

2020 Home Energy Showcase

Troy Hill Haus | Lindsay Dill



from start...

...to ~~finish~~ progress



Background Info



View from this 'ole hillhaus
on a foggy morning.

Four years ago, I was 25 and threw out the crazy idea that instead of continuing to chase affordable rent I'd buy a house in this city of steel, stairs, river, and hills that really pulled me in. I moved to Pittsburgh when I was 18 and planned to attend Point Park University, earn a degree in Photojournalism and Global Cultural studies, and move along to taste the life of moving around to other cities. Upon graduating, I couldn't bring myself to leave. The ability to bike to and fro work, social scenes, and green spaces combined with the beautiful community of people I connected with kept me from moving on.

So, one year after wondering about buying my first home, several money-saving coaching sessions, 42 house viewings, 7 house bids, and lots of tears of joy and frustration later, I arrived in Troy Hill! I looked at this little house on the hill on New Years Day 2017, and had big dreams for it becoming my art project that could be made into a cozy, green home. Shortly after moving in and connecting with the community group, some neighbors told me about an opportunity to make home improvements through the Urban Redevelopment Authority's PHRP Energy Plus Program. While I'd been working on the house myself with skills existing and YouTube-learned, an opportunity to get grants and an interest-free loan opened up a world of possibilities I'd otherwise not have had access to.

As part of the program, my house underwent a CCI Energy Audit, thus connecting me with the Home Energy Showcase! It's been a fun, wild ride, and I feel so grateful to be able to receive support by way of funding and financing from the URA and by way of information and expertise from CCI.

While the current global pandemic forced a stop of the work on my house, the work that the construction team started, the work I took on my own plate, and the detailed to-do-list I received from CCI will certainly make my home more cozy and more aligned with my goals to have as positive an impact on this planet as possible. Thank you CCI for the information and for game-i-fying the process of making a house into a cozy, more energy efficient home!

Sound Home Plan

Home

Lindsay Dill

Pittsburgh PA, 15212

Audit Date

Jul 23, 2019

09:00 am

Audited By

Virginia McGrath

Energy Auditor

BPI, Home Energy Score

Assessor, Lead Inspector, Lead

Risk Assessor

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Through your energy audit, CCI found opportunities to improve your home's health, comfort, and energy efficiency. Your attic is currently not insulated, air sealing and insulating the attic will help make your home more comfortable and reduce your gas bills!

See below for more Upgrade Details.

If you have any questions please let us know. We're happy to help!

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Solutions

Upgrade Details

Health & Safety

Additional Notes

Rebates & Incentives

Metrics

Tech specs

Glossary

The Journey | Seal Air Leaks

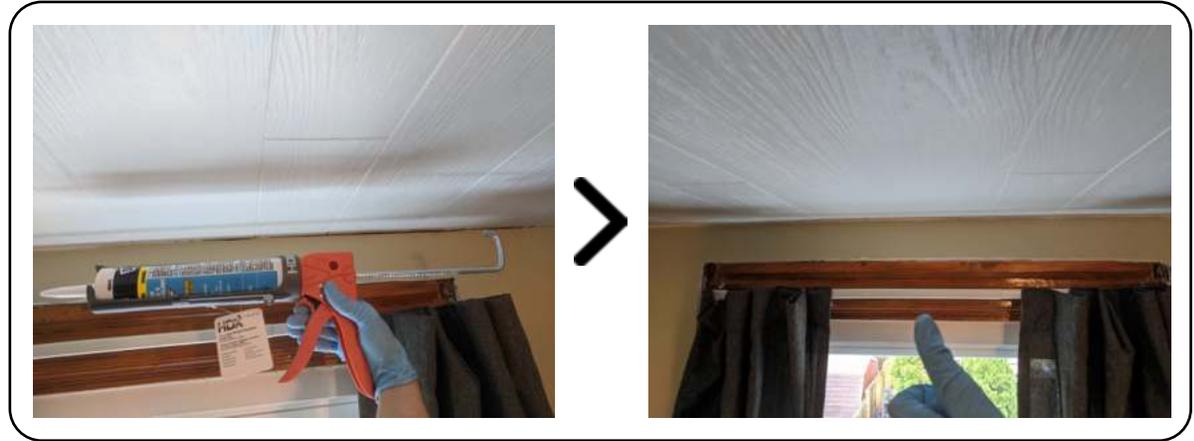
Sealing Air Leaks in One Bedroom



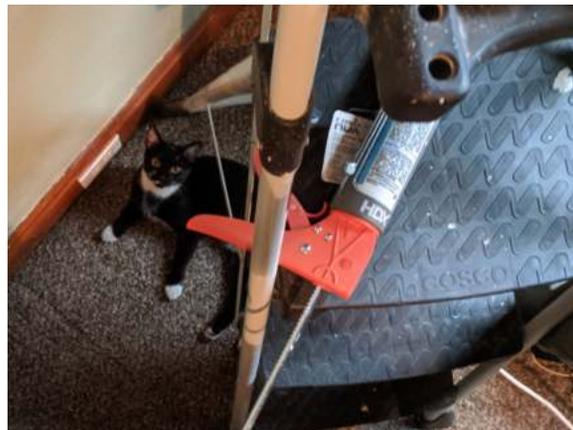
Caulk around windows where caulking is cracked or missing or between the trim and the wall if gaps exist.



