

# OLD BRIGHTON SENIOR CENTER

575 Bush Street  
Brighton, Colorado

## IMPROVEMENT ASSESSMENT

Revised Draft April 24, 2013





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# Old Brighton Senior Center

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## 1.0 INTRODUCTION / EXECUTIVE SUMMARY

The Old Brighton Senior Center Building is located at 575 Bush Street in Brighton, Colorado.

The goals of this Improvement Assessment are to identify and quantify any structural, mechanical, electrical or environmental issues in the building. The assessment will be used to assist the City of Brighton in determining the future use of the building.

The original portion of the old Brighton Senior Center was built in 1919 as the municipal building for the City of Brighton. It housed the city offices on the upper floor, and the pumping station for the city water supply in the basement. After serving as the library from 1946 to 1972, it became the Senior Center. The east addition was constructed in 1986.

The original building is 5,951 s.f. including a 274 s.f. ground level wing at the north of the building that now houses the kitchen. It is constructed with brick bearing walls and wood floor and roof framing. In 1986 a 3,278 s.f. addition was constructed to the east of the original building. This addition is frame construction with exterior insulation and finish system (EIFS) cladding.

The building is generally in good condition, with no apparent structural issues. The most urgent issue for the building is the condition of the low-slope roofs at the addition. They leak at the drainage scuppers and are beyond their expected useful life. The other deficiencies are primarily the result of deferred maintenance on the building and do not immediately impact the use of the building. These include exterior drainage issues, deteriorated finishes on the exterior of the 1986 addition, and the windows in the original building. Although currently functional, the age of the mechanical systems is of concern and replacement should be planned for.

Three potential new uses were identified to the assessment team. These are:

- School District 27J (Brighton Public Schools) has expressed interest in using the building for nutrition and life skills teaching, especially for students with disabilities.
- The local performing arts group would like to use the building as a rehearsal and studio space. It is anticipated that the building would be staffed with a city employee.
- The city's youth commission is interested in using the building for offices and possibly as an activity space..

Regardless of the new use, the City of Brighton Building Department indicated that the building would need to meet the requirements of Chapter 10 of the International Existing Building Code (IEBC). Our analysis identified code mandated upgrades that would be required. Based on that analysis, use by the youth commission would require the fewest upgrades, while use by the school district would require the most.

We also examined the cost of removing the 1986 addition and restoring the building to its 1919 appearance.

Based on a discussion with a representative of the State Historical Fund, work on the historic portion of the building would be eligible for State Historical Fund grants if the building were listed on the State Register of Historic Places or as a local landmark.

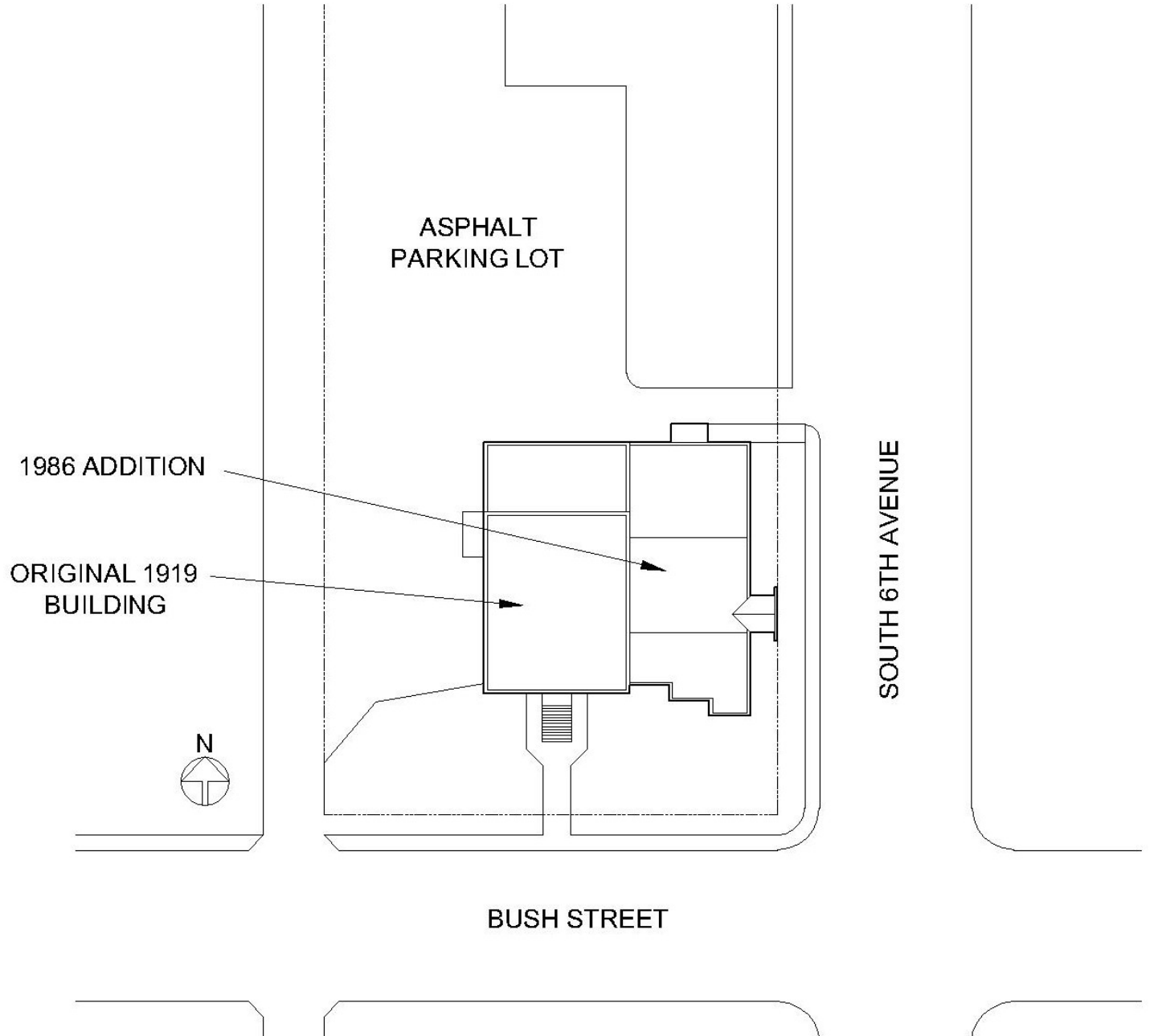
### 1.1 Research Background / Participants

Bret Johnson Architecture was commissioned by the City of Brighton to prepare the assessment. Sub-consultants for the project were Kevin Dunham of Martin/Martin Consulting Engineers (structural), Gary Leffingwell of Leffingwell Consulting Engineering (mechanical), Travis Middlebrook of MEP Engineering (electrical), and Rod Schafer of Shafer Environmental Consulting, Inc. An assessment of the elevator was performed by HES Elevator Services.

Data for the assessment are based on field investigation of the building and documentation provided by the City of Brighton. The field investigation for the report was conducted in January and February of 2013. The weather conditions during the site visit were cold to warming, with snow melt.

# Old Brighton Senior Center

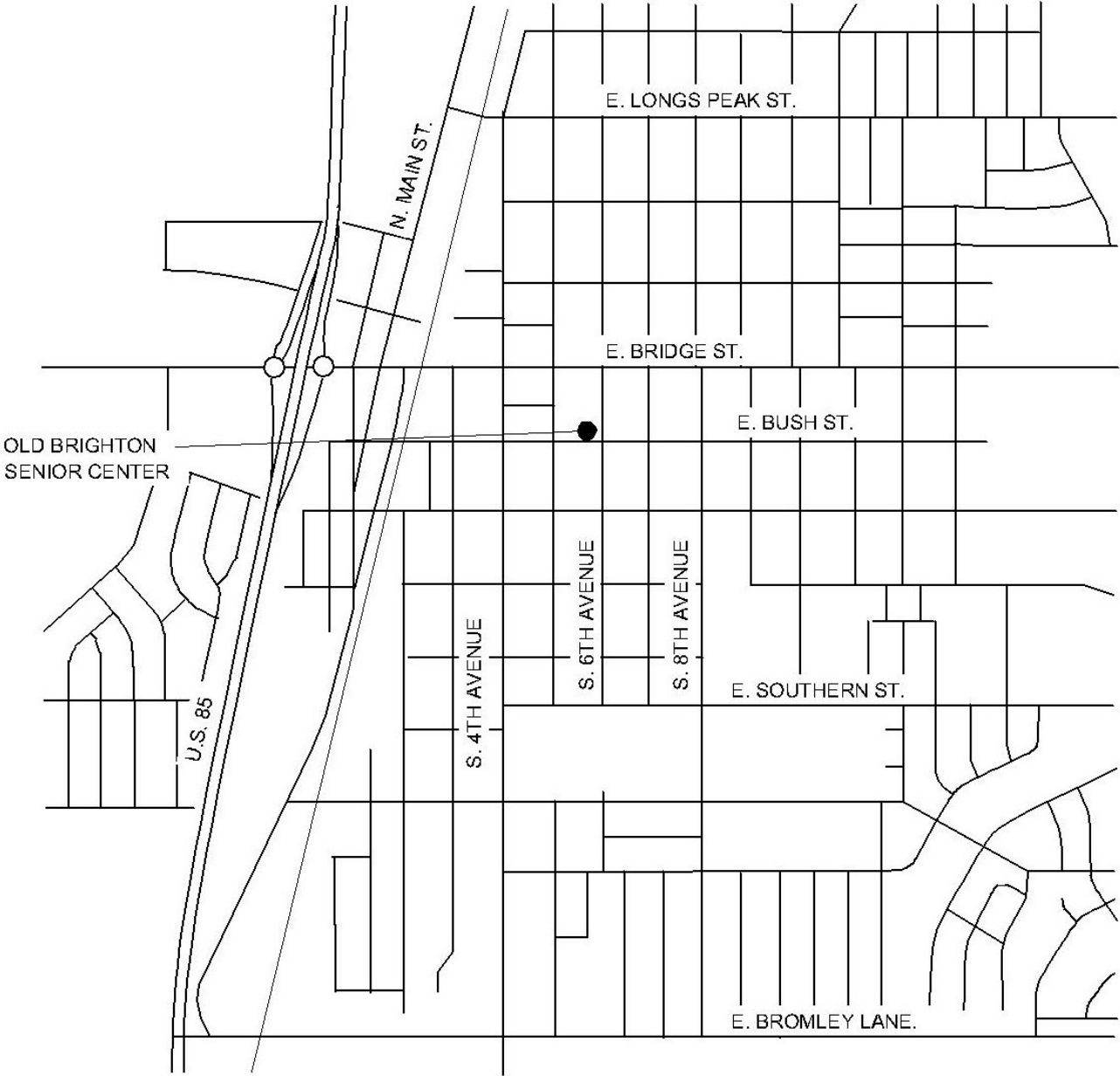
## 1.2 Building Location



Site Plan

Legal Description

Lots 21 TO 32 and S 286/5 ft of Lot 33, Walnut Grove Second Addition, City of Brighton, Adams County, Colorado.



Vicinity Plan



## 2.0 HISTORY AND USE



Originally built in 1919, the building was the municipal building for the City of Brighton. The south end of the upper floor housed the Mayor and Clerk's offices along with an assembly room for City Council and other public meetings. The lower level housed the pump station for the city's water system, and living quarters for the pump man were located on the north end of the upper floor. A garage at the rear housed the fire apparatus. A water tower was located on the north end of the property.

From 1946 to 1972 the building housed first the Brighton Public Library and then the Brighton Branch of the Adams County Public Library.

The water tower was removed in 1993 and the current parking lot north of the building was constructed.

In 1976, the building was converted into the Senior Center for the city. The addition to the east was constructed in 1986 and the upper floor was remodeled during the same project.

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# Old Brighton Senior Center

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## 2.1 Construction History

Since the addition was constructed in 1986, City records indicate that the following improvements have been made to the facility:

1990	Original building reroofed with mechanically fastened Sarnafil PVC membrane
Early 1990's	Upper level HVAC unit replaced
Early 1990's	Replace boiler in basement including asbestos abatement
1998	Dining room HVAC unit replaced
1999	Exterior painting
2000	Kitchen renovation, including kitchen HVAC unit, and replacement of the vinyl composition (VCT) tile floor in the kitchen and dining room.
2001	New fence at north side of building
2002	Replace entrance doors at south entry to upper level
2003	Billiard room HVAC unit replaced
2004	Replace interior doors
2005	Replace south entry hand rails
2006	New exterior sign
2006	Removed planters and added concrete deck at east entry; replaced concrete at west entry
2008	Replacement of VCT floor in kitchen and dining room

## 2.2 Building Description

The original building is 50 feet by 85 feet and constructed of red brick. The main floor is 8 feet above grade, allowing for a basement with 17 feet high ceilings. A sheet metal cornice wraps the building and parapet walls extend above the roof on the east, west and south sides. The low slope roof drains to a gutter on the north side of the original building. The main entry to the original building faces Bush Street to the south, and features a single door with a side panel, sidelights and a transom. Concrete steps lead to a concrete landing. Under the landing is an entry to the basement. The upper level windows are paired wood double hung with transom windows above. The basement windows are paired wood double hung windows. The exposed portion of the basement walls are parged and painted. The interior of the upper level has been subdivided into offices, a clinic space, an activity/dance room, and a craft area. The lower level contains a boiler, abandoned pumps and piping, and storage. The upper floor and basement are 2,852 s.f each, while the north wing is 274 s.f.

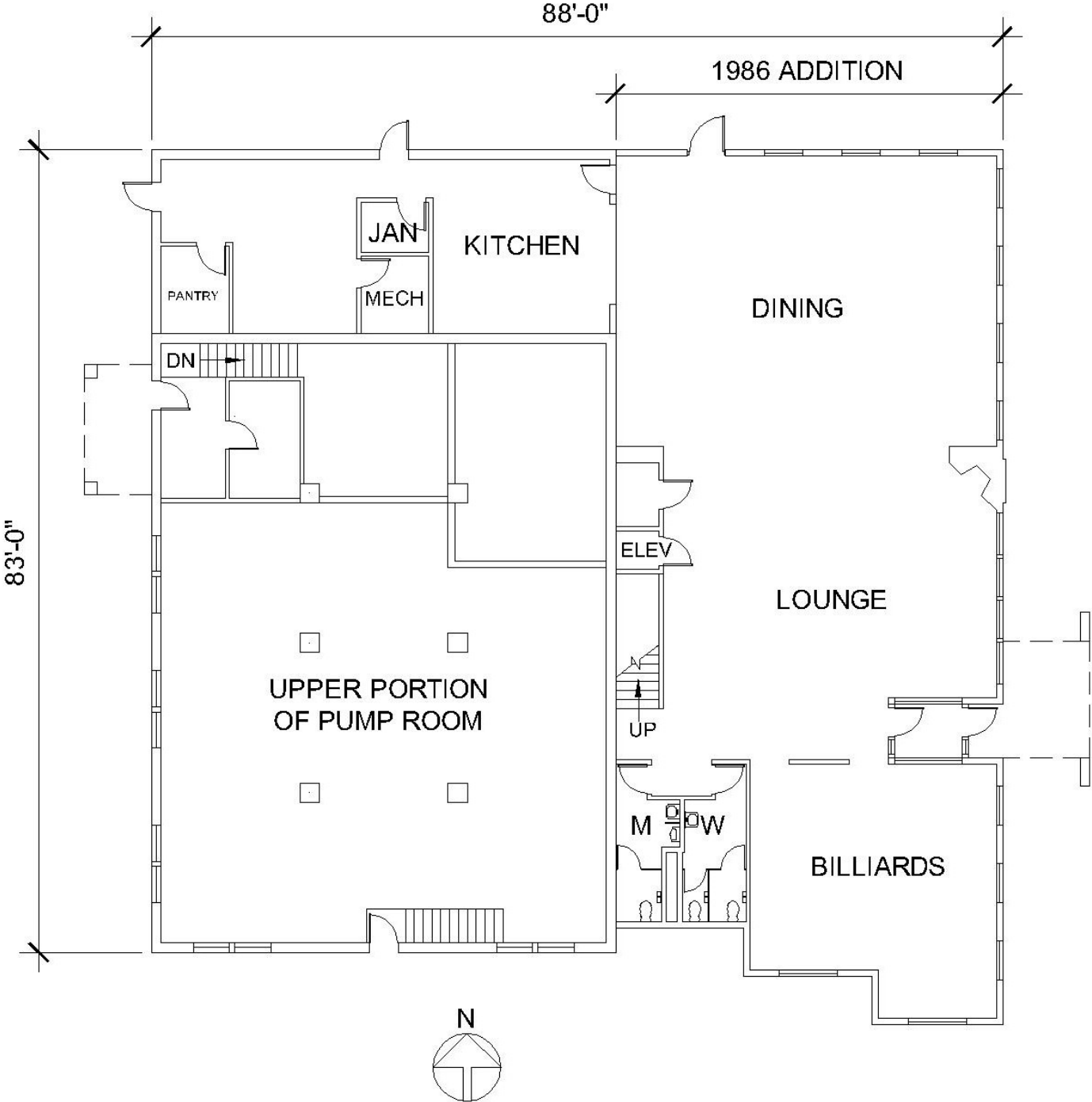
The single story 1986 addition is attached to the east side of the original building and is frame construction clad in an exterior insulation and finish system (EIFS). The center portion of the building has a shed roof clad in standing seam metal. The north and south ends of the addition have flat roofs with a modified bitumen membrane. A gable roofed entry element faces east toward 6th Avenue. The addition windows are double hung metal-clad windows. The addition is 3,278 s.f.

The interior of the addition is one large space with a dining area to the north, a lounge and reception counter in the center and a billiard room to the south.

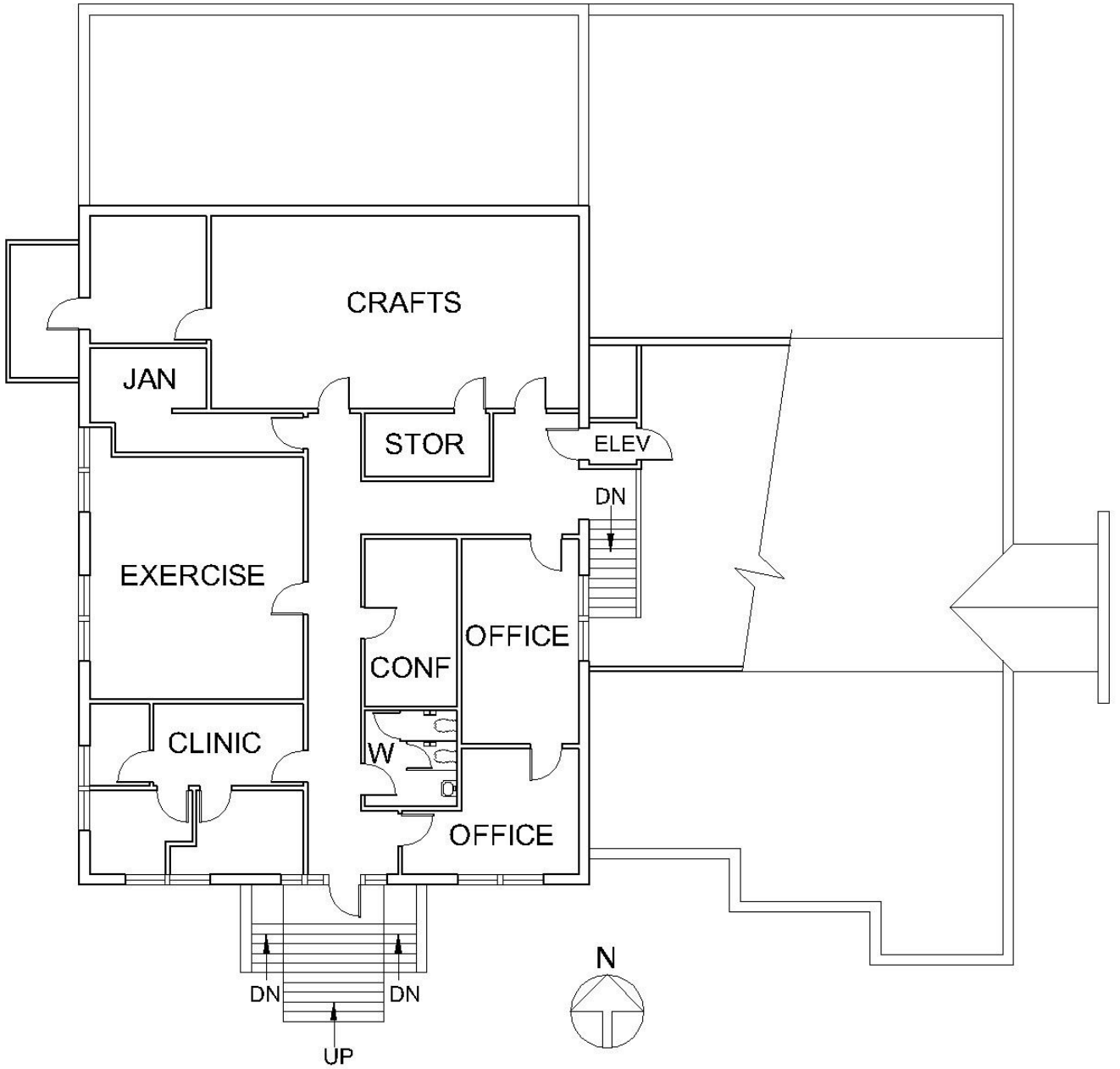
To the north of the original building is a single story wing at grade. The exterior walls are a mix of red brick and stucco. The wing has a flat roof. The wing houses a kitchen serving the 1986 addition. An entry vestibule with a standing seam metal shed roof is located on the north side of the 1986 addition.

The west elevation of the original building has a wood frame porch at the upper level, and an entry to the basement is located under the porch.

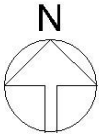
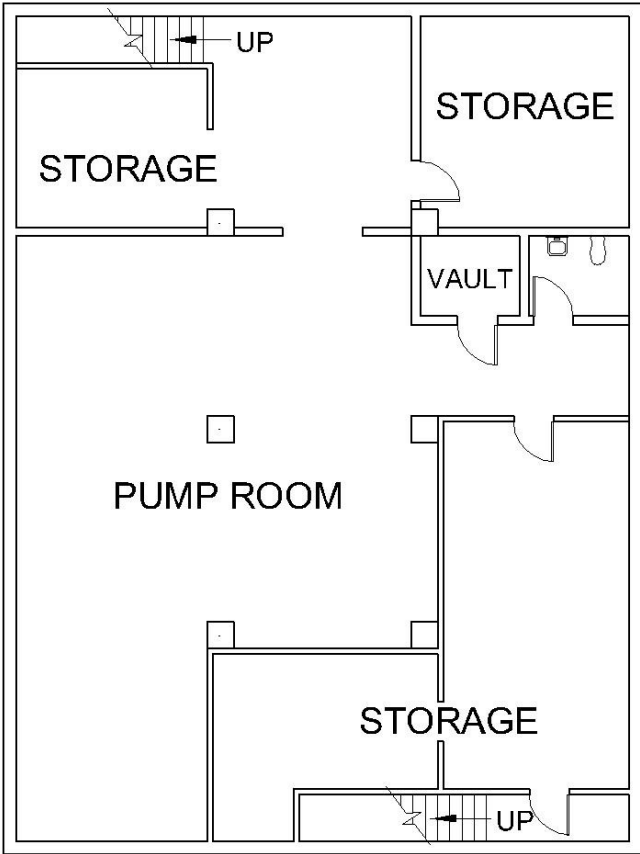
2.3 Existing Sketch Plans



Main Floor Plan



Upper Level Floor Plan



Basement Floor Plan

### 2.4 Proposed Use

Should the City of Brighton decide to retain the building, three potential uses have been identified:

- School District 27J (Brighton Public Schools) has expressed interest in using the building for nutrition and life skills teaching, especially for students with disabilities.
- The local performing arts group would like to use the building as a rehearsal and studio space. It is anticipated that the building would be staffed with a city employee.
- The city's youth commission is interested in using the building for offices and possibly as an activity space..

The City of Brighton has adopted the 2012 International Existing Building Code (IEBC) which regulates the change of use for an existing structure. In particular Chapter 10 of the IEBC details the areas of the building which would need to be brought up to current code compliance in connection with the change of use. Section 4.3 and Appendix A of this report detail these requirements.

In general, using the building for the city's youth commission would be the most like the current use and would require the fewest upgrades. Use by the school district would be an E occupancy according to the building code. As an education facility for children up to grade 12, this would require the most upgrades to the building.

Another issue is accessibility for the disabled. The building has accessible parking and the entrances are accessible. However the existing restrooms do not meet current codes and guidelines for accessibility. Use as an education facility for the disabled would make bringing the restroom up to current standards a higher priority than might be the case with the other proposed uses.

Removal of the 1986 addition has also been discussed as an option. This would make the upper level of the building completely inaccessible to the disabled. If this option is pursued, we recommend the construction of a new entry element on the east side of the 1919 building, utilizing the existing stair and opening to the upper level. This could also be connected to the north wing kitchen which would otherwise only be accessible from the outside of the building.

Although currently used as storage, we also looked at the potential for reuse of the basement. This would entail the removal of the existing abandoned water piping and infill of the recessed floor. Improved access to the basement would also be desirable.

### 3.0 STRUCTURE CONDITION ASSESSMENT

#### Procedures

The Structure Condition Assessment is based on information collected at the site by personnel from Bret Johnson Architecture, Martin/Martin Consulting Engineers (structural), Leffingwell Consulting Engineers (mechanical), MEP Engineering (electrical), FloorMedics (concrete slab and flooring consultant) and HES Elevator Services.

The following terms are used when evaluating the existing conditions of a structure and its features and elements in this Structure Condition Assessment.

A feature or element is evaluated in Good Condition when:

- it is intact, structurally sound, and performing its intended purpose
- there are few or no cosmetic imperfections
- it needs no repair and only minor or routine maintenance

A feature or element is evaluated in Fair Condition when:

- there are early signs of wear, failure, or deterioration, although the feature or element is generally structurally sound and performing its intended purpose
- there is failure of a sub-component of the feature or element
- replacement of up to 25% of the feature or element is required
- replacement of a defective sub-component of the feature or element is required

A feature or element is evaluated in Poor Condition when:

- it is no longer performing its intended purpose
- it is missing
- it shows signs of imminent failure or breakdown
- deterioration or damage affect more than 25% of the feature or element and cannot be adjusted or repaired
- it requires major repair or replacement



## 3.1 Site

### Associated Landscape Features

The site is relatively flat, with turf grass and trees to the south side of the building. There are concrete sidewalks on the Bush Street and 6th Avenue frontages. To the west and north of the building is an asphalt parking lot. To the west of the property is an alley. A concrete sidewalk abuts the original building to the south and west, while a planter bed and concrete patio abut the east side of the 1986 addition. A small brick building is located to the north; it was not evaluated as a part of this assessment. Shuffleboard courts are located at the north end of the site.

### Evaluation of Conditions: Fair

The landscaping and site paving are in generally good condition. The flat topography of the site leaves little opportunity for adequate grading to drain away from the building. This may contribute to some of the water issues in the building.

### Recommendations:

Given the site topography, regrading to improve drainage away from the building is not feasible. Attention should be given to ensuring that irrigation is directed away from the building, snow removal operations do not pile snow adjacent to the building and that downspout extensions are maintained to direct roof runoff away from the building.

### Parking

There is a paved parking lot to the west and north of the building with south of the building, with 25 spaces including 1 accessible space.

### Evaluation of Conditions: Fair

The parking lot is in fair to poor condition. The existing asphalt is cracked and alligating, and is reaching the end of its useful life. There is ponding at the northwest corner of the lot.

### Recommendations:

- Overlay the existing asphalt surface. Rotomilling the existing prior to the overlay is recommended to avoid building up the asphalt and impacting the minimal site drainage.



Ponding in parking lot



Cracked pavement at parking lot

## 3.2 Foundation

### Foundation System

The building is constructed with cast-in-place concrete footings supporting cast-in-place concrete basement walls.

