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HISTORIC STRUCTURE REPORT

ELLIS ISLAND

HISTORICAL DATA

STATUE OF LIBERTY NATIONAL MONUMENT

NEW YORK/NEW JERSEY

by
Harlan D. Unrau

UNITED STATES DEPARTMENT OF THE INTERIOR
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CONTENTS

PREFACE / xiii

I. STATEMENT OF HISTORICAL SIGNIFICANCE / 1

II. A BRIEF HISTORY OF ELLIS ISLAND / 3

III. THE FIRST IMMIGRATION STATION ON ELLIS ISLAND - 1890-1897 / 9

IV. PREPARATIONS FOR NEW IMMIGRATION STATION ON ELLIS ISLAND - 1897-1898 / 27
- A. Funding for Construction / 27
- B. Preparations for Enlarging the Island / 29
- C. Selection of Architects and Design of New Buildings / 31
- D. Enlargement of the Island / 35
- E. Preliminary Work for Construction of New Buildings / 36

V. THE MAIN BUILDING / 43
- A. Construction - 1898-1900 / 45
  - 1. Principal Contract - R.H. Hood Company / 45
    - a. Work Commences - 1989 / 48
    - b. Changes in Plan and Problems Encountered - 1899-1900 / 51
  - 2. Other Major Contracts / 70
    - a. Plumbing, Marble, and Slate Work - James Armstrong / 70
    - b. Heating and Ventilating Apparatus - G.A. Suter & Company / 75
    - c. Electrical Work - New York Electric Equipment Company / 85
    - d. Ornamental Ironwork - Hecla Iron Works / 90
    - e. Hardware - Russell & Erwin Manufacturing Company / 93
    - f. Elevator - Otis Elevator Company / 94
    - g. Screen, Partitions, Pipe Railings, and Gates - Louis Wechsler / 97
- B. Opening Building for Immigration Purposes - 1900 / 98
- C. Descriptions of Facilities - 1901-1902 / 101
- D. Additions, Alterations, and Remedial Work - 1901-1902 / 114
- E. Final Settlement With Architects Boring & Tilton - 1902 / 122
- F. Problems Encountered - 1902-1904 / 123
- G. Maintenance, Alterations, Remodeling, and Additions - Fiscal Years 1903-1953 (Not All Inclusive) / 127
  - 1. Fiscal Year 1903 / 127
    - a. Beautification of Grounds / 127
    - b. Installation of Roof Garden / 129
    - c. Painting of Main Building / 129
    - d. Enlargement of Detention Facilities / 129
  - 2. Fiscal Year 1904 / 130
    - a. Transfer of Ellis Island / 130

b. Construction of Dining Room / 130
c. Miscellaneous Projects / 130
3. Fiscal Year 1905 / 132
4. Fiscal Year 1908 / 133
5. Fiscal Year 1910 / 134
a. Alterations on Second Floor / 134
b. Construction of Telegrapn Booth - New York Room / 136
c. Addition of Third Story - Northwest Wing / 136
d. Installation of Passenger Elevator - Southwest Tower / 140
6. Fiscal Year 1911 / 141
a. Transfer of Medical Division / 141
b. Expansion of Information Bureau / 143
c. Construction of Stairway to Registry Room / 144
d. Construction of Stairway to Dining Room / 144
e. Creation of Special Inquiry Boardrooms / 145
f. Emergency Repairs Following Explosion / 145
7. Fiscal Year 1912 / 148
a. Replacement of Iron Railings - Registry Room / 148
b. Resetting of Stairs - Southeast Entrance / 148
c. Reconstruction of Heating Apparatus / 148
d. Alterations in Medical Division / 148
e. Remodeling of New York Room / 149
f. Pointing of Structures / 149
g. Installation of Operating Device for Mullion Windows / 149
h. Construction of Outside Vestibule - Information Bureau / 150
8. Fiscal Year 1913 / 150
a. Completion of New York Room / 150
b. Renovation of Toilets / 150
c. Installation of Tile Roof / 150
d. Rewiring of Building / 151
9. Fiscal Year 1915 / 151
10. Fiscal Year 1916 / 153
11. Fiscal Year 1917 / 154
12. Fiscal Year 1918 / 155
a. Use of Building During WW I / 155
b. Installation of Ceiling and Floor - Registry Room / 156
c. Replacement of Pipes / 158
13. Fiscal Year 1919 / 158
14. Fiscal Year 1922 / 158
a. Conversion of Storage Room Into Reception Room / 158
b. Installation of Cafeteria - Information Bureau / 159
c. Opening of Baby Nursery / 159
15. Fiscal Year 1925 / 159
a. Restoration of Roofs, Gutters, and Cornices / 159
b. Painting of Portions of West Wing / 160
c. Alterations in Dormitories and Examination Process / 160

d. Provision for Separate Detention Quarters / 169
e. Repair of Ceilings - Dormitory Rooms / 170
16. Fiscal Year 1926 / 171
a. Repair of Roofs - East and West Wings / 171
b. Repairs/Replacements to Heating and Plumbing Systems / 171
17. Fiscal Year 1928 / 172
18. Fiscal Year 1931 / 174
a. Replacement of Toilet Equipment / 174
b. Assignment of New Quarters for Law and Chinese Divisions / 176
19. Fiscal Year 1932 / 177
a. Repairs/Replacements of Roofs, Leaders, and Skylights - Northwest Wing / 178
b. Addition to Heating System - Northwest Wing / 180
c. Additions/Alterations to Electrical System - Northwest Wing / 180
d. Installation of Heating System - East Wing / 180
e. Provision for New Record Room / 181
f. Renewal of House Drain Lines and Roof Leaders / 183
g. Alterations in Four Toilet Rooms / 183
h. Tiling of First Floor Corridor / 184
i. Replacement/Repair of Sheet Metal and Roofing / 185
j. Painting of Buildings on Island 1 / 186
k. Construction of New Plaza / 187
l. Installation of Fire Alarm System / 187
m. Repair of Pipes and Plumbing Fixtures / 187
n. Pointing of Exterior Masonry / 188
o. Installation of Insect Screens / 188
p. Covering of Pipes in Tunnels / 188
q. Repairs to Elevators / 189
20. Fiscal Year 1933 / 190
21. Fiscal Year 1934 / 190
a. Replacement/Repair of Skylights, Sheet Metal, and Roofing / 190
b. Tiling of Floors / 191
c. Repairs to Elevators / 193
d. Replacement of Elevator Motor - Southwest Tower / 193
e. Alterations/Renewal of Steam and Circulating Systems / 194
f. Installation of Drains and Replacement of Plumbing Fixtures / 194
22. Fiscal Year 1935 / 194
a. Alterations in Plumbing Equipment / 197
b. Installation of Electrical Items / 199
c. Provision for Women's Washroom - East Wing / 200
23. Fiscal Year 1936 / 200
a. Installation of Electrical Items / 200
b. Installation of Insect Screens - Third Floor / 201
24. Fiscal Year 1937 / 203
a. Installation of Electric Lighting - New File Room / 203

b. Repairs/Replacements of Electrical Items / 203
c. Alterations in Lighting System - Record Room / 203
d. Installation of Metal Partition - Record Room / 204
e. Construction of Concrete Sidewalk - Front of Main Building / 204
f. Installation of Terrazzo Flooring - First Floor, West Wing / 204
g. Replacement of Millwork - Third Floor / 205
h. Floor Tiling, Masonry, Plastering, and Carpentry Work - Record Room / 206
i. Installation of Revolving Door - Information Bureau / 206
25. Fiscal Year 1938 / 207
a. Alterations/Extensions in Electric Lighting System - Record and File Rooms and Treasurer's Office / 207
b. Installation of Electrical Fixtures and Wiring - Record Room / 209
c. Placement of Mural Paintings - Dining Hall / 209
26. Fiscal Year 1939 / 211
a. Alterations in Men's Toilet - Medical Division / 211
b. Miscellaneous Projects / 211
27. Fiscal Year 1940 / 211
28. Fiscal Year 1945 / 212
29. Fiscal Years 1951-1953 /212

VI. THE KITCHEN AND LAUNDRY BUILDING / 217
A. Construction - 1900-1901 / 223
1. Main Contract - Louis Wechsler / 223
2. Other Contracts / 227
a. Heating and Ventilating Apparatus - E. Rutzler / 227
b. Refrigerating and Ice Plant - De La Vergne Refrigerating Machine Company / 230
c. Kitchen Furniture - Bramhall-Deane Company / 232
d. Electrical Work - Frederick Pearce / 232
e. Addition of Second Floor - Williams & Gerstle / 234
f. Laundry Machinery - Troy Laundry Machine Company / 237
g. Pipe, Tank, and Duct Covering - H. W. Johns Manufacturing Company / 238
h. Saltwater and Freshwater Piping System - Kieley & Stahl / 238
i. Miscellaneous Work - Peter E. Moran / 241
B. Description of Facilities - 1901 / 242
C. Additions, Alterations, and Remodeling - 1902-1954 (Not All Inclusive) / 245
1. Miscellaneous Changes and Repairs - 1902 / 245
2. Proposed Extension of Building - 1904 / 245
3. Remodeling of Second Floor for Larger Dining Room - 1907-1908 / 245
4. Installation of Freight Elevator - 1911 / 251
5. Painting of Buildings - 1911 / 252

6. Installation of Outside Stair Strings - 1911 / 253
7. Laying of New Tile Floor in Kitchen - 1911 / 253
8. Renewal of Hot Water Pipes - 1917-1918 / 253
9. Proposed Addition of Third Story - 1911-1920 / 254
10. Installation of Laundry Equipment - 1924 / 256
11. Renewal of Steam Return Lines - 1925 / 257
12. Renewal of Heating System (Pipe Covering) - 1925 / 259
13. Repairs to Heating and Plumbing Systems - 1926 / 259
14. Repairs to Roof - 1928 / 259
15. Installation of Steam and Ventilating System - 1931 / 260
16. Repairs to Elevator - 1931 / 261
17. Installation of Fire Alarm System - 1931 / 262
18. Replacement of House Drain Lines - 1932 / 262
19. Installation of Insect Screens - 1932 / 263
20. Replacement of Pipes and Plumbing Fixtures - 1932 / 263
21. Installation of Sheet Metal and Repairs to Roof - 1932 / 263
22. Painting of Buildings on Island 1 - 1932 / 263
23. Pointing of Exterior Masonry - 1932 / 264
24. Covering of Pipes - 1932 / 264
25. Repairs to Blanket Elevator - 1933 / 266
26. Installation of Sheet Metal and Repairs to Roof - 1934 / 266
27. Replacements in Electrical System - 1934 / 267
28. Repairs to Elevator - 1934 / 267
29. Remodeling of Building - 1935 / 268
30. Repairs/Replacements to Plumbing, Heating, and Laundry Equipment - 1936 / 271
31. Alterations in Electrical System - 1936 / 271
32. Repairs to Elevator - 1936 / 272
33. Installation of Second Story Porch Floor - 1936 / 272
34. Construction of Covered Ramp - 1937 / 272
35. Overhauling of Panel Boards and Removal of Obsolete Electric Lines - 1939 / 273
36. Repairs to Elevators - 1939-1941 / 274
37. Miscellaneous Renovation Projects - 1939 / 275

VII. THE POWERHOUSE / 277
A. Construction - 1900-1901 / 281
1. Main Contract - Louis Wechsler / 281
2. Other Contracts / 289
a. High Pressure Boiler Plant - Oil City Boiler Works / 289
b. Engines and Generators - Ridgeway Dynamo and Engine Company / 293
c. Tanks, Condenser, Pumps, Etc.- Westinghouse, Church, Kerr & Company / 295
d. Electrical Work - Frederick Pearce / 298
e. High Pressure and Exhaust Steam and Water and Drain Pipe Connections - Gaylord & Eitapenc / 301

f. Freshwater Tanks - G. A. Suter & Company / 310
g. Switchboard - The D'Oiler Engineering Company / 311
h. Sterilizing and Disinfecting Apparatus - Kensington Engine Works / 313
i. Completion of Second Story - Williams & Gerstle / 313
j. Dredging in Dock Basin at Coal Dock Berth - Henry DuBois' Sons Company / 315
k. Smoke Breeching - H. W. Johns Manufacturing Company / 316
l. Heating System - E. Rutzler / 317
m. Coal Hoisting and Delivering Mechanism - A. J. Hemphill / 318

B. Additions, Alterations, and Remodeling - 1902-1954 / 318
1. Miscellaneous Work - 1902-1905 / 318
2. Construction of Concrete Floor in Boiler Room - 1906-1907 / 320
3. Reconstruction of Powerhouse - 1908-1910 / 321
4. Installation of Hot Water Circulating Mains and Automatic Oiling System - 1910 / 325
5. Installation of Floor, Wainscot, and Ceiling in Engine and Boiler Room - 1910-1911 / 328
6. Installation of Pneumatic Ash Conveyor - 1911-1912 / 329
7. Installation of Electric Tie Lines - 1910-1911 / 329
8. Repairs to Coal Hoist - 1911 / 330
9. Repairs to Brickwork and Linings of Boilers 4-7 - 1911 / 330
10. Enlargement of Boiler and Generating Capacity - 1912-1913 / 330
11. Miscellaneous Improvements - 1913-1914 / 331
12. Installation of Pipe Tunnel - 1916-1917 / 332
13. Installation of Two Turbogenerators - 1918-1919 / 332
14. Miscellaneous Improvements - 1920-1921 / 333
15. Extension of Coal-Handling Apparatus - 1921 / 334
16. Repairs to Boiler Furnaces - 1924 / 334
17. Renewal of Boiler Pipes and Fittings - 1925 / 334
18. Renewal of Brickwork in Boilers 4 and 5 - 1925 / 335
19. Installation of Vacuum Pumps - 1925 / 335
20. Repair of High Pressure Steam Lines - 1925 / 336
21. Alteration to Coal Conveyor-Beam Trolley - 1926 / 336
22. Repairs to Heating and Plumbing Systems - 1926 / 337
23. Repairs to Roof - 1928 / 338
24. Repair/Replacement of Drain and Boiler Blow-Off Lines - 1930 / 340
25. Installation of Fender Piling and Wearing Strips - 1930-1931 / 341
26. Conversion of Water Pressure Tank into Hot Water Return Tank - 1930-1931 / 343
27. Conversion of Powerhouse From Coal to Oil-Burning System - 1932 / 344
28. Replacement of Hot Water Circulating Pipes, Vacuum Piping, and Turbine Drain Lines - 1932 / 348
29. Installation of Water Pumps for Freshwater System - 1932 / 349

30. Installation of Fire Alarm System - 1932 / 349
31. Replacement of Turbine for Turbogenerator - 1932 / 351
32. Installation of Tile Floor in Boiler Room - 1932 / 351
33. Installation of Steam Supply for Pumps, Injector Piping, and Valves - 1932 / 351
34. Replacement of Turbine Generator 4 With Turbogenerator - 1932 / 353
35. Painting of Buildings on Island 1 - 1932 / 353
36. Pointing of Exterior Masonry - 1932 / 353
37. Retubing, Rebaffling, and Relining of Flue Boilers - 1932-1933 / 354
38. Installation of Nonconducting Pipe Covering - 1932-1933 / 354
39. Installation of Boiler Flue Dampers - 1933-1934 / 354
40. Installation of Steam Turbine Driven Centrifugal Pumps - 1934 / 355
41. Installation of Water Softener and Incidental Piping - 1934 / 355
42. Repair of Turbogenerators - 1934 and 1936 / 356
43. Change in Switchboard Panel Layout - 1934 / 356
44. Insulation of Pipes, Lines, and Tank - 1934 / 357
45. Installation of Main Breeching Dampers - 1934 / 357
46. Alteration/Renewal of Steam and Circulating Systems - 1934 / 357
47. Installation/Replacement of Plumbing Items - 1934 / 358
48. Repairs to Masonry Settings of Boilers - 1935 and 1938 / 359
49. Repair of Oil Barge Dock - 1936 / 359
50. Replacement of Turbine Generator 5 With Turbogenerator - 1936-1937 / 360
51. Pointing of Brickwork - 1939 / 360
52. Installation of New Ventilator Over Switchboard and New Roof - 1939 / 361
53. Repairs to Radial Brick Chimney - 1939 / 361
54. Alterations/Repairs to Boilers 4 and 5 - 1946 / 361

VIII. THE BAGGAGE AND DORMITORY BUILDING / 365
A. Construction - 1907-1909 / 366
B. Additions, Alterations, Maintenance, and Remodeling - 1910-1954 / 382
1. Miscellaneous Improvements - 1910-1911 / 382
2. Addition of Third Story and Metal and Masonry Projection on North Side - 1913-1914 / 384
3. Improvements to and Use of Building During WW I - 1918-1919 / 389
4. Construction of Ramps Between Seawall and Building - 1920-1921 / 390
5. Renovation, Repairs, and Alterations - 1924-1926 / 391
6. Repairs to Roofs - 1928 / 400
7. Renovation of Plumbing Fixtures and Tile Work - 1930-1931 / 401
8. Miscellaneous Work - 1931-1932 / 402
9. Remodeling - 1933-1934 / 407

10. Alterations - 1934-1935 / 407
11. Repair/Replacement of Insect Screens - 1936 / 412
12. Renovation of Electrical System and Installation of New Roof - 1939 / 413
13. Use of Building During WW II - 1939-1946 / 413

IX. THE HOSPITAL COMPLEX ON ISLAND 2 /415
A. Construction - 1900-1901 / 418
1. Main Hospital Building - Daniel A. Garber / 418
2. Surgeon's House and Hospital Outbuilding - Attilio Pasquini / 425
3. Other Contracts / 432
a. Heating and Ventilating Apparatus - E. Rutzler / 432
b. Electrical Work - Frederick Pearce / 434
c. Electric Elevator - Otis Elevator Company / 435
d. Refrigeration Units - Brunswick-Balke-Collender Company / 438
e. Sterilizing and Disinfecting Apparatus - Kensington Engine Works / 438
f. Kitchen Equipment - Bramhall-Deane Company / 438
g. Laundry Machinery - Troy Laundry Machinery Company / 439
B. Additions, Alterations, and Maintenance - 1901-1954 / 439
1. Covering of Exposed Piping and Smoke Breeching - 1901 / 439
2. Installation of Bell Traps - 1901 / 440
3. Filling Up Elevator Pit - 1901 / 440
4. Alteration of Wall Under Stairs - 1901 / 440
5. Painting and Miscellaneous Repairs - 1901 / 441
6. Waterproofing Basement of Hospital Building - 1901 / 441
7. Alterations in Basement of Surgeon's House - 1902 / 442
8. Paving Space Around Hospital Building - 1902 / 442
9. Miscellaneous Improvements - 1903-1904 / 442
10. Construction of Hospital Addition - 1905-1907 / 442
11. Construction of Psychopathic Ward - 1906-1907 / 446
12. Construction of New Hospital Extension - 1908-1909 / 448
13. Construction of New Kitchen in Basement of Hospital Addition - 1909 / 459
14. Installation of Hot Water Circulating System on Main and Hospital Islands - 1910 / 461
15. Repairs to Roofs - 1910 / 461
16. Installation of Metal Storage Bins and Shelves in Hospital Extension - 1910 / 461
17. Repairs to Hospital Extension Following Explosion - 1911 / 461
18. Painting of Hospital Extension - 1911 / 462
19. Repairs to Gutter and Cornice - 1911-1912 / 462
20. Repointing of Hospital Building - 1912-1913 / 462
21. Renovation of Interior of Hospital Building - 1913-1914 / 462
22. Extension of Fire Alarm System - 1914 / 465
23. Repairs to Roofs - 1915-1916 / 465
24. Repairs to Hospital Buildings Following Explosion - 1916-1917 / 467

25. Use of Hospital Complex During and Following WW I - 1918-1923 / 467
26. Installation of Hot Water Supply and Return System - 1921 / 470
27. Repair of Pergola - 1924 / 472
28. Repairs to Porches and Steps - 1926 / 472
29. Installation of Fly Screens - 1928 / 472
30. Installation of New Pump House and Vacuum Pumps - 1930-1931 / 473
31. Painting Exterior of All Buildings on Islands 2 - 1931 / 474
32. Repairs to Elevators - 1931-1932 / 474
33. Installation of Fire Alarm System - 1931-1932 / 477
34. Installation of Window Guards on Psychopathic Ward - 1931-1932 / 477
35. Installation of New Heating System in Original Hospital Building - 1932 / 477
36. Installation of New Heating System and Vent Lines in Administration Building - 1932 / 479
37. Replacement of Electrical Feeders and Panel Boards - 1932-1933 / 479
38. Replacement of Plumbing Fixtures and Fittings - 1932-1933 / 479
39. Installation of Steam Supply and Return Lines for Sterilizers - 1932 / 481
40. Repair/Replacement of Sheet Metal and Roofing - 1932 / 483
41. Painting Interior of All Buildings on Island 2 - 1932 / 483
42. Repairs to Elevators - 1932 / 484
43. Replacement of Leaders, Drains, and Sewers - 1932-1933 / 484
44. Installation of Insect Screens - 1932 / 484
45. Installation of Nonconducting Coverings - 1932-1933 / 485
46. Repairs to Sheet Metal Following Wind Damage - 1933 / 485
47. Repairs to Elevators - 1933, 1936, 1939, and 1941 / 486
48. Alteration/Renewal of Steam and Circulating Systems - 1933-1934 / 486
49. Survey of Hospital and Recommendations for Improvement of Facilities - 1934 / 487
50. Replacements, Alterations, and Additions to Electric Light and Power System - 1934 / 492
51. Repair of Roof After Wind Damage - 1934 / 492
52. Installation/Replacement of Plumbing Fixtures - 1934 / 494
53. Installation of New Sink and Grease Interceptor - 1935 / 495
54. Installation of Insect Screens and Millwork - 1934 / 495
55. Miscellaneous Alterations - 1936-1937 / 497
56. Overhaul of Electric Panel Boards - 1939 / 497
57. Repairs/Replacements of Plumbing Fixtures - 1945 / 498
58. Closing of Hospital on Island 2 - 1951 / 499
59. Control of Island 2 Complex Under the U.S. Coast Guard - 1951-1954 / 500

X. THE CONTAGIOUS DISEASE HOSPITAL ON ISLAND 3 / 503
A. Construction - 1906-1911 / 515
B. Additions, Alterations, and Maintenance - 1911-1954 / 532
1. Alterations to Measles Wards - 1911 / 532
2. Grading of Island 3 - 1912 / 532
3. Enclosure of Two-Story Corridor With Glass - 1913-1914 / 533
4. Installation of Additional Tie Lines - 1913-1914 / 535
5. Extension of Fire Alarm System and Saltwater Service Lines to Island 3 - 1914-1915 / 535
6. Repairs to Hospital Buildings Following Explosion - 1916-1917 / 535
7. Use of Hospital Complex During and Following WW I - 1918-1923 / 536
8. Miscellaneous Repairs - 1923-1925 / 539
9. Installation of Steam Lines and Pipe Covering - 1925 / 541
10. Installation of New Disinfector, Piping, Valves, Gauges, Heat Insulating Materials, Division Wall, and Plaster in Powerhouse and Laundry Building - 1924-1925 / 541
11. Repairs to Roofs, Skylights, and Ventilators - 1926 / 544
12. Installation of Fly Screens - 1928 / 545
13. Renewal of Hot Water and Steam Lines - 1931 / 545
14. Tiling of Bathrooms in Wards 23, 24, and 25 - 1931-1932 / 547
15. Tiling and Waterproofing of Wards 26 and 27 - 1931 / 548
16. Repairs/Replacements to Roofs and Leaders - 1931-1932 / 548
17. Painting Exterior of All Buildings on Island 3 - 1931 / 549
18. Installation of New Electrical Equipment - 1932 / 549
19. Installation of New Fire Alarm System - 1931-1932 / 550
20. Repairs to Elevators - 1931-1932 / 550
21. Tiling of Shower Room Floor in Ward 29 - 1932 / 551
22. Installation of Insect Screens - 1932 / 551
23. Reduction of Steam Line and Heating System Connection in Pump Room - 1932 / 552
24. Alterations and Rearrangement of Plumbing Fixtures and Kitchen Equipment - 1932 / 552
25. Replacements of Plumbing Fixtures and Fittings - 1932-1933 / 555
26. Painting Interior of All Buildings - 1932 / 557
27. Electrical Installation for Fire Pump Feeder - 1932 / 557
28. Installation of Nonconducting Pipe Covering - 1932-1933 / 558
29. Installation of Steam Supply and Return Lines for Sterilizers - 1932 / 558
30. Repairs to Elevators - 1933, 1936, 1939, and 1941 / 558
31. Alterations/Renewal of Steam and Hot Water Circulating Systems - 1933-1934 / 559
32. Installation of Attachments for Thermostatic Traps - 1934 / 559
33. Installation/Replacement of Plumbing Fixtures and Fittings - 1934 / 560

34. Installation of Millwork - 1934 / 561
35. Repairs to Sheet Metal and Roofing - 1934 / 562
36. Installation/Replacement of Electrical Fixtures and Lines - 1934 / 565
37. Survey of Hospital and Recommendations for Improvement of Facilities - 1934 / 565
38. Installation/Replacement of Plumbing Fixtures - 1935 / 565
39. Alterations to Hospital - 1936-1939 / 566
40. Installation of Insect Screens - 1938 / 568
41. Overhauling of Panel Boards, Branch Lines, and Temporary Outlets - 1939 / 569
42. Installation of Kalamein Doors - 1939 / 569
43. Alterations in Attendants' Quarters - 1939 / 569
44. Repairs/Replacements of Plumbing Fixtures - 1945 / 570
45. Closing of Hospital on Island 3 - 1951 / 571

XI. MISCELLANEOUS STRUCTURES / 573
- A. The Ferry Houses / 573
  - 1. First Ferry House / 573
    - a. Construction - 1900-1901 / 573
    - b. Improvements - 1902-1935 / 575
  - 2. Second Ferry House / 577
    - a. Construction - 1935-1936 / 578
    - b. Improvements - 1937-1939 / 579
    - c. Use - 1936-1954 / 581
- B. The Incinerators / 581
  - 1. First Incinerator - 1901-1902 / 581
  - 2. Second Incinerator - 1911 / 582
  - 3. Improvements - 1932-1942 / 583
- C. The Greenhouses / 589
  - 1. First Greenhouse / 589
    - a. Construction - 1910 / 589
    - b. Improvements - 1910-1934 / 589
  - 2. Second Greenhouse / 590
    - a. Construction - 1934-1935 / 590
    - b. Improvements - 1935-1954 / 592
- D. The Bakery and Carpenter Shop / 592
  - 1. Construction - 1914-1915 / 593
  - 2. Use - 1915-1954 / 594
- E. The Immigrant Building / 594
  - 1. Construction - 1934-1935 / 595
  - 2. Use - 1936-1954 / 596
- F. The Recreation Building and Shelters / 597
  - 1. Construction - 1936 / 598
  - 2. Use - 1937-1954 / 599

XII. RECOMMENDATIONS / 600

APPENDIXES / 601

BIBLIOGRAPHY / 628

ILLUSTRATIONS / 636

DRAWINGS / 659

DRAWINGS AND SKETCHES

General Plan, U.S. Immigrant Station / 34

Block Plan, U.S. Immigrant Station / 38

Main Building, Front Elevation / 44

Plan of U.S. Immigrant Station / 50

Front Elevation of Towers / 54

Painting Record Room / 182

New Electric Fixtures and Incidental Wiring - New Record Room Offices / 210

Layout of Ellis Island / 269

Steam Regulators for Water Heater Tanks - Powerhouse / 350

Tile Flooring for Boiler Room - Powerhouse / 352

High Pressure Steam for Sterilizers in Cystoscopy Room - Hospital Building 2, Island 2 / 482

Psychopathic Ward - Island 2 / 496

Layout Plan - Island 3 / 537

Reducing Connection - Pump Room, Island 3 / 553

Location of Millwork Openings - Island 3 / 563

Replacement of Section of Waste Line from Potato Peeler in kitchen - Island 3 / 567

New Plan of New Ferry House / 580

Location of First and Second Greenhouses / 591

PREFACE

This Historic Structure Report has been prepared to satisfy in part the research needs for the restoration/preservation of the 33 extant buildings (totaling more than 500,000 square feet of floor space) on Ellis Island, a unit of the Statue of Liberty National Monument. Although Ellis Island has been the subject of much research and writing, this is the first study to focus solely on the structural and architectural history of the U.S. Immigration Station. Hence the primary objectives of this report have been two-fold: (1) to provide basic historical documentation for the restoration/preservation of the structures; and (2) to provide preliminary data necessary for management to make informed decisions concerning historical significance, interpretation, and final treatment of the buildings. Throughout the preparation of this report, an effort has been made to conform the scope of research and the presentation of material to the Activity Standards of the National Park Service as they define a class B level of investigation.

The prime focus of this report has been the main building and the principal ancillary structures adjacent to it on island 1. The main building has the distinction of being the most notable architectural feature on the island and of being the structure with the most historical interest, as it was the site where some 12 million immigrants were examined and registered. The principal ancillary structures are the kitchen and laundry building, baggage and dormitory building, and powerhouse. However, all of the other structures on islands 1, 2, and 3 have been treated in a less comprehensive manner in order to trace the historical and architectural development of the immigration station.

A number of persons have assisted in the preparation of this report. Thanks are due to Gerald Karr, an architect on the Mid-Atlantic/North Atlantic Team of the Denver Service Center, for giving me a personal tour of the buildings on Ellis Island and providing me with ideas, guidelines, and materials for my research; to Superintendent David L. Moffitt and his staff for assistance at the park headquarters; to Donald

Mosholder of the National Archives in Washington, D.C., and Stanley Brown of the Washington National Records Center in Suitland, Maryland, who were helpful in suggesting and locating unpublished documents in record groups 85 and 121; to Laurie Simmons who inventoried, organized, and cataloged the Ellis Island Architectural and Maintenance Records, 1898-1955, under contract to the Denver Service Center, thereby facilitating my use of this large collection material; to Carole Perrault of the North Atlantic Historic Preservation Center in Boston for supplying me with copies of various documents relative to Ellis Island in the NAHPC files; and to Beverly Sons of the Mid-Atlantic/North Atlantic Team for typing the manuscript.

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Research for this report was carried out in numerous libraries, archival centers, and museums. The following repositories were visited during the course of the project:

Library of Congress

Martin Luther King Memorial Library
(Washington, D.C.)

Library, Immigration and Naturalization Service
(Washington, D.C.)

Reference Library, U.S. Department of Labor
(Washington, D.C.)

National Archives

Washington National Records Center
(Suitland, Maryland)

New York Historical Society

New York Public Library

Museum of City of New York

American Museum of Immigration

Statue of Liberty National Monument
(Office and reference files)

National Park Service Park History Archives
(Department of the Interior, Washington, D.C.)

As a descendant of an immigrant from Russia who entered the United States through Ellis Island in 1909, I have found both the research and writing of this report to be a meaningful exercise. It is my hope that the restoration/preservation and interpretation of Ellis Island will become a priority item of the National Park Service in the years ahead.

I. STATEMENT OF HISTORICAL SIGNIFICANCE

Ellis Island, located off the New Jersey shoreline in upper New York Bay and adjacent to the Statue of Liberty, is significant as it was the principal immigration station in the United States from 1892 to 1954. The new depot for the Port of New York was opened in 1892, and some 1,500,000 immigrants were processed there until the station was destroyed by fire in 1897. A new main building for immigrant inspection was opened in 1900, and during the next half century the small island was enlarged to encompass three connected islands covering 27.5 acres on which were built 33 structures to provide facilities for the administration, examination, detention, and hospitalization of incoming aliens.

Between 1900 and 1914 Ellis Island operated at peak capacity, reaching its high point in 1907 when more than 1 million immigrants passed through its doors. After a sharp decline in immigration during World War I, a period that saw the island used primarily for military purposes, the number of aliens arriving at Ellis Island increased to some 600,000 in 1921. The second immigration quota law of 1924 drastically restricted immigration and provided for the examination of immigrants at American consulates overseas. Thereafter, Ellis Island became primarily a center for the detention and deportation of aliens who had entered the country illegally or had violated the terms of their admission. After again being used primarily for military purposes in World War II, the Immigration and Naturalization Act of 1952, together with a liberalized detention policy, resulted in the closing of Ellis Island in 1954. All told, over 12 million immigrants entered the U.S. through Ellis Island, representing more than half the total number of immigrants entering the country between 1892 and 1954.

II. A BRIEF HISTORY OF ELLIS ISLAND

Ellis Island, located off the New Jersey shoreline in upper New York Bay and lying in the shadow of the Statue of Liberty, is remembered as the port of entry and clearinghouse for over 12 million immigrants between 1892 and 1954. Approximately three-fourths of the immigrants entering the U.S. during those years were processed through its gates. While mass examination of immigrants at Ellis Island ended in 1924, the station continued to serve for several years as a detention center for immigrants whose status in this country was questioned. In 1954 the island was permanently closed.

Named for its last 18th century owner, Samuel Ellis, the island was first fortified by the state of New York in 1794 when a serious threat of war with Great Britain forced the state to erect a string of harbor defenses to deter a naval attack. In 1808 when Lt. Col. Jonathan Williams of the War Department planned "a casemated Battery" and a garrison on Ellis Island, named East Gibson, as part of the New York Harbor defenses, the state of New York purchased the land from the heirs of Samuel Ellis by condemnation procedures and ceded it to the federal government for $10,000. Shortly before the War of 1812, a battery of 20 guns, a magazine, and a barracks were constructed on the island. By the terms of an interstate agreement in 1834, Ellis Island and neighboring Bedloe's Island (on which the Statue of Liberty is now located) were declared part of New York State, even though both islands are on the New Jersey side of the main ship channel. Ellis Island continued to serve as an arsenal, a powder magazine, and a port of the New York Harbor defenses until 1890.

In that year the federal government assumed responsibility for the reception of immigrants, and a study of the New York Harbor was made to determine the best location for an immigration depot. Castle Garden, situated at the southern tip of Manhattan Island and the site of the immigration station for the Port of New York since 1855, no longer met the needs of the growing influx of foreigners. On April 11, 1890, Congress decided to remove the powder magazine from Ellis Island and

appropriated $75,000 to enable the secretary of the treasury to improve Ellis Island for immigration purposes. While the new immigration station on Ellis Island was under construction, the Barge Office on the Battery was used for immigrant reception. On January 1, 1892, the new station was opened, and during the next 5½ years some 1½ million immigrants entered the U.S. through its gates. When the island was swept by fire on June 15, 1897, all the wooden buildings were virtually destroyed as were most of the valuable state and federal immigration records.

Later in 1897 new fireproof brick and ironwork buildings were designed by the firm of Boring & Tilton, and the main island (island 1) was enlarged to accommodate the new station complex. The main building, an impressive French Renaissance-style structure, was opened in December 1900 for the processing of immigrants; the adjacent kitchen and laundry building and powerhouse were ready for use the following year. A second island (island 2), separated from the main island by a ferry slip, was built to house the hospital complex, which was ready for occupancy in March 1902. Work began on a new island (island 3) in 1905 to house the contagious disease wards; after numerous delays, the structures were completed in 1909.

Between 1900 and 1914, Ellis Island operated at peak capacity. With the U.S. economy recovering from the long depression of the early 1890s and entering a period of rapid growth and industrial expansion, Europeans came to our shores in record numbers. Immigration to the U.S. rose to more than 1 million annually, with the peak year at Ellis Island occurring in fiscal year 1907. On April 17, 11,747 immigrants passed through the station--a record high. Following a decline in immigration after the recession in 1907, the number of foreigners landing at the island increased nearly to its earlier levels in the years just prior to World War I, as more than I million immigrants passed through its gates in both 1913 and 1914. During WW I there was a sharp decline in immigration, and the numbers passing through Ellis Island decreased from slightly more than 200,000 in 1915 to about 50,000 in 1918.

From the outset the physical plant at Ellis Island bulged at the seams. In spite of improvisation, long-range planning, and extensive new construction, the island's facilities never equaled the demands placed upon them. Thus, a number of projects, including construction of new buildings, additions to old ones, and remodeling of others, were initiated before the outbreak of WW I to provide the badly needed space. In 1908 the baggage and dormitory building on island 1 was completed, and the capacity of the hospital on island 2 was doubled with the construction of a new hospital extension and an administration building. That same year the kitchen and laundry building was remodeled to convert the entire upper floor to a large dining room accommodating 1,000 people at a sitting, and the main building was altered to provide additional dormitory space. In 1911 a third story was added to the north wing of the main building to provide day quarters for detainees and administrative space, and in 1913-1914, a third story was added to the south wing of the structure to provide needed space for medical inspection. Also in 1913-1914, a third story was added to the baggage and dormitory building, a bakery and carpenter building was begun on island 1, and the first section of the new concrete, granite-faced seawall was completed.

On July 30, 1916, explosions set off by German saboteurs at nearby Black Tom Wharf severely damaged the Ellis Island buildings. In 1917 the Ellis Island facilities were used to hold in custody German merchant ship crews and numerous suspected enemy aliens. The next two years saw the U.S. Army Medical Department and the U.S. Navy take over the main building, the baggage and dormitory building, and the hospital complex for treatment of returning wounded American soldiers and as a way station. The "Red Scare" at the close of the war brought hundreds of suspected alien radicals to Ellis Island for detainment.

The aging and neglected facilities at Ellis Island were reopened for immigrant inspection in 1920, and postwar immigration quickly revived, with some 600,000 immigrants passing through Ellis Island in 1921. The first immigration quota law, passed in 1921, added to the problems of administration because its monthly quota limitations brought the liners in, jammed with immigrants, in spurts at the beginning of each month.

IMMIGRANT ARRIVALS AT PORT OF NEW YORK
FISCAL YEARS 1890-1928

Fiscal Year	No. of Immigrants
1890	364,086
1891	448,403
1892	445,987
1893	343,422
1894	219,046
1895	190,928
1896	263,709
1897	180,556
1898	178,748
1899	242,573
1900	341,712
1901	388,931
1902	565,983
1903	631,885
1904	606,019
1905	809,847
1906	925,011
1907	1,123,842
1908	689,474
1909	733,267
1910	912,026
1911	749,642
1912	726,040
1913	1,040,457
1914	1,008,750
1915	200,000
1916	176,611
1917	160,105
1918	50,000
1919	62,306
1920	334,310
1921	652,909
1922	279,598
1923	391,316
1924	421,785
1925	241,319
1926	271,371
1927	300,136
1928	294,088
TOTAL	18,018,759

SOURCE: U.S., Library of Congress, Annual Report of the Commissioner-General of Immigration to the Secretary of Labor, Fiscal Year Ended June 30, 1928 (Washington, 1928) (hereinafter cited as Annual Report, Commissioner-General of Immigration, and date), pp. 27-28.

Limited appropriations restricted improvements at Ellis Island to the completion of much of the new concrete and granite seawall and the beginning of landfill between islands 2 and 3.

The second quota act of 1924, which ended mass immigration and provided for the examination of immigrants at American consulates overseas, changed the principal function of Ellis Island. Henceforth, it became primarily a center for the assembly and deportation of aliens who had entered the U.S. illegally or had violated the terms of their admittance. Fewer and fewer new immigrants, all of whom now received their federal inspection on the ships coming up the bay, were sent to Ellis Island either because their papers were not in order or because they required medical treatment. Accordingly, the buildings at Ellis Island fell into disuse and disrepair.

The last major construction activities at Ellis Island were carried out in the 1930s. Funds from the Public Works Administration allocated for landfill permitted the addition of recreation grounds on the Manhattan side of the main building, and landscaping of new playgrounds and gardens continued for several years with Works Progress Administration labor, including the area between islands 2 and 3. The new seawall, which had been constructed at intervals since 1913, was finally completed in 1934. In 1934-1935 the baggage and dormitory building was remodeled to allow better segregation of the different classes of deportees. Other buildings constructed in 1934-1935 included a recreation building and shelter on the filled-in area between islands 2 and 3, a new ferryhouse at the head of the boat slip, and an immigration building on the recently landfilled area behind the new ferry house.

During WW II the Ellis Island facilities were used as a Coast Guard station, a hospital for returning wounded soldiers, and a detention center for suspected enemy aliens. The detainees became so numerous that the immigration administrative functions had to be transferred to Manhattan for lack of room on the island.

Following the decommissioning of the Coast Guard station on Ellis Island in 1946, the island remained in use primarily as a detention center for aliens whose status was questioned. A brief flurry of activity occurred on the island after the passage of the Internal Security Act of 1950, which excluded arriving aliens who had been members of Communist or Fascist organizations, and remodeling and repairs were performed on the buildings to accommodate the large number of detainees. In 1951 the U.S. Public Health Service closed the hospital complex on island 2, and it was temporarily taken over by the Coast Guard. As a result of the Immigration and Naturalization Act of 1952 and a liberalized detention policy enacted in 1954, Ellis Island was closed in November 1954 and declared excess federal property.

During the next decade there was a variety of proposals for the disposition and use of the 33 brick and stucco buildings on the 27.5-acre island. On May 11, 1965, President Lyndon B. Johnson issued Proclamation 3656 adding Ellis Island to the Statue of Liberty National Monument under the administration of the National Park Service.

Historical development drawings, general and block plans, and an existing conditions [1980] drawing of the Ellis Island Immigration Station are grouped together in the back of this document following the "Illustrations."

III. THE FIRST IMMIGRATION STATION ON ELLIS ISLAND - 1890-1897

The first federal immigration station in the United States was built on Ellis Island in 1890-1891 to replace the inadequate facilities at state-operated Castle Garden on the Battery, where immigrants had been received since 1855. Following several investigations of the operation of Castle Garden by congressional committees and officials of the Department of the Treasury, it was determined in 1890 that the federal government should receive the immigrants.

On February 15, 1890, William Windom, secretary of the treasury, sent a letter to the New York State Commissioners of Emigration revoking the contract under which they had administered the Castle Garden facility, effective April 18. Secretary Windom was determined to build a new station that would be isolated and completely under federal control. His first choice was Bedloe's Island, on which the Statue of Liberty had been located a few years earlier; however, after inspecting Bedloe's Island, Governor's Island, and Ellis Island, a temporary joint congressional committee on immigration approved the selection of Ellis Island as the site for the new immigration station.

Meanwhile, a joint resolution that had been introduced earlier in the year by Senator John R. McPherson of New Jersey, for the removal of the naval powder magazine on Ellis Island, was passed by the Senate with an amendment appropriating $75,000 "to enable the Secretary of the Treasury to improve said Ellis Island for immigration purposes." This resolution was taken up by the House of Representatives, passed with little debate, and signed by President Benjamin Harrison on April 11, 1890.[1]

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1. Thomas M. Pitkin, Keepers of the Gate: A History of Ellis Island (New York, 1975), pp. 9-13; and Idem, "High Tide at Ellis Island," New-York Historical Society Quarterly 52 (October 1968):371-53. A more detailed study of conditions at Castle Garden, the assumption of control over immigration by the federal government, and the selection of Ellis Island for the first federal immigration station may be found in National

Ellis Island was formally transferred to the Treasury Department on May 24, 1890, for the construction and operation of the first federal immigration station, the powder having been removed to Fort Wadsworth on the Narrows. Planning for the new station got underway at once in the Office of the Superintendent of Repairs of U.S. Public Buildings in New York. On May 25, Col. John B. Weber, superintendent of the Barge Office near the Battery where immigrants were being received after Castle Garden closed in April 1890, reported that "the plans for the new buildings would probably be sent to Washington this week for the approval of the Secretary of the Treasury. There would be a main building, which would be perhaps 200 x 245 feet, a baggage station on the pier, which would be about 80 x 450 feet, besides several other buildings, such as a hospital, boiler-house, etc. The structures might be made principally of iron."[2]

Meanwhile, an examination of Ellis Island and of the building needs for the new immigration station had been undertaken. It was determined that an additional $75,000 would be needed to provide for the necessary docking and landing facilities, to expand the size of the island with landfill, and to erect the station structures. Secretary Windom requested the additional money on June 3, and Congress approved an act on August 30 making the second appropriation of $75,000.[3]

The plans and specifications for the construction on Ellis Island were prepared and approved by early July 1890. On July 15 a contract was let to W. H. Beard for "dredging the channel, basin, and foundation for crib-work, including all filling, and furnishing and placing rip rap

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Park Service, MS, "Castle Garden as an Immigrant Depot, 1855-1890," by George J. Svejda (Washington, 1968), pp. 124-46.

2. New York Tribune, May 25, 1890.

3. U.S., Library of Congress, Annual Report of the Supervising Architect to the Secretary of the Treasury for the Year Ending September 30, 1890 (Washington, 1890) (hereinafter cited as Annual Report, Supervising Architect, and date), p. 39.

filling" for the immigration station. The contract, which cost $33,112.50, was to be completed within 50 working days. The quantities of work as specified in the contract were as follows: dredging - 65,000 cubic yards; filling - 60,000 cubic yards; and riprap - 750 tons.[4]

That same day a proposal by Patrick J. Whelan and Company was accepted for construction of the dock, cribwork, and piling on Ellis Island. When the builders failed to execute a formal contract, the proposal of Lewis and Richardson was accepted for the work. After that firm refused to comply with the terms of its proposal, the contract was finally let to Warren Rosevelt of New York on August 19 for $37,000.[5]

On August 3, 1890, an article in the New York World described the work that was underway on Ellis Island as well as the plans for the immigration station's structures. The article reported that

> the approach to the island is now being dredged so as to afford a depth of 12 feet at low mean tide, which is equivalent to 16 or 17 feet at high tide. The bulkhead, yet to be built, will be 597 feet long and 40 feet wide. Here the immigrants will be landed.
>
> The receiving depot will front on the bulkhead. It will be 400 feet long and 150 feet deep, looking towards Liberty Island. The structure will be wholly of wood, with a slate roof. Its cost will be $85,000. The first floor, which will be 13 feet high, will be used for baggage purposes entirely. The second floor will contain all the offices, the registry department, ticket office, telegraph office, seven immigrant "pens", three

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4. Windrin to Marshall, July 10, 1890, Records of the Public Buildings Service, Record Group 121, National Archives, Washington National Records Center, Suitland, Maryland (hereinafter cited as RG 121, WNRC).

5. Ibid., July 11, 1890, and Windrin to Casey, July 30 and Aug. 19, 1890, RG 121, WNRC.

detention-rooms, the inspectors quarters and the lunch counters.

The building will actually have only two stories, but in the center, by reason of the peaked roof, it will rise to a height of 43 feet above the second floor. A ventilating skylight will run the entire length.

The exterior will present an attractive appearance. There will be a tower on each corner. . . . On the front and on either end will be pigments. At either side of the front pigment will rise subordinate towers. The towers will constitute a third story in themselves.

Directly back of the Landing Bureau is an old powder magazine known as "Shellhouse No. 1," which will be utilized for an insane hospital. It is a brick building 130 feet long by 46 wide, to which will be added a wooden wing, one part 50 by 30 feet, for a dining-room, and another 45 by 22, for a kitchen. A ventilating skylight will be extended along the powder-house. The cost of this improvement will be $10,000.

Nearby and to the south is a cottage formerly occupied by the keeper of the powder magazines. This will be the doctor's cottage. It needs no repairs.

Still further below it will be erected a general hospital of brick of the same dimensions as the insane asylum. The building, which has not yet been planned, will be entirely new and will cost something like $20,000. In both the insane hospital and the general hospital the male and female patients will be kept in separate parts of the buildings.

The structures will be erected under the direction of John W. Marshall, Superintendent of Repairs of United States Buildings

in New York. The designs have been made by Superintendent Marshall's assistant, J. Bachmeyer.[6]

Two contracts were let on August 30, 1890, for the alterations and additions to shellhouse 1 and the foundations for the main building. The contract for the shellhouse work, totaling $8,980, was awarded to R. H. Casey and was to be completed within 58 working days. The proposal of Frank Renschler was accepted for the construction of the foundations of the main building at a cost of $13,747; the work was to be accomplished within 55 working days.[7]

Difficulties were encountered in securing an adequate water supply for the new immigration station. Accordingly, it was determined to dig an artesian well. The contract for the work was let to Charles D. Pierce for $5,805. The well was

> to be tubed from the surface of the ground at bed-rock with heavy wrought iron artesian-well drive-pipe eight inches inside diameter; the bottom of said pipe to be provided with a heavy forged tempered steel shoe to make water-tight connection with the rock; the pipe casing to be six (6) inches in diameter outside measurement. The drive pipe must be carried sufficiently into the rock to shut off all surface water. The well when completed must be straight and offer no obstruction to the free passage of a six-inch pipe its entire depth.[8]

In his report for the fiscal year ending September 30, 1890, James H. Windrin, supervising architect, observed that an additional appropriation of $100,000 was needed to complete the immigration station.

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6. New York World, Aug. 3, 1890.

7. McLean to Marshall, Aug. 30, 1890 (two letters), RG 121, WNRC.

8. Windrin to Weber, Sept. 19, 1890, RG 121, WNRC.

Up to that date only $1,921.18 had been expended for improvements on the island. Under the Beard contract, about one-fourth of the dredging and one-tenth of the filling had been completed. Dock work, cribwork, and piling under the Rosevelt contract and construction on the foundations of the main building under the Renschler contract were "progressing favorably."[9]

On November 14, 1890, a contract was awarded to Sheridan & Byrne of New York to construct the main building for $115,205 and the boiler house for $16,456. The structures were to be completed by January 1, 1892. Some two weeks later, Supervising Architect Windrin authorized Sheridan & Byrne to use 4- by 6-inch North Carolina pine for the framing of the buildings (i.e., sills, girders, truss members, and braces) and 3- by 12-inch pine for the floor joists, minor roof rafters, and purlins. The inside of the main building was to be constructed chiefly of resinous pine and spruce, with no plastering or solid ironwork, while the outside was to be sheathed with galvanized iron. Because it was feared that a fire inside the building would generate such intense heat that the outside sheathing would burst and set fire to the other buildings, it was determined that the structure would be supplied with automatic sprinklers, fireplugs, and regulation rubber hoses and nozzles.[10]

While the buildings were being erected on Ellis Island the former gunner's dwelling was used as a construction office. On January, 20, 1891, George B. Hibbard was appointed superintendent of construction for the Ellis Island buildings. He replaced Capt. Thomas L. Casey of the U.S. Army Corps of Engineers who had been detailed to supervise some of the early building operations on the island.[11]

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9. Annual Report, Supervising Architect, Sept. 30, 1890, pp. 39-40.

10. McLean to Marshall, Nov. 14, 1890, and Windrin to Sheridan & Byrne, Dec. 1, 1890, RG 121, WNRC; and New York Times, June 16, 1897.

11. Windrin to Marshall, July 21 and Dec. 29, 1890, and Windrin to Hibbard, Jan. 20, 1891, RG 121, WNRC.

An additional contract was awarded to Sheridan & Byrne on February 6, 1891, for $12,990. The work under this contract included (1) filling, alterations, and repairs to shellhouse 2 to provide for a detention house; (2) six gangways; (3) metal and slate sheathing and covering outside shellhouse 2; (4) additions to the boiler house, including concrete floors and additional piling and concrete work; (5) alterations to the gunner's quarters; (6) painting and finishing tower rooms in the third story and painting ceilings and walls of the engine and boiler houses; (7) additional repairs to the surgeon's quarters; (8) alterations and additions to the hospital buildings; and (9) alterations to shellhouse 5 to provide for a kitchen and dining room.[12]

On March 28, 1891, a contract was awarded to Baker, Smith and Company of New York for the installation of boilers, a heating apparatus, and a pumping station. Among the individual items in the contract, including later supplementary additions, were (1) a low-pressure steam-heating apparatus, (2) high-pressure boilers, (3) a fire extinguishing apparatus, (4) a suction pipe for a saltwater pump, (5) a heating apparatus in the surgeon's quarters, and (6) a Harkness wet pipe system of automatic sprinklers for the first floor of the main building. The contract, which cost $65,535, was to be completed within 120 working days.[13]

During the remainder of FY 1891, six contracts were let to complete most of the major construction work on Ellis Island. On April 2, the proposal of the MacKnight Flintic Stone Company was accepted for construction of a rainwater reservoir and pipe tunnels costing $6,590. On April 18 a contract was awarded to the Thomson-Houston Electric Company of New York to build the electric light plant using Westinghouse standard engines at a cost of $21,150. Supplementary additions to this contract provided for the installation of lights in the boiler house and the

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12. Annual Report, Supervising Architect, Sept. 30, 1891, pp. 65-66.

13. Ibid.; Nettleton to Bartlett, Mar. 28, 1891, and McLean to Hibbard, Mar. 28, 1891, RG 121, WNRC.

surgeon's quarters. The proposal of James Robertson was accepted on May 13, 1891, to place lightning rods on the boiler house chimney and other buildings at a cost of $400. On June 16 a contract was let to the United States Supply Company of New York for $795 to provide the following fire-fighting equipment: (1) 20 dozen Star hand grenades with wire baskets to hang on walls or posts; (2) 18 six-gallon, nickel-plated Babcock fire extinguishers (six charges for each machine); and (3) 24 pick-head fire axes with baskets or pockets to hang on walls. On September 10 the bid of $570 by Thomas J. Kelly was accepted for the installation of 5- and 6-inch diameter extra heavy cast-iron pipes from the downspouts of the boiler house and the insane hospital to the rainwater reservoir. A contract for $2,925 was awarded to the John Roebling Sons Company on September 17 for laying a submarine cable from the Barge Office in Manhattan to Ellis Island.[14]

The last major work on Ellis Island to be contracted during FY 1891 was the 1,020-foot crib breakwater and two ferry racks--one at Ellis Island and the other at the Barge Office. The contract, which was let to Warren Rosevelt on September 22 at a cost of $57,000, called for ferry facilities similar to those in use on the East River. The work included bridges, floats, gallow frames, hoisting chains, sheaves, wenches, platform connections, receiving platforms, backing logs, a hauling shed over the bridge at the bulkhead, a fence and gates across the ferry slip, and a shed over the side exit.[15]

On September 30, 1891, the supervising architect reported that most of the work on the new immigration station on Ellis Island had been completed. Altogether, the sum of $278,287.62 had been spent on the buildings during FY 1891. Because Congress had appropriated only

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14. Annual Report, Supervising Architect, Sept. 30, 1891, pp. 65-66; and Nettleton to Bartlett, Mar. 28, 1891, Windrin to MacKnight Flintic Stone Company, Apr. 2, 1891, McLean to Hibbard, Apr. 18, 1891, Edbrooke to Hibbard, May 13 and Sept. 10, 1891, Stow to Hibbard, June 16, 1891, and Spaulding to Fassett, Sept. 17, 1891, RG 121, WNRC.

15. Crouse to Fassett, Sept. 22, 1891, RG 121, WNRC.

$250,000 for the station, the sums of $125,000, $30,000, and $60,000 had been transferred from the fund for expenses regulating immigration on June 11, August 5, and September 22, respectively, under the provisions of the congressional act of March 3, 1891.[16]

Some two months before the new immigration station was opened for business, an enthusiastic writer described the new plant in admiring detail in the October 24, 1891, issue of Harper's Weekly. The article stated the following:

> It is . . . apparent that in reaching the conclusion to build a proper depot, the Federal government does not appear to be overestimating its needs so much as to be putting to shame the neglectful State officials who previously mismanaged the business. The determination to build and the work of construction followed one another closely, after the immigrants had been forced to land at the inadequate Barge Office. Ellis Island, one of the very smallest dots of land that rises above the waters of the Upper Bay, was chosen. . . . The island was only two and a quarter acres in extent, and was long used as the naval magazine. A government architect drew the plans for the new Castle Garden, or immigrant receiving-station, as it should be called, and Major George B. Hibbard superintended the work upon the new building and grounds. Sheridan & Byrne are the contractors. By necessity the island has been about doubled in size.
>
> For a long time the great new building has been one of the sights for those who enjoy the Battery Park and those who cross the North River on the ferry-boats. It looks like a latter-day watering place hotel, presenting to the view a great many-windowed expanse of buff-painted wooden walls, of blue-slate roofing, and of light and picturesque towers. It is

16. Annual Report, Supervising Architect, Sept. 30, 1891, pp. 65-66.

400 feet long, two stories high, and 150 feet wide, and with its adjuncts, will cost about $200,000. It is devised to permit the handling of at least 10,000 immigrants in a day, and the first story, which is 13 feet in height, is sufficiently capacious for the storage and handling of the baggage of 12,000 newcomers. Elsewhere on the island, which had been practically doubled in size, there were, either finished or under construction, hospital buildings, bathhouse, powerhouse, kitchen and restaurant, and doctor's quarters.

Steerage passengers would be loaded in barges at Ellis Island and ascend to the second-story for medical inspection and interrogation. Some would be detailed for further physical examination; the others will continue on and into the great second-story room, to be separated into ten lines and to march through that number of aisles between the desks of the socalled "pedigree clerks," who will cross-examine them as the law requires. Beyond the aisles and the desks of the questioning inspectors they will find two great pens or enclosures, one 58 feet wide and 144 feet long, and the other 72 x 110 feet. Into one will go those whose destination is New York City or its suburbs; into the other will be put the greater number who are about to begin another journey to distant States and Territories.

On this second floor, conveniently arranged, are spaces for the railroad ticket-sellers, the clerks of the information bureau, for the telegraph and brokers' counters, and the lunch stand. Colonel John B. Weber, the Commissioner of Emigration, will have his office in one corner on that floor, and General O'Beirne, the Assistant Commissioner, will occupy a similar office in another corner.[17]

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17. Julian Ralph, "Landing the Immigrants," Harper's Weekly, Oct. 24, 1891, p. 821.

During the remainder of 1891 the Ellis Island structures were readied for business, and several contracts were let for further construction work. By October 31, Sheridan & Byrne had virtually completed the main building and boiler house.[18]

On November 19, two contracts were awarded--one to Sheridan & Byrne to build a tank and coal house for $23,900 and the other to E. L. Ryan to erect hospital buildings C, D, and E for $14,476.[19] Two days later the bid of $1,525 by Greenline, Wyatt & Company was accepted for the installation of an apparatus for hoisting and dumping coal.[20] A contract was awarded to William Russell on November 24 to erect hospital building B (except heating facilities) for $11,900.[21]

The bid of $7,250 by Warren Rosevelt was accepted on December 12, 1891, for filling, grading, and retaining walls.[22] On December 31 another contract was let to Warren Rosevelt for $40,000 to dredge the basin and channel approach to Ellis Island in order to provide a 12-foot clear depth from the low water line in the basin and a 14-foot clear depth from the low water line in the channel.[23]

Although these contracts would not be completed until FY 1893, the immigration station was opened with some formality on January 1, 1892. The New York World reported that the "newcomers trooped into the big depot" and that "everything worked like a charm and the prediction was general that under the new conditions the comfort and safety of the

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18. Edbrooke to Foster, Oct. 31, 1891, RG 121, WNRC.

19. Crouse to Hendricks, Nov. 19, 1891 (two letters), RG 121, WNRC.

20. Ibid., Nov. 21, 1891.

21. Ibid., Nov. 24, 1891.

22. Annual Report, Supervising Architect, Sept. 30, 1893, p. 109.

23. Crouse to Hendricks, Dec. 31, 1891, RG 121, WNRC.

immigrants will be all that can be desired."[24] It was noted in the New York Times that some 700 passengers had landed at Ellis Island on its first day of business. The newspapers went on to observe that "the many conveniences of the mammoth structure for facilitating the work of landing were made manifest by the rapidity with which this number was registered and sent on to their various destinations." It was estimated that the facilities, which had cost some $500,000 to build, could handle the processing of 7,000 immigrants per day. The wharves were arranged so that passengers from two vessels could be landed at the same time and ushered up a broad stairway on the south side of the main building up to the second floor. The article also noted that none of the officials would reside on the island except for the surgeon who would live in the former gunner's quarters.[25]

Despite this optimistic report about the new facilities on Ellis Island, there was some grumbling about the cost and style of the buildings. The main building had cost some $200,000 to build, nearly double its original estimate. Accordingly, there were charges made "about the wasteful extravagance of the money used in construction and about the excessive charges made for material." Other critics noted that the structure "like many other Government buildings, though of gigantic proportions, could not be termed an architectural masterpiece." The building, which contained more than 4,000,000 board feet of lumber, was dismissed by some as having "no particular style of architecture."[26]

Some critics also charged that the main registration room on the second floor of the building resembled a prison rather than a reception center for immigrants. One such eyewitness account described the great airy second floor as being singularly suggestive of a prison in many of

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24. New York World, Jan. 2, 1892.

25. New York Times, Jan. 2, 1892. See also Appletons' Annual Cyclopedia and Register of Important Events of the Year 1892 (New York, 1893), p. 521.

26. New York Times and New York Tribune, June 15, 1897.

> its aspects. Here and there in the upper part of the great room are curious little iron cages . . . railroad agents and money changers . . . great cages with motley crowds of immigrants. . . . The lock slips back viciously to give egress to two of them closely attended. But presently the door shuts again upon them with a heavy clang as they return with great tubs of greasy, sickening stew for their companions dinner. Only the presence of counters . . . with bread and bottles . . . and a curious set of low iron fences forming narrow lanes disturb the prisonlike aspect of the place.[27]

Victor Safford, a medical officer who served at Ellis Island during this period, published his reminiscences of the station in 1925. Among his observations were the following:

> An important if not the determining factor in the selection of Ellis Island was its proximity to the Jersey shore, for it was a part of the original plan to have Ellis Island connected with the shore by a railroad drawbridge so that railroad passenger cars could be run onto the island and loaded.
>
> Ellis Island prior to its conversion for immigration purposes was used as a naval magazine station. There were several substantial stone and brick buildings on the island besides the half burned thick stone and mortar structures once used for the storage of explosives. These latter were converted into vaults for the keeping of immigration records. The other old buildings were utilized for various purposes. Some of them, enlarged and extended, formed a part of an extensive two story dormitory for detained immigrants. The hospital and the main immigration building were, however, new wooden structures.

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27. Harper's Weekly, Aug. 26, 1893, pp. 821-23.

The hospital consisted of a group of one and two story buildings with sheltered verandas, arranged on the quadrangular plan. In some part of the central court, protected from the wind, rain or sun, as the need might be, a convalescent patient could almost always find comfort out-of-doors in winter or summer.

The location of the main building at Ellis Island at the time when I first made its aquaintance was parallel to the present structure, but nearer the water, in fact directly alongside the ferry slip. It was a two story wooden building about six hundred feet long and perhaps one hundred feet wide with towers at each corner. The second story was devoted chiefly to the examination processes and offices. The first floor was . . . used for the handling and forwarding of passengers and baggage, and for waiting rooms in which passengers destined to points beyond New York were segregated according to the route by which they had been ticketed. The building was built largely of Georgia pine and the interior was finished in the natural wood. The second story to a great part of its extent was open to the roof. The various offices were partitioned off by wooden partitions but otherwise the extensive space on the second floor was unbroken except for the open iron grill work partitions which served to provide the various enclosures used in connection with the examination and distribution processes to which the arriving passengers were subjected. The floor was of Georgia pine and effort was made to keep it looking like the wooden deck of a ship. Abundant light and sunshine were let into the second story by numerous tall windows running to the eaves. On the whole the . . . building at Ellis Island impressed the visitor with its cleanliness, light and airiness.[28]

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28. Victor Safford, Immigration Problems: Personal Experiences of an Official (New York, 1925), pp. 22-24.

Work on the immigration station was completed during the next five years. The contracts let in November and December 1891 were finished during FY 1893.[29] On July 12, 1892, a contract was let to Blake & Williams for the installation of a heating and ventilating apparatus in hospital buildings B, C, D, and E and in the kitchen and dining room at a cost of $15,144.[30] Some physical improvements were made, including repairs to the hastily built wooden buildings, and in 1897 the island was enlarged by 2-3/4 acres at a cost of $19,882. That same year the $40,000 disinfection house for the washing of the immigrants and fumigation of their clothing was completed. Two other reconstruction projects were completed in 1897--the detention pen and the southwest landing pier.

The station was finally finished on June 13, 1897, with the completion of cables to New York City for telegraph and telephone communication via Governor's Island. Altogether, the total cost for construction of the station was $739,671.40.[31] Of this sum, $250,000 had been covered by congressional appropriations, while the remainder was transferred from the immigration fund under the provisions of the act of March 3, 1891.[32]

On its completion the first immigration station on Ellis Island consisted of 12 buildings, 5 of which were converted arsenal structures. The five converted structures and their original dates of construction were as follows: record storage office (ca. 1854-1886), restaurant and kitchen building (ca. 1844), detention building (pre-1813), insane hospital

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29. Annual Report, Supervising Architect, Sept. 30, 1893, p. 109.

30. Ibid.

31. Annual Report Commissioner-General of Immigration, Fiscal Year 1897, pp. 8-11, and New York Tribune, June 16, 1897.

32. Annual Report, Supervising Architect, Sept. 30, 1894, pp. 24-25; and Annual Report, Supervising Architect, Sept. 30, 1897, p. 83; and U.S., Library of Congress, Report of the Immigration Investigating Commission to the Honorable the Secretary of the Treasury (Washington, 1895), p. 13.

(ca. 1854-1868), and surgeon's quarters (pre-1886). The seven new buildings of the immigration station consisted of the following: main building, disinfection house, hospital building B, hospital building C, hospital building D, boiler house, and tank and coal house.[33]

The New York Times Magazine of January 31, 1897, observed that on Ellis Island "the Federal Government has a valuable and almost perfect plant for the purpose of inspecting and caring for all immigrants who come to this port." The main building

> has a great room on the ground floor into which the baggage is taken, and rooms on the upper floor into which the immigrants are sent. Every immigrant is numbered and tagged and, 240 at a time, in groups of 30, are examined by the men and women inspectors, before whom they are compelled to pass, and to whom they make their declarations. If any immigrant fails to pass an inspector, he or she is at once sent before the Board of Special Inquiry for further examination, and if the Board finds that the immigrant should not be allowed to land, he or she is put in the detention pen to await a re-examination, or his or her return to the place from which he or she came.
>
> There is a well-conducted hospital on Ellis Island, and in it all ill immigrants are placed and kept until returned or allowed to land.
>
> As it is possible to inspect and pass 5,000 immigrants in a day, it is seldom that there are many of them there over night. For those who are there, however, ample provision has been made,

33. A drawing of the layout of these buildings on Ellis Island entitled "Island Development, First Immigration Station - 1897" may be seen in the Building Conservation Technology/The Ehrenkrantz Group's "Historic Structures Report, Ellis Island, Statue of Liberty National Monument, New York," Dec. 1978, p. 3. Pages 1-30 of this report contain various graphic materials relating to the plan and construction of the 12 buildings.

and wholesome food and clean beds are provided. The dormitories, which will accommodate 475 persons, are well lighted and ventilated, and are kept in an odorless condition. Separate rooms are provided for the men, and for the women and children.

Ellis Island . . . contains about fourteen acres and is being constantly added to by filling in the shallow waters that surround it. Upon it is the main building, which contains the Commissioner's offices, and in which the inspection, &c, is done; a hospital, a powerhouse that supplies electricity for lighting, water for a fire and flushing system, heat for the buildings and for laundry and disinfecting purposes; a kitchen and storerooms in buildings in which powder was formerly stored, and great cisterns in which fresh water is gathered from the roofs of the buildings on the island.[34]

In the early morning of June 15, 1897, a fire broke out, and within 45 minutes the eaves of the roof of the main building began to fall to the ground, setting fire to the wooden piers and docks on either side. The material of which the main building was composed--Georgia pine covered with corrugated iron--served as fuel for the wind-fanned flames. Within 1½ hours of the first alarm, the structure was "but a mass of charred and smoking embers, and the flames were seeking their fury on the adjoining buildings." The long shed leading from the hospital to the ferry sucked the fire in from the main building and was soon ablaze and its tin roof collapsed. The restaurant and kitchen, where the fire had apparently originated, perhaps as the result of defective electrical wiring, had long since "disappeared in smoke, nothing but a charred heap of smoking wood and iron marking the place where it stood."[35] Some 2½ hours after the

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34. New York Times Magazine, Jan. 31, 1897.

35. New York Tribune and New York Times, June 15-16, 1897.

blaze was first seen it was estimated that between 3 and 4 acres of the 14-acre island were covered with flames. Soon thereafter the fire began to subside, although the debris smoldered until dawn. No lives were lost as the immigrants had been sleeping in the new wing of the main building, and the hospital had been evacuated by the medical staff and the night guard force within 15 to 20 minutes after the first alarm. However, only three buildings remained standing--the engine house, the electric light and steam plant, and the surgeon's quarters. In addition, the walls of the records office and the kitchen were left standing, but everything else was in ruins--"a tangle of charcoal, battered and rusted iron, and ashes."[36]

In some respects the destruction of the station was a relief to its administrator, Commissioner Joseph H. Senner, and to other New Yorkers. Speaking freely to a New York Tribune reporter after the fire, he observed that "Ever since I have been in office . . . the fear of something like this fire has haunted me, and now that it has come and no lives were lost I am glad of it. A row of unsightly, ramshackle tinderboxes has been removed, and when the Government rebuilds, it will be forced to put up decent fireproof structures."[37] It was noted in Harper's Weekly in February 1898 that some people had rejoiced at the fire because the "wooden buildings were ugly" and the structures gave the appearance of "wretched barns" and "architectural rubbish heaps."[38]

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36. Ibid.

37. New York Tribune, June 16, 1897. The loss of records was irreplacable. The immigration records of Castle Garden from 1855 to 1890 had been turned over to the Ellis Island authorities only the year before and had been placed in the old navy powder magazines for safekeeping. The intense heat of the fire cracked and crumbled these heavy vaults, and all of the state records on immigration, together with most of those since accumulated at the Barge Office and at the island, were destroyed. Annual Report, Commissioner-General of Immigration, Fiscal Year 1897, pp. 8-11.

38. Edwin Emerson, Jr., "The Threshold of America," Harper's Weekly, Feb. 26, 1898, p. 210.

IV. PREPARATIONS FOR NEW IMMIGRATION STATION ON ELLIS ISLAND - 1897-1898

A. Funding For Construction

Following the fire the Barge Office on the Battery was again used for the reception of immigrants, and preparations were commenced for the construction of the new U.S. Immigration Station on Ellis Island. Three days after the fire, C. S. Kemper, acting supervising architect, reported to Lyman J. Gage, secretary of the treasury, that the cost of rebuilding the station with fireproof brick structures would be $1,150,000.[1] On June 23, Alfred B. Fry, chief engineer and superintendent of repairs, U.S. Public Buildings, New York, was appointed custodian of Ellis Island and was authorized to take precautions to protect the remaining buildings on the island.[2] The next day John L. Smithmeyer was appointed an inspector of public buildings and was instructed "to investigate and report (to the Secretary of the Treasury) as to the character of the buildings and improvements required, to put Ellis Island in proper condition. . . ."[3] On June 25, Fry was assigned the additional duty as superintendent of repairs at Ellis Island.[4]

The first comprehensive plan for the reconstruction of the immigration station was submitted to Secretary Gage by Smithmeyer via the office of Herman Stump, superintendent of immigration, on June 25. Smithmeyer recommended that the 14-acre island be enlarged by some 3 acres. Three buildings of steel and brick construction would be needed--a main building, a hospital, and a kitchen and restaurant. The estimated cost of these improvements was $600,000.[5]

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1. Kemper to Gage, June 18, 1897, RG 121, WNRC.
2. Spaulding to Fry, June 23, 1897, RG 121, WNRC.
3. Gage to Smithmeyer, June 24, 1897, RG 121, WNRC.
4. Gage to Fry, June 25, 1897, RG 121, WNRC.
5. New York Times, June 26, 1897.

Within days the general plan as outlined by Smithmeyer and Stump was forwarded by Secretary Gage to President William F. McKinley. After approving the plan, McKinley submitted to Congress the request for an immediate special appropriation of $600,000.[6] Congress responded quickly by passing an act on July 19, 1897, making appropriations to supply deficiencies in the appropriations for the fiscal year ending June 30, 1897, and for prior years. The act stated the following:

> IMMIGRANT STATION, ELLIS ISLAND, NEW YORK: That the Secretary of the Treasury be, and he is hereby, authorized and directed to cause to be erected buildings suitable for an immigrant station on Ellis Island, New York Harbor, New York, to consist of not exceeding three principal structures, all to be so built of stone, brick, and iron, or such fireproof materials as the Secretary may select, as to be completely fireproof, and the large pavilion building for the reception and examination of immigrants and the building used as a dormitory to have openings from the main floor, so may doors swinging outward and to be so surrounded by spacious outside balconies made of iron with iron staircases leading therefrom as to afford speedy exit for immigrants in case of fire; and the Secretary is hereby authorized to enlarge the said Ellis Island, not exceeding three acres, by placing bulkheads and filling in behind the same; the whole cost of the buildings and improvements hereby authorized not to exceed the sum of six hundred thousand dollars, of which sum there is hereby appropriated, for the purpose of procuring plans, drawings and specifications and beginning the work hereby authorized, the sum of one hundred and fifty thousand dollars; and the Secretary of the Treasury is hereby authorized to contract for the erection of all the buildings or of any one thereof or of any portion of either subject to

6. Gage to McKinley, June 30, 1897, RG 121, WNRC.

appropriations to be made within the limit of cost above provided.[7]

The last section of the above-quoted provision, authorizing the secretary of the treasury to contract for the erection of the buildings, referred to the Tarnsey Act of February 20, 1893. In an effort to improve the architecture of federal buildings, the latter act was passed to allow the secretary of the treasury to obtain designs, plans, and specifications for the public buildings erected under his supervision by competition among members of the architectural profession at large. After further consideration of the law, it was determined to enforce its provisions under certain prescribed regulations, which were difficult to prepare because none of the administrative statutes that governed the erection of public buildings were repealed by the Tarnsey Act. The regulations were finally approved on July 3, 1897, and the first two buildings to be placed under competition were the United States Courthouse and Post Office in Norfolk, Virginia, and the main building of the new Ellis Island Immigration Station.[8]

B. Preparations For Enlarging the Island

Before any work could be done on the buildings of the new immigration station, it was necessary to undertake the work of enlarging Ellis Island as authorized by the act of Congress providing funds for the new station. On August 5, Secretary Gage submitted his department's recommendations for the extension of the island to the secretary of war for his approval. In accordance with the provision of the law, it was proposed to extend the island "one hundred and sixty feet (160') on the Southwest side of the breakwater - i.e. sixty-eight feet (68') from the West and eighty-five feet (85') from the South corner of original line of

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7. U.S., Congress, Statutes at Large, July 19, 1897.

8. U.S., Library of Congress, Report of the Secretary of the Treasury for the Year Ending September 30, 1897 (Washington, 1897), pp. 31-32, and Annual Report, Supervising Architect, Sept. 30, 1897, p. 25.

square 800 to 800 Boundary 1890, retained - running eight hundred feet (800') from the West to the South."[9]

On August 18, Treasury Department officials were notified that the War Department had approved the necessary portion of New York Harbor required for the extension.[10] Eight days later on August 26, Acting Supervising Architect Low ordered Superintendent of Repairs Fry to prepare the drawings and specifications for the construction of the "extension of the bulkhead, and for filling with suitable material up to the present general level of the island the additional area which will be enclosed by the extension."[11]

Meanwhile, preparations were underway to remove the debris left from the devastating fire that had swept the island. Accordingly, a contract was let to John F. Johnson on September 3 to accomplish the work within 30 days at a cost of $1,250.[12]

By early September preparations were underway for the extension of the island. Acting Supervising Architect Kemper authorized Fry on September 9 to construct tide gauges, to run soundings, and to make penetration tests along the proposed bulkhead line.[13] Later on September 14, the Treasury Department requested and received authorization from the War Department to make a larger extension to the island than had been proposed earlier.[14] Two weeks later Fry was

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9. Gage to Secretary of War, Aug. 5, 1897, RG 121, WNRC.

10. Low to Smithmeyer, Aug. 24, 1897, RG 121, WNRC.

11. Low to Fry, Aug. 26, 1897, RG 121, WNRC.

12. New York Times, Aug. 26, 1897; Spaulding to Johnson, Sept. 3, 1897, and Kemper to Superintendent of Repairs, Sept. 27, 1897, RG 121, WNRC. It was reported on October 22 that Johnson had satisfactorily completed his work. Garrelton to Johnson, Nov. 13, 1897, RG 121, WNRC.

13. Kemper to Superintendent of Repairs, Sept. 9, 1897, RG 121, WNRC.

14. Ibid., Sept. 27, 1897.

instructed "to include the breaking down of all the old building walls on the island damaged more or less by fire, and provide for their use in the crib-work, ballast, or filling, in the enlargement of the island."[15] The pontoon and bridge at the head of the ferry slip, which had been damaged by the fire and had fallen into the water, were removed in late October under a contract let to John F. Johnson.[16] On October 23, after a number of bids had been collected by circular letter for the enlargement of the island, it was determined to reject all the proposals as they were far above the original $24,398 estimate made by Smithmeyer. At a later date the work would be contracted after bids were invited by public advertisement.[17]

C. Selection of Architects and Design of New Buildings

In late August 1897 the Treasury Department commenced the process to obtain the designs and plans for the main building and the hospital building of the immigration station under the provisions of the Tarnsey Act and its implementing regulations. On August 27, Secretary Gage requested from George B. Post, president of the American Institute of Architects, a list of five architects who he would recommend as competitors for the designs and plans of the structures.[18] On September 4, Gage again asked Post for a list of five prominent architects who would be qualified to serve as judges in the competition. From this list of five, Gage would select two to sit on the panel of judges along with the supervising architect, James K. Taylor.[19]

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15. Kemper to Fry, Sept. 28, 1897, RG 121, WNRC. The damaged surgeon's quarters was to be left intact for possible use as a construction office.

16. Kemper to Superintendent of Repairs, Oct. 7, 1897, and Spaulding to Johnson, Oct. 15, 1897, RG 121, WNRC.

17. Spaulding to Chief Engineer and Superintendent of Repairs, Oct. 23, 1897, RG 121, WNRC.

18. Gage to Post, Aug. 27, 1897, RG 121, WNRC.

19. Ibid., Sept. 4, 1897.

On September 9 the office of the supervising architect printed a "Programme" establishing the guidelines for the submission of the design and plan of the main building and the hospital building. The first floors of the buildings were to be 6 inches above the level of the plank walk, which remained in front of the former structures. The plank walk was 2½ feet above the ordinary high waterline. The cost of the two fireproof brick and stone buildings, including plumbing and gas piping, electrical conduits and wiring, and a heating and ventilating apparatus, was not to exceed $570,000. The buildings were to have pile foundations with the piles to be cut off 8 feet below the first floor line and to average 20 feet penetration below the first floor line. The programme also specified the type and format of the plans to be submitted by each of the competitors. The designs were to be submitted to the secretary of the treasury by November 4.[20]

On September 14, Secretary Gage notified the five architects and the two judges who had been selected for the competition. The architects invited to submit designs included Alfred E. Barlow; Boring & Tilton; Carrere & Hastings; McKim, Mead & White; and Bruce Price, all of New York City; and John L. Smithmeyer of Washington, D.C. The members of the judging commission were John K. Taylor, supervising architect; T. P. Chandler, FAIA, of Philadelphia; and R. S. Peabody, FAIA, of Boston.[21]

At the request of one of the five architectural firms, the office of the supervising architect supplied each of the competitors with information relative to the number of immigrants to be accommodated at

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20. "Programme, of a Competition for the Selection of a Design for Buildings for the United States Immigrant Station, Ellis Island," Sept. 9, 1897, RG 121, WNRC. The architects that would win the competition would be paid a flat rate fee of 5 percent of the total cost of the work. A copy of the entire "Programme" may be seen in appendix A.

21. Gage to Boring & Tilton, Sept. 14, 1897, RG 121, WNRC. In selecting the judges Gage adopted the suggestion of Post that these men should not be residents of New York City. Gage to Post, Sept. 15, 1897, RG 121, WNRC.

the new facility, the flow of immigrants through the main building, and the general location of some of the principal offices. It was estimated that the maximum number of immigrants that would arrive on any one day was 4,000, while the average number would be 1,000. Of this latter estimate, only some 150 would be detained more than one day. The average number of immigrants requiring dormitory accommodations during nine months of the year would be 200, although the maximum number of detainees staying overnight might reach 1,200. Information concerning the flow of immigrants through the main building and the locations of the executive offices, information bureau, railroad annex, and dormitories is contained in the October 1, 1987, letter from the office of the supervising architect (see appendix B).[22]

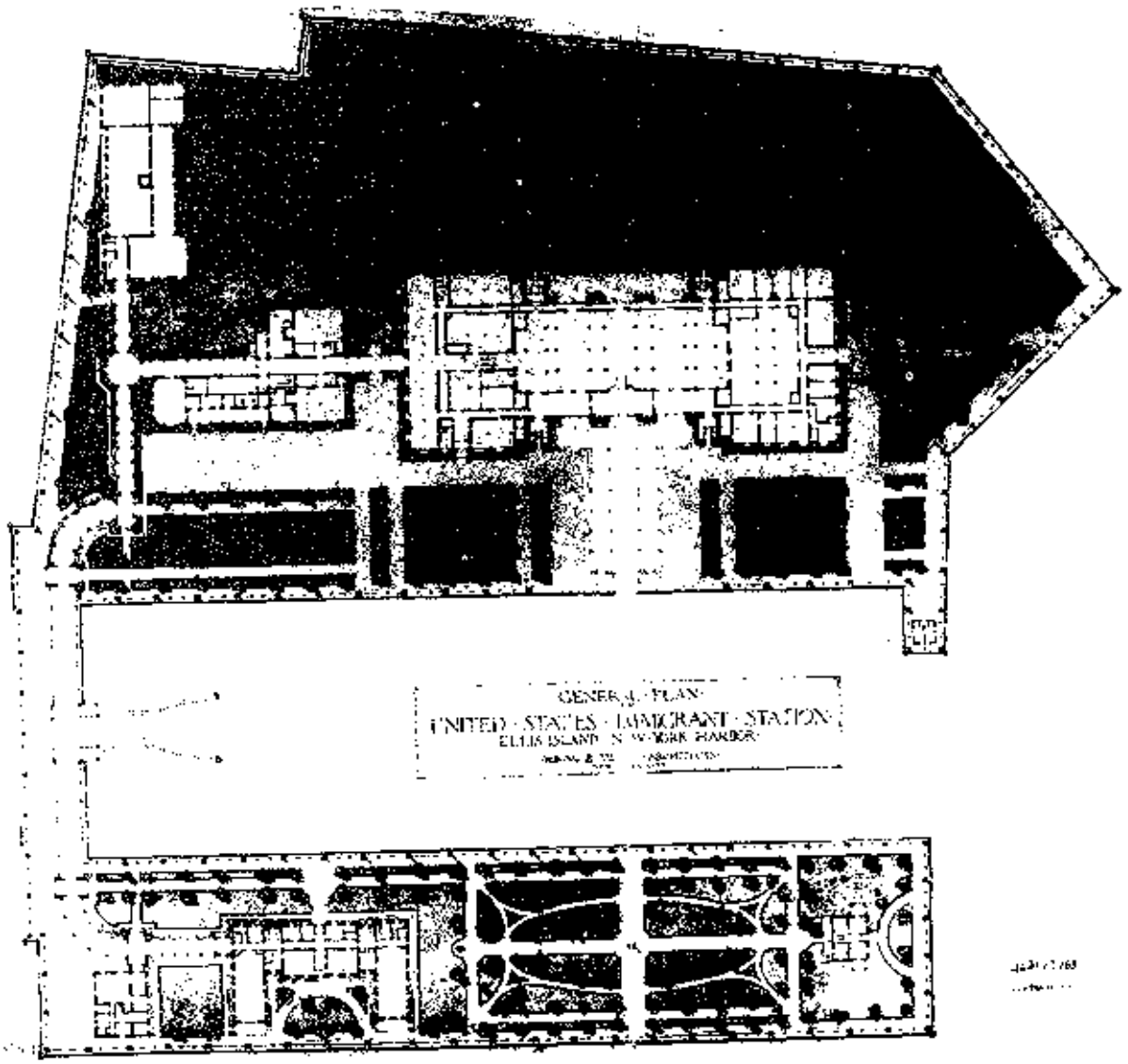
At the request of three of the competing architects, the date for the delivery of the designs to the secretary of the treasury was postponed until December 1, 1897.[23] On that date the judges met to consider the designs, and on December 7 they informed the secretary of the treasury that the Boring & Tilton plans met with their "unanimous approval as the most satisfactory."[24] The judges congratulated the department for "securing the presentation of such a successful and well studied design." The work of Boring & Tilton convinced the judges "that with further study in conjunction with the authorities" the architects

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22. Kemper to Boring & Tilton, Oct. 1, 1897, RG 121, WNRC.

23. Spaulding to Boring & Tilton, Sept. 20, 1897, RG 121, WNRC.

24. The general plan of the new immigration station prepared by Boring & Tilton may be seen on the following page. A number of the competition drawings by Boring & Tilton are extant and are located at the Denver Service Center of the National Park Service and the American Museum of Immigration at the Statue of Liberty National Monument. The drawings, which are reproduced in the Building Conservation Technology/The EhrenKrantz Group's "Historic Structures Report," Dec. 1978, pp. 38-49, consist of the following: site plan; front elevation; annex elevations; end elevations; transverse section; west half, first floor plan; east half, first floor plan; east half, second floor plan; west half, third floor plan; east half, third floor plan; north elevation and first floor plan of hospital; and second and third floor plans of hospital.



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would "produce a very successful final result." In making the award the judges considered their selection to represent "the selection of an architect who has best shown that he has the ability to grasp his subject rather than the selection of a final plan." The Boring & Tilton design did not call for a building of "a costly character" but rather a structure "built of simple materials" probably constructed "more cheaply than any of the designs offered of similar size."[25]

D. Enlargement of the Island

While the final plans for the main building were being drawn up by Boring & Tilton, preparations were resumed to enlarge Ellis Island by some 3 acres on the southwest side to accommodate the new construction. A contract was let to Warren Rosevelt on January 22, 1898, to furnish the labor and materials required for the crib bulkhead, dredging, and filling necessary to enlarge the island. The contract, which was to be completed within 120 working days, amounted to $61,046.86, a sum nearly 2½ times Smithmeyer's estimate.[26] On February 7, the Treasury Department authorized J. H. H. Muirhead to act as the inspector of the work.[27]

Work on the extension of the island proceeded slowly. Perhaps the most significant problem encountered was that the new fill on the southwest side of the island exerted pressure on the old crib along the northeast side of the basin. As early as October 1897 there were reports

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25. Peabody, Chandler, and Taylor to Secretary of the Treasury, Dec. 7, 1897, and Taylor to Boring & Tilton, Dec. 8, 1897, RG 121, WNRC; and New York Times, Dec. 8, 1897. Biographical sketches of William Alciphron Boring and Edward Lippincott Tilton can be found in appendixes C and D, respectively. The formal contract entered into with Boring & Tilton was approved by the secretary of the treasury on Feb. 9, 1898. Acting Chief Executive Officer to Disbursing Agent, Feb. 9, 1898, RG 121, WNRC.

26. Spaulding to Rosevelt, Jan. 22, 1898, RG 121, WNRC. The specification for this work could not be located. The work was to be done in accordance with drawings 8-13.

27. Gage to Bidwell, Feb. 7, 1898, RG 121, WNRC.

that that portion of the crib fill was washing out and that the old crib was bulging toward the basin. Because no funds were available for the reconstruction of the crib, it was determined to relieve the pressure on the crib by omitting as much of the new fill along the northeast side of the additional areas as would "leave the foot of the slope coincident with the bottom line of the basin crib."[28] The work was finally finished on December 20, some six months after the anticipated date of completion.[29]

E. Preliminary Work for Construction of New Buildings

In December 1897 and January 1898, preliminary work for the construction of the new buildings on Ellis Island got underway. Supervising Architect Taylor considered the possibility of obtaining stone for the foundations from the outer walls of the reservoir at Fifth Avenue and 42nd Street in Manhattan.[30] A $1,000 contract was awarded to Edward L. Abbott for making borings, test pits, and bearing tests of the soil on Ellis Island.[31] Upon the recommendation of Boring & Tilton it was determined to raise the grade of the main building "two feet above the present level."[32]

The New York Daily Tribune reported on January 27, 1898, that the new Ellis Island buildings would soon be under construction. The main building was to be in

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28. J. K. Taylor to Superintendent of Repairs, Oct. 25, 1897, and J. K. Taylor to Acting Superintendent of Repairs, June 20, 1898, RG 121, WNRC. A total of $1,262.40 was deducted from the contract of Warren Rosevelt for the omission of this fill. Spaulding to Disbursing Agent, Aug. 10, 1898, RG 121, WNRC.

29. J. K. Taylor to Secretary of the Treasury, Feb. 1, 1898, RG 121, WNRC.

30. J. K. Taylor to Chief Engineer and Superintendent of Repairs, Dec. 29, 1897, RG 121, WNRC.

31. Spaulding to Abbott, Jan. 13, 1898, RG 121, WNRC. The contract, which was to be completed within 30 working days, provided for 37 borings of not less than 2 inches in diameter, 6 test pits (3 feet square to a minimum depth of 12 feet), and 4 bearing tests at the bottom of the pits.

32. J. K. Taylor to Boring & Tilton, Jan. 14, 1898, RG 121, WNRC.

the French Renaissance style, of brick, with light-stone trimmings, the frontage being 395 feet, the depth 166 feet, the height 62 feet to the balustrade, or 100 feet to the top of the tower.

The immigrants will pass from the barges to the building through a fenced-off space, thence to the second story, where they will be subjected to medical examination and the questions of the register. Those who are discharged will then descend to the detention-rooms, and, thence through a mezzanine corridor with sides of glass, through which their waiting friends can recognize them. Then those who wish to go to New York, or who need to purchase tickets for other destinations, will be able to do this without falling into the hands of outsiders. There will be luncheon counters, telegraph offices, and baggage and toilet rooms for the convenience of the immigrants.

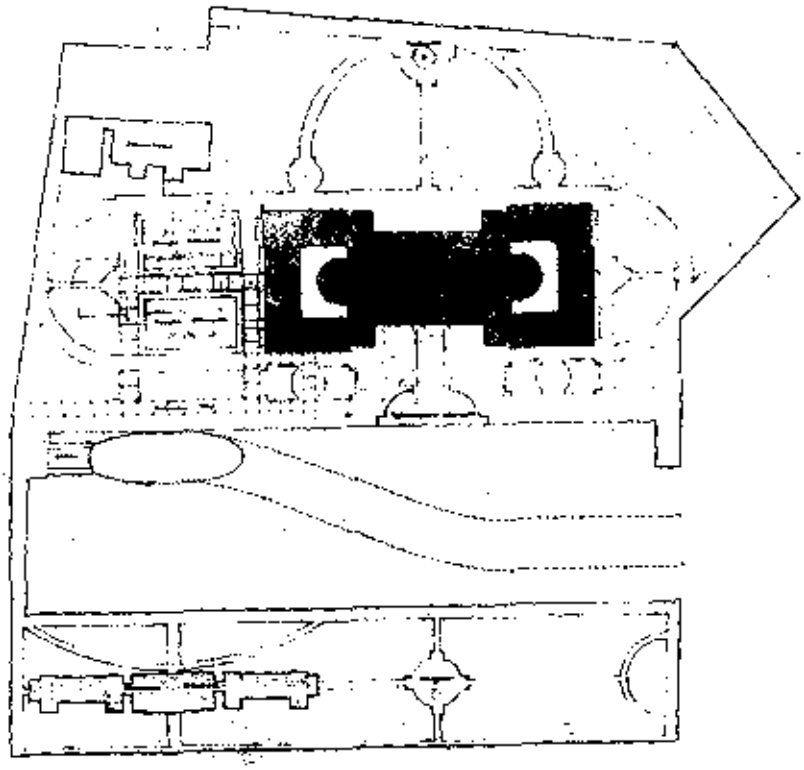
Dormitories on the second and third floors will accommodate about nine hundred persons, and in emergencies four hundred or five hundred more can be taken care of.[33]

Meanwhile, Boring & Tilton had been preparing final drawings for the new buildings. On February 2 the first of the Boring & Tilton plans were approved by the supervising architect. The drawings that were accepted included the block plan for the island as well as more detailed plans for the hospital and the main building.[34] The drawing labeled BT no. 8 showing the proposed levels for the main building was

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33. New York Daily Tribune, Jan. 27, 1898. The influence of the French Renaissance style may be attributed to the fact that both Boring & Tilton had attended the Ecole des Beaux Arts, the prestigious national school of fine arts in Paris. A short historical sketch of this school may be seen in appendix E.

34. J. K. Taylor to Boring & Tilton, Feb. 2, 1898, RG 121, WNRC. The approved block plan may be seen on the following page.



BLOCK PLAN

U.S. IMMIGRANT STATION

ELLIS ISLAND

SCALE

Drawing BT-19 O

approved on March 9 after consultations among O. L. Spaulding, assistant secretary of the treasury; Thomas Fitchie, commissioner of immigration; and Boring & Tilton.[35]

On February 9 the formal contract with Boring & Tilton was approved by the secretary of the treasury. The contract, which covered payment for the plans and design of the new buildings, was let at a cost of $25,997.50.[36]

As the preliminary work for the new construction progressed, Ellis Island received increasing publicity. One of the most interesting articles appeared in the February 26, 1898, issue of Harper's Weekly. It was noted that many people had rejoiced at the fire of the previous June as the "wooden buildings were ugly," "wretched barns," and "architectural rubbish heaps." The newly proposed main building was light and airy in contrast to the former building, which had been an implied disgrace to the United States. Boring & Tilton were praised for their plan, which allowed much green space on the island and provided for structures that appeared comely to passing ships. Moreover, the plan provided for a fireproof structure, which would keep immigrants free from all outside interference until discharged, while affording means for relatives and friends to communicate with them at the proper time. This meant

> immense waiting rooms, men's and women's dormitories accommodating a possible total of fifteen hundred sleepers, a restaurant capable of supplying food to thousands, a hospital equipped for the treatment of any disease or emergency, docks and wharves with immediate transportation facilities for passengers and baggage to all points on this continent, a special post-office, custom-house, and telegraph station, with

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35. Ibid., Mar. 9, 1898.

36. Annual Report, Supervising Architect, Sept. 30, 1898, p. 67.

> numberless administration offices, courts of inquiry, witness-rooms, detention pens; quarters for physicians, missionaries, employment and information bureaus, and sundry charitable enterprises, besides baths, lavatories, laundries, and abundant toilet facilities, and all the other needs of this greatest of caravanseries perched on an island of diminiutive size.[37]

Three contracts were let in March in preparation for the construction of the Ellis Island buildings. On March 4, an $865 proposal by William F. Holding was accepted to build a temporary office building for the use of government officers during the construction period. The following day a $533 contract was let to J. W. Fiske for furnishing two gangplanks and making improvements on the dock at Ellis Island to facilitate the work of future contractors on the island. Two weeks later (March 19), the Safety Insulated Wire and Cable Company was awarded a contract for $809.51 to extend a telephone and telegraph cable between Governor's Island and Ellis Island and thereby establish effective contact between the new immigration station and Manhattan Island.[38]

Under the regulations for the implementation of the Tarnsey Act, the Department of the Treasury was obligated to secure a "competent Superintendent of Construction whose qualifications shall be passed upon by the architect." In the selection process the choice was to be made from a list of not more than six names proposed by the secretary of the treasury. Accordingly, on May 16, Supervising Architect Taylor compiled the following list of names for submission to Boring & Tilton:

> Richard Fourchy, Superintendent of Construction
> U.S. Appraisers Warehouse, New York City

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37. Emerson, p. 210.

38. Spaulding to Holding, Mar. 4, 1898, Spaulding to Chief Engineer and Superintendent of Repairs, Mar. 5, 1898, and Spaulding to Safety Insulated Wire and Cable Company, Mar. 19, 1898, RG 121, WNRC.

George H. Wells, Assistant Superintendent of Repairs
New York City

H. R. P. Hamilton, Chief Constructor
Office of the Supervising Architect

John Bright, Inspector
U.S. Mint, Philadelphia

D. C. E. Lamb, Draftsman
Office of the Supervising Architect

John Young, Draftsman
Office of the Supervising Architect

After reviewing the list, Boring & Tilton recommended the selection of H. R. P. Hamilton, and on July 1 he was officially informed that he had been named superintendent of construction of the main building.[39]

By mid-June Boring & Tilton had completed most of the drawings, plans, and specifications for the new buildings on Ellis Island. The office of the supervising architect was being bombarded with requests for these materials by prospective bidders. More disturbing were confidential reports that the drawings were being circulated in New York City by Boring & Tilton and that general contracting firms were taking subbids for the various parts of the work. Although no documentation was found to prove the extent of the problem, it is interesting to note that Supervising Architect Taylor wrote the following letter to Boring & Tilton ordering them to cease such practices:

> Your attention is called to the fact that, while you have submitted drawings and specifications to this office for the buildings in question, they have not as yet been accepted by the Secretary of the Treasury, and that after such acceptance

39. J. K. Taylor to Secretary of the Treasury, May 16 and Aug. 5, 1898, Spaulding to Hamilton, July 1, 1898, and J. K. Taylor to Hamilton, Aug. 5, 1898, RG 121, WNRC.

has been received by you, it will be the province of the Supervising Architect to furnish, for the use of intending bidders, all necessary photographic duplications of plans and copies of specifications, and to receive the proposals for the contracts to be awarded.

Under these conditions, you will at once see that it is manifestly improper that you should in any way make these drawings public, or allow any copies, in whole or in part, to go out of your possession to persons engaged in the building trade. Should [these] facts . . . be established and become public property, your position would be severely criticized, not only by the Government, but by the public in general.[40]

40. J. K. Taylor to Boring & Tilton, June 18, 1898, RG 121, WNRC.

V. THE MAIN BUILDING

In May 1898 Boring & Tilton submitted a preliminary draft of the specifications for the main building to Treasury Department officials. Only a portion of this draft remains extant--a document dated May 2, 1898, entitled "Specifications for the Carpentry, Painting, Plastering, Roofing of the Immigrant Building to be Erected on Ellis Island, N.Y. Harbor for the United States." This portion of the draft was divided into six sections: carpentry and joinery work; painting and finishing; hardware; metal lathing; plastering; and roofing and sheet metal work.[1]

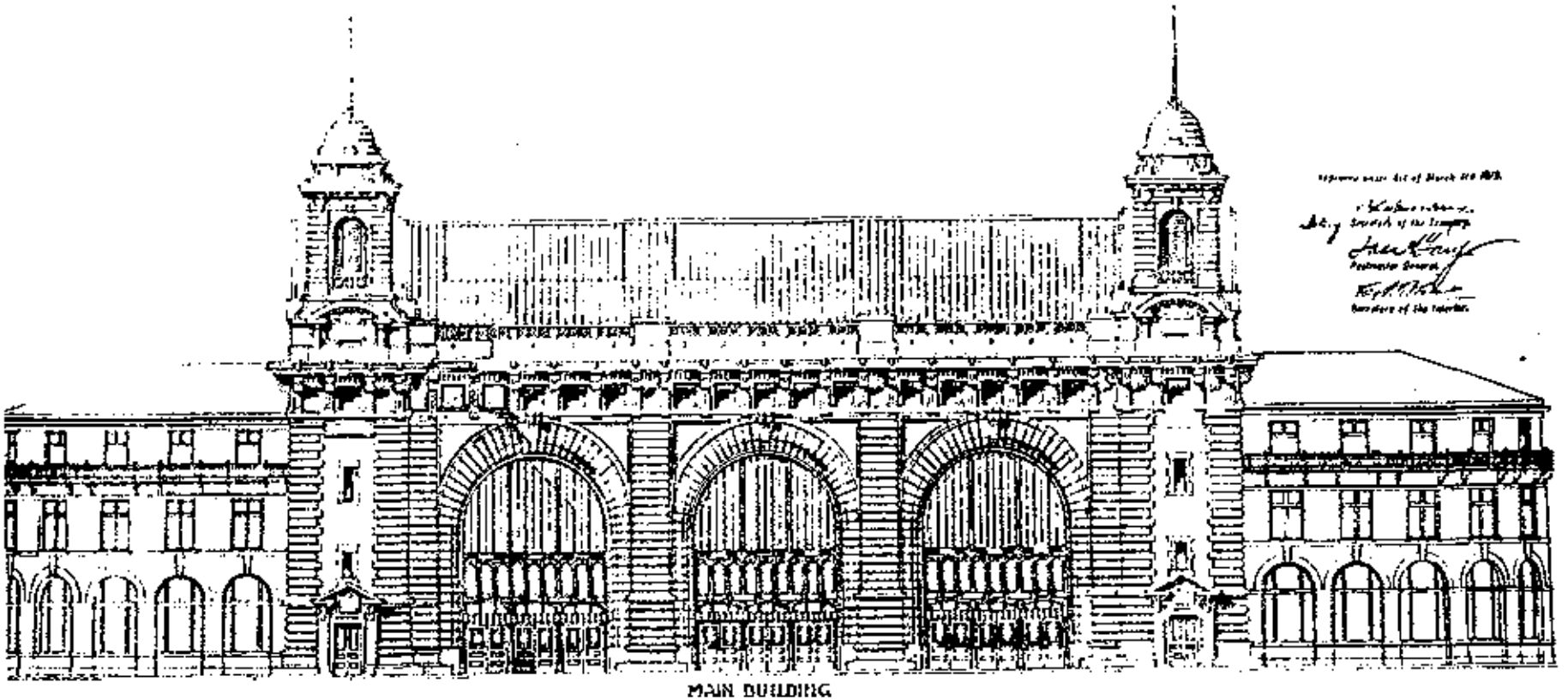
The draft specifications underwent some modification, and on June 30 Supervising Architect Taylor submitted a revised draft to Boring & Tilton for final review. In its final form the specifications for the main building were divided into three principal sections: mason and cut stone work; carpentry work, painting, finishing, plastering and metal lathing, and roofing and metal work; and structural ironwork. These specifications, which are not extant were accompanied by a proposal sheet for all work covered by the three sections of the specifications arranged so that bidders could bid on any part of the work.[2]

After final review the three-part specifications for the main building were printed in final form, and the work was advertised on July 6, 1898. The proposals were to be opened on July 30. Advertisements for the invitation of bids were placed in the following newspapers and periodicals:

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1. Denver, National Park Service, FF 29, Main Building: Carpentry, Painting, Plastering, Roofing, 1898, Ellis Island Architectural and Maintenance Records, 1898-1955, in Denver Service Center files (hereinafter cited as FF and no.). One of the early drawings of the front elevation of the main building submitted by Boring & Tilton with the draft specifications may be seen on the following page.

2. J. K. Taylor to Boring & Tilton, June 30, 1898, RG 121, WNRC.



MAIN BUILDING
FRONT ELEVATION

U.S. IMMIGRANT STATION
ELLIS ISLAND
SOUTH NEW YORK

MAIN BUILDING
Drawing DI-194

New York Press
New York Mail & Express
Construction News (Chicago)
American Architect & Building News (Boston)
Engineering Record (New York)
Economist (Chicago)
Manufacturer's Record (Baltimore)
Southern Architect (Atlanta)
Architecture & Building (New York)
American Contractor (Chicago)
Engineering & Mining Journal (New York)
Philadelphia Real Estate Record & Builder's Guide
Tradesman (Chattanooga, Tennessee).[3]

A. Construction - 1898-1900

1. Principal Contract - R. H. Hood Company

On August 15, 1898, the contract for the construction of the main building based on the three-part specifications was awarded to the R. H. Hood Company of New York City for the sum of $419,298. The contract contained six changes from the original specifications, four of which were accepted as alternate propositions made in the proposal by the R. H. Hood Company, and two of which were changes made in the work by the government after the bids were opened. The original lump sum proposal by the R. H. Hood Company was $473,975. To this sum was added $800 "for balancing on metal covering all exterior doors and frames." The remaining five changes were deductions for omitting or modifying work called for in the specifications as follows: (1) $1,000 for omitting archway door frames; (2) $50,000 for omitting four towers from above the main service line; (3) $600 for substituting metal lath for tile work of domed ceilings, second story, and drop ceilings of corridors;

3. Forms for Public Advertisement, July 5, 1898, RG 121, WNRC. Congress appropriated an additional $450,000 for the construction on Ellis Island in an act approved on July 1, 1898.

(4) $2,072 for substituting mastic roof over the administration wing, instead of tile, and mastic roof on towers where tops are metal instead of copper; and (5) $1,805 for modifications in cut stone work as shown on drawings 23A, 25A-28A, and 30A.[4]

Thus, construction of the main building was ready to be commenced at last. One week earlier (August 7) the New York Times Magazine had published the following feature article describing the architectural highlights of the structure as proposed in the recently completed plans:

> The building for Ellis Island obtains its general outline through the need of a great hall into which immigrants are poured from the incoming steamers. This hall, on the second floor, is indicated by the great roof with four towers at its corners, and three big arched doorways which give access to and egress from the central body. The lower wings provide offices for the administrative part of the bureau, and the towers are utilized for elevators and waterpipes, for stairways and ventilating shafts. Passing through the central of the three big arches, the immigrants mount a broad stair to the first story, where they find themselves in the great hall lighted from the sides and ends. There they pass singly before the doctors and matrons, and those who are suspected of illness are sifted out. The others are then sorted into files of thirty and registered. At one end of the main hall is a spacious arrangement for the railway men, where tickets are bought without exposing the foreigners to the dangers of friendly robbers in the city; at the other end the immigrants are divided into classes and moved on, either to the steamboats that carry them away or to the various rooms for detention.

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4. Howell to R. H. Hood Company, Aug. 15, 1898, RG 121, WNRC. All of the work under this contract was to be done in accordance with the requirements of drawings 8-22, 24, 29, 31-35, and drawings 23, 25-28, and 30 as modified by drawings 23A, 25A-28A, and 30A.

The immigrant station on Ellis Island, exclusive of hospital and powerhouse, will be a palace 386 feet in length by 162 in width, with towers rising to the height of 120 feet at their apexes of gilded copper, and entrance arches 40 feet to the keystone. Owing to the tides the first floor will be eight feet above the present level of the island; so that on calm days the structure will mirror itself in the smooth waters of the bay. A sloping greensward will rise from the top of the cribwork on the water's edge to the granite foundations. The main body of the building will be of red brick; the corners of towers and buildings and the framework of the windows will be a broad ashlar of gray lime-stone, while the roofs will be of green copper. A peculiar decoration of the towers where they rise free will be the use of overlapping terra cotta disks in the four recesses below the four small pediments on each tower.

. . . the fact that the building stands detached and encircled by water was an advantage in some ways. . . . On the other hand it affords some of the chances for effect presented by the water court and canals at the World's Fair in showing off the buildings of the White City. The architects seem to have had those buildings in mind, at least so far as proportions are concerned.

. . . the effect will be that the country beckons the immigrant into the harbor with the torch brandished by the Liberty and then offers him the largest and finest edifice in the panorama for his landing place.

Currently, a plaster of paris model of the structure was on exhibit at the Transmississippi Exposition in Omaha, Nebraska.[5]

5. New York Times Magazine, Aug. 7, 1898. Boring & Tilton had been authorized to produce a scale model (1/4 inch to the foot) of the new buildings at a cost of $250 for the use of the supervising architect.

a. Work Commences - 1898

The Treasury Department officials quickly took steps to facilitate the work of the R. H. Hood Company. Inasmuch as the contract contained a provision that water should be supplied by the government for building purposes free of charge through a water main from New Jersey, the solicitation of bids for the project became the first priority item. The office of the supervising architect had been interested in laying a 6-inch water pipe from the 12-inch main at Communipaw Avenue and Phillips Street on the Jersey City shore to Ellis Island since October 1897.[6] Accordingly, a right-of-way had been secured from the Central Railroad Company of New Jersey and a contract had been signed with the Board of Street and Water Commissioners in Jersey City to obtain water at a rate of $100 per 1,000,000 gallons. When Congress appropriated funds for the project on July 1, 1898, plans and specifications were drawn up and the work was advertised. On August 24 a contract was let to Holmes & Logan to lay the water pipe to within 60 feet of the boiler house at a cost of $8,900.[7] Later on September 19, a

6. Previous efforts to provide a water supply for the immigration station resulted in failure. An artesian well had been dug in 1892 but had proven unsatisfactory. Later an effort was made to procure a supply by taking water from the roofs of the buildings to cisterns, but leakage of seawater made the cistern water unfit for drinking and caused trouble in operation of the boilers. Finally, the whole supply of water, which amounted to nearly 20,000 gallons per day, had been brought from Manhattan by steamers and pumped into storage tanks on Ellis Island. Gage to Chairman of the Committee on Appropriations, House of Representatives, Feb. 3, 1898, RG 121, WNRC.

7. J. K. Taylor to Holmes & Logan, Aug. 15, 1898, RG 121, WNRC. The work was to be governed by drawings SA-1 through SA-4 and a specification dated July 26, 1898 (not extant). The wrought iron pipe was to be laid from a point on the island almost 60 feet from the face of the crib to the end of the pipe in the boiler house and placed through the crib at about 14 feet below high water. From there Holmes & Logan were to dredge and cover the pipe 3 feet below the surface of the sand for a distance of 300 feet from the crib where the bottom became soft. Thence the pipe was to be dropped on the flats until a point was reached about 4,200 feet from Ellis Island where the bottom became hard for some 100 feet. Here Holmes & Logan were to dredge and lay the pipe 3 feet deep. From there the pipe was to be dropped on the flats to a point 200 feet outside the New Jersey railroad trestle. Thence to the shore the pipe was to be laid 3 feet deep.

second contract was let to Holmes & Logan to lay the water pipe the remaining 60 feet to the boiler house at a cost of $1,400. The work was completed by early November 1898.[8]

The R. H. Hood Company began its operations on the main building within several weeks. By September 30 the supervising architect was able to report "active operations have been commenced" on the main building with "the excavations and the piling being nearly completed."[9] Because of the contracting firm's need for office space and shelter for its employees, the Treasury Department granted it the use of the old brick house known as the "Surgeon's House."[10]

During the last three months of the year, the R. H. Hood Company submitted samples of material to be used in the construction of the main building to the office of the supervising architect and to Boring & Tilton for approval. Among the samples accepted for use were the following:

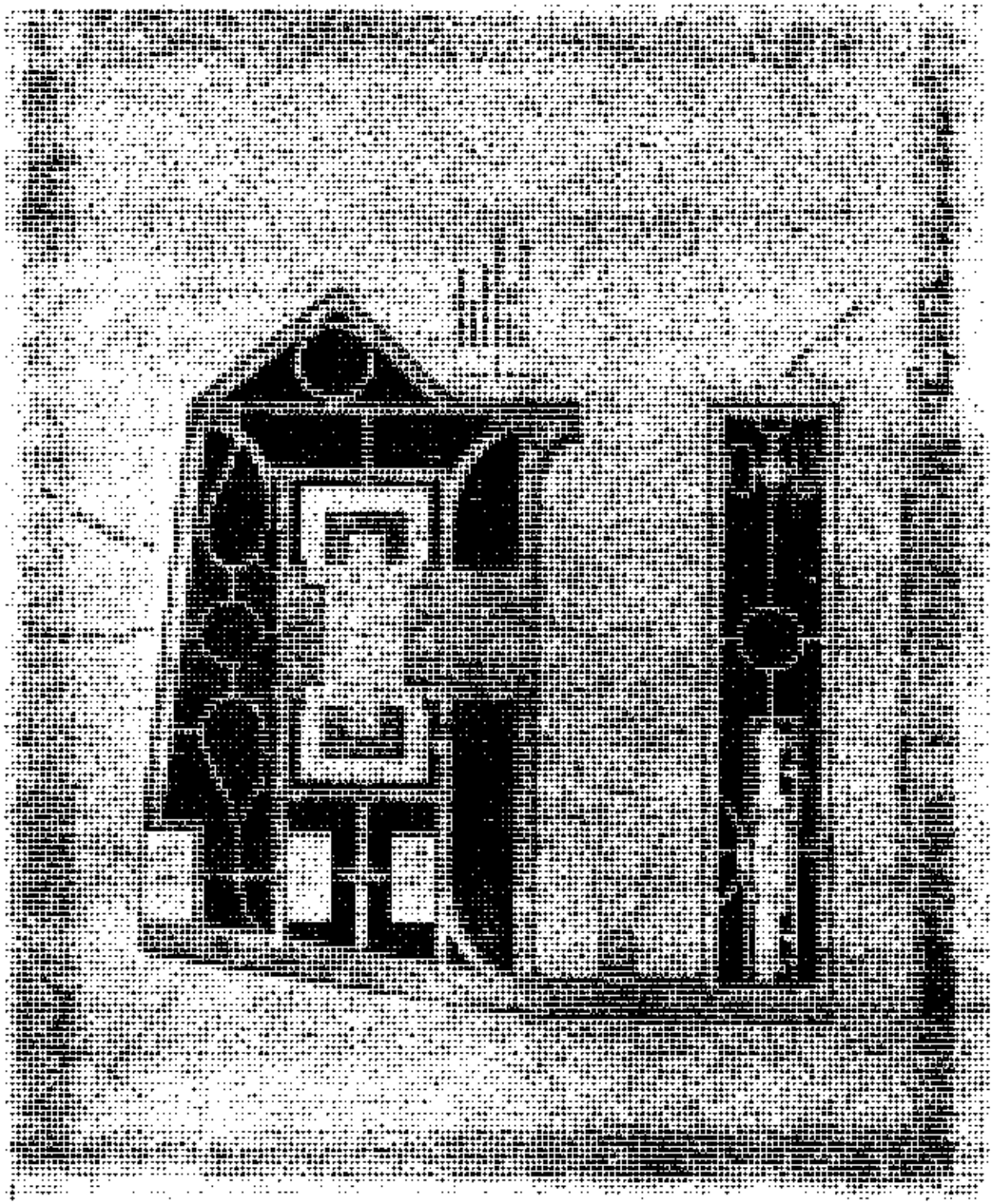
"Beach Rosendale" hydraulic cement
Double thick glass
18 ounce soft copper
14 ounce hard copper
5 flat roof tile
#24 expanded metal lath
Cypress floor strips

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8. Spaulding to Mayor of Jersey City, Oct. 25, 1897, Spaulding to Maxwell, Jan. 22, 1898, Spaulding to Chief Engineer, Board of Street and Water Commissioners, Mar. 3, 1898, Spaulding to Comptroller of the Treasury, Aug. 4, 1898, Howell to Quigg, Aug. 19, 1898, Howell to Holmes & Logan, Aug. 24, 1898, Spaulding to Holmes & Logan, Sept. 19, 1898, and J. K. Taylor to Secretary of the Treasury, Nov. 4, 1898, RG 121, WNRC.

9. Annual Report, Supervising Architect, Sept. 30, 1898, pp. 22-23. A copy of the "Plan of U.S. Immigrant Station, Ellis Island, N.Y. Harbor" that was printed in this report may be seen on the following page.

10. Spaulding to Hamilton, Oct. 8, 1898, RG 121, WNRC.



Yellow pine
White pine
Mount Desert granite (Scranton, Pa.)
Blue stone
Bedford Indiana limestone
White oak[11]

b. Changes in Plan and Problems Encountered -1899-1900

The first documented change in the construction of the main building concerned the enlargement of the footings at the northeastern corner of the structure in January 1899. Although no information could be found relative to the reasons or the details of the change, it can be presumed that the revision was a small matter as it amounted to only an additional increase of $41.40.[12]

In mid-February it was reported that certain brickwork being placed in the main building was exhibiting efflorescence.[13] When Boring & Tilton presented proof that the Rosendale cement mortar was causing the problem, Supervising Architect Taylor suggested "withdrawing approval of cement which contains coloring matter injurious to the work." After continuing problems with the efflorescence on the brickwork, Taylor ordered Boring & Tilton to prepare a specification covering all the work in which they recommended different mortar, "distinctly stating the exact amounts of lime and non-staining cement proposed to be used in the mortar." However, when the R. H. Hood Company refused to furnish a proposal for substituting lime mortar

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11. J. K. Taylor to R. H. Hood Co., Oct. 27 and Dec. 8, 1898, RG 121, WNRC.

12. Howell to R. H. Hood Co. Jan. 24, 1899, RG 121, WNRC. The change in the plan was reflected in the drawing numbered 9A prepared by Boring & Tilton.

13. A general definition of efflorescence is the changing of certain crystalline compounds to a whitish powder or powdery crust through loss of their water or crystallization.

in place of their cement mortar, Taylor decided to let the matter drop and to allow the continued use of the Rosendale cement.[14]

After Congress appropriated $50,000 for the erection of the four towers on the main building in an act passed on March 3, 1899, plans were commenced for their construction under a separate contract. A clause in the contract, which had been added on August 6, 1898, after the initial bid had been opened, stated thet "if the towers are ordered by the Government before the completion of this contract, they shall be put in by the contractor at the sum named, Fifty Thousand Dollars, $50,000." Accordingly, the R. H. Hood Company was directed on March 14, 1899, to erect the four towers above the cornice line under an independent contract that was to be completed by September 2.[15]

The R. H. Hood Company objected on the grounds that the detail drawings according to which it was requested to construct the towers called for work in excess of that shown on the drawings on which their original price had been based. After modifying the details to make the amount and value of the work correspond with the original drawings, it was determined that the contractors were still entitled to an additional sum of $402. This total represented the difference in value between the copper covering contemplated on the original proposal for deducting $50,000 for the omission of the towers and the mastic covering that was finally accepted. Finally on December 1, a contract amounting to $50,402 was approved for the construction of the towers on the

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14. J. K. Taylor to Boring & Tilton, Feb. 20, Feb. 27, and Mar. 21, 1899, and J. K. Taylor to Superintendent of Construction, Apr. 3, 1899, RG 121, WNRC.

15. H. A. Taylor to R. H. Hood Co., Mar. 14, 1899, RG 121, WNRC. The work was to be done in accordance with drawings 8-22, 24, 29, 31-35, and drawings numbered 23, 25-28, and 30 as modified by those numbered 23A, 25A-28A, and 30A. The specification dated July 6, 1898 (not extant), and the addenda dated Aug. 6, 1898 (not extant), also applied to the work.

building. The company would be given 90 days after the completion of their main contract to complete the towers.[16]

While the R. H. Hood Company was completing the foundation work for the main building, old cisterns were encountered that caused considerable interference with the construction. Accordingly, Boring & Tilton were ordered on March 21 to prepare specifications for the filling of the cisterns. On May 11, the proposal of the R. H. Hood Company to fill the cisterns at an added cost of $1,140 to their contract was accepted.[17]

A similar problem to that of the cisterns was that of the underground structures encountered during the excavation work for the main building. Apparently, these underground facilities dated from the period when Ellis Island was used as a naval magazine. Boring & Tilton prepared specifications for the necessary remedial work, and the R. H. Hood Company received an additional sum of money for the removal of these structures.[18]

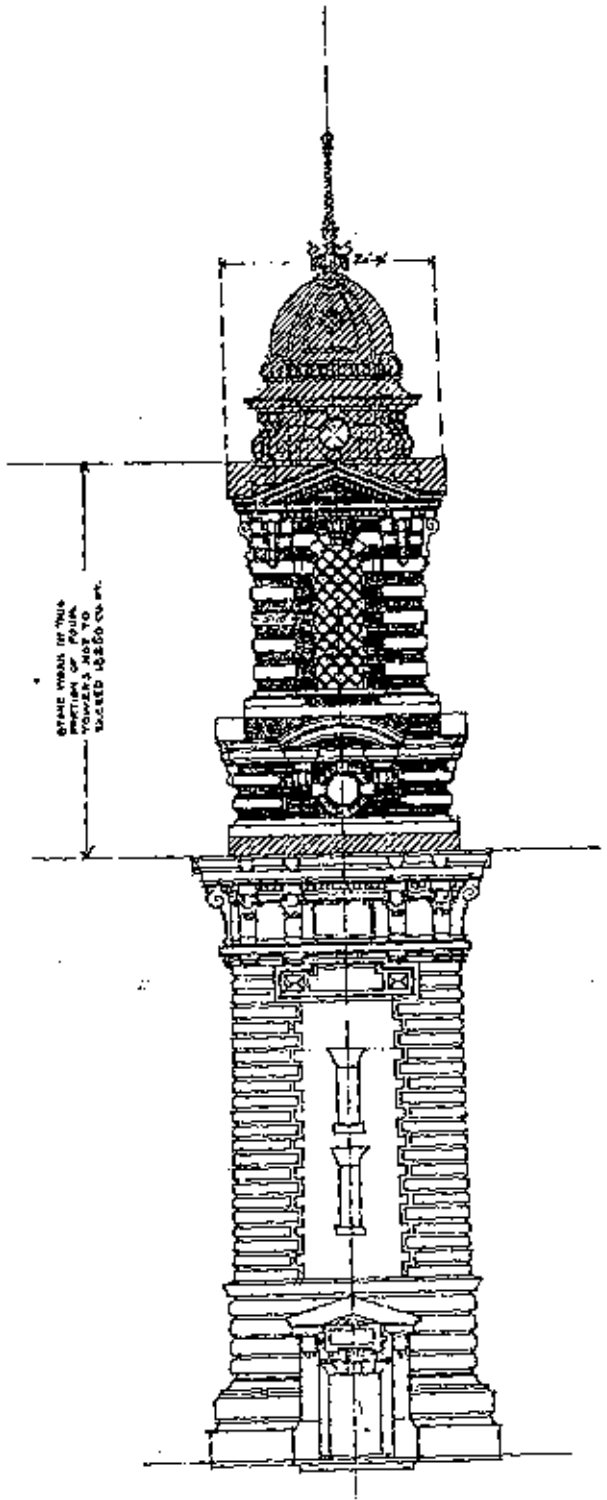
A stonecutter's strike in March and April created further problems in execution of the work on the main building. It prevented the shipment of adequate quantities of granite, thereby delaying the bricklaying and stone setting in the exterior walls. On April 7 it was reported that two vessels (one of which was at Portland,

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16. J. K. Taylor to Boring & Tilton, Nov. 7, 1899, and Gage to R. H. Hood Co., Dec. 1, 1899, RG 121, WNRC. Under this contract the towers were to be constructed according to the original designs as modified by revised drawing 15A prepared by Boring & Tilton (see next page for drawing).

17. J. K. Taylor to Boring & Tilton, Mar. 21 and Apr. 11, 1899, Acting Supervising Architect to Boring & Tilton, May 11, 1899, and Spaulding to R. H. Hood Co., May 11, 1899, RG 121, WNRC. The specification for the work (not extant) was dated Apr. 5, 1899.

18. J. K. Taylor to Superintendent of Construction, Apr. 3, 1899, RG 121, WNRC.



FRONT ELEVATION OF TOWERS.
SCALE 8'-1"

U. S. IMMIGRANT STATION
ELLIS ISLAND, N.Y. HARBOR
MAIN BUILDING
revised Drawing. BT. and T.
Boring & Tilton
Architects

· BORING · & · TILTON · Architects ·
· 31 · BROADWAY · · NEW · YORK ·
· BUILDING · NO · 105 · DRAWN BY H. Campbell
· DRAWING · NO · 15 · TRACED BY H. Campbell
· DELIVERED · 7nd 10 · APPROVED BY [illegible]

Approved 11/13/'02 Ed.
James Knox Taylor
Supervising Architect
TREASURY DEPARTMENT.

Assist. —
Rec'd C.
Read.
Mailed.

Maine) had been loaded with granite but that the activities of the strikers had prevented the departure of the boats from the quarries.[19]

A dispute between the government and the R. H. Hood Company, which had been heating up for several months led to a work stoppage in early June. At issue was a clause in the contract whereby the government had promised to provide to the contractor extensive wharfage facilities in the ferry slip as well as space on the island for the storage of building materials. The R. H. Hood Company charged that the government had reneged on these promises and thus ordered a temporary work stoppage as a means of protest.[20] The government refuted these charges and reminded the company that its contract called for the work on the main building to be completed within 12 months. On June 2, Secretary Gage informed the company officials that "it is patent that if the present tardy methods are maintained there is little probability of securing completion within the stipulated time. Your attention is now called to that portion of the contract which provides under such contingency as is now indicated for withholding all payments and serving upon you or your agents a formal notice preliminary to the Government's assuming charge of the work and completing the same at your expense." Boring & Tilton and Superintendent of Construction Hamilton were directed to consider the merits of enforcing this provision of the contract, and Gage ordered the R. H. Hood Company to "immediately make delivery of ample materials in proper sequence" and "employ the largest force which can be worked in setting the material in place."[21]

Work soon resumed on the main building and a change in the contract was made for an additional $1,670. A tile roof was to be

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19. J. K. Taylor to Boring & Tilton, Apr. 7, 1899, RG 121, WNRC.

20. New York Times, June 2, 1899.

21. Gage to R. H. Hood Co., June 2, 1899, RG 121, WNRC.

substituted for a mastic roof over the administration wing. Ironically, this action reversed an earlier decision to substitute a mastic roof for the tile roof called for in the original specifications.[22]

The annual report of the commissioner-general for FY 1899 indicated the impatience of the immigration officials with the slow progress on the main building. Among other comments in the report released on June 30, Commissioner-General Powderly observed the following:

> As the great bulk of aliens reach this country through that port [New York], and the success to which the endeavors of the Bureau attain must chiefly depend upon the efficiency of the work done, the importance of expediting the erection of the Ellis Island buildings can not be too strongly urged.
>
> Inasmuch as the construction of these buildings is exclusively in charge of the Supervising Architect, the Bureau is powerless to do more to expedite their completion than to show how the existing conditions in this respect impede the work of the officials at said port.[23]

On the same date Supervising Architect Taylor issued his annual report to the secretary of the treasury. Despite the various problems that had slowed the construction, he noted that "the masonry of the main building has advanced to over 20 feet above grade line and floor arches are in place and columns and piers and first-floor beams are practically all set."[24]

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22. H. A. Taylor to R. H. Hood Co., June 22, 1899, RG 121, WNRC.

23. Annual Report, Commissioner-General of Immigration, FY 1899, pp. 39-40.

24. Annual Report, Supervising Architect, June 30, 1899 pp. 29-30.

In late August a misunderstanding arose between the government and the R. H. Hood Company over the amount of extra ironwork needed to complete the structural framework of the main building. The construction firm complained on August 30 that the detail drawings for the ironwork had added some 95,666 pounds of steel to the total called for in the earlier general drawings. As this additional work would raise the cost of construction by $1,913.32, Taylor urged Boring & Tilton to investigate the matter in light of the provisions of the specifications and the contracted obligations of their firm as well as that of the R. H. Hood Company. The governing guidelines provided in the contract were as follows:

> The contractor will first submit a written and signed proposal for the said changes, clearly describing them and stating the sum to be added to or deducted therefor from the contract price of the building. After this proposal has been accepted and approved by the Government and Architects over their signature, it will become a substitute for the corresponding portion of the specification and drawings forming a part of the original contract for the building.
>
> Any material or work necessary to properly and fully complete the work in accordance with the intent and purpose of these specifications and the attached drawings and contract, will be supplied and furnished by the contractor, even if the said materials or work are not specifically mentioned or shown on either or both the specification or drawing just the same as if fully described and shown in both.
>
> But no changes in the plans, drawings and specifications shall be made without written authority from the Hon. Secretary of the Treasury.[25]

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25. J. K. Taylor to Boring & Tilton, Sept. 6, 1899, (two letters), RG 121, WNRC.

Following a four-week reassessment of the problem, Boring & Tilton reported to Treasury Department officials that the extra steelwork required by the detail drawings amounted to only 47,248 pounds. Accordingly, Boring & Tilton were ordered to obtain a proposal from the R. H. Hood Company for the amount of $944.96, the sum covering the extra work based on the contract unit price of two cents per pound.[26] When the R. H. Hood Company requested a flat total of $3,800 for the extra work, Secretary Gage angrily dismissed the proposal and pointedly informed Boring & Tilton that

> it is . . . clearly provided that no claim for compensation for any extra material or work is to be made or allowed, unless the same be specifically agreed upon in writing, or directed in writing by this Department. As it appears, in this case, that material was furnished and work done before any claim was made therefor, it is clearly outside of the province of this Department to take up the question at this time for adjustment . . . it cannot attempt to adjust claims, for the settlement of which no provision is made in the contract: and, as you, - acting in the capacity of architects for this work, - are alone responsible for the complication, the Department must insist that a just and equitable proposition for its settlement be obtained by you from the contractors, before further consideration of the claim is asked.[27]

A series of changes were made in the plans and materials for the main building under the contract with the R. H. Hood Company during the last three months of 1899. Among the changes noted in the available documentation were the substitution of gulf cypress for white pine for the sash and a deduction of $3,350 from the contract for the omission of all the fireproofing of the woodwork. Changes were made in the cornice (as shown in drawing 153). In room 152 the door and

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26. Spaulding to Boring & Tilton, Oct. 12, 1899, RG 121, WNRC.

27. Gage to Boring & Tilton, Jan. 4, 1900, RG 121, WNRC.

frame from the corridor were omitted as were the transoms over the steel doors in room 257. A partition, frame, and door from the lobby to room 257 were added as were a door and frame between rooms 256 and 251.[28]

Various modifications were made in the contract with the R. H. Hood Company during 1900. These changes were as follows:

February 16 - The sum of $2,770 was added to the contract for (1) the omission of the copper covering of the clerestory windows and the metal covering of the exterior doors; (2) the increasing of the roof covering of the main clerestory roof to 14-ounce hard rolled copper; (3) changes in the plans because of alterations in the ventilating system; and (4) the furnishing of the extra ironwork in the structure. The additional sum of money was made conditional upon the satisfactory painting of the exterior woodwork.[29]

March 8 - Changes were made in the hardware that cannot be determined by available documentation.[30]

March 23 - Two changes were approved at no cost to the government: (1) a wood floor in lieu of a mastic floor in room 265 to fit the room for use as an office for the medical officer in charge, and (2) the proposed small window shown by drawing 152 to be reduced by 1 foot ½ inch in height (or three stone courses high above the sill) to allow space for the completion of the mezzanine floor below.[31]

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28. Acting Supervising Architect to Boring & Tilton, Oct. 17, 1899, Gage to R. H. Hood Co., Nov. 16 and Dec. 8, 1899, and Spaulding to R. H. Hood Co., Dec. 14, 1899, RG 121, WNRC.

29. Spaulding to R. H. Hood Co., Feb. 16, 1900, RG 121, WNRC. The R. H. Hood Co. was unwilling to guarantee the roof for five years unless the change was made.

30. J. K. Taylor to Boring & Tilton, Mar. 8, 1900, RG 121, WNRC.

31. Gage to R. H. Hood Co., Mar. 23, 1900, RG 121, WNRC.

April 12 - A change was made in the steel clad doors of the main building.[32]

May 19 - Two changes were made: (1) soft copper was to be substituted for the 14-ounce hard copper that had been approved for the covering of the main clerestory roof on February 16 and (2) spruce rib rolls were to be substituted for hardwood rolls for the framing timber.[33]

October 16 - The amount of $375 was deducted from the contract to fur the exposed parts of the girders in the cellar, point the ceiling where it was unpointed, and whitewash it in place of the requirements of the specification.[34]

As work on the main building continued there were constant complaints with the quality and tardiness of construction under the R. H. Hood Company. On February 28, Supervising Architect Taylor commented on the "unsatisfactory manner in which the bolting up and painting of steel construction is being performed."[35] Several days later it was reported that the plastering material delivered to the island by the firm did not measure up to the specifications.[36] On March 23 Secretary Gage informed Boring & Tilton that

> a recent inspection discloses the fact that much of the work performed by the R.H. Hood Company . . is flagrantly in

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32. Ibid., Apr. 12, 1900. The work was to be done in accordance with drawing 22.

33. J. K. Taylor to Boring & Tilton, May 9 and 19, 1900, RG 121, WNRC. The R. H. Hood Co. agreed to guarantee the soft copper roof for five years.

34. H. A. Taylor to R. H. Hood Co., Oct. 16, 1900, RG 121, WNRC.

35. J. K. Taylor to Superintendent of Construction, Feb. 28, 1900, RG 121, WNRC.

36. Spaulding to Boring & Tilton, Mar. 2, 1900, RG 121, WNRC.

> violation of the requirements of the specifications. The essential features are poor concrete; ragged and unworkmanlike brick work, broken and chipped stone work, unsatisfactory painting of iron work both as to materials and labor, absence of anchors, dowels, etc., lack of protection of material and work in place, lack of sheds for storage of materials, and general unskillful character of mechanics employed and lack of proper direction thereof.

Because the contract with Boring & Tilton specified that they would provide local supervision and be responsible for compliance with the specifications, Gage warned Boring & Tilton that its contract might be revoked if it did not exercise greater concern for the structure.[37]

This warning led to some misunderstanding between the government and Boring & Tilton. The firm denied that it had primary responsibility for local supervision of the work. Instead it had relied on the certification of the superintendent of construction as to whether the work and materials were acceptable or defective--a course it had taken based on its understanding of the contract. In reply, Assistant Secretary H. A. Taylor reminded the firm of the "Regulations for the Enforcement of the Act approved February 20, 1893," which stipulated that the architect would receive compensation for "local supervision of the building." Furthermore, the regulations stated that the "architects will exercise general supervision for the Government over all materials and work, and will reject any defective work or materials discovered, and will order its immediate removal."[38]

Boring & Tilton made a determined effort to perform its required duties thereafter. However, the firm quickly came into

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37. Gage to Boring & Tilton, Mar. 23, 1900, RG 121, WNRC.

38. H. A. Taylor to Boring & Tilton, Apr. 2, 1900, RG 121, WNRC.

conflict with the R. H. Hood Company when it attempted to force the contractors to take a deduction for unsatisfactory cement work under the west wing roof and defective brickwork in the clerestory wall. As the contractors refused to take a deduction, Boring & Tilton, with the support of the government, required them to remove the work and replace it according to the specifications.[39]

The construction of the main building continued to lag behind schedule, thus taxing the patience of the Treasury Department officials. The delay was jeopardizing "the final completion of the work within the time when the necessities of the Government demand its completion." Accordingly, on August 9, Secretary Gage ordered Boring & Tilton to notify the R. H. Hood Company that it was to "have a sufficient number of men upon every branch of the work necessary to insure completion without further delay" or the Treasury Department would serve an eight days' notice to revoke its contract. The previous delays made it necessary to employ an extra force immediately; thus, within five days, the R. H. Hood Company was to have in its employ 100 plasterers, 25 coppersmiths, and 250 laborers, mechanics, and helpers.[40]

On August 14, Superintendent of Construction Roberts informed the supervising architect relative to the compliance of the R. H. Hood Company with the directive of the secretary. A personal inspection of the construction site revealed that only a fraction of the required number of workmen were on the job--32 plasterers, 21 carpenters, 16 coppersmiths, 10 painters, 6 metal lathers, 8 asphalt workers, and 36 concrete laborers. Sufficient quantities of materials were on the ground for the completion of the work, but the inefficient management of the firm precluded an early completion date for the construction.[41]

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39. Ibid., Apr. 14, 1900.

40. Gage to Boring & Tilton, Aug. 9, 1900, RG 121, WNRC.

41. Roberts to J. K. Taylor, Aug. 14, 1900, RG 121, WNRC.

The exasperated Treasury Department officials finally informed the R. H. Hood Company that the absolute deadline for the completion of the main building would be October 1. Weekly inspections would be made to determine if satisfactory progress was being made. If work continued to be delayed, the government would resolve the contract and finish the structure--a decision that the Treasury officials did not want to make as it would add even more delays while changes in the project management were undertaken.[42]

By September 11, Superintendent Roberts was able to report that the firm appeared "to be endeavoring to complete the work at an early date." The average number of workers per day was 33 plasterers, 15 carpenters, 11 coppersmiths, and 7 painters. The outside walls needed considerable cleaning and pointing, and the grounds required grading and rubbish pick-up. Apparently, there was difficulty in obtaining skilled plasterers as it was easier to work in the city than on the island.[43]

On October 4, J. E. Powell, chief mechanical and electrical engineer of the office of the supervising architect, made an inspection of the main building. He found that its condition was such that a portion could be used by November 1 for detention purposes by making temporary connections with the old boiler and electric light plant to furnish both heat and light. Temporary connections could also be made to provide freshwater and saltwater for drinking and flushing purposes.[44]

Two final additions were made to the contract with the R. H. Hood Company on October 9. The sum of $150 was added to

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42. H. A. Taylor to R. H. Hood Co., Aug. 21, 1900, RG 121, WNRC.

43. Roberts to J. K. Taylor, Sept. 11, 1900, RG 121, WNRC.

44. Powell to Supervising Architect, Oct. 4, 1900, RG 121, WNRC.

furnish and set the book tile stair landing, and $278.40 was added to furnish 116 sash openers for 8 clerestory windows.[45]

In response to a request from Supervising Architect Taylor, Superintendent Roberts submitted a list of defective and omitted work on October 16. According to the results of his inspection, the work that needed to be finished was the "terra cotta covering - fireproofing - to beams in basement, the wall furring and beam covering to vent ducts, filling the joints to the floor arches - basement ceiling - cleaning the exterior walls. . . pointing to parts of the brick work of exterior walls of clere-story, replacing broken lights in skylights at west wing with perfect lights, and patching broken plastering."[46]

Relative to the work at variance with the specifications or entirely omitted, he listed the following:

> Patched stonework to all outside walls &c - Joints in stone work not filled with mortar, the pointing extends into the joints from 1" to 1½". One broken door sill, part of the brick work of exterior walls laid with large and irregular joints. Part of the brick work of basement walls and columns is out of plumb, irregular joints and joists not stuck. The omission of wall furring to the larger part of the side walls of the towers. The character of the material and work for fireproofing to the larger part of the bottom of the beams. Injury by excessive weight to the roof beams over dormitories. Excessively thick plastering. The omission of cap flashing. The omission of elastic cement. The iron framework for the large copper balls. Gravel roof covering in lieu of copper roof covering over fresh air intakes. Wire cloth at louvre windows in towers in lieu of 1/4" west copper wire screen. . . . Specifications require the face

45. H. A. Taylor to R. H. Hood Co., Oct. 9, 1900, RG 121, WNRC.

46. Roberts to J. K. Taylor, Oct. 16, 1900, RG 121, WNRC.

brickwork to be laid from an outside scaffold - this was not done - Walls to be cleaned down twice - they were cleaned down once.[47]

On October 23, Supervising Architect Taylor informed Secretary Gage that the construction of the main building was nearly completed. This fact had been confirmed by an inspection performed on October 6 by Amos J. Boyden, the superintendent of construction of the new Mint Building in Philadelphia. Furthermore, Boring & Tilton had reported on October 15 "that the building has generally been entirely completed in accordance with the requirements of the contract, with the exception of certain defects and omissions . . . that there are no defects in the building which affect the stability, or interfere with its practical workings for the purposes intended; that the effects are surface defects which mar the finish of the building, such as uneven and patched stone work, and crooked brickwork."[48]

Relative to the ten-month delay in completing the work, Taylor quoted the architects as follows:

> The building was not completed on time mainly from the fact that there were not a sufficient number of skilled workmen on the building to complete the work in time. The first nineteen months of the building's progress, despite our demands for more men, the average number of workmen per working day was in the neighborhood of between ninety and one hundred. This number we have always maintained should be between two hundred and two hundred and fifty. Excepting the foremen, a large number of the workmen were laborers where skilled mechanics should have been employed. The building did not

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47. Ibid.

48. J. K. Taylor to Secretary of the Treasury, Oct. 23, 1900, RG 121, WNRC.

have what we consider efficient administration. The materials furnished by sub-contractors were not delivered at proper times and in proper quantities. During the first winter, the inclement weather and the difficult nature of the foundations made some delay, but this together with that of unforeseen events would not exceed ninety days.

In general, we wish to state that we believe the building to be built of first class materials, in a good and strong manner. It shows no signs of settlement, nor deterioration and is in general in accordance with the plans and specifications. We consider it full value for the price paid, and under present conditions could not be contracted for anything approaching the contract price.[49]

Taylor also quoted a report from Superintendent Roberts concerning the causes for delay in completing the structure:

I do not know the causes in delay in the work prior to my being placed in charge of the building - May 8, 1900. Since my superintendency, the delay was generally caused by an insufficient force of workmen at the various branches. The carpenter work was the only branch that was not delayed from this cause. The condition as to rubbish and debris permitted to remain in and about the building, etc., and the limited amount of scaffolding for plastering, furring, etc., were other causes that tended to delay in a prompt execution of the work.[50]

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49. Ibid.

50. Ibid.

All told, Roberts recommended the retention of $13,479.40 from the contract with the R. H. Hood Company to remedy and supply the defects and omissions of the work.

