



**GENERAL SPECIFICATIONS
FOR
HOUSING REHABILITATION
THROUGH THE
COMMUNITY DEVELOPMENT PROGRAM
OF
CEDAR RAPIDS, IOWA**

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INTRODUCTION

Unless otherwise stipulated, as provided by the Owner and Contractor Housing Rehabilitation Contract, the General Specifications contained herein shall be considered the Minimum Acceptable Performance Standards for work financed through the Community Development Block Grant (CDBG) Program and the HOME Investment Partnership (HOME) Program of Cedar Rapids, Iowa. Materials or workmanship of a lesser grade or standard shall not be accepted unless approval is obtained from the property owner and City (Housing Rehabilitation Staff).

As practical, any deviations proposed from the General Specifications should be discussed with Housing Rehabilitation Staff in advance and clearly identified within the bids of General Contractors for approval prior to contract execution. Any material/equipment or manner of workmanship not in accord with the General Specifications shall be reason for bid rejection or the withholding of a requested payment.

Note: In addition to the provisions of the General Specifications all work, as applicable, shall satisfy the requirements of the Cedar Rapids Building, Electrical, Plumbing, Mechanical, and Housing Codes as well as minimum Housing Quality Standards.

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10 LUMBER

All lumber must have approved grade stamp. Framing lumber throughout shall be new and of good quality, free as possible from knots, and to be of sizes shown and noted on plans and details, or as hereinafter specified. Use of any wreck out or second hand lumber is prohibited.

Interior walls shall be constructed of No. 2 grade or better dimension lumber of approved dimension unless otherwise specified. All construction shall start with one sill of this dimension and two plates at the top on load bearing walls or partitions. Any splices shall fall midway on a stud. All studs shall be the same full dimensions as the sill and plate and shall be placed 16" O.C. All construction shall meet Cedar Rapids Building Code. Any variation in partitions or walls shall be spelled out under additional specifications. All walls are to be covered with ½" drywall, adequately nailed and screwed, trimmed for doors, floor molding, etc. and taped and sanded ready for paint unless different specifications are spelled out calling for variations in wall material or trim.

Exterior walls shall be of No. 2 or better grade dimension or engineered lumber, with triple corner stud construction, double plate, and all headers shall meet City code.

All basement beams shall be made up of laminated engineered or No. 2 grade or better dimension lumber. A standard beam will be three or more thickness through, and no splices except on post centers. Greater height or greater thickness may be required in additional specifications and to meet City code. Posts may be either fixed metal posts or metal screw jack nominal 6" x 6". Metal posts shall be above grade either by basic design or welding process, and shall have a support below a surface of not less than 24" square and 12" deep concrete, and any adjustment cemented in. Any milled dimension lumber post shall have a raised concrete base of 3" or more above floor level with a termite shield or a ¾" thick by 12" square steel plate resting on the cement basement floor of not less than 3½" depth. No post shall be more than City code maximums for center to center span, from any other post on one beam.

Joists to be 16" O.C. and Engineered or No. 2 or better Fir material. Span of joist and size of joist to meet local minimum requirements. Length to be specified in Schedule A.

Posts:

Wooden, size 6" x 6" minimum on support beams.

4" x 4" stairwell support, or in designated area.

Steel, size 3" x 6'6" to 7'9" two piece with 1¼" screw adjustment.

Steel, one piece, no adjustment. Lag bolt to wood beam or weld to steel beam.

Pier blocks and termite shield - 14 GA galvanized steel to fit size of posts.

Cement footing - 8" deep x 16" wide, continuous for walls, post footings 12" thick x 24" x 24" minimum.

Steel plate - ¾" minimum thickness, 12" x 12".

20 TREATED LUMBER

Any porches, decks, fences, etc. that are constructed for an exterior application, should be built using ACQ (Amine Copper Quat) treated lumber. Lumber will be Southern Yellow Pine or White Pine of No. 2 grade. Other treated lumber will be acceptable with the appropriate retention rates.

101 ROOFING TEAR-OFF & REINSTALLATION

Remove the existing roof from the entire house (front and rear porches and dormers as necessary). Haul all debris from job site to an authorized dump. Install 3/8" new exterior plywood or OSB sheathing materials to go directly on the old sheathing or install 1/2" plywood or 5/8" OSB if replacing old sheathing with new. Install new metal drip edge, ice dam barrier to code, and complete by installing 30# or heavier asphalt saturated felt underlayment paper (other equivalent strength underlayment products are acceptable) on remainder of roof. Install drip edge on perimeter as applicable. Install 30 year, Class C label, 235 lb. or better, three tab self seal down, mineral surface, asphalt shingles or architectural laminate, asphalt shingles. Install in accordance with the manufacturer's specifications. All flashing materials shall be included in the installation. Exposed, partly exposed, or applied flashing shall be 16-gauge aluminum or equal quality. Valleys may be flashed with 16 gauge aluminum, 90lb. felt, or laced. Galvanized roofing nails or staples must be of proper length to hold shingles securely. The color and style of the roofing material to be chosen by owner.

102 ROOFING LAY-OVER

Install a new asphalt shingle roof over the entire existing roof (front and rear porches, eyebrows, dormers, etc. unless otherwise specified). Install metal drip edge if missing. Install 30 year, Class C label, 235 lb. or better, three tab self seal down, mineral surface, asphalt shingles or architectural laminate, asphalt shingles. Install in accordance with the manufacturer's specifications. Galvanized roofing nails or staples must be of proper length to hold shingles securely. NOTE: This does not authorize installation of a new roof over two roof coverings. Exposed, partly exposed, or applied flashing shall be 16-gauge aluminum. Valleys may be flashed with 16 gauge aluminum, 90lb. felt, or laced. The color and style of the roofing material to be chosen by owner.

103 FLAT ROOFS

Remove existing rolled roofing and haul from job site to an authorized dump. Make repairs to the existing roof framing as required to provide adequate strength and a smooth surface. Install new 30# asphalt saturated felt according to the manufacturers directions. Install metal drip edge and new 90# salvage rolled roofing with an 18" lap, laps to be coated with tar. Option: Install EPDM 60 mil rubber roofing material with vulcanized seams to industry standards with a beveled foam underlayment (as available/appropriate) to aid in water run-off.

104 ROOF VENTS

Install galvanized steel, PVC or aluminum roof louver vents or ridge vents. All vents to be installed with plastic cement and aluminum nails into prepared opening and cut with close tolerance to insure watertight fit. All work shall comply with all applicable codes.

Sq. Ft. Attic Floor Area = Sq. Ft. of Ventilation (Min.)

