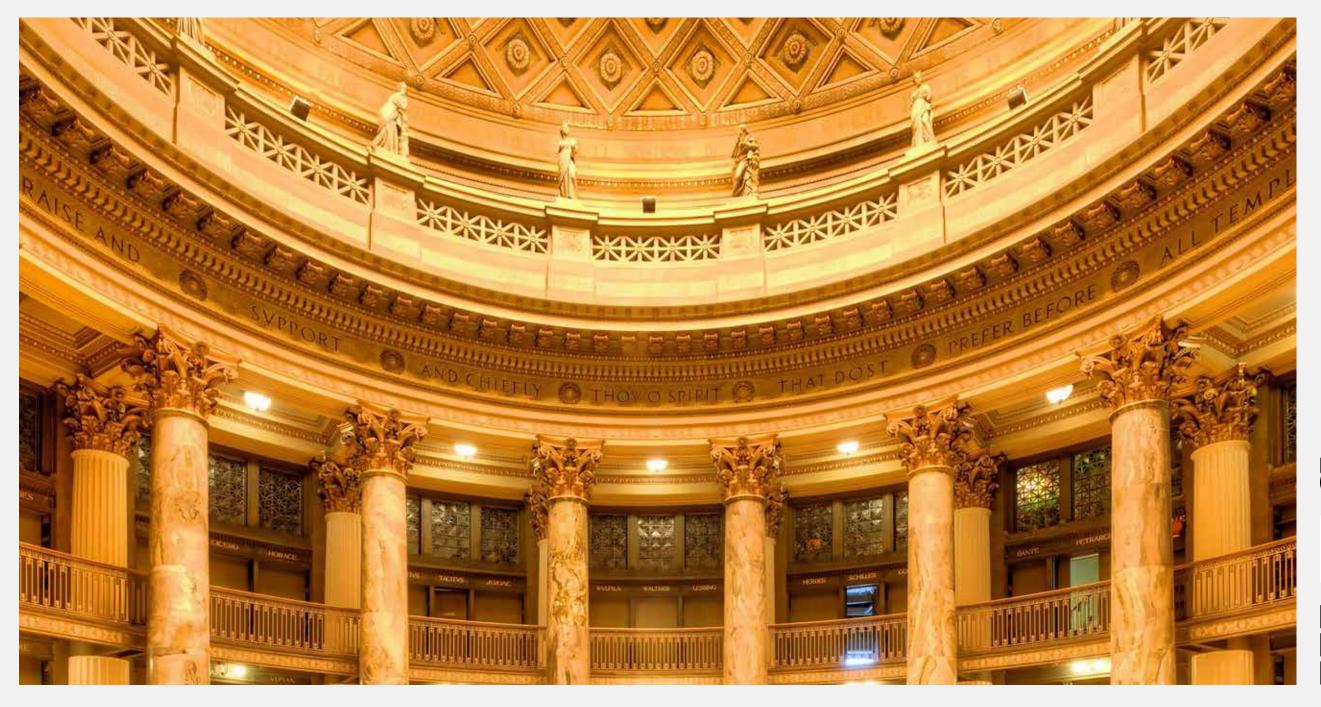
## **Conditions Assessment**

## Gould Memorial Library & Hall of Fame

FINAL REPORT | 15 MARCH 2018





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## **Conditions Assessment**

Historic Integrity

### Gould Memorial Library & Hall of Fame

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## Executive Summary

Objective

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**Conditions Assessment** 

Future Use

# Executive Summary

#### **OBJECTIVE**

The Gould Memorial Library (GML) and the Hall of Fame for Great Americans (HOF), designed by Stanford White of the architecture firm McKim, Mead & White circa 1892 are the centerpieces of the Bronx Community College (BCC), of the City University of New York (CUNY). The exterior of the HOF and GML along with the interior of the GML rotunda are listed New York City, state, and national landmarks.

This Conditions Assessment Study (CAS) documents the changes in deterioration since the completion of the last major study, the 2005 Conservation Master Plan (CMP), to materials that comprise the exterior and interior building fabric of GML and HOF. It evaluates the architectural fabric and conditions of the complex, the langscape, building systems and infrastructure, reviews building code requirements, develops prioritized recommendations for improvements to the buildings along with estimated construction costs for implementation, to meet the goal of successfully re-purposing GML and HOF for beneficial occupancy and use.

#### **CONDITIONS OVERVIEW**

#### SYSTEMS SUMMARY

Analysis and recommendations are organized according to building systems associated with the architectural materials of the GML exterior, GML interior, HOF, and structural, plumbing, mechanical, electrical, fire protection, elevator, and landscape.

#### CONDITIONS ASSESSMENT

#### **METHODOLOGY**

In situ assessments of both the exterior envelope and interior systems and finishes were conducted as "hands-on" investigations with physical assessment of materials, and a boom lift was utilized to access upper portions of the exterior elevations. Sounding of elements was conducted to understand structural

integrity, and cleaning tests completed to determine the most efficacious techniques for preservation and restoration. The precise documentation of building defects informs the manner and extent of recommended remediation.

#### **PRIORITIZATION**

Recommendations for repair have been ordered according to the criteria of the 2005 plan, including (1) Potential Hazards, (2) Code Violations, (3) Deterioration, (4) Enhancement (improve appearance, aesthetics and operability), and (5) Code-compliance and Occupancy.

#### **GML & HOF EXTERIOR CONDITIONS SUMMARY**

The Gould Memorial Library and Hall of Fame are finished with elegant and durable materials that reinforce its position at the head of the Bronx Community College campus and perch overlooking the Bronx River. Stanford White's composition is a "play of parts," with limestone pediments and pilasters that articulate the volumes of variegated golden and buff Roman brick, and are crowned by the ornate verdigris copper friezes, antefixes and the scaled shingles of the drum. The riverside embankment is buttressed by the HOF's massive granite wall and topped with a limestone colonnade ambulatory that frames views of the landscape and celebrates the roles of influential Americans. The materials accentuate each architectural element and visually connect all parts of the library group.

The exterior materials have generally proven to be quite durable over time but exhibit deterioration resulting from age, weather, and deferred maintenance. Water infiltration through the GML's roofs is compromising the integrity of the structure and interior finishes, and repair work should commence right away. Replacement of cracked bricks at dome drum corners is needed to arrest infiltration, and painting of GML windows will stop further deterioration. Repairs at the HOF to address spalling gutters and cracks in several exterior tile vaults are needed. To achieve a watertight building envelope, stone, brick and terra cotta of GML and HOF will require historically appropriate restoration. Layers of soiling and corrosion have built up on the masonry and metals, and cleaning and restoration will be needed for the long term preservation of the complex.

#### LANDSCAPE CONDITIONS SUMMARY

The Stanford White Complex is at the historic core of the Bronx Community College and is significant principally for the design of its architecture and the spatial relationships of the building to the campus landscape as designed by McKim, Mead & White Architects. The campus landscape and its character during the New York University residency are important resources of the property that contribute to its heritage values.

Improvements to sight lines, access, surfaces, elements and plantings are proposed to restore GML & HOF's prominence. Vegetation that has been recently planted has compromised views of GML from the Quad, and HOF from the Library, and HOF from Butler Hall. Restoration of views shall be guided by historical plantings. An accessible walk from the Quad to the north lawn of GML would create an accessible entry to the complex. On-grade walks in the north and south lawns are proposed to reconnect the Quad to the HOF. Target areas of improvement to drainage are needed to prevent erosion, primarily at the western base of HOF. Site elements including retaining walls and fences are original, in poor repair and call for repair or replacement. To improve pedestrian circulation, paved walks between the cherry tree alley of the Quad and the HOF gates are proposed.

#### **GML& HOF INTERIOR CONDITIONS SUMMARY**

The interior spaces that comprise the Gould Memorial Library and the Hall of Fame lower level and connecting corridors are rich in detail and articulated in a variety of materials. The entire interior of Gould Memorial Library – plasterwork, decorative painting, gilding, stencil work and stained glass were the work of the Tiffany Glass and Decorating Company. The GML interiors represent a rare and exceptional collection of artistic and architectural expression that embody Stanford White's original design intention of spatial transparency achieved through manipulation of light and surface treatments and materials.

The materials and components that comprise the interior spaces define the character of these distinctive buildings, and are all suffering ongoing deterioration from water infiltration, failure of building materials, age and neglect. Serious leaking and deterioration have been observed throughout the buildings and has compromised the integrity of the historic fabric and select areas of structural stability. The buildings retain much of the original fabric, identity and planning layout, but are underutilized due to the severe state of deterioration (both interior and exterior) and code and egress deficiencies.

#### GML/HOF STRUCTURAL CONDITIONS SUMMARY

The steel beam and masonry bearing wall structure of GML survives in good condition. Localized areas of prolonged moisture infiltration resulted in moderate deterioration of beams and adjacent masonry. At the dome base this infiltration has a severe effect on the longevity of the steel tension band, which deserves prompt attention and implementation of cathodic protection and waterproofing work.

The steel beams and masonry bearing wall structure of the base of the are in good condition. Localized efflorescence should be mitigated with waterproofing repairs. Cracking at Guastavino tile vaults should receive immediate repairs.

### GML/HOF MECHANICAL, ELECTRICAL, PLUMBING, FIRE ALARM, FIRE PROTECTION CONDITIONS SUMMARY

Existing building systems are generally inadequate to serve the needs of contemporary uses.

GML and HOF spaces other than the Auditorium are generally under-served by heating and cooling. Existing piping is uninsulated. Auditorium air handlers do not have adequate thermal or acoustical controls and are approaching the end of their service lifespans.

Several power and emergency panels are aged and require replacement, and the locations of receptacles are not sensitive to historical spaces. Lighting is not fully functional and does not meet code requirements.

The sanitary and stormwater system are generally in good condition, with the exception of several leaking drain leaders. The interconnected systems should

be separated when toilet rooms are upgraded. Domestic water from the campus serves current needs but requires pipe insulation and should be tested for contaminants.

Sprinklers serve GML stacks and wings but there is no fire protection in the GML Rotunda or HOF. Installation of sprinklers in the Rotunda is not recommended.

The fire alarm system does not function and a campus-wide replacement project will provide a new system in 2018. Several devices from the original system will need to be removed once the new system is in operation.

#### **FUTURE USE**

To realize the ultimate vision of returning GML and HOF to places of active civic engagement, the design team developed conceptual layouts for new programmatic uses. With input from the Bronx Community College (BCC), Save Gould Memorial Library Foundation, CUNY, and our team's knowledge of the historic structures, new uses are recommended considering the appropriateness of space, light, comfort, access, structural capacity, and service of building systems. Improvements to the adjacent landscape are cognizant of the original design intent of the historic campus, and are adapted to current circulation and use patterns. Proposals have been evaluated for conformance with building codes, accessibility, constructibility, cost, and schedule.

#### CONSTRUCTION PHASING RECOMMENDATIONS

A 5-stage approach is recommended to realize the goals of this study:

#### **A. Critical Repairs**

Protect the Landmark to arrest deterioration of the GML Dome shall implement roof work already funded. Critical repairs recommended within this study augment the roof work by correcting hazardous conditions at the HOF cornice, HOF roof, GML facades, and GML roofs.

#### B. Access to the Rotunda

Unlock the Rotunda to improve accessibility provides ADA entry to the Rotunda, Balcony and Auditorium; upgrades HVAC systems, restrooms and

utilities, reopens the dome laylight, and restores the interior Rotunda and dome.

#### C. Building Envelope Improvements

Secure the Building Envelope to repair GML and HOF brick and stone, tile roofs, skylights, restore GML windows, and replace HOF fenestration.

#### D. Building / Architectural Systems Improvements

Full Building Access will provide access and egress to all levels of GML, upgrade Mechanical, Electrical, Plumbing, and Fire Protection services outside of the Rotunda (including restrooms, HVAC, power, etc.), structurally alter book stack framing, and complete associated code-required upgrades (stairs, lighting, etc.).

#### E. Fit-out Accommodations

Fit-out for New Use will finish all levels of GML above the Rotunda, and provide MEP/FA/FP upgrades, fit-out and finishes to the HOF.

#### **COST SUMMARY**

The repair scope was estimated by building system according to the conditions shown in plan and elevation drawings, and allowances for Future Use upgrades. Values are based on quantities of defects, and allowances per unit area, as best applicable to each type of work. Estimated construction costs are reported according to prioritization and phasing recommendations.

#### **APPENDIX**

Assessments and recommendations were informed by extensive surveys and testing onsite. Copies of the original surveys show the process of study, and depth of analysis. Reports by our Estimator, Conservator, and Landscape Architect have been summarized throughout this report, and original copies are included for reference.

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EXECUTIVE SUMMARY 3



## Conditions Overview

Systems and Components Glossary

Exterior

Interior

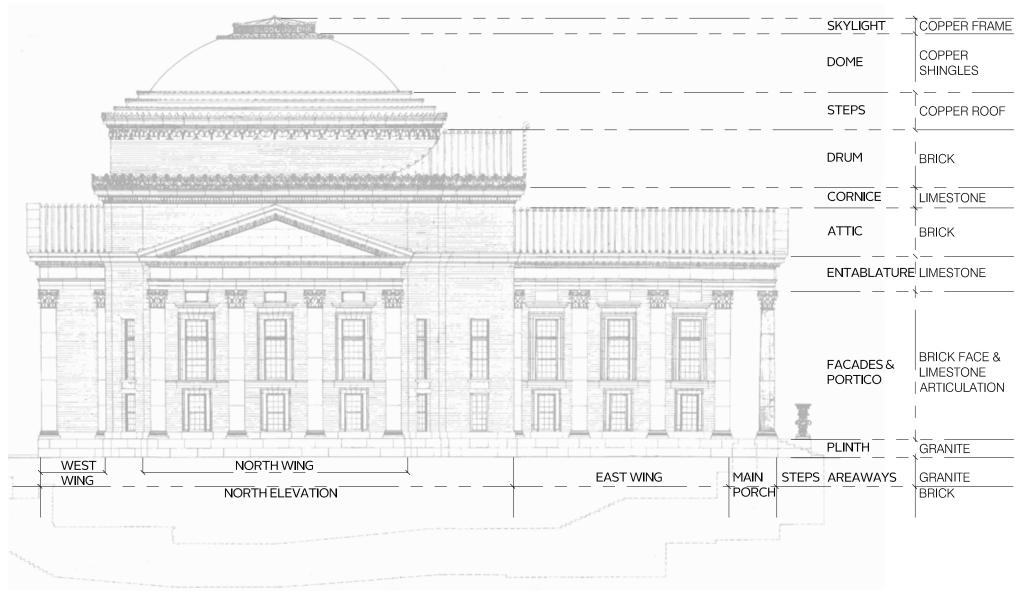
Structural

Mechanical, Electrical, Plumbing, Fire Protection, Fire Alarm

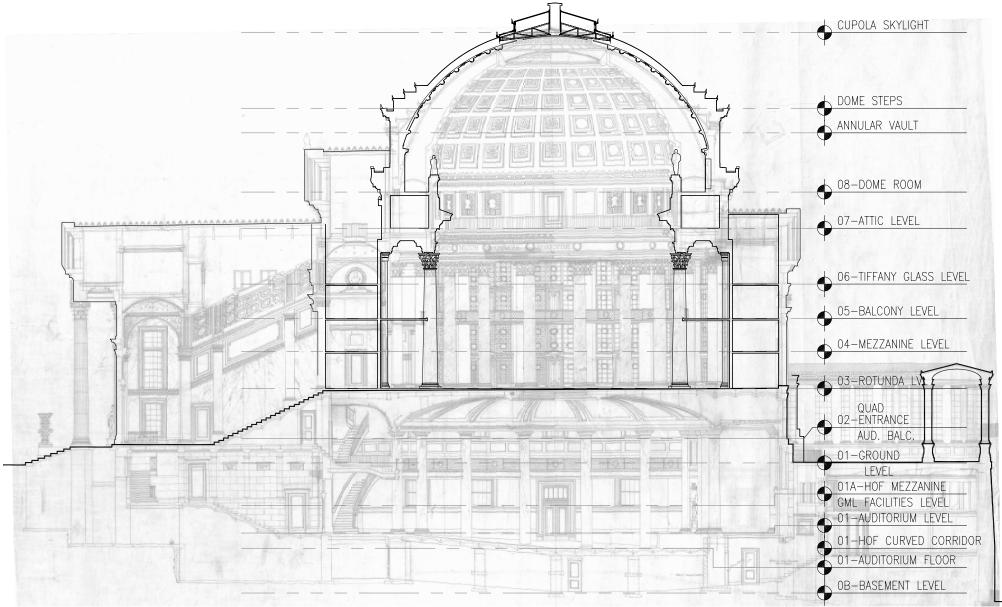
#### **SYSTEMS & COMPONENTS GLOSSARY**

#### **SYSTEMS ANALYSIS**

Analysis and recommendations are provided according to building systems associated with the architectural materials of the exterior and interior, the landscape, and structural, plumbing, mechanical, electrical, fire protection, of the GML-HOF complex.



Key - GML Exterior Materials



Key - GML Floor Levels

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CONDITIONS OVERVIEW 7

#### **EXTERIOR SYSTEMS**

#### **Brick Masonry**

**Facades**: Yellow and buff colored Roman Brick with iron spots as cladding, interior bearing brick masonry with steel bearing plates.

**Dome Drum:** Yellow and buff colored Roman Brick with iron spots.

**Areaways:** White glazed modular brick.

#### **Stone Masonry**

**Limestone**: Buff colored Indiana Limestone at column capitals, entrance portico, pediments, window surrounds, string courses and cornice.

**Granite**: Millford pink granite steps, paving & cheek walls at the Portico.

**Marble**: Yellow marble panels with veining between windows on the brick wings and the main porch.

#### Windows

**GML Facades:** Yellow pine true divided lite double hung sashes, with pivoted transoms at the stack levels.

**GML Areaways:** Divided lite double hung sashes in wood frames

**GML Ornamental Fenestration:** Bronze transom with divided panels and fixed stained glass lites.

**HOF:** Double hung sashes in wood frames with internal screens facing areaways.

#### **Entrances**

Main Entry: Decorative bronze leafs set in bronze entablature.

**Exit Doors:** Stile & Rail single panel stained oak leafs at HOF archway; hollow metal replacement units at GML west exit & archways

#### **Metal Roof**

**Dome**: Copper shingle units with soldered seams.

**Dome Drum Steps**: Replacement flat seam copper panels with articulated fascia and original copper antefixes.

**HOF Flat Roof**: Flat-seam copper.

#### Terra Cotta

 $\textbf{GML Wings}: Spanish-style \ roof \ tiles \ cladding \ gable \ roofs \ of \ wings \ \& \ main \ porch.$ 

**GML Dome Drum**: Ornamental glazed units molded in swags.

**HOF Pitched Roofs:** Spanish-style roof tiles.



Brick Masonry



Stone Masonry



Windows



Entrances



Metal Roof



Terra Cotta Roof

#### **Membrane Roof**

**Dome Drum**: White synthetic membrane replacement lining the gutter of the dome steps and flat roof of the dome drum.

#### Skylights

**GML Dome**: Copper, wood, and glass cupola with swing casement windows above the oculus.

**GML Wings**: Panes of wired glass secured with wires and copper shingles above the wings.

**GML Dome Drum**: Wired glass set in copper frames above the dome drum.

**HOF Laylights**: Cast colored glass lites set in cast iron frames.

#### **Ornamental Metal**

**GML Pediments and Cornices:** Decorative sheet copper (cheneau) with honeysuckle molded patterns wrapping the perimeter cornices.

#### Stairs & Paving

**GML Main Porch:** Stone paver floor with mortar joints covered in sealant and bronze rails.

**HOF Plaza deck:** Red brick pavers.

**HOF Archways:** Buff brick pavers.

#### Lighting

**GML Main Porch**: Ornamental bronze lamp posts at the main porch.



Membrane Roof



Skylights



Ornamental Metal



Stairs and Paving



Lighting

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CONDITIONS OVERVIEW 9

#### **INTERIOR SYSTEMS**

#### **Floors**

Glass and cast iron, wood, mosaic tile, terrazzo, concrete slab, brick masonry, carpet, linoleum tile, laylight over Tiffany glass, marble slab.

#### Walls

Sheet metal (including soffit), painted plaster (typically over terra cotta block), brick masonry, tile, wood trim, wood panel, wood framed plywood partition, plaster trim, vinyl trim, stone masonry, plaster balustrade, concrete-coated pier and door surround, metal mesh partition, toilet partition, marble slab.

#### Columns

Cast iron, wood with plaster capital (Balcony), marble with plaster capital (Rotunda), plaster with plaster capital (Auditorium).

#### Ceilings

Cast iron ceiling support (beams/grid), painted plaster, plaster soffit, concrete slab, brick masonry, Guastavino tile, steel beams, cast iron grid with wood bead board, wood bead board ceiling and soffits, ACT system, cast iron and glass skylight, cast iron and glass oculus, wood and glass laylight.

#### **Stairs**

Cast iron, steel, wood treads, marble treads, concrete-coated treads, iron railing with wood handrails, brass railing, wood railing.

#### Doors

Wood, metal, Kalamein, hardware.







Ceilings



Walls



Stairs

Doors







#### **INTERIOR**

#### Windows

Wood and glass, hardware, interior Tiffany glass windows.

#### Lighting

Wall sconces and globes (bronze and iron), railing post mounted fixtures, wall mounted fluorescent fixtures, hanging pendants, ceiling mounted compact fluorescent fixtures, suspended fluorescent fixtures, ceiling mounted lighting at dome.

#### Railings

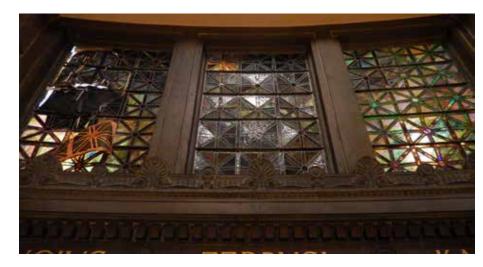
Cast iron railing with wood handrail, brass handrail, wood handrail, cast iron railing at mezzanines, cast iron railing with wood handrail at balcony and auditorium, cast iron railing and handrail at lightwells.

#### **Book Stacks**

Stack panel, stack panel door, free standing, wall mounted, by-pass (throughfloor), dome level shelves.

#### Miscellaneous

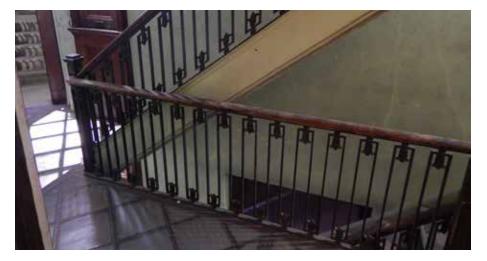
Plaster statue, lightwell, fire suppression, mechanical grilles, louvers and diffusers, auditorium.



Windows



Lighting



Railings



**Book Stacks** 



Plaster Statues



Lightwell

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CONDITIONS OVERVIEW 11

#### STRUCTURAL SYSTEMS

#### F1 Glass and Cast Iron

Floor structure is comprised of panel glass and cast iron modules providing the floors' finish and walking surface. These modules are supported either by posts that are integrated with the book stack support systems or suspended by steel tie rods to steel beams of the floor above.

#### F2 Wood Decking

Floor structure is comprised of 1 3/4" thick tongue and groove wood decking providing the floors' finish and walk surface. Decking boards are supported by vertically oriented steel plate beams. In some locations these plates are augmented by ornamental cast iron plates attached to the steel plate's sides. It is unknown if the cast iron is adding structural capacity.

#### F5 Concrete Slab on Metal Deck

Floor structure is comprised of concrete slab on metal deck supported by steel beams. Indicates a modern intervention done in the late 20th century.

#### **F6 Brick Masonry Vault**

Floor structure is comprised of two course brick vault spanning between steel beams. Above the vault a cementitious fill is placed to create a flat surface. Thickness of fill has not been verified.

#### C2 Structural Terra Cotta Slab

Floor structure is comprised of terra cotta hollow tile blocks spanning between steel beams. Above the tile a cementitious fill is placed to create a flat surface. Thickness of fill has not been verified.

#### **C6 Guastavino Tile Arch**

Floor structure is comprised of multiple layers of 7/8" thick clay tile arranged in a herringbone pattern with mortar layered between tile layers. Vaults are supported on brick or stone masonry.



F1 - Dome Drum Flat Roof



F5 - HOF Roof / HOF Terrace deck framing



C2 - GML



F2 - HOF Mezzanine



F6 - GML Basement



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C6 - HOF Colonnade / Ambulatory

#### **MECHANICAL SYSTEMS**

#### **PLUMBING**

The stormwater system is composed of multiple roof drains feeding a system of cast iron piping connected to the 8" diameter main in the central tunnel of the Basement and running toward the back (west side). The domestic water system for the Library is fed from a campus main. The domestic hot water for the Library is supplied from two 50 gallon electric water heaters. The Library has two public toilet rooms and a toilet room designated as handicapped.

#### **MECHANICAL**

The Library heating system is supplied by the campus high pressure hot water system. Steel piping supplies GML perimeter stacks and offices. Air handlers provide conditioning for the Auditorium.

#### **ELECTRICAL**

Normal and emergency power for the building comes from switchgear located in the basement Electrical Room. Emergency power for the building comes from a remote site generator. Lighting in most of the public areas is by means of period lighting fixtures. Power receptacles are located infrequently through spaces.

#### **FIRE PROTECTION**

The standpipe and sprinkler systems are each fed separately from the campus water main. Gould Memorial Library is fully sprinklered with the exception of the historic central Rotunda. The HOF is unsprinklered. A fire watch is in place and fire alarm replacement is scheduled for completion in 2018.

#### FIRE ALARM

The existing building fire alarm system is nonfunctioning.



Existing stormwater drain exposed in Attic Level.



Campus steam main entering GML through SW areaway.



Emergency Lighting Panel, Emergency Power Panel & Automatic Transfer Switch in Basement.

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CONDITIONS OVERVIEW 13



## Conditions Assessment

Methodology

Prioritization

**Conditions Overview** 

**GML & HOF Exterior** 

Landscape

GML & HOF Interior

**Structural Conditions** 

**GML & HOF Plumbing** 

**GML & HOF Mechanical** 

**GML & HOF Electrical** 

**GML & HOF Fire Protection** 

GML & HOF Fire Alarm

Historic Integrity

## **Conditions Assessment**

#### **METHODOLOGY**

The analysis and recommendations are based on accepted and established preservation theory and practice as advocated by the Secretary of the Interior's Standards for the Treatment of Historic Properties. The guidelines for preserving, rehabilitating, restoring & reconstructing historic buildings are informed by the National Trust for Historic Preservation and the American Institute of Conservation of Artistic and Historic Works (AIC). Important principles include maintaining as much original material as possible, intervening as minimally as necessary to ensure the extended life of all building, landscape features and components, accurately recording all interventions, and employing restoration procedures that are proven reversible where possible.

The philosophy behind the conservation methodology is influenced by the AIC code of ethics and standards by which treatment procedures have been devised to cause the least interference with the original historic fabric and the natural patina of time. Where conservation treatments are prescribed they are the gentlest means of treating the historic fabric and if they are not reversible they are re-treatable.

Surveys were conducted at the site in the summer and fall of 2017, with handson access to the greatest extent feasible. Exterior and Interior observations were made starting in June and concluded in September. Cleaning testing was performed in September and October 2017, and Landscape assessments in October and November.

#### **PRIORITIZATION**

#### **PRIORITY 1: POTENTIAL HAZARDS**

Address severe deterioration immediately to protect occupants, stop severe leaks and ensure continued use of GML and HOF.

#### **PRIORITY 2: CODE VIOLATIONS**

Correct issues to improve life safety, fire egress, and accessibility in accordance with federal, state and city ordinances.

#### **PRIORITY 3: DETERIORATION**

Perform work necessary to stabilize the building and arrest water infiltration and structural degradation.

#### **PRIORITY 4: ENHANCEMENT**

Implement conservation and repair programs, including the restoration of exterior materials and assemblies and damaged Landmark interior finishes.

#### PRIORITY 5: CODE COMPLIANCE AND OCCUPANCY

Implement upgrades to the building to achieve a beneficial occupancy aligned with the significant historic character of the structure. Interior improvement include accessibility, egress, and infrastructure upgrades that best fit existing spaces. Exterior landscape improvements will anchor the complex as the

centerpiece of the BCC campus. Proposals are non-specific in the type of educational/office uses. Recommendations have been reviewed according to the standards of authorities having jurisdiction including the NYC Department of Buildings, NYC Landmarks, Preservation Commission, the State Historic Preservation Commission and the National Park Service.

#### **CONDITIONS OVERVIEW**

#### **ARCHITECTURAL**

#### Exterior

The existing state of the exteriors of GML and HOF are described in the Conditions Assessment tables that are organized by building system, Condition by Location, Recommended Treatment, Priority Level of Repair, illustrated with representative photographs, and quantified by repair codes mapped onto drawings. Quantities have been used for repair estimates.

The comprehensive survey of building systems is illustrated in the tables and drawings of this chapter. In summary, the conditions of the exterior systems were found to be:

#### **BRICK MASONRY**

The facades of GML are generally in good condition with localized cracks due to thermal expansion and contraction, and lack of masonry control joints. Brick and joints at the dome drum have severely deteriorated in many locations.

#### STONE MASONRY

The granite plinth, portico steps, and paving of GML are in good condition with minor cracks and soiling. A non-breathable coating has caused spalls in several locations.

The granite base of HOF is in good condition and exhibits few cracks and several open joints.

The limestone base, columns and cornices of HOF are in fair condition, with severe spalls at the cornice gutter and moisture damage from open joints.

The limestone entablatures, pediments, cornices, pilasters and window surrounds of GML are in good condition and are stained, have open joints, and cracked in some locations due to displacement.

#### **GUASTAVINO TILE MASONRY**

The vaulted ceiling tiles of HOF colonnade are in fair condition, with areas of localized cracking and structural displacement. Glaze finish has been lost due to weather and prior cleaning.

#### WINDOWS

The divided lite windows of GML are character-defining elements that are in fair condition, with some areas of severe checking, modification, and decay due to degraded paint and lack of maintenance.

HOF windows are in poor condition and several are missing due to systems-related modifications.

#### **ENTRANCES**

The monumental commemorative east entry doors of GML are in good condition with loss of patina, and local areas of conspicuous repair. Exit doors on the west elevation are in good condition with minor loss of coating and rusting.

HOF exit doors where replaced are in poor condition, and wood doors deteriorated due to minimal maintenance.

#### **METAL ROOFS**

The shingle roof of the dome is in poor condition and is the cause of water infiltration that is a serious threat to the stability of the interior finishes of the dome. The GML copper step roof is in poor condition and a source of water leaks that saturate the structural back-up of the Rotunda dome plaster.

The flat roof of HOF has loose elements at Philosophy Hall.

#### TERRA COTTA

The original roofs tiles are generally in fair condition, with 10% or less broken, cracked or missing tiles. Waterproofing below the GML tile is deteriorated. The decorative dome-drum swags are in good condition with some loss of finish and cracking.

#### MEMBRANE ROOF

The GML membrane is in very poor condition, a source of leaks, and is inappropriately applied over original skylights.

#### SKYLIGHTS

Existing GML dome drum angled skylights are in fair condition with some broken panes. Lites in GML gabled roofs that were sources of past leaks that have been arrested. Horizontal glass tile and cast iron dome drum vault lites were compromised by tar roofing or removals.

HOF cast iron vault skylights are in fair condition with some replaced elements, and are blocked from view below by previous repair jobs.

#### ORNAMENTAL METAL

Decorative cheneau of GML are in fair condition, with pitting and deformations. Its supporting structure may be compromised. A previous restoration has led to spalled stone at the east elevation.

Fences at GML are in good condition, and loss of coating has caused rust staining of adjacent stone.

Gates of HOF are in good condition, with several missing decorative elements and coating at the end of its serviceable lifespan.

#### LIGHTING

Decorative lamp posts of GML are in good condition with loss of patina.

HOF colonnade lighting is in poor condition, with many fixtures missing. Several utilitarian flood lights have been affixed to the base wall.

#### STAIRS & PAVING

The flags and steps of the GML portico are generally in good condition with minor cracks and open joints.

Brick pavers at the HOF terrace are in poor condition, as they are worn, spalled and missing in several locations.

#### Interior

The Existing Conditions Assessment of the interior spaces of the Gould Memorial Library and the Hall of Fame consists of a comprehensive documentation of the existing interior building fabric. The interior spaces have been broken down into systems categorized by floors, walls, columns, ceilings, stairs, doors, windows, lighting, railings, bookstacks, and miscellaneous items particular to select spaces. The existing conditions have been identified per system with prioritized treatment recommendations prescribed in annotated chart format coordinated with annotated plans.

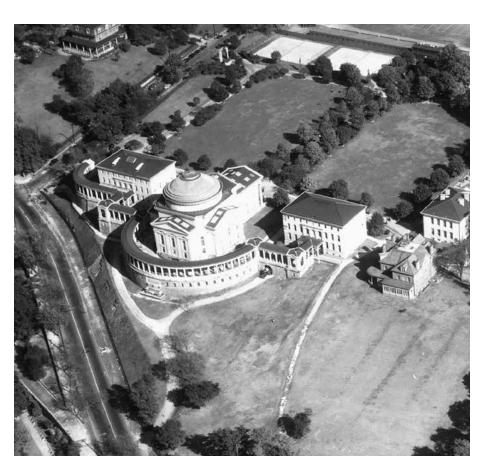
The buildings interiors consist of painted plaster over masonry on perimeter walls and interior bearing walls, sheet metal walls for the stack areas, painted ornamental plaster, marble, mosaic, metal, and stained glass details. Overall, there are ten different floor systems throughout both buildings. The floors consist of marble and mosaic tiles, painted concrete, wood and terrazzo along with cast iron and glass. Overall there are ten different wall systems throughout both buildings. The ceilings are comprised of painted plaster, stained and painted

wood planks and tongue and groove decking, wood and glass paneled laylights, Guastavino tiles and cast and iron and glass. Overall, there are thirteen different ceiling systems throughout both buildings. Many of the original wood windows remain as well as wood and Kalamein doors. The stairs consist of marble treads on steel with wood and wrought iron handrails, and wooded stairs with wood handrails. Original lighting remains in a few locations and various light fixtures have been added over time, many of which are abandoned. The book stacks remain in a variety of configurations throughout the stack areas.

Overall, the conditions of the various systems and assemblies ranges from good to poor, with localized areas of water infiltration causing corrosion and deterioration of adjacent finish materials. The spaces, left unattended for decades, are in a state of on-going deterioration. The majority of the historic fabric remains intact. Much of it can be restored or rehabilitated with select areas of replacement material required to match the original.

#### LANDSCAPE

The landscape of the Bronx Community College is historically significant as the setting for this important architecture complex. Created by the masters Calvert



Landscape with low vegetation, open views and access to the western HOF terrace in 1937.

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CONDITIONS ASSESSMENT 17

Vaux, Frederick Law Olmsted Jr., and Frank Miles Day, the landscape has been altered over decades through combinations of campus projects, introduction of ornamental plantings, changes in campus use patterns, and challenges of vegetation management. The character of the 2017 landscape differs greatly from that of the early part of the twentieth century. Visual dominance of the structures set at the west precipice of the campus is masked by heavy vegetative cover and loss of the open turf slope below. At the east, relationships between the White complex and the BCC Quad are also changed. Ornamental plantings originally thought to highlight the architecture are now concealing several vantage points and fine details. The Quad has itself changed with construction of the North Hall and Library; the former drive in front of the GML Halls of Language and Philosophy has been replaced with a pedestrian promenade of flowering cherry trees and herbaceous plants flanking each side. These changes along with accretion of newly introduced plantings, utilities and failed drainage systems further deteriorate the quality of landscape and overall historic character of the complex.

#### Site Drainage & Grading

Generally the site appears to be well-drained at the surface by a combination of well-draining soils, overland flows, and appropriately placed drain inlets. There are target areas where surface erosion is evident, contributed to by several factors that include steep grades, roof drainage and soil compaction. Roof drainage from the HOF in particular contributes to erosion at the exterior walls of the building at both the east and west perimeter.

#### Site Elements, Materials, and Fencing

Elements of the landscape constructed in early part of the 20th century express their age and in many instances, need to be repaired or replaced. Retaining walls along the Sedgwick Avenue and the northwest slope are failing. Metal fencing along Sedgwick Avenue is aged with loss of painted finish and details like the acorn finial atop the post. In several locations the fence is bent and out of form. The most damaging elements contributing to potential failure of the fencing is the accumulation of stone, soil, and surface debris along the interior base of fencing. The fencing and stone walls remain from the original campus construction and are contributing elements to the setting of the historic buildings. The toe of the west slope is in need of regrading to provide a maintenance shelf which can be kept clear of accumulating debris on an annual schedule.

#### Vegetation

Vegetation cover at the Stanford White Complex setting and west slope has been compromised over the preceding decades by additions of both shade and flowering trees as well as shrub materials. The historic character of the more open turf areas to the east of the GML and HOF, as well as the turf and tree landscape of the west slope, needs to be carefully considered as options for improved circulation and site access are developed.

#### **Setting and View**

The view of GML front/east façade is historically without flanking columnar trees that block views of the historic buildings structures. Bradford Pear trees block the views of the HOF colonnade and roof.

Historic views of the HOF and GML from Sedgwick Avenue and University Woods are obscured. The lower vine covered fence block the view from both the vehicle travel lanes and sidewalk. The historic view from the northwest corner of the HOF over University Woods west is clear of large trees.

#### Site Access

The interior of the GML and HOF complex is not wheelchair accessible. Access to the Auditorium can be made by the western service exit, but its slope does not meet accessibility standards. Connections to the HOF terrace exist but are remote from the central quad. Original walks at the west of HOF are obstructed, and would be needed for future egress and emergency access.

#### **Site Improvements**

Recommendations for landscape preservation treatments aim to recapture the historic setting and landscape character of the Stanford White Complex to the degree possible through capital projects, grounds maintenance, and ongoing management by college staff. Key to this approach is re-defining the GML and HOF complex' setting atop the ridge overlooking the Harlem River, and paring back of vegetation that masks architecturally important views and details of the structures. Removal of invasive vines, understory brambles, and select trees at the west slope, along with restoration of the iron fencing along Sedgwick Avenue, is proposed to accomplish this objective. The landscape of the slope below the HOF terrace should be improved by providing new paths, selectively thinning the oak grove, and removing unsightly vegetative barriers between the White complex, Community Hall, and Colston Hall.

To re-energize and re-establish historic landscape character and setting, the upper core area of the GML, Hall of Language, and Hall of Philosophy should have plantings reduce and restructured.

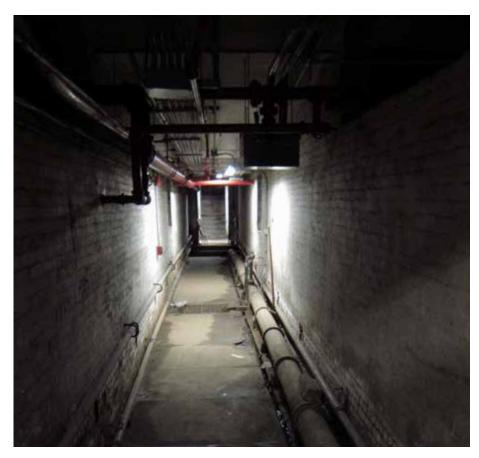
The Quad and western slope is generally well drained, but target areas of improvement are needed to prevent erosion, primary at the western base of HOF. The landscape alongside the road/drive to the south auditorium entry is badly eroded by failure to capture water at the top of drive, failed curbing and on grade drainage from the HOF roof along this section of the building.

#### **STRUCTURAL**

#### **Gould Memorial Library**

The Gould Memorial Library is an unreinforced masonry structure. Steel beams are supported by exterior and interior load-bearing masonry walls and sixteen steel columns located under the building's dome. There are six different floor structure types that span between these steel beams and masonry walls. The dome's structure is a Guastavino tile arch system.

Overall the Library's structure is in good condition. There are localized areas where prolonged moisture infiltration has caused moderate deterioration of steel beams and adjacent masonry. The most severe and systemic instance of this condition is at the dome, where the dome structure is confined by a steel tension ring. Repairs to this area are problematic as the steel and masonry structures are tightly integrated. Silman Engineering proposes cathodic protection of the steel along with waterproofing repairs to arrest the steel's corrosion. As of issuance of this report, "Critical Roof Repairs" designed to stabilize the roof structure have funding largely in place and are scheduled to be bid in 2018.



Combined sanitary / storm main runs north-south through the level oB cellar corridor, and sprinkler piping is suspended from the ceiling.

#### Hall of Fame

The Hall of Fame is an unreinforced masonry structure. Steel beams are supported by exterior and load-bearing masonry walls. A mezzanine level is framed with cast iron columns and steel plate beams. Masonry vaults support soil loads at the Hall's outer wings.

Overall the Hall of Fame's structure is in good condition. There are locations where efflorescence was observed on the masonry's surface. Additional investigation should be conducted to determine source of moisture and possible waterproofing repairs.

#### **PLUMBING**

The stormwater system collects water from the roofs of GML and HOF into interior cast iron piping that connects to an 8" diameter main in the central tunnel of the GML Level oB Basement. The main runs toward the west side of GML, and multiple connections occur throughout the Basement. Seven area drains from the HOF Terrace tie into this system. Facilities reported leaks in the vertical mains in GML, some of which will be addressed with the roof repair projects. Throughout the



Space for services is ample in cellar level oB. The red sprinkler pump in the foreground at 208V, different than the campus system, and the steam generator behind is supplied by the network.

building, sections of stormwater piping show signs of deterioration and patching of the piping. Additionally, water stains are evident in several locations, indicating a leak, whether active or repaired.

The routing of the sanitary system could not be fully determined after study of original drawings and on-site investigation. The uncertainty of the sanitary system routing is compounded by the presence of a sewer manhole on the southeast corner of the building. Plans indicate the sanitary system is connected with the stormwater system, which is common in New York City. Since the sanitary and stormwater systems are assumed to be combined, future separation of the systems is recommended to fully comply with the NYC Plumbing Code. Typically, the systems do not need separating until a major alteration is performed, when the toilets rooms are fully replaced.

The domestic water system for the complex is fed from a campus main. Its entry into the GML is reported to be a 3" diameter copper service connection through the southwest Basement electrical/switchgear room. The service size reduces to a 2" diameter before branching throughout the buildings. Water piping is uninsulated and composed of different materials. The presence of lead based solder is possible and tests should be performed to determine whether water quality meets standards. Pipes need to be insulated. A water meter and backflow preventer were not found, and both will need to be provided per NYC DEP regulations.

GML has two public toilet rooms and a single occupancy toilet designated as handicapped accessible. The Men's Room has 4 water closets, 5 urinals and 4 lavatories. The Women's Room has 4 water closets and 3 lavatories. The handicap designated toilet room has one water closet and one lavatory. The fixtures and accessories within the toilet rooms varying in age. It is unknown if the flush valves have code compliant flush volumes.

The domestic hot water is supplied from two 50-gallon electric water heaters, and both are in good condition. The hot water piping is uninsulated, which is non-compliant to the Plumbing Code.

There is no gas service in the building.

#### **MECHANICAL**

The campus high pressure hot water system supplies heaters in GML. It is fed by a 2½" steel piping on the southeast corner of the building. This high pressure hot water system enters a steam generator that converts it to low pressure steam for building heat. The steam generator is about 5 years old and is in good condition.

The existing 2-pipe steam system employs a single pipe to supply spaces throughout GML and HOF, and one pipe to return steam condensate for reuse. GML perimeter spaces, stacks, and offices are heated with cast iron steam radiators. There is no direct heating of the Rotunda as it is not a perimeter space. The Auditorium is heated with steam through the air handlers. The



208V main switchgear and transformer in cellar level oB would need upgrade to match the 480V campus system.

steam piping is made of steel and is mostly insulated where visible in the Level oB Basement. However, this piping is not insulated throughout other levels of the buildings. The condensate return piping runs low in the Basement to a condensate pump, which appears to be in good condition.

The Auditorium is the only space supplied with central air conditioning, and is fed by two 30-ton air handlers in the Basement below the Auditorium stage. Fresh air enter through GML's western areaways into the units. Air handlers are connected to the existing building management system (BMS). The air handlers appear to be in fair condition; but due to their installation in the late 1990's, they are approaching the end of their expected life spans. Two exterior condensing units are in similar condition and age. These obstruct HOF egress. They are unsightly, and fencing is overgrown with vegetation.

Smoke purge fans are connected to each of the air handlers, and would operate in an emergency. Fans should be controlled by a panel near the entrance for use by the Fire Department. The control of these fans is uncertain, and they should not operate automatically.

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GML offices are cooled by approximately 12 window air conditioners that are damaging to the windows and masonry, and not in keeping with the historic character of the complex. When building services are upgraded, cooling will be provided by a central chilled water supply and return supplied from the campus system. Points of future connection are available, as chilled water pipes were recently installed in the Basement and currently consist of a small loop, into which future connections should be made.

Fresh Air ventilation is primarily provided through natural means, by operable windows throughout GML and HOF. This ventilation is inadequate for contemporary use, for the windows will not be opened during the heating and cooling seasons. Mechanical ventilation should be provided, and the locations of air handling units and air supply ductwork needs to be carefully coordinated with historic spaces and existing building construction. The Auditorium outdoor air connections are adequate and can be upgraded with future replacement of its air handlers. The Rotunda is served by a network of ventilation ducts in wall cavities that allow for draft ventilation, but has no natural ventilation. Unit and duct locations will need careful planning to avoid impact on historic features. Acoustical design should also be performed to ensure that there is not too much reverberation or noise from hard finishes.

The toilet rooms have windows and/or exhaust grilles that presumably lead to exhaust fans that provide the necessary exhaust for these spaces. The Rotunda is reported to have two exhaust fans; however, they were not found in this survey. When these spaces are upgraded, replacement fan systems will be needed.

#### **ELECTRICAL**

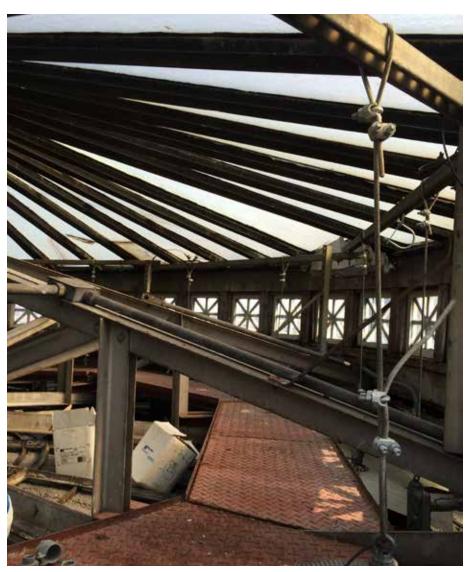
Upgrades to the building's electrical system to suit the intended future use of the building are recommended.

Normal and emergency power for the GML and HOF is supplied from sources in Language Hall. A switchgear located in the GML Basement electrical room powers the general distribution system. It is a combination of old and new panels; all of the old panels should be replaced. Switchboard MDP-12A provides normal power to the buildings and is fairly new, in good condition, and does not need an upgrade. One switch from MDP-12A feeds an older switchboard MDP-12, and was likely part of the original distribution system. This switchboard is old and should be replaced with a modern component. A new transformer to be installed as part of Utility Upgrade Phase V will be located near Community Hall.

Emergency power for the buildings comes from a remote site generator and is supplied by emergency switchgear located in Language Hall. Campus power enters the building at 480 volts and is stepped-down to 120/208 volts by a 300 kVA transformer. This transformer feeds emergency switchboard EMDP-12A. An Automatic Transfer Switch (ATS) supplies emergency power to a 20HP fire pump controller. The transformer, switchboard, and ATS are fairly new and in good condition. Switchboard EMDP-12A has a 200 amp feed to ATS12A which feeds emergency distribution panels EMDP-12 and EMLP-12. These are

older distribution panels that power equipment and emergency lighting in the building. Equipment connected to the emergency system includes exhaust fans, condensate pump, and fire alarm. These two panels are old and should be replaced. Another 100 amp emergency feeder from EMDP-12A feeds the Philosophy building. EMDP-12A and the automatic transfer switches are in good condition. No changes are required.

Lighting in most of the public areas is by means of period lighting fixtures originally equipped with incandescent lamps. Most lamps have been replaced with modern compact fluorescent lamps, but are inadequate in color temperature and intensity. Lighting in the Rotunda is provided by High Intensity Discharge (HID) fixtures at the ceiling, which render the space an inappropriate



Project for the replacement of the cupola skylight awaits funding. New windows below the rafters would be operable to allow future smoke purge.

pale yellow color. Lighting in the stack area is in poor condition and should be replaced. Lighting of the HOF colonnade is by historic fixtures. Several fixtures are missing and others are powered by inappropriate surface-mounted conduit, and the entire system should be reworked and upgraded to meet functional needs.

The number of receptacles in the building is not sufficient for a modern facility. Miscellaneous electrical maintenance items such as removal of abandoned equipment, support of receptacles, and junction box cover replacement should be addressed.

#### **FIRE PROTECTION**

There are two separate fire protection systems within the library; the standpipe and sprinkler systems are each fed separately from the campus water main. The water pressure availability is unknown.

The standpipe system is fed from 4,000 gallon pressure tank (2,500 gallon water volume) in the Cellar and rated for 75 psi. The pressure tank is fed from the domestic water system. Although a backflow preventer was indicated on the construction plans, it was not found during the investigation. A 4" diameter steel pipe feeds the standpipe system from the pressure tank. The air compressor for the pressure tank is in the same room as the pressure tank. The pressure tank assembly is believed to be 7-8 years old and in good condition. There is a fire department connection connected to the standpipe system on the north side of the building. There is a Type II hose cabinet on each floor.

The sprinkler system is supplied by a 6" diameter service pipe. As with the domestic system, no meter or backflow preventer was found. A 20 HP fire pump in the Cellar boosts the water pressure in the sprinkler system. The suction and discharge connections to the pump are 6" diameter. The sprinkler system is reported to be original to its 1960 era installation. It appears to be in fair condition.

The Gould Memorial Library is fully sprinklered with the exception of the historic central Rotunda. The landmark significance of the Rotunda and its physical dome construction preclude the use of conventional fire protection sprinklers in this space. An engineered approach is recommended in lieu of sprinklers, consisting of three major components:

- Detection either with conventional smoke detectors or with beam detectors which alert when a light beam is interrupted by a concentration of smoke.
   These are commonly used in large multi-storied spaces.
- Annunciation a series of alarm horn/strobes should be installed per the NYC Building Code.
- Smoke Containment utilizes the concept that smoke will accumulate in the large cavity of the dome. The elapsed time to evacuate the space shall be calculated in a Timed Egress study. An analysis to determine the time for the dome reservoir to fill with smoke extending down to the highest occupied floor can be studied in a Computational Fluid Dynamics (CFD) analysis. The

elapsed time to evacuate the building will be analyzed against the allowable time at which the smoke reaches a critical height above the rotunda floor to determine the ability to safely evacuate the Rotunda in a fire/smoke event. If deemed necessary, to increase the allowable egress time, the clerestory windows designed for the new cupola in the roof replacement project can be activated to act as smoke relief vents.

Adjoining spaces to the Rotunda would require to be separated from the rotunda space, through the use of doors, screens or shutters. This will minimize the area affected by any smoke or fire event in the space.

The engineered approach to fire protection in the rotunda is not as-of-right but rather would require a negotiation and approval with the New York City Department of Buildings (DOB). The DOB is generally sympathetic to an engineered fire suppression/smoke control solution to protect and sustain the historic fabric in landmark structures.

#### **FIRE ALARM**

The existing building fire alarm system is completely non-functional. A fire watch is in place and a fire alarm contractor is currently on site with completion scheduled in 2018. This system will serve the current use of GML and HOF, but will require upgrade with future use plans. The upgrades will require the addition of notification devices for new areas, duct smoke detectors for new HVAC units, and connections to the elevator. Additional modules may need to be added to the fire alarm control panel.

#### **CONDITIONS REPORTING**

Descriptions and recommendations are provided according to the building systems associated with the dominant architectural materials, structure, landscape, and services of the GML/HOF complex. Classification by system allows comprehensive analysis of existing components. The recommendations to repair and upgrade are determined by the conditions of the systems, and costs to repair are shown in the estimate in the Appendix.

Conditions for repair and Treatments are described in tabular format according to each defect observed, are keyed with a Repair Code and ranked with a priority. Repair Codes are mapped onto elevations and plans that follow the matrices. Tables are organized by Exterior/Structure, Landscape, Interior/Structure, Plumbing, Mechanical, Electric, Fire Protection, and Fire Alarm.

### **Conditions Assessment Legend**

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTA	ATIVE PHOTO
Repair Code (2-letter Abbreviation)  Location (Illustrated by Photo 1/2)	Name Description and cause of observed deterioration.	Recommendation  Method needed for correction or improvement. Options may be listed to address variations in size, location, or severity.	Ranking according to 5 - Level Prioritization	PHOTO 1	PHOTO 2
(Location where applicable, Illustrated by Photo 2)					

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### Exterior - Brick Masonry

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CJ GML Facades GML Areaways	Crack through Unit and Joint Cracks through multiple units are due to stresses within the wall system from differential movement in the building envelope, or differing expansion and contraction rates between the mortar and the brick. This is sometimes an indication that the mortar is too hard for the substrate.	Option 1: GML Dome Drum - Rebuild the cracked area with replacement brick to match existing and provide expansion joints in reconstructed masonry.  Option 2: GML Areaways - Rebuild the cracked area with replacement brick to match existing.	Facades Level 2 Areaways Level 3	
DS GML Dome Drum	Displacement Units bulging out of plane. This movement is typically caused by long-term water infiltration that has weakened internal collar joints bonding outer and inner wythes of brick.	Masonry Reconstruction Remove entire wythe of face brick. Replace portion of interior wythe where deteriorated. Provide replica brick, mortar joints, collar joint and stainless steel reinforcement with ties. Replace 100% of drum brick for best performance and appearance.	Level 3	
IR GML Facades (Attic Level)	Inappropriate Repair Earlier patch of brick or cementitious material at probe or area of failure.	Masonry Replacement Remove temporary patch & provide brick to match original.	Level 4	
IS GML Facades	Incipient Spall  Detachment (but not loss) of unit fragments, often related to the infiltration of water beneath the surface, expansion of steel reinforcement or manufacturing defects.	Masonry Replacement Fully expose the bearing leg of the corroding lintel causing the spall. Prepare, prime, and waterproof the steel to prevent further reactions. Replace face brick in kind.	Level 3	

## Exterior - Brick Masonry

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
OJ GML Facades	Open Joint Complete or partial loss of pointing mortar. This provides access for moisture migration into the masonry substrate and may also result in potential structural instability.  Joints open due to age, weathering, or differential stresses from movement within the building envelope. The mortar can be further damaged with salts and moisture migration.	Cut and Point Rake out and repoint joints 100%. Rake out and repoint open and damaged joints to limit water infiltration into the exterior masonry walls. Mortar must be an appropriate mix to match the physical and aesthetic characteristics of the original mortar and building materials. Brick and mortar analysis should be conducted to determine compressive strength of the brick and chemical composition of the mortar.	Facades Level 3	Memor
RC GML Areaways	Residual Coating Paint coating or splatters on brick walls.	Chemical Cleaning Apply paint stripper, dwell and pressure rinse.	Level 4	
SA GML Facades	Soiling: Atmospheric Buildup of atmospheric pollutants over time, generally in areas not washed (in the shadow of precipitation).	Pressure Washing Clean with fresh water and power sprayer.	Level 4	
SP GML Facades	Surface Spall Fragment or chip in the material may result from impact damage and/or material weakness. Moisture and salts penetrate the material due to the weathering process and can deteriorate the stone. Susceptibility of stone to weathering ranges with different quality of brick.	Option 1: GML Facades: Monitor areas of minor loss for performance and retain in place unless condition worsens.  Option 2: GML Facades: Patch minor spall locations with restoration mortar custommatched to brick color.  Option 3: Dome Drum: Replace spalled brick with new to match existing.	Facades Level 4 Dome Drum Level 2	

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COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CH  GML Limestone  HOF Limestone	Crack: Hairline A minor fracture or fissure in the masonry of 1/16" or less in width and length that could indicate movement of adjacent parts.	Crack Repair Provide patch with restoration mortar in a custom-matched color, with the process including:  • Cut out crack • Drill & inject repair epoxy • Applying patching material to match finish stone	GML & HOF Limestone Level 3	
CJ  GML Limestone  HOF Limestone	Crack through Unit and Joint Cracks through multiple units are due to stresses within the wall system from differential movement stresses within the building envelope.	Option 1: Singular Cracks Provide limited repairs at crack and provide an appropriate fill to limit water infiltration.  Option 2 Pervasive Cracking Partially rebuild the cracked area with replacement stone to match existing.	GML & HOF Limestone Level 3	
CN GML Portico	Cracking: Network  A pattern of intersecting fissures in stucco accelerated by water infiltration above.  Loose material flakes may dislodge from the ceiling.	Stucco Replacement Remove stucco ceiling and lathe support. Repair or replace metal framing substructure. Fasten stainless steel metal lathe and finish with 3-coat stucco system to match original profile and color.	Level 2	
CR GML Limestone HOF Limestone	Crack: Limestone A fracture or fissure in the masonry of minimum 1/16" width that could indicate movement of adjacent parts.  Cracks open due to age, weathering, or differential stresses from movement within the building envelope. Opening of cracks within a single stone unit may indicate differential movement between sections of the building.	Option 1: Short & Obscured Cracks Stabilize unit and provide fill or patch repair at crack.  Option 2: Wide Cracks in Primary View Provide stone Dutchman at crack location.	GML & HOF Limestone Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CR GML Granite HOF Granite	Crack: Granite A fracture or fissure in the masonry of minimum 1/16" width that could indicate movement of adjacent parts.  Cracks open due to age, weathering, or differential stresses from movement within the building envelope. Opening of cracks within the single stone unit may indicate differential movement between sections of the building.	Option 1: Small Cracks & Obscured Locations: Stabilize unit and provide fill or patch repair at crack.  Option 2: Large Cracks Provide stone Dutchman at crack location.	GML Granite Level 4 HOF Granite Level 4	
DI GML Marble	Disaggregation Loss of surface material in powder or granular form, by deterioration and erosion of the binding material, caused by rain with acidic pollutants.	Consolidation with Multi-step Coating Clean with water spray, scrub with brush, dry. Apply chemical treatment 3 coats, rinse & cure. Apply sealer 6 coats.	Level 3	
DS  GML Limestone  GML Granite	Displaced Unit  Movement over time out of normal plane, typically caused by prolonged cycles of freeze-thaw jacking.	Structural Remediation: Pediment Monitor movement throughout the year. Structural engineer to review data and determine if movement will continue. Corrective action includes shoring, reseting stones, pinning in place, and restoring original joints and cracked stones.  Structural Remediation: Plinth Removal, structure repair, and resetting of stone in scope of egress stair project.	GML Limestone Level 2 GML Granite Level 2	
EF HOF Granite GML & HOF Limestone	Gypsum Crusts & Efflorescence The formation of surface deposits, often white in color, crystalline in form, powdery to the touch, and composed of soluble salts, originating from substances applied to the material or from constituents within or behind the material itself, or from external, environmental sources.	Gypsum Crusts: Tooling Employ masonry chisels and hammers to physically remove large crystal formations.  Efflorescence: Clean with Poultice Mix poultice, trowel apply, cover for dwell, fully dry, remove with a scrub-rinse. Repeat on persistent stains.	HOF Limestone Level 3 HOF Granite Level 4	

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COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
HL GML Granite HOF Granite	Hole in Unit Missing original material resulting from previously drilled anchor or support.	Patch Repair Provide composite patch repair in material to match aesthetic and physical characteristics of the existing stone.	GML & HOF Granite Level 4	
IC  GML Granite Plinth  HOF Granite Statue Pedestals	Inappropriate Coating Clear, non-breathable sealer on the plinth course has trapped moisture and resulted in surface spalls in some locations.	GML: Chemical Cleaning Remove with paint stripper. Apply chemical, dwell and pressure rinse.  HOF: Chemical Cleaning & Additional Testing: Remove coating with paint stripper. Apply chemical, dwell and pressure rinse. Where coating is not fully removed, conservator to analyze with Fourier Transform Infrared (FTIR) Spectroscopy to confirm composition of the coating and test cleaning methods.	GML Granite Level 3 HOF Granite Level 3	
IE  GML Limestone  HOF Limestone	Inappropriate Element Objects attached to facades that are not in keeping with the historic character of the building including:  • Bird Protection • Bird Nest • Metal cover	Remove Element & Add Protection Carefully detach object or element, repair damage to base material.  Provide minimally-visible bird-proofing wire to prevent future roosting.	Level 4	
LS  GML Limestone  HOF Limestone	Loss of Surface The absence of masonry surface as evidenced by incompleteness of form, profile or decoration.	Patch Repair Provide composite patch repair in material to match aesthetic and physical characteristics of the existing stone.	GML & HOF Limestone Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
OB  GML Limestone  HOF Limestone	Foreign Object Elements that penetrate the facades for an earlier functional purpose are unsightly, deteriorating, and may cause long term damage to the substrate, such as anchors and braces.	Mechanically Remove & Patch Provide composite patch repair in material to match aesthetic and physical characteristics of the existing stone.	GML & HOF Limestone Level 3	
OJ  GML Granite & Limestone  HOF Granite & Limestone	Open Joint Complete or partial loss of pointing mortar. This provides access for moisture migration into the masonry substrate and may also result in potential structural instability.  Joints open due to age, weathering, or differential stresses from movement within the building envelope. The mortar can be further damaged with salts and moisture migration.	Cut and Point Rake out and repoint open and damaged joints to limit water infiltration into the exterior masonry walls. Restoration mortar must be an appropriate mix to match the physical and aesthetic characteristics of the original mortar and building materials. Mortar analysis should be conducted to determine the color and chemical composition of the mortar.	GML Granite & Limestone Level 3  HOF Granite & Limestone Level 3	
RC GML Granite HOF Limestone	Residual Coating Old paint or tar remnants remaining on the stone.	Paint Stripper & Chemical Cleaner Remove coating with paint stripper. Apply chemical cleaner, dwell, scrub & rinse.	Level 3  GML Granite Level 4  HOF Limestone Level 4	
SAM HOF Marble	Soiling: Atmospheric - Marble Buildup of atmospheric pollutants over time, generally in areas not washed (in the shadow of precipitation).	Water Scrub Gently scrub and rinse, without pressure washer.	Level 4	

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COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
SA1 GML Granite	Soiling: Atmospheric & Coating Clear, non-breathable sealer with atmospheric pollutants trapped beneath.	Chemical Cleaning & Blasting Remove sealer with paint stripper. Treat stains with low pressure microabrasive cleaning.	Level 3	
SAG GML Granite HOF Granite	Soiling: Atmospheric - Granite Buildup of atmospheric pollutants over time, generally in areas not washed (in the shadow of precipitation).	Wash-away Cleaner Spray apply chemical, dwell, rinse with pressure washer.	GML & HOF Granite Level 3	
SAL  GML Limestone  HOF Limestone	Soiling: Atmospheric - Limestone Long-term deterioration is caused by acidic precipitation that dissolves the stone. Surfaces that are not readily washed by rain build up black gypsum crusts from trapped pollutant particles. Crusts that peel off reveal crumbling stone beneath.	Microabrasive Carefully blast with low-pressure abrasive.	GML & HOF Limestone Level 3	
SB  GML Granite GML Limestone  HOF Granite HOF Limestone	Staining: Biological - Green & Grey Surface growth or coloration indicative of biological colonization. May be of varying thicknesses, colors (generally green, grey, or black), and biological origin (micro-flora such as fungi, lichen, algae, bacteria). Biogrowth is typically found in damp locations, shady elevations, or in the presence of water.	Wash-away Cleaner Spray apply chemical, dwell, rinse with pressure washer.	GML & HOF Granite & Limestone Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
SB1  GML Limestone North Facade	Staining: Biological - Black Biological colonization that is more tenacious than the typical growth.	Chemical Cleaning with Dwell Mix cleaner, brush apply, dwell, scrub, rinse, apply afterwash, & rinse with pressure wash.	Level 3	
SC  GML Limestone  HOF Limestone	Staining: Copper Discoloration caused copper ions in water run-off from a copper-containing element. Stains pervade deep into the stone but are not cause of long-term deterioration.	Cleaning with Poultice Mix poultice, trowel apply, cover for dwell, fully dry, remove with a scrub-rinse. Repeat on persistent stains.  Maintenance program is required for copper & bronze or stains will re-emerge.	GML Limestone Level 4  HOF Limestone Level 4	
SF GML Granite	Staining: Ferrous Discoloration caused by water running off of a corroding ferrous element. If left untreated, increasing oxidation of embedded ferrous elements may result in rust jacking and damage to adjacent masonry.	Multi-step Chemical Cleaning Remove sealer with paint stripper. Apply chemical cleaner, dwell, scrub & rinse.	Level 4	
SJ GML Limestone	Sealant Joint Previous repair of deteriorated mortar joint was finished with elastomeric sealant. The sealant has dried, cracked and failed. Water is allowed into the joint and will accelerate deterioration of adjacent stone. Application of the sealant was not historically appropriate for the building, the sealant had only short term durability, and will leave stains on stone in some locations.	Replace Joint Rake out and repoint joints 100% to limit water infiltration. Repair mortar must be an appropriate mix to match the physical and aesthetic characteristics of the original mortar and building materials. Mortar analysis should be conducted to determine color and chemical composition.	Level 3	

BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 29

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
SO  GML Limestone HOF Limestone	Staining: Chemical - Oil Residue left behind from installation of bird protection.	Chemical Cleaning & Protection Apply fast acting stripper only to oil stain, dwell, rinse & scrub.  Install minimally-visible bird-proofing wire to prevent future roosting.	GML & HOF Limestone Level 4	
SP  GML Limestone Portico  HOF Limestone	Spall Fragment or chip in the material may result from impact damage and/or material weakness. Moisture and salts penetrate the material due to the weathering process and can deteriorate the masonry. Susceptibility to weathering varies with exposure.	Option 1: Minor Spalls Patch with restoration mortar custommatched to the stone color.  Option 2: Pervasive Spalls Replace spalled stone with new to match existing.  Option 3: Stucco Failure Remove stucco, repair support framing, provide stainless steel lath and 3-coat stucco system	GML & HOF Limestone Level 3 GML Portico Stucco Level 2	
SS  GML Limestone  HOF Limestone	Severe Spall Fragment or chip in the material caused by movement or expansive forces within the stone.  Separation of stone at GML is the result of loading from displaced cornice/eave units above. Spalling of HOF gutters is caused by inappropriate expansion anchors that were installed to secure terra cotta antefixes when its roof was replaced.	Option 1: GML Cornice Remove stone to sound substrate. Replace spalled stone with stone identical in type and profile. Secure stone in place with epoxy adhesive and stainless steel pins.  Option 2: HOF Gutter Remove and install deteriorated stone as option 1, and provide replica of cast stone in lieu of matching stone type.	GML Limestone Level 1 HOF Limestone Level 1	
SW HOF Limestone	Staining: Moisture Discoloration of stone resulting from prolonged infiltration of water from open joints above.	Masonry Repairs Rake out all horizontal joints and repoint with historically matching mortar mix.  Cleaning treatment was not consistently effective for removing water stains, and cleaning is not recommended. Normal stone coloration may return after it dries over time.	Level 3	

## Exterior - Guastavino Masonry

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CR HOF Ambulatory	Cracked Unit Distress of exposed Guastavino Tiles. Cracked tiles are only evident at refurbished vaults.	Replace Unit Remove cracked tiles & stitch in replica units.	Level 3	
DS HOF Ambulatory	Displacement Longitudinal cracks at ribs and vaults indicating distress, possibly due to deterioration of metal beam concealed above Guastavino tiles.	Reconstruct Vault Replace affected bay with new tile vault.  Additional investigation is required to understand assembly of roof and ceiling structure. Steel beam has been confirmed above rib at another location. Probe will be required to verify presence and condition of steel beam to determine extents of repair.	Level 2	
GL HOF Ambulatory	Loss of Glazed Finish Wear of original ceramic glaze resulting from prolonged weathering.	Reglaze After cleaning, brush-apply breathable glaze coating over entire tile.	Level 3	
SA HOF Ambulatory	Soiling: Atmospheric Buildup of atmospheric pollutants over time, generally in areas not washed (in the shadow of precipitation).	Chemical Cleaning Apply chemical until dried, dwell 10 minutes, scrub & rinse	Level 3	

BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 31

### Exterior - Windows

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W1 (BU shown on Survey Notes) GML Windows	Broken Unit Glass pane previously removed from muntin and not replaced in kind. Filler panel of wood or other object present. Glass pane split or shattered by impact or movement.	GML: Window Restoration Replace Glazing Option 1: Replace glass in existing muntins with type to match original. Re-putty, prime and finish paint in historical color. Option 2: Provide dutchman repair of missing muntins with glass infill.	Level 3	
W1 (GC shown on Survey Notes) GML Windows	Failed Glazing Compound Loss of window putty resulting age, weather, and delayed maintenance.	GML: Window Restoration Re-putty Salvage historic glass for re-installation. Remove existing compound to bare wood, and clean by sanding. Tack glass into muntins and apply putty to match original. Apply primer and (2) coats of finish paint, match original historic color.	Level 2	
W1 (EI shown on Survey Notes) GML Windows	Inappropriate Element Objects deleterious to original building fabric are in place, including through-wall air conditioner units, plants, fasteners, and animal nests.	GML: Window Restoration Remove Elements Return windows and surrounding elements to their original conditions. Institute semi- yearly maintenance to prevent condition from re-occurring.	Level 3	Friadelah
W1 (FL shown on Survey Notes) GML Windows	Loss of Coating Natural wear of applied finish caused by age, weather, and delayed maintenance.	GML: Window Restoration Refinish Unit Remove coating by chemical or mechanical means to original wood. Fill any defects in surface to return to original profile, and treat dried wood with boiled linseed oil, as required. Apply primer and (2) coats of finish paint, match original historic color.	Level 3	

# Exterior - Windows

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W1 (EM shown on Survey Notes) GML Windows	Missing Element Original hardware or trim lost or removed over time.	GML: Window Restoration Provide Replica Hardware Install hardware following window restoration. Ensure smooth operation.	Level 3	
W1 (OP shown on Survey Notes) GML Windows	Non-Operational  Movable sashes are stuck in place, caused by missing hardware, swelling, or deferred maintenance.	GML: Window Restoration Repair Unit Salvage unit to shop, restore elements & reinstall.	Level 3	
W1 (RT shown on Survey Notes) GML & HOF Windows	Rotted Element Element of sash compromised by prolonged exposure to moisture, characterized by softness or flaking of wood.	GML: Window Restoration Dutchman Repair Clean wood to original finish by stripping and sanding. Fill defects in surface to return to original profile. Apply primer and (2) coats of finish paint, match original historic color.	Level 3	
W1 (CH1 shown on Survey Notes) GML Windows W2 GML Windows South Facade	Severe Checking Opening of wide gaps in the surfaces of sashes, muntins or frames typically larger than hairlines.	W1: Window Restoration Dutchman Repair Replace severely checked element(s) of sash, frame or sill with new wood dutchman in matching or compatible specials. Finish to match window.  W2: Replace Window Install replica window sashes & frame where severe checking is pervasive.	Level 3	

# Exterior - Windows

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W1 (CH shown on Survey Notes) GML Windows	Wood Checking Opening of parallel striations or gaps in the surfaces of sashes, muntins or frames resulting from excessive drying and swelling of wood. Primarily caused by lack of paint or primer.	GML: Window Restoration Recondition Wood Clean wood to original finish by sanding, apply boiled linseed oil, prime and apply (2) coats of finish paint.	Level 3	
W2 (GR shown on Survey Notes) HOF Windows	Missing Grate Original protective grille removed or lost over time.	HOF: Replace Grating Provide replica grate where required by new use.	Level 4	
W2 (BU, FL, EI, GC, CH, CH1, RT, MU, EM, OP, GR shown on Survey Notes)  GML Windows South Facade HOF Windows	Severely Deteriorated or Missing Unit Broken Unit Wood Checking Severe Checking Inappropriate Element Loss of Coating Missing Glazing Missing Element Non-Operational Missing Grate	GML & HOF: Replace Window Install historically accurate replica with double-glazing. Assume condition of window is poor due to deferred maintenance.	Level 3	
W2-DS HOF Windows	Displaced Window Unit compromised by adjacent deterioration.	HOF: Repair Wall Provide structural and waterproofing repairs at perimeter of window.  Replace Window Unit Install historically accurate replica with double-glazing.	Level 2	

# Exterior - Entrances

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
IR GML Portico HOF Entrances	Inappropriate Repair GML: Ferrous fasteners were installed to repair commemorative bronze doors.  HOF: Original wood doors/transoms are not extant and were replaced with hollow metal units.	GML Portico: Provide Replica Elements Remove fasteners, install copper replica element with copper nails.  HOF Entrances: Provide Wood Doors Remove door & wall infill within original masonry opening, Replace door to match original.	Level 3	
CGML West Exit Stairs HOF West Doors	Loss of Coating or Finish  Failure of finish paint or stain, which acts as a protective sacrificial layer against weathering. When these coatings fail, the substrate is vulnerable to moisture penetration and deterioration, eventually leading to loss of section/profile.	Refinish Prepare, prime & paint with coating to match original color and sheen.	GML & HOF Level 3	
LP GML Portico	Loss of Patination Wear of protective copper finish is compromising the weather resistance of historic doors.	Clean & Refinish Dilute chemical, hand-apply & scrub, rinse.  Spray-apply corrosion-inhibiting coating, apply, dry and re-apply.	Level 3	
MC GML West Exit Stairs	Metallic Corrosion Formation of rust resulting from failure of original finish. Corrosion at base of doors formed holes through thin sheet metal.	Doors: Remove corrosion to sound substrate, Rebuild metal profile with synthetic filler, prime & paint.  Railings: Remove corrosion to sound substrate, prime & paint.	Level 3	

# Exterior - Metal Roof

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
EL HOF Roof	Loose Element Displaced flashing has exposed substrate to water infiltration.	Temporary Repair Secure displaced unit to substrate. Apply sealant to prevent water infiltration.  Replace Roof & Flashing Remove deteriorated metal and salvage surrounding tile for re-installation. Stitch in matching copper flashing to masonry, roofing, and metal. Repair adjacent materials as needed to make watertight connections.	Level 1 Repair Level 3 Replace	
FL GML Dome Drum	Deteriorated Flashing  Metal counter-flashing exhibits open joints between sections of sheet metal and at masonry.	Replace Flashing Remove deteriorated element and salvage surrounding tile for re-installation. Stitch in matching copper flashing to existing masonry, roofing, and metal. Repair adjacent materials as needed to make watertight connections. Complete work as part of "Critical Roof Repair" project.	Level 3	
OJ GML Dome	Open Joint or Seam Gap between shingles or copper sections that allows water to enter and affect interior. Gap may have opened due to prolonged thermal movement.	Replace Copper Roof Replace copper shingle roof with replica units on new armature as scoped in the roof replacement project. Provide impressed current cathodic protection to dome tension ring as detailed in scope of work. Complete work as part of "Critical Roof Repair" project.	GML Dome Level 2	
PR GML Dome Drum Steps	Previous Repair Temporary Patch from roof probes has aged and is susceptible to water infiltration.	Temporary Repair Replace temporary patch with new waterproofing membrane.  Replace Copper Roof Remove flat-seam copper roof in its entirety to expose original masonry. Repair defects in masonry structure and surface to receive new roofing. Install copper roof in profiles to match existing. Salvage and reinstall decorative copper antefixes. Complete work as part of "Critical Roof Repair" project.	Level 2	

# Exterior - Membrane (Synthetic) Roof

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
IE GML Dome Drum Roof	Inappropriate Element Elements and debris not properly seccured to the roof may cause damage or compromise the performance of the membrane.	Remove Element Discard glass shards (from prior skylight repair) and ensure no punctures were made through membrane.  Support Object Remove satellite dish or mount of soft blocks adequately ballasted or secured to the deck.	Level 2	DIRECTY HAMMANANA
HL GML Dome Drum Roof	Hole Puncture through membrane.	Temporary Patch Install new waterproofing membrane over defect.  Replace Roof Remove membrane roof in its entirety from dome drum gutters to expose original masonry. Repair extant defects in masonry resulting from water damage to receive new roofing. Install multi-ply built up roofing system or liquid roofing. Work is included in the scheduled roof restoration project.	Level 2	
OJ GML Dome Drum Roof	Open Joint Gap between membrane sheets allowing water to enter and affect the interior.	Temporary Repair Install new waterproofing membrane over defect.  Replace Roof Removal of existing membrane and replacement with liquid roof system is included in the scheduled roof repair project.	Dome Drum Gutters Level 1  Dome Drum Cornice Level 3	

# Exterior - Terra Cotta

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
BU GML Gable Roof HOF Roof	Broken Unit Tile broken or sheared, with fragment subject to fall from roof to ground below.	Remove Loose Unit Sound adjacent units for defects and remove all fragments. Install temporary patching or waterproofing to prevent short-term water infiltration.	GML & HOF Roofs Level 1	
CR GML Dome Drum	Crack A fracture or fissure in the masonry of minimum 1/16" width Cracks open due to age, weathering, or differential stresses from movement within the unit.	Crack Repair Provide fill or patch repair at crack.	Level 3	
CRH GML Dome Drum	Crack: Hairline A minor fracture or fissure in the masonry of 1/16" or less in width and length that could indicate movement of adjacent parts.	Crack Repair  Drill & inject repair epoxy. Applying patching material to match finish stone.	Level 3	
CT GML Gable Roof HOF Roof	Cracked Tile Tile broken or sheared, resulting from differential movement in the roofing or masonry substrate, freeze-thaw action, or impact by objects.	Replace Roof in Kind Salvage all original tile at GML and HOF for re-installation. Recreate any tile that cannot be salvaged or was installed as part of a prior repair campaign.  Prior to installation of tile, properly prepare substrate. At GML and HOF roofs, replace entire roofing membrane and tile fastening system. At GML and HOF gutters/cornices, repair or replace masonry substrates to provide sound connections.	GML & HOF Roofs Level 3	

# Exterior - Terra Cotta

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
GL GML Dome Drum	Loss of Glazed Finish Wear of original ceramic finish resulting from prolonged weathering.	Reglaze Clean with chemical, brush-apply breathable glaze coating over entire tile.	Level 3	
MU GML Gable Roof HOF Roof	Missing Unit Tile broken or sheared, resulting from differential movement in the roofing or masonry substrate, freeze-thaw action, or impact by objects.	Replace Unit in Kind Salvage all original tile at GML and HOF for re-installation. Recreate any tile that cannot be salvaged or was installed as part of a prior repair campaign.  Prior to installation of tile, properly prepare substrate. At GML and HOF gutters/cornices, repair or replace masonry substrates to provide sound connections.	GML & HOF Roofs Level 3	
OJ GML Gable Roof HOF Roof	Open Joint Complete or partial loss of setting mortar. Open joints may lead to accelerated ingress of water, or compromise the stability of units in place.  Masonry filler was applied to GML gable tiles.	Replace Joints Provide masonry setting joints and secure tile in accordance with industry standards during roof replacement.	GML & HOF Roofs Level 3 GML Dome Drum Level 3	
SA GML Dome Drum	Soiling: Atmospheric Buildup of atmospheric pollutants over time, generally in areas not washed (in the shadow of precipitation).	Restoration Cleaner Mix chemical, pre-wet terra cotta, brush apply, dwell, rinse with pressure washer.	Level 4	

# Exterior - Skylights

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
<b>DS</b> GML Cupola	Displaced Unit  Movement over time out of normal plane, typically caused by prolonged cycles of thermal expansion and contraction or freeze-thaw jacking.	Temporary Repair Provide temporary waterproofing membrane.  Replace Skylight Replace Cupola skylight as part of previously designed "Critical Roof Repair" project.	Temporary Repair Level 1 Skylight Level 3	
DU1 GML Gable Roof Skylights	Deteriorated Unit Original glazing cracked and steel framing corroded due to previous water infiltration.	Replace Glazing Pane GML Skylights: Carefully remove skylight muntins and framing to expose glass. Remove glass pane, repair, prime and paint steel framing. Provide glass matching historic original. Set in glazing, and replace framing.	GML Skylights Level 3	
DU2  GML  Drum Roof  Skylights &  Laylights	Deteriorated Unit  Angled skylights replacement units are detrimental to GML. Skylights are not insulated, have deteriorated glazing and flashings, and alter the original appearance as they are visible from the ground.  Cast iron and glass vault laylights are sources of past leaks and have been damaged by water infiltration and installation of previous roof coverings.	Replace Skylight Fully remove angled skylights and provide flat (1/2" per foot pitch) insulated units in the same footprints.  Restore Laylight Salvage unit to be repaired offsite by conservation studio. Replace all glass lites in kind, restore cast iron frame, clean glass and metal, reset in original location. Include allowance for upgrade for back-lighting with LED fixtures.	GML Skylights & Laylights Level 4	
DU3 HOF Vault Lights	Deteriorated Unit Cracked piece of original glazing.	Restore Laylight HOF Vault Lights: Salvage unit to be repaired offsite by conservation studio. Replace cracked and broken lites in kind, restore cast iron frame, clean glass and metal, reset in original location.	HOF Vault Light Level 3	

# Exterior - Skylights

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
EL GML Dome Drum Roof	Loose Element Flashing physically displaced due to repetitive stress and insecure fastening.	Temporary Repair Remove loose element and repair flashing.	Level 1 Repair	
MC GML Vault Light	Corroded Metal Loss of original profile from ferrous- corrosion of cast iron element. Cause is from oxidation likely exacerbated to prolonged exposure to water and de-icing salts.	Clean & Refinish Clean with micro-abrasive applied by a conservator. Apply corrosion-inhibiting primer and finish coats in color to match original.	Level 3	
<b>SJ</b> GML Cupola	Sealant Joint Loose, dried, or missing compound resulting from age and deferred maintenance.	Replace Skylight Replace cupola skylight as part of previously designed "Critical Roof Repair" project.	Level 2	

# Exterior - Ornamental Metal

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
ED GML Cornice	Deformed Element  Malformation of decorative element resulting from prior impact.	Restore Cornice Remove and salvage section for repair in a shop. Remove deformed repousse and fabricate replica. Carefully cut seams and remove horizontal coping. Re-solder and stitch in copper sheets and repousse into original.  Alternate: Replace in Kind Salvage entire cornice and install replica on stainless steel armature.	GML Cornices Level 4	
IR GML Cornice East Facade	Inappropriate Repair Previously repaired section of cornice held in place with expansion anchor fasteners.	Remove & Re-secure Remove and salvage section of cornice. Repair masonry substrate. Review condition of existing support structure and repair or supplement to create a sound connection.	Level 3	
MC HOF Terrace HOF Ambulatory	Metallic Corrosion Failure of paint coating, which acts as a protective sacrificial layer against weathering. When these coatings fail, the substrate is vulnerable to moisture penetration and deterioration, eventually leading to loss of section/profile. Rusting of metal may result in damage to adjacent materials.	Refinish Remove corrosion, prepare, prime & paint.	HOF Terrace & Ambulatory Level 3	
ME GML Cornice	Missing Element (Fastener) Loss of original element resulting from mechanical failure, removal, or movement.	Restore Cornice Conduct probe to review condition of existing supporting structure. Repair or supplement support if necessary, and refasten.  Alternate: Replace in Kind Remove and salvage entire cornice, fabricate stamped copper replica, install on new stainless steel armature. Assume 3' sections composed of multiple custom-stamped units soldered together.	GML Cornices Level 3	

# Exterior - Ornamental Metal

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
MP GML Cornice	Pitted Metal Corrosion through entire thickness of sheet metal. Opening is a path for accelerated water infiltration, that may affect back-up masonry.	Restore Cornice Repair in place (assume 75% of cornice). Clean and prepare metal, form copper sheet to match missing profile, solder into place. Repair offsite (assume 25%): Remove and salvage section for repair in a shop. Review condition of existing support structure and repair or supplement. Secure repaired cornice segment in original location.  Alternate: Replace in Kind Salvage entire cornice and install replica on stainless steel armature.	GML Cornices Level 3	
MU HOF Ambulatory	Missing Unit Decorative element lost, resulting from impact or weakening due to corrosion.	Replace Unit in Kind Create custom-cast replica matching in material composition (metallurgy) and secure in place. Prime and finish to match the decorative grille.	Level 3	
OJ GML Cornice	Open Joint Gap in seam between sections of sheet metal. Opening may be a result of differential movement between sections caused by deterioration of the masonry substrate or corrosion of the supporting structure.	Remove & Re-secure Remove and salvage section of cornice. Review condition of existing support structure and repair or supplement to create a sound connection. Clean metal and secure in original location.	Level 3	
SA GML Cornice	Soiling: Atmospheric Buildup of atmospheric pollutants over time, generally in areas not washed (in the shadow of) precipitation.	Restore Cornice: Clean & Coat Dilute chemical, hand-apply & scrub, rinse Spray apply, dry and re-apply.  Alternate: Replace in Kind Salvage entire cornice and install replica on stainless steel armature.	GML Cornices Level 4	

