



# ALL SAINTS' EPISCOPAL CHURCH

## Building Envelope Assessment and Capital Reserve Study

Atlanta, Georgia



### Final Report

July 3, 2019

WJE No. 2019.0709



*Prepared for:*

**Mr. Maurice Reddick**

**All Saints' Episcopal Church**

634 West Peachtree Street NW

Atlanta, Georgia 30308

*Prepared by:*

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## **ALL SAINTS' EPISCOPAL CHURCH Building Envelope Assessment and Capital Reserve Study**

**Atlanta, Georgia**

### **1.0 INTRODUCTION**

At the request of Mr. Maurice Reddick, Director of Property and Grounds for the All Saints' Episcopal Church (All Saints'), Wiss, Janney, Elstner Associates, Inc. (WJE) has completed a building envelope assessment and capital reserve study for the All Saints' Episcopal Church campus, located at 634 West Peachtree Street NW in Atlanta, Georgia. The All Saints' campus contains five separate buildings, which have been identified as (1) Main Church and Chapel, (2) Egleston Hall, (3) the Parish House which contains Ellis Hall, (4) the Pritchett Children's Center with an attached parking structure, and (5) a community outreach building consisting of Tate Hall, the Covenant Community, and retail/restaurant space. In addition to the buildings, the campus also includes several plazas, a covered walkway between buildings, site walls and fences, asphalt paved surface parking lots and access driveways, and a playground. Figure 1 illustrates the location of the buildings and associated site features.

This building envelope assessment consisted of a combination of a limited visual assessment of the building facades from ground level as well as a general roof condition assessment performed from accessible roof areas and via small unmanned aircraft system (sUAS or drone) survey of inaccessible roof areas. In addition to the building envelope assessment, WJE performed a limited review of the parking garage, interior finishes and furnishings, mechanical, electrical, and plumbing (MEP) systems, and site features as part of the capital reserve study to be used for capital planning. As discussed in our proposal, dated February 1, 2019, WJE is not a MEP engineering firm, nor an interior designer; therefore, for this study, all observations related to these elements are limited to identification of major system components and estimated service life based on industry standard publications.

Our assessment was performed as part of a two-day site visit to the campus on March 12 and 13, 2019, to perform a general condition survey of the buildings and associated site features. During the condition survey, no concealed conditions were exposed, no evaluation of the building design was performed, no water testing was performed to identify areas of water infiltration, and no tests were performed to verify material types or to identify potential hazardous materials.

Our opinions and probable costs represented in the capital reserve study are intended as a tool to help the All Saints' Episcopal Church prepare a reasonable reserve fund, specifically set aside for the eventual repair or replacement of the observed building envelope components, interior finishes and furnishings, MEP systems, and site features. Our opinions and comments should not be construed to warrant or guarantee the buildings, finishes and furnishings, MEP systems, or site features, their components, or associated land use.



Figure 1. Aerial view of the All Saints' Episcopal Church property.

## 1.1 DESCRIPTION OF PROPERTY

The All Saints' Episcopal Church campus is an ecclesiastical community consisting of five separate buildings located in the midtown district of Atlanta, Georgia. The campus is bound by Ponce De Leon Avenue to the north, West Peachtree Street to the east, North Avenue to the south, and Spring Street to the west. The five buildings, which were identified in Figure 1, are briefly described below and are included in the following report sections: Section 2.0 Main Church and Chapel, Section 3.0 Egleston Hall, Section 4.0 Parish House, Section 5.0 Pritchett Children's Center, and Section 6.0 Community Outreach Building consisting of Tate Hall, the Covenant Community, and retail/restaurant space. The following summarizes the general location, age, description, and a brief history of reported maintenance and/or interior renovations of each of the buildings.

### *Church and Chapel*

The Church was constructed circa 1906, with an adjoining Chapel addition constructed circa 1920. A steeple with a copper clad spire is located at the southeast corner of the building, near the corner of North Avenue and West Peachtree Street. The combined building is L-shaped in plan and encompasses approximately 9,750 square feet. The Church and Chapel are constructed with mass masonry exterior walls consisting of a combination of brown sandstone laid in a random ashlar pattern and brick masonry laid in a block bond pattern. Both the church and chapel have stained glass windows, which are protected by supplemental, clear acrylic panels. The Chapel, or portions thereof, was reportedly renovated in the early 1990s.

The Church and Chapel contain multiple roof coverings, including a combination of slate roofing shingles, copper panels at the spire, a single ply thermoplastic polyolefin (TPO) membrane, and a granular surfaced modified bitumen (GSMB) roof membrane. The slate shingle roofs are constructed with a 12:12 slope and typically contain raised end walls capped with stone copings and copper flashings. Copper covers are also provided at the ridges and hips and the roofs are drained by gutters and downspouts. The GSMB roof is also drained by gutters and downspouts. The TPO covered low slope roof, approximately 1/8 to 1/4 inch per foot slope, is drained by a through wall scupper and downspout.

It is our understanding that a restoration project was performed to the stained glass and nave windows as part of a larger renovation project to the Church and Chapel in 2014. A summary of observed conditions and recommendations for maintenance and repair is included within Section 2.0 of this report.

### *Egleston Hall*

Egleston Hall, which serves as the church office was constructed circa 1917, at the corner of Ponce De Leon Avenue and West Peachtree Street. The building is semi-circular in plan and encompasses a footprint of approximately 5,000 square feet. The west facade of this building adjoins the Parish House via a stair and circulation space enclosed by a three story curtain wall assembly, which was constructed circa 1956 and is described in further detail in Section 4.2. The building facade for Egleston Hall consists of mass masonry, similar to the Church and Chapel. The sandstone is laid in a random rubble pattern and the brick masonry is laid in a block bond pattern. Painted wood windows are located within punched openings in the masonry facades throughout the building. The wood windows within the brick masonry are surrounded by sandstone accents integrated with the brick masonry.

Egleston Hall contains numerous types of roof coverings, including slate roofing shingles, architectural style, laminated asphalt shingles, and TPO membrane roofing. At the east end of the building is a steep sloped, gable roof that transitions to a low sloped roof area on the west end of the building. The low sloped roof area has three different roof areas at three different levels; an upper roof area, a lower roof area, and a connector roof area that connects the Egleston Hall to the Parish House. The east slope of the gabled roof area is covered with slate roofing and the west slope is covered with architectural style, laminated, asphalt shingles. The low sloped roof covering consists of a TPO membrane.

The east slope of the roof is bound by a low height parapet wall that is clad with copper sheeting and capped with terra cotta coping that forms an internal gutter system drained by through wall scuppers. The west slope of the roof drains directly onto the low sloped roof areas below. The upper, low sloped roof area is sloped approximately 1/4 inch per foot to a perimeter gutter with downspouts that drains onto the west lower roof area. The lower roof area is sloped approximately 1/8 inch to 1/4 inch per foot to an internal gutter system along the perimeter of the roof, which is bound by a low height parapet wall clad on the interior with TPO and capped with terra cotta coping units. The internal gutter system is drained by through wall scuppers. The connector roof area is sloped approximately 1/8 inch to 1/4 inch per foot to two internal area roof drains.

It is our understanding that the roof of Egleston Hall was replaced in 2016. A summary of observed conditions and recommendations for maintenance and repair is included within Section 3.0 of this report.

### ***Parish House***

The Parish House, which contains Ellis Hall, was constructed circa 1956, and primarily serves as assembly rooms and meeting spaces for the church activities. The building footprint is approximately 80 feet by 90 feet in plan and encompasses approximately 7,200 square feet. As part of a previous project, the east building facade was integrated with Egleston Hall via a stairwell and circulation space that is enclosed by a three story curtain wall and bridges between both buildings. The exterior facade is constructed with a brick masonry veneer or transitional veneer system. The brick masonry was laid in half running bond, and is supported by exposed steel lintels at window and door openings throughout the facade. Painted metal windows, with cast stone window sills, are located within punched openings in the masonry facade.

The roof assembly for the Parish House is a single ply TPO membrane. The perimeter of roof area is bound by a parapet wall that is clad with TPO membrane on the interior face and capped with cast stone copings. The roof is sloped 1/8 to 1/4 inches per foot to four area drains, one near each corner of the roof. Overflow, through wall scuppers are also provided adjacent to the area roof drains.

It is our understanding that the roof of the Parish House was replaced in the mid- to late-2000s and an interior renovation was completed in 2015. A summary of observed conditions and recommendations for maintenance and repair is included within Section 4.0 of this report.

### ***Pritchett Children's Center***

The Pritchett Children's Center is a two to three story classroom building constructed over a two story parking structure that was completed in 1995. The building houses classrooms serving the children and youth ministry of the church, including a preschool during the week. The footprint is L-shaped in plan and encompasses approximately 16,000 square feet. The facade at the parking garage consists of exposed cast-in-place concrete with steel grates; the upper three floors are clad with a manufactured stone masonry veneer laid in a coursed ashlar pattern with aluminum framed window units.

The Pritchett Center contains two different types of roof coverings, consisting of architectural style, laminated, asphalt shingles on the steep slope roof areas and a TPO membrane at the low-slope roof areas. The main upper roof contains a combination of steep sloped, mansard and gable roofs that transition to upper and lower, low sloped roof areas. The middle portion of the main upper roof is recessed and is sloped 1/8 inch to 1/4 inch per foot to two internal area roof drains. Overflow drains are provided in the adjacent saddles. The east and west ends of the upper main roof areas slope to the edge and drain onto the adjacent mansard roofs. The mansard roofs then drain down to a low-sloped perimeter roof area that is clad with a TPO membrane assembly and terminated by counter flashings on the interior face of the low-height parapet wall. The parapet wall is capped with cast stone coping units. An area roof drain and overflow drain are provided in each low-slope perimeter roof area between gabled roof sections at the bottom of the mansard roof areas.

It is our understanding that an extensive renovation and attic build-out was performed in 2014; the roof was reportedly replaced as part of this project. A summary of observed conditions and recommendations for maintenance and repair is included within Section 5.0 of this report.

### ***Community Outreach Building***

The Community Outreach Building includes the Covenant Community, restaurant/retail space, and Tate Hall and is located at the corner of Ponce De Leon Avenue and North Avenue. The building footprint consists of multiple connected structures, which appear to have been constructed at different times, and is approximately 17,750 square feet in plan. The Covenant Community and Tate Hall were constructed in the 1980s. The era of the retail/restaurant space is unknown; however, it is our understanding that these spaces were acquired by the church between the mid-1970s and early 1990s. The building facades consist of a combination of single wythe concrete masonry units (CMU) and brick masonry veneer with aluminum framed storefront window systems.

The roofing systems throughout the building consist of modified bitumen membrane (Tate Hall), GSMB (Covenant Community and portions of the Retail/Restaurant area), and TPO (portions of the Retail/Restaurant area) roof membranes. The roof areas are generally sloped approximately 1/8 inch to 1/4 inch per foot to a gutter with downspouts located along one end of the roof. No overflow provisions were provided. The age of the roof coverings is unknown; however, it appears the membranes are at least 10 years old or older, with the roof at Tate Hall appearing to be 20 years old or older.

WJE is not aware of any recent or significant renovations or building envelope maintenance performed at any of the portions of the community outreach building. A summary of observed conditions and recommendations for maintenance and repair is included within Section 6.0 of this report.

## 2.0 CHURCH AND CHAPEL BUILDING

WJE visited the Church and Chapel building, located at the southeast corner of the All Saints' Episcopal Church campus in order to perform a general condition survey of the exterior building facade and roofing systems, as well as documentation of the interior finishes and furnishings. WJE also documented the MEP systems; a list of the systems observed and approximate ages reported has been provided in Section 2.4, below. During the assessment, WJE was escorted throughout the property by Mr. Maurice Reddick and members of the All Saints' facilities maintenance staff, who disclosed on-going concerns and provided information regarding the replacement and repair of roofing and facade systems.

For purposes of this assessment, the building facade was observed from the ground and the roof assessment was performed from the accessible portions of the roof, as described in later sections of this report. Inaccessible portions of the roof were assessed with a drone survey. The overall condition of the building facade and roofing systems, as well as the interior finishes and furnishings, observed during the site visit has been outlined in the following sections. Each system is outlined with a brief description, summary and discussion of observed conditions, and brief recommendations for repair and maintenance. Representative photographs have been provided with each system description.

Within the recommendations for repair and maintenance, the approximate service life (from new) and frequency of maintenance items have been included, as well as an opinion of probable costs in 2019 dollars. The cost figures are based on WJE's experience with similar repairs and industry provided references. Actual costs may be expected to vary considerably depending on economic conditions and the particular specifications for the actual repair or maintenance work to be performed at the time a contract is awarded. Similarly, for interior finish cost estimates, WJE has provided selected representative cost estimates; however, actual costs could vary significantly, depending on the quality and type of materials selected for renovations. It should be noted that quantities were based on limited field observations and measurements. To obtain accurate cost information, we recommend that All Saints' retain a registered architect/engineer to develop a detailed scope of work and specifications for maintenance and/or repairs and obtain bids from qualified contractors, based on accurate quantities at the time the work is performed.

The following briefly summarizes the conditions observed and the recommended maintenance and/or repairs. A table summarizing our opinions of probable costs has been provided at the end of this report.



*East facade of the Church and Chapel Building.*



*South facade of the Church and Chapel Building.*

## 2.1 Roofing Systems

The Church and Chapel Building contain multiple types of roof coverings. The main gabled roof areas are covered with slate roofing shingles and the tower roof and spire are covered with copper roof panels. The low sloped roof above the covered walkway and entrance to the front of the building is covered by a single ply thermoplastic polyolefin (TPO) and one small roof section between the Church and Chapel Building is covered with a granular surfaced modified bitumen (GSMB) roof membrane. The Main Church Building was built in 1906 and the Chapel constructed circa 1920. A renovation and addition to the Chapel was completed in the early 1990s. The slate shingles and GSMB membrane on the Chapel are original; however, the type and age of the slate and copper roofs on the Church building is unknown.

|            |      |        |      |      |
|------------|------|--------|------|------|
| Condition: | New  | Good   | Fair | Poor |
| Priority:  | High | Medium |      | Low  |



### Summary and Discussion of Observed Conditions:

- WJE surveyed the condition of the roofing systems of the Main Church and Chapel Building using an aerial drone. Overall views of the roofs from our drone survey are shown in Figures 2.1-1 through 2.1-10, below.
- The slate shingles on the Church appear to be in fair to good condition and the slate shingles on the Chapel roof appear to be in good condition. WJE observed numerous shingles on the Church and a few shingles on the Chapel with possible delaminations, cracks, and chipped and missing corners. At a few locations, partially missing slate shingles were observed. At several locations throughout the roof area, shingles that appeared to have slid down and slightly out of position.
- Isolated slate roofing shingles appear to have been replaced, indicated by the different colored slate shingles and copper clips located along the bottom edge of the shingles (Figures 2.1-11).
- Dark black staining was observed on many areas of the shingles, mostly located on the north facing slopes (Figure 2.1-12).
- Several shingles throughout the slate roof areas were observed to contain corrosion colored staining (Figure 2.1-13).
- In order to determine the quantity, or magnitude of deterioration experienced on the slate shingles, WJE reviewed selected test squares from a drone survey to determine the amount of deterioration. Typically with slate roof construction, if it is found that approximately 15 to 20 percent of the slate needs to be removed and repaired to restore the roof and it is more economical to replace the entire roof. This is especially true for older roof nearing the end of their service life. A test square measures 10 feet by 10 feet, or 100 square feet, and contains approximately 14 shingle courses with 10 shingles per course, or 140 individual shingles. Five representative test squares were selected, two on the north facing slope, one on the east facing slope, one on the west facing slope, and one on the south facing slope.

| Test Square | Quantity of Tile | Damaged Tile | Percent |
|-------------|------------------|--------------|---------|
| 1           | 140              | 12           | 8.6%    |
| 2           | 140              | 5            | 3.6%    |
| 3           | 140              | 4            | 2.9%    |
| 4           | 140              | 3            | 2.1%    |
| 5           | 140              | 3            | 2.1%    |

**Summary and Discussion of Observed Conditions:**

- Repairing one or two shingles of a slate roof typically requires the removal of several adjacent shingles, particularly where flashings or roof deck deterioration has occurred. This adds to the percentage of shingles that are affected by the repair. While the percentage of shingles indicated in our test squares is below the 15 to 20 percent range suggested earlier for complete replacement, once the number of adjacent tile to be repaired are factored into the repair percentage, it is likely the overall percentage of deteriorated and affected tile for the entire roof area could approach 10 percent. Annual maintenance and replacement of slate shingles will be required to sustain the roof in a safe and watertight condition. An increasing level of required maintenance and replacement of additional existing slate shingles should be expected over time.
- At a few locations, the sealant joints between coping stones were in poor condition and remedial repair attempts appear to have been implemented (Figure 2.1-14).

**Recommendations for Repair and Maintenance**

**Frequency/Service Life**

**Associated Costs**

| Recommendations for Repair and Maintenance   | Frequency/Service Life | Associated Costs |
|--|------------------------|------------------|
| Obtain roof condition assessment by a qualified roof consultant and perform routine maintenance on roofing system annually to include repairing/replacing slate roofing shingles on an as needed basis | Annually               | \$1,500          |
| Remove and replace sealant at coping with new silicone sealant   | 20 years               | \$15,000         |
| Remove and replace TPO roof at West Peachtree Street entrance  | 20 to 25 years         | \$10,000         |
| Remove and replace GSMB roof between Church and Chapel   | 20 to 25 years         | \$4,500          |
| Remove and replace slate shingle roof of Church and Chapel   | 50+ years              | \$240,000        |

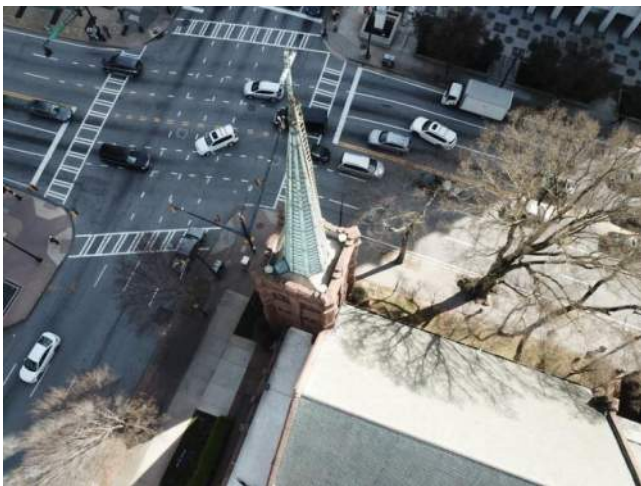


Figure 2.1-1. Partial view of the Church and Steeple roof from our drone survey.



Figure 2.1-2. View of the West Peachtree Street entrance roof from our drone survey.



*Figure 2.1-3. Overall view of the roofs of the Church and Chapel buildings.*



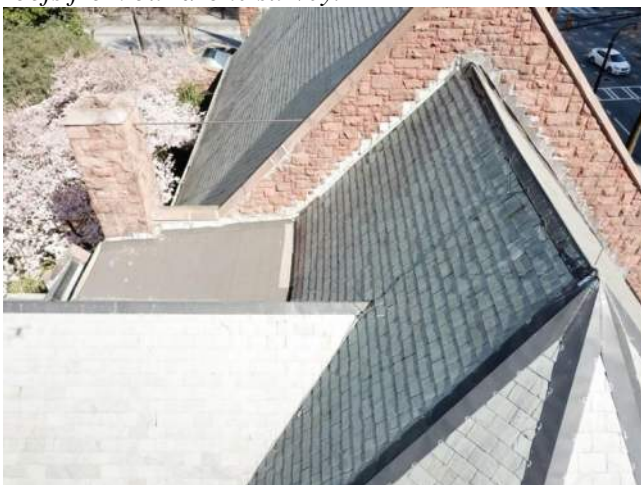
*Figure 2.1-4. Overall view of the roof of the Church from our drone survey.*



*Figure 2.1-5. Overall view of the Church and Chapel roofs from our drone survey.*



*Figure 2.1-6. Overall view of the Chapel addition roof from our drone survey.*



*Figure 2.1-7. Overall view of the roof from our drone survey.*



*Figure 2.1-8. Overall view of the roof from our drone survey.*



Figure 2.1-9. Overall view of the roof from our drone survey.



Figure 2.1-10. Overall view of the roof from our drone survey.



Figure 2.1-11. Slate roofing shingles appear to have been replaced as they are a different color.

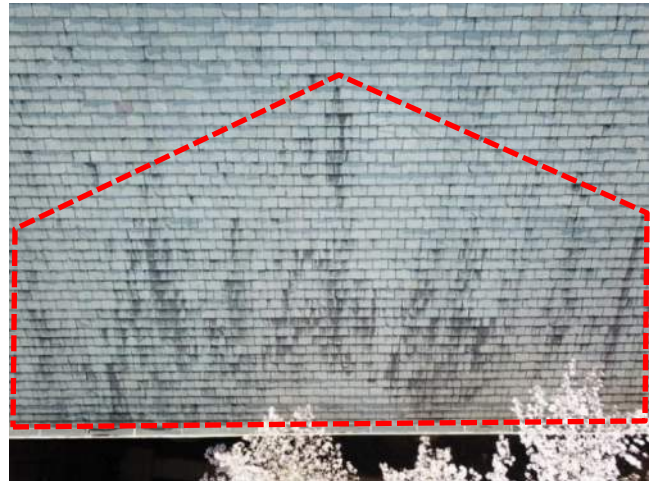


Figure 2.1-12. Dark black staining on many areas of the shingles, mostly located on the north facing slopes.

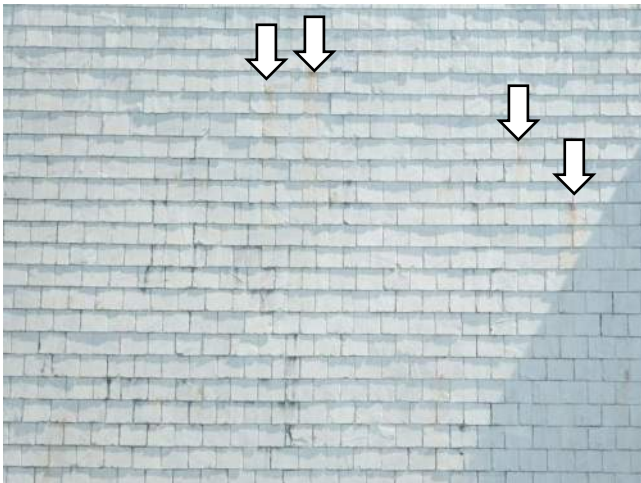


Figure 2.1-13. View of several slate shingles with corrosion colored staining.



Figure 2.1-22. Coping sealant joints were in poor condition and repair attempts appear to have been implemented.

## 2.2 Building Facade Systems

The Main Church and Chapel at the All Saint's Episcopal Church are located at the southeast corner of the property, at the corner of North Avenue and West Peachtree Street. The Main Church and Chapel are constructed with mass masonry exterior walls consisting of a combination of brown sandstone laid in a random ashlar pattern and brick masonry laid in a block bond pattern. Both the Main Church and Chapel have stained glass windows which are protected by supplemental, clear acrylic panels. The Chapel, or portions thereof, was reportedly renovated in the early 1990s.



|            |      |               |             |      |
|------------|------|---------------|-------------|------|
| Condition: | New  | Good          | <b>Fair</b> | Poor |
| Priority:  | High | <b>Medium</b> |             | Low  |

### **Summary and Discussion of Observed Conditions:**

#### Natural Stone Masonry

- In general, the sandstone masonry was observed to be structurally sound (Figure 2.2-1); no evidence of structural failure or displacement related to building settlement or distress was observed. However, widespread deficiencies in the sandstone unit faces were identified throughout each building facade.
- Cracks, spalls, and areas of missing mortar were observed within the mortar joints between the sandstone units throughout the facades of the Church building (Figure 2.2-2). At these locations, WJE was able to observe three different mortar colors and/or textures, indicating that repairs to the mortar joints have been implemented on at least two separate occasions during the life of the structure (Figures 2.2-3 and 2.2-4). Each subsequent vintage of mortar was observed to be wider than the previous layer, and covered the previous generation of mortar; indicating that the repairs were performed using a bag grouting technique to apply new mortar to the face of the masonry rather than grinding out portions of the existing or original mortar (Figure 2.2-5). Bag grouting is generally performed in an effort to limit water penetration.
  - Analysis of the repointing mortar type was beyond the scope of services provided in this condition assessment and capital reserve study. However, improper mortar selection, or mortar that is harder than the surrounding materials, can result in cracking and/or spalling of the stone units, resulting in damage to the building facades.
- Hairline cracks and shallow surface delaminations were observed in the brown sandstone units facades throughout each facade of the Church building (Figures 2.2-6 and 2.2-7). The hairline cracks were generally limited to a one-inch wide region around the perimeter of the stones.
- Deeper delamination of the sandstone unit faces was observed at a number of locations throughout the building facades, including at building corners, buttresses, window sills, and surrounding openings (Figure 2.2-8). At several locations, face spalls and incipient face spalls were observed (Figure 2.2-9). WJE coordinated with the facilities maintenance team to remove one incipient spall from a stone unit near the top of the arch at the north end of the east elevation (Figure 2.2-10). The depth of the spalls varied from approximately 1/2-inch to 1-inch in thickness.
- Exfoliation of the sandstone was observed at several locations throughout the building (Figures 2.2-11 and 2.2-12). Exfoliation is characterized by scaling or flaking of portions of the natural stone masonry. This can be caused by natural weathering, but can be exacerbated by trapped water within the wall assembly by means of application of exterior coatings or sealers.
- At several locations, WJE applied a small amount of liquid water to the face of spall samples of sandstone that were collected on site and observed evidence of the previous application of a clear penetrating sealer on the

### ***Summary and Discussion of Observed Conditions:***

exterior surface of the masonry. At these locations, the water applied to the sandstone was observed to bead on the surface and react in a hydrophobic manner, consistent with this application.

