

June 20, 2014

Mr. Fritz Rabens
Kelly Brothers, Ltd.
9 Seventh Place West
St. Paul, MN 55102

RE: Areaway Condition Survey
MBJ Project No.: 14.508.0

Dear Fritz:

We are writing in regard to the existing areaway located at the 9 Seventh Place West Building. The City of St. Paul has requested a structural condition survey be conducted and recommendations be presented regarding the repair or abandonment of the areaway. On May 20th, 2014, we visited the site to observe the condition of the areaway structure. The following is a summary of our observations and recommendations regarding the future disposition of the areaway.

General Conditions and Observations

The areaway is located on the west side of the building along St. Peter Street. The age of the areaway is not known but it may date back to 1915 when the original building was constructed. It can only be accessed from the subbasement level. An interior full height partition wall divides the areaway into what we will refer to as the northern and southern sections. The northern section has inside dimensions of approximately 6'-0" x 8'-0". The southern section has inside dimensions of approximately 40'-1" x 8'-0" except at the subbasement level where the width varies at the south end due to an angled segment of wall that extends to approximately 9'-0" above the floor slab (Refer to Image 10). We believe this wall is a common wall with an Xcel utility tunnel. The height of the areaway to the underside of the roof slab is approximately 31'-0". The northern section is completely open to the subbasement on the east side. Access to the southern section is through an approximately 5'-0" x 5'-0" opening in the east wall (Refer to Image 1).

We observed a small wall opening located in the angled portion of the west wall of the southern section (Refer to Image 11). This opening had a heavy wire mesh screen at the face of the wall and was sealed with brick from the outside. We also observed two small openings near the base of the east wall of the southern section that had been infilled with concrete block (Refer to Image 13).

The areaway is empty except for two 7'-0" diameter fuel oil storage tanks that are located in the southern section in front of the opening in the east wall. The tanks are heavily corroded and have recently been decommissioned (Refer to Image 16). Holes have been cut in the tank walls to allow access to the rest of the area. Piping for a new natural gas service to the building is located below the roof slab elevation directly above the tanks. Installation of the new piping required removal of an approximately 12'-0" wide section of the roof structure. This area has not been repaired and is temporarily covered with steel plates

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(Refer to Images 7 and 8). The northern section of the areaway contains a small amount of corroded mechanical piping running overhead and also running vertically in the northwest corner (Refer to Images 17 and 19).

The floor in the entire areaway was covered with a significant amount of rubble and debris, several feet deep in many locations. The debris consisted of a variety of materials including pieces of concrete, wood, structural steel and reinforcing steel (Refer to Image 15).

The entire west wall, with the exception of the angled wall segment of the areaway, and the south wall of the southern section are constructed of mortared stone masonry. All of the other walls are constructed of multi-wythe brick masonry. The walls appeared to be in good condition for their age (Refer to Images 9, 12, 14 and 18). We did not observe any cracking or large areas of surface deterioration. The roof structure over the entire areaway consists of a reinforced concrete slab supported on a grid work of steel beams. The primary support beams span between the east and west walls. The roof structure was in extremely poor condition. We observed a significant amount of corrosion and loss of section on all of the steel framing, resulting in failure of some of the supporting members. The concrete slab was also in poor condition. A substantial amount of the slab reinforcing was exposed and appeared to be moderately to severely corroded (Refer to Images 2-6 and 17).

Conclusions and Recommendations

Based on the conditions we observed, in our opinion the existing roof structure is not capable of supporting the required design live loads and presents life safety issues in its current condition. We understand that you do not anticipate any future use for this space. For these reasons we recommend the areaway be filled.

We recommend cellular concrete (a lightweight concrete with a density of 30 lb/cf) be used for the fill material. The advantage of using this material is that it will be self-supporting when cured and will not impose lateral pressures on the existing walls, which would be significant if sand backfill was used. Prior to placing the concrete fill all of the wall openings would need to be sealed, and additional openings would need to be cut in the existing steel tanks to allow the material to flow freely. The material would be placed in lifts to minimize the fluid pressure on the existing walls, but some temporary shoring may be required. We anticipate placing it in 3 initial lifts to the underside of the roof. The roof structure would be removed and a final lift would be placed to support the new sidewalk.

Thank you for the opportunity to prepare this report for your use. If you should have any questions or comments please do not hesitate to contact us.