# Exterior - Stairs & Paving

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
BU HOF Terrace	Broken Unit Brick Paver broken or severely deteriorated by mechanical abrasion, impact, or prolonged weathering. Durable outer surface has been compromised to expose softer inner clay.	Remove Loose Unit Provide replacements for broken and missing pavers.  Alternate: Replace Terrace Roof Remove all terrace pavers (installed during a prior repair project). Review condition of waterproofing and deck below. Provide new pavers and setting bed.	Broken Pavers Level 2 Terrace Paving Level 5	
CN GML Areaways	Crack: Network A patterned network of intersecting fissures.	Replace Paving Remove deteriorated concrete & replace in kind. Include replacement of all drains and leader lines into building.	Level 3	
CR GML Portico	Cracked Stone A fracture or fissure in the masonry of minimum 1/16" width and length that could indicate movement of adjacent parts.  Cracks open due to age, weathering, or differential stresses from movement within the building envelope. Opening of cracks within the single stone unit may indicate differential movement between sections of the building.	Partial Replacement Provide stone Dutchman at crack location.	Level 3	
ED GML Areaways	Deformed Element  Malformation of areaway grating resulting from prior impact or movement.	Repair & Refinish Salvage grating, bend into place or weld replacement units for those misshaped. Prepare, prime & paint.	Level 3	

# Exterior - Stairs & Paving

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
MC GML Areaways	Metallic Corrosion  Failure of paint coating, which acts as a protective sacrificial layer against weathering. When these coatings fail, the steel substrate is vulnerable to moisture penetration and oxidation, eventually leading to loss of section/profile.	Refinish Prepare, prime & paint.	Level 3	
MU HOF Terrace	Missing Unit Brick Paver broken or sheared, resulting from differential movement in the roofing or masonry substrate, freeze-thaw action, or impact by objects.	Replace Unit in Kind Provide replacements for broken and missing pavers.  Alternate: Replace Terrace Roof Remove all terrace pavers (installed during a prior repair project). Review condition of waterproofing and deck below. Provide new pavers and setting bed.	Level 2	
OJ GML Portico Stairs GML Areaways	Open Joint Complete or partial loss of pointing mortar provides access for moisture migration into the masonry substrate.  Joints open due to age, weathering, or differential stresses from movement within the stone or its foundation. The mortar can be further damaged with salts and moisture migration.	Cut and Point Rake out and repoint joints 100%. Rake out and repoint open and damaged joints to limit water infiltration into the exterior masonry walls. Mortar must be an appropriate mix to match the physical and aesthetic characteristics of the original mortar and building materials. Mortar analysis should be conducted to determine color and chemical composition of the mortar.	Portico Stairs Level 3 GML Areaways Level 3	
SA SB SC GML Portico Stairs GML Areaways	Soiling: Atmospheric Staining: Biological Staining: Copper  Soiling and staining of the base material are described by Components above including Atmospheric Soiling, Biological Growth, Copper Staining.  Copper Staining at GML granite is limited in area and effect, while the removal process is labor intensive.	Cleaning Perform procedures described in the Stone Masonry Treatments.	Portico Stairs Level 5 GML Areaways Level 3	

# Exterior - Lighting

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
DS GML Portico	<b>Displacement</b> Fixture out of plumb.	Restoration Perform full repair of light fixture by disassembling, cleaning, re-wiring, reassembling, and tightening all connections.  Secure fixture in place with new epoxy anchors and removable nuts.	Level 4	
EI GML Facade HOF Granite	Inappropriate Element Security lighting not is historically appropriate.	Provide Historically Appropriate Lighting Perform analysis of light levels required at exterior areas and implement a system of fixtures that provide suitable illumination and are in keeping with the historic character.	GML & HOF Level 4	
IL All Exterior Areas	Illumination Fixture does not provide footcandles/lumens required by code for wayfinding or egress.	Relamp Existing Fixture Perform analysis of light levels required at exterior areas to determine whether supplemental illumination is needed.  Perform full repair of light fixture by disassembling, cleaning, re-wiring, reassembling, and tightening all connections.  Replace bulbs with higher output energy efficient lamps.	Level 4	
LP GML Portico	Loss of Patination Wear of protective finish.	Clean & Refinish Clean with micro-abrasive applied by a conservator.  Apply corrosion-inhibiting coating, dry and re-apply.	Level 4	

### Legend - Repair Codes

#### BRICK MASONRY

- CJ CRACK THROUGH UNIT & JOINT
- DS DISPLACEMENT
- IR INAPPROPRIATE REPAIR
- IS INCIPIENT SPALL
- OJ OPEN JOINT
- RC RESIDUAL COATING
- SA SOILING: ATMOSPHERIC
- SP SURFACE SPALL

#### STONE MASONRY

- CH CRACK: HAIRLINE
- CJ CRACK THROUGH UNIT & JOINT
- CN CRACKING: NETWORK
- CR CRACK: GRANITE
- CR CRACK: LIMESTONE
- DI DISAGGREGATION
- DS DISPLACED UNIT
- **GYPSUM CRUST &** GYPSON GREENCE
- HL HOLE IN UNIT
- IC INAPPROPRIATE COATING
- IE INAPPROPRIATE ELEMENT
- LS LOSS OF SURFACE
- **OB** FORIEGN OBJECT
- OJ OPEN JOINT
- RC RESIDUAL COATING
- SAM SOILING: ATMOSPHERIC-MARBLE
- SOILING: ATMOSPHERIC
- SA1 & COATING
- SAG SOILING: ATMOSPHERIC-GRANITE
- SAL SOILING: ATMOSPH-LIMESTONE
- SB STAINING: BIOLOGICAL -
- GREEN & GREY
- SB1 STAINING: BIOLOGICAL BLACK
- SC STAINING: COPPER
- SF STAINING: FERROUS
- SJ SEALANT JOINT
- SO STAINING: CHEMICAL (OIL)
- SP SPALL
- SS SEVERE SPALL
- SW STAINING: MOISTURE

### **GUASTAVINO MARONRY**

- CR CRACKED UNIT
- DS DISPLACEMENT
- GL LOSS OF GLAZED FINISH
- SA SOILING: ATMOSPHERIC

#### **WINDOWS**

- W1 RESTORATION
- W2 REPLACEMENT

#### **ENTRANCES**

- IR INAPPROPRIATE REPAIR
- LC LOSS OF COATING / FINISH
- LP LOSS OF PATINATION
- MC METALLIC CORROSION

#### **METAL ROOF**

- EL LOOSE ELEMENT
- | FL | DETERIORATED FLASHING
- OJ OPEN JOINT OR SEAM
- PR PREVIOUS REPAIR

### **MEMBRANE ROOF**

- IE INAPPROPRIATE ELEMENT
- HL HOLE
- OJ OPEN JOINT

#### **TERRA COTTA**

- **BU BROKEN UNIT**
- CR CRACK
- CRH CRACK: HAIRLINE
- CT CRACKED TILE
- GL LOSS OF GLAZED FINISH
- MU MISSING UNIT
- OJ OPEN JOINT
- SA SOILING: ATMOSPHERIC

#### **SKYLIGHTS**

- DS DISPLACED UNIT
- |DU1| DETERIORATED UNIT (@ GABLE)
- DU2 DETERIORATED UNIT (@ DRUM)
- DU3 DETERIORATED UNIT (@ PAVING)
- EL LOOSE ELEMENT
- MC METALLIC CORROSION
- SJ SEALANT JOINT

#### ORNAMENTAL METAL

- ED DEFORMED ELEMENT
- IR INAPPROPRIATE REPAIR
- MC METALLIC CORROSION
- ME MISSING ELEMENT
- MP PITTED METAL
- MU MISSING UNIT
- OJ OPEN JOINT
- SA SOILING: ATMOSPHERIC

#### **STAIRS & PAVING**

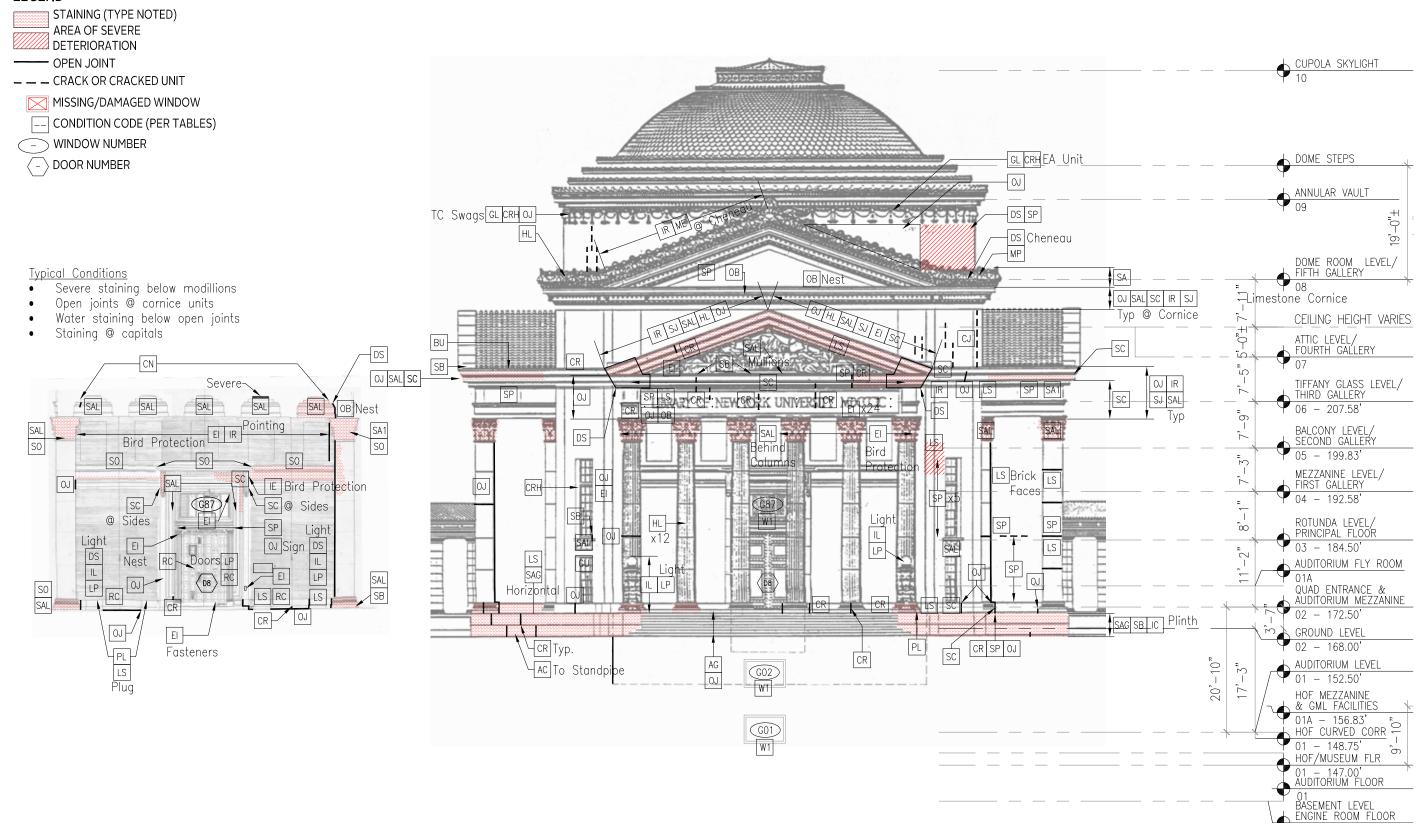
- **BU BROKEN UNIT**
- CN CRACK: NETWORK
- CR CRACKED STONE
- ED DEFORMED ELEMENT
- MC METALLIC CORROSION
- MU MISSING UNIT
- OJ OPEN JOINT
- SA SOILING: ATMOSPHERIC
- SB SOILING: BIOLOGICAL
- sc | SOILING: COPPER

#### LIGHTING

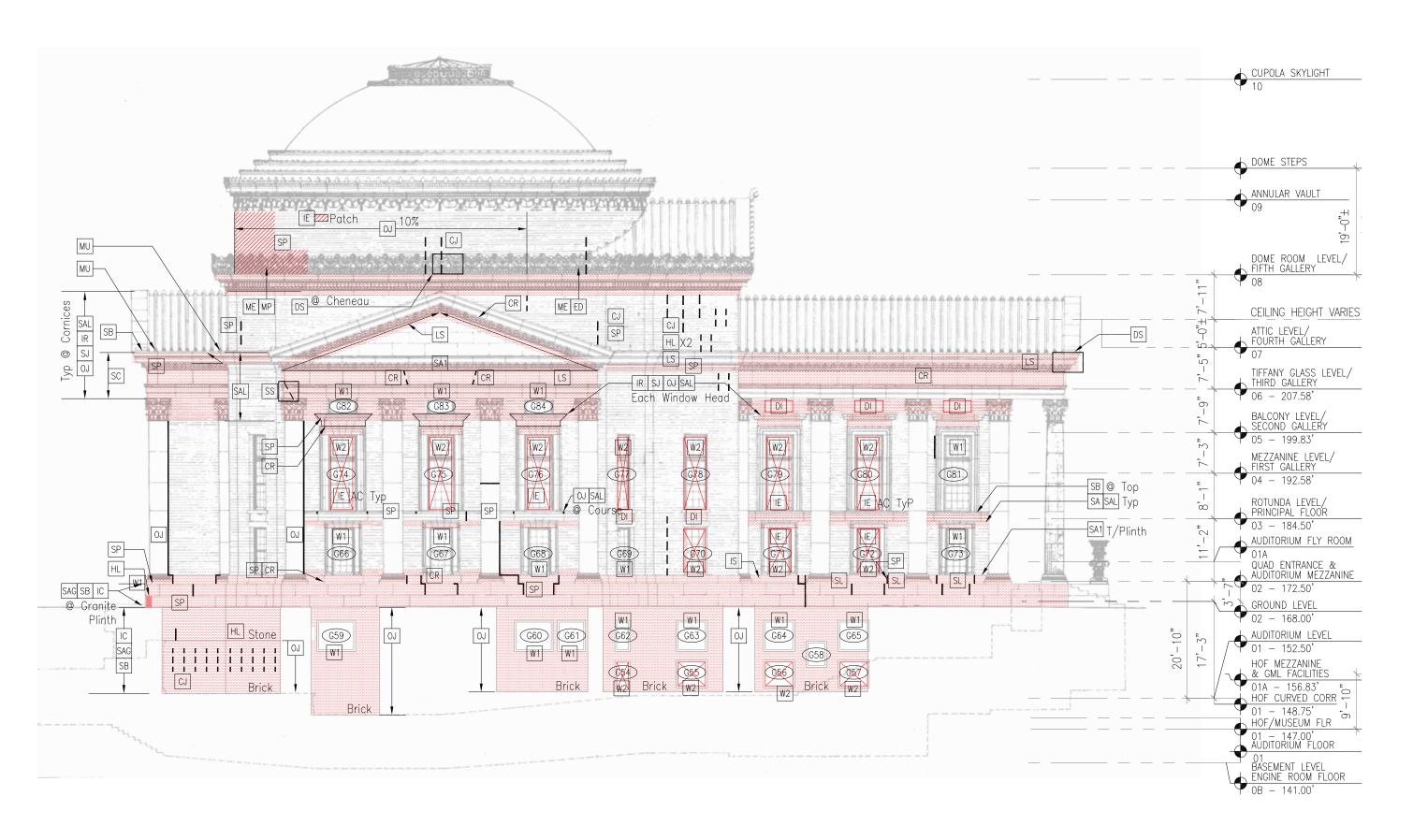
- DS DISPLACEMENT
- [EI] INAPPROPRIATE ELEMENT
- IL ILLUMINATION
- LP LOSS OF PATINATION

### Exterior - GML East Elevation

#### **LEGEND**

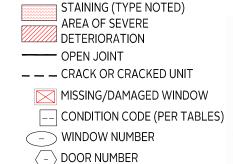


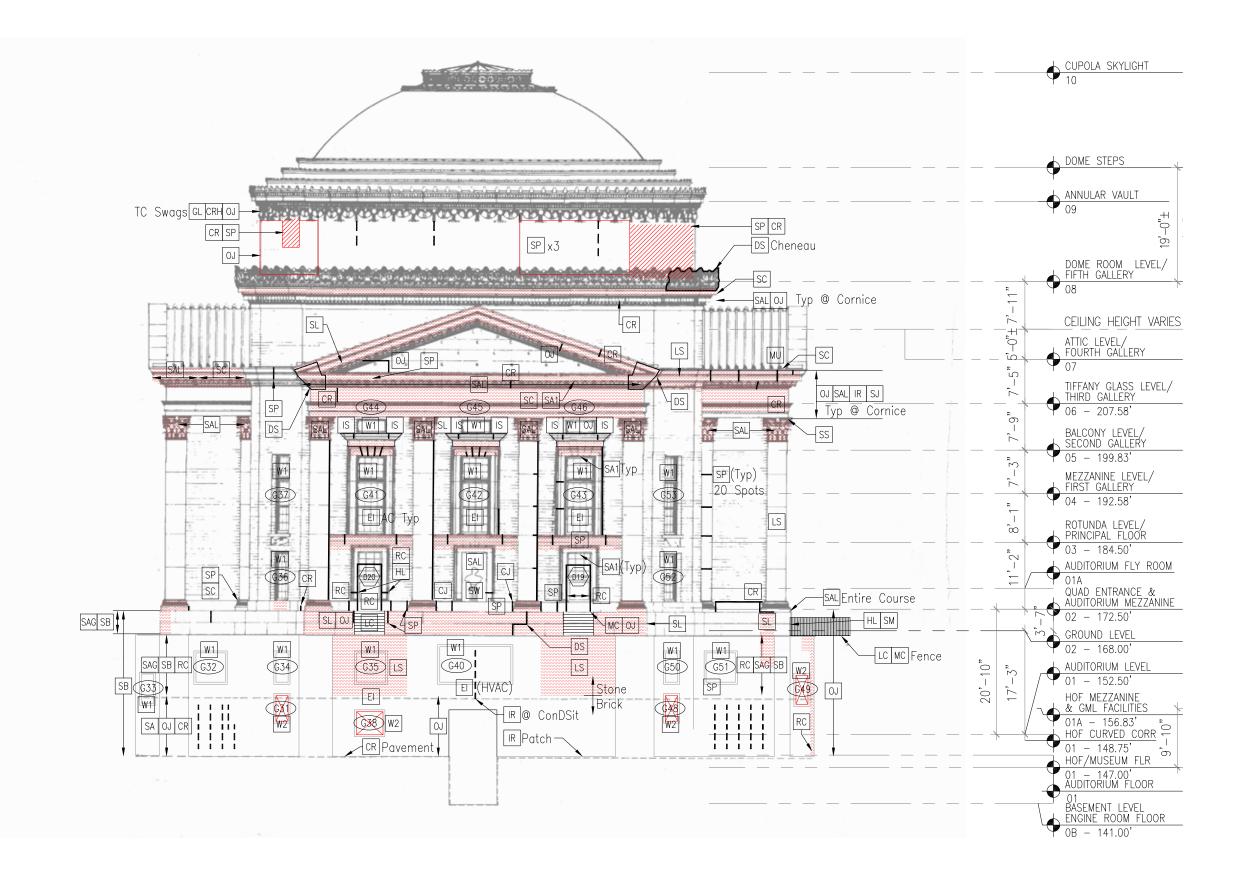
### Exterior - GML South Elevation



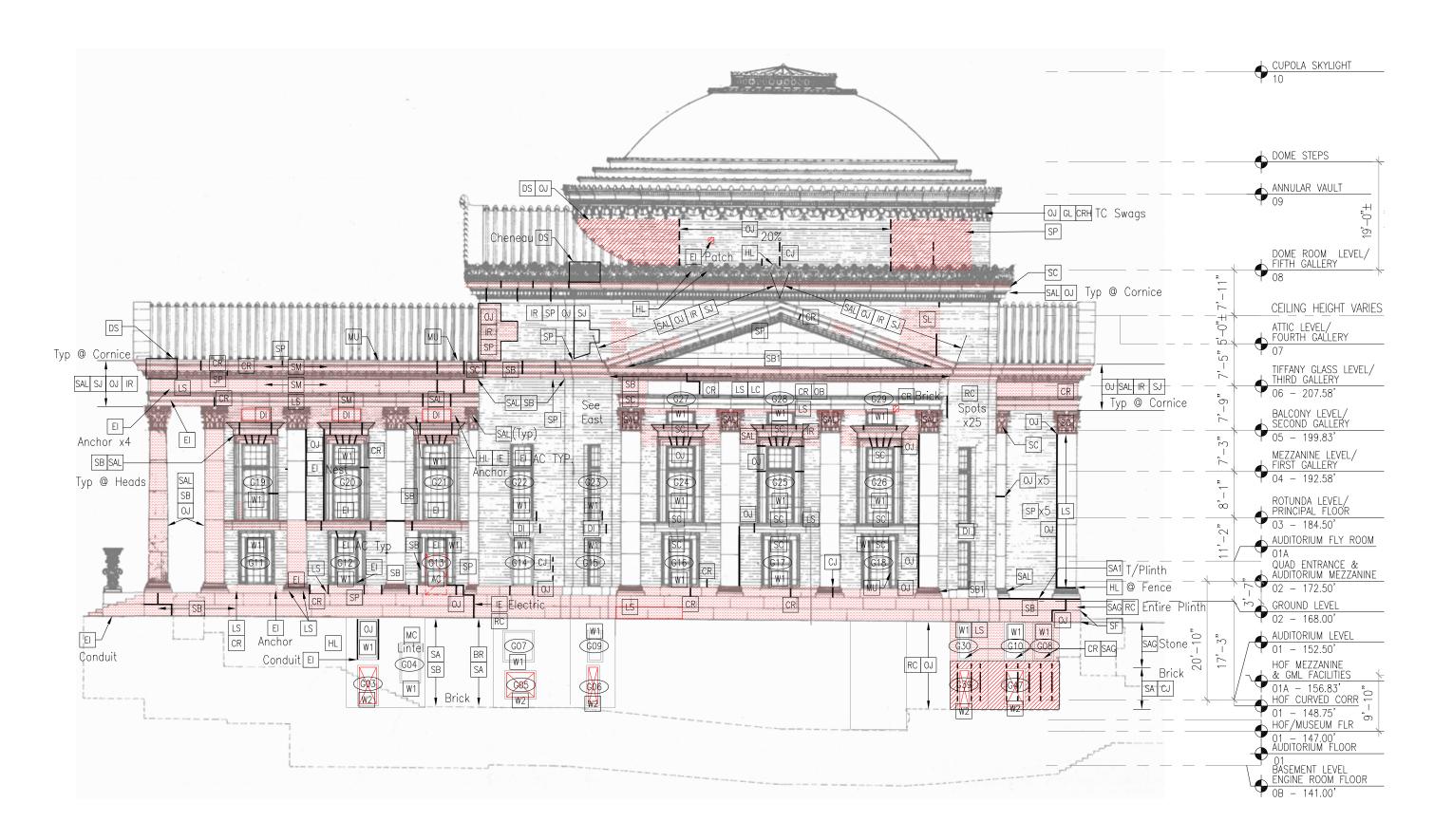
### Exterior - GML West Elevation

### **LEGEND**

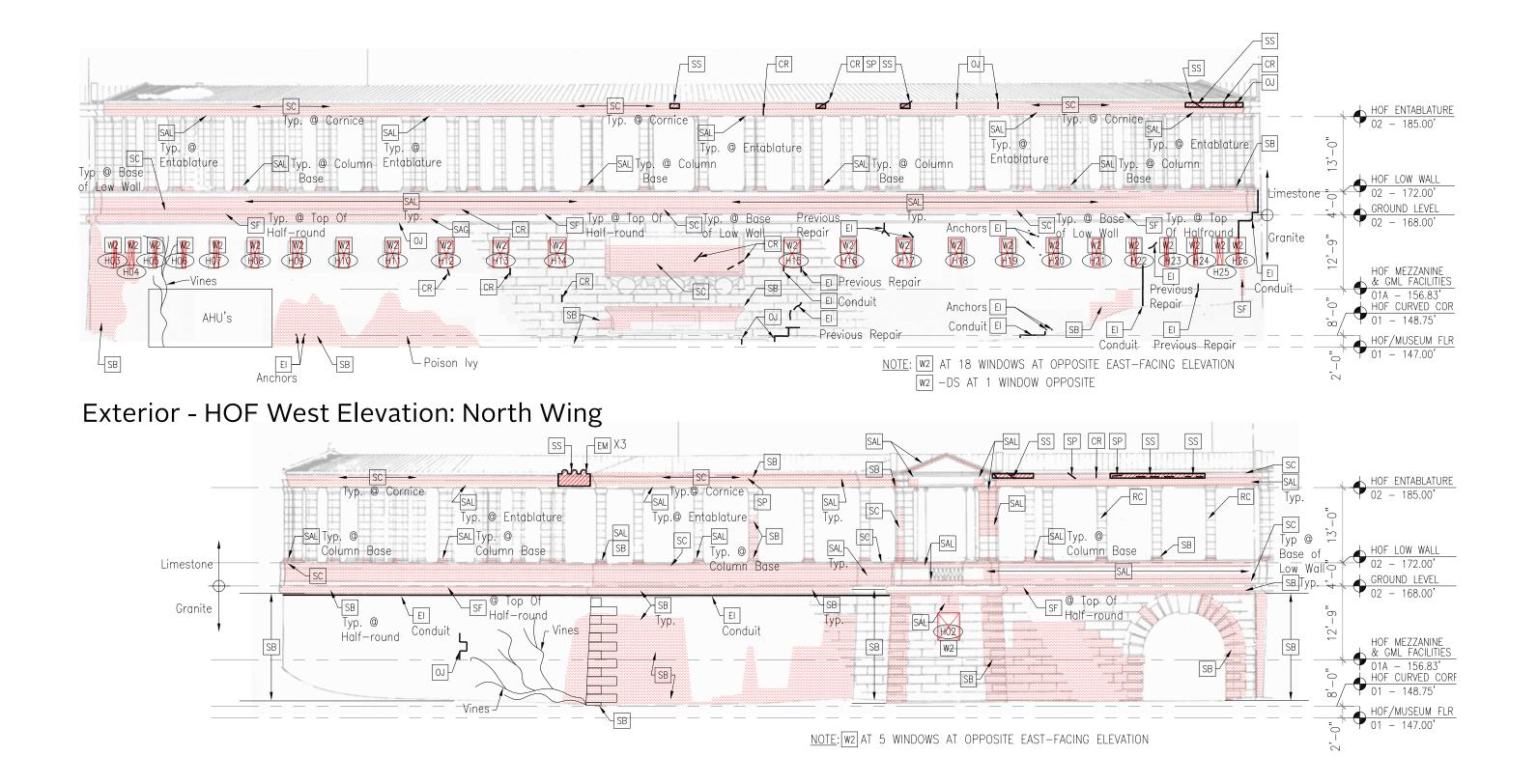




### Exterior - GML North Elevation



## Exterior - HOF West Elevation: Central Wing



# Exterior - HOF North Elevation: North Wing & North Entry

### **LEGEND**

STAINING (TYPE NOTED)

AREA OF SEVERE

DETERIORATION

OPEN JOINT

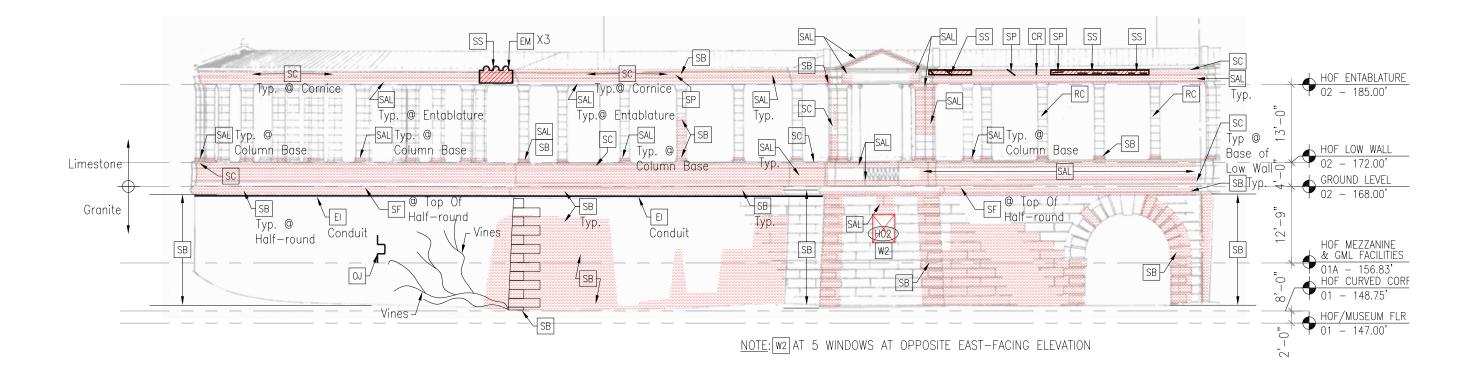
— — CRACK OR CRACKED UNIT

MISSING/DAMAGED WINDOW

CONDITION CODE (PER TABLES)

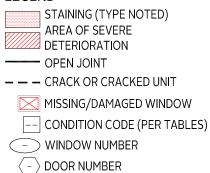
- WINDOW NUMBER

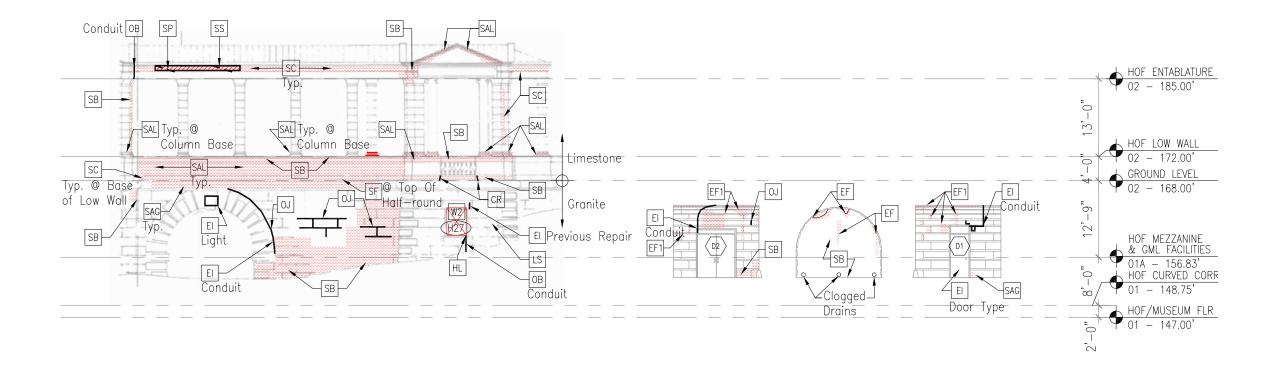
- DOOR NUMBER



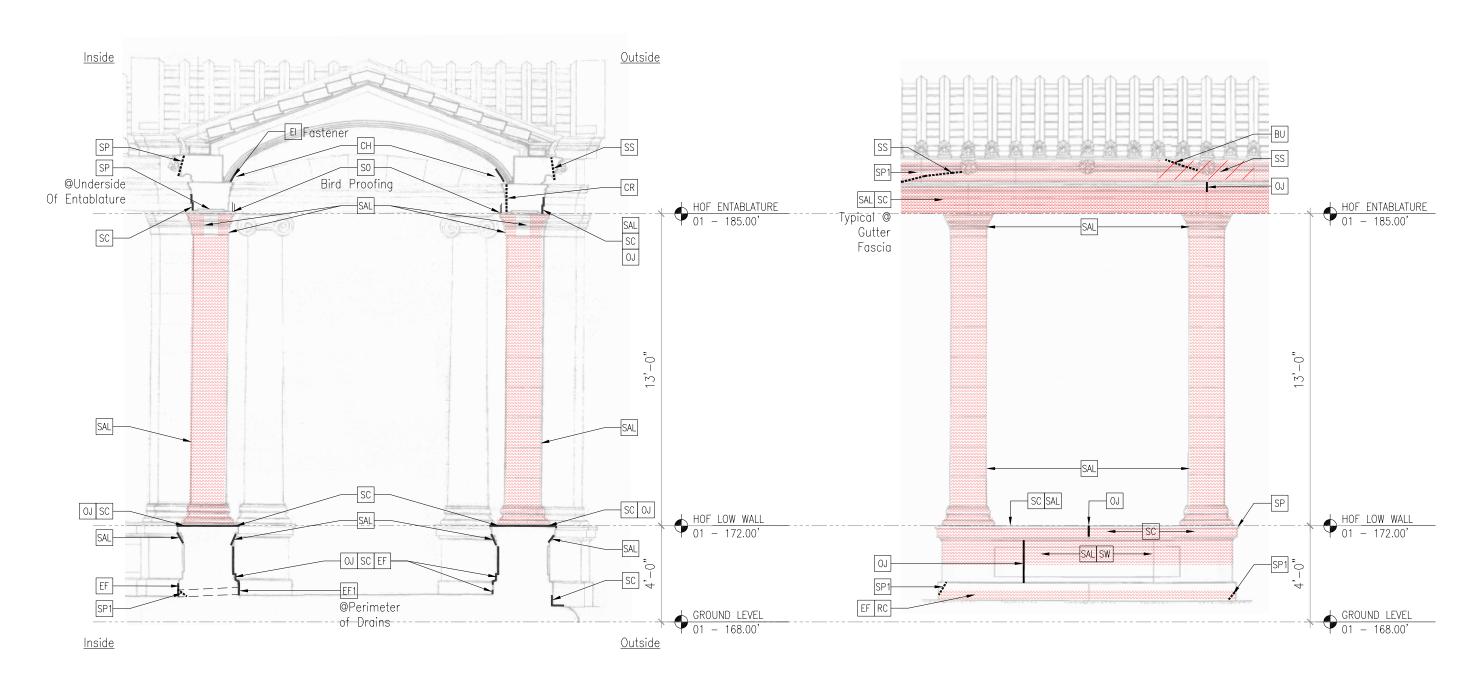
# Exterior - HOF West Elevation: South Wing & South Entry

### LEGEND





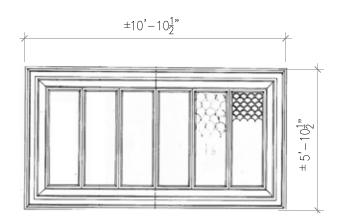
# Exterior - HOF Section at Colonnade & HOF East Elevation of Colonnade



**Typical Section** 

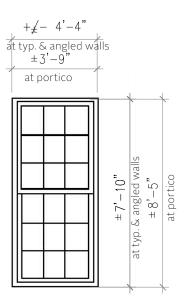
Typical Exterior Elevation

# Exterior Window Types - GML



### A fixed

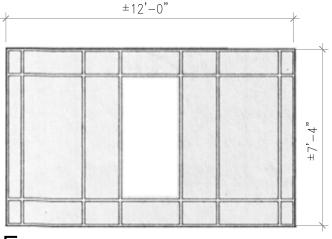
Portico Vault Light Restore



### B double-hung

Facades at N, S, W

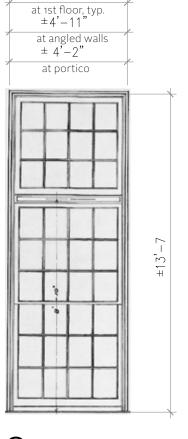
Divided light windows generally exist in good condition. As a character-defining element windows may be repaired except 3 severely deteriorated units at the south facade.



### E

fixed

Non-original unit; Replacement included in egress stair project scope

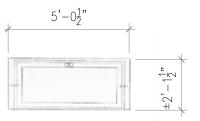


 $\pm 5'-2"$ 

# double-hung w/ pivot transom

Facades at N, S, W

Divided light windows generally exist in good condition. As a character-defining element windows may be repaired except 7 severely deteriorated units at the south facade.

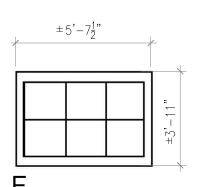


# D

pivot

recommended.

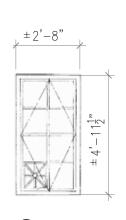
Second Level Galleries at N, S & W Wings
Units are severely deteriorated and replacement is



### fixed transom

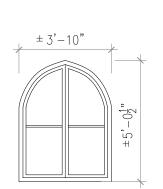
Non-original units; Good conditions

## Exterior Areaway Window Types - GML



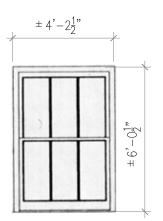
G casement

East Areaway Restore



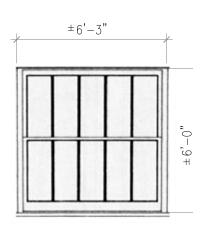
Н casement

North Areaway Restore



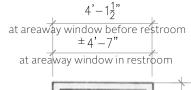
double-hung

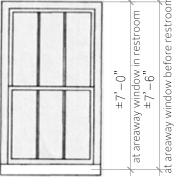
Areaways Restore



double-hung

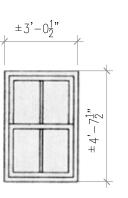
Areaways Restore





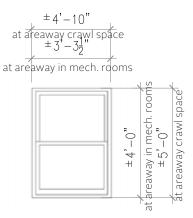
K double-hung

Sub-basement oB Poor condition, replacement recommended



double-hung

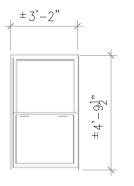
Basement o1 Poor condition, replacement recommended



M double-hung

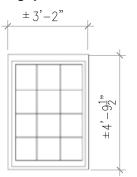
Sub-basement oB Poor condition, replacement recommended

## Exterior Window Types - HOF



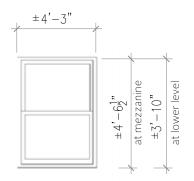
Ν double-hung

West Facade Covered inaccessible, missing; replacement recommended



0 fixed

Language & Philosophy Corridors Non-original units; replacement recommended

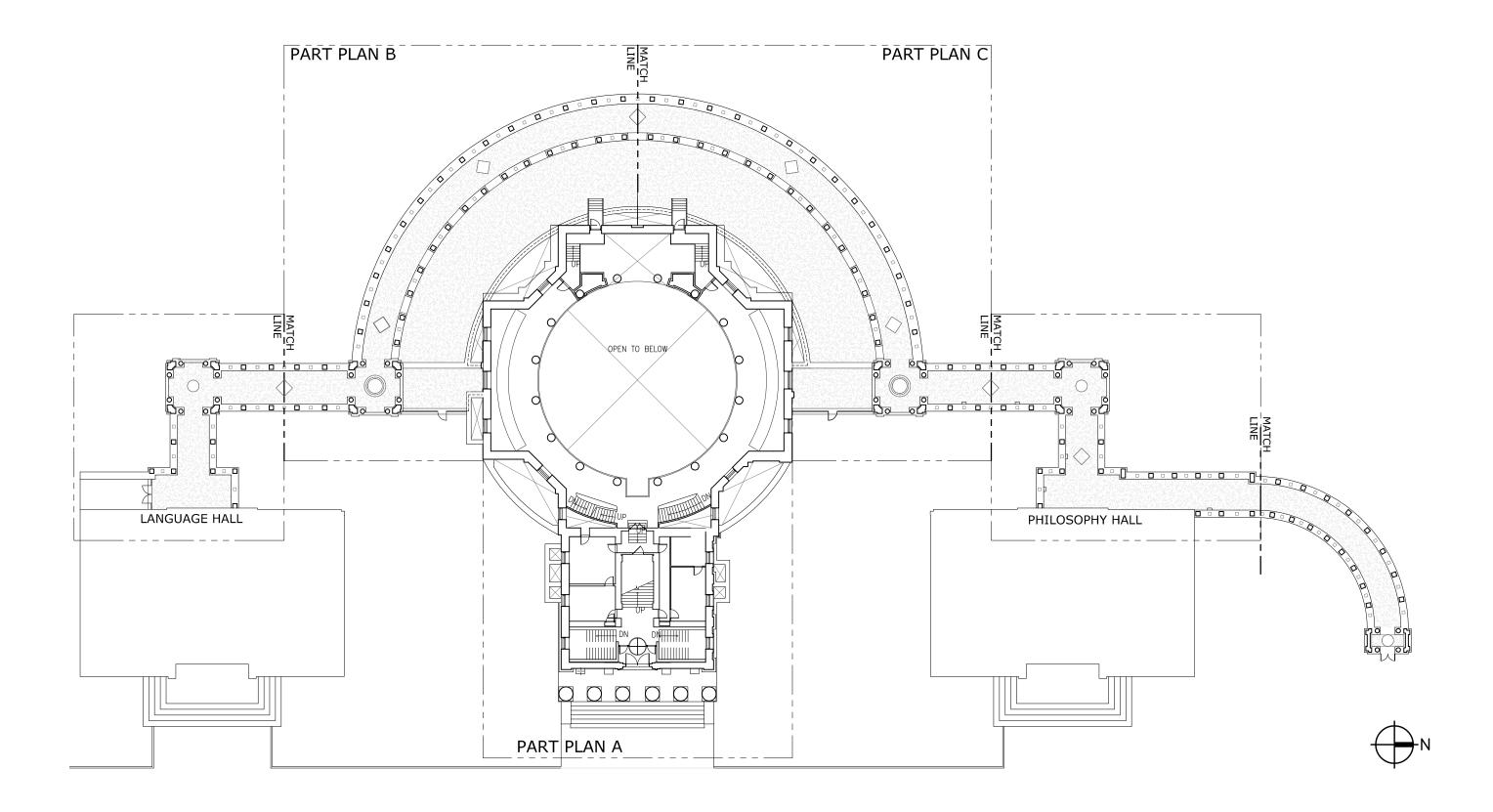


double-hung

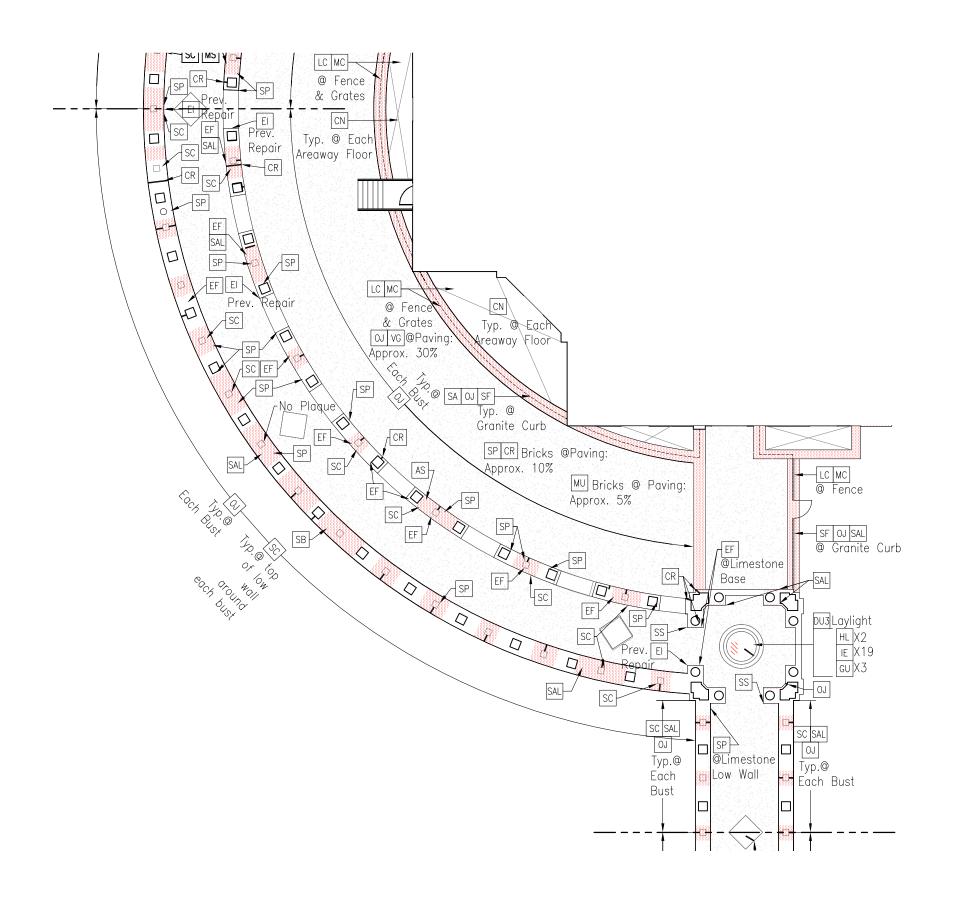
Areaways Covered inaccessible, missing; replacement recommended

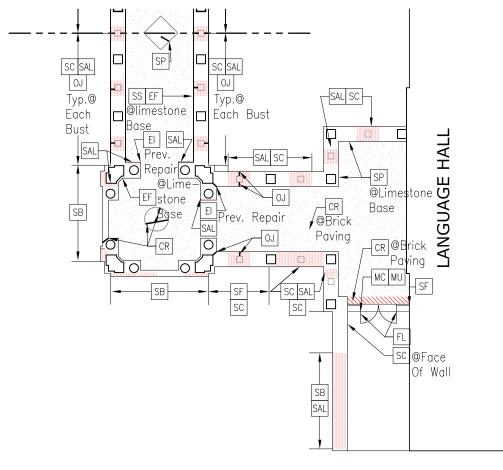
BEYER BLINDER BELLE

# Exterior Key Plan 02 - First Floor

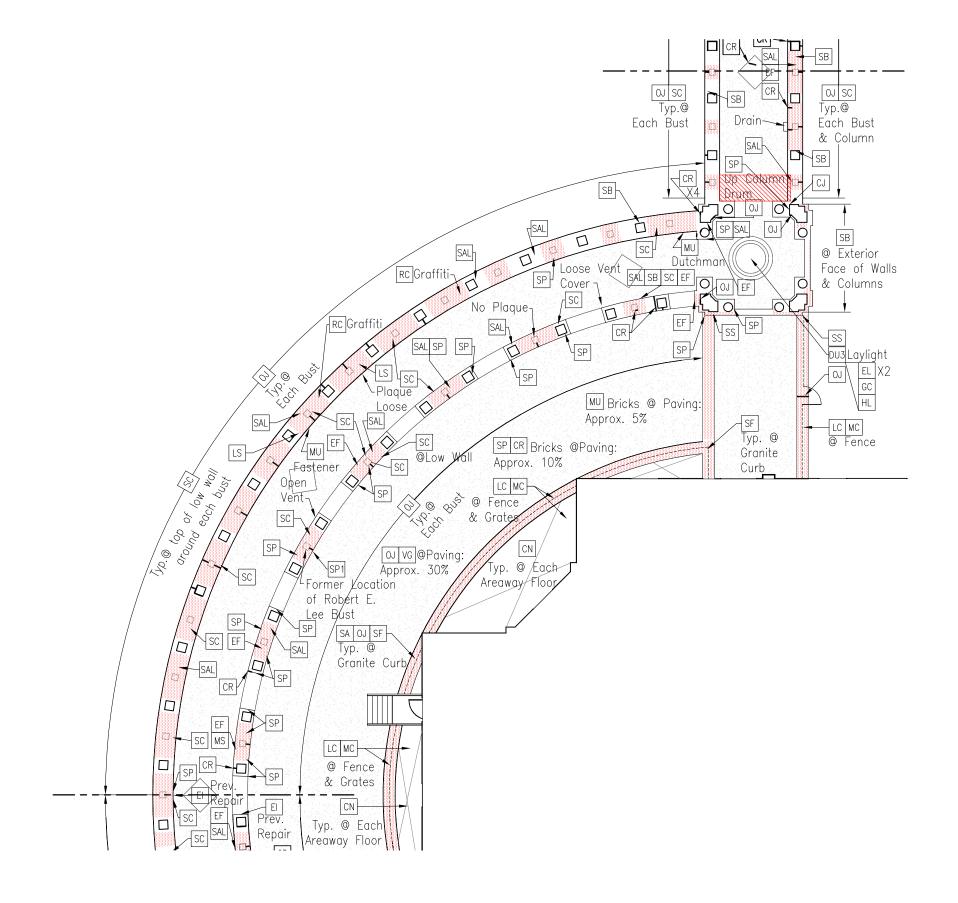


### Exterior Part Plan B - First Floor

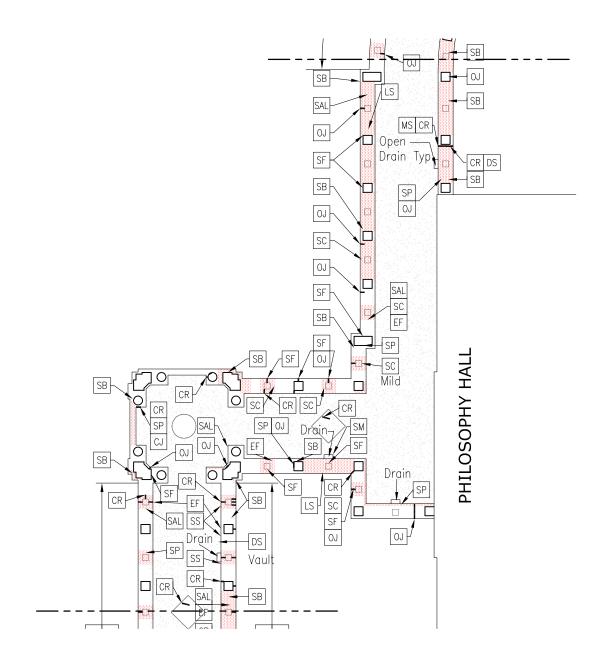


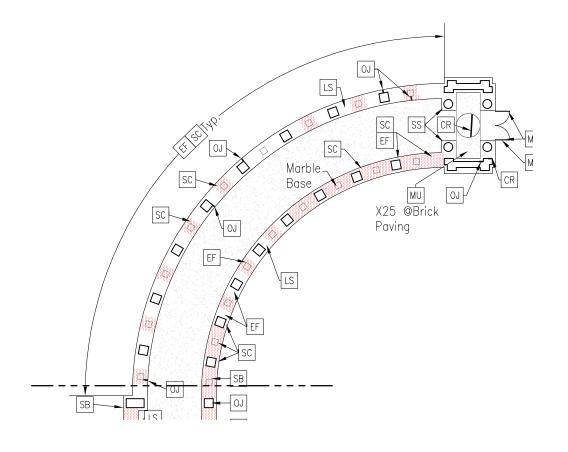


## Exterior Part Plan C - First Floor

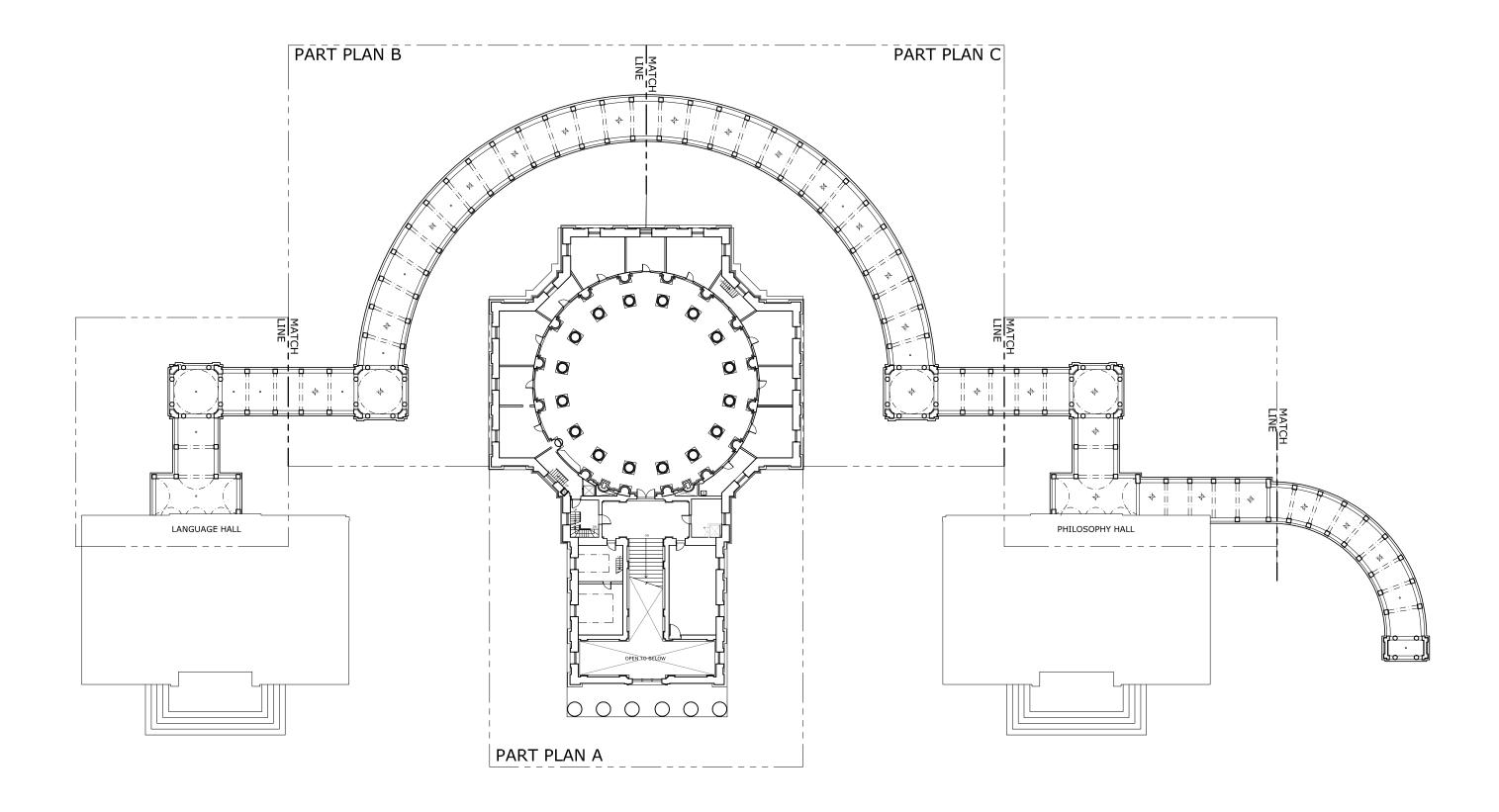


# Exterior Part Plan D- First Floor

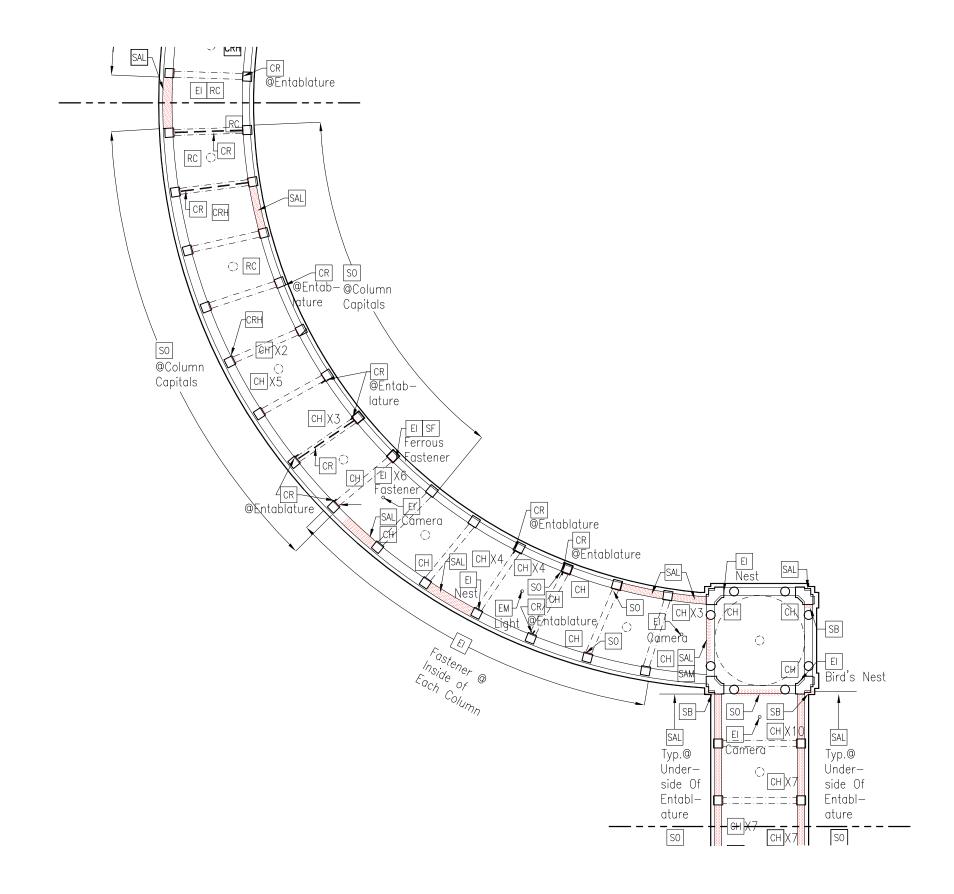


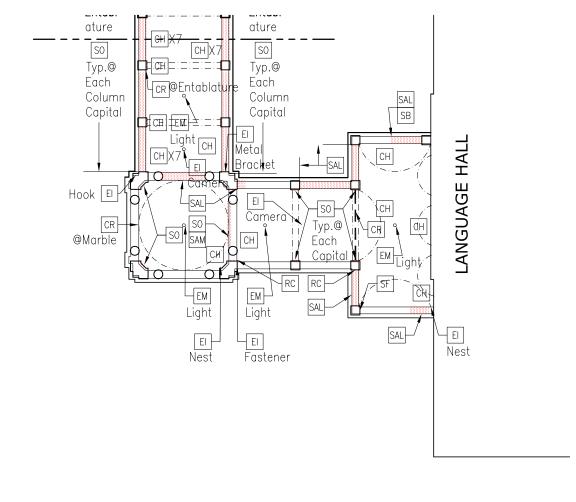


# Exterior Key Plan 03 - Rotunda Level

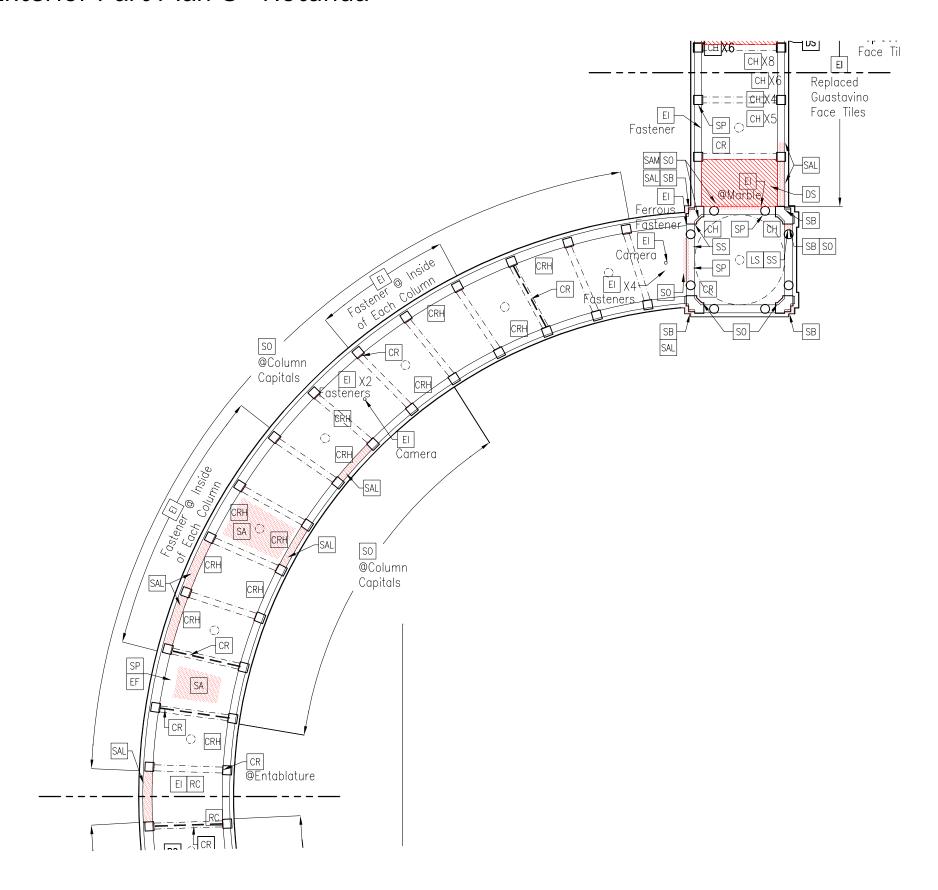


### Exterior Part Plan B - Rotunda Level

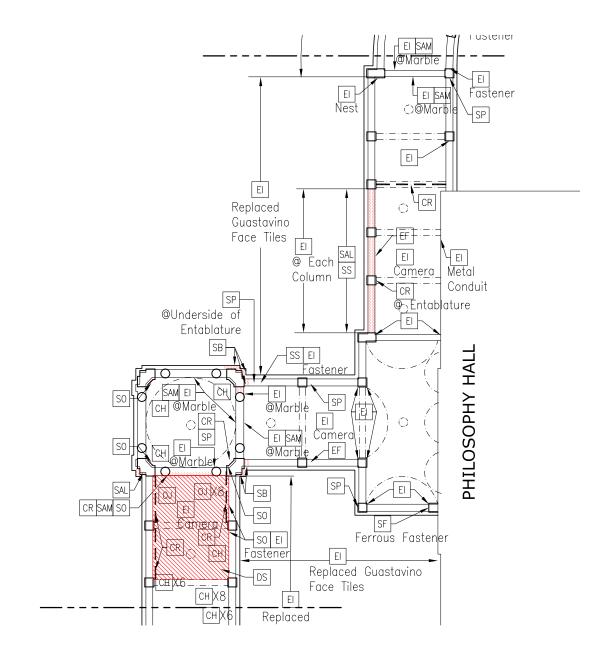


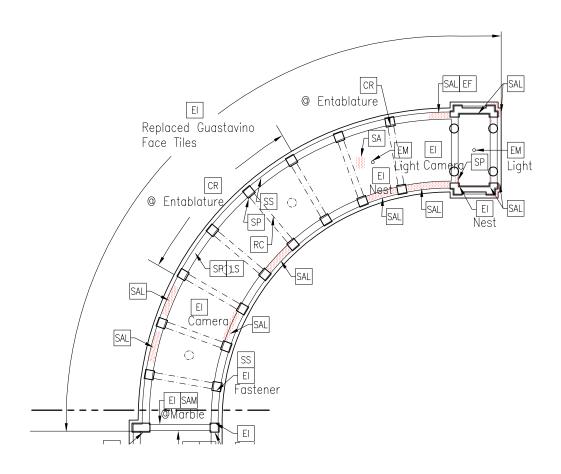


# Exterior Part Plan C - Rotunda



# Exterior Part Plan D - Rotunda





### Exterior - GML Roof Plan

### LEGEND

TERRA COTTA TILE

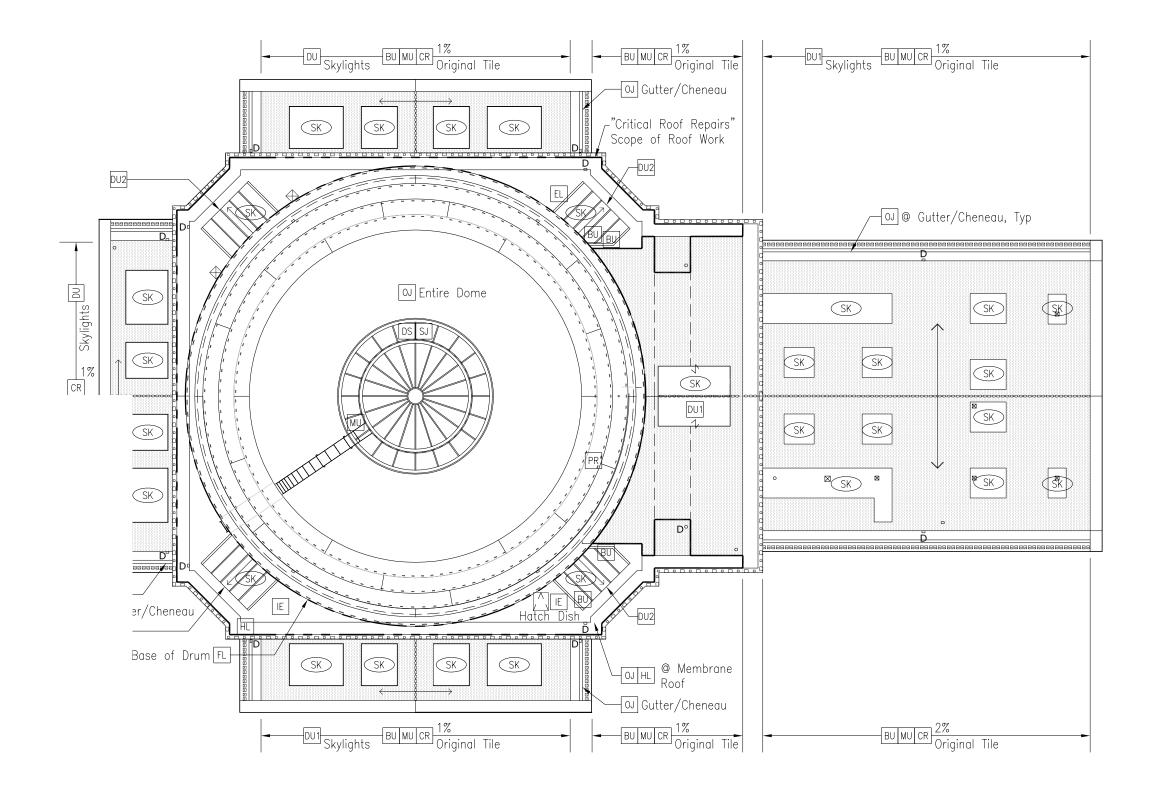
APPROXIMATE PERCENT OF ORIGINAL TILE BROKEN

○ VENT

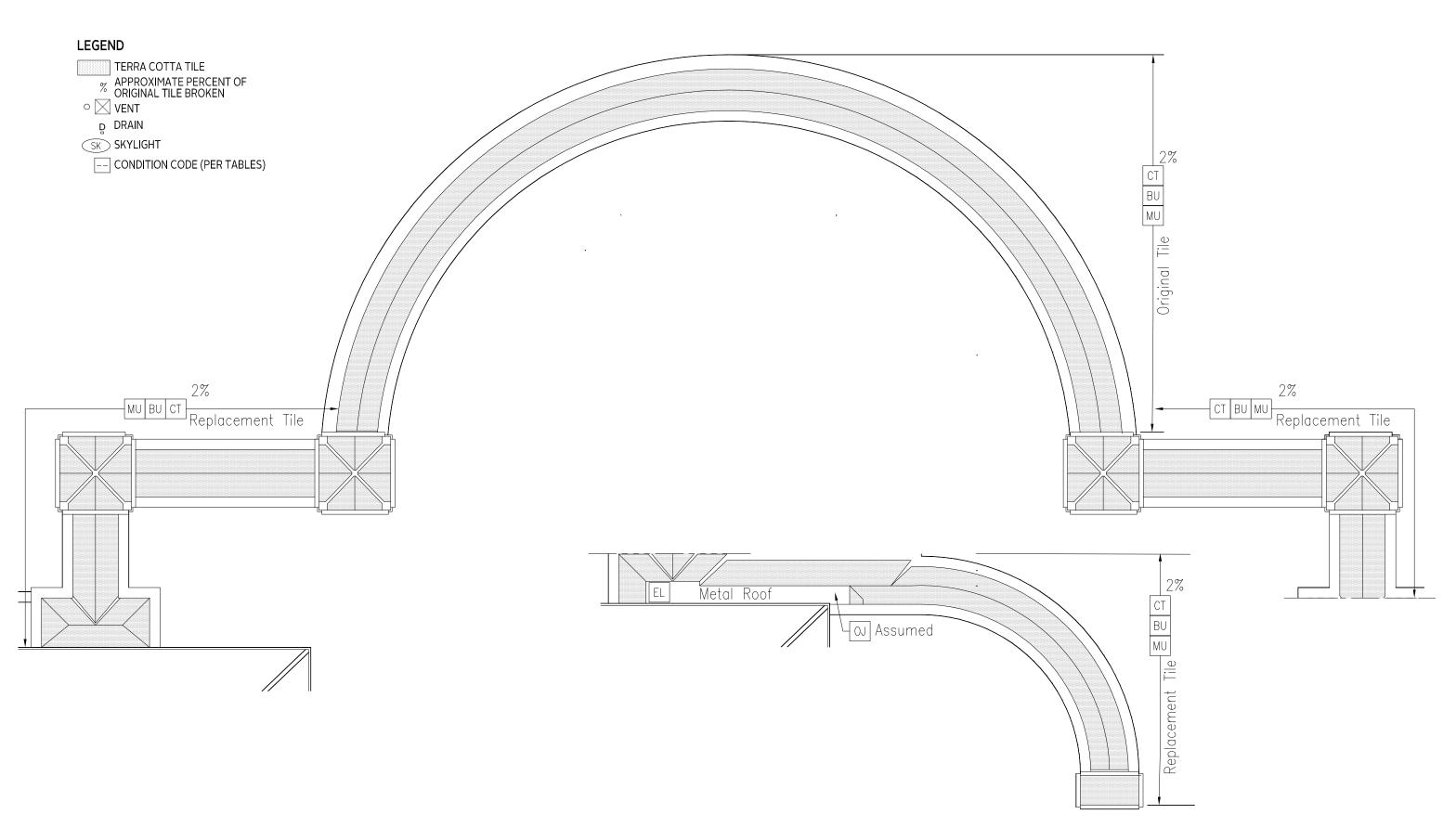
D DRAIN

SK SKYLIGHT

-- CONDITION CODE (PER TABLES)



# Exterior - HOF Roof Plan



# Exterior - Landscape

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
LD1 - LD5	Poor Drainage In locations where water flows toward the building or pathway as a result of settlement or long term erosion activity, the grade may be modified by elevating areas to pitch away from the structure. Where the grade inherently slopes toward the building or walkway a soft swale or drainage gutter can be considered to collect and redirect surface flows.	Modify Grade In locations where water flows toward the building or pathway as a result of settlement or long term erosion activity, the grade may be modified by elevating areas to pitch away from the structure. Where the grade inherently slopes toward the building or walkway a soft swale or drainage gutter can be considered to collect and redirect surface flows.	Level 4	TITIBLE
LD6 - LD11	Erosion Perimeter of HOF has been washed away by run-off from roof scuppers.	Provide Maintenance Border Install a stone maintenance border at the perimeter of the HOF to absorb the impact of roof run off and direct it away from the building wall sloping toward central lawn drains. Drainage gravel below the maintenance strip will aid in reducing rising damp at the buildings limestone base course.	Level 3	
LD12 - LD13	Surfaces Surface spalling of brick paving is evident and surface vegetation is seeded in the joint work between the paving bricks. Level of spalling is modest less than 10 percent of the overall paved surface.  Granite border on areaway grate is two to four inches above the adjacent brick paving.	Replace Paving Replace brick paving that has begun to spall, remove organic vegetation, point any open joints to arrest deterioration and water infiltration.  Assess Granite Areaway Borders It is not certain if this is the original as-built condition or if the paving has settled. The condition should be looked at as a potential safety concern should the HOF terrace be used for public events.	Level 3	
LE1 - LE5	Inappropriate Elements  AC units located west of the Hall of Language within a landscape timber and gravel setting are unsightly, distract from the landscape setting and make noise adjacent to the HOF adversely affecting the experience.  The AC condensing units are unsightly and distract from the curved wall of the GML as seen from Sedgwick Avenue.  Decorative site elements are not in the character of the historic landscape, including metal posts between Philosophy Hall and HOF, concrete and bronze tree memorial, and flagpoles outside of Language Hall.	Improve Mechanical Systems  Units should be relocated away from important views and public areas. Where units cannot be taken out of the public landscape their positioning and treatment the immediate surrounds should reflect historic character of the White complex.  Assess Landscape Elements  Service upgrades (including chilled water, electric, fire alarm, data, etc.) should be installed below grade. Fencing element remaining attached to the historic building will need to be assessed for historic appropriateness and rehabilitated or removed. Memorial marker at the White complex should be treated with the same respect as the markers relocated for improvements of the Quad Landscape Improvements.	Level 5	

### Exterior - Landscape

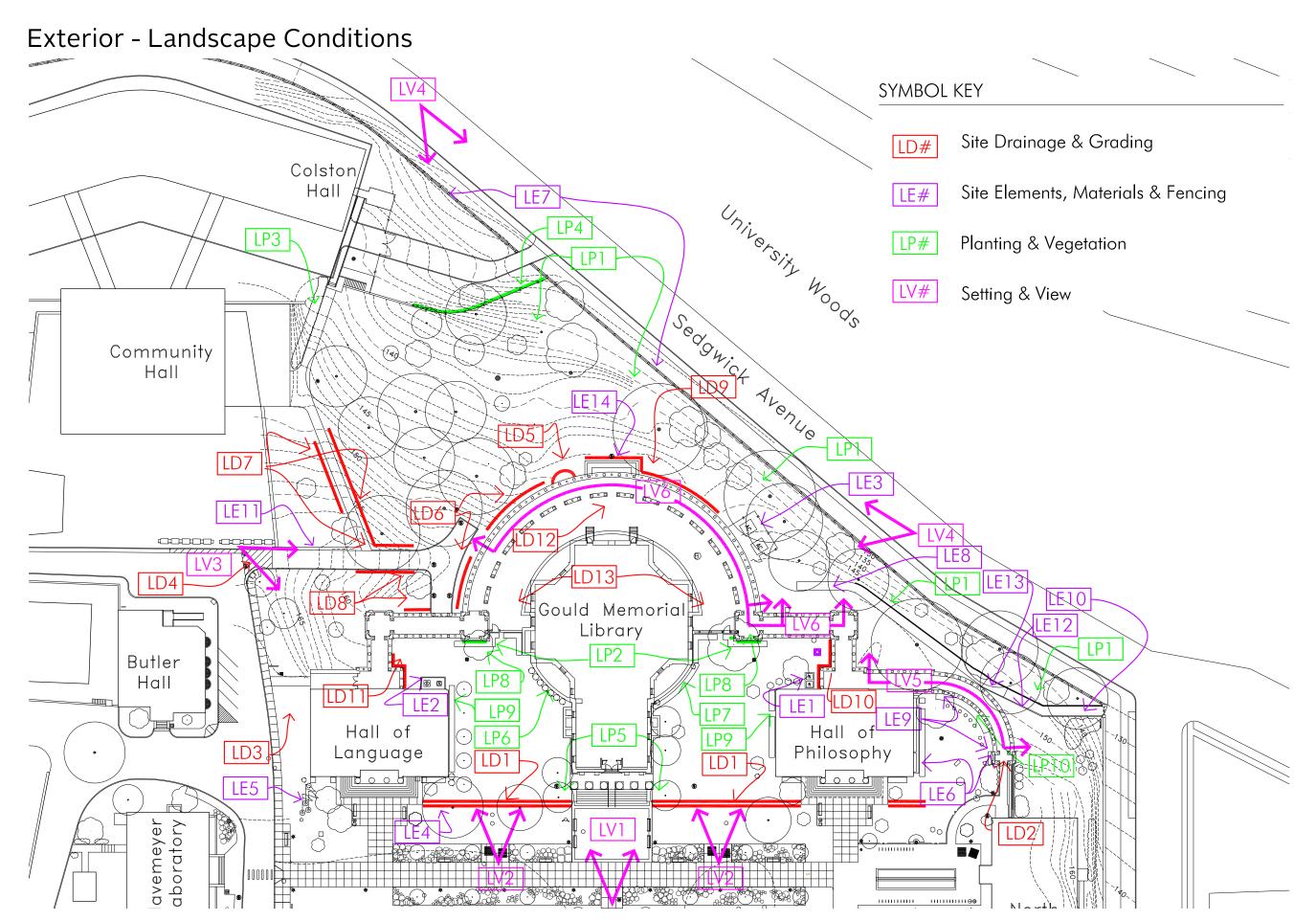
COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
LE6 - LE7	Site Fences Iron fencing along Sedgwick Avenue is in fair to poor condition. Many of the historic acorn finials are missing and the base is rusting from having soil and debris pile up against the post and pickets over several decades. Some minor sections of fence have bent or dislodged pickets.	Fence Repair Iron fencing along Sedgwick Avenue is a contributing element of the historic landscape. Repair/rehabilitation of the fencing to reflect its historic character. Deteriorated site conditions, collected debris, elevated grades and proposed vegetation renewal, need to be addressed as part of the perimeter fence work.	Level 4	
LE8 - LE10	Site Walks  The concrete walk at the northwest auditorium exit is cracked and failing, The walk is blocked off from the corner of Sedgwick Avenue and Hall of Fame Terrace drive by the 8 foot high aluminum fencing.  The concrete walk, metal handrail and downslope stone retaining wall are failed along the west perimeter of the HOF.	Improve Walkway The concrete walk is part of the historic circulation system of the building. Contemporary pedestrian and emergency exit needs for the auditorium will direct the preferred treatment options in this location. The aluminum fencing is a contemporary add addressing security concerns. Its position and relationship to the building needs to reflect the historic setting.	Level 5	
LE11 - LE13	Site Walls The historic steps to the corner of Sedgwick Ave and Hall of Fame terrace gate are no longer present and the gate in operation.  The stepped retaining wall with stone finials upslope of the historic walk and steps is a character feature of the historic landscape and still functions to retain the slope. It is in fair to poor condition.	Repair Walls  The stepped retaining wall is both an historic feature and performs a function in retaining the steep slope. Restoration of the wall to preserve its historic materials and fabric and prevent future failure is the preferred approach. Steps which are no longer present would not be replaced. Re-grading of their location to illustrate the historic circulation pattern and replacement with a secure yet operational gate will serve as a maintenance access for this area.	Level 4	
LE14	Historic Fountain  The fountain at the base of the HOF west slope is in fair to good condition, without operational plumbing systems.	Restore Fountain Repair stone fountain, restore basin and reenergize with flowing water.	Level 5	

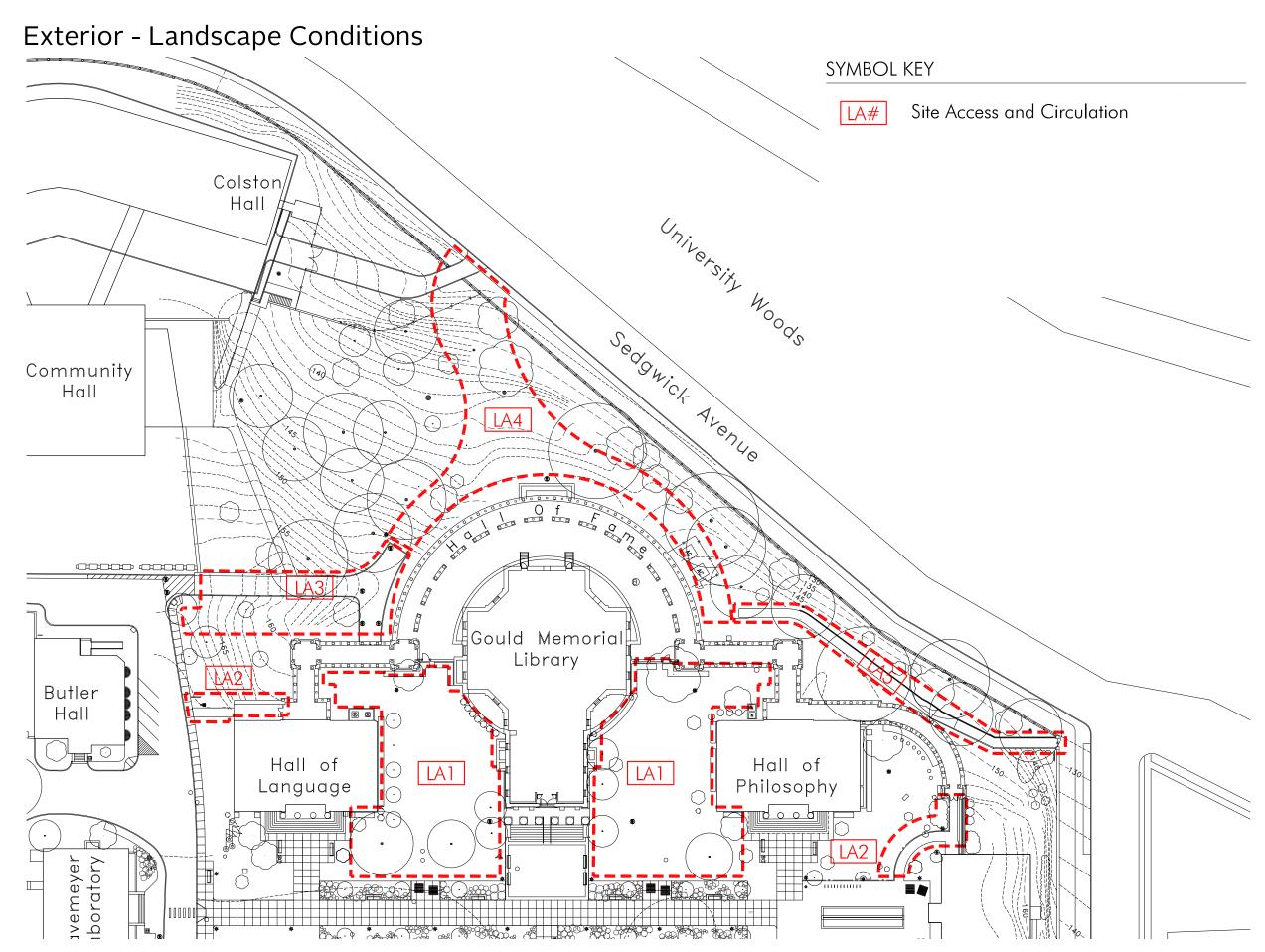
### Exterior - Landscape

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTA	ATIVE PHOTO
LP1 - LP10	Plantings The west sloping bank is covered with invasive vines, brambles, woody shrubs and tree species.  Hedges & invasive vines obstruct and engulf the SW portion of the site.  Vegetation at the east facing the Quad has been altered over time by addition of small ornamental plantings, not in keeping with the historic character and setting.	New Contextual Plantings  Vegetation treatment for the White complex will vary with proximity to the buildings and anticipated uses. Planting at the immediate core of the White buildings is to be reduced and restructured to reinforce the historic structures and framework of the landscape. The slightly sloped west lawn between HOF and Community Hall can remain as a tree canopied turf area refined to reflect the historic setting for the Complex. The lower slope requires removal of invasive species and maintenance strategy to retain open views from Sedgwick Ave.	Level 4		
LV1 - LV3	Visual Obstruction of Buildings  The east façade of GML is partially covered by flanking columnar English oak trees to either side. The view of the GML front façade and pediment is partially blocked from the central and crossing walkways.  Trees are planted that will block the view of the HOF colonnade and GML south facing end wall and dome structure from the campus walks and drive.	Remove Existing & Provide Contextual Plantings Restructure tree and shrub planting to reinforce the historic setting of the White complex while addressing contemporary uses of the immediate buildings surrounds. The process will involve review of historic images, selective removal and appropriate replacement materials.	Level 4		
LV4 - LV6	Obstruction of Views View from the HOF terrace overlooks the north west slope toward the University Woods below. View of the White complex from Sedgwick Drive is obstructed by invasive material and tree growth, adversely altering the setting of the historic campus.	Selective Removal & Thinning Restore the visual relationships between the HOF/GML complex and Sedgwick Avenue by removal of invasive woody and herbaceous materials along the entirety of the frontage. Selective removal and thinning of tree canopies will improve the visual connections and provide historic vistas from the HOF covered walk. Selective thinning of trees atop the slope with removal of low shrub massing between Community Hall and HOF will improve the visual relationship between the structured areas and define this historic landscape area.	Level 3		

### Exterior - Landscape

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
LA1 - LA2	Site Accessibility The landscape areas north and south of GML do not contain paved pedestrian walks to allow ADA access to GML and the HOF, or egress at the lower level.  The gated entry to the HOF is access across the turf covered lawns. The HOF is accessible via a concrete walk that links the Campus green and North Hall and Library to the north end of the HOF walk and terrace.  FDNY access to standpipes is blocked by yew hedgelings and flowering abelia.	Provide Accessible Exterior Routes Provide ADA access to the GML by installing a combined walk-ramp to the north side of GML. The ramp is to maintain a low profile that respects the historic setting with modest detail that relate to the historic structures while discernible.  Improve connectivity in this area of campus by installing pedestrian walk to the HOF terraces to either side of the GML.  Remove vegetation at standpipes.	Level 4	
LA3 - LA4	Site Accessibility The north auditorium archway and west slope is void of any pedestrian walkways. With exception of a path along the fenced AC condensing unit enclosure. The path is constructed of 24X36 inch bluestone paving set in a pea stone gravel.	Provide Accessible Exterior Route Construct walks to provide pedestrian, maintenance and emergency access to the west slope. Walk alignment should reflect historic carriage drive patterns and be constructed of durable materials able to accommodate vehicles and historically appropriate to the setting. Improve connectivity with Community Hall as a shared project with access to the GML Auditorium. Study grades for possible use of combined step, walk, and ramp configurations. Consider on grade emergency exiting below Community Hall to the south.	Level 5	
LA5	Southwest Pedestrian Walk Access The historic steps and walk from the White complex to the corner of Sedgwick Drive and University Terrace is deteriorated, unmaintained and out of service.	Removal The pedestrian connection at this location is no longer viable. The failed steps and walk should be removed.	Level 5	





COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F1-MC Glass and Cast Iron Floor System	Corrosion     Deterioration of cast iron structural members and connections by chemical reaction with their surrounding environment	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace and/or reinforce deteriorated members with new material to match existing.	Level 3	
F1-CR Glass and Cast Iron Floor System	Cracking  • 1/16" to 1/2" wide visible fissures in glass surface, possibly penetrating through the material surface	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	
F1-MD  Glass and Cast Iron Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	<ul> <li>Material Repair or Replacement</li> <li>Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.</li> <li>Additional survey and analysis will be required to determine if penetrated beams require repair or reinforcement.</li> </ul>	Level 3	
F1-LM  Glass and Cast Iron Floor System	Material Loss  Loss of material leaving holes or exposing subsurface layers	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F1-SA  Glass and Cast Iron Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to building elements.	Level 3	
F1-ST  Glass and Cast Iron Floor System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to building elements.	Level 3	
F1-OJ Glass and Cast Iron Floor System	Open Joints  • Joints without caulking	Material Replacement  Determine reason for missing caulk and reseal edges.	Level 3	
F1-LC Glass and Cast Iron Floor System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F1-W Glass and Cast Iron Floor System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
F1-DGC  Glass and Cast Iron Floor System	Deteriorateid Glazing Putty     Minimal amounts of glazing putty at glass remain.	Material Repair or Replacement  Scrape remaining glazing putty away and replace with new glazing compound.	Level 3	
F2-W Wood Floor System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
F2-RT  Wood Floor System	Wood Rot  • The growth of fungi when oxygen, warmth and moisture are present in wood.	Removal of Deteriorated Material  Replace rotted elements and treat new wood to repel agents that cause rotting.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F2-OJ Wood Floor System	Open Joints  • Joints between floor boards have opened and separated.	Material Patching or Replacement  Determine reason for opening of joints. Replace affected areas of floor system.	Level 3	
F2-SW Wood Floor System	Water Damage  • Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	
F2-PR Wood Floor System	Previous Repair  Area where a previous repair was done, including patching and consolidation.	Material Replacement  • Replace inappropriate previous patches.	Level 3	
F2-LC Wood Floor System	Loss of Coating  • Loss of surface coating (stain).	Material Patching or Replacement  Determine reason for coating loss, correct problem and recoat.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F2-CR Wood Floor System	Cracking  • 1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
F2-MD Wood Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F2-LM Wood Floor System	Material Loss  Loss of material leaving holes or exposing subsurface layers  Holes or damage to structural (terra cotta) slab below floor system	<ul> <li>Material Patching or Replacement</li> <li>Patch areas of missing material, if feasible, or replace material to match existing.</li> <li>Additional investigation is required to understand extents of damage from material loss and to document layout of existing structural framing below floor system. Supplemental framing may be required around openings/area of material loss to remain.</li> </ul>	Level 3	
F2-SA Wood Floor System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to building system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F2-SL Wood Floor System	Splintering  Caused by the process of swelling from moisture and drying from heat, or mechanical damage.	Material Repair  Repair by sanding or wood putty.	Level 3	
F2-ST Wood Floor System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F2-HW Wood Floor System	Heaving Wood     Buckling of wood flooring caused by water infiltration, usually from the substrate.	Material Replacement  Identify and elimate water infiltration and replace damaged material.	Level 3	
F2-SD Wood Floor System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F3-SD  Mosaic Tile Floor System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  • Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F3-LM  Mosaic Tile Floor System	Material Loss  • Loss of material leaving holes or exposing subsurface layers	Material Replacement  • Replace lost material to match existing.	Level 3	
F3-MD Mosaic Tile Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F3-PR  Mosaic Tile Floor System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  • Replace inappropriate previous patches.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F3-CR Mosaic Tile Floor System	Cracking  1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface.	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
F3-SA  Mosaic Tile Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F3-ST  Mosaic Tile Floor System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F3-W  Mosaic Tile Floor System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F4-CR Terrrazzo Floor System	Cracking  • 1/16" to 1/2" wide visible fissures in glass surface, possibly penetrating through the material surface	Material Patching or Replacement  Remove and replace damaged material.  Radial cracks at rotunda floor system are most liekly due to the deflection of the cantilevered floor structure. Provide patch material appropriate for increased floor flexibility.	Level 3	
F4-CH Terrazzo Floor System	Hairline Cracking     Numerous shallow cracks across the outer layer of a surface.	<ul> <li>Material Patching or Replacement</li> <li>Patch where appropriate.</li> <li>Radial cracks at rotunda floor system are most liekly due to the deflection of the cantilevered floor structure. Provide patch material appropriate for increased floor flexibility.</li> </ul>	Level 3	
F4-SA Terrazzo Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F4-ST Terrazzo Floor System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.  Staining	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F4-W Terrazzo Floor System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
F4-MD Terrazzo Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F4-LM Terrazzo Floor System	Material Loss  • Loss of material leaving holes or exposing subsurface layers	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
F4-PR Terrazzo Floor System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  Replace inappropriate previous patches.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F5-LM  Concrete Slab Floor System	Material Loss  • Loss of material leaving holes or exposing subsurface layers	<ul> <li>Material Patching or Replacement</li> <li>Patch areas of missing material, if feasible, or replace material to match existing.</li> <li>Additional investigation is required to understand extent of damage from penetration and to document layout of existing steel framing. Supplemental framing may be required around openings/areas of material loss that are to remain.</li> </ul>	Level 3	
F5-MC  Concrete Slab Floor System	Deterioration of cast iron structural members and connections by chemical reaction with their surrounding environment	<ul> <li>Removal of Deteriorated Material</li> <li>Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.</li> <li>Refer to assesment of structural engineer for details on replacement of select cast iron members.</li> </ul>	Level 3	
F5-PR  Concrete Slab Floor System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  • Replace inappropriate previous patches.	Level 3	
F5-SD  Concrete Slab Floor System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F5-CR  Concrete Slab Floor System	Cracking     1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
F5-MD  Concrete Slab Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage	<ul> <li>Material Repair or Replacement</li> <li>Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.</li> <li>Additional investigation is required to understand extent of damage from penetration and to document layout of existing steel framing. Supplemental framing may be required around openings/areas of material loss that are to remain.</li> </ul>	Level 3	
F5-SA  Concrete Slab Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F5-ST  Concrete Slab Floor System	Staining Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F5-W  Concrete Slab Floor System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
F6-SA  Brick Masonry Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F6-ST  Brick Masonry Floor System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F6-SD Brick Masonry Floor System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F6-PR Brick Masonry Floor System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  • Replace inappropriate previous patches.	Level 3	
F6-OJ Brick Masonry Floor System	Open Joints  • Joints without mortar.	Material Replacement  • Repoint masonry with an appropriate mortar.	Level 3	
F6-LC Brick Masonry Floor System	Paint Loss  • Loss of surface paint.	Material Patching or Replacement  • Determine reason for paint loss, correct problem and repaint.	Level 3	
F6-SP Brick Masonry Floor System	Spalling  • Uneven breaking off of the outer layers of masonry.	Material Patching or Replacement  • Remove deteriorated bricks and replace with new masonry.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F6-EF Brick Masonry Floor System	Effloresence     Whitish haze of soluble salts left as deposits on masonry by evaporation of water, generally a symptom of a worse condition or a hint that trouble may be beginning.	Removal of Deteriorated Material  • Clean deposit, identify and eliminate water infiltration.	Level 3	
F6-CR Brick Masonry Floor System	Cracking  • 1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface	Material Replacement  Remove and replace damaged material.	Level 3	
F6-MD Brick Masonry Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F6-LM Brick Masonry Floor System	Material Loss  • Loss of material leaving holes or exposing subsurface layers	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F7-E  Carpet Floor System	Extant  • An existing building system in good condition.	Cyclical Maintenance     Develop a cleaning program to extend life of building system.	Level 3	
F7-MD  Carpet Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F7-LM  Carpet Floor System	Material Loss  Loss of material leaving holes or exposing subsurface layers	Material Replacement  Replace material to match existing.	Level 3	
F7-SA  Carpet Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F7-ST  Carpet Floor System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F7-W  Carpet Floor System	Wear  • The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
F8-SD  Linoleum Tile Floor System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F8-SA  Linoleum Tile Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F8-ST  Linoleum Tile Floor System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.  Staining	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F8-W Linoleum Tile Floor System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Replacement  Leave alone unless severe, then consider replacing.	Level 3	
F8-LM Linoleum Tile Floor System	Material Loss  Loss of material leaving holes or exposing subsurface layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
F8-MD  Linoleum Tile Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F9-SA  Laylight over Tiffany Glass Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F9-MD  Laylight over Tiffany Glass Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F9-CR  Laylight over Tiffany Glass Floor System	Cracking  • 1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface	Material Replacement  Remove and replace damaged material.	Level 3	
F9-LM  Laylight over Tiffany Glass Floor System	Material Loss  Loss of material leaving holes or exposing subsurface layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F10-CR Marble Slab Floor System	Cracking  • 1/16" to 1/2" wide visible fissures in surface, possibly penetrating through the material surface	Material Replacement  • Remove and replace damaged material.	Level 3	
F10-SD Marble Slab Floor System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  • Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F10-LM  Marble Slab Floor System	Material Loss  Loss of material leaving holes or exposing subsurface layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
F10-MD  Marble Slab Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

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COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F10-OJ Marble Slab Floor System	Open Joints  • Joints without grout	Material Replacement  Determine reason for missing grout and regrout.	Level 3	
F10-SA  Marble Slab Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F10-ST  Marble Slab Floor System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F10-W Marble Slab Floor System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F11-LM  Bronze Frame with Terrazzo Infill Floor System	Material Loss  Loss of material leaving holes or exposing subsurface layers	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
F11-SD  Bronze Frame with Terrazzo Infill Floor System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
F11-W Bronze Frame with Terrazzo Infill Floor System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  Leave alone unless severe, then consider replacing.	Level 3	
F11-MD  Bronze Frame with Terrazzo Infill Floor System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
F11-SA  Bronze Frame with Terrazzo Infill Floor System	Soiling  • Surface staining caused by the build-up of pollutants	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
F11-ST  Bronze Frame with Terrazzo Infill Floor System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W1-MC Sheet Metal and Sheet Metal Soffit Wall System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assessment of structural engineer for details on replacement of select cast iron members.	Level 3	
W1-MD  Sheet Metal and Sheet Metal Soffit Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Patching or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W1-LC Sheet Metal and Sheet Metal Soffit Wall System	Paint Loss  • Loss of surface paint.	Material Patching or Replacement  Determine reason for paint loss, correct problem, and repaint.	Level 3	
W1-SA  Sheet Metal and Sheet Metal Soffit Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W1-ST  Sheet Metal and Sheet Metal Soffit Wall System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W1-ED  Sheet Metal and Sheet Metal Soffit Wall System	Deformation  Distortion or changing in shape of a material, usually through the application of pressure.	Material Repair or Replacement  Determine reason for deformation and repair or replace material if necessary.	Level 3	
W1-OJ  Sheet Metal and Sheet Metal Soffit Wall System	Open Joints  • Joints without caulking	Material Patching or Replacement  Determine reason for missing caulk and reseal edges.	Level 3	TO SMOKING IN THIS ROOM
W1-PR Sheet Metal and Sheet Metal Soffit Wall System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  Replace inappropriate previous patches.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W2-BL Painted Plaster Wall System	Blistering Paint     Swelling and rupturing of top layer, generally first stage of exfoliation.	Material Patching or Replacement  Identify cause of blistering and remedy. Remove deteriorated paint and repaint.	Level 3	
W2-CR Painted Plaster Wall System	Cracking  • 1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface	Material Replacement  Remove and replace damaged material.	Level 3	
W2-CH Painted Plaster Wall System	Hairline Cracking     Numerous shallow cracks across the outer layer of a surface.	Material Patching or Replacement  • Patch where appropriate.	Level 3	
W2-LM  Painted Plaster  Wall System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W2-LC Painted Plaster Wall System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
W2-SA Painted Plaster Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W2-SP Painted Plaster Wall System	Spalling  • Uneven breaking off of the outer layers of plaster.	Material Patching or Replacement  Remove decayed plaster to sound material; patch or replace with new plaster. Repaint.	Level 3	
W2-ST  Painted Plaster  Wall System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W2-SW Painted Plaster Wall System	Water Damage Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	
W2-EF Painted Plaster Wall System	Effloresence     Whitish haze of soluble salts left as deposits on masonry by evaporation of water, generally a symptom of a worse condition or a hint that trouble may be beginning.	Removal of Biological Material  Clean deposit, identify and eliminate water infiltration. If plaster behind efflorescense is damaged, remove and replace.	Level 3	
W2-SB  Painted Plaster  Wall System	Biological Growth     Surface growth having biological origins, typically found in damp locations.	Develop Cleaning Program     Clean, identify source of water infiltration and remedy cause. If severe, replace deteriorated material.	Level 3	
W2-W Painted Plaster Wall System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W2-G Painted Plaster Wall System	Grafiti • Paint sprayed on surface.	Develop Cleaning Program  Investigate proper removal methods, where appropriate, without damaging material.	Level 3	Tutu I
W2-MD Painted Plaster Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W2-SD Painted Plaster Wall System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W2-OJ Painted Plaster Wall System	Open Joints  • Joints without caulking	Material Patching or Replacement  • Determine reason for missing caulk and reseal edges.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W2-OP Painted Plaster Wall System	Overpainted  • Multiple layers of paint.	Material Patching or Replacement  Leave alone unless other forms of deterioration, then scrape to substrate and repaint.	Level 3	
W2-PR Painted Plaster Wall System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  • Replace inappropriate previous patches.	Level 3	
W2-ED Painted Plaster Wall System	Deformation  Distortion or changing in shape of a material, usually through the application of pressure.	Material Repair or Replacement  Determine reason for deformation and repair or replace material if necessary.	Level 3	
W3-G Brick Masonry Wall System	Grafiti • Paint sprayed on surface.	Develop Cleaning Program     Investigate proper removal methods where appropriate without damaging material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W3-SP Brick Masonry Wall System	Spalling  • Uneven breaking off of the outer layers of masonry.	Material Replacement  Remove deteriorated masonry and replace with new bricks and appropriate mortar.	Level 3	
W3-CR Brick Masonry Wall System	Cracking     1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface	Material Replacement     Remove deteriorated bricks and replace with new masonry.	Level 3	
W3-LC Brick Masonry Wall System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
W3-PR Brick Masonry Wall System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  Replace inappropriate previous patches.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W3-ST  Brick Masonry  Wall System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W3-SB  Brick Masonry  Wall System	Biological Growth  • Surface growth having biological origins, typically found in damp locations.	Develop Cleaning Program     Clean, identify source of water infiltration and remedy cause. If severe, replace deteriorated material.	Level 3	
W3-MD Brick Masonry Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment	<ul> <li>Material Repair or Replacement</li> <li>Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.</li> <li>If mechanical element is to remain, install new lintel above existing penetration.</li> </ul>	Level 3	
W3-EF Brick Masonry Wall System	Effloresence     Whitish haze of soluble salts left as deposits on masonry by evaporation of water, generally a symptom of a worse condition or a hint that trouble may be beginning.	Develop Cleaning Program     Clean deposit, identify and eliminate water infiltration.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W3-SA Brick Masonry Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	EIII
W3-SD Brick Masonry Wall System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W3-OJ Brick Masonry Wall System	Open Joints  • Joints without mortar	Material Repair or Replacement  • Repoint masonry with an appropriate mortar.	Level 3	
W3-LM Brick Masonry Wall System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W4-MD Tile Wall System	Mechanical Damage     Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W4-LM Tile Wall System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
W4-SA Tile Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W4-SP Tile Wall System	Spalling  • Uneven breaking off of the outer layers of masonry.	Material Replacement  Remove deteriorated tile. Replace with new tile and appropriate setting bed and grout.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W4-PR Tile Wall System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  • Replace inappropriate previous patches.	Level 3	
W5-RT Wood Trim Wall System	Wood Rot  • The growth of fungi when oxygen, warmth and moisture are present in wood.	Material Replacement and Treatment  Replace rotted elements and treat new wood to repel agents that cause rotting.	Level 3	
W5-SA Wood Trim Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W5-LM Wood Trim Wall System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W5-W Wood Trim Wall System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
W5-OJ Wood Trim Wall System	Open Joints  • Open and separating joints between adjoining wood elements.	Material Patching or Replacement  • Determine reason for opening joints and fill open joints.	Level 3	
W5-LC Wood Trim Wall System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
W5-SD  Wood Trim  Wall System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W5-SL Wood Trim Wall System	Splintering  Caused by the process of swelling from moisture and drying from heat, or mechanical damage.	Repair of Deteriorated Material  Repair by sanding or wood putty.	Level 3	
W5-ST  Wood Trim  Wall System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	6.0
W5-MD  Wood Trim Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W5-CR Wood Trim Wall System	Crack  • 1/16 to ½ inch wide visible fissure, possibly penetrating through the surface.	Material Replacement  Remove and replace damaged material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W6-MD Wood Panel Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W6-LM Wood Panel Wall System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
W6-SA  Wood Panel Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	NAMES OF THE PARTY
W6-W Wood Panel Wall System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W6-LC Wood Panel Wall System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
W6-SB Wood Panel Wall System	Biological Growth  Surface growth having biological origins, typically found in damp locations.	Develop Cleaning Program     Clean, identify source of water infiltration and remedy cause. If severe, replace deteriorated material.	Level 3	
W6-CH Wood Panel Wall System	Hairline Cracking     Numerous shallow cracks across the outer layer of a surface.	Material Patching or Replacement  • Patch where appropriate.	Level 3	
W6-ST Wood Panel Wall System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W6-RT  Wood Panel Wall System	Wood Rot  The growth of fungi when oxygen, warmth and moisture are present in wood.	Material Replacement and Treatment  Replace rotted elements and treat new wood to repel agents that cause rotting.	Level 3	
W7-SA  Wood Framed Plywood Partition Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W7-OJ  Wood Framed Plywood Partition Wall System	Open Joints  • Joints without caulking	Material Patching or Replacement  Determine reason for missing caulk and reseal edges.	Level 3	
W7-MD  Wood Framed Plywood Partition Wall System	Mechanical Damage     Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W7-LM  Wood Framed Plywood Partition  Wall System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
W8-SA  Marble Slab  Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	V
W8-ST  Marble Slab  Wall System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W8-OJ Marble Slab Wall System	Open Joints  • Joints without caulking or grout	Material Patching or Replacement  Determine reason for missing joint sealant and reseal.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W9-OJ Vinyl Trim Wall System	Open Joints  Open, separating joints between segments of vinyl trim.	Material Reapir or Replacement  Reinstall trim to eliminate gaps at joints between segments, if possible; if necessary, replace segments of trim to allow closed joints between segments.	Level 3	
W9-SD Vinyl Trim Wall System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W9-SA Vinyl Trim Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W9-MD Vinyl Trim Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W10-SA  Mosaic Frieze  Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	WEST O WHAT IN ME O
W11-W Stone Masonry Wall System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
W11-OJ Stone Masonry Wall System	Open Joints  • Joints without mortar or caulk	Material Replacement  Repoint with appropriate mortar; install new caulk if expansion joint is required.	Level 3	
W11-SA Stone Masonry Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W11-ST  Stone Masonry Wall System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W11-CR Stone Masonry Wall System	• 1/16 to ½ inch wide visible fissures, possible penetrating through the surface.	Material Replacement  Remove and replace damaged material.	Level 3	
W11-MD Stone Masonry Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W11-LM Stone Masonry Wall System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W11-EF Stone Masonry Wall System	Effloresence  • Whitish haze of soluble salts left as deposits on masonry by evaporation of water, generally a symptom of a worse condition or a hint that trouble may be beginning.	Develop Cleaning Program     Clean deposit, identify and eliminate water infiltration.	Level 3	
W12-W Plaster Balustrade Wall System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
W12-MD  Plaster Balustrade  Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W12-LM  Plaster Balustrade  Wall System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W12-SA  Plaster Balustrade  Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W12-LC  Plaster Balustrade  Wall System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
W13-OJ  Concrete Coated Pier and Door Surround Wall System	Open Joints  • Joints without mortar or caulking	Material Replacement  Repoint with appropriate mortar; install new caulk if expansion joint is required.	Level 3	
W13-W  Concrete Coated Pier and Door Surround Wall System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W13-SA  Concrete Coated Pier and Door Surround Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W13-CR  Concrete Coated Pier and Door Surround Wall System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
w13-ST  Concrete Coated Pier and Door Surround Wall System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
w13-MD  Concrete Coated Pier and Door Surround Wall System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W14-SA  Metal Mesh Partition  Wall System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
W14-LC  Metal Mesh Partition  Wall System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
W14-MC  Metal Mesh Partition  Wall System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assesment of structural engineer for details on replacement of select cast iron members.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
W15-MD  Toilet Partitions Wall System	Mechanical Damage     Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
W15-MC Toilet Partitions Wall System	Corrosion     Deterioration of material by a chemical reaction with its environment.	<ul> <li>Removal of Deteriorated Material</li> <li>Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.</li> <li>Refer to assesment of structural engineer for details on replacement of select cast iron members.</li> </ul>	Level 3	
W15-LC  Toilet Partitions  Wall System	Paint Loss  • Loss of surface paint.	Material Replacement  • Determine reason for paint loss, correct problem and repaint.	Level 3	
W15-SD  Toilet Partitions Wall System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CM1-MC  Cast Iron  Column System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace and/or reinforce deteriorated members with new material to match existing.	Level 3	CUNTY CONTROL OF THE PARTY OF T
CM1-SA  Cast Iron Column System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
CM1-ST  Cast Iron Column System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
CM1-LC  Cast Iron Column System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CM1-OP  Cast Iron Column System	Overpainted  • Multiple layers of paint.	Material Patching or Replacement  Leave alone unless other forms of deterioration are present, then scrape to substrate and repaint.	Level 3	
CM1-SD  Cast Iron Column System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
CM1-CR  Cast Iron  Column System	Crack • 1/16 to ½ inch wide visible fissure, possibly penetrating through the surface.	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
CM1-MD  Cast Iron Column System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment  Mechanical Components or equipment  Mechanical Components or equipment  Mechanical Damage  Mechanical	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CM2-LC  Engaged Sheet Metal with Plaster Capital Column System	Paint Loss  • Loss of surface paint.	Material Replacement     Determine reason for paint loss, correct problem and repaint.	Level 3	
CM2-ST  Engaged Sheet Metal with Plaster Capital Column System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
CM2-SA  Engaged Sheet Metal with Plaster Capital Column System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
CM2-CR  Engaged Sheet Metal with Plaster Capital  Column System	<ul> <li>Crack</li> <li>1/16 to ½ inch wide visible fissure in surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CM2-LM  Engaged Sheet Metal with Plaster Capital  Column System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
CM2-MD  Engaged Sheet Metal with Plaster Capital Column System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
CM3-SA  Marble with Plaster Capital Column System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
CM3-MD  Marble with Plaster Capital Column System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CM3-ST  Marble with Plaster Capital Column System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.  The problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
CM4-LC  Plaster with Plaster Capital Column System	Paint Loss  • Loss of surface paint.	Material Replacement     Determine reason for paint loss, correct problem and repaint.	Level 3	
CM4-SD  Plaster with Plaster Capital Column System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
CM4-SA  Plaster with Plaster Capital Column System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
CM4-CR  Plaster with Plaster Capital Column System	<ul> <li>Crack</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
CM4-CH  Plaster with Plaster Capital Column System	Hairline Cracking     Numerous shallow cracks across the outer layer of a surface.	Material Patching or Replacement  • Patch where appropriate.	Level 3	
CM4-MD  Plaster with Plaster Capital Column System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
CM4-W  Plaster with Plaster Capital Column System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C1-MC  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace and/or reinforce deteriorated members with new material to match existing.	Level 3	
C1-MD  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mech	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
C1-SA  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C1-LC  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C1-ST  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C1-CR  Cast Iron Ceiling Support (beams/ grid) Ceiling System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Replacement  Remove and replace damaged material.	Level 3	
C1-DGC  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Deteriorateid Glazing Putty     Minimal amounts of glazing putty remain.	Material Repair or Replacement  Scrape remaining glazing putty away and replace with new glazing compound.	Level 3	
C1-LM  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C1-PR  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  • Replace inappropriate previous patches.	Level 3	
C1-SD  Cast Iron Ceiling Support (beams/ grid) Ceiling System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
C2-EF  Painted Plaster  Ceiling System	Effloresence  • Whitish haze of soluble salts left as deposits on masonry by evaporation of water, generally a symptom of a worse condition or a hint that trouble may be beginning.	Develop Cleaning Program  • Clean deposit, identify and eliminate water infiltration.	Level 3	
C2-MD  Painted Plaster Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mech	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C2-BL  Painted Plaster  Ceiling System	Blistering Paint     Swelling and rupturing of top layer, generally first stage of exfoliation.	Material Repair or Replacement  Clean, identify source of water infiltration and remedy cause. Repair substrate, if necessary, and repaint.	Level 3	
C2-CR Painted Plaster Ceiling System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
C2-CH  Painted Plaster  Ceiling System	Hairline Cracking     Numerous shallow cracks across the outer layer of a surface.	Material Patching or Replacement  • Patch where appropriate.	Level 3	
C2-LM  Painted Plaster  Ceiling System	Material Loss  • Loss of material leaving holes or exposing inner layers.	<ul> <li>Material Patching or Replacement</li> <li>Patch areas of missing material, if feasible, or replace material to match existing.</li> <li>Additional investigation will be required to understand extent of damage from loss of material and substrate and to document the layout of the existing structural framing. Supplemental framing may be required around openings/areas of material loss that are to remain.</li> </ul>	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C2-LC Painted Plaster Ceiling System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
C2-SA  Painted Plaster Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C2-SP  Painted Plaster  Ceiling System	Spalling  • Uneven breaking off of the outer layers of masonry.	Material Patching or Replacement  Remove decayed plaster to sound material; patch or replace with new plaster. Repaint.	Level 3	
C2-ST  Painted Plaster  Ceiling System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C2-SW  Painted Plaster  Ceiling System	Water Damage  • Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	
C2-PR Painted Plaster Ceiling System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  Replace inappropriate previous patches.	Level 3	
C2-W Painted Plaster Ceiling System	Wear  • The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C3-PR  Plaster Soffit  Ceiling System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  Replace inappropriate previous patches.	Level 3	
C3-SP  Plaster Soffit Ceiling System	Spalling  • Uneven breaking off of the outer layers of plaster.	Material Patching or Replacement  Remove decayed plaster to sound material; patch or replace with new plaster. Repaint.	Level 3	
C3-LM  Plaster Soffit  Ceiling System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
C3-LC  Plaster Soffit  Ceiling System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C3-MD  Plaster Soffit  Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
C3-ST  Plaster Soffit  Ceiling System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C3-CR  Plaster Soffit  Ceiling System	Cracking  • 1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.	Material Patching or Replacement  Remove and replace damaged material.	Level 3	AH A
C3-SB  Plaster Soffit Ceiling System	Biological Growth  Surface growth having biological origins, typically found in damp locations.	Develop Cleaning Program     Clean, identify source of water infiltration and remedy cause. If severe, replace deteriorated material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C4-SA  Concrete Slab  Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C4-MD  Concrete Slab  Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
C4-SP  Concrete Slab Ceiling System	Spalling  • Uneven breaking off of the outer layers of masonry.	Material Patching or Replacement  Cutting and resurfacing, remove decayed layers and patch; in severe cases,replace with new masonry and concrete.	Level 3	
C4-ST  Concrete Slab  Ceiling System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C4-CR  Concrete Slab  Ceiling System	Cracking  • 1/16 to ½ inch wide visible fissure in surface, possibly penetrating through the surface.	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
C4-LC  Concrete Slab  Ceiling System	Paint Loss  • Loss of surface paint.	Material Replacement  • Determine reason for paint loss, correct problem and repaint.	Level 3	
C4-LM  Concrete Slab  Ceiling System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C5-LC Brick Masonry Ceiling System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
C5-OJ Brick Masonry Ceiling System	Open Joints  • Joints without mortar.	Material Repair or Replacement  • Repoint masonry with an appropriate mortar.	Level 3	
C5-MD Brick Masonry Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
C5-LM Brick Masonry Ceiling System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C5-SA  Brick Masonry Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C5-CR Brick Masonry Ceiling System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possible penetrating through the surface.</li> </ul>	Material Replacement  • Remove and replace damaged material.	Level 3	
C5-SP  Brick Masonry Ceiling System	Spalling  • Uneven breaking off of the outer layers of masonry.	Material Replacement  Remove deteriorated masonry and replace with new bricks and appropriate mortar.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C6-LM  Guastavino Tile  Ceiling System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
C6-SA  Guastavino Tile Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C6-OJ Guastavino Tile Ceiling System	Open Joints  • Joints without mortar	Material Repair or Replacement  • Repoint tile with an appropriate mortar.	Level 3	
C6-EF  Guastavino Tile  Ceiling System	Efflorescence  • Whitish haze of soluble salts left as deposits on masonry by evaporation of water, generally a symptom of a worse condition or a hint that trouble may be beginning.	Develop Cleaning Program     Clean deposit, identify and eliminate water infiltration.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C6-SP  Guastavino Tile Ceiling System	Spalling  • Uneven breaking off of the intrados of the masonry.	Material Replacement  Remove deteriorated tile and replace with new tiles and appropriate mortar.	Level 3	
C6-ST  Guastavino Tile Ceiling System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C7-MC Steel Beams Ceiling System  (Brick Vault or Corrugated Metal Deck Infill)	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove (scrape) corrosion and corrosive products and paint steel to remain; in severe cases, replace deteriorated members with new material to match existing.	Level 3	
C7-LC  Steel Beams Ceiling System  (Brick Vault or Corrugated Metal Deck Infill)	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C8-CR  Cast Iron Grid with Wood Bead Board Ceiling System	Cracking  • 1/16 to ½ inch wide visible fissure in surface, possibly penetrating through the surface.	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	
C8-W  Cast Iron Grid with Wood Bead Board Ceiling System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
C8-EF  Cast Iron Grid with Wood Bead Board Ceiling System	Efflorescence  Whitish haze of soluble salts left as deposits on masonry by evaporation of water, generally a symptom of a worse condition or a hint that trouble may be beginning.	Develop Cleaning Program  • Clean deposit, identify and eliminate water infiltration.	Level 3	
C8-G  Cast Iron Grid with Wood Bead Board Ceiling System	Grafiti • Paint sprayed on surface.	Develop Cleaning Program     Investigate proper removal methods where appropriate without damaging material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C8-MC  Cast Iron Grid with Wood Bead Board Ceiling System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assesment of structural engineer for details on replacement of select cast iron members.	Level 3	
C8-ST  Cast Iron Grid with Wood Bead Board Ceiling System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C8-SA  Cast Iron Grid with Wood Bead Board Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C8-MD  Cast Iron Grid with Wood Bead Board Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C8-LC  Cast Iron Grid with Wood Bead Board Ceiling System	Paint Loss  Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
C8-SB  Cast Iron Grid with Wood Bead Board Ceiling System	Biological Growth  Surface growth having biological origins, typically found in damp locations.	Develop Cleaning Program     Clean, identify source of water infiltration and remedy cause. If severe, replace deteriorated material.	Level 3	
C8-RT  Cast Iron Grid with Wood Bead Board Ceiling System	Wood Rot  The growth of fungi when oxygen, warmth and moisture are present in wood.	Material Repair or Replacement  Replace rotted elements and treat new wood to repel agents that cause rotting.	Level 3	
C8-LM  Cast Iron Grid with Wood Bead Board Ceiling System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C8-PR  Cast Iron Grid with Wood Bead Board Ceiling System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  Replace inappropriate previous patches.	Level 3	
C8-OJ  Cast Iron Grid with Wood Bead Board Ceiling System	Open Joints  • Joints without caulking	Material Patching or Replacement  • Determine reason for opening of joints. Replace affected areas.	Level 3	
C9-SA  Wood Bead Board Ceiling and Soffits Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C9-LC  Wood Bead Board Ceiling and Soffits Ceiling System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C9-MD  Wood Bead Board Ceiling and Soffits Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
C9-CR  Wood Bead Board Ceiling and Soffits Ceiling System	Cracking  • 1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	
C9-LM  Wood Bead Board Ceiling and Soffits Ceiling System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
C10-SW  Acoustic Ceiling Tile Ceiling System	Water Damage     Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C10-DS  Acoustic Ceiling Tile Ceiling System	Displacement     Movement of a building material or element from its original location.	Removal of Deteriorated Material  Investigation to determine cause of movement and then subsequent repair.	Level 3	
C10-ST  Acoustic Ceiling Tile Ceiling System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C10-MD Acoustic Ceiling Tile Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
C10-LM  Acoustic Ceiling Tile Ceiling System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Replacement  Replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C11-CR  Cast Iron and Glass Skylight Ceiling System	Cracking  • 1/16 to ½ inch wide visible fissure in glass surface, possibly penetrating through the surface.	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	
C11-LM  Cast Iron and Glass Skylight Ceiling System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
C11-MC  Cast Iron and Glass Skylight Ceiling System	Deterioration of material by a chemical reaction with its environment.	<ul> <li>Removal of Deteriorated Material</li> <li>Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.</li> <li>Refer to assesment of structural engineer for details on replacement of select cast iron members.</li> </ul>	Level 3	
C11-PR Cast Iron and Glass Skylight Ceiling System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  • Replace inappropriate previous patches.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C11-SA  Cast Iron and Glass Skylight Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C11-DS  Cast Iron and Glass Skylight Ceiling System	Displacement     Movement of a building material or element from its original location.	Removal of Deteriorated Material  Investige to determine cause of movement and then subsequent repair.	Level 3	
C11-ST  Cast Iron and Glass Skylight Ceiling System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C11-DGC Cast Iron and Glass Skylight Ceiling System	Deteriorateid Glazing Putty     Minimal amounts of glazing putty at glass remain.	Material Repair or Replacement  Scrape remaining glazing putty away and replace with new glazing compound.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C12-SA  Cast Iron and Glass Oculus Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C13-LM  Wood and Glass  Laylight  Ceiling System	Material Loss     Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
C13-MD  Wood and Glass Laylight Ceiling System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
C13-CR  Wood and Glass  Laylight  Ceiling System	<ul> <li>Crack</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C13-SL  Wood and Glass Laylight Ceiling System	Splintering  Caused by the process of swelling from moisture and drying from heat, or mechanical damage.	Removal of Deteriorated Material  Repair by sanding or wood putty.	Level 3	
C13-SW  Wood and Glass Laylight Ceiling System	Water Damage  • Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	
C13-LC  Wood and Glass  Laylight  Ceiling System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
C13-ST  Wood and Glass  Laylight  Ceiling System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
C13-SA  Wood and Glass Laylight Ceiling System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
C14-E  Tiffany Stained Glass Oculus Ceiling System	An existing building system in good condition.	Cyclical Maintenance     Develop a cleaning program to extend life of building system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S1-W  Cast Iron Stair System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  Leave alone unless severe, then consider replacing.	Level 3	
S1-SA  Cast Iron Stair System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to building system.	Level 3	
S1-ST  Cast Iron Stair System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
S1-LC  Cast Iron Stair System	Paint Loss  Loss of surface paint.	Material Patching or Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S1-MC Cast Iron Stair System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace and/or reinforce deteriorated members with new material to match existing.	Level 3	
S1-CR  Cast Iron Stair System	Cracking  • 1/16" to 1/2" wide visible fissures, possibly penetrating through the material surface	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	
S1-LM  Cast Iron Stair System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
S1-SD  Cast Iron Stair System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S1-MD  Cast Iron Stair System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
S1-OP  Cast Iron Stair System	Multiple layers of paint.	Material Patching or Replacement  Leave alone unless other forms of deterioration are present, then scrape to substrate and repaint.	Level 3	
S2-LC  Steel Stair and Railing Stair System	Paint Loss  Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
S2-SA  Steel Stair and Railing Stair System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S2-W Steel Stair and Railing Stair System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
S3-LC  Wood Treads Stair System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
S3-G Wood Treads Stair System	Grafiti • Paint sprayed on surface.	Develop Cleaning Program     Investigate proper removal methods where appropriate without damaging material.	Level 3	
S3-OJ Wood Treads Stair System	Open Joints  • Open separating joints between wood elements	Material Patching or Replacement  Determine reason for missing caulk and rejoin; if severe, replace affected areas of wood floor finish.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S3-W Wood Treads Stair System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
S3-CR Wood Treads Stair System	Cracking  • 1/16" to 1/2" wide visible fissures in surface, possibly penetrating through the material surface	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
S3-SA  Wood Treads Stair System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
S3-SD Wood Treads Stair System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S3-ST Wood Treads Stair System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
S3-LM Wood Treads Stair System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
S3-PR Wood Treads Stair System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  Replace inappropriate previous patches.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S4-LM  Marble Treads Stair System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
S4-SD  Marble Treads Stair System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
S4-MD  Marble Treads Stair System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
S4-ST  Marble Treads  Stair System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S4-CR Marble Treads Stair System	Cracking  • 1/16" to 1/2" wide visible fissures in surface, possibly penetrating through the material surface	Material Patching or Replacement  Patch damaged material, if feasible; remove and replace damaged material, as required.	Level 3	
S4-SA  Marble Treads  Stair System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
S4-W  Marble Treads Stair System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S5-LM  Concrete Coated Treads Stair System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
S5-PR  Concrete Coated Treads Stair System	Previous Repair  • Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  • Replace inappropriate previous patches.	Level 3	
S5-CR  Concrete Coated Treads Stair System	Cracking  • 1/16" to 1/2" wide visible fissures in surface, possibly penetrating through the material surface	Material Patching or Replacement  Patch damaged material, if feasible; remove and replace damaged material, as required.	Level 3	
S5-ST  Concrete Coated Treads Stair System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S5-W  Concrete Coated Treads Stair System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
S5-SA  Concrete Coated Treads Stair System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
S6-LC  Iron Railing with Wood Handrail Stair System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	SECRETE PROPERTY OF THE PROPER
S6-NE  Iron Railing with Wood Handrail Stair System	Non-Extant  Describes the absence of a particular building system or component of building system.	Material Replacement  Replace missing building element.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S6-MD  Iron Railing with Wood Handrail Stair System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
S6-SD  Iron Railing with Wood Handrail Stair System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
S6-OP  Iron Railing with Wood Handrail Stair System	Overpainted  • Multiple layers of paint.	Material Patching or Replacement  Leave alone unless other forms of deterioration are present, then scrape to substrate and repaint.	Level 3	
S6-CR  Iron Railing with Wood Handrail Stair System	Cracking  • 1/16" to 1/2" wide visible fissures in surface, possibly penetrating through the material surface	Material Patching or Replacement  Patch material, if feasible; remove and replace damaged material as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S6-ST  Iron Railing with Wood Handrail Stair System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.  Staining	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
S6-SA  Iron Railing with Wood Handrail Stair System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
S6-W  Iron Railing with Wood Handrail Stair System	Wear  • The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
S6-LM  Iron Railing with Wood Handrail Stair System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S6-MC  Iron Railing with Wood Handrail Stair System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assesment of structural engineer for details on replacement of select cast iron members.	Level 3	
S6-OJ  Iron Railing with Wood Handrail Stair System	Open Joints  • Joints without caulking	Material Patching or Replacement  Determine reason for missing caulk and reseal edges.	Level 3	
S7-W Brass Railing Stair System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
S7-SA  Brass Railing Stair System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S8-CR  Wood Stair with Wood Handrail Stair System	Cracking  • 1/16" to 1/2" wide visible fissures in surface, possibly penetrating through the material surface	Material Patching or Replacement  Patch material, if feasible; remove and replace damaged material as required.	Level 3	
S8-SA  Wood Stair with Wood Handrail Stair System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
S8-LM  Wood Stair with Wood Handrail Stair System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
S8-ST  Wood Stair with Wood Handrail Stair System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
S8-W  Wood Stair with Wood Handrail Stair System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
S8-SD  Wood Stair with Wood Handrail Stair System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
R1-W  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
R1-ST  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
R1-MD  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
R1-MC  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Corrosion     Deterioration of material by a chemical reaction with its environment.	<ul> <li>Removal of Deteriorated Material</li> <li>Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.</li> <li>Refer to assesment of structural engineer for details on replacement of select cast iron members.</li> </ul>	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
R1-SA  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
R1-LM  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
R1-CR  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Cracking  • 1/16" to 1/2" wide visible fissures in surface, possibly penetrating through the material surface	Material Patching or Replacement  Patch material, if feasible; remove and replace damaged material as required.	Level 3	
R1-LC  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Paint Loss  • Loss of surface paint.	Material Patching or Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
R1-OP  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Overpainted  • Multiple layers of paint.	Material Patching or Replacement  Leave alone unless other forms of deterioration are present, then scrape to substrate and repaint.	Level 3	
R1-OJ  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Open Joints  • Open, unfilled joints between segments of wood handrail	Material Patching or Replacement  Determine reason for open joint; fill or caulk joint.	Level 3	
R1-SD  Balcony Railing at Mezzanine, Balcony and Auditorium Railing System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
R2-ST  Balcony Railing at Lightwell Railing System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.  Staining	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
R2-SA  Balcony Railing at Lightwell Railing System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
R2-W  Balcony Railing at Lightwell Railing System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
R2-MC Steel Stair System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assesment of structural engineer for details on replacement of select cast iron members.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
D1-MC  Door  Door System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assesment of structural engineer for details on replacement of select cast iron members.	Level 3	
D1-ST  Door  Door System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
D1-SA  Door  Door System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
D1-W  Door Stair System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  Leave alone unless severe, then consider replacing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
D1-D  Door  Door System	Door Frame Only     Describes the existence of a door frame only, no door.	Material Replacement  • Replace missing door.	Level 3	
D1-E/NE  Door  Door System	Extant / Non-extant     Describes the existence or absence of a particular building system.	Cyclical Maintenance / Material Replacement     Develop a cleaning program to extend life of building system / Replace missing element.	Level 3	
D1-O/NO  Door  Door System	Operable / Not Operable  • Describes existing functionality of door.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
D1-PR  Door Stair System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  • Replace inappropriate previous patches.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
D1-BL  Door  Door System	Blistering Paint     Swelling and rupturing of top layer, generally first stage of exfoliation.	Material Patching or Replacement  Clean, identify source of water infiltration and remedy cause.	Level 3	
D1-DS  Door  Door System	Displacement     Movement of a building material or element from its original location.	Removal of Deteriorated Material  Investigation to determine movement and then subsequent repair.	Level 3	
D1-G  Door  Door System	Grafiti • Paint sprayed on surface.	Removal of Material  Investigate proper removal methods where appropriate without damaging material.	Level 3	
D1-OJ Door Stair System	Open Joints  • Joints without caulking	Material Patching or Replacement  Determine reason for missing caulk and reseal edges.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
D1-W  Door  Door System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  Leave alone unless severe, then consider replacing.	Level 3	
D1-SW  Door  Door System	Water Damage  • Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  • Clean, identify source of water infiltration and remedy cause.	Level 3	
D1-PR  Door  Door System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  • Replace inappropriate previous patches.	Level 3	
D1-LM  Door Stair System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

#### Interior - Door Systems

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
D1-LC  Door  Door System	Paint Loss  • Loss of surface paint.	Material Patching or Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
D1-CR  Door  Door System	<ul> <li>Crack</li> <li>1/16 to ½ inch wide visible fissure in a surface, possible penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
D1-SL  Door  Door System	Splintering  Caused by the process of swelling from moisture and drying from heat, or mechanical damage.	Removal of Deteriorated Material  Repair by sanding or wood putty.	Level 3	
D1-MD  Door Stair System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

#### Interior - Door Systems

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
D1-SD  Door  Door System	Scratches / Dents  Damage to material caused by mechanical components or equipment  Scratches / Dents  Gratches / Dents  Damage to material caused by mechanical components or equipment  Scratches / Dents  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
D2-SD  Door Hardware  Door System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
D2-W  Door Hardware  Door System	Wear  • The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	

#### Interior - Door Systems

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
D2-E/NE Door Hardware Door System	Extant / Non-extant     Describes the existence or absence of a particular building system.	Cyclical Maintenance / Material Replacement     Develop a cleaning program to extend life of building system / Replace missing element.	Level 3	
D2-HM  Door Hardware  Door System	Missing Hardware  • The absence of knobs, hinges, pulls, etc.	Material Replacement  • Replace missing hardware.	Level 3	
D2-OP  Door Hardware  Door System	Overpainted  • Multiple layers of paint.	Material Patching or Replacement  Leave alone unless other forms of deterioration, then scrape to substrate and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
WD1-LC Wood and Glass Window System	Paint Loss  • Loss of surface paint.	Material Patching or Replacement  • Determine reason for paint loss, correct problem and repaint.	Level 3	
WD1-DGC Wood and Glass Window System	Deteriorateid Glazing Putty     Minimal amounts of glazing putty at window remain.	Material Repair or Replacement  Scrape remaining glazing putty away and replace with new glazing compound.	Level 3	
WD1-NGC Wood and Glass Window System	No Glazing Putty  • Lack of glazing putty at window panes	Material Patching or Replacement  • Apply new glazing compound.	Level 3	
WD1-SL Wood and Glass Window System	Splintering  Caused by the process of swelling from moisture and drying from heat, or mechanical damage.	Removal of Deteriorated Material  Repair by sanding or wood putty.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
WD1-LM  Wood and Glass Window System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
WD1-W Wood and Glass Window System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	AMITEO STATES
WD1-CR Wood and Glass Window System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possible penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
WD1-OJ Wood and Glass Window System	Open Joints  • Joints without caulking	Material Patching or Replacement  Determine reason for missing caulk and reseal edges.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
WD1-PR  Wood and Glass Window System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Replacement  Replace inappropriate previous patches.	Level 3	
WD1-OP  Wood and Glass Window System	Overpainted  • Multiple layers of paint.	Material Refinishing  Leave alone unless other forms of deterioration, then scrape to substrate and repaint.	Level 3	
WD1-NA  Wood and Glass Window System	Not Accessible  • Window could not be reached during survey.	Further Investigation  Further investigation required to assess operability and condition.	Level 3	
WD1-E Wood and Glass Window System	Extant     An existing building system in good condition.	Cyclical Maintenance     Develop a cleaning program to extend life of building system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
WD1-MD Wood and Glass Window System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
WD1-CH Wood and Glass Window System	Hairline Cracking     Numerous shallow cracks across the outer layer of a surface.	Material Patching or Replacement  • Patch where appropriate.	Level 3	
WD1-BL Wood and Glass Window System	Blistering Paint     Swelling and rupturing of top layer, generally first stage of exfoliation.	Material Patching or Replacement  • Clean, identify source of water infiltration and remedy cause.	Level 3	
WD1-RT Wood and Glass Window System	Wood Rot  The growth of fungi when oxygen, warmth and moisture are present in wood.	Material Repair or Replacement  Replace rotted elements and treat new wood to repel agents that cause rotting.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
WD1-O/NO Wood and Glass Window System	Operable / Not Operable  • Describes existing finctionality of window.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
WD1-SA  Wood and Glass Window System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
WD1-ST  Wood and Glass Window System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.  Staining	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
WD1-SD Wood and Glass Window System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
WD1-SW Wood and Glass Window System	Water Damage  • Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	
WD2-O/NO Hardware Windows System	Operable / Not Operable  • Describes existing finctionality of window hardware.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
WD2-HM Hardware Windows System	Missing Hardware  • The absence of knobs, hinges, pulls, etc.	Material Replacement  • Replace missing hardware.	Level 3	
WD2-E Hardware Windows System	An existing building system in good condition.	Cyclical Maintenance  • Develop a cleaning program to extend life of building system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
WD3-LM  Tiffany Stained Glass Windows System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  • Replace material to match existing/historic.	Level 3	
WD3-PR Tiffany Stained Glass Windows System	Previous Repair  • Area where a previous repair was done.	Material Patching or Replacement  • Replace inappropriate previous patches.	Level 3	
WD3-SA  Tiffany Stained Glass Windows System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
WD3-MD  Tiffany Stained Glass Windows System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mech	Material Repair or Replacement  Remove mechanical remnants and connections. Replace areas of missing or damaged material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
WD3-ST  Tiffany Stained Glass Windows System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
WD3-CR Tiffany Stained Glass Windows System	Cracking  • 1/16" to 1/2" wide visible fissures in glass surface, possibly penetrating through the material surface	Material Patching or Replacement  Remove and replace damaged material.	Level 3	26 E+P
WD3-MC Tiffany Stained Glass Windows System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L1-SA  Wall Sconce with Globes Lighting System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
L1-CR  Wall Sconce with Globes Lighting System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	LOCEKE
L1-O/NO  Wall Sconce with Globes Lighting System	Operable / Not Operable  • Describes existing finctionality of fixture.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
L1-HM  Wall Sconce with Globes Lighting System	Missing Hardware  • The absence of hardware associated with the light fixture.	Material Replacement  • Replace missing hardware.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L1-OU  Wall Sconce with Globes Lighting System	Operation Unknown  • Operability of light fixture was not determined.	Further Investigation  • Further investigation required to assess operability.	Level 3	
L1-LM  Wall Sconce with Globes Lighting System	Material Loss  • Loss of material or component of fixture	Material Repair or Replacement  Repair or replace missing material.	Level 3	
L2-O/NO  Railing Post Mounted Fixtures Lighting System	Operable / Not Operable  • Describes existing finctionality of fixture.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
L2-SA  Railing Post Mounted Fixtures Lighting System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without causing damage.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L3-OP  Wall Mounted Flourescents Lighting System	Overpainted  Multiple layers of paint.	Clean Material  Leave alone unless other forms of deterioration are present, then scrape to substrate.		
L3-SA  Wall Mounted Flourescents Lighting System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
L3-CR  Wall Mounted Flourescents Lighting System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possible penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
L3-O/NO  Wall Mounted Flourescents Lighting System	Operable / Not Operable  • Describes existing finctionality of fixture.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L3-MD  Wall Mounted Flourescents Lighting System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
L3-PR  Wall Mounted Flourescents Lighting System	Previous Repair  Area where a previous repair was done, including repointing, patching and consolidation.	Material Patching or Replacement  • Replace inappropriate previous patches.	Level 3	
L3-LM  Wall Mounted Flourescents Lighting System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Repair or Replacement  • Repair or replace missing material.	Level 3	
L4-OU  Ceiling Mounted Compact Flourescent Bulbs Lighting System	Operation Unknown  • Operability of light fixture was not determined.	Further Investigation  • Further investigation required to assess operability.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L4-SA  Ceiling Mounted Compact Flourescent Bulbs Lighting System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
L4-CR  Ceiling Mounted Compact Flourescent Bulbs Lighting System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	
L4-O/NO  Ceiling Mounted Compact Flourescent Bulbs Lighting System	Operable / Not Operable  • Describes existing functionality of fixture.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
L4-HM  Ceiling Mounted Compact Flourescent Bulbs Lighting System	Missing Hardware  • The absence of hardware associated with the light fixture.	Material Replacement  • Replace missing hardware.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L4-W  Ceiling Mounted Compact Flourescent Bulbs Lighting System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
L4-LM  Ceiling Mounted Compact Flourescent Bulbs Lighting System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Repair or Replacement  • Repair or replace missing material.	Level 3	
L4-MC  Ceiling Mounted Compact Flourescent Bulbs Lighting System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.	Level 3	
L4-ST  Ceiling Mounted Compact Flourescent Bulbs Lighting System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L5-LM  Hanging Pendant Lighting System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Repair or Replacement  • Repair or replace missing material.	Level 3	
L5-CR  Hanging Pendant Lighting System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
L5-O/NO  Hanging Pendant Lighting System	Operable / Not Operable  • Describes existing finctionality of fixture.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
L5-HM  Hanging Pendant Lighting System	Missing Hardware  • The absence of hardware associated with the light fixture.	Material Replacement  • Replace missing hardware.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L5-SA  Hanging Pendant Lighting System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
L6-OU  Suspended Flouresecents Lighting System	Operation Unknown  Operability of light fixture was not determined.	Further Investigation  • Further investigation required to assess operability.	Level 3	
L6-O/NO Suspended Flouresecents Lighting System	Operable / Not Operable  • Describes existing finctionality of fixture.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
L6-HM  Suspended Flouresecents Lighting System	Missing Hardware  • The absence of hardware associated with the light fixture.	Material Replacement  • Replace missing hardware.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L6-SA  Suspended Flouresecents Lighting System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
L6-CR Suspended Flouresecents Lighting System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.</li> </ul>	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	
L7-O/NO  Ceiling Mounted Dome Lighting System	Operable / Not Operable  • Describes existing finctionality of fixture.	Cyclical Maintenance / Material Repair  Maintain operability of system / Repair system to make operable again.	Level 3	
L7-OU  Ceiling Mounted Dome Lighting System	Operation Unknown  • Operability of light fixture was not determined.	Further Investigation  • Further investigation required to assess operability.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
L7-HM  Ceiling Mounted Dome Lighting System	Missing Hardware  • The absence of hardware associated with the light fixture.	Material Replacement  • Replace missing hardware.	Level 3	
L7-CR  Ceiling Mounted Dome Lighting System	<ul> <li>Cracking</li> <li>1/16 to ½ inch wide visible fissure in a surface, possible penetrating through the surface.</li> </ul>	Material Patching or Replacement  • Remove and replace damaged material.	Level 3	
L8-O/NO Empty J-box / Socket Lighting System	Operable / Not Operable  • Describes existing finctionality of fixture.	Cyclical Maintenance / Material Repair     Maintain operability of system / Repair system to make operable again.	Level 3	
L8-OU  Empty J-box / Socket Lighting System	Operation Unknown  • Operability of light fixture was not determined.	Further Investigation  • Further investigation required to assess operability.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B1-MC Stack Panel Bookstacks System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assesment of structural engineer for details on replacement of select cast iron members.	Level 3	
B1-ST  Stack Panel Bookstacks System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to building system.	Level 3	Participal Control of the Control of
B1-SA  Stack Panel Bookstacks System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
B1-LC Stack Panel Bookstacks System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B1-MD  Stack Panel Bookstacks System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage  Mechanical Components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Components or equipment  Mechanical Damage  Mechani	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
B1-ED  Stack Panel Bookstacks System	Deformation  Distortion or changing in shape of a material, usually through the application of pressure.	Material Repair or Replacement  Determine reason for deformation and repair or replace material if necessary.	Level 3	
B1-LM Stack Panel Bookstacks System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Replace missing material to match existing.	Level 3	
B1-SD  Stack Panel Bookstacks System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	PAVE

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B1-SW  Stack Panel Bookstacks System	Water Damage     Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	
B2-ST  Stack Panel Door Bookstacks System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
B2-SA  Stack Panel Door Bookstacks System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	IB R B N I A I A I A I A I A I A I A I A I A I
B2-SD  Stack Panel Door Bookstacks System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B2-HM  Stack Panel Door Bookstacks System	Missing Hardware  • The absence of knobs, hinges, pulls, etc.	Material Replacement  • Replace missing hardware.	Level 3	
B2-SW  Stack Panel Door Bookstacks System	Water Damage  • Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	JEREMIAH .
B2-MC Stack Panel Door Bookstacks System	Corrosion     Deterioration of material by a chemical reaction with its environment.	<ul> <li>Removal of Deteriorated Material</li> <li>Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.</li> <li>Refer to assesment of structural engineer for details on replacement of select cast iron members.</li> </ul>	Level 3	PLACE
B2-LC Stack Panel Door Bookstacks System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B2-MD  Stack Panel Door Bookstacks System	Mechanical Damage  Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
B2-ED  Stack Panel Door Bookstacks System	Deformation  Distortion or changing in shape of a material, usually through the application of pressure.	Material Repair or Replacement  Determine reason for deformation and repair or replace material if necessary.	Level 3	
B2-W Stack Panel Door Bookstacks System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
B2-LM  Stack Panel Door Bookstacks System	Material Loss  • Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B3-SB Free Standing Bookstacks System	Biological Growth  Surface growth having biological origins, typically found in damp locations.	Develop Cleaning Program     Clean, identify source of water infiltration and remedy cause. If severe, replace deteriorated material.	Level 3	
B3-ST  Free Standing Bookstacks System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to building system.	Level 3	
B3-SA  Free Standing Bookstacks System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to building system.	Level 3	
B3-MC Free Standing Bookstacks System	Corrosion     Deterioration of material by a chemical reaction with its environment.	<ul> <li>Removal of Deteriorated Material</li> <li>Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.</li> <li>Refer to assesment of structural engineer for details on replacement of select cast iron members.</li> </ul>	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B3-E Free Standing Bookstacks System	Extant     An existing building system in good condition.	Cyclical Maintenance  • Develop a cleaning program to extend life of building system.	Level 3	
B3-MD  Free Standing Bookstacks System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
B3-LM  Free Standing  Bookstacks System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Replacement Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
B3-CR Free Standing Bookstacks System	Crack • 1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.	Material Patching or Replacement  Remove and replace damaged material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B3-SL Free Standing Bookstacks System	Splintering  Caused by the process of swelling from moisture and drying from heat, or mechanical damage.	Removal of Deteriorated Material  Repair by sanding or wood putty.	Level 3	
B3-LC  Free Standing  Bookstacks System	Paint Loss  • Loss of surface paint.	Material Replacement  Determine reason for paint loss, correct problem and repaint.	Level 3	
B3-OJ Free Standing Bookstacks System	Open Joints  • Joints without caulking	Material Patching or Replacement  • Determine reason for missing caulk and reseal edges.	Level 3	
B3-SW  Free Standing Bookstacks System	Water Damage  • Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B3-W Free Standing Bookstacks System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
B4-MD  Wall Mounted  Bookstacks System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Components or equipment	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
B4-SW  Wall Mounted  Bookstacks System	Water Damage  • Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	
B4-RT  Wall Mounted  Bookstacks System	Wood Rot  The growth of fungi when oxygen, warmth and moisture are present in wood.	Material Repair or Replacement  Replace rotted elements and treat new wood to repel agents that cause rotting.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B4-MC Wall Mounted Bookstacks System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assesment of structural engineer for details on replacement of select cast iron members.	Level 3	
B4-ST Wall Mounted Bookstacks System	Staining  • Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
B4-SA Wall Mounted Bookstacks System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
B4-E Wall Mounted Bookstacks System	An existing building system in good condition.	Cyclical Maintenance  • Develop a cleaning program to extend life of building system.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B4-W  Wall Mounted  Bookstacks System	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
B4-LM  Wall Mounted  Bookstacks System	Material Loss     Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
B4-CR  Wall Mounted  Bookstacks System	Crack  • 1/16 to ½ inch wide visible fissure in a surface, possibly penetrating through the surface.	Material Patching or Replacement  Remove and replace damaged material.	Level 3	
B4-BL  Wall Mounted  Bookstacks System	Blistering Paint     Swelling and rupturing of top layer, generally first stage of exfoliation.	Material Patching or Replacement  Identify cause of blistering and remedy. Remove deteriorated paint and repaint.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B5-SW  By-Pass (Through Floor)  Bookstacks System	Water Damage Biological growth, blistering, efflorescence, wood rot or staining caused by the infiltration of water.	Removal of Deteriorated Material  Identify source of water infiltration and remedy cause. Replace deteriorated and damaged material.	Level 3	
B5-ST  By-Pass (Through Floor)  Bookstacks System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
B5-SA  By-Pass (Through Floor)  Bookstacks System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
B5-E By-Pass (Through Floor) Bookstacks System	An existing building system in good condition.	Cyclical Maintenance  • Develop a cleaning program to extend life of building system.	Level 3	

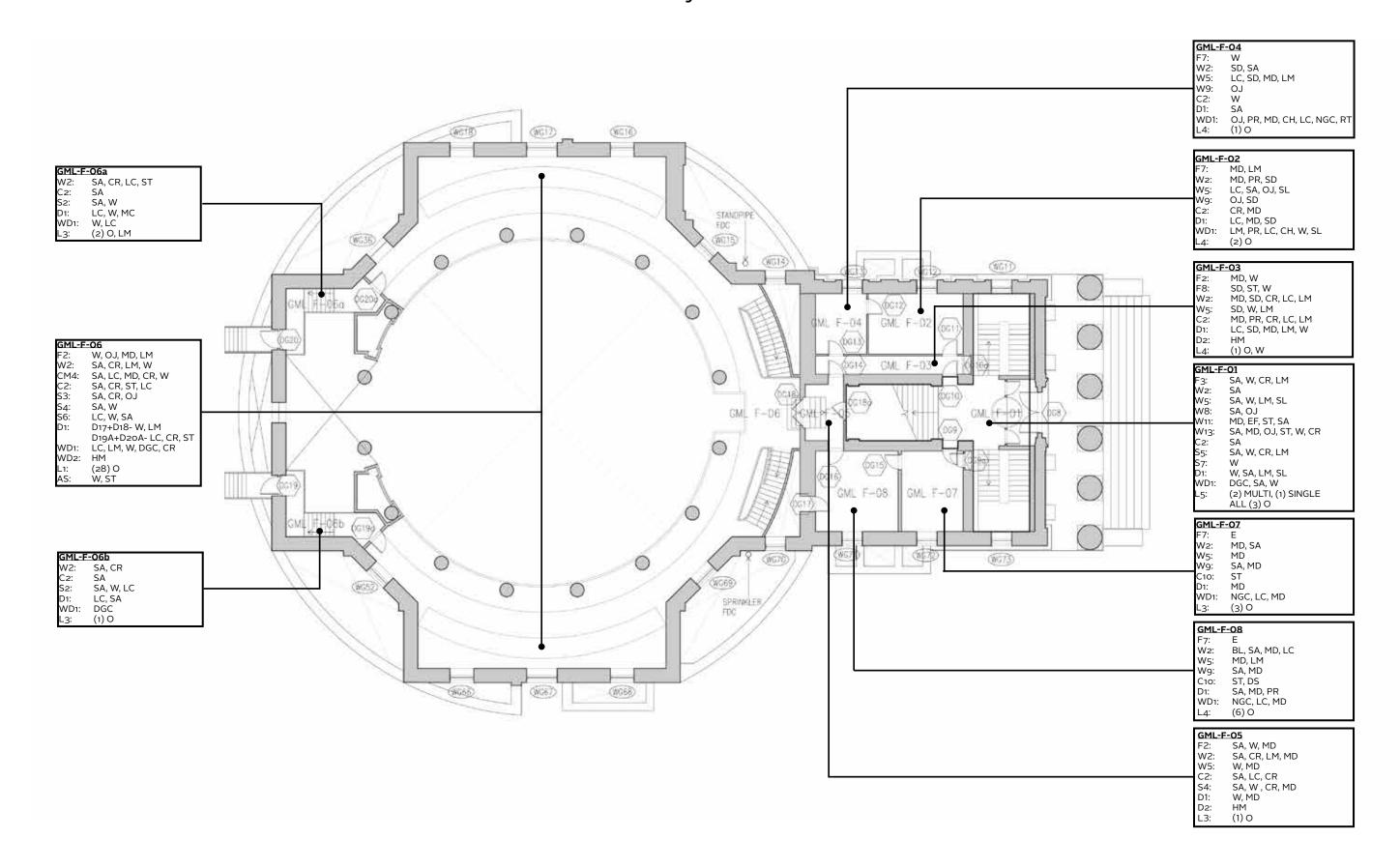
COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B5-MD  By-Pass (Through Floor)  Bookstacks System	Mechanical Damage  Damage to material caused by mechanical components or equipment  Mechanical Damage  Mechanical Damage  Mechanical Damage	Material Repair or Replacement  Remove mechanical remnants and connections. Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
B5-SD  By-Pass (Through Floor)  Bookstacks System	Scratches / Dents  • Damage to material caused by mechanical components or equipment	Material Repair or Replacement  Patch areas of missing or damaged material, if feasible; remove and replace material, as required.	Level 3	
B5-LM  By-Pass (Through Floor)  Bookstacks System	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
B5-MC  By-Pass (Through Floor)  Bookstacks System	Corrosion     Deterioration of material by a chemical reaction with its environment.	Removal of Deteriorated Material  Remove corrosion and corrosive products; in severe cases, replace deteriorated members with new material to match existing.  Refer to assesment of structural engineer for details on replacement of select cast iron members.	Level 3	

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
B6-SA  Dome Level Shelves Bookstacks System	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program     Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
B6-E  Dome Level Shelves Bookstacks System	An existing building system in good condition.	Cyclical Maintenance     Develop a cleaning program to extend life of building system.	Level 3	
B6-ST  Dome Level Shelves Bookstacks System	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to building system.	Level 3	

### Interior - Miscellaneous Systems

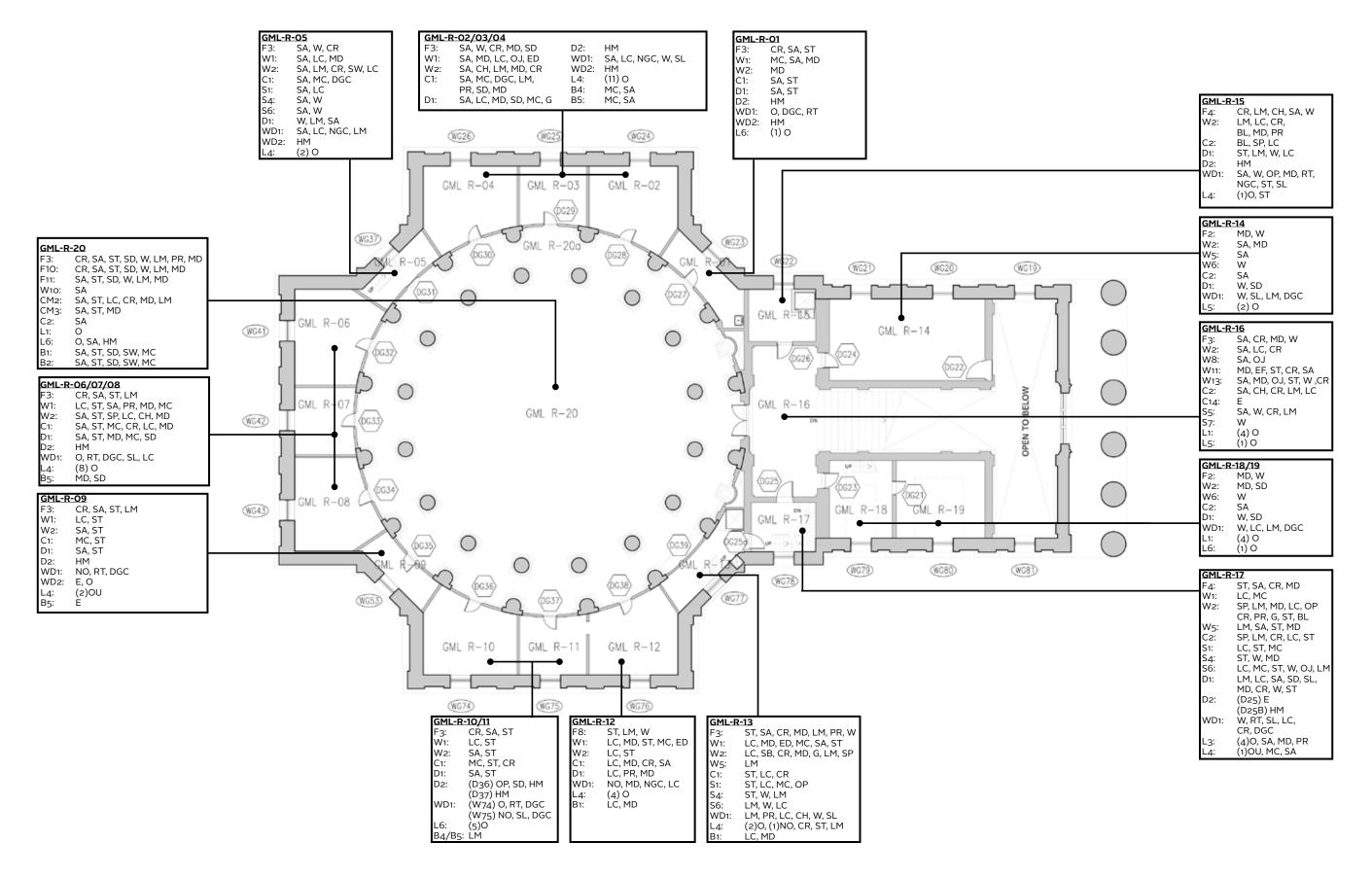
COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
PS-LM Plaster Statue	Material Loss  Loss of material leaving holes or exposing inner layers.	Material Patching or Replacement  Patch areas of missing material, if feasible, or replace material to match existing.	Level 3	
PS-SA Plaster Statue	Soiling  • Surface staining caused by the build-up of pollutants.	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	
AS-W Auditorium Seating	Wear     The gradual disintegration and erosion of materials caused by gradual use overtime.	Material Patching or Replacement  • Leave alone unless severe, then consider replacing.	Level 3	
AS-ST Auditorium Seating	Staining  Surface problem caused by the build-up of pollutants, mineral deposits and water marks.  Staining	Develop Cleaning Program  Develop a cleaning program if it can be implemented without damage to bulding system.	Level 3	

### Interior Plan 02 - Quad Entrance & Auditorium Balcony Level

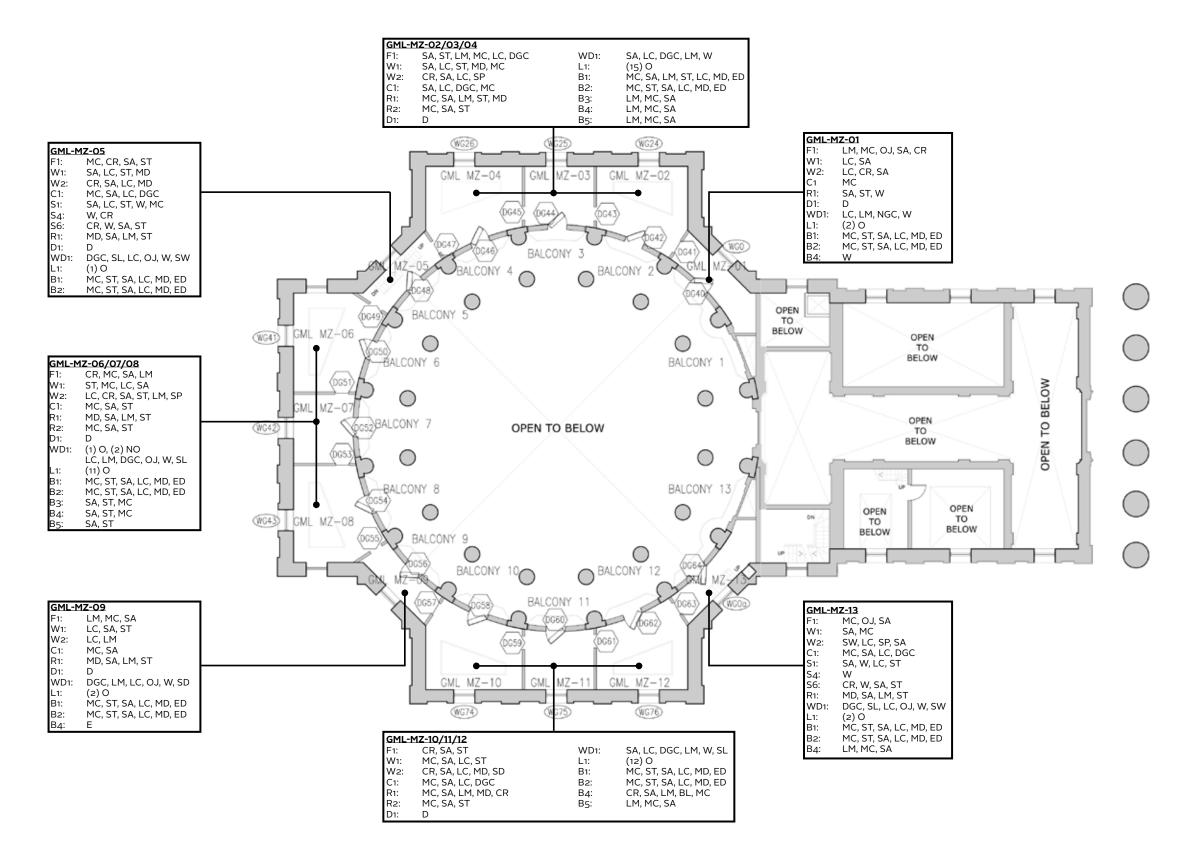


BEYER BLINDER BELLE CONDITIONS ASSESSMENT 213

### Interior Plan 03 - Rotunda Level

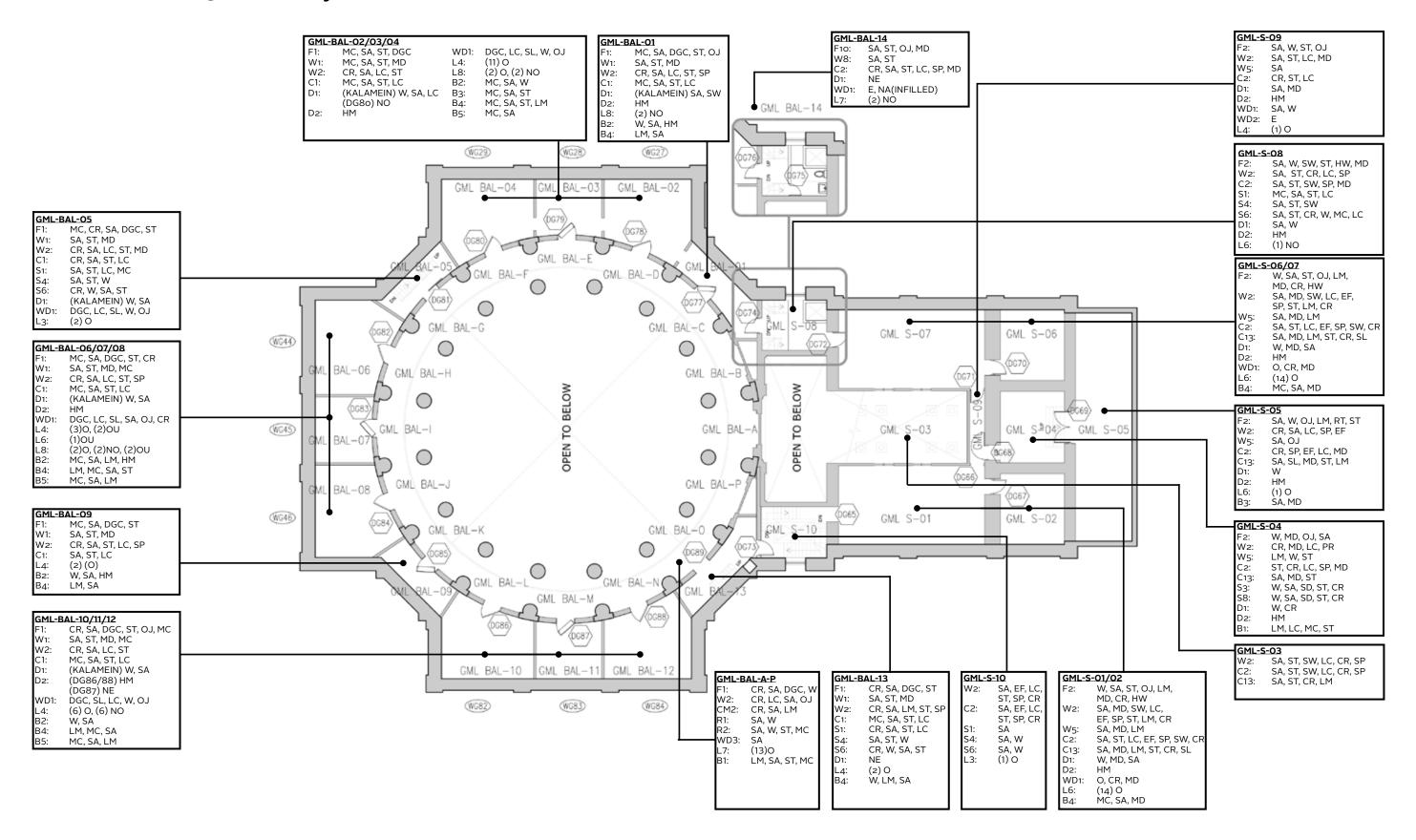


### Interior Plan 04 - Mezzanine Level

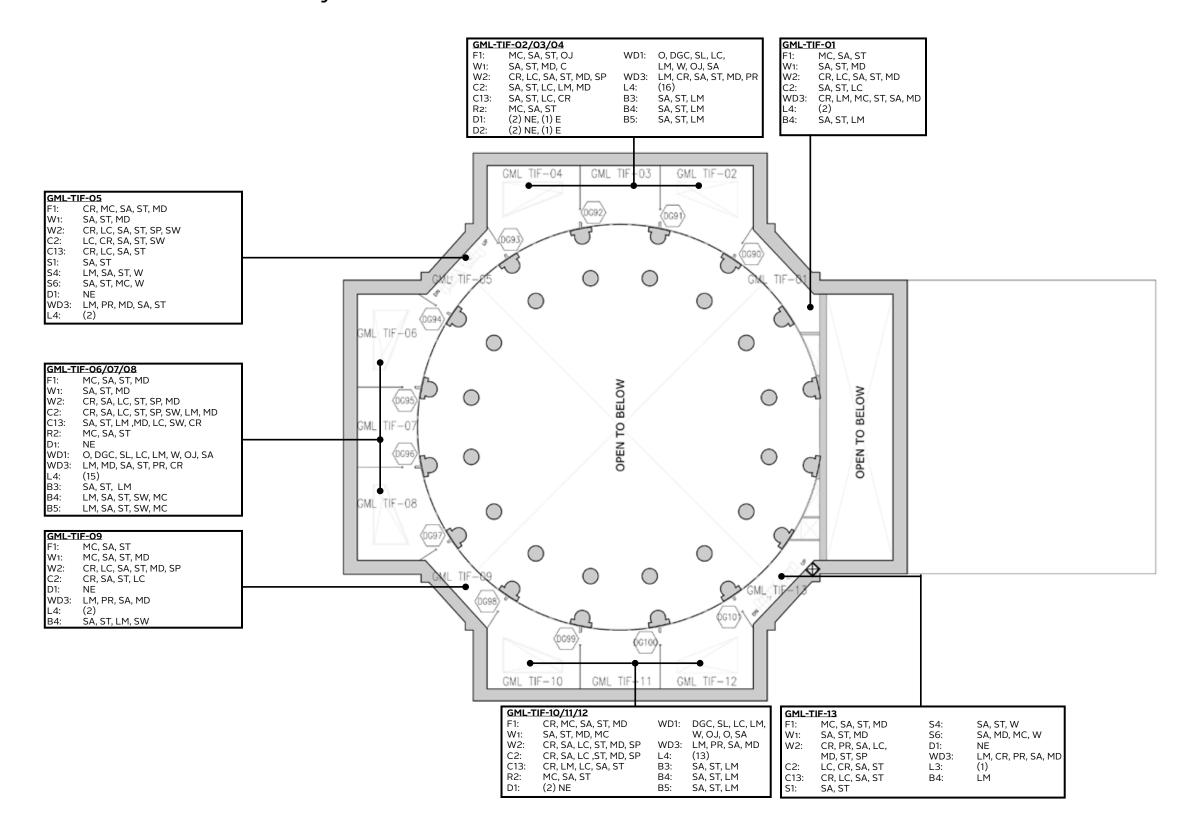


BEYER BLINDER BELLE CONDITIONS ASSESSMENT 215

### Interior Plan 05 - Balcony Level



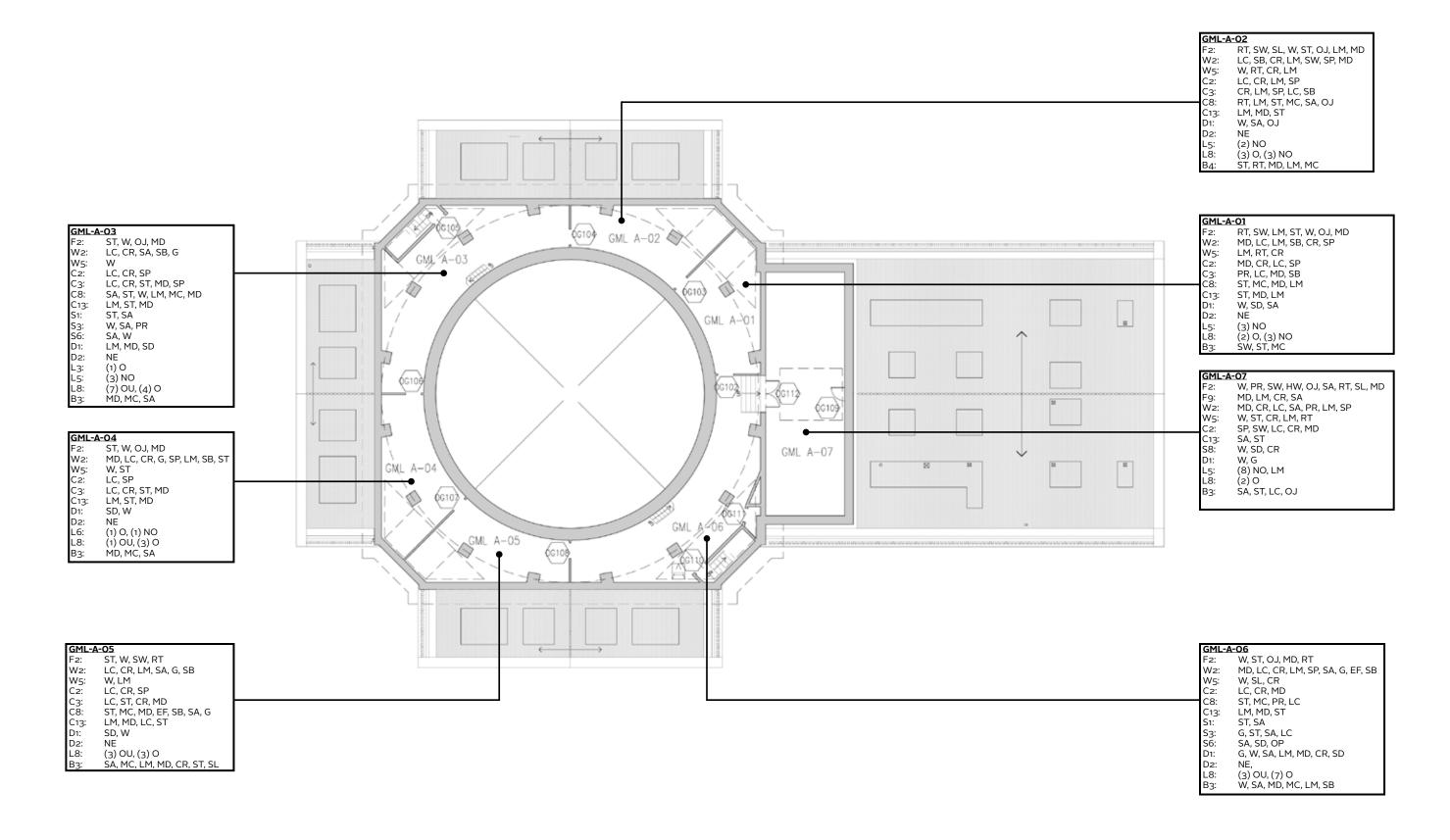
### Interior Plan o6 - Tiffany Glass Level



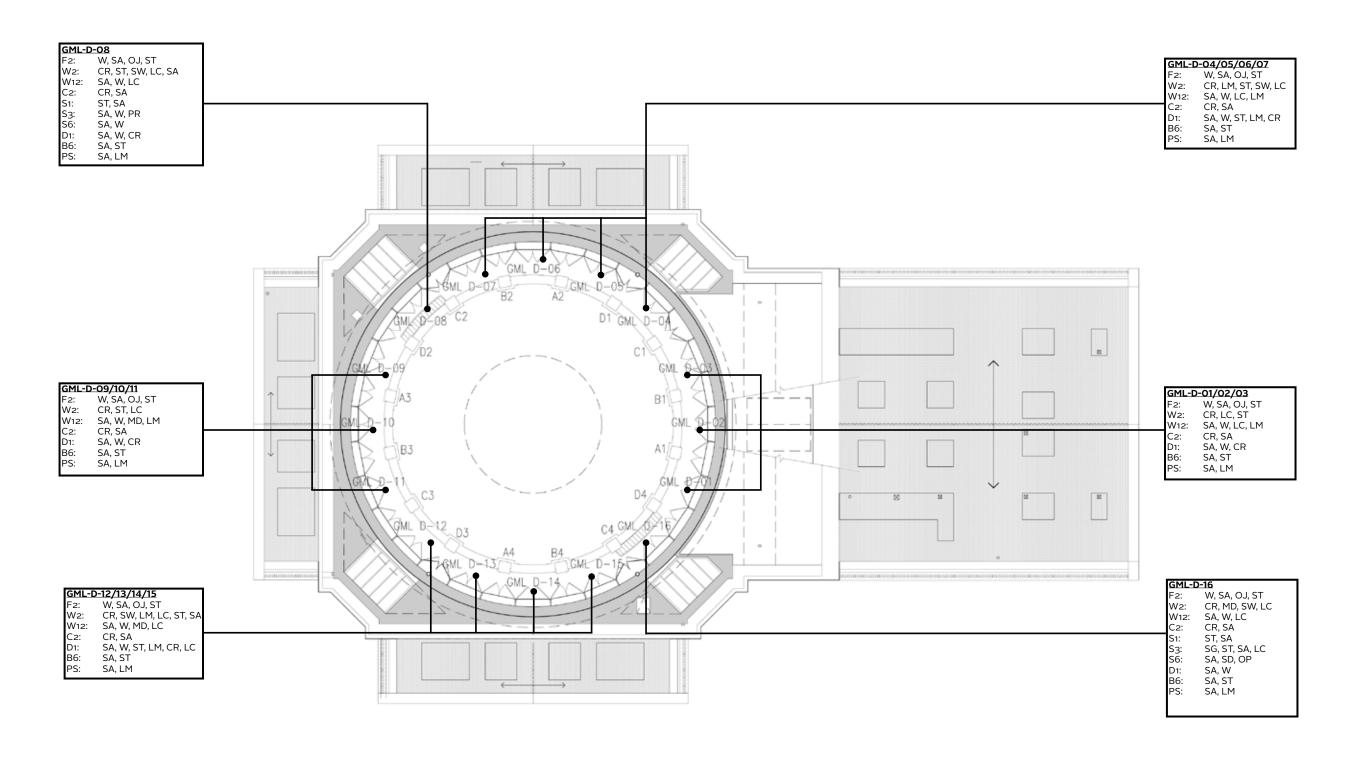
BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 217