300

105 GUTTERS & DOWNSPOUTS

Install all new seamless gutters and downspouts using K-type, 5" width aluminum with factory-applied finish. Gutters will be .032 thickness. Downspouts will be 4" width, and .019 thickness unless otherwise specified. Gutters should have strap or fascia hangers spaced a maximum of 32" apart. All joints should be secured with pop-rivets or metal screws. Gutter joints should be sealed with gutter seal as recommended by the gutter manufacturer. Divert the water away from all foundation using appropriate gutter extensions.

200 SIDING

201 SIDING

Install vinyl siding, min. 42-mil thickness or equivalent, over existing siding. Cover house proper, front porch, and rear extension. Cover from top of foundation to roof overhang on all exterior walls. Install underlayment insulation. Use J channel around all outside openings. Install siding as per manufacturers' recommendations. Color to be chosen by owner.

202 SOFFIT & FASCIA

Cover all soffit, using solid or vented paneling. Cover all fascia, rake, and trim with .019 coil stock aluminum, or use pre-formed fascia panels. Vent soffit as necessary.

203 EXTERIOR TRIM

Cap all windows, door casings, brick molds, sills, and drip caps with .019 coil stock. Caulk all joints. Remove aluminum combinations (etc.), and cap all inside sills; re-install combinations.

204 GABLE VENTS

Install vents on all gables of the house.

205 DOOR CANOPY/HOOD

Install a standard aluminum door hood with a solid top, and ventilated sides. Door hood shall have crowned panels and flanges, seams with three thicknesses, beveled edges, and finished with permanent enamel. Color to be chosen by the owner. Hood should have a 28" drop, 48" width, and 36" projection, unless otherwise specified on the bid sheets. Obtain any necessary zoning permits.

300 WINDOWS

301 WINDOW REMOVAL

Remove existing window(s). Close opening with appropriate size studs, 16" on center. Install plywood sheathing, insulation and exterior building paper or house wrap and finish interior and exterior to match existing.

302 WINDOW WELLS

Window wells shall be made of galvanized steel or rust proof metal and be a minimum 20 gauge. Wells to be of sufficient height and securely anchored to the foundation and caulked to prevent water entry and to insure proper protection against earth wash. Base shall be a minimum of 4 inches of crushed rock or gravel to help promote drainage.

303 WINDOW REPLACEMENT

EGRESS NOTE: All windows installed must have a minimum 5.7 sq. Ft. of open-able area. Crank-out sash will have a 20" by 41" clear opening for egress. Double-hung window will have a 24" high by 20" wide minimum net clear opening for egress. Sill height will be 44" maximum from the floor. Seal /caulk around the windows

303a. Sash: Single sash unit constructed to replace an existing sash that has been damaged or inoperable. Include appropriate hardware. Match to existing glazing, window type and window coating as necessary.

303b. Assembly: Install an Energy Star® labeled, replacement window sash assembly with 0.35 U-Factor rating or less into the existing window jamb. Sashes will be weather-stripped with appropriate weather stripping on all sides and eight pockets as necessary. Sashes will have an appropriate balance system, Low E glass and R-value of at least 2.00, tilt-in latches and integral lift rails for opening. Double sash locks for units over 32" in width. Sash will move freely without binding. Install per manufacturer's warranty. All hardware to be included.

303c. Pocket: Install an Energy Star® labeled, double-hung window unit with 0.35 U-Factor rating or less into an existing framed opening. Window sashes will be removable, have a spring balance system, tilt-in latches and have a sash lock. Glazing will be insulated glass, ¾" thickness, Low E glass and R-value of at least 2.00. Window unit will be installed plumb and square, and free of binds on the sash. Space between the rough opening and the jamb as well as the weight pockets will be completely filled with insulation. Provide a casing trim as needed for the inside and finish window interior to match the existing windows. Install per manufacturer's warranty. All hardware to be included.

304 WINDOW TYPE

304a. Wood: Glazing will be ¾" thickness, Low E, argon fill and R-value of at least 2.00. Paint the exterior and stain or paint the interior per owner preference.

304b. Wood with Clad Exterior: Glazing will be ¾" thickness, Low E, argon fill and R-value of at least 2.00 Wood sash will be fine-grained solid pine, clad with aluminum or vinyl on the outside. The interior shall be painted or stained per owner preference.

304c. Vinyl: Sash will be 100% vinyl, .075 gauge with thermal fusion welded sash corners. Glazing will be insulated glass, ¾" thickness, Low E, argon fill and R-value of at least 1.92. Sash infiltration rate of no more than .09 cfm.

305 WINDOW SCREENS

305a. Repair: Remove torn screening and re-screen using appropriate size mesh. Screening shall be taut and securely fastened to frame with metallic staples and/or screen beading.

305b. New Screen: Install an insert or full screen as specified. Insert shall NOT be collapsible unless specified. Screen shall be operable from interior with appropriate locking mechanism. Frame color to match opening.

306 COMBINATION STORMS (Not for use with Vinyl Windows)

Install self-storing, two track, aluminum combination storm windows. Corners of main frame welded or screwed securely. Top sash rail will have continuous wind check. Mullion stabilizer (tie bar) across the middle. Pile weather-strip on all inserts. Frame pre-punched for installation. Metal sash latches and insert pivots. Sill expander with weep holes. Install aluminum storm covers for non-operable windows. Install side sliding, aluminum combination basement storm windows with specifications as above.

307 BASEMENT WINDOWS

Replace any deteriorated wood frames with new treated wood and install separation membrane before capping. Wrap exterior casement trim in aluminum; wet scrape and paint to cover any exposed wood casement framing, interior and exterior plus any disturbed paint after window displacement; Install a slider, hopper or awning style window as indicated in the specifications.

308 GLASS PANE REPLACEMENT

Install new glass pane to broken windows located at basement, first, second floors, etc. Remove all existing glass. Scrape off all residue, including old caulking, putty, etc. as required for good adhesion of new putty. Linseed oil frames before re-puttying. Install new glass with metal points. New glazing should completely cover metal points and provide a weatherproof joint. Reinforce window sash with metal corner brackets (if needed) to prevent racking of sash or breakage of new glass.

309 WINDOW RE-GLAZING

Remove all dried, deteriorated, broken, and cracked sections of putty from windows. Sweep clean and back putty with glazing compound in strict adherence to manufacturer's instructions. Before glazing compound is applied, area shall be primed, and all glazing points secure. Windows to be re-puttied prior to painting exterior final coat.

310 SASH CORDS

Open window frame and remove existing weights. Record with #8 sash cord. Replace weight, frame, sash and stop as required to assure a smooth operational window. Dress window framing free of unsightly scarring caused by repair work. Clean surfaces prior to job completion.

