

August 1, 2025

Mr. Alan Dash
777 Main Street Suite 2500
Forth Worth, TX 76102
2024.042.002

Re: Structural Assessment of Buildings for Fiber loop access

Dear Alan,

Baird Hampton and Brown (BHB) performed multiple site visits in April 2025 with Gennaro Funaro and Jeff Folk for limited structural review of fiber loop connection access paths. These site visits were conducted around the main JPS hospital along with the following buildings: JPOC 1350, JPOC 1400, JPS Pavilion, JPS Main Parking Garage, OPC, P.E.C., T.S.P. , BH CUP, Purchasing, and the JPS Medical examiners building. For a site plan of the proposed fiber loop and to see the location of the buildings walked see Figure 1.

BHB was asked to review access locations at the previous stated buildings. BHB requested structural drawings after the walks were completed to verify assumptions made in the field. Structural drawings were provided for the following buildings:

- 1350 JPOC
- 1400 JPOC
- Main Parking Garage (Allen Ave)
- OPC
- Pavilion
- Pavilion East Expansion
- Pavilion Parking Garage
- PEC
- TSP (With BH CUP)

Note that Structural drawings for BH CUP appear to only show the original power plant. Additionally, there were no structural drawings provided for the building known as Purchasing.

JPOC 1350

Fiber Path and access points

During the site walk it was discussed that the fiber needs to enter JPOC 1350 at two locations for redundancy. Figure 1 shows that the plan routes have one access from the north side of the building and a second access would be from the south side of the building. These two routes would be placed under the buildings foundation and then core up to where needed inside the building.

Structural System (Recommendations and Discussions)

JPOC 1350 ground floor or first floor is a pan joist system of cast in place concrete. As per the existing drawings the floor is a reinforced concrete plan slab with deformed bar reinforcing or one way welded wire fabric. The slab thickness is 3", deformed bar reinforcing #3 @ 15" E.W., one way W.W.F. 4x12-W2xW1, square W.W.F. 6x6 W2.9xW2.9. The existing drawings note the types of reinforcing but the first floor plan does not refer to where each is used.

This type of structural system is typically not suitable for trenching to place the cables below the building foundation and below grade. This type of structural system can have cores placed in the slab spanning

between the pan joists. It is also possible to create windows or cut outs in multiple locations to provide locations to thread cable below. If this option is to be pursued; a marked building plan would need to show the proposed path for review. If the slab was cut for the installation of threading cables there would be extra steps in repairing the removed slab. Which would consist of installing new replacement slab over void boxes and also doweling it back into the existing foundation and slab.

Due to the extra steps, phases and being unable to place all the fiber below grade BHB proposes a different option. The recommended route to get into the building would be to take the cables to a perimeter wall and then up and enter the building above grade.

JPOC 1400

Fiber Path and access points

During the site walk it was discussed that the fiber needs to enter JPOC 1350 at two locations for redundancy. Figure 1 shows that the plan routes have one access from the north side of the building and a second access would be from the east side of the building. These two routes would be placed under the buildings foundation and then core up to where needed inside the building. Also discussed during the site walk was to exit the ground outside the building and then core through the east wall near the fire riser room. This was discussed as an alternative since we did not have any information about the buildings foundation at that time.

Structural System (Recommendations and Discussions)

JPOC 1400 is a slab on grade with grade beams supported by belled piers with a layer of sand beneath the slab. The existing drawings show that the slab is 5" thick with #4 reinforcing bars at 16" O.C. over 4" of sand. This type of foundation system allows for trenching to be performed to place and install the fiber below grade. Trench should be done in rectangular sections and an attempt should be made to minimize the number of small pieces of left over slab as this can result as an issue for maintenance later on. The slab should be replaced after the cable is placed with a matching slab of 5" deep with #3s @ 12" O.C. and adhesive dowel back into the existing slab all around. Note that there are areas with a depressed slab where pavers were installed as an architectural feature. While trenching and coring can still be performed that these locations, BHB would note that replacement after installation will result in additional cost.

PAVILION

Fiber Path and access points

There were two proposed locations to enter the pavilion. One off the street straight east into the existing IDF closet room that is located just off of South Main St. This location already has an existing core ready to go and did not appear anything else was needed for this entry. The second location to the PAVILION was shown to come from an existing access box on the north side of the PAVILION on the east side of FELIKS GWOZDZ PI. This location can have the cable come out above grade and core the foundation basement wall, then take the cables down to the basement and then up into the IDF room, which would be option A.

