

**St. Johns County
Community Development Block Grant — Disaster
Recovery
Construction Standards Guidebook**

Revised March 18, 2021



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OVERVIEW

This policy describes St Johns County’s construction standards for all housing programs utilizing CDBG-DR funding.

PURPOSE

The Construction and Rehabilitation Standards adopted by St Johns County for the Community Development Block Disaster Relief (CDBG-DR) Program shall apply to all housing projects assisted with CDBG-DR funds. The Construction and Rehabilitation Standards define a standard and code compliance level for the construction and rehabilitation necessary to correct health, safety and building code violations to achieve decent, safe and sanitary housing. All housing constructed or rehabilitated must meet all applicable local codes including International Existing Building Code and International Property Maintenance Codes, rehabilitation standards, ordinances and zoning ordinances at the time of the project completion.

VERSION HISTORY

St. Johns County CDBG-DR General Policies and Procedures

Version	Date	Page	Description
#1	02/05/2019	NA	NA
#2	09/26/2019	Various	See Program and Policy Change Tracking Ledger
#3	08/31/2020	Page 5	See Program and Policy Change Tracking Ledger
#4	3/18/2021	Various	See Program and Policy Change Tracking Ledger

VERSION POLICY

Version history is tracked in the table above, with notes regarding version changes. The date of each publication is also tracked in this table. The first version of this document is 1.0.

Substantive changes within this document that reflect an addition or removal in a construction standard or change in a construction standard which may impact applicant eligibility change will result in the issuance of a new version 2.0, an increase in the primary version number. Future policy changes will result in additional revision and issuance of a new primary version number.

Non-substantive changes within this document that do not affect the interpretation or applicability of the policy (such as minor editing or clarification of existing policy) will be included in minor version updates denoted by a sequential number increase after the primary version number. Such changes would result in a version number such as 2.1, 2.2, etc.

POLICY CHANGE CONTROL

Policy review and changes for the St Johns County Housing Recovery Program are considered through a change control process. When construction standard additions or

deletions occur or there are changes which may impact eligibility or functionality of the program, program staff will discuss potential changes with Program and Policy Review Committee (“Review Committee”) for their review and consideration. These actions will require review and determination by the Review Committee. The issue will be discussed by the committee members at an internal committee meeting. Minor changes to construction specifications or the addition of language clarifying a construction method, types/quality of materials and related construction processes will be conducted upon review and approval by the Program Inspector, Housing Recovery Program Manager, and the CDBG-DR Program Manager

The Review Committee will take a decision to approve the change, deny the change, or defer action on the request. If the change is approved, the Review Committee will communicate its decision to the Program Manager. The Program Manager disseminates the new policy in a communication via email to all program staff and instructs the Compliance Specialist to reflect the change in the next revision to written policies and procedures. If the Review Committee decides to deny a change, no further action is taken. If a change is deferred, the Review Committee will request additional supporting information as necessary and place the item on the agenda for consideration at the next meeting

The Review Committee meets bi-weekly, as needed, to consider all pending requests but may meet as frequently as necessary to consider critical policy decisions. The Review Committee has authority to review and approve policy changes, render decisions on individual case appeals, and review waiver requests to the existing program cap to be submitted to the Florida Department of Economic Opportunity (DEO) for review and consideration.

POLICY

Housing that is rehabilitated or reconstructed under the CDBG-DR Program will include the U.S. Department of Housing and Urban Development (HUD) required Green Build standards, elevation standards for reconstruction, repair of substantial damage, or substantial improvement, and Resilient Home Construction Standard when feasible. Moreover, rehabilitation scopes must meet the Housing Quality Standards (HQS) as defined in 24 Code of Federal Regulations (CFR) §982.401, correction of code violations and storm damage related repairs. The inspections will identify what the repairs fall under (green build, resiliency, HQS, code violation, or flood-related). All deficiencies identified in the final inspection must be corrected before final payment is released to contractor. All products and materials must be new, in good condition and of standard, builder grade quality. Any damage to products and materials in shipment to the project site must be replaced at the contractor’s expense. To minimize additional costs and potential issues for the program, homeowner will not be allowed to pay the difference for a higher quality material and any additional labor required for installing the up-graded material.

DEFINITIONS

Rehabilitation is defined as non-emergency repair or renovation of a limited specified area or portion of a housing structure. Rehabilitation shall also be defined as bringing rehabilitated portions of properties into compliance with local building codes, and the entire structure into compliance with HUD Minimum Property Standards (MPS) (or applicable Building Code being enforced) and HQS, including compliance with Section 31 of the Federal Fire Prevention Control Act of 1974 and local building codes and

standards.

Rehabilitation shall be limited to “stick-built” structures that have been deemed feasible for rehabilitation and manufactured housing unit with less than \$25,000 in repairs for manufactured housing units (MHU) constructed after 1994. MHUs constructed after 1994 are not eligible for rehabilitation.

Replacement is the demolition and removal of MHU followed by the replacement of a new, standard manufactured housing unit on the same lot, and in the same footprint as the original unit when feasible.

Elevation applies to new construction, repair of substantial damage, or substantial improvement of structures located in an area delineated as a flood hazard area or equivalent in the Federal Emergency Management Agency (FEMA) data source identified in 24 CFR 55.2(b)(1).

Reconstruction is defined as the demolition and rebuilding of a stick-built or MHU on the same lot in substantially the same footprint and manner. This activity also includes replacing an existing substandard MHU with a new or standard MHU or stick-built/modular housing unit.

The number of units on the lot may not increase, and the total square footage of the original, principal residence structure to be reconstructed may not be substantially exceeded; however, the number of rooms in a unit may be increased or decreased.

REPAIRS PERMITTED

This program will offer standard, basic, readily available amenities to make a home decent, safe, and sanitary and all improvements will be assessed for compliance with HUD Section 8 Existing HQS, and local building codes. Luxury items, including but not limited to granite (or other high-end) countertops, hardwood floors, high-end appliances, stone flooring, garage door openers, security systems, swimming pools, fences, and television satellite dishes are not eligible under St Johns County CDBG-DR Housing Programs. The Policy Review Committee reserves the right to consider a “like” replacement on a case by case basis if a determination can be made that the “like” replacement is a cost effective energy measure, compliant with local building code, meets Housing Quality Standards, and adds enhanced resilience to the home to weather future storms. Case by Case review will exclude all replacements that are considered a luxury item.

All work required to address damages from impacts of Hurricane Matthew is eligible in order to remediate those damages and provide resilience to the structure against similar impacts from storm events in the future.

SITE WORK

Grading

All grading adjacent to the building must keep water away from the foundation of the structure. Grading must promote positive drainage away from the home and away from any neighboring structures, and shall not be less than 1% away from the structure.

Trees and Shrubbery

Any trees or shrubbery which are dead, dying or hazardous will be removed.

- Removal will include cutting close to the ground, grinding of the stump to 12

inches below the finished grade, installation of topsoil and re-seeding.

Any trees or shrubbery damaged during construction will be replaced.

- Replacement trees and shrubs must be selected from the state-provided list of local, drought-resistant, and non-invasive plant materials. In placement of trees, attention should be paid to shading the house to reduce air conditioning costs. Also, trees should be located a sufficient distance from foundations, sidewalls, walkways, driveways, patios, and sidewalks in order to avoid future damage from root growth and branches brushing against the structure. Setbacks from structures should typically exceed half of the canopy diameter of a full-grown example of the species.

Lawn

Exposed soils shall be vegetated immediately upon completion of land alteration activities. For slopes 4:1 and steeper, sodding is required. For slopes less than 4:1, areas shall be seeded.

Outbuildings

Any unsafe or structurally unsound outbuildings will be removed at the Owner's approval, and the site of the structure graded and either reseeded or covered with sod. Replacement of outbuildings is not permitted under this program.

