Niagara Falls Storage Site (NFSS)
Remedial Investigation Report (RIR) Addendum
Appendices (Part B)

Appendix 12-B	LOOW Completion Report (Volume 1)
Appendix 12-B	LOOW Completion Report (Volume 2)

APPENDIX 12-B

Completion Report
Lake Ontario Ordnance Works
Youngstown, New York

Volume 1

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Monitoring Plants Branch

COMPLETION REPORT

LAKE ONTARIO ORDNANCE WORKS

YOUNGSTOWN - NEW YORK

JANUARY 1, 1942 - MARCH 15, 1943

OFFICE OF THE AREA ENGINEER

APRIL 1, 1943

VOL. I

LOOW-001

COMPLETION REPORT

LAKE ONTARIO ORDNANCE WORKS

YOUNGSTOWN, NEW YORK

JOB NUMBERS

(Lake Ontario) M1-1; M1-2; M1-3

DIRECTIVES

Consecutive No. 15; No. 15, Supplement No. 1; M-249;
No. 15, Supplement No. 2; M-249, Supplement No. 1;
M-466; M-249 Supplement No. 2

Submitted April 1, 1943

[redacted]

Major, Corps of Engineers, U. S. Army

AREA ENGINEERS IN CHARGE OF THE PROJECT

Colonel Paul B. Parker, C. of E., Jan. 1, 1942 to May 1, 1942
Lieutenant Colonel Harry R. Kadlec, C. of E., May 1, 1942 to Aug. 31, 1942
Major Thomas R. Archibald, C. of E., Aug. 31, 1942 to April , 1943

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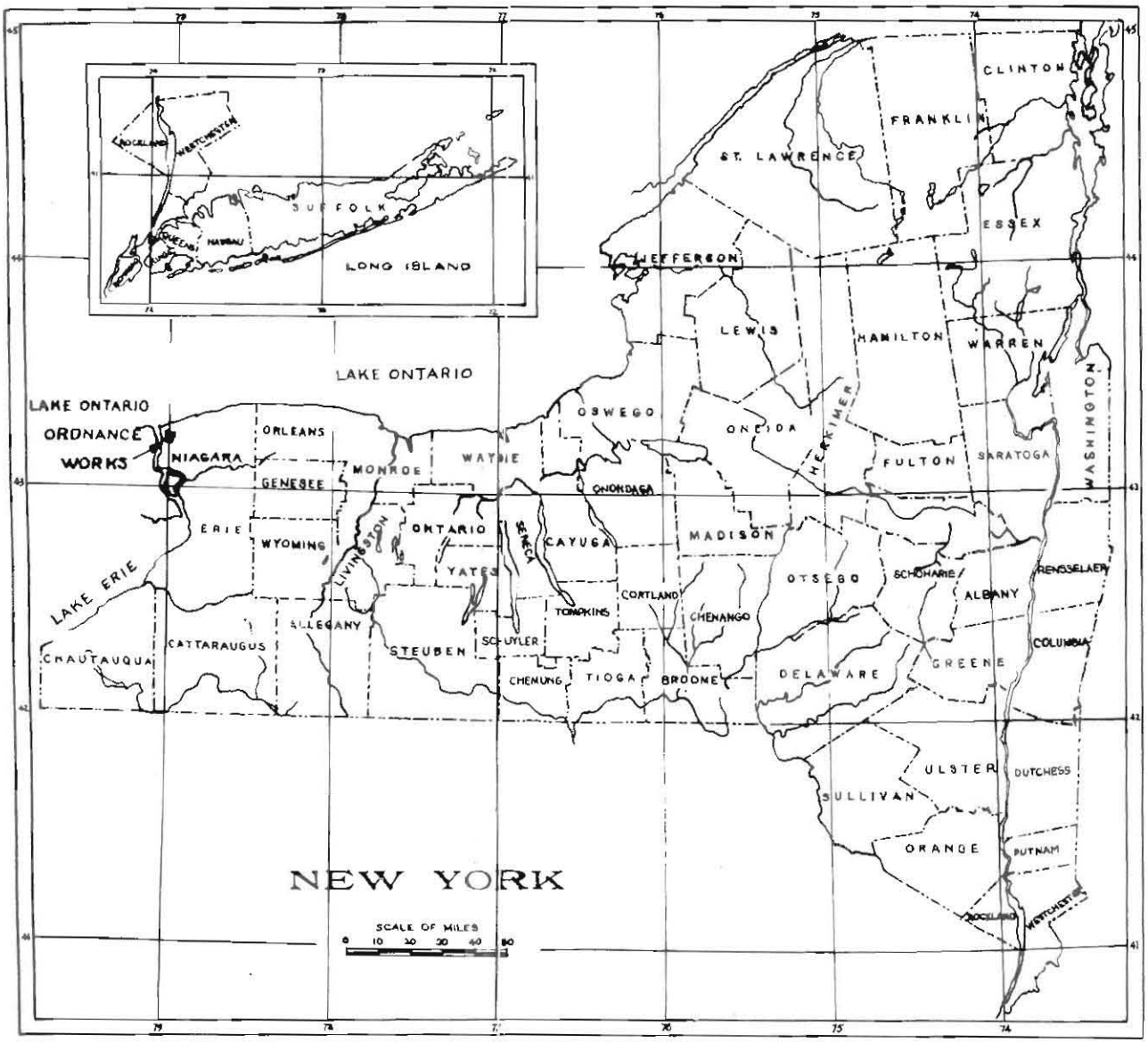