### Interior Plan 07 - Attic Level

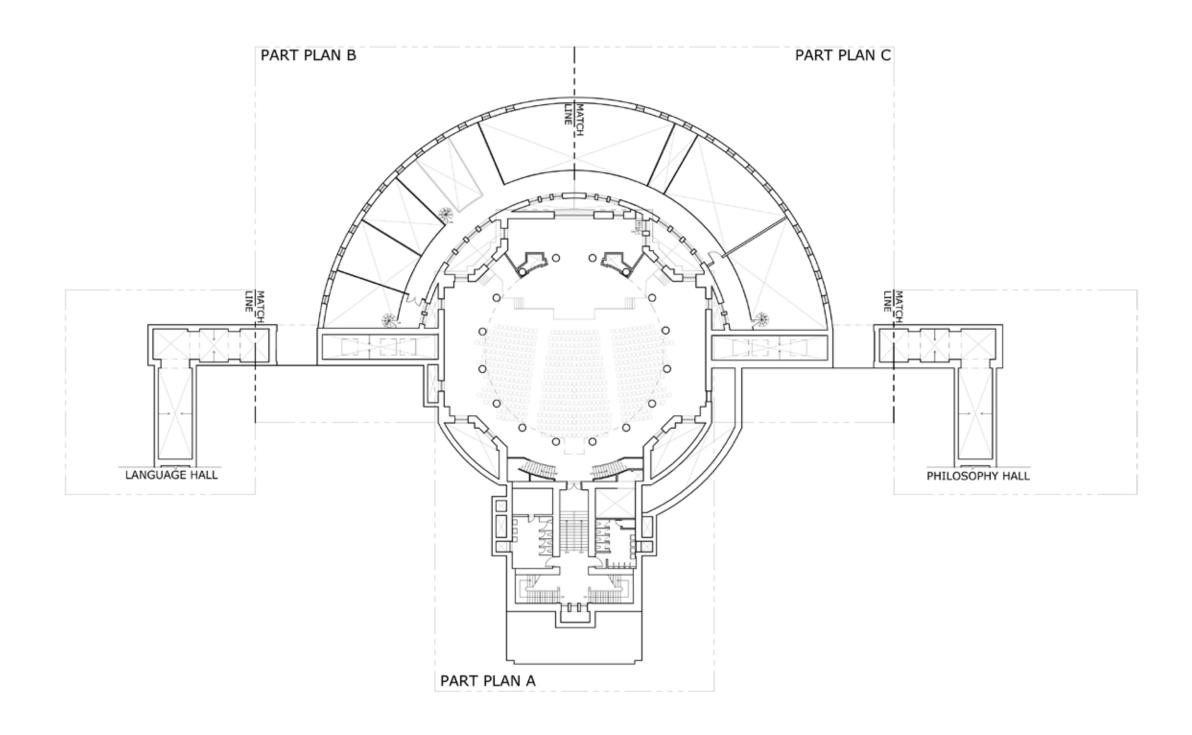


### Interior Plan 08 - Dome Room Level



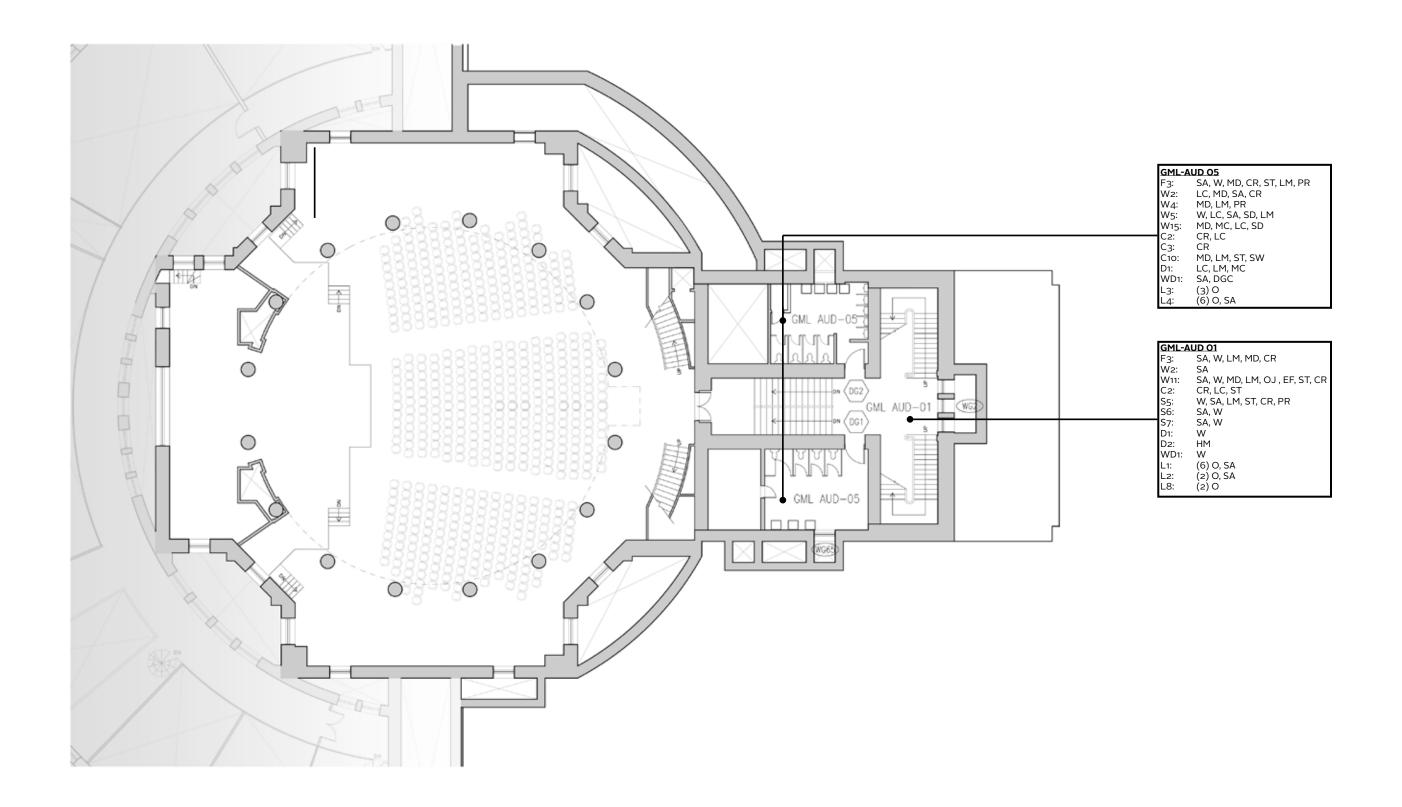
BEYER BLINDER BELLE CONDITIONS ASSESSMENT 219

# Interior Key Plan 01A - Hall of Fame Mezzanine & GML Facilities Level



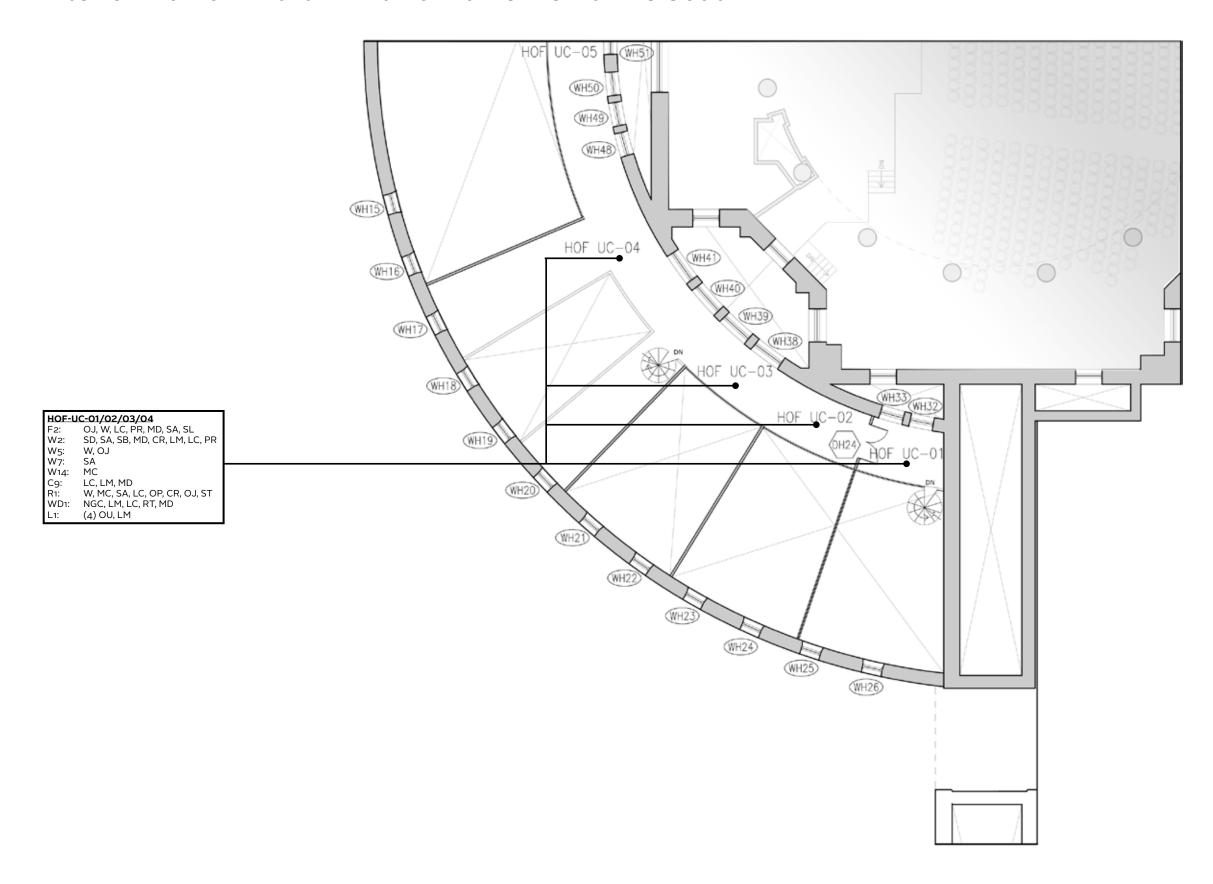


### Interior Plan 01A Part A - GML Facilities Level

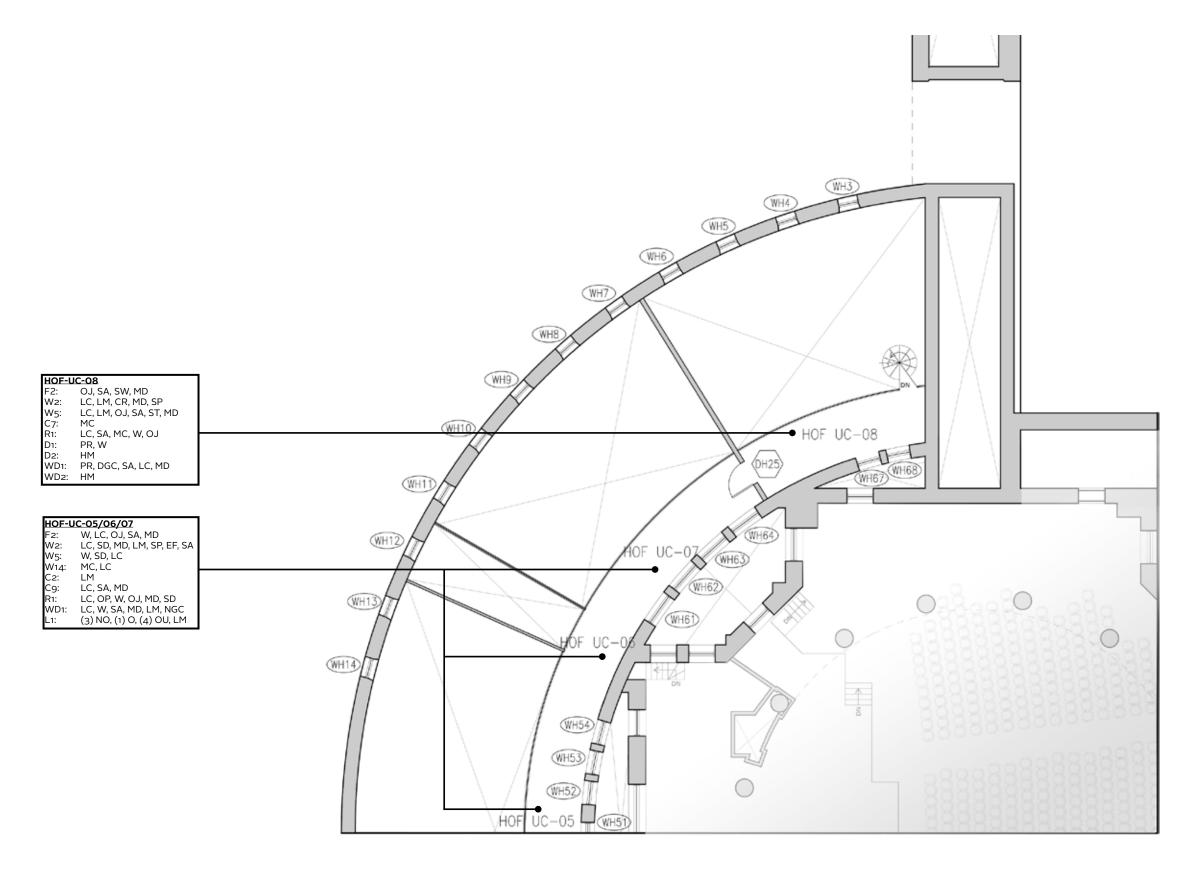


BEYER BLINDER BELLE 221

### Interior Plan 01A Part B - Hall of Fame Mezzanine South

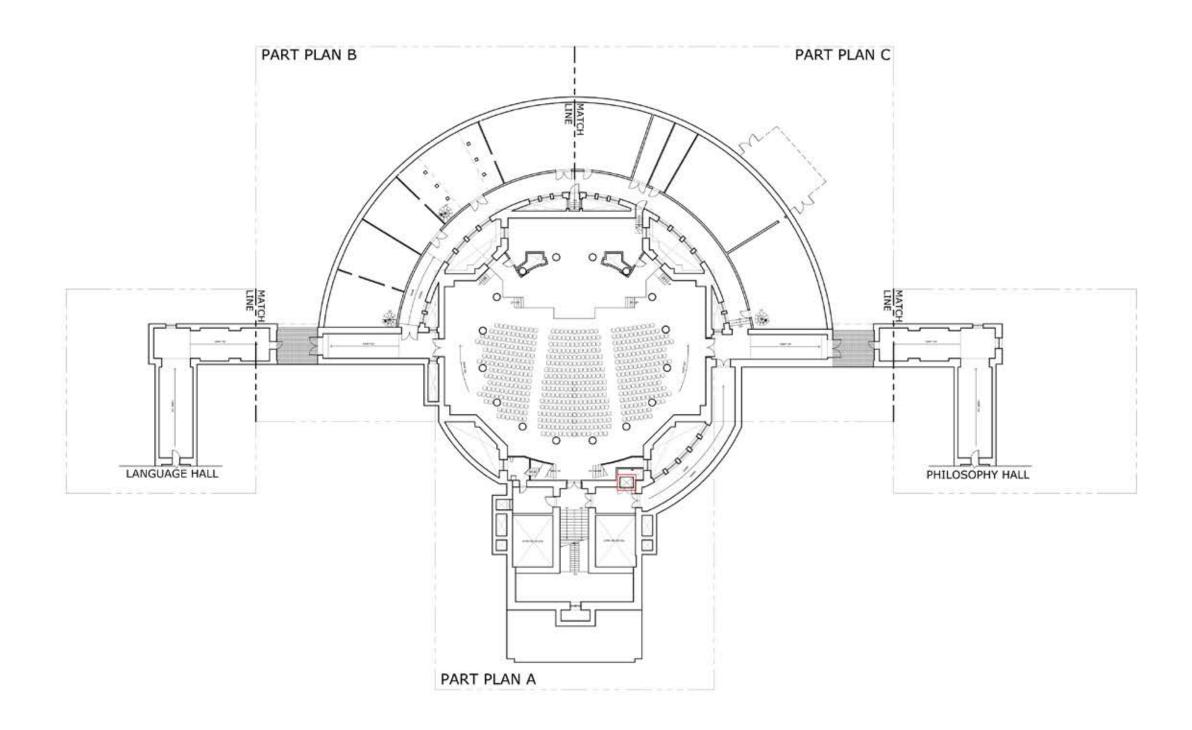


### Interior Plan 01A Part C - Hall of Fame Mezzanine North



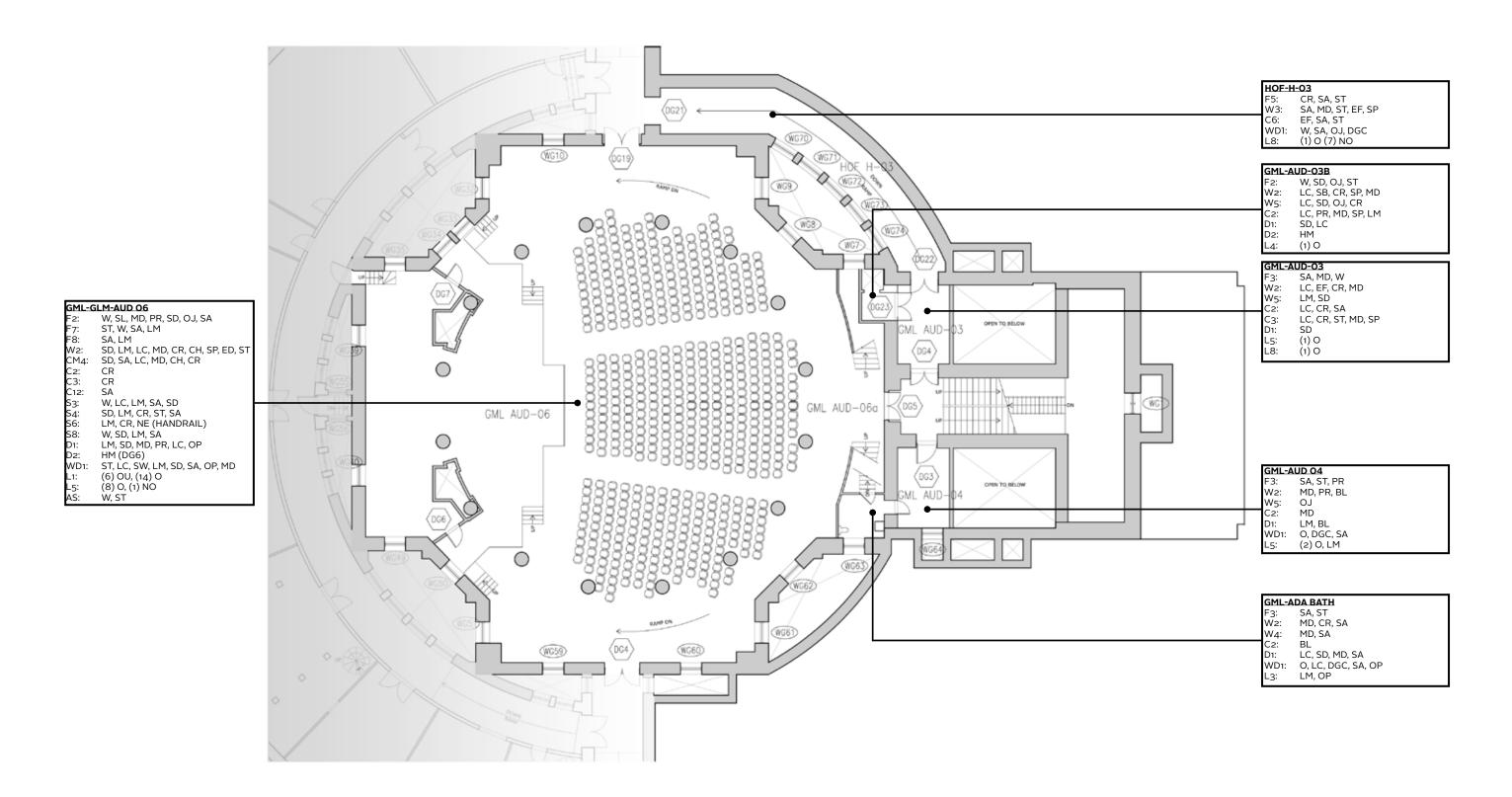
BEYER BLINDER BELLE 223

# Interior Key Plan 01 - Auditorium Level



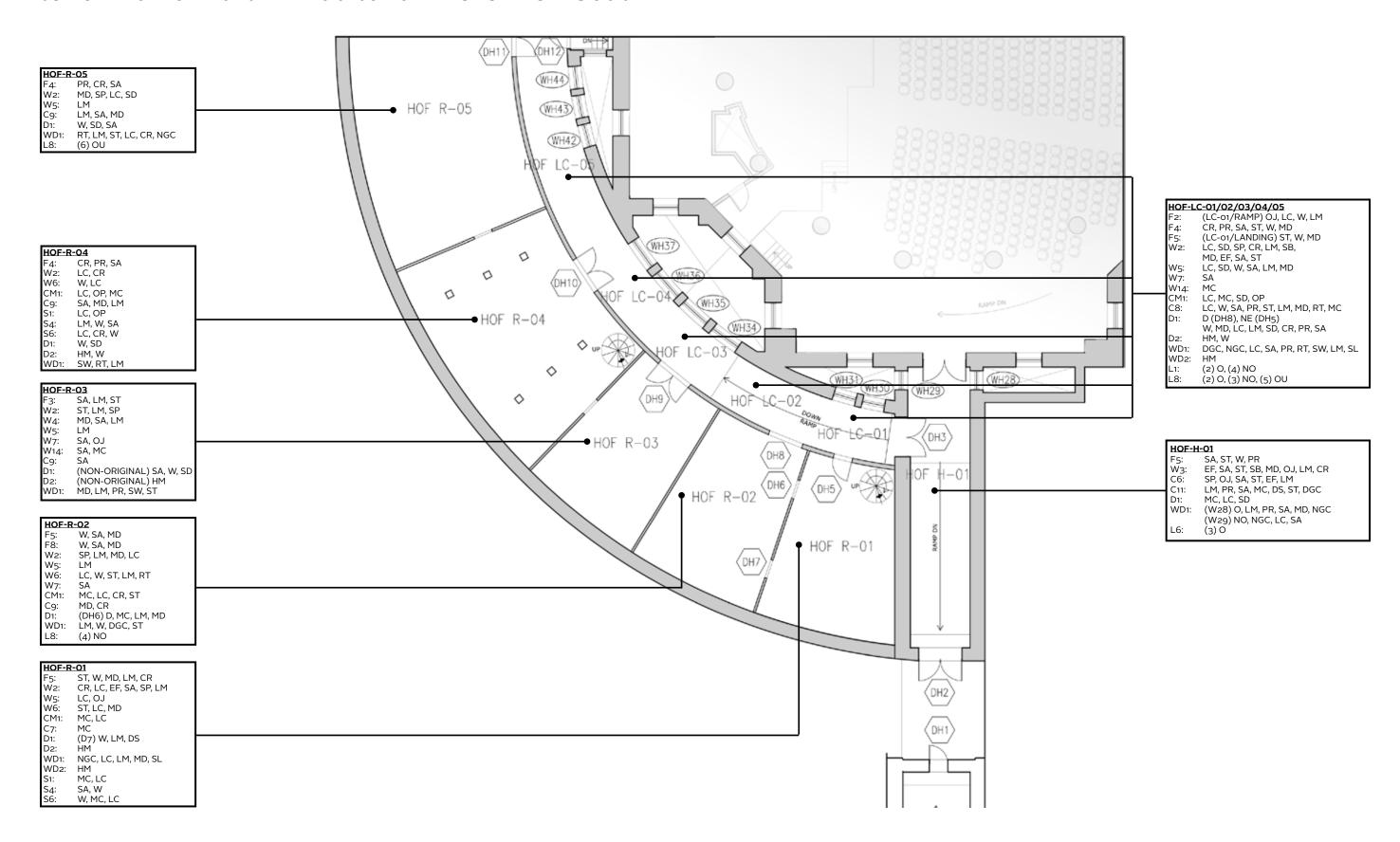


### Interior Plan o1 Part A - Auditorium Level

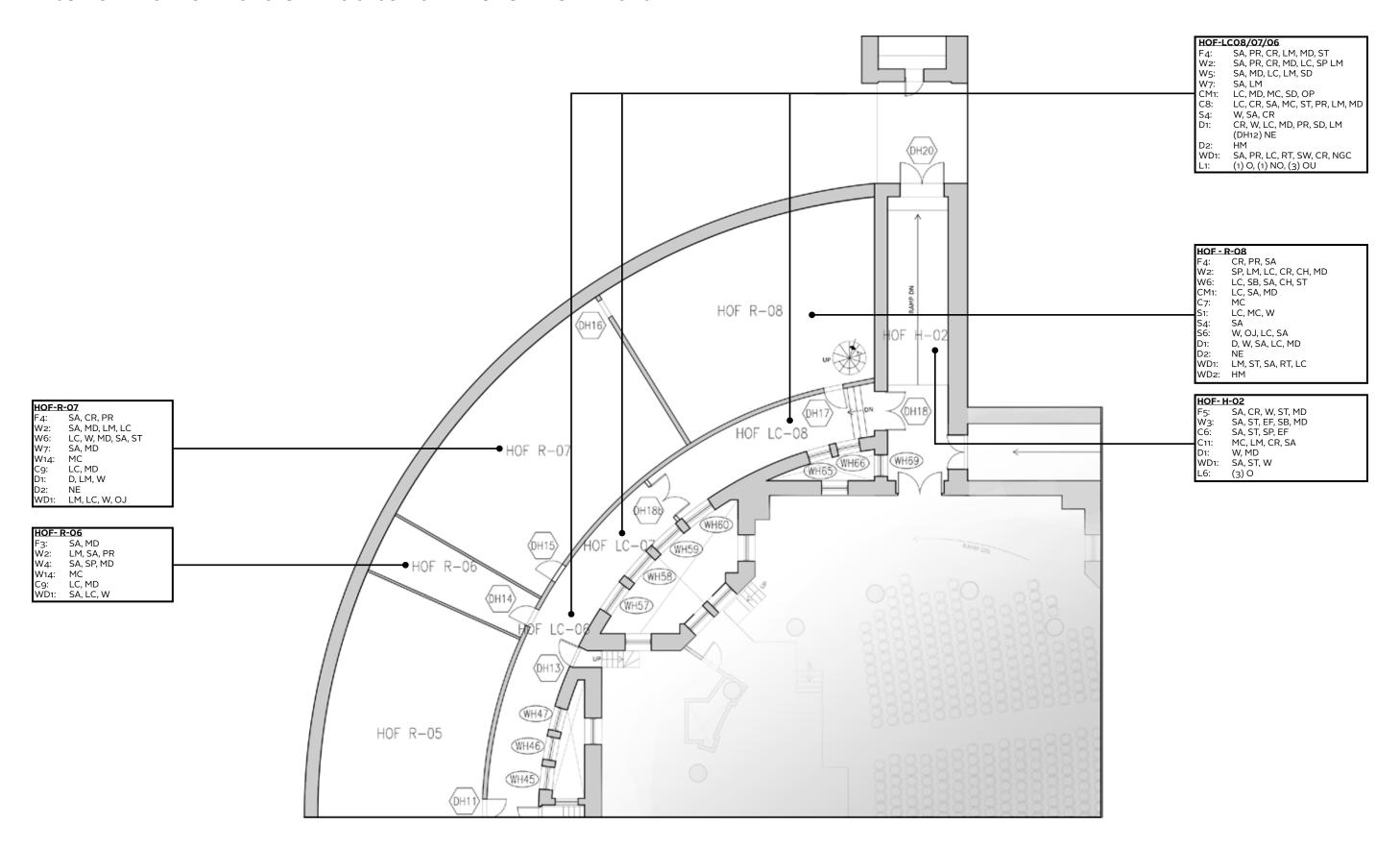


BEYER BLINDER BELLE CONDITIONS ASSESSMENT 225

### Interior Plan 01 Part B - Auditorium Level HOF South



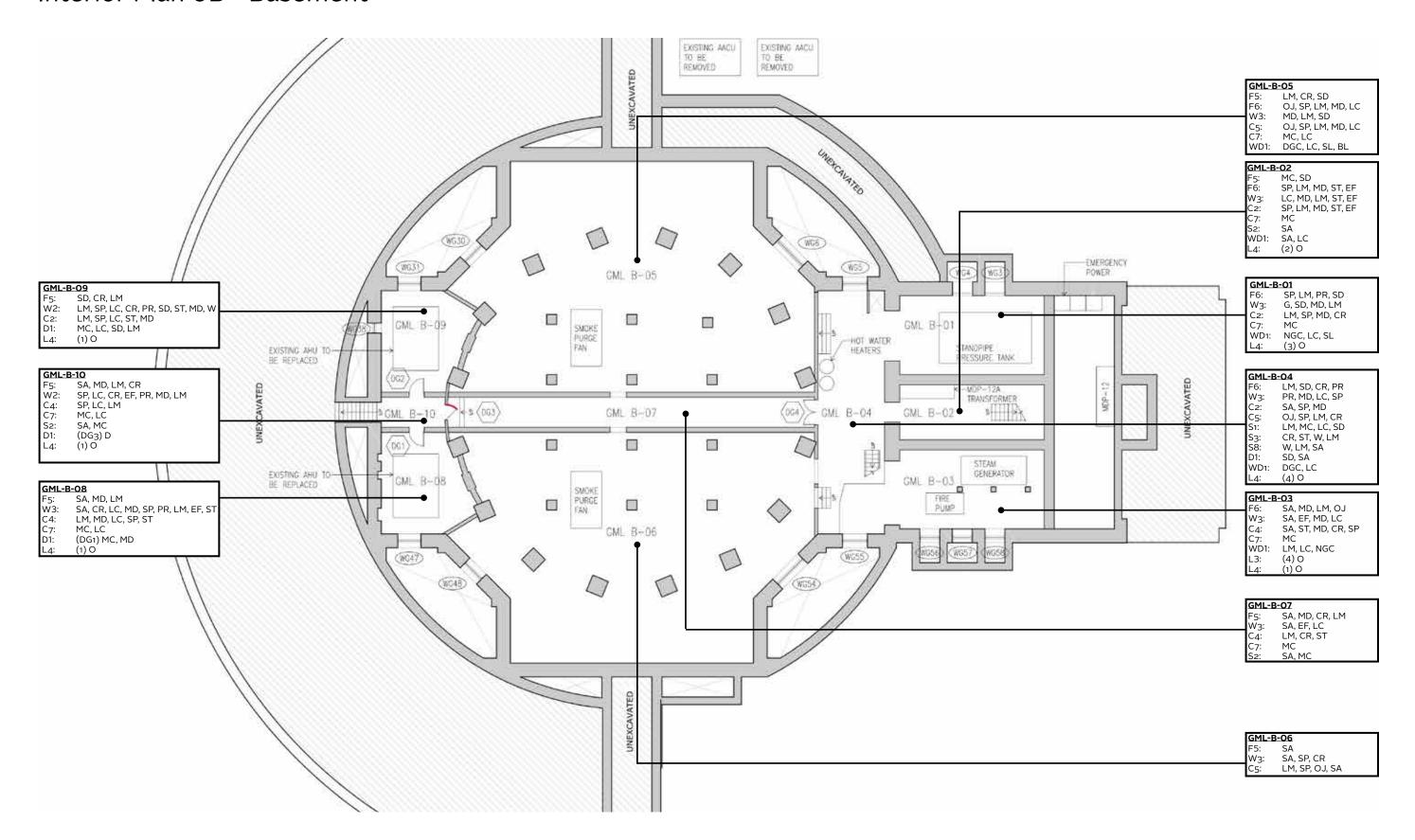
### Interior Plan 01 Part C - Auditorium Level HOF North



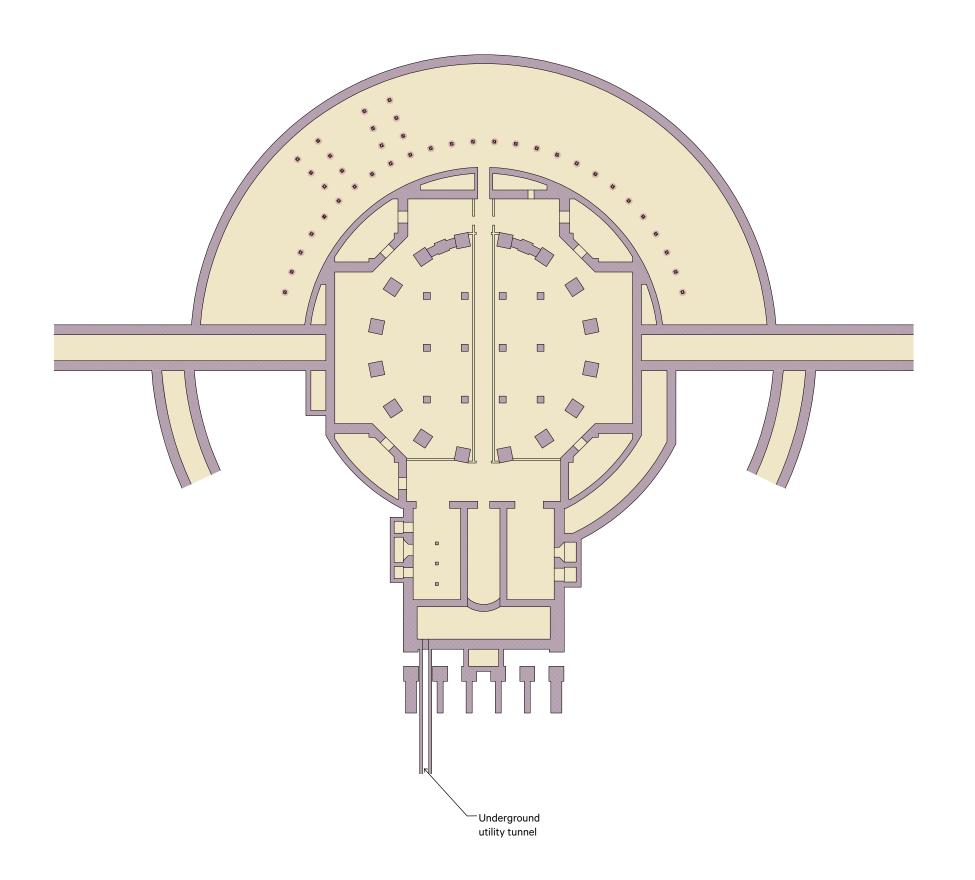
BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 227

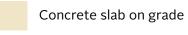
### Interior Plan oB - Basement

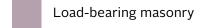


# Structural System Plan oB: Basement Level



### Legend

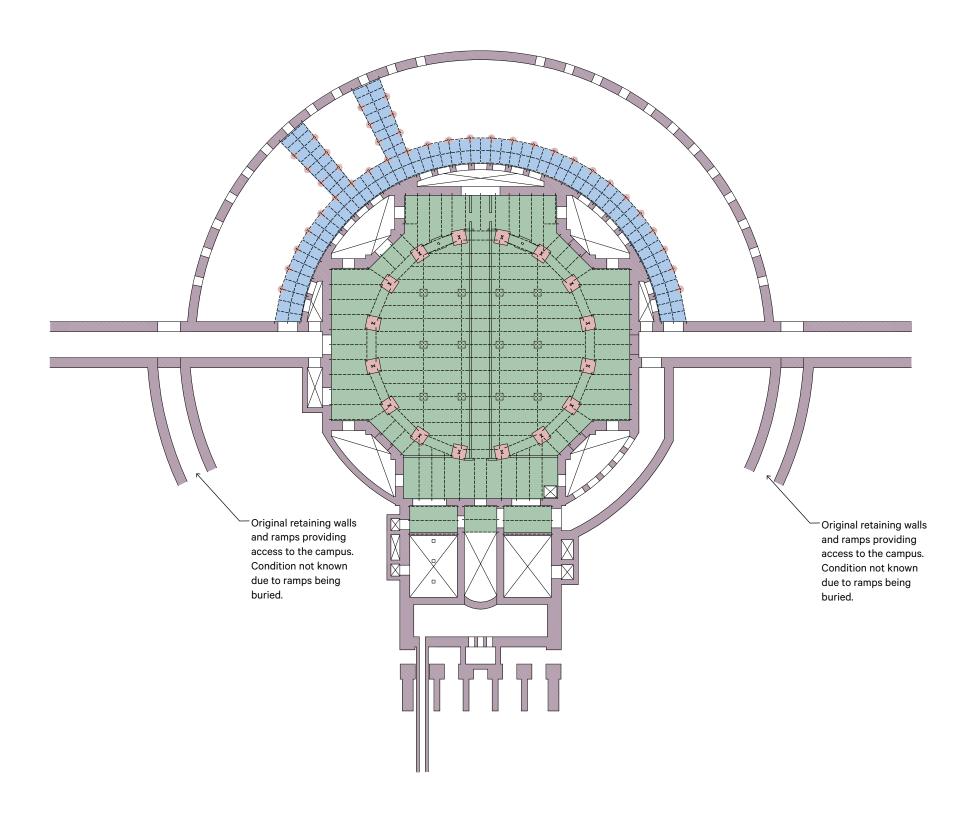




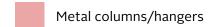
See page 14 of Volume 1 for Systems descriptions.

BEYER BLINDER BELLE CONDITIONS ASSESSMENT 229

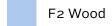
# Structural System Plan 01: Auditorium Level

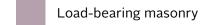


#### Legend



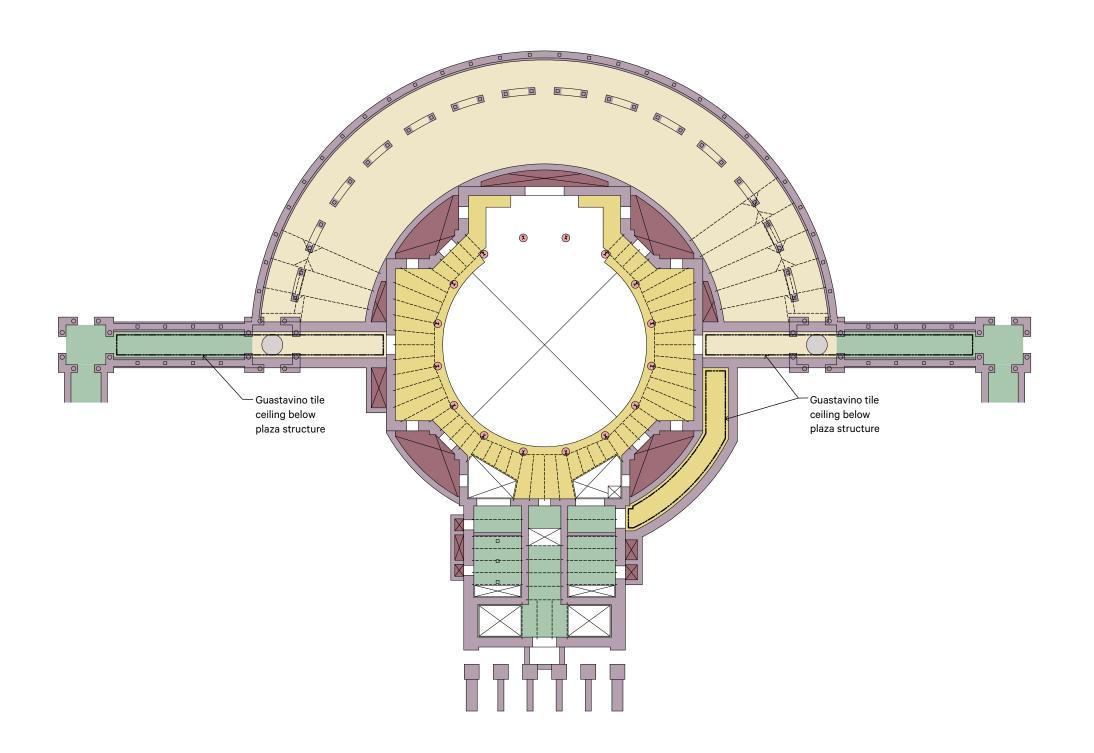






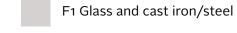
See page 14 of Volume 1 for Systems descriptions.

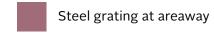
## Structural System Plan 02: Quad Entrance & Auditorium Balcony Level

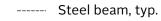


#### Legend







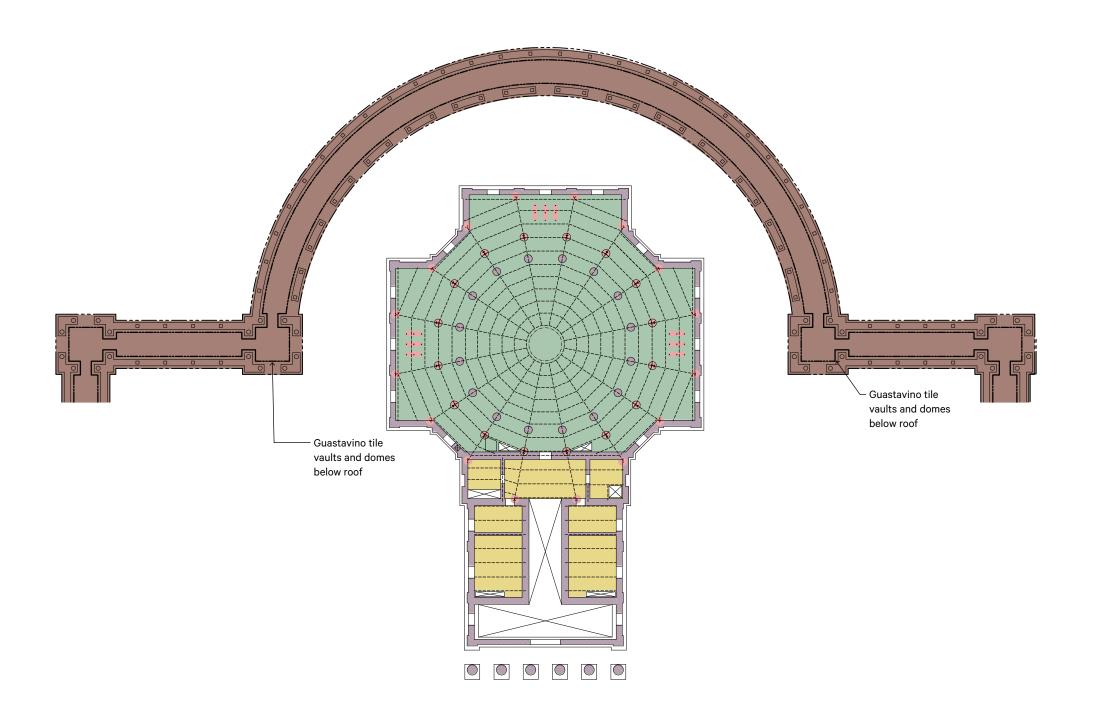


See page 14 of Volume 1 for Systems descriptions.

BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 231

# Structural System Plan 03: Rotunda Level



#### Legend

Metal columns/hangers

Unknown, assumed to be C2 terra cotta flat arch

F6 Brick masonry vaults

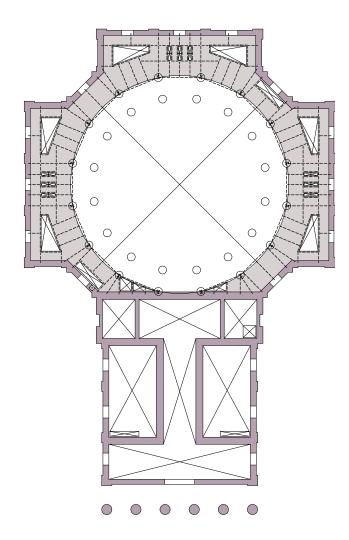
Load-bearing masonry

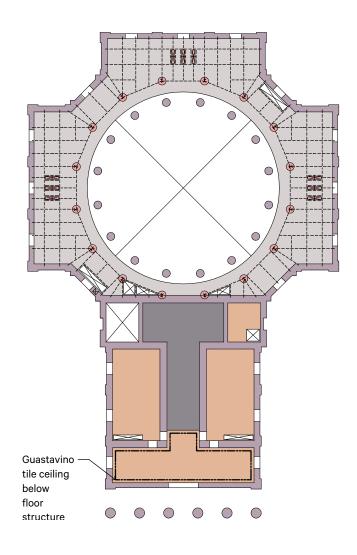
C2 Concrete plank & Guastavino tile over brick knee walls

See page 14 of Volume 1 for Systems descriptions.

### Structural System Plan 04: Mezzanine Level

Structural System Plan 05: Balcony Level





#### Legend

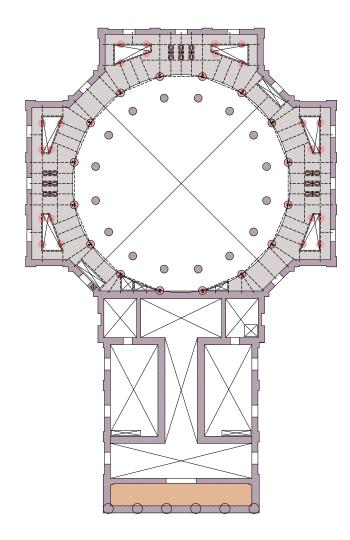


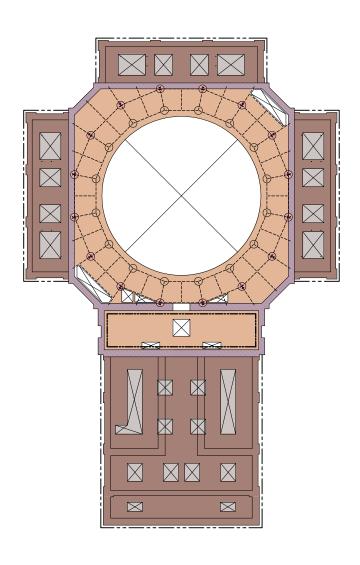
See page 14 of Volume 1 for Systems descriptions.

BEYER BLINDER BELLE 233

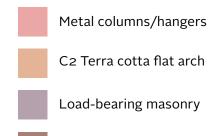
## Structural System Plan o6: Tiffany Glass Level

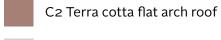
Structural System Plan 07: Attic Level

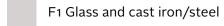




#### Legend



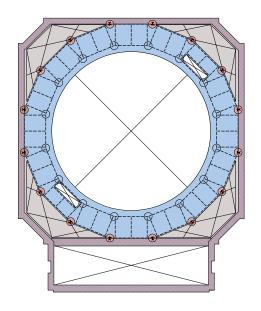


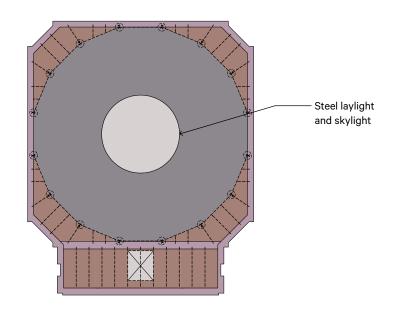


See page 14 of Volume 1 for Systems descriptions.

### Structural System Plan o8: Dome Room Level

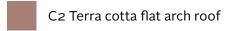
Structural System Plan 09: Dome Roof Level



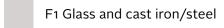


#### Legend





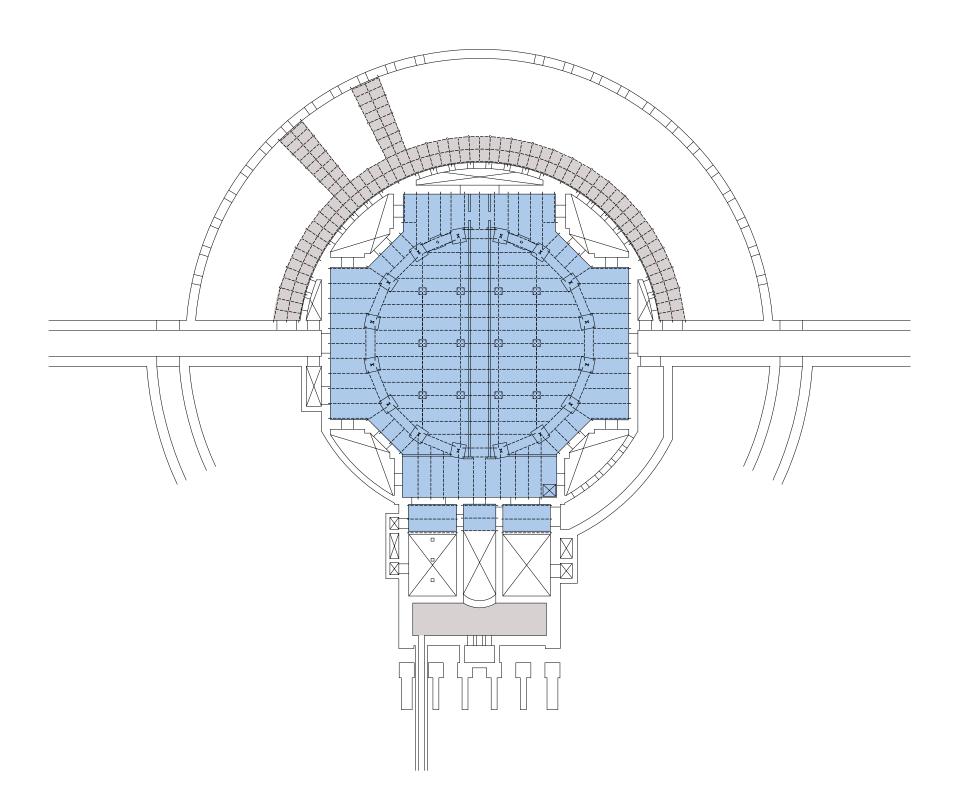




See page 14 of Volume 1 for Systems descriptions.

BEYER BLINDER BELLE 235

## Live Load Plans oB: Basement Level / 01: Auditorium Level



The plans and table illustrate the live loads mandated by the building codes for the use or occupancy of given spaces in the library.

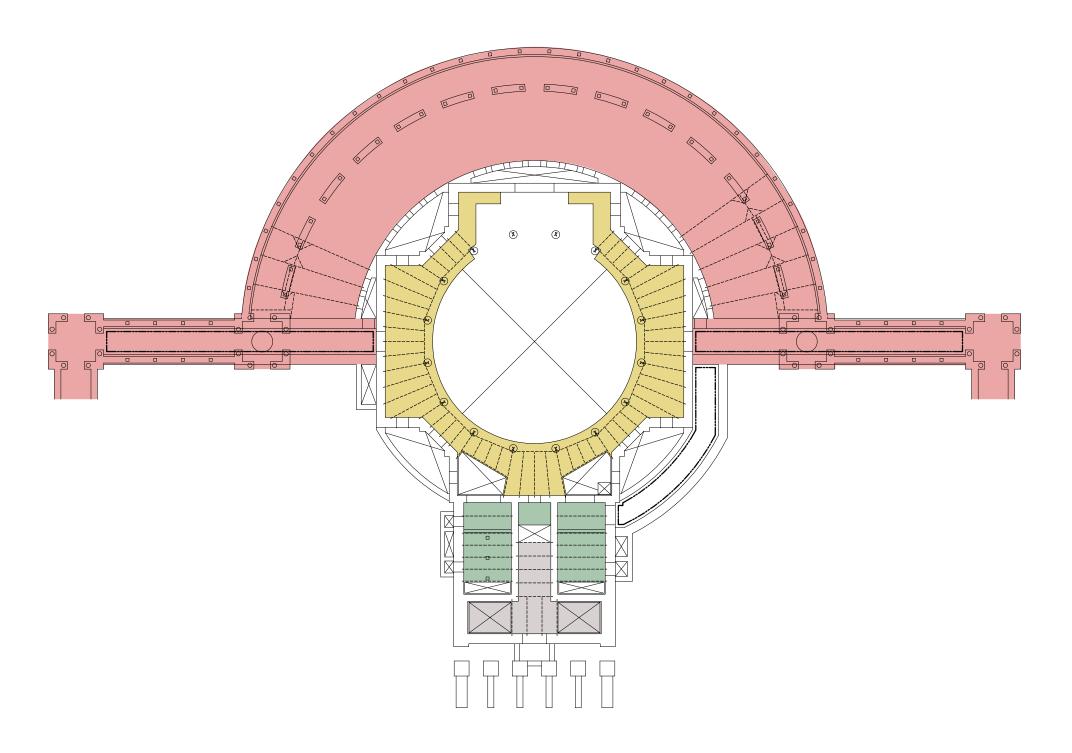
The first column of the table correlates to The NYC Consolidation Act of 1882 (NYC CA 1882). This was the code in effect when the building was designed and built. The second and third columns are the NYC Building Code of 1968 (NYC BC 1968) and Certificate of Occupancy (C of O 1972), respectively. These values provide a comparison between the contemporary and historic standards.

The description of the use or occupancy in the "Occupancy" column in the table is repeated at several rows because the description of the use or occupancy varies from one code to the next. The original drawings do not clearly indicate occupancy. Occupancy has been assigned based on the historic use of various spaces.

#### Legend

Code Ref. Occupancy	NYC CA 1882	NYC BC 1968	C of O 1972
Typical Floor	75 PSF	-	100 PSF
Stacks/Corridor/Lobby	-	100 PSF	
Public Assembly	75 PSF	-	-
Fixed Seating	-	60 PSF	-
Lecture Room	-	-	100 PSF
Public Assembly	120 PSF	-	-
Fixed Seating	-	60 PSF	-
Typical Floor	-	-	100 PSF
Typical Floor	75 PSF	-	100 PSF
Office	-	50 PSF	
Public Assembly	120 PSF	-	-
Stacks/Corridor/Lobby	-	100 PSF	-
Typical Floor	-	-	100 PSF
Public Assembly	120 PSF	-	-
Plaza Areas	-	100 PSF	-
Typical Floor	-	-	100 PSF

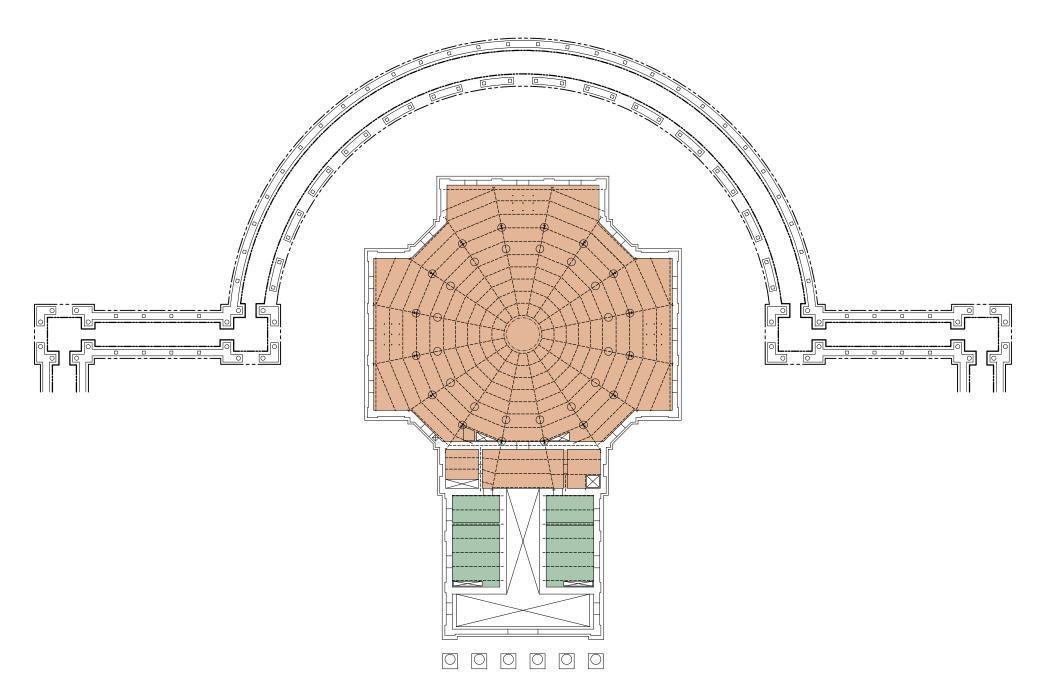
# Live Load Plan 02: Quad Entrance & Auditorium Balcony Level



BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 237

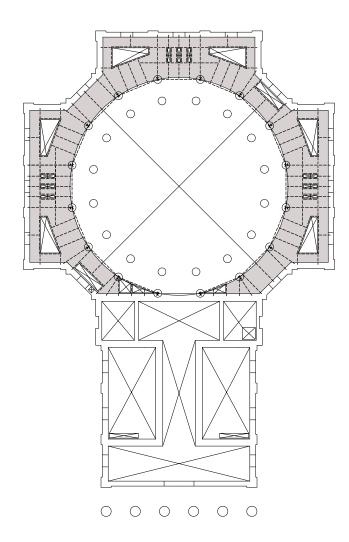
# Live Load Plan 03: Rotunda Level

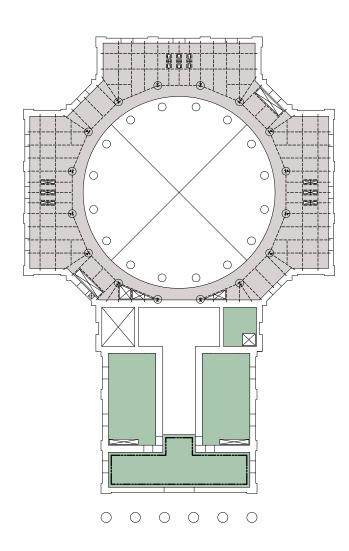


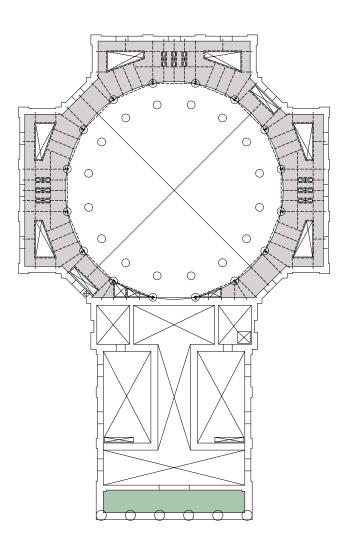
#### Legend

Code Ref. Occupancy	NYC CA 1882	NYC BC 1968	C of O 1972
Typical Floor	75 PSF	-	100 PSF
Stacks/Corridor/Lobby	-	100 PSF	
Public Assembly Fixed Seating Lecture Room	75 PSF	-	-
	-	60 PSF	-
	-	-	100 PSF
Public Assembly Fixed Seating Typical Floor	120 PSF	-	-
	-	60 PSF	-
	-	-	100 PSF
Typical Floor	75 PSF	-	100 PSF
Office	-	50 PSF	
Public Assembly	120 PSF	-	-
Stacks/Corridor/Lobby	-	100 PSF	-
Typical Floor	-	-	100 PSF
Public Assembly	120 PSF	-	-
Plaza Areas	-	100 PSF	-
Typical Floor	-	-	100 PSF

Live Load Plan 04: Mezzanine Level Live Load Plan 05: Balcony Level Live Load Plan o6: Tiffany Glass Level

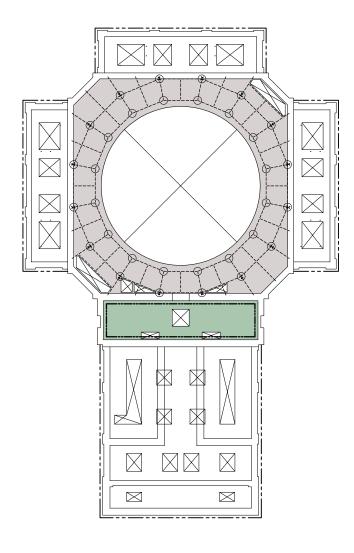


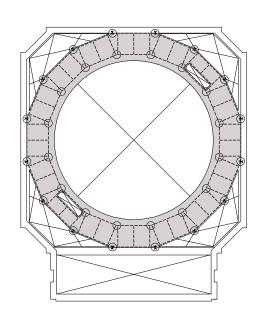




## Live Load Plan 07: Attic Level

## Live Load Plan o8: Dome Room Level

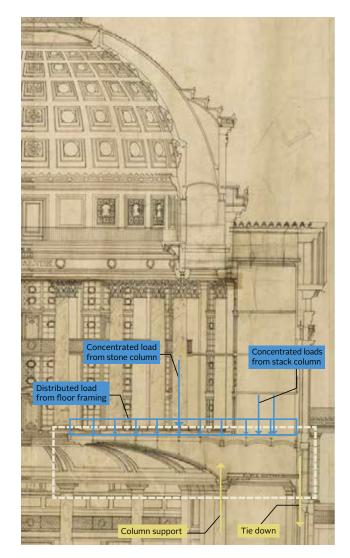


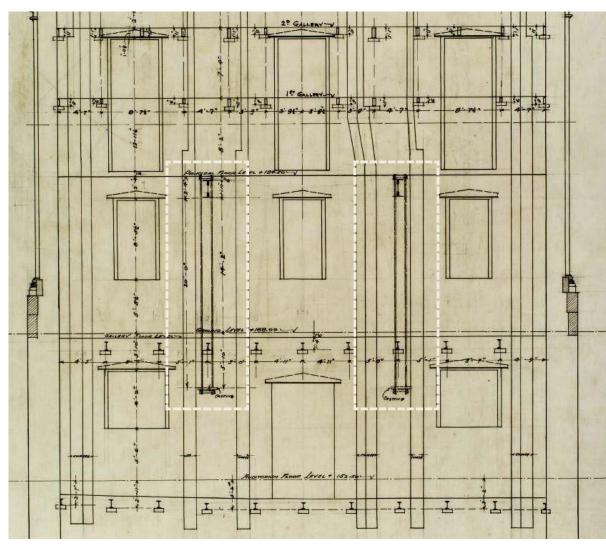


#### Legend

Code Ref. Occupancy	NYC CA 1882	NYC BC 1968	C of O 1972
Typical Floor	75 PSF	-	100 PSF
Stacks/Corridor/Lobby	-	100 PSF	-
Public Assembly	75 PSF	-	-
Fixed Seating	-	60 PSF	-
Lecture Room	-	-	100 PSF
Public Assembly	120 PSF	-	-
Fixed Seating	-	60 PSF	-
Typical Floor	-	-	100 PSF
Typical Floor	75 PSF	-	100 PSF
Office	-	50 PSF	-
Public Assembly	120 PSF	-	-
Stacks/Corridor/Lobby	-	100 PSF	-
Typical Floor	-	-	100 PSF
Public Assembly	120 PSF	-	-
Plaza Areas	-	100 PSF	-
Typical Floor	-	-	100 PSF

### Structural Conditions: Library Stack Diagrams





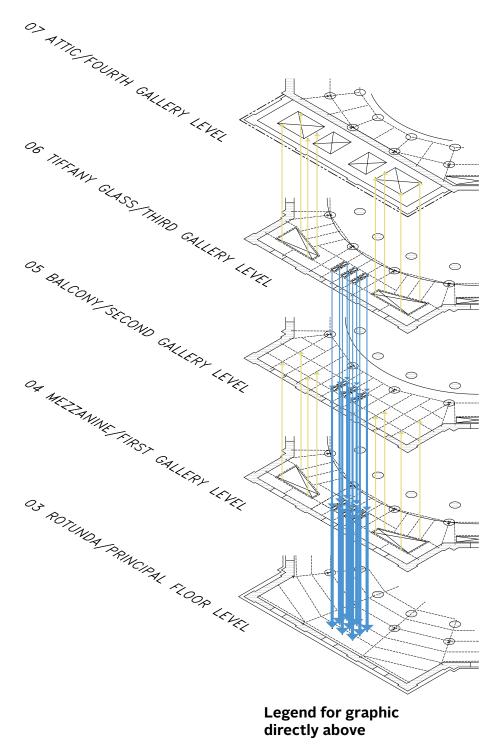
Section - Tapered cantilever shown in dashed box

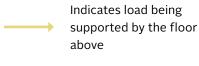
Elevation - Tie downs shown in dashed box

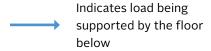
Library stacks exist on the north, south, and west sides of the building. Each wing of the stack is divided into three areas on plan. The outer portions of each wing is symmetrical with Levels 04 and 06 being hung from the floor structure of Levels 05 and 07, respectively. In the middle portion of each wing the vertical stack structure travel between all of the stack levels and are integrated into overall floor structure. The floor and stack loads in these middle portion bear on the floor structure of Level 03. The described load path is depicted in the axonometric drawing.

Level 03 consists of tapered built up cantilevers as shown in the section drawing above. The elevation drawing shows the tie down detail within the building's

masonry walls that resist the uplift at the end of the cantilever's back span. It was initially assumed that modification to the middle portion of the stack may have a detrimental effect on the framing of Level 03 if the cantilever was depending on the weight of the stacks to load it's back span. Based on preliminary analysis this does not seem to be the case. Further investigation and analysis should be carried out to determine potential changes in deflections of the structure of Level 03 if the stacks are modified. Changes in deflections could cause additional cracking of the floor and ceiling finishes and repairs should be considered.







BEYER BLINDER BELLE CONDITIONS ASSESSMENT 241

# Plumbing

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTA	ATIVE PHOTO
Stormwater	Uninsulated Stormwater Piping Summer condensation can cause interior damage.	Insulate Piping Cut walls to expose for access to re-insulate in areas of secondary and tertiary historic character. Apply pipe insulation and restore interior finishes.	Level 2		
Stormwater	Piping in Poor Condition Leaders at Dome Room have temporary taps installed to remedy clogged drainage.	Replace Piping Correction in progress by college staff. Replacement scoped as part of previously designed "Critical Roof Repair" project.	Level 3		
Stormwater	Combined System Stormwater and sanitary waste systems connect through the same internal piping and do not discharge from the building in separate traps	Separate Piping Sanitary and stormwater piping to be separated by code if major system change undertaken; not required when performing incremental replacement.	Level 5		
Domestic Water	Uninsulated Piping Hot and cold water not insulated.	Insulate Piping Cut walls to expose for access to re-insulate in areas of secondary and tertiary historic character. Apply pipe insulation and restore interior finishes.	Level 2		

# Plumbing

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
Domestic Water	Domestic water service does not have water meter or backflow preventer.	Upgrade Provide water meter and backflow preventer	Level 2	

BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 243

### Mechanical

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
Heating	Uninsulated Piping Not all steam and condensate piping insulated.	Insulate Piping Cut walls to expose for access to re-insulate in areas of secondary and tertiary historic character. Apply pipe insulation and restore interior finishes.	Level 3	
Heating/Air Conditioning	Overgrowth Auditorium's exterior condensers have considerable amount of poison ivy around them.	Abate Poison Ivy Obviate exterior condensers by connecting to campus chilled water system.	Level 3	
Heating/Air Conditioning	Poor Acoustical Performance Auditorium's interior air handlers do not perform according to accepted acoustical standards and may diminish quality of sound in the space.	Provide Acoustical Controls Analyze space for acoustical needs and provide duct silencers to suit.	Level 5	
Air Conditioning	Thermal Comfort Much of the building does not have air conditioning, including GML Rotunda & stacks, & HOF rooms.	Provide Cooling Design units and distribution system to suit existing spaces & minimize the effect on the historic fabric.	Level 5	

## Mechanical

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
Ventilation	Insufficient Fresh Air Supply With the exception of the Auditorium, most GML and HOF spaces do not have proper ventilation. During the hot and cold seasons, the operating windows is not an effective strategy.  Mechanical ventilation should be provided. This has significant implications to heating and cooling the spaces as the fresh air needs to conditioned as well.	Provide Code-Minimum Ventilation Install heating and cooling systems that allow for proper ventilation. Coordination with campus systems to be necessary. Space for equipment can be difficult. Integration into building fabric to be difficult.	Level 5	

BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 245

## Electrical

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
Switchboards	Outdated System Switchboard MDP-12 is old and in poor condition.	Upgrade Replace with new switchboard	Level 3	
Distribution Panels	Outdated System  Many of the older distribution panels are beyond their useful life and require replacement.	Upgrade Replace distribution panel with new.	Level 3	
Receptacles	Outdated System In all areas of GML there are a lack of sufficient electrical receptacles. Although not a code violation, this leads to overuse of flexible cord sets and power strip devices. Offices do not have enough outlet receptacles to support modern office functions and often have power strips to compensate. There are areas in the former stacks which have no receptacles.	Upgrade Plug Load System Add more receptacles and distribution panels to support them.	Level 4	
Receptacles	Outdated System Receptacle in the Rotunda is not supported properly and is supported only by a conduit.	Upgrade Plug Load System Provide properly supported receptacles to the Rotunda in a historically sensitive manner.	Level 2	

## Electrical

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
Junction Boxes	Outdated System Wall-mounted junction boxes in balcony area have exposed wiring.	Upgrade Install code-compliant cover of wiring.	Level 2	
Abandoned Equipment	Outdated System Abandoned electrical fixtures exist in the building. List locations	Upgrade Remove abandoned fixtures.	Level 4	
Lighting in GML	Outdated System Light fixtures in office areas are generally in poor condition. Period fixtures originally intended to utilize incandescent lamps that have been replaced with compact fluorescent lamps.  Lighting in the stack areas is in poor condition. In many areas lighting is by means of incandescent light bulbs suspended by flexible pendants. These pendants are dangerously unprotected from physical damage.	Upgrade Replace office lighting with new modern energy efficient LED lighting fixtures Period fixtures should be custom upgraded to LED lamps.  Replace lighting in stacks with LED fixtures to meet codes and to suit luminosity required by type of use.	GML Offices Level 4 GML Stacks Level 2	
Emergency Lighting	Outdated System Emergency lighting is provided by selected fixtures connected to the generator service. It is not clear if exterior lighting at exit doors are connected to the emergency system.	Upgrade Connect exterior exit lighting to the emergency system.	Level 2	

BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 247

## Electrical

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO
HOF Lighting	Outdated System Several of the lighting fixtures in the ambulatory are completely missing. Others were replaced with historically inappropriate fixtures.	Refurbish & Upgrade Replace the missing fixtures with reproductions of the existing original fixtures and convert all fixtures to LED lighting.	Level 4	
Low Voltage	Inappropriate Elements Conduit associated with the security cameras was exposed along the surface of the Hall of Fame ceiling and walls.	Install Historically Sensitive Upgrades Conceal security camera wiring within structure and remove the conduit.	Level 4	
Switchboard	Outdated System The 800 amp capacity of this switchboard is insufficient for the future use of the buildings.	Upgrade For future use bring 480 volt service from the campus wide network. Install new switchboard at 480/277 volts, 800 amps to power new equipment.	Level 5	

## Fire Protection & Fire Alarm

COMPONENT	CONDITION	TREATMENT	PRIORITY	REPRESENTATIVE PHOTO			
Standpipe	Obstructed Access Fire department connection visible and physically obstructed by landscaping.	Reconfigure Landscaping	Level 2				
Standpipe	Missing Components Fire water service does not have water meter or backflow preventer.	Upgrade Provide water meter and backflow preventer.	Level 2				
Sprinklers	Missing Components Sub-basement and HOF rooms are not protected by a sprinkler system.	Upgrade Provide sprinkler system in sub-basement and HOF rooms.	Level 2				
Fire Alarm	Non-Functional System The existing fire alarm system is completely nonfunctional.	Upgrade Provide an entirely new fire alarm system as part of campus work scheduled for 2018.	Level 1				

BEYER BLINDER BELLE

CONDITIONS ASSESSMENT 249

## **Historic Integrity**

#### **EVALUATION OF ARCHITECTURAL SIGNIFICANCE**

Stanford White's design for New York University's "University Heights Campus" is a nationally-significant example of Beaux-Arts architecture in the United States, and is among the most important works by White, partner in McKim, Mead & White, the preeminent American architectural firm in the decades bookending 1900. The location of the campus, on a picturesque bluff in the Bronx in what was then a rural setting outside of dense Manhattan, exemplifies an important period trend in campus planning: the push to abandon older hemmed-in urban campuses and construct spacious new ones in bucolic, pastoral settings. The dramatic site for NYU's new campus was soon matched by a stunning plan conceived by Stanford White. The University Heights campus is a significant showcase of White's work within the Beaux-Arts tradition exemplified by McKim, Mead & White.

NYU retained McKim, Mead & White in 1892 to devise an overall plan and component academic buildings for its undergraduate school. The campus is situated on the highest natural point of the Bronx. While having a formal arrangement of buildings typical of the period, White's design did not overpower the landscape. The loose grouping of primary buildings framed views out into the landscape that took advantage of the natural topography and beauty of the bluff-top site. The campus is anchored by the Gould Memorial Library (c.1900), which references the Pantheon in Rome and Thomas Jefferson's Rotunda at the University of Virginia. The exquisitely detailed building sits on a high podium along the top of which runs the Hall of Fame for Great Americans (c.1900), a colonnade containing busts of those elected, the first of its kind in the United States. The colonnade provides a terminus to the physical campus, but a permeable one that underscores White's desire to integrate the natural and built

environments. Although White's plan was never fully implemented, the core of his University Heights Campus retains its principal buildings and essential, character-defining features that are an important demonstration of the flexibility of Beaux-Arts design and of Stanford White's prowess as an architect.

#### **EVALUATION OF CULTURAL SIGNIFICANCE**

The Hall of Fame for Great Americans, located in the colonnade behind the Gould Memorial Library, played an important role in American culture for many decades after its dedication in 1901. Tapping into a special moment in the adolescence of America, the Hall of Fame was the first of its kind in the United States, and provided Americans with a tangible symbol of the distinguished men and women of their country. The purpose of the Hall of Fame was:

not to mourn the passing of heroes, but to inspire the living by encouraging a deeper understanding of those American men and women who had made significant contributions to human welfare. Not only were political leaders and military heroes to be acclaimed, but also artists, scientists, humanitarians, and others deserved of enduring recognition for their achievements.

A writer for *The Atlantic* mused in 1997 about the impetus behind the Hall of Fame, stating: "The Hall of Fame promised, for the first time, to launch Americans into the orbit of Universal Immortality. In a sense, it was the vehicle of our validation, and people took it very, very seriously.... For a while, the term 'Hall of Famer' carried greater cachet than 'Nobel Laureate' and a hilltop in the Bronx seemed, to many, the highest spot in the country, if not the world."

The University Heights campus exemplifies the finest of the Beaux-Arts influenced American-Renaissance tradition, and is an exceptional illustration of Stanford White's work at McKim, Mead and White. The Gould Memorial Library, Hall of Fame for Great Americans, Hall of Languages and Hall of Philosophy, along with Gould Hall and Havemeyer Laboratory, form a unique architectural ensemble. The project provides a compelling comparison of the design styles, and interpretation of the American Renaissance style, of the principals of McKim, Mead and White, as Charles McKim's design of Columbia University occurred simultaneously with Stanford White's design for NYU. Additionally, with the push to move the NYU campus to the Bronx, the University Heights Campus exemplifies the trends of early-twentieth-century campus planning. Moreover, the Hall of Fame for Great Americans at NYU's University Heights campus retains its own significance due to its importance to American culture of the period.



Gould Memorial Library Auditorium Source: New York University Archive, Bobst Library

#### **GOULD MEMORIAL LIBRARY**

The Gould Memorial Library (1900) stands as one of the finest examples of the work of Stanford White and McKim, Mead & White and was the focus of the overall campus scheme. The large, domed building is designed in an eclectic classical revival style and features an impressive portico on the main entry façade (east façade) with six Corinthian columns of Indiana limestone. The exterior elevations of the building have Corinthian pilasters of limestone, set against yellow Roman brick and Milford pink granite used in the walls. Windows are set into the bays created by the pilasters, and are detailed with moulded jambs and full entablatures. By creating shallow side and rear wings and a deep front wing, Stanford White relieved the grandeur of the design, allowing it to more fully engage, rather than dominate, the natural landscape. The cornice on the dome is detailed with a terra-cotta frieze of garlands and pendants. The roof of the dome rises from the cornice, covered in copper tiles, to the richly-decorated oculus. The classical forms of the exterior of the library are freely interpreted to make a bold architectural statement while simultaneously blending with the romantic setting.

The exuberance of the building's exterior is far surpassed by the dramatic spaces and sumptuous detailing of the interior. The building is centrally planned with a modified Greek cross plan. A large round, domed reading room occupies the center of the plan with shallow arms extending outward encompassing offices and other support spaces on the north, south, and west, and the top landing of the monumental stairway on the east rising from the entrance portico up to the

reading room. The space containing the stair extends to the east of the centrally planned building and is opulently finished with a coffered barrel vaulted ceiling, Renaissance Revival architectural details rendered in marble, and massive wall sconces. Stained glass, marble stair treads, and bands of red, yellow, black and white mosaic floor tiles add to the material richness of the entrance hall. The upper stair landing (east arm of the Greek cross plan) features a shallow dome featuring a round piece of green Tiffany stained glass from which a glass globe lamp hangs. From the landing, one can catch a tantalizing glimpse of the reading room beyond. The expansiveness of the rotunda reveals itself slowly as visitors pass through the stair hall doorway. The original administrative offices are located on either side of the stairway and contain handsome wood paneling and fireplaces.

The rotunda is a magnificent and dramatic Beaux-Arts interior, rising four stories to the spring line of a coffered dome. The dome is supported by sixteen green Connemara Irish marble columns, which rise from bases of white Vermont marble that are capped by Corinthian capitals covered in a gold-colored metal, often referred to as Dutch metal, applied by the Tiffany Decorating Company. The columns support a full entablature, ornamented by a Greek fret band, a bracketed cornice, and a carved frieze. Above the entablature of the colonnade is a balcony with plaster railings in a classical openwork pattern set between plaster pedestals. Each pedestal supports a classical female statue, aligned with the columns below. The back wall of the balcony features Tiffany glass mosaic panels and forms the drum of the low coffered dome. The coffers diminish in size as they move towards the central oculus. On the rotunda floor, directly below where the original stained glass oculus sat, a glass panel floor serves to allow light down into the auditorium below. Each of the Corinthian columns that decorate the rotunda is echoed by an engaged fluted column at the wall. The floor between the two colonnades is laid with panels of white, yellow and black marble. Bookcases line the bays, behind which are seminary rooms and book stacks entered from "book doors" on hinged sections of the bookcases.

The rooms located in the alcoves surrounding the rotunda are notable for their functional innovation: each academic department was assigned one and an adjoining section of book stacks. This allowed the head professor more access to available books on the subject and provided a home base for the students of the department. Above the first level in each alcove are book stacks with floors having glass panels set in a cast iron armature, allowing light to filter down to the lower levels of the alcoves.

Below the Rotunda is the auditorium, original to White's design, subsequently altered significantly and recreated in the late 1990s, inspired by the original design. Although it no longer functions as a library, Gould Memorial Library retains its original configuration and much of its original historic fabric. It houses perimeter and first floor offices, a lower level auditorium and the main Rotunda space.

#### HALL OF FAME FOR GREAT AMERICANS

A desire to cover Gould Memorial Library's exposed concrete retaining walls along the steep hill of the rear façade led to the development of the Hall of Fame for Great Americans. Stanford White's semicircular arcade design for the Hall of Fame (1900) makes dramatic use of the site drop-off, hugging against the rear of



Hall of Fame Gallery, Source: New York University Archive, Bobst Library

the Gould Memorial Library. The structure is unified by its eclectic Roman style and monumental scale, featuring a promenade from which commanding views unfold. The open-air colonnade contains the bronze busts of noted scientists, writers, educators, and other leaders who contributed significantly to American culture. Below the busts sit bronze tablets designed by Louis Comfort Tiffany, containing the name, birth and death dates, and a memorable quote from the person commemorated. The Hall of Fame is constructed of Milford pink granite and Indiana limestone with a ceiling of segmented, vaulted Guastavino tile carried on columns and piers. It is 630 feet in length and approximately ten feet wide. Wrought iron gates were added to the colonnade of the Hall of Fame in 1929 by the Philadelphia artist Samuel Yellin.

Below the exterior open-air colonnade sits the Hall of Fame museum, a series of gallery spaces for exhibitions unified by a semicircular passageway. The corridors leading from the galleries to the auditorium feature buff-colored brick walls and Guastavino ceiling tiles.

Today, the Hall of Fame exists much as it did when first constructed, remaining true to its original design intentions. The lower-level gallery is mostly vacant, occasionally used for movie sets and storage. The colonnade's northern end was extended to terminate in line with the front of Hall of Philosophy, an alteration to Stanford White's symmetrical original layout.

#### HISTORIC DESIGNATION

The Gould Memorial Library and the Hall of Fame for Great Americans were designated local landmarks by the New York City Landmarks Preservation Commission on February 15, 1966. Additionally the interior of Gould Memorial Library was designated a local landmark by the New York City Landmarks Preservation Commission on August 11, 1981. Any future work affecting the exterior of the buildings and portions of the interior which are designated will require review and approval by the New York City Landmarks Preservation Commission.

The Hall of Fame Complex, consisting of the Hall of Fame, Gould Memorial Library, Philosophy Hall and Language Hall were listed on the New York State and National Registers of Historic Places in 1979. The complex holds the highest designation of national significance on the National Register listing.

The University Heights Campus, including the Gould Memorial Library and the Hall of Fame was designated a National Historic Landmark by the Secretary of the Interior, National Parks Service.

Review by the New York State Office of Parks, Recreation and Historic Preservation and the National Parks Service is required when using state and federal dollars for work on the buildings.

## LEVELS OF ARCHITECTURAL INTEGRITY & HISTORIC SIGNIFICANCE

The exteriors of the Gould Memorial Library and Hall of Fame retain much of their original architectural fabric, detailing and distinction and are considered of Primary Significance remaining as one of the finest examples of Beaux Arts Classicism.

The interiors of the Gould Memorial Library and the Hall of Fame present varying levels of architectural integrity and historical significance. Areas of Primary Significance are those that possess fine architectural design, craftsmanship and finishes and are historically significant in their association with Stanford White and the firm of McKim, Mead and White, the Gould Memorial Library and Hall of Fame. Such spaces include the Rotunda and First Floor Offices.

The stack rooms, map room, and offices possess much of their original fabric and finishes, although deteriorated; the spaces lack architectural refinement alluding to their original design and purpose for pragmatic usage. The auditorium is a recreation based on historic documentation and little of the original, historic fabric remains. These spaces are considered of Secondary Significance.

Select rooms in the GML and HOF have been substantially altered with new occupancy, interior finishes and wall construction. Although the rooms purpose and configuration may have changed, historic walls may remain with intact historic finishes. Such walls are considered of Secondary Significance for their historic fabric, while the interior spaces are considered Substantially Altered/New Construction.

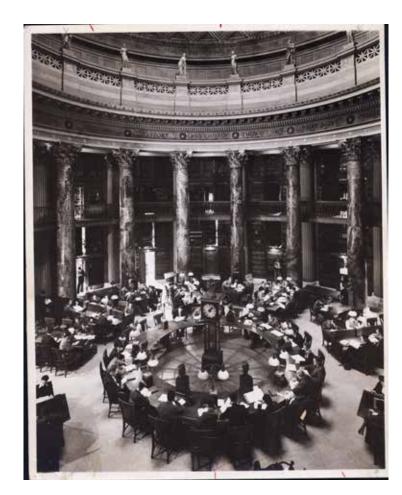
The following section illustrates, through graphic analysis, areas of significance and areas that have been substantially altered or newly constructed. These determinations can translate into appropriate levels of intervention for restorative treatment. Generally, areas of Primary Significance should be zoned for Restoration and areas of Secondary Significance should be zoned for Rehabilitation. Areas that have been Substantially Altered or Newly Constructed should be zoned for Reinvention where new purposes may be introduced. Definitions for these zones are as follows:

#### LEVELS OF ARCHITECTURAL INTEGRITY AND HISTORICAL SIGNIFICANCE

- **Primary Significance:** Possessing historical significance in association with the Stanford White and McKim, Mead and White, Gould Memorial Library and Hall of Fame and/or a high level of architectural integrity. Original walls and finishes are intact. Changes are minimal, cosmetic, and/or reversible.
- **Secondary Significance:** Historically significant with historic walls remaining in place. Past renovations may have been removed or substantially covered some historic finishes.
- **Substantially Altered/New Construction:** Historic fabric has been removed and/or existing fabric is non-historic construction.