#### Evaluation of Conditions: Fair

The foundations do not display any evidence of movement and appear to be functioning as intended. There is a non-breathable coating and a cement parge coat applied to the inside face of the foundation wall that is severely deteriorated. Sections of the parge coat are delaminating along the west and south elevations. The east elevation was not observable due to applied finishes. The non-breathable coating applied to the walls is trapping water in the concrete which is leading to the observed damage and deterioration.

Cracking was observed at concrete framing under the west balcony. Cracks appear to be due to the restraint of the shrinkage of the concrete beam by the short concrete column. However, deterioration due to moisture intrusion appears to be enlarging the cracks.

#### Recommendations:

- Remove the coatings applied to the concrete walls and the parge coats. Once all coverings are removed, the foundation walls should be inspected for damage or deterioration. If damaged concrete is encountered, it should be removed and patched. The inside face of the exterior walls should be coated with a breathable coating.

### Perimeter Foundation Drainage

The grade around the perimeter of the building is generally flat with little slope. There is pavement on the north and west sides of the building that extends up to the building. A 2-foot concrete apron is installed along the south and east walls. Landscaping is installed outside the apron. There is no evidence of a perimeter drainage system.

#### Evaluation of Conditions: Poor

The lack of positive drainage away from the building is allowing water to build up adjacent to the structure which can lead to foundation issues or permeate into the building as noted above. Also, there are no drains observed at the base of the exterior stairs to the basement located on the south and west walls. Ponding was observed adjacent to the east side of the building around the downspouts.

#### Recommendations:

- Remove all landscaping and irrigation systems located within 5 feet of the structure.
- Install drains at below grade stairs.
- Replace apron at east side of 1986 addition to slope away from building.
- Installation of below-grade waterproofing and a perimeter drainage system should be considered.



Deterioration of parge coat at interior face of foundation walls



Cracking at concrete framing under the west balcony



Site lacks positive drainage away from the building



Site lacks positive drainage away from the building



South exterior stairwell lacks an area drain.



West exterior stairwell lacks an area drain.



Roof deck deterioration where leaks in the roofing have occurred



Deterioration of mortar joints



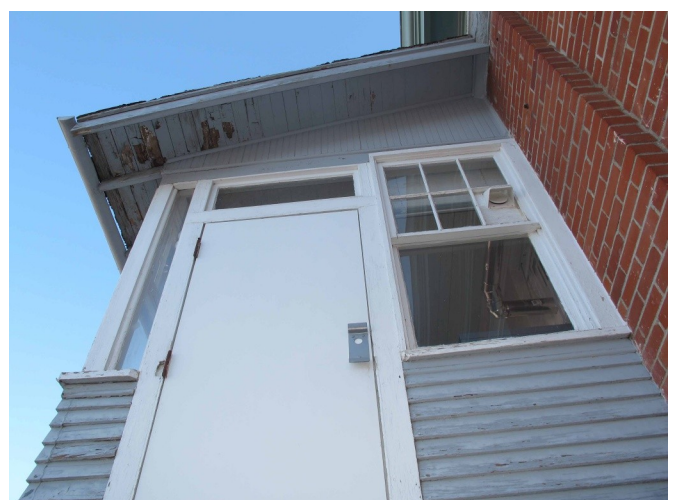
Cracking in the EIFS at the 1986 addition



Concrete deterioration and cracking at the south entry stair landing



Concrete deterioration and cracking at the south entry stair landing



Wood deterioration at balcony roof

### 3.3 Building Structural System

The original building is constructed with brick bearing walls and wood framing. The addition is constructed with wood stud walls and wood roof trusses. Along the east wall of the original structure the wood roof trusses are supported by the masonry wall. There is a balcony installed at the west wall of the original structure above the stairs leading to the basement.

#### Evaluation of Conditions: **Fair**

The building structure appears to be sound with no indications of significant structural deterioration that could affect the long term stability of the structure. We did observe a few areas of deterioration:

- Roof deck deterioration where leaks in the roofing have occurred.
- Deterioration of mortar joints.
- Cracking in the stucco and EIFS.
- Concrete deterioration and cracking at the south entry stair.
- Concrete cracking and deterioration at the balcony.
- Wood deterioration at balcony roof.

The noted damage is associated with ongoing deterioration and lack of maintenance and has not impacted the structural stability of the building at this point; however, if repairs are not performed the deterioration will continue to intensify and could lead to structural issues.

#### Recommendations:

- Patch delaminated and deteriorated concrete at the south entry stair.
- Repoint deteriorated mortar joints around the entire exterior of the structure. The majority of deterioration was observed on the south and west walls of the original building.
- Remove and replace deteriorated sections of roof deck. When deck is removed the structural framing should be inspected for deterioration that could affect the structural stability of the framing.
- Apply a traffic coating to the south stairs.



### 3.4 Building Envelope—Exterior Walls

#### Exterior Wall Construction and Finishes

The exterior walls of the original building are red brick above the basement. The exposed basement walls are parged and painted. A sheet metal cornice wraps the building. The single story brick wing at the north end of the original building has brick walls, a portion of which have been covered with stucco. The 1986 addition is wood frame construction clad in an exterior insulation and finish system (EIFS).

#### Evaluation of Conditions: Poor to Fair

The brick on the original building needs repointing. In particular there are cracked bricks in the header of the south entry and adjacent to the pilaster east of the entry. The brick is deteriorated at the chimneys on the original building.

Portions of the parging are in poor condition, especially where it meets the adjacent sidewalk. The paint on the parging coat is peeling in some areas.

The sheet metal cornice is in generally good condition, but some on the top joints are in need of recaulking, and the top surface needs to be repainted.

The stucco at the single story north wing is cracked in several places, and the wash on the coping is cracked.

The EIFS on the 1986 addition is cracked in numerous places, especially around the windows. In addition the joint at the base of the wall is in poor condition.

The paint is failing on the sheet metal coping at the 1986 addition, and the metal is beginning to corrode.

#### Recommendations:

- Repoint masonry on existing building and replace missing or damaged brick. Care should be taken to ensure that new mortar is compatible with historic masonry.
- Repair parging and repaint with a breathable coating.
- Reseal joints on sheet metal cornice and repaint.
- Repair stucco on one-story wing and repaint.
- Repair EIFS cracks on 1986 addition, and replace sealant at windows.
- Repaint sheet metal coping.



Deteriorated mortar joints and stucco at north wing



Deteriorated stucco at north wing

# Old Brighton Senior Center



Deteriorated parking at grade



Damaged brick at south entry



Failing paint at metal coping



Deteriorated sealant joint at grade



Cracks in EIFS at 1986 addition



Cracks in EIFS at 1986 addition



Cracks in EIFS at 1986 addition



Corrosion at sheet metal coping



Deteriorated mortar at original building



Chimney at original building



Joint on top of sheet metal cornice

## Exterior Appendages

There are four exterior appendages.

The first is the stairs to the original south entry, which are concrete with metal pipe railings. The second is a wood sided porch at the upper level on the west elevation. The porch has an asphalt shingle shed roof and is supported on concrete columns. The east entry to the 1986 addition has two columns clad in EIFS and has a standing seam gable roof with the ridge running east west. An accessible ramp runs parallel to the building at the south side of the entry element. The north entry vestibule of the 1986 addition is also clad in EIFS and has a standing seam metal shed roof.

### Evaluation of Conditions: **Poor to Good**

The concrete stair at the south entry is in poor condition. In particular, the concrete landing is cracked and concrete has spalled off at the east side of the landing, as well as at the underside of the landing.

The wood porch at the west elevation is in poor condition, with failing paint and deteriorated wood siding and exposed sheathing at the soffit. The asphalt shingle roof is in poor condition. The EIFS at the east entry is cracked. An elastomeric coating was applied to the curbs of the ramp and this is failing as well. The handrails at the ramp need to be repainted.

The standing seam metal roof at the north vestibule appears to be in good condition, but leaks at the joint between the roof and the north wall of the 1986 addition.

### Recommendations:

- Patch delaminated and deteriorated concrete at the south entry stair.
- Install traffic coating on south stairs.
- Repair deteriorated wood and repaint west porch.
- Replace roof on west porch
- Repair EIFS at east entry porch.
- Replace coating on ramp at east entry.
- Repaint handrails on ramp.
- Replace flashing at top of north vestibule roof.



West porch



Deteriorated sheathing and rafters at west porch

# Old Brighton Senior Center



Asphalt shingle roof at west porch



Deteriorated coating at east entry ramp



Concrete slab deterioration at south entry landing

### 3.5 Building Envelope—Roofing and Waterproofing

#### Roofing and Sheet Metal Flashing

The original building including the north wing has a low-slope single ply PVC membrane roof which was installed in 1990. According to the bid documents for the roof replacement, the roof has 2" of polyisocyanurate insulation with a 1" fiberboard top layer.

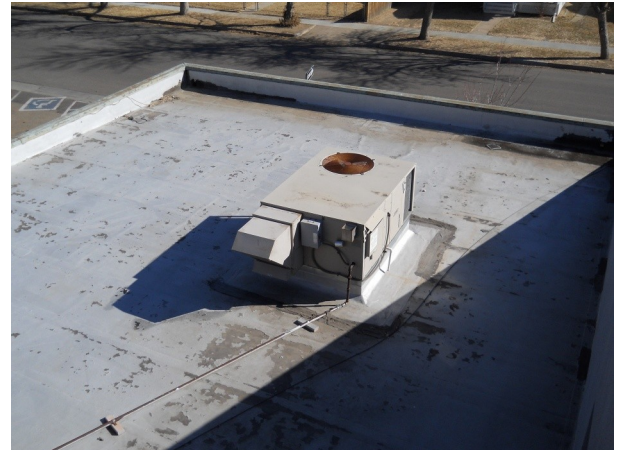
The 1986 addition has low-slope modified bitumen roofs at the north and south, and a standing seam metal shed roof in the center.

#### Evaluation of Conditions: Poor to Good

The original building roof is in good condition, although at 23 years old it may be approaching the end of its expected life span. The 1986 roof is in fair to poor condition. The areas around the scuppers in particular are in poor condition. They have been patched repeatedly and pond water. These areas appear to be leaking as active leaks were observed in the area below the scuppers. The scuppers are too small and are higher than the adjacent roof. The remainder of the roof membrane is in fair condition but the coating is failing on the north roof. This roof is at the end of its useful life. The standing seam metal roofs are in good condition.

#### Recommendations:

- Replace modified bitumen roofs at 1986 addition, including replacing the scuppers with larger units. Due to the leaking, replacement of the underlying insulation should be budgeted.



North roof at 1986 addition



Roof at original building



Failing coating on roof of 1986 addition



Repeated patching at scupper on 1986 addition

# Old Brighton Senior Center



Ponding at scupper on 1986 addition



Repeated patching at scupper on 1986 addition

## Drainage System, Gutters and Downspouts

The original building is drained by a gutter at the north end of the upper level roof, and a gutter at the north side of the north wing. The 1986 addition has four scuppers located at the edges of the low-slope roofs leading to downspouts on the east face of the building.

### Evaluation of Conditions: Fair to Poor

The downspout at the north side of the east entry leaks and its extension is crushed. The downspout at the south side of the east entry doesn't line up with its drain pipe and appears to be clogged as well. The paint is failing on the scuppers and downspouts at the east elevation of the 1986 addition.

### Recommendations:

- Replace scupper and downspouts at 1986 addition. Open faced downspouts are recommended.
- Ensure downspouts either are connected to underground drains, or have adequate extensions. Construction of drainage channel and sidewalk chases may be an option.
- Downspouts should be inspected regularly for damage and clogging.



Downspout not connected to underground drain



Leaking downspout and ponding water at north side of east entry



Crushed downspout extension

## 3.6 Windows and Doors

### Doors And Hardware

#### Exterior doors

The door at the original south entry is a wood door, with a side panel. The opening includes side lights and a transom.

The east entry has a wood full light door with an exit device and ADA opener. The vestibule door at the entry is also a full light door.

The doors to the single story north wing are hollow metal and both have exit devices. The doors in the north vestibule are aluminum storefront doors with ADA operators.

#### Interior doors

The doors in the 1986 addition and the upper level of the original building are oak flush doors and are generally in good condition. Original 5 panel doors are located in the office and porch on the upper level. There is a mix of lever handles and knobs on the locksets. The craft room, activity room and conference room have half-light doors.

The door between the kitchen and the dining room is a wood door with a half-light. The door to the kitchen pantry is a hollow core wood door and the door to the kitchen mechanical room is hollow metal.



North kitchen entry door

#### Evaluation of Conditions: Poor to Good

The door, sidelight and transom at the south entry are in poor condition. The paint is failing and the underlying wood is deteriorating.

Paint on west and north kitchen doors are in poor condition.

The doors at the north vestibule are in good condition.

The door between the kitchen and dining room is damaged, as is the inner vestibule door at the east entry and the main floor restroom doors. The east entry vestibule door also has a non-functioning lockset.

#### Recommendations:

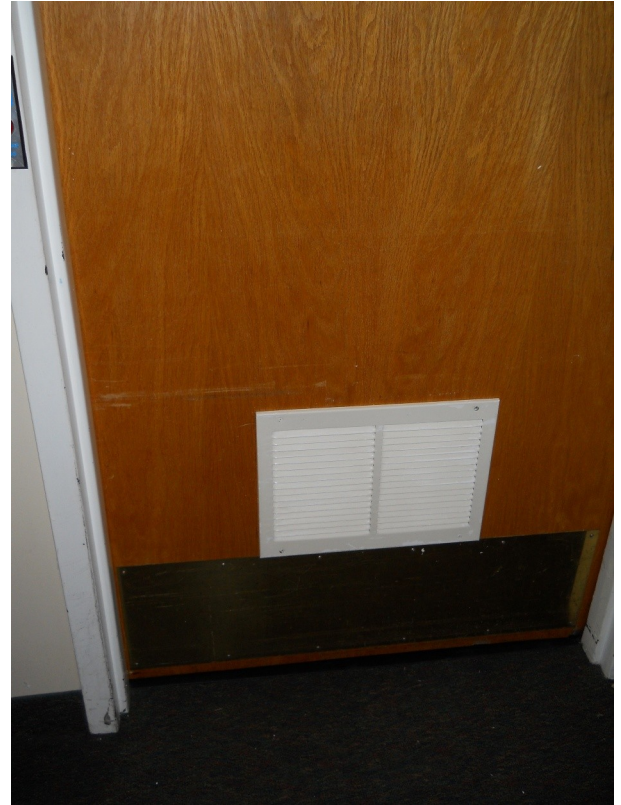
- Restore wood door, sidelights, and transom at south entry.
- Replace lockset at east vestibule door with exit device.
- Repair damaged interior doors.



Door between kitchen and dining room



East entry vestibule door



Main Floor Restroom Door

# Old Brighton Senior Center

## Windows

The windows on the original building are paired 6 over 1 double-hung wood windows. The upper level window have 6 pane divided light transoms. The windows on the 1986 addition are metal-clad double hung windows with 1/2" insulated glazing units.

### Evaluation of Conditions: **Poor**

The wood windows on the original building are in generally poor condition. The paint is in poor condition and the underlying wood is deteriorated in many places. In many locations the windows have been sealed shut and are missing sash cords and hardware. The windows in the 1986 addition appear to be in good condition, except for those on either side of the shed roof. These windows have failing paint.

### Recommendations:

- A comprehensive restoration of the windows in the original building is recommended. This would include consolidation and restoration of deteriorated wood sash, muntins and sills, as well as installation of weatherstripping and replacement of missing hardware. Existing glazing should be retained.
- Interior storm windows should be considered for additional weatherization.



Window at west porch



Window at upper level



Basement window



Upper level window



Upper level window at above north wing roof



Window on side of shed roof at 1986 addition

## 3.7 Interior Finishes

### Wall Finish Materials—Basement

The exterior walls of the basement are parged and painted concrete. Interior partitions in the basement are painted plaster, gypsum board and wood paneling.

#### Evaluation of Conditions: Fair to Poor

The exterior wall finish is in poor condition. The parging is deteriorated and failing. The remainder of the walls are in fair condition.

#### Recommendations:

- Remove the coatings applied to the concrete walls and the parge coats. Once all coverings are removed, the foundation walls should be inspected for damage or deterioration. If damaged concrete is encountered, it should be removed and patched. The inside face of the exterior walls should be coated with a breathable coating. Remove the existing parge coating from the foundation walls. Inspect foundation walls for structural damage. Repair and repaint with a breathable coating.

### Ceiling Finish Materials—Basement

The ceilings in the basement are painted plaster in the main pump room, and gypsum board in the storage room. A portion of the pump room ceiling has been replaced with gypsum board.

#### Evaluation of Conditions: Fair

The ceilings are in fair condition. The area which has been replaced with gypsum board is fire-taped only and not painted.

#### Recommendations:

- Repair and paint pump room ceiling.

### Floor Finish Materials—Basement

The basement floor is painted concrete. The west entry is vinyl composition tile (VCT) while the stairs have painted wood treads. The storage area at the entry also has a VCT floor.

#### Evaluation of Conditions: Poor

The floor finishes are in poor condition.

#### Recommendations:

- Repaint concrete floor and wood stair treads.
- Replace VCT at entry storage area.



Deteriorated wall finish at basement



Deteriorated wall finish at basement



Basement ceiling



Basement floor



Basement stairs



VCT floor at basement entry

# Old Brighton Senior Center

## Wall Finish Materials – Main Floor

Walls are generally painted gypsum board. The former exterior masonry wall of the original building is exposed at the west side of the lounge adjacent to the stairs leading to the second level.

### Evaluation of Conditions: Good

The walls are generally in good condition. There is some staining on the east walls of each room where roof leaks have occurred, and there is some damage in the billiards room and at the top of the elevator shaft. The restrooms do not have a wainscot behind the plumbing fixtures as required by current codes.

### Recommendations:

- Paint and repair walls where needed
- Install tile wainscot in restrooms.

## Ceiling Finish Materials – Main Floor

The ceilings in the dining room and billiards room are suspended acoustical tile, The kitchen has suspended vinyl faced tile, while the lounge and restrooms have painted gypsum board ceilings. The ceiling in the lounge is vaulted following the shed roof.

### Evaluation of Conditions: Poor to Good

The gypsum board ceilings are in good condition, as is the vinyl-faced ceiling in the kitchen. The suspended acoustic ceilings have numerous stained and damaged tiles, primarily at the east side of the building where the roof has leaked.

### Recommendations:

- Replace stained and damaged ceiling tiles.



Water stains at dining room walls



Damaged walls at billiards room



Water damaged ceiling tile



Water damaged ceiling tiles

### **Floor Finish Materials – Main Floor**

VCT is installed at the dining room, kitchen, and both the east and north entry vestibules. Sheet vinyl is installed in the pantry. The lounge and billiards room are carpeted.

#### Evaluation of Conditions: **Fair to Good**

The floor finishes are in good condition. However, the VCT floor in the dining room has a history of moisture issues and is beginning to exhibit symptoms of the on-going moisture issues.

A more in-depth analysis of the floor slab was undertaken. Testing indicated that there is not a vapor barrier under the slab, and relative humidity readings between 83 and 99 percent were recorded. As such the concrete slab is a high risk of continuing flooring failure. Refer to Appendix B for complete testing data.

#### Recommendations:

- Remove the existing VCT in the dining room and install a 100% solids epoxy system that meets the ASTM E96 standard for permanence. We recommend a single-coat, fast-curing, 100% solids epoxy moisture management system formulated to suppress excessive moisture vapor emissions in new or existing concrete. The concrete must be shot blasted to a surface profile of 3 prior to the application of a vapor barrier.
- Replace VCT after moisture barrier is installed.

### Wall Finish Materials – Upper Level

Walls are generally painted gypsum board and textured plaster.

#### Evaluation of Conditions: **Good**

The walls are generally in good condition. There is paint damage adjacent to the mop sink in the janitor closet. The restroom does not have a wainscot behind the plumbing fixtures as required by current codes.

#### Recommendations:

- Paint and repair walls where needed
- Remove mold-contaminated gypsum board at mop sink (see Hazardous Materials report, Section 4.1)
- Install tile wainscot in restroom.



Drywall damage at upper level janitor closet

### Ceiling Finish Materials – Upper Level

The ceilings in the upper level are suspended acoustical tile.

#### Evaluation of Conditions: **Good**

The ceilings are in good condition.

#### Recommendations:

- None.

### Floor Finish Materials – Upper Level

VCT is installed in the clinic space. Sheet vinyl is installed in the craft room, the janitor closet and the restroom. The remainder of the upper level is carpeted.

#### Evaluation of Conditions: **Fair to Good**

The floor finishes are in good condition. The VCT in the clinic exhibits some cracking, telegraphing through from the substrate.

#### Recommendations:

- Replace VCT in clinic, providing new underlayment to prevent the telegraphing of substrate flaws.

### 3.8 Conveying Systems

A residential-style limited use, limited access elevator with a 450 lb. capacity connects the main floor and the upper level.

Evaluation of Conditions: **Good**

The elevator is in good working condition and is code compliant with the exception of lacking an emergency telephone and the emergency light is not working. However, the unit has been unreliable and parts availability has become an issue. This type of elevator is expected to have a service life of 30 to 40 years and this unit is 27 years old.

Recommendations:

- Install telephone in elevator cab.
- Repair emergency light to working condition.
- The unit is near the end of its expected service life and replacement should be planned.



### 3.9 Mechanical Systems

#### Heating System

The building's heating system consists of multiple components. Two boiler plants provide hydronic heating fluid to baseboard elements on the main and upper levels. A single gas fired hydronic heating boiler is located in the main level mechanical room and provides heating fluid to the main level baseboard elements. Two gas fired hydronic boilers located in the basement provide heating fluid to the upper level baseboard elements. Multiple packaged roof top units (RTU) provide ventilation to the building and these units contain heating systems to temper the outside air.

The main level boiler system consists of a natural gas fired dual section atmospheric boiler with dual inline circulation pumps. Piping components consist of a mixture of schedule 40 steel piping and copper piping routed to the baseboard elements. An inline air scoop is used as an air separator and is located near the ceiling of the mechanical room. An automatic air vent is provided on the air scoop and a drain hose is connected to the base of the air scoop. Domestic cold water (DCW) flows through a pressure regulating valve and backflow assembly to provide boiler make up water. No expansion tank was apparent. Hydronic piping extends horizontally from the boiler and vertically into the inline pumps. Piping extends vertically from the pumps and offsets horizontally into the air scoop. The supply piping then extends horizontally from the air scoop into the main level ceiling space and is routed through the ceiling space. Piping drops down from the ceiling space into the baseboard heating elements. Return piping is routed from the baseboard units into the ceiling space and back to the boiler room. Most of the piping does not appear to be insulated. A cross over piping connection was installed between the main return piping and the main supply piping in the boiler room. The purpose of this crossover piping is unknown, but this piping is not typically installed in a hydronic piping system.

The basement boiler plant consists of two natural gas fired atmospheric Burnham model 805B-W boilers that were installed in 1987. Piping components consist of a mixture of schedule 40 steel piping and copper piping. Copper piping is routed through the basement and connected to the original steam and condensate piping. The original steam and condensate piping appears to extend to the upper level where copper piping was again installed. The copper piping extends to the baseboard heating elements. A single inline circulation pump moves fluid from the boiler to the baseboard elements. An inline air scoop is used as an air separator and is located at the top of the boilers. A manual air vent is provided on the air scoop. There did not appear to be any connection between the boiler piping system and the DCW piping system for make up water. Most of the piping does not appear to be insulated.

All three boilers contain the code required safety devices. These devices consist of a temperature controller, low water cut off and flame safety control. However, none of the boiler rooms contain the code required emergency shut down



Main Level Boiler System



Main Level Air Scoop



Main level corrosion



Basement Level Boiler System

switch. An emergency power off (EPO) switch is required at a boiler room door to shut off all power and gas to a boiler in the event of an emergency.

## Air Conditioning System

The building's air conditioning system consists of multiple packaged RTUs and an evaporative cooling unit. The installation dates vary from the early 1990's to 2000. The RTU serving the original building was installed in the early 1990's. This unit provides air conditioning and gas fired heating. The RTU serving the dining room area was installed in 1998 and is a Lennox GCS16-651-125-GP. This unit provides air conditioning and gas fired heating. The RTU serving the billiard room was installed in 2003 and is a Lennox CHA16-036-1P. This unit provides air conditioning only. The RTU serving the kitchen was installed in 2000 and provides air conditioning and electric heating. An evaporative cooling unit also provides air to the kitchen, but the domestic water was not connected. In this configuration, the unit will provide only untempered outside air for make up air to the kitchen hood. All RTUs use a direct expansion (DX) refrigeration air conditioning system and all units except the kitchen unit provide ventilation. Sheetmetal ductwork extends from each unit to ceiling and wall mounted supply grilles in the area served by each unit.



Main level pumps



Basement pump and air scoop

## Ventilation System

Building ventilation is provided using the RTU units as described above. Several exhaust fans remove odors and fumes from the building. Each main level restroom is provided with a ceiling exhaust fan that was installed during the 1986 renovation and addition. Make up air is transferred through a louvered opening in each restroom door. Exhaust fans for the upper level restrooms were not noted during the site visit and are not indicated in the documents from the 1986 renovation and addition. The 1986 renovation added a kitchen hood and roof mounted exhaust system, with make up air provided by the evaporative cooler.



Kitchen hood exhaust and make-up unit

### Evaluation of Conditions: **Poor to Good**

Both boiler systems, main level and basement level, were reportedly installed at the same time. The main level system is in poor to fair condition and the basement level system is in good condition. Several issues were discovered with the main level system. These include extensive corrosion, no expansion tank, poor air removal, non traditional piping arrangements and lack of EPO switch. The basement system was in good condition, but also had some issues. These include poor air removal and lack of EPO. Both systems utilize cast iron boilers that have typical life expectancies of 30 to 35 years. The installed boilers are approximately 26 years old and nearing the end of the expected life. The installed inline circulation pumps have a life expectancy of 10 years and have exceeded their anticipated life. Piping in the main level boiler room is in poor to fair condition and contains high amounts of corrosion. Both systems utilize an air scoop to remove air from the piping system. The main level room air scoop is severely corroded while the basement level air scoop is in good condition.

The main level air scoop is installed in the supply water piping near the ceiling, while the basement level air scoop is installed in the return piping at the boiler level. Air removal is improved by installing the air removal device in the hottest water piping and at the system high point. In both piping systems, the piping extends vertically from the boiler with no air removal devices installed.

The baseboard elements in the main level and upper level appear in good condition. The presence of moisture under the floor slab in the dining room was reported prior to the site visit. During the site visit, the piping network was investigated and no underfloor piping was found. All piping was located above the ceiling system or contained within wall spaces. All piping appeared to be in good condition, but was uninsulated. Uninsulated heating water piping will lose heat to unconditioned spaces.

The RTUs are in fair to good condition. Typical life expectancy of packaged RTU systems is 15 years. The RTUs serving the original building and the dining room have exceeded their anticipated life. The kitchen RTU is nearing the end of the anticipated life and the pool room RTU has about 10 years of expected life remaining. The kitchen RTU does not provide any ventilation to the kitchen area. The remaining units have outside air hoods, but the volume of outside air could not be determined from the units. This information is typically included in the construction documents and only one page of the construction documents from the 1986 renovation and addition was available. No other documents were available. The evaporative cooling unit supplying outside air to the kitchen is in good condition, but domestic water is not connected. The exhaust fans appear in good condition. Evaporative cooling units have an anticipated life expectancy of 15 to 20 years and exhaust fans have an anticipated life of about 20 to 25 years. The kitchen hood exhaust fan system does not appear to meet current building code requirements. The ductwork extends vertically through the roof and offsets horizontally, then vertically into the exhaust fan. Typical installation requirements would not allow 90° offsets in grease ductwork to prevent accumulation of grease. In addition, current code requirements call for tempered make-up air for kitchen exhaust hoods.