#### **Brick Masonry**

- Two different eras of brick masonry were observed within the Chapel construction; brick masonry from the 1920s is located at the original chapel immediately adjacent to the northwest corner of the church building. The remainder of the brick masonry at the Chapel was constructed in the 1990s.
- At the 1920s era Chapel construction, immediately to the north of the Church building, the brick masonry was installed as a mass wall assembly and laid in block bond with granite headers and sills at window openings (Figure 2.2-13). The brick masonry was weathered and mortar joints eroded (Figure 2.2-14); several cracks and spalls were observed in the granite units (Figures 2.2-15 and 2.2-16). No significant evidence of structural distress to the building or displacement of masonry was observed.
- The brick masonry at the 1990s era construction is constructed as a veneer assembly with weep ropes and concealed flashings at ledges, base of wall conditions, and window heads (Figures 2.2-17 and 2.2-18). It is our understanding that no water leakage is occurring through the masonry veneer construction at the 1990s era construction.
- No significant cracking, separations, or displacement were observed in the block bond masonry veneer at the Chapel Building (Figure 2.2-19).
- An accumulation of atmospheric staining and soiling was observed at isolated locations on the brick masonry veneer, typically beneath the transition of the coping units at the gabled end and continuing down the face of the masonry veneer (Figure 2.2-20).

#### **Wood Framed Window and Door Systems and Trim Elements**

- Stained or leaded glass windows are located throughout the Church and the original portion of the Chapel building (Figure 2.2-21). These windows are protected from impact or damage from outside sources by a vented acrylic panel sealed into wood trim elements (Figure 2.2-22). No evidence of cracked or damaged stained glass windows were observed from the ground; however, close-up assessment of the condition of these window systems to assess the integrity of the structural framing or glazing elements was beyond the scope of this assessment. It is our understanding that a restoration program is planned for 2019 to restore the condition of these windows.
- The wood trim surrounding the stained glass windows was observed to be in fair condition with limited evidence of severe wood decay; however, the coating had generally failed, and was flaking and/or peeling throughout the Church and original Chapel buildings (Figure 2.2-23). Evidence of previous clear sealant repairs were visible between the wood trim and the acrylic panels, indicating that water intrusion and/or differential movement of the panels has occurred in the past. The presence of the acrylic panels prevented in depth evaluation of the condition of the wood elements to determine the suitability for recoating.
- The wood framed window systems within the newer portion of the Chapel were in good condition; no significant evidence of deterioration of the wood members, or distress of the paint, was observed (Figure 2.2-24).
- The wood entrance doors at the east facade of the Church were observed to be in good condition; the wood stain was well maintained and no evidence of damage or deterioration was observed in the door panels or glass lites (Figure 2.2-25).
- The wood door at the west facade of the Church was in good to fair condition; however, the paint had begun to fail and was flaking (Figure 2.2-26). Similarly, the wood trim surrounding the entrance doors throughout the Church and Chapel was in fair condition; the coating had generally begun to flake or peel at these elements.

#### **Miscellaneous Facade Components**

- Decorative wood rafter tails and vented wood soffits are located beneath the overhanging steep slope slate shingle roof areas at the 1990s era Chapel (Figure 2.2-27). The coating on the wood elements was observed to

**Summary and Discussion of Observed Conditions:**

be weathered and flaking at a number of locations throughout the property, exposing the end grain of the wood members, which will likely result in accelerated deterioration of the wood members (Figure 2.2-28). At several locations, the rafter tails were displaced, checked, and/or split (Figure 2.2-29).

| <b>Recommendations for Repair and Maintenance</b>  | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|--|-------------------------------|-------------------------|
| Perform supplemental investigation to assess the level of deterioration of the stone masonry (including laboratory analysis, close-up visual survey, and limited destructive testing) in order to develop appropriate repairs to extend the service life of the stone masonry. | N/A                           | \$20,000-30,000         |
| Coordinate with facilities maintenance personnel to inspect the stone masonry units over pedestrian entrances to identify and remove incipient spalls as necessary.  | Monthly                       | N/A                     |
| Clean and stain existing entrance doors at West Peachtree entrance to the Church.  | 3 to 5 years                  | \$500 - \$1,000         |
| Clean existing brick and stone masonry with a non-acidic cleaning solution and low pressure water, as appropriate for the facade systems.  | 5 to 7 years                  | \$20,000 - \$25,000     |
| Clean, prime, and paint all existing wood elements, including wood soffits, rafter tails, and windows and doors, and associated trim elements. Replace damaged or deteriorated wood members as part of this project.   | 5 to 7 years                  | \$20,000                |
| Clean, prime, and paint existing steel handrails throughout the property.  | 7 to 10 years                 | \$1,500                 |
| Perform glass and framing restoration to the stained or leaded glass window assemblies throughout the Church and Chapel, including replacement or repairs to protective covers.  | 20+ years                     | *                       |
| Repoint existing brick and stone masonry.  | 50+ years                     | \$250,000               |

\* Associated costs to be provided by All Saints' based on the quotes received to perform a restoration project in 2019.



*Figure 2.2-1. The sandstone masonry was observed to be structurally sound.*



*Figure 2.2-2. Deficiencies within the mortar joints between the sandstone units.*



*Figure 2.2-3. Three different mortar colors indicate at least two separate repair efforts during the life of the building.*



*Figure 2.2-4. Three different mortar colors indicate at least two separate repair efforts during the life of the building.*



*Figure 2.2-5. Evidence of bag grouting technique to apply new mortar to the face of the masonry.*



*Figure 2.2-6. Hairline cracks and shallow surface delaminations in the brown sandstone facade.*



Figure 2.2-7. Hairline cracks and shallow surface delaminations in the brown sandstone facade.



Figure 2.2-8. View of delamination of the face of a sandstone unit.



Figure 2.2-9. Face spalls and incipient face spalls located immediately above pedestrian entrance.



Figure 2.2-10. One incipient spall removed from a stone unit near the top of the arch at the north end of the east elevation



Figure 2.2-11. Exfoliation of a sandstone unit.



Figure 2.2-12. Exfoliation of a sandstone unit.



Figure 2.2-13. Brick masonry mass wall assembly laid in block bond with granite headers and sills.



Figure 2.2-14. The brick masonry was weathered and mortar joints were eroded.



Figure 2.2-15. Spall in the granite unit at sill.



Figure 2.2-16. Cracks and spalls in the granite units at window head.

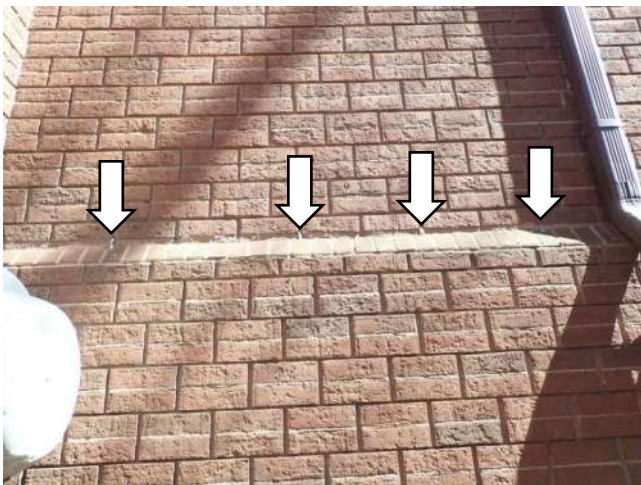


Figure 2.2-17. 1990s era construction is a veneer assembly with weep ropes and concealed flashings at ledges.

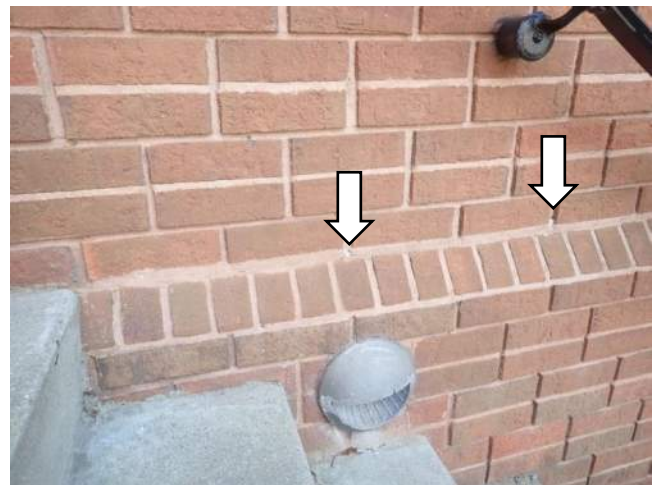


Figure 2.2-18. 1990s era construction is a veneer assembly with weep ropes and concealed flashings at ledges.



Figure 2.2-19. No deficiencies in the block bond masonry veneer at the Chapel Building.



Figure 2.2-20. Accumulation of atmospheric staining and soiling on the brick masonry veneer.



Figure 2.2-21. Stained or leaded glass windows are located throughout the Church and Chapel.



Figure 2.2-22. Stained or leaded glass windows are located throughout the Church and Chapel.



Figure 2.2-23. Deteriorated wood trim with failed coating.



Figure 2.2-24. The wood framed window systems within the Chapel addition were in good condition.



Figure 2.2-25. Wood entrance doors at the east facade of the Church were in good condition.



Figure 2.2-26. Wood door at the west facade in good to fair condition; with flaking paint.



Figure 2.2-27. Decorative wood rafter tails and vented wood soffits beneath the overhanging steep slope slate shingle roof areas.



Figure 2.2-28. Weathered and flaking coating on the wood elements.



Figure 2.2-29. View of a split rafter tail on the Church Building.

## 2.3 Interior Finishes and Furnishings

Four sets of double doors facing West Peachtree Street NW provide access to the primary entrance vestibule, or narthex, of the Church and Chapel. A side entry off of North Avenue provides access to a room adjacent to the narthex with stairs leading to the church's bell tower. The narthex of the Main Church leads to a nave with congregant seating and central and side aisles. A chancel with choir seating, a pulpit, and lectern are terminated to the west by a sanctuary with altar. A transept provides access to the ambulatory/flower sacristy to the south and a day chapel to the north. A hallway to the west of the chapel leads to a sacristy, elevator lobby, and restrooms. The elevator leads down to the vesting room, mechanical rooms, and storage space that can also be accessed at the courtyard level.

Condition: New **Good** Fair Poor  
Priority: High Medium **Low**



### **Summary and Discussion of Observed Conditions:**

- The floor finishes of the narthex, the sacristy, and the choir are composed of decorative slate tile. The floor finish of the nave, the Chapel, and the altar are oak wood flooring. The sacristy, hallways, and robing rooms of the Chapel addition are carpeted (Figure 2.3-1 through 2.3-4).
- The wall coverings of the nave in the Church and Chapel building are a combination of interior plaster finish, interior gypsum wallboard, and decorative hardwood wainscoting and trim. Barrel vaulted wood trusses with decorative trim span the nave and support the gabled roof of the Church building. Wood bead board trim spans between the wood trusses. Decorative brass lanterns hang from supports between trusses on either side of the gable ridge (Figures 2.3-5 through 2.3-6).
- The ceiling finishes of the Chapel are composed of painted decorative interior gypsum wallboard divided into coffered sections by architectural hardwood trim. Decorative brass lanterns hang on either side of the ridge beam (2.3-7).
- A large, stained glass window with wood mullion tracery, known as the Egleston Window, is located above the interior wall between the narthex and the nave. Ten additional arched stained glass windows with wood mullion tracery line either side of the exterior walls of the nave at the aisles. Two stained glass windows are located in the sanctuary adjacent to the high altar. Several smaller windows are located in the sacristy along the south facade. Additional stained glass windows set in sections of wood paneling are located in the double height space of the Chapel. A stained-glass rose window is on the north wall of the Chapel above the Altar. (Figures 2.3-8 through 2.3-12).
- The interior hardwood mullions, paneling, and trim around the stained and leaded glass windows appeared to be in good condition throughout the Church and Chapel; no evidence of widespread damage to the interior finishes was observed at these locations. Additional observations, including recommendations for repair and maintenance for the exterior of the stained-glass windows of the Church and Chapel can be found in Section 2.2.
- The churches organ pipes are set in wooden build-outs with decorative wood trim on either side of the Egleston Window and above the Choir (Figure 2.3-13 and 2.3-14).
- The ceiling finish of the roof over the apse is composed of painted decorative plaster divided into 'coffers' by architectural hardwood trim (Figure 2.3-15).

**Recommendations for Repair and Maintenance**

| <b>Recommendations for Repair and Maintenance</b>   | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|---|-------------------------------|-------------------------|
| Upgrade Audio/Visual Equipment in Flower Sacristy   | 10 to 12 years*               | \$2,000**               |
| Renovate interior finishes of the Flower Sacristy including finishes, artwork, furnishings, and equipment   | 15 to 20 years*               | \$10,000**              |
| Upgrade seating and miscellaneous furnishings in the 1920's Chapel  | 15 to 20 years*               | \$24,000**              |
| Perform renovations to interior finishes at first floor and basement levels of the 1990s era construction, including bathrooms, robing rooms, storage rooms, and Sacristy | 15 to 20 years*               | \$75,000**              |

\*Actual Service Life will be dependent on maintenance and other interests of the All Saints' Community (aesthetics, etc.).

\*\*Associated Costs can vary significantly based on the quality of finish materials, artwork, and furnishings selected.



Figure 2.3-1. View of the interior finishes of the Narthex.



Figure 2.3-2. View of the slate tile finish typical of the narthex, flower sacristy, and choir.



Figure 2.3-3. View of wood flooring and congregant seating in the Nave of the Church.



Figure 2.3-4. View of carpeting in the service areas and hallway of the Chapel.



Figure 2.3-5. Overall view of the interior of the Nave of the Church.

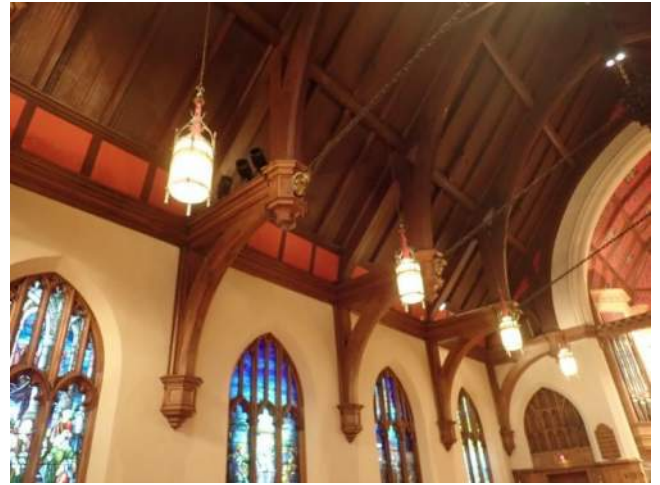


Figure 2.3-6. View of the barrel vaulted trusses and exposed wood structure of the nave roof.



Figure 2.3-7. Overall view of the Chapel interior finishes.



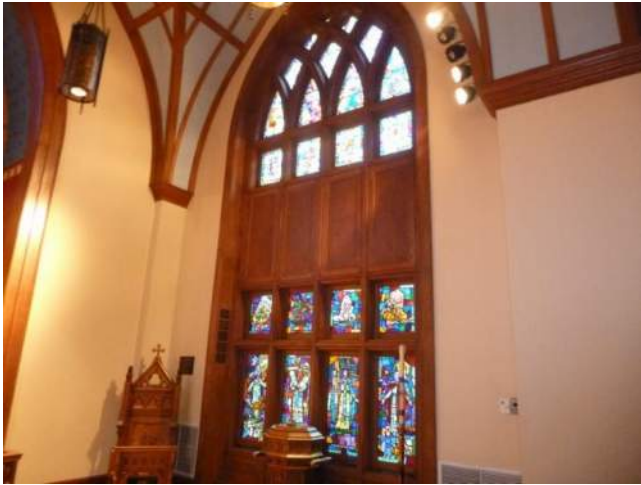
Figure 2.3-8. Overall view of the Egleston window above the Nave in the church



Figure 2.3-9. View of typical stained glass windows at the Nave aisle.



Figure 2.3-10. View of the altar and stained glass windows of the apse.



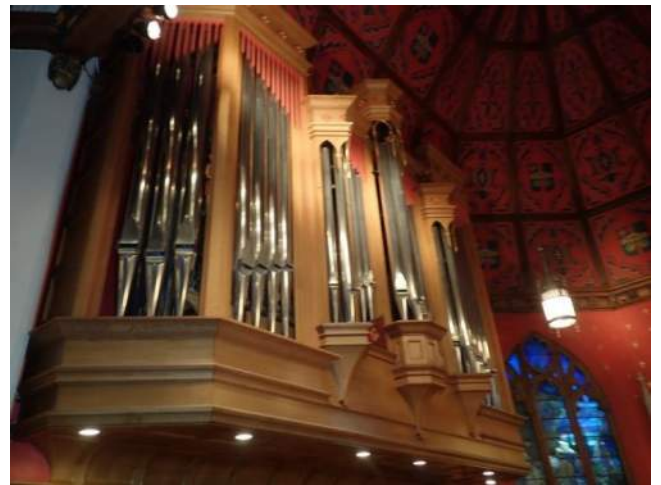
*Figure 2.3-11. View of typical stained glass windows and wood paneling in the Chapel.*



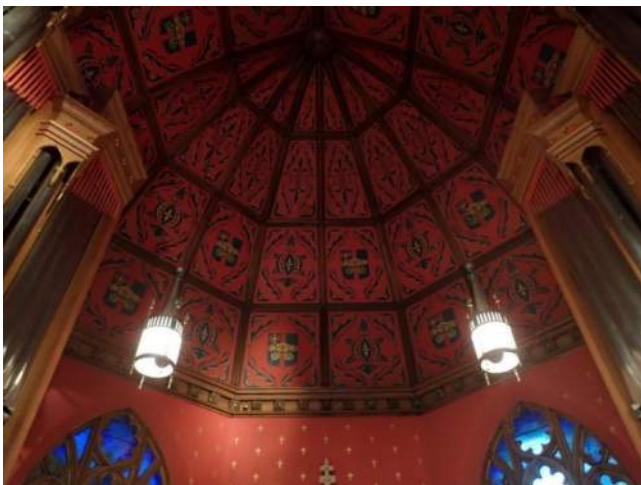
*Figure 2.3-12. View of the rose window on the north wall of the Chapel.*



*Figure 2.3-13. View of an organ pipe build out above the nave adjacent to the Egleston window.*



*Figure 2.3-14. View of an organ pipe build out above the Choir.*



*Figure 2.3-15. View of decorative paneling and wood trim of the domed roof of the apse.*

## 2.4 Mechanical, Electrical, and Plumbing Systems

The mechanical, electrical, and plumbing systems for the Main Church and Chapel building are located primarily within three mechanical spaces located below the nave and accessed from the courtyard level and elevator lobby. Additional mechanical systems for the Church and Chapel are located to the southwest of the building at the courtyard level.

WJE did not perform a review of MEP plans or other sources to identify additional systems, nor did WJE perform an analysis, assessment, or evaluation of these elements. All maintenance and replacement costs have been provided from industry standard publications.

Condition:   New       Good   **Fair**    Poor  
Priority:     High     **Medium**   Low



### Summary and Discussion of Observed Conditions:

- A 40-ton chiller for the Church and Chapel is located in a designated outdoor mechanical area at the southwest corner of the Church building (Figure 2.4-1). In addition, two condensing units are located adjacent to the main chiller (Figures 2.4-2 and 2.4-3).
- The air handler for the Church building is located in the main mechanical space at the basement level on the south end of the building (Figure 2.4-4). A separate air handler, designated for the Chapel, is located in an auxiliary mechanical and storage room accessed from the robing room (Figure 2.4-5). It is our understanding that both air handlers are regularly serviced and in good condition.
- A chilled water storage tank, two pumps labeled CHP-1 and CHP-2, and associated electrical panels are located in the rear mechanical room on the south end of the building (Figures 2.4-6 and 2.4-7).
- A 200 Gallon hot water storage tank was identified in the main mechanical space (Figure 2.4-8).
- An AJAX boiler system for the Church building is located in the center of the main mechanical space at the basement level (Figure 2.4-9).
- The main switchgears and panel boards for the Church and Chapel were identified in the northeast corner of the main mechanical space. Additional switchboards servicing Egleston Hall and Parish house were also identified at this location (Figure 2.4-10).
- The organ blower for the Church and Chapel is located along the south wall of the main mechanical space (Figure 2.4-11).

### Recommendations for Repair and Maintenance

| Recommendations for Repair and Maintenance  | Frequency/Service Life | Associated Costs |
|---|------------------------|------------------|
| Obtain a routine, thorough condition assessment of the existing building systems by a licensed MEP engineer | 5 years                | \$15,000         |
| Remove and replace hot water storage tank   | 10 to 12 years         | \$4,000          |
| Remove and replace chilled water buffer tank and heat pumps   | 12 to 15 years         | \$12,000         |
| Remove and replace Chapel air handling unit   | 15 to 20 years         | \$20,000         |
| Remove and replace Church air handling unit   | 15 to 20 years         | \$20,000         |
| Remove and replace 40 ton chiller and condensing units  | 15 to 20 years         | \$50,000         |
| Remove and replace switchboard and misc. electrical systems   | 15 to 20 years         | \$20,000         |
| Remove and replace boiler system  | 25+ years              | \$15,000         |



Figure 2.4-1. View of the main chiller for the Church and Chapel.



Figure 2.4-2. View of a condensing unit for the Church and Chapel.



Figure 2.4-3. View of a condenser unit for the Church and Chapel.



Figure 2.4-4. View of the primary air handler for the Church building.



Figure 2.4-5. View of the air handling system for the Chapel building.



Figure 2.4-6. View of the chilled water buffer system for the main chiller.



Figure 2.4-7. View of pumps CHP-1 and CHP-2.



Figure 2.4-8. View of the 200 gallon hot water storage tank.



Figure 2.4-9. View of the AJAX boiler system for the Church and Chapel.



Figure 2.4-10. View of the main service panels and switchboards in the basement level.



Figure 2.4-11. View of the organ blower for the Church and Chapel.

## 2.5 Conveying Systems

An elevator located at the west end of the Church and Chapel building serves as a passenger elevator for the Church and Chapel building on the All Saints' Episcopal Church campus. The elevator hydraulics and equipment are located in a mechanical space accessible from the courtyard level at the rear of the Chapel.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

### Summary and Discussion of Observed Conditions:

- A hydraulic elevator system was observed in the mechanical room and storage area located on the west facade of the Chapel building, facing the courtyard (Figure 2.5-1).
- The elevator finishes were observed to be in good to fair condition (Figure 2.5-2)

### Recommendations for Repair and Maintenance

|   | Frequency/Service Life | Associated Costs |
|---|------------------------|------------------|
| Upgrade existing elevator cab finishes            | 15 to 20 years         | \$20,000         |
| Replace and upgrade elevator controls and systems | 25 to 30 years         | \$45,000         |



Figure 2.5-1. View of the elevator hydraulics and control system located in the mechanical/storage room.



Figure 2.5-2. View of the Chapel elevator interior finishes.

### 3.0 EGLESTON HALL

WJE visited Egleston Hall, located at the northeast corner of the All Saints' Episcopal Church campus, in order to perform a general condition survey of the exterior building facade and roofing systems as well as documentation of the interior finishes and furnishings. WJE also documented the MEP systems; a list of the systems observed and approximate ages reported has been provided in Section 3.4, below. During the assessment, WJE was escorted throughout the property by Mr. Maurice Reddick and members of the All Saints' facilities maintenance staff, who disclosed on-going concerns and provided information regarding the replacement and repair of roofing and facade systems.

For purposes of this assessment, the building facade was observed from the ground and the roof assessment was performed from the accessible portions of the roof, as described in later sections of this report. The overall condition of the building facade and roofing systems, as well as the interior finishes and furnishings, observed during the site visit has been outlined in the following sections. Each system is outlined with a brief description, summary and discussion of observed conditions, and brief recommendations for repair and maintenance. Representative photographs have been provided with each system description.

Within the recommendations for repair and maintenance, the approximate service life (from new) and frequency of maintenance items have been included, as well as an opinion of probable costs in 2019 dollars. The cost figures are based on WJE's experience with similar repairs and industry provided references. Actual costs may be expected to vary considerably depending on economic conditions and the particular specifications for the actual repair or maintenance work to be performed at the time a contract is awarded. Similarly, for interior finish cost estimates, WJE has provided selected representative cost estimates; however, actual costs could vary significantly, depending on the quality and type of materials selected for renovations. It should be noted that quantities were based on limited field observations and measurements. To obtain accurate cost information, we recommend that All Saints' retain a registered architect/engineer to develop a detailed scope of work and specifications for maintenance and/or repairs and obtain bids from qualified contractors, based on accurate quantities at the time the work is performed.

The following briefly summarizes the conditions observed and the recommended maintenance and/or repairs. A table summarizing our opinions of probable costs has been provided at the end of this report.



