

# Weatherization Assistance Program WAPLink How to Guide

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# HOW TO GUIDE TO WAPLink





BY OKLAHOMA DEPARTMENT OF COMMERCE ENERGY PROGRAM TEAM

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THINKS TO THE ENTIRE ENERGY PROGRAM TEAM FOR THEIR HARD WORK AND DEDICATION TO THE WEATHERIZATION PROGRAM. WITHOUT THEIR HELP AND SUPPORT, THIS HOW TO GUIDE WOULD NOT HAVE BEEN POSSIBLE. THE TIME THE ENTIRE TEAM HAS PUT INTO THIS PROGRAM TO GET IT TO WORK NEEDS TO BE A TEST OF TIME TO SEE HOW MUCH THEY WANT OKLAHOMA'S WEATHERIZATION NETWORK TO SUCCEED AND IMPROVE THE LIVES OF EVERY CLIENT YOU COME IN CONTACT WITH. WITHOUT YOU, THE AGENCIES, THESE CLIENTS WILL NOT BE SERVED. YOU ARE THE TRUE HEROES, SO WE HERE AT ODOC DO WHAT WE CAN TO PROVIDE YOU WITH THE HIGHEST POSSIBLE ADVANTAGE. THE WEATHERIZATION PROGRAM IS EVER-CHANGING DAILY. ODOC STRIVES TO STAY AHEAD OF THE CURVE. SO, LET'S LOOK TO THE FUTURE TOGETHER AND EMBRACE THIS CHANGE TOGETHER. YES, THERE WILL BE SOME BUMPS AND BRUISES ALONG THE WAY, BUT WE WILL PICK EACH OTHER UP AND HELP ONE ANOTHER SUCCEED. BECAUSE WE ARE ALL IN THIS TOGETHER. NO ONE IS ALONE IN THIS JOURNEY. WE ARE ALL FORGING OUR PATH THROUGH THIS JUNGLE TOGETHER. REMEMBER THAT YOUR ONE AGENCY DOES NOT CARRY THE LOAD ALONE. ASK FOR HELP, AND HELP WILL BE THERE. THAT IS WHAT MAKES THIS WHOLE NETWORK GREAT. WE ARE THE BEST WEATHERIZATION NETWORK IN THE NATION. WE ARE OKLAHOMA WEATHERIZATION.

THIS HOW TO GUIDE WAS CREATED TO HELP GUIDE EVERYONE THROUGH WAPLINK, A POWERFUL TOOL THAT WILL STREAMLINE OUR PROCESSES AND IMPROVE THE EFFICIENCY OF OUR WEATHERIZATION PROGRAM. WHILE THIS SYSTEM MAY SEEM COMPLEX AT FIRST, WITH TIME AND PRACTICE, IT WILL BECOME SECOND NATURE TO EVERYONE INVOLVED. PLEASE USE THIS GUIDE AS YOU LEARN THE SYSTEM.



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#### 20. MHEA

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- b. Walls
- c. Windows
- d. Doors
- e. Ceilings
- f. Floor



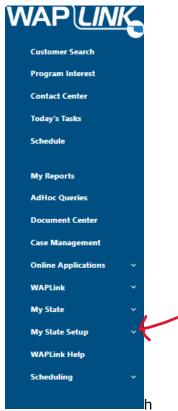
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- i. Ducts
  - i. Duct Calculations
- j. <u>Infiltration</u>
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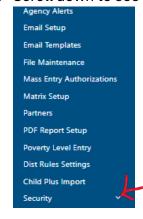
#### Personnel Addition

Once the primary user for the agency is logged in, the following needs to be done for additional users in the system:

1. On the left side of the screen, go to My Agency Setup



2. Scroll down to see Security. Click on Security

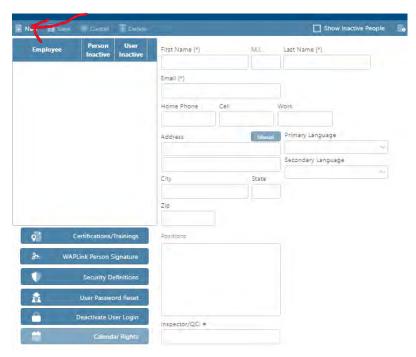




3. Click on WAPLink People



4. At the top left of the screen, click NEW.



- 5. The following fields are required to be entered into the system:
  - a. First name
  - b. Last Name
  - c. Email.
  - d. Position
  - e. (if the person has a BPI Certification), enter the Number in the QCI# field.

(Note: Enter as much information as possible. The address will be the agency address)

- 6. Click Save at the top of the Screen next to the grayed-out New button.
  - a. If an address was not entered into the system, the following message will pop up.





- 7. Click on Security Definitions.
- Security Definitions
- 8. Choose the following for the for the personnel security Definitions:
  - a. Intake Specialist Customer Area, WAPLINK (Must hit save after you select each group type to assign it to them)
    - b. Everyone on the Crew WAPLink Hit Save after selecting it.
    - c. Fiscal WAPLink: Hit the save button after selecting it.
- 9. The Final Section is Hit User Password Reset.



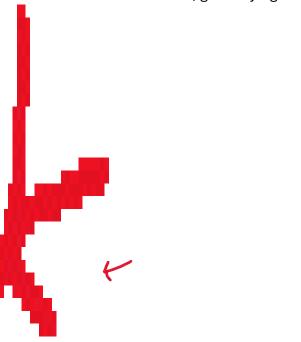
This will be sent to the User via email with a link to click on to log in. Once they click on it and use their log-on ID, they will be prompted to rest their password and log on.

Congratulations, you have successfully added people to WAPLink.



## Certification for Personnel

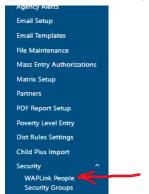
1. On the left side of the screen, go to My Agency Setup



1. Scroll down to see Security. Click on Security



2. Click on WAPLink People

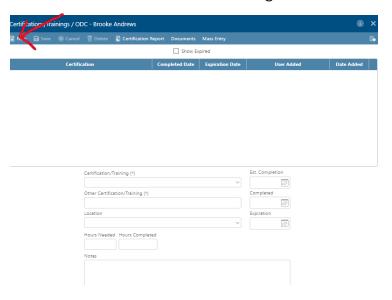




2. Click on the personnel name to enter the certification.



3. Click on the Certifications/Training Button.



- 4. Click on NEW in the top left of the screen.
- 5. Enter the Information into the system.
  - a. Certification/Training
  - b. Est. Completion
  - c. Other training
  - d. Completed
  - e. Location
  - f. Expiration



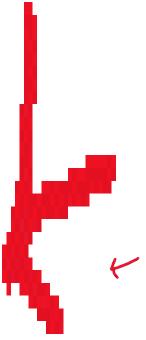
- g. Hours needed (if known)
- h. Hours completed (if known)
- i. Any notes
- 6. Hit Save
- 7. Repeat 16 18 for each certification and each personal

Congratulations! You have entered the certification for your personal use.



## **Agency Information**

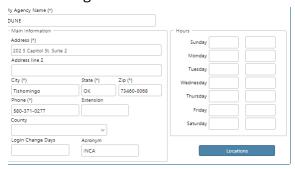
1. On the left side of the screen, go to My Agency Setup



2. Click on My Agency Information.



3. Enter the Agencies information on the screen, then click the Save button.

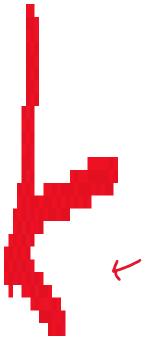


Congratulations, you have entered the Agency Information.

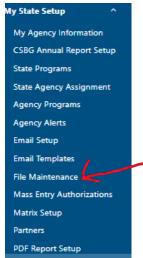


#### **Vendors/ Contractors Information**

1. On the left side of the screen, go to My Agency Setup



2. Click on the Down arrow. Scroll down until you Find File Maintenance, and click on it.



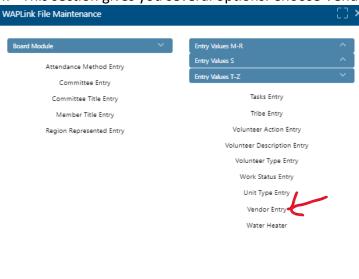


3. Click on Entry Value T-Z found on the Right side of the Screen.





4. This section gives you several options. Choose Vendor Entry.



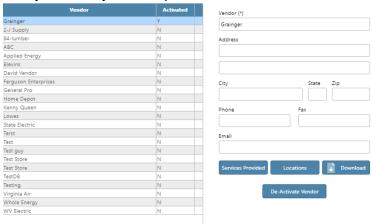
Entry Values A-C Entry Values D-E

5. Click New at the top left side and start entering the Vendor Information on the Right side of the screen. (NOTE: It would help if the vendor has an Email Address, especially if it is a vendor that will be contracted out to do work. It will be helpful to send bids to them electronically instead of having to print them off and send them through the mail.) This goes for all vendors.

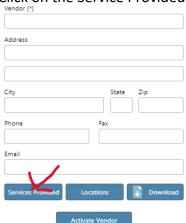




- 6. Once the Vendor information has been entered into the system. Click Save at the top of the screen. (NOTE: This will automatically Activate this Vendor in the system for your agency.)
- 7. If pre-filled vendors are already in the system, you want to activate them or De-Activate the Vendor. (NOTE: on Pre-Filled Vendors, make sure the information is correct in the system for your area)

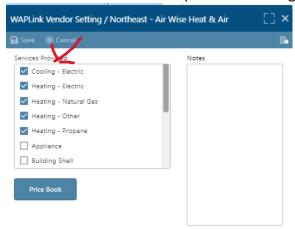


- 8. Once done creating all the vendors into WAPLink, click the X in the right corner of the screen.
- 9. Click on the Service Provided Button.

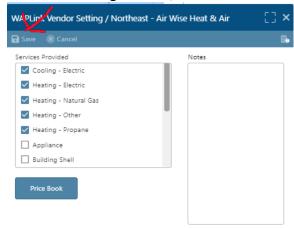




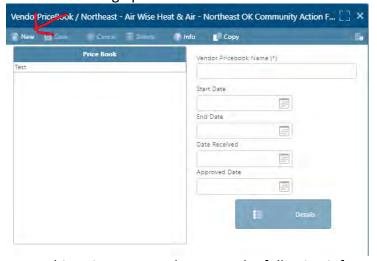
10. This will bring up the WAPLink Vendor Settings screen. On this screen, you will choose the Service this vendor will provide to the agency.



- 11. After clicking on the Services this vendor will provide, click on save.
- 12. After Clicking on save, Click on the Price Book button.



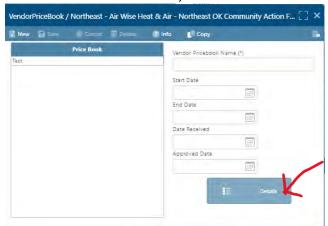
13. This will bring up the Vendor Price book. Click on New.



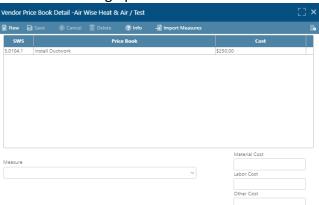
14. At this point, you need to enter the following information into this screen:



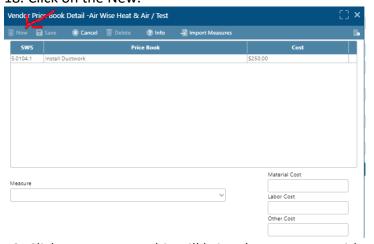
- a. Vendor Price book Name.
- b. Start Date
- c. End Date
- d. Date Received
- e. Approved Date
- 15. Click Save at the top of the screen.
- 16. Once it has been saved, click on Detail.



17. This will bring up the Vendor Price Book Detail for this vendor price book.



18. Click on the New.



19. Click on Measure. This will bring down a menu with an SWS list from which to choose.



- 20. enter this measure's material, labor, and other costs.
- 21. Click on Save at the top of the screen.
- 22. Repeat Steps 9 21 for all the vendors you want to add.

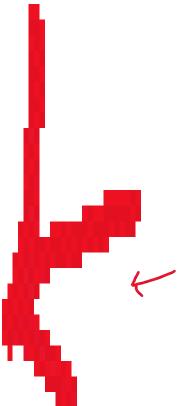
**CONGRATULATIONS! YOU HAVE SUCCESSFULLY ENTERED YOUR VENDORS INTO WAPLINK** 



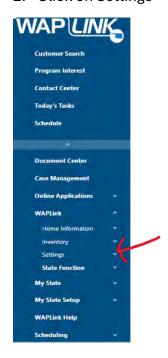
#### **WA Measure Cost**

Once the primary user for the agency is logged in, the following needs to be done for additional users in the system:

1. On the left side of the screen, go to WAPLink.

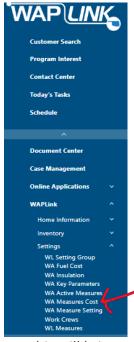


2. Click on Settings

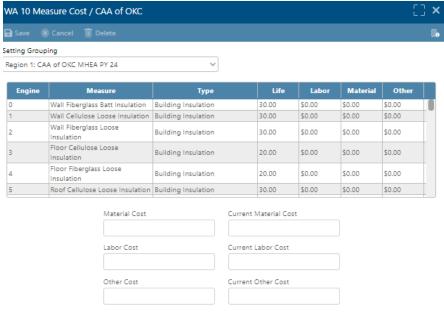




3. Click on WA Measure Cost.



- 4. This will bring up the WA 10 Measure Cost Screen. At this point, you will have the ability to choose two different WA 10 Measure Costs:
  - a. MHEA PY24
  - b. NEAT PY24
- 5. Choose which everyone you want to start with, the NEAT/MHEA one. Once you choose, it will bring up the list of Measures.



- 6. Click on the first Measure in the list. At this point, you need to enter the following information:
  - a. Material Cost for the measure.



- b. Labor Cost to install the measure.
- c. Other costs most likely not used but will be used if needed in the work order itself.
- 7. Click Save at the top.
- 8. Repeat the following steps:
  - a. If MHEA was done first Repeat steps 5 through 7 69 more times for 70 measures for the MHEA WA 10 Measures.
  - b. If NEAT was done first Repeat steps 5 through 7 137 more times for a total of 138 measures for the NEAT WA 10 Measures.
- 9. Once all the measures are done in the first one you have chosen to do, now select the other one and repeat steps 5-7.
- 10. Once you have entered all the information, click the X at the top right to close this screen. This will take you back to the WAPLink Main screen.

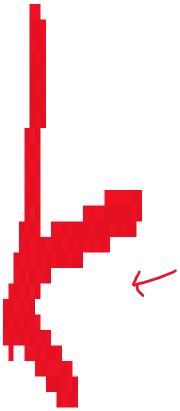
Congratulations, you have successfully Updated the Agencies WA 10 Measure Cost Library.



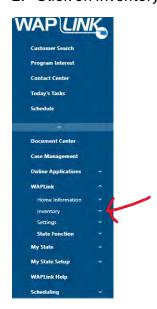
## Inventory

Once the primary user for the agency is logged in, the following needs to be done for additional users in the system:

1. On the left side of the screen, go to WAPLink.

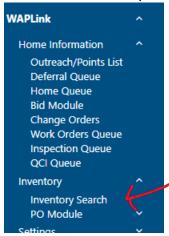


2. Click on Inventory

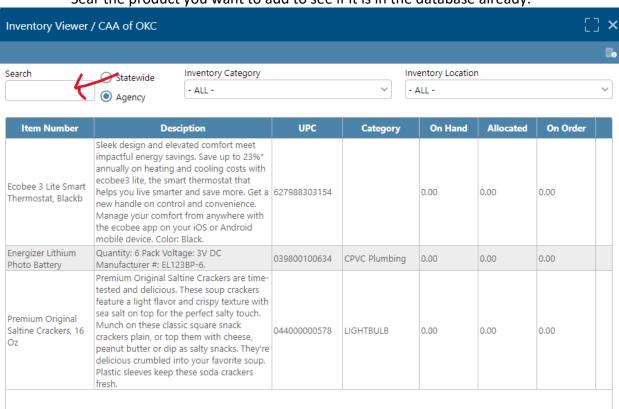




3. Click on Inventory Search

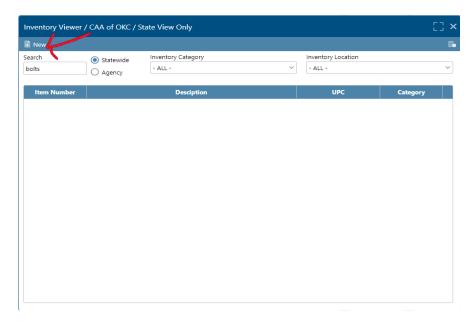


4. This will bring up the Inventory Viewer Screen. The first thing you want to do is to Sear the product you want to add to see if it is in the database already.

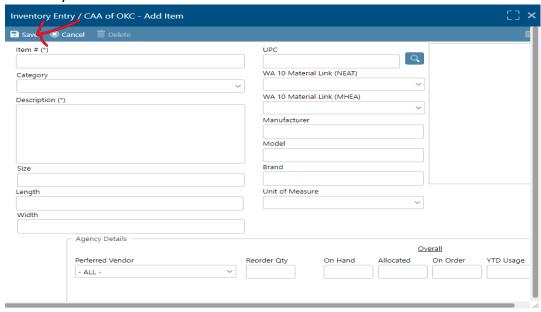




5. If the item is not found the New button will appear in the top left corner. Click on the NEW button.



6. This will bring up the Inventory Entry Screen where you will be able to enter the information for the item you are wanting to enter the system. Once you are done. This will add the item to not just your agency's Inventory, but also to the State Inventory.



7. Click Save.

You have entered Your Inventory.



# Refrigerator

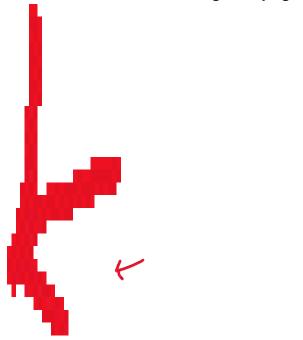


# **Domestic Water Heater**



# School District Entry

1. On the left side of the screen, go to My Agency Setup



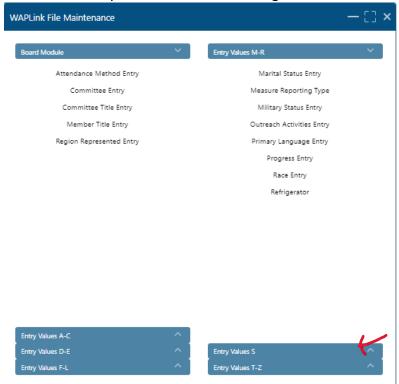
2. Click on the Down arrow. Scroll down until you Find File Maintenance and click on it.

My State Setup

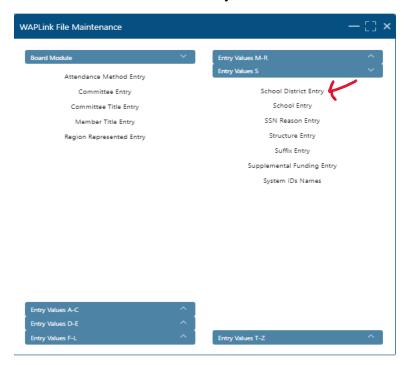




3. Click on Entry Value S found on the Right side of the Screen.

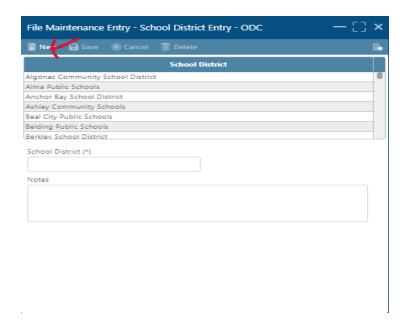


4. Click on School District Entry.

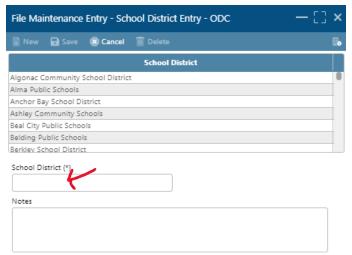


5. Click on NEW.



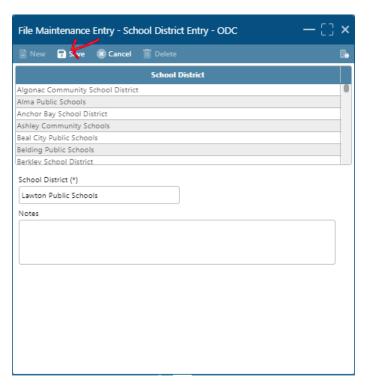


6. Enter the School District Name.

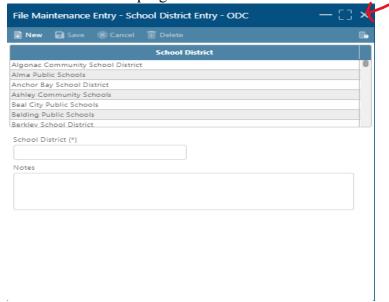




7. Click on Save.



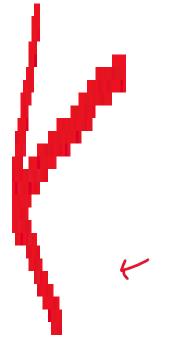
- 8. Repeat Steps 5 to Step 7 for all the school districts. If there are multiple school districts with the same name in the state, might want to input the city name after the school district name to keep them separated.
- 9. Click the X in the top right of the window.



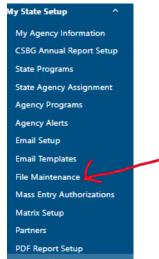


# School Entry

1. On the left side of the screen, go to My Agency Setup

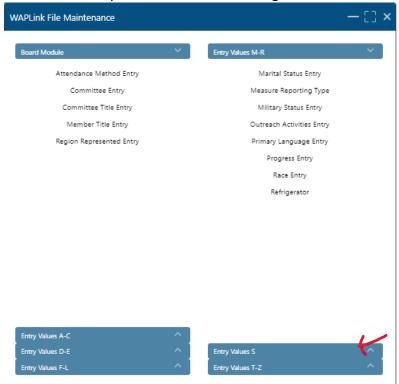


2. Click on the Down arrow. Scroll down until you Find File Maintenance and click on it.

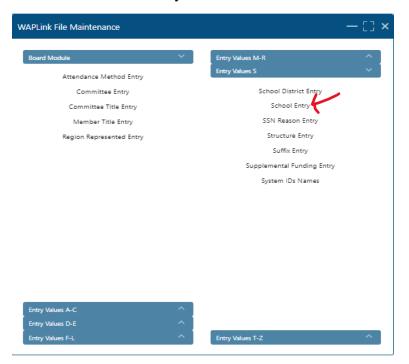




3. Click on Entry Value S found on the Right side of the Screen.

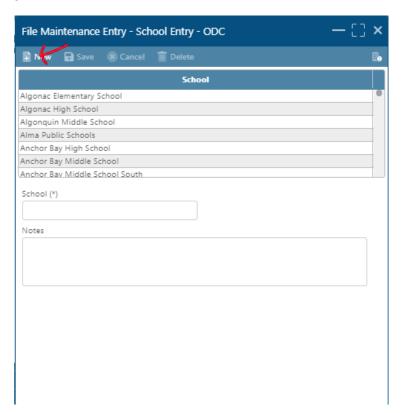


4. Click on School Entry.

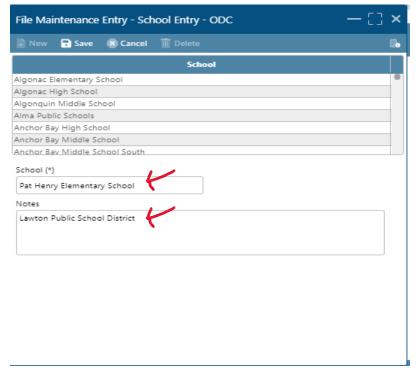




#### 5. Click on NEW.

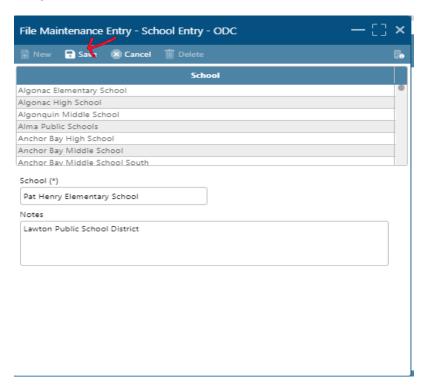


- 6. Enter the School Name.
- 7. Then enter in the School District in the Comment Section

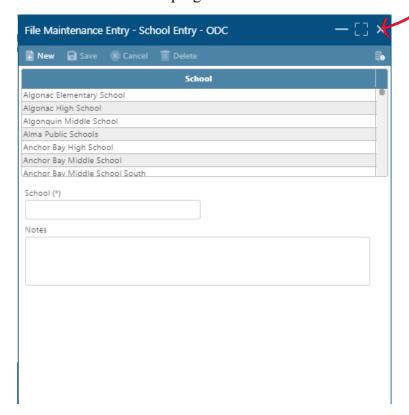




#### 8. Click Save.



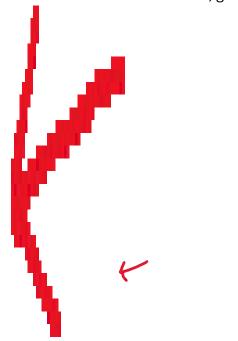
- 9. Repeat Step 5 to Step 8 for the rest of the schools.
- 10. Click the X in the top right of the screen.