## Recommendations:

- Provide an expansion tank for the main level boiler system.
- Replace the main level boiler system air scoop and air vent and provide a high capacity automatic air vent.
- Disconnect the main level boiler plant crossover piping between the supply and return piping.
- Provide dielectric fittings and couplings on the main level boiler system piping to minimize corrosion between dissimilar metals.
- Replace the main level boiler system circulation pumps.
- Verify and adjust corrosion inhibitors in the main level boiler heating system fluid.
- Relocate the basement boiler system air scoop from the return piping to the supply piping and locate the air scoop as high as practical in the mechanical room. Air is removed more efficiently in the higher temperature supply piping than the return piping. Also air accumulates at the highest point in the piping system.
- Neither air scoop was provided with an air collection tube at the discharge. Typically a 6" length of piping is provided between the air scoop discharge and the air vent to allow air to accumulate.
- Replace the basement level boiler system air scoop manual air vent with a high capacity automatic air vent.
- Provide the code required EPO switch at each boiler room.
- Insulate the heating piping throughout the building.
- Flush and clean the heating water piping after the recommended corrections have been made and provide a preventative maintenance program to maintain the corrosion inhibitor levels.
- Verify, through testing and balancing, the amount of outside ventilation air provided to the building.
- Replace the kitchen hood exhaust fan and ductwork to meet current code requirements.
- Provide tempered make-up air for kitchen exhaust system. This can be provided by either a dedicated make-up air unit or through the use of outside air from occupant ventilation requirements as hood make up. This air would be introduced to the building using the existing roof top heating and cooling units. The outside air volume would need to be calculated and a comparison between hood make up and occupant ventilation volumes performed.
- While the boilers are nearing the end of their anticipated life of 30 years, many cast iron boiler systems have been in service for over 40 years. However, replacement or major renovation of the boiler system should be anticipated.

## **Water Service, Plumbing, and Sewer**

The building's plumbing system consists of plumbing fixtures, domestic water piping and sanitary piping. The plumbing fixtures were replaced during the 1987 renovation and appear in to be good condition. Much of the domestic water piping is located within wall cavities and was not visible. Piping that was exposed was copper and appears to be in good condition. Like the heating water piping, the domestic hot and cold water piping was uninsulated. Most of the sanitary sewer and vent piping is located within wall and ceiling spaces and not visible. Some of the sanitary sewer piping is visible in the basement and is cast iron and appears to be in good condition. Domestic water enters the building and is piped to a backflow preventer as required by building codes. The backflow device is installed near the ceiling level in the basement and is accessible through an access panel in the main level men's restroom. Domestic cold water flows to the gas fired atmospheric water heater in the basement that generates domestic hot water for the building. Two instantaneous electric water heaters are located in the main level restrooms. The domestic water heater was not provided with an expansion tank. Venting for the domestic water heater includes multiple elbows and a long angled run to the building exterior. Natural gas piping is routed throughout the building and connected to the boilers, RTUs, and domestic water heater. Piping consists of schedule 40 steel piping and appears in to be good condition. The basement gas piping has been



Domestic water backflow device

modified and contains several abandoned capped connections.

Evaluation of Conditions: **Poor to Good**

The plumbing system is in good condition. The domestic water heater vent piping should be reviewed with the manufacturer's installation data to determine if the installation conforms to the required installation practices.

Recommendations:

- Provide an expansion tank on the domestic water heater domestic hot water piping.
- Insulate the domestic hot and cold water piping in accordance with code requirements.
- Insulate the domestic water heater storage tank to reduce energy consumption.
- Remove the abandoned gas piping in the basement to prevent any accidental opening of a gas pipe.



Domestic water heater

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## Old Brighton Senior Center

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### **Fire Protection**

The building does not contain any wet pipe sprinkler system. The kitchen hood is provided with a chemical fire extinguishing system.

### Evaluation of Conditions: Good

The chemical fire extinguishing system for the kitchen hood appears in good condition.

### Recommendations:

- None

### 3.10 Electrical Systems

#### Electrical Service

The existing electrical distribution system is currently fed from a pole mounted United Power transformer to a building mounted weather head. These feeder conductors are routed down the exterior face of the building and feed a 6"x6"x4' Nema 3R wireway. A hot-sequenced United Power utility meter monitors the incoming service feeder ahead of the wireway to measure the energy usage of the building (meter #94230). A grounding electrode system is installed with a grounding electrode conductor routed from the wireway to a nearby ground rod. The service is delivered at 240/120 volt, 1 phase, 3 wire configuration.

One 400 amp, 2 pole fused disconnect switch with 350 amp FRN fuses is tapped off the wireway to feed a 400 amp, 240/120 volt, 1 phase, 3 wire, 65k AIC rated electrical panelboard labeled 'LP' in the upper level corridor inside the building. One 100 amp, 2 pole circuit breaker in panel 'LP' sub-feeds a 100 amp, 240/120 volt, 1 phase, 3 wire, 65k AIC rated electrical panelboard labeled 'LP1' located adjacent to panel 'LP' in the upper level corridor.

One 100 amp, 2 pole fused disconnect switch with 70 amp FRN fuses is tapped off the wireway to feed a 100 amp, 240/120 volt, 1 phase, 3 wire, 2 section electrical panelboard in the basement of the building.

#### Evaluation of Conditions: Fair

Generally the power distribution system for the building is in fair condition. The 350 amp FRN fuses installed in the 400 amp, 2 pole disconnect switch appear to be in fair condition with no visible weathering or corrosion (Figure 4). The 400 and 100 amp electrical panelboards in the upper corridor serving the branch circuit loads in the building appear in working order without immediate need for replacement. It appears as if the 100 amp electrical panelboard in the basement is no longer serving active electrical loads. Furthermore the panelboard itself is past life expectancy and circuit breakers are no longer manufactured for this unit. The 240/120 volt, 1 phase, 3 wire voltage configuration of the service limits the size and type of mechanical equipment that can be fed from the building. The 350 amp fuses feeding the main electrical panelboard for the building appear to be undersized by current design standards.

#### Recommendations:

It is recommended that the 100 amp, 2 pole fused disconnect switch tapped off the wireway to feed a 100 amp, 240/120 volt, 1 phase, 3 wire, 2 section electrical panelboard in the basement of the building and the associated feeder be demolished and removed. The panelboard is past life expectancy and circuit breakers are no longer manufactured for this unit. The associated branch circuit wiring from this panelboard is corroding and damaged and no longer safe.

An old abandoned fused switchboard is installed in the basement of the building which previously served pump equipment in the facility. It is recommended that this switchboard be demolished and removed from the building as it is no longer in use and no longer meets current code requirements for electrical distribution equipment. It should, however, be retained as a historical artifact.



Overhead Electrical Service



Building Weatherhead

# Old Brighton Senior Center



Wireway, Meter and Disconnects



400A/2P Disconnect



400A Panelboard 'LP'



100A Panelboard 'LP1'



100A Panelboard (Basement)



Basement branch circuit wiring

The branch circuits fed out of electrical panelboards 'LP' and 'LP1' are not clearly labeled. The circuit directories have been hand modified and some circuits are labeled with marker on the metal housing of the panel. The labels in marker and the hand modified circuit directories do not match. It is recommended that the branch circuits be traced to determine the load on the circuit breakers and the directories should be updated accordingly.

It is also recommended that the service size and voltage configuration be examined and possibly replaced if a new tenant were to take over the building. If the entire square footage of the building were utilized including the basement, a 208 volt, 3 phase, 4 wire, 500A service would be adequate for this space per current design standards. The current facility does not utilize a large portion of the square footage in the basement and thus the current electrical service is adequate to fit the needs of the building.

**Power**

Branch circuits serving receptacles in this building are routed from panel 'LP' and 'LP1' located in the upper level corridor of the building. Receptacles serve a dining area, lounge, kitchen, exercise room, craft room, health clinic, offices, and storage rooms.

Evaluation of Conditions: Fair

Generally the receptacles and power devices serve the needs of the spaces in the building and are located appropriately. Minimal damage was discovered to devices and it appears as if they could be utilized for future tenant use.

Receptacles have been installed directly above baseboard heaters in some areas. Per national electrical code (NEC) article 210 baseboard heater manufacturers may not permit installation of receptacles above. This can present a possible fire hazard as an electrical cord can be plugged in and exposed to heat from the baseboard heater .

Various receptacle locations in the building do not have ground fault circuit interrupter protection (GFCI) as required per current national electric code. All the receptacles installed in the kitchen are not GFCI protected as required per NEC 210.8(B). Two receptacles are installed within six feet of a sink without GFCI protection as required per NEC 210.8(B). One location is in the health clinic 'lab' room and the other is in the craft room. Both receptacles serving electric water coolers (drinking fountains) do not have GFCI protection as required per NEC 422.52.

Receptacles were not located within 25 feet of mechanical equipment located on the building roof as required per NEC 210.63.

Two mechanical equipment disconnects in the kitchen prep area mechanical room do not have working clearance of 3 feet as required per NEC 110.26(A)(1).

Recommendations:

It is recommended that the building verify with the baseboard heater manufacturer that the installation of power receptacles directly above the heaters is permitted. If the product is not designed to accommodate receptacles installed above a possible fire hazard exists as an electrical cord can be plugged in and exposed to heat from the baseboard heater. It is also recommended that the receptacles that are not GFCI protected as required by NEC as noted above be replaced with GFCI type receptacles. Additionally, it is recommended that weather proof GFCI receptacles be installed within 25 feet of mechanical equipment as required by the NEC. The MC cable routed from the mechanical equipment disconnects should be rerouted to provide code required 3 foot clearance.



Receptacle Above Baseboard Heater



Mechanical Equipment Disconnects – Kitchen Mechanical room

# Old Brighton Senior Center

## Lighting

The lighting fixtures in the building are fed from 120 volt, 1 phase branch circuits from panel 'LP' and 'LP1' located in the upper level corridor. The normal lighting fixtures in the building are typically lamped with linear fluorescent sources. A large percentage of normal fixtures are recessed T12 2x4 or 2x2 type with acrylic lenses. The lounge area lighting fixtures are suspended indirect linear fluorescent type. Minimal normal lighting fixtures in the building contain incandescent sources. The emergency egress lighting is achieved with emergency battery pack 'frog-eye' type fixtures with incandescent lamps. The exit signs in the building are internally lit type with battery backup.

### Evaluation of Conditions: Poor

While the spaces in the building are generally well lit and fluorescent sources are utilized, the lighting installation does not meet the current design standards. T12 Fluorescent lamps and ballasts utilized in most fixtures are not readily available as most manufacturers have standardized around T8 and T5 type lamps. The lighting power density of typical spaces exceeds the allowable per the International Energy Conservation Code (IECC). The allowable lighting power density for a building of this type is 1.0 watts per square foot. Some spaces in this building have a lighting power density of 2.0 watts per square foot. The lighting power density of the entire facility as a whole is well above the allowable 1.0 watts per square foot as stated by the IECC.

The lighting controls for the building do not comply with current standards. The IECC requires commercial buildings greater than 5,000 square feet to be equipped with an automatic control device that shuts off lighting in the building via time clock device or occupancy sensor. This building does not have an automatic shut off device. The IECC also calls for buildings to have lighting reduction controls. Most spaces are required to have dual level switching to reduce the lighting usage in a space by 50% unless the space falls under an exception. The dining area is the only space with dual level switching in this building.

Emergency egress lighting levels appear to be insufficient in this building. International building code (IBC) section 1006.4 requires 1 foot-candle (FC) average and 0.1 FC of minimum illumination on the floor at any point along the path of egress. Emergency egress lighting is achieved through emergency battery powered 'frog-eye' type fixtures. The emergency batteries integral to existing emergency egress lighting fixtures were tested and roughly half of them were no longer operational. It appears as if the following areas do not have sufficient emergency lighting:

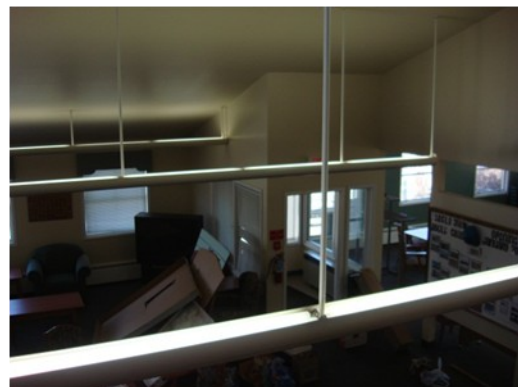
- Lounge - (1) Emergency fixture for 1200 square feet
- Dining - No emergency fixtures
- Dining Entry/Exit Vestibule - No emergency fixtures
- Billiards - No emergency fixtures
- Stairs to Upper Level - No emergency fixtures
- Craft Room - No emergency fixtures



Typical Fluorescent Fixtures



Typical EM Egress fixture



Lounge Indirect Fixtures

Kitchen Prep Area - No emergency fixtures  
Health Clinic - No emergency fixtures  
Basement - No emergency fixtures

Exit discharge lighting is required to the building exits. Exit discharge fixtures are required to have battery backup and multiple lamps. The following areas do not have sufficient exit discharge lighting:

South Main Entry Stair  
East Entry  
North Entry  
Basement Entry (2)

The emergency exit signs in the building are internally lit with battery backup. Per the lighting schedule from the addition built in 1986, these exit signs are equipped with T6 fluorescent lamps. Current design standard for exit signs in buildings is internally lit LED. According to IBC 1011.1 exit signs are required to mark all paths of egress to occupants in the facility. The following areas do not have sufficient exit signage:

North vestibule (not internally lit, but acceptable to Authority Having Jurisdiction)  
North kitchen exit door (exit sign not functioning)  
Billiards - No exit sign visible  
Health Clinic - No exit sign  
Craft Room - No exit sign  
Basement - No exit signs

Generally most lighting fixtures require cleaning, new fluorescent lamps, and/or new fluorescent ballasts. Most lighting fixtures are not visibly damaged. One lighting fixture in the kitchen was significantly damaged and may require replacement.

### Recommendations:

It is recommended that all fluorescent fixtures be retrofitted or replaced from dated T12 technology to current T8 or T5 type lamping. The damaged fixture in the kitchen should also be repaired or replaced. It is recommended that any incandescent fixtures in the building be replaced with fixtures supplied with compact fluorescent lamps. It is recommended that some lighting fixtures be removed or fixtures be replaced with new fixtures with fewer lamps of lesser wattage to satisfy the lighting power density requirements in the International Energy Conservation Code (IECC). The lighting controls in the building should be addressed. The current design does not satisfy the requirements for automatic shut off of lighting fixtures and lighting reduction controls as stated in the IECC. The emergency lighting deficiencies should be addressed in this building as it represents an immediate safety hazard to the occupants. All the emergency battery packs in the existing emergency egress fixtures should be replaced as half are currently not functioning and all are past life expectancy. Additional emergency egress fixtures should be added to the areas that do not have sufficient egress lighting as noted above. Emergency exit discharge fixtures should be added to the areas noted above. All the exit signs in this building should be replaced as the type does not meet current design standards and the internal batteries are all past their life expectancy. Additional exit signs should be added to the areas where they are required as noted above.



Non-Illuminated Exit Sign



Damaged light fixture in kitchen

### Fire Alarm System

The fire alarm system consists of a main control panel that is located at the main entrance of the building which feeds smoke detection devices and audio/visual notification devices throughout individual spaces. Manual pull stations are installed at the building exits. The kitchen exhaust hood is also equipped with a fire suppression system.

#### Evaluation of Conditions: Good

Generally it appears that the smoke detection and audio/visual notification devices provide adequate coverage to serve the needs of the building; however, the basement of the building does not appear to have adequate detection and notification coverage.

#### Recommendations:

It is recommended that additional detection and notification devices be added to the basement of the building as it does not appear that the coverage is adequate. It is also recommended that the fire alarm system be tested and inspected by the fire department with jurisdiction prior to the turnover of the facility to insure proper operation.

### Telephone / Data System

The telephone/data service is fed from an overhead line by the provider into the building. The service terminates at a 4-post wall mounted rack and plywood telephone backboard in the storage room adjacent to the craft room on the upper level of the building. The 4-post wall mounted rack is equipped with a patch panel and adequate space for additional telecommunications equipment. Typical office workstations have telephone and data devices. Cabling for data connections is CAT 5E type.

The facility is equipped with an audio system for the dining room/lounge with a head-end unit located in a storage closet adjacent to the lounge. Ceiling mounted speakers are installed over the dining room area.

An old abandoned telephone cabinet is located at the rear of the kitchen prep area. It appears as if this cabinet was no longer needed once the new telecommunications service was installed in the upper level craft room storage closet.

#### Evaluation of Conditions: Good

Generally the telephone and data systems are adequate by current design standards. The wall mounted 4-post equipment rack is adequate infrastructure for data equipment to serve the needs of the building. Office workstations are equipped with adequate cabling to support computer and telephone usage.

#### Recommendations:



Fire Alarm Control Panel



Notification Device



Telephone Overhead Service

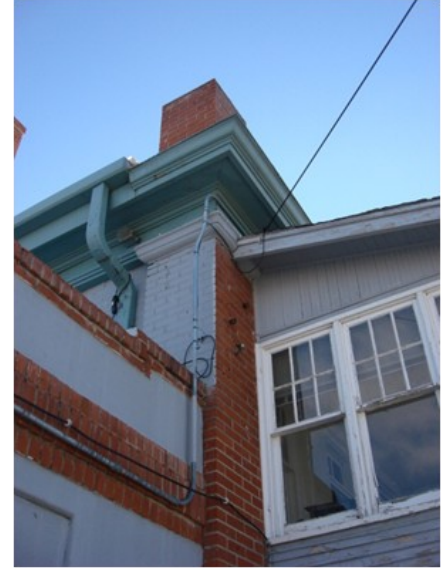
It is recommended that an old abandoned telephone head-end cabinet located in the kitchen prep area is demolished and removed as it appears that it is no longer in use. In order to utilize telephone and data in the building a service provider will need to install head-end equipment in this equipment rack and provide necessary programming. Infrastructure is in place to adequately support the telecommunications needs of the building.



Equipment Rack



Audio System Head-End



Telephone Overhead Service Entry



Typical Data Device



## 4.0 ANALYSIS AND COMPLIANCE

### 4.1 Hazardous Materials

As a part of this building assessment an Asbestos/Lead/Mold inspection was performed by an environmental consultant. The consultant performed a Comprehensive Investigation for the presence of Asbestos Containing Materials (ACM), a Lead-Based Paint (LBP) screen for representative testing of painted building components for lead content, and a mold assessment to identify, sample and document areas of the building that contain suspect microbial amplification. These areas include but are not limited to: water staining, discoloration on any surface, rotting or disintegrating building materials, or areas that have been impacted by moisture infiltration. The inspection consisted of readily accessible building materials. The consultant did not perform any additional destructive access to identify materials behind walls, in pipe chases nor other inaccessible areas.

#### Confirmed/Assumed Asbestos Containing Materials

- 12" x 12" Floor Tile cream colored with brown and green streaks - Original Building
- Drywall Joint Compound - Original Building
- Pipe Gasket Material - Original Building

#### Confirmed Lead Containing Materials

- The LBP screening report indicates over 75 building components contain lead base paint; including but not limited to interior perimeter walls, older windows and exterior coating of original building.

#### Confirmed Mold Areas

- Visible fungal affected building materials and water damaged building materials were present in the upper level janitor closet, and the lower basement West and South Walls. Laboratory analysis confirmed the presence of amplified fungal growth in these areas.

A detailed Abatement Specification should be developed prior to performing renovation activities that may impact identified ACM, Lead Paint and mold amplification identified at the project site. ACM that may be impacted is recommended to be removed by a CDPHE certified General Asbestos Contractor (GAC) in accordance with applicable regulations.

A compliant alternate to abatement of intact ACM is in-place management through an Operations and Maintenance (O&M) Program. The EPA has stated in its *Summary of Managing Asbestos In-place (Green Book)*, - 1990 "Intact and undisturbed asbestos materials do not pose a health risk."

The environmental consultant's complete report is attached as Appendix "C".

### 4.2 Zoning Code Compliance

The property is zoned as "Public Land" by the City of Brighton. The PL District is a district in which public and semi-public facilities and uses are located, including governmental and educational uses. Uses by right include:

- Professional and administrative office
- Animal Shelter
- Kennel
- Convention Center
- Event Center
- Health and Fitness Center

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## Old Brighton Senior Center

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- Studio (Dance, Gymnastics, Fine Arts, Art & Crafts and Martial Arts)
- Ambulance facility
- Hospital
- Fire Station
- Library
- Morgue
- Museum
- Police Station
- Post Office
- School (Public, Private, Parochial)
- University or College

Conditional Uses (requiring approval by the Planning Commission) included:

- Recreation Facility
- Flea Market
- Laboratory for Research and Testing
- Child Care Center
- Radio and TV Broadcasting Station
- Emergency Shelter
- Group Home
- Residence, Protective
- Residence, Rehabilitation

The existing building does not comply with the 50' front setback requirement on the 6th Avenue side.

A complete list of allowable uses and the zone district requirements are attached as Appendix D.

## 4.3 Building Code Compliance

The City of Brighton has adopted the 2012 International Building Code (IBC) and the 2012 International Existing Buildings Code (IEBC). Chapter 10 of the IEBC deals with change of use for existing buildings.

The original use of the Old Senior Center is classified as an A–3 Assembly Occupancy, as a Community Center.

The potential uses identified to date would be classified as follows:

- School district use for teaching nutrition and life skills, especially to students with disabilities. This would be classified as an E Educational occupancy. Building code compliance issues that may need to be addressed include:
  - Analysis of the load capacity of the upper level for compliance with the IBC load requirements for E occupancies.
  - Provision of an additional men’s lavatory to comply with plumbing fixture requirements.
  - Installation of non-absorbent finishes on the walls of the restrooms.
  - Any spaces used for children 7 years old or younger would need to have the electrical receptacles replaced with the tamper-proof variety.
- Local performing arts group use as a rehearsal and studio space. This would be a B occupancy, although if used for performances that are open to the public, the building would be an A-3 assembly occupancy. Our analysis assumes that the building will not be used as a performance space. Building code compliance issues that may need to be addressed include:
  - Provision of an additional men’s water closet and lavatory to comply with plumbing fixture requirements.
  - Installation of non-absorbent finishes on the walls of the restrooms.
- The city’s youth commission is interested in using the building for offices and possibly as an activity space.. This would be classified as the same use as the original use, an A-3 Assembly occupancy as a community center and would not require any changes to comply with current codes.

The code review is based on a very general overview of the proposed new uses and is intended to provide a broad overview of the code-mandated change that may be required for any given new use. A more detailed code review based on actual proposed space use would be required to make a final determination of the required updates. A meeting with the local building official is also recommended.

The detailed analysis according to IEBC Chapter 10 for each occupancy is included in Appendix A.

## 4.5 Accessibility Compliance

A detailed accessibility audit was not performed on the building. The building was surveyed for general compliance with 2003 ANSI 117.1 and the 2011 Americans with Disabilities Act Architectural Guidelines (ADAAG).

The parking lot has an accessible parking space, and both the north and east entries are accessible. The main floor restrooms do not meet current accessibility guidelines. The upper level is accessible via a limited use, limited access elevator. This elevator does not meet current guidelines, but appears to be exempt from requirements to be upgraded in the event the building is altered per Section 36.404 since the building is less than three stories. There are no accessible restrooms on the upper level. The basement is not accessible.



## 5.0 IMPROVEMENT PLAN

The purpose of the Improvement Plan is to organize the physical repair, maintenance and rehabilitation needs of the Old Senior Center into a prioritized approach that will allow the City of Brighton to determine the future use of the building. Each building deficiency identified in the Structure Condition Assessment is prioritized based on its severity and impact on the long term preservation of the building, life safety of the occupants, and impact on the building's function. In addition, the Improvement Plan outlines the modifications that would be necessary to the building for each of proposed future uses. The estimated costs are based on published cost data bases and are for work that is completed in this calendar year. An escalation factor should added for work in future years. Costs are for construction work only and do not include soft costs such as design or permit fees.

It should be noted that work on the historic 1919 portion of the building may be eligible for State Historical Fund Grants is the building becomes listed on the State Register of Historic Places or as a local landmark.

### 5.1 Prioritized Work and Estimated Cost

#### Work Required for Change of Use

This category includes code-mandated upgrades required for the potential new public uses. These updates are estimated to range from \$25,000 to \$30,000 for depending on the new use. Use as a facility for K-12 students would require an estimated \$46,000 in code-mandated upgrades.

#### Work Required to Remove 1986 Addition

This category includes removal of the 1986 addition, and a new entry element at the east side of the original 1919 building to provide access to the second floor for person with disabilities, as well as a second means of egress. We have include the cost of a new code compliant elevator. We estimate this work to cost \$60,000 to demolish the 1986 addition and \$250,000 for the new entry element, elevator and restoration of the east facade of the 1919 building.

#### Work Required to Prepare Basement for Reuse

This category includes removal of the abandoned water distribution pining, asbestos abatement, and infill of the recessed floor area. We estimate the cost of this work to be \$22,000.

#### Critical Deficiencies:

This category includes those deficiencies that should be corrected as soon as possible. They include items that are currently causing damage to the building.

Replace low-slope roofs at 1986 addition, including scuppers and downspouts	\$30,000
Replace deteriorated roof deck.	
Add sidewalk channels to ensure drainage away from building	

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# Old Brighton Senior Center

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## Serious Deficiencies:

This category includes those deficiencies that should be corrected after the critical deficiencies are resolved. They include items that are likely to cause continuing damage to the building if not corrected, as well as those which impact the operation of the facility.

Remove deteriorated coatings at basement walls. Inspect structural foundation walls for damage, and repair as needed. Install breathable coating on walls	\$5,000
Exterior work on 1919 building and 1986 addition	\$111,000
Remove all landscaping and irrigation located within 5' of structure	
Remove and replace apron at east side of 1986 addition	
Install drains at below grade stairs	
Patch delaminated concrete at south stair and install traffic coating	
Repoint mortar joints in original building and replace missing or damaged brick	
Reseal joints in sheet metal cornice and repaint	
Repair cracks in EIFS coating at 1986 addition and replace sealant at windows	
Repair deteriorated wood and repaint west porch	
Replace roof at west porch	
Replace flashing at top of north vestibule roof	
Restore windows in original building and at shed roof of 1986 addition	
Install perimeter drain and waterproofing system	
Main level boiler system:	\$8,500
Provide expansion tank	
Replace air scoop and provide automatic air vent	
Disconnect crossover piping	
Install dielectric fittings and couplings	
Replace circulation pumps	
Verify and adjust corrosion inhibitors	
Flush and clean heating piping	
Lower level boiler system:	\$1,500
Relocate air scoop and install automatic air vent	
Flush and clean heating piping	
Remove 100 amp, 2 pole fused disconnect switch tapped off the wireway to feed a 100 amp, 240/120 volt, 1 phase, 3 wire, 2 section electrical panelboard in the basement of the building.	\$700
Clean and relamp all fluorescent light fixtures. Replace non-functional ballasts, and damaged fixtures.	\$22,500
Add fire alarm and notification devices to basement	\$3,000

**Minor Deficiencies:**

This category includes those items that should be deferred until critical and serious deficiencies have been corrected. They include cosmetic and appearance-related items. They also include rehabilitation to existing systems that may be desirable for improving energy efficiency. Deferring these items will have little or no impact on the longevity of the building.

Exterior Items	\$38,750
Rotomill and overlay existing asphalt parking lot	
Repair stucco on north wing and repaint	
Repaint sheet metal coping	
Repair EIFS at east entry porch	
Replace coating on ramp curb at east entry	
Repaint handrails at east entry ramp	
Restore wood door, sidelights and transom at south entry	
Interior Items	\$50,200
Replace lockset at east vestibule door with exit device. Install ADA opener on door coordinated with exterior door.	
Repair damaged interior doors	
Install storm windows at original building	
Repaint concrete floor and wood stair treads at basement	
Replace VCT at basement entry storage area	
Paint and repair walls where needed	
Replace stained and damaged ceiling tiles	
Remove existing VCT in dining room and install epoxy moisture barrier. Install new VCT after moisture barrier is installed.	
Replace VCT in clinic; provide underlayment to prevent telegraphing of substrate flaws	
Mechanical Items	\$30,000
Insulate heating piping throughout building	
Install make-up air unit for kitchen exhaust system	
Provide expansion tank on domestic hot water system	
Insulate domestic hot & cold water piping	
Insulate domestic hot water tank	
Remove abandoned gas piping in basement	
Electrical Items	\$9,300
Remove abandoned fused switchboard in the basement of the building which previously served pump equipment in the facility	
Replace incandescent bulbs with compact fluorescent bulbs	
Revise lighting and controls to meet requirements of the IECC	
Remove abandoned telephone cabinet in kitchen	

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# Old Brighton Senior Center

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## Capital Renewal Items:

This category includes those items that will be reaching the end of their expected useful lives. By identifying these items, the City can plan and budget for future replacement before the item fails.

