Section 14: Housing Development

Basic NSP/CDBG program requirements are contained in the general portion of the -*grantee Handbook* and are applicable to all Housing Rehabilitation grants. This housing supplement is intended to provide guidance relating specifically to housing activities. Throughout this section references will be made to the general portion of the handbook. However, there are three areas within the housing program that require additional administrative duties:

1. Financial Management

   When tracking finances for housing grants, each individual house that is rehabilitated should be treated as a separate project. So a housing grant will have two ledgers (one for total program and one showing rehabilitation properties). All financial transactions related to rehabilitation must be recorded. The administrator, grantee or NSP/CDBG field representative should at any given time be able to track the complete financial history of the project. This includes all bids, contracts, change orders, invoices and payments.

2. Procurement

   In general, community improvement grant contractors are procured one time for a specific task. Unlike community improvement grants, housing projects depend on a pool of interested contractors that are notified of bid opportunities for housing rehabilitation throughout the term of the grant.

   Housing rehabilitation projects are limited to the current years per unit cost and therefore fall under the Small Purchases procurement policy. This means that the grantee is not obligated to advertise bid opportunities or accept the lowest bid. However, many grantees opt to advertise a call for contractors to enhance the competitive bid process. Contractors are then put on a bidders list once all of their insurance and certifications have been verified. Contractors are then notified prior to each bid round of the opportunity for work. Sub--grantees are encouraged to accept the lowest bid unless there is an established basis of selection within their contractor guidelines to do otherwise. An example would be that a contractor is limited to an award of two houses on any bid round. Sub-grantees are encouraged to let several homes out to bid at one time. If a sub--grantee has multiple contractors bidding on the homes, they are encouraged to award bids to all contractors if the bids are similar in costs. Selection should be thoroughly documented in the procurement file. If the sub--grantee receives a single bid, they must submit a written request for permission to accept a single bid. Documentation of the procurement steps taken to ensure “open and free competition” should be included with the request.

3. Environmental

   All housing rehabilitation projects must undergo the general environmental review process. Housing only rehabilitation projects are generally categorically excluded. When dealing with housing projects, however, there are other environmental concerns.

a. Demolition: Due to the possible presence of asbestos and/or hazardous waste, housing rehabilitation projects that include demolition must receive an assessment.

b. Historical Society Clearance: All demolitions and each house to be rehabilitated that is older than fifty years and has its original exterior cladding must receive Historical Society clearance prior to rehabilitation work. A written request is sent along with an original picture of the house, the full address and a completed work write-up to the Kansas State Historical Society. They will respond in writing, and this response must become part of the individual file.

c. Rehabilitation in the Flood Plain: Housing rehabilitation can only occur in a flood plain if the sub-grantee is a member of the National Flood Insurance Program. By participating in this program, cities/counties are required to adopt a Flood Management Plan. In order to rehabilitate a specific house, the owners must be insured against floods and all rehabilitation work must comply with the plan. If rehabilitation in the flood plain is considered, the grantee should contact a NSP/CDBG Housing Field Representative.

I. GENERAL NSP/CDBG INFORMATION

A. NSP/CDBG Program Components

The NSP/CDBG Housing Rehabilitation program can assist communities with:

- Housing Rehabilitation
- Demolition
- Relocation

1. Housing Rehabilitation

All households receiving housing rehabilitation assistance must meet low- to moderate-income guidelines set by the Department of Housing and Urban Development.

Under the Housing Rehabilitation program, there are two standards of rehabilitation: 1) Livability and 2) Health and Safety, which includes Weatherization (see Attachment 16 for further details on these standards). At least 80 percent of the Housing Rehabilitation Activity funds must be spent to rehabilitate homes up to the NSP/CDBG Livability Standard. A maximum of 20 percent of Housing Rehabilitation Activity funds may be used to meet the Weatherization/Health and Safety Standards.

NSP/CDBG funds may be spent on emergency issues or for handicap accessibility only, outside of the targeted area. Any funds spent outside of the target area on emergencies or accessibility will be included in the allowed 20 percent designated for Weatherization/Health and Safety Standards. Any work on mobile homes is included in the 20 percent Standard. In addition, no work may be done on a mobile home built prior to 1976, or on one that is not fully anchored with hitch and wheels removed and is sitting on property owned by the mobile home owner and taxed as real property.

In rental rehabilitation, tenants must be documented to be low- to moderate-income. If the owner of the rental unit can also be documented to be LMI, the sub-grantee may propose a 100 percent grant on the rental unit. If the owner of the rental unit is non-LMI, he/she must contribute a minimum of 25 percent toward the rehabilitation costs in cash.

The homeowner must sign a rental agreement. This agreement stipulates four requirements:

a. The owner agrees to repay the grant on a prorated schedule if he/she sells the property within a period of three years from the date of rehabilitation. However, the governing body may allow the purchaser to assume the obligation.
b. The owner also agrees that any subsequent tenants within the same three-year period will be LMI.
c. The monthly rental payment may not exceed the current monthly payment or the Fair Market Rent whichever is less. Landlords are allowed an annual cost of living increase set by HUD.
d. The owner also shall not discriminate in their rental practices against persons on the basis of race, color, national origin, religion, sex, familial status or disability (see Attachment 1 for a sample rental agreement).

2. Demolition

Demolition of residential structures is an eligible activity within a housing rehabilitation grant. Demolition meets the national objective of "Elimination of Slums and Blight" and, therefore, is not contingent on meeting the LMI requirement. Demolition in the Housing category cannot be commercial property or outbuildings on a property that is not receiving rehabilitation

3. Relocation

Relocation expenses are allowable to relocate persons living in dilapidated or overcrowded structures. The relocation must be voluntary and follow all the requirements of the Uniform Relocation Assistance & Real Property Acquisition Policies Act of 1970 (URA) (see Acquisition Section in the Sub-grantee Handbook).

B. Maximum Allowable Costs (Restrictions may apply)

- Under the Housing Rehabilitation program, the limit on NSP/CDBG funds is the current years maximum per housing unit.
- Housing inspection costs are limited to $800 per unit. This includes all necessary interim inspections, work write-ups and cost estimates.
- The maximum per residential demolition site is $6,500, including inspections.
- The administrative cost of NSP/CDBG Housing Rehabilitation projects cannot exceed the current years maximum
- Lead safe work practices and cleaning for clearance is limited to 10 percent of rehabilitation costs. This cost must be bid with rehabilitation.
- Risk assessment costs are limited to $1,000 per unit. This includes all XRF and lab testing, mailing of samples, trip charges and reports associated and/or required for a risk assessment.
- Clearance Inspection costs for lead-based paint is limited to $300 per unit and is all-inclusive like the risk assessment.
- Relocation required for LBP is limited to $5,000 per Housing Rehabilitation grant.

II. SETTING UP THE PROGRAM

A. Staff

The quality and success of the housing program depends on the quality and experience of the people implementing the program. In staffing a housing program, it is helpful to understand the specific skills that will be required. There is a need for a person who can work effectively with low- to moderate-income persons, process paper and manage the program. Someone must talk to applicants, visit their homes to complete applications and keep track of the housing program and process.

A well-defined administrative structure is another critical factor for a successful housing project. All NSP/CDBG program grants must be administered by a state certified housing administrator. **It cannot be stressed enough that no matter who administers the project, whether it is the sub-grantee (city or county) directly, or a consultant, the sub-grantee is responsible for the work that is accomplished and for compliance with all administrative requirements.**

1. Sub-grantee Responsibilities

   a. Signing all contracts.

   b. Determining the manner in which the housing grant is implemented.

c. Creating a Housing Board: Although not required, the sub-grantee may create a housing board to help with the administration of a housing rehabilitation grant.

(1) This board is a voluntary unpaid advisory board to the governing body.

(2) Their role is defined by the sub-grantee and adopted as an ordinance.

(3) The board can assist by performing such duties as promoting the program, accepting applications, verifying and qualifying applications, accepting bids, making recommendations on the selection of bids, etc. (See Attachment 2 for a sample ordinance.)

If the city decides that it does not want to establish a housing board, the city council may fill the position of the board.

2. Administrator

All NSP/CDBG program grants must be administered by a state certified administrator. Cities should treat the procurement of the administrator like it would any other professional service and check references and qualifications.

The administrator is responsible for helping the city follow all NSP/CDBG rules and regulations so that the city can successfully complete the housing rehabilitation grant. The sub-grantee and administrator, at the beginning of a grant, should determine the roles and responsibilities of the administrator. The administrator should be able to advise a city in the implementation of the program, the grant and how it is implemented is ultimately the city's decision.

3. Inspector

In order to be successful, your program needs an inspector with experience and knowledge in the area of housing construction, local codes, inspection (building, electrical, and plumbing) and cost estimating. It is recommended that great care be given to the selection of an inspector. The qualifications should include:

- Two or three years' hands-on experience in construction, preferably in a supervisory position.
- Prior experience as a building inspector in a NSP/CDBG program.
- Experience writing work write-ups.
- Knowledge of lead-based paint safe work practices.

After July 1, 2009, inspectors are required to be registered with the Kansas Secretary of State's office. A copy of this certification must be in the file to participate in the NSP/CDBG program.

The Housing Inspector is responsible for:

a. Insuring that the city is in compliance with NSP/CDBG rules and regulations.

b. Performing all Housing Quality Standard inspections.

c. Providing the sub-grantee with work write-ups that will bring each home up to HQS.

d. Assisting the city in protecting the program participants by working with the risk assessor, administrator and contractor in determining if there are LBP hazards and what measures are required to protect the occupants.

e. Others duties as agreed on between inspector and sub-grantee.

4. Lead-Based Paint Risk Assessor

State and federal regulations require that all homes built prior to 1978 be evaluated for lead-based paint regulations. In order to meet these requirements a sub-grantee must hire a lead-based paint risk assessor. A sample Request For Proposal for a risk assessor can be obtained on line or by contacting your field representative. It is recommended that the city adapt this sample for their needs.

Qualifications that should be evaluated are:

- Kansas Department of Health & Environment licensed risk assessor.
- Training in HUD's 1012/1013 rule.
- Familiar with Kansas NSP/CDBG lead-based paint requirements.

The LBP risk assessor/inspector is responsible for:

a. Performing risk assessments.

b. Providing a written risk assessment to the city/homeowner within the 15-day timeframe required by HUD.

c. Performing LBP Clearance tests.

d. Providing the city and homeowner with copies of a clearance report within the 15-day timeframe required by HUD.

e. Other duties as determined between LBP risk assessor and sub-grantee.

5. Contractors

Potential contractors should be identified and efforts made to interest them in program participation. The yellow pages of the telephone book, the Chamber of Commerce, conversations with construction materials suppliers and word of mouth are all information resources to aid in developing a bidder's list. Sub-grantees may also advertise for contractors who want to be included on the bidders list. Also, Equal Opportunity activities should yield potential contractors. Efforts must be made to notify Women Business Enterprises and Minority Business Enterprises of bidding opportunities.

The absence of interested and/or qualified contractors can be a major problem for some localities in carrying out their housing program. Depending on the level of construction activity in the locality, home building and remodeling contractors may not be interested in relatively small jobs for repairing homes in poor condition. In order to promote the participation of small contractors, the sub-grantee should try to eliminate procedural barriers and provide as much technical assistance as possible. Bonding and insurance requirements for small contractors can be prohibitive. Some localities have waived bonding requirements and developed alternative ways to protect property owners. Some technical assistance approaches that have been adopted by localities include: sureties from banks to small contractors; talking to local suppliers to assure them of payment for a credit extended to rehabilitation contractors for NSP/CDBG-funded jobs, guaranteed through direct billing, if necessary; and talking to local financial institutions to encourage them to extend lines of credit. Sub-grantees are allowed cash-on-hand in their regular accounts of up to $5,000 to help in this situation.

After building a list, three important steps must be taken to ensure that the work performed is quality work:

a. The sub-grantee should check references on all contractors considered for rehabilitation projects.

b. ***The sub-grantee must check with Commerce to verify that the contractor is not on the list of debarred contractors.*** (See the Verification of Contractor Eligibility form in the Labor Section in the Sub-grantee Handbook.)

c. The sub-grantee must verify that the contractor has a certified lead-based paint supervisor and/or all employees are trained in lead safe work practices. (If a contractor is a LBP supervisor, he must have a current supervisor's certification from the Kansas Department of Health & Environment.)

The Contractor will be responsible for:

a. Completing all items identified in the bid documents.

b. Completing all work in a timely manner.

c. Completing all work in a lead safe manner, using lead safe work practices.

d. Meeting all local, state and national building codes.

e. Providing a one-year guarantee on all work completed under the NSP/CDBG program.

Attachment 13

S-A-M-P-L-E
Demolition Permission

Date: _____

TO: City of _____ , Kansas

Address: _____

_____

City: _____ State: _____ Zip: _____

PERMISSION and authority is hereby granted to the City of _____ upon the following described real estate to-wit:

Otherwise, known as _____ and the undersigned agrees that the City of _____ Kansas, or its assigns, may move, remove, relocate, raze or destroy the structure or structures located on the property owned by the undersigned.

The undersigned further bargains and sells unto the City of _____ Kansas, all of the structures and salvageable materials of whatever nature and description produced by the removal of said structure or structures.

The undersigned hereby certifies that the undersigned is the owner in fee simple of said real estate and said premises are free and clear of all liens and encumbrances of whatever kind and nature except:

The undersigned further releases and discharges the City of _____ Kansas, from any and all claims, rights or damages caused by reason of such removal, relocation or destruction.

SIGNED THIS _____ DAY OF _____ , 20 ____

SIGNATURE OF OWNERS:

_____

_____

_____

Subscribed and sworn to me this _____ day of _____ , 20 ____

NOTARY: _____

My commission Expires: _____

HOUSING REHABILITATION MATERIAL APPLICATION STANDARDS

IMPORTANT

Please read material, application and performance standards carefully.

Contractor will obtain and pay for all necessary licenses, permits and privileges required in his work, and perform all work in strict accordance with the laws and ordinances in force in the State of Kansas, and in the locality in which this work is to be performed. Contractor will investigate what Federal, State or Municipal laws and requirements are applicable and comply with all in an approved manner.

Lead Safe Work Practices will be implemented on all homes built prior to 1978 that receive NSP/CDBG Housing Rehabilitation funds.

SHOULD THERE BE ANY CONFLICTS BETWEEN THESE SPECIFICATIONS AND THE WORK WRITE-UP, THE PROJECT INSPECTOR SHOULD BE CONTACTED FOR A FINAL DETERMINATION.

CARPENTRY SPECIFICATIONS

A. Concrete Work

1. The concrete mix shall be 3,000 pounds transit mix or with a 5 1/2 sack mix for both interior and exposed concrete.

2. No concrete shall be poured on frozen ground.

3. All concrete flat work must be over a 2" layer of gravel/sand on compacted earth and be reinforced properly.

4. All flat work concrete must be a minimum of 4" thick with 1/2" pre-molded asphalt or non-bituminous fiber-filled material expansion joints at entrance platforms, steps, intersections with driveways or walks, and in long runs at least every 50'.

5. Control joints must be provided at no more than 5' intervals for sidewalks and 20' intervals for floors, concrete drives, and parking slabs.

6. Footings must be below the freeze line, 8" thick, and reinforced properly with rebar.

7. Foundation walls must be 8" wide and reinforced properly with rebar.

CONTRACTOR MUST CALL FOR A SITE INSPECTION AFTER SITE IS READY FOR CONCRETE AND 24 HOURS PRIOR TO POURING. AFTER 24 HOURS HAS ELAPSED CONTRACTOR MAY PROCEED. NOTIFY THE PROJECT INSPECTOR.

B. Masonry Work

1. No masonry work shall be done when the temperature of the surrounding air is likely to cause freezing.

2. All joints must be completely filled with mortar.

3. All brick, stone, or block used should match, if possible, adjacent work. The owner(s) must approve samples before starting the work, unless the work is to be painted or covered.

4. Soft salmon type brick shall not be allowed.

5. Tuck-pointing shall only be done after the joints have been raked out to a minimum depth of 1/2" and wetted.

6. All damaged, loose, or salmon brick, in area to be rebuilt, must be removed until sound brickwork is encountered.

7. New brick patches must be toothed into and match in the existing work in site, joints, and bond.

8. Veneer brickwork must be tied to frame wall with galvanized wall ties on every third course, 32" on center, and shall conform to above specifications.

9. All new retaining walls over 24" high must have #4 steel dowels placed every 2' and be imbedded at least 6" into the footings.

10. Retaining wall footings shall be three times the thickness of the wall in width and 8" deep, containing three (3) #4 steel rebar.

11. All retaining walls over 24" high shall have weep holes at grade level at 8' intervals.

12. All block replacement foundation walls shall have a galvanized steel bed reinforcement (8" mesh) in 2nd course and 5th course of block. Concrete block or poured wall may be used for all foundation walls.

C. Grade

Shall mean backfill along foundation with topsoil and provide sufficient slope in finish grade to provide drainage away from house.

D. Framing Lumber

1. Must be No. 3 Southern Pine, SB, SPF, standard grade, or better.

2. Studs must be Stud Grade.

3. Allowable spans for floor, roof, and ceiling joists no greater than 24" centers.

4. Bearing partition stud walls may not be less than 2" x 4" studs with dimension perpendicular to the wall, 16" on center.

5. Floor joist spacing may be no more than 16" on center when 25/32" flooring is to be applied directly to the joist; or, 16" on center when any lesser thickness of finish flooring is to be laid over a sub-floor.

6. Gutting of structural members shall not be done without the approval of the Project Inspector.

E. Sub-Flooring

1. Plywood shall be Southern Yellow Pine (SYP), 1/2" minimum where 25/32" finished flooring is to be laid or 5/8" where resilient flooring is to be laid and joists are not over 16" on center.

2. Nail plywood sub-floor to joint at each bearing with No.8 cemented or galvanized, or No. 6 threaded nails spaced 6" on center along all edges, and 10" on center along intermediate members.

3. Install plywood with outer piles at right angles to the joists and staggered so that the end joists in adjacent panels bear on different joists.

4. Common boards used as sub-flooring shall not be over 11" wide or less than 3/4" thick when laid on joist spaced 10" on center, and shall be laid diagonally if hard wood flooring is laid.

5. Nail boards with No. 8 box nails or No. 6b threaded nails, as follows:

   a. Two (2) nails in 3" boards.

   b. Two (2) nails in 4" boards.

   c. Three (3) nails in 6" boards.

   d. Four (4) nails in 8" boards.

   e. Five (5) nails in 12" boards.

F. Underlayment

1. Shall be 3/8" structural grade plywood or 1/4" underlayment.

2. Nail underlayment with cement coated, rosin coated, or ring shank nails placed on 4" centers on all edges and over the face of each piece.

3. Cement Board in high moisture area installed using Manufacturer Specifications

G. Finish Flooring

1. Strip Wood Flooring :

   a. Material must be softwood with 25/32" minimum thickness.

   b. Shall be 3 1/4" maximum width.

   c. Nails shall be as recommended by flooring manufacturer. Blind nail tongue and groove flooring, driving nail at an approximate angle of 50 degrees. Space nails every 10" to 12" on center.

2. Sheet Vinyl Flooring:

   a. Minimum 0.065" gauge overall thickness.

b. Shall be 0.025" gauge wear layer, 10' wide rolls.

c. The owner(s) shall be shown at least three (3) samples to select from a quality that will cost no more than $20 per yard including installation.

d. Mastic shall be as recommended by flooring manufacturer. (No gluing only along the edges will be allowed).

e. All joints and cracks in base shall be filled, smoothed, and leveled.

f. Where irregular floor conditions exist, install underlayment to receive vinyl flooring.

g. Layout to minimize joints in vinyl flooring. Small strips or patching will not be allowed.

h. Owner(s) shall sign color sample.

3. Carpeting and Padding:

a. The owner(s) will select from at least three (3) carpet samples.

b. Based on a specified allowance, not to exceed more than $20 per yard including installation.

c. Owner(s) shall sign color sample.

d. Where irregular floor conditions exist, install underlayment to receive carpet.

e. Carpet shall be stain and soil resistant treated, FHA approved, and installed in strict accordance with manufacturer's specifications.

f. Padding shall be, FHA approved, and installed according to manufacturer's specifications.

CARPET WILL NOT BE ALLOWED IN BATHROOMS, KITCHENS, AND UTILITY ROOMS.

H. Finish Lumber

1. Shall be free from tool marks and other objectionable defects.

2. Solid lumber and miscellaneous trim for interior finish shall be vinyl or solid stock white pine, if stained. Finger joints, allowed if painted.

3. All exterior solid lumber and trim shall be sealed against the weather. Exterior porches and all wood meeting the ground shall be treated lumber.

4. Porches shall have a top, intermediate, and bottom railing.

I. Exterior Doors

1. Doors:

   a. Shall be new, wood flush, particle core, exterior grade, and standard entrance doors with window light. A pre-hung insulated steel door may also be used.
   b. Shall conform to the thickness of the doorjamb and be hung on three (3) 3 1/2 x 3 1/2" butt hinges, flush mounted.
   c. Shall have a minimum 10" x 10" glass window installed or peep hole (client to decide).
   d. Replacement shall include weather stripping, installation of door sweeps, locksets, and hinges.
   e. After installation, doors are to be neat in appearance and operate smoothly to insure an airtight seal.
   f. Replacement doors are to be finished as per painting specifications.

2. Weather Stripping:

   a. All existing weather-stripping (W/S) is to be removed prior to the installation.

   b. W/S shall be installed on both sides and top of doorjamb and shall be Q-lon (Vinyl clad foam) with aluminum back or equivalent.

   c. The doorstop shall be caulked as needed to complete the airtight seal.

   d. Adjust door as necessary to insure airtight seal with the W/S.

   e. The installation is to be airtight, neat in appearance, without buckling or gaps, and installed in such a manner that it is considered permanent.

3. Sweeps:

   a. Sweeps are to be a metal strip with a vinyl or neoprene insert installed according to the manufacturer's instructions.

   b. Install on the inside of doors that open inward or on the exterior of doors that open outward, so as not to interfere with the smooth operation of the door.

   c. Must be installed with mounting screws no further than two inches (2") from each end.

   d. Bottom edge of the sweep is to touch the threshold for proper seal.

4. Locksets:

   a. Locksets to be installed on exterior doors must be of a keyed type.

   b. Install according to manufacturer's specifications.

   c. Two (2) working keys are to be supplied to the client when the new lockset is installed.

5. Thresholds:

   a. Shall saddle try type with door bottom.

   b. Are to fit snuggly between the jambs and fasten with screws, and form an airtight seal between door and threshold.

