

POWER HOUSE (604)  
HABS No. NY-5708-24

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Built: 1905-1909  
Architect: Cram, Goodhue and Ferguson

Zone: 1  
Category: 1

#### PHYSICAL HISTORY

Both the Superintendent of the Military Academy and the Secretary of War approved the architectural drawings for this structure in November, 1905. The building was completed in 1909 for a cost of \$102,779.71, (FN.1). Cram, Goodhue and Ferguson were the architects, and Henry C. Meyer, Jr. was the engineer. With the exception of the substitution of oil tanks for a coal pile and the extension of the railway entry into the building, the Power House has changed little in its appearance.

#### AREAS OF CONCERN: Exterior only

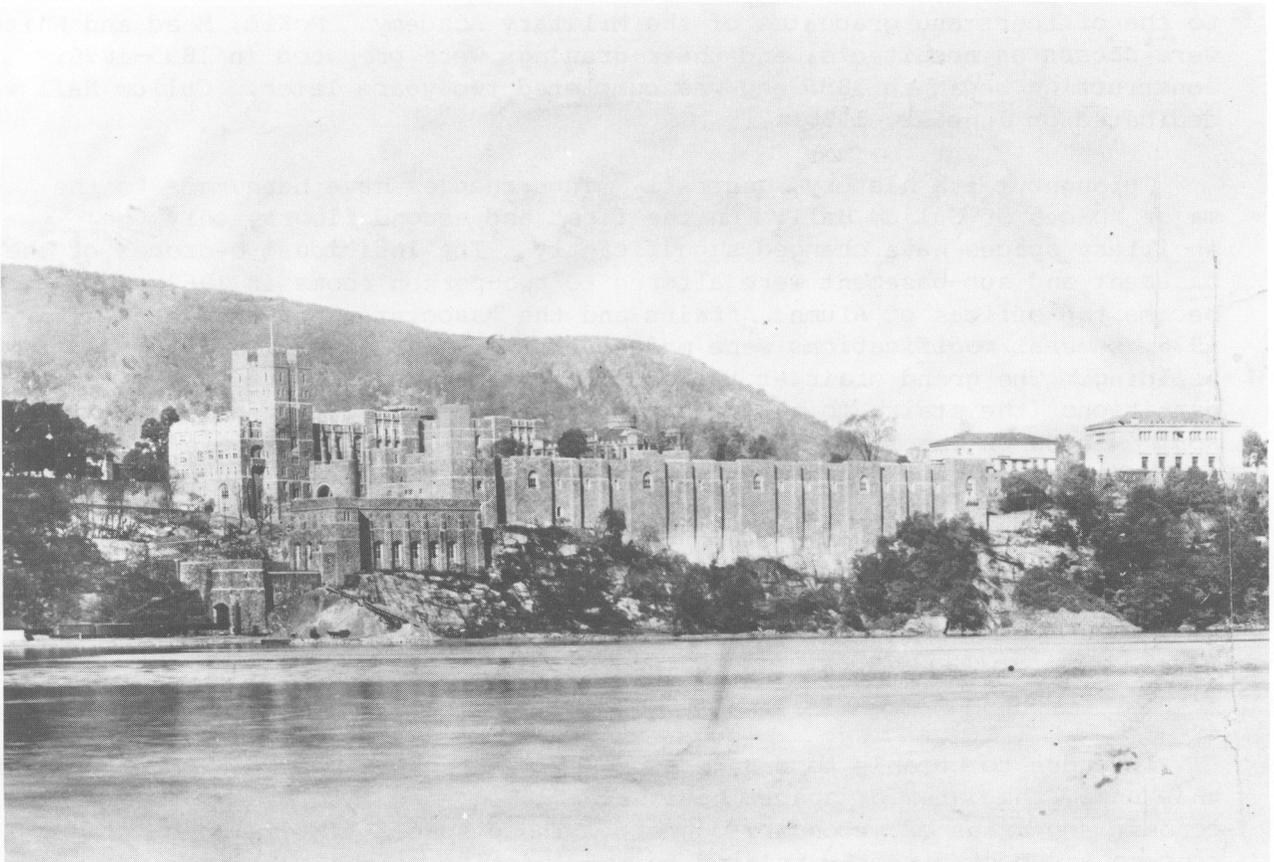
Coupled with Thayer Hall, Mahan Hall and the Administration Building, the Power House presents an impressive sight from the river and from across the river (Pl. 604-a). This is the view of the structure that is the most important. The metal buildings, concrete block sheds, building supplies, etc., located along the shore below the Power House create a visual clutter that distracts from the visual cohesiveness of this area. Consideration should be given to relocating such features to more remote areas and to maintaining a more park-like setting along the entire length of the river bank.

Its low position on the hillside leaves little of the Power House wall visible from either Cullum or Thayer Road. As a result, the roof is quite visible, and its treatment becomes important. Roof vents, skylights and monitors, especially those original to the building, should be well maintained. In addition to aesthetic considerations, the need for natural light and ventilation for the large interior spaces would seem to dictate this course.

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#### FOOTNOTES

(1) Building costs, contractors, etc., can be found in the Subject Files, Buildings, USMA Archives.



Pl. 604-a  
Stockbridge Collection, neg. #955  
USMA Archives

CULLUM HALL (605)  
HABS No. NY-5708-42

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Built: 1895-1898  
Architects: McKim, Mead and White

Zone: 1  
Category: 2

### PHYSICAL HISTORY

When Brevet Major General George W. Cullum died in 1892, he bequeathed \$250,000 for the construction and maintenance of a hall to serve as a memorial to the officers and graduates of the Military Academy. McKim, Mead and White were chosen as architects, and their drawings were prepared in 1895-1896. Construction began in 1896 and was completed two years later. Cullum Hall was dedicated on June 12, 1900.

Throughout its history, generally minor changes have been made to the major spaces of Cullum Hall. On the first and second floors, only the ancillary spaces have changed significantly. The individual bedrooms of the basement and sub-basement were altered to two-person rooms in 1960 and later became the offices of Alumni Affairs and the Association of Graduates. In 1976, several modifications were made to improve the fire safety of the building. The grand stair at the southern end was enclosed with fire-glass partitions (the stairs to the basement having been enclosed in 1968), and the south window on the first floor was made into a second means of egress, using the same grille on the new door that had covered the window and emulating the exterior marble steps of the front facade; it is a sensitive, successful change. The glass enclosures are fairly unobstrusive and disturb as little of the detailing as possible, though the door to the basement stairs looks rather awkward at the juncture with the main stairway to the second floor.

### AREAS OF CONCERN

In order to be able to manage a proper maintenance plan for a building of this size, the interior spaces have been broken down into areas of primary concern and areas of secondary concern. Those spaces listed as of primary concern are most directly related to the function of the building as a memorial hall. They are also the most interesting in terms of architectural details.

Primary: Assembly Hall (Pl. 605-a)  
Hall (Pl. 605-b)  
Memorial Hall (Pl. 605-c,d)  
Gallery  
Reception Room, (first floor)

Secondary: Basement offices  
Sub-basement offices

Cullum Hall stands as the focal point of the three buildings clustered along the eastern edge of the Plain. This position makes it a highly visible building, both from the Plain and from across the river; alterations will not go unnoticed. It is also important architecturally as an example of the architecture of McKim, Mead and White, a premier architectural firm in this country, at the time of its construction.

Of primary concern on the exterior of Cullum Hall is the roofing material. When completed, the roof was covered with green, barrel-shaped clay tile (Pl. 605-e). This has since been replaced with a standing seam material. Though the vertical seams mimic the vertical ridges of the tile, the change, nevertheless, affects the visual perception of the building. The existing covering is inappropriate and should be replaced with tiles similar to the original.

#### SIGNIFICANT ARCHITECTURAL DETAILS

Because no serious changes have been made in the primary spaces, a complete listing of significant features is not necessary. The original specifications still exist for the interiors of Cullum Hall and should be followed for the restoration of the primary spaces. A copy of these is included in this report. Appropriate substitution of materials can be made, provided the finished effect is the same. In most instances, a thorough, but judicious cleaning may be all that is necessary.

The offices and corridors of the basement and sub-basement generally need simple maintenance in order to preserve their character. The PRESERVATION GUIDELINES address many of the items encountered in these spaces.

Taken from part of the original specifications found at the Directorate of Engineering and Housing at West Point:

Specification for the decoration of the Memorial Hall at West Point, N. Y. in accordance with plans prepared by Messrs. McKim, Mead & White, Architects, 160 Fifth Avenue, New York City.

GENERAL CONDITIONS.

The contractors are to supply all materials, labor and implements necessary to complete the work, to assume all risks of damage to any portion or portions of the building and make good any such damage before final payment is made. To incur all liability for any loss of life or injury to any person or persons in or about the building during the period of this contract.

All work is to be done in a thoroughly workmanlike manner, and all materials are to be of the best of their respective kinds to the satisfaction of and with the approval of the Architects.

The specifications and plans are intended to cover all necessary materials for the work complete in all its parts and the contractor must supply anything necessary even though not mentioned or shown, to complete the work without additional cost to the Government.

The contractors are to remove all rubbish from the building and cart the same to a point designated by the Post Quartermaster; and leave the building perfectly clean at the completion of this contract.

MEMORIAL HALL.

All the flat parts of the ceiling are to be painted white, finished flat in four coats.

1.

All the ornamental work and the mouldings of the ceiling and cornice are to be covered entirely with aluminum leaf, lacquered down to an old-gold finish and all the high lights on the ornamentation are to be touched up with gold leaf. The whole to be glazed down afterwards to an old green bronze finish and rubbed down so that the parts which have been gilded will show brighter than the rest and produce the general effect of age and softness.

The entire side walls to be painted white, four coats of oil in flat finish. The columns are to be glazed and rubbed down to an old ivory finish after having received four coats. The caps and bases and all the ornamentation of the side walls to be covered complete with aluminum leaf and lacquered down to a rich old-gold finish. All the high lights to be touched up with gold leaf and the gilding to be glazed down to a rich green bronze finish showing through as if it had been worn off.

A single line inscription in large letters is to be painted in the frieze, extending entirely around the room. The letters are to be treated so as to obtain the same effect as in the rest of the decoration. Full sized drawings for the inscription is to be furnished by the Architects.

HALLS, CORRIDORS, MAIN STAIRCASE FROM ENTRANCE DOOR TO MAIN HALL, INCLUDING THE VESTIBULE AND GALLERY.

All the flat parts of the ceilings and side walls are to be finished flat, white, in four coats of oil. All the ornamental work of ceilings and side

walls including the caps and bases of the pilasters are to be covered complete with aluminum leaf, lacquered down to a rich old-gold finish, the high lights to be touched up with gold leaf glazed down to a rich green bronze finish same as specified for Memorial Hall.

ASSEMBLY HALL.

RECEPTION ROOMS, OFFICE, BUTLERS PANTRY, SERVICE ROOMS, COAT & TOILET ROOMS OF THE FIRST STORY.

Paint the ceilings and side walls including the ornament, four coats of lead and oil, finished flat or as may be directed.

If desired the ornamental work, mouldings, etc. to be done the same as before specified for old bronze finish.

S C E N E.

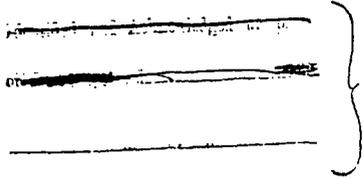
Furnish and set complete with all the necessary attachments for shifting the scenery which shall consist of side pieces and back with flies and drop as per detailed drawings.

The back scene to be the view looking North from Trophy Point at West Point.

C U R T A I N.

Make and put up as per drawings and details, the ~~old~~ silk "antique" vellours curtains with all trimmings, fringes, etc. and with all the necessary accessories for the drawing and closing of the same.

*Approved  
7/14/24  
12 M  
Secretary*



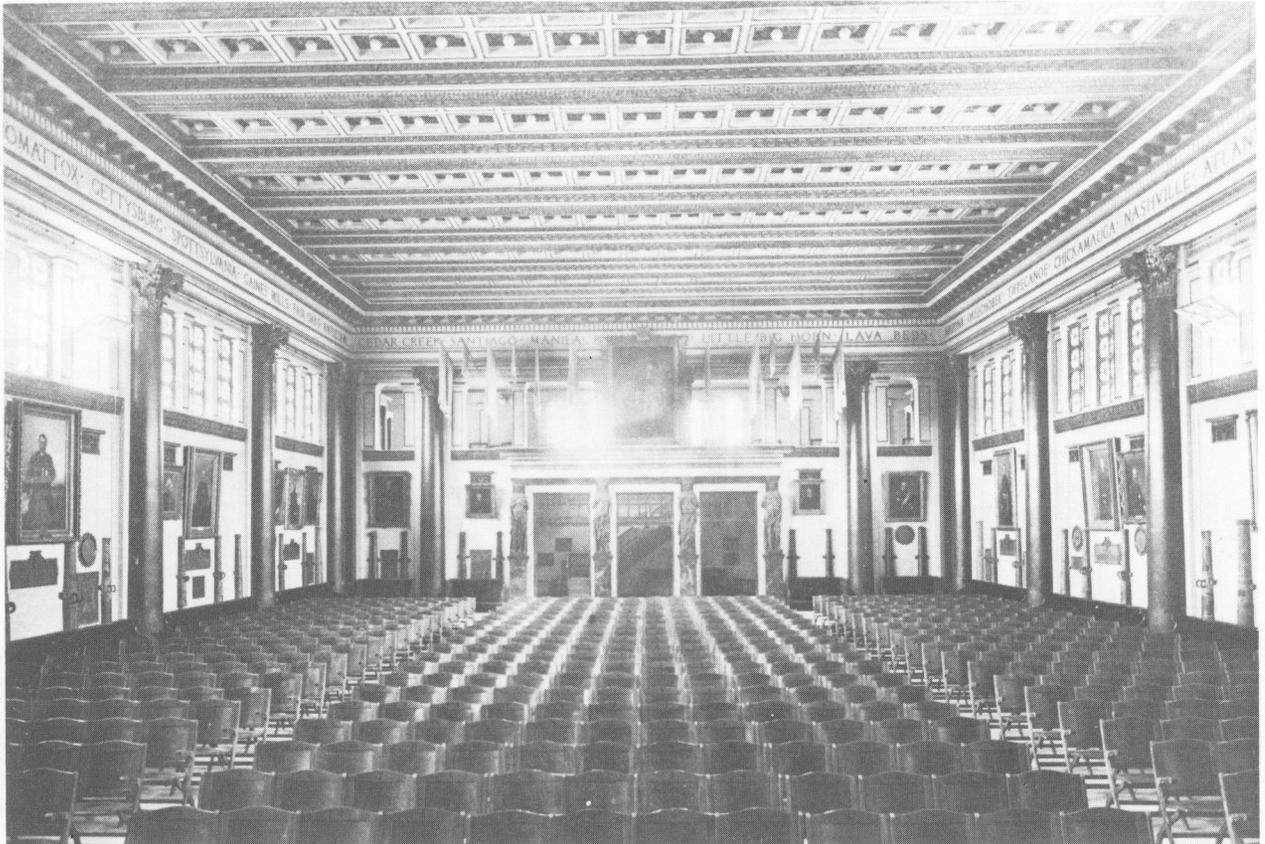
*Allard K. Doe*  
*CO To Allard K. Doe*  
3. *Henry L. Bousch*



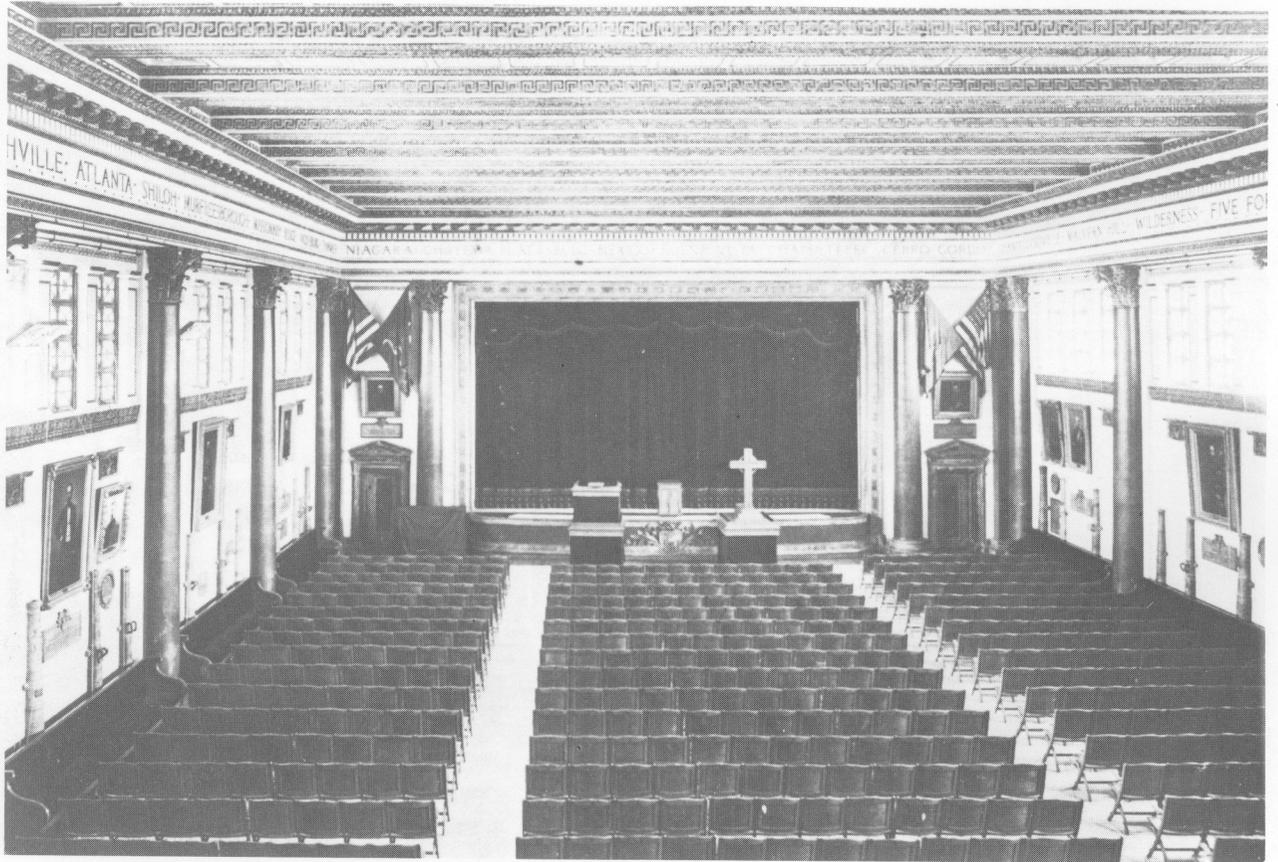
P1. 605-a  
Stockbridge Collection, neg. #618  
USMA Archives



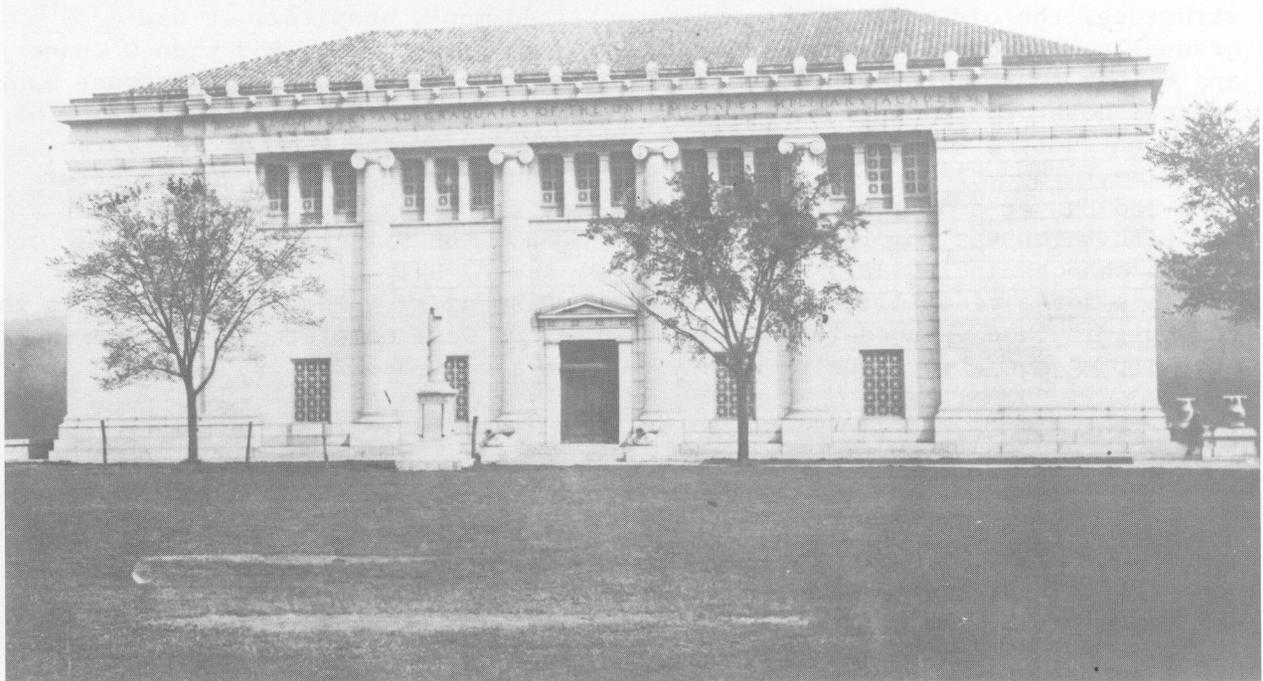
Pl. 605-b.  
Stockbridge Collection, neg. #619  
USMA Archives



Pl. 605-c.  
Stockbridge Collection, neg. #505  
USMA Archives



Pl. 605-d  
Stockbridge Collection, neg. #503  
USMA Archives



Pl. 605-e: 1909  
Stockbridge Collection, neg. #669  
USMA Archives

CADET HOSPITAL (ADMINISTRATION BUILDING) (606)

Original Building: 1920-1923

Zone: 1

Architect: Arnold W. Brunner

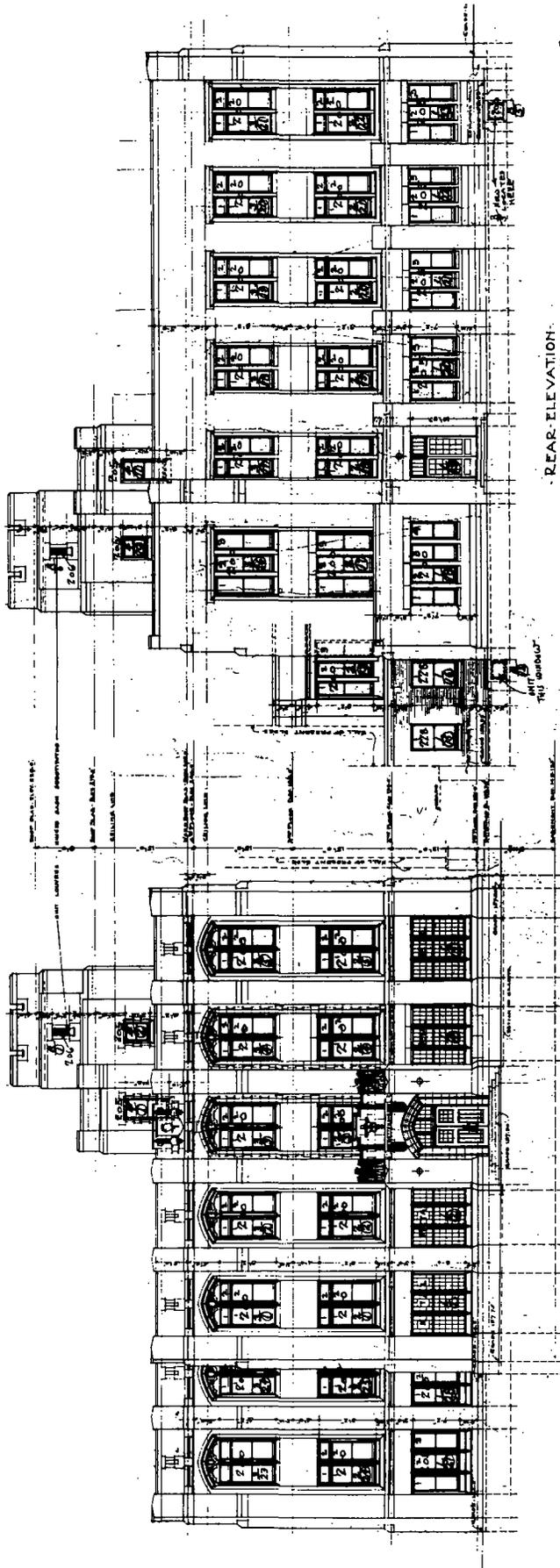
Category: 3

PHYSICAL HISTORY

Building 606, now used as an administration building, was originally built as the new Cadet Hospital in 1920-1923. Arnold W. Brunner was the architect, and Charles Mayer, O.E., was the consulting structural engineer. The section for which Brunner is responsible is the easternmost section, which is now four stories high (the fourth floor having been added in 1942-1943 by York and Sawyer, Architects and Engineers). The addition of this new hospital to the existing Cadet Hospital (built in 1884) nearly doubled the capacity and capabilities of the existing hospital. (With the completion of this structure, the old building became an enlisted men's hospital. It was gradually torn down, the final wing being demolished circa 1959 when O'Connor and Kilham rehabilitated Building 606.) The Cadet Hospital has undergone many changes both before and since the 1942-1943 addition. In 1932, the Office of the Constructing Quartermaster built a large wing to the west of the 1920 building. The third-floor south porch was enclosed in 1937. Shortly after York and Sawyer added the fourth floor, they also designed the westernmost addition which was completed in 1943. O'Connor and Kilham made some interior design changes in 1959-61. In April 1974, Leo A. Daly Company completed the drawings for a rehabilitation of the Cadet Dispensary. The final additions to the building and changes to the interior layout were completed in the spring of 1981. Again, Leo A. Daly Company was the architect.

AREA OF CONCERN: Exterior only

The long series of alterations, especially the most recent work, completely change the use as well as the interior design of the Cadet Hospital. All that remains of Brunner's interior is the small entry vestibule, though it too has been altered somewhat by more modern details. The exterior, then, remains as the only record of the 1920s Cadet Hospital. Of prime importance is the Brunner facade that fronts on Thayer Road (Pl. 606-a). It is an important element in the progression of granite facades that line the road and should be preserved. Of great concern on this elevation are the windows, particularly those of the first floor. The original windows were leaded glass casements with medical symbols incorporated into the upper portion of the sash. With the new replacement windows this architectural feature has been destroyed, and an important part of the building's history lost. In addition, the new glazing pattern of the windows has altered the visual perception of the facade in a manner that adversely effects the building. The south elevation, which includes a portion of the original building and a one-story addition in keeping with the architectural traditions of the Academy, is of secondary importance.



REAR ELEVATION

FRONT ELEVATION

1871  
BLDG. No. 606

FRONT & REAR ELEVATION  
**CADET HOSPITAL**  
 WEST 100th STREET  
 NEW YORK  
 ARNOLD W. BRUNNER - Architect  
 400 PARK AVE.  
 NEW YORK CITY  
 DATE: MAY 22, 1920  
 SCALE: AS SHOWN  
 DRAWN BY: [Signature]  
 APPROVED BY: [Signature]  
 REGISTERED ARCHITECT, N. Y. S. & C. E. A. C.

REVISION  
 1 MAY 22, 1920  
 2 JULY 19, 1920

Pl. 606-a:  
 DRWG No. 7  
 USMA-DEH

CAVALRY AND ARTILLERY PLAIN (BUFFALO SOLDIERS FIELD)  
HABS NO. NY-5708-56, 27, 46, 28, 47

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Built:	Zone:	1
Architect: Cram, Goodhue and Ferguson	Category:	620,624- 1 622,626- 2 618- 3

PHYSICAL HISTORY

The Cavalry Barracks (624), Artillery Barracks (620), Cavalry Stables (626), Artillery Stables(622), and Gun Shed (618) (along with the Post Exchange, 628) were designed as a unit by Cram, Goodhue and Ferguson in 1904 (Pl. BSF-a). The construction contract was awarded to Church Construction Company for \$547,107.73 in 1905. Construction was delayed after the Church Construction Company defaulted on the contract, leaving the bonding company to complete construction (FN.1). The buildings were finally completed in 1908. Several alterations have occurred since then:

- (618) Gun Shed (Pl. 618-b)--The original building was only one-half of the existing building, consisting of the east wing and what is now the center brick pavilion. In 1919, Arthur B. Proctor, a Captain in the Quartermaster Corps, designed the west wing to match the earlier construction. It was used as a gun shed until the mid-1950s when plans were made to convert it to a new use. The west wing is presently used for storage, and the Visitors' Information Center is housed in the original east wing.
- (620) Artillery Barracks (Pl. 620-c)--In 1919, the north and south end wings were added to the building. Again, Captain Arthur B. Proctor was the designer. The first plan changes occurred in 1958 and again in 1974, when a major rehabilitation took place that greatly altered the original plan and finishes. The original 6/6 double hung sash were replaced with 1/1 single hung in 1980.
- (622) Artillery Stables (Pl. 622-d)--A fire in 1914 destroyed a portion of the south wing of the stables. It was rebuilt in 1916 following the original plans and specifications. Four years later, in 1920, a rear wing was added. In 1959, the north wing was converted to a bowling alley. The Post Library and offices now occupy the remainder of the building.
- (624) Cavalry Barracks (Pl. 626-e)--Wings similar to those on the Artillery Barracks were added to this building in 1919. The first interior alterations took place in 1947, with major alterations begun in 1974. The original windows of this building were also replaced in 1980.