*Partial east facade of Egleston Hall.*



*North facade of Egleston Hall.*

### 3.1 Roofing Systems

Egleston Hall contains numerous types of roof coverings. At the east end of the building is a steep sloped, gable roof that transitions to a low sloped roof area on the west end of the building. The low sloped roof area has three different roof areas at three different levels; an upper roof area, a lower roof area, and a connector roof area that connects the Egleston Hall to the Parish House. The east slope of the gabled roof area is covered with slate shingles and the west slope is covered with architectural style, laminated, asphalt shingles. The low sloped roof coverings consists of a single ply TPO membrane, which was reportedly replaced circa 2016, which makes the roof covering approximately 3 years old.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

#### Summary and Discussion of Observed Conditions:

- Overall views of the Egleston Hall roof looking from the top of the east parapet wall of the adjacent Parish House roof are shown in Figures 3.1-1 through 3.1-5.
- Some of the slate roofing tile appear to have been replaced, which is noticeable by the copper clips located along the bottom edge of the replaced shingles (Figure 3.1-6).
- Several slate shingles were observed with delaminations, cracks, chipped and missing corners, and staining (Figures 3.1-7 through 3.1-9). In addition, one shingle was observed at the bottom of the slope in the gutter.
- Stone debris was observed on the low slope roof (Figure 3.1-10). This is most likely the result of delaminated portions of the stone chimneys in the steep sloped roof above this area (Figure 3.1-11).
- Apparent previous mortar and liquid membrane repairs were observed to have been implemented on the terra cotta coping above the slate roofing tile covered roof areas (Figure 3.1-12). In addition, the joint seals between the coping units and at the coping bed joints were weathered, deteriorated, alligator cracked and failed in a few locations (Figure 3.1-13). On the lower roof areas, the coping joints have been sealed with numerous layers of sealants (Figure 3.1-14). Self-adhered membrane and sealant repairs have also been installed on a few of the terra cotta coping units along the perimeter of the lower roof area (Figure 3.1-15).
- The seals between the HVAC units and the exposed ductwork are weathered, deteriorated, cracked and failed at a few locations (Figure 3.1-16).
- The mechanical pipes were supported with a wood blocking that contained small pieces of membrane protection sheets.
- The equipment curbs and supports were flashed with a combination of TPO membrane flashing and prefabricated TPO pitch pockets, which were in good to fair condition (Figure 3.1-17). The sealant along the top edge of the membrane flashings were weathered, deteriorated, and alligator cracked.
- The prefabricated flashing boot on the asphalt shingled roof area was dated June of 2015, indicating this roof area was most likely replaced around the time of the new TPO low sloped roof areas were completed circa 2016.
- The liquid membrane at one of the pipe penetrations in the asphalt shingled roof area was weathered and cracked (Figure 3.1-18). This location did not contain a prefabricated boot like the other pipe penetrations.

**Summary and Discussion of Observed Conditions:**

- The flashing above the roof termination on the connector roof at the interface of the brick masonry wall on the Parish House appears to be integrated with a through wall flashing and weeps (Figure 3.1-19).
- The TPO membrane on the connector roof area is terminated to the low height wall of the Egleston Hall with a mechanically fastened termination bar that is sealed along the top edge (Figure 3.1-20). The sealant on the leading edge of the termination bar and in the bed joint of the terra cotta coping is weather, deteriorated, alligator cracking and failed at numerous locations along the length of the joints.

**Recommendations for Repair and Maintenance**

|   | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|---|-------------------------------|-------------------------|
| Obtain roof condition assessment by a qualified roof consultant and perform routine maintenance to roofing systems annually and/or on an as needed basis. | Annually                      | \$1,500                 |
| Replace miscellaneous sealants at pipe penetrations and termination bars.   | 5 to 7 years                  | \$1,500                 |
| Repair stone chimneys.  | 7 to 10 years                 | \$10,000                |
| Repair/replace seals in HVAC equipment and ductwork.  | 7 to 10 years                 | \$1,500                 |
| Replace wood blocking pipe supports with prefabricated pipe supports with integral protection pads.   | 15 to 20 years                | \$1,500                 |
| Remove and replace asphalt shingle roof and TPO roof assemblies.  | 20 to 25 years                | \$65,000                |
| Repair damaged terra cotta coping units and remove replace sealant and bed joints with new silicone sealants.   | 20 to 25 years                | \$15,000                |
| Remove and replace slate shingle roof area of Egleston Hall.  | 50+ years                     | \$40,000                |



Figure 3.1-1. Overall view of the south end of the lower roof from the top of the east parapet wall of the Parish House roof.



Figure 3.1-2. Overall view of the north end of the lower roof from the top of the east parapet wall of the Parish House roof.



Figure 3.1-3. Partial view of the roof from the top of the east parapet wall of the Parish House roof.



Figure 3.1-4. Partial view of the roof from the top of the east parapet wall of the Parish House roof.



Figure 3.1-5. Partial view of the roof from the top of the east parapet wall of the Parish House roof.



Figure 3.1-6. Copper clips along the bottom edge of a replaced shingle.

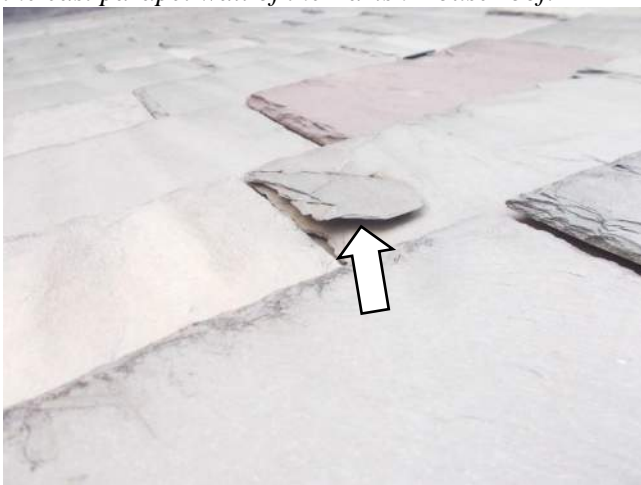


Figure 3.1-7. View of a delaminated roofing slate shingle.



Figure 3.1-8. View of a crack in an isolated slate roofing tile.



*Figure 3.1-9. View of area of typical staining on the slate tile roof portion of Egleston Hall.*



*Figure 3.1-10. View of stone debris on the low slope roof portion of Egleston Hall.*



*Figure 3.1-11. View of typical delaminated portions of the stone chimneys in the steep sloped roof.*



*Figure 3.1-12. View of previous mortar and liquid membrane repairs on the terra cotta coping.*



*Figure 3.1-13. View of deteriorated sealant repairs at coping.*



*Figure 3.1-14. View of numerous layers of sealants at a coping joint.*



Figure 3.1-15. Self-adhered membrane and sealant repairs on the terra cotta coping units.



Figure 3.1-16. Failed sealant between the HVAC units and the exposed ductwork.



Figure 3.1-17. Equipment supports integrated with the roofing assembly.



Figure 3.1-18. Weathered and cracked liquid membrane at one of the pipe penetrations.



Figure 3.1-19. Roof termination on the connector roof integrated with a through wall flashing and weeps.



Figure 3.1-20. Mechanically fastened termination bar that is sealed with sealant.

### 3.2 Building Facade Systems

The Egleston Hall building is a three story administrative building located at the northeast corner of the All Saint's Episcopal Church property at the corner of West Peachtree Street NW and Ponce De Leon NW. Similar to the Church and Chapel building, the Egleston Hall building is of mass masonry construction with exterior walls composed of a combination of brown sandstone laid in random ashlar pattern and brick masonry laid in a block bond pattern with sandstone window sills and lintels. Wood framed windows and doors are set in punched openings throughout the facade.



|            |      |               |             |      |
|------------|------|---------------|-------------|------|
| Condition: | New  | Good          | <b>Fair</b> | Poor |
| Priority:  | High | <b>Medium</b> |             | Low  |

#### **Summary and Discussion of Observed Conditions:**

##### Natural Stone Masonry

- In general, the sandstone masonry was observed to be structurally sound (Figure 3.2-1); no evidence of structural failure or displacement related to building settlement or distress was observed. However, widespread deficiencies in the sandstone unit faces were identified throughout each building facade.
- Hairline cracks and shallow surface delaminations were observed in the brown sandstone unit faces at various locations on each facade of the Egleston Hall building. During the site visit, WJE observed several areas of distressed, or failed, previous patch repairs in the sandstone masonry (Figures 3.2-2 and 3.2-3).
- Similar to the Church building, isolated spalls and delaminations of the sandstone unit faces were observed at several locations, including at building corners, buttresses, window sills, lintels, and surrounding openings (Figures 3.2-4 through 3.2-6). The depth of the spalls varied in thickness. At several locations, face spalls and incipient face spalls were located immediately above pedestrian entrances or walkways.
- Cracks, spalls, and areas of missing mortar were observed within the mortar joints between the sandstone units throughout the facades of the Egleston Hall. At these locations, WJE was able to observe different mortar colors and textures, indicating that repairs to the mortar joints have been implanted on at least two separate occasions during the life of the structure (Figures 3.2-7 and 3.2-8).
  - Analysis of the repointing mortar type was beyond the scope of services provided in this condition assessment and capital reserve study. However, improper mortar selection, or mortar that is harder than the surrounding materials, can result in cracking and/or spalling of the stone units, resulting in damage to the building facades.
- In addition to delamination, exfoliation of the sandstone was observed at several locations throughout the building. Exfoliation is characterized by scaling or flaking of portions of the natural stone masonry. This can be caused by natural weathering or exacerbated by trapped water within the wall assembly by means of application of exterior coatings or sealers (Figure 3.2-9).

##### Brick Masonry

- The curvilinear sections of the Egleston Hall building are installed as a mass wall assembly and laid in block bond with sandstone headers and sills at window openings and window surrounds. In general, the brick masonry units appeared to be in fair conditions (Figure 3.2-10); No significant evidence of structural distress or displacement was observed.
- Mortar cracks, spalls, and areas of missing mortar were observed at joints between the brick masonry units throughout the facades of Egleston Hall (Figures 3.2-11 and 3.2-12). WJE observed several previous repairs at

**Summary and Discussion of Observed Conditions:**

mortar joints; primarily application of urethane sealants over mortar joints at sections of brick between windows (Figure 3.2-13).

- WJE observed remedial sealant repairs at joints between the brick masonry and the stone window surrounds at windows in areas of the brick facade (Figures 3.2-14 and 3.2-15).
- Apparent organic growth and atmospheric soiling was observed on the brick masonry of several buttresses and parapet walls throughout each brick masonry elevation of the Egleston building (Figure 3.2-16).

**Wood Framed Window and Door Systems and Trim Elements**

- The wood mullions as well as trim surrounding the windows were observed to be in good to fair condition. No evidence of widespread deterioration of the wood was observed from the ground; however, at several locations the paint on the wood elements was observed to be flaking and/or peeling at windows in both the stone and brick masonry areas of the Egleston Hall building (Figures 3.2-17 and 3.2-18).
- Evidence of previous clear sealant repairs were visible between the wood trim and protective acrylic panels at isolated window locations, indicating that water intrusion and/or differential movement of the lites has occurred in the past at isolated areas (Figure 3.2-19).
- The wood entrance doors at the north and south elevation of Egleston Hall were observed to be in good condition; the wood stain was well maintained and no evidence of damage or deterioration was observed in the door panels or glass lites (Figure 3.2-20). The coating on the wood elements above the entrances was observed to be weathered and flaking at a number of locations. Weathered coatings on wood members will result in accelerated deterioration of the wood. At one location on the north facade of Egleston Hall, WJE observed a displaced piece of trim on the awning above the entrance (Figure 3.2-21).

**Recommendations for Repair and Maintenance**

**Frequency/Service Life**

**Associated Costs**

|  |                 |                 |
|--|-----------------|-----------------|
| Perform supplemental investigation to assess the level of deterioration of the stone masonry (including laboratory analysis, close-up visual survey, and limited destructive testing) in order to develop appropriate repairs to extend the service life of the stone masonry. | See Section 2.2 | See Section 2.2 |
| Coordinate with facilities maintenance personnel to inspect the stone masonry units over pedestrian entrances and walkways to identify and remove incipient spalls as necessary.   | Monthly         | N/A             |
| Clean and stain existing wood entrance door.   | 3 to 5 years    | \$1,000         |
| Clean existing stone masonry with a non-acidic cleaning solution and low pressure water, as appropriate for the facade systems.  | 5 to 7 years    | \$15,000        |
| Clean, prime, and paint all existing wood elements, including wood soffits, rafter tails, and windows and doors, and associated trim elements. Repair wood members as necessary during this project.   | 5 to 7 years    | \$15,000        |
| Repoint existing brick and stone masonry.  | 50+ years       | \$225,000       |



Figure 3.2-1. View of brown sandstone on the exterior of the Egleston building.

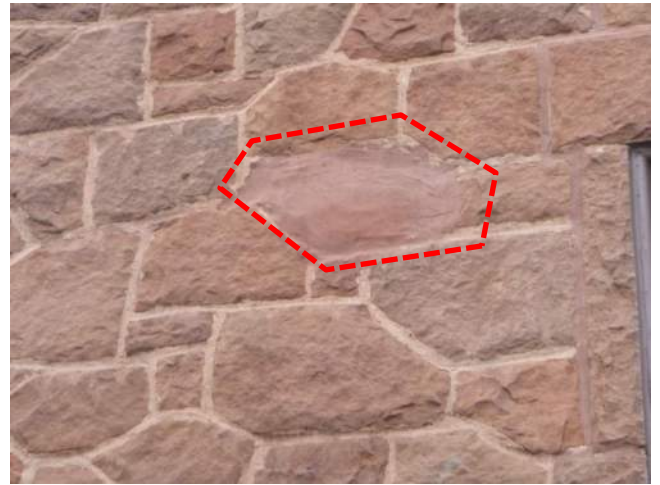


Figure 3.2-2. View of a patch repair at an area of sandstone on the Egleston building.



Figure 3.2-3. View of a failed patch repair in the stone masonry on the Egleston building.



Figure 3.2-4. View of a spall at a lintel above a window on the second floor of the Egleston building.

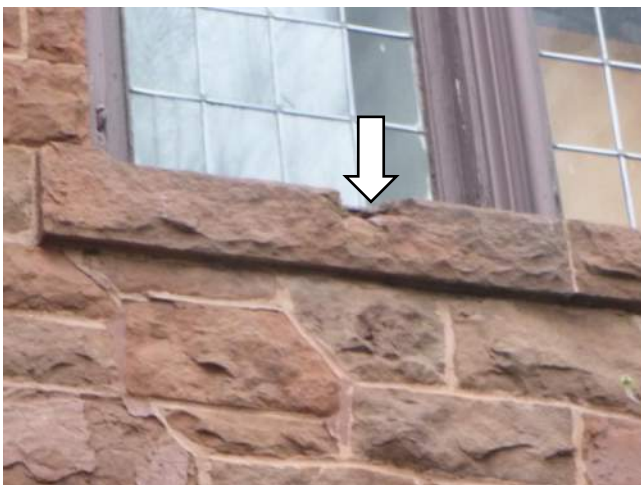


Figure 3.2-5. View of a spall in the stone sill of a window on the Egleston building.

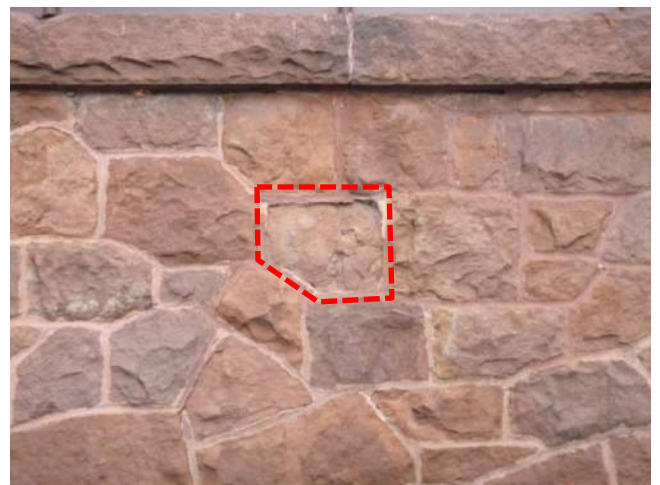


Figure 3.2-6. View of a spalled face of a sandstone unit and previous mortar repairs.



Figure 3.2-7. View of a previous repointing and colored mortar on the Egleston building.



Figure 3.2-8. View of previous bag grouting and remedial spot repair efforts on the Egleston building.



Figure 3.2-9. View of flaking of the exterior face of a sandstone unit on the ground level of the Egleston building.



Figure 3.2-10. View of an area of typical block bond masonry on the Egleston building facade.



Figure 3.2-11. View of a failed mortar joint in an area of brick masonry on the Egleston building.



Figure 3.2-12. View of deteriorated mortar joints on the face of a buttress on Egleston Hall.



Figure 3.2-13. View of sealant repairs at an area of brick masonry on the south elevation.



Figure 3.2-14. View of sealant repairs between the brick masonry and stone window surrounds.



Figure 3.2-15. View of sealant repairs at joints at stone window surrounds.



Figure 3.2-16. View of apparent organic growth on a buttress on the Egleston building.



Figure 3.2-17. View of a failing coating on the wood window trim at a typical window on the Egleston building.



Figure 3.2-18. View of typical condition of wood window surrounds on the Egleston building.



*Figure 3.2-19. View of an acrylic panel fastened over the glass light to the wood window frame.*



*Figure 3.2-20. View of the covered entrance door on the north elevation of the Egleston building.*



*Figure 3.2-21. View of a displaced piece of wood trim at the covered north entrance of the Egleston building.*

### 3.3 Interior Finishes and Furnishings

Egleston Hall on the All Saints' Episcopal Church campus is a three story administrative building that primarily supports the offices for church staff. A Music Suite for the All Saints' choir and staff, including men's and women's robe rooms, restrooms, and offices for music staff is located on the first floor. The second floor contains a lobby and reception desk, a media center, church offices and storage rooms, men's and women's restrooms and changing rooms, a library, and a kitchenette. Additional offices for church staff and clergy, as well as an additional media center, is located on the third floor. Mechanical rooms are located on the first floor within the music suite. An entrance vestibule with stairwell connects Egleston hall with the adjacent Parish House building.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

#### **Summary and Discussion of Observed Conditions:**

##### First Floor

- The floor finish of the Choir Room of the Music Suite is oak wood flooring. The walls are covered in decorative textile wall paper (Figure 3.3-1). The room contains platforms for raised seating, metal framed chairs, and a grand piano. Wood-framed doors on the interior walls of the Choir Room provide access to the robing rooms, restrooms, and storage space.
- The flooring of the men's and women's robing rooms is ceramic tile. The wall coverings are interior gypsum wallboard. The rooms contain miscellaneous furniture and file storage, choir robes, and an upright piano (Figures 3.3-2 and 3.3-3).
- The wall coatings, doors, and wood accent trim of the first floor were in good condition; no significant evidence of distress or deterioration was observed. No issues of interior water leakage were reported to WJE while on site. Maintenance touchups to walls and trim will prolong the service life and maintain the long term aesthetics of the interior finishes. In addition to the flooring and wall coatings, the music suites and choir staff offices included wood office furniture, upholstered couches and chairs, instruments, and hanging artwork. The furniture and interior finishes were observed to be in good condition throughout the Music Suite (Figures 3.3-4 through 3.3-6).

##### Second Floor

- The second floor of Egleston Hall is accessed by the main entrances for the building at the courtyard and parking lot levels. Stairwells adjacent to the entrances provide access between levels. The wall finishes of the stairwells are decorative print wallpaper and with hardwood wainscoting. The stair treads and risers have a carpet covering. The construction of the stairs and railings is primarily oak with softwood stringers (Figures 3.3-7 through 3.3-9).
- The wall finishes of the Library are decorative print wallpaper with hardwood wainscoting and trim. The floor finish is oak wood flooring, which is covered by area rugs at seating areas. The room is divided into several separate seating areas by a colonnade of wood clad columns. Several wood bookshelves and cabinets with books furnish the library along with a combination of wood table sets with upholstered seating, couches, low tables, side tables, and decorative artwork (Figures 3.3-10 through 3.3-13)
- Two wood display cases with glass coverings contain All Saints' artifacts and exhibits (Figure 3.3-14).

**Summary and Discussion of Observed Conditions:**

- The reception lobby contains a furnished waiting area and reception desk for the second floor staff offices (Figure 3.3-15). The Rector and Associate Rector offices, two church staff offices, storage space, a fax room, and a unisex restroom are located on the east side of the lobby and hallways of the second floor (Figures 3.3-16 through 3.3-19). No active issues of water leakage from the was reported to WJE
- A copy center, kitchenette, bridal room, and individual men’s and women’s restrooms are located on either side of the central lobby on the west side of the main hallway (Figures 3.3-20 through 3.3-22).

**Third Floor**

- The main floor of the third level of the Egleston Hall building is known as *Horseshoe Room*. The Horseshoe Room consists of an open floor area with a tray ceiling, recessed lighting, and carpeted floors. Perimeter knee walls divide the open area from the walkway and perimeter staff offices. The wall finishes of the third floor consist of painted interior gypsum wallboard with painted wood trim. (Figure 3.3-23)
- The copy center contains a seating desk and work tables, wood storage cabinets with counter space, open metal shelving, recycling bins, and two printing stations (Figures 3.3-24 through 3.3-26).
- A large, wood framed window is located on the east exterior wall adjacent to the copy center. The wood framing, mullions, and trim appeared to be in good condition; however, WJE observed some separations between the wood trim and the interior gypsum wallboard at the window perimeter (Figures 3.3-27 and 3.3-28). No active water leakage at this window was reported at this location.
- The windows on the exterior walls of the perimeter offices were in overall fair condition. Flaking of the painted coating, and deterioration of the wood trim from apparent previous water leakage was observed at several windows and window surrounds; however, no active water leakage was reported at office windows on the third floor (Figures 3.3-29 through 3.3-31).
- WJE observed apparent water staining on the ceiling tiles in Rooms 309 and 314; however, it is our understanding that there is no reported active water leakage at these locations (Figures 3.3-32 and 3.3-33). Additional staining from water leakage was observed an area of ceiling tiles surrounding a duct in the storage closet on this level (Figure 3.3-34).

**Recommendations for Repair and Maintenance**

**Frequency/Service Life**

**Associated Costs**

Repair displaced and deteriorated wood trim at third floor offices and replace stained ceiling tiles.

N/A

\$750

Renovate first floor Music Suite and offices including furnishings, artwork, formal decorations, wall coverings, light fixtures, etc. to provide updated appearance.

15 to 20 years\*

\$75,000\*\*

Update second floor furnishings in library and reception lobby, upgrade office space, restrooms, and restore finishes in library.

15 to 20 years\*

\$120,000\*\*

Update third floor offices including furnishings, artwork, wall coverings, light fixtures, etc. and replace copy center equipment.

15 to 20 years\*

\$110,000\*\*

\*Actual Service Life will be dependent on maintenance and other interests of the All Saints’ Community (aesthetics, etc.).

\*\*Associated Costs can vary significantly based on the quality of finish materials, artwork, and furnishings selected.



Figure 3.3-1. View of the Choir Room in the Music Suite.



Figure 3.3-2. Overall view of the Men's Robing Room.



Figure 3.3-3. Overall view of the Women's Robing Room.



Figure 3.3-4. View of the main hallway on the first level.



Figure 3.3-5. Overall view of the ChoirMaster's Office.



Figure 3.3-6. View of a typical bathroom on the first level.



Figure 3.3-7. Overall view of a wood framed stair at the second floor.



Figure 3.3-8. View of carpeted stair covering on a typical staircase in the Egleston building.

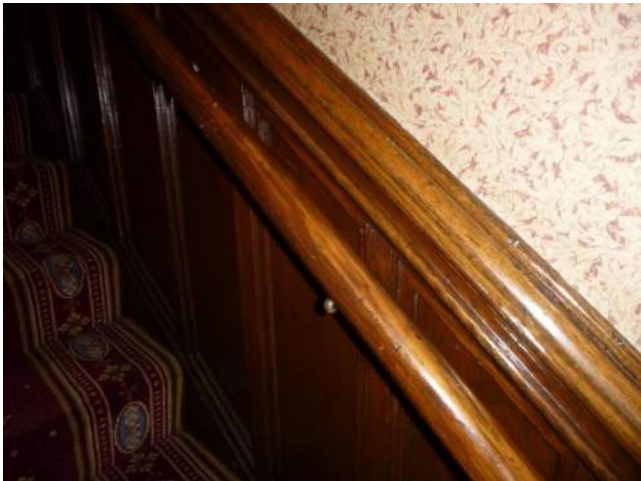


Figure 3.3-9. View of typical condition of wood wainscoting and decorative wall coverings at a second floor stair.



Figure 3.3-10. Overall view of the Library on the second floor of the Egleston building.



Figure 3.3-11. View of seating area furnishings in the library.



Figure 3.3-12. View of seating area furnishings in the library.

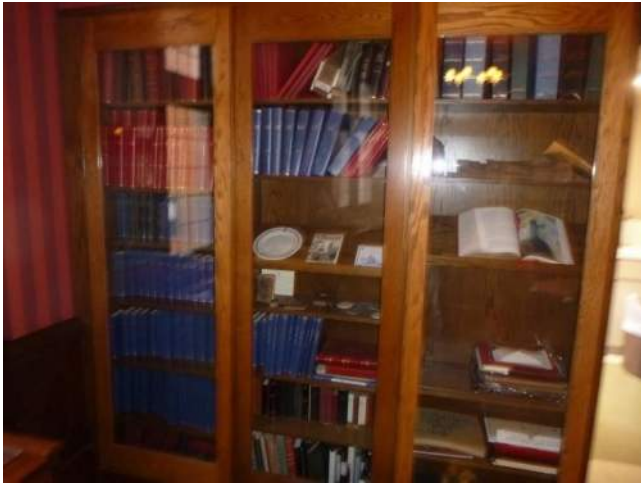


Figure 3.3-13. View of a book and display case in the Library.