MAP
SHOWING LOCATION
OF
LAKE ONTARIO ORDNANCE WORKS

THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT • ENGINEER • MANAGER
LEWISTON, N. Y.

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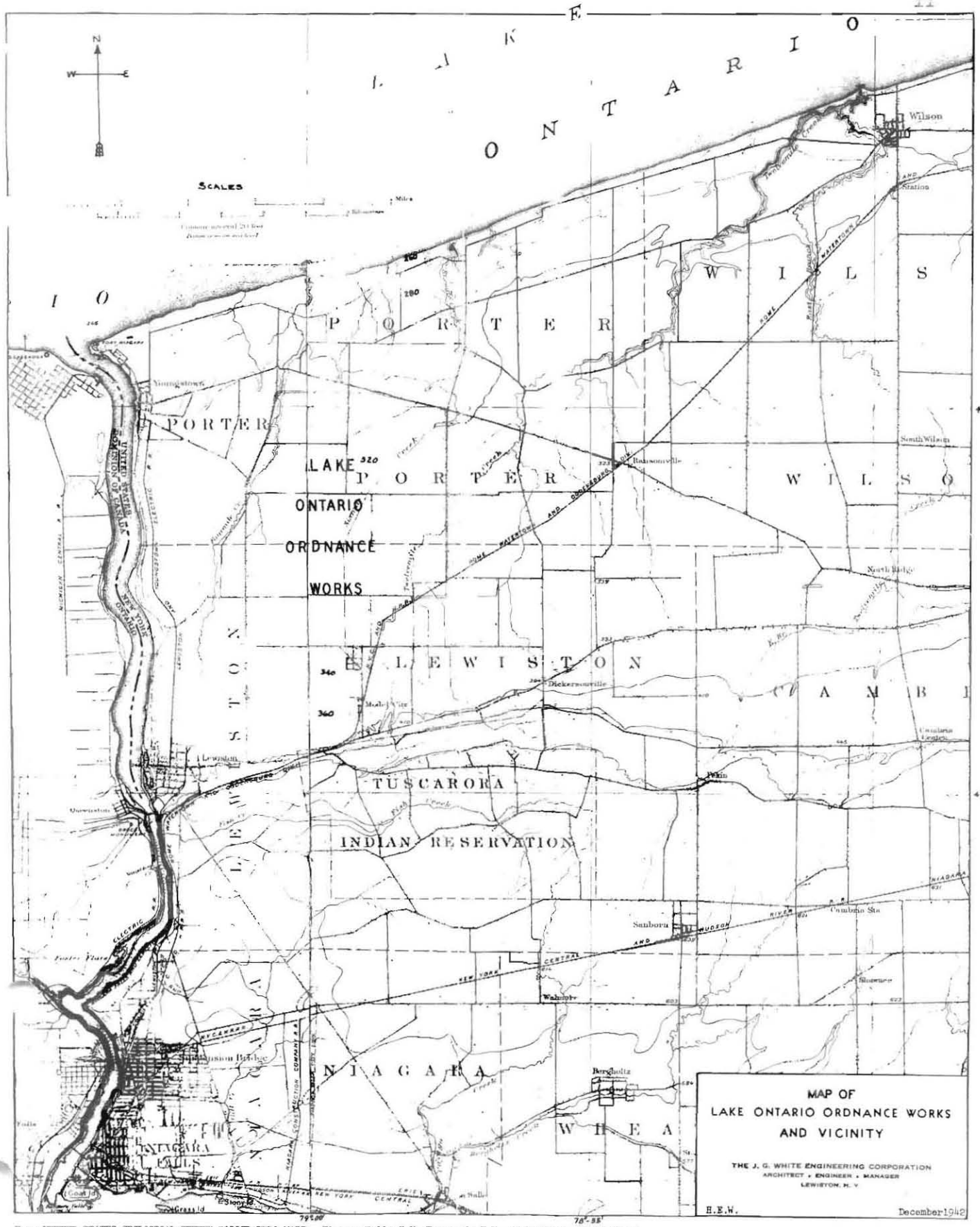
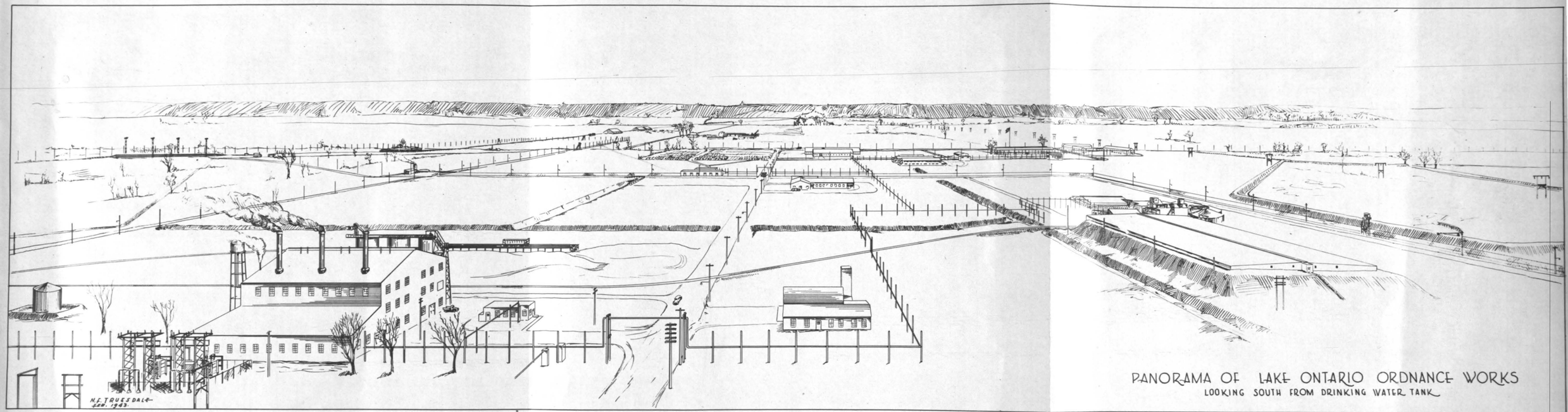
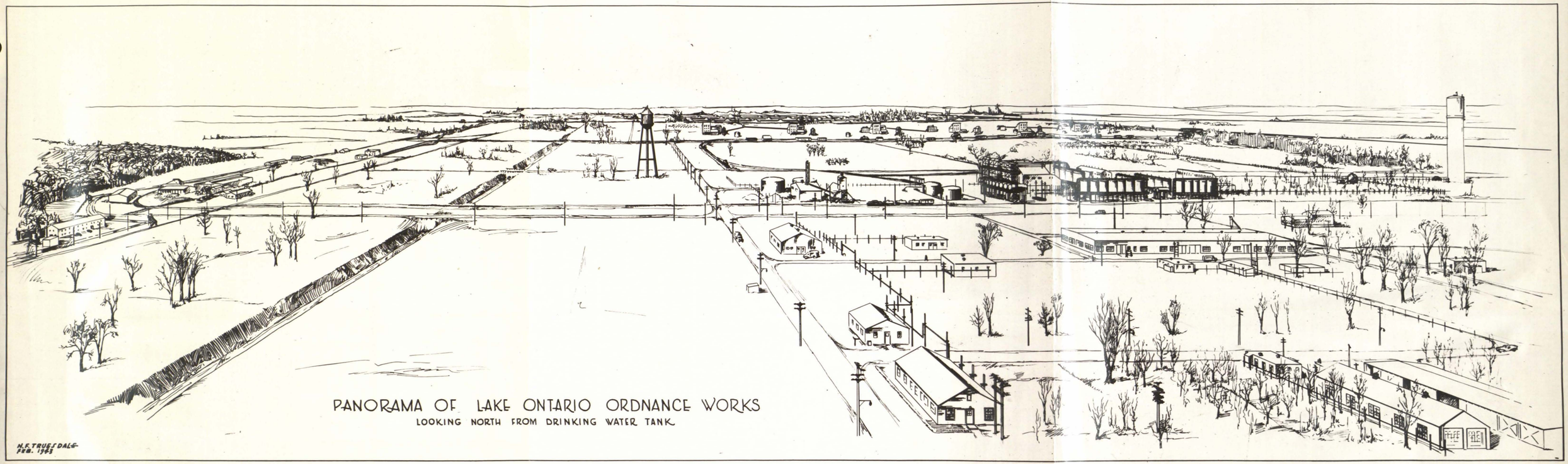