Option B requires demolition of the existing paving for parking and an entry ramp with a railing on the north side of the building that leads to the existing stair well. The basement wall would then be cored. The basement wall is 1'-6" thick concrete is reinforced with #6 @ 12" O.C.E.F. vertical and #5 @ 12" O.C.E.F. horizontal along with a French drain around the perimeter. The fiber would run undergrade through the basement wall core and then run under the first floor via hanging supports from the pan joist system. The cable would run as a straight line until it needed to turn west to then go through a new 8" core in the existing slab to enter the IDF room on the first floor. For this estimated fiber path see Figure 2. The 8" core would not be an issue. Both the basement wall core and the new core through the slab would need to be sealed.

Structural System (Recommendations and Discussions)

The basement wall on the north side of the building is cast in place concrete. The wall at this location is 1'-6" thick with #6 at 8" O.C.E.F. and #5 @ 12" O.C.E.F.. The first floor is a cast in place pan joist system. Hangers to

support the fiber cable would need to be hung or supported off the face of the joist. See the red marks in Figure 3.

MAIN GARAGE

Fiber Path and access points

The main garage has a planned fiber loop location is just off of ST LOUIS AVE and there is already an existing access point just outside of the garage. This can be seen in Figure 1. This was the only access discussed on site. The plan in Figure 1 does show an access line from the south into the Main Garage. This access should be possible to install with the main garages foundation system.

Structural System (Recommendations and Discussions)

The main garage has a 5" slab on grade foundation reinforced with #3 @ 15" O.C.E.W. and can be trenched to allow the installation of the fiber cable below grade. The installation of the cable should be placed so that it allows the cable to be installed below the perimeter grade beam to alleviate the need to core the beam. This should be done since there will not be any extra reinforcement for the core. When replacing the demolished slab, the replacement slab should match the existing with #3 @ 15" O.C.E.W. and shall also be doweled back to the existing slab around the perimeter of the new slab with adhesive dowels located 12" O.C. w/ an approximate 4" embedment.

OPC

Fiber Path and access points

During the walk this location the discussion was to place a core in the floor for the fiber to run. During the walk I noted I had walked this location previously and that placing a core at this location should not be an issue but wanted to verify that against the existing drawings.

Structural System (Recommendations and Discussions)

Drawings provided for OPC show that the floor is a composite floor structure with 3" steel deck and a total thickness of 6 ¼". This floor structure is possible to core to allow a vertical penetration for the fiber loop. As discussed on site during the site walk there should be no trouble to core this location to run a line.

Please note that if fiber is attempting to be below grade or below the basement level at this location. Additional drawings would need to be provided. No drawings were provided with that information.

P.E.C.

Fiber Path and access points

This location was walked but during that visit was informed that the access points and fiber have already been located and placed.

T.S.P.

Fiber Path and access points

This location was walked to see possible entry points. However since that site visit and walk these locations have been removed from the project.

BH. CUP.**Fiber Path and access points**

Two locations were looked at to access this building as seen in Figure 1. This building is a major utilities hub for the hospital, including but not limited to boilers. One planned access is to come the access box located on Jennings Ave and enter the BH. CUP building from the south. This area is primarily parking with paving at grade level, some curbs and limited green space. It is possible to place the fiber below grade here, however, note that a large section of existing parking lot will need to be removed for installation of the cables and then replaced.

The other location access point is on the north side via FELIKS GWOZDZ PI. During the site walk it was noted that this area around FELIK GWOZDZ PL on the north side of BH CUP is very congested with utilities. There were also some sidewalks in this area that have suffered from erosion with the soil falling away creating gaps. Due to the amount of utilities on the north side of the of the building along Feliks Gwozdz PI it was discussed on site to try to come from the north but enter BH CUP on the east side of the building. The location in the building shown on Figure 1 to where the fiber would meet is not as what was discussed on site. It was discussed to located in the East side of the building. This would allow the North access to come down towards the building below grade and then transition up the east face of BH CUP and then near the roof level, 90 degree and core through the wall. This would place this line in the room that the connection was planned to be at based on site observations.