Fencing

Fencing will only be replaced where it is damaged during construction or is in substandard condition which poses a safety threat on the property. All fencing and gates will be constructed to comply with local code requirements for material and height. To the greatest extent possible fencing will be replaced to match the existing fencing.

Wood fencing material shall be redwood or cedar of "Select" grade or better. Fencing should be constructed with posts set a minimum of two feet deep in concrete. Fencing should be installed in "good neighbor" fence style with all gates containing self-latching hardware.

Steel tube with chain link fencing is permissible but should be kept under 3' in height. Steel posts must be set a minimum of two feet deep in concrete.

Walkways

Where walkways are in substandard condition and pose a trip hazard, damaged or deteriorated components are to be repaired so as to match existing material to the greatest extent possible. Where a walkway needs to be reconstructed, it shall be replaced with concrete walkway. The walkway shall be dug out and have 2" of sand, or gravel fill beneath concrete, and 3.5" of concrete unless otherwise specified by code. Concrete shall have expansion joints at maximum of 6' intervals and shall be light broom finished.

EXTERIOR PORCHES

Porches eligible for rehabilitation or replacement must be attached to the primary residence being rehabilitated. Deteriorated concrete porches will be repaired when possible. Unsafe wood porch components will be repaired with readily available materials to conform closely to historically accurate porches in the neighborhood. Porch repairs will be structurally sound, with smooth and even decking surfaces. Deteriorated wood structural components will be replaced with preservative-treated

wood. Porches on building designated as historic will be rebuilt to conform closely to historically accurate porches in the neighborhood. Decks on non-historic porches will be replaced with minimum 5/4" preservative-treated decking. Replaced railings will meet code. Replaced wood structural components will be preservative-treated.

Existing handrails will be structurally sound. Guard rails, 36" in height, are required on any accessible area with a walking surface over 30" above the adjacent ground level. Sound railings may be repaired if it is possible to maintain the existing style. On historic structures railing repairs will be historically sensitive. Handrails will be present on one side of all interior and exterior steps or stairways with more than two risers and around porches or platforms over 30" above the adjacent ground level and will meet local codes. Handrails and guard rails will conform to the style of similar components in the neighborhood. On historic structures new railings will be historically sensitive.

Steps, stairways, and porch decks will be structurally sound, reasonably level, with smooth and even surfaces. Repairs will match existing materials. In non-historic structures wood decking may be replaced with minimum 5/4" X 6" preservative-treated material and new steps will be constructed from nominal 2" preservative-treated wood. Replacement of decks and steps will be constructed in conformity with local historic requirements.

Replacement of porch posts will include removal and disposal of existing posts and installation of 4" x 4" preservative-treated post on a 2"x 8"x 8" PTP plinth block. Damaged porch ceilings will be repaired when possible. Ceiling replacement will include either:

- Covering the porch ceiling with minimum 3/8" CDX plywood. Install cove molding at perimeter and 2" wide batten strips at seams, or
- Installation of 1x4 furring strips @ 16" o.c. with solid vinyl soffit.

FOUNDATION

All foundations and slabs must be constructed according to local code. Site must be graded and ground immediately adjacent to the foundation for a distance of 10' from the foundation must have a 1% slope.

Excavation for footings or foundation walls shall extend below depth of soil subjected to seasonal or characteristic volume change to undisturbed soil that provides adequate bearing.

Alternate Seasonal Wetting and Drying. This is especially important with expansive soils. If expansive soils exist, consult a geotechnical engineer to obtain required footing depth.

Footing Depth. The footings shall be deep enough to provide required uplift capacity. (This value may need to be determined for high wind areas after the calculations needed to determine footing bearing have been completed.)

Foundation Walls

Footings and foundations shall be constructed of solid materials such as masonry or concrete.

Foundation Requirements

All exterior walls, marriage walls, marriage wall posts, columns, and piers must be

supported on an acceptable foundation system that must be of sufficient design to support safely the loads imposed, as determined from the character of the soil.

Height Above Grade. Foundation walls shall extend at least 8" above the finished grade adjacent to the foundation at all points.

Minimum Foundation Wall and Wall Footing Thickness. For masonry or concrete construction, the minimum foundation wall will be 6 inches. The minimum reinforced concrete footing thickness will be 6 inches or 1-1/2 times the length of the footing projection from the foundation wall, whichever is greater.

Pier and Column Footing Requirements

Footings for pier foundations shall be reinforced concrete and should be placed level on firm undisturbed soil of adequate bearing capacity and below the frost penetration depth. They can also be placed on engineered, compacted fill, approved by a licensed engineer.

Unusual Conditions. Where unusual conditions exist, the spacing of piers and pier size and the load bearing capacity of the soil shall be determined specifically for such conditions.

Minimum Pier and Pier Footing Thickness. The minimum thickness for a pier is 8 inches. The minimum thickness for pier footings is 8 inches or 1-1/2 times the length of the footing projection from the pier, whichever is greater.

Footing Reinforcing (Horizontal)

Reinforce footings when the projection on each side of the wall, pier, or column exceeds 2/3 of the footing thickness, or when required because of soil conditions.

Masonry Piers and Walls

All masonry piers and walls shall have mortared bed and head joints.

Crawl Space Requirements

Height Requirement. Ground level must be at least 18 inches below bottom of wood floor joists and 12 inches below bottom of chassis beam. Where it is necessary to provide access for maintenance and repair of mechanical equipment located in the under floor space, the ground level in the affected area shall not be less than 2 feet below wood floor joists.

Interior vs. Exterior Ground Level. The interior ground level must be above the outside finish grade unless:

1. Adequate gravity drainage to a positive out fall is provided, or
2. The permeability of the soil and the location of the water table is such that water will not collect in the crawl space, or
3. Drain tile and automatic sump pump system are provided.

Openings. Locations of crawl space openings and ventilation openings should be on long foundation walls. Avoid any openings on short foundation walls. Sill plates or other structural members should not be randomly cut to accommodate openings. Continuity of structural members must be maintained.

Slab

Install a continuous 4" thick slab using a 3,000-psi mix. Make sure that the soil is uniformly and properly compacted and install 6-mil polyethylene sheet directly under the

concrete to create a continuous vapor barrier ideally in one sheet but lapped 12" and taped at seams if seams are absolutely necessary. Include plastic reinforcing fibers in the mix. Screed, float, and finish with a steel trowel to a smooth surface that drains water to any existing drains, and strike control joints in the wet concrete at minimum 12'-0" intervals.

ELEVATIONS

All elevations must be conducted utilizing a post or column, crawl space or pier elevation construction method so as to provide the least amount of displacement of potential flood waters. FEMA guidance on elevated residential structures should be taken into consideration as described in the FEMA 54 Elevated Residential Structure document. All elevations must be conducted in accordance with local code with the contractor responsible for all necessary permitting and inspections. The physical elevation of a structure can only occur by a certified contractor experienced in physically elevating residential structures. The site must be cordoned off and all necessary safety precautions taken and adhered to during the elevation of the property.

STRUCTURAL WALLS

All existing walls must be free of significant bowing, pest/rot damage, structural deficiencies and must be constructed according to local code. Structural framing and masonry will be free from visible deterioration, rot, or serious termite damage, and be adequately sized for current loads. Prior to rehab, all sagging floor joists or rafters will be visually inspected, and significant structural damage and its cause will be corrected. New structural walls shall be installed on 12", 16" or 24" modules, or as required by structural conditions and local code. All exterior walls that are part of the building envelope (the air barrier and thermal barrier separating the conditioned space from the non-conditioned space) will be insulated with a minimum R-13 insulation and sheathed to code. Replacement or repair to structural components of any structural, load bearing wall shall only take place with appropriate temporary supports in place, as needed to ensure safety and to prevent damage to the structure, before work on the structural components begins.