311 WEATHER-STRIPPING

Weather-stripping for window sash will be vinyl, folded, V-seal with adhesive back. Width will be 7/16" when folded for installation. Install at the top of the upper sash (if movable) and at the bottom of the lower sash. Brands will be 3M or equal quality.

312 SASH LOCKS

Furnish and install new brass-plated sash lock, securely and properly fastened to upper and lower sash to window. Install two sets, one on each end of mid rail.

313 WINDOW COMPONENTS REPLACEMENT

Remove & replace as specified either the sill, casing, stops and framing with new wood. Finish to match existing material.

401 DOOR REMOVAL

Remove existing door(s). Close opening with appropriate size studs, 16" on center. Install plywood sheathing, insulation and exterior building paper or house wrap and finish interior and exterior to match existing.

402 EXTERIOR WOOD DOOR

Install a new solid wood-core door. The door will have a tempered, insulated glass area. The door shall be 1¾" thick and shall be the standard 6' 8" unless otherwise specified. All surfaces shall have a waterproof exterior grade finish. The door will have three hinges. Install a key-operated, passage lock (Schlage, Weiser or equal quality) with two (2) key sets furnished to the owner. Option: Install a dead bolt lock keyed the same as the passage lockset if door is pre-bored for this type of lock. Finish with two coats of paint or stain and two coats of varnish. Seal all six sides. Install the door to hang plumb in frame. Weatherstrip all four sides.

403 PRE-HUNG STEEL DOOR UNIT

Install an Energy Star® labeled, pre-hung metal entrance door unit. The unit is to include new frame, brick molding, threshold, and interior casings. The door shall be 1¾" thick, filled with high density, polyurethane foam of R-14 value, and shall be a standard 6' 8" unless otherwise specified. The door skin will be 24-gauge steel and be factory primed. The door will have three hinges. Install key-operated passage locks; furnish the owner with two (2) key sets. Option: Install a dead bolt lock keyed the same as the passage lockset if door is pre-bored for this type of lock. The door will have a tempered, insulated glass area. Head and latch jambs will have a magnetic weather-strip, and the hinge jamb will have a compression-type weather-strip. Finish with two coats of paint. Seal all six sides.

404 PRE-HUNG WOOD DOOR UNIT

Install a new solid wood-core, wood door entrance unit. The unit is to include new frame, brick molding, threshold, and interior casings. The door shall be 1¾" thick and shall be a standard 6' 8" unless otherwise specified. All surfaces shall have a waterproof exterior grade finish. The door will have three hinges. Install a key-operated, passage lock with two (2) key sets furnished to the owner. Option: Install a dead bolt lock keyed the same as the passage lockset if door is pre-bored for this type of lock. The door will have a tempered, insulated glass area. Finish with two coats of paint or stain and two coats of varnish. Seal all six sides.

405 ALUMINUM COMBINATION STORM DOOR

Install solid core, aluminum combination storm doors. Minimum 1" thick stock aluminum storm door. Door is to be pre-hung aluminum with 3 or more hinges, storm chain, and hydraulic closer. When installing new door, install to swing the same way as the existing door. All glass must be safety glass. Factory painted white unless otherwise specified. Install the door to hang plumb in frame.

406 WEATHER-STRIPPING

Weather-stripping for wood doors will be extruded aluminum with neoprene insert surface mounted on frame or stop. Spring bronze in door is acceptable. Threshold for wood doors with brush rubber or neoprene insert. Door manufacturer shall furnish weather-stripping for metal door.

407 STEEL GARAGE DOOR

Install a steel, non-insulated, overhead garage door. Doors shall be 24-gauge steel. All hardware and bottom weather-strip will be included. Door will fit snugly against side and top stop moldings.

408 INTERIOR HOLLOW CORE DOOR

Install a new hollow core interior door. The door shall be a standard 6' 8" height and 1³/₈" thickness unless otherwise specified. It shall have spacers to maintain internal stability within the door. The door is to have an appropriate knob. All bath and toilet compartment doors shall be provided with a lock-in knob. Adjust all hardware so door works properly and finish all six sides with at least two (2) coats of paint or stain and two coats of varnish. Any finish to be sanded between coats. The door shall be cut for length and blocked and glued for strength.

409 PRE-HUNG INTERIOR HOLLOW CORE DOOR

Install a new pre-hung hollow core interior door unit. It shall have spacers to maintain internal stability within the door. The door is to have an appropriate knob. All bath and toilet compartment doors shall be provided with a lock-in knob. Adjust all hardware so door works properly and finish all six sides with at least two (2) coats of paint or stain and two coats of varnish. Any finish to be sanded between coats. The door shall be cut for length and blocked and glued for strength.

410 REHANG DOOR

Re-hang existing door(s). Restore to smooth operating condition. Replace hardware to assure a proper and secure fit.

500 CARPENTRY (INTERIOR/EXTERIOR)

501 WROUGHT IRON GUARD/HANDRAILS

Install wrought iron guard/handrails. Use 1¹/₄" wrought iron railing constructed of 1/2" balusters with a clear space between of no more than 4". Newel posts will be 1¹/₄" square. All fittings will be fastened with aluminum bolts and will fit securely. Height of the rails will be 34-38" for rails at steps and 34-38" for rails at plat forms. Concrete steps will have railings anchored with steel bolts. Apply at least one coat of metal paint to installed rails.

502 WROUGHT IRON COLUMNS

Install porch columns constructed of 1¹/₄" tubular steel. Corner and flat iron columns shall be of sufficient strength to carry required load. Columns to be plumb and resting on sound plates. Attach to floor and ceiling with approved flanges.

503 INTERIOR STAIR REPAIR

Re-secure all loose, springy or squeaking treads, risers and stringers. Glue, nail and/or shim as necessary. Restore to a tight, sound and safe condition.

504 BASEMENT STAIRS REPLACEMENT

Remove old basement stairs and haul from the job site. Install new basement stairs that have risers no more than 7 3/4" high. All risers equal must be equal. Treads should be no less than 10" wide and all equal. Risers should be constructed of 3/4" pine or equal. Treads will be 1 1/2" thick, #2 or better lumber or approved preformed step material. Stringers will be #2 or better 2 x 12. Stringers will rest on concrete. Headroom should be at least 6' 8" at all treads. Length and width of landings should be no less than the width of the stairs. All work should conform to all applicable codes. Variances to be approved by building inspector prior to commencement of stair construction.

