

# NEW YORK TRANSIT MUSEUM

The New York Transit Museum Archives  
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## Finding Aid for **POWER SUPPLY COLLECTION** **ACCESSION 2006.39**

### **SUMMARY INFORMATION**

CREATOR:	Manhattan Railway, Interborough Rapid Transit Company, Brooklyn-Manhattan Transit Corporation, and Independent System
TITLE:	Power Supply Collection
INCLUSIVE DATES:	1898-1998
BULK DATES:	1901-1920, 1948-1980
QUANTITY:	39.1 linear feet
ABSTRACT:	The Power Supply Collection contains records and photographs of the construction and maintenance of the electrical power generation and distribution systems for the New York City subway, from 1898 through 1998. The collection primarily documents the building and modernizing of electrical substations and powerhouses of the Manhattan Railway Company, Interborough Rapid Transit Company, Brooklyn-Manhattan Transit Corporation, and the Independent System.

## **ADMINISTRATIVE INFORMATION**

ACCESS RESTRICTIONS:           There are no restrictions on this collection.

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PROCESSING INFORMATION:   Finding aid prepared by Chela Scott Weber and  
Desiree Alden

## **HISTORICAL NOTE/BIOGRAPHICAL NOTE**

At the end of the 19<sup>th</sup> Century, New York City had a system of steam-powered, elevated train lines, run by the Manhattan Railway (MRy) in Manhattan and the Bronx, and by the Brooklyn Rapid Transit Company (BRT) in Brooklyn. Between 1898 and 1903, these steam-powered lines were converted to electric power. In 1899, the MRy began building a large powerhouse on the East River at 74<sup>th</sup> Street to generate power for its elevated lines and 8 substations to convert and transmit that power to the train lines. In 1904, the Interborough Rapid Transit Company (IRT) completed work on New York's first subway lines. The IRT built a powerhouse on the Hudson River at 59<sup>th</sup> Street and 8 substations of its own; it also took over the elevated lines and power generation and distribution facilities of the MRy in 1903. From 1913-1917, as part of the Dual Contracts extension of the subway, the IRT and BRT together built 13 substations in Manhattan, Brooklyn, the Bronx, and Queens. BRT also built numerous substations on its own in the 1910s and 1920s in Brooklyn and Queens. From 1930 on, the Independent System (IND) built over 80 substations, the first five of which were manually operated; the remaining were small, automatic, and usually underground facilities. In 1959, the New York City Transit Authority (NYCTA) sold its power generating facilities at 59<sup>th</sup> and 74<sup>th</sup> Streets to Consolidated Edison, and moved the offices and headquarters which had been located in the Powerhouses to one building on West 53<sup>rd</sup> Street in Manhattan. NYCT continues to close down or modernize existing facilities, and build new power facilities as demand on the subway system dictates.

The Power Supply Collection was transferred to NYTM by Robert Lobenstein, New York City Transit General Superintendent of Power Operations. The collection was amassed by Mr. Lobenstein during his years of employment with NYCT Power Operations.

## **SCOPE AND CONTENT NOTE**

The Power Supply Collection contains records of the construction and maintenance of the electrical supply systems for the New York City subway and elevated lines, from 1898-1998. The collection is primarily composed of photographs (prints and negatives) and paper records documenting the building and modernizing of electrical substations and powerhouses of the Manhattan Railway Company (MRy), Interborough Rapid Transit Company (IRT), Brooklyn-Manhattan Transit Corporation (BMT), and the Independent System (IND). The collection is organized in to four series: 1.Scrapbooks, 2.Photographs, 3.Documents, and 4.Log Books.

Series 1. Scrapbooks consists of 12 scrapbooks containing photographs documenting the construction of MRy substations and 74<sup>th</sup> Street Powerhouse, as well as early IRT substations and 59<sup>th</sup> Street Powerhouse. All photos have been cataloged at item level in the PastPerfect Collection Database and a high-resolution surrogate digital image has been attached to each record. Copy prints of the photographs are stored in the Archives Reading Room at 130 Livingston Plaza for access purposes and copy negatives are stored in the Cold Storage Vault at 130 Livingston for reproduction purposes.

Series 2. Photographs contains survey, construction, and modernization photos of MRy, IRT, BMT, IND, and Power Department substations, powerhouses, and other power- related facilities. The series is divided into sub-series by operating agency, and then arranged geographically by Power Zone, then alphabetically within zone and chronologically within each building. Please see the attached appendix for detailed listing of Power Zones. All photos have been cataloged, primarily at item level, in the Museum's collection management database. A high-resolution digital surrogate image has been created for most of the photographs and attached to the item-level record in PastPerfect.

Series 3. Documents contain correspondence, reports, published pamphlets, construction specifications, and other records. It is divided by operating agency, and then arranged alphabetically within agency. Of particular interest are the extensive records of the construction process of IRT Substation #28 for the 1939-1940 World's Fair, and the various Federal, State, and local agency reports contained in the miscellaneous sub-series. All documents have been cataloged at the sub-series level and have a container list at the folder level.

Series 4. Logbooks, 1911-1947 contains 9 notebooks used by employees to record the daily operations of IRT substations. Of particular interest are the Substation #11 Logbooks from 1917 and 1941, which contain comments about the draft and other references to World War I and II, respectively. Logbooks cataloged at the item-level in PastPerfect.

## **BOX AND FOLDER LISTING**

<b>Box No.</b>	<b>Description</b>
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## 1. SCRAPBOOKS

- Box 1**  
**Scrapbook #1**, construction of MRy Substation #8; installation of underground electrical conduit, 1901
- Box 2**  
**Scrapbook #2**, construction of MRy Substations #5, #6, #7, #8; installation of underground conduit, 1901
- Box 3**  
**Scrapbook #3**, construction of MRy Substations #3, #5, #7, and 74<sup>th</sup> Street Powerhouse, 1902
- Box 4**  
**Scrapbook #4**, construction of MRy Substations #5, #6, #7, #8; installation of underground conduit, 1901
- Box 5**  
**Scrapbook #5**, construction of MRy 74<sup>th</sup> Street Powerhouse, IRT Substation #16, 1902-1903
- Box 6**  
**Scrapbook #6**, construction of MRy 74<sup>th</sup> Street Powerhouse, IRT Substations #16, #18 and 59<sup>th</sup> Street Powerhouse; electrical equipment to be used in IRT substations and powerhouse in pieces prior to assembly, 1902-1904
- Box 7**  
**Scrapbook #7**, construction of MRy 74<sup>th</sup> Street Powerhouse, 1901
- Box 8**  
**Scrapbook #8**, construction of IRT Substations #11, #12, #13, #14, #15, #16; 59<sup>th</sup> Street Powerhouse; Repair and Inspection Shop, 1904
- Box 9**  
**Scrapbook #9**, construction of MRy Substation #2, IRT 59<sup>th</sup> Street Powerhouse electrical equipment to be used in IRT substations and powerhouse in pieces prior to assembly, 1902
- Box 10**  
**Scrapbook #10**, construction of MRy Substation #2 and 74<sup>th</sup> Street Powerhouse, 1902
- Box 11**  
**Scrapbook #11**, construction of MRy 74<sup>th</sup> Street Powerhouse, 1901-1902
- Box 12**  
**Scrapbook #12**, 2 prints of construction of MRy 74<sup>th</sup> Street Powerhouse, plus duplicates of all but 2 prints in Scrapbook #11

