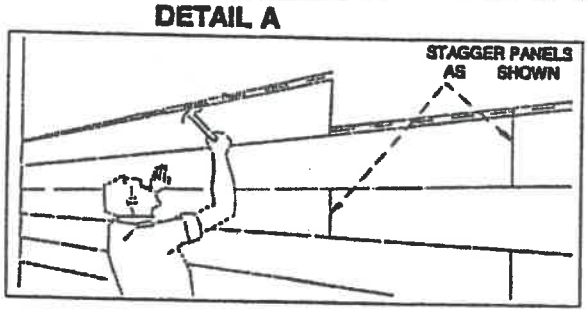
DOUBLE-SECTION HOMES WITH HORIZONTAL LAP SIDING MAY BE SHIPPED WITH NO SIDING ON THE FRONT AND REAR END WALLS. THE FOLLOWING ITEMS WOULD BE INSTALLED: DOORS/WINDOWS TRIMMED WITH J-RAIL; CORNER TRIM; AND COVER WITH PLASTIC SHEETING FOR TRANSIT. ALL SIDING, STARTER TRIM, FASTENERS AND VENTS WILL BE SHIPPED LOOSE IN THE HOME FOR INSTALLATION ON SET UP.

HOME INSTALLER TO COMPLETE INSTALLATION AFTER HOME IS SET UP. THIS WOULD INCLUDE THE INSTALLATION OF ROOF VENTS, IF REQUIRED.

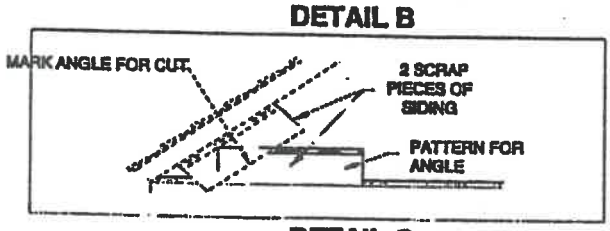
FIGURE 5.7 (CONTINUED) LAP SIDING INSTALLATION



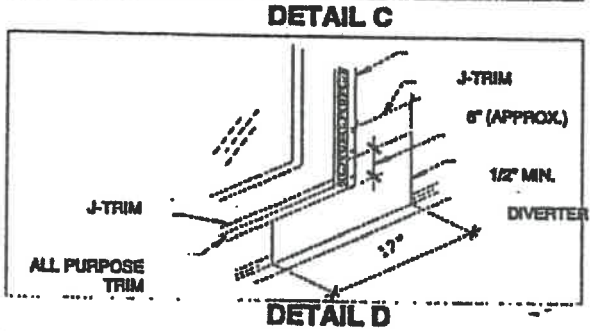
DETAIL A



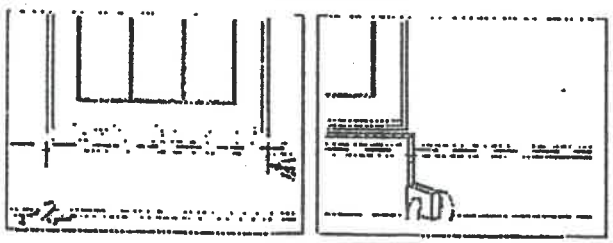
DETAIL B



DETAIL C



DETAIL D



DETAIL E

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VINYL LAP SIDING

Apply a 2" wide strip of duct tape at the marriage joint of the endwalls for the entire height of the walls. Apply the duct tape directly over the sheathing.

The siding panels should be attached using 7/16 x 1 1/2" x 16 gauge galvanized steel or aluminum staples. (6d galvanized nails may also be used.) Staples should be driven so that there is a 1/32" clearance between the siding and staple crown to allow some lateral movement. Fasten every 16" to each stud. See Detail A for proper fastening.

Snap the bottom course of siding into the starter strip and fasten to the wall. Leave a 1/4" space at corner posts and 'J' channels around window and door openings to allow for expansion. Do not fasten within 4" of an accessory. Vertical butt joints in panels should overlap 1". Do not fasten the panel within 4" of the joint. Install vinyl, aluminum, felt or other suitable material for flashing at bottom corners of doors and windows per Detail E. Apply caulk around siding and light blocks, water faucets, or other small penetrations.

Install successive courses similarly to the first. Butt joints in adjacent courses should be offset by at least 24". Joints in alternate courses should be aligned vertically (see Detail B).

Panels will have to be cut at headers and sills. A single panel should extend without joints across the width of the opening. When cutting a panel at a sill, measure the distance between the bottom of the opening and the top lock of the lower course, then deduct 1/4" (see Detail C.)

Slide the cut panel into the under sill trim and install. Note that the undersill trim piece may have to be furred to maintain the proper pitch of the siding.

Measure and cut the header panel in the same manner as indicated above.

The top sections at the gable will need to be angle cut. Use two scrap pieces of siding to make a pattern (see Detail D). Interlock one piece with the siding panel below. Hold the other piece on top against the gable. Mark a line on the bottom piece and cut. Use this piece as a pattern for cutting gable pieces. Install the gable pieces by interlocking with the lower course, sliding into the gable 'J' rail and fastening.

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6. CHAPTER 6 - INSTALLATION OF OPTIONAL FEATURES

6.1. ***AWNINGS AND CARPORTS.*** Choose free-standing products with columns to support their weight.

6.2. ***ACCESSORY WINDOWS.*** Install accessory windows or components with the installation materials supplied, and follow the manufacturer's installation instructions.

6.3. ***MISCELLANEOUS LIGHTS AND FIXTURES.*** Some exterior lights, ceiling fans and chain-hung fixtures may not yet be installed when the home is delivered. All of these fixtures must be grounded by a fixture-grounding screw or wire. For chain-hung fixtures, use both methods. When fixtures are mounted on combustible surfaces such as hardboard, install a non-combustible ring to completely cover the combustible surface exposed between the fixture canopy and the wiring outlet box. If siding has not been installed at a fixture location, remove the outlet box and install the siding with a hole for the outlet box. Then reinstall the outlet box and proceed as for other fixtures.

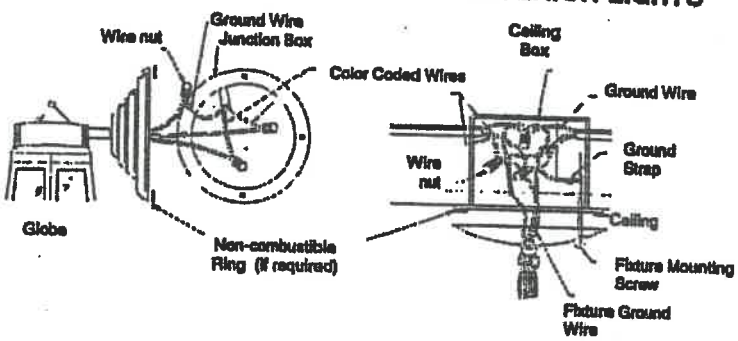
6.3.1. ***EXTERIOR LIGHTS.*** Remove the junction box covers and make wire-to-wire connections using wire nuts. Connect wires black to black, white to white, and ground to ground. Caulk around the base of the light fixture to ensure water tight seal to the sidewall. Push the wires into the box and secure the light fixture to the junction box. Install the light bulb and attach to the globe.

6.3.2. ***CEILING FANS.*** To reduce the risk of injury, install ceiling fans with the trailing edges of the blades at least 6'4" above the floor. Follow the manufacturer's instructions.

6.4. ***EXTERIOR COVERINGS.*** Install exterior coverings (stucco, plywood, vinyl or hardboard exterior siding; shingled or tiled roofs, etc.) according to the material manufacturer's instructions.

6.5. ***TELEPHONE AND CABLE TV.*** CARELESS INSTALLATION OF THE TELEPHONE AND CABLE TELEVISION LINES MAY BE HAZARDOUS. The walls and floors of your modular home contain electrical circuits, plumbing and duct work. Avoid contact with these home systems when drilling through and placing cables within these cavities. Only trained professionals should handle such work. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

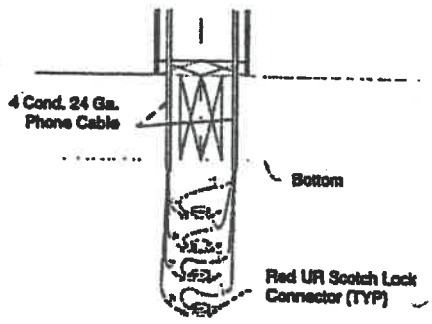
FIGURE 6.1 - INSTALLATION OF EXTERIOR LIGHTS



a) Exterior Light Fixture

b) Chain hung fixture or ceiling fan (35# max.)

FIGURE 6.2 - TELEPHONE WIRING FOR MULTI-SECTION HOMES



Notes:

1) Connect blue to blue, red to red, yellow to yellow, and green to green.

2) Do not strip the individual wires.

3) Insert the same color wires into the connector, then using channel lock pliers, press the round portion to make the connection.

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7. CHAPTER 7 - PREPARATION OF APPLIANCES

7.1. Clothes dryer vent. Your clothes dryer must exhaust to the exterior of the home, through a moisture-lint exhaust system. IMPORTANT: Do NOT let the exhaust system end under the home where excess moisture or flammable material can accumulate. All required components and fittings are provided with the home. (Or, alternately: Install a flex duct after the home is set up at the site. Hold the duct in place with metal straps spaced 2' on center secured to the bottom of the floor joists or frame.) Vent openings are located in either the wall or the floor. After the duct is installed, seal the openings, both inside and outside. Follow the dryer manufacturer's instructions for installing the exhaust system.

Manufacturer's specific, step-by-step installation instructions, if desired.

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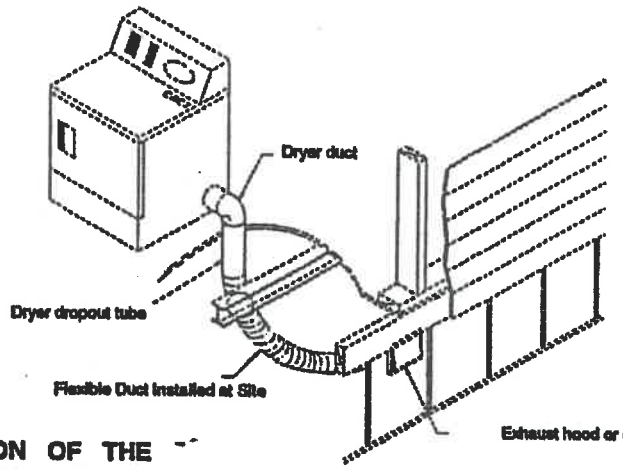
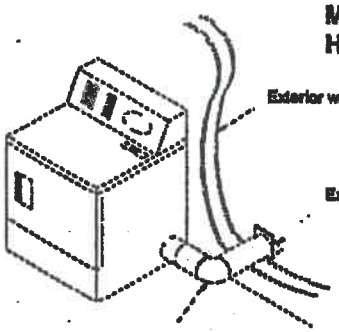


CAUTION: INSTALLATION OF THE EXHAUST SYSTEM MUST BE IN ACCORDANCE WITH THE DRYER MANUFACTURER'S INSTRUCTIONS.

CAUTION: THIS EXHAUST SYSTEM MUST NOT TERMINATE UNDER THE HOME.



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If your home did NOT come equipped with a gas dryer, remember that installing one requires substantial alteration to the home. You must provide gas supply piping and adequate venting as specified by the gas dryer manufacturer. Only a trained and experienced person should install a gas dryer. Cutting major structural elements (such as rafters or floor joist) to allow for gas dryer installation is not permissible. The home manufacturer is not responsible for any weakening of the home's structural soundness resulting from dryer installation.

7.2. ***COMFORT COOLING SYSTEMS.*** Only qualified personnel may install any comfort cooling system not provided with the home. Follow the manufacturer's installation instructions and conform to all local codes.

7.2.1. ***AIR CONDITIONERS.*** The air distribution system of this home has been designed for a central air conditioning system. Equipment you install must not exceed the rating shown on the home's compliance certificate. Installing window air conditioning units is not recommended.

The home's electrical distribution panel may contain optional factory installed circuits for air conditioning. The maximum full load ampere draw for the desired air conditioning unit must not exceed the circuit rating shown.

On the other hand, electrical circuits within the home may NOT have been sized for additional load or non-factory-installed air conditioning, and a separate outside electrical supply may have to be provided.

Any field-installed wiring beyond the junction box must include a fused disconnect located within sight of the condensing unit. The maximum fuse size is marked on the condenser data plate. Local codes will determine the acceptability of the air conditioning equipment, rating, location of disconnect means, fuse type branch circuit protection, and connections to the equipment.

"A" coil air conditioning units must be compatible and listed for use with the furnaces in the home. Follow the air conditioner manufacturer's instructions.

If a remote (self-contained, packaged) air conditioner (cooling coil and blower located outside the home) is to be connected to the heating supply duct, install an automatic damper between the furnace and the home's air duct system, and another between the remote unit and the home's air duct system. Secure the duct system leading from the remote unit to the home and do not allow it to touch the ground. Insulate ducts with material of thermal resistance (R) no less than 4, and a perm rating of not more than 1 perm. Connect the duct carrying air to the home to the main duct at a point where there are approximately as many registers forward of the connection as there are to the rear. Locate the return air duct in the center of the home.

Do not cut or damage floor joists. Return air and supply ducts are sized to fit between floor joists, where are located 16" on center throughout the home. Replace insulation removed during the installation.

Direct all condensation runoff away from the home by connecting a hose to the equipment runoff outlet or other means specified by the equipment manufacturer.

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7.2.2. ***HEAT PUMPS.*** Install heat pumps according to the heat pump manufacturer's installation.

7.2.3. ***EVAPORATIVE COOLERS.*** Install a roof-mounted cooler following the manufacturer's instructions.

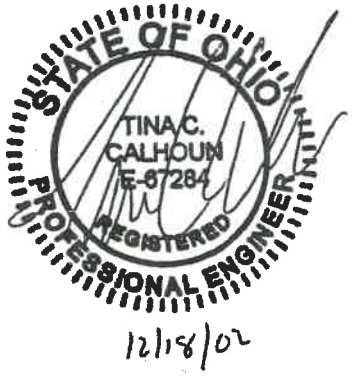
7.2.4. ***FIREPLACE AND WOOD STOVE CHIMNEYS AND AIR INLETS.*** Fireplaces and wood stoves require on-site installation of additional section(s) of approved, listed chimney pipe, a spark arrestor and a rain cap assembly.

7.2.5. ***MINIMUM EXTENSIONS ABOVE ROOF.*** To assure sufficient draft for proper operation, extend the finished chimney at least 3' above the highest point where it penetrates the roof and at least 2' higher than any building or other obstruction located within a horizontal distance of 10'. If the site has obstructions extending higher than the home's peak within 10' of the chimney, the installer may have to provide an additional section of chimney pipe if required by local codes.

7.2.6. ***ASSEMBLY AND SEALING SEQUENCE.*** Assemble and seal your fireplace or wood stove chimney as follows: (to be supplied). Avoid cutting any roof trusses or floor joists when installing chimney pipes or combustion-air intakes.

7.2.7. ***COMBUSTION AIR DUCT INLETS.*** Combustion air intake ducts end just below the bottom of the floor. You must extend them to the outside when your home has a basement or crawlspace. These added ducts are (are not) supplied, or may be purchased at your local hardware store. The fireplace manufacturer's instructions for installing combustion air ducts are in the fireplace/stove or with the chimney parts. Do not allow the combustion air inlet to drop material from the hearth beneath the home. Locate its inlet damper above expected snow level as shown in Figure 7.4.

7.2.8. ***RANGE, COOKTOP AND OVEN VENTING.*** If your home is equipped with a combination range (cook-top)/grill or oven that contains its own exhaust system, route the exhaust so that it does not exit under the home. Connect flexible metallic duct between the elbow protruding from the floor and the termination fitting, and support it according to the manufacturer's installation instructions.



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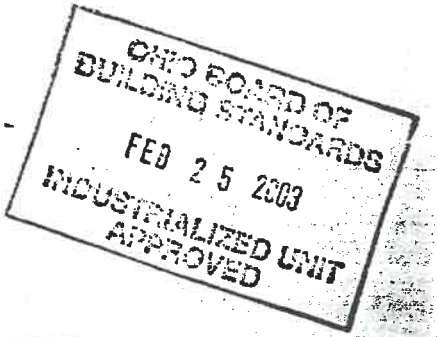
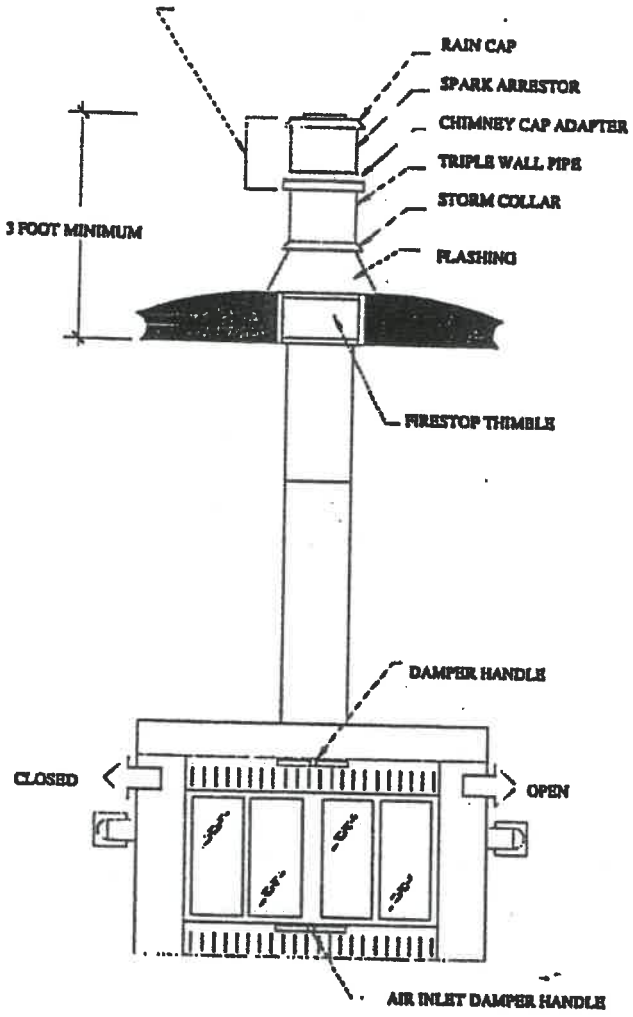
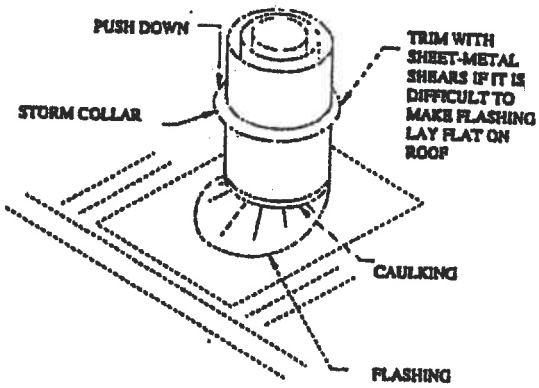
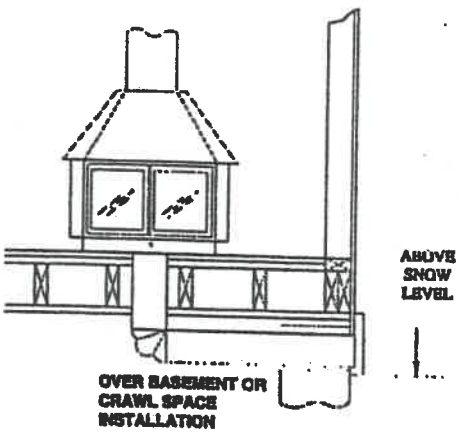


FIGURE 7.4 - FIREPLACE CHIMNEY AND AIR INTAKE INSTALLATION







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8. CHAPTER 8 UTILITY SYSTEM CONNECTION AND TESTING

8.1. ***PROPER PROCEDURES.*** Contact local, county or state authorities before connecting any utilities. Only qualified service personnel, familiar with local codes and licensed where required, should make utility connections and conduct tests.

8.2. ***WATER SUPPLY.***

8.2.1. ***MAXIMUM SUPPLY PRESSURE AND REDUCTION.*** THE water systems of your home were designed for a maximum inlet pressure of 80 psi. If you are located in a water district where the local water supply pressure exceed 80 psi, install a pressure-reducing valve.

8.2.2. ***CONNECTION PROCEDURES.***

8.2.2.1. ***TO SUPPLY MAINS.*** Connect the home's water system to the water source through the inlet located under the house, usually below the water heater compartment. A tag on the side of the home marks its location.

8.2.2.2. ***MANDATORY SHUT-OFF VALVE.*** You MUST install an accessible shut-off valve between the water line cross-connections. Remove the shipping caps from the water lines and install the crossover connectors provided with the home. If freezing can occur, wrap water connectors with insulation.

8.2.3. ***FREEZING PROTECTION.***

8.2.3.1. ***NECESSITY.*** In areas subject to subfreezing temperatures, protect exposed sections of water supply piping, shut-off valves and pressure reducers, and pipes in water heater compartments with un-insulated doors, from freezing. Otherwise, burst pipes and costly damage may result.

8.2.3.2. ***USE OF HEAT TAPES.*** Heat tapes (either automatic or non-automatic) can protect exposed plumbing from freezing. USE ONLY HEAT TAPES LISTED BY A NATIONALLY-RECOGNIZED TESTING LABORATORY FOR USE WITH MODULAR HOMES, AND INSTALL THEM ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

8.2.3.3. ***FREEZING PROTECTION FOR UNOCCUPIED HOMES.*** If the home is to be left unheated in cold weather, drain the water lines and blow them clear with compressed air to prevent damage from freezing.

8.2.4. ***TESTING PROCEDURES.*** Even though the water system was tested at the factory, it must be rechecked for leaks at the installation site. Close all water faucets, spigots and stool tank float valves, and use one of the following procedures:

8.2.4.1. ***HYDROSTATIC.*** Be sure the water heater tank is full of water. Pressurize the system with water at 100 psi, and then isolate it from the pressure source. The system must hold this pressure for at least 15 minutes without any loss. If the pressure falls off, re-pressurize the system and locate the correct leaks.

8.2.4.2. ***PNEUMATIC.*** CAUTION: IF THIS PROCEDURE IS USED, YOU MUST BYPASS THE HOT WATER TANK BY HOOKING ITS COLD INLET AND HOT OUTLET LINES TOGETHER. THIS PROCEDURE WILL PROTECT THE APPLIANCE FROM DAMAGE AND PROTECT THOSE INVOLVED IN THE TEST FROM POSSIBLE INJURY. Connect an air pump and pressure gauge to the water inlet and pressurize the system to 100 psi. Isolate the pressure source from the system. The gauge must stand for at least 15 minutes with no drop in pressure. Correct any leaks indicated by bubbles from soapy water, repeating the procedure until all have been eliminated. Reconnect the water heater and the water supply.

8.3. ***DRAINAGE, WASTE AND VENT SYSTEM.***

8.3.1. ***ASSEMBLY AND SUPPORT.*** If portions of the drainage system were not installed at the factory, all materials and diagrams required to complete it have been shipped as loose items in the home. Assemble the DWV system following the manufacturer's specific instructions and diagrams. Start at the most remote end and work toward the outlet, supporting the piping with temporary blocking to achieve the proper slope (see Paragraph 8.3.2). When the entire system has been completed, install permanent drain line supports at 4' on center.

8.3.2. ***PROPER SLOPES AND CONNECTOR SIZES.*** Drain lines must slope at least 1/4" fall per foot of run unless otherwise noted on the schematic diagram.

Exception: 1/8" fall per foot is allowed when a cleanout is installed at the upper end of the run. Connect the main drain line to the site sewer hookup using an approved elastomer coupler.