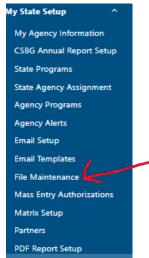


# Tribe Entry

1. On the left side of the screen, go to My Agency Setup

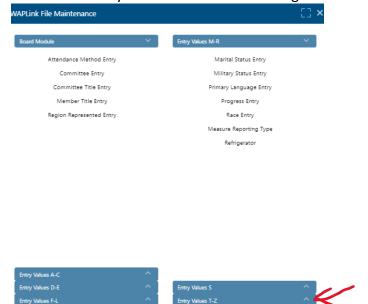


2. Click on the Down arrow. Scroll down until you Find File Maintenance, and click on it.

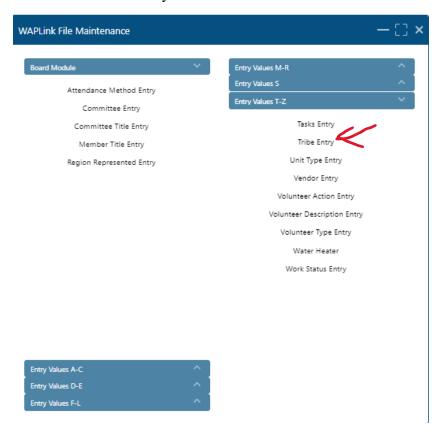




3. Click on Entry Value T-Z found on the Right side of the Screen.

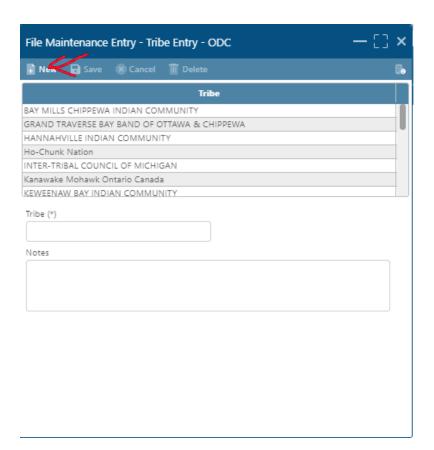


4. Click on Tribe Entry

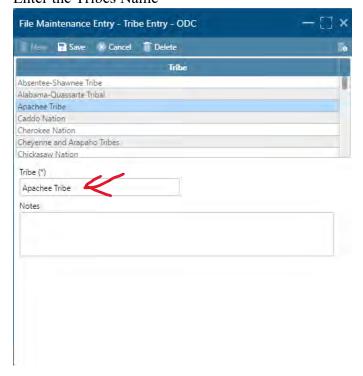


#### 5. Click New





6. Enter the Tribes Name

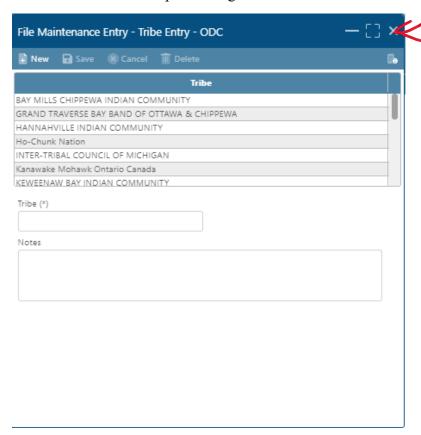


7. Click Save.





- 8. Repeat Step 5 to Step 7 for the other Tribes.
- 9. Click the X at the top of the right corner.

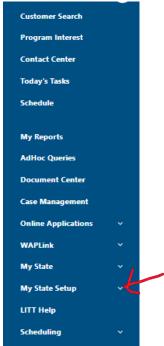


**Crew Members** 

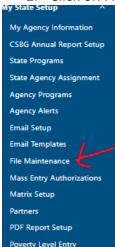


The addition of the crew will be used in the section when creating the work orders during the Energy audit. If the agency is Crew-based and wants the crew to install specific measures, they must make a crew list to select the crew from the drop-down menu. The following is the process of choosing the crew member.

1. At the main screen, click on the My Agency Set up arrow on the left side of the screen.



2. Click on File Maintenance.



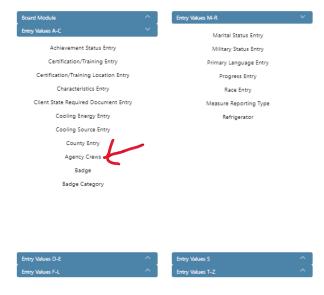
3. Click on Entry Value A-C.







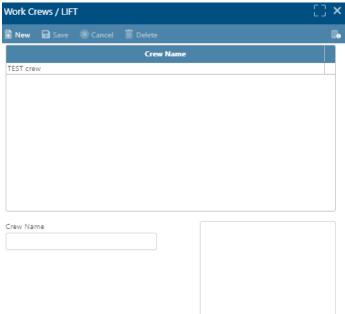
4. Click on Agency Crew. This will bring up the Work Crew for the agency.



5. Click on New and the Work Crew screen and enter the crew's Name. Once the new button is clicked, the names of the people who entered WAPLink will be populated. Click



the boxes next to the names of the crew members for this crew.



- 6. Click Save at the top.
- 7. Repeat 5 and 6 if your agency has more than one crew.

This will allow you to assign the work order to a crew in the work order screen.

**CONGRATULATIONS! YOU HAVE SUCCESSFULLY ENTERED YOUR CREW INTO WAPLINK** 



# Right side Dashboard Change

1. Click the three bars in the middle of the screen at the top of the screen.



2. Then check and uncheck what you want to have to show up on the right side of the screen.



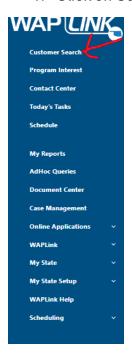
3. Click update settings.

CONGRATULATIONS YOU HAVE SUCCESSFULLY CHANGED YOUR RIGHT-SIDE DASHBOARD IN WAPLink



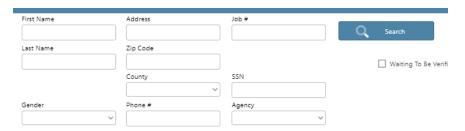
# **Paper Application Input**

1. Click on Customer Search on the left side of the screen.



You want to Search to ensure the client is not in the system first.

2. Enter the first name and last name and click on Search.

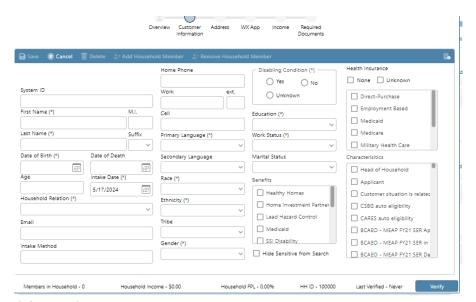


3. Click on New



4. Enter all the information into the Customer Information screen. After entering the Information into the screen.

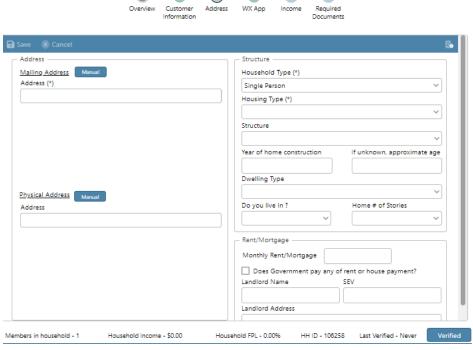




Address

WX App

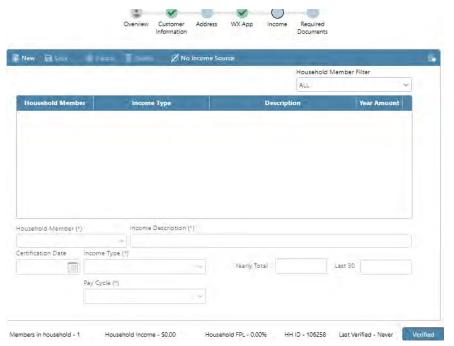
- 5. Click on Save.
- 6. Click on the address Circle.



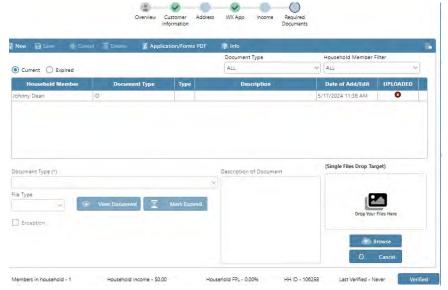
Required

- 7. Start entering the address into the system. The system should automatically bring up the address. Finish the screen fields.
- 8. Click on Save.
- 9. Click on the Income Circle.
- 10. Click New.





- 11. Enter the information for the client's income into the system.
- 12. Click Save
- 13. Click on Required Documents
- 14. This screen will display the documents that need to be uploaded.



- 15. Click on the Document that needs to be uploaded.
- 16. At this point, the document can be uploaded in two ways
- 17.: yes
- : Browse the computer and upload the photo.
  - i. Enter the document type and file type.
- b. Click Save



- c. Open the file folder on your computer and drag and drop the photo in the dotted box.
  - i. Enter the document type and file type.
- d. Click Save
- 18. Now that everything has been done, click Verified at the bottom of the screen.

**CONGRATULATIONS! YOU HAVE SUSSEFULLY ADD A PAPER APPLICATION IN WAPLINK** 



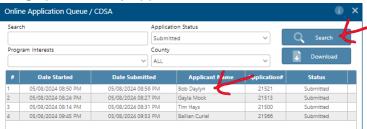
### Client Application Approval

Once a client has completed an application in the client portal online in WAPLink, it will automatically go to the appropriate agency right-side Dashboard under the heading Online Application. The following section will discuss how to process the client's application once the client has submitted it to the agency.

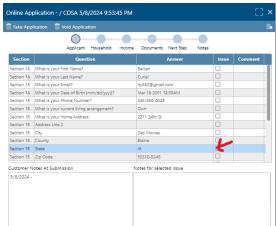
1. Click on the three bars Under the Online Application on the right-side dashboard.



2. This will bring up the Online Application Queue Screen. Click on Search. This will bring up how many applications have been submitted.

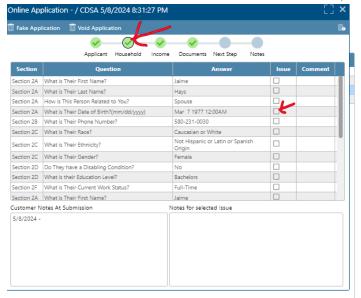


3. Click on the Applicant name that you want to review. This will bring up the Online application for this client. Starting on the Applicant Screen

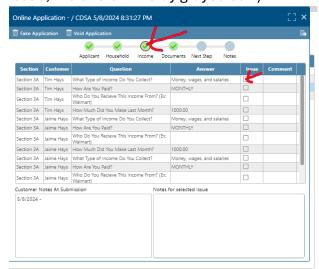




4. you want to verify that all the information was entered on this screen. The Client lives in the State and within your agency's counties. If there are any issues with this screen in the Issue Column, click the box next to the problem. Then, enter the issue description in the Notes for the section box. Once all items have been reviewed, click on the Household circle at the top. (Note: The Applicant circle now has a green check mark if it has no issues. If there is an issue, the circle will stay grayed out.)



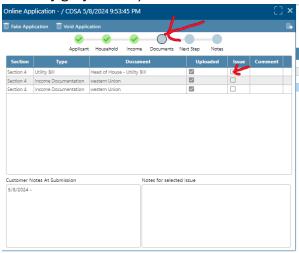
5. review all the household people the applicant listed in the online application section 2. If there are any issues with this screen in the Issue Column, click the box next to the problem. Then, enter the issue description in the Notes for the section box. Once all items have been reviewed, click the Income circle at the top. (Note: The Applicant circle now has a green check mark if it has no issues. If there is an issue, the circle will stay grayed out.)



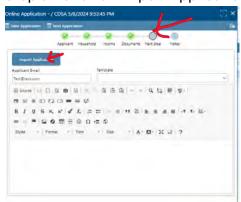
6. We need to review all the income the applicant entered in the online application section 4. (Note that if the client uploaded their documentation, there would be a



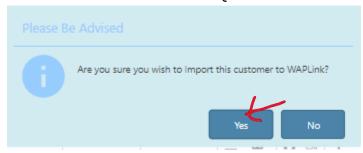
checkmark in the column next to the item they uploaded documentation for. If there are any issues with this screen in the Issue Column, click the box next to the problem. Then, enter the issue description in the Notes for the section box. Once all items have been reviewed, click the Next Step circle at the top. (Note: The Applicant circle now has a green check mark if it has no issues. If there is an issue, the circle will stay grayed out.)



- 7. This will bring up the Next Step page. From here, there are two ways that the application can be applied.
  - a. Step on Click on Import Application

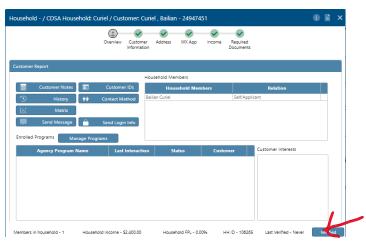


b. Answer the Please Be Advised Question: Yes

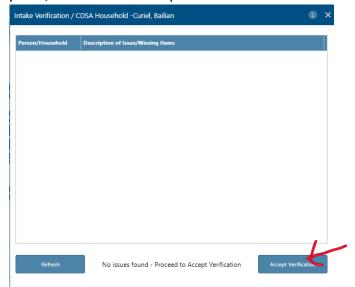


8. This will bring you to the final screen to verify the client application. At the bottom right of the screen, click on the Verified button.





9. This will bring up the Intake Verification screen. (Note: this screen will tell the intake specialist the Description of Issue/Missing Items. There were no issues if nothing was in the box at the bottom of the screen. *Proceed to Accept Verification*.) At this point, click on the Accept Verification.



- 10. Click on the X at the top of the Intake Verification Screen.
- 11. Repeat Steps 2 through 10 for the Online application.
- 12. NOTE: Intake Specialists should check this screen daily to process the Online application on time.

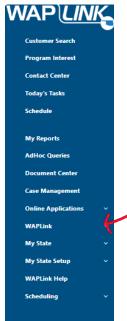
CONGRATULATIONS! YOU HAVE SUSSEFULLY ADD A VERIFIED ONLINE APPLICATION IN WAPLink



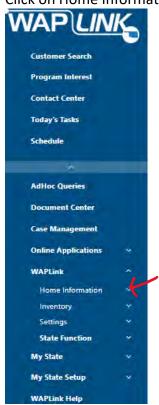
# **Scheduling Clients**

At this point, the agency will schedule the client for the Energy Audit and decide which funding contract this client will use to Weatherize this home.

1. On the left side of the screen, go to WAPLink.

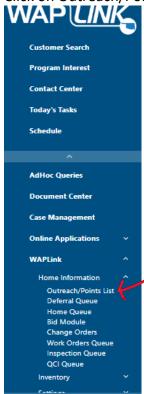


2. Click on Home Information

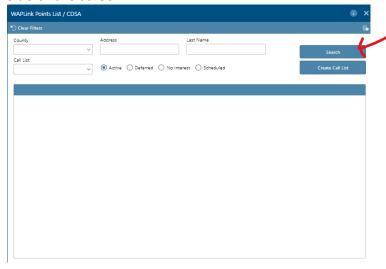




3. Click on Outreach/Points List

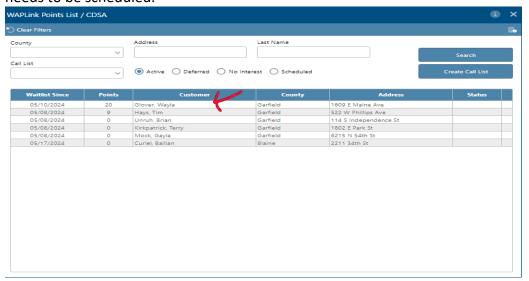


4. This will bring up the WAPLink Point List screen. Click on the Search button on the Right side of the screen.

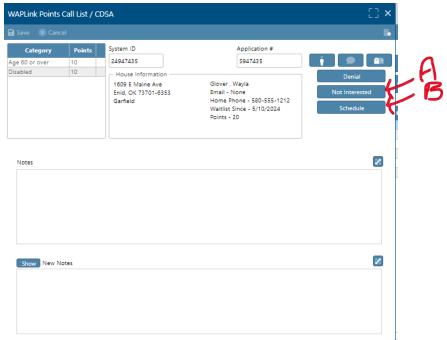




5. This will bring up all the applications that have been verified and waiting to be scheduled for Weatherization. At this point, you need to click on the customer that needs to be scheduled.



6. This will bring up the WAPLink Points Call List for the client. At this point, the scheduling can go two ways. The agency can call the client to schedule the Audit and find out if the client wants to have Weatherization.

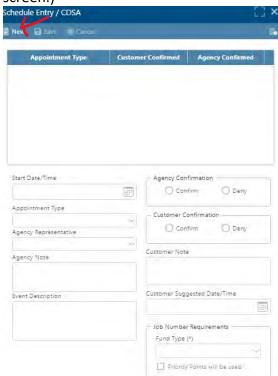


- a. If the Client is called and does not want weatherization, then the agency will choose the Not Interested button on the right side of the screen.
  - i. Answer the Please be Advised Question. (Note: if the client did say they were not interested in Weatherization. Choose Yes)





- ii.
- iii. This will remove the client and return the agency to the WAPLink Points List.
- b. At this point, the second option is to schedule the client. Click the Schedule button on the right side of the screen.
  - This will bring up the Schedule Entry screen. (Note: If the client completed the application online, the client provided an e-mail address. So, correspondence can be done via e-mail. But if the agency calls the client to schedule the energy audit, everything can be done from this screen.)



- ii. Click on the New button at the top of the screen.
  - 1. Enter the Start Date/Time
  - 2. Select Energy Audit from the Appointment Type dropdown.
  - 3. Choose the Agency Representative who is calling to schedule the Audit.
  - 4. Click on Confirm in the Agency Confirmation box.
    - a. Choose a Start Date/Time to be sent to the client to confirm or deny.
  - Click Save
    - a. If the client suggests a new date /time, the agency can enter the latest date/time in the box.
  - 6. Click Save



- 7. If the agency has already called the client and set up a Start Date/Time.
- 8. Repeat 1-4 above.
- 9. Click on Confirm in the Customer Confirmation box.
- 10. Choose the funding type from the Job Number Requirements section dropdown menu.
- 11. Click on Save at the Top of the screen.
- 12. This will take you back to the WAPLink Pints Call List for this customer.
- 13. Click on the X at the top of the screen.
- 7. Repeat Steps 1 6 Above for the remainder of the clients that need to be scheduled if the agency is ready to schedule them.

CONGRATULATIONS! YOU HAVE SUSSEFULLY SCHEDULED A CLIENT FOR AND ENERGY AUDIT IN WAPLink



#### Photo Documentation

 Remember that during all phases of the Audit process, Photo Documentation needs to be done. This is not only for each of the measures but also for diagnostic testing. Uploading into WAPLink as the process goes along.

# Oklahoma Weatherization Operation Manual

#### 12.3. PHOTO DOCUMENTATION

- 12.3.1. Photo documentation is required to be a part of the Client File. 12.3.1.1. Photos may be stored electronically on CDs, jump drives, and/or printed.
- 12.3.1.2. Photos must be **in full color, in focus, clearly distinguishable, labeled** (either as the date the photo was taken or as "before," "after," or "during"), **and organized.** For those homes that are to be reviewed by the State Technical Officer, one photo for each measure must be labeled by the NEAT or MHEA Index Numbers (on the Recommend Measure Report) and uploaded to the appropriate area in the QA Monitoring Report upload section.
- 12.3.1.3. Photos should be easily accessible for any client file pulled and should be a part of any file request, including files requested by ODOC's State Technical Officer.
- 12.3.1.4. Before/During/After photo documentation of the following is required: 12.3.1.4.1. All completed weatherization work prescribed by NEAT and/or MHEA or needed for Health and Safety reasons.
- 12.3.1.4.2. All items not explicitly required by NEAT and/or MHEA, such as incidental repairs or items involving extenuating circumstances.
- 12.3.1.4.3. All lead safe work procedures.
- 12.3.1.5. A complete list of all required technical photo documentation necessary for each home and energy audit can be found in the Energy Audit Manual 2.1.4.

## **Energy Audit Manual**

- 2.1.4. An Energy Auditor must collect sufficient photo documentation of the home, including, but not limited to:
- 2.1.4.1. Exterior views of every wall of the home
- 2.1.4.2. Legible photos of manufacturer's tags for heating, cooling, and DHW appliances.
- 2.1.4.3. Photos of the diagnostic test results, including Combustion Analysis, Fridge Metering, Blower door, and duct blaster.
- 2.1.4.4. Only those pressure pans with an unusually high reading need to be photo-documented.
- 2.1.4.5. Photo of wall insulation being investigated.
- 2.1.4.6. Photos of the attic area, including attic insulation, are being measured.



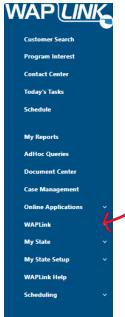
- 2.1.4.7. Photos of the crawlspace area, including height, crawlspace entrance, and crawlspace joist size.
- 2.1.4.8. Photo of the existing condition(s) for any other installed or repaired item.
- 2.1.4.9. Any health and safety issues to be addressed by weatherization.



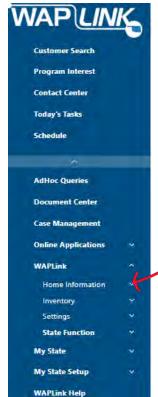
# **Energy Audit Navigation**

Now that the agency has done all the above, they are ready to conduct an Energy Audit.

1. On the left side of the screen, go to WAPLink.

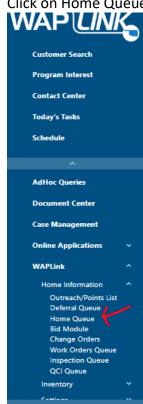


2. Click on Home Information

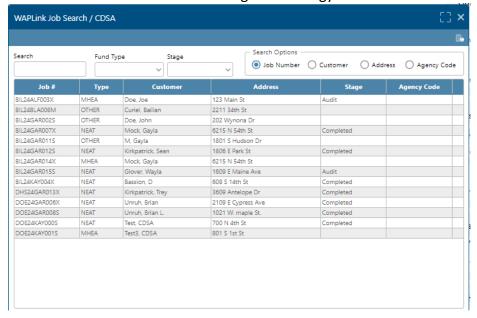




3. Click on Home Queue



4. This will bring up the WAPLink Job Search screen. These are all the homes scheduled by the intake specialist, which is the start of the real fun in WAPLink, the ENERGY AUDIT. Click on the Customer's Name to begin the Energy Audit.



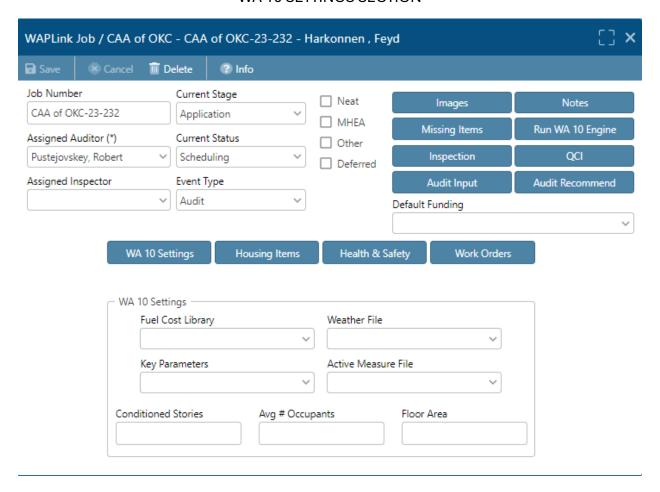


# **NEAT PROCESS**





#### WA 10 SETTINGS SECTION

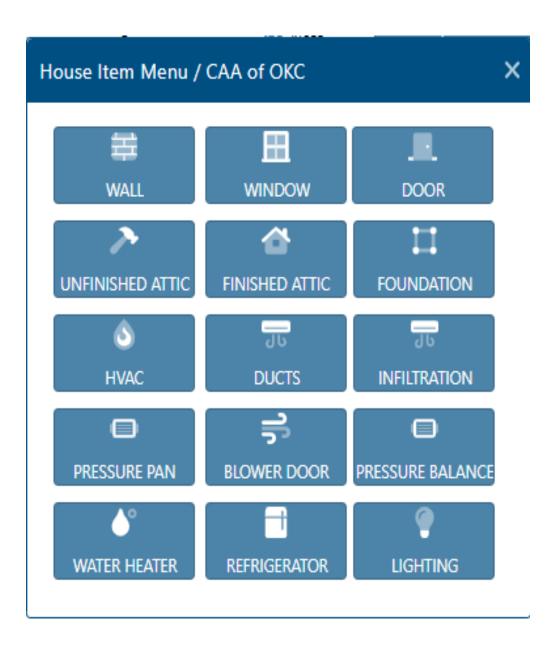


- 1. Fuel Cost Library: Choose the Statewide NEAT PY\*\*\*\* (the year)
- 2. Key Parameters: Choose the Statewide NEAT
- 3. **Weather File:** Choose the closest Weather file to the location of the client's home. The WEATHER LOCATION city you choose will not always be the geographically closest city to your client. It might even be in another state. You are looking for the weather file that most closely approximates your client's location's Heating Degree Days (HDD) and Cooling Degree Days (CDD).
- 4. Active Measure File: Choose Statewide Neat PY\*\*\*\* (the year)
- 5. Conditioned Stories: how many stories is the building?
  - a. Input-only 1; 1.5; 2; 3 or 4 floors
  - b. 1 story = about 8'-9'
  - c. 1.5 story = about 12'-13'
  - d. 2 story = about 16'-18'
  - e. 3 story = about 24'-27'
  - f. 4 story = about 32'-36'
- 6. Average # of occupants: enter the number of people living in the home.
- 7. **Floor Area:** Enter the Square footage of the home.



Now, this is where the NEAT Energy Audit Process Starts.

Click on the + Housing Items Button.

