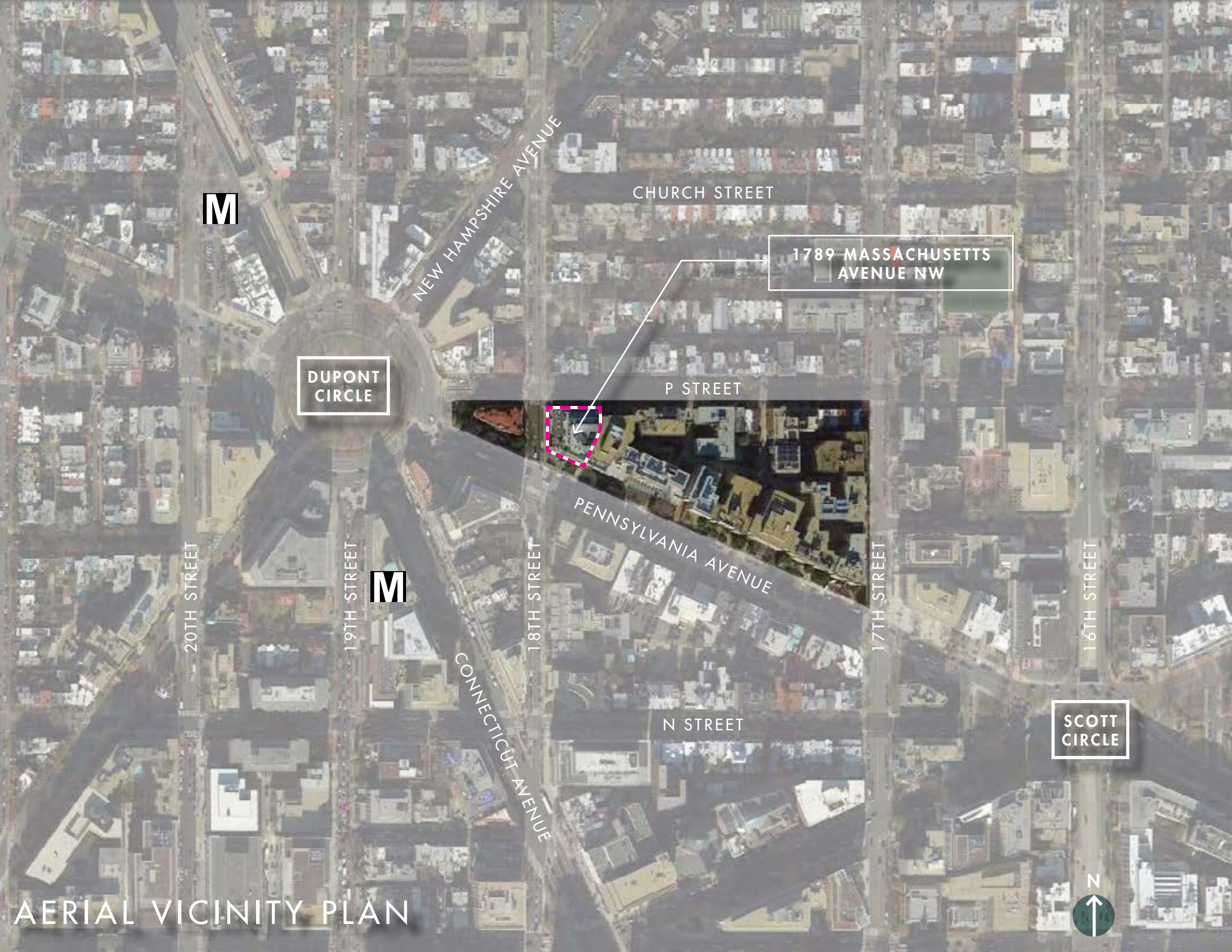
AMERICAN ENTERPRISE INSTITUTE

washington, dc

1789 MASSACHUSETTS AVENUE



AERIAL VICINITY PLAN

BUILDING HISTORY

Designed by Jules H. de Sibour to complement the Beaux-Arts neighborhood, the McCormick Apartments at 1789 Massachusetts Avenue NW was constructed in 1915–1916. The building served as luxury apartments to several distinguished residents including Andrew W. Mellon during the time he served as Secretary of the Treasury (1921-1933) and while developing the National Gallery of Art (1933-1937).

By 1941, the residents moved out of the building and it was converted to office use – first for the British Purchasing Commission and most recently as the home of the National Trust for Historic Preservation. The building was listed on the DC Inventory of Historic Sites in 1964 and placed on the National Register for Historic Places in 1972. The Fifth Floor Mellon Apartment was added to the National Register in 1973 and the building was designated a National Historic Landmark in 1976.

The building, which continues to be used as an office building, was renovated beginning in the fall of 2013. The exterior was cleaned and remains unchanged except for minor additions noted below. The main stair and the perimeter rooms on every floor remain intact as do most of the interior corridors. Interior areas that had already been altered were modified for elevators, mechanical spaces, and restrooms.

The National Trust for Historic Preservation (NTHP) retains a perpetual historic easement on the property. All modifications within the protected area require review and approval of the NTHP.