## 2. PHOTOGRAPHS

## 2.1. Power Zones & Substations Sub-series

### Box 13

#### IRT/ MRy Division

Zone 4, Substation 4, 1919, view of switchboard

#### Zone 6

##### Substation 6

1918, shop foreman portrait

1949, disassembly of rotary converter

#### Zone 7

Substation 7, 1948, modernized feeders and switches

98<sup>th</sup> St. & 3<sup>rd</sup> Ave Equipment Shop, 1904, shop interior & equipment

#### Zone 8

General, 1956, electrical conduit installation

##### Substation 8

1921, storeroom in sub-basement

1932, exterior view of side wall

1956, contract P-93 modernizations

#### IRT Division (subway)

#### Zone 11

Lafayette-Broome Substation, Undated, contract C-214 modernizations

##### Substation 11

1902, substation construction

1904, interior views showing electrical equipment

1917, demolition of original location, construction at new location

1918-1919, interior views showing electrical equipment

1923, damaged equipment parts

1924, damage to rotary converter #5

1925, burnt armature on rotary converter #4

1933, new 20,000 ampere shunts

1948, equipment modernizations

#### Zone 12

##### Substation 12

1903, substation construction

1949, contract P-43 modernizations

1952, contract P-63 modernizations

### Box 14

#### IRT Division

#### Zone 13

General, 1967, surveying photos and construction under contract C-182 (6 folders)

##### Substation #13

1902, substation construction

1903, substation construction (3 folders)  
1904, substation construction (2 folders)

## **Box 15**

### **IRT Division**

Substation #13 (continued)  
1918, electrical equipment  
1926, damaged oil pot, rotary #2 oil switch  
1927, damaged skylight  
1936, field coil damper of 1500 KW rotary converter  
1949, installation of rotary converter  
1955, contract P-92 modernizations  
1980, front facade  
Undated, flashover damage in high tension gallery  
7<sup>th</sup> Ave-43<sup>rd</sup> Street Substation  
1967, surveying and substation construction (2 folders)  
1968, surveying and substation construction (3 folders)  
1969, rebuilt street after construction

#### **Zone 14**

Broadway-73<sup>rd</sup> Street Substation, 1970, contract P-212 modernizations  
Substation #14  
1902, substation construction  
1903, substation construction (4 folders)

## **Box 16**

### **IRT Division**

Substation #14 (continued)  
1904, substation construction (2 folders)  
1970, contract P-212 modernizations

#### **Zone 15**

Broadway-LaSalle Street Substation, 1973, building exteriors  
Substation 15  
1902, substation site before construction  
1903, substation construction (3 folders)  
1904, substation construction  
1970, contract P-212 modernizations

#### **Zone 16**

General, 1958, Contract XK Lenox Avenue duct line work  
Lenox-113<sup>th</sup> Street Substation, 1970, contract P-212 modernizations  
Lenox-141<sup>st</sup> Street Substation, 1970, contract P-212 modernizations  
Substation #16  
1902, building site excavation  
1903, substation construction (4 folders)  
1904, substation construction (2 folders)  
1964, manholes

**Box 17**

**IRT Division**

Zone 17

Broadway-240<sup>th</sup> St. Substation, 1973, building exteriors

Substation #17

1923, damaged switchboard after accident

ca.1975, interior views; escalator and elevator shop on upper floors

Zone 18

East 180<sup>th</sup>-Morris Park Substation, 1973, building exteriors

Substation #18

1902, substation construction

1903, substation construction (3 folders)

1904, substation construction (2 folders)

1919, emergency alarm

1954, contract P-91 modernization

1981, interior views

Westchester-Saint Ann's Avenue Substation, 1972, survey photos (no prints, negatives in cold storage)

Zone 21, Substation #21, 1907, exterior and interior views

**Box 18**

**IRT Division**

Zone 22

Nostrand Avenue Substation

1948, survey photos of the building site

1949, substation construction

1950, completed construction

1951, contract P-44 modernizations

Substation #22, 1951, contract P-44 modernizations

Zone 23

Livonia Avenue Substation

1948, survey photos of the building site

1949, substation construction

1950, completed construction

Substation #23

1919, construction site

1951, contract P-44 modernizations

Zone 25

Tudor Substation

1952, substation construction (2 folders)

1957, contract P-64 modernizations

Zone 26

Substation #26

1916, substation construction

1917, substation construction

1919, terminal box wiring in substation basement

**Box 19**

**IRT Division**

Substation #26 (continued)

- 1920, terminal box wiring in substation basement
- 1937, broken insulators from high tension bus
- 1955, contract 92 modernizations
- 1980, building exterior

Zone 27

Substation #27

- 1923, substation construction (2 folders)
- 1924, exterior views
- 1925, safety features on rotary converters

58<sup>th</sup> Street Substation

- 1951, survey photos of substation site
- 1952, substation construction
- 1957, contract P-64 modernizations
- ca.1960, posed photographs in front of rectifiers, switchboards

Zone 28

Lawrence Substation

- 1951, survey photos of building site
- 1952, substation construction
- 1957, contract P-64 modernizations

**Box 20**

**IRT Division**

Substation #28, World's Fair Substation

- 1937, survey photos of building site
- 1938, substation construction; studio shots of electrical equipment (6 folders)
- 1939, substation construction

Zone 40

Substation #40

- 1917, substation construction
- 1919, substation interior
- 1922, interior shots of electrical equipment
- 1924, detail shots of rotary converters
- 1925, damaged rotary converter
- 1934, damaged rotary converter