Taylor also included a resume of the R. H. Hood Company in his report to the secretary. On October 15 the firm had written in its own defense that "you will please note that the contract for this work provides for the completion of the building twelve months after September, 1898, and an extension of time of one day for each and every day that the Government delays the contractor, these extensions being the actual time of completion within the contract requirements."[51]

Three days later the company, in making a formal demand for a final payment under the contract, supported this charge by arguing that

> much annoying delay was occasioned by not being permitted to have wharfage space in the basin occupied by the Steamer "Narragansett;" that a delay of four or five months was occasioned on account of the existing of cisterns, pipe conduits, wells, cellar floors, etc., preventing completion of the foundations until May, 1899; that said state of affairs was brought about by the original drawings of old buildings once existing on the island being suppressed; that the failure of the Government to furnish water on the island, as per contract, occasioned a further delay; that they were delayed on account of the failure of the Government to furnish adequate telephone communication, as per contract; that they were delayed on account of inadequate transportation for men to and from Ellis Island; that a further annoying delay was occasioned by the Government's failure to promptly contract for the plumbing, marble, heating, ornamental iron, and electric wiring; that

51. Ibid.

> much annoying delay was occasioned by the numerous changes and additions to said contract, without corresponding time extension therefor; that great and extended delay was occasioned by the failure of the Government to furnish hardware for the building, as per contract; that they were delayed by failure to furnish detailed drawings as rapidly as required. . . and that they were also delayed by failure to consider Boring & Tilton's agreements binding, as in private practice and as provided for in said contract.[52]

Because Taylor tended to agree with most of these statements, he recommended that the penalty for the late completion of the contract be waived and that a final payment be authorized. In his opinion, the amount of only $2,552 should be deducted for the defective work as follows:

Lining vent flues	$252
Imperfect stonework	$1,000
Crooked brickwork	$300
Joints in stonework	$1,000[53]

Accordingly, Secretary Gage authorized the final payment to the R. H. Hood Company on October 26, 1900.[54]

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52. Ibid.

53. Ibid. An addenda listing the defective and omitted work as found by Boring & Tilton and Superintendent Roberts may be seen on the following page.

54. H. A. Taylor to Bidwell, Oct. 26, 1900, RG 121, WNRC.

ADDENDA LISTING DEFECTIVE AND OMITTED WORK ON MAIN BUILDING

This statement relating to the R. H. Hood Company's contract at Ellis Island, New York, by Boring & Tilton, the architects, shows estimated amount to be retained pending satisfactory completion of all the work embraced in the contract and the adjustment of the differences in value between certain work supplied and that called for by the terms of the contract; also Superintendent Robert's statement of the matter.

	Boring & Tilton	Supt. Roberts
Broken glass in skylights	$ 25.00	$ 40.00
Covering floor beams in basement	375.00	500.00
Lining vent flues	252.00	400.00
Stair landing	150.00	150.00
Clear sash operators	278.40	278.40
Uneven and patched stonework	5,000.00	8,000.00
Crooked brickwork	500.00	500.00
	$6,580.40	
Joints in stonework not filled with mortar		1,000.00
One broken doorsill		15.00
Omission of wall furring to outside walls of towers		100.00
Omission of cap flashing		500.00
Omission of electric cement		25.00
Iron frame of large copper balls		100.00
Difference in value between copper roof covering, fresh-air intake, and gravel roof supplied		18.00
Difference in value wire screen for louvre windows in towers and wire cloth supplied		48.00
Foundation and setting of steps northwest entrance		75.00
Hardware, one pair doors		5.00
Patching to plastering		75.00
Difference in value between laying of brick from outside instead of from inside as performed		800.00
Cleaning outside walls		350.00
Other items are enumerated, but no value is placed thereon		500.00
		$13,479.40

2. Other Major Contracts

a. Plumbing, Marble, and Slate Work - James Armstrong

The solicitation of bids for the plumbing, marble, and slate work for the main building was advertised on April 22, 1899. The proposals were opened on May 22, and James Armstrong of New York City was informed on June 7 that he had submitted the lowest bid at $20,500.[55] Armstrong's bid included additional sums of $2,634 for a saltwater supply system, $1,839 for hose and reels, and $785 for house tanks in the tower, making a total amount of $25,758.[56]

Aware that the Ellis Island project was encountering financial difficulties, Armstrong submitted a supplementary proposal on June 3. In this bid he agreed to perform that portion of the work required for the installation of all the soil, waste, vent, and water pipes and all of the work called for under the head of saltwater supply system for $13,009. The supplementary proposal was accepted on June 7 with the added stipulation that the remainder of the work under the original proposal would be contracted if an appropriation were made by Congress. The contract specified that the entire work should be completed within six months.[57] On June 14, 1900, the remaining portion of the original proposal, amounting to $12,749, was accepted and added to the contract, thereby accounting for the entire $25,758 proposal.[58]

Altogether there were seven changes in the contract--four additions and three deductions--during the course of construction. The additions were as follows:

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55. H. A. Taylor to Armstrong, June 7, 1899, RG 121, WNRC. The work was to be done in accordance with drawings 136-143, 148, and the specification dated Apr. 22, 1899. The specification and contract are not extant.

56. Ibid.

57. Ibid.

58. J. K. Taylor to Secretary of the Treasury, Mar. 12, 1901, RG 121, WNRC.

February 12, 1900 - The sum of $229.61 was added to the contract for the substitution of 5-inch pipe, traps, and fittings for 16 latrines instead of the 4-inch as shown on the plans.[59]

June 5, 1900 - The sum of $161 was added to the contract for the extension of the four leader pipes in the towers.[60]

September 15, 1900 - The sum of $65.90 was added to the contract for filling in bathrooms 238, 239, and 334 with concrete and furnishing a marble riser and tread.[61]

February 20, 1901 - The sum of $38.28 was added to the contract for (1) steam connections to the coil in the hot water tank; (2) asphalting in two small toilet rooms; (3) supplying and setting five n.p. supports for long basins; (4) supplying and setting 11 extra soap cups; and (5) supplying n.p. flush pipes for urinals, instead of rough brass, and increasing the size of the slop sink traps.[62]

The deductions from the contract were as follows:

February 12, 1900 - The sum of $126.51 was deducted from the contract for the omission of five bell traps in rooms 334, 276, 246, 157, and 148, as well as five lead traps and strainers for urinal platforms and pipe and fittings not used on account of running the soil and vent pipes 12 and 13 through the third story roof instead of the high roof.[63]

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59. Spaulding to Armstrong, Feb. 12, 1900, RG 121, WNRC.

60. H. A. Taylor to Disbursing Agent, June 5, 1900, RG 121, WNRC.

61. Vanderlip to Armstrong, Sept. 15, 1900, RG 121, WNRC.

62. Gage to Armstrong, Feb. 20, 1901, RG 121, WNRC.

63. Spaulding to Armstrong, Feb. 12, 1900, RG 121, WNRC.

May 7, 1900 - The sum of $6.10 was deducted from the contract because of the substitution of black hangars for the galvanized iron hangers called for in the specifications.[64]

February 20, 1901 - The sum of $38.28 was deducted from the contract because of the omission of one water closet from room 123½ and one lavatory from the mezzanine floor.[65]

The plumbing, marble, and slate work was progressing well by September 1900. On September 28, inspector William E. Leland reported that

> all roughing in work and water supply piping has been completed. A large quantity of fixtures has been delivered at the building, and work of setting them has been commenced. The heating and ventilating specification provides for local vents to certain water closet ranges throughout the building, and the outlets in the ventilation system have been provided for this. No fixtures, however, have been provided with outlet for this local vent connection and it therefore cannot be used with the fixtures as delivered. I do not see that the plumbing specification calls for fixtures to be provided with these outlets, but drawings Nos. 142 & 143 clearly show the vent connections. I therefore recommend that the contractor be required to furnish such fixtures as will provide for the connection of vent ducts as shown by the drawings.[66]

On November 10 Leland observed the following:

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64. Gage to Armstrong, May 7, 1900, RG 121, WNRC.

65. Ibid., Feb. 20, 1901.

66. Leland to Roberts, Sept. 28, 1900, RG 121, WNRC.

Work is continuing on the fixtures as fast as possible considering the lack of a portion of the slate.

The 3/4" screwed hose nozzles on the fire risers near floor have been placed.

The 4" overflow and 2" discharge pipes from the two tanks in the towers have been run so as to discharge into the drip pans instead of onto the roof or down to basement as specified. I consider this a dangerous arrangement as the emptying pipe from the drip pans is only 2" in diameter.

The top edges of tanks and the stay rods have not been painted.[67]

Nearly a month later on December 6 Leland noted the following:

Work has progressed very slowly on this contract but about half of the toilet rooms are complete. Holes for the connection of the special vent pipes have been provided in the latrine fixtures.

Page 40 of the specification requires the edges of the slate wainscot to be rounded, and the partitions dividing toilet rooms to be fastened with slip tongue joints. Neither of these requirements has been complied with.

The water tank in the north-west tower leaks in several places and needs caulking.

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67. Ibid., Nov. 10, 1900.

> The overflow pipes on both tanks have been carried out onto roof but the emptying pipes have not been changed, but still discharge into the drip pans.[68]

The plumbing, slate, and marble work was completed by early January 1901. On January 22, Leland issued a report on his inspection of the completed work. He noted some minor defects, several items not in strict accordance with the specification, and extra work and materials not called for in the specification. Otherwise the work as completed was highly commendable and in accordance with the plans and specifications.[69]

On March 12 Supervising Architect Taylor informed Secretary Gage that the contract with Armstrong was settled and that the final payment should be authorized. He included in his letter a summary from a completion report written by Boring & Tilton on January 29 as follows:

> We wish to state in reference to James Armstrong's plumbing that his work has been well done; he has been accommodating in permitting the work of other contractors to proceed; he has endeavored at all times to follow instructions, never in any way attempting to evade his contract; he has been obliging to the Immigration Officials in the matter of arranging temporary accommodations; and although he was behind time on the contract for the slate work, which seemed beyond his control, his other work was promptly done, honestly done and well done, and we therefore recommend final payment.[70]

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68. Ibid.

69. Leland to Supervising Architect, Jan. 22, 1901, RG 121, WNRC.

70. Taylor to Secretary of the Treasury, Mar. 12, 1901, RG 121, WNRC.

Also included was a reply by Superintendent Roberts relative to an inquiry regarding the delay in the completion of the work:

> The work was practically completed January 1, 1901. It was impossible for the plumbing work to have been completed by September 15, 1900, because the building was not completed at the time named and the finished plumbing could not be installed. There was delay in the slate work connected with the plumbing which prevented the finished plumbing being done in a reasonable time after the condition of the building permitted the slate work being placed, about 35 days delay.
>
> The contractor made temporary arrangements to permit the use of the toilet rooms not completed, which prevented any serious inconvenience or injury to the Government interests during the short delay.
>
> The delay in the slate work seemed to be beyond the control of the contractor.

Accordingly, the penalty for the delay in construction was waived, and a final voucher was authorized for payment on March 14.[71]

b. Heating and Ventilating Apparatus - G. A. Suter & Company

The invitation of bids for the installation of the heating and ventilating apparatus in the main building was advertised on April 18, 1899. The proposals were opened on May 18, and on June 8,

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71. *Ibid.*, and Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

G. A. Suter & Company of New York City was informed that it had submitted the lowest bid for the work at $71,500.[72]

G. A. Suter & Company submitted a supplementary proposal for the work as James Armstrong had done for the saltwater supply system. In this bid the firm agreed to furnish and erect the following work for $33,000:

> All vertical warm air flues and register boxes
>
> All vertical ventilating or exhaust flues and register boxes
>
> All other warm air and exhaust flues, ducts, and connections above the level of the cellar ceiling except the special connections from latrines
>
> Lintels over register boxes
>
> Copper ventilating hoods
>
> Piping for the Johnson system of heat control
>
> All steam supply and return and air piping for the direct heating system, but not including the reducing valves and their bypasses

In addition, the firm would furnish and set the cast-iron trench and covers and protect the pipes with metal sleeves where they passed through the walls. This supplementary proposal was accepted on June 8 with the provision that the entire work under the original bid would be completed when Congress passed an additional appropriation. The

72. H. A. Taylor to G. A. Suter & Co. June 8, 1899, RG 121 WNRC. The work was to be done in accordance with drawings 43-47 and 149-150 and the specification dated Apr. 18, 1899 (not extant).

contract specified that the approved work should be completed within six months.[73] After Congress approved the desired appropriation in early 1900, the remaining portion of the original proposal, amounting to $38,500, was accepted and added to the contract.[74]

Altogether there were eight changes in the contract--six additions and two deductions--during the course of construction. The additions were as follows:

June 28, 1900 - The sum of $200 was added to the contract apparently for changes in the heating and ventilating flues in some rooms on the first, second, and third stories and an alteration in the trench.[75]

July 17, 1900 - The sum of $608 was added to the contract for reasons that cannot be determined for certain by available documentation. However, it is possible that the change involved the substitution of one steam air compressor for two hydraulic air compressors for the operation of the heating apparatus.[76]

September 27, 1900 - The sum of $95 was added to the contract for the furnishing and placing of 306 cast-iron plates under the legs of the radiator in the main building.[77]

September 28, 1900 - The sum of $1,500 was added to the contract for the installation of 220-volt electric motors to operate the

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73. Ibid.

74. Ibid., June 15, 1900.

75. Gage to G. A. Suter & Co., Mar. 19, 1900, RG 121, WNRC.

76. J. K. Taylor to Boring & Tilton, June 30, 1900, and Spaulding to G. A. Suter & Co., Oct. 6, 1900, RG 121, WNRC.

77. H. A. Taylor to G. A. Suter & Co., Sept. 27, 1900, RG 121, WNRC.

ventilating fans in lieu of the steam engines required by the specifications.[78]

December 8, 1900 - The sum of $40 was added to the contract to build a wooden platform for one of the radiators and to alter the position and connections of three other radiators in rooms 202 and 204 of the main building. At the same time it was noted that all pipes and radiators were to be painted and bronzed.[79]

February 19, 1901 - The sum of $60 was added to the contract for the substitution of four new maximum and minimum thermometers, having any desired temperature range, in lieu of those furnished under the specification. Later on February 28, Supervising Architect Taylor ordered that the range of the thermometers for heating the main building was to be between 72° and 82° Fahrenheit.[80]

The deductions from the contract were as follows:

June 28, 1900 - The sum of $200 was deducted from the contract for substituting galvanized iron fittings in place of brass for the thermostatic work.[81]

February 19, 1901 - The sum of $60 was deducted from the contract because of the omission of certain steam gauges.[82]

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78. Ibid., Sept. 28, 1900, and Kemper to Boring & Tilton, Aug. 23, 1900, RG 121, WNRC. This change was made in accordance with the arrangement shown on drawing 43A-B.

79. H. A. Taylor to G. A. Suter & Co., Dec. 8, 1900, RG 121, WNRC.

80. Gage to G. A. Suter & Co., Feb. 9, 1901, and J. K. Taylor to Boring & Tilton, Feb. 28, 1901, RG 121, WNRC.

81. H. A. Taylor to Disbursing Agent, June 28, 1900, RG 121, WNRC.

82. Gage to G. A. Suter & Co., Feb. 19, 1901, RG 121, WNRC.

The work on the heating and ventilating apparatus was progressing well by late September 1900. On September 28, Inspector Leland reported the following:

> Work is progressing on the masonry of the brick ducts in the basement, the same being about half completed, and all of the horizontal galvanized iron duct work at the south-east end of basement has been erected, and about half of that at the north-west end.
>
> This duct work so far as complete presents a very neat appearance, has been well constructed and braced, and is very firm and substantial. It is not put together as detailed in the specification, but is strong and substantially connected and I recommend its acceptance. This same method of construction and the same recommendation was noted in my report of April 19, 1900 made to the Supervising Architect.
>
> Practically all of the steam pipe work, except the 3" exhaust main is complete and according to the plans.
>
> The registers and faces have been delivered at the building and are being set, and about 75% of them are now in place. The radiators have also been delivered and distributed, and a number of them have been connected to the steam and return pipes.
>
> I beg to call your attention to the fact that union radiator valves have been supplied as specified, but in many cases the distance between stubs is such that the radiator does not properly fill the same, and a socket and nipple has been used on one or both ends to make the connection. It happens that in some rooms one radiator is properly connected, the stubs being properly located, while another may have a nipple several inches long at one or both ends. This arrangement, while it

does not affect the operation of the plant in the least, looks very badly and does not represent good workmanship.

It will represent a good deal of work to change the stubs at the present time and would, in most cases, necessitate the cutting of a hole through the finished floor. If, however, it is considered advisable, I would recommend that the contractor be required to make the necessary change in the connections that will bring the steam and return valves of each radiator at equal distance from the ends of same.

All registers have been painted one priming coat.[83]

By November 10 Leland was able to report that

the Blackmun exhaust fans with C & O motors for same have arrived, and preparation is being made for their erection. This work is being delayed from the fact that doors to the four vent shafts on the third floor have not been provided.

The three 30 horse-power motors (C & O) for the fresh air flues have also arrived.

Work of setting the return pumps, tanks, etc., is going on. Two of the steam gauges have been set and connected.

Several of the by-pass doors in the brick ducts in basement have been improperly set, so that they open against the direction of the air currents, thus causing unnecessary resistance to the passage of the air. The

83. Leland to Roberts, Sept. 28, 1900, RG 121, WNRC.

quadrant arms regulating the openings of the doors are all too short and should be lengthened so as to allow of wider door openings. The doors which have been improperly set should be reset.

A number of the cast iron floor plates around risers and radiator connections have been broken by workmen in the building and as those are made in one piece and were placed upon the pipes when they were erected, it will be impossible to replace them at the present time with perfect ones of the same design.[84]

On December 6 Leland observed that

the erection of the four exhaust fans has been completed. The connection of pumps, tank, etc. is complete.

The by-pass doors which were reported on Nov. 10th, as wrongly set have been changed and now open correctly, but no change in the length of quadrants has been made.

The work, except connections to the large indirect coils in basement, is practically completed.

The vent ducts for toilet fixtures are being run.

No doors have yet been provided into the four vent shafts from the third floor and there is no means of getting at the motors for their proper care. These doors should be provided.

In connection with the thermostatic regulation, one steam pump has been supplied and connected in lieu of two hydraulic air compressors as specified.

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84. Ibid., Nov. 10, 1900.

The primary coat of yellow ochre on the radiators was not steam baked before the application of the bronze finish . . . and no varnish coat has been put on as yet.[85]

On December 17 Leland noted that

the erection of the four exhaust fans has been completed. The connection of pumps, tank, etc. is complete. There is no equalizing pipe from the steam main to the receiving tank and pump governor and the governor does not properly control the level of the water in the tank. There should be an equalizing pipe connected from steam main to both the tank and pump governor.

The contractor and the architect's engineer are both aware of this trouble, but nothing has as yet been done toward its remedy. At present the tank is left open to the atmosphere and the pumps operated by hand. This cannot be done when there is any appreciable pressure on the system.

The by-pass doors which were reported on Nov. 10th, as wrongly set have been changed and now open correctly, but no change in the length of quadrants has been made. Both these items were brought to the contractor's attention at the same time.

The work, except connections to the large indirect coils in basement, is practically completed.

The vent ducts for toilet fixtures are complete as far as conditions of toilet rooms will allow.

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85. Ibid., Dec. 6, 1900.

No doors have yet been provided into the four vent shafts from the third floor and there is no means of getting at the motors for their proper care. These doors do not form a part of this contract, but the attention of the architects has been called to their omission.

In connection with the thermostatic regulation one steam air pump has been supplied and connected in lieu of two hydraulic air compressors as specified. I recommend that this be accepted, as it is much superior, and is of sufficient size for its duty.

The primary coat of yellow ochre on the radiators was not steam baked before the application of the bronze finish, as specified on page 35, and no varnish coat has been put on as yet. As the bronzing of the radiators was done a considerable time before it was possible to have steam in the building, I recommend that the bronzing be accepted after the application of the varnish. The attention of the contractor has been called to the omission.[86]

A completion report on the contract for the heating and ventilating apparatus in the main building was issued on January 16, 1901, by Inspector Leland. The report noted the satisfactory and unsatisfactory portions of the work as well as the parts executed outside the parameters of the specification.[87]

On March 11, 1901, Supervising Architect Taylor informed Secretary Gage that the defects in the work of G. A. Suter & Company had been remedied. As Boring & Tilton had reviewed the work

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86. Leland to Supervising Architect, Dec. 17, 1900, RG 121, WNRC.

87. Ibid., Jan. 16, 1901.

and found it satisfactory, Taylor recommended that a voucher be authorized to pay the contractor for the balance of the 90 percent outstanding under the contract, the final 10 percent to be retained for several months to ensure a satisfactory test of the apparatus during one entire heating season. Because the completion of the contract had been delayed by the tardy work on other portions of the building, no penalty was to be assessed for the late completion of the work.[88]

During the next two months, Inspector Leland kept a close watch on the operation of the heating system. On April 12, he reported that

> the four electric maximum and minimum thermometers have been removed and others substituted of ranges from 72 to 82 degrees.
>
> The rheostats for fresh air fan motors have been delivered and set on substantial wrought iron brackets in convenient locations.
>
> I have lately noticed that many of the funnels in the top of the horizontal main air line in basement are overflowing with water and this is causing some annoyance in the basement. It appears that either the pipes have become stopped up or that they are not properly graded.
>
> I recommend that all these be gone over and that such corrections and changes as may be necessary to remove all the water be made.
>
> The doors which were cut into the four exhaust shafts in third story were not cut where originally intended, and where I

88. J. K. Taylor to Secretary of the Treasury, Mar. 11, 1901, RG 121, WNRC.

personally arranged with the architects in charge. As a result there is no iron grating or platform to reach the motors, this having been extended to the other side of shafts when the work was done in accordance with the plans. An additional platform will have to be constructed before the motors can be properly and safely reached. This matter should receive attention at an early date.

A 10" valve is necessary in the main 10" exhaust line connection to the main building. This matter formed the subject of a communication dated April 1st, 1901, addressed to the Superintendent and forwarded to your office for consideration.[89]

After the heating system had proved satisfactory, all but $1,000 of the retained money under the contract was paid to G. A. Suter & Company on May 31. The $1,000 was retained pending a thorough test of the ventilation system during the summer months and was paid to the contractor on December 5.[90]

c. Electrical Work - New York Electric Equipment Company

In February 1899 preparations were made to draw up plans and specifications for the electrical work in the main building. Because the electrical wiring for the public buildings erected under the supervising architect was under the control of the chief clerk of the Treasury Department, it was determined that the drawings and plans developed by Boring & Tilton for this work would require approval from

89. Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

90. Wetmore to G. A. Suter & Co., May 31, 1901, Fry to Supervising Architect, Dec. 2, 1901, and Kemper to G. A. Suter & Co., Dec. 5, 1901, RG 121, WNRC.

that office before bids were accepted.[91] On August 23 the work was advertised, and on October 2 the proposals were opened. Following more than two weeks of review, the bid of the New York Electric Equipment Company of New York City was approved on October 19. The work, which was to be completed within 60 working days at a cost of $9,977, was to provide for the electrical wiring and circuits necessary for light and power and for telephones, call bells, fire alarms, watchman's detectors, and other signals.

SUMMARY OF PRINCIPAL ITEMS FOR ELECTRICAL WORK IN MAIN BUILDING

Section I. Light and Power Wiring

The equipment will include the following:

518 Outlets for 926 incandescent lights
42 Outlets for 42 arc lights
1 Outlet for elevator cable junction
67 Outlets for local switches (not including those at cutouts)
628 Outlet boxes (of all kinds)
1 Feeder switchboard
6 Feeders for lighting circuits
1 Feeder for power
20 Mains
20 Cutout cabinets (including feeder cutout)
27 Cutout groups (including feeder cutout)
182 Branch circuits
8 Knife switches
121 local switches
40 Drop cord outfits
182 Wall socket outfits
All as specified more fully in section I of the complete specification for electrical work

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91. J. K. Taylor to Chief Clerk, Treasury Department, Feb. 11, 1899, RG 121, WNRC.

Section II. Bell-Work and Telephones

The equipment will include the following:

13 Interconnection boxes
14 Interconnection cables
Service lines as shown on plans
1 Telephone exchange switchboard
27 Telephone station outfits
20 Electric bells
5 "Two-drop" annunciators
30 Call circuits and push buttons
16 Calls of open circuit battery
1 Fire alarm circuit closer
7 Fire alarm automatic push buttons
5 Fire alarm bells
1 Watchman's register
15 Watchman's station boxes[92]

Altogether there were three changes made in the contract--two additions and one deduction--during the course of construction. The additions were as follows:

92. H. A. Taylor to New York Electric Equipment Company, Oct. 19, 1899, and "Synopsis of Bids for Electric Work for Main Building, Immigrant Station, Ellis Island, N.Y.," Received Under Advertisement Dated August 23, 1899, RG 121, WNRC. The work was to be done in accordance with detail drawings 36-42 and the specification dated Aug. 23, 1899. Plans for the electrical wiring and circuit work for light and power had special reference to drawings 456-A1, 2, 3, 4, 9, and 10, and plans for electrical wiring and circuit work for telephones, call bells, and other signals to drawings 456-B1. Reference should be made to the "Specifications for the Electrical Work and Material of the U.S. Immigrant Building to be Erected on Ellis Island, N.Y.H. for the United States," FF 31, Main Building: Electrical Work, 1899, Ellis Island Records, DSC.

August 9, 1900 - The sum of $74.98 was added to the contract for the authorized changes and extra wiring made necessary by the extension of the towers on the main building.[93]

June 5, 1901 - The sum of $159.00 was added to the contract for changes that cannot be definitely determined by available documentation.[94]

It is possible, however, that extra work was authorized following an inspection of the electrical work on August 4, 1900, by J. E. Woodwell, inspector of electric light plants of the Treasury Department. After his investigation, he charged that "the existing arrangement of electric outlets at buildings on Ellis Island . . . in many cases will result in unsatisfactory distribution of light, and further that the number of lights contemplated in the wire system will in many instances prove inadequate."[95]

The only deduction to be made to the contract occurred on July 23, 1901, when the sum of $46.58 was subtracted for four changes in the plans. The modifications were as follows: (1) change the cabinet of the house feeder cutout from marble to slate; (2) change the size of lugs to a smaller size; (3) omit the conduit from main interconnection cutout box from assistant commissioner's room to cellar; and (4) omit the sealing of conduit tubes.[96]

There were at least three other changes in the plans that did not involve additions or deductions of money to the contract. These changes were as follows:

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93. Gage to New York Electric Equipment Co., Aug. 9, 1900, RG 121, WNRC.

94. J. K. Taylor to Secretary of the Treasury, Aug. 8, 1901, RG 121, WNRC.

95. Kemper to Boring & Tilton, Aug. 4, 1900, RG 121, WNRC.

96. Gage to New York Electric Equipment Co., July 23, 1901, RG 121, WNRC.

April 11, 1900 - Two pairs of cables of 750,000 circular mils each were substituted for three pairs of 500,000 circular mils each. This modification necessitated the relocation of a similar and equal number of fixtures and cutouts.[97]

June 22, 1900 - It was determined to change the location of outlet R-1 on circuit 16 and D-1 on 13; outlet F on both circuits 3 and 15 from the ceiling to the sidewall; the location of the cutout box in the basement; and the outlet on circuit 31 on the first floor, which included moving the outlet about 10 feet.[98]

June 27, 1900 - The location of the conduit for feeder 3 was placed on the ceiling of the basement.[99]

The electrical work on the main building was completed by November 30, 1900. On that date Supervising Architect Taylor informed the commissioner of immigration of the Port of New York that "the electric lighting system in the main building . . . is now available for service, and that all arrangements have been completed in regard to a fresh water supply; and, in view thereof, a recommendation has this day been made to the Honorable Secretary of the Treasury . . . that the building be transferred to your custody, with a view to immediate occupation of the dormitories and adjacent rooms."[100]

A final report on the electrical work installed in the main building was submitted to Supervising Architect Taylor on March 30, 1901, by Inspector Leland. The report included references to items of

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97. Ibid., Apr. 11, 1900.

98. Spaulding to New York Electric Equipment Co., June 22, 1900, RG 121, WNRC.

99. Ibid., June 27, 1900.

100. J. K. Taylor to Commissioner of Immigration, Port of New York, Nov. 30, 1900, RG 121, WNRC.

omission and defective work to be corrected as well as the results of tests applied to the feeders and mains.[101]

After further inspections of the work by Leland and Boring & Tilton, it was reported to Secretary Gage on August 8, 1901, that the defective work had been satisfactorily remedied. Accordingly, the final voucher was authorized for payment.[102]

d. Ornamental Ironwork - Hecla Iron Works

Bids for the ornamental ironwork on the main building were advertised on July 14, 1899, and opened on August 16. On August 22, F. A. Vanderlip, assistant secretary of the treasury, informed Hecla Iron Works of Brooklyn, New York, that portions of its proposal, amounting to $16,775, had been accepted. The entire proposal, which was not accepted because of the severe limitations imposed by congressional appropriations, amounted to $38,000 or $36,000, if the six large archway frames were constructed of wood covered with metal instead of cast iron. The work was to be done in accordance with special detail drawings 135-139, 147-148, and 248, and the specification. The work, which was to be completed within six months, was broken down into the following nine primary categories:

All stair work, except in the four towers from the level of the third story	$11,000
Door saddles	100
Parapet grilles	1,000
Vault doors	375
Gallery railing	900
Strong room lining	600
Window guards	500

101. Leland to Supervising Architect, Mar. 30, 1901, RG 121, WNRC.

102. J. K. Taylor to Secretary of the Treasury, Aug. 8, 1901, RG 121, WNRC.

Elevator enclosures	1,000
Wire screen partitions and ceilings	1,200
Wheel guards	100
	$16,775[103]

Later on October 26, 1899, the Department of the Treasury accepted a proposal by Hecla Iron Works to complete the ornamental ironwork on the main building. The contract, which amounted to $16,925, included the unaccepted items of the original proposal by the firm with the exception of deductions of $3,300 for the omission of fire escapes from the level of roofs of the wings down to the ground and $1,000 for changes in the sash of the six large arches.[104] The approved proposal was to be considered as an addition to the contract consummated in August and included such items as stairs in the four towers from the level of the third story up, fire escape balconies and bridges on and above the level of the roof of the wings, and base and angles for the piers.[105]

Altogether there were three changes in the contract during the course of construction. They were as follows:

> August 28, 1900 - The sum of $255 was deducted from the contract for the omission of a wire screen in baggage room 134.[106]

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103. Vanderlip to Hecla Iron Works, Aug. 22, 1899, RG 121, WNRC, and "Specifications for the Ornamental Iron Work and Material of the Immigrant Building to be Erected on Ellis Island, N.Y.H. for the United States," FF 30, Main Building: Ornamental Iron Work, 1899, Ellis Island Records, DSC. The proposal and contract of the Hecla Iron Works are appended to the specifications.

104. Available documentation does not indicate what these changes were, but apparently they concerned the substitution of white pine and metal covering for the specified cast iron, as the firm had made this recommendation in its original proposal.

105. H. A. Taylor to Hecla Iron Works, Oct. 26, 1899, RG 121, WNRC.

106. H. A. Taylor to Disbursing Agent, Aug. 28, 1900, RG 121, WNRC.

October 10, 1900 - The sum of $105 was deducted from the contract for the omission of wire screens in the offices of the Information Bureau and forming the sides of parts of corridors 118 and 101 according to revised drawing 148.[107]

December 27, 1900 - Several changes in the plans that had been recommended by the firm were approved. These consisted of erecting "angle iron connection knees" for "the joining of rafters of [the] shed to the girders in the large central arches." The brackets, flooring, apron, and fascia for the balconies were to be omitted at the arches, and plain moulded paneling was to be substituted for the ornamental panels originally intended.[108]

The Hecla Iron Works contract was completed by early February 1901. Upon an inspection by Boring & Tilton and Superintendent Roberts, the work was found to be in accordance with the plans and specifications. Relative to the delay in the completion of the work, it was noted that

> I have to state that all the ornamental iron work that other work would permit being placed, was placed before the building was occupied. The wire guards at top of slate partitions, inner side of certain toilet room, was placed when the partitions were up ready for the guards. This was during the week ending January 19, 1901.
>
> The only cause for delay in the ornamental work, to my knowledge, was waiting other work. There was no loss to the Government that I can discover by the delay in the work named.

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107. Spaulding to Hecla Iron Works, Oct. 10, 1900, RG 121, WNRC.

108. Gage to Hecla Iron Works, Dec. 27, 1899, RG 121, WNRC.

Accordingly, the penalty for the delay in completion was waived, and the last voucher for payment to the firm was authorized on February 14.[109]

e. Hardware - Russell & Erwin Manufacturing Company

On September 16, 1899, it was announced that proposals for the hardware would be received until October 9. On November 1 the bid of the Russell & Erwin Manufacturing Company of New York City was accepted. However, as the balance of the money available for the main building was not sufficient to cover the contract, the firm agreed to hold its proposition open until January 15, 1900, provided Congress did not approve a further appropriation prior to that time.[110]

On January 26, 1900, the proposal of the firm was formally accepted at a cost of $3,988.85.[111] The hardware was to be delivered at the main building before it was needed for the work, and duplicate samples of all the hardware were to be submitted to Boring & Tilton and Supervising Architect Taylor before they could be used.[112]

By June 12 the contracting firm submitted a "Schedule of Hardware" for its work on the main building. The schedule, which governed the work of the company with some few modifications, described the types and dimensions of the hardware used in the structure.[113]

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109. J. K. Taylor to Secretary of the Treasury, Feb. 12, 1901, and Kemper to Hecla Iron Works, Feb. 14, 1901, RG 121, WNRC.

110. J. K. Taylor to Boring & Tilton, Nov. 1, 1899, RG 121, WNRC.

111. The work was to be done in accordance with the specification dated Sept. 16, 1899. Reference should be made to "Specifications for the Hardware of the U.S. Immigrant Building to be Erected on Ellis Island, N.Y.H., for the United States," FF 32, Main Building: Hardware, 1899, Ellis Island Records, DSC.

112. H. A. Taylor to Russell & Erwin Mfg. Co., Jan. 26, 1900, RG 121, WNRC.

113. "Schedule of Hardware for Immigrant Building, Russell & Erwin Mfg. Co., June 12, 1900," FF 33, Main Building: Hardware, 1900, Ellis Island Records, DSC.

There were four principal changes in the contract during the course of construction, aggregating an additional sum of $363.03. The modifications were as follows:

> To substitute brass plated double acting spring hinges for the double acting doors, in lieu of the floor pivots . . . to substitute sash pivots of a smaller size than the sample originally submitted.
>
> To substitute rabbeted for plain sash centers.
>
> To furnish extra rabbeted sash pivots for clerestory windows.
>
> To substitute the Ogden door check in place of one previously approved.[114]

The company completed the work under its contract by January 1901. On January 26, the final voucher was authorized for payment to the firm.[115]

f. Elevator - Otis Elevator Company

During the early spring of 1899, plans and specifications for the elevator in the main building were prepared by Boring & Tilton.[116] After the bids had been solicited, it was determined to make the following changes in the work:

> The elevator guide posts to be at sides of elevator well . . . constructed of six (6) inch special wide flange channel with planed tee iron guide strip, instead of guide posts.

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114. Gage to Russell & Erwin Mfg. Co., Apr. 16, July 16, and Aug. 8, 1900, and Spaulding to Russell & Erwin Mfg. Co., Oct. 4, 1900, RG 121, WNRC.

115. H. A. Taylor to Disbursing Agent, Jan. 26, 1901, RG 121, WNRC.

116. The plans and specifications for the elevator are not extant.

> The load to be lifted at the speed of one hundred and twenty-five (125) feet per minute is to be two thousand five hundred (2,500) pounds, instead of one thousand (1,000) pounds.[117]

When the bids were opened in May, it was found that all were in excess of the money available for the work. Accordingly, it was decided to invite new proposals based upon the revised drawings and specifications.[118]

On August 4, 1900, the proposal of the Otis Elevator Company of New York City was accepted for the installation of an electric elevator in the main building. The contract, which was to expire on October 1, was let at a cost of $4,310. The contractors agreed to guarantee the mechanical operation of the elevator for a period of one year after the final acceptance of the work.[119]

The installation of the elevator proceeded slowly, primarily because of the lack of current available for trial purposes. Following an inspection of the work, Inspector Leland reported the following on April 12, 1901:

> The installation is complete except the cables and wiring to the controller and motor and such other incidental work as will be necessary when the finishing of the contract is accomplished. The car, over-head work and machine are all in place.
>
> It should be noted that the armature and field coils for this elevator which were tested by me at the shops of the Otis

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117. Kemper to Boring & Tilton, Apr. 26, 1899, RG 121, WNRC.

118. Acting Supervising Architect to Superintendent of Construction, May 11, 1899, RG 121, WNRC.

119. Vanderlip to Otis Elevator Company, Aug. 4, 1900, RG 121, WNRC.

Elevator Company at Yonkers, New York, and reported on January 25th, 1901, have not been delivered here and the temporary armature and field coils are still in the machine.

The car is built with the lower portion of bronzed grill work 1 1/2" strips, 5/8" mesh, the upper portion of 3/8" flat strips on edge except where they cross, and on 2 1/8" centers. The top of the car is built of 3/8" bronzed strips on the flat 2 1/8" centers. The specification calls for a car with panelled lower portion and grill work for upper portion and top.

There is no grating under the overhead work but a plaster ceiling forming a part of the building construction forms the top of the elevator shaft.

The specification requires an iron pan to be placed under the car at bottom of shaft. This pan is only an iron bottom with one side, but it seems to answer the purpose for which it was intended as it is some distance above the basement floor.

The counter-weight tee guides are 2 3/4" by 1 15/16" instead of 3" x 3" as specified. This is the usual size of these guides and they are extra heavy and are strong and substantial and appear to have as much metal in their cross-section as those specified.

This contract could be finished in about ten days if current was ready at the machine.[120]

By June 30, Superintendent Roberts observed that work on the elevator remained at a standstill as there was still no electric

120. Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

power available for its operation.[121] Nearly six months later on December 16, Alfred B. Fry, chief engineer and superintendent of repairs, reported that "I tested and inspected installation of elevator in Main Building on December 12, and found same as specified and required by Architects in Charge, except that latter have not yet approved final painting. This remains to be performed. The work on elevator in Hospital building awaits return of armature from the factory of the Company. Their representative claims the Architects have ordered him to defer further work pending correction of leakage in Hospital building basement."[122]

After the superintendent of construction informed the Treasury officials that the work had been completed on January 15, 1902, Supervising Architect Taylor recommended that a final voucher be authorized.[123]

g. Screen Partitions, Pipe Railings, and Gates - Louis Wechsler

The solicitation of bids for screen partitions, pipe railings, and gates were advertised on August 2, 1900. As more than 1,000 square feet of screen had been included in the contract with the Hood Company, Boring & Tilton were directed to obtain from the firm a proposal for the amount that they would deduct for the omission.[124] On August 16, the proposals were opened and the bid of Louis Wechsler of New York City was accepted. The contract, which was let at a price of $9,800, was to be completed within 60 working days.[125] Boring & Tilton

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121. Roberts to J. K. Taylor, June 30, 1901, RG 121, WNRC.

122. J. K. Taylor to Secretary of the Treasury, May 12, 1902, RG 121, WNRC.

123. Ibid.

124. J. K. Taylor to Boring & Tilton, Aug. 9, 1900, RG 121, WNRC.

125. Vanderlip to Wechsler, Aug. 17, 1900, and "Synopsis of Bids for Screen Partitions, Pipe Railings, Gates, Etc. for the Main Building," Aug. 16, 1900, RG 121, WNRC. The work was to be done in accordance with drawings 262, 269, 270, and 272, and the specification dated Aug. 2, 1900 (not extant).

reported that the work was finished on March 15, 1901, and Supervising Architect Taylor recommended that the penalty for the late completion of the contract be waived and that a final voucher be paid.[126]

B. Opening Building for Immigration Purposes - 1900

Although all phases of construction on the main building were not quite completed, the condition of the work was advanced to the point that portions of the structure were available for use by December 1, 1900.[127] Around that date the Detention Bureau of the Immigration Service occupied the dormitories and adjacent rooms in the structure.[128] On December 3, the custody of the main building was transferred from Superintendent Roberts to Thomas Fitchie, commissioner of immigration of the Port of New York.[129]

The facilities of the new station on Ellis Island were ready for occupancy on December 17, 1900. Commissioner Fitchie and his staff moved from the Barge Office with little fanfare and reviewed the first shipload of immigrants, consisting of 654 Italians from the steerage of the Kaiser Wilhelm II. Other steerage passengers came in during the day

126. J. K. Taylor to Secretary of the Treasury, Mar. 22, 1901, RG 121, WNRC. Available documentation indicates that the only deviation from the drawings and specification occurred in room 116 on the mezzanine floor. Secretary Gage ordered Wechsler not to place any pipe railing in that room.

127. Earlier on November 23 a contract had been let to J. F. Oliver of New York City for $1,320 to do last-minute work on the main building to ready it for occupancy. The work included hanging doors, placing hardware, plastering, replacing broken lights, installing a handrail, and putting in a cement base. Vanderlip to Oliver, Nov. 23, 1900, RG 121, WNRC.

128. J. K. Taylor to Secretary of the Treasury, Nov. 30, 1900, RG 121, WNRC.

129. H. A. Taylor to Superintendent of Construction, Dec. 3, 1900, RG 121, WNRC.

from the Victoria, the Vincenzo Florio, and the Umbria, making a total of 2,251.[130]

The New York Tribune commented on the first day of operation at the new facilities with praise by saying "the impression of the way things are done in the United States made upon the immigrant who arrives here to-day will be more a favorable one than that made upon his brother who arrived here a week ago. He will enter this country by the gateway of the new immigration station on Ellis Island, instead of the grimy, gloomy Barge Office - more suggestive of an inclosure for animals than a receiving station for prospective citizens of the United States."[131]

Several days after the immigration station opened, Secretary Gage and a large party made an official inspection. The secretary congratulated the staff on their new quarters, which he said "with its companion buildings will form what the Treasury Department set out to make it, the model immigration station of the world."[132]

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130. Pitkin, Keepers of the Gate, p. 32.

131. New York Tribune, Dec. 17, 1900.

132. Ibid., Dec. 21, 1900.

LIST OF OFFICES AND ROOMS IN MAIN BUILDING - 1900

First Floor

New York Detention Room
Corridors
Waiting Room
Lavatories
Stairs
Information Bureau
Eastern Passenger Room
Toilets
Italian Bureau
City Baggage Room
Telegraph Office
Vestibules
Board Officer
Landing Agent
Customs Inspector
Inspectress
Chief Inspector
U.S. Customs Collector
Lobby
U.S. Appraiser's Office
U.S.C. Storage
Records Office
Missionaries 1
Missionaries 2
Matron
Chief Registrar
Registrar's Room
Mezzanine
Ticket Office
Railroad Waiting Room
Baggage Room

Second Floor

Excluded Women's Room
Scrubwomen Room
Men's Toilet
Excluded Men's Room
Special Inquiry Exam Room
Witnesses Room
Secretary of Inquiry Room
Toilet Rooms
Stairs
Stationary Room
Clerk Room
Assistant Commissioner's Room
Main Office
Commissioner's Private Office
Strong Room
Private Secretary's Room
Treasurer's Office
Chief Engineer
Stair Closet
Statistician 1
Statistician 2
Chief Inspector
Contract Labor Bureau
Elevator
Bedding Room
Detention Dormitory
Corridors
Contract Labor Exam Room
Janitor's Room
Special Inquiry Detention Room
Chief Surgeon
Exam Room 1
Exam Room 2
Exam Room 3
Laboratory
General Office
Main Room

Third Floor

Stairs
Immigrant's Dormitory
Halls and Corridors
Main Dormitories
Bathroom
Commissioner's Dormitory
Special Dormitory
Main Room

C. Descriptions of Facilities - 1901-1902

The purpose of this section is to present some of the most significant contemporary descriptions of the architecture and mode of operation of the main building that were published in newspapers, periodicals, and journals after its completion.

1. New York Times (December 3, 1900)

After the main building had been completed and the Bureau of Immigration was preparing to transfer its operations to the new facility, the New York Times published a lengthy article describing the structure as follows:

> The Bureau of Immigration will be transferred from the present quarters to the new station on Ellis Island the 15th of this month (December). . . . Situated on one of the most prominent locations in the harbor, the new station is an imposing as well as pleasing addition to the picturesque water front of the metropolis.
>
> The main building, situated in the centre of the island, is 385 feet in length and 165 feet in width. The body of the building is 62 feet high, while the four towers at each corner are 100 feet from the ground to the top of the domes. The style is a conglomeration of several styles of architecture, the predominating style being that of the French Renaissance. The material used in the construction is brick, with light stone trimmings, harmonized so as to make the general effect as attractive in appearance as possible.
>
> The spires of the towers are copper-covered, and in the top of each is an observatory, from which a splendid view of the harbor and city may be had. On the western and eastern sides of the building are the main entrances, massive arches which extend well into the second story. Over the arch in concrete work appear the National coat of arms, while eagles of the same material, make the general effect still more attractive.

But the interior arrangements are what, after all, make the station a model of completeness. Every detail of the exacting and confusing service to which its uses are to be dedicated were considered in perfecting the interior plans. The transportation, examining, medical, inquiry, and various other departments of the service being assigned quarters that, while they are practically separate in every detail, yet are so arranged as to follow one after the other, according to its proper place in the department. Thus from the office of the Commissioner the doors lead to the quarters of his assistant, and then, according to rank, come the medical, financial, examining, railroad, inquiry, and other branches of the service.

When the immigrant is landed from the barges he will pass through an imposing private entrance, made as nearly as possible free from the observation of the curious, besides protecting him during bad weather. He then goes to the second floor, the department, where he is inspected by the medical authorities, and the officials of other branches of the service who pass upon his eligibility to land. Every inch of space on this floor is utilized.

The railings forming the network of the aisles, in which the immigrants are placed in alphabetical order, according to nationality, gives the great amphitheatre the appearance of an immense spider web. Two shiploads can be handled easily, and two more in an emergency by the inspectors and other attaches. It is estimated that 5,000 persons can be thoroughly examined with perfect ease, and in an emergency 3,000 more, by the application of a little added energy on the part of the examiners. Surrounding this room, from the third floor, is an observation gallery, where visitors can watch the inspectors at work. The dormitories are entered from doors on the gallery. There are two main apartments, which can accomodate about 600 sleepers comfortably.

The southwestern corner of the second floor has been assigned to that terror of the immigrant, "Board of Special Inquiry." Adjoining this department is the dormitory for the unfortunates labeled "excluded." There is a telegraph and railroad office also on this floor, the latter service also having a large division on the southern end of the ground floor, where the principal agencies will be located. Iron stairways lead from the private quarters of the immigrants to the roofs on either end of the building, which have been dubbed "roof gardens" and "pavillion roofs." The former name being the name given by the immigration authorities, while the latter is a title conferred by the construction forces. . . . The administration office and baggage room, together with the railroad departments, occupy the ground floor.

Convenient apartments have been assigned to the Bureau of Information--the private rooms of the inspectors, matrons, clerks and other attaches.

All of the structures on the island are absolutely fireproof, the only inflammable material being the office furniture. The floors are of concrete and slate, the railings of iron, while the beds are combinations of iron and wire netting. The completion of the station will eliminate practically all of the unpleasant and irritating features connected with the Barge Office at the Battery. No longer will the immigrant be defrauded by the boarding house shark and the fakir. The crowd of foreigners who besiege the present quarters every day, making life hideous with their quarrels or cursing the guards and gatemen in a babel of tongues, will be things of the past.

The spending of the million and a half dollars by the Government on Ellis Island will be, according to those best

fitted to judge, the beginning of a new era in the complicated system of the immigration service.[133]

2. New York Tribune (December 17, 1900)

On the day that the main building was officially opened for business, the following article appeared in the New York Tribune:

> The impression of the way things are done in the United States made upon the immigrant who arrives here to-day will be a more favorable one than that made upon his brother who arrived here a week ago.
>
> The new building on Ellis Island, which is being used to-day for the first time, is a marked contrast to the Barge Office.
>
> The architects, Boring & Tilton, have tried in the new building to fulfil every practical demand in such a building, and give it besides, architectural dignity. They have erected a structure that is not likely to meet the fate of the great "tinderbox" that did duty on its site as an immigrant station until it was destroyed by fire three and one-half years ago.
>
> The building suggests an exposition hall from the water. It is of red brick, the design being picked out with Indiana limestone and Maine granite. In some respects the interior resembles that of the old structure which it replaces. The main divisions are similar. As in the first building, the examinations are conducted on the second floor and the baggage is handled on the first floor.
>
> The big examination room is two stories high. It is the largest room in the building. On a level with the third floor a railed

133. New York Times, Dec. 3, 1900.

visitor's gallery runs around it. It is fringed with the offices of the immigration officials, rooms for the meetings of the Board of Special Inquiry, for records, for the Contract Labor Bureau and for minute medical and contract labor examinations. The chief rooms on the third floor are dormitories for detained immigrants.

Extreme care has been taken to have the sanitary conditions as close to perfection as possible. The floors are of asphalt, with raised edges around the walls, so that they can be thoroughly cleansed with water. The walls for seven feet above the floors are of Keene cement. Above this, they are of white, hard surfaced plaster. There are no corners where a hose may not be turned. The white walls and the dark green trimmings are refreshing in their suggestions of cleanliness.

Everything has been so arranged that the immigrant passes through the station very much after the fashion of a roll of paper through a web press. Upon landing at the pier he enters a passage which leads to the entrance of the examination building. Once inside, the passage leads up a flight of broad stairs, which turn before reaching the second floor, and discharges its contents onto the broad, open floor of the great vaulted examination room. Here the preliminary medical inspection is made. The immigrants into whose physical condition there should be further examination, are here weeded out and turned into a room near by. The others go forward through numerous narrow aisles. These are the parting of the ways. As the immigrants leave them they are separated according to their destinations.

A stairway opens before the immigrants as they leave the aisles. It is divided into three passages by wire screens. Those bound for New York now have free access to the covered passage to the New York ferry slip. Those who are to go away

by rail are taken back through the building past the ticket offices and the big baggage room on the ground floor, where the baggage has been assorted into two divisions, that destined for New York in one, and that going out on the railroads in the other.

The baggage for the railroads is properly checked, and the immigrants are then taken to a steamboat landing adjoining the one where they landed, and are transported to the railroad stations.

Those who are detained are ushered into a large room to remain until further disposition is made of them according to the merits of their cases.[134]

3. Harper's Weekly (January 19, 1901)

An excerpt from the article "The New Clearinghouse for Immigrants" reads as follows:

The main building is 338 feet long and 168 feet wide. It is built of brick held in the Flemish bond, and ornamented with trimmings of limestone.

In this building the registry room occupies more space than any other apartment. It is 200 feet long, 100 feet wide, and 56 feet high. Most of its floor space is divided by means of iron railings into twelve narrow alleys. Down these passages are marched the files of immigrants. . . . If they have money enough or if their friends are present to guarantee that they are provided with funds to carry them to their destinations, they are permitted to try conclusions with the baggage-men and the railroad ticket-agents on the floor below.

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134. New York Tribune, Dec. 17, 1900.

Those upon who suspicion rests are escorted to the Detention Pen. From that inclosure they are taken to the meeting of a special board, which frequently orders them deported. In the central pavilion are a telegraph office, a bureau for changing money, sleeping apartments, the executive offices, and a hall of records.[135]

4. Outlook (October 4, 1902)

An excerpt from the article "America's Welcome to the Immigrant" reads as follows:

At a distance, apparently rising from the surface of the water in the middle of the harbor, were some grayish-looking buildings. As they came nearer into view they grew reddish. It was plain that they were of brick, with gray stone trimmings. They were very ugly. The treeless strip of land upon which, as it could now be seen, they rested was Ellis Island, the New York station of the United States Immigration Service under the Treasury Department. . . . When the ferryboat had at last entered the slip and was made fast, the passengers streamed out, many to greet relatives or acquaintenances among the newly arrived.

On one side of a long passageway, divided in two by a high partition of iron latticework, some of these passengers from the ferryboat joined a group of respectable-looking men and women who were waiting to see their immigrant friends. On the other side a few made their way into the building. The first impression which every visitor to Ellis Island must receive is of the surprising cleanliness and good ventilation. The height of the ceilings and the number of large windows account for the

135. John W. Harrington, "The New Clearinghouse for Immigrants," Harper's Weekly 45 (January 19, 1901):73.

good ventilation; and the statement, made on the authority of the Deputy Commissioner, that the floors--apparently of concrete--are washed from two to five times a day accounts for the cleanliness. If the first building which the immigrant encounters after landing is not beautiful, it is at least clean. At the end of the passageway is a sort of transept in which is what seemed to be a labyrinth of iron latticework and railings. At one end, near some benches, and seated at work at a desk, was a representative of the Society for the Protection of Italian Immigrants.[136]

5. Architectural Review (April 1899)

By 1899 the Architectural League Exhibition of New York had become one of the foremost architectural shows in the United States. In that year the main building of the Ellis Island Immigration Station was considered to be one of the three most important buildings represented in the exhibit. The following observations of the structure appeared in the article entitled "The New York Architectural League Exhibition."

> The handling of scale in complex buildings having large and small parts is, indeed, one of the most difficult things in architecture. The very same defect just alleged is even more flagrant in the otherwise admirable design by Boring & Tilton for the Ellis Island Immigrant Station. This is represented by a huge elevation by Alfred Raymond, and a model to the quarter-inch scale. There is, unfortunately, no plan. The drawing in India ink is strongly rendered, and corrects the apparent coarseness of many of the details in the model. Together they represent a building of monumental aspect, with an air of massiveness, and in the central portion of scale quite

136. Ernest Hamlin Abbott, "America's Welcome to the Immigrant," Outlook 72 (October 4, 1902):256-64.

suitable for a government building isolated on an island in the harbor. The general silhouette and relations of the masses, barring the too-small towers, are excellent, apparently expressing with frankness the general distribution of the plan. There was here the making of an admirable building, but the result is marred as in the Museum design by the incongruity of scale between the central portion, with its massive and collossal rusticated arches and immense cornice, and the end wings with their relatively tiny windows and small parts; while the towers, which were intended to mediate between these two portions, are too fussed and trivial to serve as flanking towers for the central block which overwhelms them. Nevertheless, we have here one of the most interesting of recent government buildings, and one of the most striking features of the exhibition.[137]

6. Architectural Record (May-December 1902)

The most comprehensive analysis of the architectural design of the building can be found in an article entitled "The New York Immigrant Station." The principal points in this article were as follows:

> The new Immigrant Station on Ellis Island, in the Upper Bay of New York, has only lately been so far completed that it can be fairly judged from all points of view, practical and aesthetic.
>
> It especially behooves one who by no means completely admires the architectural expression which the ordinary output of the Ecoles des Beaux Arts takes . . . all the more freely to acknowledge that the training of that famous school does confer upon its pupils the power of apportioning their spaces and

137. A. D. F. Hamlin and F. S. Lamb, "The New York Architectural League Exhibition," Architectural Review 1 (April 1899):39-53.

handling their masses, of laying out their buildings, which is the fundamental element of the architectural equipment.

This immigrant station is a case very much in point. It is a problem quite without precedent. . . . The scheme comprises, indeed, both a "hospice" and a hospital, but the requirement which characterizes its main and central feature is the same as that of a railway station, the requirement of "landing," collecting and distributing great and sudden crowds with a minimum of confusion or delay. Every unit of the incoming multitudes must receive so much individual attention as to make sure whether or not it call for detention, and, if not, to make sure that it is guided unmistakably in the direction of its destination. The primary problem is one of "circulation," like that of the railway station, only even more urgent. It was to the solution of that problem that the designer addressed himself. Instead of the rectangle, with four outlying rectangles at the angles, and consequently with four junctures threatening so many points of engorgement, which was adopted by most of his competitors, the successful competitor provided for an uninterrupted circulation for a continuous human flow, distributed according to the respective destinations of its constituent drops, but not subject anywhere to stoppage or congestion. The dispositions by which this result has been attained may be seen by a comparison of the ground plan, with the view of the completed interior. They are so successful that, in the new examination hall, the astonishing record has been made of 6,500 immigrants, each one of whom received some individual attention, entered, passed and "cleared" in nine hours.

The apartment in which this clearance takes place is necessarily the chief and central object of design. It is a "waiting room" on a scale almost, if not quite, without precedent, and it requires to be emphasized as such. Upon the whole this

emphasis is judiciously and discretely applied. It is to be borne in mind, however, that the waiting room occupies the upper part only of the central construction, the lower being given over to subsidiary uses, and one would like to see some more explicit expression of that fact than the metal transom that marks the floor line. To have continued this line across the enclosing and intermediate piers would have had the effect of cutting the great openings in two vertically, and was so out of the question. And, indeed, much more emphasis than is now given to the division would have confused the whole arrangement of piers and arches and enclosing pavilions, which we agree with the designer in thinking of a more valuable and also of a more logical effect. But would it have been impractical to emphasize the transom by advancing it, with the panels underneath, so as to form a real feature of separation, as is so often effectively done with galleried churches, without compromising at all the importance and scarcely the unity of the single great opening? However that may be, the general composition of this central building, the distribution of its masses and the treatment of them, strikes us as thoroughly admirable. The piers between the arches are duly massive, and their massiveness is accentuated by the treatment of their masonry, while the flanking and projecting belfried pavilions are extremely effective. Observe the unusual breadth and massiveness of the quoining, and especially, what is much more observable in the fact than in the photograph, the effectiveness of the pronounced "batter" of the walls of the towered pavilions. The great arches of the clerestory, withdrawn behind the balustrade, not only have their practical uses for the illumination of the interior, but the low gables that surmount them their architectural uses on the exterior in relieving and animating the sky line without disturbing it. The employment of color in these towers, and indeed, throughout the central mass, is admirable and exemplary, the manner in which the light limestone and the red brick are used together, from the monochromatic masonry of the base up to the equal

striping of the belvideres. The contrast is even carried into the cornice, in which the red brick is introduced into the uprights with excellent effect.

It is always to be borne in mind that nine-tenths and more of the spectators of this building see it from a distance only, so that the effectiveness of a "distant prospect" is more important than that of a nearer view. For the distant view, the collocation and contrast of color the architect has employed are particularly well adapted, as is indeed the general disposition. The immigrant or tourist or returning voyager can scarcely fail to apprehend, from the Narrows, or from any point of view from which he can see the group at all, the huge arches and their flanking towers, or their bichromatic material. Nor do the concessions made to him do any harm in a nearer view. It is different, however, with the scale of the detail. It is so inflated and the fronts so "scaled up" for the benefit of the distant spectator that, close at hand, the detail undoubtedly takes on a forced and almost a bloated aspect. You cannot have everything.

The character of the detail is scarcely worthy of the real nobility of the general composition. It is an old complaint of architecture as it is studied and practiced at the Beaux Arts, that it does not know the use of mouldings. One recognizes, of course, that the architect had to deny himself, from economical considerations, the use of much carved enrichment. The employment of color, and the emphatic dressing of the stone work are substitutes for this source of effect, and by no means ineffectual substitutes. But still one cannot help perceiving that the mere concave quadrant, which is the only modification of the arches, is far less effective than many other modes of treatment would have been, e.g., than the familiar torus with a hollow on each side; and the mask which at the apex, which alone interrupts the quadrant, gives an unpleasant impression of trying to carry the keystone all by itself, and of being

overweighted in the attempt. The shield and eagle which surmount each of the intermediate piers constitute a well-conceived feature of symbolism. But the eagle somehow recalls Sheridan's remark about the poet who overworked the inevitable phoenix in his address for the reopening of Drury Lane: "It was a poulterer's description of a phoenix," so "chesty" is the bird that offers his breast to the finger of the customer. It is, in fact, the Pyrenean and Gallic eagle, and not the bald-headed bird of the Appalachian Chain, that the effigy recalls, and one instinctively looks under it for the "R.F.," which would denote its true nationality so much better than the shield of the United States which it in fact surmounts. The frieze and cornice and attic are extremely well studied in their general relation, but obviously they, too, would be the better for more of curvature and elaboration in the detail to soften the harshness of their rectilinearity. But these things are mere blemishes upon a capital piece of work.

One must pay a passing tribute, also, to the subordinate buildings, including the Administrative offices, which form one wing of the principal building, the prison and offices which form the other. With regard to the wings one might wish that they had been more closely allied to the centre, and an obvious means of effecting this alliance seems to have offered itself in the prolongation of the projecting upper course of the stone basement of the towers as the springing course of the arches of the wings, which would in themselves have been bettered by the expression which is quite what it ought to be--quite what "it must be," as the French put it better--in its union of plainness and dignity. . . . The new immigrant station is a very distinct architectural success. The immigrant who gets his first notion of the New World from it will not get an unfair one, and the architects and our Uncle, their client, are alike to be congratulated.[138]

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138. "The New York Immigrant Station," Architectural Record 12 (May-December 1902):727-33.

D. Additions, Alternations, and Remedial Work - 1901-1902

During the firest two years of operation in the main building, a series of additions, alterations, and remedial measures were undertaken. On November 23, 1900, a contract had been let to James F. Oliver to make the struture ready for full occupancy. The items of work under the $1,320 contract included hanging doors, placing hardware, plastering, replacing broken lights, installing a handrail, and improving the cement base. Over the next six months a number of other projects were contracted to Oliver as follows:

December 11, 1900 - Addition of two doorways (one at basement window on axis "T" to form passageway to boiler house and one in room 221) for $287.

December 14, 1900 - Two rooms in the basement (one for the use of the janitors and one for the use of the plumbers) for $289.

January 14, 1901 - Addition of four doorways in the third story (one in each of the four vent shafts) for $161.50.

January 27, 1901 - Alteration of wall under stairs and repair marble floors for $1,598.

February 4, 1901 - Installation of hardware for $370.42.

March 18, 1901 - Alteration of window in basement and furnish extra iron across window and iron hooks on skid for $95.

April 2, 1901 - Construction of a slat floor with guardrail at third floor level in each of the four towers for $145.[139]

139. Vanderlip to Oliver, Nov. 23, 1900, H. A. Taylor to Oliver, Dec. 11, 1900, and Jan. 14 and Mar. 19, 1901, Low to Superintendent of Construction, Dec. 14, 1900, H. A. Taylor to Disbursing Agent, Feb. 4, May 3, and May 14, 1901, and Roberts to J. K. Taylor, Apr. 16, 1901, RG 121, WNRC.

Louis Wechsler also performed some remedial work on the main building. On December 14, 1900, he agreed to close the four openings in the balustrade of the tile roofs on the two wings of the structure with either heavy grills or stone and brickwork. The openings had been intended as entrances to fire escapes but were now considered to be dangerous to irresponsible people when permitted on the roofs. Later on February 11, 1901, Wechsler signed a contract to cut a stone stoop for the structure.[140]

The Estey Wire Works Company of New York City was contracted on March 12, 1901, to construct pipe railings, screen partitions, and gates on the roof of the main building and to alter the screen railing works in the structure for $1,625.[141] Later on April 8 it was determined to omit making changes in the "Friends of Immigrants Waiting Room" on the first floor as required by drawing 280 and instead to make changes in the second-floor "Registry Room" as indicated on drawing 283.[142] At the request of the commissioner of immigration, further changes were made in the arrangement of the pipe rail partitions at the upper end of the registry room on July 12.[143]

G. A. Suter & Company, the firm that had installed the heating and ventilating apparatus in the main building, signed several independent contracts to do corrective work. On March 21, 1901, the firm agreed to raise the position of 32 thermostats some 3½ feet for $192 and to

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140. J. K. Taylor to Boring & Tilton, Nov. 15, 1900, Low to Superintendent of Construction, Dec. 14, 1900, H. A. Taylor to Wechsler, Feb. 11, 1901, and Kemper to Superintendent of Construction, Mar. 21, 1901, RG 121, WNRC.

141. H. A. Taylor to Estey Wire Works Co., Mar. 12, 1901, RG 121, WNRC. The roof work was governed by a specification dated Mar. 5, 1901, and by drawing 281 while the inside alterations were done in accordance with the same specification and drawing 280.

142. Gage to Estey Wire Works Co., Apr. 8, 1901, RG 121, WNRC.

143. Ibid., July 12, 1901, and Kemper to Estey Wire Works Co., Oct. 29, 1901, RG 121, WNRC.

install cast-iron hoods over 102 thermostatic valves. Later on October 23 the company removed the radiator and railing from the platform in the first board room to the southeast corner of the room for $42.[144]

James Armstrong, who had done the plumbing, marble, and slate work on the main building, contracted for several additional projects. On April 9, 1901, his proposal of $1,550 was accepted to install a gutter drainage system in the second floor registry room and in the first floor "New York Detention Pen." Two days later Armstrong agreed to install two roll-rim Imperial lavatories in the medical department for $171. Later on June 26 he agreed to make plumbing changes in rooms 318 and 325 (third floor) for $281. On July 13 his proposal of $35.65 was accepted to repair a leak (including patching the floor and ceiling) under the toilet room that connected with the special inquiry pen. All of this work was completed by late November with the exception of the gutter and drainage system. According to Chief Engineer and Superintendent Fry "the physical conditions existing in [the] structure of [the] building prevented Mr. Armstrong from carrying out the work as specified; briefly the defects being that floors of building in question are so uneven and out of level in grade that water will not run to the cast iron gutters installed under contract referred to, and in a number of instances the top of the gutters is above the floor level. On the other hand, it is not possible to sink the gutters lower because of encountering the floor beams."[145]

Several proposals by Warren F. Green of New York City were accepted in May and June 1901 to erect counters and office partitions in the main building. On May 16 his proposal of $213 was approved to

144. H. A. Taylor to G. A. Suter & Co., Mar. 21, 1901 (two letters), and [J. K. Taylor] to G. A. Suter & Co., Oct. 23, 1901, RG 121, WNRC.

145. Fry to Supervising Architect, Dec. 6, 1901, Ailes to Armstrong, April 9 and July 13, 1901, H. A. Taylor to Armstrong, June 26, 1901, Gage to Armstrong, July 16, 1901, and Kemper to Armstrong, Jan. 22, 1902, RG 12, WNRC.

construct two counters in the railroad waiting room (per drawing 282) and one counter on the floor of the registry room (per drawing 283). A bid of $760 was accepted on June 6 to install office partitions in room 308 (per drawing 286A), and later Green was directed to use King Windsor cement for plastering the partitions. A final bid by Green was approved on June 12 to construct a number of office partitions for the main building (per drawing 285) at a cost of $1,870.[146]

By April 1901 it was determined that a covered glazed porch was needed on the southwest front of the main building to protect the immigrants as they proceeded from the dock to the main entrance. Accordingly, bids were solicited, and on June 11 a contract was let to Snare & Triest, Inc., of New York City to build the porch at a cost of $29,151. The porch was to have a surface of six-cut granite, and the roof was to highlight copper and glass skylights. The contract, which was to expire in five months, included the complete construction of the porch except for the electrical wiring.[147]

Some six months later on July 27 a second contract was let to Snare & Triest to install a baggage conveyor at a cost of $6,091. The conveyor, which was to be similar to the type produced by the Link Belt Engineering Company, was to be built in a chamber forming a cellar between the dock and the main building. A granite coping was to be placed between the conveyor and the main body of the glazed porch, and a railing was to be installed on the coping. The conveyor was to be built strong enough to carry a uniformly distributed load of 125 pounds per square foot, and the motor was to be strong enough to carry the

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146. J. K. Taylor to Boring & Tilton, May 14, 1901, H. A. Taylor to Green, May 16, June 6, and June 12, 1901, Gage to Green, July 22, 1901, Wetmore to Green, Aug. 21, Sept. 3, 1901, and Ailes to Disbursing Agent, Sept. 3, 1901, RG 121, WNRC.

147. "Synopsis of Bids for Glazed Porch. . . ," May 27, 1901, RG 121, WNRC. The work was to be done in accordance with specifications 1-6 and drawings 1A, 1B, and 2-6.

conveyor, when fully loaded, at a speed of at least 80 feet per minute in either direction.[148]

As Snare & Triest progressed in their work on the glazed porch and baggage conveyor, some modifications were made in the plans and specifications. The contract for the glazed porch was changed as follows:

July 27, 1901 - As the simultaneous work on the two interrelated contracts meant a savings of money, the sum of $2,200 was deducted from the contract for the porch.

October 19, 1901 - A proposal was accepted to furnish 3/4" rough hammered glass with a protection of galvanized iron netting underneath for deck lights in lieu of wire glass required in contract.

June 3, 1902 - A deduction of $7 was made for omission of painting with two coats of red lead the 7-inch beams between the piers and under the first steps of the stairs that were covered with masonry.

June 3, 1902 - A proposal of $85.28 was accepted for two extra piles and 68 pieces of lumber (6" x 12" x 4').

June 5, 1902 - A deduction of $441.68 was made because of cutting of certain piles at higher level than specified.

June 6, 1902 - A proposal of $246.29 was accepted for changing location and running of certain leader drains.[149]

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148. Ailes to Snare & Triest, July 27, 1901, RG 121, WNRC. The work was to be done in accordance with the specification dated July 19, 1901, and drawings 1, 2, 4-8, 10-13, 15, 16, and 18.

149. H. A. Taylor to Snare & Triest, Oct. 19, 1901, and June 3 and 5, 1902 (two letters), J. K. Taylor to Boring & Tilton, Dec. 21, 1901, and H. A. Taylor to Disbursing Agent, June 3, 1902, RG 121, WNRC.

During the course of constructing the baggage conveyor, two separate outside contracts were let to facilitate the work. On April 10, 1902, the proposal of James Reilly's Son's Company of New York City was accepted to install the conduit and conductors for the motor of the conveyor system. Supervising Architect Taylor ordered that the "plates at [the] upper and lower end of the baggage conveyor" be changed as there existed "a dangerous crevice into which one's foot might be drawn when [the] baggage-conveyor is in motion."[150]

Taylor informed Secretary Gage on June 6, 1902, that both the glazed porch and the baggage conveyor had been completed by April 1 and had been in use since that time. Work under both contracts had been plagued by delays arising from the firm's inability to acquire Maine granite and structural steel promptly and by inclement weather. Accordingly, he recommended that final payments be authorized for the work.[151]

The covering of the steam pipes, tanks, and other exposed hot surfaces in the main building had been of concern to Supervising Architect Taylor since January 1901.[152] When funds became available, the work was advertised and on June 14, 1901, a contract for $6,666.66 was let to the H. W. Johns Manufacturing Company of New York City. The contract, which provided for work on a number of buildings on the island, specified that the following nonconducting coverings would be used:

70 percent asbestos fire-felt sectional covering for high-pressure steam service

150. H. A. Taylor to James Reilly's Son's Co., Apr. 10, 1902, and J. K. Taylor to Boring & Tilton, May 3, 1902, RG 121, WNRC.

151. J. K. Taylor to Secretary of the Treasury, June 6, 1902 (two letters), RG 121, WNRC.

152. J. K. Taylor to Boring & Tilton, Jan. 26, 1901, RG 121, WNRC.

35 percent asbestos sectional covering (Asbestocel) for low-pressure steam service

Asbestos air-cell block covering for covering ducts, tanks, water heaters, etc.[153]

Perhaps the most critical problem that required remedial action on the main building in its first year of use was the leaking roof. As early as March 29, William H. Neil, the engineer in charge, reported on the unsatisfactory condition of the roof. Although the specification called for the roof to be guaranteed for five years, Boring & Tilton had failed to secure the necessary written bond from the R. H. Hood Company prior to the final settlement of its contract, thereby forcing the Treasury Department to fund the repairs. Angered by this oversight, Supervising Architect Taylor informed Boring & Tilton that heavy rains in late April had revealed new leaks in the clerestory windows, towers, and the east and northeast sides of the building that were exposed to the wind. He also reminded them that the unsatisfactory roof work did not agree with their statement made prior to the settlement of the contract with the Hood Company that "in general, we wish to state that we believe the building to be built of first class materials, in a good and strong manner. It shows no sign of settlement nor deterioration and is in general in accordance with the plans and specifications." Accordingly, a contract was let to Williams and Monogue of Troy, New York, to repair the roof at a cost of $3,979.47, and by August 5 the roof was reported to be in "first-class condition."[154]

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153. "Synopsis of Bids for Covering Steam Pipes, Tanks, and Other Hot Water Surfaces. . . ," May 14, 1901, Ailes to H. W. Johns Mfg. Co., June 14, 1901, and J. K. Taylor to Secretary of the Treasury, Jan. 17, 1902, RG 121, WNRC.

154. J. K. Taylor to Superintendent of Construction, Mar. 29, 1901, J. K. Taylor to Boring & Tilton, Apr. 16, and May 14, 1901, H. A. Taylor to Boring & Tilton, Apr. 24, 1901, H. A. Taylor to Superintendent of Construction, June 12, 1901, Wetmore to Boring & Tilton, Aug. 5, 1901, J. K. Taylor to Superintendent of Construction, Aug. 14, 1901, McKitterick to Supervising Architect, Nov. 18, 1901, and Kemper to Boring & Tilton, Nov. 26, 1901, RG 121, WNRC.

In mid-December 1901, a contract was let to L. E. Broun of Brooklyn, New York, to cut an opening through the northeast basement wall of the main building where it adjoined the passage in the basement of the covered way. The project was initiated to enable ready access to pipes and controlling valves of pumps located in the basement of the structure and of the adjacent covered way where they ran under the kitchen and laundry building.[155]

A number of measures were taken to improve the heating and ventilating apparatus of the main building during the early months of 1902. Galvanized iron labels were fastened on the warm air flues. The air pipes and the doors in the hot and cold air ducts in the basement were repaired as were the openings in the ceilings of the hot air ducts. Complete louvres were placed on the four vent ducts.[156]

Apparently many of the doors that had been installed in the main building were cheaply constructed because as early as September 1901 records indicated that the veneer was loosening on some of them. In late January 1902, the work force under Chief Engineer Fry was ordered to build new storm doors and enclosures and interior doors at a cost of $600. On the same date James F. Oliver was hired to replace the outside doors of the main and hospital buildings at a cost of $1,598.[157]

Other corrective and repair work was carried out in March 1902. A leak in the downspout on the wall of the northwest tower was

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155. H. A. Taylor to L. E. Broun, Dec. 20, 1901, RG 121, WNRC.

156. H. A. Taylor to G. A. Suter & Co., Jan. 31, 1902, H. A. Taylor to Chief Engineer & Superintendent of Repairs, Jan. 13, 1902, and H. A. Taylor to Flanagan, Mar. 10, 1902, RG 121, WNRC.

157. J. K. Taylor to Boring & Tilton, Sept. 6, 1901, H. A. Taylor to Fry, Jan. 27, 1902, and H. A. Taylor to Oliver, Jan. 27, 1902, RG 121, WNRC.

plugged, and an overflow connection was built from the saltwater flushing tank directly to the sewer.[158]

New leaks were reported in the roof of the main building in February 1902. Accordingly, on April 22 a contract was let to Henry E. Wieber of Kingston, New York, to put the roof, gutters, and flashings in good, clean, and watertight condition. The contract, which amounted to $1,243, provided that Wieber would guarantee his work for three years.[159]

E. Final Settlement With Architects Boring & Tilton - 1902

By late 1902 the contract with Boring & Tilton for the construction of the main and hospital buildings had been completed. The costs of the buildings were as follows:

Regular Contracts	
Main building	$623,206.83
Hospital	147,530.77
Hospital outbuilding, surgeon's house, kitchen and restaurant, bath and laundry, covered way, glazed porch, etc.	304,362.51

Special Contracts	
Waiting shed	$ 9,142.00
Main building	19,466.57
Hospital	4,385.00

The commission accruing to Boring & Tilton on this amount was $45,856.35. Some additional work by the architects gave them $2,313.55 more in compensation.[160]

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158. H. A. Taylor to Chief Engineer & Superintendent of Repairs, Mar. 7, 1902, RG 121, WNRC.

159. J. K. Taylor to Fry, Feb. 1, 1902, and H. A. Taylor to Wieber, Apr. 22, 1902, RG 121, WNRC.

160. H. A. Taylor to Boring & Tilton, Dec. 12, 1902, and Jan. 30, 1903, RG 121, WNRC.

Despite the relatively amicable settlement of the contract with Boring & Tilton, the two architects voiced some dissatisfaction with the procedures that they had been forced to work with under the regulations of the Treasury Act. Throughout the period of construction repeated misunderstandings occurred between the government and the architects over the responsibilities and jurisdiction of each. In October 1901, Boring summarized the firm's frustrations and recommended modifications in the regulations in a paper read at the Thirty-Fifth Annual Convention of the American Institute of Architects in Buffalo, New York. On November 9, 1901, the paper was published in the American Architectural Building News.[161]

F. Problems Encountered - 1902-1904

Although the completion of the main building had received favorable comments from newspapers and architectural journals, the structure was soon found to be inadequate in design and space for processing the rapidly rising number of immigrants. More serious were the findings that the structures had been built with faulty materials and poor construction techniques, thereby pointing to the need for early and frequent repairs. Such woeful news was reported on June 30, 1902, by Frank P. Sargent, commissioner-general of immigration:

> It was assumed when the handsome structure recently erected on Ellis Island in New York Harbor, was completed and turned over to its custodians, to be used for the accommodation of aliens pending the final determination of their admissibility under the provisions of our immigration laws, that the needs of the service at that port had been intelligently and liberally provided for, and that thereafter might be taken up in appropriate order consideration of the requirements for a similar object at other ports.

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161. William A. Boring, "Building-Construction Under the Tarnsey Act and Suggestions for Modifying the Regulations Thereof," American Architectural Building News 74 (November 9, 1901):45-47.

> It is with deep regret, therefore, that the Bureau feels impelled by a sense of duty to report that the Ellis Island structure has in many respects failed to justify the reasonable expectations based upon the liberal expenditure made and the evident purpose of Congress to furnish an ideally perfect building for the use to which it was to be put. It is unjudiciously designed in respect to the subdivision of the interior space for the various uses intended, resulting in the crowding of immigrants together in a manner detrimental to their health and comfort, and in other respects imposing unnecessary hardship and discomfort among them. Large as the cost has already been, this fault can be corrected in a measure by additions to the present buildings. What seems far more serious is the faulty material and construction, involving outlays for repair and reconstruction almost from the moment the building was accepted on behalf of the Government.[162]

William Williams, who had been appointed as commissioner-general of immigration for the Port of New York in 1902, reiterated these charges in his annual report for FY 1903. Among his observations were the following:

> It is impossible to employ terms that are too extravagant in reporting upon this costly and handsome building. It is badly designed for the use for which it was intended and it was constructed, unfortunately, in a manner to give ground for the popular impression that the erection of Government Buildings is distinguished by the use of poor material and inferior workmanship. The cost of repairs has been heavy, but no

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162. Annual Report, Commissioner-General of Immigration, Fiscal Year 1902, pp. 51-52.

amount of repairing, unless the building is remodeled, will even render it suitable for an immigration station.

To cite but one of its many defects, every alien, be it man or woman, encumbered with heavy and unwieldly baggage and often surrounded with clinging children, has first to mount stairways and then to descend, in undergoing the process of inspection, entailing upon such persons unnecessary distress at a time when few of them are in a condition to undergo fatigue. The board rooms are insufficient.[163]

A commission appointed by President Theodore Roosevelt on September 16, 1903, to investigate the condition of Ellis Island also echoed these sentiments in its final report. The *commissioner*, under the chairmanship of Arthur V. Briesen, noted the following:

INADEQUACY OF THE BUILDINGS AND THEIR APPOINTMENTS AT ELLIS ISLAND.

The testimony on this subject renders it perfectly clear that the buildings at Ellis Island are wholly inadequate for the purposes for which they are intended. Neither the main building nor the hospital building is large enough to enable the officers to handle the number of persons who apply for the privilege of landing at the port of New York. The testimony shows that on one day as many as 13,000 aliens arrived at the port of New York, and that the commissioner had to require that all but 6,000 remain aboard their respective vessels over night . . . as he was unable to cope with more than 6,000 during one day at Ellis Island. But even assuming that only 6,000 wanted to land during a day, the facilities for their reception are insufficient, and in many respects objectionable. The immigrants on landing

163. Ibid., Fiscal Year 1903, pp. 65-66.

at Ellis Island are required to walk to an upper floor of the inspection building; many of them carry heavy bundles; they cannot be persuaded to leave their bundles below, and it would be extremely difficult for them, were they to do so, to find them again conveniently. It is therefore probable that even in a proper structure the immigrants will invariably try to carry certain bundles with them. Valuable time is lost and considerable hardship incurred in the effort to bring all these bundles up a long flight of steps. The Commissioner, as well as the steamship officers, missionaries, and others, are a unit in their criticism of this arrangement. They all ask that a proper inspection room be provided on the ground floor and that the building be reconstructed to render this possible. We fully concur in this recommendation.

The sleeping accommodations at the main building at Ellis Island, as at present constituted, consist of 1,665 beds, each of which is a metallic frame hinged to a wall or support and fitted with a wire "mattress". Each alien who is required to stay over night at Ellis Island is given one or more blankets - no pillow, no regular mattress, no sheets; just the blankets. The evidence was clear that these blankets were not disinfected and aired thoroughly. For those who have to stay at the island for one night or so these sleeping accommodations might be sufficient, but not a few are kept on the island for weeks and some for months. The testimony leaves no doubt in our minds that for a longer stay proper bedding should be supplied of the same nature as that which is supplied at the hospital. If in a new building the sleeping accommodations could be made so as to permit of a larger degree of privacy than is now possible, that also would be very desirable.

The arrangement of beds in tiers of three, which prevails in most dormitories, is also objectionable. The erection of a new

building would render such an arrangement unnecessary, and therefore should not be delayed.

In some respects the sanitary arrangements on the island are not of the most approved character, and require attention and replacement.

We respectfully suggest that plans for a satisfactory main building and for a hospital be prepared, and that after proper buildings shall have been erected the inner arrangements be made so as to meet present requirements. The detention rooms are frequently overcrowded to such an extent that not even seats enough can be supplied, to say nothing of the opportunity for needful exercise. The rooms in which those who are allowed to land have to wait until the barge or vessel taking them off is ready for their reception are like-wise inadequate. As the Government exacts a head tax of $2 from each alien arriving, and as over 689,000 paid that tax during the last fiscal year, it stands to reason that sufficient funds are brought in to justify the Government in supplying sufficient accommodations.[164]

G. Maintenance, Alterations, Remodeling, and Additions -Fiscal Years 1903-1953 (Not All Inclusive)

1. Fiscal Year 1903

a. Beautification of Grounds

One of the significant improvements on Ellis Island during this fiscal year was the beautification of the grounds around the main building. This work included the following:

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164. U.S., Library of Congress, Report of the Commission Appointed by the President on September 16, 1903, to Investigate the Condition of the Immigration Station at Ellis Island (Washington, 1904), pp. 15-16, and New York Times, Feb. 29, 1904.

Removal of the debris that had been left by the builders
Purchase, leveling, and grading 7,000 yards of loam necessary for top dressing to secure growth of grass, shrubbery, and flowers
Pavement of space about 20 feet in width entirely around main building and recessed court areas within structure
Pavement of walks connecting main building with docks (5,000 square feet)
Planting of lawns, shrubs, and flowers[165]

Four extensive lawns, surrounded by nearly 1,500 feet of hedges, were laid out. According to the New York Times on July 12, 1903, the island had been

> divided into neat squares and crescents, in which grow blue grass, and around which a hedging of California privet is rapidly assuming substantial dimensions. Then again in the squares and crescents geraniums, nasturtiums, palms, pansies, and ferns, arranged in neat figures, have been planted, and as they are beginning to bloom, the front of the island as seen from passing ferryboats and other craft makes a very pleasing sight, and one that is sure to cause comment by people who are familiar with the way the place looked before the Williams era.
>
> Then again, on either side of the main entrances to the various buildings big iron vases of granite have been placed, and palms and various flowers planted in them. But the great attraction is the beautiful entrance [of the Main Building] from the barge landing. This entrance is constructed entirely of iron, the pillars being fancy in shape, while the roof is of glass. Within this arcade, which extends almost clear to the waterfront, have

165. U.S., Congress, House, Committee on Appropriations, Improvements at Ellis Island Station, H. Doc. 625, 57th Cong., 1st sess., May 23, 1902, pp. 1-3.

been placed a lot of neat park benches for the use of visitors, where, seated in the shade, and where they are almost sure to get the benefit at any time of the day of a good sea breeze, the view of the city beyond and the harbor is an ideal one.[166]

b. Installation of Roof Garden

When the main building had been designed, provision was made for a roof garden. The New York Times of July 12, 1903, reported that the new roof garden extended "the whole length of the southern part of the building, and has proved a great boon to detained immigrants. In the past very few cared to visit it in the day time for the simple reason that they had no protection from the sun. Now all this is changed. A canvas awning has been placed in position which can be quickly put down at night, and the result of it all is that the roof of the main Ellis Island Building is now an ideal lounging place by day as well as by night."[167]

c. Painting of Main Building

At a cost of nearly $10,000, the whole interior of the main building was painted.[168]

d. Enlargement of Detention Facilities

This increase was provided by almost doubling the capacity of the room in the main building where those who were held for special inquiry were housed. Steam-heating equipment was also placed in the detention room.[169]

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166. New York Times, July 12, 1903.

167. Ibid.

168. Annual Report, Commissioner-General of Immigration, Fiscal Year 1903, p. 69.

169. Ibid.

2. Fiscal Year 1904

a. Transfer of Ellis Island

Effective July 1, 1903, the administration of the immigration station was transferred from the Department of the Treasury to the Department of Commerce and Labor.[170]

b. Construction of Dining Room

A sanitary and attractive immigrants dining room "was installed at a point formerly used for detention purposes" in the main building under a contract let on June 30, 1904. The dining room, which cost some $3,500, was tiled to a height of 5 feet and had a terrazzo floor. It could accommodate 150-200 aliens at one sitting, more than double the capacity of the earlier dining room.[171]

c. Miscellaneous Projects

A variety of projects were carried out in the main building to improve its usefulness for processing incoming aliens. Contracts for the following projects were let during the fiscal year:

Painting walls in special inquiry room
Prison cells
Freight elevator in customs division
Repairs to roof
Bathroom window guards

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170. Annual Report, Supervising Architect, June 30, 1903, pp. 53-54.

171. "Permanent Improvements at the U.S. Immigration Station, Ellis Island, New York Harbor, Main Building, Permanent Improvements made June 30, 1903, to December 31, 1904," Records of the Immigration and Naturalization Service, 1906-1932, Record Group 85, National Archives, Washington, D.C. (hereafter cited as RG 85, NA); U.S. Library of Congress, "Report of the Commissioner of Ellis Island to the Commissioner-General of Immigration, September 15, 1904," in Reports of the Department of Commerce and Labor, 1904 (Washington, 1905), p. 834; and U.S., Congress, House, Committee on Appropriations, Letter from the Secretary of the Treasury, H. Doc. 392, 58th Cong., 2d sess., Jan. 13, 1904.

Weather strips
New toilet fixtures
Floor drains
Door in statistical division
Additional steam-heating apparatus
Laundry machine
Changing file cases
Doorway in matron's room
Exhaust fans on special inquiry extension
Alterations to screen partitions
Painting men's excluded room
Bronzing screen partitions
Bronzing beds
Alterations to transoms
Reporciliting dadoes
Folding gates for elevators
Metal paneling
Installing electric fans
Painting outside work
Door in statistical division
New floor in kitchen
Interior painting
Door in treasurer's room[172]

According to Commissioner Williams, these improvements were made to "mitigate the necessarily unpleasant features incident to the detention of immigrants." The aliens' quarters were "constantly cleaned and disinfected and frequently repainted." During warm weather detained immigrants were kept "out of doors as much as possible, a portion of them on the westerly roof garden fitted with awnings and benches, and another portion of the broad granolithic

172. "Permanent Improvements Made June 30, 1903, to December 31, 1904," RG 85, NA.

sidewalks on the northerly side of the building where they can move about in the shade. At the Commissioner-General's suggestion special provision has been made for the amusement of detained children by converting a portion of the roof garden into a playground, where they may enjoy fresh air and various kinds of amusements."[173]

3. Fiscal Year 1905

A number of improvements were carried out in the main building during FY 1905, including the following:

Repairs to plastering
Reporciliting dadoes
Alterations to wire partitions
Stairway from special inquiry room to roof
Fire detecting wire system
Repairing steam heat system
Painting in kitchen
Ladder in statistical division
Tile roofing
Alterations in second cabin room
Alterations to main building (providing for new railroad room)
Glass roofs for various booths
Terrazzo floor in detention room "E"
Alterations in medical divisions
Further alterations in medical division
Additional plumbing fixtures
Doorway in medical division
Alterations in board and witness rooms
Enlarging telephone booth
Alterations in kitchen
Repairing plastering in dormitory

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173. "Report of the Commissioner of Ellis Island, September 15, 1904," in Reports of the Department of Commerce and Labor, 1904, p. 834.

Repairs to roof
Porcelain tubs in kitchen
Screen partition work[174]

There is no available documentation concerning any of these improvements with the exception of the new railroad waiting room. Because the railroad room, which included a ticket office, baggage room, and waiting area, was often overcrowded to the point that the outside sidewalk was used for these purposes, a structure "generally similar to the covered porch on the southwest side of the main building 'was' run out from the main entrance in the center of [the] northeast front" of the structure. The width of the new extension was equal to the distance between the towers (125 feet), and its depth was approximately 75 feet.[175] The cost of the new structure, known as the railroad ticket office, amounted to over $47,000.[176]

4. Fiscal Year 1908

Several alterations were made to the main building during this fiscal year for the accommodation of detained aliens. In the upper story the entire dormitory space was remodeled, and a new system of beds was installed to improve sleeping facilities for women and children. The two large dormitories were divided into small rooms, accommodating about 50 persons each. Sanitary plumbing was installed, and a ventilating apparatus was arranged whereby the air in each room was changed every five minutes. The floors and walls were covered with vitrified tile so that the rooms could be flushed with hot water after each

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174. "Permanent Improvements Made June 30, 1903, to December 31, 1904," and "Permanent Improvements Made January 1, 1905, to June 30, 1905," RG 85, NA.

175. Improvements at Ellis Island Station, H. Doc. 625, pp. 3-4.

176. Sargent to Secretary of Department of Commerce and Labor, Jan. 10, 1907, RG 85, NA.

night's use. Additional dormitories were constructed at the ends of the balcony. The corridors on both the second and third floors were tiled, and skylights were installed to provide better lighting and ventilation.[177]

5. Fiscal Year 1910

a. Alterations on Second Floor

During this fiscal year a contract was let to John Ferguson to alter the second floor of the building to provide more office space for the chief clerk and his subordinates.[178] Because of the rising tide of immigration the files had grown so large that those of the period prior to 1904 had been put on the ground floor, thereby causing inconvenience whenever old records were needed. On August 18, 1909, Commissioner Williams proposed that the problem could be remedied by "removing the stairway at the easterly wing, covering over the steps on the first floor at the opening used for the purpose of the stairway, and erecting a few partitions and marking several new doorways." This plan would provide a continuous suite of rooms from the commissioner's office to the southeast corner of the building.[179]

The Immigration and Naturalization Service in Washington was reluctant to grant authority for the proposed alteration, feeling the $2,000 project was not a priority item and that the money could be spent more advantageously elsewhere. Accordingly, the extract of a report by Roger O'Donnell, special immigrant inspector, was submitted to Williams for his consideration. The extract read as follows:

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177. Annual Report, Commissioner-General of Immigration, Fiscal Year 1908, pp. 135-36.

178. The completion of the baggage and dormitory building in 1908 made it possible for this and later alterations to the main building. The removal of the baggage room from the ground floor of the main building made it possible to reorganize the office space on the first and second stories of the building.

179. Williams to Commissioner-General of Immigration, Aug. 18, 1909, RG 85, NA.

> The largest and best office on the second floor, very close to the executive offices, is used as a lounging, dressing and lunch room for inspectors. This room is within [in fact the second story of] a fire proof vault, finely lighted without, which is the logical place for the card records and main correspondence files of the station. As it is, the card records are prepared in the office of the assistant chief clerk, where the confusion is great and interruptions numerous, while the bulk of the files is contained in a small dark record vault off the Chief Clerk's office, the remainder being in the office itself, unprotected from fire or theft. The overflow files go into the first story of the main vault, which is overcrowded and has about reached the limit of capacity. The present "inspector's room" is ideal for an official record repository and a less desirable place would serve the purpose to which it is now devoted.[180]

On August 23, Williams informed the commissioner-general that he was in full agreement with O'Donnell's proposal. However, his plan would merely increase the effectiveness of the O'Donnell recommendation by providing another small room between the "Chief Clerk's present offices" and the large room referred to by the inspector.[181]

Williams succeeded in convincing the authorities to accept his plan. The work was advertised, and on September 21, 1909, a contract was let to John Ferguson to accomplish the work within 30 days at a cost of $1,000.[182]

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180. Larned to Commissioner of Immigration, Ellis Island, Aug. 21, 1909, RG 85, NA.

181. Williams to Commissioner-General of Immigration, Aug. 23, 1909, RG 85, NA.

182. Keefe to Commissioner of Immigration, Sept. 18, 1909, RG 85, NA. A drawing (520-1) entitled "Proposed Alterations on 2nd Floor, Main Building" dated Aug. 1, 1909, was to govern the work.

b. Construction of Telegraph Booth - New York Room

On October 8, 1909, a contract was let to Joshua Horrocks, Inc., for the construction of a telegraph booth in the New York room.[183]

c. Addition of Third Story - Northwest Wing

On April 30, 1910, a contract was let to George Sykes, Inc., of New York City to construct a third story on the northwest wing of the main building that would ease the congested special-inquiry operations and make possible many long-desired changes for additional administrative space.[184] Concerning the need for adequate space in which to conduct the special inquiries, Commissioner Williams had written the following in his annual report for FY 1909:

> As regards additional space required, I call particular attention to the lack of quarters for the transaction of that very important branch of our work known as "special inquiry." The room in which immigrants held for this purpose are detained is so inadequate as to be a reproach to the Government. Almost the same can be said of the room in which witnesses appearing before the boards are compelled to await their turn to testify. There are but three court rooms proper, whereas six boards have since June 1 frequently been in session. There should be treble the space that we now have for the various kinds of

183. The work was to be in accordance with the drawing entitled "Proposed Grille for Telegraph Booth New York Room - September 15, 1909." (Drawing 523-1).

184. As early as 1902 Commissioner Williams had urged Congress to approve a special appropriation of $370,000 for the extension of the two wings of the main building some 70 feet northward. The central portion of the structure was to be extended some 30 feet. The two wings would be connected across the north side by steel, glass, and copper construction similar in design to the porch on the south front of the building. This proposal never received approval. Williams to Supervising Architect, Dec. 18, 1902, RG 121, WNRC.

"special-inquiry" work, but I shall deter specific recommendations until later.[185]

Again on August 20, Williams urged the commissioner-general's office to consider providing more space for the special inquiry section. In his letter, Williams observed that "I believe the situation can be entirely relieved before the next spring rush begins (say April 1), and twelve additional commodious rooms created by erecting a new story on the westerly [north] wing of the main building immediately above the special inquiry quarters. . . . The new structure would be mainly of glass and copper and would resemble somewhat in appearance the solarium which my predecessor at one time intended having erected there."

Such an addition, which would cost an estimated $35,000, would not only relieve the congestion in the special inquiry boardrooms but would also meet the need for accommodations for detained aliens and friends calling on their behalf.[186]

As a special appropriation would be needed from Congress to accomplish the project, Williams forwarded a synopsis of the proposed work to the commissioner-general on December 3. The general plan was to construct a new story on the northwest wing of the main building and to convert two of the present boardrooms and the present witness room into one large witness room. In the proposed new addition, two more rooms would be available for detention purposes, the floor area totaling some 3,000 square feet or nearly doubling the present detention

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185. "Report of the Commissioner-General of Immigration, July 1, 1909," in Reports of the Department of Commerce and Labor, 1909, (Washington, 1910), p. 242.

186. Williams to Commissioner-General of Immigration, Aug. 20, 1909, and Keefe to Commissioner of Immigration, Ellis Island, Aug. 24, 1909, RG 85, NA.

space. The addition would also provide six boardrooms, each containing about 800 square feet, that would be large enough to seat approximately 30 immigrants, 3 members of the board, 1 stenographer, 1 interpreter, and witnesses. The space currently occupied by two of the four current boardrooms would be added to the existing 540-square-foot waiting room, thus nearly tripling its size and providing room for the installation of badly needed toilet facilities and for the placement of benches for those who had to wait for hours. The estimated cost of the addition was set at $60,100, a sum that included the removal of all awning trusses, roofing material, parapet wall coping, eight skylights over the special inquiry division corridors, three stairways, and iron grills in the parapet work.[187]

The necessary appropriation (known as the Urgent Deficiency Bill) for the work was approved by Congress and signed into law by President William Howard Taft on February 26, 1910.[188] Accordingly, 13 drawings (dated March 19, 1910) were made, and a specification for the work was drawn up. On April 30 a contract was let to George Sykes, Inc., to perform the work within 120 working days at a cost of $51,370.[189]

The work progressed except for one major change in the specification. On July 12 it was agreed to modify the concrete roofing and "I" beams as follows: "In place of three inches of concrete over the entire roof . . . to provide an additional one inch of concrete over the entire roof, thereby making the thickness of concrete at crown

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187. Williams to Commissioner-General of Immigration, Dec. 3, 1909, RG 85, NA. The breakdown of the proposed construction costs may be seen on the following page.

188. Keefe to Commissioner of Immigration, Ellis Island, Feb. 28, 1910, RG 85, NA.

189. Contract and Bond (dated Apr. 30, 1910) "to erect an additional story on the north-west wing of the Main Building at the United States Immigration Station, Ellis Island, New York Harbor," RG 85, NA.

ESTIMATED COST OF CONSTRUCTING ADDITIONAL STORY ON NORTHWEST WING OF MAIN BUILDING - DECEMBER 3, 1909

General contract	$39,000	
Plumbing	4,600	
Heating(roughing)	2,500	
Radiators	550	
Electric wiring	1,350	
Electric fixtures	500	
Painting	1,000	
		$49,500
Alterations to Special Inquiry Room		
Masonry work	$ 450	
Quarry tile	450	
Ceramic tile	4,500	
Marble work	150	
Heating	1,200	
Plumbing	1,500	
Painting	350	
		8,600
Alterations to Witness Room		
Tiling	$ 1,000	
Marble work	100	
Painting	200	
Plumbing	600	
		2,000
TOTAL		$60,100

four inches instead of three inches, and to increase the weight of the 20-inch fifty-nine pound "I" beam extending through skylight west corner . . . to sixty-eight [68] pounds per foot."[190]

The work was completed on December 15, 1910. Sometime later a contract was let to A. B. & W. T. Westervelt to furnish basket screens and a partition with a gate for the new addition, and work under this contract was completed on April 12, 1911.[191] In his annual report for FY 191, the commissioner-general of immigration commented as follows:

> A fine new story has been erected on the west wing of the main building through a special appropriation granted in 1910, so that we now have adequate day quarters for those held for special inquiry, as well as a fine room for the large corps of stenographers serving on boards of special inquiry. Through a simple readjustment of space on the main floor there now exist eight appropriate board rooms and two additional witness rooms. Special inquiry business in all its branches is now transacted in quarters which are adequate, and thus one of the serious defects of the building to which two years ago I directed attention has been completely remedied.[192]

d. Installation of Passenger Elevator - Southwest Tower

The Urgent Deficiency Bill also provided $7,000 for the installation of a passenger elevator in the southwest tower of the main

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190. "Agreement, dated July 12, 1910, between George Sykes, Inc. . . . and the United States of America," RG 85, NA. This work was to be done in accordance with drawing cont. 54 Sl. #1.

191. Fry to Supervising Architect, Mar. 15, 1911, RG 121, WNRC.

192. Annual Report, Commissioner-General of Immigration, Fiscal Year 1911, pp. 144-45.

building. On December 3, 1909, Commissioner Williams described the rationale for the elevator as follows:

> The various floors at this station are now connected by slate stairways consisting of four flights between each floor. Witnesses, applicants for interviews, visitors, and employees are constantly passing up and down. When the board rooms are established on the third floor [of the northwest wing] it will involve a climb of eight flights of steps, much confusion and considerable hardship. . . . The only elevator in this building is at a remote part thereof and is intended for the carrying of freight.[193]

A contract for the work was let to the New York State Construction Company, and the elevator was completed on December 10, 1910.[194]

6. Fiscal Year 1911

a. Transfer of Medical Division

As early as April 21, 1910, Commissioner Williams proposed to provide the medical division with additional space in the main building by moving it from the registry room on the second floor. His plan contemplated eventually turning over to the medical division about three quarters of the first floor of the east wing. The new quarters would include the former railroad baggage and waiting room and all of the outer offices (being those below the commissioner's and other executive offices) except for those at the northeast corner occupied by the statistical division. Such a rearrangement of office space would triple the space of the medical division and would require the preliminary

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193. Williams to Commissioner-General of Immigration, Dec. 3, 1909, and Keefe to Commissioner of Immigration, Ellis Island, Feb. 28, 1910, RG 85, NA.

194. Fry to Secretary of Commerce and Labor, Mar. 13, 1911, RG 121, WNRC.

medical inspection to be held on a portion of the porch in front of the main building. The following items of work would be needed to accomplish the project:

Extension of easterly portion of front porch through wooden platform about 15 by 15 feet and encasing in glass the whole of such extension and a part of existing porch	$ 2,500
Heating-apparatus for above-mentioned area	750
Installation of toilets and washrooms (including repairing immigrants' old toilets in the old railroad waiting room)	7,500
Partitions and doors for old railroad waiting room	750
Wiring of and fixtures for same	1,000
New floor for same	1,000
Painting same	1,000
TOTAL	$14,500[195]

In making the proposal Williams was aware of the fact that the former baggage and railroad room had been damaged considerably over the years by trunks and boxes being bumped into the walls and columns. It was estimated that a plasterer and tube-setter would be needed for 30 days to repair the damage.[196]

As there was no specific appropriation for the work, immigration officials determined to fund the work out of the general appropriation for the fiscal year. By July 28 the draftsmen at Ellis Island were drawing up the specification for the work, which was divided into two sections--reorganization of the old railroad room and extension of

195. Williams to Commissioner-General of Immigration, Apr. 21, 1910, RG 85, NA.

196. Ibid., Apr. 16, 1910.

the east side of the front porch, including its encasement in glass and copper.[197]

The following two contracts were let to accomplish the proposed work in early 1911:

> Enclosure of glazed porch - North Eastern Construction Company - work completed on April 24, 1911
>
> Tiling floor and dado on first floor at southeast end of main building - T. H. Shipway & Brother - work completed on April 12, 1911.[198]

In his annual report for FY 1911, the commissioner-general noted that the new quarters of the medical division were "more sanitary than the old ones, for they are tiled and wainscoted." Furthermore, the "immigrants who must be sent to [the] hospital are no longer required to climb any stairs."[199]

b. Expansion of Information Bureau

In early January 1911, Commissioner Williams determined to quadruple the floor space of the information bureau where thousands came every year to inquire about the status of immigrants. Using the workers available on Ellis Island, Williams removed the offices of the eastern passenger business and steamship landing agents to the former baggage room and had partitions surrounding three offices torn down. A plasterer was hired to fill in the holes created by tearing out the partitions. Later a contract was let to the William Horne Company to tile

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197. Ibid., July 28, 1910, and Keefe to Commissioner of Immigration, Ellis Island, Aug. 4, 1910, RG 85, NA.

198. Fry to Supervising Architect, Mar. 15, 1911, RG 121, WNRC.

199. Annual Report, Commissioner-General of Immigration, Fiscal Year 1911, p. 145.

and wainscot the floor and sides of the enlarged room. The work was completed by midsummer except for the painting.[200]

c. Construction of Stairway to Registry Room

On April 21, 1910, Commissioner Williams proposed that the main stairway taking the immigrants up to the registry room on the second floor be eliminated. As it landed in the middle of the second floor, it used up much valuable space that could otherwise be devoted to the inspection of immigrants. In its place a new stairway should be built to land at the east end of the registry room, thereby enabling officials to lengthen the lines of immigrants and to eliminate the side compartments in which the overflow lines were placed.[201]

A contract for the removal of the old stairway and the construction of the new one was let to the New York State Construction Company. The opening in the floor of the registry room left by the removal of the original stairway was closed with flat arch block. Partitions around the old stairway were taken down, and new partitions with a door frame were installed around the new stairway. A railing was placed around the well-hole of the cellar stairs. Completed by midsummer 1911, the new stairway, together with the removal of the medical division to the east wing, doubled the capacity of the registry room for inspection purposes.[202]

d. Construction of Stairway to Dining Room

During the spring of 1911 a new stairway was constructed from the information bureau to the immigrants' dining room on the second floor by the William Horne Company at a cost of $1,460.

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200. Ibid.

201. Williams to Commissioner-General of Immigration, Apr. 12, 1910, RG 85, NA.

202. Annual Report, Commissioner-General of Immigration, Fiscal Year 1911, p. 145.

Thus, the distance between those two points was reduced by 80 percent--a significant savings of time and energy for many immigrants as several hundred used the stairway three times a day for meals. The stairway was also used by the friends of detained immigrants who could see the latter only in the "interview corridor" upstairs.[203]

e. Creation of Special Inquiry Boardrooms

Five new special inquiry boardrooms were created on the second floor of the main building to handle the growing number of problem cases. The old immigrants' dining room on the northwest side of the main building was divided into the boardrooms with a small adjoining witness room and vestibule. In addition, some antiquated toilets were removed from the space between the detention room opposite the deportation office and the next adjoining room on the north. The space in the two rooms was rearranged with partitions to create three boardrooms (known as special inquiry detention rooms C, D, and E) and a small witness room.

The work was carried out by hiring two bricklayers, two plasterers, and two helpers. The partitions were constructed of terra cotta blocks with rough frames for doors. A new wooden floor was placed in room C.[204]

f. Emergency Repairs Following Explosion

On February 1, 1911, a major explosion on the New Jersey wharves caused extensive damage to the buildings on Ellis Island, the hardest hit being the main building. The New York Times described the damage as follows:

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203. Uhl to Commissioner-General of Immigration, Mar. 18, 1911, RG 85, NA, and Fry to Supervising Architect, June 19, 1911, RG 121, WNRC.

204. Williams to Commissioner-General of Immigration, Feb. 14, 1911, RG 85, NA; and Fry to Secretary of Commerce and Labor, May 18, 1911, and Fry to Supervising Architect, June 19, 1911, RG 121, WNRC.

The big Administration (Main) Building . . . looked last night, with its shattered windows and cracked walk, much as if it had been bombarded in the explosion.

Three of the great 30 by 15 feet metal-framed windows, directly under the roof, were blown out and sent crashing down upon the main floor, smashing the heavy iron pipe railings which divide the room into narrow passages.

Nearly every pane of glass along the northern front and many on the southern and end walls were broken. It was the northern side, however, which suffered most, and many cracks in the wall testify to the strain put upon them.

The erratic nature of the explosion is shown by the nature of the havoc. In some places the upper windows were carried inward, frames and all, while nearby the upper windows were left intact and the lower blown to fragments.

A low window looking into a space between two buildings from the railroad room was broken and the heavy frame forced a foot inward. Across the narrow space a door was burst inward, as if there had been an explosion within this small place. In another place two heavy oak doors, frames and all, were pushed inward as though hinged at the top.

The windows in the medical division face toward the side where the explosion was felt in force. The windows are wide and run almost to the ceiling . . . there windows went inward..

The force employed in the information bureau work at a long desk directly under a heavy skylight. The whole affair of heavy half-inch wire-meshed glass came down.

A greater part of the walls of the small room occupied by the steamboat manager as an office is of glass . . . the glass broke.

The damage to the buildings is confined to glass, doors, and trim. . . . The principal damage is to the large building where the large lights were blown out.

In almost every case the windows on the northerly and westerly sides were blown in and those on the opposite sides out.

Commissioner Williams immediately ordered 2,500 yards of cheesecloth to cover the broken windows and 90 cases of window glass for replacement purposes. The cost of the repairs was estimated to be between $10,000 and $50,000.[205]

The repairs were made by hiring carpenters, glaziers, plasterers, painters, and laborers. All broken windows and exterior door openings were boarded over and closed within six hours after the explosion occurred. By April 8 the new materials installed included 378 pieces of sash, 169 doors, 15 panels, 31 frames, mouldings, trim, astragals-glass, plaster, and paint. The following repairs were completed by May 6 at a total cost of $24,903.85:

Labor	$7,853.50
Materials	4,552.73
Windows, Doors, Etc.	8,191.98
Repairs to Roofs	4,305.64
	$24,903.85[206]

205. New York Times, Feb. 2, 1911 (two articles).

206. Fry to Supervising Architect, Mar. 15, 1911, and Fry to Secretary of Commerce and Labor, Apr. 8 and May 18, 1911, RG 121, WNRC.

7. Fiscal Year 1912

a. Replacement of Iron Railings - Registry Room

Discussions leading to the replacement of the iron railings in the registry room with oak benches had begun in May 1911. By November there were only enough benches to cover half of the floor, but it was anticipated that the remainder would be purchased by the following spring.[207]

b. Resetting of Stairs - Southeast Entrance

A contract was let to Howard H. Peterson to reset the entrance stairs at the southeast end of the main building in August 1911. The work was completed on September 28 at a cost of $565.[208]

c. Reconstruction of Heating Apparatus

As early as March 1910 Commissioner Williams had requested a congressional appropriation of $36,000 to reconstruct the heating apparatus in the main building as well as the kitchen and laundry building. In places the pipes were mere shells due in part to the fact that water was used over and over again in the boilers.[209] A contract was let to Evans, Almirall & Company to renovate the heating apparatus. The work was completed on September 28, 1911.[210]

d. Alterations in Medical Division

A contract was let to the New York State Construction Company in August 1911 to make alterations in the medical division offices in the main building. The changes, which cost $775,

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207. Williams to Commissioner-General of Immigration, Nov. 22, 1911, RG 85, NA.

208. Fry to Secretary of Commerce and Labor, Oct. 23, 1911, RG 121, WNRC.

209. Williams to Commissioner-General of Immigration, Mar. 15, 1910, RG 85, NA.

210. Fry to Secretary of Commerce and Labor, Oct. 23, 1911, RG 121, WNRC.

were intended to remedy existing disadvantages that were proving troublesome.[211]

e. Remodeling of New York Room

During the fall of 1911 Commissioner Williams had his workmen remodel the New York room, opposite the information bureau, to enlarge its capacity as a temporary detention room. The size of the room was increased by the removal of two walls and the elimination of a large duct. A copper skylight was installed, and a concrete stair was built into an adjoining courtyard provided for the detainees to enjoy during warm weather.[212]

f. Pointing of Structures

A contract was let in October 1911 to repoint all the buildings on island 1 at a cost of nearly $12,000. It had been reported that portions of the various buildings were in "very bad shape."[213]

g. Installation of Operating Device for Mullion Windows

A contract was let to William Horne & Company for the installation of an operating device for mullion windows in the main building during the fall of 1911; the work was completed on December 4.[214]

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211. Williams to Commissioner-General of Immigration, Aug. 8, 1911, RG 85, NA.

212. Ibid., Oct. 9, 1911, and June 15, 1912, RG 85, NA.

213. Ibid., Oct. 9, 1911, and Keefe to Commissioner of Immigration, Ellis Island, Oct. 20, 1911, RG 85, NA.

214. Fry to Secretary of Commerce and Labor, Nov. 15 and Dec. 18, 1911, RG 121, WNRC. Mullion windows are panes divided by slender vertical lines.

h. Construction of Outside Vestibule - Information Bureau

A contract was let to P. W. Valleby to construct an outside vestibule with doors for the information bureau during the fall of 1911. The work, which was completed by December 6, included combining six small rooms into one room and tiling the enlarged room.[215]

8. Fiscal Year 1913

a. Completion of New York Room

During FY 1913 the remodeling of the temporary detention facilities in the New York room was completed. The badly worn floor, made of absorbent material, was replaced by tiling and wainscoting. The two toilets in the room, both of which were antiquated and unsanitary, were replaced with modern facilities. The window on the westernmost side of the room was converted into a door to provide access to the courtyard from two points; a window on the northern side of the room had been converted to a door the previous year. The courtyard was cemented.[216]

b. Renovation of Toilets

During FY 1913 two toilets in the main building were renovated--one on the first floor near the entrance to the southwest tower and the other on the second floor at the entrance to the executive offices.[217]

c. Installation of Tile Roof

As early as July 1910, Commissioner Williams had requested a congressional appropriation of $15,000 to replace the original

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215. Ibid., and Williams to Commissioner-General of Immigration, June 15, 1912, RG 85, NA.

216. Williams to Commissioner-General of Immigration, June 15 and Aug. 28, 1912, and Keefe to Commissioner of Immigration, Ellis Island, June 21 and Aug. 29, 1912, RG 85, NA.

217. Williams to Commissioner-General of Immigration, June 15, 1912, RG 85, NA.

copper roof of the central portion of the main building. As the copper roof was "badly cracked and corroded," a new tile roof was put on during FY 1913.[218]

d. Rewiring of Building

On March 15, 1910, Commissioner Williams had warned that "partly on account of age (twelve years) and exposure considerable portions of the wiring in the main building . . . must be renewed in the near future. If this be not done we may at any time find ourselves without lights." Accordingly, funds were secured, and the entire building was rewired during FY 1913.[219]

9. Fiscal Year 1915

On July 22, 1912, Commissioner Williams submitted to the commissioner-general of immigration a request for a congressional appropriation of $70,000 for the addition of a third story on the southeast wing of the main building. He explained the need for the addition as follows:

> The statistical division has outgrown its quarters on the lower floor, east wing of main building. Its clerks work in overcrowded quarters, and none of its records are being stored in the cellar. Furthermore, the space now occupied by it on said lower floor is required by the medical division in order that it may in the main building have adequate space for the examination and observation of immigrants suspected of being physically or mentally diseased. Its present observation quarters are entirely inadequate. The statistical division will be installed in the new story and will at once occupy more than

218. Williams to Commissioner-General of Immigration, July 1, 1910, RG 85, NA, and Annual Report, Commissioner-General of Immigration, Fiscal Year 1913, pp. 184-85.

219. Ibid., Mar. 15, 1910.

half thereof. The Chief Clerk's Office requires a new fire-proof vault to supplement the small one now over filled. The space on the lower floor vacated by the statistical division will be used for medical inspection and examination.

This new story will contain 184,200 cubic feet. It is estimated that the cost of construction such as that contemplated will be 38¢ per cubic foot or $70,000.[220]

Following a lengthy stalemate in Congress, a Sundry Civil Expenses Bill was passed by both houses and approved by President Woodrow Wilson on June 23, 1913. The act authorized the sum of $65,000 for the third-story addition.[221]

Plans for the new project proceeded slowly, partially because the appropriation had been less than had been anticipated. By June 1914 it was reported that "although the appropriation made for an additional story on the main building, whereby it is hoped to gain at least some of the much-needed additional space for the medical inspection, was less than the estimate, plans and specifications were drawn, and it may be very possible to construct an addition within the limits set by Congress. This will relieve to a great extent the congestion heretofore existing in the medical division, with resulting difficulty in the proper performance of this important part of the inspection."[222]

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220. Williams to Commissioner-General of Immigration, July 22, 1912, RG 85, NA.

221. "An Act Making Appropriations for Sundry Civil Expenses of the Government for the Fiscal Year Ending June Thirtieth, Nineteen Hundred and Fourteen" (approved June 23, 1913), RG 85, NA.

222. Annual Report, Commissioner-General of Immigration, Fiscal Year 1914, pp. 225-26.

No documentation could be found relative to the contract or specification for this new addition to the main building; however, the work was completed by June 1915. According to the commissioner-general of immigration, the addition provided "healthful quarters for a large part of the clerical force and also increased facilities for the medical work of the station."[223]

10. Fiscal Year 1916

One of the main purposes for of the addition of a third story on the southeast wing of the main building had been to give the space formerly occupied by the statistical division to the medical division. After the new story was completed, proposals were solicited in June 1915 for making alterations to the first floor for the use of the medical division. Accordingly, a contract was let to Simon Russek, Inc., of New York City to perform the work. The contract, which was to be completed within 90 working days, amounted to $13,448.[224]

By mid-August Simon Russek had the following subcontractors on the job: William O. Chapman Company - wire mesh - $900; J. M. Wells - tile work - $7,100; P. J. Duncan, Inc. - plastering - $310; Russell & Erwin Manufacturing Company - hardware -$140; C. F. Mentzinger's Son - plumbing - $1,828; and Robert Elkan -electrical - $490.[225]

There were two principal modifications to the contract during the course of the work. On August 3 a proposal by the contractor was accepted for removing and relocating electrical conduits.

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223. Ibid., Fiscal Year 1915, pp. 35-36.

224. Howe to Commissioner-General of Immigration, June 21, 1915, RG 85, NA. The work was to be governed by three drawings, dated June 2, 1915: 762-1, Old Arrangement; 762-2, New Arrangement; 762-3, Details. A specification dated June 24, 1915, was also drawn up.

225. Uhl to Commissioner-General of Immigration, Aug. 21, 1915, RG 85, NA.

When an opening had been cut in an abandoned vent shaft in which new toilet rooms were to be installed, it was found to contain thirty 3/4-inch conduits, which controlled lights in the old baggage room, and two large feeder conduits, each about 3½ inches in diameter, which controlled lights on the balcony floor. All of the conduits were relocated at a cost of $192.[226]

A supplementary agreement was approved on September 27, 1915, granting Simon Russek the sum of $41,187 for extra tiling. The tiling, which had been deleted from the original contract because of budget limitations, was as follows:

> Three courses of 6" x 3" wall tile on all walls and columns in rooms "H" and "V" except toilet rooms.
>
> Tile wainscoting 6'6" high with cap and base and round corners in toilet rooms "B" and "C" and in two immigrant's toilet rooms.[227]

11. Fiscal Year 1917

On the night of July 30, 1916, Ellis Island suffered its worst disaster since the burning of the first immigration station when a series of explosions began at Black Tom Wharf on the New Jersey shore just behind Bedloe's Island and less than a mile from Ellis. The wharf and a number of moored barges were piled with munitions on the way to Russia. The explosions, which were determined afterward to be the work of German saboteurs, were of such magnitude as to shatter glass all the

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226. Buckholtz to Commissioner of Immigration, Ellis Island, July 27, 1915, Uhl to Commissioner-General of Immigration, July 30, 1915, and Densmore to Immigration Service, Ellis Island, Aug. 3, 1915, RG 85, NA.

227. Buckholtz to Commissioner of Immigration, Ellis Island, Sept. 13, 1915, and "An Agreement, dated September 27, 1915, between Simon Russek, Incorporated . . . and the United States of America. . .," RG 85, NA.

way to Times Square in Manhattan. A rising tide and a west wind carried some of the flaming barges over to Ellis Island where they set fire to the cribbing of the seawall. Heroic tugboat crews towed them away before they exploded, and the station escaped complete destruction. Although more than 600 people were on the island, not a single life was lost, and there were no serious injuries. Flaming debris fell in showers, and New York City fire fighters arrived to help extinguish the fires.

All of the buildings on Ellis Island were damaged by the concussion of the explosions. Walls, ceilings, and foundations were weakened. Windows, casings, and doors were demolished. The roof and entire vaulted ceiling of the main building were damaged. Altogether the damage exceeded $400,000 in repairs, but according to the commissioner-general, it was "impossible to say that this completely covers the destruction, since the fabric of the buildings sustained injuries which may never be corrected and probably will manifest themselves for many years to come." The repairs were finally completed in the early months of 1918.[228]

12. Fiscal Year 1918

a. Use of Building During WW I

When the United States entered WW I in April 1917, the crews of the German ships in the harbors of New York and New London were picked up and transferred to Ellis Island for internment. The 1,150 crewmen and officers involved were kept under close supervision in the baggage and dormitory building, thus necessitating the transfer of some of its functions to the main building.

In addition to the interned sailors, Ellis Island became host to a considerable number of enemy aliens arrested on warrant by the Department of Justice throughout the country and brought there for

228. Annual Report, Commissioner-General of Immigration, Fiscal Year 1917, pp. 175-78.

custody. Other arrests were made less formally by other government agencies, including the army and the Immigration Service. Suspected of being spies and saboteurs, these people required even closer surveillance than the Germans and were probably housed in the main building.

In February 1918, the 2,200 Germans and enemy aliens were transferred to inland detention camps, and the Department of Labor transferred the use of the Ellis Island buildings to the War Department for use by the army and the navy. On February 2, the navy was given the baggage and dormitory building as well as the former railroad ticket offices and several rooms in the main building. By June several thousand enlisted naval personnel were quartered in those buildings pending their assignment to ships. On March 1, the army took possession of the 21 hospital buildings and the registry room in the main building for use as accommodations for up to 7,000 returning servicemen requiring medical and surgical attention.[229]

b. Installation of Ceiling and Floor - Registry Room

One piece of major repair work after the Black Tom Wharf explosion had been the restoration of the damaged ceiling over the great registry room in the main building. By early 1917 a specification was drawn up for a new ceiling in the form of a "Guastavino arch," a self-supporting terra cotta construction.[230]

The extensive work was constructed sometime in 1917, but because of the severe damage to the main building as a result of the explosion, the work

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229. New York Times, Feb. 12, Feb. 24, and Mar. 8, 1918; Pitkin, Keepers of the Gate, pp. 118-21; and Annual Report, Commissioner-General of Immigration, Fiscal Year 1918, pp. 37-38.

230. A copy of the preliminary draft of the specification may be seen in appendix F. The best article giving the history of this type of construction is George R. Collins, "The Transfer of the Masonry Vaulting from Spain to America," Journal of the Society of Architectural Historians, Oct., 1968.

was not completed until 1918.[231] It was reported by the commissioner-general of immigration in his annual report for FY 1918 that the installation of the Guastavino arch has added "so much to the general appearance of this large hall as to make this portion of the station one of the most attractive public institutions in the country."[232]

During the spring of 1918, a red tile floor was laid in the registry room to correspond with the new Guastavino arch ceiling. As early as October 1911, Commissioner Williams had noted that the old floor, which was made of absorbent asphalt material, was "badly worn" and was "used by great masses of filthy people," and "unavoidably a certain amount of filth" was daily ground into it which could not be "removed by the process of ordinary cleaning."[233]

Budget limitations postponed replacement of the floor for several years despite periodic requests by the commissioner-general for funds for a new tile floor. One such request had been made in 1914 with the observation that the floor was "full of indentations and cracks which render it extremely difficult to keep clean and sanitary."[234] When the new tile floor was completed, the commissioner-general observed that "it is indeed fortunate that Congress had appointed a sum of money for the installation of the floor; as the one now in place is not only attractive but easily cleaned and sanitary and has enabled the War Department . . . to make use of this large floor for hospital purposes."[235]

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231. No further documentation could be located relative to the restoration of the ceiling.

232. Annual Report, Commissioner-General of Immigration, Fiscal Year 1918, pp. 269-70.

233. Williams to Commissioner-General of Immigration, Oct. 9, 1911, RG 85, NA.

234. Annual Report, Commissioner-General of Immigration, Fiscal Year 1914, p. 230.

235. Ibid., Fiscal Year 1918, pp. 270-72.

c. Replacement of Pipes

During FY 1918 the hot, cold, and saltwater pipes of the main building, which had become corroded and practically useless, were replaced.[236]

13. Fiscal Year 1919

The end of WW I made it possible for the army and the navy to remove their quarters from Ellis Island. On April 1, 1919, the navy vacated the baggage and dormitory building and the rooms it had occupied in the main building. Thereafter, the equipment that the navy had installed such as a galley and several storerooms, were removed. On the same date the army relinquished that portion of the main building that had been assigned to it, and on June 30 it withdrew from all the hospital buildings, removing the equipment, such as the bathing and sterilization system, that had been installed for its use.[237]

14. Fiscal Year 1922

a. Conversion of Storage Room Into Reception Room

In the February 8, 1922, issue of Outlook, Natalie DeBogory commented on recent changes in the main building that had been accomplished under the administration of Commissioner Robert E. Tod. The article noted that

> from high officials to the most modest ones, I caught this spirit of satisfaction and pride in the doings of the new "chief" (Tod). In pre-war days immigrants were taken from the ships to Ellis Island on barges designed only for the most temporary sojourn. After passing quarantine, medical examination used to be simple. But the war brought vermin and medical examination took on serious aspects. The discovery of a few small insects would hold up whole bargeloads of immigrants sometimes for

236. Ibid.

237. Ibid., Fiscal Year 1919, pp. 28-29 and 306-8.

hours, thus exposing them to crowding and inclement weather. This was a new problem. Commissioner Tod solved it very simply. He converted a large room, formerly used for storage purposes, into reception-rooms, where immigrants are taken directly from the barges and where they can wait in comfort. What especially attracted my attention were the ice water fountains in the middle of each section - truly an improvement.[238]

b. Installation of Cafeteria - Information Bureau

In her article, DeBogory also described the installation of a new cafeteria in the "big Information Room for relatives and friends of incoming aliens." This improvement had been "a master stroke," because much criticism had come "from these already Americanized immigrants, who are equally quick to appreciate comfort and service."[239]

c. Opening of Baby Nursery

DeBogory praised the recently opened baby nursery as another social innovation and "a model of simplicity and practicability." The nursery, with "its pale-blue and white decorations," was used to teach immigrant women "how to bathe and properly clothe their infants" by the nurse in charge.[240]

15. Fiscal Year 1925

a. Restoration of Roofs, Gutters, and Cornices

By the autumn of 1924, the roofs, gutters, and cornices on both the east and west wings of the main building required

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238. Natalie De Bogory, "Practical Americanism at Ellis Island," Outlook 130 (February 9, 1922):223-24.

239. Ibid.

240. Ibid.

copper patching, painting, and retiling. Rainwater was seeping through the roofs to the ceilings below and causing the plaster to fall. Accordingly, on October 21 a contract was let to the Reiss Roofing Company of Brooklyn, New York, to perform the necessary repairs. The work was to be completed within 60 working days at a cost of $2,085.[241]

b. Painting of Portions of West Wing

On December 12, 1924, bids were received for a variety of projects to make repairs and give a new face-lifting to the badly neglected buildings on Ellis Island. Among the work to be let out on contract was the painting of portions of the west wing of the main building. This included the upper and lower special inquiry rooms; the drafting, locker, and adjacent toilet rooms; the stair shaft between the first floor and the upper special inquiry room; the stairway between the upper and lower special inquiry rooms; and the connecting corridor.[242]

c. Alterations in Dormitories and Examination Process

In December 1923, Commissioner Curran proposed that improvements be made in the main building to alleviate the desperate conditions in the dormitories and to make the examination process more efficient. His recommendations for improvements were as follows:

> The first and very important part of the inspection is the medical examination. The quarters now set aside for that purpose are not arranged in a manner to procure the best results and the facilities are inadequate. After very careful consideration by those assigned to this duty it has been agreed

241. Curran to Commissioner-General of Immigration, Oct. 15, 1924, and Sibray to Commissioner of Immigration, Ellis Island, Oct. 21, 1924, RG 85, NA. The work was to be done in accordance with "Specification for Repairing and Renewing Defective Parts of Roof, Gutters and Cornices, East and West Wing, Main Building, Island No. 1," dated Oct. 14, 1924, RG 85, NA.

242. "Specifications for Paint and Painting," dated Dec. 12, 1924, RG 85, NA.

that the changes and installations later outlined in this letter will result in a very great improvement and a much more adequate and intensive physical and mental examination of those seeking admission.

From the preliminary medical examination the aliens go to the Primary Inspection Division or, as locally called, the Registry Division. Heretofore this division has been located on the second floor of the main building. This has meant that all aliens must climb several flights of stairs carrying with them their hand baggage and children: if passed, descend several more flights of stairs either to the New York ferryboat or the railroad ticket offices. The new scheme is to make this examination on the first floor by using a portion formerly intended as a baggage room and extending the inspection lines through and into what is now used as a railroad ticket office. To do this it will be necessary to raise the roof of the one story ticket office in order to obtain the required light and ventilation. Those admitted to proceed to New York will go through a corridor which must be built connecting with the present one leading to the ferry landing. Those going to inland destinations will be transferred to what is now used as a railroad waiting room. Various structural changes and alterations will have to be made in this building to accommodate the ticket offices and create a waiting room in a location different from that now used for that purpose. This in turn will compel the building of a shed for the accommodation of the checkable baggage.

Those who are held on primary examination, either temporarily to be called for by relatives or for hearings before Boards of Special Inquiry, will then be transferred to the second story. The present quarters assigned for the detention of aliens awaiting hearings before Boards of Special Inquiry are utterly inadequate, poorly ventilated and, with the exception of a small

portion, consist of dark interior rooms. There have been at times a thousand or even more persons detained in these rooms whereas the report of a special committee of experts, which has carefully investigated conditions at this Station, has reported that not more than one hundred and fifty persons should be confined at the same time in these rooms. In fact, every one acquainted with the situation has condemned the use of the quarters set aside at present for the detention of aliens held for special inquiry.

The Detention Room used for those temporarily held awaiting the arrival of relatives has likewise been condemned. To provide suitable quarters in lieu of those now used it has been decided that the most available space is that now set aside for registry purposes. This is an immense room with high vaulted ceiling and by the installation of adequate toilet facilities and separation into two distinct rooms there will be provided detention quarters above criticism, particularly when other alterations herein referred to are made, thereby enabling those in detention to have access to an open roof and, by stairway, to the surrounding grounds.

Another source of just complaint has been the small room used by witnesses awaiting hearings before the Boards of Special Inquiry. The plan herewith submitted provides a large well lighted witness room with adequate toilet facilities and at the same time does not curtail the quarters set aside for use by Board of Special Inquiry.

With the exception of the dormitories on what is known as the Balcony Floor all others are equipped with two-tier bunks with woven wire springs. Bedding other than blankets has not been supplied. This has been one source of well-founded complaint and it is purposed to remove the present equipment, install two-tier beds with springs, mattresses, sheets and pillows and,

in order to overcome the reduction of accommodations which this will bring about, to create dormitories, similarly equipped, of two of the large rooms on the third floor now used as a locker room for employees and an overflow room for Special Inquiry cases. Of course, the necessary toilet and lavatory equipment must be installed in each of these new dormitories.[243]

To provide for these improvements, Curran submitted specific proposals for alterations in the main building. The proposals were as follows:

1. RECONSTRUCTION MEDICAL EXAMINATION QUARTERS, $75,000

This rearrangement has been given the careful consideration of the experienced medical examiners and representatives of the Supervising Architects Office, Treasury Department. It contemplates the construction of three large rooms, two for the examination of men and one for the examination of women, each containing not less than eighty cubicals, for disrobing, rearrangement and enlargement of toilet facilities; installation of modern medical examining equipment, etc., etc. This will require the construction of not less than three walls and the entire rearrangement - with few exceptions - of the space now set aside for intensive examination.

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243. Curran to Commissioner-General of Immigration, Dec. 17, 1923, RG 85, NA.

2. PRIMARY INSPECTION - GROUND FLOOR

Waiting Room, Ground Floor, Main Bldg.		
Toilets - two (men and women)		
18 toilets, 6 lavatories, 6 urinals, 2 slop sinks, 2 floor drains, marble partitions	$12,200	
Partition walls of toilets (2,000 sq. ft.)	1,000	
Floor and wall tiling in toilets (1,600 sq. ft.)	3,200	
Tiling of waiting room floor (2,700 sq. ft.)	5,400	
	$21,800	
Registry Room - Toilets - two		
18 toilet fixtures, 6 lavatories, 6 urinals, 2 slop sinks, 2 floor drains, marble partitions and piping	$12,200	
Tiling toilet rooms - floor and walls (1,600 sq. ft.)	3,200	
Partition walls of toilets (2,000 sq. ft.)	1,000	
Tiling of Registry Floor (8,900 sq. ft.)	17,800	
	$34,200	$56,000

3. COVERED PASSAGEWAY FOR ADMITTED ALIENS TO GO TO NEW YORK FERRY

Floor - cement on foundation slab	
Walls - Light colored brick outside, glazed brick inside	
Windows - Metal frame and sash, hinged at side to swing out	
Roof - Copper with standing seams	
Roof framing and ceiling of steel	
Ceiling - Metal lathe and plaster	$ 9,100

4. NEW SPECIAL INQUIRY AND TEMPORARY DETENTION ROOMS

To be placed on present Registry Floor	
4 toilet rooms, including piping, drains, 32 toilets, 30 lavatories, 18 urinals, 13 floor drains, 7 slop sinks, 2 wash basins	$45,600

2,500 sq. ft. water proofing and concrete	5,000
8 ft. tiled walls (6800 sq. ft.)	13,000
18'6"-6" Hollow Tile Walls and Studs (6,200 sq. ft.)	6,200
Making Air Shaft, Windows and Ventilation	5,100
	$80,500

Raising roof of old ticket office and creating recreation porch connected with special inquiry and temporary detention rooms, removal of old toilets from ticket office and installation of steps from recreation porch to ground	$ 59,300
	$139,800

5. NEW INFORMATION AND DISCHARGING DIVISION

Discharging Divsion:	
Installation 2 toilet rooms, including piping, 10 toilets, 10 lavatories, 4 urinals, 2 slop sinks, 2 floor drains and repairing tiling	$ 8,000
Tiling floor (6,100 sq. ft.)	12,200
Information Division:	
Installation 2 modern toilets with piping 10 toilets, 6 lavatories, 2 floor drains, 2 slop sinks, repair tiling and removing partition	$ 7,800
	$28,000

6. CONVERTING ROOM 203 INTO INTERVIEW ROOM AND CONSTRUCTION OF STAIRWAY THERETO

Cast iron treads and risers. Steel stringers Covered exterior stairs - steel channel frame work for walls and roof sides covered with crimped copper	
Roof to be copper with standing seams, steel sash	$ 6,700

Converting room 203 into interview room, toilet room for women, hollow tile walls, tile floor, water and soil lines	2,450
6 toilets, 3 lavatories, floor drain and slop sink	2,700
Remodel men's toilet room including 6 toilets, 3 lavatories, 4 urinals, floor drain, and slop sink	3,000
Removal old fixtures, plastering and painting	4,800
	$19,650

7. NEW WITNESS ROOM, MAIN BUILDING

Women's toilet room - Hollow tile construction walls	$ 300
Tiling floors and walls (500 sq. ft.)	1,000
Doors and frames	200
Piping, 3 toilet fixtures, 2 lavatories, 1 slop sink, with necessary repairs to present Men's Toilet room and cutting door	3,500
Removing partitions from two rooms, patching floor and installation of small window in women's toilet	1,000
	$ 6,000

8. ALTERING PORTION OF PRESENT LOWER S.I. ROOM TO MEN AND WOMEN EMPLOYEES' LOCKER ROOMS AND TOILETS

2 Toilet Rooms - Piping, 12 toilet fixtures, 12 lavatories, 4 urinals, 2 slop sinks, 2 floor drains, repairing tile floor and walls	$10,000
New tiling	2,000
Altering partitions and cutting doorways	1,500
Enlarging stairway to third floor (to permit transfer of liens to third floor dormitories)	3,000
	$16,500

9. TRANSFORMING PRESENT MEN'S LOCKER ROOM, DRAFTING ROOM AND UPPER S.I. ROOM (Third Floor) TO DORMITORIES

Piping for 3 toilet rooms and fixtures as follows: 10 toilets, 10 lavatories, 1 slop sink (North end of S.I.) 5 toilets, 3 urinals, 8 lavatories, 1 slop sink, 1 floor drain, (South end) East end of locker room - 4 lavatories, 1 drain and 1 slop sink	$13,500
Removing and installation required partitions	$ 1,500
Removing present wood floors Drafting Room and Locker room (28'x92')	400
Tiling floor and 8' of walls in present locker room and drafting room	9,400
Patching, plastering and painting	1,500
Screens 3/8" x 2" mesh for 12 windows	2,400
One 36" Robinson Self-Syphoning Ventilator and damper	300
	$29,000[244]

Available documentation does not indicate the extent to which these proposals were put into effect. However, it is clear that not all of the proposed work was performed because only $326,000 of the more than $2,541,020 requested for improvements at the station was appropriated for FY 1925.[245]

In an editorial on December 23, 1924, the New York Times printed the following observations concerning alterations during the previous several months:

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244. Ibid.

245. New York Times, Dec. 22, 1923, and Annual Report, Commissioner-General of Immigration, Fiscal Year 1924, p. 30.

> Most important of the structural alterations is the substitution of individual beds with mattresses, sheets and blankets for the old system of bunks in wire cages.
>
> Another change concerns the arrangement of the reception and examining rooms [in the Main Building], heretofore somewhat haphazard. There was unnecessary climbing of stairs and needless going to and fro. This has been eliminated and the passing of the immigrants from one examination to another and thence to the rest rooms and transfer station will be more businesslike.[246]

Later in mid-January 1925, the Survey reported "a remarkably changed Ellis Island." The new quota law, combined with a long needed appropriation and an energetic commissioner in the person of Henry H. Curran had brought about a general reform. The article went on to state that ". . . the housing facilities have been reconstructed; adequate modern plumbing is displacing the ancient exhibits, the iron-pipe two-decker curiosities called 'immigrant bunks' have been scrapped and in their place - wonder of wonders - there now appear beds, real beds, with mattresses, sheets and blankets! Every effort is made to keep together the families who must be detained, while at the same time providing separate quarters for single women and men."[247]

In his memoirs, Curran recounted the condition of the dormitories when he had entered office:

> The four big dormitories, two for men and boys, two for women and children, each held four hundred people, packed away one

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246. New York Times, Dec. 23, 1924.

247. "How the Immigration Law Works, Survey," Jan. 15, 1925, pp. 441-44.

apiece in four hundred of these small wire cages. The cages were in three steel tiers, one above another, with narrow aisles between the tiers, Head and foot the cages adjoined, with wire between. On the wire base of each cage was one blanket. . . . The cage structure filled nearly the whole room, wall to wall and floor to ceiling, and each cage was a tight fit, except for children. There was little ventilation.

In several small rooms for the detention of special cases there were beds, but in the large rooms, which housed every night nearly two thousand immigrants, there were no beds at all.[248]

d. Provision for Separate Detention Quarters

Separate detention quarters for women and children had been proposed by Commissioner Tod as early as 1922. At that time he recommended that the large railroad room be converted into a dayroom to solve the overcrowded conditions in the current detention room. One writer had described that room as follows: "There were few benches and many, many people standing around for lack of seats. Women reclined uncomfortably on piled-up baggage, children simply lay around on the floor - and everywhere those weeping faces. The room was dark. I think it has few windows - I do not remember - but the impression was that of a murky cellar. And the stench! Bilge water and dirt and neglected children - it followed me to New York and to my home."[249]

The proposal was given added prestige by the fact that it was supported in a "Report of the Advisory Committee on Welfare of Immigrants" issued in January 1922. Among the committee's principal recommendations were "that the large room on the ground floor of the main building which is being used as a money exchange and railway ticket

248. Henry H. Curran, Pillar to Post (New York, 1941), pp. 293-94.

249. DeBogory, "Practical Americanism," pp. 223-24.

office be converted into a day room for detained women with children, such room to be provided with conveniences for the care of the children and to have easy access to an outdoor recreation place fitted up as a playground . . . that a large outside room be made into a dormitory for women and children, so that they will not have to occupy the general dormitories."[250] The separate facilities for detained women and children were created sometime during the summer and fall of 1924.

e. Repair of Ceilings - Dormitory Rooms

On August 21 a large portion of the ceiling in one of the dormitory rooms on the balcony of the main building fell to the floor. An examination of the other rooms around the balcony showed that the ceilings of most of them were defective and might fall at any time. Because the plastering on the ceilings of these rooms was 2 to 3 inches thick and very heavy, the balcony dormitory rooms were closed. Bids were opened on September 25 for the installation of new ceilings, conduits, electric lights, and painting. As much of the loosening of the ceilings was due in part to leaks in the roof, bids were also advertised for roof repairs. On September 30, the following proposals were accepted for the work:

Russell & Boulter Corporation - Removing the present deck covering and dead vent pipes, repairing or renewing flashing, and laying asbestos built-up roofing over noncombustible roof decks - $2,096

Neptune B. Smyth, Inc. - Renewing the plastered ceiling, patching all holes, cracks, or loose plaster on all walls - $3,041

W. E. Nichols Corporation - Installing conduits and electric lights in the dormitories - $612

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250. Mary T. Waggaman, "Immigrant Aid: Legislative Safeguards, and Activities of Bureau of Immigration," Monthly Labor Review 16 (February 1923):31.

Neptune B. Smyth, Inc. - Painting all ceilings and walls in the dormitory rooms - $1,737[251]

16. Fiscal Year 1926

a. Repairs of Roofs - East and West Wings

On March 16, 1926, a contract was let to Oscar White of Brooklyn, New York, to make roof repairs on the east and west wings of the main building. The work was to be completed within 30 working days at a cost of $775. The contractor was to guarantee that the roofs would be watertight for one year.[252]

b. Repairs/Replacements to Heating and Plumbing Systems

A contract was let to David Brandt, Inc., of New York City on June 24, 1926, to repair and renew the plumbing and heating systems of a number of buildings on island 1. The following work was to be completed within 165 days at a cost of $26,844:

> Renew in the West Wing . . . all Steam Risers and Returns to the Radiators from the Steam Supply and Steam Return in the Basement with Extra Strong Wrought Iron Pipe.
>
> . . . in the West Wing . . . all the Risers shall be two (2) inches diameter up to the last Radiator taken off the Riser Line and Connections at the Radiators shall be one and one-quarter (1-1/4) inch Extra Strong Wrought Iron Pipe. Returns from the Radiators beginning with the last Radiator on the end of the line, the Return pipe therefrom shall be one and one-half

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251. Curran to Commissioner-General of Immigration, Sept. 26, 1924, RG 85, NA.