(626) Cavalry Stables, Pl. 626-f--The Cavalry stables have retained their original form since their completion in 1908. In 1954 they were converted for use as a warehouse. The chimneys were removed, and a new roof put on in 1955. In 1975 the interior was gutted, and a new structural system, second floor, and roof were added.

#### AREAS OF CONCERN

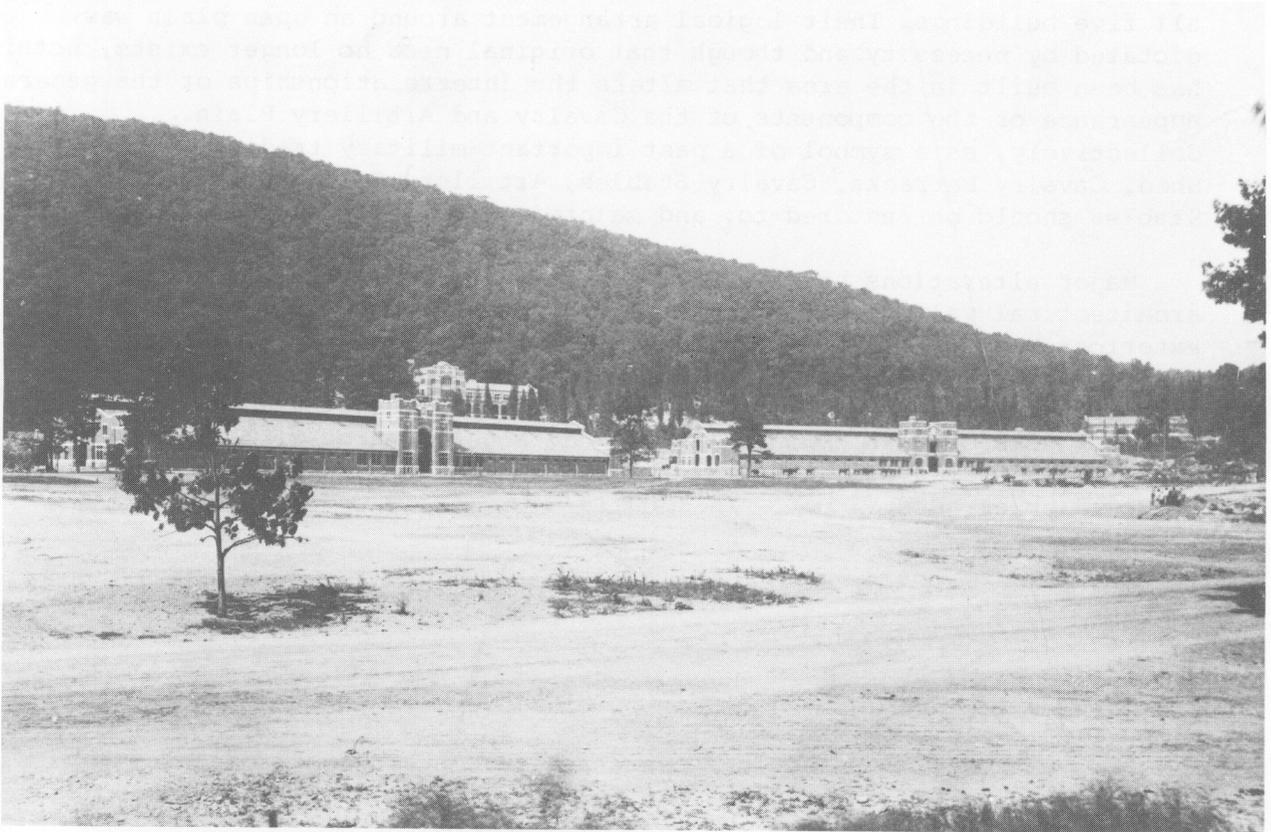
That each building be preserved or restored because of its architectural merit as a part of the Cram, Goodhue, Ferguson building program is obvious. Equally important, however, is the cohesive architectural grouping created by all five buildings. Their logical arrangement around an open plain was dictated by necessity and though that original need no longer exists, nothing has been built in the area that alters the interrelationships or the general appearance of the components of the Cavalry and Artillery Plain. Collectively, as a symbol of a past important military tradition, the Gun Shed, Cavalry Barracks, Cavalry Stables, Artillery Barracks, and Artillery Stables should be restored to, and maintained in, their original appearance.

Major alterations have left the interiors with little of historical or architectural value. With the exception of the Gun Shed, however, the exteriors have retained much of their original character. The replacement windows greatly alter the visual perception of the buildings and, the next time such work needs to be done, should be replaced with windows that match the originals. It is hoped that some day consideration will be given to rehabilitating/restoring the exterior of Gun Shed to approximate its original and 1919 appearance.

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#### FOOTNOTES

(1) Dates of construction, construction costs, construction companies, etc., for a number of buildings can be found in the Subject Files--Buildings, USMA Archives.



Pl. BSF-a  
Stockbridge Collection, neg. #659  
USMA Archives

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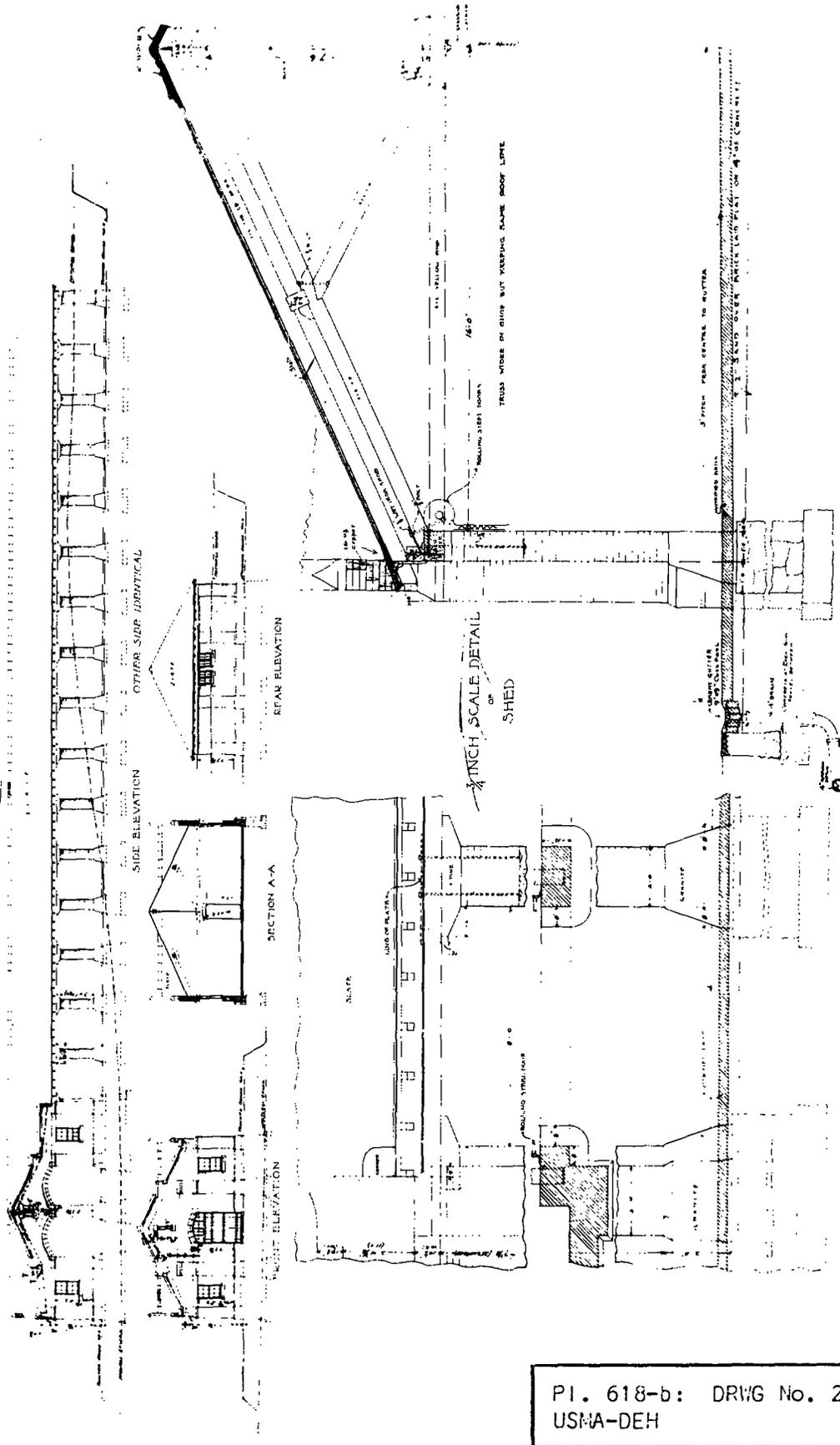
GUN SHED

U-S MILITARY ACADEMY  
WEST POINT, N.Y.  
CREAM, GODDARD & FERGUSON, ARCHITECTS  
BOSTON & NEW YORK.

HEADQUARTERS, U.S. MILITARY ACADEMY  
WEST POINT, N.Y.  
APPROVED: *J. Z. L.*  
DESIGNED BY: *J. Z. L.*

APPROVED: *J. Z. L.*  
DESIGNED BY: *J. Z. L.*

1/8" = 1'-0"

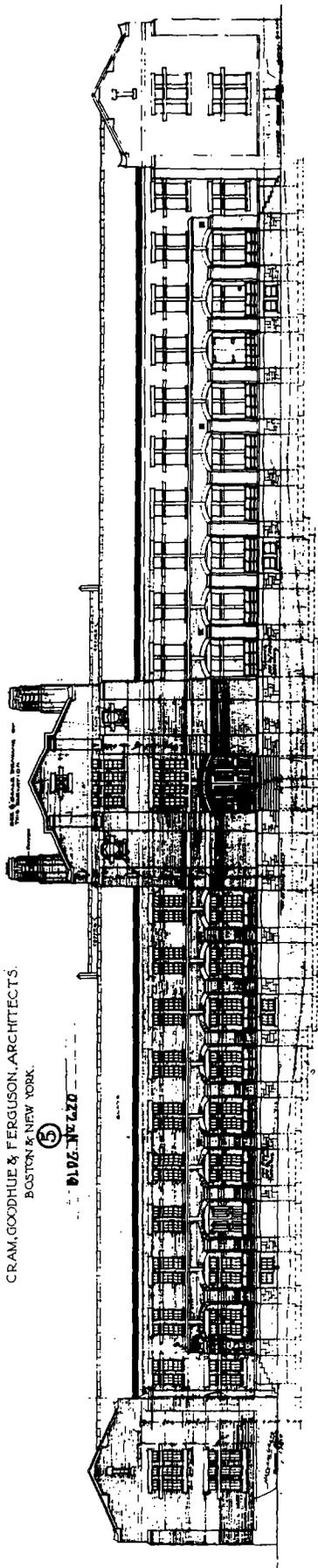


PI. 618-b: DRWG No. 2  
USMA-DEH

ARTILLERY BARRACKS  
 U.S. MILITARY ACADEMY -  
 WEST POINT, N.Y.  
 CRAM, GOODHUE & FERGUSON, ARCHITECTS,  
 BOSTON & NEW YORK.

⑤

PI. 620-C-5



FRONT ELEVATION  
 SCALE 1/8" = 1'-0"



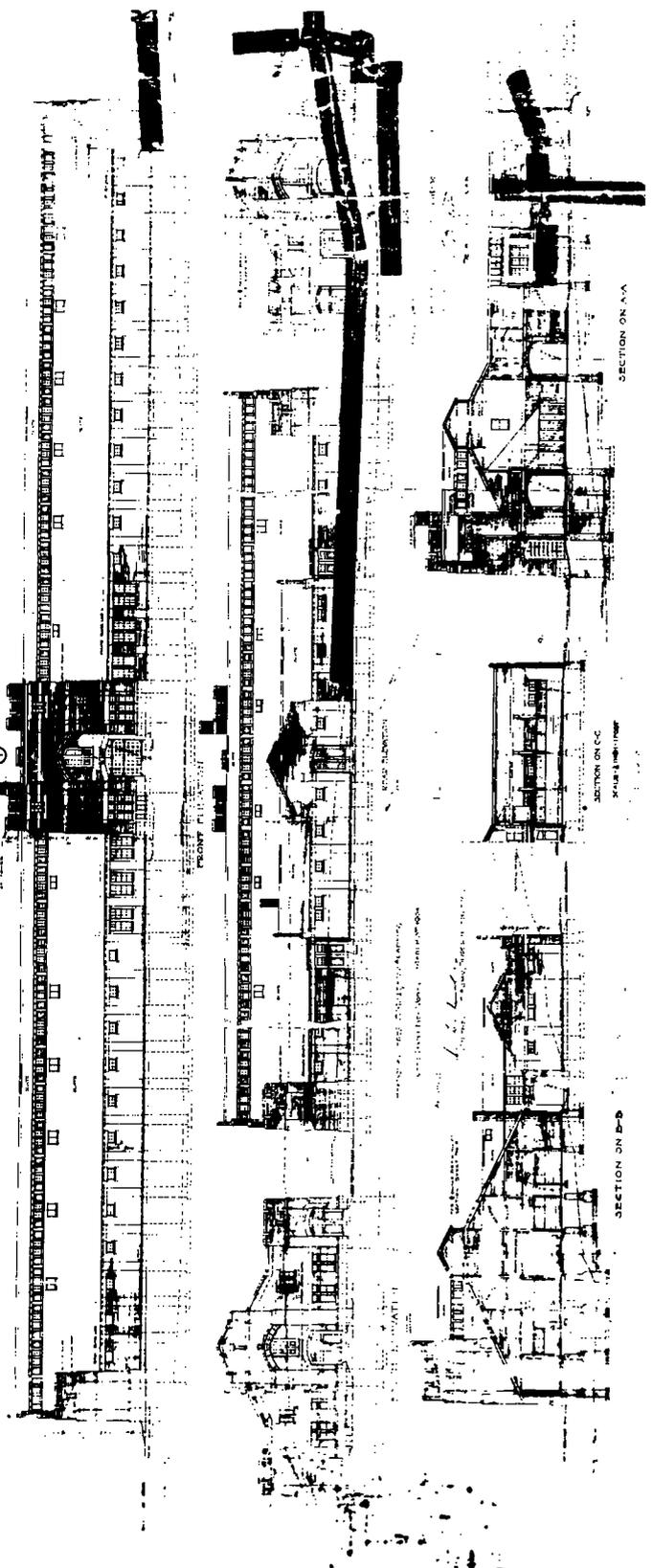
REAR ELEVATION  
 SCALE 1/8" = 1'-0"

HEADQUARTERS, U.S. MILITARY ACADEMY,  
 WEST POINT, NEW YORK. MARCH 28<sup>th</sup> 1904  
 APPROVED  
*L. L. Child*  
 COLONEL, U.S. ARMY, SUPERINTENDENT

WAR DEPARTMENT,  
 WASHINGTON,  
 APPROVED  
*W. J. ...*  
 MARCH 1904  
 SECRETARY OF WAR

PI. 620-C: DRWG No. 5  
 USMA-DEH

ARTILLERY STABLES  
 - U.S. MILITARY ACADEMY -  
 WEST POINT, NY  
 CRAM, GOODRICH, PETERSON & ASSOCIATES,  
 BOSTON, & NEW YORK, ARCHITECTS.  
 ④ D.M.G. 10.4.41

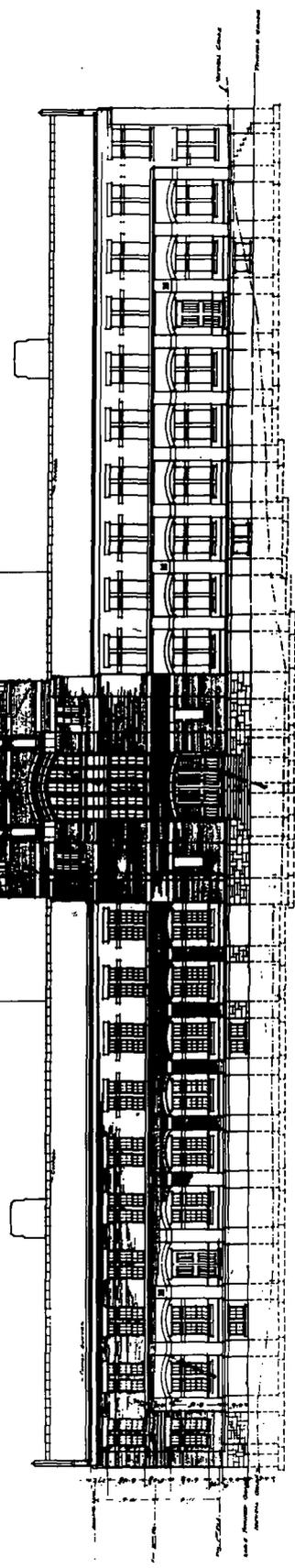


P1. 622-d: DRWG No.4  
 USMA-DEH

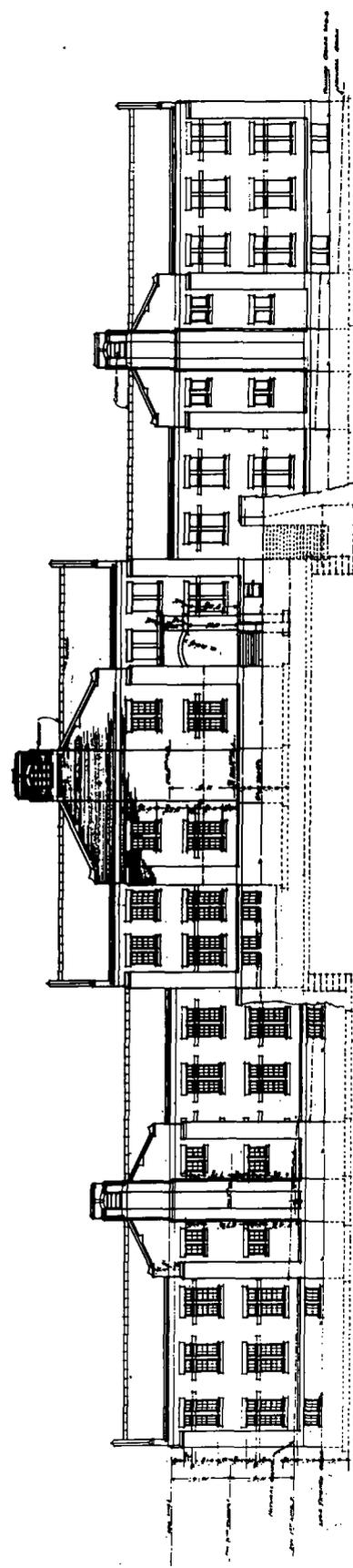
CAVALRY BARRACKS  
 - U.S. MILITARY ACADEMY -  
 WEST POINT, N.Y.  
 CRAM, GOODHUE & PERGUSON, ARCHITECTS  
 BOSTON & NEW YORK

⑤

OLIVER NEZES



FRONT ELEVATION  
 SCALE 1/8" = 1'-0"



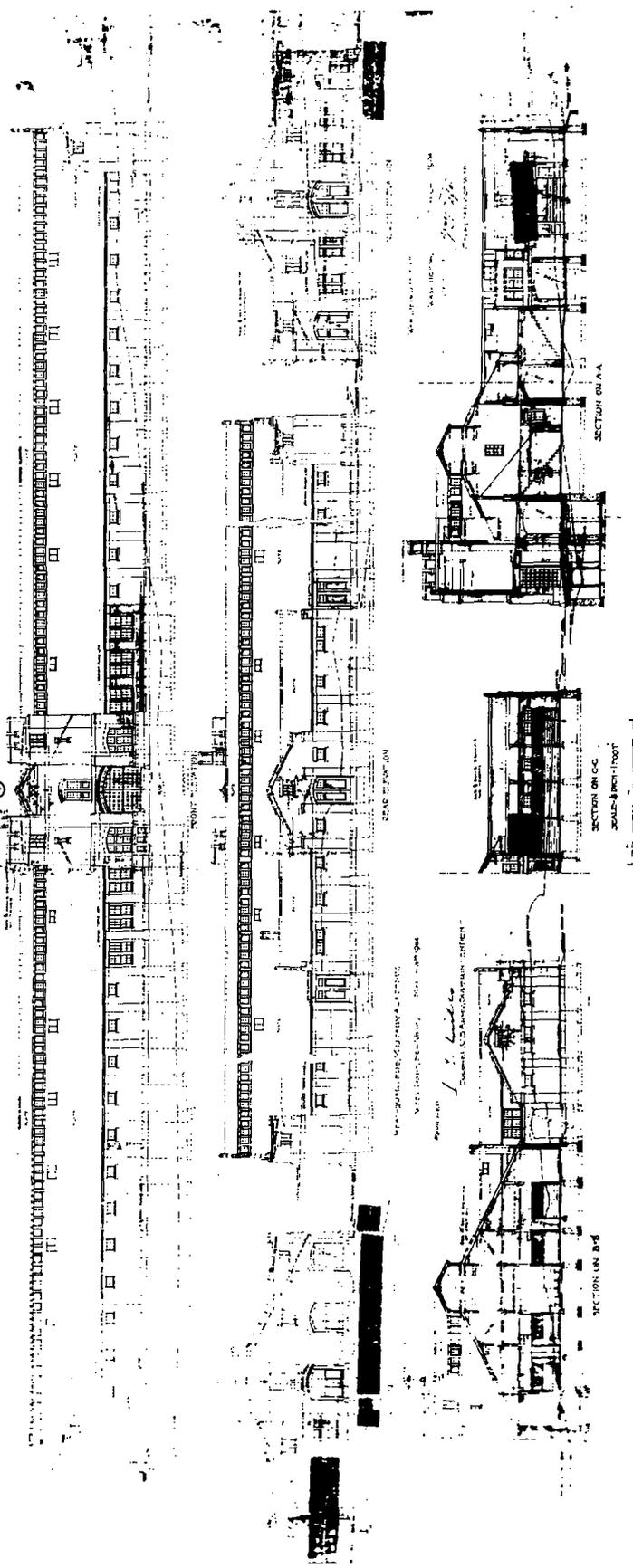
REAR ELEVATION  
 SCALE 1/8" = 1'-0"

HEADQUARTERS U.S. MILITARY ACADEMY,  
 WEST POINT, NEW YORK, MARCH 8<sup>th</sup> 1904.  
 APPROVED  
*L. I. Miller*  
 COLONEL, U.S. ARMY, SUPERINTENDENT

WAR DEPARTMENT,  
 WASHINGTON,  
 APPROVED  
*W. H. Clegg*  
 SECRETARY OF WAR,  
 MARCH 8<sup>th</sup> 1904

REVISED 1907  
 SEE DRAWING 101-107

CAVALRY STABLES  
 - U.S. MILITARY ACADEMY -  
 WEST POINT, N.Y.  
 CHAS. GOODMAN & ASSOCIATES, ARCHITECTS,  
 105 W. 42nd St., New York 36, N.Y.  
 DRAWING NO. 616



P1. 626-f: DRWG No.4  
 USMA-DEH

ORDNANCE COMPOUND (635, 635A, 635B, 637, 671, 671A) (ORD)  
HABS Nos. NY-5708-9 to NY-5708-14

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Built: ca. 1838

Zone: 1  
Category: 1

#### PHYSICAL HISTORY

Three stone buildings and two small stone towers comprised the original Ordnance Compound (Pl. ORD-a). Storage sheds, open at their fronts, originally lined the stone walls of the compound. Williams, Facilities Report (FN.1), gives the date of construction as 1840, as does a drawing at the National Archives (FN.2). Two other drawings, however, give the date as 1838-1839 (Pl. ORD-b, c). The drawings list Major Richard Delafield as the designer, but he did not arrive at West Point until September, 1838, so his degree of influence may be questioned.

The brick building (635) within the compound yard was built in three different stages. A brick building containing a blacksmith's shop, a carpenter's shop, and a paint shop is described in Williams, Facilities Report, making its date of construction no later than 1889 (Pl. ORD-d). A map, published in 1883 and drawn from a Plane Table survey under the direction of H.L. Whiting by W.C. Hodgkins in 1880 (FN.3), shows the Ordnance Compound without the center building. Brick wings at each end of the brick building were added next, though their date of construction is unknown. Records at the USMA Archives state that circa 1908, \$8,757 of unexpended allotments was spent for extension of the workshop in the yard of the Ordnance Lab. It is possible that the expenditure of this money coincides with the construction of the wings. Numerous photographs in the USMA show that by 1935 the center brick building had reached its present form.

The floor plans of the original stone buildings are not known, but, since their use did not change until much later, it is reasonable to assume that the description in Williams, Facilities Report, is close to the original.

Building 637 was used for storage; one of the end buildings (possibly 671) had a workshop for fabrication of ammunition on the first floor and a storeroom on the second floor; and the other (possibly 671A) was the Office of the Instructor of Ordnance and Gunnery plus auxiliary spaces, with the squadroom for the Department of Ordnance and a storeroom plus bath on the second floor; the two corner towers were privies. Since 1889, however, all of the buildings have been completely altered to serve various new functions, the most recent use being the Cadet Activities Center. Building 635 has also been greatly modified over the years.

AREAS OF CONCERN: Exterior only

Early maps, prints, and photographs clearly indicate that the stone building of the Ordnance Compound was conceived of as a unified whole. The repetition of details and materials further illustrates this point. The center brick building is an intrusion, primarily because it lacks any visual connection with the remainder of the buildings. Of the stone buildings themselves, nothing remains of their original interior plan or details, but the cohesiveness of their exterior appearance is basically intact. Windows and doors have been interchanged in many cases; the storage sheds have been removed; double-hung windows (Pl. ORD-e), long ago replaced the diamond paned, leaded-glass casements (Pl. ORD-f); and the iron gates in the south wall originally barred the way into the compound from the north, while the wooden gates barred the way from the south. The restoration of the gates and the diamond paned, leaded-glass windows and gates is called for, as is the removal of building 635 if and when other space becomes available to house its present functions.

The stone buildings of the Ordnance Compound are the earliest remaining buildings from Delafield's era and some of the first to be designed in the Gothic idiom that was to become the architectural tradition of the United States Military Academy. As such they demand preservation.

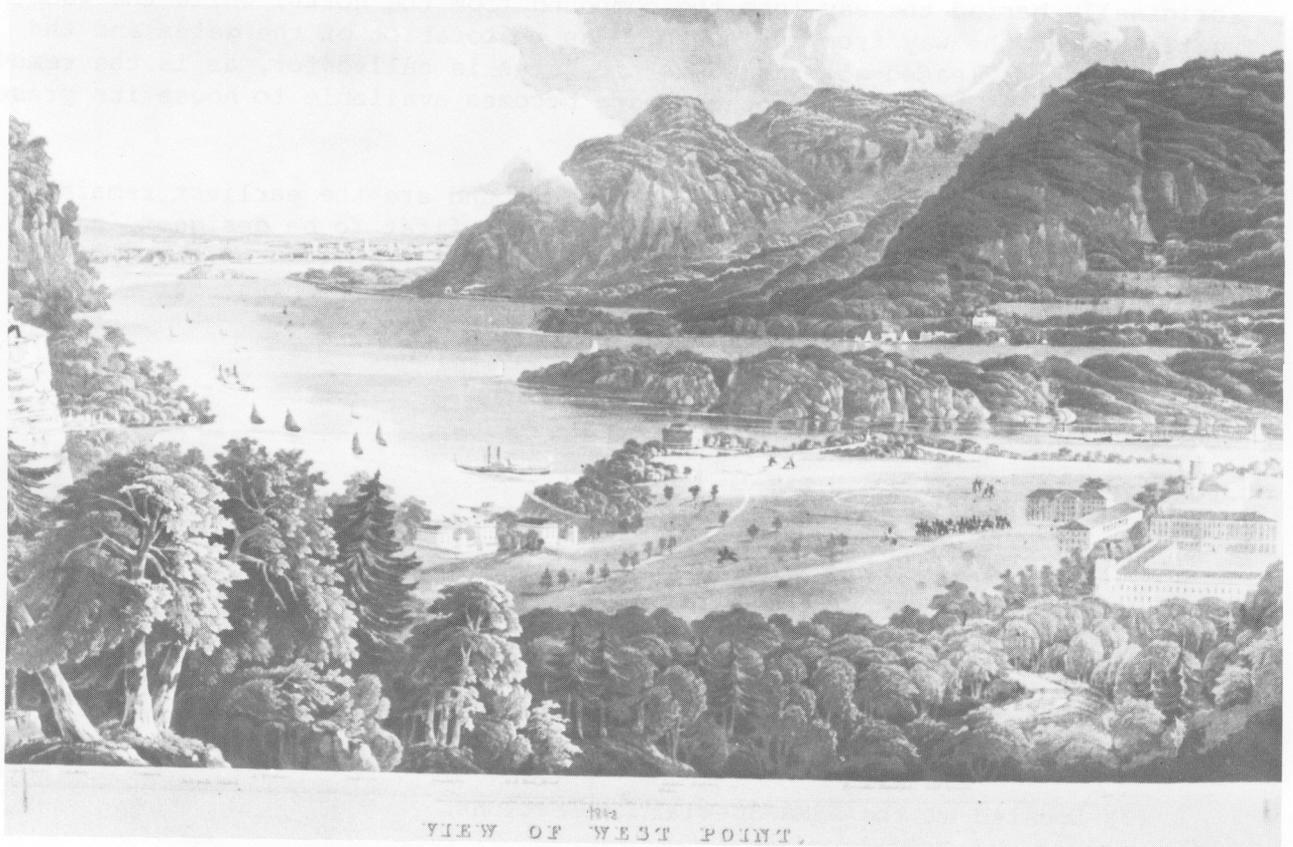
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FOOTNOTES

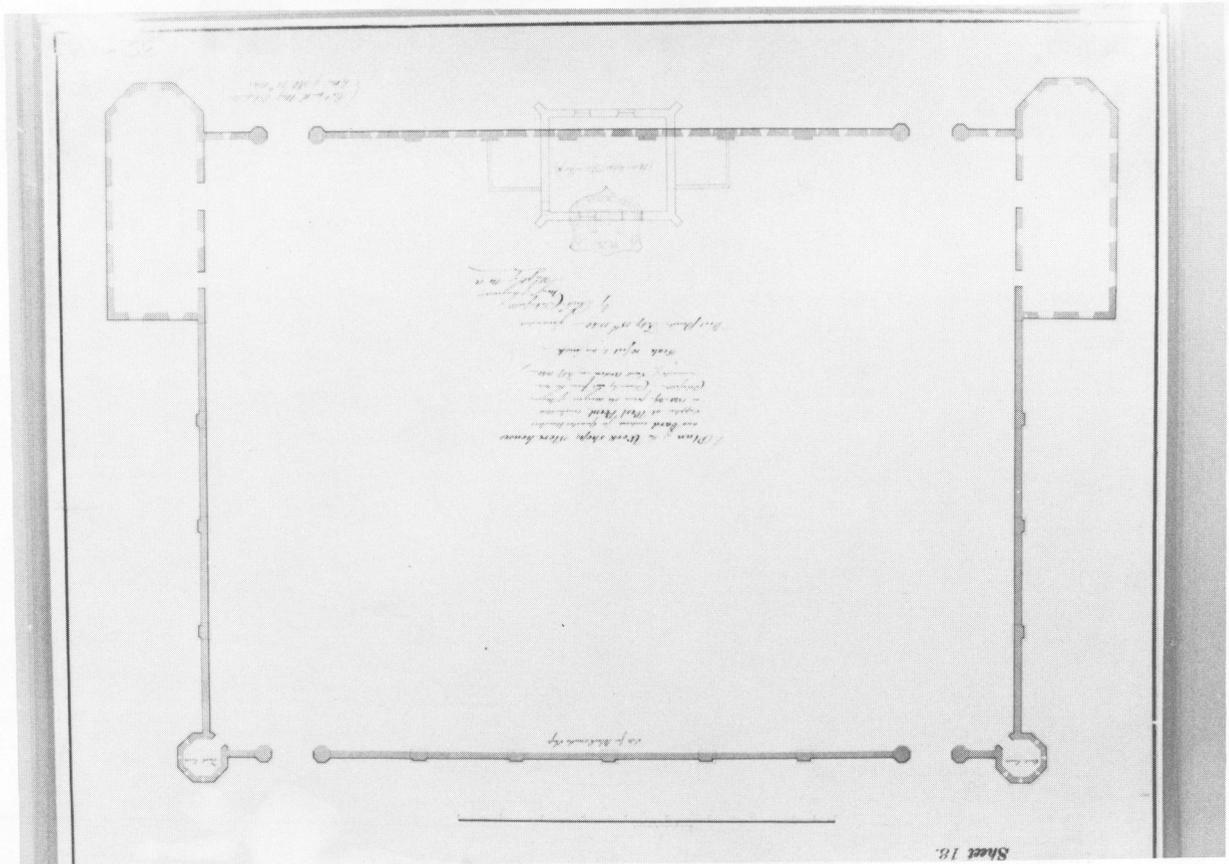
(1) Williams, Facilities Report.