505 HANDRAILS/GUARDRAILS

Standard wood milled stock material shall be used unless specified otherwise. Standard brackets shall be

used to fasten handrail to wall, beam, column or post at a convenient, safe 34-38" height, measured vertically from the front lip of the treads. Support brackets shall be placed 18" from the end of handrail and may be 7' apart. Lengths greater than 10' shall use more than two support brackets. Handrail shall be beveled at 45° and returned 90° to a supporting wall, beam or column securely fastened. The spacing of balusters or intermediate guardrails shall be no more than 4" apart.

Apply one coat of sealer as a protective first coat. Handrails must meet all applicable codes.

506 SUSPENDED CEILING

Install a suspended grid system with interlocking T bar type with 1¼" Tee height and 1" width across the bottom. Hanger wires to be installed and be a type as recommended by grid manufacturer and will be installed level and free of defects. Ceiling panels shall be 2' x 4'. Installation in high moisture areas shall be the scrubbable, vinyl coated type. Installation in low moisture areas shall be a washable latex finish, which can be cleaned with a damp sponge and mild detergent. Finished ceiling height and installation shall conform to code.

507 CEILING TILE

Install white block 12" x 12" or 12" x 24" ceiling tile. Staple to wood furring strips, installed and shimmed to provide a true and level surface. Tile to be a washable latex face for low moisture areas. Installation in high moisture areas shall be the scrubbable, vinyl coated type. All work shall conform to code.

508 MELAMINE PANELING OR VINYL PANELING

Install melamine hardboard. All hardboard, molding, edges, fillers, fasteners and adhesives shall be installed as recommended by the manufacturer. Molding strips for use between panels shall be the same material color design as panel. Where wood molding strips are installed, they shall be painted or stained and/or varnished. Color and pattern to be chosen by owner from selected samples. Quality and price to be mid-range.

509 WOOD PANELING

Install pre-finished wood-grain paneling. Panels will be ¼" thick, 4' by 8' hardboard with a permanent finish that will resist dents, stains and fading. Panels will have a Class 3 flame spread rating. Panels will be fastened securely to studding or fir strips using pre-finished panel nails. Paint under panel joints and leave a minimum of 1/16" expansion space between panels. All moldings will be the same as the panel design or with complimentary design. Panels installed over bare framing will have ½" sheet rock backers installed. Panel design and color to be chosen by the owner from selected samples. Quality and price to be mid-range. **Note: Panels with a particleboard backing are unacceptable.**

510 CABINETS

Install base and wall cabinets according to the cabinet detail provided. Cabinets will have a reverse bevel on doors and drawers for easy opening. Metal drawer guides for easy opening, with no sway when fully opened to a positive stop. Drawer bodies constructed of ¾" particle board laminated with wood grain plastic laminate. Drawer fronts will be ¾" hardwood. Hardwood front frames. End panels ¾" thick with matching wood grained vinyl laminated to particle board. Hinges self-closing and wall unit shelves adjustable. Exterior wood surfaces stained, sealed, sanded, and finished with scratch resistant heat cured Alkyd-Urea finish.

511 COUNTER-TOP (ON SITE CONSTRUCTED)

Install a new kitchen counter top. Top material shall be thermosetting plastic laminate securely bonded to ¾" particleboard. Provide a 4" backsplash and 1½" front and side edges. Bond sheet goods with solvent-

based contact cement as recommended by the mfg. – low VOC. Cut the kitchen sink opening from a template obtained from the plumbing contractor. Color and pattern to be selected by the owner. Quality and price to be mid-range.

512 PRE-FORMED COUNTER-TOP

Install a pre-formed counter top. Top will have standard 25" depth, 1½" rolled front with drip edge, 3½" rolled backsplash. Miter corners will be sealed with silicone caulk and bolted securely. Top material shall be thermosetting plastic laminate securely bonded to ¾" particleboard.

513 MEDICINE CABINET

Install a surface mounted medicine cabinet, which includes a diffused light panel at the top. Cabinet will have a baked enamel finish, two select glass sliding mirrors, and three shelf spaces. Unit size to be approximately 24" wide and 27-30" high. A wall switch will control the unit's light.

514 PLUMBING ACCESS PANEL

Cut in and install hinged and securable access panel where needed for possible plumbing repairs or maintenance.

515 FLUE LINER CHASE

Box around metal flue pipe using 2" x 4" studs 16" on center maximum; allow min. 1" air space clearance area around pipe for anything combustible to meet code requirements. Cover with ½" drywall, taped, filled, sanded and finished ready to accept paint or other finishing materials.

516 DRYWALL

Drywall when applied to wall, wood framing or furring, to plaster as overlay, shall be ½" thick, High-Strength ½" or ⅝" for framed ceiling. Moisture resistant drywall shall be installed in bathrooms, in kitchens near the sink, and in other high moisture areas. Nails or drywall screws shall be driven with shank perpendicular to the face of the board and countersunk. Outside corners should have metal or vinyl corner beads, all other joints should be taped. Nail heads will be covered with two coats of drywall compound, tape covered with three coats, and corners with three coats. All surfaces will be sanded smooth in preparation for painting.

517 PLASTER REPAIR

Remove all deteriorated, loose, blistered, cracked, etc. plaster; all cracks that are lipped shall be cut back to solid plaster removing all loose material. Hairline cracks shall be spackled flush, provided that plaster at both sides of cracks is sound, firm, true and level. Plastering should be applied only to properly prepared surfaces and workmanship following the best practices of the trade.

601 EXTERIOR PAINTING

Properly remove all dirt and grime accumulation from the surfaces to be painted using *lead-safe work practices*. Wet scrape and sand all loose and flaking paint. Remove loose caulking and putty. All excess hardware on the exterior surfaces will be removed and all holes filled prior to painting. Minor siding repairs will be made, in addition to re-nailing of any loose siding or trim. Use appropriate containment according to I.A.C Ch. 70 for exterior surfaces.

Paint all exterior surfaces to cover, minimally two (2) coats - one exterior primer coat and one exterior finish coat. Use Low Volatile Organic Compound (VOC) paint. All paint will be applied according to the manufacturers' specifications. All window sashes will be re-puttied as needed. All exterior windowsills, tracks, sash and casing will be painted. Use paint brushes, roller or pads. The owner will choose paint colors. Clear area of paint chips upon completion.

Note: Spray painting is acceptable provided the paint is brushed through and approved by owner before application. Contractor is responsible for any damage or cleanup from overspray.

602 PORCH FLOOR PAINTING

Properly scrape all loose paint from the porch floor using lead-safe work practices. Dampen to sweep dirt and debris and bag. Paint two (2) coats of quality oil base exterior floor and deck enamel. First coat to be thinned according to manufacturers' directions, second coat to cover, to be applied 24 hours later. Optional: Add ½ pound clean, dry, high-grade silica granules or perlite per quart of enamel to provide a skid resistant finish.