Zone 41

General, 1968, contract C-204 survey photos (2 folders)

Substation #41

- 1916, substation construction

**Box 21**

**IRT Division**



Substation #41 (continued)

- 1917, substation construction (3 folders)
- 1918, substation construction
- 1948, modernizations
- 1973, contract P-214 modernizations

Zone 42

General, 1955

Lexington Avenue-78<sup>th</sup> Street Substation

- 1969, contract C-206 surveying photos (2 folders)
- 1975, contract P-214 modernizations

Park Avenue-41<sup>st</sup> Street Substation

- 1968, contract C-184 construction
- 1978, flashover damage to 13000 KV cubicle

Substation #42

- 1917, substation construction
- 1918, substation construction
- 1949, contract P-43 modernizations
- 1952, contract P-63 modernizations
- 1955, contract 92 modernizations
- 1963, contract P-206 modernizations

**Box 22**

**IRT Division**

Zone 43

General, 1967, contract C-183 survey photos (2 folders)

Pelham-St. Ann's Avenue Substation, architect's rendering, ca.1967

Substation #43

- 1917, substation construction
- 1948, interior views showing electrical equipment (no prints, negatives in cold storage)
- Undated, substation facade

Zone 44

Substation #44

- 1916, substation construction
- 1917, substation construction (2 folders)
- 1918, substation construction

Zone 45

Jerome Avenue-176<sup>th</sup> Street Substation

- 1972, contracts C-234, D-13386 survey photos (no prints, negatives in cold storage)
- 1973, exterior views

Jerome Avenue-212<sup>th</sup> Street Substation

- 1972, contract C-235 survey photos (no prints, negatives in cold storage)
- 1973, exterior views

Substation #45, 1917, substation construction  
Zone 46  
Allerton Avenue Substation, 1954, contract P-61 modernizations  
Baychester Substation, 1954, contract P-61 modernizations

**Box 23**

**IRT Division**

Zone 46 (continued)  
Brady Avenue Substation  
1949, building site prior to construction  
1950, substation construction  
1954, contract P-61 modernizations  
Zone 47  
Substation #47  
1917, substation construction  
1954, contract P-61 modernizations  
239th Street Substation  
1948, building site prior to construction  
1949, substation construction  
1951, contract P-44 modernizations (no prints, negatives in cold storage)  
Zone 48  
Commonwealth Avenue Substation  
1948, substation construction  
1949, substation construction  
Mulford Avenue Substation  
1948, survey photos; substation construction

**Box 24**

**IRT Division**

Zone 48 (continued)  
1949, substation construction  
1950, interior views with electrical equipment (no prints, negatives in cold storage)  
Substation #48  
1919, substation location  
1920, substation construction (3 folders)

**BMT Division**

Zone 4  
Hudson Substation  
ca.1973, contract P-214 modernizations  
ca.1980, damage to rotary converter #4  
Manhattan Bridge-York Street Substation  
1969, contract C-207 survey photos  
1973, building facade  
1975, contract P-214 modernizations

Montague-Furman Street Substation  
1973, building facade  
1975, contract P-214 modernizations  
Prospect Park Substation  
1966, contract P-203 modernizations  
1980, building facade  
3<sup>rd</sup> Avenue Substation  
1957, substation construction (2 folders)  
1958, substation construction (2 folders)

**Box 25**

**BMT Division / Zone 4**

3<sup>rd</sup> Avenue Substation (continued)  
1959, substation construction  
4<sup>th</sup> Avenue-Garfield Place Substation  
1968, contract C-191 survey photos (3 folders)  
ca. 1975, flashover damage to supervisory control board  
5<sup>th</sup> Avenue-Flatbush Substation  
1967, contract C-190 survey photos (3 folders)

**Box 26**

**BMT Division / Zone 4**

5<sup>th</sup> Avenue-Flatbush Substation (continued)  
1967, contract C-190 survey photos  
1968, contract C-190 survey photos; substation construction  
7<sup>th</sup> Avenue Substation  
1965, contract C-157 manhole and emergency distribution room (no prints, negatives in cold storage)  
1966, contract P-203 modernization photos (2 folders)

**Zone 5**

4<sup>th</sup> Avenue-38<sup>th</sup> Street Substation, 1981, building exteriors  
4<sup>th</sup> Avenue-64<sup>th</sup> Street Substation, 1980, building exteriors

**Zone 6**

Brighton-West 8<sup>th</sup> Street Substation  
1967, contract C-188 survey photos  
ca. 1968, electrical equipment  
Coney Island Substation  
1948, proposed substation location (no prints, negatives in cold storage)  
1949, substation construction  
1950, completed substation exteriors  
1951, contract P-44 modernizations (no prints, negatives in cold storage)  
1954, control switchboards and panels  
West 8<sup>th</sup> Street Circuit Breaker House, 1954, contract P-60 control cable installation

**Box 27**

**BMT Division**

Zone 7

Albermarle Circuit Breaker House, 1963 and 1964, contract C-157 survey photos (no prints, negatives in cold storage)  
Brighton-East 15<sup>th</sup> Street Substation  
1978, exterior views of building  
1980, exterior views of building  
Parkville Substation  
1954, contract P-60 modernizations  
1966, contract P-203 modernizations  
1980, flashover damage to oil circuit breaker; exterior views  
Quentin Road Substation  
1963, contract C-159 survey photos  
1964, contract C-159 survey and construction photos (3 folders)  
1966, contract P-203 modernizations

Zone 8

Broadway-Cornelia Street Substation, 1973, exterior views of building  
Broadway-East New York Substation, 1970, supervisory cubicle  
Broadway-Myrtle Avenue Substation  
1972, contracts C-237 & D-13389 survey photos (no prints, negatives in cold storage)  
ca.1975, electrical equipment modernizations  
1977, damage done from signal transformer failure  
Fulton-Essex Street Substation, 1975, contract P-214 modernizations

Zone 9

Sea Beach-Avenue T Substation  
1953, contract P-43 modernizations (no prints, negatives in cold storage)  
1954, contract P-60 modernizations  
Sea Beach-16<sup>th</sup> Avenue Substation  
1967, contract C-170 substation construction (no prints, negatives in cold storage)  
1970, contract P-212 modernizations

Zone 10

Canarsie-East 103<sup>rd</sup> Street Substation  
1966-1967, contract C-170 substation construction (no prints, negatives in cold storage)

