



FMW Renovation Update

November 25, 2018

House built on a weak foundation.
will not stand. Oh no!

— Harry Belafonte

Long-awaited underpinning begins this week.

Carriage House was added to Quaker House in 1930 and has one of those new-fangled concrete foundations.

Compared to modern foundations, it's old, shallow, and crumbly.

We are about to attach a masonry elevator tower with an 8-foot-deep concrete foundation to this structure, so some upgrading of the existing foundation is needed.

The answer is “underpinning”.



No pins are involved. The concrete crew digs a hole under a few feet of the existing foundation and pours a newer and deeper foundation, then moves a few feet and repeats the process until a whole section of the building is done.

This is the first step in constructing the elevator tower, so this is an encouraging development.

Monday ☀️

A busy day, with 26 people working on the site. The work is spreading out, with many things happening at once.



The underpinning begins with the digging of several holes under the Carriage House east wall.

By day's end, steel and forms are placed and concrete is poured.



Meanwhile, cement masons apply anti-blemish treatment to the new retaining wall.



This is called “patching and pointing.”

Two shoring workers come with a cutting torch to cut off the top of the steel beams so they will not poke up out of the new terrace.



Carpenters continue to install ledger board and pad the tops of the steel beams to support floor joists.

In the kitchen an electrician continues to wire the new Assembly Room lights.



The site utility crew covers up the Lobby foundation from last week, so trucks can again drive in and out.

They also finish backfilling the trench north of Quaker House with crushed stone.

Now, this area will be filled in with topsoil to the level of the new patio.



Two roofers appear on the scene and remove some slate, to allow for installation of another beam. Taking apart the old roof and gutters before the new roof and gutters can be installed is a tricky stage of the work. We hope for sunshine and cleverness.

Tuesday 🌤️

The arrival of new topsoil — the first of many truckloads — brings a refreshing contrast to the brown mud that has so far dominated the scene.



Excavators scoop it up onto the upper terrace and spread it out.



Welders remove temporary safety rails.

An HVAC ductworker, a plumber, and an electrician continue mechanical rough-in the Assembly Room. Rough-in is all the stuff that goes inside the walls. Then there is a pause, while the inspector admires the work. Then then the walls are closed, transforming the scene.

The electrician also removes existing outside lights from the Quaker House walls.

Carpenters continue to install ledger board to support the upper corridor floor.

Ironworkers install posts and beams to support the upper corridor roof.



An inspector checks the subsoil under the new underpinning to see if it is good enough to support the underpinning. It is. Not sure what we would do if it were not.

The concrete crew continues work on the underpinning.



Meanwhile, on the far corner of the upper terrace, the new level is higher than the top of the walkway that runs up the far side of Quaker House.

Stairs will be needed to bridge the gap.

The concrete crew begins to set forms and steel to pour the foundation for those stairs.



The black waterproofing on the wall shows where the new ground level will be.

The orange buckets show where the bottom of the stairs will begin.

Wednesday ☀️

Carpenters complete the ledger board and continue to install pads, while iron workers continue to install beams and posts.



Monarc Project Superintendent Steve Lail verifies the spacing of two steel posts, where the corridor will widen out to create a small foyer outside Quaker House Living Room.



Electrical work continues in the Assembly Room and concrete work continues outside.

The concrete crew now excavates the spaces between the newly poured underpinning and installs forms to pour the second stage.



They also continue work on the upper garden stairs.
At the end of the day, more concrete is poured.

The excavators continue to backfill topsoil on the upper terrace. The shape and size of that terrace are now quite visible, with the new steel marking the new doors in the back.



Our biweekly organizational meeting is dominated by discussion of whether a campus-wide fire alarm system can be added to the work to protect our old and new wood-framed structures from burning down.

We also discuss scheduling. Our most recent schedule updates have showed project slippage of 99 days in the previous 118 days. In other words, we have move 2½ weeks toward the goal line in almost four months.

Part of the readadjustment was caused by permitting issues, bad weather, and projected delays in delivery of windows and the elevator cab.

For the most part, however, it's just a dawning understanding of how complex and intricate a puzzle this relatively small project has turned out to be.

The path forward from this point is more straightforward and more things can happen simultaneously. Further slippage, if any, should be on a smaller scale.

On the most recent schedule, substantial completion is projected for May.

The Assembly Room should be usable again in December, although the exterior doors will be represented by temporary plywood until January.

Thursday 

Oh, OK.

Thanks!

Friday 

A beautiful day to be out in the woods.

And that's where many construction workers like to be on the day after Thanksgiving.

Looking Ahead

In the next week, the backfill of the Quaker House Terrace will be complete, the waterproofing finished off, and the stairs will be in place. That area of the project will be essentially complete, except for landscaping, guardrail, and lights.

In the lower terrace, drains along the retaining wall will be completed and connected to the stormwater system.

The central lawn and planting areas will be excavated down another two feet and a network of perforated underdrains will be installed to keep that area from being permanently waterlogged. Then two feet of nice, sandy topsoil will be brought in to replace the clay.

The underpinning at Carriage House will be completed, and the excavations and footings for the elevator tower pit will begin.

In the Assembly Room, the rough ducting, plumbing, and electrical work will be in place and inspected. The drywall will begin.

The upper level wood deck and roof of the west corridor will be constructed.

Discussions with subcontractors about starting the stormwater work in the East Garden and along Florida Avenue will take place.

The following week should see the East Garden work begin.

Crown molding, lighting, and HVAC grilles should appear in the Assembly Room.

Finished roofing will replace the temporary roofing on the roof above the former Carriage House deck, allowing framing work to safely begin in the bathroom, kitchenette, and hallway on the ground level below.

Steel will start to rise in the Lobby area.

And a good time will be had by all.