603 INTERIOR PAINTING

Properly remove all dirt, grease, loose plaster and flaking paint from interior surfaces to be painted using *lead-safe work practices*. Wet scrape all loose areas of chipping or flaking paint. Clear area of paint chips upon completion. Patch small holes and cracks with spackling. Large patches will be made with patching plaster. Remove any unnecessary nails, screws and other hardware and fill all holes. All repairs made will blend with existing surfaces. Use appropriate containment according to I.A.C Ch. 70.

Paint all interior surfaces to cover, minimally two (2) coats – one interior primer and one interior latex paint, unless otherwise designated. High durability surfaces (kitchens, baths) will be painted with enamel-type paint. Use Low Volatile Organic Compound (VOC) paint. All paint will be applied according to manufacturer's specifications. Use paint brushes, roller or pads. The owner will choose paint colors. Clear area of paint chips upon completion.

Note: Spray painting is acceptable provided the paint is brushed through and approved by owner before application. Contractor is responsible for any damage or cleanup from overspray.

700 FLOORING

701 CARPET

Install Action Bac carpet with a separate half-inch thickness bonded-urethane pad. Carpet will be 100% nylon fiber, min. 25 oz. face weight, and have a Class A fire rating. All seams will be secured with carpet seaming tape. Carpet will be secured with metal strips where carpet meets flooring of other rooms. Installing tack strips and stretching shall be in accordance with industry standards. Carpet to be chosen by owner from selected samples. Quality and price to be mid-range.

702 VINYL

Install plywood underlayment minimum thickness 3/16". A maximum spacing of 1/16" is allowed for butt joints and side joints of all panels. Use appropriate joint compound for support. Sand joints smooth. Nail with coated or ring shank nails spaced 4" apart, glue or staple as necessary.

Install vinyl floor tile or sheet goods of minimum thickness of .065 gauge and 10-mil wear layer. The outer edge of the room will be trimmed with a finished quarter round or base shoe. Bath flooring will be trimmed to within 1/8" of the tub line and caulked with a silicone caulk. Adhesive shall be a type designed for this purpose and applied in accordance with the manufacturers specifications. Finished work shall be free from protrusion of any kind. Vinyl to be chosen by owner from selected samples. Quality and price to be mid-range.

703 LAMINATE FLOORING

Install laminate flooring to manufactures specifications. Use "best quality" underlayment mat. The outer edge of the room will be trimmed with a finished quarter round or base shoe to match. Flooring to be chosen by owner from selected samples. Quality and price to be mid-range.

704 SUB-FLOOR REPAIR

If subfloor repair is necessary, remove any plywood that is deteriorated and replace with appropriate size and thickness of plywood or OSB meeting building codes. Also check joist for any deterioration and make applicable repairs.

800 INSULATION

801 R-11 ROLLED

Install fiberglass or similar spun insulating material. Insulation must be 3½" or more thick, either 15" or 23" in width; R-11 and backed with saturated paper or aluminum foil. Tack with stapler if paper backed. Rolled and batt type shall fit snugly between studs and rafters. Runs should be as long as possible with joints well fitted. Friction fit insulation may be used where no stapling is needed.

802 R-19 ROLLED

Install fiberglass or similar spun insulating material. Insulation must be 5½" or more thick, either 15" or 23" in width; R-19 and backed with saturated paper or aluminum foil. Tack with stapler if paper backed. Rolled and batt type shall fit snugly between studs and rafters. Runs should be as long as possible with joints well fitted. Friction fit insulation may be used where no stapling is needed.

803 VAPOR BARRIER

Vapor barrier of 4-mil plastic will be used on all exposed wall surfaces.

804 BLOWN INSULATION-WALLS

Insulate all, heated, sidewall cavities of the entire house to an R-value of 13 or to a full fill given space provided. Use rock or mineral wool, cellulose fiber or other spun material. Remove wood siding or unlock aluminum siding, as necessary, and replace after insulating. Plug all holes with plastic plugs, unless otherwise specified. Fill all voids around doors and windows. Cellulose Insulation will be Class I, fire retardant.

805 BLOWN INSULATION-CEILING

Insulate the attic to an R-value of 38. Use mineral or rock wool, cellulose fiber or other spun material. Provide adequate ventilation through use of roof, ridge, gable or soffit vents or combinations of these components. Insulation will not block venting or be blown in the house overhangs. Follow manufacturing directions for thickness and R-value. Refer to roof vents specifications for minimum ventilation requirements.

806 RIGID INSULATION

Install foam insulation board manufactured by Dow Chemical or equal. Compressive strength should be 40 psi, water transmission rate 0.6 and density 2.1 lbs./cu. Ft. Use PL200 or equal to fasten to a smooth and dry surface.

900 HVAC

901 SAFETY CHECK & CLEAN

Have licensed service technician do a safety check of furnace; clean and tune as necessary.

902 FURNACE

Remove old furnace and haul from job site. Install new high efficiency, 90% plus AFUE gas forced air furnace with programmable thermostat. Heating Systems shall be designed and balanced or adjusted to provide for the distribution of heat to all habitable rooms and other spaces with a heating capacity to maintain a temperature of at least 68° F when the temperature is -10° F. Heating contractors shall be responsible for any new gas line, duct work or electrical wiring required for this installation. Contractor shall make sure existing/accessible duct work is properly sealed (use Mastic or UL181 foil tape for duct work). All heating equipment shall be installed in accordance with the most currently adopted Mechanical Code as approved by the City of Cedar Rapids and inspected by a City Mechanical Inspector prior to acceptance.

903 GAS SPACE HEATER

Install new 80% plus AFUE gas space heater with blower and self-controlled thermostat. Unit to be adequate sized in B.T.U's input/output for designated room/area. Price to include all new vent piping installed into existing chimney. Heating systems shall be designed and balanced or adjusted to provide for the distribution of heat to all habitable rooms and other spaces with a heating capacity to maintain a temperature of at least 68°F when the temperature is -10° F. Unit shall be installed in accordance with the most currently adopted Mechanical Code as approved by City of Cedar Rapids and shall be inspected and passed by a City Mechanical Inspector prior to acceptance.

904 FLUE LINERS

Install prefabricated metal liners as approved by the U.B.C. Liners shall be installed according to manufacturer's specifications to within 6 inches above top of exterior brickwork. Price to include installing a watertight cap on chimney chase. All work must comply with all codes.

905 DRYER VENT

Vent the dryer directly to the outside and install an exterior cap. Use rigid aluminum piping with all joints properly secured.