Structural System (Recommendations and Discussions)

The existing drawings for BH CUP show that the foundation system is a slab on grade system. The provided drawings refer to BH CUP as the POWER PLANT. The foundation for the Power Plant is a 5" slab on Grade with #3 @ 12" O.C.E.W. over 6" of granular fill. This type of foundation system can be trenched to all installation of the fiber lines. BHB would like to note that the power plant appears to have gone through more than one iteration and that there could be many utilities below grade which could make installation difficult. If slab was removed upon replacing the slab the new slab should be reinforced with #3 @ 12" O.C.E.W and tie back into the existing slab with #3 adhesive dowels spaced at 12" O.C. staggered against the new slab reinforcing with at least 4" embedment. The distance between the access points and amount of slab removal work that is needing inside the building to make a below grade option work would need to be looked at for cost. This cost should be compared against taking the cable access to the east face of the building and go up the wall and core near the upper area to enter the building. This method is the fastest to get the fiber to its final location.

PURCHASING**Fiber Path and access points**

During the site investigation the two paths shown on Figure 1 were discussed. Both access points into the building were planning to originate from Feliks Gwozdz PI and then head south towards the purchasing building. Which one would then enter on the north side of the building and the other on the east face. The access point on the north wall has some hurdles to over come. This side is a loading dock. The pavement slopes up towards the building but the buildings floor level is over 4'-0" from that grade. To run the fiber along this path paving would need to be trenched to allow installation, however at the building the fiber would need to 90 degree and run up the face of the wall. There is another hurdle the path shown on Figure 1 where the north side enters the building that area has a landing and is recessed from the loading dock area of the building located more to the west. This would require another 90 degree turn or would need to continue up the building more before 90 degree turning to core and enter the building through the north wall. See Figure 3 which is from Google Earth to hopefully assist as a visual aid.

The second access that is also from the north would need to enter the building on the east face. See Figure 5 for the following two options. The first path is marked in red which was discussed on site. The fiber would

come south and then go west up the building face before coring and entering through the wall. This would come south requiring demolition of the paving and then part of the ADA access ramp. The second option which is shown in purple. Would be to demolition the paving and then run up the building face on the north side further south and then 90 degree and run along the north wall and then core and enter the east facing building wall running right to the IDF room.

Structural System (Recommendations and Discussions)

No drawings were provided for purchasing. If additional drawings are found we can see how possible trenching is. Trenching on the Northside of the building looks like it would be difficult due to the loading dock area located there.

BHB's thoughts based on the information only from the site walk the best access would be from FLIKS GWOZDZ PL coming down the east face of the building below grade and then up the face of the building and shooting back west to minimize turns to the cable and possible additional work to the structure. The same approach can be applied for the second access needed here and would occur on the north side of purchasing. The cable can be below grade until it hits the building then move up the structure and have a straight shot to the IDF closet. The fiber in either of the options once entering the building would be suspended and supported from the roof structure. BHB was able to see some of the roof structure at one location in purchasing. At this location the roof was steel joists with metal deck. The final fiber path would need to be known for an analysis of the roof structure to be done to see if the joists can support the load without needing to be reinforced. Also, if no drawings are provided with information field measurements will need to be done to get and estimate, however this will make the analysis fall more conservative.

M.E.

Fiber Path and access points

This location was planned to be walked but on that day we did not have access. The plan was to go back and walk it another day. However, since that site visit and walk these locations have been removed from the project.

General Comments

If any walls are fire rated sealant rated to the level of that fire wall would be required. Some partitions go to deck so they may require additional cores. A visual inspection of the path is required due to the amount of existing utilities and multiple iterations that have taken place at these locations.

Disclaimer

The opinions and comments provided in this report are based upon field observations as part of our scope of services. BHB has ascertained to the best of our ability the visually apparent defects in the building structure. However, as field observations were conducted on a structure in which most of the structural elements are concealed, BHB cannot be responsible for failing to ascertain deficiencies which were not visible due to the existing conditions in the building. No warranty expressed or implied regarding the condition of the building structure is intended. In addition, no representation as to the expected useful life of the building structure or other components identified in this report is made.