8.3.3. ***CROSSOVERS/VTR'S IN HINGES ROOF AREA.*** Assemble multi-section home DWV line connections as shown in schematic.

8.3.4. ***SOLVENT WELDING PROCEDURES.*** The solvent cement used to connect drain lines must be compatible with the pipe installed in the home. Follow the manufacturer's instructions on the container.

8.3.5. ***PROTECTION FROM FREEZING.*** Dorchester Homes has insulated fittings in the drainage system subject to freezing, such as P-traps in the floor. Replace this insulation if removed during assembly or testing. Insulate drain lines installed below the floor in areas subject to freezing. If the home is to be left unheated in cold weather, pour an approved antifreeze into P-traps at all fixtures and stools.

8.3.6. ***FLOOD LEVEL TEST PROCEDURE.*** You must conduct a flood level test on the completed drainage system before connecting it to the site sewer. With the home in a level position, all fixtures connected, and all tub and shower drains plugged, connect the drainage piping system to the site water inlet and fill the system with the water to the rim of the toilet bowl. Release all trapped air. Allow the system to stand at least 15 minutes. Check for leaks. Drain the system. Plug all fixtures, sinks, showers and tubs and fill with water. Release the water in each fixture simultaneously to obtain the maximum possible flow in drain piping. Check all P-traps and the drain system for possible leaks. Repair any leaks and retest.

8.4. ***GAS SUPPLY.***

8.4.1. ***TYPE OF GAS SYSTEM FURNISHED WITH HOME.*** All gas appliances in this home, including the heating system, are equipped for natural (or LP) gas. If LP (or natural) gas is to be used as the gas supply instead, a qualified service person must convert the appliances to LP (or natural) gas following the instructions provided by each appliance manufacturer.

8.4.2. ***PROPER SUPPLY PRESSURE.*** THE GAS PIPING SYSTEM IN YOUR HOME HAS BEEN DESIGNED FOR A PRESSURE NOT TO EXCEED 14" OF WATER COLUMN (8 OZ. OF 1/2 PSI). IF GAS FROM ANY SUPPLY SOURCE EXCEEDS, OR MAY EXCEED, THIS PRESSURE, YOU MUST INSTALL A PRESSURE REDUCING VALVE. To operate gas appliances safely and efficiently, do not exceed the design pressure limitations. For natural gas systems, the incoming gas pressure should remain between 6" and 8" of water column. For LPG systems, the pressure should lie between 12" and 14" of water column.

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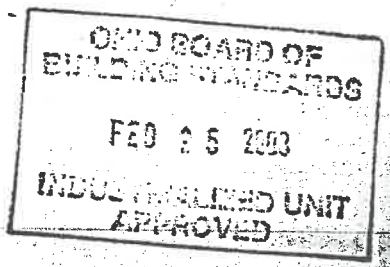

8.4.3. ***ORIFICING FOR SPECIFIC GASES.*** SPECIAL ORIFICES AND REGULATORS ARE REQUIRED FOR EACH KIND OF GAS AND AT ALTITUDES ABOVE 3,000 FEET. SEE THE INSTRUCTIONS ACCOMPANYING EACH GAS-BURNING APPLIANCE FOR MODIFICATION INSTRUCTIONS. BEFORE MAKING ANY CONNECTIONS TO THE SITE SUPPLY, CHECK THE INLET ORIFICES OF ALL GAS APPLIANCES TO ENSURE THEY ARE CORRECTLY SET UP FOR THE TYPE OF GAS TO BE SUPPLIED.

8.4.4. ***CROSSOVERS.*** Install the gas line crossover in multi-section homes before performing any system tests or connecting the system to the gas supply. All crossovers and fittings must be listed for manufactured housing exterior use and be the same size as the main unit pipe. Do not use tools to connect or remove the flexible connector quick disconnect.

8.4.5. ***TESTING PRIOR TO CONNECTION TO MAINS.*** Even though the gas system was tested at the factory, it is essential that it be rechecked for leaks at the site. DO NOT APPLY PRESSURE IN EXCESS OF THOSE SPECIFIED BELOW OR YOU MAY DAMAGE GAS VALVES AND/OR PRESSURE REGULATORS. Conduct one of the following two tests when the air and piping temperatures are nearly equal and will remain stable.

8.4.5.1. ***PIPING ONLY TEST.*** Close all appliance shut-off valves. Attach a pressure gauge calibrated in ounces at the home gas inlet. Pressurize the system with air to at least 3 psi (48 oz.). Isolate the pressure source from the system. The gauge must stand for at least 10 minutes with no drop in pressure. If any pressure loss occurs, check all joints in the piping system and at all shut-off valves with soapy water or bubble solution until the leaks are located. Repair the leaks and retest until the pressure holds.

8.4.5.2. ***TEST OF ENTIRE SYSTEM.*** Close all gas equipment controls and pilot light valves according to the individual gas equipment manufacturer's instructions. Assure that gas shut-off valves for all gas equipment are in the OPEN position. Attach a pressure gauge calibrated in ounces at the home gas inlet. Pressurize the system with air to at least 6 oz. Check all gas shut-off valves and flex line connections to valves and appliances for leaks, using soapy water or bubble solution. DO NOT BUBBLE CHECK BRASS FITTINGS WITH SOLUTIONS CONTAINING AMMONIA. Repair any leaks found and retest. Close all equipment shut-off valves upon completion of testing.

8.4.6. ***CONNECTION PROCEDURES.*** Inspect gas appliance vents to ensure they have been connected to the appliance and make sure that roof jacks are installed and have not come loose during transit. Have the gas system connected to the gas supply only by an authorized representative of the gas company.

8.4.7. ***GAS APPLIANCE START UP PROCEDURES.*** One at a time, open each equipment shut-off valve. Light pilots and adjust burners according to each appliance manufacturer's instructions. MAKE SURE THE WATER HEATER IS FILLED WITH WATER BEFORE LIGHTING ITS PILOT. Check the operation of the furnace and water heater thermostats and set them to the desired temperatures.

8.5. ***HEATING OIL SYSTEMS.*** Homes equipped with oil burning furnaces must have their oil supply tankage and piping installed on site. These items are not supplied with your home. Consult the oil furnace manufacturer's instructions for proper pipe sizing and installation procedures. ALL OIL STORAGE TANK AND PIPING INSTALLATIONS MUST MEET ALL APPLICABLE LOCAL REGULATIONS AND SHOULD BE MADE ONLY BY EXPERIENCED QUALIFIED PERSONNEL.

8.5.1. ***TANK INSTALLATION REQUIREMENTS.*** Unless the home is installed in a community with a centralized oil distribution system, you must install an oil storage tank outside the home. Locate the tank where it is accessible for service and supply and safe from fire and other hazards.

8.5.1.1. ***VAPORIZING (GRAVITY-FEED) FURNACES.*** Install oil tanks that feed vaporizing-type oil furnaces so that oil flows freely by gravity. To achieve efficient gravity flow, install the tank so that its bottom is at least 8" above the level of the furnace's oil control and its top is within 8' of the oil control level.

8.5.1.2. ***GUN (PUMP-FED) FURNACES.*** Since the furnace includes a fuel pump, the tank may be installed above or below ground. For tanks installed below ground, do not exceed the lifting capacity of the pump, and extend the filler neck 1' above grade and provide a 1 1/4" diameter minimum vent pipe extending at least 2' above grade.

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8.5.1.3. ***SLOPING AND DRAINING REQUIREMENTS.*** Regardless of the type of oil furnace or the tank location, install the tank to provide a gradual slop toward the fill end or drain plug (if so equipped). This facilitates pumping or draining of water and sludge.

8.5.2. ***SHUT-OFF VALVE AND FUEL LINE FILTER.*** Install an accessible and approved manually-operated shut-off valve at the oil tank outlet. Dorchester Homes also recommends installing a suitable filter in the fuel line near the tank to trap dirt and water.

8.5.3. **LEAK TEST PROCEDURE.** Before operating the system, check for leaks in the tank and supply piping. Fill the tank to capacity with fuel and examine all joints in the system for leakage.

8.6. ***ELECTRICITY.*** A large enough power supply must be available at the site. An inadequate power supply may result in improper operation of, and possible damage to, motors and appliances. It may also increase your electricity costs. The current rating in amperes of your home can be found on the tag located outside next to the feeder or service entrance and also on the electrical distribution panel.

8.6.1. ***DESCRIPTION AND RATING OF HOUSING WIRING.*** Your home is designed for connection to an electrical wiring system rated at 120/240 volt AC. PROPER AND SAFE CONNECTION DEPENDS ON THE TYPE OF SUPPLY SYSTEM YOUR HOME IS EQUIPPED WITH.

8.6.2. ***PROPER FEEDER WIRING AND JUNCTION BOX MATERIAL AND SIZE.*** The main breaker and the label on the electrical distribution panel give the feeder current capacity and amperes. Using this information, determine the required feeder size from the following tables. These sizes are based on an ambient temperature of 86F and do not take voltage drop into consideration. See individual manufacturer's set-up and installation guide for specific requirements.

8.6.2.1. ***OVERHEAD FEEDERS.*** Homes equipped with overhead (mast weatherhead) feeder entrances contain all necessary conduit to the electrical distribution panel. However, you must install feeder conductors (not provided) on site.

8.6.2.2. ***UNDERSIDE FEEDERS.*** Homes with an under-the-floor entrance come with a permanently attached conduit raceway that runs from the electrical distribution panel to a point under the floor. Install an approved conduit panel to a point under the floor. Install an approved conduit fitting or junction box at the termination point.

8.6.3. ***GROUNDING OF HOMES WITH FEEDER CONNECTIONS.***

8.6.3.1. ***NECESSITY.*** The home must be grounded properly to protect the occupants. The only safe and approved method of ground your feeder-connected home is through the grounding bar in the electrical distribution panel. This bar grounds all noncurrent-carrying metal parts of the electrical system at a single point.

8.6.3.2. ***PROCEDURE.*** The ground conductor of the power supply feeder cable connects the grounding bar to a good electrical ground. Insulate the grounded circuit conductor (neutral or white wire) from the grounding conductors (green wires) and from equipment enclosures and other grounded parts. Insulate neutral circuit terminals in the distribution panel board - and in ranges, clothes dryers, and counter-mounted cooking units - from the equipment enclosure. Bonding screws, straps or buses in the distribution panel board or in appliances should have been removed and discarded at the manufacturing facility. You may provide the required continuity of ground between sections of multi-section homes through a metallic roof or siding for by bolting outriggers together. When the outriggers or other overlapping metal joints of adjoining units are not bolted together on houses with shingle roofs and non-metallic siding, install a ground wire connection between the chassis. This bonding connection is commonly made with a #4 AWG bare copper wire or other approved positive connection between parts, using approved grounding lugs with bolts, star washers and nuts, or self-tapping screws that are shipped with the home.

8.6.3.3. ***UNACCEPTABLE METHODS OF GROUNDING HOMES.*** Grounding to a rod, a water pipe, will not satisfy the important grounding requirement. NEVER USE THE

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NEUTRAL CONDUCTOR OF THE FEEDER CABLE AS A GROUND WIRE. DO NOT GROUND THE NEUTRAL BAR IN THE ELECTRICAL DISTRIBUTION PANEL.

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8.6.4. ***CONNECTION METHODS.*** Connections should be made only by qualified electrician using one of the following methods:

8.6.4.1. ***MAST WEATHERHEAD FEEDER.*** The routing, connection and support of the service drop must meet local codes. If the masthead is located above the roof overhang, allow a minimum 8' clearance above all roof points the conductors pass over. There are two exceptions to this rule: 1) The vertical clearance may be reduced to 3' if the roof has a minimum slop of 4 in 12; and 2) The vertical clearance may be reduced to 18" if no more than 4' of service-drop conductors pass above the roof overhang, and if they terminate at a through-the-roof raceway or approved support. A minimum clearance must also be provided from the final grade to the service-drop conductors. This measurement may vary from 10' to 18' depending on the types of traffic anticipated below the service drop (refer to the National Electric Code). Unless impractical, locate service heads above the point of attachment of the service-drop conductors and make them rain-tight. If individual conductors do not extend downward, form drip loops.

8.6.4.2. ***UNDERSIDE JUNCTION BOX FEEDER.*** A raceway from the main panel board to the underside of the home allows for installing an approved junction box or fitting, which must be used to connect it to the supply raceway. Install properly-sized conductors from the main power supply to the panel board. The homeowner or installer must provide the supply connection including the feeder conductors, junction box and raceway connectors. Protect conductors emerging from the ground from a minimum 18" below grade to 8' above grade, or to the point of entrance to the home. The distance measured from the top surface of a buried cable, conduit or raceway to the finished grade must meet minimum burial requirements outlined in the National Electric Code. Use a moisture-proof bushing at the end of the conduit from which the buried cable emerges.

8.6.4.3. ***SERVICE EQUIPMENT METER BASE.*** Either an overhead or underground entrance may be provided. The exterior equipment and enclosure must be weatherproof, and conductors must be suitable for use in wet locations. When a meter is provided on the home, connect the neutral (white) conductor to the system grounding (green) conductor on the supply side of the main disconnect. The homeowner must provide the grounding electrode conductor(s). The grounding electrode should be an 8' length of 1/2" diameter copper rod or 3/4" galvanized steel pipe. Drive it into the ground at least 12" below the surface and 2' from the foundation, or bury it horizontally in a 2 1/2' deep trench. Connect the grounding conductor wire to the grounding electrode with a grounding clamp. For added protection, homes with metal frames or siding should be connected to earth by means of an additional bonding wire to underground metallic water pipes, ground rings, additional ground rods, etc. to prevent buildup of hazardous voltages.

8.6.5. ***CROSSOVER CONNECTIONS.*** Crossover locations can be distinguished by metal junction boxes or access cover panels. Remove these panels and connect the enclosed wires. Some crossover connectors plug together and do not require junction boxes.

8.6.6. ***SYSTEM TEST PROCEDURES AND EQUIPMENT.***

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8.6.6.1. ***PRE-CONNECTION TESTS.*** Conduct both of the following tests before any electrical power is supplied to the home:

8.6.6.1.1. ***CIRCUIT CONDUCTOR CONTINUITY.*** conduct a continuity test by placing all branch circuit breakers and switches controlling individual outlets in the "on" position. The test should give no evidence of a connection between any of the supply conductors (including the neutral) and the grounding circuit. You may use a flashlight continuity tester.

8.6.6.1.2. ***GROUNDING CONTINUITY.*** Using a continuity tester, test all noncurrent-carrying metal parts to assure continuity to ground. The parts to be checked include:

- Appliance enclosures, including fans;
- Fixture enclosures and canopies;
- Metal siding and roofs;
- Metal water supply and gas lines;

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- Metal ducts (except foil-covered insulated ducts);
- The home's frame.

On multi-section units, perform this test only after completing all electrical and bonding connections between the units. **NOTE:** GROUNDING IS NOT REQUIRED ON THE METAL INLET OF A PLASTIC WATER SYSTEM OR ON PLUMBING FIXTURES SUCH AS TUBS, FAUCETS, SHOWER RISERS, AND METAL SINKS WHEN THEY ARE CONNECTED ONLY TO PLASTIC WATER AND DRAIN PIPING.

8.6.6.2. ***POST-CONNECTION TESTS.*** Conduct the following three tests after turning on the main circuit breaker and each individual circuit breaker. **CAUTION:** ALLOW THE WATER HEATER TO FILL COMPLETELY BEFORE ACTIVATING THE WATER HEATER CIRCUIT. FAILURE TO DO SO WILL CAUSE THE WATER HEATER ELEMENT TO BURN OUT, AN EVENT NOT COVERED BY THE WARRANTY.

8.6.6.2.1. ***POLARITY AND GROUNDING OF RECEPTACLES.*** With receptacle and lighting circuits energized, check the polarity and grounding of each 120-volt receptacle and light socket using a polarity tester capable of determining an incorrect wiring configuration. A conversion device may be required to test various fixture bulb sizes and outlet configurations. Investigate any indication of reversed polarity, open grounds or shorts and correct it.

8.6.6.2.2. ***GROUND FAULT CIRCUIT INTERRUPTION (GFCI).*** Make certain that all receptacles requiring GFCI protection are in fact on the correct circuit(s). Check each ground fault circuit interrupter device by pushing the test button to determine if the power route to the receptacle has been interrupted, or follow the manufacturer's instructions. Replace any GFCI that does not operate properly.

8.6.6.2.3. ***OPERATIONAL CHECKS.*** Check all light fixtures by placing a bulb in the socket and turning the switch on and off. Using a pigtail light, check all 240 volt receptacles to determine if both legs of the circuit are powered. Check all 120 volt receptacles to be sure that each is operational. Switched receptacles require the switch to be turned on and off. It is not necessary to check appliances, but their power sources must be assured.. Failure of electrical wiring or fixtures requires repair and re-testing.

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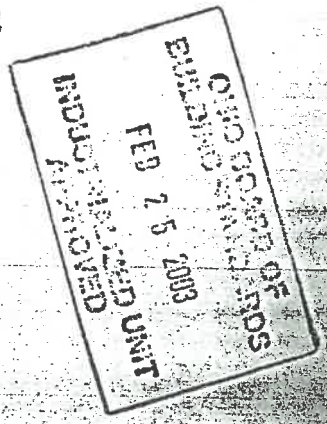
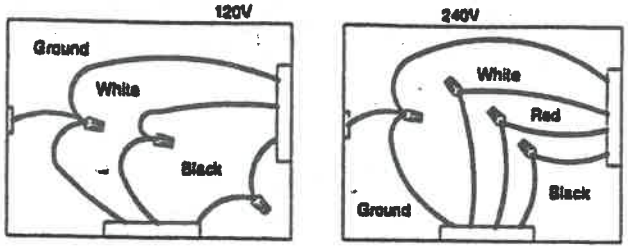
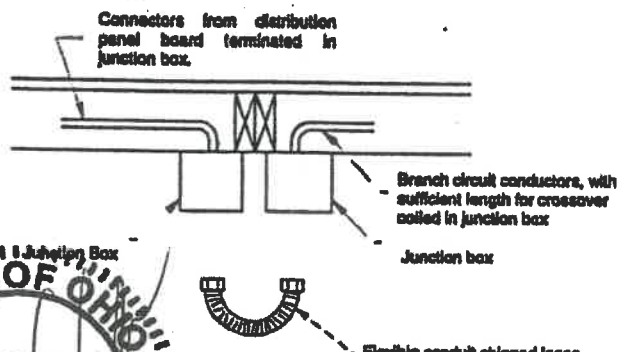
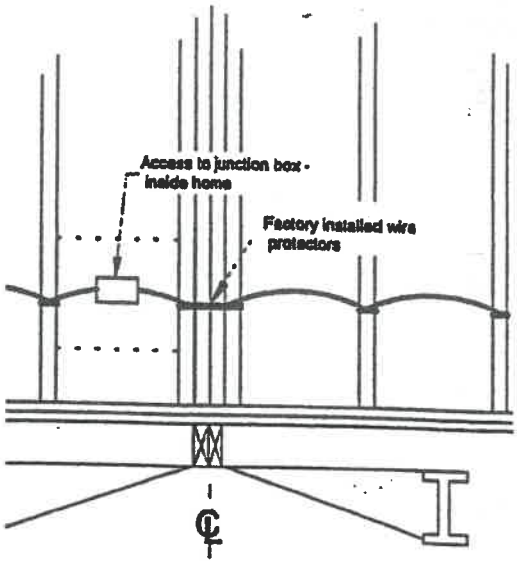


FIGURE 8.14 - ELECTRICAL CROSSOVERS







IN WALL - ALTERNATE

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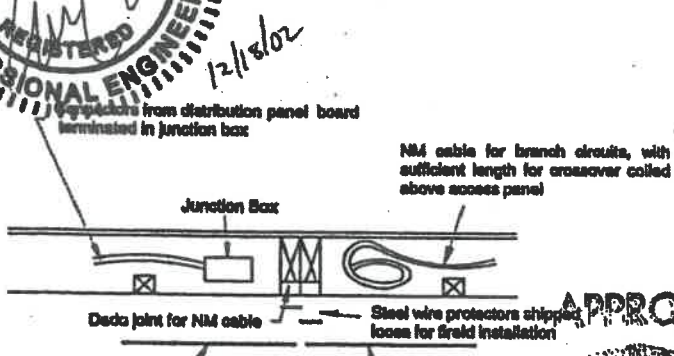
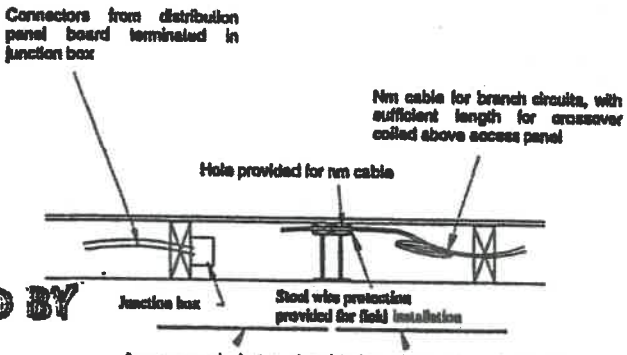


IN FLOOR – FRAME ON (SIDE VIEW)



IN FLOOR - ALTERNATE B (SIDE VIEW)

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THIS HOME MAY BE SHIPPED WITH ONE OR MORE PLUG-IN CONNECTORS. THESE CONNECTORS ARE TO BE SNAPPED TOGETHER ON SET-UP. CONNECTORS WILL BE COLOR-CODED AND/OR TAGGED TO PREVENT MIXING OF CIRCUITS

(PERIMETER TYPE FRAME)

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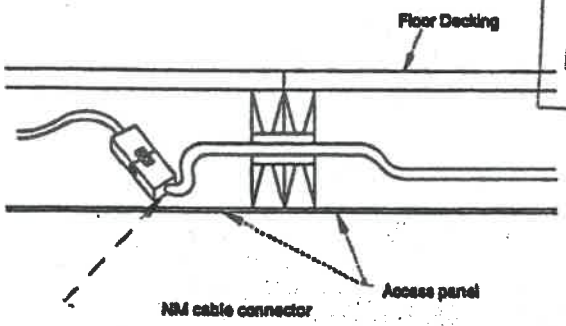
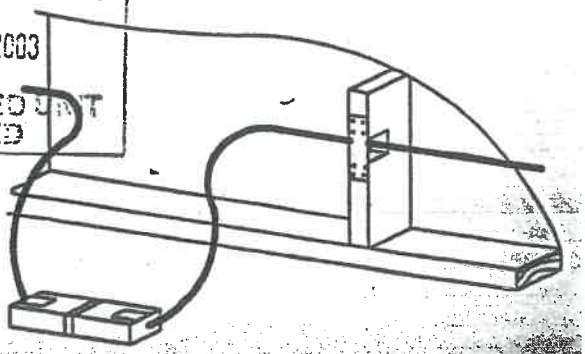
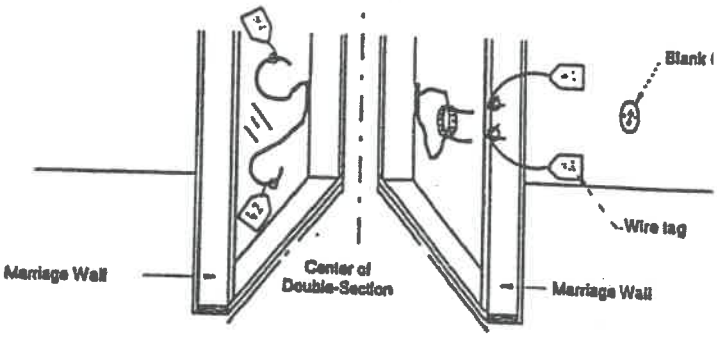




THE CONNECTORS ARE INTENDED FOR FACTORY OR ON-SI INTERCONNECTION OF MODULES OR OTHER BUILDING COMPONENTS. THE MAY BE CONCEALED OR SURFACE-MOUNTED AS DESCRIBED IN ARTICLES 54 13, 550-10(1) AND 551-16(A) OF THE NATIONAL ELECTRIC CODE.

