

REQUIRED WORK

- A. Rough finishes will not pass final inspection.
- B. The contractor must provide adequate locks for all exterior doors.
- C. All doors should open and close properly.
- D. Hinges should be secure and undamaged.
- E. Air gaps should be completely eliminated from all exterior doors.
- F. Door swings should not interfere with normal house routines.
- G. All exterior screen doors shall have grill to protect the bottom screen from being kicked or pushed by children.
- H. Bifold doors are NOT ALLOWED.

TYPICAL DOOR TYPE, HARDWARE, AND INSTALLATION DESIGN FOR HANDICAP ACCESSIBILITY TO CLOSET

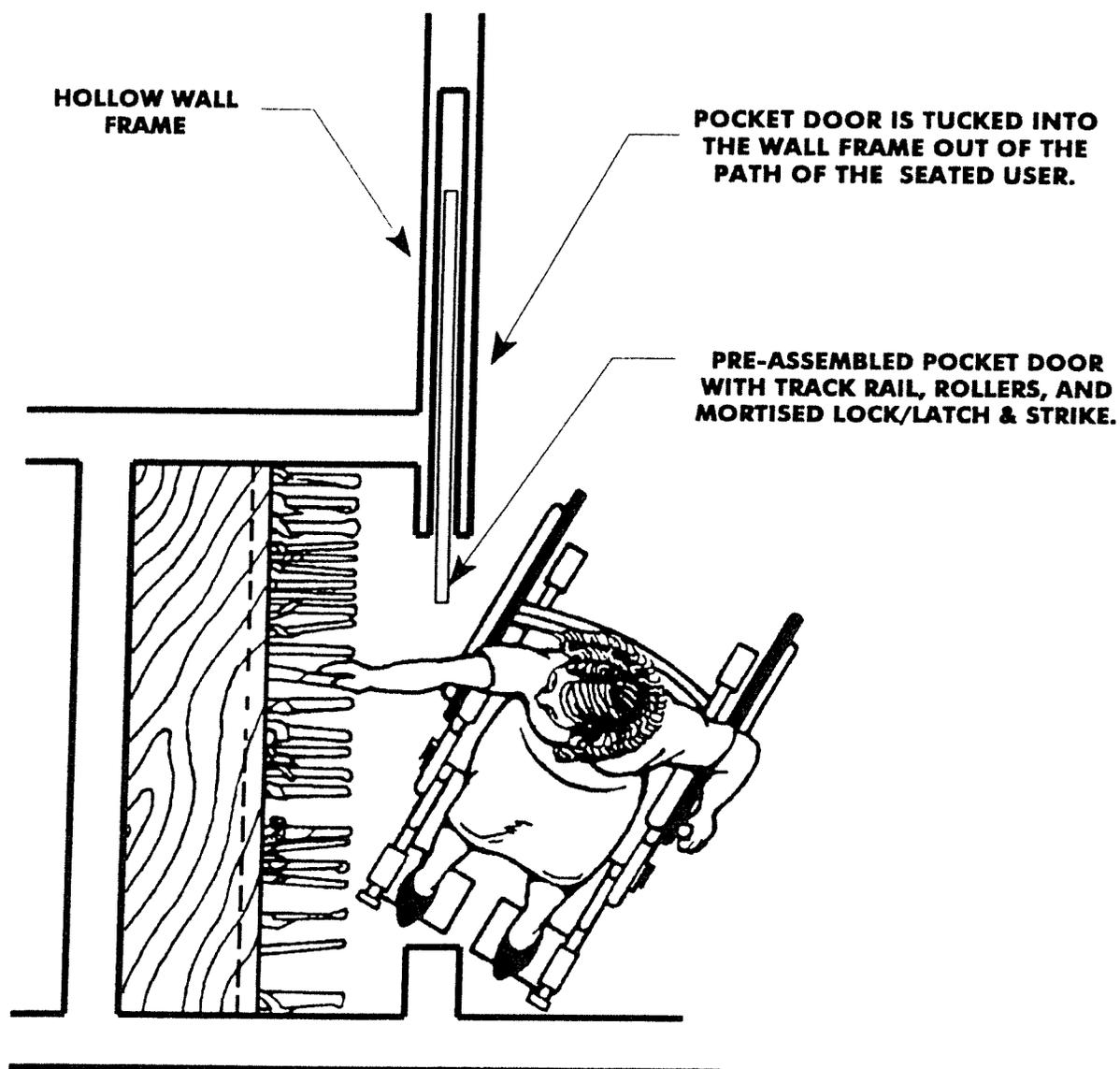


FIGURE 10.2

SCREEN DOOR W/CLOSER ,LOCK & SCREEN MESH GUARD

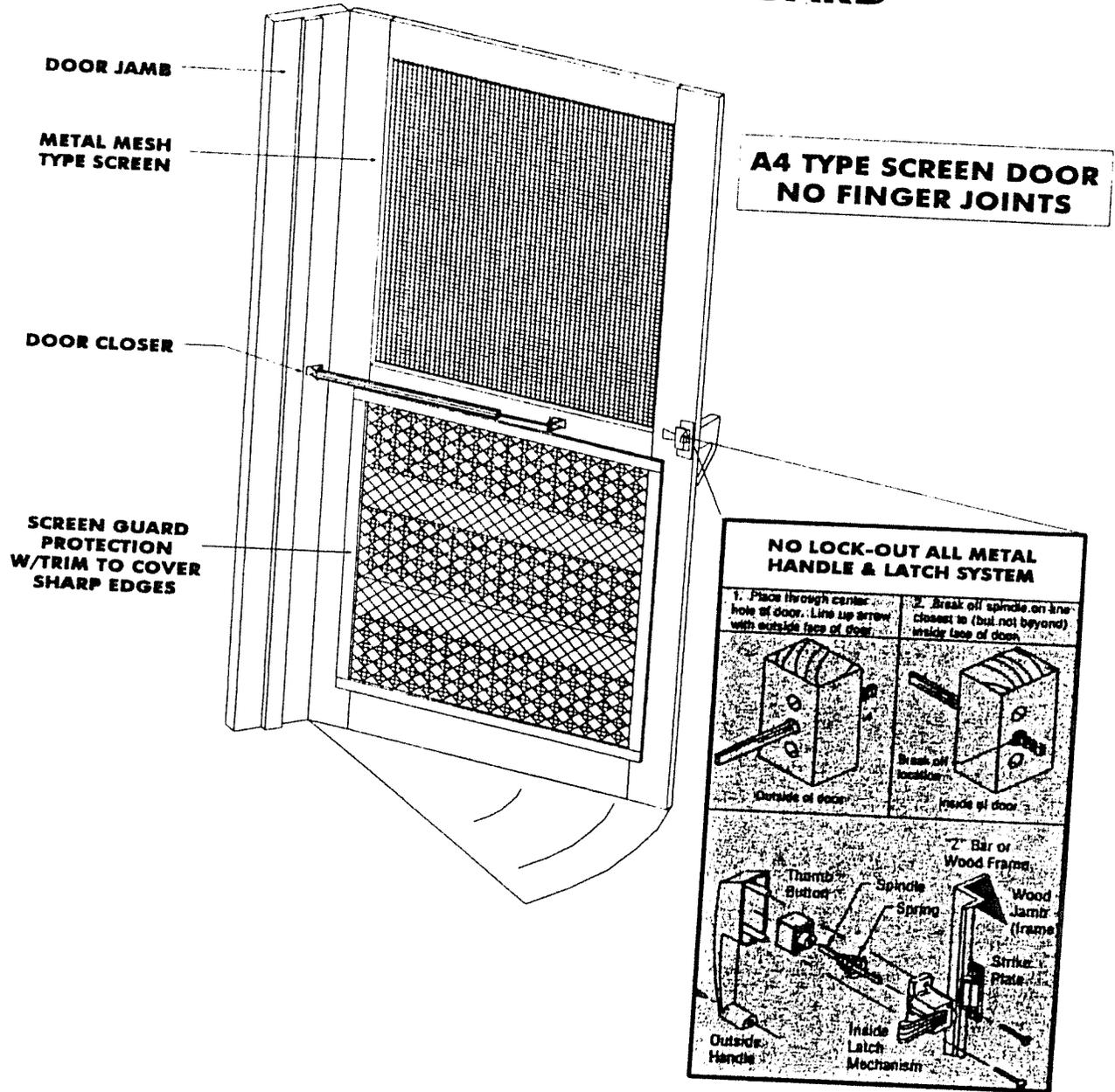


FIGURE 10.3

1 1

HOUSE

CLOSETS.

GENERAL INFORMATION

House closets in homes are not difficult to figure and are low cost to repair or demolish, but building new ones can be a bit more costly. Still the contractor should review a dwelling unit's interior for discrepancies in the plan which could hinder his project caused by improper placement of the closet.

Most often contractors feel that an inspector will seldom look in a closet, but it is one of the surest places where an inspector can base the rest of house work from. In other words if the closet was repaired incorrectly then pretty much the entire house will tend to look as bad if not worse. So contractors should make double sure that the home has closets that are correctly finished.

For example if one of the closets has a wooden clothes hanger rod and the other has a rigid pipe (metal pole) then an inspector will want to review the rest of the home very carefully for any other similar discrepancies which can easily be hidden from his eyes. Get the picture!

As a contractor one should be thorough, so finish the closets correctly.

CONSTRUCTION PROCEDURES

A. To build a new closet:

1. Provide all missing walls of the closet as per plans.
 - a. Sometimes (2) walls will be missing, sometimes (3) walls, and still further sometimes only one wall will be missing. In any case, if the write-up asks for a new closet, simply provide all missing walls.
 - b. Provide top plate ties for all additional walls.
 - c. Fasten all sole plates securely to subfloor & floor joists.
2. Install all missing sheetrock.
3. Install shelf & rod with adequate supports @ 4' O.C.
4. Install doors & hardware as shown on plans or write-up.
5. Install base trim.
6. Paint entire closet.

B. To refinish a closet simply re-paint interior.

C. **To recondition a closet:**

1. Replace damaged rod & shelf with new rod & shelf with proper support.
2. Replace all damaged or missing sheetrock walls and ceiling with new.
3. Repair blemished walls or ceiling.
4. Replace damaged or missing trim.
5. Re-paint entire closet.

MATERIALS SPECIFICATIONS FOR CLOSETS

A. **Material for closets:**

1. 2" x 4" Sole Plate.
2. (2) 2" x 4" Double Top Plate.
3. 2" x 4" Studs 24" O.C.
4. 1/2" x 4' x 8' Finished sheetrock.
5. All base trim 2 1/8" F/J wedge.
6. Shelf & rod with supports @ 4' O.C. or less.

REQUIRED WORK

- A. All house closets shall be completely enclosed with one entrance.
- B. All house closets must have (1) properly supported rod and (1) properly supported shelf.
- C. All house closets shall be clean & free of wall blemishes or damage.
- D. Doors/Hardware and closet designs shall be as shown on plans and/or write-up.
- E. All clothes hanger rods shall be identical in color, material, and diameter.

TYPICAL KITCHEN CABINETS

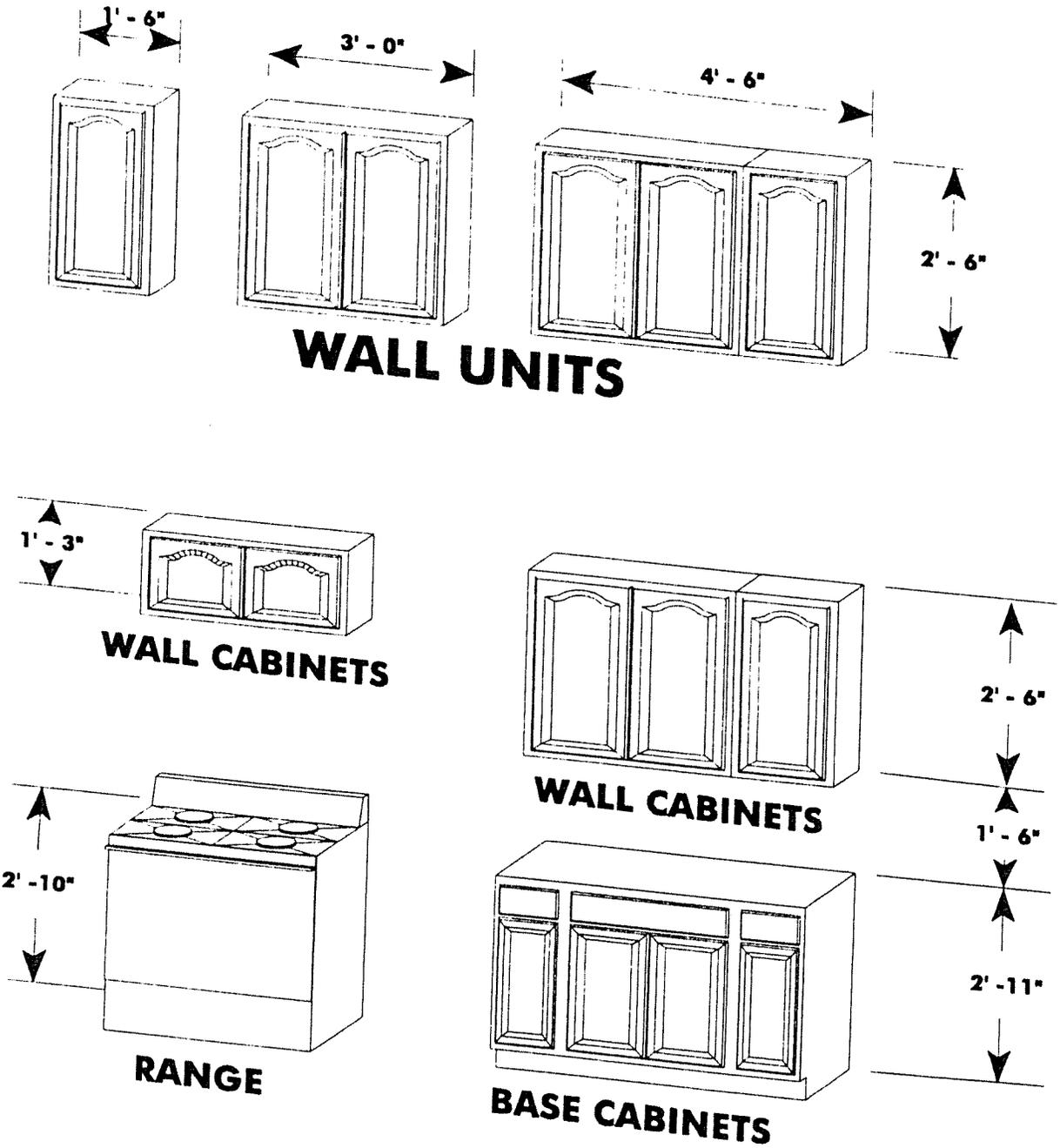


FIGURE 12.1

1 2 CABINETS

GENERAL.

