

From: Donald Hartley <dhartley@utah.gov>
Sent: Wednesday, April 4, 2018 5:33 PM
To: Shayne Scott <sscott@kaysvillecity.com>
Cc: Roger Roper <rroper@utah.gov>; Katie Witt <mayor.witt@kaysvillecity.com>; Mike Blackham <blackham@KaysvilleCity.com>; Cole Stephens <cstephens@kaysvillecity.com>; Michelle Barber <councilmember.barber@kaysvillecity.com>; James C. Hansen <councilmember.hansen@kaysvillecity.com>; galbraithlc@comcast.net
Subject: Re: FW: Old Library - Kaysville

Hi, Shayne.

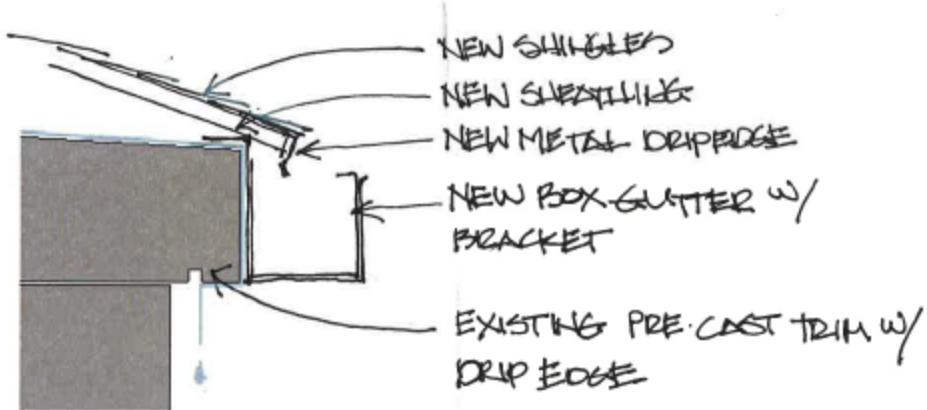
I had a phone conversation with Lynn Galbraith yesterday morning regarding our meeting at the Kaysville old library building (old library) on Tuesday. I want confirm some items from both discussions.

After evaluating the conditions on-site I agree with the observations in the JRCA report. My added observation is that a few "shortcuts" seem to have been taken during construction, resulting in unusual deficiencies that now need to be addressed.

Also, based on my on-site evaluation, the problems with the old library are not insurmountable - I believe the building can be rehabilitated for ongoing use by Kaysville City. The building is built with durable materials (especially the exterior masonry veneer) that, if stabilized, can last another 50 to 100 years. I think the steps I described in my previous email can be employed to reduce the risks identified in the JRCA report:

- Expose the walls from the interior to install additional wood framing, framing anchors, and structural sheathing to create shear walls.
- Tie the masonry veneer to the reinforced wood framing with remedial products such as Helifix DryFix anchors - www.helifix.com/products/retrofit-products/dryfix
- Limit moisture in the wall cavities by selective repointing and adding weep holes in the masonry veneer, and caulking all joints at doors, windows, etc.
- We didn't discuss windows at our meeting, but they have been well-maintained and could be augmented with insulating storm panels or replaced with suitable windows that maintain the appearance of the existing steel windows.

Mike Blackham noted the lack of roof overhang at the eaves. The building was designed without overhanging eaves and no gutters. As a result water run-off from the roof has entered the wall cavities from the eaves. The building was probably built with wood shingles which would have projected a couple of inches beyond the pre-cast concrete trim to form the primary drip edge. The pre-cast trim projects from the wall slightly and has a drip edge cast into the bottom of the overhang to act as a secondary drip edge. Mike recommended extending the eaves if the building is rehabilitated. I agree, but suggest limiting the overhang to only what is necessary to drip into a new box gutter, sized and fabricated to SMACNA standards:



Mike also pointed where water collects along the east wall in the settled concrete walk and enters the wall assembly.

We discussed the cost of rehabilitating the old library vs. constructing a new building. Given the unique conditions at the old library, costs will be higher than usual for rehabilitating an existing building. Rehab costs are likely to be comparable with quality new construction, especially if demolition costs are included in the cost for new - possibly in the range of \$250/sf +/-.

I was not able to answer if the old library had enough "historic value" to merit higher rehab costs - "historic value" has to be defined by the community. It is old enough and possesses sufficient architectural integrity to be considered eligible for listing in the National Register of Historic Places. Beyond age and integrity, the evaluation criteria includes:

- A. association with events that have made a significant contribution to the broad patterns of our history; or
- B. association with the lives of significant persons in our past; or
- C. embodying distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. the ability to yield, or likely yield, information important in history or prehistory (typically an archaeological resource.)

Given the old library was a Depression-era public works project (and Utah was a major, per-capita recipient of federal assistance); and it was the center of civic and political affairs in Kaysville for a few decades; and it was designed by two prominent, early twentieth-century Utah architects, it very likely could be nominated to the National Register.

Finally, we discussed Kaysville City's need for additional office space. The old library building is roughly 5,500sf. Studies show the city needs 10,000sf. Rehabilitating the old library alone doesn't meet the city's space needs so new construction will be required under any scenario - and if so much of a project to create office space requires new construction, why not make the entire project new? I suggested a new addition on the east side of the old library to house additional office space, accessible toilet rooms, HVAC, etc.

