Brothers,

This report is an update of the work accomplished on the Eta Iota house during the summer of 2014.

As most of you know, this past summer's work was not about aesthetics but rather to repair the mechanicals and components of the main house making it more comfortable for the brothers but also more serviceable and reliable. The work that was performed such as removing the asbestos and installing isolation valves on the plumbing were in preparation for further work during summer 2015.

More work was accomplished than expected. The list of items on the work itinerary were completed plus a slew of additional items such as electrical upgrades and a new community bathroom.

Although aesthetics were not on the agenda, the undergrads took it upon themselves to paint approximately half the interior of the house as well as power wash and landscape the exterior. More than any other chapter that I have worked with, this group of undergrads are standouts.

The rest of the report will detail the work completed as well as future work to be done. The plan is to have the house spit-shined for the 45th.

Asbestos abatement

A complete asbestos survey was completed in spring 2014 to let us know what products in the house were made of asbestos. We were lucky to find that the pipe wrap surrounding the old galvanized heat pipes was the only building product that contained asbestos. The asbestos was removed in July by A&L Abatement . This required some walls and ceilings to be removed and a few days' work in the attics. At the end of the removal process, a licensed abatement inspector was called in to ensure that all work was done properly. We now have an abatement certificate that is in Seth Downs' possession. The certificate is good forever - asbestos in no longer an issue. The main goal of removing the asbestos was to enable us to work on or remove the old galvanized plumbing and to work in the attics uninhibited - We achieved that goal.

Demolition

The summer's work began with the removal of the old broken second floor HVAC system. This included removing the whole system inside and out along with selected ductwork. The old B.O. bathroom was were the HVAC air handler was installed causing heavy mold and mildew issues therefore the bathroom and closet were both gutted. Upon removing the walls I found that one of the past contractors had buried uncapped live wires behind the walls making it necessary to rewire two rooms - I will address this more under "electrical".

The ceiling tiles were removed in the chapter room to access asbestos and plumbing

components along with the ceilings and some walls in room 9 & 10 during the asbestos abatement too.

Redesign and Reframe

After the demolition was done, I framed a "purpose built" HVAC utility closet. The best option was to redesign the existing closet area at the back of the B.O. closing off the old closet door and installing a new door to the exterior hallway so that A/C contractors wouldn't have to walk through the B.O to get to the air handler for maintenance. For those of you that don't know: The regalia was removed from the old B.O. a few years ago when the second floor air handler was moved from the attic to an old bathroom on the second floor and put in "the closet" bedroom for storage. The brothers kept the regalia in the closet bedroom so HVAC maintenance contractors couldn't see it. In other words, the old B.O wasn't being used for its original purpose but once it is renovated, it will be once again (February 2015).

During the course of the job, I realized that the old bathroom had to be rewired immediately because it was dangerous. Before the bathroom could be rewired, it was necessary to reframe it. The redesign of the bathroom included a new door to the hallway and a closet for paper products. Framing a door directly to the hallway enabled it to be a new common sweetheart bathroom for the house.

While some of the walls and ceilings were open throughout the house, I looked at the condition of the framing and replaced or strengthened things as necessary.

Additional framing: Observing the functionality of the house, I saw that the brothers use the kitchen to cook every day but there is no kitchen table - When the dinner table is missing, a large social aspect of the house is missing. The space for the table was taken by the HVAC air handler. When the new first floor HVAC system was installed 2 years back, the contractor installed the first floor air handler in what was the kitchen eating area consuming a great deal of space that should be used for a table or refrigerator.

At this point I looked for a way to move the first floor air handler to the second floor and feed the ductwork down from upstairs. The answer was to use the HVAC room that was just built for the second floor air handler for the first floor unit instead and feed the conditioned air directly straight down into the chapter room. This would only work if we could find another area for the new second floor air handler. The answer was to reframe the second floor telephone closet and repurpose it to house the second floor air handler.

Now that the HVAC has been moved, it gives us the ability to open the kitchen back up to its original size- (easy-to be done February 2015).