Figure 3.3-14. View of the display cases of the exhibit in the library on the second floor.



Figure 3.3-15. Overall view of the lobby and reception desk on the second floor.



Figure 3.3-16. View of a staff member work station in the office space of the second floor.



Figure 3.3-17. View of a storage area in the office space of the second floor.



Figure 3.3-18. View of staff offices on the east side of the main hallway on the second floor.



Figure 3.3-19. View of an office space on the second floor.



Figure 3.3-20. Overall view of the copy center on the second floor of the Egleston building.



Figure 3.3-21. View of Bride's Room on the second floor of the Egleston building.



Figure 3.3-22. Partial view of a typical bathroom on the second floor of the Egleston building.



Figure 3.3-23. Overall view of the Horseshoe room on the third floor of the Egleston building.



Figure 3.3-24. View of the copy center and workstations of the Horseshoe room.



Figure 3.3-25. View of equipment in the copy center of the Horseshoe room.



Figure 3.3-26. View of equipment in the copy center of the Horseshoe room.



Figure 3.3-27. Overall view of the ganged leaded windows in the Horseshoe Room.

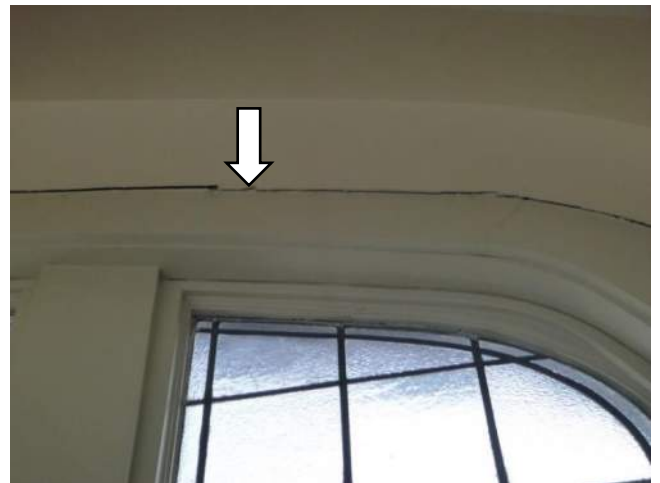


Figure 3.3-28. View of separation between the wood trim and the interior gypsum wallboard.



Figure 3.3-29. View of displaced trim piece at a wood window surrounds in a third floor office of the Egleston Building.



Figure 3.3-30. View of cracked interior gypsum wallboard in a third floor office of the Egleston Building.



*Figure 3.3-31. View of condition of wood window sash in a third floor office of the Egleston Building.*



*Figure 3.3-32. View of water damaged ceiling panels in a third floor office of the Egleston Building.*



*Figure 3.3-33. View of water damaged ceiling panels in a third floor office of the Egleston Building.*



*Figure 3.3-34. View of water damaged ceiling panels in a third floor space of the Egleston Building.*

### 3.4 Mechanical, Electrical, and Plumbing Systems

The mechanical, electrical, and plumbing systems servicing the Egleston Hall building are primarily located within mechanical rooms located on the first level within the Music Suite. Additional mechanical systems are located at the roof level and on elevated platforms adjacent to the building at the courtyard level.

WJE did not perform a review of MEP plans or other sources to identify additional systems, nor did WJE perform an analysis, assessment, or evaluation of these elements. All maintenance and replacement costs have been provided from industry standard publications.



|            |      |               |             |      |
|------------|------|---------------|-------------|------|
| Condition: | New  | Good          | <b>Fair</b> | Poor |
| Priority:  | High | <b>Medium</b> | Low         |      |

#### Summary and Discussion of Observed Conditions:

- WJE observed a low pressure boiler, manufactured by Peerless Technologies Corporation, in the main mechanical room of Egleston Hall (Figure 3.4-1). An expansion tank, manufactured by Taco Comfort Solutions, LLC was also observed at this location (Figure 3.4-2).
- A 75 gallon hot water heater, manufactured by the Bradford White Corporation, was identified in the northeast corner of the boiler room (Figure 3.4-3).
- An air handler, manufactured by Carrier Corporation, was identified in a storage closet in the first level hallway across from the music room (Figure 3.4-4). A second air handler and two ventilation/exhaust fans are located in a storage room on the south end of the music room on the lower level (Figures 3.4-5 and 3.4-6).
- WJE observed an additional air handler unit at the attic level of Egleston Hall (Figure 3.4-7).
- The primary condensing units for Egleston Hall are located on the roof. WJE identified a Carrier 7.5 Ton and a Carrier 8.5 Ton unit as well as three miscellaneous split heat pumps (Figures. 3.4-8 through 3.4-11).
- Additional condensing units were observed on a raised platform at the southwest corner of Egleston Hall at the courtyard level (Figure 3.4-12).

| <b>Recommendations for Repair and Maintenance</b> | <b>Frequency/Service Life</b> | <b>Associated Costs</b>     |
|---|-------------------------------|-----------------------------|
| Remove and replace hot water heater.              | 10 to 12 years                | \$2,000                     |
| Remove and replace air handlers and exhaust fans. | 10 to 15 years                | \$1,500 ea.<br>\$6,000 tot. |
| Remove and replace condensing units.              | 15 to 20 years                | \$20,000                    |
| Remove and replace low pressure boiler.           | 25+ years                     | \$15,000                    |
| Remove and replace Carrier rooftop units.         | 25+ years                     | \$30,000                    |



Figure 3.4-1. View of the boiler in the boiler room of Egleston Hall.



Figure 3.4-2. View of the expansion tank in the boiler room of Egleston Hall.



Figure 3.4-3. View of the hot water heater in the boiler room of Egleston Hall.



Figure 3.4-4. View of an air handling unit in a mechanical closet adjacent to the music staff offices.



Figure 3.4-5. View of an air handling unit in a storage room adjacent to the music room of Egleston Hall.



Figure 3.4-6. View of ventilation fans in a storage room adjacent to the music room of Egleston Hall.



Figure 3.4-7. View of an air handling unit in the attic of Egleston Hall.



Figure 3.4-8. View of the 8.5 ton RTU at the roof level of Egleston Hall.



Figure 3.4-9. View of a 7.5 ton RTU at the roof level of Egleston Hall.



Figure 3.4-10. View of a heat pump at the roof level of Egleston Hall.



Figure 3.4-11. View of additional split heat pumps at the roof level of Egleston Hall.



Figure 3.4-12. View of condensing units at the southwest corner of Egleston Hall.

## 4.0 PARISH HOUSE

WJE visited the Parish House located adjacent to Egleston Hall at the north central portion of the All Saints' Episcopal Church campus in order to perform a general condition survey of the exterior building facade and roofing systems as well as documentation of the interior finishes and furnishings. WJE also documented the MEP systems; a list of the systems observed and approximate ages reported has been provided in Section 4.4, below. During the assessment, WJE was escorted throughout the property by Mr. Maurice Reddick and members of the All Saints' facilities maintenance staff, who disclosed on-going concerns and provided information regarding the replacement and repair of roofing and facade systems.

For purposes of this assessment, the building facade was observed from the ground and the roof assessment was performed from the accessible portions of the roof, as described in later sections of this report. Inaccessible portions of the roof were assessed with a drone survey. The overall condition of the building facade and roofing systems, as well as the interior finishes and furnishings, observed during the site visit has been outlined in the following sections. Each system is outlined with a brief description, summary and discussion of observed conditions, and brief recommendations for repair and maintenance. Representative photographs have been provided with each system description.

Within the recommendations for repair and maintenance, the approximate service life (from new) and frequency of maintenance items have been included, as well as an opinion of probable costs in 2019 dollars. The cost figures are based on WJE's experience with similar repairs and industry provided references. Actual costs may be expected to vary considerably depending on economic conditions and the particular specifications for the actual repair or maintenance work to be performed at the time a contract is awarded. Similarly, for interior finish cost estimates, WJE has provided selected representative cost estimates; however, actual costs could vary significantly, depending on the quality and type of materials selected for renovations. It should be noted that quantities were based on limited field observations and measurements. To obtain accurate cost information, we recommend that All Saints' retain a registered architect/engineer to develop a detailed scope of work and specifications for maintenance and/or repairs and obtain bids from qualified contractors, based on accurate quantities at the time the work is performed.

The following briefly summarizes the conditions observed and the recommended maintenance and/or repairs. A table summarizing our opinions of probable costs has been provided at the end of this report.



*View of the south facade of the Parish House.*



*View of the west facade of the Parish House.*

## 4.1 Roofing Systems

The roofing system of the Parish House consists of a low sloped roof covering composed of a single ply thermoplastic polyolefin (TPO) membrane system. The roof the Parish House was reportedly replaced in circa 2008, which makes the roof covering approximately 11 years old.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

### Summary and Discussion of Observed Conditions:

- Overall views of the Parish House roof looking from the top of the west parapet wall are shown in Figures 4.1-1 through 4.1-4.
- Areas of ponding water were observed on the roof, mostly along the drainage saddles leading to the drains and around a couple of the area drains (Figures 4.1-5 and 4.1-6). One area on the north end of the roof contained a depressed area at the top of the drainage saddle that contained ponding water and organic debris.
- The roof membrane is terminated just below the cast stone coping and is underneath a surface mounted, metal counter flashing that is sealed along its top leading edge (Figure 4.1-7). The sealants were weathered, deteriorated, chalky, alligator cracked and failed in a few locations. The termination of the membrane at the top of the piers at the interface of the metal counter flashing could not be determined, as it was covered with sealant. The sealant had failed at numerous locations (Figure 4.1-8).
- The sealants between the coping joints were weathered, deteriorated, alligator cracked and failed in a few locations (Figure 4.1-9).
- The membrane penetration flashings at equipment curbs and pipe penetrations were typically in good condition (Figure 4.1-10); however, the sealant at the leading and terminating edge of the membrane was weathered, deteriorated, chalky, alligator cracked. At one location, the cast iron pipe penetration was broken and the draw pipe penetration was not properly clamped to the pipe (Figure 4.1-11).
- The mechanical pipes were supported with a combination of wood blocking and prefabricated supports, which contain integral protection pads on the bottom (Figures 4.1-12 and 4.1-13). Most of the wood blocking contained small pieces of membrane protection sheets; however, we observed a few that did not contain the protection sheet (Figure 4.1-14). At several locations, the wood blocking appeared to be crushing the underlying roof insulation as it was depressed into the roof membrane (Figure 4.1-15).
- The metal uni-strut that supports the lighting is secured through the roof membrane on the parapet walls with bolt anchors, which are unsealed (Figure 4.1-16).

**Summary and Discussion of Observed Conditions:**

- At a few of the area drains, the weeps in the clamping rings were clogged with organic debris and may sit too high to allow water to drain off of the roof without building up over the top of the entire clamping ring (Figure 4.1-17).
- Numerous small patches were observed in the field of the membrane (Figure 4.1-18).
- At the skylight, the existing sealant between the glass and the frame and at frame-to-frame joints was weathered, deteriorated, chalky, alligator cracked and failed in many locations (Figures 4.1-19 and 4.1-20).
- During the reroofing project, All Saints Church (ASC) stated the drains were increased to 3 inch diameter drains, which WJE confirmed and the through wall scuppers were 3 1/2 inches in diameter (Figure 4.1-21).
- Some debris with sharp edges was observed directly on the roof membrane.

**Recommendations for Repair and Maintenance**

| <b>Recommendations for Repair and Maintenance</b>   | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|---|-------------------------------|-------------------------|
| Remove any abandoned equipment, materials and debris from the roof surface.   | N/A                           | \$1,500                 |
| Obtain roof condition assessment by a qualified roof consultant and perform routine maintenance on roofing system at regular intervals. | 3 to 5 years                  | \$7,500                 |
| Replace the sealant at all roof penetrations (horizontal and vertical), roof membrane terminations, and metal counter flashings.        | 5 years                       | \$3,000                 |
| Replace the coping joint sealants.  | 20 years                      | \$2,500                 |
| Remove wood blocking and provide prefabricated pipe supports with integral protection pads.   | 20 to 25 years                | \$2,000                 |
| Replace all sealants on the skylight with new silicone sealant.   | 20 to 25 years                | \$1,000                 |
| Remove and replace TPO roof system of Parish House  | 20 to 25 years                | \$100,000               |



Figure 4.1-1. Overall view of the roof looking from the top of the west parapet wall.



Figure 4.1-2. Overall view of the roof looking from the top of the west parapet wall.



*Figure 4.1-3. Overall view of the roof looking from the top of the west parapet wall.*



*Figure 4.1-4. Overall view of the roof looking from the top of the west parapet wall.*



*Figure 4.1-5. Ponding water along the parapet wall.*



*Figure 4.1-6. Ponding water around a roof area drain.*



*Figure 4.1-7. Surface mounted, metal counter flashing just beneath the roof coping.*



*Figure 4.1-8. View of failed sealant at the top of the piers at the interface of the metal counter flashing.*



*Figure 4.1-9. Deteriorated sealant between the coping joints.*



*Figure 4.1-10. Membrane penetration flashings at equipment curbs and pipe penetrations.*



*Figure 4.1-11. Broken cast iron pipe penetration.*



*Figure 4.1-12. Mechanical pipes supported with a wood blocking.*



*Figure 4.1-13. Mechanical pipes supported with a prefabricated supports.*



*Figure 4.1-14. Wood blocking which did not have membrane protection sheets*



Figure 4.1-15. Wood blocking crushing the underlying roof insulation.



Figure 4.1-16. Unsealed bolt anchors securing the metal uni-strut that supports the lighting.



Figure 4.1-17. Weeps in the clamping rings clogged with organic debris.

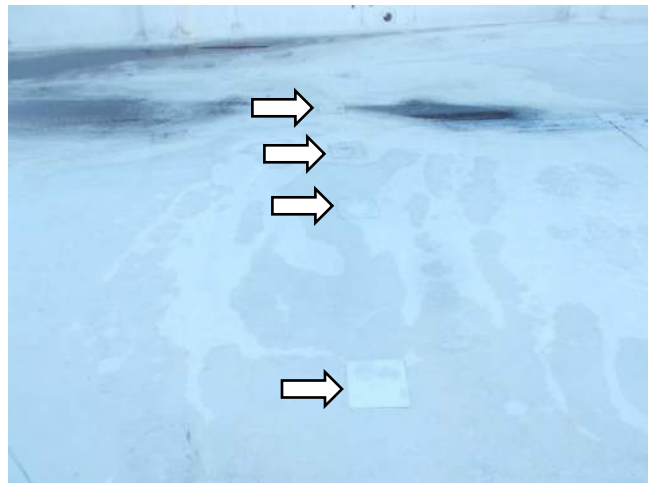


Figure 4.1-18. Numerous small patches in the field of the membrane.



Figure 4.1-19. Sealant at skylight was chalky and generally deteriorated

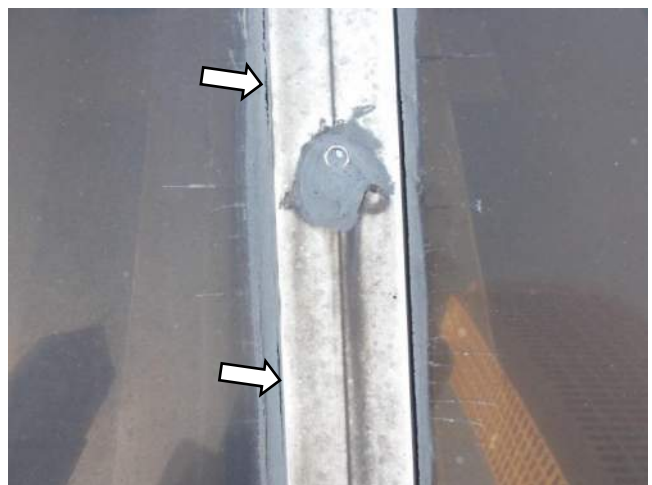
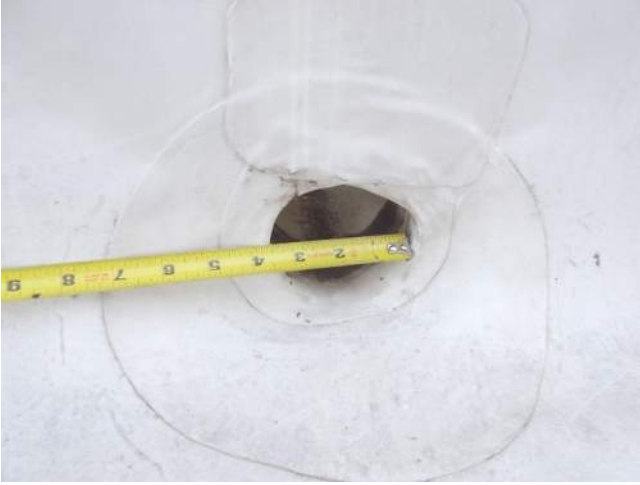


Figure 4.1-20. Adhesive failure of sealant at skylight.



*Figure 4.1-21. View of 3 inch diameter scupper.*

## 4.2 Building Facade Systems

The Parish House is located at the north end of the All Saints' property and is connected to Egleston Hall via a central stairwell with a three story curtain wall cladding. The building is approximately 80 feet by 90 feet in plan. The exterior facade is constructed with a brick masonry veneer, or transitional veneer system, that was laid in half running bond and is supported by exposed steel lintels at window and door openings throughout the facade. Painted metal windows with cast stone window sills are located within punched openings in the masonry facade.

A cast stone clad portico supports a painted concrete low slope roof and metal structure at the main courtyard entrance on the south elevation.

|            |      |        |             |      |
|------------|------|--------|-------------|------|
| Condition: | New  | Good   | <b>Fair</b> | Poor |
| Priority:  | High | Medium | <b>Low</b>  |      |



### Summary and Discussion of Observed Conditions:

- The brick masonry of the facade of the Parish House is in overall fair condition. Isolated cracking and spalling was observed throughout each facade (Figures 4.2-1 through 4.2-3). The cracking was generally located adjacent to window assemblies or at building corner conditions.
- At several areas throughout each facade, WJE observed isolated areas of deteriorated mortar between brick masonry units (Figure 4.2-4).
- At two locations on the south facade, previous window openings had been infilled with brick masonry, as evinced by the color and texture contrast to the original brick (Figure 4.2-5). No evidence of distress or cracking was observed at these areas.
- Varying levels of soiling and staining were observed throughout each facade. Stained areas typically were noted adjacent to the cast stone coping units, below cast stone window sills, or at locations of penetrations in the masonry (Figures 4.2-6 and 4.2-7). In addition, WJE observed efflorescence on the south and west facades (Figures 4.2-8 and 4.2-9).
- The cast stone sills at the windows throughout each facade varied in condition. At isolated locations, WJE observed spalls of the cast stone sill corners (Figure 4.2-10). These spalls generally appeared to be aesthetic issues. The mortar joints between the cast stone sills and the brick masonry, as well as between individual cast stone units, were generally failed (Figures 4.2-11 and 4.2-12).
- The existing window assemblies consist of a combination of single and double height metal framed window assemblies set in punched openings (Figures 4.2-13 and 4.2-14). Overall, the existing coating and trim elements were in fair condition. At several locations, the painted coating on the metal window frames and mullions had failed (Figures 4.2-15 and 4.2-16), and some areas of corrosion on the window frame elements, flashing, or trim elements were observed throughout the building. In addition, wet seal repairs were observed at some windows (Figure 4.2-17). Although the existing assemblies are single pane windows and do not provide the energy efficiency of newer window systems, no evidence or reports of leaks and no significant distress or deterioration was observed and the windows appeared to be performing as intended. Upgrades could be considered to improve the overall performance, but are not necessary at this time.
- The window perimeter sealant was weathered at isolated locations; maintenance of the sealant will reduce the amount of water entering the masonry drainage cavity and can help limit the potential of water leakage at these locations.
- The cast stone portico appeared to be in overall good condition; no evidence of damage to the cast stone columns was observed. In general, the sealant between the pieces of cast stone on the entrance portico were in good

**Summary and Discussion of Observed Conditions:**

condition; however, some corrosion was observed coming from isolated joints and at corners (Figures 4.2-18 through 4.2-20).

| <b>Recommendations for Repair and Maintenance</b>  | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|--|-------------------------------|-------------------------|
| Repair isolated cracks and spalls in the brick masonry   | N/A                           | \$2,500                 |
| Clean brick masonry and cast stone using non-acidic cleaners and water at low pressure           | 5 to 7 years                  | \$12,5000               |
| Clean, prime, and paint metal window elements (wood frames, doors, and exposed framing elements) | 7 to 10 years                 | \$7,500                 |
| Remove and replace window perimeter sealants and joints in cast stone portico columns            | 20 years                      | \$10,000                |
| Repoint brick masonry cladding   | 40+ years                     | \$215,000               |



Figure 4.2-1. View of the condition of a typical area of brick masonry facade of the Parish House.



Figure 4.2-2. View of a stepped crack in the brick masonry facade of the Parish House.

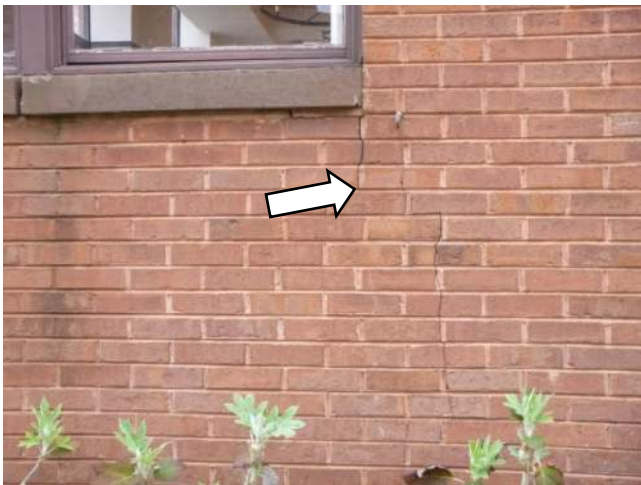


Figure 4.2-3. View of a crack in the brick masonry facade extending from a window corner.



Figure 4.2-4. View of deteriorated mortar at a window corner.



*Figure 4.2-5. View of areas of masonry fill at previous openings on the south facade.*



*Figure 4.2-6. View of an area of soiling on the brick masonry below a window on the second floor.*



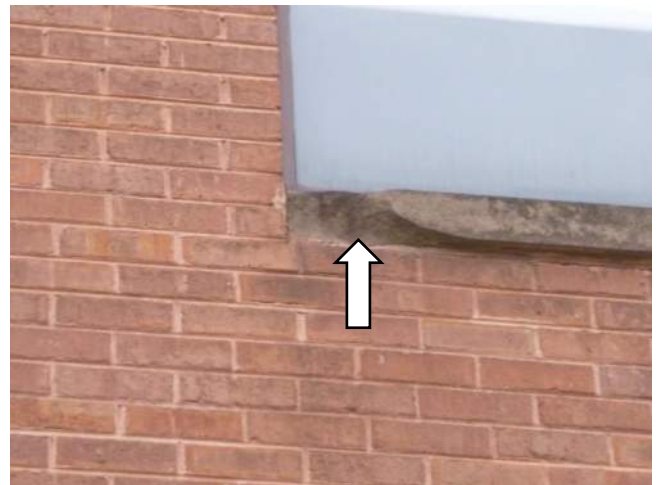
*Figure 4.2-7. View of staining from embedded steel in the masonry facade on the west elevation.*



*Figure 4.2-8. View of isolated areas of efflorescence on the south elevation.*



*Figure 4.2-9. View of an isolated area of efflorescence on the west elevation.*



*Figure 4.2-10. View of a spall at a cast stone sill on the third floor.*



*Figure 4.2-11. View of a minor spall and missing mortar at a cast stone window sill.*



*Figure 4.2-12. View of failed and missing mortar at a typical cast stone sill.*



*Figure 4.2-13. View of a double height ganged window on the first floor of the north elevation.*



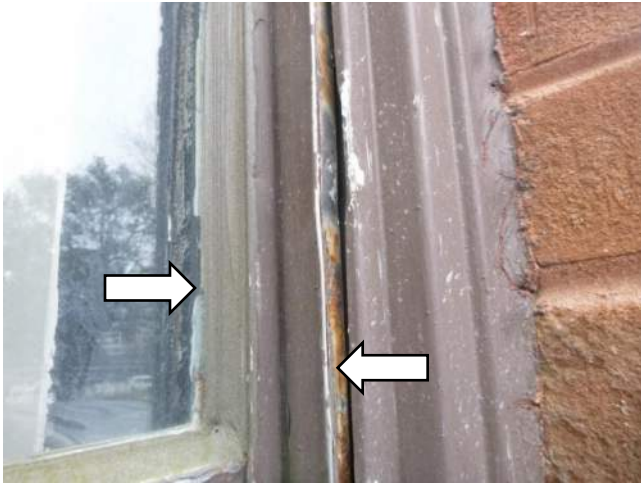
*Figure 4.2-14. View of a single height ganged window on the first floor of the east elevation.*



*Figure 4.2-15. View of failed painted coating on a window assembly.*



*Figure 4.2-16. View of failed painted coating on a window assembly.*



*Figure 4.2-17. View of wet seal repairs and corrosion on an isolated window flashing.*



*Figure 4.2-18. View of the cast stone covered entrance portico on the south elevation.*



*Figure 4.2-19. Partial view of a typical cast stone column.*



*Figure 4.2-20. View of corrosion at a corner on a cast stone column of the portico.*

### 4.3 Interior Finishes and Furnishings

The Parish House contains event space, classrooms and meeting rooms, a youth lounge, and miscellaneous offices for the All Saints' community staff. A lobby with men's and women's restrooms, miscellaneous storage rooms, a full kitchen and pantry, and an event space, known as Ellis Hall, are located on the first floor. The second floor contains offices for All Saints' staff, conference rooms, and storage space. The third floor of Parish Hall contains several classrooms and instructional space, and a central lobby space. A mechanical room is located on the top floor. An entrance vestibule with stairwell connects the Parish House with the adjacent Egleston Hall building. It is our understanding that the interior of the Parish House, including programmatic layout and interior finishes and furnishings, was renovated as part of a project that was completed in 2015.



|            |      |        |      |      |
|------------|------|--------|------|------|
| Condition: | New  | Good   | Fair | Poor |
| Priority:  | High | Medium | Low  |      |

#### ***Summary and Discussion of Observed Conditions:***

##### **First Floor**

- The first floor of the Parish House contains an elevator lobby and reception desk, men's and women's restrooms, a catering kitchen and pantry, and an event and reception space known as Ellis Hall (Figures 4.3-1 through 4.3-3). The floor finishes of the first level are a combination of ceramic tile and carpet tiles. The wall coverings are painted interior gypsum wallboard with painted wooden trim. The ceiling of Ellis Hall is double height and coffered with large, metal framed chandeliers and track lighting (Figures 4.3-4 and 4-3.5). The wall coatings, doors, and wood accent trim of the first floor were in good condition. No significant evidence of tears, peeling, or extensive damage was observed; however, at one location carpet tiles appeared to have been previously replaced (Figure 4.3-6). The windows in Parish House appeared to be original to the building, and had been sealed from the inside, rendering them inoperable (Figure 4.3-7). No issues of interior water leakage were reported to WJE while on site. Maintenance touchups to walls, windows, and trim will prolong the service life and maintain the long term aesthetics of the interior finishes.
- A catering kitchen is located on the first floor and can be accessed from the main lobby or Ellis Hall. At the time of our site visit, it is our understanding that the kitchen appliances were all in working order. Equipment included a stovetop and flat griddle with range hood, double ovens, brewing station, commercial dishwasher with steam hood, standalone ice maker, industrial sinks, commercial freezers, and commercial refrigerators (Figures 4.3-8 through 4.3-14). An additional room adjacent to the kitchen serves as a storage and service area (Figure 4.3-15). WJE did not evaluate the performance or assess the safety of these appliances as part of this study; a more detailed assessment should be performed by a consultant specializing in kitchen operation and maintenance.

