EAST PINE SUBSTATION

The East Pine Receiving Substation is part of City Light's never-ending construction program to provide additional facilities to take care of Seattle's growing power needs.

The substation, costing $2,333,000, is the first urban substation in the state of Washington to be supplied completely by high voltage underground transmission. It is connected with a 230,000-volt underground transmission line to a terminus on Beacon Hill, and with a 115,000-volt underground line to the Broad Street Substation.

It has been designed to serve a double purpose in assuring City Light customers of reliable electric service. First, it will provide an initial capacity of 150,000 kilovolt-amperes at 26,000 volts to serve the east-central part of Seattle, bounded by South Dearborn Street on the south, Lake Washington Canal on the north, the freeway on the west, and Lake Washington on the east. This is enough capacity to serve about 50,000 all-electric homes. Looking towards the future, the station has been designed with adequate space to double its capacity which, at Seattle's present rate of growth, will be needed by 1979.

The second purpose of the facility is to provide an additional source of 115,000-volt power to the north end of Seattle. The north end of Seattle is presently served by four substations receiving power at 115,000 volts from the Bothell Substation, located six miles northeast of the town of Bothell. The 150,000 kva underground tie from East Pine to Broad Street will permit sending of power from the high voltage lines serving the south of Seattle to the north end of Seattle.

The station has sixteen 26,000v draw-out circuit breakers especially designed by Westinghouse Electric Corporation for the station. City Light engineers participated in the developmental testing of these circuit breakers. The compactness of these switches made it possible to erect a station this size in the limited area available.

Particular attention was paid to design the station as an asset to the community. It marks the first major improvement in substation construction since the development of the park-like distribution substations. Instead of hiding the substation behind landscaping and shrubbery, it has been given an architectural treatment which dramatizes electricity.

As a result, the Pine Street station not only provides the community with a much needed park area, but creates a point of interest where visitors can learn something of the glamour and excitement in the distribution of electric power. It includes a 16-foot high platform from which the substation can be viewed by visitors, and several ornamental bronze gates through which passers-by may see the equipment. A descriptive plaque explaining the various devices in the substation will be installed at the top of the viewing tower.

The design of the station has obtained for City Light two awards: the Northwest Brick Association's "Special Award of Merit," and the Washington State Chapter of the National Society of Interior Designers' annual design award.

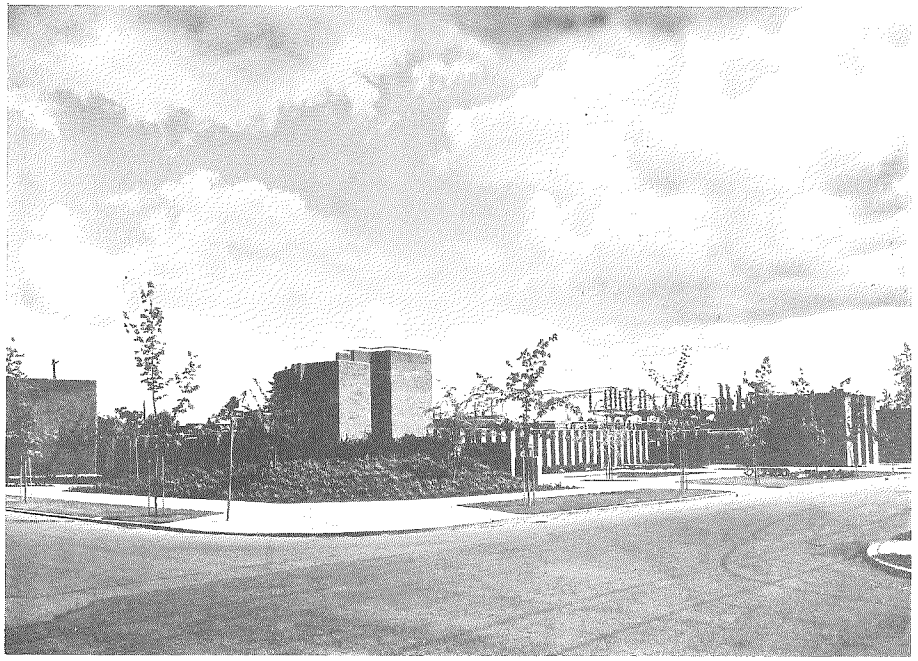
City Light engineers designed and supervised the construction of the substation under the direction of chief engineer Herbert V. Strandberg, chief electrical engineer Robert L. Skone, and project engineer Arthur L. Talbott. Allen L. Meyer was project engineer on the underground transmission line.

Major contractor on the substation was Robert E. Bayley Construction, Inc., of Seattle. City Light crews did the installation of the equipment.

Architectural and landscape planning was done by Fred Bassetti & Company, Seattle architects.