Caulk gaps in the corners of the rooms. Paintable caulk is recommended.



Just after receiving my energy audit, I ran out to Home Depot with a sense of Insulating Purpose -- buying caulking, spray foam insulation, insulation boards, and several other recommended tools in the CCI plan. Then I let them “age” (I procrastinated). When the pandemic hit and the construction crew was no longer in the house, I figured it was about time I took my turn doing some DIY projects that the crew wouldn’t address. So, with my hard-working companion, Enoki The Cat, I took to the back bedroom and sealed the air leaks outlined in the plan. While I still need to paint over the repairs, the room looks much better already!



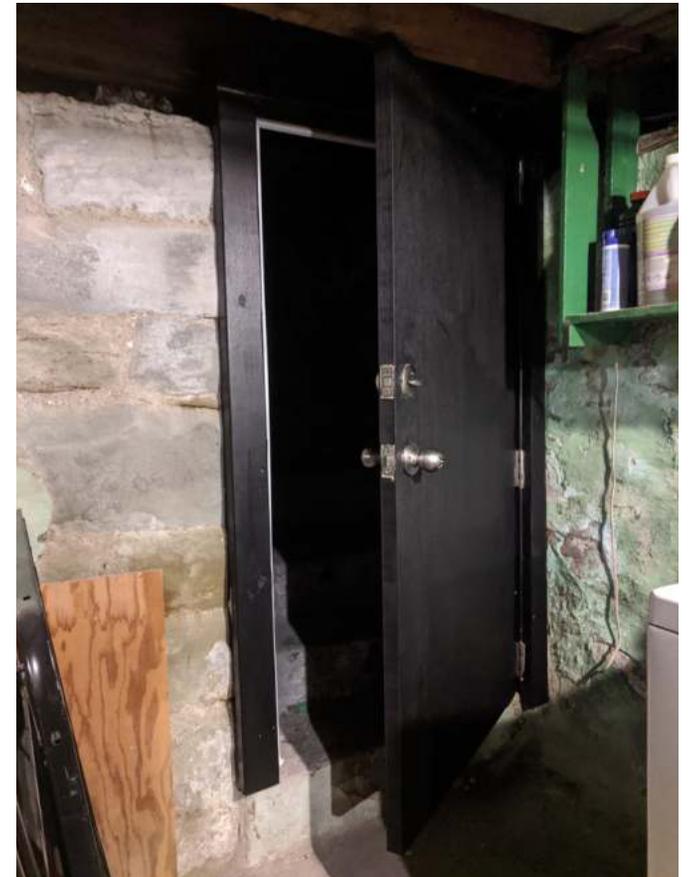
The Journey | Seal Air Leaks

Sealing Air Leaks in the Basement



Install a new steel insulated or fabricated door that is insulated and has a door sweep and weather stripping to make it air tight, or install insulation, weatherstripping, and a door sweep to the current exterior door in the basement.

The previous “door” from the basement to the backyard was not a door so much of a plank of wood decorated with rusty hinges short on a few screws. It let in an actual breeze and did not close or lock. I feel such a greater sense of security and warmth knowing that this new custom-cut and insulated door will keep my home breeze-free and safe.



The Journey | Seal Air Leaks

Sealing Air Leaks in the Stairwell



Patch and seal any holes or gaps in the walls.

When I bid on the house, it had a railing from the first to second floor. The day I received the keys, it had a series of holes revealing plaster, lathe, and a severe lack-of-railing. Mysteries are amazing! I'm happy to report that the holes, which were on an outside wall, have been filled, and a railing is forthcoming as construction resumes.



The Journey | Upgrade Heating System

Saying Goodbye to a 1970s Treasure



When the time comes to replace your heating appliance, consider an Energy Star high efficiency unit to maximize long-term savings, such as a two-pipe, sealed combustion furnace, with AFUE factor of 95% or higher. After improving your wall and attic insulation your furnace BTU output could be downsized, resulting in lower cost.

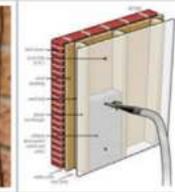


While I'll miss the sheer turquoise beauty of this 1970s appliance still kickin' it in 2020 (!), I must say I'm looking forward to my adjusted budget plan bill from the gas company! The new furnace has felt every bit as warming, and I'm hoping will save a lot of natural gas from being burned and a lot of holes in my pocket from being burned too!