From UNITED STATES GEOLOGICAL SURVEY TOPOGRAPHIC MAPS; Niagara Falls,N.Y.-Tonawanda,N.Y.,-Wilson,N.Y. Quadrangles.



PANORAMA OF LAKE ONTARIO ORDNANCE WORKS
LOOKING SOUTH FROM DRINKING WATER TANK


PANORAMA OF LAKE ONTARIO ORDNANCE WORKS
LOOKING NORTH FROM DRINKING WATER TANK
H.F. TRUESDALE
FEB. 1943

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LAKE ONTARIO ORDNANCE WORKS

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SUMMARY OF DIRECTIVES *

Directive Consecutive No. 15, O. C. of E., January 15, 1942
AUTHORIZATION TO PROCEED WITH CONSTRUCTION
($15,061,500)

Supplement 1, Dir. Cons. No. 15, O. C. of E., March 21, 1942
REVISION OF CONSTRUCTION AUTHORIZATION
(Funds to A-E-M and A.E. reduced $680,250)

Directive Consecutive No. M-249, O. C. of E., June 16, 1942
AUTHORIZATION TO PROCEED WITH THE ADDITION TO WORKS
($2,311,174)

Supp. No. 2, Dir. Cons. No. 15, O. C. of E., September 5, 1942
ADDITIONAL FUNDS FOR CONSTRUCTION
($3,000,000)

Supp. No. 1, Dir. Cons. No. 15, O. C. of E., September 28, 1942
ADDITIONAL FUNDS FOR CONSTRUCTION
($3,525,487)

Directive Consecutive No. M-466, O. C. of E., October 1, 1942
AUTHORIZATION OF CONSTRUCTION OF STABLES FOR GUARD HORSES
($9,000; covered by previous Authorizations)

Supp. No. 2, Dir. Cons. No. M-249, O. C. of E., January 20, 1943
ADDITIONAL FUNDS FOR CONSTRUCTION
($3,585,360)

* A complete copy of each Directive and any other papers referred to by a Directive will be found in Section A of the Appendix.

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PURPOSE

1. The Lake Ontario Ordnance Works is a new plant for the manufacture of trinitrotoluene (TNT) having an estimated average daily capacity, based on working 24 hours per day, of 390,000 pounds of TNT. The Using Service is the Ordnance Department, United States Army.

LOCATION

2. The Project is located 78° 59' 30" West Longitude and 43° 13' 10" North Latitude, in the Townships of Porter and Lewiston in the northwest corner of Niagara County, New York State.

3. The center of the Project is about 4 miles south of Lake Ontario and 3 miles east of the Niagara River. It is 3½ miles southeast of Youngstown, 4½ miles northeast of Lewiston, 11½ miles, by road, north-northeast of the main business section of Niagara Falls and 30 miles, by road, north by west from the main business section of Buffalo, ten miles, by road, north by west from the Niagara Falls Municipal Airport, and 30 miles, by road, northwest from the Buffalo Municipal Airport. It is about six miles, by road, southeast of Fort Niagara.