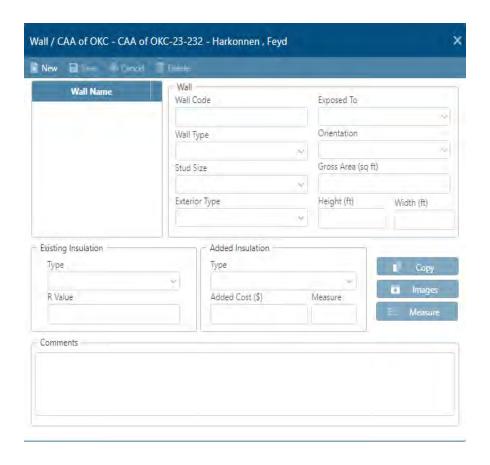




#### CLICK WALL BUTTON.



### WALL SECTION



- 1. **Wall Code:** Input a unique Wall Code for each wall. Try to keep the code for all the walls sequential and match the code written on your footprint diagram so that anyone can quickly determine which wall is referenced by the Wall code.
- 2. Wall Type: Define the home's Wall Type. Use the dropdown to make your selection.
- 3. **Stud Size:** Define the home's Stud Size. Use the dropdown to make your selection.
- 4. Exterior Type: What type of siding is this home? Choose from the dropdown.
- 5. **Exposed To:** Is the Wall you are describing exposed to:
  - a. Outside (Ambient)



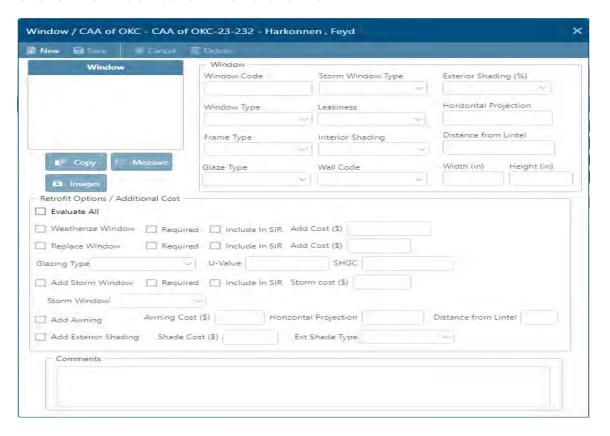
- b. Buffered Space refers to an unconditioned space that buffers this wall section from the outside. Typically, when considering a buffered space, the air in the buffered space will be at least several degrees different from the outside ambient temperature.
- c. Conditioned Space
- 6. Orientation: What is the Orientation of this wall? Choose one: N-S-E-W.
- 7. **Height:** Enter the Height (ft)
- 8. Width: Enter in the full Width (ft)
- 9. **Gross Area:** Once entered, the Gross Area is auto-calculated (double-check to ensure it is correct). You can enter the Gross Area.
- 10. Existing R-Value: Input the Type and R-vale of Existing Insulation
  - a. At a minimum, one wall of each home must be inspected for insulation levels. If there is an addition, the additional walls must also be checked.
  - b. Best practice: drill a 1" hole (or bigger) in an exterior wall, preferably in a closet or from outside; examine the cavity and seal with a plastic plug & caulk. Take photos of each wall hole being inspected and use an infrared camera during the blower door testing and taking pictures.
  - c. R11 vs R13: This is very difficult to determine. Based on your assumption of when the house and/or addition was built. R11 was used only until about 1995.
- 11. Added Insulation: Choose from the dropdown which insulation.
- 12. **Measure #:** This number should stay the same for every wall that has the same essential structural characteristics, such as framing type and existing insulation. Buffered and Outside walls can share the same measure number. Choose a new measure number for a wall that, for example, is insulated while other walls are not. You can choose to make all their measurements if you wish.
- 13. In most cases, there will be no Additional Cost. This is to be input if there is an unusual and unique extra cost to insulate this particular wall beyond the price defined in the library. Examples could include the additional cost of blowing from the inside or repairing the necessary siding before adding insulation.
- 14. any comment must be entered for clarification in the comment section.
- 15. You Must hit SAVE at the top of the window.
- 16. There are two choices for inputting a new wall. One is to hit the new button at the top and start at step one above. If a Copy is chosen, change the Wall Code so that all wall entries remain sequential and match the numbering on the footprint diagram. Change only those fields that are different from the previous wall. Remember to hit the save button after entering the information before moving to the next wall or section.
- 17. Click on the X on the top right corner of the wall screen.



#### WINDOW SECTION



Click on the window button. Then click on new.



- Window Code: Input a unique Window Code for each window. Try to keep the
  code for all windows sequential and match the codes you wrote on your
  footprint diagram so that anyone can quickly determine which window each
  Window code references.
- 2. **Window Type:** What is the Window Type? Choose the appropriate selection from the dropdown list.
- 3. **Frame Type:** Choose the appropriate type from the dropdown.
- 4. **Glaze Type:** Choose the appropriate type from the dropdown.
- 5. **Storm Window Type:** Choose the appropriate from the dropdown.
- 6. **Leakiness:** Choose the most appropriate Leakiness level for this window. This is always a judgment call, but try to back up your claim with photos, especially if defining the window as Very Loose. This refers only to the body of the window



itself, not to the glass. A broken pane of glass is much cheaper to replace than a whole window and will be dealt with as an infiltration issue.

- a. A functional storm window can be considered to provide some air sealing. Set the leakiness of the window one level higher than you would have if the storm window had been absent.
- 7. Interior Shading: Choose the appropriate type from the dropdown.
- 8. **Wall Code:** Choose from the dropdown the Wall Code for the wall on which this window exists.
- 9. **Exterior Shading:** Choose the appropriate from the dropdown. (If one was chosen, the next step must be to enter fields. If one was not selected, then skip to step 12)
- 10. Enter in the Horizontal Projection (In)
- 11. Enter in Lintel (in)
- 12. Width: Enter the Width (in) of the window
- 13. **Height:** Enter the Height (in) of the window
- 14. Click Replace Window
- 15. **Glazing Type:** Choose the glazing type from the Dropdown.

### 16. Enter Chart for U-values and SHGC Default values.

Double Pane	U-Value	SHGC
Wood	0.49	0.58
Vinyl	0.46	0.57
Metal	0.87	0.73
Metal w/ Thermal		
Break	0.65	0.66

Double Pane w/Low E	U-Value	SHGC
Wood	0.39	46
Vinyl	0.36	0.45
Metal	N/A	N/A
Metal w/ Thermal		
Break	0.53	0.52

- **17.** Enter the comment section for any comment clarification that is needed.
- 18. Click the Save button.
- 19. There are two choices for inputting a new window. One is to hit the new button at the top and start at step one above. If Copy is chosen, change the Window Code so that all window entries remain sequential and match the numbering on the footprint diagram. Change only those fields that are different from the previous



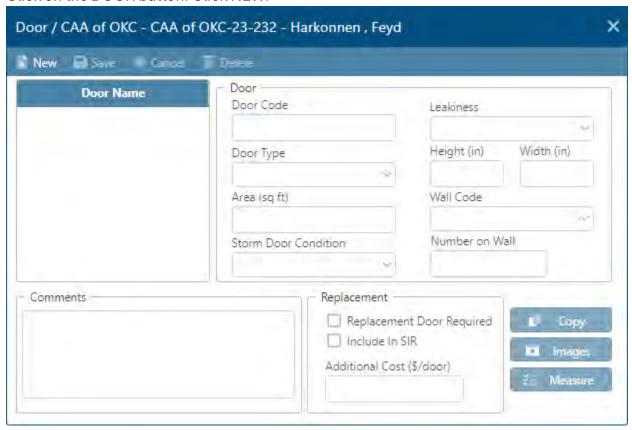
Window. Remember to hit save after entering window information or the next section.

20. Click on the X in the top right corner of the Window screen.





### Click on the DOOR button. Click NEW.



- 1. **Door Code:** Input a unique Door Code for each door. Try to keep the code for all doors sequential and match the codes you wrote on your footprint diagram so that anyone can quickly determine which door is referenced by each door code.
- 2. **Door Type**: Choose the appropriate type from the dropdown.
- 3. **Area (sq ft):** (is auto-calculated once entered; double check to ensure it is correct).
- 4. **Storm Door Condition:** Choose the appropriate one from the dropdown list. Remember: The storm door is considered only due to its ability to block air movement. It should be regarded as deteriorated if the storm door doesn't block airflow.
- 5. Leakiness: Choose the appropriate Leakiness from the dropdown list.
  - a. Tight = Door doesn't need any work
  - b. Medium = door god but needs weather-strip and/or door sweep
  - c. Loose = Door cannot be air-sealed. Door warped, rotted, or broken.
- 6. Height: Enter Height (in)
- 7. Width: Enter Width (in)



- 8. Wall Code: Choose the Wall Code for the wall on which this door exists.
- 9. Number on the wall: it is recommended to always leave this number as '1'.
- 10. Enter the Comment section for any comment for clarification that is needed. Also include in the comment section the Calculation for the Area of the Door, Which is Width (in) x Height (in) /144= Example 36 x 80/144 = 2880/144 = 20 sq ft
- 11. Click the Save button.
- 12. There are two choices when inputting a new door. One is to hit the new button at the top and start at step one above. If a Copy is chosen, change the Door Code so that all door entries remain sequential and match the numbering on the footprint diagram. Change only those fields that are different from the previous Door. Remember to hit save after entering Door information or the next section.
- 13. Click on the X on the top right corner of the Door screen.

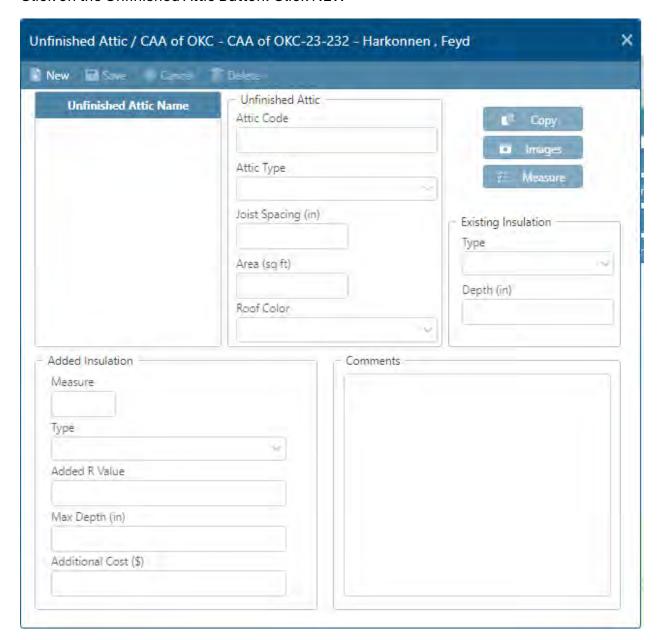
Note: In WAP 10, you cannot input a door and connect it to a buffered wall. For this, when inputting doors into WAPLink, DO NOT input a door attached to a buffered wall.



### UNFINISHED ATTICS SECTION



### Click on the Unfinished Attic Button. Click NEW



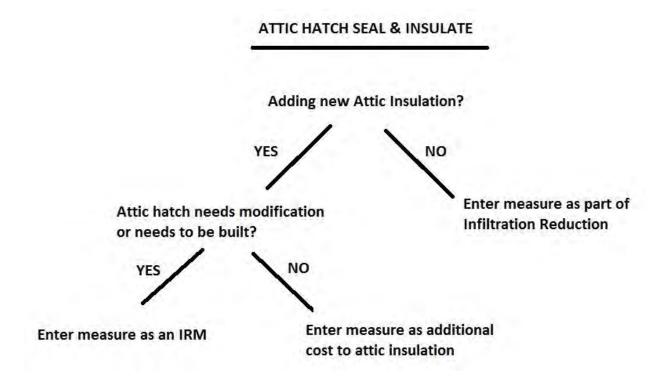
- 1. Unfinished Attic Code: Input a unique Attic Code for each Unfinished Attic
- 2. Attic Type: Choose the appropriate Attic Type from the dropdown list.
- 3. **Joist Spacing (in):** Enter the Joist Spacing (in). NEAT does not use this number.



- 4. **Attic Area (sq ft):** Define the Area of the Attic. In many Homes, this will be the same as the conditioned area of a single-story home. If there are multiple attics, the sum of all attics must equal the area of the floor above which the attic sits.
- 5. **Roof Color:** The Roof Color is almost always Normal or Weathered. Choose White, Reflective, or Shaded only if the roof color is clean enough to effectively function as a white or reflective roof (or it's primarily in the shade all the time)
- 6. **Exiting Insulation:** Choose the Existing Insulation type from the dropdown.
- 7. **Existing Insulation Depth:** Enter the Depth (in) of existing insulation. Note that Depth is in inches, not in R-value. If the insulation is degraded, has many gaps, or is very uneven, calculate (or estimate) the actual R-value and convert that back into inches (Roughly 1 inch = R3.5). If this is done, explain it in the comments.
  - a. Useful link to calculate the weighted average: http://www.redcalc.com/parallel-path-r-value/
  - b. If there is more than one type of existing insulation, choose the type that seems to be in the majority. Combine them when calculating depth and mention them in the Comment Section
- 8. **Added insulation Measure:** Choose Measure # 1. If there is more than one attic, each must have its measure number.
- 9. **Added Insulation Type:** Choose the appropriate Added Insulation Type from the dropdown list. Typically, blown fiberglass is added to the existing fiberglass.
  - a. **ADD R-Value:** it is optimal to leave inputs for Added R-Value Blank a. Added R-Value is a mandatory input that forces NEAT to provide the requested R-Value of insulation regardless of SIR. It will appear in the Recommended Measures as User-Spec Ceiling, even if the SIR is below 1.0. This should be used carefully, if at all.
- 10. Max Depth (in): It is Optional to leave Max.
  - a. Depth blank. Max. Depth MUST BE INPUT for attics that are floored or cathedral or any other circumstance when the width of the joist limits the depth. Input the total floor joist or roof rafter width. Do not use this input for any open attic space.
- 11. Additional Cost (\$): There will usually be Additional Costs with attics. All additional costs must be explained in the comments.
  - a. These are typical Additional Costs
    - i. Dams for hatch, flue pipes, and/or separating attic areas.
    - ii. Baffles (only if soffit vents exist)
    - iii. Extra time to maneuver through a tight attic area.
    - iv. Labor cost to remove client's stored goods.
    - v. Cost to insulate and air seal an existing attic hatch.
    - vi. Blocking of joist cavities under floored attics
  - b. The following are NOT Additional Costs
    - i. Air sealing in the attic (this should be part of air sealing only)
    - ii. New attic ventilation (this should be an Incidental Repair)



- iii. Flags and rulers (these should be included in the per-square-foot cost)
- iv. Building new attic access (this should be an Incidental Repair)
- v. Roof repairs (this should be an Incidental Repair)
- c. If there is more than one attic, press NEW at the lower left of the screen to create a new
  - i. NOTE: An attic that is partly floored must be input as two attics, one floored and one un-floored, with appropriate square footage for each.
- d. How to input an attic hatch measure:



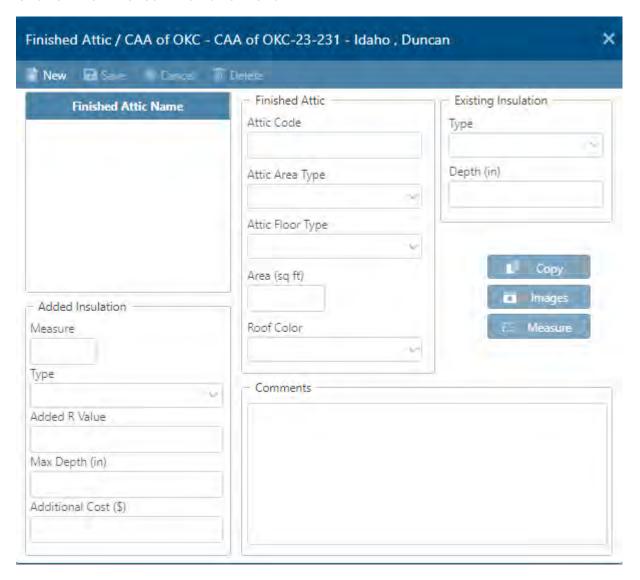
- 12. Enter the comment section for any comment clarification that is needed.
- 13. Click the Save button.
- 14. There are two choices when inputting a new Unfinished Attic. One is to hit the new button at the top and start at step one above. If Copy is chosen, change the Attic Code so that all Unfinished attic entries remain sequential. Change only those fields that are different from the previous Attic. Remember to hit save after entering the Attic information or the next section.
- 15. Click on the X in the top right corner of the Unfinished Attic screen.



#### FINISHED ATTIC SECTION



## Click on the Finished Attic Button. Click NEW



- 1. Finished Attic Code: Input a unique Attic Code for each Finished Attic
- 2. Attic Area Type: Choose the appropriate one from the dropdown. Most Finished Attics have all four elements described here, and each type must be modeled individually (using the New Button at the Top Left to create a new Record for Each). However, to save time, it is acceptable to combine the square footage area of both areas of the same type (say, Knee Walls and Roof Rafters) into a single record, notating it in the comment section.
- 3. All inputs here are the same as on the Unfinished Attics page. Three things to note:



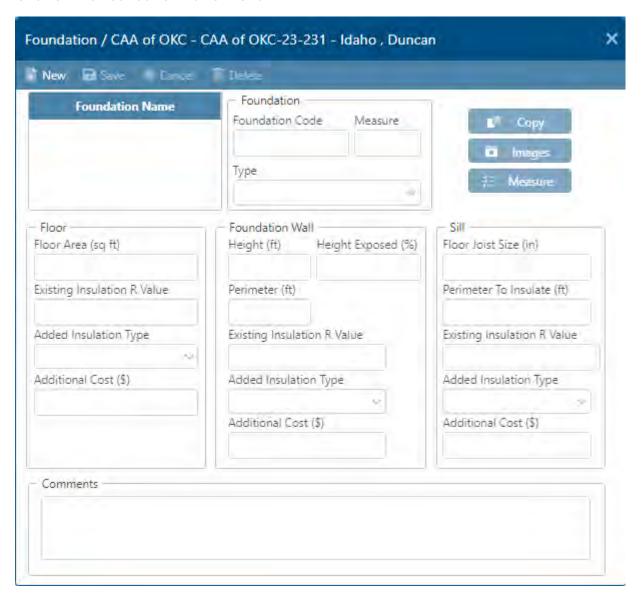
- a. When modeling the Roof Rafters, you must input Max Depth. Use the width of the Rafters (Usually 6 or 8"0.
- b. NEAT understands that the outer ceiling joist is an unconditioned space. DO NOT MODEL THIS AREA AS A SEPARATE ATTIC UNDER THE UNFINISHED ATTIC.
- c. If a measure is not provided (SIR<1.0). Try to choose a cheaper insulation option instead.
- 4. Measure: Choose a separate measure number for each element of a finished attic
- 5. The Gable End Walls of a typical Finished Attic must be Modeled as Exterior Walls under the Wall Section.
- 6. Enter any comment section that is needed for clarification.
- 7. Click the Save button.
- 8. There are two choices for input into a new finished attic. One is to hit the new button at the top and start at step one above. If Copy is chosen, change the Finished Attic Code so that all Finished Attic entries remain sequential. Change only those fields that are different from the previous Attic. Remember to hit save after entering the Finished Attic information or the next section.
- 9. Click on the X in the top right corner of the Finished Attic screen.



#### **FOUNDATION SECTION**



## Click on the Foundation Button. Click NEW

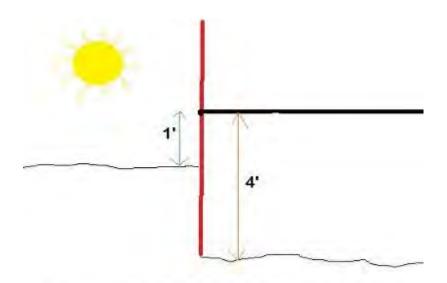


- 1. Foundation Code: Input a unique Foundation Code for each Foundation.
- 2. **Measure Number:** This field groups items so that all items in the group are encompassed in a single SIR calculation and recommendation. This is useful for items with the same construction and specification, but items with different specifications or "Additional Costs" should be Separated. Select the same number for all items to be grouped.
- 3. **Foundation Type:** Choose the appropriate Foundation Type from the dropdown list:



- a. Conditioned: A conditioned space is heated and/or cooled directly or indirectly through a permanently open doorway.
- b. Non-Conditioned: Unvented and non-conditioned. Usually, it's a non-conditioned basement. It could also be a closed crawlspace.
- c. Vented Non-Conditioned: This is a typical vented crawlspace. If there are foundation vents, they are vented.
- d. Unintentionally Conditioned: Be wary of choosing this. For this to be true, you must reasonably believe that the entire space is heated at least 1 degree due to the waste heat from the furnace, boiler, and/or water heater.
- e. Uninsulated or insulated slab: Always choose Uninsulated unless you know otherwise.
- f. Exposed Floor: This is an overhang (such as a cantilevered floor) or the foundation of a house that sits on stilts or piers.
- 4. Area (sq Ft): Enter Floor Area (sq ft)
- 5. **Existing Insulation R-value:** Enter the R-value of the Insulation Currently installed in the floor area.
- 6. **Added Insulation Type:** Select the appropriate Insulation type to be installed if NEAT recommends insulation. Select "NONE" if conditions prohibit insulating this particular segment. Note the condition in the Comment Section.
  - A crawlspace area will not be insulated where the average height is less than 2 feet, measured from the ground to the bottom of the floor joists. NEAT automatically determines this – do not choose NONE for insulation type.
  - b. Crawl spaces in which part of the area has an average height over 2 feet, and part has an average height below 2 feet must be input as separate foundations in NEAT. The intent is to provide insulation for areas with a height at/or above 2 feet.
  - c. Install a vapor barrier for any crawlspace to which floor insulation is added. This measure will be Incidental Repair.
- 7. Addition Cost (\$): Enter any additional cost of insulating this item. Enter the total, not the cost per square foot. This cost is not generally associated with insulation and thus needs to be accounted for in the Measure Cost Library. A Negative Addition cost will subtract from the computed cost. If a cost is entered, briefly explain the reason for the additional cost in the comment section.
- 8. **Height (ft):** Enter the wall height enclosing the foundation space (i.e., the basement or crawlspace wall) in feet units. Enter the average height if the height of the wall is not uniform.
- 9. **Height Exposed (%):** Enter the percentage of the height that is exposed to the outside air (i.e., is above grade) or the average percentage if the exposure is not uniform. Enter Percentage equation into the Comment Section Example (1/4) \* 100 = 0.25 \*100 = 25%





% Exposed = (1 / 4) x 100 = 0.25 x 100 = 25%

- 10. **Perimeter (ft):** Enter the total external Perimeter of the foundation wall in units of feet. Put the Perimeter Equation into the comment section (example WL1+WL2+WL3+WL4=P = 20+40+20+40=120 Perimeter)
- 11. Existing Insulation R-Value: Enter the R-value of the Insulation currently installed in the foundation Wall.
- 12. **Added Insulation Type:** Select the insulation type NEAT recommends. Select "NONE if the condition prohibits insulating this particular section, and note those conditions in the comment section.
- 13. Floor Joist Size (in): Enter the floor joist size (i.e., the band or rim joist) in units of inches. The level of insulation that will be evaluated for addition to a floor is restricted to those that allow the total existing and added insulation to fit within the joist depth.
- 14. Perimeter (ft): Enter the total external Perimeter of the foundation wall in units of feet.
- 15. **Existing Insulation R-Value:** Enter the R-value of the insulation currently installed in the Sill/Sillbox area.
- 16. Enter the comment section for any comment clarification that is needed.
- 17. Click the Save button.
- 18. There are two choices when inputting a new Foundation. One is to hit the new button at the top and start at step one above. If a Copy is chosen, change the Foundation Code so that all foundation entries remain sequential. Change only those fields that are different from the previous Foundation. Remember to hit save after entering Foundation information or the next section.
- 19. Click on the X in the top right corner of the Foundation screen.

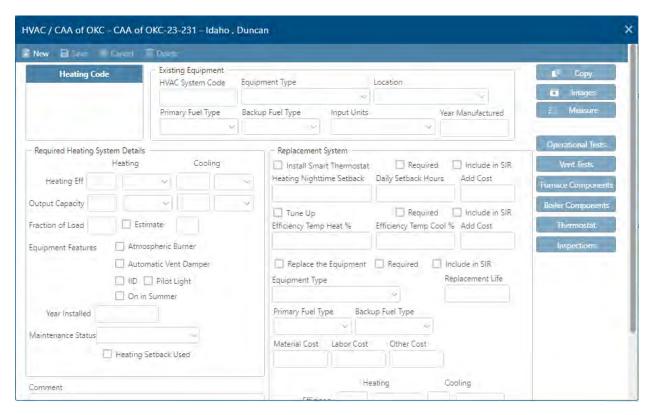


# HEATING AND AIR CONDITIONING SECTION (HVAC)



# (Note: If entering a heat pump, the agency can enter both the AC and heating in the same existing equipment.)

Click on the Foundation Button. Click NEW



- 1. HVAC System Code: Input a unique HVAC System Code for each HVAC.
- 2. **Equipment Type:** Choose the appropriate type from the dropdown list.
- 3. **Location:** Choose the appropriate location of the above equipment from the dropdown list.
- 4. **Primary Fuel Type:** Choose the appropriate fuel type from the dropdown list.
- 5. **Backup Fuel Type:** Choose the appropriate backup fuel from the dropdown list. If Unknown, choose "NONE."
- 6. **Input Units:** Choose the appropriate units from the dropdown list.
- 7. **Year Manufactured:** Input the Year the Unit was manufactured. It can be found on the Model Plate. It is coded into the model or serial number. An excellent website to find the year of manufacture of any HVAC unit is http://www.building-center.org. The de-rating system needs to be calculated and entered into the comment section.