◀ View of southwest facade from 21st Street

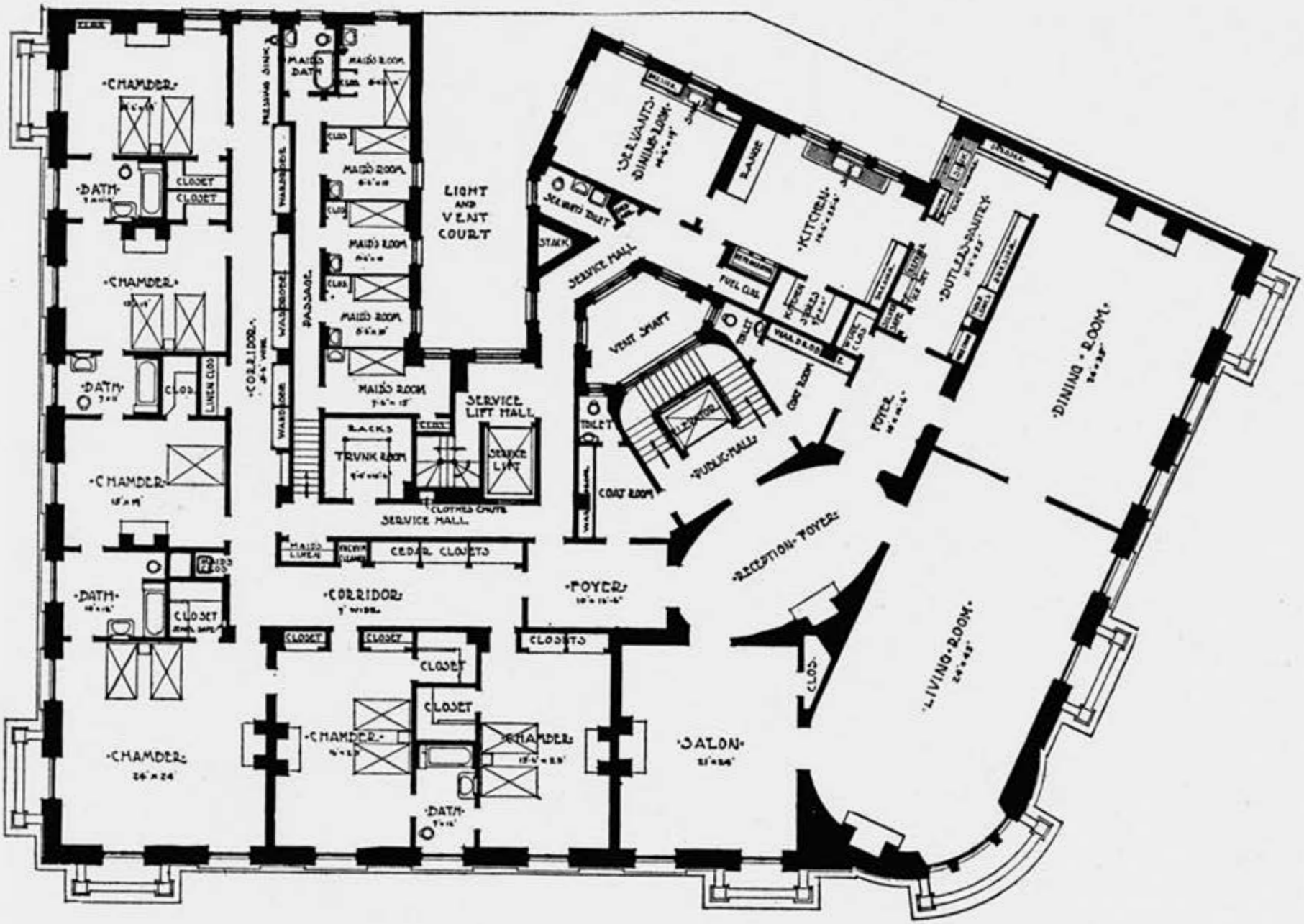


FIG. 131.—TYPICAL FLOOR PLAN—APARTMENT HOUSE AT 1785 MASSACHUSETTS AVENUE, WASHINGTON, D. C.
J. H. De Sibour, Architect.

PROJECT DESCRIPTION

The American Enterprise Institute (AEI), a public policy nonprofit organization, was looking for a new home, one that would fulfill their space needs, but also be conveniently located and provide an image appropriate to the Institute. 1789 Massachusetts was purchased from the National Trust for Historic Preservation in 2013. It was in need of a complete renovation including new mechanical, electrical, plumbing and fire protection systems, new elevators, and exterior rehabilitation.

As part of the sale, AEI agreed that the National Trust would hold an easement on much of the building. These areas included not only the three street facades, but also the perimeter rooms and connecting corridor on every floor. The interior spaces covered by the easement were left largely intact; walls, doors, and trim have been retained and rehabilitated. The design and construction was monitored by the Trust on a regular basis. The rehabilitation has received approval for receipt of Federal Historic Preservation Tax Incentives.

Working with a team of architects and engineers, AEI created a plan to incorporate their program including office space, an auditorium, a dining room and commercial kitchen, conference facilities, video and radio studios, and a rooftop terrace amenity into the historic building. The total area of the building is about 90,000 sf. including two below grade levels.

◀ View of southwest facade from Massachusetts Avenue

WHAT WE DID

EXTERIOR REHABILITATION WORK

- Masonry cleaning, repointing and repair, retention of original glass, and ornamental metal repair and painting;
- Window repair, weather stripping and painting;
- Metal mesh infill of the historic cast iron railings at areaways.

EXTERIOR MODIFICATIONS

- New accessible entrance on P Street including new granite stair, metal guardrail and lift;
- Infill of notch at private alley for stair and elevators;
- One story addition in private alley for kitchen;
- Expansion of mechanical penthouse including interior common space;
- Roof terrace with guardrail.

INTERIOR ALTERATIONS

- Excavation for a new lower level (G2) approximately 14 feet below the original Basement Floor level;
- Selective removal of floor systems to create two new elevator shafts within the existing floor structure and removal of enclosed elevator shaft in center of monumental stair;
- Removal of mezzanine levels to create consistent floor plates at each level.
- Design of interiors to retain spatial quality of rooms and original ceiling design.

