



Rehabilitation Project Scope of Work

Homeowner(s) Name: Habitat for Humanity Choptank Inc.

Property Address: 500/502 Pine St.
Street

<u>Cambridge</u>	<u>MD</u>	<u>21613</u>
City	State	Zip Code

Phone Number: 443 262-2320

Repairs to be completed:

1. Contractor shall clean up, remove, and dispose of all debris associated with this work. Maintain cleanliness of the property at all times. Contractor shall supply a place for construction refuse will be provided on all active job sites. This can be a dump trailer or Roll Off style dumpster. On small jobs a smaller can may be allowed until such time it will no longer contain the amount of trash on the jobsite. At no point will a "trash pile" be acceptable.
2. All work debris, tools and materials to be cleaned up after each shift and at the end of the project to provide clean and safe environment.

Electrical

All electrical work performed for Habitat for Humanity Choptank will be completed in accordance with the current National Electrical Code approved by the local inspection board for either/or Talbot and Dorchester Counties.

Contractor is responsible for "pulling" electrical permits and calling in all for inspections for the Electrical system.

1. Electrical service:
 - Underground service of 200-amp, Square-D Service panel with breakers.
 - Wire: 4/0 Al THHN service entrance cable to the panel. (add disconnect if required after the meter).
 - 14 gauge. NM Romex for all lighting circuits. 12 gauge. NM Romex to Kitchen circuits (2 circuit are required). Dining /Laundry areas supplied with 12 gauge. NM Romex also. Required wire size to special circuits as per code.
 - Ceiling boxes in living room and all bedrooms, kitchen, etc. will be capable of supporting ceiling fan/light combo and must be switched separately.

a. Light Fixtures:

- Habitat for Humanity shall supply all light fixtures
- The following areas shall need to be wired for lighting bedrooms, living room, dining room, foyer entrance, hallways, and kitchen main area. Contractor shall install all lights, receptacles, and switches.
- Contractor shall supply all receptacles and switches. All receptacles and switches shall be white.
- One recessed LED light or Pendant light, provided by habitat for humanity Choptank, shall be installed above the kitchen sink.
- Habitat for Humanity Choptank shall supply LED Surface mount fixture or 2-foot LED strips in utility room, laundry room and any larger walk-in closets for contractor to install.
- Habitat for Humanity Choptank shall supply Vanity bar type lighting over bathroom sinks for contractors to install. Coordinate with Construction Superintendent for heights and locations of junction box
- Panasonic Whisper Fan model 5505.05, in both bathrooms for required 24-hour air exchange per Energy Star Certification requirements. HFHC to provide Fans.
- Paddle fans with lights are required in living room and all bedrooms. Habitat will provide ceiling fan/light combination, but these will be installed by contractor and must be switched separately.

b. Electric Devices:

- All light switches to be "rocker" style (White) and located 48" above the finished floor (AFF). Receptacles and cover plates to be (White) in color and located 18" (AFF), per plan and per code.
- HVAC equipment will be in the crawlspace and will have a motorized damper between floors (for two story houses).
- Water Heater shall be a 50 gal. Rheem Professional Prestige Pro-Terra Hybrid Electric Heat Pump style. 240 Volt Service with a 30 Amp Breaker
- Include 10-year hard wired, lithium battery smoke detectors, located per code.
- All outlets (White) and covers (White) to be located by code.
- Install two lights in the basement/ crawlspace placed to provide best lighting. Place switch at the access entrance.
- Outside lights and at both front and back door areas will be provided by HFHC to be installed by contractor. (2) Weather protected duplex GFCI receptacles provided by contractors located at front and rear entrances also.
- Provide a GFCI duplex outlet in the basement or crawlspace for a dehumidifier (supplied by HFHC) and a separate single outlet for sump pump. Both outlets to be located within 3' from the sump pit or as code requires.
- All outside, basement, laundry, bathrooms, and kitchen receptacles located within 6 ft of running water, shall be protected by a GFCI device or to current code.
- Provide (4) cable jacks, one in the living room and one in each bedroom. Location determined by homeowner prior to drywall installation.
- Install 4 LED CAN lights in the kitchen, evenly spaced and all tied together on (1) switch. (1) pendant fixture over the sink with a separate switch near the sink area. No dimmer switches used for any of these lights.

c. Smoke Detectors:

- Contractor shall supply and install hardwired smoke detectors with a 10-year battery backup in accordance to codes and regulations. Smoke detectors shall be installed in every bedroom. One smoke detector shall be installed in hallways outside of all bedrooms and everywhere else that is required by codes and regulations.