Sincerely,
Baird, Hampton & Brown

Michael McLaughlin

Michael McLaughlin, PE.
Structural Engineer



Figures and Photos

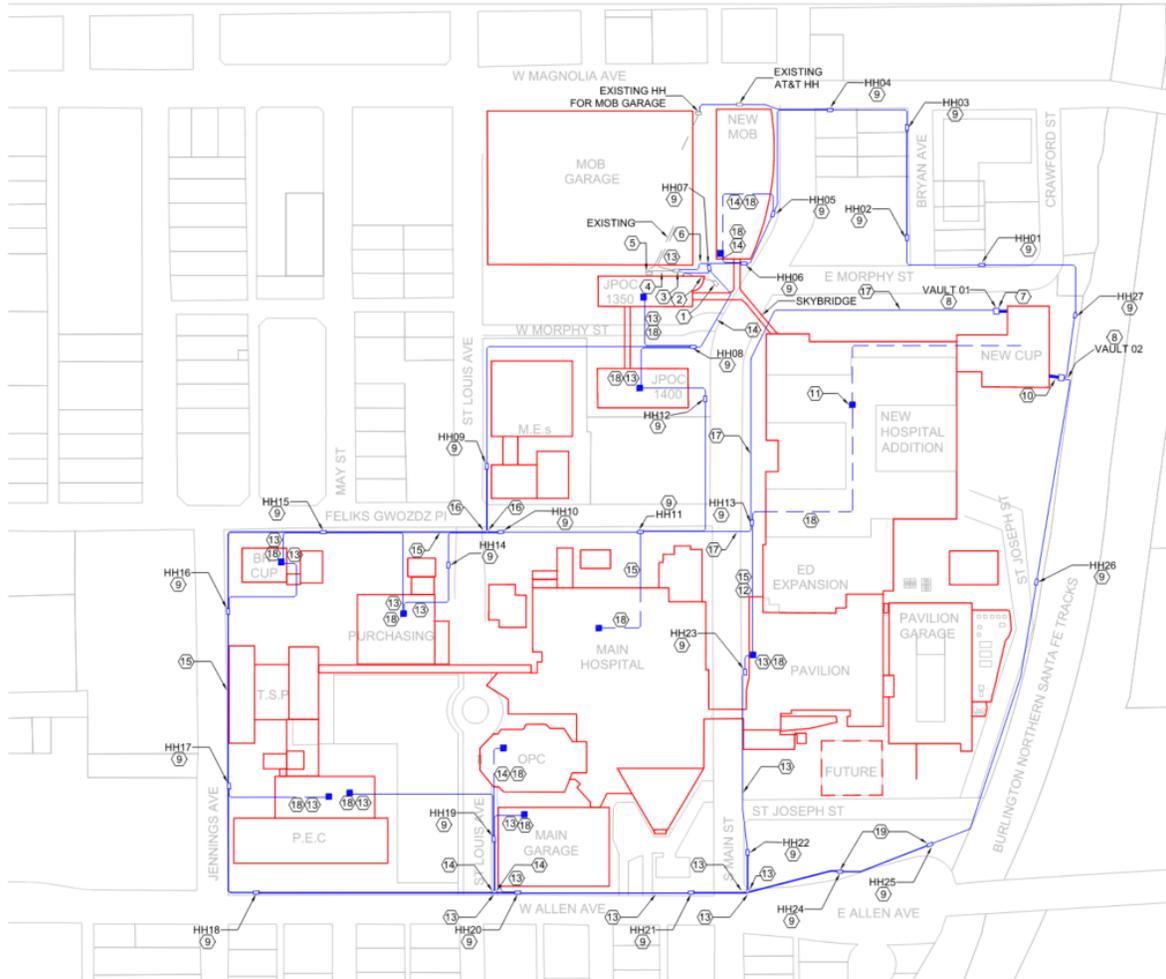