Roof at original building is 23 years old, and although it is good condition, it is approaching the end of its expected useful life. Replacement in 2 to 7 years.	\$25,000
The main level boilers are approaching the end of their anticipated 30 year life. Although many cast iron boilers have been in service over 40 years, replacement should be anticipated in the next 3-5 years.	\$75,000
The lower level boilers are 20 +/- years old and have an anticipated service life of 30 years. Although many cast iron boilers have been in service over 40 years, replacement should be anticipated in the next 10-15 years	\$75,000
The roof top units for the original building and the dining room have exceeded their expected useful life. While they are still operating satisfactorily, replacement should be planned	\$50,000
The roof top unit for the billiards room has a remaining life expectancy of 10 years.	\$25,000
Replace Limited Access/Limited Use Elevator	\$25,000

6.0 PHOTOGRAPHS



South Elevation



East Elevation

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# Old Brighton Senior Center

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North Elevation



North and West Elevations

## 7.0 APPENDICES

### Appendix A Building Code Compliance

We have analyzed the Old Senior Center in accordance with the requirements of Chapter 10 of the International Existing Building Code (IEBC) for each of the proposed uses.

#### **School district use for teaching nutrition and life skills, especially to students with disabilities**

This would be classified as an E Educational occupancy.

#### Structural

Per 1007.1, buildings where the change of use results in a higher load requirements are required to comply with the load provision in the International Building Code (IBC)

Per IBC table 1607.1, the load requirement for assembly occupancies is 100 lbs/sf. Classroom occupancies are 40 lbs/sf, and 100 lbs/sf., and a concentrated load of 1000 lbs.

Per 1007.2 and 1007.3, buildings where the change of use results in a higher risk factor, are required to comply with the provisions of the IBC,

An E occupancy is the same risk factor as the current occupancy, provide that the occupant load does not exceed 250.

#### Electrical

Per section 1008, the electrical system needs to meet the requirements of NFPA 70 ( National Electrical Code) for the new occupancy. The existing egress lighting would need to be brought up to current code requirements. In addition, if any of the spaces are used for children 7 years of age or younger, the receptacles will need to be replace with tamper-proof receptacles.

#### Mechanical

Per Section 1009, if the new use is subject to addition kitchen exhaust or mechanical ventilation requirements, the building needs to comply with the intent of the applicable sections of the International Mechanical Code.

#### Plumbing

Per Section 1010, if the new use has greater plumbing fixture requirements than the old use, then the new building needs to meet the requirements of the International Plumbing Code.

E occupancies have a greater fixture requirements than A-3 so the building would need to comply with the requirements for E occupancies.

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# Old Brighton Senior Center

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## Occupant Load

### Basement

Accessory Storage and Mechanical rooms 2,852 S.F. @ 300 S.F./ occupant = 10 occupants

### Main Floor

Educational—Shops and vocational room areas 3,526 S.F. @ 50 S.F./ occupant = 71 occupants

### Upper Level

Educational—Shops and vocational room areas 2,852 S.F. @ 50 S.F./ occupant = 58 occupants

Total Occupancy 139 occupants

### Required fixtures per IBC table 2902.1

Water Closets	Men -2	Women — 2
Lavatories	Men - 2	Women — 2

### Existing Fixtures

Water Closets	Men -1 + urinal	Women — 4
Lavatories	Men - 1	Women — 2

### Light and Ventilation

Per Section 1011, the building needs to comply with the requirements of the IBC for the new use.

The building generally complies with the requirements, although the restrooms require non-absorbent finishes at the water closets and urinal.

### Fire protection systems

Per Sections 1012.2.1 & 101.2.2.2, comply with IBC Chapter 9 requirements for the new use. The building complies.

### Means of Egress

Per 1012.4.1, means of egress must comply with current code if the new use is a higher hazard category. The existing use, A-3, and the new use, E, are in the same category. Means of egress must also be of adequate capacity for the new use. The building complies.

### Height and Area

Per Section 1012.5.1, allowable height and area must comply with Chapter 5 of the IBC if the new use is a higher hazard. The new use is a lesser hazard.

### Exterior Wall Fire Resistance

Per Section 1012.6.1, exterior walls must comply with the IBC if the new use is a higher hazard. The new use is in the same category.

## Accessibility

Per Section 1012.8.2, a change of occupancy requires that the building have an accessible entrance, an accessible route from the entrance to primary function area, and accessible parking. The building complies.

## Rehearsal and studio space for local performing arts group—no public performance space

This would be classified as an B occupancy, “Training and skill development not within a school or academic program”.

## Structural

Per 1007.1, buildings where the change of use results in a higher load requirements are required to comply with the load provisions in the International Building Code (IBC)

Per IBC table 1607.1, the load requirement for assembly occupancies is 100 lbs/sf. The occupancy most like a rehearsal space is recreational—dance halls and ballrooms, which also have a load requirement of 100 lbs/sf.

Per 1007.2 and 1007.3, buildings where the change of use results in a higher risk factor, are required to comply with the provisions of the IBC.

A B occupancy is the same risk factor as the current occupancy.

## Electrical

Per section 1008, the electrical system needs to meet the requirements of NFPA 70 ( National Electrical Code) for the new occupancy. The existing egress lighting would need to be brought up to current code requirements.

## Mechanical

Per section 1009, if the new use is subject to addition kitchen exhaust or mechanical ventilation requirements, the building needs to comply with the intent of the applicable sections of the International Mechanical Code.

## Plumbing

Per Section 1010, if the new use has greater plumbing fixture requirements than the old use, then the new building needs to meet the requirements of the International Plumbing Code.

B occupancies have a greater fixture requirements than A-3 so the building would need to comply with the requirements for B occupancies.

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# Old Brighton Senior Center

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## Occupant Load

### Basement

Accessory Storage and Mechanical rooms 2,852 S.F. @ 300 S.F./ occupant = 10 occupants

### Main Floor

Business—Exercise rooms 3,526 S.F. @ 50 S.F./ occupant = 71 occupants

### Upper Level

Business—Exercise rooms 2,852 S.F. @ 50 S.F./ occupant = 58 occupants

Total Occupancy 139 occupants

### Required fixtures per IBC table 2902.1

Water Closets	Men — 3	Women — 3
Lavatories	Men — 2	Women — 2

### Existing Fixtures

Water Closets	Men — 1 + urinal	Women — 4
Lavatories	Men — 1	Women — 2

### Light and Ventilation

Per Section 1011, the building needs to comply with the requirements of the IBC for the new use.

The building generally complies with the requirements, although the restrooms require non-absorbent finishes at the water closets and urinal.

### Fire protection systems

Per Sections 1012.2.1 & 101.2.2.2, comply with IBC Chapter 9 requirements for the new use. The building complies.

### Means of Egress

Per 1012.4.1, means of egress must comply with current code if the new use is a higher hazard category. The new use is in a lesser category. Means of egress must also be of adequate capacity for the new use. The building complies.

### Height and Area

Per Section 1012.5.1, allowable height and area must comply with Chapter 5 of the IBC if the new use is a higher hazard. The new use is a lesser hazard.

### Exterior Wall Fire Resistance

Per Section 1012.6.1, exterior walls must comply with the IBC if the new use is a higher hazard. The new use is in the same category.

## Accessibility

Per Section 1012.8.2, a change of occupancy requires that the building have an accessible entrance, an accessible route from the entrance to primary function area, and accessible parking. The building complies.

## Offices and activity space for the city's youth commission

This use is most like the previous use as a senior center, and would not represent a change of use.

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# Old Brighton Senior Center

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# Old Brighton Senior Center

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## Appendix B Concrete Slab Moisture Report

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# Old Brighton Senior Center

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# Old Brighton Senior Center

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## Appendix B Concrete Slab Moisture Report

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# Old Brighton Senior Center

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# FloorMedic's

**Certified Concrete Moisture Test Field Report**

Commissioned By: \_\_\_\_\_ Project Location: \_\_\_\_\_ Moisture Test Report No: **2013-26**

Name: <b>Bret Johnson Architecture</b>	Name: <b>Old Brighton Senior Center</b>	Report Date: <b>2.20.2013</b>
Address: <b>2304 Yosemite Street</b>	Address: <b>575 Bush Street</b>	P.O #:
City: <b>Denver, CO 80238</b>	City: <b>Brighton, CO 80601</b>	Authorized By: <b>Bret Johnson</b>
Phone:	Phone:	

Test Deployment Parameters (Ambient)					Notes
	Date	Time	Temperature	Humidity	Dew Point
Start:	<b>2.15.2013</b>	<b>9am</b>	<b>68</b>	<b>23</b>	<b>No under slab vapor retarder HVAC was operable during testing Visible signs of moisture related issues within the existing floor assembly.</b>
Finish:	<b>2.20.2013</b>	<b>9am</b>	<b>68</b>	<b>23</b>	
Maximum:					
Minimum:					

**Moisture & Alkalinity (pH) Testing**

**Moisture conditions for concrete fall into two categories: Static & Dynamic.** A **Static Moisture Condition** is a function of how wet the internal structure of the concrete presently is (usually expressed by percentage). A **Dynamic Moisture Condition** is a function of how moisture is currently evaporating from the surface of a concrete slab (usually expressed in pounds per 1000 square feet per 24 hours). An **Alkalinity condition** is a function of alkaline and/or other soluble salts that are at the surface of a concrete slab (expressed by pH, the degree of acidity measured on a scale from 0-14).

**Note: Moisture and Alkalinity (pH) testing only reflects the condition of the concrete floor slab at the time the tests are taken.**

Test Results			Alkalinity Condition (slab surface pH)	Static Moisture Condition (moisture contained in slab)			
Test Locations	Type(s) of existing Concrete	Surface Temp. of Concrete	pH Testing ASTM F 710	Concrete Slab Age Month Year	Relative Humidity is Situ Probe Test: ASTM F 2170-11		
					Depth from top of slab	RH%	Temp. in Concrete
1	Slab on Grade	62		Exsiting	2"	99	68
2	Slab on Grade	62		Exsiting	2"	95	65
3	Slab on Grade	62		Exsiting	2"	91	55
4	Slab on Grade	62		Exsiting	2"	87	61
5	Slab on Grade	62		Exsiting	2"	85	64
6	Slab on Grade	62		Exsiting	2"	83	63
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							

<b>Averages:</b>	<b>62</b>				<b>90.0</b>	<b>62.7</b>
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# Old Brighton Senior Center

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## Appendix C Environmental Consultant's Report

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# Old Brighton Senior Center

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# ASBESTOS, LEAD & MOLD INSPECTION REPORT



**BRIGHTON SENIOR CENTER  
575 BUSH STREET  
BRIGHTON, COLORADO 80601  
PROJECT NUMBER: 13006.1**

**PREPARED FOR:**

**BRET JOHNSON ARCHITECTURE  
2304 YOSEMITE STREET  
DENVER, CO 80238**

**DATED:  
FEBRUARY 26, 2013**

**PREPARED BY:**



**SCHAFFER**

**SCHAFFER ENVIRONMENTAL CONSULTING, INC.**  
10600 West Alameda Avenue, Suite 209 • Lakewood, Colorado 80226  
Phone: 303.988.8871 • Fax: 303.988.8873

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Figure 1 – Main Level Sample and ACM Locations

Figure 2 – Basement Level Sample and ACM Locations

## Appendices

Appendix A Asbestos Laboratory Analytical Data

Appendix B Inspector Certificates

Appendix C Lead Inspection Report

Appendix D Fungal Laboratory Analytical Data

## **Executive Summary**

Schafer Environmental Consulting, Inc. (Schafer) has completed an Asbestos/Lead/Mold inspection of the Brighton Senior Center building located at 575 Bust Street in Brighton, Colorado 80601 (project site). Schafer performed a Comprehensive Investigation for the presence of Asbestos Containing Materials (ACM). In addition Schafer conducted a Lead-Based Paint (LBP) screen for representative testing of painted building components for lead content. Schafer also conducted a Mold assessment to identify, sample and document areas of the building that contain suspect microbial amplification. This includes but is not limited to: water staining, discoloration on any surface, rotting or disintegrating building materials, or areas that have been impacted by moisture infiltration. The inspection services performed at the Brighton Senior Center were provided for an assessment of the building to facilitate future use of the structure. The inspection consisted of readily accessible building materials. Schafer did not perform any additional destructive access to identify materials behind walls, in pipe chases nor other inaccessible areas. The asbestos containing materials (ACM) identified at the project site are listed below.

### Confirmed/Assumed Asbestos Containing Materials

- 12" x 12" Floor Tile cream colored with brown and green streaks – Original Building
- Drywall Joint Compound – Original Building
- Pipe Gasket Material – Original Building

### Confirmed Lead Containing Materials

- This LBP screening report indicates over 75 building components contain lead base paint; including but not limited to interior perimeter walls, older windows and exterior coating of original building.

### Confirmed Mold Areas

- The analytical results indicate slightly to moderately elevated microbial colonization in the subject property.

Schafer recommends that a detailed Abatement Specification be developed prior to performing planned renovation activities that may impact identified ACM, Lead Paint and mold amplification identified at the project site. ACM that may be impacted is recommended to be removed by a CDPHE certified General Asbestos Contractor (GAC) in accordance with applicable regulations.

A compliant alternate to abatement of intact ACM is in-place management through an Operations and Maintenance (O&M) Program. The EPA has stated in its *Summary of Managing Asbestos In-place (Green Book)*, - 1990 "Intact and undisturbed asbestos materials do not pose a health risk."

## 1. Introduction

Schafer Environmental Consulting Inc. (Schafer) has completed a Comprehensive Investigation for the presence of Asbestos Containing Materials (ACM), a Lead-Based Paint (LBP) screen for representative testing of painted building components for lead content and a Mold assessment to identify, sample and document areas of the building that contain suspect microbial colonization at the Brighton Senior Center building located at 575 Bust Street in Brighton, Colorado 80601 (project site). The Brighton Senior Center consists of an original building, built in 1909, with an addition on the north and east side built in 1986. This report describes the following:

- A summary of the definition of asbestos containing materials and the regulatory criteria
- Sampling, analytical procedures and quality control of the field and laboratory data
- Asbestos building materials inspection findings
- Lead Based Paint (LBP) screen findings
- Mold assessment findings
- Conclusions and Recommendations

### *1. Purpose*

Schafer conducted the asbestos materials inspection, LBP screen and mold assessment on January 30, 2013. The asbestos inspection was conducted to determine the location, condition and estimated quantities of asbestos containing material (ACM) within the planned renovation areas of the building. The inspection consisted of readily accessible building materials within the structure. Schafer did not perform any destructive access to identify materials behind walls, in pipe chases nor other inaccessible areas. The inspection was conducted according to Environmental Protection Agency (EPA) Asbestos Hazard and Emergency Response Act (AHERA), Colorado Department of Public Health and Environment (CDPHE) and Occupational Safety and Health Administration (OSHA) requirements, as well as generally accepted industry standards. The Lead-Based Paint (LBP) screen was conducted to determine the lead content of painted building components in accordance with United States Environmental Protection Agency (EPA), the U.S. Housing and Urban development (HUD), and the State of Colorado general protocols. Schafer also conducted a Mold assessment to identify, sample and document areas of the building that contain identified suspect microbial colonization and moisture infiltration. This includes but is not limited to: water staining, discoloration on any surface, rotting or disintegrating building materials, or areas with visible moisture infiltration.

## **2. Asbestos Inspection**

Asbestos is a naturally occurring fibrous mineral. Asbestos has been historically used in thousands of construction and commercial applications due to its properties of tensile strength, heat resistance, non-conductivity and acoustical properties. Asbestos is a confirmed human carcinogen and can cause diseases such as asbestosis, lung cancer, and mesothelioma; therefore asbestos is regulated by the EPA, CDPHE and OSHA.

### **1. Asbestos Regulatory Criteria**

Applicable asbestos regulations define ACM as material containing greater than one (1) percent asbestos by weight, volume or visual surface area and also distinguish between friable and non-friable forms of ACM. Friable ACM can be crumbled or reduced to powder by hand pressure when dry. Non-friable materials cannot be crumbled, pulverized, or reduced to powder by hand pressure.

The EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) further classify non-friable ACM as Category I and II. Category I non-friable ACM include asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products. Category II non-friable ACM are defined as all other non-friable ACM, such as cement board, window putty, etc. During abatement, renovation and demolition projects, applicable regulations identify removal requirements based on the quantity and friability classification of an ACM. The EPA NESHAP and CDPHE regulations require point count analysis for friable materials found to contain detectable asbestos at one (1) percent or less by Polarized Light Microscopy (PLM) analysis.

Removal of ACM is not required by regulation unless the potential for an airborne release of asbestos fibers in excess of allowable levels exists.

The OSHA regulations in 29 Code of Federal Regulation (CFR) 1926.1101 require that building owners inform prospective contractors, employees, and tenants of the presence, location, and quantity of ACM or presumed ACM, in their buildings and facilities.

### **2. Sampling and Analytical Procedure**

The bulk samples of the suspect ACM were collected in a random and representative manner, as determined by the inspector in accordance with applicable regulations. The inspector collected bulk material samples by taking a composite core that included all layers within the suspect ACMs.

The bulk samples collected were representative of suspect ACMs for each of the homogeneous area. Samples were collected in compliance with CDPHE Asbestos Control Regulations and EPA AHERA 40 CFR, Part 763. Representative sampling was based on the distribution of the suspect material throughout the homogeneous area, and the suspect material's physical characteristics and application.

The results of sample analysis were considered representative of materials in each homogeneous area if:

- They exhibited similar physical characteristics.
- The application of the sampled material could be correlated to the application of un-sampled material.

Suspect materials that are similar in appearance and application were sampled as homogeneous areas. Suspect ACMs were separated into the following three classifications with specific sampling requirements:

#### **Surfacing Materials – Trowel or sprayed applied materials**

- Three samples of each homogeneous area 1,000 square feet or less.
- Five samples of each homogeneous area greater than 1,000 square feet and less than 5,000 square feet.
- Seven samples of each homogeneous area greater than 5,000 square feet.

#### **Thermal System Insulation**

- Three samples of each homogeneous area.

#### **Miscellaneous Materials – Other suspect materials not classified in the above categories**

- Sufficient number to determine asbestos content.

The bulk suspect asbestos samples were submitted to Reservoirs Environmental, Inc. (REI) for PLM analysis. REI is a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory and are also accredited by the American Industrial Hygiene Association (AIHA).

The bulk samples were analyzed by PLM coupled with Dispersion Staining as detailed in the EPA's "Interim method for Determination of Asbestos in Bulk Insulation Samples" (EPA 40 CFR 763 Subpart F, Appendix A). The total asbestos reported is the average of all components in the material, with the asbestos content of separate layers also identified. Unused portions of samples are archived for 60 days unless the client requests special handling. Asbestos laboratory analytical data is presented in Appendix A. Inspector certifications are presented in Appendix B.

### **3. Quality Assurance and Quality Control**

Schafer performed an internal review of field data and laboratory analysis reports to ensure that data generated in this report is accurate and complete. Quality control procedures were performed by CDPHE and EPA certified inspection personnel that included cross referencing inspector field notes and sample logs with the laboratory PLM

bulk sample analysis data to confirm sample numbers and material descriptions for each sample submitted for analysis.

### **3. Asbestos Inspection Findings**


Schafer identified and sampled a total of seventy-two (72) samples representative of identified suspect asbestos containing materials.

Detailed information for each confirmed homogeneous ACM is presented in Table 1 – Homogeneous Asbestos Containing Material Descriptions. Confirmed non-ACM is also presented below in Table 2- Confirmed Non-Asbestos Containing Material Descriptions. The analytical data is presented in Appendix A. Inspector certifications are presented in Appendix B. Refer to the Figures for Sample Locations and Asbestos Containing Material Locations.

**Table 1**  
**Homogeneous Asbestos Containing Material Descriptions**

<b>HOMOGENEOUS AREA AND MATERIAL DESCRIPTION: FT5 – FLOOR TILE CREAM WITH BROWN AND GREEN STREAKS 12”X12”</b>				
Material Location:	Estimated Quantity:	Friability:	Condition:	Material Type:
Original Building at upper basement and 2 <sup>nd</sup> floor	350 SF	Non-Friable	Good	Miscellaneous
Sample #:	Sample Location:		Percent and Type of Asbestos:	
FT5-01	Upper basement northwest corner by entrance		Tile 6% chrysotile Mastic ND	
FT5-02	2 <sup>nd</sup> floor vestibule outside room #214 on east side		Not Analyzed	
FT5-03	2 <sup>nd</sup> floor room #213 east side		Not Analyzed	



The ACM Floor Tile is considered a non-friable Category I material. Maintained in good condition the material poses minimal risk of fiber release. Avoid activities such as grinding, sanding and cutting which may cause the material to become damaged. Should the materials become damaged, removal should be performed by personnel trained and certified to remove, transport and dispose of asbestos material.

**HOMOGENEOUS AREA AND MATERIAL DESCRIPTION: CDW2 – DRYWALL JOINT COMPOUND**

Material Location:	Estimated Quantity:	Friability:	Condition:	Material Type:
Original Building - Throughout	Not Determined	Friable	Good	Miscellaneous OSHA Class II
Sample #:	Sample Location:		Percent and Type of Asbestos:	
CDW02-01	Upper basement room #002 west wall		2%-4% Chrysotile in Joint Compound	
CDW02-02	Basement Room #0009 north wall east end		Not Analyzed	
CDW02-03	2 <sup>nd</sup> floor north wall northeast corner		Not Analyzed	



The Drywall Composite material was found to contain asbestos in the joint compound. The Drywall Composite material is present throughout the original building. The EPA and CDPHE do not consider the drywall wall systems (drywall board, tape and joint compound) as an asbestos containing material when composite analysis identifies 1 percent or less asbestos. OSHA considers each layer separately and the drywall joint compound as an asbestos containing materials and requires Class II asbestos worker training, engineering controls and work area containment for drywall wall system interior removal. Therefore, interior activities that may potentially impact ACM Drywall Joint Compound are regulated by OSHA and Schafer recommends that an asbestos abatement contractor perform removal of ACM Drywall Joint Compound.

**Table 2**  
**Non-Asbestos Containing Material Descriptions**  
**(Original Building)**

Sample Number:	Homogeneous Area and Material Description:
13006.1-PL01-01	Plaster wall – Gray granular multi colored room #001 northwest corner
13006.1-PL01-02	Plaster wall– Gray granular multi colored basement room #0004 northwest corner
13006.1-PL01-03	Plaster wall – Gray granular multi colored lower basement room #00010 south wall
13006.1-PL02-01	Plaster ceiling – White granular upper basement room #001 center
13006.1-PL02-02	Plaster ceiling – White granular lower basement room #0005 northwest corner
13006.1-PL02-03	Plaster ceiling – White granular lower basement room #0006 northeast corner
13006.1-LIP03-01	Lay in Panel 2’x4’ White large parallel fissures with small pinholes room #0008 northwest corner
13006.1-LIP03-02	Lay in Panel 2’x4’ White large parallel fissures with small pinholes room #0008 center
13006.1-LIP03-03	Lay in Panel 2’x4’ White large parallel fissures with small pinholes room #0008 south
13006.1-LIP04-01	Ceiling Tile 2’x4’ White – Small fissures with pinholes, basement room #0009 center
13006.1-PC01-01	Paint Coat gray with red undercoat and yellow adhesive room #0009 southeast corner
13006.1-PC01-02	Paint Coat gray with red undercoat and yellow adhesive room #0008 south side
13006.1-PC01-03	Paint Coat gray with red undercoat and yellow adhesive room #0005 northwest corner
13006.1-TS03-01	Textured Surfacing white slap on texture, upper basement room #002 south window
13006.1-TS03-02	Textured Surfacing white slap on texture, room #202 north wall
13006.1-TS03-03	Textured Surfacing white slap on texture, room #209 east wall
13006.1-TS03-04	Textured Surfacing white slap on texture, room #214 east wall
13006.1-TS03-05	Textured Surfacing white slap on texture, room #203 west wall
13006.1-TS03-06	Textured Surfacing white slap on texture, room #204 east wall
13006.1-TS03-07	Textured Surfacing white slap on texture, room #207 west wall
13006.1-TS04-01	Textured Surfacing white roller nap finish, lower basement room #0009 north wall west
13006.1-TS04-02	Textured Surfacing white roller nap finish, lower basement room #0009 north wall center

<b>Sample Number:</b>	<b>Homogeneous Area and Material Description:</b>
13006.1-TS04-03	Textured Surfacing white roller nap finish, lower basement room #0009 north wall east
13006.1-WG01-01	Window Glazing cream colored, exterior west side north end
13006.1-WG01-02	Window Glazing cream colored, south entrance window east of door
13006.1-WG01-03	Window Glazing cream colored, north side center
13006.1-ES03-01	Exterior Stucco gray granular with thin white finish coat, west side north end
13006.1-ES03-02	Exterior Stucco gray granular with thin white finish coat, south at basement door
13006.1-ES03-03	Exterior Stucco gray granular with thin white finish coat, west side south of overhang
13006.1-SVF03-01	Sheet Vinyl Flooring gray with dark gray specs, 2 <sup>nd</sup> floor room #214 west side
13006.1-SVF03-02	Sheet Vinyl Flooring gray with dark gray specs, 2 <sup>nd</sup> floor room #212 (craft room) east side
13006.1-SVF03-03	Sheet Vinyl Flooring gray with dark gray specs, 2 <sup>nd</sup> floor room #212 (craft room) north side center
13006.1-SVF04-01	Sheet Vinyl Flooring off white with gray and tan specs, 2 <sup>nd</sup> floor room #212 (craft room) north side center
13006.1-SVF04-02	Sheet Vinyl Flooring gray with dark gray and tan specs, 2 <sup>nd</sup> floor room #212 (craft room) north side east end
13006.1-SVF04-03	Sheet Vinyl Flooring gray with dark gray and tan specs, 2 <sup>nd</sup> floor porch outside room #214 (craft room) at door
13006.1-FT06-01	Floor Tile Composite 12" x 12" cream colored with turquoise streaks, 2 <sup>nd</sup> floor
13006.1-LIP06-01	Lay in Panel 2' x 2' white face with gray center medium perforations and small pinholes, room #211 center
13006.1-LIP06-02	Lay in Panel 2' x 2' white face with gray center medium perforations and small pinholes, room #205 west side
13006.1-LIP06-03	Lay in Panel 2' x 2' white face with gray center medium perforations and small pinholes, room #215 hallway north side
13006.1-LIP07-01	Lay in Panel 2' x 4' white with small fissures with medium pinholes, room #212 northwest corner
13006.1-LIP07-02	Lay in Panel 2' x 4' white with small fissures with medium pinholes, room #211 center
13006.1-LIP07-03	Lay in Panel 2' x 4' white with small fissures with medium pinholes, room #211 southeast corner
13006.1-LIP08-01	Lay in Panel 2' x 4' white with small deep fissures with medium pinholes, room #213 center
13006.1-UC01-01	Sink Undercoat black, room #207 on west wall
13006.1-SF01-02	Sheet Vinyl Flooring white with gray specs with floor tile under flooring, room #215 (men's room) west end

<b>Sample Number:</b>	<b>Homogeneous Area and Material Description:</b>
13006.1-SF01-03	Sheet Vinyl Flooring white with gray specs with floor tile under flooring, room #204 (women's room) east end