4. The area acquired for the Project includes 7,495.11 acres or 11.72 square miles of land which gently slopes towards Lake Ontario from an elevation of about 350 feet above sea level on the south, to about 310 feet on the north. The maximum width from Creek Road, on the west, to Porter Center Road on the east, is 3 miles. The length from the south boundary line to the north is 4.6 miles. It is fourteen miles around the perimeter of the boundaries.

5. The location and area are shown on the map of Lake Ontario Ordnance Works and Vicinity, page ii.

6. The nearest Post Office is Modeltown, at the southeast corner of the Project, however, the mailing address used by the Office of the Area Engineer and the Architect-Engineer-Manager was Lewiston.

7. The principal telephone number for the manually operated switchboard was Niagara Falls 7881 and the number for the automatic switchboard was Niagara Falls 6691. The telegraph address was Niagara Falls. Both Teleprinter and Teletype machines were used on the Project.

8. The nearest railroad station for freight and express service only, is Model City, at the southeast corner of the property, on the Rome, Watertown and Ogdensburg Division of the New York Central and Hudson River Railroad. The spurs connecting with the railroads in the Project, one

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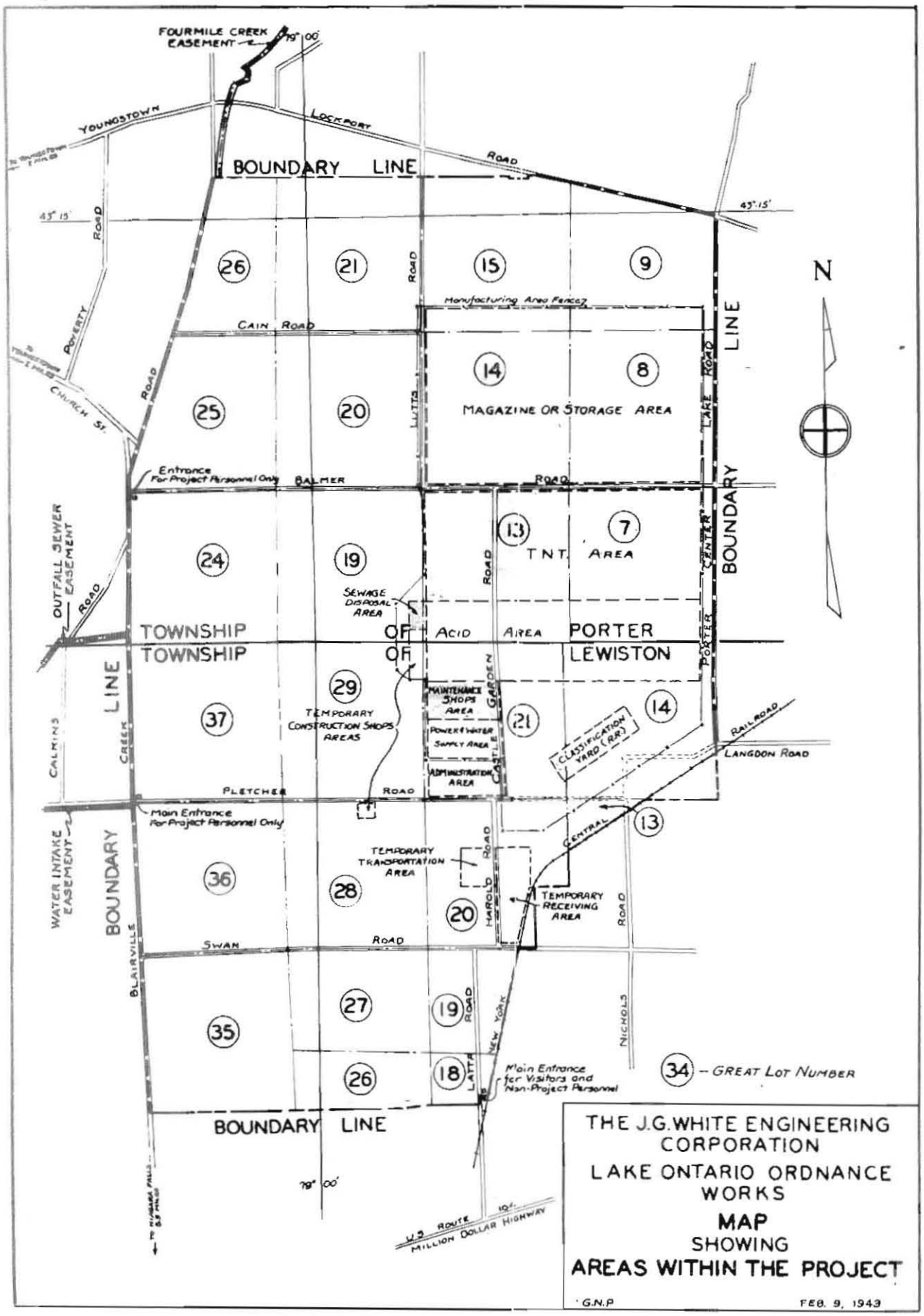

