

The attached document is the agenda for a tour of the Ravenna Army Ammunition Plant that was conducted in the summer of 1968. It provides many statistics about the size and capabilities of the facility at that time.

Summer 1968

TOUR AGENDA

ADMINISTRATION AREA

Administration Building

This is the central headquarters building and serves both the storage depot and industrial plant.

Telephone Exchange

The telephone system throughout the plant is government-owned and is a 600 line automatic dial system with a two position attendants switchboard. There are eight long distance trunks in operation and four direct foreign exchange lines which terminate at Warren, Windham, Ravenna and Cleveland. Telegraph, teletype and IBM 1050 automatic data processing equipment is available.

Cafeteria

Can serve approximately 200 people per hour. Food for distribution through the load line cafeterias was also prepared there.

Recreation Building

Contains the Officer's Club which is non-functional, a large dance floor and stage, four-lane bowling alley and B.O.Q.

Staff Circle

Contains fifteen large three and four bedroom homes. There are a total of 22 houses active within the plant.

Dispensary

Was originally constructed with provision for 50 beds. Has a medium size, well equipped laboratory and X-Ray facilities. Nurse's quarters has 5 bedrooms, kitchen and living room. The north wing of this building is utilized by the 68th Ordnance Detachment (EOD) as their headquarters.

"T" Dormitory

Office space, auditorium, exhibit room and 25 bedrooms plus kitchen. Corps of Engineers and Blount Brothers Construction Company are utilizing basement for offices while projects are under construction.

Laboratory

Has a well-equipped large chemical laboratory and facilities for analysis of explosives.

1048

Fire and Guard Building

This building of 12,130 square foot area utilized by both fire and guard departments.

1037

Laundry

Constructed and used for the purpose of laundering clothing contaminated with explosives.

Power House No. 6

Two Babcock & Wilcox water-tube boilers are coal stoker-fired and produce 487.5 boiler horsepower at gate pressure of 145 pounds. This powerhouse supplies steam for the entire Administration Area. There are eight of the large type powerhouses throughout the plant.

1033

Maintenance Shop

This building contains the bulk of the maintenance facilities for the plant; paint shop, carpenter, electrical, plumbing, welding, sheetmetal, blacksmith and machine shops.

George Road Sewage Plant

One of the three plants located within the plant. Total sewage flow capacity is 750,000 gallons daily with this plant's maximum 350,000 gallons per day. Present average flow is 250,000 per day. There are six sewage lift stations and 38 miles of sewers.

1034

Automotive Maintenance Shop

This building contains 22,106 square feet. The maintenance services for automotive, engineer equipment and motor pool dispatch have been consolidated in this one building.

Load Line 4 (29 Buildings 183,100 square feet)

Includes powerhouse with water supplied from water works outside the line. Constructed in 1942 for production of 1,000 pound bombs. In 1945 line was converted for loading 8" shell and later placed in standby. In 1953, the line was retooled for loading anti-tank mines. Layaway was completed in April 1955. Project 55457 was submitted 17 May 1968.

Ammonium Nitrate Line

Produced ammonium nitrate from 1941 through 1943 and then was used to produce ammonium nitrate fertilizer. In 1945, Building FJ905 was converted from a TNT washout facility and used in the demilitarization program. In 1953, FN54 was equipped for brass cartridge case renovation. In 1960 Buildings FA902 and FJ904 were modified to provide bomb melt-out facilities. Powerhouse in this area has a total steam capacity of 908.7 boiler horsepower. Buildings FF19, FE22 and FE53 were outleased to Hercules-Alclor, Inc. Lease was cancelled effective 3 December 1967.

Group 8 Warehouses

Consist of 24 buildings with ground level truck and rail access, each containing 25,208 square feet of storage space. Seven contain General Services Administration strategic and critical materials and scrap and salvage operations. Fourteen of these buildings are used for storage of package line production equipment. Dehumidifiers were installed in twelve of these buildings under Corps of Engineers project subcontract to provide 360,000 square feet of controlled humidity storage space for equipment relocated from Lordstown Military Reservation.

Load Line 3 (39 Buildings - 191,044 square feet)

Line includes 1,000,000 volt X-Ray unit. Steam and water are supplied from sources outside the line. Constructed in 1942 for loading of bombs and was placed in standby in 1945. Mechanized and reactivated in 1954 at a cost of \$588,614 for loading of 155MM Shell. Layaway of line was completed in January 1958. Included within fenced area are 100 tanks providing 36,400 square feet of storage space for GSA strategic and critical materials. Project 55432 - L/A/P 155MM Shell.

Load Line 2 (37 Buildings - 199,000 square feet)

Includes powerhouse, a 1,000,000 volt industrial X-Ray Unit and water is supplied from water works located outside the line. Constructed in 1942 for production of 155MM Shell and was placed in standby in 1945. Reactivated in 1952 for processing 120MM, 155MM and 8" Shells. Layaway was completed in February 1958. Project 55351 - L/A/P 175MM Shell.

Group 6 Warehouses

Consist of seven buildings with dock height truck and rail access, each containing 40,000 square feet of storage space. Five and one-half buildings have been dehumidified to provide 137,742 square feet of controlled humidity storage space for package line metal working machinery. Remaining space is used for general stores.