HVAC - 1st floor

As noted above, the first floor air handler was moved up to the new HVAC closet on the second floor. Opening the kitchen was just one of a few reasons for moving the HVAC unit. The second was because it was very hastily installed and the refrigerant line was installed across the

attic and diagonally across the access door to the attic (not properly insulated or strapped up) so people would use the line to pull themselves up into the attic and they would also walk on the line once they were in the attic. The third reason, was to be able to move the first floor refrigerant line from its former position on the side of the house near the deck in preparation for a new extended deck. Some of you might remember, as you walk through the pass-through (outdoor hallway from front yard to back) the benches stick out creating a knee breaker. The solution: When we build the new north deck, it must be extended 3 or 4 feet (to the north) which in turn will move the benches further away from the hallway. The line is now moved to a better position enabling the large deck. Because the HVAC equipment was under two years old, the same equipment was used just thoroughly cleaned and a new 4" filter door added.

HVAC - 2nd Floor

A new Carrier system was installed in the modified (purpose built) telephone closet. This worked extremely well. All the equipment in the house is now made by Carrier Corporation or its subsidiaries. They make excellent equipment but part of the decision to use Carrier was about commonality of equipment and ease of service. Since the other three units were carrier or Carrier offshoots, it only made sense.

I asked Justin and Eric from Atlantic Coastal HVAC to look over everything and make everything perfect the first time. Upon inspecting the attic ductwork, it was apparent that some of the ductwork needed to be replaced due to mold, water damage, and prior vermin issues. I told them to replace any damaged components and hang the ductwork from the rafters as it should be. They did a remarkable job.

HVAC - Other

As mentioned, all the HVAC components are products of Carrier Corp.
All ductwork and grills were professionally cleaned.
Both new HVAC rooms were “purpose built,” fully rewired, fire code sheetrock, semigloss paint, and vinyl flooring with rubber cove base.
LED lights were installed.
Freeze and overflow cutoff switches are installed to protect the new units.
Condensate pumps are installed instead of gravity drains that can clog.
The units have 4" filter doors adding service longevity, better airflow and efficiency.
All new copper lines with Armaflex pipe insulation was used on all work - the best of its kind.
4 new digital lockout thermostats were installed in the house to set the conditioning range from 68-72 degrees. This also helps to protect against coil freeze.
Sight glasses were installed giving a technician an instant diagnosis capability.

Plumbing

Stabilizing the plumbing in the main house was also one of the goals of the summer work. As you may know, the house was a mix of copper and almost 60 year old galvanized pipes. The galvanized pipes have a maximum lifespan of 50 years we are already past that point. The galvanized pipes rot internally, many times the first sign of a problem is a leak or a burst. The

old galvanizing also sends rust down the line clogging toilets fill valves and faucets. In the past, if the house had a leak, there were no valves to isolate one part of the house from another, therefore, it was necessary to shut off the water at the street—a big inconvenience for the brothers.

Here is a list of some of the plumbing completed by myself or Billy Wilson:

We removed any active galvanized plumbing (above the slab) in the main house including in walls and ceilings and converted over to copper or CPVC as needed. At the same time we installed isolation valves so that the wings can be shut off independent of the main house and vice versa. Just this one modification has already profoundly changed the maintenance of the house.

We removed old galvanized steam lines from the walls and repurposed the clay pipe chases to the water heater room for 2 new 1.5" CPVC lines in preparation for future work replacing the main galvanized line under the slab this summer. One of the new lines is going to be for a cold water main feed and the other for the hot water main feed. They are both in place but not yet in use. Eventually they will be tied into the new CPVC main line (under the chapter floor) and water heater. It is a bit difficult to explain but instead of cutting up the chapter room floor to replace the old galvanized main line, the plumbing is now set up to use the current steel main line under the chapter floor as a "chase." In summer 2015, we will install a new CPVC pipe within the old pipe so we don't have to break up the chapter room floor or driveway.