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temporary for construction facilities, and the other permanent, are located about a mile north by east from the depot at Model City.

9. The nearest railroad station for general passenger use is the depot of the New York Central System at the corner of Falls Street and Second Street in Niagara Falls, 11½ miles by road from the main Administration Building, via the Indian Hill Road. Passenger connections with the Erie Railroad, the Lehigh Valley and the Michigan Central are available at this station. Freight connections with the Niagara Junction Railroad and the International Railway, in addition to the railroads already mentioned, may be made here.

10. Train connections for American points west of the Niagara River and locations in Canada may be made by passengers over the Michigan Central and the Canadian National Railways at the Suspension Bridge Station of the New York Central System, near Main and Ontario Streets in Niagara Falls. At this point freight connections are available over the New York Central, Erie, Wabash, Grand Trunk, Lehigh Valley, Michigan Central, Pierre Marquette and Canadian National Railways.

GENERAL DESCRIPTION OF THE COMPLETED JOB

11. The completed Job lies almost entirely within the easterly half of the Project site (except the water intake plant, outfall site and some roads, ditches, water and power lines) and consists of the following principal areas and facilities; (See Map Showing Areas Within the Project, page 2.)

(1) Administration Area, (53 acres, north of and adjoining Pletcher Road in the southwest corner of former Great Lot 21, Lewiston Township) including the main office building, employment office, medical service building (hospital), cafeteria, telephone building, staff garage, dormitories, change house, main parking area, gate house, clock alley and examination buildings. See Panorama on page 9, and Section Map 100-17, page 248.

(2) Power and Water Treatment Area, (46 acres, north of and adjoining the Administration Area, in the west side of former Great Lot 21, Lewiston Township) including boiler house, coal trestle, electric substation, water treatment plant, water storage reservoirs, guard headquarters, guard garage and the main fire headquarters. See Panorama on page iii, and Section Map 100-17, page 248, also Section Map 100-20, page 251.

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(3) Maintenance or Shops Area, (44 acres, north of and adjoining the Power and Water Treatment Area in the west side of former Great Lot 21, Lewiston Township) including laundry, combined shops, riggers' shop, millwrights' shop, change houses, general storehouse, material shed, parking garage, garage and repair shop, supervisor's office, oil and paint storage, acetylene storage, gasoline storage, locomotive house, fuel oil storage, service house. See Panorama on page 10, and Section Map 100-15, page 246.

(4) Acid Manufacturing Area, (362 acres, north of the Maintenance or Shops Area and extending east to the Guard Fence, using approximately the southerly quarter of former Great Lots 13 and 7 in Porter Township and northerly quarter of former Great Lots 21 and 14 in Lewiston Township) including a nitric acid manufacturing plant using anhydrous ammonia, a nitric acid concentrating plant, a sulphuric acid concentrating house, sellite manufacturing plant and auxiliary supervisor's offices, laboratories, shop, cooling water tower, change houses and many tanks. See Panoramas of Acid Area, pages 11 and 12 also Section Map 100-16, page 247.