(2) "Plan and Location of the Laboratory Buildings as Designed and constructed in 1839 and 40." Drawer 32, Sheet 35, Fortifications File, U.S. Military Academy, West Point (N.Y.), Record Group 77, Records of the Office of the Chief of Engineers, Cartographic and Architectural Branch, National Archives, Washington, D.C.

(3) Located at the USMA Special Collections.

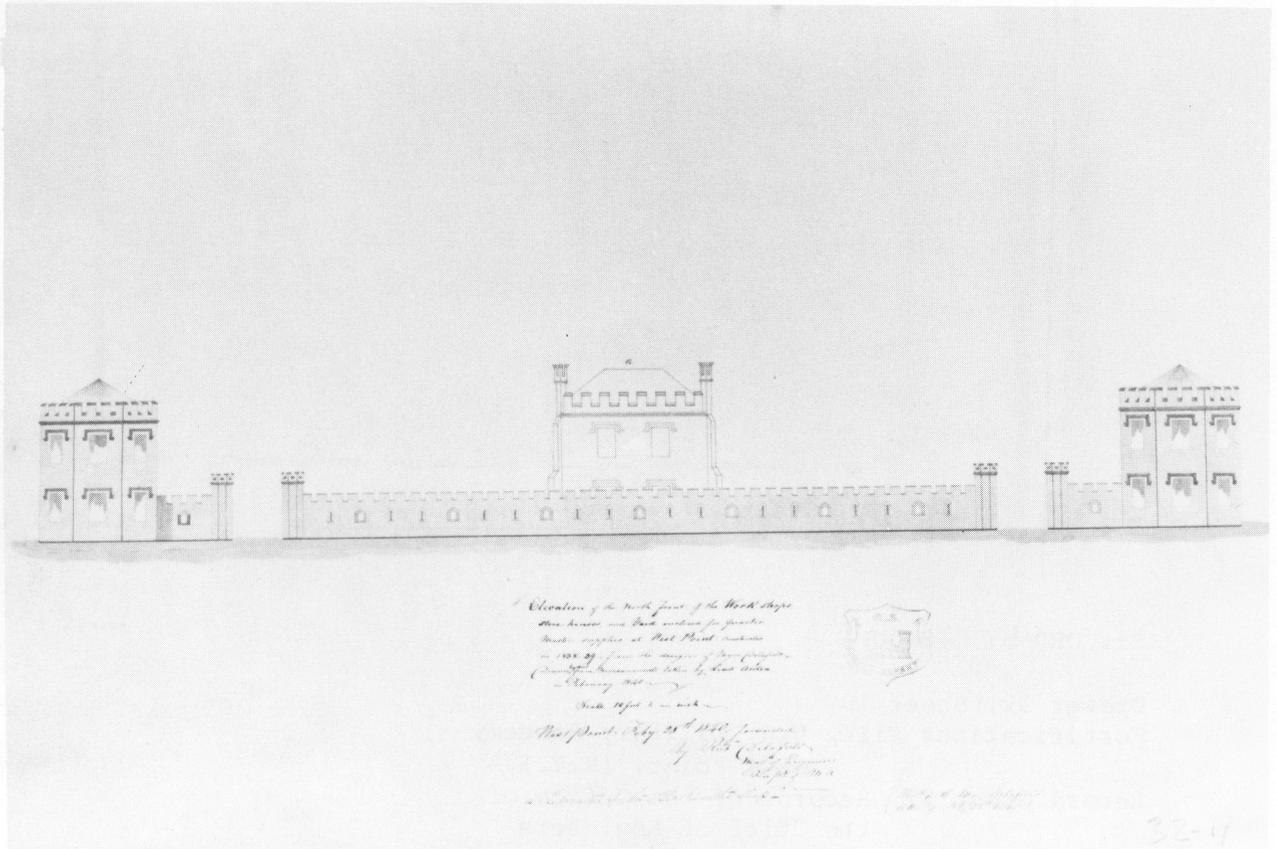


Pl. ORD-a: 1848  
USMA Archives



Pl. ORD-b: 1840

Drawer 32, Sheet 18  
Fortifications File, U.S. Military Academy  
West Point, (N.Y.)  
Record Group 77, Records of the Office of  
the Chief of Engineers  
Cartographic and Architectural Branch  
National Archives, Washington, D.C.

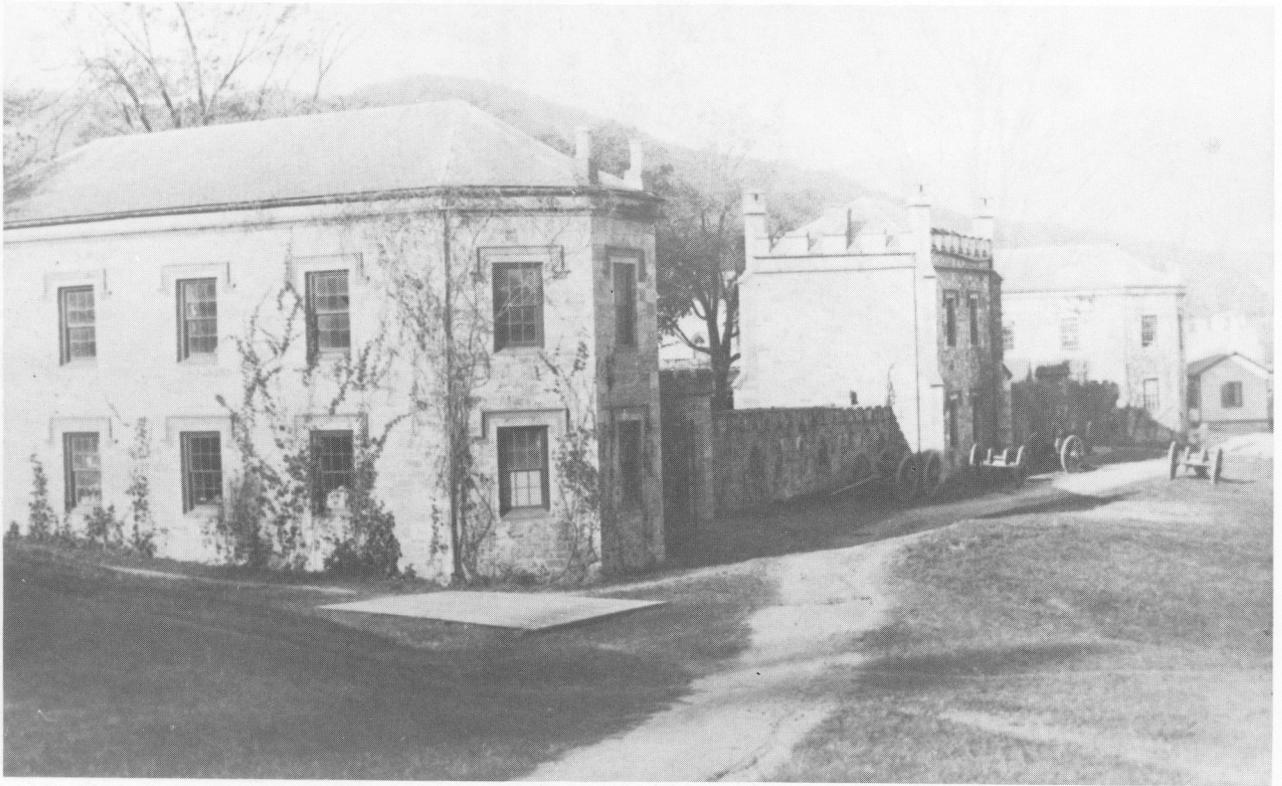


Pl. ORD-c.

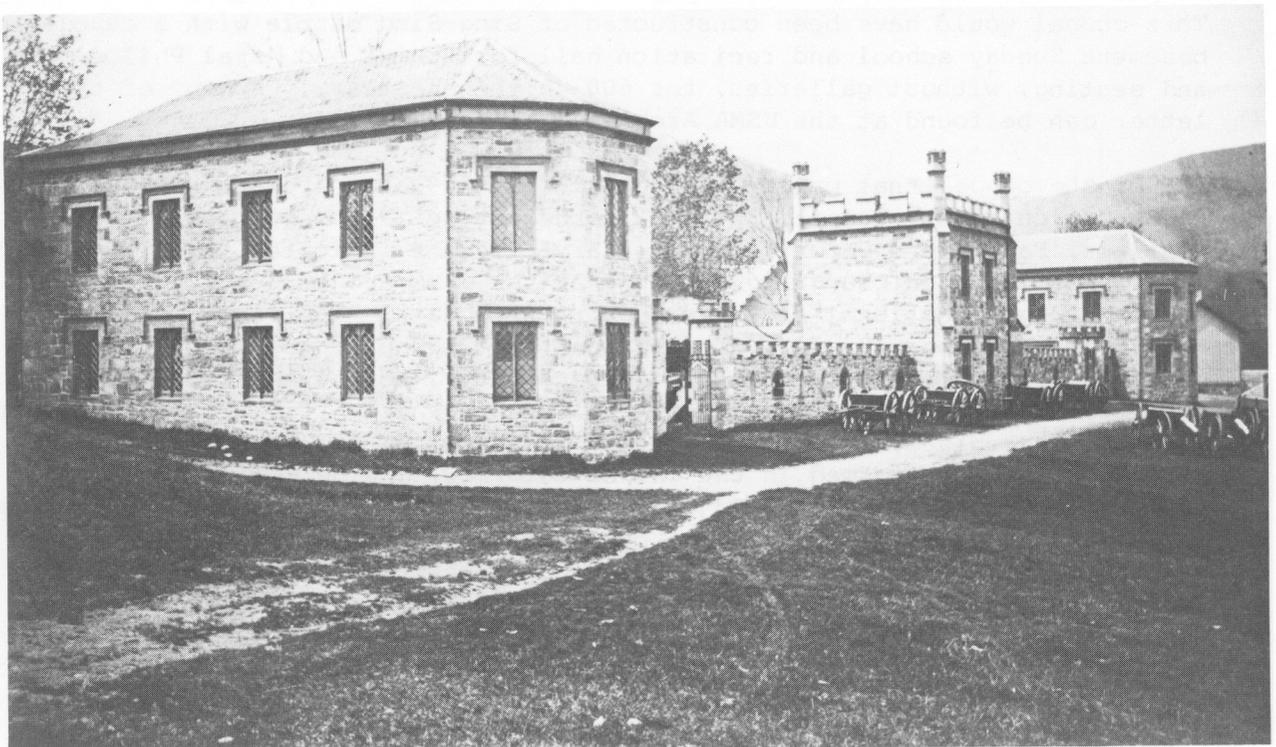
Drawer 32, Sheet 19  
 Fortifications File, U.S. Military Academy  
 West Point, (N.Y.)  
 Record Group 77, Records of the Office of  
 the Chief of Engineers  
 Cartographic and Architectural Branch  
 National Archives, Washington, D.C.



Pl. ORD-d: 1903  
Stockbridge Collection, neg. #162  
USMA Archives



Pl. ORD-e: 1879  
USMA Archives



Pl. ORD-f: 1871  
Pittman Collection  
USMA Special Collections

(OLD) CADET CHAPEL (689)  
HABS No. NY-5708-7

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Built: 1834-1836  
Cost: \$14,753.35 (Appropriated funds) (FN.1)

Zone: 2  
Category: 1

#### PHYSICAL HISTORY

The history of the Cadet Chapel begins in 1829. A report by the Board of Visitors first expressed a need for a chapel. Actual planning began in 1833, when, in March, Congress appropriated \$10,000 for construction. In a letter, dated July 29, 1833, to Brigadier General Charles Gratiot, Chief engineer of the United States, Superintendent Major Rene E. DeRussy discussed a proposed chapel design to be built on Trophy Point near where the flagpole now stands. This chapel would have been constructed of Sing-Sing marble with a cupola, a basement Sunday school and recitation hall for Ethics and Moral Philosophy, and seating, without galleries, for 600 in the sanctuary. A copy of this letter can be found at the USMA Archives.

Of the chapel that was finally built (Pl. 689-a) confusion surrounds the construction date. Despite the 1837 corner stone (also the date given in Williams, Facilities Report), documentary evidence indicates 1836. Copies of two orders found in the Building Files at the USMA Archives and several drawings at the National Archives support this date. The first order, No. 122, dated November 13, 1834, states that at "2:00 p.m. today" the corner stone was laid for the chapel. The second order, No. 63, states "The building recently erected in the vicinity of the Gun-house and artillery Laboratory for religious exercises, will be designated and known as the Chapel. Devine service will be performed in the Chapel tomorrow, and hereafter, on all customary occasions." Dated Adjutant Office, USMA, June 11, 1836, the order was signed by C.T. Smith, Adjutant by order of Lieutenant Colonel DeRussey. Though there was another chapel (also with an unknown construction date) located on the north slope below the Plain, two drawings at the National Archives (FN.2) clearly point to the old Cadet Chapel as being the chapel in order 122 and 63. Drawer 32, Sheet 36 is a drawing, "Plan of a Laboratory at West Point", received with a letter of Major Delafield, 2 August 1845. Written on the drawing are two notes concerning the Laboratory: (1) built during Thayer, (2) torn down to make way for library. The second drawing, Drawer 32, Sheet 39, is "a sketch showing location of the Building for Library and Philosophical Apparatus and other Buildings" also received with the letter of Major Delafield, 2 August 1845. Shown on this drawing are, the then new Library, the Cadet Chapel and a Gun-house a few yards south of the Chapel.

Photographic evidence seems to indicate that the only changes to the structure have occurred on the interior. These primarily have been confined to the interior decoration rather than to any major structural changes, though the altar was enlarged in 1944. Professor Weir completed the painting over the altar in 1840. Cushions and curtains were first installed in 1841; the draping behind the altar has since been changed a number of times. The first expenditure for the commemorative plaques was in 1859. This practice has

continued throughout the building's history. The light fixtures were altered as fuels changed, and the wall treatment and paint colors changed as tastes in interior decoration changed. A REPORT OF THE MILITARY ACADEMY POST FUND FROM ITS ORIGIN UNTIL THE YEAR 1888 (FN.3) lists an expenditure of \$571.99 in 1862 for an addition to the Chapel, but a map dated 1839 (FN.4) shows the Chapel footprint as it appeared in 1910 and as it appears today. What the statement concerning the addition is referring to is unknown.

The biggest change came in 1910, when the Chapel was moved, stone by stone, from its original location, next to the Library and across the street from Central Barracks and Hunt's Academic Building, to its present location in the cemetery. (Moving an endangered building is not, however, generally advised. The loss of a building's original context diminishes the integrity of the structure. Preservation in situ is preferred.)

#### AREAS OF CONCERN

After a new, larger Cadet Chapel was planned, the old Cadet Chapel had been scheduled to be razed to make way for the new East Academic Building. Public outcry against such an act was so great that it was decided to move the building to a new location. The architectural significance of the Chapel and its contribution to the traditions of West Point were well recognized by those whose final decision saved the first Cadet Chapel. Not only is it one of the oldest buildings at West Point, but it is also representative of the early classical architectural forms that were found in the first structures of the Academy.

The simple, rectangular, Greek temple form was typical of buildings built in the Greek Revival style. To this, the designer of the Old Cadet Chapel added an impressive Doric Portico and a balustrade along the roof line. This is the form the earliest photographs show and this is the form which should be preserved.

Because the interior is so simple and changes have been so few, it is not necessary to list every significant architectural feature (Pl. 689-b). Maintenance procedures which should be followed are primarily preservation-oriented rather than restoration-oriented. This includes repairs made to several of the light fixtures and attention given to the water damage in the southwest corner. Restoration procedures would include a return to the original altar configuration and paint color scheme. This last item will require a careful and complete paint analysis and study of interior design practices of that period. It may be that the original design will be impossible to determine and that a compromise design would be one that is appropriate for the general period.

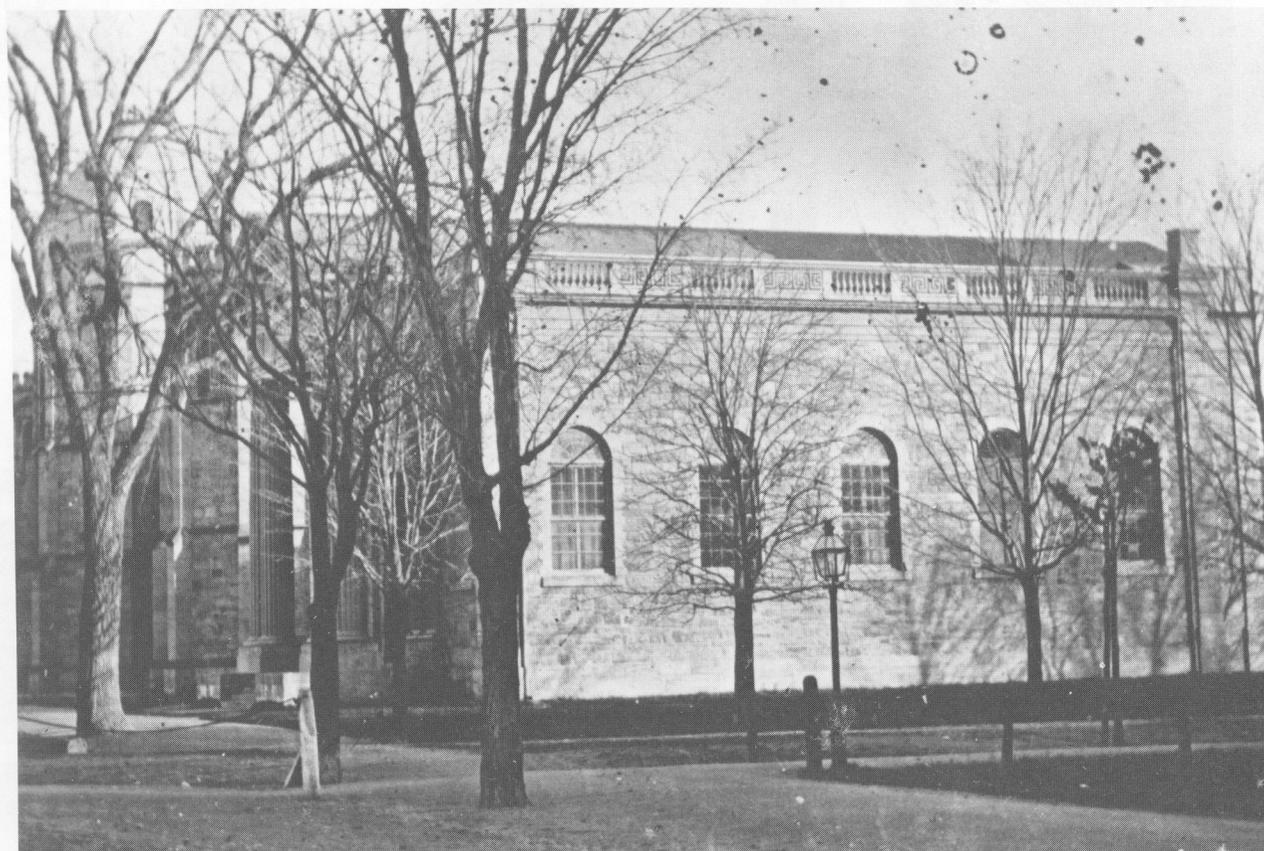
FOOTNOTES

(1) Williams, Facilities Report.

(2) Both drawings are found at the Cartographic and Architectural Branch of the National Archives. See FN.4 for complete citation.

(3) A copy of this report can be found in the Building Files at the USMA Archives.

(4) "Map of West Point, enlarged from a lithographic [sic] map of T. Brown's by, or under the direction to I. Rogers architect of N.Y. City, to exhibit the position of contemplated barracks." received in letter of Major Delafield, December 12, 1839. Drawer 32, Sheet 12, Fortifications File, U.S. Military Academy, West Point, N.Y., Record Group 77--Records of the Office of the Chief of Engineers, Cartographic Branch, National Archives, Washington, D.C.



Pl. 689-a: ca. 1865  
USMA Archives



Pl. 689-b: before December 1899  
USMA Archives

RAILROAD STATION (696)  
HABS No. NY-5708-24

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Built: 1924-1926

Zone: 2  
Category: 1

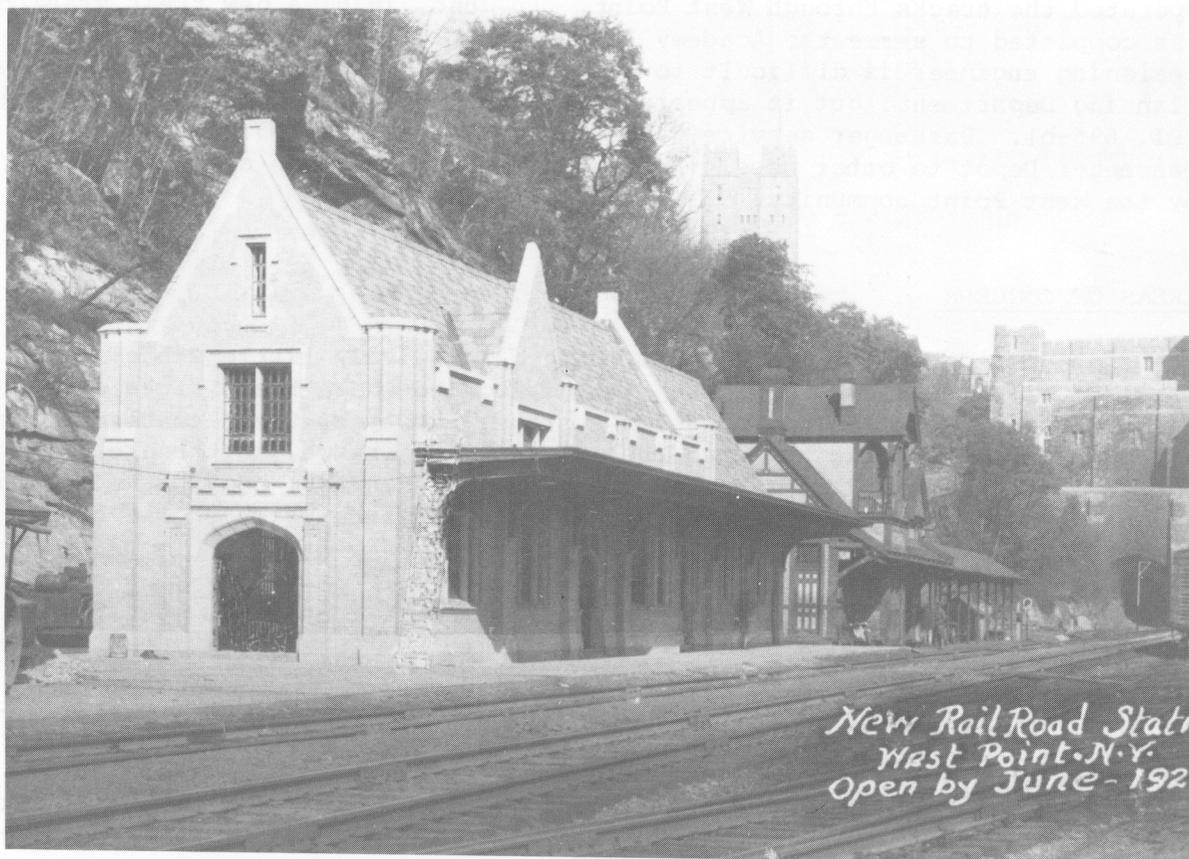
#### PHYSICAL HISTORY

The New York City Railroad, Buffalo and East River division, leased and operated the tracks through West Point. In June, 1926, a new train station was completed to serve the Academy (Pl. 696-a). The signature of the designing engineer is difficult to decipher on the existing prints at the Planning Department, but it appears to be P.E. D--gherty, possibly Dougherty (Pl. 696-b). Passenger service was stopped in the late 1950s, leaving the Passenger Depot to other uses. Renovations have just been completed for use by the West Point community.

#### AREAS OF CONCERN

The interior of the station has changed relatively little since its completion (Pl. 696-c). A kitchenette is located where the offices once were and the baggage room is now used for storage. However, the recently restored waiting room, which has retained its original appearance, is the area of concern within the building. The wood paneling, benches, heavy hammer-beams, and the leaded glass windows present a simple elegance which should be preserved.