Load Line 1 (46 Buildings - 284,000 square feet)

Includes central powerhouse and water works. Constructed in 1942 for production of 75MM Shell and was placed in standby in 1945. Modernized and reactivated in 1953 at a cost of \$735,663 for loading 90MM Shell. One of the innovations of this line was the use of the industry's first pneumatic conveyor for conveying TNT. Line was placed in standby in 1956 and reactivated for normal maintenance and renovation activities in February, 1965.

Ore Yards

Various types of ore are stock-piled for General Services Administration. Acquisition cost of all GSA materials stored at this installation is approximately 300 million dollars.

Fuze Line 1 (18 Buildings - 73,101 square feet)

Fuze Line 2 (26 Buildings - 106,483 square feet)

Constructed in 1942 for the production of various types of fuzes and placed in standby in 1945. Equipment was removed from these lines. Fuze Line 2 is utilized by Firestone Defense Research Division under Lease Agreement.

Percussion Element Line (35 Buildings - 35,000 square feet)

Constructed in 1942 for the production of M36 percussion elements and placed in standby in 1945. Reactivated in 1952 for loading M36A1 and M54 percussion elements. Layaway completed in 1954. Project 55452.

Detonator Line (59 Buildings - 59,400 square feet)

Steam and water are provided by central plants supplying all component loading lines. Constructed in 1942 for loading of fuze component parts. Line was laid away in 1945. Equipment was removed from this line. Project 55456 for L/A/P Detonators to be submitted October, 1968.

Group 4 Magazines

Consist of 26 buildings each containing 1,171 square feet of storage space. These buildings are all rail served.

Railroad Classification Yard

The plant and depot are serviced by a total of 131 miles of track of which 21.2 miles are in the Classification Yard. There are 18 tracks in this yard with a 750 car capacity and 3 HI-X tracks with a 120 car capacity. This system maintains communication for switching via the transportation radio network.

Group 7 Igloos

There are 66 forty-foot long, rail served, reinforced concrete arch type igloos.

Group 3 Magazines

Consist of 21 smokeless powder magazines, rail served.

Main Electrical Sub-Station

Electricity is purchased from the Ohio Edison Company and served to the installation from two directions, north and south. The incoming service is 24 KVA and is distributed to two other sub-stations at 6900 and 4160 volts. All switchgear is automatic with the exception of the incoming hi-line switching which is manual. Total capacity is 11,000 KW per hour and present average useage is 400,000 KWll per month.

Group 1 & 1A

There are 120, sixty-foot reinforced concrete arch type, rail served igloos.

Group 2

Contains 17 buildings with 13, 488 square feet per building. Eleven are rail served and six are both rail and truck served.

Group 5 Igloos

There are 44, forty-foot long, rail served, reinforced concrete arch type igloos.

Wet Storage Area

In this area there are two 40 foot and two 20 foot reinforced concrete arch type igloos and two 10 foot vaults. One igloo has been established as a Disaster Command Post.

Artillery Primer Line (21 Buildings - 29,188 square feet)

Steam and water are provided from central plants supplying all component loading lines. Constructed in April, 1942 for production of M28 and MK2A1 primers. Placed in standby in 1945 and reactivated in 1952 for loading of the MK2A4 primer. Automatic onion-skin and cork-disc inserting and packaging machines were developed to produce a compact and highly efficient loading operation. Line reverted to standby in 1956. Reacti-
vation scheduled for September, 1968.

Burning Grounds

Used for destruction of explosives by burning and includes deactivation furnace. The area covers 620 acres.

Demolition Grounds

This area covers 230 acres.

Igloo Areas B. C. D and E

Consist of 353 sixty-foot reinforced concrete arch type truck serviced igloos.

Igloo Area A

Consists of 100 eighty-foot reinforced concrete arch type truck serviced igloos.

GSA Storage

18 storage tanks contain General Services Administration strategic and critical materials in dry bulk storage and provide 31,194 square feet of storage space.

Standard Magazines (8 Buildings 90,136 square feet)

All buildings are truck and rail served with six at dock height and two at ground level. Clear head room is 14-1/2 feet and the door openings are 9' 11" by 7' 10". All contain field service class 4 items.

Inert Storage Warehouses (3 Buildings - 36,765 square feet)

For storage of depot general supplies, standby equipment and field service items.

Materials Handling Equipment Shop U4 (11,898 square feet)

In active use for repair of materials handling equipment.

Locomotive Repair Shop U5 (7,120 square feet)

Was used until 1946 for locomotive repair. Being reactivated for engineer equipment repair shop.

Carpenter Shop U14 (11,898 square feet)

Presently used for storage of package line equipment.

Box Repair Shop U10 (38,960 square feet)

Presently in standby status.

Fire Station No. 4

Presently in standby status.

Commanding Officer's Residence

Formerly Senator Bolton's estate.

Bolton Barn (34,208 square feet)

Used for depot offices until 1956 when it was placed in standby status. Formerly part of Senator Bolton's estate and was used as a show place for horses.

Equipment Repair Shops U7 & U8 (33,195 square feet)

Presently used for controlled humidity equipment storage.