**Box 28**

**BMT Division**

Zone 10

Canarsie-East 103<sup>rd</sup> Street Substation (continued)

1970, contract P-212 modernizations

1973, exterior view from street and architects rendering

Zone 12

General, 1976, survey photos for proposed substation sites along Jamaica Avenue

Jamaica-144<sup>th</sup> Place Substation

ca.1965, architects rendering

1966-1967, contract C-170 substation construction (no prints, negatives in cold storage)

1970, contract P-212 modernizations

Richmond Hill Substation, 1980, substation exterior

Woodhaven Substation, 1980, substation exterior

Zone 13, Lexington Substation, 1952, contract P-65 modernizations (no prints, negatives in cold storage)

Zone 18, Gates-Ridgewood Substation, 1973, contract C-249 modernizations

Zone 24

Broadway-Lorimer Street Substation, 1973, contract C-236 photos of building exteriors

Broadway-South 6<sup>th</sup> Street Substation, 1972-1973, contract C-248 modernizations

Zone 25

New Utrecht Substation

1953, contract P-43 modernizations (no prints, negatives in cold storage)

1970, contract P-212 modernizations

Zone 29

Astoria-24<sup>th</sup> Avenue Substation, 1973, contract C-220, photos of building exteriors

Queens Plaza South-9<sup>th</sup> Street, 1981, survey photos for proposed substation

**IND Division**

Zone 1

Dyckman Substation

ca.1940, substation exterior

ca.1988, \*contract P-36258, dismantling and replacement of rotary converter 'C'

Zone 3, Harlem Substation, 1975, flashover damage to building and electrical equipment

Zone 4

West 63<sup>rd</sup> Street Substation, ca.1978, \*contract P-253, interior views with electrical equipment

West 82<sup>nd</sup> Street Substation, ca.1973, \*contract P-215, interior views with electrical equipment

West 108<sup>th</sup> Street Substation, ca.1986, \*contract P-36258, street excavation and removal and replacement of rectifier

Zone 5

General, 1951, survey photos for 53<sup>rd</sup> Street duct construction  
Central Substation & Power Control Center  
1932, main entrance on front facade  
1949, contract P-16, supervisory control board in Control Center  
1962, contract P-204 modernizations  
8<sup>th</sup> Avenue-53<sup>rd</sup> Street Substation  
1957, contract P-94 modernizations

**Box 29**

**IND Division**

Zone 6, Greenwich Substation, 1932, substation facades  
Zone 7  
Cliff Substation  
1975, flashover damage to building and electrical equipment  
ca.1977, contract P-253 modernizations  
Zone 8, Stanton Substation, 1970, contract P-212 modernizations  
Zone 9  
Elliot Place Substation, 1966, street hatchway  
155<sup>th</sup> Street Substation, 1977, flashover damage to electrical equipment  
Zone 13, Downing Substation & Control Room, ca.1978, contract P-253  
modernizations  
Zone 16  
Patchen Avenue  
1957, contract WU images of interior and hatchway at street level  
ca. 1975, \*contract P-250, solid state electrical equipment  
Saratoga Avenue, 1948, Contract PLT EXT, electrical equipment in  
underground station (no prints, negatives in cold storage)  
  
Zone 17  
Avenue C Substation, 1954, contract P-60 modernizations  
Caton Avenue Substation, 1954, contract P-60 modernizations  
Seeley Street Substation  
1954, contract P-60 modernizations  
ca. 1986, \*contract P-36258 modernizations  
Zone 18, Avenue O Substation, 1954, contract P-60 modernizations  
Zone 19  
Avenue Z Substation  
1954, contract P-60, electrical equipment  
1964, contract C-168 modernizations (no prints, negatives in cold  
storage)  
Zone 20, 45<sup>th</sup> Street Substation, 1975, flashover damage to building and  
electrical equipment

**Box 30**

**IND Division**

Zone 22

General, Undated, Transformer room in subway station  
86<sup>th</sup> Avenue Substation, 1966, street hatchway

Zone 23

Dalny Road Substation, 1951, contract P-42, electrical equipment (no prints, negatives in cold storage)

Hillside Substation & Control Room,

1951, contract P-42 modernizations (no prints, negatives in cold storage)

ca.1978, contract P-253 modernizations

178<sup>th</sup> Street Substation, 1951, contract P-42, electrical equipment (no prints, negatives in cold storage)

Zone 24, Floyd Street Substation, 1986, \*contract P-36258, installation of solid state electrical equipment

Zone 25

Concourse Yard Substation, 1932, front facade

Mosholu Parkway Substation, ca.1978, contract P-253 modernizations

Zone 27

Fort Greene Place Substation, ca. 1975, \*contract P-250, solid state electrical equipment

Livingston Street Substation, ca.1978, contract P-253 modernizations

State Street Substation, 1966, street hatchway

Zone 28

Hester Street Substation

1963, water damage from leaks in walls, taken for dispute with contractor (no prints, negatives in cold storage)

1964, contract P-202, electrical equipment (no prints, negatives in cold storage)

**Box 31**

**IND Division**

Zone 33

Atlantic Avenue Substation, 1948, \*contract P-16, electrical equipment (no prints, negatives in cold storage)

Bradford Substation & Control Room, 1948, \*contract P-16, electrical equipment (no prints, negatives in cold storage)

Eastern Parkway Substation, 1948, \*contract PLT EXT and P-16, electrical equipment (no prints, negatives in cold storage)

Zone 34

Elton Substation, 1948, \*contract P-16, electrical equipment (no prints, negatives in cold storage)

Fountain Avenue Substation & Control Room

1948, \*contract P-16, electrical equipment (no prints, negatives in cold storage)

ca.1985, \*contract P-36258, installation of new solid state electrical equipment

Lincoln Substation, 1948, \*contract P-16, electrical equipment (no prints, negatives in cold storage)

Zone 35

Liberty Avenue-76<sup>th</sup> Street Substation

1953, survey photos of area prior to construction

1954, substation construction

1957, contract P-64, substation facades

Zone 36

Aqueduct Substation

1957, contract P-94, electrical equipment

1976, new emergency alarms on panels

Liberty Avenue-98<sup>th</sup> Street Substation

1973, contract C-217 images of exterior facades

1976, \*contract P-215, solid state electrical equipment

**Box 32**

**IND Division**

Zone 37

Hamilton Beach Substation

1957, contract P-94 completed substation construction

1964, burnt potential transformers

Zone 38, Broad Channel Substation, 1957, contract P-94 completed substation construction

Zone 39

Edgemere Substation, 1957, contract P-94 completed substation construction

Hammels Substations & Control Room

1957, contract P-94 completed control room construction

1962, contract XO-1 survey photos of existing LIRR Substation 5 building conditions, to become new Hammels Substation

1963, contract P-108 modernizations

Wavecrest Substation, 1957, contract P-94 completed substation construction

**Box 33**

**IND Division**

Zone 40, Rockaway Park, 1959, contract P-106 modernizations

Zone 41

General, 1955, contract P-102 survey photos of street at Pitkin Avenue & Shephard Avenue, Brooklyn.

