

The Church of the Open Word

11 Highland Ave., Newton MA 02460

Building Assessment and Master Plan

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Gram and Ferguson Architects, LLC
23 Bradford St., Concord MA 01742

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Introduction:

Cram & Ferguson Architects visited the Church of the Open Word to survey existing conditions. Our observations are recorded in this report.

History and Description:

In 1892, the architecture firm of Cram and Wentworth was commissioned to design the Swedenborgian Church in Newton, MA. The church was erected in 1893. The Parish House adjacent of unknown authorship predated the church and is estimated to date to 1888.

The entire building is masonry construction with limestone trim. The nave and adjoining chancel have a gabled slate roof. The main type of stone used, was a local puddingstone known as "Roxbury conglomerate" or "Brighton stone." The trim is Indiana limestone. The church has 3 volumes consisting of the tower, nave, and chancel. The Tower, which houses a bell deck on the upper level, a ringer's chamber and a vestibule on the main level, is located in the Southwest corner. The west facade is home to a large perpendicular gothic stained glass window with limestone tracery. The nave is composed of 6 bays plus the chancel at the east. The first bay is the location of the tower, with 5 more bays, each divided on the exterior by a buttress. The chancel projects from the east end of the church.

The main entrance to the church is through a vestibule at the base of the tower leading into the nave. The vestibule has wood paneled wainscoting and a wood ceiling. There is one other small doorway that leads to the tower stairs. Halfway up the tower itself is a small trap door leading to the ringer's chamber.

Upon entering the nave, there is a screen approximately 8 feet high separating the narthex area from the nave. The opposite side of the narthex has another door leading to the porte-cochere connecting the sanctuary with the parish house. The nave features a fine English Gothic ceiling with elaborate woodwork and spectacular hammerbeams. There is elaborate woodwork throughout the entire sanctuary.

In 1916, the church was remodeled to enlarge the chancel. At this time, they added a Hutchings Organ in the choir and 3 new stained glass windows were installed. These windows were designed by the Charles Connick Studios. Although the style and construction methods were the same, there is a limestone trim under the windows which goes around the exterior of the chancel.

Building Assessment:

Exterior Envelope

1. Roof

Observations: The roof is Virginia black slate. The sidewall flashing is copper. The gutters appear to be flashing. There is a section of downspout missing. The tower roof could not be observed but the interior was dry.

Condition: The roof on the nave is in good condition. The owner reports the slate roof and gutters were replaced in 2011. The roof at the chancel extension does not look new. The flashing has not been replaced.

Recommendations: Replace missing section of the downspout. The roof needs to be re-flashed on the chancel extension.



Photo 1: Flashing at Parapet



Photo 2: Downspout at Tower

2. Exterior Walls:

Observations: The exterior walls are constructed of a local puddingstone with limestone trim, coping stones and window tracery. There are no visible expansion joints. There are two limestone niches, one on either side of the tower door.

Condition: We observed areas of the exterior walls that had missing mortar. There are areas that have been re-pointed in the past, the re-pointing mortar is not

consistent with the original, being different in color and tooling and possibly having different hardness, there is no strike detail as is seen in the original mortar. There are voids in the pointing above the blank window that need re-pointing. A section of the niche is missing and not to be replaced.

Recommendations: Re-point the areas that are damaged to match the strike detail originally used. The buttresses need to be re-pointed at the coping stones.



Photo 3: Mortar Deterioration on Church



Photo 4: Mortar Deterioration at Blank Window



Photo 5: Mortar Deterioration at
Coping Stone



Photo 6: Missing Stone at niche

3. Doors:

Observations: There are three oak exterior doors. Two are double leaf and one single.

Tower Door: Oak with oak veneer on exterior. The door frame is limestone. The hinge hardware is missing screws.

Sacristy Door: Oak. Door does not operate.

Door at Porte-cochere: Door does not have wide enough landing at top of stairs. It is not handicap accessible.

Accessibility: The exterior doors do not have push bars.

Condition: Deterioration due to age. The main door at the tower is still in use; however, the door at the sacristy cannot currently be opened. One stone in frame above the door frame is slightly displaced.