6. Garage Door

   a. Must be a 25 gauge galvanized Door

   b. Must be insulated

   c. Have a minimum _____ year warranty

J. Storm Doors

1. Shall mean aluminum clad, solid core construction with baked-on finish, self-storing design to contain two glass panels and one, full-size screen panel. Similar in quality to the Cole Sewell "Solid Saver" Model 530.

2. Shall have closures and hardware including stop springs.

3. Adjust for proper tension and operation.

4. Shall have corner bracing for additional support.

K. Windows

1. Frames, sill, sash, trim, and hardware shall match existing work in design and dimension unless otherwise specified in the work write-up.

2. New windows shall be single hung double pane insulated vinyl, aluminum, or wood frame, equal to or better than Columbia Industries C-1600 with screens.

3. Positive locking devices ("cam action" sash locks) shall be provided on all windows, which are accessible from the exterior, and all existing interior finish hardware shall be made operative or replaced.

4. Finish per painting specifications.

5. Glass and Glazing (for glass replacement).

   a. Windows shall be glazed or re-glazed, where required, with single strength clear grade B glass.

   b. Window glazing shall be oil base and contain no asbestos or lead.

6. Putty shall consist of pure linseed oil, pure whiting, natural color, or standard commercial grade putty.

7. Prime all wood sash before the placing of putty.

8. Glass shall be bedded in putty and secured in place with glazier points and face puttied. All excess putty shall be removed and all glass left clean.

L. Storm Windows

1. Are to be standard aluminum frames, self-storing, with removable sash and screen section similar in quality to the Columbia Series 400.

2. Adjust for proper tension and operation.

3. Shall have corner bracing for additional support.

M. Stucco

1. Mortar for all applications shall consist of one (1) part Portland cement to not less than three (3) or more than five (5) parts of damp loose aggregate by volume. Hydrate lime may be used but shall not exceed 10 percent by weight or more than 25 percent by volume of the cement used.

2. The temperature of the surrounding air shall not be less than 40 degrees F. during application and for at least 48 hours thereafter.

3. Surfaces to receive stucco shall be covered with 3.40 pounds per square yard metal lath lapped at end and sides a minimum of 1", and nailed 10" on center vertically and 6" on center horizontally.

4. Apply a minimum of two (2) or three (3) coats. The final coat shall not be applied sooner than seven (7) days after the preceding coat. Before applying the final coat, the surface shall be dampened evenly to obtain uniform suction.

5. Apply two (2) coats on masonry to a minimum thickness of 5/8".

6. Apply three (3) coats over wood surfaces to a minimum thickness of 7/8".

7. Prior to stucco being painted, it shall be washed down with 5 percent muriatic acid solution and rinsed clean with clear water.

8. Patching of stucco, when called for in the Work Write-Up, shall include the removal of all loose material encountered until sound construction is reached, including the removal of rotted or deteriorated lath.

N. Plastering

1. Gypsum plaster materials shall be standard commercial brands.

2. Mixing and application of gypsum plasters shall be in accordance with American Standard Specifications for Gypsum Plastering.

3. Apply plaster in three (3) coats and in two (2) coats double up work-minimum thickness 1/2".

4. Gypsum lath shall be applied with long dimension across supports and with end joints staggered.

5. Nail gypsum lath with 12 or 13 gauge lathing nails having approximately 3/8" heads spaced not more than 4" on center with a minimum of four (4) nails in each lath. Use six (6) nails for 24" wide lath. Length of nail shall be that which shall provide at least 1" penetration in horizontal supports and 3/4" penetration in vertical supports.

6. Gypsum lath shall not be used as a base for Portland cement plaster.

7. Wood lath shall be securely nailed and wetted down prior to applying plaster.

8. Metal lath shall be applied according to manufacturer’s directions whether used for patching or new work.

9. Patching of plaster, when called for in the Work Write-Up, shall include the removal of all loose material encountered until sound construction is reached, including the removal of rotted or deteriorated lath. Crack repair in plaster walls shall be cut out to a depth of not less than 1/4" and a width of 1/4". All areas are to be wetted thoroughly before applying plaster filler.

O. Wallboard

1. Shall be tape joint gypsum board, carefully fitted and sized prior to nailing in place. Minimum thickness is to be 1/2".

2. Water resistant gypsum board is to be installed on bathroom walls, or any high moisture area.

3. All joints are to be staggered.

4. Nails or sheetrock screws shall be driven with their shanks perpendicular to the face of the board and seated below the surface of the board without breaking the paper, in accordance with the following:

Thickness	Ceiling	Side Walls	Type of Nail
1/2"	5" O.C.	7" O.C.	No. 4 glue coated
5/8"	6" O.C.	7" O.C.	1-7/8 6d cement coated

5. Perforated Tape Mix:

   a. Shall comply with the recommendation of the manufacturer. A minimum temperature of 55 degrees F. shall be maintained in the room where the work is done until the cement is completely dry. Follow manufacturer's directions for application.

   b. Over joints, the tape shall be embedded in cement and covered with a thin layer of cement. A second and third coat shall be applied. Each coat shall be dry before applying the next coat. Each coat shall be feather-edged and extended beyond the previous coat, approximately 2". The finish coat shall be sanded lightly and imperfections filled in prior to any painting or decorating.

   c. Check to see that all nails have been driven so that their heads are below the surface without breaking the paper. Cover nails with three (3) applications of cement, allowing time to dry between each coat painted or other decoration.

   d. The final coat shall be sanded lightly before application of inside corners and shall be reinforced with tape imbedded in cement and finished the same as b. over joints.

   e. Outside wood molding, metal molding, or metal corner reinforcement shall protect corners. Metal corner re-enforcement shall be finished with two (2) coats of cement, as specified.

   f. Provide metal edge trim where wallboard edge abuts dissimilar material.

6. Finish to match existing texture.

P. Ceilings

1. Acoustical tile or 2' x 4' drop grid ceilings may be used.

2. Furring strips, when called for, shall be a minimum of 3/4" x 2" and attached with #8 nails driven through to ceiling joists at 10" intervals.

3. Suspended Ceilings

a. Exposed T-Bar, as specified, installed in strict accordance with manufacturer's recommendations.
b. Unexposed T-Bar, as specified, installed in strict accordance with manufacturer's recommendations.

1. Plaster/Drywall

a. Use a heavy textured spray finish, when required, to repair cracked plaster and/or cracks in ceiling board.

Q. Siding Repairs/Replacement

1. Repairs of siding shall match material of existing siding.

2. Installation of siding shall be 12" lap hard board and/or Fiber cement. siding, unless otherwise noted on the Work Write-Up. Paint as called for in the painting specifications.

3. Remove siding only when called for in Work Write-Up.

4. Vinyl Siding:

a. Shall be 40 mills (.040") thick or better.

b. Colored completely through.

c. Siding shall be installed over a minimum ¼" fan fold foam core, and shall carry a lifetime warranty for defects in material and color fading.

d. Warranty shall be placed in the owner(s) name and the contractor shall send all documentation to the company with a copy to the client.

e. Installation shall include wrapping all windows, soffit, fascia, porch ceiling, and pillars, et al.

f. Any exterior painted surfaces (including window sash) not wrapped shall be painted according to the painting specifications.

g. Owner(s) shall pick one siding color and one trim color from samples of siding and a complimentary trim color.

h. Owner(s) shall sign sample of color choice. No bright or "hot" colors allowed.

R. Caulking

1. Caulk shall be appropriate for materials being sealed. All caulk shall have a material life of at least 15 years.

2. Fully caulk around the following areas:

    a. Window and door frames - all sides.

    b. Where different materials meet.

    c. Inside and outside corner trim boards.

    d. Between foundation and wall plates or siding.

    e. Around vents, fans, and window air conditioners.

S. Interior Doors

1. Shall be 1-3/8" hollow core.

2. Must be stained or painted to owner's option.

3. Complete with hardware and latch set.

T. Wallpapering - Not Allowed

U. Water Resistant Paneling

1. 1/8" thick, vinyl coated paneling recommended by the manufacturer for high moisture areas. Complete with vinyl trim at all joints.

2. Secure to sound backing using adhesive as recommended by manufacturer.

3. Owner(s) to select color and pattern from manufacturer's standard items. Owner(s) to sign sample selection.

4. Shall not be used as shower/tub surround.

V. Wood Paneling

1. Shall be 3/32" minimum thickness.

2. APA A-D interior paneling.

3. Furnish and install wood trim as required for a complete installation. Stain trim to match paneling.

4. Paneling to be selected by owner(s) based on specified allowance.

5. Owner(s) to sign sample of selection.

W. Kitchen Cabinets

1. Job Built:

   a. Shall be 3/4" fir or birch plywood with solid wood band on all exposed edges.

   b. Stain a minimum of two (2) coats of lacquer (selected by owner(s)).

2. Factory Built:

   a. Residential grade, standard construction for wood cabinets.

   b. Standard stain finish (selected by owner(s)).

   c. Laminated (heat and stain resistant) counter top and edge trim with back splash.

3. Upper Cabinets:

   a. Two (2) adjustable shelves.

   b. Doors complete with hardware.

4. Base Cabinets:

   a. Continuous drawers with standard glides across top section of all cabinets except sink area.

   b. One (1) adjustable shelf behind doors - all areas below drawer sections.

   c. Laminated (heat and stain resistant) counter top and edge trim with back splash.

   d. Cabinets complete with hardware.

X. Insulation - All insulation material shall be cellulose, unless otherwise specified in the Work Write-Up.

All attics must be insulated to a R-38, where possible.

1. Insulation Barrier:

   a. Install insulation barriers specifically manufactured for use with the type of insulation installed.

b. Installation is to be in accordance with manufacturer's recommendations.

c. All chimneys, flues, recessed lights, and furnaces are to have insulation barriers around them.

2. Gable Vents:

   a. Openings are to be cut with close tolerance to insure a watertight fit.

   b. Vent is to be nailed or screwed into the frame.

   c. All damaged siding is to be repaired or replaced. Siding without sheeting behind it is to have the vent framed in and mounted on the frame to insure a tight fit.

   d. Ventilation ratio shall be not less than 1/300.

3. Roof Vents:

   a. Roof vents are to be prepared and cut to close tolerance to insure a watertight fit.

   b. The hole in the roof shall be no smaller than the throat site of the vent being installed so as not to restrict airflow.

   c. Discarded materials are not to be dropped into the attic area. The Contractor shall remove discarded materials from the work site.

   d. Vents (galvanized or aluminum nas) are to be sealed and nailed with galvanized or aluminum nails.

   e. If the high/low method is used in installing roof vents, 50 percent of the vents must be located in the upper portion to be ventilated at least 3' above lower vents, with the remaining 50 percent of the required ventilation provided by ease, soffit, or roof vents.

   f. In the case of the high/low method of ventilation, a ratio shall not use less than 1\150.

   g. Vents are to appear evenly spaced from the ground and be neat in appearance.

4. Soffit Vents:

   a. Vents are to be installed to insure free ventilation space to the attic area.

   b. Vents are to be evenly spaced and a uniform distance from the sidewall.

   c. Vents are to be screwed to the soffit.

5. Attic Access:

    a. R-19 batt insulation is to be stapled or nailed to the top of the door.

    b. Insulated manufactured doors may also be used. Insulation dams are to be constructed from 1" x 10" or better and are to be used to hold back attic insulation.

    c. All attic accesses are to be weather-stripped using foam, tubular, or metal flap weather strip, nailed, or placed on the jamb.

    d. When rebuilding an attic access, use 1" x 4" for the jamb and doorstop to form the flange. The door itself can be made of 3/4" plywood and insulated with R-19 batt insulation. 1" x 4", or smaller, is to be used as casing. The door and surrounding area is to be airtight. Damaged ceiling area is to be repaired with like materials, all wood installed is to be sealed against moisture.

6. Floor Insulation:

    a. R-13 batt insulation is to be installed between floor joists, unless otherwise specified.

    b. Insulation is to be secured with nails, staples, or wire.

    c. The vapor barrier shall be towards the conditioned side.

7. Duct Insulation:

    a. All loose joints on hot air ducts (also air conditioning ducts in attics) shall be sealed to prevent air leakage.

    b. The ducts are to be wrapped using a standard R-5 or better vinyl wrapped fiberglass batt or standard duct wrap.

    c. Cellulose can be blown against the ductwork to hold the insulation.

    d. Duct insulation installed in a basement or crawl space is to have a vapor barrier installed to the outside.

8. Wall Insulation:

    a. Walls shall be insulated to a minimum of R-13.

    b. Building codes shall be considered regarding knob and tube wiring situations.

c. All exterior walls are to be insulated.

d. Siding is to be removed and replaced.

e. Damaged siding is to be replaced.

f. All sidewall insulation shall be densely packed cellulose.

9. Perimeter Insulation:

a. R-13 faced fiberglass is to be securely fastened to the underside of the floor, extending down the boxing area, unless otherwise specified.

b. Covers the inside foundation wall and then out into the crawlspace at least 2'.

c. Vapor barrier, shall be 6 mil plastic with 2' overlapped seams.

10. Insulation Material (Mineral):

a. Fiber Material or Product:

(1) Blanket batt conformance to F.5. HH-1-521E and ASTM C665-70.

(2) Board conformance to F.5. HH-1-526C and ASTM C612-70 or C726-72.

(3) Duct Material Conformance to F.5. HH-1-558B.

11. Insulation Material (Organic Fiber):

a. Cellulose conformance to HH-1-515D dated April 1988.

b. Block and Board conformance to F.S. LLL-12-525A and ASTM C208-72 and fire safety requirements.

12. Water Heater Blanket:

a. Specifically manufactured for the purpose.

b. Minimum R-5.

c. Capable of meeting a flame spread classification not to exceed 150 (per ASTM E-84).

PLUMBING AND HEATING SPECIFICATIONS

A. Water Piping

1. Above ground shall be type L copper tubing with copper solder joint fittings made up with 95-5 solder as recommended by manufacturer or PEX.

2. Connections to valves shall be made with N.P.T. to solder adapters.

3. Schedule 40 PVC cold plastic water pipe may also be used for water piping and Schedule 40 CPVC for hot plastic water piping.

4. All plastic water pipe shall be supported every 4'.

5. The site of new pipes shall be in conformance with the Uniform Plumbing Code. Valves shall be 150# brass with ends similar to fittings. Valves shall be provided at each piece of equipment to permit removal without shutting off service. Unions will be provided to permit removal of equipment without cutting pipe.

6. Supply lines to faucets shall be flex lines or copper tubing.

7. Shut-offs is required on all supply lines.

B. Plumbing Fixtures

1. Trim shall be chrome plated and supplies to each water closet shall be provided with stop valves to permit removal without shutting off service.

2. All plumbing fixtures and trim called for in the Work Write-Up shall be of standard grade equal to American Standard, Crane, or Kohler.

3. Shower shall have a rod and shower curtain installed, at minimum.

C. Kitchen Equipment

1. Sink shall be double compartment stainless steel or enameled steel with self-sealing edge.

2. Refrigerator shall be a minimum 18 cu. ft., self-defrosting, 2-door unit appliance.

3. White or Almond (major brand mid priced model).

4. Ranges shall be electric or gas, with oven and oven light, and timer. White or Almond (major brand mid-priced range).

5. Gas ranges shall be attached to the gas supply with a steel flex gas line and shut off.

D. Heating Systems

1. Every heater that is existing or installed must be equipped with the following:

   a. One hundred percent safety.

b. Code approved, metalbestos vent.

c. Proper gas piping and stops, installed in accordance with recommendations of the Uniform Plumbing Code.

d. Shut-off valves.

e. All transite vents are to be removed.

f. Blower.

g. New Thermostat.

2. If no local codes, must meet National Gas Code (NGC).

3. All new heating plants shall be sized and installed to provide sufficient proper heating and proper distribution for the size and requirements of the individual house. HVAC systems shall not be oversized by more than 15 percent.

4. New furnaces shall be a minimum of 80 percent efficient, forced air with a warranty of not less than ten years. Ninety-two percent or better efficient furnaces shall be sealed combustion.

5. No outside units or attic units shall be installed or units in crawl space unless specified in the Work Write-Up.

6. No flexible ductwork is allowed unless approved by inspector at the bid conference.

7. No open return air is allowed. All ductwork is to be included in bid.

8. All ductwork shall be sealed using mastic (example RCD #6).

9. All ductwork in unconditioned spaces shall be insulated.

10. Furnace and/or air conditioner shall be on separate circuits.

11. All appliances must be installed in accordance with manufacturer's specifications.

12. Must have easy access to filter.

13. If furnace is in basement, it must be raised a minimum of 2".

14. Plenum must be installed to receive future A-coil.

E. Water Heaters

1. Water heaters, existing or installed, shall have the following:

a. Pressure and temperature relief valve.

b. Proper vent, gas piping, and shut off.

c. All transite vents to be replaced with code approved vent.

2. Pressure and temperature relief valves shall be extended within 2' of the floor, but no closer than 6".

NOTE: All cutting of walls, floors, ceilings, partitions, etc., for the purpose of rehabilitation work and the air sealing of openings around same, including the removal of all debris caused thereby, shall be performed by the contractor performing the work. Repairs shall match existing materials, be finished to a smooth condition, and painted. (Refer to applicable Specifications for details.)

SHOULD THERE BE ANY CONFLICTS BETWEEN THESE SPECIFICATIONS AND THE WORK WRITE-UP, THE PROJECT INSPECTOR SHOULD BE CONTACTED FOR A FINAL DETERMINATION.

ELECTRICAL SPECIFICATIONS

All electrical work shall be in conformance with the National Electrical Code (NEC)

A. Wiring Devices

1. Single pole room lighting switches and three-way and four-way switches shall be UL approved.

2. Plug-ins shall be standard grounded receptacles except for plug-ins within 6' from water source and shall be GFI.

3. Plates for all switches and receptacles shall be non-conducting type (including screws) and UL approved.

4. Dryer shall have separate 220 circuit.

5. Furnace, air conditioner, refrigerator, dishwasher, and stove shall have separate circuit.

6. Garbage disposal shall have separate circuit(s) and wall switched receptacle.

B. Lighting Fixtures

1. Contractor shall provide all lighting fixtures complete with lamps, glassware, mounting hardware, frames and trim, stems, ballasts, sockets, etc., to provide a complete operating UL approved fixture at each location, as called for in the Work

Write-Up. Energy efficient compact fluorescents bulb(s) are required in all replaced fixtures.

2. Porcelain lamp-holders are prohibited unless approved by the Project Inspector.

C. Panel Boards

1. Shall be UL approved, with the minimum components as listed:

   a. NEMA 1 enclosure for indoor and NEMA 3R for exterior use.

   b. 200A mains (minimum) unless noted otherwise.

   c. 200A 2-pole main breaker (minimum) unless otherwise noted.

   d. Seven (7) 1-pole branch breakers (minimum).

   e. 2-pole breakers as required.

   f. Separate/Neutral.

   g. Separate ground bar.

   h. Additional equipment as required meeting the National Electrical Code (NEC).

* Unless specified differently by inspector.

D. Wire

1. Wire and cables shall be copper.

2. All wire and cable shall comply with the standardization rules of the AIEE as to conductivity and shall be free from kinks, splices, and defects when installed. Conductors shall be in accordance with the requirements of IPCEA Publication's latest edition.

3. All wire used in this project shall be new and shall be identified by type and by manufacturer.

4. Branch circuit wiring shall be non-metallic sheath Type NM.

5. Service conductors shall be Type XHHW.

6. All wiring shall be concealed in wall, ceiling, or floor cavities. Wiring required to be exposed shall, be installed in intermediate grade metal conduct.

7. All receptacles and other electrical equipment, except light fixtures, shall have a separate equipment ground conductor bonded to their metal cases, frames, etc. (except as noted).

E. Lightning Arresters

1. 175 v., 2-pole lightning arresters shall be installed per NEC.

2. Rewiring of house shall meet NEC.

F. Smoke Alarms

1. Install a 10-year Lithium battery smoke alarms unless rewiring house.

2. If rewiring, install hardwired smoke alarms.

Note: All cutting of walls, floors, ceilings, partitions, etc., for the purpose of rehabilitation work and the air sealing of openings around same, including the removal of all debris caused thereby, shall be performed by the contractor performing the work. Repairs shall match existing materials, be finished to a smooth condition and painted. (Refer to applicable Specifications for details.)

CONTRACTOR MUST OBTAIN PRIOR WRITTEN APPROVAL FROM OWNER(S) BEFORE REMOVING FROM THE PREMISES ANY REUSABLE ITEMS, WHICH HAVE BEEN REPLACED.

PAINTING AND VARNISHING SPECIFICATIONS

Preparation and painting of all surfaces shall be completed in accordance with HUD's "Safe Work Practices".

A. Preparation of Surface

1. Exterior:

a. Wood surfaces to be painted or varnished shall be prepared in accordance with HUD's Safe Work Practices in the removal of loose, chipping and peeling paint, rough spots, and any obvious oil and/or grease that may be covering existing wood or paint.

b. All paint chips and residue from the preparation must be REMOVED from the site.

c. Where previous coats have chipped and peeled, the edge shall be wet scraped and puttied to obtain a smooth surface before new paint is applied.

d. Exterior painting shall include painting all doors and windows, removing all storm windows, repairing windows, replacing all broken or cracked glass, and re-glazing and caulking all joints and seams with paintable caulk. Clean and reinstall all storm windows upon completion.

e. All nail holes shall be puttied and all defects in the surface shall be eliminated by the repair or complete replacement of the defective part, this includes siding, sills, casings, etc.

2. Interior:

a. Wood surfaces to be painted or varnished shall be prepared in accordance with HUD's Safe Work Practices in the removal of loose, chipping and peeling paint, rough spots, and any obvious oil and/or grease that may be covering existing wood or a paint.

b. Plaster or wallboard surfaces shall be sound, smooth, and free from holes, cracks, or irregularities.

c. All old wallpaper shall be entirely removed or covered with sheetrock, taped, then painted.

d. No paint or varnish shall be applied until all nail holes have been puttied and all defects in woodwork have been eliminated by the insertion of dutchmen or complete replacement of the damaged part.

B. Materials – Lead based paint is in violation of HUD Lead-Based Paint Regulations and shall not be used.

1. Exterior:

   a. All exterior paint must meet or exceed Sherwin Williams 15 year # A-100 and shall be delivered to site in manufacturer's sealed containers.

   b. Each container shall be labeled giving type of paint color and application specification.

   c. Before proceeding with exterior painting, samples of colors shall be shown to the owner(s) for selection. The owner(s) is limited to one (1) base color and one (1) trim color. Owner(s) shall sign the chosen color sample. Color options will be in a neutral color rage, no bright or "hot colors" are allowed.

   d. The primer coat shall be Alkyd oil tinted to match topcoat, produced by the same manufacturer as the finish coat.