X-Pads

4 Buildings - 21,120 square feet each; 9 Buildings - 10,560 square feet each.

NASA Area

550 acres utilized from 1942 to 1945 as a demolition area. Permit was granted in 1952 to the National Advisory Committee for Aeronautics for use and occupancy of area for an Aircraft Research Program. This program was completed in 1957. This is one of the locations considered as a possible test site for rocket motors.

Water Works 3

This is the main water works for the installation. Total pumping capacity for the station is 2500 gpm. In addition, there are two electric driven auxiliary pumps 1500 gpm each and two gas engine auxiliary pumps of 1000 gpm each. There is a 725,000 gallon clear well and a 5,000,000 gallon outside open reservoir. Plant water system consists of 14 deep wells, two other water works for filtering and chlorinating with total plant capacity of 1,690,560 gallons daily. There are four 200,000 gallon and two 100,000 gallon capacity elevated steel water storage tanks. Present water consumption is approximately 260,000 gallons per day.

Booster Line 1 (19 Buildings - 50,757 square feet)

Booster Line 2 (19 Buildings - 57,350 square feet)

Constructed in 1942 for the production of various types of booster charges and placed in standby in 1945. Equipment was removed from these lines.

COMMUNICATIONS

TELEPHONE



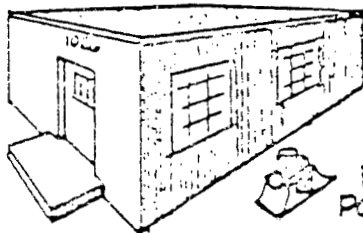
TELEGRAPH



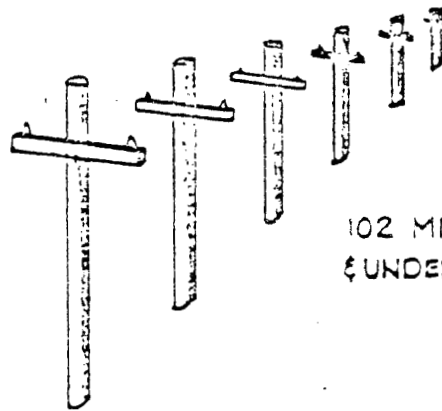
TELETYPE



CENTRAL OFFICE
600 LINE DIAL EQUIPMENT



EMERGENCY
POWER GENERATOR



102 MILES OVERHEAD
& UNDERGROUND LINES

RADIO

NETWORK

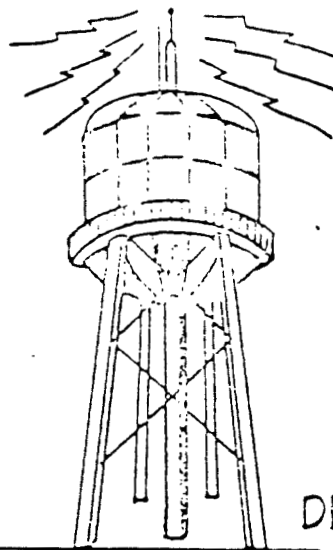
FIRE-GUARD NETWORK

AAC-540 20 UNITS

ANTENNAS

ENGINEER-TRANSPORTATION

AAC-545 10 UNITS



BASE STATION

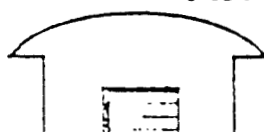


DETONATOR WATER TANK

COMMAND POST

AAC-540
AAC-545

PORTAGE CO.
SHERIFF P-22

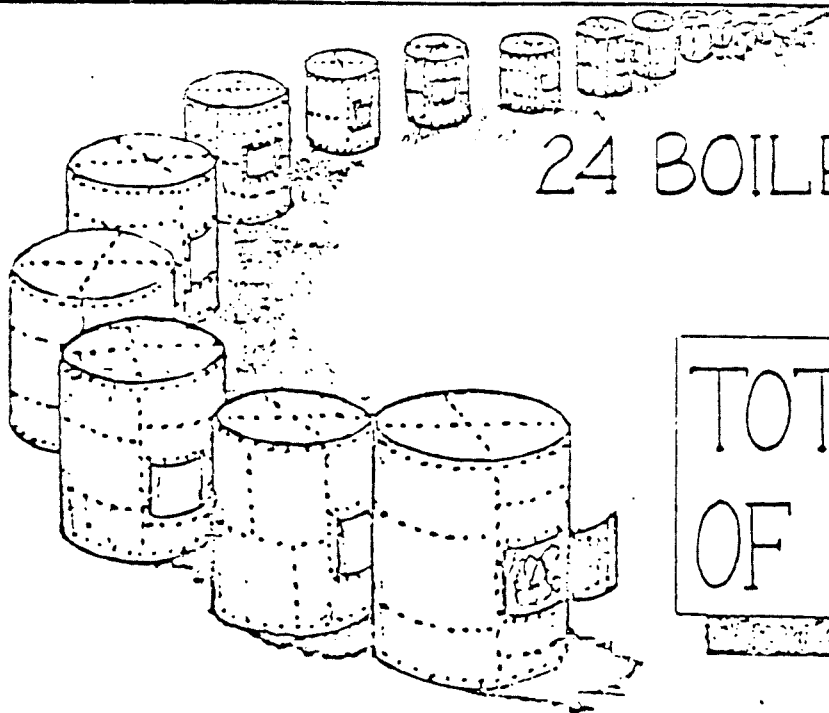
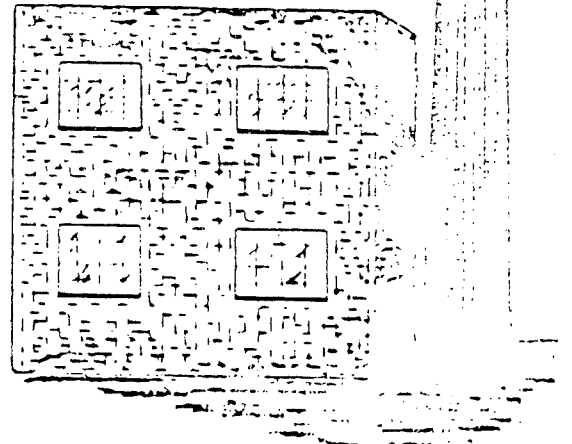