DOORS AND WINDOWS

Exterior Doors

Front entry doors shall be 1¾" pre-hung solid core insulated (metal or fiberglass) or foam core, such as Simpson or Stanley, and shall include a new threshold, weather-strip and hardware, including new lockset and single-throw deadbolt, wide angle peephole and hung on three brass finished steel butt hinges. When two or more locksets are installed, they are to be keyed alike. All strike plates will be secured with at least a properly pre-drilled 3" screw.

All exterior doors and doors into garage shall include new weather-stripping and threshold. All weather-stripping must be good quality and durable (not self-adhesive). Doors between attached garages or carports and living areas shall be a minimum 1 3/8" solid wood core, flush type, with self-closing and self-latching hardware

Where pre-hung doors are to be installed, remove the existing door, jamb and casework completely to framing. Install new pre-hung door unit of maximum standard size allowed by framing. Provide trim and hardware. Patch to previous condition all plaster and like finishes around door frame.

Where applicable, remove the door sill and install an oak or aluminum sill properly anchored to the door frame. Refit the bottom of the door to the door sill. Weather-strip bottom of door with interlock or vinyl insert door sweep. Weather-stripping shall be metal with rubber insert Jamb- up Tite type or written approved equal, applied snug up to the door. No paint is allowed on weather-stripping. If called for in work write-up, contractor shall install necessary weather- stripping at sides and top of door to form a tight seal with door closed.

For new doors in existing openings, repair frame and fill all holes and irregularities in casework. Relocate hinges to previously unused section of jamb. Mortise hinges into door and jamb per manufacturer's recommendation, provide all hardware.

Garage Doors

Garage doors should be of a quality of Wayne Dalton Door System, Line Specialty Vinyl, or approved equal. Garage door are to be white in color. Door sized to match existing garage door or existing opening. Installation includes overhead track, hardware, door, and installation.

Crawl Space Door

Install a 3/4" CDX grade plywood access door in a 2"x 4" preservative-treated frame. Provide galvanized iron hinges and hasp.

Interior Doors

Interior doors should be free of holes and cracks and should be able to swing easily and fully close and lock if a lock set is present.

Interior doors should, at a minimum, be a hollow-core, pressed-wood product consistent with the style of existing doors including a bedroom lock set.

Door stops shall be solid metal base installed where appropriate. Install solid metal hinge mounted doorstops if base mounted type is not appropriate.

Windows

All windows designed and intended to open must function accordingly. Windows intended to open must operate properly, remain in an open position when placed there, lock when closed and the open section will be covered with a screen. Windows cannot contain missing panes or panes with cracks. Cracked panes should be re-glazed when possible. Re-glazing must include double strength glass. Missing or damaged sash locks or sash cords must be replaced with sash cords being nylon reinforced cotton or metal chain. Windows will be replaced when the following conditions exist:

- ❑ The window is a single pane, or non-insulated aluminum or wood frames exist, will be always be replaced.
- ❑ The windows do not operate with normal effort or do not lock and cannot be fixed cost effectively (50% less than the cost of replacement) in the estimation of the Inspector. Windows requiring repairs which a less that 50% of the cost of replacement may be replaced if the existing window does not meet ENERGY STAR standards or rating.
- ❑ Damaged windows or widows with damaged framing which cannot be fixed cost effectively.
- ❑ Windows which show evidence of being submerged by flood water.

Windows will be replaced with vinyl, gas-filled, low E, pre-glazed, ENERGY STAR rated windows with screens. Windows must open and close easily and be capable of locking. Windows with components that do not open (fixed windows) do not require screens. Missing or broken screen must be replaced

Fixed windows will only be replaced when the framing is damaged to the extent that repair is not feasible.

Replacement of windows will include, removal of sashes, jambs, interior and exterior moldings. Provision of all fillers and shims as required to accommodate window. Reframing of opening and installation of window, jamb and casing per manufacturer's recommendation. Repair exterior siding and interior wall. Install interior casing trim consistent with interior trim. All glass doors and windows will be tempered glass where required by code.

Sliding Glass Doors

Sliding glass doors must open and close easily, lock securely, contain no broken glass, be securely installed and must be less than 25 years of age. Glass doors with damaged tracks, locking mechanisms and/or rolling mechanisms will be repaired when possible otherwise sliding doors will be replaced.

Sliding doors will be replaced with vinyl clad or anodized aluminum finish, Argon gas-filled, low E, pre-glazed, ENERGY STAR rated windows with screens. The glass door must open and close easily and include a functioning locking system.

Replacement of windows will include removal of the glass door components, tracks and framing, jambs, interior and exterior moldings. Provision of all fillers and shims as required. Reframing of opening and installation of sliding glass door, jamb and casing per manufacturer's recommendation. Repair exterior siding and interior wall. Install interior casing trim consistent with interior trim. All glass doors and windows will be tempered glass where required by code.

All new sliding glass doors will include aluminum framed screens.

Glass Block

Glass block can only be used to replaced damaged basement windows which did not function as a fire escape. Glass block must be 4" thick glass block to be installed in opening, per manufacturer's specs, tool joints, install expansion spacers around perimeter and mortar to existing foundation or framing. Trim exterior and interior to match existing

ROOFING

Roofing must contain all necessary and appropriate flashing, fascia, roofing material, vents and structural components. The county will not "roof over" an existing roof.

Repairs

Rafters – Any damaged rafters will require sistering of a 2"x 8" support beam using a triangulated nailing pattern and cement coated nails, 8" on center. Rafters requiring replacement will be replaced with a 2"x8" pine rafter, crown up, from ridge board to fascia.

Shingled Roof – Missing, leaking or damaged shingles and flashing will be repaired on an otherwise functional roof unless otherwise called for by the inspector. Areas to be repaired will be inspected to identify the extent of the damaged area which may not be visible upon exterior inspection. Additional inspection will be conducted as roofing material is removed to ensure all damage is being addressed. Damaged shingles will be replaced with 220 lb. fiberglass asphalt, 3-tab shingle with a 25 yr. warranty. No more than two layers of roofing material is permitted for repairs. If repairs result in more than two layers then the roof should be removed down to sheathing for replacement. Roof sheathing will be inspected to ensure its effectiveness, durability and remaining life before new roofing materials will be installed.

Sealed Roof – Cut out and repair damaged areas. Hot mop roof with 1-1/2 pounds of asphalt per square foot.

Reconstruction

Demolition – Remove and dispose of all roofing & defective sheathing and framing.

Frame – Frame roof structure to match existing pitch with pre-engineered trusses or rafters sized to local code. Install 15/32" plywood deck with clips 2' on center, nailed 6" on center or as code requires.

Shingles – Install appropriate ridge vent and sheathing using pine board or CDX plywood of matching thickness a local code requires. Staple 15 lb. felt and install preformed white aluminum, drip edge, and vent pipe boots. Provide ice barrier underlayment at eaves and extend 24" inside exterior wall line. Install 220 lb. fiberglass asphalt, 3 tab shingle with a 25 yr. warranty. Replace all flashing. Install shingle-over ridge vent. Materials may be adjusted according to local code.

Sealed – Determine warm or cold roof construction. Replace damaged decking or install new decking of 3/8" plywood or Oriented Strand Board (OSB) or as code requires.

Install insulation, vapor barrier, additional sheathing or other barriers, depending on a warm or cold roof installation, per manufacturer's direction. Seal with 3-ply, hot-built up or Ethylene Propylene Diene Terpolymer (EPDM) per manufacturers instruction.

Chimney

Roof replacement that includes and unused chimney will result in the removal of the chimney. Unused chimneys will be removed to below the roof line wherever roofing is replaced. Unsound chimneys will be repaired or removed. When chimneys must be used for combustion ventilation, they will be relined.