2. Interior:

   a. Interior paint shall meet or exceed Sherwin William's Classic #99 for flat, semi-gloss, or satin gloss, and shall be delivered to the site in the manufacturer's sealed containers.

   b. Primer for new sheetrock shall meet or exceed Sherwin William's Pro-Mar #400 latex primer.

   c. Before proceeding with painting or varnishing, color samples shall be shown to the owner(s) for selection. The owner(s) is limited to one (1) base color and one (1) trim color. Owner(s) shall sign the chosen color sample.

   d. Texture finish sample shall be submitted to the owner(s) for approval before application. Owner(s) shall sign sample choice.

   e. The finish coat in kitchens and bathrooms shall be semi-gloss enamel and provide a durable and washable surface.

   f. The primer shall be tinted to match topcoat, produced by the same manufacturer as the finished coat.

   g. Varnish shall be polyurethane varnish.

3. Application:

   a. Exterior:

(1) All paint, unless specifically approved otherwise, shall be applied by brush or roller.

(2) Apply each material at manufacturer's recommended spreading rate.

(3) Do not apply exterior paint when temperature is 50º F. and falling, or when temperature is below 40º F. and steady, or in rainy, damp, or frosty weather until surface is thoroughly dry. Contact the Project Inspector if considering the Sherwin Williams product "Low Temp 35"

(4) The Contractor shall be responsible for protecting all areas and surfaces that are not to receive paint and shall clean and repair or replace any such areas, surfaces, or items so damaged.

(5) Finish work shall be uniform, of approved color, smooth, and free from runs, sags, and defective brushing and rolling. Edges of paint adjoining other materials or colors shall be sharp and clean.

b. Interior:

(1) New paint applied on walls that are painted with a glossy paint or has a shine must be first prepared to remove glossy surface and cleaned prior to painting.

(2) The Contractor shall be responsible for protecting all areas and surfaces that are not to receive paint and shall clean and repair or replace any such areas, surfaces, or items so damaged.

(3) Finish work shall be uniform, of approved color, smooth, and free from runs, sags, and defective brushing and rolling. Edges of paint adjoining other materials or colors shall be sharp and clean.

(4) Ceiling paint will be allowed when applying to ceilings.

c. Required Coatings:

(1) Exterior wood, etc. (previously painted).

i. One (1) coat of exterior wood primer, tinted same as topcoat.

ii. Two (2) coats exterior latex house paint.

iii. Warranty is void if not followed.

(2) Exterior wood and hardboard (bare):

i. One (1) coat exterior wood primer; tinted same as topcoat.

ii. Two (2) coats exterior latex house paint.

iii. Warranty is void if not followed.

(3) Interior drywall:

i. Two (2) coats latex satin-gloss enamel wall paint.

ii. New drywall (1) coat of latex primer, (2) coats of satin-gloss enamel wall paint.

(4) Wood porch floors and wood steps:

i. Two (2) coats porch floor enamel.

ii. Redwood and CCA does not need to be painted.

(5) Spray textured drywall ceilings:

i. One (1) coat latex flat wall paint.

ii. One (1) coat spray texture.

SHOULD THERE BE ANY CONFLICTS BETWEEN THESE SPECIFICATIONS AND THE WORK WRITE-UP, THE PROJECT INSPECTOR SHOULD BE CONTACTED FOR A FINAL DETERMINATION.

ROOFING SPECIFICATIONS

Replacement of roof, when called for on the Work Write-Up, shall be defined as removing all existing shingles, flashings, valley tin, drip edge, and felt; then providing all new felt, valley tin, flashing, metal drip edge, and shingles, et al. Damaged sheathing or areas without solid sheathing shall have 15/32" construction grade plywood or 7/16" OSB Louisiana Pacific Interseal installed for sheathing

A. Sheathing

1. Shall be 15/32" construction (CDX) grade plywood or 7/16" OSB Louisiana Pacific Interseal, APA Exposure #1 criteria or equal (THIS PRODUCT IS NOT "NORBOARD").

2. Nail sheathing with cement coated, rosin coated, or ring shank nails placed on 4" centers on all edges and over the face of each piece.

B. Underlayment

1. Shall be asphalt saturated felt, minimum 30#, which has low vapor resistance. Coated felts or laminated waterproof papers, which act as vapor barriers, should not be used.

2. Underlayment should be applied over the entire roof as soon as the roof sheathing has been completed.

3. Underlayment should be lapped 1' from both sides over all hips and ridges.

4. Only sufficient fasteners are to be used to hold the underlayment securely in place until shingles are applied.

5. Shingles are not to be applied over wet underlayment.

C. Shingles

1. Shall be new Heritage or 3-tab, (equal to or better than 25-year), asphalt shingle squares, (nominal) weight, installed according to manufacturer's specifications, using nails only.

2. Cut shingles at valleys (2" each side of valley center to expose a minimum of 4"). Woven valleys are not allowed.

3. Owner(s) to select shingle color by signing a sample of the chosen shingle. Contractor is to keep signed shingle until final completion certificate is signed.

D. Metal Roofing

1. Shall be 29 gauge painted metal roofing equal to or better than Metal Sales Pro Panel II.

2. All metal roofing shall be attached with the proper length metal to wood screws with seal washers.

3. Owners shall sign sample of color choice. Color options will be a neutral color range, no bright or "hot colors" are allowed.

E. Flashing

Shall be 30 nominal gauge galvanized steel securely fastened and tarred to watertight and water-shedding condition.

F. Gutters/Downspouts/Splash Blocks

1. Standard, 5" Ogee, galvanized, white, steel, or 26 gauge aluminum gutters, securely fastened at 4' maximum intervals. Owner(s) to chose color to compliment house.

2. Downspouts may be round or square, corrugated and anchored at top and bottom.

3. All joints are to be watertight.

4. Install 3' splash blocks at all downspout locations. If not concrete, the splash blocks shall be anchored.

5. Install blocking and/or fascia board where necessary between gutter and eaves to properly align gutter to receive run-off from roof.

6. Owner(s) shall sign sample of color choice. No bright or "hot" colors allowed.

NOTE: SHOULD THERE BE ANY CONFLICTS BETWEEN THESE SPECIFICATIONS AND THE WORK WRITE-UP. THE PROJECT INSPECTOR SHOULD BE CONTACTED FOR A FINAL DETERMINATION.

DEMOLITION SPECIFICATIONS

A. Structures, Trees, and Site Clearance

1. The removal and proper disposal of the dilapidated structure(s). Check with the landfill operator prior to beginning demolition for instructions on “proper disposal”.

2. The capping off of the sewer and waterlines.

3. The complete removal of all concrete, cement or blocks, back-fill any basement to grade. Level site to be mowed. Seeding is the responsibility of the property owner.

4. Only remove trees that are within 6' of structure to be demolished.

B. Abandoned Septic Systems

1. Remove all liquid contents and the top of the tank. If the pit begins to fill with water, puncture the floor.

2. Fill the cavity with earth, sand, or gravel. Pack the fill to 5' below the surface, knock down sides 2' below grade, and then complete the fill with subsoil, packing as fill is being installed. The structure is now ready for the plug.

3. A minimum of a 6" of bentonite clay or 24" reinforced cement plug is to be applied. The plug must extend beyond the lining of the original diameter of the hole.

C. Abandoned Wells

1. Remove any pumping equipment.

2. Disinfect the water prior to filing by adding 1 gallon of chlorine bleach for every 10' of water.

3. Fill the well with sand and gravel mix to the water level.

4. Fill the remainder of the well above the water level with natural clay material (subsoil low in organic matter) compacted to form a solid column.

5. Six feet from top of casing, pour a 3' plug of cement or neat cement or sodium bentonite clay.

6. Excavate around the casing to the top of the plug, cut off casing, and backfill the excavation with compacted earth material.

Note: Contractor may be instructed to cut the casing at 4' below grade to allow the plug to extend beyond the edge of the casing. This mushroom plug will help provide extra protection from water movement along either side of the casing.

SAFE WORK PRACTICES

All work must be conducted in a lead safe work practice manner according to HUD Approved Lead Safe Work Practices Training by someone who has received HUD Approved Lead Safe Work Practices Training, is a Kansas Department of Health &Environment certified Lead Based Paint Worker, or is supervised by a Kansas Department of Health & Environment Lead Based Paint Supervisor.

Reference **Lead Paint Safety, A Field Guide for Painting, Home Maintenance, and Renovation Work,** U.S. Department of Housing & Urban Development Office of Healthy Homes and Lead Hazard Control.

A. Prohibited Methods of Lead Based Paint Removal

1. Open flame burning or torching.

2. Machine sanding or grinding without a high-efficiency particulate air (HEPA) local exhaust control.

3. Abrasive blasting or sandblasting without a HEPA local exhaust control.

4. Heat guns operating above 1100º F. or charring the paint.

5. Dry sanding or dry scraping, except dry scraping in conjunction with heat guns or within 1' of electrical outlets.

6. Paint stripping in a poorly ventilated space using a volatile stripper that is a hazardous substance in accordance with regulations of the Consumer Product Safety Commission.

B. Occupant Protection and Worksite Preparation

1. Occupants and their belongings shall be protected.

2. The worksite must be prepared according to safe work practice standards.

C. Cleaning for Clearance

After rehabilitation/hazard reduction activities have been completed, the worksite shall be cleaned using cleaning methods, products, and devices that are successful in cleaning up dust-lead hazards, such as a HEPA vacuum or other method of equivalent efficacy, and lead specific detergents or equivalent.

D. Safe Work Practices Are Not Required

1. On a home built after 1978.

2. On housing exclusively for the elderly (62 years of age or older) or people with disabilities unless a child under six is expected to reside there.

3. On zero-bedroom dwellings.

4. On property that has been found to be free of lead-based paint by a certified lead-based paint inspector/risk assessor.

5. On property where all lead-based paint has been removed.

6. On unoccupied housing that will remain vacant until it is demolished.

7. On non-residential property.

8 On any rehabilitation or housing improvement that does not disturb a painted surface.

GLOSSARY OF HOUSING TERMS

Air-Dried Lumber: Lumber that has been piled in yards or sheds for any length of time. For the United States as a whole, the minimum moisture content of thoroughly air-dried lumber is 12 to 15 percent and the average is somewhat higher. In the South, air-dried lumber may be no lower than 19 percent.

Airway: A space between roof insulation and roof boards for movement of air.

Alligatoring: Coarse checking pattern characterized by a slipping of the new paint coating over the old coating to the extent that the old coating can be seen through the fissures.

Anchor Bolts: Bolts to secure a wooden sill plate to concrete or masonry floor or wall.

Apron: The flat member of the inside trim of a window placed against the wall immediately beneath the stool.

Areaway: An open subsurface space adjacent to a building used to admit light or air or as a means of access to a basement.

Asphalt: Most native asphalt is a residue from evaporated petroleum. It is insoluble in water but soluble in gasoline and melts when heated. Used widely in building for waterproofing roof coverings of many types, exterior wall coverings, flooring tile, and the like.

Astragal: A molding attached to one of a pair of swinging doors, against which the other door strikes.

Attic Ventilators: In houses, screened openings provided to ventilate an attic space. They are located in the soffit area as inlet ventilators and in the gable end or along the ridge as outlet ventilators. They can also consist of power-driven fans used as an exhaust system. (See also Louver.)

Backbands: A simple molding sometimes used around the outer edge of plain rectangular casing as a decorative feature.

Backfill: The replacement of excavated earth into a trench around and against a basement foundation.

Balusters: Usually small vertical members in a railing used between a top rail and the stair treads or a bottom rail.

Balustrade: A railing made up of balusters, top rail, and sometimes bottom rail, used on the edge of stairs, balconies, and porches.

Barge Board: A decorative board covering the projecting rafter (fly rafter) of the gable end. At the cornice, this member is a facia board.

Base or Baseboard: A board placed against the wall around a room next to the floor to finish properly between floor and plaster.

Base Molding: Molding used to trim the upper edge of interior baseboard.

Base Shoe: Molding used next to the floor on interior baseboard. Sometimes called a carpet strip.

Batten: Narrow strips of wood used to cover joints or as decorative vertical members over plywood or wide boards.

Batter Board: One of a pair of horizontal boards nailed to posts set at the corners of an excavation, used to indicate the desired level, also as a fastening for stretched strings to indicate outlines of foundation walls.

Bay Window: Any window space projecting outward from the walls of a building, either square or polygonal in plan.

Beam: A structural member transversely supporting a load.

Bearing Partition: A partition that supports any vertical load in addition to its own weight.

Bearing Wall: A wall that supports any vertical load in addition to its own weight.

Bed Molding: A molding in an angle, as between the overhanging cornice, or eaves, of a building and the sidewalls.

Blind Nailing: Nailing in such a way that the nailheads are not visible on the face of the work - usually at the tongue of matched boards.

Blind Stop: A rectangular molding, usually 3/4 by 1-3/8 inches or more in width, used in the assembly of a window frame. Serves as a stop for storm and screen or combination windows and to resist air infiltration.

Blue Stain: A bluish or grayish discoloration of the sapwood caused by the growth of certain moldlike fungi on the surface and in the interior of a piece, made possible by the same conditions that favor the growth of other fungi.

Bodied Linseed Oil: Linseed oil that has been thickened in viscosity by suitable processing with heat or chemicals. Bodied oils are obtainable in a great range in viscosity from a little greater than that of raw oil to just short of a jellied condition.

Boiled Linseed Oil: Linseed oil in which enough lead, manganese, or cobalt salts have been incorporated to make the oil harden more rapidly when spread in thin coatings.

Bolster: A short horizontal timber or steel beam on top of a column to support and decrease the span of beams or girders.

Boston Ridge: A method of applying asphalt or wood shingles at the ridge or at the hips of a roof as a finish.

Brace: An inclined piece of framing lumber applied to wall or floor to stiffen the structure. Often used on walls as temporary bracing until framing has been completed.

Brick Veneer: A facing of brick laid against and fastened to sheathing of a frame wall of tile wall construction.

Bridging: Small wood or metal members that are inserted in a diagonal position between the floor joists at midspan to act both as tension and compression members for the purpose of bracing the joists and spreading the action of loads.

Buck: Often used in reference to rough frame opening members. Door bucks used in reference to metal door frame.

Built Up Roof: Roofing composed of three to five layers of asphalt felt laminated with coal tar, pitch, or asphalt. The top is finished with crushed slag or gravel. Generally used on flat or low-pitched roofs.

Butt Joint: The junction where the ends of two timbers or other members meet in a square-cut joint.

Cant Strip: A triangular-shaped piece of lumber used at the junction of a flat deck and a wall to prevent cracking of the roofing that is applied over it.

Cap: The upper member of a column, pilaster, door cornice, molding, and the like.

Casement Frames and Sash: Frames of wood or metal enclosing part or all of the sash, which may be opened by means of hinges affixed to the vertical edge.

Casing: Molding of various widths and thicknesses used to trim door and window openings at the jambs.

Cement, Keene's: A white finish plaster that produces an extremely durable wall. Because of its density, it excels for use in bathrooms and kitchens and is also used extensively for the finish coat in auditoriums, public buildings, and other places where walls may be subjected to unusually hard wear or abuse.

Checking: Fissures that appear with age in many exterior paint coatings at first superficial, but which in time may penetrate entirely through the coating.

Checkrails: Meeting rails sufficiently thicker than a window to fill the opening between the top and bottom sash made by the parting stop in the frame of double-hung windows. They are usually beveled.

Collar Beams: Nominal 1- or 2-inch thick members connecting opposite roof rafters. They serve to stiffen the roof structure.

Column: In architecture: A perpendicular supporting member, circular or rectangular in section, usually consisting of a base, shaft, and capital. In engineering, a vertical structural compression member that supports loads acting in the direction of its longitudinal axis.

Combination Doors or Windows: Combination doors or windows used over regular openings. They provide winter insulation and summer protection and often have self-storing or removable glass and screen inserts. This eliminates the need for handling a different unit each season.

Concrete Plain: Concrete either without reinforcement, or reinforced only for shrinkage or temperature changes.

Condensation: In a building: Beads or drops of water (and frequently frost in extremely cold weather) that accumulate on the inside of the exterior covering of a building when warm, moisture-laden air from the interior reaches a point where the temperature no longer permits the air to sustain the moisture it holds. Use of louvers or attic ventilators will reduce moisture condensation in attics. A vapor barrier under the gypsum lath or dry wall on exposed walls will reduce condensation in them.

Conduit, Electrical: A pipe, usually metal, in which wire is installed.

Construction Dry-Wall: A type of construction in which the interior wall finish is applied in a dry condition, generally in the form of sheet materials or wood paneling, as contrasted to plaster.

Construction Frame: A type of construction in which the structural parts are wood or depend upon a wood frame for support. In codes, if masonry veneer is applied to the exterior walls, the classification of this type of construction is usually unchanged.

Coped Joint: See Scribing.

Corbel Out: To build out one or more courses of brick or stone from the face of a wall to form a support of timbers.

Corner Bead: A strip of formed sheet metal, sometimes combined with a strip of metal lath, placed on corners before plastering to reinforce them. Also, a strip of wood finish three-quarters-round or angular placed over a plastered corner for protection.

Corner Boards: Used as trim for the external corners of a house or other frame structure against which the ends of the siding are finished.

Corner Braces: Diagonal braces at the corners of frame structure to stiffen and strengthen the wall.

Cut-in Brace: Nominal 2-inch inch members, usually 2 by 4's, cut in between each stud diagonally.

Cornerite: Metal-mesh lath cut into strips and bent to a right angle. Used in interior corners of walls and ceilings on lath to prevent cracks in plastering.

Cornice: Overhang of a pitched roof at the eave line, usually consisting of a facia board, a soffit for a closed cornice, and appropriate moldings.

Cornice Return: That portion of the cornice that returns on the gable end of a house.

Counterflashing: A flashing usually used on chimneys at the roofline to cover shingle flashing and to prevent moisture entry.

Cove Molding: A molding with a concave face used as trim or to finish interior corners.

Crawl Space: A shallow space below the living quarters of a basementless house, normally enclosed by the foundation wall.

Cricket: A small drainage-diverting roof structure of single or double slope placed at the junction of larger surfaces that meet at an angle, such as above a chimney.

Cross-Bridging: Diagonal bracing between adjacent floor joists, placed near the center of the joist span to prevent joists from twisting.

Crown Molding: A molding used on cornice or wherever an interior angle is to be covered.

D: See Penny.

Dado: A rectangular groove across the width of a board or plank. In interior decoration; a special type of wall treatment.

Decay: Disintegration of wood or other substances through the action of fungi.

Deck paint: An enamel with a high degree of resistance to mechanical wear designed for use on such surfaces as porch floors.

Density: The mass of substance in a unit volume. When expressed in the metric system, it is numerically equal to the specific gravity of the same substance.

Dewpoint: Temperature at which a vapor begins to deposit as a liquid. Applies especially to water in the atmosphere.

Dimensions: See Lumber dimension.

Direct Nailing: To nail perpendicular to the initial surface or to the junction of the pieces joined. Also termed face nailing.

Doorjamb Interior: The surrounding case into which and out of which a door closes and opens. It consists of two upright pieces, called side jambs, and a horizontal head jamb.

Dormer: An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.

Downspout: A pipe, usually of metal, for carrying rainwater from roof gutters.

Dressed and Matched (Tongued and Grooved): Boards or planks machined in such a manner that there is a groove on one edge and a corresponding tongue on the other.

Drier Paint: Usually, oil-soluble soaps of such metals as lead, manganese, or cobalt, which, in small proportions, hasten the oxidation and hardening (drying) of the drying oils in paints.

Drip: (a) A member of a cornice or other horizontal exterior finish course that has a projection beyond the other parts for throwing off water. (b) A groove in the underside of a sill or drip cap to cause water to drop off on the outer edge instead of drawing back and running down the face of the building.

Drip Cap: A molding placed on the exterior top side of a door or window frame to cause water to drip beyond the outside of the frame.

Dry-Wall: Interior covering material, such as gypsum board or plywood, which is applied in large sheets or panels.

Ducts: In a house, usually round or rectangular metal pipes for distributing warm air from the heating plant to rooms, or air from a conditioning device or as cold air returns. Ducts are also made of asbestos and composition materials.

Eaves: The margin or lower part of a roof projecting over the wall.

Expansion Joint: A bituminous fiber strip used to separate blocks or units of concrete to prevent cracking due to expansion as a result of temperature changes. Also used on concrete slabs.

Facia or Fascia: A flat board, band, or face, used sometimes by itself but usually in combination with moldings, often located at the outer face of the cornice.

Filler (Wood): A heavily pigmented preparation used for filling and leveling off the pores in open-pored woods.

Fire-Resistive: In the absence of a specific ruling by the authority having jurisdiction, applies to materials for construction not combustible in the temperatures of ordinary fires and that will withstand such fires without serious impairment of their usefulness for at least 1 hour.

Fire-Retardant Chemical: A chemical or preparation of chemicals used to reduce flammability or to retard spread of flame.

Fire Stop: A solid, tight closure of a concealed space, placed to prevent the spread of fire and smoke through such a space. In a frame wall, this will usually consist of 2 by 4 cross blocking between studs.

Fishplate: A wood or plywood pieces used to fasten the ends of two members together at a butt joint with nails or bolts. Sometimes used at the junction of opposite rafters near the ridge line.

Flagstone (Flagging or Flags): Flat stones from 1 to 4 inches thick, used for rustic walks, steps, floors, and the like.

Flashing: Sheet metal or other material used in roof and wall construction to protect a building from water seepage.

Flat Paint: An interior paint that contains a high proportion of pigment and dries to a flat or lusterless finish.

Flue: The space or passage in a chimney through which smoke, gas, or fumes ascend. Each passage is called a flue, which together with any others and the surrounding masonry make up the chimney.

Flue Lining: Fire clay or terra-cotta pipe, round or square, usually made in all ordinary flue sizes and in 2-foot lengths, used for the inner lining of chimneys with the brick or masonry work around the outside. Flue lining in chimneys runs from about a foot below the flue connection to the top of the chimney.

Fly Rafters: End rafters of the gable overhang supported by roof sheathing and lookouts.

Footing: A masonry section, usually concrete, in a rectangular form wider than the bottom of the foundation wall or pier it supports.