- 8. **Heating EFF:** Enter the Value in the Whole number, then Choose the Appropriate Unit from the Dropdown list. This goes for the Cooling Side as well.
- 9. **Output Capacity:** Enter the Value in the Whole number, then Choose the Appropriate Unit from the Dropdown list. This goes for the Cooling Side as well.
- 10. **Fraction of load Served %:** This is the percentage of the home's conditioned floor area that is heated or cooled by this unit. If there is more than one unit, estimate the percentage from each. The total must add up to 1. Example H-1=0.86, H-2=0.14, H-1 + H2 = 1; A/C-1=0.30, A/C-2=0.70, A/C-1 + A/C-2 = 1.
- 11. Equipment Features: Check off if the equipment has the features listed
  - a. Atmospheric Burner
  - b. Automatic Vent Damper. They are not Typically Used.
  - c. Pilot Light
  - d. IID
  - e. Pilot light remains on throughout the summer.
- 12. Year Installed: If known, input the Year Installed
- 13. **Maintenance Status:** Choose the appropriate maintenance status of the system from the dropdown list.
  - a. **Annual Professional Maintenance:** A professional comes out yearly to clean and maintain the unit to meet manufacturer specifications. Filters are replaced regularly.
  - b. **Seldon or Never Maintenance:** Filters are replaced regularly, and a professional is only called out when there is an issue with the system.
  - c. Not Working: The system does not work at all.
- 14. Click on Replace the Equipment
  - a. If a replacement system will be installed using funds from another funding source, model the new system as the existing unit and note this in the Comments Section. The auditor will need to determine the efficiency and size of the new unit.
  - b. If a replacement system will be installed using ODOC H&S funds, model the existing broken furnace and choose Replacement Mandatory (do NOT Include in SIR). Explain the reason for this replacement in the Comments Section.
  - c. To attempt an ECM replacement: Model the existing and functional heat. It can be as little as a few space heaters or an oven. There is no minimum to what truly exists. Choose Evaluate All and enter appropriate replacement data.
- 15. **Equipment Type:** Choose the appropriate Equipment Type from the dropdown List of the replacement.
- **16. Primary Fuel Type:** Choose the appropriate fuel type from the dropdown list. (Remember, currently, ODOC does not allow Fuel Switching. Working on Fuel Switching Policy)
- 17. Backup Fuel Type: Choose Back up Fuel Type. Most likely, "None" will be chosen.
- 18. **Heating EFF:** Enter the Value in the Whole number, then Choose the Appropriate Unit from the Dropdown list. This goes for the Cooling Side as well.



- 19. **Output Capacity:** Enter the Value in the Whole number, then Choose the Appropriate Unit from the Dropdown list. This goes for the Cooling Side as well.
- 20. **Replacement Life:** Must Enter in 20 As Default. (For Both Heating and Cooling Replacement)
- **21. Fraction of load Served %:** This is the percentage of the home's conditioned floor area that is heated or cooled by this unit. If there is more than one unit, estimate the percentage from each. The total must add up to 1.
- 22. Replaces: Input Which unites replacing.
- **23.** Enter the comment section for any clarification needed if derating needs to put the equation in the comment section as well.
- 24. Click the Save button.
- 25. There are two choices for inputting a new HVAC. One is to hit the new button at the top and start at step one above. If a Copy is chosen, change the HVAC Code so all entries remain sequential. Change only those fields that are different from the previous HVAC. Remember to hit save after entering HVAC information or the next section.
- 26. Click on the X in the top right corner of the HVAC screen.



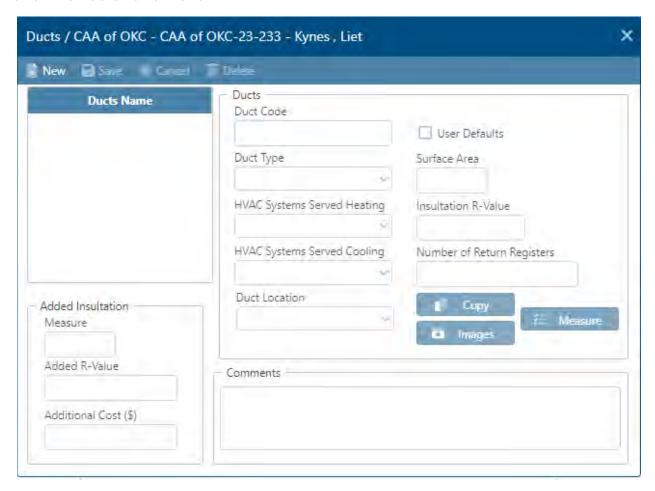
#### **DUCTS SECTION**



(NOTE: If a Mini Split, Space Heater, or Room A/C was chosen for the HVAC Section, you will not do this section. This is because they do not have Ducts. Skip to the next section. Please leave it blank.)

(Note: If in the HVAC section, the agency had a Heat pump entered the system, in this section, you will have the same name for both the HVAC System Served Heating and Cooling.)

Click on the Ducts Button. Click NEW



- 1. Duct Code: Input a unique duct Code for each Type of Duct
- 2. Duct Type: Choose the appropriate Duct type of duct.
  - a. Supply Duct: Duct that transports conditioned air into the home
  - b. Return Duct: carries sir from the room back to the air handler



- 3. HVAC System Served Heating: Choose the appropriate HVAC system from the dropdown. This will depend on what was entered in the HVAC section under the Heating.
- **4. HVAC System Served Cooling:** Choose the appropriate HVAC system from the dropdown. This will depend on what was entered in the HVAC section under the Cooling.
- **5. Duct Location:** Choose the appropriate Location of where the Ducts are located from the dropdown list.
- 6. Surface Area: Agencies will need to know the Duct Dimensions. The User

  Default button will be checked off, and the calculation is now embedded into the WAPLink software.

NOTE: if the agency chooses to measure the duct. <u>SEE HOW TO MEASURE</u> THE DUCT SURFACE AREA SECTION.

- Can combine the sections of the duct work that have the same shape (i.e., Round, Rectangular)
- b. Will need to know the Length (ft), Width (in), Height (in) and Diameter (in)
- c. Need to input the above information in the Comment Section.
- 7. Insulation R-value: Enter the existing R-value of the insulation on the Ducts.
- 8. After entering the above information, check the User Default Box
- 9. **Number of Return Registers:** Enter the number of Return registers to the HVAC system.
- 10. **Measure Number:** Each duct type must have a different Measure number and Duct Shape.
- 11. ADDED R-value: input the R-value that needs to be added to ductwork.
- 12. **Additional Cost (\$):** This is to be input if there is an unusual and unique extra cost to insulate or repair. You must explain the additional cost in the comment section.



# **Duct Calculations**

Round: Area = Pi \* (D/12) \*L

Rectangular = Area =  $(W^*2 + H^*2) / 12*L$ 

Flat Oval = Area = (Pi\*H + 2 \* W) / 12 \* L

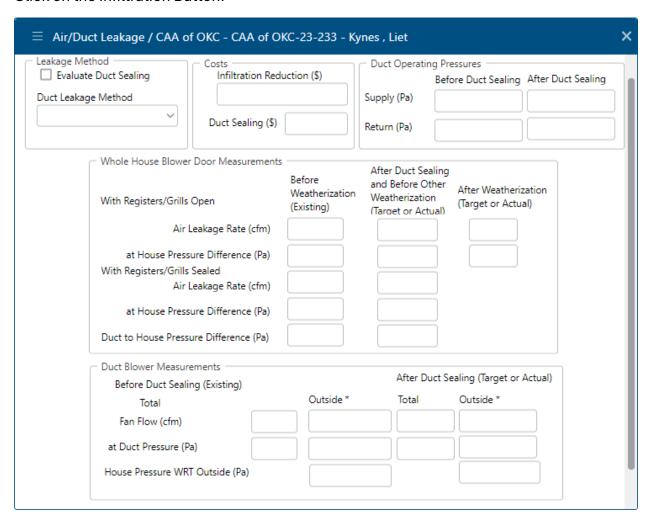


### INFILTRATION SECTION



(NOTE: If in the HVAC Section, there is a Mini Split, Space Heater, or Room A/C, DO NOT CHOOSE THE EVALUATE DUCT SEALING. This is because these systems do not have ducts to evaluate.)

Click on the Infiltration Button.



- **1. Leakage Method:** Check the Evaluate Duct Sealing to get additional funds for duct sealing. Extra on-site measurements will be required.
  - a. Evaluate Duct Sealing. It MUST be checked if pressure pan results show greater than 2.0 Pa or a single pressure pan greater than 5.0.
- **2. Duct Leakage Method:** Choose the appropriate Leakage method from the dropdown list.



- **3. Infiltration Reduction Cost (\$):** Enter the amount you wish to receive for ALL air sealing measures in this home.
- 4. Duct Sealing (\$): Enter the Amount for cost.
- 5. Duct Operating Pressures: (NOTE: Remember that you must perform the Duct Operating Pressure Test. Defaults will not be accepted but on very rare occasions.)
  - **a.** Before Duct Sealing. Both Supply and Return static pressures need to be measured in the field. Typically, one is measured and then the other. Testing does not have to be simultaneous. Static duct pressures are measured with the furnace air blower on. The blower door must NOT be running.
  - **b.** Supply static pressure: Inserting the manometer hose in the supply plenum is best. If this is not possible or practical, insert the hose in the nearest supply register and place the hose as close as you can to the plenum. You can close the register through which you are testing or tape it shut to get a better reading.
  - **c.** Return static pressure: Inserting the manometer hose in the return plenum is best. If this is not possible or practical, insert the hose in the nearest return register and place the hose as close as you can to the plenum.
- 6. Before Weatherization. Enter the blower door result achieved at pre-audit.
- 7. After Weatherization. Enter the target blower door result.
- 8. Target must be calculated using the ODOC Target spreadsheet.
- **9.** Target must be met for the measure to pass at QA and/or final. If you don't believe the target calculated above is achievable, you can adjust the target. You MUST explain your reasoning for this in the Comments Section.
- **10.** Remember that Always Use 50 if your manometer was set to Pa/CFM@50
- **11.** Before Duct Sealing (Existing): Input the data as measured in the field.
- **12.** After Duct Sealing (Target or Actual):
  - **a.** 1 Total Leakage: 12% of the total conditioned floor area of the home
  - **b.** Leakage to Outside: 8% of the total conditioned floor area of the home
- **13.** Use the ODOC Target Spreadsheet to calculate targets for the home.
- **14.** The duct sealing target must be met for the measure to pass at the final inspection and/or QCI. The result can be lower than the target but, if higher, must be within 10% of the target.
- **15.** If the target is not achieved at Final or QCI due to changes to the home's pressure boundary after weatherization, these changes must be fully documented to determine if the measure should pass.
- **16.** If you don't believe the above target is achievable, write in your adjusted target. You MUST explain your reasoning for this in the Comments Section
- 17. Duct Sealing Cost. Input amount needed for duct sealing. SIR must be 1.0 or greater.
- 18. NEAT will not accept \$0 for duct sealing. If you cannot achieve a duct sealing measure with a SIR >= 1.0, then uncheck Evaluate Duct Sealing. See below for more information.
- 19. Explain in Comments that you attempted duct sealing but could not get the measure with an SIR above 1.0.

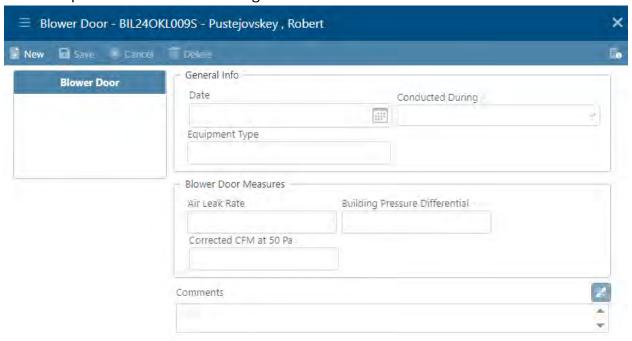


- 20. Your comment will remain even after you uncheck Evaluate Duct Sealing, as will the data you entered to attempt duct sealing.
- 21. Note that it is allowable to use Infiltration funds to seal ducts. However, using duct sealing money for other air-sealing measures is not permissible.
- 22. Remember to have in the Section "at House Pressure Difference (Pa) 50 in both the columns Before Weatherization (Existing), After Duct Sealing, and Before Other Weatherization (Target or Actual).
- 23. Enter Justification of blower door target in comment box
- 24. Click the Save button.
- 25. Click on the X in the top right corner of the Air/Duct Leakage screen.

## **Blower Door Test**



- 1. Click on the Blower door button on the right side of the screen.
- 2. This will open the Blower door testing screen.



- 3. Click New
- 4. In the General Information Box, enter the following information.
  - a. DATE: Date of the Pre-Blower door testing Date
  - b. CONDUCTED DURING: Audit
  - c. Equipment: What type of blower door equipment are you using?
- 5. In the Blower Door Measures Box, enter the following information.
  - a. AIR LEAR RATE: is your Pre-Blower Door Number that is on your DG 1000
  - b. BUILDING PRESSURE DIFFERENTIAL: 50 Pa

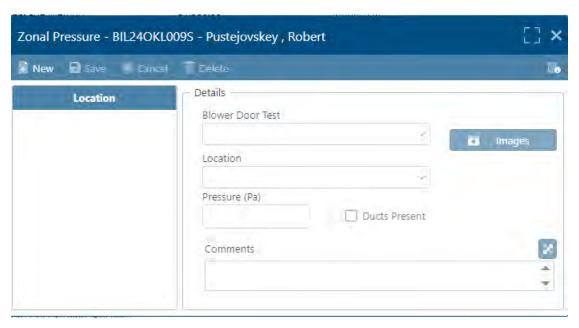


6. Once the Home is completed and the post-reading is done, repeat and Input the information for the Post-reading. This time, change the CONDUCTED During to Post-Installation, and then during the QCI, you will change it to Inspection.

#### **Zonal Pressures**



- 1. Click the Zonal Pressures button.
- 2. This will bring up the Zonal Pressures Testing Screen.



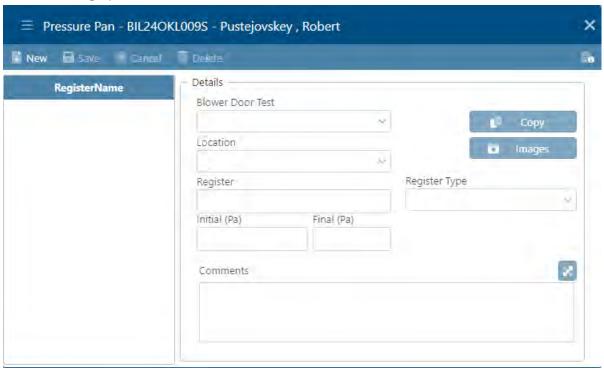
- 3. Click New.
- 4. In the Detail Box, enter the following information.
  - a. Blower Door Test: Select the blower door test from the job drop-down menu. If it is not in the drop-down menu, note in the comment box which test this is for the Pre-Blower Door, Post-Blower Door, or QCI.
  - b. LOCATION: Choose the Location that you are entering into the system.
  - c. PRESSURE (Pa): Enter the Pressure from your DG 1000.
  - d. Check the box if the ducts are present. Most of the time, they will not be.
- 5. Click Save
- 6. Click Image. Upload the image of that Zonal test.
- 7. Repeat Steps 3 7 for all the other Zonal Tests for the home. Then, you will conduct this for the Post and QCI.



#### PRESSURE PANS



- 1. Click the Pressure Pans button.
- 2. This will bring up the Pressure Pan Screen



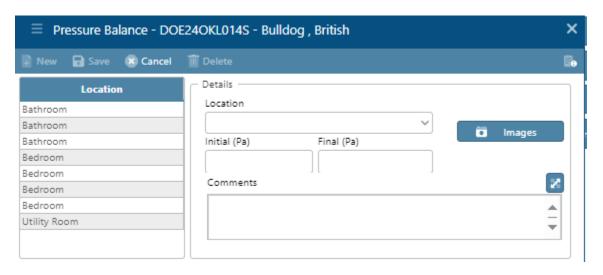
- 3. Click New
- 4. In the Detail Box, enter the following information:
  - a. Blower Door Test: Choose the Blower Door Test on which you run the test.
  - b. **Location:** Choose the location of the register is in.
  - c. Register: Enter the number for that register in the count
  - Register Type: What type of register? Most of the time it will be Supply Registers;
  - e. **Initial (Pa):** Enter the Reading off the DG 100 at the time of the audit.
  - f. Final (Pa): Enter the reading off the DG 100 at the time of the post-reading.
  - g. **Comment Section:** Enter the room location where the register is and, if more than one is in the room, which one.
  - h. Click save.
- 5. Click Image. Upload the image of each pressure pan test.
- 6. Repeat A I for each pressure pan reading in the home.



## **Room Pressures Balances**

# Room Pressure Balances

- 1. Click Room Pressure Balance Button
- 2. Click New



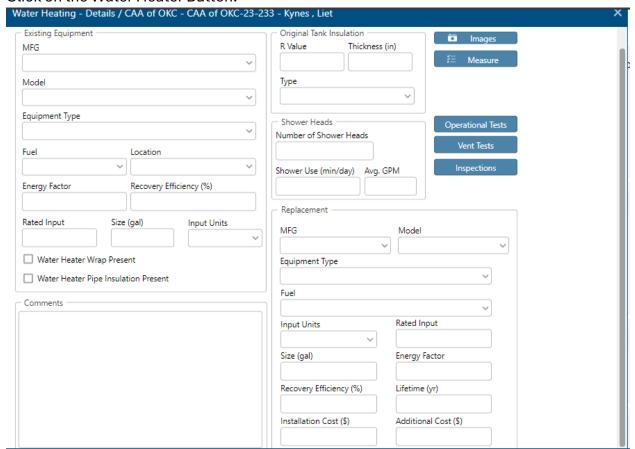
- 3. Enter the following in the Detail Section:
  - a. Location: choose the location from the dropdown menu
  - b. Initial (Pa): enter the reading from the DG 100. This is the audit reading.
  - c. Final (Pa): enter the reading from the DG 100. This is the post-reading.
  - d. In the comment section, enter the date of each test.
- 4. Click Save
- 5. Click Images
  - Upload the images of the test of the room pressure for each room pressure labeled with the location – I or -P. I stand for Initial, and P stands for Post.



#### Water Heater Section



#### Click on the Water Heater Button.



- 1. **Manufacture:** Choose the Manufacture from the Dropdown. If the manufacturer is not listed, leave it blank.
- 2. **Model:** Choose the model number from the Dropdown. If the module number cannot be found, leave it blank. (Note: If the model number is left blank, the manufacturer must enter it. Both cannot be left bank.)
- 3. **Equipment Type:** Choose the type from the dropdown.
- 4. Fuel: choose the fuel type from the Dropdown
- 5. **Location:** Choose the Location where the Domestic Water heater is located from the dropdown.
- 6. **Rated Input**: enter rated inputs. Remember, a typical electric tank is 4.5 KW, not 45 or 0.45.
- 7. Size (Gal): enter the size of the storage tank. Typically: 30, 40, or 50 gallons.
- 8. **Input units:** Choose Input Units from the dropdown.
- 9. Energy Factor: You must enter the Energy Factor of the Water Heater.



- 10. **Recovery Efficiency (%):** Must enter the % of Efficiency.
- 11. Check if the Water Heater Wrap is Present. NEAT will not provide a water heater wrap if this is checked. Do not model a water heater wrap as a present if there is no room for it. You must model the water heater without a wrap and note in the comment section that there is no room for the wrap to provide photo documentation.
- 12. Check if the Water Heater Pipe Insulation is Present. NEAT will not provide water heater pipe insulation if this is checked.
- 13. Original Tank Insulation. Enter EITHER
  - a. R-Value:
  - b. **Thickness** (in): Type of internal tank insulation. This is rarely marked on the tag. You can: a. Measure existing insulation by removing an access cover and measuring thickness & type. OR: b. Input an existing R5. This is accurate for most water heaters.
- 14. Shower Heads: Enter the Number of Showerheads in the home.
- 15. Shower Use: per day (min/day)
- 16. Avg. GPM: (gallons per minute). a. Typically, you can count 10-15 minutes per resident.
  - 9. GPM must be measured or taken from the manufacturer's data on the showerhead.
  - a. If measuring: Time how many seconds it takes to fill a 4-cup measuring cup. b. GPM = 15 / result (in seconds)

Under the Replacement Section (Note: You do not have to have the manufacturer or model number in this section; you need everything else after them to get a replacement.

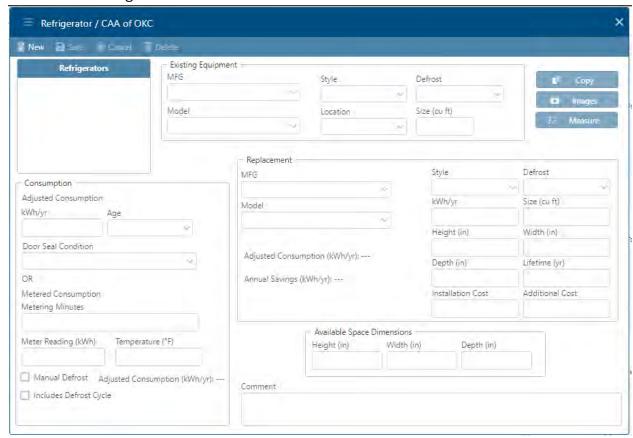
- 17. **Manufacture:** Choose the Manufacture from the dropdown.
- 18. **Model:** Choose the Model from Dropdown.
- 19. **Equipment Type:** Choose the Equipment type from the dropdown.
- 20. Fuel: Choose Fuel Type from Dropdown
- 21. Input Units: Choose Input Units from Dropdown
- 22. **Rated Input**: enter rated inputs. Remember, a typical electric tank is 4.5 KW, not 45 or 0.45
- 23. Size (Gal): enter the size of the storage tank. Typically: 30, 40, or 50 gallons.
- 24. **Input units:** Choose Input Units from the dropdown.
- 25. **Energy Factor:** You must enter the Energy Factor of the Water Heater.
- 26. Recovery Efficiency (%): Must enter the % of Efficiency.
- 27. Lifetime (yr): Must Enter in 20 As Default.
- 28. Installation Cost (\$): You must enter the installation cost.
- 29. Click the Save button
- 30. Click on the X on the top right corner of the Air/Duct Leakage screen



# Refrigerator Section



# Click on the Refrigerator Button. Click NEW



- 1. **Manufacture:** Choose Manufacture from the Dropdown (if manufacture is not in the drop-down, leave blank)
- 2. **Style:** Choose the Style of the refrigerator from the dropdown.
- 3. **Defrost:** Choose Defrost Type from Dropdown.
- 4. **Model:** Choose Model from the Dropdown. If the model is not listed, leave it blank.
- 5. **Location:** Choose the location of the refrigerator.
- 6. Size (cu ft): enter the size of the refrigerator.
- 7. kWh/yr.: Go online to find an estimate of fridge usage.
- 8. Age: Find the manufacturer's tag or hidden in the serial number.
- 9. **Door Seal Condition:** If you choose POOR, take photos. (If you Metered the fridge, enter the following data Label Consumption and door seal condition will be ignored)
- Metering Minutes: Enter the number of minutes you metered the fridge (must be 120 minutes or more significant)
- 11. Meter Reading (kWh): (This is rarely higher than 0.4 kWh)



- a. If you noticed a spike during metering, that may indicate the fridge entered a Defrost Cycle during metering.
- b. Check the box Includes Defrost Cycle. Used Rarely.

## Replacement

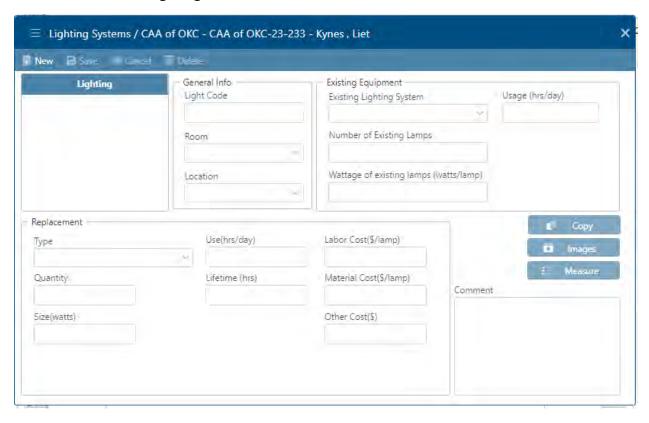
- 1. **Manufacture:** Choose Manufacture from the Dropdown (if manufacture is not in the drop-down, leave blank)
- 2. **Style:** Choose the Style of the refrigerator from the dropdown.
- 3. **Defrost:** Choose Defrost Type from Dropdown.
- 4. **Model:** Choose Model from Dropdown. If the model is not listed, leave it blank.
- 5. **Size (cu ft):** enter the size of the refrigerator. Replacement refrigerators shall be sized by family size:
  - a. 1-4 persons 18 ft.
  - b. 5-9 persons 21 ft.
- 6. kWh/yr.: Go online to find an estimate of fridge usage.
- 7. **Height (in):** Enter in the Height if known. You can leave it blank.
- 8. Width (in): Enter the Width if known. You can leave it blank.
- 9. **Depth (in):** Enter in the Depth if Known. You can leave it blank.
- 10. Lifetime (yr): use the default 20.
- 11. Installation Cost: Must enter the cost of installation.
- **12. Additional Cost:** there should be no Additional Cost. If there is, make sure to -clarify it in the comment section.
- **13.** Optional section: Available space Dimensions
- 14. **Height (in):** Enter in the Height if known. Optional section. You can leave it blank.
- 15. **Width (in):** Enter the Width if known. Optional section. You can leave it
- 16. **Depth (in):** Enter in the Depth if Known. Optional section. You can leave it blank.
- 17. Click the Save button
- 18. Click on the X on the top right corner of the Refrigerator screen



# **Lighting Section**



# Click on the Lighting Button. Click NEW



- 1. **Lighting Code:** Input a unique Lighting code.
- 2. **Existing Lighting System:** Choose the from the dropdown.
- 3. **Usage (Hrs./day):** The number of hours the lights are used during the day. (Ask the client).
- 4. **Number of Existing Bulbs:** enter the number of bulbs. (Use the following input and can group them if all the bulbs are the same wattage. For the home.)
- 5. Wattage of Existing Lamps (watts/lamp): what is the wattage of the existing bulbs?
- 6. **Replacement Type:** choose the replacement type from the dropdown.
- 7. **Usage (Hrs./day):** The number of hours the lights are used during the day. (Use from the above Usage)
- 8. **Quantity:** Use the Number of Existing bulbs from above.
- 9. **Size (watts):** Use this table to help you choose the appropriate LED equivalent wattage:



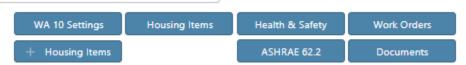
Incandescent	CFL	LED
100W	26W	18W
		9W or
75W	18W	13W
60W	13W	7W
40W	7W	5W

- 10. **Usage (Hrs./day):** Use the Usage from above.
- 11. LifeTime (hrs): Enter the default of 30,000.
- 12. Labor Cost: Must enter in Labor Cost
- 13. Material cost: You must enter the material cost.
- 14. **Other Cost:** There should be no other cost. If there is, it must be notated in the comment section.
- 15. Click Save button
- 16. There are two choices for input for new lighting. One is to hit the new button at the top and start at step one above. If Copy is chosen, change the Lighting Code so all Lighting entries remain sequential. Change only those fields that are different from the previous Lighting. Remember to hit save after entering Lighting information or the next section
- 17. Click on the X in the top right corner of the Lighting screen
- 18. Click on the X on the top right corner of the House Item Menu Screen

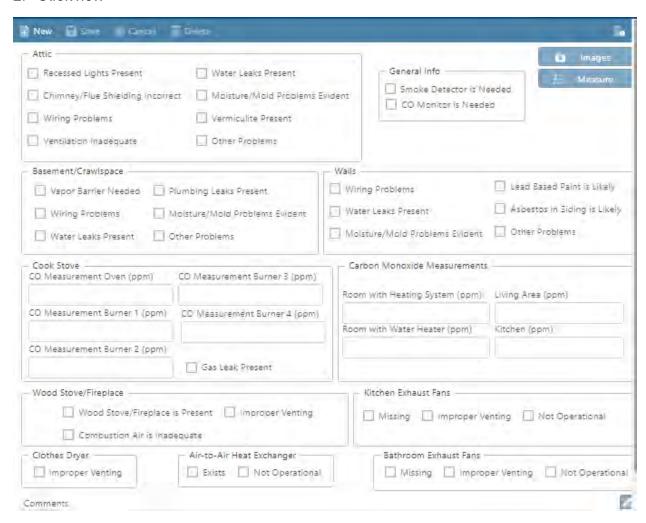


## Health and Safety

1. Click on the Health and Safety button.



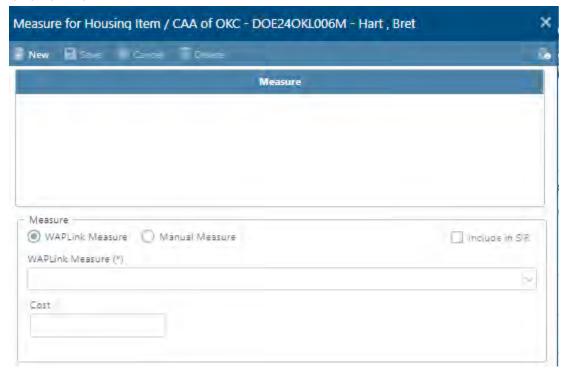
# 2. Click new



- 3. Fill in every box with information about the home you are doing.
- 4. Click Save.
- 5. Click on Measure on the top right side of the window.