◀ Upper story details at South Facade

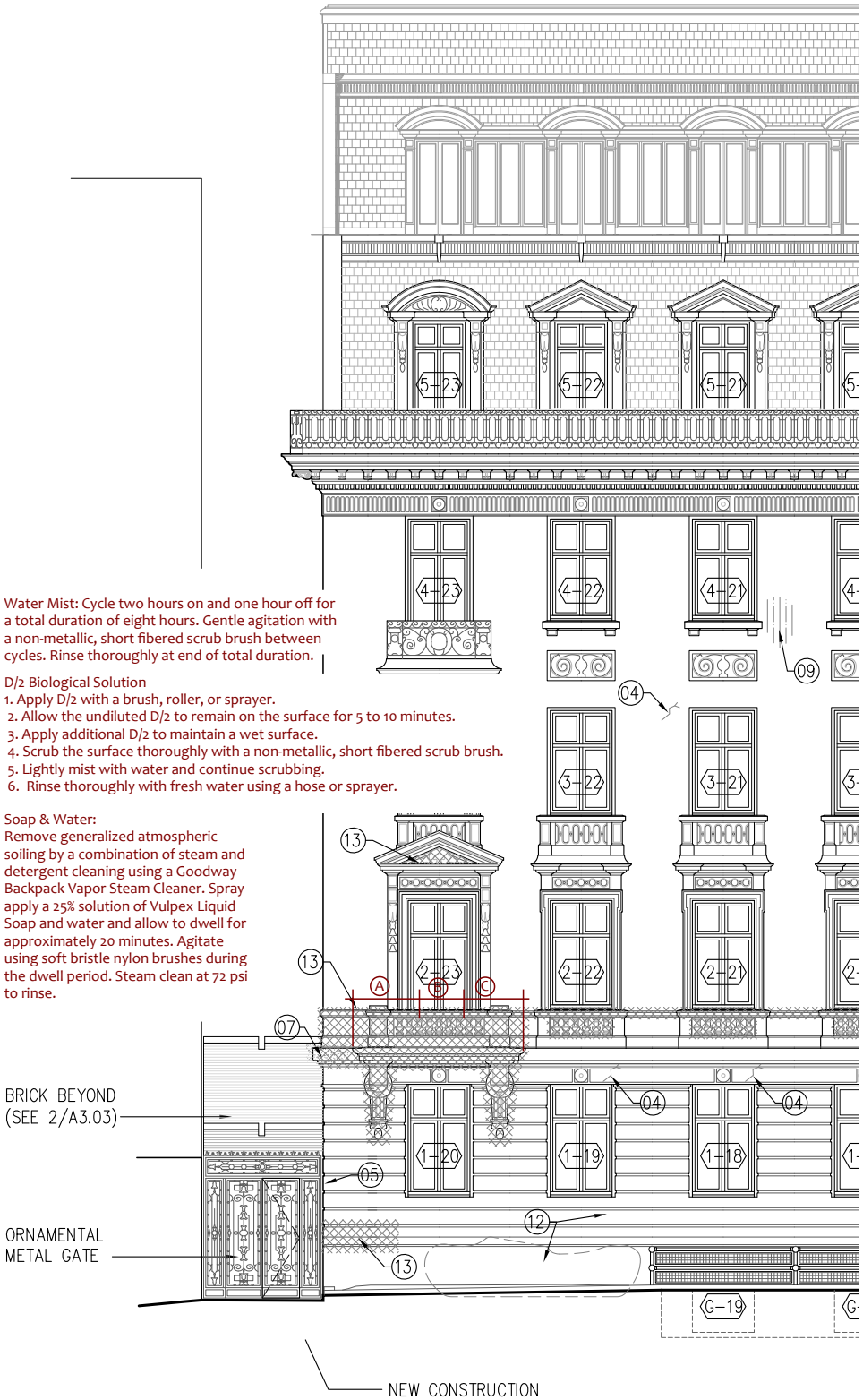
EXTERIOR REHABILITATION WORK

Much of the building's facade was in good condition with a few exceptions: cracks at window heads, chipped or spalled limestone, inappropriate patching material from previous damage repair, and joints that needed repointing. All of this repair was performed on the limestone facade, granite base, and brick masonry on the alley side of the building. Additionally, the casement windows were refurbished including painting, weatherstripping, wood repair, and the original glass was retained and reglazed. Metal windows were replaced with new insulated windows and security bars at the ground floor were removed and granite was repaired where those connections used to be. The profiles of the original windows were maintained as closely as possible.

Limestone spalling before construction and after repair.

Ground floor metal windows before construction and after replacement with new insulated lites and removal of security bars.

Casement window before construction and after restoration including painting, weatherstripping, and wood repair.



▲ before cleaning

▲ after cleaning

STONE CLEANING

The exterior facade of the building is limestone veneer with rusticated first floor and dressed limestone at the second through fourth floors with carved window and door surrounds. Projecting balconies at the second floor have a limestone balustrade that needed cleaning. Samples of cleaning regimens were prepared and tested to determine the most effective, least intrusive means including steam cleaning, mist, hot water, and cold water with soap.

◀ sample cleaning direction by architect

ACCESSIBLE ENTRANCE

The existing main entrance at Massachusetts Avenue and 18th Street was not accessible. After studying several options, we created a new accessible entrance on P Street to align with the main north/south corridor. One existing window was converted into a new door by lowering the sill of the window to floor level and installing a lift that transports individuals from sidewalk level to the First Floor level. This solution avoids adversely affecting the appearance of the main entrance to the building.

The design of the door respects the window pattern and the landing was supported independently of the existing building so as to be reversible in the future if necessary.

▲ existing P Street elevation prior to construction

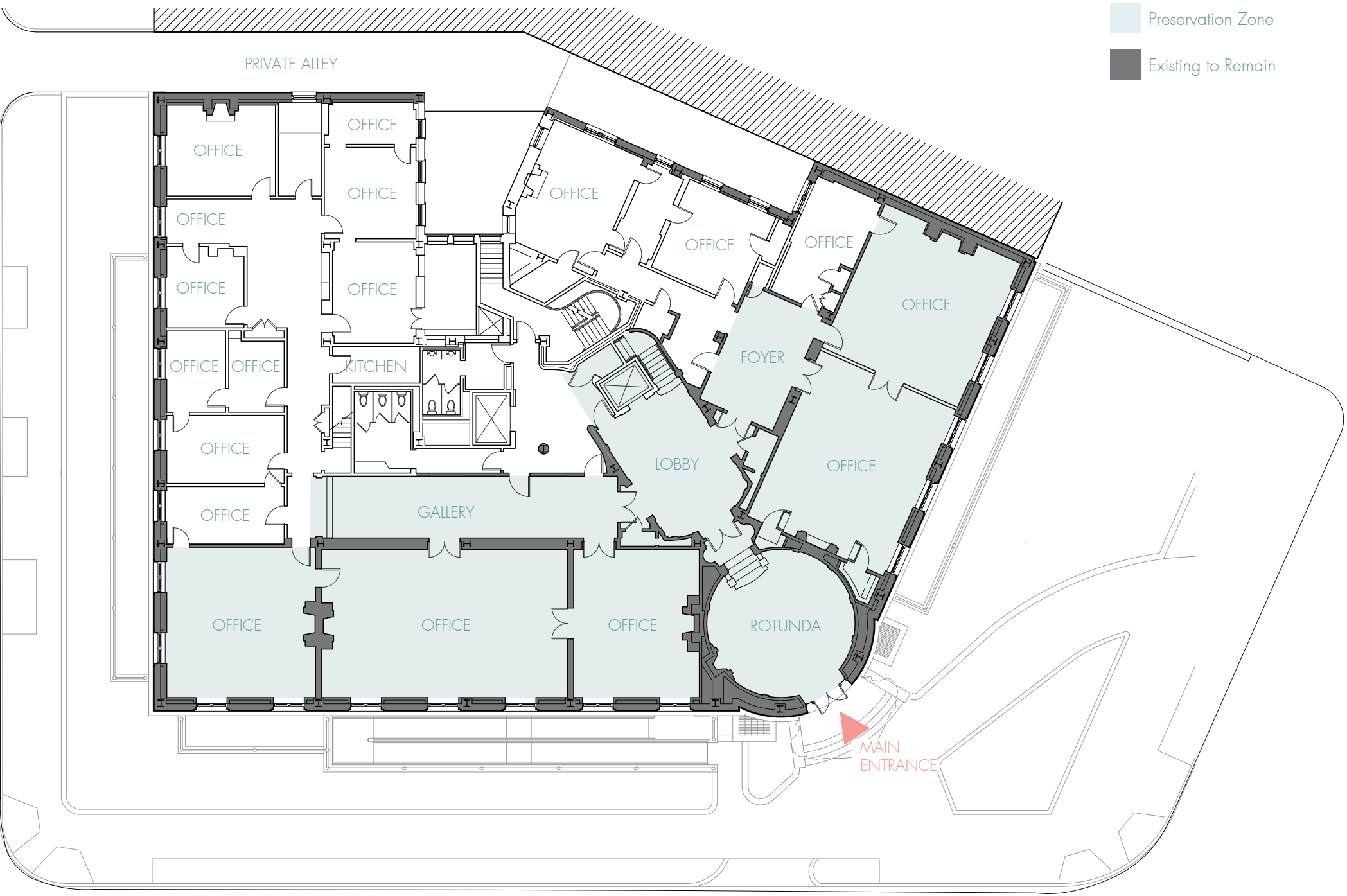
◀ new accessible entrance including granite stair, metal guardrail, & lift