GENERAL INFORMATION

The cabinet work for rehabilitation projects as well as for reconstructed units is pretty straight forward and not very complicated. The basic design seldom has more than one L shape if any, so most of the time the contractor will install or repair straight line cabinets.

For reconditioning procedures the contractor basically re-paints the cabinet and installs new hardware such as hinges and pulls so that a new and uniform look may surface from the old. Dents and gouges can pretty much be covered with spackling or other wood fillers and then painted over.

For repairs the contractor has to replace sections or damaged parts of the existing cabinet. These repairs must use wood that is similar in style, thickness, and grain variety so that varnishing and staining can stay in consistent patterns. Interior shelving and parts of the cabinet that are not facing members do not have to be similar but they must meet at least the minimum standard of BC plywood sheet specified in the "CONSTRUCTION MATERIALS" part of this section .

Again the repairs will always entail replacing hinges, rails, pulls, and any other hardware in general.

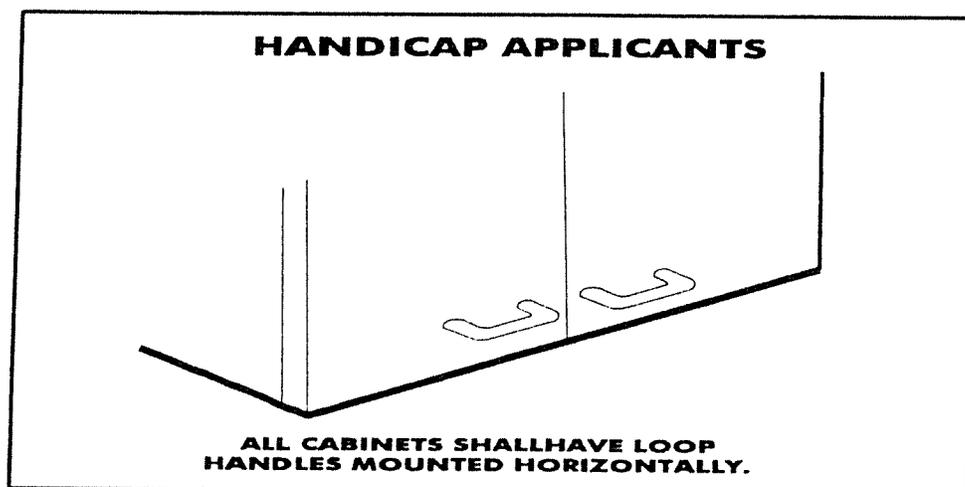


FIGURE 12.2

CONSTRUCTION PROCEDURES

- A. **To build new kitchen cabinets:**
7. See **Figure 12.1** for typical kitchen cabinet designs.
 8. Refer to plans for size and location of all cabinets.
 9. Install the counter top.
 10. Sand & finish the cabinets smooth with two coats of stain & varnish.
- B. **To replace existing kitchen cabinets:**
1. Remove and dispose of existing kitchen cabinets.
 2. Repair or replace all damaged walls behind kitchen cabinets.
 3. Then build new kitchen cabinets as per specs and plans.
 4. Sand & finish the cabinets smooth with two coats of stain & varnish.
- C. **To recondition kitchen cabinets :**
1. Rehang walls cabinets plumb & level.
 2. Re-attach base cabinets plumb & level:
 - a. Shim base cabinet to compensate for uneven floors.
 - b. Provide base trim to base cabinet to cover shim gaps.
 3. Replace all pull handles, hinges, drawer guides, and door catches.
 4. Replace all other hardware.
 5. Adjust all doors & drawers to function properly.
 6. Sand & finish the cabinets smooth with two coats of semigloss wood enamel or stain & varnish.
- D. **To repair existing kitchen cabinets:**
1. Replace all damaged cabinet material or hardware.
 - a. Examples of **damaged cabinet materials include** but are not limited to rotted wood such as water damaged particle board, or decaying plywood and lumber. Broken pieces of cabinet such as shelving, doors, drawers, or cabinet face members also constitute damaged materials. Lastly, their are worn out pieces which are highly visible and are also considered damaged.
 - b. Examples of **damaged hardware include** but are not limited to broken or worn out hinges, worn out or bent drawer slides.
 2. Replace all damaged doors and drawers with doors and drawers of similar material and design.
 3. Replace all cabinet material or hardware of poor workmanship.
 4. Sand & finish the cabinets smooth with two coats of semigloss wood enamel or stain & varnish.
- E. To install a new vanity cabinet in the bathroom, see **Figure 12.3** for acceptable styles and dimensions. The contractor shall be allowed to manufacture the vanity cabinet as per acceptable styles and dimensions.

MATERIAL SPECIFICATIONS FOR CABINETS

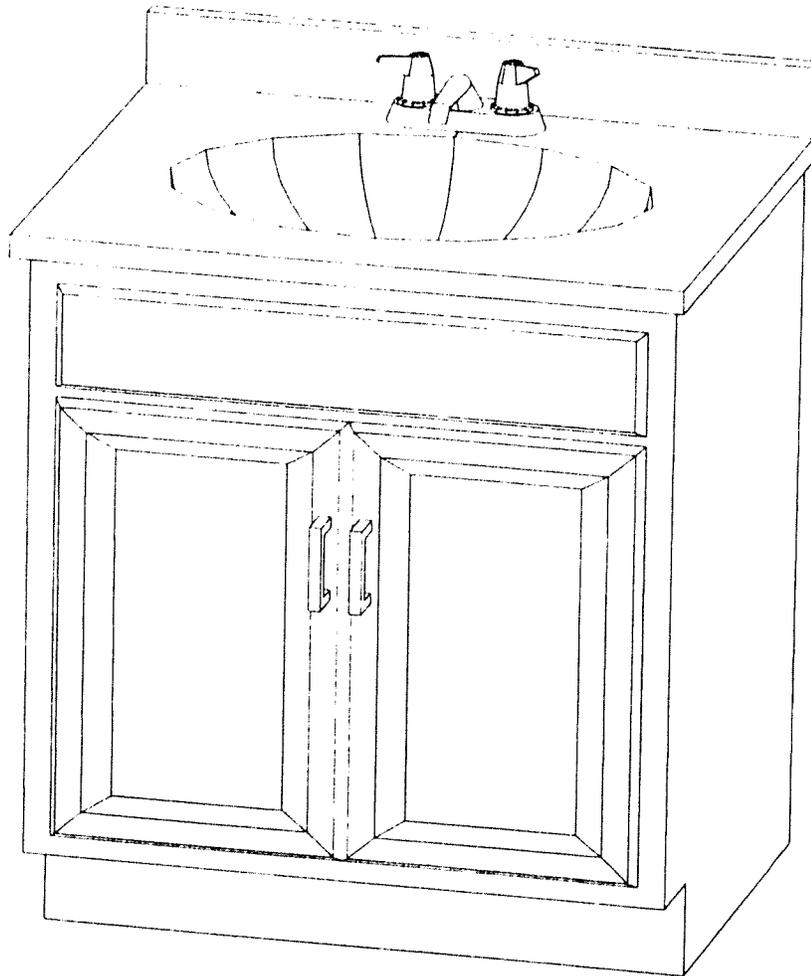
- A. **Cabinet material shall be:**
1. 3/4" B.C. plywood or better for general cabinet structure & cabinet doors.
 2. 1/4" B.C. plywood or better for drawer bottoms.
 3. 1/2" - 5/8" B.C. plywood or better for drawer sides.
 4. Cabinet hardware shall be of a standard type most commonly used by professionals.
- B. **Counter tops shall be** a post-formed counter top with back splash, rolled front edge, and end caps unless otherwise noted on write-up.
- C. **Particle** or **pressed wood** materials will **not be allowed** other than at counter tops.
- D. Bathroom vanities may be purchased pre-built with the vanity sink included or manufactured by the contractor with sink bought separately, but in all cases the vanity cabinet shall: See **Figure 12.3**
1. Measure a minimum of 24" wide, 18" deep, and 32" high.
 2. Have at least two doors with pulls and self closing hinges.
 3. Be constructed of B.C. Plywood or better, **no particle board**.

REQUIRED WORK

ROUGH FINISHES WILL NOT PASS FINAL INSPECTION.

- A. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR:**
1. Covering any exposed rangehood vent pipe in a proper wood enclosure.
 2. Properly enclosing the rangehood electrical wiring.
 3. Removing all accessible electrical outlets or wiring inside kitchen cabinets.
- B. When installing additional kitchen cabinets all cabinets must have a uniform finish.
- C. When installing vanity cabinets in the bathroom, the cabinets shall match kitchen cabinet styles, colors, and finishes.
- D. All other cabinet work will be explained on work write-up.
- E.

TYPICAL TWO DOOR VANITY W/ TOP



DIMENSIONS: 24"WIDE X 18"DEEP X 32"HIGH

MINIMUM MATERIALS ALLOWED:

- **3/4" B.C. PLYWOOD OR BETTER.**
- **SELF CLOSING HINGES OR DOOR CATCHES.**
- **PAINT OR STAIN & VARNISH.**

THE VANITY SHOULD LOOK PRESENTABLE AND SHOULD BE MADE OF MATERIALS THAT WILL LAST AS LONG AS THE KITCHEN CABINETS. THEREFORE MATERIALS SUCH AS PARTICLE BOARD, PRESSED WOOD, OR ROUGH FINISH MATERIALS (LIKE T-1-11) CANNOT BE USED IN ANY PART OF THE VANITY.

FIGURE 12.3

1 3

INTERIOR WALLS &

CEILING REPAIRS.

GENERAL INFORMATION

This section is used mostly to identify and specify what type of interior house work will be done to the dwelling unit. The basic rule-of-thumb to remember is that the write-up will always try to explain the best way to leave the home as up to date as possible while still maintaining HQS or SBCCI minimums.

Sometimes pictures or drawings help to show much more than the write-up normally would explain. So the write-up uses the plan extensively in this section to explain which walls will be moved or newly built. The contractor should (when reading the write-up) refer to the plan often to assure that all necessary work is reviewed correctly. Note of caution, if a contractor finds a flaw or inconsistency between the write-up and plan, he must notify UCP staff immediately to correct the error. So again be careful, because when complex amounts of information are interchanged often enough, the resulting information might become mixed.

CONSTRUCTION PROCEDURES

A. To repair existing walls:

1. Remove damaged wall coverings.
2. Remove nails from studs.
3. Install new wall coverings (sheetrock) and finish the same to match existing.
4. Then finish the same to match other existing finishes.

To spot repair holes, blemishes, cracks, gouges, etc. on walls:

1. Fill holes, cracks, gouges, etc. and then tape & float area smooth.
 - a. For larger cracks or holes, spot-replace the sheetrock, and then tape & float the area smooth.
 - b. For large holes, provide appropriate framing, sheetrock, and tape & float.
2. Match texture as close as possible to existing finish.
3. Prepare area for paint finish.

To refinish ceilings:

1. Scrape all plaster, remove obstructions, and apply kilz or equivalent stain primer to stained areas.
2. Cover all doors, windows, etc.
3. Then apply new acoustic.
4. **Clean up all acoustics and textures immediately after application.**

B. To replace sheetrock refer to **LETTER A** above.

C. **To install missing sheetrock:**

1. Remove nails.
2. Install sheetrock.
3. Finish to match existing texture unless otherwise noted.

D. **To repair Mortar/Plaster/Stucco** on interior block walls Refer to **section 2. SIDING; CONSTRUCTION PROCEDURES; LETTER B.**

E. To install all new Mortar/Plaster/Stucco refer to same sections: **LETTER C**

MATERIAL SPECIFICATIONS FOR INTERIOR WALLS & CEILINGS REPAIRS

Typical construction of new interior walls:

1. 2" x 4" Floor plate.
2. (2) 2" x 4" Top plates.
3. (2) 2" x 4" Door rough opening Trimmers.
4. (2) 2" x 6" Door rough opening Headers.
5. 2" x 4" Studs shall be placed:
 - a. @ 24" O.C. for non-load bearing walls.
 - b. @ 16" O.C. for load bearing walls.
6. 1/2" x 4' x 8' **DAMP PROOF** sheetrock for **BATHROOM** wall coverings.
7. 1/2" x 4' x 8' standard sheetrock for all other wall coverings

A. **Dry wall finish as follows:**

1. Apply gypsum tape to all joints including inside corners.
2. Apply corner ground beads to all outside corners.
3. Feather all gypsum tape joints twice.
4. Then apply texture as per write-up.

REQUIRED WORK

- A. Floor, windows, and doors must be wiped clean immediately after applying textures.
- B. Contractor must use drop cloths when painting over surfaces that must be maintained paint free.
- C. Contractor must protect windows, window screens, and all doors from unwanted paint stains or spattering.
- D. All open sheetrock joints in any house must be taped and refinished.
- E. All **WINDOW RETURNS** in any house **MUST BE FINISHED** with similar wall textures.
See **Figure 5**.
- F. **All walls (except any wall denoted in a no work zone) must be touched up regardless of mention in the write-up or not.**

14

INTERIOR FINISH.