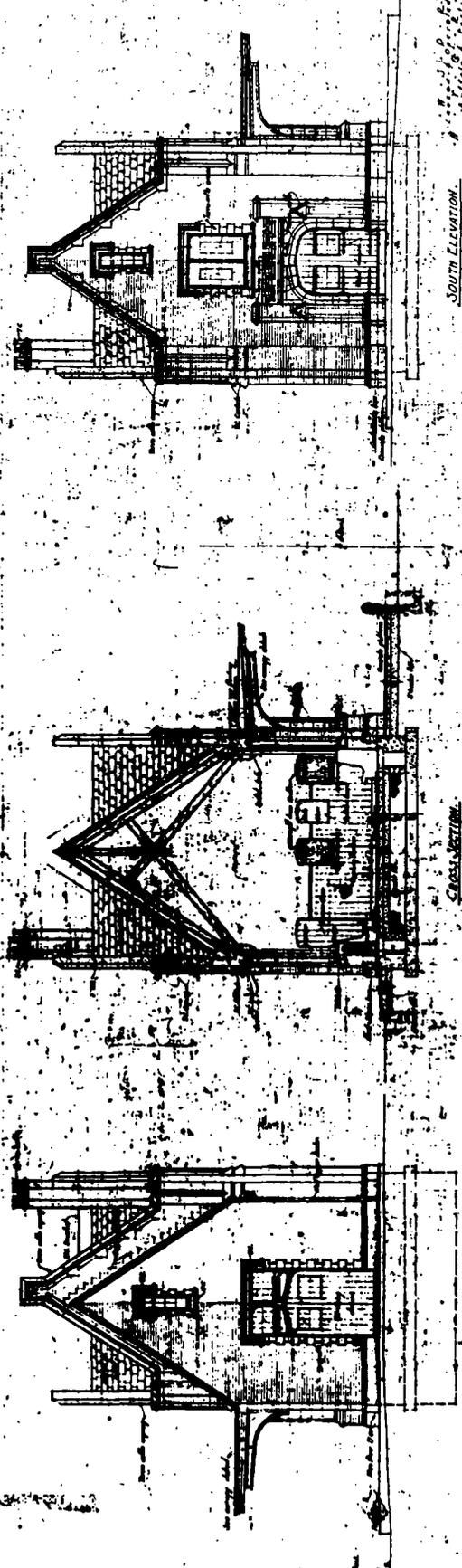
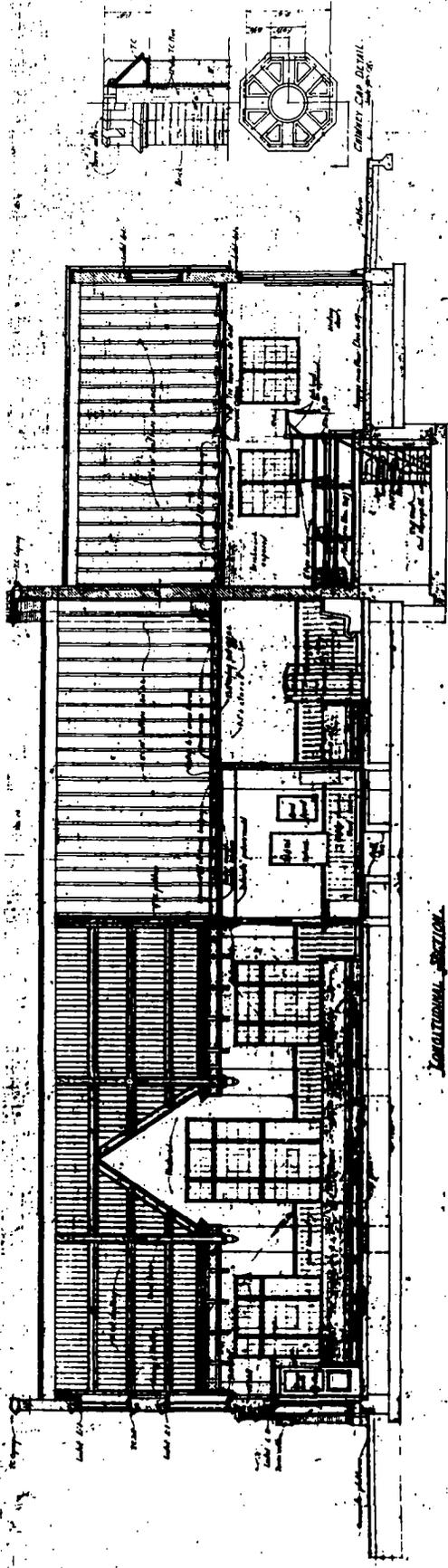
Since its completion in 1926, the only exterior change has been the extension of the platform canopy. From 1926 to the late 1950s, the depot and dock area, progressing up the road to Cullum Road and the Academic core, formed the first impression of the Academy upon the arrival of a new cadet. Despite the relative simplicity of the Gothic design of the depot, when compared to the Cram, Goodhue and Ferguson Gothic, it was, nevertheless, a significant part of the life at the Academy. Its continued preservation is important.



*New Rail Road Station  
West Point, N.Y.  
Open by June - 1920*

Pl. 696-a: 1926  
USMA Archives





W. J. P. E. & S.  
 ARCHITECTS  
 1111 10th St. N.W.  
 WASHINGTON, D.C.

68571

*Clipping*

PI. 696-c: DRWG No. 68576  
 USI-A-DEH

CADET CHAPEL (722)  
HABS No. NY-5708-20

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Built: 1906-1910 Zone: 1  
Architect: Cram, Goodhue and Ferguson Category: 1

PHYSICAL HISTORY

In March of 1906, both the Secretary of War and the Superintendent of the Military Academy approved Cram, Goodhue and Ferguson's design for the new Cadet Chapel and attached Chaplain's Quarters. Bertram Goodhue was the partner in charge of the design. Charles T. Wills, Inc., was awarded the construction contract in 1908, and the Chapel and Chaplain's Quarters were completed in 1910 for a cost of \$487,392.12 (Pl. 722-a).

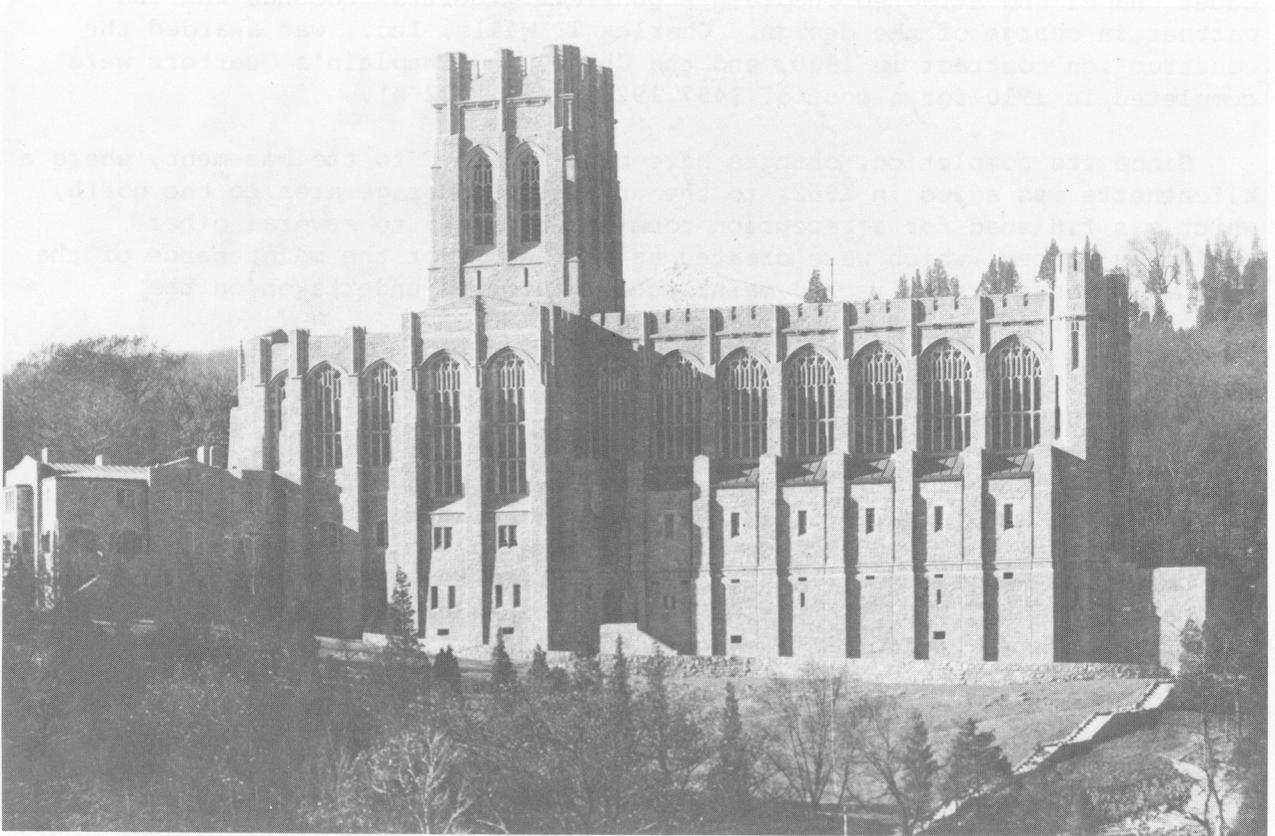
Since its completion, changes have been confined to the basement, where a kitchenette was added in 1962, to the unfinished storage area to the north, which was finished for a reception room in 1970, and to several other auxiliary spaces, which were created as necessary for the maintenance of the organ. Necessary repairs and maintenance have been undertaken on the exterior, but no change in form has occurred.

AREAS OF CONCERN, Pl. 722-b,c.

The Cadet Chapel is, without a doubt, the most magnificent of all the Cram, Goodhue and Ferguson buildings. Its location on the hillside overlooking the Plain and the remainder of the academic core is befitting a church of this magnitude. If the Administration Building is the epitome of military strength, then the Chapel could be considered the epitome of spiritual strength. Just as the Gothic Cathedral was built in an important part of a city and was visible for miles around, so too is the Cadet Chapel, as it reaches up out of the granite hillside. Its continued preservation is paramount.

Inside, the Chapel is equally impressive. The stone ribs, and Guastavino vaulted ceiling and the broad leaded, stained glass windows (Pl. 722-d), work together to create a space that is both powerful and serene, majestic and humbling (Pl. 722-e). The main chapel and the basement crypt/chapel are the interior spaces of primary concern.

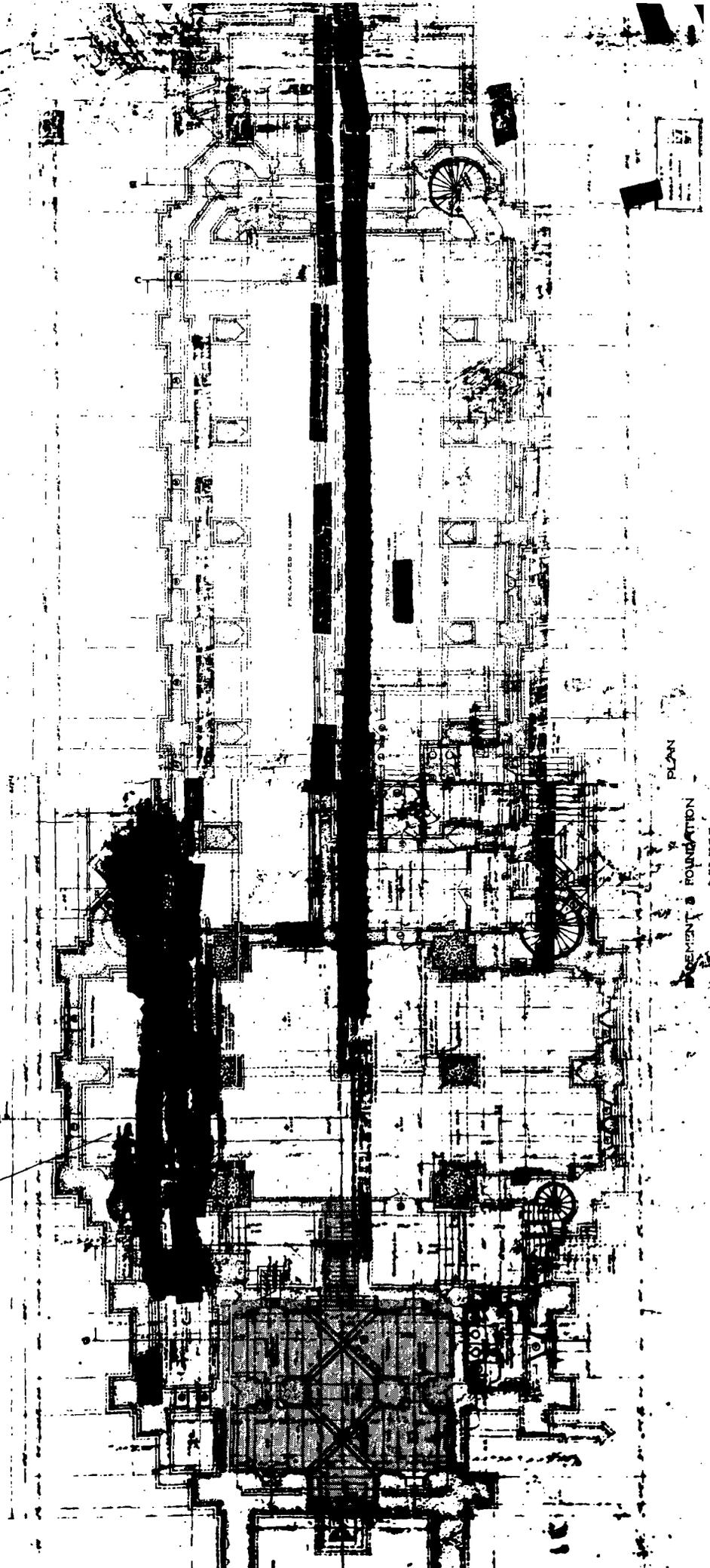
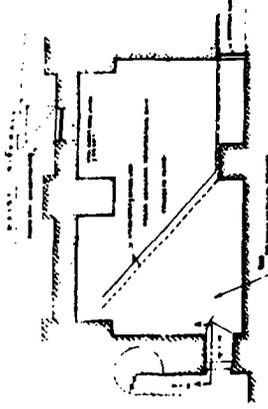
(The Chaplain's Quarters is discussed under CRAM, GOODHUE AND FERGUSON QUARTERS.)



Pl. 722-a.  
Stockbridge Collection, neg. #788  
USMA Archives

CHAPEL  
U. S. MILITARY ACADEMY  
WEST POINT, N. Y.  
CLARK, GOODRICH & FERRISSON ARCHITECTS  
NEW YORK & BOSTON

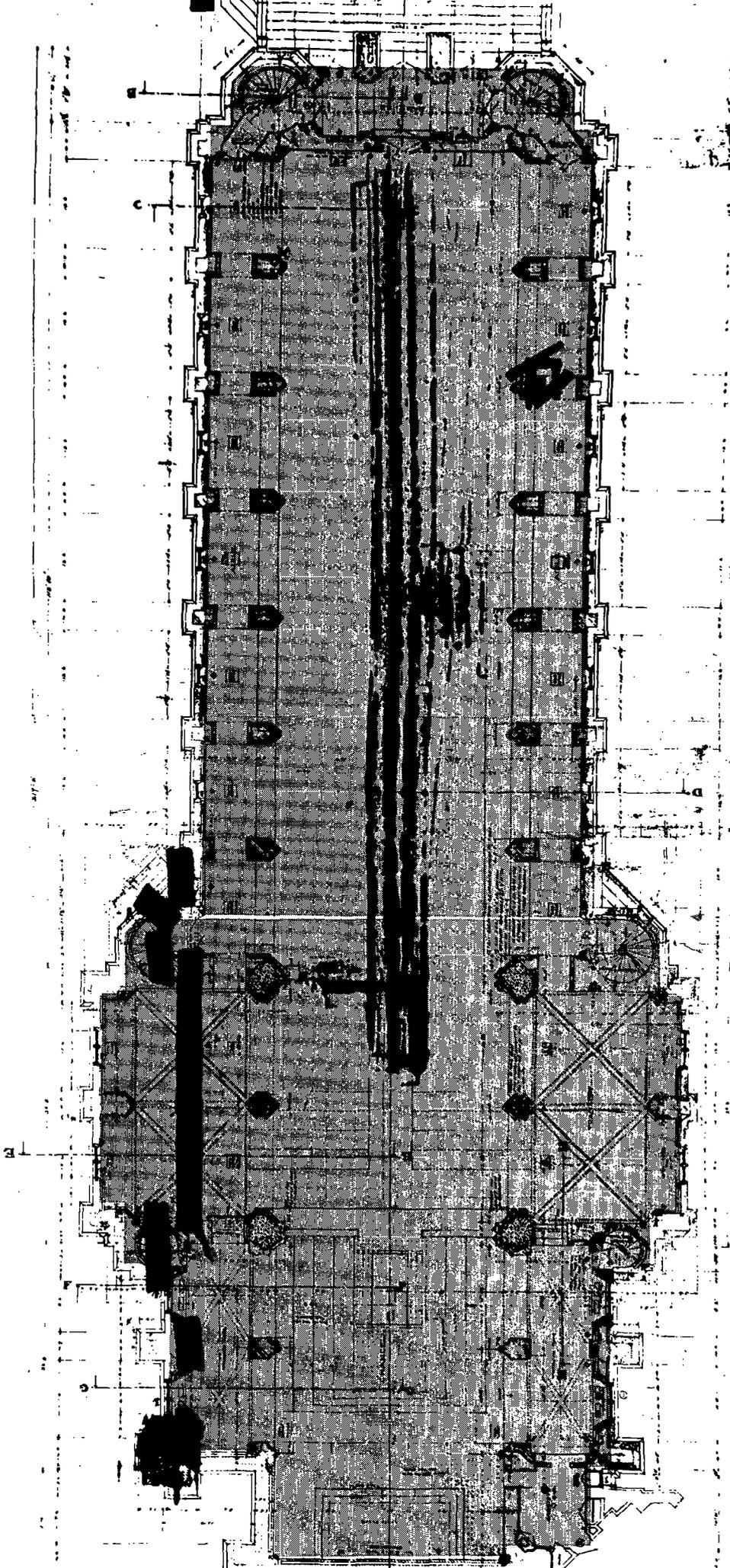
⑤



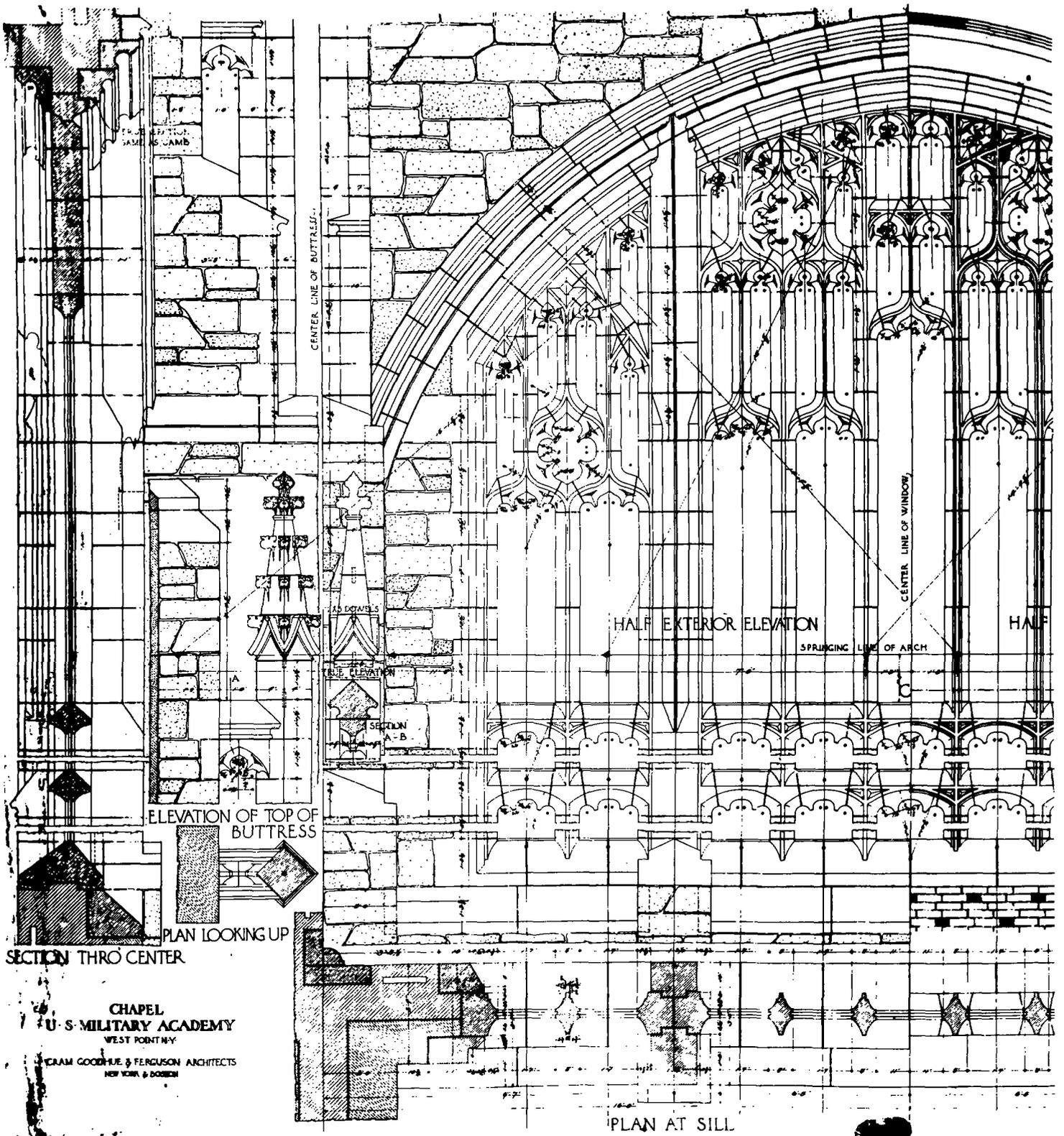
PLAN  
& FOUNDATION

BLDG No. 741  
CHAMPLAIN  
U. S. MILITARY ACADEMY  
WEST POINT, N. Y.  
GRAM KUCCHUE & FERGUSON ARCHITECTS  
NEW YORK & BOSTON

9



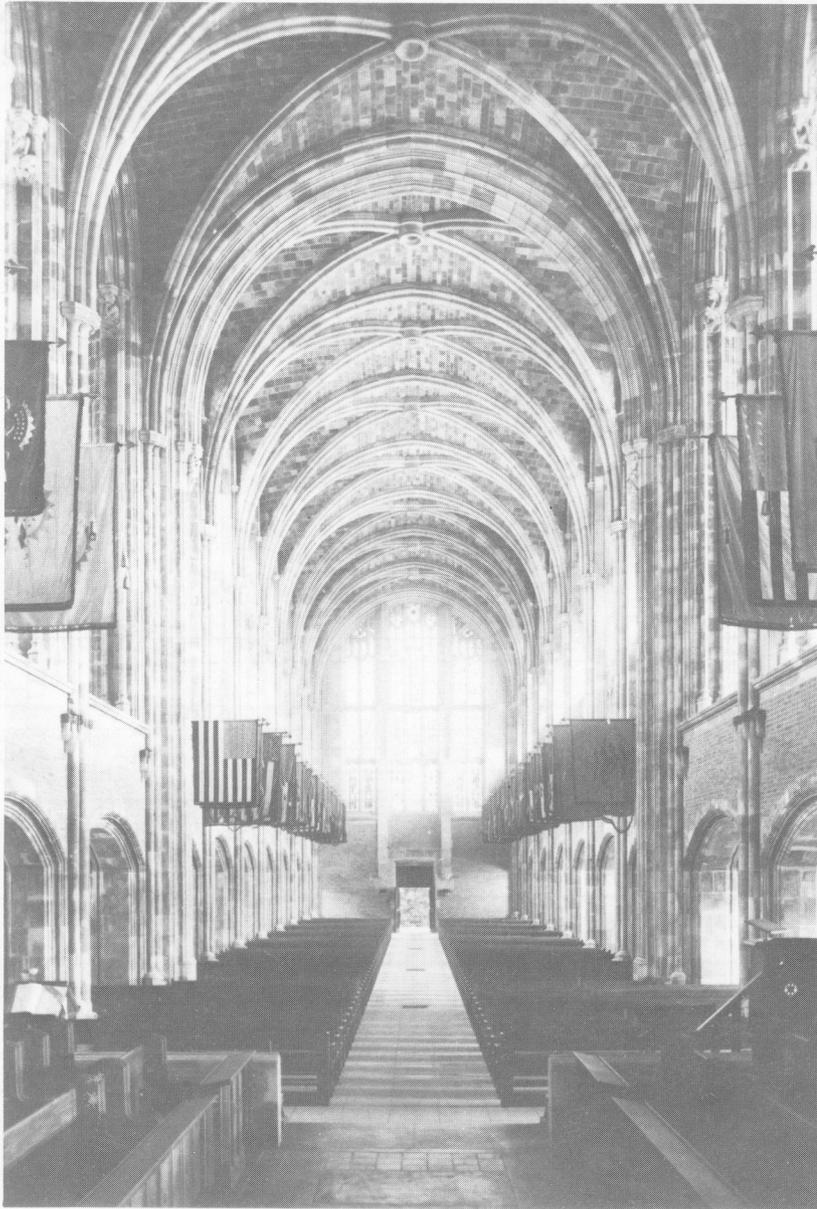
FLOOR PLAN



CHAPEL  
 U. S. MILITARY ACADEMY  
 WEST POINT, N.Y.

CLARAM GOODHUE & FERGUSON ARCHITECTS  
 NEW YORK & BOSTON

Pl. 722-d: DRWG No. 9  
 USMA-DEH



Pl. 722-e  
Stockbridge Collection, neg. #730  
USMA Archives

GYMNASIUM (727)  
HABS No. NY-5708-43

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Built: 1906-1910 Zone: 1  
Architect: Cram, Goodhue and Ferguson Category: 1,3,4

#### PHYSICAL HISTORY

The gymnasium, as seen today, encompasses an area nearly five times as large as the original gym designed by Cram, Goodhue and Ferguson in 1906 (Pl. 727-a). Charles T. Wills, Inc., was awarded the construction contract for the original gym in 1908, and the building was completed in 1910.

When the building was completed, the Corps of Cadets was only 417 strong. By 1931, however, there were over 1,000 cadets, making, the existing gymnasium spaces insufficient. In 1933, the Office of the Quartermaster completed drawings for the first addition, designed by Captain Edwin V. Dunstan (Pl. 727-b). Shortly after this was completed in 1935, Paul P. Cret began designs for an even larger addition to be built behind the Cram, Goodhue and Ferguson building. Design work began in 1936, with completion of the major portion in September, 1938, and completion of the squash courts in April, 1939.

Major additions were made again in 1946 by Delano and Aldrich, in 1967 by Raymond and Rado, and in 1975 by Sverdrup and Parcel and Associates Inc. This last addition was built on the foundations of the 1910 Natatorium. Numerous other plan alterations have occurred, but these are the most significant.

#### AREAS OF CONCERN

The Gymnasium is made up of several buildings, each with a different classification. Cram, Goodhue and Ferguson's building is a Category 1 building; its significance is obvious. The Dunstan and Cret additions fall into Category 3 as contributing to the district. The remaining additions are classified as Category 4. It is absurd, however, regardless of classification, to treat any one portion of the gymnasium as more important than another. The visual impact upon the Plain of this large mass is quite significant. Though it is the only academic building made of brick, the brick does relate to the brick residential buildings to the north and east, while the massing and Gothic details tie the structure to the academic buildings to the south. Each successive addition has maintained the Gothic feeling, reinterpreting the details as was appropriate to the time of construction.

Growth is a natural part of the history of the Gymnasium. Future additions, should they be necessary, must respect the architectural traditions of the existing gymnasium, the historical traditions of the Plain and, perhaps most important, the existence and historical associations the residences nearby.

Using the 1910 Cram, Goodhue and Ferguson building as the base, the remaining interior spaces were designated significant if they directly related to the 1910 building. The 1910 Cram, Goodhue and Ferguson building, 1935 Dunstan building, and 1938 Cret building contain the only significant spaces:

1910 (Original room names) (Pl. 727-c,d)  
Boxing (Pl. 727-e) Hall of Trophies  
Fencing Stair Tower  
Gymnasium (Pl. 727-f) Gallery Running Track

1935 (Original room names) (Pl. 727-g)  
Lobby (1st floor) (Pl. 727-h)  
Auditorium Lobby (2nd floor) (Pl. 727-i)

1938 (Original room names) (Pl. 727-j)  
East Stair hall and Corridor

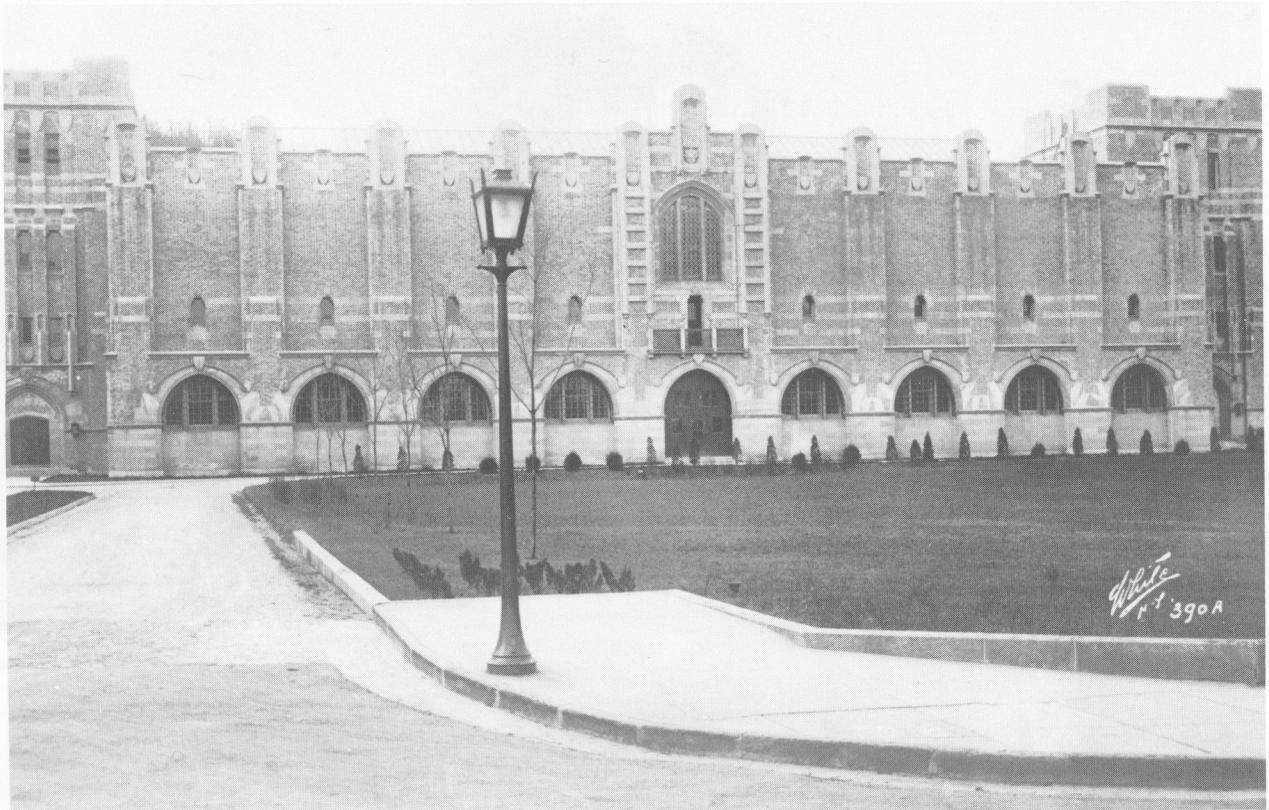
#### SIGNIFICANT ARCHITECTURAL FEATURES

##### 1910-Cram, Goodhue and Ferguson

The original appearance of the Hall of Trophies is relatively easy to maintain, since its surfaces do not receive the hard use, almost abuse, of the activity areas. Within the high activity areas, it is the original character which is to be maintained. Several of the spaces are no longer used for their original functions, so changes, primarily in the flooring material, are the most common occurrence. But exposed steel structural ceiling systems and the natural brick walls can and should be maintained. Using heavy mats hanging from the walls to protect against injury, as is done now, is a reasonable treatment, since the mats are not permanent and certainly fit the character of the spaces.