Foundation: The supporting portion of a structure below the first-floor construction, or below grade, including the footings.

Framing, Balloon: A system of framing a building in which all vertical structural elements of the bearing walls and partitions consist of single pieces extending from the top of the foundation sill plate to the roofplate and to which all floor joists are fastened.

Framing, Platform: A system of framing a building in which floor joists of each story rest on the top plates of the story below or on the foundation sill for the first story, and the bearing walls and partitions rest on the subfloor of each story.

Frieze: In house construction; a horizontal member connecting the top of the siding with the soffit of the cornice.

Frost Line: The depth of frost penetration in soil. This depth varies in different parts of the country. Footings should be placed below this depth to prevent movement.

Fungi Wood: Microscopic plants that live in damp wood and cause mold, stain, and decay.

Fungicide: A chemical that is poisonous to fungi.

Furring: Strips of wood or metal applied to a wall or other surface to even it and normally to serve as a fastening base for finish material.

Gable: In house construction; the portion of the roof above the eaveline of a double-sloped roof.

Gable End: An end wall having a gable.

Girder: A large or principal beam of wood or steel used to support concentrated loads at isolated points along its length.

Gloss Enamel: A finishing material made of varnish and sufficient pigments to provide opacity and color, but little or no pigment of low opacity. Such an enamel forms a hard coating with maximum smoothness of surface and a high degree of gloss.

Gloss (Paint or Enamel): A paint or enamel that contains a relatively low proportion of pigment and dries to a sheen or luster.

Grain: The direction, size, arrangement, appearance, or quality of the fibers in wood.

Grain, Edge (Vertical): Edge-grain lumber has been sawed parallel to the pith of the log and approximately at right angles to the growth rings, i.e., the rings form an angle of 45 degrees or more with the surface of the piece.

Grain, Flat: Flat-grain lumber has been sawed parallel to the pith of the log and approximately tangent to the growth rings, i.e., the rings form an angle of less than 45 degrees with the surface of the piece.

Grain, Quartersawn: Another term for edge grain.

Grounds: Guides used around openings and at the floorline to strike off plaster. They can consist of narrow strips of wood or of wide subjambs at interior doorways. They provide a level plaster line for installation of casing and other trim.

Grout: Mortar made of such consistency (by adding water) that it will just flow into the joints and cavities of the masonry work and fill them solid.

Gusset: A flat wood, plywood, or similar type member used to provide a connection at intersection of wood members. Most commonly used at joints of wood trusses. They are fastened by, nails, screws, bolts, or adhesives.

Gutter or Eave Trough: A shallow channel or conduit of metal or wood set below and along the eaves of a house to catch and carry off rainwater from the roof.

Gypsum Plaster: Gypsum formulated to be used with the addition of sand and water for base-coat plaster.

Header: (a) A beam placed perpendicular to joists and to which joists are nailed in framing for chimney, stairway, or other opening. (b) A wood lintel.

Hearth: The inner or outer floor of a fireplace, usually made of brick, tile, or stone.

Heartwood: The wood extending from the pith to the sapwood, the cells of which no longer participate in the life processes of the tree.

Hip: The external angle formed by the meeting of two sloping sides of a roof.

Hip Roof: A roof that rises by inclined planes from all four sides of a building.

Humidifier: A device designed to increase the humidity within a room or a house by means of the discharge of water vapor. They may consist of individual room-size units or larger units attached to the heating plant to condition the entire house.

I-Beam: A steel beam with a cross section resembling the letter "I". It is used for long spans as basement beams or over wide wall opening, such as a double garage door, when wall and roof loads are imposed on the opening.

IIC: A new system utilized in the Federal Housing Administration recommended criteria for impact sound insulation.

INR (Impact Noise Rating): A single figure rating which provides an estimate of the impact sound-insulation performance of a floor-ceiling assembly.

Insulation Board, Rigid: A structural building board made of coarse wood or cane fiber in 1/2 and 25/32-inch thicknesses. It can be obtained in various size sheets, in various densities, and with several treatments.

Insulation, Thermal: Any material high in resistance to heat transmission that, when placed in the walls, ceiling, or floors of a structure, will reduce the rate of heat flow.

Interior Finish: Material used to cover the interior framed areas, or material of walls and ceilings.

Jack Rafter: A rafter that spans the distance from the wallplate to a hip, or from a valley to a ridge.

Jamb: The side and head lining of a doorway, window, or other opening.

Joint: The space between the adjacent surfaces of two members or components joined and held together by nails, glue, cement, mortar, or other means.

Joint Cement: A powder that is usually mixed with water and used for joint treatment in gypsum-wallboard finish. Often called "spackle".

Joist: One of a series of parallel beams, usually 2 inches in thickness, used to support floor and ceiling loads, and supported in turn by larger beams, girders, or bearing walls.

Kiln Dried Lumber: Lumber that has been kiln dried often to a moisture content of 6 to 12 percent. Common varieties of softwood lumber, such as framing lumber are dried to a somewhat higher moisture content.

Knot: In lumber, the portion of a branch or limb of a tree that appears on the edge or face of the piece.

Landing: A platform between flights of stairs or at the termination of a flight of stairs.

Lath: A building material of wood, metal, gypsum, or insulation board that is fastened to the frame of a building to act as a plaster base.

Lattice: A framework of crossed wood or metal strips.

Leader: See Downspout.

Ledger Strip: A strip of lumber nailed along the bottom of the side of a girder on which joists rest.

Let-in Brace: Nominal 1-inch thick boards applied into notched studs diagonally.

Light: Space in a window sash for a single pane of glass: Also, a pane of glass.

Lintel: A horizontal structural member that supports the load over an opening such as a door or window.

Lookout: A short wood bracket or cantilever to support an overhang portion of a roof or the like, usually concealed from view.

Louver: An opening with a series of horizontal slats so arranged as to permit ventilation but to exclude rain, sunlight, or vision. See also Attic ventilators.

Lumber: Lumber is the product of the sawmill and planing mill not further manufactured other than by sawing, resawing, and passing lengthwise through a standard planing machine, crosscutting to length, and matching.

Lumber Boards: Yard lumber less than 2 inches thick and 2 or more inches wide**.**

Lumber, Dimension: Yard lumber from 2 inches to, but not including, 5 inches thick and 2 or more inches wide. Includes joists, rafters, studs, plank, and small timbers.

Lumber, Dressed Size: The dimension of lumber after shrinking from green dimension and after matching to size or pattern.

Lumber, Matched: Lumber that is dressed and shaped on one edge in a grooved pattern and on the other in a tongued pattern.

Lumber, Shiplap: Lumber that is edge dressed to make a close rabbeted or lapped joint.

Lumber, Timbers: Yard lumber 5 or more inches in least dimension. Includes beams, stringers, posts, caps, sills, girders, and purlins.

Lumber, Yard: Lumber of those grades, sizes, and patterns, which are generally intended for ordinary construction, such as framework and rough coverage of houses.

Mantel: The shelf above a fireplace. Also used in referring to the decorative trim around a fireplace opening.

Masonry: Stone, brick, concrete, hollow-tile, concrete-block, gypsum-block, or other similar building units or material or a combination of the same, bonded together with mortar to form a wall, pier, buttress, or similar mass.

Mastic: A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or waterproofing).

Metal Lath: Sheets of metal that are slit and drawn out to form openings. Used as a plaster base for walls and ceilings and as reinforcing over other forms of plaster base.

Millwork: Generally all building materials made of finished wood and manufactured in millwork plants and planing mills are included under the term "millwork." It includes such items as inside and outside doors, window and doorframes, blinds, porchwork, mantels, panelwork, stairways, moldings, and interior trim. It normally does not include flooring, ceiling, or siding.

Miter Joint: The joint of two pieces at an angle that bisects the joining angle. For example, the miter joint at the side and head casing at a door opening is made at a 45° angle.

Moisture Content of Wood: Weight of the water contained in the wood, usually expressed as a percentage of the weight of the ovendry wood.

Moldings: A wood strip having a curved or projecting surface used for decorative purposes.

Mortise: A slot cut into a board, plank, or timber, usually edgewise, to receive tenon of another board, plank, or timber to form a joint.

Mullion: A vertical bar or divider in the frame between windows, doors, or other openings.

Muntin: A small member that divides the glass or openings of sash or doors.

Natural Finish: A transparent finish that does not seriously alter the original color or grain of the natural wood. Natural finishes are usually provided by sealers, oils, varnishes, water-repellent preservatives, and other similar materials.

Newel: A post to which the end of a stair railing or balustrade is fastened. Also, any post to which a railing balustrade is fastened.

Nonbearing Wall: A wall supporting no load other than its own weight.

Nosing: The projecting edge of a molding drip. Usually applied to the projecting molding on the edge of a stair tread.

Notch: A crosswise rabbet at the end of a board.

O.C. on Center: The measurement of spacing for studs, rafters, joists, and the like in a building from the center of one member to the center of the next.

O.G. or Ogee: A molding with a profile in the form of a letter "S", having the outline of a reversed curve.

Outrigger: An extension of a rafter beyond the wall line. Usually a smaller member nailed to a larger rafter to form a cornice or roof overhang.

Paint: A combination of pigments with suitable thinners or oils to provide decorative and protective coatings.

Panel: In house construction, a thin flat piece of wood, plywood, or similar material, framed by stiles and rails as in a door or fitted into grooves of thicker material with molded edges for decorative wall treatment.

Paper Building: A general term for papers, felts, and similar sheet materials used in buildings without reference to their properties or uses.

Paper Sheathing: A building material, generally paper or felt, used in wall and roof construction as a protection against the passage of air and sometimes moisture.

Parting Stop or Strip: A small wood piece used in the side and head jambs of double-hung windows to separate upper and lower sash.

Partition: A wall that subdivides spaces within any story of a building.
Penny: As applied to nails, it originally indicated the price per hundred. The term now serves as a measure of nail length and is abbreviated by the letter "d".

Perm: A measure of water vapor movement through a material (grains per square foot per inch of mercury difference in vapor pressure).

Pier: A column of masonry, usually rectangular in horizontal cross section, used to support other structural members.

Pigment: A powdered solid in suitable degree of subdivision for use in paint or enamel.

Pitch: The incline slope of a roof or the ratio of the total rise to the total width of a house, i.e., an 8-foot rise and 24-foot width is a one-third pitch roof. Roof slope is expressed in the inches of rise per foot of run.

Pitch Pocket: An opening extending parallel to the annual rings of growth that usually contains, or has contained, either solid or liquid pitch.

Pith: The small, soft core at the original center of a tree around which wood formation takes place.

Plaster Grounds: Strips of wood used as guides or strike-off edges around window and door openings and at base of walls.

Plate: Sill plate: A horizontal member anchored to a masonry wall. Sole plate: bottom horizontal member of a frame wall. Top plate: Top horizontal member of a frame wall supporting ceiling joists, rafters, or other members.

Plough: To cut a lengthwise groove in a board or plank.

Plumb: Exactly perpendicular; vertical.

Ply: A term to denote the number of thicknesses or layers of roofing felt, veneer in plywood, or layers in built-up materials, in any finished piece of such material.

Plywood: A piece of wood made of three or more layers of veneer joined with glue, and usually laid with the grain or adjoining plies at right angles. Almost always an odd number of plies are use to provide balanced construction.

Pores: Wood cells of comparatively large diameter that have open ends and are set one above the other to form continuous tubes. The openings of the vessels on the surface of a piece of wood are referred to as pores.

Preservative: Any substance that, for a reasonable length of time, will prevent the action of wood-destroying fungi, borers of various kinds, and similar destructive agents when the wood has been properly coated or impregnated with it.

Primer: The first coat of paint in a paint job that consists of two or more coats; also the paint used for such a first coat.

Putty: A type of cement usually made of whiting and boiled linseed oil, beaten or kneaded to the consistency of dough, and used in sealing glass in sash, filling small holes and crevices in wood, and for similar purposes.

Quarter Round: A small molding that has the cross section of a quarter circle.

Rabbet: A rectangular longitudinal groove cut in the corner edge of a board or plank.

Radiant Heating: A method of heating, usually consisting of a forced hot water system with pipes placed in the floor, wall, or ceiling; or with electrically heated panels.

Rafter: One of a series of structural members of a roof designed to support roof loads. The rafters of a flat roof are sometimes called roof joists.

Rafter, Hip: A rafter that forms the intersection of an external roof angle.

Rafter Valley: A rafter that forms the intersection of an internal roof angle. The valley rafter is normally made of double 2-inch thick members.

Rail: Cross members of panel doors or of a sash. Also, the upper and lower members of a balustrade or staircase extending from one vertical support, such as a post, to another.

Rake: Trim members that run parallel to the roof slope and form the finish between the wall and a gable roof extension.

Raw Linseed Oil: The crude product processed from flaxseed and usually without much subsequent treatment.

Reflective Insulation: Sheet material with one or both surfaces of comparatively low heat emissivity, such as aluminum foil. When used in building construction the surfaces face air spaces, reducing the radiation across the air space.

Reinforcing: Steel rods or metal fabric placed in concrete slabs, beams, or columns to increase their strength.

Relative Humidity: The amount of water vapor in the atmosphere, expressed as a percentage of the maximum quantity that could be present at a given temperature. (The actual amount of water vapor that can be held in space increases with the temperature.)

Resorcinol Glue: A glue that is high in both wet and dry strength and resistant to high temperatures. It is used for gluing lumber or assembly joints that must withstand severe service conditions.

Ribbon (Girt): Normally a 1- by 4-inch board let into the studs horizontally to support ceiling or second-floor joists.

Ridge: The horizontal line at the junction of the top edges of two sloping roof surfaces.

Ridge Board: The board placed on edge at the ridge of the roof into which the upper ends of the rafters are fastened.

Rise: In stairs, the vertical height of a step or flight of stairs.

Riser: Each of the vertical boards closing the spaces between the treads of stairways.

Roll Roofing: Roofing material, composed of fiber and saturated with asphalt that is supplied in 36-inch wide rolls with 108 square feet of material. Weights are generally 45 to 90 pounds per roll.

Roof Sheathing: The boards or sheet material fastened to the roof rafters on which the shingle or other roof covering is laid.

Rubber-Emulsion Paint: Paint, the vehicle of which consists of rubber or synthetic rubber dispersed in fine droplets in water.

Run: In stairs, the net width of a step or the horizontal distance covered by a flight of stairs.

Saddle: Two sloping surfaces meeting in a horizontal ridge, used between the back side of a chimney, or other vertical surface, and a sloping roof.

Sand Float Finish: Lime mixed with sand, resulting in a textured finish.

Sapwood: The outer zone of wood, next to the bark. In the living tree it contains some living cells (the heartwood contains none), as well as dead and dying cells. In most species, it is lighter colored than the heartwood. In all species, it is lacking in decay resistance.

Sash: A single light frame containing one or more lights of glass.

Sash Balance: A device, usually operated by a spring or tensioned weather-stripping designed to counterbalance double-hung window sash.

Saturated Felt: A felt that is impregnated with tar or asphalt.

Scratch Coat: The first coat of plaster, which is scratched to form a bond for the second coat.

Screed: A small strip of wood, usually the thickness of the plaster coat, used as a guide for plastering.

Scribing: Fitting woodwork to an irregular surface. In moldings, cutting the end of one piece to fit the molded face of the other at an interior angle to replace a miter joint.

Sealer: A finishing material, either clear or pigmented, that is usually applied directly over uncoated wood for the purpose of sealing the surface.

Seasoning: Removing moisture from green wood in order to improve its serviceability.

Semigloss Paint or Enamel: A paint or enamel made with a slight insufficiency of nonvolatile vehicle so that its coating, when dry, has some luster but is not very glossy.

Shake: A thick handsplit shingle, resawed to form two shakes; usually edge-grained.

Sheathing: The structural covering, usually wood boards or plywood, used over studs or rafters of a structure. Structural building board is normally used only as wall sheathing.

Sheathing Paper: See Paper, sheathing.

Sheet Metal Work: All components of a house employing sheet metal, such as lashing, gutters and downspouts.

Shellac: A transparent coating made by dissolving lac, a resinous secretion of the lac bug (a scale insect that thrives in tropical countries, especially India), in alcohol.

Shingles: Roof covering of asphalt, asbestos, wood, tile, slate, or other material cut to stock lengths, widths, and thicknesses.

Shingles Siding: Various kinds of shingles, such as wood shingles or shakes and nonwood shingles that are used over sheathing for exterior sidewall covering of a structure.

Shiplap: See Lumber, shiplap.

Shutter: Usually lightweight louvered or flush wood or nonwood frames in the form of doors located at each side of a window. Some are made to close over the window for protection and others are fastened to the wall as a decorative device.

Siding: The finish covering of the outside wall of a frame building, whether made of horizontal weatherboards, vertical boards with battens, shingles, or other material.

Siding, Bevel (Lap Siding): Wedge-shaped boards used as horizontal siding in a lapped pattern. This siding varies in butt thickness from 1/2 to 3/4 inch and in widths up to 12 inches. Normally used over some type of sheathing.

Siding, Dolly Varden: Beveled wood siding that is rabbeted on the bottom edge.

Siding, Drop: Usually 3/4 inch thick and 6 and 8 inches wide with tongued-and-grooved or shiplap edges. Often used as siding without sheathing in secondary buildings.

Sill: The lowest member of the frame of a structure, resting on the foundation and supporting the floor joists or the uprights of the wall. The member forming the lower side of an opening, as a door sill, window sill, etc.

Sleeper: Usually, a wood member embedded in concrete, as in a floor, that serves to support and to fasten subfloor or flooring.

Soffit: Usually the underside of an overhanging cornice.

Soil Cover (Ground Cover): A light covering of plastic film, roll roofing, or similar material used over the soil in crawl spaces of buildings to minimize moisture permeation of the area.

Soil Stack: A general term for the vertical main of a system of soil, waste, or vent piping.

Sole or Sole Plate: See Plate.

Solid Ridging: A solid member placed between adjacent floor joists near the center of the span to prevent joists from twisting.

Span: The distance between structural supports such as walls, columns, piers, beams, girders, and trusses.

Splash Block: A small masonry block laid with the top close to the ground surface to receive roof drainage from downspouts and to carry it away from the building.

Square: A unit of measure--100 square feet--usually applied to roofing material. Sidewall coverings are sometimes packed to cover 100 square feet and are sold on that basis.

Stain Shingle: A form of oil paint, very thin in consistency, intended for coloring wood with rough surfaces, such as shingles, without forming a coating of significant thickness or gloss.

Stair Carriage: Supporting member for stair treads. Usually 2-inch plank notched to receive the treads, sometimes called a "rough horse."

Stair Landing: See Landing.

Stair Rise: See Rise.

STC (Sound Transmission Class): A measure of sound stopping of ordinary noise.

Stile: An upright framing member in a panel door.

Stool: A flat molding fitted over the window sill between jambs and contacting the bottom rail of the lower sash.

Storm Sash or Storm Window: An extra window usually placed on the outside of an existing one as additional protection against cold weather.

Story: That part of a building between any floor and the floor or roof next above.

Strip Flooring: Wood flooring consisting of narrow, matched strips.

String, Stringer: A timber or other support for cross members in door or ceilings. In stairs; the support on which the stair treads rest also, stringboard.

Stucco: Most commonly refers to an outside plaster made with Portland cement as its base.

Stud: One of a series of slender wood or metal vertical structural members placed as supporting elements in walls and partitions. (Plural: studs or studding.)

Subfloor: Boards of plywood laid on joists over which a finish floor is to be laid.

Suspended Ceiling: A ceiling system supported by hanging it from the overhead structural framing.

Tail Beam: A relatively short beam or joist supported in a wall on one end and by a header at the other.

Termites: Insects that superficially resemble ants in size, general appearance, and habit of living in colonies; hence, they are frequently call "white ants." Subterranean termites establish themselves in buildings not by being carried in with lumber, but by entering from ground nests after the building has been constructed. If unmolested, they eat out the woodwork, leaving a shell of sound wood to conceal their activities, and damage may proceed so far as to cause collapse of parts of a structure before discovery. There are about 56 species of termites known in the United States; but the two major ones, classified by the manner in which they attack wood, are ground-inhabiting or subterranean termites (the most common) and dry-wood termites, which are found almost exclusively along the extreme southern border and the Gulf of Mexico in the United States.

Termite Shield: A shield, usually of noncorrodible metal, placed in or on a foundation wall or other mass of masonry or around pipes to prevent passage of termites.

Terneplate: Sheet iron or steel coated with an alloy of lead and tin.

Threshold: A strip of wood or metal with beveled edges used over the finished floor and the sill of exterior doors.

Toenailing: To drive a nail at a slant with the initial surface in order to permit it to penetrate into a second member.

Tongued and Grooved: See Dressed and matched.

Tread: The horizontal board in a stairway on which the foot is placed.

Trim: The finish materials in a building, such as moldings, applied around openings (window trim, door trim) or at the floor and ceiling of rooms (baseboard, cornice, and other moldings).

Trimmer: A beam or joist to which a header is nailed in framing for a chimney, stairway, or other opening.

Truss: A frame or jointed structure designed to act as a beam of long span, while each member is usually subjected to longitudinal stress only, either tension or compression.

Turpentine: A volatile oil used as a thinner in paints and as a solvent in varnishes. Chemically, it is a mixture of terpenes.

Undercoat: A coating applied prior to the finishing or top coats of a paint job. It may be the first of two or the second of three coats. In some usage of the word it may become synonymous with priming coat.

Under Layment: A material placed under finished coverings, such as flooring, or shingles, to provide a smooth, even surface for applying the finish.

Valley: The internal angle formed by the junction of two sloping sides of a roof.

Vapor Barrier: Material used to retard the movement of water vapor into walls and prevent condensation in them. Usually considered as having a perm value of less than 1.0. Applied separately over the warm side of exposed walls or as a part of batt or blanket insulation.

Varnish: A thickened preparation of drying oil or drying oil and resin suitable for spreading on surfaces to form continuous, transparent coatings, or for mixing with pigments to make enamels.

Vehicle: The liquid portion of a finishing material; it consists of the binder (nonvolatile) and volatile thinners.

Veneer: Thin sheets of wood made by rotary cutting or slicing of a log.

Vent: A pipe or duct that allows flow of air as an inlet or outlet.

Vermiculite: A mineral closely related to mica, with the faculty of expanding on heating to form lightweight material with insulation quality. Used as bulk insulation and also as aggregate in insulating and acoustical plaster and in insulation concrete floors.

