



## Work Order Bid (ID)

---

### WORK ORDER INFORMATION

**Work Order Name:** WO/1003639/1

**Work Order Type:** Weatherization

**Audit Name:** 1002140

### CLIENT INFORMATION

**Client ID:** 1003639

**Alt. Client ID:** C1003723SA101

**County:** Carter

### AGENCY INFORMATION

**Agency:** Upper East Tennessee Human  
Development Agency

**Address:** 301 Louis Street  
Kingsport TN 37662

**Agency Phone:** 1-423-246-6180

**Agency Fax:**

**Email Address:** sdawes@uethda.org

**Company Name & License Number:** \_\_\_\_\_

**Contractor's Signature:** \_\_\_\_\_

### COMMENT

1356 SQUARE FOOT RANCH BUILT ON A CRAWL SPACE IN 1998 WITH AN ASPHALT SHINGLE ROOF. ALL WORK TO BE DONE IN ACCORDANCE WITH THE TENNESSEE STANDARD WORK SPECIFICATIONS AS ADOPTED BY THE TENNESSEE HOUSING DEVELOPMENT AGENCY.

CONTRACTOR IS RESPONSIBLE TO VERIFY DIMENSIONS AND SCOPE OF WORK PRIOR TO BID.

SURVEY ON 12/6/2019 BY RON CARLISLE (423) 736-0678  
INITIAL BLOWER DOOR 1345 @-50  
POST WORK TARGET OF 1017 @-50 MUST BE MET OR EXCEEDED

**Measure 1 Vapor Barrier Needed (Basement/Crawlspace)**

**Components**

**Inspected**

**Comment** INSTALL 6 MIL BLACK POLY VAPOR BARRIER AS PER THE TN SWS. SEAL THE SEAMS WITH MASTIC. LAP UP AND ATTACH TO THE WALLS AND PIERS

#	Material/Labour	Description/Comment	Unit	Qty	Estimated		Actual			
					Unit Cost	Total	Qty	Unit Cost	Total	
1	Health and Safety Items	Basement / crawlspace vapor barrier	SqFt	1560	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2	Labor	Labor	SqFt	1560	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Other Detail</b>										
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>			<input type="text"/>

**Field Notes:**

**Measure 2 Infiltration Redctn**

**Components**

**Inspected**

**Comment** Initial Blower Door Reading: 1345 @-50  
 Post Work Target of 1017 @-50 Must Be Met or Exceeded  
 Suggested Best Practice of Air Infiltration Reduction is to use two-part foam and appropriate materials to seal the penetrations and openings in the Sub-floor (accessible in the crawl space) and in the ceilings (accessible in the attic).  
 If applicable- rake back existing insulation and use two-part foam to seal the top plates of the walls. Use Rigid Foam Board and two-part foam to close and seal openings and penetrations of soffits, chases, and duct perimeters.

#	Material/Labour	Description/Comment	Unit	Qty	Estimated		Actual			
					Unit Cost	Total	Qty	Unit Cost	Total	
1	Miscellaneous Supplies	Infiltration Reduction	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Other Detail</b>										
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>			<input type="text"/>

**Field Notes:**

**Measure 3 Attic Ins. R-30**

**Components A1**

**Inspected**

**Comment** INCREASE THE EXISTING ATTIC INSULATION TO A CONSISTENT 14 INCH DEPTH WITH BLOWN CELLULOSE. FOLLOW THE TENNESSEE STANDARD WORK SPECIFICATIONS

All EXISTING electrical junction boxes will be flagged to be seen above the level of the insulation.

Open electrical junction boxes will have covers installed. Insulation dams and enclosures will be installed as required

Insulation will be adequately marked for depth a minimum of every 300 square feet of attic area.