252. "Specifications for Roof Repairs on East and West Wings, Main Bldg., Island No. 1," dated Mar. 4, 1926, RG 85, NA.

(1-1/2) inch Extra Strong Wrought Iron Pipe. Supply Syiphon Bellows and repair or renew valves.

Cover all Branches, Risers and Returns in the Cellar of the West Wing . . . and where pipes pass through the Information Room.

Install Pipe Coverings on the Main Building and Return Hot Water Pipes . . . in the Basement of the Main Building. Cover all branch connections . . . under the Main Building including their risers up to the ceilings. In four (4) phases up to third floor of the Main Building cover the hot water pipes.[253]

After numerous delays resulting from labor problems, inclement weather, late delivery of materials, and inefficiency of the contractor, the work was finally completed on September 26, 1927.[254]

17. Fiscal Year 1928

Available documentation indicates that the only improvement during FY 1928 was the patching of the roof. On March 22, 1928, a contract was let to Offenkrantz & Mark of Newark, New Jersey, to do the work. The contract, which specified that the roof repairs must be completed within 120 days and be guaranteed for one year, included the following items:

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253. "Specifications for Heating, Plumbing and Pipe Covering in Power House, B & D Building, Connecting Corridors and Main Building, Island No. 1," dated June 17, 1926, RG 85, NA. The work in the main building was to be done in accordance with drawing D-1010-2.

254. David Brandt, Inc., to Comptroller General, Dec. 17, 1932, RG 85, NA.

Main Building, Island No. 1

Schedule (a):

North East Corner of the East Wing shall have for a distance of 40 ft. from the North Side along the east gutter and for a depth of 10 ft. from the east gutter a Johns-Mansville Built-up Roof placed thereon in same manner as at the South East Corner, with the gutter for 10 ft. on the north side and 40 ft. on the east side made of same material and the flashings carried up to and over the top of the cornice for a width of not less than three (3) inches. The old roofing material shall be removed and deposited in fill between Islands #2 and #3.

Schedule (b):

South West Corner of the West Wing shall have 48 ft. of damaged cornice repaired and replaced along the South Side; Westerly side for a distance of about 18 feet shall be removed, straightened, and replaced.

Damaged gutter and three rows of tile shall be removed. Sixty Six (66) feet of new copper gutter, of 18 ounce copper, shall be installed, reaching under tile. Ten (10) inches and cornice reset, through 5/6 inch brass bolts shall be spaced at every other iron strap or about 4 feet between centers of bolts.

Schedule (c):

Secure the balance of Cornice on the West Wing with 5/16 inch brass bolts spaced not more than 4 feet apart by passing the bolts through the lower part of the gutter through the backing to the outside of the cornice at the lower half round. Use washers under bolt head and under nuts of not less than 1-1/2 inch outside diameter by 1/8 inch thick. Solder all bolt heads, nuts and washers.

Schedule (d):

Roof over the Registry Room on North Side of Main Building shall have all blisters removed by taking off the slag and felt and repaired with three layers of tar and felt. Slag shall be spread evenly over these patches. The flashings at Skylights, the Parapet, and Building walls shall be renewed and made watertight. The several layers of felt shall be uniformly lapped and stuck together with hot tar and reslagged with clean dry slag free from dirt and dust.

Schedule (e):

Skylights shall be repaired as previously noted.[255]

18. Fiscal Year 1931

a. Replacement of Toilet Equipment

On April 14, 1930, the Secretary of Labor forwarded to the comptroller general a list of projects requiring immediate repairs on Ellis Island. Among the most critical of these projects was the replacement of toilet equipment in two toilet rooms in the main building--one on the second floor used by employees and visitors and one on the ground floor used by employees. The equipment had been in use for more than 20 years and was "not only antiquated but unsanitary and would not be permitted in any public building under the jurisdiction of the Health Department of the City of New York."[256]

At the request of the commissioner-general of immigration, Commissioner Benjamin M. Day submitted on April 28 an itemized account of equipment needed for the laborers' wash and toilet room on the first floor and visitors' and male employees' toilet room on the second floor. It included the following:

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255. "Specifications for Roof Patching on Islands No. 1 and No. 2," dated Mar. 2, 1928, RG 85, NA. The work was to be done in accordance with drawing E-777-4.

256. McCarl to Secretary of Labor, Apr. 26, 1930, RG 85, NA.

2 showers complete with stalls	$ 450
6 water closets	1,050
4 urinals	640
3 lavatories	420
1 slop tank	160
140 ft. pipe	335
700 sq. ft. of floor and wall tile	1,400
	$4,455[257]

After the Second Deficiency Bill was approved with an appropriation of $49,125 for Ellis Island on July 3, specifications were prepared for the replacement of the toilet equipment.[258] The specification, dated September 18, 1930, provided for the necessary fixtures, piping, tiling, and plumbing.[259]

Two contracts were let on October 7 covering the installation of the plumbing, tiling, and plastering work. Alfred Beyrodt of New York City was approved as the plumbing contractor (the contract included 17 additional lavatories), and the Ocram Holding Corporation was accepted to do the tiling, plastering, and partition work. The work was completed by mid-April 1931 although not entirely in a satisfactory manner. Accordingly, Beyrodt, whose work was found to be defective in some instances, agreed to certain deductions as follows:

> I agree to accept a deduction of Four Hundred Dollars to cover the expenses of future repairs should they occur, on practically

257. Day to Commissioner-General of Immigration, Apr. 28, 1930, RG 85, NA.

258. Hull to Commissioner of Immigration, Ellis Island, July 8, 1930, RG 85, NA.

259. "Specifications for Replacements of Plumbing Equipment, Island No. 1," dated Sept. 18, 1930, RG 85, NA. The work was to be done in accordance with drawings D-1100 and D-1156 through D-1158.

all joints between water piping and fittings packed with lampwick and more than three exposed threads, existing at joints between pipe and fittings, leaks are liable to occur at any time as a result of this inferior installation resulting in an expense to the Government for repairs and replacements.

Urinal strainers have not been installed in an approved workmanlike manner, being set in litharge cement in lieu of being firmly secured to urinal by screwing same up to strainer body casting. Soldered bushings have been used in lieu of soldered nipples, where lead pipe is joined; straighter bodies of a type for wipe joint have been joined by forcing lead pipe inside wiping nipple and then soldered insecurely. Should a leak develop in the waste connection to any of the sixteen urinals, it will be necessary to remove the entire urinal fixture which will require that tiled walls and floors be broken into and subsequently replaced. To provide for repairs which may be required at any time would incur an expense to the Government. A deduction of Four Hundred Dollars on this item if the work is accepted as installed is considered reasonable.[260]

b. Assignment of New Quarters for Law and Chinese Divisions

In April 1931 new quarters were assigned to the law and Chinese divisions--the former on the first floor and the latter on the second floor. As partitions and doors were needed for the new office arrangement, the work was let to the National Partition Company on April 15 for $3,410. The partitions were to be built as follows:

260. Day to Commissioner-General of Immigration, Sept. 24, 1930, Harris to Commissioner of Immigration, Ellis Island, Oct. 7, 1930 (two letters), and Beyrodt to Commissioner of Immigration, Ellis Island, Apr. 27, 1931, RG 85, NA.

PARTITIONS, to be furnished per measurements and enclosures as indicated on enclosed blue print C701, "Sketch of Office Arrangement 1st Floor, Main Building"	519 lin. ft.
PARTITIONS, to be furnished per measurements and enclosures as indicated on enclosed blue print C700, "Sketch of Office Arrangement 2nd Floor, Main Building"	163 lin. ft.

TO BE MADE UP AS FOLLOWS:

Side rails to be of chestnut	3" x 7/8"
Center " " " " "	5" x 7/8"
Top Rails " " " "	4" x 7/8"
Bottom Rails " " "	6" x 7/8"
Base (both sides) " "	6" x 1"

Panel to be of clear, white oak, 1/4" thick
Sample of pilaster construction at Ellis Island, to be made up so as to permit of a 3-ft panel section and a glass section of 5 ft.
Size of glass to be governed by length of partition, maximum size to be 36" x 46", d.t. and to be clear and free from defects. To be set with moulding to be selected. Top of partition to be finished with 2-3/8" crown moulding, to be selected. Installation on both sides.
Lengths of partition to be furnished to permit of uniformity as far as possible.

Later on April 29, further unspecified alterations were made on the second floor to house the Chinese division.[261]

19. Fiscal Year 1932

Under the leadership of Edward Corsi, the new commissioner of immigration on Ellis Island, numerous physical improvements were made to the station beginning in FY 1932. Friendly relations were cultivated between immigration officials and the policymakers in the administrations of Herbert Hoover and later Franklin D. Roosevelt. The first payoff from this relationship resulted in

261. Day to Commissioner-General of Immigration, Apr. 15, 1931, and Hull to Commissioner of Immigration, Ellis Island, Apr. 29, 1931, RG 85, NA. It is possible that the "Specification for Alteration of Center Wing, Second Floor, East End, Main Building, Island No. 1," dated May 11, 1931, relates to this project. FF 36, Main Building: Alter Center Wing, 1931, Ellis Island Records, DSC.

an appropriation of $329,025 for repairs, remodeling, and replacements to the Ellis Island facilities during FY 1932, as provided in an act (approved February 23, 1931) making appropriations for the Department of Labor.[262]

a. Repairs/Replacements of Roofs, Leaders, and Skylights - Northwest Wing

A contract for $4,190 was let to the Ocram Holding Corporation of New York City on July 29, 1931, for "replacing [the] skylights with structural roof lights; reflashing and recovering all of the present roof" of the northwest wing of the main building. According to the specifications, the following work was to be done:

> Remove and scrape off the old slag over the entire roof and roof swept clean
> All new flashing installed to be of #20 oz. soft copper and not less than 12 inches high as on the roof slope
> After all patching is done, the entire roof to be coated with hot bonded roofing pitch about 45 lbs per square
> Entire roof to be guaranteed against leakage for ten years

Concerning the new roof lights, the specification read as follows:

> The contractor is to remove all glass from the skylight and store same as directed.
>
> All the rest of the skylight shall be removed and prepare opening for the forms for the new roof made of structural glass. The glass roof or roof lights shall be built in accordance with the detailed plans with all the reinforced rods and concrete.

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262. Hull to Commissioner of Immigration, Ellis Island, Apr. 1, 1931, and Corsi to Commissioner-General of Immigration, Mar. 24, 1932, RG 85, NA.

The concrete shall be mixed to a proportion of one part cement to two parts sand.

The sand shall be clean sharp sand free from all impurities and not more than 1/8" in diameter.

Cement shall be Portland cement or equal . . . and to be dry and free from lumps. Cement that has become lumpy or partially set or otherwise damaged shall not be used.

Glass for roof shall be what is known as #13 as manufactured by the Structural Glass Corporation, 101 Park Avenue, New York City, or equal size 6 1/4" x 10 1/4" x 1" thick and made of hard pressed flint glass, prismatic type, annealed, free of manganese and internal strains.

All glass units shall be set into a rustproof metal shield with mastic compound. Concrete ribs shall be doubly reinforced by 3/8" deformed iron rods and shall be spaced 8" and 12", respectively, center to center with concrete mixed to a proportion of one part cement, two parts of sand and two pounds of integral waterproofing to each bag of cement used.

The live load to the glass roof shall be not less than one hundred sixty (160) pounds per square foot and not less than four hundred (400) pounds per square foot of dead load all with a safety factor of three.

Total weight shall not exceed twenty-two (22) pounds per square foot. All copper flashing shall be done in accordance with details shown on the plans. All openings on each slope

shall be cast in one piece. All work shall be done with a minimum delay to business of Ellis Island employees.[263]

b. Addition to Heating System - Northwest Wing

A contract for $739 was let to the L. H. Eggert Company on November 10, 1931, to install an addition to the heating system in the northwest wing of the main building. The heating addition was made for the convenience of the new law office quarters.[264]

c. Additions/Alterations to Electrical System - Northwest Wing

A contract for $975 was let to the Quintine Realty Company of Bloomfield, New Jersey, on November 10, 1932, "for installing certain additions and alterations to the electric system in the Law and Registry Divisions" on the first floor of the northwest wing of the main building. Several electrical circuits were to be rewired, and four new circuits were to be installed. All of the work was to "be of the two wire system 220 volts D.C." The work was completed on December 18.[265]

d. Installation of Heating System -- East Wing

A contract for $5,990 was let to the Quintine Realty Company on February 3, 1932, for installing a new steam supply and

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263. Hull to Commissioner of Immigration, Ellis Island, July 29, 1931, and "Specifications for Repairs and Replacements--Roof and Leaders and Skylights, North Wing, Main Building, Island No. 1," dated July 15, 1931, RG 85, NA; and FF 37, Main Building: Replace Skylights, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1172.

264. Shaughnessy to Commissioner of Immigration, Ellis Island, Nov. 10, 1931, and "Specifications for Heating - Main Building," dated Oct. 27, 1931, RG 85, NA. The work was to be done in accordance with drawing D-1189.

265. Shaughnessy to Commissioner of Immigration, Ellis Island, Nov. 10, 1931, and "Specifications for Electric Installation, Main Building," dated Oct. 30, 1931, RG 85, NA; and FF 39, Main Building: Electric System, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1190.

return heating system in the east wing of the main building. The old heating system was to be removed except for the radiators. The work was to begin after May 15 and be completed within 100 days.[266]

e. Provision for New Record Room

Over the years various commissioners on Ellis Island had requested funds for a large room or separate building to house the voluminous records of the station. Finally in 1932, Commissioner Corsi succeeded in obtaining funds for the project. On February 3 a contract was let to Louis D. Koop of New York City for $2,242 to enclose a portion approximately 185 by 104 feet of the large room in the center of the first floor of the main building for a records depository. The enclosing wall consisted of a masonry portion (gypsum partition tile) approximately 8 feet high and a metal grille partition to the ceiling. The project was completed on March 30.[267]

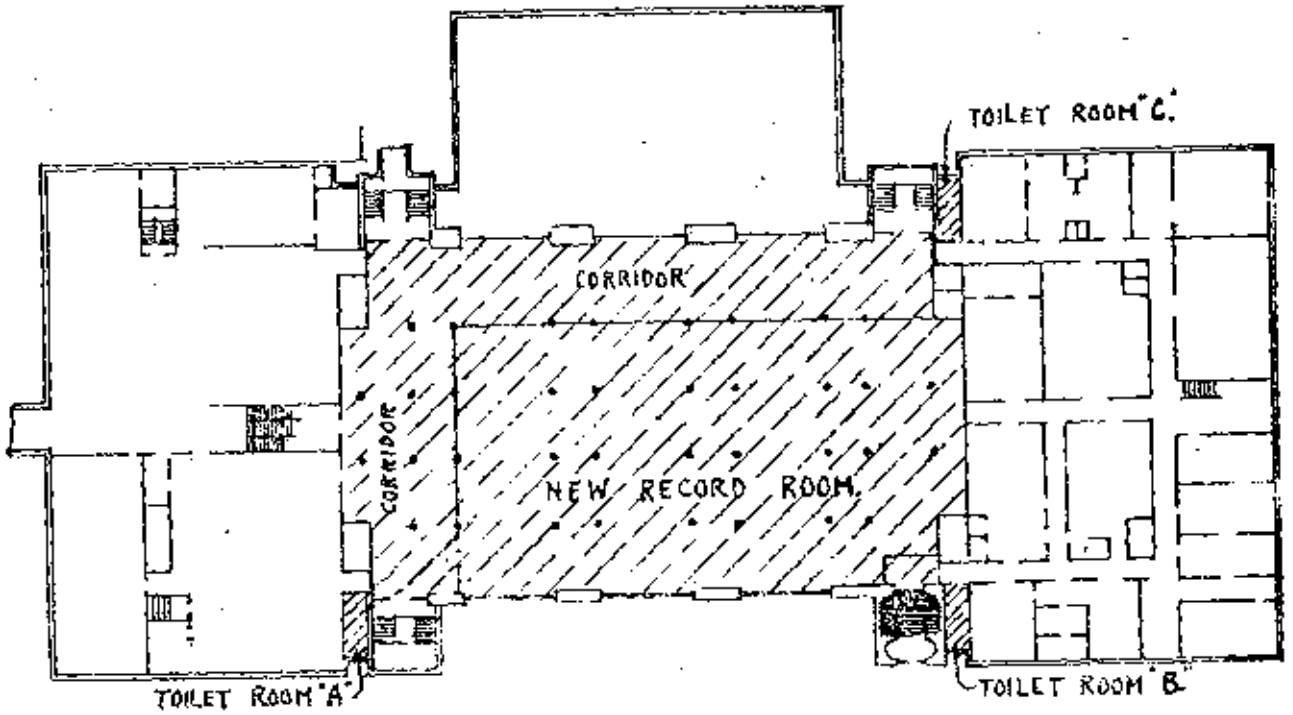
Other contracts were also let for the completion of the facilities in the new record room. On February 20, 1932, the $900 bid of the Zenith Electrical Company of New York City was approved for the installation of various "alterations and additions" to the electric lighting system of the main building for the new record room.[268] A contract for $1,542 was let to Louis D. Koop on March 11 for painting and tiling the

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266. Corsi to Commissioner-General of Immigration, Mar. 7, 1932, and "Specifications for Heating, Main Building - East Wing and Greenhouse," dated Jan. 28, 1932, RG 85, NA. The work was to be done in accordance with drawings D-1191 through D-1195.

267. Hull to Commissioner of Immigration, Ellis Island, Feb. 3, 1932, and "Specifications for Enclosing Wall for New Record Room, First Floor - Main Building, Island No. 1," dated Jan. 28, 1932, RG 85, NA; and FF 40, Main Building: Enclosing Wall, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1186.

268. Hull to Commissioner of Immigration, Ellis Island, Feb. 20, 1932, and "Specifications for Electric Installation, New Record Room, Main Building, Island No. 1," dated Feb. 18, 1932, RG 85, NA. The work was to be done in accordance with drawing D-1213.



FIRST FLOOR.
MAIN BLDG.
60 FT = 1 INCH.

PAINTING RECORD ROOM.

FILE Nº 98529-384.
J.PRIEST FEB. 25-32.

record room and the stair hall adjoining toilet room B. Within the enclosing walls of the record room, a new red quarry tile was installed while a new floor and base was placed in the stair hall.[269]

Later on March 26 the $4,990 bid of the Huron Architectural Iron Works of Brooklyn was accepted for the installation of cast-iron panels, cast-iron balconies, bronze sash, sash bars, and cast-iron mullions.[270]

f. Renewal of House Drain Lines and Roof Leaders

A contract for $5,700 was let to William Reiner on February 12, 1932, for the renewal of the house drain lines and concealed roof leaders of the main building. The work under the contract included the removal of all drain lines in the basement to a point 5 feet outside the wall and the removal of the leader lines. The work also consisted of the installation of new leader stacks from the basement to the roof and the installation of new basement drain lines "from a point five feet outside the building line back to the lowest joints of all vertical soil and waste stacks, or connecting directly into all fixtures on the first floor."[271]

g. Alterations in Four Toilet Rooms

On March 26, 1932, a contract for $2,940 was let to the Quintine Realty Company for the modernization of four toilet rooms (A, B, C, and D) in the main building. Among the items to be installed

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269. Hull to Commissioner of Immigration, Ellis Island, Mar. 11, 1932, and "Specifications for Painting, Record Room, First Floor, Center, Main Building, Island No. 1," dated Mar. 9, 1932, RG 85, NA.

270. Hull to Commissioner of Immigration, Ellis Island, Mar. 26, 1932, and "Specification for Metal Sash, and Ornamental Metal Work in New Record Room, Main Building, Island No. 1," dated Mar. 21, 1932, RG 85, NA. The work was to be done in accordance with drawings D-1218 and D-1219.

271. Corsi to Commissioner-General of Immigration, Feb. 23, 1932, and "Specifications for House Drain Lines and Roof Leaders, Main Building," dated Jan. 28, 1932, RG 85, NA. The work was to be done in accordance with drawings D-1196 and D-1197.

were new water closets, slop sinks, and lavatories along with the necessary soil, waste, vent, and water supply lines.[272]

h. Tiling of First Floor Corridor

A $3,666 contract was let on April 13, 1932, to the Continental Tiling Company of New York City to tile the corridor extending along one side and one end of the new record room and two adjoining stair landings on the first floor of the main building. The tile floors were to be installed as follows:

> Furnish and install a tile floor over the entire area of the corridor and two adjoining stair landings.
>
> Floor tile for the field of the new floors shall be vitreous, two (2) inch, hexagon, 7/16 inch thick, white, unglazed, standards, grip back. These shall be mounted on heavy paper in sheets approximately 12 inches square and spaced with even joints, approximately 1/16 inch in thickness.
>
> Divide the floor in panels to be formed by installing tile strips approximately 21 inches wide running from column to column, and from columns to walls. Install similar strips across the openings between the main room and the stair landings. These tile strips shall be made up of 3" x 3" square tile as specified above for hexagonal tile except that the square tile shall be of stock color as selected by the Contracting Officer.
>
> Provide a border of 3" x 3" tile where the finish floor thins out to a feather edge outside the Law and Registry Divisions.

272. Hull to Commissioner of Immigration, Ellis Island, Mar. 26, 1932, and "Specifications for Alterations in Four Toilet Rooms, Island No. 1," dated Mar. 21, 1932, RG 85, NA. The work was to be done in accordance with the specification and drawing D-1215.

Relative to the tile bases, the specifications read:

> Furnish and install a 6" x 6" x 3/4", standard, grip back red quarry tile base against all masonry surfaces which do not have such a base. The new tile base shall be of the same color as the present tile base, set with the same projection and shall otherwise match with it.
>
> Do all patching above the tile necessary to make a perfect joining with the plaster of the walls, and if the walls have been painted do any touching up with paint to match perfectly with adjoining painting.[273]

i. Replacement/Repair of Sheet Metal and Roofing

A contract was let to Benjamin Ruben of New York City sometime in May 1932 for "replacements and repairs to tile, slate, metal, and composition roofings, and their appurtenances, such as valleys, ridges, flashings, gutters, down spouts, ventilators, [and] skylights" on island 1. The specifications provided for the following work to be done on the main building:

> Remove the present face of the copper cornice along both sides of the clearstory of the center of the Main Building for the entire length including the iron framework back of same, and replace with a new face of 20 oz. hard copper, duplicating the existing one in contour, method of fastening and means of backing.
>
> Provide and install new downspouts and roof boxes from the high roof of the clearstory down to the level of the main roof, four each side, duplicating the present copper down spouts.

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273. Hull to Commissioner of Immigration, Ellis Island, Apr. 21, 1932, and "Specifications for Tiling of Corridor Floor, First Floor - Main Building, Island No. 1," dated Apr. 13, 1932, RG 85, NA.

Remove the present copper lining of the main roof cornice around and between the large pylons and replace with a new 20 oz. hard copper lining duplicating the old.

Replace, where missing, the copper face of the cornice of the T & G roof adjoining the clearstory of the Main Building on the east.

Patch all holes and weak spots in the copper lining of the cornice around the east and west wings of the Main Building at the second floor line, and coat the lining with a mopping of fibrous asphalt.

Cut out all patches and seams in the bottom and sides of the trough of the gutters around the roof of the east and west wing of the Main Building; apply new patches and coat the entire trough with fibrous asphalt.[274]

j. Painting of Buildings on Island 1

Three contracts for painting the buildings on Island 1 were let during the spring of 1932:

Exterior - Louis Gladstein & Peter Contaris of New York City -April 5, 1932 - $3,879

Interior - Louis Gladstone of New York City - ca. June 1, 1932 - $4,995

Interior (additional) - Joseph Gelenter, Inc. of Brooklyn, New York - June 3, 1932 - $3,135[275]

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274. "Specifications for Sheet Metal and Roofing, Island No. 1," dated May 9, 1932, RG 85, NA. The work was to be done in accordance with drawing D-1168.

275. Shaughnessy to Commissioner of Immigration, Ellis Island, Apr. 5, 1932; Husband to McCarl, May 31, 1932, Hull to Commissioner of

k. Construction of New Plaza

The old marquee or canopy in front of the main building was torn down and replaced with "a beautiful plaza adorned with flower beds" sometime during FY 1932.[276]

l. Installation of Fire Alarm System

A contract was let to the Quintine Realty Company of Bloomfield, New Jersey, on October 31, 1931, to install a fire alarm system (Faraday system with two series local control board) in all the buildings on Ellis Island. The system was to have 28 fire alarm boxes. In addition, two electromechanical gongs were to be installed in the main building--one on the second floor and one in the cellar on the east end.[277]

m. Repair of Pipes and Plumbing Fixtures

A contract was let to William C. Crowe of New York City in June 1932 to make miscellaneous repairs to the piping and plumbing fixtures in the building.[278]

Immigration, Ellis Island, June 3, 1932, "Specifications for Painting (Exterior), Island No. 1," dated Mar. 30, 1932, "Specifications for Painting (Interior), Buildings on Island No. 1," dated May 11, 1932, and "Specifications for Painting (Interior) (Additional), Buildings on Island No. 1," dated May 31, 1932, RG 85, NA. The exterior work was to be done in accordance with drawing D-1220, the interior with drawing D-1235, and the interior additional with drawing D-1238.

276. Edward Corsi, In the Shadow of Liberty (New York, 1935), p. 310.

277. "Specifications for Fire Alarm System at Ellis Island," dated Oct. 21, 1931, and Hull to Commissioner of Immigration, Ellis Island, Oct. 28, 1931, RG 85, NA. The work was to be done in accordance with drawing D-1184.

278. FF 02, All Islands: Work Contracted, 1931-1938, Ellis Island Records, DSC. The work was to be in accordance with drawing D-1239.

n. Pointing of Exterior Masonry

A contract was let to the Quintine Realty Company of New York City in June 1932 to point the exterior masonry on all of the buildings on Islands 1 and 2.[279]

o. Installation of Insect Screens

A contract was let to the Orange Screen Company of New York City in June 1932 to install insect screens on all the buildings on Ellis Island.[280]

p. Covering of Pipes in Tunnels

A contract was let to the Sheridan Insulation Company of New York City in June 1932 for covering the pipes in the tunnels of all the buildings on Ellis Island with nonconducting covering.[281]

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279. Ibid., and miscellaneous papers relative to contract, FF 108, All Buildings - Island No. 1: Pointing Up Exterior Masonry, 1932, Ellis Island Records, DSC. The pointing mortar was to be composed either of one volume of white Portland cement and three of sand with sufficient cold line putty to make a stiff mix or of one volume of nonstaining Puzzolan cement and two of sand. The work included the cleaning of the badly discolored limestone on the south elevation of the center portion of the main building with muriatic acid or sand blasted to harmonize with the adjoining weathered stone.

280. FF 02, All Islands: Work Contracted, 1931-1938, and miscellaneous papers relative to contract, FF 177, All Islands: Insect Screens, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1241 and E-1240. The screens to be placed on the main building were as follows:

NUMBER	TYPE	LOCATION	FLOOR
Alum. 70	35 out, 35 in.	Exterior	3rd
" 22 Pr.	I.V.D.S.	"	Toilet Room A
" 10 Pr.	"	"	Room D
" 28 Pr.	"	"	Room C
" 8 Pr.	"	"	Room D
" 18 Pr.	"	"	Room 18
" 2 Sql.	1 # 5 + 0	Interior	3rd

281. FF 02, All Islands: Work Contracted, 1931-1938, and FF 180, All Islands: Non-Conducting Pipe Covering, 1932, Ellis Island Records, DSC.

q. Repairs to Elevators

A contract was let to the Welsh Elevator & Machine Works of New York City in October 1931 to make repairs to six of the ten elevators on Ellis Island.[282] Among the six to be repaired were two in the main building--elevator 4 (passenger car, southwest stairway) and elevator 5 (freight car, northeast stairway). The specifications called for the following work:

ELEVATOR 4

Rebabbitt drum shaft bearings top and bottom
Rebabbitt car shoes
Overhaul control board and check for sudden starting
Renew end thrust bearing
Overhaul governor and safety
Repair gate controls
Reline brakes

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282. The locations and designations of the ten elevators on the island were as follows:

Island No. 1

Elevator 1	Carpenter shop
Elevator 2	Kitchen
Elevator 3	Laundry
Elevator 4	Main building, passenger car, southwest stair
Elevator 5	Main building, freight car, northeast stair
Elevator 6	Main building, self-service car, east end
Elevator 7	Main building, one-story freight car--basement to first floor, east end

Island No. 2

Elevator 8	In hatch at west end
Elevator 9	In hatch at east end

Island No. 3

Elevator 10	Only elevator

New locks on doors
Cut hole in floor, with sleeve and plate to permit use of safety wrench

ELEVATOR 5

Renew motor bearings
Furnish and install Lutz stabilizer to remove lost motion in worm and gears
Cut hole in floor, with sleeve and plate to permit use of safety wrench
Overhaul entire control board
True-up rails
Install new collars on automatic stop
Reline brake
Overhaul car safety
Rebabbitt main and auxiliary bearings
Install new locks on all doors
Overhaul car switch.[283]

20. Fiscal Year 1933

Following a severe windstorm a contract was let to Smith of New York Company in April 1933 to repair the sheet metal roofing on the main building as well as other structures on Ellis Island.[284]

21. Fiscal Year 1934

a. Replacement/Repair of Skylights, Sheet Metal, and Roofing

A contract for $8,313 was let to the Merit Construction Company of New York City in late November 1933 for

283. "Specifications for Repairs to Elevators, Main Island and Repairs to Elevators, General Hospital," dated Oct. 20, 1931, and miscellaneous papers relative to contract, FF 178, All Islands: Elevator Repairs, 1931, Ellis Island Records, DSC.

284. FF 0-2, All Islands: Work Contracted, 1931-1938, Ellis Island Records, DSC.

"replacements and repairs to tile, slate, metal, and composition roofings" on island 1. The work, which was to be completed within 150 days, covered various items on the main building, the kitchen and laundry building, and the powerhouse. Work under the contract, which had a ten-year guarantee, began on December 18, 1933, and was completed on May 31, 1934.[285]

b. Tiling of Floors

A contract was let to the National Tile and Marble Corporation of New York City in January 1934 to tile certain floors in the main building and the contagious disease wards. In the main building the corridor floor of the second floor of the east wing was to be retiled as follows:

> FLOOR TILE: Furnish and install a new tile floor and cove base throughout the corridor in location as shown in cross hatching on drawing.
>
> Replace the present cove base and lowest row of wall tile with a quarry tile, square top, cove bottom member, four inches high, similar to United States Quarry Tile Co. shape No. 1-b.
>
> Floor tile to consist of one row of 6" x 6" tile as a border, with a two-stone ashlar field consisting of 6" x 6" and 2 3/4" x 2 3/4" tiles laid out similar to United States Quarry Tile Co. pattern No. 1504. Lay bands of 6" x 6" tile, three wide, at ends of corridors where new quarry tile joins the present quarry tile in stair halls.
>
> Tile for floor and base shall be of hard burned clay, improved select grade, 3/4" thick, and have grooved back. Color shall be medium red and shall be produced in the burning.

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285. "Specifications for Skylights, Sheet Metal, and Roofing at Ellis Island," dated Nov. 21, 1933, and miscellaneous papers relative to contract, FF 43, Main Building: Skylights, Sheet Metal, and Roofing, 1933, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1245.

Joints shall be uniform, be approximately 3/8" wide, and shall be filled with chemical black cement mortar. No lamp black or similar coloring allowed.

Floor panel. Provide panel at alcove at end of corridor where marked on drawing, using 6" x 6" tiles.

Wall tile. Neatly patch the vertical crack in the present tile wainscote, where indicated, and replace any wainscote tile damaged, broken, or loosened as a result of removing work under this contract with new wall tile, white, glazed, 3/8" thick. 3" x 6" oblong, standard grade, grip back.

The first floor corridor, extending from the foot of the main stairway to the passage leading to the kitchen and laundry building, was also to be retiled as follows:

Furnish and install a new tile floor in that portion of the corridor shown cross hatched on drawing, and include tile base against masonry walls and pilasters and around columns immediately adjoining the floor.

Tile base to be quarry tile, rounded top, cove bottom member, 5" high, similar to United States Quarry Tile Co. shape No. 11-b.

Floor tile to be 6" x 9" laid in the same pattern as to border and field as the present red tile floor at the head of the main stairway, and include necessary angles for completion of the periphery.

Border shall be widened at doorways, as directed, to meet adjacent floor finishes.

Lay bands, consisting of 6" x 9" borders and two rows of 6" x 6" center pieces, in the locations indicated.

Floor tile shall be "Improved Standard" grade but shall in all other respects comply with requirements specified elsewhere herein for quarry tile floors.

The work began on March 3 and was completed on April 6.[286]

c. Repairs to Elevators

A contract was let to the Welsh Elevator and Machine Works Company of New York City in October 1933 to repair various elevators on Ellis Island. Two of the elevators were in the main building--the passenger car in the southwest stairway and the freight car in the northeast stairway. The work on the former amounted to mere replacements of parts, while that on the latter included the installation of a new control board complete with potential reversing, fast speed, accelerating, and stopping switches, and a door contact sequence relay.[287]

d. Replacement of Elevator Motor - Southwest Tower

A contract was also let to the Welsh Elevator and Machine Works in March 1934 to replace the motor on the passenger elevator in the southwest tower of the main building. The job, which was funded by the Public Works Administration, called for a new motor (compound-wound, 220 volts, direct current, two-speed type) to replace the current 20-horsepower motor.[288] The work began on April 2 and was completed on May 11 at a cost of $467.[289]

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286. "Specifications for Floor Tiling, Island No. 1 and No. 3," dated Dec. 27, 1933, and miscellaneous papers relative to contract, FF 44, Main Building: Tile Floor, 1933, Ellis Island Records, DSC. The work was to be done in accordance with drawings T-2 and T-3.

287. "Specifications for Repairs to Elevators," dated Oct. 11, 1933, and miscellaneous papers relative to contract, FF 181, All Islands: Elevator Repairs, 1933, Ellis Island Records, DSC.

288. The elevator traveled from grade to the third floor, a distance of 44 feet, at a speed of 250 feet per minute with an average load of 2,500 pounds.

289. "Specifications for Elevator Motor, Island No. 1," dated Mar. 19, 1934, and miscellaneous papers relative to contract, FF 45, Main Building: Elevator Motor, 1934, Ellis Island Records, DSC.

e. Alterations/Renewal of Steam and Circulating Systems

A contract was let to R. J. McKinon Contracting Company of New York City in December 1933 to make alterations and to renew the high-power and low-power steam systems and the hot water circulating systems in all the buildings on Ellis Island.[290]

f. Installation of Drains and Replacement of Plumbing Fixtures

A contract was let to A. Blaustein of New York City in February 1934 to make various plumbing installations and replacements. The following work was done on the main building: Six cast-iron area drains were installed on the south porch and connected with existing drain lines in the basement, and numerous fixtures and fittings were replaced in various toilet rooms on the first and second floors. The work was begun on March 22 and completed on June 22.[291]

22. Fiscal Year 1935

A special committee of prominent citizens selected by Francis Perkins, Secretary of Labor, undertook a complete analysis of Ellis Island in early 1934. Relative to the detention quarters in the main building, the committee observed the following:

> Passengers detained for Ellis Island were in the past brought to the immigration station in small vessels. Of late there have been so few detained immigrants that they are brought on the regular Ellis Island ferry which carries employees and visitors to the Island. Upon arrival at Ellis Island the passengers are re-examined in the Medical Division. Those who are found to require further observation are sent to the U.S. Marine

290. FF 0-2, All Islands: Work Contracted, 1931-1938, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1246 through D-1252.

291. "Specifications for Plumbing Installations and Replacements," dated Jan. 30, 1934, and miscellaneous papers relative to contract, FF 183, All Islands: Plumbing Installations, 1934, Ellis Island Records, DSC.

Hospital on Islands 2 and 3. The others are sent to the very large detention room which is really an auditorium with a balcony. Here they place their hand baggage in bins, provided for the purpose.

The detained aliens usually rise at six o'clock and have breakfast at seven-thirty. Dinner is served at noon and supper at five-thirty. When the weather is good they are permitted out of doors three times daily. They retire at eight o'clock in the evening but the lights are kept on until nine or nine-thirty. The early hour of rising makes the day unusually long.

On the upper balcony of this large central detention room are the sleeping quarters for the women and children. The accommodations are clean and pleasant but are apt to be uncomfortable in the summer. Back of the detention room are the dormitories where the men sleep. Husbands and wives are separated. New equipment is needed for the sleeping quarters and the beds should be repainted.

There are three bath tubs and showers provided for the women. The bathing accommodations for the men are better and more adequate. The lavatories are equipped with wash basins and are accessible at any time during the day. Personal laundry is done by the aliens in the lavatories and also in the Government laundry. An electric iron with equipment for pressing is available in the detention room.

The food is ample and good. The dining room is fairly well equipped and clean. Breakfast usually consists of cooked cereal, milk, fruit, bread and butter. Dinner consists of soup, meat and potatoes, pudding, cake for dessert and ice cream twice a week. Supper consists of some light substitute for meat, macaroni, cheese, coffee, bread and butter. Special

arrangements are made in cooperation with social service agencies to provide food for the Jewish and Mohammedan aliens according to their dietary laws.

Large trunks and heavy pieces of baggage are left in the "railroad" room where they are kept until the aliens are ready to proceed to their destination. Articles needed by the aliens and small bags are deposited on the racks in the detention room. Whenever an alien needs articles from the heavy trunks, he has access to the baggage room and a matron accompanies him there.

Facilities for exchanging money are provided in the "railroad" room at an exchange desk, maintained as a concession from the government. If an alien has a large amount of money with him he may deposit the money with the "Treasury Division." Visitors are permitted to see aliens daily at ten o'clock in the morning and at two o'clock in the afternoon. Occasionally, an alien wishes to go to New York City to collect money due him, or draw money from the bank, or do necessary shopping. If the matter is considered sufficiently important, a matron or guard accompanies the alien.

The food, lodging and hospital charges of incoming aliens detained at Ellis Island are paid by steamship companies.[292]

Accordingly, the committee recommended that "tiling, roofing, heating, plumbing and the elevators in the old building be repaired; and that there be new painting." Based on the recommendations of the committee, efforts were begun to obtain funds to improve the buildings at the immigration station. The efforts were

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292. U.S., Library of Congress Report of the Ellis Island Committee, March 1934 (New York, 1934), pp. 30-31.

successful in securing the sum of $1,151,800 from the Public Works Administration for the work.[293]

a. Alterations in Plumbing Equipment

On April 21, 1934, Bryan H. Uhl, the director of the New York District of the Commissioner of Immigration and Naturalization, proposed that the plumbing equipment in the detention quarters of the main building be modernized. The work was to be done as part of federal project 63 for which drawings were being prepared by the Procurement Division of the Treasury Department. Although available documentation does not indicate if all of Uhl's recommendations were adopted in FY 1935, his schedule of necessary work was presented as follows:

THIRD FLOOR, MAIN BUILDING

Toilet of Room 19
- 3 toilets and flush valves (replace high up tanks)
- 2 urinal flush valves (replace high up tanks)
- 4 pairs lavatory faucets

Bathroom of Room 18
- 5 pairs lavatory faucets

In Room 18
- 5 pairs lavatory faucets

Men's Toilet of Room 18
- 3 urinal flush valves (replace high up tanks)
- 4 toilet seats
- 1 pair lavatory faucets

Women's Toilet of Room 18
- 4 toilet seats
- 2 pairs lavatory faucets and reset one loose lavatory

In Room 17
- 4 pairs lavatory faucets
- Remove old sink

Men's Toilet of Room 17
- 4 toilets and flush valves (replace oil valves)
- 3 urinal flush valves (replace high up tanks)

293. Ibid., Twenty-Second Annual Report of the Secretary of Labor for the Fiscal Year Ended June 30, 1934 (Washington, 1935), p. 72.

Women's Toilet of Room 17

4 toilets and flush valves (replace oil valves)

2 pairs lavatory faucets

North Balcony Women's Bathroom

3 toilets and flush valves (replace oil valves)

New wastes and supplies for three bathtubs, to be carried thru floor to ceiling of 2nd floor

South Balcony Bathroom

5 toilets and flush valves

Remodel shower room to provide three showers including new tile on walls and floor and lead pan under floor

Balcony Dormitories

Tank, Room G, one toilet and one flush valve; one pair lavatory faucets

Tank, Room H, one toilet and one flush valve; one pair lavatory faucets

Toilet Room Adjoining "Q" Room

2 toilets and flush valves (replace high up tanks)

6 pairs lavatory faucets

Toilet of Room 6

4 toilets and flush valves

5 new lavatory combinations

Toilet of Room 16

3 toilets and flush valves

3 pairs lavatory faucets

Balcony

1 drinking fountain

SECOND FLOOR, MAIN BUILDING

Day Detention Room Men's Toilet

8 toilet seats

Day Detention Room Women's Toilet

13 toilet seats

1 iron enamel slop sink combination

Toilet near S.W. Stairway

2 urinal flush valves (replace high up tank)

FIRST FLOOR, MAIN BUILDING

2 toilets where directed (use present flush valves) to be used in small toilets in new arrivals portion of Medical Division

NOTES

Where urinal flush valves are called for, include spreaders.
Where new toilets are called for, the complete combination is wanted, including seats (no seat covers)
Include changes to supply and waste lines to accommodate new fixtures.[294]

b. Installation of Electrical Items

A contract was let to Henry Safarick of New York City in early July 1934 to make "replacements, alterations, and additions, to the electric light and power systems" of several buildings on Ellis

294. Uhl to Commissioner of Immigration and Naturalization, Apr. 21, 1934, FF 46, Main Building: Plumbing Alterations, 1934, Ellis Island Records, DSC.

Island. The work included the installation of panel boards, conduits, junction and pull boxes, wiring, switches, receptacles, and lighting fixtures. The work was begun on July 31 and completed on September 28 at a cost of $8,641.50.[295]

c. Provision for Women's Washroom - East Wing

In late May 1935 a contract was let to A. Blaustein of New York City to remodel a room on the first floor of the east wing of the main building for use as a women's toilet and washroom. The room was to contain one slop sink, eight pedestal lavatories, and three water closets with seats. The work was begun on July 8 and completed on October 11 at a cost of $1,288.[296]

23. Fiscal Year 1936

a. Installation of Electrical Items

A contract was let in March 1936 to modernize the electrical system at Ellis Island. The work included the installation of the following items in the main building: (1) new glassteel diffuser-type fixtures in the ceilings of the record room and record room extension; (2) new automatic starters and push-button stations for ventilating fans in the record room extension; (3) new corridor ceiling fixtures on the second floor; (4) new wiring, conduits, switches, receptacles, and lights in the basement; and (5) the removal of four existing 750,000 C.M. cables and conduit connecting the northwest panel with the main switchboard in

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295. "Specifications for Electric Installation, Baggage and Dormitory Building - Island No. 1, Main Building - Island No. 1, Ward 22, Island No. 3, Ward 29, Island No. 3," dated June 28, 1934, and miscellaneous papers relative to contract, FF 48, Main Building: Electric Installations, 1934, Ellis Island Records, DSC.

296. "Specifications for Women's Wash Rooms, First Floor, East Wing, Main Building, Island No. 1," dated May 9, 1935, and miscellaneous papers relative to contract, FF 49, Main Building: Women's Wash Room, 1935, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1296.

the basement and their replacement with two 1,500,000 C.M. cables installed in a 5-inch conduit.[297]

b. Installation of Insect Screens - Third Floor

A contract was let to the Orange Sash Company of New York City in early June 1936 to cover various windows on the third floor of the main building and the baggage and dormitory building with insect screens. The specifications and the number of screens to be installed on the main building were as follows:

> New Metal Screens required under this contract shall be installed complete with all necessary hardware, guides, stops, and attachments to frames or other connecting work of openings.
>
> New Wire Cloth required under this contract for use with existing metal screen frames or for use with new metal screens shall comply with Federal Specification No. RR-C-451, and shall be 16 mesh, heavy, either type F or type G, at the option of the contractor.
>
> Screen Frames shall be natural aluminum with a smooth or fine-emeried finish. They shall be constructed of hollow, one-piece sections, which shall be either extruded and drawn or formed from seamless tubing or strip aluminum. Extruded sections shall be at least 3/8" thick by 1" wide. Formed sections of strip aluminum or seamless tubing shall be at least 7/16" thick by 1 1/2" wide. Cross braces and center stiles shall be not less than 1" wide.

297. "Specification for Electrical Work, U.S. Immigration Station, Ellis Island, N.Y.," dated Mar. 3, 1936, FF 50, Main Building: Electrical Work, 1936, Ellis Island Records, DSC.

SUMMARY OF WORK ITEMS REQUIRED - MAIN BUILDING

Number Required	
21	Screens (in two sections) for pivoted windows 2'10" x 3 1/2' require new cloth. Numbered: 100, 101, 106, 107, 108, 112, 134, 136, 137, 142, 143, 148 to 152 inclusive, 157 to 161 inclusive
9	Note: Those numbered 102, 113, 120, 121, 122, 123, 124, 128, and 129 require one section only
32	Screens (in two sections) for pivoted windows 2 1/2' x 3 1/2' require new cloth. Numbered: 103, 104, 111, 114 to 119 inclusive, 125, 126, 127, 130, 131, 135, 138 to 141 inclusive, 144, 145, 147, 153 to 156 inclusive, 162, 163, 165, 166, 168
2	Note: Those numbered 105, 110, require one section only!
2	D.H. Screens (in two sections) require new cloth 2 1/2' x 6'8". Numbered: 21, 22
15	D.H. Screens (in two sections) require new frame complete with cloth, 2'10" x 6'8". Numbered 43 to 52 inclusive, 84 to 88 inclusive
1	Note: one numbered 72 requires one section only
10	D.H. Screens (in two sections) - with mullion bar in center - require new frame complete, 3'10" x 8'8". Numbered: 53 to 62 inclusive
2	Note: Those numbered 75, 76 require one section only
92	Total

The work was commenced on June 10 and completed on July 23 at a cost of $961.[298]

298. "Invitation, Bid, and Acceptance . . . Insect Screens," dated May 27, 1936, and miscellaneous papers relative to contract, FF 51, Main Building: Insect Screens, 1936, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1306.

24. Fiscal Year 1937

a. Installation of Electric Lighting - New File Room

During the winter of 1936-1937, a new file room office was established across the hallway from the former office on the second floor of the east wing of the main building. Accordingly, a contract was let in February 1937 to the Margold Electric Company of New York City for the installation of a new lighting system in the office. The work began on March 2 and was completed on April 8 at a cost of $524.[299]

b. Repairs/Replacements of Electrical Items

A contract was let to the T. J. Dekroney Company of New York City in February 1937 to make miscellaneous electrical repairs at the station. Among the items of work in the main building were the following: rewiring three chandeliers in the large detention room on the second floor; providing new feeder circuits for three 30-inch diameter exhaust fans and one new fan in the record room extension on the first floor of the east wing; and installation of new main switch in the record room on the first floor. The work was commenced on April 5 and completed on June 30 at a cost of $1,563.[300]

c. Alterations in Lighting System - Record Room

The bid of Charles Michaels of Brooklyn, New York, was accepted in May 1937 for alterations and the extension of the lighting system of the first floor of the main building. The work included extending the system into the recently completed west extension of the

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299. "Specifications for Electric Lighting for New File Room, 2nd Floor, East Wing, Main Building, Island No. 1," dated Feb. 9, 1937, and miscellaneous papers relative to contract, FF 52, Main Building: Electrical Lighting, 1937, Ellis Island Records, DSC.

300. "Specifications for Miscellaneous Electrical Repairs and Replacements," dated Feb. 11, 1937, and miscellaneous papers relative to contract, FF 53, Main Building: Miscellaneous Electrical Repairs, 1937, Ellis Island Records, DSC. The work was to be done in accordance with drawing C-1309.

record room and into an adjoining storage room. The contract was completed by July 31 at a cost of $744.[301]

d. Installation of Metal Partition - Record Room

After the electrical alterations had been completed for the west extension of the record room, the General Wire Mesh Company of Brooklyn, New York, installed a metal partition for the additional office space. The work was completed by October 11 at a cost of $548.[302]

e. Construction of Concrete Sidewalk - Front of Main Building

In June 1937 a contract was let to the Washbourne Reconditioning Company of New York City to remove 9,450 square feet of concrete sidewalk lying along the front of the main building at a cost of $970. After the work was completed on July 10, Albert-Harrison, Inc., constructed a new 6,000-square-foot concrete sidewalk in its place. The 5-inch-thick wall, which was composed of concrete--1 part Portland cement, 2¼ parts sand, and 3-1/3 parts coarse aggregate--had an integral floated finish and was reinforced by steel wire fabric. The new sidewalk was completed on July 30 at a cost of $1,820.[303]

f. Installation of Terrazzo Flooring - First Floor, West Wing

A contract was let to N. Foscato, Inc. in June 1937 to install a terrazzo floor in one room, approximately 26½ feet by 71½ feet,

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301. "Specifications for Electrical Alterations in Connection with Westerly Extension of Record Room," dated Apr. 26, 1937, and miscellaneous papers relative to contract, FF 54, Main Building: West Extension of Record Room, 1937, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1310.

302. Miscellaneous papers relative to contract, FF 54, Main Building: West Extension of Record Room, 1937, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1310.

303. "Specification Break Up and Remove Concrete Walk," undated, Untitled Specification for New Concrete Walks, and miscellaneous papers relative to contract, FF 55, Main Building: Break Up and Remove Concrete, 1937, Ellis Island Records, DSC.

on the first floor of the west wing of the main building. The specification called for the removal of the existing floor finish, a composition some 2½ inches thick, and the installation of the terrazzo floor complete with brass dividing strips, panels, and a 6-inch base at the walls and columns. The new floor was completed on December 3 at a cost of $1,022.[304]

g. Replacement of Millwork - Third Floor

A contract was let to D. Gluck of New York City in June 1937 for the replacement of millwork on several buildings on Ellis Island. The work on the main building consisted of the following items on the third floor:

6 pairs of sash for double hung windows with openings 3 feet, 8 inches x 6 feet, 2 inches - the upper sash divided 3 ets wide x 2 ets high

40 pairs of sash for double hung windows with openings 2 feet, 8 inches x 6 feet, 2 inches - the upper sash divided 2 ets wide x 2 ets high

All of the sash was to be 1-3/4 inches thick, rebated on the outside for putty glazing, and made with mortise and tenon joints pinned. The work was completed on September 8.[305]

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304. "Specification -- Terrazzo Floor, Main Building," undated, and miscellaneous papers relative to contract, FF 56, Main Building: Terrazzo Flooring, 1937, Ellis Island Records, DSC. The work was to be done in accordance with drawing C-1313.

305. "Specification - Millwork Replacements, Main Building and Power House, Island No. 3," undated, and miscellaneous papers relative to contract, FF 57, Main Building: Millwork Replacements, 1937, Ellis Island Records, DSC.

h. Floor Tiling, Masonry, Plastering, and Carpentry Work - Record Room

A contract was let to Albert-Harrison, Inc., of New York City consisting of floor tiling, masonry, plastering, and carpentry work in the west extension of the record room on the first floor of the main building. The principal items of the work were as follows:

On the west end of the extended room, a wooden platform, approximately 10 feet by 40 feet, was to be removed and be replaced by a concrete floor.

In the area extending along two sides of the storage room, approximately 88 feet long by 9 feet wide, a composition floor was to be removed and be replaced by a medium red quarry tile floor.

150 linear feet of gypsum partitions were to be installed and given three coats of plaster.

Three single and one pair of double doors (of the flush oak veneered type) were to be installed.

The work was completed on September 21 at a cost of $2,900.[306]

i. Installation of Revolving Door - Information Bureau

In June 1937 a contract was let to the International Revolving Door Company of New York City to install a revolving door at the entrance to the information bureau office in the main building. The door unit, which cost $1,090, included a circular glass-paneled enclosure,

306. "Specifications for Floor Tiling, Masonry, Plastering, Carpentry In Connection with Westerly Extension of Record Room, First Floor, Main Building, Island No. 1," dated June 18, 1937, and miscellaneous papers relative to contract, FF 58, Main Building: Floor Tiling, 1937, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1310.

flat ceiling with moulded cornice, four revolving wings, hardware, panic proof device, radial position mechanism, and a speed control device. The work was completed on October 23.[307]

25. Fiscal Year 1938

a. Alterations/Extensions in Electric Lighting System - Record and File Rooms and Treasurer's Office

In January 1938 a contract was let to the Winn Electric Company of New York City to make alterations in the electric lighting system in the record and file rooms and treasurer's office in the main building. The work entailed the following items:

> Record Room and File Room: In these rooms there are at present one hundred fifty eight (158) R. L. M. type fixtures all suspended by portable drop cords from exposed ceiling outlet boxes. The outlet boxes are provided with cord grip covers, and the fixtures are provided with strain relief cord grips.
>
> Remove the cord grip devices. For each ceiling outlet box furnish and install an approved cast iron outlet box cover, tapped for 1/2 inch pipe.
>
> For all of these fixtures furnish and install chain supports, secured by approved threaded rings or chandelier loops at outlet boxes and fixtures. Chain shall be made up of 1 1/2" x 7/8" x 3/16" brass links, Federal Standard.
>
> In general, fixtures will be suspended the same distance as at present.

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307. "Specification -- Revolving Door at Information Office, Main Building, Island No. 1," dated June 23, 1937, and miscellaneous papers relative to contract, FF 59, Main Building: Revolving Door, 1937, Ellis Island Records, DSC.

With the exception of four fixtures in the File room all present drop cords shall be retained as fixtures wiring, and shall be fastened, free from strain, along side of the chain supports (not interwoven).

Provide new fixture wiring for the four fixtures in the File room. This wire shall be #14 single conductor heavy rubber insulated stranded silk covered wire, tied free from strain alongside of the chain supports. These four fixtures are suspended 6 feet from the ceiling.

Treasurer's Office: In this room there is at present one large center fixture suspended from a beam soffit. Remove the fixture. From the ceiling outlet install new wire feeders, in wire mould and wire mould fittings, for two new fixtures to be placed about 9 feet on each side of the present fixture (not on the beam soffit). Furnish and install 3 new fixtures. These fixtures shall be duplicate in every way the ceiling fixtures in the Treasurer's General Office. These fixtures are chain suspended fixtures with celestialite globes $5920, 16 inch diameter with 8 inch fitter, intended for use with 300 W. lamps. Chains and fixture wiring shall be as specified hereinbefore for use with R. L. M. fixtures. Each fixture to have a 3 ampere, 250 volt pull chain canopy switch installed, which shall be provided with a linen cord to hang to 6'-6" above the floor. All new parts shall be securely fastened in place, using expansion bolts and metal shields for outlet boxes.

The work was completed on March 17 at a cost of $417.[308]

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308. "Specifications for Certain Alterations and Extensions to the Electric Lighting System - Main Building - Island No. 1," dated Jan. 14, 1938, and miscellaneous papers relative to contract, FF 60, Main Building: Electrical Lighting, 1938, Ellis Island Records, DSC.

b. Installation of New Electrical Fixtures and Wiring - Record Room

A $275 contract was let to the Naumer Electrical Company of New York City in April or May 1938 for the installation of new electrical fixtures and wiring in the recently completed offices of the record room in the southeast corner of the first floor of the main building. All the lighting fixtures were to be chain hung R.L.M. glassteel diffuser types with blue daylight globes, and the circuit wiring was to be #12 gauge S.B.R.C. copper wire.[309] A contract was also let to the Naumer Electrical Company in May 1938 to install electrical fixtures in the west extension of the record room. The work was completed by June 10 at a cost of $275.[310]

c. Placement of Mural Paintings - Dining Hall

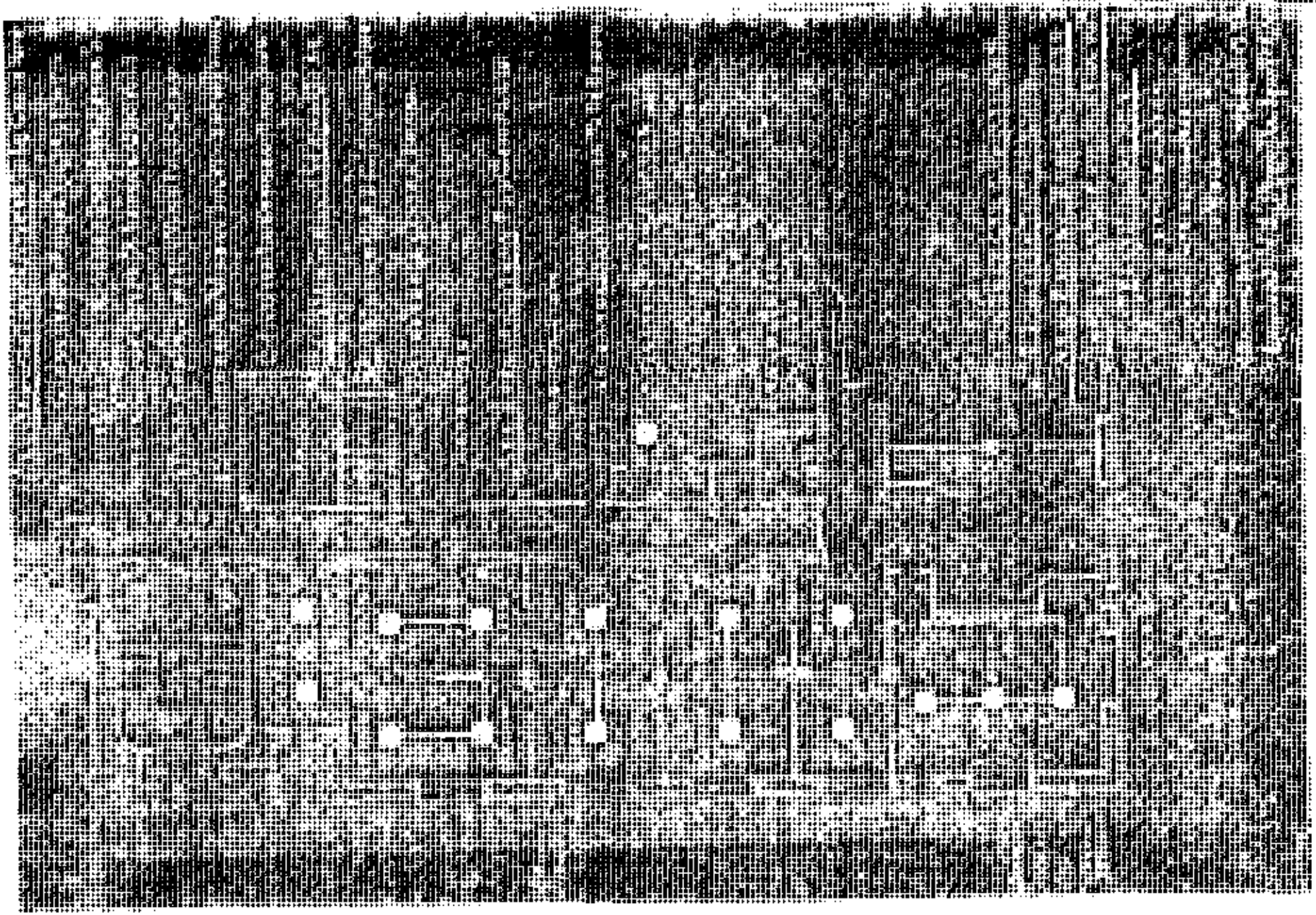
On February 24, 1938, mural paintings depicting "The Role of the Immigrant in the Industrial Development of America" were presented to the immigration authorities at Ellis Island by the federal art project of the Works Progress Administration. The paintings were the work of Edward Laning, a member of the Mural Painters Society and of the American Society of Painters, Sculpters, and Engravers. The murals, approximately 8 feet in height and 110 feet in length, were placed in the main dining hall of the building. They were part of a series of topical murals executed under the direction of the Works Progress Administration art project for public buildings. Each mural showed a phase of the immigrants at work since 1850 in key industries such as coal mines, steel mills, lumber camps, and railroad construction.[311]

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309. "Untitled Specification for New Electric Fixtures and Wiring in Record Room, First Floor, Southeast Corner of Main Building," ca. Apr. 1938, FF 60, Main Building: Electrical Lighting, 1938, Ellis Island Records, DSC. A drawing accompanying the specification may be seen on the following page.

310. Miscellaneous papers relative to contract, FF 54, Main Building: West Extension of Record Room, 1937, Ellis Island Records, DSC.

311. New York Times, Sept. 6, 1935, Mar. 4, 1936, Feb. 25, 1938, and Federal Times, Dec. 22, 1971.



26. Fiscal Year 1939

a. Alterations in Men's Toilet - Medical Division

Various alterations were made in the men's toilet room in the medical division near the arrival room in the main building under the auspices of the New York State Projects Office of the Works Progress Administration during the spring of 1939. The work involved the installation of modernized plumbing fixtures and green metal partitions, part of which were to be wire screened.[312]

b. Miscellaneous Projects

At least three projects were carried out on the main building by the Works Progress Administration in 1939. These jobs included roofing the structure, placing panel strips in several small rooms, and modernizing the obsolete electrical lines and conduits in the basement.[313]

27. Fiscal Year 1940

During the winter of 1939-1940 it was determined to relocate the law division in several rooms in the northeast corner of the third floor of the main building. The relocation involved alterations in the men's toilet room, women's toilet room, and five hearing rooms as well as several offices and a corridor. The specification for the work was divided into four groups as follows: group A - masonry, plastering, millwork; group B - plumbing and heating; group C - electrical; and group D - sheet metal and ventilators.

Available documentation covers only the contracts that were let for the work as outlined by group A and group C. A contract

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312. "Specifications: Job No. 68, Men's Toilet in Medical Division Near Arrival Room Administration Building, Island No. 1," dated May 4, 1939, FF 61, Main Building: Men's Toilet, 1939, Ellis Island Records, DSC. The work was to be done in accordance with WPA drawing 68-1, approved May 3, 1939.

313. FF 185, All Islands: Overhaul Panel Boards, 1939, and FF 331, Works Progress Administration: WPA Projects, 1939, Ellis Island Records, DSC.

was let to Fred Walker of Staten Island in March 1940 to do the masonry, plastering, and millwork at a cost of $1,980. During the same month a contract for the electrical work was let to S. Oberstein of New York City at a cost of $585.[314]

28. Fiscal Year 1945

Alterations were made in the detention quarters on the third floor of the east wing of the main building during the early months of 1945. The work was divided into five categories as follows: group A - masonry, plastering, carpentry, structural glass, metal partitions; group B - plumbing; group C - electrical; group D - painting; and group E - insect screens.[315]

29. Fiscal Years 1951-1953

After the Internal Security Act was passed in 1950, the detainee population on Ellis Island expanded rapidly. By November of that year the average number of detainees being held on the island had risen to 1,300 per month. Accordingly, a number of alterations were made to the main building during fiscal years 1951-1953.

One of the first improvements was the opening of a new modern school and playground for the detainees' children on May 22, 1951. The school, which had been built by the engineering staff on the island, was described in the New York Times as follows:

> The traditional gloom of Ellis Island's dark chambers and corridors was brightened . . . with the opening of a modern,

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314. "Specifications for Alterations of Rooms, Northeast Corner, Third Floor, Main Building, Island No. 1," dated Mar. 18, 1940, and miscellaneous papers relative to contracts, FF 62 and 63, Main Building: Alter Rooms, 1940, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1324.

315. "Specifications for Alterations of Rooms, Third Floor, East Wing, Main Building . . . Island No. 1," dated Dec. 4, 1944, FF 66, Main Building: Alter Rooms, 1944, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1338.

> sun-lit school-playground. . . . Beribboned and freshly groomed children, from toddler stage to almost adolescence, cavorted in the immense room, which had once been a kitchen. Handsome light-oak furniture, linoleum flooring and kindergarden-size seating contrasted sharply with the adjoining assembly room with its tile floor and hard wooden benches.

The new school, which had an average of 35 children in attendance, was dedicated to the memory of Anna M. Kaufman, a social worker who had been employed at Ellis Island for 25 years.[316]

On June 30, 1951, it was reported that the new influx of detainees was posing increasing problems in space. Some of the former dormitory and dining areas

> had been relinquished for file storage space. When it was reclaimed for detention quarters, walls and floors were in bad shape.
>
> Lack of space also posed a feeding problem. The present dining room seats only 300 persons. Since aliens under warrant proceedings are served separately from passengers, this meant that meals were served practically the entire day. When 7,500 square feet of file space adjacent to the dining room has been repaired and equipped for dining space, this problem will be solved.
>
> The fact that the Public Health Service closed its hospital on the island in February contributed to crowded conditions. The 20-bed infirmary and Public Health medical staff installed in the detention quarters did not include facilities for X-ray examination.

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316. New York Times, May 23, 1951.

> Other changes and improvements have been made: rearrangement and better use of space; new paint and linoleum; a new motion picture projector; a new altar, pulpit, piano and organ for the 200 capacity chapel were furnished by the social service organization.[317]

A plan was approved in May 1952 for more office space alterations. The project consisted principally of the rearrangement and construction of office partitions and other enclosures to provide for the following:

> The present dormitory at the rear of the Passenger Hall, 2nd floor, Main Building, to become a file room.
> The present Post Office and one bay adjoining, first floor, Main Building, now used by Social Service to become offices for Detention Officers.
> The space now occupied by Pass Officer and Package Censor, first floor, Main Building, to become the Post Office.
> The space parallel to and adjoining the present Post Office, first floor, Main Building, to become the office for the Pass Officer and Package Censor.
> Move the Fiscal Office from the 2nd floor, Main Building to a room on the first floor of the same building.
> The Parole Section now at 70 Columbus Avenue to be moved to the second floor of the Main Building on Ellis Island.

The project included the following principal items:

> Rearrangement, and re-use, of existing wood and glass office partitions. Construction of new office partitions.

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317. U.S., Library of Congress, Annual Report of the Immigration and Naturalization Service, U.S. Department of Justice, For the Fiscal Year Ended June 30, 1951 (hereinafter cited as Annual Report, Immigration and Naturalization Service, and date), pp. 54-55.

Partial demolition, moving and reerection of counters and other building equipment.

Construction and installation of metal window and door guards for new Fiscal Office on first floor (which is within the Detention area). Some painting.

Construction of Directory board and installation of directional signs and office signs.

The principal cost involved in the expenditure of $2750 is that for providing security for the Fiscal Office which will now be on the ground floor and within the detention area and much of this work must be accomplished by contract.

The work in connection with rearrangement of office partitions, counters, etc., will be performed by station mechanics, and local moving station laborers.[318]

In June 1952 the Immigration and Naturalization Service reported that a number of changes had been made in the main building. That month the security unit supervisory offices had been transferred to the first floor, and a public address system had been installed. Both of these improvements would "assist greatly in coordinating the various security functions in one area and provide a means of contact at all times between security personnel and every post inside and outside the station." The 30-bed infirmary, which had been opened the previous year under the supervision of the U.S. Public Health Service, was almost completed. It included three small wards for women and children, men, and isolation cases. Fifty additional beds and other dormitory equipment had been installed in the wing adjacent to the infirmary for medical hold cases, thereby "giving full meaning to a Service policy" which required

318. Booth to Zucher, May 27, 1952, FF 67, Main Building: Alter Office Space, 1952, Ellis Island Records, DSC.

"the segregation of newly arrived detainees until a clean bill of health" would be given by the Public Health Service.[319]

In July 1952 a contract was let to John Rosenblum, Inc., for the installation of fire escapes and various alterations on Ellis Island. The estimated cost of the work was $126,640, and the work was expected to be completed within six months.[320]

During FY 1953 Ellis Island officials, in consultation with Prisons Industries, drew up plans for the design and manufacture of furniture and equipment for the passenger's lounge, family quarters, and warrant room in the main building. The furniture, which was designed for heavy wear, was approved for purchase in June 1953. Thus, the first phase of a proposed overall plan for the renovation and refurnishing of the family quarters, women's dormitories, chapel, library, and passenger's visiting room was completed.[321]

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319. Annual Report, Immigration and Naturalization Service, Fiscal Year 1952, pp. 48-49.

320. New York Times, July 13, 1952.

321. Annual Report, Immigration and Natrualization Service, Fiscal Year 1953, p. 49. Available documentation indicates that no other renovation work was undertaken in the main building until the station closed in November 1954.

VI. THE KITCHEN AND LAUNDRY BUILDING

Based on the selected design of Boring & Tilton for the new immigration station on Ellis Island, estimates and plans were drawn up for structures ancillary to the main building. Two of the buildings that were designed to house facilities important to the reception of immigrants were the disinfection bathhouse and laundry and the kitchen and restaurant. Both buildings were to be located on the northwest side of the main building and were to be of equal size and parallel to each other.[1] The disinfection bathhouse and laundry, which was to be built at an estimated cost of $55,200, was described by the assistant commissioner of immigration at New York as follows:

> In this building it is proposed to disinfect the clothing and clean the person of every immigrant, arriving at the Port of New York, who may be detained over night for any reason. This is a separate plant from the smaller disinfecting apparatus used at the hospital where, "all those diseased or liable to spread contagion are treated in another way by the medical authorities." After the immigrants pass their inspection and are held for any reason, before they retire for the night, it is proposed to pass them into this disinfection building where there should be provided a bathing establishment containing a sufficient number of shower baths for men and separate baths for women and children. In connection with these baths should be a room for disinfecting the clothing and effects of immigrants by means of formaline gas apparatus, in order to destroy all vermin. This apparatus, which is the most modern and effective, while, being at the same time very inexpensive, can

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1. Annual Report, Supervising Architect, Sept. 30, 1898, pp. 22-23. A copy of the "Plan of U.S. Immigration Station, Ellis Island, N.Y. Harbor" may be seen in this Historic Structure Report in V.A.1.a. The two parallel buildings on the northwest side of the main building were to be the disinfection bathhouse and laundry and the kitchen and restaurant buildings.

also be used to disinfect blankets, and deodorize and disinfect the rooms in the main building where the immigrants live and sleep while detained. In connection with this, should be a free laundry, tubs for the use of immigrants, with hot and cold water and drying racks over steam coils. In this building should also be established a laundry suitable for the work of the Island, exclusive of the hospital, for towels, blankets, bed clothing etc. The building should be well lighted, ventilated, and properly warmed, made of non-absorbing, non-corrosive material, walls lined with enamelled bricks, and the whole capable of being thoroughly scoured and cleaned. On coming to this building from the main building, the men and women are to be separated, taking all their possessions which are to be disinfected with them. On going to their several rooms, they disrobe, their effects are placed in a basket and a check given them. From there they proceed to the bath-room; after the baths to a dressing room where they are to be provided with a suit of clothing suitable for night wear. In the meanwhile the effects are placed in baskets, each one by itself, and placed in the disinfecting room to be treated thoroughly by formaline gas. During this time the immigrant goes to bed and in the morning receives his belongings thoroughly disinfected.

The kitchen and restaurant building, which was to be built at an estimated cost of $30,000, was to be used for cooking and feeding the detained immigrants. In addition, the assistant commissioner observed that "as the total number of persons employed, including government officials and employees of all classes necessary to conduct the business of the depot, will average three hundred, there must be provision made for at least a lunch meal, and the building should contain a kitchen, store-room, cold storage, bake ovens, pantries, dining room for employees etc."[2]

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2. Gage to Chairman of the Committee on Appropriations, House of Representatives, Feb. 3, 1898, RG 121, WNRC.

In December the question of the foundations for the disinfection bathhouse and laundry and the kitchen and restaurant arose. Accordingly, Supervising Architect Taylor issued the following instructions to Chief Engineer and Superintendent of Repairs Fry on December 23:

> Acknowledging the receipt of your telegram of this date, I have to advise you that this Office is reluctant to authorize an expenditure of nearly six hundred dollars for tests for the foundations of the two additional buildings on Ellis Island, although it is doubtless necessary to have reliable information as to the character of the sub-soil whatever the cost may be of obtaining it.
>
> In explanation of which feeling you are informed that it has been expected that these foundations would come on the original nucleus of the Island and escape the filled ground, although since the matter was first considered the interval between the buildings and the main building has been increased so that it is possible that the filled area may be reached.
>
> The proposed buildings are light, one story structures and if carried on isolated piers will impose not more than one and one-half tons per square foot on the ground, and this weight may be reduced by developing the area of the footings. Supposing that the original Island was of boulder clay and gravel, it was anticipated that the ground at say four to six feet below the surface would carry the weight mentioned or even much more, and that the necessary tests need not go beyond sinking pits of that depth and sounding the bottoms with a bar.
>
> It is now thought best that you should report a figure for the cost of determining how far this expectation of the Office is supported by the facts; that is, the cost of ascertaining

whether deep pits, sheet piling and elaborate tests will be necessary.[3]

By January 1899 little had been done preparatory to the construction of the bathhouse and laundry and the kitchen and restaurant buildings because of severe funding restrictions for the immigration station. Although it had been estimated that the cost of rebuilding the station was $1,150,000, Congress on July 19, 1897, had only authorized the expenditure of $600,000 and appropriated only $150,000 to begin the work. In the Sundry Civil Bill approved on July 1, 1898, Congress had appropriated the remaining $450,000 and authorized the additional appropriation of $134,150 for the construction of various buildings, including the disinfection bathhouse and laundry ($55,200) and kitchen and restaurant buildings ($30,000). However, as officials saw the cost of constructing the main and hospital buildings and enlarging the island rise above the original estimates, they refused to commence work on the auxiliary structures until further funds were forthcoming.[4]

Increased appropriations amounting to $390,850 were approved by Congress in the Act of March 3, 1899. Accordingly, proposals were advertised for the disinfection bathhouse and laundry building and the kitchen and restaurant building beginning on April 11. The bids were opened on May 16, but no contract was awarded because the officials on Ellis Island were still concerned that the available funds would not cover the construction already under contract. On September 30 it was announced that all the bids had been rejected and that Boring & Tilton were "preparing drawings and specifications for the 'Kitchen and

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3. J. K. Taylor to Chief Engineer & Superintendent of Repairs, Dec. 23, 1898, RG 121, WNRC.

4. Spaulding to Speaker of the House of Representatives, Jan. 19, 1898, and Kemper to Secretary of the Treasury, Jan. 3, 1899, RG 121, WNRC; and Annual Report, Supervising Architect, Sept. 30, 1898, pp. 67-73.

Restaurant' and 'Disinfection, Bath House and Laundry' buildings, which almost entirely change the work as already placed upon the market."[5]

The revised specifications, dated February 10, 1900, provided for a bath and laundry building and a kitchen and restaurant building connected by a corridor. The buildings were to be two stories in height, but as a cost-saving gesture, the second floor interiors were to be left unfinished. A pavilion connected the kitchen and restaurant building with the covered way that extended to the main building. The plans and specifications for the two connected buildings were to be considered as a unit, but the bids and accounts for each structure were to be kept separate as the appropriation act had made funds available for the two structures. (Today, the building is commonly referred to as the kitchen and laundry building.) The significant items in the specifications, which excluded the electric lighting, heating, ventilating, and elevator work, were as follows:

> Mason Work - After razing an old building on the site and performing the necessary excavation, grading, and shoring, the foundations were to be raised upon the cribwork of sound spruce timbers laid below the level of high water and bedded in a layer of concrete. From the footings to the brickwork, the foundation was to be composed of first rubble masonry made of good quarry stone with flat quarry beds laid in courses of 2 feet and bonded clear through the wall at least every 6 superficial feet. The rubble was to be laid in hydraulic cement mortar with all joints flushed and pointed on both sides. The portion of the stone wall that was visible above the ground level was to be built with random ashlar. The walls, piers, chimneys, jambs, arches, flues, and backing of stone were to be built with hard-burned, cherry red brick bonded through with headers et every five courses except the exterior walls, which were to be laid in Flemish bond.

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5. J. K. Taylor to Superintendent of Construction, Sept. 30, 1899, RG 121, WNRC.

Cut Stone - All cut stone was to be no. 1 selected stock, close grained, and of even texture. Fine-axed, dark blue stone was to be used for the bottom steps to all exterior stairways, area steps, area coping, pier caps, under porch columns, base course around walls to receive porch floors at first and second floor levels, base course at covered way, gradient, and outside, basement window sills, and all exterior door sills except in the connecting corridor, which was to be of granite. The outside entrance steps to the building were to be of granite. All other stone work in the building was to be of limestone.

Cement and Asphalt Floors - The flooring in the building was to be of asphalt mastic made from rock asphalt mixed with cleansharp grit or silicious sand free from loam. The basement floor was to consist of 5 inches of mixed concrete covered by a 1-inch coat of Portland cement mortar. The porch floors were to be of slate.

Fireproofing and Terra Cotta - Virtually all portions of the building were to be fireproofed using terra cotta hollow tile made of fire clay containing at least 50 percent silica mixed with coke breeze. Cinder concrete was to be placed under all floors.

Structural Steel - The framework of the building was to consist of structural steel made either by the basic, acid open hearth, or Bessemer processes with a strength of at least 60,000 pounds per square inch.

Stairs and Ornamental Ironwork - The stairwells were to be built of structural steel with the strings, risers, and newels of the stair of grey cast iron. The balustrades were to be made with ductile and fibrous wrought iron. An elevator shaft in the bath and laundry section was to be enclosed with pressed woven wire screen as were various wire partitions within the rooms. All outside doors were to have cast-iron saddles. A porch in the kitchen and restaurant section was to be shored up in place by structural iron I-beams and

cast-iron columns. Five-foot-high angle iron wheel guards were to be placed in the kitchen and restaurant section. Cast-iron, channel-shaped skylight curbs were to aid in the lighting of the structure.

Roofing and Sheet Metal Work - The roof of the structure was to be either of hard texture, nonabsorbent slate or of burnt clay roofing tile. Whether of slate or tile, the hips and ridges of the roof were to be of cut red tile. The flashings, ventilators, skylights, and downspouts were to be of 14-ounce copper while the crown moulding to the cornice was to be of 16-ounce hard copper.

Slate Work - In the bath and laundry section, the following items were to be of dark blue or blue black, nonabsorbent, rubbed slate: landing for stairs, treads to stairways, steps leading to main building, and partitions, wainscot, and floor slabs in toilets and shower baths. The following items were to be of slate in the kitchen and restaurant section: treads for stairways, outside steps, floors of porches and platforms, partitions, wainscot, and floor slabs in toilets and shower baths, and solid cove around the base of the juncture of the wall and floor.

Carpentry and Joinery Work - Cypress or white pine was to be used for window, door, and curbing frames. All other necessary framing was to be of seasoned spruce. The outside doors were to be of white pine. Sash throughout the building was to be 1-3/4 inches thick.[6]

A. Construction - 1900-1901

1. Main Contract - Louis Wechsler

The solicitation of bids for the disinfection bathhouse and laundry and the kitchen and restaurant were advertised on March 10,

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6. "Proposals for the Erection and Completion (Except Heating and Ventilating and Elevators) of the Bath and Laundry Building and the Kitchen and Laundry Building for the Immigrant Station, Ellis Island, New York Harbor," dated Feb. 10, 1900, FF 20, Kitchen and Laundry: Erection and Completion, 1900, Ellis Island Records, DSC.

1900, and the proposals were opened on April 19. The proposal of Louis Wechsler of New York City, amounting to $135,400, was accepted on May 4 for the work. The contract, which also included the construction of several covered walks to other buildings and the boiler house, provided for all phases of construction with the exception of the electrical, heating, ventilating, and elevator work. One change in the specifications was negotiated at the time--the substitution of 16-ounce copper for stone in the cornice. The kitchen and restaurant were to be completed for occupancy by October 1, 1900, and the bath and laundry by December 1, 1900.[7]

Wechsler soon commenced operations preliminary to the construction of the buildings. Within six weeks his samples of Indiana limestone and asphalt mastic had been approved. His recommendation to use "Old Newark Brand" cement, a natural cement manufactured by the Old Newark Cement Company of Rosendale, New York, was also accepted.[8]

The first change in the plans for the building occurred on October 18 when the sum of $45 was deducted from the contract. The deduction was made for the omission of five sinks in room 6 of the kitchen and restaurant as well as the elimination of a tile partition and two doors between rooms 8 and 9, the spurs of a fireproof partition, and the ceiling beams between rooms 3 and 6. One large grease trap was to be installed in room 6.[9]

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7. H. A. Taylor to Wechsler, May 4, 1900, RG 121, WNRC. The work was to be done in accordance with drawings 1 through 8 and 1 through 17. By combining the bath and laundry and the kitchen and restaurant buildings into a single structure with a connecting corridor, the immigration officials were able to reduce the cost of the two sections to $48,600 for the bath and laundry and to $27,300 for the kitchen and restaurant. J. K. Taylor to Inspector in Charge, May 5, 1900, RG 121, WNRC.

8. J. K. Taylor to Superintendent of Construction, May 29, 1900, and Kemper to Boring & Tilton, June 15, 1900, RG 121, WNRC.

9. J. K. Taylor to Boring & Tilton, Oct. 18, 1900, RG 121, WNRC.

William E. Leland, the inspector of heating, hoisting, and ventilating apparatus, complained on December 6, 1900, that Wechsler had changed the plan of construction without his knowledge. In toilet rooms 20 and 26 the large vent flues were cut off at the bottom, the top vent registers omitted, and the bottom vent registers raised to approximately 8 feet above the floor.[10] Later on January 2, 1901, Leland reported that a portion of the tile drain outside the building had been rejected and removed and that the plumbing work inside the building was nearly completed.[11]

As the work continued on the building, other changes were made in the plan of construction. On February 5, 1901, a proposal by Wechsler was accepted for the removal of a closet in the laundry to make room for laundry machinery.[12] It was agreed to run wall strings across the landings to the bearings of the cast-iron stairs in both the kitchen and restaurant and the bath and laundry on February 27.[13] The sum of $95 was added to Wechsler's contract on March 30 for connecting the base of the leader on axis 17, between axes F and G, of the bath and laundry building with a 5-inch rainwater drain on the north side of the covered way. The drain was to be built of 4-inch extra heavy cast-iron pipe. Wechsler also agreed to build a brick cesspool with iron cover just south of the covered corridor between the bath and laundry and the kitchen and restaurant.[14]

Work on the kitchen and restaurant and the bath and laundry was nearly completed by April 1901, and a final inspection was

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10. Leland to Roberts, Dec. 6, 1900, RG 121, WNRC.

11. Leland to Supervising Architect, Jan. 2, 1901, RG 121, WNRC.

12. J. K. Taylor to Superintendent of Construction, Feb. 5, 1901, RG 121, WNRC.

13. Gage to Wechsler, Feb. 27, 1901, RG 121, WNRC.

14. H. A. Taylor to Wechsler, Mar. 30, 1901, RG 121, WNRC.

recommended.[15] Although the kitchen and restaurant section was occupied by June 30, the bath and laundry apparently was not.[16] Because Wechsler did not complete the work on the boiler house until September, a final inspection of all his work under the contract was not undertaken until October and November. Accordingly, another deduction of $25 was subtracted from the contract for the installation of seven 4-inch diameter downspouts in place of five 5-inch and two 3-inch downspouts as well as the omission of some controlling valves for groups of fixtures.[17] Other defects were found--the roof water and basement drainage system was not installed properly, causing leaks from the shower baths through the slate floor slabs and from the iron drainage gutters into the basement--the specifications rather than the contractor were blamed for these faults.[18]

Finally on November 7, 1901, the last payment on the contract was authorized. It was noted that the construction had been delayed for the following reasons:

> Excavation and pile driving below a certain depth were frequently delayed by the tide, making it impossible to perform work in periods of high tides.
>
> Structural iron was delayed on account of a strike.
>
> Inclement weather during the winter and early spring prevented work being done and interferred with delivery of materials.

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15. Fry to Supervising Architect, Mar. 26, 1901, and Thompson to Secretary of the Treasury, Nov. 7, 1901, RG 121, WNRC.

16. Robert to J. K. Taylor, June 30, 1901, RG 121, WNRC.

17. Gage to Wechsler, Nov. 6, 1901, RG 121, WNRC.

18. Thompson to Supervising Architect, Nov. 4, 1901, RG 121, WNRC.

Because of the delays the contractor had provided a temporary kitchen for the use of the government while the kitchen and restaurant were under construction. Accordingly, most of the penalties for finishing the construction after the stipulated completion date were waived.[19]

2. Other Contracts

a. Heating and Ventilating Apparatus - E. Rutzler

On July 9, 1900, advertisements were announced for the solicitation of bids for the installation of heating and ventilating apparatus in the hospital, hospital outbuilding, kitchen and restaurant, bath and laundry, connecting corridor, and covered ways. The bids were opened on August 7, and on September 5 a contract was let to E. Rutzler of New York City. The work was to be completed within six months at a cost of $28,833, and the following materials were to be used:

National direct radiators - American Radiator Company
Indirect heaters - H. B. Smith Company (later changed to Bundy pin indirect radiators)
Deane steam pumps
Kieley steam traps
Deane pump governor
Kennedy gate valves
Jenkins Bros. globe and angle valves
Jenkins Bros. radiator valves
Kieley pressure reducing valves
Jenkins air valves
Kieley back pressure valves

19. J. K. Taylor to Secretary of the Treasury, Nov. 7, 1901, RG 121, WNRC.

Black on white japanned registers
Eddy Electric Manufacturing Company's electric motors[20]

On April 12, 1901, Inspector Leland reported that the heating and ventilating work was nearly completed. The following items, however, still required attention:

> Only one stack has been provided with its sheet iron casing. In this stack there has been no stop piece put between the two groups of the stack and there is no cleaning door in the bottom of casing.
>
> Only one relief pipe has been connected at the end of branch lines of piping.
>
> Air valves are yet to be placed on the vent coil in attic on all stacks in basement and on one coil in first story, and no air mains have yet been run.
>
> The horizontal vent duct at ceiling of toilet room No. 10, has been torn down by the building contractor after its proper erection and it has not yet been replaced, and consequently the vent register in the storage room adjoining is not in place. I do not believe this is any fault of the heating contractor and the general contractor should be required to replace the duct which his workmen removed.
>
> The warm and cold air ducts in basement are not yet in place.

20. "Synopsis of Bids for Heating and Ventilating Work for Hospital, Hospital Outbuilding, Kitchen and Restaurant, Bath House and Laundry Building, Connecting Corridor, and Covered Ways," Sept. 4, 1900, and H. A. Taylor to Rutzler, Sept. 5, 1900, RG 121, WNRC. The work on the bath and laundry and kitchen and restaurant was to be done in accordance with drawings 14a, 15a, and 16a and laundry and bath building 1 and 2 as well as the specification dated July 9, 1900, and the addendum dated July 18, 1900.

> The register chains and pulls, thermometers, gauges, return traps, covering, testing and finishing are yet to be done, and no means of operating and fastening the choke dampers behind the supply registers has as yet been provided.
>
> The high pressure connection at point A for Kitchen and Restaurant Building, has been run 1 1/2" instead of 2" as specified. This should be changed to the proper size.
>
> The vent coil in attic has been built of 18 1¼" pipes instead of 24 1¼" pipes, but the heating surface appears to have been kept up to the required amount, and I therefore recommend its acceptance.[21]

Only one change in the plans for the work under Rutzler's contract was found in the records. On October 12, 1901, the sum of $23 was added to the contract for the placement of 30 radiator caps (4" x 12" x ½" thick) under the legs of the radiators on the second floor of the bath and laundry, kitchen and restaurant, and boiler house buildings.[22] Rutzler completed the work under his contract by mid-October. After final testings were made to the system, a final payment was authorized in December.[23]

Meanwhile, Rutzler had signed a separate contract on June 22 to install certain heating apparatus in the kitchen and restaurant, bath and laundry, and boiler house. It is likely that this work involved the extension of the heating system to the second story of

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21. Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

22. H. A. Taylor to E. Rutzler, Oct. 12, 1901, RG 121, WNRC.

23. J. K. Taylor to Secretary of the Treasury, Dec. 28, 1901, RG 121, WNRC.

these buildings, which had recently been put under construction. The contract was completed by December 2 at a cost of $2,509.[24]

A third contract with Rutzler had been approved on May 15, 1901, to provide for connecting the traps in the building.[25]

b. Refrigerating and Ice Plant - De La Vergne Refrigerating Machine Company

On January 8, 1901, the proposal of the Brunswick-Balke-Collender Company of New York City was accepted to supply and install refrigerators in the kitchen and restaurant and the hospital buildings.[26] One week later, J. E. Powell, chief mechanical and electrical engineer of the office of the supervising architect, reported that a refrigerating plant that had been installed by his office in 1898 at the appraiser's warehouse in New York City under contract with Westinghouse, Church, Kerr & Company was not being used. Accordingly, he recommended that the plant be transferred from the warehouse to the kitchen and restaurant on Ellis Island. Such an action would save considerable money when compared with the installation of new refrigerators.[27]

The recommendation of Powell was approved by Treasury officials, and the refrigerators originally designed for the kitchen and restaurant building under the contract with the Brunswick-Balke-Collender Company were eliminated. At the same time

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24. H. A. Taylor to Rutzler, June 22, 1901, and J. K. Taylor to Secretary of the Treasury, Jan. 8, 1902, RG 121, WNRC.

25. H. A. Taylor to Rutzler, May 15, 1901, RG 121, WNRC.

26. J. K. Taylor to Commissioner of Immigration, Port of New York, Jan. 8, 1901, RG 121, WNRC. The work was to be done in accordance with drawings BT-30 and 31.

27. Powell to Supervising Architect, Jan. 15, 1901, RG 121, WNRC.

Supervising Architect Taylor ordered that a specification be prepared for an ice-making and refrigerating system for the building. The specification was to allow for the supply of the refrigerators from the appraiser's warehouse in advance of the ice-making machinery. The refrigerators were to be adaptable to the general scheme of the ice plant and cold storage system.[28]

The proposal of the De La Vergne Refrigerating Machine Company of New York City was accepted on April 19, 1901, to construct the new refrigerating plant and ice-making machinery in the kitchen and restaurant. The work was to be completed within 85 working days at a cost of $11,000.[29]

Later on May 22, the contract with the De La Vergne Refrigerating Machine Company was modified to provide for the installation of an ice plant to produce 50-pound blocks in lieu of 200-pound blocks. Despite the smaller blocks the ice plant was to produce 2 tons every 24 hours as originally specified.[30]

The refrigerating and ice plant were completed by September 30 and ready for a final test. After the new boiler plant was started in December, the final test was given. A final payment was authorized at the end of the month.[31]

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28. Gage to Brunswick-Balke-Collender Company, Jan. 31, 1901, J. K. Taylor to Superintendent of Repairs, Mar. 5, 1901, and J. K. Taylor to Commissioner of Immigration, Port of New York, Mar. 27, 1901, RG 121, WNRC.

29. "Proposal for Installation of an Ice-Making and Refrigerating Plant," Apr. 19, 1901, and H. A. Taylor to De La Vergne Refrigerating Machine Company, Apr. 20, 1901, RG 121, WNRC. The work was to be done in accordance with drawing SA-23.

30. Spaulding to De La Vergne Refrigerating Machine Company, May 22, 1901, RG 121, WNRC. The work was to be done in accordance with drawing SA-25.

31. J. K. Taylor to Secretary of the Treasury, Dec. 23, 1901, RG 121, WNRC.

c. Kitchen Furniture - Bramhall-Deane Company

On January 9, 1901, the proposal of the Bramhall-Deane Company of New York City was accepted for the installation of kitchen furniture, tables, ranges, and fixtures in the kitchen and restaurant and the hospital buildings. The work was completed, and the pipe connection of the appliances in the kitchen and restaurant was tested on March 21. The final payment on the $3,115 contract was authorized on July 19.[32]

d. Electrical Work - Frederick Pearce

In October 1900 bids were solicited for the electrical work in the hospital main building, hospital outbuilding, surgeon's house, bath and laundry, kitchen and restaurant, boiler house, connecting corridor, covered way, and outdoor lighting. However, as funds were not available to accept even the lowest proposal, all of the proposals were rejected on November 16.[33]

In February 1901 bids were again solicited, and after a special congressional appropriation to expedite the work on Ellis Island, a contract was let to Frederick Pearce of New York City on March 12 for the electrical work in the above-mentioned buildings.[34] The total cost of the contract amounted to $25,005, of which $593 was itemized for the kitchen and restaurant and $693 for the bath and laundry. The materials to be used for the work, which was to take a maximum of 25 working days, were as follows:

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32. H. A. Taylor to Bramhall-Deane Company, Jan. 9, 1901, Low to Secretary of the Treasury, July 17, 1901, and Wetmore to Bramhall-Deane Company, July 19, 1901, RG 121, WNRC. The work was to be done in accordance with drawing 30.

33. "Synopsis of Bids for Electrical Work. . . ," Oct. 22, 1900, and J. K. Taylor to Boring & Tilton, Nov. 16, 1900, RG 121, WNRC.

34. Gage to Chairman, Committee on Appropriations, United States Senate, Feb. 26, 1901, RG 121, WNRC.

Sprague heavy wall wiring conduit
Grimshaw white core wires
De Ryche outlet boxes
G.I. switches
Chapman attachment plug outfits
Edison drop cord outfits
Edwards push buttons
De Veau telephones
American watchman's time detector
Vitrified self-centering ducts
Pearce panel boards
Pearce switches (knife)[35]

In April, Frederick Pearce proposed that he use certain materials other than those called for by the specifications. His recommendations were approved because his proposed materials were considered to be more desirable than those specified in the contract. The following materials were in question:

Loricated wiring conduit, in lieu of Sprague heavy wall conduit

Habershaw red core wires, in lieu of the Grimshaw white core wires of the New York Insulated Wire Company

Electric bells with carbon contacts, in lieu of the platinum contacts called for

Galvanized iron duct, in lieu of the vitrified self-centering duct specified[36]

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35. H. A. Taylor to Disbursing Agent, Mar. 12, 1901, J. K. Taylor to Boring & Tilton, Mar. 16, 1901, and H. A. Taylor to Frederick Pearce, Mar. 16, 1901 (two letters), RG 121, WNRC. The work was to be done in accordance with drawings BT-24 through BT-26, BT-456-A-19, and accompanying specification 456 and appendix A.

36. Gage to Boring & Tilton, Apr. 20, 1901, RG 121, WNRC.

On June 18 a number of changes were approved in the contract, the majority of which were related to the addition of the second story of the kitchen and restaurant and the bath and laundry which had recently been put under contract. The modifications were as follows:

Omission of motor circuit #8 in kitchen and restaurant building; deduction of $25

Omission of motor circuit #9 in bath and laundry building; deduction of $25

Continue feeder system across basement of kitchen and restaurant building, under dining room, using "Loricated" conduit with an interior diameter of 2-1/8"; no additional cost

Change location of cutout B, from room 101 to 108, second floor, kitchen and restaurant building; no additional cost

Additional electric wiring in second story of kitchen and restaurant building; addition of $122.62

Additional electric wiring in second story of bath and laundry building; addition of $168.73[37]

Pearce completed the work by early December.[38]

e. Addition of Second Floor - Williams & Gerstle

As the construction of the kitchen and restaurant and the bath and laundry were nearing completion under Louis Wechsler,

37. J. K. Taylor to Boring & Tilton, June 18, 1901, Gage to Pearce, June 18, 1901, and J. K. Taylor to Superintendent of Construction, June 18, 1901, RG 121, WNRC. Some of the changes were to be done in accordance with plan sheet 456-A-15½.

38. Kemper to Fry, Jan. 15, 1902 (two letters), RG 121, WNRC.

Boring & Tilton were ordered to make plans and specifications for the completion of the buildings on Ellis Island. Among the projects included in this order were the completion of the second story of the kitchen and restaurant (estimated cost $2,700) and the bath and laundry (estimated cost $4,200) for additional dormitory space for detained aliens.[39] On April 4 proposals were solicited for the work, and on April 30 the bid of Williams & Gerstle of New York City was accepted to complete the second floor of the two buildings as well as that of the boiler house. The work was to be completed within four months at a cost of $10,975 (bath and laundry, $3,400, and kitchen and restaurant, $2,875). Among the plumbing fixtures that were approved were the following:

Latrine:	Range, Mott's #682-R
Slop Sink:	Porcelain, Mott's #812-R
	Galvanized iron, Mott's #819-R
	Sinks to be fitted with combination faucets
Bathtub:	"Lenox," Mott's #2047-R
Wash Tray:	Mott's #470-R
Water Closet:	Mott's #5097-R
Wash Basin:	Mott's #4012-R[40]

During the next eight months various changes were made in the contract relative to the use of materials and the modification of the specification. The changes were as follows:

June 4 - Proposal to use Beach's brand of Rosendale cement and Lehigh brand of Portland cement for second story - approved

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39. Gage to Boring & Tilton, Mar. 7, 1901, RG 121, WNRC.

40. "Synopsis of Bids for Completing Second Story of the Kitchen and Restaurant, Bath and Laundry, and Boiler House Building at the U.S. Immigrant Station, Ellis Island, N.Y.," Apr. 30, 1901, and H A. Taylor to Williams & Gerstle, May 4, 1901, RG 121, WNRC. The work was to be done in accordance with drawings 34 and 2-35 and the specification dated Mar. 30, 1901.

June 7 - Proposal to substitute 1-inch angle iron of same weight as the 1-inch ties required - approved

June 27 - Proposal to make changes in soil and vent pipelines in kitchen and restaurant for toilet room 101-A and toilet room immediately below - approved

Proposal to connect waste at axis 6 from sink in kitchen, running iron pipe at basement ceiling through building and under floor and covered way and from that point west to sea wall with 4-inch vitrified pipe (the pipe that goes through crib to be cast iron) - approved

July 10 - Proposal to use Acme cement plaster, which had been used in the main building - approved

July 16 - Proposal to provide two inches of additional concrete in kitchen and restaurant and bath and laundry, using cinders from beach mixed with bones, chips, and other foreign materials - approved

August 8 - Proposal to substitute two self-closing cocks in lieu of the combination cock specified for sinks - approved

August 29 - Proposal to remove concrete in room 101-A of the kitchen and restaurant and to refinish the room so that the floor surface would be 1 inch below the floor of the adjoining room with a 2-inch grade to the new bell trap - approved

January 3, 1902 - Proposal to omit iron saddles to doors in lieu of trim and frame scuttle used on ceiling of second floor of boiler house - approved[41]

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41. J. K. Taylor to Williams & Gerstle, June 4, 1901, Gage to Williams & Gerstle, June 7, 1901, and Jan. 3, 1902, Spaulding to Williams & Gerstle,

By December 11, 1901, Superintendent Roberts was able to report that the second floor of the kitchen and restaurant and the bath and laundry was ready for occupancy.[42] The principal rooms consisted of detention rooms A and B with dormitory space and dining facilities. The work under the contract with Williams & Gerstle was completed on February 15, 1902. All work was found to be in accordance with the specifications except that the wash trays were made in two sections, jointed together at the middle and supported on two bracket legs that extended to the floor, whereas the specifications provided for a three-section tray supported on four brackets. The deviation was accepted as a part of the work, and a final payment to the contractor was recommended on April 4.[43]

f. Laundry Machinery - Troy Laundry Machine Company

On January 9, 1901, a contract was let to the Troy Laundry Machine Company of New York City to supply and install laundry machinery in the bath and laundry and the hospital outbuilding at a cost of $3,759. When the work in the bath and laundry was nearly completed, $27 more was added to the contract to make the necessary connections with the steam supply pipe, which passed through the corridor of the building. The pipe was to be covered with a 1½-inch asbestos air-cell covering. The work in the bath and laundry was completed on April 6.[44]

June 27, 1901, Low to Superintendent of Construction, July 6, 1901, Low to Williams & Gerstle, July 10, 1901, Ailes to Williams & Gerstle, July 16, 1901, J. K. Taylor to Superintendent of Construction, July 30 and Aug. 8, 1901, H. A. Taylor to Williams & Gerstle, Aug. 29, 1901, and J. K. Taylor to Boring & Tilton, Dec. 11, 1901, RG 121, WNRC.

42. H. A. Taylor to Roberts, Dec. 11, 1901, RG 121, WNRC.

43. J. K. Taylor to Boring & Tilton, Jan. 8, 1902, and J. K. Taylor to Secretary of the Treasury, Apr. 4, 1902, RG 121, WNRC.

44. Gage to Troy Laundry Machine Company, Apr. 3, 1901, and J. K. Taylor to Secretary of the Treasury, Jan. 15, 1902, RG 121, WNRC.

g. Pipe, Tank, and Duct Covering - H. W. Johns Manufacturing Company

A contract was let to the H. W. Johns Manufacturing Company of New York City on June 14, 1901, to cover the exposed piping, smoke breeching, and ducts in various buildings on Ellis Island, including the kitchen and restaurant and bath and laundry. The nonconducting coverings were to be used as follows:

70 percent asbestos fire-felt sectional covering for high pressure steam service

35 percent asbestos sectional covering (Asbestocel) for low pressure steam service

Asbestos air-cell block covering (in lieu of plastic cement) for covering ducts, tanks, water heaters, etc.

Felt covering for cold water piping

The work on the kitchen and restaurant and bath and laundry was completed by September 7.[45]

h. Saltwater and Freshwater Piping System - Kieley & Stahl

A contract was let to Kieley & Stahl of Albany, New York, on January 21, 1901, to install a system of saltwater and freshwater piping in the covered way and the kitchen and restaurant and bath and laundry. The purpose of the system was to permit the alternative use of either freshwater or saltwater for flushing purposes. As the work progressed, a proposal by the contractors was accepted to

45. "Synopsis of Bids for Covering Steam Pipes, Tanks, and Other Hot Water Surfaces, Cold Water Pipes, Ducts, Etc.," June 12, 1901, Ailes to H. W. Johns Manufacturing Company, June 14, 1901, and J. K. Taylor to Secretary of the Treasury, Jan. 17, 1902, RG 121, WNRC.

dispose of two ball cocks in the flushing tanks by inserting a connection in the current water supply to the tanks and connecting their saltwater supply to this connection. The contractors were also given permission to place an extra gate valve on the saltwater supply pipe to each closet instead of placing a ball cock in each tank.[46]

During the course of the project, the work of Kieley & Stahl was found to be somewhat slipshod. Inspector Leland observed the following on April 12:

> All the piping has been run as shown on the plans except the branch runs and connections to fixtures. No test of the piping has been made, and I am of the opinion that such test will reveal more or less leaks as the piping was in a very leaky condition when water was first turned on with a pressure of only about 30 pounds.
>
> The pipe runs are not properly supported and there should be as many more hangers placed as are now on the pipe. The pipe where it runs through the ferry house should be braced to prevent side-play as the hangers are very long and pipe swings easily as much as 18 or 24 inches.
>
> The specification calls for supports carried on the beams for the piping in covered way. Hangers have been used, secured by lag screws put into the rafters. If sufficient hangers are used I do not see that there is any objection to their acceptance in lieu of the supports as specified. A few hangers have been put up by screwing the lag screw into the side of a rafter placing an elbow on its end, and screwing the main hanger into the elbow. This should be rejected as it brings too

46. J. K. Taylor to Superintendent of Repairs, Mar. 14, 1901, Gage to Kieley & Stahl, Mar. 30, 1901, and J. K. Taylor to Boring & Tilton, Mar. 30, 1901, RG 121, WNRC.

much leverage on the lag screw and tends to split the rafters.[47]

In May and June, Kieley & Stahl were ordered repeatedly "to make over the defective joints in the work instead of allowing them to rust up" and leak.[48] It was found in August that there were 50 sections where the ends were not butted together and where the joints between the sections of pipe covering were open about one-half inch. In some cases, sections had no waterproof paper on them while on others two or three pieces of paper had been used where only one piece should have been used.[49]

A final modification was made in the contract in September. Galvanized iron branches were put on the 4-inch galvanized freshwater mains for the freshwater supply to the bath, showers, and restaurant. Brass gate valves were put in for the hose lines of the 4-inch galvanized freshwater and saltwater mains in the cellar.[50]

After the work was completed in early December, Chief Mechanical Engineer Powell made an inspection and reported that he had found

> that by reason evidently of some mistake, probably on the part of the employees of the contractors in making their connections, that in a number of instances, when the salt water supply is substituted for fresh water for flushing,

47. Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

48. J. K. Taylor to Superintendent of Construction, May 15, 1901, and H. A. Taylor to Boring & Tilton, June 6, 1901, RG 121, WNRC.

49. J. K. Taylor to Superintendent of Construction, Aug. 9, 1901, and J. K. Taylor to Boring & Tilton, Sept. 4, 1901, RG 121, WNRC.

50. H. A. Taylor to Kieley & Stahl, Sept. 21, 1901, RG 121, WNRC.

the lavatories and drinking fountains are also furnished with salt water. This is probably true in rooms 27, 28 and 29 of the Kitchen & Restaurant and Bath & Laundry buildings, and also at several other points in the buildings. This condition does not seem to arise from an effort on the part of the contractors to avoid the proper execution of their work, as the material and workmanship are good and the amount of the same quite equal to that which they would have furnished had they executed the work as contemplated, but seems to have arisen solely through a blunder made by the workmen who failed to carefully note the fresh water connections to which they were connecting the salt water supply.[51]

Meanwhile, Kieley & Stahl had completed a separate contract for extending the rainwater drainage system of the bath and laundry and the kitchen and restaurant to tidewater. The contract was dated April 2, 1901, and was completed in early December at a cost of $209.[52]

In 1902, Kieley & Stahl performed work on the building that was related to their earlier contracts. On January 24 the firm agreed to make saltwater connections for the fixtures on the second floor at a cost of $153. Later on June 14, the firm was paid $27.50 for filling in a drainage trench for the structure.[53]

i. Miscellaneous Work - Peter E. Moran

Several small jobs were assigned to Peter E. Moran of New York City in October 1901. His proposal was accepted on October 8

51. Powell to Supervising Architect, Dec. 12, 1901, RG 121, WNRC.

52. J. K. Taylor to Boring & Tilton, Mar. 5, 1901, J. K. Taylor to Superintendent of Construction, Apr. 2, 1901, and Sutherland to Kieley & Stahl, Dec. 13, 1901, RG 121, WNRC.

53. H. A. Taylor to Kieley & Stahl, Jan. 24, 1902, and J. K. Taylor to Boring & Tilton, June 14, 1902, RG 121, WNRC.

to disconnect and remove certain piping forming a drain under the kitchen and restaurant and the bath and laundry and to rerun the drain in accordance with the specification. On October 30 his bid was approved to lower the 6-inch tile drain--leading from the bath and laundry--some 260 feet and to relay the entire line substituting new pipe where necessary.[54]

B. Description of Facilities - 1901

As already mentioned, the kitchen and restaurant were first occupied sometime between April and June 1901 while the bath and laundry were not used for another five or six months. While preparations were underway to ready the two-story brick building for use, the New York Times provided a lengthy description of its facilities as follows:

> . . . this building, which is complete in every detail, marks a departure in the immigration service. That the claims of the bureau officials to the effect that it is the most perfectly arranged establishment of its kind ever attempted in the service at any time is amply borne out by an inspection of the institution. With two bathrooms, or rather halls, each capable of accommodating over a thousand bathers each day, and the laundry, where it is estimated 20,000 garments can be disinfected and cleansed daily, this auxiliary of the bureau forms one of the most interesting branches of the service. The opening of the building has been looked forward to with the greatest interest on the part of both the local and Washington authorities.
>
> The building is divided into two bathing apartments, one for each sex, each provided with sixty-four bathing berths or stalls. Of course the baths will not be oriental in luxury, but they will be ample to cleanse the dirtiest

54. H. A. Taylor to Moran, Oct. 8, 1901, and Gage to Moran, Oct. 30, 1901, RG 121, WNRC.

immigrant that ever passed through the establishment after a half hour's exposure to the strong shower with which he will be deluged. The water will not be either cold or hot, and it will be supplied from the power house adjoining the building. Each bather will be supplied with a towel and a cake of soap by the Government, and in charge of an attache' yet to be named, will be required to stay in the bath until he or she is in a good condition to circulate in the best of company without causing any unpleasant sensations to those with whom they may come in contact.

If they are, as is sometimes the case, without a change of clothing, the Government has also provided for that emergency. We shall have several hundred suits of a garment approaching an overall in texture and appearance, and these suits will be temporarily loaned to the bathers while their own garments are being disinfected and cleansed in the laundry.

Now, as to the laundry, that is another institution bordering on the perfect in scope. As you see, it adjoins the bathing apartments, and there will be no necessity for any transportation of garments to inconvenient places hereafter. Twenty thousand garments can be washed in a day in that apartment, and they won't just be dipped in the water and then hung out to dry, either.

Besides the two establishments described above, the building will also accommodate the barber's shop and the restaurant. The latter, however, will not be for the free use of the immigrants, but will be a pay establishment, where the officer's of the department will lunch, and any other person, whether immigrant or visitor, who has the money may get a meal.[55]

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55. New York Times, Mar. 31, 1901.

LIST OF ROOMS IN THE KITCHEN AND LAUNDRY BUILDING - 1901

Kitchen and Restaurant

Basement
- Storage
- Bakery
- Passage

First Floor
- Hall
- Pantry
- Covered Way
- Kitchen #6
- Dining Room #3
- Dining Room #9
- Dining Room #1
- Dining Room #4
- Dining Room #7
- Veranda
- Toilet #11
- Toilet #10
- Toilet #2

Second Floor
- Detention Rooms (with dining facilities)

Bath and Laundry

Basement
- Stair Hall
- Passage

First Floor
- Stair Hall #19
- Stair Hall #25
- Main Hall #22
- Men's Passage
- Women's Passage
- Room #15
- Men's Showers
- Women's Showers
- Room #13
- Room #24
- Alcove #14
- Alcove #28
- Toilet #20
- Toilet #26
- Toilet #27
- Closet #16
- Barber Shop

Second Floor
- Stair Hall #104
- Stair Hall #107
- Main Hall #106
- Corridor 105
- Men's Passage
- Women's Passage

C. Additions, Alterations, and Remodeling - 1902-1954 (Not All Inclusive)

1. Miscellaneous Changes and Repairs - 1902

Several minor changes and repairs were made to the kitchen and laundry building in 1902. It was determined in March to install a door that would provide an entrance from the covered passageway into the restaurant. At about the same time, repairs to the plastering and roofing of the building were made by Louis Wechsler.[56]

2. Proposed Extension of Building - 1904

In January 1904, the sum of $75,000 was requested from Congress for the extension of the kitchen and laundry building to provide detention quarters for excluded aliens. Because of the increasing numbers of immigrants arriving at Ellis Island, it was estimated that the rooms allocated to excluded aliens should be at least three times as large.[57] Despite repeated attempts to obtain funding for this extension, Congress refused to appropriate money for the work.[58]

3. Remodeling of Second Floor for Larger Dining Room - 1907-1908

As early as June 1906, Commissioner Watchorn wrote to Commissioner-General Sargent concerning the urgent need for a larger dining room for the immigrants. Among his comments were the following:

> Dining-rooms are now located in various places on the island remote from each other, not on the same level, and, all having to be supplied from the same kitchen, it will be observed what

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56. J. K. Taylor to Fry, Feb. 13, 1902, Kemper to Boring & Tilton, Mar. 29, 1902, and Kemper to Fry, Apr. 21, 1902, RG 121, WNRC.

57. New York Times, Jan. 16, 1904, and U.S., Congress, House, Committee on Appropriations, Ellis Island Immigrant Station, New York, H. Doc. 392, 58th Cong., 2d sess., 1904.

58. Sargent to Secretary of Commerce and Labor, Jan. 10, 1907, RG 85, NA.

an inconvenience this is in itself. Quite apart from that, when all the dining-rooms are used, not more than 400 people can be seated at one time, and some times as many as 3000 have to be fed; this means as many as six sittings, requiring the meals to be commenced much earlier than they ought to be. For instance, in order to serve breakfast and have the last sitting over in time for the Boards of Inquiry to commence work at 8:30 or 9 o'clock, as the case may be, breakfast must commence at half past five, which is a very early hour to compel women and children to rise. Then when we take into consideration the fact that they have to be washed and prepared for breakfast, it will be seen that it involves their being called much earlier than half past five. Of course, the condition of the dining-rooms for the later sittings - especially the last sitting - cannot under the most favorable circumstances be made to be as presentable as should be for the serving of meals. The present facilities are so inadequate that they occasion a great deal of unnecessary expense, involve a tremendous amount of unnecessary labor, and constitute no little danger. In view of the fact that all these deficiencies and disadvatages are susceptible of elimination by the erection of the building already requested, a continuance of them certainly ought to be avoided.[59]

In November 1907, Commissioner Watchorn informed Sargent concerning the plans to convert the entire second floor of the kitchen and laundry building into a dining hall with attached kitchen. The alterations would facilitate the feeding of the detained aliens by bringing the entire commissary operations of the station under one roof. The new dining hall would seat 1,000 persons. Although there would be times when there were more detainees than could be accommodated at one sitting, the

59. Watchorn to Sargent, June 14, 1906, RG 85, NA.

facilities would "be so far improved that the present complaint of serving cold meals at unreasonable hours to a portion of those immigrants detained will be unknown."[60]

Plans and specifications for the work were drawn up, and on December 13, 1907, a contract was awarded to George Sykes of New York City. The contract, which included the installation of a complete system of plumbing, heating, and electric lighting, as well as some remodeling on the first floor, was to be finished within 60 working days at a cost of $26,970. The work was to consist of tearing out the interior bearing and partition walls, installing new columns, girders, and shores to carry the structure above, performing new masonry and plastering (Windsor cement, J. B. King & Co.), and laying a new tile floor and wainscot throughout the second floor. In the new kitchen, a 4-inch perrous terra cotta partition was to be installed for a dish closet, which was to be tiled from the floor to the ceiling. The floor of the dining hall was to be 2-inch hexagonal vitrified tile with dado of white glazed tile (Trent Tile Company) to a height of 4 feet 6 inches above the floor line in order to facilitate the quick and efficient cleaning of the room. The floor of the kitchen and adjoining closets was to be of vitreous mosaic floor tile (Trent Tile Company). Approximately 2,500 square feet of direct radiation were to be installed for heating purposes, and the cast-iron radiators were to be set on brass castings extending 6 inches above the floor. In the dish closet, vegetable cooling, and pan-washing rooms, carrara or novus structural sanitary glass partitions (Pittsburgh Plate Glass Company) were to be installed.

The fixtures to be installed in the kitchen were as follows:

> One motorized dishwashing machine 30 inches wide by 60 inches long with two steam connections to each of two compartments and a hot and cold water connection

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60. Ibid., Nov. 19, 1907.

Three copper vegetable boilers 29 inches in diameter and 26 inches deep and set on four cast-iron legs each

Two pan-washing tubs 21 inches deep, 33 inches wide, and 42 inches long and supported about 18 inches above floor by four wooden legs

Two porcelain vegetable tubs with roll rims about 28 inches wide, 30 inches long, and 15 inches deep and supported about 18 inches above floor by cast-iron legs

Two vegetable steamers 24 inches wide, 26 inches long, and 12 inches deep and supported about 18 inches above floor by four cast-iron legs

One plate warmer 21 inches deep and 5 feet high by 6 feet long and 22 inches deep[61]

One change was made in the plans for the alterations before the work began. The original plans had called for a copper hood to be installed in place of the old brick vent stack. However, the hood would require the addition of more structural steel, and thus it was determined to omit the hood and close up the opening in the roof using an I-beam, book tile, slate roofing, copper ridge special moulding, metal lath, and plaster at a lump sum of $64.25.[62]

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61. "Contract, Bond, Proposal and Specification for Alterations Providing for New Dining Room on the Second Floor of Kitchen and Laundry Building," dated Dec. 13, 1907, RG 85, NA. The work was to be done in accordance with drawings 1-14. Other drawings for proposed alterations in the kitchen and laundry building were drawn up on Feb. 29, 1908, and numbered 470-1 through 470-6. Available documentation does not indicate whether these drawings superseded the earlier ones or whether they simply provided more details for the work.

62. Sykes to Watchorn, Jan. 11, 1908; Howell to Watchorn, Jan. 13, 1908, and Murray to Sargent, Jan. 15, 1908, RG 85, NA.

The alterations were completed by early March 1908, and the new dining room was opened with appropriate ceremonies on March 18. The ceremonies, attended by some 70 invited guests, included a meal and speeches by Commissioner-General Sargent and Commissioner Watchorn describing the obvious advantages of the new room.[63]

Later in June, Sargent described the improvements to the kitchen and laundry building in his annual report. His comments were as follows:

> In the kitchen and laundry building the upper floor was remodeled into one large dining room, with kitchen edjacent, this room accommodating more than 1,000 persons at one sitting, same being rendered sanitary by the use of tile on floors and walls. The first floor of this building was remodeled, sanitary cement floors laid, and improved laundry machinery installed, including appliances whereby the clothing of detained aliens may be washed when necessary. A dining room for detained cabin passengers has also been provided upon this floor.[64]

Although the dining room was opened for use, the final payment on Sykes' contract was not made until February 1910 because of the dissatisfaction with the appearance of the 10,000-square-foot tile floor. In February, one month before the completion of the contract, Commissioner Watchorn had ordered the removal and relaying of about 5 square yards of the floor "due to poor regulation of tiles and open joints." After the room had been used for a month, Chief Engineer and Superintendent Fry expressed dismay at "the joints between certain tiles, and the lack of perfect alignment in some places in said floor." Because

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63. Translation of clipping from the New Yorker Staats-Zeitung, Mar. 19, 1908, RG 85, NA.

64. Annual Report, Commissioner-General of Immigration, Fiscal Year 1908, pp. 135-36 and 138-39.

the problem with the floor was related only to its appearance and not to its durability or strength, Fry recommended that $1,000 be deducted from the contract for second-class tile work. When Sykes was informed of this decision, he obtained a letter from Toscani Bros., the subcontractors who had laid the tile floor. Their justification for the appearance of the work was as follows:

> When contract for this work was made the time allowed was limited to such a small period that it was impossible for any manufacturer to furnish tiles of such a large quantity all in one size, but gave just ample time for packing and transportation to the Island to commence work on same. Another question regarding size can be answered by saying that no manufacturer has so far succeeded in producing the size of 2" Hexagon evenly and a floor of 8000 sq. ft. is next to impossible to procure all in one size in tile anywhere. Variations in size will always occur and of course is more noticeable in a large floor than in small spaces where tiles can be more easily assorted.
>
> Regarding laying of floor beg to say that the best workmanship procurable was obtained and who had special instructions to take utmost care and use their best ability to do this work. We refer you to any floor corresponding in size and you will note the alignment is about the same and in many instances not as level.

Fry replied to this explanation by saying that the point at issue was not "so much the size of the tiles as the bad joining thereof, the bad allignment [sic] and the bad levels." Meanwhile, it was found that certain of the mosaic tiles in the kitchen were showing excessive corrosion from the acids and alkalies used in cleaning, thus leading to questions as to whether they possessed the necessary "chemical properties" called for by the specifications. As a result, an additional $480 was withheld from the contract, pending testing of the tile. After it was found that no mosaic tile could withstand the strong cleaning solvents used in the

kitchen, the $480 was paid to Sykes while the $1,000 was deducted from the final payment.[65]

4. Installation of Freight Elevator - 1911

As early as December 1909, Commissioner Williams had recommended that an electric freight elevator be installed near the laundry in the kitchen and laundry building. His rationale for the request of $3,500 for the elevator was as follows:

> It is necessary that blankets be at least fumigated every other day and at present this means the transporting to and from the dormitory building of 800 blankets. They weigh approximately five pounds each. To transport four consumes considerable time of from six to eight laborers twice every other day. The installation of this elevator will save four hours' service of six men every other day under present conditions. When immigration is heavier a correspondingly greater saving will result. This is equivalent to the time of two laborers assigned exclusively to this work and their services can be utilized otherwise to advantage.
>
> The removal of refuse collected throughout the building will also be expedited, as will the delivery to the laundry of the soiled clothing of immigrants and the return of the clean garments. When the emergency arises, immigrants who are taken ill in the dormitory building may be quickly taken to this elevator and

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65. Watchorn to Sykes, Feb. 5, 1908, Fry to Commissioner of Immigration, Port of New York, Apr. 16, May 1, and Nov. 19, 1908, and Jan. 29, 1910, Murray to Sargent, Apr. 17 and May 2, 1908, Sargent to Commissioner of Immigration, Ellis Island, Apr. 20, 1908, Murray to Sykes, Apr. 21, 1908, Toscani to Sykes, Apr. 27, 1908, Sykes to Murray, Apr. 29, 1908, Watchorn to Commissioner-General of Immigration, Nov. 19 and Dec. 1, 1908, Sykes to Watchorn, Nov. 30, 1908, Sykes to Chief Engineer & Superintendent, Jan. 27, 1910; Williams to Commissioner-General of Immigration, Feb. 2, 1910, and Cable to Commissioner of Immigration, Ellis Island, Feb. 5, 1910, RG 85, NA.

transferred to hospital. It can be installed in the kitchen and laundry building a short distance from the entrance to the laundry. By reason of the construction at this point the cost of the alteration will be comparatively slight and there is space in the cellar, immediately thereunder, for the installation of the machinery.[66]

The Urgent Deficiency Bill approved by President William Howard Taft on February 26, 1910, provided $3,500 for the installation of the electric freight elevator in the kitchen and laundry building.[67] When it was found that the lowest bid for the work was $4,281, Congress was asked for an additional lump sum of $1,500 for the installation.[68] Congress provided the necessary funds, and the work was placed under contract by June 1911.[69]

5. Painting of Buildings - 1911

A contract was let to Neptune B. Smyth, Inc., of New York City to paint the interior and exterior of most of the buildings on Ellis Island during the latter part of 1911. The exterior painting included the doors, windows, and ironwork.[70]

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66. Williams to Commissioner-General of Immigration, Dec. 3, 1909, RG 85, NA.

67. Keefe to Commissioner of Immigration, Ellis Island, Feb. 28, 1910, RG 85, NA.

68. Williams to Commissioner-General of Immigration, July 28, 1910, RG 85, NA.

69. Annual Report, Commissioner-General of Immigration, Fiscal Year 1911, p. 167. No other information is available relative to the installation of the freight elevator. An elevator was also installed near the kitchen in the building, but the available documentation does not indicate the date or type of the construction.

70. Fry to Secretary of Commerce and Labor, Nov. 15, 1911, RG 121, WNRC.

6. Installation of Outside Stair Strings - 1911

A contract was let to George Sykes to furnish and install outside stair strings for a restaurant piazza during the latter part of 1911. The work was completed on December 7.[71]

7. Laying of New Tile Floor in Kitchen - 1911

It was reported in February 1911 that the floor in the immigrants' kitchen on the second floor of the kitchen and laundry building was "full of holes." The condition of the floor was so bad that apparently water was leaking down through the ceiling of the public dining room below. Accordingly, a contract was let to Howard Peterson to lay a new tile floor in the kitchen for approximately $1,500. The work was completed on April 29.[72]

8. Renewal of Hot Water Pipes - 1917-1918

As early as July 1910, Commissioner Williams requested funds to renew the heating apparatus in the kitchen and laundry building. Although the pipes were only ten years old, many of them were mere shells due in part to the fact that water was used over and over again in the boilers. Such water had the effect of a mild acid on the iron pipes. The reason for using water in such a manner was that the Jersey City water supply was subject to interruptions and very costly.[73] The work was placed under contract and completed sometime during FY 1918.[74]

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71. Ibid., and Fry to Secretary of Commerce and Labor, Dec. 18, 1911, RG 121, WNRC.

72. Fry to Secretary of Commerce and Labor, May 18, 1911, RG 121, WNRC.

73. Williams to Commissioner-General of Immigration, July 1, 1910, RG 85, NA.

74. Annual Report, Commissioner-General of Immigration, Fiscal Year 1918, pp. 269-70. No other information was found relative to this work.

9. Proposed Addition of Third Story - 1911-1920

Commissioner Williams proposed that a third story be added to the kitchen and laundry building in 1911 and again in 1912 primarily to provide quarters for the cabin passengers. His recommendation as stated in July 1911 was as follows:

> This will be largely used as quarters for cabin aliens. There are still none such though we have to detain a great many cabin passengers. Most of them must sleep in rooms attached to the immigrant quarters with three-tier beds. As a result the Government receives from time to time serious complaints, some of them well founded. We are treating such passengers as best we can. It will continue to be necessary to detain considerable numbers of them and they should have quarters corresponding to those which they have enjoyed on board ship. I made in substance the same comment last year.
>
> A portion of the new space will also be used as a dormitory for the employees of the commissary contractor when they are obliged to spend the night here as often as they are. They now sleep on such occasions in the cellar, an unsanitary and entirely inappropriate place.[75]

Williams repeated his proposal in July 1912 with a more complete explanation as follows:

> The main purpose hereof is to provide quarters in which to detain aliens who have crossed the ocean as cabin passengers. There are no such quarters, and yet a great many cabin passengers must be detained under the immigration law. They now sleep in rooms intended for, and frequently used by, immigrants. As a result the Department receives from time to time serious complaints, some of them well founded.

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75. Williams to Commissioner-General of Immigration, July 7, 1911, RG 85, NA.

> This new story will cover what was originally carried on the records as two buildings, then known as the kitchen and restaurant and the bath and laundry building. They are in reality only one building, now known as the kitchen and laundry building. The cost of the structure now standing was $93,026. The estimate for the new story is in amount $80,000. A portion of this sum will be expended in removing the existing hip roof on the building. When the additional story will be put on it will have a flat roof with recreation space on top. The quarters for cabin passengers will be sub-divided into many rooms, and they necessarily call for a greater amount of plumbing work and a better interior finish than would be provided for immigrants. The estimate has been carefully prepared and taken off in detail. It covers only items of absolute necessity.
>
> This additional story contains 200,000 cubic feet, estimated to cost 40 cents per cubic foot, making total cost for the additional story $80,000.[76]

The proposal was kept alive until the early 1920s although inflation had increased the estimated cost of the addition to $200,000. The last major attempt to press Congress for the needed funds occurred in 1920 as reported by the commissioner-general of immigration in June of that year:

> The following item is concluded in the estimates for appropriations for the fiscal year 1921:
>
> Additional story on kitchen and laundry building at Ellis Island for detention and dormitory quarters for cabin passengers, $200,000.

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76. Ibid., July 22, 1912.

> The necessity for this is obvious in view of the fact that there are at present no suitable accommodations at the station for cabin passengers, and it is believed that quarters at least equal to those given on board ship, should be provided. The building in question is 175 feet in length, its greatest width is 100 feet, its minimum width is 56 feet, and the proposed new story would provide about 200,000 cubic feet of space for the purposes intended. This need has been presented to Congress several times, and it is earnestly hoped that it may be authorized during the coming session.[77]

Despite the numerous requests for funds to construct the additional story on the building, Congress never appropriated the necessary money and the proposal was dropped.

10. Installation of Laundry Equipment - 1924

In December 1923 it was reported that the laundry facilities should be increased. The present equipment was inadequate and worn out by many years of service, and the installation of modern beds in the dormitories would greatly increase the quantity of materials, such as sheets and pillow cases, to be handled. Accordingly, it was estimated that the following equipment should be installed in the laundry:

4-42" x 84" Monel metal cascade washers @ $4,500	$18,000
4-48" humatic extractors @ $3,000	12,000
1-120" eight 12" rolls, flat iron worker	9,900
1-120" feeding device	500
1 national marking machine	600
5 galvanized iron hoods	1,300
	48,300

77. Annual Report, Commissioner-General of Immigration, Fiscal Year 1920, pp. 28-29.

Pipes, coverings, and freight	$ 2,000	
Concrete materials	1,500	
Changing floors and drains	2,500	
Vents from hoods	1,334	
Labor and foreman	2,500	
	$ 9,834	
Laundry company's estimate of their work		$52,134
Additional piers to support machinery and additional floor construction by construction contractor		$ 7,866
Total		$60,000

The installation of the new equipment would increase the capacity of the laundry equipment from 1,600 pieces to 15,000 pieces daily.[78]

Available documentation does not indicate with exact certainty how much of this equipment was installed in 1924. However, it is clear both from general references and a casual walk through the building that at least some of the aforementioned machinery was installed.

11. Renewal of Steam Return Lines - 1925

On July 1, 1925, Commissioner Curran informed the commissioner-general in Washington, D.C., "of the absolute necessity of restoring the steam return lines between the Kitchen and Laundry Building, [the] Baggage and Dormitory Building, and [the] Power House." Bids had been solicited earlier, but the lack of funds had

78. Curran to Commissioner-General of Immigration, Dec. 17, 1923, RG 85, NA.

prevented the letting of a contract. There had not been a complete breakdown the previous winter, but conditions were "now more extensive than when originally reported" the year before.[79]

The sum of $40,000 was allotted for various remodeling and repair projects on July 18.[80] Accordingly, two contracts were authorized on September 16 for the renewal of the steam return mains from the kitchen and laundry building to the powerhouse and for the insulation of the piping to be installed. The bid of Alfred Beyrodt of New York City was accepted for the renewal of the steam return mains. The work was to be completed within 45 days at a cost of $13,985. The 8-inch pipe was to be extra strong wrought iron with flanged connections.[81]

The contract for the insulation of the piping was let to the Keasley & Mattison Company of New York City. The work was to be completed within 30 days at a cost of $737. The new water pipes were to be covered with antisweat sectional pipe coverings and the new steam return mains with 85 percent magnesia sectional pipe covering. The coverings were to be at least 1 inch thick in ½-inch layers with standard weight canvas pasted and banded with #26 B&S gauge solid brass bands. The materials were to be manufactured by the Johns-Mansville Company or its equivalent.[82]

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79. Ibid., July 1, 1925.

80. Hull to Commissioner of Immigration, Ellis Island, July 18, 1925, RG 85, NA.

81. Curran to Commissioner-General of Immigration, Aug. 31, 1925, Hull to Commissioner of Immigration, Ellis Island, Sept. 16, 1925, and "Contract, Bond, Proposal, and Specifications for Renewal of Steam Return Main from Kitchen and Laundry Building to Power House, Island #1," dated Sept. 23, 1925, RG 85, NA. The work was to be done in accordance with drawing D-995-1.

82. Curran to Commissioner-General of Immigration, Aug. 31, 1925, Hull to Commissioner of Immigration, Ellis Island, Sept. 16, 1925, and "Specifications for Insulation of Steam Return Main from Kitchen and Laundry to Power House, Island #1," dated Aug. 28, 1925, RG 85, NA. The work was to be done in accordance with drawing D-995-1.

12. Renewal of Heating System (Pipe Covering) - 1925

On October 5, 1925, a contract was let to Alfred Beyrodt to renew various portions of the pipe covering of the heating system in the buildings on islands 1 and 3. The pipes were to be covered with the same materials as the aforementioned steam return lines. Several pipes connected to the kitchen and laundry building not covered by the contract with the Keasley & Mattison Company were included under the Beyrodt contract.[83]

13. Repairs to Heating and Plumbing Systems - 1926

On June 24, 1926, a contract was let to David Brandt, Inc., of New York City to make extensive heating and plumbing repairs in the buildings on island 1. The work was to be completed within 165 days at a cost of $26,844. The work on the kitchen and laundry building consisted of the following: steam lines replaced in the heating system in the corridors connecting the baggage and dormitory building to the kitchen and laundry building; water lines replaced in the connecting tunnel to the kitchen and laundry building and in the building itself; and renewal of the hot-water system from the manifolds in the powerhouse to and in the kitchen and laundry building.[84]

14. Repairs to Roof - 1928

On March 22, 1928, a contract was let to Offenkrantz & Mark of Newark, New Jersey, to repair the roofs of the principal buildings on island 1. The work to be done on the kitchen and laundry building was as follows:

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83. "Specifications for Renewal of Heating System, Part 1, Pipe Covering," dated Sept. 25, 1925, RG 85, NA. The work was to be done in accordance with drawing D-1003-1.

84. "Contract, Bond, Proposal, and Specifications for Heating, Plumbing, and Pipe Covering in Power House, B & D Building, Connecting Corridors and Main Building, Island No. 1," dated June 24, 1926, RG 85, NA. The work was to be done in accordance with drawings D-994-1 and 2 and D-1010-1 and 2.

Replace all missing, cracked, or broken slate with new slate

Replace all missing ridges and hips by using such of the old material that will be leakproof for a year, and where new material is needed use 16-ounce copper cold rolled

Reset all loose or missing ridges and hips in manner as shown on drawing #E777-4. Where all loose or new slate is inserted use a "Copper Baby" not less than 8 inch by 4 inch to cover copper nails

Patch all copper valleys where leaking with copper not less than 8 inches wide

Repair any defective downspout boxes, gutters, and leaders

Reflash all skylights and dormer windows with 18-ounce soft copper

Repair all skylights and reset loose glass as previously specified

The repaired portions of the roofs of the buildings were to be guaranteed against leakage for one year.[85]

15. Installation of Steam and Ventilating System - 1931

The act making appropriations for the Department of Labor for FY 1932, which was approved on February 23, 1931, made available the sum of $2,100 for the installation of a new steam and ventilating system for the kitchen equipment in the kitchen and laundry building.[86] Accordingly, plans and specifications were drawn up, and two contracts were let in November 1931. The contract for the steam supply and return system was given to John F. LeBeau, Inc., of New York City at a

85. "Contract, Bond, and Specifications for Roof Patching on Islands No. 1 and No. 2," dated Mar. 22, 1928, RG 85, NA.

86. Hull to Commissioner of Immigration, Ellis Island, Apr. 1, 1931, RG 85, NA.

cost of $995. The work included the following items: high pressure steam supply lines to kitchen fixtures; riser to second floor; branch supply lines to fixtures on first and second floors; return lines; and valves, traps, strainers, and gauges.

A second contract was let to the Smith of New York Company for the installation of a range hood and vent stack at a cost of $985. The hood was to be made of soft copper with a steel framework, and the ventilator was to be of the stationary displacement type and constructed of 22-gauge cold rolled steel sheets.[87]

16. Repairs to Elevator - 1931

A contract was let to the Welsh Elevator and Machine Works of New York City in October 1931 to make various repairs to eight elevators on Ellis Island. Aside from general cleaning and overhauling of the electrical and mechanical mechanisms, the following work was done on the blanket elevator near the laundry in the kitchen and laundry building:

Renew two cables, car to counterweight
Renew motor brushes
Reline brakes
Overhaul car safety
Cut exit in top of car
Install new maple floor
Install new thrust bearings
Rebabbitt main drum bearings top and bottom
Repair operating circuit
Install new gibs on car shoes

87. Corsi to Commissioner-General of Immigration, Nov. 17, 1931, (two letters), and "Specifications for Steam and Ventilation, Kitchen and Laundry Building, Island No. 1," dated Nov. 11, 1931, RG 85, NA. The LeBeau contract work was to be done in accordance with drawing D-1179 while that of the Smith contract was to be done in accordance with D-1185.

Overhaul motor control

Repair car switch

Furnish and install two car gates and gate contacts

Overhaul door contacts

Cut hole in floor, with sleeve and plate to permit use of safety wrench[88]

17. Installation of Fire Alarm System - 1931

On October 28, 1931, a contract was let to the Quintine Realty Company of Bloomfield, New Jersey, for the installation of a 28-station Faraday Series closed circuit fire alarm system in all the buildings on Ellis Island.[89]

18. Replacement of House Drain Lines - 1932

The bid of Reuben Isaacson, a plumber and steam and gas fitter in New York City, was accepted on May 11, 1932, to install a new house drain line system in the kitchen and laundry building. The work included the replacement of the house drain lines in the basement together with other short runs of pipe that were part of the drainage system. A new vent stack was to be built on the roof, and five new floor drains were to be installed on the first and second floors. In addition, a cast-iron sanitary grease intercepter capable of handling some 500 gallons of water per minute with a fat capacity of 100 pounds was to be placed in the basement. The work was completed on July 5 at a cost of $1,293.[90]

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88. "Specifications for Repairs to Elevators, Main Island, and Repairs to Elevators, General Hospital," ca. 1931, RG 85, NA.

89. Hull to Commissioner of Immigration, Ellis Island, Oct. 28, 1931, and "Specifications for Fire Alarm System at Ellis Island," dated Oct. 21, 1931, RG 85, NA. The work was to be done in accordance with drawing D-1184.

90. "Specifications for Replacements-House Drain Lines, Kitchen & Laundry Building, Island No. 1," dated May 4, 1932, and miscellaneous papers relative to contract, FF 21, Kitchen and Laundry: Replacement Lines, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1223.

19. Installation of Insect Screens - 1932

A contract was let to the Orange Screen Company of New York City in June 1932 to install wood and metal fly screens, metal weather strips, and wire screen window guards on various windows and doors in the Ellis Island buildings, including the kitchen and laundry building.[91]

20. Replacement of Pipes and Plumbing Fixtures - 1932

In June 1932 a contract was let to William C. Crowe of New York City to replace obsolete and defective pipes and plumbing fixtures in the kitchen and laundry building.[92]

21. Installation of Sheet Metal and Repairs to Roofs -1932

During the spring of 1932, a contract was let to Benjamin Rubin to make repairs to the roofs and their appurtenances of the buildings on island 1. The work on the kitchen and laundry building included patching "all holes and defective places in the ridges, hip, and valley and eave trough members" and coating "the inside of the eave troughs . . . with fibrous asphalt." A new 18-gauge galvanized iron ventilator with a stack from the second-floor kitchen range was to be installed on the west end of the building to replace the current aluminum ventilator.[93]

22. Painting of Buildings on Island 1 - 1932

Three contracts for painting the buildins on island 1 were let during the spring of 1932. The contracts were as follows: exterior -

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91. "Specifications for Screens on Islands Nos. 1, 2, 3," dated June 6, 1932, and miscellaneous papers relative to contract, FF 177, All Islands: Insect Screens, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1241 and E-1240.

92. FF 02, All Islands: Work Contracted, 1931-1938, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1239.

93. "Specifications for Sheet Metal and Roofing, Island No. 1," dated May 9, 1932, RG 85, NA. The work was to be done in accordance with drawing D-1168.

Louis Gladstein & Peter Contaris of New York City - April 5, 1932 - $3,879; interior - Louis Gladstein of New York City - ca. June 1, 1932 - $4,995; and interior (additonal) - Joseph Gelenter of Brooklyn, New York - June 3, 1932 - $3,135.[94]

23. Painting of Exterior Masonry - 1932

A contract was let to the Quintine Realty Company of New York City in June 1932 to point the granite, limestone, and terra cotta masonry on the exterior of the buildings on island 1. The pointing mortar was to be composed of either one volume of white portland cement and three of sand with sufficient cold lime putty to make a stiff mix or one volume of nonstaining Puzzolan cement and two of sand.[95]

24. Covering of Pipes - 1932

In June 1932 a contract was let to the Sheridan Insulation Company of New York City to place nonconducting coverings on the pipes throughout Ellis Island. The pipes in the kitchen and laundry building that were affected by the contract were as follows:

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94. Shaugnessy to Commissioner of Immigration, Ellis Island, Apr. 5, 1932, Husband to McCarl, May 31, 1932, Hull to Commissioner of Immigration, Ellis Island, June 3, 1932, "Specifications for Painting (Exterior), Island No. 1," dated Mar. 30, 1932, "Specifications for Painting (Interior), Buildings on Island No. 1," dated May 11, 1932, and "Specifications for Painting (Interior Additional), Buildings on Island No. 1," dated May 31, 1932, RG 85, NA. The exterior work was to be done in accordance with drawing D-1220, the interior with drawing D-1235, and the interior additional with drawing D-1238.

95. Miscellaneous papers relative to contract, FF 108, All Buildings - Island #1: Pointing Up Exterior Masonry, 1932, Ellis Island Records, DSC.

Size	Length	Location	Description
5" O.D.	8'-0"	Trench to B&D Bldg.	Recanvas and Recov where needed.
Cov.		B&D & K&L Bldgs.	H.P. Steam Ret. From B&D & K&L Bldgs.
13" O.D.	40'-0"	K&L Bldg. Bsmt.	Recanvas & Recov. where needed. 8", 12" Exh. St. to Island #2 10" Exh. St. to Main Bldg.
8"	10'-0"	Covered Way	Recover: 8", 12" Exh. St. to Island #2
10"	28'-0"	Near K&L entrance	10" Exh. St. to Main Bldg.
12"	12'-0"		
6"	58'-0"	Do	Do: H.P. St. to Island #2
8"	12'-0"		H.P. St. to Main Bldg.[96]

96. "Specifications for Non-Conducting Covering, Islands #1, 2, and 3," and miscellaneous papers relative to contract, FF 180, All Islands: Nonconducting Pipe Covering, 1932, Ellis Island Records, DSC.

25. Repairs to Blanket Elevator - 1933

In October 1933 a contract was let to the Welsh Elevator and Machinery Company to make repairs on various elevators at the immigration station. One of the elevators designated for renewal was the blanket elevator near the laundry in the kitchen and laundry building. The work included the following:

Install all new shoes or regib present shoes

Install new governor cable, 3/8-inch - iron - 6 x 19

Clean car hoisting cable with kerosene and apply clean grease

Install new lead covered wiring between control panel and drum reversing switch (wiring in underground conduit)[97]

26. Installation of Sheet Metal and Repairs to Roof -1934

In January 1934 a contract was let to the Merit Construction Company of New York City to install a new ventilator for the laundry in the kitchen and laundry building as well as work on the roofs of island 3. The ventilator was to be built with flat sheet metal.[98] A separate contract with the same firm signed one month earlier provided for repairs to the skylights, sheet metal, and roofing of the kitchen and laundry building.[99]

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97. "Specifications for Repairs to Elevators," dated Oct. 11, 1933, and miscellaneous papers relative to contract, FF 181. All Islands: Elevator Repairs, 1933, Ellis Island Records, DSC.