POWER HOUSES

8
POWER HOUSES

6 ACTIVE
2 INACTIVE

AVERAGE OPER. PRESSURE 150
" OUTPUT -186,000 LBS/DAY
" H.P. RATING 487½



24 BOILERS

18 OIL
6 COAL

TOTAL OUTPUT
OF 8553 H.P.

204,897 LIN. FT. OF STEAM LINES
35,805 LIN. FT. OF AIR LINES

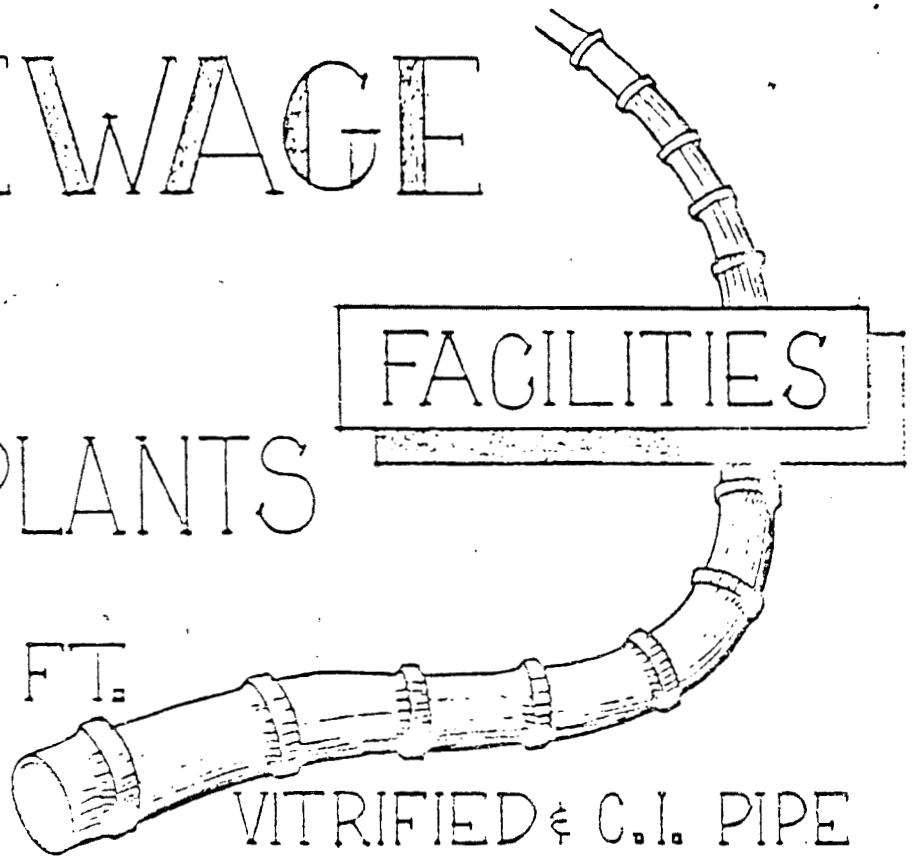
SEWAGE

6

PUMPING PLANTS

140,740 LIN. FT.