Chimney Repoint – Repair chimney above roof area by cutting out mortar at least 1/2", removing all loose material, and re-pointing using Portland cement mortar. Saturate joints with water before applying mortar. Match color as closely as possible. Replace all missing and defective materials with matching materials. Clean mortar and other debris from adjoining surfaces and gutter.

Chimney Cap – Replace chimney cap with a 2'x2' precast, concrete cap cemented in place or as required by code.

Rebuild – Tear down chimney to below lowest point on roof. Rebuild chimney using new 4" thick solid bricks without cored holes. Color of brick to match

existing as close as possible. Chimney to a height required by the Building Code. Install roof flashing, chimney cap and terra cotta flue liner.

Soffit material on all horizontal edges of roof shall be vented unless otherwise noted. Where existing soffit material is unbroken, provide ventilation openings as required by code between rafters. Soffit material on rake edges shall be solid. One square foot of free venting must be supplied for every square foot of area directly under the roof if there is no soffit venting or as code requires. 1 square foot of free venting must be supplied for every 300 square feet of area directly under the roof if 20% of the venting is soffit vents and if the living space ceiling directly below the roof has a rating of one perm or less.

Fascia

Where fascia is deteriorated, replace with dimensional lumber of same width and minimum 3/4" thickness or 3/8" hardboard over 2X sub-fascia. Deteriorated rafter tails shall be sistered with 2x stock to provide sound nailing surface.

Gutters and Downspouts

Gutters shall be provided when either of the following conditions are present: (1) Soil is of such a nature that excessive erosion or expansion will occur or, (2) Roof overhangs are less than 12 inches in width for one story structures or less than 24 inches in width for two story structures. b. When gutters are omitted, a diverter or other suitable means shall be provided to prevent water from roofs or valleys from draining on uncovered entrance platforms or steps. All gutters and downspouts must function properly without leaks and collect all water from lower roof edges or drains. They must drain water at least 24" from the base of the structure. Gutters must be constructed of 5", seamless aluminum to be white in color. A splash block must be installed along gutters where downspouts feed into those gutters. Downspouts must be 5", seamless, white aluminum with secure straps at least 3' on center. Downspouts must contain extensions which drain water at least 24" from the base of the structure.

EXTERIOR FINISHES

Exterior finishes which include material containing asbestos will be removed and disposed of in accordance with local environmental removal, handling and disposal requirements. Where state or local regulations do not provide guidance US EPA standards will be utilized.

All exterior finishes must be free of damage, rot, termite or pest infestation, significant weathering/deterioration and must be present over the entirety of the exterior of the structure. Exterior finishes must effectively protect a structure from weather elements and animal or pest entry into the structure.

Painted surfaces must be free of chipping and peeling paint. All exterior lead based paint must be removed and disposed of in accordance with local environmental removal, handling and disposal requirements. Where state or local regulations do not provide guidance US EPA standards will be utilized.

Repairs

Stucco – For Historic homes, use the State Historic Preservation Office (SHPO) or local historic association guidelines for repair. Use an experienced, professional stucco repairer. Remove damaged stucco and wire, attach new

wire to patch area and apply scratch, brown and color coats. Feather patch into the surrounding surface. Match existing color as closely as possible. Repairs should be in accordance to stucco type.

Cement Shingle – Replace all damaged and missing cement shingles with fiberglass- cement shingles with matching edge detail. Use galvanized 6d nails and caulk all seams at openings and trim.

Clapboard – Remove damaged siding to the joint over nearest stud. Apply matching pine siding to walls with galvanized nails. Break all seams over studs. Prime ready for top coat.

Cedar Shingle – Remove damaged and deteriorated shingles. Install 18" #1 cedar shingles with an 8" exposure using aluminum or galvanized nails.

Masonry and Veneer – Repair, repoint and clean all masonry and stone in compliance to Masonry Trade Standards and Brick Industry Association recommendations.

Vinyl Siding – Always check for hazardous materials. Locate and repair cause of siding damage. Repair in accordance with industry standards best practices. Replacement siding must meet size and color or existing siding. Replacement of siding must accommodate positive drainage to exterior for moisture entering or condensation within panel system. Check for warranty coverage.

Trim – Any damaged, rotting, or missing trim must be replaced with dimensional pine stock. Wrap all exposed trim with vinyl, including required starter pieces.

Exterior Wall Finish Replacement

Where exterior wall finishes are in such poor condition as to require complete replacement, as determined by the inspector, wall finishing will be involve the installation of new low- maintenance vinyl siding.

The system must accommodate positive drainage to exterior for moisture entering or condensation within panel system. Hang vinyl clapboard siding including all cornice, corner, door and window trim after replacing all deteriorated exterior building components. Wrap home with Tyvek vapor/ infiltration barrier and apply Owner's choice of siding color, exposure, and texture with 50-year warranty. All installation must comply with manufacturers written installation instructions.

Exterior Trim

Low-maintenance trim materials such as vinyl, cellular PVC, or pre-finished cement boards. All exterior wood trim shall be solid wood free from knots, defects and warpage.

Paints, Stains Varnishes

Use Low-VOC paints, stains and varnishes use water as a carrier instead of petroleum-based solvents to reduce the levels of harmful emissions and presence of heavy metals and formaldehyde. Paint shall be delivered to the site in original containers labeled by the manufacturer, with seals unbroken.

If the exterior is stained wood, the finish shall be a solid-body stain, not the transparent or semitransparent type.

- Exterior Siding: 2 coats solid-body stain over pre-primed siding
- Exterior Trim: 1 coat primer, two coats semi-gloss paint

INSULATION AND VENTILATION

Air Sealing

Seal all accessible cracks, gaps and holes in the building envelope (the barrier between the indoor conditioned space and the outside) with low-VOC caulk (if <1/4") or expanding foam (if > 1/4"). Seal all top plate and bottom plate penetrations. If the foundation masonry wall is open core concrete block seal the tops of the block with expanding foam. Seal all penetrations created by plumbing, gas lines, electrical boxes, and outlets. Seal large accessible gaps around windows between house framing and window frame - use special care on large sliding glass doors and vinyl-framed windows: do not use expansive foam on these. Take care to seal all joints without excess sealant. Seal any gaps in the building envelope adjacent to flues with carefully cut to fit sheet metal that is securely fastened to framing sealing all seams and gaps with fire rated caulk. Seal recessed light fixtures in ceilings that are part of the building envelope and are not rated for insulation contact with an airtight box made of drywall sealed to the ceiling. Seal IC rated recessed fixtures with caulk. Seal any entries to attic space using weather-stripping on attic doors or hatches. Air sealing must be done prior to the installation of insulation.

Insulation

Wall Insulation, Fiberglass BATT – Fiberglass wall insulation must be a minimum of R-13, or appropriate R-value for the climatic zone as per Energy Star for homes, Batt, 3- 1/2" thick insulation. Staple insulation to studs per manufacturer's specifications. Ensure insulation fills all gaps with wall cavities.

Wall Insulation, Dense Pack Cellulose – After Air Sealing drill 2 1/8" to 2 9/16" access holes for each stud cavity in the areas specified in interior or exterior locations. Install blow in borax treated (no ammonium sulfate permitted), cellulose insulation per manufacturer's specifications and dense-packed into all specified wall cavities to a minimum density of 3.5 lbs. per Cubic Foot for the entire cavity. Check each stud cavity for blocking and other obstructions prior to blowing. Carefully seal all drilled holes with wood or foam plugs and patch all holes to match surrounding materials if the surface is exposed.

Wall Insulation, Damp-Spray Cellulose – After all mechanical systems, including but not limited to ductwork, plumbing, and wiring, has been installed and after air sealing install a damp-spray cellulose product at a density of 3.25 Pounds per Cubic Foot that conforms to the Consumer Product Safety Commission's 16 CFR Part 1209. Protect electrical boxes, ductwork outlets and other components in the wall whose performance would be compromised by the application of the cellulose. The installation shall completely fill the specified cavities of the building envelope without voids. After spraying the cellulose will be scrubbed off of the face of the interior side of the framing so that the surface of the installed cellulose is flush with the framing, and so that the finished wall surface may be installed directly on the face of the framing without obstruction. The worksite shall be cleaned to remove overspray and scrubbed cellulose. The installation shall be allowed to cure to the manufacturer's requirements prior to the installation of a wall finish.