Recommendations: Remove exterior doors. Remove loose pieces, re-glue and refinish. Remove hardware and refinish.



Photo 7: Entrance at Tower



Photo 8: Entrance into Vestry

4. Porte-cochere:

Observations: The Porte-cochere is a connector between the Church and the Parish House. It is a wood structure roofed in slate that matches the church. It is supported on concrete footings by 8 solid wood columns. The handrail obstructs the door and is not to code. It is not historically correct.

Condition: Some of the columns are showing signs of rot, some have been pushed off center of the supports probably by impact from cars. The flashing on the roof was replaced at some point in the past but not done professionally.

Recommendations: The porte-cochere needs structural repair and restoration. The roof at the church needs new flashing. The wood lunette over the door to the porte-cochere needs to be refinished. Handrails at steps to be removed and replaced with ramp.



Photo 9: Flashing at Porte-cochere



Photo 10: Porte-cochere columns

5. Windows:

Observations: There are 13 stained glass windows and 3 blank windows. One of the blank windows is on the church.

Condition: The tracery is stone and in good condition. The tracery has been re-pointed with mortar that appears to be different hardness. The caulking at tracery appears to be hard. The pointing at the windows is missing in places. There are a few sections that show displacement. There are stained glass panes missing throughout. There are also areas where the window has started to bow out. The large perpendicular gothic window is currently out for repairs. The sacristy window is missing panes. A typical window has 8-10 broken panes.

Altar Window: The protective glazing is a wired window and is broken and needs to be replaced.

Recommendations: Replace or repair missing panes. Reinstall large window. Replace protective glazing. All leaded windows need to be re-sealed. Test mortar repairs for hardness, replace if incorrect mortar is found. Remove existing sealant at window frames and replace.



Photo 11: Protective Glazing at Altar Window



Photo 12: Broken Pane in Nave Window

Interior

1. Tower:

Observations: The interior of the tower has a narrow wood spiral stairway leading to the top platform. The interior walls are unfinished. The roof structure is wood frame.

Condition: Poor. Observed evidence of water infiltration at the roof framing. Possible dry rot at the rafter ends; needs further investigation. Significant erosion of surface mortar and deposits of sand and other mortar products are at the base of the tower.

Recommendations: Re-point and examine structure of frame to determine if it is structurally sound. Examine tower roof, unable to observe.



Photo 13: Mortar Deterioration inside tower



Photo 14: Wood ceiling structure in tower

2. Vestibule:

Observations:

Walls: The vestibule is the lowest level of the tower. The walls are plaster with wood wainscoting.

Ceiling: Tongue and groove wood ceiling with wood beams.

Flooring: The floor is concrete with a runner. There may have been a finished floor that was removed.

Accessibility: There is a threshold between the vestibule and the narthex.

Condition:

Walls: There are areas that appear to be water damaged, most likely caused by roof leaks that have already been repaired.

Ceiling: Appears sound and in need of cleaning. Varnish is old and needs to be removed.

Recommendations: Repair the damaged plaster. Test the wood clear finish, clean and possibly recoat. Paint.



Photo 15: Wall in Vestibule

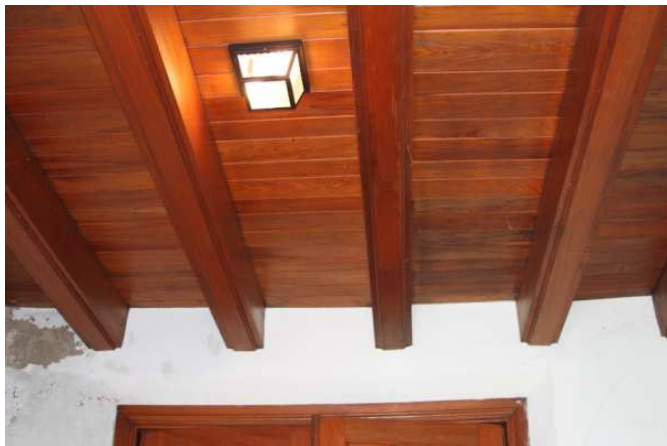


Photo 16: Ceiling in Vestibule

3. Nave:

Observations:

Walls: The walls in the nave have wainscoting below and plaster above. The plaster system is plaster on pine lathe.