906 BOILER

Remove old boiler and haul from job site. Install high efficiency, 85% plus AFUE gas boiler. Heating Systems shall be designed and balanced or adjusted to provide for the distribution of heat to all habitable rooms and other spaces with a heating capacity to maintain a temperature of at least 68° F when the temperature is -10° F. Contractors shall be responsible for any new gas line or electrical wiring required for this installation. All equipment shall be installed in accordance with the most currently adopted Mechanical Code as approved by the City of Cedar Rapids and inspected by a City Mechanical Inspector prior to acceptance.

1000 PLUMBING

1001 SEWER/WATER LINE REPLACEMENT

Install a new 1" water supply line from the house to the stopbox or sewer line from house to City main. Secure all required permits. Include a survey to determine the full extent of work including depth of excavation, replacement of paving and sidewalk and all new lines required. Make minimum cut for required excavation, including replacement of all material damaged or removed in the process of sewer/water line replacement. Replacement or patching material shall match existing finish/quality. All work shall comply with all applicable codes. Back fill with clean fill dirt, free from stones or concrete. Tamp each 10" layer. Finish grade and seed as applicable.

1002 WATER HEATER

Disconnect old hot water heater and haul from job site. Install a new 40-gallon gas-fired or electric, standard efficiency hot water heater, AUI type, glass lined. Must be UPC approved with at least a 5-yr Warranty on the tank and a one-year warrant on the gas valve. Gas water heater (up to 60 gallons) shall have ≥ 0.62 EF (energy factor) and electric water heater ≥ 0.93 EF. Direct-fired heaters shall be provided with a pressure and temperature relief valve. Include a lever gas shut off valve on the gas line. Heater to be vented and the flue to be of sufficient height to have proper draft.

1002a. Pressure Relief Valve: Install a pressure-temperature relief valve on the water heater - 150 lb. Pressure and 210 degrees. Use $\frac{3}{4}$ " inlet and outlet pipes for relief valve.

1002b. Discharge Pipe: Install a discharge pipe on the water heater. Use $\frac{3}{4}$ " copper or galvanized pipe within 6" of floor.

1003 GAS PIPING

Install piping and a lever handle gas shut off valve for a water heater, furnace, stove, dryer, or boiler.

1004 TOILET

Install a new stool. Remove existing fixtures from job site including all piping that cannot be reused when installing new work. Type to be vitreous china white, floor fastened, reinforce floor structurally for new fixtures as necessary with a minimum 1.6 gallons per flush or better. Install to code. Install a water supply shut-off if none exists. Must be UPC approved. Quality and price to be mid-range.

1005 TOILET GASKET

Take up the toilet and old seating gasket. Clean area and reseat toilet on a new wax gasket. Make all connections and leave free of leaks. Install a water supply shut-off if none exists.

1006 TOILET SEAT

Install toilet seat with rustproof nylon hinges, plastic nuts and bolts. Must be UPC approved.

1007 TOILET REPAIR

Remove deteriorated flushing unit and install a new unit. Install all new seals with new flush unit. After replacement, unit shall function properly with moderate pressure and completely shut off when water level is reached. Install tankball or flapper and related parts as needed. Install a supply shut-off if none exists.

1008 BATHTUB

Remove the existing tub from the job site including all piping that cannot be reused when installing new work. Furnish and install a new 60" Fiberglass recessed bathtub white. Must be UPC approved. Install to code. Variations of bathtub size or type may be called for in the bidder's specifications when necessary. Work with the carpenter for enclosing the open end of the tub.

1009 BATHTUB SURROUND

Install a molded-engineered plastic, with a high gloss finish, three piece, and tub wall system above the bathtub. Panels of the system to be 56-60" high and have a molded soap dish in the center panel. All panels will be glued securely to a clean, dry, level surface with an adhesive recommended by the manufacturer. Color to be white unless agreed otherwise. Caulk panels according to manufacturer's recommendation. Must be UPC approved.

1010 BATHTUB DOOR ENCLOSURE

Install tub enclosure sliding glass doors. Panels will be tempered glass with anodized aluminum frames and towel bars. Panels will glide on nylon rollers that fit into a self-draining track. Enclosure installation will be adjustable for out-of-plumb walls. Caulk according to manufacturer's recommendation.

1011 BATHTUB CURTAIN/ROD ENCLOSURE

Install bath rod, curtain and liner. Owner to choose pattern & color of curtain & rod.

1012 ANTI-SCALD SHOWER FAUCET

Install anti-scald shower faucet when replacing plumbing for shower or replacing shower surround. Must meet plumbing code.

1013 DRUM TRAP

Replace Drum trap on bathtub with appropriate new P-trap.

1014 LAVATORY

Install a new lavatory; remove existing fixture from job site, including all piping that cannot be reused when installing new work. Type to be vitreous china (wall type) white unless otherwise specified. Must be UPC approved. Install to code. Variations as to the size and type may be called for in the bidders specifications when necessary. Quality and price to be mid-range.

1015 VANITY

Install wood front, vanity cabinet of the width specified and 21" deep. Cabinet bodies will be 3/8" thick with matching wood grained vinyl laminated to particle board. Cabinet fronts will be 3/4" hardwood. Doorframes will be 3/4" hardwood and a veneered center panel. Door hinges will be self-closing. Doors will have a reverse bevel for easy opening. Exterior wood surfaces will be stained, sealed, sanded, and finished with scratch resistant, heat-cured Alkyd-Urea finish. Quality and price to be mid-range.

1016 CULTURED MARBLE VANITY TOP

Install a cultured marble top on the vanity with an integral oval bowl. Top will be 22" deep, 3/4" thick with an integral back splash. Top will be drilled for 4" center faucet and for pop-up drain assembly. Glue top to vanity with silicone, or construction adhesive. Caulk perimeter as needed.

1017 FAUCET REPAIR

Restore existing faucets to a watertight condition. Replace stems and seats as needed. Any replacement handles shall conform to original style as closely as possible. Prevent tool scarring or damaging fixture.

1018 NEW FAUCET / SHOWER HEAD

Install kitchen sink and/or lavatory faucets. New unit must cover all openings in the present sink, be securely fastened and watertight. Install a supply shut-off if none exists. Must be UPC approved. Quality and price to be mid-range. 2.0 gallons per minute (GPM) or better for kitchen 1.5 GPM or better for bathroom. Newly installed shower heads must be 1.75 GPM or better.

1019 BATH ACCESSORIES

Install chrome plated bath accessories unless other material specified. Paper Holder and Soap Dish will be recessed. Towel bar shall be either 24" or 30" in length. Shower/bath shall have a grab bar. Properly secure all fixtures.

1020 KITCHEN SINK

Remove and discard old sink and install a double-bowl stainless steel kitchen sink. Sink should be self-rimming, 20 gauge machine-buffed stainless steel. Minimum size shall be 33" by 22". Sink should have a nickel content of at least 18.8%. Quality and price to be mid-range.