98. Miscellaneous papers relative to contract, FF 22, Kitchen and Laundry: Sheet Metal and Roofing, 1934, Ellis Island Records, DSC. The work was to be done in accordance with drawing C-1256.

99. FF 02, All Islands: Work Contracted, 1931-1938, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1245.

27. Replacements in Electrical System - 1934

In April 1934 a contract was let to the Martin Epstein Company of Brooklyn, New York, to make replacements, alterations, and additions to the electric light and power system in the kitchen and laundry building. The work included the installation of panel boards, conduits, junction and pull boxes, wiring, switches, receptables, and lighting fixtures. The work was completed in August at a cost of $1,300.[100]

28. Repairs to Elevator - 1934

In September 1934 a contract for $105.65 was let to the Holmberg Electric Company of Brooklyn, New York, to repair the armature of the 20-horsepower Imperial elevator motor located in the basement of the kitchen and laundry building. The work involved the following steps:

Remove armature of motor to shop

Entirely strip windings of armature

File up armature winding slots

Furnish new windings for armature; all coils to be preformed and individually taped

Impregnate and bake out all armature coils before assembling on commutator

Entirely reinsulate commutator, including mica segments and end vee rings

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100. "Specifications for Electric Installation, Kitchen and Laundry Building, Island No. 1," dated Apr. 5, 1934, and miscellaneous papers relative to contract, FF 23, Kitchen and Laundry: Electric Installation, 1934, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1274 through D-1277.

Assemble commutator and connect same to armature winding terminals

Bake armature at a temperature of 120 degrees for 8 hours

Machine commutator true and smooth

Deliver and install rewound armature[101]

29. Remodeling of Building - 1935

The Ellis Island Committee, selected by Secretary of Labor Perkins, issued its final report in March 1934. The committee recommended that better facilities be made available for segregating the different classes of immigrants--deportees, incoming aliens, and repatriates. Such facilities could be accomplished by remodeling the baggage and dormitory and the kitchen and laundry buildings for the deportees and by adding a new building for incoming aliens and repatriates. According to the proposed plan, the steamship agents, ticket offices, and telegraph office on the ground floor of the baggage and dormitory building were to be moved to the old "ice plant" with access from the corridor on the ground floor of the kitchen and laundry building. The dining rooms in the kitchen and laundry building were to be subdivided, and the building itself was to be attached to the new building by covered passageways.[102]

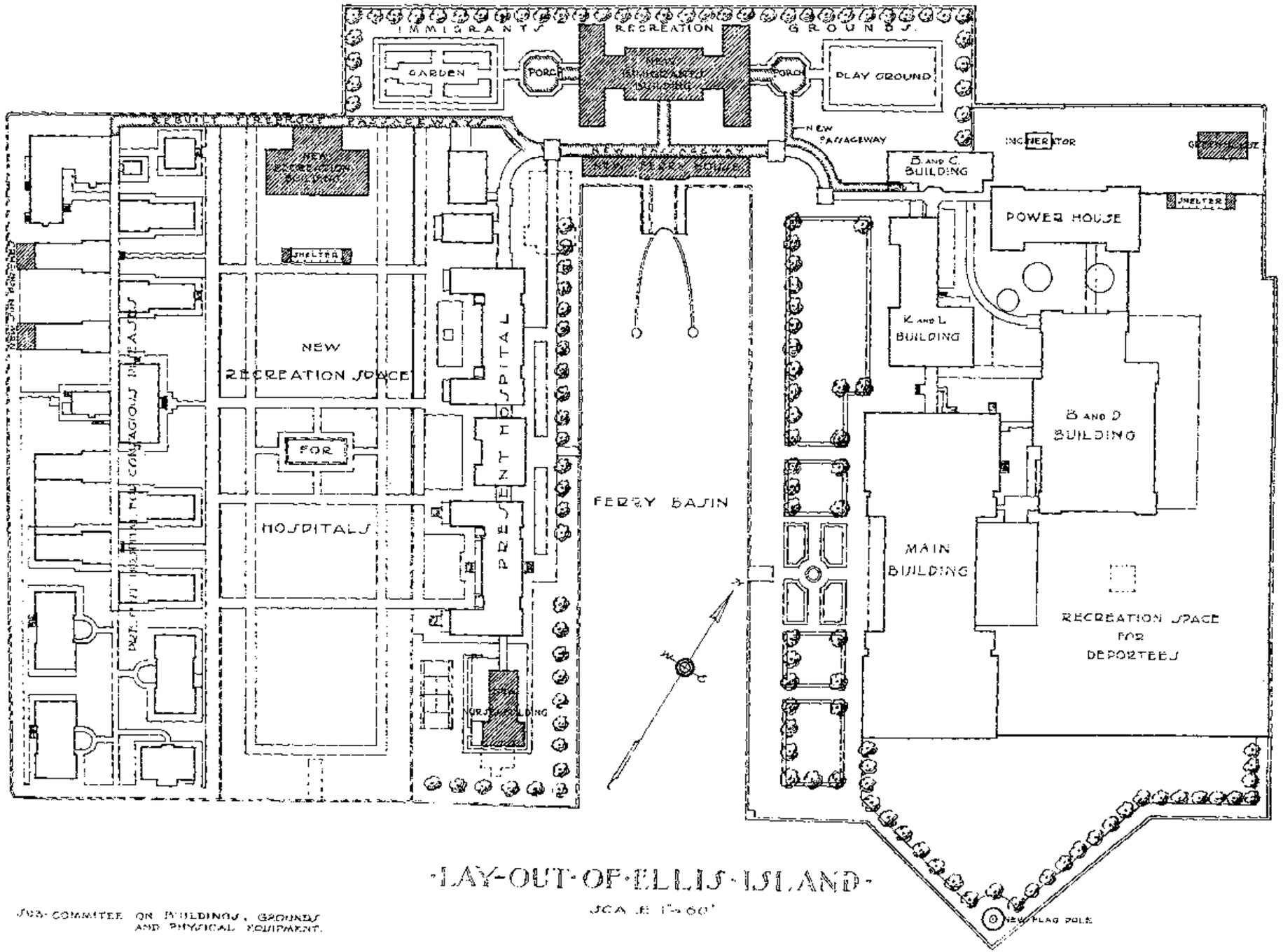
Most of the committee's recommendations were implanted in 1934-1935 under funding ($1,151,800) obtained by the Public Works Administration.[103] Among the changes made in the kitchen and laundry

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101. "Specification for Motor Repairs, Kitchen and Laundry Building," dated Aug. 29, 1934, FF 24: Kitchen and Laundry, Motor Repairs, 1934, Ellis Island Records, DSC.

102. Ellis Island Committee Report, 1934, pp. 13-15. A copy of the layout plan for Ellis Island prepared by the committee may be seen on the following page.

103. U.S., Library of Congress, Twenty-Second Annual Report of the Secretary of Labor for the Fiscal Year Ended June 30, 1934 (Washington, 1935), p. 72.



LAY-OUT OF ELLIS ISLAND

SCALE 1"=60'

SUB-COMMITTEE ON BUILDINGS, GROUNDS AND PHYSICAL EQUIPMENT.

building were the construction of a new kitchen and dining room for deportees on the west end of the second floor. In the new dining room the following items were installed: new tile wainscot, new furring and plaster on walls above the wainscot, new suspended ceiling, and new windows or new trim and sills for present windows.[104]

30. Repairs/Replacements to Plumbing, Heating, and Laundry Equipment - 1936

In August 1936 a contract was let to H. Sands and Company to extend, alter, and repair portions of the plumbing and heating systems in the kitchen and laundry building and the powerhouse and to install new laundry equipment in the former. In the new kitchen on the second floor of the kitchen and laundry building, a nickel-plated service sink was to be installed. The high-pressure steam system in the basement was overhauled as part of the renewal work on the heating system. A drying tumbler of the "once through" type with a 42-inch diameter by 60-inch-long cylinder (Industrial Laundry & Machinery Corporation) was installed in the laundry.[105]

31. Alterations in Electrical System - 1936

A contract was let in the spring of 1936 to make various alterations to the electrical systems in the buildings on island 1. A new 200-ampere, 250-volt double-pole single-throw fused switch was installed in the basement of the kitchen and laundry building to facilitate the power needs of the laundry.[106]

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104. Uhl to Heimer, Feb. 13, 1935 (two letters), FF 25, Kitchen and Laundry: Work on Second Floor, 1935, Ellis Island Records, DSC.

105. "Specifications for Repairs and Replacements to Plumbing, Heating, and Laundry Equipment, Island No. 1," dated Aug. 18, 1936, and miscellaneous papers relative to contract, FF 26, Kitchen and Laundry,: Repairs and Replacements, 1936, Ellis Island Records, DSC. The heating work was to be done in accordance with drawings D-1301 and D-1302.

106. "Specification for Electrical Work," dated Mar. 3, 1936, FF 111, All Buildings, Island No. 1: Electrical Work, 1936, Ellis Island Records, DSC.

32. Repairs to Elevator - 1936

In August 1936 a contract was let to the Markato Elevator Company of New York City to make repairs to various elevators on Ellis Island. Among the items of work was the overhaul of the blanket elevator in the kitchen and laundry building.[107]

33. Installation of Second Story Porch Floor - 1936

A second story porch floor was installed in the kitchen and laundry building in 1936. The new wooden floor was approximately 75 feet by 15 feet.[108]

34. Construction of Covered Ramp - 1937

In June 1937 a contract was let to Albert & Harrison, Inc., of New York City to construct a new masonry ramp between the kitchen and laundry building and the adjoining covered way. The old ramp, which was adjacent to the location of the new construction, was removed. The new ramp, constructed of reinforced concrete, was faced with brick laid with bond to match that of the ticket office structure, which formed one side of the new covered ramp. The roof, gutters, downspouts, and flashing were of 20-ounce copper. The ramp was heated by two wall-hung exposed radiators and lighted by two ceiling fixtures. The old stairs in the areaway was closed, and a new opening was cut in the wall for a new concrete stairway.[109]

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107. "Specifications for Repairs to Elevators," Aug. 27, 1936, and miscellaneous papers relative to contract, FF 184, All Islands: Elevator Repairs, 1936, Ellis Island Records, DSC.

108. FF 330, Works Progress Administration: Projects 61-64, 1933-1937, Ellis Island Records, DSC.

109. "Specifications for Covered Ramp - K&L Building, Island No. 1," dated June 21, 1937, and miscellaneous papers relative to contract, FF 27, Kitchen and Laundry: Covered Ramp, 1937, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1314.

In connection with the construction of the new ramp, bronze mesh insect screens and weather strips were placed on the windows and doors of the first floor corridor in the kitchen and laundry building. The work was done under contract to the Zero Weather Stripping Company of New York City during July and August 1938. The following coverings were placed:

> Pair of screens for windows near head of ramp - screens may be made in one piece with a wide center mullion; overall size 5'10" x 5'
>
> Pair of door screens for opening 6' x 7'1" - screens are to be interchangeable with existing wood doors at head of ramp
>
> Door screen for opening 3'6" x 7'4" - screen is to be interchangeable with existing french door at foot of stairs at end of corridor
>
> Weather strips for two double-hung windows in superintendent's office - each window is to be 5'9" x 7'8"[110]

35. Overhauling of Panel Boards and Removal of Obsolete Electric Lines - 1939

The panel boards were overhauled and the obsolete electrical lines removed in the basement of the kitchen and laundry building under the WPA's Sponsor's Design Unit for New York State Projects in the spring of 1939. There were nine light panels in the building. In addition, all wiring in the laundry was inspected for shorts, and overloaded circuits and defective wiring were replaced with #12 RCDB wire where possible. All conduits, condulets, boxes, and panels in the basement were strapped and fastened in place.[111]

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110. FF 177, All Islands: Insect Screens, 1931, Ellis Island Records, DSC.

111. "Specifications, Job No. 78 & 79, Overhaul Panel Boards, Islands 1, 2, and 3 and Remove Obsolete Electrical Lines in Basements of Main and Kitchen and Laundry Buildings, dated Apr. 24, 1939, FF 185, All Islands: Overhaul Panel Boards, 1939, Ellis Island Records, DSC.

36. Repairs to Elevator - 1939-1941

On December 14, 1939, a contract was let to the Welsh Elevator & Machine Works to repair eight elevators on Ellis Island. Aside from general cleaning and overhauling, the following work was to be done to the blanket elevator in the kitchen and laundry building:

> Remove armature; machine commutator true and smooth; paint armature with two coats of a good grade of water and oil proof varnish; test windings and commutator
>
> Machine and regroove commutator and bearing to prevent excessive oil from getting on commutator
>
> Adjust end lash of worm shaft
>
> Furnish and install one collapsible Boswick gate with new track and fittings to operate the gate switch at east car entrance
>
> Regib top and bottom guide shoes and install leather washers to prevent excessive side lash
>
> Drill counterweight tie rods for cotter pins
>
> Furnish and install with all necessary wiring and operating cams, two Cutlor hammer door safety switches #1271-H3, type B or equal, on east shaftway entrance doors, 2nd and 3rd floors
>
> Renew both overhead ball-bearing rollers on first floor shaftway door.[112]

Repairs were again made to the eight elevators on Ellis Island under a contract let to the Markato Elevator Company of New York

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112. Elevator Repairs, Ellis Island, N.Y.H., Specifications, and miscellaneous papers relative to contract, FF 186, All Islands: Repair Eight Elevators, 1939, Ellis Island Records, DSC.

City on April 17, 1941. Aside from general cleaning and overhauling of defective parts, a new drum shaft and worm shaft bearings were installed in the blanket elevator of the kitchen and laundry building. In addition, the excessive lash of the worm shaft and worm gear was removed by building up and recutting both the worm and the gear.[113]

During the same period the motor of the blanket elevator was repaired under a separate contract with the Naumer Electric Company of New York City. The specifications provided for the following work to be done at a cost of $85:

> The motor to be repaired under this contract is No. 5053, Imperial Electric Co., Type S.D.S., 20 H.P., 230 volt; 725 RPM. . . .
>
> (a) Entirely reinsulate commutator, including mica side and vee rings, using amber mica for the purpose.
>
> (b) Connect up commutator to windings.
>
> (c) Make all necessary ground and millivoltmeter tests, as directed, and furnish a report of same.
>
> (d) Build up armature shaft at coupling and by acetylene or electric welding, and then machine same to a standard size, cutting new keyway in same.
>
> (e) Furnish and install new semi-steel split type coupling and properly fit same to armature shaft.
>
> (f) Furnish and install new motor bearings.[114]

37. Miscellaneous Renovation Projects - 1939

The WPA carried out several renovation projects on the kitchen and laundry building in 1939. These included painting corridor

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113. Elevator Repairs, Ellis Island, N.Y.H., specifications, and miscellaneous papers relative to contract, FF 187, All Islands: Repair Eight Elevators, 1941, Ellis Island Records, DSC.

114. FF 28, Kitchen and Laundry: Repair Elevator Motor, 1941, Ellis Island Records, DSC.

floors, installing two new house drain lines from locker room and refrigeration room in basement, reroofing building with clay shingle tiles, and repairing sheet metal and skylight.[115]

115. FF 331, Works Progress Administration: WPA Projects, 1939, Ellis Island Records, DSC.

VII. THE POWERHOUSE

When the major fire destroyed the first immigration station on Ellis Island in June 1897, only three buildings were left standing--engine house, electric light and steam plant, and surgeon's quarters.[1] As plans were being drawn up for the construction of the new immigration station buildings in early 1898, it was determined that the old structure protecting the boilers, machinery, electric lighting, and heating plant should be replaced by a new fireproof building at an estimated cost of $50,000. Supervising Architect Taylor informed Secretary of the Treasury Gage on March 4 regarding his proposal for the new structure as follows:

> The old structure protecting the boilers and machinery, electric light plant and fuel, escaped the fire, but to allow this structure to stand would be entirely incongruous with the proposition to guard against the repetition of the disaster which has before fallen the station, by making all the buildings fire-proof. Although the exterior is wholly covered with slate and metal work, the danger of burning from within the structure is very great. The frame of the building is wholly of wood and is not protected by plaster or in any manner from accidental fire. It has now been standing so long exposed to the heat and smoke of the two boiler furnaces, that it is in a high degree combustible and dangerous. It is not only possible, but even probable that it will at some time take fire, and the disabling or destruction of the plant would follow, causing a total stoppage of the work of the immigration station.
>
> In view of this fact the Department urgently represents that it is no more than ordinary prudence to cover this plant with a

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1. New York Tribune, June 15 and 16, 1897, and New York Times, June 15 and 16, 1897. Generated by steam power, the electric plant provided 110 volts (direct current) for incandescent lighting and 2,000 volts for arc lighting.

fire-proof structure, which may be done without disturbing the boiler setting or the machinery.[2]

While the proposal was under review, various repairs were made to the existing powar plant. On March 31 a contract was let to the Mason Manufacturing Company to remove and replace "the old 12 inch main in connection with steam piping in [the] boiler house."[3] One week later, on April 6, a proposal by Henry R. Worthington was accepted to repair four Worthington pumps in the power plant.[4] On May 11 the bid of John Flanagan was approved for the repair of tha roof, gutters, and leaders of the "power building."[5]

By September, Treasury Department officials had decided on the general plans for the new powerhouse. According to a plan for the location of the new structure prepared by Boring & Tilton, the new powerhouse was to be situated at the northeast edge of island 1 just north of the main building.[6] The powerhouse, like the other new structures, was to be carried on piers with an approximate load of 1½ tons per square foot on the ground.[7]

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2. Taylor to Secretary of the Treasury, Mar. 4, 1898, RG 121, WNRC. In addition, the sum of $11,450 was requested to construct a new tunnel from the power plant to the new main building for the installation of a pipe system for the distribution of steam, water, electric wiring, and sewage disposal. Congress granted the requested funds for the tunnel on July 1, 1898.

3. Spaulding to Fry, Mar. 31, 1898, RG 121, WNRC.

4. Spaulding to Chief Engineer and Superintendent of Repairs, Apr. 6, 1898, RG 121, WNRC.

5. Ibid., May 11, 1898.

6. Annual Report, Supervising Architect, Sept. 30, 1898, p. 73. A copy of the "Plan of U.S. Immigrant Station, Ellis Island, N.Y. Harbor" may be seen in this Historic Structure Report in V.A.1.a.

7. J. K. Taylor to Chief Engineer and Superintendent of Repairs, Dec. 21, 1898, RG 121, WNRC.

While preliminary drawings were being prepared for the new auxiliary structures on Ellis Island, the old power plant continued in use at the station. On October 24 the firm of Holmes & Cogan, which was laying a submerged water pipe between Jersey City and Ellis Island for the new water supply system, was authorized to extend the 4-inch water pipe in the pump room to the recently installed water tanks.[8]

Congress appropriated the sum of $50,000 for the new powerhouse in an act approved on March 3, 1899.[9] On August 18 Boring & Tilton submitted plans to the supervising architect for the general plan of auxiliary buildings on Ellis Island. Their plan to convey the steam and electric pipes and electric wires from the powerhouse to the various buildings under the roof of the covered way was approved. However, it was recommended that they increase the floor area of the new powerhouse for the following reasons:

> The total floor area of the old boiler house, including the fuel shed is approximately 9,875 square feet: The total area of your plan is 11,250 square feet.
>
> The space for storage of coal on the old plan is 3,000 square feet: On your plan 2,700 square feet.
>
> The available boiler space in the old building is 4,290 square feet: On your plan 3,000 square feet.
>
> The space for electric light plant on the old plan is 1,760 square feet: On your plan 1,000 square feet.

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8. Spaulding to Holmes & Cogan, Oct. 24, 1898, RG 121, WNRC, and Annual Report, Supervising Architect, 1898, pp. 22-23.

9. Annual Report, Supervising Architect, June 30, 1899, p. 90.

In order to increase the floor area of the dynamo and boiler rooms, it was suggested to provide for a wider building enclosed on the line between the boiler room and the fuel room. Space for fuel storage could be made in a light iron shed outside the powerhouse, which would be closed only at the ends to hold the coal pile. It was also recommended that they utilize the existing stack and add a second one of similar dimensions rather than construct the large stack shown on their plans.[10]

By October 6, Boring & Tilton had submitted their revised plans for the new powerhouse. These plans called for the removal of portions of the old structure and stack and the erection of a new enlarged building and stack. The plans also included tentative proposals concerning removing the old boilers, tanks, and pumps from the old power plant and relocating them in the new powerhouse; this work was to be done under a separate appropriation.[11] The new powerhouse was to have a capacity of 1,400 horsepower, or nearly double the capacity of the old plant with its six Babcock and Wilcox boilers having a combined total of 816 horsepower.[12] It was estimated that the necessary distributing pipe system conveying steam, water, and sewage lines from the new powerhouse to the various buildings would cost an additional $15,000.[13]

After some discussion about what should be done with the materials from the old structures that were to be razed, such as the old power plant, Supervising Architect Taylor developed a policy that was announced on February 1, 1900. Writing to Boring & Tilton, Taylor advised them "to provide for the removal of such structures in the specifications for the new buildings; if any of the material in the present

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10. J. K. Taylor to Boring & Tilton, Sept. 8, 1899, RG 121, WNRC.

11. Ibid., Oct. 6, 1899.

12. Spaulding to Boring & Tilton, Oct. 12, 1899, and J. K. Taylor to Boring & Tilton, Oct. 30, 1899, RG 121, WNRC.

13. Ibid., Oct. 13, 1899, and Supervising Architect to Boring & Tilton, Oct. 30, 1899, RG 121, WNRC.

buildings is suitable to be re-used it should be so stated in the specifications; the other material of value must be stored where directed by the superintendent, and the refuse can be dumped as filling on the island."[14]

The question of the wiring system for the new buildings on the island also became the topic of discussion. On May 5, Taylor informed the architects that "it is desired to have the system of feeders running from the power house to the various buildings to be two wire, 230 volts."[15]

A. Construction - 1900-1901

1. Main Contract - Louis Wechsler

On March 10, 1900, the solicitation of bids was advertised for the construction of the new powerhouse, as well as the kitchen and laundry building and various covered walks. The contract to be let provided for all facets of the construction except for the electric light wiring and the heating and ventilating apparatus. The proposals were opened on April 19, and a contract was let to Louis Wechsler of New York City on May 4 at a cost of $135,400. Of this sum, $47,500 was allocated for the construction of the powerhouse, which was to be under roof by August 1, 1900, and completed entirely by October 1. The specifications for the work are not extant, and the little available documentation concerning the original contract notes only that the cornice was to be of 16-ounce copper.[16]

There was one paragraph in the specification, however, that received considerable attention during the period of construction. The paragraph, which appeared in a letter from Supervising Architect Taylor to the inspector in charge at Ellis Island on May 5, read as

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14. J. K. Taylor to Boring & Tilton, Feb. 1, 1900, RG 121, WNRC.

15. Ibid., May 5, 1900.

16. H. A. Taylor to Wechsler, May 4, 1900, RG 121, WNRC.

follows: "It is intended to construct this building leaving a part of the old boiler house standing and in removing that part which is now necessary to be taken away, the contractor must shore if necessary such parts of the old building as would become dangerous by this demolition. The block plan shows the extent of the building to be torn down before the erection of the new building. The remainder of the old building is not to be considered in this contract but is to be left standing."

According to Taylor, the purpose of this requirement was "to take ample precaution to prevent the demolition of that portion of the building in which the present electric light plant is contained, with a view to utilizing said plant in the temporary lighting of the main building should it prove impossible, by any reason, to have the new electric plant installed in sufficient time for its employment therefor."[17]

Construction operations commenced on the powerhouse during the latter part of May. On May 26, the sum of $1,614.60 was added to Wechsler's contract for "the excavation, shoring, sheet piling, pumping, piling, capping and grillage, in connection with the boiler setting."[18] Three days later Wechsler's samples of Indiana limestone for the exterior walls and asphalt mastic for the floors were accepted.[19] On June 15 his recommendation to use "Old Newark Brand" cement, a natural cement manufactured by the Old Newark Cement Company of Rosendale, New York, was approved.[20] By June 30 it was reported that about four-fifths of the foundation walls were in place.[21]

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17. J. K. Taylor to Inspector in Charge, May 5, 1900, RG 121, WNRC. The work was to be done in accordance with drawings 1-8 and 1-17.

18. Spaulding to Wechsler, May 26, 1900, RG 121, WNRC. The work was to done in accordance with drawing 1A.

19. J. K. Taylor to Superintendent of Construction, May 29, 1900, RG 121, WNRC.

20. Kemper to Boring & Tilton, June 15, 1900, RG 121, WNRC.

21. Roberts to J. K. Taylor, June 30, 1901, RG 121, WNRC.

A series of changes in the plans for the powerhouse were approved during the summer. The modifications were as follows:

June 1 - The stone trimming at the top of the smokestack was omitted. The dimensions of the stack were changed from 7 feet by 100 feet to 6 feet 6 inches by 125 feet. A number of changes were also made in the position of door openings, sink locations, smoke inlets, cesspools, and hose connections in the engine room.[22]

June 5 - Additional foundations were approved for machinery room 5. The sum of $1,132.80 was added to Wechsler's contract for the excavations, shoring, sheet piling, pumping, piling, capping, and grillage related to the work.[23]

June 5 - The sum of $821.10 was deducted from Wechsler's contract to lower the level of the floor to datum 27 feet 9 inches.[24]

June 12 - The sum of $1,090 was added to Wechsler's contract to make certain modifications in the smokestack of the powerhouse.[25]

June 13 - Changes were approved in the positions of two sinks, one door, a cesspool, and a hose.[26]

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22. J. K. Taylor to Boring & Tilton, June 1, 1900, RG 121, WNRC.

23. Gage to Wechsler, June 5, 1900, RG 121, WNRC. The work was to be done in accordance with drawing 1B.

24. Ibid.

25. Ibid., June 12, 1900. The work was to be done in accordance with drawing S-A-12.

26. Ibid., June 13, 1900, RG 121, WNRC. The work was to be done in accordance with drawing S-A-9A.

June 13 - The sum of $504 was added to Wechsler's contract to place concrete floors in lieu of the specified brick floors in machinery rooms 5 and 7.[27]

June 23 - The two openings in the smokestack were increased from 4 feet 6 inches to 5 feet in diameter, and the center of both was set at 17 feet 6 inches above the boiler room floor.[28]

June 29 - It was approved to substitute 18-ounce cold rolled copper, in lieu of terra cotta, for the hips and ridges of the buildings.[29]

July 17 - Changes in the slate work were authorized in connection with the plumbing and bath partitions. The modifications permitted the use of a solid slate slab instead of nickel-plated capping.[30]

July 26 - It was authorized to place two 12-inch 40-pound beams over the openings in the smokestack.[31]

September 14 - The sum of $134 was added to Wechsler's contract for extra piles and foundation work in connection with the smokestack because of its increased height.[32]

September 29 - It was approved to use 7/8-inch channel iron weighing .67 of a pound to the foot in place of a 1-inch channel

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27. Ibid., June 13, 1900, (two letters).

28. Spaulding to Wechsler, June 23, 1900, RG 121, WNRC. The work was to be done in accordance with drawing S-A-12.

29. Spaulding to Wechsler, June 29, 1900, RG 121, WNRC.

30. Gage to Wechsler, July 17, 1900, RG 121, WNRC.

31. Ibid., July 26, 1900.

32. Vanderlip to Wechsler, Sept. 14, 1900, RG 121, WNRC.

iron weighing .69 of a pound to the foot for the frame of wire work.[33]

As work on the powerhouse continued, numerous defects were found in the building. On April 29, 1901, it was reported that the smokestack had been built in violation of the drawings and specifications. The construction would "nullify the best results" and the "early operation of the electric light and power plant." The supervising architect was dissatisfied with the defective work and insisted that the work be redone properly.[34]

On June 1, J. E. Powell, the chief mechanical and electrical engineer, visited Ellis Island and inspected the progress on the smokestack. The work was proceeding in an unsatisfactory manner, and the one mechanic and two helpers on the job were doing little to correct the defective conditions. When the contractor's foreman informed Powell the corrective work would not be completed for two months, the government advised Wechsler that unless he gave immediate evidence of an early completion date for the work, it would take charge of the contract and complete the project at the expense of the money due him at present.[35]

Superintendent Roberts reported on June 30 that the powerhouse was completed (except for the smokestack) "in accordance with the final contract which did not include the completion of the second story rooms." The two-story brick building comprised "the boiler room, two connecting rooms for machinery, tanks, piping, pumps &c. - disinfecting room and coal room."[36]

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33. Spaulding to Wechsler, Sept. 29, 1900, RG 121, WNRC.

34. J. K. Taylor to Boring & Tilton, Apr. 29, 1901, RG 121, WNRC.

35. Powell to Supervising Architect, June 3, 1901, and Gage to Wechsler, June 4, 1901, RG 121, WNRC.

36. Roberts to J. K. Taylor, June 30, 1901, RG 121, WNRC.

The work on the smokestack was completed about mid-July. On July 18, Superintendent Roberts issued a final report as follows:

> I have to state that the defective work of the smoke stack has been corrected to as good condition as can probably be made without taking from the larger part of the stack. The inside of the stack is not made as shown by the drawings. The drawing shows an air chamber between the inner wall and outside walls to a height of 92 ft., commencing 10 ft. above the bottom.
>
> In order to carry up the inner wall with the full size diameter of the flue 6'6", and plumb, it was necessary to rebuild a part of the inner wall that was taken down - about 44 ft. from the top against the outside wall, thus filling up the air chamber. At the top of the inner wall the brick at one side were laid on edge against the outside wall, and on opposite side the brick are laid hard against the outside wall. I do not know to what extent the closing of the air space between the inner and outer wall will affect the integrity of the stack, and for this reason I am unable to make a recommendation as to its acceptance.[37]

On July 29 a more extensive inspection was made of the smokestack by Powell. Complaining about the miserable quality of work, he recommended that the lining of the stack be rejected and that Wechsler be directed to reline it in accordance with the specification. His recommendation was based upon the conviction that the interior of the

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37. Roberts to Wechsler, July 18, 1901, RG 121, WNRC. Furthermore, Roberts noted the following reasons for the delay in completing the contract: Excavation and pile driving were frequently delayed by the tide; structural iron was delayed by a strike; and inclement weather in winter and spring delayed operations and interferred with the delivery of materials. The delays had been compensated for partially by furnishing the main building with heat, electricity, and saltwater from the old power plant at a cost of $936 under a contract let to Blake and Williams on October 20, 1900. H. A. Taylor to Superintendent of Repairs, Oct. 20, 1900, RG 121, WNRC.

stack was "not durable" and would "come tumbling down at an early date."[38]

When Powell took William A. Boring of the firm of Boring & Tilton to inspect the smokestack on August 1, the "character of the workmanship of the stack, and departure from specifications" were corroborated. Furthermore, the measurements made at the top and upper portion of the flue indicated that the dimensions of the stack had been reduced. Accordingly, Boring recommended the rejection of the stack from the line of the stone coping above the roof of the powerhouse as well as the entire lining of the stack.[39]

Two weeks later, on August 15, Supervising Architect Taylor informed Superintendent Roberts that Boring & Tilton had charged him with negligence in supervision during the erection of the smokestack. It was alleged that he had not gone into the stack often enough to ensure the proper performance of the work. Moreover, the mechanics had been intoxicated more than half the time during the construction, and Roberts apparently had never issued a protest.[40]

After the smokestack was officially rejected, Wechsler submitted two proposals to remove the stack down to the water table, including the lining, and to rebuild it "in line with what is known as the Alphons Custodis stack." The new stack was to be lined 75 feet high, 25 feet of the upper portion being new work of the Custodis radial material and the lower 50 feet to be made satisfactory in full accord with the

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38. Ailes to Powell, July 25, 1901, and Powell to Supervising Architect, July 29, 1901, RG 121, WNRC.

39. Powell to Supervising Architect, Aug. 2, 1901, RG 121, WNRC.

40. J. K. Taylor to Superintendent of Construction, Aug. 15, 1901, RG 121, WNRC.

original specification. The top of the stack was to be of ornamental design without iron cap.[41]

The new smokestack was completed by late September, and an inspection was held by N. S. Thompson, inspector of heating, hoisting, and ventilating apparatus. His report read as follows:

> In one respect the common brick work of stack in place does not conform to the specifications governing the erection of the original stack which was removed; said specifications require "Bricks at the corbel where the square goes into the octagon, a space of about 4'0" high, are to be cut and ground." The common bricks in place at corbel where the square goes into the round of the Alphons Custodis special construction are not cut and ground, but the joints are carefully pointed up with Portland cement mortar. The appearance and durability of the work in place is, in my judgment, fully equal to the work specified.
>
> The attention of the Architects in Charge was called to the above by the Superintendent of Construction, under date of September 11, 1901.
>
> Under date of September 12, 1901, the Architects in Charge, in reply to letter of Superintendent of Construction, relative to brick work of corbel, make the following statements: "That corbelling is to be done according to the drawing shown by the Custodis people, and the specific description given by the Department does not touch on the cutting and grinding the brick, and since we have given careful instruction to have this pointed up with Portland cement, it would cause some delay in

41. Gage to Wechsler, Aug. 23, 1901, RG 121, WNRC. The work was to be done in accordance with drawing SA-37. Also see Powell to Supervising Architect, Aug. 19, 1901, RG 121, WNRC.

waiting for the grinding of the brick and probably not make so good a job. We gave instructions to proceed according to the drawing, that is to say, corbeling out and taking all precaution by weathering the joints with Portland cement. You will therefore proceed with the work on this basis."

In my opinion, the specifications for the original stack govern the common brick work used in the rebuilding of stack. I recommend the acceptance of the work in place and that a suitable deduction be made for the omission of the cutting and grinding of bricks in corbel. I estimate the deduction should be about $25.00.

According to Thompson, the mechanical plant was ready for a final test except for the connection of the feeders to the bus bars of the switchboard and the completion of the lighting fixtures.[42]

Finally on November 7, the work under the contract with Wechsler was declared to be completed. Accordingly, a final voucher was authorized.[43]

2. Other Contracts

a. High Pressure Boiler Plant - Oil City Boiler Works

On May 14, 1900, Secretary Gage informed the Oil City Boiler Works of New York City that its $34,700 proposal to install the high pressure boiler plant in the new powerhouse had been accepted.

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42. Thompson to Supervising Architect, Sept. 30, 1901, RG 121, WNRC.

43. A photograph taken on June 30, 1901, indicates that the powerhouse was a two-story brick structure in keeping with the architectural style of the buildings on Ellis Island. Two end wings projected slightly outward from the main body of the building. The powerhouse had a large central smokestack on the main portion of the building and a smaller stack, dating from the old power plant, on its westerly wing.

However, as the appropriation available for the Ellis Island station was insufficient to cover the work, a formal contract would not be let until an additional appropriation was forthcoming. The following appliances were approved for installation:

Howley down-draft furnaces
Consolidated Safety Valve Company's nickel-seated safety valves
Jenkins lever safety valves
Jenkins feed valves
Myers blow-off valves
Potter mesh separator
Ashcraft steam gauges
Finished brass spring lever compression gauge cocks
Relieance combination water column

The boilers were to be located in accordance with plans furnished by the Treasury Department in lieu of drawing SA-9 upon which the bid was requested.[44]

After Congress passed the necessary appropriation bill, a formal contract was let to the Oil City Boiler Works on June 13. The entire work was to be completed by September 15. The work included in the contract provided for the installation of eight "Geary" water tube boilers having an average working steam pressure of 125 pounds per square inch, furnaces and boiler foundations, settings, trimmings, and outlets. The boilers, which were to have a capacity to evaporate 47,500 pounds of water per hour at 212 degrees Fahrenheit, were to be located in accordance with drawing SA-9A in lieu of drawing SA-9.[45]

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44. Gage to Oil City Boiler Works, May 14, 1900, RG 121, WNRC.

45. H. A. Taylor to Oil City Boiler Works, June 13, 1900, RG 121, WNRC, and "Proposals for High Pressure Boiler Plant for the U.S. Immigrant Station, Ellis Island, New York Harbor," dated Apr. 30, 1900, Ellis Island Records, DSC.

The following day the Oil City Boiler Works was informed that its modified drawings 22-2986 and 22-2989 showing the general arrangement of the boilers had been approved. The drawings had been modified by Treasury officials relative to the smoke breeching, which was to be 5 feet in diameter and have its center 17½ feet above the boiler room floor at the point where the connection was made to the smokestack.[46]

Four changes were made in the contract during the construction period as follows:

July 13, 1900 - The sum of $20 was deducted on account of placing 6-inch steam nozzles on eight steam boilers in lieu of the specified 8-inch nozzles.

July 13, 1900 - The sum of $250 was deducted on account of making the stone foundations for the boilers 2 feet 2 inches less in height than specified. (An explanatory letter may be seen in appendix M.)

September 1, 1900 - The sum of $425 was added to the contract to install two damper regulators, connections, and enclosures.

January 8, 1901 - The sum of $287 was added to the contract for placing insulating joints at all blowoff and water column connections to the eight boilers.[47]

Work under the contract with the Oil City Boiler Works proceeded more slowly than had been expected. By November 10, 1900, the Howley furnaces were nearly completed, and the boilers and

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46. Kemper to Oil City Boiler Works, June 14, 1900, RG 121, WNRC. The two drawings were given department numbers SA-13 and SA-14.

47. J. K. Taylor to Superintendent of Construction, July 13, 1900, and Jan. 8, 1901, and Gage to Oil City Boiler Works, July 13 and Sept. 1, 1900, RG 121, WNRC.

downdraft water tube grate furnaces were about ready for the first hydraulic test.[48] On December 6 it was reported that the boilers and furnaces were completed and that the brickwork settings had been started. Another hydrostatic test would be required as defective parts had been found during the first test.[49] In early January 1901 it was reported that the removal of defective brickwork in the sidewalls of the settings had been ordered and that the brass feed pipe flanges were being removed from the drum heads and replaced by cast steel flanges.[50] On January 28 it was observed that the rough faces of the firebrick linings of the boiler settings were being gone over and pointed up carefully. The internal feed pipes were being installed as was the insulation work.[51] The contract was virtually completed by April 12 except for painting, finishing work, and plugging leaks in several water columns and furnace connections.[52]

Although the contract was fully completed sometime in May, the boilers and furnaces could not be fully tested until late July because of delays in the construction of the powerhouse smokestack. Initial testing of the boilers and furnaces revealed that the capacity of the boilers was 2,707 pounds of water per hour below the specified requirements and that the efficiency of the boilers was .52 pounds of water per pound of combustible below the contract guidelines. Accordingly, it was recommended that the work be accepted with the deduction of $5,000 for the deficiencies.[53]

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48. Leland to Roberts, Nov. 10, 1900, RG 121, WNRC.

49. Ibid., Dec. 6, 1900,.

50. Leland to Supervising Architect, Jan. 2, 1901, RG 121, WNRC.

51. Ibid., Jan. 28, 1901.

52. Ibid., Apr. 12, 1901.

53. Bradbury, Woodwell, and Reis to Supervising Architect, July 29, 1901, RG 121, WNRC.

A second test of the high pressure boiler plant was made in early November. The following defects were found: The gauge column connections of the boilers leaked in a number of joints, and the columns were not properly braced or supported; several baffle bricks were omitted from the top layer in each setting of boilers 2 and 7; and the boilers failed in the required efficiency by .275 pounds of water per pound of combustible. Accordingly, the sum of $2,000 was deducted from the final payment to the contractor.[54] After the defective work was repaired, a final payment was authorized in February 1902.[55]

b. Engines and Generators - Ridgeway Dynamo & Engine Company

On May 24, 1900, the Ridgeway Dynamo & Engine Company of Ridgeway, Pennsylvania, was informed that its $19,390 proposal had been accepted for the installation of engines and generators in the engine room of the powerhouse pending the passage of an additional appropriation bill by Congress for the work. The contract, when formally let, would provide for five McEwen single-valve tandem compound engines, two 100-kilowatt noncondensing units, one 75-kilowatt noncondensing unit, and two 75-kilowatt condensing units. The guaranteed frictional load when running the generators at full speed with the brushes removed was not to be in excess of 8 percent for the aforementioned engines, all of which were to be furnished with Detroit sight-feed lubricators. Five Thomson-Ryan generators manufactured by the contracting firm were also to be furnished. The resistance and normal current required for rheostats of the generators were to be 100 ohms and 3 amperes, respectively.[56]

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54. Gage to Oil City Boiler Works, Nov. 21, 1901, RG 121, WNRC.

55. J. K. Taylor to Secretary of the Treasury, Feb. 7, 1902, RG 121, WNRC.

56. Gage to Ridgeway Dynamo & Engine Company, May 24, 1900, RG 121, WNRC.

After Congress passed the necessary appropriation bill, a formal contract was let to the Ridgeway Dynamo & Engine Company on June 14. The work was to be completed by September 24.[57]

Work under the contract proceeded slowly primarily because of the slow progress on the powerhouse itself. By December 6 the foundations for the five engines had been completed up to the floor line.[58] On April 12, 1901, it was announced that all the engines had been delivered and set up in the engine room. One subbase had been broken in setting and was being replaced. Three engines were virtually fitted up, and the others were partially installed. Jenkins valves had been supplied to replace the original conical metal seated globe and angle valves for the drips to all the engines.[59]

A change in the specifications was ordered on May 4. The sum of $35 was added to the contract to modify the terminal blocks of the generators in order to provide for overhead conduit service.[60]

The engines and generators were completed by May 24 but were not tested until November 12 because of delays in the installation of the powerhouse smokestack.[61] Only two problems required remedial work--a new shunt was needed to solve the overcompounding on generator 5, and the indicator reducing motions on the engines were to

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57. H. A. Taylor to Ridgeway Dynamo & Engine Company, June 14, 1900, RG 121, WNRC. The work was to be done in accordance with drawings SA-10 and SA-10A and the specification dated May 5, 1900.

58. Leland to Roberts, Dec. 6, 1900, RG 121, WNRC.

59. Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

60. H. A. Taylor to Ridgeway Dynamo & Engine Company, May 4, 1901, RG 121, WNRC.

61. Bradbury, Woodwell, and Reid to Supervising Architect, July 29, 1901, RG 121, WNRC.

be changed to a size suitable for the use of Crosby indicators.[62] When these minor defects were corrected, the final payment on the contract was ordered to be paid on January 6, 1902.[63]

c. Tanks, Condenser, Pumps, Etc. - Westinghouse, Church, Kerr & Company

On May 29, 1900, Westinghouse, Church, Kerr & Company of New York City was informed that its $3,941 bid for tanks, condenser, pumps, feed water heater, steam separators, and oil extractor had been accepted pending the passage by Congress of a bill providing further appropriations for the Ellis Island construction. The work included the installation of one freshwater and one saltwater pressure tank (each 6 feet in diameter and 12 feet high), one drip tank (6 feet in diameter and 8 feet high), one surface condenser made by Henry R. Worthington (365 square feet of condensing surface and 7½-inch by 8½-inch by 8½-inch by 6-inch air and circulating pumps of the 1899 model), two boiler feed pumps made by Henry R. Worthington (of the piston pattern 7½-inch by 4½-inch by 10-inch of the 1899 model), one vertical feed water heater made by the National Pipe Bending Company (12-inch exhaust connection on top and 2-inch drain connection at bottom and containing not less than 230 square feet of heating surface), two steam separators (2½ feet in diameter and 6 feet high), and one oil extractor (12-inch pipe connections).[64]

When Congress appropriated the necessary funds, a formal contract was let to the firm on June 14. The work was to be completed within eight weeks.[65]

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62. J. K. Taylor to Ridgeway Dynamo & Engine Company, Nov. 21, 1901, RG 121, WNRC.

63. J. K. Taylor to Secretary of the Treasury, Jan. 3, 1902, and Ailes to Disbursing Agent, Jan. 6, 1902, RG 121, WNRC.

64. Spaulding to Westinghouse, Church, Kerr & Company, May 29, 1900, RG 121, WNRC.

65. H. A. Taylor to Westinghouse, Church, Kerr & Company, June 14, 1900, RG 121, WNRC. The work was to be done in accordance with drawing SA-11 and the specification dated May 11, 1900.

Operations under the contract proceeded slowly primarily because of the delays in the construction of the powerhouse. On December 17 it was reported that all of the equipment to be installed in the powerhouse had been delivered to the site, but the firm had been unable to do further work.[66] By January 28, 1901, Inspector Leland observed that the following developments had occurred relative to the contract during the previous five weeks:

> It was found upon setting up the condensing apparatus that the cast iron elbow connecting the circulating pump to the condenser was not flanged true and would not fit. The contractors were notified of the trouble and have probably remedied the defect. They have also supplied a new glass for the oil extractor to replace a broken one. They were notified on the 27th instant, that the two pressure tanks were ready for test and were requested immediately to apply such a test. I consider it important that this test be made before the tanks are set on foundation and the connections made, since there is probability of leakage in the bottom head joint caused by trimming off the bottom of tanks and this could not be recaulked after the tanks have been set down on their foundations and connected to the piping. In the same letter the contractors were also notified that they had painted the fresh water tank on the inside instead of the salt water tank. They have to-day sent a representative to the building and he has promised to have the matter attended to at once.[67]

The powerhouse was still not completed to the point by February 14 that Westinghouse, Church, Kerr & Company could install its equipment. Accordingly, the firm requested the payment of 50 percent of the contract price because it had been forced to delay its operations.

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66. Leland to Supervising Architect, Dec. 17, 1900, RG 121, WNRC.

67. Ibid., Jan. 28, 1901.

On February 27, Supervising Architect Taylor recommended that the payment be made.[68]

On April 12 it was reported that all of the apparatus under the contract with Westinghouse, Church, Kerr & Company had been installed in the boiler, pump, and engine rooms. The equipment had proven satisfactory during the required tests. All that needed to be done was the performance of a working test on the condenser and pump.[69]

In mid-August, Powell (the chief mechanical and electrical engineer) inspected the work embraced in the contract with Westinghouse, Church, Kerr & Company. Based on his recommendation, the firm was paid all but $1,200 of the contract price, this sum to be retained until the completion of a satisfactory working test of the appliances when they were connected.[70]

The condenser was finally tested in early November. It failed to obtain the required vacuum, averaging only 21.178 inches of mercury or 4.822 inches less than the requirements. It was determined that the failure of the condenser may have been due to the coating of the condensing surfaces with oil from the engine cylinders and the accumulation of air in the upper tubes of the condenser. Accordingly, the contractors were ordered to clean the condenser tubes and to provide an air cock on top of the water end of the condenser.[71]

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68. J. K. Taylor to Secretary of the Treasury, Feb. 27, 1901, RG 121, WNRC.

69. Leland to Supervising Architect, Apr. 21, 1901, RG 121, WNRC.

70. Powell to Supervising Architect, Aug. 19, 1901, and H. A. Taylor to Bidwell, Aug. 19, 1901, RG 121, WNRC.

71. J. K. Taylor to Westinghouse, Church, Kerr & Company, Nov. 21, 1901, RG 121, WNRC.

A second test of the condenser was held on November 26. The conditions of the test were as follows: low water, pump required to lift seawater about 11 feet, running two engines with an aggregate load of about 470 amperes at about 230 volts, average speed of pump 85 double strokes per minute with steam pressure on same 72 pounds, steam pressure on engine about 122 pounds, and weight of steam condensed being over 4,300 pounds per hour. Under these conditions, the condenser showed a vacuum of 28⅝ inches. Accordingly, the $1,200 that had been retained from the contract price was paid to the firm in December.[72]

d. Electrical Work - Frederick Pearce

As early as June 20, 1900, preliminary drawings and specifications were prepared by Boring & Tilton for the electrical work in the powerhouse and other buildings on Ellis Island. Upon further study it was determined that the system of feeders from the powerhouse to the three distribution centers on the island should be modified to separate the power load from the lighting load. The number of feeders was also to be increased so as to prevent the possibility of a considerable portion of the island being without light or power should a single feeder break down.[73]

Bids for the electrical work in the structures on Ellis Island other than the main building were received on October 22, but as funds were not available to accept the lowest proposal, all bids were rejected. Accordingly, Boring & Tilton prepared new specifications and plans so that separate bids for the wiring of each building could be done on an individual basis.[74]

On March 12, 1901, a contract was let to Frederick Pearce to do the electrical work in a number of buildings at the

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72. Fry to Supervising Architect, Dec. 2, 1901, and Kemper to Westinghouse, Church, Kerr & Company, Dec. 6, 1901, RG 121, WNRC.

73. J. K. Taylor to Boring & Tilton, June 20, 1900, RG 121, WNRC.

74. Ibid., Nov. 16, 1900.

immigration station, including the powerhouse. The total amount of the contract was $25,005. Of this sum, $588 was set aside for the electrical work in the powerhouse while $13,561 was assigned for the central lines, feeder system, and motor mains (except for motors 8 to 12) that were to extend from the powerhouse to all portions of the island. The work in the powerhouse was to be completed within 25 working days while the central lines system was to be finished within 60 working days. The following materials were approved for use in the work:

Sprague heavy wall wiring conduit
Grimshaw white core wires
De Ryche outlet boxes
G.I. switches
Chapman attachment plug outfits
Edison drop cord outfits
Edwards push buttons
Edwards electric bells
De Veau telephones
American watchman's time detector
Vitrified self-centering ducts
Pearce panel boards
Pearce switches (knife)[75]

As the work got underway, some of the materials that had previously been approved were changed. The newly approved materials as of April 20 were as follows:

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75. H. A. Taylor to Disbursing Agent, Mar. 12, 1901, J. K. Taylor to Boring & Tilton, Mar. 16, 1901, and J. K. Taylor to Superintendent of Construction, Mar. 16, 1901 (two letters), RG 121, WNRC. The electrical work in the boiler house was to be done in accordance with drawings BT-9, BT-10, BT-456-A-19 and accompanying specifications 456 and appendix A, while that for the central lines was to be done in accordance with drawings 456-A-20 and accompanying specification 456 and appendix A. Also see "Proposals for the Electric Work for the Hospital Building, Hospital Out-Building, Surgeon's House, Bath & Laundry Building, Kitchen and Restaurant Building, Boiler House, Connecting Corridor and Covered Way (Including Ferry House), Central Lines and Outdoor Lighting," dated Feb. 11, 1901, FF 118, Hospital No. 1: Electrical Work, 1901, Ellis Island Records, DSC.

Loricated wiring conduit, in lieu of Sprague heavy wall conduit

Habershaw red core wires, in lieu of the Grimshaw white core wires of the N.Y. Insulated Wire Company

Electric bells with carbon contacts, in lieu of the platinum contacts called for

Galvanized iron duct, in lieu of the vitrified self-centering duct specified[76]

Pearce commenced the work energetically, and by April 22 he had completed cutting the chases in the powerhouse. Some 2,000 feet of conduit had also been installed in the building.[77]

In May a contract to complete the second story of the powerhouse was let to Williams & Gerstle. Accordingly, Pearce received an addition of $252.04 to his contract on June 18 to wire the second floor of the building.[78]

Pearce completed both the wiring in the powerhouse and the central lines system in December. Because the work had been delayed by difficulties in obtaining the materials, the penalty for late completion of the contract was waived, and a final payment was made in mid-January 1902.[79]

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76. Gage to Boring & Tilton, Apr. 20, 1901, RG 121, WNRC.

77. Fry to Supervising Architect, Apr. 22, 1901, RG 121, WNRC.

78. J. K. Taylor to Boring & Tilton, June 18, 1901, RG 121, WNRC. The work was to be done in accordance with plan sheet 456-A-17½.

79. Kemper to Fry, Jan. 15, 1902, and J. K. Taylor to Secretary of the Treasury, Jan. 16, 1902, RG 121, WNRC.

e. High Pressure and Exhaust Steam and Water and Drain Pipe Connections - Gaylord & Eitapenc

A contract was let to Gaylord & Eitapenc of Binghamton, New York, on July 30, 1900, to install the high pressure and exhaust steam and the water and drain pipe connections in the new powerhouse. The work was to be completed by September 30 except for the painting and pipe covering, which were to be finished by October 30. The specification dated June 29, 1900 (a copy of which is extant) was to be followed with several exceptions: Six freshwater tanks that were to be supplied by the government were to be installed in the attic of the powerhouse; all hot water piping was to be insulated with magnesia sectional pipe covering; and all cold water piping was to be wrapped with sectional felt covering. The contract price of $19,409 had several additional stipulations. The extension of the 10-inch saltwater suction main from the powerhouse to the wharf line was to be paid at $2 per lineal foot, and the extension of the 10-inch saltwater main from the wharf line out into the bay (provided it was found necessary to do so) with a double row of piles was to be paid at $3.70 per lineal foot. The following materials were approved for use in the work:

Kieley steam separator
Kieley steam traps
Crosby pressure gauges
Kieley pressure reducing valves
Crane & Company's gate valves
Pratt & Cady's check valves
Kieley back pressure valves
Blake atmospheric check valves
Bundy exhaust trap
Gaylord & Eitapenc air injector for pumps
Mason pressure regulator for pumps
American Consolidated safety valves
Detroit lubricator for pumps in pump room

Keasley magnesia pipe covering
H. W. John's covering for cold water pipes[80]

The work proceeded slowly primarily because of delays in the construction of the powerhouse itself. By December 6 the six water tanks were in place in the attic and ready for an interior coating and water connections. A portion of the 10-inch high-pressure main was in position through the pump room.[81] On January 28, 1901, it was reported that

> good progress is being made on this work and most of the large piping (above 4") is in position, and the 10" main in front of boilers has been raised.
>
> The feed-water heater and oil extractor have been set and connected and the condensing apparatus has also been set up. The two salt water pumps have been removed from old boilerhouse and set up on their new foundations in the pump room and are now being taken apart preparatory to thorough repairs.
>
> The granite cap stone under one of the old 7 1/2 x 5 x 6 return pumps is broken, and I do not consider it suitable for use in the new boiler room. I have directed the contractors to supply a new stone, subject to the approval of the Department,

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80. H. A. Taylor to Gaylord & Eitapenc, July 30, 1900, RG 121, WNRC, and "Specification and Proposal Sheet for the High Pressure and Exhaust Steam, Water and Drain Pipe Connections, Etc., in the New Boiler House for the U.S. Immigrant Station, Ellis Island, New York Harbor," dated June 29, 1900, FF 69, Power House - Island No. 1: High Pressure and Exhaust Steam Water Connections, 1900, Ellis Island Records, DSC. The work was to be done in accordance with drawings SA-11, SA-15, SA-16, and SA-17.

81. Leland to Roberts, Dec. 6, 1900, RG 121, WNRC.

and their proposal dated January 28th, 1901, in amount of $30.00 I consider reasonable and recommend its acceptance.

The brick man-hole for fresh water supply pipe and valve is nearly complete, and the piping has been run as far as the connection for meter. The drip tank and the two boiler feed pumps have been set and connected and the trenches and covers in boiler room are complete. The drip pipe under boiler room floor and out to wharf line has been properly installed. The pressure tanks are blocked in position above their foundations and are ready for the test.

It has been necessary to change slightly the location of certain water pipes passing through the wall between boiler and pump rooms in order to avoid striking smoke connections, etc. These changes have been made by the contractor with my approval as they were absolutely necessary. The levels of pipes, however, have not been changed.

I have permitted the contractor to build the top of the foundations for pressure tanks with two courses of brick on top of the concrete, instead of making the entire foundation of concrete as shown on the plans. A much better job can be done in this way and the angle iron foundation ring on which the tanks set can be much more evenly bedded. The lower course of bricks is spread several inches beyond the angle iron ring and the top course exactly fits into the angle of the ring.

Certain 12 inch by-passed valves have been used on the 12" exhaust pipe in engine room as they were sent here by mistake. I cannot see any objection to their use and recommend that they be allowed to remain.

I recommend the acceptance of the proposal of the contractors dated January 28th, 1901 in amount of $35.00 for supplying a

3" by-pass and valve connecting the 4" fresh water supply pipe leading to drip tank and boiler feed pumps with the 3" feed main so that boilers can be directly filled from the tanks in attic without the use of the feed pumps.[82]

A lengthy report on the progress of the work was issued by Inspector Leland on April 12. Among his observations were the following:

> The following items yet remain to be done in order to complete this contract:
>
> The steam and exhaust connections to three engines and drip connections to all engines.
>
> The old water meter to be connected to the water piping in the pump room.
>
> Two drip pipes from 10" steam drum, one in boiler room and one near end of main in pump room.
>
> The setting and connecting of the two steam gauges, the gauge for condenser and the two gauges for the water lines.
>
> The placing and connecting of air injectors on the four salt water pumps, the safety valve on the feed water heater, and the fitting and placing of all trench covers.
>
> The hydrostatic test on drain piping, water piping and feed lines; the steam test on the medium pressure, exhaust and drain piping; and the final working test of the entire plant after its completion.

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82. Leland to Supervising Architect, Jan. 28, 1901, RG 121, WNRC.

Only a portion of the painting (part of the first coat) is yet to be done, and there is yet some patching of walls and ceilings to be done.

No covering has yet been put on.

Work on the change of fresh water pipe authorized by Department letter of April 5th, 1901, and the pipe for soot blowers authorized by Department letter of April 9th, 1901, has not yet been started.

The following items are not strictly in accordance with the terms of the specification:

The entire feed pipe system has been put up with fittings of too light a pattern. These have all been rejected and new fittings of regular cast iron pattern have been ordered by the contractor and the whole piping will be taken down and refitted after their arrival.

The drips from all drip trays under pumps have been fitted with check valves instead of deep plumbers traps. It was not possible to obtain sufficient depth in trenches for these traps to be sufficiently long to prevent the blowing out of the water from the back pressure in the drain pipe.

The oil separator has been supported upon two legs made of 3" pipe with flanges top and bottom, and resting on two 12" square capstones on foundations. The separator is too far from wall and is too heavy to admit of proper brackets for its support.

Paragraphs 122 and 136 of the Specification seem to require check valves in the drains for feed water heater and exhaust

pipe leading to the waste pipe. The drawing clearly shows check valve on the drain pipe leading to the drip tank. These checks have been put on the connections to drip tank as these are the ones that will be mostly used and the high pressure traps connecting to same will cause considerable back pressure temporarily in the pipe.

An elbow instead of a tee has been placed in the bottom of the main vertical exhaust pipe and is properly drained by 1 1/2" pipe.

In order to properly connect the 8" salt water supply pipe to the 4" salt water pipe in the covered way, an 8" x 4" bushing has been put into the upper elbow near the entrance to covered way.

I recommend the acceptance of all the above mentioned items since they entirely fulfill the working conditions of the plant and in no way affect the interests of the government.

The change in level of the salt water section main and the extension of same as authorized by Department letters of January 2nd, and January 21st, 1901, respectively, have been properly made. All other additions and alterations authorized from time to time have been properly completed.

In general, all the work in this contract has been carefully done and every effort has been made on the part of the contractor to make everything satisfactory to this office and in accordance with the spirit of the specification, and everything except as herein noted has been done in accordance with the specification and plans.

About four weeks will be required to finish this contract.

In connection with this work, I recommend that the brass feed piping which is exposed on boiler fronts be polished so as to correspond with other pipe and fittings. This is not provided for in the specification, and I recommend that a proposal be obtained from the contractors for doing this work.[83]

Some three weeks later, on May 4, Gaylord & Eitapenc were reprimanded for proceeding too slowly on their work, providing some materials of poor quality, and performing slipshod labor. Among the most serious charges were the following:

Your attention is now called to the fact that additional hangers should be furnished for the steam and exhaust connections, and these must be immediately supplied in accordance with the terms of the agreement.

On the 2nd instant you were advised by wire to defer the placing of pipe covering until pressure tests had been applied, and you are now advised that this request is reiterated, and also, as provided for in paragraph 150 of the specifications, none of this covering is to be placed until the same has met with the approval of the Supervising Architect, which approval has as yet not been given, and all pipe covering, therefore, supplied by you has been placed in violation of the terms of the agreement, and must, therefore, be removed, not to be placed until the pressure tests have been applied and the pipe covering approved by the Supervising Architect.

You are further advised that all the brass feed piping supplied by you on the boiler fronts is rejected, and the same must be removed and replaced by new piping installed strictly in accordance with the terms of the agreement and the character

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83. Ibid., Apr. 12, 1901.

of workmanship contemplated therein; also that all bends of piping in engine room forming steam and exhaust connections to engines, which are winding and not true on the segment of a circle must be removed and replaced with piping out of wind and true on the segment of a circle.

You are further informed that the condition of the feed system as installed should be improved, as there are several leaks and other imperfections existing therein, and these must receive your immediate attention as the Department desires to apply the working tests to the boiler plant, and these tests are being delayed by reason of your failure to perform the work in accordance with the terms of your contract, and in this connection you are advised, that should any claim for damage be made by the contractors for the boiler plant, by reason of delay in tests, the cause of which your tardiness and failure to supply satisfactory work, the amount of such claim will be charged to your account on the books of this Department.

It is also reported to the Department that you have as yet failed to remove the couplings rejected by the Department on the 23rd ultimo, and these must be removed at once and replaced by flanges as required by the terms of the contract.[84]

The contract was completed by May 27. A hydrostatic test of the equipment indicated that the job was satisfactory as the piping, valves, and fittings showed no weakness.[85] However, a final test of the high pressure apparatus was not held until October 31

84. H. A. Taylor to Gaylord & Eitapenc, May 4, 1901, and J. K. Taylor to Gaylord & Eitapenc, May 10 and 13, 1901, RG 121, WNRC.

85. J. K. Taylor to Secretary of the Treasury, Jan 11. 1902, RG 121, WNRC.

because the entire plant was not completed until that time. A summary of the defects and omissions that were indicated by the tests follows:

The defective 3-1/2" flange union on the high pressure steam connection to engine No. 4, which broke during the test, should be satisfactorily supplied.

The valves on high pressure steam connections to engines Nos. 3, 4 and 5, being screwed valves, should be replaced by flanged valves as required by paragraph 135 of the specifications.

The bolts in flange connections of the two steam separators on high pressure lines in engine room, do not extend through the nuts, and these should be replaced by bolts of sufficient length.

A weight must be supplied on the 12" diameter back pressure valve or main exhaust pipe.

Drip connections with pet cocks should also be provided on each of the connections to gauges in engine room.

The present dials on four of the pressure gauges provided for registry water pressure, which now have the word "steam" engraved thereon, should be replaced by new dials having the words "Salt water" or "Fresh water" engraved thereon as the case may require.

The oil draw-off from oil separator has not been arranged so that the oil can be wasted into the main drain, as required by paragraph 92 of the specifications. This must receive attention.

The covering of the piping in the engine and boiler rooms, which was omitted pending the tests, must now be supplied.[86]

The defects were corrected by December 19, and the contract was reviewed for final settlement. As it was determined that the 10-inch saltwater suction main was not needed, that portion of the contract was revoked.[87] A final payment on the contract was authorized in January 1902.[88]

f. Freshwater Tanks - G. A. Suter & Company

Under the contract with Gaylord & Eitapenc on July 30, 1900, the government agreed to supply six freshwater tanks that would be installed in the attic of the powerhouse. The tanks were to be used as a reserve in case of a break in the water pipe from Jersey City to Ellis Island. In the event of a break, it would be possible to continue operating the boilers by reusing water from the condensers with the aid of the tanks.[89]

A contract was let to G. A. Suter and Company of New York City on August 9 to manufacture and deliver the six steel tanks within six weeks at a cost of $2,200.[90]

The six new steel water tanks were delivered to Ellis Island by September 28. However, it was discovered that the contractor

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86. J. K. Taylor to Gaylord & Eitapenc, Nov. 21, 1901, RG 121, WNRC.

87. Gage to Gaylord & Eitapenc, Jan. 8, 1902, and J. K. Taylor to Superintendent of Construction, Jan. 8, 1902, RG 121, WNRC.

88. J. K. Taylor to Secretary of the Treasury, Jan. 11, 1902, RG 121, WNRC.

89. Kemper to J. K. Taylor, Aug. 4, 1900, RG 121, WNRC.

90. Vanderlip to G. A. Suter & Co., Aug. 9, 1900, RG 121, WNRC. The work was to be done in accordance with drawing SA-18. The six iron water tanks in the old power plant were condemned and sold to Frank Carlucci of Scranton, Pennsylvania, for $100. Gage to Superintendent of Construction, Aug. 29, 1900, RG 121, WNRC.

had failed to paint the inside of the tanks with cement wash. After this was done, a final payment was ordered.[91]

g. Switchboard - The D'Olier Engineering Company

On November 6, 1900, a contract was let to The D'Olier Engineering Company of Philadelphia, Pennsylvania, for the installation of a switchboard, made of Tennessee marble, in the new powerhouse. The work was to be completed within 40 days at a cost of $3,293. The following materials were approved for use in the work:

Sprague Electric Company's conduit
John A. Roebling Sons' Company's slow-burring weatherproof wire
Western Electrical Instrument Company's voltameters and ammeters
General Electric Company's 1200-ampere wattmeters
Ward-Leonard Electric Company's circuit breakers
Triple pole type generator switches
Thompson Recording 1200-ampere wattmeter

The switchboard was to be connected to five generators being installed under another contract.[92]

By January 2, 1901, the work was well underway. The conduits had been installed on the ceiling of the engine room, and

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91. Leland to Roberts, Sept. 28, 1900, Garretson to G. A. Suter & Company, Nov. 20, 1900, and H. A. Taylor to Bidwell, Jan. 30, 1901, RG 121, WNRC.

92. Vanderlip to The D'Olier Engineering Company, Nov. 6, 1900, and J. K. Taylor to The D'Olier Engineering Company, Nov. 28, 1900, RG 121, WNRC. The work was to be done in accordance with drawings SA-20, SA-21, and SA-22. Also see "Proposals for the Installation of a Switchboard for the U.S. Immigrant Station," dated Oct. 16, 1900, FF 226, Miscellaneous Works: Switchboard, 1900, Ellis Island Records, DSC.

the conduits and hangars had been painted. However, the work was suspended until other work in the powerhouse was further advanced.[93]

Some ten weeks later, on March 19, it was reported that work on the switchboard had been held back because of delays in constructing the building. Accordingly, the company requested a payment of $2,800 for the work done to date, and Treasury officials later consented on May 27.[94]

On April 12 Inspector Leland reported that the installation of the conduit tubes and iron frame for the switchboard were completed. A large amount of material was on the ground and boxed ready for use. Because the marble work of the switchboard had been delivered in damaged condition, a new board would have to be built.[95]

Further problems were found in the marble work in mid-June. Small cracks had developed in panels 2, 3, and 5, but they needed no immediate attention. However, chips in the clock panel were more serious, requiring the edges to be leveled on the entire replacement of the whole panel.[96]

In early November it was determined to have a 1 volt meter, of a round pattern on a swinging bracket, installed in connection with the switchboard. The contracting firm was paid $80 for the additional work.[97]

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93. Leland to Supervising Architect, Jan. 2, 1901, RG 121, WNRC.

94. J. K. Taylor to Secretary of the Treasury, May 27, 1901, RG 121, WNRC.

95. Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

96. J. K. Taylor to The D'Olier Engineering Company, June 12, 1901, and Low to The D'Olier Engineering Company, June 27, 1901, RG 121, WNRC.

97. H. A. Taylor to The D'Olier Engineering Company, Nov. 8, 1901, RG 121, WNRC.

At about the same time, an examination and test of the switchboard was made. The work was found to have several defects--the ammeters required recalibration and the round pattern voltmeter readjustment. After these items were corrected, the contract was declared completed and a final payment authorized in December.[98]

h. Sterilizing and Disinfecting Apparatus - Kensington Engine Works

A contract was let to Kensington Engine Works of Philadelphia, Pennsylvania, on January 8, 1901, to install sterilizing and disinfecting apparatus in the new powerhouse. The work was to be completed within 90 working days at a cost of $4,609.[99]

There is virtually no documentary information concerning the installation of the sterilizing and disinfecting apparatus. On February 12 Keasbey & Mattison's 85 percent magnesia covering was approved for covering the steam chamber and all extant piping for the disinfecting apparatus.[100] It was reported that the equipment was in place by June 30, and a final payment was made on the contract in October.[101]

i. Completion of Second Story - Williams & Gerstle

In March 1901, Gage informed Boring & Tilton that it was their duty to draw up plans and specifications for the completion of the buildings on Ellis Island. Included in his orders were directions to

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98. J. K. Taylor to The D'Olier Engineering Company, Nov. 21, 1901, RG 121, WNRC.

99. J. K. Taylor to Commissioner of Immigration, Port of New York, Jan. 8, 1901, RG 121, WNRC. The work was to be done in accordance with drawing BT-31.

100. J. K. Taylor to Boring & Tilton, Feb. 12, 1901, RG 121, WNRC.

101. Roberts to J. K. Taylor, June 30, 1901, and Wetmore to Kensington Engine Works, Oct. 22, 1901, RG 121, WNRC.

make plans for the completion of the second story of the powerhouse at a cost of $4,200. The rooms were to be used as dormitories.[102]

On May 4 a contract was let to Williams & Gerstle of New York City to complete the second story of the kitchen and laundry building and the powerhouse at a cost of $10,975. Of this sum, $4,700 was set aside for the work on the powerhouse. The work was to be completed within four months. The following plumbing fixtures were approved for use in the work:

Latrine: Range, Hott's #682-R

Slop Sink: Porcelain, Mott's #812-R; Galvanized iron, Mott's #819-R; sinks must however be fitted with combination faucets, as specified, instead of faucets as shown by catalog

Bath Tub: "Lenox," Mott's #2047-R

Wash Tray: Mott's #470-R

Water Closet: Mott's #5097-R

Wash Basin: Mott's #4012-R[103]

When Williams & Gerstle commenced their operations, various materials such as the following were approved for the building: Beach's brand of Rosendale cement and Lehigh brand of Portland cement;

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102. Gage to Boring & Tilton, Mar. 7, 1901, RG 121, WNRC.

103. "Synopsis of Bids for Completing Second Story of the Kitchen and Restaurant, Bath and Laundry and Boiler House Buildings at the U.S. Immigrant Station, Ellis Island, N.Y.," Apr. 22, 1901, and H. A. Taylor to Williams & Gerstle, May 4, 1901, RG 121, WNRC. The work on the powerhouse was to be done in accordance with drawings 12 and 2-35.

Acme cement plaster (which had been used in the main building); and trim and frame scuttle for ceiling.[104]

The progress on the second story of the powerhouse was delayed by various factors including the slow completion of the smokestack by Louis Wechsler. By June 30 the plastering and part of the rough plumbing had been installed.[105] Thereafter, little progress was made and the quality of the workmanship declined. In early December it was reported that the materials and the proportions used in mixing and the manner of laying the concrete on the second floor of the powerhouse were defective and needed to be replaced. About 80 percent of the work was completed.[106] The contract was completed by early January 1902, but it was discovered that the finish of the slate partitions and the painting of the pipes in the powerhouse required further work.[107] By mid-January 1902 a new concrete floor with a 3-inch bed of Portland cement and broken stone covered by a finishing coat of good quality Portland cement was completed. A final payment on the contract was awarded to Williams & Gerstle in April.[108]

j. Dredging in Dock Basin at Coal Dock Berth - Henry DuBois' Sons Company

On May 28, 1901, a contract was let to the Henry DuBois' Sons Company to dredge a dock basin at the coal dock berth on

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104. J. K. Taylor to Williams & Gerstle, June 4, 1901, Low to Williams & Gerstle, July 10, 1901, and Gage to Williams & Gerstle, Jan. 3, 1902. RG 121, WNRC.

105. Roberts to J. K. Taylor, June 30, 1901, RG 121, WNRC.

106. J. K. Taylor to Boring & Tilton, Dec. 3, 1901, and Roberts to Supervising Architect, Dec. 4, 1901, RG 121, WNRC.

107. J. K. Taylor to Boring & Tilton, Jan. 8, 1902, RG 121, WNRC.

108. Roberts to Supervising Architect, Feb. 18, 1902, J. K. Taylor to Secretary of the Treasury, Apr. 4, 1902, and J. K. Taylor to Fry, May 9, 1902, RG 121, WNRC.

the north side of island 1 and a channel providing access to the dock. The dock and channel would enable boats to berth while the coal-hoisting machinery at the northeast end of the powerhouse was used to unload the boats. The contract called for dredging an estimated 31,000 cubic yards at 13 cents per cubic yard, and the work was to be done within 30 days.[109]

The contractors soon ran into difficulties in the dredging. On June 17 it was reported that 20,000 cubic yards had been dredged. Of this sum, 14,000 yards had been done in the basin, 2,000 in the channel, and 4,000 in the coal dock berth. The work around the coal dock berth was extremely difficult because a thin coating of mud covered a formation of hard clay pan mixed with boulders and small stones.[110]

A second contract was let to the Henry DuBois' Sons Company on June 21, 1901, to dredge a channel "sixty feet wide, making five feet at mean low water" extending from the coal dock towards the Port Liberty coal dock at Communipaw, New Jersey. Three buoys fastened to stones were to be placed along the route. The buoys were to be "of white pine, 10" in diameter, and about 8 feet in length, moored by 3/4" chains to stones weighing not less than 800 pounds; to be painted red or black." The work was to be completed within three weeks at a cost of $2,080.[111] Both contracts were completed by the end of July.[112]

k. Smoke Breeching - H. W. Johns Manufacturing Company

On June 14, 1901, a contract was let to the H. W. Johns Manufacturing Company of New York City to cover the exposed

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109. "Synopsis of Bids for Dredging in Dock Basin and Channel at Ellis Island, N.Y.," May 16, 1901, and H. A. Taylor to Henry DuBois' Sons Company, May 28, 1901, RG 121, WNRC. The work was to be done in accordance with drawing plan D.

110. Fry to Supervising Architect, June 17, 1901, RG 121, WNRC.

111. H. A. Taylor to Henry DuBois' Sons Company, June 21, 1901, RG 121, WNRC.

112. H. A. Taylor to Disbursing Agent, Aug. 22, 1901, RG 121, WNRC.

piping and smoke breeching in a number of buildings on Ellis Island. Included in the work was the covering of the smoke breeching in the powerhouse with nonconducting asbestos cement.[113]

The contract was virtually completed by September 9 except for covering the flue in the powerhouse. As this covering could not be properly finished with the boilers being fixed up and the flue being heated, the final coat of covering was not put on the flue until late December when the boilers were put into service. Accordingly, a final payment on the contract was made in January 1902.[114]

l. Heating System - E. Rutzler

On June 22, 1901, a contract was let to E. Rutzler of New York City to install a heating system in the kitchen and laundry building and the powerhouse. The work was to be completed within 40 working days at a cost of $2,509.[115]

There is virtually no documentary information concerning the heating system in the powerhouse. Hampered by the slow progress of the construction of the building itself, Rutzler was unable to complete his work until early December. After the heating system was tested, Supervising Architect Taylor ordered Rutzler to place Jenkins air valves on all the radiators installed under his contract.[116] A final payment was made to Rutzler in January 1902.[117]

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113. "Synopsis of Bids for Covering Steam Pipes, Tanks, and Other Hot Water Surfaces, Cold Water Pipes, Ducts, Etc., in the U.S. Government Building, Immigrant Station, Ellis Island, N.Y.," June 12, 1901, and Ailes to H. W. Johns Manufacturing Company, June 14, 1901, RG 121, WNRC.

114. J. K. Taylor to Secretary of the Treasury, Jan. 17, 1902, RG 121, WNRC.

115. H. A. Taylor to Rutzler, June 22, 1901, RG 121, WNRC. The work was to be done in accordance with drawings 13, 14, 19A, and 21A.

116. Roberts to Supervising Architect, Dec. 4, 1901, and J. K. Taylor to Superintendent of Construction, Dec. 10, 1901, RG 121, WNRC.

117. J. K. Taylor to Secretary of the Treasury, Jan. 8, 1902, RG 121, WNRC.

m. Coal Hoisting and Delivering Mechanism - A. J. Hemphill

A contract was let to A. J. Hemphill of New York City on June 21, 1901, to install a coal hoisting and delivering mechanism at the northeast end of the powerhouse. The work was to be completed within 90 working days at a cost of $3,870.[118]

During the construction of the hoist, a proposal by Hemphill to provide additional shoring to the foundation work was approved. The hoist was put into service on November 19, and during the next two months the final painting was completed and a shed built over the engine. Although some minor adjustments were needed, the hoist, cars, and runway functioned satisfactorily while the remaining work was being finished. A final payment was made to Hemphill in January 1902. In its first two months of operation, the hoist was used to transfer some 1,500 tons of coal from barges on the coal dock to the powerhouse.[119]

B. Additions, Alterations, and Remodeling - 1902-1954

1. Miscellaneous Work - 1902-1905

The new powerhouse was in full operation by the end of 1901. During the next four years various miscellaneous projects were carried out to improve the performance of the powerhouse machinery and to increase the efficiency of the building itself.

In 1902 several projects were carried out relative to improvements in the powerhouse. First, Henry L. Spearin was hired in February to construct a new coal dock and short bridge to accommodate

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118. H. A. Taylor to A. J. Hemphill, June 21, 1901, RG 121, WNRC. The work was to be done in accordance with drawing SA-28.

119. Roberts to Supervising Architect, Dec. 4, 1901, Gage to Hemphill, Jan. 8, 1902, J. K. Taylor to Secretary of the Treasury, Jan. 18, 1902, and Wetmore to Hemphill, Jan. 20, 1902, RG 121, WNRC.

barges delivering coal to the powerhouse.[120] Second, Gaylord & Eitapenc were hired on April 17 to place one additional brace in the dynamo room of the powerhouse.[121] Third, Chief Engineer Fry was authorized in May and June to spend $1,400 in bracing and shoring up the northwest wall of the coal bunker portion of the powerhouse.[122] Later in October the firm of Jellene & O'Leary was employed to rebuild certain stone courses below the brick wall of the coal bunker.[123]

In 1903-1905 the following improvement projects were carried out in the powerhouse:

Project	Date of Contract
Repairs to coal bunkers	November 19, 1903
Slate platform for stairway	November 17, 1903
Repairs to pumps	January 2, 1904
Repairs to dynamo engines	September 2, 1904
Repairs to tank foundations	December 12, 1904
Repairs and painting	December 12, 1904[124]

During 1903 a plan of organization was drawn up for the division of the work force on Ellis Island. One of the divisions was that of the engineers whose duty it was to operate and maintain the machinery in the powerhouse. The duties and shifts of this division were as follows:

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120. H. A. Taylor to Spearin, Feb. 3, 1902, and Wetmore to Fry, June 14, 1902, RG 121, WNRC.

121. J. K. Taylor to Chief Engineer and Superintendent of Repairs, Apr. 17, 1902, RG 121, WNRC.

122. H. A. Taylor to Disbursing Agent, June 6, 1902, RG 121, WNRC.

123. H. A. Taylor to Chief Engineer and Superintendent of Repairs, Oct. 31, 1902, RG 121, WNRC.

124. "Permanent Improvements at the U.S. Immigrant Station, Ellis Island, New York Harbor, 1903-1905," RG 85, NA.

> On Ellis Island there has been erected an elaborate heat, light and power plant, which is under the immediate charge of an engineer-in-chief at a salary of $1400 per annum, assisted by four assistant engineers, eleven firemen, four wiremen, three dynamo tenders, a plumber, three laborers, acting as coal-passers, and a machinist, whose business it is to care for the refrigerating plant. This force is subdivided into three shifts, each of which works eight hours at a time. This necessitates sending the launch to the Barge Office every night at about midnight, an arrangement which has its obvious inconvenience and disadvantages. Expert opinion has, however, determined that it is preferable to the former arrangement, under which each shift worked sixteen hours, being thereafter excused from duty for twenty-four hours.[125]

2. Construction of Concrete Floor in Boiler Room - 1906-1907

On December 7, 1906, a contract was let to the Haggarty Contracting Company of New York City to build a new floor in the boiler room of the powerhouse. The work, which was to be completed within 40 working days at a cost of $2,256, included removing the old brick floor and laying a new 10-inch-thick concrete floor using Portland cement, sand, and broken stone. Two new cesspools, 12 inches square, with bell traps, gratings and fine strainers below the gratings, and 4-inch drain pipes were to be installed. The two boiler feed pumps were to be raised some 18 inches above the floor level and set on white enameled brick and concrete cores.[126]

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125. "Organization of the U.S. Immigrant Station at Ellis Island, New York, Together with a Brief Description of the Work Done In Each of its Divisions," Oct. 23, 1903, RG 85, NA.

126. "Specification for All Labor and Materials Required to Lay New Floor in Boiler Room and Raise Boiler Feed Pumps Above Floor Level," dated Sept. 28, 1906, Watchorn to Sargent, Dec. 6, 1906, and Larned to Commissioner of Immigration, Ellis Island, Dec. 7, 1906, RG 85, NA.

3. Reconstruction of Powerhouse - 1908-1910

During the construction of the contagious disease wards on island 3, it was found that the powerhouse could not supply sufficient power for all the hospital buildings as well as the new construction contemplated on island 1. The original building area had already been more than doubled since 1900, thereby straining the capacity of the powerhouse. Thus, it was proposed in May 1907 to remove the three 75-kilowatt units from the engine room of the powerhouse on island 1 and install them in the hospital power plant on island 3. Two 200-kilowatt generating units would replace the three smaller units in the powerhouse to provide power for the contemplated construction on island 1.[127] The two plants were to be cross-connected to obtain flexibility and ensure against any accident crippling the entire electric generating facilities on the island.[128]

Little was done concerning the alterations to the powerhouse until the summer of 1908. In July plans were drawn up for a new floor, trenches, and foundations in the engine and pump rooms, new boilers, grates, and foundations, and new induced draft apparatus, flues, and dampers.[129] By May 1909 a number of contracts had been let for the alterations to the powerhouse. These improvements were as follows:

> 3 new water-tube boilers affording 600 additional boiler horsepower beyond that formerly in the boiler room
>
> New smoke breeching for the three new boilers and the four remaining old boilers

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127. Howell to Chief Engineer & Superintendent, May 13, 1907, RG 85, NA.

128. J. K. Taylor to Sargent, July 29, 1907, RG 85, NA. The question of building a separate power plant on island 3 was addressed by F. S. Howell, a civil engineer, in a report issued on July 10, 1907. A copy of the relevant portions of this report may be seen in appendix G.

129. The work was to be done in accordance with drawings 466-1 to 466-5.

Induced draft apparatus to take care of all boilers

New steam mains and piping in boiler, pump, and engine rooms

New grates, fronts, and brick settings for four remaining old boilers

Four new electric-driven triplex pumps; two used on saltwater, two on freshwater

Numerous changes to better accommodate plant to new conditions

At the same time it was reported that the following power equipment still needed to be installed to meet the current needs of the immigration station:

One 300 kw turbogenerator, set up, complete, including foundations

Two 125 kw turbogenerators, set up, complete, with foundations (these three turbogenerators were to be in place of three 150 kw units proposed at first; ones now suggested seem to fit the load)

One new main feed-water heater

One new exhaust heater, condensing type

New hot water heaters and new hot water pumps for domestic supply of all buildings, including cross-connections, controls, etc.

All piping necessary to put the above-named high and low pressure steam apparatus in service

Complete pipe covering to include smoke breeching and induced draft apparatus in powerhouse, after improvements and proposed installations now underway are finished

One new main switchboard, including wiring, station and generator connections, etc.

Incident to the above work, the following items were to be performed:

Removal or transfer of certain existing mechanism in boiler house and powerhouse

Necessary foundations and masonry alterations essential to fit for service apparatus relocated

Installation of temporary steam, feed and water connections during construction of new plant

Installation of temporary electric connections during the installation of new plant

To the foregoing should be added the saltwater connections from the discharge piping of power plant on main island to the sanitary system of island 3, as the use of saltwater for flushing makes obviously the difference of thousands of dollars a year in our water bills at the immigration station

The remaining work was considered to be urgent because two of the generators originally in the powerhouse had already been moved to the power plant on island 3, and one more was slated to be moved. Three of the original boilers had also been transferred to serve the needs of the contagious disease wards. Thus, there were only two 100-kilowatt generators left in the powerhouse to furnish light and power for the buildings on islands 1 and 2. The cost of all the alterations still to be made was estimated to be about $81,000.[130]

130. Fry to Commissioner-General of Immigration, May 24, 1909, RG 85, NA.

Because there were no funds available to complete the alterations in the powerhouse, immigration officials determined that a two-pronged approach to the problem was needed. Plans were commenced for some makeshift arrangements to light and heat the buildings until funds were available to install the new machinery.[131] Simultaneously, a special request for additional funds was prepared for submission to the Secretary of Commerce and Labor and ultimately to Congress.[132] To the surprise of the Ellis Island officials, Congress moved quickly and on August 5 approved the request for $81,000 to complete the improvements in the powerhouse.[133]

Because the appropriation would run out at the conclusion of FY 1910, plans, drawings, and specifications were hurriedly drawn for the work. On October 1 a contract was let to Evans, Almirall & Company of New York City to make the improvements. The work was to be completed within 120 working days at a cost of $79,790.[134] Among the most significant items in the specification were the following:

> Installation of one combined oil separator, return tank, pump governor, and feed water heater, 48 inches in diameter by 124 inches long, with 5/16 inch shell, 3/8 inch head provided with exhaust nozzles suitable for 14-inch O.D. pipe

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131. Keefe to Commissioner of Immigration, Ellis Island, June 2, 1909, RG 85, NA.

132. Commissioner-General to Secretary of Commerce and Labor, June 8, 1909, and U.S., Congress, House, Committee on Appropriations, Immigrant Station, Ellis Island, N.Y., H. Doc. 61, 61st Cong., 1st Sess., June 21, 1909. A copy of the relevant portions of the report to the Secretary of Commerce and Labor may be seen in appendix H.

133. Keefe to Commissioner of Immigration, Ellis Island, Aug. 25, 1909, RG 85, NA.

134. Williams to Commissioner-General of Immigration, Sept. 29, 1909, and Keefe to Commissioner of Immigration, Ellis Island, Sept. 30, 1909, RG 85, NA. The work was to be done in accordance with drawings 490-1 through 490-3.

Installation of pipe covering

Installation of three turbogenerator units, two of 125-kilowatt capacity each and one of 300-kilowatt capacity

Installation of eleven-panel switchboard

Installation of central plant for hot water domestic supply, including exhaust heater (to heat 5,000 gallons of water from 40°F to 180°F per hour), auxiliary heater, two centrifugal pumps, and one drip and vacuum pump

Installation of exhaust, steam, water, drain, and drip piping

Installation of floor drain system

Installation of system of conduits and wiring connecting the dynamos with switchboard

Construction of foundations for new apparatus[135]

4. Installation of Hot Water Circulating Mains and Automatic Oiling System - 1910

In December 1909 Commissioner Williams requested funds for two urgently needed improvements related to the operation of the powerhouse. One was for the installation of a system of hot water circulating mains from the heaters in the powerhouse to each of the buildings on islands 1 and 2, as follows:

The present system required high pressure steam, delivered from the power house to each of the hot water tanks and coil

135. "Contract, Bond, Proposal, and Specification for All Labor and Materials Required for Alterations, New Apparatus, Etc., in Power Plant on Main Island," dated Oct. 1, 1909, RG 85, NA.

heaters - a total of nine - together with reducing valves, traps, etc.

The proposed system requires the installation of a system of hot water circulating mains from the heaters in the power house to each of the buildings on Islands Nos. 1 and 2. The heaters, which are now being placed in the power house, will utilize the exhaust steam from the engines and other plant apparatus and furnish hot water without cost to the plant. Through a uniform circulation of hot water in the mains, hot water will at all times be available in the building, whereas, under present conditions, if any one of the present hot water tanks and coil heaters is being repaired, it puts double duty on one of the other heaters and requires that much extra live steam.

The adoption of the new system will eliminate the ever constant repairs to coils, heaters, tanks, traps, etc. The control of each of the buildings will be located in the power house.

The system will, in two years, pay for itself. The using of exhaust steam at no cost, as compared with the present system of using live steam at a considerable cost, the repairs to the individual heaters, traps, etc., and the labor required to operate the several independent heaters, makes this apparent.

The cost of installing this system would be approximately $5,000.

The other project was for an automatic oiling system for the machinery in the powerhouse, as follows:

The proposed system is superior to that now in vogue and will effect much saving. In oiling by hand, the larger portion of the oil is not consumed by the machinery but passes through the bearings, drips away, and is lost, except in cases where

special provision has been made for gathering the waste oil by means of drip pans or buckets placed under the bearings. This waste oil frequently amounts to from 50 to 90 per cent of the whole quantity used. Gathered after passing through the bearings and piped to the oil filters, purified by having all dirt, grit, and other impurities eliminated, and again fed automatically to the machinery, the oil ordinarily wasted under the system of hand lubricating can be used again and again with perfect safety on the finest machinery by the installation of this oiling system. The efficiency of the turbo-generators, already provided for, will be increased, as the oil passages are made of the smallest practicable size in order to minimize the flow of oil and reduce the quantity consumed. The same results cannot possibly be accomplished by hand lubrication, the automatic feed producing a minimum and uniform stream.

This system, if installed, will pay for itself in two or three years, in the quantity of oil saved. The life of bearings on machinery will be prolonged and the efficiency of the pumping and electrical apparatus at the power house will be increased.

The estimated cost of this system is $2,500.[136]

The Urgent Deficiency Bill making the necessary appropriations was approved by President William Howard Taft on February 26, 1910.[137] Contracts for the two projects were let to Evans, Almirall & Company and were completed during the summer.[138]

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136. Williams to Commissioner-General of Immigration, Dec. 3, 1909, RG 85, NA.

137. Keefe to Commissioner of Immigration, Ellis Island, Feb. 28, 1910, RG 85, NA.

138. Fry to Secretary of Commerce and Labor, Sept. 27, 1910, RG 85, NA.

5. Installation of New Floor, Wainscot, and Ceiling in Engine and Boiler Room - 1910-1911

In April 1910 Commissioner Williams requested funds for the installation of a new floor and wainscot in the engine and boiler room of the powerhouse. His recommendation for new flooring was based on the following information:

> New floor in engine and boiler room. - Original appropriation for building permitted installation only of light cement floors and rough brick dado, which are now 12 years old. The floors have partly gone to pieces and have been mended by means of bricks, planks, and other temporary makeshifts. The dado has been badly cut and patched from time to time. Since appearing before the subcommittee this morning I have telephoned the civil engineer at Ellis Island and learned that a particular reason why this work should be done is that much fine new machinery is being installed, some to run at the high speed of 2,400 revolutions per minute. The air should be as clean and free from dust as possible. Under present conditions much dust and dirt is present, which will be doing damage to the expensive machinery. Approximate size of floor is 4,360 square feet and of dado 2,150 square feet. Cost of floor, at 60 cents per square foot, will be $2,616. Cost of wainscot, at 80 cents per square foot, will be $1,720. Cost of concrete slab under floor, 162 cubic yards, at 10 cents, will be $1,620. Total estimated cost, $6,000.[139]

Three months later, on July 1, Williams submitted a revised request for the work to include a new ceiling in the engine and

139. Williams to Secretary of Commerce and Labor, Apr. 9, 1910, RG 85, NA.

boiler room. The cost of his proposed copper-panel ceiling to cover the original concrete ceiling was $2,500.[140]

Available documentation indicates that the new floor, wainscot, and ceiling were installed sometime during 1910 or 1911.[141]

6. Installation of Pneumatic Ash Conveyor - 1911-1912

In July 1910, Williams requested the sum of $3,200 to install a pneumatic ash conveyor in the powerhouse. This device would replace the antiquated existing system of wheeling the ashes to the ash scow by hand. The handling of ashes in wheelbarrows entailed a great amount of labor and exposed the coal passers to undue hardship, particularly in the winter months.[142]

A contract for installation of the conveyor was let to the American Pneumatic Conveyor Company during the latter part of 1911. By mid-December the foundation for the receiving tanks had been installed, and the conveyor was completed early in 1912.[143]

7. Installation of Electric Tie Lines - 1910-1911

On June 8, 1909, funds were requested to install electric tie lines between the powerhouse and the recently completed power plant on island 3. The tie lines would make it possible for the two plants to be interchangeable so that if one powerhouse broke down the other could be used temporarily. An appropriation of $10,000 was approved by Congress

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140. Williams to Commissioner-General of Immigration, July 1, 1910, RG 85, NA.

141. Annual Report, Commissioner-General of Immigration, Fiscal Year 1913, pp. 184-85.

142. Williams to Commissioner-General of Immigration, July 1, 1910, RG 85, NA.

143. Fry to Secretary of Commerce and Labor, Nov. 15 and Dec. 18, 1911, RG 85, NA.

in 1910, and a contract was let to the Commercial Construction Company to install the lines. The work was completed on February 7, 1911.[144]

8. Repairs to Coal Hoist - 1911

A contract was let to the J. N. Robins Company during the spring of 1911 to make emergency repairs to the coal hoist at the powerhouse.[145]

9. Repairs to Brickwork and Linings of Boilers 4-7 - 1911

In April 1911 a contract was let to Charles P. Schuh to repair the brickwork and linings of boilers 4-7 in the powerhouse. The walls were so badly burned out that they could not continue in use during the spring months while the large boilers were cleaned.[146] Later in October of that year, Schuh relined the settings of boilers 1-3.[147]

10. Enlargement of Boiler and Generating Capacity - 1912-1913

In July 1911 Commissioner Williams requested the sum of $40,000 to increase the boiler and electrical generating capacity of the powerhouse to meet the growing needs of the immigration station. The funds were to provide for the

> . . . substitution of large boilers for boilers now located in power house on south side of chimney and the removal of four 125 horse power units that were installed in the power house in 1899, and the replacing of said 125 horse power units by three

144. Commissioner-General to Secretary of Commerce and Labor, June 8, 1909, and Williams to Commissioner-General of Immigration, July 1, 1910, RG 85, NA; and Fry to Supervising Architect, Mar. 15, 1911, RG 121, WNRC.

145. Fry to Secretary of Commerce and Labor, June 19, 1911, RG 121, WNRC.

146. Ibid., May 18, 1911.

147. Ibid., Nov. 15, 1911, RG 85, NA.

500 horse power units of a type that has proved economical and efficient since power house was in part reconstructed two years ago. This will give us a steam plant of 1,000 additional horse power, which is required by proposed increase in size of the buildings on main island and the increased demands for steam for heating, lighting, pumping and power incident to the growing business of this station.[148]

Williams made a similar request in July 1912 noting that the cost of coal consumed during the winter of 1911-1912 was $10,000 in excess of what it should have been, due largely to the necessity of forcing the present plant beyond its capacity.[149] Available documentation indicates that the new equipment was installed by June 1913.[150]

11. Miscellaneous Improvements - 1913-1914

During the years 1913 and 1914 three improvements were made that affected the operation of the powerhouse. These were as follows:

Installation of additional electric tie lines connecting the powerhouse with the power plant on island 3

Installation of forced-draft system in powerhouse to increase efficiency of operation

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148. Williams to Commissioner-General of Immigration, July 7, 1911, RG 85, NA.

149. Ibid., July 22, 1912.

150. Annual Report, Commissioner-General of Immigration, Fiscal Year 1913, pp. 184-85. It is possible that the following apparatus was installed at this time: drip-line system to collect water of condensation and return it to boilers without use of pump or ejection apparatus and steam and water flow meters to indicate efficiency of power plant.

Installation of high-pressure steam drip return trap system throughout station to aid economy in furnishing light and power[151]

12. Installation of Pipe Tunnel - 1916-1917

In June 1915 the sum of $4,000 was requested for installing a concrete and metal-covered pipe tunnel from the powerhouse to the main building, which would house the pipes and wires carrying heat, water, light, and power to a large part of the station.[152] Congress appropriated the necessary funds in 1916, but because of the drainage inflicted on the station by the Black Tom Wharf explosion on July 30, the work was not completed until sometime in 1917.[153]

13. Installation of Two Turbogenerators - 1918-1919

The Sundry Civil Appropriation Act approved on June 12, 1917, made available funds for the installation of two new turbogenerators in the powerhouse.[154] War conditions and the system of priority orders necessarily adopted by the War Industries Board caused considerable delay in the installation of the new machinery. Proposals for the work were not accepted until October 8, 1918, and the machinery was not manufactured and delivered until the spring of 1919. The equipment was finally set in place during the summer of 1919 and was expected to "relieve the heavy strain upon the old engines and generators, which were likely to break down during the seasons when the demand for light and power is the heaviest."[155]

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151. Annual Report, Commissioner-General of Immigration, Fiscal Year 1914, pp. 225-26.

152. Ibid., Fiscal Year 1915, pp. 35-36.

153. Ibid., Fiscal Year 1916, pp. 24-25.

154. Ibid., Fiscal Year 1917, pp. 29.

155. Ibid., Fiscal Year 1919, pp. 28-29.

The contract called for the installation of the two 200-kilowatt turbogenerators including foundations, steam exhaust, drain and oil lines, electrical connections, and switchboard alterations. The generators were to meet the following specifications:

> Said turbo generator sets shall each be of the horizontal Curtis type, designed to operate non condensing, 3600 R.P.M. with a steam pressure at the throttle of 140 lbs. gauge and 2 lbs. back pressure. The generators shall be M.P.C. type, 6 poles, of 200 K.W. operating at 1200 R.P.M., 220 V.D.C., delivering 910 Amp. The variation in speed shall not exceed three percent from no load to full load, except on sudden variation of load, when five percent momentary speed variation will be permitted.[156]

14. Miscellaneous Improvements - 1920-1921

During 1920-1921 several improvements were authorized at Ellis Island that were either directly or indirectly related to the function and operation of the powerhouse. The improvements were as follows:

Feed-water heater - $12,000
New saltwater suction line and traveling screen - $12,000
Boiler feed pump - $5,500
Freshwater storage tank - $15,000
New service pumps for water supply - $11,000[157]

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156. "Specification for All Labor and Materials Required to Install Two New Turbo Generators Complete Including Foundations, Steam, Exhaust, Drain and Old Lines, and All Electrical Connections and Neccesary Switchboard Alterations, in Main Power House, at the U.S. Immigrant Station, Ellis Island, N.Y.H.," dated Oct. 8, 1918, FF 70, Power House - Island No. 1: Turbo Generators, 1918, Ellis Island Records, DSC.

157. Annual Report, Commissioner-General of Immigration, Fiscal Year 1920, pp. 28-29.

15. Extension of Coal-Handling Apparatus - 1921

By late 1920 the construction of the fifth section of the granite-faced seawall on the northeast side of the main island was underway. This work made it necessary to extend the trestle work on which coal was transferred from the barges to the coal bunkers. It was also necessary to move the coal-hoisting apparatus to the new seawall, which stood approximately 50 feet beyond the old wall. The expense involved in moving the hoist and furnishing a new runway and handling apparatus was estimated to be $30,000.[158]

Congress passed the necessary appropriation for the work in the spring of 1921. A contract was let to the North Eastern Construction Company of New York City, and the project was completed sometime during the summer.[159]

16. Repairs To Boiler Furnaces - 1924

In August or September 1924, a contract was let for the repair of the five boiler furnaces in the powerhouse at a cost of approximately $6,000. The specification called for the repair of the brickwork and the renewal of all damaged or defective parts in the boilers. The front and rear baffles on each boiler were to be removed and replaced by Babcock & Wilcox front-inclined baffles and cast-iron rear baffles.[160]

17. Renewal of Boiler Pipes and Fittings - 1925

A contract was let to David E. Goggin of New York City on September 16, 1925, to renew the pipes and fittings of the boilers in the powerhouse. In boilers 1 and 4, he was to install new Babcock &

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158. Commissioner-General to Assistant Secretary, Nov. 4, 1920, RG 85, NA.

159. Fry to Peterson, June 7, 1921, RG 85, NA.

160. Curran to Commissioner-General of Immigration, Aug. 7, 1924, RG 85, NA.

Wilcox extra heavy cast-iron ells and extra strong black-iron nipples at the mud drums. New studs and gaskets were also to be installed.[161]

18. Renewal of Brickwork in Boilers 4 and 5 - 1925

On September 16, 1925, a contract was let to Geo. Allen & Son of New York City to reline the brickwork sidewalls of Boilers 4 and 5 in the powerhouse at a cost of $695. According to the specifications, at least six courses of the firebrick in the furnaces of the Babcock & Wilcox boilers were to be renewed. The firebrick was to be of the Henry Mauer & Son no. 1 brand, and the fire clay was to be fine ground and of the same grade as the brick. The jamb blocks at the furnace doors of boilers 1-5 were to be replaced with the McLeod & Henry Company's "Steel Mixture" material.[162]

19. Installation of Vacuum Pumps - 1925

On September 25, 1925, a contract was let to the Austin Engineering Company of New York City to install two new vacuum pumps for the steam return mains in the powerhouse at a cost of $2,128. The old pumps had been in use for many years and had been repaired frequently. The new pumps were needed because it was doubtful whether the old ones could be repaired, and it was likely that portions of the station would be heated inadequately during the coming winter without them. The new pumps were to be of the 6-inch suction and 5-inch discharge type.[163]

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161. "Specifications for Renewal of Boiler Pipes and Fittings in Power House," dated Aug. 29, 1925, and Hull to Commissioner of Immigration, Ellis Island, Sept. 16, 1925, RG 85, NA.

162. Geo. Allen & Son to Commissioner of Immigration, Sept. 9, 1925, Curran to Commissioner-General of Immigration, Sept. 11. 1925, Hull to Commissioner of Immigration, Ellis Island, Sept. 16, 1925, and "Specifications for Renewal of Boiler Brickwork in Power House - Island No. 1," dated Sept. 9, 1925, RG 85, NA.

163. Curran to Commissioner-General of Immigration, Sept. 15, 1925, Hull to Commissioner of Immigration, Ellis Island, Sept. 16, 1925, and "Contract and Bond for Furnishing and Installing Two (2) New Vacuum Pumps for Use In Connection With the Vacuum Return System, Island No. 1, at U.S. Immigrant Station, Ellis Island, N.Y.H.," 1925, RG 85, NA.

20. Repair of High Pressure Steam Lines -1925

On October 5, 1925, a contract was let to Alfred Beyrodt of New York City to repair the high pressure steam lines between the powerhouse and the baggage and dormitory building at a cost of $2,118. The steam return line from the traps of the kitchen, laundry, and sterilizing machines was to be renewed from a point under the baggage and dormitory building to the tank in the attic of the powerhouse. The check valves were to be relocated and the expansion joints installed. The 10-inch steam heating main was to be replaced, and the cold water pipe with fire hose attachment was to be relocated in the pump room. The pipes were to be renewed with 85 percent magnesia sectional pipe covering for the steam and hot water lines and antisweat sectional pipe covering for cold water pipes. The coverings were to be the equivalent of those manufactured by the Johns-Mansville Company.[164]

21. Alteration to Coal Conveyer-Beam Trolley - 1926

A contract was let in March 1926 to alter, repair, and renew the coal conveyer-beam trolly located in the coal bunker and boiler room of the powerhouse. The general scope of the work was as follows:

> The present Coburn trolley is to be removed and the eight (8) inch, eighteen (18) pound I Beams as far as possible reused, and the entire runway relocated as shown on the Plans.
>
> Present Hangers and Braces that are in good condition may be re-used and altered to suit conditions.
>
> Additional Beams, Braces and Hangers with a three-way switch shall be installed in the system. Housing shall protect the switch.

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164. "Contract and Bond for Repairs to the High Pressure Steam Lines Between the Power House and the Baggage and Dormitory Building at U.S. Immigrant Station, Ellis Island, N.Y.H.," 1925, RG 85, NA. The work was to be done in accordance with drawing D-1003-1.

Supply and install a two (2) ton Beam Trolly and a two (2) ton Chain and Spur Gear Block.

The two (2) ton Beam Trolley shall be made with Steel side plates. The type shall be as made by the Yale and Towne Mfg. Co. of Stamford, Conn; or equal thereto.

The two (2) ton block shall be the spur-geared type. The type shall be as made by the Yale & Towne Mfg. Co. or equal thereto. The three-way switch shall be of type as made by the Yale & Towne MFG. Co. or equal thereto.[165]

22. Repairs to Heating and Plumbing Systems - 1926

On June 24, 1926, a contract was let to David Brandt, Inc., of New York City to make heating and plumbing repairs in the powerhouse and other buildings on island 1 at a cost of $26,844. The following items in the specifications related to the powerhouse:

Installation of brass fresh coldwater and saltwater mains

Installation of brass hot water main and return from flanged manifold in powerhouse to main building

Installation of brass hot water main and return from flanged manifold in powerhouse to baggage and dormitory building

Resetting of the temperature gauges at point just above flanges of manifolds in new hot water lines in powerhouse

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165. "Specifications for Alterations, Repairs and Renewals to Coal Conveyer - Beam Trolley in Coal Bunker and Boiler Room, Power House, Island No. 1," dated Mar. 16, 1926, RG 85, NA. The work was to be done in accordance with drawing D-1009-1.

installation of covering on pipes[166]

23. Repairs to Roof - 1928

On March 22, 1928, a contract was let to Offenkrantz & Mark of Newark, New Jersey, to make repairs to the roofs on the principal buildings on Island 1. The work on the roof of the powerhouse, which was guaranteed against leaks for one year, was as follows:

POWER HOUSE, ISLAND 1

Schedule (a)

Replace all missing, cracked or broken slate with new slate.

Replace all missing Ridges and hips by using such of the old material that will be leakproof for one year, and where new material is needed use 15 ounce copper, cold rolled.

Reset all Loose or Missing, Ridges and Hips in manner as shown on Drawing #E-777-4.

Repair all skylights and reset loose glass as previously specified.

Repair and put in first class working condition the skylight operating mechanism.

166. "Contract and Bond for Heating and Plumbing Repairs and Replacements in Power House, B & D Building, Connecting Corridors and Main Building, Island No. 1 at U.S. Immigration Station, Ellis Island, N.Y.H.," dated June 24, 1926, RG 85, NA. The work was to be done in accordance with drawings D-994-1, D-994-2, D-1010-1, and D-1010-2.

Remove slate around chimney and skylights, remove old flashing, reflash and replace slate.

Gutters in places torn and broken shall be replaced with 18 ounce soft copper. Missing leaders shall be replaced with corrugated copper leaders.

All leaking leaders shall be repaired and parts beyond repair shall be replaced.

Schedule (b)

Replace missing and broken ventilators by installing two (2) self-syphoning ventilators 30 inches in diameter with base. These ventilators shall be made of the manufacturer's standard stock gauge galvanized iron and shall have triple protection of one (1) Asphalt, (2) Asbestos Felt and (3) Waterproofing, all put on in shop of manufacturer.

Dampers will be omitted.

The Ventilators are on the peak of the roof, and the bases shall be secured to the steel T's. The T's are inverted and down the slope on 19" center to center holding book tile.

These ventilators shall be properly flashed over the slate roof.

Construction and height of Ventilators shall be same at the Self-Syphoning Ventilator near the Steam Exhaust Stack.

Secure ventilators to withstand wind pressure of 80 miles per hour.

Repair two remaining damaged roof ventilators North end of building.[167]

24. Repair/Replacement of Drain and Boiler Blow-Off Lines - 1930

In April 1930 the sum of $1,200 was requested to repair and replace the tank drain and boiler blow-off lines from the powerhouse, as they were in dangerous condition. Some of them were so full of holes that when the boilers were blown down, the ground covering these pipes was blown into the air, and hot water and steam escaped in such volume as to endanger the lives of persons in the vicinity. Congress approved the necessary appropriation for the work in the Second Deficiency Bill approved on July 3, 1930.[168]

Two proposals were accepted on August 21 to accomplish the separate phases of the work for the repair and replacement of the tank drain and boiler blow-off lines. The bid of the Electric Welding Company of America was approved for welding flanges to the condensation return tank in the pump room. The work, which was to be completed within 14 days at a cost of $135, included the following:

> WELDED FLANGES shall be installed on the Condensation Return Tank of sizes and in locations as shown on drawing D1147. The Contractor shall cut the necessary holes in the cylindrical shell and weld to the external surface steel flanged outlets properly threaded for Standard pipe threads. The hub of the flanges shall be not less than one and three quarter (1-3/4) inches thick.

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167. "Contract for Roof Repairs," dated Mar. 22, 1928, RG 85, NA.

168. McCarl to Secretary of Labor, Apr. 26, 1930, White to Roop, Apr. 29, 1930, and Hull to Commissioner of Immigration, Ellis Island, July 8, 1930, RG 85, NA.

> Tank diameter, approximately 6 feet, shall be verified by the Contractor to insure the proper fitting of the flanges.
>
> The welding shall be guaranteed to remain free from defects and leaks for a period of one (1) year after the tank is put into service.[169]

On the same date the bid of Buess & Anstatt, Inc., was accepted to install the new boiler blow-off and drain lines in the powerhouse and adjoining yard at a cost of $1,125. The work included the installation of boiler blow-off lines made of extra strong wrought-iron pipe and drain lines in the pump room from the condensation return tank and the saltwater sediment separator into a new concrete trench.[170]

25. Installation of Fender Piling and Wearing Strips - 1930-1931

In April 1930 the sum of $3,600 was requested to install fender piling and wearing strips at the powerhouse coal dock and along the north side of the ferry slip. The basis of the request was as follows:

> The fender piling and wearing strips where the coal barges and ash scows are moored have either been carried away entirely or so badly damaged by several years usage as to be no longer serviceable and, in fact, dangerous. If, through the action of the waves or the weather, any of these barges are damaged

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169. Uhl to Commissioner-General of Immigration, Aug. 2, 1930, Hull to Commissioner of Immigration, Ellis Island, Aug. 21, 1930, and "Specifications for Welding Flanges to Condensation Return Tanks in Pump Room of Power House, Island No. 1," dated July 31, 1930. RG 85, NA. The work was to be done in accordance with drawing D-1147.

170. Uhl to Commissioner-General of Immigration, Aug. 5, 1930, Hull to Commissioner of Immigration, Ellis Island, Aug. 21, 1930, and "Specifications for Boiler Blow-Off and Drain Lines in Power House and Yard, Island No. 1," dated Aug. 14, 1930, RG 85, NA. The work was to be done in accordance with drawing D-1147, as revised on Aug. 7, 1930.

against the granite sea wall or by being punctured by some of the broken piles, the Service will be subjected to claims for heavy damages. A like condition prevails along the granite faced sea wall enclosing the ferry slip. Not only do Government boats have to dock alongside these piers without any fenders to protect them, but a considerable number of other craft must do likewise from time to time. As to the privately owned craft, here also we are apt to have claims made for damages, and as to Government craft, incur large bills for repairs. The minimum amount of piling to overcome the conditions recited, can be installed for $3,600. It may cost us more than this if one coal barge happens to be sunk.[171]

The Second Deficiency Bill, approved on July 3, 1930, provided the requested funds for the work.[172]

On February 10, 1931, a contract was let to the General Contracting & Engineering Company for the installation of new fender piles and backing logs along the southwest seawall and the powerhouse coal dock on island 1. The work to be done to the coal dock included the following:

All pipes shall be drawn at the coal dock and in the Ferry Basin. Broken, missing or rotted wales, chocks and backing logs shall be removed; All useless bolts cut-off close to the wall and new bolts placed as previously mentioned, and located as shown on the drawing. Mooring Posts shall be resecured where noted on the drawings and new supporting L.L.Y. Pine cleats installed.

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171. White to Roop, April 29, 1930, RG 85, NA.

172. Hull to Commissioner of Immigration, Ellis Island, July 8, 1930, RG 85, NA.

The removed piles and old timber shall be considered as of no value and be taken away from Ellis Island by the Contractor.

(a) At the Power House Coal Dock Sea Wall, wales shall be renewed where rotted, broken, or missing, new bolts installed as shown on the drawing to firmly secure both the upper and lower wales; Oak Piles Driven, and oak wearing strips secured thereto; long leaf yellow pine bracing strips properly secured so the piles stand vertically as shown on the drawing.[173]

26. Conversion of Water Pressure Tank Into Hot Water Return Tank - 1930-1931

In April 1930 the sum of $225 was requested for the conversion of the cold water pressure tank on the first floor of the powerhouse into a hot water return tank for the steam lines. The rationale for the request was as follows:

For a long time past, open tanks on the third floor of the power house have been used for the hot water returns. The result has been much loss of temperature and the corroding of the steel beams supporting the power house roof. Unless this is stopped it is only a question of a short time before the entire roof will have to be replaced. This can be obviated by converting the present cold water pressure tank on the first floor of the power house into a hot water return tank for the steam lines. This will also accomplish not a little economy in the operation of the plant by the conservation of steam and hot water.[174]

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173. "Specifications for Replacement of Fender Piling and Wearing Strips, Island No. 1," dated Jan. 22, 1931, Uhl to Commissioner-General of Immigration, Jan. 27, 1931, and Hull to Commissioner of Immigration, Ellis Island, Feb. 10, 1931, RG 85, NA.

174. White to Roop, Apr. 29, 1930, RG 85, NA.

The aforementioned Second Deficiency Bill provided the requested funds for the work.[175]

27. Conversion of Powerhouse From Coal to Oil-Burning System - 1932

As early as 1920 it was recommended that the power equipment in the powerhouse be converted from coal to oil burning. The rationale behind the proposal was as follows:

> It is estimated that the change from coal to oil burning will be in the neighborhood of $100,000 including adequate tankage, which sum must of course be secured through a special appropriation from Congress. An estimate of $100,000 for this purpose has been included in the estimate for the next fiscal year, but if the work has to be done immediately it would seem that a supplemental estimate should be prepared and submitted to Congress for consideration at the next session. The Commissioner states that if the Department determines on a fuel oil installation the expense of extending the coal hoist will be saved and that it will result in economies in the actual operation of the heating plant.
>
> According to report of Chief Engineer Fry, there would also be an annual saving of not less than $26,000 in the cost of fuel.
>
> With regard to the question of whether a sufficient supply of fuel oil can be obtained for Ellis Island, Captain Fry states that he now believes the oil market conditions have reached a point where it is reasonably certain that an adequate supply of this fuel may be available. He supports this with the statement that the Navy has now under contract or in sight, sufficient oil for

175. Hull to Commissioner of Immigration, Ellis Island, July 8, 1930, RG 85, NA. No other documentation could be located relative to this improvement.

its needs for the coming year; the Shipping Board has just announced its contract with the Northwest Refining Company under the terms of which 3,421,000 barrels of Shipping Board specification oil are to be delivered for fifteen months from July 1, 1920, and that the Petroleum Heat and Power Company of New York offered to enter into a contract with the U.S. Treasury Department to supply fuel oil for all its plants located on Manhattan Island and Brooklyn at a reasonable market price.[176]

The proposal, although initially rejected because of the lack of funds, was resubmitted in December 1923 by Commissioner Curran. He requested $100,000 to convert the plant and to cover the cost of oil storage tanks, oil piping, and concrete piling. However, he justified the cost as follows: "It is estimated that in addition to saving covering outlay for fuel, the change indicated will permit of a material reduction in the force needed to operate the plant, and that the net yearly savings will be approximately one fourth of the total cost of installation."[177]

Finally, some eight years later, Congress appropriated the sum of $40,000 for the proposed conversion in an act approved on February 23, 1931. In March 1932 a contract was let to the R. H. Baker Company of New York City to convert the powerhouse for oil burning. The specifications called for the following work to be done:

SCOPE OF WORK: The work shall include the furnishing of all labor and material for the installation of a complete fuel oil-burning system for the Ellis Island power plant.

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176. Commissioner-General to Assistant Secretary, Nov. 4, 1920, RG 85, NA.

177. Curran to Commissioner-General of Immigration, Dec. 17, 1923, RG 85, NA.

This includes earth work, oil storage tanks, foundations for tanks, and other masonry work, pumps, burners, piping, heaters, meters, gauges, valves, and all other necessary or usual equipment, together with alterations to the present boiler setting and firing floor, all as specified further herein, or shown by means of drawing D-1215 [D-1216].

THE PRESENT BOILER: Equipment consists of five coal burning, hand fired, Babcox and Wilcox cross drum boilers, operated at 140 pound pressure, three of which, Nos. 1, 2, 3, are rated at 425 H.P. installed in 1908 on B & W contract 6479, and two of which, Nos. 4, 5, are rated at 413 H.P. installed in 1917 on B & W contract No. 9162.

The stack is 6'-6" inside diameter at the base and 125 feet in height.

Attention is called to the fact that the stack has a flue opening into it from the garbage incinerator which fact must be considered in designing the new fuel oil burning system.

MASONRY WORK: Under this contract shall include all earth work, masonry work, and concrete work required for alterations to boiler setting, firing trench in front of boilers, new boiler room floor, the closing up of doorways to boiler room; repairs to walls, and new concrete floor in tank room or concrete oil storage tanks (see alternate as described under Item A), also any pipe trenches and pipe support, as may be required.

OIL STORAGE TANK: Furnish and install in the tank room one cylindrical steel storage tank 32 feet in diameter and 20 feet effective inside height, with a steel umbrella type self-supporting roof.

Tank to be constructed of open heath steel plate 1/4" thick on sides and bottom and 3/16" for the roof, all riveted.

STAND-BY OIL STORAGE TANK: There is at present a 75,000 gallon steel water tank near the Baggage and Dormitory Building. It is intended to use this as a stand-by tank for oil storage, but will normally be empty.

The contractor shall furnish and install a 5" oil line and a one inch steam line to this tank. These lines to be taken off of the lines to the ferry slip in the attic of the covered way and are to be carried on bracket hangers below the cave along the outside of the covered way leading to the B & D Building.

OIL PUMPS: Furnish and install two steam driven oil pump units, each mounted separately and independently from the other, on a concrete foundation, and so connected with valves that one or both may be used at one time to supply the burners.

STRAINERS: All oil shall be strained twice before delivery to burners exclusive of strainers at the burners. Suction line strainers shall be placed between the storage tank and pumps and shall have 3/64" perforations. Discharge strainers shall be placed between the pre-heaters and burners and shall have 1/32" perforations. All strainers shall be of the duplex basket type, with large removable baskets.

HEATERS: Contractors shall provide where indicated on drawings two steam pre-heaters on the oil discharge to the burners, of the coil type, and all joints external so that leakage of oil into the condensate is positively prohibited.

The work was completed and put into operation in January 1933.[178]

During the first four months of operation the new oil-burning system aided considerably in economizing the cost of fuel for the immigration station. A total of 17,521 barrels of bunker "C" fuel oil (U.S. Navy Specification) was used compared with a seven-year average for the same period of 5,167 short tons of buckwheat anthracite (12,400 minimum BTU).[179]

28. Replacement of Hot Water Circulating Pipes, Vacuum Piping, and Turbine Drain Lines - 1932

The congressional bill approved on February 23, 1931, also provided money for other improvements in the powerhouse, including the replacement of hot water circulating pipes between heater headers and pumps and new coils in pump room - $5,500; vacuum piping to return tank in pump room - $3,000; and turbine drain lines - $3,000.[180]

In November 1931 a contract was let to C. F. Mentzinger & Son to perform the work in these three categories at a cost of $7,434, although work did not begin until January 1932. In connection with the contract, the firm also installed temperature regulators for the two new hot water heaters (horizontal instantaneous "U" tube; capacity of 8,000 G.P.H. from 40° to 180°) at a cost of $755.[181]

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178. "Specifications for Conversion of Power Plant for Use With Fuel Oil, Island No. 1," dated Mar. 23, 1932, and miscellaneous papers relative to contract, FF 73, Power House - Island No. 1: Convert Power Plant, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1216.

179. Uhl to Bethlehem Steel Company, Inc., May 24, 1933, FF 80, Power House - Island No. 1: Fuel Oil Burners, 1933, Ellis Island Records, DSC.

180. Hull to Commissioner of Immigration, Ellis Island, Apr. 1, 1931, RG 85, NA.

181. "Specifications for Replacements, Hot Water Circulating System, Vacuum Piping to Return Tanks, Turbine Drain Lines, Power House, Ellis

29. Installation of Water Pumps for Freshwater System - 1932

In May 1932 a contract was let to the Public Plumbing Corporation of Woodside, New York, for installing new automatic valves and relocating and replacing the main line freshwater pumps in the pump room of the powerhouse at a cost of $1,500. The two new pumps were to be centrifugal type, each capable of handling 500 gallons per minute against 65 pounds discharge pressure with the suction pressure varying from 35 to 0 pounds. The two new 6-inch horizontal swing check valves were to be manufactured by the Golden-Anderson Valve Specialty Company of Pittsburgh, Pennsylvania. The work was completed in July 1932.[182]

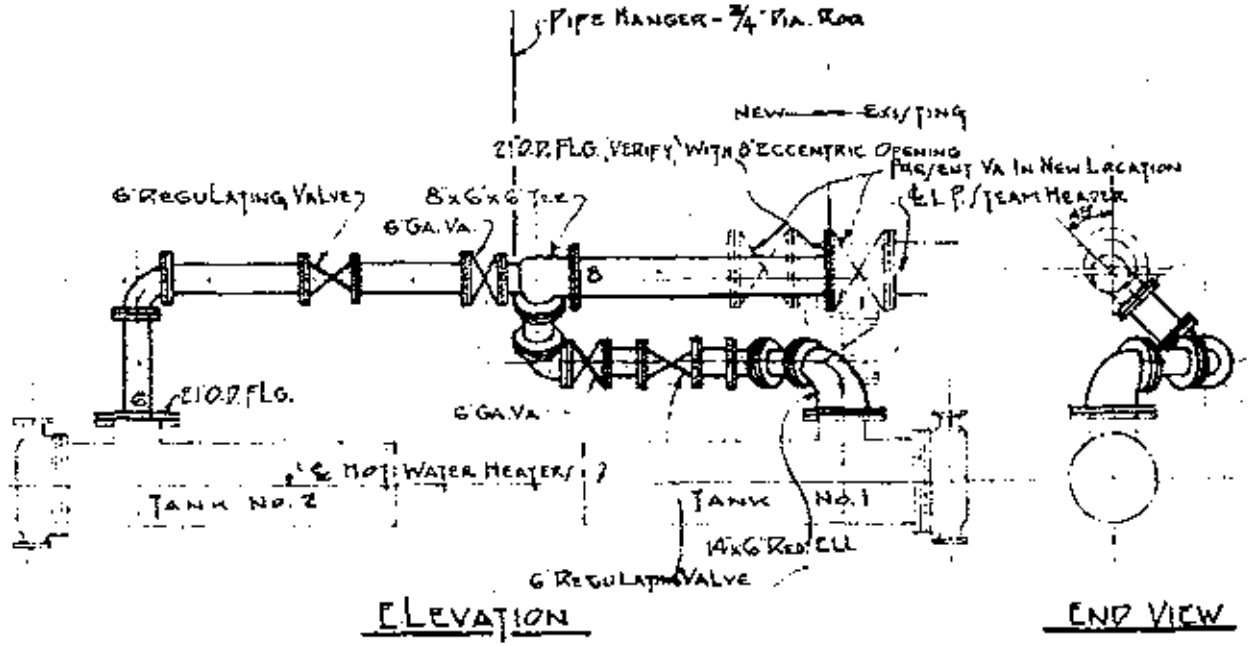
30. Installation of Fire Alarm System - 1932

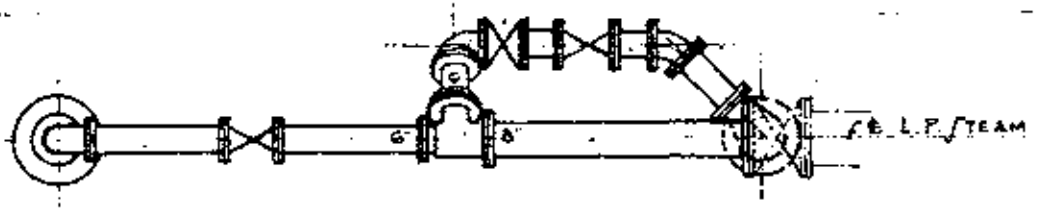
A contract was let to the Quintine Realty Company of Bloomfield, New Jersey, on October 31, 1931, to install a fire alarm system (Faraday System with two series local control board) in all the buildings on Ellis Island. The fire alarm system, manufactured by Stanley and Patterson, Inc., of New York City was to have 28 fire alarm boxes. The system was to begin in the powerhouse where the control panel, charging panel, and motor generator were to be located. At the same time the whistle machine in the powerhouse was to be overhauled and connected to the control board so that code numbers could be sent out when calls came in.[183]

Island," dated Nov. 10, 1931, and miscellaneous papers relative to contract, FF 71, Power House - Island No. 1: Replacements to Hot Water Circulating System, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1177 and D-1178. A copy of the drawing for the steam regulators may be seen on the following page.

182. "Specifications for Automatic Valves and Re-Locating and Replacements, Main Line Fresh Water Pumps, Pump Room - Power House, Island No. 1," dated May 18, 1932, and miscellaneous papers relative to contract, FF 72, Power House, Island No. 1: Fresh Water System, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1231.

183. "Specifications for Fire Alarm System at Ellis Island," dated Oct. 21, 1931, and Huff to Commissioner of Immigration, Ellis Island, Oct. 28, 1931, RG 85, NA.





PLAN

CONTRACTOR SHALL TAKE HIS OWN MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR SAME.

STEAM REGULATORS FOR WATER HEATER TANKS
POWER HOUSE - ELLIS ISLAND
FILE No. 90929 - 390,393,399
F. CHRISTENSEN. APRIL 29, 1932.
SCALE 1/4" = 1'-0"
H. I. BOOTH - ARCH. ENG.

31. Replacement of Turbine for Turbogenerator - 1932

On April 30, 1932, a contract was let to the General Electric Company of New York City to install one General Electric type 0-53, 200 kilowatt, 3600 RPM turbine for the turbine unit 2 in the powerhouse. The new turbine was to be a duplicate of one installed earlier on the turbine unit 1. The new turbine was to be set on a metal and concrete foundation. The work was completed on October 15 at a cost of $4,752.[184]

32. Installation of Tile Floor in Boiler Room - 1932

On May 18, 1932, the proposal of the Continental Tiling Company of New York City was accepted for the installation of tile flooring in the boiler room of the powerhouse. The tile was to be of red hard burned clay, unglazed, quarry tile with grooved backs as manufactured by the United States Quarry Tile Company of Parkersburg, West Virginia. The tile was to be bedded in Portland cement mortar.[185]

33. Installation of Steam Supply for Pumps, Injector Piping, and Valves - 1932

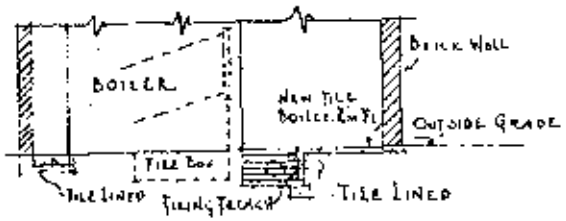
A contract was let in May 1932 for the installation of various equipment in the powerhouse, including high pressure steam supply lines for boiler feeder pumps and for freshwater pump; water lines in connection with injector piping; and an 8-inch valve on main steam header and a 6-inch valve on auxiliary steam header.[186]

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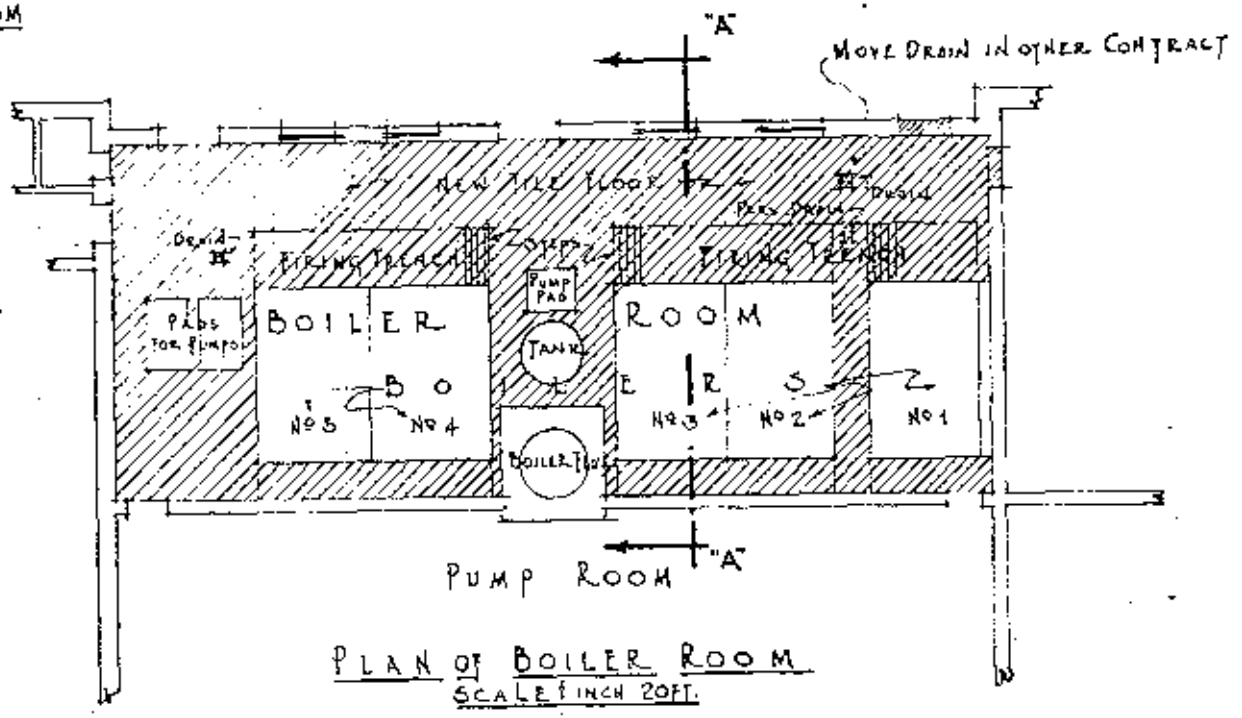
184. Hull to Commissioner of Immigration, Ellis Island, Apr. 30, 1932, RG 85, NA, and miscellaneous papers relative to contract, FF 74, Power House - Island No. 1: Replacement of Steam End, 1932, Ellis Island Records, DSC.

185. Hull to Commissioner of Immigration, Ellis Island, May 18, 1932, RG 85, NA, and miscellaneous papers relative to contract, FF 75, Power House - Island No. 1: Tile Flooring, 1932, Ellis Island Records, DSC. A copy of the drawing associated with the contract may be seen on the following page.

186. Miscellaneous papers relative to contract, FF 77, Power House - Island No. 1: Steam Supply, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1236.



SECTION "A-A" THRU BOILER ROOM
SCALE 1 INCH = 2 FT.



NOTE
PITCH FLOOR TO DRAINS

PLAN OF BOILER ROOM
SCALE 1 INCH = 2 FT.

CONTRACTOR SHALL TAKE HIS OWN MEASUREMENTS AT THE SITE AND BE RESPONSIBLE FOR SAME.

TILE FLOORING FOR BOILER ROOM
POWER HOUSE, ISLAND No 1, ELLIS ISLAND.
FILE No 98529 - 383
RAYMOND E. MYERS APRIL 29, 1932
SCALE 1 INCH = 2 FT.

Approved April 29, 1932 H. S. Booth Asst. Eng.

34. Replacement of Turbine Generator 4 With Turbogenerator - 1932

In June 1932 a contract was let to the Turbine Equipment Company of New York City to install one 400-kilowatt, 350-volt geared noncondensing turbogenerator in place of the turbine generator 4 in the powerhouse. The contract included all the related work such as a 3-foot-thick concrete foundation, steam supply and return piping, switchgear, and electrical conduit and cable work. The De Laval turbogenerator was installed by late December at a cost of $13,950.[187]

35. Painting of Buildings on Island 1 - 1932

Three contracts for painting the buildings on island 1 were let during the spring of 1932. The contracts were as follows: exterior - Louis Gladstein & Peter Contaris of New York City - April 5, 1932 - $3,879; interior - Louis Gladstein of New York City - ca. June 1, 1932 - $4,995; and interior (additional) - Joseph Gelenter, Inc., of Brooklyn, New York - June 3, 1932 - $3,135.[188]

36. Pointing of Exterior Masonry - 1932

In June 1932 a contract was let to the Quintine Realty Company of New York City to point the exterior masonry on all the buildings on islands 1 and 2. The work involved the repointing of the

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187. "Specifications for Turbo Generator for Power House, Island #1," and miscellaneous papers relative to contract, FF 79, Power House - Island #1: Steam Turbine Generator Set, 1932, Ellis Island Records, DSC.

188. Shaughnessy to Commissioner of Immigration, Ellis Island, Apr. 5, 1932, Husband to McCarl, May 31, 1932, Hull to Commissioner of Immigration, Ellis Island, June 3, 1932, "Specifications for Painting (Exterior), Island No. 1," dated Mar. 30, 1932, "Specifications for Painting (Interior), Buildings on Island No. 1," dated May 11, 1932, and "Specifications for Painting (Interior Additional), Buildings on Island No. 1," dated May 31, 1932, RG 85, NA. The exterior work was to be done in accordance with drawing D-1220, the interior with D-1235, and the interior additional with D-1238.

granite, limestone, brick, and terra cotta masonry on the structures with either white Portland cement or nonstaining Puzzolan cement.[189]

37. Retubing, Rebaffling, and Relining of Flue Boilers - 1932-1933

A contract was let to the F. Page Contracting Company of New York City in May 1932 for retubing, rebaffling, and relining the five boilers in the powerhouse at a cost of $14,935.[190]

38. Installation of Nonconducting Pipe Covering - 1932-1933

In June 1932 a contract was let to the Sheridan Insulation Company of New York City to install nonconducting covering on pipes, tanks, and other apparatus in all of the buildings on Ellis Island. Hot piping, as well as the receiving tank and feed water tank in the powerhouse, was to be insulated with sectional, removable, 85 percent magnesia covering.

Hot water tanks and two paracoil water heater tanks in the pump room of the powerhouse were to be insulated with 1-inch-thick, 85 percent magnesia blocks, one layer of chicken wire mesh, ordinary grade asbestos cement, and asbestos hard finishing cement. Cold water lines were to be insulated with felt antisweat covering.[191]

39. Installation of New Boiler Flue Dampers - 1933-1934

In December 1933 a contract was let to the Alpha Iron Works of New York City to remove the existing induced draft apparatus

189. Miscellaneous papers relative to contract, FF 108, All Buildings - Island No. 1: Pointing Up Exterior Masonry, 1932, Ellis Island Records, DSC.

190. FF 02, All Islands: Work Contracted, 1931-1938, Ellis Island Records, DSC.

191. "Specifications for Non-Conducting Covering, Islands Nos. 1, 2, 3," and miscellaneous papers relative to contract, FF 180, All Islands: Nonconducting Pipe Covering, 1932, Ellis Island Records, DSC.

in the boiler room of the powerhouse and to install five new sets of boiler flue dampers. The work was completed on May 14, 1934, at a cost of $1,785.[192]

40. Installation of Steam Turbine Driven Centrifugal Pumps - 1934

In January 1934 a contract was let to the B. E. Gilman Company to install two steam turbine driven centrifugal pumps in place of the existing plunger type boiler feed pumps. The new pump outfits were to consist of a bronze-fitted horizontal split case multistage centrifugal pump with a capacity of 175 gallons per minute of water at 160°F against a total discharge pressure of 150 pounds. The pumps were to be directly connected by means of a flexible coupling to a steam turbine operating at 125 pounds steam pressure with 4 pounds back pressure. The entire outfits were to be mounted together on a cast-iron drip baseplate.

The contract was completed on May 24 at a cost of $2,655. The equipment installed in the work was as follows: pumps - Chicago Pump Company, turbines - Coppus Engineering Company, valves - Jenkins, Fittings - Walworth and Essex, and pipe - Byers or Reading.[193]

41. Installation of Water Softener and Incidental Piping - 1934

A contract was let to the Dierks Heating Company of New York City on February 6, 1934, to install a water softener and incidental

192. "Specifications for New Boiler Flue Dampers," dated Dec. 29, 1933, and miscellaneous papers relative to contract, FF 82, Power House - Island No. 1: Damper Blades, 1933, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1253.

193. "Specifications for Steam Turbine Driven, Centrifugal, Boiler Feed Pumps," dated Jan. 11, 1934, and miscellaneous papers relative to contract, FF 83, Power House - Island No. 1: Boiler Feed Pumps, 1933, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1255.

piping in the pump room of the powerhouse. The water softening apparatus was to be of the Zeolite type and downflow pattern. It was to be guaranteed to deliver 34,000 gallons of softened water between regenerations when operating on a water supply containing a hardness of 3½ grains per U.S. gallon calculated as $CaCo_2$.[194]

42. Repair of Turbogenerators - 1934 and 1936

In both 1934 and 1936 the turbogenerators in the powerhouse were repaired and overhauled by the Holmberg Electric Company. The turbogenerators were listed as follows:

No. 1 and No. 2 - General Electric nos. 695805 and 695807, respectively, 800 ampere, 220 volt, 1200 RPM, commutators 12" wide by 18" in diameter.

No. 3 - General Electric no. 182353, 1363 ampere, 220 volt, 1800 RPM, three commutators each 8" wide by 10" in diameter.

No. 4 - Allis Chalmers no. 128813, 1600 ampere, 250 volt, 1200 RPM, commutator 15" wide by 16" in diameter.[195]

43. Change in Switchboard Panel Layout - 1934

Because of the increased load on the power panels on the main switchboard in the powerhouse, it was determined to change the

194. "Specifications for Water Softener, Heat Exchanger, and Incidental Piping," dated Jan. 25, 1934, and miscellaneous papers relative to contract, FF 84, Power House - Island No. 1: Water Softener, 1934, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1256.

195. Miscellaneous papers relative to contracts, FF 85, Power House - Island No. 1: Repairing Three Turbo Generators, 1934, and FF 90, Power House - Island No. 1: Repair Four Turbo Generators, 1936, Ellis Island Records, DSC.

layout of the panels and increase the capacity of the breakers. The work was carried out by the Public Works Administration.[196]

44. Insulation of Pipes, Lines, and Tank - 1934

In June 1934 a contract was let to Daniel R. Douglas, Inc., to apply insulation on cold water pipes, the water softener tank, fuel oil pipes, steam lines, and boiler feed lines in the powerhouse.[197]

45. Installation of Main Breeching Dampers - 1934

In June 1934 a contract was let to the Dover Boiler Works to install two main section dampers in the smoke breeching above the boilers in the powerhouse. The metal dampers were to be placed on each side of the main stack and close to the steel roof trusses on the stack side of the trusses.[198]

46. Alteration/Renewal of Steam and Circulating Systems - 1934

In December 1933 a contract was let to the R. J. McKinon Contracting Company of New York City to make various alterations and renewals to the high pressure and low pressure steam system and hot water circulating system on Ellis Island. The contracted work included the following items for the powerhouse:

> New boiler blow-off line (of 4-inch extra heavy black wrought iron pipe) from boiler room to seawall (total of approximately 100 feet)

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196. Miscellaneous papers relative to contract, FF 86, Power House - Island No. 1: Change Switchboard Panel Layout, 1934, Ellis Island Records, DSC. The work was to be done in accordance with drawing CL-1-450.

197. "Specifications for Pipe and Tank Insulation," dated June 18, 1934, and miscellaneous papers relative to contract, FF 87, Power House - Island No. 1: Pipe and Tank Insulation, 1934, Ellis Island Records, DSC.

198. "Specifications for Main Breeching Dampers, Power House, Island No. 1," dated June 21, 1934, and miscellaneous papers relative to contract, FF 88, Power House - Island No. 1: Main Building Dampers, 1934, Ellis Island Records, DSC.

New 4-inch line to become part of injector supply lines connecting to hot well and cold water supply in pump room

Replacement of control valves, check valves, and blow-off cocks in boiler room

Change 2,500 gallon vertical tank in pump room from saltwater pressure tank to use in hot water circulating system[199]

47. Installation/Replacement of Plumbing Items - 1934

Two contracts were let to A. Blaustein of New York City in January and March 1934 to make various plumbing installations and replacements in the powerhouse. The work included the following items:

In shower room, second floor, furnish and set two marble jambs for entrance door

Employees washrooms and toilet rooms
Item #17 - 4 showers @ $27.52
Item # 3 - 3 urinal flush valves @ $7.90
Item #12 - 4 lavatories, less pop up waste but including combination faucets @ $40.93
(2 in firemen's room, 1 each in engineer's and dynamo tenders' room)
Item # 6 - 2 W.C. combinations @ $35.56

Chief Engineer's Room
Item #12 - one 24 x 21 lavatory[200]

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199. "Specifications for Alterations and Renewals to the H.P. and L.P. Steam System and Hot Water Circulating System," dated Dec. 28, 1933, and miscellaneous papers relative to contract, FF 182, All Islands: Alterations and Renewals to Steam Systems, 1933, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1246.

200. "Specifications for Plumbing Installations and Replacements," dated Jan. 30, 1934, and miscellaneous papers relative to contract, FF 183, All Islands: Plumbing Installations, 1934, Ellis Island Records, DSC. The work was to be done in accordance with drawing C-1257.