**Table 2**  
**Non-Asbestos Containing Material Descriptions**  
**(1986 Building Addition)**

<b>Sample Number:</b>	<b>Homogeneous Area and Material Description:</b>
13006.1-BBA01-01	Base Board Adhesive- yellow, room #110 southeast corner
13006.1-BBA02-01	Base Board Adhesive- yellow with dark brown specs, room #109 north wall west corner
13006.1-CA01-01	Carpet Adhesive – yellow carpet adhesive under dark blue with maroon, green and tan carpet, room #102 south side
13006.1-CDW01-01	Composite Drywall – ½” thick gray chalky with white finish coat, room #102 (billiard room) south wall
13006.1-ES01-01	Exterior Stucco- gray granular with thin white finish coat, north side
13006.1-ES02-01	Exterior Stucco Patch- light gray granular, east vestibule patch
13006.1-FT01-01	Floor Tile Composite- 12” x 12” green with associated mastic, room #105 (dining) northwest corner
13006.1-FT02-01	Floor Tile Composite- 12” x 12” cream colored with turquoise and gray streaks, #105 (dining) northeast corner
13006.1-FT03-01	Floor Tile Composite- 12” x 12” white with multi-colored specs, north vestibule northeast corner
13006.1-FT04-01	Floor Tile Composite- 12” x 12” cream and gray colored with ¾ “ square pattern and yellow mastic, room #100 east vestibule east side by door
13006.1-LIP02-01	Lay in Panel 2’ x 4’ white vinyl with pink drywall chalk, room #106 (kitchen) north side
13006.1-SF01-01	Sheet Flooring – white with gray specs, room #103 (women's room) north side by door
13006.1-SF02-01	Sheet Flooring – multi green colored with yellow adhesive, room #110 northwest corner
13006.1-TS01-01	Textured Surfacing – random bumpy texture with green paint, room #105 (dining) north wall
13006.1-TS02-01	Textured Surfacing – knock down texture, north vestibule north wall

#### 4. Lead Inspection

The scope of this survey was to perform a Lead Based Paint (LBP) screening of the materials located in the Brighton Senior Center. This LBP screening report presents data that describes the structure surveyed as well as the results of the survey. The United States Environmental Protection Agency (EPA), the U.S. Housing and Urban development (HUD), and the State of Colorado define LBP as paint that has a lead content of greater than or equal to 1.0 mg/cm<sup>2</sup> or 0.5% by weight. The LBP survey was completed on January 30, 2103 revealed that LBP equal to or above 1.0 mg/cm<sup>2</sup> did exist at the Brighton Senior Center in the following confirmed locations:

**Table 3**  
**Building Components containing Lead Base Paint**

Location	Component	Visible Color	Substrate
Staff Office	South Wall	White	Plaster
Activity Room	North Wall	Green	Plaster
Custodial Room	North/East Wall-	White	Plaster/Drywall
	East Window Pane -	White	Wood
Craft Room	East Wall	Peach	Plaster
	East Window Sill -	White	Wood
Craft Storage Room	South/West Wall	White	Drywall
	Window (North/East) (Pane, Jamb, Trim, Apron)	White	Wood
	Door Jam, Transom	White	Wood
Craft Storage Porch	Walls (All)	White	Plaster/Wood
	Door Jam (South/West)	White	Wood
	Window (All) Pane, Jam, Sill, Trim	White	Wood
	Ceiling	White	Wood
Hallway	Wall (SW Corner)	White	Drywall
Community Center	Ceiling Molding	Green	Metal
Kitchen	Window Jam, Trim (East)	White	Wood

<b>Location</b>	<b>Component</b>	<b>Visible Color</b>	<b>Substrate</b>
Upper Basement	Door Jamb, (North)	White	Wood
	Old Stair Handrail	White	Wood
	Stair Tread, Riser	Grey	Wood
Lower Basement	Door Jamb	Peach	Wood
	Drill Press	White	Peach
Boiler Room	Stair Handrail	White	Metal
	Window Pane, Trim (West)	Green	Wood
	Base Board (South)	Grey	Masonry
Exterior	Window Pane, Jamb, Sill (West)	White	Wood
	Lower Door, Jamb, Molding, Trim (West)	White	Wood
	Lower Window, Pane, Trim, Sill (West)	White	Wood
	Window Pane, Trim, Sill (West)	White	Wood
	Wall (North)	Grey	Wood
	Soffit	Grey	Wood
	Lower Door Trim (North)	White	Wood
	Window, Pane, Jamb, Trim (East)	White	Wood
	Parking Post	Yellow	Concrete

## 5. Fungal Inspection

The Microbial Inspection and Sampling performed at the Brighton Senior Center was a limited, non-intrusive examination designed to sample areas that may contain mold. The inspection was limited to those areas that were visually and physically accessible.

The purpose of the Microbial Inspection and Sampling was to conduct a visual microbial inspection and to collect microbial samples in order to determine the presence or absence of suspect growth within the occupied building.

Schafer performed a site investigation, collected bulk fungal samples to assess the conditions at the project site. Schafer's inspection included the following tasks:

- Performed accessible investigation, inspection of the areas of concern in the building for moisture infiltration and suspect fungal growth.
- Collect fungal bulk samples in areas of concern (AOC).
- Prepared a report of the findings with recommendations.

The microbial results are from direct microscopic examination (1050 Bulk) of samples for identification of fungal genera and were analyzed by a trained microscopist. The samples were analyzed by Aerobiology Laboratory Associates Incorporated, in Golden, Colorado.

**Table #4  
Microbial Spore Results**

<b>Sample #</b>	<b>Date</b>	<b>Microbial Sample Location</b>	<b>Results</b>
13006.1-25-M1	1/30/2013	Room # 25 Lay-in Panel Storage	<b>Slightly elevated levels of Cladosporium, Perconia, myxomycetes</b>  <b>Moderate levels of Aspergillus/Penicillium</b>
13006.1-25-M2	1/30/2013	Room #25 Mop Sink area	<b>Elevated levels of Aspergillus/Penicillium</b>  <b>Slightly elevated levels of Oedocephalum spores, hyphae and conidiophores</b>
13006.1-25-M3	1/30/2013	Lower Basement, West Wall	<b>A few Aspergillus/Penicillium spores</b>  <b>Slightly elevated levels of Epicoccum spores, Periconia, myxomycetes spores</b>
13006.1-25-M4	1/30/2013	Lower Basement, South Wall	<b>Slightly elevated levels of Aspergillus/Penicillium</b>

## 6. Conclusions and Recommendations

### Asbestos

The asbestos containing materials (ACM) identified at the project site are listed below.

#### Confirmed/Assumed Asbestos Containing Materials

- 12" x 12" Floor Tile cream colored with brown and green streaks – Original Building
- Drywall Joint Compound – Original Building
- Pipe Gasket Material – Original Building

Schafer recommends that a detailed Asbestos Abatement Specification be developed prior to performing planned renovation activities that may impact identified ACM at the project site. ACM that may be impacted is recommended to be removed by a CDPHE certified General Asbestos Contractor (GAC) in accordance with applicable regulations.

The Drywall Composite material was found to contain asbestos in the joint compound. The Drywall Composite material is present throughout the original building. The EPA and CDPHE do not consider the drywall wall systems (drywall board, tape and joint compound) as an asbestos containing material when composite analysis identifies 1 percent or less asbestos. OSHA considers each layer separately and the drywall joint compound as an asbestos containing materials and requires Class II asbestos worker training, engineering controls and work area containment for drywall wall system interior removal. Therefore, interior activities that may potentially impact ACM Drywall Joint Compound are regulated by OSHA. If the building is renovated or schedule for interior demolition, Schafer recommends that an asbestos abatement contractor perform removal of ACM Drywall Joint Compound.

Removal of ACM is not required by regulations unless the potential for an airborne release of asbestos fibers in excess of allowable levels exists. Typically the potential for an airborne release of asbestos fibers exists in three circumstances.

1. The ACM will be impacted during maintenance, renovation, or demolition.
2. The material is significantly deteriorated to the extent that asbestos debris is present.
3. The ACM will be subject to future deterioration by vibration, airflow, or weathering.

A compliant alternate to abatement of intact ACM is in-place management through an Operations and Maintenance (O&M) Program. The EPA has stated in its *Summary of*

*Managing Asbestos In-place (Green Book)*, - 1990 “Intact and undisturbed asbestos materials do not pose a health risk.”

ACM is required to be abated and/or managed properly during maintenance and renovation activities that may impact the ACM in order to prevent the release of airborne asbestos fibers.

Schafer performed an inspection of readily accessible areas of the building. Schafer only inspected for suspect ACM associated with building components. ACM is assumed to be present in the following locations and was not inspected due to inaccessibility;

1. Electrical Components (such as breaker boxes)
2. Equipment Components (such as Gaskets and Internal Insulations)

The OSHA requires that building owners notify the following persons of the presence, location, and quantity of ACM and presumed ACM in their buildings and facilities.

1. Prospective employers applying or bidding for work whose employees reasonably can be expected to work in or adjacent to areas containing such materials;
2. Employees of the owner who will work in or adjacent to areas containing such materials;
3. On multi-employer worksites, all employers of employees who will be performing work in or adjacent to areas containing such materials;
4. Tenants who will occupy areas containing such materials.

Planned renovation activities should be coordinated with the designated consultant to prevent disturbance of ACM, maintain regulatory compliance and to prevent asbestos fiber release protecting human health and the environment.

The OSHA requires contractors and workers be notified of the presence, quantity and location of asbestos and be protected from exposure to asbestos above the excursion limit of 1.0 Fibers per cubic centimeter (F/cc) and the permissible exposure limit of 0.10 F/cc over an 8 hour time weighted average for more than 30 days per year.

If the building is to remain, Schafer recommends that an Asbestos O&M Program be developed for the project site and that onsite personnel that will be performing maintenance activities potentially impacting ACM receive 2-Hour Asbestos Awareness Training.

### **Lead**

The conditions of the painted surfaces are satisfactory or good. Due to the condition of the LBP, it is not a LBP hazard at this time. It is recommended that the owner should

annually inspect painted surfaces and repaint as needed to prevent deterioration. When cleaning, wet mop with general purpose cleaner rather than sweeping. For occasional vacuuming, use a vacuum with a High Efficiency Particulate Air (HEPA) filter. If any construction or modernization work is done on the premises, this report should be given to the contractors, as well as any future tenants. Moreover, if the owner plans to renovate, repair, demolish, repaint and/or disturb the surfaces containing LBP it is recommended that the owner hire a certified LBP contractor and/or follow procedures in 40 CFR Part 745 *Lead; Renovation, Repair and Painting Program*.

If the renovation and/or repair work is completed by a certified contractor, they are required to follow the applicable Colorado State Regulations and Federal Regulations. (Including but not limited to EPA regulations and Occupational Health and Safety Administration (OSHA) Lead-in-Construction standards)

Finally, it should be noted that some painted surfaces that contain lead paint below the regulated level may contain trace concentrations of lead (less than 0.5%) and, if they are sanded, scraped or abraded, may create a lead dust hazard. The OSHA Lead in Construction standard applies to this work.

Schafer recommends that renovation plans be reviewed and that a detailed project specification be developed for the areas where LBP may be impacted to facilitate contractor's compliance with applicable regulations.

### **Mold**

The analytical results indicate slightly to moderately elevated microbial colonization in the samples collected of suspect fungal growth at the subject property. These microbial contaminations would indicate a moisture and/or water intrusion issue. The conditions and findings presented below were identified in the building;

- Visible fungal affected building materials and water damaged building materials were present in Room #25, and the lower basement West and South Walls.

Laboratory analysis confirmed the presence of amplified fungal growth in Room #25 and the lower basement area. Schafer recommends that the source of water infiltration be identified, corrected and that the fungal amplification be remediated by a qualified fungal remediation contractor in accordance with a Fungal Remediation Work Plan.

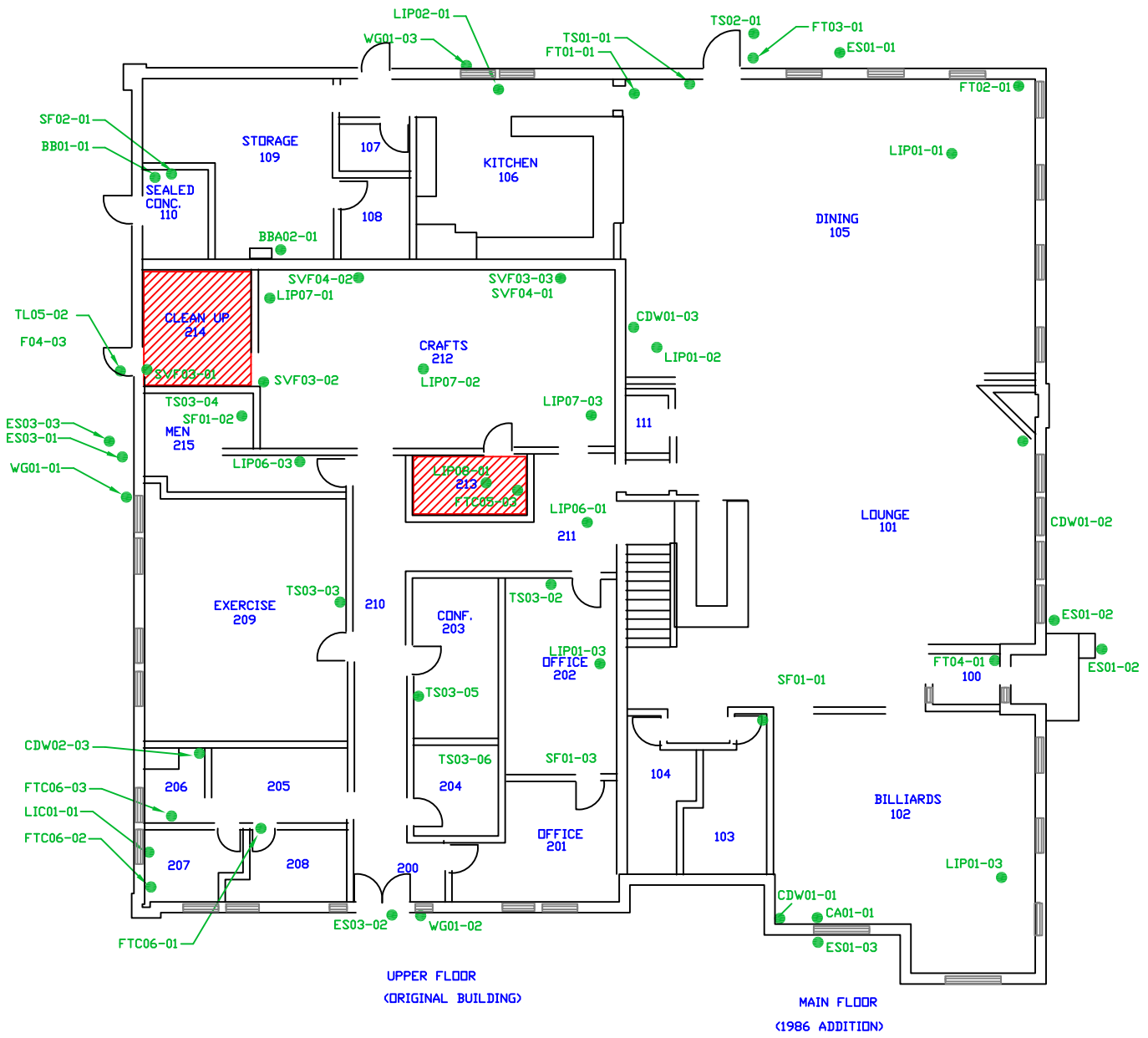
## 7. Limitations

Schafer performed a limited asbestos materials inspection of readily accessible areas in a manner consistent with the level of care and expertise exercised by members of the asbestos, industrial hygiene and environmental consulting profession. The scope of work addressed readily accessible and exposed areas of the building. Observation or sampling of inaccessible areas such as behind walls was not performed in all cases. Schafer does not imply or guarantee that every suspect ACM on or in the building has been identified or sampled. In the event of undiscovered suspect asbestos that was not identified during this investigation, the suspect material is required to be assumed to contain asbestos until sampling and analytical data confirm otherwise.





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Prepared By:  
Rod J. Schafer  
President

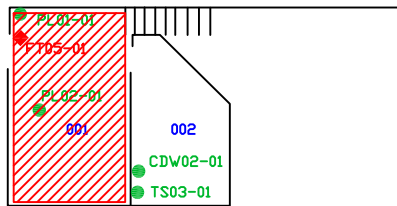


**LEGEND**

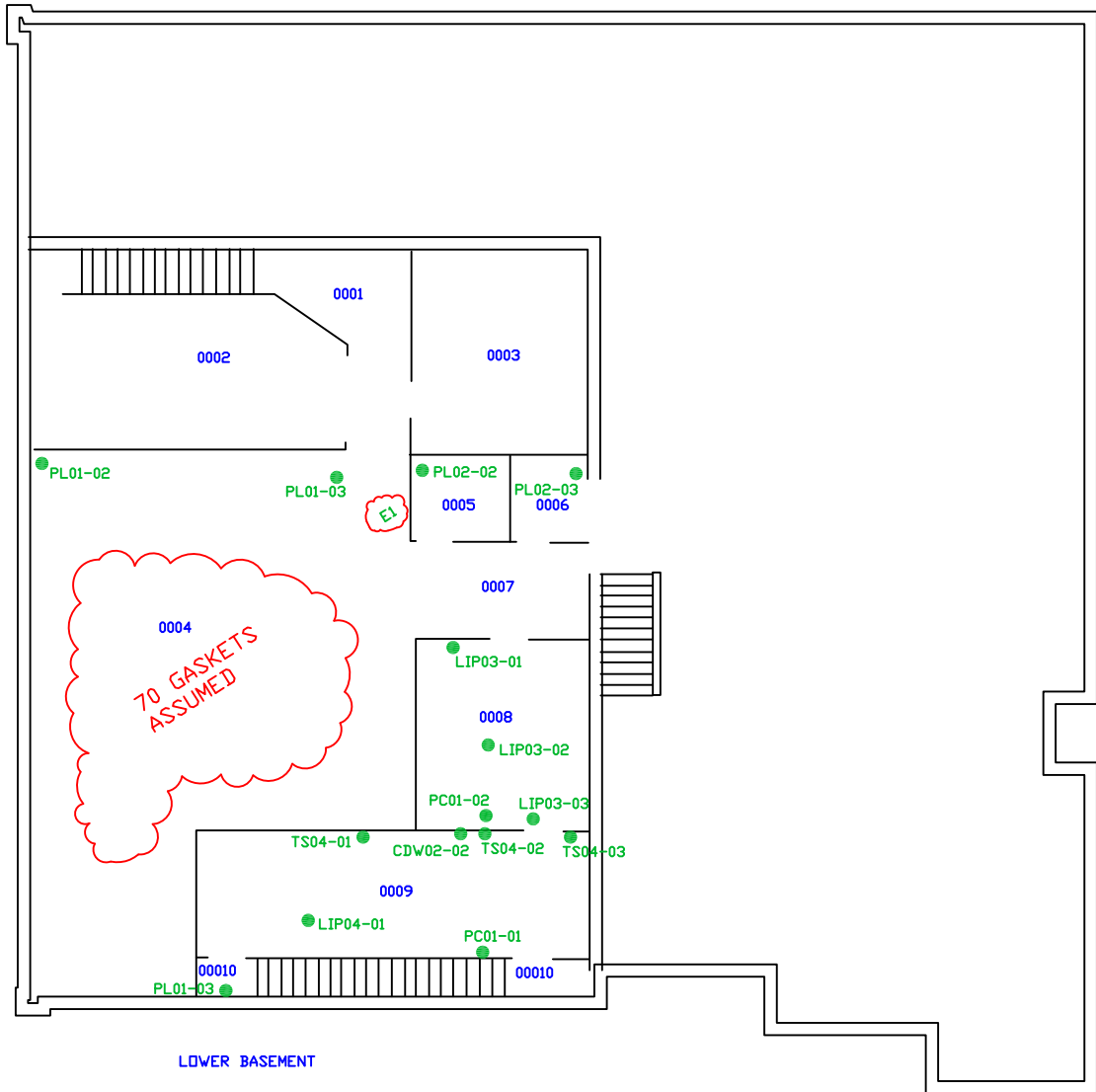
<span style="color: green;">●</span> CONFIRMED NON-ACM SAMPLE LOCATIONS	 CONFIRMED ACM FLOOR TILE
<span style="color: red;">◆</span> CONFIRMED ACM SAMPLE LOCATIONS	 ASSUMED ACM GASKETS



<b>FIGURE 1 - MAIN LEVELS SAMPLE AND REGULATED ACM LOCATIONS</b>		
BRIGHTON SENIOR CENTER 575 BUSH STREET BRIGHTON, COLORADO 80601		
SCALE: NTS	REVISED BY: KJS	REVISION DATE: 2-19-13



UPPER BASEMENT



LOWER BASEMENT



SCHAFAER ENVIRONMENTAL CONSULTING, INC.

10600 WEST ALAMEDA AVENUE, SUITE 209  
 LAKEWOOD, COLORADO 80226  
 PHONE 303.988.8871

SCHAFAER PROJECT #13006.1

LEGEND

- CONFIRMED NON-ACM SAMPLE LOCATIONS
- ◆ CONFIRMED ACM SAMPLE LOCATIONS
- CONFIRMED ACM FLOOR TILE
- ASSUMED ACM GASKETS

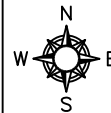


FIGURE 2 - BASEMENT SAMPLE AND REGULATED ACM LOCATIONS

BRIGHTON SENIOR CENTER  
 575 BUSH STREET  
 BRIGHTON, COLORADO 80601

SCALE:  
 NTS

REVISED BY:  
 KJS

REVISION DATE:  
 2-19-13

FIGURE

2



February 14, 2013

**Laboratory Code:** RES  
**Subcontract Number:** NA  
**Laboratory Report:** RES 252333-1R  
**Project # / P.O. #** 13006.1  
**Project Description:** Brighton Senior Center  
Original Bldg.

Jack Hoskinson  
Schafer Environmental Consulting, Inc.  
11126 W. Montana Place  
Lakewood CO 80232

Dear Customer,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA), Lab ID 101533 - Accreditation Certificate #480 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Reservoirs Environmental, Inc. has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

**RES 252333-1R** is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,

Jeanne Spencer  
President

Analyst(s): \_\_\_\_\_

Paul D. LoScalzo	Wenlong Liu
Michael Scales	Adam Humphreys
Anita Grigg	Robert R. Workman Jr.
Paige Terry	Anya Angst
Brett S. Colbert	Jillian A. Doherty
Que Pham	

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252333-1R**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Original Bldg.**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)		
					Mineral	Visual Estimate (%)				
<b>13006.1 FT05-01</b>	EM 216960	A	Tan mastic	5		<b>ND</b>	TR	100		
		B	Tan/multi-colored floor tile	95	<b>Chrysotile</b>	<b>6</b>			0	94
<b>13006.1 FT05-02</b>	EM 216961		Not Analyzed							
<b>13006.1 FT05-03</b>	EM 216962		Not Analyzed							
<b>13006.1 CDW02-01</b>	EM 216963	A	White tape	3		<b>ND</b>	95	5		
		B	White joint compound	5	<b>Chrysotile</b>	<b>4</b>			0	96
		C	White compound w/ peach paint	12	<b>Chrysotile</b>	<b>2</b>			0	98
		D	White/tan drywall	80		<b>ND</b>			10	90
<b>13006.1 CDW02-02</b>	EM 216964		Not Analyzed							
<b>13006.1 CDW02-03</b>	EM 216965		Not Analyzed							
<b>13006.1 PL01-01</b>	EM 216966	A	Gray granular plaster	100		<b>ND</b>	3	97		
<b>13006.1 PL01-02</b>	EM 216967	A	White plaster w/ white/tan paint	20		<b>ND</b>	0	100		
		B	Gray granular plaster	80		<b>ND</b>			3	97
<b>13006.1 PL01-03</b>	EM 216968	A	White plaster w/ white/tan paint	15		<b>ND</b>	0	100		
		B	Gray granular plaster	85		<b>ND</b>			3	97

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Data QA

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

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 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
13006.1 PL02-01	EM 216969	A	White micaceous plaster w/ gray paint	100		ND	TR	100
13006.1 PL02-02	EM 216970	A	White plaster w/ white paint	10		ND	0	100
		B	Gray granular plaster	90		ND	4	96
13006.1 PL02-03	EM 216971	A	White plaster w/ white/tan paint	30		ND	0	100
		B	Gray granular plaster	70		ND	5	95
13006.1 LIP03-01	EM 216972	A	Tan/white ceiling tile	100		ND	60	40
13006.1 LIP03-02	EM 216973	A	Tan/ ceiling tile	100		ND	65	35
13006.1 LIP03-03	EM 216974	A	Tan ceiling tile	100		ND	65	35
13006.1 LIP04-01	EM 216975	A	Tan/white ceiling tile	100		ND	60	40
13006.1 PC01-01	EM 216976	A	Tan resinous material	30		ND	0	100
		B	Gray/multi-colored paint	70		ND	0	100
13006.1 PC01-02	EM 216977	A	Tan resinous material	25		ND	0	100
		B	Gray/multi-colored paint	75		ND	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Data QA

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252333-1R**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Original Bldg.**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
13006.1 PC01-03	EM 216978	A	Gray/multi-colored paint	100		ND	0	100
13006.1 TS03-01	EM 216979	A	White compound	100		ND	0	100
13006.1 TS03-02	EM 216980	A	White compound w/ white paint	100		ND	0	100
13006.1 TS03-03	EM 216981	A	White compound w/ blue paint	100		ND	0	100
13006.1 TS03-04	EM 216982	A	White compound w/ white paint	100		ND	0	100
13006.1 TS03-05	EM 216983	A	White compound w/ white paint	100		ND	0	100
13006.1 TS03-06	EM 216984	A	White compound w/ white paint	100		ND	0	100
13006.1 TS03-07	EM 216985	A	White compound w/ white paint	100		ND	0	100
13006.1 TS04-01	EM 216986	A	White compound	100		ND	0	100
13006.1 TS04-02	EM 216987	A	White compound	100		ND	0	100
13006.1 TS04-03	EM 216988	A	White compound	100		ND	0	100
13006.1 WG01-01	EM 216989	A	White glaze w/ white paint	100		ND	TR	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252333-1R**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Original Bldg.**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
13006.1 WG01-02	EM 216990	A	White glaze w/ white paint	100		ND	TR	100
13006.1 WG01-03	EM 216991	A	White glaze w/ white paint	100		ND	TR	100
13006.1 ES03-01	EM 216992	A	Gray granular material w/ gray/white paint	100		ND	0	100
13006.1 ES03-02	EM 216993	A	Gray granular material w/ gray/multi-colored paint	100		ND	5	95
13006.1 ES03-03	EM 216994	A	Gray/multi-colored granular material w/ gray/white paint	100		ND	0	100
13006.1 SVF03-01	EM 216995	A	Tan adhesive	3		ND	0	100
		B	White/multi-colored sheet vinyl w/ gray fibrous backing material	97		ND	20	80
13006.1 SVF03-02	EM 216996	A	Tan adhesive	5		ND	0	100
		B	White/multi-colored sheet vinyl w/ gray fibrous backing material	95		ND	20	80

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252333-1R**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Original Bldg.**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
13006.1 SVF03-03	EM 216997	A	White/multi-colored sheet vinyl w/ gray fibrous backing material	100		ND	20	80
13006.1 SVF04-01	EM 216998	A	Tan adhesive	5		ND	0	100
		B	White/multi-colored sheet vinyl w/ white fibrous backing material	95		ND	20	80
13006.1 SVF04-02	EM 216999	A	Tan adhesive	2		ND	0	100
		B	White/multi-colored sheet vinyl w/ white fibrous backing material	98		ND	20	80
13006.1 SVF04-03	EM 217000	A	Tan adhesive	4		ND	0	100
		B	White/multi-colored sheet vinyl w/ white fibrous backing material	96		ND	20	80
13006.1 FTC06-01	EM 217001	A	Yellow mastic	2		ND	TR	100
		B	White resinous material	8		ND	TR	100
		C	Beige plaster	15		ND	0	100
		D	White/multi-colored floor tile	75		ND	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252333-1R**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Original Bldg.**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
13006.1 FTC06-02	EM 217002	A	Yellow mastic	2		ND	TR	100
		B	White resinous material	8		ND	TR	100
		C	White/multi-colored floor tile	90		ND	0	100
13006.1 FTC06-03	EM 217003	A	Yellow mastic	2		ND	TR	100
		B	White/multi-colored floor tile	98		ND	0	100
13006.1 LIP06-01	EM 217004	A	Tan/white ceiling tile	100		ND	60	40
13006.1 LIP06-02	EM 217005	A	Tan/white ceiling tile	100		ND	60	40
13006.1 LIP06-03	EM 217006	A	Tan/white ceiling tile	100		ND	60	40
13006.1 LIP07-01	EM 217007	A	Tan/white ceiling tile	100		ND	60	40
13006.1 LIP07-02	EM 217008	A	Tan/white ceiling tile	100		ND	60	40
13006.1 LIP07-03	EM 217009	A	Tan/white ceiling tile	100		ND	60	40
13006.1 LIP08-01	EM 217010	A	Tan/white ceiling tile	100		ND	65	35
13006.1 4C01-01	EM 217011	A	Black undercoating	100		ND	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Data QA

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252333-1R**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Original Bldg.**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
13006.1 SF01-02	EM 217012	A	Tan adhesive	3		ND	3	97
		B	White/multi-colored sheet vinyl w/ white fibrous backing material	97		ND	20	80
13006.1 SF01-03	EM 217013	A	Yellow adhesive w/ white fibrous material	3		ND	7	93
		B	Gray granular material	5		ND	TR	100
		C	White/multi-colored sheet vinyl w/ white fibrous backing material	92		ND	20	80

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Due Date: 2/1/13  
 Due Time: 5:40

RES 252333

# REILAB Reservoirs Environmental, Inc.

**SUBMITTED BY:** Schafer Environmental Consulting, Inc. **INVOICE TO: (IF DIFFERENT)** Schafer Environmental Consulting, Inc. **CONTACT INFORMATION:** Jack Hoskinson

Address: 11126 West Montana Place Phone:                     

Lakewood, Colorado 80232 Fax:                     

ATTN: Stephanie Schafer Cell/pager: (303) 358.7355

Project Number and/or P.O. #: 13006.1 Final Data Deliverable Email Address: J.Hoskinson045@comcast.net\ Rod.Schafer.SECI@comcast.net

Project Description/Location: Brighton Senior Center ORIGINAL BLDG.