##### **Second Floor**

- The second floor of the Parish House is the office level and contains offices for the All Saints' staff, conference rooms, and additional storage space. The floor finish of the second level is primarily carpet. The wall coverings are painted interior gypsum wallboard with painted wooden trim. The wall coatings, doors, and wood accent trim were in good condition. No significant evidence of tears, peeling, or extensive damage was observed (Figures 4.3-16 through 4-3.19)

**Summary and Discussion of Observed Conditions:**

**Third Floor**

- The third floor of the Parish House primarily serves as classroom space for the All Saints' Episcopal Church community. The third floor contains a central lobby and seating area, five classrooms, storage space, a mechanical room, men's and women's restrooms, and a multi-purpose room with seating and storage known as the "Skylight Room". In general, the finishes on the third floor were in good condition. No extensive damage to the finishes or furnishings on the third floor was observed (Figures 4.3-20 through 4.3-24).

**Recommendations for Repair and Maintenance**

**Frequency/Service Life**

**Associated Costs**

|  |                 |                         |
|--|-----------------|-------------------------|
| Retain a kitchen consultant to evaluate the capacity of the existing exhaust fans, evaluate the performance and safety of the existing equipment, and identify potential improvements to the appliances. | N/A             | \$2,500                 |
| Replace commercial kitchen equipment (stovetop, double ovens, warming center, commercial dish washer, ice makers, and refrigerators and freezers).   | 15 to 20 years* | \$75,000 to \$100,000** |
| Renovate entrance and elevator lobbies and Ellis Hall including furnishings, artwork, decorations, light fixtures, etc.  | 15 to 20 years* | \$120,000**             |
| Renovate second floor conference rooms and offices including furnishings, artwork, decorations, light fixtures, etc.   | 15 to 20 years* | \$60,000**              |
| Renovate third floor classrooms and common areas including furnishings, artwork, decorations, light fixtures, etc.   | 15 to 20 years* | \$120,000**             |

\* Service life is for planning purposes only. Actual service life will be dependent on maintenance, and interests of the Owner (aesthetics, etc.)

\*\*Associated Costs can vary significantly based on the quality of finish materials, artwork, furnishings and/or equipment selected



Figure 4.3-1. View of the elevator lobby of Parish House.



Figure 4.3-2. View of the main lobby of Parish House.



Figure 4.3-3. Overall view of the catering kitchen adjacent to Ellis Hall in Parish House.



Figure 4.3-4. Overall view of Ellis Hall on the first floor of Parish House.



Figure 4.3-5. View of a typical chandelier in Ellis Hall.



Figure 4.3-6. View of a section of replaced carpet tile in Ellis Hall.



Figure 4.3-7. View of a typical sealed window in Ellis Hall in the Parish House.



Figure 4.3-8. View of the stovetop and oven equipment in the Parish House kitchen.



*Figure 4.3-9. View of the double oven in the Parish House kitchen.*



*Figure 4.3-10. View of the commercial dishwasher in the Parish House kitchen.*



*Figure 4.3-11. View of the standalone ice maker in the Parish House kitchen.*



*Figure 4.3-12. View of well sinks in the Parish House kitchen.*



*Figure 4.3-13. View of the commercial freezers in the Parish House kitchen.*



*Figure 4.3-14. View of the commercial refrigerator in the Parish House kitchen.*



Figure 4.3-15. View of the additional storage area adjacent to the Parish House kitchen.



Figure 4.3-16. View of an office on the second floor of the Parish House.



Figure 4.3-17. View of an office on the second floor of the Parish House.



Figure 4.3-18. View of a conference room in the Parish House.



Figure 4.3-19. View of a storage space on the second floor of the Parish House.



Figure 4.3-20. View of the lobby and seating area on the third floor of the Parish House.



*Figure 4.3-21. View of the 'Skylight Room' on the third floor of the Parish House.*



*Figure 4.3-22. View of a classroom on the third floor of the Parish House.*



*Figure 4.3-23. View of a classroom on the third floor of the Parish House.*



*Figure 4.3-24. View of a classroom on the third floor of the Parish House.*

#### 4.4 Mechanical, Electrical, and Plumbing Systems

The mechanical, electrical, and plumbing systems for the Parish House are located primarily at the roof level. Additional mechanical and electrical rooms are located on the third floor.

WJE did not perform a review of MEP plans or other sources to identify additional systems, nor did WJE perform an analysis, assessment, or evaluation of these elements. All maintenance and replacement costs have been provided from industry standard publications.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

#### Summary and Discussion of Observed Conditions:

- WJE observed eight rooftop condensing units (RTUs) of various sizes and manufactured by York, Inc. at the roof level of the Parish House: (1) 15-ton unit, (1) 8.5-ton units, (2) 5-ton units, (1) 4-ton unit, and (3) 3-ton units. The RTUs were reported to be in operating condition. It is our understanding that they were replaced during the Parish Hall renovation in 2015 (Figures 4.4-1 through 4.4-3).
- Three centrifugal upblast exhaust fans of various sizes and a direct gas-fired make-up air unit, manufactured by Greenheck, Inc. were observed at the roof level (Figures 4.4-4 through 4.4-6). It is our understanding that this equipment is in operating condition.
- Two (2) heat pumps, manufactured by Daikin were observe at the roof level (Figure 4.4-7).
- Two 76-gallon natural gas automatic hot water storage tanks and the building system controls for the Parish House are located in the mechanical room and engineer's office adjacent to the third floor lobby (Figures 4.4-8 and 4.4-9).

| <b>Recommendations for Repair and Maintenance</b>  | <b>Frequency/Service Life</b> | <b>Associated Costs</b>       |
|--|-------------------------------|-------------------------------|
| Obtain a routine, thorough condition assessment of the existing building systems by a licensed MEP engineer. | 5 years                       | \$5,000                       |
| Remove and replace gas hot water storage tanks.  | 15 years                      | \$5,500 ea.<br>\$11,000 total |
| Remove and replace RTUs.   | 15 to 20 years                | \$45,000                      |
| Remove and replace heat pumps.   | 15 to 20 years                | \$1,000 ea.<br>\$2,000 total  |
| Remove and replace makeup air unit.  | 15 to 20 years                | \$10,000                      |
| Remove and replace exhaust fan units.  | 15 to 20 years                | \$1,500 ea.<br>\$4,500 total  |



Figure 4.4-1. Partial view of the mechanical equipment on the Parish House roof level.



Figure 4.4-2. View of a RTU at the Parish House roof level.



Figure 4.4-3. View of a RTU at the Parish House roof level.



Figure 4.4-4. View of an exhaust fan on the Parish House roof.



Figure 4.4-5. View of an exhaust fan on the Parish House roof.



Figure 4.4-6. View of a condensing unit for the Church and Chapel.



*Figure 4.4-7. View of the makeup air unit on at the Parish House roof level.*



*Figure 4.4-8. View of the engineer's office and building system controls.*



*Figure 4.4-9. View of two 76 gallon hot water storage tanks in the mechanical room on the third floor.*

## 5.0 PRITCHETT CHILDREN'S CENTER

WJE visited the Pritchett Children's Center, located at the northwest corner of the All Saints' Episcopal Church campus in order to perform a general condition survey of the exterior building facade and roofing systems as well as documentation of the interior finishes and furnishings. WJE also documented the MEP systems; a list of the systems observed and approximate ages reported has been provided in Section 5.4, below. During the assessment, WJE was escorted throughout the property by Mr. Maurice Reddick and members of the All Saints' facilities maintenance staff, who disclosed on-going concerns and provided information regarding the replacement and repair of roofing and facade systems.

For purposes of this assessment, the building facade was observed from the ground and the roof assessment was performed from the accessible portions of the roof, as described in later sections of this report. Inaccessible portions of the roof were assessed with a drone survey. The overall condition of the building facade and roofing systems, as well as the interior finishes and furnishings, observed during the site visit has been outlined in the following sections. Each system is outlined with a brief description, summary and discussion of observed conditions, and brief recommendations for repair and maintenance. Representative photographs have been provided with each system description.

Within the recommendations for repair and maintenance, the approximate service life (from new) and frequency of maintenance items have been included, as well as an opinion of probable costs in 2019 dollars. The cost figures are based on WJE's experience with similar repairs and industry provided references. Actual costs may be expected to vary considerably depending on economic conditions and the particular specifications for the actual repair or maintenance work to be performed at the time a contract is awarded. Similarly, for interior finish cost estimates, WJE has provided selected representative cost estimates; however, actual costs could vary significantly, depending on the quality and type of materials selected for renovations. It should be noted that quantities were based on limited field observations and measurements. To obtain accurate cost information, we recommend that All Saints' retain a registered architect/engineer to develop a detailed scope of work and specifications for maintenance and/or repairs.

The following briefly summarizes the conditions observed and the recommended maintenance and/or repairs. A table summarizing our opinions of probable costs has been provided at the end of this report.



*South facade of the Pritchett Children's Center*



*West facade of the Pritchett Children's Center*

## 5.1 Roofing Systems

The Pritchett Center contains multiple types of roof coverings and systems. The main upper roof area contains steep sloped, mansard and gable roofs that transition to low sloped roof areas. The main upper roof mansard roof area is covered with architectural style, laminated, asphalt shingles. The low sloped roofs are covered with a single ply TPO membrane. The roofs were reportedly replaced circa 2014, which makes the roof covering approximately 5 years old.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

### ***Summary and Discussion of Observed Conditions:***

#### **Main Lower Roof Area**

- Overall views of the main lower roof area looking from the southwest corner of the roof are provided in Figures 5.1-1 through 5.1-3.
- Small, localized areas of ponding water were observed on the roof.
- The mechanical pipes were supported with prefabricated supports, which contain integral protection pads on the bottom (Figure 5.1-4).
- It appears that base of wall stone repairs with flashings were installed at the interface of the roof membrane (Figure 5.1-5). Many of the locations where the through wall flashing interfaces the window opening were not well sealed or integrated (Figures 5.1-6 and 5.1-7).
- The equipment curbs and supports were flashed with a combination of TPO membrane flashing and prefabricated TPO pitch pockets, which were in good to fair condition (Figure 5.1-8). The sealant along the top edge of the membrane flashings were weathered, deteriorated, and alligator cracked.
- Most of the cast stone coping contained crazing cracks and the joint sealants were weathered, deteriorated, chalky, alligator cracked and contained some failures (Figures 5.1-9 and 5.1-10).
- The expansion joint in the outer wall at the northwest corner of the roof does not continue up and over the wall to the roof (Figures 5.1-11 and 5.1-12).

#### **Main Upper Roof Areas**

- Overall views of the main upper roof area are provided in Figures 5.1-13 through 5.1-18.
- Small, localized areas of ponding water were observed on the roof.
- The pipe penetrations and equipment curbs were flashed with a combination of TPO membrane flashing and prefabricated TPO pitch pockets, which were in good to fair condition. The sealant along the top edge of the membrane flashings were weathered, deteriorated, and alligator cracked.
- Most of the cast stone coping contained crazing cracks, many of which appeared to have been attempted to be repaired with some kind of liquid applied material (Figure 5.1-19). WJE could not access the coping joints due to access constraints.
- At the low slope perimeter roof areas extending from the asphalt shingles and the parapet wall between the gable roofs, the TPO roof membrane was terminated with mechanically fastened termination bars and sealant located at the top of the inside face of the cast stone coping (Figure 5.1-20). At the gabled roof areas, the vertical TPO

**Summary and Discussion of Observed Conditions:**

membrane covering the parapet wall is terminated under a metal counterflashing that is located underneath the coping (Figure 5.1-21).

- Exposed nail fasteners were observed at a few locations in the asphalt shingled roof areas (Figure 5.1-22).
- At one location, an HVAC unit rested on two pieces of wood, which extended beyond the TPO protection sheet that was underneath. The wood blocking appeared to be crushing the underlying roof insulation as it was depressed into the roof membrane (Figure 5.1-23). In addition, that HVAC unit and the adjacent HVAC unit did not appear to be attached or secured to anything.
- No drain grates or covers were provided on the overflow drains (Figure 5.1-24).
- All Saints stated water leakage is occurring on the main upper roof at numerous locations at the transition of the low sloped roof to the steep sloped roof. A roofing contractor has reportedly been retained to implement repairs to the roof to resolve the water leakage issues as part of the warranty.

| <b>Recommendations for Repair and Maintenance</b>  | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|--|-------------------------------|-------------------------|
| Install drain grates/covers on the overflow drains.  | N/A                           | \$750                   |
| Obtain roof condition assessment by a qualified roof consultant and perform routine maintenance on roofing systems at regular intervals.   | 3 to 5 years                  | \$7,500                 |
| Replace miscellaneous other sealants at pipe penetrations.   | 5 to 7 years                  | \$1,500                 |
| On the main lower roof area, rework the termination details of the roof membrane and flashings at the interface of the windows. Also determine if expansion joint should continue over wall and be installed and sealed. | 10 to 15 years                | \$7,500                 |
| On the upper roof area, install equipment curbs for unattached HVAC units.   | 10 to 15 years                | \$2,000                 |
| Seal coping joints (dependent upon repairs installed to the roof to resolve the water leakage issues as part of the warranty).   | 20 years                      | \$5,000                 |
| Remove and replace asphalt shingle roof areas.   | 20 to 25 years                | \$45,000                |
| Remove and replace TPO roof areas.   | 20 to 25 years                | \$140,000               |



Figure 5.1-1. Overall view of the main lower roof area looking from the southwest corner of the roof.



Figure 5.1-2. Overall view of the main lower roof area looking from the southwest corner of the roof.



*Figure 5.1-3. Overall view of the main lower roof area looking from the southwest corner of the roof.*



*Figure 5.1-4. Mechanical pipes supported with prefabricated supports with integral protection pads.*



*Figure 5.1-5. Base of wall stone repairs with flashings installed at the interface of the roof membrane.*



*Figure 5.1-6. Through wall flashing interfaces the window opening and is not well sealed or integrated.*



*Figure 5.1-7. Location where through wall flashing interfaces the window opening not well sealed or integrated.*



*Figure 5.1-8. Equipment curbs flashed with a combination of TPO membrane flashing and prefabricated TPO pitch pockets.*



*Figure 5.1-9. Cast stone coping with crazing cracks and deteriorated sealant joints.*



*Figure 5.1-10. Cast stone coping with crazing cracks and deteriorated sealant joints.*



*Figure 5.1-11. Expansion joint in the outer wall at the northwest corner of the roof does not continue up and over the wall to the roof.*



*Figure 5.1-12. Expansion joint in the outer wall at the northwest corner of the roof does not continue up and over the wall to the roof.*



*Figure 5.1-13. Overall view of the main upper roof area.*



*Figure 5.1-14. Overall view of the main upper roof area.*



*Figure 5.1-15. Overall view of the main upper roof area.*



*Figure 5.1-16. Overall view of the main upper roof area.*



*Figure 5.1-17. Overall view of the main upper roof area.*



*Figure 5.1-18. Overall view of the main upper roof area.*



*Figure 5.1-19. Cast stone coping with crazing cracks, many repaired with a liquid applied material.*



*Figure 5.1-20. TPO roof membrane at internal gutter terminated with mechanically fastened termination bars and sealant.*



*Figure 5.1-21. TPO membrane terminated under a metal counterflashing underneath the coping.*



*Figure 5.1-22. Exposed nail fasteners in the asphalt shingled roof areas.*



*Figure 5.1-23. Wood blocking be crushing the underlying roof insulation as it was depressed into the roof membrane.*



*Figure 5.1-24. No drain grates or covers were provided on the overflow drains.*

## 5.2 Building Facade Systems

The Pritchett Children's Center is a two to three story classroom building constructed over a two story parking structure that was completed in 1995. The facade at the parking garage consists of exposed cast-in-place concrete with steel grates; the upper three floors are clad with a manufactured stone masonry veneer laid in a coursed ashlar pattern with aluminum framed window units.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

### ***Summary and Discussion of Observed Conditions:***

#### **Manufactured Stone Masonry**

- The manufactured stone masonry facade was observed to be in good condition; although WJE observed several isolated spalls at a manufactured stone masonry ledge (Figure 5.2-1) and at a window sill (Figure 5.2-2), no evidence of widespread or systemic displacement, damage, or cracking was noted (Figures 5.2-3 and 5.2-4).
- Vertical expansion joints are located at the middle of the north facade, and at the transition between a three story and a one story structure at the west facade of the building (Figure 5.2-5). The sealant within the expansion joint was weathered, and should be replaced as part of a repair project in the near future (Figure 5.2-6).
- At several areas on the building facade, primarily on the north elevation, WJE observed a white haze on the face of the masonry (Figures 5.2-7 and 5.2-8). This type of haze or staining is indicative of failure of a clear penetrating sealer that may have been applied to the building.
- No visible through-wall flashings were observed through the manufactured stone masonry assembly. Although it is possible that the flashings were provided, but did not extend to daylight (similar to the 1990s addition to the Chapel), the lack of weep ropes and the apparent presence of a clear penetrating sealer indicates that the ability of the facade to manage water within the drainage cavity is suspect. Because no water leakage has been reported, and no evidence of significant water intrusion was noted by WJE, no repairs to address the wall performance have been provided. However, WJE recommends that All Saints' be aware of this condition and consider a more detailed assessment of the facade in the event that water leakage begins to occur in the near future.
- Atmospheric soiling of the facade varied throughout each building facade, but was most significant beneath the sloped portion of the coping units at the gabled ends (Figure 5.2-9).
- Efflorescence was observed on the underside of the manufactured stone units at several window openings on the west elevation (Figure 5.2-10).

#### **Cast-in-Place Concrete Elements**

- The exposed cast-in-place concrete elements at the parking garage were observed to be in good condition; no evidence of structural cracking, damage, or displacement was observed during the visual survey (Figure 5.2-11).
- Isolated, cracking, consistent with concrete drying shrinkage was observed at the northwest corner of the parking garage (Figure 5.2-12). This is not uncommon for this type of structure and does not warrant further repair or investigation at this time.

**Summary and Discussion of Observed Conditions:**

- A crack resulting in a spalled corner of the concrete was observed adjacent to the man door located at the ground level of the west facade (Figure 5.2-13). No out-of-plane movement or displacement was observed at this location.
- Surface cracking and shallow surface spalls were observed at the north facade, immediately adjacent to several abandoned, embedded steel elements (Figure 5.2-14). Additional abandoned anchors were observed which had not resulted in cracking or spalling at the time of the site visit. The purpose of these elements is unknown; however, removal of abandoned steel materials and concrete patching will prevent continued cracking and spalling at these locations.
- Varying levels of atmospheric soiling were observed throughout the concrete elements; however, evidence of graffiti was noted at the northeast corner of the parking structure (Figure 5.2-15). Consideration could be given to coating the existing concrete elements with a graffiti resistant coating to assist in the cleaning and removal of such events in the future.

**Aluminum Framed Window Systems**

- The aluminum framed window systems were observed to be in good condition; no evidence of damage or distress was observed (Figure 5.2-16).
- The window perimeter sealants were also in good condition; no widespread evidence of sealant failures was observed (Figure 5.2-17). However, at the location of the spalled manufactured stone element, the perimeter sealant at the jamb-to-sill interface is not continuous and can allow water to bypass the exterior sealant (see Figure 5.2-2, above).
- No evidence of failed insulated glass units (IGU), such as fogged lites was noted during our survey. WJE recommends that replacement of failed IGUs be performed as they occur with an operating budget.

**Miscellaneous Facade Components**

- The wood trim and soffit at the entrance canopy at the southeast entrance had been removed, exposing the wood structural framing elements (Figure 5.2-18). Water staining was observed on the exposed structural members (Figure 5.2-19). Consideration should be given to determining the source of the water leakage/staining in order to address the issue prior to reinstallation of the trim and soffit elements.

**Recommendations for Repair and Maintenance**

| <b>Recommendations for Repair and Maintenance</b>   | <b>Frequency/Service Life</b>      | <b>Associated Costs</b> |
|---|------------------------------------|-------------------------|
| Consider application of a graffiti resistant coating to the exposed concrete elements.  | N/A<br>5 to 7 years (if installed) | \$15,000                |
| Clean existing manufactured stone masonry with a non-acidic cleaning solution and low pressure water, as appropriate for the facade system. | 5 to 7 years                       | \$25,000                |
| Clean, prime, and paint all existing wood trim elements.  | 5 to 7 years                       | \$1,200                 |
| Remove and replace window perimeter sealants.   | 20+ years                          | \$20,000                |
| Repoint the manufactured stone masonry.   | 50+ years                          | \$375,000               |



Figure 5.2-1. Isolated spalls at a manufactured stone masonry ledge.

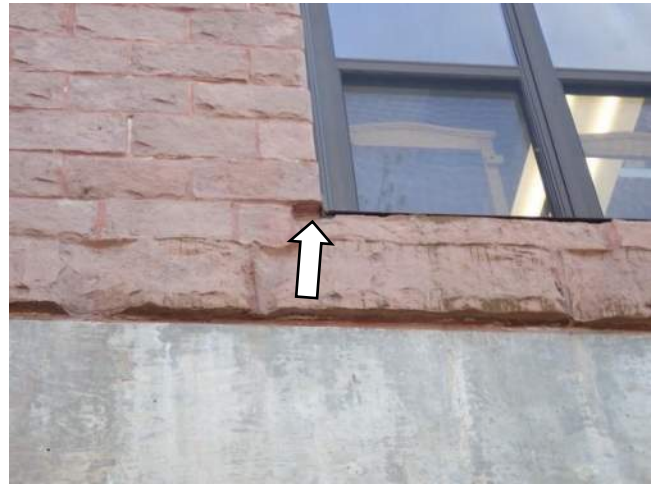


Figure 5.2-2. Isolated spalls at a window sill.



Figure 5.2-3. Overall view of the condition of the manufactured stone masonry facade.



Figure 5.2-4. Overall view of the condition of the manufactured stone masonry facade.



Figure 5.2-5. Vertical expansion joint at the transition between a three story and a one story structure at the west elevation.



Figure 5.2-6. Weathered sealant within the expansion joint.



Figure 5.2-7. White haze on the face of the masonry.



Figure 5.2-8. White haze on the face of the masonry.



Figure 5.2-9. Atmospheric soiling beneath the sloped portion of the coping units at the gabled ends.



Figure 5.2-10. Efflorescence on the underside of the manufactured stone units at several window openings on the west elevation.



Figure 5.2-11. No deficiencies on exposed cast-in-place concrete elements at the parking garage.



Figure 5.2-12. Isolated cracking at the northwest corner of the parking garage.