GENERAL INFORMATION

This section addresses the finish trim and painting for the home. Figure 14.1 shows the different finish requirements to use for various parts of the house. Still, when these general outlines and rules do not fit the particular finish work the contractor should (ad-lib) to trim & finish the particular component as best as possible. When completed the finish work should match & blend itself in a consistent manner.

The minimum required finish trim material is finger joint wedge trim which is paintable. Then all windows should also be trimmed with window stools & apron as well. Follow the diagrams in FIGURE 14.1 for complete details to always pass your inspections.

This section also addresses paint requirements for the dwelling unit, so read carefully. In the end however, the home should look like it was freshly painted, even if the write-up does not call for new paint in any room.

The targeted work might sometimes overlook small details like touch-up work in a neglected room, but it is still the contractors responsibility to leave the home in freshly painted manner. Be careful to read the entire section of "Required Work" category, because the write-up & plans may or may not state items found in this category.

CONSTRUCTION PROCEDURES

- A. **To paint house interior:**
1. Remove, cover, or protect hardware fixtures and accessories not to be painted.
 2. Scrape loose, peeling, cracked, and blistered areas of all walls.
 3. Clean oil, grease, fungus, dirt and dust from all surfaces.
 4. Fill in all holes, cracks, and gaps with quality interior caulking.
 5. Prime all new materials.
 6. Finish interior walls with washable semigloss latex paint (one color, owner's choice). Allow \$14.00 per gallon.
 7. Finish trim with latex semigloss trim paint.
 8. Interior finish shall include items other than wall and trim; such as ornamental wood work

9. Where wood paneling is present, write-up will indicate work to be done and number of paint coats.

B. To install new trim:

1. Install new "E" type finger joint paint grade trim.
2. See **Figure 18** for accepted installations.
3. Where unorthodox areas do not allow for trim installation as per **Figure 18**, the contractor shall provide adequate trim installations of a presentable nature.

C. To recondition house trim:

1. Provide new trim where missing to match existing trim as per **Figure 14.1**.
2. Replace all broken, rotted, or damaged existing trim.
3. Where unorthodox areas do not allow for trim installation as per **Figure 14.1**, the contractor shall provide adequate trim installations of a presentable nature.

MATERIAL SPECIFICATIONS FOR INTERIOR FINISH

- A. Interior paint shall be washable semigloss latex paint. Allow \$14.00 per gallon.
- B. Interior trim paint shall be the same.
- C. Interior trim shall be the new "E" type finger joint paint grade trim.

REQUIRED WORK

- A. All windows must be trimmed as per trim installation details.
- B. All other interior repairs will be indicated on plans and/or work write-up.
- C. We strongly recommend that contractors closely inspect interior repairs. Work shall be done by skilled workers only. The workmanship of the paint will also be inspected so a contractor should make sure that his paint crew are all professional painters.

TYPICAL CROSSECTIONS SHOWING TRIM INSTALLATIONS

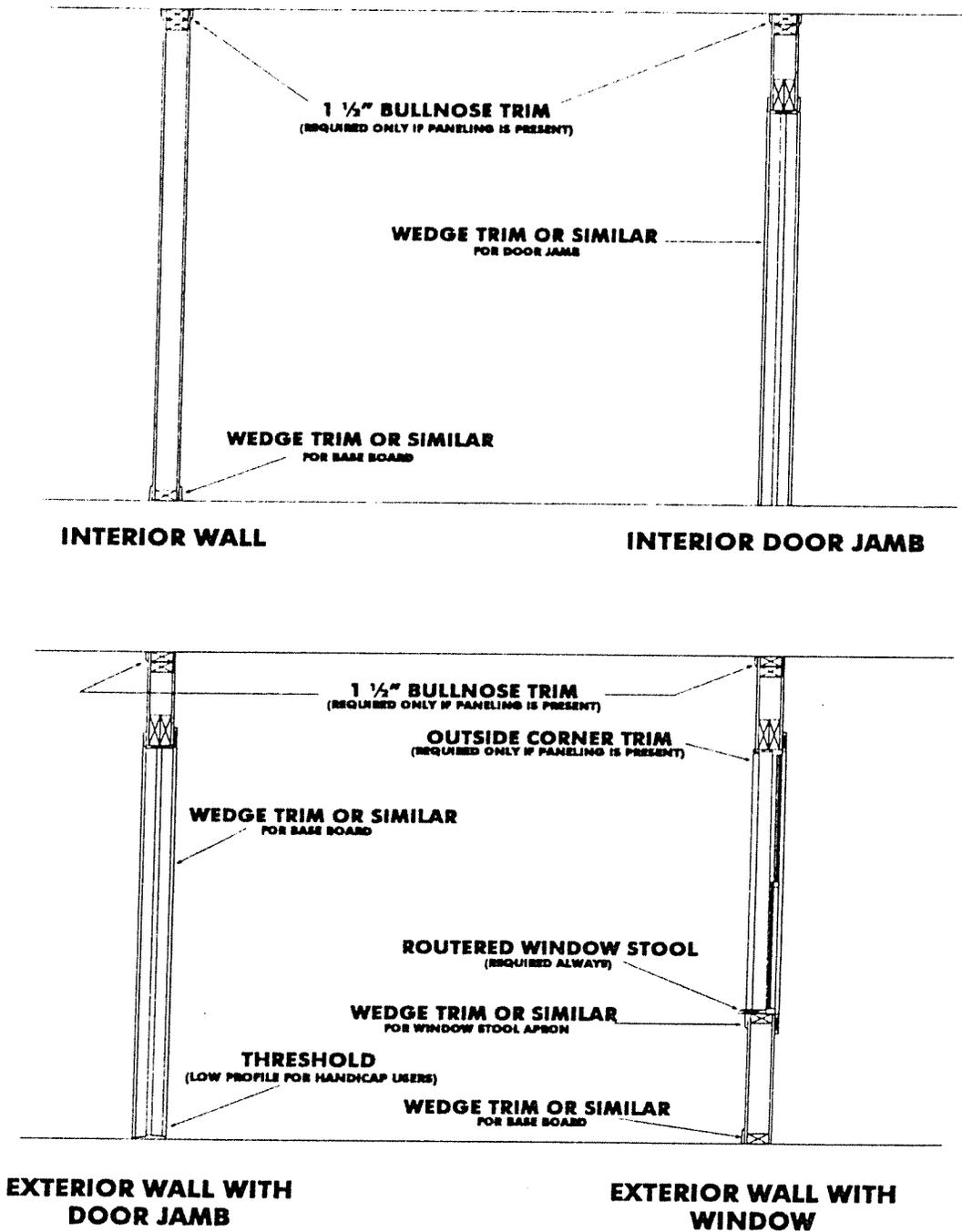


FIGURE 14.1

15

INSULATION

GENERAL INFORMATION

Insulation should be installed in a manner that balances material cost and labor cost. So in keeping with this generalized rule our write-ups request (on occasion) that only completely exposed walls be insulated of whole rooms, because insulating one small area of the wall will not help to insulate the house at all.

An exposed wall of a whole room includes all vertical walls of a room that are part of the exterior wall system. So for a room that is situated on the corner of a house would have two walls coinciding with exterior walls. Then, if and only if, these two walls are completely exposed they must become insulated.

Insulating in this manner will at least help to keep all generated heat for the particular room. Remember some walls only require partial replacement of wall coverings, so read the write-up carefully and follow instructions as written.

The ceiling, on the other hand, is almost always insulated to a factor of R-30, because it accessible and large. Sometimes the contractors become confused because they either read too much or too little, but the general intention of the program is to provide every home with at least a ceiling insulation factor of R-30 for all living areas of the home. (Note: Living areas do not include garages or porches.)

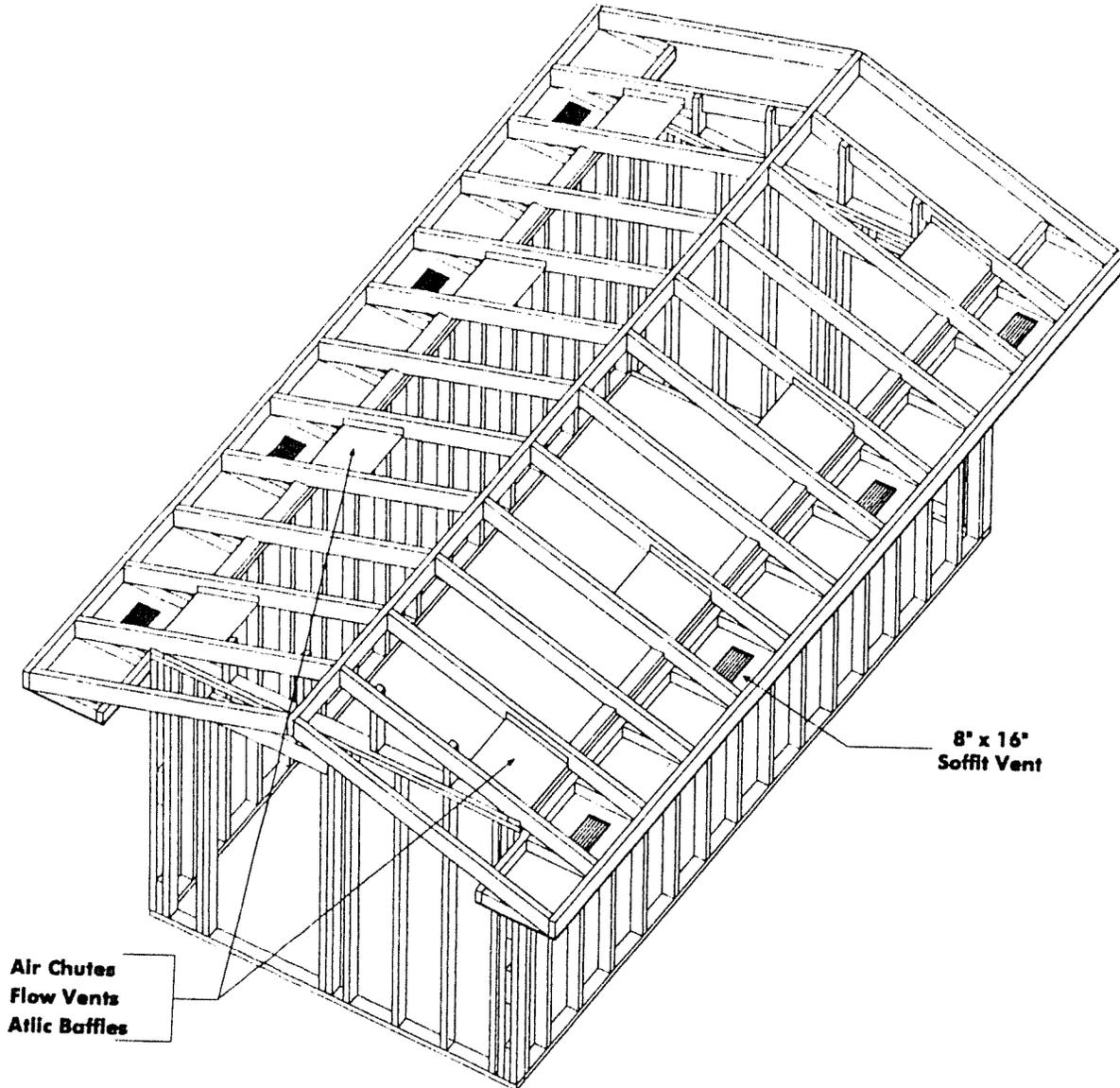
So what happens when there is already some insulation in the attic? Well, you simply upgrade the existing insulation to the R-30. For example, lets say that the attic has R-19 batt insulation covering half of the dwelling unit. The contractor will have to blow-in only 6" extra inches over the existing batt insulation, and then a complete 12" over the second half of the unit.

Contractors should be careful when bidding because rehab specialists have no way of knowing how much insulation is in the attic. A rehab specialist will only ask the owners what type and how much, then depending on the answer they request that you upgrade the existing or install all new insulation. For these reasons a contractor should have a ladder when visiting the home and he should attempt to figure how much insulation (if any) is already in an attic. This will help the contractor to become much more competitive.

CONSTRUCTION PROCEDURES

- A. **To insulate the attic**, blow in loose fill (blown) type insulation on top of any existing insulation to R-30 value.
 - 1. For example, to insulate an attic with existing R-19 insulation. Simply upgrade the existing attic insulation with an additional R-11 value.
- B. **To insulate exterior walls** install R-13 value insulation to all accessible exterior walls.
- C. **To insulate non-accessible exterior walls:**
 - 1. Remove top most exterior wall siding board.
 - 2. Install loose fill(poured) R-11 value to enclosed walls.
 - 3. Then reinstall siding, cover all siding gouges with wood spackling, and finish smooth with new exterior paint.
- D. **To insulate new house foundations:**
 - 1. Install chicken wire mesh to the bottom side of all spaces between floor joists.
 - 2. Then lay R-19 fiberglass batt insulation with PINK POLY PLUS WRAP or equivalent to entire floor frame.

TYPICAL METHOD OF ENSURING OPEN AIRWAYS FROM RIDGE VENT TO SOFFIT VENT



When installing blown-in insulation in the attic, the contractor must ensure that the air way to the soffit vent is not blocked off by the over-spilling of blown-in insulation. The nomenclature for this device varies widely between suppliers, and some devices are made of styrofoam where others are made of simple cardboard, but the overall effect should be consistent with this depiction of the device.