48. Repairs to Masonry Settings of Boilers - 1935 and 1938

In October 1935 a contract was let to Charles P. Schuh, Inc., of New York City to repair the masonry settings of five boilers in the powerhouse. The contract included repairs to the firebrick wall lining in the five fireboxes as well as the brickwork on the outside of the boilers. The boilers were all Babcock & Wilcox tubular boilers of 410 BHP each having three Bethlehem-Dahl oil burners. The fixtures were approximately 10 feet wide, 10 feet deep, and 10 feet high at the front and sloping back to approximately 6 feet high at the bridge wall.[201]

49. Repair of Oil Barge Dock - 1936

A number of repairs were made to the oil barge dock in 1936 by the Public Works Administration. The following work was done:

> Remove wearing strips from existing piles (15 in number) and fill holes in piles with tar.
> Provide three new oak piles (to replace piles Nos. 2, 5, 7) and secure to dock structure as shown. Provide copper caps for new piles. Piles 14" x 50'.
> Provide at each of piles Nos. 2, 5, 7, and 11:
> One 12" x 12" x 4'6" long (approx.)
> Y.P. block-ing as shown.
> Two 4" x 12" x 5'6" long (approx.)
> Y.P. plates as shown.
> Provide 10" x 12" oak chucks between each two piles as shown.
> Provide new 3" x 12" Y.P. planking - one row continuous full length of dock.

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201. "Specifications for Repairs to Masonry Settings of Five Boilers, Power House, Island No. 1," dated Oct. 7, 1935, and miscellaneous papers relative to contract, FF 89, Power House - Island No. 1: Repair Masonry Settings, 1935, Ellis Island Records, DSC. Similar work was done to the masonry settings of boilers 4 and 5 in Oct. 1938 and boilers 1, 2, and 3 in Sept. 1941.

Provide where directed:

86 lin. ft. (approx.) of 10" x 12" Y.P.
Wailing strips, rear top, in one section.
70 lin. ft. (approx.) of 8" x 12" Y.P.
Wailing strips, front top, in two sections.
10 lin. ft. (approx.) of 8" x 12" Y.P.
Wailing strip, front bottom, in one section.[202]

50. Replacement of Turbine Generator 5 With Turbogenerator - 1936-1937

A contract was let to the Turbine Equipment Company in August 1936 to install a steam turbine-electric generator unit in place of the existing turbogenerator set 5. The new turbine was to operate noncondensing at 125 pounds dry saturated steam pressure at the throttle and 4 pounds back pressure at the exhaust outlets. Its speed was to be approximately 5,000 RPM. The new unit, manufactured by De Laval, was finally installed in February 1937.[203]

51. Pointing of Brickwork - 1939

The Sponsor's Design Unit for New York State Projects under the WPA determined to repoint the brickwork on various buildings at Ellis Island in 1939. Some 14,600 square feet of defective brickwork on the powerhouse were repointed. Light gray Portland cement was used, and an effort was made to match the existing colors in brick and mortar.[204]

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202. Plant Engineer to Werner, Mar. 2, 1936, FF 194, Ferry Dock and Bridge: Repairs to Landing Dock, 1936, Ellis Island Records, DSC.

203. Specifications for Turbo-Generator for Power House - Island No. 1, dated Aug. 20, 1936, and miscellaneous papers relative to contract, FF 92, Power House - Island No. 1: Turbo Generator, 1936, Ellis Island Records, DSC.

204. "Specifications, Job. No. 84, Pointing Brick Work," Jan. 20, 1939, FF 96, Power House-Island #1: Pointing Brickwork, 1939, Ellis Island Records, DSC.

52. Installation of New Ventilator Over Switchboard and New Roof - 1939

The Sponsor's Design Unit for New York State Projects also installed a ventilator in connection with an air duct over the main switchboard in the powerhouse. The steel ventilator was to be 24 inches in diameter and of the gravity exhaust ventilator type. The work was to be done in conjunction with the new slate roof to be put on the building by the same design unit. The reroofing was also to include new gutters, sheet metal repairs, and skylight work.[205]

53. Repairs to Radial Brick Chimney - 1939

In October 1939 a contract was let to the American Chimney Corporation of New York City to repair the radial brick chimney (100 feet high and 9 feet wide at the top) on the powerhouse. The repairs included attention to the following: weathered and cracked cement protecting water table around the head, weathered mortar joints, cracks in the brickwork, weathered outside stepirons, and defective fasteners of the lighting system.[206]

54. Alterations/Repairs to Boilers 4 and 5 - 1946

In June 1946 a contract was let to the Babcock & Wilcox Company of New York City for the alteration and repair of boilers 4 and 5 to increase their capacity and efficiency. The existing operation of the boilers and the alterations to be made were as follows:

> The two boilers to be altered and repaired under this contract are B. & W. sinuous header type, cross drum straight water tube boilers of 401 rated B.H.P., installed in 1917 on B. & W.

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205. "Specifications, Job No. 39, Ventilator Over Switchboard in Power House, Island No. 1," dated May 19, 1939, FF 97, Power House-Island #1: Ventilator Over Switchboard, 1939, Ellis Island Records, DSC.

206. Miscellaneous papers relative to contract, FF 98, Power House-Island #1: Repair Two Chimneys, 1939, Ellis Island Records, DSC.

contract No. 1962 - the plant numbers of the boilers being 4 and 5. Each boiler has 192 straight, inclined circulating tubes, spaced 16 wide x 12 high. Tubes are four inches in diameter and 18 feet long - No. 10 B. W. gauge. The boilers operate on natural draft available from an immediately adjacent circular brick stack 100 ft. high and 7 ft. inside diameter.

The alterations and repairs are intended to increase the capacity and efficiency of the boilers so that they will be able to operate continuously at up to 170% rating without the use of induced draft apparatus and with smokeless combustion over a range of from 50% to 170% of rating when using Bunker C, Navy, or commercial No. 6 fuel oil, and without exceeding 3,500 B.T.U. per cubic foot release in the fire-box, and up to 200% of rating with induced draft.

Work under this contract consists of:

Furnishing and installing wind-box boiler front units on the two boilers, complete with all accessories, and the furnishing of explosion and observation doors to be installed by the Government

Removing of present baffling in the two boilers and furnishing and installing new sectional and plastic monolithic baffles

The boiler front wind-box units consisted of three steam-mechanical atomizing fuel oil burners, one access door, and one steam turbine operated blower.[207]

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207. "Specifications for Alterations and Repairs to Boilers Four and Five," dated June 19, 1946, and miscellaneous papers relative to contract, FF 102, Power House - Island No. 1: Alter and Repair Boilers, 1946, Ellis Island Records, DSC.

In conjunction with the work on the boilers, the Babcock & Wilcox Company installed other new equipment in the powerhouse, including a Barley Meter Company apparatus, two-stage tank mounted air compressor dual control (Worthington Pump & Machinery Corporation, Holyoke, Massachusetts), and D-C definite-mechanical-time starters (General Electric Company).[208]

208. Miscellaneous papers relative to contract, FF 103, Power House - Island No. 1: Air Compressor, 1947, FF 208, Miscellaneous Work: Boilers, n.d., FF 209, Miscellaneous Work: Boilers, 1946-1949, FF 210, Miscellaneous Work: Boilers, 1946-1948, and FF 223, Miscellaneous Work: Oil Burners, 1946-1950, Ellis Island Records, DSC.

VIII. THE BAGGAGE AND DORMITORY BUILDING

Since 1902 the commissioners at Ellis Island had complained of the inadequate facilities for the reception, inspection, and housing of the growing numbers of immigrants. One of the principal complaints about the main building was that "every alien . . . encumbered with heavy and unwieldly baggage and often surrounded with clinging children, has first to mount stairs and then to descend, in undergoing the process of inspection, entailing upon such persons unnecessary distress at a time when few of them are in a condition to undergo fatigue."[1]

To meet the need of additional accommodations for detainees, in 1903 a temporary 700-bed, single-story wooden barracks was erected in the rear of the main building so that sleeping quarters for 1,800 people were available on the island. However, the large influx of aliens made it necessary for quarters to house at least 3,000. To remedy the desperate need for space, it was proposed that the main building be extended to the rear about 70 feet, but requests for funds to accomplish this enlargement were rejected in both 1903 and 1904.[2]

By July 1906 the shortage of space in the existing buildings had become particularly acute. It was reported by Commissioner Robert Watchorn that "there is not a single feature connected with the reception, examination and detention of aliens that is not susceptible of very great improvement." The handling of baggage was a major problem because it was placed in the main building and then trucked "almost the entire length of the island."

The station had been handling 5,000 immigrants a day, and it "could not have handled more and given due and lawful care to each and every

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1. Annual Report, Commissioner-General of Immigration, Fiscal Year 1903, pp. 65-66.

2. Ibid., pp. 111-12.

examination." Even if more persons could have been examined lawfully, it was doubtful whether the baggage could have been handled. "This has caused thousands of people to be kept on board of ships from one to four days," he admitted, "and a great many complaints have been made by those who strongly sympathize with passengers who are subjected to such delay and embarrassment."[3]

Commissioner Watchorn finally got a congressional appropriation of $400,000 in 1907, ostensibly for alterations in the main building, but he spent the money chiefly on a new attached building to handle baggage and add dormitory space--stretching the language of the appropriation to the limit in the process. Later he would privately justify the heavy expenditure of funds for the new structure on the grounds that alterations in the main building would not meet the desperate demands for more space. In June 1908 he observed:

> An acknowledged disgraceful condition has prevailed at Ellis Island for the past five years, and owing to the severe pressure to which the detention quarters were subjected last year, an intolerable situation was reached - a condition which no private corporation would have been permitted to continue for a single day if the laws relating to health and decent comfort in any city of the United States had applied to it.[4]

A. Construction - 1907-1909

By the summer of 1907 preliminary plans and specifications had been drawn up for the construction of the new baggage and dormitory

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3. "Report of the Commissioner-General of Immigration, July 1, 1906," in Reports of the Department of Commerce and Labor, 1906 (Washington, 1906), pp. 545-47. On Apr. 25, 1906, Watchorn had written to F. P. Sargent, the commissioner-general of immigration in Washington, D.C., concerning his plans to build a new baggage and dormitory building and make alterations to the other buildings to alleviate the problem of inadequate facilities at an estimated cost of $447,000. A copy of this letter may be seen in appendix N.

4. Watchorn to Sargent, June 9, 1908, RG 85, NA.

building. In mid-August, Ernest C. Ruebsam, an assistant structural engineer from the office of the supervising architect, visited the proposed site of the new building to determine the nature of the subsoil. In his report, which was submitted to the supervising architect on September 9, Ruebsam noted:

> After about one dozen unsuccessful attempts to make test borings, in which the drill was invariably stopped by hard obstacles within a few feet of the surface of the earth, we decided to dig test pits and uncover some of the obstructions encountered.
>
> I had twelve pits and one trench dug, varying in depth from five to seven and one half feet, and, at the bottom of most of them, I found the ruins and footings of old buildings, or old crib work built of logs and filled with rock.
>
> In one pit I discovered, what I was informed to be an old pipe tunnel made of concrete, but after comparing its shape and location with old drawing #372 on file in this office, I have come to the conclusion that it is the end of a series of concrete cisterns. I had a hole cut through the top of the cistern, and found the concrete to be about 12" thick, while the cistern is about 8' 0" deep, containing water to a depth of about 4' 0".
>
> Accompanying this report is a drawing showing the outline of the proposed building, giving the position of test pits and present barrack building and fountain located approximately in their proper position with reference to the building lines. This drawing gives also a detailed report of each of the pits dug.
>
> I will state that I was informed that there may be several concrete cisterns under the old barrack building but could get no definite information as to their location or size.

I was also informed that there is an old pump well approximately under the site of the cast iron fountain, the well being about 14 feet deep.

In addition to the above mentioned drawing I enclose eight photographs which I had taken to show the conditions at some of the pits. These photographs are taken in an almost vertical direction, giving a plan view of the bottom of the pits.

After consultation with Mr. Lindhe, and in consideration of the fact that the immigrants are not supposed to pass inside of the wire fence which surrounds that portion of the island containing the pits, it was decided to leave the test pits open, to enable any of the prospective bidders who may visit the site, to see the nature of the sub-soil before preparing their bids.[5]

In October Commissioner Watchorn informed Commissioner-General Sargent that he had reviewed the preliminary plans for the new structure. Accordingly, he recommended that "certain modifications be made to better adapt this building to the purposes for which it is designed." The changes were as follows:

A flat tile roof over the entire building, in lieu of inclined roof shown on plans. It is most essential that ample space be provided for detained aliens. Roof gardens of sufficient area best meet the needs, and afford a better control of the large number of persons handled than is possible with any other arrangement.

Three stairways to roof.

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5. Ruebsam to Supervising Architect, Sept. 9, 1907, RG 121, WNRC. None of the illustrative materials referred to in the report were found with the exception of some photographs of several of the test pit sites.

Three toilets on roof, two male, one female.

Changes in outside wall lines at second floor to provide dormitory space for 1200 beds, ten small rooms for families (10 beds each) with toilets, and two large detention rooms with approximately 8000 square feet of floor space. This can only be accomplished by erecting the outside walls for second floor on the same building lines as the first floor, omitting the balconies at second floor (balconies will serve no practical utility) and changing interior partition walls, as shown on pencil sketch of second floor.

Additional toilet rooms, lavatories, urinals, etc., as shown by pencil sketches. In this connection it is requested that all fixtures be of the type now in use for detention rooms and dormitories of Main Building, and that no soil lines be less than six inches diameter. All floor drains shown by pencil sketches should be of the flushing rim type.

Two doorways, one to receive, and the other to discharge baggage should be placed on the north-east side of building; also, at the entrance to covered way leading to New York ferry, a gradual incline should be used in lieu of steps to facilitate the handling of baggage trucks.

Glazed tile dado and 2" hex white vitrified tile floors have been found here to offer the only sanitary and durable floor, and wall surfaces. The use of cement floors and dado have proven entirely unsatisfactory, both as regards durability, cleanliness and general wholesale appearance. Terrazzo floors are likewise unsatisfactory, in fact the floor of this material installed in Immigrant's dining room about three years ago, is already in need of extensive repairs or relaying.

> For these reasons, I strongly urge tile finish in corridors, detention rooms, dormitories and toilets. To clean these rooms they are thoroughly flushed with hot water. Floors must therefore pitch to floor drains and pipes passing through floors must be surrounded by a sleeve waterproofed in the floor.[6]

In early November a conference concerning the new building was held in Washington with John Knox Taylor, supervising architect, and Alfred Brooks Fry, chief engineer and superintendent of repairs, in attendance. It was determined to curtail the plans for the structure as the appropriation of $400,000 was not sufficient to construct the building based on the original plans. The revised plans would be prepared by the supervising architect and submitted to the Ellis Island authorities by December 1.[7]

Pursuant to authority granted by the officials of the Department of Commerce and Labor on December 30, proposals for the construction of the baggage and dormitory building were advertised. Four bids were received from the New York State Construction Company, Northeastern Construction Company, Haggerty Contracting Company, and John T. Brady and Company. The proposal of $352,670 by the New York State Construction Company was the lowest bid, and on January 15, 1908, the contract was let. The contract included the following stipulations: installation of a complete system of plumbing; placement of family rooms in lieu of dormitory 1 as marked on the drawings; and equipment of windows with sheet metal weather strips. As it was determined that approximately 600 piles would be needed for the structural foundation, it was decided that the firm would be paid an additional sum of $1.50 per lineal foot for all piles used that were shorter than 20 feet. The firm agreed to use red

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6. Watchorn to Sargent, Oct. 14, 1907, RG 85, NA.

7. Ibid., Nov. 7, 1907. Originally, it had been estimated that the building as planned would cost $425,000, but Congress had provided only $400,000 for the work.

lead instead of graphite paint. The entire work was to be completed by December 31, 1908.[8]

The contractors were ordered to commence the concrete piling (of the Raymond type) on February 19. However, the first test pile was not driven until March 3, and pile driving did not commence until March 5.[9]

Five questions arose during the early months of construction that demanded clarification. It was found that a clerical error had been made in the specification for the Portland cement to be used. Accordingly, the words "it shall develop initial set in not less than 30 minutes" were inserted in place of "it shall develop initial set in not more than 30 minutes."[10]

A new method for covering the single girders in the building with fireproof construction that was recommended by the National Fire Proofing Company, the New York State Construction Company, and Chief Engineer Fry was approved by the supervising architect.[11] At the request of the New York State Construction Company, permission was

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8. Watchorn to Sargent, Jan. 11, 1908, and "Contract, Bond, Proposal, and Specification for the Construction (Including Plumbing) of the Baggage and Dormitory Building of the U.S. Immigrant Station on Ellis Island, New York," dated Jan. 15, 1908, RG 85, NA. The work was to be done in accordance with drawings 101 through 127, T.P. 128, and miscellaneous drawing n-38.

9. Fry to Watchorn, Nov. 28, 1908, RG 85, NA.

10. Upson to Shelbourne, Feb. 25, 1908, Sargent to Supervising Architect, Mar. 10, 1908, and J. K. Taylor to Commissioner-General, Mar. 11, 1908, RG 85, NA.

11. Keasbey to New York State Construction Company, Apr. 14, 1908, Shelbourne to Chief Engineer and Superintendent, Apr. 15, 1908, Sargent to Supervising Architect, Apr. 21, 1908, and J. K. Taylor to Commissioner-General, Apr. 27, 1908, RG 85, NA. The revised blueprint for the work was entitled "Girder Covering as Per Typical Detail on Plans/Proposed Girder Covering for All Single I Beam Girders," dated Apr. 14, 1908.

granted to modify the construction of the columns as shown by detail on drawing 127 to the extent of riveting the plates to the columns instead of setting them loose on the masonry.[12] Extra unspecified work relative to the waterproofing and resistance of concrete in the cellar of the building became a matter of negotiation. This work included increasing the waterproofing with 5-ply felt and asphalt, eliminating the burlap from the walls, and reinforcing the concrete floor with Clinton wire cloth.[13] As the building did not have a pipe cellar and there was insufficient headroom to afford working space to install the steam mains, it was necessary to perform certain excavations along the line of steam mains to be placed under the first floor level of the structure before the tier of steel beams and floor arches were installed. Accordingly, it was determined to pay the New York State Construction Company the amount of 75 cents per cubic yard to perform the work.[14]

On June 7 Commissioner Watchorn was authorized to let two contracts for the installation of heating apparatus and electrical equipment (except for fixtures) in the building. The heating contract was let to Evans, Almirall & Company at a cost of $23,250, and the electrical contract was let to the Lee and Bellmer Company at a cost of $5,006.37.[15]

In his annual report on June 30, Commissioner-General Sargent observed that the "baggage and dormitory building is partially roofed

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12. J. K. Taylor to Commissioner-General, May 13, 1908, RG 85, NA.

13. Fry to Commissioner of Immigration, Port of New York, May 19, 1908, RG 85, NA.

14. Murray to Sargent, May 21, 1908, and Sargent to Commissioner of Immigration, Ellis Island, May 25, 1908, RG 85, NA.

15. Sargent to Commissioner of Immigration, Ellis Island, June 5, 1908, and Watchorn to Sargent, June 9, 1908, RG 85, NA. The heating work was to be done in accordance with drawings 449-1 through 449-5 and the electrical work with drawings 448-6 through 448-11. Also see "Contract, Bond, Proposal and Specification for Installing Electric Equipment, Except Fixtures, in Baggage and Dormitory Building," dated June 26, 1908, RG 85, NA.

over." When completed the building would furnish "accommodations for men and families, and, in my judgement, will place the station in a condition leaving little or nothing to be desired in this construction."[16]

As construction on the building progressed, a separate contract was let to the New York State Construction Company on October 30 for the installation of 1,116 mechanically operated iron-lifting beds on the second floor of the structure. The beds were to be located as follows: 480 in the southeast dormitory, 432 in the southwest dormitory, and 204 in the family rooms.[17]

Meanwhile, work on the new building was not progressing as rapidly as had been expected. Fearing that the building might not be completed by the end of the year as provided in the contract, the New York State Construction Company asked for an extension of 56 days on its contract. The request was based on the following grounds:

> January 15th, we received the following letter from you: Referring to your proposal for construction of a Baggage Building, etc. U.S.I.S., New York, N.Y., which I am informed this date has been accepted by the Commissioner of Immigration, I have to inform you that as a result of a recent experience with concrete piles, that this office cannot permit any weight to be imposed on concrete piles used for foundation purposes until the 29th day after said piles have been driven and fully completed it being understood, of course, that this provision would not apply to concrete piles that are fully formed 28 days before being driven.

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16. Annual Report, Commissioner-General of Immigration, Fiscal Year 1908, pp. 135-36 and 138-39.

17. "Contract, Bond, Proposal and Specification for . . . Mechanically Operated Lifting Beds for New Baggage and Dormitory Building," dated Oct. 30, 1908. The work was to be done in accordance with drawings 477-1 through 477-5.

I am giving you this caution now in order that the foundation construction work may be fully prepared for by you without entailing any delay, it being obviously possible for you to conduct your concrete foundation and other work with due regard to the precaution required above. This necessitated a delay of 28 days before we were permitted to proceed with the re-inforced concrete footings. This was not provided for under our contract.

These instructions were readily complied with and we imposed no weight on these piles until the lapse of 28 days. Had we been permitted to go ahead with the work, as originally specified we would have been just this time in advance.

That in carrying out the excavation of the site we encountered several old foundations and pipe chambers, which were not covered by our contract, and which matter you took up with Civil Engineer Howell at the time. The removal of these pipe chambers and preparation for the site for driving of the concrete piles, required 21 days as shown by our records. The matter of extra compensation for this work, has been discussed with both you and Mr. Howell, and tentatively arranged, but we have rendered no detail bill for the work, believing it is your practice to settle any claims for extras upon final completion of the contract.

That on August 12th the Bricklayer's Union called a strike on the building through no fault of ours, which lasted until the 19th day of Aug. both days inclusive. This we claim under our contract which provides for strikes of employees, see contract lines 40, 41 and 42, allowance claimed 7 working days. The

Commissioner of Immigration was duly notified by letter at the time of the strike.[18]

CHART SHOWING PROGRESS OF CONSTRUCTION
OF BAGGAGE AND DORMITORY BUILDING

	Percentage of Work Done	Percentage of Time Consumed
February	0	3
March	2	12-7/10
April	6	22-5/10
May	9	32-1/10
June	22	41-8/10
July	39	51-5/10
August	56	61-2/10
September	71	70-9/10
October	82	80-4/10
November	90	90-3/10
December	--	--

After consulting with Chief Engineer Fry, Civil Engineer Howell, and Commissioner Watchorn, officials in the Department of Commerce and Labor denied all but 7 days of the requested 56-day extension. The 7-day delay caused by the strike of the Bricklayers and Stonecutters Union was accepted because the work stoppage occurred just as William Bradley & Sons, the subcontractors, were commencing quarry operations. The other grounds for the extension were dismissed because it was presumed that the bidders for the work were familiar with the Raymond type of concrete piling prior to submitting their proposals and the older structural remains that had required removal underlay only a portion of the new building.[19]

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18. Shelbourne to Chief Engineer & Superintendent, Nov. 24, 1908, RG 85, NA. A list of the percentages of work done and time consumed may be seen on the following page. Some of the old foundations and pipe tunnels dated back to the period when Ellis Island was the site of a naval depot.

19. Fry to Watchorn, Nov. 28, 1908, Howell to Watchorn, Dec. 3 and 5, 1908, Watchorn to Howell, Dec. 4, 1908, Watchorn to New York State Construction Company, Dec. 9 and 16, 1908, Shelbourne to Commissioner of Immigration, Ellis Island, Dec. 12 and 19, 1908, Shelbourne to Commissioner-General of Immigration, Dec. 10 and 21, 1908, Wheeler to Commissioner of Immigration, Ellis Island, Dec. 29, 1908, and Watchorn to Fry, Dec. 30, 1908, RG 85, NA.

The construction of the two-story brick baggage and dormitory building (approximately 230 feet wide by 150 feet long) was completed on February 6, 1909. The last payment on the contract was made on April 16. Attached to the payment was a bill of $129 covering 2,580 "kilowatts or horsepower hours of compressed air" furnished to the contractors during the progress of the work.[20]

Nearly four months later on August 3, the New York State Construction Company submitted a bill for extra work on the building. The bill, which totaled more than $6,000, was broken down into 14 itemized statements. Civil Engineer Howell reviewed the extra claim with the following comments:

> Item 1. This item covers extra work necessary to be done by reason of the specification not containing any clause for backing the limestone. This matter was taken up, I believe, by Chief Engineer Fry, over the telephone with Supervising Architect at Washington, who gave instruction that the limestone be backed in order to prevent mortar stains which would deface the building. The item is entirely reasonable, and just, with the exception of the rate paid for masons' labor. This rate has been reduced from $3.50 to $2.80 per day, to comply with prevailing rates paid here.
>
> Item 2. This extra work became necessary through error in plans. The plans called for framing certain beams directly into the keystone of arches over windows. It was necessary to install channel headers to properly support the ends of these beams. The matter was taken up with Supervising Architect and the work ordered to be done. The account is reasonable and just, with the exception of services of foreman, which I have disallowed on the ground that a general iron foreman was

20. Murray to Keefe, Apr. 13, 1909, and Larned to Empire State Surety Company, Dec. 2, 1909, RG 85, NA.

engaged on the building at that time, and the services of another foreman were unnecessary. Also the price for labor has been reduced from 90¢ per hour to 60¢ per hour to comply with prevailing rate of wages.

Item 3. Covers the cost of cutting holes through limestone for ventilators under floor. No ventilators were provided for on drawings. It was necessary to have some ventilators under this floor for sanitary reasons. The price quoted is reasonable and just. There were six holes cut through the masonry wall, which would make them $30. each.

Item 4. Covers the cost of copper leaders from roof houses. No leaders were provided on the plans or in specification. The price of $14. each is deemed reasonable and just.

Item 5. Covers extra painting work done in renovating portion of railroad ticket office forming a sidewall for the corridor connection under this contract. The price quoted, $20. is reasonable and just.

Item 6. Covers two solid pine doors on the roof houses, and arose through the fact that the veneer doors specified and shown by plans became badly checked and otherwise distorted from dampness. On the final inspection of the building, contractors were ordered to replace the veneer doors with solid pine doors. I believe they are justly entitled to payment for this work, because they had supplied the doors as specified and were put to an extra cost in replacing them.

Item 7. Covers the lathing and plastering of ducts in lower floor, which became necessary on account of plans showing blind duct openings in ceiling of baggage rooms. These openings were not only unsightly, but of no practical use, and contractors were ordered to close them by means of lath and plaster. The price of $170.00 is considered reasonable.

Item 8. This item covers certain excavating of trench between Power House and the B & D Building. The steam pipes had of necessity to be carried underground from the Power House to this building. Plans which we had prepared for concrete pipe tunnels were not carried out. Contractors were ordered to excavate the trench for a temporary wooden pipe box which box carries both the steam and electric connections. The account of labor agrees with our records.

Item 9. Covers a claim which contractors have made for extra compensation in removing old engine foundations, concrete walks, and pipe tunnels found in the excavation for foundation work, of the building. The justness of this claim rests entirely on the interpretation of the specification. Specification for the work reads as follows:

"EXCAVATION"

"The present surface of the island has been filled in over the remains of former structures, the location of which is not definitely known. It is believed, however, that in places the site of the proposed building is underlaid by such debris as old brick walls and footings, timber cribbing with loose rock fill, concrete tunnels, logs, etc. at a depth from five to seven feet below surface. Before each group of piles is driven, the area occupied by such group shall be thoroughly tested by driving a rod in several places to a depth necessary to prove that no obstacle which will prevent the driving of any pile in said group exists. Should any obstruction in this testing be encountered it shall be removed as may be necessary to properly drive the piles and any excavation made for this purpose shall be backfilled as hereinafter specified."

From the above, it may be interpreted that concrete below the depth of mean low water was not contemplated to be removed under the specification. The larger portion of this concrete

was actually below mean low water line and had to be blasted out after pumping and shoring the excavation. No definite knowledge existed in this office of these vaults at the time work was bid upon, and no contractor could have been familiar with what the conditions actually were, until after long and expensive excavation had been carried on. If the work is included in the specification, the claim should be disallowed. If it is not included, it should be allowed.

Item 10. Covers the cost of two I beams to carry wall over second story corridor. No support for this wall was shown on plans. Contractors were required to install these beams. The price quoted is reasonable, with the exception of services for 6 hours of foreman. The services of foreman for 6 hours are disallowed on the ground that a general iron foreman was engaged on the work, and another foreman unnecessary.

Item 11. Covers setting plate glass in fan lights over doors to baggage room. This matter has already been passed upon and disallowed. Should contractors desire to appeal, they should make more extended statements than they have heretofore done.

Item 12. Covers cost of making a change in ceiling line at stairways. Plans for this portion of the work were in error and the height of lathing and plaster changed to afford proper head room. The account as rendered is considered reasonable and just.

Item 13. Covers cost of waterproofing the cellar below tide level. This was a matter of tender made by the company and authority has already been received from the Bureau to pay $190. for the work. Contractors should submit separate bill in triplicate for this item, which will be passed for payment.

Item 14. Covers cost of excavating for trenches to accommodate steam pipe under the building. At the time this work was done

the contractors had submitted a bid for excavating at 75¢ per yard in such quantities as might be ordered. The quantity stated, 740 yards, is correct. It was necessary to remove this spoil from the Island amounting to 740 yards. I believe their claim of 75¢ per yard for removal, to be entirely reasonable.

Before the steam pipes were installed, it became necessary to again clean trench out because the banks had caved in. Contractors refused to do this work for 75¢ per yard because at that time, the floor had been laid and the location was inaccessible. We therefore directed them to perform the labor and kept account of the time of the men engaged on the work. The bill as submitted agrees with our records. I believe this latter item of $558 should be allowed.[21]

Finally on September 16, Daniel J. Keefe, commissioner-general of immigration, authorized the payment of $5,430.74 to the contracting firm for its bill of extras. The itemized sums were as follows:

1.	Backing limestone (not originally specified)	$1,794.40
2.	Changes in second-floor framing (specifications incorrect) special foreman and overcharge of 30 cents per hour for labor disallowed	253.60
3.	Cutting holes through limestone for ventilating registers (specifications deficient)	100.00
4.	Supplying copper leaders to roof (not covered by specifications)	210.00
5.	Renovating ticket office at junction with new corridor (not covered by specifications)	20.00

21. Memorandum for Commissioner, Aug. 3, 1909, RG 85, NA. A copy of the recommendations made by Chief Engineer & Superintendent Fry relative to the itemized bill may be seen in appendix I.

6.	Furnishing new pine doors to roof in place of veneered doors (specified but unsatisfactory)	14.00
7.	Closing ducts in baggage room (not originally specified)	106.20
8.	Excavating trenches for steam pipes, etc., (not covered by specifications)	193.50
9.	Removing old engine foundations, etc., from below surface of site (not included in specifications)	801.00
10.	Furnishing and setting I-beams to support wall over second-story corridor, (specifications deficient)	20.04
12.	Changing ceiling line of stairway (plans defective)	170.00
14.	Excavating for steam mains and removing spoil (not covered by specifications)	1,668.00
		$5,430.74

Item 11, covering the furnishing of plate glass in various fan lights ($218.40), was disallowed because the specifications required the product.[22] After further appeals by the contracting firm, department officials granted authority to the commissioner to raise that sum to $6,146.34 based on several adjustments made to the cost of labor for some of the extra work.[23]

Meanwhile, the contract with the Lee and Bellmer Company for the electrical work in the building was also causing much trouble to the immigration officials. The course of work under the contract was fraught with difficulties, exacerbated by misunderstandings with the government,

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22. Keefe to Commissioner of Immigration, Ellis Island, Sept. 16, 1909, RG 85, NA.

23. Williams to Commissioner-General of Immigration, Dec. 4, 1909, and Feb. 17 and Mar. 15, 1910, and Keefe to Commissioner of Immigration, Ellis Island, Feb. 11, 1910, RG 85, NA.

conflicts with the other contractors, and the financial hardships of the company. While the contract was due to expire on December 1, 1908, the engineer-in-charge suspended the work for 60 days on November 5 because the plastering and painting under the main contract were not finished. The remaining electrical work consisted of running feed lines to the powerhouse and connecting them to four parcel boards in the baggage and dormitory building. The contractors failed to return to work when they were notified to do so on February 6, 1909, and did not commence running the lighting and power feeders until March 26. The feeders were finally installed through a temporary wooden pipe tunnel, and the contract was substantially completed by May 28. After some months of haggling over the waiver of penalties for the delay in the electrical work, a final payment was made to the Lee and Bellmer Company in October 1910.[24]

B. Additions, Alterations, Maintenance, and Remodeling - 1910-1954

1. Miscellaneous Improvements - 1910-1911

No sooner had the baggage and dormitory building been completed than improvements were contemplated to help make the structure more functional. On June 8, 1909, funds were requested for five such projects:

Wire partitions upon roofs and first floor - $7,500

Enclosing covered way - $2,500

Scales - $800

Moving escalator from front of main building to rear of baggage and dormitory building - $2,500

24. Williams to Commissioner-General of Immigration, Mar. 16, 1910, Commissioner-General of Immigration to Dibbs, Mar. 23, 1910, Keefe to Disbursing Clerk, Oct. 7, 1910, and Larned to Commissioner of Immigration, Oct. 10, 1910, RG 85, NA.

Concrete pipe tunnels between main powerhouse and baggage and dormitory building - $4,000[25]

In March 1910 Commissioner Williams was authorized to let contracts for two of these projects. As better ventilation was desperately needed in the building, new ventilating fans costing approximately $5,000 were installed in the second floor dormitories. A second contract for approximately $3,000 was let for the installation of closets and lavatories as well as a cement floor in the courtyard created by the erection of the building.[26]

Within two weeks Commissioner Williams was again requesting funds to make further improvements to the baggage and dormitory building. The list of additions included:

Enclosing covered way to present covered way - $2,000

Steel and concrete shed, or covering, over new baggage and dormitory building dock - $10,000

Concrete pipe tunnel between power house and baggage and dormitory building - $4,000[27]

Several projects were carried out on the building in April 1910 apparently by day labor forces on Ellis Island. Lumber was purchased from W. P. Youngs & Brothers to build two toilets on the new dock. An enclosure was also built on the floor of the waiting room for

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25. Commissioner-General to Secretary of Commerce and Labor, June 8, 1909, RG 85, NA.

26. Commissioner of Immigration, Ellis Island, to Commissioner-General of Immigration, Mar. 1, 1910, RG 85, NA. The work on the fans was to be let done in accordance with drawings 554-1 and 2.

27. Williams to Commissioner-General of Immigration, Mar. 15, 1910, RG 85, NA.

the use of the Western Union Telegraph Company and a similar enclosure for the landing agents of the steamship companies. A wooden floor was put down in the room that was formerly used for the transaction of eastern passenger business but which would now be used as a room for witnesses waiting to appear on behalf of detained aliens because the present quarters were inadequate to accommodate them. At the same time, the enclosure allotted to Hudgens & Dumas, the commissary contractors, was to be enlarged by combining it with the former space used by Western Union.[28]

Sometime during the summer of 1911 a contract was let to Howard H. Peterson to tile and waterproof toilet rooms 221, 223, and 224 on the second floor of the building. The work was completed on August 25.[29]

2. Addition of Third Story and Metal and Masonry Projection on North Side - 1913-1914

On July 7, 1911, Commissioner Williams submitted a request for an appropriation of $375,000 for the addition of a third story and metal and masonry projection to the north side of the baggage and dormitory building. His justification for the request was as follows:

> The lower floor of this building serves as a railroad waiting-room and baggage-room, the upper floor for dormitories for detained immigrants. Each dormitory has three-tier beds. Nevertheless the number of immigrants detained over night is often greater than the number of beds. This is a condition which should be remedied at once. Furthermore, it is necessary to use most of the dormitories as detention rooms during the day time. They are inappropriate for this purpose

28. Uhl to Commissioner-General of Immigration, Apr. 9, 1910, and Keefe to Commissioner of Immigration, Ellis Island, Apr. 13, 1910, RG 85, NA.

29. Fry to Secretary of Commerce and Labor, Sept. 14, 1911, RG 121, WNRC.

and the congestion in them is great. There should be separate day and night rooms and at least a majority of the latter should have only two-tier beds. The proposed new story will materially improve the conditions surrounding the detention of immigrants.

As to the projection. This will serve three purposes: (a) the lower portion will furnish urgently required additional space for immigrants' baggage; (b) also space for what is known as "Custom House baggage", now stored at great risk from fire and at great inconvenience in the cellar of the main building; (c) the upper floors of the projection will constitute large verandas to which in fair weather detained immigrants can be readily conducted for fresh air.[30]

Congress authorized the construction of the proposed additions to the building on August 24, 1912, but only appropriated $150,000 for the work.[31] Although disappointed by the small appropriation, Commissioner Williams observed in his annual report for fiscal year 1912 that

at the last session of Congress provision was made, as suggested in my last annual report, for the construction of additional detention quarters for immigrants at a cost of $350,000, and in due course our dormitory building will have an additional story and open-air porches. Thus it should become

30. Williams to Commissioner-General of Immigration, July 7, 1911, RG 85, NA. A more complete justification for the request can be found in the Annual Report of the Commissioner of Immigration for the Port of New York with Reference to Ellis Island Affairs for the Year Ended June 30, 1911 (Washington, 1911), pp. 4-5, a copy of which may be seen in appendix J.

31. Williams to Commissioner-General of Immigration, July 22, 1912, RG 85, NA.

possible to convert most of the three-tier beds into two-tier beds. There should be adequate sleeping accommodations for all immigrants who are likely at any one time to be deteined, and a very considerable step will have been taken toward making the Ellis Island plant a complete one. Its importance is such that it should be made complete in every particular, and this could be done without undue expense.[32]

Because of the small congressional appropriation it was determined to build the new story first. The work, which was estimated to cost $150,000, would be more simple than the porches because they would involve heavy new foundations underwater. At the same time efforts were to be undertaken to secure the remaining $200,000 to complete the projecting porches.[33]

Bids for the work were solicited beginning on June 9, 1913, and the proposals were to be opened on June 19. Four separate contracts were to be let as follows:

Construction of additional story (exclusive of mechanical equipment) and metal and masonry projection on north side[34]

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32. U.S., Library of Congress, Annual Report of William Williams, Commissioner of Immigration at New York, in Reference to Ellis Island Affairs for the Year Ended June 30, 1912 (Washington, 1913), p. 5.

33. Williams to Commissioner-General of Immigration, Dec. 3, 1912, and Keefe to Commissioner of Immigration, Ellis Island, Dec. 7, 1912, RG 85, NA.

34. "Specification for All Labor and Materials, Exclusive of Mechanical Equipment, Required to Construct Additional Story on Baggage and Dormitory Building, and Metel and Masonry Projection on Northerly Side Thereof," deted June 9, 1913, RG 85, NA. The work was to be done in accordance with drawings 1-30, dated June 2, 1913.

Installation of new heating system, with incidental changes to present system[35]

Installation of electric lighting, conduit, and wiring system[36]

Installation of new plumbing, drainage, and water supply system, tile work and marble[37]

In general, the third story of the building was to conform with the other two in style and dimensions. The specifications that were used as a basis for the bids provided that the metal and masonry projection would be either 166 feet long and 50 feet wide or 60 feet long and 84 feet wide. The projection would be built with either a reinforced concrete floor or structural steel framing and terra cotta arches.

In his annual report for FY 1913, Commissioner Williams observed "an improvement of the first order will be the erection of an additional story on the dormitory building with outside porches at a cost of $350,000. Bids for this work were recently opened and the contract

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35. "Specification for All Labor and Materials Required for the Installation of New Heating System, With Incidental Changes to Present System, for the Proposed Additional Story on Baggage and Dormitory Building, and Metal and Masonry Projection on the Northerly Side Thereof," dated June 9, 1913, RG 85, NA. The work was to be done in accordance with drawings 1 and 2 (heating), dated May 26, 1913.

36. "Specification for All Labor and Materials Required for the Installation of Electric Lighting, Conduit and Wiring System, in the Additional Story, Baggage and Dormitory Building, and the Metal and Masonry Projection on the Northerly Side Thereof," dated June 9, 1913, RG 85, NA. The work was to be done in accordance with drawings 1, 2, and 3 (electric), dated May 26, 1913.

37. "Specification for All Labor and Materials Required for the Installation of New Plumbing, Drainage, and Water Supply System, Tile Work and Marble, and the Required Removal and Changing of Old Work, for the Proposed Additional Story on Baggage and Dormitory Building, and Metal and Masonry Projection on the Northerly Side Thereof," dated June 9, 1913, RG 85, NA. The work was to be done in accordance with drawings 1, 2, and 3 (plumbing), dated May 26, 1913.

will be awarded shortly. This improvement will greatly ameliorate the conditions in both the day and night quarters of detained immigrants and permit the substitution of two-tier for three-tier beds."[38]

No other documentation relative to the construction of the additional story on the baggage and dormitory building could be found. However, it is apparent that work began sometime during the summer because a photograph taken on October 29 reveals that much of the exterior brickwork and stone work had been completed up to the roofline by that date. By June 30, 1914, the commissioner-general of immigration was able to report the following:

> The new story on the baggage and dormitory building is nearing completion. It will be ready for occupancy early in November. In it double-tier beds will be substituted for the three-tier heretofore used. The latter have proved cumbersome, extremely difficult to keep in repair, and unsatisfactory in many respects. The new quarters will provide much more satisfactory accommodations for the detained steerage passengers.
>
> With the completion of the new dormitory quarters we shall have more adequate facilities for bathing than have heretofore existed. It is optional with the immigrants whether they avail themselves thereof. It does not seem to me to be an unusual requirement that each alien who is detained here overnight should be compelled first to bathe and have his clothing disinfected. Certainly this would be a proper sanitary measure and unquestionably an additional safeguard to the health of

38. Annual Report, Commissioner-General of Immigration, Fiscal Year 1913, pp. 184-85.

others held here and to the communities to which the passengers ultimately go.[39]

The following year the commissioner-general reported that the completion of the new dormitories and large open-air porches in the baggage and dormitory building were among the most significant improvements to the immigration station. In fact, he observed that the "outcome of efforts to promote sanitation in the detention quarters could not be better illustrated than by pointing out that during the past year (fiscal year 1915), when numerous and prolonged detentions have been unavoidable because of European conditions preventing deportation, no serious results have taken place, but the health and well-being of the detained persons have been fully safeguarded at all times."[40]

3. Improvements to and Use of Building During WW I - 1918-1919

Beginning on February 2, 1918, the Navy Department was granted the use of the baggage and dormitory building as well as the quarters of the railroad ticket offices and several rooms in the main building. By June 30 several thousand enlisted naval personnel were quartered on Ellis Island pending their assignment to ships. Facilities for handling ships had also been increased at the island to accommodate the military operations.

During FY 1918, several improvements were made to the baggage and dormitory building. A concrete and metal-covered pipe tunnel was installed between the powerhouse and the building. The hot, cold, and salt water pipes, which had become badly corroded and

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39. Ibid., Fiscal Year 1914, p. 225.

40. Ibid., Fiscal Year 1915, pp. 35-36.

obstructed to the point that they were practically useless, were renewed.[41]

With the conclusion of hostilities in November 1918, the Navy Department made plans to vacate the Ellis Island buildings. On April 1, 1919, the naval operations were removed from the island, including a galley and several storerooms that the naval personnel had built.[42]

4. Construction of Ramps Between New Seawall and Building - 1920-1921

Progress on the new granite-faced seawall along the northeast edge of island 1 had reached the point in October 1920 where it was necessary to connect the wharf at the baggage and dormitory building with the last completed section of the wall. The connection was to be made by means of a ramp built on piling. In addition, a fender pile system (330 feet long with 34 fender piles) was to be erected along the entire face of the seawall in front of the building to enable the transfer boats to moor alongside while discharging or receiving passengers and baggage. The ramp and fender piling system were constructed at an approximate cost of $12,000 sometime in 1921 either by Howard H. Peterson, the contractor for the seawall along the northeast side of the island, or by another contractor.[43]

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41. Ibid., Fiscal Year 1918, pp. 37-38, 269-70, and 272, and New York Times, Feb. 12 and 24 and Mar. 8, 1918.

42. Annual Report, Commissioner-General of Immigration, Fiscal Year 1919, pp. 306-8.

43. "Specification for All Labor and Materials Required for Construction of Ramps Between Seawall and Baggage and Dormitory Building and Installation of Fender Pile System . . .," dated Oct. 18, 1920. The work was to be done in accordance with a drawing dated Sept. 16, 1920. Also see Wallis to Commissioner-General of Immigration, Oct. 28, 1920, Hampton to Commissioner of Immigration, Ellis Island, Oct. 30 and Nov. 24, 1920, and Uhl to Commissioner-General of Immigration, Nov. 9, 1920, RG 85, NA.

5. Renovation, Repairs, and Alterations - 1924-1926

In the aftermath of WW I, immigration to the U.S. soon increased nearly to its prewar levels. The New York Times reported on the congestion at Ellis Island in an editorial on December 14, 1920:

> The facilities there for detaining, examining and distributing the arriving immigrants are inadequate to a degree that is a disgrace as well as a danger to the country. So terrible is the crowding and so ineffectual the provisions that can be made, not only for the reasonable comforts of the thronging strangers, but for preserving the ordinary decencies of life, that the days spent on the island are the very worst sort of introduction to American life, for they inspire disgust with, and distrust of, our Government in all who pass through the terrible experience.[44]

A study of the housing facilities in the decaying buildings on Ellis Island--decay which had been exacerbated by neglect because of the war--was made in November 1923 by order of the surgeon general of the U.S. Public Health Service. The report made a number of stark observations as well as recommendations to correct the overcrowded and ill-ventilated day and night detention rooms on Ellis Island. A copy of the description of the facilities and the recommendations to improve the accommodations in the baggage and dormitory building may be seen in appendix T of the report.[45]

On December 17, 1923, Commissioner Curran included many of the proposals found in the study in his request for some $2,500,000 to relieve the congestion on Ellis Island by making numerous improvements to the facilities. Among his priority projects that related to the baggage and dormitory building were the following:

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44. Editorial, New York Times, Dec. 14, 1920.

45. "A Study of Housing Facilities at the U.S. Immigration Station at Ellis Island, N.Y.," Nov. 15, 1923, RG 85, NA.

1. NEW RAILROAD WAITING ROOM BAGGAGE AND DORMITORY BUILDING

Piping, 20 toilet fixtures, 8 lavatories, 2 slop sinks, 2 floor drains, 6 urinals, marble partitions	$19,000
Waterproof floor toilet (1,200 sq. ft.) removing walls of old baggage room, tiling toilet room floor and walls and removing old toilet room and fixtures	3,500
Tiling waiting room floor (15,000 sq. ft.)	30,000
	$52,500

2. CONVERTING ROOM 203 INTO INTERVIEW ROOM AND CONSTRUCTION OF STAIRWAY THERETO

Cast iron treads and risers. Steel stringers. Covered exterior stairs - steel channel frame work for walls and roof sides covered with crimped copper. Roof to be copper with standing seams, steel sash	$ 6,700
Converting room 203 into interview room, toilet room for women, hollow tile walls, tile floor, water and soil lines	2,450
6 toilets, 3 lavatories, floor drain, and slop sink	2,700
Remodel men's toilet room including 6 toilets, 3 lavatories, 4 urinals, floor drain, and slop sink	3,000
Removal old fixtures, plastering, and painting	4,800
	$19,650

3. STAIRWAY SECOND FLOOR BAGGAGE & DORMITORY BUILDING TO PLAYGROUND

Cast iron treads and risers. Cast iron landings; steel stringers. Cast iron or steel posts; 2½" brass pipe hand rails; ½" x ½" iron ballisters	$ 3,000

4. NEW DISINFECTING ROOM AND EQUIPMENT THIRD FLOOR BAGGAGE AND DORMITORY BUILDING

Walls - Brick to match adjoining brickwork
Interior walls finished in brick
Floors - Cement floors and base
Ceiling - Concrete slabs exposed and painted

Roof - Composition roof on concrete slabs with steel construction Windows - metal windows and sash Doors - Kalomined Side of building 54' x 33' x 18' high	$12,300
Reinforced floor for the machinery with girders	5,000
Three (3) Disinfecting machines $2,500	7,500
24 special cars to run in machinery @ $150	3,600
Installing of machine	1,200
	$29,600

As heretofore explained, it is the purpose to install modern beds and equipment in all dormitories. Unfortunately many of the arrivals bring filth and vermin with them and it is essential that the mattresses and bedding be sterilized frequently. If this be not done, conditions will be even worse than at present. The construction of the building and installation of the disinfecting machines specified will give us the necessary facilities to take care of this part of the problem; but, in addition thereto, the laundry facilities must be increased very materially, not only because the present equipment is inadequate and worn out by many years of service but because the laundrying of sheets, pillow cases, etc., will add greatly to the quantity of material to be handled.

5. NEW AND ADDITIONAL LAUNDRY EQUIPMENT

4-42" x 84" Monel Metal Cascade Washers @ $4,500	$18,000
4-48" Humatic Extractors @ $3,000	12,000
1-120" Eight 12" Rolls, Flat Iron Worker	9,900
1-120" Feeding Device	500
1 National Marking Machine	600
5 Galvanized Iron Hoods	1,300
	$48,300
Pipes, coverings & Freight	2,000
Concrete materials	1,500
Changing floors and drains	2,500

Vents from Hoods	1,334
Labor and Foreman	2,500
	$ 9,834
Laundry Co's estimate of their work	52,134
Additional piers to support machinery and additional floor construction by Construction Contractor	7,866
	$60,000

6. NEW EQUIPMENT FOR DORMITORIES, DETENTION ROOMS, DINING ROOM, KINDERGARTEN AND NURSERY $65,000

This will comprise 700/two-tier white enamel beds with springs, 1,300 matresses, 2,500 matress protectors, 1,300 pillows, 5,000 pillow slips, 7,400 sheets, 2,500 spreads, 1,300 stools, 100 bedside tables, 200 chairs, 3 dozen mirrors, 2 dozen large tables for detention rooms, 2,000 feet of benches for detention rooms and recreation ground, 200 feet of metal baggage racks, 85 tables and 85 benches for the immigrants' dining room, and the equipment for the kindergarten and nursery consisting of cribs, chairs, stools, tables, benches, books, swings, rings, balls, etc. etc.

7. INSTALLATION SELF SYPHONING VENTILATORS WITH DUCTS AND DAMPERS IN DETENTION ROOMS, NEW REGISTRY DIVISION, POWER HOUSE, LAUNDRY AND WAITING ROOMS $20,000

58 Ventilators

The bad odors in the detention and waiting rooms make conditions extremely offensive and there must be additional ventilating equipment installed. The installation of ventilators in

the Power House will very materially improve working conditions there, and with the installation of additional machinery in the laundry, renders it imperative that the heat and steam be removed. Even under prevailing conditions, additional ventilation is required in the laundry.

8. RENEWAL OF PLUMBING, BAGGAGE & DORMITORY BUILDING

New piping from Power House to and in B & D Building for salt water, hot water and returns. New toilets, lavatories, slop sinks, floor drains, and resetting tile floors to drain toward new floor drains $50,000

This equipment has been subjected to very hard service, being in use since 1914. The piping is corroded, many of the fixtures in the toilets and lavatories are in bad condition and the facilities are antiquated.[46]

While Congress appropriated only $326,000 of the $2,500,000 requested by Curran, he went ahead with some of the most critically needed projects. In May 1924 bids were solicited for the construction of a disinfecting room on the porch roof of the baggage and dormitory building. The contracted work included the installation of three rectangular steam-jacketed disinfectors as well as the necessary plumbing, heating, electrical lighting, and painting. The scope of work, as spelled out in the specifications, read as follows:

Supply and install three (3) disinfectors with all appurtenances, steam supply and return lines, drains and electric lighting; and supply fifteen (15) cars of type, sizes and dimensions as hereinafter specified and shown on the Plans, also supply and install one (1) twelve (12) inch and one (1) eighteen (18) inch self-syphoning ventilators.

Present roof and columns shall be reinforced as shown on the plans. The outside building walls shall be four (4) inches of brick to match that of present building, and eight (8) inches of

hollow tile; partition shall be eight (8) inch wall and support the roof. All walls inside shall receive three (3) coats of plaster from tile dado to roof.

A tile dado seven (7) feet high shall be put on the new walls. The roof shall be "built-up" as shown on the plans and as hereinafter specified.

The Building Contractor shall prepare the foundations for the Disinfectors and leave room to get the Disinfectors over the side of the building before building the walls. Disinfectors shall be installed by the manufacturer and connected to the various pipes of the Building Contractor.[47]

Although no other documentation could be found relative to the work, it can be assumed that the work was carried out during the summer of 1924.

The next project to be undertaken on the baggage and dormitory building was the installation of a steel stairway from the open porch on the second floor to the new recreation area that had been set aside for the detainees on the northeast side of the island. The bid, amounting to $4,721, of the Hamilton & Chambers Company of New York City was accepted on October 16, 1924. The contract was to be completed within 60 working days.[48]

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46. Curran to Commissioner-General of Immigration, Dec. 17, 1923, RG 85, NA.

47. "Specifications for Repairs, Alterations, and Additions, Baggage and Dormitory Building-Third Floor, Disinfecting Room and Equipment Including Building Construction, Plumbing, Heating, Electrical Lighting, Painting, Island No. 1," dated May 22, 1924, FF 1, Baggage and Dormitory: Repairs, Alterations, and Additions, 1924, Ellis Island Records, DSC.

48. Commissioner-General to Commissioner of Immigration, Ellis Island, Aug. 23 and Oct. 4, 1924, Curran to Commissioner-General of Immigration, Sept. 20 and Oct. 16, 1924, and Sibray to Commissioner of

Because of the structural alterations underway, it was necessary to install additional radiators and electrical conduits in the baggage and dormitory building and the annex which connected it to the ticket office in the main building. To enable workmen to get under the floor to reach the pipes, it was determined to construct a 24-inch diameter cast-iron manhole and steel-plated cover in the floor of the baggage and dormitory building annex passage. The bid of J. M. Knopp for $121 was accepted on October 18, 1924, to do the work.[49]

That same month new individual beds with mattresses, pillows, and linen were installed in the third-floor dormitories of the baggage and dormitory building, and the old system of bunks in wire cages were removed. The New York Times heralded this improvement as the most important of the structural alterations then taking place on the island. Later Commissioner Curran would describe in his memoirs the deplorable conditions in the dormitories that he had set out to change when he arrived on Ellis Island in 1923:

> The four big dormitories, two for men and boys, two for women and children, each held four hundred people, packed away one apiece in four hundred of these small wire cages. The cages were in three steel tiers, one above another, with narrow aisles between the tiers. Head and foot the cages adjoined, with wire between. On the wire base of each cage was one blanket. Nothing else . . . the cage structure filled nearly the whole room, wall to wall and floor to ceiling, and each cage was a tight fit, except for children. There was little ventilation.

Immigration, Ellis Island, Sept. 27 and Oct. 21, 1924, RG 85, NA. The work was to be done in accordance with drawing D-991-1. Also see "Specifications for Exterior Steel Stairway from Porch to Recreation Ground, B&D Building, Island No. 1," dated Oct. 14, 1924, RG 85, NA.

49. Uhl to Commissioner-General of Immigration, Oct. 3, 1924, and Sibray to Commissioner of Immigration, Ellis Island, Oct. 18, 1924, RG 85, NA.

> In several small rooms for the detention of special cases there were beds, but in the large rooms, which housed every night nearly two thousand immigrants, there were no beds at all.[50]

The installation of new beds in the dormitories made it necessary to paint and decorate the rooms. The dormitories had not been refurbished for many years, and the removal of the framework for the old tiered beds had made it necessary to remove small patches of plaster where the metal was bolted into the walls. Accordingly, the bid of $2,440 by the Vassilaros Contracting Company was accepted on October 21 to renovate dormitories B, C, and D. The scope of the work was as follows:

> Ceilings and walls above tile, in dormitories B, C, and D, three connecting lavatories, three connecting toilets and two closets; also women's bathroom on the third floor of the Baggage and Dormitory Building, Island Numbered 1, Ellis Island, New York Harbor, New York, to have all broken or loose paint and plaster removed; cracks cut out and well filled and walls and ceilings to be patched in best workmanlike manner. Old plaster to be thoroughly washed with soda or ammonia and water to provide a firm smooth dry surface. All patches to receive one priming coat after which walls, ceilings, doors and window trim are to receive three coats of paint, quality specified in proposal. Radiators and exposed steam pipe to be wire-brushed and thoroughly cleaned and then to receive two coats of brilliant aluminum paint.[51]

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50. Curran, Pillar to Post, pp. 293-94, and New York Times, Dec. 23, 1924.

51. Commissioner-General to Commissioner of Immigration, Ellis Island, Nov. 1, 1924, and Baker to Commissioner-General of Immigration, Oct. 21, 1924, RG 85, NA.

In December 1924 specifications were drawn up for several badly needed projects on the baggage and dormitory building. The renovation work included in the specifications provided for renewal of the water supply piping with covering from the powerhouse, renewal of the plumbing and toilet fixtures, painting of rooms 204 and 206 with adjacent toilets and three stairways, and renewal of tile walls and floors in rooms 204 and 206 and adjacent toilets as well as installation of doors and toilet partitions. Apparently none of the work was contracted because of severe budget limitations.[52]

In July 1925 the Department of Labor allotted the sum of $40,000 for remodeling and repairs to the buildings on Ellis Island. One of the renovation projects that was carried out in the baggage and dormitory building with the funds concerned the renewal of the high pressure steam lines. Since a considerable quantity of steam was escaping from the high pressure steam lines between the powerhouse and the baggage and dormitory building, two contracts were let to renew the lines on September 25. Alfred Beyrodt was paid $2,118 to install necessary piping and fittings, and the Robert A. Keasbey Company was paid $732 for the required 85 percent magnesia sectional pipe covering.[53]

The following year on June 24, 1926, a major contract was let to David Brandt, Inc., for repairs and replacements to the heating and plumbing systems in the baggage and dormitory building, powerhouse, main building, and connecting corridors. The following work was to be performed in the baggage and dormitory building: (1) renewal of the heating system in the tunnel and corridors connecting the kitchen

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52. "Proposal Sheet," dated Dec. 12, 1924, RG 85, NA.

53. Curran to Commissioner-General of Immigration, July 1, 1925, Hull to Commissioner of Immigration, Ellis Island, July 18, and Sept. 29, 1925, Uhl to Commissioner-General of Immigration, Sept. 26, 1925, and "Contract, Bond, Proposal, and Specifications for Renewal of Heating System, Part 1, Piping," dated Sept. 25, 1925, RG 85, NA. The work was to be done in accordance with drawing D-1003-1.

and laundry building to the baggage and dormitory building; (2) installation of one floor drain; (3) renewal of hot water system from the manifolds in the powerhouse to and in the baggage and dormitory building; (4) renewal of fresh cold and salt water mains up to horizontals above first floor; (5) renewal of hot, cold, and salt water mains along north side; and (6) renewal of all branch lines and risers of hot, cold, and salt water mains direct to fixtures.[54]

When the renovation work of the 1924-1926 period was completed, the commissioner-general of immigration made some observations on the accommodations on the island for the detained aliens. Among his comments were the following:

> . . . the quarters occupied by detained aliens consist of large, light, well-ventilated rooms with floors of Dutch or white glazed tile. . . . Dormitories are also of white tile, and each person is allotted a white enameled single bed with woven-wire spring, good quality mattress, pillow, blankets, and clean linen. Bathrooms have built-in porcelain tubs as well as showers.[55]

6. Repairs to Roof - 1928

The leaking roofs of the buildings on Ellis Island were a perpetual problem. On March 22, 1928, the firm of Offenkrantz & Mark was chosen to make various repairs on the roofs of the buildings. The work on the baggage and dormitory building consisted of the following:

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54. "Contract, Bond, Proposal, and Specifications for Heating, Plumbing, and Pipe Covering in Power House, B & D Building, Connecting Corridors and Main Building, Island No. 1," dated June 17, 1926, RG 85, NA. The work was to be done in accordance with drawings D-994-1 and 2 and 1010-1 and 2. For a history of the work under this contract see Brandt to Comptroller General, Dec. 17, 1932, RG 85, NA.

55. Annual Report, Commissioner-General of Immigration, Fiscal Year 1928, pp. 27-28.

Repair leaking gutters with soldered copper patches, said patches being not less than 8" wide, and resecure all copper ridges on skylights with new straps of copper one inch wide by 1/8 inch thick and use brass bolts and nuts with copper washers.

Repair all flashings and all cap flashings and cement the flashings. Flash around skylights with three layers of Tar Paper and Tar Flash Pent houses and secure tops. Patch all cornice that have leaky flat and parallel seams with new copper patches not less than eight inches wide.

Replace broken skylight glass and renew any missing, broken or defective bars or cappings.

Patch gutters of roof over corridor to K & L building.[56]

7. Renovation of Plumbing Fixtures and Tile Work - 1930-1931

In April 1930 Commissioner Day submitted to the commissioner-general of immigration a list of new plumbing and tiling work that was badly needed on the second floor of the baggage and dormitory building. The list was itemized as follows:

BAGGAGE AND DORMITORY BUILDING

Second Floor Rooms 204, 206, and 222

21 water closets	@ $175	$ 3,675
16 lavatories	@ $140	2,240
11 urinals	@ $160	1,760
4 slop sinks	@ $160	640
3 drinking fountains	@ $200	600
450 sq. ft. floor tiling	@ $2.00	900
17 toilet partitions	@ $140	2,380

56. "Contract, Bond, and Specifications for Roof Patching on Island No. 1 and No. 2," dated Mar. 2, 1928, RG 85, NA. The work was to be done in accordance with drawings E-777-1 and D-1031-1.

21 toilet doors, including butts and hardward @ $25	525
1,050 ft. piping various sizes (½" to 6")	3,310
700 ft. pipe covering (½" to 6")	415
	$16,445

This equipment, which had been in use for over 20 years, was antiquated and unsanitary. It was noted that the toilet equipment was in such poor condition that it "would not be permitted in any public building under the jurisdiction of the Health Department of the City of New York."[57]

After the Second Deficiency Bill was approved on July 3, 1930, Commissioner Day was authorized to solicit bids for the plumbing and tiling renovation work in the baggage and dormitory building. On October 7 a contract was let to Alfred Beyrodt to remove the cast-iron toilet partitions and the old fixtures and piping and to install new white glazed tiling, plastering, marble toilet partitions, lavatories, toilets, slop sinks, urinals, and supply, vent, and soil lines.[58] Despite a number of omissions and defects, the work was approved in a final inspection held on April 16, 1931.[59]

8. Miscellaneous Work - 1931-1932

During 1931 and 1932, a number of renovation and repair projects were carried out in the baggage and dormitory building. Over the winter of 1931-1932, a 28-station Faraday Series closed circuit fire

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57. McCarl to Secretary of Labor, Apr. 26, 1930, Day to Commissioner General of Immigration, Apr. 28, 1930, and White to Roup, Apr. 29, 1930; RG 85, NA.

58. Hull to Commissioner of Immigration, Ellis Island, July 8, 1930, "Specifications for Replacements of Plumbing Equipment, Island No. 1," dated Sept. 18, 1930, and Harris to Commissioner of Immigration, Ellis Island, Oct. 7, 1930, RG 85, NA. The work was to be done in accordance with drawings D-1156 through D-1159 and D-1100.

59. Bankauf to Day, Apr. 16, 1931, RG 85, NA.

alarm system was installed in all the buildings on Ellis Island by the Quintine Realty Company.[60]

An act making appropriations for the Department of Labor for FY 1932 (approved on February 23, 1931) made available for expenditure at Ellis Island the sum of $329,025 for repairs, replacements, and remodeling. The largest single item on the list of projects approved was the $60,000 set aside for the renovation of the plumbing and heating systems in the baggage and dormitory buildings.[61] On March 22, 1932, the bid of A. Blaustein, amounting to $28,760, was accepted to do the plumbing. The work began on May 23 and was completed on January 11, 1933.[62] Included in the work was the following:

> Plumbing replacements (190 fixtures) . . . entire renewal of 8 large wash rooms and toilet rooms on the third floor including tile work and some renewals in 16 small rooms on the first and second floors; renewals of the entire house drain system under the first floor and the renewal of all concealed leader lines; new water supply mains on the first floor with new risers to the 3rd floor and new supplies to valves in power house so that salt water can be supplied to water closets, urinals, and fire hoses in case of shortage of fresh water supply.[63]

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60. "Specifications for Fire Alarm System at Ellis Island," dated Oct. 21, 1931, and miscellaneous papers relative to contract, FF 179, All Islands: Fire Alarm System, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1184.

61. Hull to Commissioner of Immigration, Ellis Island, Apr. 1, 1931, RG 85, NA.

62. Miscellaneous papers relative to contract, FF 3, Baggage and Dormitory: Plumbing, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1205 through D-1210.

63. "Summary of Improvements at Ellis Island, Completed Within the Preceding Eighteen Months and Relating Directly to Sanitation," Aug. 1933, FF 330, Works Progress Administration Projects 61, 62, 63, 64, 1933-1937, Ellis Island Records, DSC.

A contract was let to the R. H. Baker Company on March 11 to do the heating work at a cost of $5,972. The project, which began on July 5, consisted of installing new black welded steel pipe for the steam supply and return lines and a new low pressure steam heating system as part of the general island vacuum system, designed to operate at a 5-pound gauge pressure.[64]

Between April and June 1932, three contracts were let to paint the exterior and the interior of the buildings on island 1. The contracts were as follows: exterior - Louis Gladstein & Peter Contaris - $3,879; interior - Louis Gladstein - $4,995; and interior (additional)- Joseph Galenter, Inc. - $3,135.[65]

A contract was let to Benjamin Rubin on May 26, 1932, for the renovation of the roofs of the buildings on island 1. Among the items of work relating directly to the baggage and dormitory building were the following:

> Patch all holes and weak spots in the copper lining of the cornice around the "Baggage and Dormitory" building at the second floor line and coat the lining with a mopping of fibrous asphalt.

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64. "Specifications for Heating, Baggage and Dormitory Building, Island No. 1," dated Mar. 10, 1932, and miscellaneous papers relative to contract, FF 4, Baggage and Dormitory: Heating, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1205 through D-1211.

65. Shaugnessy to Commissioner of Immigration, Ellis Island, Apr. 5, 1932, Husband to McCarl, May 31, 1932, Hull to Commissioner of Immigration, Ellis Island, June 3, 1932, "Specifications for Painting (Exterior), Island No. 1," dated Mar. 30, 1932, "Specifications for Painting (Interior), Buildings on Island No. 1," dated May 11, 1932, and "Specifications for Painting (Interior Additional), Buildings on Island No. 1," May 31, 1932, RG 85, NA. The exterior painting was to be done in accordance with drawing D-1220, the interior with D-1235, and the interior additional with D-1238.

Furnish and install a new copper top for one pent house on the Baggage and Dormitory building where same is missing.

Along the gutter trough of the Baggage and Dormitory Porch roof, remove the first row of book tile adjoining the gutter and relay tile so as to finish evenly along the gutter. Where the gutter is sagged due to defective foundation underneath, remove the copper gutter and defective foundation and replace with new foundation of similar kind, and new 20 oz. copper trough. For the remainder of the trough, patch all holes and defective places and coat the entire trough with a mopping of fibrous asphalt.

Cut out all patches and seams in the trough, bottom and sides, of the copper gutter of the roof of the "Corridor to B & D Building" and of the roof of the "Baggage and Dormitory Building," apply new patches and coat the inside of the trough with a mopping of fibrous asphalt.

On the "B & D" porch roof, remove the book tile roofing for a minimum of 12 inches back from the wall of the "B & D" building proper, and replace same set at the proper level to pitch away from the building. Provide new copper flashing at the wall and mop the intersection with fibrous asphalt.

Replace with sheet copper panels those panels in the top of the vent stacks projecting above the roof of the "B & D" building which now have louvre panels, where the louvres are missing or loose.

In the light court in the center of the "B & D" building and in the light courts of the Main Building, repair the copper decking, trough, skylights, and the flashing, as required to

produce a watertight result, and then coat the copper decking, troughs, and flashings with fibrous asphalt.[66]

The bid of the Quintine Realty Company was accepted in June 1932 for pointing the granite, limestone, and terra cotta masonry on the exteriors of all the buildings on islands 1 and 2. The pointing mortar was to be composed either of one volume of white Portland cement and three of sand with sufficient cold lime putty to make a stiff mix or of one volume of nonstaining Puzzolan cement and two of sand.[67]

That same month a contract was let to the Sheridan Insulation Company to install new nonconducting coverings on the pipes on Ellis Island. The pipes that were affected by the work in the baggage and dormitory building were as follows:

2½"	115'	Trench to B&D bldg. B&D bldg.	H.P Steam to sterlizers-3rd. Fl. B&D bldg.
5"O.D.	84'	Trench to B&D bldg. B&D & K&L bldgs.	Recanvas and recover where needed H.P. steam ret. from B&D & K&L bldgs.
10"	84'	Trench to B&D bldg.	Recover L.P. to heating system-H.W. supply to B&D bldg.
5"O.D.	84'	Trench to B&D bldg.	Recanvas and recover where needed H.W. supply to B&D bldg.

66. "Specifications for Sheet Metal and Roofing, Island No. 1," dated May 9, 1932, RG 85, NA, and FF 106, All Buildings - Island No. 1: Sheet Metal and Roofing, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-168.

67. Miscellaneous papers relative to contract, FF 108, All Buildings-Island No. 1: Pointing Up Exterior Masonry, 1932, Ellis Island Records, DSC.

4"O.D.	84'	Trench to B&D bldg.	Recanvas and recover where needed H.W. return to B&D bldg.
8"	84'	Trench to B&D bldg.	Recover L.P. steam return from heating system.[68]

9. Remodeling - 1933-1934

In 1933 one contract was let to provide for a remodeling project in the baggage and dormitory building. In October the bid of the Continental Tiling Company was accepted for the installation of a new tile floor in the second floor corridor extending between the baggage and dormitory and kitchen and laundry buildings.[69]

10. Alterations - 1934-1935

As early as August 22, 1933, a general plan of alterations was drawn up for the baggage and dormitory building by H. L. Booth, the architectural engineer at Ellis Island, and Superintendent P. A. Baker. Their recommendations were as follows:

> Activities now located on ground floor to be accommodated elsewhere. All of ground floor east of partition (north and south) to be available for aliens day detention rooms with a commons room, off which general reading rooms may be provided, if desired. Part of ground floor porch to be used for indoor recreation.

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68. "Specifications for Non-Conducting Covering, Islands No. 1, 2, 3," dated June 4, 1932, and miscellaneous papers relative to contract, FF 180, All Islands: Non-Conducting Pipe Covering, 1932, Ellis Island Records, DSC.

69. "Specifications for Tiling of Floor of Second Floor Corridor between B & D and K & L Buildings," dated Oct. 11, 1933, and miscellaneous papers relative to contract, FF 13, Between B&D and K&L: Tile Floor, 1933, Ellis Island Records, DSC.

Baggage to be accommodated west of partition mentioned in preceding paragraph. Steamship agents, money exchange, ticket office and telegraph offices to be located in Old Ice Plant, with access from corridor, ground floor, K&L Building. Food counter to be provided in proposed new covered way near ferryhouse.

Second floor rooms 203, 204, 206 and 222 to have eight siphon ventilators installed equipped with exhaust fans. Rooms 204, 206 and 223 to have installed a total of eight shower baths and six wash tubs. Also electric irons and ironing boards. Room 206 to have northwest corner partitioned from columns to walls with doorway to provide reading room. Room 222 to have similar construction to provide not to exceed seven reading rooms. Two additional windows to be cut in easterly wall.

Minor plumbing repairs and replacements. Day detention rooms equipped with an adequate number of steel lockers for accommodation of occupants wearing apparel and personal effects, other than valuables.

Furniture to be replaced with suitable tables and chairs.

Enameled iron double deck beds to be equipped with four hooks to provide accommodation for aliens' clothing.

All windows on ground floor where detained aliens are quartered to be equipped with window guards.

Welfare workers to be provided quarters on ground floor of B&D building.

Daughters of the American Revolution and clothing rooms to remain in present location where they are available to quarters occupied by aliens, with the least efforts on the part of the

workers. These rooms might be enlarged somewhat to provide additional space for storage of clothing. Recreation grounds to be graded and resurfaced and toilets, lavatories, a concert stand and a shelter house should be provided.[70]

In March 1934 the Ellis Island Committee, which had been selected by Secretary of Labor Perkins to analyze the needs of the immigration station, issued a report urging many of the aforementioned alterations to the baggage and dormitory building. Among the committee's recommendations were the following:

> That better facilities for segregation of different classes, both of deportees and of incoming immigrants and repatriates, be provided; that this be accomplished by remodeling B&D building for deportees and to a certain extent K&L building, and by adding a new building, of the cottage or pavilion type, to hold the incoming immigrants and repatriates.
>
> That B&D building be remodeled to allow better segregation of the different classes of deportees; that the entire ground floor of B&D building, east of partition, be cleaned out and used for day detention rooms for deportees, with a common room and reading rooms; that the steamship agents, ticket offices, and telegraph office now in this space go in the old "Ice Plant" with access from corridor on ground floor of K&L building; that baggage be accommodated west of the partition above mentioned.
>
> That detention rooms 203, 204, 206, and 222 and dining rooms in K&L building be subdivided; that new syphon ventilation be provided in detention rooms 204, 206, and 222, the old ventilation system

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70. Booth and Baker to Commissioner of Immigration, Ellis Island, Aug. 22, 1933, FF 5, Baggage and Dormitory: Suggestions for Reconditioning, 1933, Ellis Island Records, DSC.

be repaired where desirable and additional windows be cut in easterly wall; that additional plumbing and shower baths be provided in various departments (rooms 204, 206, and 222).

That ample steel locker space for luggage in day detention rooms be provided, west of partition on ground floor.

That adequate rooms be provided for:

Occupational work in present location but enlarged

Library and reading rooms, barber shop, rooms for laundry work, dry cleaning and shoe repairing done by deportees

Social workers, including restrooms, toilets, etc., on ground floor

Restrooms, etc., for employees

That these rooms be refurnished where necessary and that windows throughout be provided with screens.[71]

Funds for alterations in the baggage and dormitory building were provided under federal projects 63 and 64 by the Public Works Administration in 1934. Improvements were made that year to the electrical system, including such items as a new main panel board on the

71. Report of the Ellis Island Committee, pp. 137-38.

first floor, a new fan control and switchboard on the third floor, and new wiring in the toilet rooms near the lunch counter.[72]

In June 1935, a number of bids were accepted for the renovation of the building. The Security Steel Equipment Corporation was selected to install 14 units of metal shelving required in connection with the card filing to be done on the ground floor at a cost of $197. Five hundred bentwood chairs (to be used in the card work section) were purchased from the Derby Equipment Company of Washington, D.C., at a cost of $1,300. An equal number of chair cushions were acquired from Goldsmith Brothers at a cost of $275.[73] The Federal Carpet Company, was chosen to install approximately 2,700 square yards of "A gage" plain linoleum in one large and two small adjoining rooms on the first floor (to be used as quarters for the copy room) at a cost of $3,304.80.[74]

That same month a contract was let to the Accurate Plumbing and Heating Company for the remodeling of four rooms on the first floor to be used as toilet and wash rooms for the copy division. The work included the plumbing, heating, masonry, carpentry, electrical, and painting required to convert the rooms (designated A, B, C, and D) into bathroom facilities. The work was completed in December at a cost of $4,465.[75]

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72. Booth to Werner, Apr. 12, 1934, FF 6, Baggage and Dormitory: Electrical Work, 1934, Ellis Island Records, DSC.

73. FF 7, Baggage and Dormitory: Metal Shelving, 1935, Ellis Island Records, DSC.

74. "Specifications for Linoleum, First Floor, Baggage and Dormitory Building, Island No. 1," dated June 3, 1935, and miscellaneous papers relative to contract, FF 8: Baggage and Dormitory, Linoleum, 1935, Ellis Island Records, DSC.

75. "Specifications for Alterations, First Floor, Baggage and Dormitory Building, Island No. 1, " dated June 3, 1935, and miscellaneous papers relative to contract, FF 9: Baggage and Dormitory, Alterations, 1935, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1299.

A $5,445 contract was let to the Harry Hershon Company to erect 46 linoleum-topped wooden tables on the first floor. The work also included the installation of two wire mesh grill enclosures for coat rooms and an opening in a 6-inch terra cotta partition tile wall.[76]

11. Repair/Replacement of Insect Screens - 1936

A contract was let to the Orange Sash Company of New York City in June 1936 to repair and replace the insect screens on the windows of the four third-floor dormitories of the baggage and dormitory building. The new screens required were as follows:

BAGGAGE AND DORMITORY BUILDING

Number Required	
46	D.H. Screens (in two sections) require new cloth, 2'10" x 6'8". Numbered: 1 to 8 inclusive, 19, 20, 23 to 42 inclusive, 63 to 71 inclusive, 73, 74, 79 to 83 inclusive.
1	Note: One numbered 72 requires one section only!
16	D.H. Screens (in two sections) - with mullion bar in center require new cloth, 3'10" x 8'8". Numbered: 9 to 18 inclusive, 77, 78, 89 to 92 inclusive.
2	Note: Those numbered, 75, 76 require one section only!
2	D.H. Screens (in two sections) require new cloth, 2½' x 6'8". Numbered: 21, 22.
15	D.H. Screens (in two sections) require new frame complete with cloth, 2'10" x 6'8". Numbered 43 to 52 inclusive, 84 to 88 inclusive.

76. "Specifications for Wooden Tables, Coat Room Enclosures and Equipment, and Other Work, First Floor, Baggage and Dormitory Building, Island No. 1," dated June 7, 1935, and miscellaneous papers relative to contract, FF 10, Baggage and Dormitory: Wooden Tables, 1935, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1300.

1 Note: One numbered 72 requires one section only!

10 D.H. Screens (in two sections) - with mullion bar in center - require new frame complete, 3'10" x 8'8".

2 Note: Those numbered 75, 76 require one section only!

92 Total[77]

12. Renovation of Electrical System and Installation of New Roof - 1939

During the spring of 1939 the electrical system of the baggage and dormitory building was overhauled and a new roof put on. The ten light panels and one distribution panel were cleaned, and the temporary wires on the second and third floors were replaced by permanent outlets.[78] The existing roofing materials on the main roof of the building were removed and, a new roof consisting of 4-ply tar felt and 1-ply ruberoid was installed. The flashings and other sheet metal work was renewed, and two glass skylights were installed.[79]

13. Use of Building During WW II 1939-1946

After WW II broke out in Europe in September 1939, the U.S. Coast Guard was directed to conduct extensive patrols to enforce the Neutrality Act. Quarters were needed for training, and in October 1939, the Labor Department turned over to the Treasury Department the

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77. "Invitation, Bid, and Acceptance," dated May 27, 1936, and miscellaneous papers relative to contract, FF 51, Main Building: Insect Screens, 1936, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1306.

78. "Specifications, Job No. 78 & 79," dated Apr. 24, 1939, FF 185, All Islands: Overhaul Panel Boards, 1939, Ellis Island Records, DSC.

79. "Specifications, Job No. 36," dated May 2, 1939, FF 11, Baggage and Dormitory: Reroof Main Roof, 1939, Ellis Island Records, DSC.

compass painted on one of the interior walls. The Coast Guard station on the island was decommissioned in 1946, and virtually all of the baggage and dormitory building was left untenanted from that date until the station closed in November 1954.[80]

80. Pitkin, Keepers of the Gate, pp. 168-71.

IX. THE HOSPITAL COMPLEX ON ISLAND 2

In the Act of July 19, 1897, Congress authorized the Secretary of the Treasury to erect three principal fireproof structures and to enlarge Ellis Island by approximately 3 acres at a cost of $600,000. The three structures included the main building and annexes on island 1 and a 45-bed hospital on the still unconstructed island 2 isolated from the other buildings on the southwest side of the ferry slip.[1]

As the plans for the new immigration station were being developed by Boring & Tilton, it was recommended that the hospital building be augmented by three ancillary structures that were to be plain, functional, and fireproof. The three supporting buildings included a surgeon's house, an additional wing to the hospital building, and a hospital outbuilding. The justification and estimated cost of the three buildings were as follows:

> SURGEON'S HOUSE - $9,500.00
> The Surgeon and Assistant Surgeon of the Marine Hospital Service detailed for duty at the Immigrant Station must certainly reside upon the Island. They are entitled to quarters and are so furnished by the Department at the Marine Hospitals and Quarantine Stations. The building heretofore occupied by these officers on the Island, although still standing, was so much damaged by the fire as to be not worth repairing. Its location is such that it will be necessary to remove it to accommodate the new building and annexes.
>
> It is proposed to erect the new Surgeon's House near the new Hospital where it will be convenient for the official work of the Surgeon and isolated from that part of the Island occupied by the immigrants. It must, of necessity, be built upon piled foundations.

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1. Annual Report, Supervising Architect, Sept. 30, 1897, p. 83, and New York Daily Tribune, Jan. 27, 1898.

ADDITIONAL WING TO MAIN HOSPITAL - $45,000.00

This building, as designed by the architects within the limit of $600,000.00, contains quarters for officers and attendants and a ward of sixty beds. At the time this estimate for an additional wing was under consideration, the morning reports showed from seventy-eight to eighty-three or more immigrants on the sick list, requiring hospital accommodations. The medical officers insist that beds should be provided for at least one hundred and twenty. This can be attained by the construction of another wing of the size of that which is shown on the drawings of the contracting architects, and, like the Surgeon's House, it must be built upon a pile foundation.

HOSPITAL OUTBUILDING - $33,340.00

This building, also upon a pile foundation, is intended to accommodate the absolutely necessary adjuncts to the hospital, that is, a store-room for supplies, a disinfecting apparatus, a laundry and morgue, autopsy room, and a boiler room for the heating plant of the hospital; neither of which can possibly be placed within the main hospital building.[2]

The plans for the main hospital building were approved in early February 1898, and efforts to begin piling for the foundation were soon underway.[3] However, the work was held up pending the action of Congress on further appropriations for the new immigration station.[4]

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2. Gage to Chairman of the Committee on Appropriations, House of Representatives, Feb. 3, 1898, RG 121, WNRC.

3. J. K. Taylor to Boring & Tilton, Feb. 2, 1898, RG 121, WNRC.

4. Spaulding to Chief Engineer & Superintendent of Repairs, Feb. 28, 1898, RG 121, WNRC.

By September 1898 a plan for the enlargement of the Ellis Island Immigration Station was approved and published.[5] The buildings were to be carried on piers with an approximate load of 1½ tons per square foot on the ground. Wherever possible, all piling was to be avoided.[6]

After considerable delay, Congress approved the requested appropriations for the two wings of the hospital building ($150,000), surgeon's house ($9,500), and hospital outbuilding and disinfecting plant ($33,340) in an act approved on March 3, 1899.[7] Immediately thereafter, Boring & Tilton were directed to develop revised drawings for the hospital building and its wings while the supervising architect's office assumed responsibility for the plans of the surgeon's house and hospital outbuilding.[8] On June 24 proposals were solicited for the work on the main hospital building. For the purpose of speeding the work, the specifications were divided into three parts--general construction, heating and ventilating, and electrical wiring.[9]

Some six weeks later on August 14, four proposals were opened, but all were above the amount that had been appropriated, varying between $177,579 and $273,859 for the general construction alone. The high bids were the result of rapid increases in the cost of labor and materials during the spring and summer of 1899. Accordingly, Boring & Tilton were ordered to revise the plans and specifications in order to reduce the cost of the work.[10]

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5. Annual Report, Supervising Architect, Sept. 30, 1898, p. 73. A copy of the plan may be seen in this Historic Structure Report in V.A.1.a.

6. J. K. Taylor to Chief Engineer & Superintendent of Repairs, Dec. 21, 1898, RG 121, WNRC.

7. Annual Report, Supervising Architect, June 30, 1899, pp. 90 and 95.

8. Spaulding to Boring & Tilton, Mar. 11, 1899, RG 121, WNRC.

9. Kemper to Boring & Tilton, June 26, 1899, RG 121, WNRC.

10. Gage to Boring & Tilton, Aug. 16, 1899, RG 121, WNRC. There is no available documentation relative to the specifications for the work other

Boring & Tilton drew up an entirely new plan and elevation, including new designs for the heating, ventilating, electrical, and plumbing systems and the steel infrastructure. The revised plans excluded facilities for the segregation of contagious disease cases. Later in June 1900 it was reported that

> changes were necessarily made on account of the insufficiency of the appropriation, but as a result the ward space has been seriously curtailed and when the hospital is opened it will probably be necessary to use, for the accommodation of patients, some of the space now allotted for the quarters of medical officers and nurses. The hospital as now projected is therefore likely to be somewhat crowded and I would respectfully urge, in view especially of a possible increase in immigration, that steps be taken to procure the erection as soon as possible of an additional wing or pavillion for the accommodation of patients.[11]

A. Construction - 1900-1901

1. Main Hospital Building - Daniel A. Garber

On February 20, 1900, a contract was let to Daniel A. Garber of New York City to construct the main hospital building at a cost of $116,867. The contract included all facets of the construction except for the electricity, wiring, heating, and ventilating work, and elevators. The work was to be completed within ten months.[12]

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than that the heating and ventilating was to be operated by "two electric motors, direct connected to shafts of fan." The motors were to be of the 110 volt, direct current, mutipolar, ironclad type. J. K. Taylor to Boring & Tilton, July 13, 1899, RG 121, WNRC.

11. Annual Report, Commissioner-General of Immigration, Fiscal Year 1900, pp. 49-50.

12. H. A. Taylor to Garber, Feb. 20, 1900, RG 121, WNRC. The work was to be done in accordance with the specification dated Dec. 19, 1899, and drawings 1a through 10a.

The contract contained a number of added stipulations, which increased the total cost of the building to $121,319.65. These items were as follows:

All interior trim of plain oak
Tank
Covering hot and cold water pipes and hot water heater
Change flues for Wards to 16" x 48"
Add three vents on second and third stories for toilet rooms in central portion
Raise tank in attic above vent duct inlet in main shaft
Furnish and set tile in Room #301
Change fire escape ladders to run from second and third story porches to ground
Furnish additional steel to make porch beams 7", 15 lbs. and I's and porch channels 9", 15 lbs.
Furnish and set 2" book tile and two-ply roofing felt under all tile roofs.[13]

Under the terms of the contract the government promised to provide a water supply pipe from the powerhouse on island 1 to within 350 feet of the main hospital building.[14]

Garber came into immediate conflict with the authorities when he commenced his operations. It was discovered that he had removed windows and frames from the old surgeon's house, had torn up planking along the ferry slip, and had taken some lumber from the coal bins for use in building a small construction office. Because he had refused to replace the materials when confronted by authorities on Ellis Island, he was ordered by Treasury Department officials either to return or replace the property taken and to cease such activities.[15]

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13. H. A. Taylor to Garber, Feb. 20, 1900, RG 121, WNRC.

14. J. K. Taylor to Boring & Tilton, Mar. 22, 1900, RG 121, WNRC.

15. Vanderlip to Garber, Mar. 29, 1900, RG 121, WNRC.

The construction of the hospital building progressed at a fairly rapid rate. In early November, Garber was paid $350 to furnish and set up eight coal-burning stoves to protect the building for six weeks at which time it was anticipated that the building would be completed.[16] In early December, Garber informed the Ellis Island officials that his contract would be virtually completed by December 10.[17]

Within several weeks two inspections of the hospital building were made. Boring & Tilton reported on December 11 that the following work was incomplete: porches, slate bases, glazing, carpenter work (first floor), ornamental ironwork, marble work on floors, copper gutters, patching, and shelving. However, the following items were constructed contrary to the drawings and specifications: valves, dormers, and stairs.[18]

William E. Leland, the inspector of heating, hoisting, and ventilating apparatus, also filed a lengthy report relative to the inadequate plumbing facilities provided by Garber.[19]

On January 11-12, 1901, Boring & Tilton and Leland conducted an extensive inspection of the hospital building. Included in their findings were 29 items of defective work (amounting to more than $3,700) that needed to be corrected as follows:

	Boring & Tilton	Roberts
Main stairs (axis 9) to be reconstructed	$875.00	$875.00
Gate valves on pipes where called for	300.00	300.00

16. H. A. Taylor to Garber, Nov. 2, 1900, RG 121, WNRC.

17. J. K. Taylor to Superintendent of Construction, Dec. 7, 1900, RG 121, WNRC.

18. J. K. Taylor to Garber, Dec. 11, 1900, RG 121, WNRC.

19. Leland to Supervising Architect, Dec. 17, 1900, RG 121, WNRC.

Circulating hot water pipes to be covered and all covering to be secured where loose	250.00	250.00
Construct supports for elevator sheaves	84.00	84.00
Point up joints in slate floors of veranda and make the slate even	20.00	20.00
Marble base in vestibule to fit walls as directed	38.00	38.00
Slate cove to be made level with floors	75.00	75.00
Slate plinths to be wired and reset or screwed to position	30.00	30.00
Treads in stairways at elevator shafts to be made level	400.00	400.00
Saddle between room 304 and hall to be fitted correctly	$ 4.50	$ 4.50
Channels at end of porches to be properly secured and front channel raised to proper position	75.00	75.00
Pointing of outside stonework and straightening granite base course	24.00	24.00
Wood base to be fitted close to wall where sprung off	40.00	40.00
Stops in glass door to be fitted	12.00	12.00
Hooks and staples to basement sash	4.00	4.00
Brackets to veranda and correcting pitch of gutters	15.00	15.00
Doors in basement, where not hung on account of steam pipes, to be glazed, painted, and hardware furnished	25.00	25.00
Test of plumbing fixtures	50.00	50.00
Replacing short radius elbow in soil pipe, room 302	10.00	10.00
Water supply risers to be supported at base and discharge pipe to tank	10.00	10.00
Supply of drip valves for hose connection	15.00	15.00

Supply the missing hose and sprinkler in bath	2.50	2.50
Changing street washer supply in room 1	5.00	5.00
Painting and bronzing flush pipes	6.00	6.00
Patching of plastering and painting of slate work	9.00	9.00
Securing tanks to water closet with proper brackets and clips and all screws	11.00	11.00
Resetting hearths, rooms 209 and 104	12.00	12.00
Cleaning the building and grounds and plumbing fixtures	25.00	25.00
Reset marble base at first story corridor, stair hall, rear vestibule, and second floor toilet rooms; fit tile to water pipes in toilet rooms, replace broken edged tile and stained at various floors, make proper joints and finish	--	70.00

In addition, there were three items of defective work that the government did not want corrected but for which the sum of $525 was to be deducted from the contract. These items were as follows:

	Boring & Tilton	Roberts
Stonework was built up in advance of brickwork at corners, contrary to specifications; deduction	$100.00	$100.00
Brick work was built with false headers not properly bonded; deduction	300.00	300.00
Dormers over elevator shafts are off center, causing jogs in the wall; certain lintels were omitted from the interior brick walls; deduction	125.00	125.00

One of Garber's barges was sunk in the ferry slip adjacent to the hospital building, and the sum of $750 was to be retained until the boat was removed.[20]

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20. Spaulding to Garber, Jan. 14, 1901, and Roberts to Vanderlip, Jan. 12, 1901, RG 121, WNRC.

Although Garber was instructed to make the necessary corrections by February 1, he did not complete most of them until the latter part of March. Although several of the corrective measures had not been completed, Treasury officials were interested in finalizing a settlement of the contract in early April. Accordingly, the sum of $902 was deducted from the amount due to Garber as follows:

Incident to change of spandrel under first flight of stairs on axis 9	$ 75
Omitting cleaning and correcting marble tile and base	70
Stonework built up in advance of brickwork	100
Brickwork built with false headers not properly bonded	300
Dormers over elevator shafts off center and certain lintels omitted from interior brick walls	125
Incident to changes in iron work in roof	147
Omission of work of making slate cove level with floors	75
Omitting to replace short radius elbow in soil pipe	10
TOTAL	$902[21]

Finally in mid-April a final payment on the contract was made to Garber. This sum included allowance of $210 for the substitution of 3-inch book tile in lieu of 2-inch book tile on the main center roof of the building. In May, Garber was paid an extra $149.40 for providing additional steel beams to support the chimneys on the building and for laying concrete floors in rooms 8, 10, 11, 12, 14, and 15.[22]

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21. Ailes to Disbursing Agent, Apr. 9, 1901, Gage to Garber, Feb. 1, 1901, J. K. Taylor to Superintendent of Construction, Mar. 23, 1901, and H. A. Taylor to Garber, Mar. 30, 1901, RG 121, WNRC.

22. Gage to Garber, July 26, 1900, J. K. Taylor to Secretary of the Treasury, Apr. 13, 1901, and H. A. Taylor to Garber, May 6, 1901, RG 121, WNRC.

The three-story brick hospital building, often known as the main or old hospital building, contained rooms for the care of some 125 patients as well as office space for the hospital staff. The following rooms were in the building:

Basement

Pipe Cellars
Storerooms
Cold Storage
Corridors
Stairs

First Floor

Women's Ward 101
Day Dining Room 102
Day Dining Room 104
Kitchen 108
Pantry 109
Men's Ward 111
Poultice Room 123
Dispensary 127
Reception Room 130
Doctor's Office 131
Dining Room 134
Toilet 135
Bath 136
Various other rooms, vestibules, and halls

Second Floor

Dining Room 202
Resident Physician 204
Dining Room 209
Dining Room 210
North Elevator
Apothecary 223
Apothecary 224
Doctor's Office 231
Various other rooms and halls

Third Floor

Large South Room
Large North Room
Sterilizing Room 301
Operating Room 304
Laboratory 314
Storage Room 321
Various other rooms and halls[23]

It is interesting to note that the new hospital building was considered inadequate to meet the needs of Ellis Island. On June 30, 1901, Terence V. Powderly, commissioner-general of immigration, reported the following:

> The new immigrant hospital on Ellis Island . . . will not afford sufficient ward space for the service. Another pavilion is

23. "Proposals for the Electric Work for the Hospital Building, Hospital Outbuilding, Surgeon's House, Bath & Laundry Building, Kitchen & Restaurant Building, Boiler House, Connecting Corridor and Covered Way (Including Ferry House), Central Lines and Outdoor Lighting," dated Feb. 11, 1901, FF 118, Hospital No. 1: Electrical Work, 1901, Ellis Island Records, DSC.

necessary for the accommodation of the patients, exclusive of those suffering from acute contagious diseases and cared for in the hospitals of the city health department under annual contract.

I would also recommend that an additional building be constructed for officers quarters, for the reason that some of the rooms designated as such in the hospital building will be needed for the accommodation of patients, and even then the hospital will be crowded, unless there should be a marked reduction in immigration and consequent lessening of the number of patients to be cared for, which is not likely to be the case in the near future.[24]

2. Surgeon's House and Hospital Outbuilding - Attilio Pasquini

In early August 1900, proposals were received for the construction of a two-story brick surgeon's house and a two-story brick hospital outbuilding, which was designed to house the laundry and autopsy room for the hospital complex.[25] The bids were all rejected because the lowest was above the amount appropriated for the work by Congress. Accordingly, Boring & Tilton made numerous unspecified changes in the plans for the buildings, and new bids were obtained for the two buildings in late August. One of the changes involved a modification in the steam-heating apparatus of the surgeon's house.

On September 5 a contract for the construction of the surgeon's house and hospital outbuilding was let to Attilio Pasquini of

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24. Annual Report, Commissioner-General of Immigration, Fiscal Year 1901, pp. 38 and 40.

25. The specifications on which the bids were based were "Proposals for the Construction of Surgeon's House, Including Heating and Ventilating, But Excepting the Electric Light Wiring . . .," dated Dec. 15, 1900, FF 129, Surgeon's House: Construction, 1900, and "Specification for Hospital Outbuilding," dated May 5, 1900, FF 125, Hospital Outbuilding/Laundry: Construction, 1900, Ellis Island Records, DSC.

New York City at a cost of $8,650 and $26,901.10, respectively. The contract included the installation of a heating and ventilating system but excluded the electrical wiring in the surgeon's house and excluded the heating, ventilating, and electrical work in the hospital outbuilding. The work, which was to be completed within nine months, also included provision for the construction of the ferry house and the covered way.[26]

Throughout the period of construction, numerous changes and additions were made to the plans and specifications for the two buildings. The most significant of these modifications were as follows:

October 17, 1900 - Substitution of wood cornices and ceilings in lieu of galvanized iron cornice and soffits of the main cornice and of the dormers in the hospital outbuilding

October 17, 1900 - Substitution of wood studding and wood lath in lieu of tile partitions and metal lath in second story (except around rooms 21 and 22) of hospital outbuilding (work later reinstated on March 19, 1901)

October 17, 1900 - Roof boards of the two structures to be 7/8" matched hemlock instead of 1-1/8"[27]

November 24, 1900 - Substitution of a first-class cement finished surface, using only German Portland cement and fine sand, blocked off to harmonize with the foundations of other buildings on the

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26. "Synopsis of Bids for Construction of Surgeon's House, Hospital Outbuilding, Ferry House and Covered Way," Sept. 4, 1900, and H. A. Taylor to Pasquini, Sept. 5, 1900, RG 121, WNRC. The surgeon's house and the hospital outbuilding were to be built in accordance with the revised specifications and drawings 1-4. The work on the modified steam heating apparatus in the surgeon's house was to be done according to drawings BTH-5, BTH-6, and BTH-7.

27. Gage to Pasquini, Oct. 17, 1900, and Spaulding to Pasquini, Mar. 19, 1901, RG 121, WNRC.

island in lieu of the random ashlar of the foundations of the surgeon's house[28]

December 3, 1900 - Line of 1-1/2-inch galvanized iron pipe run from hospital building to surgeon's house[29]

February 23, 1901 - Increase of length of autopsy room (#10) by taking space out of room #9 in hospital outbuilding[30]

March 8, 1901 - Substitution of 60-gallon extra heavy galvanized iron range boiler (Fuller & Warren Co. range #142) in lieu of specified 80-gallon boiler in surgeon's house and substitution of syphon jet water closet (John Douglas Co.) in lieu of specified washout closet in hospital outbuilding[31]

March 16, 1901 - Installation of steel beam and concrete foundation for boiler in hospital outbuilding[32]

March 18, 1901 - Installation of two iron bar gratings to windows in Rooms 20 and 25 in hospital outbuilding[33]

March 19, 1901 - Six items of work added to hospital outbuilding that had been deleted earlier because of budget limitations--plastering the walls of the second story, replacing Keene's cement wainscot, replacing terra-cotta furring of walls,

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28. Spaulding to Pasquini, Nov. 24, 1900, RG 121, WNRC.
29. H. A. Taylor to Pasquini, Dec. 3, 1900, RG 121, WNRC.
30. Gage to Pasquini, Feb. 23, 1901, RG 121, WNRC.
31. Ibid., Mar. 8, 1901.
32. J. K. Taylor to Boring & Tilton, Mar. 16, 1901, RG 121, WNRC.
33. Spaulding to Pasquini, Mar. 18, 1901, RG 121, WNRC.

replacing slate cove, supplying and setting plumbing fixtures in toilet rooms 27 and 28, and constructing stairway of iron instead of wood[34]

April 9, 1901 - Laying of marble floor and base in operating room #304 in hospital outbuilding[35]

June 22, 1901 - Installation of Kennedy Brass gate valves on water supplies in hospital outbuilding and surgeon's house and location changes of sink in kitchen of surgeon's house and wash basin in second floor of hospital outbuilding[36]

July 3, 1901 - Installation of beveled dressed pieces of Georgia pine under each end of the radiators in the hospital outbuilding and new plan to carry the brick wall to the under side of the roof[37]

August 12, 1901 - Change cresting on surgeon's house to wood balustrade similar to balustrade on two piazzas[38]

The work on the surgeon's house and the hospital outbuilding were nearly completed by mid-June 1901. At that time it was reported that the height of some window sills in the surgeon's house were uneven. It was found that the height of the walls were in excess of that originally specified because the bricks used were thicker than indicated on the drawings. Accordingly, Pasquini was ordered to raise the second

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34. Ibid., Mar. 19, 1901.

35. Ailes to Pasquini, Apr. 9, 1901, RG 121, WNRC.

36. Gage to Pasquini, June 22, 1901, RG 121, WNRC.

37. Spaulding to Pasquini, July 3, 1901, RG 121, WNRC.

38. Wetmore to Boring & Tilton, Aug. 12, 1901, RG 121.

floor to an equivalent height so that all dimensions when finished would be exactly those called for in the drawings.[39]

By June 30 the two structures were almost completed except for the finishing operations. All that needed to be done on the hospital outbuilding was a small amount of plastering and the cement floors, the finished carpenter work, the finished plumbing, and the painting. Similar work needed to be done on the surgeon's house.[40]

On November 30, 1901, a final inspection was made of the surgeon's house and the hospital outbuilding by Ed Roberts, superintendent of construction. Regarding the surgeon's house he reported the following:

> I have to state that the Surgeon's House is completed and appears to be as shown by the plan and specification, except the second floor is raised 7" with extra beams on top of the 2d floor beam, in order to make the floor the height shown on plans from floor to window stools. This makes the fascia at [the] stair well 21" instead of 13".
>
> The "solder" to sash doors to porches are shown on the plan to be cast iron - covering joint - between room floor and stone sill. These are not supplied. An oak subsill with a strip 3/4" high 7/8" wide is let into the subsill, the doors rebated to close over the strip.
>
> The drawing shows concrete under the porches. This has not been supplied.

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39. Low to Superintendent of Construction, June 13, 1901, RG 121, WNRC.

40. Roberts to J. K. Taylor, June 30, 1901, RG 121, WNRC.

Relative to the hospital outbuilding, Roberts observed the following:

> This building is completed and appears to be as shown by the plan and specification, except that the window in [the] line room under [the] stair is shown on plan to be one sash, hinged. It is made with two sash and hung with weights. Also the windows at 2d story are 5'3½" from [the] floor to [the] top of [the] window stool. They show on plans to be 4 ft. from [the] floor to [the] top of [the] stool.
>
> These changes are as directed by the architects in charge. It should be noted that the changes made necessary to [the] 2d floor of [the] Surgeon's House, and [the] height of [the] windows from [the] floor at [the] 2d story of the Hospital Outbuilding, are said to be generally owing to a larger sized brick being used for these buildings than the brick intended by the drawings.

Roberts recommended that both structures be approved.[41]

On December 30, 1901, Supervising Architect Taylor advised Secretary Gage that the buildings were completed. The contractor had been hindered by numerous obstacles such as the following:

> That a further delay was occasioned by reason of the fact that the hollow tile, lumber, iron and other material, the property of other contractors, had to be removed from the site before I could proceed with my work; that an annoying delay was occasioned by the unstable character of the ground found while excavating, necessitating formally submitting and accepting proposal for extra excavation; that a further delay was Occasioned by the exposure of the water pipes, making it

41. Roberts to Supervising Architect, Nov. 30, 1901, RG 121, WNRC.

necessary that I lower said pipes into the ground to protect them from the frost; that an additional delay was occasioned . . . by the installation of extra steel beams and concrete foundation for boiler in the Hospital Outbuilding, as well as replacing of the tile partitions and metal lathes in the second story of said building; that by reason of the damage to fireproofing partitions occasioned by the electricians, I was considerably delayed in commencing plastering in the Hospital Outbuilding; that a still further and annoying delay was occasioned by the extreme winter weather preventing progress by me on certain lines of the work, and that owing to the above and the delays in lumber and materials beyond my control, it has been impossible for me or any person to get the work done within contract time, and I have made every endeavor to push the work promptly and do it well, and for these reasons and owing to the fact that the island is inaccessible, and that the work was so scattered, making the expense of installing greater than I had expected, I respectfully request that no deduction be made from the contract price.

A final payment on the contract was made in January 1902.[42]

The two brick structures served as auxiliary buildings to the main hospital building in the island 2 complex. The hospital outbuilding contained a laundry, a linen room, and an autopsy room. The surgeon's house contained a library, a hall, a kitchen, a pantry, a dining room, and a parlor on the first floor and five bedrooms, a bath, and a hall on the second floor. The house also had a basement.[43]

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42. J. K. Taylor to Secretary of the Treasury, Dec. 30, 1901, RG 121, WNRC.

43. "Proposals for the Electric Work for the Hospital Building, Hospital Out-Building, Surgeon's House, Bath & Laundry Building, Kitchen &

3. Other Contracts

a. Heating and Ventilating Apparatus - E. Rutzler

On September 5, 1900, a contract was let to E. Rutzler of New York City for the installation of the heating and ventilating apparatus in the main hospital building and the hospital outbuilding.[44] The contract, which was to be completed within six months, included the installation of a boiler in the hospital outbuilding. The heating and ventilating apparatus was to consist of the following parts:

> Cold air inlets, properly screened, with the necessary shutters; primary indirect coils for partially warming the air, with their connections and traps; housing; doors; switch valves, etc., connected therewith. Fans to draw air into the building, with their shafts, belting, pulleys, oilers, etc. The walls in which the fans are set, with their doors etc. The motors to drive and operate the fans, with their connections, foundations, etc. Fan chambers of brickwork etc. Sheet iron warm air ducts connecting the fan chambers with the various parts of the building. Secondary coils or indirect radiators set at the lower ends of the various warm air flues in walls. Switch dampers set in the warm air flues above and below the secondary heaters. The control of these switch dampers thermostatically from the various rooms and wards (the schedule for automatic temperature regulation indicating the rooms that are to be controlled and the number of their thermostats). The sheet iron cases and enclosures for the indirect radiators. The sheet

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Restaurant Building, Boiler House, Connecting Corridor and Covered Way (Including Ferry House), Central Lines and Outdoor Lighting," dated Feb. 11, 1901, Ellis Island Records, DSC.

44. Earlier on June 23 and July 26, 1900, G. A. Suter & Company of New York City had been hired to furnish, deliver, and construct galvanized iron heating and ventilating flues in the first and second stories of the hospital building. H. A. Taylor to G. A. Suter & Company, June 23, 1900, Kemper to Boring & Tilton, July 26, 1900, and H. A. Taylor to Bidwell, Jan. 31, 1901, RG 121, WNRC.

iron flue linings for all warm air and vent flues. Certain sheet iron ducts near ceilings or floors of certain rooms. A system of direct radiation within the rooms as indicated by the plans. The control of certain of these radiators thermostatically as shown by the list of points controlled under thermostatic regulation. A system of steam pipes, both high and low pressure, and return pipes, with their valves, pipes, etc., to complete the same; with their various rising lines, branches, steam traps, etc.

The following materials were to be used in the work:

National direct radiators made by the American Radiator Co.
Indirect heaters made by H.B. Smith Co.
Deane steam pumps
Kieley steam traps
Deane pump governor
Kennedy gate valves
Jenkins Bros. globe and angle valves
Jenkins Bros. radiator valves
Kieley pressure reducing valves
Jenkins air valves
Kieley back pressure valves
Black or white japanned registers, as required on page 26 of the specification
Eddy Electric Manufacturing Company's electric motors

The total amount of the contract, which included installation of the heating and ventilating apparatus in the kitchen and laundry building, the connecting corridors, and the covered ways, was $28,833, of which $9,905.15 and $3,605 were designated for the hospital building and the hospital outbuilding, respectively.[45]

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45. H. A. Taylor to Rutzler, Sept. 5, 1900, RG 121, WNRC, and "Proposals for the Heating and Ventilating Work for the Following

The work on the two hospital buildings was virtually completed by mid-April 1901 with a few minor changes.[46] In November Rutzler signed a separate contract to run a 2½-inch pipe from the rear wall of the hospital outbuilding to 1 foot beyond the curb to the west, bury the pipe some 18 inches underground, and arrange the end to receive the blow-off pipe from the boiler in the building.[47] A final payment was made on the contract sometime in early January 1902, although 10 percent was retained pending a satisfactory test of the system for one entire heating season.[48] The system proved to operate satisfactorily throughout the winter of 1901-1902, and the final 10 percent was paid to Rutzler in July.[49]

b. Electrical Work - Frederick Pearce

On March 12, 1901, a contract was let to Frederick Pearce of New York City for the installation of the electrical work in a number of buildings on Ellis Island, including the main hospital building, the hospital outbuilding, and the surgeon's house. The itemized amounts for these three buildings in the $25,005 contract were as follows: hospital building - $2,834, hospital outbuilding - $268, and surgeon's house - $347. The wiring and circuit work were to be direct current, two wire for power and lighting, and capable of carrying 225 volts to the lamps and motors. The materials to be used in the work were as follows:

Buildings: Hospital; Hospital Outbuilding; Kitchen & Restaurant; Bath House & Laundry; Connecting Corridor; and Covered Ways," dated July 9, 1900, FF 117, Hospital No. 1: Heating and Ventilating, 1900, Ellis Island Records, DSC. The work was to be done in accordance with the specification, modified by an addendum dated July 18, 1900 (a copy of which is not extant), and drawings 14a, 15a, 16a (hospital), and 5 (hospital outbuilding). Earlier on Aug. 31 Rutzler had signed a $400 contract to install the galvanized iron flue ducts required above the second floor of the hospital building.

46. Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

47. H. A. Taylor to Rutzler, Nov. 5, 1901, RG 121, WNRC.

48. J. K. Taylor to Secretary of the Treasury, Dec. 28, 1901, RG 121, WNRC.

49. Ailes to Disbursing Agent, July 5, 1902, RG 121, WNRC.

Sprague heavy wall wiring conduit - Sprague Electric Company
Grimshaw white core wires - New York Insulated Wire Company
De Ryche outlet boxes - H. Krantz
G.I. switches - General Incorporated Arc Light Company
Chapman attachment plug outfits - Pringle Company
Edison drop cord outfits - General Electric Company
Edwards push buttons - Edwards & Co.
Edwards electric bells - Edwards & Co.
De Veau telephones - Stanley & Patterson
American watchman's time detector - American Watchman's Time Detector Co.
Vitrified self-centering ducts - American Watchman's Time Detector Co.
Pearce panel boards - Frederick Pearce
Pearce switches (knife) - Frederick Pearce[50]

The specifications provided for the installation of circuit work for electrical lighting and bell work and telephones. The latter category included an interconnecting bell and telephone system, a fire alarm system, and a watchman's detector system.[51]

Before Pearce had gone far in his work under the contract, he succeeded in obtaining approval for some changes in the materials he was to use. On April 20, the following modifications were made relative to the list of acceptable materials:

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50. H. A. Taylor to Disbursing Agent, Mar. 12, 1901, and J. K. Taylor to Boring & Tilton, Mar. 16, 1901, RG 121, WNRC; and "Proposals for the Electric Work for the Hospital Building, Hospital Out-Building, Surgeon's House, Bath & Laundry Building, Kitchen & Restaurant Building, Boiler House, Connecting Corridor and Covered Way (Including Ferry House), Central Lines and Outdoor Lighting," dated Feb. 11, 1901, FF 118, Hospital No. 1: Electrical Work, 1901, Ellis Island Records, DSC. The work on the hospital building was to be done in accordance with drawings BT-456-A-19, BT-17-A, BT-18-A, BT-20-A, and BT-21-A, the work on the hospital outbuilding with drawings BT-456-a-19 and BT-6, and the work on the surgeon's house with drawings BT-8, BT-9, BT-10, and BT-456-A-19.

51. Ibid.

Loricated wiring conduit in lieu of Sprague heavy wall conduit

Habershaw red core wires in lieu of the New York Insulated Wire Company

Electric bells with carbon contacts in lieu of platinum contacts

Galvanized iron duct in lieu of vitrified self-centering duct[52]

The electrical work proceeded slowly, due in part to the large number of buildings for which Pearce was responsible as well as lengthy delays in obtaining the materials. By December 4 the contract was completed except for some small defects and testing of the equipment.[53] In mid-January 1902 a final payment was made on the contract.[54]

c. Electric Elevator - Otis Elevator Company

On August 4, 1900, a contract was let to the Otis Elevator Company of New York City to install an electric elevator in the main hospital building. The elevator was to be completed by October 1 at a cost of $3,580 and be guaranteed for one year.[55] The elevator was to be similar to that installed in the main building on Island 1 under the same contract. A load of 2,500 pounds on the elevator was to be lifted at a speed of 125 feet per minute.[56]

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52. Gage to Boring & Tilton, Apr. 20, 1901, RG 121, WNRC.

53. Roberts to Supervising Architect, Dec. 4, 1901, RG 121, WNRC.

54. Kemper to Fry, Jan. 15, 1902 (two letters), and J. K. Taylor to Secretary of the Treasury, Jan. 16, 1902, RG 121, WNRC.

55. Vanderlip to Otis Elevator Co., Aug. 4, 1900, RG 121, WNRC. The work was to be done in accordance with the specifications dated Apr. 14, 1899, with amendments dated Apr. 26, 1899, and drawings 23-A, 318, and 271.

56. Kemper to Boring & Tilton, Apr. 26, 1899, RG 121, WNRC.

Two other contracts were let for work associated with the installation of the elevator. On March 13 the Otis Elevator Company signed a separate contract to place a pit under the elevator car. Later on April 6, the Achille Bataille & Company was hired to erect an elevator enclosure.[57]

The work on the elevator in the main hospital building proceeded slowly as a result of the unavailability of current. On April 12, 1901, Inspector Leland reported that the "car and counterweight guides, overhead work, sheaves, etc. are all in place and the car is also erected and hung in the wellhole. The foundations for the engine are completed and the engine is being erected thereon. No cables or other furnishings are yet in place. All work so far completed appears to be in accordance with the specification except the car and counterweight tee guides, which are exactly like those in the Main Building."[58]

In December a leak in the basement of the building caused considerable damage to the electric motor for the elevator, thus hindering the work even more.[59] The elevator was finally completed in mid-January 1902. Because the contractor had only been able to build the elevator "at such times as the advancement of the building and conditions would permit," the government waived the penalty for the late completion of the work.[60]

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57. H. A. Taylor to Otis Elevator Co., Mar. 13, 1901, Ailes to Achille Bataille & Co., Apr. 6, 1901, and H. A. Taylor to Disbursing Agent, Apr. 15 and May 13, 1902, RG 121, WNRC.

58. Leland to Supervising Architect, Apr. 12, 1901, RG 121, WNRC.

59. H. A. Taylor to Otis Elevator Co., Jan. 27, 1902, RG 121, WNRC.

60. J. K. Taylor to Secretary of the Treasury, May 12, 1901, RG 121, WNRC.

d. Refrigeration Units - Brunswick-Balke-Collender Company

On January 8, 1901, a contract was let to the Brunswick-Balke-Collender Company of New York City to install refrigeration units in the hospital building and the hospital outbuilding.[61] The equipment was not completely installed until January 1902.[62]

e. Sterilizing and Disinfecting Apparatus - Kensington Engine Works

On January 8, 1901, a contract was let to the Kensington Engine Works of Philadelphia to install sterilizing and disinfecting apparatus in the hospital outbuilding at a cost of $1,490.[63] The work was completed in December.[64]

f. Kitchen Equipment - Bramhall-Deane Company

On January 9, 1901, a contract was let to the Bramhall-Deane Company of New York City to install kitchen equipment in the hospital building.[65] The equipment included ranges, tables, and other fixtures. The equipment was installed by April 2, but it could not be tested until mid-April when the steam lines were connected to the hospital building. The final payment on the contract was made in July.[66]

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61. J. K. Taylor to Commissioner of Immigration, Port of New York, Jan. 8, 1901, RG 121, WNRC. The work was to be done in accordance with drawings BT-30 and BT-31.

62. Kemper to Brunswick-Balke-Collender Co., Jan. 21, 1902, and Kemper to Secretary of the Treasury, Jan. 29, 1902, RG 121, WNRC.

63. J. K. Taylor to Commissioner of Immigration, Port of New York, Jan. 8, 1901, RG 121, WNRC. The work was to be done in accordance with drawing BT-31.

64. Kemper to Kensington Engine Works, Dec. 27, 1901, RG 121, WNRC.

65. H. A. Taylor to Bramhall-Deane Co., Jan. 9, 1901, RG 121, WNRC. The work was to be done in accordance with drawing BT-30.

66. Low to Secretary of the Treasury, July 17, 1901, and Wetmore to Bramhall-Deane Co., July 19, 1901, RG 121.

g. Laundry Machinery - Troy Laundry Machinery Company

On January 9, 1901, a contract was let to the Troy Laundry Machinery Company of New York City to install laundry machinery in the hospital outbuilding.[67] The work was completed in December.[68]

B. Additions, Alterations, and Maintenance - 1901-1954

1. Covering of Exposed Piping and Smoke Breeching - 1901

On June 14, 1901, a contract was let to the H. W. Johns Manufacturing Company of New York City to cover with nonconducting materials the exposed piping and smoke breeching on a number of buildings on Ellis Island, including the hospital building, hospital outbuilding, and surgeon's house. The following coverings were to be used:

70 percent asbestos fire-felt sectional covering for high pressure steam service

35 percent asbestos sectional covering (Asbestocel) for low pressure steam service

Asbestos air-cell block covering (in lieu of plastic cement) for covering ducts, tanks, and water heaters

Felt covering for cold water piping

The work on the hospital structures was completed by September.[69]

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67. H. A. Taylor to Troy Laundry Machinery Co., Jan. 9, 1901, RG 121, WNRC.

68. J. K. Taylor to Secretary of the Treasury, Jan. 15, 1902, RG 121, WNRC.

69. "Synopsis of Bids for Covering Steam Pipes, Tanks and Other Hot Water Surfaces, Cold Water Pipes, Ducts, Etc.; in the U.S. Government

2. Installation of Bell Traps - 1901

In April 1901 several proposals by James Armstrong of New York City were accepted to install various bell traps in the hospital building. These proposals included the following:

> Fit up outlets to fourteen 4-inch bell traps in basement with brass ferrule and brass screw cap
>
> Remove present bell traps in floors of two bathrooms on first floor and two on second floor and substitute traps having a concave perforated face, the face plate in basin to be nickel-plated brass and the trap to be lead[70]

3. Filling Up Elevator Pit - 1901

Louis Wechsler agreed to fill up one elevator pit in the hospital building in April 1901. The pit was filled with concrete and covered with an asphalt floor.[71]

4. Alteration of Wall Under Stairs - 1901

During the spring of 1901 James F. Oliver of New York City made several alterations and repairs in the hospital building. A wall under a stairs was altered, and a marble floor and base were repaired. A broken hopper in a toilet on the third floor was also replaced.[72]

Building, Immigrant Station, Ellis Island, N.Y.," May 14, 1901, Ailes to H. W. Johns Manufacturing Co., June 14, 1901, and J. K. Taylor to Secretary of the Treasury, Jan. 17, 1902, RG 121, WNRC.

70. J. K. Taylor to Superintendent of Construction, Apr. 1, 1901, Ailes to Armstrong, April 5, 1901, and Wetmore to Superintendent of Construction, July 11, 1901, RG 121, WNRC.

71. J. K. Taylor to Superintendent of Construction, Apr. 9, 1901, and Wetmore to Superintendent of Construction, July 30, 1901, RG 121, WNRC.

72. H. A. Taylor to Oliver, Apr. 20 and June 8, 1901, and Wetmore to Superintendent of Construction, July 12, 1901, RG 121, WNRC.

5. Painting and Miscellaneous Repairs - 1901

In July 1901 Louis Wechsler was hired to make a number of repairs to the hospital building. The projects included painting plaster walls and ceilings above basement of entire building, hosing doors, hosing windows, replacing missing hardware, replacing broken glass, resetting drain boards, and repairing plaster work.[73]

6. Waterproofing Basement of Hospital Building - 1901

In August 1901 steps were taken to make the basement of the hospital building impervious to water, particularly during high tides. It was determined to build a ditch that was connected to a sump in which an electric pump would be located.[74]

On October 12 a contract was let to James Armstrong to construct the necessary elements of the drainage system.[75] During the course of construction it was decided to install scupper hole closers and backwater valves in the drainage system.[76] It was also determined to install a larger sump tank (8' 4" x 8' 6" x 7' 6") than was called for by the original contract.[77] Other changes in the specification included the substitution of Portland cement concrete in lieu of brick required for laying the lower portion of the wall around the sump.[78] The work was completed in January 1902.[79]

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73. Spaulding to Wechsler, July 20, 1901, Gage to Wechsler, July 29, 1901, Ailes to Wechsler, July 30, 1901, Kemper to Superintendent of Construction, Oct. 18, 1901, and H. A. Taylor to Disbursing Agent, Oct. 19, 1901, RG 121, WNRC.

74. Low to Boring & Tilton, Aug. 20, 1901, RG 121, WNRC.

75. H. A. Taylor to Armstrong, Oct. 12, 1901, RG 121, WNRC. The work was to be done in accordance with the specification dated Sept. 16, 1901, and drawing BT-28-A.

76. H. A. Taylor to Armstrong, Nov. 9, 1901, RG 121, WNRC.

77. Gage to Armstrong, Nov. 21, 1901, RG 121, WNRC.

78. Ibid., Dec. 10, 1901.

79. J. K. Taylor to Secretary of the Treasury, Jan. 30, 1902, RG 121, WNRC.

7. Alterations in Basement of Surgeon's House - 1902

In February 1902 Williams & Gerstle of New York City were paid $548 to raise the floor of the basement in the surgeon's house. The work included the raising of the boiler and all necessary modifications in the plumbing and steam pipes.[80]

8. Paving Space Around Hospital Building - 1902

The Deficiency Act approved on July 1, 1902, made available $2,625 for paving space, 10 feet in width, around the hospital building. The area to be covered, some 10,500 square feet, was to be paved with asphalt, cement, or granolithic material.

The same bill also provided $1,250 for raising the grade of the hospital building cellar to keep out tidewater during abnormally high tides. However, unforeseen engineering difficulties prevented this project from being carried out.[81]

9. Miscellaneous Improvements - 1903-1904

During this time, two minor improvements were made to the main hospital building. An additional toilet room was added at a cost of $937, and shelving was installed in the basement at a cost of $834.[82]

10. Construction of Hospital Addition - 1905-1907

The Sundry Civil Bill approved on March 3, 1903, made available $100,000 for the construction of an addition to the hospital (later

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80. H. A. Taylor to Williams & Gerstle, Feb. 3, 1902, RG 121, WNRC. The new surgeon also complained that the floors were asphalt rather than wood. However, the original plans called for asphalt floors in accordance with the wishes of the surgeon then in charge, and there was no money available to cover the floors with wood at this time. J. K. Taylor to Superintendent of Construction, Jan. 7, 1902, RG 121, WNRC.

81. Sargent to Secretary of Commerce and Labor, Jan. 10, 1907, RG 85, NA, and U.S., Congress, House, Committee of Appropriations, Improvements at Ellis Island Station, H. Doc. 625, 57th Cong., 1st sess., May 23, 1902.

82. "Permanent Improvements at the U.S. Immigrant Station, Ellis Island, New York Harbor, 1903-1905," RG 85, NA.

known as administration building). According to an investigation then underway, it was found that the original hospital building was both poorly constructed and too small:

> The hospital building also is entirely inadequate. It has been so constructed that at high tide water enters the basement, and a pump is consequently kept in motion to rid the building of this water. If water in the lower part of an ordinary house is apt to injuriously affect healthy inmates, it stands to reason that it is more seriously detrimental in a hospital. Moreover, the hospital at Ellis Island is too small. It has room for at best 125 beds. The doctor in charge states, with reason, that at least 250 beds are needed. The result of this lack of space has been injurious to all concerned. Many of the sick have to be taken to other hospitals on Long Island and Manhattan Island. The charges at other hospitals are higher than those at Ellis Island, and the control is naturally also less complete. Consequently we indorse the recommendation of the authorities at Ellis Island that a new hospital be erected, which shall be large enough to accommodate at least 250 beds, and which shall be constructed in such a manner that tide water cannot enter any part thereof.[83]

By January 1904 it was found that the appropriation of $100,000 for an addition to the hospital was inadequate to meet the pressing needs on Ellis Island. Accordingly, an additional $200,000 was requested on January 4 to construct a new hospital in the vicinity of the existing facilities. It was also determined that the addition would eventually become the central or administrative section of the hospital complex on island 2.[84] The new request was accompanied by the following explanation:

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83. U.S., Library of Congress, Report of the Commission Appointed by the President on September 16, 1903, to Investigate the Condition of the Immigration Station at Ellis Island (Washington, 1904), p. 15.

84. Stoner to Chief Engineer and Superintendent, Mar. 9, 1908, RG 85, NA.

> The present hospital accommodates 125 patients. At times the medical officers must make provision for over 500 patients. This is now done partially by overcrowding the existing hospital and partly by sending large numbers of patients to the Long Island College Hospital. Both of these practices should cease. The appropriation of $100,000 made by the last Congress for an additional hospital is now shown by experience to be utterly inadequate. A hospital of almost double the size of the present hospital (which cost about $160,000) should be erected at once. The fact that many sick aliens having unclean habits have to be cared for is an additional reason why such hospital should be equipped as well as any modern hospital.[85]

Despite the overcrowding on Ellis Island, this request was never granted.

Meanwhile, the $100,000 addition to the hospital building was delayed pending the result of ejectment proceedings that were instituted in the U.S. Courts by the General Proprietors of the Eastern District of New Jersey against Commissioner of Immigration Williams in March 1903. After the successful resolution of the lawsuit, bids were solicited for the erection of a three-story and basement addition to the hospital building during the summer of 1905. The building was to be 60 by 80 feet and connected to the hospital building by a short passageway. On October 4, a formal contract amounting to $98,700 was let to the Northeastern Construction Company of New York City. Two stipulations were added to the contract--a sump, if needed in the basement, would be installed for $900; and piling, which might be required in excess of the depth called for in the specifications, would be paid at a rate of 40 cents per foot. The hard plaster to be used was Ringo Windsor or Acme and

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85. U.S., Congress, House, Committee on Appropriations, Ellis Island Immigrant Station, New York, H. Doc. 392, 58th Cong., 2d sess., Jan. 13, 1904, and New York Times, Jan. 16, 1904.

the water closets, washbasins, bathtubs, shower baths, and sinks were all to be Mott's fixtures. In keeping with the architectural style of the original building, the floors were to be of cement and the exterior walls were to be of brick The contract included the installation of a dumbwaiter, steam heating, electrical wiring, and plumbing fixtures.[86]

During the course of construction, several changes were made in the plans for the hospital addition. In March 1906 approval was granted to allow the contractor to continue the foundation walls to the top of the granite watertable with concrete instead of brick. The principal reason for the change was the probability that the bricklayer's union would become involved in the general building trades strike then taking place in New York City, whereas the concrete workmen were likely to remain at work. The change affected some 2,500 cubic feet of masonry. The contractor was required to use a plate or some other inside finish for concrete moulds to secure a smooth wall on the lower 3 feet 6 inch portion of the interior basement walls.[87]

In October 1906 it was determined to install Kinnear pressed steel radiators in the hospital addition. The new radiators were a departure from the custom on Ellis Island of installing American cast-iron radiators for ordinary low-pressure service. The new radiators, which were guaranteed against leakage and mechanical injury

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86. "Proposal for the Erection and Completion of the Three Story and Basement Extension to the Hospital Building," Aug. 30, 1905, Murray and Dobler to Watchorn, Aug. 30, 1905, Sargent to Commissioner of Immigration, Ellis Island, Sept. 14 and 18, 1905, Garber to Commissioner of Immigration, Ellis Island, Sept. 21, 1905, and Watchorn to Sargent, Oct. 9 and 28, 1905, RG 85, NA.

87. Garber to Chief Engineer & Superintendent, Feb. 17, 1906, Larned to Commissioner of Immigration, Ellis Island, Feb. 23, 1906, Fry to Secretary of Commerce and Labor, Feb. 26, 1906, Sargent to Commissioner of Immigration, Ellis Island, Mar. 3, 1906, and Watchorn to Sargent, Mar. 14, 1906, RG 85, NA.

for five years, were to be tested in actual service for possible use elsewhere on the island.[88]

The following month the contracting firm was authorized to substitute extra heavy cast-iron pipe for the five sewers that passed from the hospital extension through the cribwork. The tile drain pipe originally specified was found to be susceptible to breakage. The five sewers combined amounted to about 100 feet of pipe.[89]

Construction proceeded more slowly than expected, caused in part by severe winter weather. After being granted an 84-day extension on its contract, the Northeastern Construction Company completed the building in February 1907.[90] The new addition of the hospital was opened to patients in April, but it soon proved inadequate to meet the pressing needs of the waves of immigrants coming to Ellis Island.[91]

11. Construction of Psychopathic Ward - 1906-1907

On December 1, 1905, Commissioner Watchorn recommended that a portable hospital pavilion be purchased to house insane aliens while they awaited deportation. At the time there was no suitable place in which they could be kept except with the excluded aliens in the detention

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88. Fry to Secretary of Commerce and Labor, Oct. 11, 1906, RG 85, NA.

89. Garber to Chief Engineer & Superintendent, Oct. 29, 1906, and Larned to Commissioner of Immigration, Ellis Island, Nov. 3, 1906, RG 85, NA.

90. Watchorn to Sargent, Dec. 10, 1906, Garber to Commissioner of Immigration, Ellis Island, Dec. 22, 1906, and Garber to Commissioner-General of Immigration, Feb. 8, 1907, RG 85, NA.

91. "Report of the Commissioner-General of Immigration, July 1, 1907," in Reports of the Department of Commerce & Labor (Washington, 1907), p. 152.

rooms or the wards of the hospital--an alternative that proved to be unsatisfactory.[92]

There were also other recommendations for the care of the insane. These included making alterations on the second floor of the powerhouse on island 1 and adding an extension to the hospital outbuilding on island 2. However, neither of these proposals was attractive because the former would place the insane aliens directly above the machinery in the powerhouse, and the latter would locate them near the autopsy room and hospital laundry machinery in the hospital outbuilding.[93]

During the period of indecision, the growing number of insane aliens being temporarily detained prior to deportation made the problem of their care one of the most pressing issues on Ellis Island. The numbers were as follows:

Year	Insanity	Idiocy	Other Mental Defects
1900	28	1	0
1901	17	5	25
1902	26	3	29
1903	21	5	25
1904	24	13	20
1905	59	22	47
1906	122	54	97[94]

92. Watchorn to Sargent, Dec. 1, 1905, RG 85, NA. Apparently, a padded room had been fitted up for the detention of insane aliens, but it proved to be impractical.

93. Ibid., Dec. 26, 1905, and Stoner to Commissioner of Immigration, Dec. 24, 1905, RG 85, NA.

94. "Report of James Bronson Reynolds to the President of the United States," Nov. 28, 1906, RG 85, NA. This report also provides an indepth review of the treatment of the insane aliens on Ellis Island during 1906.

Finally it was determined to provide a separate building for the insane by constructing a pavilion extending from the connecting corridor between the hospital building and the hospital outbuilding. It was proposed to provide a permanent building of the cheapest method of construction that would provide separate compartments for men and women consisting of ward space, water closets, bathrooms, and isolation rooms for disturbed cases. The plan of the building would follow the design of the Ducker hospital pavilion. Later it was determined that the building should be a two-story structure of more substantial design to house ten patients of each sex.[95]

The cost of the new structure, approximately $30,000, was funded under the Deficiency Act approved April 27, 1904.[96] Bids were solicited for the work beginning on August 20, 1906, and the proposal of William F. Holding of New York City was accepted on September 19.[97] The building, known as the psychopathic ward, was completed at a cost of $28,300 and opened to patients in November 1907.[98] At its completion the building, with dimensions of 60 by 36 feet and a small porch on its west side facing the hospital basin, provided quarters for about 25 persons.[99]

12. Construction of New Hospital Extension - 1908-1909

In June 1907, the commissioner-general of immigration announced that the recently opened extension to the hospital building still

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95. Stoner to Commissioner of Immigration, Ellis Island, Dec. 21, 1905, and Jan. 29 and Mar. 6, 1906, and Howell to Watchorn, Jan. 6, 1906, RG 85, NA.

96. Watchorn to Sargent, June 11, 1906, Sargent to Commissioner of Immigration, Ellis Island, June 19, 1906, and Sargent to Secretary of Commerce and Labor, Jan. 10, 1907, RG 85, NA.

97. Murray to Sargent, Aug. 20, 1906, and Sargent to Commissioner of Immigration, Sept. 19, 1906, RG 85, NA.

98. Annual Report, Commissioner-General of Immigration, Fiscal Year 1908, pp. 135-36.

99. "Report of James Bronson Reynolds," Nov. 28, 1906, RG 85, NA.

did not meet all the demands of the rising influx of immigrants. In order to provide sufficient hospital accommodations at Ellis Island, an additional wing, corresponding in size and external appearance to that of the original hospital building, was an absolute necessity. The new extension would cost approximately $250,000.[100] Following a request for funding the proposed project, Congress responded by appropriating the necessary amount in the Urgent Deficiency Act approved on February 15, 1908.[101]

During March and April there was considerable discussion concerning the design of the proposed building that would become known as the new hospital extension. In early March George W. Stoner, the chief medical officer, was requested to submit sketches for the arrangement of each floor above the basement, which was to be essentially a pipe cellar. Stoner quickly objected to the basement being a mere pipe cellar and argued that basement space was a very important feature of any hospital building. Because of the low level of the basement floor in the original hospital building, that basement was often damp and subject to periodic flooding. Moreover, the basement in the recently completed hospital addition, which had been built on a higher level, would be needed for general kitchen purposes and storerooms for the administrative section once the proposed new extension was completed. Hence, a full basement was a necessity in the new extension. Stoner urged that it "would be difficult to overestimate the importance of following the same level on all the floors as now obtains in the new section of [the] existing hospital." He recognized that such a plan would carry the roof of the new extension to a higher level than the roof of the original hospital building and would result in an asymmetrical exterior facade. However, he felt that utility should be given equal weight with external appearance. Accordingly, Stoner wondered if slight architectural changes might be affected in the roof and chimneys of the old building so as to

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100. "Report of the Commissioner-General of Immigration," July 1, 1907, pp. 150-52.

101. Sargent to Commissioner of Immigration, Ellis Island, Feb. 29, 1908, RG 85, NA.

make it look higher, or if some modification could be made in the roof and windows of the new extension to compensate for the different levels.[102]

On March 24 Stoner submitted his ideas for the floor plan of the new hospital extension. His plans were similar to those of the original hospital building except for changes in the location of some bathrooms, toilets, and stairs.[103]

Four days later Chief Engineer & Superintendent Fry requested the opinion of Supervising Architect Taylor on the matter. Fry observed that

> it will be remembered that the original building, as designed by Messrs. Boring & Tilton, through an error as regards levels, had its cellar so low as to be exposed from time to time to flooding at high tide. Because of the obvious expense and difficulty in putting in a pan, on an artificial island, in the extension that we recently built, we raised the cellar level and all floor levels as indicated on sketch transmitted, reaching the corresponding floors of the original hospital, which were lower than said extension, by inclines.
>
> If we harken to the request of the Chief Medical Officer at Ellis Island, Dr. Stoner, we will pursue the same policy as regards cellar and floor levels of proposed extension; but, if we do this, the roof line of said proposed extension will be about 40 inches higher than the roof line of the original building, and the sill courses will be also higher, the variation in levels being indicated by red lines on sketch transmitted. The only reason why we cannot match as, regards levels of roof and levels of

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102. Stoner to Chief Engineer & Superintendent, Mar. 9, 1908, RG 85, NA.

103. Ibid., Mar. 24, 1908.

courses the original hospital, which I think we ought to do is difficulty in getting a practicable cellar under the proposed extension. We cannot afford a pan, and, moreover, in the event of any abnormally high tide, it would be quite possible for us to have the pan burst through upward pressure unless tremendously reinforced with steel.

What I desire to have is the opinion or instructions of your office in this matter. Shall we keep the head-room in cellar down to say about five feet, which would, in effect make it only a pipe cellar, or shall we give the nine foot head-room of the recent extension? If we adopt the former course, it seems to me we best regard architectural appearances, and we give up only the use of a cellar, if, on the other hand, we use nine-foot head-room in proposed extension, to match the recent extension, which is the central feature of this building, I fear a most unpleasant appearance as regards roof lines and sill courses heretofore referred to.

It is true, that if we make the proposed extension on the same level as the original hospital, or old building, we will have to put in inclines for each floor as we did when we built the central portion.[104]

Taylor replied to this inquiry on April 6. Among his observations were the following:

After carefully considering the features in connection with this matter, it is considered very desirable to maintain the sill and roof lines in the new building at the same height as those of the original building; and while from the standpoint of the

104. Fry to Supervising Architect, Mar. 28, 1908, RG 85, NA.

mechanical equipment the reduction of the basement story to a five foot pipe cellar would not make so desirable an arrangement as if the cellar were nine feet high, such reduction appears necessary, and in the opinion of this office the work should be carried out accordingly.[105]

Writing on behalf of Commissioner Watchorn, Joseph Murray, the acting commissioner at Ellis Island, submitted his views on the matter in a letter to Commissioner-General Sargent On April 13. He noted that

> I concur absolutely in the opinions expressed by Dr. Stoner in regard to this matter. The slight difference in the architectural appearance of the building by having the floors of the new building and that to which it will be attached on the same level is of little importance, in my judgement, as compared with the great difficulty and inconvenience which would be occasioned by placing the floors of the new building on a level lower than that of the present extension. Experience has indicated that it is impossible to convey food from one wing to another up these inclines. It is likewise inconvenient and even dangerous for patients who are in a weakened condition to be compelled to ascend or descend such inclines. This condition also prevails in transferring patients on stretchers from one ward to another.
>
> Storage space is always essential in an institution of this character, and I should regard it as extremely poor judgement to expend the amount of money involved in this construction and eliminate a basement suitable for this purpose. The material and the manner in which it is put together are

105. Taylor to Chief Engineer & Superintendent, Apr. 6, 1908, RG 85, NA.

essentially points for decision by the architects, but the arrangement of the rooms, floor level, and basement space should, in my judgement, be left to the medical officers who are in charge of, and to be held responsible for, the patients confined therein. I believe that, so far as possible, the structure should be built in a manner which will facilitate, rather than interfere with, the performance of their duties.[106]

The controversy over the design of the new hospital extension was finally settled by Supervising Architect Taylor in a letter to the commissioner-general on April 25. Among his conclusions were the following:

I beg to advise you that I agree in a great measure with the suggestion of Doctor Stoner that the floor levels of the central building and the new wing should be kept coincident, and that rather than sacrifice convenience a certain amount of sacrifice of design should be made, but at the same time I believe that both ends can be accomplished by a little careful study of the lines of the building.

The main water-table for instance coincides on the first portion of the building, and the new central building and can be continued through on the same level in the new wing. Above that, the lines of the central wing and the new wing would naturally coincide.

As for the height of the roof above the first portion built, if my remembrance serves me rightly, Mr. Fry says there will only be a difference of about forty inches. If this is the only difference, I feel reasonably certain that in consideration of the

106. Murray to Sargent, Apr. 13, 1908, RG 85, NA.

distance they are apart this difference would not be noticed, and even that small difference probably can be partially overcome by flattening the pitch of the roofs of the new wing to a slight degree.

As for Doctor Stoner's contention that they absolutely need a higher cellar under the new portion, I do not think that has much force, as from all my observations at the various times I have visited the Island, they apparently make very little, if any, use of the cellar they already have under the central portion (more than a small amount of storage) and it is not believed that a very great change in design would be wise to allow a much greater storage capacity in the new basement.

In conclusion I would recommend that the floors in the new wing should be kept on the same level as those in the central building, and that the problem should be carefully studied to reduce the apparent differences to as small a degree as may be possible, and further that if any point is to be sacrificed in this arrangement that the basement height should be the last to be given consideration, and that a study on the lines of drawing "A" would seem to be a satisfactory solution of all questions.[107]

Plans and specifications for the new hospital extension were drawn up in May. Between June 29 and July 16, five separate contracts were let for the work.

The first contract was let on June 29, 1908, to the New York State Construction Company for the erection of the building and the installation of the necessary concrete piling. The work was to be

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107. Taylor to Murray, Apr. 25, 1908, RG 85, NA.

completed by March 1, 1909, at a cost of $151,301. Among the significant points in the specification were the following:

> The base course, main entrance door sill, basement window sills, entrance platforms and steps to first floor main entrance, base to check blocks of said entrance, steps and coping to area entrances in basement were to be of granite
>
> The door sills in the basement were to be of rubbed blue stone
>
> All face stones were to be of Indiana limestone
>
> The railings, parts of columns with mouldings, entire main cornice, and trimmings for chimneys and large dormers were to be of terra cotta
>
> The exterior walls were to be of brick
>
> A course of slate was to be laid directly on top of the concrete footing and embedded through the full width of the main exterior walls
>
> The crown and top mouldings of the main cornice and gutters, ventilator tops over passage, hip and ridge rolls and flashing, gutter and valley linings, smokestack, and hoods over chimneys were to be of copper
>
> Ventilating skylights, of 1/4-inch-thick wire glass, to be placed in roof over stairs
>
> The two stairs from the basement to the third floor and one from the third floor to the attic were to be of steel and cast iron
>
> The roof was to be of 4-inch porous book tiles laid in mortar and braced by a steel framework

> The flooring in all the rooms, except for the toilets, bathrooms, laboratory, sterilizing room, and operating room which were to be of tile and the cellar and attic floors which were to be of concrete, were to be of a composition of asbestos and granite[108]

Among the materials that the New York State Construction Company proposed to use were the following: cement - Lehigh Valley, hard plaster - King's, nonstaining cement - La Farge, reinforcement bars - Concrete Steel Company, metal fabric - Clinton Wire Cloth, sanitary flooring - American Hydrolith Company, and roofing tiles - Ludowici.[109]

On July 1, 1908, a contract was let to Evans, Almirall & Company of New York City to install a heating system in the new hospital extension. The work, which was to be completed by March 1, 1909, at a cost of $20,936, included the installation of a radiation heating system in the building as well as placing special apparatus to form a complete system in the hospital building, hospital addition, new hospital extension, psychopathic ward, and surgeon's house.[110]

Another contract was let on July 1 to the Otis Elevator Company to install an electric elevator in the new hospital extension by March 1, 1909, at a cost of $2,585. The elevator was to run from the

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108. "Contract, Bond, Proposal, and Specification for All Labor and Materials Required for New Hospital Extension, Island No. 2, With the Exception of Heating, Electric Work, Plumbing Work, and Electric Elevator," dated June 29, 1908, RG 85, NA. The work was to be done in accordance with drawings 437-1 through 437-23 dated May 25, 1908.