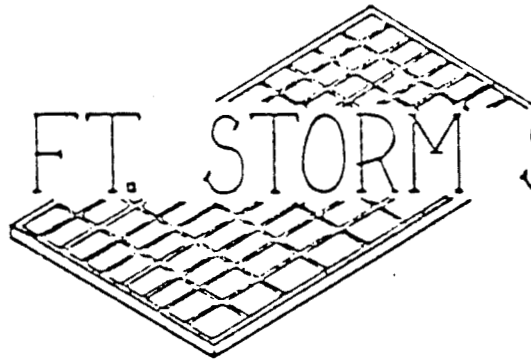
FACILITIES



VITRIFIED & C.I. PIPE

3 TREATMENT PLANTS
(750,000 GAL'S. DAILY)

120,691 FT. STORM SEWERS

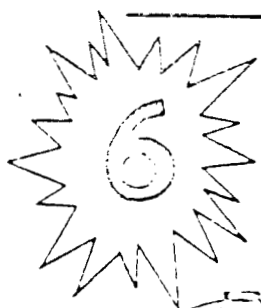


THIS SYSTEM WOULD SERVE A
CITY OF 10,000 PEOPLE

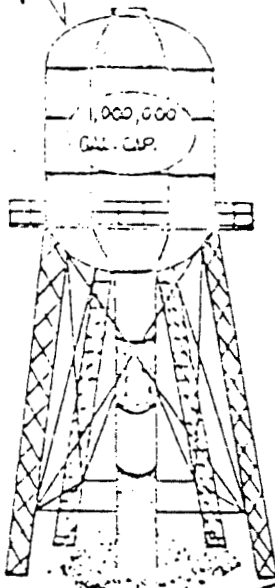
WATER

FACILITIES

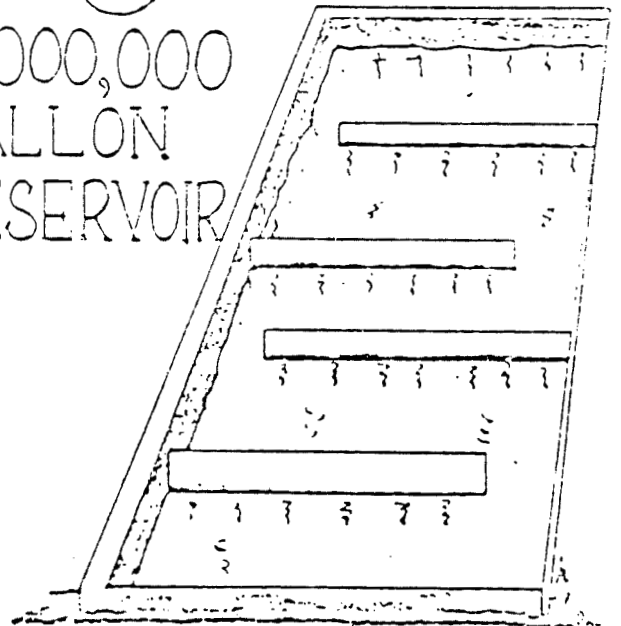
SOURCE-14 DEEP WELLS-1,250,000 G.P.D.
4 TREATMENT & PUMPING PLANTS



STORAGE
TANKS



5,000,000
GALLON
RESERVOIR



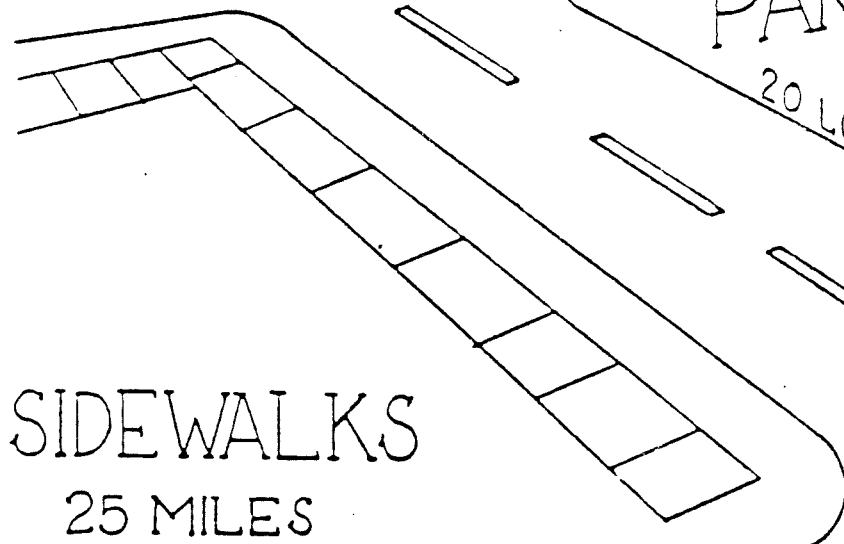
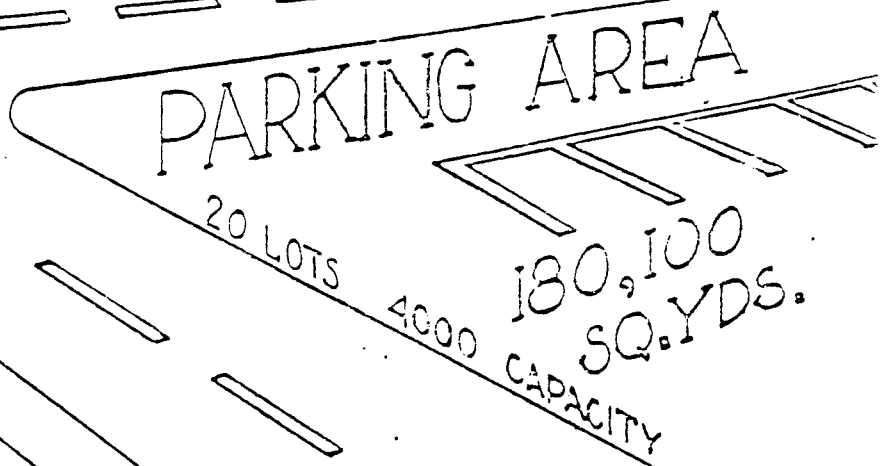
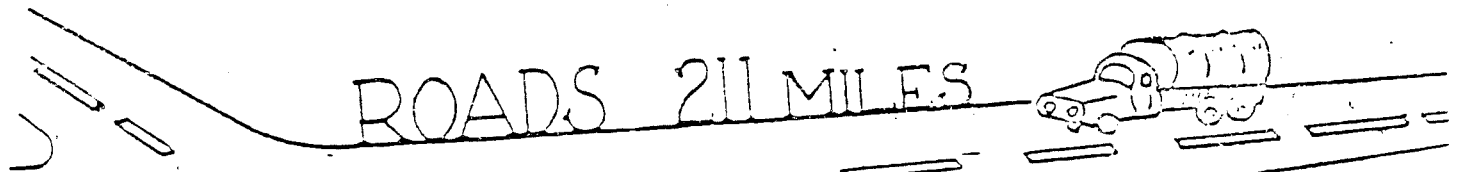
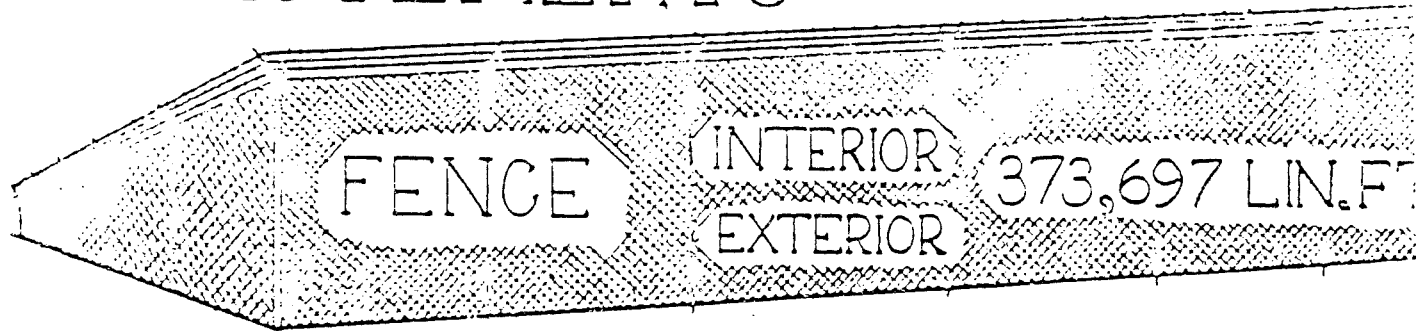
3 CLEARWELLS, 1 1/2 MILLION GAL