108 LINEAR FEET OF BAFFLES NEEDED BETWEEN 2 X 4 TRUSSES @24" O.C. 5/12 PITCH

34 LINEAR FEET OF RIGID DAM MATERIAL 2" TALLER THAN THE INSULATION BETWEEN THE GARAGE AND LIVING SPACE ATTIC  
THE ATTIC ACCESS IS LOCATED IN THE UNCONDITIONED GARAGE

#	Material/Labour	Description/Comment	Unit	Estimated			Actual		
				Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Insulation	Attic Insulation - Blown Cellulose - R-30	SqFt	1356	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Attic Insulation - Blown Cellulose - R-30	SqFt	1356	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Other Detail</b>									
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>		<input type="text"/>

**Field Notes:**

**Measure 4 DWH Pipe Insulation**

**Components**

**Inspected**

**Comment** INSULATE THE FIRST 6 FEET OF HOT AND COLD-WATER PIPE OUT OF THE WATER HEATER AS PER THE TN SWS

#	Material/Labour	Description/Comment	Unit	Estimated			Actual		
				Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Insulation	DHW Pipe Insulation	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	DHW Pipe Insulation	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Other Detail</b>									
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>		<input type="text"/>

**Field Notes:**

**Measure 5 Refrigerator Rplcmnt**

**Components**

**Inspected**

**Comment** Replace the Existing KITCHEN Refrigerator with a New 21 Cubic Foot Energy Star Refrigerator. Hinge the Door Appropriately.

Remove and Properly Dispose of the Old Refrigerator.

#	Material/Labour	Description/Comment	Unit	Estimated			Actual		
				Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Refrigerators	Any - 21 CU FT	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Other Detail</b>									
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>		<input type="text"/>

**Field Notes:**

**Measure 6 Install/Replace Heatpump**

**Components** HS1,AC1

**Inspected**

**Comment**

Replace the Existing Heat Pump With a New 2 Ton Heat Pump- RETRO-FIT TO EXISTING DUCT-WORK ENSURING A TIGHT SYSTEM  
 SUPPLY HOME OWNER WITH 12 RETURN FILTERS  
 Mechanical permits will be required for all HVAC work, as per local code. All Heat pumps installed to be 15 SEER, 8.5 HSPF. All cooling equipment, ENERGY STAR labeled and shall be sized according to the latest editions of ACCA Manuals J and S .Specification of any type of heating unit shall be taken to include all connections, wiring, ducting, safety switches, thermostats, pad if existing does not fit new unit and all other work to provide a complete, Tight, efficient, balanced and operational system. All wiring shall be on separate circuits, wired from panel box or disconnects to HVAC unit by contractor. If installing a split system that does not have existing line set the cost should be included in bid to provide new line set. If leaving the existing line set the line is to be flushed and pressurized to insure no leakage. If installing a package unit, it is to include a four-sided shroud. All work to meet current code for city or county work is being performed. Must provide all warranty information with invoice. If unit warranty needs registered with factory contractor is to do this for client.

#	Material/Labour	Description/Comment	Unit	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Heating Equipment	Heatpump - 36 kBtu/h Existing, Consult Manual J Data	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Heatpump - 36 kBtu/h Existing, Consult Manual J Data	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total**  **Sub Total**

**Field Notes:**

**Measure 7 DWH Replacement**

**Components**

**Inspected**

**Comment** INSTALL LOUVERS IN THE UTILITY CLOSET TO PROVIDE ADEQUATE VENTILATION FOR THE HEAT PUMP OPERATION AS PER MANUFACTURER'S SPECIFICATIONS

REMOVE AND REPLACE THE 40 GALLON ELECTRIC WATER HEATER WITH A NEW 50 GALLON HEAT PUMP WATER HEATER. INSTALL AS PER THE TN SWS, WITH EXPANSION TANK AND PRESSURE RELIEF PIPE. DO NOT ADD TANK INSULATION TO THE NEW WATER HEATER.  
 INSTALL A CONDENSATE DRAIN LINE THAT TERMINATES IN A LOCATION DIRECTING WATER AWAY FROM THE HOUSE

#	Material/Labour	Description/Comment	Unit	Estimated			Actual			
				Qty	Unit Cost	Total	Qty	Unit Cost	Total	
1	Hot Water Equipment	Any -	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Other Detail</b>										
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>			<input type="text"/>

**Field Notes:**

**Measure 8 Floor Ins. R-19**

**Components F1**

**Inspected**

**Comment** INSTALL R-19 FIBERGLASS BATTS IN BETWEEN THE 2 X 8 FLOOR JOISTS @ 16 inches O.C. AS PER THE TN SWS.

#	Material/Labour	Description/Comment	Unit	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Insulation	Floor Insulation - Fiberglass Batts - R-19	SqFt	1356	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Floor Insulation - Fiberglass Batts - R-19	SqFt	1356	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total**  **Sub Total**