Volatile Thinner: A liquid that evaporates readily and is used to thin or reduce the consistency of finishes without altering the relative volumes of pigments and nonvolatile vehicles.

Wane: Bark, or lack of wood from any cause, on edge or corner of a piece of wood.

Water-Repellent Preservative: A liquid designed to penetrate into wood and impart water repellency and a moderate preservative protection. It is used for millwork, such as sash and frames, and is usually applied by dripping.

Weather-Strip: Narrow or jamb-width sections of thin material or other metal to prevent infiltration of air and moisture around windows and doors. Compression weather stripping prevents air infiltration, provides tension, and acts as a counter balance.

Wood Rays: Strips of cells extending radially within a tree and varying in height from a few cells in some species to 4 inches or more in oak. The rays serve primarily to store food and to transport it horizontally in the tree.

Attachment 15

SAMPLE
BID TABULATION

Name: _____

Address: _____

Phone: _____

1.	Kitchen: Install (2) GFCI in outlets.	_____
2.	Kitchen: Prepare and paint interior of window and trim on (2) doors.	_____
3.	Bathroom: Install GFCI outlet.	_____
4.	Bathroom: Prepare and paint interior of window.	_____
5.	Bathroom: Install new toilet.	_____
6.	SW Bedroom: Install smoke detector in hall.	_____
7.	NW Bedroom: Repair and finish holes in floor.	_____
8.	NW Bedroom: Install new door and finish.	_____
9.	SE Storage Room: Repair and finish ceiling.	_____
10.	SE Storage Room: Install entry door and storm door.	_____
11.	SE Storage Room: Install (4) storm windows.	_____
12.	SE Storage Room: Repair and finish walls.	_____
13.	Heating Equipment: Install forces air furnace and ductwork.	_____
14.	Hot Water Heater: Install drop leg on T & P Valve.	_____
15.	Basement Utility Room: Install cover on open junction box.	_____
16.	Building Exterior: Install vinyl siding to specifications.	_____
17.	Building Exterior: Install gutters on entire house.	_____
18.	Attic: Insulate all attics to R-38, including east storage.	_____
19.	Electric: Rewire house to specifications.	_____
	SUB – TOTAL:	_____
	Cost of LSWP and Clearance	_____
	TOTAL:	_____

NSP/CDBG Housing Quality Standards

I. Introduction

These physical guidelines for the rehabilitation of existing residential properties have been developed to provide minimum design and construction criteria on a statewide basis. The provisions are extended to serve as an important aid in carrying out the objectives of state and local programs for neglected and run-down properties. These objectives seek the large-scale physical, social and economic regeneration of neighborhoods, which have, in general, seriously deteriorated. These Housing Quality Standards are divided into two parts: a) health and safety standards (which includes weatherization) and, b) livability standards. Health and safety standards outline the minimal basic standards to address health and safety issues for the residents of the unit. However, we have not included weatherization into health and safety. The goal of the livability standards is to add 20 years to useful life to the housing unit, addressing issues beyond those considered a health or safety threat. All housing units receiving NSP/CDBG assistance must comply with the health and safety standards; a minimum of 80 percent of funds for housing rehabilitation assistance must be spent to enable a unit to meet the higher standard of livability. If it is determined that a house cannot be brought up to livability standards for the monies available, the sub-grantee should address only the health and safety standards if the sub-grantee's "walk-away" policy does not affect the decision.

The purpose and intent of the guidelines are threefold:

- To assure improved housing that is livable, healthful, safe and physically sound, and at the same time is low enough in cost for present neighborhood residents to afford.
- To provide an acceptable minimum level for residential rehabilitation based on performance, which has maximum flexibility to meet local conditions.
- To encourage innovation and improved technology, which give the promise of reduced construction costs.

A. Contrast with New Construction Standards

These guidelines for rehabilitation are significantly different from standards for new construction. These deteriorating buildings were built many years ago by standards quite different from those practiced today. Former patterns of living and the use of space are now likely to be considered inefficient or inconvenient. Properties, in many cases, will have become substandard because of overcrowding, lack of sanitary conditions and general neglect.

B. Other Codes and Regulations

These guidelines, while setting forth basic objectives and provisions specifically related to rehabilitation, shall not be construed as relieving the property owner, project sponsor or their builder of his/her responsibility for compliance with local ordinances, codes and regulations, including established requirements of health

officers or other authority having jurisdiction.

1. Local Codes - Where a local code, regulation or requirement is incomplete or does not fulfill the purpose and intent of these guidelines, this document or local standards derived from these guidelines shall apply.

2. Fire Administration Authorization Act of 1992 - This Act requires all dwelling units to be equipped with either hard-wired or battery-operated smoke detectors. Refer to this Act for additional guidelines for all housing other than single family dwellings.

II. NSP/CDBG Standards

A. Health and Safety Standards, includes Weatherization

Health and Safety Standards were developed to provide guidelines for the general well-being of the individuals residing in the home. A **maximum** of 20 percent of Housing Rehabilitation Activity funds may be used to meet Health & Safety Standards. NSP/CDBG funds may be spent on emergency issues or for handicap accessibility only, outside of the targeted area. Funds spent outside the target area on emergencies or accessibility must be included in the 20 percent of funds designated for Health & Safety Standards.

1. Utilities: Utilities shall be provided for each property or project, including water sewer, and electrical utilities. Approvable utilities include:

   a. State approved city/Rural Water District (RWD) or county supplied water, sewer, electrical and gas utilities.

   b. Privately owned water, sewer, electrical and gas utilities that have been approved by the state and local public institutions for use for residential dwellings.

   c. For structures connected to an on-site water well, water must be tested and meet water quality standards for drinking water as required by the Kansas Department of Health & Environment (KDHE) for public water supplies; or water supply must be connected to an on-site package disinfecting facility and water must not contain toxic substances determined, in the concentrations present, to be harmful to human health by the KDHE or the Environmental Protection Agency.

   d. For structures connected to existing on-site septic systems, the design of the system shall ensure that effluent from the septic system and disposal field is not discharging into public and private drinking water supplies, stagnating in pools on the surface or backing up into the residences. For septic systems installed, sub-grantees are required to obtain a permit from the applicable state agency involved. Construction specifications shall follow guidelines established by the

applicable state agency.

e. For structures connected to on-site propane tanks, propane lines connecting the tank to the building shall conform to Building Officials and Code Administrators (BOCA) codes.

f. Structures connected to gas, propane, water, electrical or sewer shall be connected with piping or conduit that is not corroded, does not leak, or is otherwise not allowed by these standards. Bare steel gas lines must be inspected for safety by a local gas company and repaired, if necessary. The inspection report must be in each file.

2. Structural: All floors, stairs, ceilings or other load bearing structural members shall be free of hazards that would indicate a potential for the building or individual members of the building to collapse.

3. Roofs: Roofs shall be repaired or replaced if they have serious defects indicating the potential for structural collapse or if they allow the infiltration of significant amounts of water or air. If repaired, all critical joints in exterior roof construction shall be protected by appropriately installed sheet metal, flashing material or rubberized roofing membrane.

4. Weatherization: All water piping in non-insulated spaces shall be insulated so as to keep them from freezing. All foundation and mobile home crawl spaces shall be enclosed to prevent pipes from freezing in the winter. Pipes shall not be insulated with asbestos material. All asbestos insulating material shall be replaced with non-asbestos material or encapsulated with high-temperature paint or other Environmental Protection Agency (EPA) approved material.

5. Lead-Based Paint: The issue of lead-based paint must be addressed in **every** house built prior to 1978 receiving rehabilitation assistance in all HUD programs according to the new regulations that went into effect on September 15, 2000. There are additional notification requirements, new standards that must be met for reduction or abatement of lead-based paint, and safe work practices and clearance must be adhered to in all rehabilitation. See Attachment 20 herein for the new regulations, the new Kansas program regarding certification of lead-based paint professionals, and the Kansas NSP/CDBG policy regarding the costs involved. These lead-based paint regulations are a part of the health and safety NSP/CDBG housing standards and are applicable as to the amount of dollars spent on the housing rehabilitations activity.

6. Heating Appliances: All mechanical equipment shall be inspected for faulty operation, fire and other hazards. Repairs and replacement shall be made as needed and necessary to eliminate the hazard. Heating facilities shall be provided for each living unit. All new installations of heating appliances shall comply with the manufacturer's recommendations for installation and placement. All gas, propane, liquid and solid fuel burning appliances must be vented to the outer air.

Existing masonry chimneys or metal flues shall not have cracks or holes that permit smoke or fumes to be discharged. Deteriorated pipes or chimneys that have been determined by the inspector or the sub-grantee to constitute a potential threat to the safety of the occupant shall be replaced. Existing unlined masonry chimneys which permit flames or fumes to be discharged should be removed and replaced with corrosion-resistant pipe, or, if not replaced, shall be lined with corrosion-resistant pipe one inch less in diameter than the interior of the chimney, or shall be lined with terra cotta. Vent pipes shall slope upward not less than 1/4" per foot.

Any asbestos-containing materials wrapped around vent pipes shall be removed or encapsulated with high temperature paint. Asbestos removal procedures shall conform to EPA regulations.

All heating applications shall be located in unconfined spaces that will provide adequate combustion air as recommended by the manufacturer of the appliances. Located in a confined space, adequate ventilation between the confined area and unconfined space shall be provided to allow adequate combustion air to enter the confined space.

7. Solid Fuel Burning Appliances: All existing chimneys and vents for solid fuel burning appliances shall be cleaned as part of the rehabilitation process. All chimneys and vents for solid fuel burning appliances shall terminate at least two feet above any part of the roof located horizontally with ten feet of the chimney or vent.

    a. Metal Flues: (1) Solid fuel burning appliances (wood, coal, etc.) shall be vented so that single walled pipe shall have at least 16" clearance from combustible material; (2) double walled pipe shall have at least 8" clearance from combustible material; and (3) triple walled pipe shall have at least 2" clearance from combustible material. Double walled insulated stainless steel pipe shall have at least 3" clearance from combustible material. All pipe-venting solid fuel-burning appliances shall have been approved by Underwriters Laboratories to withstand heat of 1,500 degrees or more for three hours. All galvanized pipe shall be of #10 thickness or of superior fire resistance.

    b. Masonry Chimneys: Existing masonry chimneys being used to vent solid fuel burning appliances shall be constructed of at least 8" of solid masonry around the vent below the roof line and 4" of solid masonry around the vent above the roof line. Combustible material above the roofline shall have at least a 2" clearance from a flue built of less than 8" of solid masonry. All such chimneys shall be lined with terra cotta or firebrick.

    c. Placement: Solid fuel burning heaters shall not be placed within 36" of any unprotected walls or within 18" of an unprotected floor. Protection

of walls and floors may be provided with or without ventilated spaces between the protection and the wall. Ventilated spaces shall consist of one-inch space between a listed noncombustible material and the wall. Spacers and ties between the material and the wall shall be noncombustible and shall be resistant to heat conduction. Spacers shall not be placed between the appliance and the wall. With wall protection and ventilated space, clearance between the appliance and the wall may not be less than 12". With wall protection and no ventilated space, clearance between the appliance and wall may not be less than 24" unless more than 4" of solid masonry is used as the protection.

8. Plumbing: Plumbing systems shall operate free of clogging and shall not have cross connections that permit contamination of water supplies or back siphoning between fixtures.

   a. Water and sewer lines shall be free of major leaks that cause serious and persistent levels of rust or contamination of the water, or which damage other elements of the building. All water lines in unheated areas shall be insulated so as to keep them from freezing.

   b. All natural and liquid propane gas piping shall be free of leaks. Pipes feeding each individual gas fueled appliance shall have a shut-off valve. Gas lines shall be free of corrosion that potentially could cause a gas leak soft copper piping and other non-rigid piping shall not be used in replacing and installing natural gas lines. Soft copper piping used in installing or replacing propane gas lines shall not be located in areas where it is accessible to tampering by children or located in passageways where it can be potentially kicked, stepped on or bent, so as to cause leakage of gas around flange connections.

9. Electrical: Existing wiring and electrical equipment, where its continued service is contemplated, shall not be a potential source of electrical hazard or ignition of combustible materials. Wherever potential hazards are determined to be present, replacement of existing wiring or equipment shall be made. Existing facilities that are inadequate to meet anticipated demand shall be replaced to meet that demand. Inadequate facilities include the use of power strips if more than two appliances are used regularly by that outlet. Hazards such as broken wiring, non-insulated wiring, frayed wiring, a light fixture hanging from an electrical wire without other visible means of support, missing cover plates on switches, outlets and junction boxes exposed to the occupants of the dwelling or which are covered with combustible material, knob and tube, aluminum or obsolete wiring systems, badly corroded outlets, exposed fuse box connections, and overloaded circuits evidenced by frequently blown fuses, shall be eliminated.

a. New electrical work shall be installed using the appropriate provisions of the National Electrical Code as it has existed within the last ten years. Not less than two general lighting circuits (15 amp.) and one appliance circuit (20 amp.) shall be provided.

10. Bathroom: Commode: Bathrooms must have a working commode for the exclusive use of the occupant. The commode must be connected to a water supply and sewer. The commode must not leak, have clogged water lines or have a sewer line that is clogged or backs up.

a. Lavatory: Bathrooms must have a fixed wash basin or lavatory that is permanently and securely fastened to the wall. The lavatory must be equipped with hot and cold running water and have a working drain with a gas trap.

b. Bathtubs and Showers: Bathrooms must be equipped with a working tub or shower with hot and cold running water and have a working drain with a gas trap.

11. Termite Treatment: Chemicals applied as a termite treatment shall only be applied to a house by a person that is a licensed commercial applicator. Persons who are licensed shall not assign persons who are not licensed responsibility for treating a house. Sub-grantees shall keep documentation showing that the person chosen to undertake termite treatment is a licensed applicator. EPA has banned use of chlordane; therefore it is also not allowed on NSP/CDBG-funded rehabilitation projects.

12. Materials: All materials shall be installed in locations and for purposes that are recommended by the manufacturer of the materials.

13. Smoke Detectors: All units shall be equipped with at least one hard-wired operating smoke detector (if the unit is being rewired) or a battery-operated smoke detector located near the sleeping quarters, and on each level of the house, including basement.

B. Weatherization: All houses shall be equipped with the following weatherizing improvements:

a. Windows: All windows shall be equipped with two layers of glass (storm windows count as one layer) and glass panes shall be intact. Windows shall not allow the significant entry of air or water into the structure from around the windows, sashes, or window casings. Window casings that are replaced shall be filled with insulation.

b. Doors: All exterior doors shall be weather-stripped. Weather-stripped doors that allow the significant entry of air or water into the structure shall be replaced or repaired to eliminate this problem.

c. Ceiling Insulation: Ceiling insulation shall be provided over all habitable areas. Combustible materials, such as beadboard or styrofoam, shall not be used for attic insulation. All ceilings shall be insulated to at least

R-30 or as can be determined for a particular structure using HUD's Cost Effective Energy Conservation Standards for Rehabilitation Projects.

d. Side Wall Insulation: All side walls shall be insulated to R-11 or better or as can be determined for a particular structure using HUD's Cost Effective Energy Conservation Standards for Rehabilitation Projects. Walls in spaces heated with solid fuel-burning heating appliances are exempt from this requirement. Sidewall insulation shall not be installed using beadboard, styrofoam or other combustible materials. When exterior walls are repaired by, removing existing sheathing or interior wall covering, insulation shall be provided to the exposed portion of the wall cavity; a vapor barrier shall be provided on the warm side of the cavity or furring when insulation is added.

B. Livability Standards

The following livability standards apply to 80 percent of funds for units rehabilitated with NSP/CDBG funds. These standards include all of the provisions listed as "Health and Safety Standards," and all of the provisions listed under this section.

1. Access to the Unit

a. Where access to the structure is outdoors and more than 12" above grade, steps shall be provided for all-weather access to the building and constructed so as to provide safety and reasonable durability.

b. Where access to the unit is on the interior of the structure, each unit shall not have its only access through another unit.

c. A primary entrance readily accessible to the handicapped in accordance with the provisions on ANSI A117.1 shall be provided to any residential structure intended for occupancy by the physically handicapped.

2. Dilapidated Elements: All dilapidated portions of existing properties which are not economically repairable or which are not of historic significance and which pose safety hazards to the occupants of the dwelling shall be removed from the building.

3. Dirt and Debris: Properties that are rehabilitated shall be free of dirt, debris or other unsightly elements that are the result of the rehabilitation process.

4. Space Standards: Each living unit shall be provided with space necessary for suitable sleeping, cooking, dining, storage and sanitary facilities and provide space of such size and dimensions so as to permit placement of furniture and essential equipment. There shall be at least one bedroom for every two residents, a kitchen, living room and bathroom. Minimum sizes for these rooms are as follows:

Room Dimension	Space
Living Room	120 sq. ft.
Bedroom	70 sq. ft.
Bathroom	24 sq. ft.
Kitchen	30 sq. ft.

Total area required:

400 sq. ft. Minimum average ceiling height for all rooms: 7' 2 "

5. Light and Ventilation

   a. Ventilation: Natural ventilation of spaces such as attics, enclosed basements and crawl spaces, shall be provided by openings of sufficient sizes to overcome dampness and minimize the effect of conditions to decay and deterioration of the structure, and prevent excess heat in attics. Exterior openings shall be effectively screened where needed.

   b. Ventilation of utility spaces: Utility spaces which contain solid, liquid or gas-burning heat-producing or air conditioning equipment shall be ventilated to allow adequate combustion air.

   c. Windows: There shall be at least one operable window in the living room and bedrooms. Kitchens and bathrooms not having an operable window shall have a working ventilation system.

6. Doors and Access Openings

   a. Exterior Doors: Exterior doors installed with the use of NSP/CDBG funds shall have safety locks.

   b. Stairways: All stairways shall provide for safety of ascent and descent and shall be equipped with handrails at an appropriate height for the owner of the residence. Risers shall not be more than 12" in height and not less than 10" in width, unless conditions make the installation

of risers less than 12" in height impossible.

7. Structural Components: All structural components of the building shall be in sound condition and considered serviceable for the expected full life of the rehabilitated buildings. Individual structural members in seriously deteriorated condition shall be replaced.

   a. Ceilings: Ceilings shall not have large cracks or holes that allow significant entry of air into the unit. Ceilings shall not buckle or bulge, have missing parts or have loose surface materials other than paper.

   b. Interior Wall Conditions: Interior walls shall not have loose structural members, large holes (over 1" X 1" in size), or allow the significant infiltration of air or water into the structure.

   c. Floor Conditions: Floors shall not have threats to safety (e.g. tripping) or large cracks or holes that allow substantial drafts to enter the structure. Floors shall not significantly move under walking stress and shall not have damaged or missing parts such as: floor joists, band joists, plates and sub-flooring.

   d. Foundations: Foundations shall provide for the adequate support of structural members and loads placed upon them. Foundations shall prevent the entrance of water or excessive moisture. Serious defects shall be repaired and cracks effectively sealed. Foundation walls shall not allow the significant entry of ground water. "Significant" means that the majority of the basement floor or crawl space area is covered with ground water. Any new footings installed shall provide for subsurface drainage away from the foundation.

   e. Drainage: Any deficiencies in proper grading, guttering or paving adjacent to the building shall be corrected to assure surface drainage away from the basement or crawl space.

   f. Exterior Walls: Exterior walls shall provide safe and adequate support for all loads placed upon them and shall prevent the excessive infiltration of air or moisture. Serious defects shall be repaired and cracks effectively sealed.

   g. Roofs: All roofs shall have suitable watertight and reasonably durable covering free of holes, cracks, excessively worn surfaces or other defects that would indicate the potential for significant infiltration of air, water or excessive moisture. Repairs to roofs shall be completed in accordance with new construction standards unless the area to be repaired is less than 1/10 of the surface of the roof. If gutters, soffits, fascia or other elements allow the significant entry of water or air into the structure, they shall be replaced to eliminate this problem. Roofs should not need replacement for at least a five-year period.

8. Kitchens and Baths

   a. Kitchens: Kitchens must be supplied with a sink that has hot and cold running water. Sinks should have a working drain with a gas trap and must be securely fastened to the wall. Kitchens must have a stove or a range with an oven. Top burners and oven must be operable. A refrigerator must be present and working and it must maintain a temperature low enough so that food does not spoil over a reasonable period of time.

   b. Bathrooms: Bathtub and shower bases shall be appropriately sealed to prevent water from damaging the floor. Bathroom floors shall be covered with a waterproof covering. Showers or tubs installed in housing for the elderly and handicapped shall be provided with two grab bars installed to sustain a dead weight of 250 pounds for five minutes. Tub or shower bottom surfaces shall be slip resistant. Shower enclosure areas shall be tiled or covered with a waterproof surface from the floor to five feet above the floor. Barriers shall exist between all drains and water supplies on bathroom fixtures to ensure that wastewater does not flood water supply systems.

9. Plumbing

   a. Domestic Hot Water Heating and Storage: Each building or unit within the building shall have domestic hot water in quantities sufficient for the needs of the occupants. Existing water heating and storage equipment shall be in good serviceable condition. Water heaters shall not be installed in rooms designed and used for sleeping purposes. All fuel-burning water heaters shall be connected to a vent leading to the exterior of the building. As required for venting of heating equipment, vents shall not have cracks or holes that allow fumes to be discharged. All water heaters shall have a shutoff valve on the water supply line close to the heater. All water heaters shall have a temperature/pressure relief valve and discharge pipe.

b. Water and Sewer Lines: All water and sewer lines that have the potential for major leaks that could cause serious and persistent levels of rust or contamination of the water, or which potentially could damage other elements of the building, should be replaced. Sewer lines servicing a building shall be equipped with a clean-out screw. Building wastewater shall be appropriately vented to the outside air to prevent the buildup of gases in the sewer lines. When using NSP/CDBG funding, all water supply lines feeding toilets, sinks, showers, lavatories, hot water heaters and other plumbing fixtures shall be installed with shutoff valves. All lead water and waste disposal lines shall be replaced with non-lead material. Lead-based solder shall not be used to connect copper water supply lines. Gas traps will be provided for washing machine waste disposal lines unless airtight connections have been made.

10. Mechanical: Heating facilities shall be provided for each living unit, which are safe to operate, economical to operate and are free from objectionable drafts. Flue connections shall not allow exhaust gases to enter the living areas. Fuel tanks shall not be in close proximity to heat sources (at least 10 feet, or the standard recommended by the manufacturer or regulating code). Combustible materials shall not be stored in close proximity to heat sources and flues.