Ceiling: The ceiling is all tongue and groove wood with an exposed hammerbeam structure.

Flooring: Douglas fir strip flooring. There was a rug that has been removed.

Finishes: Possible shellac on wood should be tested.

Condition:

Walls: The wainscoting has recently been repaired, although there are still sections of baseboard missing. There is evidence of water damage at the baseboard. The north wall has damaged plaster over the door. The majority of the west wall is damaged. The south wall has plaster missing around the organ pipes.

Ceiling: Appears sound; needs to be cleaned and refinished.

Flooring: The wood floors are sound but covered in residue from carpet adhesive.

Recommendations:

Walls: Repair and/or replace missing plaster as required. Replace missing baseboard. Determine original paint color.

Flooring: Remove carpet adhesive and finish wood floors.

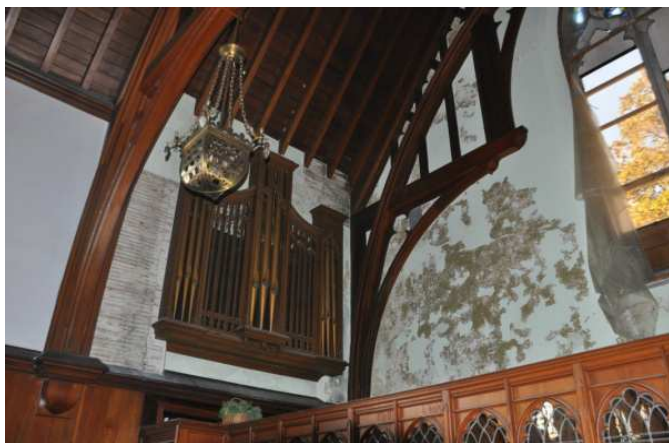


Photo 17: Wall in Nave



Photo 18: Wall and floor in Nave

4. Chancel:

Observations:

Walls: The walls in the chancel are finished with gold leaf. Some areas of the wall have fallen due to water damage.

Ceiling: The ceiling in the chancel is a barrel vault with stenciling. There is an archway in between the nave and chancel that is finished with gold leaf.

Accessibility: There are two steps to reach the chancel platform. It is not handicap accessible. Possibility to add lift.

Condition:

Walls: There is significant damage to the chancel walls. The plaster is cracked, missing, or displaced. The gold leaf is none-existent in areas.

Ceiling: There is plaster missing from part of the archway leading to the chancel. The gold leaf is missing in this portion.

Recommendations: Repair walls and ceiling. Refinish gold leaf. Remove outer choir stalls.



Photo 19: Arch in Chancel



Photo 20: Chancel

5. Windows:

Observations: All of the windows in the nave have stone tracery with a stone frame. The windows in the chancel have stone tracery with a plaster frame. The window in the sacristy has a wood frame.

Condition: The interior tracery is intact for all windows. The plaster return to the windows in the chancel is damaged. The plaster is cracked and missing in sections.

Recommendations: Repair or replace plaster on the damaged window frames in the chancel.



Photo 21: Window in Chancel



Photo 22: Window above Altar

6. Doors:

Observations: There are 4 interior doors, one double leaf and three single. All interior doors are hard pine with wood trim.

Condition: Good.

Recommendations: Refinish.



Photo 23: Door into Vestibule



Photo 24: Door into Tower Stairs

7. Sacristy:

Observations: The sacristy is located off of the chancel. The walls are hard pine wainscoting. This space is currently used for storage.

Accessibility: There is a threshold at the door entering the sacristy from the nave. There is no handicap accessibility between the sacristy and the chancel.

Condition: The wainscoting is warped and separated. The plaster on the ceiling is cracked and tacked into place. The hardwood flooring is damaged.

Recommendations: Repair the damaged wainscoting. Repair the plaster on the ceiling. Refinish hardwood flooring and other woodwork.