1021 CLOTHES WASHER SUPPLY AND DRAIN

Install water supply and waste piping for an automatic clothes washer. Supply lines will be 1/2" copper or aqua-pex with a hose bib for hot & cold water. Connect the drain line to the sewer line using at least 2" PVC or ABS sch. 40 plastic, including a trap and proper vent. Any new waste piping will be installed to code.

1022 CLOTHES WASHER DRAIN ONLY

Install a washing machine drain on the sewer line of at least 2" PVC or ABS piping including a P-trap and a proper vent; install to code.

1023 WATER SUPPLY LINES

Install all new copper or aqua-pex hot and cold water supply lines with ball valves before and after the meter. Use 3/4" pipe from the water meter to the water heater, and 3/4" from the water heater to the first hot water branch. All other piping 1/2" size. Install valves on any second story risers and a cold water ball valve on the water heater. Shut off valves should be put in place for each faucet or toilet.

1024 DRAIN, WASTE & VENT

Any new waste piping will be of sufficient size according to local plumbing code. Plastic piping to be

schedule 40 PVC or ABS.

1025 P-TRAP INSTALLATION

Install a P-type trap. The trap shall be 17ga. Chrome-plated or sch. 40 PVC or ABS plastic.

1026 SUMP PIT

The sump pump requires a separate single outlet circuit. Any grounding cable to the electrical service panel must be properly bonded at all times; do not cut or remove. A minimum 3½” of concrete floor thickness shall be maintained as per code. The sump pit well shall extend a minimum of 1” above finished concrete floor. All sump pump drainage/discharge pipes shall be discharged into the storm sewer system. Where a public storm sewer is not available the subsoil drainage shall discharge outside the building so that it will not return to the building or cause a nuisance to adjacent property, as per code.

1027 EXTERIOR FAUCET

Install a freeze proof outside faucet, which has a built in vacuum breaker.

1028 WATER METER

Install an outside meter reader to be supplied by the Water Department.

1029 GAS METER

Arrange for the Gas Company to install a gas meter dial on the outside of the house.

1030 RELOCATE GAS METER

Relocate gas meter from basement interior to exterior of house. Meter to be relocated to exterior in vicinity of current site. Coordinate relocation of meter with a representative from MidAmerican Energy, 319-298-5138, and (sub)contractor to perform any necessary gas line replumbing subsequent to meter relocation.

1100 ELECTRICAL

1101 BREAKER PANEL

Inadequately sized electrical service will be replaced by a breaker-type system, properly grounded. Size of service panel to be determined on an individual basis.

1102 HIGH AMPERAGE CIRCUITS

Separate circuits shall be installed, as indicated, for washers, dryers, electric stoves, air conditioners, refrigerators and other such high-amperage appliances.

1103 WALL OUTLETS

All rooms, except as otherwise noted, shall contain a minimum of two separate and remote wall-type convenience outlets. Habitable rooms shall have convenience outlets positioned so that no portable appliance will be more than 6'-0" from a remote wall-type convenience outlet. Temporary wiring, extension, or zip cords shall not be used or allowed as permanent wiring.

1104 LIGHT FIXTURES

Fixtures and receptacles shall be appropriate to the environment in which they are installed. The height of switches (and distance from entry) and receptacles from floor, and spacing of receptacles one from the next, shall be in compliance with the City Electrical Code. All light fixtures will be made operable by use of fluorescent bulbs and all switches are to be located adjacent to room entry door as feasible.

1104a. Light Fixture: Install a ceiling or wall-type electric light fixture, controlled as specified either by a pull chain, wall switch or two 'three way' wall switches.

1104b. Receptacle Outlet: Install ceiling or a wall-type convenience receptacle outlet, controlled by a wall switch and as specified either ungrounded or grounded.

1104c. Ventilation Fan: Install Energy Star power vented fans that exhaust to the exterior. As feasible, run through roof vs. side wall. Ventilation fan to be controlled by wall switch. As specified, provide with or without a light.

1105 KITCHEN OUTLETS

All kitchens shall conform to the requirement of the NEC, based on the size and layout of each kitchen. All kitchens shall have a minimum of three 20-ampere circuits and all convenience outlets shall be of the grounded type and/or GFCI where applicable.

1106 BATH OUTLETS

All bathrooms shall contain one separate GFCI type convenience outlet adjacent to the washbowl, not attached or connected to any lighting fixture. The control for the lighting fixture shall be a wall switch. New outlets shall be on a separate circuit.

1107 ARC-FAULT CIRCUITS

When installing new receptacle outlets installed in any area, excepting bathrooms, kitchen, laundry room or garage; contractor shall install Arc-fault type receptacles, circuits, and breakers, per Electrical code.

1108 BASEMENT

Basements shall be wired for a minimum of one switched lighting fixture per 200 square feet or a fraction thereof of area. There shall be a minimum of one GFCI outlet in any unfinished area.

1109 WIRE MOLD/CONDUIT

Concealed wiring, to code, will be used in ceilings, floors, and walls with all plugs and switches flush. The use of wire mold or exposed conduit is not to be regularly used in habitable rooms unless agreed upon by the owner and this office.

1110 HOUSE ENTRY LIGHTING FIXTURES

All house entries will have an exterior light controlled by an interior wall switch.

1111 EXTERIOR OUTLETS

Receptacle outlets installed in or on open porches, breezeways, garages, utility rooms shall be of the grounded type, and shall be GFCI with a weatherproof cover if they can be reached when standing on the ground or have stairs leading to the ground.

1112 GENERAL UPDATE

Update wiring to include service, removal of all old unnecessary wiring, fixtures, switches and outlets so as to comply with the latest adopted City Electrical Code and to be properly inspected and passed by the

City Electrical Inspector prior to acceptance

1113 HARD WIRED SMOKE DETECTORS

Install a hard-wired, dual-sensor (photoelectric and ionization) smoke detection alarm, as required. Must conform to all applicable municipal ordinances, fire and/or building codes. Unit should have testing capacity, and be of medium or higher quality.

1114 BATTERY OPERATED SMOKE DETECTORS

Install a battery operated, dual-sensor (photoelectric and ionization) smoke detection alarm. Must conform to all applicable municipal ordinances and/or building codes. Unit should have a push-button battery tester and be of medium or higher quality.

1115 RANGE HOOD

Install Energy Star power vented range hood that exhausts to the exterior. As feasible, run through roof vs. side wall.