MAIN ENTRANCE

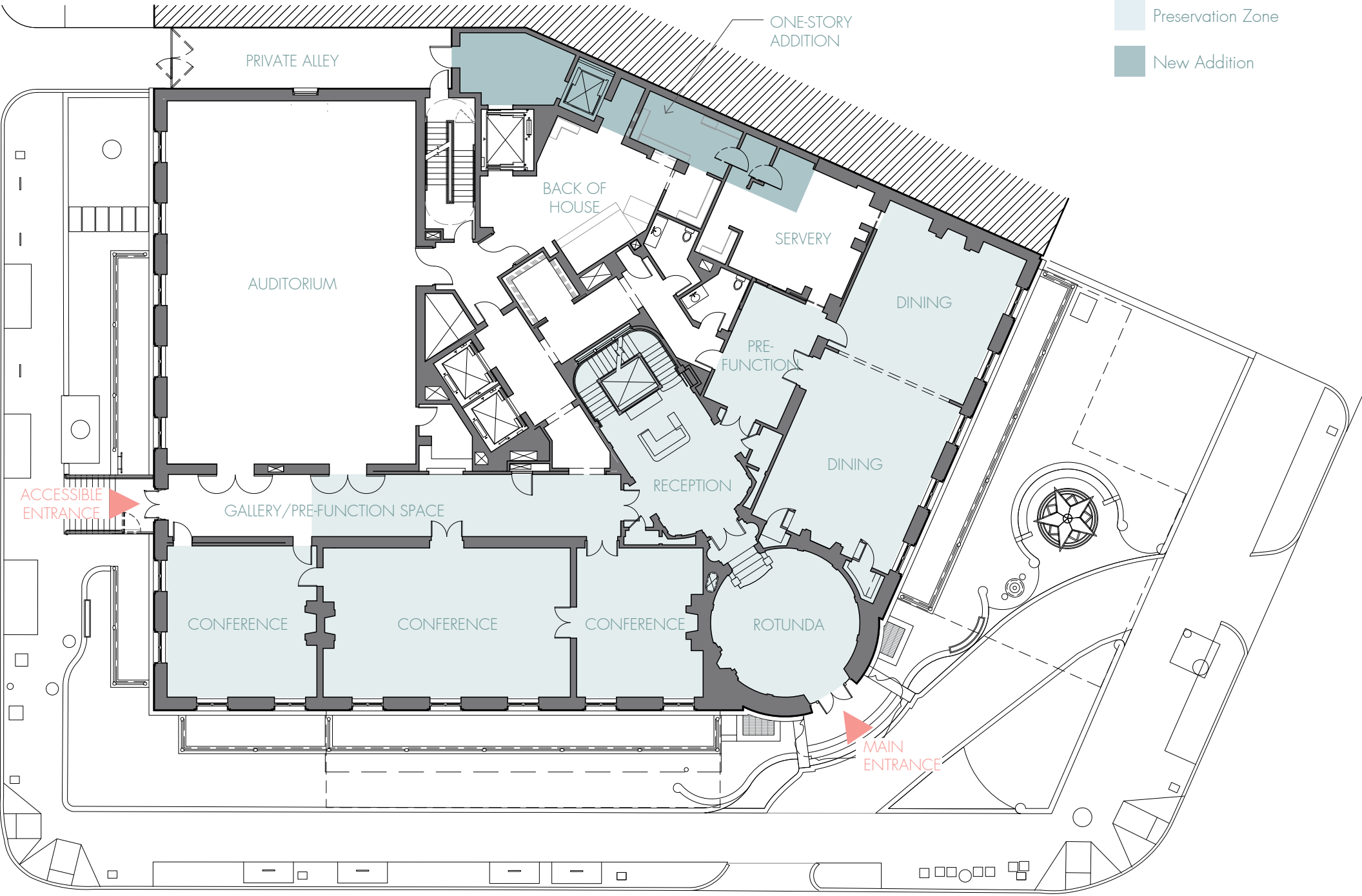
The decorative wrought-iron and glass canopy signals the entry to the building. It was in fair condition, however had broken glazing and the supports were deteriorating. Damaged or broken glazing was repaired/replaced in-kind and the metal was stripped and repainted. The structural integrity of the canopy supports was restored with new metal that matched the original profile.