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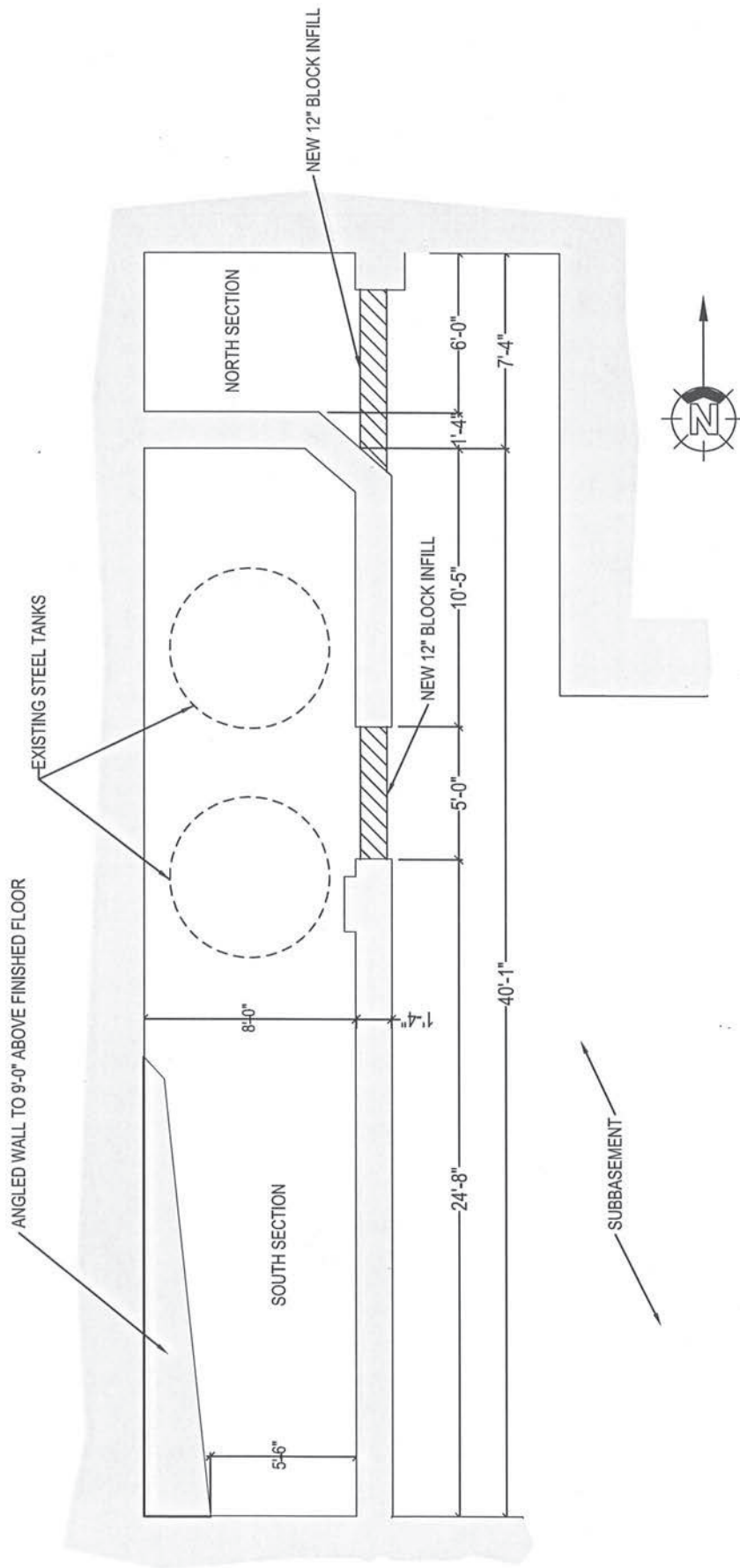
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Sincerely,

MEYER BORGMAN JOHNSON

A handwritten signature in cursive script, appearing to read "Mark Cackoski".

Mark Cackoski, P. E.



AREAWAY FLOOR PLAN



Image 1: (South Section) Opening in east wall.



Image 2: (South Section) Roof structure at north end.



Image 3: (South Section) Roof structure at south end.



Image 4: (South Section) Roof structure at south end.



Image 5: (South Section) Close up of roof structure at south end.



Image 6: (South Section) Roof structure looking north.



Image 7: (South Section) New natural gas service looking east.



Image 8: (South Section) New natural gas service looking west.



Image 9: (South Section) South wall.



Image 10: (South Section) South wall. Angled wall on right.



Image 11: (South Section) Opening in angled west wall.



Image 12: (South Section) East wall.



Image 13: (South Section) Block infill at east wall.



Image 14: (South Section) West



Image 15: (South Section) Debris on floor.



Image 16: (South Section) Roof of steel tank.



Image 17: (North Section) Roof structure.



Image 18: (North Section) East wall.



Image 19: (North Section) Existing mechanical in northwest corner.