109. "Proposal for All Labor and Materials Required for New Hospital Extension, No. 2 Island, With the Exception of Steam, Electric Work, Plumbing Work, and Electric Elevator," June 15, 1909 (1908), RG 85, NA.

110. "Contract, Bond, Proposal, and Specification for All Labor and Materials Required for the Installation of Heating Apparatus in Proposed New Hospital Extension, Middle Island, and Adjoining Buildings," dated July 1, 1908, RG 85, NA. The work was to be done in accordance with drawings 447-1 through 447-5 dated May 14, 1908.

basement to the attic, a distance of 49 feet, and have the capacity to lift an average load of 1,800 pounds at a speed fo 100 feet per minute. The machine was to be of the direct-connected worm gear type with motor and drum mounted on the same base. The motor was to be compound wound for 220 volts direct current. The elevator was to be equipped with a full magnetic control, a spring actuated magnetic brake, an automatic controller stop, and other safety devices. The car platform was to be approximately 4 feet 2 inches by 7 feet 8 inches and made of 7/8 high-dried maple.[111]

A contract for the installation of an electric conduit and wiring system in the new hospital extension was let to the Commercial Construction Company of New York City on July 3. The work was to be completed by March 1, 1909, at a cost of $10,940. The contract included the installation of all conduit and circuit work and switches as well as six panel boards and feed wires for lighting and the elevator connected from the present board in the original hospital building. A main distributing board was to be placed in the basement of the hospital addition to accommodate the needs of the entire island. In addition, a complete electrical system was to be connected from the powerhouse on island 1 to the main distributing board and thence to the subdistributing boxes, outlets, and feeder to the surgeon's house.[112]

On July 16, a contract was let to the T. J. Cummins Plumbing Company of New York City for the installation of the plumbing, tile, and marble work in the new hospital extension. The work was to be

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111. "Contract, Bond, Proposal, and Specification for All Labor and Materials Required to Install Electric Elevator in Proposed New Hospital Extension on Island No. 2," dated July 1, 1908, RG 85, NA. The work was to be done in accordance with drawing 444-1.

112. "Contract, Bond, Proposal and Specification for All Labor and Materials Required to Complete Electric Conduit and Wiring System (Except Fixtures) in Proposed New Hospital Extension, Second Island," dated July 3, 1908, RG 85, NA. The work was to be done in accordance with drawings 446-1 through 446-4.

completed by March 1, 1909, at a cost of $27,250. Included in the work was the installation of all drainage systems, plumbing fixtures, a water supply system, a water heater, marble partitions in toilet rooms, tile floors and wainscot, and marble trim in various rooms. The fixtures, all of which were to be manufactured by J. L. Mott, were to consist of the following: 8 water closets, 4 slop sinks, 21 cesspools, 9 lavatories, 7 flushing rim cesspools, 3 bathtubs, and 5 sinks. Twenty-two rooms, comprising the toilets, bathrooms, laboratory, sterilizing room, and operating room, were to have tile floors consisting of 2-inch by ½-inch vitreous porcelain American tile, and a tile wainscot consisting of white, vitreous glazed tiles to a height of 7 feet above the floor. The rooms were also to have Vermont marble window stools and marble trim around the doors and windows.[113]

The work on the contract with the New York State Construction Company proceeded more slowly than expected, thereby slowing the operations of all the other contracting firms by several months. The cold winter weather prevented the laying of the composition flooring and base because a temperature of 60 degrees was needed, and the heating apparatus in the building was not completed until March 22. The cold weather also prevented the laying of concrete sidewalks and stoops, the plastering, and the painting and trim work to be completed until late April.[114]

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113. "Contract, Bond, Proposal, and Specification for All Labor and Materials Required for Installation of Plumbing, Drainage, and Water Supply System in the Proposed New Hospital Extension, Middle Island," dated July 16, 1908, RG 85, NA. The work was to be done in accordance with drawings 445-1 through 445-3.

114. Fry to New York State Construction Co., Feb. 2, 1909, Keefe to Commissioner of Immigration, Ellis Island, Feb. 8, 1909, Fry to Commissioner of Immigration, Port of New York, Feb. 13, 1909; Watchorn to Keefe, Feb. 16 and 23 and Mar. 31, 1909, New York State Construction Co. to Chief Engineer & Superintendent, Feb. 19, 1909, Wheeler to Commissioner of Immigration, Ellis Island, Feb. 25, 1909, Shelbourne to Commissioner of Immigration, Ellis Island, Mar. 26, 1909, and McHarg to Commissioner of Immigration, Ellis Island, Apr. 5, 1909, RG 85, NA.

A change was made in the flooring of the vestibule of the building in March 1909. The plans called for a composition floor, but the vestibules in the hospital building and hospital addition were marble. Accordingly, the vestibule in the new hospital extension was given a marble floor.[115]

The New York State Construction Company completed its work in April or May 1909. Later, the firm was paid for additional work beyond that called for by the specifications as follows:

> Furnishing and installing I-beams on account of error in plan
>
> Ironwork to correct error in framing plans for vestibules
>
> Painting ornamental ironwork, thus correcting omission in plans
>
> Backing limestone with mineral wax not covered by original plans
>
> Excavating and removing soil, laying concrete sidewalk, taking up and resetting curb not originally specified
>
> Excavating for pipe trenches and incidentals not originally specified[116]

13. Construction of New Kitchen in Basement of Hospital Addition - 1909

When the new hospital extension was completed, it was found that there was some $27,000 still available from the appropriation

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115. Watchorn to Keefe, Mar. 2, 1909, and Keefe to Commissioner of Immigration, Ellis Island, Mar. 5, 1909, RG 85, NA.

116. Keefe to Commissioner of Immigration, Ellis Island, Sept. 27, 1909, RG 85, NA. For their part, Evans, Almirall & Company were paid an extra $637.25 for repairing the high-pressure steam lines in the original hospital building and removing the radiators and reinstalling them after the composition floors were laid. Larned to Commissioner of Immigration, Ellis Island, Oct. 30 and Dec. 2, 1909, RG 85, NA.

for the structure. Accordingly, it was determined that a new kitchen should be installed in the basement of the hospital addition (hereafter called the administration building after the completion of the new hospital extension). At the time there was only one kitchen for the entire hospital complex located in the original hospital building, and it was too small to serve the enlarged hospital and too far removed to serve warm meals in the new hospital extension. Accordingly, a contract was let to the Bramhall-Deane Company on June 10, 1909, to furnish and install kitchen equipment such as steam tables, range, tubs, and kettles in the proposed new quarters. At the same time, plans and specifications were drawn up for the structural alterations in the basement of the administration building.[117]

On September 10, 1909, a contract was let to the Northeastern Construction Company of New York City to make the necessary alterations in the basement. The work was to be completed within 45 working days at a cost of $3,153. The contractor was to install hollow porous 4-inch terra-cotta block partitions. In a large room, the firm was to lay a tile floor of 6-inch by 6-inch by 1-inch imported vitrified red quarry tile and a 6-foot-high wainscot of white glazed tiles. Two smaller rooms were to have cement walls, and the ceilings of all three rooms and walls of the large room above the wainscot were to be plastered. An 8-foot concrete incline was to be constructed to allow direct passage from the basement to the outside. Wire mesh partitions and railings were to be installed to set off various parts of the rooms for different functions.[118] The work was apparently completed late in 1909.

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117. Williams to Commissioner-General of Immigration, Aug. 11 and 17, 1909, Larned to Commissioner of Immigration, Ellis Island, Aug. 16, 1909, and Howell to Commissioner, Aug. 17, 1909, RG 85, NA.

118. "Contract and Bond for Certain Alterations in the Basement of Administration Building at Ellis Island," Sept. 10, 1909, RG 85, NA. The work was to be done in accordance with drawings 417-1 through 417-3.

14. Installation of Hot Water Circulating System on Main and Hospital Islands - 1910

The approval of the Urgent Deficiency Bill on February 26, 1910, made available the sum of $5,000 for the purchase and installation of a system of hot water circulating mains from the heaters in the powerhouse to each of the buildings on islands 1 and 2. A contract for the work was let to Evans, Almirall & Company, and the system was completed during the summer.[119]

15. Repairs to Roofs - 1910

In July 1910 a contract was let to James A. Jacquin to make repairs to the roofs, gutters, and leaders for all the buildings on Ellis Island. The work was completed on December 1.[120]

16. Installation of Metal Storage Bins and Shelves in Hospital Extension - 1910

A contract was let to the Van Dorn Iron Works in 1910 to install metal storage bins and shelves in the new hospital extension. The work was completed on November 16.[121]

17. Repairs to Hospital Extension Following Explosion - 1911

The explosion that rocked Ellis Island on February 1, 1911 (see chapter V.G.6.f. for more details), did considerable damage to the buildings in the hospital complex on island 2. Many windows, doors, and trimmings were broken out or dislodged. In particular, the new hospital extension was the scene of considerable damage as nearly every window on the northern side of the building was blown out. Within six hours of

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119. Keefe to Commissioner of Immigration, Ellis Island, Feb. 28, 1910, and Fry to Secretary of Commerce and Labor, Sept. 27, 1910, RG 85, NA.

120. Fry to Secretary of Commerce and Labor, Dec. 20, 1910, RG 121, WNRC.

121. Ibid.

the blast, the windows and exterior doors were boarded over and covered with cheesecloth. By mid-spring all of the broken windows, doors, frames, and damaged plaster had been replaced.[122]

18. Painting of Hospital Extension - 1911

During the spring of 1911 a contract was let to Neptune B. Smyth, Inc., to paint the interior of the new hospital extension. It was standard practice on Ellis Island to delay the painting of new buildings for at least a year after completion to allow for the seasoning and drying of the walls. If this was not done, the paint was apt to peel off the walls because of dampness. The work was completed on July 5.[123]

19. Repairs to Gutter and Cornice - 1911-1912

A contract was let to James A. Jacquin in late 1911 to repair the gutter and cornice at the northwest end of the main hospital building.[124]

20. Repointing of Hospital Building - 1912-1913

During fiscal year 1913 the original hospital building was repointed.[125]

21. Renovation of Interior of Hospital Building - 1913-1914

As early as June 1909 the immigration authorities requested $20,000 to install new plumbing and tiling in the original hospital building

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122. New York Times, Feb. 2, 1911 (two articles), and Fry to Secretary of Commerce and Labor, Apr. 8, 1911, RG 121, WNRC.

123. Williams to Commissioner-General of Immigration, Sept. 19, 1910, RG 85, NA, and Fry to Secretary of Commerce and Labor, July 24, 1911, RG 121, WNRC.

124. Fry to Supervising Architect, Dec. 18, 1911, RG 121, WNRC.

125. Annual Report, Commissioner General of Immigration, Fiscal Year 1913, pp. 184-85.

as the old equipment was worn out. The request was repeated the following July by Commissioner Williams as follows:

> New Plumbing and Sanitary Fittings for Old Hospital on No. 2 Island -- $20,000.
>
> Existing plumbing and fittings were installed some ten years ago, were of a comparatively inexpensive character and have been subjected to very hard use by immigrants.

In addition, Williams requested $4,500 for "weather strips and ventilators for sundry buildings, including particularly [the] old hospital."[126] When Congress still had not responded to the request by July 1911, Williams reiterated his recommendation for renovating the interior. As the floors in the hospital building were nearly worn out, he added the sum of $20,000 to his request to provide for new floors as follows:

> FOR RENOVATING INTERIOR OF OLD HOSPITAL ON NO. 2 ISLAND, INCLUDING NEW PLUMBING AND SANITARY FITTINGS AND NEW FLOORS - $40,000
>
> Existing plumbing, fittings and floors were installed some eleven years ago, were of comparatively inexpensive character and have been subjected to very hard use by immigrants. This plumbing if it existed today in a New York City hospital would be condemned by the Board of Health. It does not comply with the present building code requirements.[127]

The same report was made more forcefully in July 1912 as follows:

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126. Williams to Commissioner of Immigration, Ellis Island, July 13, 1910, RG 85, NA.

127. Williams to Commissioner-General of Immigration, July 7, 1911, RG 85, NA.

FOR RENOVATING INTERIOR OF OLD HOSPITAL ON NO. 2 ISLAND, INCLUDING NEW PLUMBING AND SANITARY FITTINGS AND NEW FLOORS - $40,000

Existing plumbing, fittings and floors were installed some twelve years ago, were of comparatively inexpensive character, and have been subjected to very hard use. The plumbing and fittings if found today in a New York City hospital would be condemned by the Board of Health. Due to its bad condition it has not been used for the accommodation of sick people for more than a year past, and much valuable space thus goes unused. The floors are of asphalt which softens in hot weather. In most of the wards the bed-posts and tables have made numerous holes in the floors, some of considerable size. Absolute cleanliness under such conditions is impossible, and sick people cannot be placed in such quarters. The plumbing must be renewed, proper flooring laid and the whole interior painted to put the building in proper condition.[128]

Congress finally responded by appropriating $25,000 for the interior renovation of the hospital building in the Sundry Civil Expenses Bill approved on June 23, 1913.[129]

There are no available documentary records relative to the work on the interior renovation. However, the commissioner-general of immigration reported on June 30, 1914, that the "old Hospital building had been renovated, new floors and modern and sanitary plumbing installed."[130]

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128. Ibid., July 22, 1911.

129. An Act Making Appropriations for Sundry Civil Expenses of the Government for the Fiscal Year Ending June Thirtieth, Nineteen Hundred and Fourteen, RG 85, NA.

130. Annual Report, Commissioner-General of Immigration, Fiscal Year 1914, pp. 225-26.

22. Extension of Fire Alarm System - 1914

The Sundry Civil Act, approved on August 1, 1914, made available the sum of $4,000 for the extension of the fire alarm system to the hospital islands from the powerhouse on island 1. There is no available documentation relative to the work done, but presumably the contract was completed by the end of the year.[131]

23. Repairs to Roofs - 1915-1916

On December 16, 1915, a contract was let to the Reiss Roofing Company of Brooklyn, New York, to repair the roofs of the hospital building, administration building, and new hospital extension. The work was to be completed within 60 days at a cost of $2,270. The contract included the following scope of work:

> The Flat Roofs of the East and West wings of the Easterly Hospital shall be resurfaced. The old slag shall be scraped off and the exposed felt examined for defects. All defects shall be repaired with three layers of tar and felt. The several layers shall be uniformly lapped and stuck together with hot pitch. After all defects shall have been repaired, reslag roofs using slag that is clean, free from sand and dust.
>
> All defective flashing of all skylights shall be repaired with Barrets Elasticgum and paper. Heavily coat the defective surfaces with Elasticgum and spread tarred felt over same, then apply a trowel coat of Elasticgum over the felt.
>
> All skylights shall be repaired and left watertight.
>
> All defective or cracked lights of glass shall be replaced with new whole lights having wire mesh in the glass and of a thickness of not less than the present ones.

131. Larned to Commissioner of Immigration, Ellis Island, Aug. 7, 1914, RG 85, NA.

All frames of skylights and all capping shall be straightened and made secure.

All hips of the skylights damaged by the wind shall be replaced with new ones and constructed in the most substantial manner. Eighteen (18) ounce copper, similar to the present hips shall be used but secured in such manner as to eliminate any recurrence of damage by wind.

On all buildings the ridges shall be firmly secured by means of bolts and plate; the plate shall be not less than one-quarter (1/4) of an inch thick and anchored to the under side of the steel frame structure of the roof and spaced at intervals not exceeding thirty-six (36) inches on centers.

Use steel plates and 5/16" Brass Bolts.

All defective and missing ridges shall be replaced with copper shaped to match those in place and shall be of not less than sixteen (16) ounce copper.

All searchlight stands shall be removed, and the gutters repaired and made watertight.

Tile where cracked, broken, or missing on all roofs shall be replaced with new tile of same pattern, grade of material and of color to match those in place.

One valley in particular needs new tile on the North side of the East Wing of the Easterly Hospital.

The Three (3) Smoke Stack hoods shall be removed. All loose gutter and cornice straps shall be firmly secured and end of screws burred over so nuts cannot fall off.

All leader boxes shall be carefully examined and defective ones repaired or replaced with new ones where beyond repair.

All iron used for anchors shall be painted 2 coats of red lead before placing in the work.

Bolts, washers, and all joints in the copper work shall be made watertight.[132]

24. Repairs to Hospital Buildings Following Explosion - 1916-1917

On the night of July 30, 1916, a major explosion at the railway terminals on Black Tom Wharf in New Jersey rocked Ellis Island (see chapter V.G.II for details). The walls, ceilings, roofs, and foundations of the hospital buildings were weakened, and many windows, casings, and doors were blown out. The repairs to the Ellis Island facilities took about a year to complete and cost nearly $400,000.[133]

25. Use of Hospital Complex During and Following WW I - 1918-1923

After the U.S. entered WW I in 1917, Ellis Island was used as a detention center for some 1,200 German officers and crewmen who had been removed from German merchant vessels taken over by the U.S. In addition, about 1,000 persons suspected as enemy agents and spies were rounded up and interned on the island. By early February 1918 most of the detainees had been removed from Ellis Island and sent to Fort Oglethorpe and Hot Springs or to some other inland detention camps, thus paving the way for the U.S. Army and Navy to use the island's facilities.

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132. "Contract and Bond for Repairs to Roofs of Hospital Buildings, Island No. 2, at U.S. Immigrant Station, Ellis Island, N.Y.H.," 1915, RG 85, NA.

133. Annual Report, Commissioner-General of Immigration, Fiscal Year 1917, pp. 29 and 175-78.

On March 1, 1918, the Department of Labor turned over to the U.S. Army the entire hospital complexes, consisting of 21 buildings on islands 2 and 3 as well as a large portion of the main building on island 1. The army hoped to use the hospital accommodations for up to 7,000 returning soldiers requiring medical and surgical attention. There were several reasons for the selection of Ellis Island by the War Department as a temporary hospital for returning American servicemen. One was that the restricted wartime immigration did not require the large plant on the island. Other reasons were the benefit of sea air on the recovery of the men and the advantage of keeping them away from the activities to which they would be exposed in cities and hospitals near army camps.

The U.S. Army relinquished its use of the main building on April 1, 1919, and the hospital buildings on June 30. During the 15 months that it operated the two hospital islands, the army constructed the covered way between islands 2 and 3 to provide a sheltered passage for communication between the two hospital complexes. Up to that time, the two islands had been connected by an uncovered trestle bridge about 500 feet long.[134]

As a result of an agreement between the Department of Labor and the U.S. Public Health Service, the hospitals on islands 2 and

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134. Immigration officials had been requesting funds for a number of years to connect islands 2 and 3 with a concrete, fireproof covered way. In July 1911 the following request was made: FOR COVERED WAY CONNECTING NO. 2 AND NO. 3 ISLANDS....$60,000. "Both these islands are occupied by hospitals. They are connected by a pile gangway. It will be necessary to carry sick people from one end to the other and in winter time this cannot be done without danger to life. It is earnestly recommended that proposed covered-way be of fire-proof construction, including its piles and foundations. The present covered-way connecting the various buildings on No. 1 island and No. 2 island is of wood with slate roof. It is more or less of a fire risk and in time should be replaced. Moreover the piles constituting foundation are beginning to deteriorate near the heads thereof and probably within five years at least the flooring system of said wooden covered-way will have to be replaced. It would seem undesirable to use wood in the new construction." Williams to Commissioner-General of Immigration, July 7, 1911, RG 85, NA.

3 were turned over to the latter agency on September 1, 1919, to be operated as U.S. Public Health Service Hospital No. 43. Under the agreement, all alien patients committed to the hospital by the immigration authorities were to receive precedence in admission over the regular beneficiaries of the Public Health Service, including American seamen.[135]

The new administration of the Ellis Island hospitals proved to be quite successful. In June 1922 it was reported that

> the facilities provided at the Ellis Island immigration station for the medical examination of aliens and the care and control of those requiring hospitalization can be accepted as satisfactory in every respect and as constituting a high standard. Ample space is provided for the primary and secondary examination and suitable quarters afforded for the conducting of examinations of both male and female when divested of their clothing. There are also provided adequate laboratory facilities for performing tests which are essential in arriving at a diagnosis of most of the infectious diseases.[136]

Even Sir A. C. Geddes, the British Ambassador to the United States, who was generally critical of conditions at Ellis Island, wrote a complimentary article on the hospitals:

> The principal medical officer seemed to me to be an admirable official as well as a competent and enthusiastic practitioner of the art of medicine.

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135. New York Times, Feb. 12 and 24 and Mar. 8, 1918; Annual Report, Commissioner-General of Immigration, Fiscal Year 1918, pp. 37-38, 269-72; Annual Report, Commissioner-General of Immigration, Fiscal Year 1919, pp. 28-29 and 306-08; and Annual Report, Commissioner-General of Immigration, Fiscal Year 1920, pp. 28-29, 316, and 318.

136. U.S., Library of Congress, Tenth Annual Report of the Secretary of Labor For the Fiscal Year Ended June 30, 1922 (Washington, 1922), p. 94.

His hospital arrangements are good. It is true that the buildings are in need of new paint and minor repairs. Some construction is also needed, and the technical equipment, though not bad, might be improved.

It is difficult to judge in such a matter, but my impression is that the nursing and ward maid [or ward orderly] staff might be strengthened with advantage.

The hospital has to deal with every set of disorder, ranging from slight injury to obscure tropical diseases. It is at once a maternity home and an asylum for the insane. On the occasion of my visit there was at least one patient there, a young woman, who had spent ten months in the psycho-pathic ward. This real hardship to the patient was caused by her friends maintaining a legal fight to secure her admission. That she was mentally deranged was painfully obvious. Yet there she had remained for ten months in an environment not unsuitable for an insane person detained for a few days, but wholly unsuitable for long-continued residence with a view to cure or recovery.

On the whole I thought the hospital arrangements good. I inspected the laundry, which I found to be efficient.[137]

26. Installation of Hot Water Supply and Return System - 1921

During the spring and summer of 1921, a new hot water supply and return system was installed in the hospital complex on island 2. The work included the following items:

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137. U.S., Library of Congress, Despatch from H.M. Ambassador at Washington Reporting on Conditions at Ellis Island Immigration Station (London, 1923), p. 10.

Throughout No. 2 Island, excepting in Nurses' Cottage and Red Cross building, renew all hot and circulating water branches and risers. In the various buildings [except those recently renewed in Old Hospital Building], connecting same to new hot and circulating mains and continuing to the various fixtures and apparatus. All brass piping shall be renewed from the existing trimmings on fixtures, including faucets, showers and existing polished nickel-finished brass pipe immediately in connection with the fixtures in place.

From a point in Pavilion at entrance to Laundry Building, Island No. 2, where the present 3" hot water supply connects to present 4" hot water supply install a new 3" galvanized hot water supply main supplying all hot water fixtures in Laundry Building and Boiler House, Psychopathic Ward Building, Old Hospital Building, Administration Building and New Hospital Extension, connecting at easterly wall of new Hospital Extension to new 1" supply installed under this contract to Nurses' Cottage. At the extreme easterly end of this hot water feed line connect thereto a 2" return circulation pipe containing same back through buildings and covered way already traversed by the hot water to point of commencement.

In addition to hot water work specified on Island No. 2, three sets of cold water risers in General Hospital, extending from cellar to attic, are to be renewed from the mains to outlets under this contract, using galvinized commercial steel pipe, also the entire cold water system in Laundry and room above same. Of the 3 sets of cold water risers specified, 2 of them are 1" and the other is 1-1/4.[138]

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138. "Specification for Installation of New Domestic Hot Water Supply and Return System for General Hospital, With Incidental Work," FF 131, All Buildings - Island No. 2, Hot Water Supply, 1921, Ellis Island Records, DSC.

27. Repair of Pergola - 1924

On August 30, 1924, a contract was let to the Fireproof Products Company of New York City to replace three columns supporting the upper structure of the pergola on island 2.[139] The columns were "12" in diameter, 9' 5/8" over all, 2" white pine, with caps and bases."[140]

28. Repairs to Porches and Steps - 1926

On June 9, 1926, a contract was let to Neptune B. Smyth, Inc., for the repair of the porches and steps at the rear of wards 3, 4, 7, and 8 in the hospital building. The work, which was to be completed within 60 days at a cost of $3,993, included the repair of the porches, steps, railings, and ladders. A concrete sidewalk was to be laid from the end wall of wards 3 and 4 to the curb line, and the old concrete sidewalk between the building lines around the courtyard was to be replaced.[141]

29. Installation of Fly Screens - 1928

In June 1928 a contract was let for the installation and repair of fly screens on the hospital buildings on islands 2 and 3. The screens were of 16- by 16-inch mesh solid bronze wire and were guaranteed to be insect-proof for one year. The fly screens were placed on the following openings on island 2: 41 doors, 1 transom over a door, 299 windows with wood frames, 38 transoms over windows, and 33 metal sliding screens.[142]

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139. A pergola is an arbor with an open roof of cross rafters or latticework supported on posts or columns, usually with climbing vines.

140. Levin to Commissioner of Immigration, Aug. 8, 1924, Uhl to Commissioner-General of Immigration, Aug. 12, 1924, and Sibray to Commissioner of Immigration, Ellis Island, Aug. 30, 1924, RG 85, NA.

141. "Contract and Bond for Repairs to Porches at the Rear of Wards 3 and 4, 7 and 8, General Hospital Building, at U.S. Immigrant Station, Ellis Island, N.Y.H.," 1926, RG 85, NA. The work was to be done in accordance with drawing D-993-1.

142. "Specifications for Fly Screens on Islands No. 2 and No. 3," dated June 1, 1928, FF 132, All Buildings - Island No. 2: Insect Screens, 1928, Ellis Island Records, DSC. The work was to be done in accordance with drawing E-1007-1.

30. Installation of New Pump House and Vacuum Pumps - 1930-1931

Since the original construction of the hospital buildings on island 2 in 1902, the vacuum pumps on the island had been located in a small pump house on the southwest side of the old hospital building. Accordingly, Congress granted a request for $3,900 to build a new pump house and to install new vacuum pumps in the Second Deficiency Bill approved on July 3, 1930. The justification for the request was as follows:

> Installation of new vacuum pumps on Island No. 2, and new location thereof, with necessary foundations. Estimated cost
>
> The vacuum pumps on Island No. 2 are located in the cellar. At extremely high tides, which occur not infrequently throughout the year, there are from fourteen to eighteen inches of water in the cellar and these pumps are partially submerged. Furthermore, they have been in service for approximately twenty eight years and are practically worn out with the result that it is extremely difficult and, at times, utterly impossible adequately to heat some of the wards in the hospital on Island No. 2.
>
> New pumps are absolutely necessary and it is contemplated installing them in another location.[143]

In November 1930 two contracts were let for the construction of the new pump house and the installation of vacuum pumps. The bid of C. F. Malanka ($1,195) was accepted for the construction of the pump house (including concrete work and painting) while that of the David E. Goggin Company ($3,527) was approved for the

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143. White to Roop, Apr. 29, 1930, and Hull to Commissioner of Immigration, Ellis Island, July 8, 1930, RG 85, NA.

installation of the vacuum pump (including electrical and piping work). The pump house was constructed adjacent to the psychopathic ward and covered way. It had a concrete foundation, exterior brick walls, and steel windows that swung outwards. The vacuum pump that was installed was a Jennings return line vacuum pump. The pump was bronze-fitted throughout and was connected to a 3-horsepower General Electric motor. The pump had a capacity of 26,000 square feet of equivalent direct radiation. The water capacity of the pump was 35 gallons per minute discharge against 20 pounds pressure.[144]

31. Painting Exterior of All Buildings on Island 2 - 1931

On September 23, 1931, a contract was let to Neptune B. Smyth, Inc., of New York City to paint all exterior wood and metal (except copper) surfaces on island 2 at a cost of $2,585. The work was completed in December.[145]

32. Repairs to Elevators - 1931-1932

In October 1931 a contract was let to the American Elevator & Machine Corporation of New York City to make extensive repairs and overhaul the two elevators on island 2. One of the elevators, which was to be relocated, was designed for passengers in the administration building while the other was for freight in the new hospital extension. The work, which was completed in January 1932 at a cost of $3,075, included the following:

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144. "Specifications for Replacing Vacuum Pumps, Island No. 2," dated Nov. 18, 1930, Day to Commissioner-General of Immigration, Nov. 21, 1930, and Hull to Commissioner of Immigration, Ellis Island, Nov. 24, 1930 (two letters), RG 85, NA. The work was to be done in accordance with drawings D-1153 and D-1154.

145. Hull to Commissioner of Immigration, Ellis Island, Sept. 23, 1931, and "Specifications for Painting (Exterior), Island No. 2," dated Sept. 15, 1931, RG 85, NA. The work was to be done in accordance with drawing D-1176, dated Aug. 28, 1931.

ELEVATOR NO. 8 (Administration Building)

Move the entire elevator, including machinery from the present location [old hospital building] to the center hatchway [administration building]

Make necessary excavations, foundations, set bolts, and do other work for setting machinery in available space near the hatch

Furnish all labor and material necessary for constructing overhaul supports

Cut down elevator cab to suit size of hatch

Furnish and install all necessary hatch wiring for limits, door contacts, lighting and push buttons and bells

Completely install entire elevator into center hatch and place in perfect operation

ELEVATOR NO. 9 (New Hospital Extension)

Line up and repair all doors and door locks

Repair defective door contacts

Overhaul car switch

Renew two cables from drum to counterweight and two cables from drum to car

Reline brake and adjust same

Renew car shoe gibs

Rebabbitt main drum bearings top and bottom

Furnish and install two car gates complete with locks

Furnish and install new door contact in cellar

Furnish and install new bar lock on top floor

Rebabbitt overhead bearings

Rebabbitt king counterweight shoes

Install new 7drop annunciators to be marked
B - 1 - 1F -2F - 2 - 3 - 4

Renew end thrust complete

Remove armature to shop and turn down commentator

Renew motor brushes

Install new floor in car

Overhaul car safetys

Provide hole in floor with sleeve and plate to permit use of safety wrench[146]

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146. "Specifications for Repairs to Elevators, Main Island and Repairs to Elevators, General Hospital," dated Oct. 20, 1931, and miscellaneous papers relative to contract, FF 178, All Islands: Elevator Repairs, 1931, Ellis Island Records, DSC.

33. Installation of Fire Alarm System - 1931-1932

In October 1931 a contract was let to the Quintine Realty Company to install a new fire alarm system in all the buildings on Ellis Island. The system, a product of Stanley and Patterson, Inc., of New York City, had 28 fire alarm boxes throughout the island. The work was completed in early 1932.[147]

34. Installation of Window Guards on Psychopathic Ward - 1931-1932

A contract was let to Angus Hopkins & Company of New York City in December 1931 to install four woven wire window guards on the first and second floors of the psychopathic ward. The work was completed in January at a cost of $75.[148]

35. Installation of New Heating System in Original Hospital Building - 1932

On February 23, 1932, a contract was let to Gillis & Geoghegan, Inc., to remove the existing heating system in the original hospital building and replace it with a new low pressure steam-heating system. The new system was a vacuum system designed to operate at a 5-pound gauge pressure and to satisfactorily heat the building at 70 degrees Fahrenheit when the outside temperature was 0 degrees. The work was completed in November 1932 at a cost of $6,695.[149] The following equipment was used in the installation of the new system:

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147. "Specifications for Fire Alarm System at Ellis Island," dated Oct. 21, 1931, and Hull to Commissioner of Immigration, Ellis Island, Oct. 28, 1931, RG 85, NA. The work was to be done in accordance with drawing D-1184.

148. FF 0-2, All Islands, Work Contracted, 1931-1938, Ellis Island Records, DSC.

149. Corsi to Commissioner-General of Immigration, Feb. 23, 1932, and "Specifications for Heating Hospital Building No. 1, Island No. 2 (Containing Wards 3, 4, 7, 8), Ellis Island," dated Feb. 4, 1932, RG 85, NA. The work was to be done in accordance with drawings D-1186, D-1187, and D-1188.

Pipe - Standard Steel	National Tube Co.
Fittings - C.I. Screwed	Grinnell
Unions	Dart
Valves	Fairbanks of following Figure Nos.:
On H.P. Steam lines - 2" 150 lbs. Gates - Fig. #0201	
On L.P. Steam lines - 3/4" - 2" - 125 lb. Gates - Fig. #0205	
2½" - 8" - 125 lb. I.B. Gates - Fig. #0402	
On By-pass connection for Pressure Reducing Valve rig 2" - 140 lbs. Globe - Fig. #01	
On Riser drips - 125 lb. Gates Fig. #0205	
On Drip lines for mains - 125 lb. Globe Fig. #045	
Radiators	American Radiator Co.
Pressure Reducing Valve	Foster Class "G2"
Strainer for Pressure Reducing Valve	Foster Engineering Co.
Radiator Hangers	Gillis & Geoghegan - 4 copies of drawing attached.
Steam Gauges	Consolidated-Ashcroft-Hancock 5" dial, Type #1010
Relief Valves	Consolidated-Ashcroft-Hancock Type #1451
Gaskets	Durable Mfg. Co.
Excutcheons - C.I.N.P.	Beaton & Caldwell Fig. #3A.[150]

150. Gillis & Geoghegan, Inc., to Commissioner of Immigration, Apr. 13, 1932, FF 19, Hospital No. 1: Heating, 1932, Ellis Island Records, DSC.

36. Installation of New Heating System and Vent Lines in Administration Building - 1932

On May 9, 1932, a contract was let to Murphy and Beaumont, Inc., of New York City to install a new low pressure vacuum heating system and various galvanized wrought iron vent and drain lines in connection with the kitchen and pantry in the basement of the administration building. The new heating system, like that for the original hospital building, was designed to operate at 5-pound gauge pressure and to maintain the building at 70 degrees when the outside temperature was 0 degrees. The work was completed in October 1932 at a cost of $2,590.[151]

37. Replacement of Electrical Feeders and Panel Boards - 1932-1933

On May 6, 1932, a contract was let to the Quintine Realty Company of New York City to make certain replacements in the electrical systems in the basements of the original hospital building and the administration building. The work included extending several electric feeders in iron conduits, replacing metal pull boxes in existing feeders, replacing two existing lighting panels, removing two existing switchboards, and patching where necessary. The work was completed in April 1933 at a cost of $445.[152]

38. Replacement of Plumbing Fixtures and Fittings - 1932-1933

On May 23, 1932, a contract was let to the Barnard Plumbing Company of New York City to furnish various replacements for

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151. "Specifications for Heating Renewals and Kitchen Vent Lines, Administration Building, Hospital-Island No. 2," dated May 4, 1932, and Hull to Commissioner of Immigration, Ellis Island, May 9, 1932, RG 85, NA. The work was to be done in accordance with drawings D-1224 through D-1229, dated Apr. 15, 1932.

152. "Specifications for Replacements - Electric Feeders and Panel Boards, Island No. 2," dated May 6, 1932, and Hull to Commissioner of Immigration, Ellis Island, May 12, 1932, RG 85, NA. The work was to be done in accordance with drawing D-1234, dated Apr. 26, 1932.

plumbing fixtures and fittings on islands 2 and 3. The work, which cost $3,432, included the installation of new plumbing devices in the following locations on island 2:

Surgeon's House (now employees' building)
Second Floor

New Hospital Extension (now building 2)
Doctors' dressing room - third floor
Nurses' toilet - third floor (west)
Physiotherapy room - third floor
Ward 6 - toilet room, bathroom, side room
Pantry - second floor (south)
Ward 5 - private bath, ward bath 5, toilet rooms
Ward 1 - toilet, bathroom, pantry
Ward 2 - toilet, bathroom, female employees' washroom

Administration Building
Nurses' toilet and bath (west side of stair hall)
Toilet - third floor (east side of stair hall)
Employees' dining room - second floor
Nurses' pantry - second floor
Ward 6 - south bathroom, doctors' private toilet
Personnel washroom

Original Hospital Building (now building 1)
Chief nurses' bathroom - third floor
Nurses' quarters bathroom - north
Nurses' quarters bathroom - west
Ward 8 - toilet room
Doctors' quarters - second floor (south)
Doctors' quarters bathroom (northwest)
Doctors' quarters bathroom (northeast)
Ward 7
Ward 3 - toilet and bath

Ward 4 - pantry, psychopathic toilet room
Ward 9 - psychopathic ward
Ward 10

Hospital Outbuilding (now laundry building)
Male and female help toilet room
Living quarters - second floor[153]

The Barnard Plumbing Company abandoned its contract in the fall of 1932. Accordingly, bids were solicited in February 1933, and a contract was let to A. Blaustein of New York City to complete the work at a cost of $1,790.[154]

39. Installation of Steam Supply and Return Lines for Sterilizers - 1932

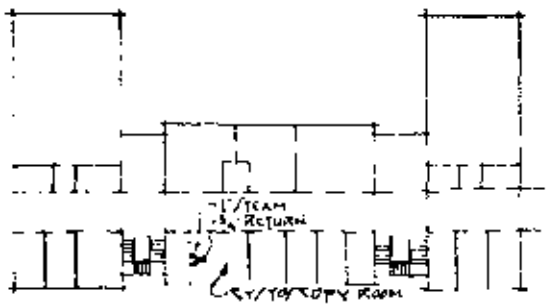
On May 12, 1932, a contract was let to Gillis & Geoghegan, Inc., to install high pressure steam supply and return lines for the sterilizers from the basement to the cystoscopy room on the second floor of the new hospital extension building (building 2). The work was completed in August.[155]

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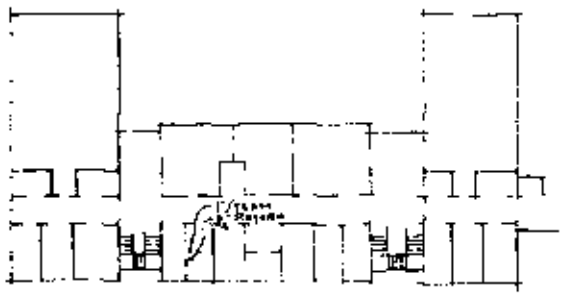
153. "Specifications for Replacements-Plumbing Fixtures and Fittings, Hospital Buildings, Islands Nos. 2 & 3," dated May 12, 1932, and Hull to Commissioner of Immigration, Ellis Island, May 23, 1932, RG 85, NA.

154. Miscellaneous papers relative to contracts FF 137, All Buildings-Island No. 2: Replace Plumbing Fixtures, 1932, and FF 140, All Buildings-Island No. 2: Replacements for Plumbing Fixtures, 1933, Ellis Island Records, DSC. The work was to be done in accordance with drawings E-1232 and E-1233.

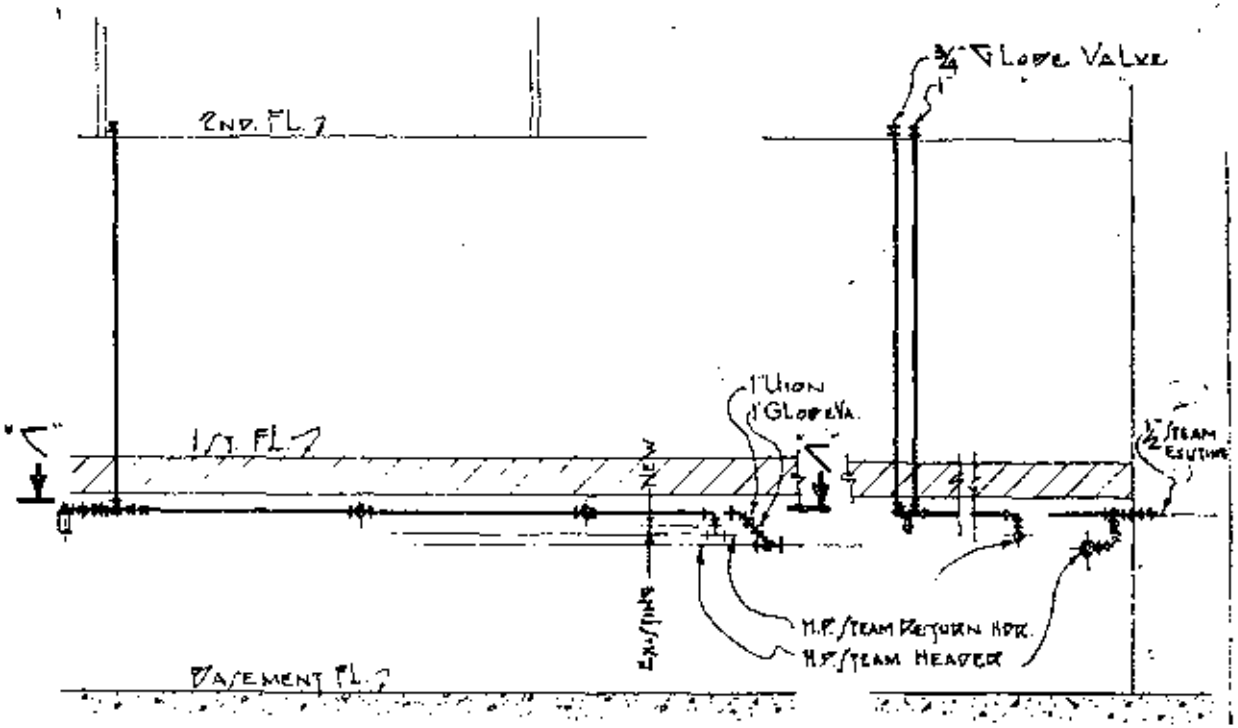
155. Hull to Commissioner of Immigration, Ellis Island, May 12, 1932, and miscellaneous papers relative to contract, FF 121, Hospital No. 2: Sterilizer, 1932, Ellis Island Records, DSC. The work was to be done in accordance with a drawing entitled "H.P. Steam for Sterilizers in Cystoscopy Rm.-Hospital Bldg. No. 2, Island No. 2," a copy of which may be seen on the following page.



2ND. FLOOR



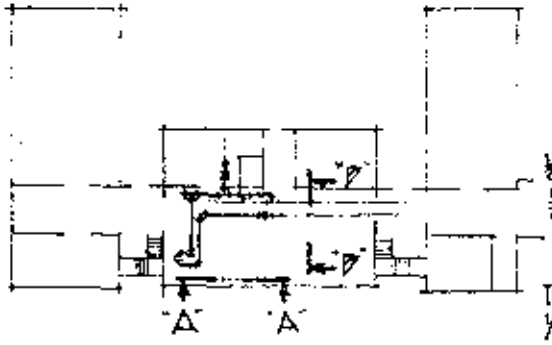
1/T. FLOOR



SECT. "A-A"

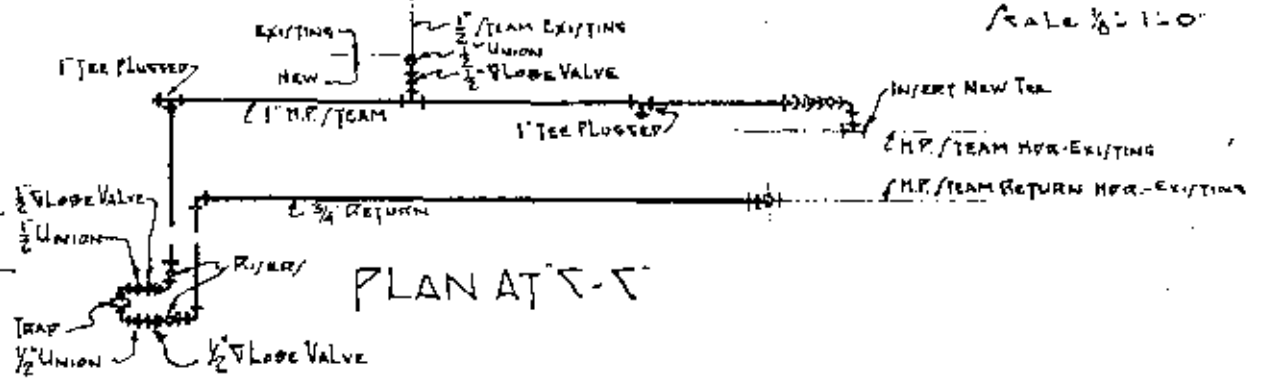
SECT. "B-B"

Scale ⅛" = 1'-0"



BASEMENT FL. BUILDING No.2

Scale ⅛" = 1'-0"



PLAN AT "C-C"

Note:—
Contractor shall take his own measurements at the site and be responsible for same.

H.P. Steam for Sterilizer in Cystoscopy Rm.—Hospital Bldg. No.2 Island No.2

File No. 98529-389 P.E.T. April 28, 1932

Approved—W. L. Booth— Arch Eng. April 28, 1932

40. Repair/Replacement of Sheet Metal and Roofing - 1932

On May 21, 1932, a contract was let to the Merit Contracting Company of New York City to make repairs to the sheet metal and roofing on Island 2. The work included replacements and repairs to tile, slate, metal, and composition roofings and their appurtenances such as valleys, hips, ridges, flashings, cornices, gutters, downspouts, crickets, saddles, dormers, and skylights. In addition, the balustrades of the three porches on the south side of the first and second floors of the new hospital extension building were removed and replaced with semicircular tile and either a glazed terra-cotta or concrete coping. Nineteen double-hung windows on the east end of the Red Cross building were also removed and replaced with new sash, frame, trim, and hardware. The contract was completed in September at a cost of $13,300.[156]

41. Painting Interior of All Buildings on Island 2 - 1932

On May 12, 1932, a contract was let to the Deer Contracting Corporation of Brooklyn, New York, to paint all the wood, iron, and plaster throughout the interiors of all the buildings on Island 2. The general color scheme was light cream for ceilings, light ivory for upper walls, ivory on buff for the wainscot, and black or brownish black for the base. The work was completed during the summer of 1932 at a cost of $3,885.[157]

For an undetermined reason, a separate contract was let in June to Morris Freedlander, Inc., of Brooklyn, New York, to patch the plaster and paint the interior wood, iron, and plaster surfaces in the

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156. "Specifications for Sheet Metal and Roofing, Island No. 2," dated Apr. 20, 1932, and Hull to Commissioner of Immigration, Ellis Island, May 21, 1932, RG 85, NA. The work was to be done in accordance with drawing D-1217.

157. Hull to Commissioner of Immigration, Ellis Island, May 12, 1932, and "Specifications for Painting (Interior), Hospital Buildings, Island No. 2 and 3," dated May 5, 1932. The work was to be done in accordance with drawing E-1180, dated Dec. 15, 1931.

first floor of the hospital outbuilding. The work was completed in July at a cost of $295.[158]

42. Repairs to Elevators - 1932

A number of repairs were made to the two elevators on island 2 during 1932. In February the elevator in the original hospital building was waterproofed. New ribbon wire grille hatchway doors, locks with electric safety contacts, overtravel stopping devices, and three sets of mild steel traction cables were also installed on the elevator. In March one set of car hoisting cables was placed on the elevator in the new hospital extension.[159]

43. Replacement of Leaders, Drains, and Sewers - 1932-1933

On April 21, 1932, a contract was let to the Quintine Realty Company to replace, repair, and alter the leaders, drains, and sewers on island 2. The work, which cost $5,390, included the following: replacements and alterations to leader stacks; alterations to house drain on original hospital building; alterations to house sewers; repairs to sewer mains; construction of manholes and catchbasins; replacement of lines; and patching of plaster, concrete, and masonry.[160]

44. Installation of Insect Screens - 1932

In June 1932 a contract was let to the Orange Screen Company of New York City to install insect screens on all the buildings on Ellis Island. According to the specifications, the following screens were to be installed on island 2:

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158. "Specifications for Painting (Interior) First Floor, Brick Laundry Building, Island No. 2," dated June 6, 1932, and miscellaneous papers relative to contract, FF 126, Hospital Outbuilding/Laundry: Paint Interior, 1932, Ellis Island Records, DSC.

159. Shaugnessy to Commissioner of Immigration, Ellis Island, Feb. 13, 1932, and Hull to Commissioner of Immigration, Ellis Island, Feb. 24 and 26 and March 24, 1932, RG 85, NA.

160. "Specifications for Replacements to Leaders, Drains, Sewers, Island No. 2," dated Apr. 13, 1932, RG 85, NA. The work was to be done in accordance with drawings D-1221 and D-1222.

Wood fly screens (windows)	- 335
Wood fly screens (doors)	- 1
Metal-sliding fly screens	- 18
	354[161]

45. Installation of Nonconducting Coverings - 1932-1933

In June 1932 a contract was let to the Sheridan Insulation Company of New York City to install nonconducting coverings on pipes, tanks, and parts and recanvassing existing coverings. Most hot surfaces were insulated with sectional removable, 85 percent magnesia covering. The work was completed in February 1933.[162]

46. Repairs to Sheet Metal Following Wind Damage - 1933

A severe wind storm during the winter of 1932-1933 caused damage to some of the buildings on Ellis Island. In March 1933 a contract was let to Smith of New York Company to make the necessary repairs. One of the items to be repaired was the copper vent flue on the administration building. The work included the following:

> Passing through the attic room of the Administration Building, Island No. 2, is a 16" circular copper vent flue extending down to the Kitchen in the basement, and extending up through the roof. (Other part of vent stack is iron.)
>
> Remove the upper part of this flue down to approximately three feet above the attic floor and from that point furnish and install a new flue extending diagonal over to the brick vent flue which projects above the roof and connect into same as close as

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161. "Specifications for Screens on Islands Nos. 1, 2, 3," dated June 6, 1932, and miscellaneous papers relative to contract, FF 177, All Islands: Insect Screens, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1241 and E-1240.

162. "Specifications for Non-Conducting Covering, Islands Nos. 1, 2, 3," and miscellaneous papers relative to contract, FF 180, All Islands: Non-Conducting Pipe Covering, 1932, Ellis Island Records, DSC.

possible below the peak of the roof. Close up the hole left in the roof with wood sheathing, roofing felt and clay tile, all to match up with and join into similar contiguous work according to the best practise. The new flue shall be of the same cross section as the present one, be constructed of twenty ounce copper, and be jointed, braced, and supported as approved. The existing sheet iron chamber and duct in the attic in connection with the vent flue shall be removed and rebuilt of 22 gauge galvanized iron.

Furnish and install new copper ridge roll and wood foundation for same where damaged by fire or fire fighting.[163]

47. Repairs to Elevators - 1933, 1936, 1939, and 1941

The elevators on island 2 (passenger in administration building and freight in new hospital extension) were repaired, cleaned, and overhauled in 1933, 1936, 1939, and 1941. Reference was also made in the various specifications to an automatic elevator in the east end of the original hospital building that required attention in 1939 and 1941. The mention of this elevator in these years was the first reference that was found to the repair of such a mechanism in the building, thereby indicating that it might have been installed in the 1930s.[164]

48. Alteration/Renewal of Steam and Circulating Systems - 1933-1934

In December 1933 a contract was let to the R. J. McKinon Contracting Company of New York City to make various alterations and

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163. "Specifications for Sheet Metal Work, Island No. 1 & 2," dated Mar. 31, 1933, and miscellaneous papers relative to contract, FF 114, Administration Bldg., Island No. 2: Sheet Metal Work, 1933, Ellis Island Records, DSC.

164. FF 181, All Islands: Elevator Repairs, 1933, FF 184, All Islands: Elevator Repairs, 1936, FF 186, All Islands: Repair Eight Elevators, 1939, and FF 187, All Islands: Repair Eight Elevators, 1941, Ellis Island Records, DSC.

renewals to the high pressure and low pressure steam systems and the hot water circulating system on Ellis Island. The contract included the following work on island 2:

> Installation of new high pressure steam and return mains in the basements and cellars of the hospital buildings
>
> Installation of section valves for low pressure heating system returns
>
> Installation of new low pressure heating system in new hospital extension
>
> Installation of new radiator traps and valves in hospital outbuilding and in wards 9 and 10 of original psychopathic ward
>
> Installation of heating coils in ceiling of bathroom opening off east end of third floor corridor of original hospital building[165]

49. Survey of Hospital and Recommendations for Improvement of Facilities - 1934

In 1933 Secretary of Labor Perkins appointed a committee of prominent citizens to undertake a complete analysis of Ellis Island and make recommendations for its future improvement. In March 1934 the final report of the committee was published. Excerpts from the report that related to the hospitals on islands 2 and 3 were as follows:

> Hospitals on Islands Nos. 2 and 3
>
> The hospitals at Ellis Island are under the management of the U.S. Public Health Service, a sub-division of the Treasury

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165. "Specifications for Alterations and Renewals to H.P. and L.P. Steam System and Hot Water Circulating System," dated Dec. 28, 1933, and miscellaneous papers relative to contract, FF 182, All Islands: Alterations and Renewals to Steam Systems, 1933, Ellis Island Records, DSC.

Department. They are now used primarily for disabled merchant marine sailors and others of the U.S. Marine Service. A new hospital for such men is now being constructed at Stapleton, Staten Island. This will be ready in two or three years, but is not likely to take care of all the marines. About one hundred will probably remain at Ellis Island.

The Labor Department has always had the opportunity of arranging for hospitalization and diagnosis for immigrants and deportees at the Ellis Island Hospital. With a view to continuing such facilities, the Committee recommends

> that at the time when the new Marine Hospital addition is completed at Stapleton, Staten Island, the present buildings be adapted to serve for at least 200 beds, with provision for expansion space for another 100 beds, as well as for necessary laboratory facilities.

As to present alterations in the existing hospital equipment, the committee recommends:

(1) That the "Cottage" on Island No. 2 be removed and a new pavilion built for housing personnel, nurses and doctors, with kitchens and dining rooms, as shown on the accompanying plan, thus releasing several rooms in the present buildings for small ward units, X-ray equipment, etc.

(2) That verandas be built on four pavilions (Nos. 13, 17, 19 and 23) of the so-called "Contagious Hospital" on Island No. 3, for tubercular and other patients, as shown

(3) That the space between the hospital buildings on Islands No. 2 and No. 3, now covered with cinders,

be regraded, surfaced, planted, landscaped and used for hospital recreation for all classes of patients including a separate enclosure between pavilions for illegal entrants under hospital care

(4) That a new recreation building, to be located in the space between the two hospitals, replace the old A.R.C. building now on Island No. 2, at present a fire hazard

The present hospital has a very pleasant and well-run cafeteria, with small tables, for hospital inmates, and the inmates, including the deportees, can choose their table companions and their food without the harsh disciplinary methods used by many public institutions.

Hospital Facilities

Assuming that the problem of medical care at Ellis Island, so far as concerns aliens, will continue at least for a few years to remain quantitatively as at present, the Committee believes, as recommended in the Chapter on Buildings and Grounds, that a hospital of not less than 200 beds, with emergency expansion of another 100 beds and the necessary laboratory facilities and personnel is sufficient for immigration and deportation purposes. In making this recommendation, the Committee recognized that the particular medical services supplied at Ellis Island constitute only some of many medical functions performed in and about New York by the Federal Government.

The Committee felt handicapped in its efforts to arrive at entirely satisfying conclusions concerning the provision of hospital beds and of equipment for diagnostic services at Ellis Island because full information concerning other federal hospital services in and about New York was not available.

The Committee, therefore, recommends:

> That the best use of facilities for medical care on Ellis Island and at Stapleton, Staten Island and elsewhere in the New York metropolitan area to be determined by interdepartmental conference, upon the call of the Surgeon General of the U.S. Public Health Service and that such a conference include representation from the medical and administrative officers of at least the following departments: Treasury, War, Navy, Labor and the Veterans Bureau.

Certain improvements in the present hospital equipment are needed. In addition to those already enumerated in the Chapter on Buildings and Grounds, the Committee recommends:

> That six to ten small ward units, each containing two to eight beds, be provided to allow for medical care for men and women.

This might require a new pavilion and would meet the difficulties inherent in the holding of men and women in locked wards 23 and 24, mainly to prevent their escape from detention as warrant cases. A yard or recreation area, suitably safeguarded, should be provided in connection with these wards to avoid the expense of constant personal guards and to permit recreation and outdoor exercise.

In regard to the changes recommended in Chapter I, it should be emphasized that from the standpoint of adequate medical care and treatment a large increase of porch space on the first and second floors of the ward pavilion used now for tuberculosis patients would add to the comfort of patients and to the resources for their treatment and recovery. More floor space is required for the most effective and convenient use of the X-ray and other equipment required for the diagnosis and the

therapeutic needs of patients. A separate building is needed for a nurses' residence. The broad, barren waste of dark or glaring cinder fill between the hospital buildings on Islands No. 2 and 3 should be redeemed and made attractive and available for rest and healthful recreation.

Although in charge of the medical service provided at Ellis Island, the U.S. Public Health Service is in effect only a tenant of the buildings which it occupies for the purpose of rendering medical care and treatment. Certain disadvantages in the provision of medical care accrue from this arrangement. The Committee therefore recommends:

> That all buildings used by the U.S. Public Health Service on Ellis Island should be under the jurisdiction and control of the Service, not only in regard to their actual occupancy and management for this purpose as at present, but in all that concerns upkeep, repair and development of those premises for medical needs.[166]

During the next several years, the recommendations for island 2 were put into effect. Documentary evidence indicates that the surgeon's house (known at this time as the "Cottage") was removed, and a new pavilion for housing hospital staff personnel was constructed by the Works Progress Administration. The construction of the verandas, or sun porches, on island 3 will be treated in chapter X, and the construction of the new recreation building will be covered in chapter XI. The space between islands 2 and 3 was landscaped by removing 2 feet of the existing cinder fill and replacing it with 18 inches of subsoil and 6 inches of topsoil preparatory to the planting of grass and shrubs.[167]

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166. Report of the Ellis Island Committee, March 1934, pp. 15-16 and 38-39. A copy of the proposed committee plan for Islands Nos. 2 and 3 may be seen in this Historic Structure Report in VI.C.29.

167. FF 330, Works Progress Admin.: Projects 61-64, 1933-1937, Ellis Island Records, DSC, and New York Times, Sept. 16, 1935.

50. Replacements, Alterations, and Additions to Electric Light and Power System - 1934

In March 1934 a contract was let to the Alfred Electric Company of New York City to make replacements, alterations, and additions to the electric light and power system on island 2. The work was centered in the original hospital building (hospital building 1), the new hospital extension (hospital building 2), the administration building, the psychopathic ward (ward 9 and 10 building), and the hospital outbuilding (laundry building). The work was completed in August 1934 at a cost of $5,374. The work included the installation of the following: galvanized steel tubing for conduits, junction or pull boxes, ceiling and wall outlet boxes, floor boxes, nine cabinets for six lighting and three power panel boards, plug receptacles, lamp receptacles, flush switches, and lighting fixtures.[168]

51. Repair of Roof After Wind Damage - 1934

A severe windstorm caused considerable damage to the roofs of the buildings on Ellis Island. In October 1934 a contract was let to the Ashford Roofing Company of Brooklyn, New York, for repairs to the roofs on island 2. The work, which amounted to $398, included the following items:

Staff House

> Recover two dormer roofs with two layers of felt, and supply new wood sheathing as required. Felt shall be 35 lb. asphalt impregnated asbestos felt and shall be laid with at least two moppings or trowellings of an approved asphalt preparation.

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168. "Specifications for Electric Installation, Island No. 2," dated Mar. 1, 1934, and miscellaneous papers relative to contract, FF 143, All Buildings -Island No. 2: Electric Installation, 1934, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1260 through D-1271.

Hospital Bldg. No. 2

Provide a new copper top for large dormer to replace the one missing. All moulding and contours shall be reproduced.

Provide a new ridge roll, or recondition not to exceed one-half of the existing roll and provide one-half new.

Replace present flashing between deck and copper curb, in the locations indicated, with two-ply fabric flashing.

Furnish new tile and re-secure existing loose tile, in the locations and to the extent indicated on the drawing.

Solder joints as shown.

Replace broken skylight glass where shown.

Administration Building

Furnish new tile and re-secure existing loose tile as indicated on the drawing.

Hospital Bldg. No. 1

Replace present flashing between deck and copper curb, in the locations indicated, with two-ply fabric flashing.

Repair copper curb and ridge roll where directed.

Furnish new tile, and re-secure existing loose tile, in the locations, and to the extent indicated on the drawing.[169]

52. Installation/Replacement of Plumbing Fixtures - 1934

In February 1934 a contract was let to A. Blaustein of New York City to install and replace various plumbing fixtures and devices in all the buildings on Ellis Island. In ward 4 on island 2 the existing toilet enclosure was removed and replaced with a new marble enclosure complete with hardware, rails, and wooden doors. In ward 8 a new head rail and a new jamb were installed. In addition, various plumbing fixtures and fittings were replaced including the following:

Flush valves
Water closet seats
Water closets with flush valves
Water closets with low down tanks
Baths - free standing
Baths - othe types to replace present procelain built-in baths
Bath fittings
Lavatories - free standing without back
Lavatories - with back on center leg
Lavatories - enameled iron in batteries
Lavatories - corner type
Doctor's lavatory for examination room at ward 2
Showers - with mixing valves
Showers - with two valve control - no mixing valve
Slop sinks - with integral back
Slop sinks - all roll rim without back
Sinks - for drug storage room - island 2

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169. "Specifications for Repairs to Roofing and Sheet Metal, Island #2," dated Oct. 25, 1934, and miscellaneous papers relative to contract, FF 144, All Buildings-Island No. 2: Repair Roofing and Sheet Metal, 1934, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1291.

Drinking fountains
Laundry tubs
Supply fittings for kitchen sinks
Supply fittings for slop sinks - for sinks with back
Supply fittings for roll rim slop sink
Lavatory fittings[170]

53. Installation of New Sink and Grease Interceptor - 1935

In January 1935 a contract was let to the M. S. Melamed Company of New York City to make various plumbing replacements on islands 2 and 3. Included in the work was the installation of a galvanized steel scullery sink and a grease interceptor in the meat room in the basement of the new hospital extension (building 2). The grease interceptor had a water capacity of 180 gallons per hour and a grease capecity of 45 pounds.[171]

54. Installation of Insect Screens and Millwork - 1934

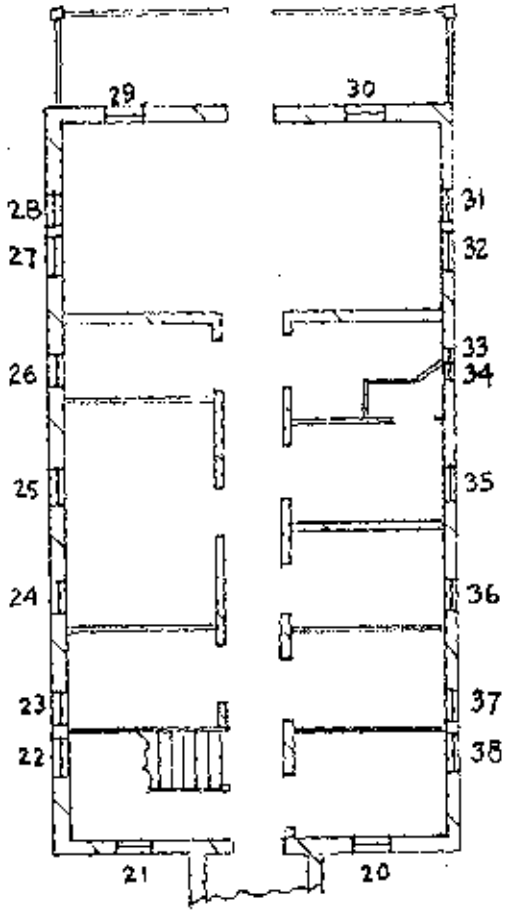
In June 1934 a contract was let to Harry Hershon of New York City to install metal insect screens and millwork in several buildings on islands 2 and 3. In the psychopathic ward double-sliding screens (bronze or copper hand-drawn wire cloth) were installed on 25 windows, each approximately 36 inches by 72 inches. Twelve of the windows required segmental head transom screens, each approximately 36 inches by 24 inches. The schedule of work, which was keyed to a drawing (see following page), was as follows:

Second Floor	
Openings 1-11	No transoms
Openings 12-19	No screens required

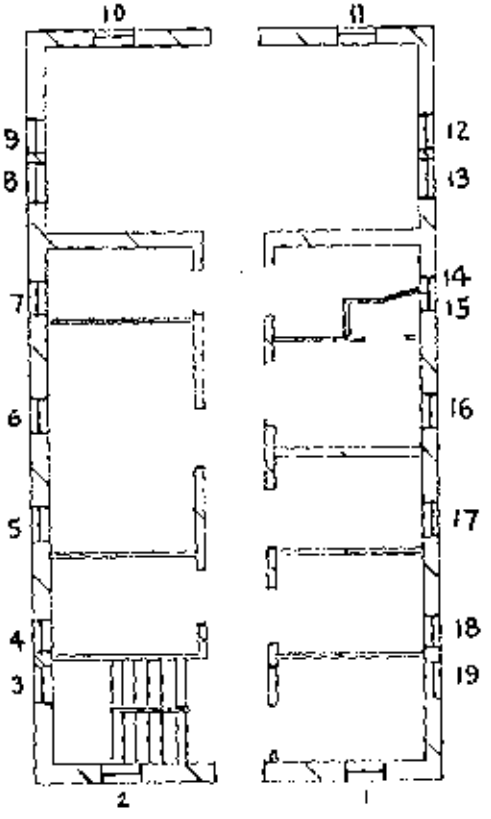
170. "Specifications for Plumbing Installations and Replacements," dated Jan. 30, 1934, and miscelleneous papers relative to contract, FF 183, All Islands: Plumbing Installations, 1934, Ellis Island Records, DSC. The work wes to be done in accordance with drawing C-1257.

171. "Specifications for Miscellaneous Plumbing Replacements, Islands 2 and 3," dated Jan. 3, 1935, and miscellaneous papers relative to contract, FF 122, Hospital No. 2: Wash-Up Sink, 1934, Ellis Island Records, DSC.

Contractor Shall Take His Own Measurements And Be Responsible For Same.



FIRST FLOOR



SECOND FLOOR

PSYCHOPATHIC WARD

SKETCH TO INDICATE LOCATION OF WINDOWS REFERRED TO IN SCREEN SPECIFICATION.

First Floor	
Opening 20	Include transom
Opening 21	No screen required
Opening 22-28	Include transom
Openings 29-32	No screens required
Openings 33-38	Include transom[172]

55. Miscellaneous Alterations - 1936-1937

It is difficult to determine from available documentation the scope and detail of the alterations made to the hospital buildings on Island 2 during 1936-1937. However, the extant documentation of the period indicates that alterations, repairs, and remodeling were performed in a number of buildings under a contract let sometime in the fall of 1936. The ward units in which the work was done were 8, 9, and 10--the latter two wards comprising the building formerly known as the psychopathic ward. The work consisted of removing the grilles from the windows of wards 9 and 10, installing new doors, and painting the interiors.[173]

56. Overhaul of Electric Panel Boards - 1939

In 1939, the Sponsor's Design Unit for New York State Projects of the WPA undertook the job of overhauling the electrical panel boards on Ellis Island. The following work was done on Island 2:

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172. "Specifications for Metal Insect Screens and Millwork, Hospital Buildings, Islands Nos. 2 and 3," dated June 5, 1934, and miscellaneous papers relative to contract, FF 127, Psychopathic Hospital: Metal Screens, 1934, Ellis Island Records, DSC.

173. "Specification for Miscellaneous Alterations, Etc., to the United States Immigration Station, Marine Hospital at Ellis Island, New York Harbor," dated Aug. 11, 1936, FF 165, All Buildings - Island No. 3: Miscellaneous Repairs, 1936, Ellis Island Records, DSC. The work was to be done in accordance with drawings 10-1 through 10-16, PHL-10-451 through PHL-10-460, and miscellaneous drawings 305-1, 326-E, and 335-B. Also see Uhl to Commissioner of Immigration and Naturalization, Jan. 18, 1936, FF 154, Wards 1132: Reconditioning, 1936, and FF 163, All Buildings - Island No. 3: Miscellaneous Alterations, 1935, Ellis Island Records, DSC.

New Hospital Extension (building 2)
7 light panels and 1 distribution panel
Administration Building
11 light panels and 1 main distribution panel
Original Hospital Building (building 1)
9 light panels
Psychopathic Ward
3 light panels
Hospital Outbuilding (laundry building)
2 light panels.[174]

57. Repairs/Replacements of Plumbing Fixtures - 1945

In January 1945 a contract was let to make various plumbing repairs and replacements on islands 2 and 3. The following work was done on island 2:

Ward 1: Replace bathtub with stall shower
Install new urinal

Ward 2: Replace bathtub with stall shower
Replace one W.C. with new urinal

Ward 3: Replace bathtub with stall shower
Furnish and install new urinal

Ward 4: Replace bathtub with stall shower

Ward 5: Replace bathtub with stall shower
Furnish and install new urinal

174. "Specifications, Job No. 78 & 79, Overhaul Panel Boards, Islands, 1, 2, & 3, and Remove Obsolete Electrical Lines in Basements of Main and K & L Buildings," dated Apr. 24, 1939, FF 185, All Islands: Overhaul Panel Boards, 1939, Ellis Island Records, DSC.

Ward 6: Replace bathtub with stall shower
Replace one W.C. with new urinal

Ward 7: Replace bathtub with stall shower
Furnish and install new urinal

Ward 8: Replace bathtub with stall shower

Nurses' Quarters: Replace two bathtubs with new tubs with showers over

Maids' Quarters: Replace two shower fixtures with new shower fixtures[175]

58. Closing of Hospital on Island 2 - 1951

The hospital complexes on islands 2 and 3 were closed on March 1, 1951. The details of the closing were given in an article in the New York Times on December 28, 1950:

> The United States Marine Hospital on Ellis Island, which has been in operation since 1892, will be closed on March 1 by the United States Public Health Service, and no new patients will be admitted after New Year's Day.
>
> This announcement was received here yesterday from Oscar R. Ewing, Federal Security Administrator, who said the institution would be suspended "in the interest of efficiency and economy."

175. "Specifications for Plumbing Repairs and Replacements, Various Buildings, Islands Nos. 2 and 3, Ellis Island, New York Harbor," dated Jan. 25, 1945, and miscellaneous papers relative to contract, FF 146, All Buildings - Island No. 2: Plumbing Repairs and Replacements, 1945, Ellis Island Records, DSC.

Patients from the Ellis Island hospital will be transferred gradually to the Veterans Administration Hospital at Manhattan Beach, Brooklyn, and to the Marine Hospital on Staten Island.

For many years ailing merchant seamen, members of the United States Coast Guard and immigrants have received treatment at the Ellis Island institution.

Mr. Ewing said that the decision to close the hospital had been based on the findings of a special survey board composed of several Public Health Service doctors, the service's fact-finder and representatives of the Immigration and Naturalization Service.

The board reported that the hospital was "obsolete" and that the equipment was outmoded. Since July 1 the patient load, which in the past has approached 400, has averaged slightly more than 200. One spokesman attributed the reduction in part to a "distinct drop in the number of ill merchant seamen." It has been estimated that the closing of the hospital will result in a saving of about $200,000 by the end of the fiscal year on June 30.

The Public Health Service had conducted the Ellis Island Hospital for thirty years, having taken it over from the Immigration Service.[176]

59. Control of Island 2 Complex Under the U.S. Coast Guard - 1951-1954

After the hospital complex on island 2 was closed by the U.S. Public Health Service in March 1951, the Coast Guard took over

176. New York Times, Dec. 28, 1950.

temporary control of the buildings and established the Ellis Island Port Security Unit. During 1951-1952, a number of alterations were made in the administration building for a galley and mess hall. Among the items constructed were the following:

Galley exhaust system and accessories under existing hood, rooms 2 and 12

Exhaust duct, system, and accessories in mess hall, room 38

Two new doorways through present masonry walls from room 11 to rooms 12 and 38

Removal of partitions between corridor 24 and rooms 26 and 38

Shelving, slatted floor section in rooms 27 and 29

Additional quarry tile floor (approximately 120 square feet) in room 8

Woven wire partitions and doors in corridors 1 and 23 and machinery cage in room 37

Double exit doors D3 in room 38 including exit ramp

Outside open shelter 12 by 20 feet

In addition, repairs were made to the rainwater conductors on the building. Kitchen equipment, including a stainless steel steam table, 11 tureens, and a combination stainless steel coffee urn, were installed in the galley and mess hall.[177]

It is likely that the Coast Guard made other alterations to the buildings on island 2 but no available documentation relative to these activities was located.

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177. "Specification ecv-208, Additions and Alterations for the Galley, Mess Hall and Etc.," dated Aug. 1951, and "Specification ecv-238, Repairs to Rain Water Conductors," dated Feb. 20, 1952, FF 115, Administration Bldg.-Island No. 2: Additions and Alterations, 1951, and "Specification ecv-215, Furnish Items of Kitchen Equipment," dated Aug. 23, 1951, FF 124, Hospital No. 2: Kitchen Equipment, 1951, Ellis Island Records, DSC.

X. THE CONTAGIOUS DISEASE HOSPITAL ON ISLAND 3

The Ellis Island hospital on island 2 was opened for the reception of patients on March 1, 1902. As there were no contagious disease facilities in the new hospital, cases of this nature were sent, as they had been since the 1890s, to the New York City Health Department. In June 1902 George W. Stoner, surgeon in charge of the medical division, urged the construction of a separate pavilion for isolation and observation wards on Ellis Island.[1]

The recommendation for the construction of a contagious disease hospital on Ellis Island became an urgent matter in September 1902. In that month the New York City Health Department informed immigration officials of its intention to terminate its contract for receiving aliens with contagious diseases. Plans were immediately undertaken for the construction of a new 3½-acre island located about 800 feet southwest of the existing Ellis Island on which would be built the new contagious disease hospital.[2]

Alfred B. Fry, chief engineer & superintendent of repairs on Ellis Island, summarized the advantages of the new island, the work that needed to be done, and the general character of the proposed work. The advantages were as follows:

> I beg again to call attention to the fact that I believe no desirable location on New York, Brooklyn, or New Jersey water fronts can be obtained for a United States hospital devoted to contagious cases. We must, therefore, seemingly either build the island proposed or use some of the reservations

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1. Pitkin, Keepers of the Gate, p. 105.

2. Williams to Secretary of the Treasury, Oct. 30, 1902, RG 85, NA. An article in the New York Times (n.d.) provides the rationale for the decision of the New York City Health Department to terminate its contract.

on lower bay, which are from ten to twenty miles from Ellis Island, and which, moreover, I believe the War Department has no inclination to give up.

Estimates covering proposed island construction follow. The site at present is not used for anchorage purposes even by the smallest vessels, since there is over it but an average depth of about 4 ft. 6" at mean low-water, though it is noted there has been a slight increase in depth over these flats since 1900.

The work to be done included the following:

For the construction of an island about 3-1/2 acres in area and located about 800 ft. southwesterly from Ellis Island, including (1) 1,262,500 cu. ft. of stone-filled crib work at 8 cts. per cu. ft.; (2) 60,000 cu. yds. of dredging at 18 cts. per cu. yd.; (3) 70,000 cu. yds. of earth filling at 25 cts. per cu. yd.; (4) connecting gangway, supported by rows of piles from Ellis Island to proposed new island -- gangway to be sheet-planked where needful between mean high-water and mean low-water; (5) 26,000 sq. ft. of crib decking at 25 cts. per sq. ft. and (6) expenses of inspection, contingencies, etc. TOTAL ESTIMATE OF COST $150,500.00

It must be understood, however, that the exact number of cubic feet of crib work, as well as the exact amount of dredging to be done and filling to be deposited, will depend upon conditions actually encountered here, even careful soundings and penetration tests cannot yield exact data, especially since much of the bottom is very soft, but it is believed that $150,500 will fully cover the total cost of the proposed island.

The general character of the proposed work comprised the following:

The method of forming the proposed additional island will correspond to that used by me in building the three-acre addition to Ellis Island, this work being begun in the latter part of 1897 and completed in the winter of 1898-1899.

A trench will be dredged covering the outlines of island proposed, its average depth being about 15 ft. and its width at base about 30 ft., depending upon the character of bottom encountered below surface. Over this trench will be commenced the construction of the necessary crib work; consisting of longitudinal logs, having not less than 7" points and 14" butts, in sections of about 45 ft. and tied with cross timbers, or cross ties having not less than 12" ends where cut off in the work; all timbers to be well notched down and securely spiked to the longitudinals.

Alternate bays in the crib will be floored with closely laid round timbers, and these floored bays filled with stone which serves to sink and ballast the crib, the crib being held in position by necessary anchor piles securing proper alignment.

After the lower tier of crib is completed, construction proceeds, using alternate courses of longitudinals and cross ties, the longitudinals at ends of timbers passing each other by from 7 ft. to 15 ft., in order to make the entire length of crib practically a homogeneous structure. As course after course of longitudinals and cross ties is laid, additional ballast is thrown into the floored bays, and crib thus sunk in position. When grade corresponding to extreme low-water is reached, square timbers, 12" by 12", are used to form the front of the crib, in order to prevent washing out of the back filling.

The crib being in place, built up to the grade required, and the corners strongly and accurately fitted, back-filling in rear

of crib which outlines the island will be commenced. This filling will consist of earth and stone -- no soft mud, garbage, ashes or other matter unsuited to give solid body will be admitted. Filling is then carried up to the grade desired, and where needful the crib is decked on top, forming practically a wharf all around the area of the island. The necessary backing logs, or string pieces, are run along the crib front; and fendor, anchor and mooring piles are driven, or fitted, in order to prevent injury to the crib and allow vessels to be secured alongside.

In addition to forming the island thus described, a tongue crib will be constructed at south-east end of newly formed basin, being about 100 ft. long and serving as a breakwater in heavy south-easters. At the opposite end of basin referred to, a plank gangway, on rows of piles, will extend from Ellis Island to the land newly built, this gangway serving to give absolutely necessary communication (which, however, may be interrupted by as many gates as desired) and carry steam, hot water and electric lines from Ellis Island to the proposed hospital site. The gangway adjoining said site will be sheet-planked serving as a breakwater in north-west winds. Necessary dredging, of course, will be done in order to make a channel, named on plan, from north-west end of present Ellis Island channel into proposed new basin; and dredging will also be done in basin to afford proper depth for docking steamers or other vessels alongside new hospital site.[3]

Williams received a quick response from officials in Washington. It was noted that the Department of the Treasury already had permission from the War Department to construct a new island within 500 feet of Ellis Island, and it was feared that to defer action until authority could be secured to increase the distance at 800 feet might seriously delay the

3. Ibid.

matter. Accordingly, it was determined to request the assistance of the surgeon general in determining a safe distance for the new island.[4]

Two days later Williams informed the officials in Washington that he welcomed the advice of the surgeon general. In regard to the plans for the proposed contagious disease wards, he observed:

> The City of New York is about to construct several contagious disease hospitals, and the Government will make a great mistake if it does not profit by the experience of the City authorities, whose plans I understand will soon be open to inspection. I understand that the best opinion now is to the effect that a single building should not be constructed, but several -- say five or six -- pavilions which will be more or less isolated. Each pavilion should be not over two stories in height. I believe the total cost of five or six proper brick pavilions would be about $150,000. I am also advised that, if necessary, wooden pavilions may be used.[5]

After studying the proposal for a new island, the surgeon general issued his report on November 26. He found that the authorized site for the island "with an outside limit of 410 feet from the present island and with 200 feet of clear water space between the two islands, would be amply sufficient to insure freedom from danger of contagion according to modern ideas of hospital construction." A narrow and properly guarded gangway should connect the two islands.[6]

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4. Larned to Commissioner of Immigration, Ellis Island, Nov. 4, 1902, RG 85, NA.

5. Williams to Commissioner-General of Immigration, Nov. 6, 1902, RG 85, NA.

6. Wyman to Commissioner-General of Immigration, Nov. 26, 1902, and White, Pettus, Vaughan, Geddings, and Rosenau to Surgeon-General, Nov. 6, 1902, RG 85, NA.

In mid-December, Commissioner Williams urged the secretary of the treasury to request a $250,500 appropriation for the construction of a new island and contagious disease hospital. This sum would cover the estimated cost of the island ($150,500) and the hospital ($100,000).[7]

The Sundry Civil Bill approved on March 3, 1903, appropriated $150,500 for the construction of the new island, but no money was made available for the hospital itself. In July the boundaries of the new island were staked out. It was located just south of the lower end of the existing island and was 300 feet long and 250 feet wide. There was 200 feet of clear water between the old and new islands, and the new island was to have a 25-foot tongued crib.[8]

Specifications and plans for constructing the new island were prepared and in August Commissioner Williams requested authority to commence advertising for proposals.[9] However, on March 21, the General Proprietors of the Eastern District of New Jersey had initiated ejectment proceedings in the New Jersey courts to divest the federal government of its title to Ellis Island. Acting on the advice of the attorney general, all work on large improvements at Ellis Island, including the construction of the new island, was suspended indefinitely while the title to the entire island was in question. Finally in December 1904 the question of title to Ellis Island was settled after the U.S. formally filed with the New Jersey Riparian Commission an application for permission to enlarge Ellis Island, thereby acknowledging New Jersey's title to the submerged lands, the claim that had been the basis of the suit. The Riparian Commission

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7. Williams to Secretary of the Treasury, Dec. 11, 1902, RG 85, NA.

8. Williams to Commissioner-General of Immigration, July 10, 1903, RG 85, NA, and New York Times, July 12, 1903.

9. Williams to Commissioner-General of Immigration, Aug. 15, 1903, and "Specification for the Construction of an Island and a Certain Gangway in New York Harbor, Near Ellis Island," dated Aug. 15, 1903, RG 85, NA.

shortly conveyed to the U.S. by deed approximately 48 acres surrounding and including the original island for the sum of $1,000.[10]

In anticipation of the successful determination to the litigation, it was determined to go ahead with the preliminary work for the construction of the new island. In September it was determined to locate and set stakes in position to designate the location of the proposed island. The dimensions of the island were to be as follows:

> Eight stakes or poles are to be accurately placed as required by the Chief Engineer, such stakes to mark the parallelogram defining the outline of proposed new island, as shown on plan. Proposed island is to be 300 feet long by 250 wide, first stake to be distant 225 feet from southeast end of Ellis Island extension and set about south 56 degrees west from said end, to be designated "Stake 1", the line running thence from said stake at right angles to the axis of Ellis Island extension about south 56 degrees west to the second stake set 250 feet distant from first stake, to be designated "Stake 2"; thence from second stake parallel to said axis about north 35 degrees west to stake numbered 3, set 800 feet distant from stake numbered 2, two stakes to be set intermediate and equally distant from stakes 2 and 3 and each other, on this line; thence from stake numbered 3 at right angles to said axis about north 56 degrees east to stake numbered 4, parallel to said axis about south 35 degrees east to stake numbered 1, set 800 feet distant from

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10. Pitkin, Keepers of the Gate, p. 105, and Sargent to Secretary of Commerce and Labor, Jan. 10, 1907, RG 85, NA. Also see Memorandum Re Advisability of Making Certain Contemplated Improvements to the Buildings, Etc., Constituting the Immigration Station on Ellis Island, New York Harbor, Mar. 28, 1904, Williams to Commissioner-General of Immigration, July 11, 1904, Murray to the Riparian Commission of New Jersey, Aug. 19, 1904, Payne to Murray, Sept. 17, 1904, Murray to Riparian Commission of New Jersey, Oct. 1, 1904, Fry to Board of Riparian Commissioners, State of New Jersey, Oct. 14, 1904, and Day to Secretary of the Commerce and Labor, Dec. 14, 1904, RG 85, NA.

stake numbered 4; two stakes to be set intermediate and equally distant from stakes 1 and 4 and each other, on this line.[11]

Finally on April 19, 1905, a contract was let to the New Jersey Dock and Bridge Building Company of Elizabeth, New Jersey, to construct the new island.[12] The new island was completed early in 1906 at a cost of $142,593.05. All told, the work involved the dredging of 85,195 cubic yards in the basin and approach and 45,718 cubic yards in the crib trench.[13]

Meanwhile, plans had been underway to construct the contagious disease hospital. Congress appropriated $250,000 for the buildings in the Sundry Civil Act approved March 3, 1905. By the time of the completion of the island in early 1906, the plan of the new hospital was still being debated. After Chief Surgeon Stoner of Ellis Island reviewed the plans prepared by the office of the supervising architect, he reported the following:

> I am of opinion that separate buildings are necessary for the different contagious diseases, and for mixed infections. A modfication of the proposed arrangement is therefore respectfully submitted. The drawings of this modified plan have been made by Assistant Surgeon Thomas W. Salmon in

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11. "Specification for All Labor and Materials Required to Locate and Set Stakes in Position to Designate Location of Proposed New Island Adjacent to the U.S. Immigration Station, Ellis Island, New York," dated Aug. 31, 1904, and Williams to Commissioner-General of Immigration, Oct. 19, 1904, RG 85, NA.

12. "Contract, Bond, and Specification for the Construction of an Island and a Certain Gangway in New York Harbor, Near Ellis Island," dated Apr. 19, 1905, RG 85, NA.

13. Howell to Assistant Commissioner-General of Immigration, Sept. 12, 1906, and Sargent to Secretary of Commerce and Labor, Jan. 10, 1907, RG 85, NA.

four sheets and six numbers, and are this day forwarded to your address, showing: (No. 1) a general plan of the several hospital buildings; (2) first floor plan of the Measles Hospital, showing complete first floor plan of one ward and of the administration section of Measles Hospital; (3) second and third floors of the administration section of Measles Hospital Building; (4) the first floor plan of an Isolation Pavilion; (5) first floor plan of disinfecting section in Power House and Laundry Building, as indicated on sheet No. 1; and (6) first and second floor plan of general Administration Building.

The relative importance of the several buildings as shown on this modified plan may be considered in two groups as follows:

1st. (Laundry Building
(Measles Hospital Building
(One Isolation Pavilion

2nd. (Two other Isolation Pavilions
(General Administration Building
(Staff House

The Isolation Pavilions, separate from the Measles Hospital are necessary to properly care for

(a) scarlet fever
(b) diphtheria
(c) measles with scarlet fever
(d) measles with diphtheria
(e) scarlet fever with diphtheria
(f) measles with whooping cough, etc.

The Laundry Building should also contain sleeping rooms, dining room and kitchen for attendants employed in said building and others who are not brought in direct contact with the sick, and the kitchen of this building should also serve the Isolation Pavilions.

In general the plan should be so arranged that buildings or sections of buildings can be completed from the start. The ward sections of the Measles Hospital, for example, should be made two-story even though only half of the proposed number of ward sections may be completed under existing appropriation, the space and general plan to be preserved so as to be able to use any future appropriation to the best advantage. The record shows that measles constitute more than 85% of the cases of contagious diseases admitted, but the remaining 15% is made up of several of the most serious of all contagious diseases: scarlet fever, diphtheria and mixed infections, each one of which must be separately provided for.

The essential feature of this modified plan of buildings and sections of building is that every ward can be separately administered and quarantined from all other wards or buildings when a different contagious disease breaks out amongst patients suffering from another disease. In view of the difficulty in properly isolating the different diseases on board ship and the constant arrival of patients who have been exposed to more than one contagious disease, the provision for separate buildings and for each ward as an administrative unit is very important.[14]

The foundation work of the proposed buildings was also the subject of discussion as can be readily seen in the following letter from Chief Engineer and Superintendent Fry to Supervising Architect Taylor:

(1) The method of filling in behind the timber crib of new island was by the depositing of hard material, cellar dirt, stones, clay, old masonry, etc., using long-boomed orange-peel dredges picking up material deposited by dump scows. There

14. Stoner to Taylor, Feb. 15, 1906, RG 85, NA.

has also been used for topping off a portion of the island a very excellent grade of sand obtained by dredging in the vicinity of said island; such sand, however, not being used for lower portions of fill, it being likely to run when wet.

The mean grade of finished island will be about 12 feet above mean low tide.

(2) This fill was deposited in the parallelogram formed by cribwork, and cribwork was sunk in a dredged trench forming the outer lines of site. A great deal of trouble was encountered from soft bottom in several places; save at these, the crib is 27 feet in depth. The deposit of the hard fill, of course, has displaced the mud within crib boundaries, said mud escaping through the interstices of round timber crib and its filling below extreme low water mark. Therefore, while it can be justly said that the area bounded by cribwork is filled by hard material, yet obviously said material could not be regarded as suited, any more than any other filled land is suited, to carry building foundations of any weight or importance.

(3) In this case, as in all other cases where I have had to deal with made land abutting tide water, I have usually found that for structures of any importance, sound wooden piles, capped and grilled, supporting either concrete or masonry footings for walls, furnish satisfactory foundations.

I should deem it best to use pile foundations for proposed contagious disease hospital.

At the request of the Commissioner of Immigration, this port, this office recently prepared tentative plans for construction of a one story large building on Ellis Island proper, to be used as an immigrant's waiting room, baggage room, etc., and in

this case we proposed the use of concrete piles, to be set in pairs under the building piers, pairs to be about 12-foot apart on centers, and structure to be carried by concrete reinforced with metal, said construction to extend from pair to pair of piles.

It would appear to me that either concrete or wooden piles could be advantageously used for foundations of contagious disease hospital. It is improbable that any wooden piles longer than from 30 to 35 feet would be required. It is necessary at present about New York to specify this as a minimum length for piles delivered in order to be sure of 12-inch butts where cut off in the work.

The length of concrete piles required would depend upon the depth of cellar, if any, it is proposed to give this building. Assuming that the head of concrete piles was to come flush with finished grade proposed for island, a minimum length of probably 20 feet would be required, and a maximum length of 35 feet might be needed, though I deem that improbable. I should think it would be well to specify a minimum length that would depend upon the depth of cellar, and fix a unit rate per foot for each foot of concrete pile required above the minimum length specified, stating that it would be improbable that any concrete pile longer than 35 feet would be needed. Though where soft bottom was encountered, crib will be 30 feet deep, more or less.[15]

In July 1906 the commissioner-general of immigration argued strongly that another $250,000 would be necessary to complete the contagious disease hospital on a scale adequate to the mounting needs, in addition to the like sum already appropriated. He also observed the following:

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15. Fry to Supervising Architect, Apr. 2, 1906, RG 85, NA.

> When the [other] buildings [on Ellis Island] were originally constructed, of course it was not imagined that the business would increase so rapidly and to such a great extent, else, doubtless they would have been built and arranged upon quite a different scale and plan. In order that another mistake of the same character, the evil results of which would be realized even in a less period of time, may not be made in constructing the new contagious-disease hospital, it is important that a further appropriation shall be secured therefor. Even in the short time that has elapsed since the original appropriation of $250,000 was made for the building of this hospital, the needs of the service have grown to a considerable extent. The increase in immigration brings a corresponding increase in the danger of the spread of disease among detained aliens. In carrying the already commenced construction of the hospital to completion, therefore, it should be built large enough and sufficiently commodious and complete in its arrangement and equipment to obviate any possibility of additions or extensions being required in the near future. To finish it in this manner and with this assurance, a further appropriation of $250,000 will be necessary, and it is hoped it may be promptly obtained at the forthcoming session of Congress.[16]

A. Construction - 1906-1911

On October 20, 1906, proposals for the construction of the contagious disease hospital were opened. The lowest bid, exclusive of heating, electrical wiring, and elevator work, amounted to $503,375. However, the sum available then was only $250,000 having been submitted to Congress. It was the desire of the Department of Commerce and Labor to keep the cost of the work within the limit of $500,000, and the

16. "Report of the Commissioner-General of Immigration, July 1, 1906," in Reports of the Department of Commerce and Labor, 1906 (Washington, 1906), p. 546.

department was reluctant to recommend an increase of $125,000 to the projected estimate of $625,000 for the completion of the entire hospital complex. Thus, it was determined to revise the plans and specifications for the hospital before contracting the work.[17]

In mid-December it was determined to construct only certain buildings of the proposed contagious disease hospital complex at a cost of $201,590. The buildings to be constructed immediately were the following:

Administration building, kitchen, and measles wards A and B, with two-story corridor complete from administration building to kitchen; also similar corridor between measles wards A and B	$124,384
Powerhouse and laundry (presumably large enough for the complete hospital as planned)	47,373
Ward E for measles patients (including the corridor leading thereto)	29,833
Total	$201,590

This would leave a balance of $48,410 from the available money for powerhouse equipment, heating, lighting, and elevator installation. Under this plan, the following proposed buildings would be left unconstructed until a later date:

Office building	$15,472
Mortuary	2,670

17. Keep to Secretary of Commerce and Labor, Dec. 6, 1906, and Metcalf to Secretary of the Treasury, Dec. 7, 1906, RG 85, NA.

3 "measles" wards	89,499
2 isolation wards	67,016
	$174,657

To this latter sum would be added the cost of cinder walks, a concrete pipe trench, screens, heating equipment, and electrical wiring.[18]

After further consideration of the matter, a contract was let to the Northeastern Construction Company of New York City to erect the aforementioned buildings except for the heating, electric, and elevator installation. The work was to be completed by November 1, 1908, at a cost of $201,590. The following plumbing fixtures, all of which were manufactured by the J. L. Mott Iron Works, were approved for use in the work as follows:

Water closets: "Ajax", plate 33CC-R
Surgeons' lavatories: Plate 68-H, fitted with pedal supply as illustrated by plate CC-B
Rectangular lavatories: "Tremont", plate 3374-R
Corner lavatories: "Madison", plate 337C-R, except that lavatory is to be supported on brackets, in lieu of lags as shown
Slop sinks: Plate 3378-R
Enameled iron sink: 879-R, with back as illustrated by plate 85C-R, and trap as per plate 871-R

18. Keep to Secretary of Commerce and Labor, Dec. 18, 1906, and Murray to Secretary of the Treasury, Dec. 19, 1906, RG 85, NA. The number of buildings left unconstructed was reduced from earlier estimates which called for an additional office building, a staff house, a mortuary, five measles wards, and three isolation wards. The term "measles ward" was a misnomer in that the contagious diseases to be provided for were measles, scarlet fever, diphtheria, and whooping cough with the combinations of all four as they variously occurred. The isolation wards were intended for the housing of suspected cases of one or more of the aforementioned diseases.

Slop sink combination faucets: 3378-R
Lavatory traps: 3374-1/3-R
Lavatory faucets: Heavy fullor pattern, with union in body
Bath tubs: Roman type, Roslyn, GS-1/8-R
French type, Sarno, 227-H

The following appliances were also approved:

Gate valves: Kennedy
Wall hydrants: A-708, J. B. Clow & Sons
Fire hose rack: Kennedy Manufacturing Co.
Bathtub traps: P-85, J. B. Clow & Sons
Dumbwaiter: Sedgewick Machine Works
Ventilator: "Star," Merchant & Co.

Other products that were to be used in the construction included the following:

Norris sanitary structural glass
Dumbwaiters - Sedgewick Machine Works, New York City
Roof Ventilator - Star and Globe, Merchant & Co., Philadelphia
Plaster - Kings Windsor, J. B. King Co., New York City.[19]

Operations soon began on the long-awaited contagious disease hospital. Alfred B. Fry, chief engineer and superintendent of the U.S. Public Buildings of New York City, was named to supervise the work.[20] Because the contracting firm was asked to make an extraordinary effort to

19. Murray to Northeastern Construction Company, Jan. 3, 1907, RG 85, NA. The work was to be done in accordance with drawings 101-135, 201-211, 301-308, 401-414, 501-507, 601, M-38, and M-48. The specification, except for a few pages, is not extant.

20. Secretary of the Treasury to Secretary of Commerce and Labor, Feb. 2, 1907, RG 85, NA.

complete the buildings by January 1, 1908, it was determined to immediately prepare plans and specifications for the heating, ventilating, electric wiring, and elevators in the hospital complex. In this way, the heating pipes, ventilating ducts, and electric conduits could be placed in the building as it progressed.[21]

The contracting firm was driving the concrete piles for the foundations of the buildings by mid-March. The specifications asked for the piling to be done as follows: "Piles shall be driven at least 2' into the layer of hard-pan which underlies the site of the island; hard-pan will be found at varying depths, and the maximum and minimum lengths of piles are estimated at 31' and 19' respectively. Bidders must estimate for piles of an average length of 25' and each bidder must state in the proposal sheet a price per lineal foot of pile (for each diameter shown) complete in place." During the work it was found that the average length of the piles was about 30 feet. The number of piles for the various buildings was as follows:

Powerhouse and laundry building	173
Administration building and kitchen	167
Three measles wards (95 to each)	285
	625

About 90 percent of these were 16 inches in diameter, and 10 percent were 12 inches in diameter.[22]

In late March, the Northeastern Construction Company proposed to substitute a perforated radial brick chimney for the specified common brick chimney. The radial brick chimney was becoming popular in the

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21. Garber to Secretary of Commerce and Labor, Feb. 26, 1907, and Larned to Commissioner of Immigration, Ellis Island, Mar. 4, 1907, RG 85, NA.

22. Garber to Secretary of Commerce and Labor, Mar. 20, 1907, RG 85, NA.

U.S. at that time because it was made of lighter materials and had a better appearance. Fry approved of the proposed plan with some modifications as follows:

> For example, on stack originally specified, the thickness of walls for lower 10 feet above base of flue is 2'5"; for the next 39 feet it is 1'6", exclusive of the fire-brick lining; for the next 23 feet it is 13", and for the remaining 13 feet it is 8"; whereas, the drawing inclosed starts with a base thickness of 19" for 4 feet; 17" for the next 21 feet; then is reduced to 12-1/2" for the next 12 feet; 10" for the next 24 feet; and to 8" for the remaining 24 feet, making total height of stack.
>
> Moreover, the stack specified requires a fire-brick lining for a total height in stack of 46 feet, whereas the drawing transmitted shows a fire-brick lining of but 30 feet in height.
>
> I would be willing to stand for thinner walls of radial brick, but I should want to add at least 15% to the radial brick plan wall dimensions up to within 24 feet of the top of the stack, and 10% to within 13 feet of the top; the top section can remain 8". I should, moreover, want a fire-brick lining of the same length as specified for original chimney, and an octagonal base of same height, i.e. 28'4" (26'4") to the top of stone course, corbelling back for a height of 4 feet to the round section.[23]

Supervising Architect Taylor concurred with the opinion of Fry as follows:

> (1) The walls of circular part of stack to be increased 2" in thickness to within 12' of the top, as suggested by Mr. Fry.

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23. Fry to Secretary of Commerce and Labor, Mar. 21, 1907, RG 85, NA.

(2) The height of the octagonal base to be such that the lines of the new stack will conform to those of the present, making the height of the octagonal portion 32' instead of 25', as shown on the blue print.

(3) The print shows a free standing chimney, but it is assumed that this is simply a typical stack, and that in the executed work it would be bonded into the wall of the building, thus involving the use of a shape as shown in section CD for the entire height of the building.

The dimensions of the interior of the stack, height of firebrick lining, and size of the flue openings illustrated by accompanying blue prints are satisfactory.[24]

Shortly thereafter, a supplemental agreement was signed with the Northeastern Construction Company to cover the proposed change.[25]

In May a number of proposals were made for changes in the plans of the powerhouse and administration building of the new hospital. The generators in the powerhouse on island 1 could not provide sufficient power for both the new complex and the new buildings proposed on island 1. Hence it was recommended that three of the 75-kilowatt units from the existing engine room be installed in the powerhouse of the hospital complex. Three 200-horsepower water-tube boiler units would also have to be installed in the new powerhouse. At the same time it was determined to place large freshwater storage tanks in the tank room, no other space being as well adapted or designed to accommodate them. In the pump room heavy pumps for a high pressure fire system were to

24. J. K. Taylor to Commissioner General, Apr. 5, 1907, RG 85, NA.

25. Sargent to Commissioner of Immigration, Ellis Island, Apr. 9, 1907, RG 85, NA.

installed.[26] To accomplish these changes, the following modifications in the plans of the powerhouse would be needed:

ENGINE ROOM, TANK ROOM, AND PUMP ROOM:

Engine room is to be situated in rooms at present laid out for sterilizing and cleaning. Partition between the two rooms to be omitted. Across the ceiling of engine room, where partition was omitted, a concrete beam is to be run and in wall between engine room and laundry a pilaster is to be built to support same. Door into laundry and door into tank room to be filled up.

Partition between tank rooms to be omitted and door next to coal room to be closed up.

Door to be cut into boiler room.

Iron stair to be built in engine room as indicated.

All changes are shown on drawing #2.

Floor of engine room to be lowered, and to be made of one slab of reinforced concrete 20" thick, extending to within 6" of wall on all four sides of room. Concrete to have 1" finish, same to be carried to walls of room. Piles to be driven under floor as shown on drawing #1.

Piles as shown on original drawing #410, to remain the same with the following exceptions which are shown on drawing #1.

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26. Howell to Watchorn, July 10, 1907, and J. K. Taylor to Sargent, July 29, 1907, RG 85, NA.

Pile #1 - Centralized between 2 neighboring piles
Pile #2 - Added
Piles #3 and #4 - Centralized
Pile #5 - Location changed
Pile #6 - Added
Elevation of footings for engine room changed.
Floor of tank room to be one slab of reinforced concrete extending to within 6" of concrete footing.
Floor to have 1" finish same to extend to walls of room
Piles to be driven as shown on drawing #1.

Note that piles under Engine and Tank rooms are added.[27]

The changes were designed to isolate the floors from the building foundations and thus prevent vibration from being transmitted to them.

Changes were also required in the four sidewalls of the coal bunker in the new powerhouse because of errors in the original plans. The framing as specified did not allow for an opening for an outside steel door on the second floor as provided on the elevation drawing. Thus, different framing between the first and second girt members was needed as follows:

> In order to have outside door shown on elevation of architect's plan, the framing must be entirely revised. The plan drawn up in this office dispenses with all 6" vertical I-beams in the lower part of the wall and replaces them with 8" I-beams weighing 18

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27. Howell to Chief Engineer & Superintendent, May 13, 1907, RG 85, NA. Originally it was intended for the tank room to contain large sinks for sterilizing mattresses and bed linen. The pumps and tanks contemplated were for use in connection with the water supply system of the hospital complex, and none of the machinery was so large as to cause a load in excess of 200 pounds to the square foot.

lbs. to the foot. The middle girt has been raised a little over half way up in the wall, in order that the old framing over this line consisting of 6" I-beams may be used entirely. The 9" I-beam constituting the upper girt, which came across the door opening on original plans, has been raised to the top of the wall.[28]

Modifications were required in the administration building when plans for the installation of an elevator indicated that foundations were needed for the elevator engine. Originally it was intended to install the engine in the attic immediately over the elevator shaft. It was necessary to support the engine on piles and to provide enclosing walls around its compartment. The building had no cellar, and the original plans made no provision for the accommodation of elevator machinery.[29]

After reviewing the proposed changes in the plans for the hospital, the Northeastern Construction Company proposed to perform the required work at a cost of $7,211.94.[30] Further studies by the engineers on Ellis Island supported the need for the proposed modifications, and in mid-September a supplemental contract with the contracting firm was authorized based on the acceptance of its proposal.[31]

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28. Civil Engineer to Chief Engineer & Superintendent, May 13, 1907, RG 85, NA.

29. Ibid., May 14, 1907, and Howell to Watchorn, May 25, 1907, RG 85, NA.

30. Garber to Commissioner of Immigration, Ellis Island, May 23, 1907, NA.

31. Sargent to Commissioner of Immigration, Ellis Island, Sept. 16, 1907, RG 85, NA. The supplemental contract, which was approved in early October, also included an allowance for additional piling at a rate of $1.35 per lineal foot for 16-inch piles and $1.10 per lineal foot for 12-inch piles. This allowance was authorized because of the earlier uncertainty as to the depth to which the piles would have to be driven. Watchorn to Sargent, Oct. 3 and 5, 1907, RG 85, NA.

During the summer of 1907 at least three contracts were let for the installation of electrical wiring and heating apparatus in the buildings that were nearing completion. These were as follows: Isador Fajans - electrical wiring - date of expiration January 13, 1908; L. H. Woods - electrical wiring - date of expiration December 16, 1907; and Evans, Almirall & Company - heating apparatus - date of expiration December 16, 1907.[32]

Meanwhile, Congress approved an additional appropriation of $250,000 for the completion of the contagious disease hospital in early May. The Northeastern Construction Company was approached relative to its interest in completing the remaining 11 buildings of the complex based on its original bid of $503,375. The firm refused, arguing that the cost of labor and materials had risen since the original proposal was made so as to preclude the possibility of making a profit under those terms. Thus, bids were solicited by advertising for the completion of the hospital complex in July.[33] The work to be contracted included the construction (except plumbing, heating, electric conduits, and wiring) of buildings designated as measles wards C, D, F, G, and H, isolation wards I, K, and L, staff house, office building, mortuary, and corridors from the powerhouse to ward E, from ward E to ward F, and from ward B to south of ward H.[34]

On August 1 the bids for the work were opened. The proposal of the Northeastern Construction Company, amounting to $298,405.60, was the lowest of the four received. The itemized breakdown of the bid was as follows:

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32. Fry to Northeastern Construction Company, Nov. 11, 1907, RG 85, NA. Apparently, all of these contracts were later abrogated since the work was contracted again in 1908.

33. Sargent to Commissioner of Immigration, May 17 and 23, 1907, and Watchorn to Sargent, May 21, 1907, RG 85, NA.

34. Murray to Watchorn, Aug. 1, 1907, RG 85, NA.

Each measles ward (including corridor)	$30,663.60
Each isolation ward	$30,112.60
Staff house	$28,000.00
Office building	$14,945.00
Mortuary	$ 2,387.00
Reinforced concrete pipe tunnel attached to corridor and extending to five measles wards	$ 7,730.80
Wood walk and pipe trench from end of corridor on new island to brick pavilion on island 2	$ 1,687.00[35]

Because the acceptance of this bid would push the cost of the entire complex to approximately $650,000, including plumbing, heating, electrical, and elevator work, it was determined to eliminate some of the proposed buildings.[36] Finally on August 30 it was determined that measles wards F and H, isolation wards I and K, and the office building should not be built, thereby reducing the net amount of the bid by the Northeastern Construction Company to $161,908.20. This would leave approximately $115,000 from the two appropriations for the installation of heating, electrical, elevator, and mechanical equipment in the entire hospital complex.[37]

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35. Ibid. The work was to be done in accordance with drawings 101, 124-135, 201-211, 301-308, 501-507, 601, M-38, and M-48.

36. Larned to Commissioner of Immigration, Ellis Island, Aug. 6, 1907, Fry to Commissioner of Immigration, Port of New York, Aug. 9, 1907, Watchorn to Sargent, Aug. 16, 1907, Winthrop to Secretary of Commerce and Labor, Aug. 23, 1907, and Murray to Winthrop, Aug. 28, 1907, RG 85, NA.

37. Acting Secretary to Secretary of Department of Commerce and Labor, Aug. 28, 1907, and Sargent to Commissioner of Immigration, Ellis Island, Aug. 30, 1907, RG 85, NA.

After straightening out some misunderstandings concerning the concrete piling for the new buildings, a formal contract was executed with the Northeastern Construction Company for the construction work on October 14. The buildings were to be completed by July 30, 1909, at a cost of $161,908.20. In addition, the firm was to receive $1.35 per lineal foot of concrete piling.[38]

As the construction of the additional buildings got underway in November, the Northeastern Construction Company reported that measles wards A, B, and E, the administration building, the kitchen, and the powerhouse and laundry were completed and ready for a final inspection. Although the contract called for the completion of the buildings by November 1, 1908, the company had hurried its completion in compliance with the wishes of Ellis Island officials. However, Chief Engineer Fry was reluctant to make a final inspection of the structures as he felt it was unfair for the Department of Commerce and Labor to take over and be responsible for the buildings during the coming winter. He argued that it was not possible for the authorities at Ellis Island to heat the buildings or to occupy them for hospital purposes until the permanent heating equipment was provided. Moreover, he questioned whether the government could be forced to accept the buildings until November 1, 1908, the date of expiration of the contract period. Commissioner Watchorn also felt it inexpedient to accept the buildings as they only constituted a portion of the entire hospital complex. Despite the misgivings of these officials the solicitor of the department offered the legal opinion that the firm was entitled to an inspection of its work and a final payment provided that the buildings were completed in compliance with the specifications.[39]

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38. Garber to Commissioner of Immigration, Sept. 25, 1907, Sargent to Commissioner of Immigration, Ellis Island, Sept. 26 and 30, 1907, and Contract and Bond for Construction of Additional Buildings in Completing New Hospital at Ellis Island, N.Y.H., dated Oct. 14, 1907, RG 85, NA.

39. Fry to Northeastern Construction Company, Nov. 11, 1907, Fry to Commissioner of Immigration, Port of New York, Nov. 22, 1907, Garber to Commissioner of Immigration, Dec. 2, 1907, and Memorandum in Re Final Inspection and Acceptance of the Contagious Disease Hospital Buildings, Dec. 7, 1907, RG 85, NA.

A final inspection of the buildings was held on December 12, and the work was found to be in substantial compliance with the specifications. However, he reported that he and Civil Engineer Howell

> noticed that owing to the marked changes in the temperature which had occurred within the preceding 48 hours, there was a very sensible accumulation of moisture on electric fixtures and in electric terminals; also that in some cases the walls were "sweating" very badly.
>
> I believe it absolutely necessary to put temporary steam heat in these buildings during the winter months, as otherwise there are likely to be most annoying freeze-ups in plumbing and piping systems, and serious injury done to the trim, plaster, etc., as well as the electric equipment from extreme cold and variations in temperature.
>
> We can arrange to take steam from present power-house by means of temporary connections, and we can pump back the water of condensation by setting up a couple of spare pumps we have now on hand.
>
> To care for this temporary heating there would be required six (6) additional men of the rating of Firemen, -- two men for each watch, and we would probably have to run all the boilers in the power-house.[40]

Despite further delaying tactics by the Ellis Island officials, the buildings were turned over to the government in late December or in early January 1908. Within a short time temporary arrangements for heating the buildings were provided by installing the permanent main

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40. Fry to Commissioner of Immigration, Port of New York, Dec. 12, 1907, RG 85, NA. The cost of the temporary heating system was estimated at $1,800.

supply and return pipes in the existing pipe tunnel and by making a temporary connection of supply at the nearest point on island 2 and a temporary return connection at the powerhouse on island 1.[41]

In March 1908 it was decided to plant lawn seed on the grounds surrounding the completed buildings. Fill dirt from the excavation for the new hospital extension on island 2 was removed to island 3 and graded after which topsoil and loam were placed on the surface.[42]

In June the commissioner-general of immigration reported on the progress of the work on the contagious disease hospital. Among other observations he noted:

> In my former annual reports I have called attention to the lack of hospital facilities here, and it is therefore very gratifying to be able to report at this time that in all probability it will not be necessary in subsequent reports again to refer to such lack of equipment. The new hospitals for the care of patients afflicted with dangerous contagious diseases are about 60 per cent completed, and the remaining unfinished portions are practically provided for, so that by the close of the present calender year it is confidently hoped and believed that this group of hospitals will be put in commission. When that is an accomplished fact, a very important result will have been secured. The report of the surgeon in charge shows that 267 deaths occurred at the various hospitals where those requiring medical treatment were placed. Of this total, children afflicted with measles, scarlet fever, etc., furnished 229. It is

41. Watchorn to Sargent, Dec. 14 and 18, 1907, Larned to Commissioner of Immigration, Ellis Island, Dec. 17, 1907, Garber to Commissioner General, Dec. 19, 1907, Sargent to Commissioner of Immigration, Ellis Island, Dec. 24, 1907, and Sargent to Northeastern Construction Company, Dec. 30, 1907, RG 85, NA.

42. Watchorn to Sargent, Mar. 12, 1908, RG 85, NA.

> confidently hoped that the opening of the new hospital at Ellis Island will cause a decided diminution of the rate of mortality, since the promptness with which the treatment may be afforded will be a decided advantage over the present conditions.

He also stated that the five buildings that had been eliminated earlier, i.e., measles wards F and H, isolation wards I and K, and the office building, would soon be placed under contract. The entire hospital complex was expected to be ready for occupancy by December 31.[43]

During the next several months at least four contracts were let for the completion of the work on the hospital complex. On August 29, 1908, a contract was let to Charles H. Mentzinger to complete the installation of the plumbing apparatus on the island. This contract included work in measles wards F and H, isolation wards I and K, and the office building as well as the installation of floor drains in the powerhouse and a saltwater line connecting the contagious disease hospital to the other two islands.[44]

On September 3 a contract was let to Evans, Almirall & Company for the installation of heating apparatus in the hospital complex. The contract included work in measles wards F and H, isolation wards I and K, and the office building as well as the powerhouse and laundry building.[45]

During this period two other contracts were let for the remaining work on the buildings. One covered the electrical wiring and

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43. Annual Report, Commissioner-General of Immigration, Fiscal Year 1908, pp. 135-36 and 138-39. No other documentary information was found relative to the construction of the five buildings.

44. The work was to be done in accordance with drawings 454-1 through 454-8.

45. The work was to be done in accordance with drawings 461-1 through 461-9.

fixtures in the corridors, office building, isolation wards I and K, and measles wards F and H. The other was for a switchboard in the powerhouse.[46]

The entire contagious disease hospital was completed sometime during the spring of 1909.[47] However, the buildings could not be occupied by patients as there was no equipment for the treatment and care of the sick, and there were no funds available for such items. Accordingly, it was determined to request an additional appropriation of $28,000 to provide for "plain, substantial articles that afford the ordinary facilities" for patients "having diseases of a quarantinable nature."[48] Congress reacted quickly to the request by approving an act on August 5 that appropriated $20,000 for the purchase of medical, surgical, and general hospital equipment.[49]

During the early months of 1910 several other improvements were contemplated for the contagious disease hospital. A hot water circulation system was installed. In addition, Commissioner Williams requested permission to connect the fire alarm on the island directly to the high power pumps in the powerhouse on island 1.[50]

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46. The electrical work was to be done in accordance with drawings 457-1 through 457-6 and the switchboard with drawings 471-1 through 471-4.

47. "Report of the Commissioner-General of Immigration, July 1, 1909," in Reports of the Department of Commerce and Labor, 1909 (Washington, 1910), pp. 232 and 242.

48. Commissioner-General to Secretary of Commerce and Labor, June 8, 1909, RG 85, NA.

49. Disbursing Agent to Commissioner-General of Immigration, Aug. 23, 1909, RG 85, NA.

50. Keefe to Commissioner of Immigration, Ellis Island, Feb. 28, 1910, and Commissioner of Immigration, Ellis Island, to Keefe, Mar. 1, 1910, RG 85, NA.

In October 1910 it was reported that the contagious disease hospital was ready for occupancy except that it could not be lighted. Although the complex had its own powerhouse, the operation of the plant would require the appointment of engineers, dynamo tenders, and firemen at salaries totaling $1,300 per month. In addition, $1,500 worth of coal would be required for the operation of the plant. An alternative method of lighting the island was by installing two copper tie lines connecting the powerhouse on island 1 with the new hospital buildings at a cost of $4,500. After considering the two choices it was determined to install the electric tie lines.[51]

Finally, the entire contagious disease hospital was opened for occupancy on June 20, 1911. Some months later the hospital was described in the Popular Science Monthly as "an excellently equipped and managed institution."[52]

B. Additions, Alterations, and Maintenance - 1911-1954

1. Alterations to Measles Wards - 1911

Some undetermined alterations were made to the measles wards under a contract with George Sykes. The work was satisfactorily completed on November 23.[53]

2. Grading of Island 3 - 1912

During the fall of 1912 some grading was done around the buildings on island 3. The work consisted principally of distributing

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51. Williams to Commissioner-General of Immigration, Oct. 19, 1910, and Keefe to Commissioner of Immigration, Ellis Island, Oct. 26, 1910, RG 85, NA.

52. Annual Report, Commissioner-General of Immigration, Fiscal Year 1911, p. 145, and Alfred C. Reed, "The Medical Side of Immigration," Popular Science Monthly, 80 (April 1912):383-92.

53. Fry to Secretary of Commerce and Labor, Dec. 18, 1911, RG 85, NA.

refuse and filling in holes. Eight laborers accomplished the work in 30 days.[54]

3. Enclosure of Two-Story Corridor With Glass - 1913- 1914

As soon as the contagious disease hospital was opened for occupancy, it was found that some improvements were necessary. The projects were as follows:

Alterations to powerhouse and laundry building (including the rearrangement and reinstallation of laundry machinery, disinfecting apparatus, plumbing) - $5,000

Enlargment of kitchen building (including additions to cooking, lighting, heating, and plumbing) - $30,000

Construction of a disinfecting plant (including concrete dock) - $17,500

Construction of garbage crematory and concrete dock - $17,500
At any time 250 to 300 (with a possible maximum of 500) people, including medical staff, sick people and employees, may be on island 3. There is no means of disposing of garbage except by disinfecting it and throwing it into the water, which is improper. The garbage from hospitals on island 2 is taken to the crematory on island 1, but this is about the limit of haul without creating a most unsanitary nuisance. Besides island 3 is for infectious contagious diseases, island 2 is not.

Enclosure of two-story corridor with glass - $28,000

The present corridor connects the entire group of buildings on island 3 except the isolation wards and the office building. In a

54. Williams to Commissioner-General of Immigration, Oct. 25, 1912, RG 85, NA.

rainstorm and in winter weather it will obviously be difficult to afford patients, nurses and attendants proceeding from one building to another proper protection and to keep food warm; hence the recommendation for this enclosure.[55]

In July 1912 Commissioner Williams made a number of requests for appropriations to make various improvements on Ellis Island. From the aforementioned list of proposed projects, only the enclosure of the two-story corridor of the contagious disease hospital was repeated. The justification for the request was as follows:

> The present two story corridor is about 550 feet long. It is roofed over but not enclosed on either side. With the exception of the isolation wards and the office building this corridor connects the several hospitals on No. 3 island with each other, also with the central kitchen and the administration building containing the operating room. In rain storms and winter weather it is now difficult to serve warm food throughout the various hospitals, or to afford patients, nurses and attendants proceeding from one building to another proper protection. At times it is not only difficult but absolutely impossible to do this, the corridor being in a very exposed position.
>
> The open space which must be filled by copper panel work and sash aggregates 14,000 square feet. It is estimated that the cost will be $2.00 per square foot.[56]

After lengthy delays, Congress responded by passing a Sundry Civil Expenses Bill on June 23, 1913, appropriating the requested

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55. Annual Report, Commissioner-General of Immigration Fiscal Year 1911, p. 146, and Williams to Commissioner-General of Immigration, July 7 and 29, 1911, RG 85, NA.

56. Williams to Commissioner-General of Immigration, July 22, 1912, RG 85, NA.

funds for the glass enclosure.[57] In June 1914 it was reported that the connecting corridor had been enclosed in copper and glass.[58]

4. Installation of Additional Tie Lines - 1913-1914

As early as 1909 the sum of $10,000 was requested for the installation of electric tie lines between the powerhouse on islands 1 and 3. The tie lines would make it possible for the two services to be interchangeable so that if one power plant broke down the other could be used temporarily to serve all the islands.[59]

5. Extension of Fire Alarm System and Saltwater Service Lines to Island 3 - 1914-1915

The Sundry Civil Act approved on August 1, 1914, contained appropriations for two improvement projects on island 3. These were the extension of the fire alarm system to the hospital islands ($4,000) and the installation of saltwater service lines to the contagious disease hospital ($4,500). The work was completed sometime in late 1914 or early 1915.[60]

6. Repairs to Hospital Buildings Following Explosion - 1916-1917

On the night of July 30, 1916, a major explosion at the railway terminals on Black Tom Wharf in New Jersey rocked Ellis Island (see chapter V.G.11 for more details). The walls, ceilings, roofs, and

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57. "An Act Making Appropriations for Sundry Civil Expenses of the Government for the Fiscal Year Ending June Thirtieth, Nineteen Hundred and Fourteen," RG 85, NA.

58. Annual Report, Commissioner-General of Immigration, Fiscal Year 1914, p. 225.

59. Commissioner-General to Secretary of Commerce and Labor, June 8, 1909, and Williams to Commissioner-General of Immigration, July 1, 1910, RG 85, NA.

60. Larned to Commissioner of Immigration, Ellis Island, Aug. 7, 1914, RG 85, NA.

foundations of the hospital buildings were weakened, and many windows, casings, and doors were blown out. The repairs to the Ellis Island facilities took about a year and cost nearly $400,000.[61]

7. Use of Hospital Complex During and Following WW I - 1918-1923

Information relative to this topic can be found in chapter IX.B.25. Both of the hospital complexes on islands 2 and 3 were administered as a unit by the U.S. Army from March 1, 1918, to June 30, 1919. The only improvement made to the contagious disease hospital during that period was the installation of a high pressure fire system.[62]

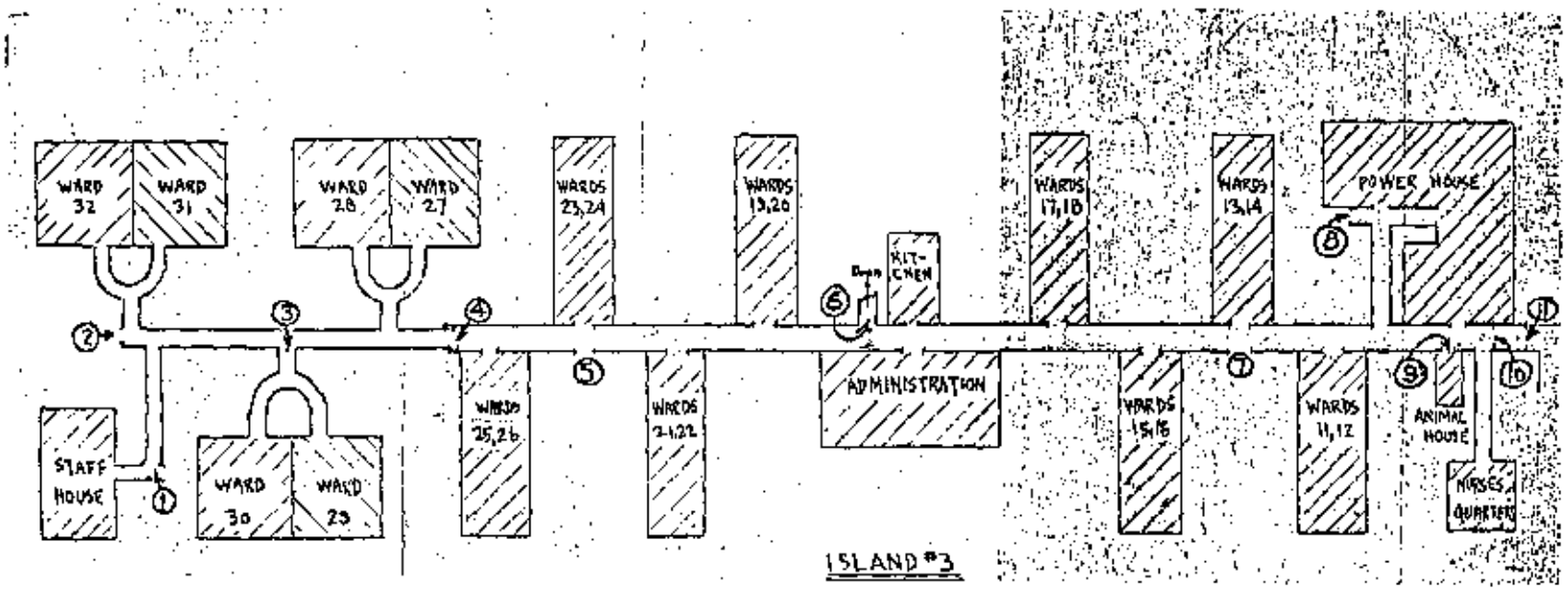
When Sir A. C. Geddes, the British Ambassador to the United States, visited Ellis Island in 1923, he described the contagious disease hospital facilities of the U.S. Public Health Service in complimentary terms even though he was generally critical of the station itself. Among his comments were the following:

> I had merely time to glance at the hospital for persons suffering from infectious diseases.
>
> The general lay-out is good, and the kitchen is excellently arranged and equipped. The quality of the food is good. The wards seemed comfortable and decently kept.
>
> Here, as elsewhere, more money for maintenance to the structure is obviously necessary.
>
> The pathological laboratory for the whole medical service on the island is situated at the end of the isolation hospital. I judge

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61. Annual Report, Commissioner-General of Immigration, Fiscal Year 1917, pp. 29 and 175-178.

62. Annual Report, Commissioner-General of Immigration, Fiscal Year 1919, pp. 28-29.


WARD 32
WARD 31
WARD 28
WARD 27
WARDS 23,24
WARDS 19,20
KIT-CHEN
WARDS 17,18
WARDS 13,14
POWER HOUSE
ADMINISTRATION
WARDS 25,26
WARDS 21,22
WARDS 15,16
WARDS 11,12
ANIMAL HOUSE
NURSES QUARTERS
STAFF HOUSE
WARD 30
WARD 29
ISLAND #3

it to be efficient and reasonably adequate. It, like every other department on the island, needs more money to spend on upkeep.[63]

Sometime after the U.S. Public Health Service took over the administration of the hospitals on islands 2 and 3, the buildings of the contagious disease hospital were redesignated with new numbers and names. The old and new designations were as follows:

Old	New
No. 1 - Office Building	Nurses Quarters
No. 2 - Power House and Laundry Building	Power House
No 3 - Mortuary	Animal House
No. 4 - Measles Ward E	Wards 13-14
No. 5 - Measles Ward G	Wards 11-12
No. 6 - Measles Ward A	Wards 17-18
No. 7 - Measles Ward C	Wards 15-16
No. 8 - Kitchen	Kitchen
No. 9 - Administration Building	Administration
No. 10 - Measles Ward B	Wards 19-20
No. 11 - Measles Ward D	Wards 21-22
No. 12 - Measles Ward F	Wards 23-24
No. 13 - Measles Ward H	Wards 25-26
No. 14 - Isolation Ward J	Wards 27-28
No. 15 - Isolation Ward L	Wards 29-30
No. 16 - Isolation Ward K	Wards 31-32
No. 17 - Staff House	Staff House[64]

63. Despatch from H.M. Ambassador at Washington Reporting on Conditions at Ellis Island, p. 10.

64. A copy of the drawing of the layout plan of island 3 in the 1920s may be seen on the following page.

8. Miscellaneous Repairs - 1923-1925

In December 1923, Commissioner Henry H. Curran submitted a list of projects that were needed to renew and replace worn out and inadequate equipment. Little renovation work had been done at Ellis Island since the pre-World War I era, and the entire plant was showing signs of deterioration. The items that he felt were deserving of immediate attention were as follows:

REPLACEMENT OF SALTWATER MAINS IN POWERHOUSE AND BASEMENTS WITH RISERS AND BRANCHES TO FIXTURES ON ISLANDS 1 AND 3

The use of saltwater for flushing toilets is a most economical measure but the mains and risers now in place have become so corroded as to render replacement absolutely necessary. In connection with such replacement, it will of course be necessary to filter the water from the bay and install sediment traps.		$16,000

REPAIRS TO PLUMBING IN WARDS 27 to 32 AND STAFF HOUSE ON ISLAND 3.

New fixtures, piping and waterproofing floors, shower bathrooms in wards 15 to 25 and retiling 7 floors	$ 2,000	
Hot, cold and saltwater piping, 25 toilet fixtures, 40 showers, 6 floor drains, 70 new faucets, and 6 slop sinks	$13,000	
	$15,000	$15,000

As the bureau is aware, island 3 contains the contagious disease hospital group. The equipment is antiquated and incomplete and the piping has become corroded to such an extent that it is difficult to force water through many of the risers.

ELECTRIC WIRING AND SAFETY PANEL BOARDS
ISLANDS 1 and 3

Island		
Panel boards and wiring	$14,000	
200 fixtures, 500 Watts at $30	6,000	
1250 " 100 " " 4	5,000	
300 " 150 " " 16	4,800	
12 " 750 " " 100	1,200	
	$31,000	
Island		
300 fixtures at $18	5,400	
100 " " 16	1,600	
Additional wiring	2,000	
	$ 9,000	
	31,000	
	$40,000	$40,000

With the exception of certain installations which have occurred on island 2, the electrical equipment at the station is in a very bad and dangerous condition. Almost all of the wiring must be replaced, the paneled boards are antiquated, several minor fires have occured due to short circuiting, numerous grounds exist, and several of our workmen have been injured in attempting to make repairs or obtain service. It is most fortunate that there has not been loss of life or serious damage to property.

This is a very important item, and the replacements should be made with the least possible delay.[65]

In addition, it was reported that the pipe covering and the steam supply lines needed to be replaced and some 45,000 square yards of wall surface, including window frames, trim, and metal work needed to be painted. Although some of this work was contracted for in 1924 and 1925, the majority of the requested funds were not granted until the early 1930s.[66]

9. Installation of Steam Lines and Pipe Covering - 1925

During the summer of 1925 new 10-inch low pressure steam pipes were installed in the small tunnel on island 3. The new piping was covered with 85 percent magnesia sectional pipe covering under a contract let to Alfred Beyrodt on October 5, 1925.[67]

10. Installation of New Disinfector, Piping, Valves, Gauges, Heat Insulating Materials, Division Wall, And Plaster in Powerhouse and Laundry Building - 1924-1925

In August 1924 Commissioner Curran listed as an urgently needed improvement the overhaul of the disinfector in the powerhouse and laundry building on island 3. The overhaul, together with the installation of new piping and necessary structural repairs, was estimated to cost some $3,000.[68]

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65. Curran to Commissioner-General of Immigration, Dec. 17, 1923, RG 85, NA.

66. Curran to Commissioner-General of Immigration, Aug. 7, 1924 and July 1, 1925, Commissioner-General to Commissioner of Immigration, Ellis Island, Aug. 23, 1924, and Hull to Commissioner of Immigration, Ellis Island, July 18, 1925, RG 85, NA.

67. "Specifications for Renewal of Heating System, Part I, Pipe Covering," dated Sept. 25, 1925, RG 85, NA. The pipe covering was to be done in accordance with drawing D-1003-1.

68. Curran to Commissioner-General of Immigration, Aug. 7, 1924, RG 85, NA.

An inspection of the sterilizing machine, which was used to disinfect and sterilize bedding, showed that its condition was such as to be dangerous to those persons operating it. Much of the piping, gauges, and other appurtenances were either so worn or corroded as to be useless. The escaping steam had caused considerable damage to the plaster and other equipment. The second story of the building, which was used as quarters for hospital attendants, was also found to be in poor repair.[69]

Specifications and plans were prepared, and four proposals were accepted for the work. The contracts were as follows:

> Repairs to sterilizer, installation of new pipes, valves and gauges; American Sterilizer Company of 12th & Plum Streets, Erie, Pa., in the amount of $1302.00, 40 working days.
>
> Installing and repairing coverings and 11 piping covered by item; Daniel R. Douglas & Co., 118 West Street, New York City, who bids $1750.00 for this work and agrees to complete same within 50 working days.
>
> Plastering and painting four rooms; Neptune B. Smyth, Inc., 417 E. 34th Street, New York City, who agrees to do same for $943.00 in 30 working days.
>
> The installation of one 12 inch self-syphoning ventilator; Schneider Sheet Metal Works, 307 E. 92nd Street, New York City, who agrees to install same in 30 working days for the sum of $325.00.[70]

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69. Ibid., Sept. 20, 1924.

70. Ibid., and Commissioner-General to Commissioner of Immigration, Ellis Island, Sept. 30, 1924, RG 85, NA.

When the American Sterilizer Company dismantled the sterilizing machine, it was found that the inner shell was badly corroded from continuous use since 1908. In two places, each about 3 inches in diameter, the plate was not more than one-sixteenth of an inch thick, the result of exposure to steam pressure and the use of formaldehyde. As the firm directing the repairs refused to guarantee its work, it was determined to install a new machine. The new machine, which cost $3,060, and was similar to those being installed on island 1, was described as follows:

> New "AMERICAN" Kinyoun-Francis steam and formaldehyde disinfector, rectangular type, 48" wide by 54" high by 96" long, with a radial arm door at each end, of strictly modern type and complete with all piping, valves and fittings, carriage and tracks, set in position.[71]

Accordingly, new specifications were drawn up for the installation of the new rectangular radial arm disinfector as well as new piping, valves, gauges, heat insulating materials, a division wall, and plastering. The general scope of work, as set forth in the specifications, was as follows:

> The Contractor shall remove the old disinfector to the edge of the dock on the North Side of the B & D Building, Island No. 1; remove the present dividing wall, and dump refuse on fill between Islands No. 2 and No. 3 at Easterly End.
>
> Remove all discarded or unused dead pipes of every description in the disinfector and laundry rooms, under the first floor of the building and Branch Tunnel to Main Tunnel, disposing of

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71. Hull to Commissioner of Immigration, Ellis Island, Sept. 17, 1924, Guppy to Commissioner of Immigration, Ellis Island, Nov. 10, 1924, and Curran to Commissioner-General of Immigration, Nov. 12, 1924, RG 85, NA.

same in a neat manner satisfactory to the Engineer on Island No. 1.

All new piping shall be extra strong wrought iron pipe.

All valves on disinfector shall be the type designed by the Disinfector Manufacturer. The two (2) inch controlling valve on supply main at take-off in Laundry Room shall be all brass, double-disc, taper-seat, O.S. & Y type for 175# pressure as made by the Nelson Valve Co. Chestnut Hill, Philadelphia, Pa.

Heat insulating materials shall be of Johns-Mansville Co., N.Y.

A new hollow tile wall shall be built in location shown on Drawing D-307-2, and plastered on both sides with three coat plaster.

Install all piping, drain and vent lines necessary for the sterilizers.[72]

11. Repairs to Roofs, Skylights, and Ventilators - 1926

During the fall of 1926 various repairs were made to the leaking roofs, gutters, dormer windows, hips, valleys, leaders, drains, and ventilators of all the buildings and covered passageways on island 3. Puttyless-type skylights manufactured by the H. H. Robertson Company were to be installed. The repairs were quaranteed to be watertight and leak-proof for two years.[73]

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72. "Specifications for New Disinfector, New Piping, Valves, Gauges, Heat Insulating Materials, Division Wall and Plastering," dated Dec. 5, 1924, RG 85, NA. The work was to be done in accordance with drawing D-987-2.

73. "Specifications for Repairing Roofs, skylights, and Ventilators on All Buildings and Covered Passage Ways, Island No. 3," dated Sept. 17, 1926, FF 157, All Buildings - Island No. 3: Repair Roofs, 1926, Ellis Island Records, DSC.

12. Installation of Fly Screens - 1928

During the summer of 1928 a contract was let for the installation and repair of fly screens on the hospital buildings on islands 2 and 3. The screens were of 16- by 16-inch mesh solid bronze wire and were guaranteed to be insect-proof for one year. The fly screens were placed on 46 doors, 543 windows with wood frames, 44 new metal sliding windows, 18 fenestra windows, and the screened porch on the east side of the staff house.[74]

13. Renewal of Hot Water and Steam Lines - 1931

In April 1930 Commissioner Benjamin M. Day submitted requests for funds totaling $3,200 to renew the hot water and steam lines on island 3. The justification for the requests was as follows:

> Renewal of hot water lines between the hot water heater and the pumps and from the heater to the brass supply lines in the tunnel on island 3
> Estimated cost - $1,500.00
>
> Another item which, of necessity, was omitted from the work to be done on island 3, by lack of appropriations, was the renewal of the hot water lines between the hot water heater and the pumps and from the heater to the brass supply line in the tunnel. Unless this be attended to without undue delay the patients and other inmates of the hospital buildings on island 3 may, at any time, be deprived of the use of hot water for an indefinite period.
>
> Installation of steam lines on island 3 (contagious disease hospital group), and renewal steam pipe in pump room, on same island, leading to the sterilizer
> Estimated cost - $1,700.00

74. "Specifications for Fly Screens on Islands No. 2 and No. 3," dated June 1, 1928, FF 132, All Buildings - Island No. 2: Insect Screens, 1928, Ellis Island Records, DSC. The work was to be done in accordance with drawing E-1008-1.

A considerable portion of the steam lines on island 3 (dangerous disease hospital group) were renewed under special appropriations, but the estimates for this work were so reduced when the appropriation was made that a certain portion could not be installed. There are approximately 130' of these steam lines which still require replacement and to do this will cost $1500. The portion of piping herein referred to is now in such bad condition that in attempting to place sleeves over the numerous holes caused by corrosion, it not infrequently happens that the pipe itself collapses. Certainly it would be a calamity to have this line collapse entirely with a number of patients in a contagious disease hospital.

Another portion of the work which had to be omitted by reason of a lack of money in the special appropriations made, was certain steam pipe renewals in the pump room on island 3 leading to the sterilizer. Certainly it is important that the sterilizer of a contagious disease hospital function properly. It is estimated that the necessary connections for that sterilizer can be installed for $200.[75]

The two requests were approved along with others in the Second Deficiency Bill passed on July 3, 1930.[76]

Specifications and plans were drawn up for the work in May 1931, and a contract for the renewal of the hot water and steam lines was let in May or June. Included in the work was the installation of high pressure steam and hot water lines in the pump and tank rooms of the powerhouse and in the tunnel and the installation of piping with blow-off lines, valves, and expansion joints in the tunnel and covered way to the brick tower on island 2.[77]

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75. White to Roop, Apr. 29, 1930, RG 85, NA.

76. Hull to Commissioner of Immigration, Ellis Island, July 8, 1930, RG 85, NA.

77. "Specifications for Renewal of Hot Water and Steam Lines, Island No. 3," dated May 11, 1931, and miscellaneous papers relative to contract, FF

14. Tiling of Bathrooms in Wards 23, 24, and 25 - 1931-1932

In October 1931 a contract was let to the Kalander Construction Company of Bloomfield, New Jersey, for tiling the bathrooms in wards 23, 24, and 25 on island 3. The bathrooms were all approximately 8 feet long by 9 feet wide in the main part of the room with an alcove passage approximately 3-1/2 feet by 4-1/2 feet leading to the corridor. The scope of work was as follows:

> In each bath room the tile, or terrazza floor is to be removed, together with the base cove and two lower rows of wall tile. In Wards 23 and 25 the existing floor drain is to be lowered, approximately one (1) inch, by this contractor.
>
> Remove foundation under the old tile floor and level off to within one and one quarter (1-1/4) inch of new line of finished floor with concrete mixed in the proportion of one (1) part cement, two (2) parts sand and four (4) parts stone. The top of this base is to be finished smoothly and when dry, shall be given a coat of bituminous paint. On this surface, in each bathroom, set a water-tight pan of sheet lead weighing not less than six (6) lbs. per square foot. Lead pan shall be soldered or secured water-tight to floor drain and turned up and folded at corners, not cut and soldered. The lead pan is to be turned up six (6) inches at all walls. When pipes pass through the floor, provide a water-tight lead sleeve extending three (3) inches above the finished floor and pounded tight around the pipe. Coat the top surface of the lead pan with bituminous paint. Lay a new tile floor, pitching to the floor drain, and include the two rows of wall tile and cove base.

158, All Buildings - Island No. 3: Remove Hot Water and Steam Lines, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1167.

The new floor and wall tile and cove base were to be of the same size, shape, and quality as those removed. The work was completed in January 1932 at a cost of $606.37.[78]

15. Tiling and Waterproofing of Wards 26 and 27 - 1931

In August 1931 a contract amounting to $3,185 was awarded to Neptune B. Smyth, Inc., of New York City to do some tiling and waterproofing in wards 26 and 27. In ward 26 the work included the removal of the tile flooring, lowering of the floor drain, installation of a lead pan, and retiling of the floor in the shower room. In ward 27 the wood floor and wall plaster were removed to a height of 7 feet and replaced with tile. The wall and wood floor in the hallway were removed and replastered and tiled. The work was completed by November.[79]

16. Repairs/Replacements to Roofs and Leaders - 1931-1932

In September 1931 a contract was let to the Quintine Realty Company of New York City to make repairs and replacements to all the roofs on island 3 at a cost of $4,960. The work included the repair of tile, slate, metal, and composition roofings as well as the valleys, flashings, gutters, downspouts, ventilators, and skylights. In addition, the wooden soffits of the roof eave overhangs and the plastic floorings were painted. The contract was completed in February 1932.[80]

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78. "Specifications for Tiling, Wards 23, 24, 25, Island No. 3," dated Sept. 18, 1931, and miscellaneous papers relative to contract, FF 152, Wards 11-32: Remove Tile, 1931, Ellis Island Records, DSC, and Hull to Commissioner of Immigration, Ellis Island, Oct. 8, 1931, RG 85, NA.

79. "Specifications for Tiling, Island No. 3," dated July 31, 1931, and miscellaneous papers relative to contract, FF 151, Wards 11-32: Remove Ward Flooring, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1174.

80. "Specifications for Repairs and Replacements, Roofs and Leaders, All Buildings with Connecting Corridors, Island #3," dated Sept. 3, 1931, RG 85, NA, and miscellaneous papers relative to contract, FF 160, All Buildings - Island No. 3: Roof Repairs, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1175.