▲ before construction

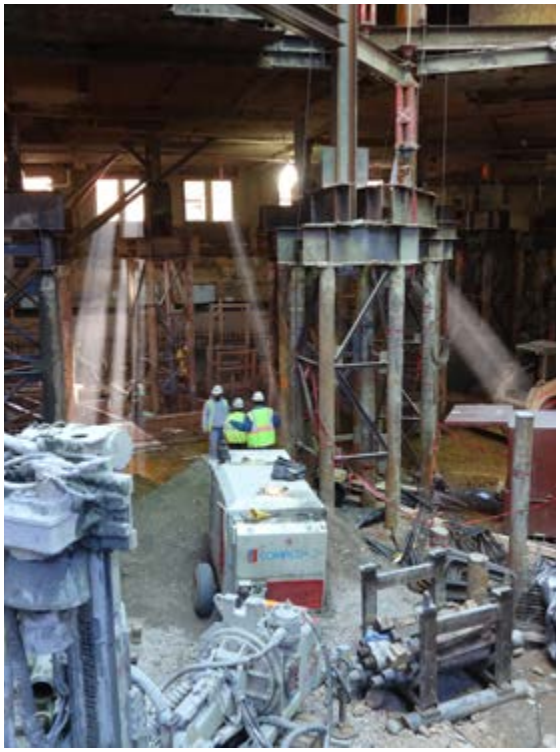
◀ after construction

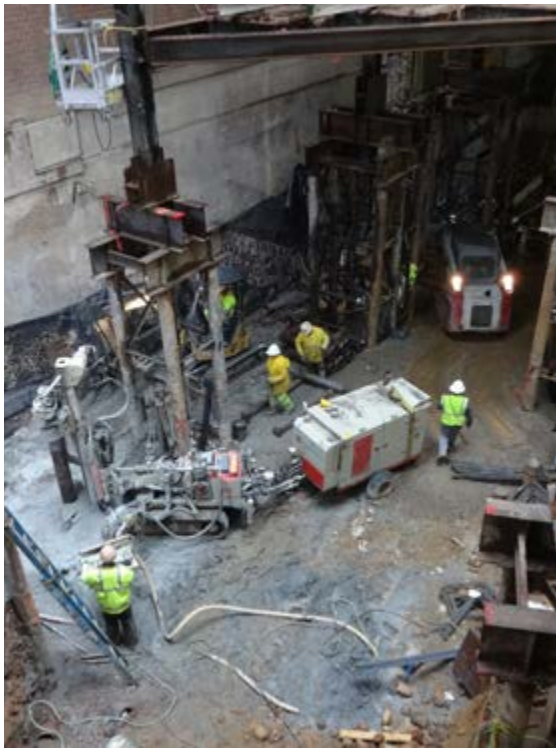


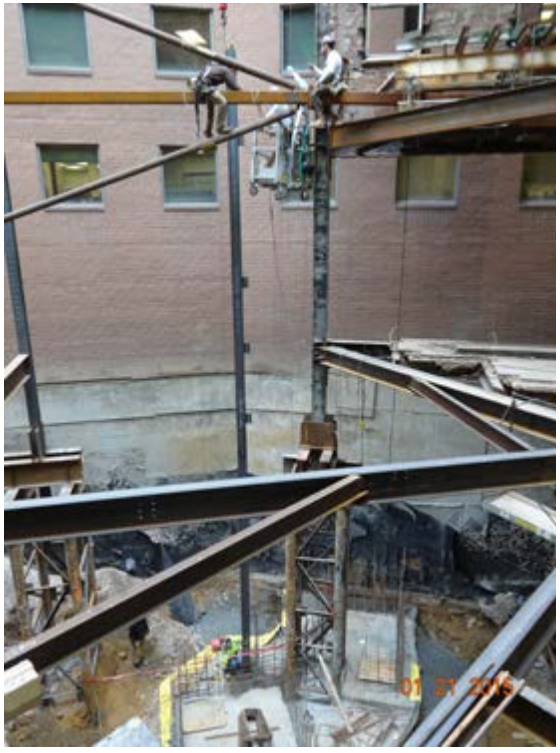
FIRST FLOOR PLAN (EXISTING)



FIRST FLOOR PLAN (NEW)



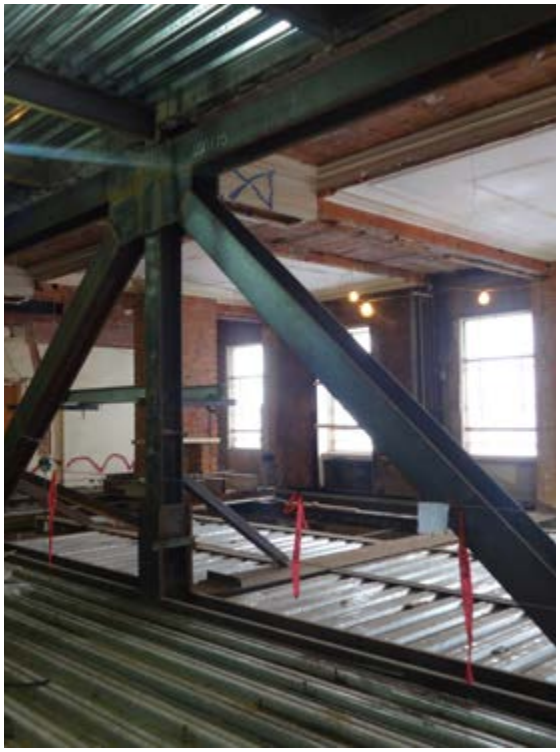




STRUCTURAL COMPLEXITY

To accommodate the AEI program on the constrained lot, we first constructed a new level below the entirety of the existing building. This was done by underpinning all of the structural columns and exterior walls, digging down to the new level, and constructing new foundations and the new floor and walls. By design, only a de minimis amount of settlement occurred (less than planned) and we avoided cracking the facades and walls.

◀ during construction (photos courtesy of contractor)



STRUCTURAL COMPLEXITY

As we began to renovate the building, we found that much of the steel structure was not of the size indicated in the original design documents. To meet code and support the new mechanical penthouse, many of the columns had to be reinforced by painstakingly welding plates on to the existing steel. This, of course, required carefully removing asbestos plaster in those areas.

◀ during construction (photos courtesy of contractor)

Hot water radiators replaced with variable refrigerant flow fan coil units to provide room temperature control and minimize outside air.

Mantles and fireboxes were cleaned and regrouted as required. Loose pieces were attached or pinned.

INTERIOR ALTERATIONS

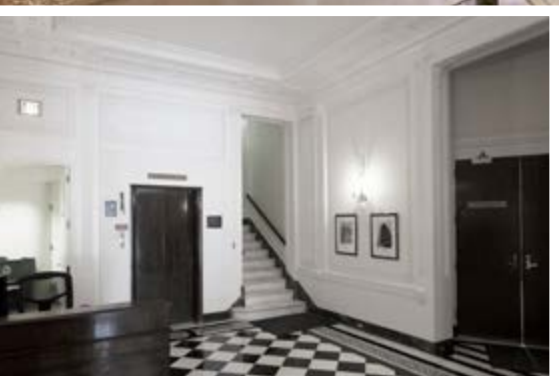
Rehabilitation of historic details throughout the mansion was a priority including: marble flooring, bases, and plinths; wood flooring; plaster ceilings and walls; decorative cornices and moldings; raised panel wood doors and hardware; mantles and fireboxes. As much as possible these details were retained. Cleaning, repairing, and replacing missing pieces as appropriate resulted in rehabilitated spaces highlighting their original detailing and architectural character.

The existing marble flooring was retained, cleaned, and regrouted. Loose pieces were also reattached.

Herringbone White Oak flooring was retained, cleaned, repaired, or replaced in-kind, and refinished.

Decorative plaster ceilings retained to extent possible. Repaired, patched, and painted. Molds made from existing to cast missing plaster elements.

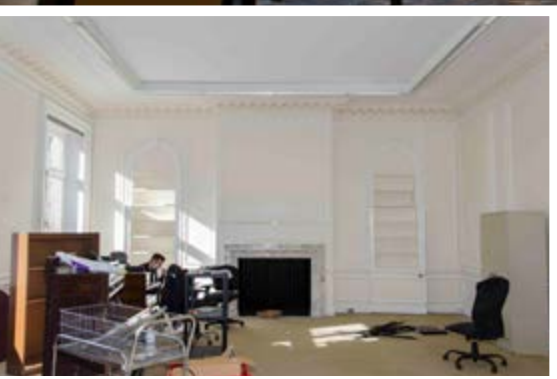
Wood panel door were cleaned and restored. Hardware was retained unless required to be modified to meet code or accessibility.