DISTRIBUTED
THRU 260,738
LIN. FT. OF
PIPE

THIS SYSTEM WOULD
SERVE A CITY OF
10,000 PEOPLE

ROADS = GROUNDS

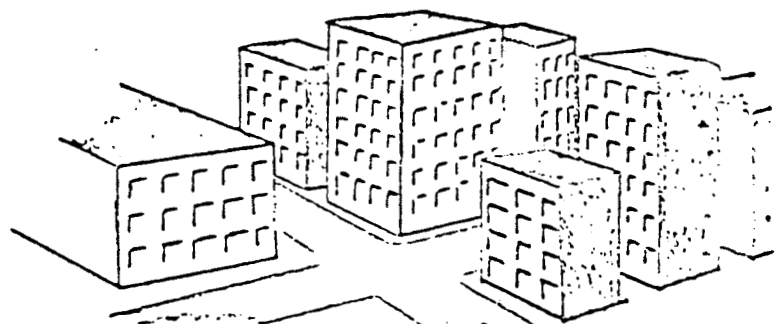
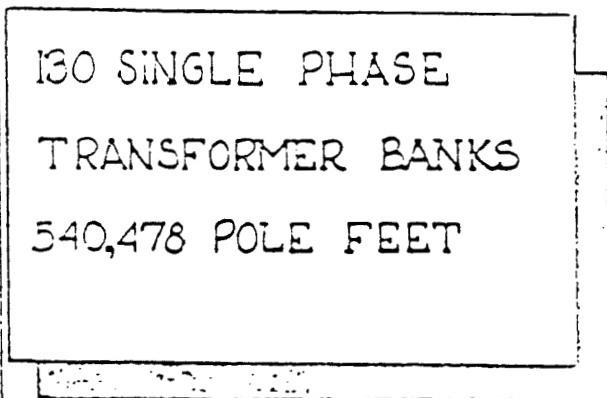
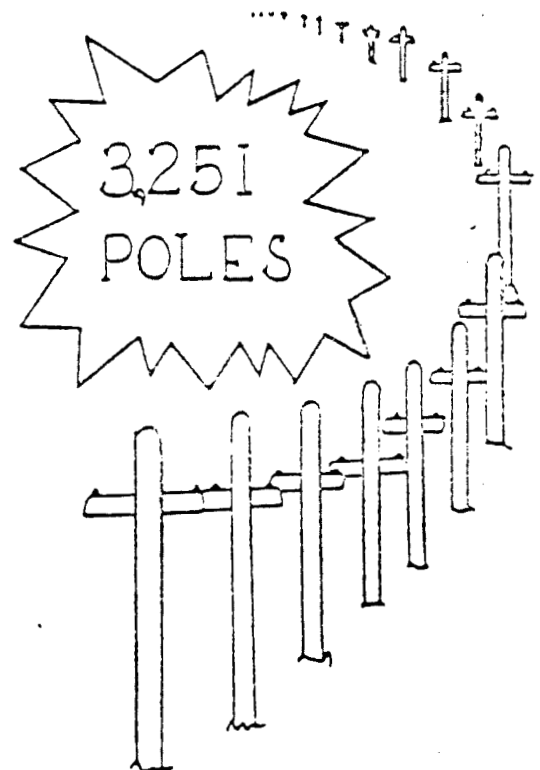
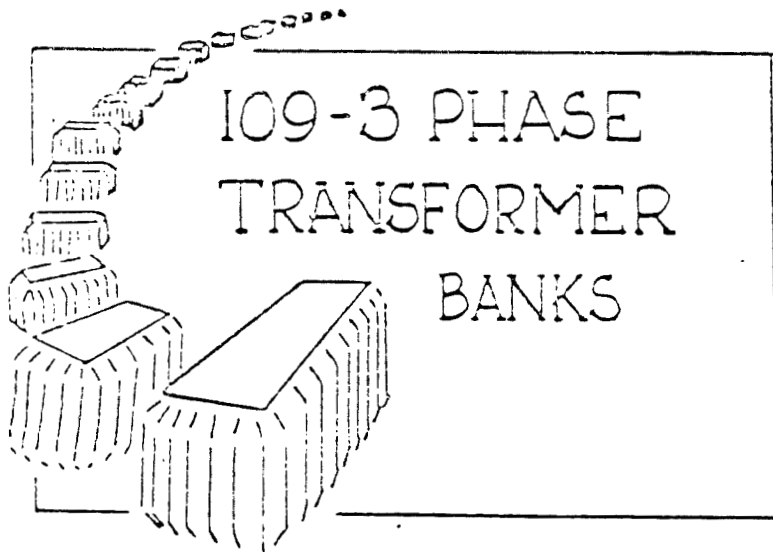
IMPROVEMENTS