11. Electrical: All habitable rooms and other spaces requiring electrical service shall be provided with a system of wiring, wiring devices, and equipment to safely provide electrical energy for proper illumination, appliances, resident security and other electrical equipment. There shall be at least two working outlets or one working outlet and one light switch in kitchens, corridors, bathrooms, bedrooms, utility rooms and living rooms. At least 100 amp.service shall be provided for houses that have 220-volt receptacles.

S A M P L E

Contractor Guidelines
For The (City/County) Of _____
Housing Rehabilitation Program

In order to be eligible to work on houses in the _____ Housing Rehabilitation program, contractors must meet the following program requirements.

I. Contractor Eligibility

A. Contractors are placed on the Bidders List through contact with the City.

C. Contractors may be asked to provide work and credit references.

D. Contractors must have good references.

E. Contractors must be in good standing which means they will not appear on the Department of Labors debarment list.

II. Contractor Requirements

A. Contractors must comply with all federal and state guidelines, rules, regulations and orders issued by the U.S. Department of Housing & Urban Development, the U.S. Department of Labor, and the Kansas Department of Commerce governing the _____ Housing Rehabilitation program.

B. Contractors may not work on more than one house in the City at one time, unless the dollar value of a housing rehabilitation contract is less than $2,500; except under special exceptions granted by the City Council.

C. Contractors shall provide and shall require any subcontractors to provide certificates or other evidence of insurance prior to signing a contract certifying that for the period covered by any contract all contractors and subcontractors carry:

1. Workmen's Compensation Insurance for all owners, employees and employees of subcontractors engaged in work on the premises, in accordance with Kansas Workmen's Compensation Laws.

2. Manufacturers and Contractors Public Liability Insurance with limits of $100,000/$300,000 to protect the contractor, his subcontractors, and the owners, as their interest may appear, against claims for injury to, or death of, one or more than one person, due to accidents which may occur or result from operations under any contract; such insurance shall cover the use of all equipment, machinery, hoists and motor vehicles used in the performance of

work.

3. Property damage insurance in an amount not less than $25,000 to protect the contractor, his subcontractors and the owners, as their interests may appear, from claims for property damage that might arise from operations under any contract.

4. Any and all additional insurance required by the laws of the State of Kansas.

5. Lead Based Paint Certification for themselves, all employees and subcontractors, as applicable by law.

D. An invitation to bid will be sent to all contractors. Those contractors interested will be sent a bid package which will include:

1. Instructions to bidders, which will include bid tour date and bid opening.
2. The final bid specifications for each house.
3. A required Bid Proposal form for each house.
4. General and Material Specifications.
5. A notice of where lead hazards have been identified.
6. A copy of the Construction Contract (for informational purposes only).

E. Contractors send sealed bids to the _____ City Clerk.

F. Bid selection will be determined by the following factors for each house:

1. Lowest bid.
2. Each contractor will only be allowed have two open housing contracts at one time.
3. Low bid on individual line items that is selected for inclusion in the final contract document specifications.
4. Quality of workmanship on previous projects.
5. Performance on previous contracts with federal and state funds.
6. References supplied by the contractor.

G. City Council approves the best bid.

H. Conference is held between the Grant Administrator and the contractor to finalize the contract specifications, contract terms and to go over federal and state rules, regulations, and laws. Contract specifications may need to be revised due to a maximum allowable limit per house placed on grants to home owners. The contract specifications will contain only the highest priority repairs on each house.

I. Conference is held between the Grant Administrator, the contractor and the homeowner to sign the contract and issue the Notice to Proceed.

Attachment 18

S-A-M-P-L-E
Rehabilitation or Demolition Contract

THIS AGREEMENT, made and entered into this ____day of _____, 20 _____, ,by and between _____, hereinafter called the "Contractor", _____, hereinafter called the "Owner", _____, hereinafter _____hereinafter called the "City". In consideration of the mutual promises and agreements contained herein, the undersigned Contractor, Owner and City agree as follows:

I. The Contractor shall comply with the following provisions:

A. Labor, Materials, and Work Write-Up:

Furnish all labor, materials, supervision and services necessary to do the work specified in the "Work Write-Up" attached and made a part hereof for the total sum of $_____

B. Notice to Proceed:

Not to begin the work to be performed until receipt of Written Notice to Proceed, after which the Contractor shall begin the work within 10 calendar days of the date of said Notice, and shall complete said work within _____ calendar days thereafter.

C. Specifications - Codes and Regulations:

Comply with all appropriate specifications and codes referred to and with all regulations, ordinances and laws of the City of _____ , the State of Kansas, and the federal government, and permit reasonable inspection of all work by authorized inspectors.

D. Insurance:

1. The Contractor shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's execution of the work, whether such execution be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

    a. Claims for damages because of bodily injury, occupational sickness or diseases, or death of his employees;

    b. Claims for damages because of bodily injury, sickness or disease, or death of any persons other than his employees;

    c. Claims for damages insured by usual personal injury liability coverage that are sustained 1) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor,

or 2) by any other person;

d. Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom; and

e. Bodily injury insurance shall be, at a minimum, in the amount of $100,000.

2. Certificates of Insurance acceptable to the City shall be filed with the City prior to commencement of the work. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least fifteen (15) days prior Written Notice has been given to the City.

3. The Contractor shall procure and maintain, at his own expense, during the contract time, public liability insurance as required by the city, at a minimum, in the amount of $300,000.

4. The Contractor shall procure and maintain, at his own expense, during the contract time, in accordance with the provisions of the laws of the State in which the work is performed, Workmen's Compensation insurance, including occupational disease provisions, for all of his employees at the site of the project and in case any work is sublet, the Contractor shall require such Subcontractor similarly to provide Workmen's Compensation insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this Contract at the site of the project is not protected under Workmen's Compensation statute, the Contractor shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

E. Lead Based Paint Prohibition:

The Contractor shall not use or subcontract to a Contractor that uses lead based paint having more than 6/100 of 1 percent lead content by weight in the performance of this contract. Contractors shall comply with the provisions of 29 CFR Part 1926, governing the protection of workers dealing with lead painted surfaces. The Contractor shall contact the city's inspector before disturbing any surfaces painted with lead paint and shall ensure that proper procedures are in place to protect the Contractor's employees and the occupants of the house.

F. Permits and Licenses:

Obtain and pay for all permits and licenses necessary for the completion and execution of the work and labor to be performed.

G. Debris and Material Removal:

Keep the premises clean and orderly during the course of the work and remove all debris as it accumulates. Materials and equipment that have been removed and replaced as part of the work shall belong to the Contractor, unless specifically spelled-out otherwise in the "Work Write-Up".

H. Assignments and Subcontractors:

Shall not assign the Contract or subcontract any portion of this Contract without written consent of the Project Administrator. The request for the assignment must be addressed to the Project Administrator, _____
The Contractor is responsible for all work carried out by any Subcontractor.

I. Subcontractors to City Officials:

Shall not subcontract any part of the work to be performed under this Contract to any member, officer or employee of the city or its designees or agents, no member of the governing body of said City, and no other public official of such locality who exercises any functions or responsibilities with respect to the Rural Development program giving rise to this contract during his or her tenure or for one year thereafter.

J. Guaranty:

The Contractor shall guarantee all materials and equipment furnished and work performed for a period of one (1) year from the date of final inspection. The Contractor warrants and guarantees for a period of one (1) year from the date of final inspection of the system that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred.

K. Correction of Work:

1. The Contractor shall promptly remove from the premises all work rejected by the Inspector for failure to comply with the contract documents, whether incorporated in the construction or not, and the Contractor shall promptly replace and re-execute the work in accordance with the contract documents and without expense to the Owner and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement.

2. All removal and replacement work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected work within ten (10) days after receipt of Written Notice, the City may remove such work and store materials at the expense of the Contractor.

L. Suspension of Work - Termination and Delay:

1. The City may suspend the work or any portion thereof for a period of not more than ninety (90) days or such further time as agreed upon by the Contractor, by Written Notice to the Contractor, which notice shall fix the date on which work shall be resumed. The Contractor will resume that work on the date so fixed.

   The Contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension.

2. If the Contractor is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the Contractor or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficiently skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to Subcontractors for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the work, or if he disregards the authority of the Project Administrator, or if he otherwise violates any provision of the contract documents, then the City may, without prejudice to any other right or remedy and after giving the Contractor and his surety a minimum of ten (10) days from delivery of a Written Notice, terminate the services of the Contractor and take possession of the Project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, and finish the work by whatever method he may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price exceeds the direct and indirect costs of completing the project, including compensation for direct costs of completing the project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the contractor's bond or the Contractor will pay the difference to the City. Such costs incurred by the City will be determined by the Project Administrator and incorporated in a Change Order.

3. Where the Contractor's services have been so terminated by the City, said termination shall not affect any right of the Owner against the Contractor then existing of which may thereafter accrue. Any retention or payment of monies by the City due the Contractor will not release the Contractor from compliance with the contract documents.

4. After ten (10) days from delivery of a Written Notice to the Contractor, the City may, without cause and without prejudice to any other right or remedy, elect to abandon the Project and terminate the Contract. In such case, the Contractor shall be paid for all work executed and any expense sustained plus

reasonable profit.

5. If, through no act or fault of the Contractor, the work is suspended for a period of more than ninety (90) days by the City or under an order of court or other public authority, or the City fails to act on any request for payment within thirty (30) days after it is submitted, or the City fails to recommend payment to the Contractor substantially the sum approved by the Project Administrator or awarded by arbitrators within thirty (30) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a Written Notice to

   the Owner and Project Administrator, terminate the Contract and recover from the City payment for all work executed and expenses sustained. In addition and in lieu of terminating the Contract, if the Project Administrator has failed to act on a request for payment or if the City has failed to make any payment aforesaid, the Contractor may upon ten (10) days Written Notice to the Owner and the City stop the work until he has been paid all amounts then due, in which event and upon resumption of the work, Change Orders shall be issued for adjusting the contract price or extending the contract time of both to compensate for the costs and delays and attributable to stoppage of the work.

6. If the performance of all or any portion of the work is suspended, delayed, or interrupted as a result of a failure of the Owner or City to act within the time specified in the contract documents, or if no time is specified, within a reasonable time, an adjustment in the contract price or an extension of the contract time, or both, shall be made by Change Order to compensate the Contractor for the costs and delays necessarily caused by the failure of the Owner or City.

M. Payments to Contractor:

1. At least ten (10) days before any payment is to be requested, the Contractor will submit to the Project Administrator a payment request filled out and signed by the Contractor covering the work performed and supported by lien releases covering all supplies, labor and/or Subcontractors used in the completion of the rehabilitation project. The City may authorize a draw at 50 percent completion of the work, with 10 percent retainage withheld in emergency situations. However, normally the City will make a single payment upon completion. Lien releases must be provided prior to any payment being made to the Contractor.

2. A request for 50 percent payment may also include an allowance for the cost of such major materials and equipment that are suitably stored either at or near the site, if lien releases are provided for the material and equipment stored.

3. Prior to substantial completion, the Owner, with the approval of the Project Administrator and with the concurrence of the Contractor, may use any

completed or substantially completed portions of the work. Such use shall not constitute an acceptance of such portions of the work.

4. The Owner shall have the right to enter the premises for the purpose of doing work not covered by the Contract documents. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the work or the restoration of any damaged work except for what may be caused by agents or employees of the Owner.

5. Upon completion and acceptance of the work the Project Administrator shall issue a certificate attached to the final payment request that the work has been accepted by him under the conditions, of the contract documents. The entire balance found to be due the Contractor, including the retained percentages, but
except such sums as may be lawfully retained by the City, shall be paid to the Contractor, within thirty (30) days of completion and acceptance of the work, if the Contractor has provided all required lien releases and has signed a certification that all materials, laborers and/or Subcontractors have been paid in full.

6. The Contractor hereby identifies and saves the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, tools, and all supplies incurred in furtherance of the performance of the work. The Contractor shall, at the Owner or City's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the Contractor fails to do so, the City may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged, whereupon payment to the Contractor shall be resumed, in accordance with the terms of the contract documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, his surety, or any third party. In paying any unpaid bills of the Contractor, any payment so made by the City shall be considered as a payment made under the contract documents by the City to the Contractor, and the City shall not be liable to the Contractor for any such payments made in good faith.

7. If the City fails to make payment thirty (30) days after approval by the Project Administrator, in addition to other remedies available to the Contractor, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until, the payment is received by the Contractor.

N. Acceptance of Final Payment as Release:

The acceptance by the Contractor of final payment shall be and shall operate as a release to the City and Owner of all claims and all liability to the Contractor other than claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this work and other relating to or arising out of this work. Any payment, however, final or otherwise, shall not release the Contractor or his sureties from any obligations under the contract documents.

O. Changes in the Work:

1. The City or Project Administrator may at any time, as the need arises, order changes within the scope of the work without invalidating the Agreement. If such changes increase or decrease the amount due under the contract documents, or in the time required authorized by Change Order, the City shall review and give final approval to all Change Orders.

2. The Project Administrator, also, may at any time, by issuing a Field Order, make changes in the details of the work. The Contractor shall proceed with the performance of any changes in the work so ordered by the Project Administrator.

P. Changes in Contract Price:

The Contract price may be changed only by a Change Order. The value of any work covered by a Change Order or of any claim for increase or decrease in the Contract price shall be determined by one or more of the following methods in the order of precedence listed below:

1. Unit prices previously approved.

2. An agreed lump sum.

3. The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the work to cover the cost of general overhead and profit.

Q. Time for Completion and Liquidated Damages:

1. The date of beginning and the time for completion of the work are essential conditions of the contract documents and the work embraced shall be commenced on a date specified in the Notice to Proceed.

2. The Contractor will proceed with the work at such rate of progress to ensure full completion within the contract time. It is expressly understood and agreed, by and between the Contractor and the City, that the contract time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

3. If the Contractor shall fail to complete the work within the contract time or extension of time granted by the City, then the Contractor may be required to pay to the City the amount of $50/day for liquidated damages as specified in the Bid for each calendar day that the Contractor shall be in default after the time stipulated in the contract documents.

4. The Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following, and the Contractor has promptly given Written Notice of such delay to the City or Project Administrator.

   a. To any, preference priority, or allocation order duly issued by the Owner;

   b. To unforeseeable causes beyond the control and without the fault of negligence of the Contractor, including but not restricted to, acts of God or of the public enemy, acts of the Owner, acts of another Contractor in the performance of an Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics,

      quarantine restrictions, strikes, freight embargoes and abnormal and unforeseeable weather; and

   c. To any delays of Subcontractors occasioned by any of the causes specified in paragraphs 4a and 4b of this article.

R. Equal Employment Opportunity, Nondiscrimination and Minority Business Enterprise Utilization:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to race, color, religion, sex or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

3. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the Contract Compliance Officer advising the said labor union or workers' representative of the Contractor's commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The Contractor will comply with all provisions of Executive Order 11426, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The Contractor will furnish all information and reports required by Executive Order 11246, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the Department and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared to be ineligible for further government contracts in accordance with procedures authorized in Executive Order 11246, or as otherwise provided by law.

7. The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246, so that such provision will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Department may direct as means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event a Contractor becomes involved in or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by the Department, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

8. The Contractor will make affirmative efforts to utilize minority business enterprises for suppliers and Subcontractors and will document his efforts to the City.

S. Training and Employment of Lower Income Residents of Project Area:

1. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 170 1 u. Section 3 requires that to the greatest extent feasible, opportunities for training and employment be given lower income residents of the project area and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by persons residing in, the area of the project.

2. The parties to this Contract will comply with the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary of Housing and Urban Development and all applicable rules and orders of the Department issued thereunder prior to the execution of this Contract. The parties to this Contract certify and agree that they are under no contractual or other disability that would prevent them from complying with these requirements.

II. The Owner Shall:

A. Not permit or make any changes or additions to the plans and specifications without written approval of the City.

B. Permit the Contractor to use, at no cost, existing utilities such as light, heat, power and water necessary to the carrying out and completion of work.

C. Cooperate with the Contractor to facilitate the performance of the work including the removal and replacement of rugs, coverings and furnishings as necessary.

D. Abide by the terms of this Contract and allow the rehabilitation to be carried out in accordance with city codes and federal regulations.

III. General Provisions:

A. This Contract embodies all of the representatives, rights, duties and obligations of the parties, and any prior oral or written agreement not embodied herein shall not be binding upon or endure to the benefit of any of the parties.

B. The Contractor agrees to perform the work required by this Contract, and the Owner agrees that neither he nor the members of his family, his tenants, agents or employees will hinder the Contractor in his work or the Project Administrator in carrying out HUD requirements and city codes and policies.

C. No member, officer or employee of the Sub-grantee, or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one (1) year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed in connection with the program assisted under the Agreement.

THIS CONTRACT AND ALL TERMS AND CONDITIONS CONTAINED HEREIN ARE APPROVED AND ACCEPTED AS OF THE DATE FIRST ABOVE WRITTEN.

Contractor	Owner
By	Renter (if applicable)
Address	Address
Telephone	Telephone
	Mayor or Authorized City Official, Housing Rehabilitation Program

Attachment 19

Lien Prevention Document

(Part 1)

SUB-GRANTEE: _____

ADDRESS: _____

NSP/CDBG PROJECT #: _____

PROPERTY NUMBER OR NAME: _____

PROPERTY ADDRESS: _____

Contractor, _____ has entered into a contract with the city of to complete rehabilitation work contracted for at the above referenced property address.

Contractor understands that the city requires a disclosure by the contractor of all suppliers and subcontractors who will furnish labor, equipment, material or supplies, used or consumed to complete the rehabilitation work contracted for at the above referenced property address.

Contractor does hereby certify and disclose the following suppliers and subcontractors who will provide services at the above referenced property address.

Company Name: _____ List the type of services or product supplied:
Address: _____
_____
City: _____
State: _____
Zip: _____
Name of Owner/President:
_____
_____
Phone Number: _____

Company Name: _____ List the type of services or product supplied:
Address: _____
_____
City: _____
State: _____
Zip: _____
Name of Owner/President:
_____
_____
Phone Number: _____

If, during the course of the rehabilitation project, a Contractor utilizes the services of any supplier or contractor other than those previously disclosed, that Contractor will be required to make full disclosure of the company name, address, phone number and services provided to the grant administrator immediately.

Contractor certifies that there are no other suppliers and/or subcontractors that will perform services in connection with the above described property.

Contractor understands that final payment in the amount of _____ , verifies that all suppliers and subcontractors have been paid by the Contractor for the services to above described property.

FURTHER AFFIANT SAITH NOT.

_____
Signature

_____
Date

Now, on this _____ day of _____ , 2007, before me, a notary public

in and for the state of Kansas aforesaid, came _____ (Contractor), known to me to be the person who executed the about document and upon oath states that statements made herein are true and correct.

Sworn and subscribed before me this _____ day of _____ , 2007.

NOTARY: _____

My appointment expires: _____

Lien Prevention Document

(Part 2)

SUB-GRANTEE: _____

ADDRESS: _____

NSP/CDBG PROJECT #: _____

PROPERTY NUMBER OR NAME: _____

PROPERTY ADDRESS: _____

I, _____ , was a sub-contractor/supplier for rehabilitation of the above referenced address.

I, provided the following service in the completion of the above project:

I, do hereby certify that I have been **paid in full** for all the labor/materials stated above and have made full disclosure of all goods and services provided to the shown property.

I, the PROJECT ADMINISTRATOR, have verified to the best of my knowledge that this contractor has made full disclosure:

_____ _____

DATE SIGNATURE

_____

Notary Public

LEAD-BASED PAINT REQUIREMENTS

I. NEW FEDERAL REGULATION

On September 15, 1999, HUD issued a new Federal lead-based paint regulation implementing Title X of the Housing and Community Development Act of 1992. This new regulation makes many important changes in the lead-based paint requirements applicable to housing funded through HUD, including the NSP/CDBG program, HOME program, McKinney Act Homeless programs and other HUD Community Planning and Development (CPD) programs. All requirements of the new regulation go into effect on September 15, 2000. For NSP/CDBG, this means all new housing grants awarded after that date carry the new regulation requirements. A glossary of lead terms is included at the back of this section.

Exemptions under the new lead-based paint regulations are:

- Residential structures built after January 1, 1978;
- Emergency action activities;
- Rehabilitation that does not disturb paint;
- Unoccupied units that will be demolished;
- and Elderly and disabled housing that is for the sole use of such persons.

The major types of requirements under the new lead-based paint regulations are as follows:

- Notification identification of defective paint surfaces
- Treatment of defective paint surfaces
- Response to Elevated Blood Level (EBL) children
- Other lead-based paint requirements
- Occupant protection
- Worker protection
- Work area containment
- Document maintenance/Clearance

In contrast to past regulations, these new requirements differ depending on the nature of the **activity** that a sub-grantee is undertaking rather than the program funding source, the amount of Federal funding in a project, and the duration of the Federal Government's relationship with the sub-grantee. Attachment 1 is a summary of the lead-based paint requirements by activity. For purposes of clarifying as much as possible, all further discussion will relate to NSP/CDBG requirements only. "NSP/CDBG requirements" are identified in Attachment 19-1 as those rehabilitation projects costing between $5,000 and $25,000. (However, should a sub-grantee expend any monies below or above those amounts on any one housing rehabilitation project, the requirements of the activities for those amounts would be applicable.)

Attachment 20-1

	<$5,000	$5,000 - $25,00	>$25,000
Approach to Lead Hazard Evaluation and Reduction	1. Do no harm	2. Identify and control lead hazards	3. Identify and abate lead hazards
Notification	Yes	Yes	Yes
Lead Hazard Evaluation	● Paint Testing of surfaces to be distributed by rehabilitation	● Paint Testing of surfaces to be distributed by rehabilitation ● Risk assessment	● Paint Testing of surfaces to be distributed by rehabilitation ● Risk assessment
Lead Hazard Reduction	● Repair surfaces distributed during rehabilitation ● Safe work practices ● Clearance of work site	● Interim Controls ● Safe work practices ● Clearance of unit	● Abatement ● Safe work practices ● Clearance of unit
Ongoing Maintenance	For HOME rental properties only	For HOME Rental properties only	For HOME rental properties only
EIBLL	No	No	No
Options	● Presume lead-based paint ● Use safe work practices on all surfaces	● Presume lead-based paint and/or hazards ● Use standards treatments	● Presume lead-based paint and/or hazards ● Abate all applicable surfaces

A. Notification:

Four types of notification are applicable for NSP/CDBG:

1. The currently used EPA pamphlet found herein, "Protect Your Family From Lead in Your Home," is still applicable to be distributed to all units built before 1978. Evidence of distribution should be maintained in the sub-grantee's files.