▲ before construction

▲ after construction

RECEPTION & STAIRS



▲ before construction

▲ after construction

DINING ROOM

▲ before construction

▲ after construction

FIRST FLOOR CONFERENCE ROOM

▲ before construction

▲ after construction

LIBRARY

▲ before construction

▲ after construction

NEW AUDITORIUM

MONUMENTAL STAIR

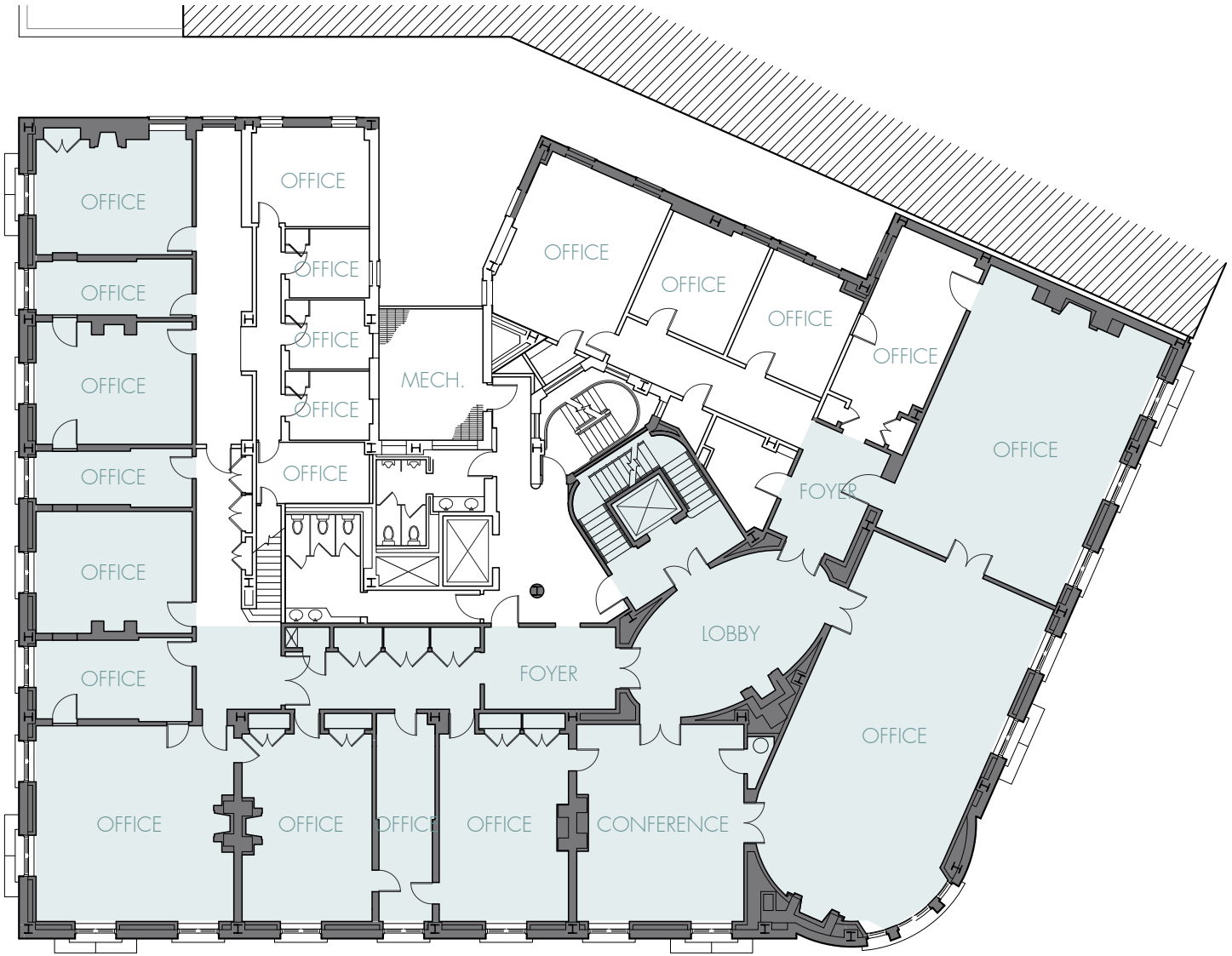
The original central stair was constructed with a cage elevator in its center and with windows opening to a light well to provide light to the interior space. During the mid twentieth century, the elevator shaft had been enclosed and the windows had been removed (as the light well had been infilled). We returned the stair to a condition similar to its original by removing the closed elevator shaft and constructing new windows on every level. The windows are lit from behind to simulate natural light. The existing marble was cleaned, regrouted, and repaired and a new guard rail and hand rail was installed. The stair is now an inviting means for the employees to travel among floors without taking the elevators.

◀ newly opened stair after construction

▲ before construction

▲ before construction

MONUMENTAL STAIR



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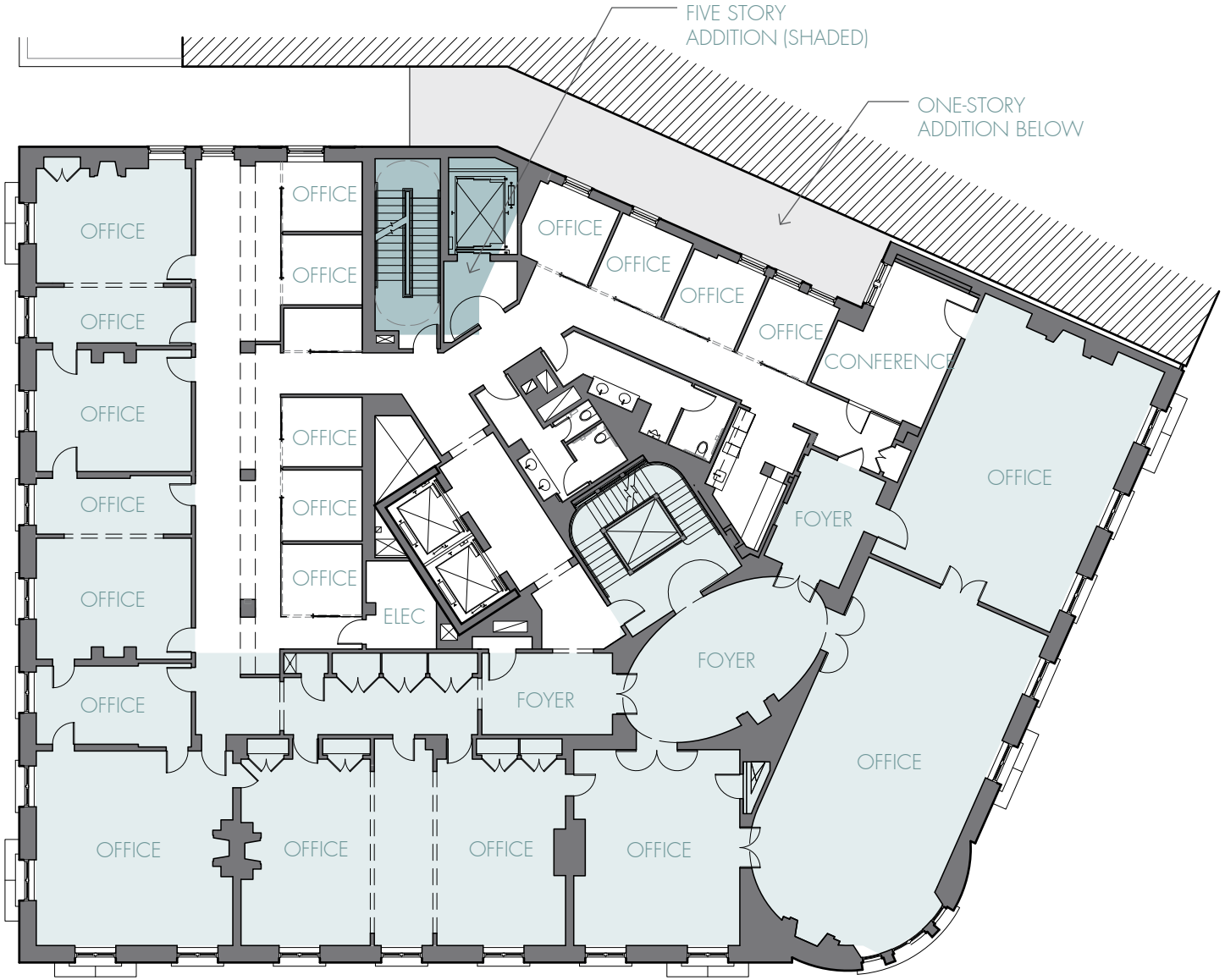
TYPICAL FLOOR PLAN (EXISTING)



