CHAPTER I

EXECUTIVE SUMMARY

BUILDING LOCATION AND DESCRIPTION

The Housing and Urban Development Building is located on a narrow five and one half acre site in the Southwest Quadrant of Washington, DC, two blocks south of the National Mall. The building was designed to face east across Seventh Street and is bounded by D Street on the north, a frontage road along the Southwest Freeway/I-395 on the south, and L'Enfant Plaza/Ninth Street on the west. The building is designed in the architectural style known as "New Brutalism," which uses massive reinforced concrete elements with formwork markings for building structure and skin.

The HUD Building, constructed from 1965 to 1968, was designed in the shape of a double "Y", elongated "X", or "dog biscuit" as it was and is still referred to, with a central core curving out to diagonal wings. The four building facades are a series of 1,584 load-bearing precast concrete window wall units, stacked ten high, which rest on a concrete frame of 44 exterior chamfered cast-in-place exposed concrete pilotis. The precast wall units are three feet thick and weigh nearly 13 tons each, containing heating units and ducts beneath deeply recessed windows.

At ground level, the walls of the building are set in, leaving an open colonnade or arcade on all sides between the pilotis and the wall. The ground level exterior walls are constructed of cast in place concrete faced with gray honed "Cherry Hill" granite from the French Creek Granite Company. At the end of each of the four wings are end walls which contain projecting concrete stair towers. The end walls are cantilevered, extending up from the second floor and also faced with gray honed "Cherry Hill" granite. The east and west elevations of the building are identical, as are the north and south elevations.

The building is 588'-1/2" long, 368'7-1/2" wide, and 129'-9" high, encompassing ten stories, and is capped by a 28'-6" high penthouse. There are two basement levels below the main building, a three-level underground garage located beneath the entrance plaza, and a underground loading dock area located beneath the south end of the west plaza. The building contains 1,352,500 gross square feet with more than 700,000 square feet of office space for between 4,000 and 6,000 people. When constructed, the HUD Building consolidated 4,300 employees who had previously been located in 20 separate buildings scattered throughout the city.

BUILDING HISTORY AND SIGNIFICANCE

The Housing and Urban Development Building was designed by architect Marcel Breuer, one of modern architecture's internationally recognized masters. The building was constructed by the General Services Administration for the United States Department of Housing and Urban Development (HUD), which has used the building continuously since its completion in 1968.

HISTORY OF THE BUILDING

The Housing and Home Finance Agency (HHFA), the precursor to HUD, was established on July 27, 1947, replacing the previously existing National Housing Agency. The HHFA was responsible for all Federal activities and programs concerned with housing and urban development. Through the Housing and Urban Development Act of September 1965, the HHFA was redesignated the Department of Housing and Urban Development.

By the late 1950's as the agencies were scattered in twenty buildings across the city, it became clear that the HHFA needed a new building to do away with rental costs and centralize all functions into one structure. By 1959, through the Public Buildings Act, Congress authorized the construction of a new building. Soon after this, a site was chosen in the southwest quadrant of Washington, DC in a prominent location as part of the Southwest Urban Renewal Plan.

The architectural contract was awarded by the General Services Administration to the New York firm of Marcel Breuer and Associates, who were responsible for design (credit was given as Marcel Breuer and Herbert Beckhard for this project) and Nolen-Swinburne and Associates of Philadelphia in charge of working drawings, final revisions and construction of the project, with the two firms set up as a joint venture.

The contract was finalized in September 1963, with presentations to the review agencies in June of 1964 and with construction documents completed in April of 1965. The construction contract was awarded to John McShain, Inc. of Arlington, Virginia in June of 1965, with construction beginning in July. Due to strikes and other delays, the building was completed nine months behind schedule, in August of 1968. The first HUD employees, from the Federal Housing Administration section, began to move into the building in May, 1968, with the building fully occupied by August. The building was dedicated on September 9, 1968.