We roughed in the new common / sweetheart's bathroom on the second floor. Although the bathroom was not planned this summer, this turned out to be the most opportune and cost effective time to do it. With the ceilings and walls already open below the new bathroom to remove asbestos and install the new A/C lines, it seemed to make sense to do the rough-in plumbing. Before we started the feed lines, I noticed an area in the wall that appeared to be damp. Upon further inspection, it was a cracked horizontal 4" cast iron waste line cause by a previous plumber hitting it with a hammer...That's where the funny smell was coming from. At that point, it only made sense to just go forward and replace the plumbing as necessary including the waste line to the new bathroom. This included redoing the shower drain in bathroom #22 that was previously done incorrectly by the same plumber that cracked the 4" waste line.

Seth Downs made me aware of a reported leak in the "closet" bedroom shower. We repaired a bad solder joint in the wall. *The closet* bedroom is now fully useable after we put the regalia back in the refurbished B.O.

We went through each and every room bathroom and repaired:
1) rotten sink traps as needed
2) dripping sink faucets as needed
3) adjusted leaking packings or replace stems as needed
4) replaced shower heads as needed... (Seth Downs has supplied water saving shower heads

T.B.I.)
5) repaired all toilets as necessary

** Galvanized under the slab was not slated to be replaced this past summer. Summer 2014's work was preparing for the plumbing to be replaced under the slab summer 2015.

Waste lines

Talking to the brothers, I had become aware of sewer backups and issues especially with the north wing. Upon a quick inspection, I saw the exterior sewer cleanout caps were broken or missing and I could not see as many as are required by todays plumbing codes. After consulting with Billy Wilson, we decided to repair the cleanouts that existed and to cut two more cleanouts to bring things up to today's codes. This new setup makes it easier for us to diagnose and clear a clog.

I couldn't see the city cleanouts that are supposed to be at the edge of our driveway. I called the water authority and they came out and found one of their cleanouts buried under our driveway near the north wing - it had been paved over. They brought it up to level - gratis. The city knows where the other cleanout is (under the raintree motel's driveway). It too must be brought up to air, so I will deal with that in February when I am back in Daytona.

Some of the waste lines are showing signs of roots but not to worry, I will snake them with a camera snake and give a full report before summer 2015.

Electrical

Giles Electric performed all the electrical work. They fully rewired the new sweetheart's bathroom and the two new HVAC rooms. They also wired in the new outdoor HVAC condensers and ran new wiring from the fuse boxes direct to the new air handlers on the second floor. All of their work was done while the ceilings and walls were open from the asbestos removal and plumbing work so it is all installed high and tight in the joists.

I had asked them to fix a few small items around the house as well as disconnect some unused circuits while they were on site.

Roger Moody and I were also present for the annual fire system check which Giles performed in September. This test was not on the summer agenda but it was done by Giles.

Plaster work

After all the sheetrock was back up, Scott Krohl came in and did a masterful job plastering the walls and ceilings in the rooms that we had done plumbing, electrical and asbestos removal. He also did a fantastic job cleaning up the rooms that were in disrepair. I am waiting for him to come back to redo the brothers office so it can be fully reassembled (February 2015).

As renovations have progressed, I am removing all popcorn and sand paint from the ceilings in the house because it is a dirt magnet and difficult to patch and paint. The new surfaces have

a very light texture to them that will work much better for us.

New doors

I had planned to replace a few exterior doors with new fiberglass outswing units. The outswing doors are also much more difficult to kick in during a robbery or blow in during a hurricane. I replaced more doors than anticipated on the exterior due to their condition and one on room #9 because the door was mounted backwards letting rain soak the carpet floor & wet the sheetrock walls. That, along with the cracked waste line is the reason room #9 always smelled musty and damp.

I also installed three doors on the new work on the second floor.

Front columns

Roger Moody was able to have a friend of his that is a structural engineer come to the house and give his opinion of the 4 steel columns on the front of the house. We were both of the opinion that the internal steel columns are sound and the aesthetic surrounds can be replaced at our leisure. This will be done summer 2015 in a PVC material.