##### 1935/1938-Dunston/Cret

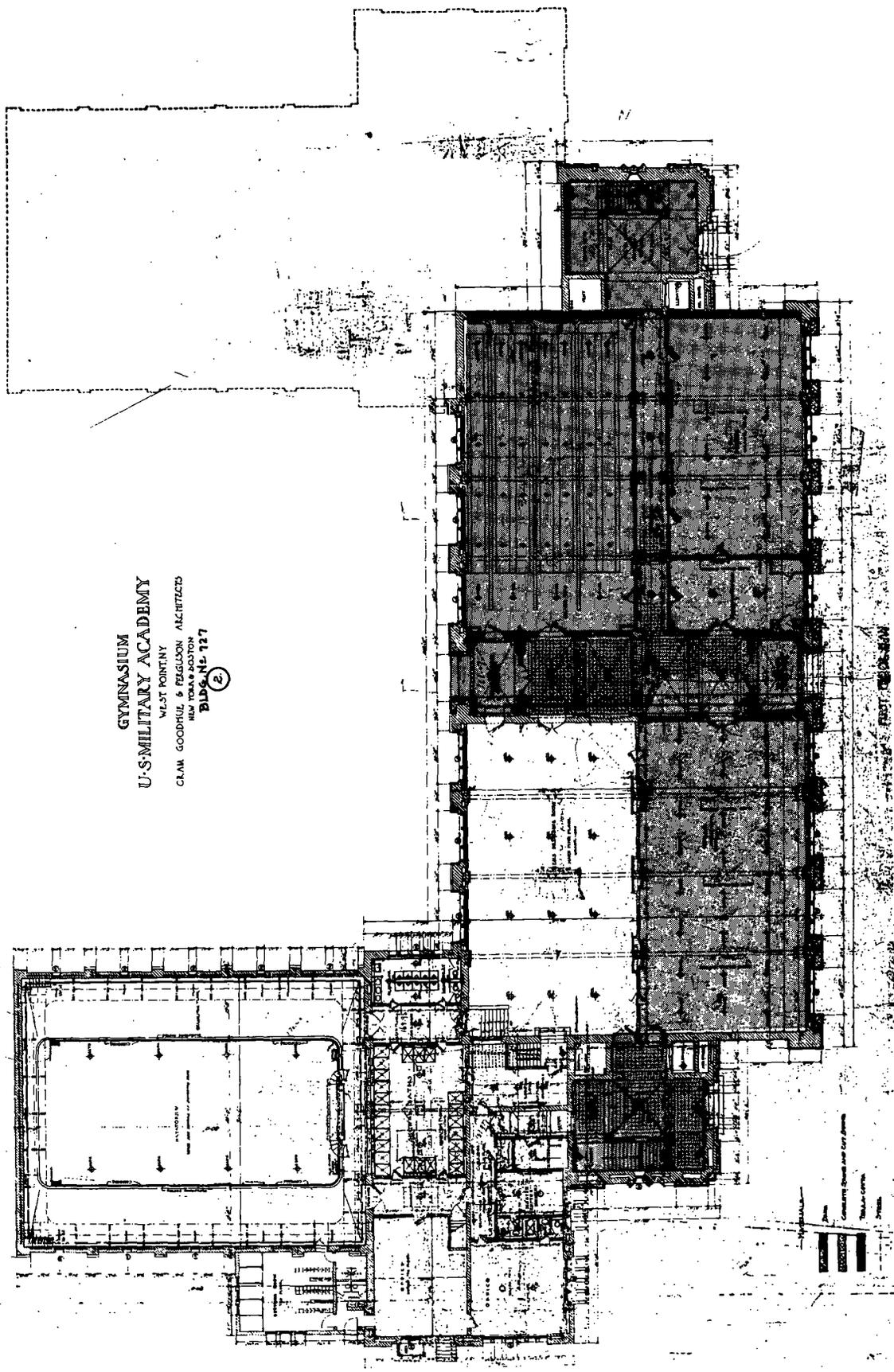
Though the 1935 and 1938/39 additions are only Category 3 buildings, the interconnection of their main stair halls and lobby areas to the 1910 Gymnasium make these important in the overall character and appearance of the building. Proper preservation maintenance is required here.



P1. 727-a: ca. 1910  
USMA Archives

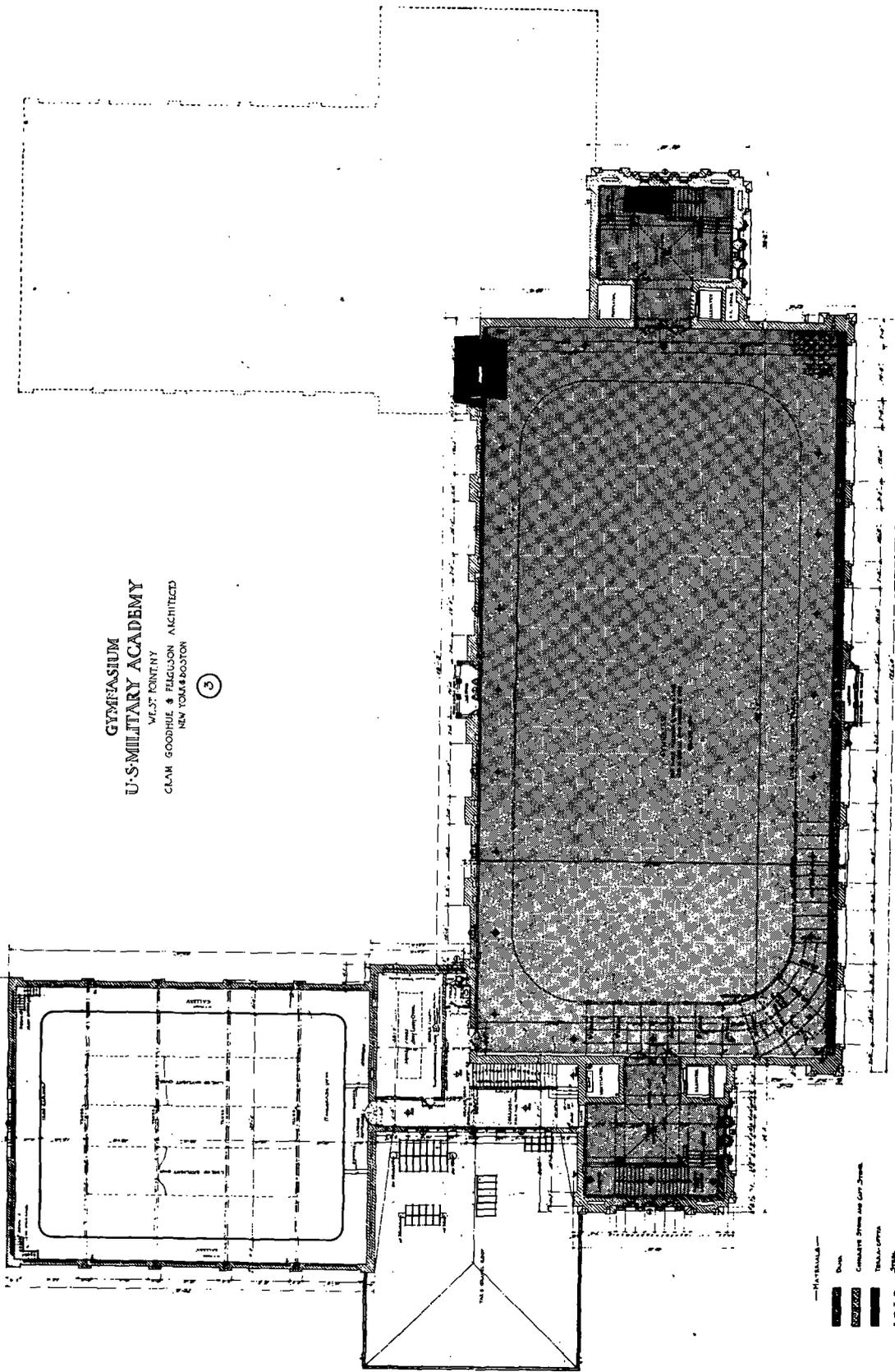


Pl. 727-b: ca. 1934  
USMA Archives



GYMNASIUM  
 U.S. MILITARY ACADEMY  
 WEST POINT, NY  
 CLM GOODRUL & FERGUSON ARCHITECTS  
 NEW YORK 2007  
 BLDG. NO. 727

P1. 727-c: DRWG No. 2  
 USMA-DEH



**GYMNASIUM**  
**U-SMILITARY ACADEMY**  
 WEST KENTNY  
 CLAM GOODHUE & FELGUSON ARCHITECTS  
 NEW YORK & BOSTON

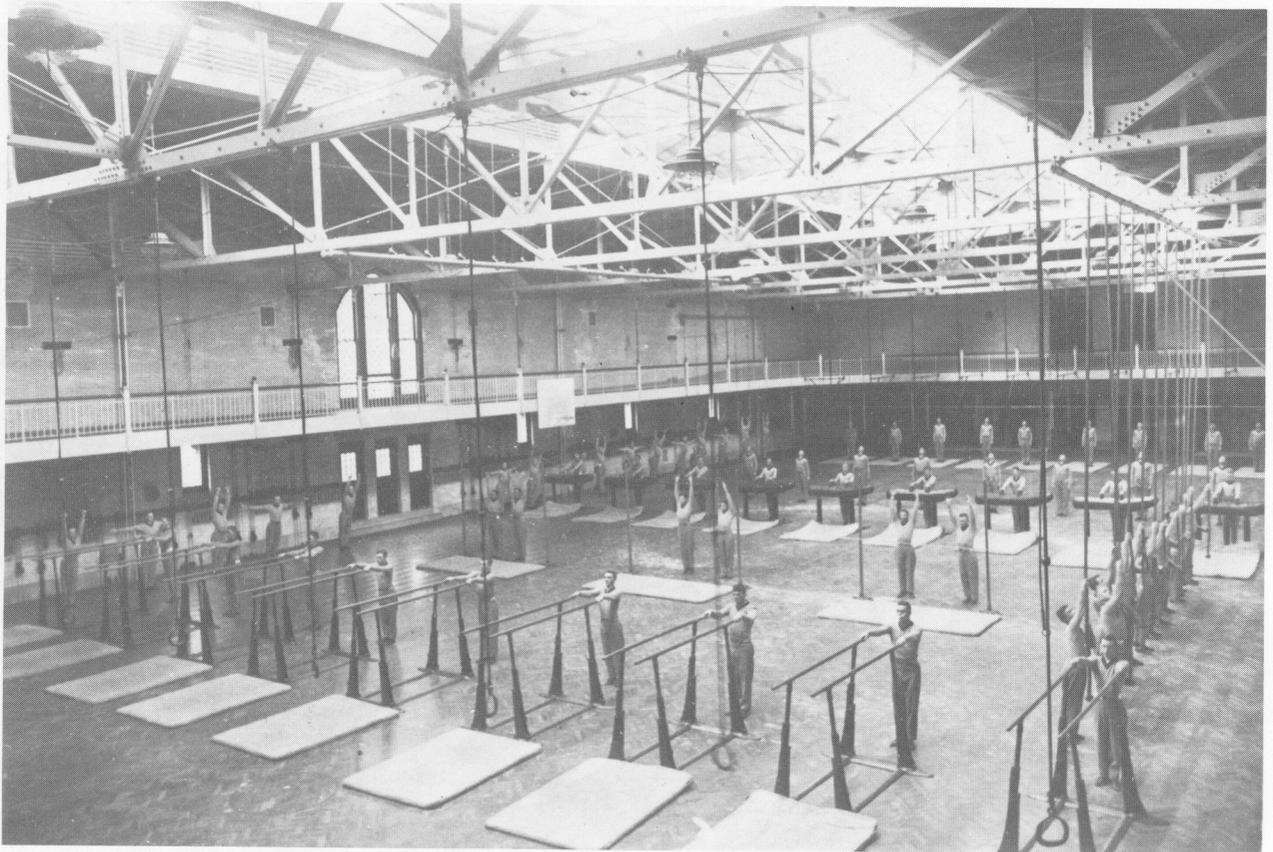
2

SECOND FLOOR, PLAN  
Scale 1/8" = 1'-0"

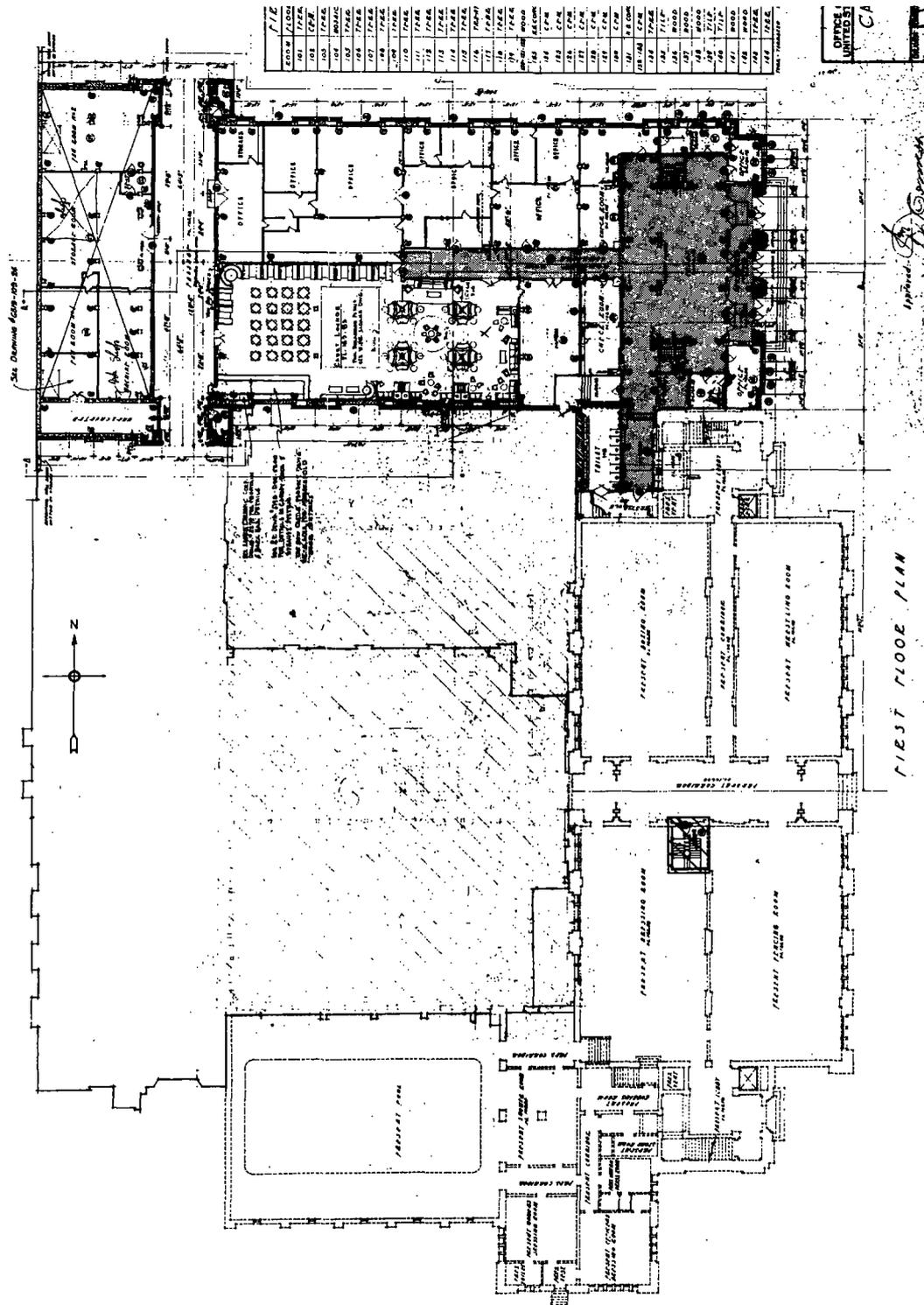
Pl. 727-d: DRWG No. 3  
 USMA-DEH



P1. 727-e: 1915  
Stockbridge Collection, neg. #480-b  
USMA Archives



Pl. 727-f.  
Stockbridge Collection, neg. #959  
USMA Archives



ROOM NO.	AREA	FINISH
101	17,624	CPB
102	17,624	CPB
103	17,624	CPB
104	17,624	CPB
105	17,624	CPB
106	17,624	CPB
107	17,624	CPB
108	17,624	CPB
109	17,624	CPB
110	17,624	CPB
111	17,624	CPB
112	17,624	CPB
113	17,624	CPB
114	17,624	CPB
115	17,624	CPB
116	17,624	CPB
117	17,624	CPB
118	17,624	CPB
119	17,624	CPB
120	17,624	CPB
121	17,624	CPB
122	17,624	CPB
123	17,624	CPB
124	17,624	CPB
125	17,624	CPB
126	17,624	CPB
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128	17,624	CPB
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148	17,624	CPB
149	17,624	CPB
150	17,624	CPB

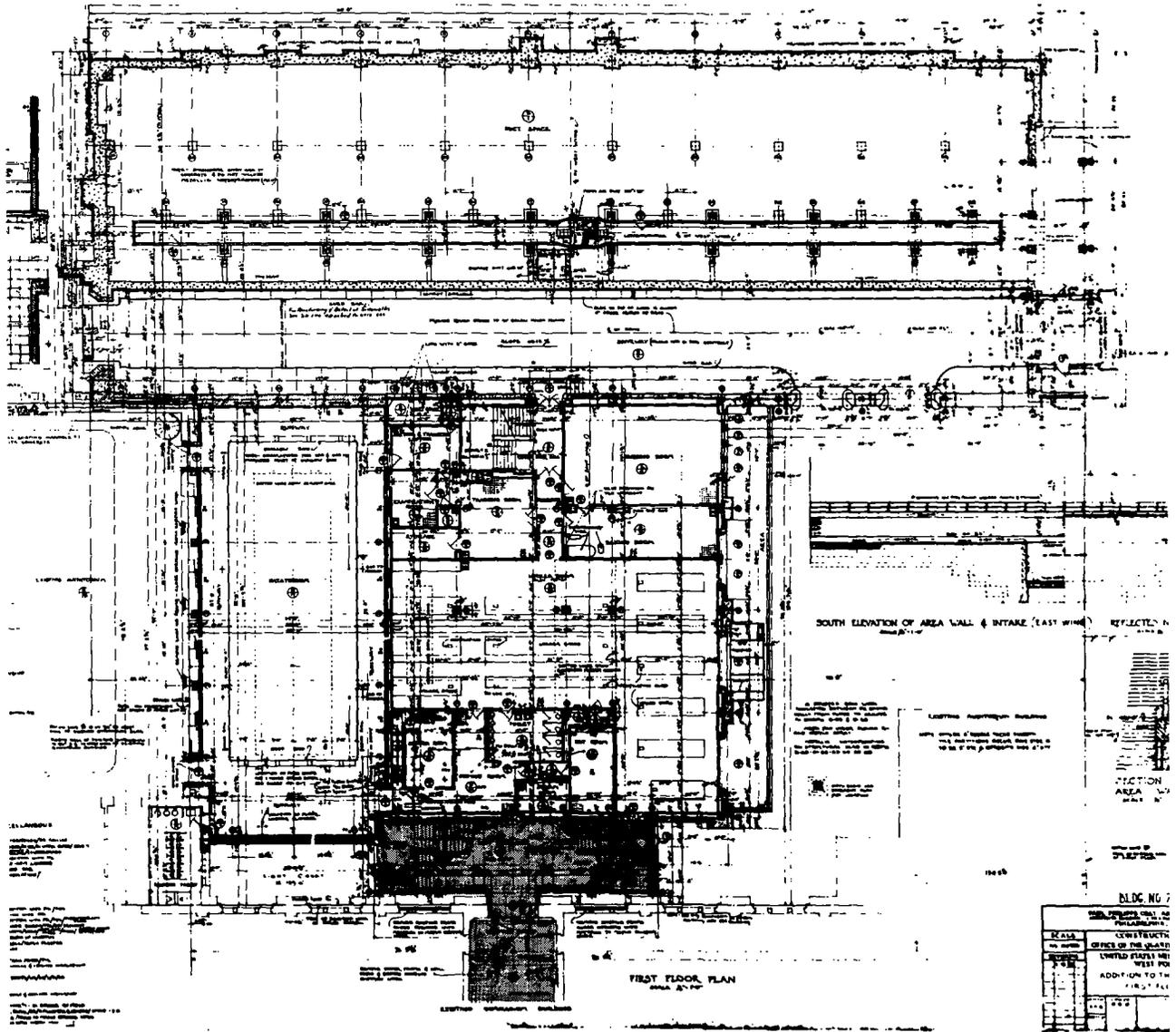
P1. 727-g: DRWG No. 6519-109-2  
USMA-DEH



Pl. 727-h: 1934  
Completion Report  
Files--DEH, USMA Engineer's office.



Pl. 727-i: 1934  
Completion Report  
Files--DEH, USMA Engineer's office



Pl. 727-j: DRWG No. 6519-602  
USMA-DEH

(SCOTT) CADET BARRACKS (735)  
HABS No. NY-5708-45

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Built: 1936-1938  
Architect: Paul P. Cret

Zone: 1  
Category: 2

#### PHYSICAL HISTORY

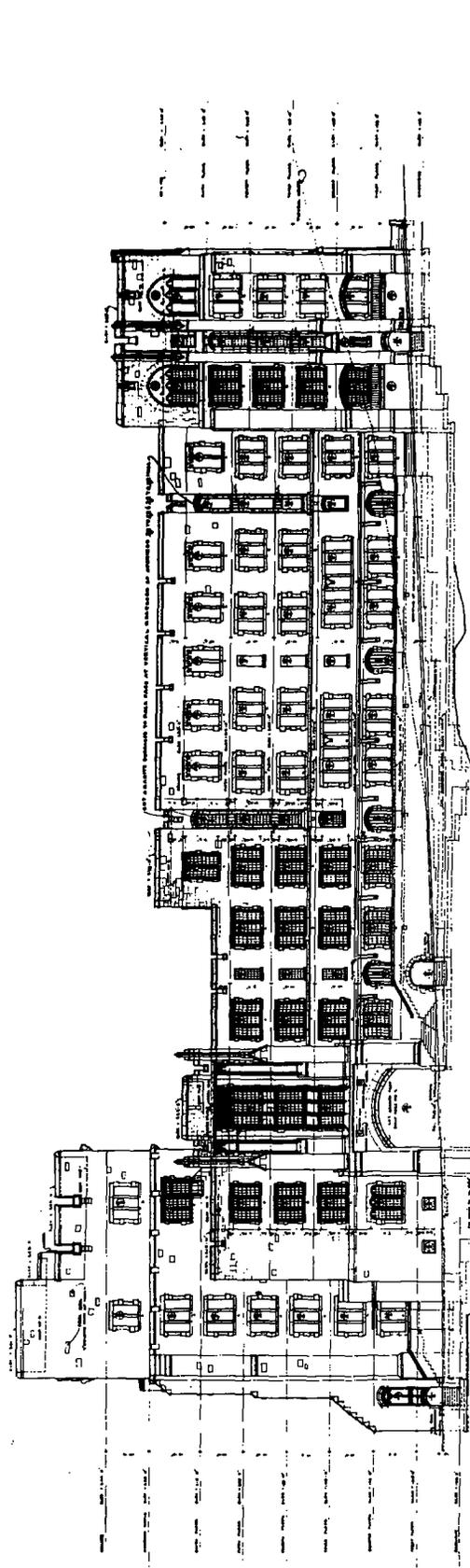
Between 1935-1938, Paul P. Cret was working on six major commissions at West Point, including Scott Barracks. Working with Cret on Scott Barracks were: Gravell and Duncan and Sandlass, Wieman and Doelman, Associated Engineers as structural consultants; and Moody and Hutchison as heating, ventilating and plumbing consultants. The drawings were completed and the specifications issued in May, 1936 (Pl. 735-a). Construction was completed in 1938.

The floor plan has not changed since the building's completion, nor, for that matter, has the basic plan changed for any barracks since Central Barracks was first built in 1851. Scott Barracks is arranged in divisions on five floors with separate stairs serving each division. There are four two-person rooms per floor, with a shower-toilet room at one end of the stairhall. Communal shower rooms, locker rooms, trunk rooms, and storage rooms are located in the basement.

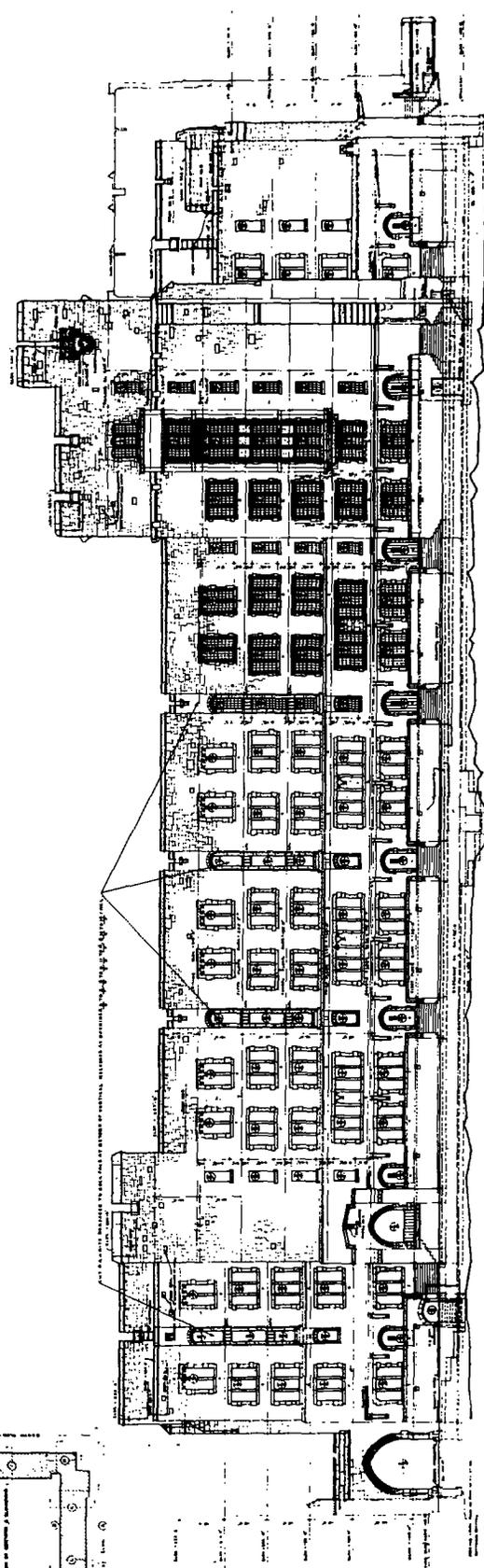
#### AREAS OF CONCERN

Each of the rooms in Scott barracks is simply appointed, with little to distinguish them. Though no major changes have occurred, in 1957, original wood floors were covered with vinyl flooring, and, in 1959, the slate stair treads and landings were resurfaced. As with New South Barracks, Scott Barracks derives its primary significance from its exterior. (The basement shower rooms and locker rooms are of concern, however, not because of any architectural merit but because of the badly deteriorated condition of the walls and fixtures and the resulting health hazards.)

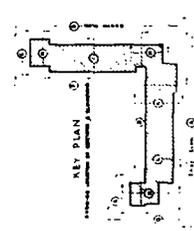
Tucked away behind the mass that is Washington Hall and MacArthur Barracks, Scott Barracks hugs the hillside that leads up to the Cadet Chapel. The importance of this building lies in the fact that its simple but finely detailed Gothic facade completes the courtyard created by MacArthur Barracks and the Cadet mess hall, and that, with Scott Barracks, Paul Cret continued the Gothic architectural tradition of West Point.



NORTH ELEVATION LINE 'B'



EAST ELEVATION LINE 'A'



ARCHITECTURAL DIVISION  
 OFFICE OF THE QUARTERMASTER GENERAL  
 UNITED STATES ARMY  
 CADRET BARRACKS  
 ELEVATIONS

SHERMAN BARRACKS (738)

Built: 1962  
Architect: O'Connor and Kilham

Zone: 1  
Category: 3

AREAS OF CONCERN: Exterior only

Sherman Barracks, while not in a highly visible area, is important because of its relationship to Lee Barracks and to the courtyard created between them. The maintenance of its facade should be given the same considerations as Lee Hall and the other twentieth century buildings.