*Figure 5.2-13. A crack and spalled corner of the concrete adjacent to a ground level entrance door.*



*Figure 5.2-14. Surface cracking and shallow surface spalls at the north elevation.*



*Figure 5.2-15. Evidence of graffiti at the northeast corner of the parking structure*



*Figure 5.2-16. Aluminum framed window systems were observed to be in good condition.*



*Figure 5.2-17. The window perimeter sealants were in good condition.*



*Figure 5.2-18. Wood trim and soffit at the entrance canopy at the southeast entrance had been removed, exposing the wood structural framing elements.*



*Figure 5.2-19. Water staining on the exposed structural members.*

### 5.3 Parking Structure

The conditioned space of the Pritchett Center is constructed over a two level, cast in place parking garage structure. The lower level of the parking structure is accessed from Spring Street NW. The upper level of the parking structure is accessed via the parking lot in the northeast corner of the All Saints' community.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

#### Summary and Discussion of Observed Conditions:

- The All Saint's community parking structure consists of a cast-in-place concrete floor slab with concrete columns and drop panels. Overall, no significant distress was observed in the concrete columns or drop panels; however, isolated cracks in the concrete slab were observed on the lower level. At isolated locations, loose concrete from the original formwork was observed overhead (Figures 5.3-1 through 5.3-3).
- Automatic overhead doors are located at each entrance to the parking structure. The gates and controls at both entrances were observed to be in operational condition at the time of our site visit; no reported issues were identified to WJE during our assessment. WJE observed the gates to be in overall good condition. The coating was faded; however, no corrosion or damage was observed (Figures 5.3-4 and 5.3-5).
- Full height steel fencing is located between structural columns and wall sections of the parking garage at the lower two floors of the building, on the north, west, and part of the south facades (Figure 5.3-6). The fencing is anchored to the concrete structural frame at the first floor line. In general, the fencing was bolted to the concrete structure (Figure 5.3-7); however, at isolated locations, failed connections and steel fence elements were noted (Figures 5.3-8 and 5.3-9).
- Widespread surface corrosion was observed on the exposed steel and steel fencing at the openings in the parking structure. The existing coating was failed and flaking and in poor condition at these locations (Figures 5.3-10 through 5.3-14).
- Mechanical rooms and storage spaces are located at the corners of each level of the Pritchett Center parking structure (Figure 5.3-15 and 5.3-16).

#### Recommendations for Repair and Maintenance

|  | <i>Frequency/Service Life</i> | <i>Associated Costs</i>        |
|--|-------------------------------|--------------------------------|
| Clean, prime, and paint existing steel fencing elements at openings in the parking garage. Repair damaged or broken connections or elements as part of this project. | 10 years                      | \$12,000                       |
| Replace overhead high speed door and motors at parking garage entrances.   | 15 to 20 years                | \$25,000 ea.<br>\$50,000 total |
| Replace the fencing at openings in the parking garage.   | 20+ years                     | \$20,000                       |

\*Actual service life will be dependent on maintenance, and other interests of the Association (Aesthetics, etc.)

\*\*Associated Costs can vary significantly based on the quality of the finish materials selected.



Figure 5.3-1. View of a typical concrete column and drop panel.



Figure 5.3-2. View of a crack in the bottom level of the parking structure.



Figure 5.3-3. View of loose overhead concrete in parking garage from original formwork.



Figure 5.3-4. View of an overhead door at the upper level entrance of the Pritchett center parking structure.



Figure 5.3-5. View of an overhead door and control motor at the Spring Street entrance.



Figure 5.3-6. View of metal fencing between openings in the parking structure.



Figure 5.2-7. The fencing was bolted to the concrete structure.



Figure 5.3-8. View of a failed connection in the metal fencing.



Figure 5.2-9. Failed connections at parking garage fencing.



Figure 5.2-10. Failed fence element at parking garage opening.



Figure 5.2-11. Fencing is anchored to the concrete structural frame and to a steel slab edge cover.



Figure 5.3-12. View of corrosion on metal fencing between openings in the parking structure.



*Figure 5.2-13. The existing coating was failed and flaking and in poor condition on the exposed steel elements.*



*Figure 5.2-14. Widespread surface corrosion on the steel fencing at the openings in the parking structure.*



*Figure 5.3-15. View of a typical storage space at the corner of the Pritchett center parking structure.*



*Figure 5.3-16. View of a typical storage space at the corner of the Pritchett center parking structure.*

## 5.4 Interior Finishes and Furnishings

The interior space of the Pritchett Center contains a Pre-Kindergarten Ministry and Childcare Center, a Children's Ministry and Choir, event and rehearsal space, and classrooms and lounge for the Youth Ministry. The first floor contains a lobby space and reception area, general offices for Childcare Center Staff, and several Infant and Toddlers' Rooms. It is our understanding that the first floor is tenant space and that the Childcare Center is owned independently of the All Saints' community. The Children's Ministry and Choir classrooms and rehearsal space are located on the second floor. The third floor is a Youth Ministry and Lounge. It is our understanding that the third floor and attic interior, including programmatic layout and interior finishes and furnishings, was renovated as part of a project that was completed in 2014.

Condition: New **Good** Fair Poor  
Priority: High Medium **Low**



### ***Summary and Discussion of Observed Conditions:***

#### ***First Floor***

- The programmatic space of the first floor of the Pritchett Center is accessed via an entrance lobby and vertical circulation space located at the southeast corner of the building. The floor finishes include a combination of carpet tile and laminated vinyl hardwood flooring. The wall coverings are painted interior gypsum wallboard with painted wood trim. No significant evidence of tears, peeling, or extensive damage was observed. Due to hours of operations and security concerns, WJE was unable to fully document the conditions of much of the interior spaces of the first floor during our site visit. No issues of interior water leakage were reported to WJE by the Childcare Center staff while on site. Maintenance and touchups to walls, windows, and trim will prolong the service life and maintain the long term aesthetics of the interior finishes in these spaces.

#### ***Second Floor***

- The second floor of the Pritchett Center is the Children's Ministry and Choir level. The floor is accessed via the main second floor lobby and contains a central area known as 'The Kenan Commons', five classroom spaces, several storage closets, men's and women's restrooms, a kitchen, a library, a children's church and rehearsal space, and an office for the Ministry staff (Figures 5.4-1 through 5.4-13). The floor finish of the second level primarily consists of carpet and laminated vinyl hardwood flooring. The wall coverings are painted interior gypsum wallboard with painted wooden trim. The wall coatings, doors, and wood accent trim were in good to fair condition. Normal wear of the interior finishes was noted throughout the Ministry and Choir level; however, no significant evidence of tears, peeling, or extensive damage was observed.
- The kitchen on the second floor contains built-in wood cabinets, two dining tables and chairs, a sink, dishwasher, electric stove, microwave, and refrigerator with freezer (Figures 5.4-14 and 5.4-16). It is our understanding that the kitchen appliances were all in working order at the time of our site visit. WJE did not evaluate the performance or assess the safety of these appliances as part of this study.
- Storage space adjacent to the kitchen on the second floor contains a copy center and equipment (Figures 5.4-17 through 5.4-19).

**Summary and Discussion of Observed Conditions:**

**Third Floor**

- The third floor of the Pritchett Center is the Youth Ministry and Lounge and contains a central, open lounge with seating and viewing areas, Ministry offices, several classrooms, an indoor recreational area, audio/visual and network closets, a kitchen, men’s and women’s restrooms (5.4-20 through 5.4-33). The third floor also contains mechanical space for the Pritchett Center. It is our understanding that the third floor Youth Ministry and Lounge was renovated as part of a project that was completed in 2014. In general, the finishes on the third floor were in good condition. No extensive damage to the finishes or furnishings on the third floor was observed.
- The kitchen on the third floor contains built-in cabinets and island, a sink, dishwasher, double ovens, microwave, and refrigerator with freezer (Figures 5.4-34 through 5.4-38). It is our understanding that the kitchen appliances were all in working order at the time of our site visit. WJE did not evaluate the performance or assess the safety of these appliances as part of this study.

**Recommendations for Repair and Maintenance**

**Frequency/Service Life**

**Associated Costs**

Replace equipment in second and third floor kitchens (electric stovetop, double ovens, dish washers, refrigerators, and freezers)

12 to 15 years\*

\$20,000\*\*

Renovate first floor including entrance lobbies, reception and office areas, kitchen, restrooms, preschool and toddler rooms, and auxiliary spaces including furnishings, artwork, decorations, light fixtures, etc.

15 to 20 years\*

\$250,000\*\*

Renovate second floor classrooms, kitchen, restrooms, and rehearsal space including furnishings, artwork, decorations, light fixtures, etc.

15 to 20 years\*

\$180,000\*\*

Renovate third floor Youth Ministry lounge ,classrooms, kitchen, recreation space, and restrooms including furnishings, artwork, decorations, light fixtures, etc.

15 to 20 years\*

\$180,000\*\*

*\* Service life is for planning purposes only. Actual service life will be dependent on maintenance, and interests of the Owner (aesthetics, etc.)*

*\*\*Associated Costs can vary significantly based on the quality of finish materials, artwork, furnishings and/or equipment selected*



Figure 5.4-1. View of the Kenan Commons on the second floor of the Pritchett Center.



Figure 5.4-2. View of a typical classroom space on the second floor of the Pritchett Center.



Figure 5.4-3. View of a typical classroom space on the second floor of the Pritchett Center.



Figure 5.4-4. View of a typical classroom space on the second floor of the Pritchett Center.



Figure 5.4-5. View of a typical classroom space on the second floor of the Pritchett Center.



Figure 5.4-6. View of a typical classroom space on the second floor of the Pritchett Center.



Figure 5.4-7. View of a typical classroom space on the second floor of the Pritchett Center.



Figure 5.4-8. View of a typical classroom space on the second floor of the Pritchett Center.



Figure 5.4-9. View of the finishes of the main hallway leading to the rehearsal space.



Figure 5.4-10. View of a typical restroom on the second floor.



Figure 5.4-11. View of the Choir rehearsal space on the second floor of the Pritchett Center.



Figure 5.4-12. View of the rehearsal space on the second floor of the Pritchett Center.



Figure 5.4-13. View of a music staff office on the second floor.



Figure 5.4-14. View of the kitchen area on the second floor.



Figure 5.4-15. View of appliances in the kitchen on the second floor.



Figure 5.4-16. View of appliances in the kitchen on the second floor.



Figure 5.4-17. View of a storage space and copy center located adjacent to the kitchen.



Figure 5.4-18. View of copy center equipment located adjacent to the kitchen on the second floor.



Figure 5.4-19. View of a storage space located adjacent to the kitchen on the second floor.

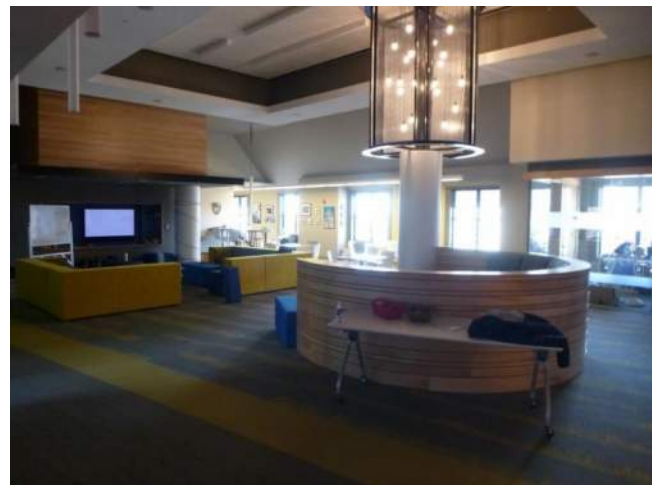
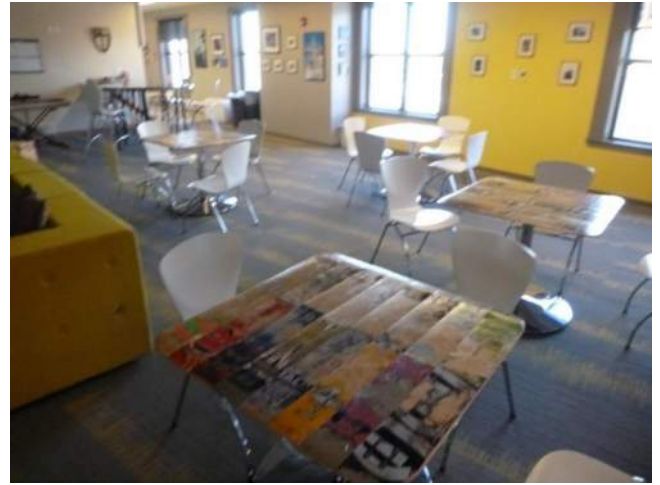


Figure 5.4-20. View of the lounge area and Youth Ministry on the third floor of the Pritchett Center.



*Figure 5.4-21. View of the lounge area and Youth Ministry on the third floor of the Pritchett Center.*



*Figure 5.4-22. View of the lounge area and Youth Ministry on the third floor of the Pritchett Center.*



*Figure 5.4-23. View of a typical classroom on the third floor of the Pritchett Center.*



*Figure 5.4-24. View of a typical classroom on the third floor of the Pritchett Center.*



*Figure 5.4-25. View of a typical classroom on the third floor of the Pritchett Center.*



*Figure 5.4-26. View of a typical classroom on the third floor of the Pritchett Center.*



Figure 5.4-27. View of a typical classroom on the third floor of the Pritchett Center.

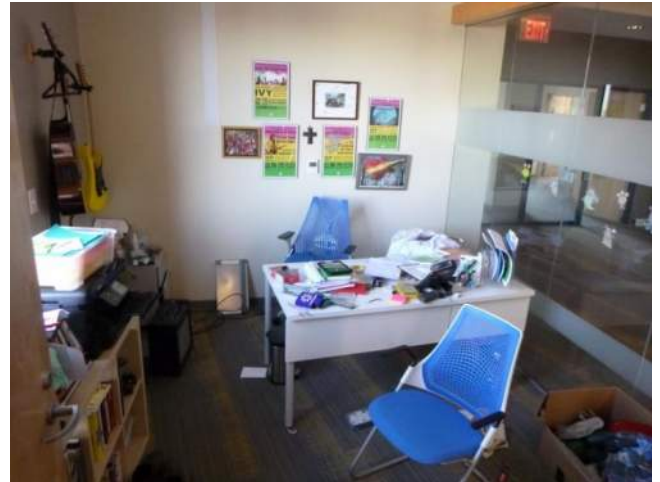


Figure 5.4-28. View of Youth Ministry staff offices on the third floor of the Pritchett Center.



Figure 5.4-29. View of a storage space at the east end of the third floor of the Pritchett Center.



Figure 5.4-30. View of the main hallway leading to the recreation area on the third floor.



Figure 5.4-31. View of the recreation area on the third floor of the Pritchett Center.



Figure 5.4-32. View of a storage and A/V equipment area adjacent to the recreation area.



Figure 5.4-33. View of A/V equipment in the storage closet.



Figure 5.4-34. Overall view of the kitchen on the third floor of the Pritchett Center.



Figure 5.4-35. View of kitchen equipment in the third floor kitchen.



Figure 5.4-36. View of kitchen equipment in the third floor kitchen.



Figure 5.4-37. View of network equipment on the third floor adjacent to the kitchen.

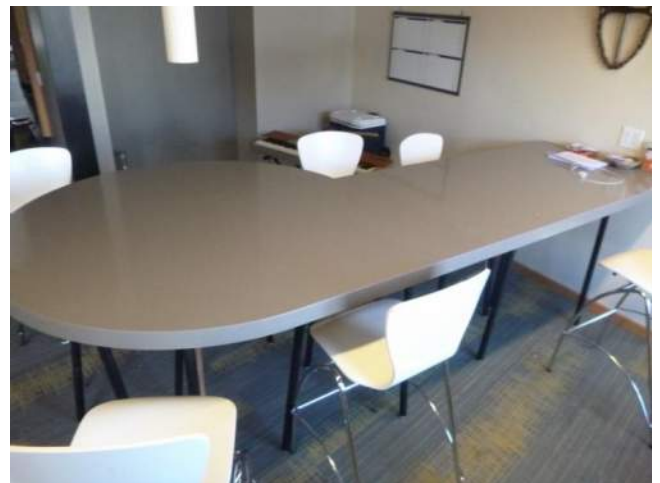


Figure 5.4-38. View of seating adjacent to the kitchen on the third floor.

## 5.5 Mechanical, Electrical, and Plumbing Systems

The mechanical, electrical, and plumbing systems for the Pritchett Center are located primarily at the roof level. Additional mechanical and electrical rooms are located on the third floor.

WJE did not perform a review of MEP plans or other sources to identify additional systems, nor did WJE perform an analysis, assessment, or evaluation of these elements. All maintenance and replacement costs have been provided from industry standard publications.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

### Summary and Discussion of Observed Conditions:

- WJE observed six rooftop condensing units (RTUs) of various sizes and manufacturers at the upper roof level of the Pritchett Center: (1) 12.5-ton unit, (2) 10-ton units, (1) 7.5-ton unit, (1) 6-ton unit, and (1) 4-ton unit. The RTUs were reported to be in operating condition (Figures 5.5-1 through 5.5-4). Three additional, small condensing units were also observed at this level (Figures 5.5-5 and 5.5-6).
- A 20-ton RTU and a 17.5-ton RTU, manufactured by Trane Inc., as well as an unidentified air handler and two unidentified smaller condensing units were observed on the low roof area (Figures 5.5-7 and 5.5-8).
- A mechanical closet, located adjacent to the third floor Lounge area, contains a 100 gallon gas hot water storage tank, manufactured by State Industries, Inc. as well as a 75 gallon gas hot water storage tank manufactured by Rheem Manufacturing Company (Figure 5.5-9). An additional mechanical and service space is access from the men’s bathroom and provides access to the roof.

| <b>Recommendations for Repair and Maintenance</b>  | <b>Frequency/Service Life</b> | <b>Associated Costs</b>       |
|--|-------------------------------|-------------------------------|
| Obtain a routine, thorough condition assessment of the existing building systems by a licensed MEP engineer. | 5 years                       | \$5,000                       |
| Remove and replace RTUs.   | 15 to 20 years                | \$80,000                      |
| Remove and replace small condensing units / heat pumps.  | 15 to 20 years                | \$2,500 ea.<br>\$12,500 total |
| Remove and replace air handler unit.   | 15 to 20 years                | \$10,000                      |
| Remove and replace gas hot water storage tanks at third floor mechanical room.                               | 10 to 15 years                | \$7,500                       |



*Figure 5.5-1. View of mechanical equipment on the upper roof of the Pritchett Center.*



*Figure 5.5-2. View of an RTU on the upper roof of the Pritchett Center.*



*Figure 5.5-3. View of mechanical equipment on the upper roof of the Pritchett Center.*



*Figure 5.5-4. View of an RTU on the upper roof of the Pritchett Center.*



*Figure 5.5-5. View of mechanical equipment on the upper roof of the Pritchett Center.*



*Figure 5.5-6. View of an RTU on the upper roof of the Pritchett Center.*



*Figure 5.5-7. View of mechanical equipment on the lower roof of the Pritchett Center.*



*Figure 5.5-8. View of mechanical equipment on the lower roof of the Pritchett Center.*



*Figure 5.5-9. View of hot water heaters in a mechanical closet on the third floor of the Pritchett Center.*

## 5.6 Conveying Systems

A passenger elevator for the Pritchett Center building on the All Saints' Episcopal Church campus is located near the southeast corner of the building. The elevator hydraulics and equipment are located in a mechanical space accessible from the lower level of the parking structure.



|            |      |        |      |      |
|------------|------|--------|------|------|
| Condition: | New  | Good   | Fair | Poor |
| Priority:  | High | Medium |      | Low  |

### Summary and Discussion of Observed Conditions:

- A hydraulic elevator system was observed in the mechanical room and storage area located on the lower level of the parking structure. At the time of our site visit, WJE observed a fluid leak coming from one the elevator's system components. All Saints' has reported that the fluid link is currently being addressed by the conveying system maintenance company (Figure 5.6-1 and 5.6-2).

### Recommendations for Repair and Maintenance

|  | Frequency/Service Life | Associated Costs |
|--|------------------------|------------------|
| Upgrade existing elevator cab finishes                     | 15 to 20 years         | \$20,000         |
| Replace and upgrade elevator controls, cables, and systems | 25 to 30 years         | \$45,000         |



Figure 5.6-1. View of the leaking elevator hydraulics system located in the lower level of the parking structure.



Figure 5.6-2. View of the leak in the elevator hydraulic system.

## 6.0 COMMUNITY OUTREACH BUILDING

WJE visited the community outreach building, which includes Tate Hall, the Covenant Community, and retail/restaurant space, located at the southwest corner of the All Saints' Episcopal Church campus in order to perform a general condition survey of the exterior building facade and roofing systems as well as documentation of the interior finishes and furnishings. WJE also documented the MEP systems; a list of the systems observed and approximate ages reported has been provided in Section 6.4, below. It is our understanding that maintenance and repair for the MEP systems associated with the retail/restaurant space is the responsibility of the commercial tenants and has not been included in this report. During the assessment, WJE was escorted throughout the property by Mr. Maurice Reddick and members of the All Saints' facilities maintenance staff, who disclosed on-going concerns and provided information regarding the replacement and repair of roofing and facade systems.

For purposes of this assessment, the building facade was observed from the ground and the roof assessment was performed from the accessible portions of the roof, as described in later sections of this report. Inaccessible portion of the roof were assessed with a drone survey. The overall condition of the building facade and roofing systems, as well as the interior finishes and furnishings, observed during the site visit has been outlined in the following sections. Each system is outlined with a brief description, summary and discussion of observed conditions, and brief recommendations for repair and maintenance. Representative photographs have been provided with each system description.

Within the recommendations for repair and maintenance, the approximate service life (from new) and frequency of maintenance items have been included, as well as an opinion of probable costs in 2019 dollars. The cost figures are based on WJE's experience with similar repairs and industry provided references. Actual costs may be expected to vary considerably depending on economic conditions and the particular specifications for the actual repair or maintenance work to be performed at the time a contract is awarded. Similarly, for interior finish cost estimates, WJE has provided selected representative cost estimates; however, actual costs could vary significantly, depending on the quality and type of materials selected for renovations. It should be noted that quantities were based on limited field observations and measurements. To obtain accurate cost information, we recommend that All Saints' retain a registered architect/engineer to develop a detailed scope of work and specifications for maintenance and/or repairs and obtain bids from qualified contractors, based on accurate quantities at the time the work is performed.

The following briefly summarizes the conditions observed and the recommended maintenance and/or repairs. A table summarizing our opinions of probable costs has been provided at the end of this report.



*West facade of the restaurant/retail facade.*



*North facade of Tate Hall.*

## 6.1 Roofing Systems - Covenant Community

The Covenant Community building contains a granular surfaced modified bitumen (GSMB) roof membrane covering. The age of the low sloped roof is unknown; however, it appears to be 15 years or older. The building is rectangular in plan and encompasses approximately 1,000 square feet. The roof is sloped approximately 1/8 inch to 1/4 inch per foot to a gutter with downspouts located along the east end of the roof. No overflow drains are provided. The east and west ends of the roof contain edge metal and the north and south ends are bound by a low rise parapet wall that contains a metal coping.



|            |      |        |             |      |
|------------|------|--------|-------------|------|
| Condition: | New  | Good   | <b>Fair</b> | Poor |
| Priority:  | High | Medium | <b>Low</b>  |      |

### Summary and Discussion of Observed Conditions:

- Overall view of the roof area of the Covenant Community building are shown in Figures 6.1-1 through 6.1-4.
- Overall, the roof appeared to be in good to fair condition with normal, light granule loss and weathering of the membrane. At a few small, isolated areas on the surface of the roof membrane the granules were missing, exposing the reinforcement (Figure 6.1-5).
- Small, weathered and split GSMB patches are installed at the interface between the metal coping for the low rise parapet wall and the edge metal at the northwest and southwest corners of the roof (Figure 6.1-6). The screw fasteners on the back side of the coping were observed to be sealed; however, the sealant was weathered, deteriorated, cracked and/or failed at most locations, exposing the fastener head. Areas of the metal coping and screw fasteners contain surface corrosion.
- The sealant at the lap or splice joints in the metal coping was weathered, deteriorated and alligator cracked at most locations (Figure 6.1-7).
- The liquid membrane and sealant at pipe and vent penetrations are weathered, deteriorated and cracked at most locations (Figure 6.1-8).
- The gutters contained a mesh screen cover to help prevent debris from accumulating within the gutter.

### Recommendations for Repair and Maintenance

|   | <i>Frequency/Service Life</i> | <i>Associated Costs</i> |
|---|-------------------------------|-------------------------|
| Replace miscellaneous sealants and liquid membrane at pipe penetrations, vent penetrations, coping seams, and small isolated areas of the membrane with missing granules. | 7 to 10 years                 | \$15,000                |
| Remove and replace GSMB roofing system  | 20 to 25 years                | \$30,000                |



*Figure 6.1-1. Overall view of the roof.*



*Figure 6.1-2. Overall view of the roof.*



*Figure 6.1-3. Overall view of the roof.*



*Figure 6.1-4. Overall view of the roof.*



*Figure 6.1-5. Isolated area with significant granule loss.*



*Figure 6.1-6. Small GSMB patch installed at the interface of the edge metal and coping. Note that patch is split.*



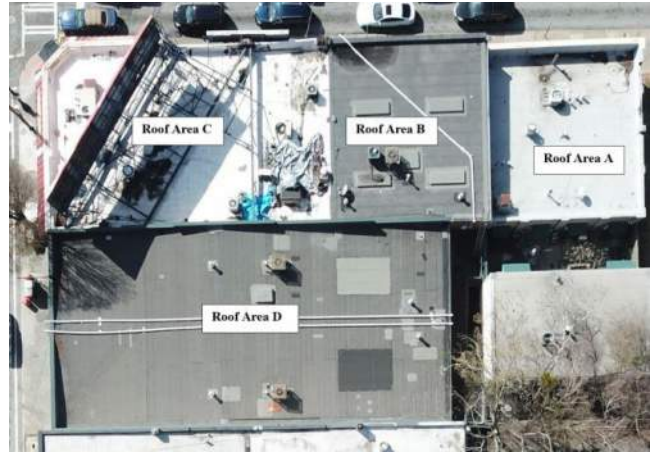
*Figure 6.1-7. Weathered sealant at the lap or splice joints in the metal coping.*



*Figure 6.1-8. Deteriorated liquid membrane and sealant at pipe and vent penetrations.*

## 6.2 Roofing Systems - Retail/Restaurant Roof Areas

The Retail/Restaurant portion of the building contains four separate, low sloped roof areas, identified as Roof Areas A, B, C and D in this report. The roof areas have several different types of roof coverings, including granular surface modified bitumen (GSMB) roof membrane and single ply TPO roof membranes. These roof areas are all connected together to form an L-shape plan; Roof Area D is connected to the Tate Hall building and Roof Area A adjoins a courtyard for the Covenant Community. In total, the retail/restaurant roof area encompasses approximately 11,750 square feet in plan. The age of the roof coverings is unknown; however, it appears the membranes are approximately 10 years old or older.