**Field Notes:**

**Measure 9 CO Monitor is Needed**

**Components**

**Inspected**

**Comment** INSTALL CO MONITORS AS PER THE TN SWS- ONE IN THE HOUSE, ONE IN THE GARAGE

#	Material/Labour	Description/Comment	Unit	Qty	Estimated		Actual		
					Unit Cost	Total	Qty	Unit Cost	Total
1	Health and Safety Items	CO monitor	Each	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Labor	Each	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total**  **Sub Total**

**Field Notes:**

**Measure 10 Fix Improper Venting (Clothes Dryer)**

**Components**

**Inspected**

**Comment** VENT THE CLOTHES DRYER AS PER THE TN SWS- INSULATE IN THE VENT PIPE IN UNCONDITIONED SPACES

#	Material/Labour	Description/Comment	Unit	Estimated			Actual			
				Qty	Unit Cost	Total	Qty	Unit Cost	Total	
1	Health and Safety Items	Equipment	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2	Labor	Labor	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Other Detail</b>										
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>			<input type="text"/>

**Field Notes:**

**Measure 11 Fix Not Operational Bathroom Exhaust Fan**

**Components**

**Inspected**

**Comment** REPLACE THE EXISTING BATH FAN/LIGHT COMBINATION WITH A NEW TWO SPEED ASHRAE COMPLIANT FAN/LIGHT COMBINATION . SET TO 60 CFM CONTINUOUS. VENT TO THE OUTSIDE WITH A TRIM KIT AS PER THE TN SWS.

\*\*\*\*\*INSTALL A 6' VENT PIPE TO ENSURE PROPER VENTILATION\*\*\*\*\*

#	Material/Labour	Description/Comment	Unit	Estimated			Actual			
				Qty	Unit Cost	Total	Qty	Unit Cost	Total	
1	Health and Safety Items	Equipment	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2	Labor	Labor	Hour	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Other Detail</b>										
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>			<input type="text"/>

**Field Notes:**



**Measure 12 Fix Recessed Lights Present (Attic)**

**Components**

**Inspected**

**Comment** INSTALL FIRE PROOF COVERS OVER THE RECESSED CAN LIGHTS AS PER THE TN SWS. PRIOR TO BLOWING ATTIC INSULATION.

#	Material/Labour	Description/Comment	Unit	Estimated			Actual		
				Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Health and Safety Items	Equipment	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Labor	Hour	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total**  **Sub Total**

**Field Notes:**

**Measure 13 Fix Wiring Problems (Walls)**

**Components**

**Inspected**

**Comment** REPLACE THE MISSING SWITCH PLATE COVER- LOCATED IN THE UTILITY ROOM

#	Material/Labour	Description/Comment	Unit	Estimated			Actual		
				Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Health and Safety Items	Equipment	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Labor	Labor	Hour	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Other Detail**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Measure Sub Total**  **Sub Total**

**Field Notes:**

**Measure 14 Smoke Detector is Needed**

**Components**

**Inspected**

**Comment** INSTALL SMOKE DETECTORS IN ALL BEDROOMS AND COMMON AREA (HALLWAY) AND GARAGE

#	Material/Labour	Description/Comment	Unit	Qty	Estimated		Actual			
					Unit Cost	Total	Qty	Unit Cost	Total	
1	Health and Safety Items	Smoke detector	Each	5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2	Labor	Labor	Each	5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Other Detail</b>										
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>			<input type="text"/>

**Field Notes:**

**Measure 15 Fix Improper Venting of Bathroom Exhaust Fan**

**Components**

**Inspected**

**Comment** VENT THE BATH FAN TO THE OUTSIDE WITH A TRIM KIT- AS PER THE TN SWS

#	Material/Labour	Description/Comment	Unit	Qty	Estimated		Actual			
					Unit Cost	Total	Qty	Unit Cost	Total	
1	Health and Safety Items	Fix Improper Venting of Bathroom Exhaust Fan	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
2	Labor	Labor	Each	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Other Detail</b>										
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Measure Sub Total</b>						<input type="text"/>	<b>Sub Total</b>			<input type="text"/>

**Field Notes:**

<b>Work Ordere Grand Total:</b>	<input type="text"/>	<b>Grand Total:</b>	<input type="text"/>
---------------------------------	----------------------	---------------------	----------------------