**ASBESTOS LABORATORY HOURS:** Weekdays: 7am - 7pm  
 RUSH (Same Day)        PRIORITY (Next Day)   X   STANDARD

**CHEMISTRY LABORATORY HOURS:** Weekdays: 8am - 5pm  
       RUSH        24 hr.        3-5 Day

Metal(s) / Dust                     

RCRA 8 / Metals & Welding                     

Fume Scan / TCLP                     

Organics                     

\*\*Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.\*\*

\*\*Prior notification is required for RUSH turnarounds.\*\*

Special Instructions: Please call Jack with results. Thank you Progressive by Saf  
Perie client 2-1-13 g

Client sample ID number	PLM - Short report, Long report, Point Count	TEM - AHERA Level II, 7402, ISO, +/-, Quant, Semi-quant, Micro-vac, ISO-Indirect Preps	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s)	RCRA 8, TCLP, Welding Fume, Metals Scan	ORGANICS - BTEX, MTBE, 8260, GRO, DRO	OTHER -	Sample Volume (L) / Area	Matrix Code	# Containers	Date Collected mm/dd/yy	Time Collected hh/mm a/p	EM Number (Laboratory Use Only)
1 13006.1 FT05-01														219660
2 -02														1
3 -03														2
4 CDW02-01														3
5 -02														4
6 -03														5
7 PL01-01														6
8 -02														7
9 -03														8
10 PL02-01														9
11 -02														10
12 -03														11
13														12

Number of samples received: 13 (Additional samples shall be listed on attached long form.)

NOTE: REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days, failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

**Relinquished By:** [Signature] **Date/Time:** 1-31-13 **Date/Time:** 1740

**Laboratory Use Only** [Signature] **Date/Time:** 1-31-13 **Date/Time:** 5:40 **Carrier:** Hant

**Received By:** [Signature]

Results:	Contact	Page	Phone	Email	Fax	Date	Time	Initials
	Contact	Page	Phone	Email	Fax	Date	Time	Initials
	Contact	Page	Phone	Email	Fax	Date	Time	Initials

Sample Condition: On Ice        Sealed        Y/N       

Temp. (F°)        Y/N        Interest        Y/N







February 7, 2013

**Laboratory Code:** RES  
**Subcontract Number:** NA  
**Laboratory Report:** RES 252332-1  
**Project # / P.O. #** 13006.1  
**Project Description:** Brighton Senior Center Addition

Jack Hoskinson  
Schafer Environmental Consulting, Inc.  
11126 W. Montana Place  
Lakewood CO 80232

Dear Customer,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA), Lab ID 101533 - Accreditation Certificate #480 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Reservoirs Environmental, Inc. has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

**RES 252332-1** is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,

Jeanne Spencer  
President

Analyst(s): \_\_\_\_\_

- |                  |                       |
|------------------|-----------------------|
| Paul D. LoScalzo | Wenlong Liu           |
| Michael Scales   | Adam Humphreys        |
| Anita Grigg      | Robert R. Workman Jr. |
| Paige Terry      | Anya Angst            |
| Brett S. Colbert | Jillian A. Doherty    |
| Que Pham         |                       |

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252332-1**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Addition**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
13006.1-BBA01-01	EM 216943	A	Tan mastic	25		ND	0	100
		B	Tan mastic	75		ND	0	100
13006.1-BBA02-01	EM 216944	A	Brown mastic	45		ND	0	100
		B	Tan mastic	55		ND	0	100
13006.1-CA01-01	EM 216945	A	Tan mastic	100		ND	0	100
13006.1-CDW01-01	EM 216946	A	White joint compound	3		ND	0	100
		B	White tape	5		ND	98	2
		C	White compound w/ cream/gray paint	7		ND	0	100
		D	White/tan drywall	85		ND	10	90
13006.1-ES01-01	EM 216947	A	Gray paint	20		ND	TR	100
		B	Gray granular resinous plaster	80		ND	TR	100
13006.1-ES02-01	EM 216948	A	White granular resinous plaster w/ green/gray paint	100		ND	0	100
13006.1-FT01-01	EM 216949	A	Yellow mastic	TR		ND	0	100
		B	Green floor tile	100		ND	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Data QA

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252332-1**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Addition**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
<b>13006.1-FT02-01</b>	EM 216950	A	Yellow mastic	1		ND	0	100
		B	Gray leveler	3		ND	10	90
		C	Off white plaster	6		ND	0	100
		D	Off white/multi-colored floor tile	90		ND	0	100
<b>13006.1-FT03-01</b>	EM 216951	A	Yellow mastic	TR		ND	0	100
		B	Gray/multi-colored floor tile	100		ND	0	100
<b>13006.1-FT04-01</b>	EM 216952	A	Tan mastic	1		ND	0	100
		B	Gray/multi-colored floor tile w/ clear adhesive	99		ND	0	100
<b>13006.1-LIP02-01</b>	EM 216953	A	Pink/tan drywall ceiling tile	100		ND	15	85
<b>13006.1-SF01-01</b>	EM 216954	A	White resinous material	2		ND	0	100
		B	Tan mastic	5		ND	0	100
		C	Gray leveler	13		ND	TR	100
		D	White/gray sheet vinyl w/ white fibrous backing	80		ND	18	82

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Data QA

## RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0  
TDH Licensed Laboratory # 30-0136

**TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME**

RES Job Number: **RES 252332-1**  
 Client: **Schafer Environmental Consulting, Inc.**  
 Client Project Number / P.O.: **13006.1**  
 Client Project Description: **Brighton Senior Center Addition**  
 Date Samples Received: **January 31, 2013**  
 Analysis Type: **PLM, Short Report**  
 Turnaround: **3-5 Day**  
 Date Analyzed: **February 6, 2013**

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
<b>13006.1-SF02-01</b>	EM 216955	A	Tan mastic	2		<b>ND</b>	0	100
		B	Green floor tile	98		<b>ND</b>	0	100
<b>13006.1-SF01-01 Duplicate</b>	EM 216956		Not Analyzed - Duplicate Sample					
<b>13006.1-SF02-01 Duplicate</b>	EM 216957		Not Analyzed - Duplicate Sample					
<b>13006.1-TS01-01</b>	EM 216958	A	White paint w/ white compound	20		<b>ND</b>	0	100
		B	Green compound w/ green paint	80		<b>ND</b>	0	100
<b>13006.1-TS02-01</b>	EM 216959	A	Off white compound	50		<b>ND</b>	0	100
		B	White texture w/ cream paint	50		<b>ND</b>	0	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

Due Date: 2/17/13

Due Time: 5:40

RES 252332

# REILAB Reservoirs Environmental, Inc.

**SUBMITTED BY:** Schafer Environmental Consulting, INC.  
 Address: 11126 West Montana Place  
 Lakewood, Colorado 80232  
 ATTN: Stephanie Schafer

**INVOICE TO: (IF DIFFERENT)**  
 Company: Schafer Environmental Consulting, Inc.  
 Address: 11126 West Montana Place  
 Lakewood Colorado, 80232  
 ATTN: Stephanie Schafer

**CONTACT INFORMATION:**  
 Contact: Jack Hoskinson  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Cell/pager: (303) 358-7355  
 Final Data Deliverable Email Address: J.Hoskinson045@comcast.net \ Rod.Schafer.SECI@comcast.net

Client sample ID number (Sample ID's must be unique)	REQUESTED ANALYSIS			VALID MATRIX CODES			LAB NOTES:	
	PLM - Short report, Long report, Point Count	TEM - AHERA, Level II, 7402, ISO, +/-, Quant, Semi-quant, Micro-vac, ISO-Indirect Preps	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s)	RCRA 8, TCLP, Welding Fume, Metals Scan		ORGANICS - BTEX, MTBE, 8260, GRO, DRO
1 13006.1 - BBA 01-01	X							
2 - BBA 02-01	X							
3 - CA 01-01	X							
4 - CD 01-01	X							
5 - ES 01-01	X							
6 - ES 02-01	X							
7 - FT 01-01	X							
8 - FT 02-01	X							
9 - FT 03-01	X							
10 - FT 04-01	X							
11 - LI P 02-01	X							
12 - SF 01-01	X							
13 - SF 02-01	X							

**ASBESTOS LABORATORY HOURS:** Weekdays: 7am - 7pm  
 RUSH (Same Day) PRIORITY (Next Day) STANDARD  
 (Rush PCM = 2hr, TEM = 6hr.)

**CHEMISTRY LABORATORY HOURS:** Weekdays: 8am - 5pm  
 Metal(s) / Dust RUSH 24 hr. 3-5 Day  
 RCRA 8 / Metals & Welding Fume Scan / TCLP RUSH 5 day 10 day  
 Organics RUSH 24 hr. 3 day 5 Day

**Special Instructions:** Please call Jack with results. The 11/7/04

**Number of samples received:** 13 - See next page (Additional samples shall be listed on attached long form.)

**NOTE:** REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing client/company representative agrees that submission of the following samples for requested analysis as indicated on this Change Order body shall constitute an analytical services agreement with payment terms of NET 30 days, failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

**Relinquished By:** [Signature] Date/Time: 1-31-13

**Laboratory Use Only**

**Received By:** [Signature] Date/Time: 1/31/13 at 9:40 AM Carrier: Hand-Delivered

**Sample Condition:** On Ice Y/N Sealed Y/N Intact CAN

**Temp. (F°)** \_\_\_\_\_

**Results:** Contact Page Phone Email Fax Date Time Initials  
 Contact Page Phone Email Fax Date Time Initials



Submitted by: Schafee Environmental

Client sample ID number (Sample ID's must be unique)	REQUESTED ANALYSIS						VALID MATRIX CODES				LAB NOTES:										
	PLM - Short report, Long report, Point Count	TEM - AHERA, Level II, 7402, ISO, +/-, Quant, Semi-quant, Micro-vac, ISO-Indirect Preps	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) RCRA 8, TCLP, Welding Fume, Metals Scan	ORGANICS - BTEX, MTBE, 8260, GRO, DRO	OTHER -	Air = A	Bulk = B	Dust = D		Paint = P	Soil = S	Wipe = W	Drinking Water = DW	Waste Water = WW	Other = O	Matrix Code	# Containers	Date Collected mm/dd/yy	Time Collected hh:mm a/p
14	X																				
15	X																				
16	X																				
17	X																				
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41																					
42																					
43																					
44																					

\*\*ASTM E1792 approved wipe media only\*\*

Sample Volume (L) / Area  
1-30-13

Matrix Code  
EM 216956  
EM 216957

# Containers

Date Collected mm/dd/yy

Time Collected hh:mm a/p

EM Number (Laboratory Use Only)  
216956  
7  
6  
5

**ACCLAIM ENVIRONMENTAL**  
**S E R V I C E S I N G**

14367 Lakeview Lane, Broomfield, Colorado 80023

Tel: 303.424.4647

Fax: 303.432.8669

**CERTIFIES THAT**

**BRIAN KEYES**

Has successfully completed

The **EPA-Approved AHERA Annual Refresher Course** for INSPECTOR. This course is EPA-approved under Section 206 of the Toxic Substances Control Act (TSCA) and meets the requirements of Colorado Regulation No. 8.

Course Date: 01/23/13  
Exam Date: N/A  
Certificate No.: AE13-006-BI-R-06  
Expiration Date: 01/23/14

  
**K. Jay Gale, President**

# STATE OF COLORADO

## ASBESTOS CERTIFICATION\*

Colorado Department of Public Health  
and Environment  
Air Pollution Control Division

This certifies that

**Brian Keyes**

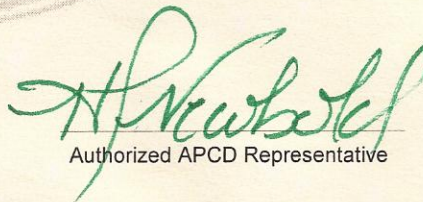
**Certification No: 5966**

has met the requirements of 25-7-507, C.R.S. and Air Quality Control  
Commission Regulation No. 8, Part B, and is hereby certified by the  
state of Colorado in the following discipline:

**Building Inspector\***

**Issued: 5/20/2012**

**Expires on: 5/20/2013**

  
Authorized APCD Representative

*\* This certificate is valid only with the possession of a current Division-approved training course  
certification in the discipline specified above.*

SEAL

## **Lead Based Paint Survey**



**Project:**  
**Brighton Senior Citizen Center**  
575 Bush Street  
Brighton, Colorado 80601

**Prepared For:**  
**Schafer Environmental Consulting, Inc.**  
10600 West Alameda Avenue, Suite 209  
Denver, Colorado 80226

February 5, 2013  
Project Number: L13.001

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## 1.0 Introduction

Environmental Technical Solutions, LLC (ETS) was contracted to provide a lead based paint (LBP) survey at Brighton Senior Citizen Center located at 575 Bush St., Brighton, CO 80601. The scope of this survey primarily involved testing utilizing X-Ray Fluorescence (XRF) analysis. ETS performed a lead screen per request of the client, testing only the areas that the client request be tested. The survey was conducted on January 31, 2013 by Andrew Knopp a Colorado, certified Lead Based Paint Inspector/Risk Assessor (Certification No. 17612)

This LBP survey report presents data that describes the structures surveyed, as well as results from the survey. **The United States Environmental Protection Agency (EPA), the U. S. Housing and Urban Development (HUD), and the State of Colorado define LBP as paint that has a lead content of greater than or equal to 1.0 mg/cm<sup>2</sup> or 0.5% by weight.**

## 2.0 Executive Summary

The LBP survey completed on January 31, 2013 revealed that LBP equal to or above 1.0 mg/cm<sup>2</sup> did exist at this commercial building in the following locations:

1. Staff Office Wall 1
2. Activity Room Wall 3
3. Custodial Room Wall 3, Wall 4, and Wall 3 window pane
4. Craft Room Wall 4, Wall 4 Window 3 sill
5. Craft Storage Wall 1, Wall 2, Wall 4 window pane, jamb, trim, and apron, Wall 3 door jamb, transom, Window 1 pane and trim, Window 2 apron
6. Craft Storage Porch Wall 1, Wall 2, Wall 3, Wall 4, wood ceiling, Wall 1 door jamb, window pane, jamb, and trim, Wall 2 window pane, jamb, and sill, Wall 3 window pane, jamb, and trim, Wall 4 window pane, jamb, and trim
7. Upstairs Hallway Wall 1 Southwest corner
8. Community Center Wall 3 green metal crown molding
9. Kitchen Wall 4 window jamb and trim
10. Upper Basement Wall 3 door jamb, stair handrail, stair tread, and stair tread.
11. Lower Basement Wall 1 door jamb, Wall 4 drill press
12. Boiler Room metal handrail, Wall 2 green window pane and trim, Wall 1 gray concrete baseboard
13. Exterior Side 2 window panes, jambs, trim, and sills, lower door jamb and molding

14. Exterior Side 3 upper porch components: wood walls, window components, door components, and soffit
15. Exterior Side 3 lower door trim
16. Exterior Side 4 window pane, jamb, and trim
17. Exterior yellow parking post

### **3.0 Site Description**

Brighton Senior Citizen Center located at 575 Bush St., Brighton, CO 80601 consists of a community room added in 1986, a kitchen, a second floor with multiple offices, and a lower basement with a boiler room. The exterior consists of stucco and brick with wood and metal trim. The interior of the buildings were drywall walls, plaster walls, brick walls, factory doors and cabinets, and wood windows and trim. As directed by the client, ETS performed a lead screen to determine which building components contained LBP.

### **4.0 Equipment Information**

During the survey, readings were collected by Andrew Knopp, using a Scitec Map 4 Spectrum Analyzer (Serial No. 1408) which utilizes X-Ray Fluorescence. The instrument was used in accordance with manufacturer operating specifications and procedures. According to manufacture specifications for the Map 4 analyzer, there are no substrate corrections required for all six substrates (brick, concrete, metal, plaster, drywall and wood). The XRF serial number 1408 was last sourced on January 9, 2012.

The Calibration of the Map 4 XRF was done in accordance with industry standards. The calibration check readings were recorded at the beginning of the inspection shift, at least every four hours during the inspection shift, at the end of each inspection shift when the machine is shut down, and every time during the inspection shift that the machine is turned off and on again.

### **5.0 Inspection Protocol and Sampling Procedures**

All survey procedures and sample collections were conducted in accordance with EPA, HUD Guidelines Chapter 7 (Revised 1997) and Colorado State Regulations. ETS was instructed by the client to only perform a lead screen.

As a procedural note the inspector labeled the address side of the building as "Wall 1" and then proceeded to test and label subsequent walls in a clockwise fashion 2, 3, etc. Some components such as kitchen cabinets and doors were factory issue and are not painted surfaces and were not tested.

## **6.0 Disclosure Requirements**

A copy of this summary must be provided to new lessees (tenants) and purchasers of this property under Federal Law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet and include standard warning language in their leases or sales contracts to ensure that parents have the information they need to protect their children from lead-based hazard.

## **7.0 Site Findings**

The survey conducted on January 31, 2013 indicates that LBP equal to or above 1.0mg/cm<sup>2</sup> did exist on the areas tested at Brighton Senior Citizen Center in the following locations:

1. Staff Office Wall 1
2. Activity Room Wall 3
3. Custodial Room Wall 3, Wall 4, and Wall 3 window pane
4. Craft Room Wall 4, Wall 4 Window 3 sill
5. Craft Storage Wall 1, Wall 2, Wall 4 window pane, jamb, trim, and apron, Wall 3 door jamb, transom, Window 1 pane and trim, Window 2 apron
6. Craft Storage Porch Wall 1, Wall 2, Wall 3, Wall 4, wood ceiling, Wall 1 door jamb, window pane, jamb, and trim, Wall 2 window pane, jamb, and sill, Wall 3 window pane, jamb, and trim, Wall 4 window pane, jamb, and trim
7. Upstairs Hallway Wall 1 Southwest corner
8. Community Center Wall 3 green metal crown molding
9. Kitchen Wall 4 window jamb and trim
10. Upper Basement Wall 3 door jamb, stair handrail, stair tread, and stair tread
11. Lower Basement Wall 1 door jamb, Wall 4 drill press
12. Boiler Room metal handrail, Wall 2 green window pane and trim, Wall 1 gray concrete baseboard
13. Exterior Side 2 window panes, jambs, trim, and sills, lower door jamb and molding
14. Exterior Side 3 upper porch components: wood walls, window components, door components, and soffit
15. Exterior Side 3 lower door trim
16. Exterior Side 4 window pane, jamb, and trim
17. Exterior yellow parking post

Appendix A contains a table listing XRF readings. (Positive readings are highlighted in red). Appendix B contains photographs of positive XRF readings.

## 8.0 Site Recommendations

The conditions of the painted surfaces are satisfactory or good. Due to the condition of the LBP, it is not a LBP hazard at this time. It is recommended that the owner should annually inspect painted surfaces and repaint as needed to prevent deterioration. When cleaning, wet mop with general purpose cleaner rather than sweeping. For occasional vacuuming, use a vacuum with a High Efficiency Particulate Air (HEPA) filter. If any construction or modernization work is done on the premises, this report should be given to the contractors, as well as any future tenants.

Moreover, if the owner plans to renovate, repair, demolish, repaint and/or disturb the surfaces containing LBP it is recommended that the owner hire a certified LBP contractor and/or follow procedures in 40 CFR Part 745 *Lead; Renovation, Repair and Painting Program*.

If the renovation and/or repair work is completed by a certified contractor, they are required to follow the applicable Colorado State Regulations and Federal Regulations. (Including but not limited to EPA regulations and Occupational Health and Safety Administration (OSHA) Lead-in-Construction standards)

**Finally, it should be noted that some painted surfaces that contain lead paint below the regulated level may contain trace concentrations of lead (less than 0.5%) and, if they are sanded, scraped or abraded, may create a lead dust hazard.**

## 9.0 Disclaimer

This is our report of a visual survey and XRF analysis of the readily accessible areas of the buildings and tested components, in accordance with the terms and conditions contained in the proposal. The presence or absence of lead-based paint or lead based paint hazards applies only to the tested or assessed surfaces on the date of the field visits and conditions may change due to deterioration or maintenance, ongoing monitoring by the owner is usually necessary. It should be noted that destructive investigation inside the facility and below-grade structures was not performed. In the event of earth work, renovation or demolition, lead could be discovered that was not identified during this investigation. **The scope of the materials inspected as part of this survey was limited to those paints and those locations that were requested by the client.**

#### **10.0 Use by Third Parties**

This report was prepared pursuant to agreements between ETS and client. That contractual relationship included an exchange of information about the subject site that was unique and between ETS and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between ETS and its client, reliance or any use of this report by anyone other than client, for whom it was prepared, is prohibited and therefore not foreseeable to ETS.

A handwritten signature in black ink, appearing to be 'Andrew Knopp', is written over a horizontal line. The signature is stylized with loops and a long horizontal stroke extending to the left.

Andrew Knopp  
Lead Based Paint Inspector/Risk Assessor  
Certification # 17612

## Appendix A-XRF Data

Room Type	Room #	Wall #	Component	Substrate	Condition	Color	Kgrade Pb Content mg/cm <sup>2</sup>	Lgrade
Calibration	*	*	*	*	*	*	-400	-400
Calibration	*	*	*	*	*	*	-400	-400
Calibration	*	*	*	*	*	*	1.27	1.23
Calibration	*	*	*	*	*	*	1.29	1.1
Calibration	*	*	*	*	*	*	1.26	1.27
Calibration	*	*	*	*	*	*	-0.64	0.6
Community Center	1	1	Wall	Drywall	Good	Green	0.22	0.49
Community Center	1	2	Wall	Drywall	Good	Off White	0.45	0.42
Community Center	1	3	Wall	Drywall	Good	Off White	-0.04	0.7
Community Center	1	3	Wall	Drywall	Good	Green	0.24	0.59
Community Center	1	4	Wall	Drywall	Good	Off White	0.25	0.31
Community Center	1	1	Window Pane	Wood	Good	White	0.33	0.21
Community Center	1	1	Window Jamb	Wood	Good	White	0.26	0.4
Community Center	1	1	Window Trim	Wood	Good	White	0.22	-0.18
Community Center	1	1	Door	Wood	Varnish	Brown	0.32	0.41
Community Center	1	1	Door Jamb	Metal	Good	White	0.7	0.82
Community Center	1	1	Door	Drywall	Good	Off White	0.53	0.7
Community Center	1	*	Ceiling	Drywall	Good	Off White	-0.44	0.46
Community Center	1	1	Door Molding	Metal	Good	White	-0.62	1.24
Community Center	1	1	Radiator	Metal	Good	White	0.39	0.97
Community Center	1	2	Window Pane	Wood	Good	White	0.05	0.43
Community Center	1	2	Window Jamb	Wood	Good	White	-0.31	0.02
Community Center	1	2	Window Trim	Wood	Good	White	-0.29	0.14
Community Center	1	3	Radiator	Metal	Good	White	0.48	0.91
Men's Bathroom	1	1	Wall	Drywall	Good	Off White	0.03	0.24
Men's Bathroom	1	2	Wall	Drywall	Good	Off White	-0.05	0.46
Men's Bathroom	1	3	Wall	Drywall	Good	Off White	0.43	0.47
Men's Bathroom	1	4	Wall	Drywall	Good	Off White	-0.17	0.25
Men's Bathroom	1	*	Ceiling	Drywall	Good	Off White	0.32	0.16
Men's Bathroom	1	3	Radiator	Metal	Good	Off White	0.23	0.71
Men's Bathroom	1	1	Door	Plaster	Good	Other	-0.91	0.07
Men's Bathroom	1	1	Door Jamb	Metal	Good	White	0.33	0.83
Men's Bathroom	1	3	Closet Wall	Drywall	Good	White	0.22	0.82
Men's Bathroom	1	3	Closet Supports	Wood	Good	White	0.07	0.42
Community Center	1	3	Wall	Brick	Good	Red	0.14	0.29
Community Center	1	3	Wall	Concrete	Good	Off White	0.3	0.52
Community Center	1	3	Stair Handrail	Metal	Good	Green	0.67	1.05
Staff Office	1	1	Wall	Plaster	Good	Off White	2.93	-0.24
Staff Office	1	1	Wall	Plaster	Good	Off White	4.12	1.41
Staff Office	1	2	Wall	Drywall	Good	Off White	-0.23	-0.21