Photo 25: Sacristy

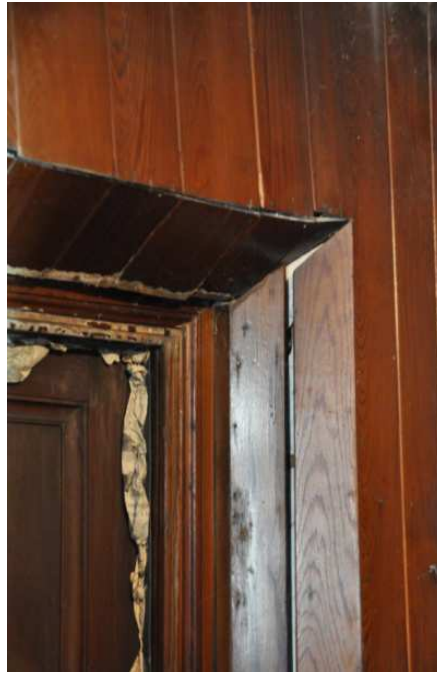


Photo 26: Sacristy Door

8. Basement:

Observations: Unfinished crawlspace. There are mounds of dirt.

Condition: Dry

Recommendations: Test for asbestos, remediate if necessary.



Photo 27: Basement



Photo 28: Basement

9. Lighting:

Observations: The light fixtures are original. Finish is discolored and has some rust.

Condition: The owner reports that all light fixtures have been rewired.

Recommendations: Refinish.



Photo 29: Light in Chancel



Photo 30: Chandelier in Nave

Church of the Open Word Master Plan

The work for the Church of the Open Word can be organized by priority into different phases of work.

Phase 1: Code and Accessibility

This phase will address the accessibility to both the church and the parish house. This will allow both buildings to be used by the public. The bathrooms need to be renovated using the storage space. The connector needs to be rebuilt to create access between both buildings. Egress accessibility needs to be addressed by installing exit signs and updating exit door hardware.

Breakdown:

1. New Bathrooms
2. Rebuild Connector and enclose
3. Install exit signs
4. Updating door hardware for accessibility and egress
5. Access parking lot from Philip Bram Way

Phase 2: HVAC and Electrical

This phase will address one of the church's main issues, not being able to use the building year round.

Breakdown:

1. New heating system
2. Electrical
3. Security - Fire Alarm, Burglar Alarm

Phase 3: Exterior Restoration

This phase will address the physical wear the building has suffered from the elements over the last 120 years. The tower will be re-pointed on the interior and exterior to stop water infiltration through the joints. The other walls that have suffered water damage due to gutter and roof issues will be re-pointed. The stained glass windows will be reinstalled and repaired where panes are missing. All windows need to be re-sealed due to age. All doors will be restored so that they are fully functioning. Door hardware will need to be refinished.

Breakdown:

1. Re-pointing stone - about 25% of the total building, including the tower.
2. Stained Glass Window Repairs and Protective Glazing
3. Door Refinishing
4. Door Hardware Restoration
5. Roof Flashing Repairs

Phase 4: Interior Restoration

This will address the physical wear of the building on the interior, as well as addressing elements that need to be modernized. The plaster walls need to be repaired and painted. The floors need to be sanded and refinished. There is missing baseboard that needs to be replaced. There needs to be a new lighting design to accommodate multi-uses of the space. A new sound system should be installed.

Breakdown:

1. Lighting Upgrade
2. Plaster Repairs
3. Paint
4. Refinish Hardware Floors
5. Miscellaneous Repairs
6. Sound System

Phase 5: Interior Restoration

This phase is a continuation on interior restoration. These items are not necessary for the functionality of the building.