APRONS 129,133 SQ. YDS.

ELECTRICAL

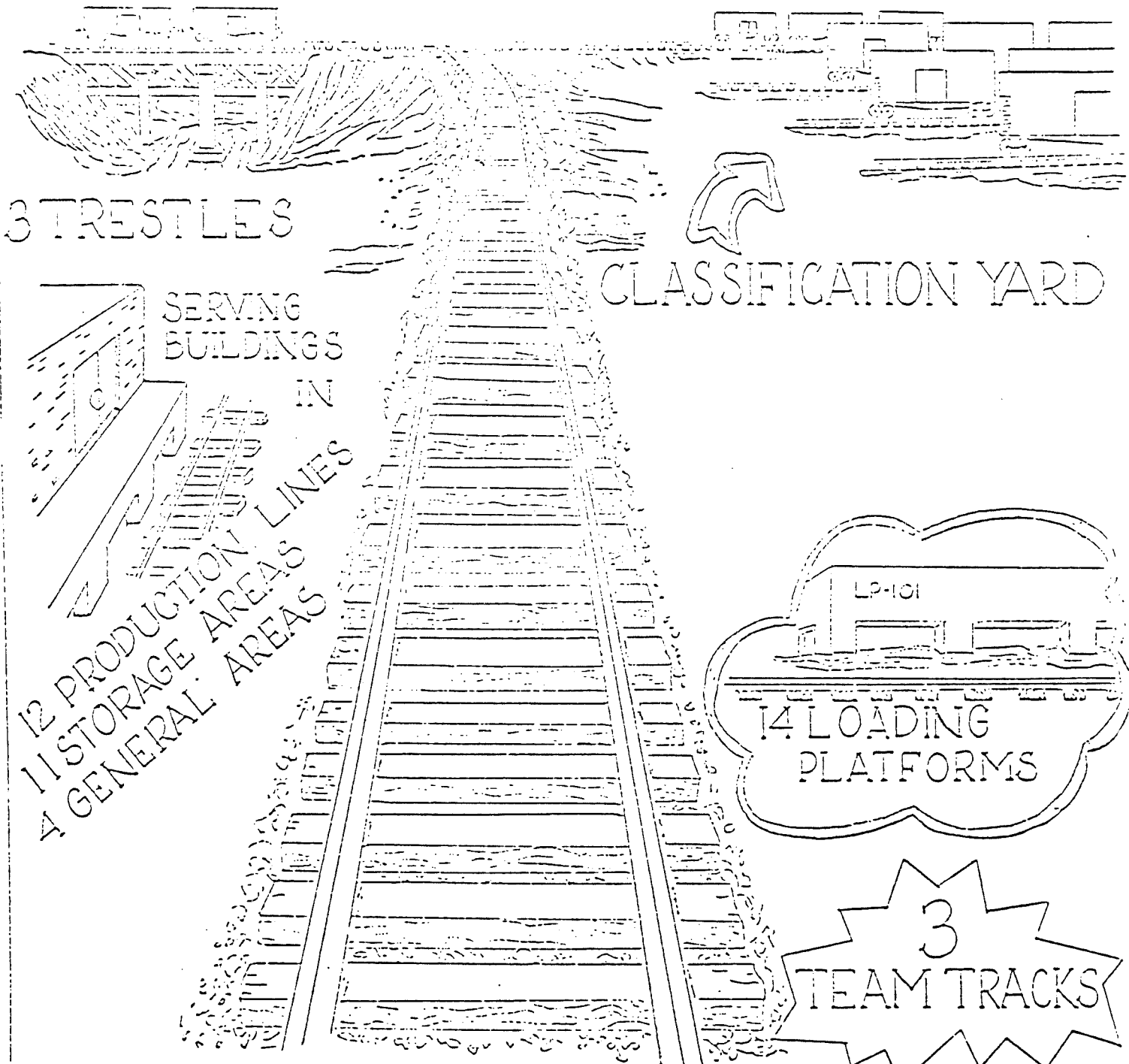
- PURCHASED FROM OHIO EDISON COMPANY
- SUPPLIED FROM NEWTON FALLS & GARRETTSVILLE, O.
- DISTRIBUTED THRU 4 SUB STATIONS EACH HAVING 24,000 VOLTS.