2. Once the home has been inspected according to the requirements of the activity, the sub-grantee must issue a notice to the homeowner/occupant no later than 15 days after a lead hazard evaluation report has been received and leadbased paint or hazards found. A notice of presumption is required if the sub-grantee chooses the option of presuming that lead-based paint exists. (See Options for Implementing, page 133.) This is called a Notice of Evaluation/Presumption/Risk Assessment. The notice of evaluation results must include a) the date of the notice; b) a summary of the nature and scope of the evaluation (or presumption); c) a contact name, address and phone number for more information; d) the results of the evaluation; and e) a contact name, address and phone number to obtain the actual report. If lead-based paint is presumed, the notice needs only to include the first three items above.

3. Notice of Clearance. This notice informs the homeowner/tenant that clearance has been achieved and it is safe for them to reoccupy the construction area. This should be given as soon as clearance has been achieved.

4. No later than 15 days after lead hazard reduction activities have been completed, a sub-grantee must provide a Notice of Lead Hazard Reduction/Clearance Report to the homeowner/occupant which includes a) a summary of the nature, scope and results of the hazard reduction activities, including the clearance results; b) a contact name, address and phone number for more information; and c) available information on the location of remaining lead-based paint on a surface-by-surface basis. The notice of reduction activity must be updated periodically (not applicable to NSP/CDBG unless a multi-unit building is involved); is a readable size and type; provided upon request in a format readable for persons with disabilities; provided in the occupant's primary language or the language of their contract or lease; and distributed to each affected unit.

   NOTE:The homeowner should be educated that if they decide to sell or rent the home disclosure of lead presence must be provided at the time of sell/rental.

B. Identification of defective paint surfaces:

Defective paint surfaces must be evaluated using one of four methods described below. This is, again, according to the activity being conducted and the cost of the rehabilitation.

Visual Assessment: A visual assessment for deteriorated paint consists of a visual search for cracking, scaling, peeling, or chipping paint. Visual assessments must be conducted by persons trained to identify deteriorated paint.

Paint Testing: Paint testing entails testing painted surfaces to determine if it contains lead-based paint using methods such as an XRF analyzer or laboratory analysis. Paint testing differs from a lead-based paint inspection, which is a surface-by-surface investigation to determine the presence of lead-based paint. Typically, the XRF analyzer is used for an inspection. It is presumed in the Kansas NSP/CDBG program at this stage that laboratory analysis will be more prevalent due partially to the cost of the XRF analyzer. *A list of approved laboratories can be obtained from Commerce.* Because an inspection evaluates all painted surfaces, it is more comprehensive than lead-based paint testing. Certified paint inspectors or risk assessors must conduct paint testing.

Risk Assessment: A risk assessment is a comprehensive investigation of a dwelling to identify lead-based paint hazards that includes paint testing, dust and soil sampling, and a visual evaluation. Risk assessment results are summarized in a written report with recommendations for action.

Lead Hazard Screen: A lead hazard screen is similar to a risk assessment. The sampling is less extensive, but the requirements are more stringent.

Risk assessments and lead hazard screens must be conducted by certified risk assessors.

C. Treatment of Defective Paint Surfaces:

There are **four approaches to implementing lead hazard evaluation** and reduction:

Approach 1, Do No Harm: This approach is intended to allow low-cost repairs and other work to proceed without costly lead-based paint requirements yet, at the same time, to prevent lead-based paint hazards from being created while that work is being done. It does not determine if a whole dwelling unit or property is "lead-safe" because clearance is conducted only for the worksite.

Approach 2, Identify and Stabilize Deteriorated Paint: This approach provides assurance that lead-based paint has been stabilized and the unit is "lead safe" because clearance is conducted for the whole unit. However, it does not prevent the reappearance of lead-based paint hazards. Thus, ongoing maintenance is required when there is an ongoing relationship with HUD. (This is usually related to multi-unit housing receiving ongoing funding from a HUD program such as Section 8 subsidy.)

Approach 3, Identify and Control Lead-Based Paint Hazards: This approach provides assurance that lead-based paint hazards have been eliminated. As in Approach 2, clearance is conducted for the whole unit. Ongoing maintenance is still required when there is an ongoing relationship with HUD because interim controls are not permanent.

Approach 4, Identify and Abate Lead-Based Paint Hazards: This approach is used when Federal funds are used to make a substantial investment in the property. Long-term hazards control measures (abatement) are implemented to help ensure that the unit remains lead-safe.

The above approaches are included in Attachment 20-2 herein. You will note on Attachment 20-1 that **Approach 3** is *the applicable approach to the majority of NSP/CDBG projects.*

According to the Approach required, there are **four reduction methods** for lead-based paint:

Paint Stabilization: This lead hazard reduction method reduces exposure to lead-based paint by addressing deteriorated paint on exterior and interior surfaces through repairs, safe paint removal and repainting or abatement.

Interim Controls: Interim controls temporarily reduce exposure to lead-based paint hazards through repairs, painting, maintenance, special cleaning, occupant protection measures, clearance and education programs. Interim control methods require safe practices and include:

- **Paint Stabilization:** All deteriorated paint on exterior and interior surfaces must be stabilized through repairs, safe paint removal and repainting.

- **Treatment for Friction and Impact Surfaces:** If lead-based paint is found and exceeds acceptable levels or is presumed, the conditions creating friction or impact with surfaces with lead-based paint such as those that rub, bind or crush must be corrected. Examples of this work include rehanging binding doors, installing doorstops or reworking windows.

- **Treatment for Chewable Surfaces:** If a child under age six has chewed surfaces known to contain lead-based paint or if lead-based paint is presumed, these surfaces must be enclosed or coated so they are impenetrable.

- **Lead Contaminated Dust Control:** All horizontal surfaces that are rough, pitted, or porous such as bare floors, stairs, window sills and window troughs must be covered with a smooth, cleanable covering or coating such as metal coil stock, plastic, polyurethane, or linoleum. Carpeting must be vacuumed or rugs must be removed and vacuumed on both sides. Vacuuming must be done using HEPA vacuums.

- **Lead Contaminated Soil Control:** If soil is lead-contaminated, interim controls that may be used include permanent surface coverings such as gravel, bark and sod as well as land use controls such as fencing, landscaping, and warning signs.

Standard Treatments: In some cases, standard treatments may be conducted in lieu of interim controls on all applicable surfaces, including soil, to control lead-based paint hazards that may be present. All standard treatment methods must follow the same safe work practice and clearance requirements that apply to interim control activities. These methods include:

- **Paint Stabilization:** All deteriorated paint on exterior and interior surfaces must be stabilized through repairs, safe paint removal and repainting or abatement.

- **Smooth and Cleanable Horizontal Surfaces:** All horizontal surfaces that are rough, pitted or porous such as bare floors, stairs, window sills and window troughs must be covered with a smooth, cleanable covering or coating such as metal coil stock, plastic, polyurethane or linoleum.

- **Correcting Dust-Generating Conditions:** All conditions that generate lead contaminated dust such as those that rub, bind or crush surfaces with leadbased paint must be corrected. Examples include rehanging doors, installing doorstops or reworking windows

Bare Residential Soil: Soil is addressed using interim control methods including impermanent surface coverings such as gravel, bark and sod as well as land use controls such as fencing, landscaping and warning signs.

Abatement: Abatement permanently removes lead-based paint and lead-based paint hazards by removing lead-based paint and its dust, or permanently encapsulating or enclosing the lead-based paint, replacing components with lead-based paint, and removing or permanently covering lead-contaminated soil. Encapsulation and enclosure require ongoing maintenance to check their effectiveness.

Attachment 20-2

FOUR APPROACHES TO IMPLEMENTING LEAD HAZARD EVALUATION AND REDUCTION

APPROACH 1. DO NO HARM		
Lead Hazard Evaluation	**Lead Hazard Reduction**	**Options**
Paint testing performed on surfaces to be disturbed.	Repair surfaces disturbed during work. Safe work practices used when working on areas identified as lead-based paint. Clearance performed on work site.	Presume lead based paint is present and use safe work practices on all surfaces being disturbed.
APPROACH 2. IDENTIFY AND STABILIZE DETERIORATED PAINT		
Lead Hazard Evaluation	**Lead Hazard Reduction**	**Options**
Visual assessment performed to identify deteriorated paint.	Paint stabilization of identified deteriorated paint. Safe work practices used. Clearance performed unit-wide.	Perform paint testing on deteriorated paint. Safe work practice requirements only apply to lead based paint.
APPROACH 3. IDENTIFY AND CONTROL LEAD HAZARDS		
Lead Hazard Evaluation	**Lead Hazard Reduction**	**Options**
Paint testing performed on surfaces to be disturbed. Risk assessment performed on entire dwelling.	Interim controls performed on identified hazards. Safe work practices used. Clearance performed unit-wide.	Presume lead based paint and/or lead based paint hazards are present and perform standard treatments.
APPROACH 4. IDENTIFY AND ABATE LEAD HAZARDS		
Lead Hazard Evaluation	**Lead Hazard Reduction**	**Options**
Paint testing performed on surfaces to be disturbed. Risk Assessment performed on entire dwelling.	Abatement performed on identified hazards. Interim controls performed on identified hazards on the exterior that are not disturbed by rehabilitation. Safe work practices used. Clearance performed unit-wide.	Presume lead based paint and/or lead based paint hazards are present and perform abatement on all applicable surfaces - Deteriorated, impact, friction, chewable surfaces and surfaces to be disturbed.

Options for Implementing the New Lead Hazard Reduction Requirements

The new regulation provides options for implementing lead hazard reduction requirements to allow sub-grantees the flexibility to implement the most cost effective method.

Standard Treatments: When an activity requires a risk assessment followed by interim controls, the designated party may opt to simply presume that lead-based paint hazards exist rather than incurring the cost of the risk assessment. In such a case, standard treatments will be conducted in lieu of interim controls on all applicable surfaces, including soil, to control lead-based paint hazards that may be present. All standard treatment methods must follow the same safe work practice and clearance requirements that apply to interim control activities. Standard treatment methods are described herein.

Abatement: If a risk assessment and abatement are required, the designated party may presume that lead-based paint and/or lead-based paint hazards exist. In such a case, abatement must then be conducted on all applicable surfaces, including soil, to permanently control lead-based paint hazards that may be present. Applicable surfaces include any surface to be disturbed, as well as friction, impact, chewable and deteriorated surfaces.

D. Response to Elevated Blood Level (EBL) Children:

Response to elevated blood level in children, regardless of age, is no longer required in NSP/CDBG rehabilitation projects under the new regulations. See Attachment 1 for applicability.

E. Other Lead-Based Paint Requirements:

This section described those practices that must be conducted during lead hazard reduction work that involves surfaces with presumed or identified lead-based paint.

Occupant Protection

Appropriate actions must be taken to protect occupants from lead-based paint hazards associated with lead hazard reduction activities.

- Occupants may not enter the worksite during lead hazard reduction activities. Reentry is permitted only after lead hazard reduction activities are completed and the dwelling has passed a clearance examination.
- Occupants of the unit must be temporarily relocated to a suitable unit that is decent, safe, sanitary and free of lead-based paint hazards during lead hazard reduction activities. Relocation must be done before lead hazard reduction activities begin.
- Property owners must protect occupants' belongings from lead contamination during lead hazard reduction activities by relocating or covering and sealing them and ensure that the worksite is secured against entry during non-working hours until the unit passes a clearance examination.

Under certain conditions, occupant relocation is not required. These conditions are:

1. Treatment will not disturb lead-based paint or lead-contaminated dust.

2. Treatment of the interior will be completed within one period in eight daytime hours, the site will be contained, and the work will not create other safety,health, or environmental hazards.

3. Only the building's exterior is treated; the windows, doors, ventilation intakes,and other openings near the worksite are sealed during hazard reductionactivities and cleaned afterward; and a lead-free entry is provided.

4. Treatment will be completed within five calendar days; the work area is sealed; at the end of each day, the area within 10 feet of the containment area is cleared of debris; at the end of each day, occupants have safe access to sleeping areas, bathrooms and kitchen facilities; treatment does not create other safety, health or environmental hazards.

Worker Protection/Work Area Containment

The worksite for lead hazard reduction activities must be prepared to prevent the release of leaded dust and debris.

- Workers must use safe work practices that minimize the spread of leaded dust, paint chips, soil and debris.

- Warning signs are required at each entry to a room where lead hazard reduction activities are conducted when occupants are present; at the main and secondary entryways to a building from which occupants have been relocated; and at exterior worksites at a size and type readable from 20 feet (six meters) from the edge of the worksite. Signs need to be in the occupants' primary language to the extent practicable.

Prohibited Methods of Paint Removal

The methods, which may not be used at any time for work on surfaces known or suspected to contain lead-based paint, are:

- Open flame burning or torching.

- Machine sanding or grinding without a high-efficiency particulate air (HEPA) local exhaust control.

- Abrasive blasting or sandblasting without HEPA local exhaust control.

- Heat guns operating above 1,100 degrees Fahrenheit, or those that operate high enough to char the paint.

- Dry sanding or dry scraping. **NOTE:** Four exceptions to this prohibition are: 1) dry scraping in conjunction with heat guns; 2) dry scraping within 1.0 ft. (0.20 m.) of electrical outlets; 3) treating deteriorated paint spots that total no more than 2 ft. square (0.2 m square) in any one interior room or space; or 4) treating deteriorated paint spots that total no more than 20 ft. square (2.0 m square) on exterior surfaces.

- Paint stripping in a poorly ventilated space using a volatile stripper that is a hazardous substance in accordance with regulations of the Consumer Product Safety Commission at 16 CFR 1500.3, and/or a hazardous chemical in accordance with the Occupational Safety and Health Administration at 29 CFR 1010.1200 or 1926.59, as applicable to the work.

  NOTE: Methylene chloride paint strippers may cause cancer and should be avoided. Use of these strippers is prohibited by some jurisdictions.

Worksite Cleanup

Worksite cleanup removes dust and debris from the work area. Good cleanup is critical to passing clearance and leaving the unit safe for habitation.

Worksite cleanup must be done using methods, products and devices that are successful in cleaning lead-contaminated dust, such as vacuum cleaners with HEPA filters or equivalent equipment, and household or lead-specific detergents or equivalent products.

Safe Work Practice Exemptions

Safe work practices are not required:

- If paint has been tested and found to be lead-free; or
- If maintenance or lead hazard reduction activities disturb a total surface area that is less than the following standards:
  - 20 ft. square (2 m square) on exterior surfaces;
  - 2 ft. square (0.2 m square) on any one interior room or space; or
  - 10 percent of the total surface areas on an interior or exterior type of component with a small surface area like windowsills, baseboards, and trim.

Document Maintenance - Clearance

A clearance examination involves a visual assessment and dust testing to determine if the unit is safe for occupancy.

Clearance must be performed by a certified risk assessor or certified lead-based paint inspector. In cases where a sub-grantee or property owner uses in-house employees to perform lead hazard reduction work, in-house employees may conduct both lead hazard reduction activities and clearance, as long as the same employees do not conduct both. If an outside party is hired, the parties conducting the lead hazard reduction activities and clearance must be independent of each other.

Exemption

Clearance is not required:

- If maintenance or a lead hazard reduction activity at a worksite does not disturb painted surfaces; or
- If the total area disturbed does not exceed the footage listed above under exemptions to safe work practices.

Clearance Standards

If the test results equal or exceed the designated standards, the dwelling unit, worksite or common area fails the clearance examination. The clearance standards are:

	Floors, (ug/ft.sq.)	Interior Window Sills, (ug/ft. sq.)	Window Troughs, (ug/ft. sq.)
Lead in Dust (as measured by a dust wipe sample)	40	250	400

Report

The clearance examiner must prepare a clearance report. If lead hazard reduction activities other than abatement are performed, a clearance report must be prepared as described in the table below. If abatement is conducted, a certified supervisor or project designer must prepare an abatement report as described below.

Clearance Report	Abatement Report
Property address:	Property address:
- Date of clearance examination - Name, address and signature of each person performing the clearance examination including certification number - Visual assessment results - Dust sample analysis, in ug/sq.ft., by location - Name and address of each laboratory that conducted the dust sample analysis, including their identification number	- Date of clearance testing - Name, address and signature of each certified risk assessor or inspector conducting clearance sampling - Clearance testing results and all soil analyses (If applicable) and the name of each recognized laboratory that conducted the analyses
Hazard reduction or maintenance information: - Start and completion dates of hazard reduction of maintenance activity. - Name and address of each firm or organization conducting the hazard reduction or maintenance activity, and the name of each supervisor assigned. - A detailed, written description of the hazard reduction or maintenance activity, to include: Methods used: locations of exterior surfaces or soil; interior rooms, common areas; and/or components where the hazard reduction activity occurred, and any suggested monitoring of encapsulates or enclosures.	Abatement information: - Start and completion dates of abatement - Name and address of each certified firm conducting the abatement, and the name of each supervisor assigned to the abatement project. - Occupant protection plan. - A detailed, written description of the abatement, to include: Methods used: locations of rooms; and/or components where abatement occurred, the reason for selecting particular abatements methods for each component and any suggested monitoring of encapsulates or enclosures.

Unit Fails Clearance

If a unit fails a clearance examination, the unit must be recleaned and retested until clearance is achieved.

II. LICENSING KANSAS LEAD PROFESSIONALS

Kansas Statutes K.A.R. 27-72-1 through 28-72-22, effective November 8, 1999, are the rules and regulations governing the Kansas Childhood Lead Poisoning Prevention Program, which also includes the rules pertaining to licensing lead professionals in the State of Kansas. The Kansas Department of Health & Environment, Bureau of Consumer Health, Childhood Lead Poisoning Prevention Program, is the entity responsible for the licensing of all training firms and training programs in Kansas. Anyone wishing to perform lead inspections and/or risk assessments in Kansas must be trained by an accredited training provider and licensed by the Kansas Childhood Lead Poisoning Prevention Program. Information regarding accredited training providers and licensing by the State of Kansas may be obtained by contacting KDHE at (785) 368-7154 or applications may be obtained by accessing their web site at http://www.kdhe.state.ks.us/lead/forms.html.

III. KANSAS NSP/CDBG POLICY ON LEAD-BASED PAINT REQUIREMENTS (Effective 9-15-2000)

As stated previously, the lead-based paint regulations discussed above apply to all contracts awarded to communities after September 15, 2000.

The State of Kansas NSP/CDBG program will allow a maximum of $3,100 per housing unit for meeting these new lead-based paint regulations. This allowance is in addition to the maximum allowable per unit rehabilitation allowance. The maximum of $3,100 will include all lead-based paint inspection requirements and any measures taken to address lead reduction and clearance. (This does not include relocation costs.) If more than $3,100 is needed on a single unit, approval must be obtained from Commerce. It is important that costs are tracked on this new regulation in order to determine its impact on our rehabilitation program. Each sub-grantee is asked to keep the lead-based paint inspection costs separate from the monies spent on the work items. This will be monitored for during the grant period. The maximum of $3,100 per unit will be a separate line item activity on the sub-grantee budget form.

"LEAD SPEAK" A BRIEF GLOSSARY

COMMON LEAD-BASED PAINT TERMS

Lead-Based Paint: Paint that contains at least 1 milligram per centimeter square (mg/cm) of lead. Also measured as greater than 0.5 percent lead or has 5,000 parts per million (ppm) lead by dry weight.

Lead-Based Paint Hazards: Housing conditions that cause human exposure to unsafe levels of lead from paint. These conditions include deteriorated lead-based paint; friction, impact or chewable painted surfaces; lead-contaminated dust; or lead-contaminated soil.

Lead Hazard Evaluation

Visual Assessment: A visual evaluation of interior and exterior painted surfaces to identify specific conditions that contributes to lead-based paint hazards. A certified risk assessor or Housing Quality Standards (HQS) inspector trained in visual assessment performs the assessment.

Paint Testing: Testing of specific surfaces, by XRF (x-ray fluorescence) or lab analysis, to determine the lead content of these surfaces, performed by a certified lead-based paint inspector or certified risk assessor.

Risk Assessment: A comprehensive evaluation for lead-based paint hazards that includes paint testing, dust and soil sampling, and a visual evaluation. The risk assessment report identifies lead hazards and appropriate lead hazard reduction methods. A certified risk assessor must conduct the assessment.

Lead Hazard Screen: A limited risk assessment activity that can be performed instead of a risk assessment in units that meet certain criteria (e.g. good condition). A certified risk assessor must perform the screen. If the unit fails the lead hazard screen, a full risk assessment must be performed.

Clearance Examination: Clearance is performed after hazard reduction, rehabilitation or maintenance activities to determine if a unit is safe for occupancy. It involves a visual assessment analysis of dust and soil samples and preparation of a report. A certified risk assessor, paint inspector or clearance technician (independent from entity/individual conducting paint stabilization or hazard reduction) conducts clearance.

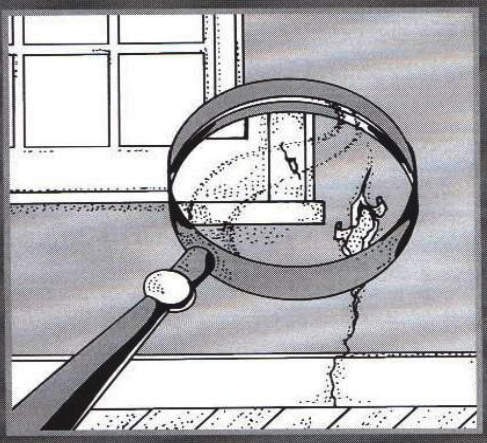
Lead Hazard Reduction

Paint Stabilization: An interim control method that stabilizes painted surfaces and addressed the underlying cause of deterioration: Steps include repairing defective surfaces, removing loose paint and applying new paint.

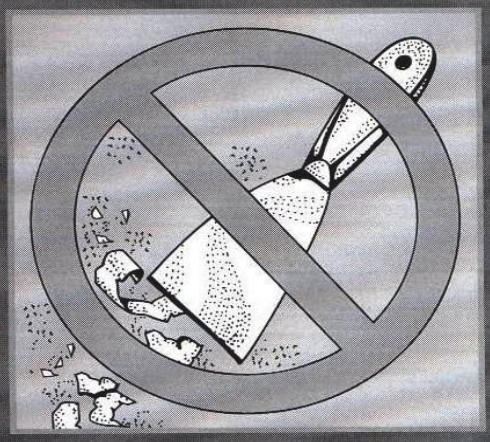
Interim Controls: Set of measures to temporarily control lead-based paint hazards. Qualified workers using safe work practices must complete interim control methods. Follow-up monitoring is needed.