Breakdown:

1. Replacing Pews with Chairs
2. Gold Leaf Restoration

Church of the Open Word Cost Estimate

Phase 1: Codes and Accessibility	Approx. SF	Price per Unit	Total
New Bathrooms	260	\$100 sf	\$26,000
Connector	695	\$150 sf	\$104,250
Install Exit Signs	2	\$200 ea.	\$400
Updating Door Hardware	3	\$500 ea.	\$1,500
Phase 1 Total			\$132,150

Phase 3: Exterior Restoration

Tower Re-pointing	1000 sf	\$10 sf	\$10,000
Church Re-pointing	2000 sf	\$10 sf	\$20,000
Multi Lancet Window	1	\$23,000	\$23,000
Lancet Windows in Nave	8	\$4,900	\$39,200
Chancel Window	1	\$41,200	\$41,200
Protective Glazing			
Door Refinishing	5 leafs	\$5000 per leaf	\$25,000
Door Hardware Restoration	5 leafs	\$250 per leaf	\$1,250
Roof Flashing	210 lf	\$15 lf	\$3,150
1 Day of Lift Rental for Tower			\$1,000
Phase 3 Total			\$163,800

Phase 4: Interior Restoration

Lighting Upgrade			\$25,000
Plaster Repairs	160 sy	\$30 sy	\$4,800
Paint	1420 sf	\$1 sf	\$1,420
Refinish Floors	4050sf	\$6 sf	\$24,300
Miscellaneous Repairs			\$5,000
Wood Paneling	350 sf	\$1 sf	\$350
Refinish Historical Woodwork	300 sf	\$2 sf	\$600
Refinish Ceiling	4440 sf	\$2 sf	\$8,880
Paint Expert			\$1,000
Phase 4 Total			\$71,350

Phase 5: Interior Restoration

Replace Pews with Chairs	300	\$200 per chair	\$60,000
Gold Leafing	50 sf	\$100 sf	\$50,000

Phase 5 Total **\$110,000**

Total All Phases:

			\$477,300
Contingency		10%	\$47,730

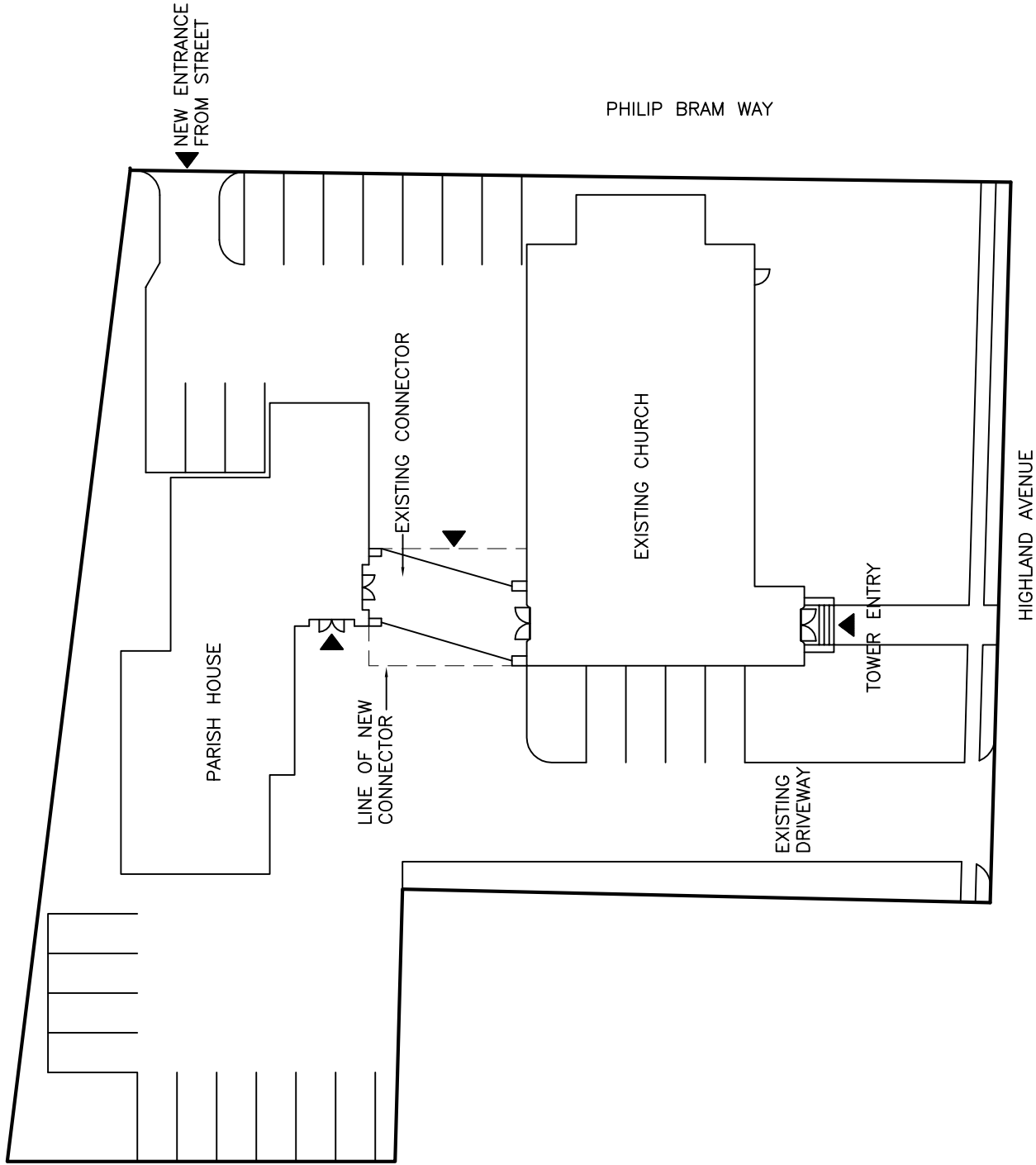
Subtotal **\$525,030**

Architectural and Structural Fees 12-14% \$63,003 - \$73,504

Mechanical and Electrical Not Included

Total **\$588,033 - \$598,534**

14% including