FIGURE 8.14 - TYPICAL ELECTRIC CROSSOVERS

THE WIRES ARE COILED UP UNDER THE SHIPPING SEAL. BEFORE THE UNITS ARE PULLED TOGETHER PLACE THE WIRES FROM "U" HALF INTO JUNCTION BOX ON "X" HALF. WIRES WILL BE COLOR CODED AND/OR TAGGED TO PREVENT MIXING OF CIRCUITS. MAKE FINAL CONNECTIONS AFTER UNITS ARE PULLED TOGETHER.



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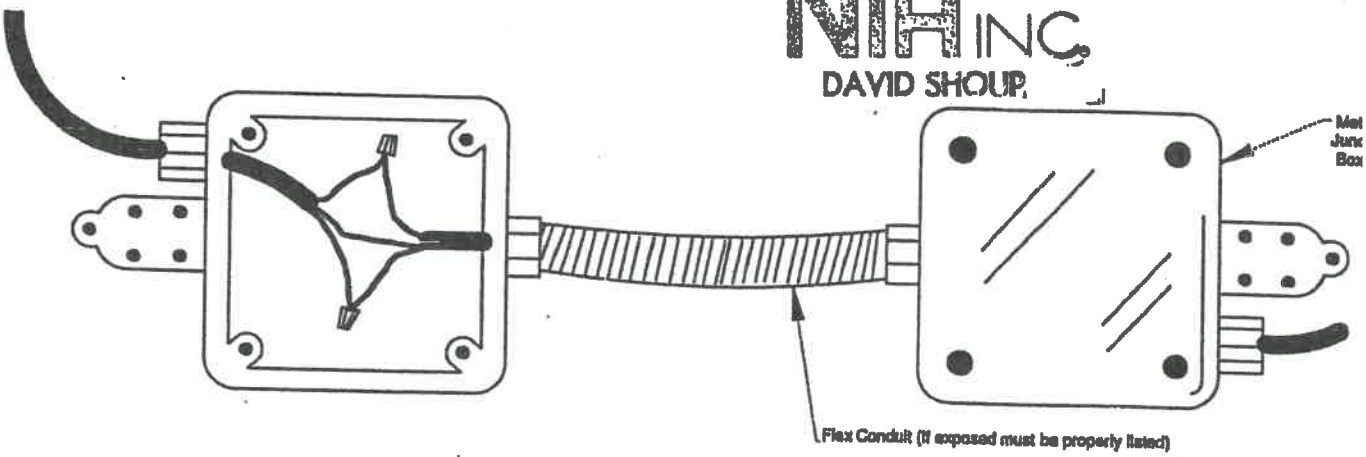
ALTERNATE ELECTRIC CROSSOVER



CONNECT THE FLEX CONDUIT TO THE JUNCTION BOX ON THE "X" HALF. THEN MAKE THE WIRE CONNECTIONS USING APPROVED WIRE CONNECTORS. WIRES WILL BE COLOR CODED AND/OR TAGGED TO PREVENT MIXING OF CIRCUITS.

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THIS HOME MAY BE SHIPP WITH ONE OR MORE PLUG CONNECTORS. THE CONNECTORS ARE TO SNAPPED TOGETHER ON SI UP. CONNECTORS WILL COLOR-CODED AND/OR TAGG TO PREVENT MIXING CIRCUITS.

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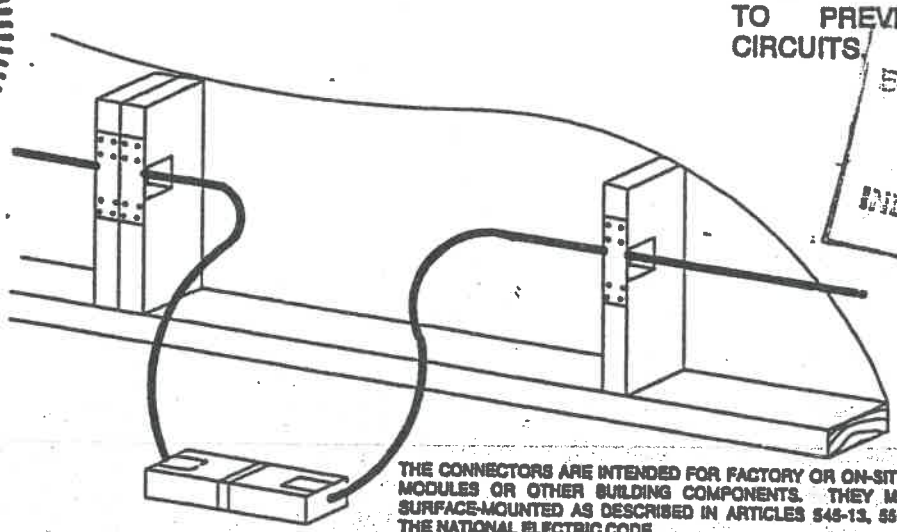

THE CONNECTORS ARE INTENDED FOR FACTORY OR ON-SITE INTERCONNECTION OF MODULES OR OTHER BUILDING COMPONENTS. THEY MAY BE CONCEALED OR SURFACE-MOUNTED AS DESCRIBED IN ARTICLES 545-13, 550-10(I) AND 551-10(C) OF THE NATIONAL ELECTRIC CODE.

FIGURE 8.11 - MULTI-SECTION FRAME BONDING

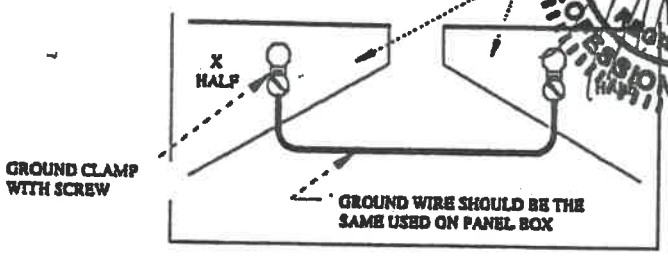

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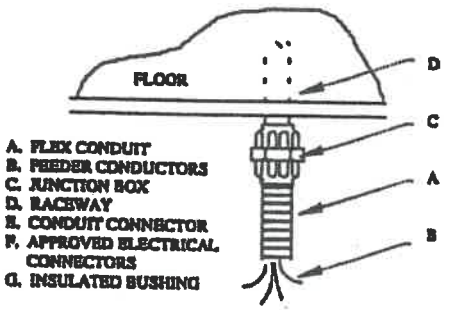
FIGURE 8.12 - TYPICAL UNDER CHASSIS FEED CONNECTIONS



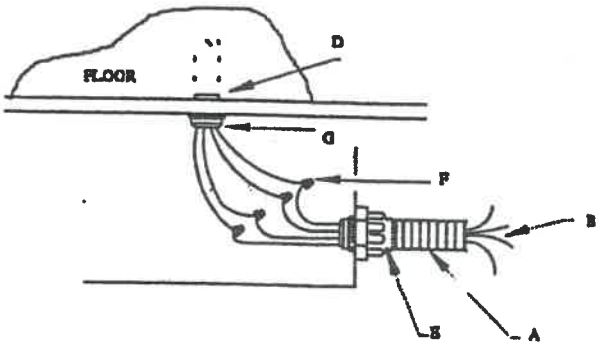
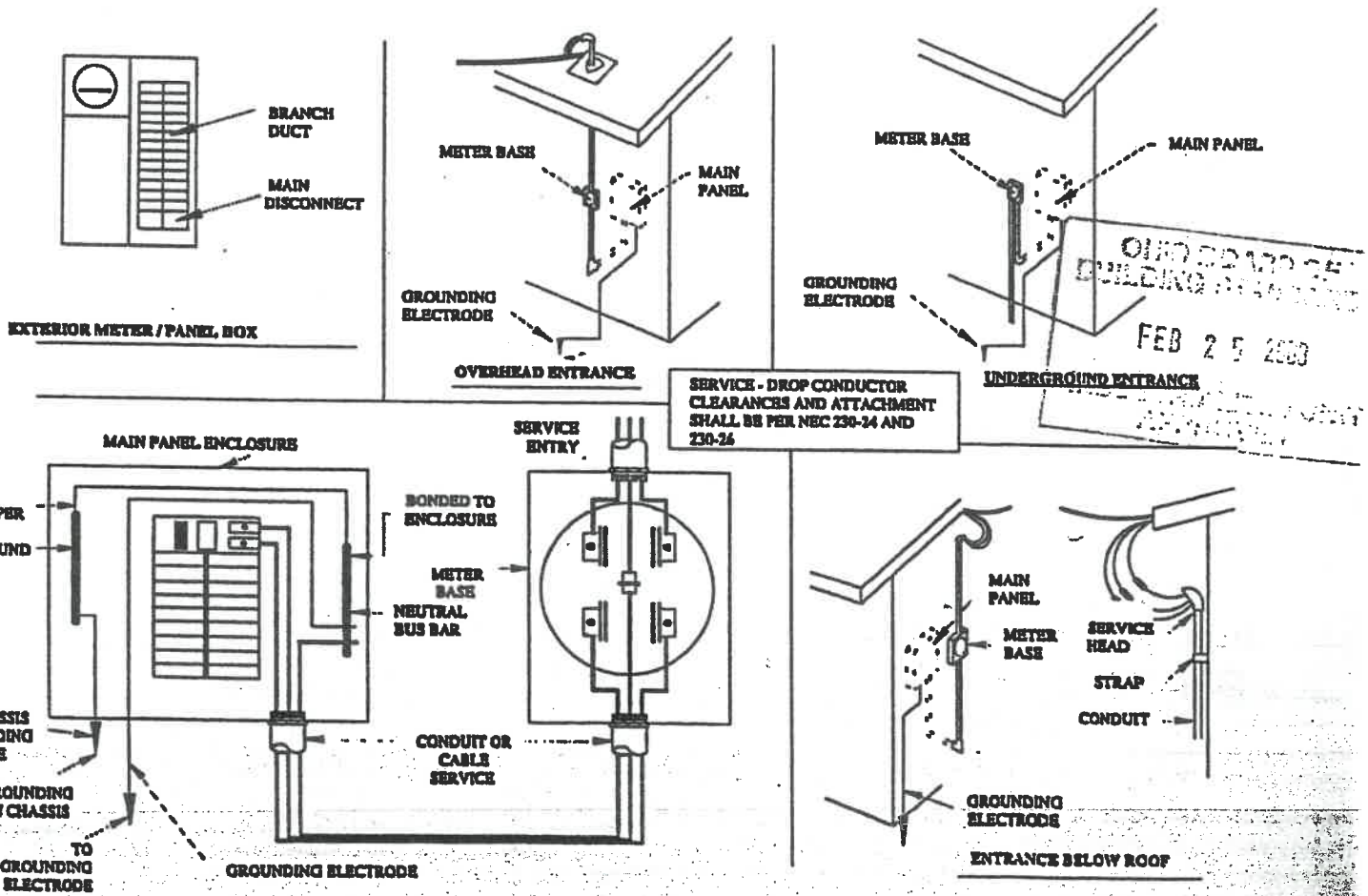


FIGURE 8.13 - TYPICAL METER BASE INSTALLATIONS AND



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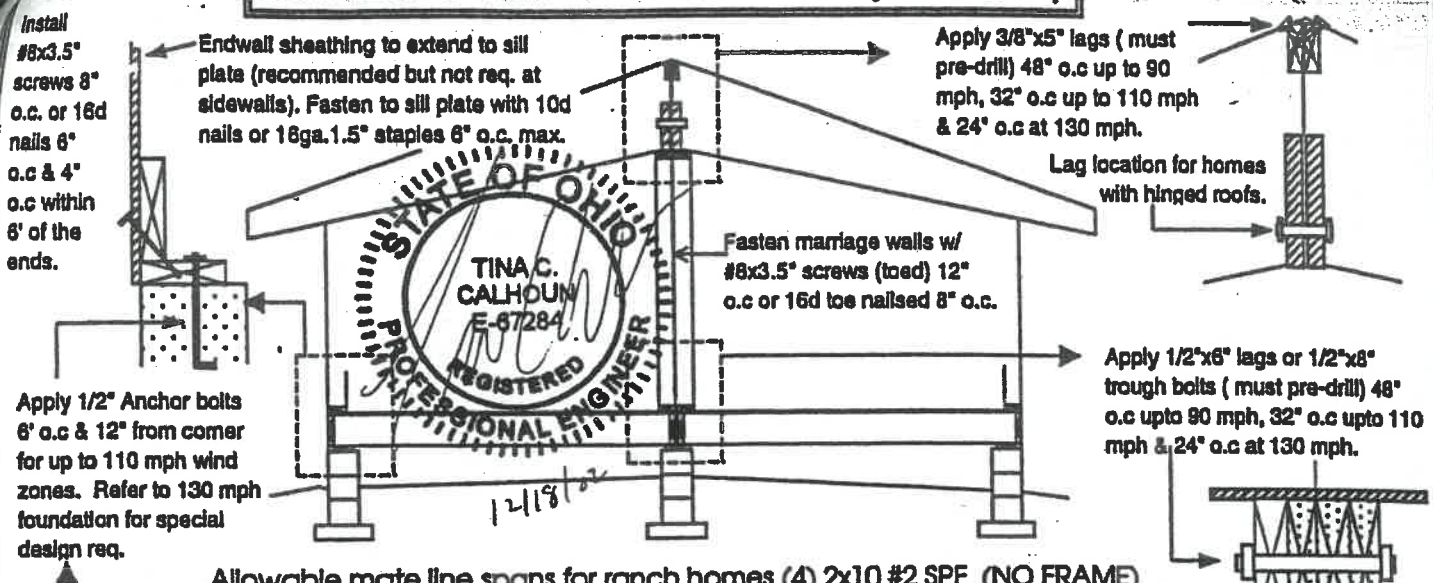
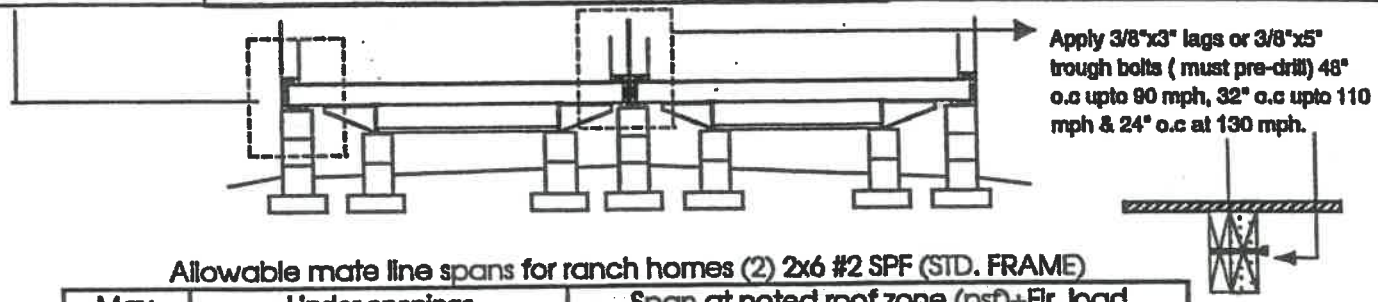
CHAPTER 10 - Ranch homes foundation systems & req.



Allowable mate line spans for ranch homes (4) 2x10 #2 SPF (NO FRAME)

Max. Width	Under openings (Floor LL + DL) only	Span at noted roof zone (psf)+Flr. load				
		30	40	60	90	120
28'	11'-0"	9'-0"	8'-6"	7'-10"	7'-0"	6'-4"
32'	10'-4"	8'-6"	8'-1"	7'-4"	6'-7"	6'-0"

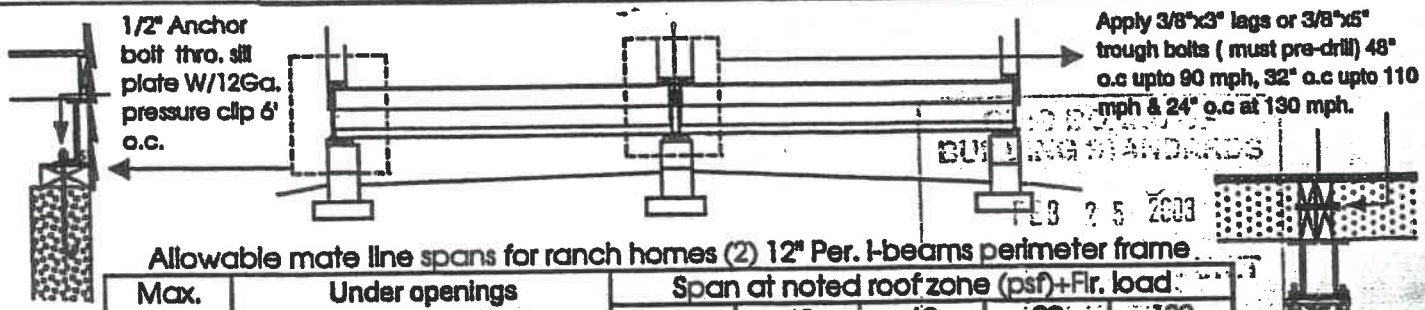
STANDARD RANCH PIERS LOCATION (NO FRAME)



Allowable mate line spans for ranch homes (2) 2x6 #2 SPF (STD. FRAME)

Max. Width	Under openings (Floor LL + DL) only	Span at noted roof zone (psf)+Flr. load				
		30	40	60	90	120
28'	8'-5"	5'-5"	5'-0"	4'-4"	3'-7"	3'-0"
32'	7'-8"	5'-1"	4'-8"	4'-1"	3'-4"	2'-9"

OPTION A: Pier location for 2x6 floor system (STD. Frame).



Allowable mate line spans for ranch homes (2) 12" Per. I-beams perimeter frame

Max. Width	Under openings (Floor LL + DL) only	Span at noted roof zone (psf)+Flr. load				
		30	40	60	90	120
28'	20'-0"	15'-3"	14'-6"	13'-3'	11'-10"	10'-10"
32'	20'-0"	16'-2"	15'-4"	14'-1"	12'-7"	11'-6"

OPTION B: Pier location for floor system w/ perimeter frame.

NOTES:
For all other information refer to foundation layout for each floor plan.

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CHAPTER 10
90-10-0023
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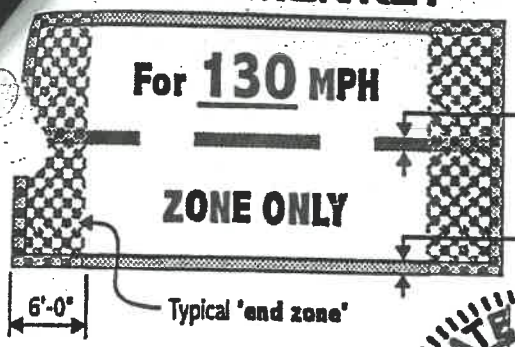
FOUNDATION KEY



Mating line foundation details; 90-10-0025 & 26
(Typical to both double- and triple-section homes)

Perimeter foundation details; **THIS SHEET**

Typical **'end zone'**

NOTE

All other dimensions, specification and loading information are foun on each home's foundation plan.

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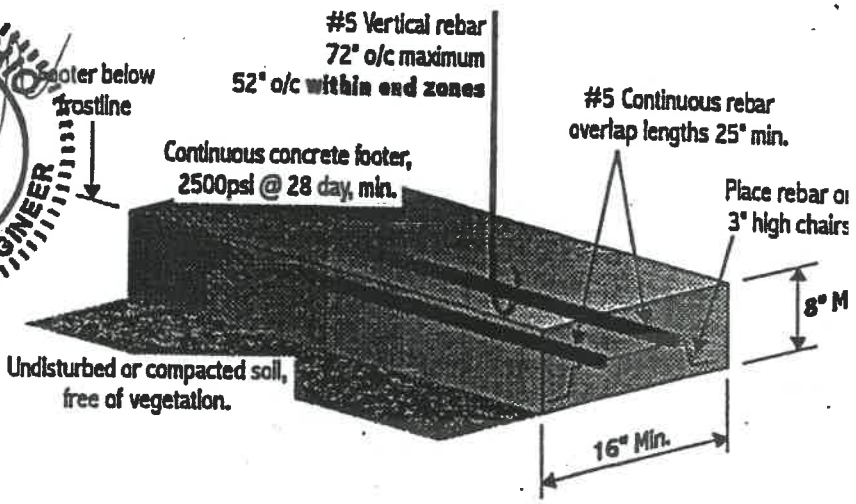
STEP 1
FOOTER CONSTRUCTION



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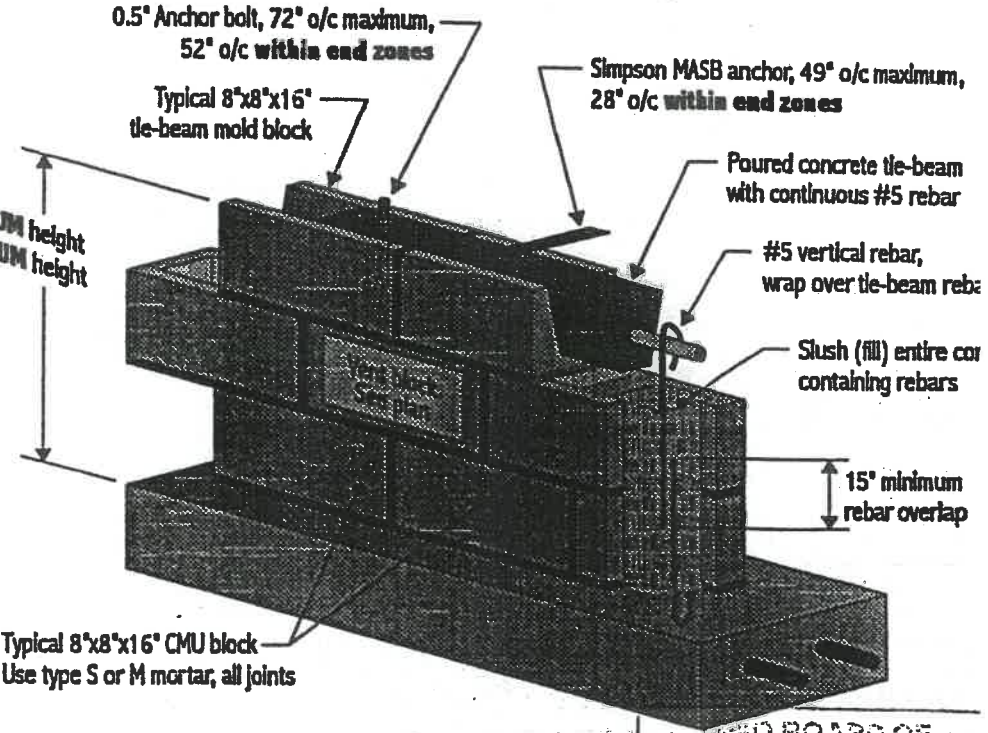
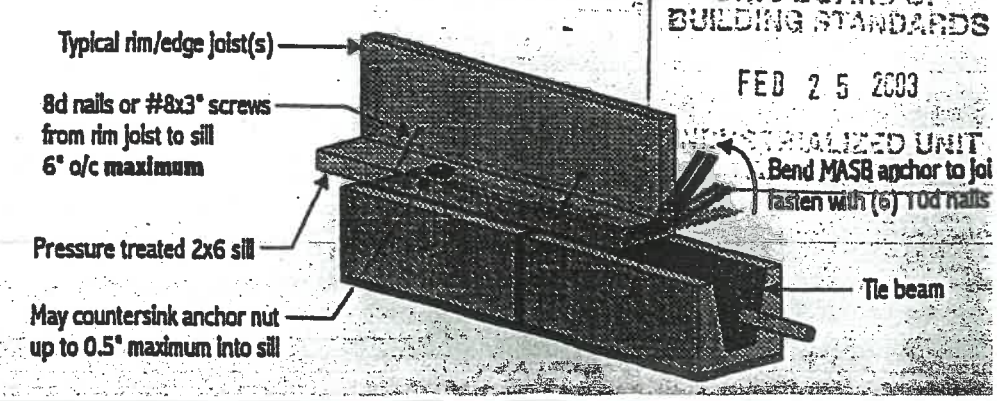
STEP 2
FOUNDATION WALL
VIEW FROM INSIDE