# 6. Click on New



- 7. At this point, you have two options: you can choose to do WAPLink Measure or Manual Measures
  - a. WAPLink Measure
    - i. Hit the down arrow, scroll through the listing, and find what you want to add.
    - ii. DO NOT Click on Include in SIR
    - iii. Click save.
    - iv. Repeat the above three steps until all Health and safety items are added to the system.
  - b. Manual Measure
    - i. Enter in the Measure Description and Cost.
    - ii. Click Save
    - iii. Click on Include in SIR

Repeat the above three steps until all Health and safety items are added to the system.



# **NEAT JOB COMPLETION**

1. Before running the audit in the WA 10 Engin, click the Missing Items Button.

lmages	Notes	
Missing Items	Run WA 10 Engine	
Inspection	QCI	
Audit Input	Audit Recommend	
Job Economic	Client Profile	

This screen will let you know what items are missing.

- 2. Click on Run WA 10 Engine
- 3. Click on Process Audit
- 4. The date submitted should have the date and time. Process Status should Say Finished, and Measures Returned should have a number if successful.

Date Submitted	Process Status	Measures Returned	
11/01/2023 11:04 PM	FINISHED	13	

Congratulations! You have run a NEAT AUDIT ON WAPLINK.



## **Work Order Creation**

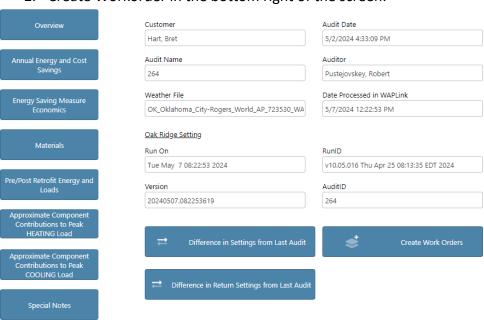
Now that the Energy Audit has been completed, it is time to create the work orders for the audit.

1. Once the audit is run, click on the finished audit at the top of the Audit Process screen.

Date Submitted	Process Status	Measures Returned
05/07/2024 12:22 PM	FINISHED	18
05/03/2024 08:49 PM	FINISHED	13
05/03/2024 08:49 PM	FINISHED	12
05/03/2024 08:48 PM	FINISHED	12
05/03/2024 05:12 PM	FINISHED	12
05/03/2024 05:11 PM	FINISHED-FAILED	0
05/03/2024 12:50 PM	FINISHED-FAILED	0
05/03/2024 12:35 PM	FINISHED-FAILED	0
05/03/2024 12:34 PM	FINISHED-FAILED	0
05/03/2024 12:31 PM	FINISHED-FAILED	0



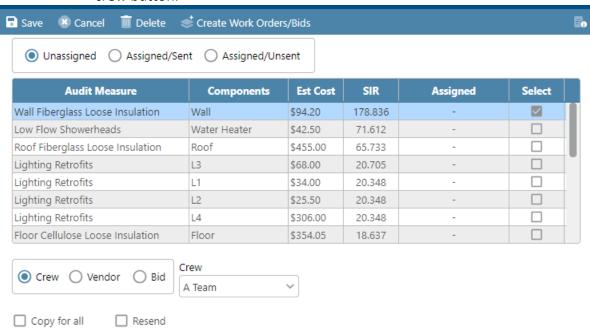
2. Create Workorder in the bottom right of the screen.



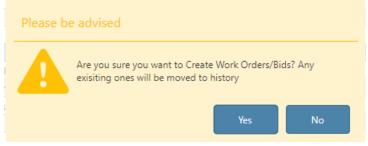
- 3. From this screen, there are three options. It can be sent to the crew and vendor and sent out for a bid.
  - a. Crew
    - i. Select the box on the right side of the screen.
    - ii. Click the Crew button.



iii. Then choose the crew from the drop-down that shows up next to the crew button.

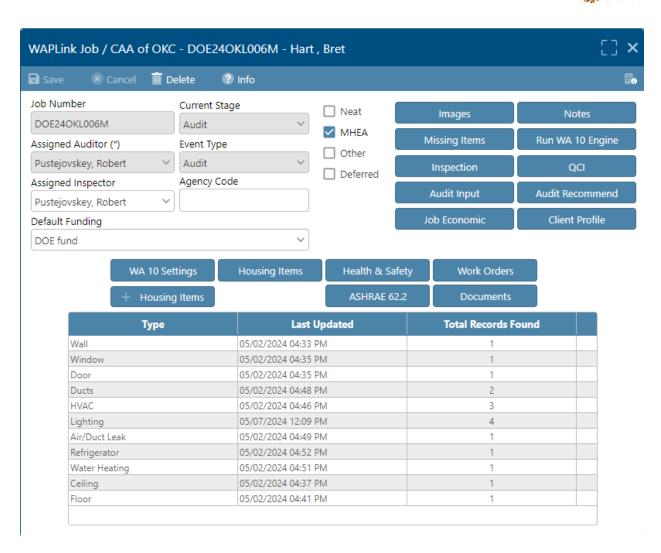


- 4. Click Save.
- 5. Repeat steps 2 and 4. For Vendors and Bids.
- 6. Click on the Assigned /Unsent and then Click on the box on the right side.
- 7. Click the Create Work Orders/Bids button at the top.
- 8. Answer Yes to the following Please be Advised Prompt.

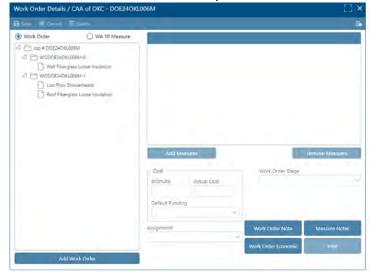


- 9. Click the X at the top right of the screen.
- 10. Once the Work order is created, you will Return to the Main Screen and click on Workorders.

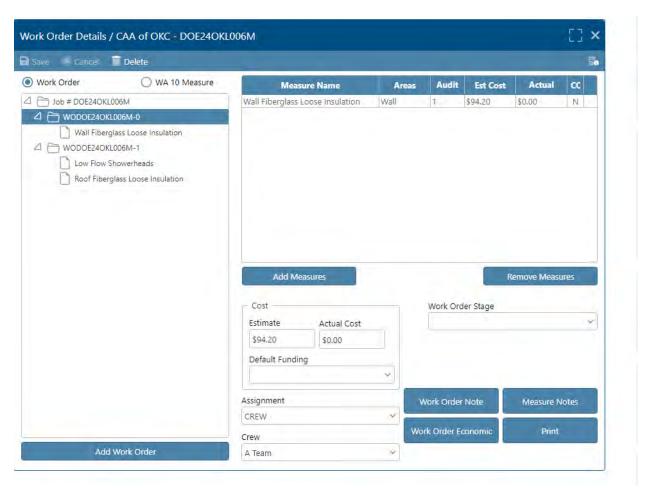




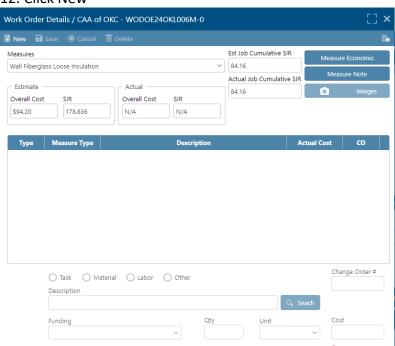
11. On the Work Order Detail Screen, click on the work order you want to work on. Then, double-click the measure name you wish to work within the box on the right.







# 12. Click New





- 13. From this screen, you will enter the Task, Material cost, Labor cost, and any other work order costs.
  - a. Click on the Task and Select Search. This will bring up the SWS List and help you choose the correct SWS associated with this task.
    - Choose a Funding source. This is where you can decide to Braided the home with DHS or other funding sources. <u>MAKE SURE ALL OTHER</u> <u>FUNDING SOURCE FOR THE WORK ORDER IS THE SAME AS THIS FIRST.</u>
    - ii. Choose Qty needed.
    - iii. Choose unit type. Make sure that the correct unit type is chosen.
    - iv. Enter the cost for the task being performed.
    - v. On the top right, click the Measure notes and enter Notes into the measure. NOTE: You must enter the Measure note into the Work Order. You need to be specific in detail about what needs to be done.
  - b. Click on the Material and Select Search. This will bring up the Agency's inventory if the agency has inventory stored in WAPLink.
    - i. Choose a Funding source. This is where you can decide to Braided the home with DHS or other funding sources. MAKE SURE THAT THIS IS THE SAME FUNDING AS IN THE ABOVE. CANNOT CHANGE FUNDING SOURCE IN THE SAME WORK ORDER.
    - ii. Choose Qty needed. Choose unit type. Make sure that the correct unit type is chosen.
    - iii. Enter the cost for the task being performed.
  - c. Click on the Labor. Enter the description of the labor that is being performed.
    - i. Choose a Funding source. This is where you can decide to Braided the home with DHS or other funding sources. <u>MAKE SURE THAT THIS IS THE</u> <u>SAME FUNDING AS IN THE ABOVE. CANNOT CHANGE FUNDING SOURCE</u> <u>IN THE SAME WORK ORDER.</u>
    - ii. Choose Qty needed. Choose unit type. Make sure that the correct unit type is chosen.
    - iii. Enter the cost for the task being performed.
- 14. Repeat A through C above until all work orders are done.
- 15. Click the X in the top right corner.
- 16. Once the work has started, repeat Steps 1 9 above, then change the status to Active.
- 17. Click Save after you change the status.
- 18. Click the X in the top right corner of the screen.
- 19. Once the Vendor or the Crew completes the Work Order, Return to the Home Screen and repeat Step 16 but change the Status to Inspection.

**CONGRATULATIONS YOU HAVE SUSSEFULLY CREATED WORK ORDERS IN WAPLINK** 



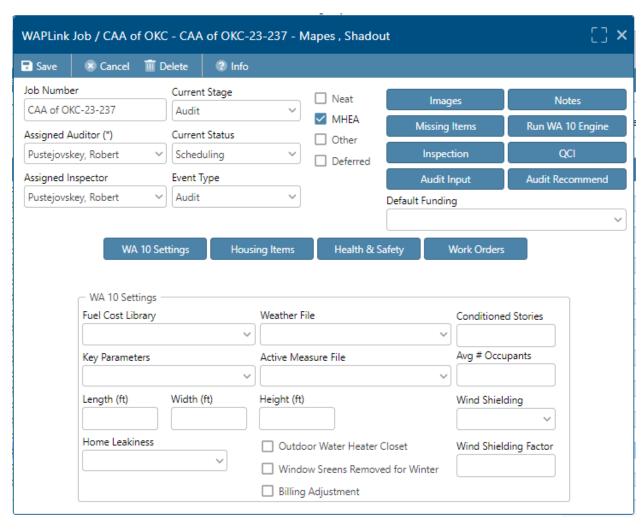
# MHEA SECTION





## WA 10 SETTING SECTION

Click on + Housing Items Button



- 1. Fuel Cost Library: Choose the Statewide MHEA PY\*\*\*\* (the year)
- 2. Weather File: Choose the closest Weather file to the location of the client's home. The WEATHER LOCATION city you choose will not always be the geographically closest city to your client. It might even be in another state. You are looking for the weather file that most closely approximates your client's location's Heating Degree Days (HDD) and Cooling Degree Days (CDD).
- 3. **Conditioned Stories:** How many stories are there in the building? (Most mobile homes are one story only and have yet to be added on.)
  - a. Input-only 1; 1.5; 2
  - b. 1 story = about 8'-9'
  - c. 1.5 story = about 12'-13'
  - d. 2 story = about 16'-18'
- **4. Key Parameters:** Choose the Statewide PY\*\*\*\* (the year).
- 5. Active Measure File: Choose Statewide MHEA PY\*\*\*\* (the year)



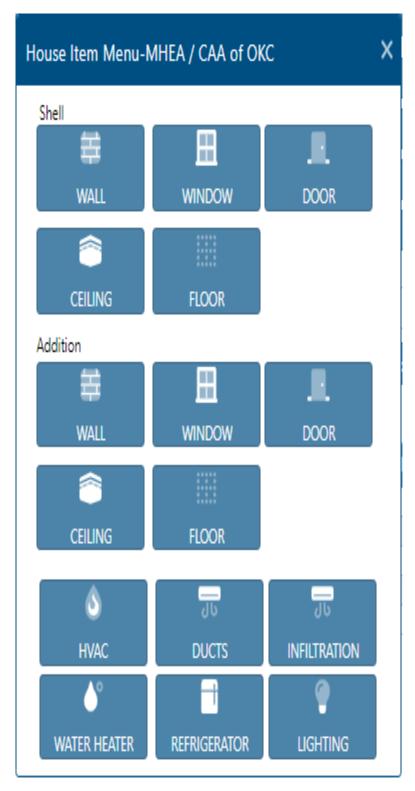
- 6. Average # of Occupants: Enter the amount of people living in the home.
- 7. Length (ft): Enter the Length of the Mobile Home.
- 8. Width (ft): Enter the Width of the Mobile Home
- **9. Height (ft):** Enter the Height of the Mobile Home. (This is the Infiltration Height distance between the lowest and highest above-grade point within the pressure boundary.)
- **10. Wind Shielding:** Choose the Wind Shielding of the Mobile home from the dropdown
- **11. Home Leakiness:** Choose the Leakiness from the dropdown (This is a judgment call from the Blower Door Number)

a. Home Leakiness Loose: 4,000b. Home Leakiness Medium: 3,000c. Home Leakiness Tight: 2,000

- 12. Check the Box if the Domestic Water Heater is outside.
- **13.** Check the box if the Window screens are removed during the winter time (ask the Client)
- **14.** Check the box for the Billing Adjustments (I don't know any reason why this would be checked)
- **15. Wind Shielding Factor:** This is automatically entered when you select the weather station file on step 2
- 16. Click on the Home Item button.



Now, this is where the MHEA Energy Audit Process Starts.

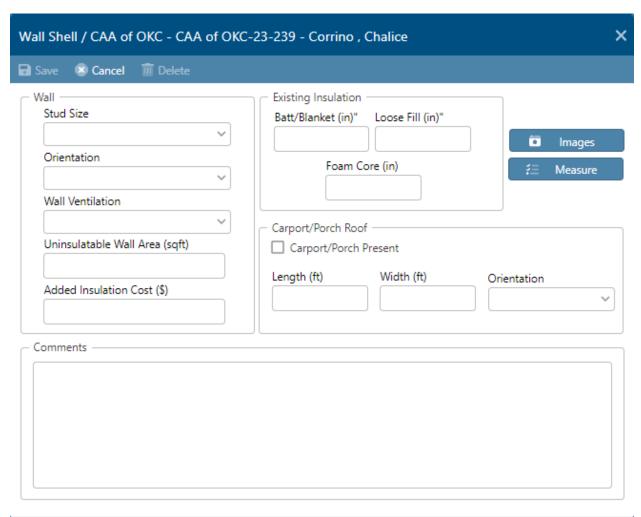




### WALL SECTION

#### Click on the WALL Button





- 1. **Stud Size:** Choose Stud Size from the dropdown.
- 2. **Orientation:** This is the Orientation of the Long Wall.
- 3. **Wall Ventilation:** Choose the appropriate one from the dropdown list. In almost all cases, the proper response will be Not Vented. Vertically corrugated metal siding can be considered Vented.
- 4. Uninsulatable Wall Area (SqFt): Must enter the Uninsulatable Wall Area.
- 5. Added Insulation Cost (\$): In most cases, there will be no Insulation Cost. This is to be input if there is an unusual and unique extra cost to insulate this particular wall beyond the price defined in the library. Examples could include the additional cost



- of blowing from the inside or repairing the necessary siding before adding insulation.
- 6. **Existing Insulation:** Define the Existing Insulation. MHEA allows for the possibility of more than one type of insulation. Enter the thickness of each, with a 0 where there is none.
  - a. Batt/Blanket (in): enter in the Amount (Enter in 0 if none)
  - b. Loose Fill (in): enter in the Amount (enter in 0 if none)
  - c. Foam Core (in): Enter in the Amount (enter 0 if none)
- 7. Check the Box if the Mobile home has a Carport/Porch Roof
  - a. Length (ft): enter in the Length
  - b. Width (ft): enter the Width.
  - c. **Orientation:** Choose the orientation of the Carport/Porch Roof
- 8. Click The Save Button at the top left of the page
- 9. Click the X at the top right of the Wall page.

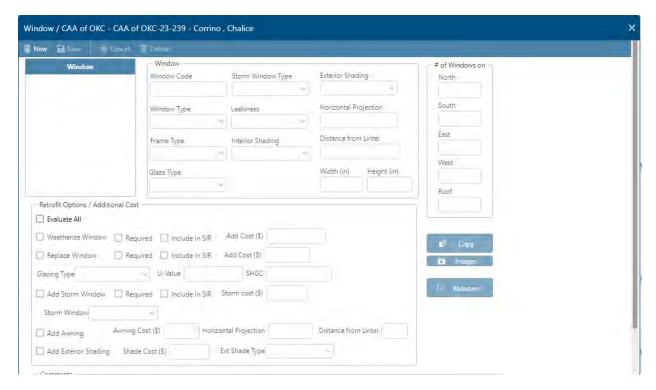


#### WINDOW SECTION

Click on the Window Button.



## Click New Button.



- 1. **Window Code:** Input a unique Window Code for each window. Try to keep the code for all windows sequential and match the codes you wrote on your footprint diagram so that anyone can quickly determine which window each Window code references.
- 2. **Window Type:** What is the Window Type? Choose the appropriate selection from the dropdown list.
- 3. **Frame Type:** Choose the appropriate type from the dropdown.
- 4. **Glaze Type:** Choose the appropriate type from the dropdown.
- 5. **Storm Window Type:** Choose the appropriate from the dropdown.
- 6. **Leakiness:** Choose the most appropriate Leakiness level for this window. This is always a judgment call, but try to back up your claim with photos, especially if defining the window as Very Loose. This refers only to the body of the window itself, not to the glass. A broken pane of glass is much cheaper to replace than a whole window and will be dealt with as an infiltration issue.



- a. A functional storm window can be considered to provide some air sealing. Set the leakiness of the window one level higher than you would have if the storm window had been absent.
- 7. **Interior Shading:** Choose the appropriate type from the dropdown.
- 8. **Wall Code:** Choose from the dropdown the Wall Code for the wall on which this window exists.
- 9. **Exterior Shading:** Choose the appropriate from the dropdown. (If one was chosen, the next step must be to enter fields. If one was not selected, then skip to step 12)
- 10. Enter in the Horizontal Projection (In)
- 11. Enter in Lintel (in)
- 12. Width: Enter the Width (in) of the window
- 13. **Height:** Enter the Height (in) of the window
- 14. **# Of Windows:** Enter the number of windows for each Direction for the exact dimensions. (Put 0 in the other direction if there are none)
  - a. North
  - b. South
  - c. East
  - d. West
  - e. Roof
- 15. Click Replace Window
- 16. **Glazing Type:** Choose the glazing type from the Dropdown.
- 17. Enter Chart for U-values and SHGC Default values (if you know the U-value and SHGC must use those actual values.)

	U-	
Double Pane	Value	SHGC
Vinyl	0.46	0.57
Metal	0.87	0.73
Metal w/ Thermal Break	0.65	0.66

Double Pane w/Low E	U- Value	SHGC
Vinyl	0.36	0.45
Metal	N/A	N/A
Metal w/ Thermal Break	0.53	0.52

- **18.** Enter the comment section for any comment clarification that is needed.
- 19. Click the Save button.
- 20. There are two choices for inputting a new window. One is to hit the new button at the top and start at step one above. If Copy is chosen, change the Window Code



so that all window entries remain sequential and match the numbering on the footprint diagram. Change only those fields that are different from the previous Window. Remember to hit save after entering window information or the next section.

21. Click on the X in the top right corner of the Window screen.

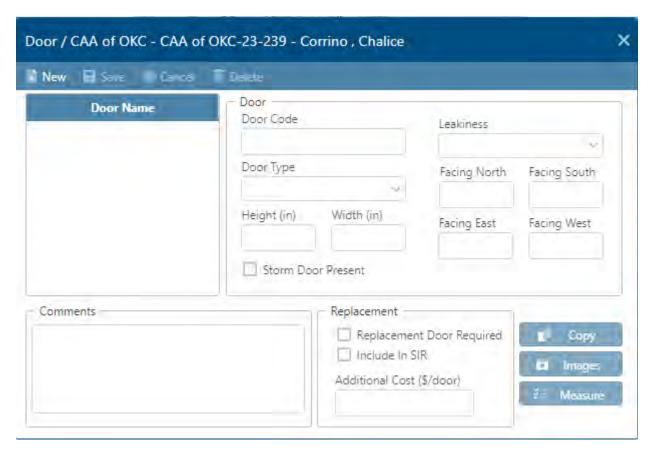


### **DOOR SECTION**

#### Click DOOR BUTTON



# CLICK NEW.



- Door Code: Input a unique Door Code for each door. Try to keep the code for all
  doors sequential and match the codes you wrote on your footprint diagram so
  that anyone can quickly determine which door is referenced by each door code.
  (You must have a different door code for other sizes and types and the direction
  the door faces.)
- 2. **Door Type**: Choose the appropriate type from the dropdown.
- 3. **Height:** Enter Height (in)
- 4. Width: Enter Width (in)
- 5. **Storm Door Present:** Click the box if the storm door is present.
- 6. Leakiness: Choose the appropriate Leakiness from the dropdown list.
  - a. Tight = Door doesn't need any work
  - b. Medium = door god but needs weather-strip and/or door sweep



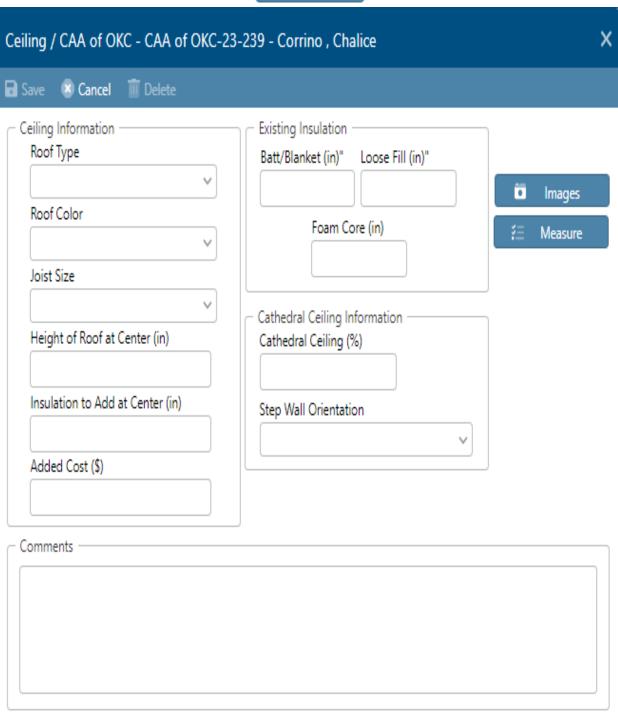
- c. Loose = Door cannot be air-sealed. Door warped, rotted, or broken.
- 7. **Facing North:** Enter how many doors are on the North side of the home. (Enter 0 if the code is for a door facing a different Direction)
- 8. **Facing South:** Enter how many doors are on the South side of the home. (Enter 0 if the code is for a door facing a different Direction)
- 9. **Facing East:** Enter how many doors are on the East side of the home. (Enter 0 if the code is for a door facing a different Direction)
- 10. **Facing West:** Enter how many doors are on the West side of the home. (Enter 0 if the code is for a door facing a different Direction)
- 11. Click the Save button.
- 12. There are two choices when inputting a new door. One is to hit the new button at the top and start at step one above. If a Copy is chosen, change the Door Code so that all door entries remain sequential and match the numbering on the footprint diagram. Change only those fields that are different from the previous Door. Remember to hit save after entering Door information or the next section.
- 13. Click on the X in the top right corner of the Door screen.