Preservation Zone

New Addition

N

TYPICAL FLOOR PLAN (NEW)

PLASTER CEILINGS & WALLS

The plaster ceilings and walls including all decorative moldings, cornices, coffers, decorative trim, and raised panels were retained to the greatest extent possible. Some walls were removed or reconfigured to allow for greater flexibility of the office layout. Where necessary, molds were created and plaster was recast when original details had been damaged or removed.

Unfortunately, all of the brown coat plaster in the building contained asbestos. Therefore, all holes in plaster walls for new MEP and structural systems had to be made in a contained area by an abatement company. This is a tedious phasing problem for the contractor but necessary for everyone's safety.

◀ Typical office space

FIFTH FLOOR CORRIDOR

FIRST FLOOR GALLERY

▲ historic photo

▲ after construction

FOYER & CONFERENCE ROOM

REPURPOSED OFFICE SPACES

To retain the sense of the magnificent rooms on every floor, we decided on three primary ideas:

First, all furniture would be designed to be well below the ceiling and not touch the walls; no partitions were constructed in the perimeter rooms.

Second, no fixtures or accessories were installed in the ceilings; these decorated surfaces are as unencumbered as they were when they were initially built.

Third, the lighting is provided by a combination of uplights and task lights. This avoids the ceiling mounted fixtures and gives the rooms a feeling of spaciousness in both day and night.

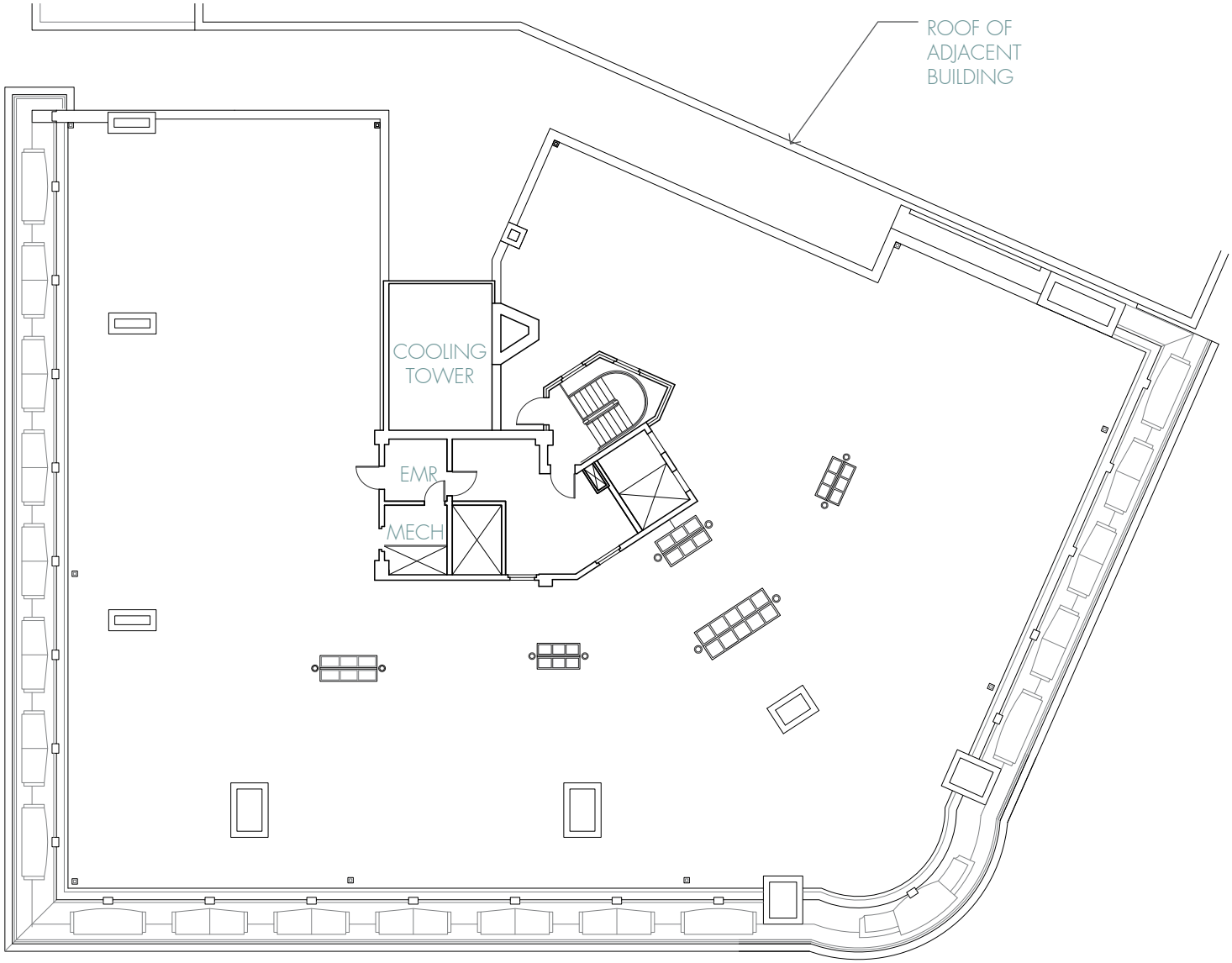
◀ Typical office space

PENTHOUSE & ROOF

The original penthouse enclosure, boiler flue, four skylights, and one chimney were removed for the new penthouse enclosure that incorporates new passenger and service elevators, cooling towers, air handling unit, boilers, and exhaust fans. The perimeter walls of the new penthouse were strategically located to align with the structural columns below. As a result, the penthouse is set back over 20 feet from the roof edge. The roof level also has an occupiable terrace with a glass railing set back 7 feet from the edge of the roof.