SIGNIFICANCE

The HUD Building is significant in the history of American architecture as an outstanding example of the work of internationally known Marcel Breuer, a master 20th century architect whose work had profound influence on the course of American architecture in the second half of the 20th century. Breuer was a leader in bringing European modernism to America and in creating the foundation of America's modern architecture movement. The HUD Building is one of two buildings designed by Breuer in Washington, DC (the other is the Hubert Humphrey Building designed in 1970), and one of roughly a dozen institutional buildings designed by Breuer in the United States.

The HUD Building truly exemplifies the style of Marcel Breuer. Using concrete technology "tempered by a craftsman's love of fine details,"[1] he designed a series of large public buildings in concrete in the 1950's and 1960's. Breuer was known for his use of faceted facades with angled, deep-set windows, niches and geometric shapes; a Y-shape plan for buildings; and combining massive sculptural forms with advanced technology, functional design and an expressive use of materials. He was a master of the modern architectural style known as New Brutalism, which used massive concrete elements with formwork markings for building structure and skin. His works are sculpturally expressive, using a simple range of natural and man-made materials with masterful detailing, united by a sense of contrast: sun and shadow, textures and smoothness, with differing materials creating dramatic effects. The HUD building is an extremely successful example of New Brutalism with its dramatic use of reinforced concrete, geometric purity, and a reduction of ornamentation to its simplest means.[2]

Both Presidents Kennedy and Johnson were concerned with the quality of public architecture by which future generations would remember their administrations. In 1962, Kennedy issued a directive to the heads of all Federal agencies entitled Guiding Principles for Federal Architecture in which he called for a distinguished architectural style reflecting the dignity, enterprise, vigor and stability of the American national government.[3] The HUD Building was the first large commission awarded under the GSA's Assistant Commissioner for Design and Construction, Karel Yasko, in response to the President's directive, and was ranked as one of the best commissions of the era.

The HUD Building is also a landmark from an urban design perspective as it was an important architectural statement set in the Southwest Washington Redevelopment Area, a post-World War II effort to revive a slum area of the nation's capital, for the newly created Department of Housing and Urban Development, devoted to urban renewal and upgrading.

The building has been determined potentially eligible for listing on the National Register of Historic Places.

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[1]Andrew Scott Dolkart, National Register of Historic Places Inventory - Nomination Form: Whitney Museum (Washington, DC: US Department of the Interior, National Park Service, 1986), p. 8-5.

[2]Valerie A. Eickelberger, National Register of Historic Places Inventory - Nomination Form: Housing and Urban Development Building (Washington, DC: US Department of the Interior, National Park Service, 1993), p. 8-1.

[3]Lawrence O. Houstoun, Jr., "Evaluation: Housing the Department of Urban Development," AIA Journal, April 1977, p. 53.

SUMMARY OF EXISTING CONDITIONS

Although the HUD Building has undergone alterations since it was completed in 1968, for the most part it retains its original architectural character. The exterior elevations of the building itself have remained virtually unchanged. At ground level, the building entrances beneath the colonnade have undergone alterations, removing revolving doors and installing automatic power door openers on the east entrances and the addition of a stainless steel airlock vestibule at the northwest entrance. Other changes include the addition of metal grate enclosures at the garage stair and end wall stairways and the installation of gutters and electrical equipment on the face of the building. The addition of solar film on the south elevation windows is the only alteration to the upper floors of the building. The building's exterior concrete surfaces are typically clean with localized areas of soiling and staining. The precast concrete wall panels on the second through tenth floors are in good condition while the cast-in-place concrete pilotis and walls are stained and spalled due to corroding reinforcing steel.