Room Type	Room #	Wall #	Component	Substrate	Condition	Color	Kgrade Pb Content mg/cm <sup>2</sup>	Lgrade
Staff Office	1	3	Wall	Drywall	Good	Off White	-0.12	0.3
Staff Office	1	4	Wall	Drywall	Good	Off White	0.07	-0.06
Staff Office	1	1	Window Pane	Wood	Good	White	0.84	0.11
Staff Office	1	1	Window Jamb	Wood	Good	White	0.07	-0.03
Staff Office	1	1	Window Sill	Wood	Good	White	0.24	0.23
Staff Office	1	1	Window Apron	Wood	Good	White	0.15	0.08
Staff Office	1	1	Window Header	Wood	Good	White	0.3	-0.44
Staff Office	1	1	Window Trim	Wood	Good	White	0.18	0.59
Staff Office	1	1	Window Header	Wood	Good	White	0.07	-0.15
Staff Office	1	1	Trim	Wood	Good	White	0.07	-0.15
Staff Office	1	2	Door	Wood	Good	White	-0.06	0.73
Staff Office	1	2	Door Jamb	Wood	Good	White	0.12	-0.25
Staff Office	1	2	Door Molding	Wood	Good	White	0.16	-0.03
SE Staff Office	2	1	Wall	Drywall	Good	Off White	0.11	0.11
SE Staff Office	2	2	Wall	Plaster	Good	Off White	0.15	-0.08
SE Staff Office	2	3	Wall	Drywall	Good	Off White	0.57	-0.33
SE Staff Office	2	4	Wall	Drywall	Good	Off White	0.14	0.6
SE Staff Office	2	4	Door Molding	Wood	Good	White	-0.14	0.26
SE Staff Office	2	4	Baseboard	Wood	Good	White	-0.12	0.05
SE Staff Office	2	1	Window Pane	Wood	Good	White	-1.06	-0.14
SE Staff Office	2	1	Window Jamb	Wood	Good	White	0.46	0.21
SE Staff Office	2	1	Window Sill	Wood	Good	White	-0.11	0.46
SE Staff Office	2	1	Window Apron	Wood	Good	White	0.79	0.2
SE Staff Office	2	2	Window Pane	Wood	Good	White	0.28	0.44
SE Staff Office	2	2	Window Trim	Wood	Good	White	0.04	0.26
SE Staff Office	2	2	Window Apron	Wood	Good	White	0.09	-0.22
Health Clinic	3	1	Wall	Drywall	Good	Off White	-0.63	0.44
Health Clinic	3	1	Wall	Drywall	Good	Off White	0.19	0.56
Health Clinic	3	1	Wall	Drywall	Good	Off White	0.03	0.3
Health Clinic	3	1	Wall	Drywall	Good	Off White	-0.25	0.53
Health Clinic	3	2	Wall	Drywall	Good	Off White	-0.08	0.43
Health Clinic	3	2	Wall	Plaster	Good	Off White	0.51	-0.09
Health Clinic	3	2	Wall	Plaster	Good	Off White	-0.01	0.15
Health Clinic	3	3	Wall	Drywall	Good	Off White	-0.21	0.36
Health Clinic	3	3	Wall	Drywall	Good	Off White	-0.24	0.27
Health Clinic	3	3	Wall	Plaster	Good	Off White	0.51	-0.08
Health Clinic	3	3	Wall	Plaster	Good	Off White	-1.61	0.66
Health Clinic	3	4	Wall	Drywall	Good	Off White	-0.99	1.08
Health Clinic	3	2	Window 1 Pane	Wood	Good	White	0.67	0.34
Health Clinic	3	2	Window 1 Jamb	Wood	Good	White	0.09	0.55
Health Clinic	3	2	Window 1 Sill	Wood	Good	White	0.16	0.35
Health Clinic	3	2	Window 1 Apron	Wood	Good	White	-0.04	0.3

Room Type	Room #	Wall #	Component	Substrate	Condition	Color	Kgrade Pb Content mg/cm <sup>2</sup>	Lgrade
Health Clinic	3	2	Window 2 Trim	Wood	Good	White	-0.45	-0.17
Health Clinic	3	2	Window 2 Header	Wood	Good	White	0.16	0.38
Health Clinic	3	2	Baseboard	Wood	Good	White	-0.58	0.01
Health Clinic	3	3	Window Pane	Wood	Good	White	0.61	0.35
Health Clinic	3	3	Window Jamb	Wood	Good	White	0.15	0.27
Health Clinic	3	3	Window Trim	Wood	Good	White	-0.65	0.57
Health Clinic	3	3	Window Apron	Wood	Good	White	0	0.28
Activity Room	4	1	Wall	Drywall	Good	Blue	0.49	0.61
Activity Room	4	2	Wall	Drywall	Good	Green	0.2	0.49
Activity Room	4	3	Wall	Plaster	Good	Green	2.75	0.42
Activity Room	4	3	Wall	Plaster	Good	Green	1.69	0.12
Activity Room	4	4	Wall	Drywall	Good	White	0.08	0.45
Activity Room	4	3	Window 1 Pane	Wood	Good	White	0.63	0.4
Activity Room	4	3	Window 1 Jamb	Wood	Good	White	-0.03	0.32
Activity Room	4	3	Window 1 Trim	Wood	Good	White	0.18	0.26
Activity Room	4	3	Window 2 Sill	Wood	Good	White	-1.32	-0.52
Activity Room	4	3	Window 2 Apron	Wood	Good	White	-0.71	-0.33
Custodial Room	5	1	Wall	Drywall	Good	White	0.37	0.56
Custodial Room	5	2	Wall	Drywall	Good	White	0.11	0.7
Custodial Room	5	3	Wall	Plaster	Good	White	7.72	-0.32
Custodial Room	5	3	Wall	Plaster	Good	White	1.88	-0.34
Custodial Room	5	4	Wall	Drywall	Good	White	9.76	-0.67
Custodial Room	5	4	Wall	Drywall	Good	White	6.61	-0.68
Custodial Room	5	3	Window Pane	Wood	Good	White	1.28	0.1
Custodial Room	5	3	Window Jamb	Wood	Good	White	0.28	-0.26
Custodial Room	5	3	Window Trim	Wood	Good	White	0.18	0.28
Custodial Room	5	3	Window Header	Wood	Good	White	0.69	0.27
Custodial Room	5	3	Window Sill	Wood	Good	White	0.09	-0.11
Custodial Room	5	3	Window Apron	Wood	Good	White	0.5	-0.24
Craft Room	6	1	Wall	Drywall	Good	Peach	-0.26	0.57
Craft Room	6	2	Wall	Drywall	Good	Peach	0.2	0.86
Craft Room	6	3	Wall	Drywall	Good	White	0.19	0.76
Craft Room	6	4	Wall	Plaster	Good	Peach	5.97	0.91
Craft Room	6	4	Wall	Plaster	Good	Peach	8.17	-0.1
Craft Room	6	4	Window 1 Pane	Wood	Good	White	0.84	0.34
Craft Room	6	4	Window 1 Jamb	Wood	Good	White	-0.17	1
Craft Room	6	4	Window 2 Trim	Wood	Good	White	0.79	0.46
Craft Room	6	4	Window 3 Sill	Wood	Good	White	1.16	0.02
Craft Room	6	1	Window Pane	Wood	Good	White	0.54	0.39
Craft Room	6	1	Window Jamb	Wood	Good	White	0.3	0.24
Craft Room	6	1	Window Trim	Wood	Good	White	-0.01	-0.02

Room Type	Room #	Wall #	Component	Substrate	Condition	Color	Kgrade Pb Content mg/cm <sup>2</sup>	Lgrade
Craft Room	6	2	Door	Wood	Stain Varnish	Brown	-0.76	0.92
Craft Room	6	2	Door Jamb	Metal	Good	White	0.18	0.46
Craft Room	6	2	Closet Wall	Drywall	Good	White	-0.03	0.21
Craft Room	6	2	Closet Supports	Wood	Good	White	0.12	0.31
Craft Storage	7	1	Wall	Drywall	Good	Off White	4.41	-0.64
Craft Storage	7	1	Wall	Drywall	Good	Off White	5.19	-0.73
Craft Storage	7	2	Wall	Drywall	Good	Off White	6.68	0.01
Craft Storage	7	3	Wall	Plaster	Good	Off White	-0.43	0.36
Craft Storage	7	4	Wall	Plaster	Good	Off White	0.28	0.55
Craft Storage	7	4	Window Pane	Wood	Good	White	1.48	0.2
Craft Storage	7	4	Window Jamb	Wood	Good	White	3.66	0.79
Craft Storage	7	4	Window Trim	Wood	Good	White	1.42	0.14
Craft Storage	7	4	Window Apron	Wood	Good	White	4.34	0.13
Craft Storage	7	3	Door	Wood	Good	White	-0.18	0.33
Craft Storage	7	3	Door Jamb	Wood	Good	White	6.96	1.68
Craft Storage	7	3	Door Trim	Wood	Good	White	0.26	-0.45
Craft Storage	7	3	Door Plinth	Wood	Good	White	-0.15	0.12
Craft Storage	7	3	Door Transom	Wood	Good	White	2.76	0.56
Craft Storage	7	3	Window 1 Pane	Wood	Good	White	5.46	0.22
Craft Storage	7	3	Window 1 Trim	Wood	Good	White	4.35	0.25
Craft Storage	7	3	Window 2 Jamb	Wood	Good	White	0.56	0.14
Craft Storage	7	3	Window 2 Apron	Wood	Good	White	5.42	-0.85
Craft Storage Porch	8	1	Wall	Plaster	Good	White	3.54	-0.15
Craft Storage Porch	8	2	Wall	Wood	Satisfactory	White	3.9	1.01
Craft Storage Porch	8	3	Wall	Wood	Satisfactory	White	4.51	0.86
Craft Storage Porch	8	4	Wall	Wood	Satisfactory	White	2.94	0.67
Craft Storage Porch	8	1	Door Jamb	Wood	Good	White	7.05	0.75
Craft Storage Porch	8	1	Door	Wood	Good	White	-0.6	0.1
Craft Storage Porch	8	2	Door	Wood	Good	White	-0.47	0.78
Craft Storage Porch	8	2	Door Jamb	Wood	Good	White	4.41	1.39
Craft Storage Porch	8	2	Window 1 Pane	Wood	Good	White	2.93	0.4
Craft Storage Porch	8	2	Window 2 Jamb	Wood	Good	White	3.19	1.2
Craft Storage Porch	8	2	Window 2 Sill	Wood	Satisfactory	White	2.97	0.02
Craft Storage Porch	8	3	Window 1 Pane	Wood	Good	White	1.44	0.24
Craft Storage Porch	8	3	Window 2 Jamb	Wood	Good	White	2.22	0.61
Craft Storage Porch	8	3	Window 3 Trim	Wood	Good	White	2.1	0.51
Craft Storage Porch	8	4	Window Pane	Wood	Satisfactory	White	2.09	0.95
Craft Storage Porch	8	4	Window Jamb	Wood	Good	White	1.44	0.25
Craft Storage Porch	8	4	Window Trim	Wood	Good	White	3.18	0.17
Craft Storage Porch	8	1	Window Pane	Wood	Satisfactory	White	12.3	1.91
Craft Storage Porch	8	1	Window Jamb	Wood	Good	White	9.15	0.97

Room Type	Room #	Wall #	Component	Substrate	Condition	Color	Kgrade Pb Content mg/cm <sup>2</sup>	Lgrade
Craft Storage Porch	8	1	Window Trim	Wood	Good	White	12.9	2.14
Craft Storage Porch	8	*	Ceiling	Wood	Good	White	3.79	1.25
Library	9	1	Wall	Drywall	Good	Tan	0.32	0.63
Library	9	2	Wall	Drywall	Good	Tan	0.07	0.28
Library	9	3	Wall	Drywall	Good	Tan	-0.13	0.61
Library	9	4	Wall	Drywall	Good	Tan	0.18	0.37
Bathroom	2	1	Wall	Drywall	Good	Off White	-0.34	0.24
Bathroom	2	2	Wall	Drywall	Good	Off White	0.34	0.34
Bathroom	2	3	Wall	Drywall	Good	Off White	0.27	0.09
Bathroom	2	4	Wall	Drywall	Good	Off White	0.02	0.49
Hallway	1	1	Wall (SW Corner)	Drywall	Good	Off White	1.49	0.08
Hallway	1	1	Wall	Drywall	Good	Off White	0.07	0.68
Hallway	1	1	Wall	Drywall	Good	Off White	0.62	0.43
Hallway	1	2	Wall	Plaster	Good	Off White	0.72	-0.15
Hallway	1	3	Wall	Drywall	Good	Off White	0.2	0.14
Hallway	1	4	Wall	Drywall	Good	Off White	0.31	0.5
Hallway	1	2	Door 1	Wood	Good	White	-0.05	-0.26
Hallway	1	2	Door 2 Jamb	Metal	Good	White	0.38	0.19
Hallway	1	2	Door 3 Molding	Metal	Good	White	-0.3	0.24
Hallway	1	2	Door 1 Molding	Metal	Good	White	-0.08	0.7
Hallway	1	2	Window Pane	Wood	Good	White	0.76	0.37
Hallway	1	2	Window Jamb	Wood	Good	White	-0.17	0.15
Hallway	1	2	Window Trim	Wood	Good	White	-0.06	-0.22
Hallway	1	3	Door Jamb	Metal	Good	White	-0.06	0.42
Community Center	1	3	Ceiling Molding	Metal	Good	Green	7.41	1.38
East Entry	1	1	Wall	Drywall	Good	Off White	-0.95	0.25
East Entry	1	2	Wall	Drywall	Good	Off White	-0.19	0.05
East Entry	1	3	Wall	Drywall	Good	Off White	-0.04	0.37
East Entry	1	4	Wall	Drywall	Good	Off White	-0.73	0.13
East Entry	1	*	Ceiling	Drywall	Good	Off White	-0.88	0.13
East Entry	1	3	Door Jamb	Wood	Good	White	0.39	0.1
East Entry	1	3	Door Trim	Wood	Good	White	0.22	0.15
East Entry	1	4	Window Pane	Wood	Good	White	-1.26	0.6
East Entry	1	4	Window Jamb	Wood	Good	White	-0.49	1.21
East Entry	1	4	Window Trim	Wood	Good	White	-0.45	-0.14
Kitchen	1	1	Wall	Drywall	Good	Off White	0.34	0.44
Kitchen	1	1	Wall	Drywall	Good	Off White	0.25	0.46
Kitchen	1	2	Wall	Drywall	Good	Off White	-0.67	-0.56
Kitchen	1	2	Wall	Drywall	Good	Off White	0.29	0.69
Kitchen	1	3	Wall	Drywall	Good	Off White	0.02	0.41
Kitchen	1	4	Wall	Drywall	Good	Off White	0.29	0.61

Room Type	Room #	Wall #	Component	Substrate	Condition	Color	Kgrade Pb Content mg/cm <sup>2</sup>	Lgrade
Kitchen	1	1	Door	Wood	Good	White	0.23	0.57
Kitchen	1	1	Door Jamb	Metal	Good	White	-0.42	0.82
Kitchen	1	1	Closet Wall	Plaster	Good	White	0.32	0.33
Kitchen	1	2	Closet Wall	Plaster	Good	Off White	0.11	0.09
Kitchen	1	2	Closet Supports	Wood	Good	White	-0.19	0.75
Kitchen	1	2	Door	Wood	Good	White	0.08	0.55
Kitchen	1	3	Door	Metal	Good	White	0.4	0.57
Kitchen	1	3	Door Jamb	Metal	Good	White	0	0.66
Kitchen	1	4	Door	Metal	Good	White	0.26	0.89
Kitchen	1	4	Door Jamb	Wood	Good	White	0.36	0.36
Kitchen	1	4	Door Trim	Wood	Good	White	-0.16	0.13
Kitchen	1	4	Wall	Drywall	Good	Green	0.37	0.58
Kitchen	1	4	Radiator	Metal	Good	White	0.44	1.27
Kitchen	1	4	Window Jamb	Wood	Good	White	4.94	0.67
Kitchen	1	4	Window Jamb	Wood	Good	White	0.39	0.62
Kitchen	1	4	Window Trim	Wood	Good	White	1.33	0.34
Kitchen	1	4	Window Jamb	Wood	Good	White	0.55	0.47
Upper Basement	1	1	Wall	Drywall	Good	White	-1.02	0.65
Upper Basement	1	2	Wall	Masonry	Good	White	0.47	-0.51
Upper Basement	1	3	Wall	Masonry	Satisfactory	White	0.26	-0.5
Upper Basement	1	3	Wall	Wood	Satisfactory	Off White	0.22	0.44
Upper Basement	1	4	Wall	Masonry	Satisfactory	White	0.1	-0.32
Upper Basement	1	1	Door Jamb	Wood	Good	Off White	-0.36	0.35
Upper Basement	1	1	Door Molding	Wood	Good	Off White	-1.46	0.18
Upper Basement	1	2	Wall	Masonry	Good	White	-0.05	-0.45
Upper Basement	1	3	Wall	Drywall	Good	White	0.14	0.67
Upper Basement	1	4	Wall	Drywall	Good	White	-0.77	0.85
Upper Basement	1	2	Window Jamb	Wood	Good	Off White	0.66	0.41
Upper Basement	1	1	Baseboard	Wood	Good	Off White	0.03	0.52
Upper Basement	1	*	Ceiling	Plaster	Good	White	0.16	-0.28
Upper Basement	1	3	Door	Wood	Good	White	0.02	0.29
Upper Basement	1	3	Door Jamb	Wood	Good	White	5.44	1.14
Upper Basement	1	3	Door Trim	Wood	Good	White	5.9	1.32
Upper Basement	1	*	Stair Handrail	Wood	Good	Off White	0.07	0.24
Upper Basement	1	*	Old Stair Handrail	Wood	Good	Off White	7.37	3.32
Upper Basement	1	*	Newel Post	Wood	Good	Off White	0.57	0.65
Upper Basement	1	*	Baluster	Wood	Good	Off White	0.67	0.3
Upper Basement	1	*	Stair Tread	Wood	Satisfactory	Gray	1.78	0.16
Upper Basement	1	*	Stair Riser	Wood	Satisfactory	Gray	3.75	0.78
Upper Basement	1	*	Stair Stringer	Wood	Good	Gray	-0.22	0.03
Lower Basement	2	1	Wall	Masonry	Good	White	0.28	-0.01

Room Type	Room #	Wall #	Component	Substrate	Condition	Color	Kgrade Pb Content mg/cm <sup>2</sup>	Lgrade
Lower Basement	2	2	Wall	Masonry	Good	White	-0.15	-0.24
Lower Basement	2	3	Wall	Drywall	Good	White	-0.07	0.61
Lower Basement	2	4	Wall	Masonry	Good	White	-0.28	-0.12
Lower Basement	2	1	Door	Wood	Good	Other	0.62	0.42
Lower Basement	2	1	Door Jamb	Wood	Good	Peach	1.24	0.59
Lower Basement	2	1	Door Molding	Wood	Good	Peach	0.48	0.63
Lower Basement	2	2	Door	Wood	Good	White	-0.97	0.22
Lower Basement	2	2	Door Jamb	Wood	Good	Peach	0.73	0.31
Lower Basement	2	2	Door Molding	Wood	Good	Peach	0.75	0.59
Lower Basement	2	3	Door Jamb	Wood	Good	Red	-0.14	0.42
Lower Basement	2	*	Drill press	Metal	Good	Off White	3.29	1.9
Boiler Room	3	1	Wall	Masonry	Good	White	-0.62	0.05
Boiler Room	3	1	Wall	Masonry	Good	White	0.24	0.18
Boiler Room	3	2	Wall	Masonry	Good	White	-1.66	-0.62
Boiler Room	3	2	Wall	Drywall	Good	White	0.24	0.33
Boiler Room	3	3	Wall	Masonry	Good	White	-0.1	0.44
Boiler Room	3	4	Wall	Plaster	Good	White	-0.66	0.29
Boiler Room	3	*	Floor	Concrete	Good	Gray	0.46	0.71
Boiler Room	3	*	Stair Handrail	Metal	Good	White	2.98	1.99
Boiler Room	3	*	Pipe	Metal	Good	Blue	0.82	1.3
Boiler Room	3	*	Pipe	Metal	Good	Blue	-0.37	1.36
Boiler Room	3	*	Pipe	Metal	Good	Blue	0.56	1.22
Boiler Room	3	*	Stair Tread	Concrete	Good	Red	-0.21	0.51
Boiler Room	3	2	Window Pane	Wood	Good	Green	1.6	0.92
Boiler Room	3	2	Window Trim	Wood	Good	Green	1.26	0.99
Boiler Room	3	2	Wall	Masonry	Good	White	-0.46	0.29
Boiler Room	3	*	Pipe	Metal	Good	Blue	0.69	1
Boiler Room	3	1	Baseboard	Masonry	Good	Gray	6.09	2.37
Boiler Room	3	1	Baseboard	Masonry	Good	Gray	5.27	0.96
Exterior	1	1	Wall	Masonry	Good	Gray	-0.16	0.62
Exterior	1	1	Ceiling	Masonry	Good	Gray	-0.13	0.3
Exterior	1	1	Stair Handrail	Metal	Good	Green	-0.69	1.92
Exterior	1	1	Downspout	Metal	Good	Green	0.03	0.83
Exterior	1	2	Wall	Masonry	Good	Gray	-0.29	0.29
Exterior	1	2	Wall	Masonry	Good	Gray	0.06	0.58
Exterior	1	2	Window Pane	Wood	Good	White	4.12	0.93
Exterior	1	2	Window Jamb	Wood	Good	White	5.32	0.43
Exterior	1	2	Window Sill	Wood	Good	White	15.04	1.3
Exterior	1	2	Column Base	Masonry	Good	Gray	-0.23	-0.02
Exterior	1	2	Door	Wood	Good	White	-0.61	0.66
Exterior	1	2	Lower Door Jamb	Wood	Good	White	13.09	1.09

Room Type	Room #	Wall #	Component	Substrate	Condition	Color	Kgrade Pb Content mg/cm <sup>2</sup>	Lgrade
Exterior	1	2	Lower Door Molding	Wood	Good	White	16.8	1.79
Exterior	1	*	Stair Handrail	Metal	Good	Green	-0.01	0.85
Exterior	1	*	Stair Handrail	Metal	Good	White	0.57	0.74
Exterior	1	2	Door	Wood	Good	White	0.04	0.49
Exterior	1	2	Lower Window 2 Pane	Wood	Good	White	13.36	1.68
Exterior	1	2	Lower Window 2 Trim	Wood	Good	White	5.33	0.84
Exterior	1	2	Lower Window 2 Sill	Wood	Good	White	1.26	0.45
Exterior	1	2	Lower Window 2 Jamb	Wood	Good	White	-0.55	0.76
Exterior	1	2	Crown Molding	Metal	Good	Green	-0.09	0.46
Exterior	1	3	Wall	Masonry	Good	Gray	-2.28	-0.06
Exterior	1	2	Window Pane	Wood	Satisfactory	White	12.12	1.78
Exterior	1	2	Window Jamb	Wood	Satisfactory	White	10.03	1.67
Exterior	1	2	Window Trim	Wood	Satisfactory	White	14.68	1.98
Exterior	1	3	Wall	Wood	Poor	Gray	2.18	0.7
Exterior	1	*	Soffit	Wood	Good	Gray	7.96	0.13
Exterior	1	2	Door	Wood	Good	White	0.87	0.46
Exterior	1	2	Door Trim	Wood	Satisfactory	White	1.71	0.18
Exterior	1	2	Window Sill	Wood	Satisfactory	White	1.51	0.34
Exterior	1	3	Door	Metal	Good	White	0.21	0.71
Exterior	1	3	Door	Wood	Good	White	0.05	-0.42
Exterior	1	3	Lower Door Trim	Wood	Good	White	13.73	1.37
Exterior	1	3	Stair Handrail	Metal	Good	Green	0.42	1.07
Exterior	1	3	Stair Handrail	Metal	Good	Green	0.75	1.16
Exterior	1	4	Wall	Masonry	Good	Gray	-0.23	-0.01
Exterior	1	4	Wall	Masonry	Good	Gray	-0.93	0.57
Exterior	1	4	Downspout	Wood	Good	Green	-1.45	0.06
Exterior	1	*	Ceiling	Drywall	Good	Gray	-0.59	0.28
Exterior	1	4	Stair Handrail	Metal	Good	Black	0.21	0.86
Exterior	1	4	Window Pane	Wood	Good	White	3	0.58
Exterior	1	4	Window Jamb	Wood	Good	White	5.79	0.51
Exterior	1	4	Window Trim	Wood	Good	White	20.13	2.05
Exterior	1	4	Door	Metal	Good	White	-0.34	0.66
Exterior	1	4	Door Molding	Wood	Good	White	0.18	0.36
Exterior	1	*	Parking Post	Concrete	Good	Yellow	2.16	2.23
Calibration	*	*	*	*	*	*	-400	-400
Calibration	*	*	*	*	*	*	-400	-400
Calibration	*	*	*	*	*	*	1.3	1.23
Calibration	*	*	*	*	*	*	1.35	1.26
Calibration	*	*	*	*	*	*	1.26	1.3

**Appendix B - Photos**

**#1 Staff Office Wall 1**



**#2 Activity Room Wall 3**



**#4 Craft Room Wall 4 and Window**



**#5 Craft Storage Wall and Window**



**#5 Wall 3 Door Transom**



**#6 Craft Storage Porch Wall 2**



**#6 Craft Storage Porch Wall 3**



**#7 Hallway Wall 1**



**#8 Community Center Crown Molding**



**#9 Kitchen Wall 4 Window**



**#10 Upper Basement Wall 3 Door**



**#10 Upper Basement Handrail**



**#10 Upper Basement Stair Components**



**#11 Lower Basement Wall 1 Door Jamb**



**#11 Lower Basement Drill Press**



**#12 Boiler Room Handrail**



**#12 Boiler Room Baseboard**



**#12 Boiler Room Wall 2 Window**



**#13 Exterior Side 2 Lower Door**



**#13 Exterior Side 2 Window Components**



**#14 Exterior Side 3 Porch Components**



**#15 Exterior Side 3 Door**



**#16 Exterior Side 4 Window Components**



**#17 Exterior Parking Post**



## **Appendix C - Certificates**

# STATE OF COLORADO

Colorado Department of Public Health  
and Environment  
Air Pollution Control Division

## Lead Evaluation Firm Certificate

This certifies that


**Environmental Technical Solutions, LLC**

**LEF No. : 16784**

has met the requirements of 25-7-1104, C.R.S. and Air Quality  
Control Commission Regulation No. 19, and is hereby certified by  
the state of Colorado to perform lead-based paint evaluation  
activities in the state of Colorado.