(Side note: my composting worms love their spot next to the furnace in the home-made up-cycled trash bin.)



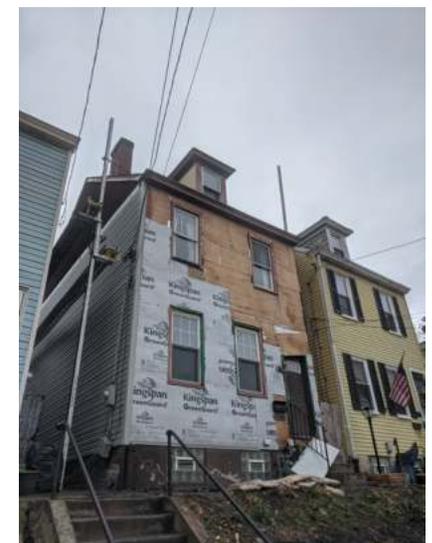
The Journey | Siding & Insulating Home Layering Up to Stay Efficient



Your walls appear to be uninsulated. You can insulate the side walls on your house from the outside or inside. Install dense-packed cellulose insulation. Dense-packing is somewhat more costly than regular blowing-in insulation, but it prevents future shifting of insulation down and leaving uninsulated voids in the walls.

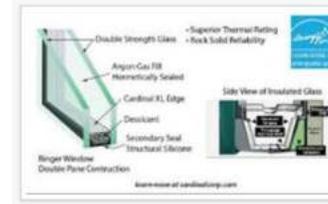


When I bought the house, it was missing siding on half of the west side of the house. While the area of the home missing siding was still covered with insulbrick, the lack of insulation and the moisture getting in were not ideal. So, the construction crew scrapped the old, weathered, dented aluminum siding, insulated with Kingspan GreenGuard Q250, and added new siding. I also maintained existing layers of insulation, so it looks like this: wood house, layer of Insulbrick, Retained old insulation [seen as brown in the photo]), new Kingspan insulation, and new siding. Talk about draft-proof!



The Journey | Upgrade Windows

Staying Secure, Staying Un-Breezy



Upgrade older, single or double-pane windows to Energy Star certified and low U-value windows. If your budget permits, seek manufacturers who offer U value of 0.2 or lower. Triple-pane windows can go as low as 0.11. Energy Star requires the U value to be less than 0.3. Given that windows are a long-lasting investment, it is important to select a high performing products. Solar heat gain coefficient should be greater or equal to 0.32.



Many of the energy efficiency upgrades that were made apparent by CCI and possible by the URA also helped me to address security concerns. When I bought the home, the windows were screwed shut with L-Brackets. When I removed the brackets, I realized they were installed incorrectly and neither closed nor locked fully. So, I replaced all of the home's windows with energy efficient windows that - lock - ! This upgrade ranks highly as one of my favorites. Who knew energy efficient windows would help you sleep better?



The Journey Goes On In Summary & Looking Ahead

The current global pandemic has certainly redefined - or at least re-emphasized - what is important in this world. Among the things reemphasized for me are: this planet, happiness and well-being for my household and my neighbors, and consideration for future generations. While each individual project (or even my one house on the whole) isn't going to better the entire planet or even my entire neighborhood, it's within my control and something that I can continue to work on through this wild times. Thank you CCI for helping individuals identify areas for improvement to make our footprints just a little bit lighter.

As for what comes next with my footprint:

- Construction resumes to finish up insulation and new doors at my house on May 19.
- Without a commute, I've gained more time each day to work on my home. I plan to finish caulking and basement foam board/spray insulation in the coming weeks.
- I plan on spending the rest of spring demolishing my uninsulated attic plaster and lath so I can insulate and drywall the space to reduce heat in the summer and cold in the winter.
- Over the summer I hope to replace my collapsing shed roof by installing my already-growing green roof panels recovered from the trash.
- I hope to make more of my neighborhood aware of composting opportunities at our two community gardens. I've designed and hung How-To's above the compost systems to help people understand how to add their trash-turned-soil.
- I hope to help connect friends and neighbors with URA programs and CCI resources.



A snapshot from early on in the current global pandemic when yardwork became my coping mechanism. In both the front and backyards I replaced invasive and non-native plant species with native, pollinator supporting species that also help to hold slopes in place. This is part of the work I'm doing to certify as a Backyard Bird Habitat by the Audubon Society. I highly recommend everyone who abhors mowing resource-sucking lawns (gas, insecticides, fertilizers, etc.) as much I do replace their lawn with a low/no-mow native lawn. Mine is on year two of being a clover lawn. I love it and so do the native bees!