1200 MASONRY

1201 POURED CONCRETE PORCH

Install a poured concrete porch floor. Temporarily support the porch roof. Remove old porch floor materials from the site. Provide a 42" trench footing around the perimeter of the porch. Pour 8" thick vertical support walls to a height of 5" below the bottom of the door threshold. Include two horizontal re-rods in the wall and include vertical re-rods 4-0 O.C. to tie in the horizontal slab. Fill cavity with compacted sand or gravel fill. Pour the 4" floor slab to a height of ½" below the door threshold. Reinforce the floor slab with a 6" x 6", 10 gauge wire mesh. Slope to drain properly and trowel smooth and leave a light broom finish. Keep moist (or chemically cure) and allow 72 hours to cure properly. Use 4,000-lb. psi, compression strength, concrete mix for floor. 3,000 lb. psi mix may be used in footings. Do not pour if the temperature is below 35° F without covering with insulated blankets or other sufficient means of keeping concrete from freezing.

1202 POURED CONCRETE DRIVEWAY

Break up and remove all old concrete from job site. Furnish and install a concrete driveway. Sub-grade shall be well drained, uniformly graded and compacted to prevent differential settlement. Concrete shall be four (4) inches thick minimum. Lay 6" x 6" wire mesh over base and tie edges so that the entire area is covered and securely tied with 1/16" soft wire. Provide expansion joints at a public sidewalk or curb end. At garage slab use ½" thick preformed expansion joints. Trowel smooth and leave a light broom finish. Keep moist (or chemically cure) and allow 72 hours to cure properly. Where the width of the driveway exceeds 10 feet, center the contraction joints. Use 4,000 psi compression strength mix. Do not pour on frozen ground, or if the temperature is below 35° F without covering with insulated blankets or other sufficient means of keeping concrete from freezing.

1203 POURED CONCRETE SIDEWALK

Remove the existing sidewalk and haul from the job site. All exterior sidewalks shall be a minimum of 3' wide and 3½" thick with contraction joints spaced not more than 1½ times the sidewalk width. Expansion joints shall not be more than 30 feet apart. Slope walk away from foundation a minimum of ¼ inch per foot and a maximum of 1 inch per foot, float trowel to true surface and leave a light broom finish. Install ½" x 4" asphalt strip expansion joints at each end of walk which abuts walks, curbs, steps, walls, etc. Do not pour on frozen ground, or if the temperature is below 35° F without covering with insulated blankets or other sufficient means of keeping concrete from freezing. Use 4,000 psi mix.

1204 POURED CONCRETE STEPS

Install new poured concrete steps. Remove old steps and haul from building site. Form new steps with no more than 7¾" rise and no less than 10" tread. All risers equal and all treads equal. Provide a continuous 42" footing for the steps. Trowel smooth and leave a light broom finish. Use 4,000-lb. psi, compression strength, concrete mix for steps. 3,000 psi mix may be used in footings. Do not pour if temperature is below 35° F without covering with insulated blankets or other sufficient means of keeping concrete from freezing. Steps with four or more risers will require a 1 ¼" wrought iron handrail as per code.

1205 PRE-CAST CONCRETE STEPS

Install ready-made concrete steps. Steps at the house entry will have a 36" platform. Steps with four or more risers will require a 1¼" wrought iron handrail as per code. Provide an 8" diameter, 42" post footing at all four corners of the steps. Quality and price to be mid-range.

1206 SEALING FOUNDATION WALLS

Remove efflorescence, mineral salts, grease, oils, etc. Rout out all loose, soft deteriorated mortar. Tuck-point all crevices, cracks, joints, holes, etc. so as to secure and bind together all foundation block securely. Apply a coat of masonry coating as per manufacturer's instructions to seal the foundation. Material may be applied by brush. Include a bonding agent in the mix where walls have been previously painted. This application is not a guarantee of a dry basement, but is a preventive measure to lessen the chances.

1207 SEALING FOUNDATION WALLS-STRUCTURAL SKIN

Remove efflorescence, mineral salts, grease, oils, etc. Rout out all loose, soft deteriorated mortar. Tuckpoint all crevices, cracks, joints, holes, etc. so as to secure and bind together all foundation block securely. Apply a coating of Structural Skin or equal surface bonding cement as a sealer. This product will be a combination of Portland cement, glass fibers and bonding chemical. Apply the mixture to the surface with a hand trowel to a minimum thickness of ⅛" to dry concrete walls.

1208 TUCK-POINTING

Remove and replace all deteriorated bricks which are no longer securely held with mortar. Remove all surface deteriorated mortar from brick mortar joints, which are not secure, back to a depth of at least ¾". Brush out joints, free from dust and moisture. Force mortar into joints, strike or rake and tool to match existing conditions.

Do not apply to frozen or frost filled masonry or when temperatures are below 45° Fahrenheit.

1209 BACK PLASTERING BASEMENT WALLS

Remove efflorescence, mineral salts, grease, oils, etc. Scrape, rout out all loose, soft and deteriorated mortar. Tuck-point all crevices, cracks, joints, holes, etc. so as to secure and bind together all foundation blocks securely. Lay prepared cement plaster on dampened walls with a brush or trowel and level out. If walls become dry or coating starts to pull during application, dampen walls again. Apply to all walls from basement floor to sill plate. This application is not a guarantee of a dry basement but is a preventive measure to lessen the chances. Do not apply in temperatures below 40° F. Use a premium plaster mix.

1300 MISCELLANEOUS

1301 PEST CONTROL

Only a licensed and insured professional exterminator will be used to treat for termites, rodents, post beetles or other pests. Upon completion of the work the exterminator will furnish a certificate of completion.

1302 RADON MITIGATION

Only a licensed radon mitigation specialist in Iowa shall perform the work and all work shall be done in accordance with the applicable portions of the following codes and standards:

1. Iowa Administrative Code [641] Chapter 44, latest version
2. ASTM E2121, latest version
3. EPA Mitigation Standards
4. Building, electrical, and mechanical codes currently in force in the jurisdiction in which the work is performed
5. Other local, state, and national laws.

1303 TREE TRIMMING

Trim all tree branches either dead or alive that are detrimental to the structure as determined by an inspection made by this office. Contractor shall remove all debris from the premises. Wounds to be dressed with standard tree wood dressing compound.

1304 GRADING

Grade soil away from foundation with maximum rise and slope as feasible. Soil should be no closer than 6" to top of foundation with sufficient drainage to prevent water from collecting next to and seeping into foundation. Cover bare soil with grass seed. Soil is to be tamped to a tight condition to prevent erosion.

1305 CISTERN FILL

Break off top of cistern 6" below ground level. Fill cistern with sand to a rough grade four (4) inches below the surface. Fill level with ground surface with black dirt and rake in grass seed.