**Issued: 9/4/2012**

**Expires on: 9/4/2013**



Authorized APCD Representative

SEAL

# STATE OF COLORADO

## LEAD-BASED PAINT CERTIFICATION\*

Colorado Department of Public Health  
and Environment  
Air Pollution Control Division

This certifies that

**Andrew Knopp**

**Certification No: 17612**

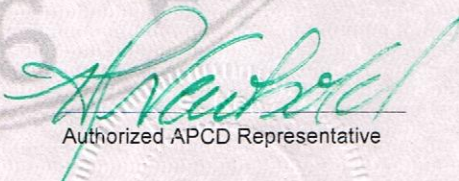
has met the requirements of 25-7-1104, C.R.S. and Air Quality Control  
Commission Regulation No. 19, and is hereby certified by the state of  
Colorado in the following discipline:

**Inspector\***

**Issued: 11/1/2012**

**Expires on: 11/1/2013**

*\* This certificate is valid only with the possession of a valid lead-based paint training certificate in the discipline specified above, issued by either a Colorado approved training provider, an EPA approved training provider, or a training provider approved by another EPA authorized program.*

  
Authorized APCD Representative

SEAL

# STATE OF COLORADO

## LEAD-BASED PAINT CERTIFICATION\*

Colorado Department of Public Health  
and Environment  
Air Pollution Control Division

This certifies that

**Andrew Knopp**

**Certification No: 17612**

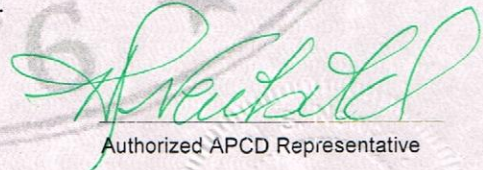
has met the requirements of 25-7-1104, C.R.S. and Air Quality Control  
Commission Regulation No. 19, and is hereby certified by the state of  
Colorado in the following discipline:

**Risk Assessor\***

**Issued: 8/3/2012**

**Expires on: 8/3/2013**

*\* This certificate is valid only with the possession of a valid lead-based paint training certificate in the discipline specified above, issued by either a Colorado approved training provider, an EPA approved training provider, or a training provider approved by another EPA authorized program.*



Authorized APCD Representative

SEAL

Schafer Environmental Consulting, Inc.  
11126 W Montana Pl  
Lakewood, CO 80232  
Attn: Rod Schafer

Date Collected: 02/01/2013  
Date Received: 02/01/2013  
Date Analyzed: 02/05/2013  
Date Reported: 02/05/2013

**Project : 13006.1 Brighton Senior Center**

**Project ID: 13001535**

Condition of Sample(s) Upon Receipt: Acceptable

Page 1 of 3

Client Sample Number: **13006.1-25-M1**

Lab Sample Number: **13001535-001**

Sample Location: **Lay in Panel Room #25**

Test Requested: **1050 Bulk, Direct Microscopic Exam**

**Results:**

**Laboratory Observation**

Occasional Cladosporium spores seen	1-5 per cover slip**
Moderate Penicillium/Aspergillus group spores seen	1 per 5 fields*
Occasional smuts,Periconia,myxomycetes spores seen	1-5 per cover slip**

Debris Rating 4\*\*\*

Comments: **Due to high levels of loose particulate in sample, quantification of fungal elements may be underestimated.**

Client Sample Number: **13006.1-25-M2**

Lab Sample Number: **13001535-002**

Sample Location: **Drywall at Mop Sink Room #25**

Test Requested: **1050 Bulk, Direct Microscopic Exam**

**Results:**

**Laboratory Observation**

Occasional Oedocephalum hyphae seen	1-5 per cover slip**
Occasional Oedocephalum conidiophores seen	1-5 per cover slip**
Moderate Oedocephalum spores seen	1 per 5 fields*
Numerous Penicillium/Aspergillus group spores seen	3-4 per field* (minimum)

Debris Rating 4\*\*\*

Comments: **Due to high levels of loose particulate in sample, quantification of fungal elements may be underestimated.**

Client Sample Number: **13006.1-LB-M3**

Lab Sample Number: **13001535-003**

Sample Location: **Plaster in Lower Basement West Wall**

Test Requested: **1050 Bulk, Direct Microscopic Exam**

**Results:**

**Laboratory Observation**

Occasional Epicoccum spores seen	1-5 per cover slip**
Few Penicillium/Aspergillus group spores seen	5 per cover slip**
Occasional smuts,Periconia,myxomycetes spores seen	1-5 per cover slip**

Debris Rating 4\*\*\*

Comments: **Due to high levels of loose particulate in sample, quantification of fungal elements may be underestimated.**

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Schafer Environmental Consulting, Inc.  
11126 W Montana Pl  
Lakewood, CO 80232  
Attn: Rod Schafer

Date Collected: 02/01/2013  
Date Received: 02/01/2013  
Date Analyzed: 02/05/2013  
Date Reported: 02/05/2013  
**Project ID: 13001535**

**Project : 13006.1 Brighton Senior Center**  
Condition of Sample(s) Upon Receipt: Acceptable

Page 2 of 3

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Client Sample Number: **13006.1-LB-M4**  
Sample Location: **Plaster Lower Basement South Wall**  
Test Requested: **1050 Bulk, Direct Microscopic Exam**

Lab Sample Number: **13001535-004**

**Results:**

**Laboratory Observation**

Occasional Penicillium/Aspergillus group spores seen

1-5 per cover slip\*\*

Debris Rating 4\*\*\*

Comments: **Due to high levels of loose particulate in sample, quantification of fungal elements may be underestimated.**

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Schafer Environmental Consulting, Inc.  
11126 W Montana Pl  
Lakewood, CO 80232  
Attn: Rod Schafer

Date Collected: 02/01/2013  
Date Received: 02/01/2013  
Date Analyzed: 02/05/2013  
Date Reported: 02/05/2013

**Project : 13006.1 Brighton Senior Center**

**Project ID: 13001535**

Condition of Sample(s) Upon Receipt: Acceptable

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## Footnotes and Additional Report Information

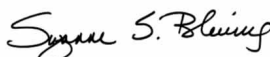
### Debris Rating Table

1	Minimal (<5%) particulate present	Reported values are minimally affected by particulate load.
2	5% to 25% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
3	26% to 75% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
4	75% to 90% of the trace occluded with particulate	Negative bias is expected. The degree of bias increases directly with the percent of the trace that is occluded.
5	Greater than 90% of the trace occluded with particulate	Quantification not possible due to large negative bias. A new sample should be collected at a shorter time interval or other measures taken to reduce particulate load.

1. Penicillium/Aspergillus group spores are characterized by their small size, round to ovoid shape, being unicellular, and usually colorless to lightly pigmented. There are numerous genera of fungi whose spore morphology is similar to that of the Penicillium/Aspergillus type. Two common examples would be Paecilomyces and Acremonium. Although the majority of spores placed in this group are Penicillium, Aspergillus, or a combination of both. Keep in mind that these are not the only two possibilities.
2. Ascospores are sexually produced fungal spores formed within an ascus. An ascus is a sac-like structure designed to discharge the ascospores into the environment, e.g. Ascobolus.
3. Basidiospores are typically blown indoors from outdoors and rarely have an indoor source. However, in certain situations a high basidiospore count indoors may be indicative of a wood decay problem or wet soil.
4. The Smut, Periconia, Myxomycete group is composed of three different groups whose spores have similar morphologies. Smuts are plant pathogens, Periconia is a relatively uncommon mold indoors, and Myxomycetes are not fungi but slime molds. Although these organisms do not typically proliferate indoors, their spores are potentially allergenic.
5. The colorless group contains colorless spores which were unidentifiable to a specific genus. Examples of this group include Acremonium, Aphanocladium, Beauveria, Chrysosporium, Engyodontium microconidia, yeast, some arthrospores, as well as many others.
6. Hyphae are the vegetative mode of fungi. Hyphal elements are fragments of individual Hyphae. They can break apart and become airborne much like spores and are potentially allergenic. A mass of hyphal elements is termed the mycelium. Hyphae in high concentration may be indicative of colonization.
7. Dash (-) in this report is reported as "not detected" (ND) or "<" (less than) with reference to the reportable limit.
8. The positive-hole correction factor is a statistical tool which calculates a probable count from the raw count, taking into consideration that multiple particles can impact on the same hole; for this reason the sum of the calculated counts may be less than the particle hole corrected total.
9. Due to rounding totals may not equal 100%.
10. Minimum Reporting Limits (MRL) for BULKS, DUSTS, SWABS, and WATER samples are a calculation based on the sample size and the dilution plate on which the organism was counted. Results are a compilation of counts taken from multiple dilutions and multiple medias. This means that every genus of fungi or bacteria recovered can be counted on the plate on which it is best represented.
11. If the final quantitative result is corrected for contamination based on the blank, the blank correction is stated in the sample comments section of the report.
12. Analysis conducted on non-viable spore traps is completed using Indoor Environmental Standards Organization (IESO) Standard 2210.
13. The results in this report are related to this project and these samples only.

### Terminology Used in Direct Exam Reporting

**Conidiophores are a type of modified hyphae from which spores are born. When seen on a surface sample in moderate to numerous concentrations they may be indicative of fungal growth.**



Suzanne S. Blevins, B.S., SM (ASCP)  
Laboratory Director

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# Old Brighton Senior Center

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## Appendix D Allowable Zoning Uses and Zone District Regulations

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# Old Brighton Senior Center

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alleged violation and shall have the power upon good cause to cancel or revoke the plan and to require corrective measures to be taken.

(d) Other Uses. No permanent structures may be constructed on mineral conservation districts, except fences, without demonstrating by competent proof that either minerals are not of commercial quantity and quality, or that such construction will not prohibit eventual extraction. Where structures are allowed, the minimum requirements of the R-1 or C-1 District shall be followed where applicable, except by special or conditional use permit. (Ord. 1964, 2008)

**Sec. 17-16-220. PL – Public Land.**

(a) Purpose. The PL District is a district in which public and semi-public facilities and uses are located, including governmental and educational uses. Some uses in this area are subject to the conditional use criteria and require the conditional use procedure to receive the approval of the Planning Commission and the City Council.

(b) General Requirements:

(1) Minimum frontage width at the building line: One hundred (100) feet.

(2) Minimum lot size: Twenty thousand (20,000) square feet.

(3) Minimum building setback:

a. Front: Fifty (50) feet from all streets.

b. Side: Fifteen (15) feet on one (1) side, five (5) feet on other side.

1. Four-hour rated construction: zero (0) feet on one (1) side abutting residential, fifteen (15) feet or equal, whichever is greater. Maximum required: twenty-five (25) feet.

c. Rear: fifteen (15) feet.

1. Abutting residential district: fifteen (15) feet or equal to height of building, whichever is greater. Maximum required: twenty-five (25) feet.

(4) Maximum building height: Sixty (60) feet.

(5) Landscaping. Twenty-five (25) feet average abutting any street (fifteen [15] feet minimum). In addition, side and rear setbacks if directly abutting a residential or MH zone district.

(c) General Restrictions. All outside storage shall require a conditional use approval and if approved shall be entirely concealed by a six-foot to eight-foot solid screen closed fence. When abutting a residential zone district, such fence shall be wooden, masonry or hedge. No vehicles in excess of one-and-one-half-ton capacity or semi-trailers shall be kept at the site.

(d) Minimum Off-Street Parking Spaces. In general, the use proposed for the site will require the same off-street parking requirements as those required for private development of a similar nature.

However, because of the wide variety of uses allowed in this zone, the Planning Department shall determine the parking requirements for each use, subject to the approval of the Planning Commission and the City Council. (Ord. 1964, 2008)

**Sec. 17-16-230. O – Open Space and Parks.**

(a) Purpose. The O District is a district in which public uses such as parks, trails, greenbelts, linear or connector spaces, and the customary accessory uses are allowed. Some uses in this District are subject to conditional use criteria and require the conditional use procedure to receive the approval of the Planning Commission and the City Council.

(b) General Requirements.

(1) Minimum frontage width at the building line: One hundred (100) feet.

(2) Minimum lot size: None.

(3) Minimum building setback:

a. Front: fifty (50) feet from all streets.

b. Side: fifteen (15) feet on one (1) side, five (5) feet on other side.

1. Four-hour rated construction: zero (0) feet on one (1) side, fifteen (15) feet on other side.

2. Abutting residential district: fifteen (15) feet or equal to building height, whichever is greater. Maximum: twenty-five (25) feet.

c. Rear: fifteen (15) feet.

1. Abutting residential district: fifteen (15) feet or equal to building height, whichever is greater. Maximum: twenty-five (25) feet.

(4) Maximum building height: Twenty-five (25) feet.

(5) Landscaping. Twenty-five (25) feet average abutting any street (fifteen [15] feet minimum). In addition, side and rear setbacks if directly abutting a residential or MH zone district.

(c) General Restrictions.

(1) In general, structures shall be limited to those required for maintenance and operations that normally are required for the customary use of the allowed uses in the Open Space and Parks Zone.

(2) All outside storage shall require a conditional use approval and, if approved, shall be entirely concealed by a six-foot to eight-foot solid screen closed fence. When abutting a



**CITY OF BRIGHTON  
TABLE OF USES**

USE CATEGORIES	SPECIFIC USES	ZONE DISTRICTS																										
		R E	R 1	R 1 A	R 1 B	R 2	R 3	M H	D T	M U N C	M U C C	M U R / E C C	P U D	S 4 C R	S 4 G W	C O	C 1	C 2	C 3	B P	I 1	I 2	M E	F C	P L	O P E N	A R	A E
Retail	Alcohol Sales								X	C	X	X	#				X	X	X	C	X							
	Auction House (not including livestock)											X	#							X	C	X						
	Auction Yard (not including livestock)											C	#									C	X		C			
	Auto Accessory and Supply									C	C	X	X	#				X	X			X	X					
	Convenience Store (not including gasoline station)								C	X	X	X	#				C	X	X	C	X	X						
	Flea Market												C	#						C		X			C			
	Grocery Store (less than 50,000 sq. ft.)								X	X	X	X	#		C		X	X	X	C								
	Grocery Store, Large (50,000 sq. ft. or more)								C		X	X	#					X	X	C	X							
	Heavy Machinery and Industrial Sales												C	#						C		X	X					
	Home and Garden Hardware and Supply								X	C	X	X	#					X	X			X						
	Landscaping Materials Supply												C	#								X	X		C			
	Pawnshop													#					C	C								
	Pawnshop with outdoor storage													#						C	C		C	X				
	Retail Store (less than 50,000 sq. ft.)								X	X	X	X	#	C	X		X	X	X	C	X							
	Retail Store, Large (50,000 sq. ft. or more)								C		X	X	#					X	X	C	X							
Secondhand Store								C	C	X	X	#				C	X	X			X							
Tobacco Sales								C	C	C	X	#					C	X										
Services	Bail Bonds Business											C	C	#				C	C									
	Bank, Drive-Through							X		X	X	#						X	X	C								
	Bank, Finance and Loan Company							X	X	X	X	#		X	X	X	X	X	X	X	X							
	Check Cashing Business								C	X	X	#						C	C									
	Funeral Home, Parlor							X		X	X	#			C	C	X	X	X									
	Funeral Home, Parlor (with Crematorium)							C			C	C	#					C	C	X								
	Home and Business Services (dispatched)							X	X	X	X	#	C	X			X	X	X	X								
	Home and Business Services (dispatched with outdoor storage)										X	X	#					X	X	X	X	X	X					
	Dry Cleaning Facility							X	X	X	X	#					X	X	X	C	X							
	Laundry, Self-Service							X	X	X	X	#					X	X	X		X							
	Personal Services							X	X	X	X	#	X	X	X	X	X	X	X	C	X							
	Print Shop							X	X	X	X	#		X	X	X	X	X	X	X	X							
	Printing and Publishing Establishment							X		X	X	#						X	X	X	X	X	X					
	Repair Shop (not including vehicles)							X	X	X	X	#					X	X	X			X						
	Tattoo and Body Piercing Establishment										C	C	#								C							
Taxidermy										C	X	#							X		X					X	X	
Shopping Center	Shopping Center, Community							X		X	X	#					X	X	C									
	Shopping Center, Neighborhood							X	X	X	X	#				C	X	X	C	X								



**CITY OF BRIGHTON  
TABLE OF USES**

USE CATEGORIES	SPECIFIC USES	ZONE DISTRICTS																											
		R E	R 1	R 1 A	R 1 B	R 2	R 3	M H	D T	M U N C	M U C C	M U R / E C	P U D	S 4 C R	S 4 G W	C O	C 1	C 2	C 3	B P	I 1	I 2	M E	F C	P L	O P E N	A R	A E	
	Truck Stop											#							C		X	X							
<b>INDUSTRIAL USES</b>																													
Food Production and Processing	Meat Processing, Packing and Slaughter											#											C						
	Processing, Bottling and Distribution											X	#								X	X	X						
Gas, Oil and Petroleum	Drilling											#									C	X	X	X	X	C	C	X	X
	Production, Processing and Manufacture											#										X	X	X	C				
	Storage of Gases or Liquefied Petroleum Gases (in approved portable metal cylinder for storage or sale)	C										C	#							C	C	X	X	X	C	C		X	X
	Support & Service Facility, Gas, Oil and Petroleum											C	#								C	C	X	X	X	C			C
Manufacturing and Fabrication	Arts and Crafts and Fine Arts								X		C	X	#							X	X	X	X						
	Hazardous Materials											#												C					
	Manufacturing, Heavy											#											X						
	Manufacturing, Medium																						C	C	X				
Resource Extraction, Production, Storage, and Distribution	Manufacturing, Light											X	#								C	X	X						
	Asphalt or Concrete Mixing Plant											#										S	X	S	S	S			
	Lumber Mill											#										C	X		C				
	Lumber Yard											#										C	X	X		X			
	Mineral Extraction											#												X	X				
Wholesaling, Storage and Warehousing	Storage of Natural Resources or Raw Materials											#										X	X	X	X	C	C		
	Cold Storage											X	#									C	X	X					
	Hazardous Materials											#												C					
	Mini-Storage											X	#									C	X	X					
	Outdoor Storage											C	#										X	X	X	S			
	RV and Large Vehicle Storage											C	#										X	X					
Other Industrial	Warehousing and Wholesaling											X	#									C	X	X					
	Crematorium											C	#									C	X	X					
	Laboratory for Research and Testing (including animals or hazardous materials)											C	#											C			C		
	Dry Cleaning Plant											C	#										X	X					
	Machine and Sheet Metal Shop											X	#										X	X					
Other Industrial	Repair, Heavy Equipment											C	#										X	X					
	Salvage, Dismantling or Junk Yard											#												C					

**CITY OF BRIGHTON  
TABLE OF USES**

USE CATEGORIES	SPECIFIC USES	ZONE DISTRICTS																												
		R E	R 1	R 1 A	R 1 B	R 2	R 3	M H	D T	M U N C	M U C C	M U R / E C	P U D	S 4 C R	S 4 G W	C O	C 1	C 2	C 3	B P	I 1	I 2	M E	F C	P L	O P E N	A R	A E		
	Waste-Related Use (not including junk yard or land fill)											C	#									X	X				C			
<b>PUBLIC, INSTITUTIONAL USES</b>																														
Child Care	Child Care Center	C	C	C	C	C	C	C	X	X	X	X	#	C	C	C	X	X	X	X						C	C	C	C	
	Family Child Care Home, Large	X	C	C	C				C	X	X	X	#	C	C													X	X	
	Family Child Care Home, Small	X	X	X	X	X	X	X	X	X	X	X	#	X	X													X	X	
Commercial Mobile Radio Service Facility	Freestanding Tower								C		C	C	#			C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	Wall-mounted or Building Roof						C		C	X	X	X	#			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Health Care	Ambulance Facility								X	C	X	X	#			C	X	X	X	X	X	X	X			X				
	Hospital								X		C	X	#			C	C	X	X	X	X					X				
	Senior Living Facility, Nursing (see also group living)						X		X	C	X	X	#			X	X	X	X											
	Sanatorium					C	C		C		C	C	#			C	C	C	C											
Public and Institutional	Cemetery and Columbarium												#													C	C			
	Church and Place of Worship	C	C	C	C	C	C		C	X	X	X	#	C	X	X	X	X	X			C					C	C		
	Fire Station	C	C	C	C	C	C	C	X	X	X	X	#	C	C	X	X	X	X	X	X	X	X			X		C	C	
	Lands devoted to soil conservation, forestry, and wildlife management programs												#												X	X	X	X	X	
	Library								X	X	X	X	#			X	X	X	X	X						X				
	Lodge, Fraternal and Social Organization								X	C	X	X	#			C	X	X				X								
	Morgue								C			X	#						C	C	X	X				X				
	Museum								X	X	X	X	#			X	X	X	X	X	X					X				
	Park and Open Space	X	X	X	X	X	X	X	X	X	X	X	X	#	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Police Station	C	C	C	C	C	C	C	X	X	X	X	#			X	X	X	X	X	X	X	X			X		C	C	
Post Office								X	X	X	X	#			X	X	X	X	X	X	X	X			X					
Public Utilities	Power Plant												C	#								C	X				C			
	Public Utilities Facility												C	C	#						C	C	X	X	C	C	X			
	Public Utility Storage Yard and Service Installation												C	#							C	X	X	C	C	X				
	Radio and TV Broadcasting Station							X		X	X	#					X	X	X			X	X				C			
	Radio and TV Tower (setback from property line 1.5 times the height of the tower)							C				C	#							C	C	C	C	C	C	C	C	C	C	
	Transmission Lines	C	C	C	C	C	C	C	C	C	C	C	#	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
Water and/or Sewer Treatment Plant												C	#							C	C	X	C	C	C					

**CITY OF BRIGHTON  
TABLE OF USES**

USE CATEGORIES	SPECIFIC USES	ZONE DISTRICTS																												
		R E	R 1	R 1 A	R 1 B	R 2	R 3	M H	D T	M U N C	M U C C	M U R / E C C	P U D	S 4 C R	S 4 G W	C O	C 1	C 2	C 3	B P	I 1	I 2	M E	F C	P L	O P E N	A R	A E		
	Water Reservoir	C										C	#								C	X	X	X	X	X	X	X		
School	Public, Private, Parochial	C	C	C	C	C	C	C	X	C	X	X	#	C	C	C	X	X	X	X	X	X						C	C	
	University and College								X	C	C	X	#			C	C	X	X	X	X					X			C	C
	Vocational, Trade, Business								X	C	X	X	#			C	X	X	X	X	X									
Transportation	Airport/Heliport and Airstrip/Helipad												C	#								C	C	C		C	C	C		
	Bus Stop	X	X	X	X	X	X	X	X	X	X	X	#	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Bus Terminal									C		C	X	#								X	X	X			X			
	Commuter Rail Station									X		C	X	#							C	X	X	X			X	C		
	Light Rail Station									X		X	X	#							C	C	X	X	X	X	X	C		
	Parking Lot	C	C	C	C	C	C	C	X	X	X	X	#	X	X	C	X	X	X	X	X	X	X	X	C	C	X			
	Parking Structure									X		X	X	#			C	X	X	X	X	X	X			X				
Railroad Yard													#									X	X			C	C			
Other Public, Institutional Uses	Landfill, Sanitary (certificate of designation from City Council required)												#									C	C	C	C	C				
<b>RESIDENTIAL USES</b>																														
Dwelling	Live/Work								X	X	X	X	#																X	X
	Manufactured Home	X	X	X	X	X	X	X					#																X	X
	Mobile Home							X					#																	
	Multiple					X	X		X		X	X	#		X															
	Residence above/behind Commercial or Office								X	X	X	X	#																	
	Single Family, Attached			X	X	X	X			X	X	X	#	X	X															
Single Family, Detached	X	X	X	X	X						X	X	#	X														X	X	
Group Living	Emergency Shelter								C		C	C	#								C	C					C			
	Group Home	X	X	X	X	X	X		X		X	X	#	X	X												C		X	X
	Residence, Protective	X	X	X	X	X	X		X		X	X	#														C		X	X
	Residence, Rehabilitation					C	C		C		C	C	#									C					C		C	C
	Senior Living Facility, Assisted					X	X		X	X	X	X	#			X	X	X	X											
	Senior Living Facility, Independent					X	X		X	X	X	X	#			X	X	X	X											
Senior Living Facility, Nursing					X			X		X	X	#			X	X	X	X												
<b>AGRICULTURAL USES</b>																														
Agricultural Support Business and Services	Animal Confinement Operation												#										C		C			C	C	
	Grain Elevator												#									X	X		C				C	C
	Veterinary Clinic, Livestock												#									X	X						C	C
Farming	Farm	C											#												C	C		X	X	
	Fish Hatchery												#									X	X	C	C	C				
	Nursery and Greenhouse, Commercial											X	#						X			X	X						C	C



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# Old Brighton Senior Center

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## Appendix E Itemized Cost Estimates

### Work Required for Change of Use

This category includes code-mandated upgrades required for the potential new uses.

#### School district use for teaching nutrition and life skills, especially to students with disabilities

Analysis of the upper level floor framing for conformance with requirements for E occupancies	\$2,500
Install tile wainscot at restrooms	\$2,500
Install telephone in elevator cab and repair emergency light	\$750
Install Emergency Power Off (EPO) switch at each boiler	\$5,000
Verify, through testing and balancing, amount of outside ventilation air to the building	\$7,500
Replace kitchen hood exhaust fan and ductwork to meet current code requirements	\$7,500
Provide domestic cold water to kitchen evaporative cooler to provide tempered air for exhaust makeup. Interlock fan to operate only when hood exhaust is operating.	\$1,000
Update panel directories in panels "LP" and "LP1"	\$1,500
Install GFCI receptacles where required by code and tamper-proof receptacles in any area to be occupied children 7 years of age or younger	\$1,000
Provide outlets adjacent to roof-top equipment	\$1,500
Reroute MC cable in main level mechanical room to provide required clearance	\$350
Correct emergency and egress lighting deficiencies	\$4,000
Inspect and test fire alarm system	\$1,000
Although not required by the IEBC, the existing restrooms should be reconfigured to meet current ADA accessibility guidelines	\$10,000
	TOTAL \$46,100

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## Old Brighton Senior Center

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### Rehearsal and studio space for local performing arts group—no public performance space

Install tile wainscot at restrooms	\$2,500
Install telephone in elevator cab and repair emergency light	\$750
Install Emergency Power Off (EPO) switch at each boiler	\$5,000
Verify, through testing and balancing, amount of outside ventilation air to the building	\$7,500
Add men's restroom with 1 water closet and lavatory to meet plumbing fixture requirements (Restore 2nd floor Janitors closet to a men's restroom)	\$5,000
Update panel directories in panels "LP" and "LP1"	\$1,500
Install GFCI receptacles where required by code	\$1,000
Provide outlets adjacent to roof-top equipment	\$1,500
Reroute MC cable in main level mechanical room to provide required clearance	\$350
Correct emergency and egress lighting deficiencies	\$4,000
Inspect and test fire alarm system	\$1,000
	TOTAL
	\$30,100

### Offices and activity space for the city's youth commission

Install tile wainscot at restrooms	\$2,500
Install telephone in elevator cab and repair emergency light	\$750
Install Emergency Power Off (EPO) switch at each boiler	\$5,000
Verify, through testing and balancing, amount of outside ventilation air to the building	\$7,500
Update panel directories in panels "LP" and "LP1"	\$1,500
Install GFCI receptacles where required by code	\$1,000
Provide outlets adjacent to roof-top equipment	\$1,500
Reroute MC cable in main level mechanical room to provide required clearance	\$350
Correct emergency and egress lighting deficiencies	\$4,000
Inspect and test fire alarm system	\$1,000
	TOTAL
	\$25,100

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# Old Brighton Senior Center

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## Serious Deficiencies

Remove deteriorated coatings at basement walls. Inspect structural foundation walls for damage, and repair as needed. Install breathable coating on walls	\$5,000
Remove all landscaping and irrigation located within 5' of structure Remove and replace apron at east side of 1986 addition	\$3,000
Install drains at below grade stairs	\$3,000
Patch delaminated concrete at south stair and install traffic coating	\$2,500
Repoint mortar joints in original building and replace missing or damaged brick	\$21,000
Reseal joints in sheet metal cornice and repaint	\$2,500
Repair cracks in EIFS coating at 1986 addition and replace sealant at windows	\$12,500
Repair deteriorated wood and repaint west porch	\$1,500
Replace roof at west porch	\$500
Replace flashing at top of north vestibule roof	\$1,000
Restore windows in original building and at shed roof of 1986 addition.	\$55,000
Install exterior waterproofing and perimeter drain	8,500
Main level boiler system:	\$8,500
Provide expansion tank	
Replace air scoop and provide automatic air vent	
Disconnect crossover piping	
Install dielectric fittings and couplings	
Replace circulation pumps	
Verify and adjust corrosion inhibitors	
Flush and clean heating piping	
Lower level boiler system:	\$1,500
Relocate air scoop and install automatic air vent	
Flush and clean heating piping	
Remove 100 amp, 2 pole fused disconnect switch tapped off the wireway to feed a 100 amp, 240/120 volt, 1 phase, 3 wire, 2 section electrical panelboard in the basement of the building.	\$700
Clean and relamp all fluorescent light fixtures. Replace non-functional ballasts, and damaged fixtures.	\$22,500
Add fire alarm and notification devices to basement	\$3,000

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# Old Brighton Senior Center

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## Minor Deficiencies

Rotomill and overlay existing asphalt parking lot	\$27,000
Repair stucco on north wing and repaint	\$2,000
Repaint sheet metal coping	\$750
Repair EIFS at east entry porch	\$2,000
Replace coating on ramp curb at east entry	\$750
Repaint handrails at east entry ramp	\$750
Restore wood door, sidelights and transom at south entry	\$5,500
Replace lockset at east vestibule door with exit device. Install ADA opener on door coordinated with exterior door.	\$2,500
Repair damaged interior doors	\$1,000
Install storm windows at original building	\$15,000
Repaint concrete floor and wood stair treads at basement	\$5,000
Replace VCT at basement entry storage area	\$800
Paint and repair walls where needed	\$1,500
Replace stained and damaged ceiling tiles	\$6,000
Remove existing VCT in dining room and install epoxy moisture barrier. Install new VCT after moisture barrier is installed.	\$17,000
Replace VCT in clinic; provide underlayment to prevent telegraphing of substrate flaws	\$1,400
Insulate heating piping throughout building	\$10,000
Install make-up air unit for kitchen exhaust system	\$9,500
Provide expansion tank on domestic hot water system.	\$750
Insulate domestic hot & cold water piping	\$7,500
Insulate domestic hot water tank	\$500
Remove abandoned gas piping in basement	\$1,000
Remove abandoned fused switchboard in the basement of the building which previously served pump equipment in the facility .	\$500
Replace incandescent bulbs with compact fluorescent bulbs	\$1,300
Revise lighting and controls to meet requirements of the IECC	\$7,000
Remove abandoned telephone cabinet in kitchen	\$500

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# Old Brighton Senior Center

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