I believe that summarizes my conversations with your team and Mr. Galbraith. Please let me know if you wish to clarify or add any items.

Thanks, Shayne.

Don

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On Thu, Mar 29, 2018 at 2:10 PM, Donald Hartley <dhartley@utah.gov> wrote:
Shayne,

thank you for the invitation, and yes, I'd like to meet onsite to discuss the report findings and possible solutions for rehabilitating the old library building. After reviewing the information you submitted I'd like to discuss some alternatives for reducing the identified risks:

1. Seismic.

Observation: lack of structural diaphragms in the walls; lack of anchors between the masonry veneer and the wood framing.

Recommendation: remove the exterior masonry veneer, install sheathing, and reinstall veneer.

Alternative:

- keep the stone and pre-cast concrete masonry veneer in place
- remove the interior wall surfaces (they appear to be "rock-lath," special gypsum boards used for plaster base coats)
- add ("sister-in") additional wood or metal studs to increase capacity for shear walls and masonry tie-back
- install framing anchors to strengthen wood connections and tie the walls to the roof framing and foundation
- attach the exterior masonry veneer to the existing/new wood framing with Helifix anchors installed from the exterior -

DryFix - www.helifix.com/products/retrofit-products/dryfix

BowTie - www.helifix.com/products/retrofit-products/bowtie

- install OSB sheathing at the interior face of the studs to create shear walls
- install gypsum board over OSB
- use similar methods at interior partitions to create shear walls throughout the building.

2. Vapor Barrier

Observation: no vapor barrier on the exterior walls; water and water vapor are infiltrating the wall cavity, supporting mold growth.

Recommendation: install vapor barrier on exterior sheathing.

Alternative: Moisture is getting into the wall assembly. In Utah's dry climate with relatively moderate high and low temperatures, water vapor migrates ("dries") to the exterior side of walls. Three things are needed to limit moisture infiltration into the walls: 1) retard water vapor from entering on the interior side, 2) block water from entering on the exterior side, and 3) provide a means to let water that gets into the walls out. Steps to limit moisture infiltration into the exterior walls:

- when the walls are open (see Seismic, above) insulate the stud cavities with unfaced fiberglass batts or spray-in cellulose or low density foam
- paint all new finished drywall and existing interior surfaces with latex paint. Avoid vinyl or other wall coverings that are not vapor permeable
- repoint exterior masonry veneer as needed to replace missing or damaged mortar
- create weep holes in the mortar where the masonry veneer contacts the concrete foundation
- caulk joints between the masonry veneer and window and door frames and other dissimilar materials
- clean all gutters, downspouts and other roof drainage systems. Route downspouts away from foundation walls - preferably to catch basins or dry-wells
- at the north wall, install french drains to intercept and divert surface water coming from the adjacent building grade and landscape - route drains to catch basins or dry-wells
- create a minimum 4' wide "dry zone" around the building exterior - replace sod and sprinklers with no- or low-water (drip irrigation only) landscape

3. Existing Windows

Observation: windows are single-pane glass in metal frames.

Recommendation: replace windows with insulating glass in thermally broken frames.

Alternative:

A. refurbish existing windows and install commercial interior storm panels:

- Indow - www.indowwindows.com/window-insulation-panels
- Thermolite - www.thermolitewindows.com
- Allied Window - www.alliedwindow.com

B. install new windows similar to the historic steel windows, such as:

- Custom Window 8300 from Wausau Windows - www.wausauwindow.com/index.cfm?pid=44&pageTitle=Product%20Detail&prID=11
- Graham Architectural Products SR6700 Series - www.grahamwindows.com/products-solutions/?applications=steel-replica-windows

I am available to meet on site to discuss rehabilitation of the old library building next week, Monday afternoon, Tuesday morning, all day Wednesday and Thursday, April 2,3,4 and 5, respectively. Or we can schedule into the following week. Please let me know what works best for you and your staff.

I have attached a Word copy of these comments for your use.

Thanks, Shayne.

Don

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On Thu, Mar 22, 2018 at 3:07 PM, Shayne Scott <sscott@kaysvillecity.com> wrote:

Roger,

Thanks for taking a look at this with us. We are trying to make a good decision based mostly on facts and data. Your opinion is very valuable to us.

I have attached a few items to this email. The best way to evaluate this building would be to meet with our Building Official and see things first hand.

I have attached two documents that address recommendations for the duct work as well as the Asbestos report which were both conducted over the past few months.

I have also attached a photo of some further investigations we did showing an opening in the wall. If you read page 6 of the attached "jrca nov 17.pdf" document you can get more information about the photo and the building's lack of structural connection between the stud wall and masonry wall. I think the way in which this building was constructed coupled with the impacting moisture and mold are our chief concerns with rehabbing the building and occupying the space with a museum or with city staff.

We remain open to all options at this time and as always, simply want to do what is in the best interest of our city and its residents. Please let me know if you have an interest in taking a look at this in person and speak with our Building Official Mike Blackham. We will do all we can to work around your schedule.

Thanks again.

Shayne