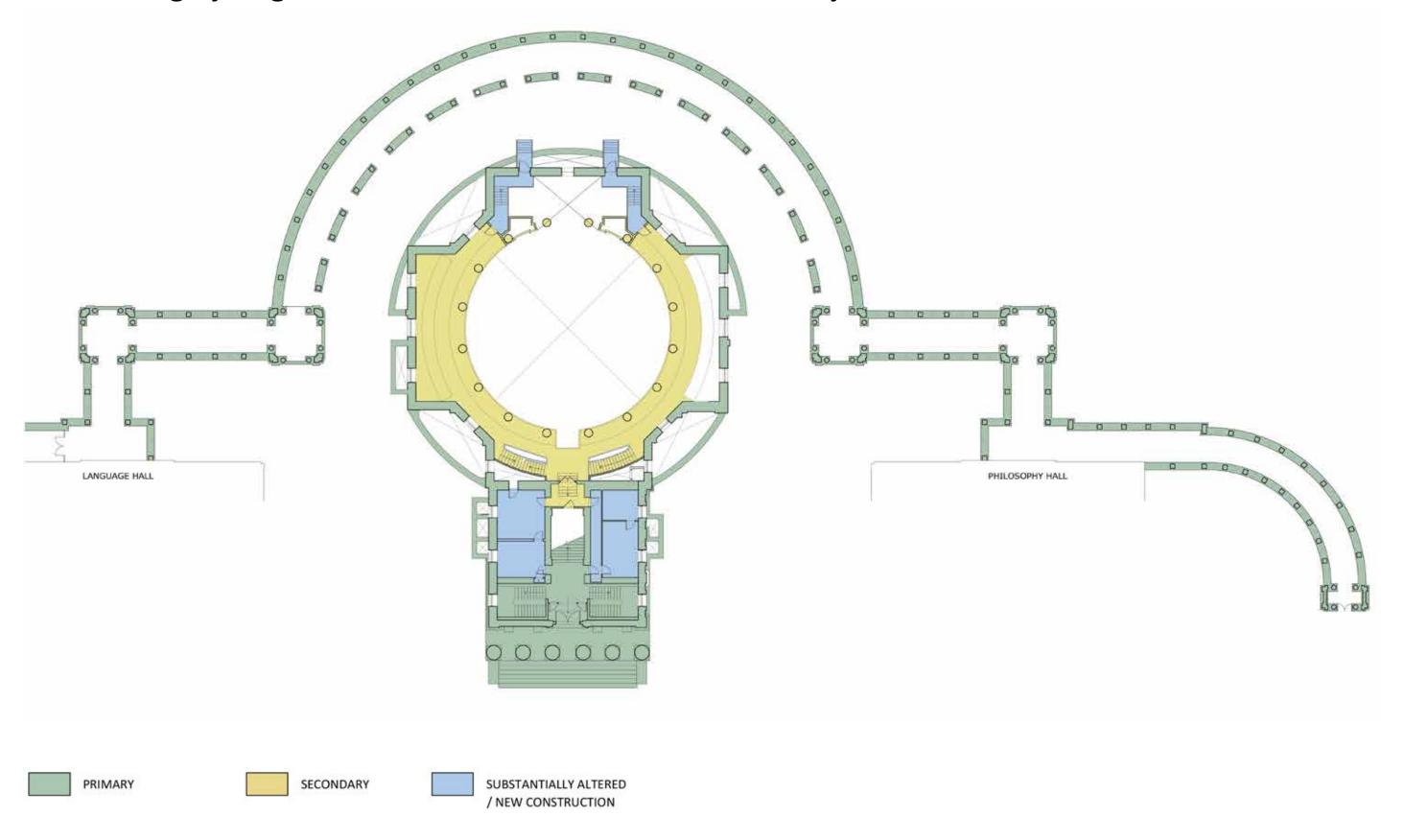
#### LEVELS OF INTERVENTION

- Restoration: Areas possessing high architectural significance and integrity should be preserved in their original state. Sensitive upgrades to building systems may be carried out; interventions should not adversely impact historic fabric physically or visually.
- **Rehabilitation:** Adaptation for contemporary use should attempt to retain any significant character defining features from the period of significance, within the boundaries of the existing room, while integrating new design, interventions and systems upgrades.
- **Reinvention:** In areas where there is little or no historic fabric new design interventions including the demolition of existing walls and the creation of new spaces and architectural expression, are appropriate

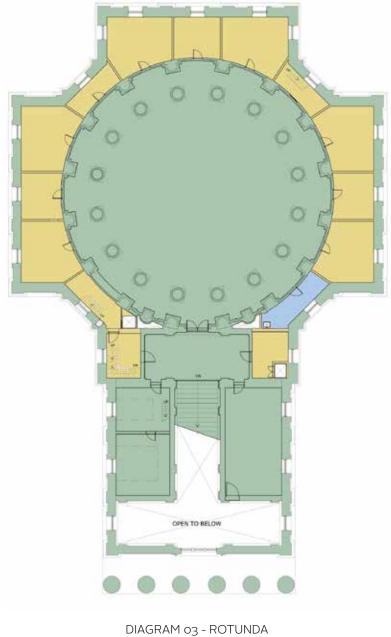


Gould Memorial Library Rotunda Reading Room Source: New York University Archive, Bobst Library

## Historic Integrity Diagram 02 - Quad Entrance & Auditorium Balcony Level



## Historic Integrity Diagrams 03/04 - Rotunda and Mezzanine





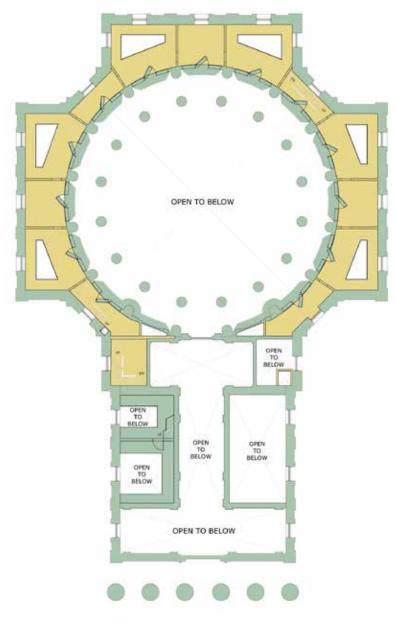


DIAGRAM 04 - MEZZANINE

PRIMARY



SUBSTANTIALLY ALTERED / NEW CONSTRUCTION

## Historic Integrity Diagrams 05/06 - Balcony and Tiffany Glass

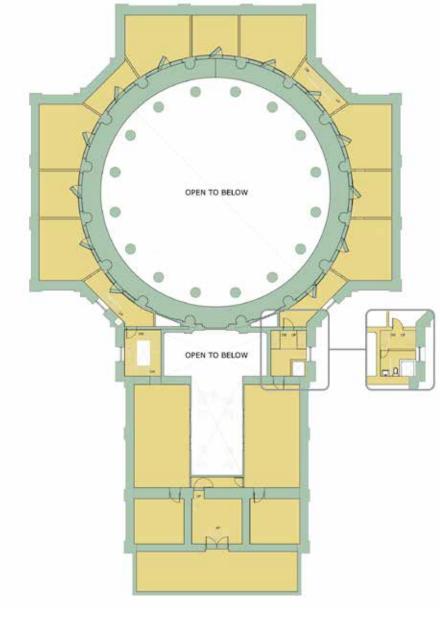
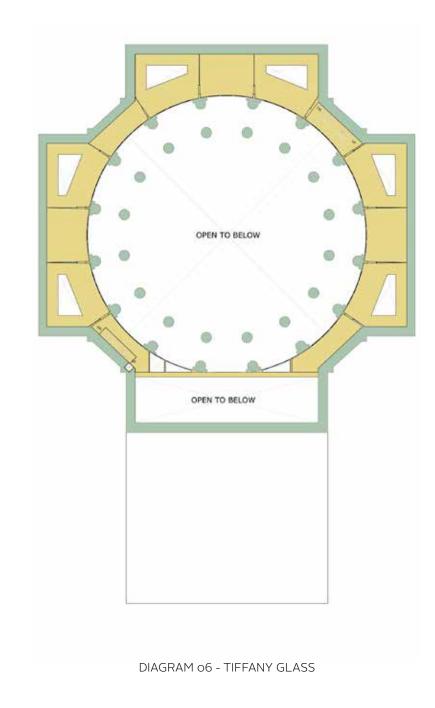


DIAGRAM 05 - BALCONY & SECOND FLOOR



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## Historic Integrity Diagrams 07/08 - Attic and Dome Room

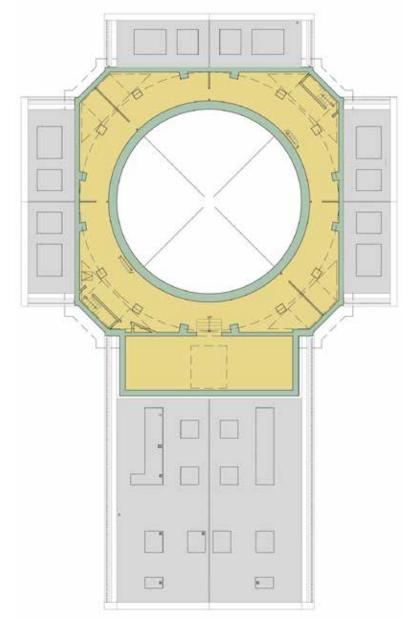


DIAGRAM 07 - ATTIC

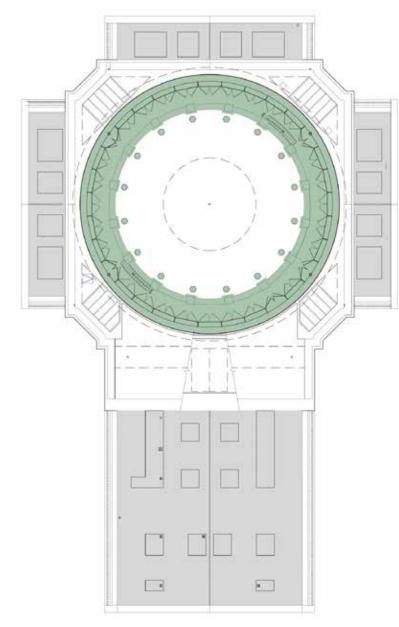
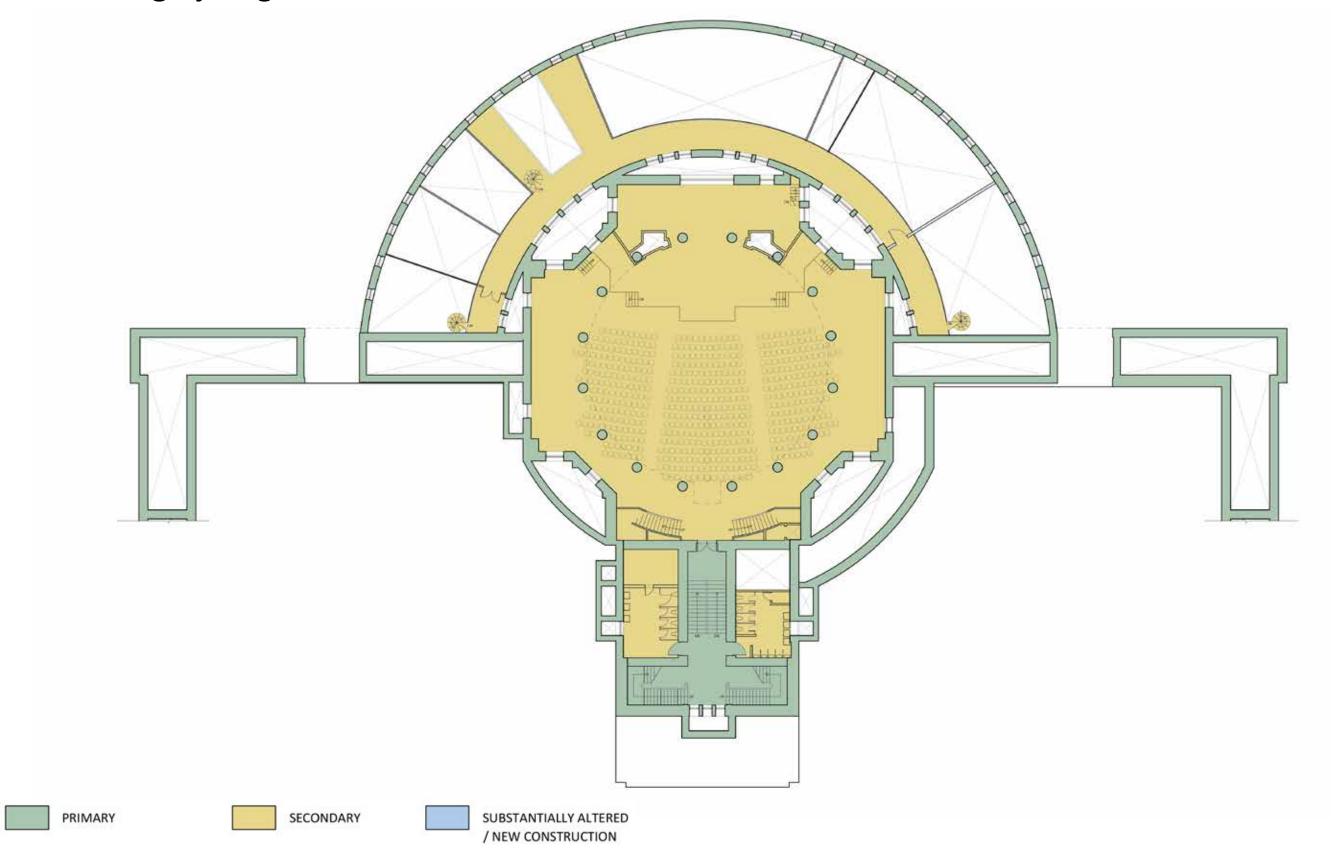


DIAGRAM 08 - DOME ROOM



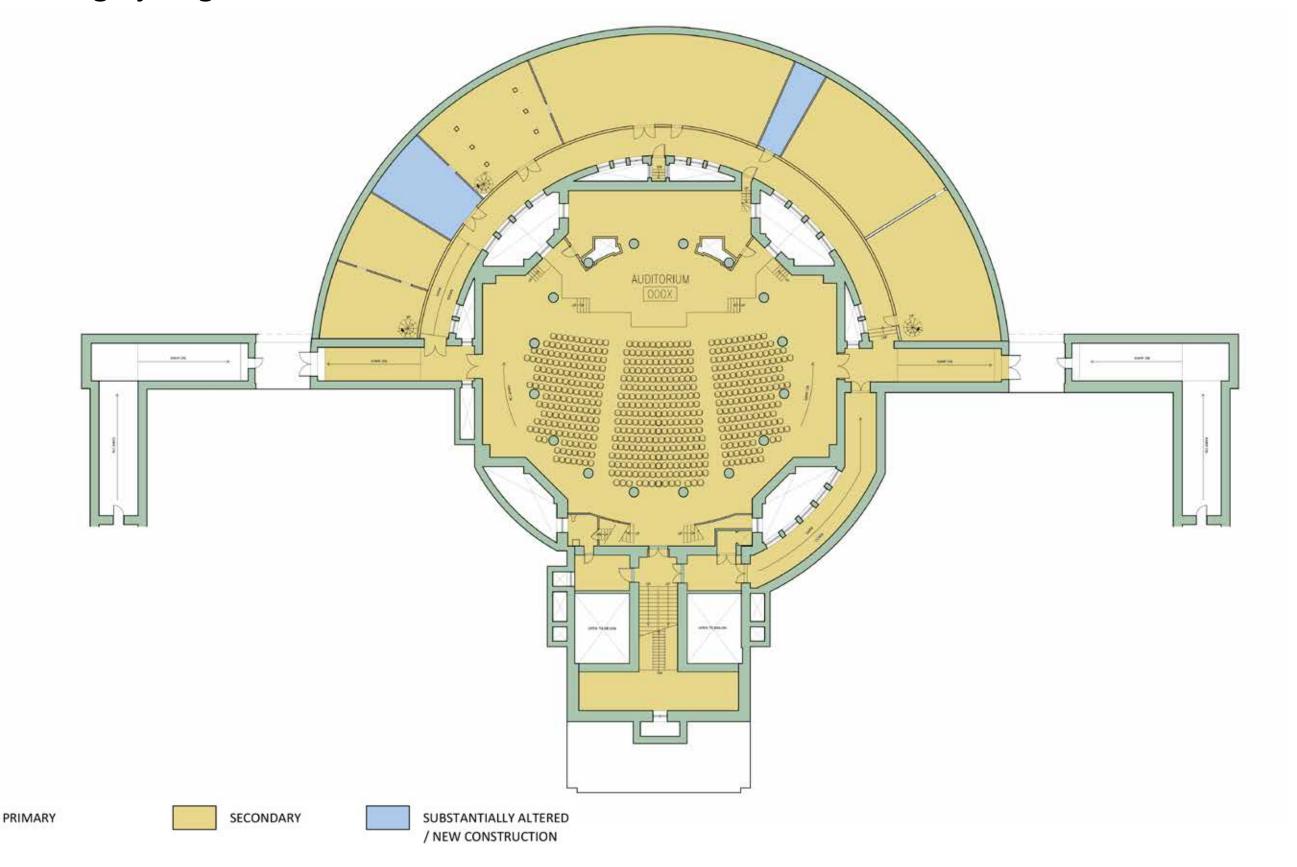
## Historic Integrity Diagram 01A - GML Facilities Level & Hall of Fame Mezzanine



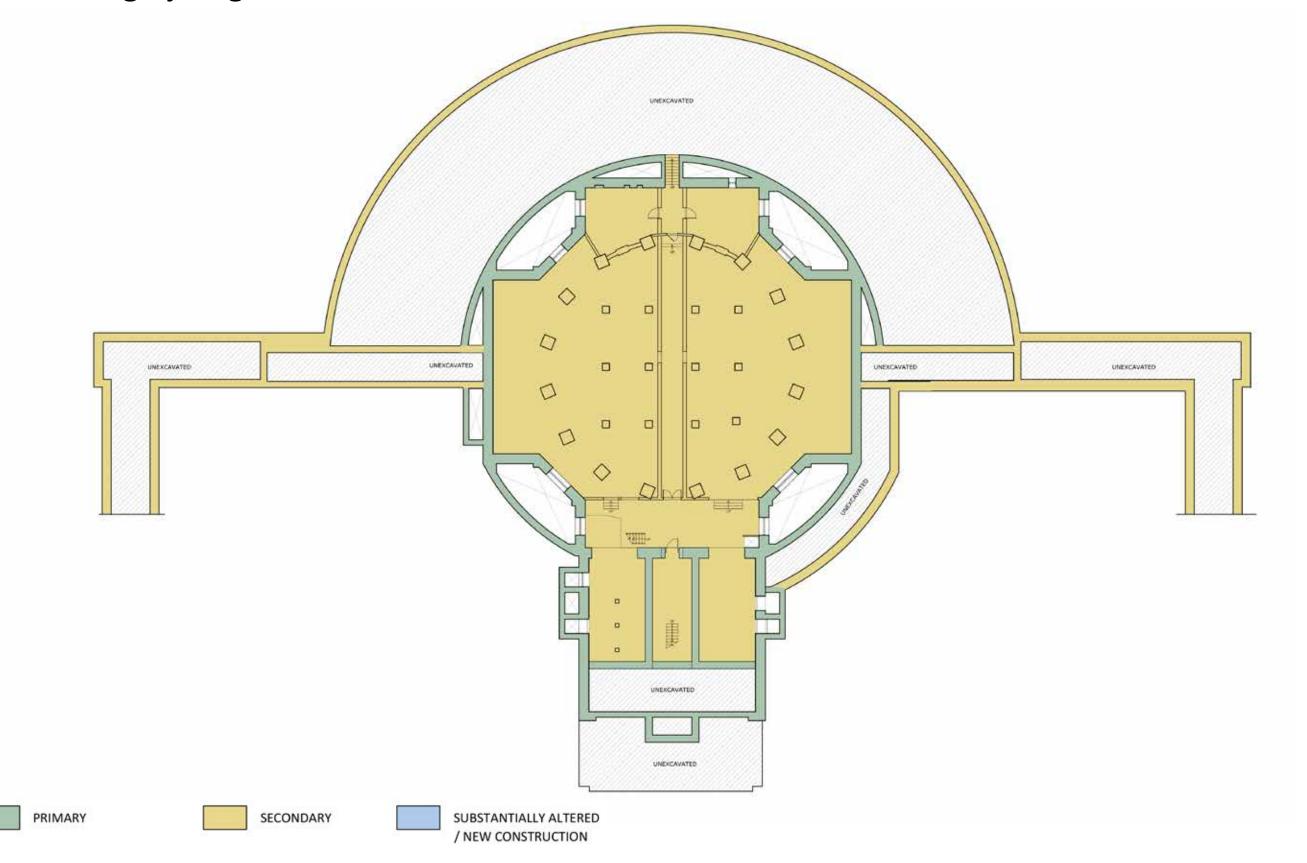
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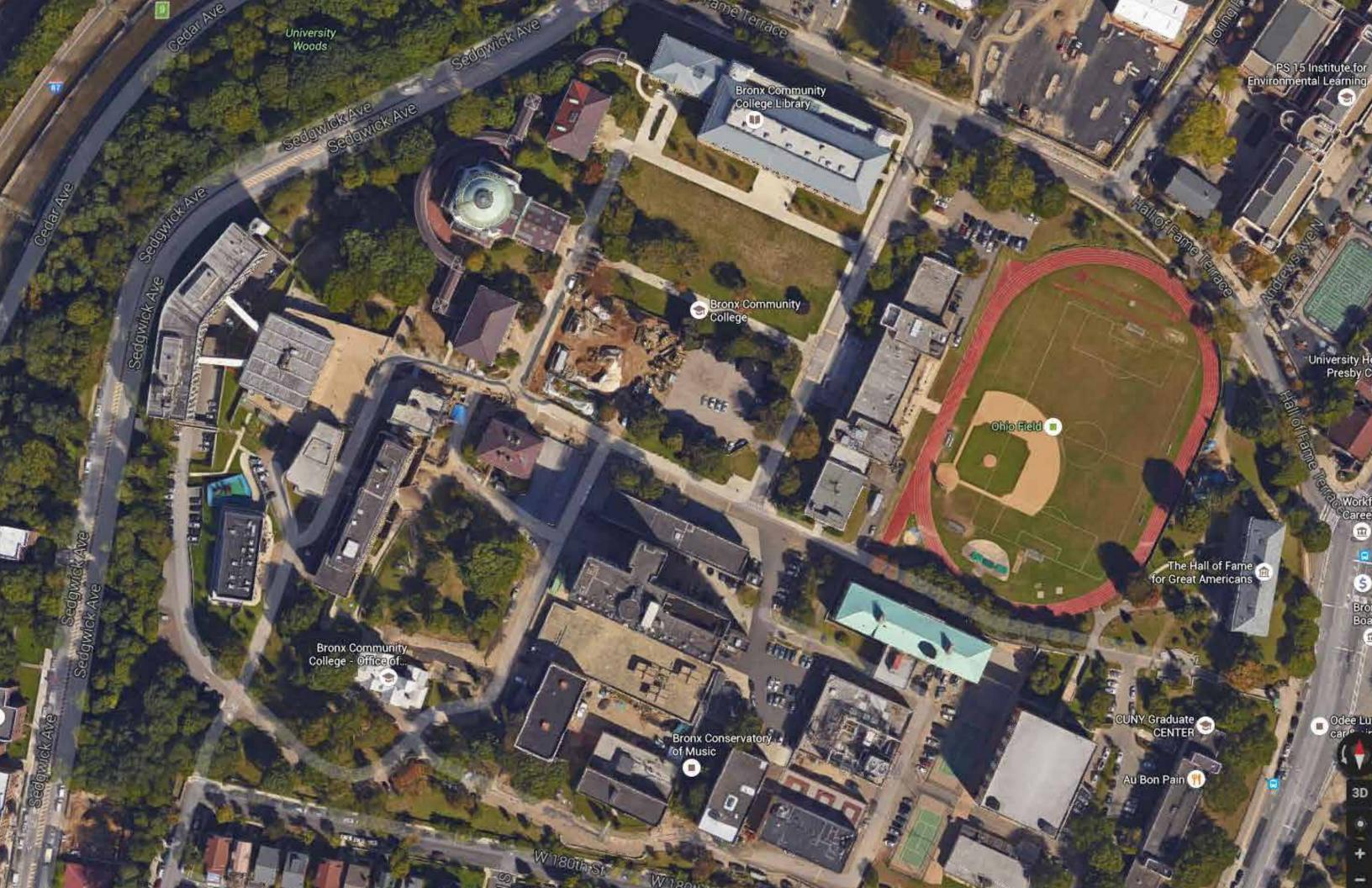
## Historic Integrity Diagram 01 - Auditorium & Hall of Fame



## Historic Integrity Diagram oB - Basement



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## Future Use

Building & Construction Code Review
Egress & Accessibility Diagrams
Building & Construction Code Implications
Future Use
Construction Costs & Phasing

## **Building & Construction Code Review**

#### **BUILDING CODE REVIEW**

The Gould Memorial Library (GML) and the Hall of Fame for Great Americans (HOF), located in the borough of the Bronx, designed by Stanford White were completed in 1900 and pre-date modern building and construction codes.

The interior of GML has been underutilized since the 1968 Building Code was implemented which put certain restrictions on the building's use and occupancy. Currently, the building's single (and original) means of egress limits the permitted occupancy utilizing the building above the entry level to 74 persons. CUNY is now undertaking a project which will incorporate a new second means of egress from the Rotunda level of GML to the exterior on the west side of the building along the HOF terrace. The proposed stair is located outside the Rotunda (a designated NYC Interior Landmark) in the western projection of the cruciform plan behind the bookstack wall. Using an existing opening in the stack wall, a new fire rated door assembly replicating the historic detailing of the original door will be installed leading to a fire rated chamber containing a new 44" wide stair that descends down and connects to the existing southwestern landing at the Auditorium Balcony and egress to the exterior, west terrace. The stair will accommodate an additional 150 persons from the upper levels of the GML bringing the overall occupancy total for the GML upper levels including the Rotunda to 450 persons.

As part of this assessment report, the buildings were analyzed using the three primary building codes implemented for NYC including 1938, 1968 and 2014 New York City Building Codes to explore the most applicable code to accommodate the adaptive reuse of these buildings. The 1938 code does not address all areas of egressing and occupancy necessary to develop an effective reuse strategy for the building.

The 2014 code was determined too restrictive for certain existing structural and architectural components of the building that were not feasible to modify to bring up to current code requirements. The existing layout and configuration of the building precludes certain interventions, for example utilizing the existing stair shafts for new stairs meeting current code dimensions. The existing building fabric would either be completely modified, adversely affecting or eliminating the historic integrity of the building, and/or physically the building cannot accommodate the code driven requirements.

The 2014 Building Code states in Chapter 1 of the Administrative Code, if a project involves an alteration or renovation to an existing building, the General Administrative Provisions of the 2014 Building Code allow for work on prior code buildings to be in accordance with the building code in effect at the time it was constructed. The provision realistically addresses the fact that upgrading an entire existing building to comply with the current code is difficult if not impossible. However, exceptions exist for fire protection systems, special inspections, fuel gas systems, new handrails, guards, etc.

The 1968 code offers the most appropriate and applicable requirements for the existing conditions and configuration of the GML and HOF interiors and will be further explored in the Future Use section of the assessment report. We have included a comparison of the requirements established for all egress and occupancy classifications forecasted for the potential reuse opportunities for the buildings. An important provision offered only in the 1968 code is the non-simultaneous occupancy provision which allows for reduced overall required egress capacity (i.e. reduced exit stair width). The non-simultaneous occupancy provision recognizes that not all portions of a floor are occupied at the same time, therefore the occupant load of toilet rooms, meeting rooms, storage rooms and pre-function areas of assembly occupancies may be omitted from the overall

occupant load calculations of the floor. (Section 27-358). The provision is applied on a floor by floor basis.

The following information is predicated on review of the existing conditions of the buildings with the 1968 NYC Building Code.

#### **EXISTING CERTIFICATE OF OCCUPANCY**

The Certificate of Occupancy, issued December 5, 1972 for the Gould Memorial Library identifies the occupancy classification of GML and the lower level of HOF as a "Public Building" with permissible use and occupancy as follows:

Story	Persons	Use
Sub-cellar	5	Storage, Locker Room & Machine Room
Cellar	790	Lecture Room
Basement	256	Offices and Lecture Room
First Floor	305	Reading Room, Offices, Study/Book Stacks
1st Gallery	0	Book Stacks
2nd Gallery	60	Study/Book Stacks, Storage & Map Rooms
3rd Gallery	0	Book Stacks
4th Gallery	0	Book Stacks

For future use of the building, a new Certificate of Occupancy would be required identifying the new use(s) and public assembly permits will be required for the Rotunda and Auditorium spaces.

## Occupancy Classification Chapter 1-Building Code, Subchapter 3 Occupancy and Construction Classification Table 3-2

Gould Memorial Library: Rotunda F1-b Assembly (1968 Code)

A1, A2, A3 Assembly (2014 Code)

Auditorium F1-b Assembly (1968 Code)

A3 Assembly (2014 Code)

Remaining G Education or E Business (1968 Code)
Areas E Education or B Business (2014 Code)

Hall of Fame: Enclosed G Education or E Business (1968 Code)
Rooms E Education or B Business (2014 Code)

#### Occupancy Load Chapter 1-Building Code, Subchapter 6 Means of Egress Table 6-2

Occupancy Use Group	Square Footage	1938 Code	1968 Code	2014 Code
Assembly Use (F1-b 1968, A1 2014) Non-fixed seating	2,226 SF		2,226/10 nsf = 222	2,226/7 nsf = 318
Assembly Use (F1-b 1968, A2 2014) Dining/tables & chairs	2,226 SF		2,226/12 nsf = 185	2,226/15 nsf = 148
Assembly Use (F1-b 1968, A3 2014) Classroom/lecture hall	2,226 SF		2,226/20 nsf = 111	2,226/7 nsf = 318
Business Use (E 1968; B 2014) Offices, Rotunda Stacks & Above	9,466 SF		9,466/100 gsf = 94	9,466/100 gsf = 94
Educational Use (G 1968; E 2014)) Offices, Rotunda Stacks & Above	9,466 SF		9,466/20 nsf = 473	9,466/20 nsf = 473
TOTAL			Fib (A1)/E = 316 Fib (A1)/G = 695 Fib (A2)/E = 279 Fib (A2)/G = 678 Fib (A3)/E = 205 Fib (A3)/G = 584	A1/B = 412 A1/E = 791 A2/B = 242 A2/E = 621 A3/B = 412 A3/E = 791
			All A use occupancy types w/ current C of O total (F1b/E) 399 (F1b/G) 778	All A use occupancy types w/ current C of O total (A/B) 399 (A/E) 778

The C of O allows 305 people for the Rotunda (the recommended occupancy) and for 60 people on the upper floors for a total occupancy of 365 people on the Rotunda and upper levels.

#### **EGRESS**

Article 4: Number of Exits (Section 27-365) of the 1968 NYC Building Code requires a second means of egress when the occupant load of occupancy use group areas for assembly, business and education exceeds 75 people.

The existing building egress configuration can accommodate a total of 450 persons egressing from the Rotunda level and above through the existing east doors (two single leaf and one collapsible revolving door) on the first floor to the exterior combined with the new code compliant 44" wide stair providing the required second means of egress (Stair #4) discharging at the existing west door (one single leaf) on the auditorium balcony level.

The existing egress capacity at the auditorium level totals 700 persons through the two sets of double doors that egress to exterior paths at grade at the northwest and southwest exits of the building. The paths connect to the west lawn leading to the sloped south drive. At present, passage from the north exit is partially obstructed by the placement of condensing units serving the Auditorium.

Occupancy Use Group	Square Footage	1938 Code	1968 Code	2014 Code		
Business Use (E 1968, B 2014) HOF Rooms	7,651 SF		7,651/100 gsf = 76	7,651/100 gsf = 76		
Educational Use (G 1968, E 2014) HOF Rooms	7,651 SF		7,651/12 nsf = 637	7,651/15 nsf = 510		
Educational Use (G 1968, E 2014) Auditorium	7,738 SF		W/ fixed seats = actual count 564 (Excludes mezzanine)	W/ fixed seats = actual count 564 (Excludes mezzanine)		
TOTAL			E/G = 640 G/G = 1201	B/E = 640 E/E = 1,074		

The C of O allows 790 people in the lower level Hall of Fame Spaces and 256 people for the Auditorium for a total occupancy of 1,046 people in the Auditorium and lower level Hall of Fame spaces. CUNY FPCM has confirmed that DOB permits CUNY to obtain new places of assembly permits without a new C of O through an MOU. Existing place of assembly signage indicates an occupancy of 648, which includes the Auditorium and Mezzanine.

Determination of Exit and Access requirements Chapter 1-Building Code, Subchapter 6 Means of Egress Table 6-1

Building	Occupancy Classification	Max. Travel Distance		Capacity  Number of Persons per Unit of Width Corridor					dors
		Unsprinklered	Sprinklered	Door Openings			Exit ays,	idth	od End in ft.)
				To Outdoors At Grade	All Other Exit & Corridor Doors	Stairs, Escalators	Ramps, Corridors, Ex Passageways, Horizontal	Min. Width (in.)	Max. Dead (length in
GML	F1-b	150	200	100	80	60	100	44	30
	G	150	200	100	80	60	100	66	30
	Е	200	300	100	80	60	100	44	50
HOF	F1-b	150	200	100	80	60	100	44	30
	G	150	200	100	80	60	100	66	30
	E	200	300	100	80	60	100	44	50

#### RECOMMENDATIONS

The building with the proposed 44" wide code complaint stair case exiting to the Hall of Fame terrace to the west can egress people through the Hall of Fame to the main campus north of Philosophy Hall and South of Language Hall. Two new pathways are recommended to the north and south of GML connecting the main campus walkway to the east of GML and the two gates along the HOF terrace.

It is recommended under the Mechanical Systems upgrades to remove/relocate the condensing units along the northern passage from the Auditorium level thus clearing the egress path. Egress from the north exit can be met with an on grade walk below the HOF to the grassed area between the Community Hall and Colston Hall further south. A combined means of egress between the north and south auditorium exit doors is recommended under the Landscape Section to address better access and the steep gradient at the paved drive south of the GML/HOF buildings.

#### **ELEVATOR**

The installation of and work on elevators shall be governed by chapter 30, appendix K of the 2014 NYC Building Code and the rules of the department, subject to special provisions for prior code buildings as set forth therein.

There is an existing passenger elevator shaft, original to the building, located on the northeast corner of the east projecting bay which connects all floors on the front of the building, but not to the stack levels surrounding the Rotunda. There is an existing book elevator shaft and dumbwaiter shaft on the south-east corner of the east projecting bay which connects all levels between the Rotunda and the Attic level.

Both elevators retain their shafts, cabs, cables and access doors at each floor, however neither is operable. The existing elevator shafts (passenger and book) are not adequately sized to meet the needs of current handicap accessibility requirements. Upgrading the existing passenger elevator is possible with modifications to the existing framing for an enlarged shaft, reusing the existing pit in the Basement level, maintaining the existing override which does not penetrate the roof and adding an additional stop at the Balcony level. The existing book elevator is not ideal for reuse because it is located within an egress stair location, has no pit below the Rotunda level and cannot accommodate one because of the historic configuration of the Auditorium balcony stair below.

#### RECOMMENDATIONS

The recommendation is to locate a new elevator shaft, increased in size to provide a handicap accessible cab, in the existing passenger elevator location, with stops at the Auditorium Level, GML Facilities Level (accessed from the exterior at grade), Rotunda Level, Balcony Level and Upper Balcony Level. An exterior entrance will be required at the GML Facilities Level along the north wall accommodated by modifying an existing window opening and adding a new graded path connecting to the main walkway along the east of the building. A variance will be required from the Mayor's office to waive the 2014 code provision requiring the cab be sized to fit a stretcher.

BEYER BLINDER BELLE
FUTURE USE 263

Lift access to the stack levels can be achieved with the introduction of a Limited Use/Limited Application lift (LULA) connecting the Balcony, Tiffany and Attic stack levels located in the northeast quadrant of the stack area surrounding the Rotunda at the Balcony level. The Mezzanine stack level is to be used for mechanical equipment and will not be occupiable due to non-code compliant, low ceiling heights.

#### **ACCESSIBILITY**

Alterations, including minor alterations of buildings and changes of use or occupancy shall be governed by chapter 11 – Accessibility of the 2014 NYC Building Code, subject to special provisions for prior code buildings as set forth therein.

The GML building is not handicap accessible, with the exception of the lower level auditorium. The building is accessed from an exterior staircase leading from grade to the first floor of the building from which a wide grand stair #6 leads up to the Rotunda level. The second floor is accessed by staircase #3 and the stack levels are accessed by staircases #1 and #2. The upper levels of GML and the stack levels maintain passageways of 35 ½" clear and door openings that are minimally 30" clear at the mezzanine level and 32.5" clear at the upper levels.

The auditorium is located on the lower level accessed internally from the grand staircase#5 (non-ADA compliant access), descending down or from the exterior along the southern paved drive that slopes down to the lower level of GML providing access through large double doors (at grade) leading to a corridor that connects to the auditorium (ADA compliant). A single handicap accessible toilet room exists on this lower level. The auditorium balcony (non-ADA compliant access) is accessed from stairs #3, #12 and #13.

The HOF terrace level is handicap accessible and on grade with the main campus level, with exits to the north of Philosophy Hall and to the south of Language Hall. The lower level of HOF is accessed from the exterior along the southern paved drive that slopes down to the lower level of GML and HOF providing access through large double doors (at grade) leading to a corridor connecting to the HOF lower level passageway accessed by a ramp down to the cellar floor level from which the HOF spaces are accessed. The lower level HOF has a mezzanine level accessed only from two spiral staircases #10 and #11 (non-ADA compliant) located at either end of the mezzanine.

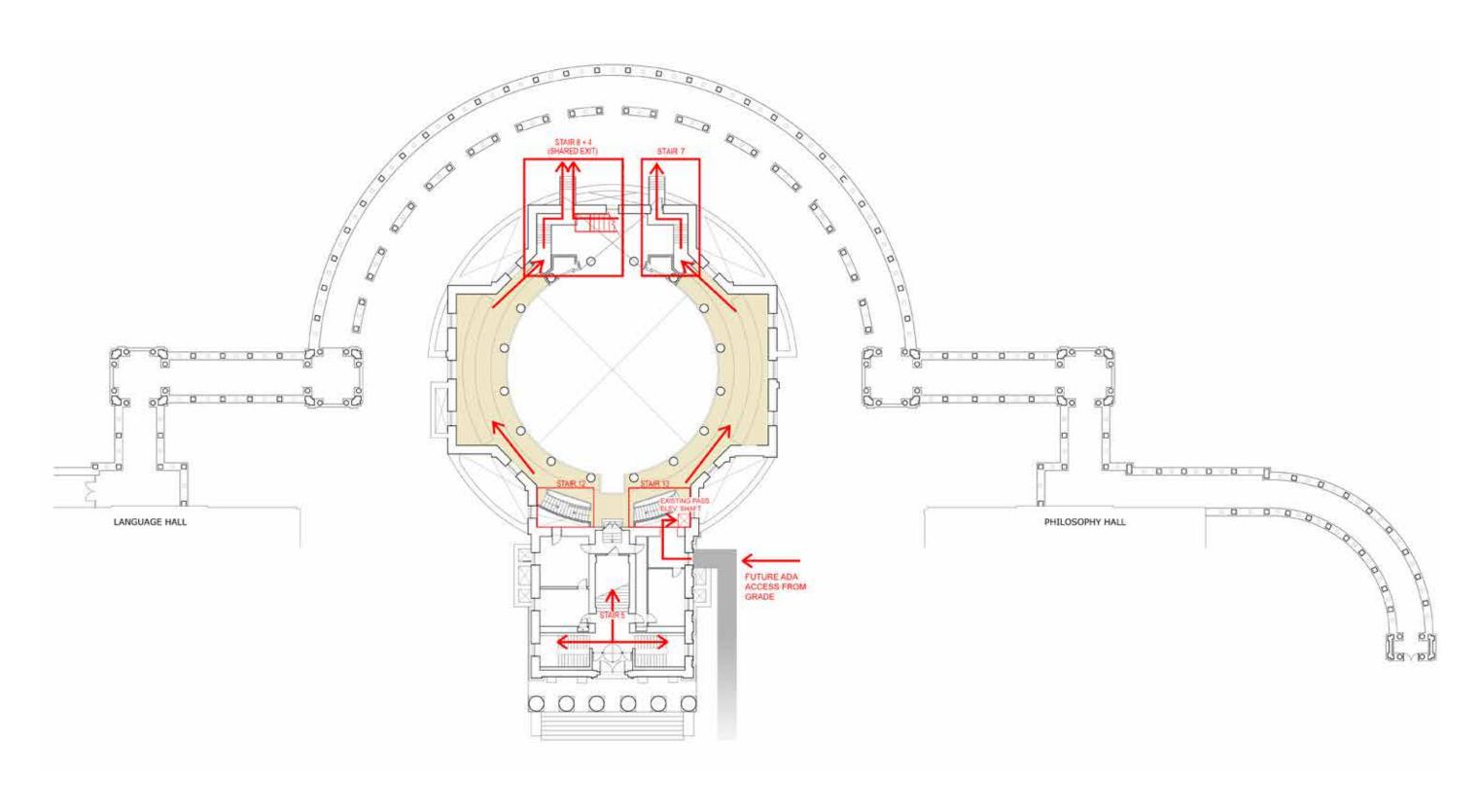
#### **RECOMMENDATIONS**

The recommendation is to locate a new elevator shaft, increased in size to provide a handicap accessible cab, in the existing passenger elevator location, with stops at the Auditorium Level, GML Facilities Level (accessed from the exterior at grade), Rotunda Level, Balcony Level and Upper Balcony Level. An exterior entrance will be required at the GML Facilities Level along the north wall accommodated by modifying an existing window opening and adding a new graded path connecting to the main walkway along the east of the building. A variance will be required from the Mayor's office to waive the 2014 code provision requiring the cab be sized to fit a stretcher.

Lift access to the stack levels can be achieved with the introduction of a Limited Use/Limited Application lift (LULA) connecting the Balcony, Tiffany and Attic stack levels located in the northeast quadrant of the stack area surrounding the Rotunda at the Balcony level. The Mezzanine stack level is to be used for mechanical equipment and will not be occupiable due to non-code compliant, low ceiling heights and need not be handicap accessible.

Additional handicap toilet accommodations are to be provided on the Rotunda level of GML and within the lower level lower level of the HOF interior spaces identified as substantially altered/new construction.

## Egress & Accessibility Diagram 02 - Quad Entrance & Auditorium Level



## Egress & Accessibility Diagrams 03 / 04 - Rotunda and Mezzanine Levels

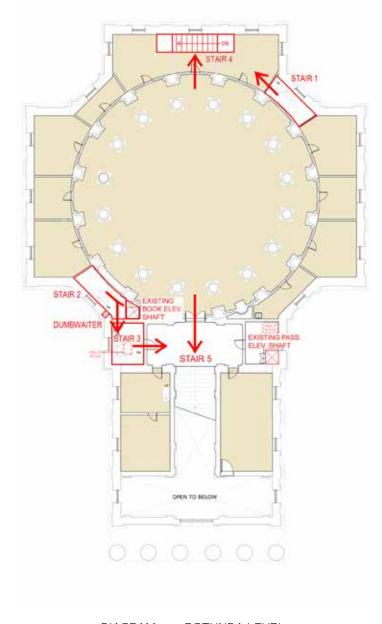


DIAGRAM 03 - ROTUNDA LEVEL

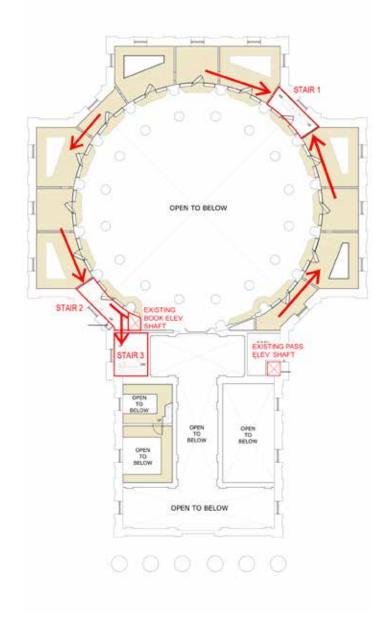


DIAGRAM 04 - MEZZANINE LEVEL

## Egress & Accessibility Diagrams 05 / 06 - Balcony and Tiffany Glass Levels

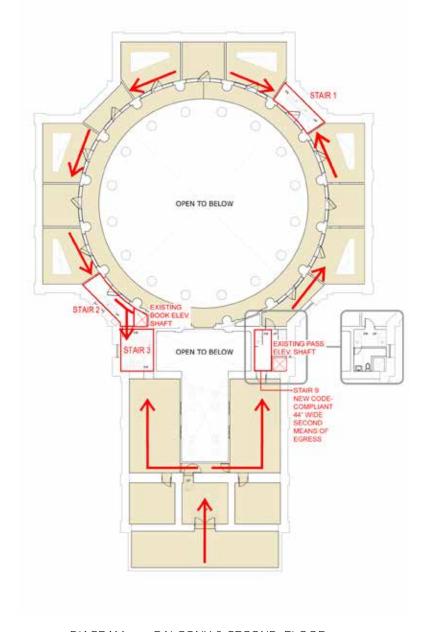


DIAGRAM 05 - BALCONY & SECOND FLOOR

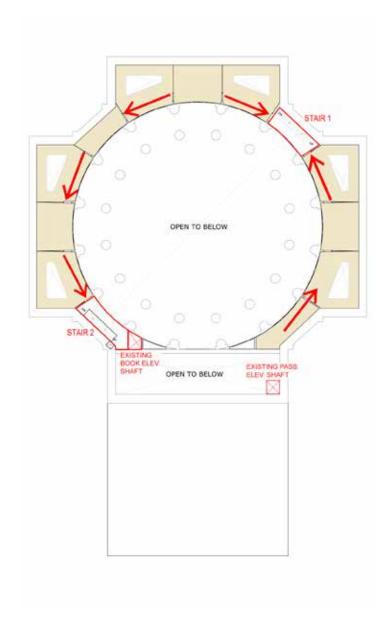


DIAGRAM o6 - TIFFANY GLASS

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## Egress & Accessibility Diagrams 07 / 08 - Attic and Dome Room Levels

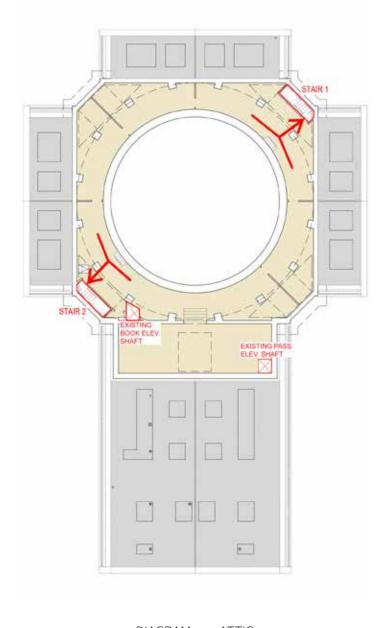


DIAGRAM 07 - ATTIC

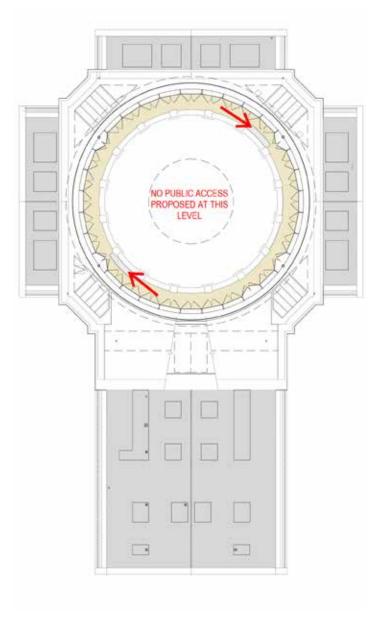
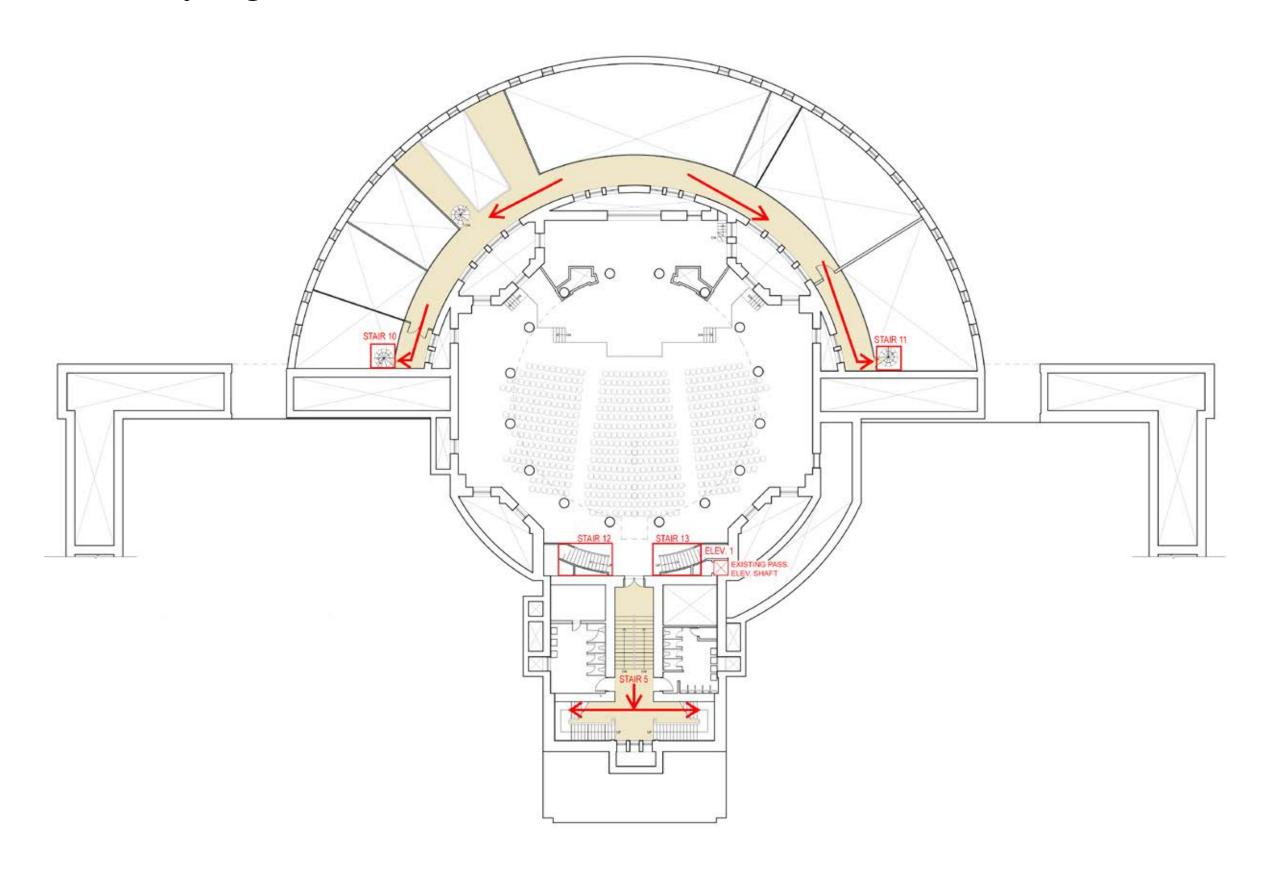
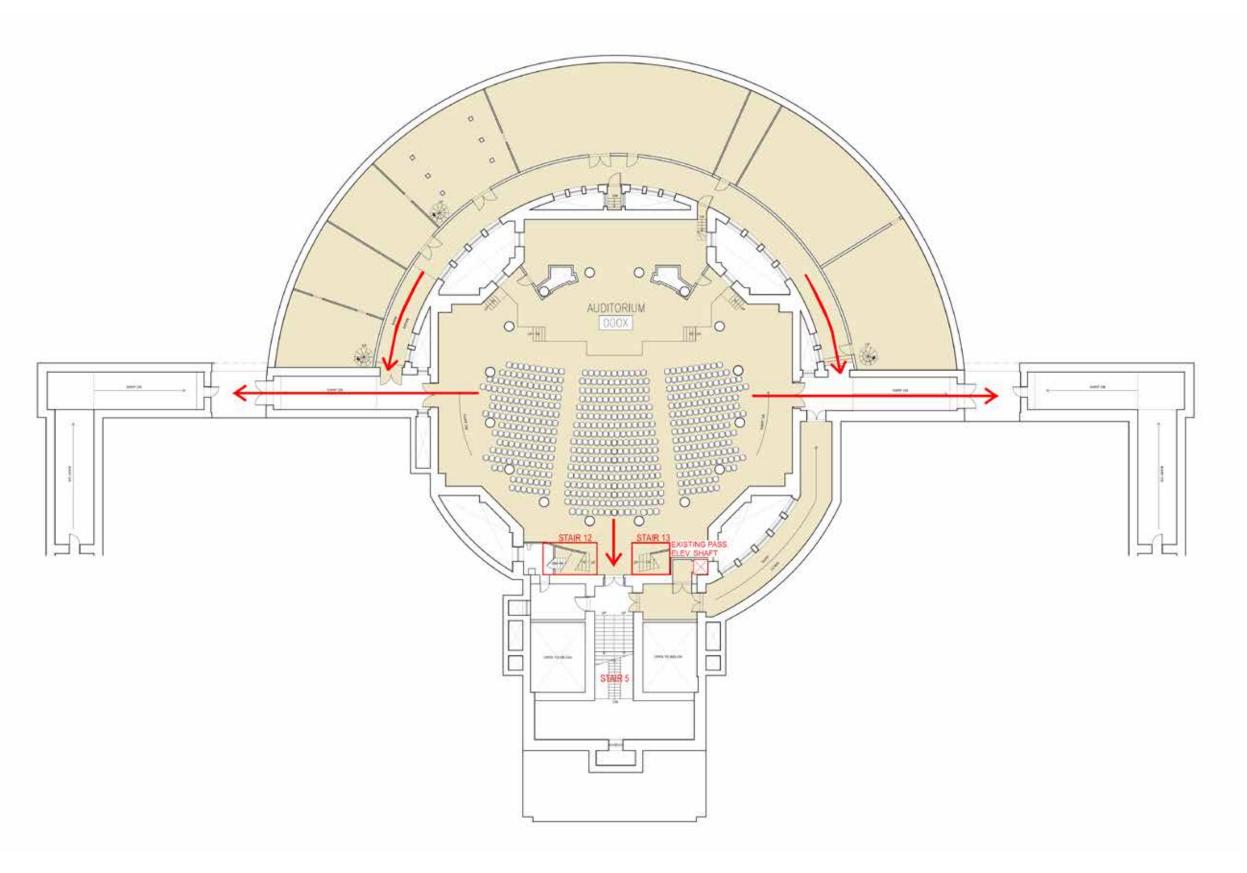


DIAGRAM 08 - DOME ROOM

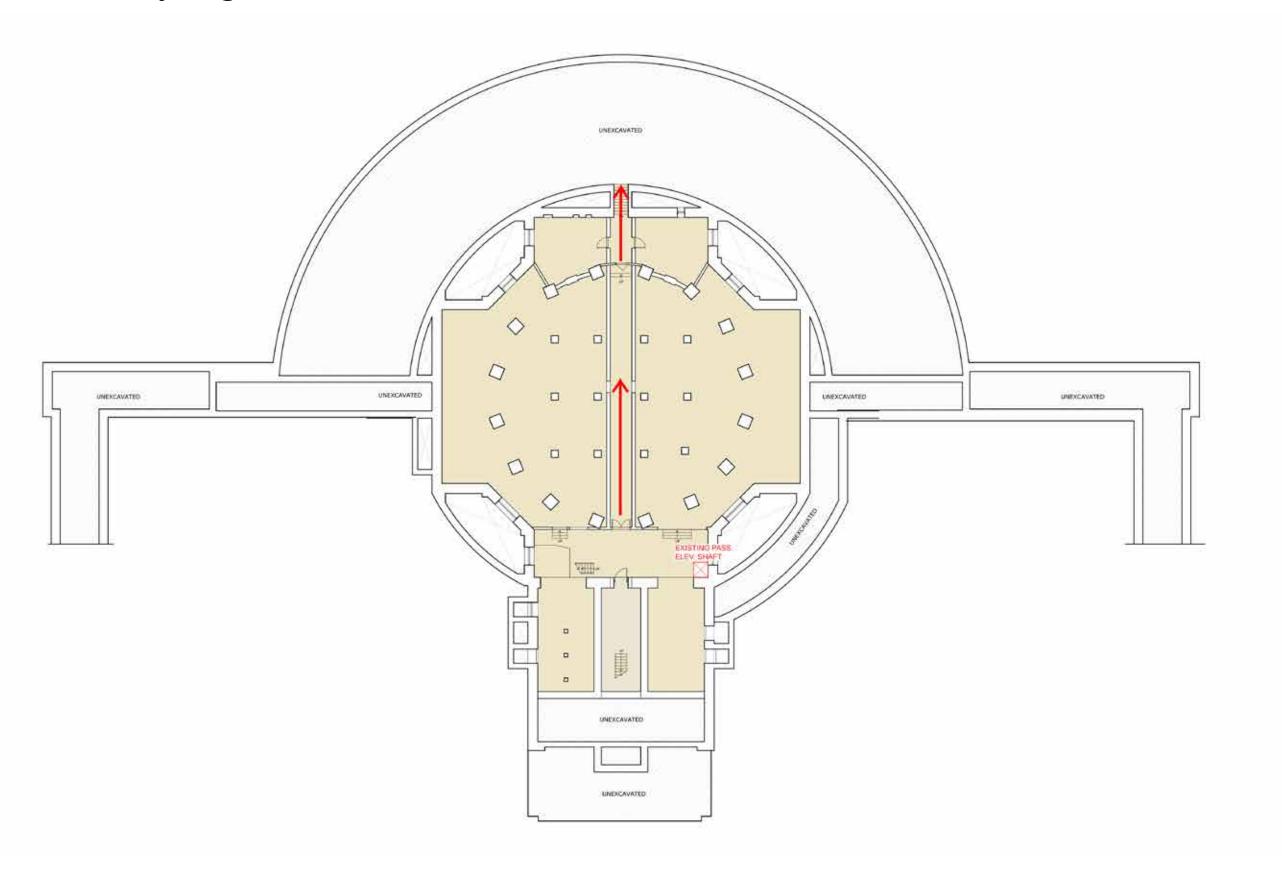
Egress & Accessibility Diagram 01A - Hall of Fame Mezzanine & GML Facilities Level



Egress & Accessibility Diagram 01 - Auditorium & Hall of Fame Level



Egress & Accessibility Diagram oB - Basement Level



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#### **CODE IMPLICATIONS**

#### 1. One Means of Egress from the GML

The building was constructed with one means of egress.

**Proposed Solution:** A code compliant 44" wide stair providing the required second means of egress (Stair #4) exiting at the existing west door (one single leaf) on the auditorium balcony level discharging to the exterior at grade along the HOF terrace (See plan diagram color red.)

## 2. Inoperable and inaccessible elevator for vertical circulation and no handicap accessibility into and through the building from the main entrance

The building was constructed with one passenger elevator, one book elevator, and one dumbwaiter. As currently configured, there is no handicap access into the building from grade at the building's main entrance from campus along the east elevation and no handicap access through the building to the Rotunda level and floors above. The elevation differential is too great from grade to Rotunda level for a ramp on the exterior or interior and a chair lift at the main entrance staircases is impractical, the lift will inhibit egress from above and below.

Proposed Solution: The existing passenger elevator shaft can be reactivated and modified to house a new, handicap accessible, code compliant cab with stops provided at the Auditorium Level, GML Facilities Level (accessed from the exterior at grade), Rotunda Level, Balcony Level and Upper Balcony Level. An exterior entrance will be required along the north wall accommodated by modifying an existing window opening and adding a new graded path connecting to the main walkway along the east of the building. (See plan diagram color yellow.)

## Note: A variance will be required from the Mayor's office to waive the 2014 code provision requiring the cab be sized to fit a stretcher.

Lift access to the stack levels can be achieved with the introduction of a Limited Use/Limited Application lift (LULA) connecting the Balcony, Tiffany and Attic stack levels located in the northeast quadrant of the stack area surrounding the Rotunda at the Balcony level. The Mezzanine stack level is to be used for mechanical equipment and will not be occupiable due to non-code compliant, low ceiling heights and need not be handicap accessible.

#### 3. Existing stack stair width of 30" is less than 36" required by 1968 BC

Two existing staircases are located within the stack area providing two means of egress from the stack levels above. The stairs are 30" wide from stringer to stringer, 28" clear and can accommodate 80 persons each for a total of 160 persons for the upper stack floors. Modifications will be required to meet fire rating requirements. (See plan diagram color blue)

Note: A variance will be required from the Bronx DOB.

## 4. Existing stack ceiling heights = 7'-3" & 7'-5" are less than 7'-6" required by 1968 BC

The stacks are located around the Rotunda on 5 levels including the Rotunda level. The existing ceiling heights are as follows:

Rotunda Level: 7'-7" to underside of structure (Plan Level 03) 8'-1" to underside of glass

Mezzanine Level: 6'-9" to underside of structure (Plan Level 04) 7'-3" to underside of glass

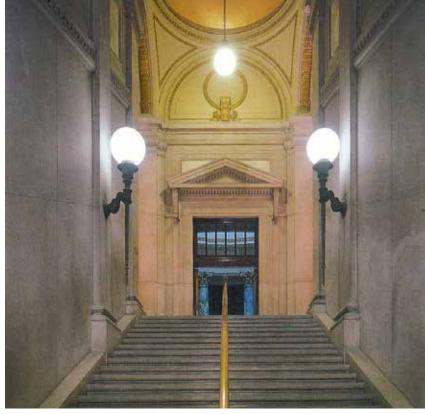
Balcony Level: 7'-3" to underside of structure (Plan Level 05) 7'-9" to underside of glass

Tiffany Level: 7'-4" to underside of structure (Plan Level o6) 7'-5" to underside of glass

Attic Level: 7'-11" to underside of structure (Plan Level 07)

(See section diagram color green.)

Note: A variance will be required from the Bronx DOB for select areas.

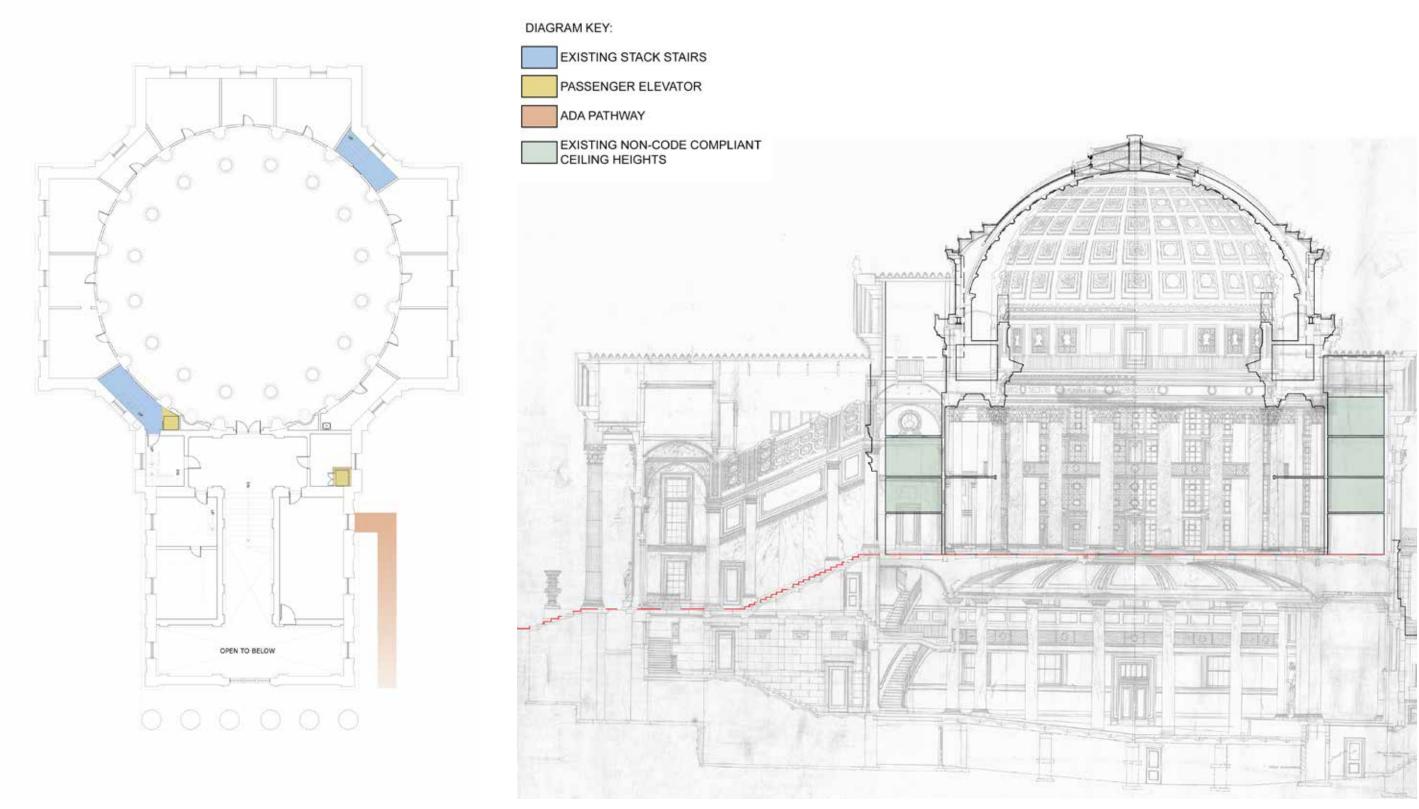


Gould Memorial Library Grand Staircase Source: McKim, Mead & White: The Masterworks (2003)



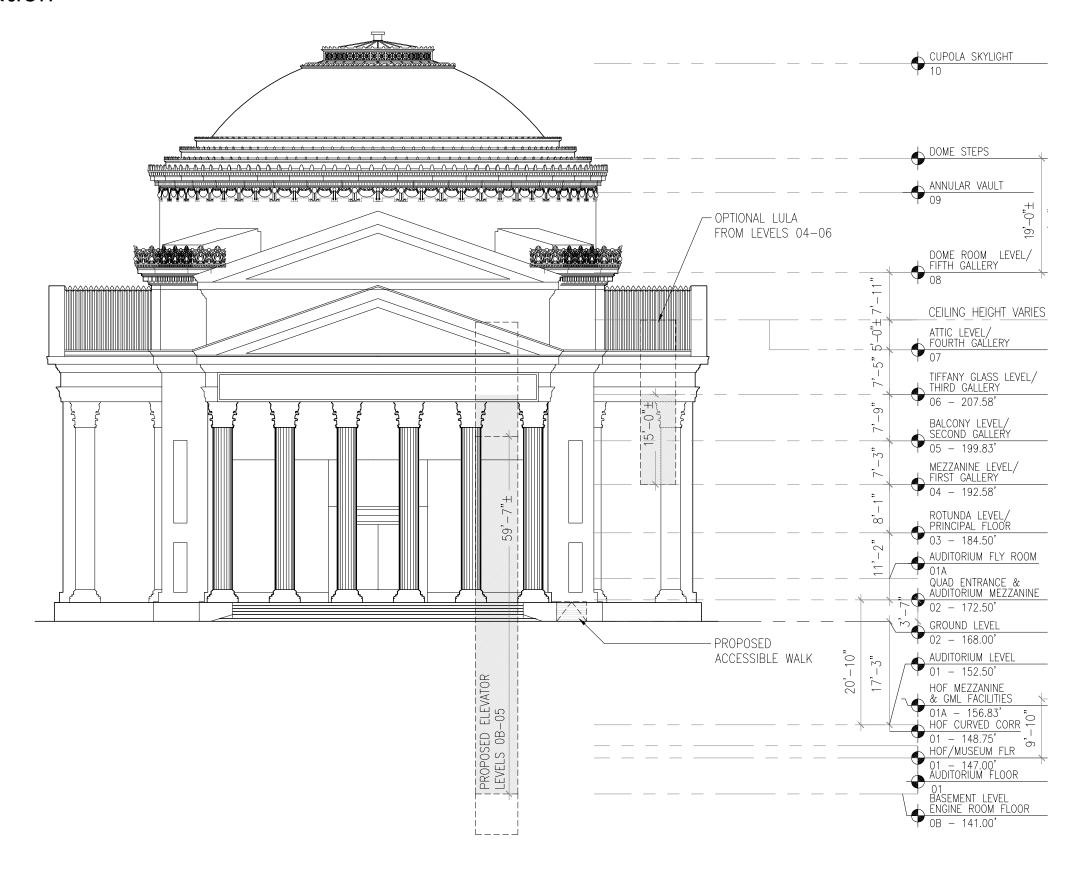
Hall of Fame Geological Museum Source: New York University Archive

## Building & Construction Code Implications Diagrams

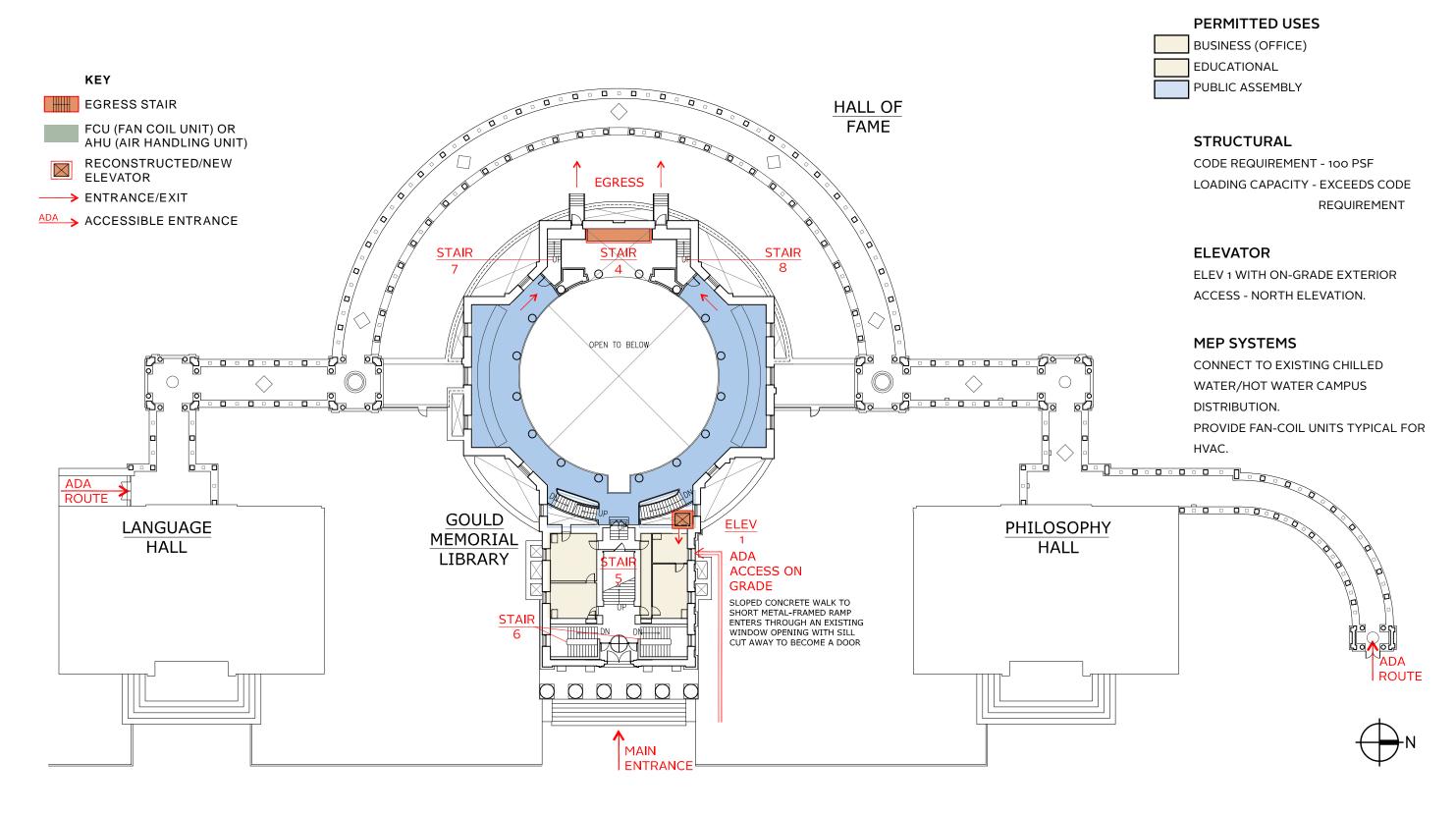


CODE IMPLICATIONS - PLAN

### Future Use - East Elevation

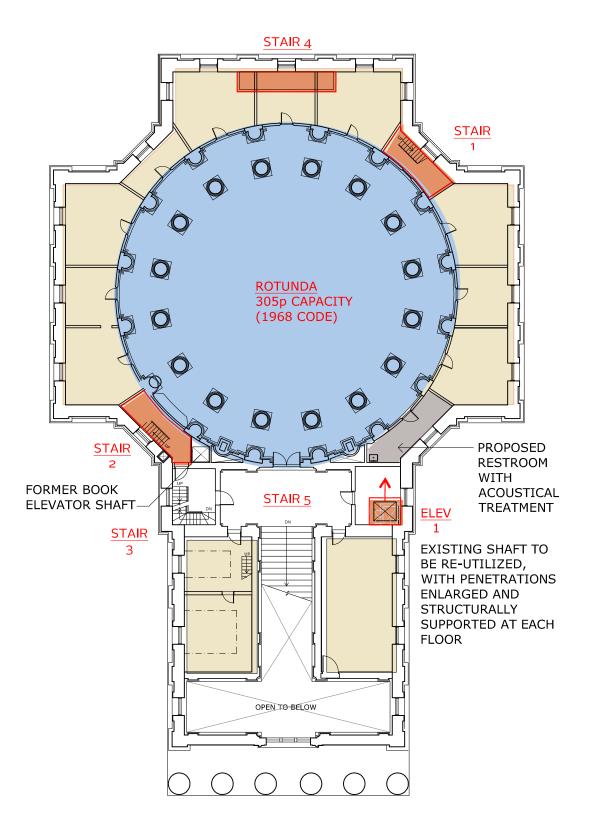


### Future Use Plan 02 - Quad Entrance & Auditorium Mezzanine Level

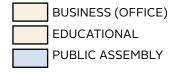


## Future Use Plan 03 - Rotunda Level

# FCU OR AHU RECONSTRUCTED/NEW ELEVATOR



#### **PERMITTED USES**



#### **STRUCTURAL**

CODE REQUIREMENT- 100 PSF

LOADING CAPACITY - EXCEEDS CODE

REQUIREMENT

#### **ELEVATOR**

NEW ELEV 1
STRUCTURE TO BE MODIFIED TO
PROVIDE ENLARGED SHAFT TO
ACCOMMODATE AN ADA COMPLIANT
CAR.

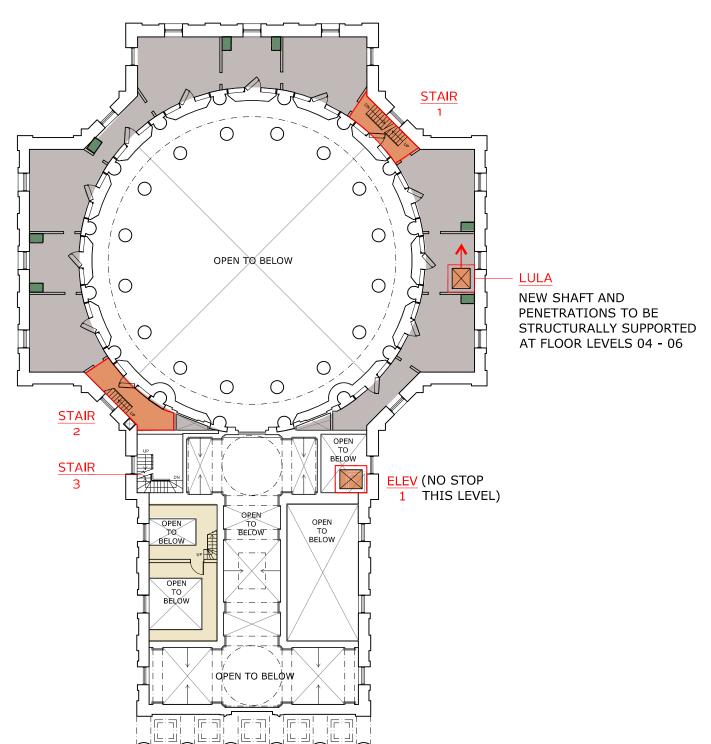
#### **STAIRS**

EXISTING STAIRS 1 & 2 TO REMAIN WITH IMPROVED ENCLOSURES.
STAIR 3 TO REMAIN.
STAIR 4 CURRENTLY BEING IMPLEMENTED.



## Future Use Plan 04 - Mezzanine Level

# EGRESS STAIR FCU OR AHU RECONSTRUCTED/NEW ELEVATOR



#### **PERMITTED USES**

LOW, NON-COMPLIANT CEILING HEIGHT (7-'3") DOES NOT ALLOW BENEFICIAL OCCUPANCY. THIRD FLOOR TO BE USED FOR STORAGE & MECHANICAL EQUIPMENT SERVING 2ND & 4TH FLOORS, ABOVE & BELOW.

#### STRUCTURAL

CODE REQUIREMENT- 100 PSF

LOADING CAPACITY - EXCEEDS CODE

REQUIREMENT

#### **ELEVATOR**

NEW ELEV 1 TO PROVIDE ACCESS TO THIRD FLOOR.

#### **STAIRS**

EXISTING STAIRS 1 & 2 TO REMAIN WITH IMPROVED ENCLOSURES.
STAIR 3 TO REMAIN.

#### **MEP SYSTEMS**

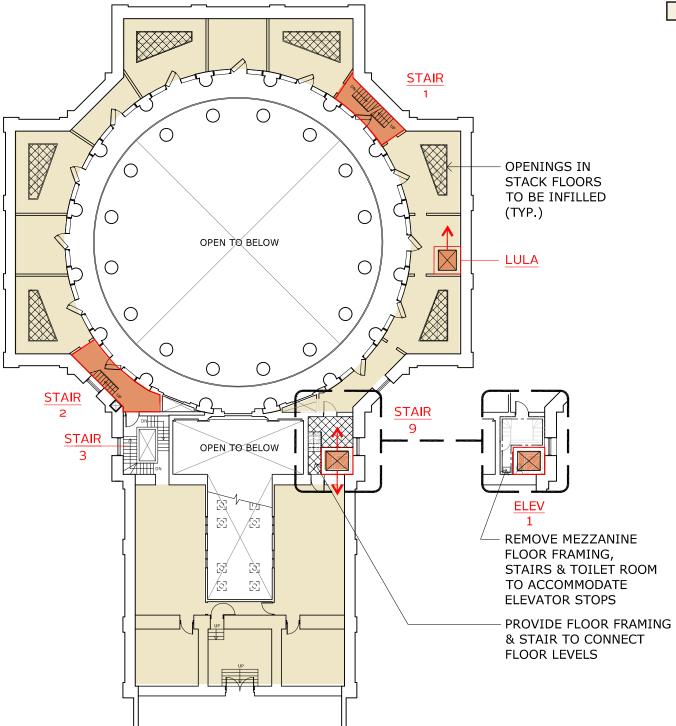
FCU'S ON MEZZANINE LEVEL SUPPLY HVAC TO FLOORS ABOVE & BELOW.



BEYER BLINDER BELLE FUTURE USE 277

## Future Use Plan 05 - Balcony Level

# FCU OR AHU RECONSTRUCTED/NEW ELEVATOR



#### **PERMITTED USES**

BUSINESS (OFFICE)
EDUCATIONAL

#### **STRUCTURAL**

CODE REQUIREMENT - 100 PSF

LOADING CAPACITY - EXCEEDS CODE

REQUIREMENT

INFILL STACK OPENINGS WITH STRUCTURAL GLASS PANELS.

#### **ELEVATOR**

NEW ELEV 1 TO PROVIDE ACCESS TO MULTIPLE LEVELS.

#### **STAIRS**

EXISTING STAIRS 1 & 2 TO REMAIN WITH IMPROVED ENCLOSURES.
STAIR 3 TO REMAIN.

#### **MEP SYSTEMS**

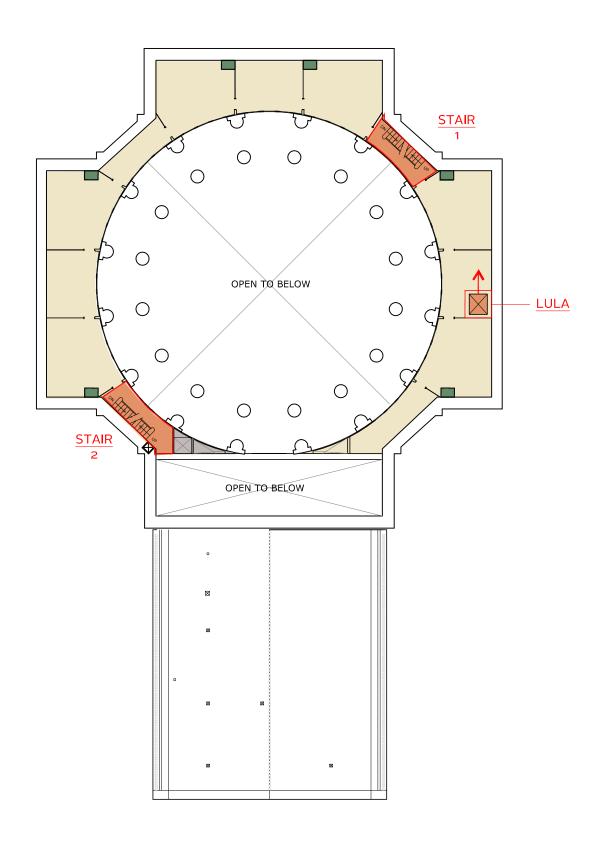
FCU'S ON MEZZANINE LEVEL SUPPLY HVAC TO FLOORS ABOVE & BELOW.



Future Use Plan

## Future Use Plan o6 - Tiffany Glass Level

# EGRESS STAIR FCU OR AHU RECONSTRUCTED/NEW ELEVATOR



#### PERMITTED USES

BUSINESS (OFFICE)

EDUCATIONAL

#### STRUCTURAL

CODE REQUIREMENT- 100 PSF

LOADING CAPACITY - EXCEEDS CODE

REQUIREMENT

INFILL STACK OPENINGS WITH STRUCTURAL GLASS PANELS.

#### **ELEVATOR**

PROVIDE LULA FROM 4 TO 7 FOR ACCESS (OPTIONAL).

#### **STAIRS**

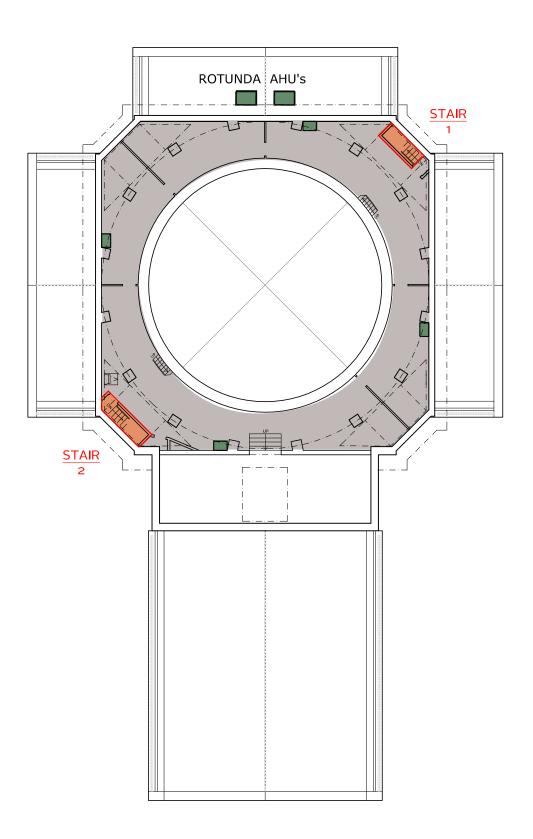
EXISTING STAIRS 1 & 2 TO REMAIN WITH IMPROVED ENCLOSURES.



BEYER BLINDER BELLE FUTURE USE 279

## Future Use Plan 07 - Attic Level

# EGRESS STAIR FCU OR AHU RECONSTRUCTED/NEW ELEVATOR



#### PERMITTED USES

LACK OF ADA ACCESS DOES NOT
ALLOW PUBLIC USE OF THIS LEVEL.
ATTIC TO BE USED FOR STORAGE &
MECHANICAL EQUIPMENT.

#### **STRUCTURAL**

CODE REQUIREMENT- 100 PSF

LOADING CAPACITY - EXCEEDS CODE

REQUIREMENT

#### **ELEVATOR**

PROVIDE LULA FROM 4 TO 6 FOR ACCESS (OPTIONAL).

#### **STAIRS**

EXISTING STAIRS 1 & 2 TO REMAIN WITH IMPROVED ENCLOSURES.