Ceiling Insulation, Fiberglass BATT – Fiberglass ceiling insulation must be a minimum of R-30 BATT type insulation. Loose lay 12" thick R-30, or appropriate R-value for the climatic zone as per Energy Star for homes, unfaced fiberglass

batts between the ceiling joists carefully fitting the fiberglass around obstructions such as wires, pipes ductwork and building components to ensure a consistent and continuous R30 or climatic zone appropriate rating.

Attic Cellulose – After Air Sealing install blow in borax treated (no ammonium sulfate permitted), cellulose insulation per manufacturer's specifications to R-30 or appropriate R-value for the climatic zone as per Energy Star for homes. Maintain ventilation routes from soffit and other vents with baffles. Replace all material removed or cut to gain access to match existing materials. Note: If access to attic is via a fixed staircase insulate stairs to attic, landing & interior stairwell walls as part of this item dense- packing the cellulose into closed floor, stair, and wall cavities to a minimum density of 3.5 lbs. per Cubic Foot. If access is via a hatch insulate the hatch with 3" of reflective foil-faced polyisocyanurate foam and seal edges with compatible foil tape. If access is via a fold down stair insulate the stair with an airtight 2" thick reflective foil-faced polyisocyanurate foam box with seams and seal the edges with a compatible foil tape.

Crawl Space – R-19 Batt insulation with a continuous air barrier at exposed edges of insulation. As an alternative to insulating floors over crawl spaces, crawl space walls shall be permitted to be insulated when the crawl space is not vented to the outside. Crawl space wall insulation shall be permanently fastened to the wall and extend downward from the floor to the finished grade level and then vertically and/or horizontally for at least an additional 24 inches (610 mm). Exposed earth in unvented crawl space foundations shall be covered with a continuous Class I vapor retarder in accordance with the Florida Building Code, Building, or Florida Building Code, Residential, as applicable. All joints of the vapor retarder shall overlap by 6 inches (153 mm) and be sealed or taped. The edges of the vapor retarder shall extend not less than 6 inches (153 mm) up the stem wall and shall be attached to the stem wall.

Domestic Water Supply Insulation – Insulate exposed hot and cold water mains with closed cell polyethylene slip-on pipe insulation, sized to fit the pipe's diameter. Seal seams with either 5-mil Pipe Insulation sealing tape or Closure Clips designed for pipe insulation placed every 4 inches. Seal all butt joints between sections of pipe with 5-mil Pipe Insulation sealing tape. Neatly miter all angled junctions.

Duct Insulation – Wrap ducts/pipes with minimum 1-1/2" foil scrim R-4 fiberglass insulation. Secure and seal all seams with duct tape.

Rim Joist Insulation, Fiberglass – After Air Sealing is complete, staple R19 fiberglass batts with Kraft faced backing to the interior of the rim joist at the entire perimeter of the basement and/or crawl space exterior walls. Installation will extend from the subfloor for the first floor to the top of the foundation wall. The batts will be neatly cut to fit precisely with no compression of the fiberglass fibers, and cut to fit neatly around wires, pipes and other components that interfere.

Rim Joist Insulation, Foam– After cleaning the area thoroughly, apply expanding foam to the rim joist at the entire perimeter of the basement and/or crawl space exterior walls. Install to R 19 at a minimum. Use a foam product that meets International Residential Code (IRC). Insulate from the subfloor for the first floor to the top of the foundation wall and seal all penetrations and the top of the foundation. Seal all openings within the area of the rim joist created by plumbing, gas lines, electrical boxes, or any other penetrations.

Rim Joist Insulation, Foam Board – After Air Sealing is complete, carefully install three layers of 1-inch foam board along the entire perimeter of the exterior of the building at the rim joist. Cut and carefully friction fit the boards between joists perpendicular to the rim joist. Fasten the straight runs of rim joist with construction- grade polyurethane adhesive and tack in place with mechanical fasteners. Seal all seams between foam boards with aluminum foil or white foil tape. Seal the edges of the foam boards to all adjoining flooring, joists, masonry, and sill plates with a low-VOC caulk. Trim and fit foam boards around penetrations through the rim joist and seal with caulk as stated above.

Kitchen Ventilation – All kitchens must have mechanical ventilation operating at a maximum of 20 Sones and producing a minimum of 150 CFM after accounting for ducting losses. All ductwork will be heavy gauge galvanized metal, air tight with mastic- sealed seams (no duct tape). It is preferred that mechanical ventilation exit at side walls and not at the soffit to minimize the potential for ice damming.

ELECTRICAL

Any exposed knob and tube wiring will be removed and if necessary rewired according to current National Electric Code and in conformity with current local electrical code. Every room will have a minimum of two duplex receptacles, placed on separate walls and one light fixture or receptacle switched at each room entrance. Basements will have a minimum of three keyless bare bulb fixtures switched at the top of the stairs. All light switches are to be ivory or beige in color (choice by homeowner) with switch plate to match in color.

Hazards

All switch, receptacle, and junction boxes will have appropriate cover plates. Cover plates cannot be damaged and must fully cover the associated hole. Wiring will be free from hazard, and all circuits will be properly protected at the panel. Floor receptacles will be removed, and a metal cover plate installed. All exposed wiring must be addressed and properly secured.

Existing wiring and equipment shall be in proper operating condition; free of taped splices, loose connections, missing insulation, short circuits, or unapproved grounds. Service conductors shall not be frayed, worn or bare.

Fixtures

All light fixture must contain light covers. Only light fixtures in basements or attics not intended as or functioning as living spaces may contain light fixtures with exposed builds. All damaged or loose light fixtures must be replaced. Damaged ceiling fans may be replaced with ENERGY STAR rated lighted ceiling fan.

Receptacles

Bedrooms receptacles will be protected by an Arc Fault breaker. New or replacement receptacles will be ivory or beige (determined by homeowner), duplex receptacles with ivory or beige cover plates to match receptacle. Where the source wiring circuit is accessible receptacles must be grounded. All outlets in bathrooms, kitchen “wet areas” or other “wet areas” of the house must be Ground-Fault Circuit Interrupter (GFCI) outlets.

Washer – Install a flush or surface mounted duplex outlet for a washing machine on a separate 20-amp circuit using #12 copper NM cable.

Dryer – Install 220 volt, 30 amp, surface mounted receptacle on an individual circuit.

Outdoor receptacles – All outdoor receptacles must be weatherproof, 15-amp, ground fault protected, surface mounted receptacles.

Electric Panel

All residential electrical services will be 200-amp service, with main disconnect, 110/220-volt, 24-circuit panel board, meter socket, weather head, service cable, and ground rod and cable. Seal exterior service penetrations to maintain a waterproof building envelope. There must be one electrical receptacle at the service panel. Electrical panels located in basements should be elevated to the first floor of the residence as a flood resiliency consideration. Panels must be installed per code with all required permitting being secured.

PLUMBING

All existing equipment will be repaired to conform to the HQS. All service, distribution and return pipe, connectors, and accessories for Kitchen and Bathroom fixtures and heating systems shall function properly, shall not leak and shall be properly insulated. The main shut-off valve must be operable and completely stop the flow of water to the house. All fixtures must be leak-free and deliver sufficient cold water and, where applicable, hot water.

System including sewers shall operate free of fouling and clogging and not have cross connections which permit contamination of water supply or back siphonage between fixtures. Waste lines shall be tied-in to an approved sewer system. Any part of the dwelling which must be changed or replaced shall be left in a safe structural condition in accordance with applicable codes.