Pitkin Yard Substation, 1949, \*contract P-16, interior views substation and machine shop (no prints, negatives in cold storage)

Zone X

Greely Substation

1966, General Electric ignition rectifier

ca.1975, \*contract P-250, solid state electrical equipment



Village Substation, ca.1975, \*contract P-250, solid state electrical equipment

**Power Control Department (NYCTA)**

East 75<sup>th</sup>-York Avenue 13-27 KV Transmission Substation

1955, survey photos of construction area; demolition and excavation of site (2 folders)

1956, substation excavation and construction (3 folders)

1957, substation construction

1958, aerial view of completed construction

128<sup>th</sup> Street-2<sup>nd</sup> Avenue 69 KV Transmission Substation

1955, survey photos of construction area; excavation of site

1956, excavation and substation construction (2 folders)

1957, substation construction

1959, aerial view of completed construction

**2.2. Powerhouse Sub-series**

**Box 34**

IRT/59<sup>th</sup> Street Powerhouse

1902, powerhouse construction (3 folders)

1903, powerhouse construction (7 folders)

**Box 35**

IRT/59<sup>th</sup> Street Powerhouse (continued)

1903, powerhouse construction (9 folders)

**Box 36**

IRT/59<sup>th</sup> Street Powerhouse (continued)

1903, powerhouse construction

1904, powerhouse construction (5 folders)

**Box 37**

IRT/59<sup>th</sup> Street Powerhouse (continued)

1904, powerhouse construction (7 folders)

**Box 38**

IRT/59<sup>th</sup> Street Powerhouse (continued)

1916, rebuilding of discharge tunnel

1917, rebuilding of discharge tunnel (3 folders)

1918-1924, miscellaneous electric equipment

1920, interior construction work

1921, panel boxes; rotary generator on engine room floor

1922, general views of engine room floor

1923, exterior views of powerhouse

1925, damaged electrical equipment

1930, testing room experiment  
ca.1932, interior and exterior views

**Box 39**

IRT/59<sup>th</sup> Street Powerhouse (continued)  
1935, exterior views of power house and coal tower  
1936, construction of new coal tower and crane  
1938, masonry work on boilers; pilings in yard  
1939, masonry work on boilers  
1948, construction of powerhouse extension  
1949, construction of powerhouse extension (5 folders)  
1950, construction of powerhouse extension

**Box 40**

IRT/59<sup>th</sup> Street Powerhouse (continued)  
1951, contract P-57 modernizations (2 folders)  
1952, contract P-63 modernizations (no prints, negatives in cold storage)  
1953, contract P-57 modernizations  
1954, contract P-59 modernizations (2 folders)  
1955, electrical galleries and powerhouse extension  
1956, survey photos of existing site for modernization

**Box 41**

IRT/59<sup>th</sup> Street Powerhouse (continued)  
1957, survey photos of existing site for proposed modernizations;  
modernization construction work (6 folders)

**Box 42**

IRT/59<sup>th</sup> Street Powerhouse (continued)  
1958, modernization construction work (6 folders)  
1959, completed modernizations  
Undated, electrical equipment  
74<sup>th</sup> Street Powerhouse  
ca.1902, exterior view of nearly completed construction  
1918, general view of engine room floor  
1919, general view of engine room floor  
1921, damaged electrical equipment  
1934, 73<sup>rd</sup> Street dock  
1952, contract P-63 modernizations (no prints, negatives in cold storage)

**Box 43**

IRT/74<sup>th</sup> Street Powerhouse (continued)  
1953, construction, powerhouse extension  
1954, construction of powerhouse extension, coal tower and ash building,  
contracts P-70, P-72, P-78 and P-80 modernizations (5 folders)

**Box 44**

**IRT/74<sup>th</sup> Street Powerhouse (continued)**

- 1955, electrical equipment modernizations, construction of control room, coal tower and ash building, ash tower; sidewalk and road conditions outside powerhouse; interior construction of powerhouse extension; digging of fuel oil pipe trench (5 folders)
- 1956, Interior of powerhouse during extension

**Box 45**

**IRT/74<sup>th</sup> Street Powerhouse (continued)**

- 1956, construction on waterfront facilities, ash bridge, and interior of powerhouse extension (4 folders)
- 1957, demolition of old coal and ash structure, construction of new turbine house, intake and outtake tunnels, ash building, duct trenches and manholes; demolition of old electrical galleries; (5 folders)

**Box 46**

**IRT/74<sup>th</sup> Street Powerhouse (continued)**

- 1958, demolition of old boiler house; construction of turbine house, coal tower runway; installation of condenser (4 folders)
- 1959, construction of boiler house, turbine house; completed construction of coal and ash building

**BHRR**

- 39<sup>th</sup> Street-1<sup>st</sup> Avenue Powerhouse, 1998, views from street of original building, no longer used as a powerhouse
- Wyckoff-Madison D.C. Powerhouse, 1998, views from street of original building, no longer used as a powerhouse
- Southern Powerhouse, 1998, interior and exterior views of original building, no longer used as a powerhouse

**BMT**

- Williamsburg-Kent Avenue Powerhouse
  - 1949, freight elevator and shaft (no prints, negatives in cold storage)
  - 1952, lintel installation in basement wall
  - 1955, interior views of coal tower and boiler house
  - 1956, demolition and construction of exterior and interior of powerhouse; excavation and installation on new pilings in yard area

**Box 47**

**BMT/ Williamsburg-Kent Avenue Powerhouse (continued)**

- 1956, demolition of old and construction of new boiler and turbine houses; construction of new ash handling facilities; excavation and installation on new pilings in yard area (2 folders)
- 1957, construction of boiler house, coal and ash handling facilities, and bridges between main building and dock area (3 folders)
- 1958, construction of boiler house, coal and ash handling facilities; installation of new precipitator; new restrooms and showers (2 folders)