The site and landscaping around the building have undergone significant alterations. The Seventh Street Plaza, originally covered entirely with bluestone paving, has been altered by the removal of bluestone paving to create an asphalt paved driveway, removal of stanchions and the addition of concrete planting boxes along the driveway area. The majority of the original bluestone paving has been removed and replaced with stone pavers, not matching the color of the original paving. Triangular block screen walls along the north side of the site have also been removed. The building's exterior lighting system is not functioning and is in poor condition. Additionally, the original light standards' decorative fixtures have been replaced with small globes not matching the originals. On the west elevation, creation of a walkway, playground area, and more recently, a handicapped ramp to L'Enfant Plaza, have altered the original landscaping scheme.

On the interior of the building, minor alterations have occurred. Two original partition walls in the cafeteria have been removed and the main exterior entrance closed to create a tray/cart storage area. The original granite reception desk in the southeast entrance lobby has also been removed and glass walls added to create vestibules at both of the east entrances. The original eighth floor Library has been reduced to less than one half its original size. In the tenth floor Secretary and Deputy Secretary's suite, the original curved reception area has been partitioned to create additional offices. One pair of public toilet rooms in each of the building's cores, on the second through tenth floors, has been made handicapped accessible by the removal of metal partitions.

Also on the interior of the building, original finishes have been altered and/or soiled. The original exposed concrete in the lobbies and stairwells is soiled, most heavily in the elevator lobbies. Exposed concrete columns in the Cafeteria and soffits above the elevator doors have been painted. The originally oiled natural wood paneling in the Executive and Secretary's Office Suites and Departmental Conference Room has been refinished with gloss varnish. Original painted plaster and metal surfaces in the building are in good condition although the current colors do not match the original colors. Numerous coats of wax have been applied to the bluestone floors on the first floor, concealing the original natural stone's blue-grey appearance with a shiny black finish.

PAINT ANALYSIS

Analysis and research of the original painted and wood finishes of the building included the significant and public interior spaces and a representative office and toilet. Paint color was very carefully considered and selected by the original architects of the building and thus was an important element in the building's design. Finishes for natural materials, such as wood and stone, were selected to retain the natural appearance of the materials. Paint colors were typically selected to match the color of the adjacent surface, so as to not interrupt the planar appearance of the surface. Vibrant paint colors were used to orient the building occupants by indicting the four quadrants of the building with a different color. The period of significance of the building is its original date of construction in 1968.

The original paint colors and color scheme on the exterior and interior of the HUD Building match that shown on the drawings and in the specifications, as modified and documented during construction. On the exterior, a Yellowish White paint color was used to match the color of the cast concrete. Paint colors for the areaway and vent gratings were grey to match the color of the bluestone paving. On the interior, paint colors were again used to match adjacent surfaces, with Yellowish White used for the majority of surfaces throughout the building to match the adjacent concrete. Corridor doors and transoms in each quadrant of the building on the second through tenth floors were painted a color (yellow in the northeast quadrant, orange in the northwest quadrant, blue in the southwest quadrant and black in the southeast quadrant) to orient the building's occupants and visitors. Natural stone was typically finished with a thermal or natural cleft finish. Cherry and ash wood paneling was oiled to enhance the natural appearance of the wood.

Repainting the originally painted materials in the building, removing paint from originally unpainted surfaces and refinishing the wood and stone materials to their original "natural" finish is important to the preservation of the building's materials and restoration of the appearance of the building. Maintaining a paint coating on the materials is also necessary to prevent the deterioration of the substrate materials. In the Executive Office Suites, located on the fourth through tenth floors, the original stained birch doors should be painted white or black as recommended by the original architects. An alternative recommended by the original architect would be to replace these flush doors with new ash veneer doors to match the wall paneling.

MATERIALS CONSERVATION ANALYSIS

Materials conservation analysis provides information to stabilize, preserve, restore and maintain the significant materials of the building. Types of deterioration observed during the survey were researched to determine the causes of the deterioration and establish possible alternative solutions. Typical alternatives discussed include: "no treatment," i.e., leaving the deterioration as is; "clean"; "repair"; or "replace." Preventive measures are discussed where appropriate.