(5) TNT Manufacturing Area, - Six Complete Lines (517 acres, north of and adjacent to the Acid Manufacturing Area, comprising approximately the northerly three quarters of former Great Lots 13 and 7 in Porter Township) including nitration houses, absorption towers, wash and flake houses, barricades, conveyors, nailing houses, box factory and shook storage, toluene storage tanks, oleum storage tanks, supervisors' offices, inspectors' offices, laboratories, shops, change houses, auxiliary fire headquarters, and comfort stations. See Section Map 100-15, page 246 ; Section Map 100-16, page 247; Section Map 100-13, page 244 ; and Section Map 100-14, page 245. See Panorama of TNT Area, looking South, page 13, and Panorama of TNT Area, looking North, page 14.

(6) Magazine or Storage Area, (845 acres, north of the TNT Manufacturing Area and adjoining it. Also immediately north of Balmer Road, between Lutts Road and the easterly guard fence, comprising all of former Great Lot 14 and most of former Great Lot 8 and the southerly fifth of former Great Lot 15 and of former Great Lot 9; all in Porter Township) including 58 igloos, loading docks, barricades, car bracing lumber sheds, supervisor's office, change house, service building and gasoline station. See Section Map 100-11, page 242; and Section Map 100-12, page 243.

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(7) Sewage Disposal Area, (8 acres, adjacent to the northwest corner of the Acid Manufacturing Area and near the southeast corner of former Great Lot 19 in Porter Township) including the sewage pumping station, Imhoff tank, sludge beds, venturi vault and chlorine tank, and the process waste disposal plant, including the acid neutralization building, mix tank and pumping station, and the collection tank. See Panorama, page 15; Section Map 100-19, page 250, and photographs on plate XV.

(8) Classification Yard Area, (approximately 40 acres bounded by a Cyclone wire Safety fence, running in a northeast-by-east direction from the southeast portion of former Great Lot 21 to the center of Great Lot 14, in Lewiston Township), including seven railroad tracks each averaging 1,600 feet in length, track scale, scale house, floodlight towers, service house and yardmaster's office. See photographs on plates VI, XVI and XXIII.

(9) Intake Works, Pumping Station and Gate House, (12 acres, west of junction of Pletcher Road and River Road, N. Y. Highway No. 18) at the Niagara River, for the raw water supply. See Plan 4-28, page 253, and photographs on plate XIV.

(10) Water Lines, inside and outside the Project Area, (requiring 11.49 acres outside, consisting of a 68 foot right of way along Pletcher Road, west of the Project, from Creek Road to the Intake Works) including (a) the 42" raw water line from the gate house at the intake pumping station, a distance of 3.43 miles to the surge tank at the water treatment plant, (b) 12.3 miles of drinking water lines including the 10" drinking water main tapped into the Niagara Falls Water System north of the Stella Niagara School in Lewiston and metered near that point, (c) 3.44 miles of process water lines, (d) 10.15 miles of fire protection water lines with 62 fire hydrants, (e) 4.72 miles of cooling water lines. See separate Progress Maps for each of these systems, pages 254 to 258 and photographs on plate XX.

(11) Outfall, (2.25 acres at the Niagara River and 16.13 acres consisting of a 75 foot right of way from the Creek Road to the River Road, New York Highway No. 18) including 3.40 miles of 30" discharge main from the Sewage Disposal Plant to the head tank, also the head tank and valve house for the discharge of the waste water at the Niagara River. See Section Map 100-21, page 252 and Progress Map, page 254.

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GENERAL DESCRIPTION OF THE COMPLETED JOB

(12) Steam Lines, 7.85 miles of mains and pipes for manufacturing purposes and for heating. See Progress Map, page 259 and photographs on plate XXI.

(13) Main Air Compressor House, This is located in the TNT Area on "M" Street, east of Castle Garden Road. See Section Map 100-15, page 246 and photographs on plates V and XXXVII.

(14) Compressed Air Lines, 4.73 miles of mains and pipes, starting at the Main Air Compressor House. See Progress Map, page 260.

(15) Electric Lines, including (a) the single, 3-wire, 115 KV. 60 cycle, 3-phase high tension feeder, 5.49 miles long, supported on wooden "H" frames, from the Buffalo Niagara Electric Corporation System which is tapped off their "Gibson-Lockport-Tuscarora Tap", at the southwest corner of the Tuscarora Indian Reservation, 3.08 miles due south of the south property line of the Project, and (b) about 21 miles of high voltage distribution lines within (and without, ie. along the water easement to the Intake Pumping Station) the Project area and 13 miles of low voltage distribution lines within the Project Area. See photographs on plates XXII and XXVIII.