Doors - pump & laundry rooms

In the spring of 2014, I redid the masonry and installed fiberglass doors on the pump and laundry rooms. Within a short time, I noticed the bottom of the doors start to swell & bind. I removed the door slabs and found that the manufacturer had installed a wood filler strip on the bottom of the door instead of a piece of composite plastic, therefore, causing the door to swell. The manufacturer warrantied the doors and they have been delivered to the house. I will install them in February 2015.

Painting

The brothers were very helpful with the house repairs this summer. After most of the heavy work had been done, Chris Giovanetty painted the new HVAC rooms a color that we had chosen called “Arizona White”—pleasant creamy off white color, not the previous hospital white. He asked me if he and the brothers could paint more rooms that color. We had not planned on doing any aesthetics or painting but as long as they were willing to do it... have at it. Chris, Poff and a handful of others literally painted half the interior by the time the fall semester started; rooms 1, 6, 8, 9,10, 18, 21, 24 & the chapter room were painted. We will do the rest summer 2015. They worked hard and did an amazing job!

Winter work February 2015

Call water department to raise the south wing waste cleanout to surface.
Camera snake all waste lines
Install pump & laundry doors.
Sink and mirror in new bathroom.
Plaster, trim & paint brothers office and 2nd FL hallway.
Carpet B.O.
Install all door knobs on new interior doors.

New LED light in brothers office.
Trim all new exterior doors.
Remove old A/C closet and mailboxes from kitchen.
Have Giles check ground wires to electrical panels and pool.
Giles check for loss of neutral to spot lights on south wing.
Flagpole?
Build new mailboxes for exec / study room.

Pool related

Check pool leak on skimmer line
Skimmer filter ?
pool motor timer
pool LED light

Future work - summer 2015 and beyond

aluminum chase covers on exterior refrigerant lines.
patch soffit grilles
new cement parking space car stop from cemex in South Daytona
install string of work bulbs in the south wing attic
ridge vents & power vents
spray foam above 2 new A/C rooms
**camera snake up main line under chapter floor to see where tee's are (different than camera snake on waste).
North wing A/C- renew system add 4" filter (system has been problematic since installed).
South wing A/C- Remount add 4" filter
replace galvanized pipes under slab including new CPVC inside old galvanized main (LARGE JOB).
Front column covers
set up "closet bedroom" as guest room.
security fence on front of pass through
fix rear gate new punch pad
fix fences all around yard
painting
oil tank – remove new north deck

Thoughts moving forward

Over the past year, we have made great progress renovating the house. The house is at full occupancy and the chapter is at the top of its game. They have been a big part of the renovation process and are intent on maintaining the house correctly.

Moving forward, we still have a lot of work to do. Now that the main house is stabilized, we can concentrate on **negating the galvanized pipes under the slabs** first in the north wing and then the south wing - once we start the modification of the galvanized in the wings, we are committed because some of it will disintegrate as we remove it. There are a couple of different

ways of accomplishing the replumbing of the wings, after consulting with Billy Wilson, we will make a decision and report to house corp. As I mentioned earlier, we will also camera snake the waste lines in both wings in February and report the results. Another large item that will be on the agenda is the A/C units in the wings, modifying or replacing them for proper operation (the north wing coil freezes constantly). The front column surrounds will also need to be done in summer 2015 to be ready for the 45th birthday. If we have the time and the money, we can consider replacing the north deck.

The 45th birthday is just over a year away so the house will need to be in shipshape. That being duly noted, we a need to stay the course to make the sure the house is first structurally sound (good) second, mechanically sound and last, aesthetically pleasing. Therefore, after I complete the winter 2015 work, I will consider what needs to be done and make an itemized itinerary to make sure the house is prepared for the 45th. I will have the itinerary prepared for the 44th birthday house corp. meeting March 27 & 28, 2015.