Recommendations for the exterior of the building include cleaning of the exterior granite walls, cleaning of the plaster ceiling of the arcade and cleaning heavily stained and soiled concrete. Cracked and spalled concrete should be repaired. Concrete should be tested to determine the existing condition of the concrete and to provide the necessary data for the selection of concrete treatments such as water repellents or sealers. This will reduce the rate of deterioration of the concrete and prevent future costly and disfiguring repairs. The exterior bluestone paving should be cleaned and loose and displaced pavers removed and relaid.

On the interior, the thick coating build-up should be removed from the interior first floor bluestone paving and the original natural stone finish restored. The painted metal should be repaired and painted its original colors and unpainted metals should be cleaned. The glass storefront windows and metal frames at the first floor should be cleaned. Wood and plaster should be cleaned, refinished and repainted to match the original colors and finishes. The vinyl floor tile should be repaired where needed and the acoustical ceiling tile replaced to match the original concealed spline ceiling.

Additional recommendations include the repair and replacement of significant architectural elements and the removal of non-original and incompatible additions. Displaced stanchions should be reinstalled and deteriorated screen wall copings and missing site screen wall replaced. Surface mounted light fixtures and conduit should be removed from the face of the building and a new energy efficient exterior lighting system provided which replicates the original exterior light fixtures and system. Non-original interior light fixtures in the significant spaces should be replaced with fixtures matching the originals. The capsule shaped vestibule addition at the northwest entrance should be removed and the entrance doors restored. The existing concrete guard/reception desk at the southeast lobby should be removed and replaced with a reproduction of the original polished granite guard/reception desk. The solar film from the south facing windows should be removed and the cost effectiveness of replacing the single glazing with insulated glass and insulating the exterior surface of the building studied. Missing and non-original elements such as elevator cabs, venetian blinds, signage, skeleton clocks and bulletin/chalk boards should be replaced with reproductions of the original elements.

MORTAR ANALYSIS

The mortar analysis was performed on the exterior masonry of the building. The analysis is a visual and laboratory examination of the building's pointing mortar for the purposes of determining the composition of the mortar used in the construction of the building, visual characteristics of the mortar used, and types and causes of the deterioration of the pointing mortar. The pointing of the bluestone flooring on the interior of the building is in good condition. The pointing on the exterior of the building is also typically in good condition. Deteriorated pointing occurs in conjunction with loose and displaced bluestone pavers and deteriorated screen wall copings.

Repointing should be performed in conjunction with the repair of the damaged paving and pointing. Loose and displaced pavers should be removed, relaid, and repointed with mortar

matching the original. The open joints in the screen walls should be sealed to allow for continued movement. Loose screen wall copings should be reset and deteriorated and missing copings replaced with cast stone copings to match the originals. The reset and replaced copings should be pointed to match the original screen wall pointing.

MATERIALS CLEANING ANALYSIS

The masonry and metal surfaces of the building were examined with locations and conditions of materials noted. Exterior surfaces of the building were surveyed for soiling, staining, graffiti and corrosion stains. Interior surfaces were surveyed for soiling and staining. Exterior surfaces of the building are lightly soiled with staining on only a few areas. Soiling is heavy on the triangular block screen walls under the building's arcade. The plaster ceiling of the arcade is also heavily soiled as are the metal window frames of the window wall of the west side of the cafeteria. On the first floor exterior granite walls, stains have been caused by glue remaining where signs have been placed and then removed, marker graffiti, and vehicles bumper scuff marks. To date, the soiling and staining has caused no deleterious side effects, although the cause of the staining, such as corroding steel, does have potential to damage the concrete. The potential for permanent staining as the soiling increases also exists. The most significant staining is on the concrete and is due to the corrosion of the exposed ends of the steel chairs and bolsters that supported the reinforcement prior to placement of the concrete. This corrosion typically appears as a pattern of small dots of rust on the surface of the concrete.