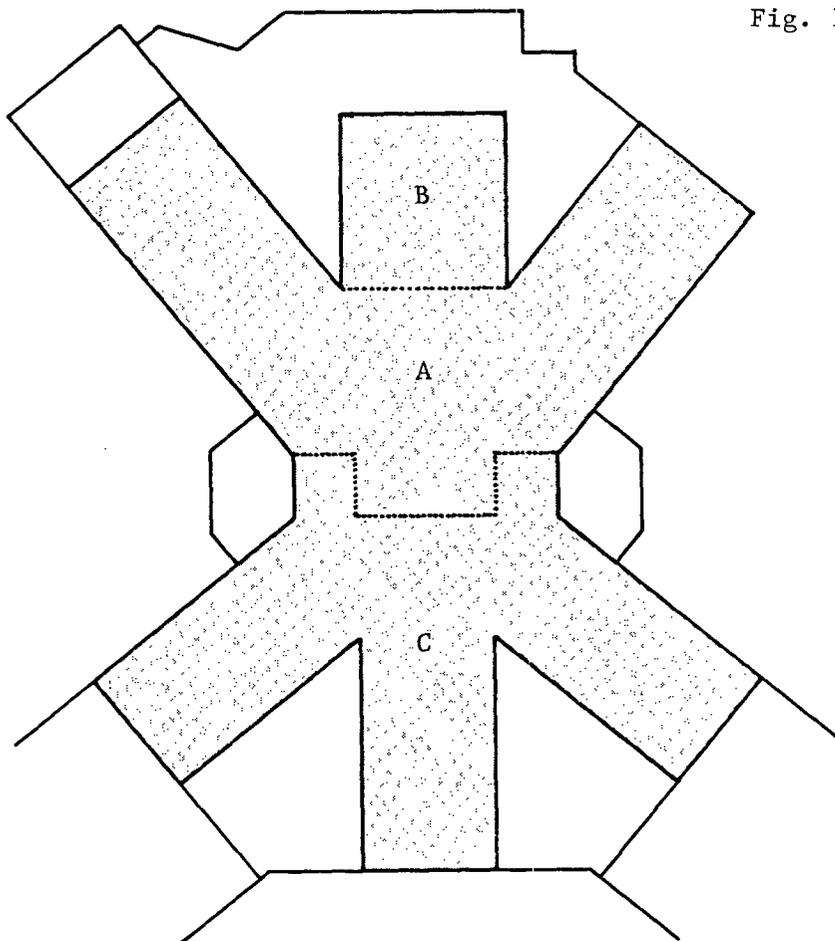
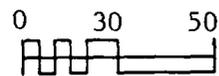


Fig. 1- WASHINGTON HALL  
CADET MESS

Schematic Plan-  
1926 facade shown  
with dotted line.



NORTH

LEE BARRACKS (740)

---

Built: 1962  
Architect: O'Connor and Kilham

Zone: 1  
Category: 3

AREAS OF CONCERN: Exterior only

Sandwiched between Grant Hall and Building 606, Lee Barracks is important because of its location along Thayer Road. The strong imagery presented by this wall of granite leaves a lasting impression upon those who see it. Buildings have been replaced since the early years of the Academy, but this strong image has persisted. The granite walls of Lee Barracks uphold this image and should be maintained in an appropriate manner.

WASHINGTON HALL (745)  
HABS No. NY-5708-44

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Built:	1925-1926	Zone:	1
Architect:	Arnold W. Brunner, Associates	Category:	1
Cost:	1926- \$2,400,000		

#### PHYSICAL HISTORY

Washington Hall encompasses four major building programs and now houses the Cadet Mess, offices, classrooms, and Eisenhower and MacArthur Barracks. The portion that contains the Cadet Mess is the focus of this report. The first portion, labeled A in Fig.1, originally contained the Cadet Mess and Store and the Drawing Academy. The drawings are dated and were approved in 1925. The names Arnold W. Brunner and Associates, William Gehron, Sidney F. Ross, William F. Pennell, and Merle W. Alley appear as architects on the drawings, with J.F. Musselman Associates as consulting engineers for the

heating, electrical and plumbing aspects of the job. With the Federal government as contractor, Washington Hall was completed in 1926 for a cost of \$2,400,000 (Pl. 745-a,b).

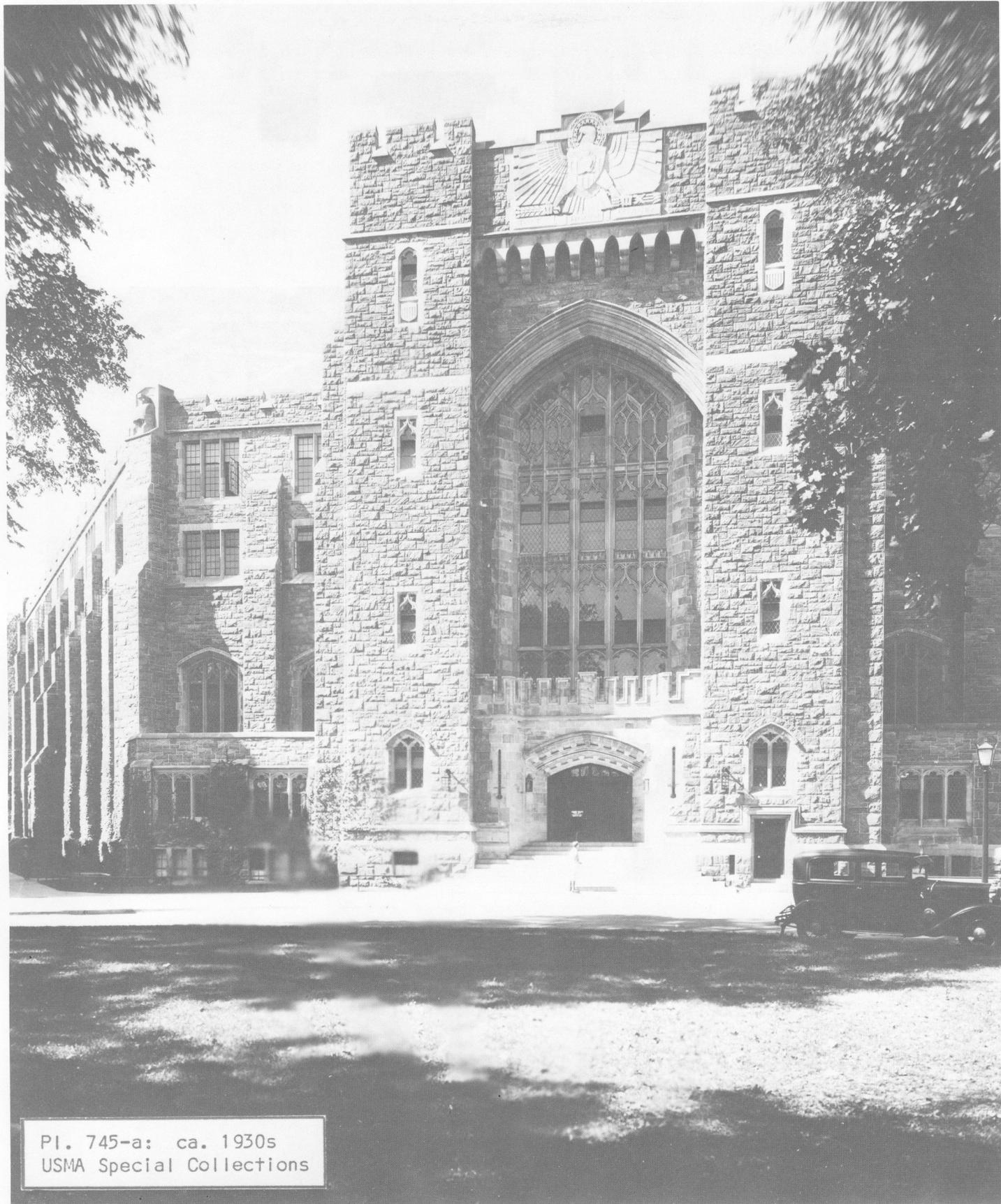
In 1946, Delano and Aldrich, Architects-Engineers, completed the drawings for the alterations to the west or kitchen portion of the Cadet Mess, labeled B on Fig. 1. The dining hall was enlarged (into what had been the original kitchen) to accommodate the growing Corps of Cadets (Pl. 745-c), and the kitchen and food preparation areas were altered and enlarged accordingly.

The final portion of the building was added by O'Connor and Kilham, with Clarke and Rapauno, James Mongitore and Assoc., and Wiskopf & Pickworth. These drawings are dated 1965. Again, the dining hall was extensively enlarged, with barracks and additional offices added to the complex. The addition to the dining hall, labeled C on Fig. 1, and its effect on the 1926 facade are the primary areas of concern in this portion.

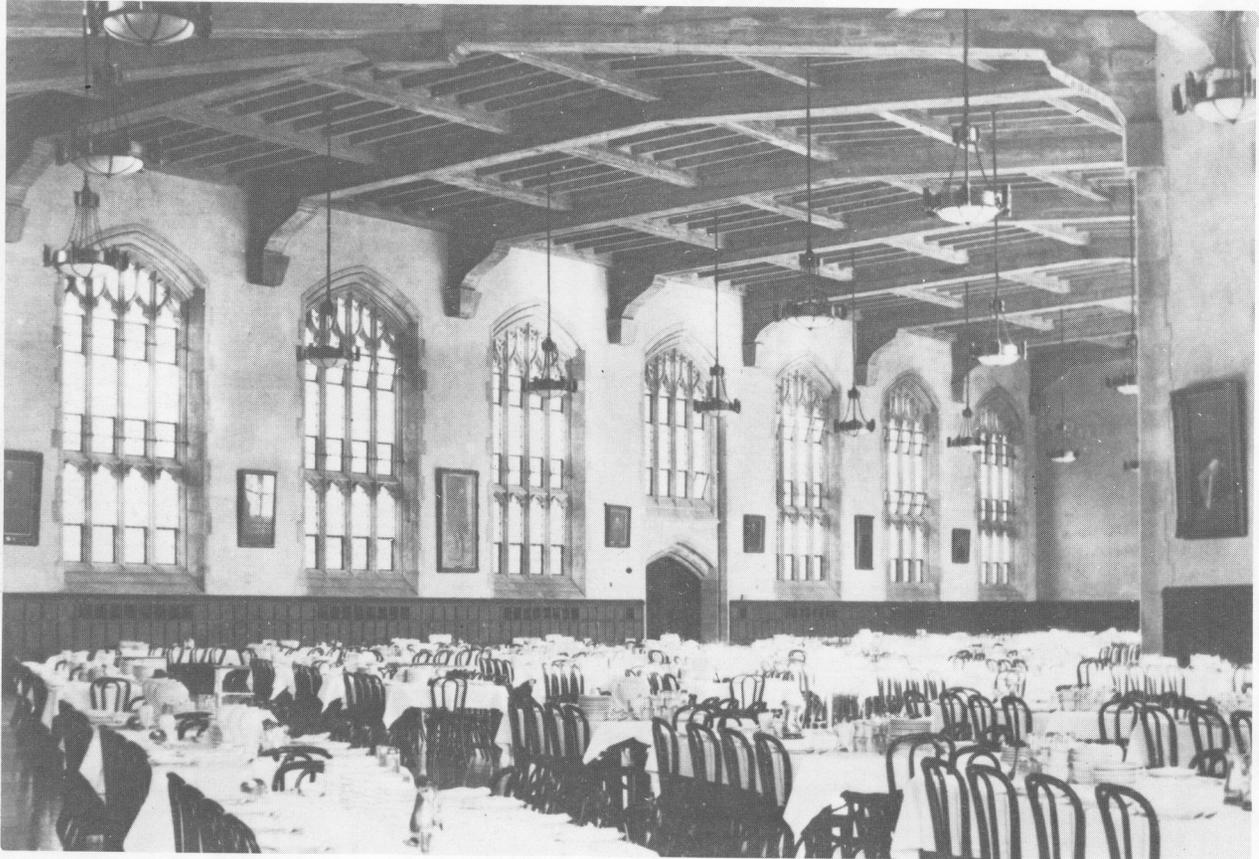
#### AREAS OF CONCERN

Though the stripped down Gothic facade designed by O'Connor and Kilham lacks the vitality of the earlier buildings, its preservation is extremely important nonetheless. When standing on the Plain or at Trophy Point, Washington Hall is the most prominent building. To recent graduates, Washington Hall IS West Point; its imposing mass on the Plain being one of their most vivid memories. The visual impression of Washington Hall is part of the continuum of the architectural traditions of West Point.

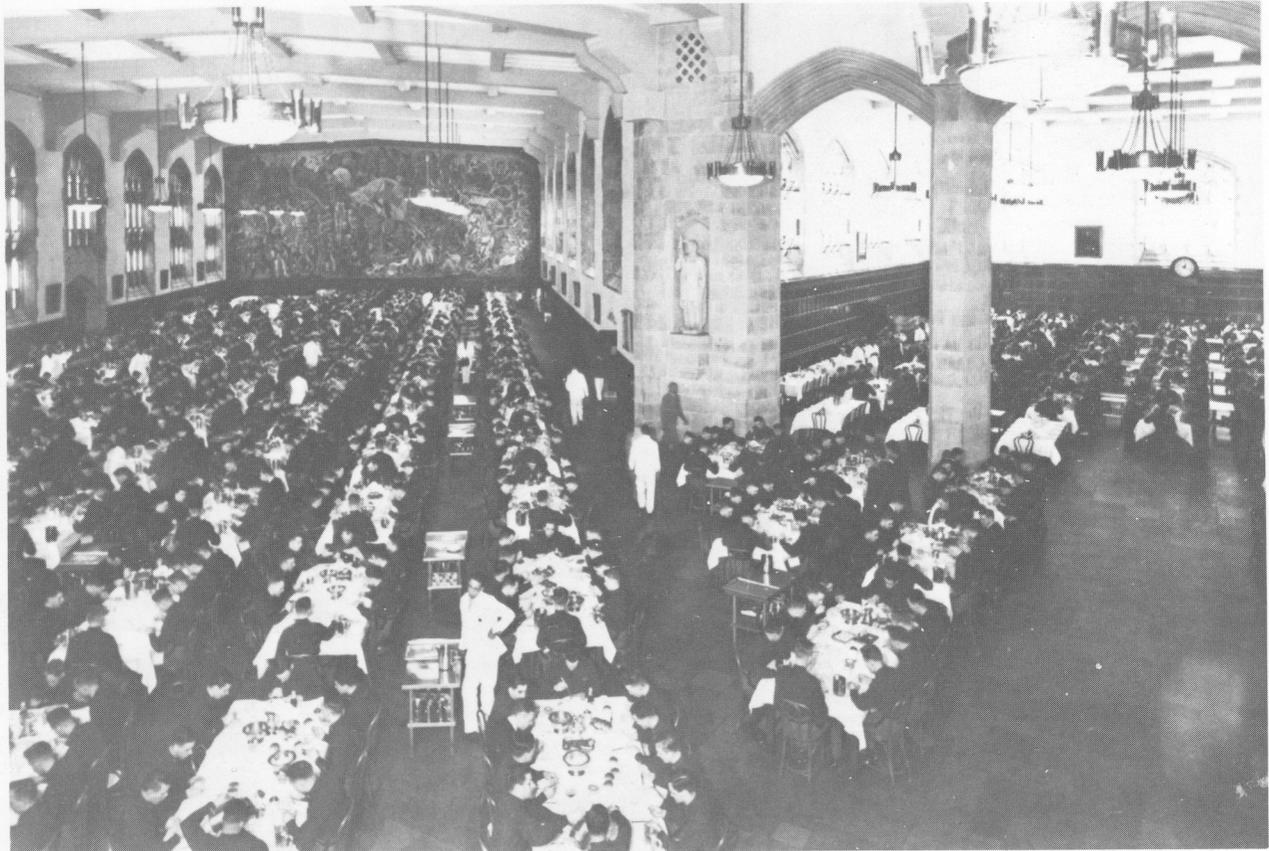
With each addition to the dining hall, interior details were either copied from the original or reinterpreted in such a manner as to create an overall harmony (Pl. 745-c). The sensitivity with which the remaining portion of the 1926 facade has been treated is, in itself, remarkable considering the state of the art in historic preservation during the 1960s. The overall character of the dining hall has been firmly established; continued preservation maintenance is required. The Exhibition Hall (Pl. 745-d) and corridor of the fifth floor have also survived the various additions to Washington Hall. The maintenance of its architectural character is recommended.



Pl. 745-a: ca. 1930s  
USMA Special Collections



Pl. 745-b: prior to 1936  
USMA Archives



Pl. 745-c: after 1946  
USMA Archives



Pl. 745-d  
USMA Archives

(OLD) CENTRAL BARRACKS (747)

HABS No. NY-5708-8

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Date: ca. 1851

Zone: 1

Category: 2

### PHYSICAL HISTORY

The physical form of Central Barracks took 70 years to develop. The building that exists today represents only a small portion of the structure that once existed. (Fig. 1)

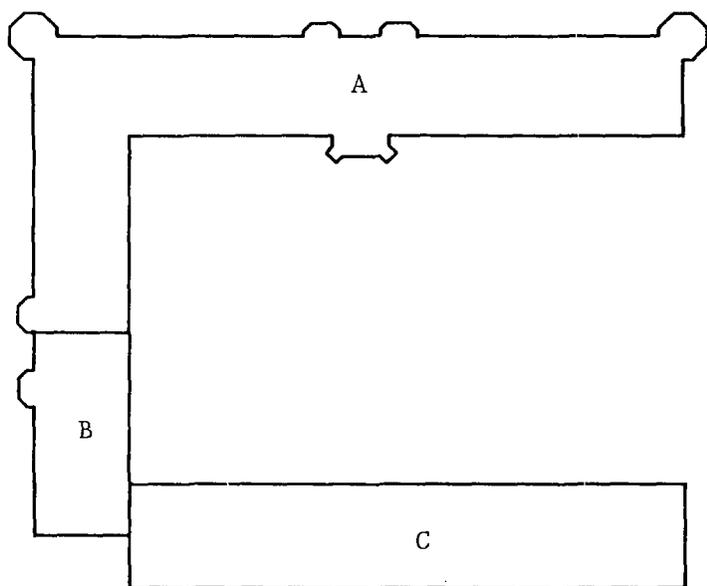


Fig. 1- SCHEMATIC PLAN  
No scale

NORTH



Planning for new barracks began in 1839. A map showing the position of proposed barracks was received by the Office of the Chief of Engineers with a letter of Major Delafield's dated December 12, 1839 (FN.1). A January 28, 1840 letter from Major Delafield contained several drawings for designs of the proposed barracks. Included were (1) two Greek Revival designs by Isaiah Rogers, dated June 4, 1839, (2) a Gothic design by F. Diaper [sic], also dated June 4, 1839, and (3) two Gothic designs drawn by Captain Eastman, U.S. Army, dated January 26, 1840 (FN.2). The final two drawings were used for the design of Central Barracks. While Major Delafield is generally credited with the design of the barracks, (notes on several of the drawings strongly indicate this), the similarity between Diaper's design and the building that was finally constructed strongly suggests Diaper as the source for the final design.

The design separated the four-story building into divisions. Each division had four rooms per floor, two rooms on each side of a stair hall. There was no interior communication between divisions. Each stair hall had two entries. A one story porch ran the length of the Area side of the building, interrupted only by the Sallyport. Toilet rooms, shower rooms, storage, a boiler room and miscellaneous spaces occupied the basement. A large hall was located in the room over the Sallyport. The building was designed to be fireproof, with thick brick firewalls separating each division to keep flames from spreading through the building. However, a fire on an upper floor of one of the divisions spread across the roof to neighboring divisions on February 6, 1871 (FN.3).

The first 10 divisions, designated by an "A" in Fig. 1, were completed in 1851 at a cost of \$186,000 (FN.4), though they may have been built in two phases. A drawing labeled, "Sketch of the Ground Adjacent to and in the Rear of the Cadet Barracks" (ltr. of Capt. H. Brewerton, March 5, 1849) (FN.5), shows existing buildings drawn in black and proposed buildings drawn in brown. The west half of Central Barracks (Pl. 747-a) is shown in black as existing, while the east half is shown in brown (Pl. 747-b). A careful look at Pl. ORD-a, a copy of a print made in 1848, also gives credence to this hypothesis. Though a measure of artistic licence has been taken the building in the lower right-hand corner bears a strong resemblance to the west half of Central Barracks. The evidence is not conclusive, however, and more study must be done. Three more divisions were added in 1882, ("B" in Fig. 1) and the south wing ("C" in Fig. 1), designed by Captain Arthur Proctor in 1918, was completed in 1921. In the ensuing years, the Corps of Cadets grew in numbers. Central Barracks, even with its 1882 and 1921 additions, became wholly inadequate and obsolete. All of Central Barracks was scheduled to be demolished with the completion of Washington Hall. By 1969, public outcry against this became so great that it was decided to demolish all but the first division. Central Barracks now houses a pizza hall in the basement, with offices, a small museum, and the Honor Committee meeting room on the remaining floors.

#### AREAS OF CONCERN

The influence of tradition in the physical development of the Academy was amply shown in the rules governing the competition of 1903. The architectural traditions on which these were based, however, are slowly declining. The Gothic architecture so strongly advocated by Major Delafield was once richly represented by Central Barracks (Pl. 747-c), the Ordnance Compound, and the old Cadet Library. Today, only the first division of Central Barracks and the Ordnance Compound remain. Because of this and because the division serves as a memorial to the Corps of Cadets, the existing building, both interior and exterior, should be restored to resemble its original appearance.

Without the remainder of the building, the existing portion of Central Barracks can not really be restored to its original appearance. It can and should, however, be restored to an appearance that is representative of the

original. Throughout the building's history the window sash have been replaced numerous times. The earliest sash were double-hung with diamond-shaped leaded panes. By the mid-1880s, much of the diamond pane sash had been replaced with six-light sash (Pl. 747-d). This soon gave way to two-over-two, double-hung sash (Pl. 747-c). One could argue that because the building continued to grow throughout the nineteenth century, any of these window treatments would be appropriate. Exterior doors also need to be restored to match their original appearance.

Using old photographs and the already restored second floor rooms as models, the remaining first through fourth floor spaces should be restored as closely as possible to their original design. Throughout its life as a barracks, Central Barracks was little altered, though the early years of the twentieth century saw some remodeling. Cast iron stairs replaced the original stairs. Both interior and exterior doors were also replaced. Before the 1969 conversion, perhaps the most dramatic interior changes occurred in 1953, when the basement toilet and shower rooms were eliminated and put instead on individual floors at one end of each stair hall. Since the conversion in 1969, a few walls have been removed and new doorways cut, but essentially the original plan remains and should, wherever practicable, be retained. The third floor, with the exception of the bathroom and necessary relocation of the doorway from the hallway into the southwest room, maintains the original plan, including the partition separating each cadet bed. On the second floor, doorways now provide access between each pair of rooms. On the fourth floor, the wall between the two west rooms has been removed as a matter of convenience. Considering its use as a meeting room by the Cadet Honor Committee, replacing the wall is not practical. The same holds true for the banking rooms and office on the first floor. These changes make it impossible to restore, absolutely, the original plan.

An interior architectural feature that is of particular concern is the fireplace in each of the rooms. Each of the Cadet rooms originally had a fireplace with a simple wooden mantel, chimneypiece and brick hearth. The building was originally heated with steam so it is difficult to ascertain how much these actually may have been used, especially in light of the ten pins and other miscellaneous objects seen inside the fireboxes in early photographs. Where fireplaces still exist, they should be retained. Nothing can be done about those that have been removed. The money that would be spent to restore them should go to restoring more important elements. An 1889 photograph (Pl. 747-e) shows a fourth floor room with a much simpler mantel shelf supported by metal brackets, probably iron, and a simpler baseboard. (The vaulted ceiling indicates that this is the fourth floor.) It is possible that after the fire in 1871, which destroyed the fourth floor and roof, this simpler treatment replaced the original mantel (and baseboard). It thus would be appropriate to document this piece of early building history by restoring the fourth floor to this appearance. A word of caution, however, concerning the southeast room. The floor level of this room is considerably higher than elsewhere on the fourth floor, and the baseboard, unlike the simpler base found in the other spaces on this floor, matches that on the third floor and the restored second floor rooms. (A vinyl base was later applied to the

existing wood base giving it a slightly different appearance; the vinyl can easily be removed.) It may be that this room was not touched by the fire and so retains its original 1851 appearance. The fourth floor tower room has an original mantelpiece as well, but it has the simpler baseboard typical of this floor. It may be that this mantelpiece was taken from one of the demolished divisions and placed here during the 1969 conversion, or it too may have survived the fire, though the baseboard and floor around it did not. Because of this uncertainty, no attempt should be made to restore these spaces to their post-1871 fire appearance, but rather they should be maintained as they are.

One final area of concern deals with fire safety. A detailed investigation of new fire protection measures and alarm systems should be made to determine if there is a system available that would allow the use of wood doors without compromising local life safety codes. Many building codes now allow certain variances for historic properties provided adequate life safety measures are provided for in some way. Consultation with the fire marshal and local code officials should be made to determine if some system could be devised that would allow the restoration of the architectural integrity of Central Barracks.

#### SIGNIFICANT ARCHITECTURAL FEATURES

Aside from those rooms that have been restored as memorials to the Corps of Cadets, the third floor rooms have retained much of their original appearance. The wooden partition that separated the two beds, the wooden mantelpiece, the baseboard and wood floor, and the door and window trim are the important items in each room to restore and/or preserve. This is the character which should be restored throughout the building (Pl. 747-f). The PRESERVATION GUIDELINES address those areas in which particular care should be taken.

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#### FOOTNOTES

(1) "Map of West Point, enlarged from a lithographic map of T. Brown's...", Drawer 32, Sheet 12, Fortification File, U.S. Military Academy, West Point, N.Y., Record Group 77, Records of the Office of the Chief of Engineers, Cartographic and Architectural Branch, National Archives, Washington, D.C.

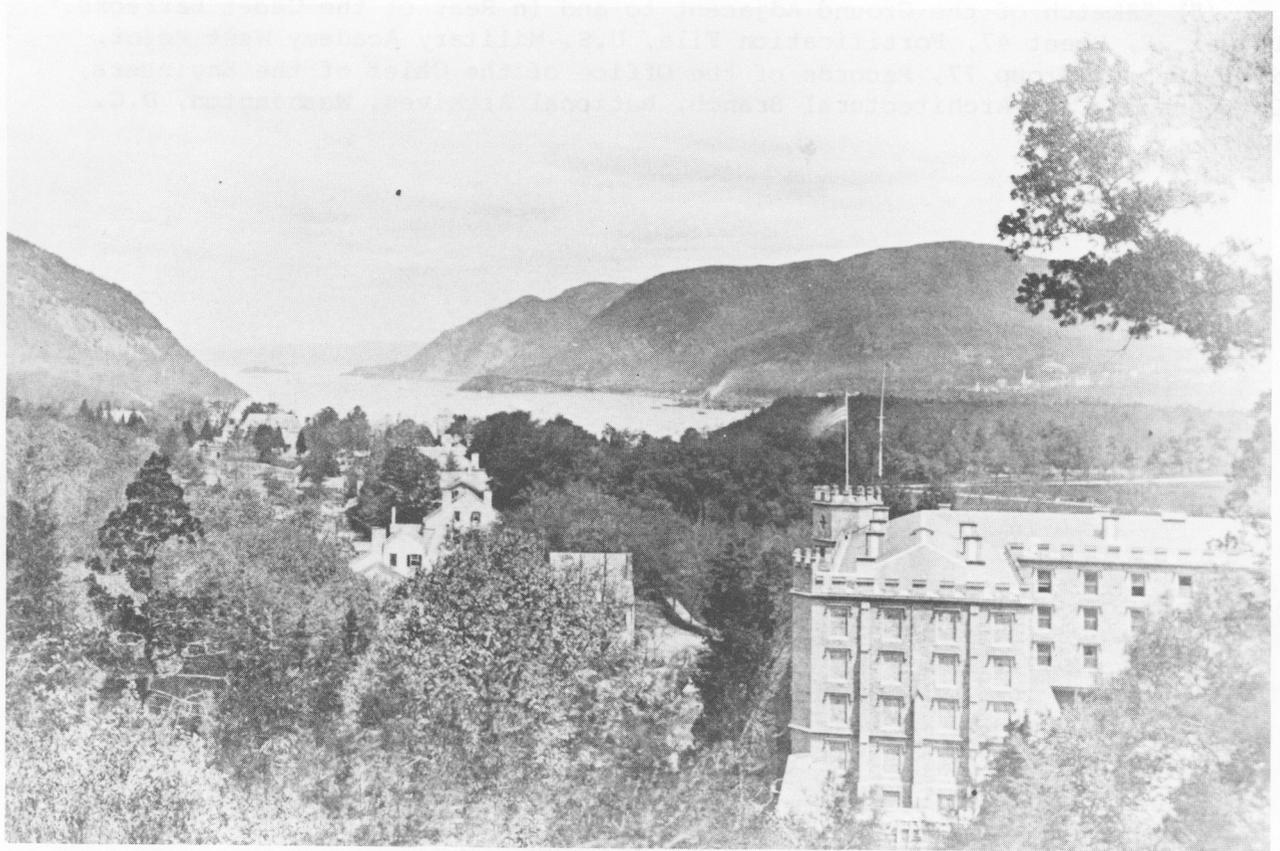
Major Richard Delafield was the Superintendent of the Academy from September 1838 thru August 1845 and again from September 1856 thru June 1861.

(2) These drawings are located within the same files as those listed above. The drawings of Isiah Rogers are Drawer 32, Sheets 14A, 14C. The Diaper drawing is Drawer 32, Sheet 14B. Drawer 32, Sheet 14, 15 are the designs drawn by Captain Eastman.