Grant Application
MHC match 50%
\$36,752

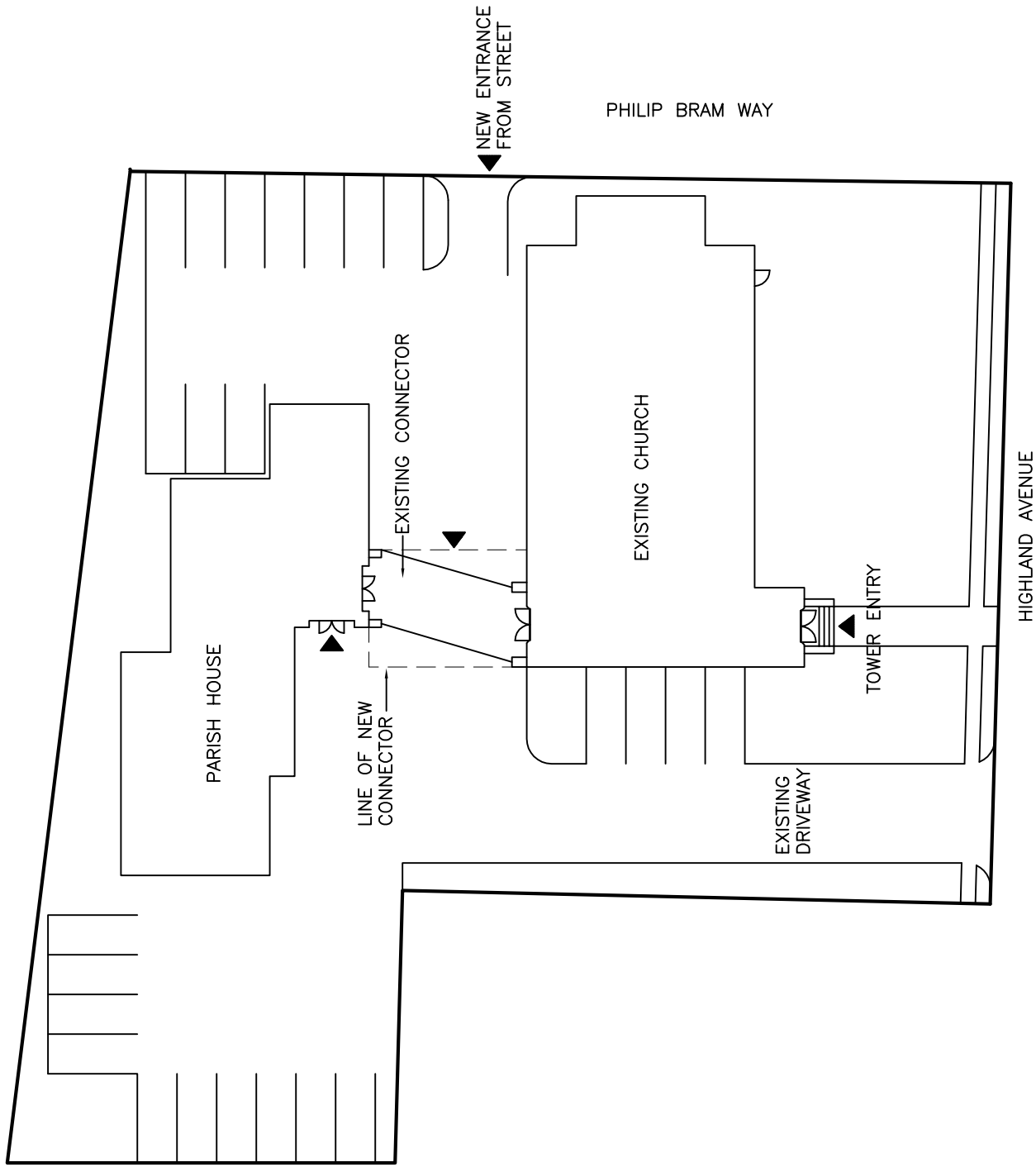


SITE PLAN OPTION 1

SCALE: 1/32" = 1'-0"

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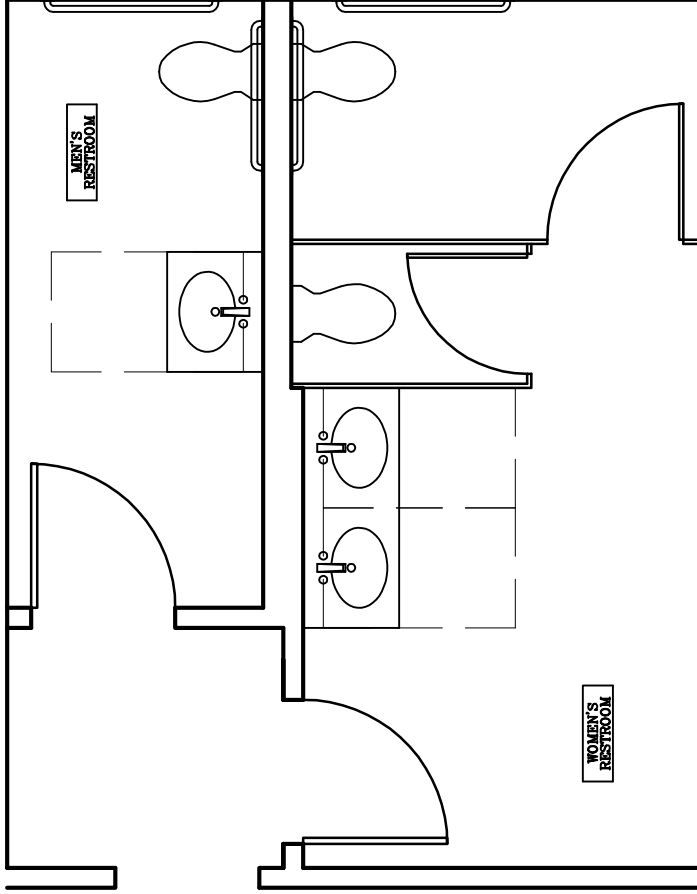


SITE PLAN OPTION 2

SCALE: 1/32"=1'-0"