1959, construction in interior of new boiler house, mechanical control room, coal tower conveyer belts

**MSRy**

96<sup>th</sup> Street Temporary Power Plant,  
1898, view from roof  
1900, interior view

**Unknown**

Jeanette Park Powerhouse, 1914 and 1920, substation location and construction

**Box 48**

**2. 3. Power Department Sub-series**

Circuit Breaker House #118, 1964, contract C-164 survey photos (no prints, negatives in cold storage)  
Dyre Avenue Circuit Breaker House, 1954, contract P-61 terminal box wiring  
Orchard St. Circuit Breaker House, 1955, contract 92 wiring installation; manholes (no prints, negatives in cold storage)  
9<sup>th</sup> Avenue Signaling Tower, 1981, view of tower from street  
10<sup>th</sup> Street Circuit Breaker House, 1955, contract 92 cables and conduit installation (no prints, negatives in cold storage)  
11<sup>th</sup> Street Circuit Breaker House, 1955, contract 92 cable installation; wiring (no prints, negatives in cold storage)  
42<sup>nd</sup> Road Circuit Breaker House, 1955, contract 92 cable installation; control terminal box (no prints, negatives in cold storage)  
53<sup>rd</sup> Street Control Center  
1977, excavation of trenches for duct runs  
1978, manholes and duct run trenches  
1979, building construction (3 folders)  
1980, building construction; installation of duct runs in trenches (5 folders)  
53<sup>rd</sup> & Broadway Circuit Breaker House #4, 1955, contract 92 cable and conduit installation (no prints, negatives in cold storage)  
58<sup>th</sup> & Broadway Circuit Breaker House #5, 1955, contract 92 cable and conduit installation (no prints, negatives in cold storage)  
240<sup>th</sup> & Warwick St. Circuit Breaker House, 1949, survey photo of proposed location

**Box 49**

**2.4 Miscellaneous**

**IRT/ MRy Division**

1919, marble switchboard

**IRT Division**

1904, signal interlocking cabin  
1918, battery room  
1919, electrical equipment  
1920, part of rotary converter  
1922, electrical equipment

1923, electrical equipment  
1927, underfeed stoker diagram  
1982, survey photographs of duct line  
Undated, disconnect switches

**BMT Division**

1927, Canarsie Yard facility

**IND Division**

1976, solid state electrical equipment  
Undated, electrical equipment

**Miscellaneous – Equipment**

1930, damaged switch  
1959, damaged equipment  
Undated, electrical equipment, repair shop, London, England rectifier station

**Miscellaneous – People**

ca. 1958, award ceremony  
ca. 1959, award ceremony, George J. Tzougras,  
Undated, award ceremony, George J. Tzougras bronze plaque,  
portrait of employee George Tappan

### 3. DOCUMENTS

**Box 50**

**IRT/Substation #28, World's Fair**

Curve Sheets and Memo, August 8, 1939  
Design & Manufacture of Automatic Railway Switchgear for I.R.T. Co.  
Substation #28, Long Island, NY, December 14, 1938  
Details of Operation of Automatic Equipment, 1939 (3 folders)  
Equipment Testing Procedures, December 1938  
Esterline Charts, 1939  
I-T-E Circuit Breaker Co. Bulletin 3905: World's Fair Substation of  
Interborough Rapid Transit Co. Is Fully Automatic, Undated  
I-T-E Circuit Breaker Co. Correspondence, 1939-1940  
I-T-E Circuit Breaker Co. Specification Booklet F-5022, December 30, 1937  
I-T-E Circuit Breaker Co. Specification Booklet #157-2, 1938  
I-T-E Specifications & General Data Re: S.S. #28, 1937-1938

**Box 51**

**IRT/ Substation #28, World's Fair (continued)**

Miscellaneous Computations, 1937-1940  
Miscellaneous Subjects- World's Fair, 1937-1940  
Operation Troubles, 1939-1945  
Preliminary Specification for Automatic Equipment for Substation No. 28,  
August 10, 1937  
Substation 28 Correspondence, Equipment, Aerial Cable, 1936-1940

Tests, 1938-1939  
Thomas E. Murray Report, January 1939  
World's Fair Data, 59<sup>th</sup> St. Power Station, Substations 13-26-27, 1937-1938  
20 Ton Crane Bids and Correspondence, 1938  
74<sup>th</sup> Street Power House, World's Fair, 1937

**Box 52**

**IRT/74<sup>th</sup> Street Power House**

Contract P-44 Piping and Miscellaneous Equipment, List of Contractor Drawings, 1955  
J.G. White Engineering Corp. Correspondence Regarding Drawing Classification and Numbering Systems, 1949-1958  
P-80 Contract 1 General Construction, Technical Features of Bids, June 1951  
P-80 Contract 2 Heating, Ventilating and Air Conditioning, Technical Features of Bids, July 15, 1951

**Box 53**

**BMT**

Bridge Substation Closing Records, 1975-1976  
Broadway – Park Row Substation, Inspector's Daily Reports, 1983-1984  
(7 folders)

**Box 54**

**BMT (continued)**

Broadway – Park Row Substation, Inspector's Daily Reports, 1985-1988  
(7 folders)  
Broadway – Park Row Substation, Report Regarding Borings, 1983  
Central Substation Closing Records, 1970-1972  
Coney Island Substation Closing Records, 1972-1976  
Halsey Substation Closing Records, 1974-1975  
Lexington Substation Closing Records, 1968-1970  
Miscellaneous Photographic Logs, 1968-1970

**Box 55**

**IND**

Greeley & Village Substations, Mercury Arc Rectifiers Instructions, Undated  
Stanton St. Substation  
Allis-Chalmers Testing Records, 1935 (2 folders)  
Construction Receipts, 1935  
Correspondence Regarding Allis-Chalmers Request for Extra Compensation, 1936-1937  
Kenotron Testing, 1935

**Box 56**

**IND (continued)**

General  
Multiple Locations, Certified Tests of Rotary Converters and D.C.  
Switchgear, 1930-1962  
Substation, System Operation and Supervisory Construction Calculations,  
1930-1944

**Box 57**

**Power Department**

Contract P-36300 Depositions, April 22, 1980  
Contract P-97 Correspondence Regarding Construction of 69 KV  
Transmission and Distribution Substation, 1956-1958 (2 folders)  
Department Organization and Hierarchy Diagrams, 1953-1983  
Power Department Safety Rules Booklet, December, 1960  
Report on the Effect of Lagging New York Board of Transportation Rectifier  
Tanks, 1931  
Schedule of Working Conditions for Employees of the Power Department,  
1937-1948