Water Heater

Each housing unit will have a working water heater less than 3 years old with a maximum capacity of 40 gallons if it is gas-fired.

Gas – Gas water heaters more than 3 years old may be repaired if it is clear that a repair will make it operable. Gas water heater replacement will include disposal of water heater in legal dump. Installation of a 4- gallon, glass lined, high recovery, insulated to R-7, gas water heater with a 10-year warranty. Include pressure and temperature relief valve, discharge tube to within 6" of floor or to outside of structure, vent, thimble, and gas piping from shut-off valve to fixture. Dispose of old water heater in code legal dump.

Electric – When replacing domestic water heating system(s), ensure the system(s) meet or exceed the efficiency requirements of ENERGY STAR for Homes' Reference Design. Insulate pipes by at least R-4. Electric water heater replacement will include disposal of water heater in legal dump. Installation of a 40-gallon, low profile, high recovery, glass lined, insulated to R-7, double element, electric water heater with 10-year warranty. Include pressure and temperature relief valve, discharge tube to within 6" of floor or to outside of structure, shut-off valve and electric supply.

Tankless/On Demand Water Heaters – Use ENERGY STAR-qualified tankless water heaters are permitted to conserve heating time and energy use if practical. The device should have a variable-set thermostat and be appropriately sized.

Fixtures

All plumbing fixtures must adhere to the following specifications:

- Toilets 1.28 gpf
- Showerheads – 2.0 gpm
- Kitchen faucets – 2.0 gpm
- Bathroom faucets 1.5 gpm
- All tubs are to be “Americast” or equivalent.
- All fixtures shall match existing fixture, when appropriate.
- All faucet/valves will be handicapped designated when necessary.
- All tubs/showers have anti-scaled guards.
- Kitchen sinks shall be 20 gauge stainless steel, double bowl with a minimum depth of 8 inches.
- Shower pans should be Floorstone where possible or similar grade to resist puncture.
- All supply pipes will be either copper or Pex line, NO Flowguard, Polybutylene, PVC or other.

Faucet Sets

Kitchen Faucet – Faucet center sets shall be single or double control, as noted in bid sheet, and shall be chrome-plated Moen, American Standard or equivalent in quality and design. Kitchen faucet sets shall be equipped with a spray attachment. Kitchen faucets must be water conserving fixtures (2.0 gpm). Tub/shower faucet center sets shall be single control, as noted in bid sheet, and shall be chrome-plated Moen, American Standard or equivalent in quality and design. Bathtub/shower facets must be water conserving fixture (1.5 gpm).

Shower/tub – Walk-in showers shall have a delta single handle temperature/pressure regulated faucet with a hand held shower spray on a slide bar. Showerheads must be water conserving fixtures (2.0 gpm).

Laundry – Faucet sets, over laundry trays, shall be standard double control with spout and connections for washer hoses. Wall or deck mount shall be noted on bid sheet.

Washing machine connections shall be equipped with shut-off valves installed per the currently adopted International Plumbing Code.

Toilets

Toilets shall include new seat with lid, wax seal, flange bolts, stop valve and water supply line and shall be Toto, Kohler, or American Standard or equivalent in quality and design. Toilets shall be Grade A in quality and low water capacity type (1.6 gallon) and at 1.28 gpf.

CLIMATE CONTROL

Inspect all HVAC systems for leaks, thermostat function, filters, structural soundness, deterioration, clearances, ventilation, corrosion etc. Check all boilers for

safety devices.

The distribution system shall be appropriate for the type of heating equipment to which it is connected. Install in accordance with manufacturer's printed installation instructions.

The replacement heating equipment shall be a proper fit in size to any other existing portions of the system, i.e. fuel lines carrying the appropriate quantity, type, and pressure of fuel, distribution and return systems carrying the appropriate cfm's to each location, air conditioning equipment rated to match the furnace, properly sized electrical circuits and equipment, etc.

Where the other equipment is improperly sized to fit the new equipment, it shall also be replaced or modified so that there is a proper fit.

Furnaces

All fuel burning heat units shall be vented through the roof or wall per manufacturer's specification and building codes. Forced air furnaces placed in attics must be installed with required sized catwalk, light fixture, and the ability to have access to it. All fuel burning appliances will have combustion air supplied per code Maximum British Thermal Unit (BTU) output on furnaces shall be designed according to the heating/cooling needs of the structure and shall be at least 80% efficiency units. Contractor to inspect and repair/replace, as necessary, all components related to the furnace installation, including vent system, gas lines, framing, sheetrock, roof jacks, etc. Contractor shall specify brand name, model number, size, and efficiency of furnace. Contractor to patch/repair sheetrock and floors when converting from wall or floor furnace to forced air systems. Any removal of materials containing asbestos shall be performed by a certified contractor, including proper disposal. Furnaces shall also include simple, easy to use setback thermostat control.

Forced Air – Install ENERGY STAR rated HVAC system of a quality and model type as defined by the inspector with temperature and humidity shut-offs to add fresh exterior air to the return plenum of the forced air HVAC system. Use 30-gauge rigid duct insulated with minimum R-6 vinyl or foil-faced duct insulation. The inlet should be carefully located on an outside wall to avoid the addition of contaminants or moisture into the return air system and must be placed a minimum of 10 feet away from sources of auto exhausts, clothes dryer exhaust, outside cooking facilities, laundry dryer vent, exhaust vent of heating units or bath and kitchen exhaust fan vents.

Other heating systems such as wood burning stoves or similar systems will be replaced with a central, forced air HVAC system with all associated duct work and electrical upgrades and modifications included to safely accommodate the addition of the system. The HVAC system must provide service to all living spaces within the residence. Owners who refuse to have their existing alternative heating system replaced must have the system improved to meet all local code.

Homes with no central climate control system such as homes utilizing window mounted A/C units, will be offered the installation of a central HVAC system with all associated duct work and electrical upgrades and modifications included to safely accommodate the addition of the system.

INTERIOR WALLS

Repair ceiling finishes to make surfaces smooth and uniform; free from any cracks, holes, loose joint tape, nail pops, indentations and loose and sagging drywall. Cut out cracks ¼" wide in a v-joint. Butterfly patches are acceptable on areas less than 2

square feet. Joint tape shall be used where repairs are needed at wallboard joints. Where holes or sagging drywall are present, the damaged drywall shall be replaced to the two nearest framing members, add backing to prevent future sag in sheetrock where practicable. Texture, prime and paint to match existing.

Wallboard

The cause of warped, damaged, discolored (water) or deteriorating ceilings, walls must be determined before the wall, ceiling is repaired. The problem that caused the wall, ceiling damage must be repaired to ensure the problem does not reoccur in the same area or causes problems in another area of the wall, ceiling, or dwelling. Holes, cracks and deteriorated and un-keyed plaster will be repaired to match the surrounding surfaces. All visual surfaces will be stabilized to minimize lead paint hazards using premium vinyl acrylic paint.

Gypsum board panels should be manufactured in the United States and labeled "made in the U.S.A." with the manufacturers name and manufacturing site location, shall be provided.

Ceiling – Use ½" (min) gypsum wall board or manufacturer's recommendations shall be followed in specifying ceiling drywall adequate for supporting the weight of specified attic insulation.

Interior Partitions – Use ½" (min.) gypsum wall board ("Drywall") on all interior partitions unless otherwise required

Wet/Moisture areas – Use ½" (min.) mold-resistant gypsum wall board, at bathrooms, kitchens, and wherever wall tile is indicated (except within tub or shower enclosures).

Exterior Walls – Use ½" (min.) gypsum sheathing board panels at exterior walls and ceilings where required. Provide gypsum core wall panels with additives to enhance the water-resistance of the core; surfaced with water-repellant paper on front, back, and long edges.