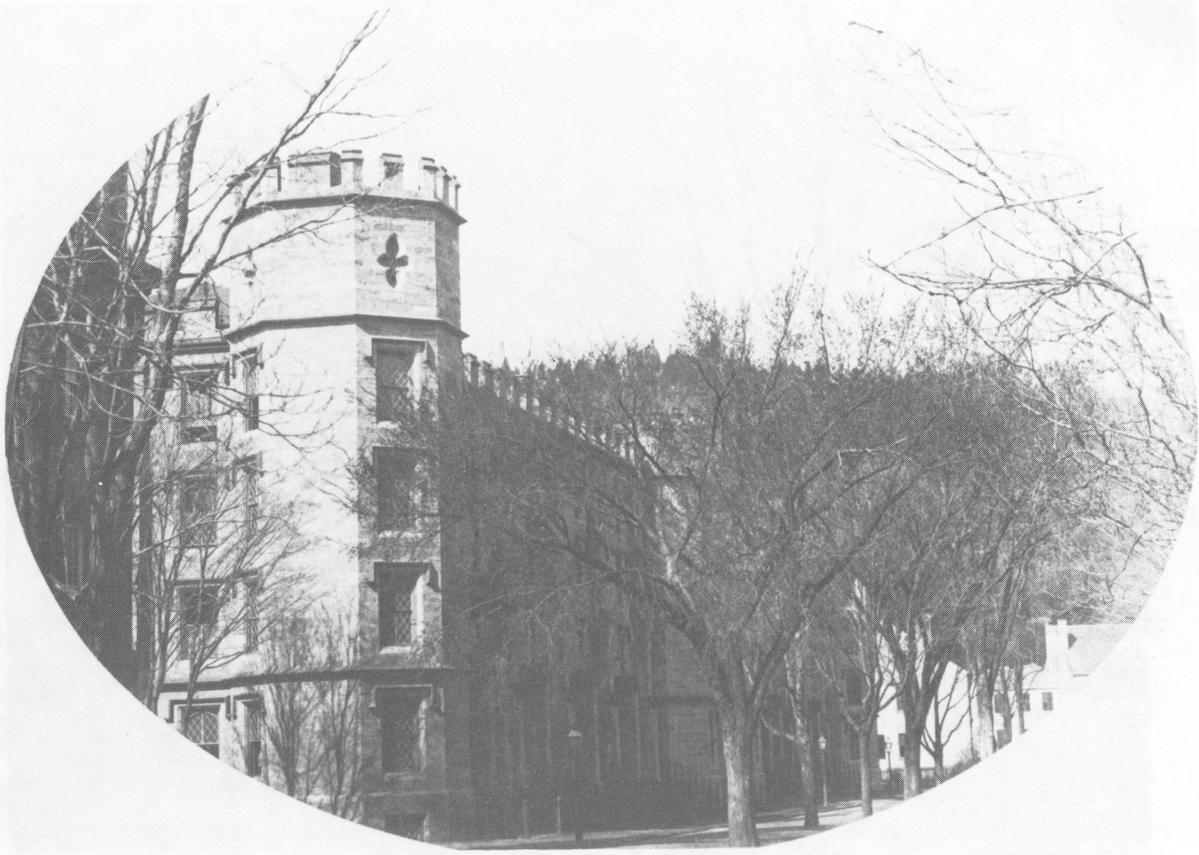
(3) A photograph in the Pittman Collection, USMA Special Collections gives the date of the fire.

(4) Williams, Facilities Report.

(5) "Sketch of the Ground Adjacent to and in Rear of the Cadet Barracks." Drawer 32, Sheet 47, Fortification File, U.S. Military Academy West Point, N.Y., Record Group 77, Records of the Office of the Chief of the Engineers, Cartographic and Architectural Branch, National Archives, Washington, D.C.



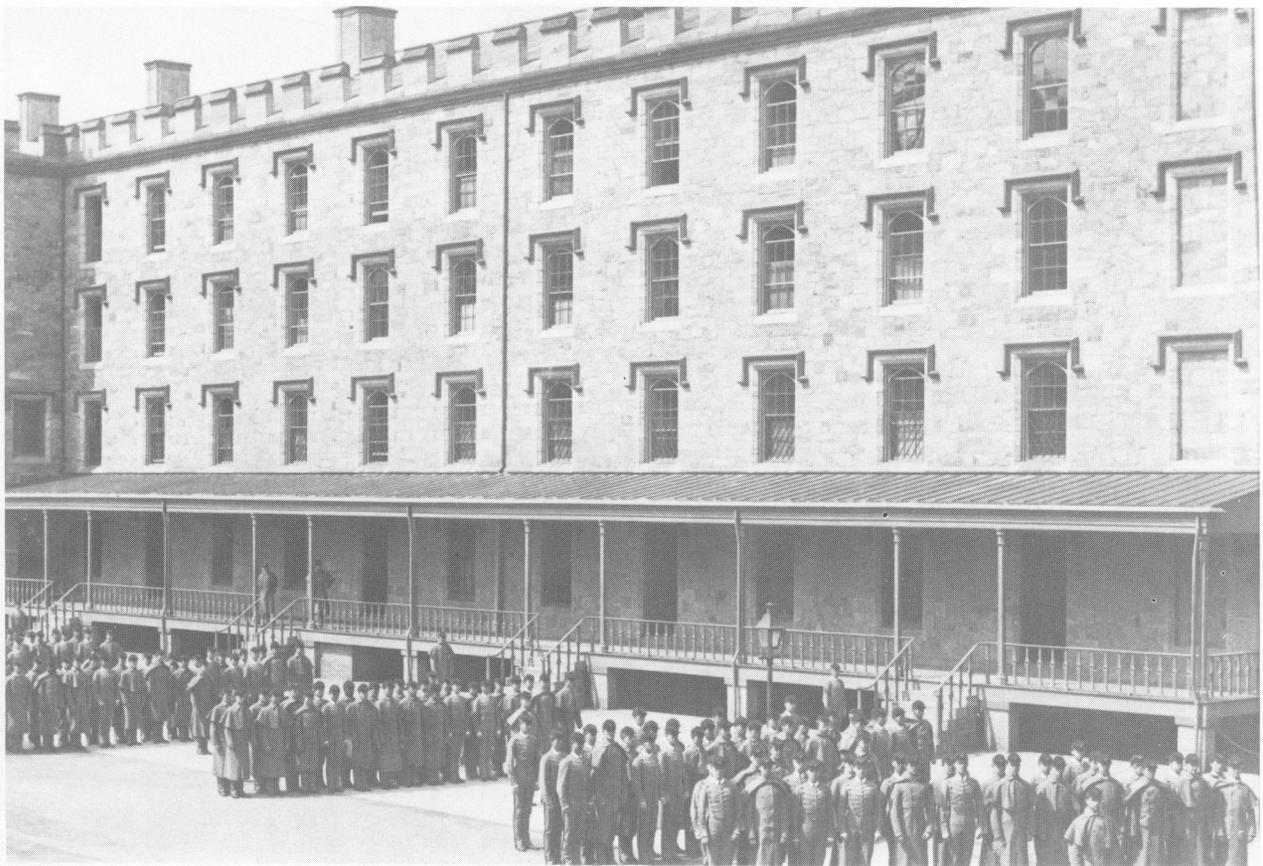
Pl. 747-a: 1864  
USMA Archives



Pl. 747-b: 1867  
USMA Archives



Pl. 747-c: probably late 1880s to 1895.  
USMA Archives



Pl. 747-d: ca. 1885  
USMA Archives



Pl. 747-e: ca. 1889  
USMA Archives



Pl. 747-f: ca. 1879  
1879 Class Album  
USMA Special Collections

(WEST) ACADEMIC BUILDING (751)  
HABS No. NY-5708-15

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Built: 1891-1895  
Architect: Richard Morris Hunt

Zone: 1  
Category: 1

#### PHYSICAL HISTORY

The West Academic Building is one of four projects that Richard Morris Hunt undertook at West Point. In 1889, Congress appropriated monies for the construction of a gymnasium and an academic building. In a letter dated September 14, 1889, Hunt was asked by Superintendent Colonel John M. Wilson to be the architect for both buildings. Though \$490,000 had been appropriated for the academic building, the actual cost was not to exceed \$431,000. In February, 1891, after much argument and disagreement, the design was finally approved and the contract was awarded in May. After more arguing and misunderstandings, and after three construction supervisors and two contractors had been hired and fired, the academic building was finally completed in 1895, two years behind schedule (Pl. 751-a).

When completed, the building contained chemical and electrical laboratories, ordnance and engineering model rooms, two written examination rooms, a small lecture room, a philosophical lecture room, and a drawing academy. The rooms were quite large; many of them were two stories high. The walls were plaster with either high beaded wainscot with molded cap and base or a chair rail and high base. Skylights lit the fourth floor spaces of the north and south wings, the two stair halls, and the space over the sallyport.

In 1956, work began to convert the West Academic Building to cadet barracks. Gehron and Seltzer were chosen as the architects. The interior of the building was completely altered.

The changes that have occurred to the exterior are almost imperceptible and most were made well before the conversion from academic building to barracks. When the building first was completed, the northeast tower lacked its clock. Later the clock was removed from the tower in the old library and installed in the academic building. In 1934, the windows of the second and third stories of the north wing were altered when the floor between the two stories was altered and carried all the way to the window's edge. On the north elevation, this resulted in the addition of stone spandrel panels, reducing the height of the second story windows. Similar changes were made on the east elevation, but without the addition of spandrel panels.

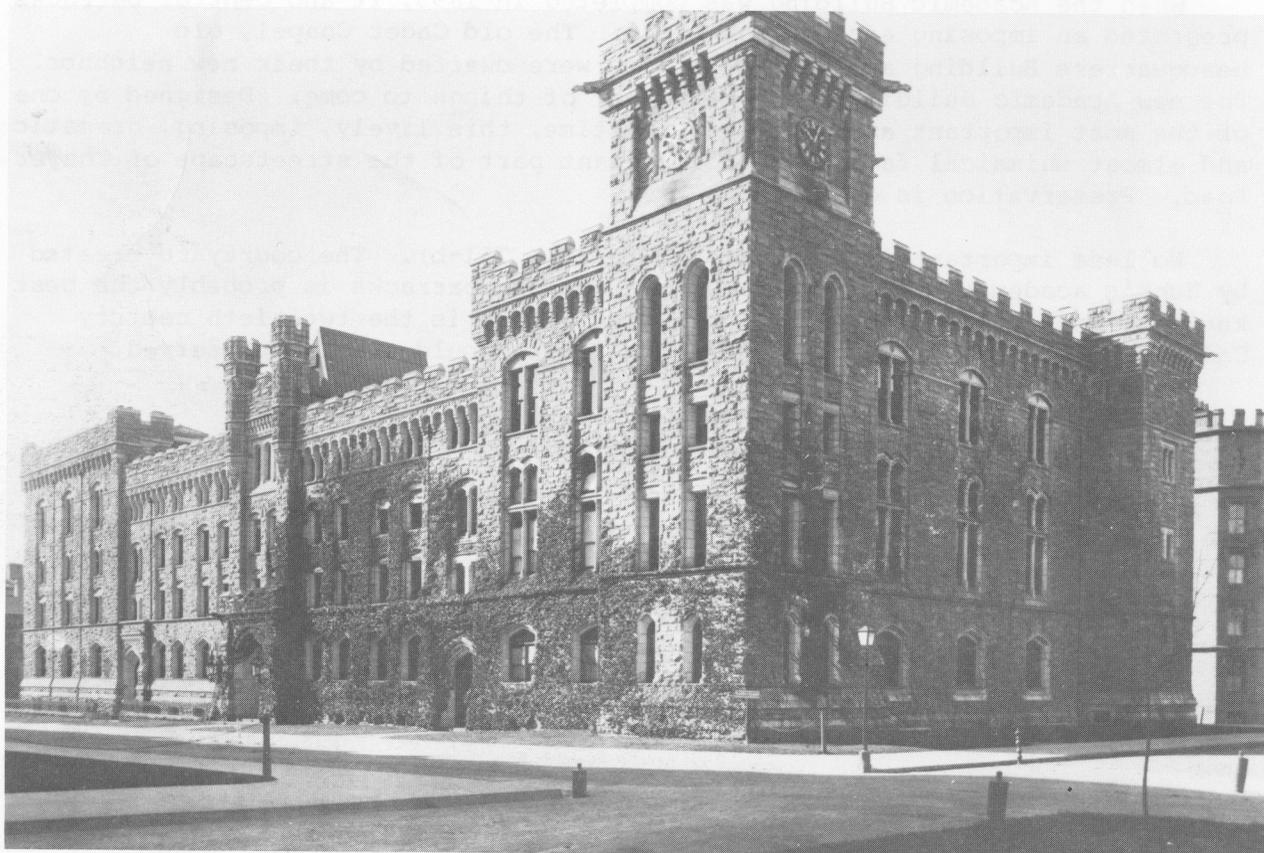
Early photographs show the skylights, an important part of the original roof line. The first of these was removed in 1938, the last during the 1956 conversion.

## AREAS OF CONCERN

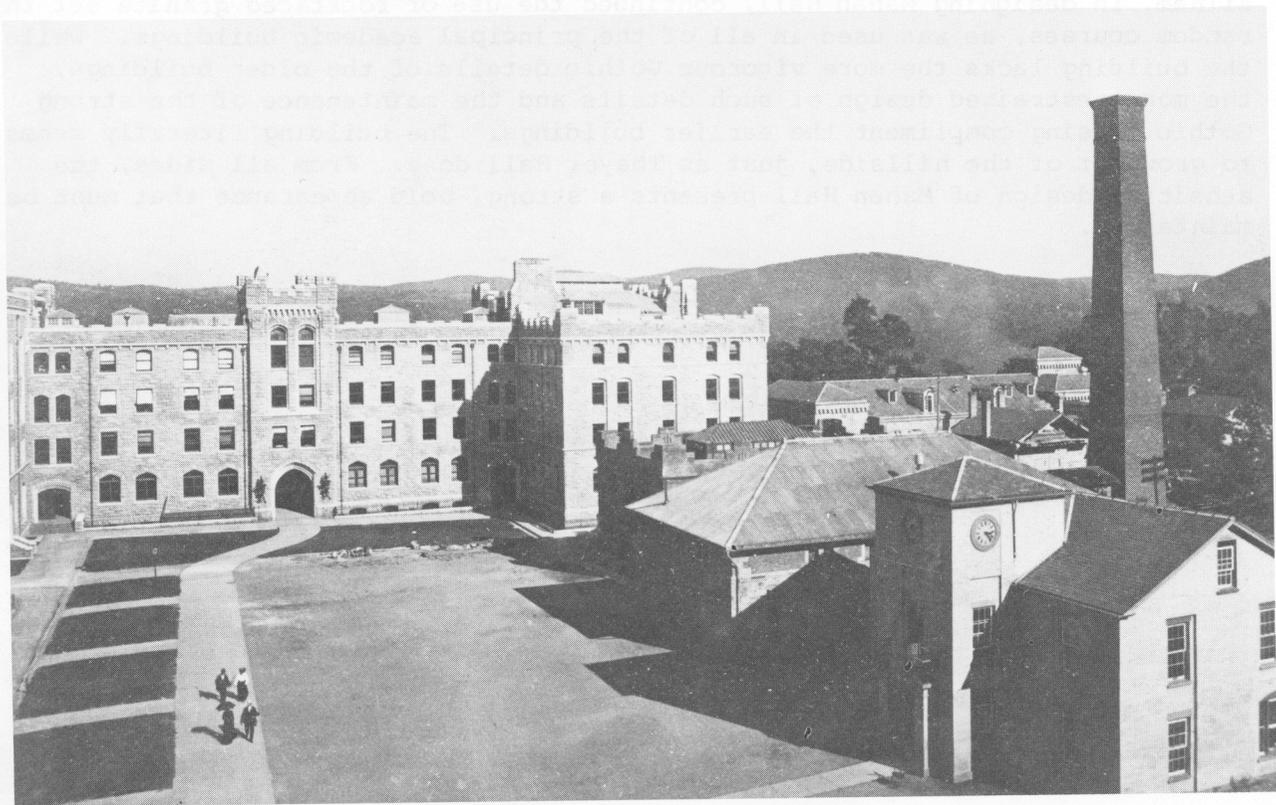
Little remains of Hunt's interiors, but what does remain should be preserved. The two main staircases are extant and, though the landings have been resurfaced with terrazzo, the general character produced by the cast-iron stringer and balustrade with oak hand rail is still evident. In the northwest stair tower, one can still see the original floor, stairs and elevator cage. Since no changes were made on the outside, all of the windows and the window trim is original.

When the Academic Building was completed in 1895, it and Central Barracks presented an imposing edge to the Plain. The old Cadet Chapel, old Headquarters Building and old Cadet Mess were dwarfed by their new neighbor. The new Academic Building was a harbinger of things to come. Designed by one of the most important architects of the time, this lively, imposing, dramatic and almost whimsical facade is an important part of the streetscape of Thayer Road. Preservation is demanded.

No less important is the west facade (Pl. 751-b). The courtyard created by Hunt's academic building and the surrounding barracks is probably the best known of any exterior space at West Point. Rare is the twentieth century Cadet who has not had to "walk the area". It should also be preserved.



Pl. 751-a: 1902-1910  
Stockbridge Collection, neg. #18  
USMA Archives



Pl. 751-b: 1902-1910  
Stockbridge Collection, neg. #17  
USMA Archives

MAHAN HALL (752)

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Built: 1972  
Architect: O'Connor and Kilham

Zone: 1  
Category: 3

AREAS OF CONCERN: Exterior only

Mahan Hall is a highly visible structure, standing alone on the hillside at the southern edge of the academic core. The importance of its position along Thayer Road and Cullum Road has already been discussed, but the views from below and from across the river are of equal importance. O'Connor and Kilham, in designing Mahan Hall, continued the use of rockfaced granite set in random courses, as was used in all of the principal academic buildings. While the building lacks the more vigorous Gothic details of the older buildings, the more restrained design of such details and the maintenance of the strong Gothic massing compliment the earlier buildings. The building literally seems to grow out of the hillside, just as Thayer Hall does. From all sides, the sensitive design of Mahan Hall presents a strong, bold appearance that must be maintained.

EAST ACADEMIC BUILDING (753)

HABS No. NY-5708-25

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Built:	1911-1913/1936-1938	Zone:	1
Architect:	Cram, Goodhue and Ferguson Paul P. Cret	Category:	1

PHYSICAL HISTORY

A year after the Administration Building was completed, work began on the East Academic Building, now known as Bartlett Hall. In 1911, the construction contract was awarded to the James Stewart Company. The building was completed in 1913 for \$608,335.60 (Pl. 753-a). Unlike the Administration Building, Cram, Goodhue and Ferguson used a steel and concrete structural system rather than masonry bearing wall construction. The building has undergone many plan changes, both major and minor, since its completion.

In 1936, at the same time that he was working on a major addition to the Gymnasium, Paul P. Cret designed an addition to the East Academic Building that approximately doubled its size. The new wing, which carried the building around to Cullum Road, added new section rooms, offices, instructors' rooms, library, a new electrical laboratory, and a natural and experimental philosophy laboratory to the spaces of the East Academic Building. The only significant changes made to the plan of the original building occurred at the juncture of the old building with the new building and on the third floor, north end, where the examination room was divided into six academic spaces.

A courtyard created by the East Academic Building and the Library was destroyed in 1953 by the construction of the Moore Wing, part of the Library.

The final changes occurred in 1963, concurrent with the construction of the new Cadet Library. At this time, major changes were made to the plan and finishes of the Cram, Goodhue and Ferguson portion of the East Academic Building. In contrast, Cret's addition remained virtually untouched and still retains most of its original character.

AREAS OF CONCERN

Original Building--Ever since Cret's modifications to the third floor examination room, the spaces of the original building have been tampered with. The final blow came in 1963, when most of the decorative details that gave the building its character were either removed or so altered that the architectural integrity was severely damaged.

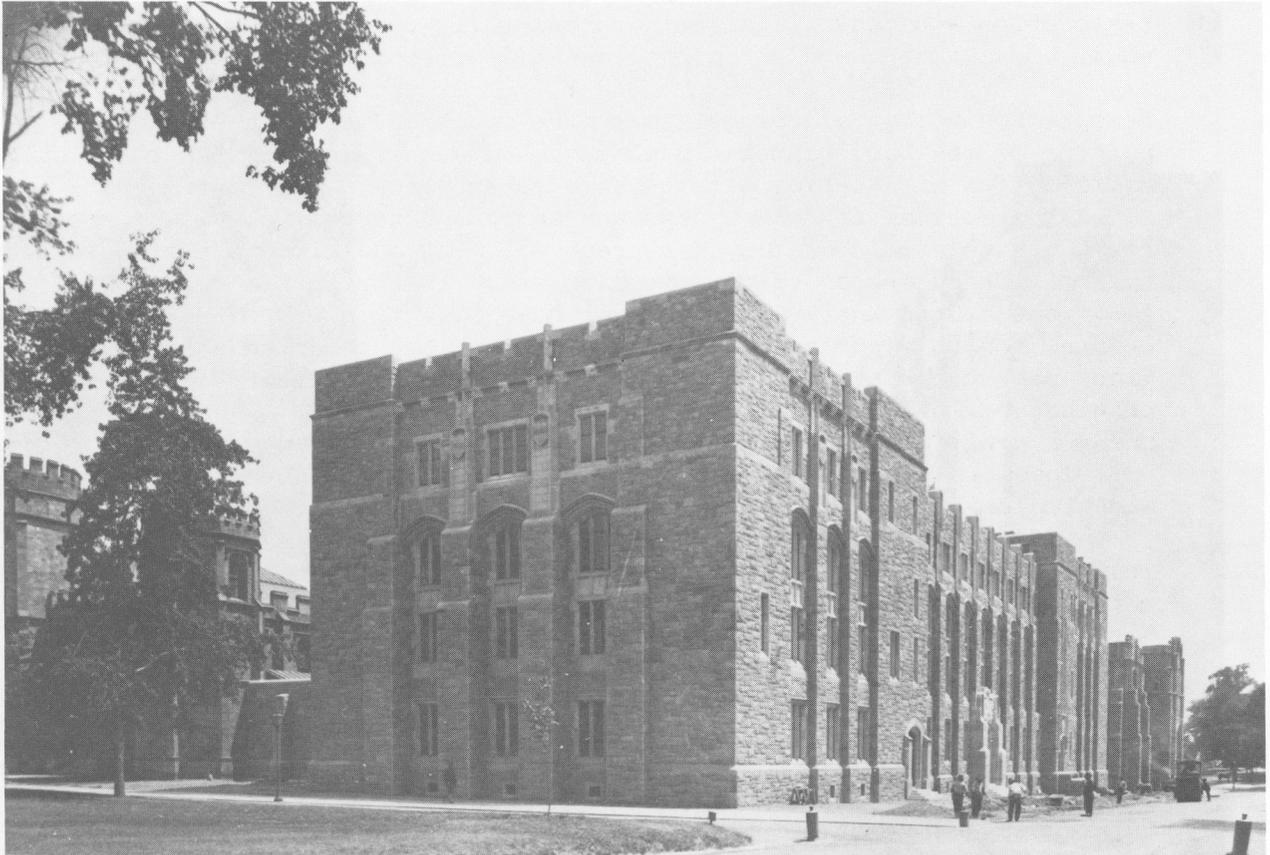
Attention should be given to the corridor doors on the third and fourth floors and the three stairways on all of the floors. The original multi-color slate floors and base of these corridors and stair halls, with the oak wainscot in the stair halls, iron stairs, and especially the newel posts of the center stair need to be preserved (or, in the case of the center stair newel caps, restored).

Much original detail also exists in the first floor chemistry laboratories. By studying the original plans on file in the Engineering Office (DEH) and old photographs on file in the USMA Archives, the original details of these two laboratories could be restored. With restoration and rehabilitation work carefully coordinated, the results would be efficient and functional as well as aesthetically pleasing.

Despite the number of changes that have occurred inside the original portion of the East Academic Building, few alterations of the form, or modification of exterior details have taken place. When Cret's wing was added, a vertical row of windows and an appendage that contained storage for the chemical laboratory were removed. The addition of the Moore wing to the Library necessitated some changes to the first floor east wall. In 1963, the center entry of the Thayer Road elevation was made wider and several fourth floor windows were blocked on the interior and the clear glass replaced with blue-green glass. The steel casement windows of the original building were replaced and repainted in 1967. These last three changes could have had drastic effects on the visual appearance of the building were they not handled in such a sensitive manner. The architectural integrity of the exterior has been maintained.

The sensitivity given to these changes must continue to be given to the entire building, not just the Cram, Goodhue and Ferguson section. The East Academic Building serves to balance the composition begun in 1895 with Hunt's Academic Building, followed by the Administration Building in 1910 (Pl. 753-b) and later continued with Grant Hall, Building 606, and Mahan Hall. Its importance to this streetscape is obvious. Equally important is the east facade, which thrusts its imposing mass upon Cullum Road (Pl. 753-c). The granite walls, broad cathedral-like windows, buttresses and embattled parapet mimic the earlier forms and firmly establish the East Academic Building as an important addition to the architectural heritage of West Point.

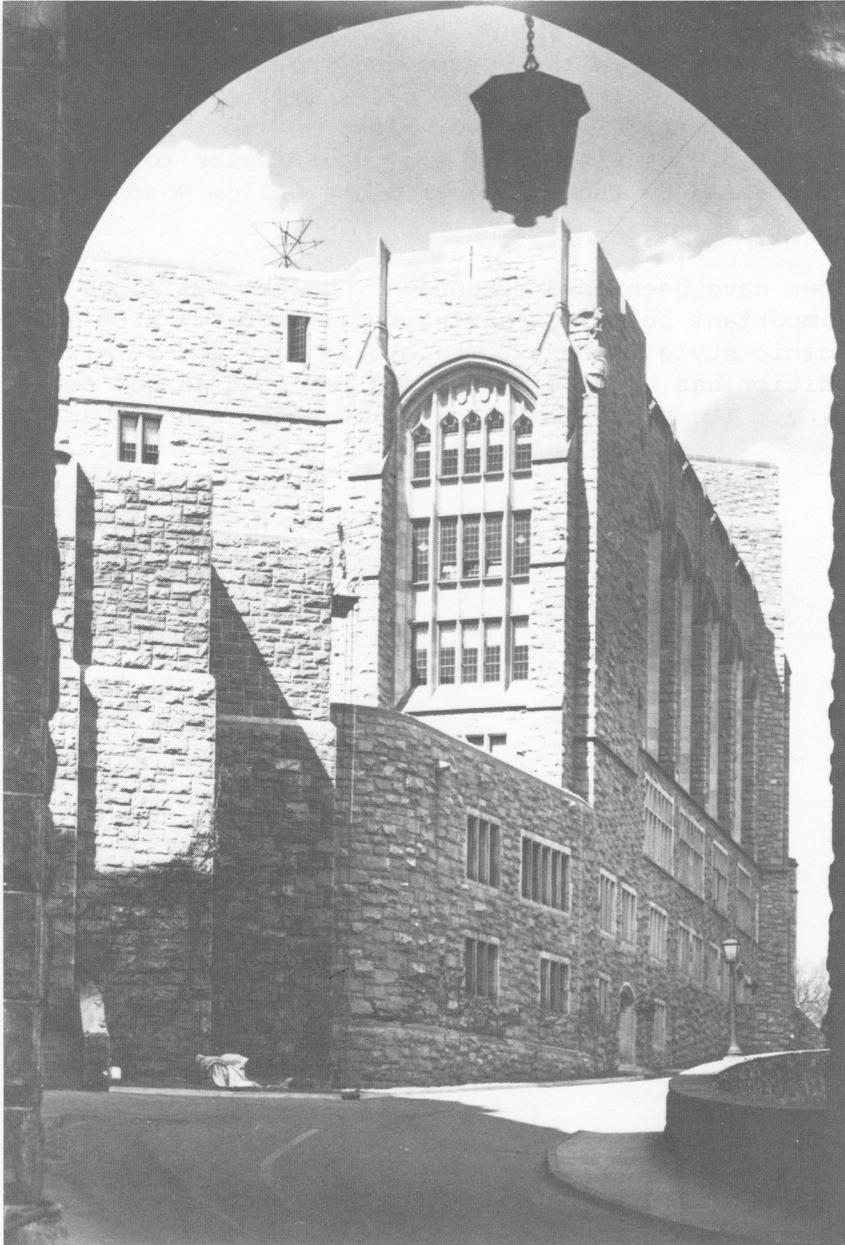
1938 Cret Addition--Some laboratory spaces have been added to the sub-basement and basement floors as well as a few partitions to divide some of the larger section rooms. The two stairways have been enclosed with wire glass doors to satisfy fire regulations, but they do not detract from the already utilitarian nature of the spaces. Other than this, the architectural integrity of Cret's addition has been respected, and continued preservation and proper maintenance of the building is required.



Pl. 753-a: 1913  
Stockbridge Collection, neg. #942  
USMA Archives



Pl. 753-b: 1913  
Stockbridge Collection, neg. #946  
USMA Archives



Pl. 753-c: ca. 1950  
USMA Archives

USMA LIBRARY (757)

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Built: 1964  
Architect: Gehron and Seltzer

Zone: 1  
Category: 2

AREAS OF CONCERN: Exterior only

The north elevation, fronting on the Plain, and the east elevation, fronting on Cullum Road, are the elevations of prime importance. Located on the site of the 1838 library, the USMA Library plays an important role in defining the southern edge of the Plain. It also contributes to the feeling of power and authority created by the buildings along Cullum Road at this point.

Leaded glass windows have been used extensively on the buildings at West Point, with the more important buildings having broad, pointed arch windows divided by delicate Gothic style tracery. The old library was no exception and this building tradition has been respected and repeated in the design of the new library building. The proper maintenance of these windows is of special concern.