# **CEILING SECTION**

# **CLICK CEILING BUTTON**







1. **Roof Type:** Choose the appropriate roof type from the dropdown. For a better visual of each roof type, see the picture below.



Flat roofs have an interior surface (interior ceiling) and an exterior surface (exterior roof) attached directly to either side of the wood framing, similar to wall construction. MHEA assumes the ceiling and roof are separated by 22 x 67 framing.



Bowstring roofs have a lightweight exterior roofing material (asually aluminum) that is stretched over the roof frame structure. The roof has a slight curve with the highest point in the middle of the home width. MREA uses the home width and your input for Height of Roof at the center to calculate the volume of a bowstring roof section.



Pitched roofs are sloped to a higher peak point. When viewing the home width from the outdoors, the roof line creates a triangle. Pitched roofs are also often shingled, unlike flat and bowstring roofs. MHEA uses the width of the home and the assumed value for the roof pitch to calculate the volume of a pitched roof section.

- 2. **Roof Color:** Choose the Roof color from the dropdown list. Almost always Normal or Weathered. (Choose White, Reflective, or shaded only if the roof color is clean enough to function as a white roof or is mostly shaded)
- 3. Joist Size: Choose a Joist Size (For a Flat Roof)
- 4. **Height of Roof at Center (in):** Input Height from the top of existing insulation to the roof's highest point. **(For Bowstring Roofs)**
- 5. **Insulation to Add at Center (in):** input total available height from ceiling to roof ridge. **(For Pitched Roof)**
- 6. Added Cost (\$): Enter any additional cost of insulating this item. Enter the total, not the cost per square foot. This cost is not generally associated with insulation and, thus, needs to be accounted for in the Measure Cost Library. A Negative Addition cost will subtract from the computed cost. If a cost is entered, briefly explain the reason for the additional cost in the comment section.
- 7. Define the Existing Insulation.
  - a. **Bat/Blanket (in):** enter in value. Enter in 0 if there is none.



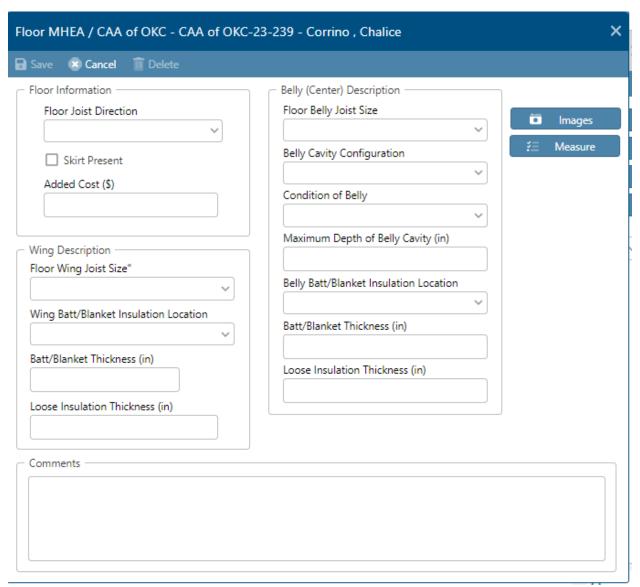
- b. Loose Fill (in): enter the value. Enter in 0 if there is none.
- c. Foam Core (in): enter in value. Enter in 0 if there is none.
- 8. **Cathedral Ceiling (%):** If the home has Cathedral Ceilings, calculate the percentage of the total floor area with cathedral ceilings.
  - a. (Cathedral room length / total mobile length) x 100)
- 9. **Step Wall Orientation:** Choose the orientation of the step wall from the dropdown. (rare)
- 10. Click the Save button.
- 11. Click on the X in the top right corner of the Ceiling screen.



## FLOOR SECTION

## **CLICK FLOOR BUTTON**





- 1. Floor Joist Direction: Choose whether the joist runs Widthwise or Lengthwise.
- 2. Check if there is a mobile home Skirt Present. If it covers only part of the home, the auditor must decide whether to call it present or not. Consider its ability to prevent wind across the belly.
- 3. Floor Wing Joist Size: Choose the appropriate size from the dropdown. (MHEA allows for the possibility that the Floor Wings and the Floor Belly may differ, which is rare in most manufactured homes. You will have to model both.)



- 4. **Wing Batt/Blanket Insulation Location:** Choose the appropriate Location for the Batt/Blanket insulation from the dropdown
- 5. **Batt/Blanket Thickness (in):** Input the thickness of the Batt/Blanket.
- 6. **Loose Insulation Thickness (in):** Input the thickness of the Loose insulation.
- **7.** Floor Belly Joist Size: Choose the appropriate size from the dropdown.
- **8. Belly Cavity Configuration:** Choose the configuration from the dropdown. (Rounded is most common)
- 9. Condition of Belly: Choose the belly condition from the dropdown.
- **10. Maximum Depth of Belly Cavity (in):** input the maximum depth. (Measure from the deepest part of the belly, if rounded.)
- 11. **Belly Batt/Blanket Insulation Location:** Choose the appropriate Location for the Batt/Blanket insulation from the dropdown
- 12. Batt/Blanket Thickness (in): Input the thickness of Batt/Blanket.
- 13. Loose Insulation Thickness (in): Input the thickness of the Loose insulation.
- 14. Enter any comments in the comment section.
- 15. Click the Save button at the top left of the screen.
- 16. Click the X on the top of the right side of the FLOOR MHEA screen to exit.



## **ADDITION SECTION**

# Addition



- 1. All Shell Elements of the Addition must be modeled here only, not in the Shell Section
- 2. All Inputs are essentially the same as what you have input preciously in the Mobile home Shell with one exception:
  - a. Wall Configuration. There are three choices here, and they all refer to the slope of the ceiling within the addition.
    - i. Maximum height at the interior wall: The ceiling is shed-type and slopes away from the mobile home.
    - ii. Maximum Wall Height in Center of Addition: Cathedral ceiling.
    - iii. All Addition Walls are the Same Height: the ceiling is flat.

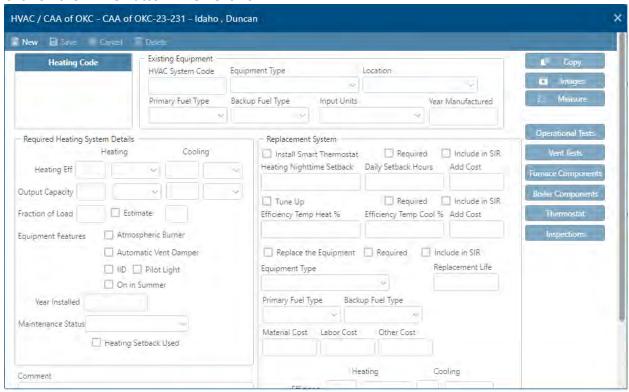


# THE HEATING AND AIR CONDITIONING SECTION (HVAC)



(Note: If entering a heat pump, the agency can enter both the AC and heating in the same existing equipment.)

Click on the HVAC Button. Then Click on NEW.



- 1. HVAC System Code: Input a unique HVAC System Code for each HVAC.
- 2. **Equipment Type:** Choose the appropriate type from the dropdown list.
- 3. **Location:** Choose the appropriate location of the above equipment from the dropdown list.
- 4. **Primary Fuel Type:** Choose the appropriate fuel type from the dropdown list.
- 5. **Backup Fuel Type:** Choose the appropriate backup fuel from the dropdown list. If Unknown, choose "NONE."
- 6. **Input Units:** Choose the appropriate units from the dropdown list.
- 7. **Year Manufactured:** Input the Year the Unit was manufactured. It can be found on the Model Plate. It is coded into the model or serial number. An excellent website to find the year of manufacture of any HVAC unit is http://www.building-center.org.

  The de-rating system needs to be calculated and entered into the comment section.



- 8. **Heating EFF:** Enter the Value in the Whole number, then Choose the Appropriate Unit from the Dropdown list. This goes for the Cooling Side as well.
- 9. **Output Capacity:** Enter the Value in the Whole number, then Choose the Appropriate Unit from the Dropdown list. This goes for the Cooling Side as well.
- 10. **Fraction of load Served %:** This is the percentage of the home's conditioned floor area that is heated or cooled by this unit. If there is more than one unit, estimate the percentage from each. The total must add up to 1. Example H-1=0.86, H-2=0.14, H-1 + H2 = 1; A/C-1=0.30, A/C-2=0.70, A/C-1 + A/C-2 = 1.
- 11. Equipment Features: Check off if the equipment has the features listed
  - a. Atmospheric Burner
  - b. Automatic Vent Damper. They are not Typically Used.
  - c. Pilot Light
  - d. IID
  - e. Pilot light remains on throughout the summer.
- 12. Year Installed: If known, input the Year Installed
- 13. **Maintenance Status:** Choose the appropriate maintenance status of the system from the dropdown list
  - a. **Annual Professional Maintenance:** A professional comes out yearly to clean and maintain the unit to meet manufacturer specifications. Filters are replaced regularly.
  - b. **Seldon or Never Maintenance:** Filters are replaced regularly, and a professional is only called out when there is an issue with the system.
  - c. Not Working: The system does not work at all.
- 14. Click on Replace the Equipment
  - a. If a replacement system will be installed using funds from another funding source, model the new system as the existing unit and note this in the Comments Section. The auditor will need to determine the efficiency and size of a new unit.
  - b. If a replacement system will be installed using ODOC H&S funds, model the existing broken furnace and choose Replacement Mandatory (do NOT Include in SIR). Explain the reason for this replacement in the Comments Section.
  - c. To attempt an ECM replacement: Model the existing and functional heat. It can be as little as a few space heaters or an oven. There is no minimum to what truly exists. Choose Evaluate All and enter appropriate replacement data.
- 15. **Equipment Type:** Choose the appropriate Equipment Type from the dropdown List of the replacement.
- **16. Primary Fuel Type:** Choose the appropriate fuel type from the dropdown list. (Remember, it currently does not allow Fuel Switching. Working on Fuel Switching Policy)
- 17. Backup Fuel Type: Choose Back up Fuel Type. Most likely, "None" will be chosen.
- 18. **Heating EFF:** Enter the Value in the Whole number, then Choose the Appropriate Unit from the Dropdown list. This goes for the Cooling Side as well.



- 19. **Output Capacity:** Enter the Value in the Whole number, then Choose the Appropriate Unit from the Dropdown list. This goes for the Cooling Side as well.
- 20. **Replacement Life:** Must Enter in 20 As Default. (For Both Heating and Cooling Replacement)
- **21. Fraction of load Served %:** This is the percentage of the home's conditioned floor area that is heated or cooled by this unit. If there is more than one unit, estimate the percentage from each. The total must add up to 1.
- 22. Replaces: Input Which unites replacing.
- 23. Enter the comment section for any clarification needed if derating needs to put the equation in the comment section as well.
- 24. Click the Save button
- 25. There are two choices for inputting a new HVAC. One is to hit the new button at the top and start at step one above. If a Copy is chosen, change the HVAC Code so all entries remain sequential. Change only those fields that are different from the previous HVAC. Remember to hit save after entering HVAC information or the next section
- 26. Click on the X in the top right corner of the HVAC screen



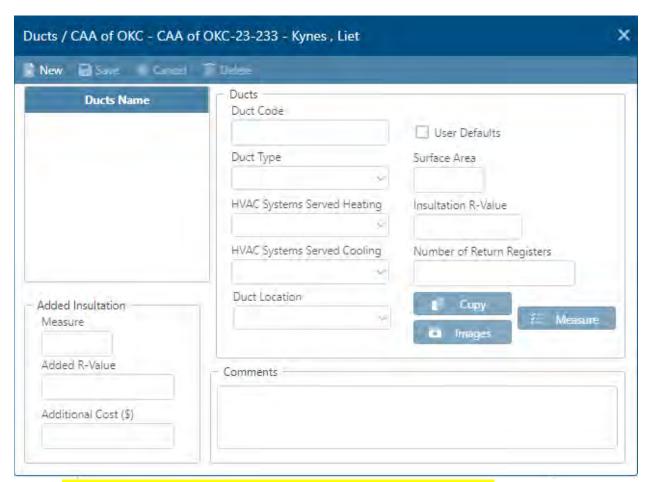
#### Ducts



(NOTE: If a Mini Split, Space Heater, or Room A/ C was chosen for the HVAC Section, you will not do this section. This is because they do not have Ducts. Skip to the next section. Leave it blank.)

(Note: If in the HVAC section, the agency had a Heat pump entered into the system, in this section, you will have the same name for both the HVAC System Served Heating and Cooling.)

Click on the Ducts Button. Click NEW



- 1. Duct Code: Input a unique duct Code for each Type of Duct
- **2. Duct Type:** Choose the appropriate Duct type of duct.
  - a. Supply Duct: Duct that transports conditioned air into the home
  - b. Return Duct: carries sir from the room back to the air handler



- 3. HVAC System Served Heating: Choose the appropriate HVAC system from the dropdown. This will depend on what was entered in the HVAC section under the Heating.
- 4. HVAC Syatem Served Cooling: Choose the appropriate HVAC system from the dropdown. This will depend on what was entered in the HVAC section under the Cooling.
- **5. Duct Location:** Choose the appropriate Location of where the Ducts are located from the dropdown list.
- 13. Surface Area: Agencies will need to know the Duct Dimensions. The User

  Default button will be checked off, and the calculation is now embedded into the WAPLink software.

NOTE: if the agency chooses to measure the duct. <u>SEE HOW TO MEASURE</u>
THE DUCT SURFACE AREA SECTION.

- Can combine the sections of the duct work that have the same shape (i.e., Round, Rectangular)
- b. Will need to know the Length (ft), Width (in), Height (in) and Diameter (in)
- c. Need to input the above information in the Comment Section.
- 6. **Insulation R-value:** Enter the existing R-value of the insulation on the Ducts.
- 7. After Entering the above information, check the User Default box
- 8. **Number of Return Registers:** Enter the number of Return registers to the HVAC system.
- Measure Number: Each duct type must have a different Measure number and Duct Shape.
- 10. ADDED R-value: input the R-value that needs to be added to ductwork.
- 11. Additional Cost (\$): This is to be input if there is an unusual and unique extra cost to insulate or repair. You must explain the additional cost in the comment section.



# **Duct Calculations**

Round: Area = Pi \* (D/12)\*L Rectangular = Area = (W\*2 + H\*2) / 12\*L Flat Oval = Area = (Pi\*H + 2 \* W) / 12 \* L

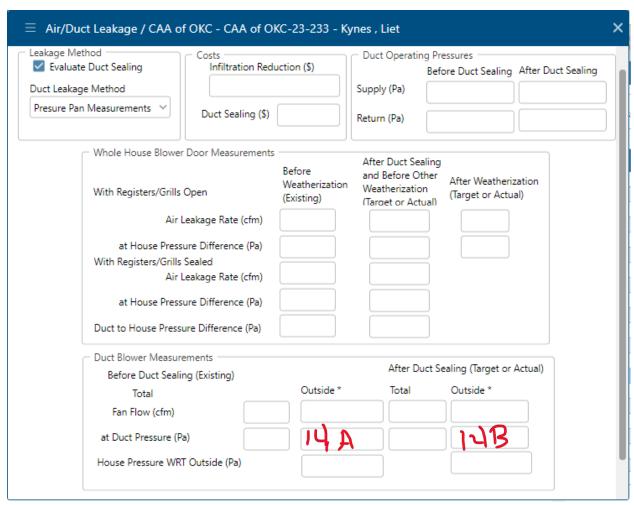


#### INFILTRATION SECTION



(NOTE: If in the HVAC Section a Mini Split, Space Heater, or Room A/ C, DO NOT CHOOSE THE EVALUATE DUCT SEALING. This is because these systems do not have ducts to evaluate.)

Click on the Infiltration Button.



- **1. Leakage Method:** Check the Evaluate Duct Sealing to get additional funds for duct sealing. Extra on-site measurements will be required.
  - a. Evaluate Duct Sealing. It MUST be checked if pressure pan results show greater than 2.0 Pa or a single pressure pan greater than 5.0.
- **2. Duct Leakage Method:** Choose the appropriate Leakage method from the dropdown list.
- **3. Infiltration Reduction Cost (\$):** Enter the amount you wish to receive for ALL air sealing measures on this home.
- 4. Duct Sealing (\$): Enter the Amount for cost.



- 5. Duct Operating Pressures: (NOTE: Remember that you must perform the Duct Operating Pressure Test. Defaults will not be accepted but on very rare occasions.)
  - **a. Before Duct Sealing.** Both Supply and Return static pressures need to be measured in the field. Typically, one is measured and then the other. Testing does not have to be simultaneous. Static duct pressures are measured with the furnace air blower on. The blower door must NOT be running.
  - **b. Supply static pressure:** Inserting the manometer hose in the supply plenum is best. If this is not possible or practical, insert the hose in the nearest supply register and snake the hose as close as you can to the plenum. You can close the register through which you are testing or tape it shut to get a better reading.
  - c. Return static pressure: Inserting the manometer hose in the return plenum is best. If this is not possible or practical, insert the hose in the nearest return register and snake the hose as close as you can to the plenum.
- **6. Before Weatherization:** Enter the blower door result achieved at pre-audit.
- **7.** After Weatherization: Enter the target blower door result.
- **8.** Target must be calculated using the ODOC Target spreadsheet.
- **9.** Target must be met for the measure to pass at QA and/or final. If you don't believe the target calculated above is achievable, you can write in your target. You MUST explain your reasoning for this in the Comments Section.
- **10.** Remember that Always Use 50 if your manometer was set to Pa/CFM@50
- 11. Before Duct Sealing (Existing): Input the data as measured in the field.
- **12.** After Duct Sealing (Target or Actual):
  - **a.** Total Leakage: 12% of the total conditioned floor area of the home
  - **b.** Leakage to Outside: 8% of the total conditioned floor area of the home
- **13.** Use the ODOC Target Spreadsheet to calculate targets.
- **14.** When Duct Sealing is checked, the method will always be by Pressure Pan in a Mobile Home. In the Duct Blower Measurement Section
  - **a.** Before Duct Sealing Duct Pressure (Pa): Total of all Pressure Pan Readings add together go here under the Outside \* column (SEE 14A Label above)
  - **b.** After Duct Sealing Target Duct Pressure (Pa): is the total number of registers in the mobile home. Go to the Outside \* column. (See 14B Label above)
- **15.** The duct sealing target must be met for the measure to pass at the final inspection and/or QCI. The result can be lower than the target but, if higher, must be within 10% of the target.
- **16.** If the target is not achieved at Final or QCI due to changes to the home's pressure boundary that occurred after weatherization was completed, these changes must be documented to determine if the measure should pass.
- **17.** If you don't believe the above target is achievable, write in your target. You MUST explain your reasoning for this in the Comments Section
- **18.** Duct Sealing Cost. Input amount needed for duct sealing. SIR must be 1.0 or greater.



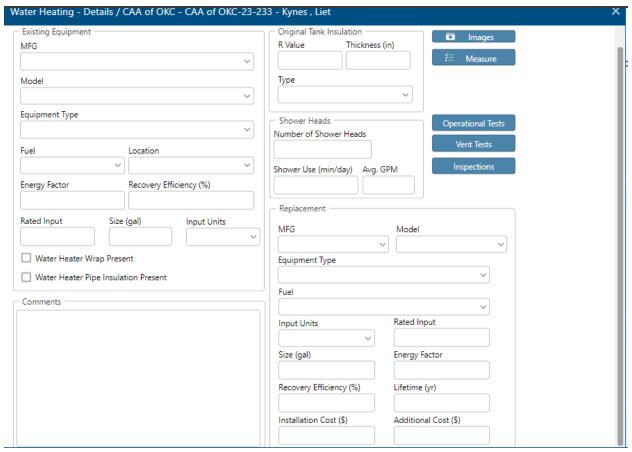
- 19. NEAT/MHEA will not accept \$0 for duct sealing. If you cannot achieve a duct sealing measure with a SIR >= 1.0, then uncheck Evaluate Duct Sealing. See below for more information.
- 20. In Comments, you attempted duct sealing but could not get the measure with a SIR above 1.0.
- 21. Your comment will remain even after you uncheck Evaluate Duct Sealing, as will the data you entered to attempt duct sealing.
- 22. Note that it is allowable to use Infiltration funds to seal ducts. However, using duct sealing money for other air-sealing measures is not permissible.
- 23. Enter Justification of blower door target in comment box.
- 24. Click the Save button
- 25. Click on the X at the top right corner of the Air/Duct Leakage screen.



#### WATER HEATER SECTION



Click on the Water Heater Button.



- 31. **Manufacture:** Choose the Manufacture from the Dropdown. If the manufacturer is not listed, leave it blank.
- 32. **Model:** Choose the model number from the Dropdown. If the module number can not be found, leave it blank. (Note: If the model number is left blank, the manufacturer must enter it. Both cannot be left bank.)
- 33. **Equipment Type:** Choose the type from the dropdown.
- 34. Fuel: choose the fuel type from the Dropdown
- 35. **Location:** Choose the Location where the Domestic Water heater is located from the dropdown.
- 36. **Rated Input**: enter rated inputs. Remember, a typical electric tank is 4.5 KW, not 45 or 0.45
- 37. Size (Gal): enter the size of the storage tank. Typically: 30, 40, or 50 gallons.
- 38. Input units: Choose Input Units from the dropdown.
- 39. **Energy Factor:** You must enter the Energy Factor of the Water Heater.



- 40. **Recovery Efficiency (%):** Must enter the % of Efficiency.
- 41. Check if the Water Heater Wrap is Present. NEAT will not provide a water heater wrap if this is checked.
- 42. Check if the Water Heater Pipe Insulation is Present. NEAT will not provide water heater pipe insulation if this is checked.
- 43. Original Tank Insulation. Enter EITHER
  - a. R-Value:
  - b. **Thickness** (in): Type of the internal tank insulation. This is rarely marked on the tag. You can: a. Measure existing insulation by removing an access cover and measuring thickness & type. OR: b. Input an existing R5. This is relatively accurate for most water heaters.
- 44. Shower Heads: Enter the Number of Showerheads in the home
- 45. Shower Use: per day (min/day)
- 46. Avg. GPM: (gallons per minute). a. Typically, you can count 10-15 minutes per resident.
  - 9. GPM must be measured or taken from the manufacturer's data on the showerhead.
  - a. If measuring: Time how many seconds it takes to fill a 4-cup measuring cup. b. GPM = 15 / result (in seconds)

Under the Replacement Section (Note: You do not have to have the manufacturer or model number in this section; you need everything else after them to get a replacement.

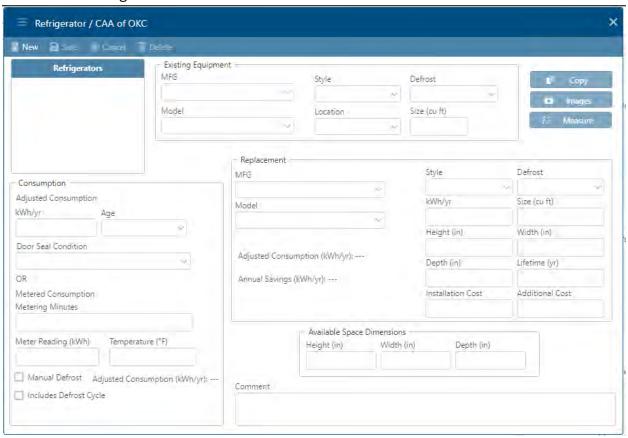
- 47. **Manufacture:** Choose the Manufacture from the dropdown.
- 48. **Model:** Choose the Model from Dropdown.
- 49. **Equipment Type:** Choose the Equipment type from the dropdown
- 50. Fuel: Choose Fuel Type from Dropdown
- 51. Input Units: Choose Input Units from Dropdown
- 52. **Rated Input**: enter rated inputs. Remember, a typical electric tank is 4.5 KW, not 45 or 0.45
- 53. Size (Gal): enter the size of the storage tank. Typically: 30, 40, or 50 gallons.
- 54. **Input units:** Choose Input Units from the dropdown.
- 55. **Energy Factor:** You must enter the Energy Factor of the Water Heater.
- 56. Recovery Efficiency (%): Must enter the % of Efficiency.
- 57. Lifetime (yr): Must Enter in 20 As Default.
- 58. Installation Cost (\$): You must enter the installation cost.
- 59. Click the Save button.
- 60. Click on the X on the top right corner of the Air/Duct Leakage screen.



# Refrigerator Section



# Click on the Refrigerator Button. Click NEW



- 12. **Manufacture:** Choose Manufacture from the Dropdown (if manufacture is not in the drop-down, leave blank)
- 13. **Style:** Choose the Style of the refrigerator from the dropdown.
- 14. **Defrost:** Choose Defrost Type from Dropdown.
- 15. **Model:** Choose Model from Dropdown. If the model is not listed, leave it blank.
- 16. **Location:** Choose the location of the refrigerator.
- 17. Size (cu ft): enter the size of the refrigerator.
- 18. kWh/yr.: Go online to find an estimate of fridge usage.
- 19. Age: Find the manufacturer's tag or hidden in the serial number.
- 20. **Door Seal Condition:** If you choose POOR, be sure to take photos. (If you Metered the fridge, enter the following data Label Consumption and door seal condition will be ignored)
- 21. **Metering Minutes:** Enter the number of minutes you metered the fridge (must be 120 minutes or more significant)



- 22. **Meter Reading (kWh**): (This is rarely higher than 0.4 kWh)
  - a. If you noticed a spike during metering, that may indicate the fridge entered a Defrost Cycle during metering.
  - b. Check the box Includes Defrost Cycle. Used Rarely.