17. Painting Exterior of All Buildings on Island 3 - 1931

A contract was let to the Quintine Realty Company of Bloomfield, New Jersey, in September 1931 to paint the exteriors of all the buildings on island 3. The work consisted of painting the exterior wood and metal surfaces including the approaches, connecting corridors, and passages of the structures. Steel sash and metal-covered doors were painted as were iron window guards, grills, screens, balconies, and porches. The perimeters of the exterior door and window frames were painted and caulked. The work was completed in December 1931 at a cost of $2,790.[81]

18. Installation of New Electrical Equipment - 1932

In January 1932 a contract was let to H. Z. Altberg of New York City to revamp the electrical system on island 3. The work included rerunning electric circuits in conduits, new power plug outlets, new steel switchboards, new ceiling and sidewall fixtures, new mains in tunnel, and clearing all circuits of grounds. The project included the rewiring of 30 circuits, 21 of which were to be installed in new exposed conduits, 1 in a concealed conduit, and 8 in the existing conduits.[82] The steel panel boards were to conform to the approved sample manufactured by the Crouse-Hinds Company of New York City.[83] The main feeders consisted of two 2-inch conduits running from the tower entrance of island 2 along the covered way and down along the tunnel of

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81. "Specifications for Painting, Island No. 3," dated Aug. 20, 1931, and miscellaneous papers relative to contract, FF 159, All Buildings - Island No. 3: Painting, Exterior, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1170 and D-1171.

82. Dair to U.S. Department of Labor, July 15, 1932, FF 161, All Buildings-Island No. 3: Electric Installation, 1931, Ellis Island Records, DSC.

83. The 39 new panel boards were of three types (designated A, B, and C) and carried between 6 and 18 circuits each.

island 3. Each conduit had a varnished cambric cable of 1,000,000 circular mills and 780 ampere capacity.[84]

19. Installation of New Fire Alarm System - 1931-1932

In October 1931 a contract was let to the Quintine Realty Company of Bloomfield, New Jersey, to install a Faraday Series closed circuit fire alarm system on all three islands of the immigration station. The system originated in the powerhouse on island 1 and extended to all the buildings via 2 circuits and 28 station boxes. The work was completed in March 1932 at a cost of $4,185.15.[85]

20. Repairs to Elevator - 1931-1932

In October 1931 a contract was let to the American Elevator and Machine Corporation of New York City to repair the two elevators on island 2 and the single elevator in the administration building on island 3. Included in the work on the single elevator (elevator 10) in the contagious disease hospital were the following items:

Repair annunciator system
Repair all hatchway doors, car gates, and gate locks
Repair electric gate connections
Furnish and install new car gate contact
Furnish and install new drum bearings
Furnish and install new thrust bearings
Repair cam on car and cam locks
Overhaul car switches

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84. "Specifications for Electric Installation, Island #3," dated Jan. 20, 1932, and miscellaneous papers relative to contract, FF 161, Ellis Island Records, DSC. The work was to be done in accordance with drawings E-1198 through E-1204, dated Dec. 12, 1931.

85. "Specifications for Fire Alarm System at Ellis Island," dated Oct. 21, 1931, and miscellaneous papers relative to contract, FF 179, All Islands: Fire Alarm System, 1931, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1184.

The work was completed in February 1932.[86]

21. Tiling of Shower Room Floor in Ward 29 - 1932

In January 1932 a contract was let to the Ace Tile Company of New York City to replace the existing tile floor in the 7- by 12-foot shower room of ward 29. The floor drain was lowered 2 inches and the new tile floor consisted of 2-inch hexagon white vitreous standards manufactured by the A-1 Mosiac Tile Company. The work was completed in March at a cost of $115.[87]

22. Installation of Insect Screens - 1932

In June 1932 a contract was let to the Orange Screen Company of New York City to install insect screens on all the buildings on Ellis Island. On island 3 the screens were placed throughout the second floor corridor and throughout the wide corridor on the first floor. Metal fly screens were furnished for all vent sash openings in steel sash and wood screens for three door openings. The number, kind, and size of the screens were as follows:

Hospital Building, Island 3, Ellis Island

Fly Screens Location: Screens for Main Corridor, 1st Floor and Kitchen

No. of Screens	Kind	Size of Opening
11	Metal (Pivoted Sash)	2'5-5/8" x 3'5-5/8"
		2 lights wide x 2 lights high
13	Metal (Pivoted Sash)	3'8" x 3'5-5/8"
		3 lights wide x 2 lights high
58	Metal (Pivoted Sash)	5'1¼" x 3'5-5/8"
		4 lights wide x 2 lights high

86. "Specifications for Repairs to Elevators, Main Island and Repairs to Elevators, General Hospital," n.d., and miscellaneous papers relative to contract, FF 178, All Islands: Elevator Repairs, 1931, Ellis Island Records, DSC.

87. Miscellaneous papers relative to contract, FF 153, Wards 11-32: Tile Floor, 1932, Ellis Island Records, DSC.

Location: Screens for Main Corridor, 2nd Floor

No. of Screens	Kind	Size of Opening
14	Metal (Pivoted Sash)	2'5-5/8" x 3'5-5/8" 2 lights wide x 2 lights high
40	Metal (Pivoted Sash)	5'1¼" x 3'5-5/8" 4 lights wide x 2 lights high
54		

Screen Doors - - - - - - - - - - 1st Floor

2 Screen Doors located at each end of wide Corridor
(Double Swing) 5'0" x 7'6"

1 Screen Door located near Disinfecting Room
5'0" x 7'6"[88]

23. Reduction of Steam Line and Heating System Connection in Pump Room - 1932

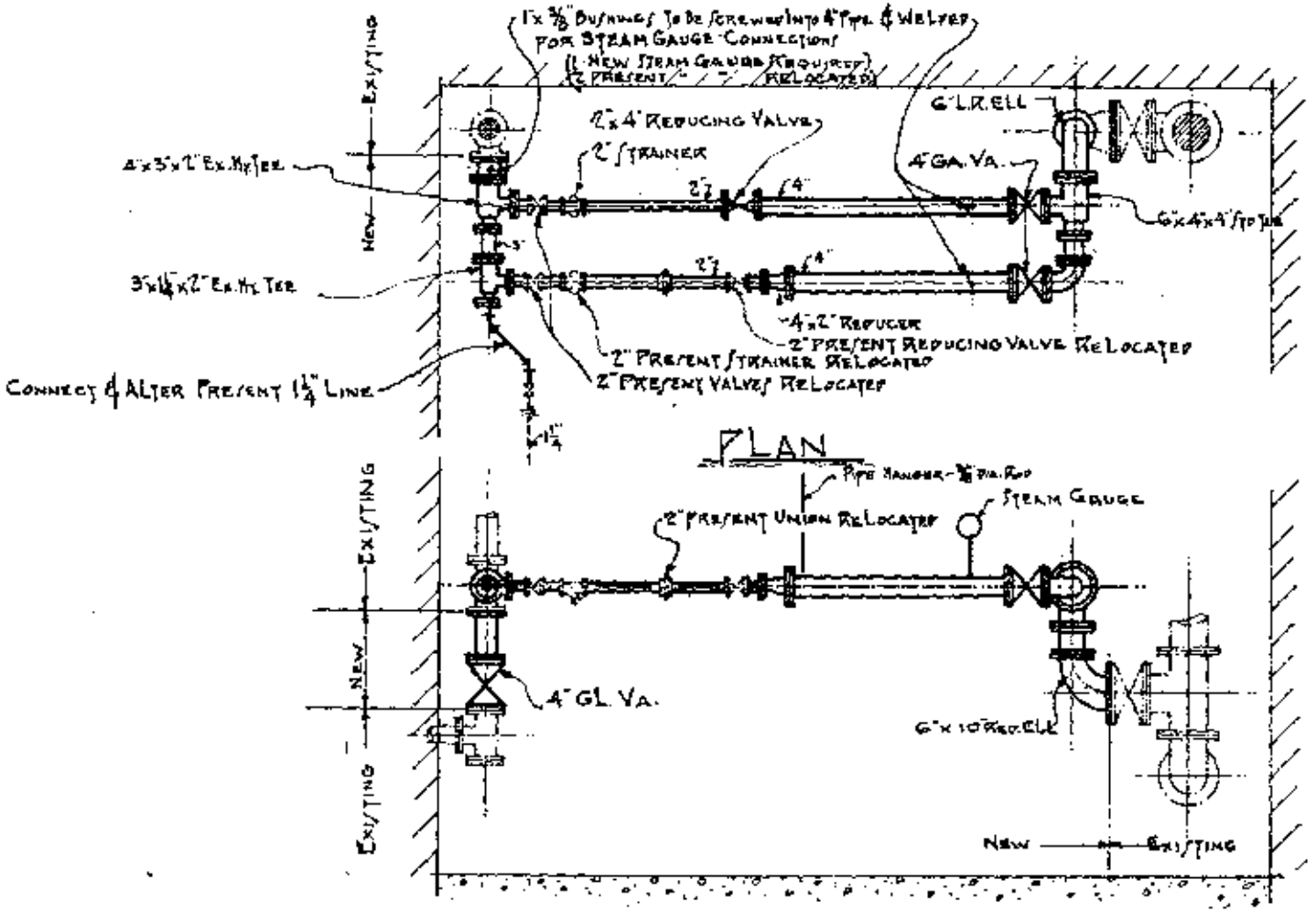
On May 11, 1932, the proposal of Guy J. Tanzer, Inc., of New York City was accepted for reducing the connection between a high pressure steam line and the low pressure heating system in the pump room of the powerhouse and laundry building on island 3. The work was completed in September at a cost of $360.[89]

24. Alterations and Rearrangement of Plumbing Fixtures and Kitchen Equipment - 1932

In June 1932 the bid of the Bernard Plumbing Company of New York City was accepted for making alterations and rearranging the

88. "Specifications for Screens on Islands Nos. 1, 2, 3," dated June 6, 1932, and miscellaneous papers relative to contract, FF 177, All Islands: Insect Screens, 1931, Ellis Island Records, DSC.

89. Miscellaneous papers relative to contract, FF 150, Power House - Island No. 3: Reducing Connection, 1932, Ellis Island Records, DSC. The work was to be done in accordance with a drawing entitled "Reducing Connection, Pump Room - Island No. 3," dated Apr. 26, 1932. A copy of this drawing may be seen on the following page.



Contractor shall take his own measurements at the site and be responsible for same.

Reducing Connection
Pump Room - Island No. 3
File No 98529-385
F.E.C. April 26-1932
Scale - 1/4 - 1'-0"
M.L. Booth - Arch. Eng.

plumbing fixtures and kitchen equipment in the administration building and kitchen on island 3. The work involved the service pantries on the first floor and the nurses' pantry on the second floor of the administration building as well as the kitchen across the corridor from the building. The scope of the work involved the following items:

MASONRY: Cut an opening between the Serving Pantry No. 1 and the Dishwashing Room and trim up as noted; remove the marble toilet partitions, and patch with marble the existing marble wainscots as required to produce a finished result.

ELECTRIC WIRING: As required occurs in Serving Pantry No. 1 and No. 2 and consists of three extensions from existing boxes as shown.

PLUMBING: Furnish and install and connect up in the Kitchen, as shown, one new slop sink which shall be a Crane C-21342. White vitreous china roll rim service sink - size 22" x 18" outside x 12" deep inside; fitted with cast brass waste plug with bar strainer.

RELOCATE in Serving Pantry No. 1 the present sink and grease trap and extend and connect up the hot and cold water supply and waste line.

RELOCATE in the Dishwashing Room the dishwasher, now in Serving Pantry No. 1 and extend and connect up water, waste and steam connections.

REMOVE the existing lavatory in the Dishwashing Room.

INSTALL in the Nurses Pantry on the second floor, over Serving Pantry No. 2 a lavatory to be furnished by the U.S.

Extend hot and cold water supply and waste line and connect up.[90]

25. Replacements of Plumbing Fixtures and Fittings - 1932-1933

In May 1932 a contract was let to the Bernard Plumbing Company to make various replacements to the plumbing fixtures and fittings in the hospital buildings on islands 2 and 3. In addition, some fittings were to be chromium plated. The various plumbing fixtures and fittings were replaced in the following locations:

Ward 27
- Operating room
- Examination room
- Toilet and bathroom - second floor

Ward 28
- Toilet
- Bathroom

Ward 31
- Second floor

Ward 32
- Second floor

Doctor's Staff House
- Doctor Sweet's Bathroom
- First floor toilet room

90. "Specifications for Alterations, and Rearrangement of Plumbing Fixtures and Kitchen Equipment in the Administration Building and Kitchen on Island No. 3," dated May 31, 1932, and miscellaneous papers relative to contract, FF 147, Administration Building - Island No. 3: Alter and Rearrange Plumbing Fixtures, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1237.

Ward 29
  Second floor

Ward 30
  First floor
  Second floor

Wards 19-20 and 22-26

Administration Building
  Doctor's toilet
  Second floor
    Toilet room
  Third floor
    Shower and bathroom
    Toilet room

Ward 17
  Diet kitchen

Ward 18
  Second floor

Ward 15
  Diet kitchen
  Toilet room
  Room 4
  Room 8
  Pneumo Room 9

Ward 16

Contagious Wards 11-14

Powerhouse and Laundry Building
Maids' quarters - second floor
Male nurses' quarters
Laboratory toilet

The contracting firm abandoned the work on October 1, and in February 1933 a contract was let to A. Blaustein of New York City to complete the work.[91]

26. Painting Interior of All Buildings - 1932

In May 1932 a contract was let to Morris Friedlander, Inc., of Brooklyn, New York, to paint the interiors of all the buildings on island 3. The work included plaster patching and painting wood, iron, and plaster surfaces throughout the buildings. The general color scheme, with some exceptions, was light cream for the ceilings, light ivory for the upper walls, ivory or buff for the wainscot, and black or brownish black for the base.[92]

27. Electrical Installation for Fire Pump Feeder - 1932

In March 1932 a contract was let to the Quintine Realty Company of New York City to renew a portion of the electrical feeders between the powerhouse on island 1 and the fire pump on island 3. In addition, part of the existing line was rerouted, and some of the

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91. "Specifications for Replacements, Plumbing Fixtures and Fittings, Hospital Buildings, Islands Nos. 2 and 3," dated May 12, 1932, and miscellaneous papers relative to contract, FF 137, All Buildings - Island No. 2: Replace Plumbing Fixtures, 1932, and FF 140, All Buildings - Island No. 2: Replacement for Plumbing Fixtures, 1933, Ellis Island Records, DSC.

92. "Specifications for Painting (Interior), Hospital Buildings, Island No. 2 and 3," dated May 5, 1932, and miscellaneous papers relative to contract, FF 136, All Buildings - Island No. 2: Paint Interior, 1932, Ellis Island Records, DSC. The work was to be done in accordance with drawing E-1171.

connections at the switchboard in the powerhouse were altered. New switches, fuses, splice boxes, conduits, and cables were also supplied.[93]

28. Installation of Nonconducting Pipe Covering - 1932-1933

In June 1932 a contract was let to the Sheridan Insulation Company of New York City to install nonconducting coverings on pipes, tanks, and exposed heating device surfaces on all three islands. In some cases, the existing coverings were recanvassed. Most hot pipes were insulated with sectional, removable, 85 percent magnesia covering. The two water heaters in the tank room of the powerhouse and laundry building on island 3 were insulated with 85 percent magnesia blocks, chicken wire mesh, ordinary grade asbestos cement, and asbestos hand-finishing cement.[94]

29. Installation of Steam Supply and Return Lines for Sterilizers - 1932

In May 1932 a contract was let to Gillis & Geoghegan, Inc., of New York City for the installation of new steam supply and return lines for the sterilizers from the pipe space under the connecting corridor to the operating room in ward 27. The work was completed in August.[95]

30. Repairs to Elevators - 1933, 1936, 1939, and 1941

Four contracts were let during these years to repair, renovate, and overhaul the elevators on Ellis Island. Each contract

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93. "Specifications for Electric Installation, Island No. 3, Fire Pump Feeder," dated Mar. 3, 1932, and Hull to Commissioner of Immigration, Ellis Island, Mar. 7, 1932, RG 85, NA. The work was to be done in accordance with drawing D-1214.

94. "Specifications for Non-Conducting Covering, Islands Nos. 1, 2, and 3," n.d., and miscellaneous papers relative to contract, FF 180, All Islands: Non-conducting Pipe Covering, 1932, Ellis Island Records, DSC.

95. Miscellaneous papers relative to contract, FF 121, Hospital No. 2: Sterilizer, 1932, Ellis Island Records, DSC.

included work on the elevator in the administration building on island 3. The contracting firms and dates were as follows: Welsh Elevator and Machine Company - October 1933, Markato Elevator Company - August 1936, Welch Elevator and Machine Works - December 1939, and Markato Elevator Company - April 1941.[96]

31. Alterations/Renewals of Steam and Hot Water Circulating Systems - 1933-1934

In December 1933 a contract was let to the R. J. McKinon Contracting Company of New York City to make alterations and renewals to the high and low pressure steam systems and hot water circulating system on Ellis Island. The contract included two items of work on island 3. First, new high pressure steam supply and return mains were installed on islands 2 and 3, and new connections were made to the distilling apparatus in the laboratory located in the powerhouse on island 3. Second, section valves were installed at various points in the low pressure heating system returns on island 3. The work was completed in September 1934.[97]

32. Installation of Attachments for Thermostatic Traps - 1934

In June 1934 a contract was let to the B. E. Gilman Company of New York City for the installation of attachments on the existing syphon-type thermostatic traps in the low pressure heating system on island 3. Altogether 200 attachments were placed on the 1/2-inch radiator traps on the first, second, and third floors of the

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96. FF 181, All Islands: Elevator Repairs, 1933, FF 184, All Islands: Elevator Repairs, 1936, FF 186, All Islands: Repair Eight Elevators, 1939, and FF 187, All Islands: Repair Eight Elevators, 1941, Ellis Island Records, DSC.

97. "Specifications for Alterations and Renewals to the H.P. and L.P. Steam System and Hot Water Circulating System," dated Dec. 28, 1933, and miscellaneous papers relative to contract, FF 182, All Islands: Alterations and Renewals to Steam Systems, 1933, Ellis Island Records, DSC. The work was to be done in accordance with drawings D-1246 to D-1252.

buildings and 26 on the 3/4-inch traps on the doors from the main and submain loops in the basements. The work was completed in August at a cost of $549.[98]

33. Installation/Replacement of Plumbing Fixtures and Fittings-1934

A contract for plumbing installation and replacements on islands 1, 2, and 3 was let to A. Blaustein of New York City in March 1934. The work on island 3 was broken down into two categories. Under the item for toilet partitions, marble, and tile works, the following work was done:

Island 3

Ward 11 - One new oak stile
Ward 12 - One new oak stile
Ward 14 - Reset one marble stile
Ward 15 - One oak stile
Ward 16 - Two oak stiles
Reset two marble slabs in reverse position so that the broken front corners are set in the wall
Drill and cut as required for hardware
Ward 17 - One oak stile
Ward 18 - One oak stile
Reset one marble slab, as for ward 16
Ward 19 - Two oak stiles
One wooden door
Ward 22 - One oak stile
New head rail

98. "Specifications for Attachments for Thermostatic Traps, Island No. 3," dated June 21, 1934, and miscellaneous papers relative to contract, FF 162, All Buildings - Island No. 3: Attachments for Thermostatic Traps, 1934, Ellis Island Records, DSC.

Ward 23 - Two wooden doors
New head rail
Ward 24 - Three oak stiles
Reset two marble slabs as for ward 16
One wooden door
One new top and bottom post
Ward 26 - New head rail

Under the heading "plumbing fixtures and fittings, replacements," the following work was authorized:

Wards 24-25 - Toilet Rooms
Two water closets with flush valves
Ward 26 - Toilet Room
Two water closet seats
Ward 28 - Toilet Room
Two water closets with flush valves
Wards 30-31 - Toilet Rooms
Two flush valves and two water closets with flush valves
Powerhouse and Laundry Building - Maids' Quarters
One water closet with flush valve

The work was completed in June.[99]

34. Installation of Millwork - 1934

In June 1934 a contract was let to Harry Hershon of New York City to install metal insect screens on the psychopathic building on

99. "Specifications for Plumbing Installations and Replacements," dated Jan. 30, 1934, and miscellaneous papers relative to contract, FF 183, All Islands: Plumbing Installations, 1934, Ellis Island Records, DSC. The work was done in accordance with drawing C-1257. During the same period, a water softener, heat exchanger, and incidental piping were installed in the pump room of the powerhouse by the Dierks Heating Company. The work under this contract was to be done in accordance with drawing D-1256.

island 2 and millwork in various openings along the corridor on island 3. The millwork was designed to fill various openings along the corridor as follows:

Opening No. 1 - Rehang present door
" " 2 - New door 3/0 x 7/6 x 1-3/4
" " 3 - New door 3/0 x 7/6 x 1-3/4
" " 4 - New lock hardware
" " 5 - New millwork for masonry opening 7/10 x 10/0
" " 6 - New millwork for opening 4/8 x 10/0
" " 7 - Same as No. 5
" " 8 - None required
" " 9 - New millwork for masonry opening 7/6 x 10/0
" " 10 - New millwork for masonry opening 8/0 x 10/0 [100]

Lumber for the millwork was live, sound stock, thoroughly seasoned, and well-manufactured. The doors and sash were to be of white pine, Port Oxford cedar, or Heart Red cypress. Screen doors were placed on openings 1-3, 5-7, and 9-10. The work was completed in August.[101]

35. Repairs to Sheet Metal and Roofing - 1934

A contract was let to the Merit Construction Company of New York City in January 1934 to make sheet metal and roofing repairs to a number of buildings on island 3. The buildings that received attention

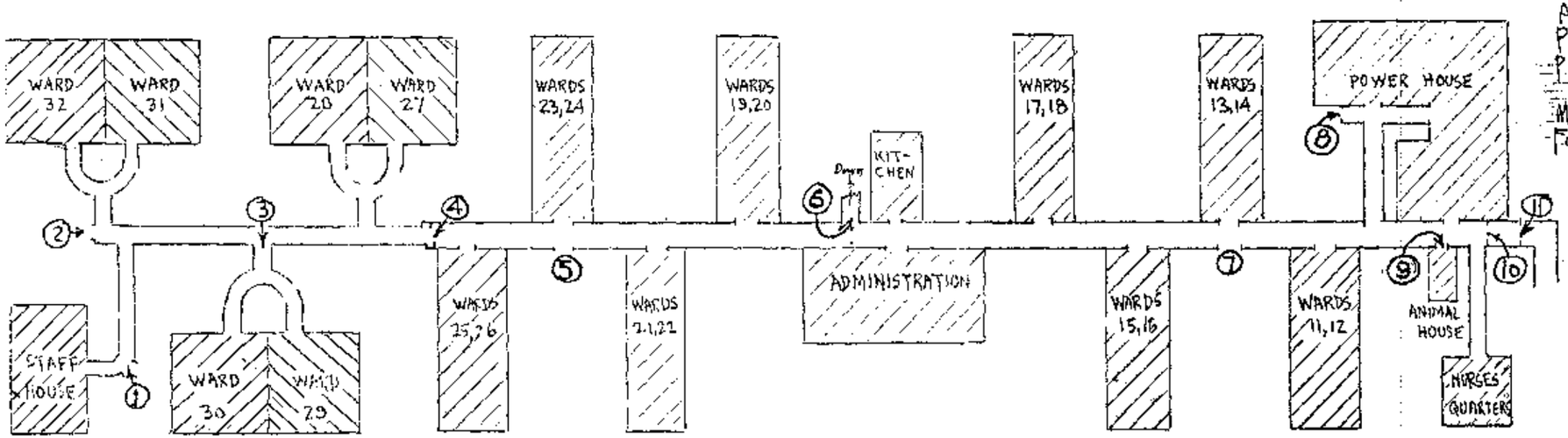
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100. A copy of the drawing for the work, which shows the location of the openings, may be seen on the following page.

101. "Specifications for Metal Insect Screens and Millwork, Hospital Buildings, Islands Nos. 2 and 3," dated June 5, 1934, and miscellaneous papers relative to contract, FF 127, Psychopathic Hospital: Metal Insect Screens, 1934, Ellis Island Records, DSC.

NOTE.

Upless Specified Otherwise New MillWorK Shall Duplicate Existing WorK, Except That Stock Moulds As Approved May Be Used In Place Of Special Mouldings For Panel Stiokings Etc.
Contractor Shall Take His Own Measurements And Be Responsible For Same.



ISLAND #3

SKETCH TO INDICATE LOCATIONS OF OPENINGS REFERRED TO IN MILLWORK SPECIFICATIONS.
File. 98529/349

were the powerhouse and laundry, staff house, and wards 27-28, 29-30, and 31-32.[102]

36. Installation/Replacement of Electrical Fixtures and Lines - 1934

In June 1934 a contract was let to Henry Safarik to install and replace various electrical fixtures and lines in wards 22 and 29.[103]

37. Survey of Hospital and Recommendations for Improvement of Facilities - 1934

Information relative to this topic may be found in chapter IX.B.49. of this document. The principal recommendation of the Ellis Island Committee that related to island 3 was the construction of four verandas or sun porches on both the first and second floors of wards 13-14, 17-18, 19-20, and 23-24 for the treatment of tuberculosis patients. In addition, it was recommended that six to ten small ward units, each containing two to eight beds, be provided to allow for better medical care for men and women. It was thought that this might require a new pavilion and would meet the difficulties in the holding of men and women in locked wards 23-24, mainly to prevent their escape from detention as warrant cases. A recreation area, suitably safeguarded, should be provided in connection with these wards to avoid the expense of constant personal guards and to permit outdoor recreational activities.[104]

38. Installation/Replacement of Plumbing Fixtures - 1935

A contract was let in January 1935 to the M. S. Melamed Company of New York City to make miscellaneous plumbing replacements

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102. FF 0-2, All Islands: Work Contracted, 1931-1938, Ellis Island Records, DSC. The work was to be done in accordance with drawing C-1256.

103. Ibid. The work was to be done in accordance with drawings D-1279, D-1280, D-1283, and D-1284.

104. Report of the Ellis Island Committee, March, 1934, pp. 15-16 and 38-40.

on islands 2 and 3. The work on island 3 included the installation of the following fixtures:

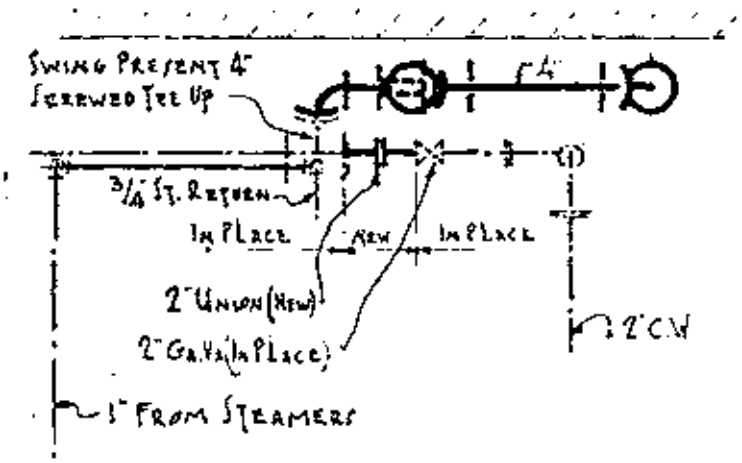
> Bare-crated white porcelain (all clay) combination surgeon's sink and lavatory (60" x 24") in sterilizer room of operating quarters on 3rd floor of administration building
>
> Replacement of a 4-inch waste line from the potato peeling machine in the kitchen
>
> New section of 6-inch house drain and house sewer line at west end of powerhouse and laundry building.[105]

39. Alterations to Hospital - 1936-1939

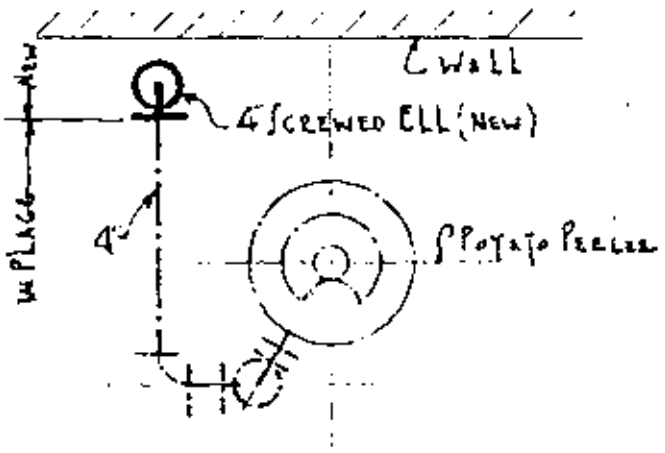
It is difficult to determine from available documentation the scope and detail of the alterations made to the buildings of the contagious disease hospital during 1936 and 1937. However, extant documentation of the period indicates that alterations, repairs, and remodeling were performed in a number of buildings under a contract let sometime in the fall of 1936. The ward units in which the work was done were as follows: 11-17, 19, 21-26, 28 and women's and men's sitting rooms adjoining wards 12 and 14, including enclosing corridor partitions. The work generally consisted of installing new windows, screens, doors, linoleum, partitions, and plumbing and electrical fixtures as well as interior painting. Apparently, wards 23 and 25 were divided into cubicles for the accommodation of 12 patients to each ward. The gratings and guards

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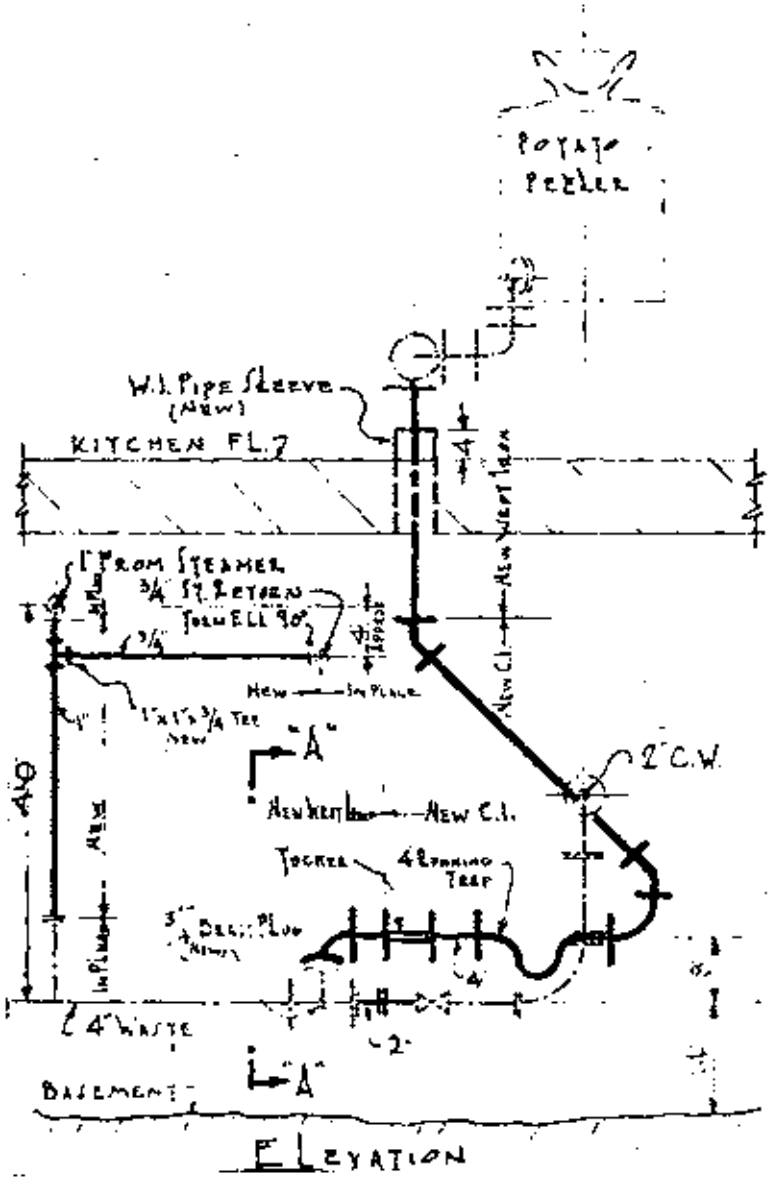
105. "Specifications for Miscellaneous Plumbing Replacements, Islands Nos. 2 and 3," dated Jan. 3, 1935, and miscellaneous papers relative to contract, FF 122, Hospital No. 2: Wash-up Sink, 1934, Ellis Island Records, DSC. The work on the 6-inch line was to be done in accordance with drawing C-1284 and that for the 4-inch waste line in accordance with a drawing entitled "Replacement of Section of Waste Line From Potato Peeler in Kitchen - Island No. 3." A copy of this drawing may be seen on the following page.



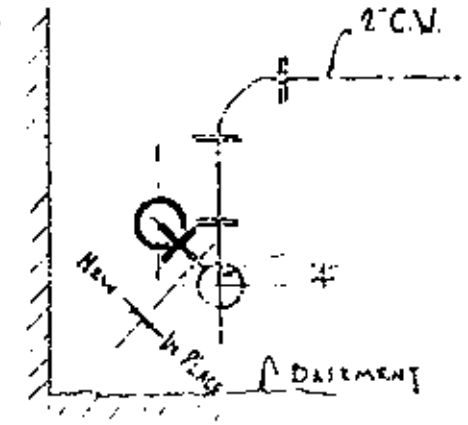
Plan Below Floor



Plan Above Floor



Elevation



Sect. "A-A"

Note:

-·-·-·- Indicates Work In Place.

——— New Work.

Contr. To Verify, Take His Own Dimensions, And Be Responsible For Same.

Replacement Of Section Of Waste Line From Potato Peeler In Kitchen — Island No. 3

H. A. Booth
Plant Engr.

Nov. 1, 1934.

Scale ½" = 1'-0"

98529/422-F.P.32h

were removed from the doors and windows of wards 23-24 as the wards would no longer be used for warrant cases.[106]

Other improvements (listed below) were also made to the hospital buildings on island 3 during 1936-1939. Some of these projects were carried out under the auspices of the WPA and others under contract to private firms.

Renewal of saltwater fire line main

Construction of four sun porches on wards 13-14, 17-18, 19-20, and 23-24

Erection of concrete and masonry covered way from powerhouse on island 1 to powerhouse on island 3, including changes to existing lines

Laying of new concrete sidewalks

Setting up of new fences for recreation yard

Installation of 8-inch fire pump suction line[107]

40. Installation of Insect Screens - 1938

In June 1938 a contract was let to the Zero Weather Stripping Company of New York City to install metal insect screens and weather stripping on a number of windows and doors on island 3 in

106. "Specification for Miscellaneous Alterations, Etc., to the United States Immigration Station, Marine Hospital at Ellis Island, New York Harbor," dated Aug. 11, 1936, FF 165, All Buildings-Island No. 3: Miscellaneous Repairs, 1936, Ellis Island Records, DSC. The work was to be done in accordance with drawings 10-1, through 10-16, PHL-10-450 through PHL-10-460, and miscellaneous drawings 305-1, 326-E, and 335-B. Also see Uhl to Commissioner of Immigration and Naturalization, Jan. 18, 1936, FF 154, Wards 11-32: Reconditioning, 1936, and FF 163, All Buildings - Island No. 3: Miscellaneous Alterations, 1935, Ellis Island Records, DSC.

107. FF 330, Works Progress Administration: Projects 61, 62, 63, and 64, 1933-1937, Ellis Island Records, DSC.

conjunction with the hospital remodeling. Altogether, 49 windows and 19 doors were covered with 16 mesh bronze screen cloth.[108]

41. Overhauling of Panel Boards, Branch Lines, and Temporary Outlets - 1939

The overhauling of panel boards, branch lines, and temporary outlets on Island 3 was carried out by the Sponsor's Design Unit for New York State Projects of the WPA in the spring of 1939. The work included the cleaning of 39 light panels and three distribution panels, the checking of branch lines for overload, and the replacement of temporary outlets by permanent outlets.[109]

42. Installation of Kalamein Doors - 1939

The aforementioned office of the WPA also installed kalamein doors and frames at the entrances of wards 23 and 25 during the spring of 1939.[110]

43. Alterations in Attendants' Quarters - 1939

The aforementioned office of the WPA also performed alterations in the attendants' quarters of wards 29, 30, and 31 during the spring of 1939. The work included the "cutting of openings in walls to install new lintels, frames, windows complete and sills to match existing; installation of gypsum tile partitions plastered to form separate rooms with metal louvres over each door; cut corridor opening and install lintel; remove existing door complete, and brick up opening; move radiators where indicated; install electrical work indicated; replace exterior wooden

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108. Miscellaneous papers relative to contract, FF 177, All Islands: Insect Screens, 1931, Ellis Island Records, DSC.

109. "Specifications, Job No. 78 & 79, Overhaul Panel Boards, Islands 1, 2, & 3 . . . ," dated Apr. 24, 1939, FF 185, All Islands: Overhaul Panel Boards, 1939, Ellis Island Records, DSC.

110. "Specifications, Job No. 49, Doors, Wards No. 23 & 25, Island No. 3," dated May 4, 1939, FF 155, Wards 11-32: Doors, 1939, Ellis Island Records, DSC.

steps with concrete steps to line up with existing sidewalk; paint entire interior plaster and wood and new exterior wood."[111]

44. Repairs/Replacements of Plumbing Fixtures - 1945

In February 1945 a contract was let to make plumbing repairs and replacements on islands 2 and 3. The work on island 3 included the following:

Male Nurses Quarters: Remove the present large shower compartment, and replace with two stall showers

Ward 17: Replace bathtub with stall shower

Ward 18: Replace bathtub with stall shower

Administration Building (3rd Floor): Replace three bathtubs with new bathtubs with showers over. Replace one bathtub with stall shower

Administration Building (2nd Floor): Replace three bathtubs with new bathtubs with showers over

Ward 19: Replace bathtub with stall shower
Furnish and install new urinal

Ward 20: Replace bathtub with stall shower
Furnish and install new urinal

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111. "Specifications, Job No. 69, Alterations in Attendants' Quarters, Wards 29-30-31, U.S. Marine Hospital, Island No. 3," dated May 29, 1939, FF 156, Wards 11-32: Alter Attendants' Quarters, 1939, Ellis Island Records, DSC.

Ward 23: Furnish and install new urinal strainers
24 "
25 "
26 "

Ward 27: In male attendants' quarters over these wards, replace bathtubs with stall showers
28 "
31 "
32 Ward
29: Furnish and install two shower heads in addition to the one in place[112]

45. Closing of Hospital on Island 3 - 1951

The hospital complexes on islands 2 and 3 were closed on March 1, 1951. Details of the closing may be found in chapter IX.B.58. of this document. While the hospital complex on island 2 was taken over temporarily by the U.S. Coast Guard after that date, the buildings on island 3 were apparently left vacant.

112. "Specifications for Plumbing Repairs and Replacements, Various Buildings, Islands No. 2 and 3, dated Jan. 25, 1945, and miscellaneous papers relative to contract, FF 146, All Buildings - Island No. 2: Plumbing Repairs and Replacements, 1945, Ellis Island Records, DSC.

XI. MISCELLANEOUS STRUCTURES

Aside from the main building and its principal ancillary structures on island 1 and the hospital complex and contagious disease wards on islands 2 and 3, a number of other facilities were constructed on Ellis Island. These include the ferry houses, incinerators, greenhouses, bakery and carpenter shop, immigrant building, and recreation building and shelters. Although of lesser significance, these structures nevertheless played a role in the ongoing operations of the Ellis Island Immigration Station.

A. The Ferry Houses

1. First Ferry House

On February 3, 1898, Lyman J. Gage, secretary of the treasury, informed the chairman of the House Committee on Appropriations that a new ferry house should be built in conjunction with the new immigration station on Ellis Island. The new ferry house would be a plain, durable, fireproof structure without decoration or ornamentation. It was estimated that the new structure would cost $3,500. The justification for such an expenditure was as follows: "The old structure was destroyed by the [1897] fire and it is clear that a proper shelter must be provided at the ferry boat landing. The walks are, of course, necessary for communication between the ferry landing and the building and between the various buildings."[1]

Congress made the necessary appropriation in an act approved on March 3, 1899.[2]

a. Construction - 1900-1901

(1) Main Contract - Attilio Pasquini

On September 5, 1900, a contract was let to Attilio Pasquini of New York City to construct the ferry house as well as

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1. Gage to Chairman of the House Committee on Appropriations, Feb. 3, 1898, RG 121, WNRC.

2. Annual Report, Supervising Architect, June 30, 1899, p. 90.

the surgeon's house, hospital outbuilding, and covered way. The work on the ferry house excluded the heating, ventilating, and electrical wiring. The entire contract was to be completed within nine months at a cost of $52,392, the amount designated for the ferry house being $3,200.[3]

Several changes were made in the contract specifications for the ferry house during its construction. On October 17, 1900, Secretary Gage informed Pasquini that two of his proposed modifications for the ferry house had been accepted as follows:

> Make the roofs of the Ferry House and Covered Walks all of slate, instead of corrugated iron and shingles, with the necessary 7/8" matched hemlock roof boards, using slate nails of length that will not pierce the boards;
>
> Make all the ceilings of the Covered Way and Pavilions, and all the cornice of the said Covered Way, with 7/8" x 3" yellow pine, similar to that of the Ferry House, instead of corrugated iron and plaster.[4]

On March 26, 1901, the sum of $952 was added to Pasquini's contract for the installation of window frames and sash in the ferry house and covered way.[5]

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3. "Synopsis of Bids for Construction of Surgeon's House, Hospital Outbuilding, Ferry House, and Covered Way," Sept. 4, 1900, and H. A. Taylor to Pasquini, Sept. 5, 1900, RG 121, WNRC. The work on the ferry house was to be done in accordance with drawings 8, 10, and 11. Also see "Specification for Labor and Material for the Erection and Completion Excepting the Electrical Work and Excepting the Heating and Water Supply and Other Pipes in the Attic to the Covered Way and the Ferry House," dated June 27, 1900, FF 166, Covered Way - Between Islands: Erection and Completion, 1900, Ellis Island Records, DSC. This specification was modified somewhat to permit lower construction costs, but available documentation does not indicate what changes were made.

4. Gage to Pasquini, Oct. 17, 1900, RG 121, WNRC.

5. Ibid., Mar. 26, 1901.

Pasquini made fairly good progress on the construction of the ferry house despite delays resulting from inclement weather, shortages of material, and the unstable character of the ground discovered during excavation. By June 30 the ferry house was completed except for the sash, gates, and painting.[6] On September 26 Boring & Tilton reported that the ferry house was entirely completed, and on October 4 Superintendent Roberts observed that the "Ferry House, Covered Way, also pipe tunnels which are (in) the attic of the Ferry House and Covered Way, are completed." A final payment was made on the contract in January 1902.[7]

(2) Electrical Work - Frederick Pearce

On March 12, 1901, a contract was let to Frederick Pearce of New York City for the electrical work in a number of buildings on Ellis Island. One item in the contract included the sum of $396 for the electrical installation in the connecting corridor, covered way, and ferry house.[8] The work was completed on January 15, 1902.[9]

b. Improvements - 1902-1935

On December 5, 1904, a contract was let for widening the ferry house at a cost of $9,000. Although there is no available documentation concerning this addition, it is presumed that the alterations were made to accommodate the rising tide of immigration to Ellis Island.[10]

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6. Roberts to J. K. Taylor, June 30, 1901, RG 121, WNRC.

7. J. K. Taylor to Secretary of the Treasury, Dec. 30, 1901, RG 121, WNRC.

8. H. A. Taylor to Disbursing Agent, Mar. 12, 1901, H. A. Taylor to Pearce, Mar. 16, 1901, and J. K. Taylor to Boring & Tilton, Mar. 16, 1901, RG 121, WNRC. The work was to be done in accordance with drawings BT3, accompanying specification 456, and appendix A.

9. Kemper to Fry, Jan. 15, 1902, RG 121, WNRC.

10. U.S., Congress, House, Committee on Appropriations, Ellis Island Immigrant Station, New York, H. Doc. 392, 58th Cong., 2d sess., Jan. 13, 1904; New York Times, Jan. 16, 1904; Permanent Improvements at the U.S. Immigrant Station, Ellis Island, New York Harbor, ca. June 30, 1905; and Sargent to Secretary of Commerce and Labor, Jan. 10, 1907, RG 85, NA.

In June 1919 it was reported that additional underpinning and piling had been placed under the ferry house. Alterations had also been made to the coal pockets located on the outer edge of the island just behind the structure.[11]

Available documentation makes no other mention of the ferry house until 1932. In May of that year a contract was let to Benjamin Ruben of New York City to make repairs to the sheet metal and roofing on island 1. Included in the work were two items relating to the ferry house:

> New copper ridge roll along the Covered Way starting at the tower of the Ferry House and extending to the Power House and along the Covered Way to the Baggage and Dormitory Building.
>
> New copper cornice for the tower of the Ferry House at the junction of the curved and straight "Covered Way to Ferry" and new copper hip rolls.[12]

A severe windstorm early in 1933 caused considerable damage to the roofs of the Ellis Island buildings. As a result the Smith of New York Company was hired to make the necessary repairs. Included in the work were the following repairs to the ferry house:

> Furnish and install new copper hip and ridge rolls and finials, on the cupola over the light at the top of the center of the Ferry House, and on the brick tower at the north end of the Ferry building. Also furnish and install approximately twelve

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11. Annual Report Commissioner-General of Immigration, June 30, 1919, pp. 306-8. The coal pockets were the source of fuel for the Ellis Island ferryboat.

12. "Specifications for Sheet Metal and Roofing, Island 1," dated May 9, 1932, RG 85, NA.

feet of ridge roll on the roof of the ferry house immediately south of the central tower, to replace missing section. Moulding contours and ornamental parts shall be reproduced. Finials for brick tower to replace those missing shall be patterned after those on the brick tower at the south end of the Ferry house.[13]

2. Second Ferry House

The Ellis Island Committee recommended in its March 1934 report that a new fireproof ferry house and connecting passages be built at Ellis Island. The rationale for the recommendation was as follows:

> A small ferry-boat plies hourly back and forth from the south end of Manhattan. It brings in a fifteen minute trip most of the aliens who are at present held for Ellis Island and others having business to transact there. The ferry docks in a slip between Islands 1 and 2, and its passengers are landed at an old and somewhat dilapidated ferry-house. This ferry service is free and entirely adequate. From the ferry-house, on either side run covered wooden passageways which connect on the right with the buildings on Island No. 1 and on the left with the hospitals on Islands No. 2 and No. 3. Back of those passageways there is the sea-wall. It is in bad condition.
>
> In regard to these parts of the Island the Committee recommends:
>
> (1) That a new fireproof ferry-house be built, connecting with covered passages and containing waiting rooms, lunch counter, guardroom, toilets for men and women, repair shop, etc.;

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13. "Specifications for Sheet Metal Work, Islands 1 and 2," dated Mar. 31, 1933, and miscellaneous papers relative to contract, FF 114, Administrative Building-Island #2: Sheet Metal Work, 1933, Ellis Island Records, DSC.

(2) That the upper part of the present masonry connecting passages be replaced with fireproof roof and that new connecting passages of fireproof construction be built as shown on the accompanying plan, with spaces for pipe lines, steam, electric, cable and other necessary connections, and connecting buildings on Island No. 1 with the new buildings of the ferry-house and the two hospitals.[14]

a. Construction - 1935-1936

With the $1,151,800 in allotted funds for improvements on Ellis Island obtained from the Public Works Administration, plans were prepared for the construction of a second ferry house by the Public Buildings Branch of the Procurement Division of the Treasury Department.[15] In October 1934 a contract was let to George F. Driscoll of Brooklyn to construct the new building at a cost of approximately $133,000.[16]

The second ferry house was completed in January 1936. It consisted of a high central pavilion surmounted by a copper-covered cupola and two one-story wings. The central pavilion

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14. Report of the Ellis Island Committee, March 1934, pp. 11-12.

15. U.S., Library of Congress, Twenty-Second Annual Report of the Secretary of Labor for the Fiscal Year Ended June 30, 1934, p. 72.

16. New York Times, Oct. 10, 1934. The work was to be done in accordance with "Specification for Construction of New Buildings, Etc., for the United States Immigration Station at Ellis Island, New York," dated Mar. 26, 1934; drawings 1-1, 2-1, 2-2, 2-100 through 2-104, 2-200, 2-201, 2-202, 3-1, 3-2, 3-3, 3-100, 3-101, 3-200 through 3-203, 4-1, 4-100, 4-101, 4-200, 4-201, 4-202, 5-1 through 5-7, 5-200, 5-201, 6-1, 7-1, 2-400, 3-400 through 3-405, 4-400, 4-401, 5-400, 5-401, 5-402, CL-1-450, P-2-450, H-2-451, CL-2-452, P-3-450, H-3-451, PH-3-452, CL-3-453, CL-3-454, PHL-4-450, PH-5-540, and PH-5-451; miscellaneous drawings 311-E, 305-H, 300-B, 326-C, 335-A, 336-A, M-370-1, M-372-H, M-373-E, and M-374-H; and FF 170, Ferry House: Construction, 1936, are FF 171, Ferry House: Construction, 1936, Ellis Island Records, DSC.

housed a waiting room for immigrants; the left wing was reserved for the customs service; and the right wing had a lunch room with kitchen facilities. The construction was fireproof throughout with a steel frame and reinforced-concrete floor and roof slabs, the exterior walls were of brick trimmed with stone. The structure had concrete spread footings and rested on wood piles.[17]

b. Improvements - 1937-1939

Other work was done on the ferry house after its completion. Changes were made in the electrical system in the spring of 1937 under a contract let to the T. J. Dekroney Company of New York City.[18] On March 11, 1938, a contract was let to Adolfo Grossi of New Brighton, Staten Island, New York, to waterproof the structure. The building surfaces that were treated were as follows: Both sides of parapets, copings, and all exterior surfaces of masonry from the bottom of the belt course at window heads to the coping, except at the central tower.[19]

Available documentation also indicates that either a new roof was placed on the structure or roofing renovation work was done by the WPA in 1939.[20]

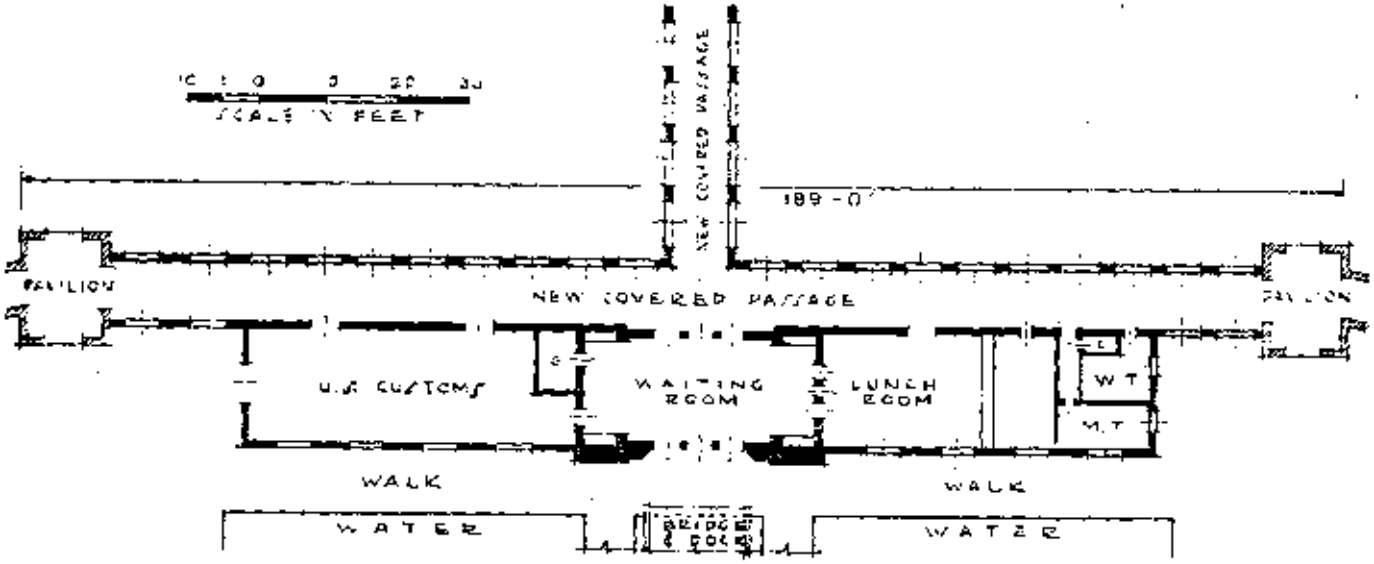
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17. C. W. Short and R. Stanley Brown, Public Buildings: A Survey of Architecture of Projects Constructed by Federal and Other Governmental Bodies Between the Years 1933 and 1939 With the Assistance of the Public Works Administration (Washington, 1939), p. 599. A copy of the floor plan of the new ferry house may be seen on the following page.

18. "Specifications for Miscellaneous Electrical Repairs and Replacements," dated Feb. 11, 1937, and miscellaneous papers relative to contract, FF 53, Main Building: Miscellaneous Electrical Repairs, 1937, Ellis Island Records, DSC.

19. "Specification for waterproofing, Etc.," dated Feb. 4, 1938, and miscellaneous papers relative to contract, FF 172, Ferry House: Waterproofing, 1938, Ellis Island Records, DSC.

20. FF 331, Works Progress Administration: WPA Projects, 1939, Ellis Island Records, DSC.


SCALE IN FEET
NEW COVERED PASSAGE
189 - 0"
PAVILION
NEW COVERED PASSAGE
PAVILION
U.S. CUSTOMS
WAITING ROOM
LUNCH ROOM
W.T.
W.T.
WALK
WALK
WATER
WATER

c. Use - 1936-1954

The second ferry house was used for its intended purpose until 1939, although the trickle of immigration during the depression years seldom permitted the full utilization of its facilities. After WW II broke out in Europe in September 1939, the Coast Guard was directed to conduct extensive patrols to enforce the Neutrality Act. Quarters were needed for training, and the Coast Guard thought that Ellis Island was a likely site. The Labor Department accordingly turned over to the Treasury Department portions of the ferry house as well as the immigration building and the ground floor of the baggage and dormitory building. The Coast Guard station remained on the island until it was decommissioned in 1946. From that date until 1954, the ferry house reverted sparingly to its intended use.[21]

B. The Incinerators

1. First Incinerator - 1901-1902

On September 6, 1901, a contract was let to Benjamin Boulger of New York City to construct a garbage and refuse crematory on Ellis Island between the powerhouse and the edge of the island. The work was to be completed within 75 working days at a cost of $5,280.[22]

Available documentation indicates that only two changes were made in the plans for the incinerator structure during its construction. On November 29 it was determined to substitute #20 galvanized iron 2½-inch corrugations in lieu of #20 galvanized iron 1⅛-inch corrugations for the roof of the structure.[23] A deduction of $12 was made against the contract cost on January 6, 1902, for making the top plate of the garbage furnace 1/4 inch thick instead of the specified 3/4

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21. Pitkin, Keepers of the Gate, pp. 168-71.

22. "Synopsis of Bids for a Garbage and Refuse Crematory at the U.S. Immigrant Station, Ellis Island, New York Harbor," Aug. 30, 1901, and Ailes to Boulger, Sept. 6, 1901, RG 121, WNRC. The work was to be done in accordance with drawings SA-34, SA-35, and SA-36.

23. Gage to Boulger, Nov. 29, 1901, RG 121, WNRC.

inch.[24] The garbage and refuse crematory was completed by January 23, 1902.[25]

Available documentation also indicates virtually no information relative to the incinerator structure from 1902 to 1910. The only exception is a reference to a contract let on November 1, 1904, for repairs to the crematory costing $116.50.[26]

2. Second Incinerator - 1911

In March 1910 it was reported that a new incinerator was needed because the existing structure was in "imminent danger of collapse." Accordingly, Commissioner Williams requested $15,000 for the new crematory. At the same time he accepted the proposal of Charles P. Schuh to make urgent and necessary repairs to the existing incinerator so that it could be used until a new one was built.[27]

On April 9 a formal request was submitted to Congress for $15,000 to construct the new garbage crematory. The justification for the expenditure was as follows: "Our present crematory is not only twelve years old and too small, but on the verge of actual collapse. Serious cracks have appeared in the walls within the past six months. All garbage, of which there is a great deal at Ellis Island, must be burned. Estimated cost of crematory, including small concrete platform dock for same, $15,000."[28]

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24. Ibid., Jan. 6, 1902, RG 121, WNRC.

25. J. K. Taylor to Secretary of the Treasury, Jan. 25, 1902, RG 121, WNRC.

26. Permanent Improvements at the U.S. Immigration Station, ca. Jan. 1907, RG 85, NA.

27. Williams to Commissioner-General of Immigration, Mar. 16, 1910, RG 85, NA.

28. U.S., Congress, House, Committee on Appropriations, Immigration Service: Letter from Secretary of the Treasury, H. Doc. 852, 61st Cong., 2d sess., Apr. 9, 1910.

A contract for the construction of the new crematory and dock was let to the Morse-Boulger Destructor Company sometime during the spring of 1911. The new incinerator was completed by November of that year.[29]

3. Improvements - 1932-1942

There is virtually no available documentation relative to the incinerator from 1911 to 1932. A manually operated can hoist, manufactured by Gillis & Geoghegan, Inc., was installed in the incinerator building in the early 1920s. Presumably, other repairs or renovation work were done to the incinerator during this period. By October 1932 it was reported that there were two incinerators in the incinerator building located at the waterfront just west of the powerhouse.

In October 1932 a contract was let to Tony A. Miller of Jeannette, Pennsylvania, to make repairs on the "westerly incinerator" in the incinerator building. The work, which was done at a cost of $747, included the following:

> Remove the entire fire brick lining of the combustion chamber down to at least one course of bricks below the grate bars, and remove the iron doors and full frame at the front of the incinerator.
>
> Furnish and install new doors and full frame at the front of the incinerator to duplicate the existing ones, and reline the entire combustion chamber down to at least one course of bricks below the grate bars with high temperature fire brick at least nine (9) inches thick set in high temperature cement, and arched in an approved manner.
>
> Re-set the charging doors at the top, the access doors in the side and other existing built in parts.

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29. Fry to Secretary of Commerce and Labor, Nov. 15, 1911, RG 121, WNRC.

Remove all work as required for installation of the new work, and furnish and install all new incidental work as required to match and bond with existing work, and to make a complete job ready for operation.

No new grate bars shall be furnished by the contractor.

Fire brick, high temperature cement, insulating material, common brick, mortar and plastering material shall be the best of their respective kinds and shall be as approved by the Contracting Officer.

All labor employed shall be competent and skilled in their respective trades.

The existing doors and frame at the front of the incinerator were furnished by Washburn and Granger - Engineers.[30]

Later in November 1934 a contract was let to the Refractory Construction Company of New York City to make repairs on the easterly incinerator in the incinerator building. The work, which was done at a cost of $569, included the following:

Remove the entire fire brick lining of the combustion chamber down to a least one course of bricks below the grate bars, and remove one defective charging door. Remove all other materials and parts as required for the installation of the new work specified hereinafter.

Reline the entire combustion chamber down to at least one course of brick below the grate bars with high temperature fire

30. Miscellaneous papers relative to contract, FF 16, Incinerator: Repairs, 1932, Ellis Island Records, DSC.

brick at least nine (9) inches thick, set in high temperature fire brick cement, and keyed and arched in the same manner as in the westerly incinerator.

Reset the charging doors and frames at the top, the access doors in the side, and other existing built-in parts.

Furnish and install one new charging door to duplicate the one removed. The door consists of a casting 3'4" x 4" filled with fire brick mortar. The door is believed to be pattern D-6-29 of the Washburn & Granger Company, 50 Church St., New York City, N. Y.

Provide all incidental labor and material as required to install the new work so that it will match and bond with existing work, leaving a complete job, with the incinerator ready for use.[31]

Meanwhile, plans were underway for the erection of a self-supporting steel stack on the incinerator building. In January 1934 a contract was let to the Dover Boiler Works of New York City to construct the steel stack at a cost of $1,592. The steel stack met the following specifications:

The stack shall be of the self-supporting type, put together with rivets. Stack shall be 60 feet high, 3 feet in diameter, and have a flare at the base out to 7 feet diameter. Stack shall be connected to dome of nearest incinerator by a new breeching which shall have a protecting shell, over, outside, between stack and wall of building.

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31. Ibid.

Breeching shall be constructed so as to allow for expansion due to heat of flue grass.

Stack shall be equipped with an 18" x 18" clean out door at the base; a ladder extending the full height; a painter's track and trolley; and a spark arrester; all as approved.

The maximum stress in net section of plates shall not exceed 13,000 pounds per inch; sheer on rivets 13,000 pounds, and bearing on rivets 26,000 pounds.

Opening in stack for breeching and for clean out door shall be properly reinforced.

Stack shall be built in courses not less than 60" high which shall be so arranged that the top of each course telescopes into the bottom of the course above.

The steel stack was installed on a reinforced, octagonal-shaped concrete foundation 9 feet in diameter and 6 feet in depth.[32]

Further improvements were made to the incinerator building in 1937. A contract was let to the Achilles Construction Company of New York City in June to build a metal extension to the existing building and to install a power-driven scrap metal baler under the extension. The metal extension consisted of a structural iron frame covered by a corrugated 32-ounce copper roof. The extension was approximately 28 feet long, 9 feet wide, and 10 feet high. An old hand-operated scrap metal press, which was located near the incinerator

32. "Specifications for Self-Supporting Steel Stack for Incinerator Including Concrete Foundation," dated Jan. 4, 1934, and miscellaneous papers relative to contract, FF 17, Incinerator: Steel Stack, 1933, Ellis Island Records, DSC. The work was to be done in accordance with drawing D-1254.

building was removed and replaced by a horizontal-type Logemann new modern leader scrap metal baler that compacted metal into bales weighing 30 to 50 pounds.[33]

In 1941 bids were solicited for the erection of a new steel stack on the incinerator building. However, the only available documentation relative to this work is a bid submitted by Washburn & Granger, Inc., of New York City on June 19. The proposal read as follows:

> Furnish and install one new steel stack 45" diameter, 50'0" high, 1/4" steel, welded, installed on the foundation of the present stack, lined with 4-1/2" of fire brick the full height, making the net inside diameter 36".
>
> Furnish steel flue connection from the old incinerator into the new stack.
>
> Furnish and install one "Dean" incinerator 8'0" high, 19'8" long, 8'3" wide, together with #10 gauge flue, reaching from the incinerator to the new stack. Incinerator will be built with #10 gauge steel casing, horizontal interior reinforcing angles and vertical corner angles and buckstays on the exterior. Steel casing will be lined with 4-1/2" of k-23 insulating brick and 9" of first grade fire brick. The incinerator will be provided with two charging chutes lined with 4-1/2" of fire brick and terminating in the charging floor above, which will be equipped with charging thimbles and covers lines with insulating material. A stationary grate 4'0" deep by 8'0" wide will be furnished and a fire brick hearth 2'0" by 6'0" will be located in back of the

33. "Specifications for Extension of Garbage Incinerator Building and Replacement of Equipment, Island No. 1," dated June 18, 1937, and miscellaneous papers relative to contract, FF 18, Incinerator: Extension, 1937, Ellis Island Records, DSC.

grates. An air duct will be located under the hearth and the ash pit will be divided into two sections and each pit provided with forced draft damper complete with operating handle. A motor driven fan will be furnished and installed to deliver 2000 c.f.m. at 3" s.p., driven by 2 h.p. G. E. slip ring motor. An Allen-Bradley #555 combined speed regulator (50% reduction) and controller will be furnished and mounted ready for electric wiring by others (220 volts, 3 phase, 60 cycles service). A Todd rotary oil burner having a capacity of from 7-1/2 to 30 gallons of #6 oil per hour will be furnished and installed together with fuel oil pump and electric controllers for the burner motor and the pump motor, all ready for wiring and piping by others.

One steel ramp 6'0" wide, 50'0" long as per drawing.[34]

The following repairs were made to the manually operated can hoist in the incinerator building in the spring of 1942:

Bore and bronze bush winch frame for pinion shaft
Renew pinion shaft
Reline brake band
Straighten out brake lever to shift pinion shaft
Set shift collar on pinion shaft properly
Renew crank for winch
Correct dog locking pinion shaft in position
Take off 1' from cable at hook end to remove the unraveled section[35]

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34. Washburn & Granger, Inc., to U.S. Immigrant Station, June 19, 1941, FF 221, Miscellaneous Work: Incinerator, 1941, Ellis Island Records, DSC.

35. FF 19, Incinerator: Repair Can Hoist, 1942, Ellis Island Records, DSC.

There is no available documentation relative to the operation of the incinerator building between 1942 and 1954.

C. The Greenhouses

1. First Greenhouse

a. Construction - 1910

In September 1910 the temporary wooden barracks that had been erected at the rear of the main building were razed by Ellis Island personnel. The gardener at the immigration station immediately requested that a greenhouse be built on a part of the concrete foundation of the former barracks using some of the material left after its destruction. The construction of the greenhouse would decrease the amount of the annual flower bill by providing space for keeping flowers during the winter. Accordingly, the greenhouse was completed by early November at a cost of approximately $250. The work was done either by members of the Ellis Island work force or by two hired carpenters. In February 1911 the "40-foot greenhouse" was described as "a flimsy structure of glass." The new building was not mentioned in the annual report of the commissioner-general of immigration until June 1913 when it was noted that a "small greenhouse has been erected by our own mechanics from old material, so that the Government is now able to propagate nearly all of the flowering plants needed for beds."[36]

b. Improvements - 1910-1934

Little is known about the greenhouse from 1910 to 1934. The only known improvement occurred in February 1932 when a contract was let to the Quintine Realty Company of New York City to install a new heating system in the structure. Under the terms of the contract, new underground steam supply and return and cold water

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36. Commissioner of Immigration, Ellis Island, Sept. 26, 1910, RG 85, NA; New York Times, Feb. 2, 1911; and Annual Report, Commissioner-General of Immigration, Fiscal Year 1913, pp. 184-85.

supply lines were installed between the greenhouse and the baggage and dormitory building.[37]

2. Second Greenhouse

a. Construction - 1934-1935

In March 1934 the Ellis Island Committee recommended that a new greenhouse be built on the northeast corner of island 1. The existing greenhouse was in poor condition and was to be razed to provide for a recreation area for deportees on the southwest corner of the island.[38]

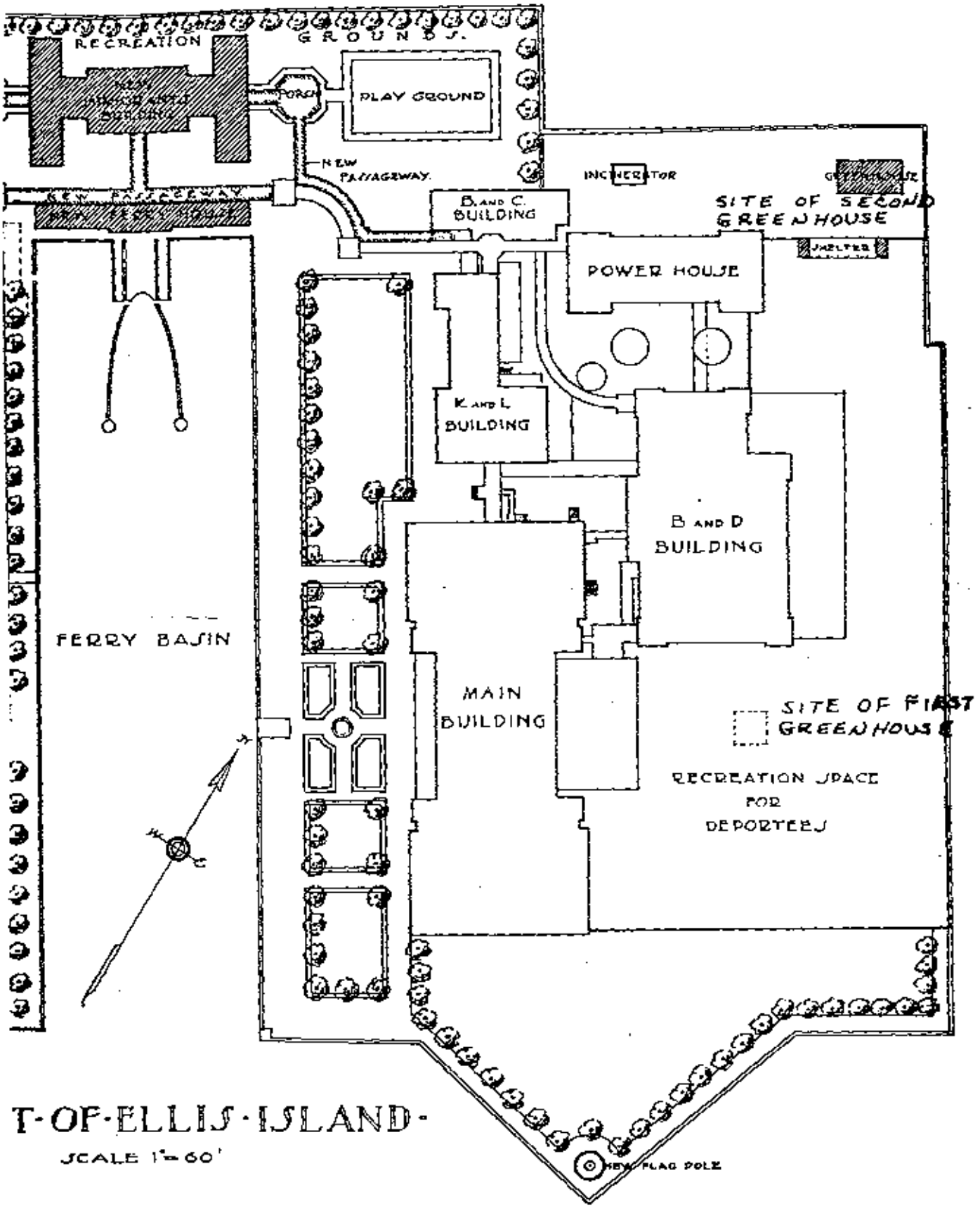
In August 1934 a contract was let to the B & Z Contracting Company to remodel various structures on Ellis Island and to build the new greenhouse. The building, approximately 25 by 50 feet and of the plain ridge roof type, had a structural steel framework with steel partitions. The glass for the greenhouse was of the "B" quality double-strength drawn window type. A two-pipe, low-pressure, steam-heating system was installed as were the necessary plumbing, conduit, and wiring. The greenhouse was presumably completed by the summer of 1935.[39]

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37. "Specifications for Heating Main Building, East Wing and Greenhouse," dated Jan. 28, 1932, RG 85, NA. The work was to be done in accordance with drawings D-1191, D-1192, D-1193, D-1194, and D-1195.

38. Report of the Ellis Island Committee, March 1934, p. 16. A copy of the drawing showing the location of the first greenhouse and the proposed and ultimate location of the second greenhouse may be seen on the following page.

39. "Specification for Remodeling in the United States Immigration Station at Ellis Island, New York," dated July 12, 1934, FF 14, Greenhouse: Remodeling, 1934, and "Specification for Remodeling U.S. Immigration Station, Ellis Island, New York," dated July 11, 1935, FF 15, Greenhouse: Remodeling (supplemental), 1935, Ellis Island Records, DSC.



T-OF-ELLIS-ISLAND-

SCALE 1"=60'

b. Improvements - 1935-1954

Little is known about the second greenhouse from 1935 to 1954 with the exception of some major renovation work during the early 1940s. A contract was let at an undetermined date to make the following repairs:

> Remove all glass in roof between vent header and eave and reset roof lgass in new greenhouse putty
>
> Replace all broken, cracked, or missing glass with new double thick "B" quality glass
>
> Repaint entire superstructure
>
> Remove present vent header and relocate it 1 inch higher up slope, nearer the ridge, to better catch condensation drip
>
> Remove present ridge cap and replace with new ridge cap of red gulf cypress to make ridge vent sash leak proof[40]

D. The Bakery and Carpenter Shop

In July 1912 Commissioner Williams requested the sum of $60,000 for the construction of a fireproof building to house the bakery and carpenter shop and to provide for storage. The basis of his request was as follows:

> It is proposed to erect a two story steel-concrete structure, the approximate size of which will be 100 feet by 50 feet (contents 200,000 cubic feet at 30 cents per foot). The present carpenter-shop is a temporary wooden construction, adjoining wooden covered passage-way to ferry-house and constituting a

40. "Specifications - Repairs and Replacements, Greenhouse, Island No. 1, Ellis Island, N.Y.," ca. early 1940s, FF 15, Greenhouse: Remodeling (supplemental) 1935, Ellis Island Records, DSC.

> grave fire hazard, seeing that there are necessarily stored therein numerous inflammable materials, including paints, furniture to be repaired, lumber, etc. The building also houses valuable wood-working machinery. Ellis Island has no general store-room, with the result that many stores, including lumber and other inflammable materials, are stored in inappropriate places and constitute a fire risk. The facilities for fighting fire are meager, consisting only of stand-pipes with very nominal pressure from our regular service pumps. The bakery is a very flimsy wooden structure, also adjoining said wooden passage-way and constituting a grave fire hazard.[41]

Congress finally appropriated $50,000 for the construction of the shop in the Sundry Civil Expenses Bill signed into law on June 30, 1913.[42]

1. Construction - 1914-1915

There is virtually no documentary information relative to the construction of the bakery and carpenter shop. Plans and specifications were drawn up, and a contract for the work was let during FY 1914.[43] To make way for the new building, the former wooden waiting room for the friends of the immigrants located north of the kitchen and laundry building and extending west toward the ferry house was razed. The bakery and carpenter shop was completed by June 1915.[44] An electric elevator was installed in the portion of the building designed for the carpenter shop.

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41. Williams to Commissioner-General of Immigration, July 22, 1912, RG 85, NA.

42. Annual Report, Commissioner-General of Immigration, Fiscal Year 1913, pp. 184-85.

43. Ibid., Fiscal Year 1914, pp. 225-26.

44. Ibid., Fiscal Year 1915, p. 35.

2. Use - 1915-1954

Available documentation indicates that the bakery and carpenter shop served its intended function from 1915 to 1954. In March 1934 the Ellis Island Committee recommended that a new stair and new car for the elevator be provided for the use of immigrants going through the building on their way from the new immigrant building to the kitchen and laundry building for their meals. However, there is no documentation showing that these plans were carried out.[45]

E. The Immigrant Building

The Ellis Island Committee, appointed by Secretary of Labor Perkins to undertake a complete analysis of Ellis Island, issued its final report in March 1934. One of the recommendations in the report called for better facilities at Ellis Island for segregating the different classes of immigrants, both of deportees and of incoming immigrants. To this end, the committee recommended that the baggage and dormitory building be remodeled for deportees and that a new building be built for incoming immigrants and repatriates. The new building was to be on a fill (already under construction) behind a new seawall. The recommendations of the committee read as follows:

> That a new building for incoming immigrants and repatriates be put up behind the new covered passage and new ferry-house, on line as shown on accompanying plan, with covered passages to building K & L; that this new building, two stories high, should be designed in separate pavilions to allow for segregation, with large windows, ample porches, etc.; that the same brick as elsewhere on the Island be used but with less limestone; that this building contain bed rooms for 170 persons, in small groups of five or six persons, sitting rooms, work rooms for occupational and social work, space for children's kindergarten, if needed, ample showers and baths, etc.; that

45. Report of the Ellis Island Committee, March 1934, pp. 14-15.

new furniture be provided for this building and that its decoration be cheerful in character; that a new sea wall of concrete be built along the northwest end of the Island and that behind this and on either side of this new building, there be a fill, as shown, about 110 feet wide, well fenced, providing space for recreation for these immigrants, and landscaped as shown on the plan; that after the construction of this new building the auditorium in the main building be used as an assembly hall, chapel, etc., and refurnished as a lobby with comfortable chairs, etc., and acoustics improved; that a new stair and new car for elevator in B & C building be provided for use of immigrants going through it to meals in K & L building from new immigrants building.[46]

1. Construction - 1934-1935

Soon after the Ellis Island Committee report was issued, the sum of $1,151,800 was obtained from the Public Works Administration for making the necessary alterations and extensions on Ellis Island. In October 1934, a contract for the construction of the immigrant building was let to George F. Driscoll of Brooklyn, New York.[47]

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46. Report of the Ellis Island Committee, March 1934, pp. 14-15. A copy of the layout of Ellis Island submitted with the report may be seen in this Historic Structure Report in chapter VI.C.29.

47. New York Times, Oct. 10, 1934. The work was to be done in accordance with "Specification for Construction of New Buildings, Etc., for the United States Immigration Station at Ellis Island, New York," dated Mar. 26, 1934, drawings 1-1, 2-1, 2-2, 2-100 through 2-104, 2-200, 2-201, 2-202, 3-1, 3-2, 3-3, 3-100, 3-101, 3-200 through 3-203, 4-1, 4-100, 4-101, 4-200, 4-201, 4-202, 5-1 through 5-7, 5-200, 5-201, 6-1, 7-1, 2-400, 3-400 through 3-405, 4-400, 4-401, 5-400, 5-401, 5-402, CL-1-450, P-2-450, H-2-451, CL-2-452, P-3-450, H-3-451, PH-3-452, CL-3-453, CL-3-454, PHL-4-450, PH-5-450, PH-5-451, and miscellaneous drawings 311-3, 35-H, 300-B, 326-C, 335-A, 336-A, M-370-1, M-371-G, M-372-H, M-373-E, and M-374-H, FF 170, Ferry House: Construction, 1936, and FF 171, Ferry House: Construction, 1936, Ellis Island Records, DSC.

The building was completed sometime in late 1935 or early 1936. On June 22, 1936, a contract was let to the Colonial Curtain Company of New York City to install window and door curtains in the building at a cost of $1,278.[48] Later on March 11, 1938, a contract was let to Adolfo Grossi of New Brighton, Staten Island, New York, to waterproof the structure. The surfaces on the building that were treated were as follows: "Both sides of Parapets, copings and all exterior masonry surfaces from the bottom of the soldier course at the first floor window heads to the coping, and the entire wall at windows 1/4 and 1/46."[49]

2. Use - 1936-1954

The new immigrant building remained unused for several years, and there were several reasons for this. The volume of immigration remained low during the depression years, improvements were made in the main building to house the trickle of immigrants, and appropriations were never made available for maintenance of the building. Ironically, while the money was never available when such a building was really needed, funds became available and the structure was erected after the need had passed.

After WW II broke out in Europe on September 1, 1939, the Coast Guard was directed to conduct extensive patrols to enforce the Neutrality Act. Quarters were needed for training, and the Coast Guard thought that Ellis Island was a likely site. The Labor Department accordingly turned over to the Treasury Department the unused immigrant building, portions of the ferry house, and the ground floor of the baggage and dormitory building. The Coast Guard station remained on

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48. Assistant Director of Procurement to Colonial Curtain Co., June 22, 1936, FF 174, Immigrant Bldg.: Window and Door Coverings, 1936, Ellis Island Records, DSC.

49. "Specification for Waterproofing, Etc.," dated Feb. 4, 1938, and miscellaneous papers relative to contract, FF 172, Ferry House: Waterproofing, 1938, Ellis Island Records, DSC.

the island until it was decommissioned in 1946, leaving the immigrant building unoccupied until 1954 when the immigration station on Ellis Island was closed.[50]

F. The Recreation Building and Shelters

The Ellis Island Committee expressed concern over the lack of recreation facilities for the hospital patients on the island. Accordingly, the committee made the following recommendations in its final report in March 1934:

> That the space between the hospital buildings on Islands No. 2 and No. 3, now covered with cinders, be regraded, surfaced, planted, landscaped and used for hospital recreation for all classes of patients including a separate enclosure between pavilions for illegal entrants under hospital care.
>
> That a new recreation building, to be located in the space between the two hospitals, replace the old A.R.C. building now on Island No. 2, at present a fire hazard.
>
> Space for the out-door recreation of deportees will be to the east of B & D building and the main building and will be ample enough to provide playground and ball ground with attractive view and outlook. New fencing should be provided around deportees' recreation space, also around recreation space for immigrants. There should be new shelters with comfort stations in all out-door recreation spaces, also covered and enclosed verandas and a new band-stand.[51]

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50. Pitkin, Keepers of the Gate, pp. 168-71.

51. Report of the Ellis Island Committee, March 1934, pp. 15-16. Refer to the copy of the layout of Ellis Island in this Historic Structure Report in chapter VI.C.29. for the proposed location of the recreation building and shelters.

By the early part of 1935 the space between islands 2 and 3 had been graded and covered with 18 inches of earth fill and 6 inches of topsoil. During the spring of 1935 the area was seeded to grass except for the walks and flower beds.[52]

1. Construction - 1936

With the $1,151,800 in allotted funds for improvements on Ellis Island obtained from the Public Works Administration, plans were prepared by the Public Buildings Branch of the Procurement Division of the Treasury Department for the construction of the recreation building and two shelters.[53]

On February 13, 1936, a contract was let to the Albert Development Corporation of New York City for the construction of the recreation building and shelters. The work, which cost $127,245, included the razing of the existing American Red Cross building that had been used to provide recreation for the hospital patients.[54]

The recreation building and shelters were completed sometime early in 1937. In April of that year a contract was let for the installation of window draperies, stage curtains, and doorway curtains in

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52. Uhl to Heimer, Jan. 10, 1935, FF 222, Miscellaneous Work: Landscaping, 1935, Ellis Island Records, DSC.

53. Twenty-Second Annual Report of the Secretary of Labor for the Fiscal Year Ended June 30, 1934, p. 72. The recreation building was located just off the covered way on the space between islands 2 and 3. One shelter was located just below the recreation building, and the other was located adjacent to the powerhouse on the northeast corner of island 1.

54. New York Times, Feb. 13, 1936. The work was to be done in accordance with "Specification for Construction of Shelters and Recreation Building, Etc., U.S. Immigration Station, Ellis Island, N.Y.," dated Dec. 10, 1935, architectural drawings 1-1A, 4-1A, 4-100A, 4-101A, 4-200A through 4-203A, 6-1A, M-372L, M-373J, and M-374L; structural drawings 4-400A, 4-401A, and 3-405A; mechanical drawings PHL 4-450A, and 326D, and miscellaneous drawings 305-1, 311F, and 300C, FF 175, Recreation Bldg.: Construction, 1935, Ellis Island Records, DSC.

the recreation building.[55] Later on March 11, 1938, a contract was let to Adolfo Grossi to waterproof the recreation building. The surfaces on the building that were treated were as follows: "All exterior masonry surfaces from the water table to the copings of the east and west elevations and small returns of the two wings."[56]

2. Use - 1937-1954

The recreation building and shelters were used for their intended purpose from 1937 to 1954. Ailing immigrants, merchant seamen, and members of the Coast Guard who received treatment at the hospitals on islands 2 and 3 were able to participate in athletic and social activities in the recreation building and nearby shelter while the shelter on island 1 was used exclusively by those detained on island 1. When the U.S. Public Health Service closed the hospital group on the island on March 1, 1951, after operating it for some 30 years, the Coast Guard temporarily took over the island 2 complex, including the recreation building and shelter.[57]

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55. "Specification," dated Apr. 7, 1937, FF 175, Recreation Building: Window Draperies, 1937, Ellis Island Records, DSC.

56. "Specification for Waterproofing, Etc.," dated Feb. 4, 1938, and miscellaneous papers relative to contract, FF 172, Ferry House: Waterproofing, 1938, Ellis Island Records, DSC.

57. New York Times, Dec. 28, 1950, and Pitkin, Keepers of the Gate, p. 175.

XII. RECOMMENDATIONS

It is the opinion of the author that no further research needs to be done relative to the history of the structures on Ellis Island. Virtually all extant primary and secondary sources pertaining to this subject were consulted and researched in preparation for this report.

The standard work on Ellis Island is Keepers of the Gate: A History of Ellis Island (Pitkin 1975). This volume presents the most comprehensive and thoroughly researched history of the island. However, some topics that could enhance the historical interpretation of the island deserve further amplification. These topics include the following:

Treatment of the immigrant on Ellis Island (i.e., dormitory facilities, diet, hospital care, registration system, etc.)

Collection, summary, and significance of reminiscences of Ellis Island by immigrants (i.e., printed, published, taped, and oral reminiscences)

Ellis Island as a deportation center

Ellis Island as a wartime military installation and hospital (i.e., World Wars I and II)

The relationship of the developments at Ellis Island to the formulation of American immigration policy - 1900-1954

APPENDIXES

A: Programme of a Competition for the Selection of a Design for Buildings for the United States Immigrant Station, Ellis Island, September 9, 1897

B: Letter from Acting Supervising Architect to Boring & Tilton, October 1, 1897

C: Biographical Sketch of William Alciphron Boring - 1859-1937

D: Biographical Sketch of Edward Lippincott Tilton - 1861-1933

E: Short Historical Sketch of the Ecole des Beaux Arts

F: Specification for the Installation of a Vaulted Ceiling in the Registry Division, Main Building, Ellis Island, N.Y. Harbor; and Also Installation of Artificial Caen Stone or Artificial Limestone on the Side and End Walls of Same Room, ca. 1916

G: Report on Need for Second Power Plant on Island 3, July 10, 1907

H: Report on Necessary Improvements to Complete Power Plant, June 8, 1909

I: List of Approved Extra Work on Baggage and Dormitory Building, August 16, 1909

J: Background Proposal for Construction of Third Story on Baggage and Dormitory Building, June 1911

APPENDIX A

Treasury Department
Office of the Supervising Architect,
Washington, D.C. September 9, 1897.

PROGRAMME of a competition for the selection of a design for buildings for the United States Immigrant Station, ELLIS ISLAND, NEW YORK HARBOR, in compliance with the Act approved February 20, 1893, and under the regulations approved by the Secretary of the Treasury July 3, 1897, copies of which are hereto attached.

The members of the commission to pass upon the merits of the designs submitted and the architects invited to compete will be designated in the letters of invitation.

The site for the buildings is an island of about twenty acres in New York Harbor, situated about one-half mile from the New Jersey shore. The island is low-lying, nearly level, rising three to six feet above high water, bearing no trees or shrubbery.

The buildings included in this competition are two in number, that is, a main building with annexes, and a hospital building, to be located approximately as indicated on the sketch plan I hereto attached. The first floors of all these buildings should be on the same level, that is, six inches above the level of the plank walk which remains in front of the former buildings. This plank walk is two feet six inches above ordinary high water.

The cost of the two buildings and annexes, including plumbing and gas piping, electric conduits and wiring, heating and ventilating apparatus, within the buildings, and the architect's fee, must not exceed five hundred and seventy thousand dollars, ($570,000.00).

Steam, electric current and water will be brought to the buildings by the Government, and the plants, piping, sewers, wiring, etc., outside the buildings are not to be included in the estimates submitted under this competition.

Competitors will estimate for pile foundations, piles to be cut off eight feet below first floor line, and to average twenty feet penetration below first floor line.

The buildings are required, by the provisions of the Act of Congress, approved July 19, 1897, to be of "fireproof materials, and the large building for the reception and examination of immigrants, and the building used as a dormitory, are to have such openings from the main floor, so many doors swinging outward, and to be surrounded by spacious outside balconies made of iron with iron staircases leading therefrom, as to afford speedy exit in case of fire."

The buildings are to be of brick with stone trimmings. The finish is to exhibit as small an amount of combustible material as possible, and it is to be plain but substantial and durable.

It is thought that space approximating closely to that indicated on sketch plans II and VII inclusive hereto attached can be obtained within the amount hereinbefore stated.

The demands for convenient administration being peculiar, the tentative plans suggest an arrangement of the various offices, etc. in relation to each other, but each competitor is requested and desired to make such variations in the arrangement of interiors or in the grouping of the main building and annexes as his judgement dictates.

The principal front of the Main Building and Annexes is to be toward the southwest.

Each design submitted shall consist of the following drawings only, and shall be enclosed in a portfolio or between stiff cardboards:

Block plan, to the scale of the plan of site hereto attached; Plan of each of the floors of each building and annex, one-eighth scale;
TWO elevations of the Main Building (II), one-eighth scale.
TWO elevations of one annex, one-eighth scale.
TWO elevations of the Hospital (VII), one-eighth scale.
Cross section of Main Building showing annexes in elevation of section as preferred, one-eighth scale.
Birdseye view of the Main Building and annexes taken from the south, one-eighth scale.

All the drawings shall be on Whatman paper 24" x 36", unmounted. The plans and elevations to be plain line drawings; elevations to have accurately cast shadows in India ink wash at 45° but no scenic effects; the sectional portions and openings to be in light gray tint; the birdseye view to be finished simply in sepia or ink wash.

Each drawing shall bear the title, U.S. Immigrant Station, Ellis Island, "and only such other words or figures as may be necessary to properly designate drawings, their parts or scales; all words or figures to as may be necessary to properly designate drawings, their parts or scales; all words or figures to be in simple lettering, and not in script or writing.

The description to be a typewritten statement on plain white legal cap paper with estimate as per form hereto attached, (paragraph 7 of the Regulations).

Should more detailed information be found necessary by any competitor, request may be made by letter to this office; and any answer made or additional information given will be simultaneously communicated by mail to each competitor; but no such information will be given after October 21st, 1897.

The designs must be delivered to the Secretary of the Treasury not later than 2:00 P.M., Thursday November 4th, 1897.

Acting Supervising Architect

APPENDIX B

Office of the Supervising Architect,
Washington, D.C., October 1st, 1897.

Messrs. Boring & Tilton, Architects,
57 Broadway,
New York City.

Gentlemen:-

In reply to an inquiry of one of the competitors in the competition for the Ellis Island Buildings, requesting further data, the following information has this day been forwarded to each competitor:

Maximum No. of immigrants liable to arrive on one day	4,000
Average No. of immigrants liable to arrive on one day	1,000
Number of Government employees	150
Number of Railroad Officials, Missionaries, Agents, etc.	200

Of the one thousand average arrivals per diem eight hundred and fifty may be expected to leave the station on the day of arrival; the remainder may be detained from one to seven days.

The average number of immigrants requiring accommodations in the dormitories over night during nine months of the year---------- 200

The possible maximum number of immigrants requiring accommodations in the dormitories over night---------- 1,200

The main building and annexes are to contain accommodations for the reception, registration, examination, and sleeping quarters of immigrants. The main building will be devoted to the examination of immigrants on the second floor, and on the first floor are to be the necessary provisions for getting their baggage checked (should they be railroad passengers) and forwarded to the various points, and, if local passengers, for the purposes and business of the Transfer Companies.

Passengers on being transferred from the boat will enter first the space between the main building II and annexes III and VI. This space it is expected in future to cover with a glass roof and enclose with glass on the line between the annexes, but this enclosure - one-story in height - is on account of the limit of the appropriation, not to be included in the designs submitted by the competitors, but its construction depends upon future action of Congress.

On entering the building, near the centre of the front, passengers pass up stairs which are to be located near that point, but not shown on sketch plans II or IIa.

The large space 7 on the second floor plan IIa is to be in future divided by wire screens into the various compartments necessary but these screens are not to be shown on the competitive plans or included in the estimate. Immigrants then proceed through the various screened divisions of the hall where they are examined as to their fitness to land. Those

admitted and destined to New York pass down stairs, which are to be located nearly opposite the passage between rooms marked three and four on plan II. These two flights of stairs from first to second floor of main building, which were not shown on the sketch plans, are to be shown on the competitive plans. There should also be shown on the second floor plan of main building a water closet of not less than six fixtures between the stairs at the front and the passage to annex adjacent to room #1. Immigrants going by railroad, having passed down the stairs last referred to, pass through connection to annex #6. Those who upon examination do not appear to be entitled to land are conducted to annex #4.

Sketch plan IIb suggests the utilization of the attic space for use in case of the overcrowding of the detention dormitory.

Rooms 1, plan IIa, are for the use of the Board of Special Inquiry; the large room being intended for witnesses and others intending to testify before the Board. Rooms marked 2, plan IIa, are for the general executive officers of the Medical Bureau.

SKETCH PLAN III, EXECUTIVE BUILDING

On the upper floor will be the main Executive Offices, as noted on the sketch plan. On the lower floor will be the Offices of the Company transferring immigrants from the ships to Ellis Island, the Secretary of the Board of Special Inquiry, the Missionaries, retiring room for registry clerks - giving them a place to hang their clothes - and an office for the Matrons. The space marked 12 on the first floor and 14 on the second floor on sketch plan III is to be used as a record room in both stories, either with stairs communicating or by making the room two stories high with galleries.

SKETCH PLAN IV, INFORMATION

Space 1 on first floor plan is the general Information Bureau where all people desiring information regarding immigrants or matters concerning the Immigration Bureau receive instructions, and where immigrants are discharged to their friends. In space 2 are kept all the immigrants (women, minors and others) whom the Inspection Officers are satisfied should be landed when their friends arrive, or who have told stories which require verification; they having been conducted from the second floor of the main building down stairs into this space.

Parties coming to the Information Bureau and desiring to go to the Board of Special Inquiry are admitted by stairs to the waiting room of the Board of Special Inquiry, space 2 on second floor. Space 2 on second floor is also for those immigrants who on inspection do not appear to be qualified to land and are held for the Board of Special Inquiry. Space #1, second floor, is for those immigrants who on examination by the Board of Special Inquiry have been excluded.

SKETCH PLAN VI, RAILROAD ANNEX

The space at the Westerly end, No. 1, is the general office of the Agent representing the Immigration Clearing House. The lower floor is to be

subdivided by screens into waiting rooms for the various railroads where the immigrants are placed after examination, having bought their tickets, had their baggage checked and waiting for the proper time to be transferred to their destination.

SKETCH PLAN V, DETENTION

Both first and second stories are to be used as dormitories where the immigrants detained on the island both temporarily and those excluded are given accommodations for sleeping at night.

NOTE:

The attention of the competitors is called to the fact that there have been no general toilet facilities or water closets specifically called for by the programme, but such rooms of adequate size must be provided on the plans submitted.

Respectfully yours,

Acting Supervising Architect.

[None of the plans referred to were located in RG 121, WNRC.]

APPENDIX C

Biographical Sketch
William Alciphron Boring, 1859-1937

Born in Carlinville, Illinois, on September 9, 1859, William Alciphron Boring was the second of eight children of John Melvin and Mary Adeline (Bailey) Boring and a descendant of William Boring, who had come to Virginia from Dover, England, in 1656. His paternal grandparents had lived in Tennessee, while his mother was born near Shelbyville, Kentucky. Boring's father and paternal grandfather were carpenters and building contractors.

Boring was educated in the local school and in Blackburn College (a high school) in Carlinville. During the summers he learned the carpenter's trade and, influenced by his father's work and by some of the books in his father's office, he became interested in pursuing the career of an architect. While working for a local contractor in Greenfield, Illinois, he saved half his wages in order to enter the school of architecture at the University of Illinois, the second such school to be established in the United States. Admitted in November 1881, he studied under Professor N. Clifford Ricker, the school's founder, while doing part-time carpenter work for the university. He was an excellent student, but in 1883 his eyes gave out from overstrain.

He left the university and went to California to work. In Pasadena he obtained employment as a draftsman with the architect C. B. Ripley, and soon he and Ripley moved to Los Angeles and practiced as partners under the firm name of Ripley and Boring. When Ripley left for Honolulu, Boring took Sidney F. Haas as his new partner and formed the successful firm of Boring and Haas. This firm executed several important commissions including the Los Angeles Times Building, the Santa Monica Hotel, at that time the largest hostelry in Southern California, and various buildings of the University of Southern California.

Having accomplished his original purpose of saving funds to continue his education, Boring sold out to Haas and went to Columbia University in 1886 to study with Professor William R. Ware. After one year of study, he sailed for France and entered the atlier of Leon Ginain, where he remained until 1890, having passed the competitive examination for entrance to the Ecole des Beaux Arts and completed about half of the courses. Because of his age and lack of funds, Boring discontinued his studies and, together with Edward L. Tilton, he took a "grand tour" through southern France, Spain, and Italy before returning to New York.

On his return in 1890 Boring was employed by the architectural firm of McKim, Mead & White. After about a year, he left to form a partnership with his friend and fellow-employee Edward L. Tilton. Boring and Tilton designed country houses, hotels, apartment buildings, and a variety of other commissions. One of the firm's most important projects was the competition-winning design of the buildings that were built in 1898-1900 to replace the earlier United States immigration station structures on Ellis

Island that had burned in June 1897. Upon the completion of the buildings, the partners received the Gold Medal Award of the Paris Exposition in 1900, the Gold Medal of the Pan-American Exposition at Buffalo in 1901, and the Silver Medal of the Louisiana Purchase Exposition at St. Louis in 1904. Among the other notable commissions of Boring and Tilton were the following: ten buildings for the Jacob Tome Institute in Port Deposit, Maryland; the First Church of Christ, Scientist, in Hartford, Connecticut; Glenwood Springs Hotel in Colorado; the Seamen's Institute in New York City; the Town Hall in East Orange, New Jersey; St. Mary's College in Plainfield, New Jersey; the Institute for the Deaf at West Hartford, Connecticut; and the Connecticut Institute for the Blind at Hartford, Connecticut.

Boring and Tilton continued as partners until 1903, when they dissolved their firm to practice separately. After the breakup of the firm, Boring designed St. Agatha's School, at 87th Street and West End Avenue, in New York City, as well as numerous other schools and private residences. He was one of the first planners to recognize the importance of Park Avenue for residential purposes and built three large apartment houses on that avenue (Nos. 520, 521, and 540). One of his most important commissions was the design, layout, and construction of the town of Bogalusa, Louisiana, in 1906-1909 for the Great Southern Lumber Company.

A devotee of architectural education, Boring in 1916 accepted an invitation to become professor of design at the School of Architecture of Columbia University. He was appointed director of the school in 1919 and Ware Professor of Architecture in 1929. In 1931, in recognition of the fiftieth anniversary of its founding, the School of Architecture was given independent status, and Boring was appointed the first dean, and served in this capacity until his retirement in 1934. Pedagogically, he followed the principles initiated by William R. Ware, stressing history and theory along with design, and he had a deep appreciation for aesthetic values.

During his long career Boring received many awards and honors and held numerous professional positions in the field of architecture. He was a founder and the first president of the Society of Beaux Arts Architects in 1893-1894. In the latter year he helped to found the American School of Architecture in Rome and was elected a trustee. This school was absorbed by the American Academy in Rome when it was founded in 1897 and Boring served on its executive committee and as its treasurer from 1906 to 1937. Elected a member of the New York Chapter of the American Institute of Architects in 1900, he was promoted to Institute Fellowship the following year and served a term as vice president of both the institute and the chapter. In 1900 he was made chairman of a committee of the American Institute of Architects, which secured the creation by the U.S. Senate of a commission of architects to formulate a plan for the orderly grouping and arrangement of public buildings and parks in Washington, D.C. He served as president of the Architectural League of New York in 1910-1912. The Boring Fellowship, granted every three years for foreign study, was founded at the Columbia University School of Architecture in his honor in 1925. In 1927 he received the Medal of Honor for Individual Service from the New York Chapter of the American Institute of Architects. The following year he was made a Chevalier in

the French Legion of Honor and in 1929 he received the honorary degree of Litt. D. from Columbia University. In 1930 he served as visiting professor of fine arts at the American Academy in Rome. At various times, he served as architect on the National and New York Art Commissions and was an associate in the National Academy of Design. He was also a member of the first United States Council of Fine Arts and a corresponding member of the Societe des Architects Diplomes par le Government Francais.

Boring married Florence Kimball of St. Paul, Minnesota, on October 23, 1894, and the couple had three children. Boring's religious affiliation was Episcopalian. On May 5, 1937, Boring died in New York City of pneumonia following a prostatectomy. He was 78 years of age.

SOURCE: Dictionary of American Biography, II (Supplement II):53-54; The National Cyclopedia of America Biography, 27:59-60; Henry F. Withey and Elsie Rathburn Withey, Biographical Dictionary of American Architects (Los Angeles, 1956), pp. 66-67; and various newspaper articles on file at the American Museum of Immigration, Statue of Liberty National Monument.

APPENDIX D

Biographical Sketch
Edward Lippincott Tilton, 1861-1933

Born in New York City on October 19, 1861, Edward Lippincott Tilton was the son of Benjamin White and Mary (Baker) Tilton and a direct descendant of John Tilton, who emigrated to Saugus (now Lynn), Massachusetts, from England in 1630. John Tilton helped to found Gravesend, Long Island, purchased Barren Island, Long Island, from the Indians in 1664, and later with eleven associates, known as John Tilton & Co., acquired land from the Indians in Monmouth County, New Jersey. Amos Tilton, the grandfather of Edward Lippincott, was a carriage manufacturer and later manager of estates and founded a hospital and library in Mount Vernon, New York.

After being educated in private schools in Mount Vernon, New York (1870-1874), Edward Lippincott Tilton attended the Chappaqua Mountain Institute (1874-1877) and studied architectural drawing with a private tutor in 1879-1880. At the age of 19 years, after experience in business, first with the firm of R. R. Haydock and later in the banking office of Corlies, Macy and Company, he entered the offices of the architects McKim, Mead & White. The following year, on their advice, he went to Paris for three years to study at the Ecole des Beaux Arts. Before returning to New York in 1890, he toured southern France, Spain, and Italy with William A. Boring, a fellow student at the Ecole.

Back in New York, Tilton formed a partnership with Boring in 1891 under the firm name of Boring & Tilton. The first important commission of the firm was that for the United States Immigrant Station on Ellis Island, won by competition in 1897 and completed in 1900. Largely because of its solution of the complicated problem relating to movement of the immigrants through the main building the firm was awarded a Gold Medal at the Paris Exposition of 1900. The following year the firm received the Gold Medal at the Pan-American Exposition in Buffalo and in 1904 the Silver Medal at the Louisiana Purchase Exposition in St. Louis.

Long interested in archeology, Tilton in 1895 was appointed by the American Institute of Archeology to serve as architect to the group sponsored by the American School of Classical Studies in Athens to excavate and restore the Argive Heraeum near Argos, Greece. He published a report of his study in 1903 and wrote the chapter on the architecture of Greece in Sturgis' Dictionary of Architecture.

After the partnership of Boring & Tilton dissolved in 1903, Tilton practiced alone until 1921 when he associated himself with Alfred M. Githens in the firm of Tilton & Githens. Between 1905 and 1930 Tilton designed more than 130 public libraries. The public library at Mount Vernon, New York, built in 1910, was the first of numerous buildings with which Tilton's name is especially connected. The modern public library form, with ground floor stack space and reading room facilities above, stems in large part from his analysis of library problems. His

views on control of books and readers, efficiency and directness of service, and open spatial effect were expressed in his "Library Planning" (Architectural Forum, December 1927) and "Library Planning and Design" (Architectural Forum, June 1932). During World War I Tilton designed over 60 libraries and more than 30 theatres at various American military camps and cantonments.

Characteristic examples of his work were the public libraries at Somerville and Springfield, Massachusetts, and the more recent McGregor Public Library (1925) of Highland Park, Michigan, and the Wilmington, Delaware, library (1930), awarded the Gold Medal of the American Institute of Architects. In the last two the stack and service floor was sunk into the ground in order to secure entrance to the reading-room floor from the street. Both were also characterized by an original handling of classic motives, the wings becoming almost all glass on the sides, with a more solid central entrance. Other important libraries designed by Tilton were the Knight Memorial Library in Providence, Rhode Island; the library of Emory University in Atlanta, Georgia; several branch libraries, including the Mount Pleasant Library in Washington, D.C.; the library of Girard College in Philadelphia, Pennsylvania; the Pack Memorial Library at Asheville, North Carolina; and the William H. Welch Library at the Johns Hopkins Medical School in Baltimore, Maryland. In addition, Tilton served as consulting architect to many libraries, and Tilton & Githens were associated with Clyde and Nelson Fritz in the Enoch Pratt Free Library at Baltimore, Maryland. Notable works of other types included the Central High School in Johnstown, Pennsylvania, the Museum of Fine Arts and the Museum of Natural History at Springfield, Massachusetts, the U.S. Post Office Building at Manchester, New Hampshire, and the county administration building for Bergen County, New Jersey.

Tilton's work was noted for its careful study of practical requirements. A classicist in taste, he was inspired in his early work by the Italian Renaissance and in his later work by that of ancient Greece and Rome. Nevertheless, he achieved a synthesis of classic detail and modern needs, especially in the novel buildings at Highland Park and Wilmington.

Tilton was a man of wide and scholarly interests. He was one of the organizers of the Society of Beaux Arts Architects and served as president in 1901-1902 and the treasurer of its Paris Prize Committee for 25 years. A member of the New York Chapter of the American Institute of Architects since 1900, he was advanced to Institute Fellowship in 1908. He was also a member of the Architectural League and a fellow of the New York Society of the Archeological Institute of America and its treasurer from 1900 to 1933. In addition to his architectural articles, he was the author of two works: The Architecture of the Small Library (Lansing, 1911) and "The Architecture of the Argive Heraeum" in the Argive Heraeum (2 vols., 1902-1905), by Sir Charles Waldstein and others.

Tilton married Mary Eastman Bigelow of Mount Vernon, New York, on June 5, 1901. The couple had two children. Tilton's religious affiliation

was with the Society of Friends. He died in Scarsdale, New York, on January 5, 1933, at the age of 71 years.

SOURCE: Dictionary of American Biography, 18:549-50; Withey and Withey, Biographical Dictionary of American Architects, p. 601; and The National Cyclopedia of American Biography, 11:329, and A, p. 319.

APPENDIX E

Short Historical Sketch of the Ecole Des Beaux Arts

The Ecole des Beaux Arts has been known as the greatest school of fine arts in France and one of the greatest in the world since the 18th century. Located in Paris, it developed out of two 17th century institutions. The first of these, the Ecole Academique, was founded in 1648 by Louis XIV at the instigation of Cardinal Mazarin. Later it came under the direction of the Academic Royale de Peinture et de Sculpture, also founded in 1648 by Charles le Brun, painter to the King. The second institution was the Ecole de l' Academie d'Architecture, founded in 1671 by Jean Baptiste Colbert, a minister of Louis XIV. The two schools were united in 1795.

Men entered the Ecole des Beaux Arts in their early twenties and could remain and produce work until they were thirty provided they remained single. Most Frenchmen stayed for eight to ten years to complete the full course, but foreigners, especially Americans, rarely stayed longer than two years.

Admittance to the Ecole was obtained by passing difficult entrance examinations. Between 200 and 300 people applied for 30 speces annually. Entrance examinations were given in March and July each year and consisted of testing in architectural composition, modeling in clay, drawing from casts, descriptive geometry, plane and solid geometry, algebra, arithmetic, and history. All examinations were in French and failure in any one part eliminated the candidate from further competition. Once admitted, students were allowed a wide latitude in the choice of classes and projects. Classes were held at the school where assignments were given. Although the emphasis of the school lay in the field of architecture, the subjects taught included aesthetics, drawing, painting, sculpture, engraving, modeling, and design. The instructors were chosen from the finest artists in France. Students petitioned an established architect in the city to enter his atlier or studio where they could complete their assignments under the supervision of the patron. Many atliers were operated by architects who had won the Prix de Rome, the grand prize open only to those who had completed the course. Individuals winning the three-year expense-paid trip to Rome were especially favored for their professional expertise.

The Ecole was sometimes chided for espousing grand designs that were considered impractical and were likely to remain unbuilt. Examples of such projects were palaces for minor dukes, riverside casinos, small but lavish country homes, and railroad stations that rivaled Grand Central. Although huge and impressive, these plans were seriously submitted but seldom found their way to a construction site.

The influence of the Ecole on American art and architecture has been very great. Around the turn of the 20th century more than half of the students at the school who were not Frenchmen were Americans. The

earliest departments of architecture that were founded in American universities in the late 19th century and early 20th century organized their curriculum to conform to the methods and discipline of study adopted at the Ecole.

SOURCE: "The Influence of the Ecole Des Beaux Arts Upon American Architecture," Architectural Record (January 1901), pp. 66-88; Encyclopedia Americana (1972), 9:588; and notes on file at the American Museum of Immigration, Statue of Liberty National Monument.

APPENDIX F

Specification for the Installation of a Vaulted Ceiling in the Registry Division, Main Building, Ellis Island, N.Y. Harbor; and also Installation of Artificial Caen Stone or Artificial Limestone on the Side and End Walls of same room, ca. 1916

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Under each end of each of the ten (10) steel trusses (now in place) furnish a stirrup formed of an 18" x 5/8" x 1/4" steel plate, and three (3) stirrup bolts 3/4" in diameter.

This is to form a shelf for the toe of the longitudinal arches to rest upon. The stirrup bolts to extend up to and loop over the 17" x 3/8" x 2'0" plate now in place. The plate to be thoroughly secured to the horizontal leg of the 3" x 3" x 5/16" angles with eight (8) 3/4" bolts all as shown on the accompanying drawing. All bolts and nuts to be drawn tight with heavy wrench. Bolt heads to be (thru) burred.

The ceiling shall be constructed of the reinforced timbrel tile vault from the spring line of the existing trusses forming a continuous barrel vault with penetrations at windows, all as shown.

The arch shall have not less than three layers of hard burned semi-porous tile one inch thick, not larger than 6" x 12" in size as may be selected.

The layer forming the soffit shall be of 6" x 12" corrugated tile of glazed surface, or a 6" x 12" unglazed buff tile; or a 6" x 12" drawn buff tile, (as may be selected and approved by the Commissioner of Immigration) set in Plaster of Paris, the exposed joints to be convex.

Alternate bids will be required for each of the three different kinds of tile for the soffit course.

The other layers shall be set up in 1 x 2 Portland Cement Mortar, breaking joints in all cases.

All the tile shall be well rubbed in a full bed of mortar, filling all joints and leaving no voids.

All the tile shall be thoroughly wet before laying. Haunches at the spring line shall be stiffened with necessary ribs of the same construction as the vaults and in accordance with the details shown.

Upon completion of the arches the entire work is to be cleaned and pointed and left perfect in all respects.

Working drawings of this construction shall be furnished by the Contractor and submitted to the Commissioner of Immigration, and no work is to be started until said working drawings have been approved by him.

The Contractor for this vaulted ceiling shall provide all centering required for the installation of his work, said centering to remain in place until mortar is well set and hard, and to be removed entirely from the building when so directed.

These vaulted ceilings shall be constructed by experts in this particular line of work, and by an individual or company having had at least five (5) years experience in the construction of similar work, and shall have had installed one or more arches of this character in important public or private structures.

The Commissioner of Immigration reserves the right to construe and define this paragraph.

The sidewalls entirely around the building beginning at the balcony level and extending four feet (4') high, are to be covered with a 6" x 12" round edge Guastavino glazed tile with sanitary base, cove corners and bull nose edges at all projections. This material to be laid up in cement mortar, cleaned and pointed as directed and is not to be installed until after the Artificial Caen Stone or Artificial Limestone immediately above the same, has been finished.

A separate price is to be made for this wall tile.

Artificial Caen Stone or Artificial Limestone:

The sidewalls from the spring line of the arch to the top of the present tile dado, and the end wall from the soffit of the arch to the top of the tile dado, are to be treated as follows:

All brick and terra cotta surfaces shall receive a coat of approved damp proof material previous to the application of the scratch coat which shall be applied while the damp proofing is "tacky".

The first, or scratch coat, on brick or terra cotta surfaces shall consist of mortar composed of the following:

Sand	1500 Pounds	3/5
Hydrated Lime	500 "	1/5
Keene's Cement	500 "	1/5

with sufficient goat hair to produce a fibrous material. This mass shall be thoroughly mixed while dry, then temper with water and apply on the walls. Double score and allow the work to set (not dry) before applying the brown coat.

If scratch coat becomes dry, wet same before applying the brown coat. Second, or brown coat, shall consist of the following:

Sand	2500 Pounds	2/3
Hydrated Lime	625 "	1/6
Keene's Cement	625 "	1/6

To this add sufficient cattle hair to produce a fibrous material.

In applying this brown coat around doors and windows, great care is to be exercised in recessing the brown coat the required depth to allow for the installation of the stone cement of the required thickness, which shall in no case be less than 1/4" thick.

This brown coat shall be rodded and floated to an even surface and left plumb and true.

The finish coat shall be "Monarque Brand" or equal, artificial caen stone with an alternate for "Monarque Brand" artificial limestone of same color and texture as are on exhibit in the office of the Supervising Architect, Treasury Department, Washington, D.C. Similar samples are on file at the office of the Commissioner of Immigration, Ellis Island, New York Harbor.

Gauge the caen stone cement stiff with pure water. Scratch over the surface with a close coat of the gauged material using a steel trowel. The succeeding coats shall be applied with a wood float until a thickness of at least 1/4" is attained. Rod all work plumb, level and true. Fill all voids using a wood float (not a steel trowel). Float until the required fineness and initial set of the work is perfected.

Allow the stone cement work to dry before attempting to joint and finish.

Cut all joints 3/16" in width and of the same depth to retain the Keene's cement. Clean and wet all open joints and point the same with fine, white Keene's cement evenly trimmed, leaving clean, unbroken arrises.

Dimension of stone shall be shown on drawing.

When Keene cement joints are thoroughly dry rub entire surface with Gres-stone or emery paper until the required texture is produced.

Remove all loose particles and dust.

Wherever this work comes in contact with windows or doors, all base and trim shall be set before applying stone cemnet finish, thereby avoiding all patching, which, under no conditions will be permitted.

Scaffolding for the installation of above - both the arch and artificial stone, on the side walls, will be furnished and erected by the Bureau of Immigration.

A system of Indirect Lighting to be installed. . . .

SOURCE: FF 34, Main Building: Vaulted Ceiling, 1916, Ellis Island Records, DSC.

APPENDIX G

Report on Need for Second Power Plant on Island 3, July 10, 1907

Complying with your request for further comment upon the question of installing separate plant for current and lighting power for the Contagious Disease Hospital group, I have the honor to state as follows:-

The present power plant is equipped with five units, two 100 K.W. and three 75 K.W.-220 volt, direct current. The output from these units is as follows: (engines running non-condensing)

Engine No. 1	- 375	amperes
2	- 375	"
3	- 250	"
4	- 250	"
5	- 250	"
Total --	1500	"

The total lighting load on dark afternoons and at night including New Hospital Extension, Barracks, Portable Pavilions, Railroad Room and Insane Ward Building, will be 1050 amperes. The average day load is (for lighting purposes) 450 amperes.

For power purposes, the total load is now 786 amperes distributed as follows:-

3 Ventilating fans in basement	110 amperes	330 amp.
1 Custom house elevator		35
4 Exhaust fans in towers- - - -	20 amperes	80
2 " " " R.R. room - -	3 "	6
2 " " " Dormitories -	5 "	10
2 " " " S.I. rooms -	2 "	4
2 Supply fans in dormitories -	5 "	10
2 Kitchen motors- - - - - - - -	5 and 4 amps.	9
1 Main Building elevator		45
1 Escalator motor		60
1 Laundry motor (main building)		55
1 Laundry motor in hospital		30
2 Supply fans in basement - - -	32 amps.	64
1 Elevator motor, Hospital		40
1 Dumb waiter motor, "		8
		786

It will be seen from the above that the plant is already overloaded, our output being 1500 amperes and total load for light and power 1836 amperes. The ventilating system is now shut down at night and the units transferred to lighting, but if the power was available it would be advisable to run this system continuously.

The present engine room space does not allow extension of the plant sufficient to carry the load of the new Contagious Disease Hospital group, which will be for lighting alone - 750 amperes.

To meet these special conditions, it is proposed to remove the three 75 K.W. units from present power house to the new island and install in lieu thereof, two 200 K.W. units. This change would in no way decrease the flexibility of the present plant, and will give sufficient power to light the new baggage room building, for which appropriation is already made. The two plants will be cross connected, making either available in an emergency.

Likewise, a more economical method of heating these new buildings will result if exhaust steam from generators is used for that purpose.

SOURCE: Howell to Watchorn, July 10, 1907, RG 85, NA.

APPENDIX H

Report on Necessary Improvements to Complete Power Plant, June 8, 1909

In regard to completing the improvements to the power plant, there is transmitted herewith a block plan showing the outlines of the three islands comprising the Ellis Island station, in the upper bay of New York; also the buildings situated upon the said islands. All of these structures, except the seven marked "original building", are newly completed and some of these new buildings are already occupied.

The cubic contents of the original buildings aggregate about 3,784,000 cubic feet and the cubic contents of the new structures equal 3,198,000 cubic feet; the number of original buildings is 7 and the number of new ones is 24. Obviously more light and power and more heating surface are required in the greater number of structures, although they have a somewhat less volume in combined cubic contents.

On the annexed sheet there is a statement in detail, showing the electric power required, both in kilowatts and horsepower, to operate and light the buildings of the station. It may be summarized by stating that there is needed for heat and power in said buildings 1,117 horsepower to carry the "peak" of the load and this without allowance for reserve. There is available, including that portion of the old plant removed, for purposes of economy, from the No. 1 (or original) island to the No. 3 (contagious disease hospital) island, a total of 566 horse power. In this connection, it must be remembered that electric current is required for cooking, domestic, and sanitary purposes, as well as to secure proper operation of the heating plants and ventilation, which, when the buildings are crowded, is absolutely necessary as a sanitary precaution.

Attention is also called to the fact that most of the laundry machinery, for economy, efficiency and compactness, is also electrically operated; and, giving due weight to all these facts, it will be seen that the completion of the plant proposed to meet the new conditions at this station is absolutely necessary.

An important point is the fact that there have been installed three new 425 horsepower steam boilers in the main powerhouse, in lieu of four 150 horsepower boilers and therefore no deficiency of steam may be apprehended. Three of the old boilers have been moved to the hospital on No. 3 island, in order to afford a reserve for heating the buildings on said island in the event of any disaster (such as a boiler explosion) putting the main powerhouse out of commission.

In completing the power plant on the main island it is proposed to install the following machinery, viz:

1 350 horsepower turbogenerator, with necessary foundations, steam, electric and exhaust connections.

2 150 horsepower turbogenerators.....do.....

1 large and complex switchboard, that will serve for present conditions as well as possible future growth.

1 feedwater-heating system, necessary to operate the machinery to be installed

Complete pipe covering, including the covering of newly installed smoke breeching, exhaust fan, and draught apparatus

Complete hot water heater system for domestic supply of all buildings on main island, replace inadequate system now in use which is too small and partly worn out

In connection with the foregoing, there must be provision made for removing a portion of the old machinery now in temporary use and which it is proposed to utilize in other places, after suitable overhauling, including the furnishing of foundations for such machinery.

In putting in new equipment it is necessary to furnish and fit temporary electric connections so that there may be no stoppage of the service by the old plant. This same condition applies to temporary steam, exhaust, and heater connections, in order to maintain uninterruptedly the service of the present plant while the new work is being installed.

The estimate of $81,000 also contemplates the installation of "cross connections" between No. 1 and No. 3 islands, for pumping saltwater used for flushing purposes, thus preventing an unsanitary condition in the event of failure of the freshwater supply and promoting economy in the use of freshwater.

In conclusion, it should be added that the estimate of $81,000 is based upon a very conservative estimate as to the cost of the respective items, including complete installation, as a result of extended experience in the construction work carried on at Ellis Island during the past several years. The amount is not high, when the magnitude and difficulties of installation are considered.

June 5th, 1909 Statement showing electric power required, (both in kilowatts and horsepower) to operate and light the buildings of the U.S. Immigrant Station, Ellis Island, N.Y.H.

	For Power Purposes No. of electric motors	Purpose used	H.P.	K.W.
Main building	15	Ventilation	126	91.
" "	2	Elevators	18	13.5
" "	1	Escalator	15	11.3
" "	14	Laundry	39	29.7
Coal Hoist	1	Elev. coal	15	11.3

Powerhouse		4	Pumps	120	90.
Hospitals		3	Elevators	35	26.1
"		2	Ventilation	15	11.3
"		6	Laundry	19	14.1
	Total -	48	Total -	402	298.3

Number of electric lights and equivalent in power required

Main Island No. 1	No. of Incandescent lights	H.P.	K.W.
Main Building	1859		
Kitchen and Laundry	246		
Powerhouse	179		
2 Portable pavilions	234		
Ferry House	10		
Waiting Room	34		
R.R. Ticket Office	162		
Baggage & Dormitory Building	1120		
Total -	3844	326	245
Hospital Island No. 2			
Hospital	287		
Hospital Extension	421		
New " "	430		
Insane Ward	116		
Laundry	56		
Cottage	50		
Total -	1360	120	90
New Island No. 3			
Administration Building	273		
Eight (8) Measles Wards	1562		
Three (3) Isolation Wards	714		
Power House	182		
Staff House	149		
Office Building	111		
Kitchen	26		
Mortuary	7		
Corridor	40		
Total -	3064	269.2	202
Total for light		715.2	537
Total for power		402.	298.3
Grand total - - - - - - - - -		1117.2	835.3

There are at present in main powerhouse, two units with an output of 200 K.W. or 266 H.P. It is proposed to install three additional units with an

output of 600 K.W. or 800 H.P., making a total of 800 K.W. or 1066 H.P. for this power house, while the powerhouse on No. 3 Island will have an output of 225 K.W., or 300 H.P.

SOURCE: Commissioner-General to Secretary of Commerce and Labor, June 8, 1909, RG 85, NA.

APPENDIX I

List of Approved Extra Work on
Baggage and Dormitory Building,
August 16, 1909

ITEM 1. The original specification for the construction of this building did not contain any clause for backing the limestone. Said backing was absolutely necessary in order to prevent serious discoloration of said stone. After a telephonic conversation with the Supervising Architect of the Treasury Department, I ordered the work referred to. I coincide with the recommendation of Civil Engineer Howell as to the reduction in the amount to be allowed for masons' pay, in order to make same uniform with the rate adopted by the Building Trades of New York City.

ITEM 2. It was necessary to perform the additional work of steel framing through an error in the Department's plans for which neither this office nor Civil Engineer Howell is responsible, - the plans having been prepared in Washington. The matter was taken up with the Supervising Architect of the Treasury Department, and I ordered said extra work performed as an absolute necessity. I have previously disallowed a charge for the services of a foreman, because required under the general provisions of this contract and a special foreman for certain minor details were certainly not essential. The price for labor should be reduced from 90 cents an hour to 60 cents, in order to comply with the prevailing rate of wages at this port for similar services.

ITEM 3. It was necessary to provide the ventilators under flooring referred to although no ventilators were called for in the original drawings. They were obviously necessary for sanitary reasons. The price quoted is reasonable and just. The cost of each of the six holes cut amounts to $30.

ITEM 4. The additional leaders from roof houses were necessary and the price charged therefor, $14., each, is just and reasonable.

ITEM 5. The price charged, $20., for certain painting in renovating a portion of railway ticket office, forming sidewall for the corridor, is just and reasonable.

ITEM 6. In view of the fact that the veneered doors originally specified would not stand the weather, I believe that the contractors are justly entitled to the extra charge for the two solid pine doors referred to under this item. They cost $7. each.

ITEM 7. This covers the lathing and plastering of ducts which in the original plans were shown as openings in ceiling of baggage rooms. These openings were incidentally serving no practical purpose and in the event of fire in the baggage room would probably carry smoke to the dormitories, and might thus incidentally cause or increase panicky conditions, hence the closing of said openings were ordered. The price charged for this work, $170., is regarded as reasonable.

ITEM 8. This item covers certain excavation of trenches between powerhouse and new baggage and dormitory building. It was obviously necessary to carry steam and other piping to this building from the powerhouse and plans that we had prepared for concrete pipe tunnel did not receive favorable consideration or at any rate no money was appropriated therefor. Hence, need of the excavation herein referred to. A wooden box was installed in the trench and this box now carries both the steam and electrical connections. Civil Engineer Howell states that the labor account agrees with his records.

ITEM 9. As regards Item 9, this is a claim that the contractors made for extra compensation for removal of the engine foundations, concrete walks and pipe tunnels that were uncovered in the excavation for the foundation work of this building. The matter for a recomendation for allowance of this claim depends upon the interpretation of the specifications prepared in the Supervising Architect's Office, Treasury Department, under which this building was constructed, and I have this date asked said office for their interpretation and a ruling on this matter.

ITEM 10. This covers the cost of two "I" beams necessarily installed to carry wall over second story corridor; the Architect's plans showed no support for this wall; and the work was necessary. The price charged therefor is reasonable with the exception of services of six hours for a foreman. This is disallowed in accordance with my previous expressed policy, - the specifications already requiring a foreman on this work.

ITEM 11. This covers the setting of plate glass in fan lights over the baggage rooms. I had previously disallowed this claim on the ground that the said work was required by the specifications governing the contract. The contractors can take an appeal to the Department through your office if they so desire.

ITEM 12. This item covers cost of making a change in the ceiling line of stairway. The Architect's plans for this portion of the work were in error, and the height of lathing and plastering had to be changed to afford proper head room over the stairway. The price charged for this work is deemed just and reasonable.

ITEM 13. This item covers the cost of water-proofing the cellar below tide level. This is really a matter of accepting a proposal heretofore made by this Company, under authority granted by the Bureau, in amount $190. This item should be separated from this account and a bill rendered therefor.

ITEM 14. This item covers the cost of excavation for pipe trenches in baggage and dormitory building. Civil Engineer Howell states that the contractors had submitted a bid for excavation at the unit rate of 75 cents per yard; that the quantity stated, 740 yards, is correct. I agree with Civil Engineer Howell's views of this matter so far as the original cost of excavation and removal of spoil is concerned.

As regards the charge for clearing out trenches and removing spoil under floors of building, after piping had been laid, I have to state that I do not consider that the New York State Construction Co. are responsible

for the caving of trenches referred to. It was needful to perform this work, and Civil Engineer Howell certifies as to the accuracy of the time and labor account, hence I am willing to recommend the payment of this item.[1]

Relative to Item No. 9, Fry wrote on August 16:

(1) Under date of August 12 the Supervising Architect informed me that his office believed my interpretation of this work should govern.
(2) Somewhat reluctantly I am forced to the conclusion that said item 9, in amount $801.00, for said extra work should be allowed.

(a) Because the specifications did not require the contractors to remove, without charge to the Government, any and all obstructions which might be encountered in excavating for foundations of the new Baggage and Dormitory Building without regard to the depth or character of said obstructions.

(b) I believe it was impractible for bidders on this work to determine either the character, location or depth of all obstruction known to exist that would interfere with the installation of new foundations, for said Baggage and Dormitory Building, that the successful bidder might be required to install in the event of his being the contractor thereof.

As a matter of fact it is proper to record that the larger portion of said concrete foundations, etc., which these contractors had to remove, in order to install their new work, was more than seven feet beneath the surface of the ground where their excavation was carried on.[2]

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1. Fry to Commissioner of Immigration, Port of New York, Aug. 10, 1909, RG 85, NA.

2. Ibid., Aug. 16, 1909.

APPENDIX J

Background Proposal for Construction of Third Story on Baggage and Dormitory Building, June 1911

While the special inquiry day detention quarters have now been rendered entirely adequate, yet this is not the case with some of the other detention quarters, particularly those on the upper floor of what is known as the new baggage and dormitory building, in most respects an excellent one, constructed under the previous administration. The law requires all immigrants who are not "clearly and beyond a doubt entitled to land" to be held, and during months when 75,000 to 100,000 arrive, many of an inferior class, it will readily be seen how we may come to have a large number of night guests. Frequently there are as many as 1,800 or 2,000, and yet there are on Ellis Island not over 1,800 beds, almost all in tiers of three each. In the largest men's dormitory the beds number 432 and the width of the passageway between each line of tiers is only 2 feet. When all of the beds are occupied, as frequently they are, the congestion in this room is very great, and since it has only an easterly exposure the temperature on summer nights may be 100°.

In addition, the ventilation is very imperfect. Unfortunately it is necessary to use it also as a day room, though being encumbered with beds it is obviously inappropriate for this purpose. It is often necessary to detain occupants of this room a week, especially those who are excluded, since the lines bringing them usually send out their steamers only once a week. The conditions in the other large dormitories are not unlike those just described. It is also to be remembered that the habitats of some immigrants are cleanly, of others filthy. The two kinds object seriously to detention in the same room and those of cleanly habits often say unpleasant things of the others, yet we are unable, for lack of space, to separate them as they should be separated.

I recommend that an adequate number of well-ventilated dormitories be created, with beds in tiers of two instead of three, and that separate day rooms be installed. In my request for appropriations already submitted I have pointed out a simple means of doing this through the erection on the dormitory building, at an expense of about $375,000, of a new story with out-of-door porches or verandas for each floor on the northerly side. There is no reason why this story should not in its way prove as advantageous as the new story erected last year on the west wing of the main building. The responsibility for the continuance of the bad conditions described in the dormitories must rest with Congress. The executive authorities cannot remedy them until Congress furnishes the means.

BIBLIOGRAPHY

MANUSCRIPT MATERIALS

Documents

Denver. National Park Service. Denver Service Center. Ellis Island Architectural and Maintenance Records, 1898-1955.

The documents in this collection relate to the architectural and maintenance history of Ellis Island and consist of approximately 6,540 items, which fall largely in the time period from the late 1920s to the early 1940s. However, there are a significant number of documents from the period 1899 to 1901. The items include invitations, bids, specifications, contracts, and correspondence relating to work contracted. The remainder consists of records relating to supplies, services, technical literature, and government publications. The majority of records were those kept by H.L. Booth, chief of maintenance and plant engineer, from the 1930s until the close of the island in 1954. This collection was in storage both at Ellis Island and at Federal Hall National Memorial for many years before being shipped to the Denver Service Center in 1977 where it was inventoried and processed by Laurie Simmons under contract.

Suitland, Maryland. National Archives. Washington National Records Center. Record Group 121, Records of the Public Buildings Service.

This record group has documents that relate to Ellis Island under three categories: Title Papers, 1838-1943; General Correspondence--General Correspondence and Related Records, 1910-1939; and General Correspondence--Letters Sent, Chiefly by the Supervising Architect, 1888-1912. Although there are no specifications, contracts, or drawings in this collection, there is much valuable construction-related correspondence, particularly for the period 1897-1902. The letters sent by the supervising architect during this period are especially helpful in gaining insights into the preparations for construction and the actual erection of the buildings.

Washington, D.C. National Archives. Record Group 85, Records of the Bureau of Immigration and Naturalization, 1906-1932.

This record group consists of hundred of volumes and boxes of correspondence files covering the work of the Bureau of Immigration and Naturalization and its predecessor organizations. Some 500 boxes, containing more than 55,000 items and covering the period 1906-1932, are indexed. Of these, more than 50 boxes contain numerous invitations, bids, plans, drawings, specifications, contracts, and construction-related correspondence relative to the Ellis Island buildings.

Washington, D.C. Library of Congress.

The following reports were consulted in the course of research as they provide valuable insights into the conditions and administration of Ellis Island as well as debates on immigration and immigration policy that affected developments on the island. The most detailed and illuminating of these for the purposes of this study were the Despatch from H.M. Ambassador at Washington and the Report of the Ellis Island Committee. They are in the Library of Congress.

"Ellis Island, New York: Annual Report of the Commissioner of Immigration for the Port of New York With Reference to Ellis Island Affairs for the Year Ended June 30, 1911." Washington, 1911.

"Report of the Commission Appointed by the President on September 16, 1903, to Investigate the Condition of the Immigration Station at Ellis Island." Washington, 1904.

"Report of the Ellis Island Committee, March 1934." New York, 1934.

"Report of the Immigration Investigating Commission to the Honorable the Secretary of the Treasury." Washington, 1895.

"Despatch from H.M. Ambassador at Washington Reporting on Conditions at Ellis Island Immigration Station." London, 1923.

"Ellis Island Affairs: Annual Report of William Williams, Commissioner of Immigration at New York In Reference to Ellis Island Affairs for the Year Ended June 30, 1912." Washington, 1913.

U.S. Department of Justice, Immigration and Naturalization Service. "Annual Report of the Commissioner-General of Immigration . . ., 1897-1931."

The annual reports of the Commissioner-General of Immigration were invaluable in the preparation of this report. The reports generally list the improvements made and contemplated at the various immigration stations as well as budget requests and fiscal data. They often include the reports, or extensive extracts therefrom, of the commissioners at Ellis Island.

"Annual Report of the Immigration and Naturalization Service . . ., 1941-1955."

These reports were of minimal value with the exception of data relative to alterations in the main building during the early 1950s.

_____. _____. U.S. Congress, House. "Ellis Island Immigration Station: Hearings Before the Committee on Immigration and Naturalization, House of Representatives, Fourth Congress, First Session, on H. Res. 317, Friday, July 28, 1916." Washington, 1916.

"Conditions at Ellis Island: Hearings Before the Committee on Immigration and Naturalization, House of Representatives, Sixty-Sixth Congress, First Session, November 24, 26, 28, 1919." Washington, 1919.

_____. _____. U.S. Department of Labor, Immigration Service. Visitor's Guide to Ellis Island. New York, 1921.

"Tenth Annual Report of the Secretary of Labor for the Fiscal Year Ended June 30, 1922." Washington, 1922.

"Twenty-Second Annual Report of the Secretary of Labor for the Fiscal Year Ended June 30, 1934." Washington, 1935.

_____. _____. U.S. Department of the Treasury. "Annual Report of the Secretary of the Treasury on the State of the Finances . . ., 1890-1904."

These reports provide general information concerning the first immigration station on Ellis Island (1892-1897) and preparations for the construction of the new buildings after the disastrous fire in June 1897.

"Annual Report of the Supervising Architect to the Secretary of the Treasury . . ., 1890-1904."

These reports provide valuable information concerning the contracts and course of construction of both the first immigration station on Ellis Island and the new buildings after the fire in 1897. The construction of both the first station and the new structures was carried out under the general supervision of the Office of the Supervising Architect.

Photographs

The best collections of historic photographs concerning the buildings on Ellis Island are found in the Library of Congress and the National Archives. The collections at the New-York Historical Society and the New York Public Library are primarily immigrant-oriented rather than building-related.

New York, New York. New-York Historical Society. Print Room.

_____. New York Public Library. Picture Collection.

Washington, D.C. Library of Congress. Prints and Photographs Division.

_____. National Archives. Audiovisual Archives Division. Still Picture Branch.

Plans and Drawings

Denver. National Park Service. Denver Service Center. Architectural Drawings of Buildings on Ellis Island, New York Harbor.

Approximately 1,000 architectural drawings (including site plans, foundation plans, floor plans, elevations, sections, details, schedules, structural drawings, mechanical drawings, and electrical drawings) of the Ellis Island buildings are on file at the Denver Service Center. Among the highlights are a large number of drawings by Boring & Tilton dating from the 1898-1901 period and 42 drawings of the original buildings which were destroyed by fire in 1897. The drawings are described in "A Calendar of Architectural Drawings of Buildings on Ellis Island, New York Harbor In the Custody of the National Park Service" by Jerry Minkoff.

Washington, D.C. National Archives. Cartographics Division.

There are few items of value in the collections of this division, with the exception of an unlabeled drawing of the original wooden building on Ellis Island.

OTHER WORKS

Books

The most important of these volumes is Thomas M. Pitkin's Keepers of the Gate--the standard documentary history of Ellis Island. It is a valuable tool for reference work and general historical perspective. Other volumes that were often referred to during the preparation of this report include Edward Corsi's In the Shadow of Liberty, which describes the conditions and activities on Ellis Island in the early 1930s and contains excerpts from his personal interviews with many long-time employees on Ellis Island, and Henry H. Curran's book of memoirs, Pillar to Post, which provides his reminiscences about the administration of Ellis Island in the mid-1920s. Victor Safford's Immigration Problems offers the reminiscences of a medical officer who served at Ellis Island during the late 1890s and early 1900s. Short and Stanley-Brown's Public Buildings gives the only published information on the new ferry house built in the 1930s. The remainder of the volumes offer insights into the treatment of the aliens, personal reminiscences of conditions on Ellis Island, or short general historical studies of the immigration station. Tifft's Ellis Island contains one of the largest collections of published historical and current photographs of the island showing both its colorful past and its present-day state of deterioration. The Dictionary of American Biography, The National Cyclopedia of American Biography, Withey and Witheys' Biographical Dictionary of American Architects provide valuable biographical sketches of William A. Boring and Edward L. Tilton, the architects for the new structures erected after the 1897 fire.

Adamic, Louis. Laughing in the Jungle: The Autobiography of An Immigrant in America. New York, 1932.

Appletons' Annual Cyclopedia and Register of Important Events of the Year 1892. New York, 1893.

Appletons' Annual Cyclopedia and Register of Important Events of the Year 1899. New York, 1900.

Brandenburg, Broughton. Imported Americans. New York, 1904.

Corsi, Edward. In the Shadow of Liberty. New York, 1935.

Curran, Henry H. Pillar to Post. New York, 1941.

Dictionary of American Biography, 28 and 11 (Supplement 2).

Divine, Robert A. American Immigration Policy: 1924-1952. New Haven, 1957.

Graham, Stephen. With Poor Immigrants to America. New York, 1914.

Handlin, Oscar. The Uprooted: The Epic Story of the Great Migrations that Made the American People. Boston, 1951.

Heaps, Willard A. The Story of Ellis Island. New York, 1967.

Jones, Maldwyn A. Destination America. New York, 1976.

La Guardia, Fiorello H. The Making of an Insurgent: An Autobiography, 1882-1919. Philadelphia, 1948.

Mathelier, Clement. New York City or The Story of Ellis Island. Port-au-Prince, 1940.

Novotny, Ann. Strangers at the Door: Ellis Island, Castle Garden, and the Great Migration to America. Riverside: Chatham Press, 1971.

Pitkin, Thomas M. Keepers of the Gate: A History of Ellis Island. New York: New York University Press, 1975.

Safford, Victor. Immigration Problems: Personal Experiences of An Official. New York, 1925.

Severn, William. Ellis Island: The Immigrant Years. New York, 1971.

Short, C.W., and Stanley-Brown, R. Public Buildings: A Survey of Architecture of Projects Constructed by Federal and Other Governmental Bodies Between the Years 1933 and 1939 With the Assistance of the Public Works Administration. Washington, 1939.

Steiner, Edward A. On the Trail of the Immigrant. New York, 1906.

The National Cyclopedia of American Biography, 11 and 28.

Tifft, Wilton. Ellis Island. New York, 1971.

Withey, Henry F., and Withey, Elsie Rathburn, Biographical Dictionary of American Architects. Los Angeles, 1956.

Periodicals

The periodical press showed active interest in the construction and operation of Ellis Island from the early 1890s until the mid-1920s. Thomas M. Pitkin's "High Tide At Ellis Island" is an excellent summary of the significant historical events at Ellis Island, especially prior to World War I. Julian Ralph's "Landing the Immigrants" is one of the best contemporary descriptions of the first immigration station. Hamlin and Lamb's "The New York Architectural League Exhibition" and "The New York Immigrant Station" in the Architectural Record are two of the best examples of contemporary professional analysis of the architectural plan and style of the main building built by Boring & Tilton. William A. Boring's "Building-Construction Under the Tarnsey Act and Suggestions for Modifying the Regulations Thereof" is an excellent critique of the problems encountered in the construction of the new buildings on Ellis Island after the fire in 1897. In the article entitled "The Influence of the Ecole Des Beaux Arts Upon American Architecture," an anonymous writer traces the influence of the Ecole on American architects, such as William A. Boring and Edward L. Tilton, at the turn of the 20th century.

Abbott, Ernest Hamlin. "America's Welcome to the Immigrant." Outlook 72 (October 4, 1902):256-64.

Angus, Robert. "The Story of Ellis Island." American Legion Magazine, April 1969, pp. 20-25, 44-46.

Boring, William A. "Building-Construction Under the Tarnsey Act and Suggestions for Modifying the Regulations Thereof." American Architectural Building News 74 (November 9, 1901):45-47.

DeBogory, Natalie. "Practical Americanism at Ellis Island." Outlook 130 (February 9, 1922):223-24.

"Ellis Island." Independent 111 (September 29, 1923):125-26.

"Ellis Island: A Red Rag to John Bull." Literary Digest 78 (September 22, 1923):23-24.

"Ellis Island: Stirring Up the British." Literary Digest 78 (September 1, 1923):17-19.

"Ellis Island 1950." Life 29 (November 13, 1950):123-27.

Emerson, Edwin, Jr. "The Threshhold of America," Harper's Weekly, February 26, 1898, p. 210.

Hamlin, A.D.F., and Lamb, F.S. "The New York Architectural League Exhibition." Architectural Review 1 (April 1899):39-53.

Harrington, John W. "The New Clearinghouse for Immigrants." Harper's Weekley 45 (January 19, 1901):73.

"How the Immigration Law Works." Survey, January 15, 1925, 441-44.

"Immigrants at Ellis Island." Outlook, March 25, 1905, pp. 730-32.

Kerr, Frances W. "Ellis Island." Immigration and Naturalization Service Monthly Review 6 (May 1949):144-45.

"Kind Words for Ellis Island." Literary Digest 80 (March 8, 1924):46-48.

"Making the Immigrant Unwelcome." Literary Digest 69 (April 30, 1921):34, 36.

McClymer, John F. "The Federal Government and the Americanization Movement, 1915-24." Prologue: The Journal of the National Archives 10 (1970):23-41.

Pitkin, Thomas M. "High Tide at Ellis Island." New-York Historical Society Quarterly 52 (October 1968):311-53.

Ralph, Julian. "Landing the Immigrants." Harper's Weekly (October 24, 1891), p. 821.