**Box 58**

**Miscellaneous**

City of New York, Report of the Mayor's Committee on Transit Power Plants,  
April, 1958  
Consolidated Edison Miscellaneous Franchise Consolidation Documents,  
1887-1945  
Correspondence Regarding Conduit Runs on Chicago's State Street Subway  
Line, June 11, 1931  
Federal Power Commission Report on Northeast Power Failure, December 6,  
1965  
General Electric Pumpless, Metal-Enclosed Rectifier Substation Equipment,  
June 14, 1950  
Instructions Affecting System Operation for the Guidance of Departments  
Concerned with Distribution Operations, The New York Edison Company,  
Inc. April 15, 1936  
Instruments Relating to Sale of Transit Power Plants, Report of the  
Corporation Council, February 5, 1959  
Instruments Relating to Sale of Transit Power Plants, Waterfront Leases, 59<sup>th</sup>  
St. Power Plant & 74<sup>th</sup> St. Power Plant, January 30, 1959  
Plant Sale Contract and Power Supply Contract between City of New York,  
NYC Transit Authority and Consolidated Edison Company of New York,  
Inc. 1959 (3 folders)

**Box 59**

**Miscellaneous (continued)**

Power Stations, by Thomas E. Murray, 1922  
Power Supply for the New York City Transit System, October 13, 1954  
Report on the Power Supply of the New York City, 1940  
Report on the Power Supply System of the Brooklyn Rapid Transit Company,  
May 8, 1918  
Report on the Powerstation Possibilities of the Kent Avenue Property of the  
Brooklyn Heights Railroad Company, by Thomas E. Murray, 1903  
Substation and Powerhouse Training and Promotion Exams, 1943  
Supplemental Indenture between Williamsburgh Power Plant Corporation and  
The Chase National Bank of the City of New York, July 1, 1932  
Supplementary Report on Power Supply of the New York City Transit  
System, July, 1945  
Westinghouse Specification of Synchronous Converter, Proposal on 4200  
KVA Air Blast Transformer, Undated

#### **4. LOG BOOKS**

**Box 60**

**IRT Substation 11**

1917

**Box 61**

1928

**Box 62**

1930

**Box 63**

1941

**Box 64**

1947

**Box 65**

**IRT Substation 12**

1911

1913

**Box 66**

**IRT Substation 21**

1923

**Box 67**

1928

#### **Subject Headings**

Brooklyn Heights Railroad

Brooklyn Manhattan Transit Company



Brooklyn Rapid Transit Company  
General Electric Company  
Independent Subway  
Interborough Rapid Transit Company  
I-T-E Circuit Breaker Company  
New York Central Railroad  
John B. McDonald  
Manhattan Railway Company  
Metropolitan Street Railway  
Thomas E. Murray  
Westinghouse Electric and Mfg. Co.

Ash Disposal  
Construction  
Excavation  
Demolition  
Surveying

Air compressors  
Ammeters  
Basements  
Bents  
Blowers  
Boiler Houses  
Boilers  
Breechings  
Brickwork  
Caissons pile  
Chimneys  
Circuit breakers  
Circuit breaker houses  
Coal  
Coal ash sites  
Coal chutes  
Condensers  
Construction workers  
Control house  
Control rooms  
Conveying Systems  
Conveyors  
Cranes (equipment)  
Derrick  
Duct banks  
Electric conduits  
Electric relays  
Electric switches

Electric wiring  
Elevated highways  
Engine rooms  
Engines  
Exciters  
Evaporator  
Electrostatic precipitator  
Fenders  
Foundations (structural elements)  
Frequency changer  
Generators  
Machine shops  
Machinery  
Manholes  
Meters  
Milling machinery  
Motors  
Panelboards  
Piers  
Piles (structural elements)  
Pipes (conduits)  
Plumbing systems  
Potheads  
Reinforced concrete construction  
Rheostat  
Roofs  
Rotary Converters  
Skylights  
Slips (waterfront spaces)  
Sluices  
Smokestacks  
Switchboards  
Steelwork  
Steel Structures  
Structural frames  
Thermal Insulation  
Transformers  
Transformer rooms  
Turbines  
Volt Meters

## NYCT Power Zones with Substations, Organized by Operating Agency

IRT Division			
Zone Number	Borough	Zone Name	Substations
10	Manhattan	Mt. Morris Park	Lexington Ave / East 99th St Lexington Ave / East 126th St
11	Manhattan	Hanover	Battery Park / State Street Lafayette / Pearl St. Lafayette / Broome #11- Park Row, 29-33 City Hall Place
12	Manhattan	Grammercy	4th Ave / East 11th St Park Ave South / East 25th St #12- 108-110 East 19th St.
13	Manhattan	Lincoln Center	7th Ave / 43rd St #13- Broadway / West 53rd St
14	Manhattan	Riverside Park	Broadway / 73rd St Broadway / 97th St #14- 264-266 West 96th St.
15	Manhattan	Medical Center	Broadway / LaSalle St #15- Broadway / West 143rd St
16	Manhattan	Lenox	Lenox Ave / 141st St Lenox Ave / 113th St #16- Lenox / 132nd St
17	Manhattan / Bronx	Van Cortland	Broadway / 240th St Broadway / Harlem River #17- Hillside / Dyckman St
18	Bronx	Bronx Park	East 180th St / Morris Park #18- Westchester Ave / Simpson St Westchester Ave / St Anns Ave
21	Brooklyn	Brooklyn Heights	Flatbush / 5th Ave #21- Joralemon / Willow Place Pierrepont / Furman St
22	Brooklyn	Eastern Parkway	Nostrand Avenue Nostrand Ave / Lenox Rd #22- Nostrand Ave / President St Eastern Pkwy / Underhill Ave
23	Brooklyn	New Lots	Livonia #23- Livonia / Rockaway Ave Eastern Pkwy / Utica Ave
25	Queens	Queens Boro	Tudor 50th Ave / 11th St
26	Queens	Queens Plaza	#26- Jackson Ave / West St Queens Blvd / 39 Place
27	Queens	Woodside	58th St Roosevelt Ave / 78th St Roosevelt Ave / Spruce St #27- Roosevelt Ave / 90th St
28	Queens	Flushing	Corona Yard Lawrence