# Replacement

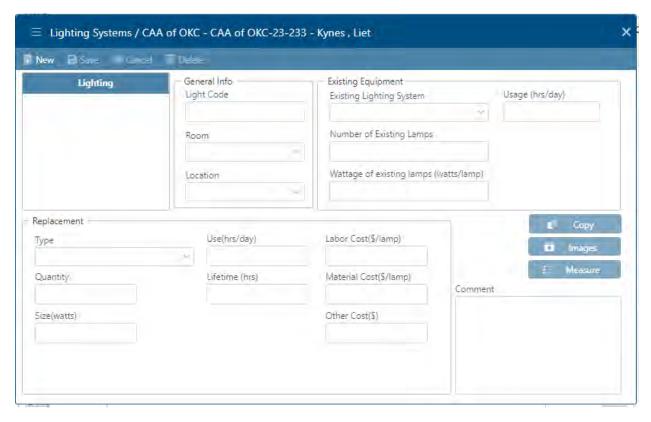
- 19. **Manufacture:** Choose Manufacture from the Dropdown (if manufacture is not in the drop-down, leave blank)
- 20. **Style:** Choose the Style of the refrigerator from the dropdown.
- 21. **Defrost:** Choose Defrost Type from Dropdown.
- 22. **Model:** Choose Model from Dropdown. If the model is not listed, leave it
- 23. **Size (cu ft):** enter the size of the refrigerator. Replacement refrigerators shall be sized by family size:
  - a. 1-4 persons 18 ft.
  - b. 5-9 persons 21 ft.
- 24. kWh/yr.: Go online to find an estimate of fridge usage.
- 25. **Height (in):** Enter in the Height if known. You can leave it blank.
- 26. Width (in): Enter in the Width if known. You can leave it blank.
- 27. **Depth (in):** Enter in the Depth if Known. You can leave it blank.
- 28. Lifetime (yr): use the default 20.
- 29. Installation Cost: You must enter the cost of installation.
- **30.** Additional Cost: there should be no Additional Cost. If there is, make sure to clarify it in the comment section.
- **31.** Optional section: Available space Dimensions
- 32. **Height (in):** Enter in the Height if known. Optional section. You can leave it blank.
- 33. **Width (in):** Enter in the Width if known. Optional section. You can leave it
- 34. **Depth (in):** Enter in the Depth if Known. Optional section. You can leave it blank.
- 35. Click the Save button.
- 36. Click on the X on the top right corner of the Refrigerator screen.



# **Lighting Section**



# Click on the Lighting Button. Click NEW



- 19. **Lighting Code:** Input a unique Lighting code.
- 20. Existing Lighting System: Choose the from the dropdown.
- 21. **Usage (Hrs./day):** The number of hours the lights are used during the day. (Ask the client).
- 22. **Number of Existing Bulbs:** enter the number of bulbs. (Use the following input and can group them if all the bulbs are the same wattage. For the home.)
- 23. Wattage of Existing Lamps (watts/lamp): what is the wattage of the existing bulbs.
- 24. **Replacement Type:** choose the replacement type from the dropdown.
- 25. **Usage (Hrs./day):** The number of hours the lights are used during the day. (Use from the above Usage)
- 26. **Quantity:** Use the Number of Existing bulbs from above.
- 27. **Size (watts):** Use this table to help you choose the appropriate LED equivalent wattage:



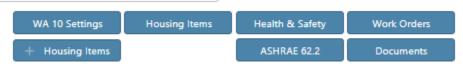
Incandescent	CFL	LED
100W	26W	18W
		9W or
75W	18W	13W
60W	13W	7W
40W	7W	5W

- 28. **Usage (Hrs./day):** Use the Usage from above.
- 29. LifeTime (hrs): Enter the default of 30,000.
- 30. Labor Cost: Must enter in Labor Cost
- 31. Material cost: You must enter the material cost.
- 32. **Other Cost:** There should be no other cost. If there is, it must be notated in the comment section.
- 33. Click the Save button
- 34. There are two choices for input for new lighting. One is to hit the new button at the top and start at step one above. If Copy is chosen, change the Lighting Code so all Lighting entries remain sequential. Change only those fields that are different from the previous Lighting. Remember to hit save after entering Lighting information or the next section
- 35. Click on the X in the top right corner of the Lighting screen
- 36. Click on the X on the top right corner of the House Item Menu Screen

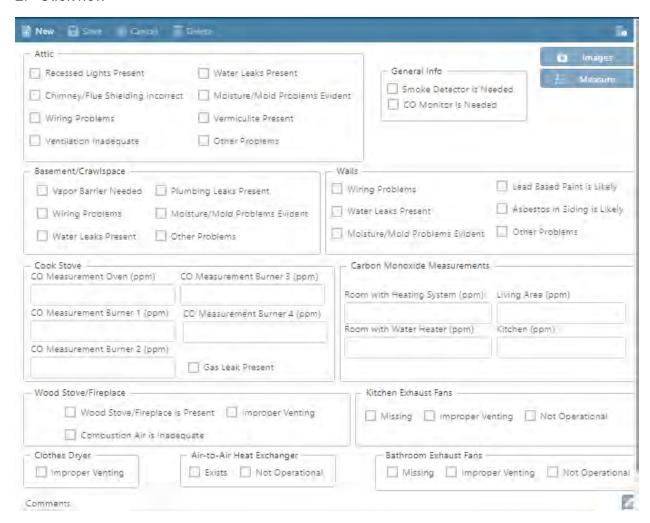


# Health and Safety

1. Click on the Health and Safety button.



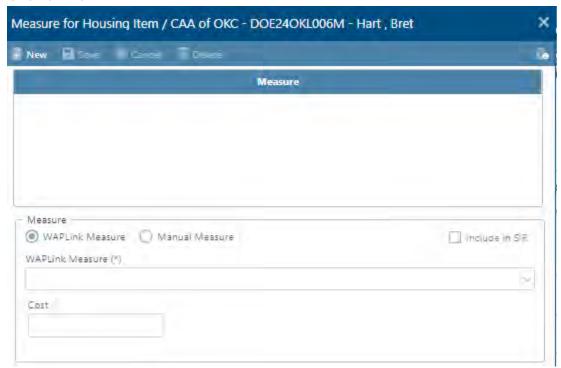
## 2. Click new



- 3. Fill in every box with information about the home you are doing.
- 4. Click Save.
- 5. Click on Measure on the top right side of the window.



## 6. Click on New



- 7. At this point, you have two options: you can choose to do WAPLink Measure or Manual Measures
  - a. WAPLink Measure
    - i. Hit the down arrow, scroll through the listing, and find what you want to add.
    - ii. Click on Include in SIR
    - iii. Click save
    - iv. Repeat the above three steps until all Health and safety items are added to the system.
  - b. Manual Measure
    - i. Enter in the Measure Description and Cost.
    - ii. Click Save
    - iii. Click on Include in SIR

Repeat the above three steps until all Health and safety items are added to the system.



# MHEA COMPLETION

1. Before running the audit in the WA 10 Engin, click the Missing Items Button.

lmages	Notes	
Missing Items	Run WA 10 Engine	
Inspection	QCI	
Audit Input	Audit Recommend	
Job Economic	Client Profile	

This screen will let you know what items are missing.

- 2. Click on Run WA 10 Engine
- 3. Click on Process Audit
- 4. The date submitted should have the date and time. Process Status should Say Finished, and Measures Returned should have a number if successful.

Date Submitted	Process Status	Measures Returned	
11/06/2023 06:42 PM	FINISHED	13	

**Congratulations! You have run an MHEA AUDIT ON WAPLINK.** 



## **Work Order Creation**

Now that the Energy Audit has been completed, it is time to create the work orders for the audit.

1. Once the audit is run, click on the finished audit at the top of the Audit Process screen.

Date Submitted	Process Status	Measures Returned	
05/07/2024 12:22 PM	FINISHED	18	ı
05/03/2024 08:49 PM	FINISHED	13	ı
05/03/2024 08:49 PM	FINISHED	12	ı
05/03/2024 08:48 PM	FINISHED	12	П
05/03/2024 05:12 PM	FINISHED	12	П
05/03/2024 05:11 PM	FINISHED-FAILED	0	ı
05/03/2024 12:50 PM	FINISHED-FAILED	0	
05/03/2024 12:35 PM	FINISHED-FAILED	0	
05/03/2024 12:34 PM	FINISHED-FAILED	0	
05/03/2024 12:31 PM	FINISHED-FAILED	0	



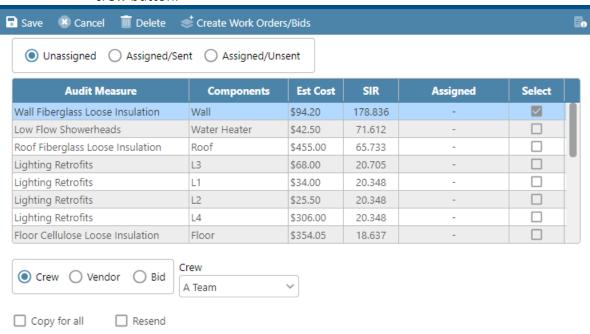
2. Create Workorder in the bottom right of the screen.

	8	
Overview	Customer	Audit Date
	Hart, Bret	5/2/2024 4:33:09 PM
Annual Energy and Cost	Audit Name	Auditor
Savings	264	Pustejovskey, Robert
Energy Saving Measure	Weather File	Date Processed in WAPLink
Economics	OK_Oklahoma_City-Rogers_World_AP_723530_WA	5/7/2024 12:22:53 PM
Materials	Oak Ridge Setting	
iviateriais	Run On	RunID
	Tue May 7 08:22:53 2024	v10.05.016 Thu Apr 25 08:13:35 EDT 2024
Pre/Post Retrofit Energy and Loads	Version	AuditID
	20240507.082253619	264
Approximate Component Contributions to Peak		
HEATING Load		
	Difference in Settings from Last Audit	Create Work Orders
Approximate Component Contributions to Peak		
COOLING Load		
	Difference in Return Settings from Last Audit	
Special Notes		•

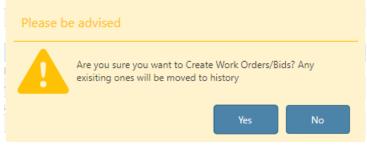
- 3. From this screen, there are three options. It can be sent to the crew and vendor and sent out for a bid.
  - a. Crew
    - i. Select the box on the right side of the screen.
    - ii. Click the Crew button.



iii. Then choose the crew from the drop-down that shows up next to the crew button.

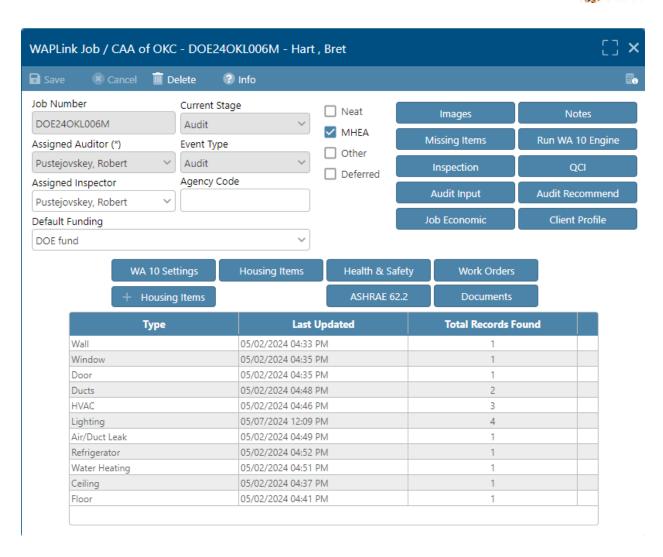


- 4. Click Save.
- 5. Repeat steps 2 and 4. For Vendors and Bids.
- 6. Click on the Assigned /Unsent and then Click on the box on the right side.
- 7. Click the Create Work Orders/Bids button at the top.
- 8. Answer Yes to the following Please be Advised Prompt.

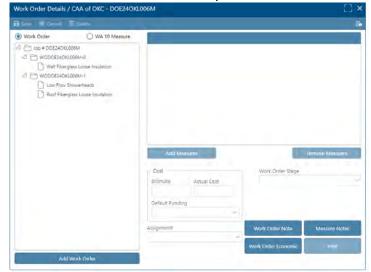


- 9. Click the X at the top right of the screen.
- 10. Once the Work order is created, you will Return to the Main Screen and click on Workorders.

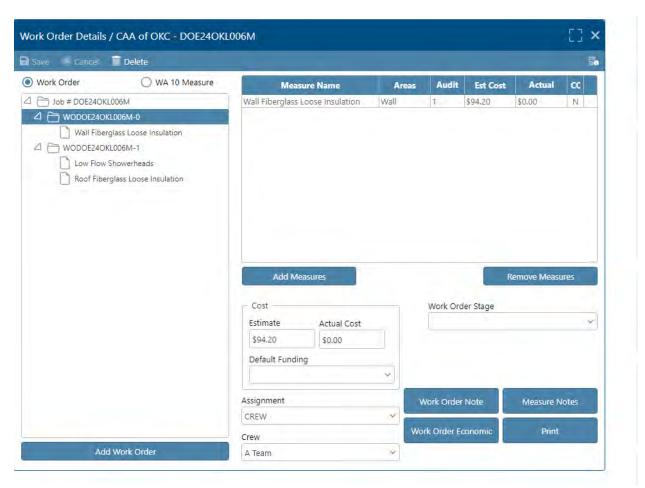




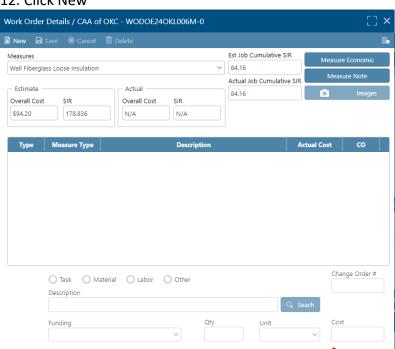
11. On the Work Order Detail Screen, click on the work order you want to work on. Then, double-click the measure name you wish to work within the box on the right.







# 12. Click New





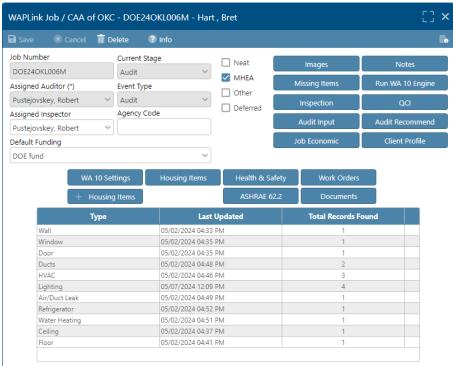
- 13. From this screen, you will enter the Task, Material cost, Labor cost, and any other work order costs.
  - a. **Click** on the Task and Select Search. This will bring up the SWS List and help you choose the correct SWS associated with this task.
    - Choose a Funding source. This is where you can decide to Braided the home with DHS or other funding sources. <u>MAKE SURE ALL OTHER</u> <u>FUNDING SOURCE FOR THE WORK ORDER IS THE SAME AS THIS FIRST.</u>
    - ii. Choose Qty needed.
    - iii. Choose unit type. Make sure that the correct unit type is chosen.
    - iv. Enter the cost for the task being performed.
    - v. On the top right, you can click on the Measure notes and enter Notes into the measure. NOTE: You must enter the Measure note into the Work Order. You need to be specific in detail about what needs to be done.
  - b. Click on the Material and Select Search. This will bring up the Agency's inventory if the agency has inventory stored in WAPLink.
    - i. Choose a Funding source. This is where you can decide to Braided the home with DHS or other funding sources. MAKE SURE THAT THIS IS THE SAME FUNDING AS IN THE ABOVE. CANNOT CHANGE FUNDING SOURCE IN THE SAME WORK ORDER.
    - ii. Choose Qty needed. Choose unit type. Make sure that the correct unit type is chosen.
    - iii. Enter the cost for the task being performed.
  - c. Click on the Labor. Enter the description of the labor that is being performed.
    - i. Choose a Funding source. This is where you can decide to Braided the home with DHS or other funding sources. <u>MAKE SURE THAT THIS IS THE</u> <u>SAME FUNDING AS IN THE ABOVE. CANNOT CHANGE FUNDING SOURCE</u> <u>IN THE SAME WORK ORDER.</u>
    - ii. Choose Qty needed. Choose unit type. Make sure that the correct unit type is chosen.
    - iii. Enter the cost for the task being performed.
- 14. Repeat A through C above until all work orders are done.
- 15. Click the X in the top right corner.
- 16. Once the work has started, repeat Steps 1 9 above, then change the status to Active.
- 17. Click Save after you change the status.
- 18. Click the X in the top right corner of the screen.
- 19. Once the Vendor or the Crew completes the Work Order, Return to the Home Screen and repeat Step 16 but change the Status to Inspection.

**CONGRATULATIONS YOU HAVE SUSSEFULLY CREATED WORK ORDERS IN WAPLINK** 

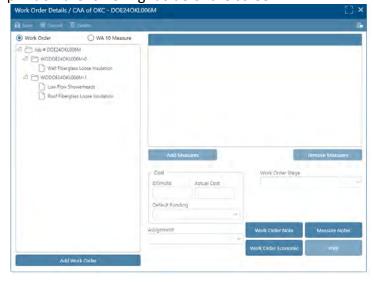


## Work Order Review

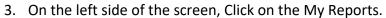
1. At the WAPLink Job Screen, click on Workorders.



2. On the Work Order Detail Screen, click on the work order you want to work on. Click on print on the lower right side of the screen.

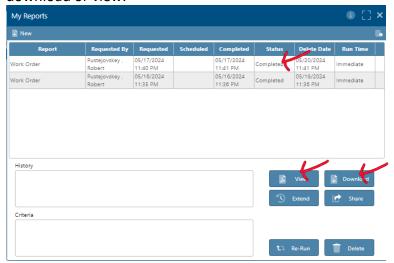








4. This will Bring up the My Reports screen. Once the reports are ready to view and/or download in the Status column, they will state completed. Click on the line you want to download or view.

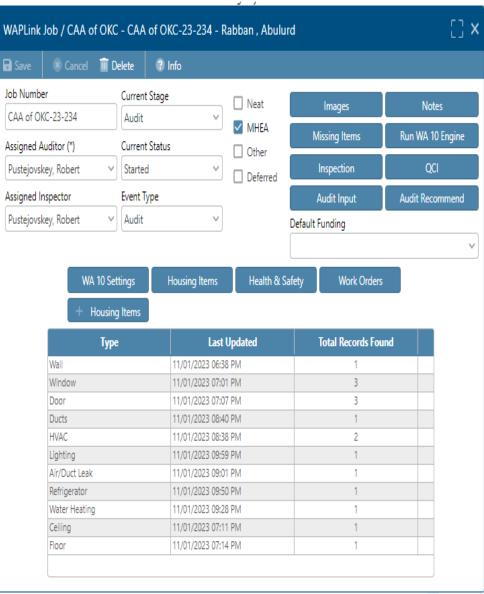


5. When you view the work order, you can print it off.



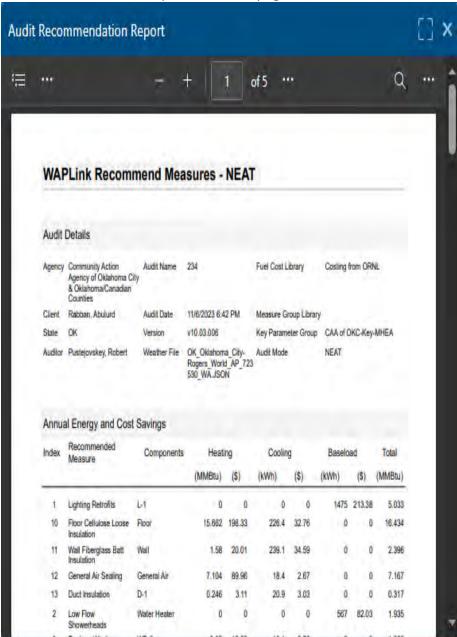
## **Audit Reports**

- 1. Once the Audit is successful, Hit the X button in the top right corner of that window.
- 2. Click the Audit Recommend button to generate the Recommended measure report.



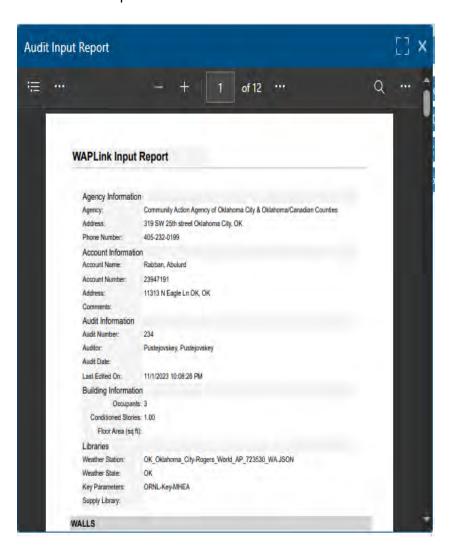


3. This will generate the recommended Measure report Just like WAP 10 and WAP 8.9 did. Below is an example of the first page of the Recommended Measure Report.





4. click the Audit Input Button to generate the Input Report. An example of the first page of the Input is Below.





# **Quality Control Process**

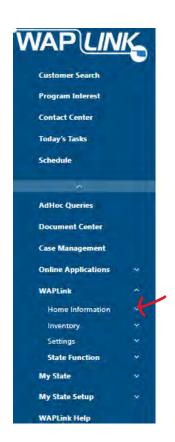
The job is complete now that the audit is done and the work orders are complete. It is time to conduct the final Quality Control Inspection.

1. On the left side of the screen, go to WAPLink.



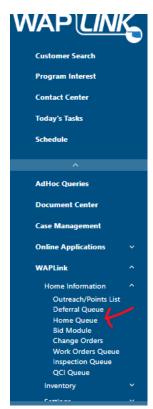
2. Click on Home Information



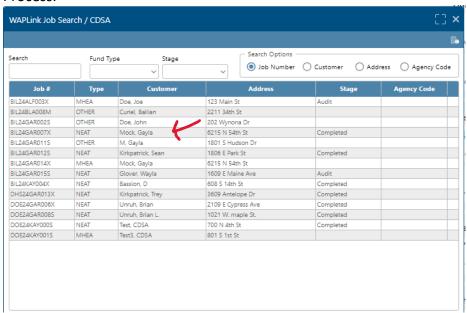


3. Click on Home Queue



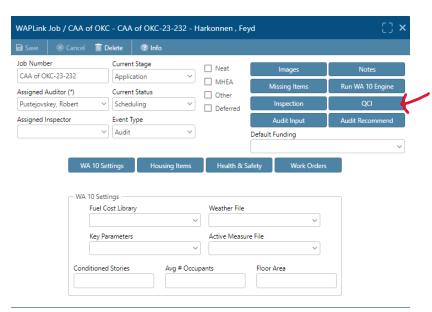


4. This will bring up the WAPLink Job Search screen. This will bring up the list of homes that the agency has in the system. Find the job number that needs a quality control inspection done. Click on the Customer's Name to begin the Quality Control Inspection Process.

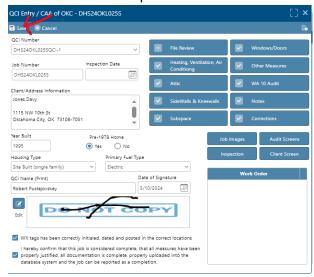


5. This will bring up the WAPLink Job screen. Click on the QCI button on the right side of the screen.





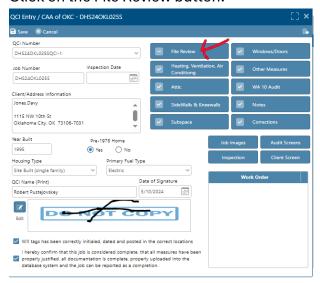
- 6. This will bring up the QCI Entry Screen. The QCI will need to enter the following information into this screen.
  - a. Inspection date
  - b. Year Built
  - c. Housing Type should be auto-populated; if not, you need to select it from the drop-down.
  - d. Primary Fuel Type
  - e. QCI name
  - f. For the date of the signature, choose the date from the calendar.
  - g. Then the QCI needs to Sign in the box.
  - h. Need to check the two boxes under the signature box.
- 7. Click Save at the top of the screen.



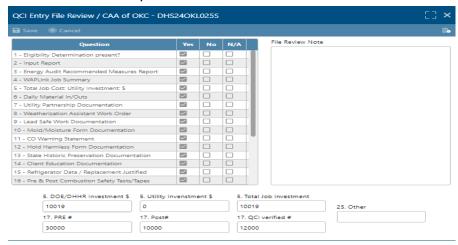


#### File Review

1. Click on the File Review button.



- 2. This will bring up The QCI Entry File Review screen. The QCI must check each question's Yes, No, or N/A column. The QCI will need to enter the following information:
  - a. #5 DOE Investment \$ enter the cost in the box.
  - b. #5 Utility Investment \$ enter the cost in the box.
  - c. #5 Total job Investment \$ enter the cost in the box.
  - d. #17 Pre # meaning the Pre Blower door number.
  - e. #17 Post # meaning the Post Blower door number.
  - f. #17 QCI Verified # Meaning the QCI Blower door number.
  - g. #25 other- if any other information is entered into the file that needs to be reviewed.
  - h. Enter File Review Notes into the File Review Notes box.
- 3. Click Save at the top of the screen.



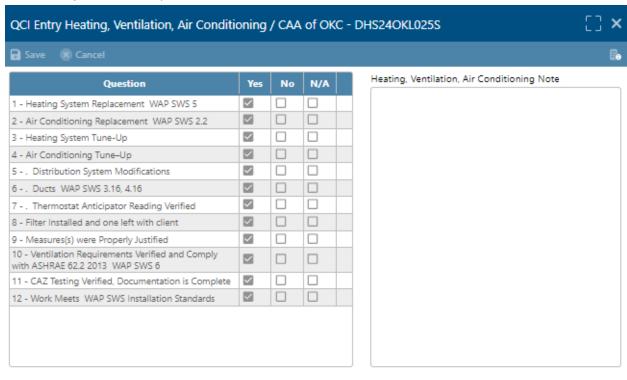


4. Click the X at the top right of the screen to reach the QCI Entry Screen to continue the Quality Control Inspection.



## Heating, Ventilation, Air Conditioning

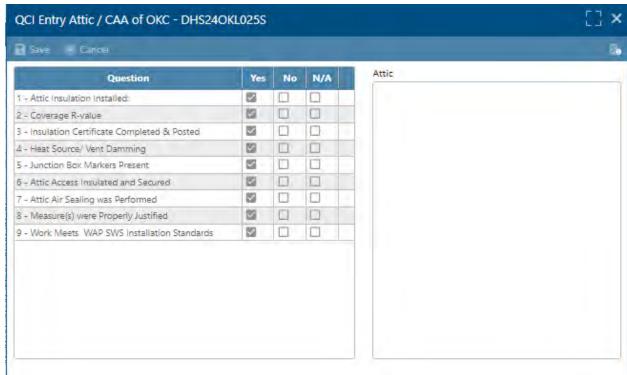
- 1. Click the Heating, Ventilation, and Air Conditioning button on the QCI Entry Screen. This will open the QCI Entry Heating, Ventilation, and Air Conditioning screen. The QCI must check each question's Yes, No, or N/A column.
- 2. Enter Heating, Ventilation, Air Conditioning Notes into the Heating, Ventilation, Air Conditioning Notes box.
- 3. Click the Save Button at the top of the screen.
- 4. Click the X at the top right of the screen to reach the QCI Entry Screen to continue the Quality Control Inspection.