STEP 3
SILL FASTENING
VIEW FROM INSIDE



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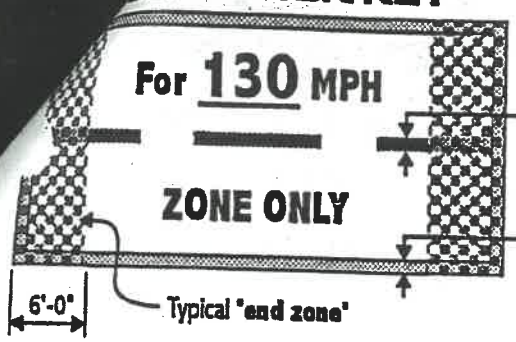

Mating line foundation details; THIS SHEET 90-10-0026

Perimeter foundation details; 90-10-0024

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NOTE

All other dimensions, specification
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STEP 1
PIER CONSTRUCTION

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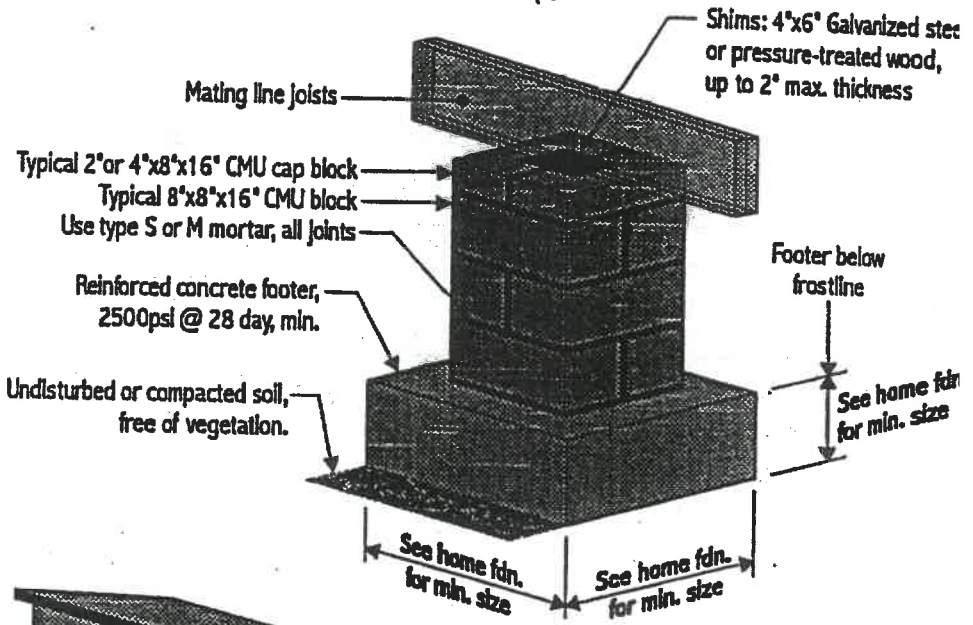
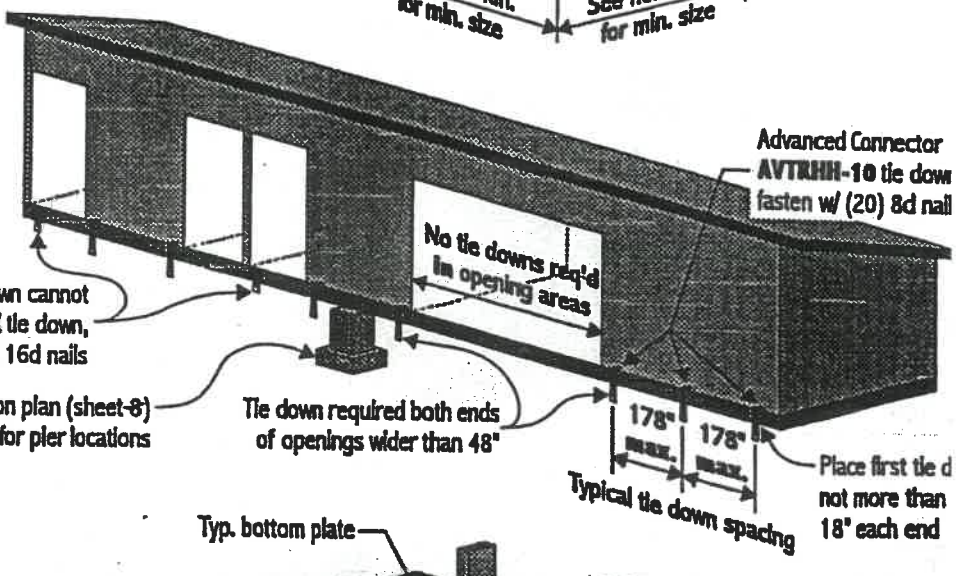
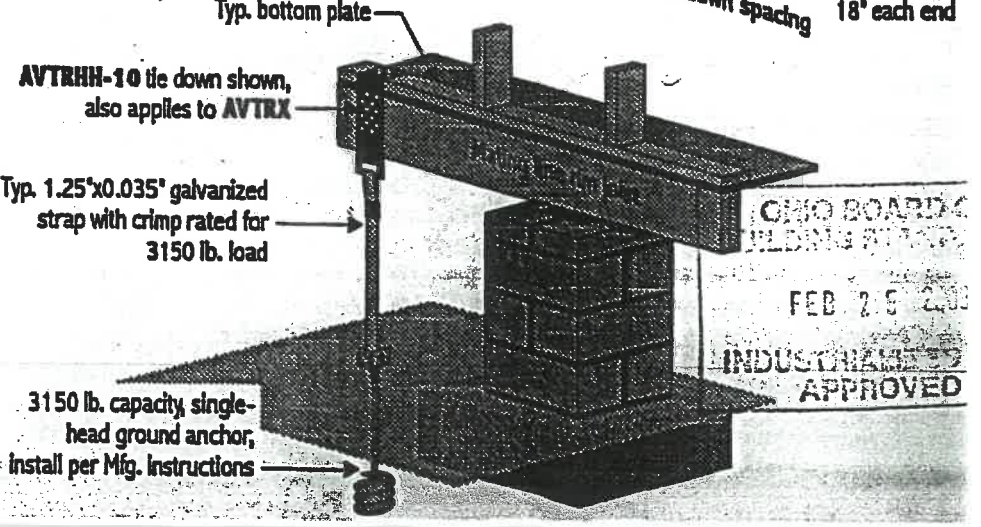


STEP 2
TIE DOWN PLACEMENT

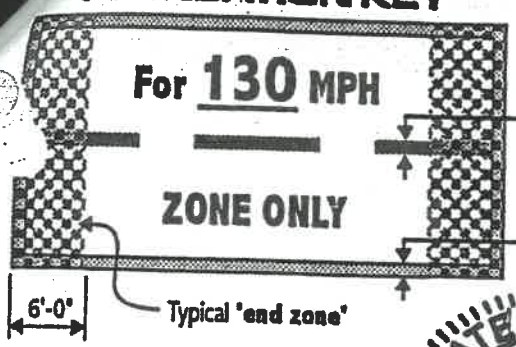
Tie downs only required on one floor out of mating pair



STEP 3
ANCHOR/STRAPPING



FOUNDATION KEY



Mating line foundation details; 90-10-0025 & 26
(Typical to both double- and triple-section homes)

Perimeter foundation details; **THIS SHEET**

Typical **'end zone'**

NOTE

All other dimensions, specificatior
and loading information are foun
on each home's foundation plan

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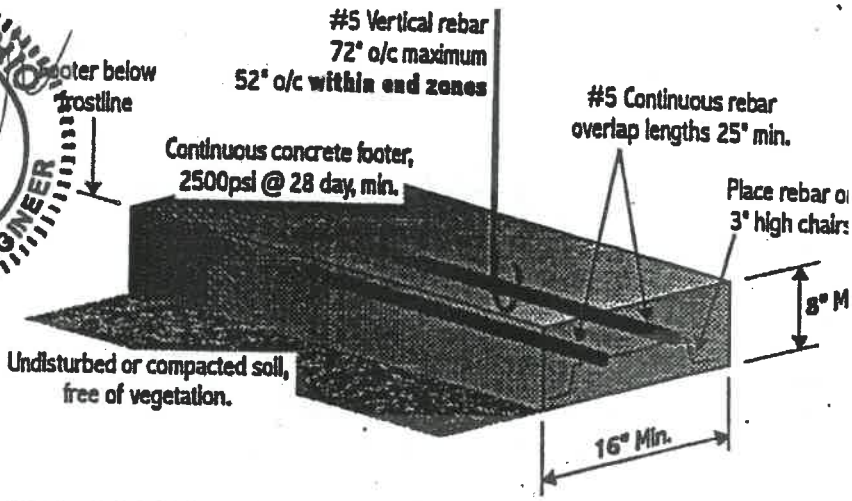
STEP 1
FOOTER CONSTRUCTION



Footer below frostline

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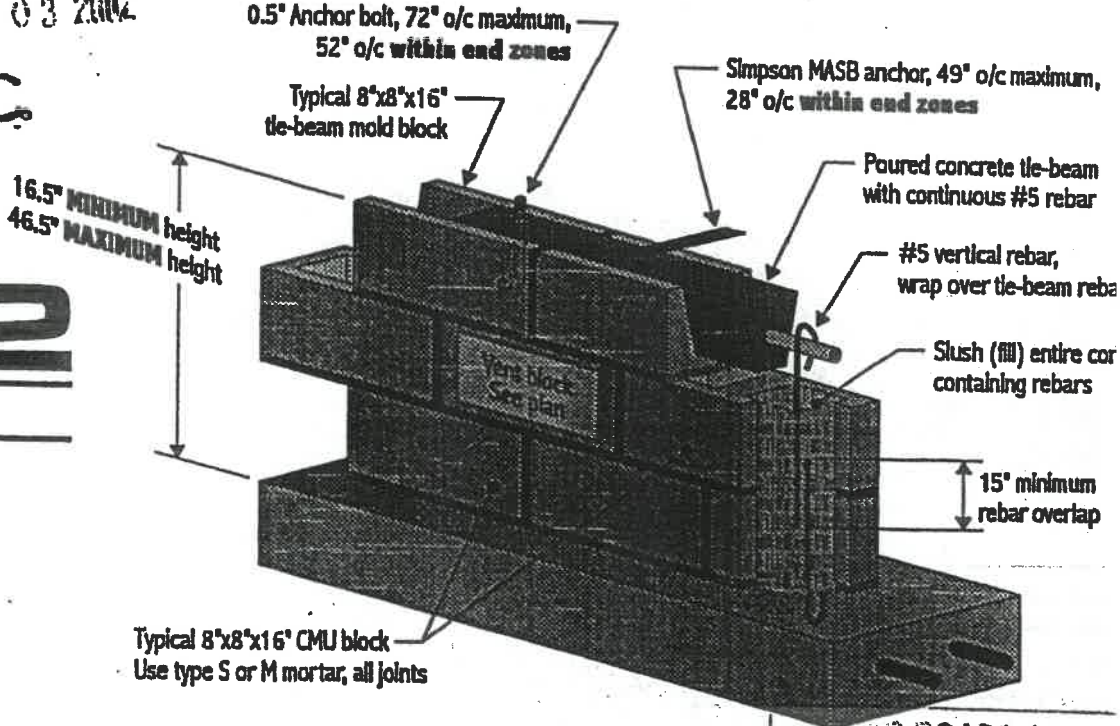
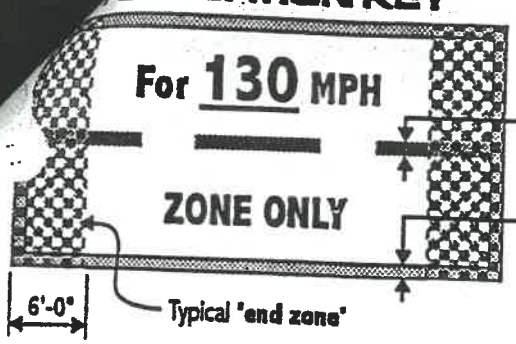


STEP 2
FOUNDATION WALL
VIEW FROM INSIDE

OHIO BOARD OF BUILDING STANDARDS
FEB 25 2003

STEP 3

FOUNDATION KEY



Mating line foundation details; THIS SHEET 90-10-0025

Perimeter foundation details; 90-10-0021

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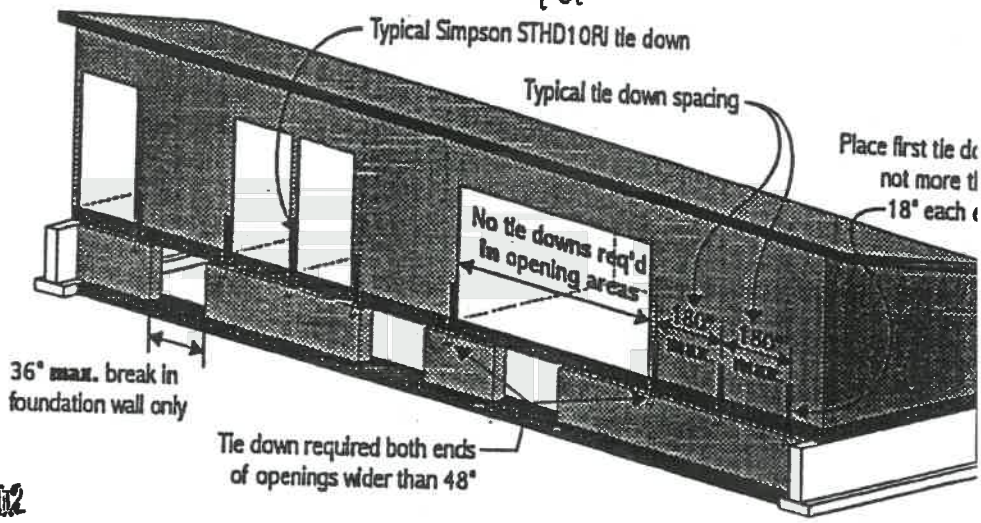
NOTE

All other dimensions, specification and loading information are found on each home's foundation plan

STEP 1
TIE DOWN PLACEMENT



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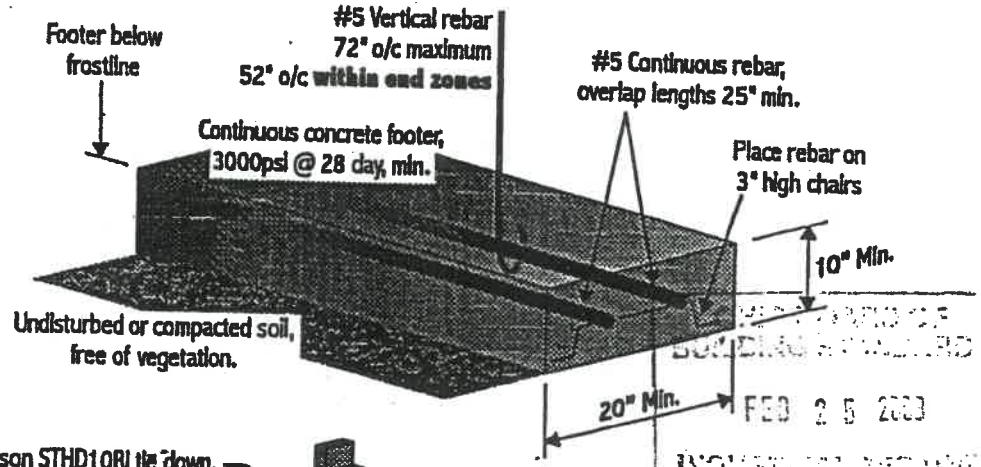
STEP 2
FOOTER CONSTRUCTION

SAME AS PERIMETER WALL



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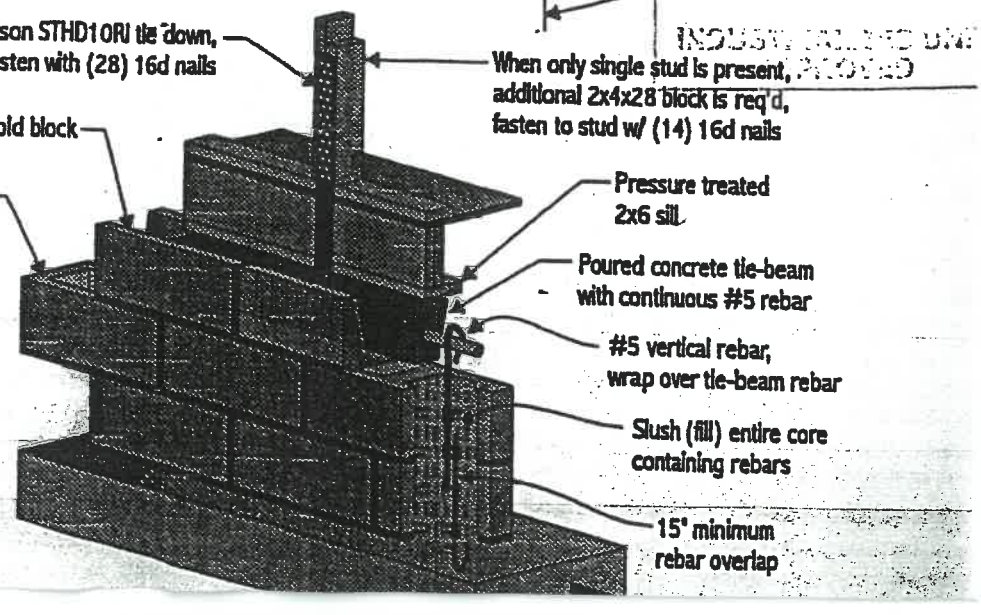
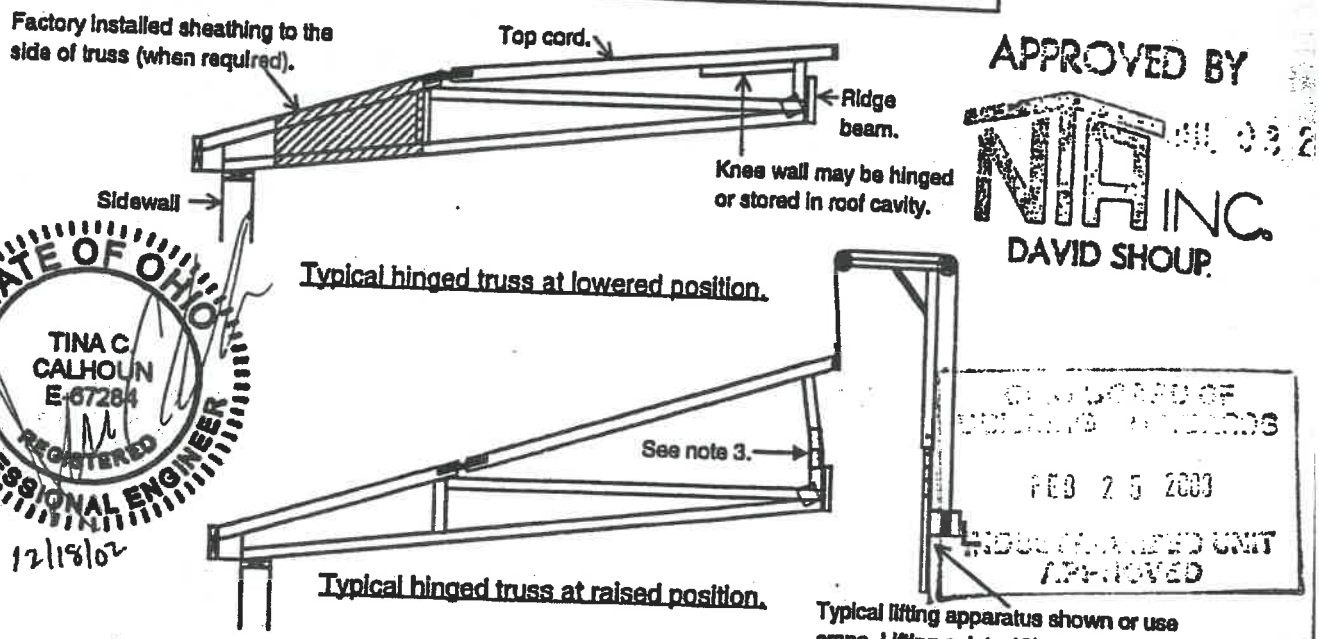
STEP 3
FOUNDATION WALL



Chapter: 11 Completion of optional features: Hinged roofs



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NH INC.
DAVID SHOUP

STATE OF OHIO
TINA C CALHOUN
E-67284
REGISTERED
PROFESSIONAL ENGINEER
12/18/02

FEB 2 5 2003

TYPICAL HINGED ROOF SETUP:

Some multi-section homes may have a hinged roof which will need to be raised and assembled prior to blocking. Above figures and the following steps describe the setup procedure.

1) Remove all shipping materials from roof and marriage wall.

2) Roof must be raised simultaneously into position to allow the knee wall or king post installation. Lifting point to be 12' apart the length of the home.
DO NOT OVER RAISE THE ROOF.

3) Add a 2x block 10" long at each truss king post splice, fastened W/ 3 #8x3" wood screw per end (see fig. 1).

4) At each gable end install a 2x4 diagonal bracing. This diagonal brace (1 per end) should be located approximately in the middle area of each section. Fasten the brace to end truss and the horizontal brace with (4) 8d nails at each end. See fig. 2 for details. This step is only applicable to hinged roofs at 110 mph or greater zones.

5) Sheath the end trusses at front and rear ends with 7/16" min. APA rated sheathing. Fasten sheathing to trusses with 6d nails 6" o.c to all truss framing members.

6) Check all interior trusses for factory installed sheathing (see fig. above). If non exist then skip to next step. However if this application exist, sheath the remainder of the truss(s) per step 4. Note: End trusses would always require cmplete sheathing at the ends.

7) Install all required roof vents and accessories to each manufactures installation instructions.

8) Unfold roof underlayment over truss hinge and install the ship loose portion of roof s

9) Refer to floor plan specific founadtion layout for all applicable founadtion req.

10) Follow Liberty's installation instruction for all other requirements.