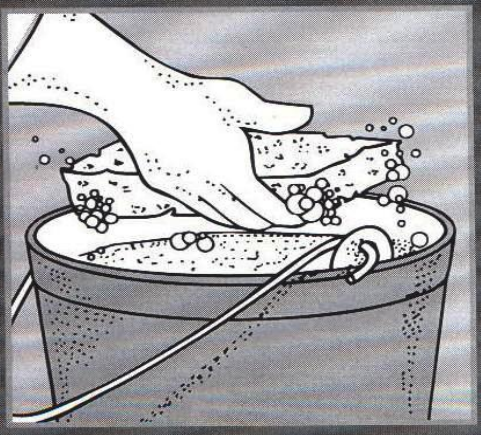
Standard Treatments: A complete set of interim control methods that when used together temporarily control all potential lead hazards in a unit. Because they address all conditions, a risk assessment or other evaluation is not needed. Qualified workers using safe work practices must complete standard treatments. As with interim controls, follow-up monitoring is needed.

Abatement: Measures to permanently control lead-based paint or lead-based paint hazards.



Protect Your Family From Lead In Your Home





United States Environmental Protection Agency

United States Consumer Product Safety Commission

United States Department of Housing and Urban Development

Simple Steps To Protect Your Family From Lead Hazards

If you think your home has high levels of lead:

- Get your young children tested for lead, even if they seem healthy.
- Wash children's hands, bottles, pacifiers, and toys often.
- Make sure children eat healthy, low-fat foods.
- Get your home checked for lead hazards.
- Regularly clean floors, window sills, and other surfaces.
- Wipe soil off shoes before entering house.
- Talk to your landlord about fixing surfaces with peeling or chipping paint.
- Take precautions to avoid exposure to lead dust when remodeling or renovating (call 1-800-424-LEAD for guidelines).
- Don't use a belt-sander, propane torch, high temperature heat gun, scraper, or sandpaper on painted surfaces that may contain lead.
- Don't try to remove lead-based paint yourself.

Recycled/Recyclable
Printed with vegetable oil based inks on recycled paper (minimum 50% postconsumer) process chlorine free.

Are You Planning To Buy, Rent, or Renovate a Home Built Before 1978?

Many houses and apartments built before 1978 have paint that contains high levels of lead (called lead-based paint). Lead from paint, chips, and dust can pose serious health hazards if not taken care of properly.

OWNERS, BUYERS, and RENTERS are encouraged to check for lead (see page 6) before renting, buying or renovating pre-1978 housing.

Federal law requires that individuals receive certain information before renting, buying, or renovating pre-1978 housing:

LANDLORDS have to disclose known information on lead-based paint and lead-based paint hazards before leases take effect. Leases must include a disclosure about lead-based paint.

SELLERS have to disclose known information on lead-based paint and lead-based paint hazards before selling a house. Sales contracts must include a disclosure about lead-based paint. Buyers have up to 10 days to check for lead.

RENOVATORS disturbing more than 2 square feet of painted surfaces have to give you this pamphlet before starting work.

IMPORTANT!

Lead From Paint, Dust, and Soil Can Be Dangerous If Not Managed Properly

FACT: Lead exposure can harm young children and babies even before they are born.

FACT: Even children who seem healthy can have high levels of lead in their bodies.

FACT: People can get lead in their bodies by breathing or swallowing lead dust, or by eating soil or paint chips containing lead.

FACT: People have many options for reducing lead hazards. In most cases, lead-based paint that is in good condition is not a hazard.

FACT: Removing lead-based paint improperly can increase the danger to your family.

If you think your home might have lead hazards, read this pamphlet to learn some simple steps to protect your family.

Lead Gets in the Body in Many Ways

Childhood lead poisoning remains a major environmental health problem in the U.S.

Even children who appear healthy can have dangerous levels of lead in their bodies.

People can get lead in their body if they:

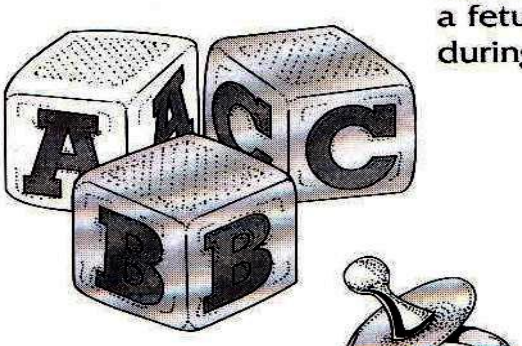
- Breathe in lead dust (especially during renovations that disturb painted surfaces).
- Put their hands or other objects covered with lead dust in their mouths.
- Eat paint chips or soil that contains lead.

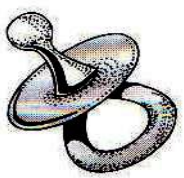
Lead is even more dangerous to children under the age of 6:

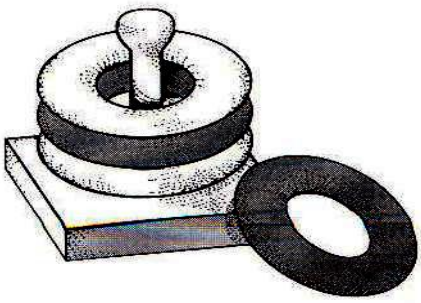
- At this age children's brains and nervous systems are more sensitive to the damaging effects of lead.
- Children's growing bodies absorb more lead.
- Babies and young children often put their hands and other objects in their mouths. These objects can have lead dust on them.

Lead is also dangerous to women of childbearing age:

- Women with a high lead level in their system prior to pregnancy would expose a fetus to lead through the placenta during fetal development.







Lead's Effects

It is important to know that even exposure to low levels of lead can severely harm children.

In children, lead can cause:

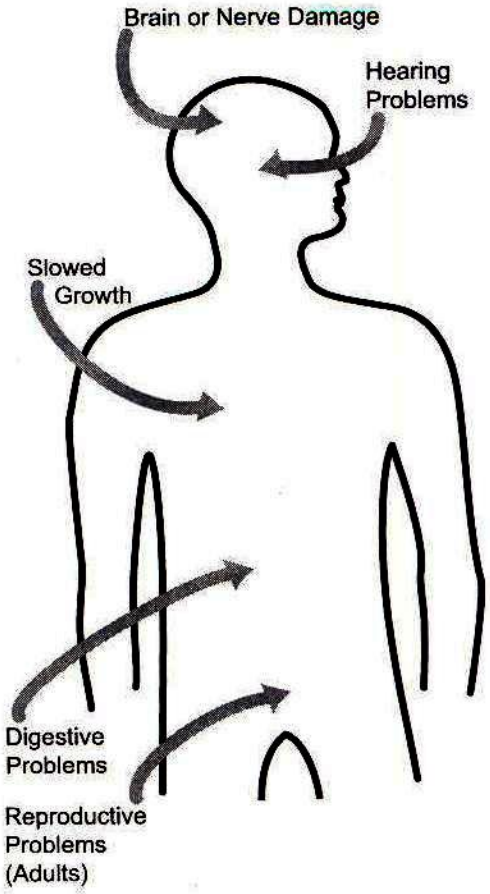
- Nervous system and kidney damage.
- Learning disabilities, attention deficit disorder, and decreased intelligence.
- Speech, language, and behavior problems.
- Poor muscle coordination.
- Decreased muscle and bone growth.
- Hearing damage.

While low-lead exposure is most common, exposure to high levels of lead can have devastating effects on children, including seizures, unconsciousness, and, in some cases, death.

Although children are especially susceptible to lead exposure, lead can be dangerous for adults too.

In adults, lead can cause:

- Increased chance of illness during pregnancy.
- Harm to a fetus, including brain damage or death.
- Fertility problems (in men and women).
- High blood pressure.
- Digestive problems.
- Nerve disorders.
- Memory and concentration problems.
- Muscle and joint pain.



Lead affects the body in many ways.

Where Lead-Based Paint Is Found

In general, the older your home, the more likely it has lead-based paint.

Many homes built before 1978 have lead-based paint. The federal government banned lead-based paint from housing in 1978. Some states stopped its use even earlier. Lead can be found:

- In homes in the city, country, or suburbs.
- In apartments, single-family homes, and both private and public housing.
- Inside and outside of the house.
- In soil around a home. (Soil can pick up lead from exterior paint or other sources such as past use of leaded gas in cars.)

Checking Your Family for Lead

Get your children and home tested if you think your home has high levels of lead.

To reduce your child's exposure to lead, get your child checked, have your home tested (especially if your home has paint in poor condition and was built before 1978), and fix any hazards you may have. Children's blood lead levels tend to increase rapidly from 6 to 12 months of age, and tend to peak at 18 to 24 months of age.

Consult your doctor for advice on testing your children. A simple blood test can detect high levels of lead. Blood tests are usually recommended for:

- Children at ages 1 and 2.
- Children or other family members who have been exposed to high levels of lead.
- Children who should be tested under your state or local health screening plan.

Your doctor can explain what the test results mean and if more testing will be needed.

Identifying Lead Hazards

Lead-based paint is usually not a hazard if it is in good condition, and it is not on an impact or friction surface, like a window. It is defined by the federal government as paint with lead levels greater than or equal to 1.0 milligram per square centimeter, or more than 0.5% by weight.

Lead from paint chips, which you can see, and lead dust, which you can't always see, can both be serious hazards.

Deteriorating lead-based paint (peeling, chipping, chalking, cracking or damaged) is a hazard and needs immediate attention. It may also be a hazard when found on surfaces that children can chew or that get a lot of wear-and-tear, such as:

- Windows and window sills.
- Doors and door frames.
- Stairs, railings, banisters, and porches.

Lead dust can form when lead-based paint is scraped, sanded, or heated. Dust also forms when painted surfaces bump or rub together. Lead chips and dust can get on surfaces and objects that people touch. Settled lead dust can re-enter the air when people vacuum, sweep, or walk through it. The following two federal standards have been set for lead hazards in dust:

- 40 micrograms per square foot ($\mu g/ft^2$) and higher for floors, including carpeted floors.
- 250 $\mu g/ft^2$ and higher for interior window sills.

Lead in soil can be a hazard when children play in bare soil or when people bring soil into the house on their shoes. The following two federal standards have been set for lead hazards in residential soil:

- 400 parts per million (ppm) and higher in play areas of bare soil.
- 1,200 ppm (average) and higher in bare soil in the remainder of the yard.

The only way to find out if paint, dust and soil lead hazards exist is to test for them. The next page describes the most common methods used.

Checking Your Home for Lead

Just knowing that a home has lead-based paint may not tell you if there is a hazard.

You can get your home tested for lead in several different ways:

- A paint **inspection** tells you whether your home has lead-based paint and where it is located. It won't tell you whether or not your home currently has lead hazards.
- A **risk assessment** tells you if your home currently has any lead hazards from lead in paint, dust, or soil. It also tells you what actions to take to address any hazards.
- A combination risk assessment and inspection tells you if your home has any lead hazards and if your home has any lead-based paint, and where the lead-based paint is located.

Hire a trained and certified testing professional who will use a range of reliable methods when testing your home.

- Visual inspection of paint condition and location.
- A portable x-ray fluorescence (XRF) machine.
- Lab tests of paint, dust, and soil samples.

There are state and federal programs in place to ensure that testing is done safely, reliably, and effectively. Contact your state or local agency (see bottom of page 11) for more information, or call **1-800-424-LEAD (5323)** for a list of contacts in your area.

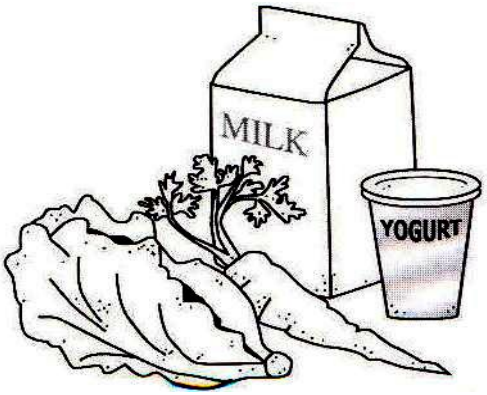
Home test kits for lead are available, but may not always be accurate. Consumers should not rely on these kits before doing renovations or to assure safety.

What You Can Do Now To Protect Your Family

If you suspect that your house has lead hazards, you can take some immediate steps to reduce your family's risk:

- **If you rent, notify your landlord of peeling or chipping paint.**
- **Clean up paint chips immediately.**
- **Clean floors, window frames, window sills, and other surfaces weekly**. Use a mop or sponge with warm water and a general all-purpose cleaner or a cleaner made specifically for lead. REMEMBER: NEVER MIX AMMONIA AND BLEACH PRODUCTS TOGETHER SINCE THEY CAN FORM A DANGEROUS GAS.

- **Thoroughly rinse sponges and mop heads after cleaning dirty or dusty areas**.
- **Wash children's hands often, especially before they eat and before nap time and bed time.**
- **Keep play areas clean.** Wash bottles, pacifiers, toys, and stuffed animals regularly.
- **Keep children from chewing window sills or other painted surfaces.**
- **Clean or remove shoes before entering your home to avoid tracking in lead from soil.**

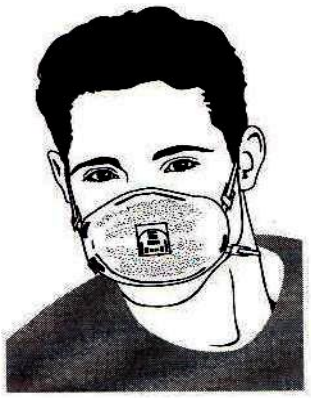


- **Make sure children eat nutritious, low-fat meals high in iron and calcium,** such as spinach and dairy products. Children with good diets absorb less lead.

Reducing Lead Hazards In The Home

Removing lead improperly can increase the hazard to your family by spreading even more lead dust around the house.

Always use a professional who is trained to remove lead hazards safely.



In addition to day-to-day cleaning and good nutrition:

- You can **temporarily** reduce lead hazards by taking actions such as repairing damaged painted surfaces and planting grass to cover soil with high lead levels. These actions (called "interim controls") are not permanent solutions and will need ongoing attention.
- To **permanently** remove lead hazards, you should hire a certified lead "abatement" contractor. Abatement (or permanent hazard elimination) methods include removing, sealing, or enclosing lead-based paint with special materials. Just painting over the hazard with regular paint is not permanent removal.

Always hire a person with special training for correcting lead problems—someone who knows how to do this work safely and has the proper equipment to clean up thoroughly. Certified contractors will employ qualified workers and follow strict safety rules as set by their state or by the federal government.

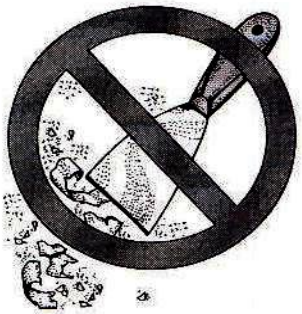
Once the work is completed, dust cleanup activities must be repeated until testing indicates that lead dust levels are below the following:

- 40 micrograms per square foot ($\mu g/ft^2$) for floors, including carpeted floors;
- 250 $\mu g/ft^2$ for interior windows sills; and
- 400 $\mu g/ft^2$ for window troughs.

Call your state or local agency (see bottom of page 11) for help in locating certified professionals in your area and to see if financial assistance is available.

Remodeling or Renovating a Home With Lead-Based Paint

Take precautions before your contractor or you begin remodeling or renovating anything that disturbs painted surfaces (such as scraping off paint or tearing out walls):

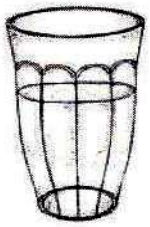


- **Have the area tested for lead-based paint.**
- **Do not use a belt-sander, propane torch, high temperature heat gun, dry scraper, or dry sandpaper** to remove lead-based paint. These actions create large amounts of lead dust and fumes. Lead dust can remain in your home long after the work is done.
- **Temporarily move your family** (especially children and pregnant women) out of the apartment or house until the work is done and the area is properly cleaned. If you can't move your family, at least completely seal off the work area.
- **Follow other safety measures to reduce lead hazards.** You can find out about other safety measures by calling 1-800-424-LEAD. Ask for the brochure "Reducing Lead Hazards When Remodeling Your Home." This brochure explains what to do before, during, and after renovations.

If not conducted properly, certain types of renovations can release lead from paint and dust into the air.

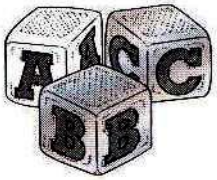
If you have already completed renovations or remodeling that could have released lead-based paint or dust, get your young children tested and follow the steps outlined on page 7 of this brochure.

Other Sources of Lead



While paint, dust, and soil are the most common sources of lead, other lead sources also exist.

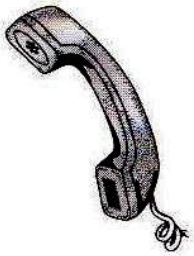
- **Drinking water.** Your home might have plumbing with lead or lead solder. Call your local health department or water supplier to find out about testing your water. You cannot see, smell, or taste lead, and boiling your water will not get rid of lead. If you think your plumbing might have lead in it:
  - Use only cold water for drinking and cooking.
  - Run water for 15 to 30 seconds before drinking it, especially if you have not used your water for a few hours.
- **The job.** If you work with lead, you could bring it home on your hands or clothes. Shower and change clothes before coming home. Launder your work clothes separately from the rest of your family's clothes.



- Old painted **toys** and **furniture.**
- Food and liquids stored in **lead crystal** or **lead-glazed pottery or porcelain.**
- **Lead smelters** or other industries that release lead into the air.

- **Hobbies** that use lead, such as making pottery or stained glass, or refinishing furniture.
- **Folk remedies** that contain lead, such as "greta" and "azarcon" used to treat an upset stomach.

For More Information



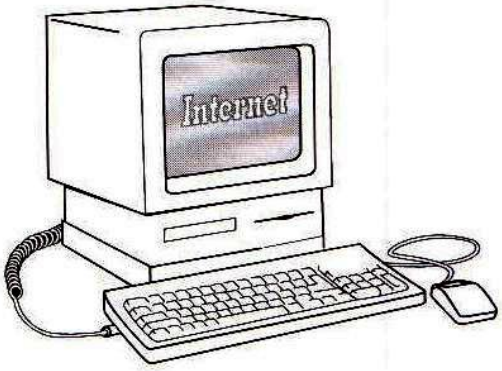
The National Lead Information Center

Call **1-800-424-LEAD (424-5323)** to learn how to protect children from lead poisoning and for other information on lead hazards. To access lead information via the web, visit **www.epa.gov/lead** and **www.hud.gov/offices/lead/.**

EPA's Safe Drinking Water Hotline

Call **1-800-426-4791** for information about lead in drinking water.

Consumer Product Safety Commission (CPSC) Hotline



To request information on lead in consumer products, or to report an unsafe consumer product or a product-related injury call **1-800-638-2772**, or visit CPSC's Web site at: **www.cpsc.gov.**

Health and Environmental Agencies

Some cities, states, and tribes have their own rules for lead-based paint activities. Check with your local agency to see which laws apply to you. Most agencies can also provide information on finding a lead abatement firm in your area, and on possible sources of financial aid for reducing lead hazards. Receive up-to-date address and phone information for your local contacts on the Internet at **www.epa.gov/lead** or contact the National Lead Information Center at **1-800-424-LEAD.**

For the hearing impaired, call the Federal Information Relay Service at **1-800-877-8339** to access any of the phone numbers in this brochure.

EPA Regional Offices

Your Regional EPA Office can provide further information regarding regulations and lead protection programs.

EPA Regional Offices

Region 1 (Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont)

Regional Lead Contact
U.S. EPA Region 1
Suite 1100 (CPT)
One Congress Street
Boston, MA 02114-2023
1 (888) 372-7341

Region 2 (New Jersey, New York, Puerto Rico, Virgin Islands)

Regional Lead Contact
U.S. EPA Region 2
2890 Woodbridge Avenue
Building 209, Mail Stop 225
Edison, NJ 08837-3679
(732) 321-6671

Region 3 (Delaware, Maryland, Pennsylvania, Virginia, Washington DC, West Virginia)

Regional Lead Contact
U.S. EPA Region 3 (3WC33)
1650 Arch Street
Philadelphia, PA 19103
(215) 814-5000

Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)

Regional Lead Contact
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303
(404) 562-8998

Region 5 (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Regional Lead Contact
U.S. EPA Region 5 (DT-8J)
77 West Jackson Boulevard
Chicago, IL 60604-3666
(312) 886-6003

Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, Texas)

Regional Lead Contact
U.S. EPA Region 6
1445 Ross Avenue, 12th Floor
Dallas, TX 75202-2733
(214) 665-7577

Region 7 (Iowa, Kansas, Missouri, Nebraska)

Regional Lead Contact
U.S. EPA Region 7
(ARTD-RALI)
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

Regional Lead Contact
U.S. EPA Region 8
999 18th Street, Suite 500
Denver, CO 80202-2466
(303) 312-6021

Region 9 (Arizona, California, Hawaii, Nevada)

Regional Lead Contact
U.S. Region 9
75 Hawthorne Street
San Francisco, CA 94105
(415) 947-4164

Region 10 (Alaska, Idaho, Oregon, Washington)

Regional Lead Contact
U.S. EPA Region 10
Toxics Section WCM-128
1200 Sixth Avenue
Seattle, WA 98101-1128
(206) 553-1985

CPSC Regional Offices

Your Regional CPSC Office can provide further information regarding regulations and consumer product safety.

Eastern Regional Center
Consumer Product Safety Commission
201 Varick Street, Room 903
New York, NY 10014
(212) 620-4120

Western Regional Center
Consumer Product Safety Commission
1301 Clay Street, Suite 610-N
Oakland, CA 94612
(510) 637-4050

Central Regional Center
Consumer Product Safety Commission
230 South Dearborn Street, Room 2944
Chicago, IL 60604
(312) 353-8260

HUD Lead Office

Please contact HUD's Office of Healthy Homes and Lead Hazard Control for information on lead regulations, outreach efforts, and lead hazard control and research grant programs.

U.S. Department of Housing and Urban Development
Office of Healthy Homes and Lead Hazard Control
451 Seventh Street, SW, P-3206
Washington, DC 20410
(202) 755-1785

U.S. EPA Washington DC 20460
U.S. CPSC Washington DC 20207
U.S. HUD Washington DC 20410

EPA747-K-99-001
June 2003