FLOORING

All interior floors must be level, in generally good condition and free of excessive traffic wear and trip hazards. Carpeting is not permitted in bathrooms and must be removed and replaced with tile or vinyl flooring. Baseboards will be installed in all rooms intended and functioning as living spaces.

Flooring style, material, color, and type will be determined by the Owner as is allowable under the estimated cost for materials and labor in the initial work write-up and as agreed upon by the contractor and Owner.

All flooring material shall be environmentally preferable flooring and include Floorscore certification. Carpet products must meet the Carpet and Rug Institute's Green Label or Green Label Plus Certification for carpet, pad, and adhesives.

Prepare surfaces by cleaning, leveling and priming as required. Test adhesive for bond before general installation. Install base and accessories to minimize joints. Install base with joints as far from corners as practical. Inside corners of base must be coped. Clean, polish, and protect.

Ceramic or Porcelain Tile

Tiles will be sheeted ceramic or porcelain tiles whenever possible unless single tile

installation does not significantly increase labor cost for installation.

All tile must be provided as indicated in work write-up, as specified herein and as needed for a complete and proper installation. Use standard grade glazed ceramic or porcelain tile and accessories in colors and patterns selected by Owner. For floor tiles, used only tile designed for the application.

Tiles on wood subfloor shall have ¼" fiber cement board (1/8" expansion gaps) over code compliant subfloor. All grout will be sealed as per manufactures instructions with mortar joints 3/8" or less. All thresholds between dissimilar flooring types will be as low in profile as possible, attractive in nature, and will be installed to hold up to wear and tear. Screw and glues will be used in lieu of nails where practicable.

- Ceramic or porcelain tile shall not be high gloss slippery surfaces.
- Deliver all unused ceramic tiles to Owner.

Sheet Vinyl

All sheet vinyl shall be single sheet whenever possible, no-wax type, and shall include proper preparation for floor surface prior to application of floor covering, per manufacturer's specification. Lay sheet vinyl to provide as few seams as possible with economical use of materials. Match edges for color shading and pattern at seams in compliance with manufacturer's recommendations. All cracks, holes and low spots in the underlayment shall be filled with approved filler and troweled to a smooth finish. All vinyl shall be installed wall to wall under most circumstances.

- The minimum and maximum thickness of the wear layer of sheet vinyl shall be 12/20 mils.
- The minimum and maximum total thickness of the sheet vinyl shall be 65/80 mils.
- The material selected must fall within the min/max limits in both categories.
- Wearing surface shall be smooth and slight texture.
- Seal as specified in manufacturer's installation manual. No seams permitted in floors with a dimension less than the manufactured width of the material.

On raised foundations with wood subfloor, the underlayment shall be a minimum 3/8" particle board or other approved underlayment.

Carpet

Work specified for carpet flooring covers furnishing, delivery and installation of wall to wall carpeting in areas noted with accessories such as edge strips and padding required for a complete installation. Submit duplicate swatches of sufficient size to show full range of colors of each type of carpet accompanied by respective material specifications. Color to be selected by Owner. Submit samples of carpet padding for selection by the Owner.

- Do not seem perpendicular to a door opening within the width of the opening.
- Extend carpet into adjoining closets.
- Provide vinyl grip type edge where carpet adjoins other surface materials.
- Deliver all unused carpet (pieces of 8 square feet or larger) to Owner.
- Padding will be ½" 6 or 8 lbs. except in the installation of Berber carpet unless otherwise required by code.

All floor material shall have manufacturer's written guarantee of materials and workmanship for a period of 7 years.

Alternate flooring may be acceptable depending on client need, cost of material, and subject to owner's approval.

Treads

All damaged or loose treads, or treads which do not conform to local code dimensions must be replaced. Replaced treads must remove damaged tread. Install nailers on each stringer for replacement tread. Install 5/4" pine stepping stock tread with glue and screw shank nails.

BATHROOM

All bathrooms must contain at a minimum one toilet and one sink with hot and cold running water. Each bathroom must have at least one GFCI outlet. At least one bathroom in each residence must have a shower/bathing facility which include a shower stall, bathtub, or a combo unit. All bathroom must have a window of not less than 3 square feet in size, one-half of which must be openable; or equipped with an artificial light and a mechanical ventilation system (fan) that exhausts to the outside or ventilated attic. All bathrooms must have a functioning back set, privacy lock set on all doors.

Vanity counter tops in bathrooms shall be either prefabricated cultured marble units with preformed sink, marble units with sink holes, or Formica with china bowl sink. Alternate materials shall meet or exceed the quality specified above and be equivalent or less in cost. Alternate materials shall be approved by Owner.

Bathrooms must contain a space for storage either as a vanity cabinet or as a wall mounted medicine cabinet. All bathrooms must contain a wall mounted mirror to be mounter per manufacturers recommendations. Any broken, cracked, or missing mirrors must be replaced.

Showers/Tubs

Tub Surround – Bathroom improvements can include the installation of a fiberglass or acrylic tub surround sized to fit the existing tub and shower space. Install a white fiberglass or acrylic, 3- or 5-piece, tub surround kit with a built-in soap dish. Caulk all joints with white, mildew resistant silicon caulk. Prepare substrate and attach panels using manufacturer's recommended adhesive and fasteners. All surrounds must be properly installed and sealed in accordance with the manufacturer's directions.

Replacement – A complete shower/tub enclosure repair/replacement shall include removal of existing wall coverings to stud wall, required structural repairs if any and installation of new material, as per work write-up. Type of finished for shower or tub wall surface material to be noted on work write-up. Ceramic tiles shall be standard 4" or 6"with mortar-backing on shower and tub surrounds. When replacing or repairing tub and/or shower enclosures, use non-paper-faced backing materials such as cement board, fiber cement board or the equivalent.

Tub replacement will include installation of a fiberglass tub and shower unit, sized to fit but no smaller than 60" x 30" x 72", complete with lever operated pop up drain and overflow, PVC waste, single lever shower diverter, shower rod and

tub/shower faucet and a shower head with a maximum 2.0 GPM flow rate. (Note: exterior wall sections behind the tub shower unit must be completely air-sealed prior to installation). A complete shower/tub enclosure repair shall include new thermostatic pressure balance faucet set. If replacement of the shower pan is necessary, it shall be noted on the work write-up. Shower pans shall be molded fiberglass or other one-piece molded unit. All intersecting joints must be caulked.

Shower stall replacement/installation will include the installation of 36" x 36" one-piece, fiberglass shower stall including PVC waste, molded base, metal two handle shower diverter, shower rod and shower head.

Use materials that have durable, cleanable surfaces.

KITCHEN

Kitchens will have a minimum of 10 feet of countertop with base and wall cabinets (or dishwasher) to match. Existing cabinets with hardwood doors and face frames may be repaired if in good condition. All cabinets will be sound and cleanable.

Counter tops shall be either Formica-type prefabricated units or ceramic tile, to be noted on bid sheet. Formica-type prefabricated units shall be manufactured from ¾" wood products with a glued-on plastic laminated finish, 4" coved backsplash. Also add a 4" end splash and/or cap as required. Alternate materials for counter top shall fall within cost range of above materials, and must be approved by the Project Manager and Owner.

Appliances

All appliances must be ENERGY STAR rated appliances and installed per manufacturers instruction. Eligible appliances for replacement include:

- **Electric Stove** – Dispose of old stove. Install a white, black, or stainless steel, 30" wide electric stove including oven and electrical connections.
- **Gas Stove** – Dispose of old stove. Install a white, black, or stainless steel, 30" wide, pilotless, gas stove including gas oven and electrical connections.
- **Refrigerator** – Dispose of old refrigerator. Install an ENERGY STAR approved 2-door, top freezer, white, black, or stainless steel, frost free refrigerator with at least 17.5-cubic feet. Whirlpool or equivalent model.
- **Dishwasher** – Provide and install a 24" white, black, or stainless steel, 2-cycle, built-in dishwasher including all alterations and connections to plumbing and electric system.
Whirlpool or equivalent model.