			#28- Roosevelt Ave / Shea Stadium
40	Manhattan	Battery City	Hanover Square / Pearl St
			#40- West Broadway / Murray St
IRT Division			
Zone Number	Borough	Zone Name	Substations
41	Manhattan	Chelsea	Varick / Vardham St 7th Ave / West 27th St #41- 7th Ave / West 16th St
42	Manhattan	Grand Central	Park Ave / 41st St Lexington / East 78th St #42- Lexington / East 57th
43	Bronx	Mott Haven	Pelham / St Anns Ave Pelham / Tiffany St #43- 351 East 139th St
44	Bronx	High Bridge	Concourse / East 144th St #44- Jerome Ave / East 162nd St
45	Bronx	Woodlawn	Jerome Ave / East 176th St #45- Jerome Ave / Kingsbridge Rd Jerome Ave / East 212th St
46	Bronx	Dyre	Brady Allerton Baychester Dyer Ave / Secor Ave
47	Bronx	White Plains	239th St White Plains Rd / East 215th St White Plains Rd / Astor Ave #47- 707 East 211th St
48	Bronx	Pelham	Commonwealth #48- Westchester / Rowland St Mulford
BMT Division			
Zone Number	Borough	Zone Name	Substations
4	Brooklyn	Brooklyn Civic Center	Bridge Flatbush / Empire Blvd Flatbush / Willoughby Flatbush / 5th Avenue Hudson Manhattan Bridge / York St Montague / Furman St Prospect Park 3rd Ave 4th Ave / Garfield Pl 7th Ave
5	Brooklyn	Bay Ridge	38th St 4th Ave / 89th St 4th Ave / 64th St 4th Ave / 38th St
6	Brooklyn	Coney Island	Coney Island-- aka Sheepshead Bay Brighton / West 8th St

7	Brooklyn	Flatbush	Quentin Rd Brighton / East 15th St Albermarle / East 17th St Parkville
8	Brooklyn	East New York	Broadway / Myrtle Ave Broadway / Cornelia St Broadway / East New York Essex Fulton / Essex St Halsey
9	Brooklyn	Sea Beach	Sea Beach / 16th Ave Sea Beach / Ave T Stillwell Yard
10	Brooklyn	Canarsie	Van Sideren / Blake Ave Canarsie / East 103rd St
12	Queens	Richmond Hill	Jamaica / 144th Place Richmond Hill-- aka Jamaica / 120th St Jamaica / Forest Pkwy
15	Brooklyn	Greenpoint	Bedford Ave / North 6th St
18	Brooklyn	Ridgewood	Gates Ave / Ridgewood Bushwick / Boerum-- aka Bushwick
23	Manhattan	City Hall	Broadway / Park Row Centre / Pearl St Delancy / Suffolk St
24	Brooklyn	Williamsburg	Broadway / South 6th St Broadway / Lorimer St
25	Brooklyn	West End	86th St / Bay 26th St New Utrecht New Utrecht / 65th St
27	Manhattan	Union Square	Broadway / East 19th St Broadway / West 39th St 7th Ave / 59th St
29	Queens	Astoria	9th St / Queens Blvd South Astoria / 24th Ave
IND Division			
Zone Number	Borough	Zone Name	Substations
1	Manhattan	Dyckman	Dyckman
2	Manhattan	Washington Heights	Washington Heights
3	Manhattan	Harlem	Harlem
4	Manhattan	Park	West 119th St West 108th St West 99th St West 91st St West 82nd St West 73rd St West 63rd St
5	Manhattan	Central	Central 6th Ave / West 58th St 8th Ave / 53rd St
6	Manhattan	Greenwich	Greenwich

7	Manhattan	Cliff	Cliff St
8	Manhattan	Stanton	Stanton
9		Macombs	West 144th St West 155th St East 161st St East 165th St Elliot Pl
10	Bronx	Fordham	East 175th St Burnside Ave East 184th St East 193rd St Bedford Park Blvd
11	Queens	Court Square	Hunter Ave North Hunter Ave South Skillman Pl 11th St
12	Brooklyn	Meserole	South 4th St Withers St Meserole Ave Substation & Control Room Green St 48th Ave
13	Brooklyn	Downing	Decatur St Spencer Pl Downing Substation & Control Room Clermont Ave
14	Brooklyn	Jay St	Jay St
15	Brooklyn	Prospect	6th Ave 10th St Smith St Baltic St
16	Brooklyn	Patchen	Saratoga Ave Patchen Ave Substation & Control Room Chauncey St
IND Division			
Zone Number	Borough	Zone Name	Substations
17	Brooklyn	Canton	Ave C Canton Ave Substation & Control Room Seely St 13th St 9th St
18	Brooklyn	Ave O	Ave O
19	Brooklyn	Ave Z	Ave Z
20	Queens	Woodside	Hulst St 41st St 45th St 57th St 69th St 78th St
21	Queens	Nassau	South Railroad Ave 55th Rd

			62nd Rd 64th Rd 68th Ave
22	Queens	Kew	70th Ave 72nd Dr Kew Gardens 82nd Rd 86th Ave
23	Queens	Hillside	143rd St Hillside Substation & Control Room-- aka 150th St 167th St 178th St Dalny Rd
24	Brooklyn	Nostrand	Ashland Pl St James Pl Lafayette Ave Floyd St
25		Concourse Yard	Concourse Yard Mosholu Pkwy
26	Queens	Jamaica Yard	Jamaica Yard
27	Brooklyn	State	Livingston St Schemerhorn St Fort Greene Pl State St Substation & Control Room
28	Manhattan	Hester	Hester St
30	Queens	Sunnyside	41st Ave / 24th St
32	Manhattan	Hunter	63rd St / 2nd Ave 63rd St / Lexington Ave
33	Brooklyn	Bradford	Eastern Pkwy Atlantic Ave Bradford Substation & Control Room
IND Division			
Zone Number	Borough	Zone Name	Substations
34	Brooklyn	Fountain	Elton St Fountain Ave Substation & Control Room Lincoln
35	Queens	Liberty	Liberty / 76th St
36	Queens	Aqueduct	Liberty / 98th St Aqueduct
37	Queens	Hamilton Beach	Hamilton Beach
38	Queens	Broad Channel	Broad Channel
39	Queens	Hammels East	Hammels Substation & Control Room Edgemere Wave Crest
40	Queens	Hammels West	Rockaway Park
41	Brooklyn	Pitkin Yard	Pitkin Yard
X	Manhattan		Greeley