Built: ca. 1836

Zone: 2  
Category: 2

#### PHYSICAL HISTORY

The physical development of the Warner House is rather vague and shrouded in myth. Most of what was gleaned for this study was from secondary sources at best; no primary sources have as yet been found. It is widely believed that the stone wall dates from the revolutionary period, and that it forms the west wall of the four rooms (2 per floor) that had originally been the caretaker's cottage for the Philipse estate, the original owners of the land (FN.1). In 1836 or 1837, Henry W. Warner bought this portion of the estate from the Philipse family. At or about this time he apparently added the two story block to the east of this first portion. The new addition contained a large first floor room with two small ancillary spaces to the north. A single story addition was later built to the east of this addition. The additions to the north and west of the original house were added in stages, their dates unknown, but early photographs and drawings show that the house had reached its present form by the late nineteenth century (Pl. CI-a,b). Glass was added to the windows of the porch sometime after Susan Warner died in 1882 but before the death of Anna Warner in 1915. In the 1950s, the Constitution Island Association began the restoration of the Warner House.

#### AREAS OF CONCERN

The primary significance of the Warner House is derived not from its architectural value, but rather from its associative history. Its most important residents were Susan and Anna Warner, the daughters of Henry Warner. Both Susan and Anna were significant figures in nineteenth century American literature. Anna was also the author of the hymn, "Jesus Loves Me." In addition, because of her weekly Bible classes, Anna was an important part of the lives of many of the Cadets at the Military Academy. The early restoration of the Warner home and the continued preservation of the building and its furnishings pay fitting tribute to Susan and Anna Warner. Those areas of primary concern include the exterior and those interior spaces necessary for the interpretation of the lives of the Warner sisters.

The remaining interior spaces provide support facilities necessary for the museum function of the house. While they may be of less importance in the understanding of Susan and Anna Warner, they are of great importance in the understanding of the Warner House. Because so little is known about the physical development of the house, care should be taken that future maintenance work does not obscure or destroy ANY early features. Should future research uncover new information concerning the building's development, it will be necessary to have original features available for comparison.

PRIMARY CONCERN

First Floor: Revolutionary sitting room  
Revolutionary dining room  
Buttery  
Museum  
Kitchen  
Parlor  
Library  
Mr. Warner's office  
Victorian dining room

Second Floor: Guest bedroom  
Mr. Warner's bedroom  
Anna's bedroom  
Aunt Fanny's bedroom  
Susan's bedroom/dressing room

(Room names taken from plan No. 8867, 7 June 1982, located in the Office of the Engineer, USMA.)

SIGNIFICANT ARCHITECTURAL FEATURES

A listing of significant architectural features is not necessary. Since 1915, several organizations have worked to ensure the preservation of the house and its furnishings so that details such as mantelpieces and door moldings continue to tell the story of the house and its inhabitants. The PRESERVATION GUIDELINES that follow point out these areas of particular sensitivity. A thorough understanding of these concerns will ensure the continued preservation of the Warner House.

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FOOTNOTES

(1) Wood Craig, The Warner House, Constitution Island, West Point, New York. Found in Files of the USMA Archives. Date unknown.



Pl. CI-a  
USMA Archives



Pl. CI-b: prior to Susan's death in 1885  
USMA Archives

## PRESERVATION GUIDELINES

### Secretary's Standards

The following guidelines are not meant to prescribe actual maintenance procedures or design solutions, but rather to alert the necessary individuals to those areas within an historic building that are particularly sensitive to inappropriate preservation techniques. These guidelines, and the ideal appearance section which precedes them, are meant to provide a basis upon which an historic structure maintenance plan can be developed. The following is taken from the Secretary of the Interior's STANDARDS FOR REHABILITATION and summarizes the intent of the PRESERVATION GUIDELINES:

"Rehabilitation means the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values."

The following "Standards for Rehabilitation" shall be used by the Secretary of the Interior when determining if a rehabilitation project qualifies as a "certified rehabilitation: pursuant to the Tax Reform Act of 1976, the Revenue Act of 1978, and the Economic Recovery Tax Act of 1981." These standards are a section of the Secretary's "Standards for Historic Preservation Projects" and appear in Title 36 of the Code of Federal Regulations, Part 67 (formerly 36 CFR Part 1208).

1. Every reasonable effort shall be made to provide a compatible use for a property which requires minimal alteration of the building, structure, or site and its environment, or to use a property for its originally intended purpose.
2. The distinguishing original qualities or character of a building, structure, or site and its environment shall not be destroyed. The removal or alteration of any historic material or distinctive architectural feature should be avoided when possible.
3. All buildings, structures, and sites shall be recognized as products of their own time. Alterations that have no historical basis and which seek to create an earlier appearance shall be discouraged.
4. Changes which may have taken place in the course of time are evidence of the history and development of a building, structure, or site and its environment. These changes may have acquired significance in their own right, and this significance shall be recognized and respected.

5. Distinctive stylistic features or examples of skilled craftsmanship which characterize a building, structure, or site shall be treated with sensitivity.

6. Deteriorated architectural features shall be repaired rather than replaced, wherever possible. In the event replacement is necessary, the new material should match the material being replaced in composition, design, color, texture, and other visual qualities. Repair or replacement of missing architectural features should be based on accurate duplications of features, substantiated by historic, physical, or pictorial evidence rather than on conjectural designs or the availability of different architectural elements from other buildings or structures.

7. The surface cleaning of structures shall be undertaken with the gentlest means possible. Sandblasting and other cleaning methods that will damage the historic building materials shall not be undertaken.

8. Every reasonable effort shall be made to protect and preserve archeological resources affected by, or adjacent to any project.

9. Contemporary design for alterations and additions to existing properties shall not be discouraged when such alterations and additions do not destroy significant historical, architectural or cultural material, and such design is compatible with the size, scale, color, material, and character of the property, neighborhood or environment.

10. Wherever possible, new additions or alterations to structures shall be done in such a manner that if such additions or alterations were to be removed in the future, the essential form and integrity of the structure would be unimpaired.

#### GUIDELINES

Interior: Plan--The original floor plan is important as a record of the history of the function of the building. It can reflect the teaching methods, academic concern, domestic life, or military life of the time in which the building was built. It is not always possible to retain original floor plans as teaching methods, etc., change. An accurate record of the original or existing plan should be made, however, before changes are made so that future historians can better understand the building. If original plans exist, they should be retained as the record and changes noted on a copy. (This same line of reasoning should be applied to all original drawings.)

Floors--Maintaining the historic flooring material, particularly highly patterned or colored floors, is another way of ensuring the architectural integrity of a building. Substitution or covering over with newer materials such as quarry tile, linoleum or vinyl asbestos tile is not recommended for major spaces whose architectural character and visual appearance is of prime importance to the building. Carpeting which is not original to the space (as long as it is not nailed down) will often prolong the life of a floor rather than do any irreversible harm. If, and when, a floor is replaced or repaired, the same material should be used, duplicating original patterns, colors, and textures.

Walls/Plaster--The color and textural qualities of a wall are important to the overall integrity of a space. Removing original plaster to expose a brick or stone wall, while it may be aesthetically pleasing by today's standards, is inappropriate. Covering a plaster wall with modern plywood paneling is equally inappropriate. Using paneling or wallpaper to hide badly cracked, stained, or otherwise damaged plaster will only aggravate the problems. The cause for the failures should be corrected, the walls repaired and repainted, and the surfaces properly maintained in an historically appropriate manner.

Walls/Masonry-or Tile--Stone, brick or tile walls should not be covered with plaster or paneling, or be painted if they are meant to be left in a natural state. The texture, color, and patterns created by these materials play an important part in the overall character of the space. Repairs to these surfaces should not alter the overall visual appearance of the wall.

Walls/Special Coverings--Some wall coverings are appropriate for an historic building. Wallpaper has been in use in this country since the eighteenth century, and stenciled designs were common before papers became available. Painting plaster to look like marble or wood or painting wood to look like a more expensive wood is a practice that is still common. The visual qualities these coverings impart are important and difficult to recreate, but their preservation is critical.

Walls/Paneling--Several buildings at West Point have handsome wood-paneled walls and/or wainscot paneling that add definite elegance to a space. The importance of maintaining these in a pristine condition cannot be over emphasized. If the wood is natural or stained, under no circumstances should it be painted. When refinishing painted woodwork, old paint should be removed to avoid "painting-out" any details. Cleaning techniques should in no way damage the wood or otherwise alter its appearance. Harsh chemical paint removers can permanently damage wood.

Walls/Electrical Conduit--Electrical conduit which can not be concealed within the wall should be run along baseboards, in corners, or some othe inconspicuous spot, to avoid breaking the planar qualities of a wall surface.

Walls/Wood Trim--The addition of molded baseboards, wainscots, chair rails, picture moldings, even electrical conduit and pipe chases (such as those found in Building 600) add to the richness of detail of even the simplest of spaces. When new walls are added, these details should be repeated where appropriate to maintain a cohesive appearance. Heavy, elaborate cornices, however, are often not repeated, and a simplified baseboard profile can sometimes be used especially, if the space is not of major importance. Where the trim pieces have been stained or left unfinished, they should remain unpainted. These items are an important part of the overall interior design of a space, and their removal should be prohibited.

Walls/New Walls--Changes in a building's use often necessitate the building of new walls, especially to divide a large space into smaller more functional spaces. If movable office partitions are not adequate and a more permanent partition is called for, the wall surface should be the same as the original finish, trim details should be repeated, and the general character duplicated. These walls should be constructed in such a way that if they were to be removed in the future, the historical detailing and integrity of the original space would remain undamaged.

Ceilings/Dropped--How too deal with the high ceilings of many of the academic buildings is a major problem. In most instances, dropped acoustical tile ceilings have been installed. Lower ceilings help conserve precious winter heat; they can also conceal duct work for new mechanical systems and electrical equipment for new lighting and electrical needs. Lowering the ceiling heights is not recommended, however, as it alters the proportions of the space. It also defeats the natural ventilation systems designed into the building. In summer heat, the high ceilings, especially in conjunction with open transom windows or corridor doors and open windows, greatly aid cooling. The warm air rises, and the cross ventilation created by the open windows quickly exhausts the hot air.

Ceilings/Plaster--Should it be decided that a dropped ceiling is necessary, consideration should be given to the use of a hung gypsum board or plaster ceiling rather than acoustical tile. Installation techniques are much the same, but the visual appearance is more compatible with the original appearance of plaster ceilings. Special attention should be given to how they are installed around windows and doors.

Ceilings/Ornamental Plaster--Ornamental plaster ceiling details, such as cornices and medallions, greatly add to the richness of a space. Under no circumstances should these ceilings be hidden behind a dropped ceiling system. Necessary repairs should be done by skilled ornamental plasterworkers in a professional manner. If repainting is necessary, care should be taken in removing old and loose paint so that the plaster design is not damaged, ensuring that details will not become obscured under layers and layers of new paint.

Ceilings/Painted surfaces--The beamed ceilings of some spaces have been painted with designs varying from state seals to geometric patterns. Where these occur, special maintenance is required; cleaning and repairs must be done by skilled craftspeople to ensure the continued richness and variety of the spaces.

Doors--It has been reiterated that maintenance of original building fabric is important when dealing with the historical and architectural integrity of a building. Original interior doors, be they wood, metal, glass or combinations thereof, are part of the building fabric and should be maintained in their original condition. When operable, transoms are an important part of the door design; they should be kept in working order so that the natural ventilating capabilities of the spaces can be maintained. New doors should match existing ones, particularly when the space is of major importance to the architectural character of the building.

Windows--Proper maintenance of windows is important to the appearance of both the interior and exterior of a building. To improve the energy efficiency of a window, interior storm sash are sometimes used. If this method is used, there are several things which must be considered. The frame members should be as narrow as possible and painted the same color as the window sash and frame so that they do not become visually obtrusive. Proper installation and maintenance is necessary so that condensation does not collect between the two windows and deteriorate the sill and window frames.

One of the most common window problems encountered, especially in the residences, is the painting shut (and sometimes open) of the windows. This is an unnecessary problem and one that should be avoided.

Historically, windows often were provided with interior shutters that kept out the hot summer sun or cold winter winds and helped retain heat. These energy saving qualities are still of value today, making their preservation or restoration, when necessary, a matter of practical as well as aesthetic concern.

Door/Window trim--The casings of doors and windows can be useful in dating buildings or additions to buildings. Every architectural style had its own set of profiles and details that were repeated in building after building. Pattern books and (later) manufacturers' catalogues showed designs for various trim pieces. It is important, then, that the door and window trim be retained, not removed, in order to maintain a continuity of design. If new doors or windows are added to a significant architectural space, the trim should match as closely as possible the original trim, or the most predominant design if several trim types are already present. At the same time, if an existing door or window is infilled, consideration should be given to saving the old trim to be reused elsewhere in the building if necessary. If repainting is planned, the old paint should be removed to avoid painting out details. Care should be taken when removing the old paint so that the wood is not damaged by the stripping technique. If the wood is stained or has been left natural, it should not be painted, since this will destroy the original character of the window.

Fireplaces--Fireplaces are found throughout the buildings at the Military Academy in both offices and residences alike. Their designs vary from simple to elegant; are in wood or in ceramic tile; have facings of brick, stone, Welsh quarry tile or glazed ceramic tile. The hearths are brick or stone, quarry tile or glazed tile. Some have been altered to accommodate the burning of coal. They are usually the focal point of a room, being carefully incorporated into the overall design. Their preservation is of prime importance. The restoration of fireplaces that have been bricked up and of the mantelpieces that have been removed is not a priority item, but should be considered in Category 1 buildings. Where fireplaces do exist, however, their removal should be prohibited.

Lighting fixtures--The level of illumination and the color and subtlety of light greatly affect how a space is perceived. Equally important are the fixtures themselves. Lighting fixtures were selected to fit into the overall design of the building, and their continued, proper maintenance is necessary to maintain the architectural integrity of the building. Broken fixtures should be repaired; broken globes or shades should be replaced with glass of the same shape, color, and reflective qualities; and the light bulbs, if they are an important part of the overall appearance, should be replaced with bulbs of the same shape, color, and reflective qualities when possible.

Fire detection systems--Sensitive fire and smoke detection systems should be installed in every historic building to prevent accidental loss or damage due to fire. There are extremely sophisticated fire detection systems available for use in historic buildings that allow for fire code variances without damaging the historical integrity of the building or compromising the safety of the occupants. These systems should be investigated, and consultation held among the architects and engineers at West Point and the local fire marshal to determine if they can be used in some of the more important buildings at West Point.

Exterior: Stone--Stone is a highly durable material; nevertheless, it is subject to serious elements of degradation. If the visual qualities of stone surfaces are to be maintained, it is necessary to halt the harmful effects of these elements.

Since stone is a porous material, it is susceptible to all the problems that water can cause. Water can penetrate stone through deteriorated mortar joints, broken gutters, faulty flashing and rising damp. Once water is inside stone, a number of problems can occur. Salts dissolved in the water can either crystallize inside the stone, causing pieces of the surface to pop off, or it can migrate to the surface and effloresce, leaving an unattractive chalky residue. Waterproof coatings only aggravate the problem, since they completely seal the surface pores of the stone. Thus, if water should get inside, the only way it can get out is to migrate to the interior of a building, damaging interior finishes. Should the trapped water freeze, the expanding water can again cause the face of the stone to pop off. Similar problems can occur with water repellent coatings which prevent water, but not water vapor, from entering the stone. If it is decided that such coatings are absolutely necessary, careful study should be done prior to their use. Test patches of various products should be made and studied over a long period of time and under a variety of weather conditions to ensure that a coating is chosen that does not create more problems than it solves.

Keeping a building clean of excessive amounts of dirt is also important in prolonging the life of a stone building. Dirt can contain atmospheric pollutants which can eat away at a stone surface. It also attracts and holds moisture, especially rainwater; for in addition to the usual problems associated with water, rain usually contains dissolved oxides, such as sulfuric oxide, nitrous oxide, or carbon dioxide, which again will attack the stone.

Sandblasting is the most common form of cleaning masonry surfaces; it is also one of the most destructive. It causes erosion of the surface, speeding up the process of deterioration. These newly roughened surfaces will then collect even more dirt. It also destroys the original texture of the stone, rounding once sharp, square corners, completely altering the overall visual character of the building. But, chemical cleaning methods can be just as destructive. Limestone or marble surfaces will dissolve when cleaned with an acidic cleanser. Not only can the surface of the stone be deteriorated when incompatible pH levels in the chemicals are used, but the same chemicals, even water, can have adverse effects on invisible building elements, such as metal ties that hold the masonry to the structural frame, or nearby building elements, such as window frames and trimmings of different materials, or even the mortar joints themselves. Staining of the stone can also occur when improper chemicals are used.

Other abrasive techniques, such as the use of mechanical grinders and wire brushes, should be avoided for the same reasons.

Extreme caution should be taken when choosing a method of cleaning a stone building. The idea is to prolong the life of the building, not to accelerate its deterioration or to alter its appearance.

The accumulation of water on a stone surface also encourages the growth of mosses and lichens, which in turn attract more water. Plants with more vigorous and stronger root systems not only keep moisture against a building, but also burrow into cracks and crevices within the stone and/or faulty mortar joints, causing the surface to break away and providing yet another way for water to enter the stone.

Sometimes, parts of stone facades have deteriorated beyond the point of repair, and replacement of the stones becomes necessary. In cases such as these, new stone that matches the original in size, shape, color and texture must be carefully worked back into the facade so that the patched area does not appear too evident and alter the architectural character of the building.

Though the hazards of excessive water have been emphasized, this is not meant to discourage the use of water or steam as a cleaning agent. When used properly, cleaning with either water or steam is often the best and gentlest method. In addition, chemicals used in cleaning must be thoroughly rinsed off. Before any method is used, the building should be inspected to make sure mortar joints are tight, flashing and gutters are in good repair and no stones are cracked or broken.

Brick--The process of brick making produces a durable building material that is tough on the outside but softer and more porous on the inside. This similarity to stone subjects brick to many of the same degradation processes.

Water poses one of the greatest threats to a brick wall. It can be introduced to a building in a variety of ways: from rainwater, leaky gutters, faulty flashing (particularly at parapet walls), deteriorated mortar joints, or rising damp. Once inside, the resulting problems are many. If water freezes inside a brick, its expansion will cause the surface of the brick to pop off. Water will dissolve soluble salts, which will then migrate to the outside and effloresce on the exterior of the building causing an unsightly chalky substance.

It is often desirable to clean a brick structure of excess dirt, which can contain certain atmospheric pollutants which can eat at the brick surface. In addition, dirt will attract and retain moisture. The method of cleaning must be chosen very carefully. The problems associated with too much water have already been discussed. Sandblasting or any other abrasive means of removal, such as grinders, mechanical wire brushes or sanding disks, must be avoided at all costs. These will remove the hard fired surface of the brick, exposing the soft core and leaving the bricks even more susceptible to the destructive forces of weathering and water. Chemical methods first must be carefully tested, since some chemicals, such as muratic acid, wreak havoc with old brick surfaces.

Though the hazards of excessive water have been emphasized, this is not meant to discourage the use of water or steam as a cleaning agent. When used properly, cleaning with either water or steam is often the best and gentlest method. In addition, chemicals used in cleaning must be thoroughly rinsed off.

Before any method is used, the building should be inspected to make sure mortar joints are tight, flashing and gutters are in good repair and no bricks are cracked or broken.

Waterproof or water repellent coatings, while often necessary on already badly eroded surfaces, nevertheless cause great problems. If removal is necessary, it can be difficult and costly. Should water find its way inside a brick wall a waterproof coating will prevent the water from escaping through to the outside, instead causing it to migrate to the inside and to damage interior finishes. Dissolved salts will not be able to escape and will eventually crystallize again inside the brick. The accumulation of salt crystals can cause the surface of the brick to pop off. The problems with freezing water are obvious. While water repellent coatings keep water out, water

vapor can still enter a brick wall, condense, and either migrate further into the interior, freeze inside the brick, or dissolve the natural salts inside the brick. If it is decided that such coatings are absolutely necessary, careful study should be done prior to their use. Test patches of various products should be made and studied over a long period of time and under a variety of weather conditions to ensure that a coating is chosen that does not create more problems than it solves.

Moisture can encourage the growth of mosses and lichens, which in turn will attract even more moisture. It can also provide a suitable habitat for larger plants with more tenacious root systems that can work their way into cracked bricks or mortar joints, allowing yet another way for water to enter a building.

The great variety in color, shape and size of brick can lend a great richness and complexity to a facade. This same complexity can cause problems, however, if it is necessary to replace a portion of a brick wall. Extreme care has to be taken to match the new brick in size, color, surface texture, or shape (in the case of molded brick). Even the slightest deviation from the original becomes evident and can detract from the architectural character of the building.

Painting or stuccoing a brick building is also inappropriate if the building was not previously treated in this manner. If a building was later painted, the removal of the paint should be approached with caution. Its removal may be difficult or impossible, and the process may be damaging to the walls.

Mortar Joints--A good, tight mortar joint is the most important component of a masonry wall. Not only does the mortar hold the structural units together, but it also prevents water from entering the masonry wall. Historic lime mortars are rather soft, however, and they frequently deteriorate. Repointing portions of a masonry wall, therefore, is not an uncommon task. In doing so, several precautions must be taken. First, for those joints that are to be repointed, the old, loose mortar must be raked out. This is a slow, tedious process since it generally must be done by hand, being careful to remove only the mortar and not cut into or break away any of the masonry units. It is imperative that the raked out joint not be any wider than the original joint. This point cannot be over-emphasized. There is little that destroys the appearance of a building more than improper repointing. In such cases, when looking at a building, rather than seeing an overall tone with no apparent mortar joints, one sees only the mortar joints, and the building loses its original character. Changing the color of the mortar as well only aggravates the problem.

Choosing a mortar mixture that has a compressive strength equal to or less than the original mortar is also important. This will continue to allow the masonry units to expand and contract with changes in temperature and to move due to various stresses within the wall. Mortar that is stronger than the masonry units prohibits this movement. As a result, in order to relieve the built-up stresses, the individual units crack. Matching the color of the mortar and tooling techniques of the finished joint are the final precautions to be taken.

Windows--Historic windows are getting much attention in these days of escalating energy costs and concern for energy conservation. Old windows usually are single glazed and ill-fitting due to deterioration brought on by age, abuse through vandalism, poor design, or simply use. What to do with these windows becomes a most perplexing problem. All too often, the decision is made to replace the window with a more energy efficient unit without first making a thorough investigation into the available options for retaining the original window. And, all too often, the decision does not take into consideration the architectural consequences of such a move.

Next to poorly repointed masonry walls, windows that are significantly different from the originals can destroy the original character of a building more readily than any other alteration. Windows smaller than the original, resulting in infill around the unit, destroy the proportions of the original design. Glass with different reflective qualities or windows with different pane divisions further disrupt the visual cohesiveness of a facade. Therefore, before any measures are taken to remedy faulty windows in historic buildings, a study should be made to identify the options.

When there are a large number of windows involved, it can sometimes be cost effective to repair the existing sash and frames, reweatherstrip, recaulk, and install storm sash, either inside or out. The energy efficiency can thus be brought up to desirable levels and the historicity maintained. Many millwork companies can duplicate wood profiles. Since steel windows are a relatively "new" technological development, many of the original window manufacturers are probably still in existence and can roll the necessary sections should portions, or entire windows, need to be replaced or hardware repaired. They even may be able to provide assistance in determining additional means to make their windows more efficient.

What to do with an inefficient and deteriorated window unit in historic buildings is not a decision that can be made quickly. This is a complex issue. All of the possibilities can not possibly be outlined here. Each building must be looked at

individually, and a determination made as to acceptable levels of performance and energy efficiency and how best to meet those standards. It is always most desirable to keep the original windows, as loss of original building fabric diminishes the value of the building. Every attempt should be made to repair and retain the original windows in all Category 1 buildings, plus all Zone 1, Category 2 buildings and those buildings fronting the Plain. Should the cost of doing so prove to be prohibitive, replacement becomes the only other alternative, with replacement "in kind" as the first choice and, finally, replacement with a unit of different material as the second choice. Regardless of what material the unit is made of, it must match exactly the original. The profile of the frame and muntins, the width of the meeting rail, the size and number of window panes, the size and shape of the window unit itself, the distance of the window glass from the face of the exterior wall, and the color and finish of the frame, sash and glass all must match the original. Close coordination with the Advisory Council on Historic Preservation and the State Historic Preservation Office (SHPO) will be necessary to ensure that a window policy sensitive to the needs of the Academy and the goals of the Council and SHPO is developed. This coordination should continue until an historic structure maintenance plan is completed and approved by the Council and the SHPO.

Adaptive use projects often require new windows to be cut into existing walls. It is not desirable to add windows to principal facades as they can destroy the original design intent of the period. Symmetry, proportion, and balance can be seriously damaged by ill-designed new windows. If it is necessary to add new windows, they should be limited to less important facades and should relate to existing windows in size and shape of opening, sill height, and in sill, head and jamb treatments, and by duplicating the jamb profile, pane division, etc.

West Point has the added problem of being endowed with a number of buildings that have many large and important leaded glass windows. Replacement of these windows with windows of another type and/or material is not recommended. Leaded glass can be repaired, made more energy efficient and be protected from future deterioration, while maintaining its aesthetic qualities and practical capabilities. As with any contemplated window repair/replacement program, all possibilities must be explored and thoroughly analyzed to determine the proper course of action.

Doors--It is just as important for the overall building integrity to maintain the original exterior doors as it is to maintain the original windows. They are but another component of the visual cohesiveness of an historic structure. The substitution of new materials or the alteration of glazing

patterns or panels should be avoided. The size of openings and the doors within them must follow the original, since any change can alter the proportions of the whole and result in an awkward appearance.

Porches/Balconies--Porches and balconies are some of the most distinctive features of any building. Changes in details or removal of either portions or the entire feature changes the appearance immeasurably. Repairs to railings, vertical supports, flooring and roofing materials, decorative brackets and cornices, steps, etc., must follow the original. In the case of the older residential buildings at West Point, the porches have grown with the quarters and needs of the residents, reflecting the history of each individual structure. These are legitimate alterations, and, with the exception of the Commandant's Quarters, earlier details have been duplicated.

Those quarters designed by Cram, Goodhue and Ferguson are a special case. Each set of quarters was designed as a unit, including the porches. To enlarge those porches on the principal elevations would alter the proportions of each building and severely damage the integrity of each structure. The porches of most of the residences have now been screened in. Details of the building behind the porches become obscured, but the practical considerations of an enclosed porch can not be overlooked. Though they are not desirable, their impact can be lessened by "painting out" the mullions with a darker color rather than accenting them by using the same color as the remainder of the porch details, thus altering the original visual quality of the porch and facade.

Most of the porches on the residential quarters are wood and will require more attentive maintenance to preserve their character, particularly those with more elaborate detailing. The barracks tend to be of sturdier materials, such as concrete, stone, or brick. As with the Cram, Goodhue and Ferguson Quarters, these porches are integral to the design of the structure. Alterations should be avoided. Current fire codes, however, are putting new pressures on these structures. Any changes must be compatible with the existing building.

Building sculpture--Since the Cram, Goodhue and Ferguson period, the academic buildings at West Point have been adorned with sculpture symbolic of past military history. Sculpture and plaques on the Administration Building commemorate individuals important to the Military Academy and each of the states. Thayer Hall pays tribute to the various uses of the horse throughout history. The quest for the Holy Grail is depicted by the grotesques on the Cadet Chapel. The development of the Cadet dress hat is pictured on another building. "Duty, Honor,

Country" and the United States Military Academy Eagle can be found throughout the district. These works of art greatly enrich the facades of their respective buildings. They demand the same attention and care as the rest of the building on which they are found.

Mechanical equipment--Central HVAC systems require exterior areas to place equipment. This can be space either on the ground or on a roof. The principal facades of a building should be avoided at all cost. When placed on a roof, units should be either behind a parapet wall or far enough to the center (of a flat roof) or rear of the roof so as to be beyond the sight line of an individual on the ground. Equipment placed on the ground should be screened by walls or fences that blend in with the architecture of the surrounding area. Window air conditioning units should not be placed on principal facades.

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United States Military Academy Library

USMA Archives

Subject Files: These files are arranged by subject matter. Located within are invaluable pieces of information. Primary sources include Orders issued by Superintendents, such as those that announced the opening of the (old) Cadet Chapel; and reports and memos from various offices, such as the report stating construction companies and costs of the various Cram, Goodhue and Ferguson building. A number of secondary sources, copies of magazine articles, etc., are also found here.

Photographic Files: Again, these are arranged by subject matter. They include photographs and negatives from a number of sources. Dates are sometimes given but these need to be considered with great care as mistakes were often found. Photographs include those taken by White Studios, photographers at West Point between 1912-1966, and photos from old class albums.

Stockbridge Collection: A collection of photographs (with negatives) taken between 1902-1932. Each photograph is numbered and many of them are dated.

Superintendents' Letterbooks, Record Series 1 and 2, 1838-1902: These books occasionally contained miscellaneous information related to the buildings studied, and a more thorough pursuit may be warranted.

USMA Special Collections Branch

Subject Files: These files are arranged by subject matter. Special Collections Librarian, Marie Capps has also begun to collect significant information on all of the buildings at West Point. These are organized in a number of boxes.

Pittman Collection: A photographic collection taken by Brig. General John Pittman in 1870-1871. Occassionally notes will be written on each photograph that prove to be quite revealing. For instance, this data helped date and record the extent of the fire in Central Barracks in 1871.

Class Albums: Many of the photographs found within the Photographic files in the USMA Archives are from old Class Albums. By going through the actual albums located in the Special Collections Branch, a range of dates can be established. Photographs by Pach and Warren often show up for several different years making it difficult to give a specific date to each photograph. To further complicate things, Cadets selected only those photographs which they wanted. As a result, albums from the same year may not contain the same photographs so that the first date an image appears is not always possible to determine.

#### Class Album Photographers

M. Brady	1865
Warren	1866-1872
Howell	1873
Pach	1874-ca. 1902

There are also several undated volumes of photographs located in the Special Collections Branch, as well as numerous books which have scattered bits of information.

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