HVAC

Contractor is responsible for creating a Manual J. Making sure the Manual J is followed in the field. System should be designed to be Energy Star Certified.

Contractor is responsible for “pulling” permits and calling in all inspections regarding the HVAC system.

MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING:

- a. **DESCRIPTION OF WORK**
 - i. High-efficiency split-system heat-pump units consisting of separate evaporator-fan and compressor condenser components and minimum 16 SEER.
- b. **CLOSEOUT SUBMITTALS**
 - i. Operation and Maintenance Data: For split-system air-conditioning units to include in emergency, operation, and maintenance manuals. Also, one trip to train homeowners on use and maintenance of thermostat and units.
- c. **MAINTENANCE MATERIAL SUBMITTALS**
 - i. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - ii. Filters: One set for each return grille.
 - iii. Gaskets: One set for each access door.
 - iv. Fan Belts: One set for each air-handling unit fan.
- d. **WARRANTY**
 - i. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of split-system air-conditioning units that fail in materials or workmanship within specified warranty period.
 - ii. Warranty Period:
 - 1. For Compressor: Five years from date of Substantial Completion.
 - 2. For Parts: Five years from date of Substantial Completion.
 - 3. For Labor: One year from date of Substantial Completion.
- e. **MANUFACTURERS**
 - i. Basis-of-Design Product: Subject to compliance with requirements, provide high efficiency Indoor Air Handling Unit and Outdoor Heat Pump Unit models as scheduled on the drawings or comparable product by one of the following:
 - ii. Carrier
 - iii. Trane
 - iv. York (Johnson Controls, Inc)
- f. **INDOOR UNITS (5 TONS OR LESS)**
 - i. Chassis: Galvanized steel with flanged edges, removable panels for servicing, and insulation on back of panel.
 - ii. Insulation: Faced, glass-fiber duct liner.
 - iii. Filters: MERV-8, throw-away.
 - iv. Condensate Drain Pans

i. OUTDOOR UNITS (5 TONS OR LESS)

- i. Casing:** Steel, finished with baked enamel, with removable panels for access to controls, weep holes for water drainage, and mounting holes in base. Provide brass service valves, fittings, and gage ports on exterior of casing.
- ii. Compressor:** Hermetically sealed with crankcase heater and mounted on vibration isolation device. Compressor motor shall have thermal- and current-sensitive overload devices, start capacitor, relay, and contactor.
- iii. Compressor Type:** Scroll.
- iv. Variable speed compressor motor** with manual-reset high-pressure switch and automatic reset low-pressure switch.
- v. Refrigerant Charge:** R-410A.
- vi. Heat-Pump Components:** Reversing valve and low-temperature-air cutoff thermostat.
- vii. Fan:** Aluminum-propeller type, directly connected to motor.
- viii. Motor:** Permanently lubricated, with integral thermal-overload protection.

j. DIFFUSERS, REGISTERS, GRILLES

- v. Provide diffusers, registers, and grilles** to distribute the quantity of air specified evenly over the intended space without causing dead spots or air velocities exceeding 50 fpm in the occupied zone.
- vi. Coordinate location** with lighting and ceiling pattern. Perform minor duct modifications to suit.
- vii. Add internal baffles** where necessary to avoid drafts due to air impingement on nearby partitions, columns, etc.
- viii. Install dryer vents** in accordance with manufacturer's recommendations

k. ACCESSORIES

- i. Thermostat:** Deluxe Seven (7) Day Programmable wall--mounted system control to remotely control compressor and evaporator fan, with the following features:
 - ii. Compressor time delay.**
 - iii. 24-hour time control** of system stop and start.
 - iv. Liquid-crystal display** indicating temperature, set-point temperature, time setting, operating mode, and fan speed.
 - v. Fan-speed selection** including auto setting.
 - vi. Refrigerant Line Kits:** Soft-annealed copper suction and liquid lines factory cleaned, dried, pressurized, and sealed; factory-insulated suction line with flared fittings at both ends.
 - vii. Snow stand/snow feet** to elevate the unit.
 - viii. Disconnect kit:** to disconnect electrical power to the fan coil so service or maintenance
 - ix. Tests and Inspections:**
 - x. Leak Test:** After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
 - xi. Operational Test:** After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
 - xii. Test and adjust controls and safeties.** Replace damaged and malfunctioning controls and equipment.
 - xiii. Prepare test and inspection reports.**