FIGURE 15.1

MATERIAL SPECIFICATIONS FOR INSULATION

- A. **Attic insulation shall be loose fill blown in type.**
- B. **Exterior wall insulation for all accessible exterior walls shall be R-13.**
- C. **Exterior wall insulation for non-accessible exterior walls shall be R-13.**
- D. **Floor insulation for new homes shall be R-19 with PINK POLY PLUS WRAP or equivalent.**
- E. **Floor insulation support shall be "chicken wire".**

REQUIRED WORK

- A. Any exterior wall which is or becomes accessible during construction shall be insulated as per specs.
- B. Insulation attic baffles must installed at all soffit vents. See **Figure 1.1, and Figure 15.1**
- C. R-Value for attic insulation shall be determined by number of bags applied per 1,000 sq. ft. and not by inches.

16 PLUMBING

GENERAL

GENERAL INFORMATION

The plumbing work to be done in any home by Urban County Program shall always be done by a licensed plumber with the State of Texas. Our specifications are geared to guide the construction outcome of rehab projects in areas that are not governed by a municipality (which verify work for safety of its citizens).

In all cases involving city metered gas or L.P. tank gas it is the **contractor's responsibility** to ensure the safety of the applicant. So use good judgement, and repair all noticeable gas leaks. Sometimes the write-up may not request that gas lines be repaired because there is no way of telling whether lines are rust damaged or not. Still if the contractor encounters a gas leak he or she must repair it accordingly.

SEWER LINES, SEPTIC TANKS, AND DRAIN FIELDS are an important part of any house. Most cities in the rehabilitation program consortium have a city sewer system. Still, some cities do not have a city sewer and these cities still rely on septic tanks and drain fields as per County of Hidalgo Health Department Standards. In the event that construction procedures cannot be followed, it will be the **CONTRACTOR'S RESPONSIBILITY** to assess the situation and find a viable alternative to remedy the situation. In any case the contractor shall always bid with contingency plans in mind.

WATER LINES also cause problems as well. These are a basic set of rules concerning waterlines but it is still the **CONTRACTORS RESPONSIBILITY** to ensure that the applicant is supplied with ample amounts of potable water. The contractor shall in all cases ensure that the dwelling has ample water pressure at all water taps. This means that the contractor shall replace all low pressure water lines to the entire house and all low pressure water lines up to water meter. This is strictly required regardless of write-up

CONSTRUCTION PROCEDURES

- A. **To replace, install, or reinstall plumbing fixtures:**
1. Remove and dispose of existing plumbing fixture.
 2. Always install new or reinstalled plumbing fixture with these requirements:
 - c. Toilets with new bowl wax, supply lines, and cutoff.
 - d. Lavatories with new supply lines and cutoff.
 - e. Kitchen sinks with new supply lines, cut off valve, and plumbers putty to sink perimeter.
 - f. Showers, tubs, or combinations there of with new drains.
 - g. Lavatory faucets with a new gasket or plumbers putty seat between faucet and lavatory.
 - h. Kitchen sink faucets with a new gasket or plumbers putty seat between faucet and kitchen sink.
 - i. Shower faucets with a new tub water stop or in-drain-line tub water stop.
 3. Always run a pressure test on all reinstalled faucets and replace the reinstalled faucet as per specs if it leaks.
- B. **To install or reinstall a water heater:**
1. Provide adequate combustion ventilation as per building codes for gas water heaters.
 2. Provide L.P. or city gas connection for gas water heaters.
 3. Provide 240 V. wiring and disconnect switch for electrical water heaters.
 4. Always install a new pressure relief valve and a discharge pipe routed to the exterior and terminating 4" from the ground.
 5. Wrap all water heaters housed outside of living areas with an R-7 insulation blanket.
- C. **To install a new septic sewer system follow these steps:**
1. If lot measures at less than $\frac{1}{2}$ acre then the contractor shall have the sewer system designed by a registered State of Texas Engineer. Allow \$350.00
 2. Contractor shall proceed to install the septic sewer system, only after approval of sewer system design by City Officials and County Health Department Official.
 3. Contractor shall then request the sewer system inspection as per City procedures and County Health Department procedures.
- D. **To replace sewer pipes up to a city main sewer line or existing septic sewer system (properly functioning) the contractor must comply with the following:**
1. The initial flow from all sewage lines shall be in the direction of the city sewer lines or septic sewer system.
 2. The replacement line shall run as an only line from house to septic sewer system and **shall not be coupled together with other drain lines before reaching the city sewer line.**
 3. Fittings or connections which offer abnormal obstruction for sewage flow shall not be permitted. Even if work is covered up and the problem is found several years into the future the **contractor shall be held responsible.**

4. All work to new sewer lines shall be done in strict accordance with City/State codes.
5. All work shall be left uncovered and left accessible subject to inspection & approval by the City Inspector as well as Urban County Program Staff.
6. All tap fees or other inspection fees shall be paid by the contractor.

E. **To replace a septic sewer system with a new septic sewer system** follow these steps:

1. Backfill all existing septic tanks or inappropriate sewer holes as per specs.
2. Then install a new septic sewer system with new sewer lines as per specs.
3. Do not use existing drain fields, drain lines, or septic tanks unless otherwise noted.

F. **To replace an existing septic sewer system with a city sewer line connection.**

1. Backfill all existing septic tanks or inappropriate sewer holes as per specs.
2. Then install a new sewer line to city sewer system line as per specs.
3. Do not use existing drain fields, drain lines, or septic tanks unless otherwise noted.

G. **To back fill existing septic tanks or inappropriate sewer holes:**

1. Remove all sewage from existing septic tanks or inappropriate sewer holes. Contractor must use a professional sewage removal service.
2. Allow septic tanks or inappropriate sewer holes to dry out a period of 2-days.
3. Provide temporary high visibility barriers with warning signs a minimum distance of 5 feet from hole.
4. Back fill septic tank or inappropriate sewer hole with high compact grade sand.

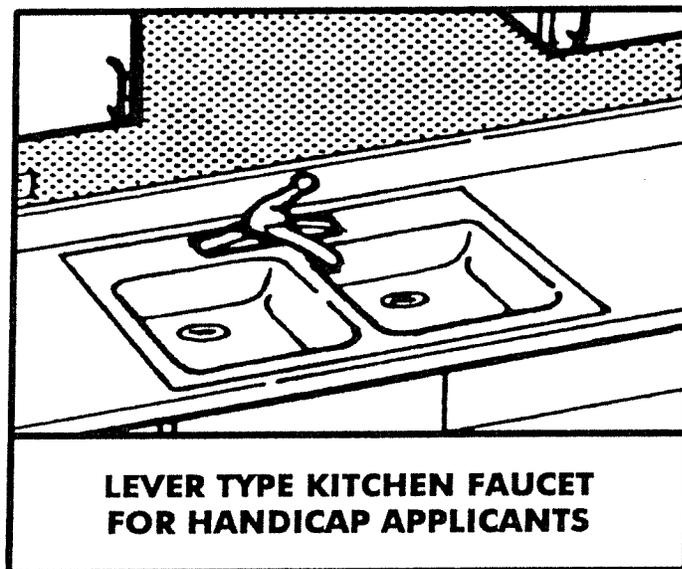


FIGURE 16.1

TYPICAL HANDICAP LAVATORY DESIGN

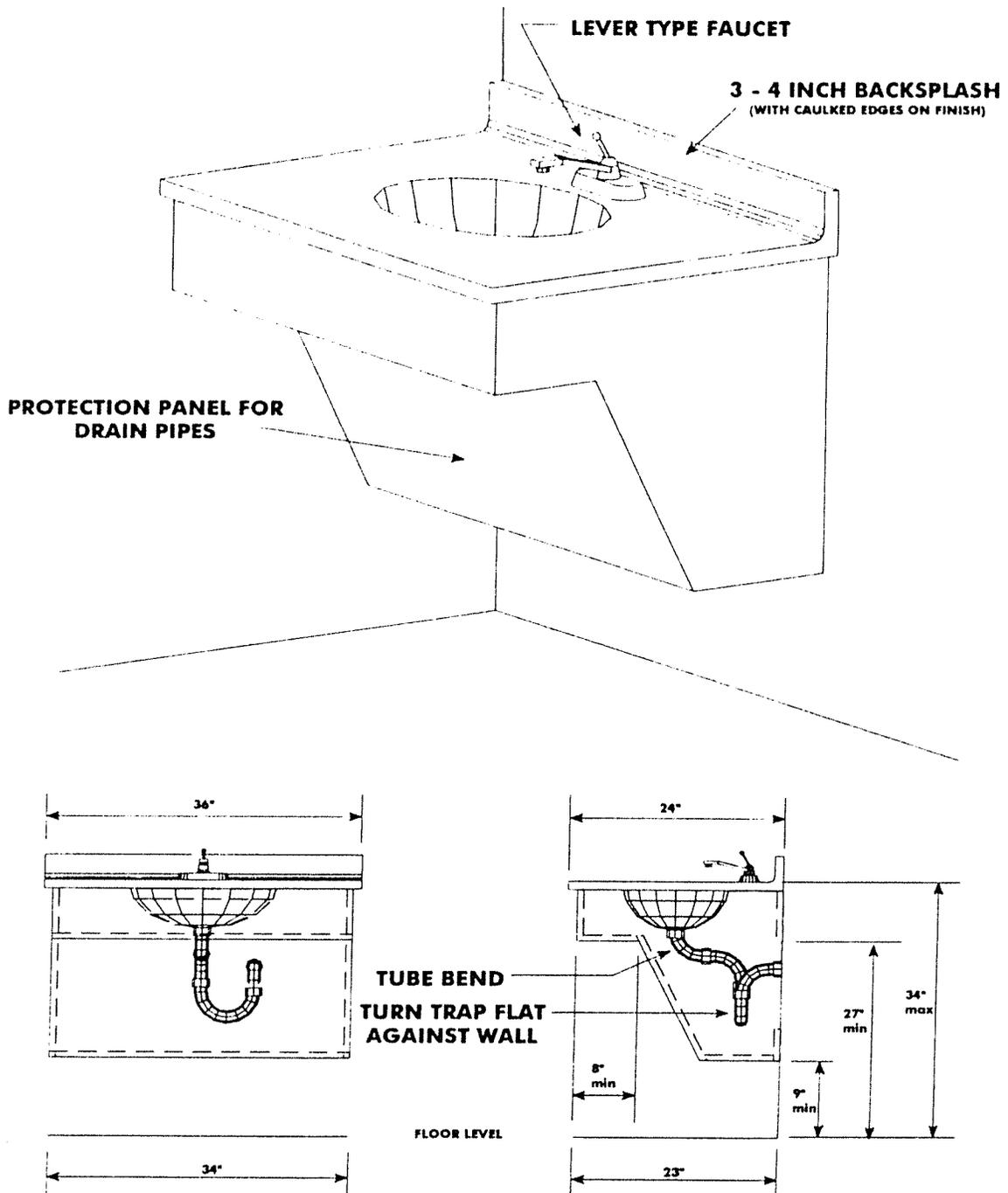
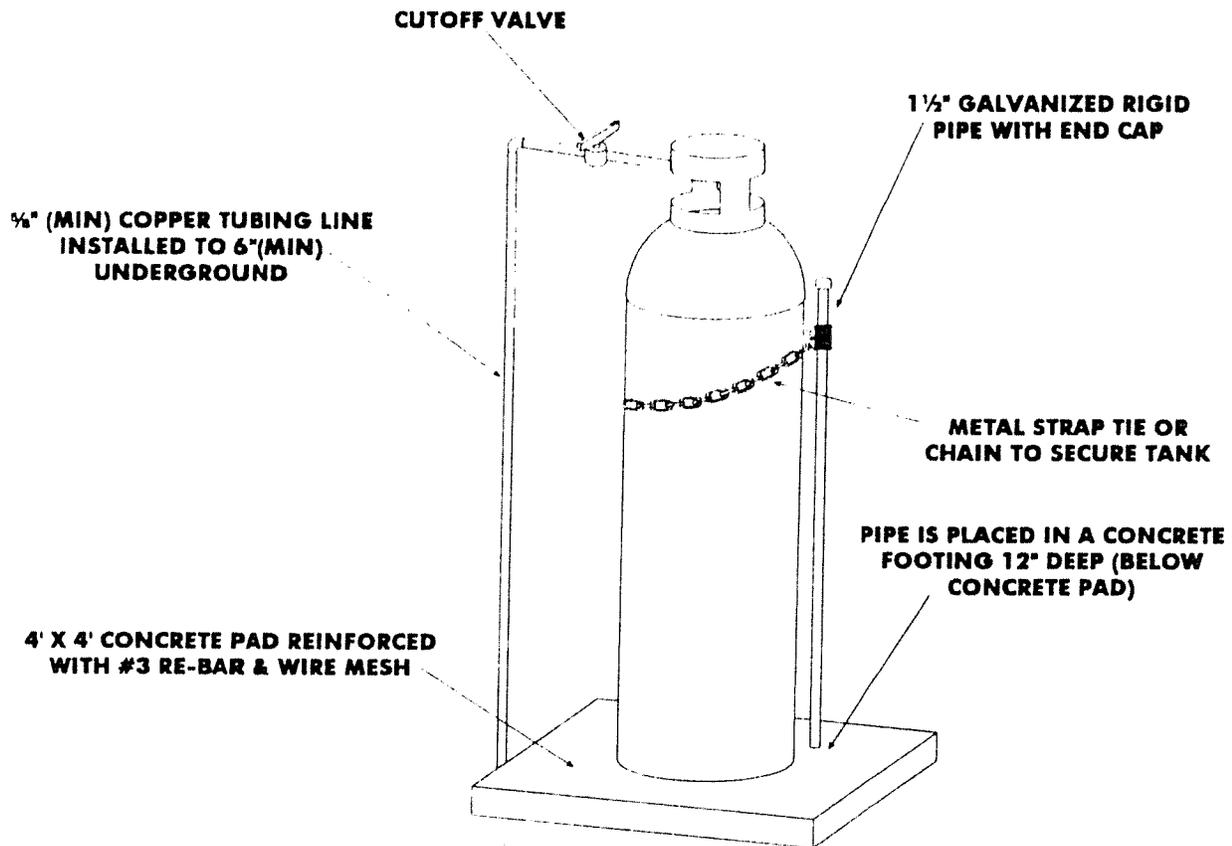