Future Use Plan

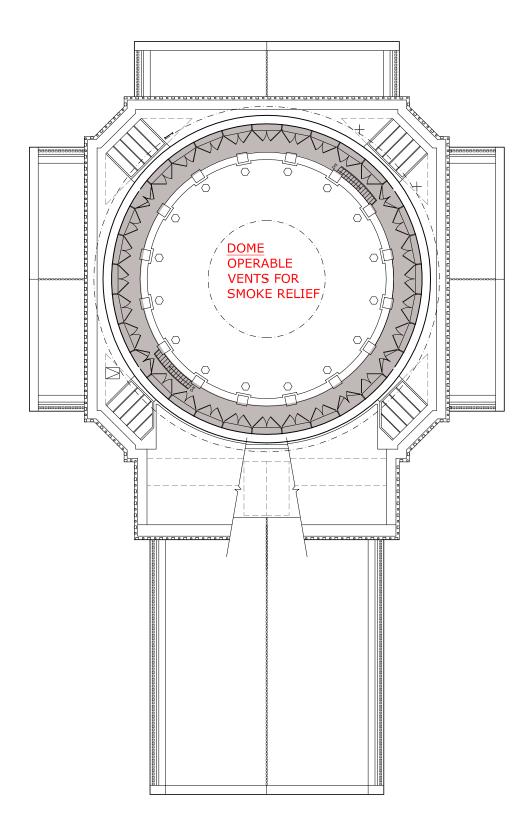
## Future Use Plan o8 - Dome Room Level

KEY

EGRESS STAIR

FCU OR AHU

RECONSTRUCTED/NEW ELEVATOR



#### **PERMITTED USES**

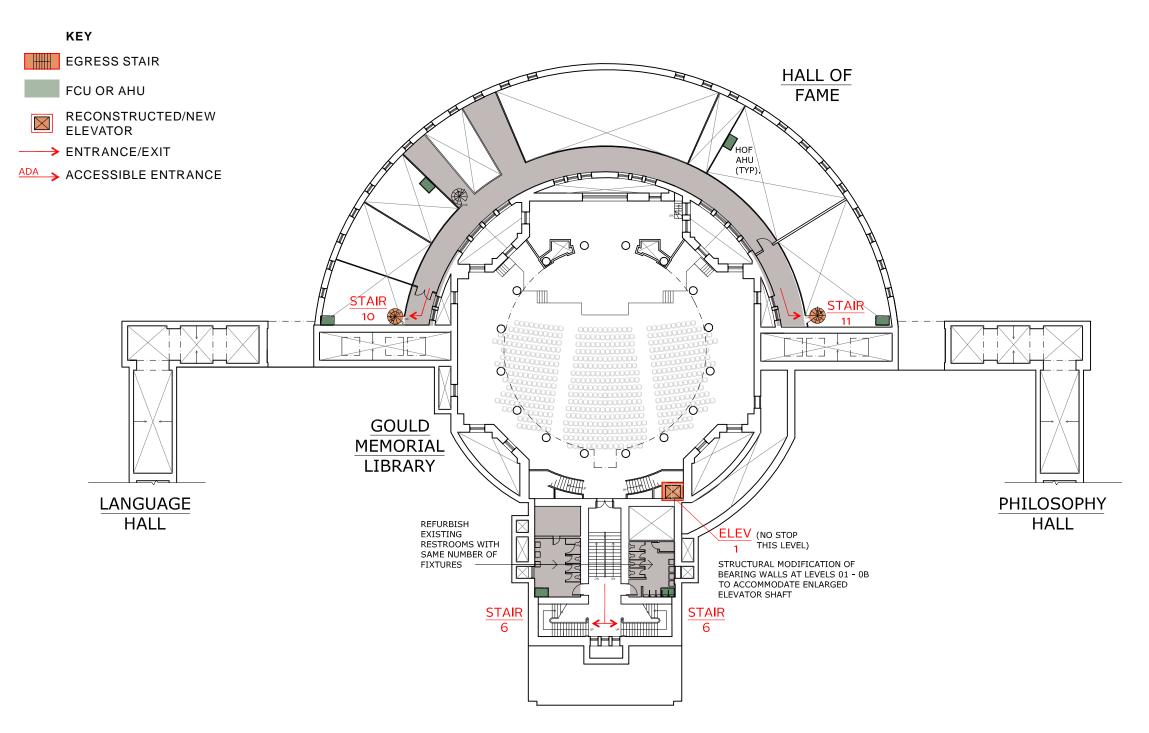
NO PUBLIC ACCESS ON THIS LEVEL.

NEITHER STAIRS NOR ELEVATORS PROVIDE ACCESS TO THIS LEVEL.



BEYER BLINDER BELLE FUTURE USE 281

### Future Use Plan 01A - HOF Mezzanine & GML Facilities Level



#### **PERMITTED USES**

BUSINESS (OFFICE)

EDUCATIONAL

FA-1 PUBLIC ASSEMBLY

- OCCUPANCY 700P PER 1968 CODE
- C. OF O. STATES 790 P
- SEAT COUNT 564

#### **ELEVATORS**

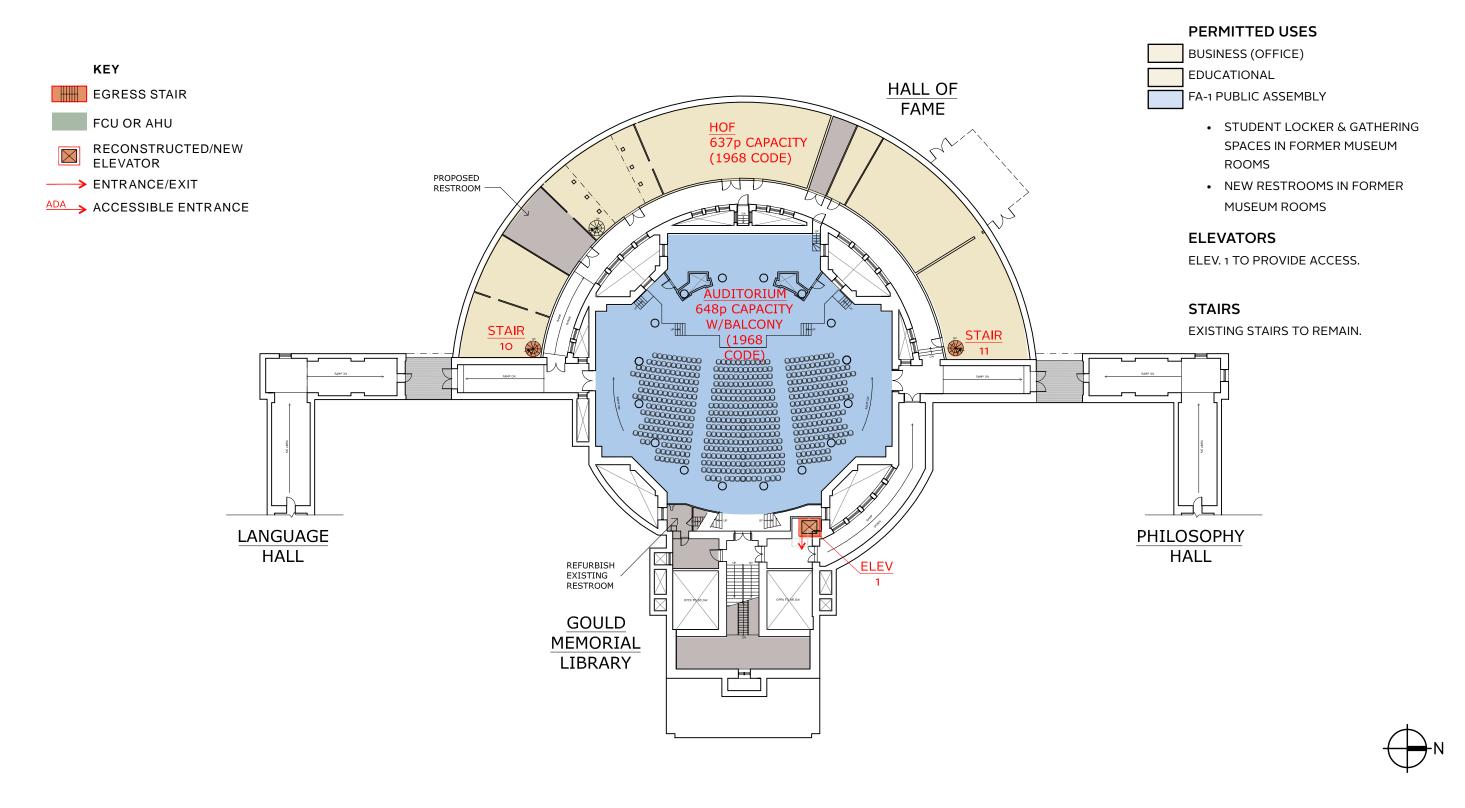
ELEV. 1 TO PROVIDE ACCESS.

#### **STAIRS**

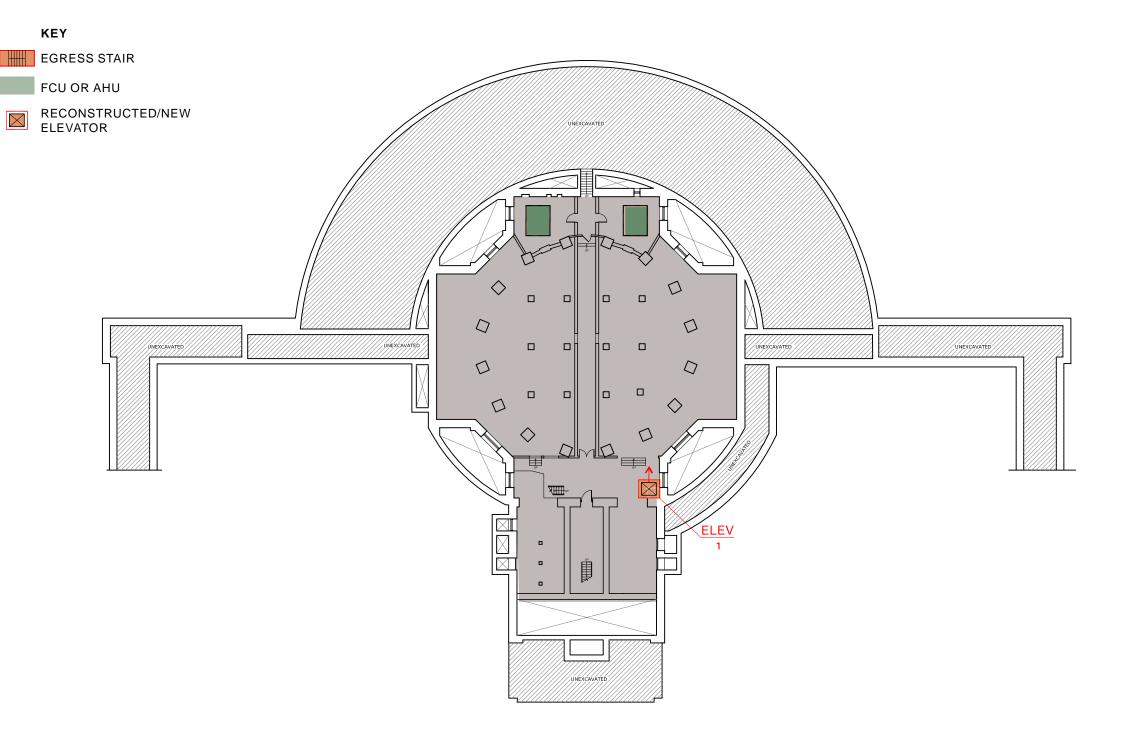
EXISTING STAIRS TO REMAIN.



### Future Use Plan 01 - Auditorium & HOF Level



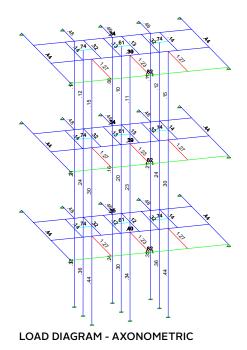
## Future Use Plan oB - Basement Level

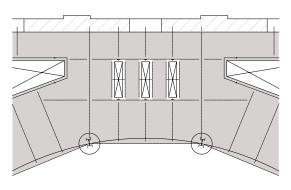


- NO OCCUPANCY ANTICIPATED FOR THIS LEVEL.
- MECHANICAL/ELECTRICAL EQUIPMENT ROOMS
- ELEV. 1 PROVIDES ACCESS FOR EQUIPMENT/SUPPLIES & PERSONNEL



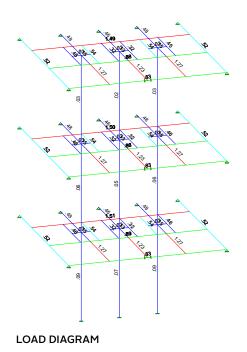
#### Future Use Diagram - Structural Stack Modifications

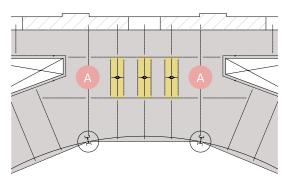




EXISTING CONDITION PLAN - MULTIPLE COLUMNS

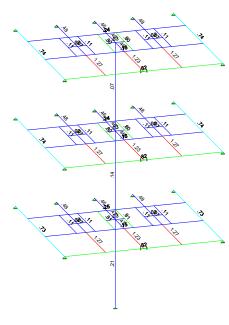




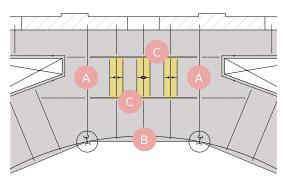


**REPLACEMENT OPTION - 3 COLUMNS** 

The 3 column option entails three new columns in each stack range with infill framing to re-support the glass panels at their original support points. Based on preliminary analysis, the 3 column option results in load increases in girders A. Further investigation and analysis is required to determine if these existing members have sufficient strength and stiffness or if additional reinforcing is required. The existing built up columns at the perimeter of the rotunda should also be evaluated to determine if reinforcing is required.



LOAD DIAGRAM

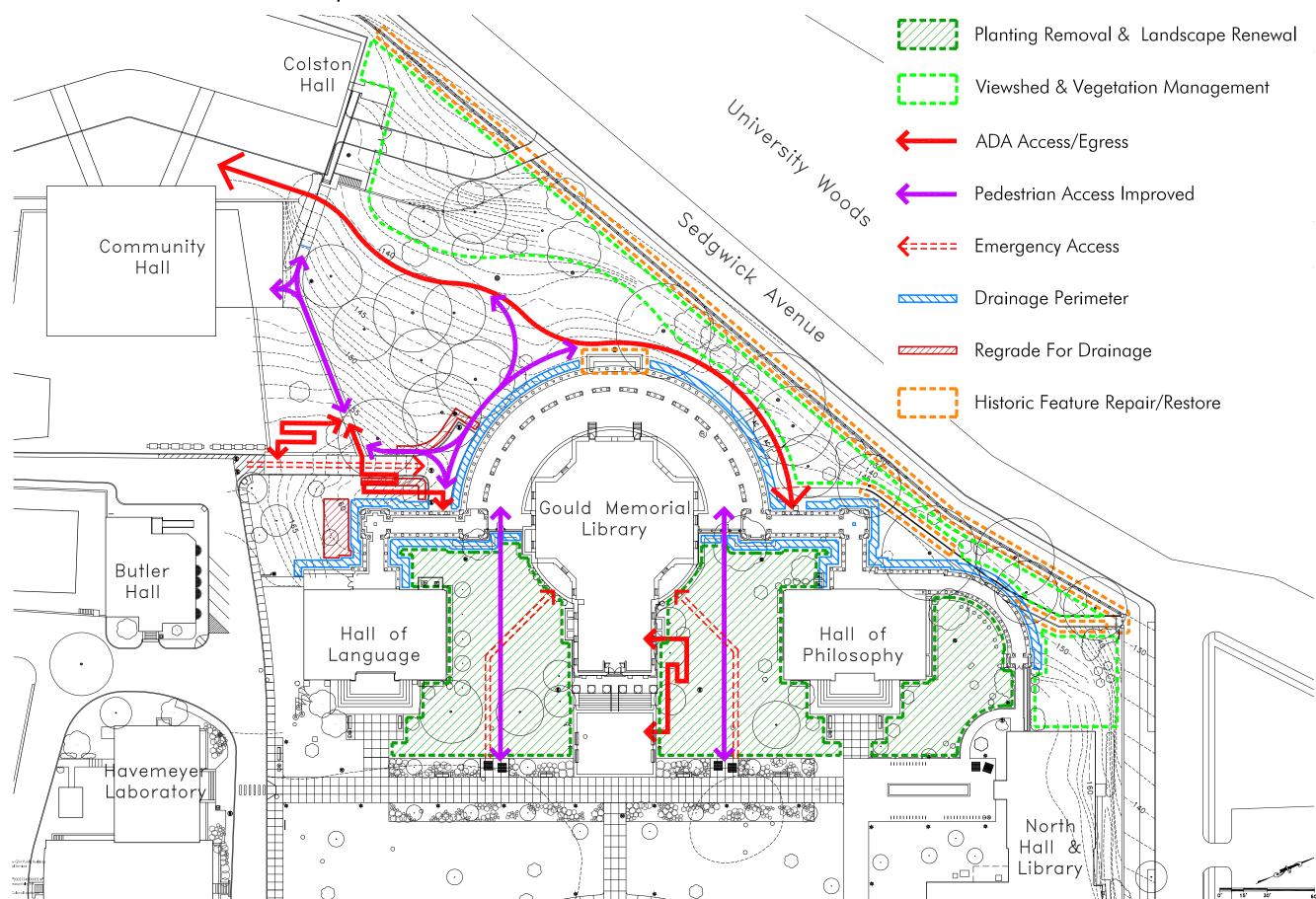


**REPLACEMENT DIAGRAM - 1 COLUMN** 

The 1 column option entails one new column in the middle stack range with infill framing to re-support the glass panels at their original support points in each stack range. Girder C will most likely need to be replaced or reinforced as the existing member seemed undersized for this proposed intervention. Based on preliminary analysis, the 3 column option results in load increases in girders A and B. Further investigation and analysis is required to determine if the existing members have sufficient strength and stiffness or if additional reinforcing is required. The existing built up columns at the perimeter of the rotunda should also be evaluated to determine if reinforcing is required.

BEYER BLINDER BELLE FUTURE USE 285

#### Future Use Plan - Landscape





# Construction Costs & Phasing

#### **COST SUMMARY**

Cost estimates were developed to assist with planning and fundraising for repairs required to correct hazardous conditions, stabilize the buildings, improve aesthetics and operability, and re-establish use. The cost estimates include the following work:

- Full mobilization for each Phase or Priority (assuming that each is an independent project).
- Materials, labor, and overhead costs, site access, and protection.
- · Prevailing wage labor in current dollars.
- Exterior Architectural and Landscape repairs designated in the Conditions Assessment tables and drawings.
- Interior Architectural repairs shown in the tables and drawings.
- Structural, Mechanical, Electrical, Plumbing, and Fire Protection items listed in the repair tables.
- Allowances for future use infrastructure and fit-out, such as finishes, furniture, equipment, structural upgrades, vertical circulation, mechanical, electrical, plumbing, and fire protection. Future Use estimates were developed for conceptual planning purposes without verification of specific uses.
- Reactivation of the GML Rotunda stairs through successful application for variances
- Alternates for new fire stairs in the GML Rotunda, replacement of the HOF plaza roof and paving, and replacement of the GML copper cornice.

The following work is not included in the estimate:

- Projects that are funded by the current capital improvement campaigns: Rotunda egress stairs, GML roof replacement (cupola, dome shingles, copper steps, and flat roof), steam generator work, fire alarm upgrades, and emergency power.
- · Abatement of hazardous materials.

• Escalation: the duration of construction has not been factored into costs, as the project schedule is undetermined while construction funding is being sourced. If the entire scope is performed continuously work is anticipated to be 24 months long.

Estimates are categorized according the 5-level Prioritization, and detail is formatted by building, component and trade. General Conditions and contingency percentages are in accordance with CUNY and Facilities Planning Construction Management (FPCM) standards:

- General Requirements: 8%
- Design Contingency: 15%
- Change Orders: 10%
- General Contractor Overhead & Profit, Bonds & Insurance: 15%
- Construction Contingency: 10%

Design options have been identified with life cycle costs as a major determining factor for the selection of systems and materials. Both quantitative and qualitative analyses were considered with systems selection, balancing first cost and operating cost concerns.

Pre-Schematic budgets were estimated according to five incremental levels of improvements:

- 1. Potential Hazards: \$ 302,000
- 2. Code Violations: \$ 1,413,000
- 3. Deterioration: \$ 33,521,00
- 4. Enhancement (Improve Appearance, Aesthetics and Operability): \$ 7,209,000
- 5. Code-compliance and Occupancy: \$ 14,023,000

The 2005 Conservation Master Plan (CMP) included an estimate for repair and restoration. Whereas the CMP estimate focused on stabilization, this study includes a more detailed evaluation of work needed to make GML and HOF occupiable and to serve the needs of the college and the community.

#### CONSTRUCTION PHASING RECOMMENDATIONS

Phasing of repairs has been developed to protect occupants, best serve members of the college and community, reactivate the complex in the shortest time possible, and return GML-HOF to be the symbolic keystone of the Bronx Community College and University Heights neighborhood. Input for the phasing plan was given by the Save Gould Memorial Library Foundation, BCC, and CUNY FPCM. Phasing estimates are conceptual in nature and shall be further developed in subsequent phases of design.

The 5-stage phasing approach is described below with order-of-magnitude costs:

#### A. Critical Repairs: \$ 328,000

Protect the Landmark to arrest deterioration of the GML Dome and implement roof work already funded. Critical repairs within the scope of this study augment the roof work by correcting hazardous conditions at the HOF cornice, HOF roof, GML facades, and GML roof.

#### B. Access to the Rotunda: \$ 3,285,000

Unlock the Rotunda to improve accessibility, with ADA entry to the Rotunda, Balcony and Auditorium; provide HVAC, restrooms and utility upgrades, reopen the dome laylight, and restore the interior Rotunda and dome.

#### C. Building Envelope Improvements: \$ 16,519,000

Secure the Building Envelope to repair GML and HOF brick and stone, tile roofs, skylights, restore GML windows and replace HOF fenestration.

#### D. Building / Architectural Systems Improvements: \$ 24,019,000

Full Building Access to provide access and egress to all levels of GML, upgrade Mechanical, Electrical, Plumbing, Fire Alarm and Fire Protection services outside of the Rotunda (including restrooms, HVAC, power, etc.), structurally alter book stack framing, and complete associated code-required upgrades (stairs, lighting, etc.).

#### E. Fit-out Accommodations: \$ 12.317.000

Fit-out for New Use to finish all levels of GML above the Rotunda, and provide MEP/FA/FP upgrades, fit-out, and finishes to the HOF.





# Appendix

Exterior Survey
Window Assessment
Landscape Conditions Assessment
Interior Survey
Conservation Report
Cleaning Tests
Cost Estimate

# **Exterior Survey**

#### **METHODOLOGY**

#### **Architectural**

Prior to performing site surveys, research of original documents and drawings was conducted. The archive of original McKim, Meade and White documents was studied, and informed the development of building systems and baseline elevations. BCC's archive of past projects was reviewed. This guided nomenclature, baseline drawings, and MEP/FA/FP analysis. A list of repair codes based on initial observations was created, to be mapped onto survey drawings.

On-site assessments were performed by review from the ground and close-up analysis from lifts. Exteriors were first surveyed with binoculars. Physical access was provided by Quality Restoration Works from September 11th to 15th. The south, east, and north sides of GML, as well as the west facade of the HOF was surveyed from a 6o-foot boom lift. The west side of GML and the HOF east colonnade and roof were reviewed from a 25-foot scissor lift. This lift also provided access to the vaults of the HOF colonnade. Architectural and Structural reviews were made concurrently from all lifts. Cleaning tests were also performed from the scissor lift.

Data collected was reviewed and processed for use by the team. Site surveys were checked for accuracy and completeness. Conditions observed by team members were reviewed for consistency, severity, and conformance with the team's repair codes. After satisfactory coordination, site surveys were drafted into AutoCAD, repair priorities assigned, and shared with estimators for pricing.

#### Structural

For this project, as with many of projects focused on condition assessment on existing and historic structures, Silman's approach to documenting the construction and condition of the existing structure relied primarily on visual observation and document review. Interior and exterior spaces are observed with the naked eye and where appropriate, with the aid of binoculars, cameras fitted with telephoto lens, and cameras mounted on "selfie sticks." At the interior all observations were visual and were made from accessible spaces, including cellars and attics; lifts and ladders were not used to support the interior documentation. At the exterior a telescoping personnel lift and a scissor lift were

provided and were used, in collaboration with other members of the project team to document the condition of the upper portions of the exterior of the structure.

In general, probes were not opened as part of the documentation phase of this project. At the Hall of Fame, some existing materials – primarily roof tile and ceiling tile – were detached to allow observation of concealed structure. Materials were removed only where they were damaged. Small portions of back-up structure (holes were about four inches by four inches immediately behind damaged finishes) were removed to allow a digital camera to be slipped in to interstitial spaces to document structure at the ceiling and roof of the Hall of Fame. At the interior, damaged floor finishes were removed to confirm floor construction and, as best as possible, condition of framing. Existing holes in the structure - for mechanical equipment, conduit, pipes, and/or other features were exploited to allow documentation of concealed structure. For example, holes in the floor of the Map Rooms, which were created in the past to allow installation of winches to lower the chandeliers in the space below, were used to document the floor assembly in this portion of the building. Prior probes were completed as part of the Dome Roofing project, designed by BBB and Silman, several years ago; the findings of this effort were incorporated in to our approach to documenting other portions of the building.

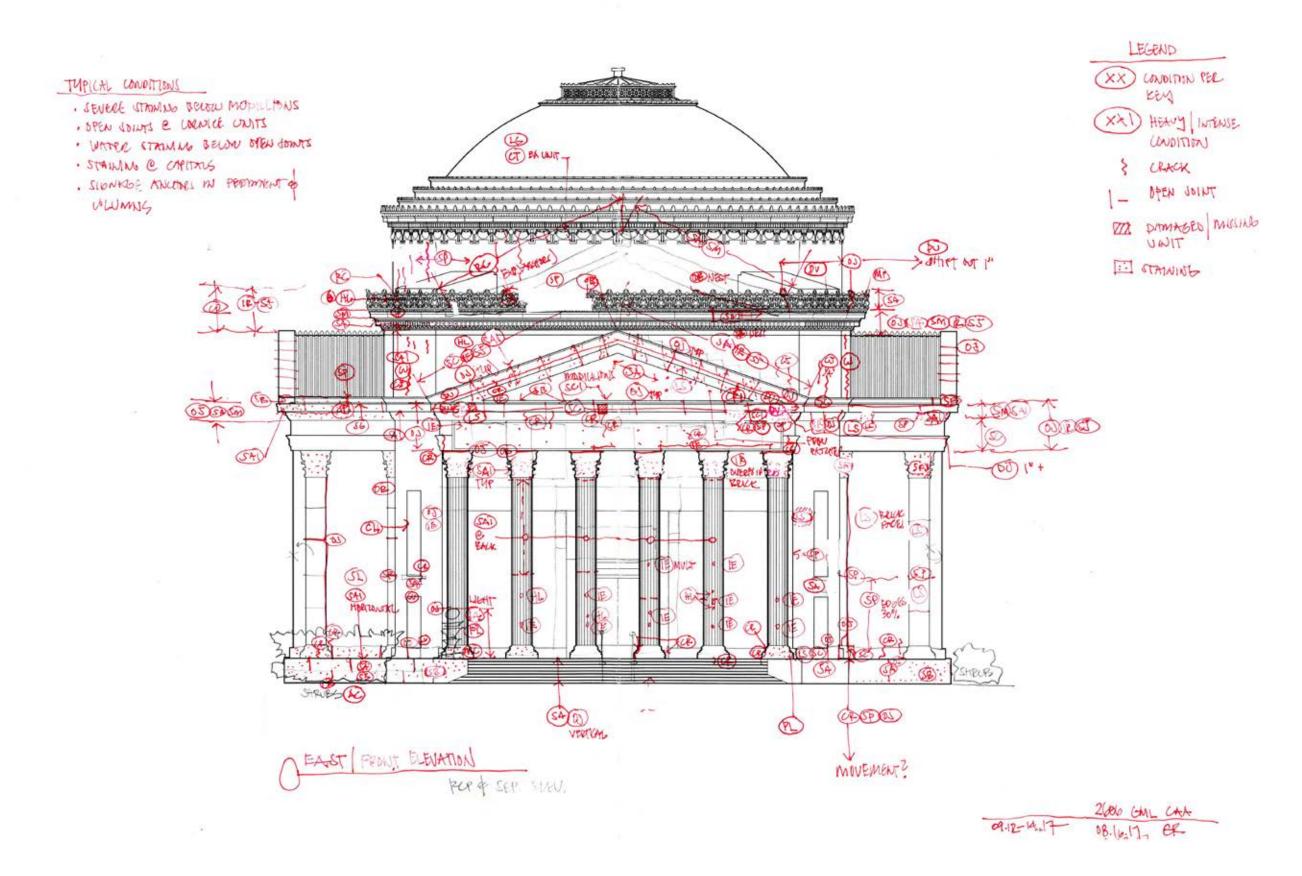
In addition to field documentation, Silman reviewed existing original design documents. Drawings scanned as part of the Dome Roofing project were particularly informative, as were the earlier Conditions Assessment completed by Polshek Architects for the Hall of Fame / Museum plaza framing and the Getty-funded Conditions Report completed by Easton Architects. Silman reviewed building codes in effect at the time the building was designed and constructed, as well as manufacturers catalogs and patents for library stack systems, structural hollow tile floor assemblies, and archival material in the Rafael Guastavino Company collection at the Avery Library and Archive at Columbia University, to help establish live load capacities for the structure and inform the preliminary structural analysis completed as part of the evaluation of future uses.

No material samples were removed or caused to be removed by Silman for testing of physical and/or chemical properties of building materials.



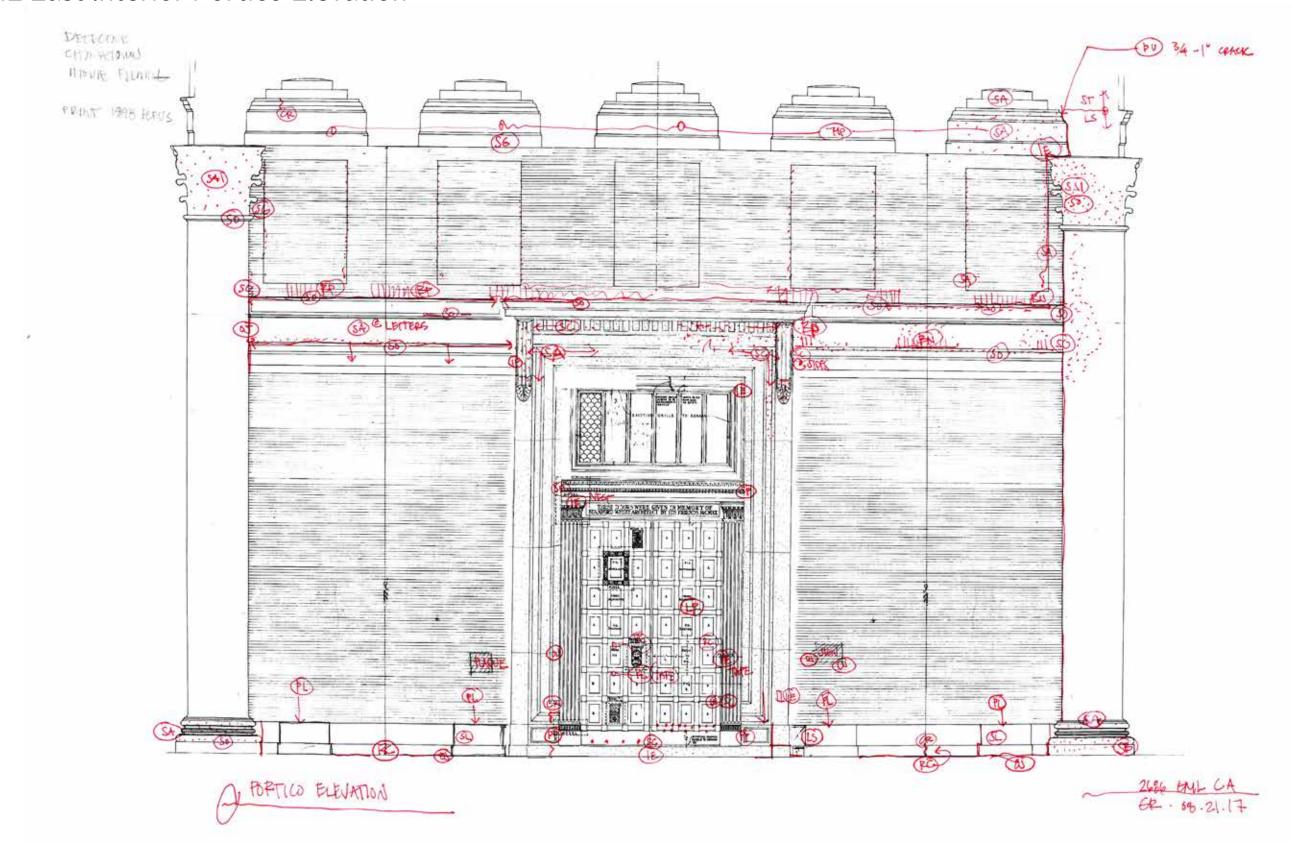


#### **GML** East Elevation



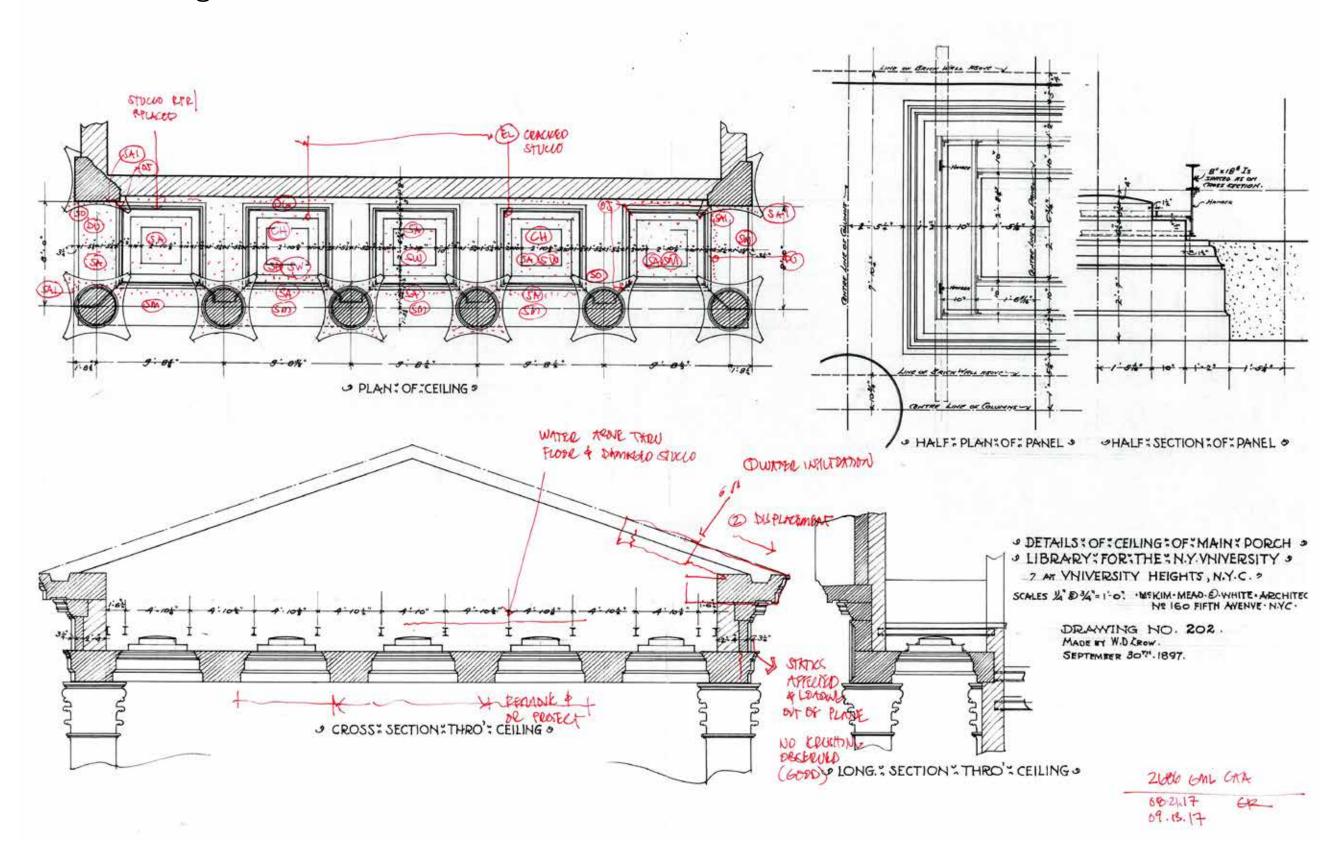
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#### GML East Interior Portico Elevation

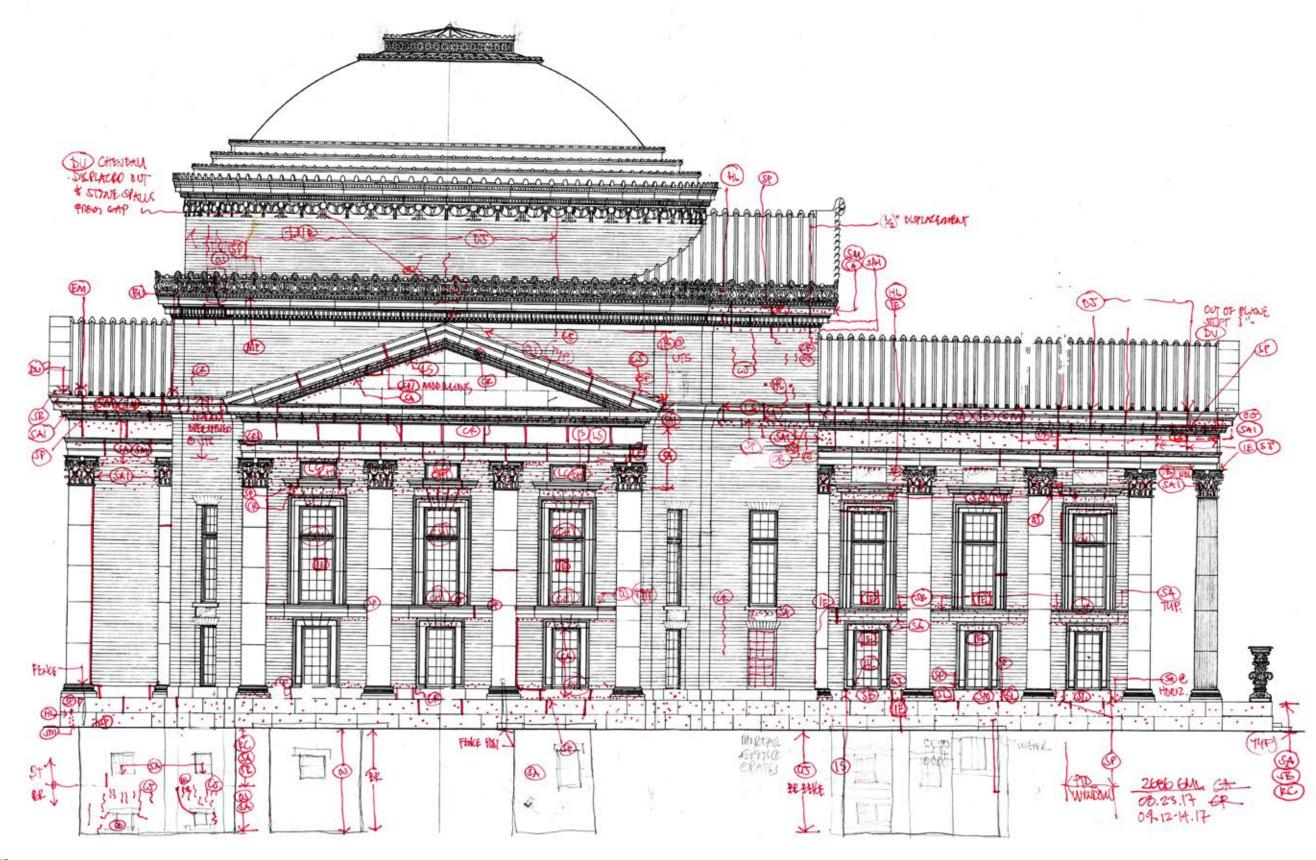


Caption

#### **GML** Portico Ceiling

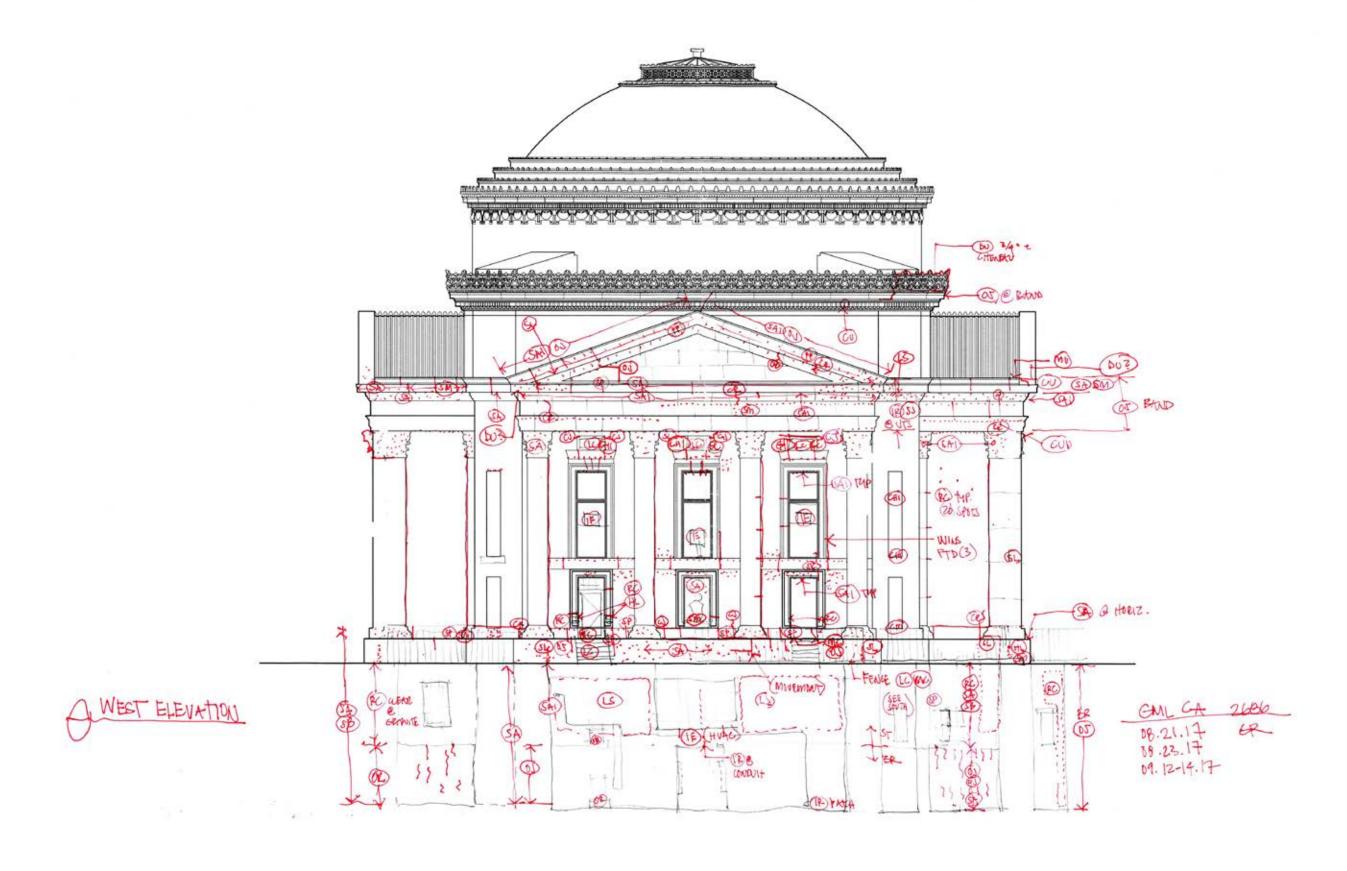


#### **GML South Elevation**



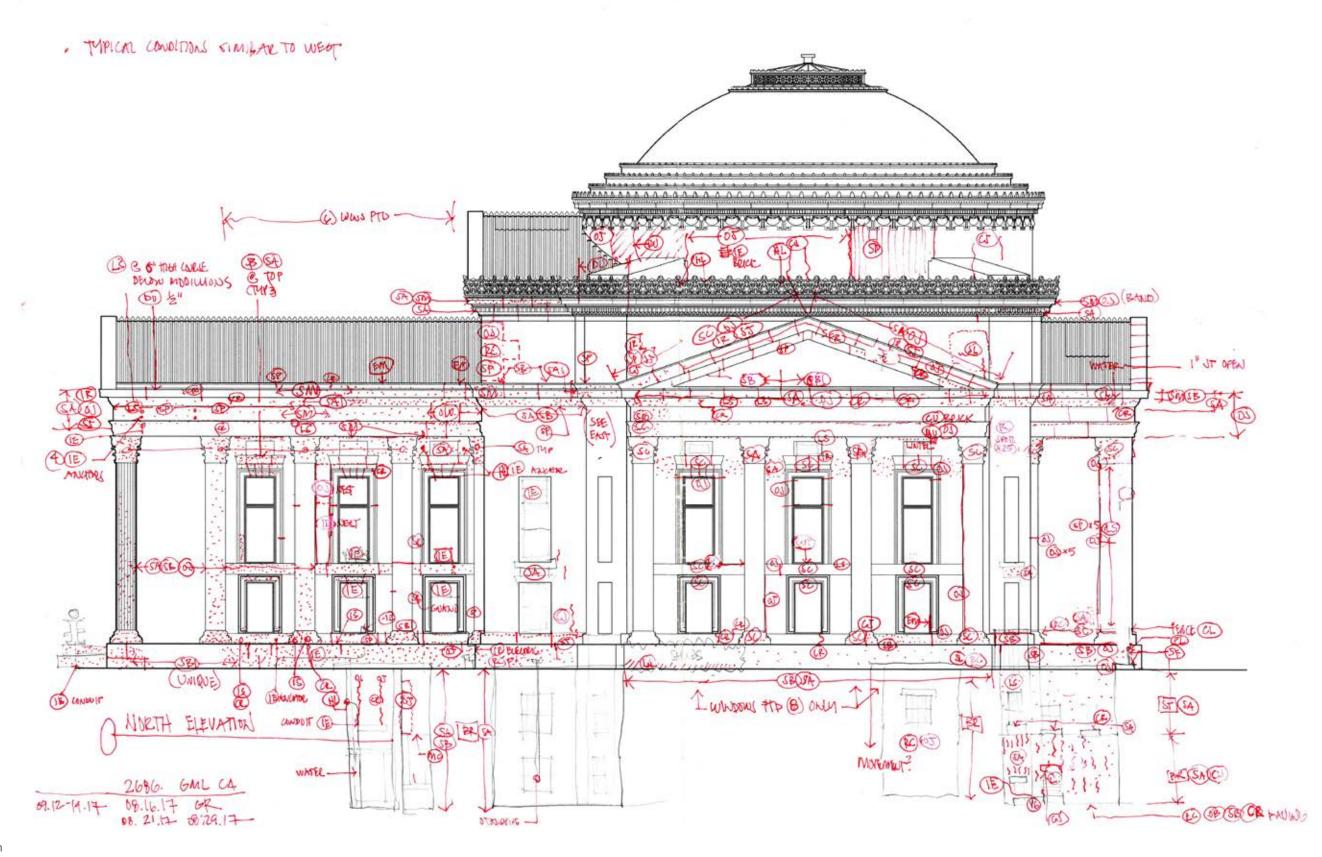
Caption

#### **GML** West Elevation



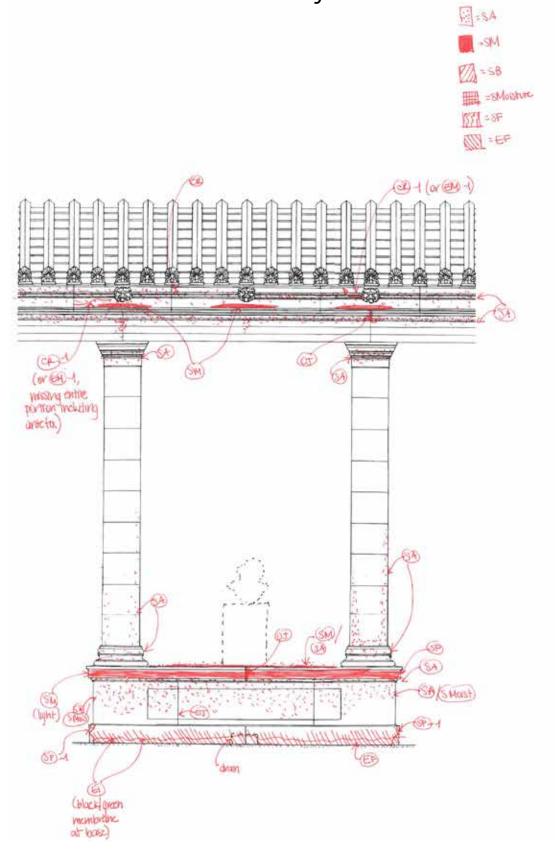
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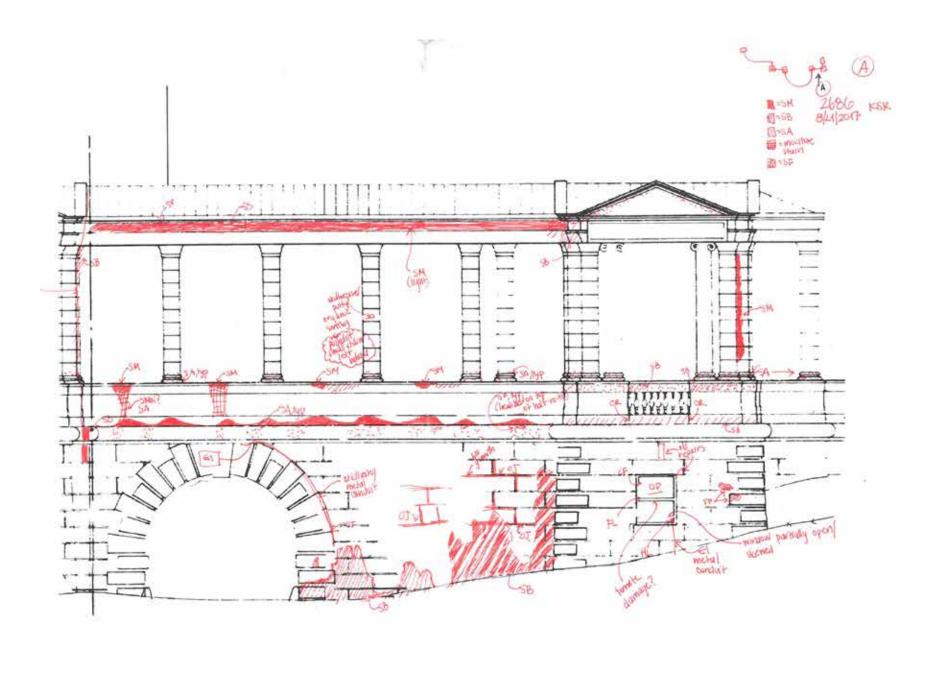
#### **GML North Elevation**



Caption

#### **HOF Exterior Ambulatory**





## Window Assessment

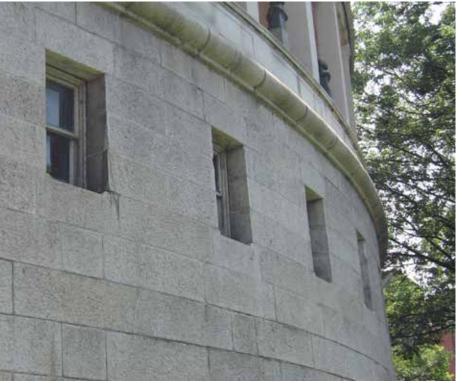
#### **METHODOLOGY**

Before performing the window survey, the windows at the Hall of Fame and Gould Memorial Library were numbered and categorized by general type (double-hung at the exterior of the Hall of Fame, for example) so that survey sheets with sketches of each window could be created.

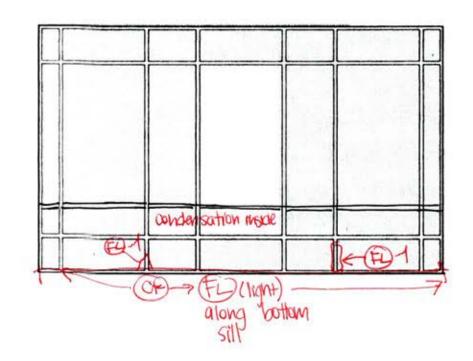
On-site assessments of each window were performed by close-up analysis where accessible, and by examination through binoculars for windows that were high up or otherwise inaccessible. The exterior review was followed by interior surveys to confirm and record other conditions that were not possible to observe from the ground, such as checked sills and operability. For areas that were difficult to access, such as windows in areaways, surveying was conducted by looking down into the areaways from the ground floor level and by looking across the areaways from the corridors of the Hall of Fame into the Auditorium of Gould Memorial Library and vice versa. However, a number of windows at the exterior of the Hall of Fame and in the areaways of the Hall of Fame were covered on the exterior and/or interior with plywood, impeding the surveying of these windows.

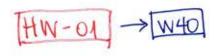
Conditions of each of the windows were recorded onto the prepared survey sheets using an initial list of repair codes. The collected information was reviewed with the team for accuracy, consistency, and completeness. General conditions based on window types and locations were discussed and developed by team members, leading to overall treatment recommendations for each window type.

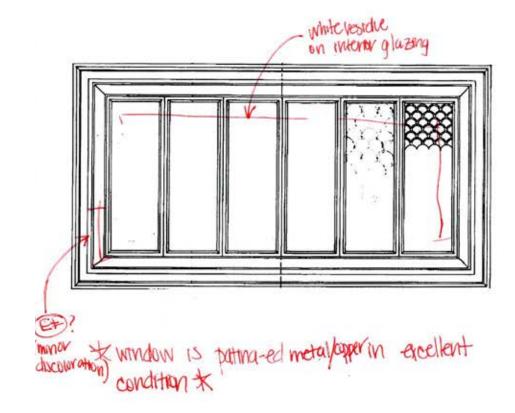




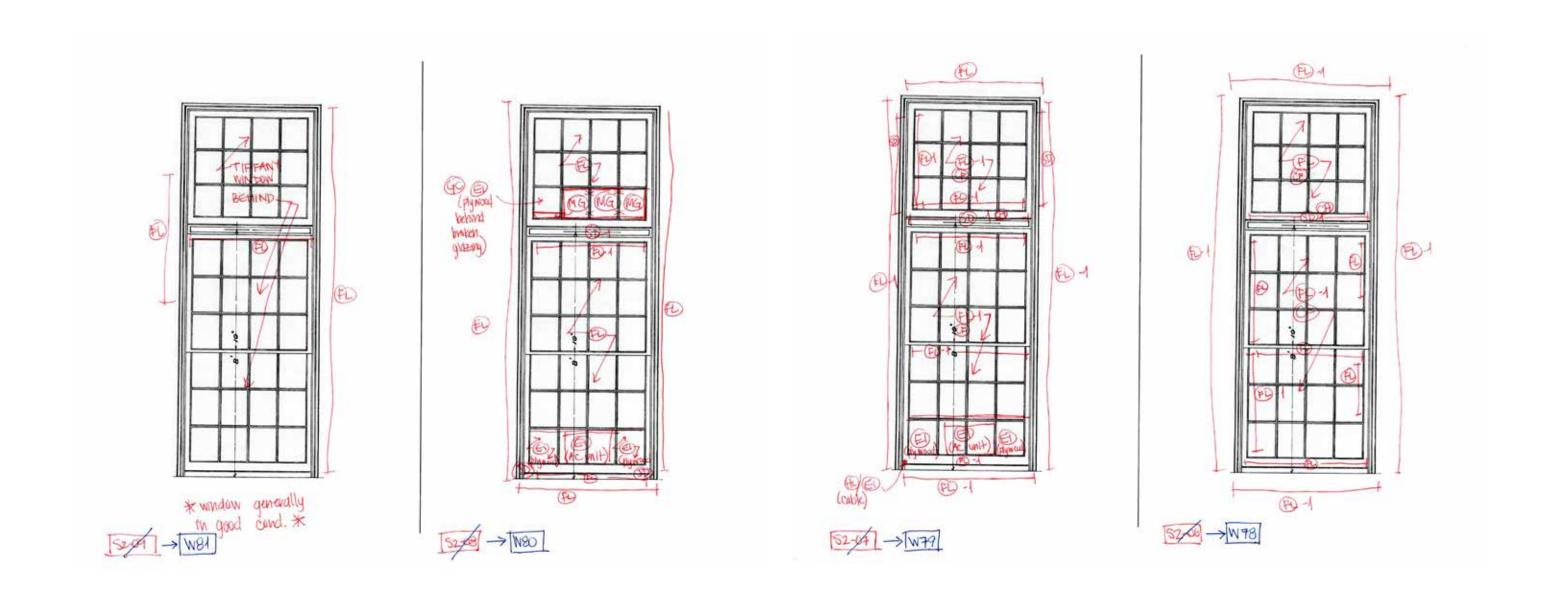
#### GML Type E Window

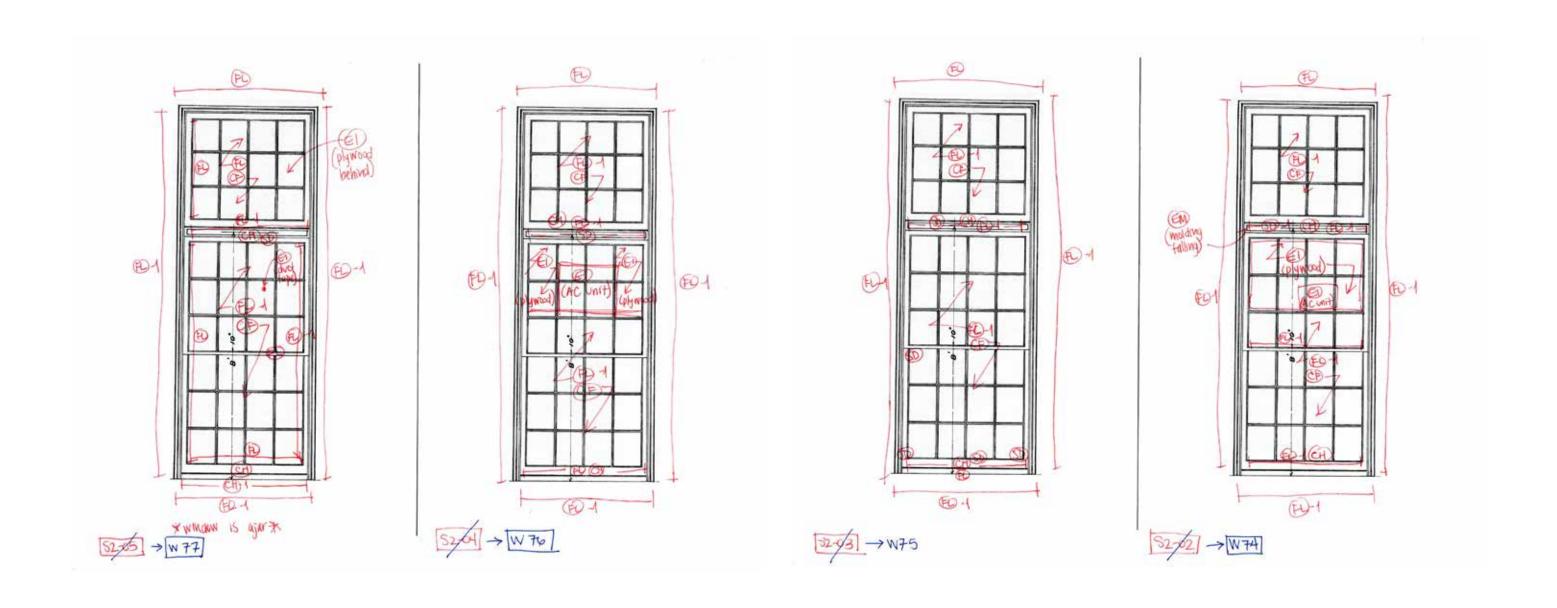


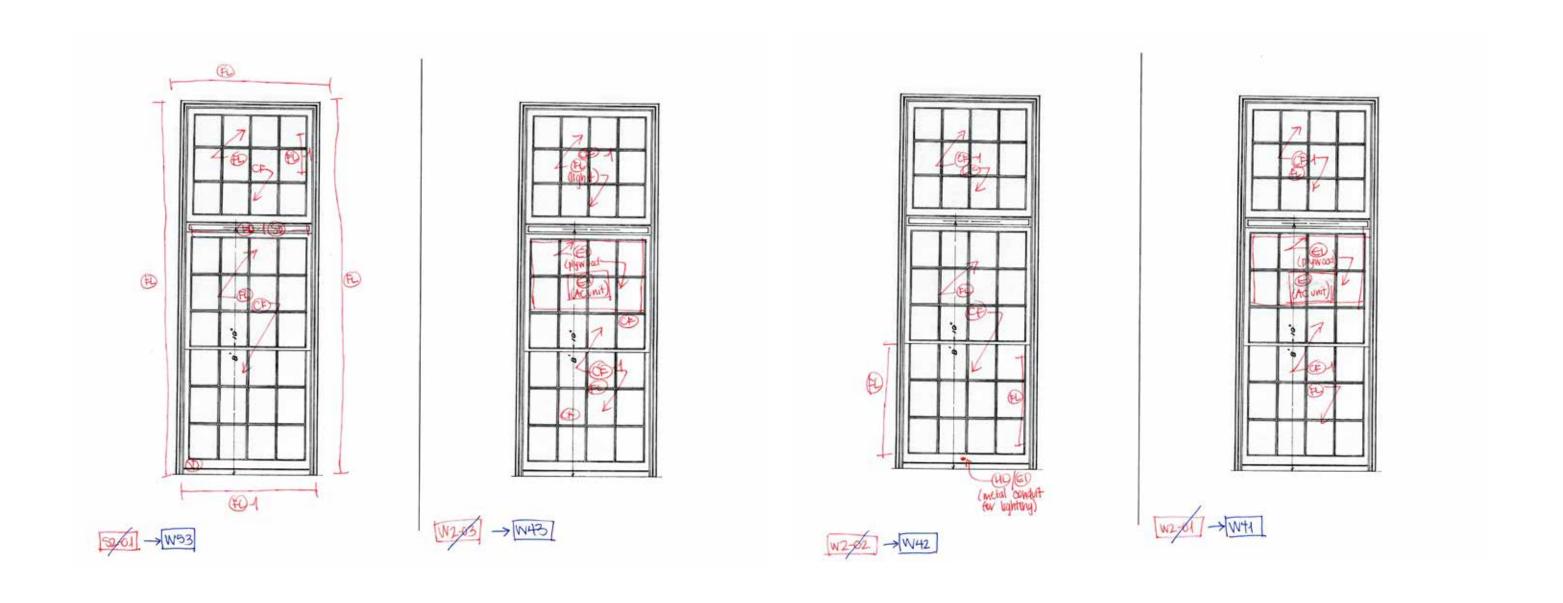


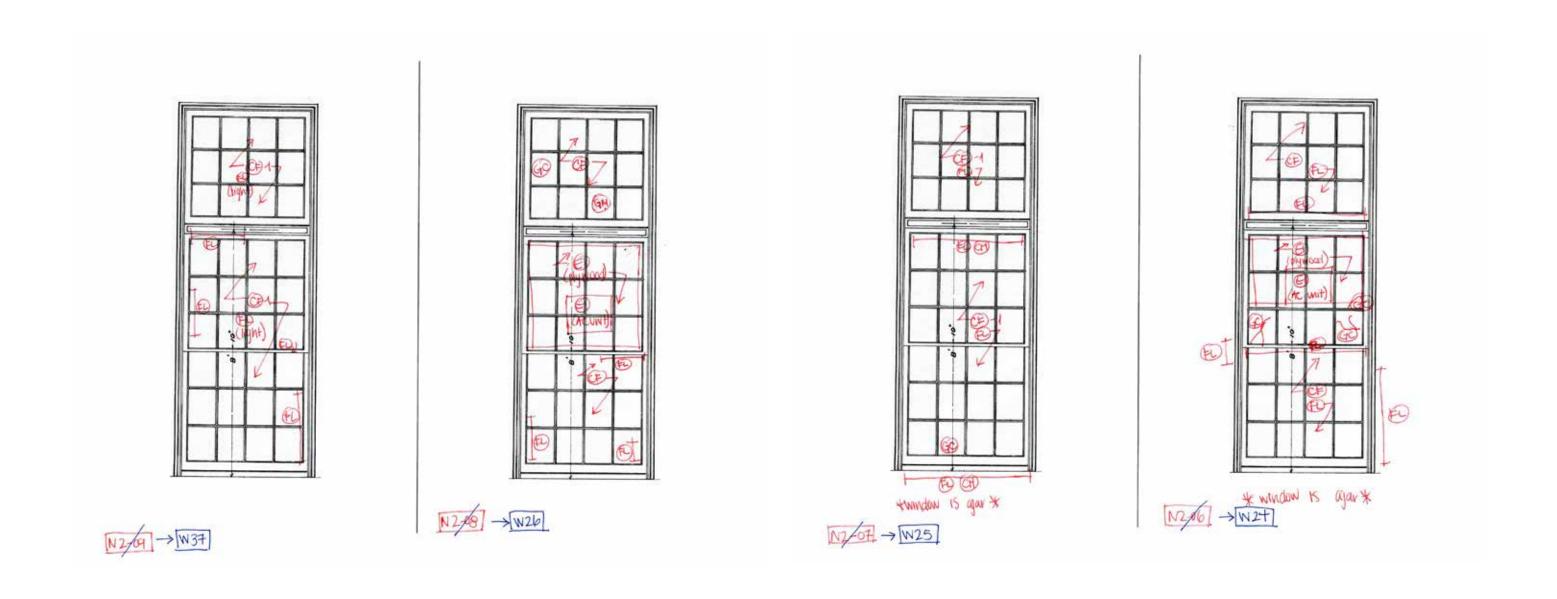


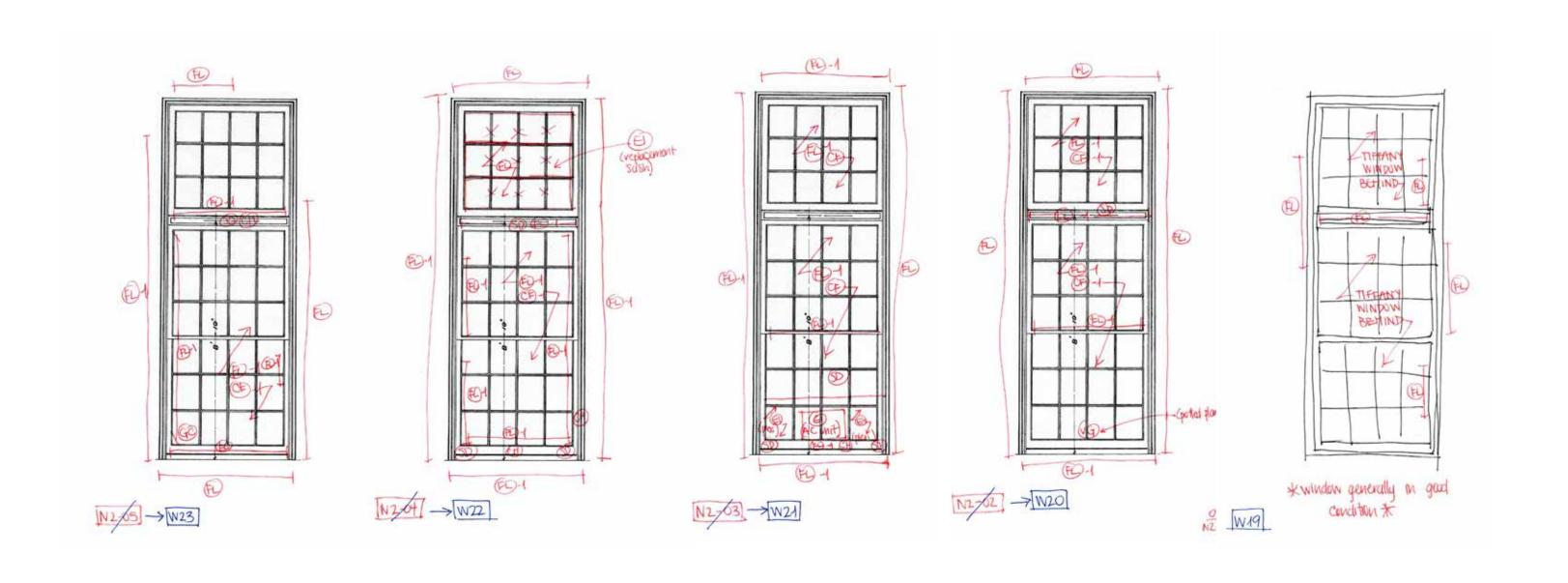
E2-01

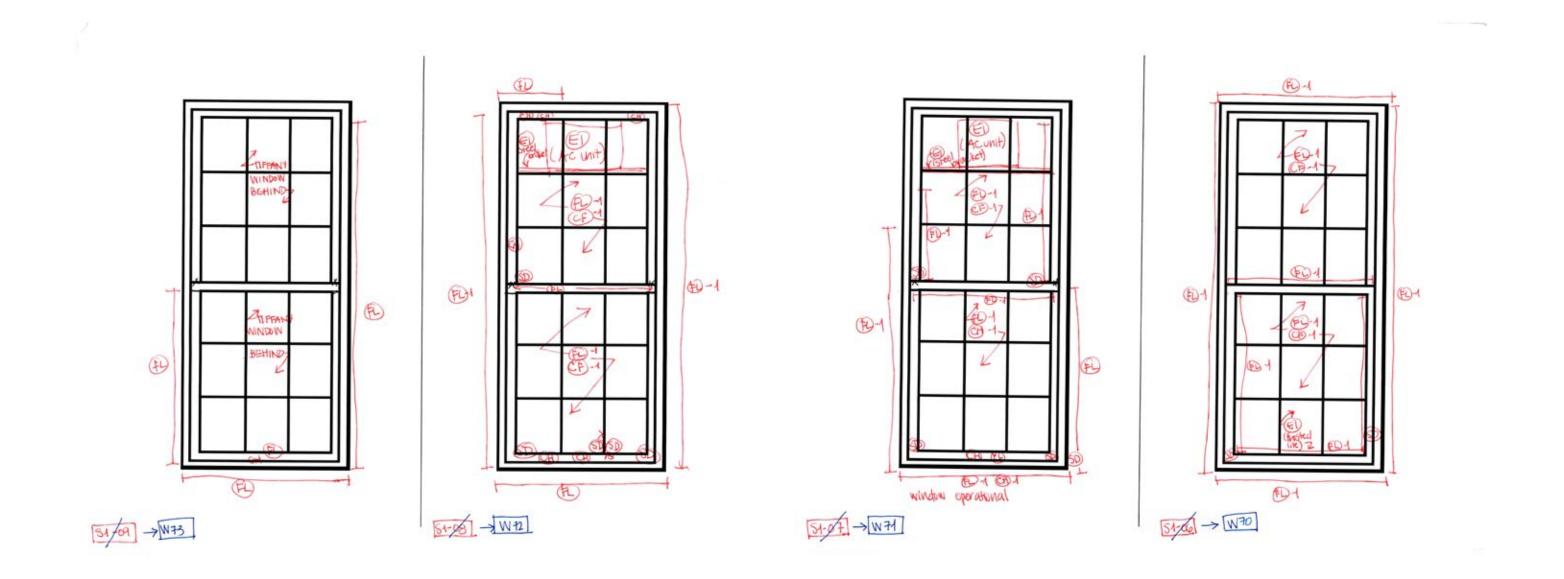




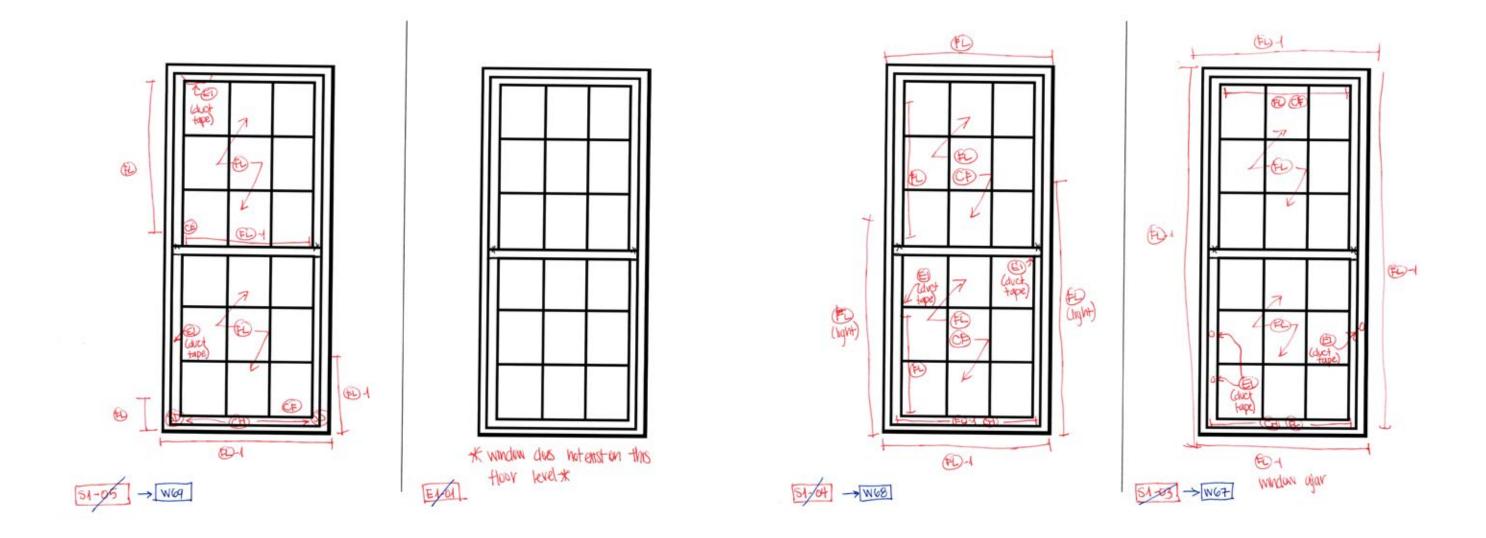


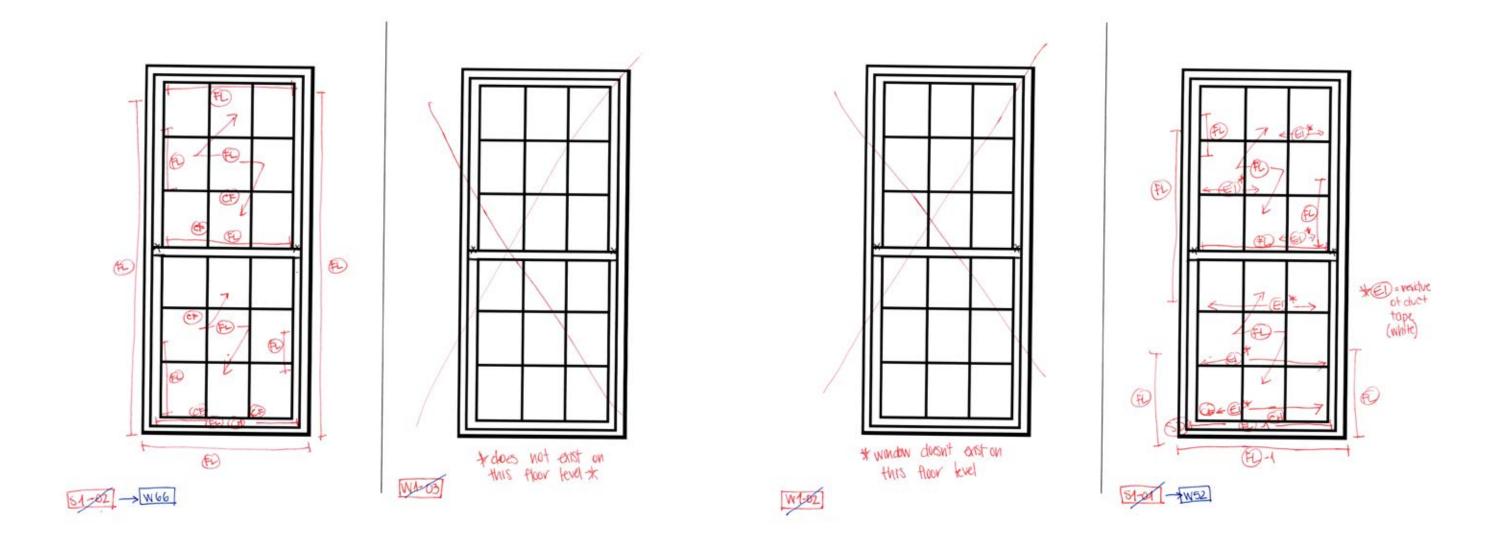


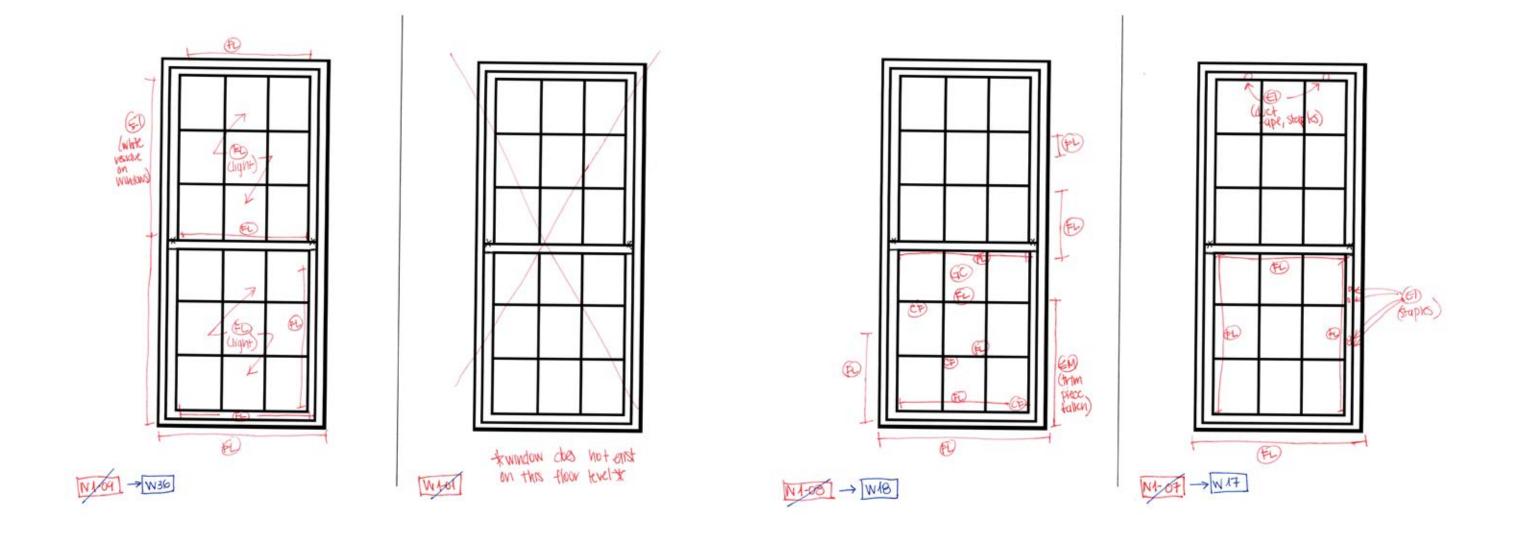


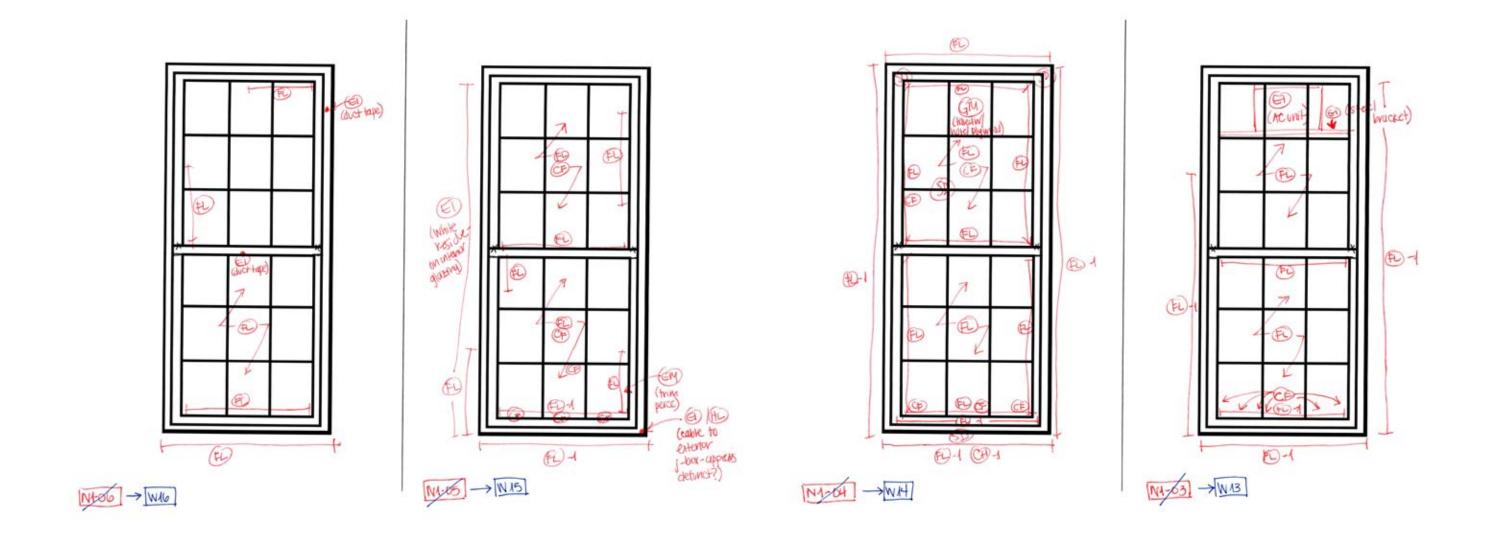


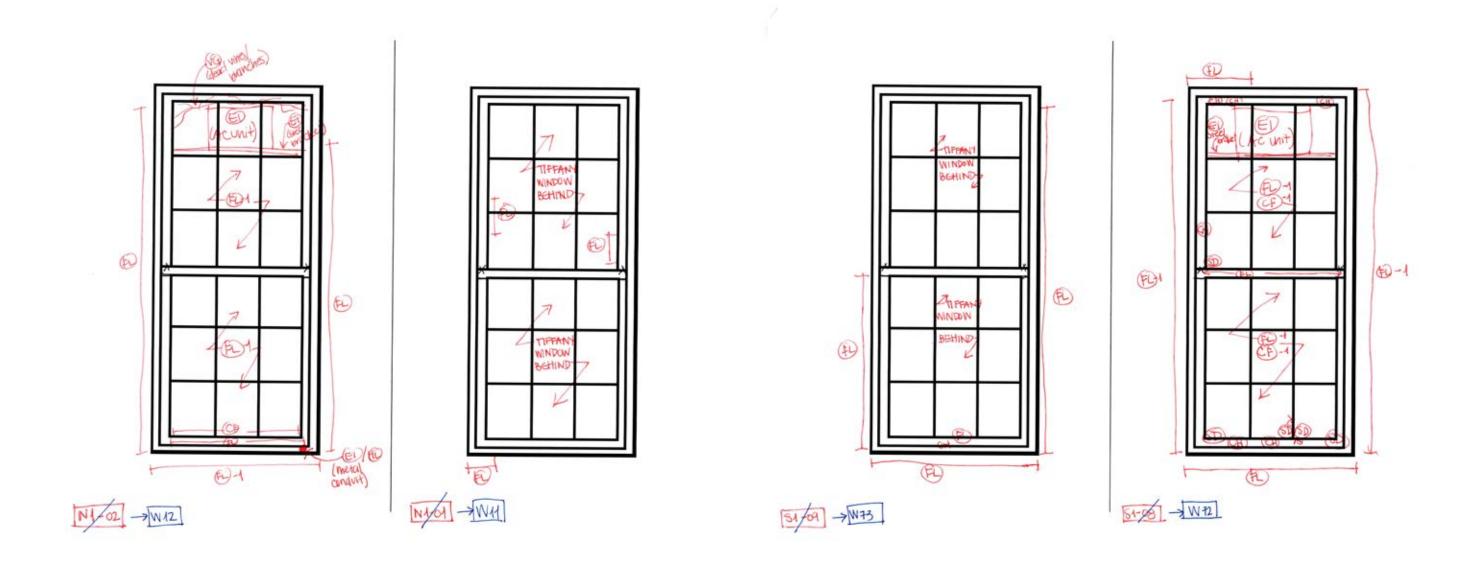
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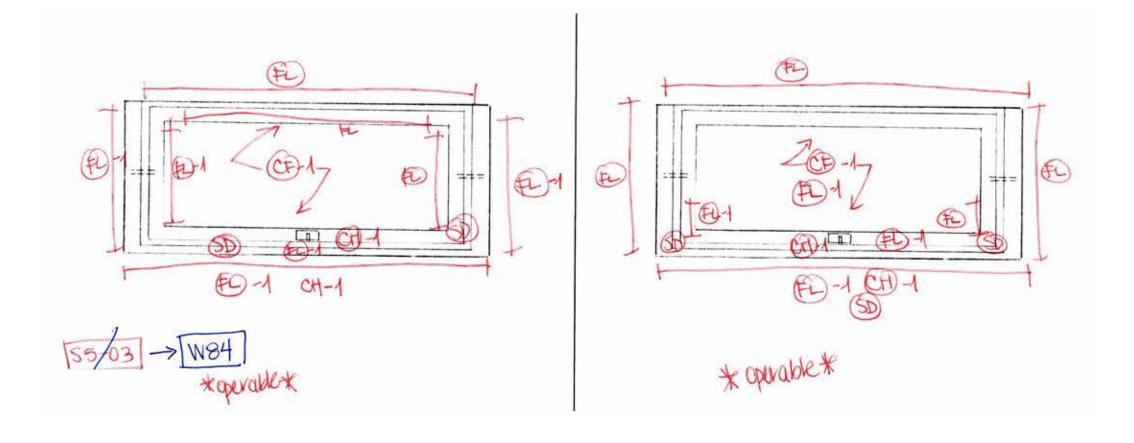