#### **ATTIC**

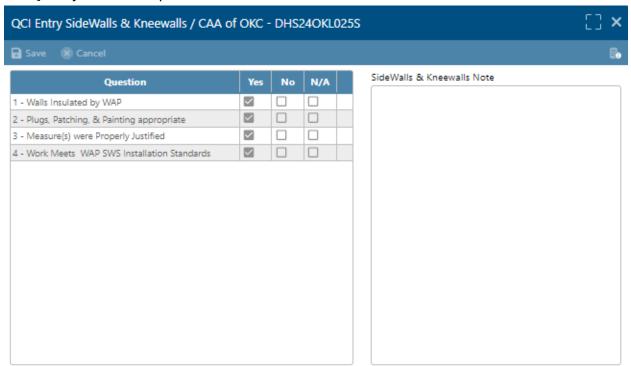
- 1. Click the Attic button on the QCI Entry Screen. This will bring up the QCI Entry Attic screen. The QCI must check each question's Yes, No, or N/A column.
- 2. Enter Attic Notes into the Attic Notes box.
- 3. Click the Save Button at the top of the screen.
- 4. Click the X at the top right of the screen to reach the QCI Entry Screen to continue the Quality Control Inspection.





#### Sidewalls & Kneewalls

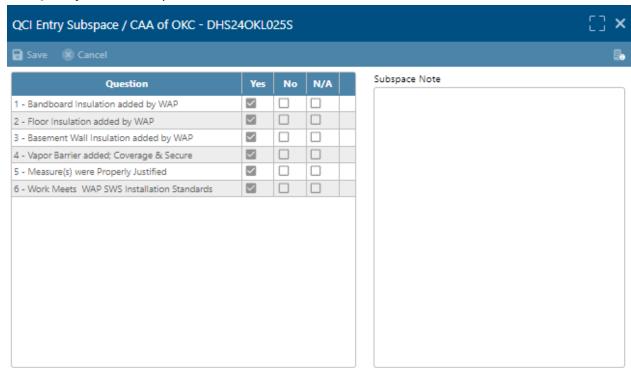
- 1. Click the Sidewalls & Kneewalls button on the QCI Entry Screen. This will bring up the QCI Entry Sidewalls & Kneewalls screen. The QCI must check each question's Yes, No, or N/A column.
- 2. Enter Attic Notes into the Sidewalls & Kneewalls Notes box.
- 3. Click the Save Button at the top of the screen.
- 4. Click the X at the top right of the screen to reach the QCI Entry Screen to continue the Quality Control Inspection.





## Subspace

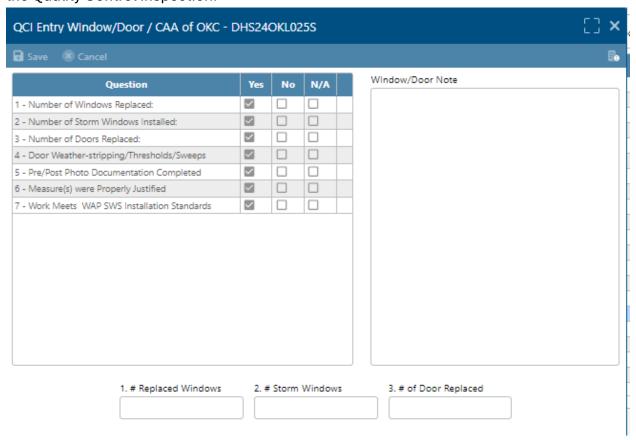
- 1. Click the Subspace button on the QCI Entry Screen. This will bring up the QCI Entry Subspace screen. The QCI must check each question's Yes, No, or N/A column.
- 2. Enter Attic Notes into the Subspace Notes box.
- 3. Click the Save Button at the top of the screen.
- 4. Click the X at the top right of the screen to reach the QCI Entry Screen to continue the Quality Control Inspection.





## Windows/Doors

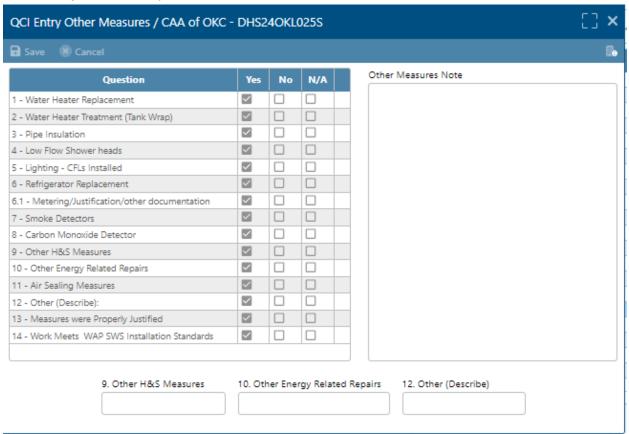
- 1. Click the Windows/Doors button on the QCI Entry Screen. This will bring up the QCI Entry Windows/Doors screen. The QCI must check each question's Yes, No, or N/A column. The QCI will need to enter the following information into the screen.
  - a. 1 # Replaced Windows
  - b. 2 # Storm Windows
  - c. 3 # of Door Replaced
- 2. Enter Attic Notes into the Windows/Doors Notes box.
- Click the Save Button at the top of the screen.
   Click the X at the top right of the screen to reach the QCI Entry Screen to continue the Quality Control Inspection.





## Other Measures

- 1. Click the Other Measures button on the QCI Entry Screen. This will bring up the QCI Entry Other Measures screen. The QCI must check each question's Yes, No, or N/A column. The QCI will need to enter the following information into the screen.
  - a. 9 Other H&S Measures
  - b. 10 Other Energy-Related Repairs
  - c. 12 Other (Describe)
- 2. Enter Attic Notes into the Other Measures Notes box.
- 3. Click the Save Button at the top of the screen.
- 4. Click the X at the top right of the screen to reach the QCI Entry Screen to continue the Quality Control Inspection





#### WA 10 Audit

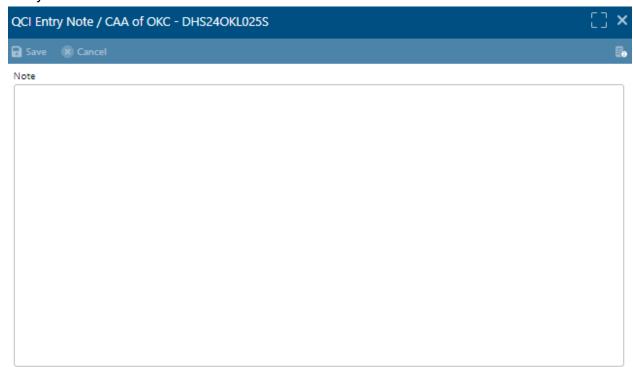
- 1. Click the WA 10 Audit button on the QCI Entry Screen. This will bring up the QCI Entry WA 10 Audit screen. The QCI must answer the questions Yes, No, or N/A.
- 2. QCI must answer the final question about additional attention at the bottom. This means if the crew needs to return and fix issues found during any part of the Quality Control Inspection.
- 3. Click the save button at the top of the screen.
- 4. Click the X at the top right of the screen to reach the QCI Entry Screen to continue the Quality Control Inspection.

QCI E	ntry WA 10 Audit / CAA of OKC - DHS24OKL	.025S			
<b>₽</b> Sav	e X Cancel				
	All IRMs are justified in the client file with an explan conservation measure (ECM) or group of ECMs.	_	heir need a		
	2. ECMs are all justified with a SIR > 1. Exception: Air S	ealing DOE	WPN 13-5	5 Attachement 1	
		Yes	○ No	○ N/A	
	3. Ancillary items are charged to the appropriate ECM	_	○ No	○ N/A	
	4. Are materials charged appropriately according to the	ne current \	WA Materia	als Chart?	
		Yes	○ No	○ N/A	
	Does this unit need additional attention from the Sub (*Add comments on additional pages if necessary, ** /		Yes  the yes box	0	ctive



#### Notes

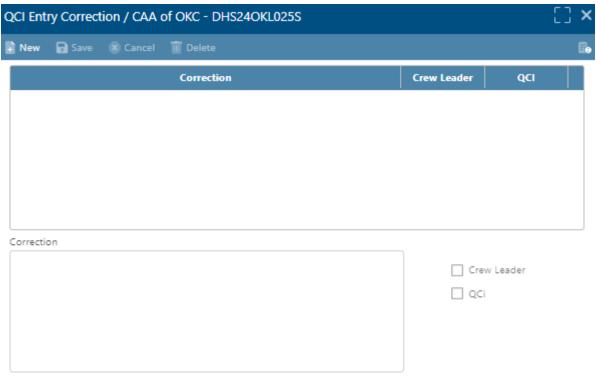
- 1. Click the Notes button on the QCI Entry Screen. This will bring up the QCI Entry Notes screen.
- 2. The Quality Control Inspector needs to enter any Notes from the Inspection on this screen.
- 3. Click the save button at the top of the screen.
- 4. Click the X at the top right of the screen. This will take the agency back to the QCI Entry Screen.





#### Correction

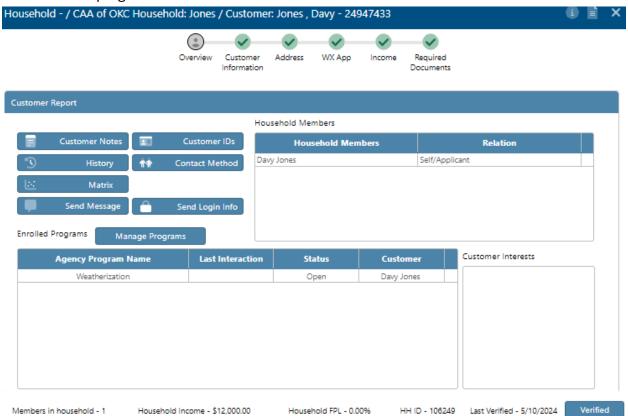
- 1. Click the Correction button on the QCI Entry Screen. This will bring up the QCI Entry Notes screen.
- 2. Click on the New button at the top of the screen. The QCI will need to check who needs to make the corrections.
  - a. Crew leader
  - b. QCI
- 3. In the Correction Box, after choosing the above box. You need to enter the correction into the box. Be as descriptive as possible. (Note: this needs to be done for all the issues found during the inspection)
- 4. Click the Save button at the top of the screen.
- 5. Click the X at the top right of the screen. This will take the agency back to the QCI Entry Screen.





## Client Screen

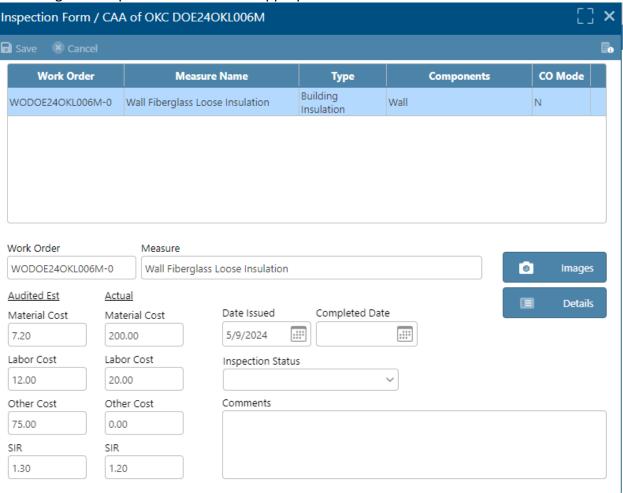
- 1. Click the Client Screen button on the QCI Entry Screen. This will bring up the Client Screen.
- 2. This is where the Quality Control Inspector will review the Client application.
- 3. Once the Quality Control Inspector has reviewed the Client's Application, Click on the X at the top right of the screen.





## Inspection

- 1. Click the Inspection button on the QCI Entry Screen. This will bring up the Inspection Screen for the Work orders.
- 2. At this point, the Quality Control Inspector will Inspect all the work orders created and verify that the work was done correctly.
- 3. On the Inspection Form, after taking the necessary Photo Documentation, uploading the documentation to the system, and determining if the work passes or fails, change the Inspection Status to the appropriate determination.

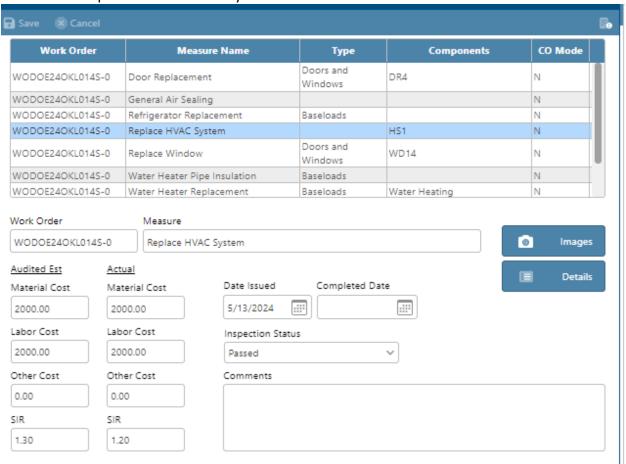


4. Answer YES to the Please Advise Question.





5. After saving the Inspection status to Passed, you must Change the Completed Date to the Completed date. Enter any comments into the box.

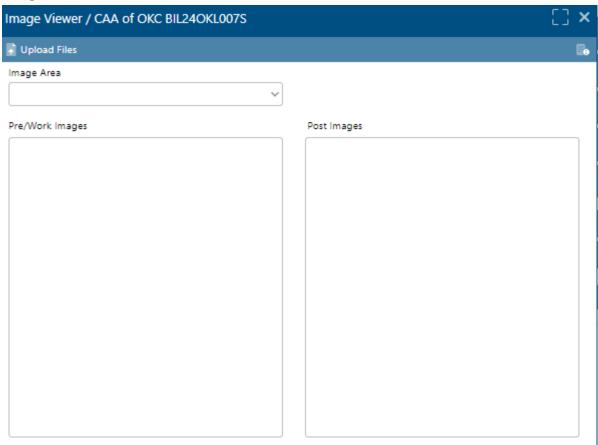


- 6. Click Save at the top of the screen.
- 7. Repeat steps 3 5 for each item on the Screen.
- 8. Click the X at the top right of the screen. This will take the QCI back to the QCI Entry Screen.



# Job Images

- 1. Click the Job Images button on the QCI Entry Screen. This will bring up the Job Image Screen.
- 2. On this screen, the QCI can view all the images (photos) taken during the job and uploaded into the system. Also, the QCI will be able to upload files from the QCI inspection to the system. Make sure that the correct photos get to the right image Area.

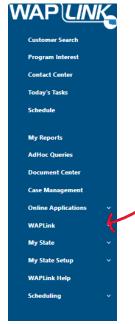




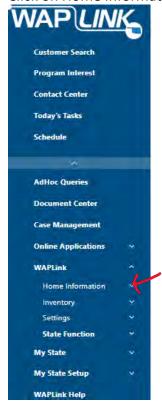
#### Client File Closeout

The job is complete now that the audit is done and the work orders are complete. The Work Orders must be completed and filled out. The cost must be entered into the work order in order to proceed to close out the file. It is time to conduct the final Quality Control Inspection.

1. On the left side of the screen, go to WAPLink.

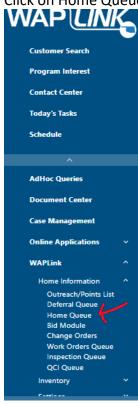


2. Click on Home Information

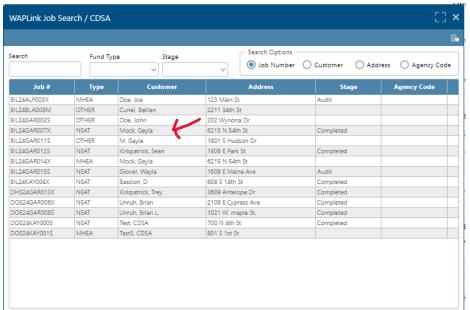




3. Click on Home Queue

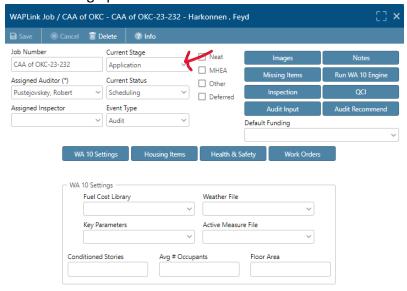


4. This will bring up the WAPLink Job Search screen. This will bring up the list of homes that the agency has in the system. Find the job number that needs a quality control inspection done. Click on the Customer's Name to begin the Quality Control Inspection Process.

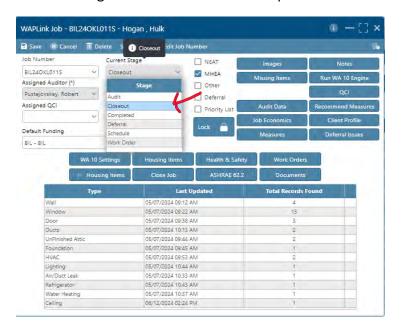




5. This will bring up the WAPLink Job screen. Click on the Current Stage.

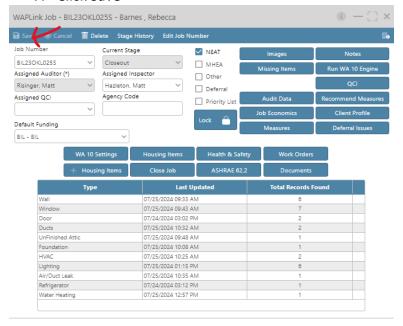


6. Change to Closeout from the drop-down menu.

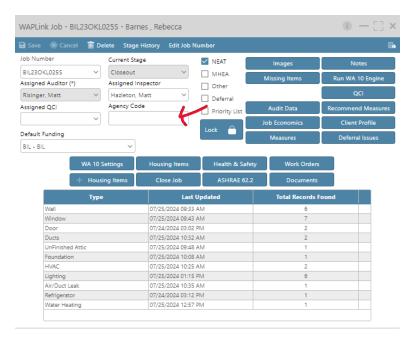




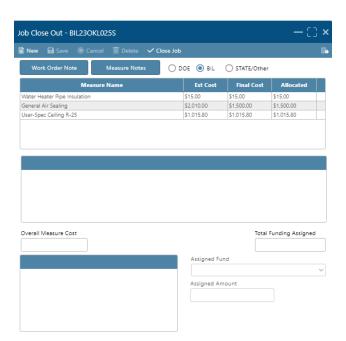
## 7. Click Save



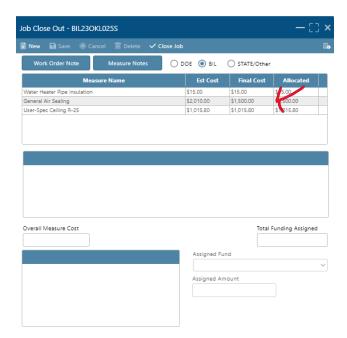
8. This will open the close-out screen. This is where the job will actually be braided with another funding source. If the job is going to be braided with another funding source, it must have that funding source job number in the Agency Code field on the Main job screen. (which will change to Braided Job #)





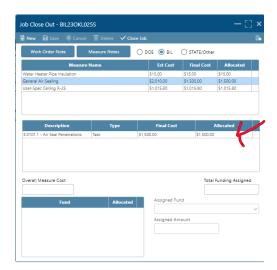


9. Once on this screen, you must click on the Measure name.

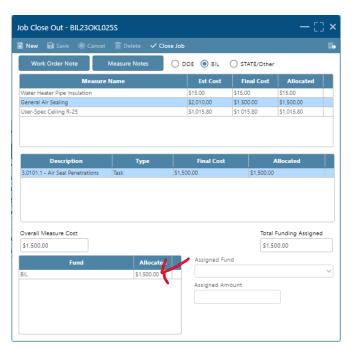




10. This populates the description in the middle box. Then you need to click this line.



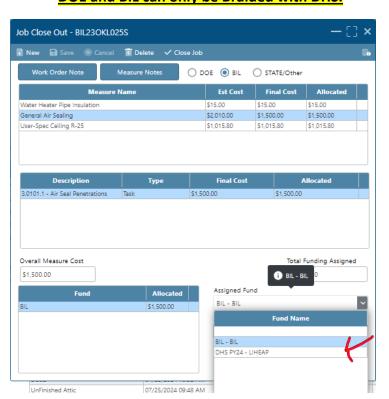
11. This will populate the bottom part of the screen, where you will see the Overall Measure Cost, Total Funding Assigned, Funding that is assigned, and the Allocated Funding amount in the bottom box. You need to Click on the item in the Box.





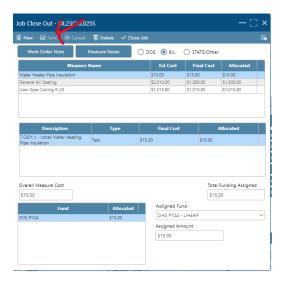
12. Once you click on this, it will populate the Assigned Fund and Assigned Amount in the boxes to the right of this box. This is where you will end up Braiding the home with the other funding source. You will choose the funding source from the drop-down menu. We just need to make sure that in step 8, there is another funding source job number in the Agency Code field on the Main job screen. (which will change to Braided Job #).

DOE and BIL can only be Braided with DHS.

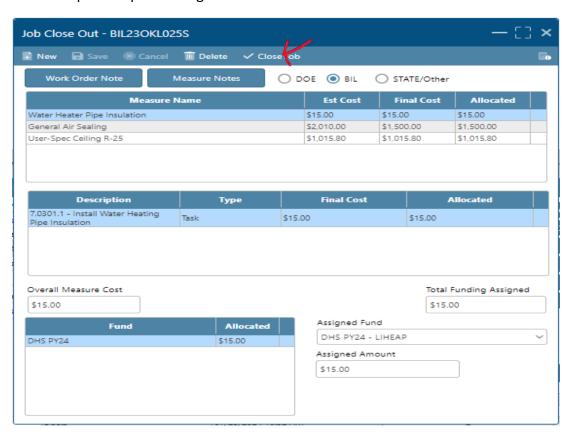




13. Once you have decided on the finding and are happy with it, click the save button at the top.



14. Repeat Steps 9 through 13 for the remainder of the measures then click on the Close Job

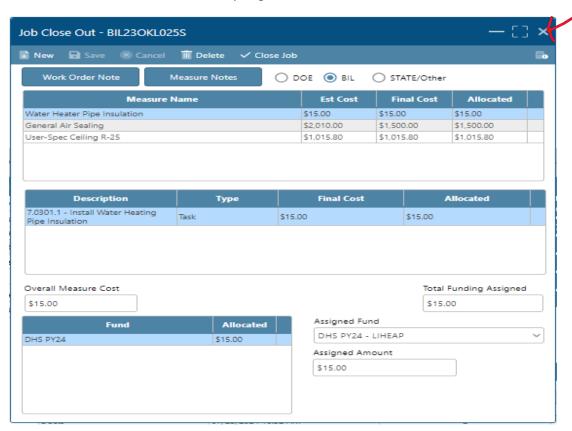




15. Click the Yes to the Please be Advised question.

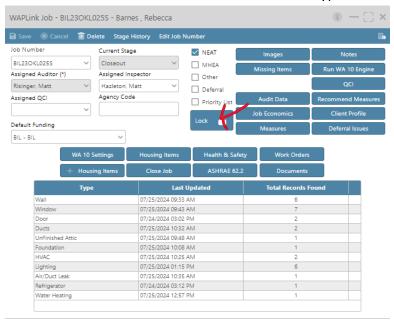


16. Click the X button in the Top Right of the window.





17. Click on the Lock button under the list of Home types



18. Answer Yes to the Please be advised Question. This will lock the Job down as being complete and ready for a complete monitoring by ODOC. If a job is just in the complete stage, it can still be monitored by ODOC. You have counted the home on a progress report. It being locked is an understanding that it is now counted on the Quarterly Report.





# Agency County Assignment

# Community Action Agency of Oklahoma City & Oklahoma / Canadian Counties

Region 1: CAA of OKC	
Oklahoma	
Canadian	
Cleveland	
Lincoln	
Pottawatomie	



# **Northeast OK Community Action Foundation**

Region 2: NEO
Adair
Cherokee
Craig
Creek
Delaware
Mayes
Nowata
Osage
Ottawa
Pawnee
Rogers
Tulsa
Wagoner
Washington



# Community Action Development Corp.

Region 3: CADC
Beckham
Caddo
Comanche
Cotton
Custer
Garvin
Grady
Greer
Harmon
Jackson
Jefferson
Kiowa
McClain
Rogers Mills
Stephens
Tillman
Washita



# Ki Bois Community Action Foundation

Region 4: Ki Bois
Haskell
Hughes
Latimer
Le Flore
McIntosh
Muskogee
Okfuskee
Okmulgee
Pittsburg
Seminole
Sequoyah



# LIFT Community Action Foundation

Region 5: LIFT
Atoka
Bryan
Carter
Choctaw
Coal
Love
Johnson
Marshall
McCurtain
Murray
Pontotoc
Pushmataha



# Community Development Support Association

Region 6: CDSA
Alfalfa
Beaver
Blain
Cimarron
Dewey
Ellis
Garfield
Grant
Harper
Kay
Kingfisher
Logan
Major
Noble
Payne
Texas
Woods
Woodward



# **Grant Reporting**