FIGURE 16.2

TYPICAL SETUP FOR BUTANE BOTTLE



NOTE: ALL BUTANE (TANKS, BOTTLES, OR SIMILAR) SHALL HAVE A 10' MINIMUM CLEARANCE FROM DWELLING

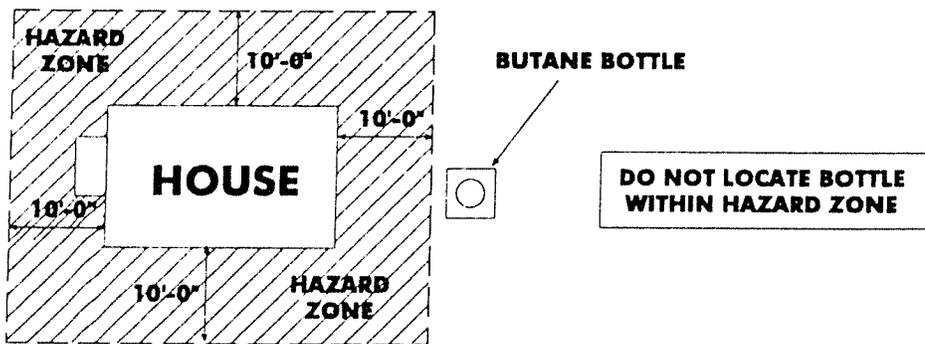


FIGURE 16.3

TYPICAL TOILETS AND AREA DESIGN

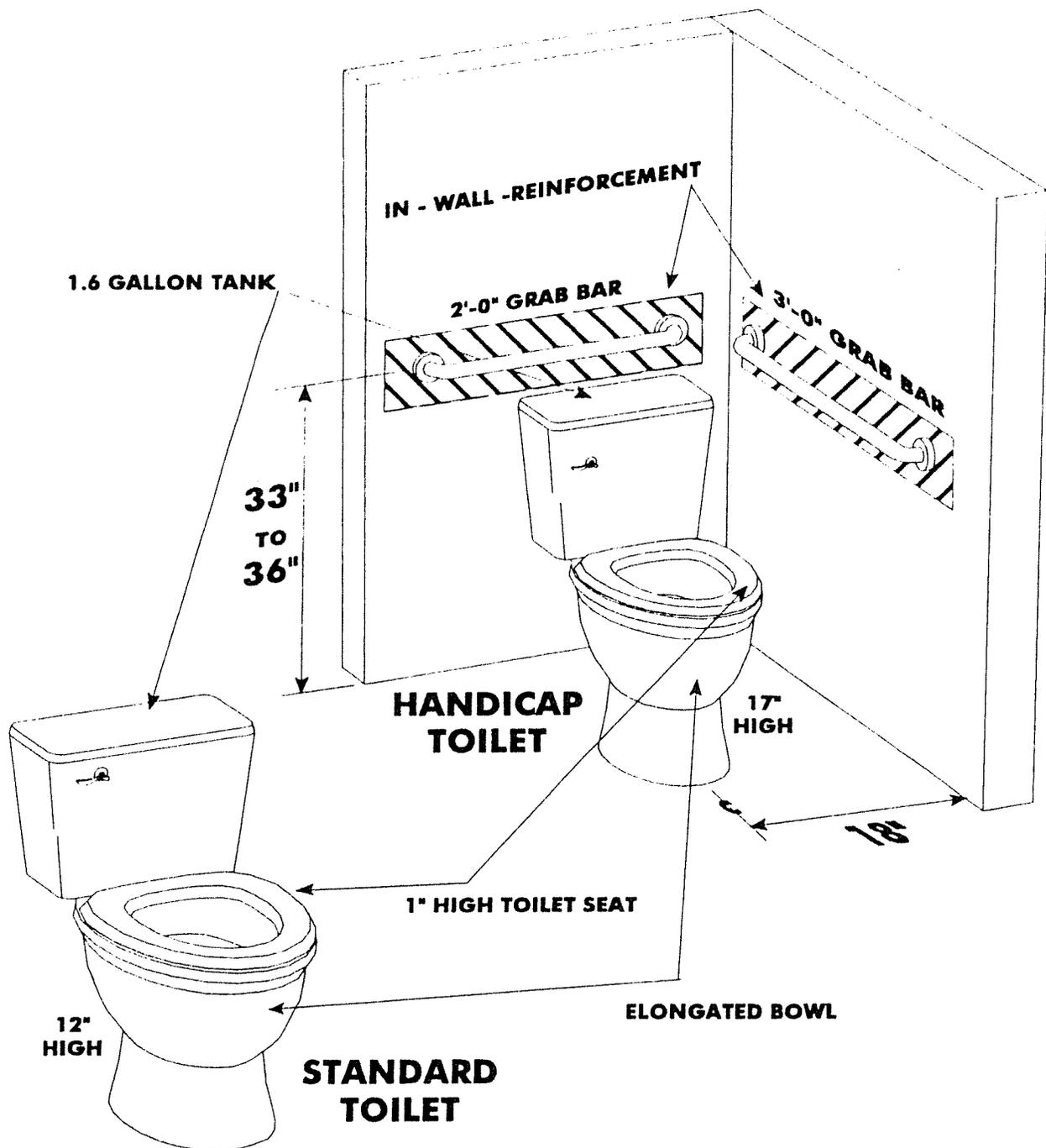


FIGURE 16.4

- H. **To replace water lines** within a dwelling the contractor is strictly required to use copper water supply lines only as replacement.
- I. **To replace water lines** up to the water meter the contractor shall use 1" schedule 40 water supply lines as replacement.
- J. **To relocate L.P. gas tanks:**
 - 1. Build a new L.P. tank setup as per **Figure 20**.
 - 2. Relocate L.P. tank to new setup.
 - 3. Run adequate size copper tubing 1' - 0" below ground to the main gas supply line for entire house.
 - 4. Tie up gas tank securely to L.P. Gas tank setup with chain.
 - 5. **THE SET-UP SHALL BE LOCATED BEYOND 10 FEET FROM THE HOUSE.**
See **Figure 20**

MATERIAL SPECIFICATIONS FOR PLUMBING

- A. **All primary plumbing fixtures shall be white** if new or replaced and installed as follows:
 - 1. Toilets only come in two different types, and shall always be installed with a new bowl gasket even when being installed:
 - a. Standard TOILET shall be 1.5 gal. with seat and cover. See **Figure 21**
 - b. TOILET FOR HANDICAP shall be 1.5 gallon and 18" high with seat and cover.
See **Figure 22**
 - 2. The LAVATORY shall be a 17" x 19" vitreous china lavatory, wall hung with in wall support which shall be (1)-2" x 6" backing board fastened between wall studs.
 - 3. The STANDARD VANITY shall be as per **Figure 17** which is usually bought with a vanity cabinet as a set, still the contractor may choose to buy the vanity sink separately. See (**12 CABINETS GENERAL**) for standard vanity size.
 - 4. The KITCHEN SINK shall be a double bowl 6 1/2" deep stainless steel sink. All kitchen sinks are **strictly required** to be perimeter sealed with plumbers putty regardless of write-up.
 - 5. Showers, tubs, and combinations will be requested of the contractor in several different ways, the following are most frequently used fixtures but certainly not the only ones:
 - a. The STEEL TUB shall be 30" x 5' porcelain on steel tub with a slip resistant floor.
 - b. The TUB SURROUND shall be a Hi-impact resistant (Thick Plastic) copolymer (3) - piece plastic molded unit that is mold & mildew resistant.
 - c. FIBERGLASS SHOWERS shall be made of scratch resistant materials, non-porous and water proof. The write-up will denote size and built in accessories.
 - d. The FIBERGLASS TUB & SHOWER ENCLOSURE shall be a 30" x 5' molded one piece unit scratch resistant, non porous, and waterproof.

- e. The SHOWER FOR THE HANDICAP shall be specified on plans and work write-up.

B. All **secondary plumbing fixtures** shall be as follows:

1. Accepted FAUCETS shall be as follows:
 - a. Kitchen and bath faucets shall be metal chrome washer-less water saver type.
 - b. Laundry and exterior faucets shall be brass (**no plastic faucets allowed**)
 - c. Handicap lavatory faucets shall:
 - Be metal chrome washer-less water saver type.
 - Have 5" long wrist handles with color coding for hot and cold water.
 - Be priced at about \$80.00
 - Equal in quality to brands such as Moen, Kohler, and Valley.
2. The SHOWER HEAD shall be metal chrome & water saver type.
3. All GRAB BARS shall be stainless steel integrated grab bars & corrosion resistant. In wall support, a minimum of (2)- 2" x 6" separate backing boards fastened between wall studs, is **strictly required** when **installing or re-installing** grab bars.

C. The **RELATED PLUMBING** for each fixture is as follows:

1. Kitchen sink:
 - a. The kitchen sink "P" trap shall be of standard plastic type.
 - b. The kitchen sink drains shall be stainless steel with stoppers.
 - c. Water supply cut off valves shall be metal chrome with cap sleeves to cover wall protrusions.
 - d. Water supply lines shall be flexible reinforced plastic type.
 - e. The sink rims shall be stainless steel & corrosion resistant.
 - f. Plumbers putty shall be applied to all sink perimeters and drain perimeters. This action is **strictly required** regardless of write-up.
2. Bathroom lavatory:
 - a. The lavatory "P" trap shall be of standard plastic type.
 - b. The drain shall be stainless steel with stopper.
 - c. Water supply cut off valves shall be metal chrome with cap sleeves to cover wall protrusions.
 - d. Water supply lines shall be flexible reinforced plastic type.
3. Bathroom toilet:
 - a. Bowl wax shall always be new. **Never re-use an old bowl wax.**
 - b. Water supply cut off valves shall be metal chrome with cap sleeve to cover wall protrusion.
 - c. Water supply lines shall be flexible reinforced plastic type.
 - d. All tank components shall be standard. If a toilet is not replaced in a rehabilitation job, then retrofit all tank components and replace bowl wax & toilet seat. This is **strictly required** regardless of write-up.
4. Bathroom showers, tubs, or combinations:
 - a. Drain shall be stainless steel with stopper or in line stopper.
 - b. Plumbers putty to entire drain perimeter. This action is **strictly required** regardless of write-up.

5. Water Heater:

- a. Fuel connections, venting, and combustion intake for (gas) water heaters.
- b. Electrical connections and disconnect switch for (electric) water heaters.
- c. Water supply cut off valve.
- d. R-7 insulation blanket for water heaters housed outside living areas.
- e. New relief valve with discharge pipe routed to exterior. The discharge pipe should terminate 4" from the ground.
- f. Other related plumbing specified on work write-up.

D. **WATER HEATERS:**

1. All new water heaters shall be 30 gallon quick recovery energy efficient type.
2. Gas water heaters must be installed with adequate combustion ventilation as per building codes.
3. Electric water heaters shall be 240 V. with wiring & disconnect switch to electrical code standards.
4. All water heaters housed in exterior water heater closets shall be wrapped in an R-7 value insulation jacket with a minimum of (3) straps. This is **strictly required** regardless of write-up.
5. Contractor shall mark all new water heaters with date of installation.
6. All water heaters shall have new pressure relief valves and a discharge pipe routed to the exterior and terminating 4" from ground. This is **strictly required** regardless of write-up.

REQUIRED WORK

- A. CITY PERMITS, CITY FEES, AND INSPECTIONS:
1. The contractor shall **OBTAIN AND DISPLAY** appropriately all city permits.
 2. The contractor shall **PAY** for all city fees.
 3. The contractor shall **REQUEST AND PASS** all proper city or county inspections.
- B. When replacing any plumbing fixtures the **CONTRACTOR SHALL BE RESPONSIBLE** for proper disposal of all replaced fixtures.
- C. **No plumbing fixture may stay** on an applicants property for use as auxiliary catch basins, flower pots, storage units etc.
- D. The contractor shall **bury all horizontal exterior pipes** a minimum of 6" below ground. This is **strictly required** regardless of write-up.
- E. The contractor shall **insulate all exterior water pipes** exposed to weather.
- F. Contractors are **strictly required** regardless of write-up to:
1. **Relocate all L.P. gas tanks** and setups which are within 10' of any applicant dwelling to a distance of at least 10' away from the house. See **Figure 18** for new accepted new setups.
 2. **Replace all rusted or leaking gas lines** with copper gas lines within the house and up to city meter or L.P. gas tank.
 3. **Cap, test, and replace if necessary all abandoned gas lines** that still hold gas under pressure.
 4. All gas supplied space heaters or any other gas supplied unvented device must be capped and tested.
 5. **Vent all gas supplied water heaters** to the exterior.
 6. **Provide ventilation** to all gas supplied water heaters when housed within any enclosure, so that the **natural combustion of gas** may take place.
- G. All plumbing shall be installed in strict accordance with City & State code. All items shall operate safely and without leakage, vibration noise, or hammering. All wall penetrations shall be trimmed and sleeved. **No lead solder** shall be used in any pipe or fixture carrying potable water.
- H. All gas stoves that are removed to comply with the write-up shall be re-connected with all new gas supply lines.
- I. **NO GAS TANKS SHALL BE ALLOWED WITHIN 10'-0" OF THE DWELLING UNIT.**

17

CERAMIC TILE WORK.

GENERAL INFORMATION

Most of the ceramic tile work in this section is devoted to the construction of ceramic tile showers. Ceramic tile showers are built by the Home Rehab program mainly for disability applicants, but sometimes repairing an existing tile or installing wall tile instead of a tub surround in existing bathrooms is feasible.