I. STARTUP SERVICE

- i. Complete installation and startup check according to manufacturer's written instructions.

m. DEMONSTRATION

- i. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain units. Must be ACCA Certified for Energy Star.

Fire Suppression System

Contractor is responsible for designing and submitting fire suppression system that complies with Federal, State, and Local regulations.

Contractor is responsible for "pulling" permits and calling in all inspections regarding the fire suppression system.

- 2. Contractor shall install fire suppression system in accordance to Federal, State, and Local regulations. Provide the Fire suppression drawings for the property.
- 3. Including a flow switch that will be connected to the alarm system.

Alarm System

- 4. Alarm company shall install a door sensor on both the Front and back doors.
- 5. Alarm Company shall install one motion detector that covers the largest amount of area in the living area of the first floor.
- 6. Alarm company shall hook up the flow switch for the sprinkler system to the alarm controls.
- 7. Alarm company shall install a smoke listening sensor on the first floor that is connected to the alarm controls and be monitored.
- 8. Alarm controls shall be located within in reasonable distance to the front door. All security sensors should be labeled and give read out of where there is a fault/breach.
- 9. Complete alarm system shall be monitored until the house is sold, with an option for the Home buyer to be able to have the alarm be monitored after purchase of the home. Monitoring system should be sent out notifications to three (3) staff members. Phone numbers and emails will be provided by Habitat for Humanity Choptank for the three (3) staff members to be notified.
- 10. Alarm system shall be able to have a minimum twenty-five (25) codes for turning off the system that can be programed to a subcontractor, staff, etc.

Plumbing

Contractor is responsible for "pulling" all permits and calling in all inspections regarding the plumbing.

11. Plumbing Specs.

- a. Contractor will make connections to supply and drain lines installed by site utilities contractor and connect to riser provided by fire suppression contractor. Fire suppression contractor will provide back flow preventer.
- b. Drain and vents to be PVC material. Joints will be cut square, cleaned, de-burred and glued according to adhesive manufacturer's recommendations, such as clamp times and approved temperature ranges.
- c. Size and location of vent lines to be determined by applicable codes. All lines will be properly supported to prevent sagging. Nail plates will be provided and installed where needed. Contractor

will provide neoprene roof flashings, to be installed by roofing contractor. Drain and vent lines and all related accessories to be provided by contractor.

- d. Supply lines to be CPVC material. Piping at joints will be cut square, cleaned, de-burred and glued according to adhesive manufacturer's recommendations as to clamp times, approved temperature ranges for application, and method of pressure testing. Nail plates to be installed where needed. Supply lines and all related accessories to be provided by contractor.
- e. Contractor will install one frost proof hose bib.
- f. Contractor will make connection to the riser manifold supplied and installed by the fire suppression contractor.
- g. Contractor will provide and install one double bowl stainless steel sink with shut off valves and Moen Chateau (or equivalent) kitchen sink faucet.
- h. Contractor will supply and install a Aker by Maxx, CM-60, tub-shower unit. Contractor will provide and install Moen bath and shower faucet (or equivalent) and tub drain. Shower heads shall be placed on an interior wall.
- i. Contractor will provide and install necessary number of A.D.A. compliant toilets to include elongated bowl, seat and shut-off valve.
- j. Contractor will provide and install a 50 gal. Rheem Professional Prestige Pro-Terra Hybrid Electric Heat Pump style. Contractor will provide and install any accessories needed to install the water heater in accordance with manufacturer's instructions. The water heater shall be installed according to the Manufacturer's instructions.
- k. Contractor will provide and install a main supply shut off valve in a location easily located by homeowner.
- l. Contractor will arrange for all necessary rough-in and final inspections.

Contractor's Signature: _____ Date: _____

Habitation for Humanity staff Signature: _____ Date: _____