### **Recommendations for Repair and Maintenance**

### **Frequency/Service Life**

### **Associated Costs**

|  |                |           |
|--|----------------|-----------|
| Perform moisture survey on roof membrane due to presence of one-way vents to determine extent of wet insulation, if any.                                       | N/A            | \$1,500   |
| Typical maintenance items (remove abandoned equipment, remove organic debris, clean drains, etc.)  | Monthly        | \$250     |
| Repair liquid membrane patches and penetrations with new reinforced, PMMA liquid membrane repairs  | 10 to 15 years | \$2,500   |
| Replace miscellaneous sealants   | 10 to 15 years | \$1,500   |
| Tuck point and repair adjacent wall as necessary   | 10 to 15 years | \$10,000  |
| Repair penetrations and membrane base flashings with new reinforced, PMMA liquid membrane repairs  | 10 to 15 years | \$2,500   |
| Remove and replace sealant at membrane termination flashing at brick masonry wall. Tuck point brick masonry above membrane termination                         | 15 to 20 years | \$7,500   |
| Install protection pads underneath HVAC units and replace wood blocking pipe supports with prefabricated pipe supports with integral protection pads           | 15 to 20 years | \$1,500   |
| Replace wood blocking pipe supports with prefabricated pipe supports with integral protection pads   | 15 to 20 years | \$1,500   |
| Remove and replace sealant at metal copings and membrane termination flashing at brick masonry wall. Repair and coat brick masonry above membrane termination. | 15 to 20 years | \$7,500   |
| Replace roof assembly  | 15 to 25 years | \$235,000 |
| Install metal coping at areas where the membrane flashings extend onto the stone coping.   | 25+ years      | \$10,000  |

## 6.2A Roofing Systems - Retail/Restaurant Roof Areas - Area A

The Retail/Restaurant portion of the building contains four separate, low sloped roof areas, identified as Roof Areas A, B, C and D for this report. The roof areas have several different types of roof coverings, including granular surface modified bitumen (GSMB) roof membrane and single ply TPO roof membranes. These roof areas are all connected together to form an L-shape plan; Roof Area D is connected to the Tate Hall building and Roof Area A adjoins a courtyard for the Covenant Community. In total, the retail/restaurant roof area encompasses approximately 11,750 square feet in plan. The age of the roof coverings is unknown; however, it appears the membranes are approximately 10 years old or older.



|            |      |               |             |      |
|------------|------|---------------|-------------|------|
| Condition: | New  | Good          | <b>Fair</b> | Poor |
| Priority:  | High | <b>Medium</b> | Low         |      |

### **Summary and Discussion of Observed Conditions:**

#### **Roof Area A**

- Overall views of the retail/restaurant roof area looking from the southeast corner of the roof is shown in Figures 6.2A-1 through 6.2A-3.
- Overall, the roof appeared to be in fair condition with normal, light granule loss and weathering of the membrane. Multiple liquid membrane patches and apparent repair attempts were noted on the metal and membrane flashings and terminations on the copings (Figures 6.2A-4 and 6.2A-5). The metal flashing at the south brick masonry wall is surface mounted and sealed to the wall; the sealant is weathered, deteriorated, and failed at some locations. The liquid membrane patches were in poor condition as they were weathered, deteriorated and cracked (Figures 6.2A-6 and 6.0A-7). Numerous bond separations were observed in the brick masonry mortar joints.
- Many of the penetrations through the roof contained liquid membrane seals, which appeared to be in poor condition and were weathered, deteriorated and cracked (Figure 6.2A-8).
- We observed three or four one way vents installed within the roof assembly (Figure 6.2A-9). Typically these type of vents are installed in lightweight insulating concrete (LWIC) roof assemblies or as an attempt to dry out areas that contain wet insulation.
- Organic debris was observed accumulating around the base of the dome strainer and blocking the weeps in the clamping ring preventing drainage (Figure 6.2A-10).
- Materials were stored or resting directly on the roof membrane surface (Figure 6.2A-11).
- It appears there may be some abandoned rooftop equipment as there are no covers on one of the fans mounted on the equipment curbs (Figure 6.2A-12).
- The pitch pocket fillers were in poor condition.



*Figure 6.2A-1. Overall view of the roof area looking from the southeast corner of the roof.*



*Figure 6.2A-2. Overall view of the roof area looking from the southeast corner of the roof.*



*Figure 6.2A-3. Overall view of the roof area looking from the southeast corner of the roof.*



*Figure 6.2A-4. Liquid membrane patches and apparent repair attempts.*



*Figure 6.2A-5. Liquid membrane patches and apparent repair attempts on the terminations on the copings.*



*Figure 6.2A-6. The metal flashing at the south brick masonry wall is surface mounted and sealed to the wall; the sealant is generally deteriorated.*



*Figure 6.2A-7. View of cracked liquid membrane patches.*



*Figure 6.2A-8. View of deteriorated sealant at a pipe penetration.*



*Figure 6.2A-9. One way vent installed within the roof assembly.*



*Figure 6.2A-10. Organic debris accumulating around the base of the dome strainer and blocking the weeps.*



*Figure 6.2A-11. Materials stored or resting directly on the roof membrane surface.*



*Figure 6.2A-12. Abandoned rooftop equipment with no covers on one of the fans mounted on the equipment curbs.*

## 6.2B Roofing Systems - Retail/Restaurant Roof Areas - Area B

Roof Area B is located at the middle portion of the building and is covered with a granular surface modified bitumen (GSMB) roof membrane. The age of the roof covering is unknown; however, it appears the membrane is approximately 10 years old or older. The roof is square in plan and encompasses approximately 1,800 square feet. The roof is sloped approximately 1/8 inch per foot to one internal area drain located at the southwest corner of the roof. No overflow provisions are provided on this roof area as the north and south edges of the roof can drain onto the adjacent roof areas. The west end of the roof is bound by a mid-height parapet wall that is covered with the GSMB roof membrane and the east end of the roof is bound by a mid-height parapet wall that is covered with the GSMB roof membrane and capped with a metal coping.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

### **Summary and Discussion of Observed Conditions:**

- The following are some overall views of the roof area looking from the southeast corner of the roof (Figures 6.2B-1 through 6.2B-3)
- Overall, the roof appeared to be in good to fair condition with normal, light granule loss and weathering of the membrane. Multiple GSMB membrane and liquid membrane patches were observed throughout the roof area. The liquid membrane patches were in good condition (Figure 6.2B-4). Most of the patches occurred at what appeared to be abandoned equipment curbs, at existing equipment curbs, and along the gutter edges at the north end and northeast corner of the roof and were in good to fair condition (Figure 6.2B-5).
- A few of the penetrations contained liquid membrane seals, which appeared to be newer and in good condition (Figure 6.2B-6).
- Some of the rooftop equipment rests directly on the roof membrane and does not have any protection pads (Figure 6.2B-7).
- A large area of ponding water was observed at the southwest corner of the roof around the roof area drain (Figure 6.2B-8). Organic debris has accumulated around the base of the drain strainer preventing proper drainage of the water on the roof surface (Figure 6.2B-9).
- The wood blocking pipe supports rest directly on the roof membrane surface. Liquid membrane patches were observed under a few supports (Figure 6.2B-10).
- The exposed fasteners on the metal coping along the east end of the roof were open and unsealed (Figure 6.2B-11).



*Figure 6.2B-1. Overall view of the roof area looking from the southeast corner of the roof.*



*Figure 6.2B-2. Overall view of the roof area looking from the southeast corner of the roof.*



*Figure 6.2B-3. Overall view of the roof area looking from the southeast corner of the roof.*



*Figure 6.2B-4. Liquid membrane patch on the roof area in good condition.*



*Figure 6.2B-5. Patch on the roof near an abandoned equipment curb.*



*Figure 6.2B-6. Penetration with liquid membrane seals in good condition.*



*Figure 6.2B-7. Rooftop equipment resting directly on the roof membrane with no protection pads.*



*Figure 6.2B-8. Large area of ponding water at the southwest corner of the roof around the area drain.*



*Figure 6.2B-9. Organic debris accumulated around the base of the drain strainer preventing proper drainage of the water on the roof surface.*



*Figure 6.2B-10. Wood blocking pipe supports resting directly on the roof membrane surface with liquid membrane patches under the supports.*



*Figure 6.2B-11. Open and unsealed exposed fasteners on the metal coping along the east end of the roof.*

## 6.2C Roofing Systems - Retail/Restaurant Roof Areas - Area C

Roof Area C is located at the southwest corner of the building and is covered with a single ply thermoplastic polyolefin (TPO) roof membrane. The age of the roof covering is unknown; however, it appears the membrane is approximately 10 years old or older. The roof is square in plan and encompasses approximately 3,150 square feet. The roof is sloped approximately 1/8 inch to 1/4 inch per foot to one through wall scupper located at the northwest corner of the roof. No overflow provisions are provided on this roof area. The north end of the roof is bound by a low height wall that leads to the adjacent Roof Area B. The west and south ends of the roof are bound by a mid-height parapet wall that is covered with the TPO roof membrane and capped with a cast stone coping. At the north end of the west parapet wall the TPO extends onto and over the horizontal surface of the coping. The east end of the roof is bound by the brick masonry veneer parapet wall that separates this roof with Roof Area D. The membrane is terminated with a mechanically fastened termination bar that is sealed with liquid membrane and is not integrated with a through wall flashing.



|            |             |        |      |             |
|------------|-------------|--------|------|-------------|
| Condition: | New         | Good   | Fair | <b>Poor</b> |
| Priority:  | <b>High</b> | Medium | Low  |             |

### Summary and Discussion of Observed Conditions:

- The following are some overall views of the Roof Area C (Figures 6.2C-1 through 6.2C-3).
- Many of the penetrations, membrane lap seams, and membrane base flashing lap seams were sealed with black liquid membrane, which typically is not compatible with TPO (Figures 6.2C-4 through 6.2C-6). The liquid membrane was also weathered, deteriorated, cracked and in poor condition.
- Numerous areas of the membrane were in poor condition as the top surface of the membrane was worn away exposing the fiberglass scrim, or reinforcement, within the membrane sheet (Figures 6.2C-7 and 6.2C-8).
- At the northeast corner of the roof, a large tarp was located over some equipment and covering a portion of the roof membrane (Figure 6.2C-9). WJE was unable to move the tarp and it was unclear as to why the tarp was on the equipment and roof. It also appeared that many of the roof top units were abandoned and resting directly on the roof membrane.
- A few localized areas of ponding water was observed on the roof and numerous areas along the northwest corner of the roof near the through wall scupper contains signs of ponding water (Figures 6.2C-10 and 6.2C-11).
- Along the east side of the roof, the roof membrane terminated onto the face of the adjacent brick masonry wall and contained liquid membrane along the terminating edge of the membrane (Figure 6.2C-12). The liquid membrane was weathered, deteriorated and cracked. In addition, numerous voids were observed in the mortar joints in the brick masonry.
- Some of the opening in the adjacent brick masonry wall were covered with a granular surfaced modified bitumen membrane (Figure 6.2C-13).
- Large cracks were observed in the adjacent brick masonry wall (Figure 6.2C-14).
- Organic and material debris was observed accumulating near the corners of the roof (Figure 6.2C-15).

**Summary and Discussion of Observed Conditions:**

- Some of the roof top equipment and metal equipment supports rests directly on the roof membrane and does (Figure 6.2C-16). The metal equipment supports are typically integrated with the installation of the roof membrane.
- Portions of the metal coping is corroded and the splice/lap joint seals are weathered, deteriorated, cracked and failed at a few locations (Figure 6.2C-17).
- The paint on the steel framing for the billboard is in poor condition and is flaking and peeling off of the substrate (Figure 6.2C-18).
- At the northwest corner of the roof, a pipe conduit on the wall penetrates the roof membrane and is poorly sealed with liquid membrane (Figure 6.2C-19).



Figure 6.2C-1. Overall view of the Roof Area C.



Figure 6.2C-2. Overall view of the Roof Area C.



Figure 6.2C-3. Overall view of the Roof Area C.



Figure 6.2C-4. Black liquid membrane used to seal the penetration in poor condition.



*Figure 6.2C-5. Black liquid membrane used to seal the membrane lap seams in poor condition.*



*Figure 6.2C-6. Black liquid membrane used to seal the membrane base flashing lap seams in poor condition.*



*Figure 6.2C-7. Membrane in poor condition as the top surface of the membrane was worn away exposing the fiberglass scrim.*



*Figure 6.2C-8. Membrane in poor condition as the top surface of the membrane was worn away exposing the fiberglass scrim.*



*Figure 6.2C-9. A large tarp covering some equipment and a portion of the roof membrane.*



*Figure 6.2C-10. Area of ponding water on the roof.*



*Figure 6.2C-11. Signs of ponding water along the northwest corner of the roof.*



*Figure 6.2C-12. Roof membrane contained liquid membrane along the terminating edge.*



*Figure 6.2C-13. Opening in the adjacent brick masonry wall covered with a granular surfaced modified bitumen membrane.*



*Figure 6.2C-14. Large cracks in the adjacent brick masonry wall.*



*Figure 6.2C-15. Organic and material debris accumulating near the corners of the roof*



*Figure 6.2C-16. Roof top equipment and metal equipment supports rest directly on the roof membrane*



*Figure 6.2C-17. The metal coping is corroded and the splice/lap joint seals are weathered, deteriorated, cracked and failed.*



*Figure 6.2C-18. Paint on the steel framing for the billboard is in poor condition and is flaking and peeling off of the substrate.*



*Figure 6.2C-19. Poorly sealed pipe conduit on the wall penetrating the roof membrane*

## 6.2D Roofing Systems - Retail/Restaurant Roof Areas - Area D

Roof Area D is located at the southeast corner of the building and is covered with a granular surface modified bitumen (GSMB) roof membrane. The age of the roof covering is unknown; however, it appears the membrane is approximately 10 years old or older. The roof is square in plan and encompasses approximately 1,800 square feet. The roof is sloped approximately 1.5 inches per foot to through wall scuppers located at the southeast and southwest corners and a gutter with downspouts at located along the north end of the roof. No overflow provisions are provided on this roof area. The south and west end of the roof is bound by a parapet wall that varies in height that is covered with the GSMB roof membrane and capped with a metal coping. The east end of the roof is bound by the brick masonry veneer wall of the Tate Hall building. The membrane is terminated underneath a mechanically fastened, metal counter flashing located underneath a metal coping that is surface mounted to the brick masonry wall.



|            |      |               |             |      |
|------------|------|---------------|-------------|------|
| Condition: | New  | Good          | <b>Fair</b> | Poor |
| Priority:  | High | <b>Medium</b> | Low         |      |

### **Summary and Discussion of Observed Conditions:**

- The following are some overall views of the roof area (Figures 6.2D-1 through 6.2D-3)
- Overall, the roof appeared to be in fair condition with normal, light granule loss and weathering of the membrane. At a few localized areas, moderate granule loss was observed on the membrane, mostly near the north end of the roof (Figure 6.2D-4). The granules have accumulated in the gutter on the north end of the roof. Multiple GSMB membrane and liquid membrane patches were observed throughout the roof area (Figure 6.2D-5). Some of the patches occurred at what appeared to be abandoned equipment curbs (Figure 6.2D-6).
- A few of the penetrations contained liquid membrane seals, which were weathered, deteriorated and cracked (Figure 6.2D-7).
- The outer face of numerous brick masonry units have delaminated and at numerous areas on the adjacent wall the coating is bubbled and flaking (Figure 6.2D-8).
- Numerous failures in the sealant were observed at the interface of the metal coping and brick masonry wall (Figures 6.2D-9 and 6.2D-10). The sealant is also weathered, deteriorated, and cracked where it is not failed. In addition, the interface of the roof membrane and the brick masonry wall is not well sealed.
- The pitch pocket fillers and liquid membrane seals at penetrations are weathered, deteriorated and cracked (Figure 6.2D-11).
- A few of the base membrane flashing lap seams contained additional sealant (white material at seams), most likely as an attempt for repair (Figure 6.2D-12).
- The wood blocking pipe supports rest directly on the roof membrane surface (Figure 6.2D-13).
- Organic debris was observed collecting at the southeast and southwest corners of the roof (Figure 6.2D-14).



*Figure 6.2D-1. Overall view of the roof area.*



*Figure 6.2D-2. Overall view of the roof area.*



*Figure 6.2D-3. Overall view of the roof area.*



*Figure 6.2D-4. Moderate granule loss on the membrane, mostly near the north end of the roof.*



*Figure 6.2D-5. Multiple GSMB membrane and liquid membrane patches throughout the roof area.*



*Figure 6.2D-6. Patches at what appeared to be abandoned equipment curbs.*



*Figure 6.2D-7. Penetration contained weathered, deteriorated and cracked liquid membrane seals.*



*Figure 6.2D-8. Delaminated outer face of numerous brick masonry units with bubbled and flaking coating.*



*Figure 6.2D-9. Numerous failures in the sealant at the interface of the metal coping and brick wall.*



*Figure 6.2D-10. Numerous failures in the sealant at the interface of the metal coping and brick wall.*



*Figure 6.2D-11. Pitch pocket fillers and liquid membrane seals at penetrations are weathered, deteriorated and cracked.*



*Figure 6.2D-12. Base membrane flashing lap seams contained additional sealant, most likely as an attempt for repair.*



*Figure 6.2D-13. Wood blocking pipe supports resting directly on the roof membrane surface.*



*Figure 6.2D-14. Organic debris collecting at the southeast and southwest corners of the roof.*

### 6.3 Roofing Systems - Tate Hall

The Tate Hall building contains a modified bitumen membrane roof covering. The horizontal portion of the roof membrane is covered with an aluminum coating and the wall flashings are uncoated and contain granular surfacing on the modified bitumen. The age of the low sloped roof is unknown; however, it appears to be 20 years or older. The building is rectangular in plan and encompasses approximately 5,000 square feet. The roof is sloped approximately 1/8 inch to 1/4 inch per foot to a gutter with downspouts located along the north end of the roof. No overflow provisions are provided. The south, east and west ends of the roof are bound by a low rise parapet wall that varies in height and contains a cast stone coping that is covered with a granular surfaced modified bitumen roof membrane.



|            |             |        |      |             |
|------------|-------------|--------|------|-------------|
| Condition: | New         | Good   | Fair | <b>Poor</b> |
| Priority:  | <b>High</b> | Medium | Low  |             |

#### **Summary and Discussion of Observed Conditions:**

- The following are some overall views of the main lower roof area looking from the northwest and southeast corner of the roof (Figures 6.3-1 through 6.3-5). The roof is in overall fair to poor condition.
- The aluminum coating is weathered, deteriorated, faded and missing in numerous localized areas (Figures 6.3-6 through 6.3-8).
- The granular surfaced modified bitumen (GSMB) base flashings extend onto the horizontal surface of the stone copings (Figure 6.3-9). We observed numerous wrinkles, fish mouths, and poorly sealed edges of the membrane (Figure 6.3-10).
- The roof membrane terminated onto the face of numerous brick masonry piers and contained liquid membrane along the terminating edge of the membrane (Figure 6.3-11 and Figure 6.3-12). The liquid membrane was weathered, deteriorated and cracked. In addition, numerous voids were observed in the mortar joints in the brick masonry pier.
- A few splits in the membrane were observed with moisture extending from the split (Figure 6.3-13).
- Multiple wrinkles and blisters were observed in the GSMB base flashings (Figure 6.3-14).
- Liquid membrane and sealant was installed between the GSMB base flashing and cap flashing at numerous locations (Figure 6.3-15). The liquid membrane and sealant was weathered, deteriorated and cracked
- Numerous small, localized areas of ponding water were observed on the roof, mostly at areas with small wrinkles or ridges in the membrane (Figure 6.3-16).
- Open lap seams in the GSMB base flashings were observed (Figure 6.3-17).
- A few patches were observed, one near the northeast corner of the roof and one near the middle section of the roof. The patch near the middle section was weathered, deteriorated, contained cracks in the liquid membrane installed along the edges and was creating an area of ponding water (Figure 6.3-18).
- The sealants on the skylight were weathered, deteriorated and cracked. In addition, one of the glass panes was cracked (Figure 6.3-19).

**Recommendations for Repair and Maintenance**

|   | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|---|-------------------------------|-------------------------|
| Miscellaneous repairs to extend the service life of the roof assembly up to 2 years | 2 years                       | \$5,000                 |
| Remove and replace GSBM roof assembly   | 15 to 25 years                | \$100,000               |



*Figure 6.3-1. View of the main lower roof area from the northwest and southeast corner of the roof.*



*Figure 6.3-2. View of the main lower roof area from the northwest and southeast corner of the roof.*



*Figure 6.3-3. View of the main lower roof area from the northwest and southeast corner of the roof.*



*Figure 6.3-4. View of the main lower roof area from the northwest and southeast corner of the roof.*



*Figure 6.3-5. View of the main lower roof area from the northwest and southeast corner of the roof.*



*Figure 6.3-6. Weathered, deteriorated, and faded aluminum coating.*



*Figure 6.3-7. Weathered, deteriorated, and faded aluminum coating.*



*Figure 6.3-8. Weathered, deteriorated, and faded aluminum coating.*



*Figure 6.3-9. GSMB base flashings extend onto the horizontal surface of the stone copings.*



*Figure 6.3-10. Wrinkles, fishmouths, and poorly sealed edges of the membrane.*



*Figure 6.3-11. Roof membrane terminated onto the face of the brick masonry piers.*



*Figure 6.3-12. Roof membrane contained liquid membrane along the terminating edge of the membrane.*



*Figure 6.3-13. Split in the membrane with moisture extending from the split.*



*Figure 6.3-14. Multiple wrinkles and blisters in the GSMB base flashings.*



*Figure 6.3-15. Liquid membrane and sealant installed between the GSMB base flashing and cap flashing.*



*Figure 6.3-16. Small, localized areas of ponding water were observed on the roof.*



*Figure 6.3-17. Open lap seams in the GSMB base flashings.*



*Figure 6.3-18. Cracked patch in the liquid membrane installed along the edges creating an area of ponding water.*



*Figure 6.3-19. Weathered, deteriorated and cracked sealants on the skylight with a cracked glass pane.*

## 6.4 Building Facade Systems

The Community Outreach Building includes the Covenant Community, restaurant/retail space, and Tate Hall and is located at the corner of Ponce De Leon Avenue and North Avenue. The building facades consist of a combination of single wythe concrete masonry units (CMU) and brick masonry veneer with aluminum framed storefront window systems. It is our understanding that maintenance of the building signage and storefronts of the restaurant/retail space is the responsibility of the tenants and has not been included in this report.



|            |      |        |      |      |
|------------|------|--------|------|------|
| Condition: | New  | Good   | Fair | Poor |
| Priority:  | High | Medium | Low  |      |

### ***Summary and Discussion of Observed Conditions:***

#### **Covenant Community**

- The facade of the Covenant Community building consists of split face CMU with vinyl window units and wood trim (Figure 6.4-1). No significant cracking or displacement was observed in the CMU during the site visit.
- Isolated damage or displacement was observed in the window trim elements (Figure 6.4-2).
- Surface mounted awnings were installed over the window systems and entrance doors at the first floor of the building (Figure 6.4-3). The fabric covered awnings were weathered; however, no damage was observed at these locations.

#### **Restaurant/Retail Space**

- The street facing building facades throughout the restaurant/retail space consisted of painted brick masonry with aluminum storefront window systems (Figures 6.4-4 and 6.4-5). The rear facades of the spaces are also coated with a similar material (Figure 6.4-6). The age and type of the coatings applied, as well as the level of weathering varied by storefront location. It is our understanding that maintenance of these elements is the responsibility of the tenants and was not included in this assessment.

#### **Tate Hall**

- The brick masonry at Tate Hall was painted at the north, east, and west facades (Figure 6.4-7). The masonry at the south elevation was uncoated (Figure 6.4-8); no evidence of through-wall flashings were observed in the masonry throughout the building.
- The paint on the masonry was flaking and had failed throughout each elevation (Figures 6.4-9 and 6.4-10). The type of coating applied to the masonry is not known at this time. The application of a coating to the face of the brick masonry is often detrimental to the long term performance; however, once applied, continued maintenance is necessary.
- Light surface corrosion was observed on the steel lintels at openings throughout the building (Figure 6.4-11).
- Vegetation was observed to be growing on the surface of the facade at the east facade (Figure 6.4-12). Failure to remove and prevent continued growth can result in additional deterioration to the masonry facades.
- Aluminum framed window systems were observed within punched at the north elevation and at the second floor of the south and east elevations (Figure 6.4-13). Although the window systems are not thermally improved and have not been replaced, no evidence of damage was observed during the site visit.
- Aluminum framed store front window assemblies were located at the street facing, south elevation (Figure 6.4-14). No evidence of damage or deterioration was observed during the site visit.