It is the **Contractor's responsibility** though to build a shower geared toward the necessities of the applicant while using the specifications as a guideline. The floor to be used for the construction of a handicap ceramic tile shower must be constructed or replaced to allow the finish floor level to remain flush with the shower lip

So, when foot printing or reconstructing a home to have a concrete floor the concrete should be poured with a 3" to 4" let-in area for the shower. This allows the mortar and tile to fill the let-in space to the desired height of the finish floor area the remaining home. It will also maximize space because an interior ramp reduces the size of stationary areas that applicants (with a disability assisting device such as a wheelchair, walkers, cane, etc.) use to reach other hygiene devices within a bathroom.

When rehabilitating an existing home with a concrete floor the contractor will build the shower floor up from the existing finish floor and install a ramp with a minimum 1/12 slope covered with a slip resistant floor tile. Sometime this ramp takes up much of the required space for wheelchairs. So the contractor must check to ensure that the stationary areas (where a wheelchair or disability assisting devices will be used) do not have a slope that will make it difficult for the disabled person to remain stationary. If a contractor notices that the plan and write-up do not allow for stationary areas he must contact the Urban County Staff immediately to rewrite or re-plan the area of concern within the disability standards according to HUD guidelines.

For a reconstructed home or rehab units with wood floor frames the contractor must build or replace the floor area for handicap showers with a similar let-in area. Then the area must be reinforced by the contractor to compensate for tile shower weight, and prevent settlement cracks. This will **ensure** that the floor frame is adequately reinforced to receive such weight by following the floor framing specifications closely. (See figure 17.1)

CONSTRUCTION PROCEDURES

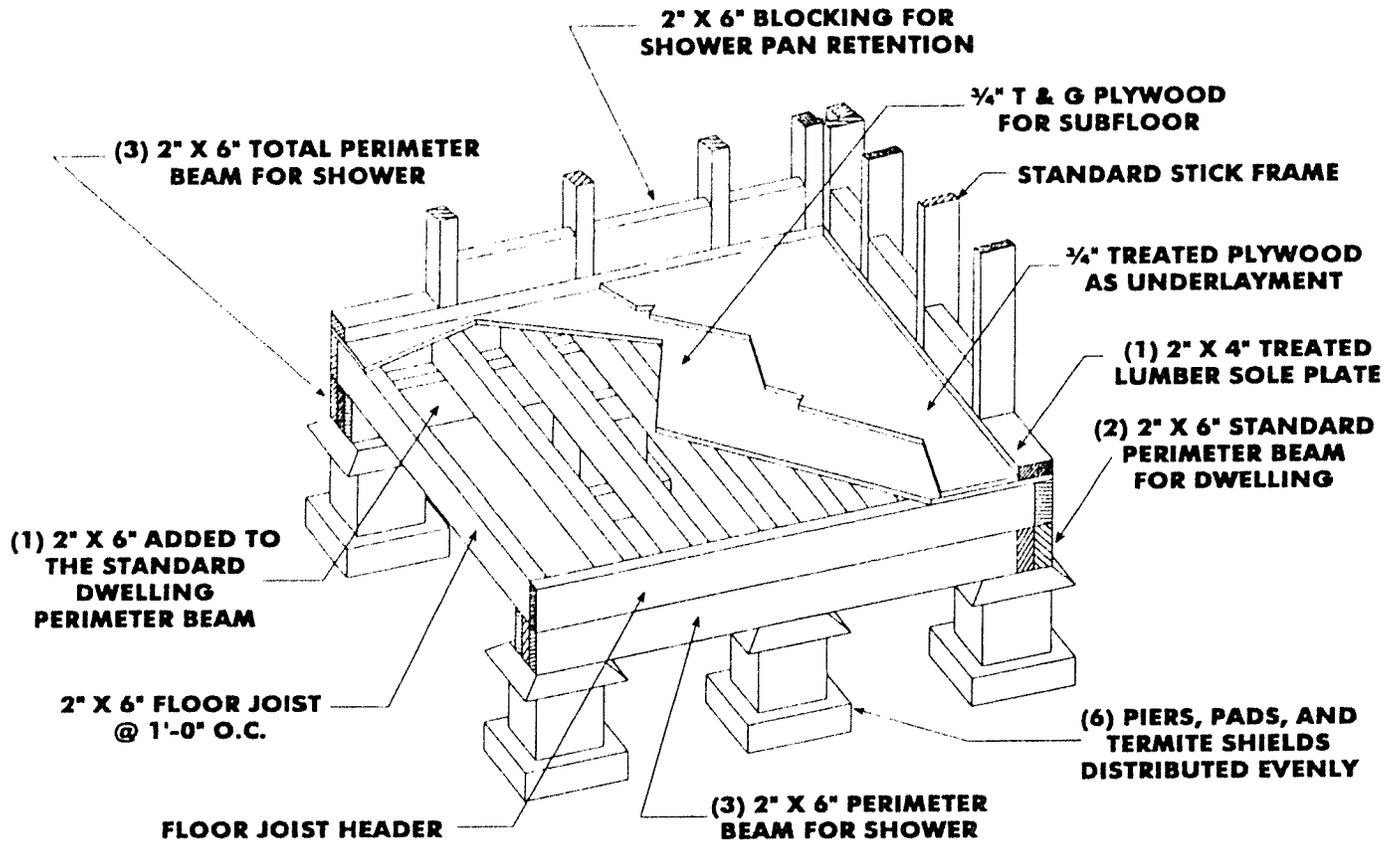
A. To reinforce wood frame home floors: See Figure 17.1

1. For existing homes first cut-out the existing floor and floor frame to the size of the new shower as per plan.
2. Build the let-in space as per figure 17.1.
3. Install (3)-2" x 6" treated beams to each long sides of the shower perimeter.
4. Support each beam with (3) pads, piers, and termite shields each.
5. Install 2" x 6" floor treated joists @ 1'-0" O.C. (Note if 2 x 6's use up too much room the contractor may substitute double 2 x 4's FOR EACH 2" X 6".
6. Then apply an additional ¾" treated plywood underlayment over the existing or new subfloor with glue and nails @ 6" O.C. in all directions.

B. To build a ceramic tile shower:

1. First build the appropriate floor foundation:
 - a. For Concrete Foundations:
 1. Form the let-in space for the ceramic tile shower floor as per plan.
 2. Allow the form to be let-into the finish floor 3" - 4" .
 3. Then pour the concrete floor with a rough textured finish at the base floor of the let-in space for the shower. This will allow the ceramic tile shower floor mortar base to hold fast the cured concrete.
 - b. For Wood Frame Foundations follow the directions for reinforcing a wood frame shower above.
4. Apply a treated 2" x 4" flat to entire shower perimeter as a sole plate and build up all shower walls with standard framing lumber.
5. The doorway to the shower shall have a rough opening to allow the finish tile opening to remain 3'-0".
6. The doorway opening must also have jambs that perpendicular to the same doorway so that a shower curtain may be installed using a pole with friction rubber pads on the ends.
7. Apply moisture resistant sheetrock directly to wall studs.
5. Then install ceramic tile backer boards (to a min. height of 6 ft.).
6. Install a composition fiber shower pan to floor.
7. Then install ceramic tile to all shower walls.
8. Then install shower slip resistant floor tile for shower floor with a ½" lip to retain floor water within the shower.

TYPICAL FRAME TECHNIQUE FOR REINFORCING THE HANDICAP SHOWER FLOOR



Note:

The handicap shower floor shall be let-in to the new or existing floor framing to allow the finish ceramic tile floor to finish flush with the dwelling main floor.

For existing homes the floor frame should be cut away and the entire floor frame should then be built from the pads and piers up to the level 3" - 4" from the dwelling finish floor. However, if the contractor is posed with an existing type of floor framing that will weaken this type of design he must notify UCP staff to find alternate methods of achieving a similar result. The end product should resemble the illustration on the right.

For new homes the floor frame should be constructed using the exact framing techniques as depicted in these

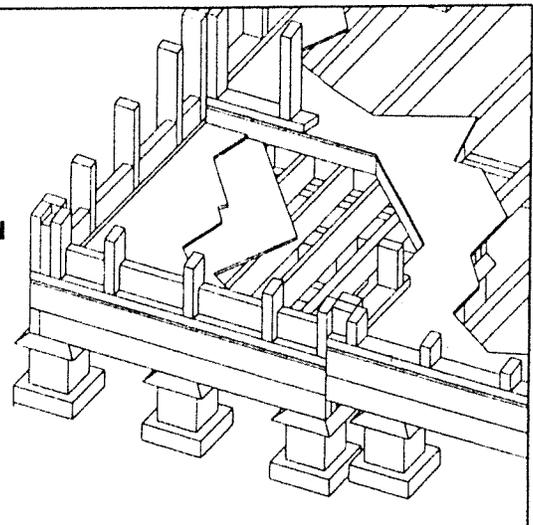


FIGURE 17.1

MATERIAL SPECIFICATIONS FOR CERAMIC TILE WORK

- A. **To build a ceramic tile shower:**
 - 1. Moisture resistant sheetrock shall be 1/2" x 4' x 8'.
 - 2. Ceramic tile backer boards shall be 1/2" x 3' x 5'
 - 3. All ceramic tile shall be 4" x 4".
 - 4. Wall tile shall be standard ceramic tile.
 - 5. Floor tile shall be slip resistant type.
- B. **Shower pan shall be** composition fiber type.
- C. **Tile grout shall be** a standard white color type commonly used by professionals.
- D. **Tile cement shall be** a standard type commonly used by professionals.

REQUIRED WORK

- A. **All handicap showers on wood floor frames shall be reinforced as per Figure 17.1 specification.**
- B. **All handicap shower roll in ramps shall not interfere with stationary areas used by the applicant to access other hygiene devices.**

18

BATHROOM

ACCESSORIES.

GENERAL INFORMATION

This section is devoted to the installation of the extra, but necessary devices within the bathroom that help to hold, keep, and maintain a bathroom in an orderly fashion. Though these devices are easily installed the contractor they are easily damaged when installed incorrectly. Sometimes the elderly or disabled will tend to grab any wall item to sustain themselves so the contractor must ensure that they are properly installed so that they are not easily damaged.

To properly install the toilet paper dispenser and the towel bar a contractor must install proper in wall support blocking. If the contractor simply mounts the either of these devices without support the device will tear out the wall covering and damage the wall as well as become useless. The shower curtain rod must also be provided by the contractor, but he is not required to install a shower curtain. So the contractor should be careful to install the devices in manner consistent with the specifications in this manual.

Now the medicine cabinet must always be installed as a recessed unit and the face must be flush with the wall surface. There is an exception however, when a wall cannot allow for a recessed space to be hollowed out (for example a block wall or poured concrete wall) the medicine cabinet may be surface mounted. Still if the cabinet is to be surface mounted then the contractor must install a metal medicine cabinet.

CONSTRUCTION PROCEDURES

- A. To install a medicine cabinet:
1. The contractor shall mount all medicine cabinets as recessed units and face flush with the wall surface.
 2. If and only if the wall is made of a material that will compromise the integrity of the wall or dwelling unit may the contractor install the medicine cabinet as a surface mount unit. (Note: Discretion of this decision will be left up UCP staff and must be documented as well.)
- B. To install a toilet tissue dispenser and towel bar:
1. The contractor must prepare for the installation of these devices well in advance of the actual installation. Remove the existing wall coverings where the devices will be located.
 2. Then the contractor must install in-wall blocking for the future installation of these devices.
 3. Then install new wall coverings and finish same to match existing or new wall textures.
 4. Then after all finish flooring and finish work (including painting) has been completed for the entire dwelling the contractor shall secure both the toilet tissue dispenser and towel bar to the in-wall blocking.
 5. Then caulk all edges of the devices for a complete seamless finish.
- C. To install a soap dish & tooth brush holder:
1. If the dwelling unit has ceramic wall tile in the bathroom then the contractor should install a ceramic wall tile soap dish & tooth brush holder at either the shower or vanity. (As per owner request)
 2. If the dwelling unit does not have ceramic wall tile in the bathroom then the contractor shall install metal chrome type soap dish & tooth brush holder and secure both with wood screws long enough to penetrate a minimum of 2" into the in-wall blocking.

MATERIAL SPECIFICATIONS FOR BATHROOM ACCESSORIES

- A. **All bathroom accessories shall be moderately priced.** Install one of each metal chrome type accessory as follows:
1. Soap dish.
 2. Toothbrush holder.
 3. Roll tissue holder.
 4. Towel rack.
 5. Shower curtain rod.
- B. **Medicine cabinet shall be an all new 14" x 18":**
1. Plastic, wood, or metal cabinet with mirror for all wall that can be recessed to accept the cabinet flush mount style.
 2. Metal only for walls that cannot be recessed and the cabinet must be surface mounted.

REQUIRED WORK

- A. All bathroom accessories must be secured to in-wall blocking.
- B. The shower curtain rod must be installed with friction pads for ease of removal and reinstallation by owner.
- C. All medicine cabinets must be recessed in to the wall, except for walls where the hollow will compromise dwelling integrity.

19

ELECTRICAL

WORK.

GENERAL INFORMATION

The electrical work for dwelling units of the Urban County Program shall always comply with current code book adopted by the city in which the rehab is taking place. The work must be done by a licensed professional and the individual must follow all city ordinances or county wide (rural area) electrical installation rules.

There are only two work scenarios which the write-up will request at any one time for a given dwelling unit. These are to wire a new house, or to rewire (with conditions) an existing dwelling. These two scenarios are broad guidance rules for the contractor to follow, but the electrician must ultimately interpret these guidance rules while integrating the latest code regulations adopted by the city. The end result should be a home which is up to date with current NEC (National Electrical Code) regulations and any other city ordinances. The first scenario is easy to execute and price as well, because all the wiring is new. This scenario is requested with footprints where the entire house shall be new, so an electrician or contractor can easily estimate the cost for scenario.