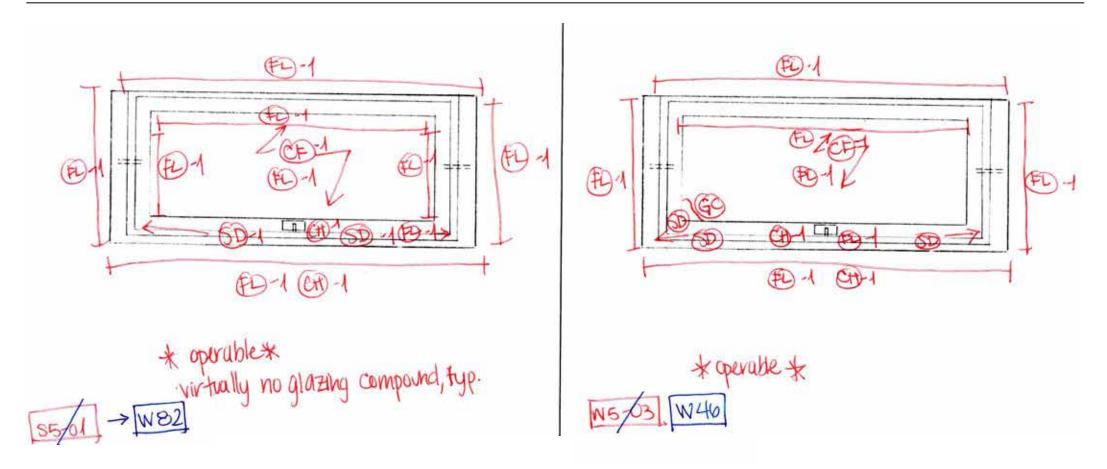


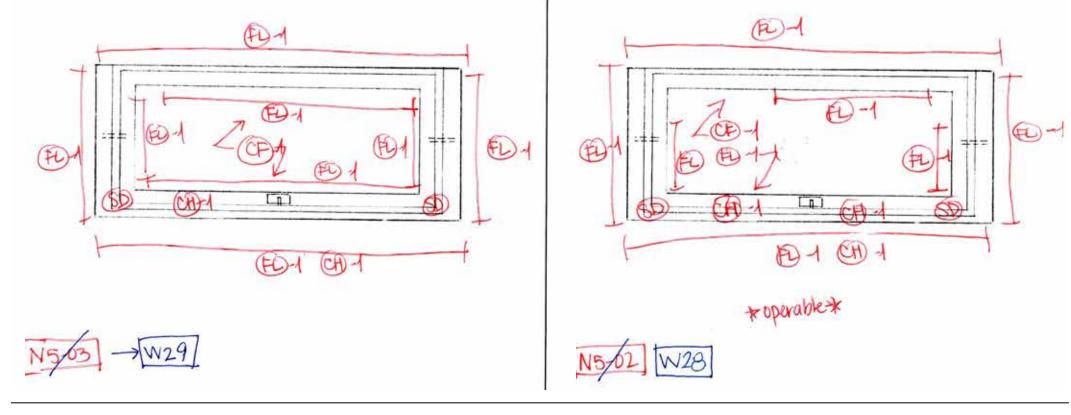


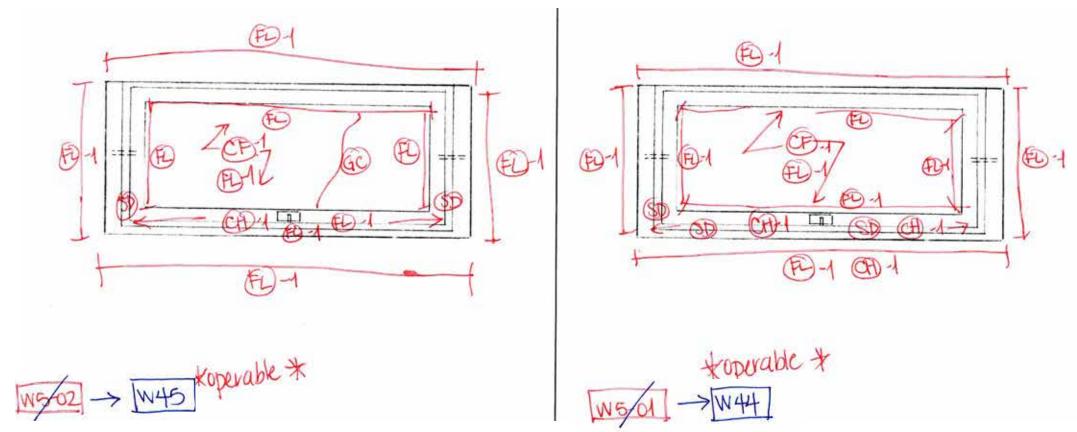


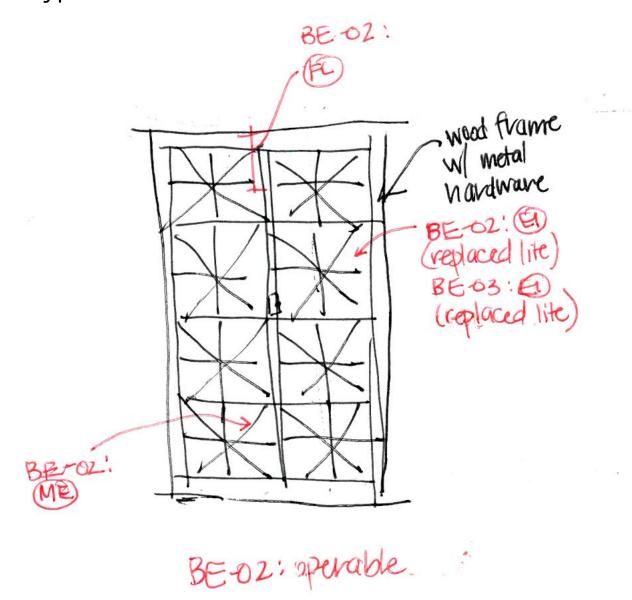




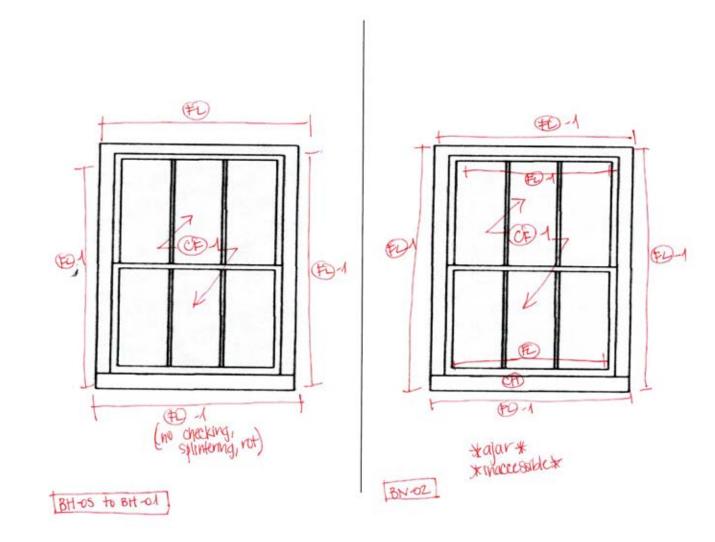


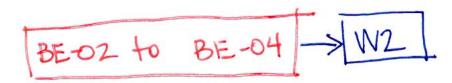


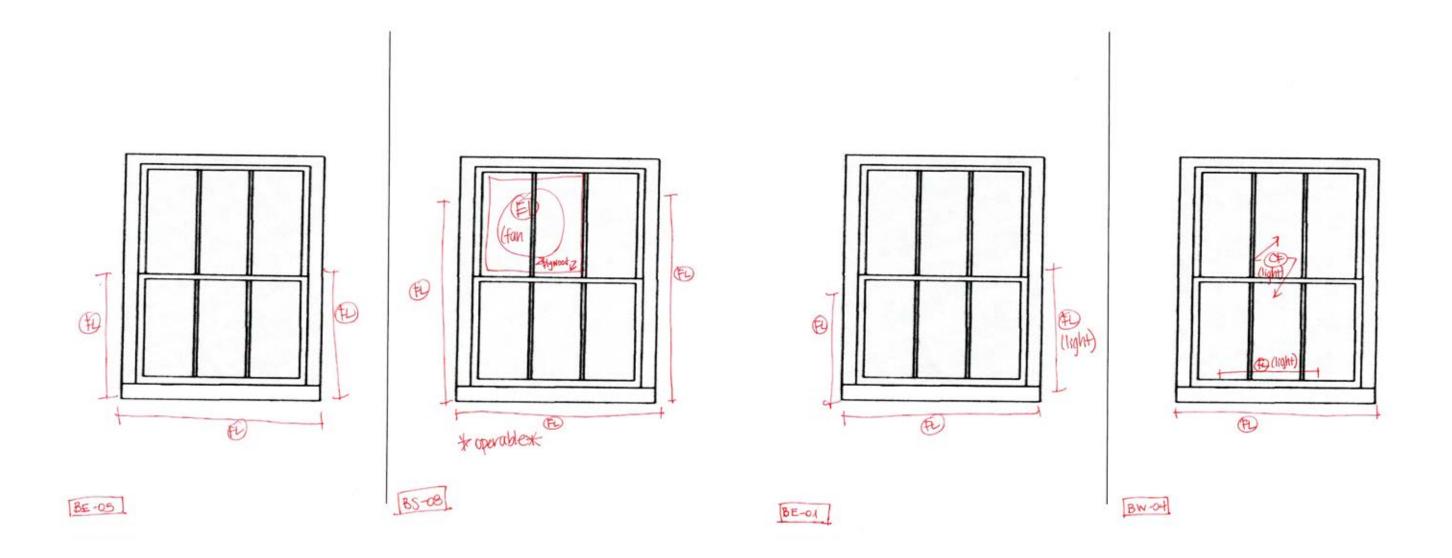


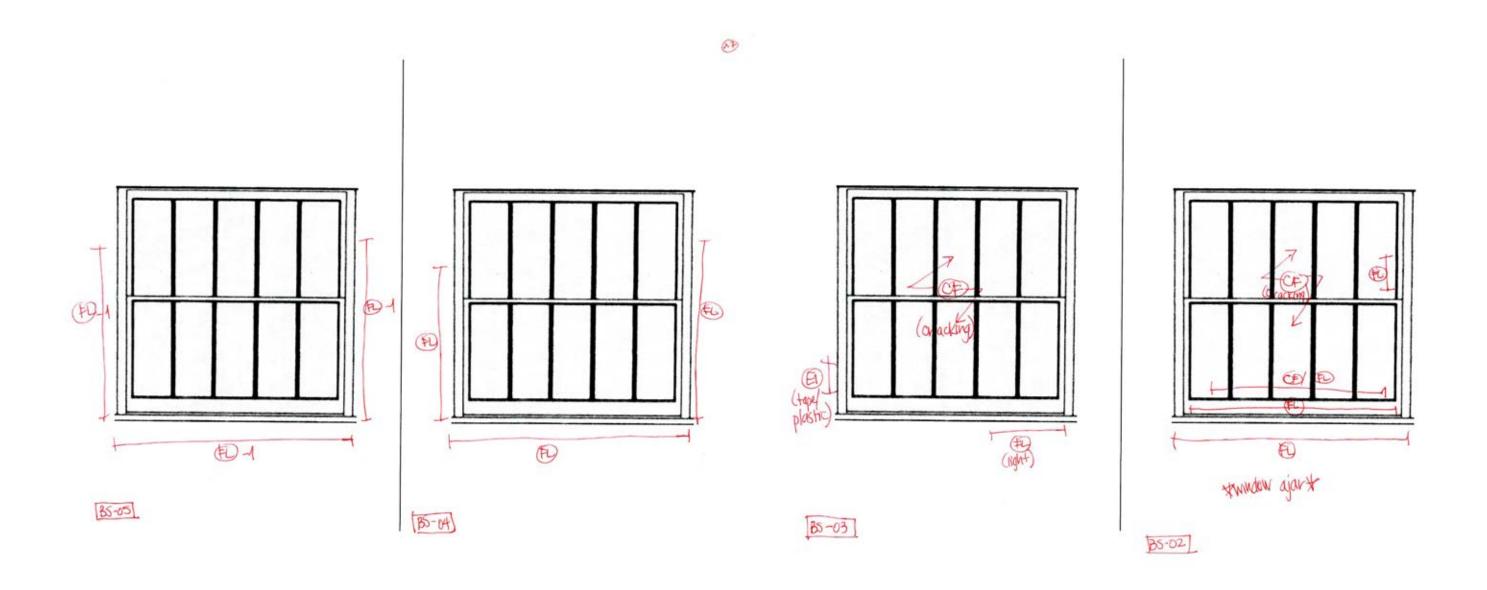


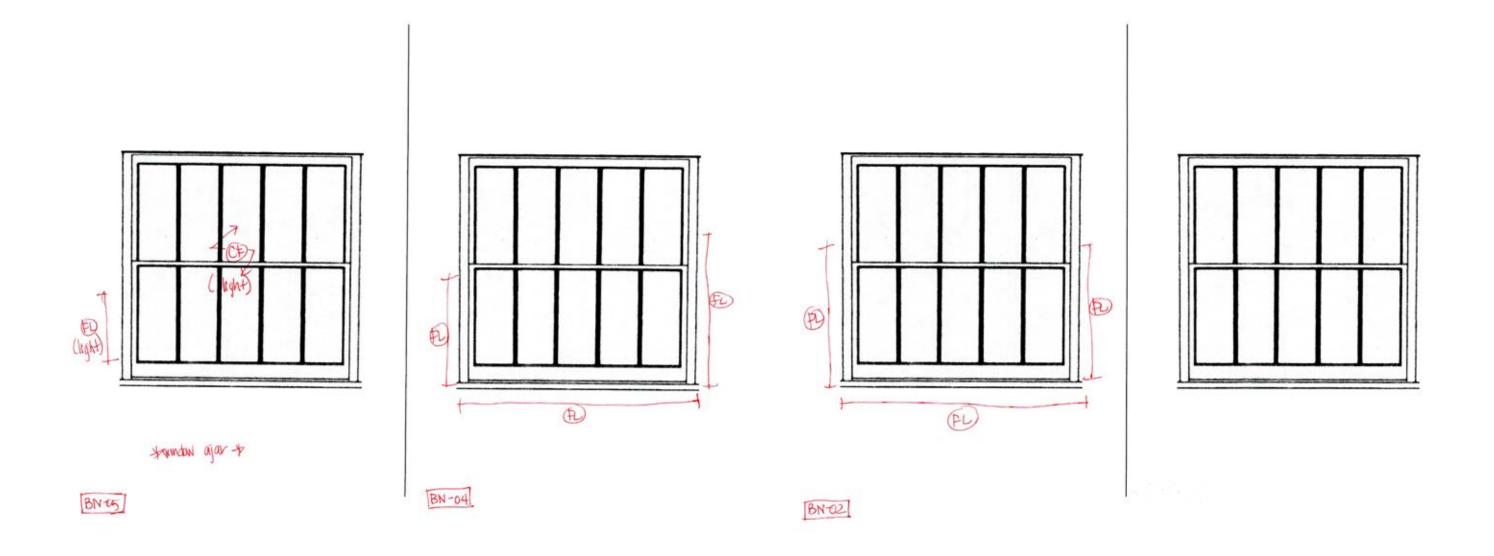
#### GML Type I Window

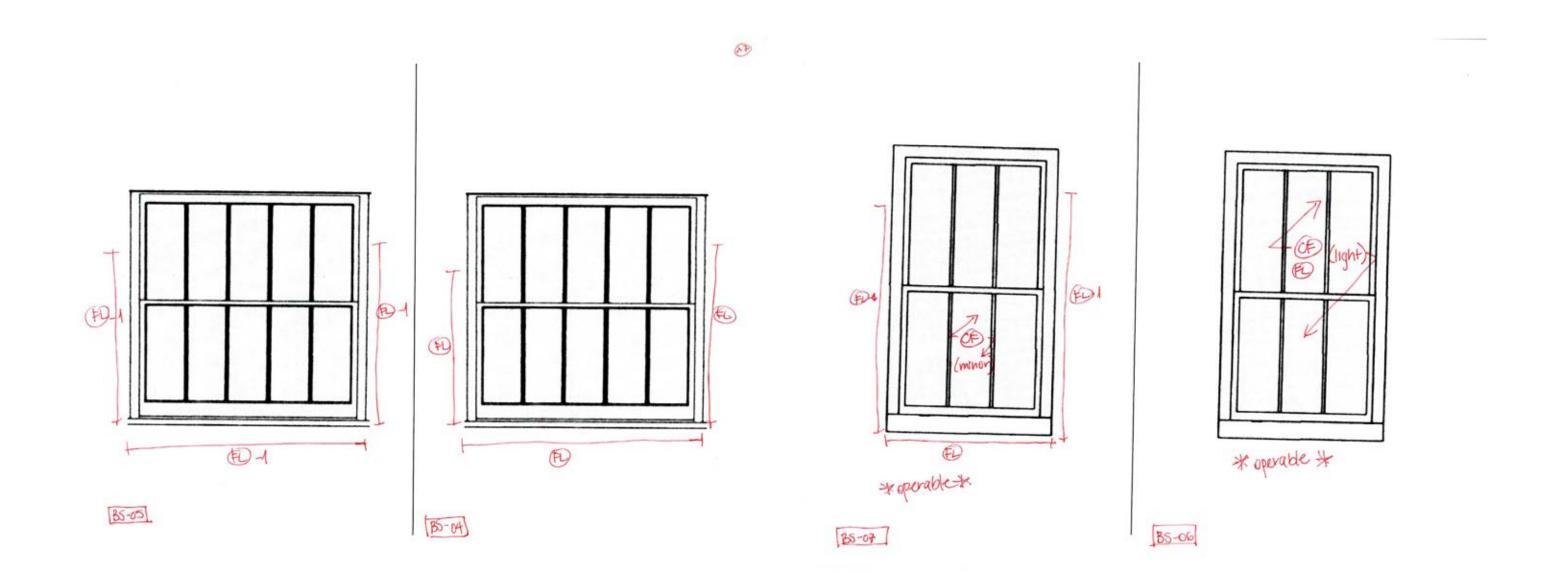


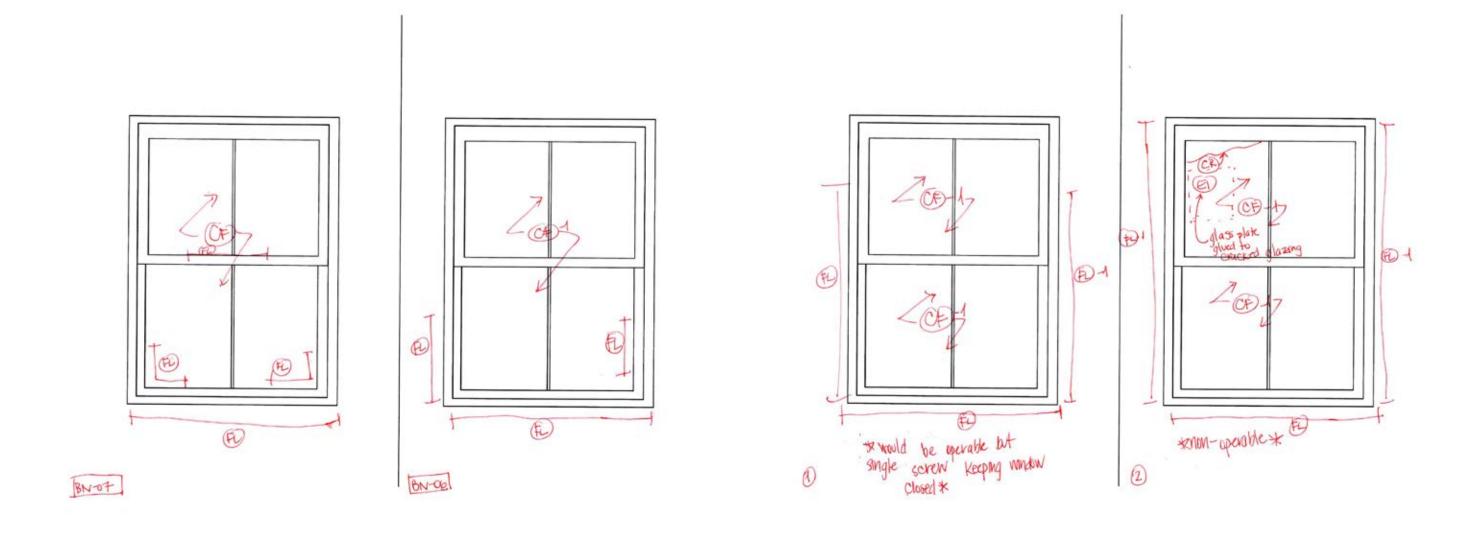




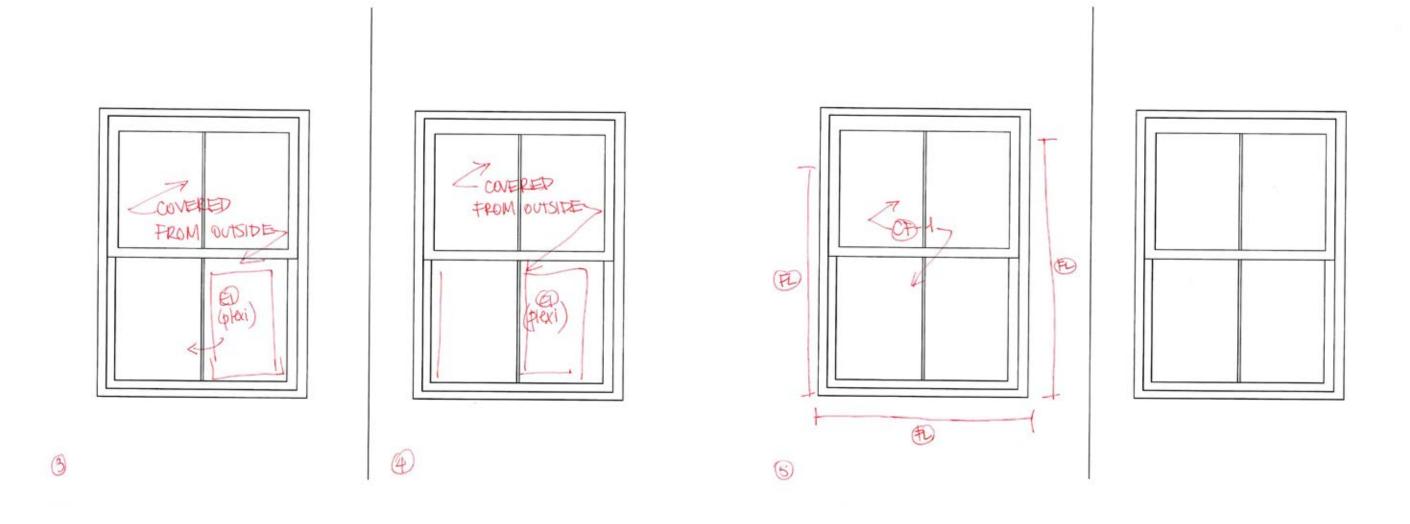








# GML Type M Window



# Landscape Conditions Assessment

### LANDSCAPE SUMMARY

The landscape of the Bronx Community College is historically significant as the setting for this important architecture complex. Created by the masters, Calvert Vaux, Frederick Law Olmsted Jr., Frank Miles Day, the landscape has been altered over decades through combinations of campus projects, introduction of ornamental plantings, changes in campus use patterns and challenges of vegetation management. Character of the 2017 landscape differs greatly from that of the early part of the twentieth century. Visual dominance of the structures set at the west precipice of the campus is masked by heavy vegetative cover and loss of the open turf slope below. At the east, relationships between the White complex and the BCC Quad are also changed with ornamental plantings thought to highlight the architecture now concealing several vantage points and fine details. The Quad has itself changed with construction of the North Hall and Library replacing the former drive in front of the GML Halls of Language and Philosophy with a pedestrian promenade of which flowering cherry trees and herbaceous plants flank each side. These changes along with accretion of newly introduced plantings, utilities and failed drainage systems further deteriorate the quality of landscape and overall historic character of the complex.

### **METHODOLOGY**

Recommendations for landscape preservation treatment focus on rehabilitation efforts that strive to recapture the historic setting and landscape character of the Stanford White Complex to the degree possible through capital projects, grounds maintenance and ongoing management by college staff. Key elements in recapture of the GML and HOF complex is re-defining its setting atop the ridge overlooking the Harlem River and paring back of vegetation masking architecturally important views and details of the structures. Removal of invasive vines, understory brambles and select trees at the west slope along with restoration of the iron fencing along Sedgwick Avenue is an initial step in accomplishing this objective serves to improve the image of the College and Sedgwick Avenue frontage. The landscape atop the slope below the HOF terrace with refinements to improving and providing new paths, selectively thin the oak grove, and remove unsightly vegetative barriers between the White complex, Community Hall and Colston Hall will re-energize this area of the campus and reestablish historic landscape character and setting. A similar approach to reduce and restructure landscape plantings at the upper core area of the GML, Hall of Language and Hall of Philosophy will place the structures in better historic context.



### LANDSCAPE APPROACH AND METHODOLOGY

The Stanford White Complex is at the historic core of the Bronx Community College, it is significant principally for the design of its architecture and the spatial relationships of the building to the campus landscape as principally proposed by McKim, Mead and White Architects. The campus landscape and its character during the New York University residency are important resources of the property that contribute to its heritage values.

As background there are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. The Bronx Community College Campus core is an historic designed landscape, which is defined as: "a landscape significant as a design or work of art; was consciously designed and laid out either by a master gardener, landscape architect, architect, or horticulturist to a design principle, or by an owner or other amateur according to a recognized style or tradition; has historical association with a significant person, trend or movement in landscape gardening or architecture, or a significant relationship to the theory or practice of landscape architecture.<sup>i</sup> "

Working from a base of knowledge garnered from the "Bronx Community College Historic Core Campus, Cultural Landscape Report & Conservation Treatment Plan" Heritage Landscapes engaged in a targeted Conditions Assessment of the characteristic elements of the White complex core landscape area. Historic plans, photographs and other relevant documents compiled for the 2005 Cultural Landscape Report & Conditions Assessment were augmented with additional historic architectural plans of the GML and 2014 site plans for the BCC Quad Landscaping & Site Improvements project. These were gathered, studied and an updated existing conditions plan was generated from the 2005 report base plan. Seasoned staff members undertook an on-site field investigation in October of 2017 to review the base landscape plan and gain a fuller understanding of the condition of the landscape, identify remaining historic elements and impacts of contemporary uses on the campus grounds in the historic core area. During that time staff members met with Octavio Gomez, BCC Campus and Facilities Planning, to engage in a discussion of site programs, issues and maintenance considerations that affect the historic complex and landscape. The information garnered during this effort was captured and is reflected in the updated existing conditions base plan and landscape conditions assessment text under five categories that reflect landscapes character features identified by the Secretary of the Interior's Guideline for the Treatment of Cultural Landscapes. Recommended treatment options follow Federal Guidance for rehabilitation of the historic campus core while addressing contemporary use and needs as identified at the time of this conditions assessment.

### LANDSCAPE CONDITIONS ASSESSMENT

### **LD:** Site Drainage & Grading

- LD1 Finish grade retains trace of former drive edge
- LD2 Low area in walk and lawn is poorly drained
- LD3 Lawn drains toward Hall of Language

### Gould Memorial Library & Hall of Fame Landscape Conditions

- LD4 Surface drainage bypasses storm water inlets and drains down drive to lower GML archway
- LD5 Soil is mounded against the HOF exterior wall creating a hump in the landscape
- LD6 Surface erosion is evident from storm water flow outfall from the HOF roof scupper
- LD7 Lawn areas at the top and along both sides of the asphalt walk to Colston Hall are highly eroded and compacted with gullies forming along the walk down slope.
- LD8 Lower lawn area is eroded atop the curb. A gully has formed along the face of the HOF from a combination of both surface storm water flows and outfall from the HOF roof scuppers
- LD9 Finish grade is below the finished stone of the wall exterior from years of erosive action evident from the HOF roof water scupper outfall
- LD10 Finish grade is below limestone wall base exposing brick under layer, erosion from the HOF roof scupper outfall and floor suppers is evident



- LD11 Finish grade is below limestone lip at base of wall. Erosion of surface evident from HOF roof scupper overflow and paving scuppers on HOF covered walk way
- LD12 Surface spalling of brick paving is evident and surface vegetation is seeded in the joint work between the paving bricks. Level of spalling is modest less than 10 percent of the overall paved surface.
- LD13 Granite border on areaway grate is two to four inches above the adjacent brick paving. This may constitute a trip hazard during events with large gatherings.

### LE Site Elements, Materials and Fencing

- LE1 AC units located just west of the Hall of Philosophy distract from the landscape quality and make noise adjacent to the HOF adversely affecting the overall experience
- LE2 AC units located west of the Hall of Language within a landscape timber and gravel setting are unsightly, distract from the landscape setting and make noise adjacent to the HOF adversely affecting the experience
- LE3 The AC condensing units north west of the auditorium wall are fenced within a 10-foot high chain link enclosed pen, with an added section of aluminum 8-foothigh fencing along the crest of the slope and accessed by a 24" X 36" bluestone paver and small pea stone walk. The composition is unsightly and distracts from the curved wall of the GML as seen from Sedgwick Avenue.



LE4 The concrete and bronze tree memorial is out of place with removal of other memorial plaques on the campus green.



LE5 Three flagpoles aside of the Hall of Language are added to the historic landscape. They appear to be slightly out of scale with the architectural mass of the buildings.

### Gould Memorial Library & Hall of Fame Landscape Conditions



LE6 The pair of three-inch square metal post between the Hall of Philosophy and HOF are not functioning.



LE7 Iron fencing along Sedgwick Avenue is in fair to poor condition. Many of the historic acorn finials are missing and the base is rusting from having soil and debris pile up against the post and pickets over several decades. Some minor sections of fence have bent or dislodged pickets. The stone wall base at the intersection of the Hall of Fame Terrace and Sedgwick avenue is in fair to good condition.



- LE8 The concrete walk at the northwest auditorium exit is cracked and failing, the walk is blocked off from the corner of Sedgwick Avenue and Hall of Fame Terrace drive by the 8-foot high black aluminum fencing.
- LE9 Remnant concrete walk segments alongside the HOF colonnade are not functional and do not connect with the adjacent walks.



- LE10 The historic steps to the gate at the corner of Sedgwick Avenue and Hall of Fame Terrace Drive are not visible and assumed to have been removed. There is no operational gate at the bottom.
- LE11 The stone wall north of Community Hall Plaza is deteriorated with large areas of mortar cracked and missing. Several stones at the end of the wall have become dislodged and are on the ground.
- LE12 The stepped retaining wall with stone finials upslope of the historic walk and steps is a character feature of the historic landscape and still functions to retain the slope. It is in fair to poor condition.

### Gould Memorial Library & Hall of Fame Landscape Conditions

LE13 The concrete walk, metal handrail and downslope stone retaining wall are failed along the west perimeter of the HOF.



LE14 The stone fountain structure is in fair condition with all ornamental elements retained. Plumbing and mechanical water systems are not operational.

### LP Planting & Vegetation



- LP1 The west sloping bank is covered with invasive vines, brambles, woody shrubs and tree species. Select areas appear managed keeping vegetation at a low height, however the majority of the slope along Sedgwick Avenue looks untended and unkempt.
- Area just outside of the gate is compacted from foot traffic and void of lawn. Note there is a four to six inch drop from the granite threshold to finish turf grade.



LP3 Privet hedge is overgrown and impedes pedestrian passage on the adjacent walk. Hedge forms a physical and visual barrier separating the Colston Hall and Community Hall space from the adjacent west lawn of GML & HOF.



- LP4 Invasive vines engulf the chain link fencing at the south west perimeter of the GML & HOF west lawn. The vine covered fence is visually unsightly from all vantage points.
- LP5 The east façade of the GML is partially covered by flanking columnar English oak trees to either side. Of the eight originally planted oaks, five remain, three to the north and two to the south.

### Gould Memorial Library & Hall of Fame Landscape Conditions



LP6 Yews planted in a line along the area way grate at the south wall of GML are overgrown, misshaped and with lost bottom foliage. This planting is unrelated and not symmetrical with plantings opposite at the north side of GML.



LP7 Shrub massing to the north of GML is unsightly, the flowering abelia having poor form with heavy top massing and thinned out bases, and the end yew is overgrown contributing to an overall unkempt appearance.



LP8 Yew hedging at the end walls of the HOF Colonnade is to the base of the columns and block the balustrade below when viewed from the east or Quad.



Yew hedges along the base of the GML, Halls of Language and Hall of Philosophy and generally maintained below the limestone coursing on the buildings. The "v" form however presents the appearance of being un-managed with narrow vegetation at the base and wider at the top. Properly managed hedging is directed toward vertical sides or slight inward canted shapes toward the top to achieve ideal appearance and full foliage.

LP10 The planting bed is comprised of a mix of ornamental shrub materials unrelated to the historic landscape.

### LV Setting and View



LV1 The view of the GML front façade and pediment is partially blocked buy vegetation from the central and crossing walkways.

### Gould Memorial Library & Hall of Fame Landscape Conditions



LV2 View of the HOF end roof gable is blocked by a Bradford Pear tree, altering the historic view of the colonnade from the Quad to the east.



LV3 Recently planted trees intended to enhance the campus landscape will mature and block historic views of the of the HOF colonnade and GML south facing end wall and dome structure from the campus walks and drive.



LV4 The historic view toward the HOF and GML and fountain basin is blocked from Sedgwick Avenue by heavy tree and woody material volunteer growth, including the vine covered chain link fence at the Colston Hall service area drive



Views outward from the north end of the HOF toward the Harlem River, palisades and across the north tip of Manhattan are in part obscured in by a mixed tree canopy that includes invasive species at the edge of University Woods along Sedgwick Avenue.



LV6 Views west from the HOF terrace toward the Harlem River, Manhattan and the beyond are blocked by a mix of trees that include mature oaks and maples as well as several species considered to be invasive, ailanthus, black cherry and Norway maple.

### LA Site Access and Circulation

- LA1 There are no pedestrian walks in the landscape areas north and south of GML that provide access to the iron gates at the HOF center terrace or the GML. In this area neither the HOF Terrace nor GML is handicapped accessible, the terrace is elevated 6 inches above finish landscape grade and there are no doors on either the north or south facades of the GML. The library is entered via the main stairway facing the Quad to the east and pair of metal steps at the HOF terrace.
- LA2 The HOF and HOF center terrace is accessible via a concrete walk at the west end of North Hall & Library at the north end of the HOF walk and terrace. The walk is poorly drained although is level with only modest elevational change. To

### Gould Memorial Library & Hall of Fame Landscape Conditions

- the south a pedestrian walk from the campus drive along the west wall of the Hall of Language provides paved access to the HOF and HOF Terrace. The walk slope moderately from the drive to meet the finish grade of the HOF flooring.
- LA3 The GML auditorium south archway entry and west slope landscape are accessible via an 11-foot wide asphalt drive that drops approximately 11 feet with a gradient of over 10percent. The grade is not compliant to accommodate handicapped assess nor as a means of building egress from the lower level. The overall condition of the asphalt surface paving is poor condition with uneven areas and cracking of the surface paving.
- LA4 The GML north auditorium archway and west slope is void of any pedestrian walkways. With exception of a path along the fenced AC condensing unit enclosure. The path is constructed of 24X36 inch bluestone paving set in a pea stone gravel, stopping short of the auditorium arch.
- LA5 The historic concrete stepped walk to the intersection of Sedgwick Avenue and Hall of Fame Terrace is failed and no longer accessible with the gate removed. Connection to Sedgwick Avenue is no longer a viable pedestrian connection.

### LANDSCAPE TREATMENT RECOMMENDATIONS

### LD Site Drainage & Grading

The site appears to be well drained at the surface by a combination of well-draining soils, overland flows and appropriately placed drain inlets. There are target areas where surface erosion is evident, contributed to by several factors that include steep grades, roof drainage and soil compaction. Roof drainage from the HOF contributes to erosion at the exterior walls of the building along both the east and west perimeters. Measures to construct a maintenance border to both protect the limestone from mechanical damage, rising damp and collect the surface water runoff will greatly improve the conditions at the building perimeter.

- LD1-LD5 In locations where water flows toward the building or pathway as a result of settlement or long-term erosion activity, the grade should be modified by elevating areas to pitch away from the structure. Where the grade inherently slopes toward the building or walkway a soft swale or drainage gutter can be added to collect and redirect surface flows.
- LD8-LD11 Install a stone maintenance border at the perimeter of the HOF to absorb the impact of roof run off and direct it away from the building wall sloping toward central lawn drains. Drainage gravel below the maintenance strip will aid in reducing rising damp at the buildings limestone base course.
- LD12-LD13 Brick paving within the Hall of Fame Terrace that has begun to spall will need to be replaced, organic vegetation removed, and joint work repointed as part of a cleaning and repair effort to arrest continued future deterioration and water infiltration. Granite borders of the area ways remain elevated above the finish brick paving surface. It is not certain if this is the original as build

condition or if the paving has settled. The condition should be looked at as a potential safety concern should the HOF terrace be used for public events.

### LE Site Elements, Materials and Fencing

Elements of the landscape constructed in early part of the 20th century express their age and in many instances, need to be repaired or replaced. Retaining walls along the west slope are failing and in need of repair and reconstruction to safely retain the steep slopes. The iron fencing along Sedgwick Avenue is aged with loss of painted finish and details like the acorn finial atop the post. In several locations the fence is bent and out of form. The most damaging elements contributing to potential future failure of the fencing is the accumulation of stone, soil and surface debris along the interior base of fencing. Iron fencing and stone walls remain from the original campus construction and are contributing elements to the setting of the historic buildings. Repairs and reconstruction of the fence is needed to retain the landscape character along the Sedgwick Avenue perimeter and accommodation made for long term maintenance from both the exterior (street side) and interior side. As part of the fence rehabilitation, the toe of the west slope is in need of regrading to provide a maintenance shelf which can be kept clear of accumulating debris on an annual schedule.

Contemporary elements within the historic landscape are not contributing and in places detract from the setting of the complex. Their compatibility as part of the historic core is a key consideration in their suitability and relocation to other areas on campus is generally the preferred solution to recapture of the historic setting. Utilities, air conditioning compressors, electric service transformers, control panels, pull boxes etc. are not compatible and often have unsightly fencing, paving and equipment access requirements that further degrade the quality and character of the campus landscape in the historic core area. Re-grading for utility placement and access alters the historic landscape creating anomaly in the grade to architecture relationship that is visible and incongruous to the setting. Relocation of existing service utilities as well as protection against the incursion of future utilities is an important aspect of this conditions assessment for the White complex and historic landscape.

- LE1-LE5 Mechanical units should be relocated to restore important views and public areas. In instances where they cannot be taken out of the public landscape their positioning and treatment of their immediate surrounds needs to reflect historic character of the White complex. Associated elements such as concrete pads and pedestrian guards need to be minimized and avoided to the degree that they do not have an adverse effect on the landscape appearance and functionality Fencing elements remaining attached to the historic building will need to be assessed for historic appropriateness and rehabilitated or removed. Memorial marker at the White complex should be removed/relocated and treated with the same respect as the markers relocated for improvements of the Quad Landscape Improvements.
- LE6-LE7 Iron fencing along Sedgwick Avenue is a contributing element of the historic landscape. Repair/rehabilitation of the fencing to reflect its historic character. Deteriorated site conditions, collected debris, elevated grades and proposed vegetation renewal, need to be addressed as part of the perimeter fence work. Remnant elements of fence posts attached to the HOF and Hall of Philosophy

### Gould Memorial Library & Hall of Fame Landscape Conditions

appear to have no function and should be removed and the anchor holes repaired.

- LE8-LE10 The concrete walks are part of the historic circulation system of the building and west slope that no longer have a purpose as part of the overall campus pedestrian circulation system. Walks atop the west slope need to be removed to deter student access to this area of the campus and the lower set of steps that were not visible at the time of the field inspection should not be replaced. Regrading of their location to illustrate the historic circulation pattern and replacement with a secure yet operational gate at the intersection of Sedgewick Avenue and Hall of Fame Terrace will serve as a maintenance access for this area. Contemporary pedestrian, handicapped access and emergency exit needs for the GML auditorium will direct the preferred treatment options in this location.
- LE11 The stone veneer retaining wall that is part of the Community Hall and Colston Tower complex forms the edge of the drive to the GML auditorium and west landscape. Stones have fallen from the inner concrete structural wall in many locations and mortar is failing. The wall is in need of repair and repointing to stop further deterioration and water infiltration
- LE12-13 Retaining walls on the north end of the west slope were constructed as part of the White complex and are contributing elements of the historic landscape. The stepped retaining wall is both a historic feature and performs a function in retaining the steep slope.
  - Restoration of the wall to preserve its historic materials and fabric and prevent future failure is recommended. The lower wall supporting the concrete walk and metal handrail is collapsed in sections with portions of the walk removed. The stepped retaining wall is in fair condition and continues to support the upper slope, it is unclear if the lower wall is needed for retaining the upslope grade. Inspection by a structural engineer is recommended to provide an assessment of repair and/or reconstruction of the concrete and masonry walls for continued support of the upper slope and address safety concerns for vegetation maintenance operations on the west slope in this area
- LE14 The historic fountain (water trough) at the west face of the GML auditorium and is an integral component of the building architecture and a contributing feature to the landscape in the historic core. The fountain masonry is in good condition but no longer operational. The stone work is in need of modest cleaning repair for repointing and sealing any locations where water may infiltrate. Plumbing and electrical service need to be replaced and a fountain operation mechanical system put in place. Fountain operation will require a concealed housing for mechanical equipment and a water storage vault below grade for water storage and operational supply.

### LP Planting & Vegetation

Vegetation cover at the Stanford White Complex setting and west slope has been compromised over the preceding decades by additions of both shade and flowering trees as well as shrub materials. The historic character of an open turf areas to the east of the GML and HOF as well as the turf and tree landscape of the west slope needs to be carefully considered as options for improved circulation and site access are developed. Generally, landscape planting and grading will be guided by respect for the historic setting of the complex and adapted for contemporary use and ability to be kept managed.

LP1-LP10 Vegetation treatment for the White complex will vary with proximity to the buildings and anticipated uses. Planting at the immediate core of the White buildings is to be reduced and restructured to reinforce the historic organization and framework of the landscape as a setting for the Libraries and Hall of Fame structures. Modification of the landscape to the east or at the Quad façade such as the removal of trees and ornamental plantings may be undertaken with rehabilitation of GML or as an independent effort.

The upper portion of the west slope lawn between HOF and Community Hall can remain as a tree canopied turf area with removal of select trees to open views overlooking the Harlem River from the HOF Colonnade and thinning of the oak canopy more representational of the historic setting for the Complex. The vegetative cover in this area will be directly affected by accommodation of handicapped accessible paths from the GML Auditorium. The lower portion of the west slope requires removal of invasive species and implementation of a long-term management strategy to secure the historic setting of the White complex atop the hill and retain open views from Sedgwick Avenue and beyond.

### LV Setting and View

The setting of the White Complex is an important consideration in recapture of the historic landscape character of this area as the architectural icon of the Bronx Community College. Placement atop the east ridge above the Harlem River afford both views of the GML dome and Hall of Fame Colonnade from the surrounding landscape, and views out across the Harlem River Valley from the Hall of Fame. The historic view of the GML and HOF from Sedgwick Avenue and University Woods are obscured by overgrown and invasive vegetation at on the west facing slope that include undesired mature trees. Restoration of the western views can be achieved by selective tree removals and pruning, replacement of invasive species on the west slope, in combination with long term vegetation management practices.

The landscape setting of the White complex at the east is composed of an evolved accretion of trees and ornamental plantings intended to frame the architecture. Over time plantings have reduced visibility of the historic structures and modified landscape character and context. Removal of selected trees and under plantings will restore historic views. Carefully positioned replanting will reinforce space and frame the architecture form desired vantage points to restore the setting and sense of place.

### Gould Memorial Library & Hall of Fame Landscape Conditions

- LV1 View of GML front/east façade is historically without flanking columnar trees and the trees should be removed to provide views of the historic buildings structures. Any future tree planting in this area facing the Quad should be considered against the historic character of the landscape and organized to frame the historic structures. Memorial or commemorative trees in this location will need to be respected and accommodations made either in their present location or rededication.
- LV2 Bradford Pear trees blocking the views of the HOF colonnade and roof should be removed. Restructure tree and shrub planting to reinforce the historic setting of the White complex while addressing contemporary uses of the immediate buildings surrounds. The process will involve review of historic images, selective removal and appropriate replacement materials.
- LV3 Trees recently planted should be reorganized to frame a view of the HOF and GML from the campus walk, Community Hall Plaza and drive.
- LV4 Historic view of the HOF and GML from Sedgwick Avenue and University Woods need to be restored. Restore the visual relationships between the HOF/GML complex and Sedgwick Avenue by removal of invasive woody and herbaceous materials along the entirety of the frontage. Invasive vegetative growth on the slope and the vine covered Colston Hall loading dock fence block the view from both the vehicle travel lanes and sidewalk. Invasive vegetation needs to be replaced and the fence reorganize to remove it from the view shed and secure the loading area to Colston Hall from pedestrian access. Selective removal and thinning of tree canopies will improve the visual connections and provide historic vistas from the HOF covered walk. Selective thinning of trees atop the slope with removal of low shrub massing between Community Hall and HOF will improve the visual relationship between the structured areas and define this historic landscape area.
- LV5 Historic view from the northwest corner of the HOF over University Woods west is clear of large trees and needs to be managed into the future to maintain the open view outward. Opportunity to work with the City of New York in the managed care of trees along the University Woods Sedgewick Avenue border for removal of invasive species as seed sources and in creating a more open visual experience into the woodlands from the campus should be fostered.
- LV6 Historic panoramic views from the HOF terrace overlooking University woods toward the Harlem River, city skyline and palisades along the Hudson can be partially restored by removal of invasive trees and careful thinning of the large oak tree canopies. Future planting of trees along the west slope is to be avoided.

### LA Site Access and Circulation

Access to the White complex has been altered overtime with elimination of the carriage drive and pedestrian walks from Sedgwick Avenue to the lower elevation of HOF leaving the west landscape neither accessible nor inviting as a place on campus. Access to the ceremonial or east façades of the complex structures is provided along the pedestrian

walk constructed in 2015 linking the Hall of Language, Gould Memorial Library and Hall of Philosophy with the North Hall and Library. Neither the east nor west entries of the GML or HOF is handicapped accessible. Provision for handicapped access to the GML at the Rotunda (Plan Level 03) floor elevation can be addressed with installation of an accessible walk and ramp to the north side of the Library. Access to the HOF Terrace can be achieved with modest intervention and regrading at the two gated exterior entrances.

Accommodation for emergency and accessibility to the lower GML Auditorium requires a combination of design solutions for both the White complex and the Community Hall assemble room. Utilities and other obstacles need to be relocated in order to provide a clear path of egress for pedestrians and to support vehicular access for service and emergency use. The preferred approach is a continuous 5% gradient path with no handrails, rather than a ramp with double handrails. Path alignments and grading need to be studied in detail to achieve accessible gradients and be respectful to the historic landscape setting and address College operations.

Construction of a handicapped accessible walk from the exterior finish grade to the first floor of GML may be accommodated with careful grading of an accessible walk and modifications to existing grades to achieve the 3 to 4-foot change in elevation. To achieve a 4-foot change in elevation a continuous 5% walk for a minimum of 80 feet is required.

Connectivity of the HOF and Terrace can be further improved by installing pedestrian walk to the HOF terrace to either side of the GML via walks from the Green to the iron gates at either side. Re-grading or a modest 5% ramp to address the 6-inch grade change are options to make these connections accessible.

- LA3-LCA 4 Improved pedestrian circulation at the west side of the GML and HOF to provide access to the arched doorways of GML auditorium as an extension of the campus circulation system requires detail study of the program needs and site conditions. The basic parameters to be considered are:
  - Implement a walk system that is compatible with and reinforces the historic setting of the White complex on this west facing slope above Sedgwick Avenue
  - Provide handicapped access and emergency egress from the GML auditorium
  - Provide emergency vehicle access
  - Provide maintenance vehicle/equipment access

In association with this effort, program needs for pedestrian and vehicular access to the Community Hall assembly room should be considered:

- Improve the experience and quality of the existing walk from the upper drive at Butler Hall to the Community Hall assembly room
- Provide vehicular access for loading and unloading performance equipment

### Gould Memorial Library & Hall of Fame Landscape Conditions

The desired outcome is to construct walk(s) providing on grade emergency access/egress from the GML Auditorium, for pedestrian and vehicular access with alignments reflecting historic carriage drive patterns and constructed of durable materials able to accommodate vehicles that are historically appropriate to the setting. Grades will need to be studied to identify the possible use of combined step, walk, and ramp configurations to achieve desired and code compliant gradients. A walk segment on grade as an emergency exit constructed below Community Hall along the retaining wall at Colston Hall to the south and beyond to on grade parking areas at Colston Hall should be considered.

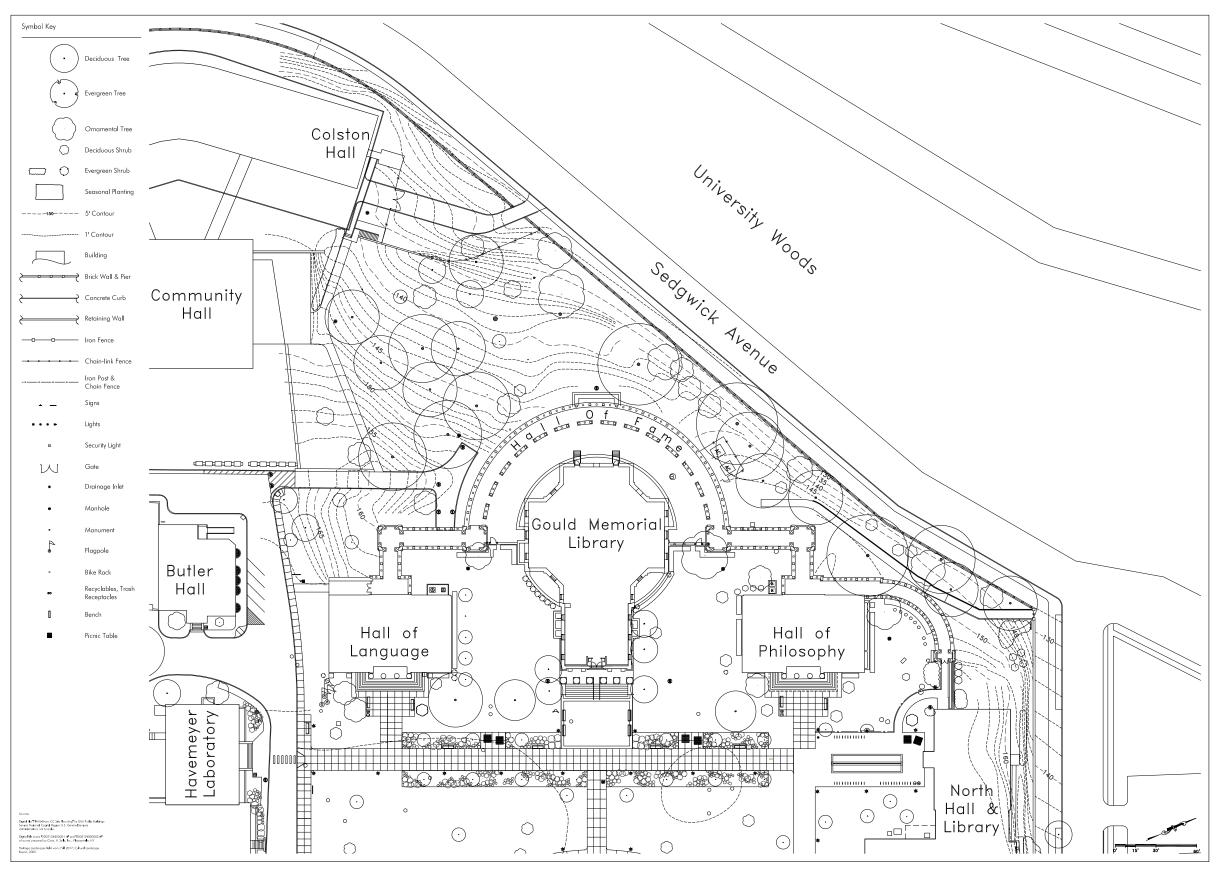
As a comprehensive project with an improved pedestrian experience and accessibility to Community Hall, the existing asphalt drive to the GML south auditorium archway entry/exit should be rethought as a primary pedestrian walk on campus, as part of a circulation system that connects the GML Auditorium to the West Slope landscape and Community Hall. Issued for incorporation are:

- Removal of existing utilities and awkward fencing at the top of the slope behind the HOF.
- Pedestrian rails at the top of slope to guide pedestrians away from the edge of the steep slope.
- Maintaining a gradient of 5% or less along the walk from the Auditorium to and below the Community Hall.
- Pedestrian rail along the top of the retaining wall between the Community Hall and Colston Hall.
- Accommodation of emergency vehicles without necessitating a turnaround.
- Ability to support vehicular access to the GML Auditorium and Community Hall for
- performance set ups and break downs
- Improved materials/finishes
- Realignment and increased path width of the segment to Community Hall and terrace.
- Provide a stepped connection to the upper plaza area for improved pedestrian linkage to the tree and turf of the west slope landscape

An approach that looks holistically at providing accessibility to the GML auditorium and The Community Room assembly space will revitalize this area of the campus atop the west facing slope that overlooks University Woods.

LA5 Remove failing components of the former walk and steps, regrade to accommodate maintenance access along the historic alignment. The upslope stone wall should be repaired and remain as both a contributing feature of the historic landscape and as a functioning element to retain the slope.

<sup>&</sup>lt;sup>i</sup> Robert R. Page, Cathy A. Gilbert, Susan A. Dolan, A guide to cultural landscapes reports: Contents, Process, and Techniques, U.S. Department of the Interior National Parks Service, Cultural Resource Stewardship and Partnerships, Park Historic Structures and Cultural Landscapes Program (Washington DC, 1998): 12.





### Bronx Community College

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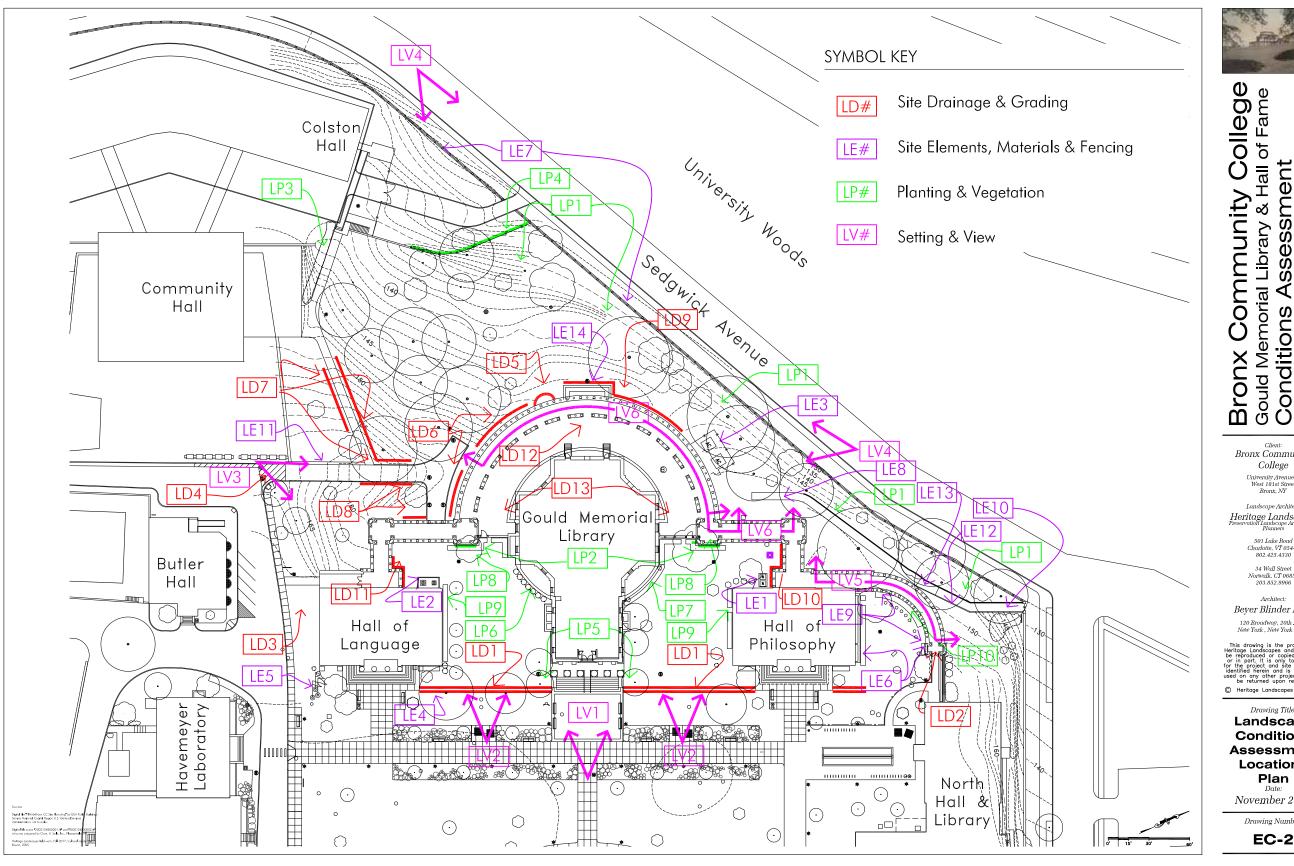
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Drawing Title:

### **Existing Conditions**

Date: November 2017

Drawing Number: EC-1





Bronx Community College

University Avenue & West 181st Street Bronx, NY

Landscape Architect: Heritage Landscapes Preservation Landscape Architects & Planners

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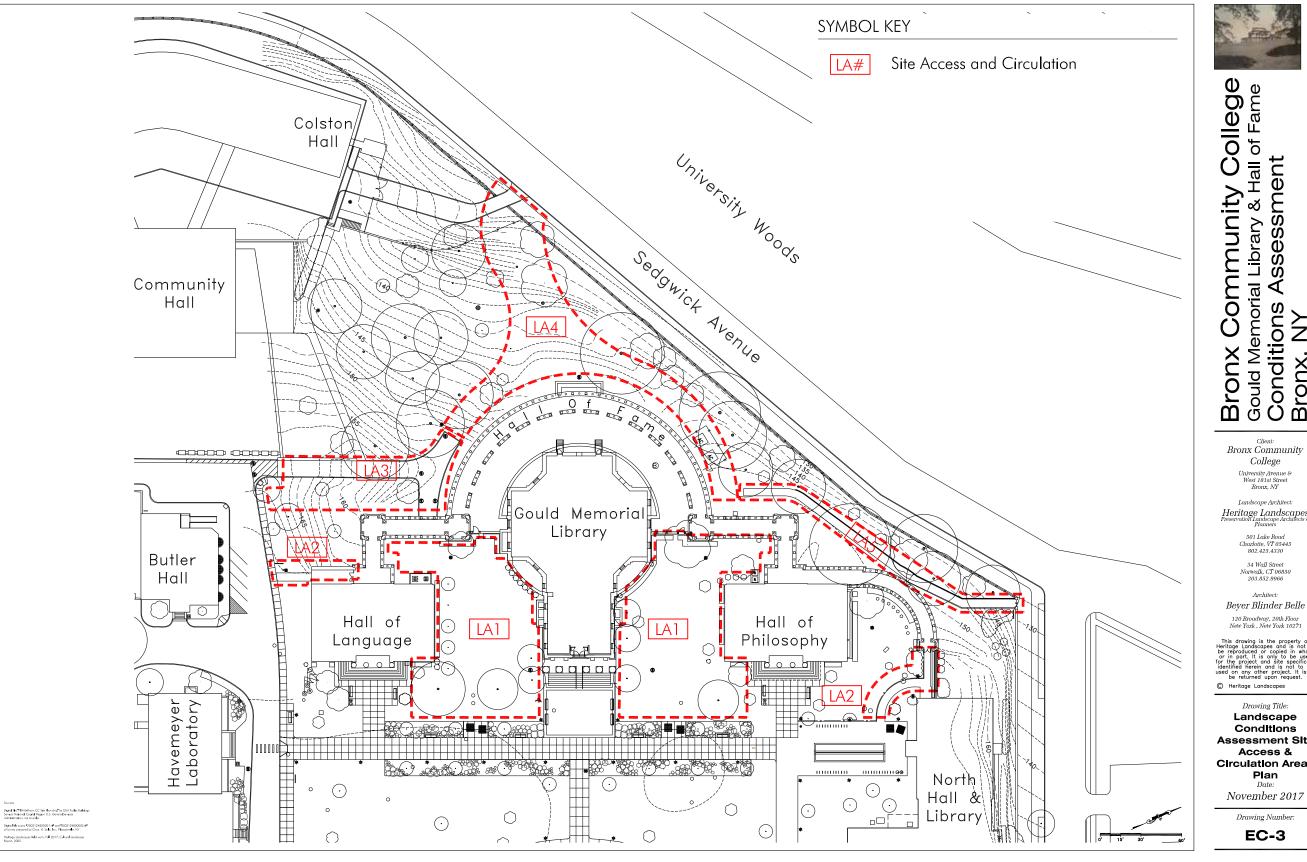
### Landscape Conditions **Assessment** Locations

Drawing Title:

Plan November 2017

Drawing Number

EC-2





### Bronx Community College

## Heritage Landscapes Preservation Landscape Architects & Planners

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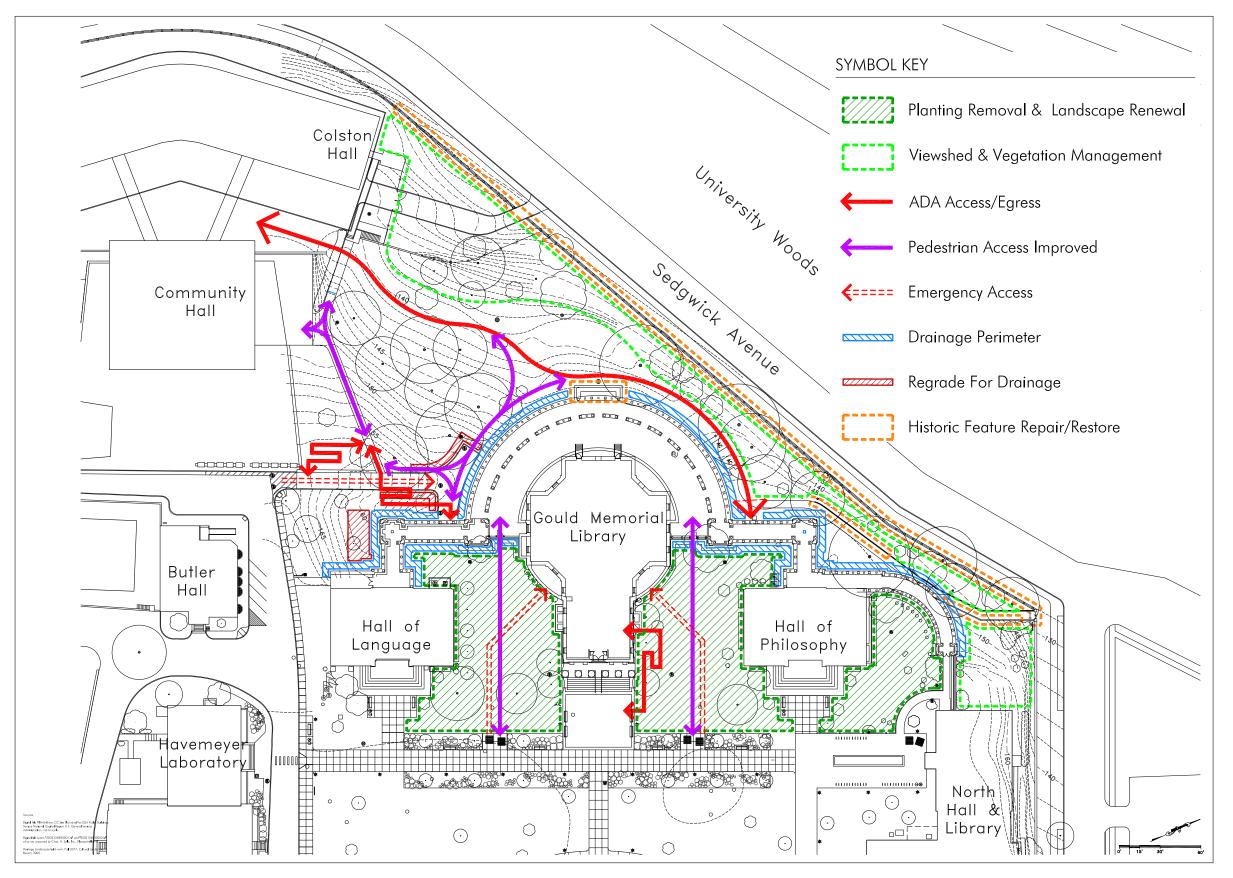
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Drawing Title:

### Landscape Conditions **Assessment Site** Access & **Circulation Areas**

EC-3

15 MARCH 2018 334 GOULD MEMORIAL LIBRARY AND HALL OF FAME CONDITIONS ASSESSMENT





Client: Bronx Community College

> University Avenue West 181st Street Brony, NY

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Landscape Treatment Recommendations Dlagram Plan

November 2017

Drawing Number

# **Interior Survey**

### **METHODOLOGY**

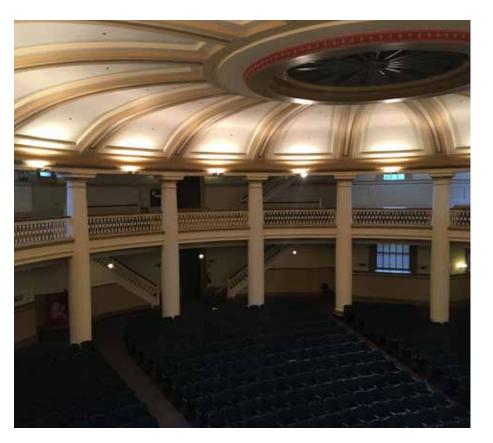
Representatives from Easton Architects visited the Gould Memorial Library (GML) and Hall of Fame (HOF) twelve times between August and October 2017 - August 03, 08, 22, 24, 29, 30; September 06, 07, 11, 12; and October 17 - to survey and document the existing conditions of all interior components and finishes. The survey was performed through research; documentation; close visual inspection, including binocular inspection; and non-invasive probing, including sounding.

A methodology was developed to identify, locate, and record all existing systems and conditions and translate that information into a usable written and graphic format. Based on the conditions surveyed, a series of recommendations was developed to allow for the stabilization, restoration, and eventual reuse of the interior spaces of both GML and HOF in five phases: (1) stabilization and protection of the resource, (2) providing accessibility and upgraded systems to the building, (3) securing the building envelope, (4) providing full building access, and (5) interior adaption as required for the new use of the building. These recommendations were then used, in tandem with the recommendations for exterior, structural, and MEP improvements, to generate a detailed cost estimate of the phased, recommended improvements. This document can be used to advise and inform future decisions made by the Advisory Board, CUNY, and BCC for the future of the resource.

The methodology was based philosophically on accepted and established preservation theory and practice as advocated by the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, & Reconstructing Historic Buildings; the National Trust for Historic Preservation; and the American Institute of Conservation of Artistic and Historic Works, where as much original material as possible shall be maintained, intervention shall be the minimum necessary to insure the extended life of all building and landscape features and components, all interventions shall be accurately recorded, and all restoration procedures shall be proven reversible where possible.



Gould Memorial Library, Interior of Rotunda



Gould Memorial Library, Interior of Auditorium

#	System	Room BAL OB	Room BAL 09	Room BAL 10	Room BAL 11	Room BALK
1	Glass and Cast Iron Floor (includes balconette floors)	CK(3)(1) broken W/mle, C,3, RGP, ST	C, S, DGRST	CIS, PGP, OTT	8, DGP, 97	OK(2) 0, 5, PG1
2	Cast Iron Ceiling Support (beams / grid)	C, S, ST, PL orig extremed _	5, 9T, PL	Cisistipl	S, ST, PL	C, 5, 5T, PL
3	Sheet Metal Wall and Sheet Metal Soffit	CISIST, MD	3, 9T, WD	C,5, STIMD	5,5T, MD	C 5,57 WD
4	Plaster Wall	ORYS, PLIST,	SP SPLIST	OR, S, PL, ST	CR, S, PL, Gr	good cmi.
5	Stair					
5a	Cast Iron					
5b	Marble Treads					
50	Iron Railing with Wood Handrail					
5	Door: Extant or Non	E, calamine	E. Stack type	E, calannine	E, stack	E, Calanune
6a	Hardware	no knobo	hone	plate butt	none	no plate or
7	Windows: Wood and Glass (operation / hardware)	E. Pivot, op.		E, pivot, op.	F, pivot, op.	E, pivot, op-
3	Stack Panel					

#	System	Room BAL 08	Room BAL 09	Room BAL 10	Room BAL 11	Room BAL 12
)	Lightwell	to above plywood corner		to above open		to above particle board infill
10	Bookstacks (metal / wood)	mu,c,s,	mr. s	wm mi,s	CIS, ML	WM ML, S
1	Cast Iron Balconette Stack System (including doors)					
12a	Railing: Balcony Railing at Mezzanine and Balcony					
12b	Railing: Balcony Railing at Lightwell					
13	Balconette					
14	Fire Supression	4 neads	2 hears	4 heads	4 heads	4 heads
15a	Lighting: Balcony - wall mounted with two globes					
15b	Lighting: Stacks - Ceiling Mounted Compact Fluorescent Bulbs	2 sockets 15 BAX 100 MHZ	2 org met	2 as mits	tag notal	3 cy noth
	Miscellaneous Notes	the function		of bookshains	<b>S</b>	cis nont fu

CR - Crack	PL - Paint Loss	NGP - No Glazing Putty	SP - Spalling Plaster	FS - Free Standing Stacks	WM - Wall Mounted Stacks	
C - Corrosion	5 - Soiling	D* - Frame Only	ST - Staining	NE - Non-extant	BP - By-pass Stacks (thru-floor)	W - Wear
ML - Material Loss	OJ - Open Joint	D - No Door, Frame or Hinges	DGP - Deteriorated Glazing Putty	E - Extant	MD - Mechanical Damage	NA - Not Accessible

# **Conservation Report**

### **METHODOLOGY**

Cultural Heritage Conservation made seven site visits during the months of September and October 2017 to catalogue soiling conditions and conduct testing at the Gould Memorial Library and the Hall of Fame. The conditions were categorized by location and substrate to tailor the appropriate cleaning tests. Several materials and methods were tried on each condition and evaluated for efficacy and constructibility.

The cleaning tests employed mechanical and chemical techniques including water and waterless (latex based and specialty erasers) cleaners on the exterior and interior masonry. Not all tests achieved sufficient results, largely due to a clear coating that was discovered during testing on the exterior stone. The coating was identified on the granite pedestals of the Hall of Fame busts and the base courses of granite at GML. It has trapped heavy soiling within and likely beneath it. There is some concern that the coating is contributing to the scaling and flaking of the granite because of trapping moisture within the masonry. The removal tests on the granite base courses of GML were successful, however the tests on the Hall of Fame pedestals were not. Several attempts using coating removers, cleaners and heat were conducted but none of them achieved removal of the coating. It is not known if the limestone at Hall of Fame is coated though several cleaning agents used on it were not effective. The biological growth and the copper staining on the HOF base were removed likely because they were from external sources, but the moisture staining which comes from within the

stone was not able to be treated.

In several instances cleaning of limestone was very successful. The exterior black gypsum crust was removed readily through mechanical cleaning with a micro-abrasive, the copper staining was removed with a poultice, most of the biological growth was removed with chemical cleaning, and the oily substances staining from bird prevention systems could be mitigated with paint removers. These stains are disfiguring to the profile of the stone, and the gypsum crust and biogrowth is recommended to remove due to its accelerating the deterioration.

Several of the interior stone surfaces were successfully cleaned and will help lighten and improve those spaces. The exceptions were the stair treads which are limestone but were topped at some point with a cementitious layer. This layer was only marginally cleaned with a chemical. The limestone stairwell walls leading down to the Auditorium have been affected by moisture and had slightly less improvement than the other limestone walls. Lastly the interior Guastavino tiles did not react to any chemical cleaner.





EXTERIOR	COMPONENT	PRODUCT	APPLICATION AND NOTES
GML Exterior Granite			
Sealer	MS-IC	Sure Klean Heavy Duty Paint Stripper	Should be used on the granite base courses  Apply 1/8" thick coat  Allow to dwell for 24 hours  Rinse with pressure washer at 500 psi
Heavy soiling	MS-SAI	Sure Klean Heavy Duty Paint Stripper IBIX Micro-Abrasive	For use at granite horizontal ledges after paint removing.  Use calcium carbonate 70 mesh with water at 15 psi
Biogrowth	MS-SB	D2	Apply D2 on gray and green biological growth Spray on dry surface Allow to dwell 10 minutes Rinse with a pressure washer at 500 psi Repeat application once surface is dry
Rust stains	MS-SF	Sure Klean Heavy Duty Paint Stripper Sure Klean 942 Limestone & Marble Cleaner	For use on rust stains at the rear granite after pant removing Apply 942
GML Exterior Brick			
General soiling	MB-SA	Pressure Washer	Pressure wash with clean potable water at 500 psi using a fan tip nozzle.
GML Exterior Marble			
Disaggregation	MS-DI	Gentle water scrub Conservare Hydroxylating Conversion Treatment followed by Conservare OH100	Spray water on marble with a Hudson Sprayer, no pressure washer should be used on the marble Gently scrub with stiff natural bristle brush Allow to dry Spray or brush apply Hydroxylating Conversion Treatment (HCT) until marble rejects treatment Wait 30 minutes or until surface is visibly dry Repeat two more times with HCT Once the surface is thoroughly dry apply HCT Finishing Rinse until rejection Allow to cure for 24 hours Apply OH100 until material is rejected Wait 10 minutes Repeat two more times Wait 60 minutes Apply OH100 until material is rejected Wait 10 minutes Repeat two more times Repeat two more times
GML Terra Cotta	TC C4		
Atmospheric Soiling	TC-SA	Restoration Cleaner	Mix 1 part product to 1 part clean water Pre-wet the soiled surface Brush apply the dilution Allow to dwell for 5 minutes Rinse with a pressure washer at 500 psi

EXTERIOR	COMPONENT	PRODUCT	APPLICATION AND NOTES
GML & HOF Limestone			
HOF Biogrowth (green and dark gray)	MS-SB	D2	Apply D2 on gray and green biological growth Spray on dry surface Allow to dwell 10 minutes Rinse with a pressure washer at 500 psi Repeat application once surface is dry
ML Biogrowth (black)	MS-SB	Envrio Klean ReKlaim Cleaner and Activator Sure Klean Limestone & Masonry Afterwash	Mix 1 part ReKlaim Cleaner to 1 part ReKlaim Activator (prepared solution) Then mix 5 parts prepared solution to 3 parts clean water. Stir well with non-metallic tool. Brush apply on dry surface Allow to dwell for 10 minutes. Reapply if mix starts to dry. Gently scrub with stiff natural bristle brush Rinse with pressure washer at 500 psi Immediately after rinsing mix and apply 1 part clean water to 1 part Limestone & Masonry Afterwash Allow to dwell for 4 minutes Rinse with pressure washer at 500 psi
GML Biogrowth (green)	MS-SB	D2	Apply D2 on gray and green biological growth Spray on dry surface Allow to dwell 10 minutes Rinse with a pressure washer at 500 psi Repeat application once surface is dry
Gypsum crust	MS-SA	IBIX	Carefully blast 70 mesh calcium carbonate with water at 15 psi on gypsum crust only and do not create wand marks in the process
Bird protection stains	MS-SO	Sure Klean Fast Acting Stripper	Apply product only on oil stains Allow to dwell for 30 minutes Remove product and rinse and scrub with stiff natural bristle brush
Efflorescence	MS-EF	Chemique Artisan Efflorescence Remover	Pre-wet and allow until 75% dry Brush apply product Scrub immediately with stiff natural bristle brush Rinse with a pressure washer at 500 psi
Copper staining	MS-SC	ShoreBest 2382 CSR Poultice ShoreBest 2381 CSR Liquid	Mix ShoreBest 2382 CSR Poultice with 2381 CSR Liquid to make a paste Apply 3/8" thick with a trowel Cover with plastic sheeting ensuring no air pockets are created Dwell for 24 hours Remove plastic sheeting and allow poultice to completely dry Remove poultice and scrub while rinsing to remove all product Repeat if stain persists
Moisture Discoloration	MS-SM	No recommendation	No tests were able to mitigate this condition; some tests were successful in some areas and then not on the same condition in another area
HOF Guastavino			
Soiling	MG-SA	Chemique Artisan Safer Limestone Cleaner	Apply product to dry surface Allow to dwell for 10 minutes Scrub and rinse with a Hudson Sprayer; do not use a pressure washer
Failed glaze	MG-GL	Primer 240 Edison Coatings Aquathane UA210 E	Apply Primer 240 over entire tile Allow to dry Apply Auathane UA210E -coating is breathable and will protect the exposed clay body and unify the surface

EXTERIOR	COMPONENT CODE	PRODUCT	APPLICATION AND NOTES
HOF Marble			
Soiling	MS-SA	Gentle water scrub	Scrub and rinse with water in a Hudson Sprayer; do not use a pressure washer
HOF Granite			
Biogrowth (on retaining wall)	MS-SB	D2	Apply D2 on gray and green biological growth Spray on dry surface Allow to dwell 10 minutes Rinse with a pressure washer at 500 psi
Encrustation (at arched entryways)		Tool	Use masonry hammer and chisels, pneumatic or hand, for remove of encrustation
General soiling (at retaining wall)	MS-SA	Restoration Cleaner	Mix 1 part product to 1 part clean water Pre-wet the soiled surface Brush apply the dilution Allow to dwell for 5 minutes Rinse with a pressure washer at 500 psi
Clear coating with entrapped soiling (pedestals)  GML Copper	MS-IC	No recommendation	Nothing was successful enough to recommend implementation; it is unclear if the coating is harming the granite; Heavy Duty Paint Stripper for a 24-hour dwell worked somewhat
Soiling		Vulpex	Must test first with conservator: Dilute Vulpex 1:5 Apply and scrub Rinse
Corrosion Inhibition		Incralac with flatting agent	Must test first with conservator: Spray apply Allow to dry for 30 minutes/as weather permits Re-apply
GML Bronze			
Soiling		Vulpex	Conservator applied: Dilute Vulpex 1:5 Apply and scrub Rinse
Corrosion Inhibition		Incralac with flatting agent	Conservator applied: Spray apply Allow to dry for 30 minutes/as weather permits Re-apply
HOF Bronze			
Soiling		Vulpex	Conservator applied: Dilute Vulpex 1:5 Apply and scrub Rinse
Corrosion Inhibition		Incralac with flatting agent	Conservator applied: Spray apply Allow to dry for 30 minutes/as weather permits Re-apply

INTERIOR	PRODUCT	APPLICATION AND NOTES
Gould Limestone		
General soiling	Chemique Artisan Safer Limestone Cleaner	Apply product to dry surface Allow to dwell for 5 minutes Scrub and rinse with a Hudson Sprayer; do not use a pressure washer
Baseboard wax and soiling	TroubleShooter	Apply on baseboard and above a few inches Allow to dwell for 5 minutes Scrub and rinse with clean water to remove
Efflorescence (lower level)  Gould Cementitious Coating on Trea	Chemique Artisan Efflorescence Remover	Pre-wet and allow until 75% dry Brush apply product Scrub immediately with stiff natural bristle brush Rinse with a pressure washer at 500 psi
Heavy soiling	Enviro Klean All Surface Cleaner	(Results were moderate) Mix product 1 part to 3 parts water Apply on dry surface Allow to dwell for 10 minutes Scrub with stiff natural bristle brush and rinse with low volume water
Gould Marbles		
Stair treads to stacks	Chemique Artisan Safer Limestone Cleaner	Apply product to dry surface Allow to dwell for 5 minutes Scrub and rinse with a Hudson Sprayer; do not use a pressure washer
Gould Brick		
Heavy soiling	Chemique Artisan Safer Limestone Cleaner	Apply product to dry surface Allow to dwell for 5 minutes Scrub and rinse with a Hudson Sprayer; do not use a pressure washer
Gould Painted Plaster		
General Soiling	No recommendation	No test was successful

# **Cost Estimate**

Cost estimates were prepared according to standard practices for each trade, relative to individual systems. Work is organized per trade, and generally itemized per condition to be repaired, as shown in the Chapter 3 tables and drawings.

Estimates are reported in 2 formats, one according the 5-level Prioritization to match the 2005 CMP, and other for the 5-stage Phasing developed by BCC, CUNY FPCM and the Foundation. The Prioritization approach shows completion of work in the order of most critical to desirable improvements:

- 1. Potential Hazards
- 2. Code Violations
- 3. Deterioration
- 4. Enhancement: (Improve Appearance, Aesthetics and Operability)
- 5. Code-compliance and Occupancy

The Phasing approach orders the Priorities into a sequence of construction projects:

- A. Critical Repairs: to arrest deterioration of the GML Dome and implement roof work already funded that is scheduled to be performed. Critical repairs within the scope of this study augment the roof work by correcting hazardous conditions at the HOF cornice, HOF roof, GML facades, and GML roof.
- B. Access to the Rotunda: to improve accessibility, with ADA entry to the Rotunda, Balcony and Auditorium; provide HVAC, restrooms and utility upgrades, reopen the dome laylight, and restore the interior Rotunda and dome.
- C. Building Envelope Improvements: to repair GML and HOF brick and stone, tile roofs, skylights, restore GML windows and replace HOF fenestration.

- D. Building / Architectural Systems Improvements: to provide access and egress to all levels of GML, upgrade Mechanical, Electrical, Plumbing, Fire Alarm and Fire Protection services outside of the Rotunda (including restrooms, HVAC, power, etc.), structurally alter book stack framing, and complete associated code-required upgrades (stairs, lighting, etc.).
- E. Fit-out Accommodations: to finish all levels of GML above the Rotunda, and provide MEP/FA/FP upgrades, fit-out and finishes to the HOF.

Each Priority and Phase item includes full mobilization, construction, and cleanup, with re-mobilization for the subsequent Phase or Priority. General Conditions and contingency percentages are in accordance with CUNY and Facilities Planning Construction Management (FPCM) standards. The duration of construction has not been factored into costs, due to the anticipated project phasing. If the entire scope is performed continuously work is anticipated to be 24 months long. Costs are shown in current dollars, with escalation excluded, as the project schedule is developed and funds raised.

Exterior costs were calculated by actual quantities of conditions observed. Where applicable, replacement of entire components has been recommended for best installation, durability, and performance. Interior estimates were primarily based on allowances for repair or replacement of each system. Structural work was calculated as allowances based on exterior repairs and areas of interior replacement. Building service upgrades were based on estimated extents of systems that will require upgrade, anticipated means of access for internal distribution, and connection to campus networks. Removal of hazardous materials and professional fees were not included in the estimates.