THIS SYSTEM HAS A 11,500 KVA CAPACITY
WOULD SERVE A CITY OF 10,000 PEOPLE

RAILROAD

TOTAL MILES 131



3 TRESTLES

CLASSIFICATION YARD

SERVING BUILDINGS

12 PRODUCTION LINES
11 STORAGE AREAS
4 GENERAL AREAS

14 LOADING PLATFORMS

3 TEAM TRACKS

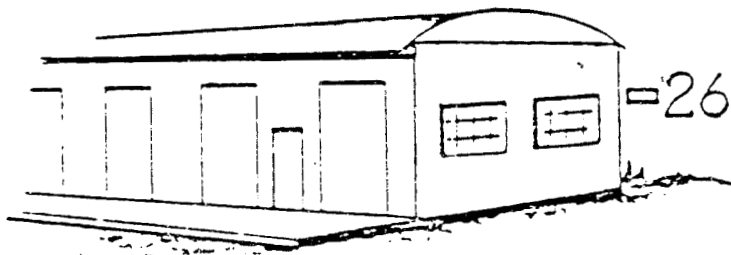
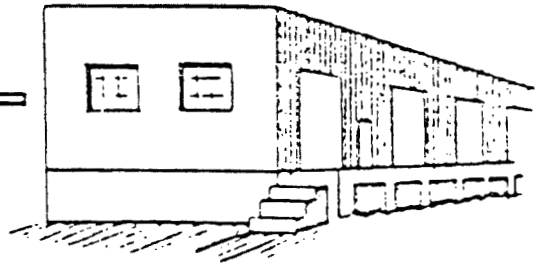
CROSS & SWITCH TIES

351,153

25,126

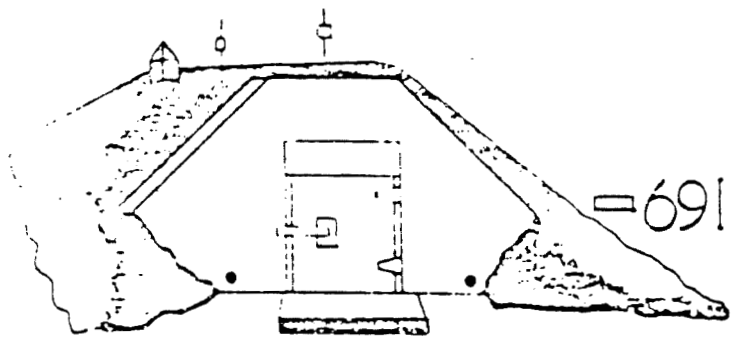
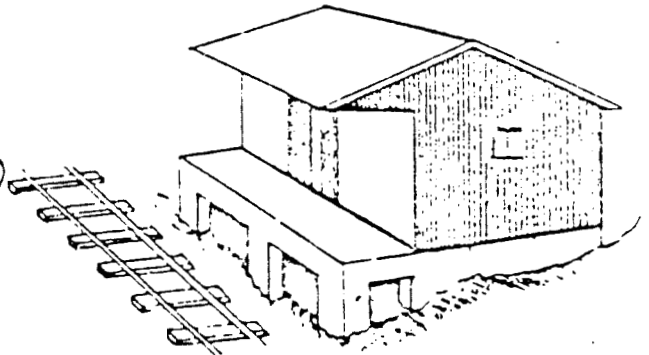
STORAGE

22 WAREHOUSES DOCK HEIGHT =



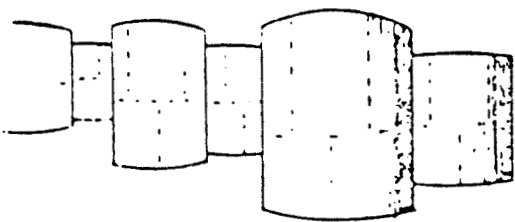
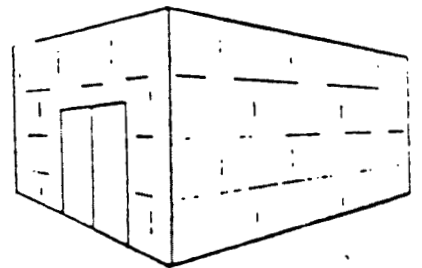
= 26 WAREHOUSES GROUND LEVEL

72 MAGAZINES ABOVE GROUND =



= 691 MAGAZINES BELOW GROUND

14 COVERED-SIDED PADS =



= 118 TANKS

158,880 SQ. YDS. HARDSTAND

GSA STORAGE