Figure 1 - Planned Fiber Loop Site Plan

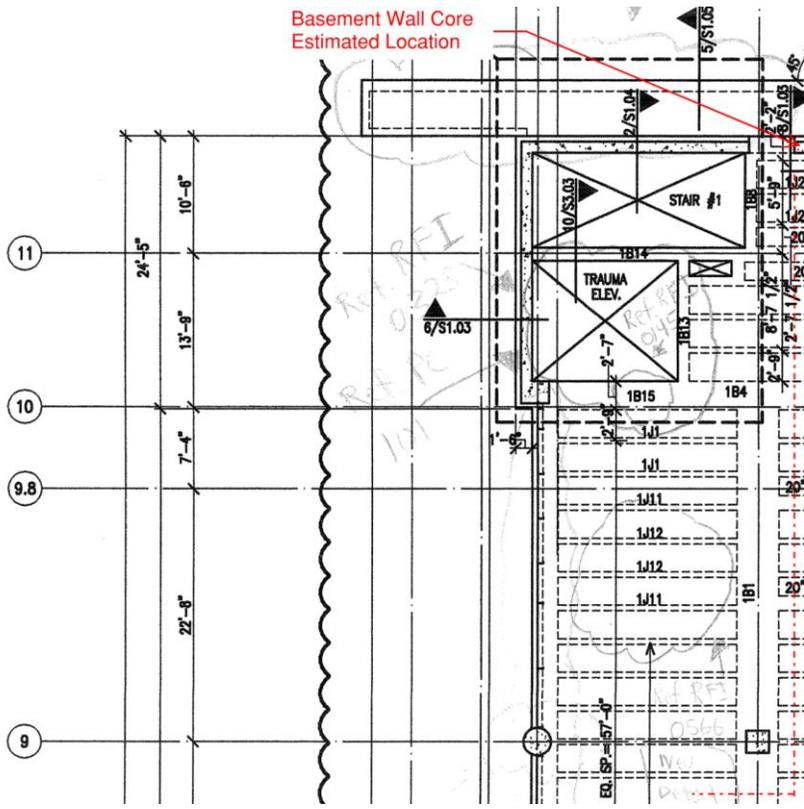


Figure 2

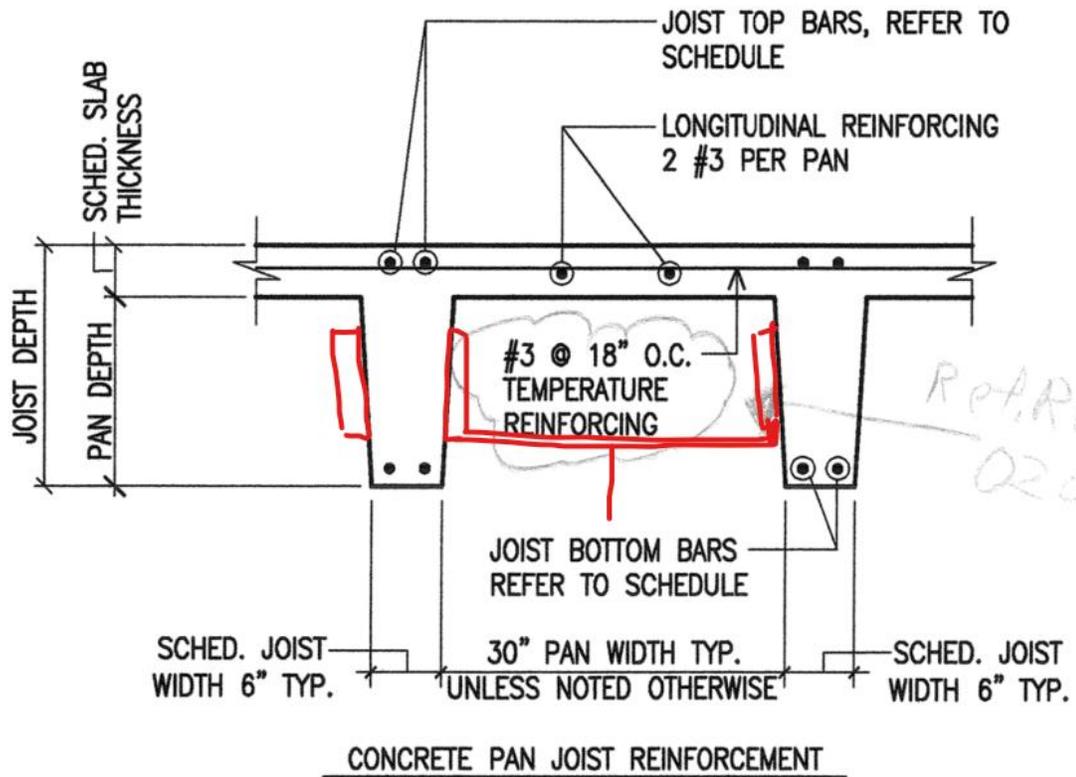


Figure 3



Figure 4



Figure 5