Interior concrete walls are lightly soiled in most areas, with heavier areas of soiling found in the elevator lobbies on all floors around the elevator call buttons. The reveal at the bottom of the concrete walls is soiled and stained with the floor cleaning and finishing coatings. The interior bluestone flooring has been concealed under numerous coats of wax. The concrete soffit above the elevator doors on floors two through ten have been painted. In the cafeteria the exposed concrete columns are painted white. Metal surfaces on the interior of the building are generally clean.

Cleaning tests were performed on the exterior and interior concrete, exterior granite, exterior plaster, exterior and interior bluestone and the exterior anodized aluminum window wall. Cleaning of all of the surfaces of the building is not necessary. The exterior screen walls, granite at the first floor, plaster ceiling of the arcade, and exterior anodized aluminum window wall should be cleaned and oil stains from the bluestone paving removed. The interior concrete walls should be cleaned and the thick layer of coatings from the first floor bluestone flooring removed.

DESIGN GUIDELINES/REHABILITATION ACTIONS

The building, both exterior and interior, was surveyed to determine areas of architectural significance and extant finishes. In maintaining, repairing or altering the building, it must be kept in mind that all new installations should in no way harm the original features of the building and that no irreparable changes or alterations made. Areas of the building have been divided into the following three categories based upon the architectural significance and physical condition.

- Restoration Zones: These areas are of special architectural significance and should be restored as nearly as possible to their original form and condition.

- Rehabilitation Zones: These are areas of lesser import but which contain significant architectural details which should be retained and restored as part of any overall repair or alteration projects.

- Renovation Zones: These areas are not considered an integral part of the significant fabric of the building and may be altered as long as these alterations do not adversely impact the restoration or rehabilitation areas.

RESTORATION ZONES

Restoration zones include the entire exterior of the building, first floor public areas of the interior of the building, elevator lobbies, and executive office areas (executive office suites on floors four through ten, Secretary and Deputy Secretary's Suites and Departmental Conference Room on the tenth floor).

REHABILITATION ZONES

These areas and elements are subordinate to the significant architectural details covered under Restoration Zones, however, the areas must be retained and restored during any and all alterations and repairs. Rehabilitation areas of the building include typical office suites, typical conference rooms, office corridors from the basement through ninth floors, second floor staff dining room (now converted to office space), Library on the eighth floor, stairwells at the ends of wings, cores and garage entrances, toilet rooms, serving areas in the cafeteria, and the roof observation deck.

RENOVATION ZONES

These areas are of minimal importance due to their location in the building. These spaces may be altered, provided the alterations have no negative impact on the significant elements outlined in the Restoration and Rehabilitation Zone descriptions. Spaces include the entire sub-basement; garage, loading dock, storage rooms, fitness center, machine rooms, offices and mail room in the basement; guard's room, electrical closets, storage

rooms, building management offices on the first floor; typical offices and freight elevator lobbies and cabs, storage rooms, data processing rooms on the upper floors; and the penthouse.

GUIDELINE SPECIFICATIONS

Based on the building survey, paint analysis, mortar analysis and cleaning tests performed on the building, guideline specifications have been prepared to restore, rehabilitate and maintain the HUD Building. Specifications include:

- Bluestone Paving: Repair and Replacement
- Bluestone Paving: Cleaning and Finishing
- Precast Concrete
- Concrete Patching and Repair
- Architectural Concrete - Paint Removal
- Exterior Masonry Cleaning
- Interior Masonry Cleaning
- Stainless Steel Cleaning
- Metal Fabrications
- Wood Repair and Refinishing
- Interior and Exterior Aluminum Storefront and Window Cleaning
- Acoustical Tile Ceilings
- Acoustical Panels
- Vinyl Flooring Replacement
- Exterior Painting
- Interior Painting
- Venetian Blinds
- Skeleton Clock Reproduction
- Light Fixture Reproduction