The existing limestone dormers are rich in detail and ornament. However, the new dormers at the penthouse reflect a similar proportion system but purposefully lack the ornament. This, along with sloping walls, minimize the visual impact of the penthouse.

One of the original skylights was retained and refurbished to its original glory. The laylight below was also retained with artificial lighting to provide illumination of the main stair below.



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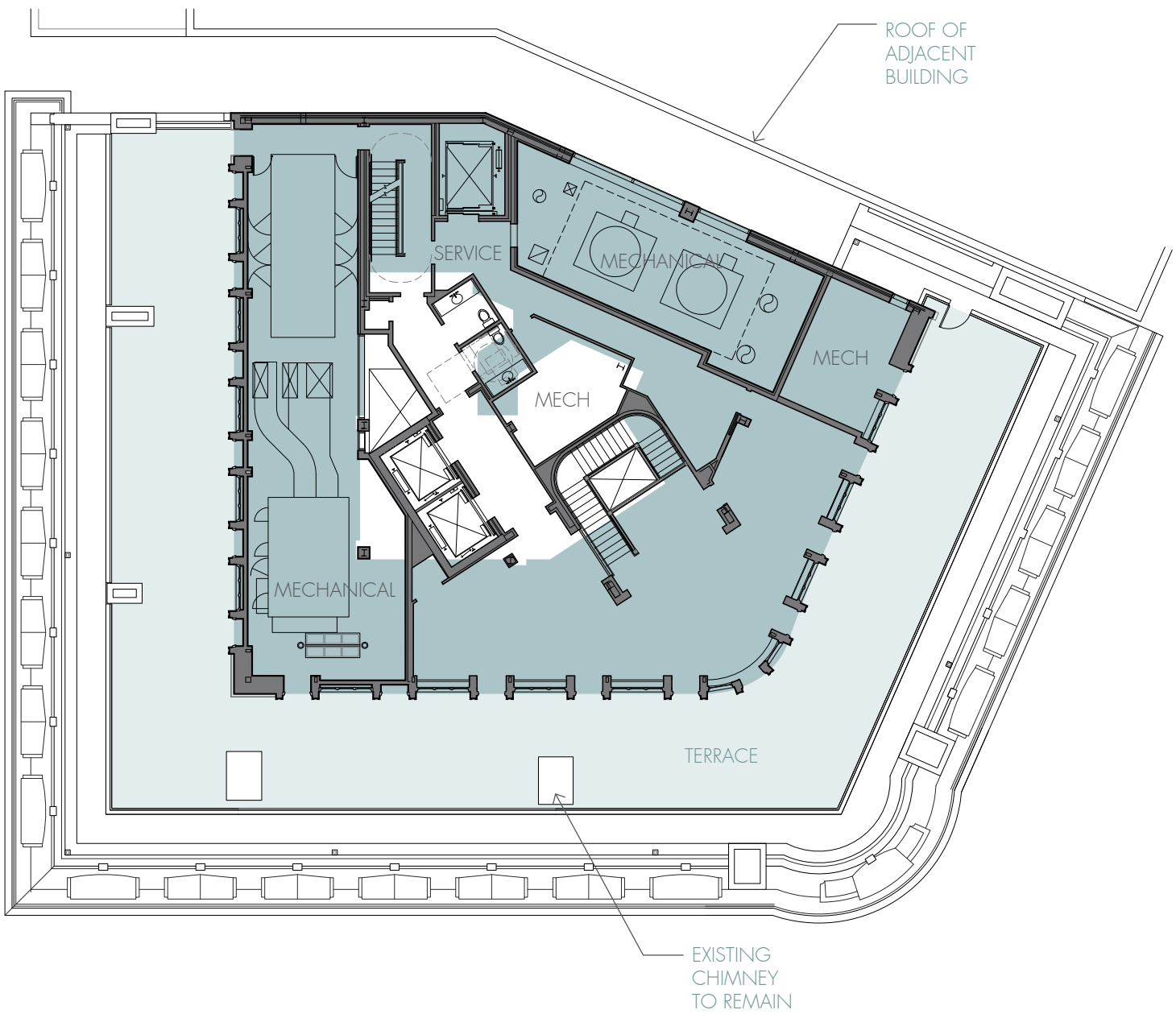
PENTHOUSE PLAN (EXISTING)



New Roof Terrace

New Envelope

N

PENTHOUSE PLAN (NEW)

PENTHOUSE LEVEL

OCCUPIABLE ROOF TERRACE

SUSTAINABILITY

1789 Massachusetts Avenue was designed to achieve a Certified rating under the USGBC LEED 2009 rating system. Some of the significant features include:

- renovation and restoration of an existing 100 year old building;
- retained historic, street facing facades and much of the alley facade;
- retained historic perimeter rooms and much of the interior of the building structure;
- utilize highly efficient variable refrigerant volume (VRV) units for heating and cooling;
- group spaces provided with demand controlled ventilation reducing energy during periods of low occupancy;
- rainwater harvesting cistern to reuse water for cooling towers;
- and a waste management and recycling plan administered and rigorously enforced and documented by the General Contractor.

SITE

brownfield site	building in a dense urban location prevents urban sprawl & preserves green space
historic structure	100 year old building designated a National Historic Landmark; retains much of the original exterior and interior fabric
public transit	close proximity to mass transit bus & rail lines encourage reductions in vehicle emissions from employee commuting
bicycle parking	secure bicycle parking & showers
parking	no parking is provided on site encouraging use of mass transit
stormwater management	stormwater from building & most of site is filtered for superior quality control; on-site underground filtration & retention structure reduces discharge of pre-development conditions; vegetated roof installed at select roof locations; rainwater harvesting cistern to reuse water for cooling towers

MATERIALS

regional materials	more than 10% of construction materials extracted, harvested, and manufactured from within 500 miles of the site
recycled materials	more than 10% of construction materials are recycled
low-emitting materials	use of Low-emitting materials & finishes without any added urea-formaldehyde
waste stream management	recyclable materials will be collected as part of the Owner's waste stream management operations

BUILDING EFFICIENCY

exterior envelope	designed for superior energy performance & thermal comfort
systems	designed to minimize energy use & optimize efficiency
HVAC System	high-efficient variable refrigerant volume (VRV) units for heating and cooling
air & water systems	low temp air & water systems resulting in smaller pumps, piping, fans, ducts, & electrical service
water use reduction	low-flow faucets, dual-flush toilets, low-flow urinals, & low-flow showers reduce potable water use by more than 30%
commissioning	systems commissioned by a 3rd party authority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