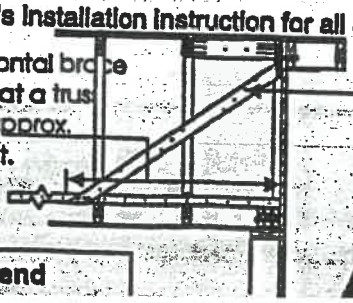


Fig. 2 Gable end

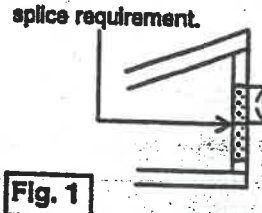


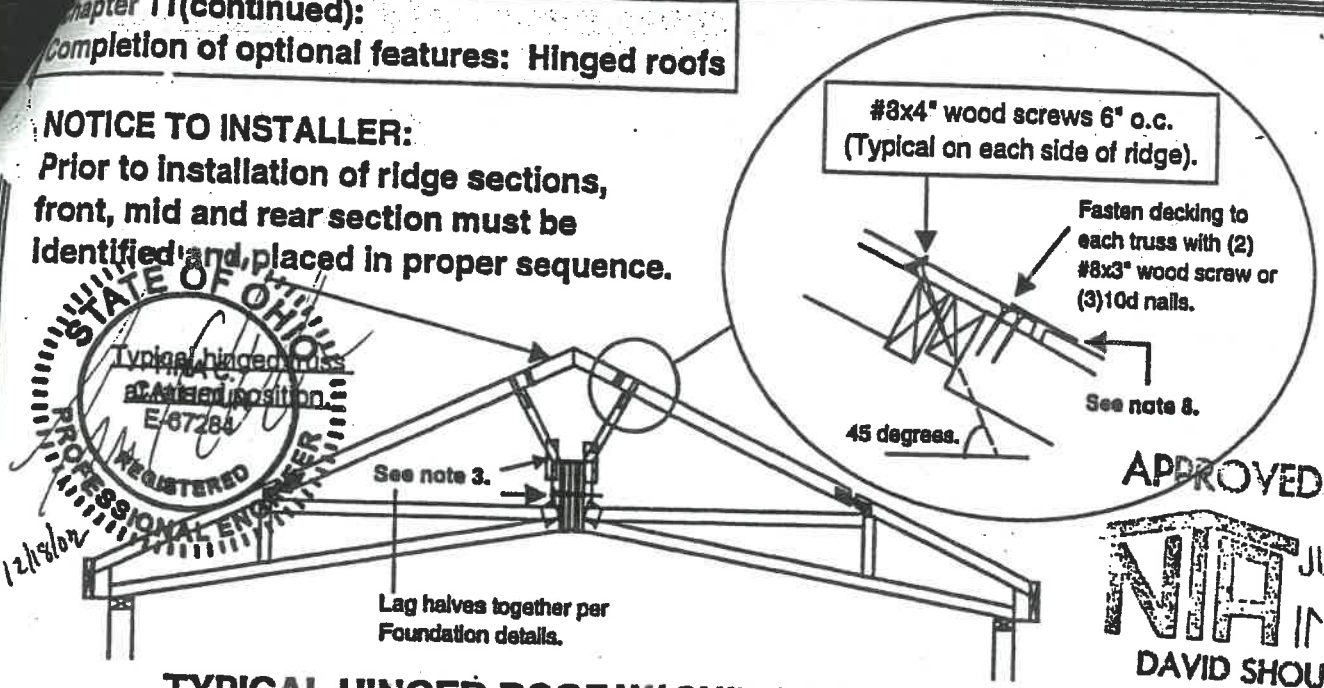
Fig. 1

Liberty

Date: 5/23/02
90-10-0040

Chapter 11(continued):
Completion of optional features: Hinged roofs

NOTICE TO INSTALLER:
Prior to installation of ridge sections, front, mid and rear section must be identified and placed in proper sequence.



STATE OF OHIO
Typical hinged truss at raised position.
E-67284
REGISTERED
PROFESSIONAL ENGINEER
12/18/02

APPROVED BY
NH INC.
JUL 03 200
DAVID SHOUP

TYPICAL HINGED ROOF W/ SHIP LOOSE CAP SETUP:

Multi-section homes with hinged roof will need to be raised and assembled prior to blocking. Above figures and the following steps describe the setup procedure.

1) Remove all shipping materials from roof and marriage wall.

2) Roof must be raised simultaneously into position to allow the knee wall or king post installation. Lifting point to be 12' apart the length of the home. **DO NOT OVER RAISE THE ROOF.**

3) **Use 2x block 10" long with 3-#8x3" wood screws at each end. See fig. 1.**

4) At each gable end install a 2x4 diagonal bracing. This diagonal brace (1 per end) should be located approximately in the middle area of each section. Fasten the brace to end truss and the horizontal brace with (4) 8d nails at each end. See fig. 2 for details. This step is only applicable to hinged roofs at 110 mph or greater zones.

5) Sheath the end trusses at front and rear ends with 7/16" min. APA rated sheathing. Fasten sheathing to trusses with 6d nails 6" o.c to all truss framing members.

6) Check all interior trusses for factory installed sheathing (see fig. above). If non exist then skip to next step. However if this application exist, sheath the remainder of the truss(s) per step 5.

7) Fasten all ridge beams and or top cords at the mating line with lags per applicable foundation prints & Liberty's installation instruction manual

8) Install all ridge sections in place. Note ridge section with a decking opening (ridge vents when applicable) must be located toward center of home. <u>It is very important to identify front, rear and mid sections for proper setup.</u> After all ridge sections are positioned in proper sequence toe screws each side of ridge section to truss ties with #8x4" wood screws 6" o.c. (see figure above). Fasten decking to each truss with (2) #8x3" wood screw or (3)10d nails.

9) Add 4" wide x 30 ga. galv. strap running the length of the home. Fasten strap to roof with roofing nails or 16ga.x7/16"x1" staples 8" o.c. max. on each side of decking joint. Strap may be spliced as required.

10) Unfold roof underlayment over truss hinge and install the ship loose portion of roof shingles.

11) Refer to floor plan specific foundation for all other foundation requirements.

12) Follow Liberty's installation instruction for all other requirements.

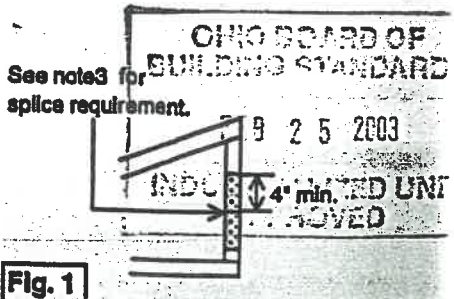


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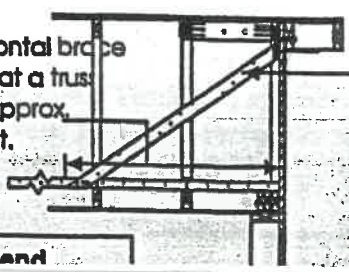
Fig. 1



Diagonal brace to horizontal brace connection must occur at a truss location at a distance approx. equaling the king post ht.

2x4 SPF #3 diagonal bracing, located at each horizontal ceiling brace. Fasten to each ceiling brace & to uprights or top cord of end truss w/ (4) 8d nails.

Fig. 2 Gable end

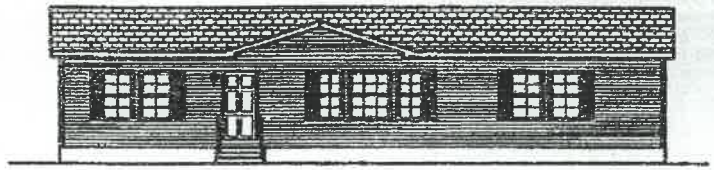
Liberty

Date: 5/23/02
90-10-0041

MFG. PLANT

HARBORSIDE HOMES Liberty Homes

State Road 13, P.O. Box 308
Syracuse, IN 46567
Corporate Offices: P.O. Box 35, Goshen, IN 46528


optional elevation

Design Codes: (Ohio)

1999 ORC One, Two, and Three Family Dwelling Code
2000 International Energy Conservation Code
2002 Ohio Plumbing Code; 2002 National Electrical Code

Occupancy

Residential - Single Family Dwelling
Construction Type: Wood Frame - Unprotected
Number of Floors: Single Story

Design Loads

Roof Live Load: 46 p.s.f. max. (40 p.s.f. grd. snow load zones)
Alt. 69 p.s.f. max. (60 p.s.f. grd. snow load zones)
Roof Dead Load: 10 p.s.f.
Wind Zone: 90 m.p.h. Max.
Floor Live Load: 40 p.s.f.
Floor Area: 1484 Sq. Ft.
Floor Dead Load: 10 p.s.f.

Insulation

R-8 Stem Foundation Wall Insulation (by others); R-19 In Exterior Walls;
R-38 Roof Insulation (Window "U" Factor - .40 min.)

ATTENTION LOCAL INSPECTIONS DEPARTMENT:

1 - Set-up instructions for the modular unit are included by attachments to these plans. Any plan set which does not include an attachment entitled "Installation Instruction Manual" are not complete.

2 - The following items have not being completed by Liberty Homes, Inc. have not been inspected by NTA Inc., and are not certified by the the compliance modular label. Code compliance must be determined at the local level: on-site HVAC Systems (or a portion thereof), below floor plumbing, and electrical service entrance disconnect.

Note: This unit must be connected to a public water supply and sewer system if these are available.

Model No.:

M3R56-S07

Drawing Description Index	Page Number
Typical Elevations	1
Floor Plan	2
Electrical Plan	3
Pressure System	4
DWV System	5A
Alt. DWV System	5B
DWV System	6
Loop Heating/Cooling Calcs.	A7
Loop HVAC Plan (crawlspace)	A8
Loop HVAC Plan (basement)	B8
Crawlspace Foundation Plan	9
Typical Building Cross Section	10
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Energy Compliance (crawlspace)	A13
Energy Compliance (basement)	B13

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Setback Requirement

Exterior walls shall be located 3' min. from property line

(note: include three print packages and one set-up manual with each home shipped)

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NOTES:

ALL SMOKE DETECTORS W/ BATTERY BACK-UP TO BE INTERCONNECTED WITH A 14 GAUGE MIN. INTERCONNECTION WIRE OR EQUIVALENT PER MANUFACTURER'S RECOMMENDATIONS.

ALL CLOSET LIGHTS TO BE ENCLOSED SURF. MOUNT FIXTURES, 12" MIN. FROM STORAGE SPACE.

EXTERIOR LIGHT AT GARAGE SIDE MAYBE REPLACED WITH J-BOX FOR GARAGE INSTALLED LIGHTS BY OTHERS

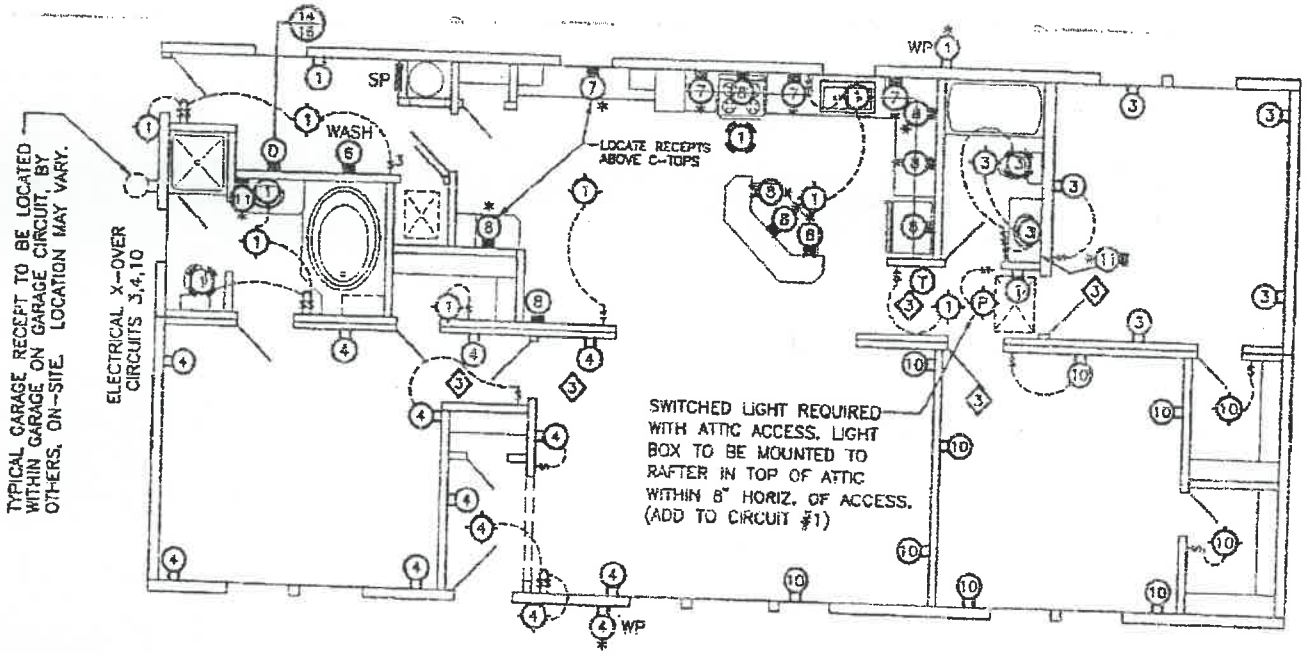
SPECIFICATIONS, WIRING, INSTALLATIONS, ETC. TO COMPLY WITH NEC REGULATIONS.

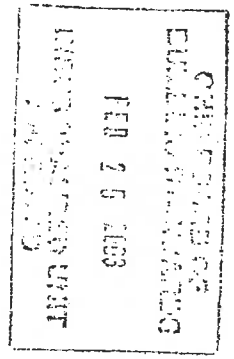
ALL KITCHEN COUNTER RECEPTS TO BE GFCI PROTECTED.

ALL BRANCH CIRCUITS SUPPLYING 15A AND 20A OUTLETS IN BEDROOMS ARE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER IN ACCORDANCE WITH SECTION 210.12, 2002 NEC.

ALL RECEPTS TO BE GROUNDING TYPE, PER 210-7/NEC.

SERVICE PANEL MAY BE LOCATED IN GARAGE OR BASEMENT.





NOTE: IN ADDITION TO AS SHOWN OR REFERENCED, ALL HOMES BUILT FOR MICHIGAN MUST MEET THE 2000 MICHIGAN RESIDENTIAL CODE

22½"X30½" ATTIC ACCESS REQUIRED WHEN CLEAR HEIGHT OF ATTIC EXCEEDS 30".

0 1' 2' 5' 10'

SCALE BAR

SYMBOLS X = CIRCUIT NUMBER

- (X) 15A RECEPT
- (X) FAN
- (X) 20A RECEPT
- (X) CEILING LIGHT
- (X) WALL MOUNTED LIGHT
- * GFCI PROTECTED
- $ SINGLE SWITCH
- $3 3 WAY SWITCH
- $D DOUBLE SWITCH
- (X) AC/DC SMOKE ALARM, ALL TO BE INTERCONNECTED PER MANUFACTURER'S INSTRUCTIONS
- (T) HEAT AND/OR COOL T-STAT

CIRCUIT LEGEND REF. SECTION 87-20 FOR SPECS.

CIRCUIT No.	DESCRIPTION	WIRE SIZE	BREAKER SIZE
1	GENERAL LIGHTING	14-2 W/GR.	115A-S. POLE
2	GARBAGE DISPOSAL	12-2 W/GR.	120A-S. POLE
3	GENERAL LIGHTING	14-2 W/GR.	115A-S. POLE
4	↓	↓	↓
5	OPT. DISHWASHER**	12-2 W/GR.	120A-S. POLE
6	WASHER RECEPT	12-2 W/GR.	120A-S. POLE
7	APPLIANCE CIRCUIT	12-2 W/GR.	120A-S. POLE
8	↓	↓	↓
9	↓	↓	↓

CIRCUIT No.	DESCRIPTION	WIRE SIZE	BREAKER SIZE
10	GENERAL LIGHTING	14-2 W/GR.	115A-S. POLE
11	BATH RECEPT CIRCUIT	12-2 W/GR.	120A-S. POLE
12	GENERAL LIGHTING	14-2 W/GR.	115A-S. POLE
13,15	ELECTRIC FURNACE	###	###
14,16	ELECTRIC DRYER	10-3 W/GR.	230A-D. POLE
17,19	ELECTRIC RANGE	8-3 W/GR.***	250A-D. POLE***
18,20	ELECT. WATER HEATER	###	###
21,23	AIR CONDITIONER	###	###
22	OPT. GARAGE CIRCUIT	12-2 W/GR.	20A-S. POLE
24	OPT. BSMT. CIRCUIT	12-2 W/GR.	20A-S. POLE

NOTES: GAS APPLIANCES MAY BE SUBSTITUTED FOR ELECTRIC APPLIANCES WHERE APPLICABLE. WHEN GAS APPLIANCES ARE INSTALLED, ALL GAS PIPING, CONNECTIONS, HOOK-UPS, ETC., TO BE INSTALLED ON SITE BY OTHERS.

***-FOR ALT. ELECTRIC RANGE SPECS. REF: 87-20-0050 ###-PER MANUFACTURER'S INSTALLATION INSTUCTIONS

THE INFORMATION ON THIS PAGE IS PROPRIETARY.

B	REVISED RECEPT SPACING	MAW	17 FEB 03	JRD	3 APR 02	ELECTRICAL PLAN		M3R56-S07	3
						DESCRIPTION	SECTION	DWG NO.	PAGE OF

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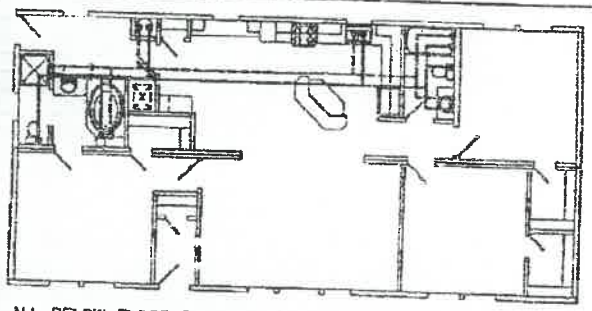

PRESSURE SYSTEM NOTES

- THRU FLOOR
- COLD LINE
- HOT LINE
- SHUT-OFF VALVE
- ALL LINES ½ UNLESS NOTED

ALL BELOW FLOOR-PLUMBING ILLUSTRATIONS ARE RECOMMENDATIONS ONLY. ON-SITE CONDITIONS AND/OR RESTRICTIONS MAY REQUIRE SOME MODIFICATIONS.

ANY TRANSITIONS TO MATERIALS OTHER THAN THE SPECIFIED MATERIAL MUST INCORPORATE AN APPROVED FITTING FOR CONNECTION.

PRESSURE SYSTEM PLUMBING TO BE CPVC MATERIAL, OR EQUAL, APPROVED FOR FRESH WATER APPLICATIONS.

BASEMENT WH LOCATION TO BE APROX. THE SAME AS MAIN FLOOR LOCATION, VERTICALLY

ALL UNITS CONSTRUCTED FOR ILLINOIS TO MEET OR EXCEED ILLINOIS PLUMBING CODE.

—MECHANICAL WATER HAMMER ARRESTOR MUST COMFORM ASSE/ANSI 1010 STANDARD

SHOWER AND/OR TUB-SHOWER VALVES TO BE ANTI-SCALD WHERE APPLICABLE. (TEMP. SET 110 DEG. MAX.)

EXTERIOR WATER SPIGOT(S) TO BE FREEZELESS WITH VACUUM BREAK (INSTALLATION OF SPIGOT REQUIRES USE OF ¾" LINE TO POINT OF SINGLE USER FIXTURE. LOCATION OF SPIGOT(S) WILL VARY PER PLAN.)

**—WATER HAMMER ARRESTORS TO BE INSTALLED AT WASHER BOX, ICE MAKER CONNECTION, AND DISHWASHER CONNECTION. THE ARRESTORS SHALL BE INSTALLED WITHIN AN EFFECTIVE RANGE OF THE FIXTURE. WATER HAMMER ARRESTORS SHALL CONFORM TO ASSE 1010. ACCESS SHALL BE PROVIDED TO ALL WATER HAMMER ARRESTORS.

HOMES BUILT FOR MI:
WHEN WH IS LOCATED ON MAIN FLOOR, WATER HEATER SHALL BE INSTALLED IN A GALV. STEEL PAN HAVING A MIN. THICKNESS OF 24 GA. OR OTHER PANS LISTED FOR SUCH USE.

PIPE SUPPORT

VERTICAL PIPING — SUPPORTS AT 10' O.C. MAX. OR BETWEEN FLOOR LEVELS.

HORIZONTAL PIPING — SUPPORTS AT 4' O.C. MAX., ENDS OF BRANCHES, AND AT CHANGES IN ELEVATION AND/OR DIRECTION.

THE FIXTURE PIPE SHALL BE EXTENDED TO WITHIN 12" OF THE POINT OF CONN. TO FIXTURE & BE WITHIN THE SAME AREA AND PHYSICAL SPACE AS THE POINT OF CONN. TO THE FIXTURE.

ALL BELOW FLOOR PLUMBING BY OTHERS ON SITE

THE INFORMATION ON THIS PAGE IS PROPRIETARY

A	REVISED PER MICHIGAN REQUIREMENTS	MAW	29 JAN 03	JRD	3 APR 02	PRESSURE SYSTEM	M3R56-S07	4
						DESCRIPTION	SECTION / DWGNO	PAGE

LIBERTY HOMES INC. SYRACUSE, INDIANA

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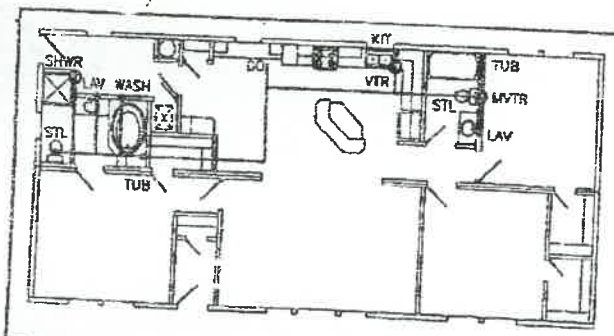

STANDPIPE SHALL EXTEND A MIN. OF 18" & A MAX. OF 42" ABOVE THE TRAP. ACCESS SHALL BE PROVIDED TO TRAP AND DRAIN FOR RODDING.

3 MVTR
1½ TEE W/ 3 ADAPT
1½ TEE
1½ EL
1½ TEE
1½ EL
WASHER
2 SAN T W/ 1½ ADAPT
2 P-TRAP
2 LSEL
1½ SAN T
LAV
1½ LSEL
SHWR
2 SAN T W/ 1½ ADAPT
2 P-TRAP
2 LSEL
3 STL FLG W/ NIPPLE
3x3x1½ LTTY
3x3x2 LTTY
3 LSEL
3 DRAIN OUTLET
3 LTTY
3x3x2 LTTY
3 LSEL
1½ EL
1½ 45 EL
1½ 45 EL
TUB
1½ SAN T
3x3x1½ LTTY
3x3x2 LTTY
3 VTR
1½ EL
1½ EL W/ 3 ADAPT
1½ 45 EL
1½ 45 EL
2x1½x1½ SAN T
KIT
2 LSEL
3 MVTR
3x3x1½ SAN T
1½ EL
TUB
1½ SAN T
1½ EL
LAV
1½ SAN T
1½ LSEL
3x3x1½ SAN T
3 STL FLG W/ NIPPLE
3x3x1½ SAN T
1½ LSEL
3 LSEL

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LIFE SAFETY SECTION

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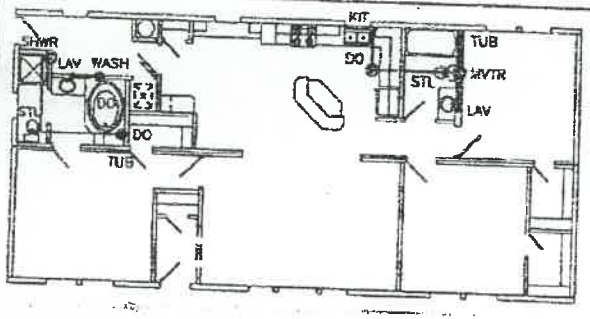
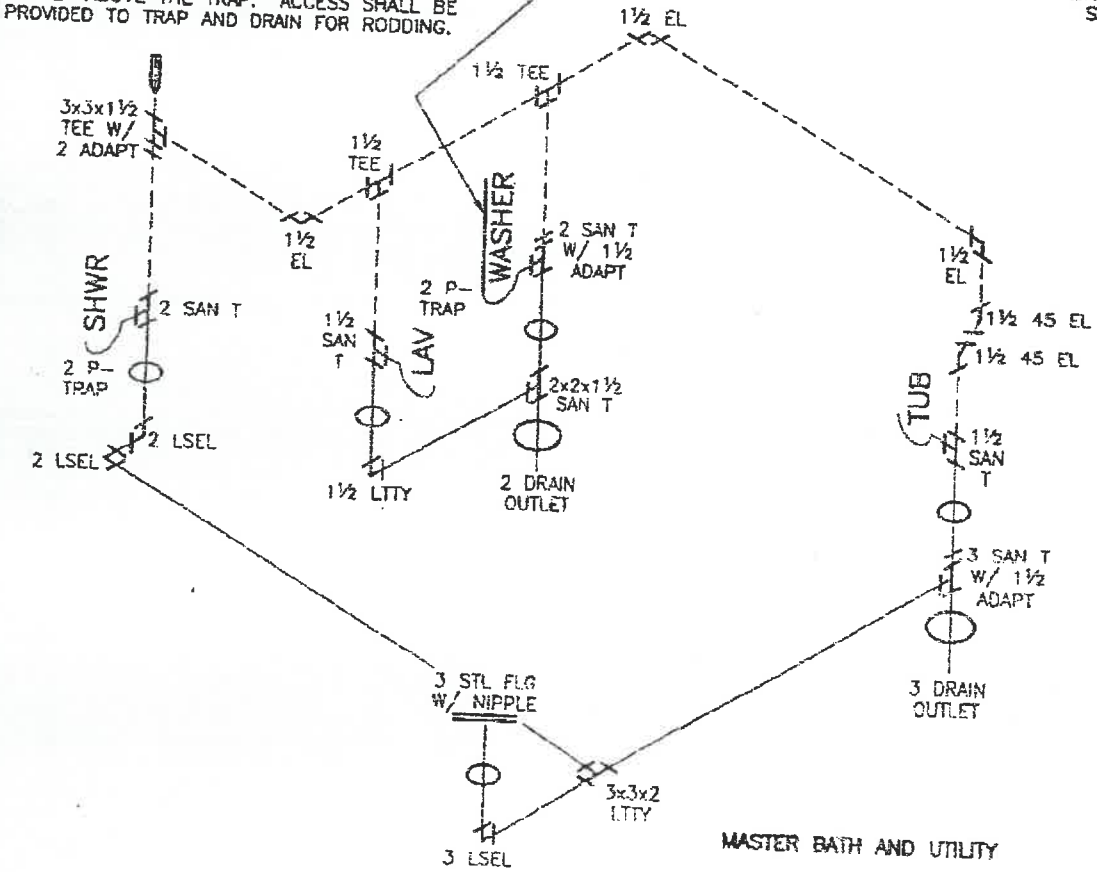
A	REVISED PER MICHIGAN REQUIREMENTS	MAW	29 JAN 03	JRD	5 APR 02		
DESCRIPTION							

SEE PAGE 6 FOR ADDITIONAL NOTES, SPECS, DETAILS, ETC.