The second scenario however is more complex and the contractor should always urge his electrician to view the home with him to acquire a safe bid amount. This scenario basically requests that the existing home, along with any additions, all be brought up to the electrical code for the area. One item which contractors tend to overlook is the replacement of all or some of the existing wiring because we are no longer accepting any house with cloth type wrapping on the wiring. Another important item is the service entrance which must always be brought up to code. Other items include amount of electrical outlets per room, light fixture replacement (all rust covered light fixtures should always be changed), existing ceiling fan installations, and the list goes on. The important point is that a contractor must study these houses carefully with their electrician present so that a responsible bid may be secured.

As a precaution for returning contractors, the minimums which existed for HQS in years past will not meet any of the current city ordinances today, so all current contractors should not base their pricing and wiring tactics on those used in 1998 or prior. All contractors are required to read the current Write-up requests and execute the work accordingly.

CONSTRUCTION PROCEDURES

A. To wire a new house:

1. All electrical work shall comply with the rules of the current edition of the National Electrical Code, and latest supplement thereof, and shall also conform to the City's Ordinance and/or State of Texas.
2. Materials and apparatus shall be of the best grade of standard manufacture and shall conform to the National Electrical Code rules and shall have been approved by the Underwriters Laboratories.

B. To rewire an entire house:

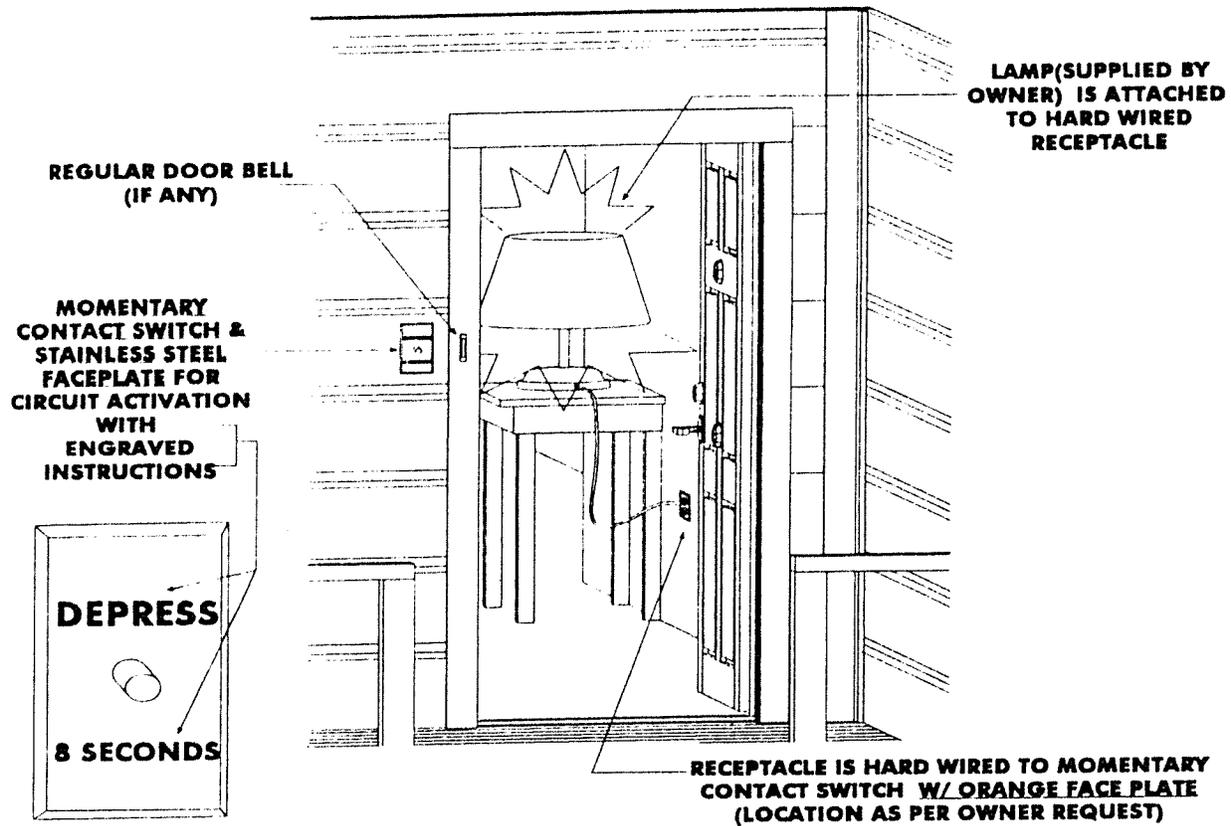
1. Contractor shall conform all work according to the specs for wiring a new house.
2. Wall switches & light fixtures:
 - c. Every room shall have a ceiling light with wall switch. Provide wall mounted switches for all light fixtures new or existing.
 - d. All ceiling light fixtures shall be centered in their respective rooms unless otherwise specified or indicated.
 - e. Wall switches & light fixtures must be operable in all rooms, including exterior light fixtures and switches.
 - f. All missing, partially missing, rusted, or damaged light fixtures shall be replaced with new.
 - g. Ensure that all light switches appear new for the entire house. If the switch is new but appears to be grimy or dirty then clean it. Then replace each respective face plate if missing, grimy, painted, or broken. All face plates should look and feel new.
 - h. For final inspection every fixture, added or existing, shall have at least one bulb (**Do not hinder inspections because of insufficient bulbs**).
 - i. New light fixtures shall be moderately priced (Allow \$8.00 ea.)
3. All existing or new electrical outlets shall be installed & work in accordance with the National Electrical Code:
 - a. Ensure that all electrical outlets appear new for the entire house. If the outlet is new but appears to be grimy or dirty then clean it. Then replace each respective face plate if missing, grimy, painted, or broken. All face plates should look and feel new.
 - b. All electrical outlets within 6' of a water source shall be GFCI.
 - c. All exterior electrical outlets shall be GFCI electrical outlets with weather proof covers.
 - d. Provide (2) GFCI electrical outlets to kitchen counter top.
 - e. Provide (1) GFCI electrical outlet in bathroom.
 - f. Any GFCI electrical outlet which is wired to another GFCI receptacle or a GFCI circuit breaker shall be tagged with a GFCI sticker label.
4. Dedicated Circuits:
 - a. Provide adequate dedicated circuits, with appropriate outlet(s) to all appliances.

- b. The washing machine outlet shall be 20A-110V on an individual circuit, unless otherwise specified.
 - c. The dryer machine outlet shall be 30A-240V on an individual circuit. If the dryer machine is gas powered then the contractor shall install and outlet as per manufacturer instruction on an individual circuit.
 - d. The refrigerator outlet shall be 20A-110V on an individual circuit.
 - e. The contractor shall install or reinstall each window unit type A/C units on an individual circuit as per manufacturer instructions.
12. The contractor shall read and execute all applicable instructions within the REQUIRED WORK category of this section. (See below)
 13. Provide additional new wiring or replace existing wiring to **ADEQUATELY** meet all electrical City/State codes.
 14. Provide a new service entrance or correct the existing service entrance to **ADEQUATELY** meet all electrical City/State codes.
 15. Provide a new panel box with rerouted home runs or correct existing panel box with rerouted home runs to **ADEQUATELY** meet all electrical City/State codes.
 16. Provide adequate wiring where appropriate for entire structure as per National Electrical Code. (Replace all old-type cloth covered wiring)
 17. All exterior (meaning under the house, outside walls, even gables & soffits) penetrations shall caulked and sealed against rodent and vermin entry.
 18. All holes in walls due to neutralized electrical outlets or wall switches shall be covered with oversize blank covers. This will mainly take place in houses which require rewiring but whose walls are not being torn down. For example old house with new or decent looking paneling, wall paper, or other wall covering which would not be suitable for replacement.
 12. All exterior (meaning under the house, outside walls, even gables & soffits) penetrations shall caulked and sealed against rodent and vermin entry.

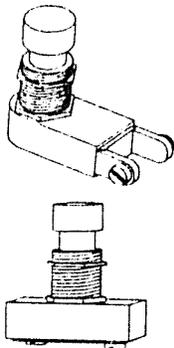
MATERIAL SPECIFICATIONS FOR ELECTRICAL

- A. **NEW SERVICE ENTRANCES** shall have:
1. A minimum 125 Amp single phase 3 wire electric service.
 2. Main disconnect.
 3. A minimum 125 Amp - 20 FULL SIZED circuit breaker box.
(Half sized circuit breakers will not be accepted)
 4. A minimum 125 Amp main circuit breaker with appropriate sized wire to breaker box, meter socket, service entrance weather head and a piped in service entrance ground cable attached to a ground rod with a secure ground rod clamp.
- B. New panel boxes shall have a minimum 125-Amp rating with 20 full sized circuit breaker spaces & a 125 Amp Main Breaker.

AUXILIARY VISUAL ALERT SYSTEM FOR HEARING DISABLED



SPECIFICATION NOTES:



- THESE ARE TWO DIFFERENT TYPES OF MOMENTARY CONTACT SWITCHES ALLOWED AND CAN BE FOUND OR ORDERED BY ANY LOCAL ELECTRICAL SUPPLY HOUSE. ACCEPTABLE TYPE BRANDS INCLUDE "CARLING SWITCH", "SELECTA SWITCH" OR EQUAL.
- IT MUST BE A SINGLE POLE °MOMENTARY CONTACT (NORMALLY OPEN/OFF), 125VOLT SWITCH. THE SWITCH IS OFF WHEN BUTTON IS OUT.
- THE SWITCH SHALL HAVE AN ENGRAVED °STAINLESS STEEL PLATE WITH INSTRUCTIONS AS DEPICTED ABOVE.
- THE SWITCH & ENGRAVED FACEPLATE SHALL BE COVERED WITH A °HINGED WEATHER PROOF COVER. COVER SHALL HAVE A HANDICAP SIGN/STICKER AFFIXED TO FRONT OF COVER.
- CONTRACTOR SHALL INSTALL A MINIMUM OF °(2) RECEPTACLES IN SEPARATE ROOMS AS PER OWNER'S REQUEST. (EXAMPLE: LIVING ROOM, & KITCHEN)
- EACH RECEPTACLE SHALL HAVE AN °ORANGE COLORED FACE PLATE WITH THE HANDICAP SIGN OR LETTERED STICKER ATTACHED TO SAME.
- THE OWNER/APPLICANT SHALL BE SUPPLIED WITH °(2) FLASHER BUTTONS (EAGLE BRAND OR EQUAL) RATED AT 60-WATT MINIMUM. BUTTONS ARE TO BE INSERTED IN LAMP FIXTURE INSIDE OF THE BULB SEAT TO CAUSE THE LIGHT TO STROBE WHEN "MOMENTARY CONTACT SWITCH" OUTSIDE IS DEPRESSED.

FIGURE 19.1

REQUIRED WORK

- A. In all cases:
1. Reroute or pipe in all exposed electrical wires or romex interior or exterior.
 2. Replace all existing light switches, receptacles and their respective face plates.
 3. Relocate all light fixtures to their respective room center.
- B. CONTRACTOR RESPONSIBILITIES:
1. The contractor shall be responsible for the following adequate electrical wiring connections in accordance to the national electrical code:
 - a. Range hood.
 - b. Bathroom heater or heat/vent/light.
 - c. House heaters.
 - d. Water heater.
 - e. A/C.
 - f. Smoke detector (battery operated).
 - g. Any other appliance and/or equipment listed on work write-up.
 2. The contractor shall label the Circuit breaker box **with legend of house circuits.**
- C. TEMPORARY POLES:
1. Temporary pole must be installed and have service before any construction or demolition can begin.
 2. The construction period will begin the day after electric company has connected the temporary pole.
 3. The contractor may then proceed with construction immediately thereafter.

20. RANGEHOOD.

GENERAL INFORMATION

The rangehood section is for exactly what it says, the installation of rangehood in the dwelling unit. Though the specs for the rangehood are written some contractors still try to circumvent their original intended use. So the basic rules will be stated in regular language so that all may understand.

First, all newly installed range hoods shall be white and all range hoods shall be vented to the exterior(exclusively). This means that the only exhaust route for food aroma's, grease vapors, cooking steam, et cetera shall be to exterior. No exhaust route to the interior of dwelling unit shall allowed.

For example, lets say a contractor installs a rangehood with re-circulating air vents that blow to the interior of the home and then opens the same rangehood to allow for exterior venting. This rangehood would still blow exhaust into the dwelling because of the re-circ air vents. Though some contractors have sought to justify the specs with this system, the system DOES NOT MEET SPECIFICATIONS. So as a contractor save yourself time, and install the correct rangehood that only blows to the exterior.

Next the point of exit is of no concern, it can be located on the roof or on the exterior wall, but for good exhaust function the exhaust flue/pipe should be as short as possible. So the contractor must search for the quickest and shortest route to vent the exhaust.

CONSTRUCTION PROCEDURES

- A. **To install or replace a range hood:**
1. Install range hood of size requested by write-up.
 2. Provide an adequate non visible electrical connection.
 3. Provide ventilation by either wall or roof.
 4. Encase exposed ventilation tubes with wood similar to existing cabinets.
 5. Provide exhaust vent with appropriate flashing for area of exit.
 - 6.

MATERIAL SPECIFICATIONS FOR RANGEHOOD

- A. **Range hoods shall:**
1. Be able to vent to exterior.
 2. Be white in color.
 3. Have a light and light switch.
 4. Have a grease filter.
- B. **Ducts and vents shall be** either round or square and made from corrosion resistant materials.
- C. **All ducts and vents shall be** as per rangehood manufacturer recommended specifications.