CARPENTRY

Cabinet Repair

Repair base and hanging cabinets by re-hanging plumb and level and replacing missing hardware, doors and drawers. Securely refasten loose hardware. Clean all surfaces with heavy duty detergent.

Interior Trim

Trim both sides of interior door, including header, stops and casings. Use #2 grade pine or better with a minimum width of 3.5".

Kitchen/Bath Cabinets

Unsafe, unsanitary, or nonfunctional cabinetry, shall be replaced. Verify access and clearance required for the installation of each cabinet. At all cabinet locations, coordinate the installation of convenience outlets, equipment, lighting fixtures, plumbing, and HVAC vents, etc. Install plumb, level and true. Install any required blocking in walls to receive fasteners.

Field verify all field dimensions and clearances and minimize filler pieces at ends of cabinet runs. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Anchor securely in place; coordinate with countertop installation. Adjust and lubricate hardware. Restore damaged finishes and test for proper operation.

Kitchen Cabinets - New kitchen cabinets will meet the ANSI A208.1 and A208.2 standard for formaldehyde content of particleboard and Medium-Density Fiberboard (MDF) or have exposed edges of particleboard and MDF sealed to prevent the out-gassing of formaldehyde. Cabinets will have hardwood doors and face frames. There will be a minimum of 10 lineal feet of post-formed countertop with corresponding base cabinets and wall cabinets, and a dishwasher. Corners in countertop designs are permitted if factory assembled. A drawer base (12" or 15") will be included in new cabinetry. A plastic laminate panel to match the countertop will be installed as a base cabinet to wall cabinet backsplash behind the range and extending 6 inches past the range on both sides, or if the range is in a corner along the side wall and trimmed with chrome metal edging. Low-VOC adhesives for countertops and backsplash are encouraged.

Counter Tops

Countertops showing evidence of wear, water damage, uplifting surface materials etc., should be replaced. Counter tops shall not have sharp exposed corners. Corners protruding in excess of 1-1/2" shall be rounded or chamfered (45°). For elderly residents, the front edges of the counters should be rolled.

Staircase Replacement

Remove closed staircase and dispose of in code legal dump. Resize opening to accept a 36" wide prefabricated staircase. Double all headers with 2" stock. Install staircase with white pine stepping stock treads, balusters, and railing. Apply two coats of clear finish to all exposed wood and trim.

MILDEW AND PEST

Mold Remediation

Comply with all EPA HUD and Occupational Safety and Health Administration (OSHA) regulations and laws with regard to performing mold remediation. Materials and structures showing signs of mold must be removed and replaced or treated per applicable regulations.

Termites/Carpenter Ants

Use termite-resistant building materials, or provide termite control, through physical barriers between subterranean termites and wood- framed structures. Physical barriers include termite shields, aggregate, stainless steel mesh, and plastic impregnated with a

termicide. Isolate particularly vulnerable elements of a house, such as beneath concrete slabs on grade, long the interior and exterior of perimeter foundation walls, and around plumbing and wiring penetrations.

SMOKE/CARBON MONOXIDE DETECTORS

Install detectors per the IRC. Smoke detectors shall be located in each sleeping room, on each level/story of the dwelling and in the hallway leading to any bedroom and carbon monoxide detectors must be installed within 15 feet of any bedroom door if solid fuel burning appliances are used or if there is an attached garage.

RESILIENT HOME CONSTRUCTION STANDARDS

HUD encourages CDBG-DR subrecipients to incorporate a Resilient Home Construction Standards for substantially damaged residential buildings or new construction/reconstruction that incorporate a Resilient Home Construction Standard recognized such as those set by the FORTIFIED Home™ Gold Level for new construction or single family, detached homes; and FORTIFIED Home™ Bronze level for repair or reconstruction of the roof; or any other equivalent comprehensive resilient or disaster resistant building program. Resilient standards when incorporated will increase a home’s resilience to natural hazards, including high wind, hail, and tropical storms. St Johns County will incorporate this standard into their CDBG-DR Housing Program where practicable.

LEAD HAZARD HOUSING STANDARDS

HUD’s Lead-Safe Housing Rule (LSHR), is being applied to St Johns County for all housing considered for rehabilitation and reconstruction measures. During the environmental review, St Johns County will determine the proper level of Lead-Based Paint (LBP) evaluation and any required LBP hazard reduction requirements. This determination will be made following the regulatory requirements found in 24 CFR Part 35, Subpart J (Rehabilitation). Detailed information concerning the requirements, whether lead-safe work practices in conjunction with paint stabilization, interim controls, or abatement, will be provided in the rehabilitation scope of work for each home. Documentation of the findings of the LBP risk assessment will also be provided to construction contractors.

Table 1. LBP Mitigation Requirements Based on Construction Cost

Level of Assistance	Hazard Reduction Requirements	Post-Rehabilitation Clearance Examination Requirements
Less than or equal to \$5,000	Safe work practices during rehabilitation in conjunction with paint stabilization	Yes

More than \$5,000 up to \$25,000	Interim controls	Yes
More than \$25,000	Abatement and/or Interim controls	Yes

Contractor Responsibility for Compliance

For rehabilitation or reconstruction of homes that are considered target housing, which includes housing receiving federal assistance built before 1978, and which may require disturbance of painted surfaces, the contractor is responsible for compliance, as a renovation firm certified under EPA's Lead Renovation, Repair and Painting (RRP) Rule prior to any other renovation activities for target housing. The EPA-certified renovation firm, utilizing a certified renovator and other properly trained workers, is responsible for following all applicable rules and regulations.

Contractors working on LBP projects must post signs clearly defining the work area and warning occupants and other persons not involved in the renovation activities to remain outside of the work area. The signs must be posted before beginning the renovation and must remain in place and be readable until the renovation is completed. Before beginning the renovation, the contractor must isolate the work area so that no dust or debris leaves the work area while the renovation is being performed. The contractor must maintain the integrity of the containment by ensuring that any plastic or other impermeable materials are not torn or displaced. The contractor must also ensure that the containment is installed in such a manner that it does not interfere with occupant and worker egress in an emergency.

Interim Controls

If interim controls must be applied to a rehabilitation or reconstruction project, as determined by St Johns County, the RRP Rule requires a firm performing renovation in target housing to be certified as a lead-safe renovation firm, and an individual certified as a lead-safe renovator to provide on-the-job training for workers used on the project, perform or direct workers to follow the RRP Rule's work practice standards, be at the job or available when work is being done, and perform the post-renovation cleaning verification.

Abatement

If lead abatement is required, as determined by St Johns County, the contractor is responsible for procuring a state-certified Lead Firm to conduct the abatement work using an EPA-certified Lead Abatement Supervisor and EPA-certified Lead Abatement Workers. St Johns County's determination will be made in compliance with HUD's LSHR, based on the cost of renovation. Only those persons who are working on abatement job sites who are engaged in activities described as inspections, lead-hazard screens, risk assessments or abatements would require state certification in the appropriate discipline.

Construction Inspections

Estimated Scope of Repairs may change after the initial construction inspection based on changing environmental situations, re-assessment of damages and additional work that may be necessary when construction begins. This includes exacerbated roof and/or water

damage identified after the initial construction inspection.

APPENDIX A: RESIDENTIAL REHABILITATION STANDARDS

Construction Completion Documentation

- Building permits with final inspections approved
- Certificate of Completion/Certificate of Occupancy from local building department
- Final inspections/certifications performed by program
- Final review and approval/acceptance of scope of work performed
- Homeowner signature of completion/ letter of satisfaction
- Pictures and/or video illustrating the “after” result of work performed
- Release of Liens
- Warranties