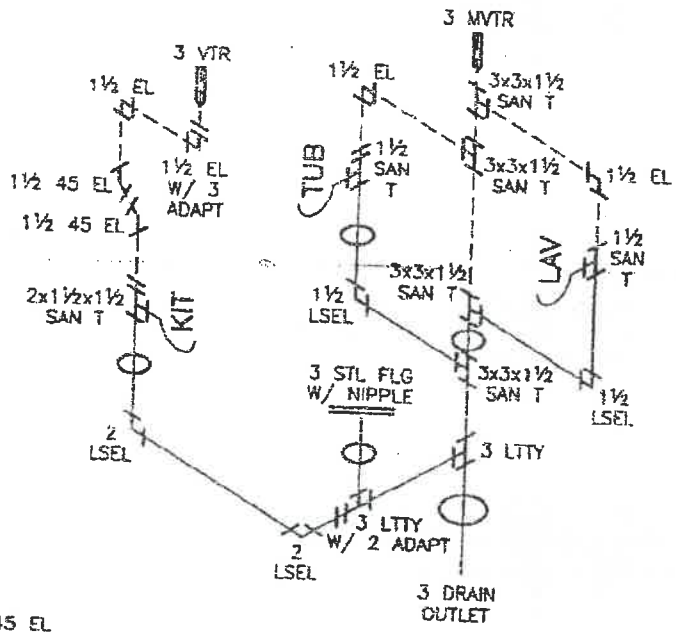
DWV SYSTEM | SECTION | DRAWING M3R56--S07 | 5A | PAGE



STANDPIPE SHALL EXTEND A MIN. OF 18" & A MAX. OF 42" ABOVE THE TRAP. ACCESS SHALL BE PROVIDED TO TRAP AND DRAIN FOR RODDING.



MASTER BATH AND UTILITY



HALL BATH & KITCHEN

FEB 2 5 2004

THE INFORMATION ON THIS PAGE IS PROPRIETARY

A	REVISED PER MICHIGAN REQUIREMENTS	MAW	29 JAN 03	JRD	5 APR 02	

SEE PAGE 6 FOR ADDITIONAL NOTES, SPECS, DETAILS, ETC.

DESCRIPTION	SECTION	PAGE
ALT DWV SYSTEM	M3R56--S07	5B

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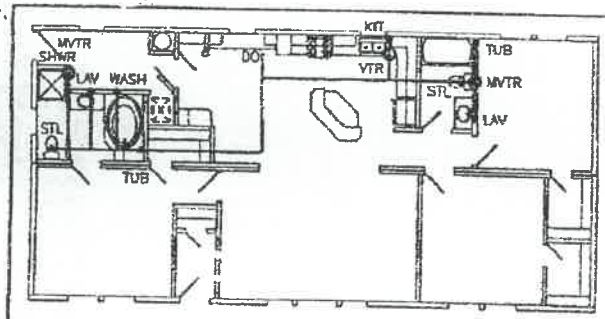


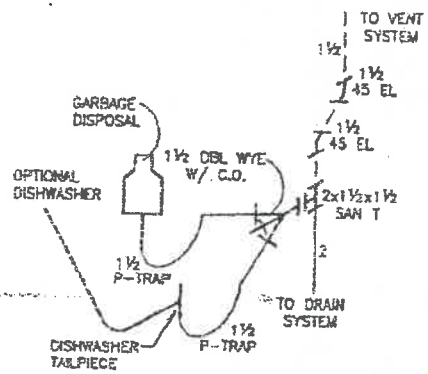
PLAN VIEW

HOMES BUILT FOR MI:

WHEN WH IS LOCATED ON MAIN FLOOR, WATER HEATER SHALL BE INSTALLED IN A GALV. STEEL PAN HAVING A MIN. THICKNESS OF 24 GA. OR OTHER PANS LISTED FOR SUCH USE.

WH PAN SHALL BE NOT LESS THAN 1½" DEEP AND SHALL BE OF SUFFICIENT SIZE AND SHAPE TO RECEIVE ALL DRIPPING AND CONDENSATE FROM THE WH. THE PAN SHALL BE DRAINED BY AN INDIRECT WASTE PIPE HAVING A MIN. DIA. OF 1" OR THE OUTLET DIA. OF THE RELIEF VALVE, WHICHEVER IS LARGER.

THE PAN DRAIN SHALL EXTEND TO THE EXT. OF THE BUILDING AND TERMINATED NOT LESS THAN 6" ± NOT MORE THAN 24" ABOVE THE ADJACENT GROUND SURFACE.



OPTIONAL GARBAGE DISPOSAL PLUMBING

ILLINOIS MODELS ONLY – USE DETAIL ABOVE FOR OPTIONAL GARBAGE DISPOSAL.

DRAIN SYSTEM NOTES

REF SECTION 87-30 FOR PLUMBING DETAILS

○ THRU FLOOR DECKING

◯ THRU BOTTOM OF FLOOR

ALL BELOW FLOOR PLUMBING BY OTHERS

ALL FITTINGS BELOW BOTTOM CAN BE SHIPPED LOOSE

ALL BELOW FLOOR PLUMBING ILLUSTRATIONS ARE RECOMMENDATIONS ONLY. ON-SITE CONDITIONS AND/OR RESTRICTIONS MAY REQUIRE SOME MODIFICATIONS.

OPT. GARBAGE DISPOSAL TO BE LOCATED ON KITCHEN SINK WASTE ASSEM.

ALL VENTS THRU ROOF TO BE 3", 12" MIN. ABOVE AND BELOW ROOF PENETRATION.

ALL P-TRAPS TO BE 1½ UNLESS NOTED

HORIZONTAL VENT SLOPE – ⅛" PER FOOT

HORIZONTAL DRAIN SLOPE – ¼" PER FOOT

DRAIN, WASTE, AND VENT PLUMBING TO BE ABS PLASTIC, OR EQUAL, APPROVED FOR DWV APPLICATIONS.

ANY TRANSITIONS TO MATERIALS OTHER THAN THE SPECIFIED MATERIAL MUST INCORPORATE AN APPROVED FITTING FOR CONNECTION.

ALL TUBS WITH WHIRLPOOL MUST BE PROVIDED WITH ACCESS TO MOTOR

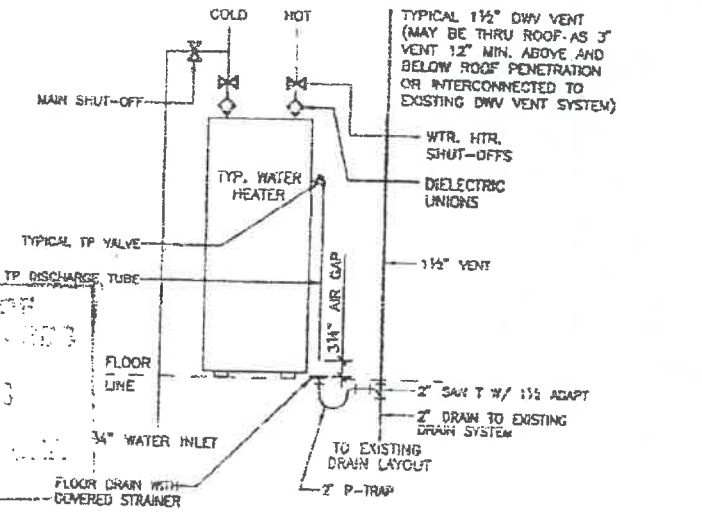
ALL PLUMBING TO MEET OR EXCEED CURRENT ADOPTED PLUMBING CODES

***-INSTALLED WHEN REQUIRED BY CODE

IN CONCEALED SPACES WHERE PIPING IS INSTALLED THROUGH HOLES OR NOTCHES IN STUDS, JOISTS, TRUSSES, OR SIMILAR MEMBERS LESS THAN 1½" FROM EDGE FROM NEAREST EDGE OF THE MEMBER, THE PIPE SHALL BE PROTECTED BY SHIELD PLATES. PROTECTIVE SHIELD PLATES SHALL BE A MIN. OF 1/16" THICK STEEL. PLATES SHALL COVERAREA OF THE PIPE WHERE THE MEMBER IS NOTCHED OR BORED, AND SHALL EXTEND A MIN. OF 2" ABOVE SOLE PLATES AND BELOW TOP PLATES.

ALL WATER HEATERS AND WATER HEATER PLUMBING TO BE SUPPLIED AND INSTALLED IN BASEMENT BY OTHERS IN ACCORDANCE WITH ALL RECOGNIZED PLUMBING CODES

SEE PAGE 5A FOR ADDITIONAL NOTES, SPECS., DETAILS, ETC.



ALTERNATE WATER HEATER PLUMBING – FOR IL ONLY

ILLINOIS MODELS ONLY OR WHERE REQUIRED BY CODE – USE DETAIL ABOVE FOR DRAINING TP DISCHARGE INTO DWV SYSTEM

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PIPE SUPPORT

VERTICAL PIPING — SUPPORTS AT 10' O.C. MAX. OR BETWEEN FLOOR LEVELS.

HORIZONTAL PIPING — SUPPORTS AT 4' O.C. MAX., ENDS OF BRANCHES, AND AT CHANGES IN ELEVATION AND/OR DIRECTION.

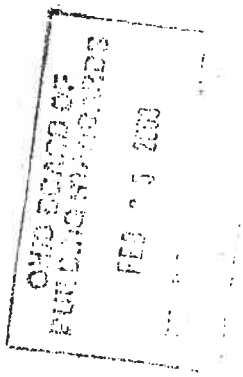
TRAP ARMS — SUPPORT LOCATED AS CLOSE TO TRAP AS POSSIBLE WHEN TRAP TO VENT EXCEEDS 3'.

THE INFORMATION ON THIS PAGE IS PROPRIETARY

A	REVISED PER MICHIGAN REQUIREMENTS	MAW	29 JAN 03	JRD	3 APR 02	TYPICAL DWV NOTES	M3R56-S07	6
						DESCRIPTION	SECTION DWG NO.	PAGE OF

APPLICATION ENGINEERING FOR HEATING AND COOLING

LIBERTY HOMES, INC.
1101 Eisenhower Dr.
Goshen, IN 46526



Manufacturer's Model #: M3R56-S07(8)
HVAC System Type: INFLOOR LOOP PER WITH BASEBOARDS

Prepared By LaSalle-Air Systems 12/02/02 (Method & Output C 2002)
All rights reserved: this information proprietary to LaSalle Bristol Co. & clients.

Calculations on this page are based on design parameters set forth in ASHRAE and ACCA Manuals J and D.
Design calculations are based on worst case orientation. Room loads may vary based on actual conditions.

ENTIRE HOUSE VALUES - DESIGN ZONE MI

COOLING LOAD: 20,815 BTUh based on outside temp of 88°F with inside temp reduced to 75°F.

HEATING LOAD: 41,417 BTUh based on outside temp of -12°F with inside temp raised to 70°F.

CONSTRUCTION DETAILS & U FACTORS (19-19-30)

OVERALL HOME SIZE:	56.00 X 28.50	TOTAL FLOOR AREA:	1,484.00 s.f.		
AVG CEILING HEIGHT:	90.00 in.	ROOF:	0.036	FLOOR DUCTS:	0.000
TRUE OUTSIDE PERIMETER:	165.00 ft	WALLS:	0.053	CEILING DUCTS:	0.000
NET WALL AREA:	1,042.60 s.f.	FLOOR:	0.052	EXTERNAL DUCTS:	0.000
TOTAL WINDOW1 AREA:	154.80 s.f.	WINDOW1:	0.390	CLG DUCT AREA:	0.0 s.f.
TOTAL WINDOW2 AREA:	0.00 s.f.	WINDOW2:	1.060	EXT DUCT AREA:	0.0 s.f.
WINDOW, % of floor:	10.44%	DOORS:	0.250	PEOPLE:	4
TOTAL DOOR AREA:	40.00 s.f.	LAT.GAIN:	1579.9	DUCT GAIN/LOSS:	1748.8/3795.2
Ventilation cfm required :	51.9			SUM/WIN INFIL:	92.9/186.9 cfm

ROOM BY ROOM VALUES

Heat loss, heat gain and CFM requirements based on cooling equipment design standards.

ROOM NAME	HEATING BTUh LOSS	COOLING BTUh GAIN	CFM DIST
Kitchen	3,858	1,220	44
Living Room	8,165	5,099	184
Bedroom #1	5,042	3,578	129
Bath #1	2,668	1,215	44
UTILITY	3,215	1,026	37
DINING	2,841	1,022	37
BATH 2	1,398	272	10
BEDROOM 2	5,944	3,552	128
BEDROOM 3	7,285	3,829	138
TOTALS:	41,417	20,815	750

Duct design values when connected to standard residential equipment.

CFM	COOLING BTUh
72	2,370
205	6,150
168	5,040
68	2,040
68	2,040
68	2,040
68	2,040
119	3,570
143	4,290
986	29,680

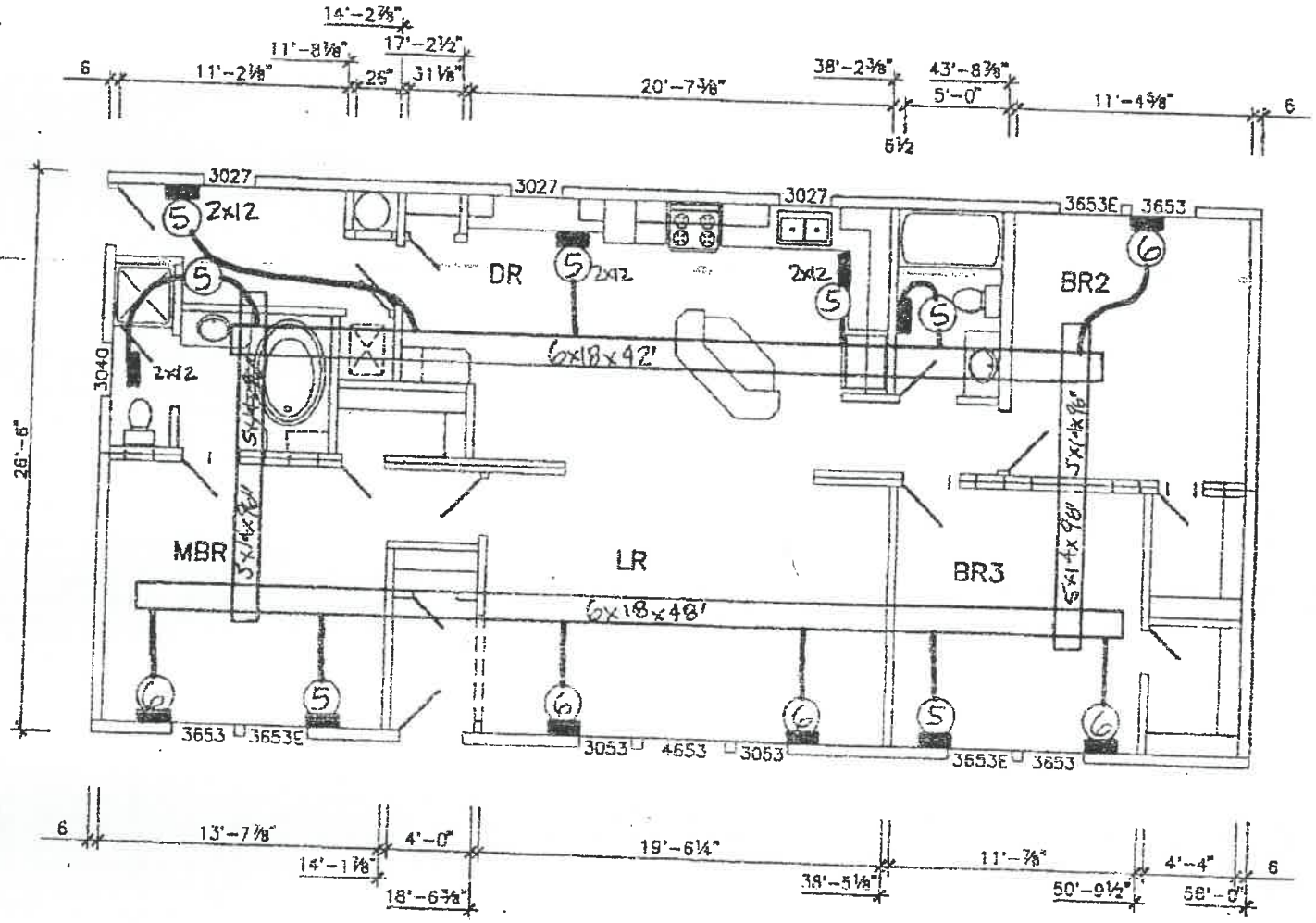
Maximum A/C capacity when connected to Calibrated Blower Test @ .30 in. W.C.

CFM	COOLING BTUh
89	3,300
224	7,467
198	6,600
84	2,800
84	2,800
84	2,800
84	2,800
134	4,467
158	5,267
1,149	38,300

Failure to install heating or cooling equipment that produces the Total Design CFM for this house may result in an unbalanced duct system.

02/26/2004 THU 16:19 FAX 5744572203 LIBERTY HOMES SYRACUSE 009

LIBERTY HOMES SYRACUSE
02/26/2004 THU 15:20 FAX 5744572203



LaSalle-Air Systems
DUCTBOARD LOOP
PERIMETER SYSTEM
Alum Crossovers

In Floor Duct Area = 219.9 Sq. Ft.

RECEIVED
FEB 25 2004

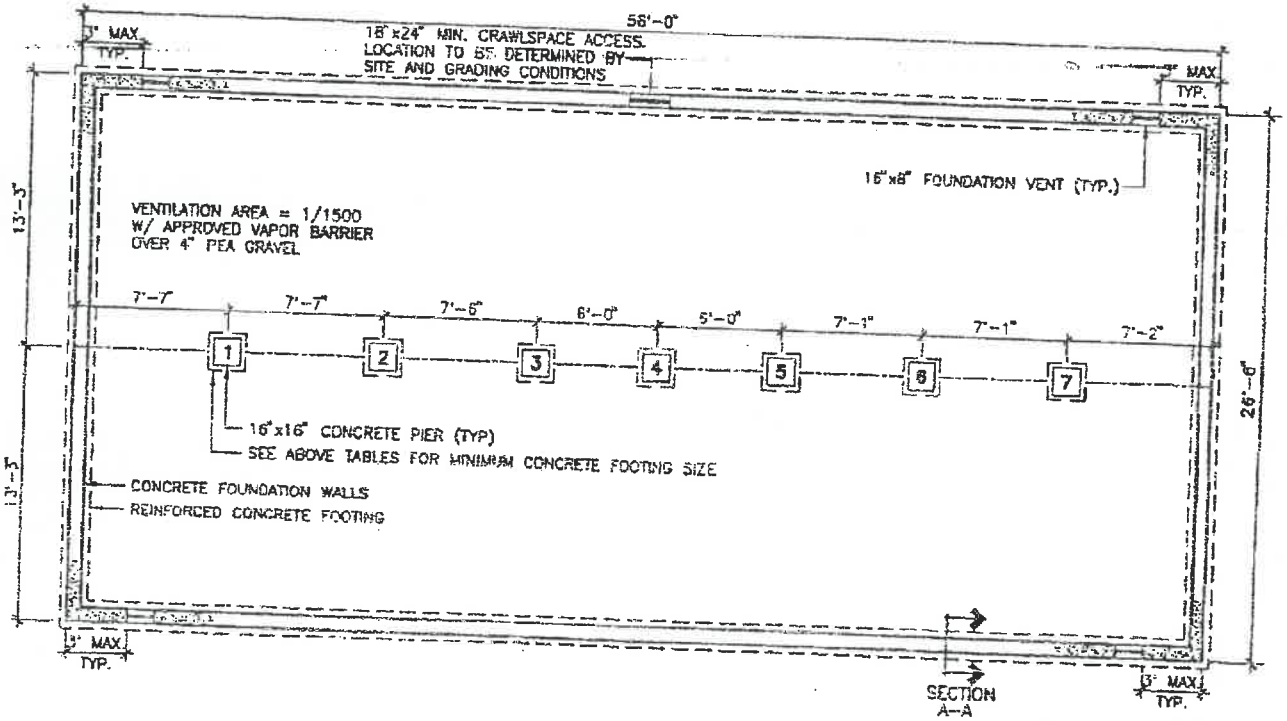
ALL THIS PAGE IS PROPRIETARY

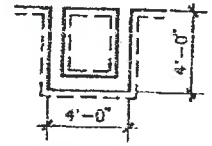
	JRD	4/8/03	CRAWLSPACE HVAC PLAN		M3R56-S07	A	8
			DESCRIPTION	SECTION	DWGNO	PAGE	OF

FOOTING SIZE BASED ON 2000 PSF	
PIER FOOTING SIZE	SIZE MAX. LOAD (LBS.)
16"x16"x4½"	3.4K
24"x24"x4½"	7.6K
30"x30"x6½"	11.9K
36"x36"x8½"	16.1K
42"x42"x10"	20.3K
46"x46"x14"	26.0K

PIERS & FOOTINGS MUST BE RATED TO MEET THE CENTER LINE LOADS LISTED

CENTER LINE LOADS							
PIER #	1	2	3	4	5	6	7
40 PSF ROOF LIVE LOAD	10.6K	10.6K	11.2K	4.3K	10.9K	10K	10K



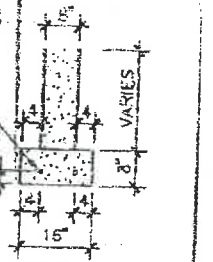


TYPICAL STOOP QUANITY AND LOCATION MAY VARY

OFF-FRAME CRAWLSPACE FOUNDATION NOTES:

1. THIS IS A FOUNDATION PLAN FOR LAYOUT & SPACING PURPOSES ONLY. IT IS A FOOTPRINT OF UNIT BUILT AND IS SPECIFIC TO SAID UNIT. ACTUAL DESIGN & SIZES OF WALLS, FOOTINGS, ETC. ARE TO BE DESIGNED &/OR APPROVED BY A LOCAL P.E. OR REGISTERED ARCHITECT BASED ON SOIL BEARING CONDITIONS & ARE THE RESPONSIBILITY OF THE BUILDER/DEALER.
2. THE FOUNDATION WALLS MUST BE TEMPORARILY BRACED & BACKFILLED TO A HEIGHT OF 1'-8" FROM THE TOP OF THE WALL TO PREVENT THE FOUNDATION FROM CRACKING OR COLLAPSING.
3. ALL LOADS HAVE SUPPORT COLUMNS FOR ALL OPENINGS 4'-0" OR GREATER. IF ONE IS MISSING, ONE NEED TO BE INSTALLED.
4. IF FILL IS MORE THAN 3'-0", USE 12" BLOCK ON 20"x10" CONCRETE FOOTINGS.
5. MIN. 6" FROM BOTTOM OF GRADE TO SIDING NEEDS TO BE PROVIDED ON-SITE.
6. PURCHASER RESPONSIBLE FOR ALL SERVICE ENTRY CONNECTIONS AND ON-SITE TESTING AS REQUIRED BY STATE AND LOCAL JURISDICTION.
7. FOUNDATION DRAINAGE & DAMPPROOFING TO CONFORM TO ALL APPLICABLE CODES AND RECOGNIZE DATA (INC. SECTION R-405 AND 406).
8. BACKFILL TO BE IN AND TAMPED PRIOR TO ARRIVAL OF UNIT (W).
9. CONCRETE BY BUILDER USED FOR GARAGE FLOOR SLABS, EXTERIOR STEPS, PORCHES, AND WALKS SHALL BE A MIN. COMPRESSIVE STRENGTH OF 3500 PSI, BE AIR ENTRAINED, AND TO COMPLY WITH ACI 318, TYPICAL.
10. ALL ELECTRICAL AND MECHANICAL INSTRUCTIONS TO CONFORM TO CURRENT STATE AND LOCAL CODE REQUIREMENTS.
11. SILL PLATE ANCHORING SHALL BE AT 12" FROM EACH END OF A SECTION OF PLATE. ANCHOR SPACING SHALL BE WITH ½"x15" ANCHOR BOLTS WHICH SHALL BE GROUTED INTO THE TOP TWO COURSES OF BLOCK OR SET IN POURED WALL.
12. PLACE ½"x16" ANCHOR BOLTS RECESSED FLUSH WITH TOP OF SILL PLATE & NOT TO EXCEED 8 FEET ON CENTER AND BE WITHIN 1 FOOT FROM CORNERS.
13. MIN. SOIL BEARING CAPACITY = 2000 P.S.F.
14. DESIGNED FOR: 2x10 FLOOR JOISTS WITH TRIPLE 2x10 CENTERLINE BEAM

ON BOARD OF BUILDING APPROVALS
FEB 25 2003



TYPICAL FOUNDATION WALL SECTION A-A

THE INFORMATION ON THIS PAGE IS PROPRIETARY

	JRD	3 APR 03	CRAWLSPACE FOUNDATION	M3R56-S07	9
			DESCRIPTION	SECTION DRAWING	PAGE OF

LIBERTY HOMES SYRACUSE

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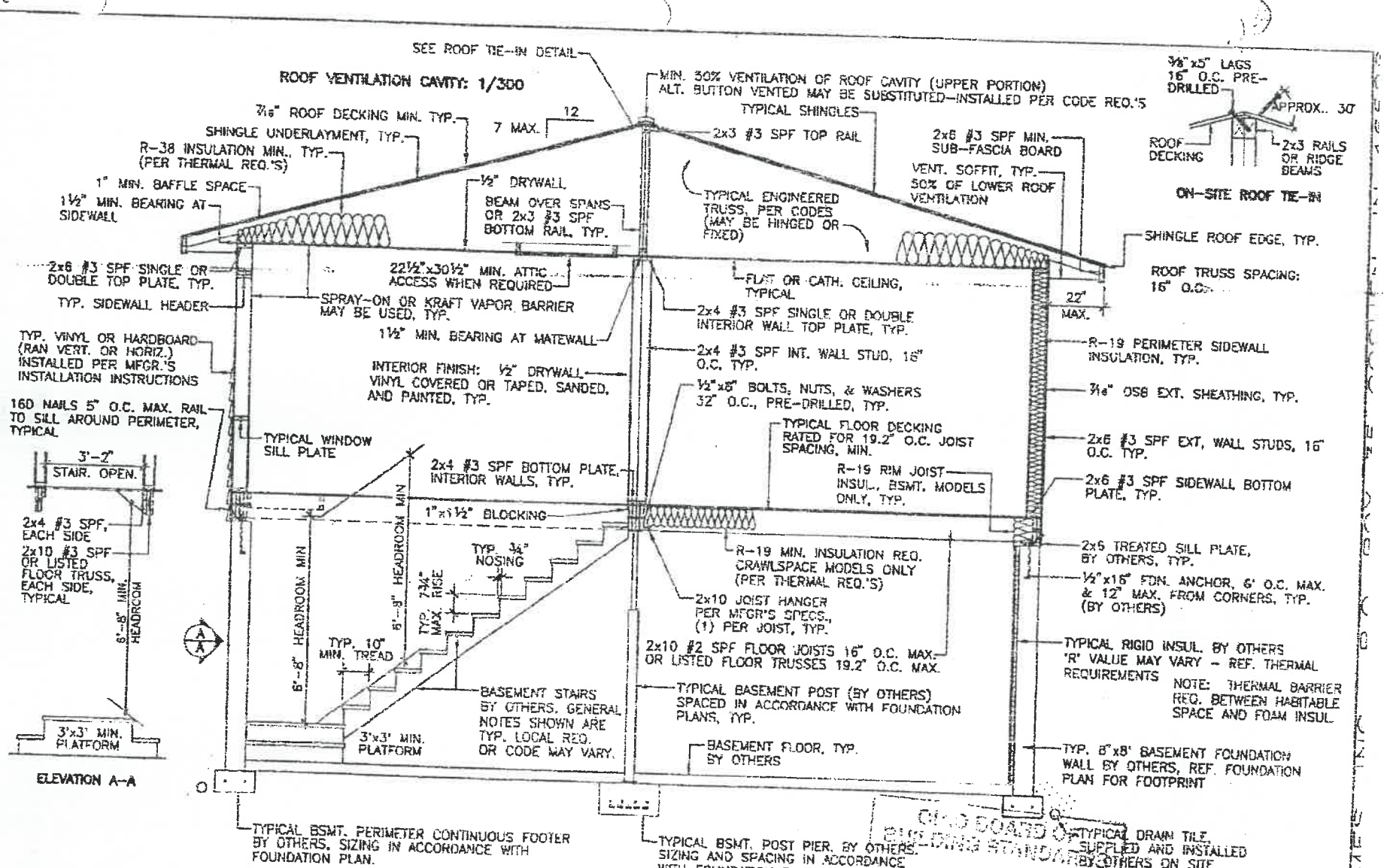
02/26/2004 THU 16:24 FAX 5714572203 LIBERTY HOMES SYRACUSE 013



OHIO BOARD OF BUILDING STANDARDS
FEB 25 2003

BUILDING CROSS SECTION

CRAWLSPACE STANDARD – SHOWN WITH OPTIONAL BASEMENT

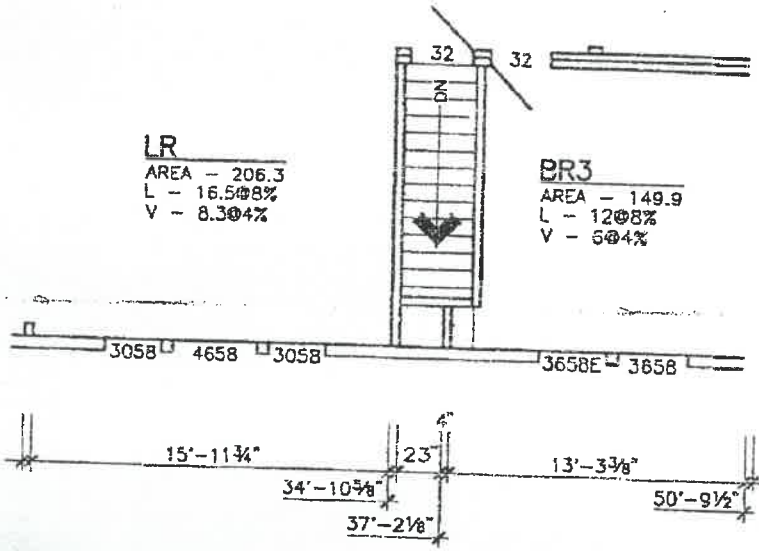
FOLLOW RECOMMENDED ATTACHMENTS FOR FASTENING OF HOME TO FOUNDATION. FOUNDATIONS TO BE BUILT AND CONSTRUCTED BY OTHERS ON SITE. FOUNDATIONS (BY OTHERS) MUST MEET ALL APPLICABLE CODES.

NOTES AND/OR ILLUSTRATIONS SHOWN ARE TYPICAL AND MAY NOT APPLY TO ALL HOMES CONSTRUCTED. CONST. AND SPECS. MAY VARY PER PLAN.

WITH SINGLE TOP PLATES: INTERIOR AND END WALL TOP PLATES ARE TO BE TIED TOGETHER AT SIDEWALLS AND MATING WALLS USING 3"x6"x.036" GALV. STEEL STRAP, TYPICAL

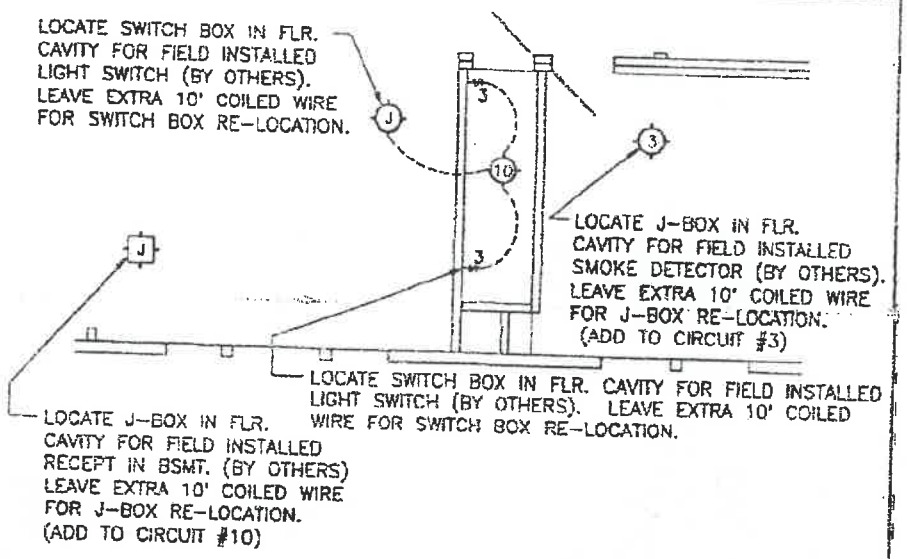
THE INFORMATION ON THIS PAGE IS PROPRIETARY

	DLW	8 OCT 2002	TYP. BUILDING CROSS SECTION	M3R56-S07	10
		DESCRIPTION			



DAPIA PLAN

ALL OTHER DIMS, SPEX, ETC. SAME AS STD PLAN



ELECTRICAL PLAN

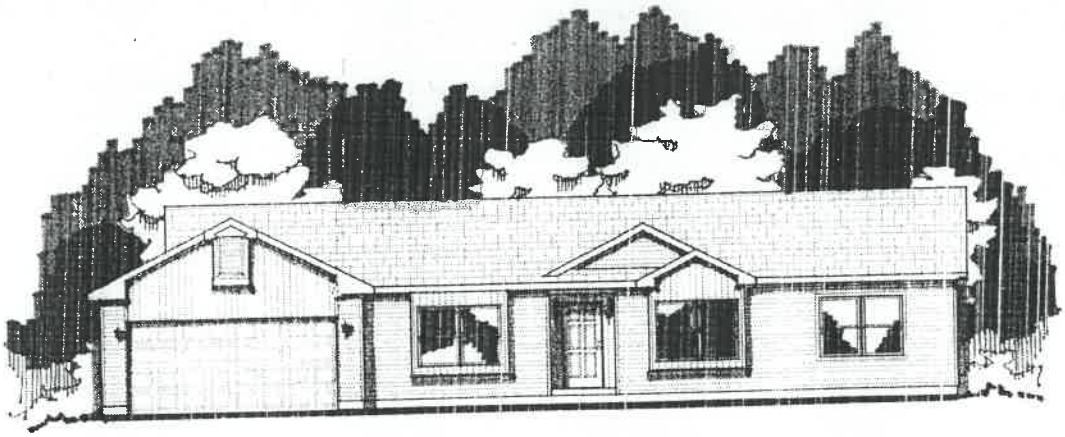
ALL OTHER DIMS, SPEX, ETC. SAME AS STD PLAN

BOARD OF STANDARDS
FEB 25 2003
CIRCUIT

THE INFORMATION ON THIS PAGE IS PROPRIETARY.

		JRD	10 APRIL 02	OPTIONAL BASEMENT ENTRY		M3R56-S07B	11
				DESCRIPTION	SECTION	DRGNO	PAGE OF

G·R·A·N·D K·I·T·C·H·E·N



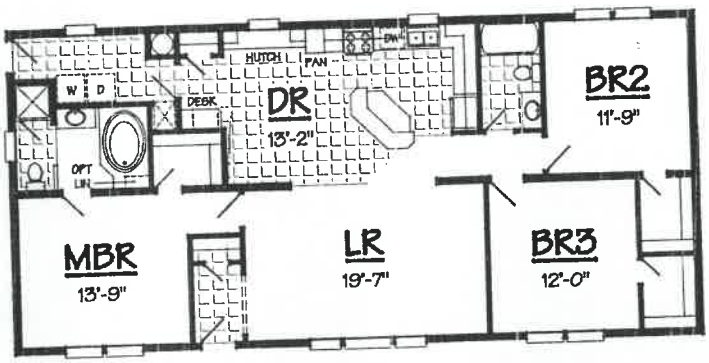
THE LAPORTE

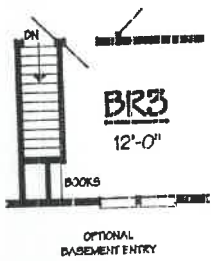
SPECS

Model Number: A3M3R56-S07
Total Living Space: 1484 sq. ft.
Bedrooms: 3 Baths: 2
Dimensions: 26'-6" x 56'-0"

HIGHLIGHTS

Showpiece cabinetry lines Kitchen/Dining Room
Convenient island with raised snack bar
Soaker tub highlights a cozy Master Bath
Formal Foyer entrance with guest closet





DINEBROOK HOMES

Elevation is an Artist's conception and may show optional and/or site-installed features.

PINEBROOK HOMES

STANDARD FEATURES

SYRACUSE, INDIANA
STANDARD FEATURES for PINEBROOK SERIES

EXTERIOR CONSTRUCTION FEATURES

- Double Four Dutch Style Vinyl Lap Siding – Durable and Attractive
- Vinyl Shutters on Doorside Windows – Adds to an Attractive Color Coordinated Finish
- 7/16 OSB Backer Behind Vinyl Siding – Helps Insulate
- All Wood 2 X 10 Floor Joists with Double Rim – Provides a Solid Foundation
- Tongue & Groove 3/4" OSB Floor Decking
- Wood 2 X 6 Sidewall Studs 16" On Center with 2 X 6 Top & Bottom Plates – Solid Exterior Wall Construction
- Low E Vinyl Clad Thermopane Windows With Grids – Energy Efficient and Easy to Clean
- Deep Windows in Most Areas – Allows More Light into Home
- Steel 6-Panel, 2-Lite Front Door with Full View Flange Seal Storm with Plywood Jambs – Attractive Yet Well Insulated
- Steel 9-Lite Rear Door with Full View Flange Seal Storm with Plywood Jambs – Attractive & Well Insulated
- Dead Bolt Locks for Greater Security
- Attractive Exterior Light at Each Door – Provides Light and Enhances Safety
- Exterior Frost-Free Faucets (2) for Landscaping Applications
- Exterior Electrical Receptacle – With a GFI for a Safe Exterior Electrical Supply

ROOF CONSTRUCTION FEATURES

- Twenty-Five Year Warranty Fiberglass Shingles – Gives the Owner a Low Maintenance Home
- Twelve Inch Eaves with Ventilated Soffits – Helps Protect Home from the Weather and Provides Ventilation
- Residential 5.5/12 Roof Pitch – Adds Beauty to Your Home's Exterior

INTERIOR FEATURES

- 25 oz. Ritzy Plush Carpet in Living Areas – Adds Beauty to Your Decor
- High Density Carpet Pad – Reduces Carpet Wear
- Vinyl Floor Coverings in Kitchens and Most Baths – Name Brand Elegance and Durability
- 2" Mini Blinds Throughout – Helps Regulate Natural Light
- Hand Brushed 8' Flat Ceilings Throughout
- Interior Walls 2 X 4 16" OC
- Ceiling & Wall Seam Drywall Finished – Creates a More Attractive Appearance
- 1/2" Taped & Finished Gypsum Wall Covering Throughout
- Vinyl Entry – Helps Protect Carpeted Areas
- Glass Chandelier in the Dining Room – Touch of Elegance
- Vented Metal Shelving in All Wardrobes – Durable yet Attractive
- Bedroom Overhead Lights – Illumination at the Flick of a Switch
- Glass Light Fixtures Throughout – Brightens the Home's Interior
- 6-Panel Passage Doors, with Lever Hardware, Heavy Duty Hinges and Wrapped Door Jambs – Adds Life to Your Home
- Plumb for Washer/Wire for Dryer – Ready for Your Laundry Appliances
- Metal Furnace Door in Most Models – For Easy Access
- Guest Closet in Most Models – For Your Visitor's Coats
- Rocker Light Switches – Silent and Easy Operation
- Wide Door Casing on Interior Doors – Classic Look with a Touch of Elegance
- Overhead Cabinet in Laundry Area

KITCHEN FEATURES

- 30" Gas Range with Microwave Exhaust Hood – a Quality National Brand Range with Light Provided for the Cooking Surface
- 16 Cubic Foot Double Door Frost Free Refrigerator
- Real Oak Cathedral Top Cabinet Doors and Face Frames with Upgrade Hinges – the Beauty and Durability of Real Oak
- Drawers Over Doors in Kitchen Base Cabinets With Silent Glide Drawer Guides – Storage Drawers in Convenient Locations
- Deep Cabinets with Cabinet Crown Molding and Finished Interior
- Kitchen Base Cabinets - Extra Storage with the Finished Look
- Adjustable Shelves in Overhead Cabinets – Allows Individual Height Settings
- Dishwasher
- Cabinet Over the Refrigerator – Convenient Extra Storage
- Brite Star White Sink with Cutting Board
- White Delta Single-Lever Faucet with Sprayer
- Decorative Wood Edged Countertops with 4" Backsplash & Wood Cap – Sturdy Elegance with the Decorative Look
- Pantry in Most Models – Spacious Storage for a Family's Provisions

BATH FEATURES

- One Piece Fiberglass Tub in Second Bath – Easy to Clean Elegance
- Delta Single-Lever Anti-Scald Shower & Tub/Shower Diverter
- Large Walk-In Shower in the Master Bath with Tempered Glass Door
- Porcelain Bathroom Sinks with Delta Single-Lever Faucets & Pop-Up Drains – Heavy Duty Yet Elegant
- Real Oak Cathedral Top Cabinet Doors and Face Frames with Upgrade Hinges – the Beauty of Real Wood in the Bathrooms
- Decorative Wood Edged Countertops with 4" Backsplash & Wood Cap – Durability and Protection for Wall Surfaces
- Bath Vent Fans with Light in all Baths – Promotes Air Circulation and Removes Humidity
- Linen Cabinets in Most Baths – Extra Storage for Towels
- Medicine Cabinets in all Baths – Storage Area for Personal Items
- Decorative Mirrors and Decorative Lights in all Baths – Adds Illumination and Elegance
- Bathroom Towel Bars and Paper Holders – the Finishing Touch
- Single-Lever Faucet with Anti-Scald Control on All Shower & Tub/Showers

ENERGY, SAFETY AND OTHER QUALITY LIVING FEATURES

- Insulation in the Roof (R38) & Exterior Walls (R19) – Superior Energy Efficiency
- Perimeter Baseboard Heat Registers
- Smoke Detector(s) in Each Bedroom & Adjacent Rooms
- 200 Amp Electrical Panel Box with All Copper Wiring
- Water Line Shut-Offs Throughout – Shut Off Water to a Specific Application

592-2801
Matt Lanzer

NEW HOME AND ADDITION PERMIT APPLICATION

THIS APPLICATION IS FOR RESIDENTIAL CONSTRUCTION INCLUDING BUILDING, ELECTRICAL, PLUMBING, MECHANICAL, DEMOLITION, REMODELING

DATE 3/3/04 JOB LOCATION N.W. CORNER OF HARMONY & GLENWOOD 980 Harmony

LOT # 35 & 36 SUBDIVISION NAME BRICKYARD

OWNER H.A.R.C. PHONE 599 2892

OWNER ADDRESS 135 E. MAUMEE CITY NAPOLEON ZIP 43545

CONTRACTOR - SELF MEL LANZER CO PHONE (419) 592-2801

CONTRACTOR ADDRESS 2266 N. SCOTT ST CITY NAPOLEON ZIP 43545

CONTRACTOR FAX # (419) 599 2861 CELL PHONE (Opt.)

DESCRIPTION OF WORK TO BE PERFORMED: NEW HOUSE CONSTRUCTION

ESTIMATED COST OF WORK TO BE PERFORMED: $85,000

WORK INFORMATION

BUILDING: Basement Floor Area — Sq. Ft. 1st Story Living Area 1484 Sq. Ft. HO

2nd Floor Living Area ____ Sq. Ft. Garage Floor Area 576 Sq. Ft. 2 Great

BUILDING SIZE: Length 80' Width 26'6" Stories 1 Height 15' DEMO VOL E HS

Masonry Contractor TRI-AREA ENTERPRISES, INC. Phone (419) 459 4343 Fax PL

Address 03460 US RT 20 City EDON St OH Zip 43518 ME

Electrical Contractor do Phone Fax

Address City St Zip

Plumbing Contractor do Phone Fax

Address City St Zip

Heating Contractor do Phone Fax

Address City St Zip

Insulation Contractor do Phone Fax

Address City St Zip

Other Contractor attach information.

ZONING INFORMATION (to be completed by City) : District ____ Lot Dimensions ____

Lot Area ____ FRSB ____ SYSB ____ RYSB ____ Max Ht ____ ft Max Cov ____ %

I by signing below agree to comply with all applicable City of Napoleon Codes & Ordinances while performing the work herein described. I understand that all work for which a permit is issued is required to be approved by the building inspector of the City of Napoleon.