REQUIRED WORK

- A. Every house **whether footprint or rehab** shall have a rangehood **light and venting to the exterior.**
- B. **A rangehood cabinet shall be provided if not existing.**
- C. **All visible range hood ducts shall be covered with a proper wood enclosure similar to existing cabinets.**

21 SMOKE DETECTOR.

GENERAL INFORMATION

For this section the contractor should be aware that all homes require a smoke detector, regardless of the instructions which may or may not be in the write-up. Keep in mind that it is the contractor's responsibility to ensure the installation of at least (1) smoke detector in the dwelling unit.

CONSTRUCTION PROCEDURES

- A. The approximate location of the smoke detector shall be shown on plans. However, the exact location shall be determined on the job by the contractor.
- B. The smoke detector must be installed outside the sleeping rooms and away from wall heaters.

MATERIAL SPECIFICATIONS FOR SMOKE DETECTORS

- A. The smoke detector shall:
 - 1. Be white in color.
 - 2. Be of a type commonly used in households.
 - 3. Use standard batteries as a power source.
 - 4. Provide and install an electrical powered smoke detector when required by the city.

STRICT REQUIREMENT

- A. Every house whether footprint home or rehabilitation home shall have a smoke detector regardless of write-up or plans.

22 HEATING.

GENERAL INFORMATION

- A. Every house whether footprint or Rehab shall have sufficient heating for the entire house unless otherwise noted in the write-up. The size and location of wall heaters shall depend upon several factors:**
- 1. The square feet of living area.**
 - 2. The most lived in areas of the house.**
 - 3. The total calculation of BTU's needed to heat the house.**
- B. At least one bathroom, in every house whether footprint or Rehab shall have a heater. The type of heaters as per reasons are as follows:**
- 1. If bathroom has a window then install a regular heater on wall or ceiling. Ceilings are preferred.**
 - 2. If bathroom does not have a window or bathroom is extremely stuffy then install a Heat/Vent/Light on the ceiling with venting to exterior. Provide capped flashing to vent exit.**

CONSTRUCTION PROCEDURES

- A. To install a heat/vent/light:**
1. Install heat/vent/light as per specs and plans.
 2. Then provide a wall mounted switch for each heat, vent, and light.
 3. Provide a dedicated circuit for the HVL.
 4. Provide minimum 4" ducting to exterior.
 5. Then install an exhaust vent with appropriate flashing for area of exit.
- B. To install a ceiling mounted heater:**
1. Install the ceiling mounted heater.
 2. Then install a wall mounted switch for the heater.
 3. Provide a dedicated circuit for the ceiling heater.
- To install a wall mounted heater:**
1. Install the wall mounted heater.
 2. Provide a dedicated circuit for the wall mounted heater.

REQUIRED WORK

- A. All heaters shall be either counter-flow wall type or fan forced ceiling type.**
- B. Heaters shall also conform to specified BTU's according to write-up, and shall be located as per plans. The write-up will only contain the required BTU's for each specific heater, it is the CONTRACTOR'S RESPONSIBILITY to convert this BTU requirement into watts or kilowatts for his "subcontractor electrician".**
- C. Bathroom heaters shall be installed with a wall switch or switches according to model.**
- D. Multiple heaters as per write-up and plans only.**

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GENERAL NOTES.

GENERAL INFORMATION

This section is always used as a catch-all for any information which is necessary to include in the write-up but for which there is no section. It can include specialized instructions on lot size, grading, special instructions for the demolishing of the structure, or better yet none of those and something all together different. At any rate it describes anything that cannot be shown elsewhere.

Though some contractors do not like to read this manual the required work category in this section is extremely special and covers a standardized set of instructions which all houses require. So read it thoroughly because it will not be mentioned in any write-up. These instructions should be accounted for all jobs and should be thought of as an inevitable cost which a contractor will always add to his bid.

REQUIRED WORK

- A. The contractor shall always provide the house with 6" metal address numbers or letters nailed at front entrance (no glue) . This is a strict requirement regardless of the write-up. The address shall always be visible from street.
- B. If no address is available the contractor shall provide a high visibility landmark on applicants property to make the applicants residence easy to locate.

C. **CONTRACTOR shall be responsible for:**

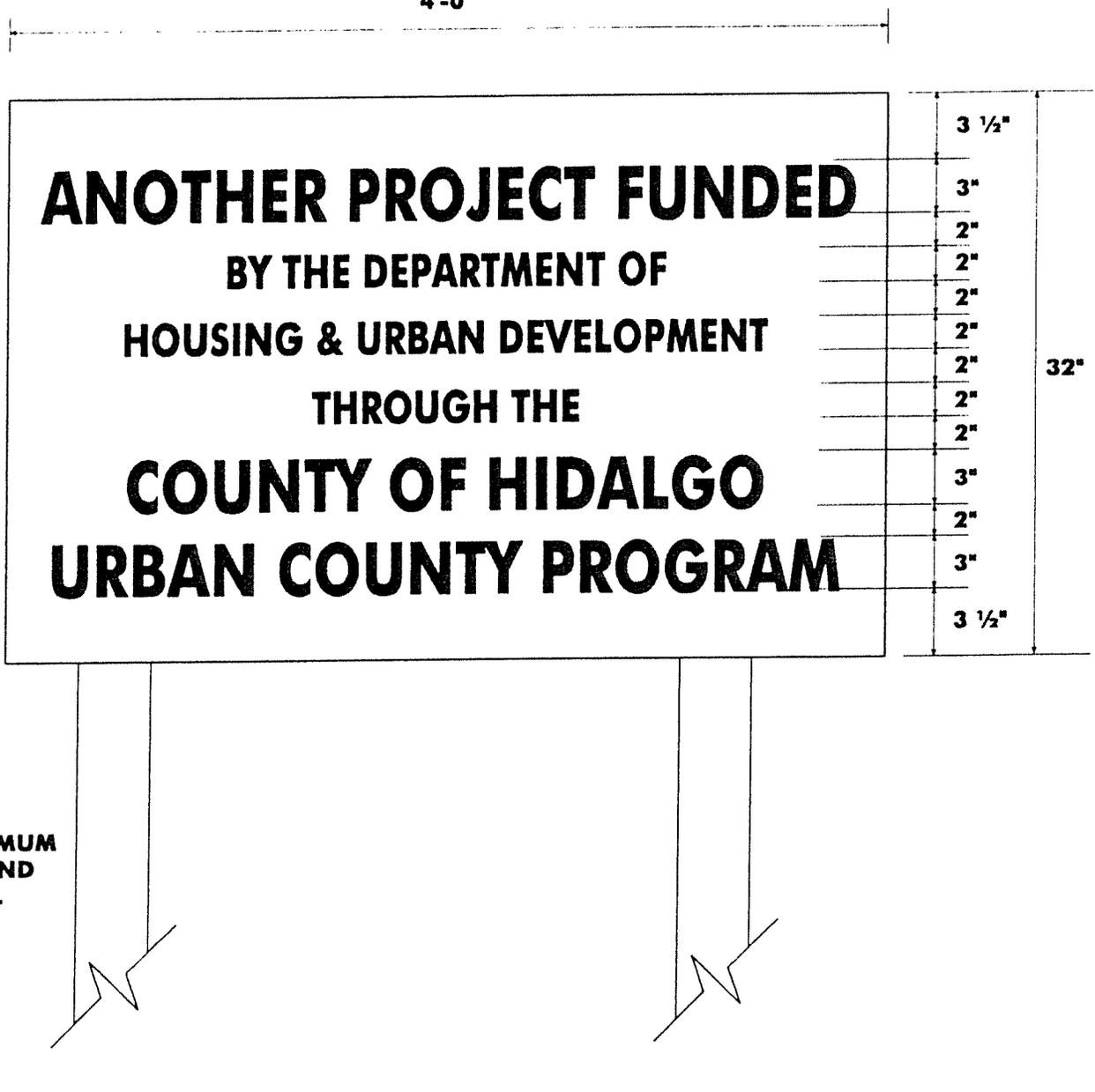
1. Providing electrical power hook-up to any house lacking electrical power. The power hook-up should be in place before requesting a 100% inspection for (90%payment).
2. Obtaining & passing appropriate inspections.
3. Displaying all appropriate permits & inspection tags.
4. Providing termite soil treatment to all soil within perimeter of home.
5. Obtain a plot plan of applicants lot when adding rooms or foot-printing, to determine if home is within lot boundaries and utility setbacks.
6. Consulting U.C.P. rehab staff if contractor's work is hindered due to setback or boundary conflicts. The contractor & U.C.P. rehab staff must re-figure floor plan appropriately.
7. Removing, capping, and testing all abandoned house drainage lines within applicants property.
8. For the demolition and removal of debris for owner's existing house when foot-printing, unless otherwise specified.
9. For properly leveling all landscapes at the completion of new structures.
10. For providing appropriate drainage of the landscape so that all rain fall will divert water run-off away from the dwelling units foundation.
11. For the removal and disposal of all construction related demolition & new construction related debris.
12. For the removal of any other property structure or object which is considered a hazard for the safety of any person which may pass by the dwelling unit, neighbors, or owner/applicant.
13. For ensuring that any junked vehicles or other unsightly debris is removed by owner/applicant before requesting a notice to proceed, beginning demolition, or beginning construction of the dwelling unit. *In case the owner does not wish to comply with this stipulated request the contractor must notify U.C.P. staff immediately (Do not argue with applicant).*

DOCUMENTS & LISTS

SIGN TO BE POSTED

Contractors participating with the URBAN COUNTY REHAB PROGRAM are required to provide & install project signs at each construction site with the specifications depicted below in **Figure 25**

**SIGNS SHALL BE INSTALLED BEFORE
CONSTRUCTION BEGINS**



FINAL INSPECTION CHECKLIST (90% PAYMENT)

1. ALL TRASH AND CONSTRUCTION DEBRIS REMOVED FROM SITE.
2. HOUSE BROOM-CLEAN DOORS, WINDOWS, AND PLUMBING FIXTURES CLEANED.
3. ALL HARDWARE INSTALLED, OPERABLE & FREE OF PAINT.
4. INSULATION IN PLACE.
5. ALL DOOR STOPS INSTALLED.
6. RANGE HOOD VENTED TO EXTERIORS.
7. WALL PIPE PENETRATIONS SEALED.
8. GAS OUTLETS CAPPED & TESTED.
9. ALL WINDOWS MUST LOCK FROM INTERIORS. SCREENS INSTALLED AND IN GOOD CONDITION (NEW OR EXISTING).
10. GFCI'S INSTALLED AS PER ELECTRICAL CODE. (NEW OR EXISTING).
11. 3/4" PRESSURE RELIEF VALVE & 3/4" COPPER TUBING FROM VALVE DOWN TO EXTERIOR FOR WATER HEATER. (NEW OR EXISTING)
12. RODENT & VERMIN CONTROL TREATMENT COMPLETED.
13. ALL UTILITIES CONNECTED (A MUST FOR FINAL INSPECTION).

14. TOTAL COMPLIANCE WITH WORK WRITE-UP.
15. HOMEOWNER HAS BEEN NOTIFIED AND ACCEPTS WORK COMPLETION.
16. THE USE OF LEAD BASE PAINT IS PROHIBITED.

**NON-COLLUSION AFFIDAVIT OF
PRIME BIDDER**

State of _____

County of _____

§
§
§

that: _____, being first duly sworn, deposes and says

- (1) He is _____, of _____, the Bidder that has submitted the attached Bid:
- (2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such bid:
- (3) Such bid is genuine and is not a collusive or sham Bid:
- (4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Owner or any person interested in the proposed Contract; and
- (5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(Signed) _____

(Title)

Subscribed and sworn to before me this _____
day of _____, 200_____.

(Title)
My Commission expires _____

CONTRACTOR'S SECTION 3

_____ agrees to implement the specific following affirmative
(Name of Contractor)
action steps directed at increasing the utilization of lower income residents and businesses within the City
of _____.

- A. To ascertain from the locality's CDBG program official the exact boundaries of the Section 3 covered project area and where advantageous, seek the assistance of local officials in preparing and implementing the affirmative action plan.
- B. To attempt to recruit from within the city, the necessary number of lower income residents through: local advertising media, signs placed at the proposed site for the project, and community organizations and public or private institutions operating within and servicing the project area such as Service Employment and Redevelopment (SER), Opportunities Industrialization Center (OIC), Urban League, Concentrated Employment Program, Hometown Plan, or the U.S. Employment Service.
- C. To maintain a list of all lower income residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.
- D. To insert this Section 3 plan in all bid documents and to require all bidders on subcontracts to submit a Section 3 affirmative action plan including utilization goals and the specific steps planned to accomplish these goals.
- E. To insure that subcontracts (greater than \$10,000) which are typically let on a negotiated rather than on a bid basis in areas other than the Section 3 covered project areas are also let on a negotiated basis, whenever feasible, will let in a Section 3 covered project area.
- F. To formally contact unions, subcontractors, and trade associations to secure their cooperation in this effort.
- G. To insure that all appropriate project area business concerns are notified of pending subcontractual opportunities.

maintain records, including copies of correspondence, memoranda, etc., which document that all of the above affirmative action steps have been taken.

- I. To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of this Section 3 plan.
- J. To maintain records concerning the amount and number of contracts subcontracts, and purchases which contribute to Section 3 objectives.
- K. To maintain records of all projected workforce needs for all phases of the project by occupation, trade, skill level, and number of positions and to update these projections based on the extent to which hiring meets Section 3 objectives.

As officers and representative of _____,
(name of company)

We the undersigned have read and fully agree to the Section 3 Affirmative Action Plan, and become a party to the full implementation of the program and its provisions.

Signature

Title

Date

Signature

Title

Date

CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION BIDDER

NAME AND ADDRESS OF BIDDER (Includes ZIP Code)

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clauses.
 Yes No

2. Compliance reports were required to be filed in connection with such contract or subcontract.
 Yes No

3. Bidder has filed all compliance reports due under applicable instructions, including SF-100.
 Yes No None Required

4. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended?
 Yes No

NAME AND TITLE OF SIGNER (Please type)

SIGNATURE

DATE