Gould Memorial Library & Hall of Fame Bronx Community College - City University of New York Bronx, NY

### **FEASIBILITY COST ESTIMATE**

March 15, 2018

### rchitect

**Beyer Blinder Belle Architects** 120 Broadway, 20th Floor New York, New York 10271



LLANA nijerian Con Consultares			Gou	uld Memori		& Hall of Fa	ıme										March 15, 2018	
BUILDING AREA (GSF)					Bronx, NY												Estimate Summary	у
		Priority 1	Priority 2	GML Priority 3	Priority 4	Priority 5	Priority 1	Priority 2	HOF Priority 3	Priority 4	Priority 5	Priority 1	L <i>A</i> Priority 2	ANDSCAPIN Priority 3	G Priority 4	Priority 5	Subtotal Trade	Tota
SITEWORK AND DEMOLITION Sitework		-	_	-	-	-	_	_	_	-	-	_	2,200	545,400	384,343	539,710	1,471,653	1,
Demolition		-	-	50,000	20,000	20,000	-	-	-	-	-	-	-,	-	-	-	90,000	
EXCAVATION AND FOUNDATIONS																		
Excvation & Foundations		-	-	-	5,800	-	-	-	-	-	-	-	-	-	-	-	5,800	
SUPERSTRUCTURE																		
Superstructure		-	-	126,000	281,125	270,000	-	-	11,655	-	-	-	-	-	-	-	688,780	
EXTERIOR, MASONRY AND WINDOWS																		6,
Masonry and Stone Windows		10,910 -	47,000 -	1,871,250 1,417,680	338,957 -	609,545	120,900	28,100 7,500	1,516,222 348,000	127,074 7,220	-	-	-	-	- -	-	4,669,957 1,780,400	
		44.500	47.050				44.000	,		,								0
ROOFING & WATERPROOFING		11,500	17,050	976,271	369,630	-	14,000	5,000	1,035,050	14,350	-	-	-	-	-	-	2,442,851	2
INTERIOR CONSTRUCTION			400.000		047.047	00.000				00.700							400 404	13
Partitions Interior Doors		-	100,000	489,596	217,617	60,000	-	-	-	22,788	-	-	-	-	-	-	400,404 489,596	
Floor Finishes		-	_	797,649	7,021	-	-	-	304,981	-	_	_	-	-	-	_	1,109,651	
Base Finishes		-	_	284,026	-	-	-	-	74,908	-	-	-	-	-	-	-	358,934	
Wall Finishes		-	192,000	3,411,296	113,750	225,000	-	-	789,852	-	-	-	-	-	-	-	4,731,898	
Ceiling Finishes		-	-	2,679,638	-	-	-	-	-	-	-	-	-	-	-	-	2,679,638	
Auditorium		-	-	1,018,207	600	-	-	-	-	-	-	-	-	-	-	-	1,018,807	
Millwork		-	-	88,350	-	-	-	-	-	-	-	-	-	-	-	-	88,350	
FF&E for B Occupancy Areas		-	-	-	-	1,803,524	-	-	-	-	1,176,288	-	-	-	-	-	2,979,812	
SPECIALTIES																		
Building Specialties		-	-	12,800	-	6,325	-	-	1,400	-	-	-	-	-	-	-	20,525	
VERTICAL TRANSPORTATION																		1,
Elevators		-	_	-	1,123,000	40,000	-	_	-	-	_	_	-	-	_	-	1,163,000	,
Stairs		-	-	160,810	-	-	-	-	-	-	-	-	-	-	-	-	160,810	
PLUMBING		_	176,425	63,770	45,000	149,325	_	_	_	_	_	_	_	_	_	30,000	464,520	
			170,120													00,000		_
HVAC		-	-	28,200	259,200	2,044,250	-	-	-	-	-	-	-	-	-	-	2,331,650	2
FIRE PROTECTION		-	16,030	=	1,200	-	-	161,600	-	-	=	-	1,250	-	-	-	180,080	
ELECTRICAL		-	24,640	369,435	461,345	565,029	8,876	-	-	172,385	188,697	-	-	-	-	-	1,790,407	1,
TOTAL DIRECT COST		22,410	573,145	13,844,977	3,244,245	5,792,998	143,776	202,200	4,082,068	343,816	1,364,985	-	3,450	545,400	384,343	569,710	31,117,522	31,
General Requirements/Mobilization Subtotal	8%	1,793 24,203	45,852 618,997	1,107,598 14,952,576	259,540 3,503,784	463,440 6,256,438	11,502 155,278	16,176 218,376	326,565 4,408,633	27,505 371,321	109,199 1,474,183	-	276 3,726	43,632 589,032	30,747 415,090	45,577 615,287	2,489,402 33,606,924	2, 33,
Design Contingency Subtotal	15%	3,630 27,833	92,850 711,847	2,242,886 17,195,462	525,568 4,029,352	938,466 7,194,903	23,292 178,570	32,756 251,132	661,295 5,069,928	55,698 427,019	221,127 1,695,311	-	559 4,285	88,355 677,387	62,263 477,353	92,293 707,580	5,041,039 38,647,962	5, 38,
Change Orders Subtotal	10%	2,783 30,617	71,185 783,031	1,719,546 18,915,008	402,935 4,432,287	719,490 7,914,394	17,857 196,427	25,113 276,246	506,993 5,576,921	42,702 469,721	169,531 1,864,842	-	428 4,713	67,739 745,125	47,735 525,089	70,758 778,338	3,864,796 42,512,758	3, 42,
Bid Contingency	5%	1,531	39,152	945,750	221,614	395,720	9,821	13,812	278,846	23,486	93,242	-	236	37,256	26,254	38,917	2,125,638	2,
Subtotal		32,147	822,183	19,860,759	4,653,901	8,310,113		290,058	5,855,767	493,208	1,958,084	-	4,949	782,382	551,343	817,255	44,638,396	44,

Cost Summary GML Page 2 of 21

CELLANA Constructor for Construction			Go	uld Memori	al Library	& Hall of Ea	ıma										March 15, 2018	
					Bronx, NY		iiie										Estimate Summar	у
BUILDING AREA (GSF)																		
				GML					HOF				LA	ANDSCAPIN	G			
		Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5	Subtotal Trade	Total \$
General contractor's OH&P, Bond's and Insurance	15%	4,822	123,327	2,979,114	698,085	1,246,517	30,937	43,509	878,365	73,981	293,713	-	742	117,357	82,701	122,588	6,695,759	6,695,759
Subtotal		36,969	945,510	22,839,872	5,351,986	9,556,630	237,185	333,567	6,734,132	567,189	2,251,797	-	5,691	899,739	634,045	939,843	51,334,156	51,334,156
AE		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		36,969	945,510	22,839,872	5,351,986	9,556,630	237,185	333,567	6,734,132	567,189	2,251,797	-	5,691	899,739	634,045	939,843	51,334,156	51,334,156
Construction Contingency	10%	3,697	94,551	2,283,987	535,199	955,663	23,719	33,357	673,413	56,719	225,180	-	569	89,974	63,404	93,984	5,133,416	5,133,416
Subtotal		40,666	1,040,061	25,123,860	5,887,185	10,512,293	260,904	366,923	7,407,545	623,907	2,476,976	-	6,261	989,713	697,449	1,033,827	56,467,571	56,467,571
TOTAL ESTIMATED CONSTRUCTION COST		\$ 40,666	\$1,040,061	\$25,123,860	\$5,887,185	\$10,512,293	\$260,904	\$366,923	\$7,407,545	\$ 623,907	\$2,476,976	\$ -	\$ 6,261	\$ 989,713	\$697,449	\$1,033,827	\$ 56,467,571	56,467,571

**GML Subtotal** 42,604,066 **HOF Subtotal** 11,136,256 **Landscape Subtotal** 2,727,250

PRIORITY COST BREAKDOWN	
Priority 1 total, including mark-ups	\$ 301
Priority 2 total, including mark-ups	\$ 1,413
Priority 3 total, including mark-ups	\$ 33,521
Priority 4 total, including mark-ups	\$ 7,208
Priority 5 total, including mark-ups	\$14,023

PHASING COST BREAKDOWN		
Critical Roof Repairs	Α	\$ 327,54
Access to the Rotunda	В	\$ 3,284,62
Building Envelope Improvements	С	\$16,519,03
Building/Architectural Systems Improvements	D	\$ 24,018,98
Fit-out Accomodations	E	\$12,317,37

GML Stair Alternate - (includes all mark-ups), Phase D
Option to Replace GML Cornice, Priority 3 - Phase C
\$1,357,668
\$1,829,172

### Estimate Qualifications and Assumptions

Duration of construction has not been factored into costs, due to anticipated project phasing. If entire scope is performed, estimated duration is 24 months.

Escalation is excluded.

Priority of work is based on ranking of conditions by BBB.

Phasing is according to recommendations by the client. Phasing estimates are pre-schematic in nature and assume initial installation of full control networks and are subject to change with detailed analysis in design.

Estimate quantities based on areas derived from plans and elevations

The estimate is based on documents prepared by Beyer Binder Belle Architects, dated October 30, 2017 and subsequent updates

The estimate cost is based on prevailing wages

Technical assumptions are based on projects of similar nature estimated by ELLANA, Inc.

Total gross building area for GML is estimated at 37,933 square feet

Total gross building area for HOF is estimated at 9,115 square feet

Typical floor heights as noted on design documents.

Hazardous material removal, abatement or encapsulation is excluded

Cost Summary GML Page 3 of 21

	C.	Sould Memori	al Library 8	& Hall of F	ame			March 15, 2018							_	
			Bronx, NY					Estimate				DE		PHASIN		
ne#		Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2 3	4	5		Α	ВС	D	Е
1		Prioritization Codes														
2		Priority 1: Potential Hazardous - Conditions that need	to be address	ed immediate	elv											
3		Priority 2: Code Violations - Correct issues in accordar														
4		Priority 3: Deterioration - Perform work necessary to st														
5		Priority 4: Enhancement - Implement conservation and														
6		Priority 5: Future Use - Recommended upgrades to the			ronged the best us	o of the historic	complex									
7		Friority 3.1 ditare ose - Neconfinenced appraces to the	e systems and	aiyzeu iilai pi	lopose the best us	se of the mistoric	Complex									
-	04	SITEWORK AND DEMOLITION														
9	UI.	SITEWORK AND DEMOLITION														
	04.4	Landscape/Site Treatment														
10	01.1															
16		LANDSCAPING  Revise landscaping that is obstructing the fire	+													
17		department connection	1	ls	1,200.00	1,200			2			LAND		1,200		
17		In locations where water flows toward the building or	1	15	1,200.00	1,200			2			LAND		1,200		
		pathways as a result of settlement or long term														
		erosion activity, modify grade by elevating areas to														
8		pitch away from the structure (LD1-LD5)	6	loc	3.500.00	21,000				4		LAND		21,000		
10		phon away from the structure (EBT EBO)	-	100	0,000.00	21,000				7		LAND		21,000		
		Where surface grade is heavily eroded by storm														
		water, make corrections to collect and redirect surface														
		flows using a combination of regrading, curbing and														
19		collection structures (modify text ) LD6-LD-9	7	loc	3,500.00	24,500				4		LAND		24,500		
		Descride atoms assistences as bounder at a coincaton of														
20		Provide stone maintenance border at perimeter of HOF(LD6, LD8-LD11)	970	lf	150.00	145,500			3			LAND		145,500		
20		Clean and repair surface paving in the HOF terrace,	970	II .	150.00	145,500			3			LAND		145,500		
		remove organic growth, and replace 20% spalling brick (LD12-LD13)	42.000		40.00	200,000			3					202.000		
21		,	13,000	sf	16.00	208,000			3			LAND		208,000		
		xc - remove and replace complete membrane		_							_					
22		below paving	13,000	sf	9.57	124,400					5	LAND				124,4
		Relocate utilities and site elements that distract from														
		the historic setting, AC mecahnical units, non-														
		fucitioning fence elements, flagpoles and memorials.	_	1	5 000 00	00.000		Allere CO and			_					00.0
23		(LE1-LE5)	5	loc	5,200.00	26,000		Allow - GC only			5	LAND				26,0
		Site fences - fence repair (LE7) along Sedwick Ave.														
24		Replace in-kind-to historic character.	605	lf	142.00	85,910				4		LAND				85,9
		Part of above item, Site fences - (LE7) along Sedwick														
		Ave., clear collected debris, regrade at high areas to														
25		remove built-up soil and vegetation renewal	300	lf	150.00	45,000				4		LAND				45.0
23		Terriove built-up soil and vegetation renewal	300	II .	130.00	45,000				4		LAND				45,0
26		Remove-concrete sidewalk as needed (LE8-LE10)	580	sf	27.07	15,700		Allow 100sf/loc			5	LAND				15,7
$\Box$				·				l								
27		Repair/restore retaining walls (LE11-LE13)	1,100	sf	20.00	22,000		3 wall locations		4	1	LAND				22,0
28		Maintenance access gate (LE12-LE13)	1	ea	3,500.00	3,500		1 location (LE13)		4		LAND				3,5
20		Maintenance access gate (LL 12-LL 13)	'	ca	3,300.00	3,300		i ioodiioii (LL IO)		-	1	LAND				ال, ا
		At Historic Fountain, restore fountain. Repair stone														
29		fountain, restore basin (LE14)	1	loc	7,750.00	7,750		Allowance			5	LAND				7,7
		Remove invasive species understory and re-establish														
30		low ground planting sto stabilize views (LP1)	16,300	sf	2.21	36,000					5	LAND			36,000	
		Remove non-historic plantings and replace with				•									,	
		contextualaly apprpreate materials to address														
31		contemporary needs. (LP2-LP10)	4,500	sf	6.67	30,000		4 locations			5	LAND		30,000		
		Restructure/remove planting to frame the architecture				•										
32		and recapture the historic setting (LV1-LV3)	1,600	sf	12.00	19,200		8 locations		4		LAND		19,200		
		Selective removal and canopy thinning of trees to	,,,,,,			12,230					1			-,		
		open views west and provide visibility of GML and														
33		HOF (LV4-LV6)	3,200	sf	9.75	31,200		8 locations	3			LAND		31,200		
		, ,	5,200		5.75	01,200			"			_ 1140		,		
		Provide accessible exterior route between the GML	1	_										105.100		
34		and Quad (LA1) with steel framed ramp	1,440	sf	73.00	105,120			$\square$	4	1	LAND		105,120		
35		Provide accessible exterior routes, walks (LA3-LA4)	4,450	sf	45.00	200,250					5	LAND			200,250	
36		Remove pedestrian connection—(LA5)	1,324	sf	22.06	29,210						LAND			,	29,2
U		Memove pedesinan connection—(LAS)	1,324	٥I	22.00	29,210	I			1	J	LAND				∠ઝ,

	Construction Cost Consultants	Gould Memoria	al Library Bronx, NY		ame			March 15, 2018 Estimate	PR	IOR	ITY	CODE		Р	HASIN	G	
_ine#	Descr		Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes			3 4		Α	В	С	D	Е
	Strip and repaint grating o	•	1 -		36.00	39,600	Cubicial Trades	Remove and do offsite	•						39,600		
37		ver areaways	1,100	sf				Remove and do disite			3	LAND					
38	Refinish areaway fences Remove and replace exist	ing 4" concrete clab at	896	sf	25.00	22,400					3	LAND			22,400		
39	areaways	ling 4 Concrete slab at	1,100	sf	25.00	27,500					3	LAND			27,500		
39	•		1,100	51	23.00	21,500				,	,	LAND			21,300		
	Clean granite borders aro	und areaways with paint	750	-4	40.55	7.040					4					7,913	
40	stripper		750	sf	10.55	7,913					4	LAND				7,913	
41	Allerentenantentenanten die				4 000 00	4 000				_		<b> </b>		4.000			
42	Allow for protection and ba		1	ls .	1,000.00	1,000				2		LAND		1,000	74.000		
43	Allow for protection and ba		1	ls	71,200.00	71,200					3	LAND			71,200		
44	Allow for protection and ba		1	ls	50,200.00	50,200					4	LAND				50,200	
45	Allow for protection and ba	arricades (priority 5 items)	1	ls	70,400.00	70,400						5 LAND					70,40
46																	
47	Subtotal Landscape/Site Trea	atment					1,471,653										
48																	
49	01.2 Demolition																
50	<u>GML</u>																
51	Demolition of existing spa-	ces due to new LULA lift	4	loc	5,000.00	20,000						5 GML				20,000	
	Demolition of existing spa-																
52	stops		2	loc	10,000.00	20,000					4	GML				20,000	
53	Miscellaneous demolition	and removals	1	ls	50,000.00	50,000				3	3	GML			50,000		
54						,									,		
65	Subtotal Demolition						90,000										
66																	
67																	
68	SUBTOTAL FOR SITEWOR	K AND DEMOLITION				End of Trade	1,561,653										
69	GOBTOTAL FOR SITEWOR	K AND DEMOCITION				Life of frace	1,301,033										
70	00 EVCAVATION AND FOUND	ATIONS															
	02. EXCAVATION AND FOUND	ATIONS															
72	ON III																
73	GML At a sixting a large transition of	(ab and an area and an ab															
7.4	At existing elevator pit, pa	tch and repair and apply	1	loo	F 900 00	F 900					4	0.41				F 900	
74	new waterproofing		1	loc	5,800.00	5,800					4	GML				5,800	
75	011070711 500 540 1417																
87	SUBTOTAL FOR EXCAVAT	ION AND FOUNDATIONS				End of Trade	5,800										
88																	
89																	
90	03. <u>SUPERSTRUCTURE</u>																
91																	
92	<u>GML</u>																
93	Reframe existing floor ope		3	openings	40,000.00	120,000						5 GML				120,000	
94	Floor 03 LULA framing re	inforcement	65	sf	375.00	24,375						5 GML				24,375	
95	Reframe existing floor ope	ening for new elevator	6	openings	35,000.00	210,000					4	GML				210,000	
96							<u></u>										
97	Openings in floors infilled											5 GML					
98	Floor 04, mezzanine le	vel, structural glass	44	sf	375.00	16,500						5 GML				16,500	
99	Floor 05, balcony level		291	sf	375.00	109,125						5 GML				109,125	
		metal deck - Demo existing		<u> </u>	2.0.00	.55,125						- CIVIL				. 50, . 20	
		me new floor, including 5															
100	steps with railings		75	sf	475.00	35,625					4	GML				35,625	
101		t floor 05, balcony level	1	flt	25,000.00	25,000					4	GML				25,000	
102	OSHA protection		1	ls	10,500.00	10,500					4	GML				10,500	
102	Rusted steel framing: rem	ove all corrosion from rusted	1	i	10,000.00	10,500					+ -	GIVIL				10,000	
103	steel members		1	allow	100,000.00	100,000				3	3	GML				100,000	
104	Steel plate repair allowand	ce - general	1	allow	26,000.00	26,000					3	GML				26,000	
-		<u> </u>			with Ph.1	==,::0										-,3	
	Prep and paint exposed s	teel at roof level			critical roof												
105	(skylight/drum repair/reco		1	allow	repairs	-				3	3	GML				-	
106		*			·												
	HOF																
107			1	sf	45.00	11,655					3	HOF				11,655	

	C.	Gould Memoria			ame			March 15, 2018								
			Bronx, NY					Estimate						PHASIN		
ne#		Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2	3 4	5		Α	в с	D	E
09																
13		SUBTOTAL FOR SUPERSTRUCTURE				End of Trade	688,780									
14																
15		EXTERIOR MAGONEY AND MINEONO														
16	04.	EXTERIOR, MASONRY AND WINDOWS														
17	04.1	Masonry/Stone														
18 19	04.1	<u>IMASOTI Y/Storie</u>														
20		GML														
20		Areaways - remove and rebuild cracked bricks to														
22		match existing	740	sf	85.00	62,900				3		GML		62,900		
		Facades - at open joints, rake out and repoint joints														
24		100%	270	sf	40.00	10,800				4		GML		10,800		
		Facades - at surface spall, replace spalled brick with														
25		new	161	sf	115.00	18,515		Option #2		4		GML		18,515		
26																
		Dome drum - at displacements of brick, replace entire														
		wythe of face brick with replica brick, mortar joints,														
		collar joint and stainless steel reinforcement with tie-								_				007.000		
27		backs	1,750	sf	130.00	227,630				3		GML		227,630		
		Facades - at atmospheric soiling at all brick, clean with			7.00	400.705		All brids for an day						420.705		
28		fresh water and power sprayer	17,808	sf	7.68	136,765		All brick facades		4		GML		136,765		
		Facades - at incipient spalls, fully expose the bearing														
30		leg of the corroding lintel, prepare, prime and waterproof the steel and replace face brick	7	loc	2,460.00	17,220				3		GML		17.220		
30		Areaways - at residual coatings, apply paint stripper,		100	2,400.00	17,220				,		GIVIL		17,220		
31		dwell and pressure rinse	317	sf	11.80	3,741				4		GML		3,741		
		Liver to a section of the section of	4 000	16	40.00	70.440								70.440		
32		Limestone - at joints, rake out and repoint joints 100%	1,836	lf	40.00	73,440				3		GML		73,440		
		Limestone - cracks through limestone and joint, rebuild the cracked area with replacement brick to														
33		match existing	9	loc	450.00	4,050		Option #2		3		GML		4,050		
34		Granite - at spalls, patch and repair spalled stone	66	loc	1,235.00	82,745		Option #2		3		GML		82,745		
35		Limestone - SP - Spall repair	26	loc	1,200.00	31,200		Option #2		3		GML		31,200		
00		Limestone - at severe spalls, remove stone to sound	20	100	1,200.00	01,200						OIVIL		01,200		
		substrate, replace spalled stone with stone identical in														
		type and profile. Secure stone in place with epoxy														
36		adhesive and stainless steel pins	2	loc	1,705.00	3,410		Option #1	1			GML		3,410		
37											1					
		Granite - at hole in unit, provide composite patch		L	22.5	4 222										
38		repair	20	loc	60.00	1,200				4	+	GML		1,200		
39		Limestone - at crack, stabilize unit and provide fill or patch repair at crack	135	loc	450.00	60,750				3		GML		60,750		
38		Limestone - at hairline crack, cut out crack, drill and	133	IUC	450.00	00,750				,	+	GML		00,750		
		inject repair epoxy, apply patching material to match														
140		finish stone	31	loc	400.00	12,400				3		GML		12,400		
		Granite - at inappropriate clear coating, remove with														
41		paint stripper, apply chemical dwell and pressure rinse		sf	16.48	56,606				3	1	GML		56,606		
		Granite - at atmospheric soiling, spray apply D2, dwell,														
42		rinse with pressure washer	3,434	sf	10.97	37,671				3		GML		37,671		
		Limestone - at atmospheric soiling gypsum crust,														
43		carefully blast with low pressure abrasive	7,814	sf	5.90	46,103				3		GML		46,103		
		Granite/Limestone - at biological staining - green/grey,														
		spray apply chemical, dwell, rinse with pressure	4 600	of	10 55	40.400				3		0141		40.400		
44		washer Marble - at disaggregation, clean with water spray,	4,690	sf	10.55	49,490				)	+	GML		49,490		
		scrub with brush, dry, apply chemical treatment 3														
45		coats, rinse and cure, apply sealer 6 coats	80	sf	16.88	1,350				3		GML		1,350		
		Limestone - at copper staining, clean with Poultice,											-			
47		mix Poultice, trowel apply, cover for dwell, fully dry,	4 0 4 0	of	11.05	E0.764					_	0141		50,764		
17		remove with a scrub-rinse, repeat as necessary	4,248	sf	11.95	50,764					5	GML		50,764		

6	Construction Cost Consultants.  Gould Memoria	I Library Bronx, NY		ame			March 15, 2018 Estimate		l I O F	RITY	CODE		P	HASIN	3	
ine#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes			3 4		Α	В .	С	D D	Е
110#	Allow for repeat as necessary at 50% of areas	quantity	- I	Q/OIIII	T Ottal \$	Cubicial Hudos	110.00	· ·	_							
48	above	2,124	sf	11.95	25,382						5 GML			25,382		
	Limestone - at chemical staining (oil), chemical	,	-		-,									-,		
	cleaning. Apply fast acting stripper only to oil stain,															
49	dwell, rinse and scrub	183	sf	50.00	9,150					4	f GML			9,150		
	Granite - at atmospheric soiling, chemical cleaning															
	and blasting, apply paint stripper and low pressure															
50	microabrasive	1,497	sf	10.46	15,659					4	I GML			15,659		
	Granite - at ferrous staining, multi-step chemical															
	cleaning. Remove granite sealer with paint stripper, remove paint stain with paint stripper, apply chemical,															
151	dwell, scrub and rinse each application	750	sf	19.72	14,790						4 GML			14,790		
131		730	51	19.72	14,730						F GIVIL			14,790	<del></del>	
	Limestone - at foreign object, mechanically remove	2	la a	200.00	400					3				400		
152	object and patch repair	2	loc	200.00	400					3	GML			400		
	Granite - at residual coating, paint stripper and	405	-4	44.00	4.047					2				1.047		
153	chemical cleaner (2 steps)	165	sf	11.80	1,947					3	GML			1,947		
454	Limestone - at sealant joint, replace joint. Rake out	409	Iŧ	20.00	12,270					3	GML			12,270		
154	and repoint joints 100%  Limestone - at inappropriate element, remove element	409	II	30.00	12,270					3	GML			12,210		
155	and patch stone	2	loc	500.00	1.000						4 GML			1,000		
156	and paten stone		IUC	300.00	1,000					-	+ GIVIL			1,000		
100	Limestone - at displaced unit, structural remediation at															
157	pediment or plinth.	5	loc	2,700.00	13,500				2		GML			13,500		
	Granite - at cracked stone, stabilize unit and provide	-		,	-,									·		
159	fill or patch repair at crack	2	loc	775.00	1,550					4	f GML			1,550		
160	Repair corroded metal at exist stairs	3	loc	900.00	2,700					3	GML			2,700		
	Loss of finish 3- Prepare, prime and paint at indicated															
161	elements	870	sf	9.50	8,265					3	GML			8,265		
162	At loss of glazed finish, reglaze terra cotta elements	60	loc	1,200.00	72,000					3	GML			72,000		
163	At metallic staining - clean	95	sf	13.00	1,235					3	GML			1,235		
	Granite/Limestone - at biological staining - green/grey,															
	spray apply chemical, dwell, rinse with pressure															
164	washer	250	sf	10.55	2,638		SB1			4	I GML			2,638		
	Limestone - at chemical staining (oil), chemical															
	cleaning. Apply fast acting stripper only to oil stain,	400	1	550.00	400.050						.			400.050		
165	dwell, rinse and scrub	183	loc	550.00	100,650						4 GML			100,650		
	At limestone surface loss, repair with compounds or	0.5		4 0 4 0 0 0	47.400									47.400		
166	dutchman repairs	35	loc	1,310.00	47,160					3	GML			47,160		
167	PL - Entry door patination/restoration	6	loc	5,000.00	30,000					3	GML			30,000		
	Lower cornice repair: MP, MU, IR - Restore cornice in place, provide new 6" coping. Assume 25% salvage,															
168	replacement of support structure and re-attachement	360	If	1,072.50	386.100					3	GML			386.100		
	·			·	,									,	<del></del>	
169	Replace existing cornice, 3'-4" h.	360	lf	2,800.00	Option					3	GML			Option		
	Rework existing window opening and make new door															
	opening for access to elevator - complete with new															
170	door	1	openings	22,500.00	22,500					4				22,500		
171	Stucco replacement at Portico Entry Steps: Improvements to below stone drainage of	270	sf	50.00	13,500				2		GML	13,500				
170	entry Steps: Improvements to below stone drainage of water and pointing of mortar caulking	600	If	150.00	90,000					3	GML			90,000		
172	Birdproofing	77	II If	150.00 34.00	2,618				_	3	GML			2,618		
173	Scaffolding	34,000	sf	12.00						3	GML			408,000		
174	ě		Is	7,500.00	408,000 7,500			1		3	GML			7,500		
175	Access to Priority 1 work Access to Priority 2 work	1			20,000			•	2					20,000		
176 177	Access to Priority 2 work Access to Priority 4 work/from lifts	1	ls Is	20,000.00 45,000.00	20,000 45,000				2	3	GML GML			45,000		
177	HOF	ı	ю	₹5,000.00	40,000					5	GIVIL			+5,000		
80	Granite - at joints, rake out and repoint joints 100%	507	If	65.00	32,955					3	HOF			32,955		
	Stating at joine, rand out and repoint joint 100/0	001	"	00.00	52,555					<u> </u>	1101			02,000		
181	Limestone - at joints, rake out and repoint joints 100%	1,540	lf	40.00	61,600					3	HOF			61,600		
182	Limestone - at spalls, replace spalled stone with new	65	lf	360.00	23,400					3	HOF			23,400		
	Limestone - at severe spalls, remove stone to sound	4 000	If	00.00	00 105							00.400				
83	substrate  XC - Limestone - at severe spalls, remove and	1,300	IŤ	68.00	88,400			1			HOF	88,400				
84	•	incl.below	If		_		straight			3	HOF			_		
<b>/</b> +	replace all existing with east stone	11 ICI.DEIUW	II		-		onaigin	$\bot$		J	HUF			-		

(	Construction Case Consultants Gould Memoria			ame			March 15, 2018								
100	Constitution ( Constitution and )	Bronx, NY	7				Estimate	PRIO	RIT	Y C	DDE	PH	ASIN	G	
Line#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2	3	4 5		A B	С	D	E
185	XC - Limestone - at severe spalls, remove and replace all existing with cast stone	1,300	If	202.00	262,600	curve	ed		3		HOF		262,600		<b></b>
186	Granite - at hole in unit, provide composite patch repair	7	loc	60.00	420					4	HOF		420		ļ
187	Limestone - at crack, stabilize unit and provide fill or patch repair at crack	65	loc	450.00	29,250				3		HOF		29,250		I
188	Limestone - at hairline crack, cut out crack, drill and inject repair epoxy, apply patching material to match finish stone	89	loc	400.00	35,600				3		HOF		35,600		
189	Granite - at pedestals - clean all granite with paint stripper	2,000	sf	10.46	20,920				3		HOF		20,920		
	Granite - at atmospheric soiling, chemical cleaning and blasting, apply paint stripper and low pressure	,,,,,,	-		-,-								-,-		
190	microabrasive	450	sf	10.46	4,707					4	HOF		4,707		<u> </u>
404	Granite - at ferrous staining, multi-step chemical cleaning. Remove granite sealer with paint stripper, remove paint stain with paint stripper, apply chemical, dwell, scrub and rinse each application	88	sf	19.72	1,735					4	HOE		1,735		
191	Limestone - at atmospheric soiling gypsum crust,				•					4	HOF				
193	carefully blast with low pressure abrasive	18,750	sf	5.90	110,625				3		HOF		110,625		
194	Granite/Limestone - at biological staining - green/grey, spray apply chemical, dwell, rinse with pressure washer	8,600	sf	10.55	90,730	Low	areas		3		HOF		90,730		
195	Limestone - at biological staining - black, mix cleaner, brush apply, dwell, scrub, rinse, apply after wash, rinse with pressure washer	209	sf	12.20	2,550	High	areas			4	HOF		2,550		
196	Marble - at atmospheric soiling, gently scrub, rinse with pressure washer	90	sf	10.55	950					4	HOF		950		<u> </u>
197	Limestone - at copper staining, clean with Poultice, mix Poultice, trowel apply, cover for dwell, fully dry, remove with a scrub-rinse, repeat as necessary	205	sf	11.95	2,450					4	HOF		2,450		
198	Limestone - at copper staining, maintenance program required Limestone - at chemical staining (oil), chemical	na								4	HOF				<b></b>
199	cleaning. Apply fast acting stripper only to oil stain, dwell, rinse and scrub	106	loc	400.00	42,400					4	HOF		42,400		I
	Limestone - at moisture staining, masonry repairs.  Rake out all horizontal joints and repoint with mix				,								,		 I
200	historically matching mortar mix Limestone - at foreign object, mechanically remove	1,540	lf	30.00	46,200				3		HOF		46,200		
202	object and patch repair  Granite - at effloresence, employ masonry chisels and	11	loc	200.00	2,200				3		HOF		2,200		
203	hammers to remove large crystal formations.  Limestone - at effloresence, clean with poultice, apply	8	loc	1,250.00	10,000					4	HOF		10,000		<u> </u>
204	poultice to desalinate the substrates  Granite - at residual coating, paint stripper and	329	sf	12.50	4,113					4	HOF		4,113		
205	chemical cleaner (2 steps)	30	sf	11.80	354					4	HOF		354		<u> </u>
206	Limestone - at inappropriate element, remove element and patch stone	19	loc	500.00	9,500					4	HOF		9,500		<u> </u>
207	Granite - at cracked stone, stabilize unit and provide fill or patch repair at crack	1	loc	775.00	775					4	HOF		775		
208	Limestone - at moisture staining, masonry repairs. Rake out all horizontal joints and repoint with mix historically matching mortar mix	18	sf	120.00	2,160				3		HOF		2,160		
209	Guastavino masonry - loss of glazed finish, reglaze.  Brush apply breathable glaze coating over entire tile	8,489	sf	8.17	69,327	Amb	ulatory		3		HOF		69,327		<del>                                     </del>
210	Guastavino masonry - at cracked units, replace units.  Remove cracked tile units and stich in replica tiles  Guastavino masonry - at displaced units, reconstruct	200	sf	85.83	17,167	Amb	ulatory		3		HOF		17,167		
211	vault. Replace affected bay with new tile vault.	240	sf	85.83	20,600	Amb	ulatory	2			HOF	20,600			<u> </u>
212	Additional probes at above item	1	ls	2,500.00	2,500	Amb	ulatory	2			HOF	2,500			

	Construction Cost Consultants.  Gould Memoria	al Library & Bronx, NY		ame			March 15, 2018 Estimate		210	R I I	ГΥ	CODE		P	HASIN	G	
Line#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes				4		Α	В .	C		Е
	Guastavino masonry - at atmospheric soiling, chemical cleaning. Apply chemical until dried, dwell 10			<b>V</b> , G.III.	7 Guii <b>Ç</b>												_
213	minutes, scrub and rinse	8,489	sf	7.36	62,479		Ambulatory			3		HOF			62,479		
214	At metallic staining - clean	883	sf	19.50	17,219					3		HOF			17,219		
215	At inappropriate repairs, remove mismatched stone and and provide units to match original  Limestone - cracks through limestone and joint,	24	sf	98.00	2,352						4	HOF			2,352		
216	partially rebuild the cracked area with replacement stone to match existing	4	loc	450.00	1,800		Option #2			3		HOF			1,800		
217	Granite - at spalls, replace spalled stone with new	4	loc	675.00	2,700		Option #2			3		HOF			2,700		
218	Repair corroded metal at exist gates	1	loc	1,800.00	1,800					3		HOF			1,800		
	Granite/Limestone - at biological staining - green/grey, spray apply chemical, dwell, rinse with pressure																
219	washer	452	sf	10.55	4,769		SB1				4	HOF			4,769		
220	LS - patch and repair existing  SS - at severe spalls, remove stone to sound substrate, replace spalled stone with stone identical in type and profile. Secure stone in place with epoxy	8	loc	900.00	7,200					3		HOF			7,200	0 .: 110	
221	adhesive and stainless steel pins	18	loc	1,705.00	30,690					3		HOF				Option #2	
224	VG - remove vegetation Birdproofing	400	loc If	2,000.00	4,000 13,600					3		HOF			4,000 13,600		
225 226	Scaffolding	36,250	IT sf	34.00 12.00	435,000					3		HOF			435,000		
227	Miscellaneous masonry	1	ls	135,000.00	135,000					3		HOF			135,000		
228	Access	1	ls	32,500.00	32,500			1		Ŭ		HOF	32,500		.00,000		
232	Access to Priority 2 work	1	ls	5,000.00	5,000				2			HOF			5,000		
233	Access to Priority 4 work/from lifts	1	ls	40,000.00	40,000						4	HOF			40,000		
234 235	Subtotal Masonry/Stone					4,669,957											
236	04.2 Windows	3,084															
237	<u>GML</u>																
238	Restoration of windows	3,084	sf	420.00	1,295,280					3		GML			1,295,280		
248 249	Replacement of existing windows	204	sf	600.00	122,400		MU			3		GML			122,400		
250	<u>HOF</u>	795															
251	Replace existing windows with all double hung units	1,160	sf	300.00	348,000					3		HOF			348,000		
252	New replica window grates at eastern perimeter	76	sf	95.00	7,220		Allow at 5 opngs				4	HOF			7,220		
	Repair wall at window opening, structural and		1	0.500.00	0.500								0.500				
253	waterproofing repairs at perimeter of window Access	1	loc Is	2,500.00 5,000.00	2,500 5,000				2			HOF	2,500		5,000		
254 259	Subtotal Windows	1	IS	5,000.00	5,000	1,780,400						HOF			5,000		
260						1,700,400											
261	SUBTOTAL FOR Windows				End of Trade	1,780,400											
262																	
263			-												-		
264																	
265	SUBTOTAL FOR EXTERIOR, MASONRY AND WINDOW	<u>vs</u>			End of Trade	6,450,357											
266								1									
267	05. ROOFING & WATERPROOFING							+									
268 269	05. ROOFING & WATERPROOFING							+ +									
	05.1 Roof Coverings																
271																	
272	GML																
	Remove, salvage and reinstall TC tile. Remove																
273	existing membrane, new Grace Ultra	4,325	sf	55.00	237,875					3		GML			237,875		
274	Allow for new tiles at 25%	1,081	sf	15.00	16,230					3		GML			16,230		
275	Allow for custom TC shapes at ridges and antifixes	50	ea	75.00	3,750					3		GML			3,750		
276	New liquid flashing at edge	166	lf	130.00	21,580					3		GML			21,580		
277	New liquid flashing at skylights	791	lf	98.00	77,616					3		GML			77,616		

(	ELLANA Construction Cost Consultants.	Gould Memoria	al Library & Bronx, NY	& Hall of F	ame			March 15, 2018 Estimate	PRIORI	ΤΥ	CODE		РН	IASIN	G	
Line#	Descript		Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2 3	4	5	Α	В	С	D	E
	Prepare existing gutters, pate	ch, coat with liquid														
278	membrane, 3' Girth		166	lf	195.00	32,370			3		GML			32,370		
279	Remove and replace existing		10	ea	1,305.00	13,050			3		GML			13,050		
280	Loose elements - temporary	repairs	1	loc	2,000.00	2,000			1		GML			2,000		
281			+								GML					
282	Replace missing roof edge e	lement in kind	4	loc	1,500.00	6,000			3		GML			6,000		
283	At missing tile units, Replace	unit in kind	9	loc	1,000.00	9,000			3		GML			9,000		
284	At cracked tile units, Replace	roof in kind	4	loc	6,800.00	27,200		Allow 4 loc	3		GML			27,200		
	At broken tile units, remove l	oose units and install														
285	temporary patch		3	loc	1,500.00	4,500			1		GML	4,500				
286	Remove inappropriate object		1	ls	750.00	750			2		GML			750		
	Hole at punctured membrane				4.500.00	4.500								4.500		
287	waterproofing membrane over At previous repair/temporary	patch - Poplace	1	loc	1,500.00	1,500			2		GML			1,500		
	temporary repairs/patches w															
288	membrane, copper roof		1	loc	9,800.00	9,800			2		GML			9,800		
289	Restoration of gable skylights	S	1,350	sf	350.00	472,500			3		GML			472,500		
290	Flat roof skylight replacemen		350	sf	325.00	113,750				4	GML			,	113,750	
291	Laylight work										GML					
292	Cast iron laylight restorati	on at flat roof	740	sf	150.00	111,000				4	GML				111,000	
293	Laylight structural allowar	ice	1	ls	20,000.00	20,000				4	GML				20,000	
294	Laylight roof flashing		160	lf	98.00	15,680				4	GML				15,680	
295	Base flashing replacement a	t dome drum	230	lf	170.00	39,100			3		GML			39,100		
296	Access to Priority 1 work		1	ls	5,000.00	5,000			1		GML	5,000				
300	Access to Priority 2 work		1	ls	5,000.00	5,000			2		GML			5,000		
301	Access to Priority 3 work		1	ls	20,000.00	20,000			3		GML			20,000		
302	Access to Priority 4 work		9,100	sf	12.00	109,200				4	GML			109,200		
303	HOF		200		222.22	205 200								005.000		
304	Remove and replace flat cop		936	sf	220.00	205,920			3		HOF			205,920		
	Remove, salvage and reinsta		0.044		== 00	454								454 770		
305	existing membrane, new Gra Allow for new tiles at 15%		8,214 1,232	sf sf	55.00	451,770 18,495			3		HOF			451,770 18,495		
306	Remove and replace all TC t		1,232	Sī	15.00	18,495			3		HOF			18,495		
307	south wings			sf		_			3		HOF			-		
308	Allow for TC shapes at antifix	res	100	ea	75.00	7,500			3		HOF			7,500		
309	New liquid flashing at edge		1,493	lf	130.00	194,090			3		HOF			194,090		
310											HOF					
311	At cracked tile units, Replace	roof in kind	1	ls	40,000.00	40,000		Allow 4 loc	3		HOF			40,000		
	At broken tile units, remove l	oose units and install														
312	temporary patch patch		1	loc	3,000.00	3,000			1		HOF			3,000		
313	At deteriorated flashing - rep		3	loc	2,000.00	6,000			1		HOF	6,000				
	At previous repair/temporary															
314	temporary repairs/patches with membrane, copper roof	iiii new waterprooting	275	sf	285.00	78,375			3		HOF			78,375		
314	Restore HOF laylight at floor	level (broken glass)	28	sf	150.00	4,350			3	4	HOF			4,350		
316	Restore HOF decorative gate		126	sf	150.00	18,900			3	+	HOF			18,900		
317	Access to Priority 1 work		1 1	ls	5,000.00	5,000			1		HOF	5,000		10,000		
321	Access to Priority 2 work		1	ls	5,000.00	5,000			2		HOF	3,000		5,000		
322	Access to Priority 3 work		1	ls	20,000.00	20,000			3		HOF			20,000		
323	Access to Priority 4 work		1	ls	10,000.00	10,000				4	HOF			10,000		
324																
328	Subtotal Roof Coverings						2,442,851									
329																
330	SUBTOTAL FOR ROOFING &	WATERPROOFING				End of Trade	2,442,851									
331																
332																
	06. INTERIOR CONSTRUCTION															
334																
335	Destitions															
336 <b>0</b>	Partitions															

0	Construction Cost Consultants Gould Memoria	al Library 8 Bronx, NY	& Hall of	Fame			March 15, 2018 Estimate	PRIORI	ГΥ	CO	DE	P	H A S I N G	
ne#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2 3			Α		C D	E
37														
38	<u>GML</u>													
39	Rebuild of existing spaces due to new LULU lift	4	loc	15,000.00	60,000		CMU walls incl.			5	GML			60,00
40	Rebuild of existing spaces due to new elevator stops	2	loc	40,000.00	80,000		CMU walls incl.		4		GML		80,000	
41	New single use toilet room - complete GC items	120	sf	94.00	11,280				4		GML	11,280		
	Added layers to existing wall to make them fire rated at													
42	stairs	3,462	sf	9.10	31,504				4		GML		31,504	
43	Repairs at probe locations	5	loc	20,000.00	100,000			2			GML		100,000	
44	Temporary protection, blocking, miscellaneous iron	37,933	sf	2.50	94,833				4		GML		94,833	
45														
16	<u>HOF</u>													
17	Temporary protection, blocking, miscellaneous iron	9,115	sf	2.50	22,788				4		HOF			22,7
48														
49	0.1.1.1.0													
56	Subtotal Partitions					400,404								
57	Little Com Day on													
	Interior Doors													
59														
60	<u>GML</u>													
61	Exterior Doors, Frames & hardware			1				3			GML			
62	Single door	5	lvs	info	-			3			GML		-	
63	Double doors	5	pr	info	-			3			GML		-	
64	Revolving door	1	ea	info	-			3			GML		-	
35	Interior Doors, Frames & hardware							3			GML			
66	Single door	130	lvs	info	-			3			GML		-	
67	Double doors	49	pr	info				3			GML		-	
68	Repair doors due to corrosion - assumed 25%	61	ea	1,150.00	70,150			3			GML		70,150	
69	Repair doors due to staining - assumed 5%	12	ea	1,025.00	13,325			3			GML		13,325	
70	Repair doors due to wear - assumed 50%	122	ea	1,725.00	210,450			3			GML		210,450	
71	Repair doors due to soiling - assumed 20%	49	ea	1,025.00	50,225			3			GML		50,225	
72	Paint door frames	189	ea	50.00	9,450			3			GML		9,450	
73	Paint doors	243	lvs	75.00	18,225			3			GML		18,225	
74	Replace door hardware - assumed 60%	146	sets	600.00	87,600			3			GML		87,600	
75	Access doors	18	ea	400.00	7,200			3			GML		7,200	
76	Allow for miscellaneous special hardware and finishes	1	ls	22,971.25	22,971			3			GML		22,971	
77	O http://distriction.													
84	Subtotal Interior Doors					489,596								
85	Floor Finished													
	Floor Finishes													
87	0.0													
38	GML Cornet Benjacement	704	c.t	0.00	0.040				4		0141		0.040	
89	Carpet Replacement VCT Flooring	781	sf	8.00	6,248				4	$\vdash$	GML		6,248	
90		103	sf	7.50	773				4		GML		773	
91	Terrazzo Repair Refinish Floor	1,273	sf	15.00	19,095			3			GML		19,095	
92		3,997	sf	9.00	35,973		Eviation towns	3			GML		35,973	
95	Clean	997	sf	3.00	2,991		Existing terrazzo floor	3			GML		2,991	
96	Wood Repair Wood Repair at Stacks	1,308	sf	9.00	11,772 8,964		-	3			GML		11,772	8,9
97		996	sf	9.00				3			GML		06 200	8,8
98	Wood Replacement	3,318	sf	29.00	96,222			3			GML		96,222	28,9
99	Wood Replacement at Stacks	998	sf	29.00	28,942			3			GML		407.700	∠8,9
00	Mosaic Tile Repair	2,082	sf	95.00	197,790			3			GML		197,790	
)1	Cast iron Repairs	7 477	sf	75.00	-			3			GML			
)2	C.I. Restoration	7,177	sf	45.00	322,965			3			GML		322,965	
03	Glass Replacement	359	sf	180.00	64,620			3			GML		64,620	
04	Marble Repair	25	sf	200.00	5,000		No work place and	3			GML		5,000	
)5 )6	Balcony Flooring Area Remaining	1,080	sf	3.00	3,240		No work, clean only	3			GML		3,240	
ıb l	Marble Flooring Area Remaining	25	sf	3.00	75		No work, clean only	3		$\vdash$	GML		/5	
)7														

	Cor	estruction Cost Consultants.  Gould Memoria	al Library o Bronx, NY		Fame			March 15, 2018 Estimate	PRIO		τν <b>σ</b> .	005		PHASI	N G	
					ф/I I ; 4	T-t-l f	Cultated Tandes									
Line#		Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2	3	4 5		A B	С	D	E
409		Terrazzo Repair	5,337	sf	15.00	80,055				3		HOF				80,055
410		Terrazzo Replacement	2,038	sf	70.00	142,660				3		HOF				142,660
411		Concrete Repair	259	sf	with Superstruc	-		E :- (:		3		HOF				- 04 450
412		Clean	7,150	sf	3.00	21,450		Existing terrazzo floor		3		HOF				21,450
413		Wood Repair	732	sf	9.00	6,588				3		HOF				6,588
414		Wood Replacement	732	sf	29.00	21,228				3		HOF				21,228
415		Cast iron Repairs	439	sf	75.00	33,000				3		HOF				33,000
416		Subtotal Floor Finishes					4 400 054									
421		Subtotal Floor Finishes			+		1,109,651									
422					+											
423	00.4	Page Finishes			+											
424	06.4	Base Finishes														
425																
426		<u>GML</u>						50% repaired, 20%								
427		Baseboard repair and painting, 100%	6,353	If	41.50	263,650		replaced		3		GML			263,650	
421		baseboard repair and painting, 100%	0,333	"	41.30	203,030		50% repaired, 20%		3		GIVIL			203,030	
428		Baseboard repair and painting at Stacks, 100%	491	If	41.50	20,377		replaced		3		GML				20,377
429		1 1 5 7				-,-										
430		HOF														
								50% repaired, 20%								
431		Baseboard repair and painting, 100%	1,805	lf	41.50	74,908		replaced		3		HOF				74,908
432																
436		Subtotal Base Finishes					358,934									
437																
438																
439	06.5	Wall Finishes														
440																
441		<u>GML</u>														
								Scrape/skimcoat/20%								
442		Plaster Repair	30,470	sf	16.80	511,896		replac.		3		GML			511,896	
		·	Í			Í		Scrape/skimcoat/20%								
443		Plaster Repair at Stacks, Level 5	3,812	sf	16.80	64,042		replac.		3		GML				64,042
444		Decorative Plaster Repair	1,736	sf	128.00	222,208		-1 -11		3		GML			222,208	
445		Plaster Balustrade	180	lf	563.00	101,340				3		GML			101,340	
446		Stone Repair	1,147	sf	40.00	45,880				3		GML			45,880	
			.,	<u> </u>	10.00	10,000		40% Scraped &				02			10,000	
447		Paint	75,904	sf	7.60	576,870		skimcoated		3		GML			576,870	
		- Cana	. 0,00	<u> </u>	7.00	0.0,0.0		40% Scraped &		-		O			0.0,0.0	
448		Paint at Stacks	3,812	sf	7.60	28,971		skimcoated		3		GML				28,971
449		Paint/Glazing Restoration	3,130	sf	125.00	391,250		on modulou		3		GML			391,250	
450		Marble Column Cleaning	4,712	sf	13.00	61,256				3		GML			61,256	
451		Cast Iron Repair	24,574	sf	32.25	792,512				3		GML			792,512	
452		Stone Cleaning	1,334	sf	8.25	11,006				3		GML			11,006	
453		Marble Replace	50	sf	160.00	8,000				3		GML			8,000	
454		Marble Repair	248	sf	50.00	12,400				3		GML			12,400	
455		Misc. general painting/final touch-up	1	ls	22,000.00	22,000				3		GML			22,000	
456		Patching at added receptacles (from electrical trade)	250	ea	275.00	68,750				- 3	4	GML			68,750	
+50		Chopping and patching of walls and ceilings for mep	230	ea	213.00	00,730					7	GIVIL			00,7 00	
457		work	1	ls	45,000.00	45,000					4	GML			45,000	
458		Stormwater piping to be insulated							2			GML				
. 50		Patch access openings - ceiling and wall - 4' x 5' +/-										J.JIE				
459		10' on center	100	ea	1,200.00	120,000			2	L		GML			120,000	
		Remove and replace stormwater piping -						Verify if this is part of								
460	<u></u>	Replacement scoped as part of GML Roof project						project		3		GML				
		Patch access openings - ceiling and wall - 4' x 5' + /														
461		- 10' on center	12	ea	1,200.00	14,400			_	3		GML			14,400	
462		Insulate all domestic water piping							2			GML				
463		Patch at chopped - walls and ceiling	48	ea	1,200.00	57,600			2			GML			57,600	
464		Patch at chopped toilet rooms	12	ea	1,200.00	14,400			2			GML			14,400	
465		Patching of damaged areas not accounted for	1	ls	95,093.41	95,093				3		GML			95,093	

(	Construction Cost Consultants: Gould Memori	ial Library 8 Bronx, NY	Hall of	Fame			March 15, 2018 Estimate	PRIC	RITY	CODE		PI	HASING		
ine#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2			Α	В		D	E
	Remove bird guano	1		60,000.00	60,000	Cubicial Trades	Hotes	· -	3					0,000	
466	9	-	ls						3	GML				,	
467	Clean and repair existing statues	16	ea	10,000.00	160,000					GML				0,000	-
468	Repair below grade masonry due to leaks	1 15 404	ls	50,000.00	50,000				3	GML				0,000	-
469	Allow for Scaffolding	15,181	sf	12.00	182,172		Assumes \$15/sf for		3	GML			16	2,172	
470	Miscellaneous interior finishes	1	ls	225,000.00	225,000		15,000sf			5 GML			23	5,000	
471	HOF	<del>                                     </del>	10	220,000.00	220,000		10,00001			O GIVIE				0,000	-
*/ 1	1101	+					Scrape/skimcoat/20%								-
472	Plaster Repair	32,371	sf	16.80	543,833		replac.		3	HOF					543,8
							40% Scraped &								
473	Paint	32,371	sf	7.60	246,020		skimcoated		3	HOF					246,0
474															
478	Subtotal Wall Finishes					4,731,898									
479															
480 06	5.6 Ceiling Finishes														
481															
182	<u>GML</u>														
183	Plaster	25,916	sf	info	-				3	GML				-	-
484	Repairs due to blistering paint - allow 35%	9,071	sf	17.00	154,207				3	GML			15	4,207	
485	Repairs due to cracking - allow 10%	2,592	sf	14.00	36,288				3	GML				36,288	-
486	Repairs due to hairline cracking - allow 5%	1,296	sf	14.00	18,144				3	GML				8,144	
487	Repairs due to material loss - allow 10%	2,592	sf	17.00	44,064				3	GML				14,064	
488	Repairs due to soiling - allow 10%	2,592	sf	17.00	44,064				3	GML				14.064	
189	Repairs due to solling - allow 10%	2,592	sf	15.00	38,880				3	GML				38,880	
			sf	17.00	22,032				3					22,032	
190	Repairs due to staining - allow 5%	1,296								GML				,	
491	Repairs due to water damage - allow 15%	3,887	sf	38.00	147,744				3	GML				7,744	
492	Paint plaster ceiling	25,916	sf	2.00	51,832				3	GML				51,832	
493	Plaster at Stacks	1,994	sf	info	-				3	GML					
494	Repairs due to blistering paint - allow 35%	698	sf	17.00	11,866				3	GML					11,80
495	Repairs due to cracking - allow 10%	199	sf	14.00	2,800				3	GML					2,8
496	Repairs due to hairline cracking - allow 5%	100	sf	14.00	1,400				3	GML					1,4
497	Repairs due to material loss - allow 10%	199	sf	17.00	3,400				3	GML					3,4
498	Repairs due to soiling - allow 10%	199	sf	17.00	3,400				3	GML					3,4
499	Repairs due to spalling - allow 10%	199	sf	15.00	3,000				3	GML					3,0
500	Repairs due to staining - allow 5%	100	sf	17.00	1,700				3	GML					1,70
501	Repairs due to water damage - allow 15%	299	sf	38.00	11,400				3	GML					11,40
502	Paint plaster ceiling	1,994	sf	2.00	3,988				3	GML					3,98
503	Glass and Cast Iron	5,828	sf	info	-				3	GML				-	
504	Repairs due to corrosion - allow 20%	1,166	sf	75.00	87,450				3	GML				37,450	-
505	Repairs due to mechanical damage - allow 15%	874	sf	75.00	65,625				3	GML				55,625	
506	Repairs due to soiling - allow 25%	1,457	sf	30.00	43,710				3	GML				13,710	
507	Repairs due to staining - allow 20%	1,166	sf	30.00	34,980				3	GML				34,980	-
508	Repairs due to staining allow 20%	1,166	sf	75.00	87,450				3	GML				37,450	
509	Laylight work	1,100		7 0.00	57,700				3	GML				, 100	
510	Replace laylight interior gables	920	sf	350.00	322,000				3	GML			20	2,000	-
510	Replace laying interior gables  Restore Oculus Lantern, steel structure, vent system	920	31	330.00	322,000				3	GIVIL		-	32	۷,000	
E11	and clerestory structure	1	ls	500,000.00	500,000				3	GML			EC	0,000	
511 512	Leak repairs due to water intrusion from skylights	1	ls ls	50,000.00	50,000		Allowance		3	GML				50,000	
	Scaffolding platform for Rotunda ceiling	6,500					Allowance							0,600	
513			sf	95.48	620,600				3	GML		-		-	
514	Scaffolding platform for balcony ceiling	3,450	sf	20.00	69,000				3	GML				89,000	
515	LIOE														
516	HOF									+					
517	Plaster	9,234	sf	info	-				3	GML					
18	Repairs due to blistering paint - allow 35%	3,232	sf	17.00	54,944				3	GML					54,9
519	Repairs due to cracking - allow 10%	923	sf	14.00	12,936				3	GML					12,9
520	Repairs due to hairline cracking - allow 5%	462	sf	14.00	6,468				3	GML					6,4
521	Repairs due to material loss - allow 10%	923	sf	17.00	15,708				3	GML					15,7
					,		1			1 1					

	Cor	Gould Memoria			f Fame			March 15, 2018	00167		v 0.			D U A C :	N.C	
Line#		Description	Bronx, NY Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Estimate Notes	PRIOF 1 2			_	A B	PHASI	N G D	E
		·			· ·		Subtotal Trades	Notes			4 3		А В			
523		Repairs due to spalling - allow 10%	923	sf	15.00	13,860				3		GML				13,860
524		Repairs due to staining - allow 5%	462	sf	17.00	7,854				3		GML				7,854
525		Repairs due to water damage - allow 15%	1,385	sf	38.00	52,668				3		GML				52,668
526		Paint plaster ceiling	9,234	sf	2.00	18,468				3		GML				18,468
527																
532		Subtotal Ceiling Finishes					2,679,638									
533	00.7	<u>Auditorium</u>														
534 535	06.7	Additionalii														
536		<u>GML</u>														
537		Wall Finishes								3		GML				
								Scrape/skimcoat/20%								
538		Baseboard repair and painting, 100%	442	lf	56.50	24,973		replac.		3		GML			24,973	
								Scrape/skimcoat/20%								
539		Plaster Repair	3,645	sf	21.40	78,003		replac.		3		GML			78,003	
540		Paint	10,412	sf	2.40	24,989				3		GML			24,989	
541		Floor Finishes	7.700		0.00	04.004				3		GML			04.004	
542		Carpet Replacement	7,738	sf	8.00	61,904				3		GML GML			61,904	
543 544		Ceiling Finishes Plaster	7,738	sf	info					3		GML			_	
545		Repairs due to blistering paint - allow 35%	2,708	sf	13.00	35,217				3		GML			35,217	
546		Repairs due to cracking - allow 10%	774	sf	14.00	10,836				3		GML			10,836	
547		Repairs due to clacking - allow 10 /8  Repairs due to hairline cracking - allow 5%	387	sf	14.00	5,418				3		GML			5,418	
548		Repairs due to material loss - allow 10%	774	sf	17.00	13,158				3		GML			13,158	
549		Repairs due to soiling - allow 10%	774	sf	17.00	13,158				3		GML			13,158	
550		Repairs due to spalling - allow 10%	774	sf	15.00	11,610				3		GML			11,610	
551		Repairs due to staining - allow 10%	774	sf	17.00	13,158				3		GML			13,158	
552		Repairs due to water damage - allow 10%	774	sf	35.00	27,090				3		GML			27,090	
553		Paint plaster ceiling	7,738	sf	2.40	18,571				3		GML			18,571	
554		Scaffolding and platform	7,738	sf	78.78	609,632				3		GML			609,632	
555		Clean ornamental metalwork and wood handrails	266	lf	265.00	70,490				3		GML			70,490	
556		Patching at receptacle work (from electrical trade)	1	ea	600.00	600					4	GML			600	
557																
564																
565		Subtotal Auditorium					1,018,807									
566	00.0	Millwork & Cabinetry														
567 568	00.0	Williwork & Cabinetry														
569		<u>GML</u>														
570		Book Closets at Dome								3		GML				
571		Wood Repair Allow 25%	986	sf	80.00	78,880				3		GML			78,880	
572		Paint Repair 100%	3,946	sf	2.40	9,470				3		GML			9,470	
573																
581		Subtotal Millwork & Cabinetry					88,350									
582		FF8F for D. Occurrance: Accord														
583	06.9	FF&E for B Occupancy Areas														
584 585		GML (Finishes and Furniture)														
585		Assembly	5,566	sf	62.00	345,092					5	GML				345,092
587		Business	10,398	sf	84.00	873,432						GML				873,432
589		Storage Rooms	4,680	sf	125.00	585,000						GML				585,000
590																
591		HOF (Finishes and Furniture)														
592		Assembly	10,942	sf	64.00	700,288						HOF				700,288
594		Adult Education Classrooms	5,600	sf	85.00	476,000					5	HOF				476,000
596																

	CELLAN Construction Cost Cons	Could Momo	rial Library 8 Bronx, NY	k Hall of I	Fame			March 15, 2018 Estimate	PRIO	ORIT	Y CC	DE		Р	HASIN	G	
ine#		Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2				Α	В	С	D	Е
605		·															
606																	
607	SUBTOTA	L FOR INTERIOR CONSTRUCTION				End of Trade	13,857,090										
608																	
609																	
610	07. SPECIALT	<u>IES</u>															
611	On a cinking	/Carrierana and															
612	07.1 Specialties	Equipment															
613 614	GML																
615		of O signage and wayfinding signage	27,732	sf	0.46	12,800				3		GML		-		12,800	
616		and replace fire hose cabinets	11	ea	575.00	6,325					5			-		6,325	
617	rtomov	and replace in a need dabinote		- ou	070.00	0,020						OIVIE		-		0,020	
618	HOF																
619		of O signage and wayfinding signage	9,115	sf	0.15	1,400				3		HOF					1,4
620																	
624	Subtotal Sp	ecialties/Equipment					20,525										
625																	
626	SUBTOTA	L FOR SPECIALTIES					20,525										
627																	
628																	
629	08. <u>VERTICAL</u>	TRANSPORTATION															
630	and Electric																
631	08.1 Elevators																
632	CMI																
633	GML Passon	ger elevator, electric, 6 stops, 67' run, assum	0														
634		apacity, 150FPM	1	ea	1,075,000.00	1,075,000					4	GML				1,075,000	
635		allowance	1	ea	45,000.00	45,000					4	GML				45,000	
		n elevator shaft	1	ls	3,000.00	3,000					4	GML				3,000	
636		t, 20' travel in new shaft	1	ea	40,000.00	40,000						GML				3,000	40,00
637 638	LULA III	t, 20 traver in new snart	1	еа	40,000.00	40,000					3	GIVIL					40,00
645	Subtotal El	evators					1,163,000							-			
646	oustota. 2.						1,100,000										
647																	
648	08.2 <u>Stairs</u>																
649																	
650	<u>GML</u>																
651	Terrazz	o Repair	941	sf	19.50	18,350				3		GML				18,350	
652		o Flooring Remaining	556	sf	3.00	1,668		Clean only		3		GML				1,668	
653		Paint Steel	642	sf	6.00					3		GML				3,852	
654	Stone C	leaning	9,422	sf	3.00	28,266		Wall		3		GML				28,266	
655	Clean	•	839	sf	3.00	2,517		Exist.terrazzo floor		3		GML				2,517	
656	Wood F		63	sf	9.00	567				3		GML				567	
657		eplacement	64	sf	35.00	2,240				3		GML				2,240	
665	Clean o	rnamental metalwork and wood handrails	390	lf	265.00	103,350				3		GML				103,350	
666 667	Subtotal St	aire				<u> </u>	160,810										
668	Jubiolai Si	ино					100,010										
669	SURTOTA	L FOR VERTICAL TRANSPORTATION				End of Trade	1,323,810										
670	GGBTGTA	LI ON VERTICAL INAROI ON IATION				_iid oi iiaue	1,523,610							$\rightarrow$			
671														<del></del>	-		
672	09. PLUMBING	ì												-			
673	Jo. I LOMBIN													-			
674	<u>GML</u>													$\rightarrow$			
675		ater piping to be insulated															
676		g to be insulated - cast iron															
677		" Pipe insulation	500	If	24.00	12,000			2			GML		4,800		7,200	
		B" Pipe insulation	500	 If	17.50	8,750			2			GML		3,500		5,250	

0#		D	,	ame						_			_		_
O#		Bronx, ŃY					Estimate							HASIN	
ne#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2	3 4	5	5	Α	В	С	D
79	8" Pipe insulation - exposed?	100	lf	24.00	2,400			2			GMI		960		1,440
30	Remove and replace roof drains	10	ea	1,170.00	11,700			2			GMI	-	4,680		7,020
	Provide access openings - ceiling and wall - 4' x 5' +/-10' on center	100	00	500.00	50,000			2			CM		20.000		30.000
31	+/-10 on center	100	ea	500.00	50,000						GMI	-	20,000		30,000
2	Remove and replace stormwater piping -														
33	Replacement scoped as part of GML Roof project								3		GMI	_			
4	Piping to be replaced - cast iron								3		GMI				
5	Remove existing leaders								3		GMI	-			
6	Dome room only								3		GMI	-			
7	Remove and replace roof drains	6	ea	1,170.00	7,020				3		GMI	-	2,808		4,212
8	Remove and provide new leader piping	300	lf	75.00	22,500				3		GMI	-	9,000		13,500
9	Pipe insulation	300	lf	22.50	6,750				3		GMI	-	2,700		4,050
	Provide access openings - ceiling and wall - 4' x 5'														
0	+ / - 10' on center	12	ea	500.00	6,000				3		GMI	-	2,400		3,600
1	Our and a self-real field of the self-real fi									+-					
2	Separate sanitary and stormwater piping by code									5		-			
3	Extension to exterior sewer  Remove storm piping including house trap - tap									5	GMI	-			
4	into sanitary sewer	1	ls	4,000.00	4,000					5	GMI		1.600		2,400
5	Provide spool for sanitary pipe	1	ext	725.00	725					5		-	290		435
6	Core drill - excavate exterior - link seal	1	ea	3,500.00	3,500					5	_		1,400		2,100
7	Extension of storm exterior	30	lf	150.00	4,500					5	_		1,800		2,700
3	grade	1	ea	3,500.00	3,500					5	_		1,400		2,100
9	Backfill and restoration at excavation	1	ls	1,500.00	1,500					5	GMI	-	600		900
0															
1	Insulate all domestic water piping							2			GMI	-			
2	Domestic water - insulation							2			GMI	-			
3	Provide insulation - all domestic							2			GMI	-			
4	Insulation - 1" thick / code							2			GMI	-			
5	Partial exposed - basement							2			GMI				
6	2 1/2" - 2" Pipe size	400	lf	22.50	9,000			2			GMI		9,000		
7	1 1/2" - 1" Pipe size	500	lf	18.50	9,250			2			GMI		9,250		
8	3/4" - 1/2" Pipe size Allowance to replace domestic piping if lead	800	lf	16.50	13,200			2			GMI	-	13,200		
9	positive	1	ls	82,600.00	82,600					5	GMI				82,600
0	Valve bodies	1	allow	10,000.00	10,000			2			GMI	-	10.000		02,000
1	Chopping - walls and ceiling	48	ea	500.00	24,000			2			GMI		24,000		
2	Chopping toilet rooms	12	ea	500.00	6,000			2			GMI		6,000		
3	- 111 J			333.00	3,000										
	Provide water meter and backflow preventer at														
4	existing water service							2			GMI				
5	Water meter and backflow preventer							2			GMI	-			
6	Provide water meter	1	ea	5,000.00	5,000			2			GMI	-			5,000
7	Provide remote reading device / dep	1	unit	525.00	525			2			GMI	-			525
8	Provide backflow device (RPZ)	1	unit	5,200.00	5,200			2			GMI	-			5,200
9	Permits and filing - DEP - testing	1	allow	750.00	750			2			GMI	-			750
0	Piping 'L' Copper Soldered:							2			GMI	-			
1	Main at service	20	lf	95.00	1,900			2			GMI	_			1,900
2	House valve - flanged	1	ea	1,250.00	1,250			2			GMI				1,250
3	Pipe insulation	20	lf	25.00	500			2			GMI				500
4	Level 01 women's toilet room, 75 sf	75	sf	160.00	12,000					5					12,000
5	Drinking fountain allowance	1	ls	32,000.00	32,000					5					32,000
_	Plumbing allowance - Miscellaneous equipment	1	15	32,000.00	32,000					- 0	الااف	-	+ +		52,000
6	repairs	1	ls	40,000.00	40,000				4		GMI	-			40,000
	At areaways - remove and replace existing drains and														
7	clean out drain lines Plumbing materials delivery/staging/access to Priority	11	ea	1,500.00	16,500	Fi	rom Landscaping		3		GMI	-			16,500
		i l						1	1 1	- 1	1	1	1		

	Construction Cost Consultants.  Gould Memori	ial Library o Bronx, NY		Fame			March 15, 2018 Estimate		I O R	ΙΤΥ	CODE		P	HASIN	G	
Line#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1	2 3	4	5	Α	В	С	D	Е
	Plumbing materials delivery/staging/access to Priority				· ·											
732	3 work	1	ls	5,000.00	5,000				3		GML			5,000		
700	Plumbing materials delivery/staging/access to Priority 4 work	1	lo	F 000 00	5,000					4	0.41				5,000	
733	Plumbing materials delivery/staging/access to Priority		ls	5,000.00	5,000					4	GML				5,000	
734	5 work	1	ls	5,000.00	5,000						5 GML				5,000	
				,											,	
735	LANDOGADING															
739	LANDSCAPING  At Historic Fountain, reenergize with flowing water															
	(LE14), add mechanical and below ground water															
	storage tanks- a new water supply line from the															
740	building	1	loc	30,000.00	30,000						5 LAND					30,00
741																
742	SUBTOTAL FOR PLUMBING				End of Trade	464,520										
743																
744										I						
745	10. <u>HVAC</u>															
746																
747	<u>GML</u>															
	Insulate all steam and condensate piping - some pipes	S														
748	are insulated already								3		GML					
749	Pipe insulation - partial insulated								3		GML					
750	New pipe insulation per NYC code								3		GML					
751	4" - 3" Pipe size - 2 1/2" thick	400	lf	25.00	10,000				3		GML		4,000		6,000	
752	2" - Less Pipe size - 2" thick	400	lf	20.00	8,000				3		GML		3,200		4,800	
753	Valve bodies	1	allow	1,750.00	1,750				3		GML		700		1,050	
754	Chopping patching - walls and ceiling	10	ea	250.00	2,500				3	_	GML		1,000		1,500	
755	enopping patering traile and coming			200.00	2,000				Ť				1,000		.,000	
	Abate poison ivy around Auditorium's exterior															
	condensers and obviate exterior condensers by															
756	connecting to campus chilled water system								3		GML					
757	Auditorium - Exterior Air Cooled Condenser								3		GML					
758	Blocked by plantings								3		GML					
	Open and clear all plantings at air cooled															
	condenser - cut back all plantings - branches -															
759	5' + as required	1	ls	950.00	950				3		GML		380		570	
760																
761	Add duct silencers to Auditoriums interior air handlers										5 GML					
762	Auditorium - Air Handling Unit										5 GML					
763	Noise considerations										5 GML					
	Remove existing wrap on AC-unit and roof															
764	mounted ductwork and pred for new treatments	1	ls	2,250.00	2,250						5 GML				2,250	
	Remove ductwork - supply and return as														_	
765	possible - 30' as indicated on roof	800	lbs	4.50	3,600						5 GML				3,600	
766	New Scope										5 GML				0:	
767	Ductwork - flanged	1,250	lbs	17.50	21,875						5 GML				21,875	
768	2" Thick sound lining	500	sf	8.00	4,000						5 GML				4,000	
	Exterior insulation - weather proof metal			2.5-											4.500	
769	jacketed	500	sf	9.00	4,500				-		5 GML				4,500	
	Exterior insulation - weather proof metal	450		0.50	4 465										4 405	
770	jacketed - air handler	150	sf	9.50	1,425						5 GML				1,425	
771	Balance and adjust A.H.U reports	1	ahu	1,200.00	1,200	-					5 GML				1,200	
772	Provide cooling strategy to much of the building,				-	-					+++					
773	including GML rotunda and stacks										5 GML					
774	Air Conditioning Provisions										5 GML					
775	Presently - Unconditioned										5 GML					
776	Provide cooling strategy										5 GML					

O.	ELLANA Construction Cost Careultants.  Gould Memoria	al Library Bronx, NY		Fame			March 15, 2018 Estimate	PRIORIT	Y	со	DE		PHASI	N G
_ine#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2 3	4	5		Α	в с	D E
777	New Scope									5	GML			
778	2 Pipe fan coil units - filters									5	GML			
79	Multi - speed - condensate drip pan	40	ea		See item below					5	GML			below
80	Air cooled chiller - 120 T.R.	1	ea		See item below					5	GML			below
81	Chilled water pumps	2	ea		See item below					5	GML			below
82	Ductwork - insulated - devices - specialties	1	allow		See item below					5	GML			below
		1								5				below
83	Steam heat exchanger Steam from building network to HX	1	ea		See item below					5	GML			below
84	3	1	unit		See item below						GML			
85	Condensate pump - if required	1	ea		See item below					5	GML			below
86	Automatic controls - ATC - BMS - DDC	1	bms		See item below					5	GML			below
87	Piping 'L' Copper Soldered		.,							5	GML			
88	4" - 2" Pipe size with insulation	400	lf		See item below					5	GML			below
89	1 1/2" - 1" Pipe size	2,000	lf		See item below					5	GML			below
90	3/4" - Less Pipe size	3,000	lf		See item below					5	GML			below
91	Valving and specialties - pumps, etc.	1	ls		See item below					5	GML			below
92	Condensate drip piping	800	lf		See item below					5	GML			below
93	Related electrical	1	ls		See item below					5	GML			below
94	Chopping patching walls and ceiling	40	loc		See item below					5	GML			below
95	Core drill - fire sealing	1	ls		See item below					5	GML			below
	Balance - adjustments - reports -		·											See item
'96	miscellaneous	1	ls		See item below					5	GML			below
97														
	Provide heating and cooling systems including													
98	allowances for proper ventilation at exterior fabric									5	GML			
99	Presently - Unconditioned									5	GML			
00	Provide heating - cooling - ventilation systems									5	GML			
01	New Scope									5	GML			
02	4 Pipe fan coil units - filters - multi speed	40	ea	3,100.00	124,000					5	GML			124,000
03	Controllers									5	GML			
04	Air cooled chiller - 120 T.R.	1	ea	120,000.00	120,000					5	GML			120,000
05	Chilled water pumps	2	ea	12,500.00	25,000					5	GML			25,000
06	Minimum outside air HVAC air handler	15,000	cfm	9.50	142,500					5	GML			142,500
07	Ductwork - insulation - devices - specialties	1	allow	470,000.00	470,000					5	_		317,413	152,587
101	Steam heat exchanger - steam from building		allow	47 0,000.00	470,000					-	CIVIL		017,410	102,001
808	system	1	set	21,000.00	21,000					5	GML			21,000
109	Condensate return pump	1	set	8,100.00	8,100					5	GML			8,100
	Automatic controls - ATC - BMS - DDC	1	bldg	200,000.00	200,000					5	GML			200,000
310	Piping 'L' Copper - soldered and Sch. 40 CS,		blug	200,000.00	200,000					ა	GIVIL			200,000
311	Blk.									5	GML			
12	4" - 2 1/2" Pipe size with insulation	500	If	100.00	50,000					5	GML		33,767	16,233
	2" - 1" Pipe size with insulation	3,500	If	75.00	262,500					5	GML		177,278	85.222
13	·	· · · · · · · · · · · · · · · · · · ·	••								_		· · · · · · · · · · · · · · · · · · ·	,
14	3/4" - 1/2" Pipe size	4,000	lf In	55.00	220,000						GML		148,576	71,424
15	Valving and specials	1	ls .	35,000.00	35,000						GML		23,637	11,363
16	Piping at pumps, HX AHU	1	ls	20,000.00	20,000					5	GML		13,507	6,493
17	Condensate drip piping	800	lf	31.00	24,800						GML		16,749	8,051
18	Related electrical	1	ls	180,000.00	180,000						GML		121,562	58,438
19	Chopping, patching - walls - ceiling	1	ls	20,000.00	20,000					5	GML		13,507	6,493
	Balance - adjustments - reports,													
20	miscellaneous	1	ls	52,500.00	52,500					5	GML			52,500
21														
22	New single use toilet room - complete hvac items	120	sf	35.00	4,200				4		GML		4,200	
23	Operable vents for smoke release and smoke purge	1	ls	250,000.00	250,000				4		GML		250,000	
24	Deduct for HOF portion	(1)	ls	1,114,800.00	(1,114,800)					5	GML			(1,114,800)
	HVAC materials delivery/staging/access to Priority 3	\ /		. ,										
25	work	1	ls	5,000.00	5,000			3			GML		5,000	)
	HVAC materials delivery/staging/access to Priority 4	I . T			<u> </u>				_ ]					
26	work	1	ls	5,000.00	5,000				4		GML		5,000	
27	HVAC materials delivery/staging/access to Priority 5 work	1	ls	10,000.00	10,000					E	GML			10,000

	Struction Cost Carsu bants. Gould Memoria	al Library 8 Bronx, NY	& Hall of	Fame			March 15, 2018 Estimate	PR	IOR	RITY	CODE		PHASI	N G	
Line#	Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes			3 4		A B	C	D	Е
829	HOF														
830	Provide cooling strategy to HOF rooms	1	ls	1,114,800.00	1,114,800						5 GML				1,114,80
	HVAC materials delivery/staging/access to Priority 5 work	1	la.	20,000,00	20,000						5 0.0				20.00
831	WOLK	1	ls	20,000.00	20,000						5 GML				20,00
832	LANDSCAPING														
	LANDSCAPING														
834	Relocate existing mechanical equipment away form														
	building at fencing element assessment, rehabilitated														
835	or removed (LE1-LE5)	5	loc	3,500.00	Deleted		Allow - MEP's only				5 LAND				
836															
837	SUBTOTAL FOR HVAC				End of Trade	2,331,650									
838															
839															
840 <b>11.</b>	FIRE PROTECTION														
841															
842	<u>GML</u>										GML				
843											GML				
	Provide water meter and backflow preventer to														
344	existing fire water service Fire Service								2		GML				
345									2		GML				
346	Meter and RPZ Protection	1		F 400 00	F 400				2		GML			F 400	
347	Provide fire meter		ea	5,100.00	5,100				2		GML			5,100	
348	Provide RPZ  Remove fire service pipe	1	ea	6,100.00	6,100 750				2		GML			6,100 750	
349	Provide house valve	1	ls	750.00 975.00	975				2		GML GML			975	
350	Provide riouse valve  Provide filing - fee tests / NFPA	1	ea	625.00	625				2					625	
351		2	ls	625.00	1,230				2		GML GML			1,230	_
852	Provide spool piping	2	sect	615.00	1,230				2		GML			1,230	
853	New single use toilet room - complete fire										GML				
854	protection items	120	sf	10.00	1,200					4	GML	1:	200		
355	protoction nome		<u> </u>	10.00	.,200						02	.,,			
356	Siamese access								2		GML				
	Remove hoses and elecrical cords hanging on fire														
857	department connection  Remove all debris hanging on fire department								2		GML				
858	Siamese and meter box	1	ls	500.00	500				2		GML		500		
859	Provide signage at fire department device	1	ea	750.00	750				2		GML		750		
860	1 Tovide signage at the department device	•	Cu	700.00	700				_		GIVIE		30		
	HOF														
362															
502	Provide sprinkler heads in sub-basement and HOF														
363	rooms								2		HOF				
				1											
364	Floor control assembly 3" size			1	<del>  </del>		-		2	-	HOF				1
	Provide sprinklers including pipe, fittings, supports,														
965	heads, shop drawings, approvals, tests, clean up and								2		HOF				
365 366	debris removal:			+					2		HOF				+
366	Heads - Hall of Fame	95	hds	500.00	47,500				2	-	HOF				47,50
367	Heads - basement - general	110	hds	450.00	49,500				2		HOF				49,50
368	Pipe - loop 3" pipe size	620	lf	80.00	49,500				2		HOF				49,5
	Ceiling work	1	ls	15,000.00	15,000				2		HOF				15,0
370	Ocinity work	1	15	10,000.00	13,000				_		HUF				15,00
371 372	LANDSCAPING			+	<del></del>										+
				+					2		1 4415				
373	Siamese vicibility not proper			+			-		2	-	LAND				
74	Siamese visibility not proper	1	la.	E00.00	500				2	+	LAND				_
75	Remove all plantings adjacent to Siamese	1	ls	500.00			-			-	LAND				5
76	Provide signage at Fire Department Siamese	1	ea	750.00	750				2		LAND				7:
377 378	CURTOTAL FOR FIRE PROTECTION			+	Food of Total	400.000					+				
	SUBTOTAL FOR FIRE PROTECTION				End of Trade	180,080									

		al Library Bronx, NY	& Hall of F	ame		March 15, 2018					DF	PHASING					
Line# Description		•				Subtotal Trades	PRIORITY CODE 1 2 3 4 5				Α	В.	D	E			
80								Notes			I				С		
31	12.	ELECTRICAL															
32																	
83		<u>GML</u>															
84		Remove and replace MDP-12 switchboard	1	ea	35,185.00	35,185			3			GML				35,185	
		Remove and replace existing distribution boards	_		7.050.00	22.752										00.750	
85		(225A)	5	ea	7,350.00	36,750			3	_		GML				36,750	
86		Add more receptacles throughout	250	ea	655.00	163,750				4		GML				163,750	
87		Add more distribution panels to support additional receptacles (100A)	4	ea	8,548.80	34,195				4		GML				34,195	
		Receptacle in the Rotunda is not supported properly and is only supported by a conduit. Provide properly supported receptacles in a historically sensitive	4		740.00	740						0.41		740			
88		manner	1	ea	740.36	740			2			GML		740			
389		Provide covers at exsiting wall mounted junction boxes in balcony area	1	ls	150.00	150			2			GML		150			
90		Remove abandoned electrical fixtures	150	ea	150.00	22,500				4		GML				22,500	
91		Replace fixtures at above item	150	ea	850.00	127,500				4		GML				127,500	
92		GML offices - replace office lighting with new modern energy efficient LED lighting fixtures	1	ls	5,000.00	5,000					5	GML				5,000	
93		GML offices - replace Period office lighting with custom upgraded to LED fixtures	1	ls	10,000.00	10,000					5	GML				10,000	
94		GML stacks - replace lighting with new energy efficient LED lighting fixtures to meet codes and to suit luminosity required by type of use	1	ls	22,500.00	22,500			2			GML					22,
			1	ls	1,250.00	1,250			2			0.11		1,250			
95		Connect exterior exit lighting to the emergency system	120		,	4,200				_		GML		4,200			
96		New single use toilet room - complete electrical items	120	sf	35.00	4,200				4		GML		4,200			
97		Provide historically appropriate lighting and remove existing fixture	32	loc	1,200.00	38,400		Allow		4		GML		38,400			
98		Fire alarm system at Rotunda - allowance	1	allow	250,000.00	250,000		Engineers allowance	3			GML		250,000			
50		Rotunda fire protection/fire purge -		anon	200,000.00	200,000		Linginooro allo warioo				OWL		200,000			
99		Detection/Annunciation/Smoke Containment	1	allow	47,500.00	47,500			3			GML		47,500			
000		Clean/restore/rRewire and relamp historic fixtures	4	ea	1,700.00	6,800				4		GML			6,800		
01		Laylight work							3			GML					
02		Laylight lighting allowance LEDs	400	sf	160.00	64,000				4		GML				64,000	
03		Tel/com system including main and intermediate distrubution frame - allowance Security system - including head end equipment -	37,933	sf	8.00	303,464					5	GML				151,732	151,7
04		allowance	37,933	sf	6.50	246,565					5	GML				123,282	123,2
05		HOF	0.,000	<u> </u>	0.00	2 10,000					_	O.I.I.E				.20,202	.20,2
06		Ambulatory - restore existing lighting fixtures and convert all fixtures to LED lighting	20	ea	1,200.00	24,000				4		HOF			24,000		
		Conceal security camera wiring within structure and			,	7.2.3									•		
07		remove conduit	1	ls	350.00	350				4		HOF			350		
		Bring 480 volt service from the campus wide network.															
808		New switchboard at 480/277 volts, 800 amps to power new equipment	1	ls	45,199.00	45,199					5	HOF				45,199	
009		New transformer to power existing switchboard	1	ea	11,330.00	11,330						HOF				11,330	
10		New fire alarm system at exterior location	1	ls	8,876.00	8,876			1			HOF				8,876	
		Provide historically appropriate lighting and remove			2,270.00	3,5. 3										2,5.0	
11		existing fixture	55	loc	1,200.00	66,000		Allow		4		HOF				66,000	
12		Lighting to spaces	9,115	sf	9.00	82,035		Allow		4		HOF				82,035	
		Tel/com system including main and intermediate															
13		distrubution frame - allowance Security system - including head end equipment -	9,115	sf	8.00	72,920					5	HOF				36,460	36,
14		allowance	9,115	sf	6.50	59,248					5	HOF				29,624	29,
15		G. 6. 7. G. 100	5,110	J1	0.00	55,240						1.01				20,024	20,
19		SUBTOTAL FOR ELECTRICAL				End of Trade	1,790,407						180.500	1,810,054	9,103.128	13,236,117	6,787
20							.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						Α	В	C	D	5,757, E

CELLANA Construction Cost Consultants.	Gould Memorial Library		-ame			March 15, 2018			<b>.</b> ., .				<b>.</b>	_	
	Bronx, NY		An			Estimate		_		-			PHASIN		
ne# Description	Quantity	Unit	\$/Unit	Total \$	Subtotal Trades	Notes	1 2	3	4	5	Α	В	С	D	E
22															
23 13. <u>Stair Alternate</u>															
124															
25 GML	02 to 00)	flt-	7,000,00	40.000						0141				42.000	
Remove existing stairs (floors	900 s 03 to 06)	flts sf	7,000.00	42,000 117,000						GML				42,000 117,000	
Reframe existing openings Add glass floors	900	sf	250.00	225,000						GML GML				225,000	
Delete upgrade to stair walls	(3,462)	sf	9.10	(31,500)						GML				(31,500)	
New stairs, stone treads and		flts	35,000.00	210,000						GML				210,000	
New stair enclosures	3,462	sf	20.00	69,230						GML				69,230	
Add plaster finishes at outter		sf	12.00	41,538						GML				41,538	
Add ceiling enclosure below s	-, -	sf	25.00	22,500						GML				22,500	
Door and frame - complete	6	ea	2,500.00	15,000						GML				15,000	
MEPs	900	sf	36.00	32,400						GML				32,400	
Miscellaneous build-outs	1	ls	5,000.00	5,000						GML				5,000	
137															
SUBTOTAL FOR Stair Alternate				End of Trade	748,168										
39															
140															
14. Option to Replace GML Cornice, I	Priority 3 - Phase C														
142															
43 <u>GML</u>															
Replace existing cornice, 3'-4	" h. 360	lf	2,800.00	1,008,000				3		GML			1,008,000		
145															
SUBTOTAL FOR Option to Replac	ce GML Cornice, Priority 3 - Phase	<u>e C</u>		End of Trade	1,008,000										