**Summary and Discussion of Observed Conditions:**

- A painted, wood framed pergola and entrance canopy with asphalt shingle roofing is attached to the east facade of the building (Figure 6.4-15). The coating had weathered and deteriorated throughout the pergola (Figure 6.4-16).

**Recommendations for Repair and Maintenance**

| <b>Recommendations for Repair and Maintenance</b>   | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|---|-------------------------------|-------------------------|
| Repair isolated areas of damage to trim elements and remove vegetation from building facades.   | N/A                           | \$1,200                 |
| Clean existing brick and concrete masonry with a non-acidic cleaning solution and low pressure water, as appropriate for the facade systems.                      | 5 to 7 years                  | \$12,500                |
| Clean, prime, and paint and/or seal all existing wood trim elements, including the pergola. Replace damaged or deteriorated wood members as part of this project. | 5 to 7 years                  | \$10,000                |
| Repaint brick masonry at Tate Hall with new, compatible coating. Recoat exposed portion of steel lintels and repair cracks as necessary as part of this project.  | 10 years                      | \$25,000                |
| Repoint existing brick and stone masonry at all community outreach buildings.   | 50+ years                     | \$185,000               |



Figure 6.4-1. The facade of the Covenant Community building consists of split face CMU with vinyl window units and wood trim.



Figure 6.4-2. Isolated damage or displacement in the window trim elements



Figure 6.4-3. Surface mounted awnings were installed over entrance doors at the first floor of the building.



Figure 6.4-4. Street facing facades are painted brick masonry with aluminum storefront window systems.



Figure 6.4-5. Street facing facades are painted brick masonry with aluminum storefront window systems.



Figure 6.4-6. Rear facades of the spaces are also coated with a similar material.



Figure 6.4-7. The brick masonry at Tate Hall was painted at the north, east, and west facades.



Figure 6.4-8. The masonry at the south elevation was uncoated.



*Figure 6.4-9. The paint on the masonry was flaking and had failed throughout each elevation.*



*Figure 6.4-10. The paint on the masonry was flaking and had failed throughout each elevation.*



*Figure 6.4-11. Light surface corrosion on the steel lintels at openings throughout the building.*



*Figure 6.4-12. Vegetation growing on the surface of the facade at the east facade.*



*Figure 6.4-13. Aluminum framed window systems at the north elevation and at the second floor of the south and east elevations.*



*Figure 6.4-14. Aluminum framed store front window assemblies were located at the street facing, south elevation.*



*Figure 6.4-15. A painted, wood framed pergola and entrance canopy with asphalt shingle roofing is attached to the east facade.*



*Figure 6.4-16. A painted, wood framed pergola and entrance canopy with asphalt shingle roofing is attached to the east facade.*

## 6.5 Interior Finishes and Furnishings

The interior spaces of the Community Outreach Building, vary by building and tenant. It is our understanding that the interiors of the restaurant/retail space are built out by the tenants and are not the responsibility of the All Saints' community. The Covenant Community building serves as the headquarters for Covenant Community, Inc. and contains meeting and organization spaces for their residential life-stabilization program. Tate Hall serves as a community center and houses the college ministry and meeting spaces for outreach ministries. The bottom floor of Tate Hall also contains offices and retail space for the Threads volunteer ministry.



|            |      |               |             |      |
|------------|------|---------------|-------------|------|
| Condition: | New  | Good          | <b>Fair</b> | Poor |
| Priority:  | High | <b>Medium</b> | Low         |      |

### **Summary and Discussion of Observed Conditions:**

#### **Tate Hall**

- The first floor of the Tate Hall contains an open banquet area known as 'The Fireplace Room'; a designated meeting room; mechanical and storage closets; restrooms; and office, retail, and storage space for the Threads volunteer ministry. The wall coverings are painted interior gypsum wallboard with a combination of vinyl and painted wooden trim. The ceiling finishes are a combination of painted interior gypsum wallboard and ceiling tiles. The wall coatings, doors, and wood accent trim of the first floor were in good to fair condition. The floor finishes are decorative carpet (Figures 6.5-1 through 6.5-6). No evidence of tears, peeling, or extensive damage was observed on the bottom floor finishes of Tate Hall. No issues of interior water leakage were reported to WJE by the building tenant and All Saints' Staff while on site.
- The second floor of Tate Hall is accessed from the north side of the building at the rear entrance drive. The second floor contains meeting space for the college ministry, outreach ministries, and some residential space. In general, the interior finishes of the second floor were in poor condition. WJE observed isolated areas of damage to the interior gypsum wallboard at corners, isolated previous patch repairs, and water staining throughout the second floor of Tate Hall (Figures 6.5-7 through 6.5-10). Maintenance touchups to walls, windows, and trim will prolong the service life and maintain the long term aesthetics of the interior finishes.

#### **Covenant Community**

- The Covenant Community Building serves as meeting and office space for the Covenant Community, Inc. Life-Stabilization Program sponsored by the All Saints' Episcopal Church. WJE was unable to access the Covenant Community to observe the interior finishes at the time of our site visit. No issues of interior water leakage were reported to WJE by the All Saints' staff.

### **Recommendations for Repair and Maintenance**

| <b>Recommendations for Repair and Maintenance</b>   | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|---|-------------------------------|-------------------------|
| Renovate entrance, offices, restroom, conference rooms, and classrooms including furnishings, artwork, decorations, light fixtures, etc to provide updated appearance | 15 to 20 years*               | \$120,000**             |

\* Service life is for planning purposes only. Actual service life will be dependent on maintenance, and interests of the Owner (aesthetics, etc.)

\*\*Associated Costs can vary significantly based on the quality of finish materials, artwork, furnishings and/or equipment selected



Figure 6.5-1. View of the 'Fireplace Room' on the first floor of Tate Hall.



Figure 6.5-2. View of a meeting space on the first floor of Tate Hall. .



Figure 6.5-3. View of built-in cabinets on the first floor of Tate Hall.



Figure 6.5-4. View of a typical restroom on the first floor of Tate Hall.



Figure 6.5-5. View of Threads Ministry space on the first floor of Tate Hall.



Figure 6.5-6. View of Threads Ministry space on the first floor of Tate Hall. .



Figure 6.5-7. View of a meeting space on the second floor of Tate Hall.



Figure 6.5-8. View of furnishings on the second floor of Tate Hall.



Figure 6.5-9. View of an office and workspace on the second floor of Tate Hall.



Figure 6.5-10. View of an office and workspace on the second floor of Tate Hall.



Figure 6.5-5. View of an office and workspace on the second floor of Tate Hall.



Figure 6.5-6. View of damages to the interior finishes of Tate Hall.



*Figure 6.5-7. View of typical condition of finishes on the interior of Tate Hall.*



*Figure 6.5-8. View of water damage to a ceiling finish in Tate Hall.*



*Figure 6.5-9. View of previous repairs to an area of ceiling on the second floor of Tate Hall.*



*Figure 6.5-10. View of patch repair on a wall in Tate Hall.*

## 7.0 SITE ELEMENTS

In addition to documenting the condition of the buildings at the property, WJE documented the condition of the site elements at the All Saint's Episcopal Church campus on March 12th and 13th, 2019. During the assessment, WJE was escorted throughout the property by members of the All Saints' grounds staff.

The assessment was performed from the ground level. The overall condition of the elements observed during the site visit has been outlined in the following sections. Each system is outlined with a brief description, summary and discussion of observed conditions, and brief recommendations for repair and maintenance. Representative photographs have been provided with each system description.

Within the recommendations for repair and maintenance, the approximate service life (from new) and frequency of maintenance items have been included as well as an opinion of probable costs in 2019 dollars. The cost figures are based on WJE's experience with similar repairs and industry provided references. Actual costs may be expected to vary considerably depending on economic conditions and the particular specifications for the actual repair or maintenance work to be performed at the time a contract is awarded. It should be noted that quantities were based on limited field observations and measurements. To obtain accurate cost information, we recommend that the organization retain a registered architect/engineer to develop a detailed scope of work and specifications for maintenance and/or repairs and obtain bids from qualified contractors, based on accurate quantities at the time the work is performed.

The following briefly summarized the conditions observed and the recommended maintenance and/or repairs. A table summarizing our opinions of probably costs has been provided at the end of this report.

## 7.1 Courtyard and Plazas

Several small courtyard and plazas are designated throughout the All Saints' Episcopal Church Campus. The primary, central courtyard area is known as the Kennedy Plaza, which serves as community green space and was designated by the Church in 2015. The adjacent open lawn is accessed by the entrance gates along West Peachtree Street and leads to the All Saints' Cemetery for Ashes adjacent to the Church and Chapel. A small courtyard, which can be accessed via the campus buildings or a pedestrian gate on North Avenue, contains a memorial fountain and miscellaneous seating areas and walkways between the Church and Chapel and Tate Hall.



|            |      |        |      |      |
|------------|------|--------|------|------|
| Condition: | New  | Good   | Fair | Poor |
| Priority:  | High | Medium | Low  |      |

### Summary and Discussion of Observed Conditions:

- In general, the courtyard areas throughout the All Saints' campus appeared to be well maintained and were in good condition (Figure 7.1-1 and 2). WJE cracks in site stairs and sidewalks; however, the cracks were isolated and minimal vertical displacement was observed.
- Several sets of concrete site stairs with embedded metal handrails existing between buildings and throughout the central courtyards. In general, the stairs were in good condition with no widespread cracks or spalls. The metal handrails at site stairs were in good to fair condition. The coatings on the guardrail were generally deteriorated and at one location WJE observed a chip in the metal of the handrail (Figures 7.1-3 and 7.1-4).
- An isolated spall was observed in a sandstone stair tread at the southeast corner of the Church entrance (Figure 7.1-5). At this location, the steel handrail assembly was observed to be damaged as well.
- The steel handrail assemblies anchored to the brick masonry veneer at the Chapel addition and at the main entrance stairs were in good condition; although the paint had chipped at isolated locations from normal wear and weathering, no significant evidence of corrosion or damage was observed (Figure 7.1-6).
- The fountain at the south entrance courtyard on the All Saints' campus appeared to be in good condition; the fountain appeared to be operational and no damage to the stone surrounds was observed (Figure 7.1-7).
- Several landscaping beds are located throughout the courtyards and around the buildings on the All Saints' Episcopal Church campus. Overall, the existing vegetation and landscaping throughout the common area beds appeared to be in good condition throughout the community (7.1-8).

### Recommendations for Repair and Maintenance

| <b>Recommendations for Repair and Maintenance</b>   | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|---|-------------------------------|-------------------------|
| Repair spalled sandstone stair tread and bent steel handrail assembly at the main Church entrance.  | N/A                           | \$1,500                 |
| Retain a licensed landscape architect or arborist to evaluate condition of vegetation throughout courtyards, at entrances, and around buildings | N/A                           | \$5,000                 |
| Perform isolated repairs to concrete sidewalks and plaza  | 3 to 5 years                  | \$1500                  |
| Remove and replace sealant at joints between stone units at fountain  | 7 to 10 years                 | \$500                   |
| Remove and replace isolated trees throughout the community  | 15 to 20 years                | \$30,000                |
| Remove and replace shrubs and bushes around buildings and at planters in courtyard  | 15 to 20 years                | \$20,000                |



*Figure 7.1-1. View of the courtyard between the Church and Egleston Hall.*



*Figure 7.1-2. View of the Kennedy Courtyard.*



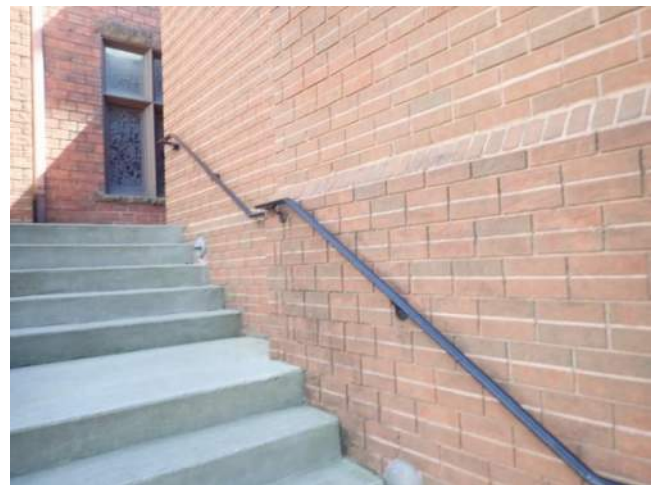
*Figure 7.1-3. View of a set of site stairs on the All Saints' campus.*



*Figure 7.1-4. View of damaged guardrail at a courtyard site stair.*



*Figure 7.1-5. View of a damaged handrail at the main Church building.*



*Figure 7.1-6. View of the handrail at the stairs to the west of the Chapel.*



*Figure 7.1-7. View of the fountain at the south end of the courtyard.*



*Figure 7.1-8. View of a raised planter bed and seating area adjacent to Kennedy Courtyard.*

## 7.2 Covered Walkway

A paved walkway with a canopy structure spans between the Church and Chapel building and Egleston Hall. The vaulted canopy structure of the covered walkway is composed of painted black, structural steel tubing and is covered with polycarbonate sheeting. Hanging lanterns located beneath the vaulted canopy illuminate the walkway. WJE did not test the operation of the lights as part of our site visit.



|            |      |        |             |      |
|------------|------|--------|-------------|------|
| Condition: | New  | Good   | <b>Fair</b> | Poor |
| Priority:  | High | Medium | <b>Low</b>  |      |

### Summary and Discussion of Observed Conditions:

- In general, the steel structure of the covered walkway was in good condition. At isolated support post base locations, WJE observed failed remedial sealant repairs at joints between the cast walkway and the support post bases (Figures 7.2-1 and 7.2-2). At one location, WJE observed vertical displacement of a section of cast walkway near Egleston Hall (Figure 7.2-3).
- The painted coating on the structural steel tubing was in fair condition. The coating was observed to have weathered and light surface corrosion was observed at isolated locations throughout the structure (Figures 7.2-4 and 7.2-5). Regular coating maintenance can help maintain the life of the walkway structure and significantly delay the need for replacement of structural steel members.
- The polycarbonate canopy appeared to be in fair condition; WJE observed some areas of light corrosion on fasteners and atmospheric soiling on the canopy; however, no water leakage at the canopy was reported to WJE by the All Saint's grounds and maintenance staff (Figure 7.2-6).

| <b>Recommendations for Repair and Maintenance</b>  | <b>Frequency/Service Life</b> | <b>Associated Costs</b> |
|--|-------------------------------|-------------------------|
| Remove and replace sealant at base of ganged support post columns and perform isolated maintenance to canopy, including replacing isolated polycarbonate sheeting. | 7 to 10 years                 | \$1,500                 |
| Clean, prime, and paint metal components of canopy structure   | 7 to 10 years                 | \$7,500                 |



*Figure 7.2-1. Partial view of the covered walkway and canopy structure.*



*Figure 7.2-2. View of deteriorated sealant at the support post bases on the canopy structure.*



*Figure 7.2-33. View of vertical displacement of a section of cast walkway near Egleston Hall.*



*Figure 7.2-4. View of atmospheric soiling on the coating and light surface corrosion of the steel tubing.*



*Figure 7.2-5. View of light surface corrosion and soiling on the canopy structure.*



*Figure 7.2-64. View of a typical joint in the polycarbonate sheathing of the canopy structure.*

### 7.3 Site Walls, Retaining Walls, and Fences

Several site walls, retaining walls, and fences are located throughout the All Saints' Episcopal Church community. A brick masonry perimeter site wall adorned with black decorative metal fencing is located on either side of the main pedestrian entrance gate on North Avenue. Six foot tall decorative metal fencing with pedestrian gates provide access to the lawn and courtyard beyond the elevated canopy on West Peachtree Street. An additional pedestrian access gate is located at the north end of the central courtyard, adjacent to the primary parking area. A segmental, concrete masonry unit (CMU) retaining wall is located at the west end of the playground near the rear entrance drive. Miscellaneous brick masonry site walls and retaining are located throughout the plaza, at the Kennedy Courtyard, and



|            |      |        |      |      |
|------------|------|--------|------|------|
| Condition: | New  | Good   | Fair | Poor |
| Priority:  | High | Medium | Low  |      |

#### Summary and Discussion of Observed Conditions:

- In general, the painted black metal fencing and pedestrian entrance gates that establishes the perimeter of the All Saints' courtyard and grounds at North Avenue, West Peachtree Street and rear entrance drive were in good condition. At isolated locations, WJE observed limited surface corrosion on the pickets; however, the paint coating appeared to be maintained and no widespread corrosion was observed (Figures 7.3-1 through 7.3-2).
- The hollow brick masonry retaining wall located at the rear entrance drive to the east of the Community Outreach Building was observed to have partially rotated and was in overall poor condition. The face shells of several of the units had spalled off or were damaged. Cracked, spalled, and missing sections of the concrete coping were observed throughout the length of the retaining wall. The grouted post pockets for the chain-link fence embedded at the top of the wall had failed and the fence was free to rotate (Figures 7.3-3 through 7.3-6).
- The brick masonry site walls located at the Kennedy Courtyard, in the central courtyard adjacent to the playground, and along North Avenue were in overall good condition. No areas of widespread cracks, damaged or missing brick, or areas of deteriorated or failed mortar were observed (Figure 7.3-7). Isolated areas of remedial sealant repairs were observed at the base of wall between the brick masonry and the concrete (7.3-8).
- The cast-in-place concrete retaining walls at the south and east ends of the playground and at the west service ramp to the Parish House, were in overall good condition; no widespread cracking, spalls, or damage was observed (Figures 7.3-9 through 7.3-10).
- A segmental retaining wall is located at the west end of the playground area was in good condition. WJE observed isolated cracks and spalling of the masonry coping units; however, no widespread damage or issues of structural concern were observed (Figures 7.3-11 and 7.3-12).
- A stone retaining wall is located at the north end of the property along Ponce de Leon Avenue was in fair condition. WJE observed apparent organic growth on the stone masonry and at mortar joints throughout the length of the wall. The mortar joints were cracked and deteriorated and areas of efflorescence were observed at isolated areas (Figures 7.3-13 through 7.3-15).

**Recommendations for Repair and Maintenance**

**Frequency/Service Life**

**Associated Costs**

|   |                |          |
|---|----------------|----------|
| Remove and replace hollow brick masonry retaining wall and embedded chain link fencing at rear entrance drive with segmental retaining wall | N/A            | \$30,000 |
| Perform isolated repointing repairs to brick and stone masonry site walls. Remove and replace sealants at base of site walls.               | 3 to 5 years   | \$2,000  |
| Clean existing brick and stone masonry with a non-acidic cleaning solution and low pressure water, as appropriate for the facade systems.   | 5 to 7 years   | \$4,000  |
| Clean, prime, and paint perimeter and site fencing and pedestrian gates   | 10 to 12 years | \$10,000 |
| Repoint stone masonry retaining wall and perform isolated repairs to stone  | 50+ years      | \$25,000 |
| Repoint brick masonry retaining walls and site walls  | 50+ years      | \$20,000 |



Figure 7.3-1. View of a brick masonry site wall and fencing.



Figure 7.3-2. View of failed sealant at the base of a brick masonry site wall.



Figure 7.3-35. View of the hollow brick masonry tile retaining wall at the rear entrance drive.



Figure 7.3-4. View of the hollow brick masonry tile retaining wall at the rear entrance drive.



*Figure 7.3-5. View of the hollow brick masonry tile retaining wall at the rear entrance drive.*



*Figure. 7.3-66. View of the fencing on the hollow brick masonry tile retaining wall at the rear entrance drive.*



*Figure 7.3-7. Partial view of a site wall at the Kennedy Commons Courtyard.*



*Figure 7.3-8. Partial view of a site wall at the Kennedy Commons Courtyard.*



*Figure 7.3-97. View of a concrete retaining wall adjacent to the Pritchett Center playground.*



*Figure 7.3-10. View of a concrete retaining wall adjacent to the Pritchett Center playground.*



*Figure 7.3-11 View of the segmental retaining wall at the west end of the property.*



*Figure. 7.3-128. View of the segmental retaining wall at the west end of the property.*



*Figure 7.3-13 View of the stone retaining wall on Ponce De Leon Avenue.*



*Figure. 7.3-149. View of the stone retaining wall on Ponce De Leon Avenue.*



*Figure 7.3-15 View of the stone retaining wall on Ponce De Leon Avenue.*

### 7.4 Asphalt Paved Areas

Vehicular access to the property is provided via an asphalt paved surface lot with entrances on Peachtree Street NW and Ponce De Leon Ave NW. An additional entrance drive and auxiliary parking area is located. Additional street parking is located on the east side of the property on Peachtree Street NW; however, it is our understanding that these areas are not maintained by the All Saints' community.



|            |      |               |             |      |
|------------|------|---------------|-------------|------|
| Condition: | New  | Good          | <b>Fair</b> | Poor |
| Priority:  | High | <b>Medium</b> |             | Low  |

#### Summary and Discussion of Observed Conditions:

- The asphalt paving throughout the parking areas and entrance drives was in fair condition. Areas of alligator cracking were observed along the edges of the entrance drives and parking areas. Continued maintenance, including isolated patch repairs and seal coating, will serve to extend the service life of the streets throughout the community and delay the need for resurfacing (Figures 7.4-1 through 7.4-4).
- Cast-in-place curbs are located on either side of the paved entrance drives and parking areas throughout the All Saints' campus (Figure 7.4-5). Several cracks and minor spalls were observed in curbs throughout the community; however, overall the cast-in place concrete curbs were in good-to-fair condition.
- WJE observed evidence of previous repairs at cast in place curbs and at areas of asphalt paving at isolated locations throughout the All Saints' grounds (Figure 7.4-6).

#### Recommendations for Repair and Maintenance

| Recommendations for Repair and Maintenance  | Frequency/Service Life | Associated Costs |
|---|------------------------|------------------|
| Seal cracks and apply seal coat to asphalt paving at parking area and entrance drives to maintain performance | 3 to 5 years           | \$12,000         |
| Restripe parking areas and paint bollards, gates, and speed bump  | 7 to 10 years          | \$2,000          |
| Resurface asphalt paving at parking areas and entrance drives   | 15 to 20 years         | \$45,000         |



*Figure 7.4-1. View of the West Peachtree Street entrance to the parking area.*



*Figure 7.4-2. View of the Ponce De Leon Avenue entrance to the parking area.*



*Figure 7.4-3. View of the condition of the asphalt paving of the parking area.*



*Figure 7.4-410. View of the rear entrance drive near the covenant community church.*



*Figure 7.4-5. View of the cast in place curbs at the rear entrance drive.*



*Figure 7.4-611. View of a failed patch repair at the rear entrance drive.*

## 7.5 Playground Area

A playground with recreational equipment is located adjacent to the center courtyard and to the south of the Pritchett Center building on the All Saints' Episcopal Church campus. The playground area is composed of an open recreational area with play set and play equipment surrounded by a four-foot tall decorative metal fence. A lightweight shadeport structure and a stone masonry storage shed with attached wood pergola are also located in the playground area.



|            |      |             |            |      |
|------------|------|-------------|------------|------|
| Condition: | New  | <b>Good</b> | Fair       | Poor |
| Priority:  | High | Medium      | <b>Low</b> |      |

### Summary and Discussion of Observed Conditions:

- The playground set was in operating condition at the time of the site visit. WJE did not access the play area during the site visit; however, no damage to the equipment was reported by the Pritchett Children's Center Staff (Figures 7.5-1 and 7.5-2).
- The stone masonry storage shed appeared to be in overall good condition (Figures 7.5-3 and 7.5-4). Minor hairline cracks and shallow surface delaminations were observed in the brown sandstone facades. At isolated locations throughout the stone masonry of each facade of the storage shed, WJE observed failed or deteriorated mortar joints between stones (Figure 7.5-5). The wood elements of the storage shed were in overall good condition (figure 7.5-6).
- The wood members of the pergola were in overall good condition; no advanced deterioration of the wood members of the structure was observed (Figure 7.5-3).

### Recommendations for Repair and Maintenance

|  | <i>Frequency/Service Life</i> | <i>Associated Costs</i> |
|--|-------------------------------|-------------------------|
| Clean existing storage shed stone masonry with a non-acidic cleaning solution and low pressure water, as appropriate for the facade systems.   | 5 to 7 years                  | \$1,000                 |
| Clean, prime, and coat all existing wood elements of storage shed including wood soffits, rafter tails, door, wood shake cladding, and associated trim elements, and members of pergola structure. Replace damaged or deteriorated wood members as part of this project. | 5 to 7 years                  | \$2,500                 |
| Remove and replace play set and playground equipment.  | 15 to 20 years                | \$20,000                |
| Remove and replace shadeport structure.  | 15 to 20 years                | \$12,000                |



*Figure 7.5-1. Overall view of the playground area.*



*Figure 7.5-2 View of the playset equipment.*



*Figure 7.5-3. Overall view of the storage shed and wood pergola structure.*



*Figure 7.5-4 View of the stone masonry storage shed at the playground area.*



*Figure 7.5-5. View of deteriorated mortar joints in the stone masonry of the storage shed.*



*Figure 7.5-6. View of the wood eaves and shake cladding of the storage shed.*