Reed, Alfred C. "The Medical Side of Immigration." Popular Science Monthly 80 (April 1912):383-92.

Riis, Jacob A. "In the Gateway of Nations." Century 64 (March 1903):674-82.

Sayles, Mary B. "The Keepers of the Gate." Outlook 87 (December 28, 1907):913-23.

"The Growth of Ellis Island." Scientific American 120 (April 26, 1919):423, 427, 442.

"The Influence of the Ecole Des Beaux Arts Upon American Architecture," Architectural Record (January 1901), pp. 66-88.

"The New York Immigrant Station." Architectural Record 12 (May-December 1902):727-33.

"The Open Door for Immigrants." Harper's Weekly (April 14, 1906), pp. 517-19.

Waggaman, Mary T. "Immigrant Aid: Legislative Safeguards, and Activities of Bureau of Immigration." Monthly Labor Review 16 (February 1923):22-35.

Newspapers

The New York newspaper press showed active interest in Ellis Island, particularly during the period from 1890 to the early 1920s. At some points, where gaps appeared in the official records, the newspapers were relied upon to produce a coherent narrative. Newspapers were used largely in the order of their accessibility, using the published index of the New York Times and following up leads in all three sources.

New York Times, 1890-1954.

New York Tribune, 1890-1900.

New York World, 1890-1892.

Technical Studies

Of these studies the two most important were those by Pitkin. Both were prepared for the National Park Service and served as precursors for his Keepers of the Gate. George J. Svejda's "Castle Garden As An Immigrant Depot, 1855-1890" covers the period preceding the establishment of the federal immigration station on Ellis Island and offers a detailed explanation of the choice of Ellis Island as the site for the new reception center. The two short historical sketches of Ellis Island by the Immigration and Naturalization Service describe the conditions and changes at Ellis Island in its last decade of existence.

U.S. Department of the Interior. National Park Service. "Ellis Island." Prepared by Sidney Berengarten under Civil Works Administration for the Office of National Parks, 1934.

"Preliminary Historical Research Report on Ellis Island," by Thomas M. Pitkin, 1965.

"Report on Ellis Island As An Immigrant Depot, 1890-1954," by Thomas M. Pitkin, 1966.

"History of Ellis Island," by Rudolph Reimer. New York, 1938.

"Castle Garden As An Immigrant Depot, 1855-1890," by George Svejda, 1968.

United States Department of Justice, Immigration and Naturalization Service. "History of Ellis Island, New York." October 1947.

"History of Ellis Island, New York." December 1952.

ILLUSTRATIONS

MAIN BUILDING

Ellis Island Structures - 1893

Construction of Main Building - 1899

Construction of Main Building - 1899

Construction of Main Building - 1899

Construction of Main Building - 1899

Construction of Main Building - 1900

Construction of Main Building - 1900

Construction of Main Building - 1900

Construction of Main Building - 1900

Main Building - 1901

Processing of Immigrants - 1904

Main Building and Boats - 1905

U.S. Inspectors Examining Immigrants' Eyes - ca. 1904

Immigrants Waiting to Enter Main Building - ca. 1904

OTHER BUILDINGS

Boiler House - 1901

Kitchen and Restaurant Building - 1901

Ferry House - 1901

Surgeon's House - 1901

Immigrants Eating - 1907

Main Hospital Building - 1901

Administration Building of Contagious Disease Hospital - 1907

Contagious Disease Hospital Ward - 1907

Measles Wards A and E and Powerhouse of Contagious Disease Hospital - 1907

Kitchen and Measles Ward A of Contagious Disease Hospital - 1907

Kitchen of Contagious Disease Hospital - 1907

Measles Ward D and Administration Building of Contagious Disease Hospital - 1907

Additional Story of Baggage and Dormitory Building - 1913

Seawall, Covered Corridor, Mortuary, and Powerhouse - 1934

Seawall, Incinerator, and Powerhouse - 1934

Seawall and Main, Baggage and Dormitory, and Hospital Building - 1934

Seawall - Section 3 (foreground) and Section 2 (background) - 1934

Seawall, Bakery and Carpenter Shop, Powerhouse, and Incinerator -1934

Fill and Landscaping in Progress Between Islands 2 and 3 - 1934

Seawall - Section 2 From Section 3 Showing Backfill - 1934

Ferry House - 1935

Covered Corridor - 1935

Recreation and Shelter Building - 1937

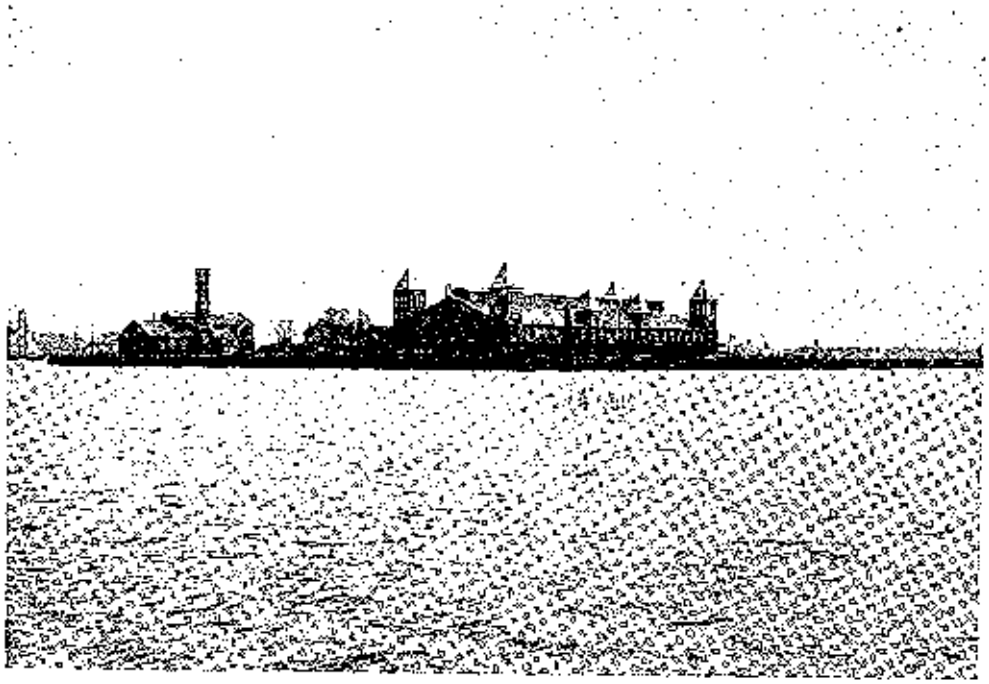
Ellis Island Immigration Station and Contagious Disease Hospital - ca. 1910

Rear View of Hospital Buildings and Partial Fill - Early 1920s

Ellis Island - Early 1930s

Ellis Island - Early 1930s

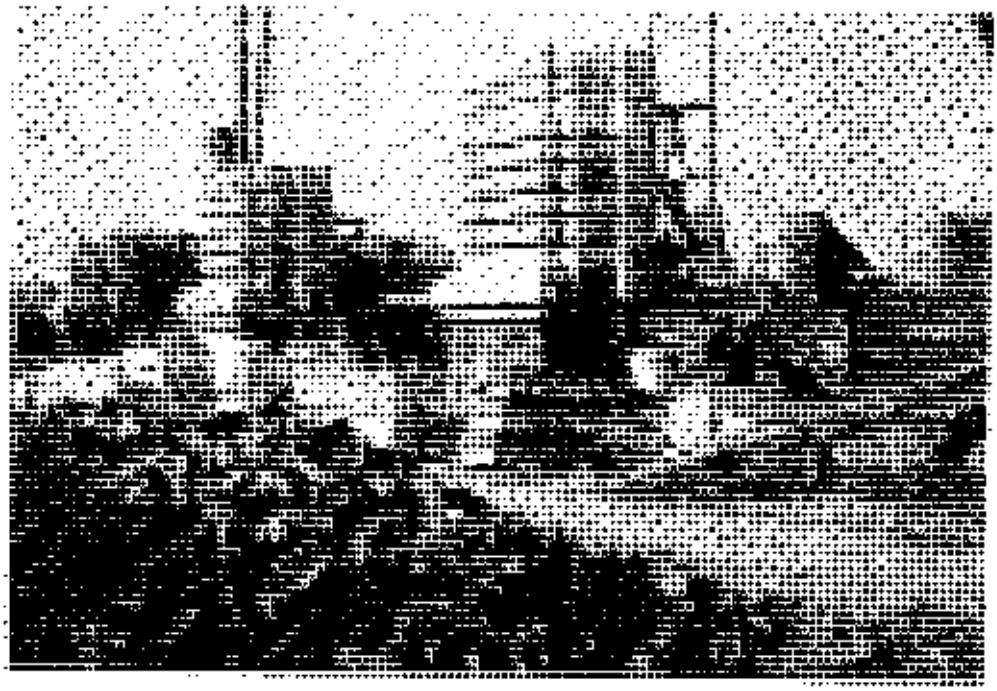
Red Cross Building - Early 1930s



ELLIS ISLAND STRUCTURES, 1893

Photograph taken in 1892 of Ellis Island showing the main building, ancillary structures, and the log-cribbed seawall

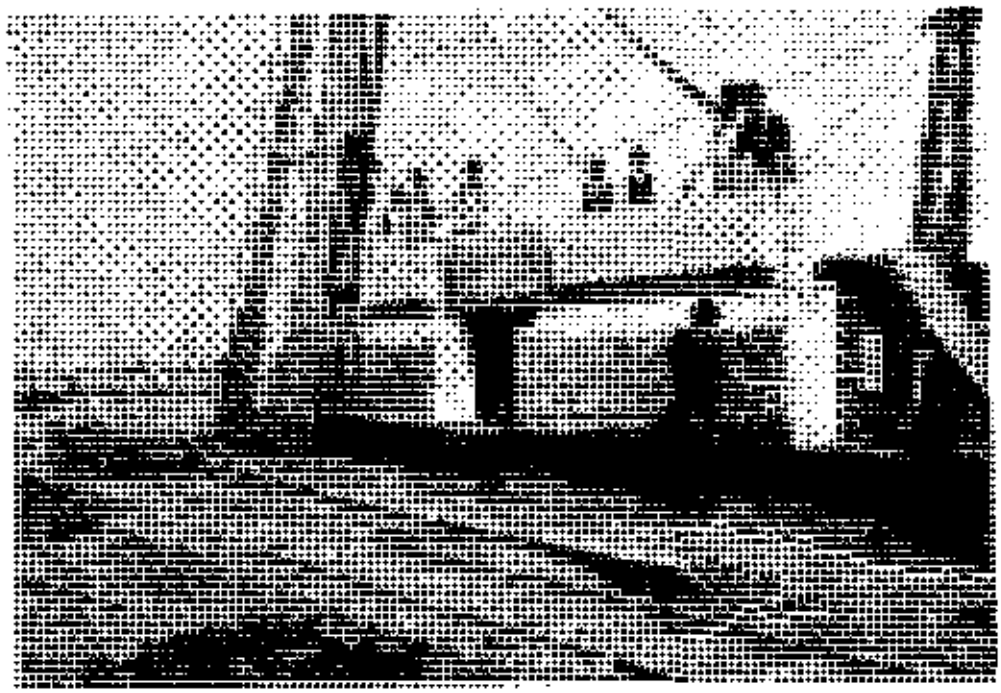
National Archives, Audiovisual Archives Division, Still Picture Branch



CONSTRUCTION OF MAIN BUILDING, 1899

Photograph taken on April 20, 1899, showing construction in progress on the main building

National Archives, Audiovisual Archives Division, Still Picture Branch



CONSTRUCTION OF MAIN BUILDING, 1899

Photograph taken on April 20, 1899, showing construction in progress on the main building

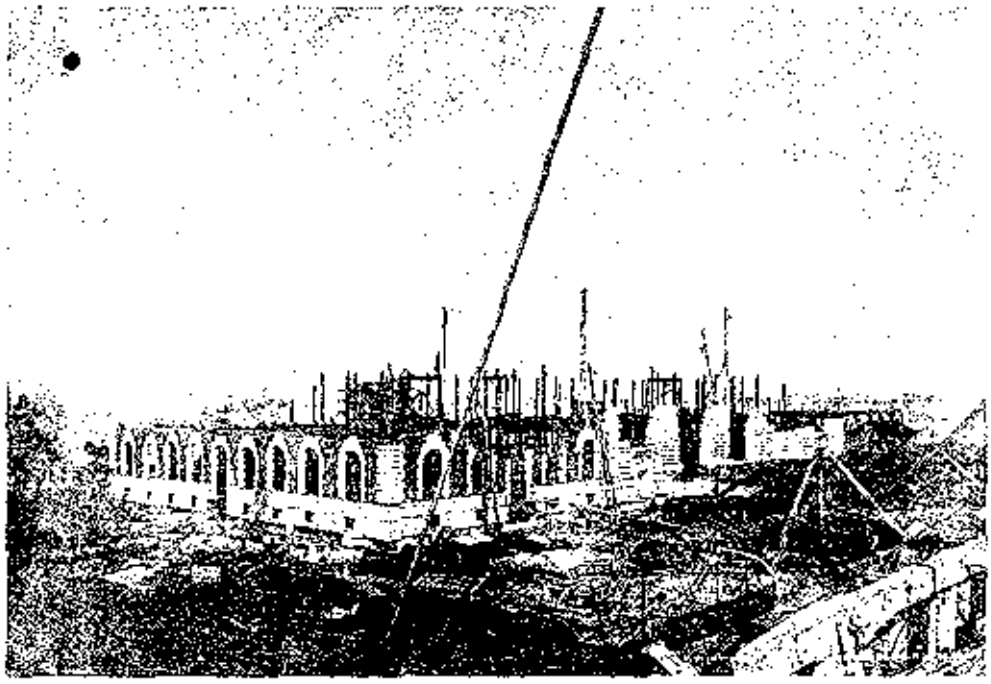
National Archives, Audiovisual Archives Division, Still Picture Branch



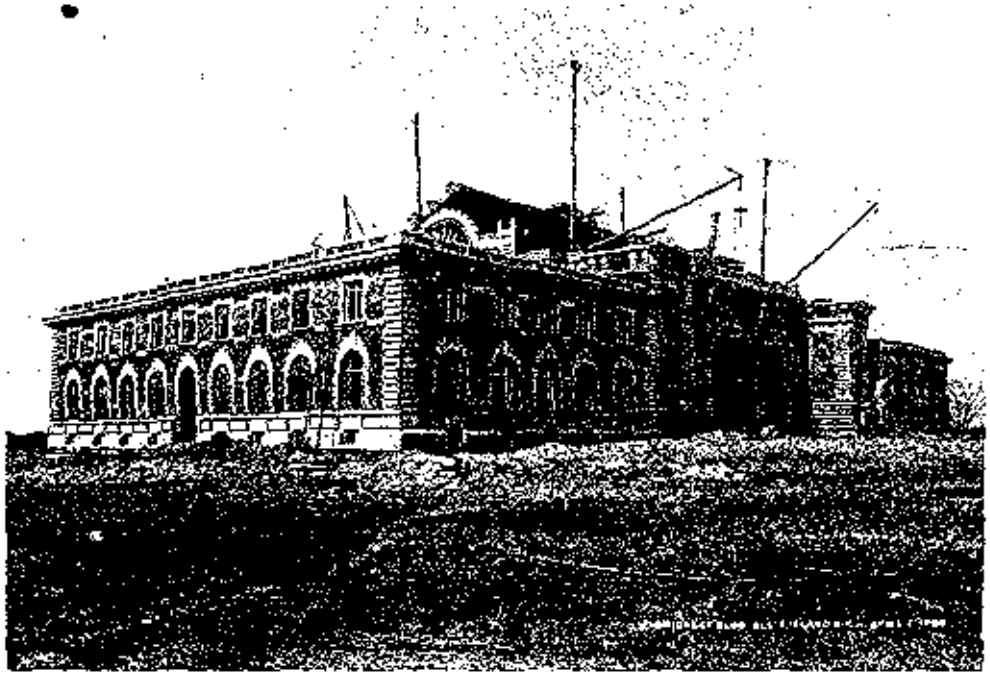
CONSTRUCTION OF MAIN BUILDING, 1899

Photograph taken on June 30, 1899, showing construction in progress on the main building

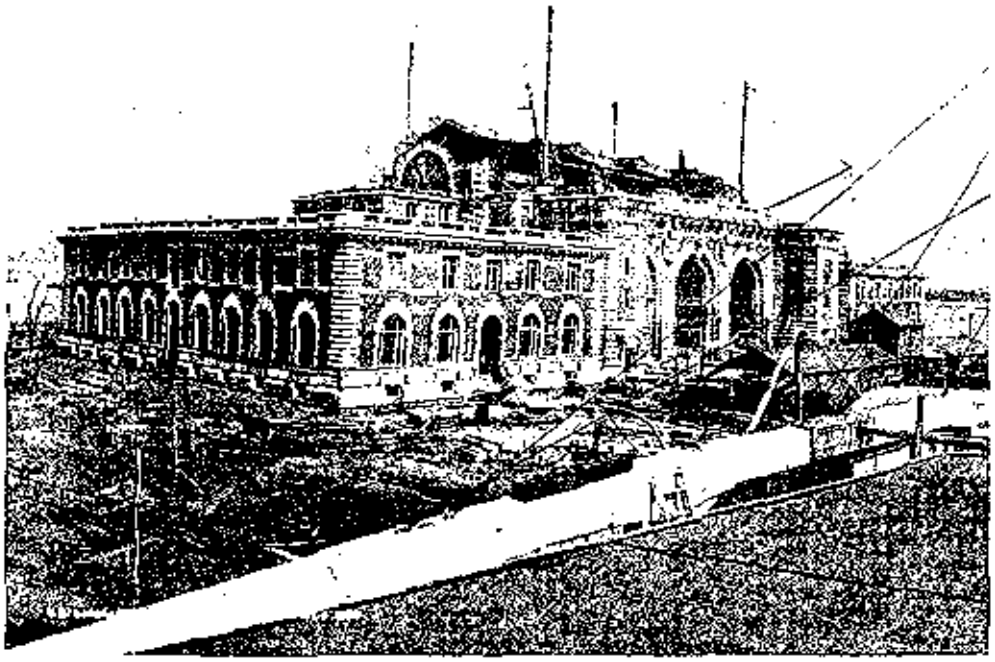
National Archives, Audiovisual Archives Division, Still Picture Branch



CONSTRUCTION OF MAIN BUILDING, 1899
Photograph taken on June 30, 1899, showing construction in progress on main building
National Archives, Audiovisual Archives Division, Still Picture Branch



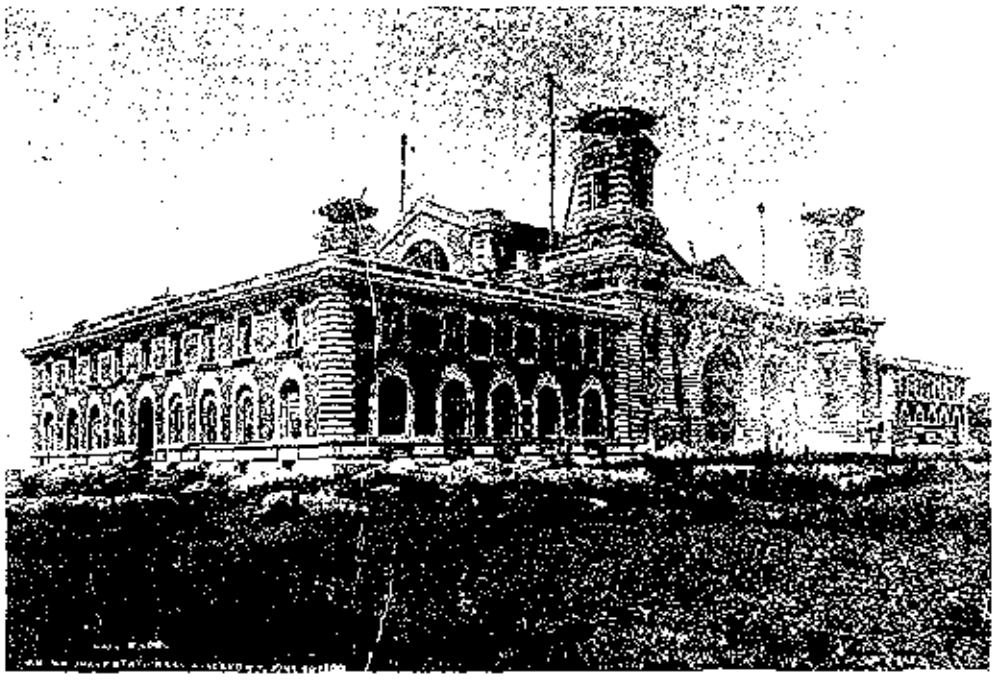
CONSTRUCTION OF MAIN BUILDING, 1900
Photograph taken on April 2, 1900, showing construction in progress on main building
National Archives, Audiovisual Archives Division, Still Picture Branch



CONSTRUCTION OF MAIN BUILDING, 1900

Photograph taken on April 2, 1900, showing construction in progress on the main building

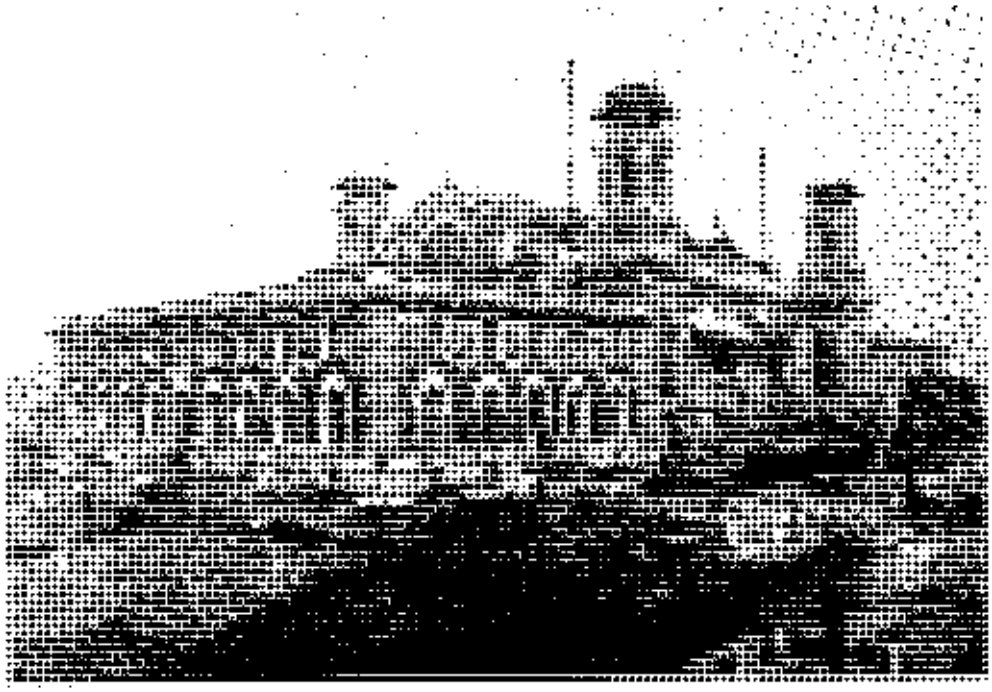
National Archives, Audiovisual Archives Division, Still Picture Branch



CONSTRUCTION OF MAIN BUILDING, 1900

Photograph taken on June 30, 1900, showing construction in progress on main building

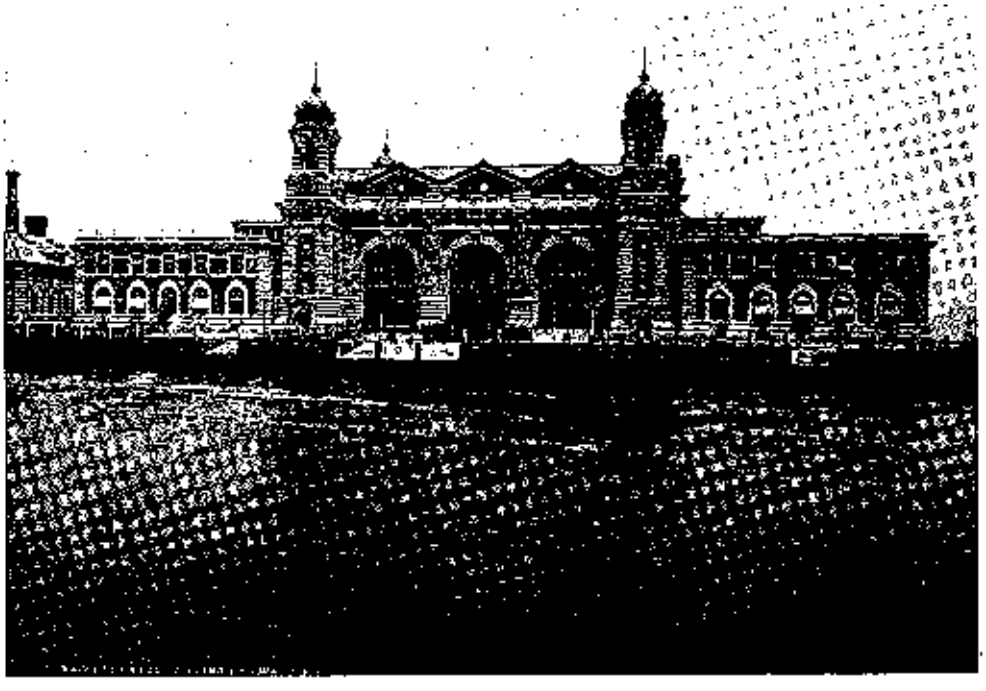
National Archives, Audiovisual Archives Division, Still Picture Branch



CONSTRUCTION OF MAIN BUILDING, 1900

Photograph taken on June 30, 1900, showing construction in progress on main building

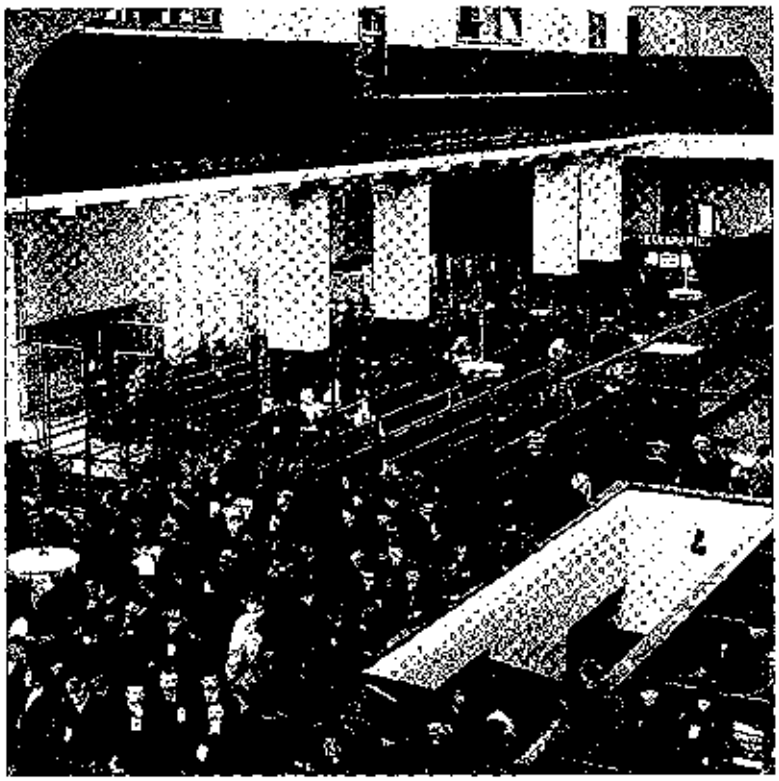
National Archives, Audiovisual Archives Division, Still Picture Branch



MAIN BUILDING, 1901

Photograph taken on June 30, 1901, showing front facade of main building

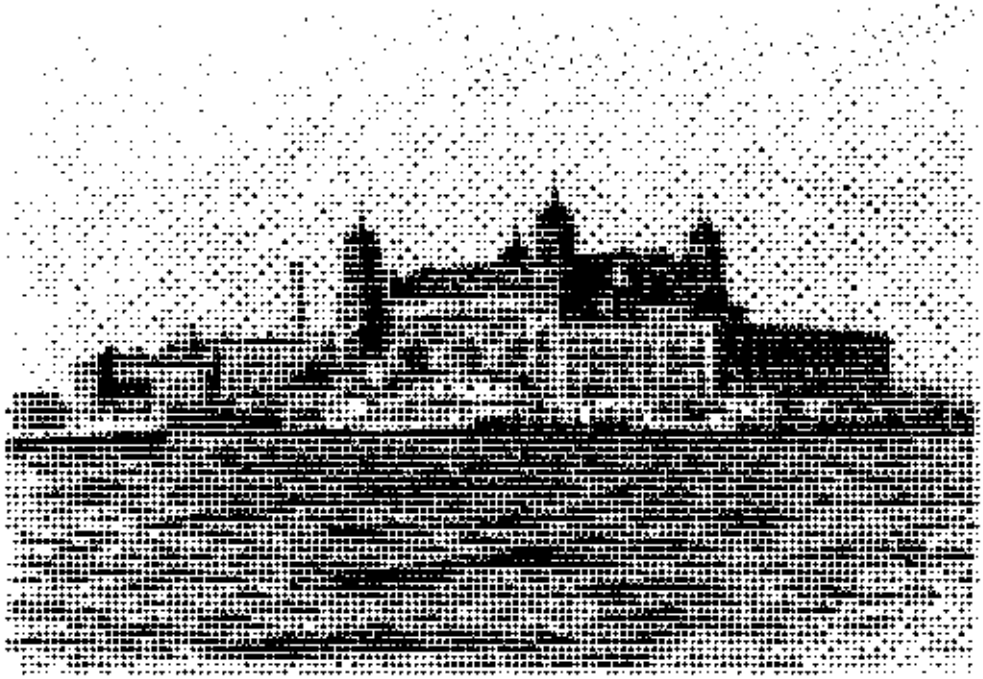
National Archives, Audiovisual Archives Division, Still Picture Branch



PROCESSING OF IMMIGRANTS, 1904

Photograph taken in 1904 showing the processing of immigrants in the main registration and examination hall of the main building

Library of Congress, Prints and Photographs Division



MAIN BUILDING AND BOATS, 1905

Photograph taken in 1905 showing the front and side facades of main building and boats moored at landing in front of building

Library of Congress, Prints and Photographs Division



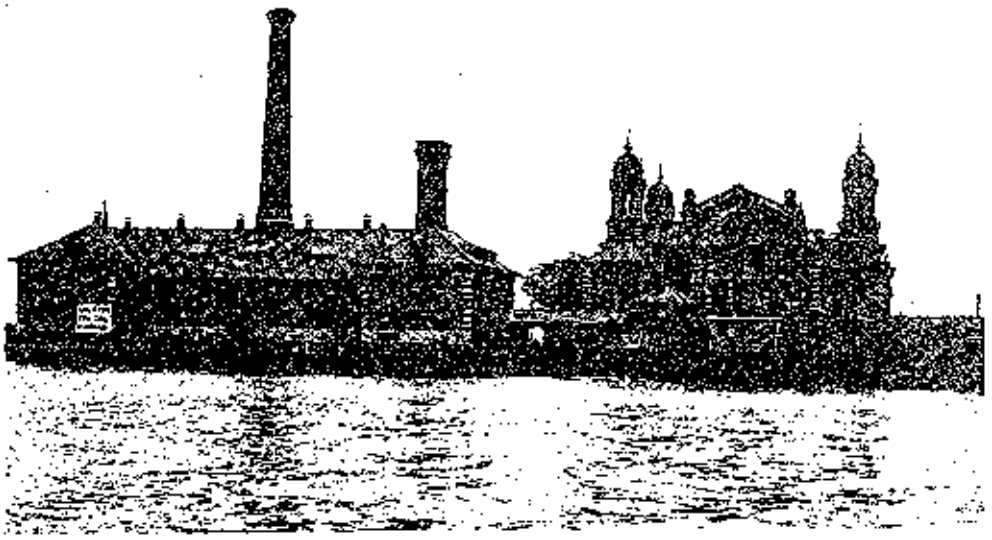
U.S. INSPECTORS EXAMINING IMMIGRANTS' EYES – CA. 1904
Photograph taken ca. 1904 showing U.S. inspectors examining the eyes of immigrants in the main registration and examination hall in main building

Library of Congress, Prints and Photographs Division



IMMIGRANTS WAITING TO ENTER MAIN BUILDING – CA. 1904
Photograph taken ca. 1904 showing immigrants standing in front of covered pavilion and waiting to enter main building

Library of Congress, Prints and Photographs Division



BOILER HOUSE, 1901

Photograph taken on June 30, 1901, showing the boiler house and the side facade of the main building

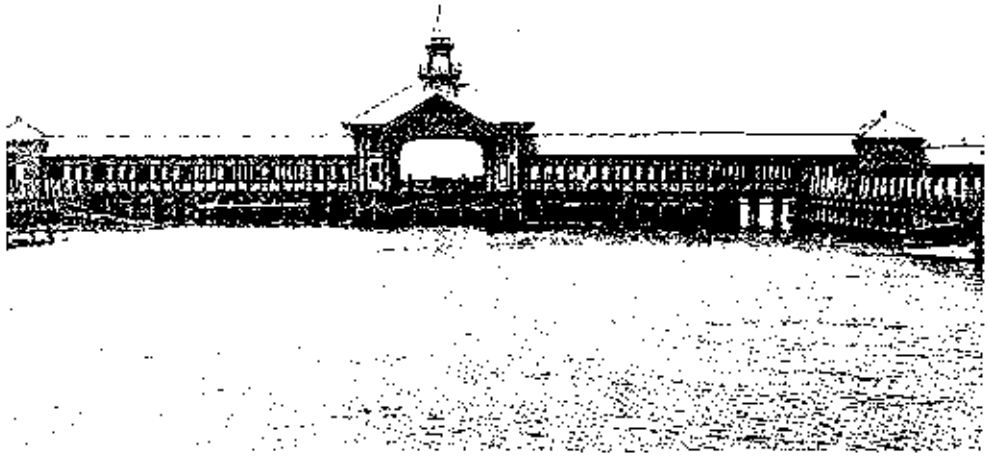
National Archives, Audiovisual Archives Division, Still Picture Branch



KITCHEN AND RESTAURANT BUILDING, 1904

Photograph taken on June 30, 1901, showing the nearly completed kitchen and restaurant building

National Archives, Audiovisual Archives Division, Still Picture Branch



FERRY HOUSE, 1901

Photograph taken on June 30, 1901, showing the ferry slip and ferry house

National Archives, Audiovisual Archives Division, Still Picture Branch



SURGEON'S HOUSE, 1901

Photograph taken on June 30, 1901, showing the nearly completed surgeon's house

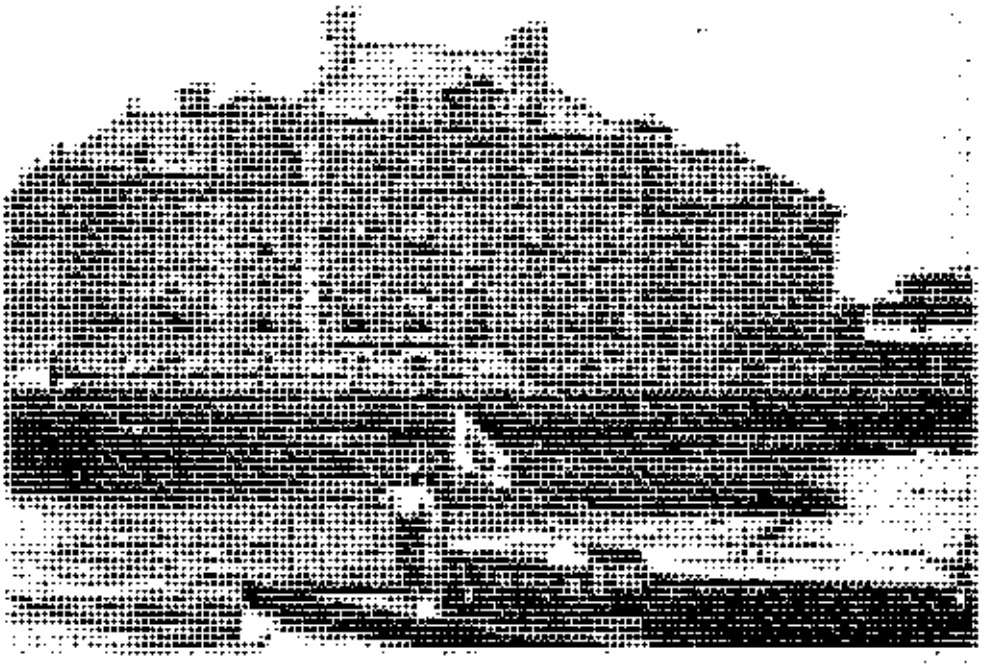
National Archives, Audiovisual Archives Division, Still Picture Branch



IMMIGRANTS EATING — 1907

Photograph taken in 1907 showing immigrants eating in dining room

Library of Congress, Prints and Photographs Division



MAIN HOSPITAL BUILDING, 1901

Photograph taken on June 30, 1901, showing the nearly completed main hospital building on island 2

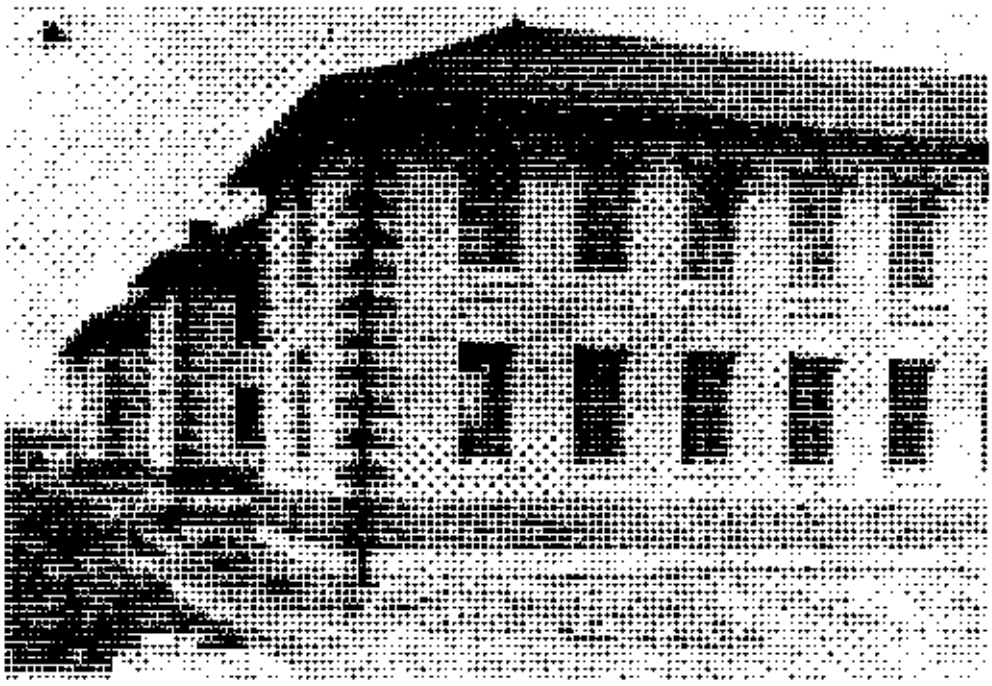
National Archives, Audiovisual Archives Division, Still Picture Branch



ADMINISTRATION BUILDING OF CONTAGIOUS DISEASE HOSPITAL, 1907
Photograph taken on September 9, 1907, showing the nearly completed administration building (looking northwest) of contagious disease hospital on island 3
National Archives, Audiovisual Archives Division, Still Picture Branch



CONTAGIOUS DISEASE HOSPITAL WARD, 1907
Photograph taken on September 9, 1907, showing the administration building (at right) and a ward of the contagious disease hospital on island 3
National Archives, Audiovisual Archives Division, Still Picture Branch



MEASLES WARDS A AND E AND POWERHOUSE OF CONTAGIOUS DISEASE HOSPITAL, 1907

Photograph taken on October 14, 1907, showing the nearly completed measles wards A and E and the powerhouse of the contagious disease hospital on island 3

National Archives, Audiovisual Archives Division, Still Picture Branch



KITCHEN AND MEASLES WARD A OF CONTAGIOUS DISEASE HOSPITAL, 1907

Photograph taken on October 14, 1907 showing kitchen and measles ward A (looking north) of the contagious disease hospital on island 3

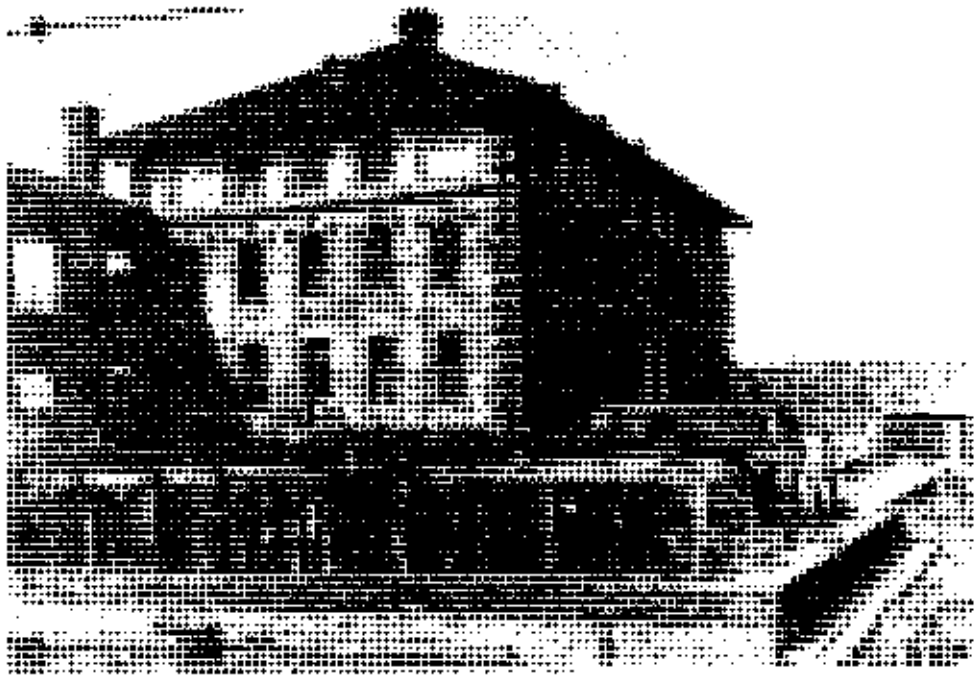
National Archives, Audiovisual Archives Division, Still Picture Branch



KITCHEN OF CONTAGIOUS DISEASE HOSPITAL, 1907

Photograph taken on October 14, 1907, showing the kitchen (looking east) of the contagious disease hospital on island 3

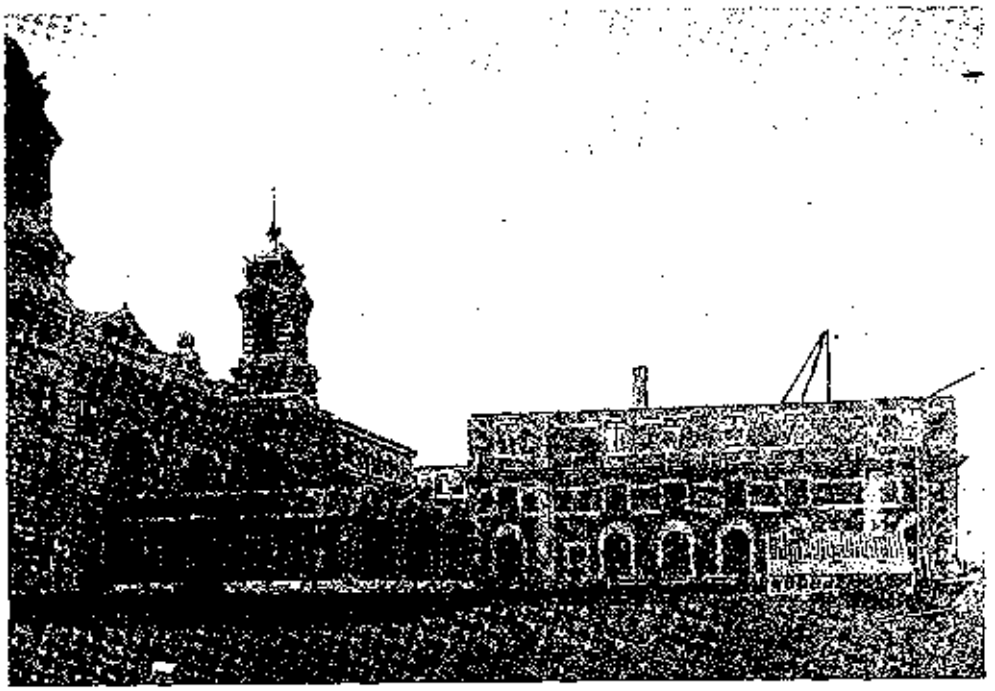
National Archives, Audiovisual Archives Division, Still Picture Branch



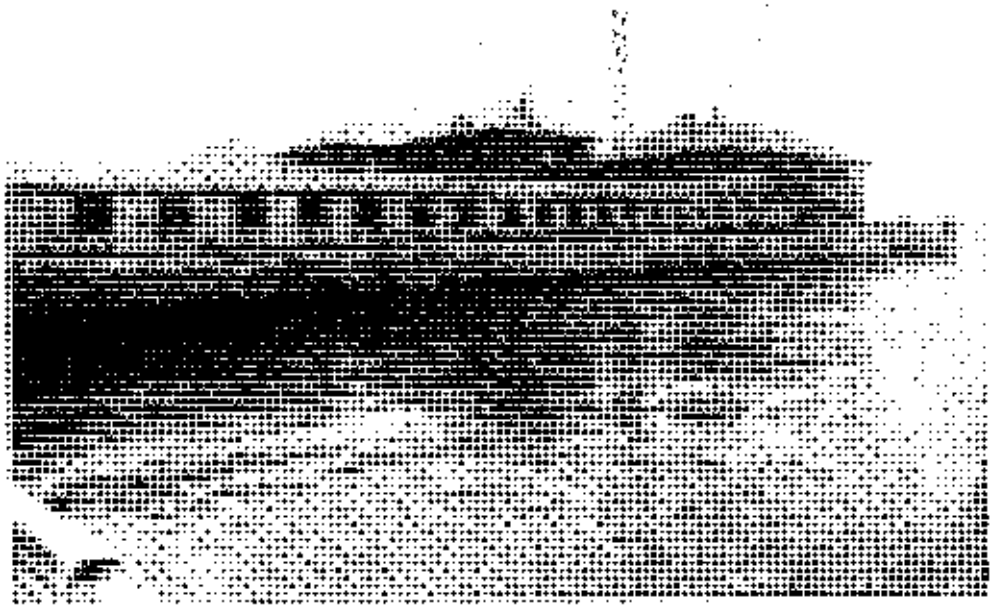
MEASLES WARD D AND ADMINISTRATION BUILDING OF CONTAGIOUS DISEASE HOSPITAL, 1907

Photograph showing construction in progress on measles ward D (in foreground) and the nearly completed administration building (looking northwest) of the contagious disease hospital on island 3

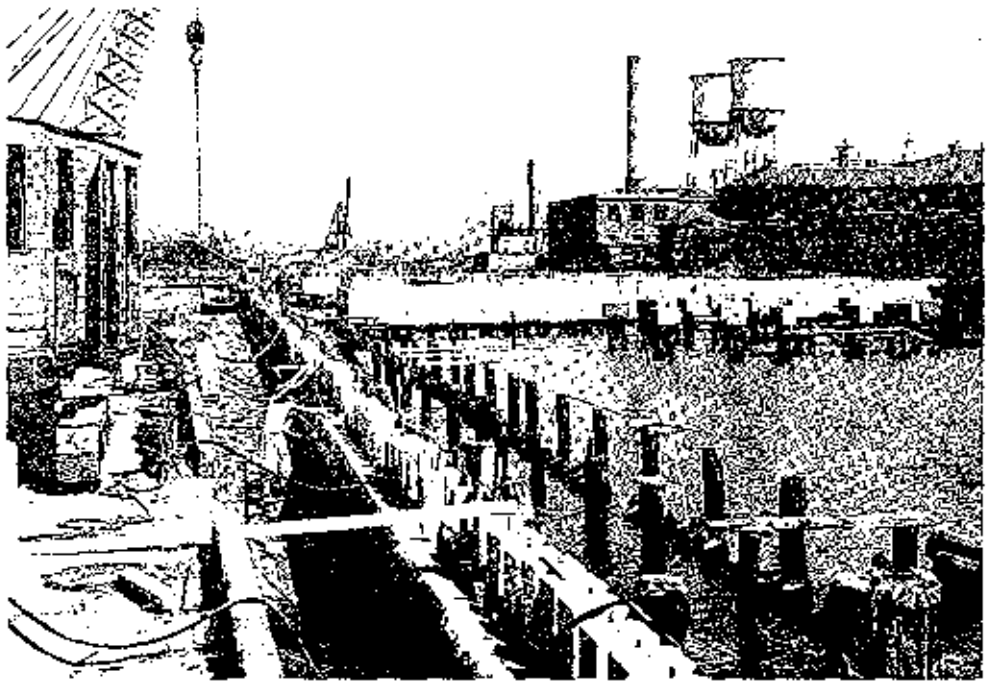
National Archives, Audiovisual Archives Division, Still Picture Branch



ADDITIONAL STORY OF BAGGAGE AND DORMITORY BUILDING, 1913
Photograph taken on October 29, 1913, showing construction in progress on the additional third story on the baggage and dormitory building
National Archives, Audiovisual Archives Division, Still Picture Branch



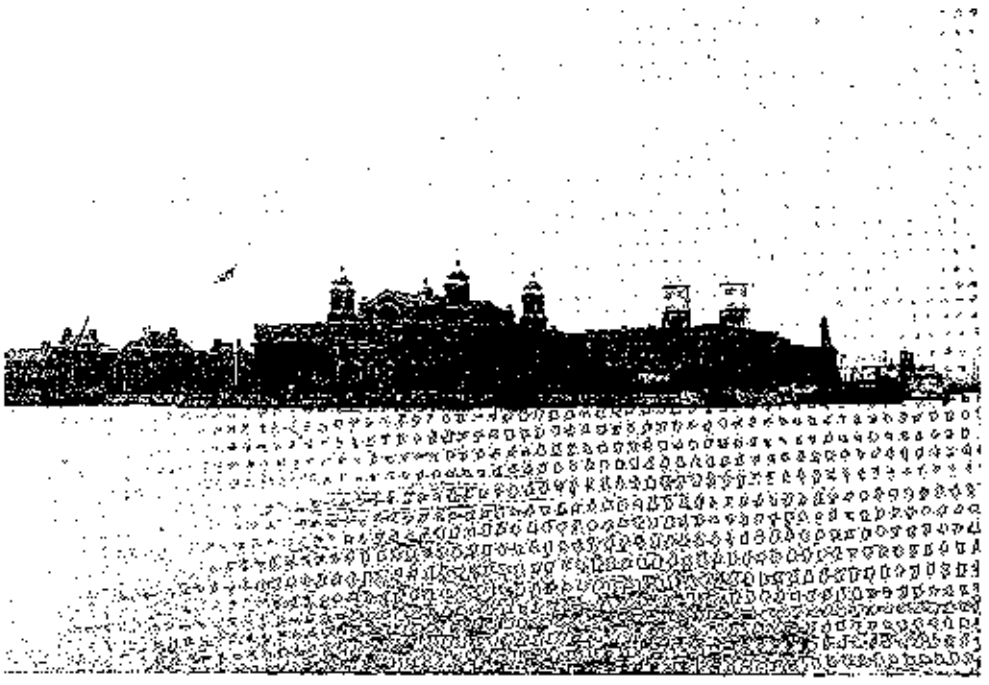
SEAWALL, COVERED CORRIDOR, MORTUARY, AND POWERHOUSE, 1934
Photograph taken on August 23, 1934, showing new granite-faced seawall (section 1) on island 3 as well as the recently completed covered corridor and the mortuary and powerhouse
National Archives, Audiovisual Archives Division, Still Picture Branch



SEAWALL, INCINERATOR, AND POWERHOUSE, 1934

Photograph taken on September 24, 1934, showing construction in progress on the new granite-faced seawall (section 2) on island 1 as well as the incinerator and powerhouse buildings

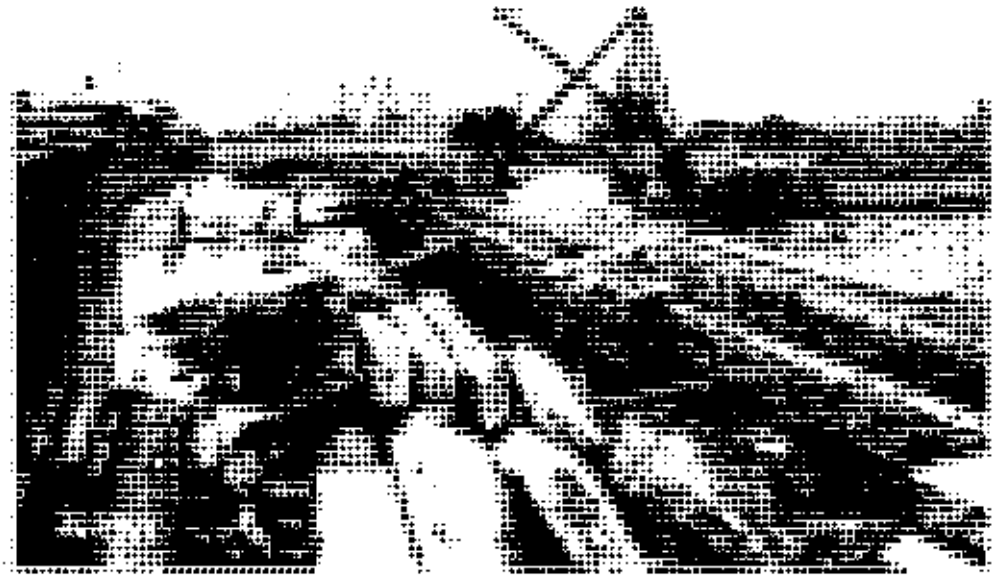
National Archives, Audiovisual Archives Division, Still Picture Branch



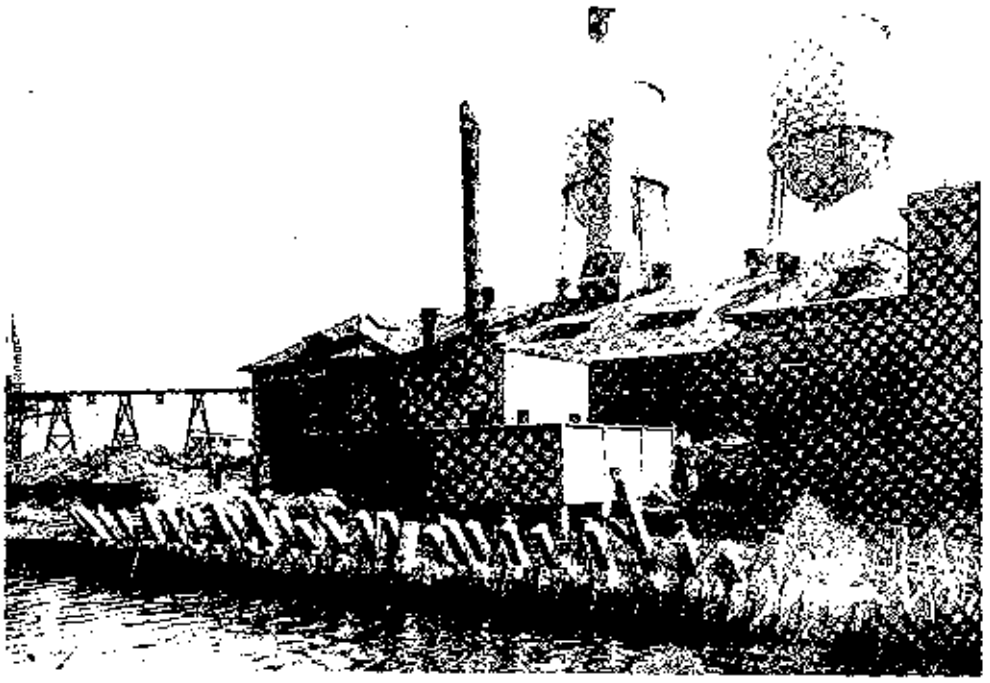
SEAWALL AND MAIN, BAGGAGE AND DORMITORY, AND HOSPITAL BUILDINGS, 1934

Photograph taken on August 23, 1934, showing construction in progress on the granite-faced seawall (section 5) on island 1 as well as the main and baggage and dormitory buildings (in the foreground) and the hospital buildings on island 2 (at the left)

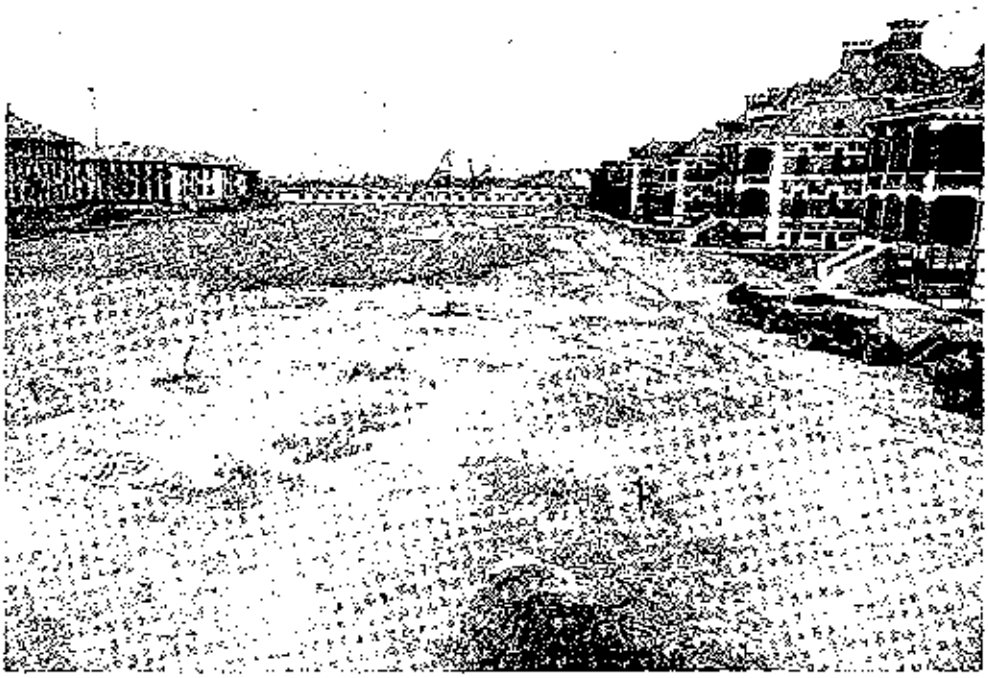
National Archives, Audiovisual Archives Division, Still Picture Branch



SEAWALL – SECTION 3 (FOREGROUND) AND SECTION 2 (BACKGROUND), 1934
Photograph taken on November 26, 1934, showing construction in progress on granite-faced seawall for fill behind islands 1 and 2 and ferry slip
National Archives, Audiovisual Archives Division, Still Picture Branch



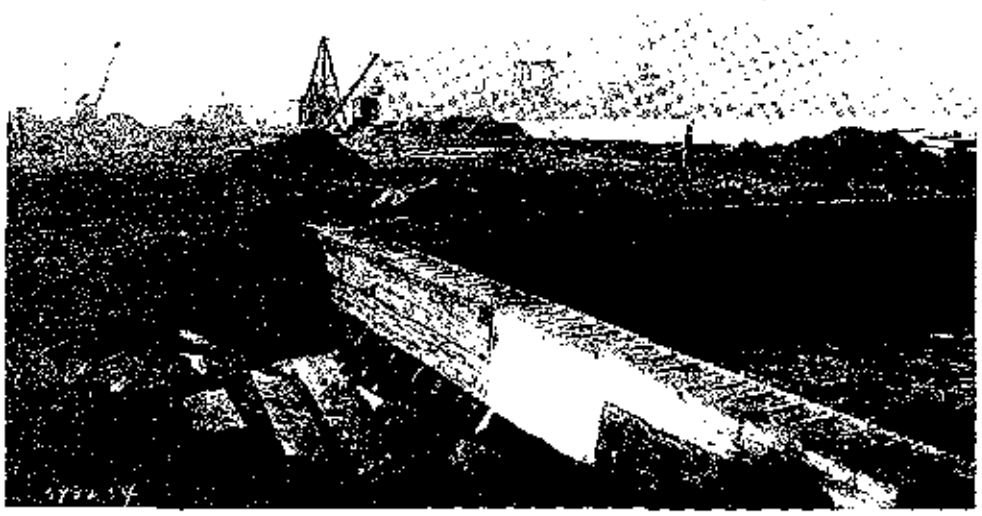
SEAWALL, BAKERY AND CARPENTER SHOP, POWERHOUSE, AND INCINERATOR, 1934
Photograph taken on September 24, 1934, showing construction in progress on the new granite-faced seawall (section 3) for the fill behind island 1 as well as the bakery and carpenter shop, powerhouse, and incinerator buildings
National Archives, Audiovisual Archives Division, Still Picture Branch



FILL AND LANDSCAPING IN PROGRESS BETWEEN ISLANDS 2 AND 3, 1934

Photograph taken on November 26, 1934, showing construction in progress on the fill and landscaping between island 2 (to the right) and island 3 (to the left)

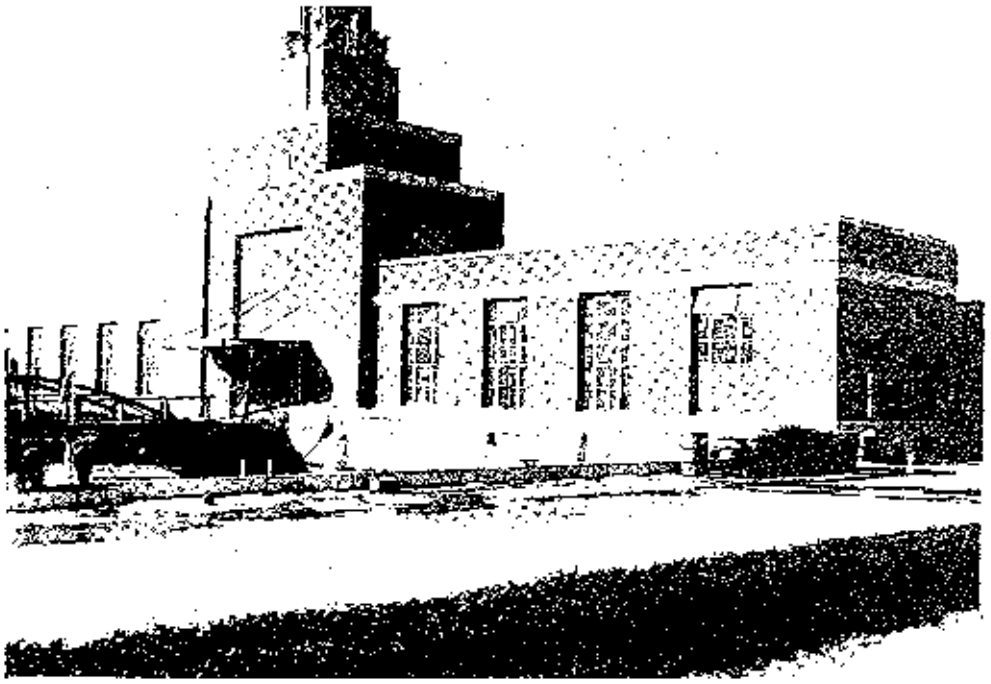
National Archives, Audiovisual Archives Division, Still Picture Branch



SEAWALL – SECTION 2 FROM SECTION 3 SHOWING BACKFILL, 1934

Photograph taken on November 28, 1934, showing construction in progress on granite-faced seawall for fill behind islands 1 and 2 and ferry slip

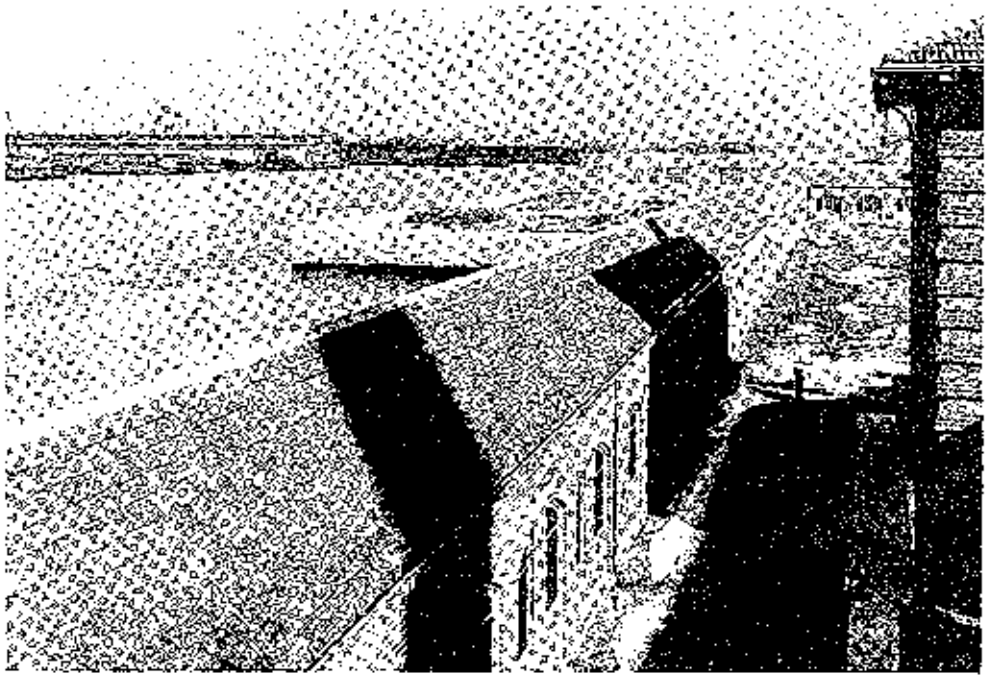
National Archives, Audiovisual Archives Division, Still Picture Branch



FERRY HOUSE, 1935

Photograph taken on November 25, 1935, showing recently completed ferry house

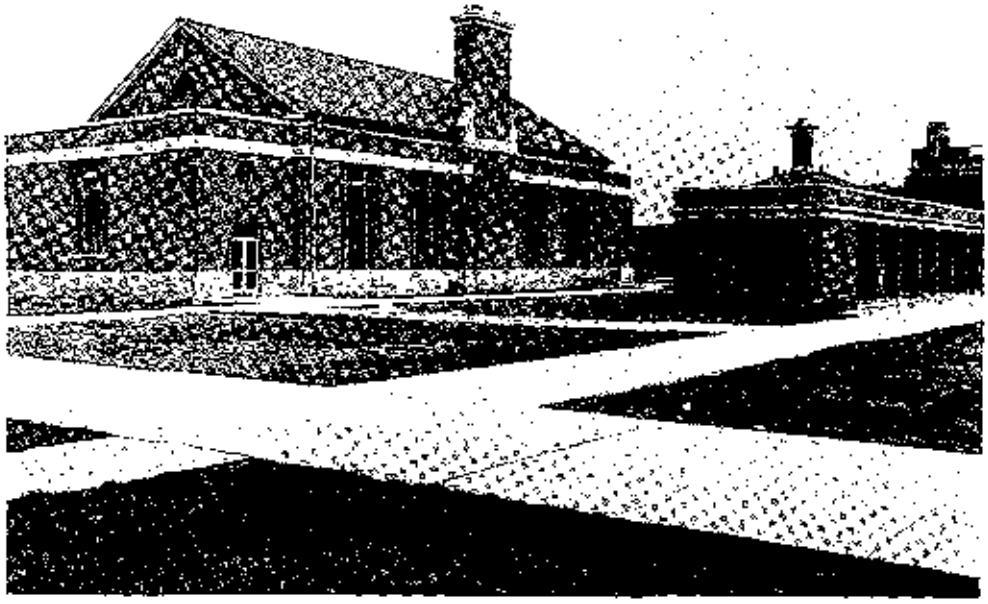
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COVERED CORRIDOR, 1935

Photograph taken on November 25, 1935, showing recently completed covered corridor between islands 2 and 3 and looking toward immigrant building (behind ferry house)

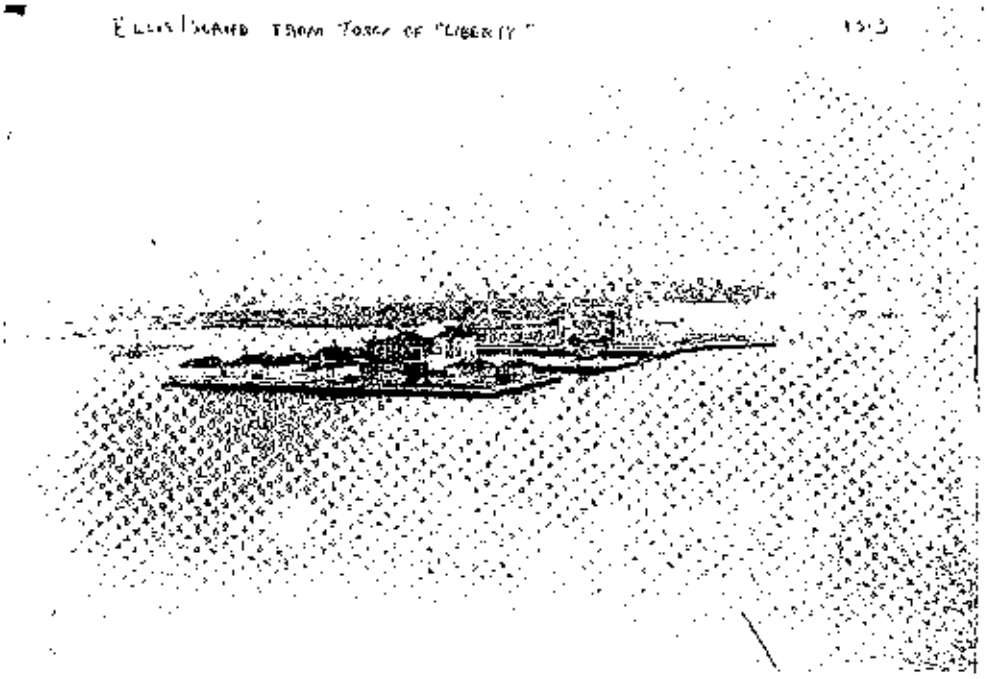
National Archives, Audiovisual Archives Division, Still Picture Branch



RECREATION AND SHELTER BUILDING, 1937

Photograph taken on February 26, 1937, showing recreation and shelter building on fill between islands 2 and 3

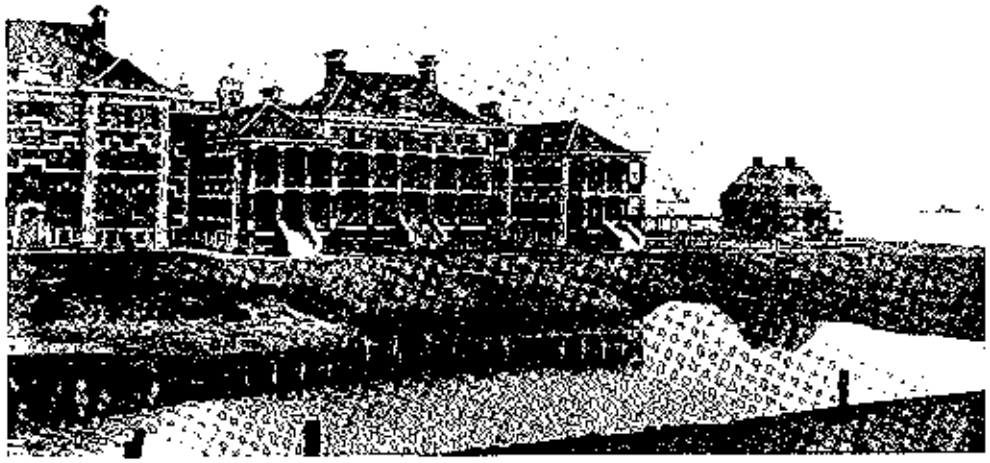
National Archives, Audiovisual Archives Division, Still Picture Branch



ELLIS ISLAND IMMIGRATION STATION AND CONTAGIOUS DISEASE HOSPITAL, CA. 1910

Photograph taken ca. 1910 from the torch of the Statue of Liberty showing the Ellis Island Immigration Station and the contagious disease hospital under construction [looking towards New Jersey shoreline]

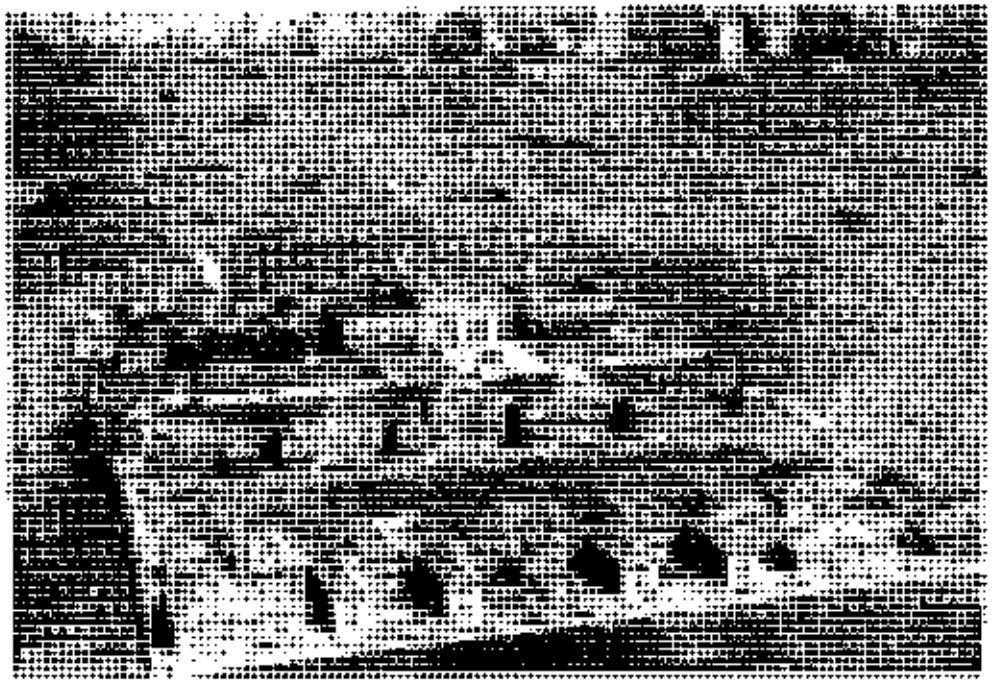
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REAR VIEW OF HOSPITAL BUILDINGS AND PARTIAL FILL, EARLY 1920S

Photograph taken ca. early 1920s showing rear view of hospital buildings on island 2 and partial fill between islands 2 and 3

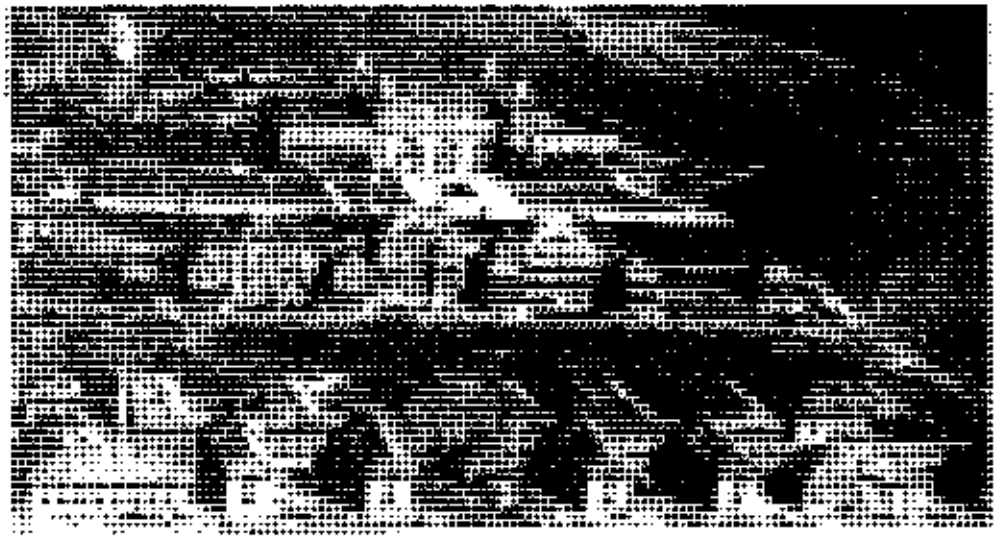
National Archives, Audiovisual Archives Division, Still Picture Branch



ELLIS ISLAND, EARLY 1930S

Aerial photograph taken ca. early 1930s showing Ellis Island Immigration Station looking towards Manhattan

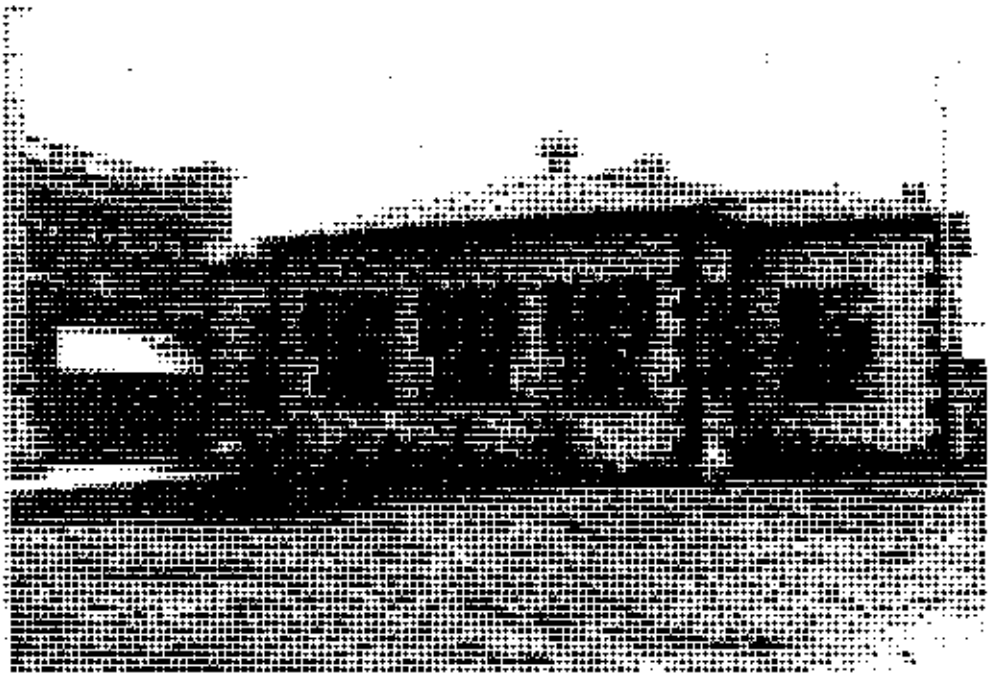
National Archives, Audiovisual Archives Division, Still Picture Branch



ELLIS ISLAND, EARLY 1930S

Close-up of Ellis Island Immigration Station

National Archives, Audiovisual Archives Division, Still Picture Branch



RED CROSS BUILDING, EARLY 1930S

Photograph taken ca. early 1930s showing Red Cross Building (structure was later razed when new recreation building was constructed)

National Archives, Audiovisual Archives Building, Still Picture Branch

DRAWINGS

Historical Development, 1890-1892

Historical Development, 1896-1908

Historical Development, 1920 [1909]-1936

Block Plan Showing Location of Buildings, Corridors, Etc. on the Three Islands, December 24, 1913

Block Plan, Island 1, First Floor, June 1, 1916

Location Plan, Island 2 and Ferry House, First Floor, July 19, 1918

Location Plan, Island 2 and Ferry House, Second Floor, July 19, 1918

Location Plan, Island 2 and Ferry House, Third Floor, July 19, 1918

Block Plan Showing Location of Buildings, Corridors, Etc. on the Three Islands, July 1933

General Plan, Basement, December 23, 1937

General Plan, First Floor, December 23, 1937

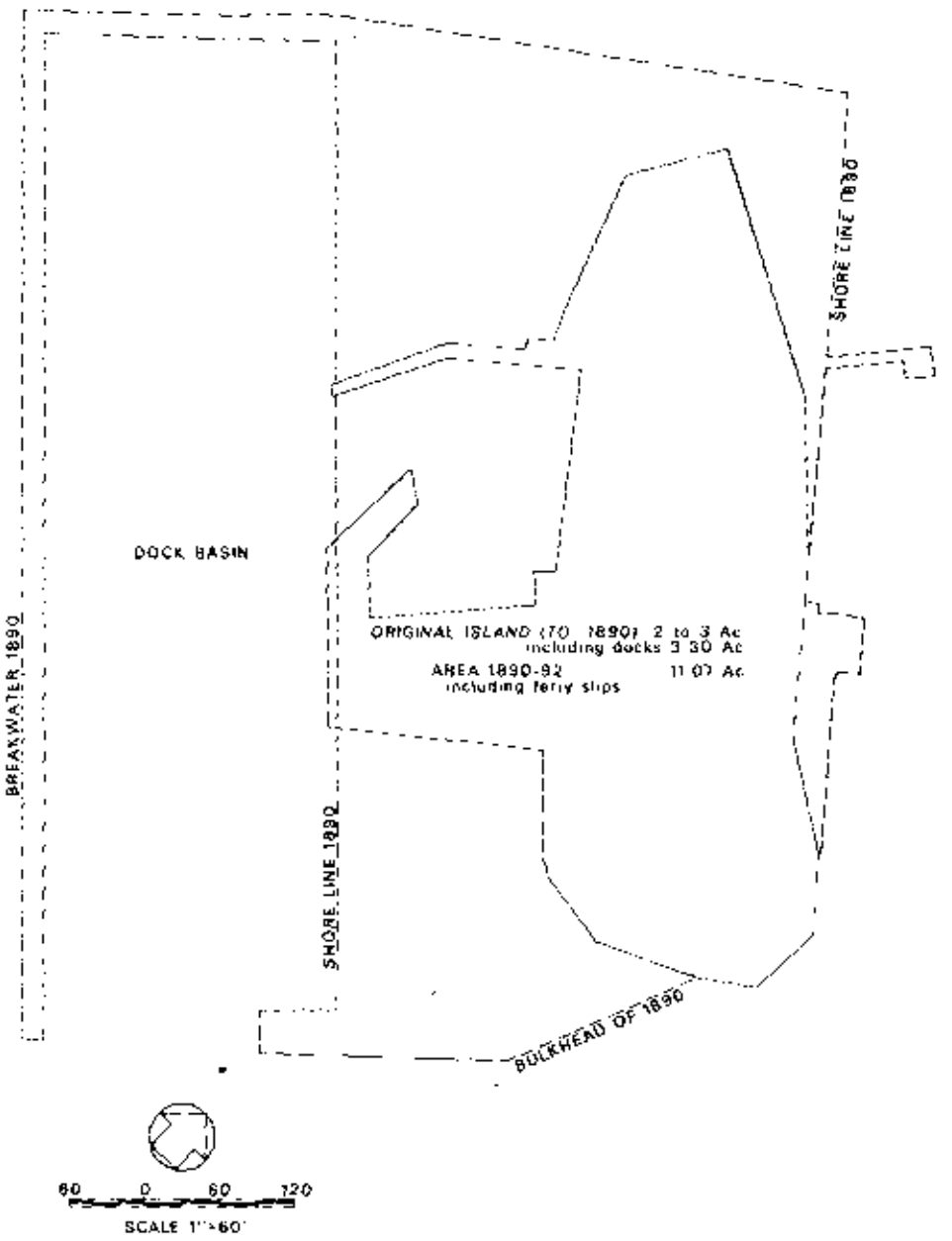
General Plan, Second Floor, December 23, 1937

General Plan, Third Floor, December 23, 1937

General Plan, Roofs, December 23, 1937

Planting Plan, October 8, 1939

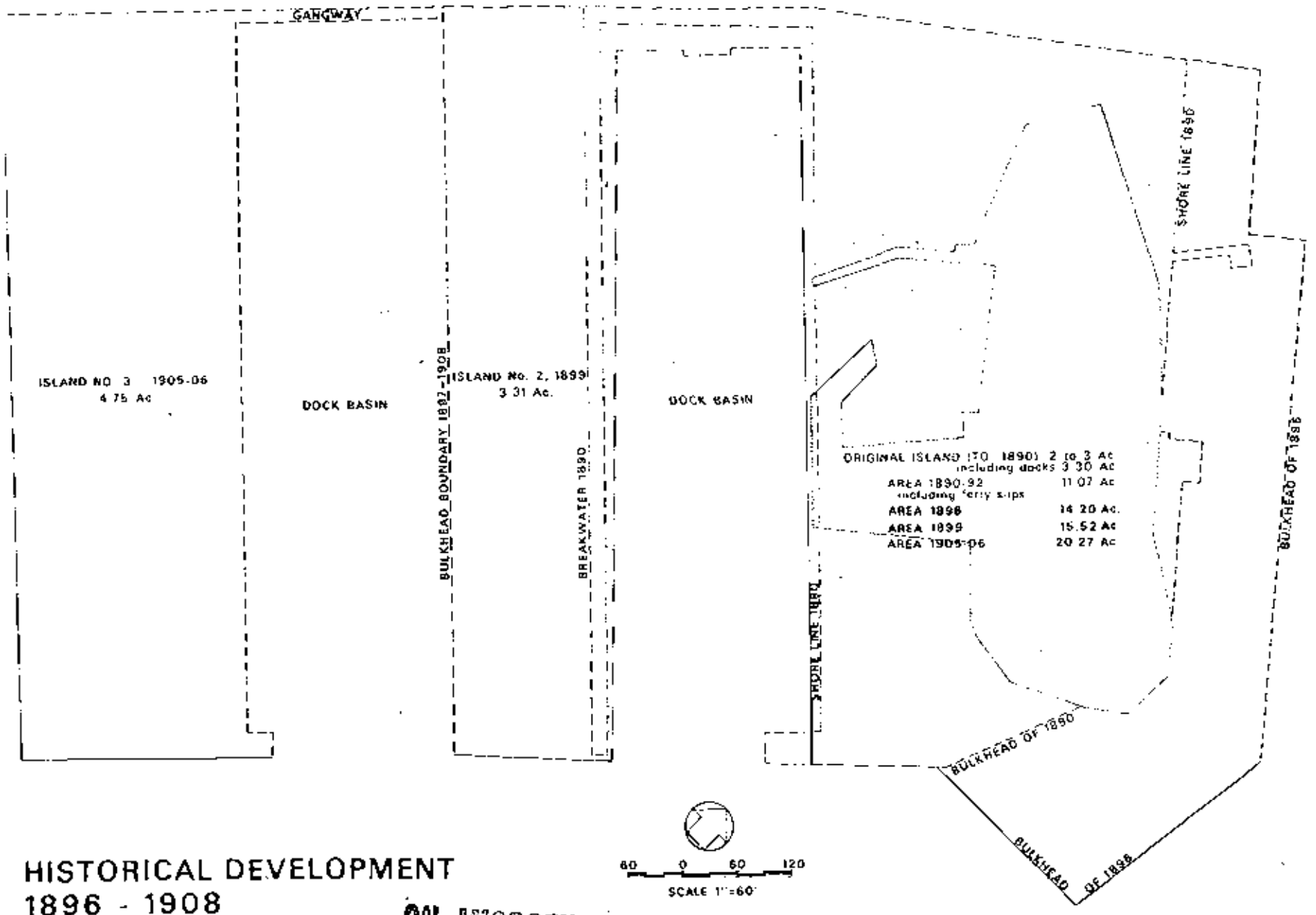
Existing Conditions, 1980



HISTORICAL DEVELOPMENT
1890 - 1892
ELLIS ISLAND
STATUE OF LIBERTY NATIONAL MONUMENT
NEW YORK / NEW JERSEY

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

356 | 20 012
MARCH 80 | DSC

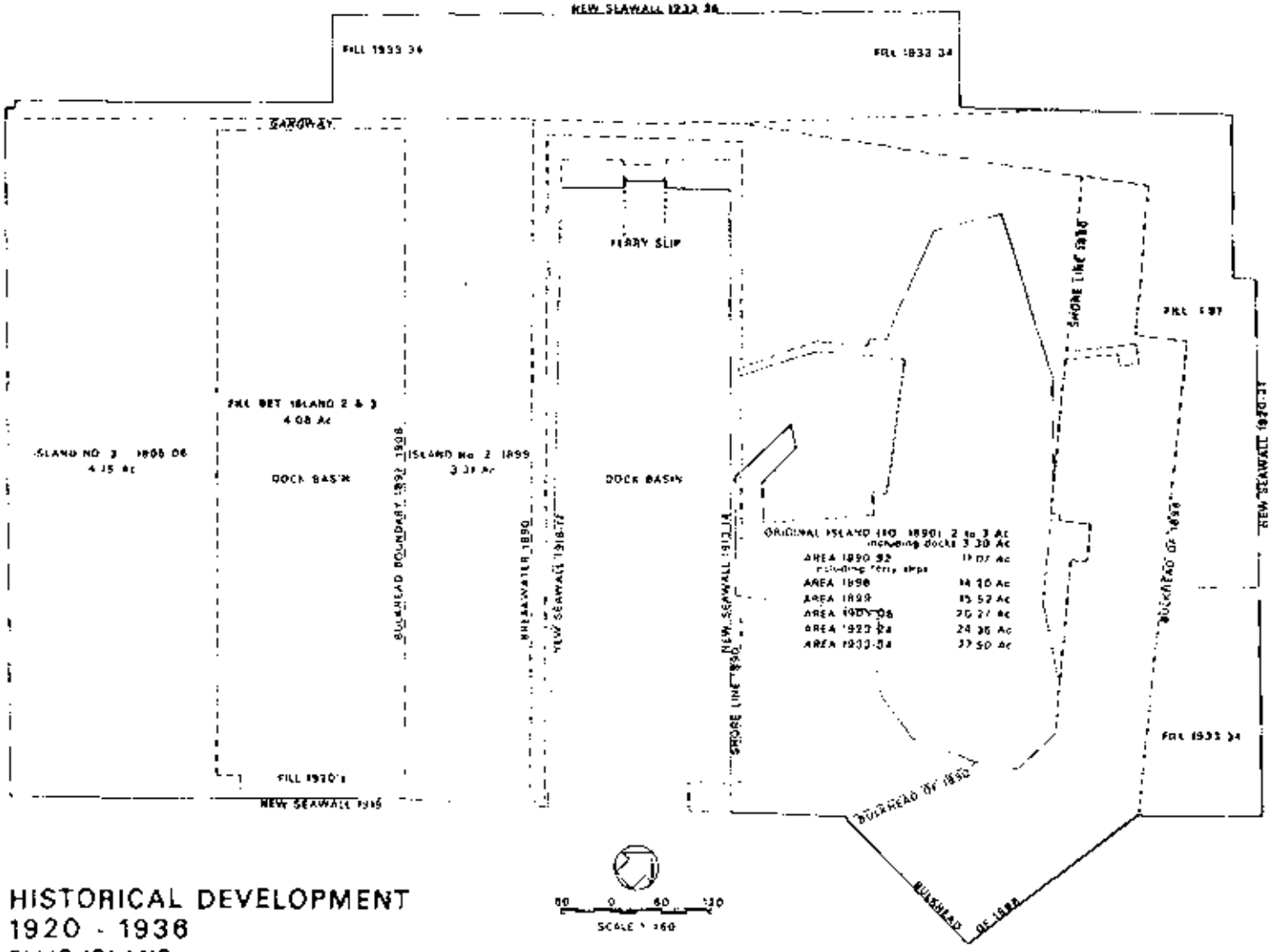


HISTORICAL DEVELOPMENT
1896 - 1908
ELLIS ISLAND
STATUE OF LIBERTY NATIONAL MONUMENT
NEW YORK / NEW JERSEY

ON MICROFILM

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

356 | 20,020
MARCH 80 | DSC

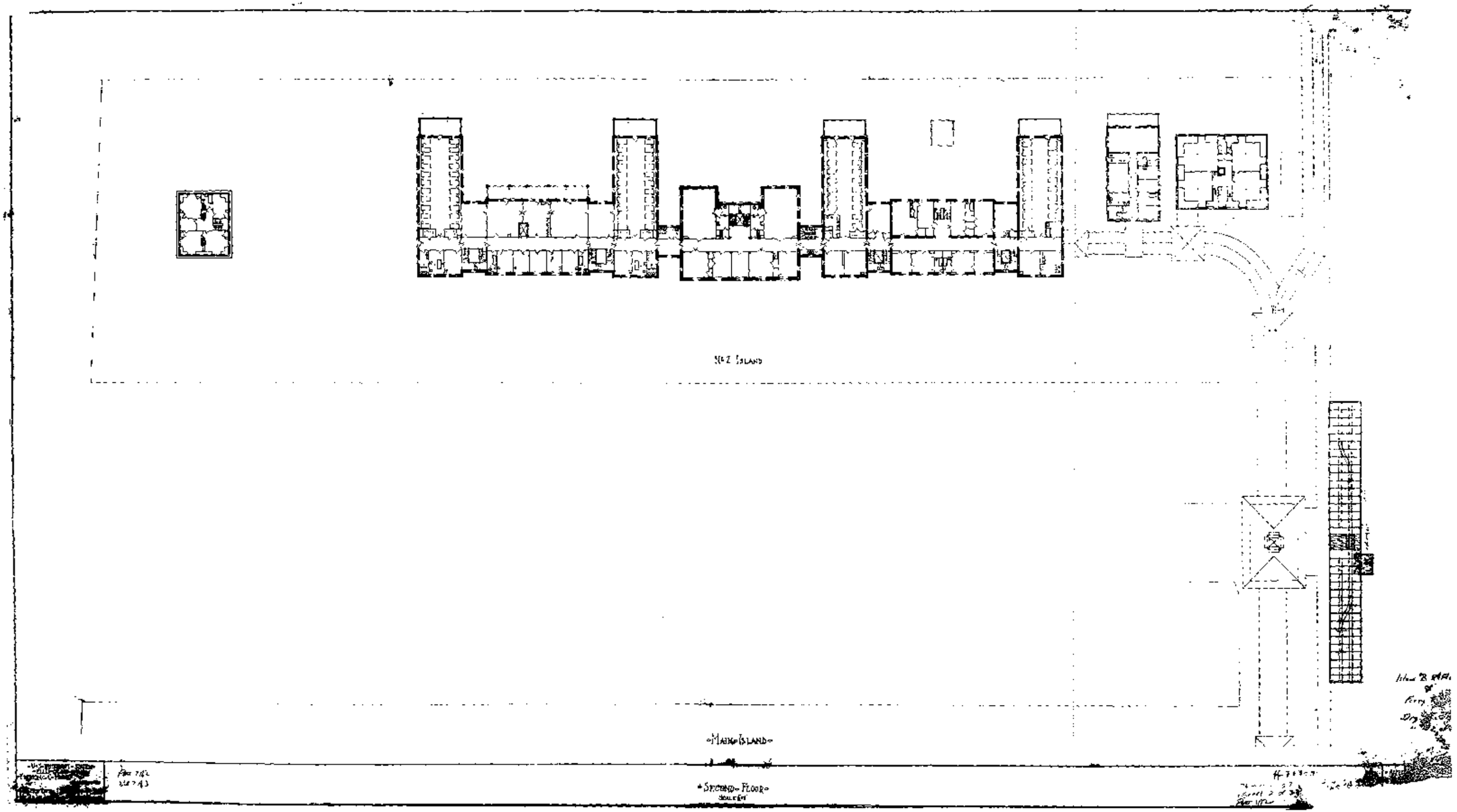


HISTORICAL DEVELOPMENT
1920 - 1936
ELLIS ISLAND
STATUE OF LIBERTY NATIONAL MONUMENT
NEW YORK / NEW JERSEY

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

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ON MICROFILM

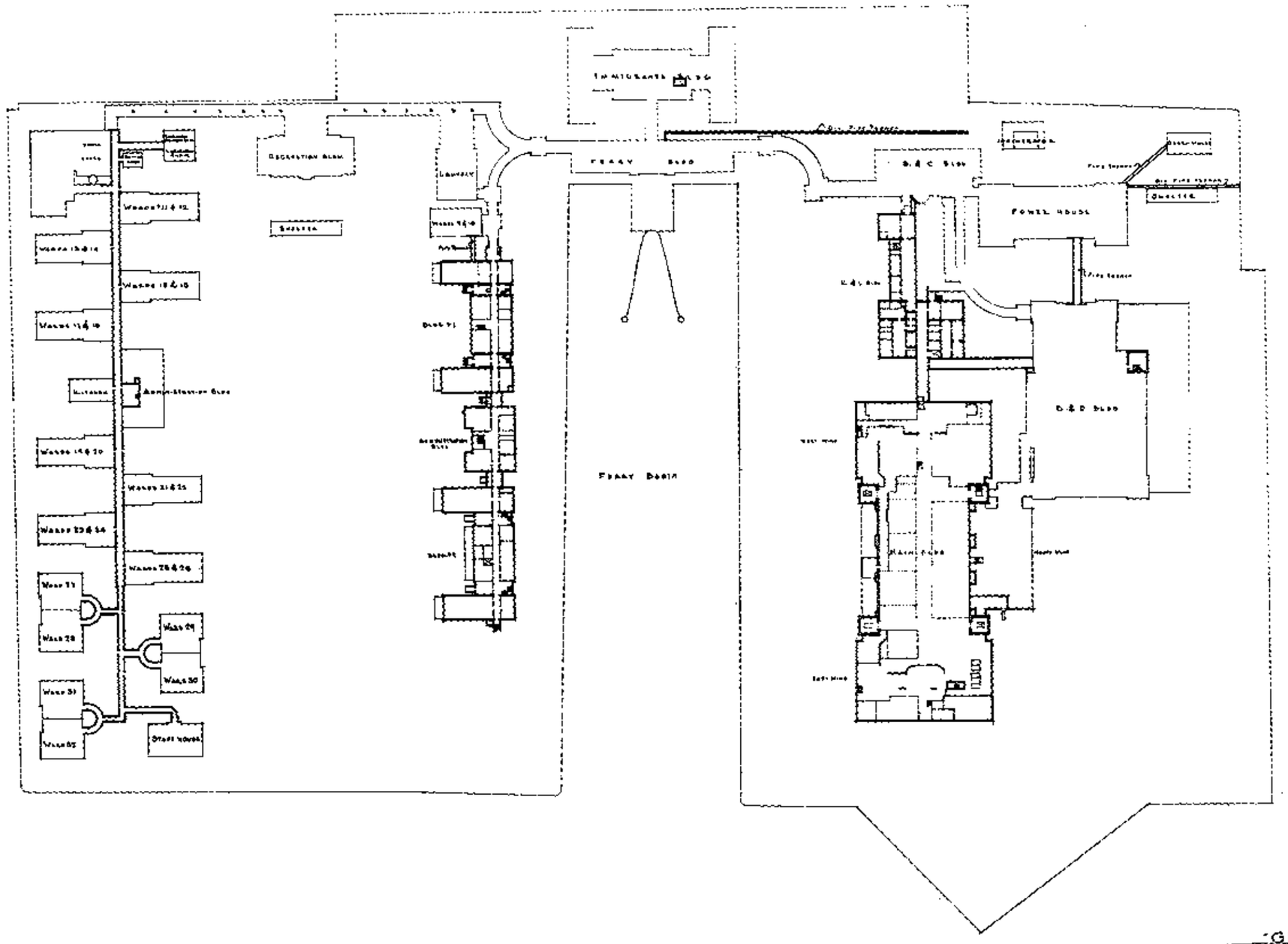


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Main Island

Third Floor

ON MICROFILM



ON MICROFILM

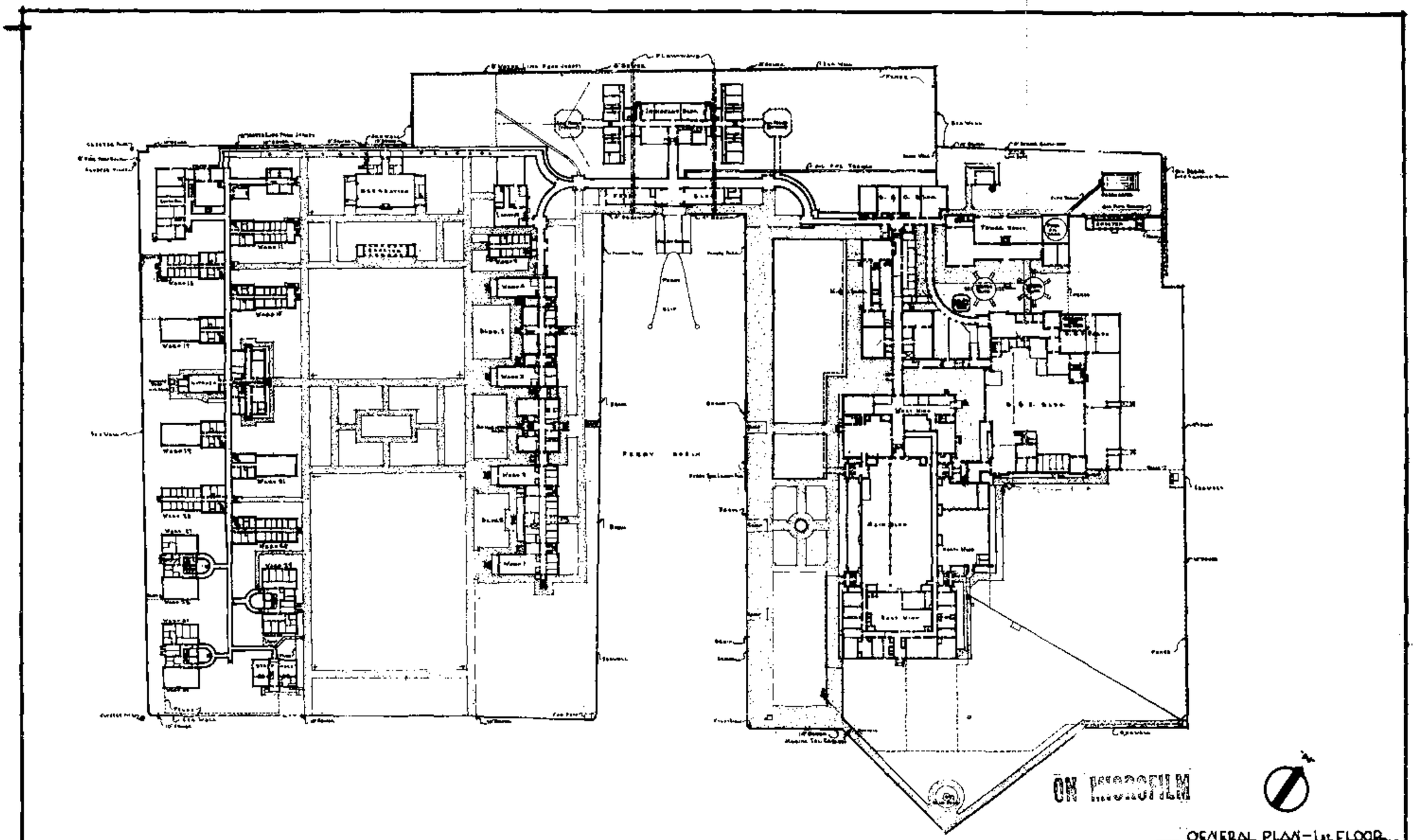
Proposed Hospital Extension Island 2

GENERAL PLAN - BASEMENT
U.S. DEPARTMENT OF JUSTICE
IMMIGRATION & NATURALIZATION SERVICE
ELLIS ISLAND
NEW YORK HARBOR, NY

DRAWN BY F.E.C. H.L. Death

DATE Dec 23, 1953 DRAWING NO. D-1315

Scale 1:60' 1 OF 3 SHEETS



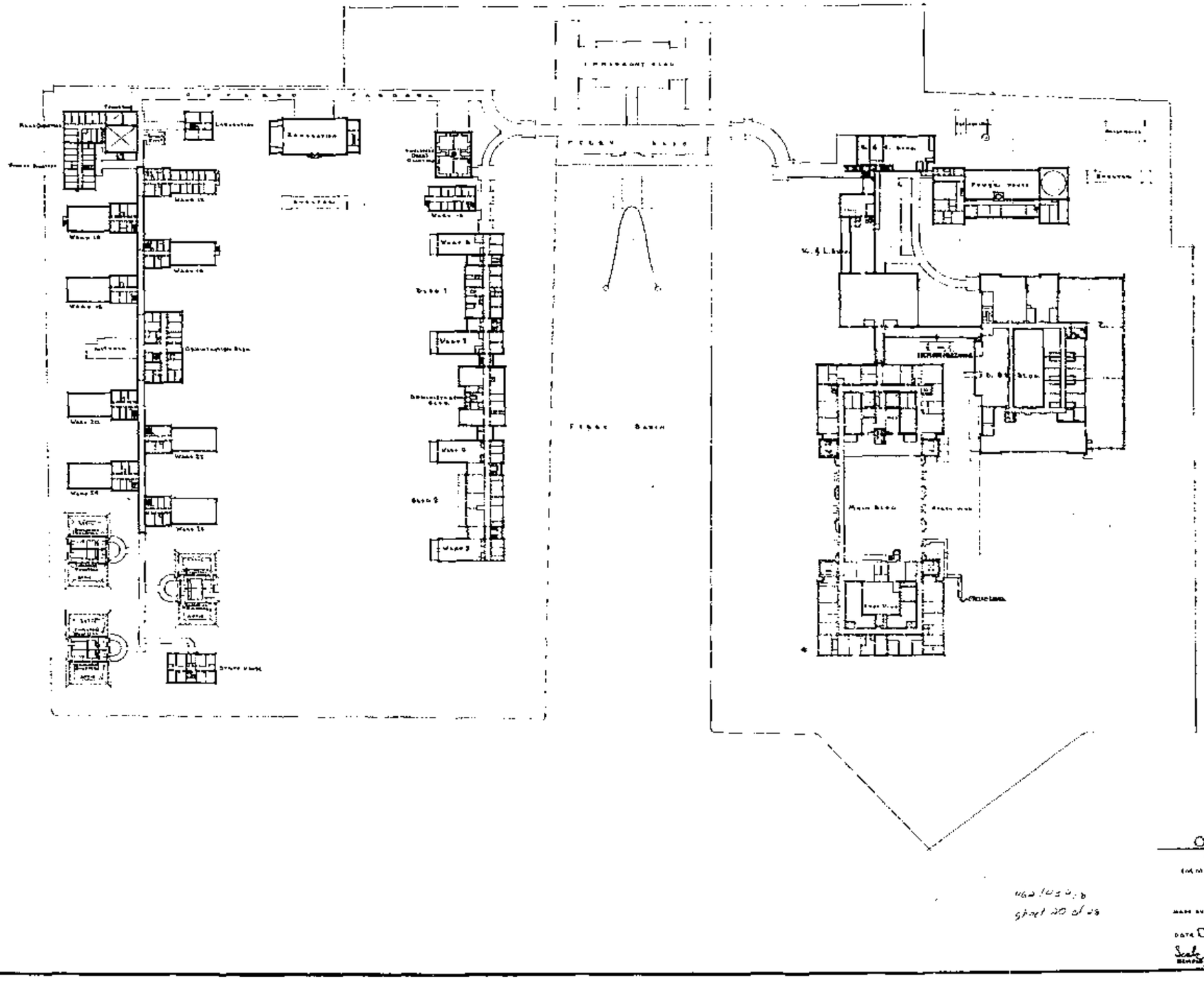
GENERAL PLAN—1st FLOOR

U.S. DEPARTMENT OF LABOR
IMMIGRATION & NATURALIZATION SERVICE
ELLIS ISLAND
NEW YORK HARBOR, N.Y.

Drawn by F.E.C. Traced by H.L.B.

Date Dec 23 1957 Drawing No. D-1316

Scale 1:60' Sheet 1 of 2 or 3 sheets



ON MICROFILM

GENERAL PLAN - 2ND FLOOR.

U.S. DEPARTMENT OF JUSTICE
IMMIGRATION & NATURALIZATION SERVICE
ELLIS ISLAND
NEW YORK HARBOR, N.Y.

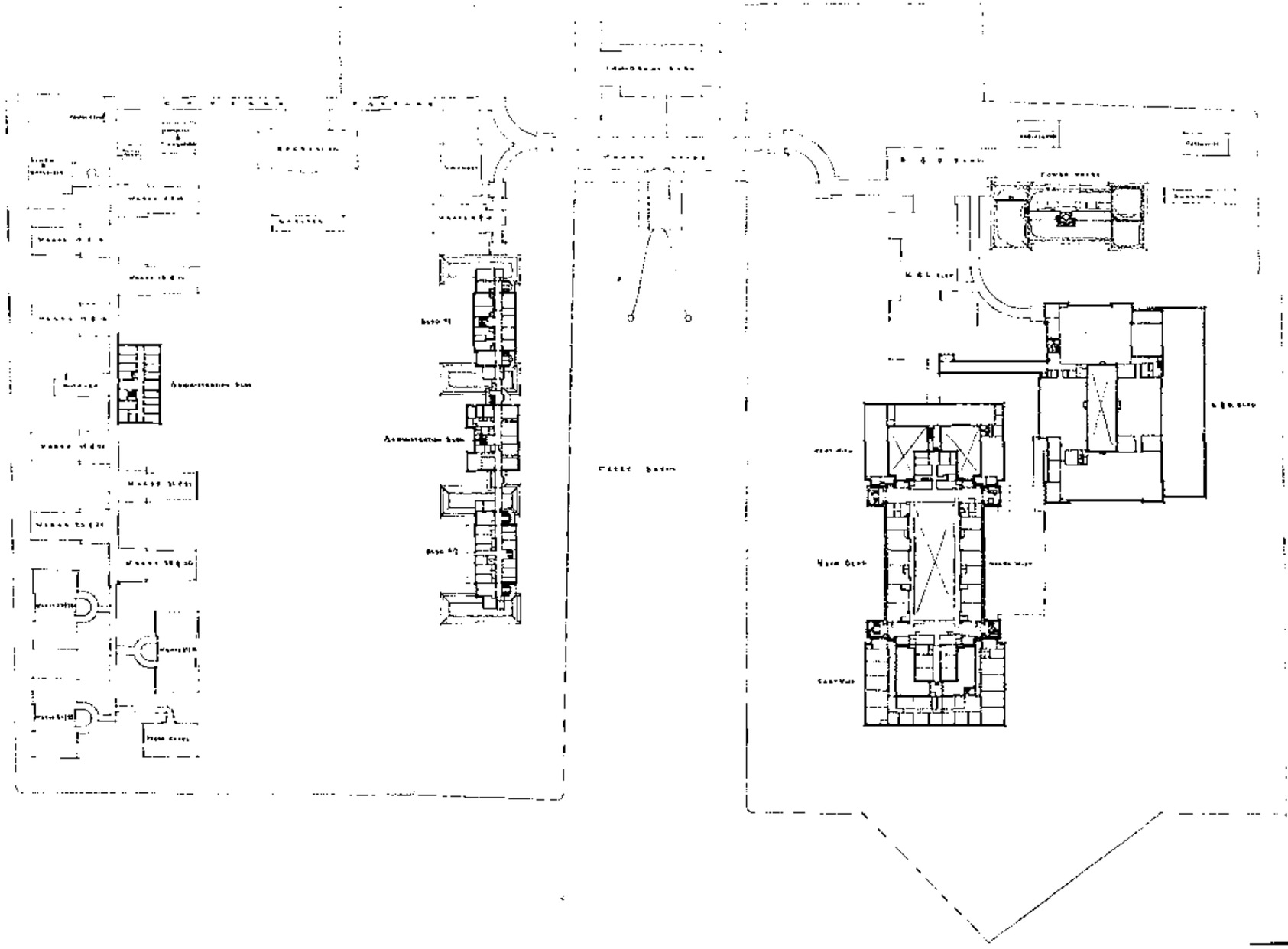
MADE BY F.E.C. H.L. Death - Project Engr.

DATE Dec 23 1931 DRAWING NO. D-1317

Scale 1:60' SHEET 5 OF 5 SHEETS

SEE GROUP PLAN FOR BLDG. NUMBERS

was 103 5-6
sheet 20 of 25



ON MICROFILM

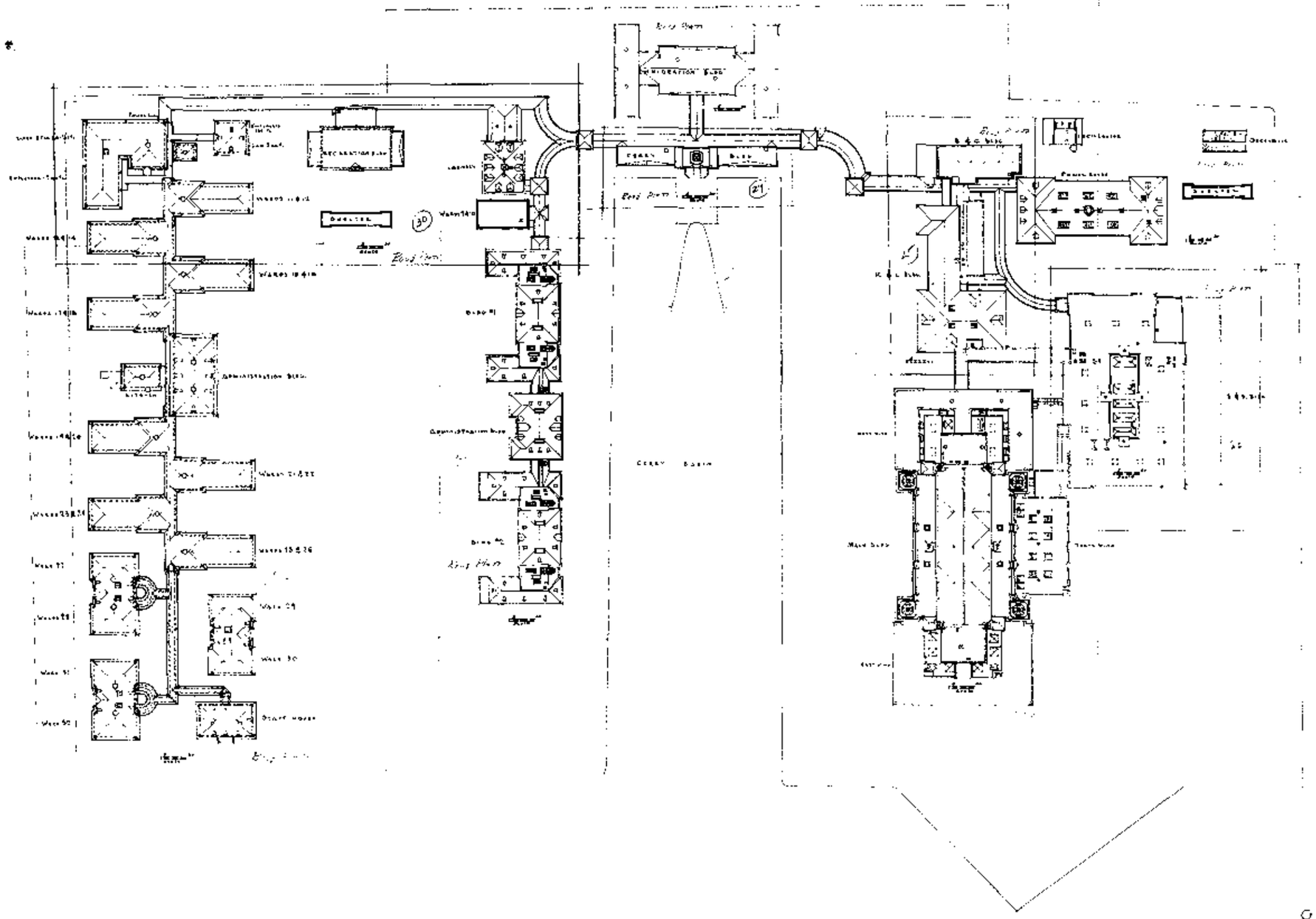
GENERAL PLAN - 3rd FLOOR

U.S. DEPARTMENT OF JUSTICE
IMMIGRATION & NATURALIZATION SERVICE
ELLIS ISLAND

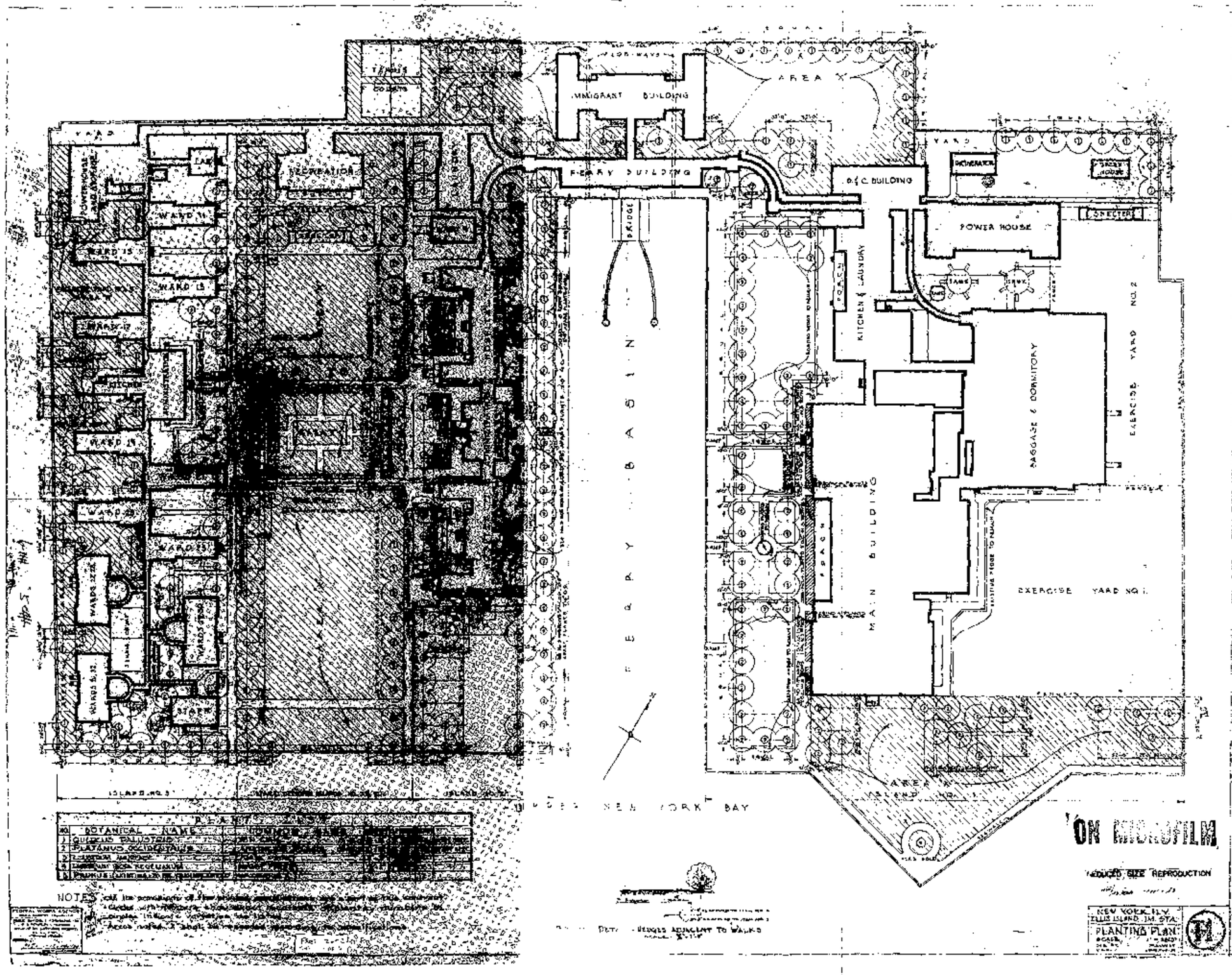
drawn by FEC H.L. Death

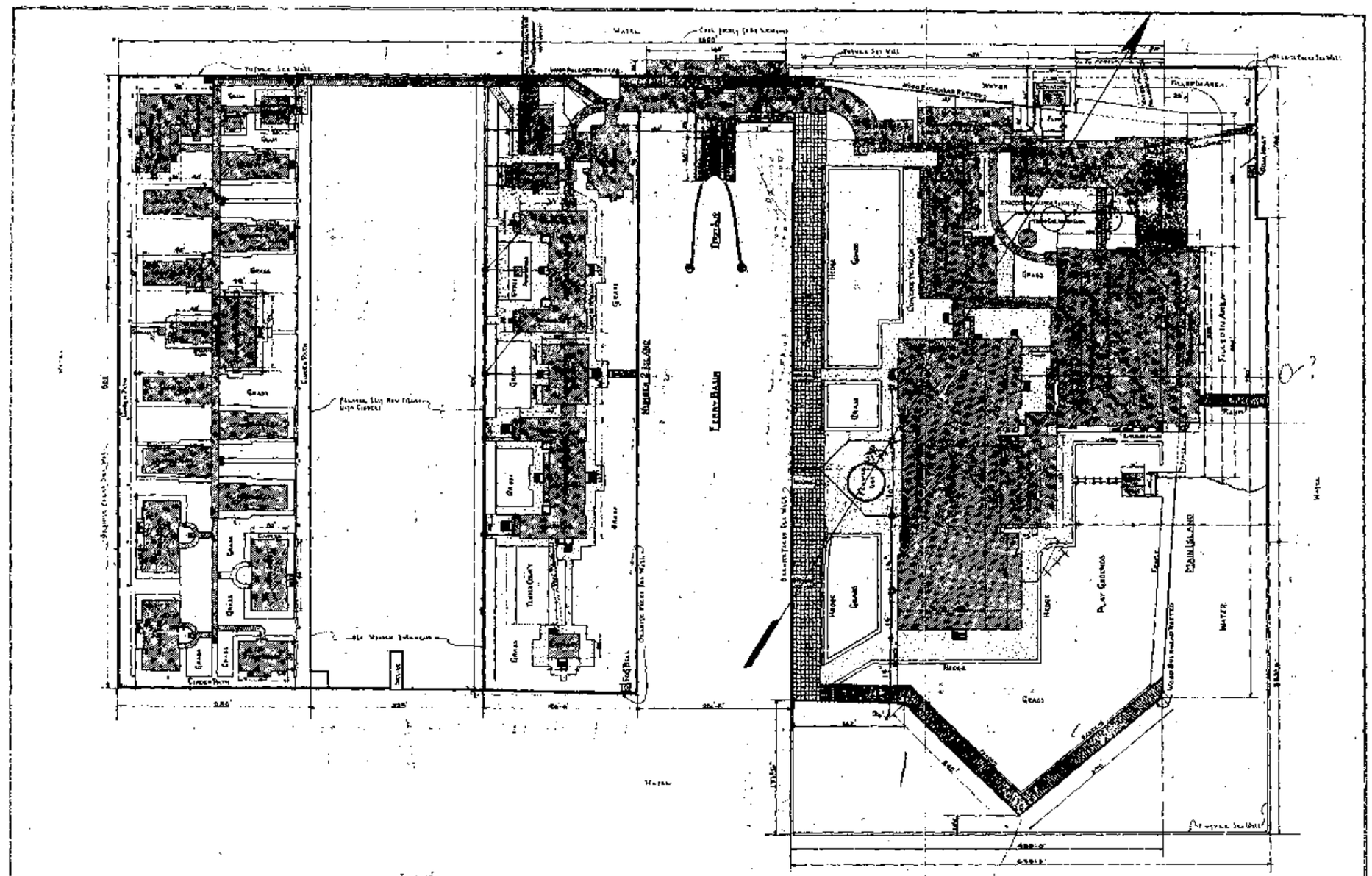
date Dec 23 1937 drawing no D-1318

Scale 1" = 60' sheet #4 of 5 sheets



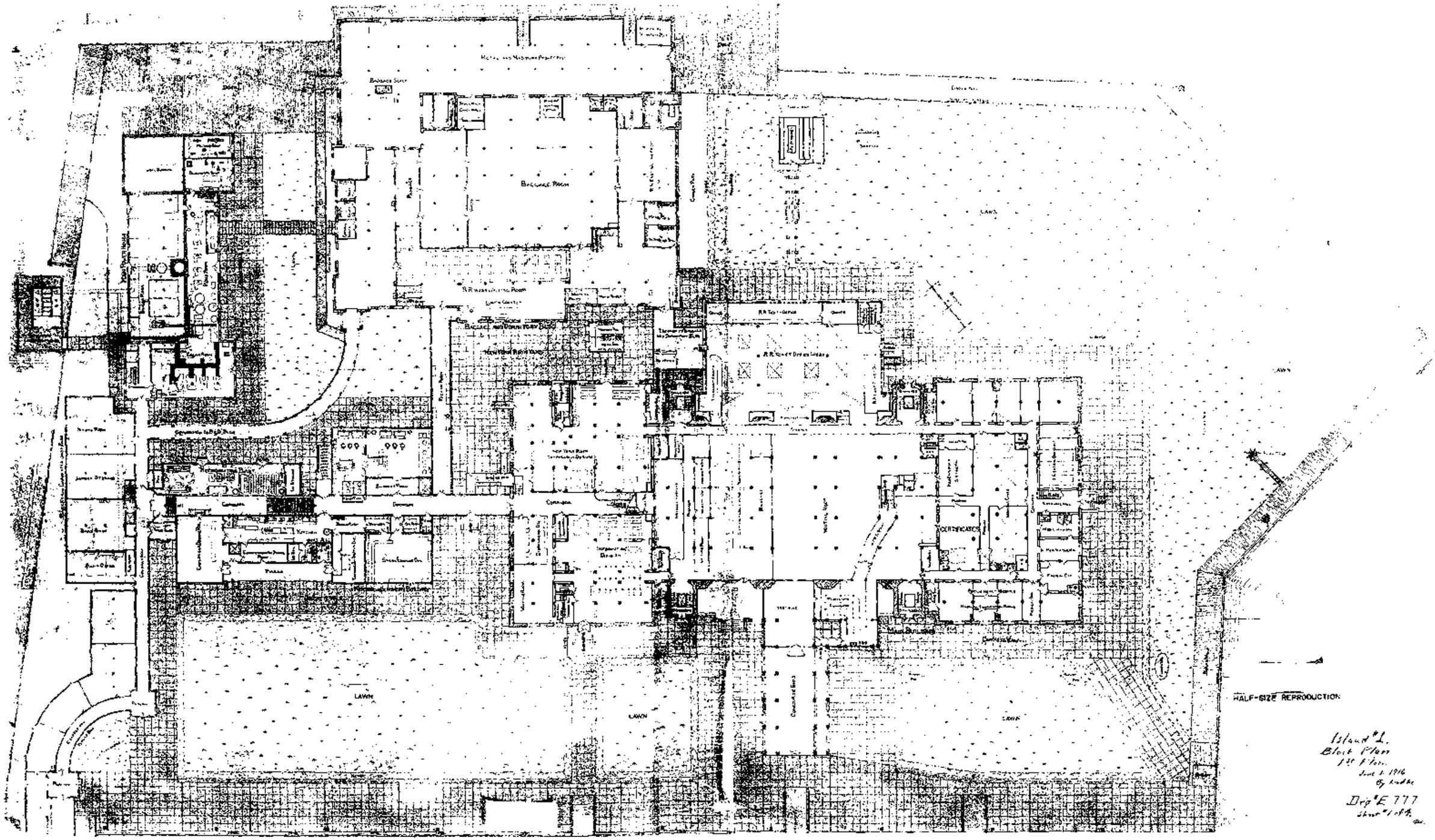
ON MICROFILM


IMMIGRANT BUILDING
AREA X
FERRY BUILDING
B. & C. BUILDING
INCINERATION
POWER HOUSE
KITCHEN & LAUNDRY
BAGGAGE & DORMITORY
EXERCISE YARD NO. 2
MAIN BUILDING
EXERCISE YARD NO. 1
AREA A
ISLAND NO. 1
NEW YORK BAY
NEW YORK CITY
ELLIS ISLAND IMM. STA.
PLANTING PLAN
REDUCED SIZE REPRODUCTION
NOTES



«BLOCK«PLAN»
«SHOWING«RELATIVE«LOCATION«OF«BUILDINGS»
«CORRIDORS«ETC«ON«THE«THREE«ISLANDS»
«SCALE«1»

ON MICROFILM

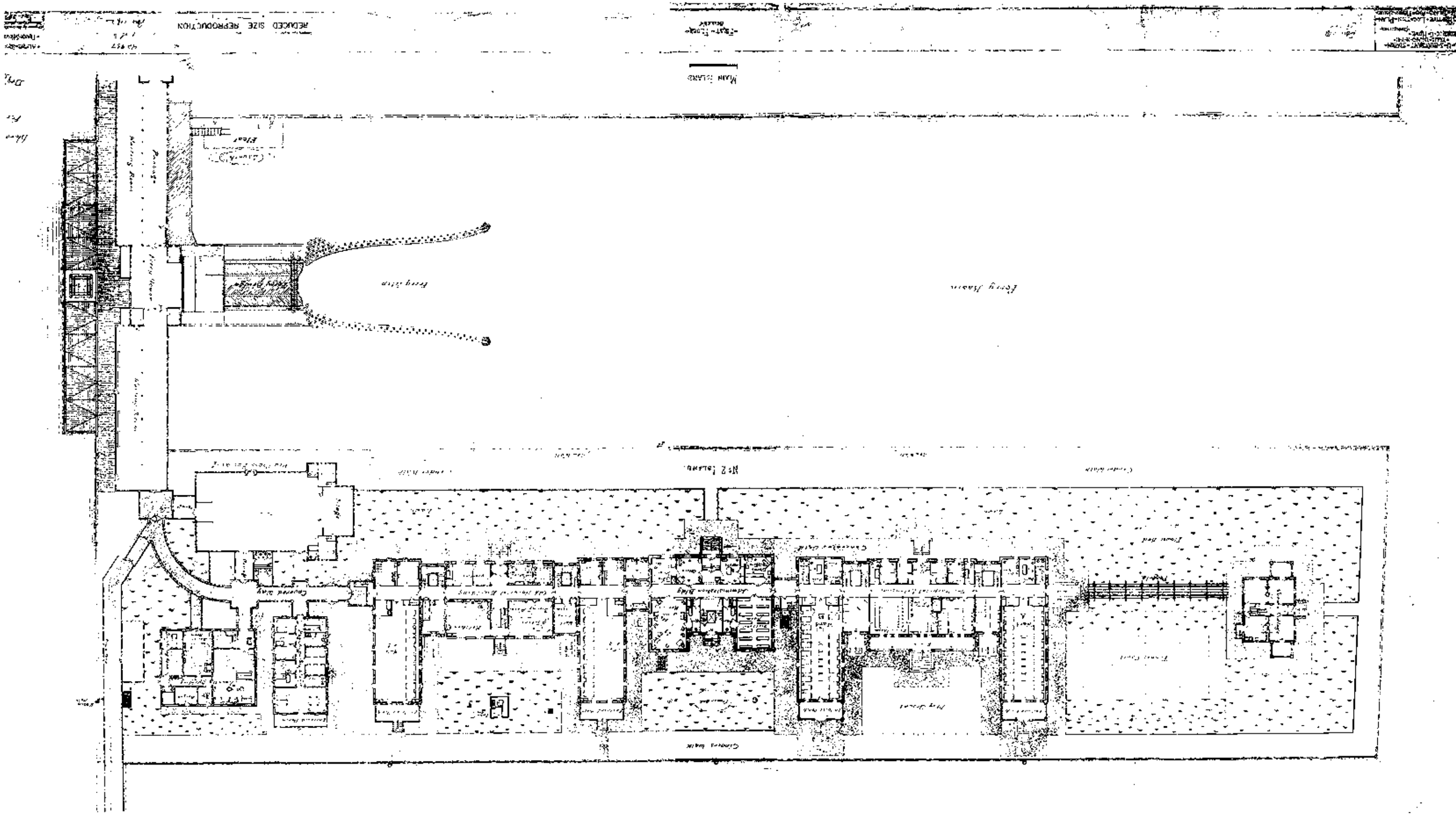


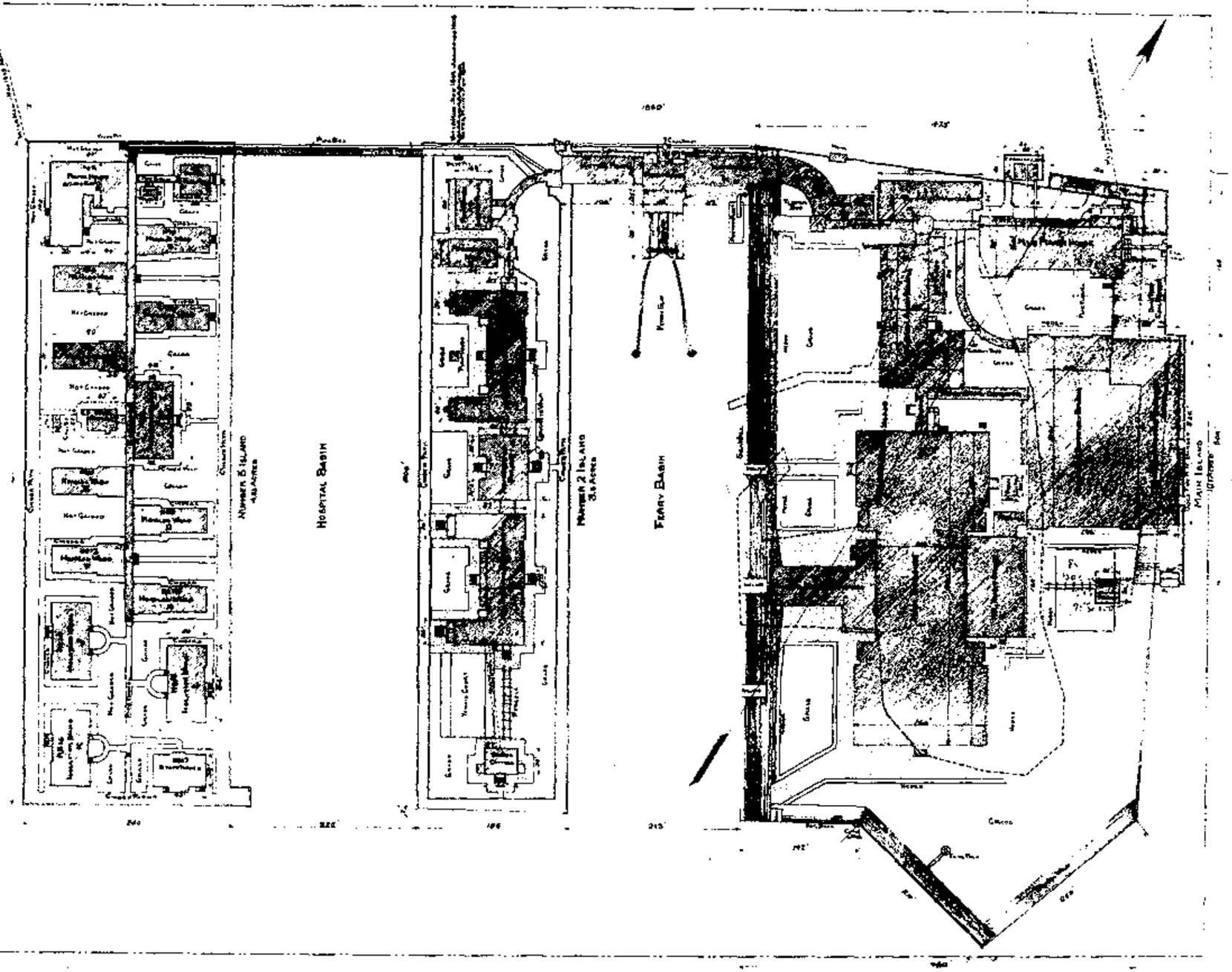
Island "L"
Block Plan
1st Floor
June 1, 1916
By Andrae

Drg "E 777
Sheet "1 of 4

ON MICROFILM

CN MICROFILM





Cubic Contents of Buildings

Main Island

	Cub. Ft.	Number of Cases
Main Buildings		
Kitchen, Dining-room and Quarters		
Covered Passage and Stairs from Surface		
S. R. Ticket Office		8,000
Baggage and Detention Rooms		
Hospital Extension		
Hotel and Restaurant		
Detention and Lodging Building		
Power House		
Laundry		
Crematory		
Boiler and Carpenter Shop		
Family Quarters for Commissioner		
Privy in Hay Row Yard		

No 2 Island

Power House		
Psychopathic Ward		
Old Hospital Building		
Administration Building		
New Hospital Extension		
Nurses Cottage		

No 3 Island

Office Building		
Power House		
Mortuary		
Measles Ward		
Administration Building		
Kitchen		
Isolation Ward		
Steam House		
Covered Way		
Pipe Tunnel		

Acreage of All Three Islands

Main Island	
No 2 Island	3.00
No 3 Island	4.21
Ferry Bridge etc	.37

Total Acres 15.58

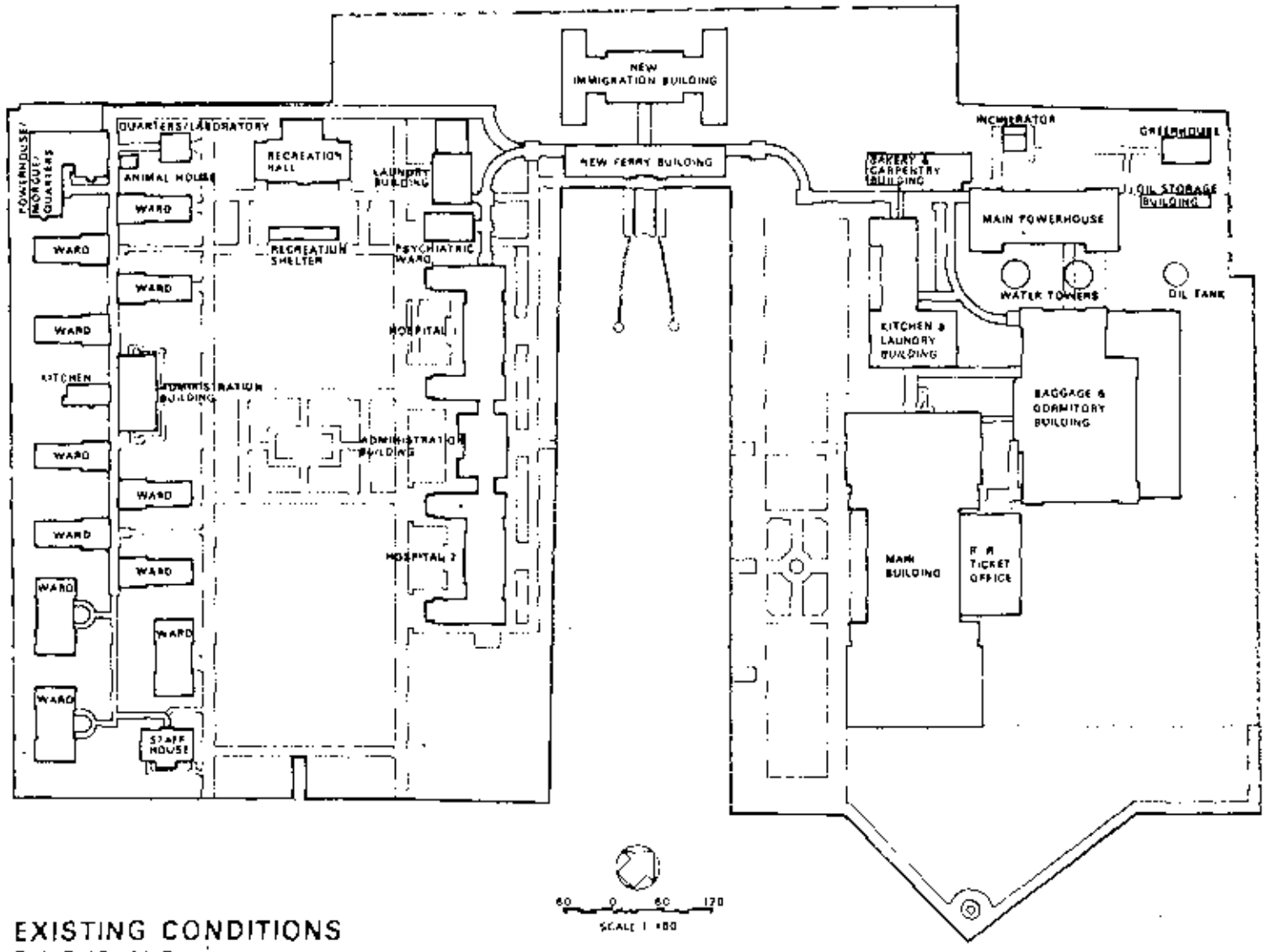
Note

Dotted Lines on Main Island indicate Size and Shape of Original Island

Block Plan

Showing Relative Locations of Buildings Corridors etc on the Three Islands U. S. Immigrant Station Ellis Island N.Y.H.

December 24 1913 Scale 1" = 60 Feet



EXISTING CONDITIONS

ELLIS ISLAND

STATUE OF LIBERTY NATIONAL MONUMENT

NEW YORK / NEW JERSEY

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

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As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, and parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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