Applicant Signature ____ Date ____

F 30
R 15
S 7

R-2

RESIDENTIAL PLAN CORRECTION SHEET

CITY OF NAPOLEON
255 West Riverview Ave.
Napoleon, Ohio 43545
(419) 592-4010

ADDENDUM TO PERMIT NO. 2053
Owner Henry Co. Area Retarded Citizens
Contractor
Location 980 Harmony Dr

Please note the items checked below and incorporate them into your plans as indicated:
[ ] *Permit not yet issued, correct Plans and re-submit.*
[X] *Permit issued, incorporate items during construction.*

GENERAL

- X Provide approved smoke detector(s) as req'd.
- X Provide 1/2" gypsum wallboard between dwelling and garage, on garage side.
- X Provide min. 1-3/8" solid wood door from garage to dwelling (or equal).
- ___ Submit fully dimensioned plot plan.
- X Provide min. of 1 - 3' 0" x 6' 8" exit door.
- X Provide min. 22" x 30" attic access opening.
- X Provide min. 18" x 24" crawl space access opening.
- ___ Provide approved sheathing or flashing behind masonry veneer.
- ___ Provide min. 15# underlayment on roof.
- ___ Provide adequate fireplace hearth.
- ___ Install factory built fireplaces/stoves according to manufacturer's instructions.
- ___ Terminate chimney 2' above roof or 2' above highest point of bldg within 10' of chimney.

LIGHT AND VENTILATION

- ___ Provide mechanical, exhaust or window in bathroom _____.
- X Provide min. Per factory sq. in. net free area attic ventilation.
- X Provide min. 400 sq. in. net free area crawl space ventilation.

FOUNDATION

- X Min. depth of foundation below finished grade is 36".
- X Min. size of footer 8 " x 16 ".
- X Provide anchor bolts, 1/2" @ 6' o.c. 1' from each corner. Embedded 7" in concrete and 15" in masonry.
- ___ Show size of basement columns.

FRAMING

- ___ Show size of wood girder in _____.
- ___ Provide design data for structural member in _____.
- ___ Floor joists undersized in _____.
- ___ Provide double joists under parallel bearing partitions.
- ___ Provide 1" x 4" let in corner bracing, approved sheathing, or equal.
- ___ Show size of headers for openings over 4' wide _____.
- ___ Show size of members supporting porch roof.
- ___ Provide double top plate for all bearing partitions and exterior walls.
- ___ Provide design data for prefab wood truss.
- ___ Ceiling joists undersized in _____.
- ___ Roof rafters undersized in _____.

PLUMBING AND MECHANICAL

- X Terminate all exhaust systems to outside air.
- X Insulate ducts in unheated areas.
- X Provide backflow prevention device on all hose bibs.
- X Terminate pressure and temperature relief valve drain in an approved manner.
- X Provide dishwasher drain with approved air gap device.

EGRESS WINDOWS

- ___ All bedroom windows shall have a min. net clear opening width of 20" and a min. net clear height of 24".
- ___ First floor bedrooms windows shall have a min. net clear opening of 5.0 s.f.. Second floor bedroom windows shall have a min. net clear opening of 5.7 s.f.

ELECTRICAL

- X Show location of service entrance panel and service equipment panel.
- X G.F.C.I. req'd. on temporary electric.
- X Outdoor, bathroom, and garage recepticles shall be protected by G.F.C.I.
- X Max. number of recepticles permitted on a G.F.C.I. circuit shall be 10 for 20 A. circuits and 7 for 15 A. circuits.
- X Refrigerators, microwaves, washers, disposal, furnace and air conditioners shall be on separate circuits.

INSPECTIONS

The following indicated inspections are req'd. The owner or his agent shall contact the City Bldg. Dept. at least 24 hrs. prior to the time the inspection is to be made.

- X Footer & setbacks
- X Foundation
- X Plumbing rough-in
- X Plumbing - final
- X Electrical service
- X Other foundation supports
- X Electrical rough-in
- X Electrical - final
- X Building sewer
- X HVAC rough-in
- X Final building

Additional corrections/comments: _____

The approval of Plans and Specifications does not permit the violation of any Section of the Building Code or other City Ordinance. This addendum is attached to Permit No. 2053 and made a part thereof.

Date 3-10-04 X *approved ( ) disapproved Checked by* BNL

PLANCORR.SAM05/03/95

City of Napoleon

Water Meter Yoke Release Form

THIS DOCUMENT ENTITLES THE HOLDER TO "ONE" WATER METER YOKE ASSEMBLEY
(Please pickup at City Operations Department 1775 Industrial Drive).

Permit #002053

Date Issued: 03-09-2004

Job Location: 980 HARMONY DR

Owner: HARC

Address: 135 E MAUMEE ST NAPOLEON, OH 43545

Owner Phone: 419-599-2892

Contractor: TRI-AREA ENTERPRISES INC.

Address: 03460 US 20 EDON OH, 43518

Phone: 419-459-4343

Water Tap Size 1" X 1.5"_____ 2"_____ Other_____

Water Meter Yoke Size 5/8" X 3/4"_____ 1"____ Other_____

New Structure X Existing Structure_____ Lawn Meter_____

WATER SERVICE LINE TO BE TYPE "K" COPPER OR "CTS" POLYETHELENE TUBING OF 1" MINIMUM SIZE.

Backflow Device Required Yes X No_____

Type of Backflow Required: Double check valve assembly.

Water Meter Yoke Installation is subject to the following conditions

1.) Must be located in an accessible area.
2.) Must be in an area which is not subject to freezing temperatures.
3.) Must be at least 18" above floor level (no crawl space installations).
4.) Must comply with minimum mounting requirements (drawing available)

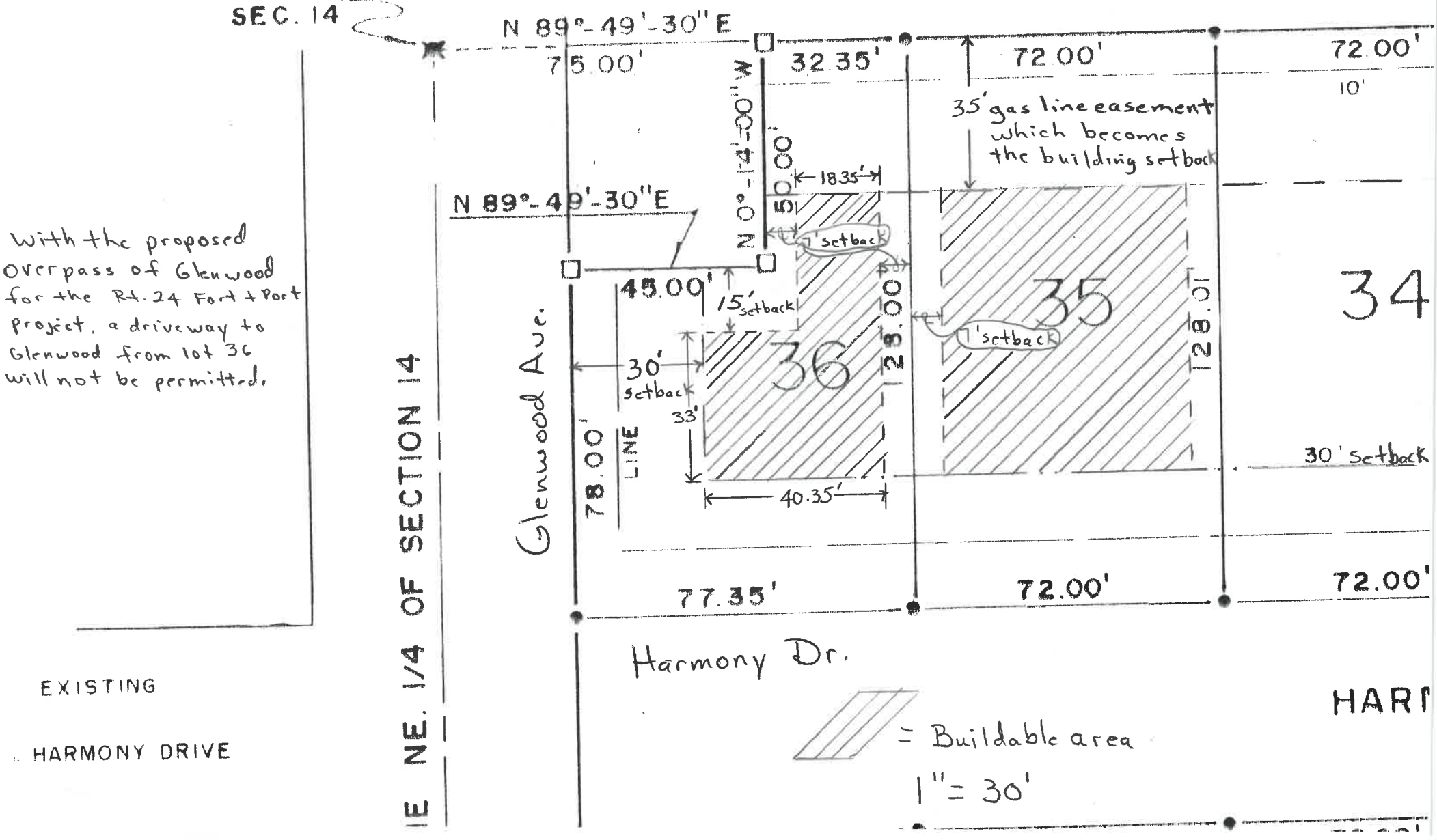
Issued By_____ Received By_____

1 Copy to: Building Dept, Water Dept, and Utilities Dept

This sketch displays lots 35 + 36 as buildable seperately. They may be combined to allow a greater combined buildable area. If combined the setbacks shown between lots would be eliminated.

Lot 36 has approximately 1860 s.f. of buildable area.
Lot 35 has approximately 3575 s.f. of buildable area.

LOCATED
14, T-5-N,
CITY OF N.

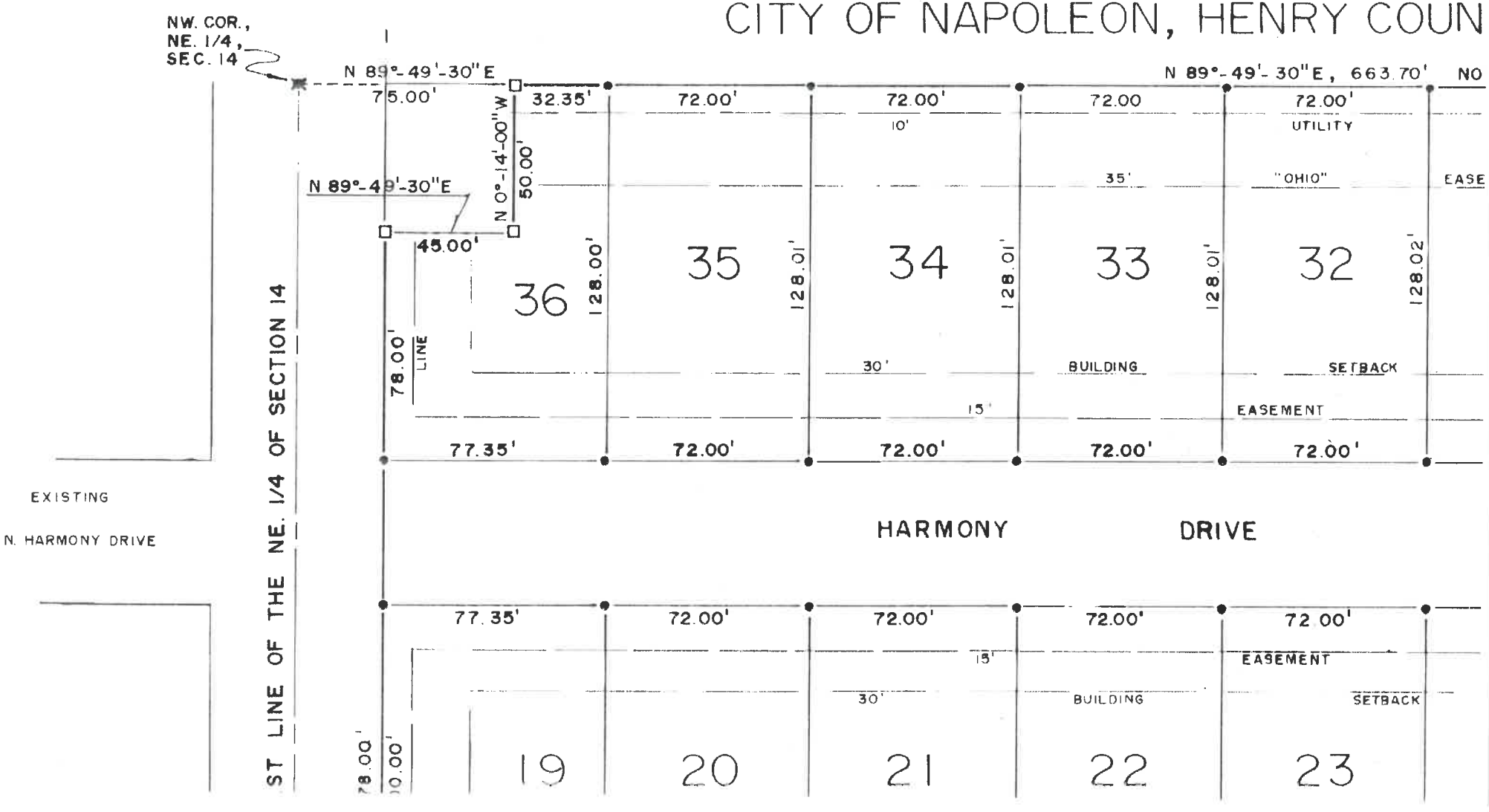


With the proposed overpass of Glenwood for the Rt. 24 Fort + Port project, a driveway to Glenwood from lot 36 will not be permitted.

Phase 1

BRICKYARD SUB

LOCATED IN THE NORTHEAST QU.
14, T-5-N, R-6-E, NAPOLEON TOW
CITY OF NAPOLEON, HENRY COUN

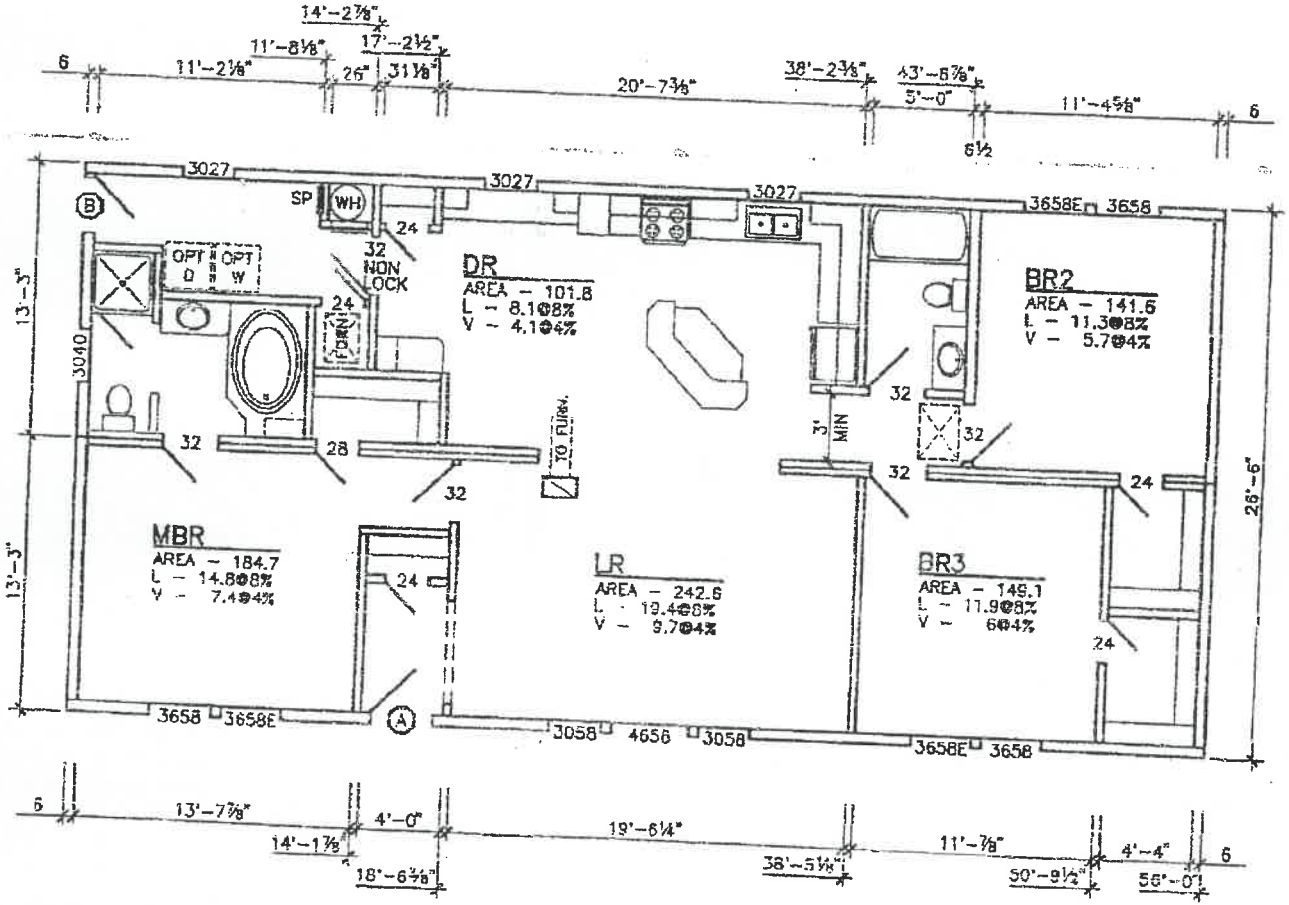


SCALE BAR 0 1' 2' 5' 10'

ADDITIONAL NOTES: REFERENCE SYSTEMS MANUAL FOR OPT. EXTERIOR/INTERIOR TREATMENTS
EX: DORMERS, BOX BAYS, WINDOWS, DOORS, PORCHES, ETC.
PLAN MAY BE FLIPPED PER SITE REQUIREMENTS

22½"X30½" ATTIC ACCESS REQUIRED WHEN CLEAR HEIGHT OF ATTIC EXCEEDS 30".

TYP. WALL THICKNESS – 4½" THICK UNLESS NOTED



OHIO BOARD OF BUILDING STANDARDS
FEB 2 5 2002
RECEIVED

NOTES:

[ ] --- RETURN AIR LOCATION WITH FLEX CONNECTION REF. DETAIL 83-40-15 FOR INSTALLATION AND SPECS.***

BOOTS, REGISTERS, AND/OR R.A.G.'S MAY BE INSTALLED IN FLOOR, WALL, AND/OR DOOR FOR FIELD INSTALLED HVAC SYSTEMS BY OTHERS; PER HVAC MFGR.'S INSTALLATION INSTRUCTIONS, TYP.

HVAC SYSTEMS MAY BE SUPPLIED, INSTALLED, AND INSPECTED ON SITE BY OTHERS, TYPICAL.
GAS LINE SYSTEMS MAY BE SUPPLIED, INSTALLED, AND INSPECTED ON SITE BY OTHERS, TYPICAL

MIN. CEIL. HT. – 7'-6"
(A) –36" MIN. DOOR WIDTH
(B) –32" MIN. DOOR WIDTH
TOTAL WINDOW AREA– 154.95 SQ. FT.
DATA PLATE LOCATION – SERVICE PANEL COVER
STATE LABEL LOCATION – KITCHEN SINK BASE CABINET
THIRD PARTY LOCATION – KITCHEN SINK BASE CABINET
SECONDARY STATE LABEL LOCATION–BEDROOM 3 CLOSET

THE INFORMATION ON THIS PAGE IS PROPRIETARY

A	REVISED PER MICHIGAN REQUIREMENTS	MAW	29 JAN 03	JRD	3 APR 02	SUBMITTAL PLAN	M3R56–S07 2
						DESCRIPTION	SECTION / DWG NO. / PAGE / OF

CITY OF NAPOLEON WATER TAPPING PERMIT FORM

PERMIT #: ISSUED:

JOB LOCATION: _____

SUBDIVISION NAME: _____ LOT #: _____

OWNER: HARC

ADDRESS: 980 Harmony

CONTRACTOR: PHONE:

TAP SIZE: 1" X 1.5" ____ 2" ____ OTHER _____

AMOUNT PAID: _____ YOKE SIZE: _____

PLUMBING CONTRACTOR: _____ PH: _____

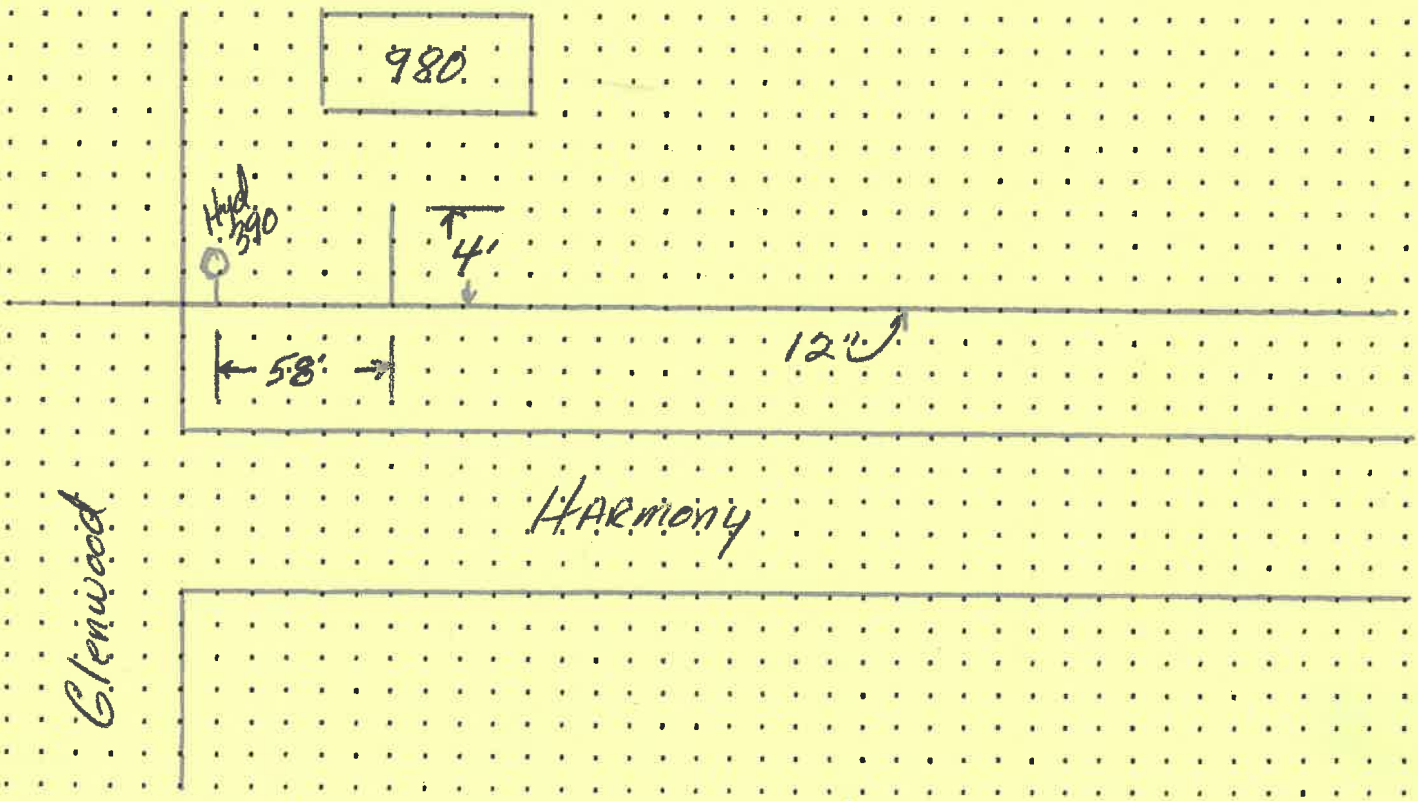
==========

DATE OF TAP: 4-12-04 OLD TAP #: ____ NEW TAP #: 0403

SIZE AND KIND OF MAIN: 12" C-900

LOCATION OF MAIN: 17' North of North CURB DEPTH OF MAIN: 5'

DIST FROM HYDRANT\~~VALVE~~: 58' E of Hyd 390 DIST TO CURB STOP FROM CORP: 4'



DATE APPROVED: June 21, 04 BY: Jeffrey E Mantey