John M. Nelson
Superintendent of Lighting

SEATTLE CITY LIGHT



AWARD WINNING

EAST PINE
substation

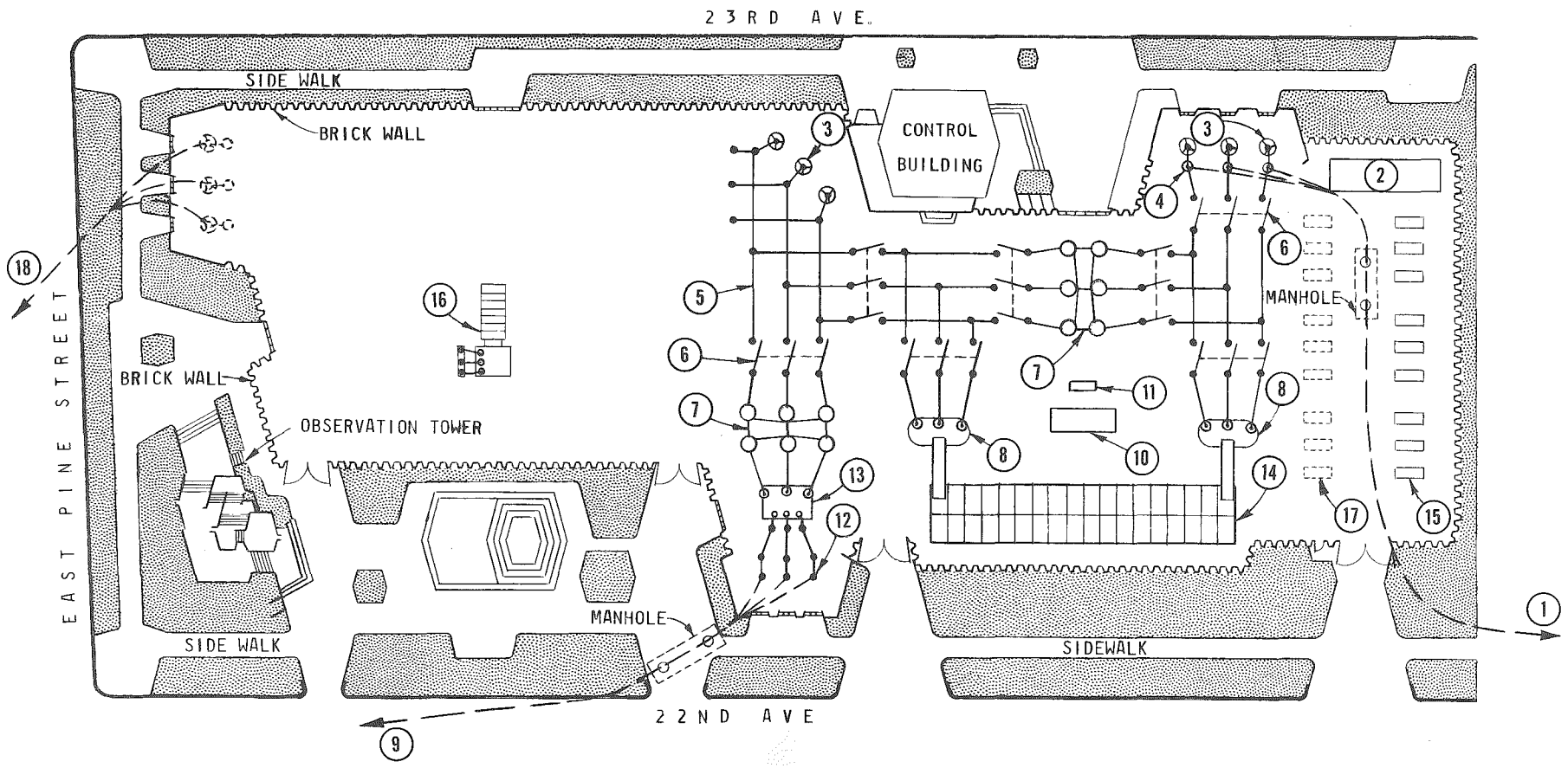
1555-23rd AVENUE

Open House

JUNE 23, 1967

2:00 P.M.-5:00 P.M.

EAST PINE SUBSTATION



1. 230,000 VOLT UNDERGROUND CABLE FROM BEACON HILL CABLE TERMINUS.
2. 230,000 VOLT OIL PUMPING PLANT.
3. 230,000 VOLT LIGHTNING ARRESTERS.
4. 230,000 VOLT CABLE POTHEADS.
5. 230,000 VOLT ALUMINUM BUS.
6. 230,000 VOLT DISCONNECT SWITCH.
7. 230,000 VOLT AIR BLAST CIRCUIT BREAKER.
8. 230,000 TO 26,000 VOLT TRANSFORMER.
9. 115,000 VOLT UNDERGROUND CABLE FROM BROAD STREET SUBSTATION.
10. 115,000 VOLT OIL PUMPING PLANT.
11. EMERGENCY GENERATOR FOR OIL PUMPING PLANTS.
12. 115,000 VOLT CABLE POTHEADS.
13. 230,000 TO 115,000 VOLT TRANSFORMER.
14. 26,000 VOLT SWITCHGEAR.
15. 26,000 VOLT CAPACITOR BANK.
16. 26,000 TO 4,000 VOLT UNIT SUBSTATION.
17. FUTURE 26,000 VOLT CAPACITOR BANK.
18. FUTURE 230,000 VOLT UNDERGROUND CABLE.

Architect -
FRED BASSETTI & COMPANY

Contractor -
ROBERT E. BAYLEY CONSTRUCTION, INC.

SUBCONTRACTORS

Plumbing & Heating - L. E. BALLOU & SONS
Mason Contractor - FRODESEN & HENSON, INC.
Metalwork - SEATTLE BRONZE CO.
Masonry - PIONEER MASONRY RESTORATION CO.
Roofing - CROW ROOFING & SHEET METAL, INC.
Glass - PARKER-HENRY CO.
Tile Work - SUNSET TILE CO.
Painting - PROFESSIONAL PAINTERS & DECORATORS
Electrical - BAYLEY ELECTRIC CO.