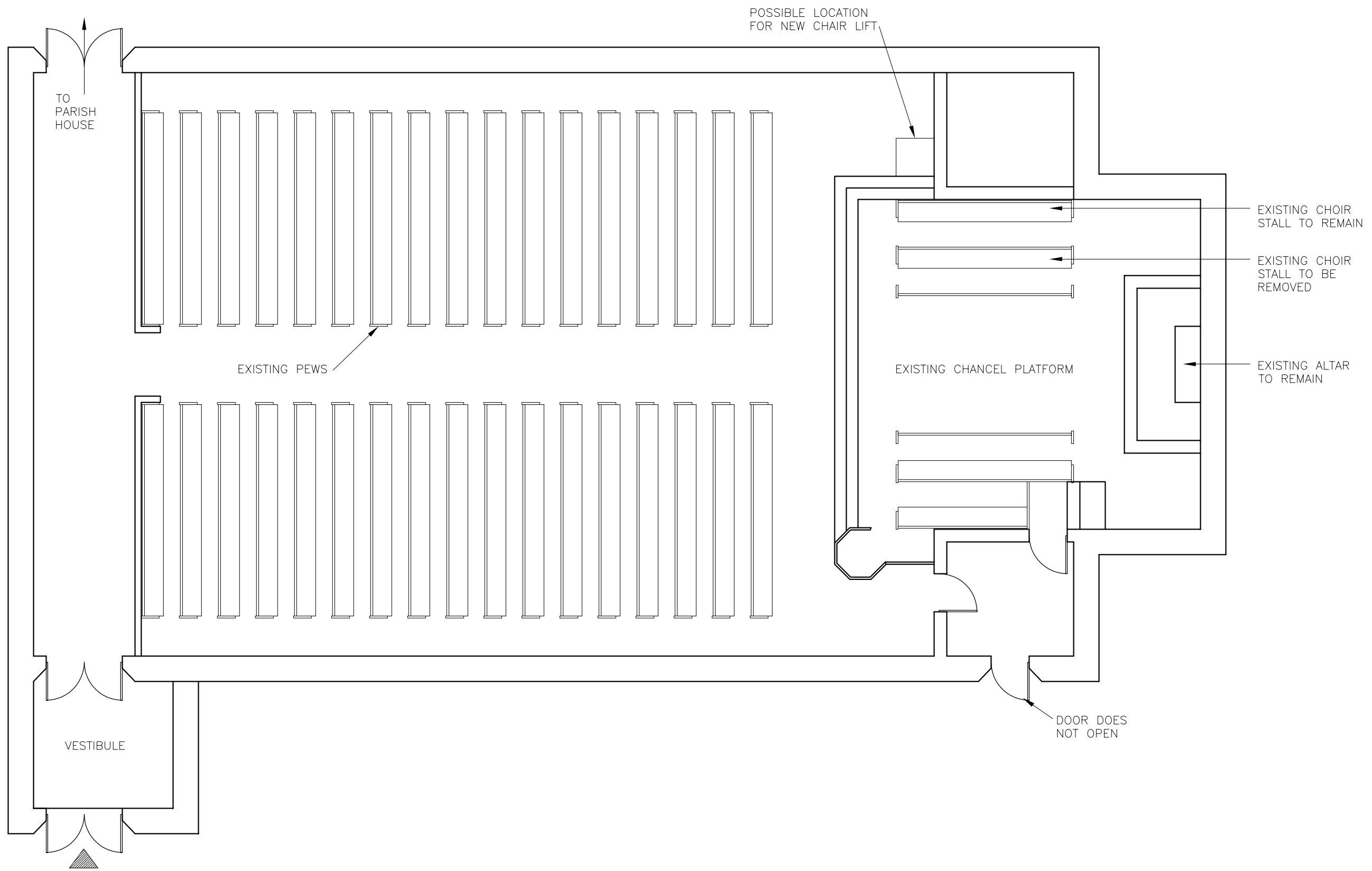
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RESTROOM PLAN

SCALE: 1/4"=1'-0"



TO PARISH HOUSE

POSSIBLE LOCATION FOR NEW CHAIR LIFT

EXISTING PEWS

EXISTING CHOIR STALL TO REMAIN

EXISTING CHOIR STALL TO BE REMOVED

EXISTING CHANCEL PLATFORM

EXISTING ALTAR TO REMAIN

VESTIBULE

DOOR DOES NOT OPEN

HIGHLAND AVE ENTRY

FLOOR PLAN
SCALE: 1/8" = 1'-0"

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