(16) Telephone Lines and System, including about 13.5 miles of cables having a present capacity of 400 lines and 15 miles of service lines, and an automatic system having a present capacity of 350 working lines and space in the present telephone building for an ultimate capacity of 800 lines. See photograph of the telephone building on plate VI.

(17) Fire Alarm and Guard Alarm System, including about 50 fire alarm boxes and 60 guard telephone stations.

(18) Staff Residences, covering the improvements and repairs at existing dwelling houses to make them suitable quarters for Army officers and supervisory employees of the Chemical Construction Corporation or the Ordnance Department. See photographs of many of these on plates XXIX, XXX and XXXI.

(19) Railroad, including 15.7 miles of standard gauge track using 20%-85 pound rails and 80%-80 pound rails, many spurs and sidings and the tracks and buildings already listed as being in the Classification Yard Area (8), also Diesel locomotives and rolling stock. See Progress Map, page 261, and photographs on plates II, V, VIII, X, XII, XIII, XVI, XIX and XXI.

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(20) Roads, including 5.58 miles of resurfacing existing roads, and 33.5 miles of new roads and drives consisting of 16.5 miles of service roads, 7.7 miles of patrol roads, 7.0 miles of magazine roads and 2.3 miles of drives. See photographs plates XII, XIV, XVII, XIX and Map, page 262.

(21) Parking Areas, including Main Parking Area covering 27,893 square yards, the Office Parking Area, covering 4,048 square yards, see photograph plate X, and the Bus Parking Space covering 2,970 square yards in the Shops Area; and 2,503 square yards elsewhere.

(22) Sewers, 20.9 miles of storm, pipe drains, sanitary, acid and red and yellow water lines. See photographs, plate XX and Map, page 263.

(23) Drainage Ditches, 36.85 miles of open cut ditches. See photographs, plates XVIII and XIX and Map page 51.

(24) Guard Towers, 28 elevated structures with houses and stairways, spaced about every 1,500 feet along the safety guard fence. See photographs, plates XVII and XXVII.

(25) Fences, including (a) 8.94 miles of the Cyclone Safety wire guard fence, enclosing 2,205 acres in the Manufacturing Areas, Magazine Area, Sewage Disposal Area, Classification Yard Area, Maintenance or Shops Area and the Power and Water Supply Area, see Plan No. 605-101-001 on page 264, and photographs on plates XIX and XXII, and (b) the outside barbed wire boundary fence, running 11.32 miles from its junction with the northeast corner of the guard fence, thence north to the northeast corner of the Project, thence west along the north boundary line, south along the east boundary line, east along the south boundary line and then northerly and easterly to its southerly juncture with the guard fence. See Plan No. 605-101-008, page 265, and photographs, plates XIX and XXII.

(26) Exterior Lighting, including 24.8 miles of street lighting with 362 fixtures, 7.48 miles of fence lighting with 363 fixtures, and lighting including searchlights for the 28 guard towers, also approximately 53 spot and floodlighting fixtures for the classification yard, parking areas, etc. See Progress Map on page 266 and photographs on plate XXIII.

REPRODUCED AT THE NATIONAL ARCHIVES

(27) Burning Grounds and Incinerator, east of Castle Garden Road, opposite the Administration Area. The Incinerator has a capacity of 2 tons per day. See photograph, plate XI.

(28) Stables, remodelled existing barn on Balmer Road, 1,000 feet west of the junction with Lutts Road, for 40 horses used by mounted guards. See photograph plate X.

(29) Walks, including 14,542 square yards of cinder walks, 197 square yards of wooden walkways and 360 square yards of elevated wooden walks. See photographs, plates IV, VI and VII.

LAND

Ownership

12. The rights to the area were originally embodied in the Holland purchase, which passed from the possession of the State of Massachusetts, by way of Robert Morris, in 1793.

13. After the extinction of the Indian title to the land, by agreement with the Seneca Indians in 1799, the land was rapidly surveyed and opened for settlement. From 1802 to 1812 settlement was comparatively active though at first chiefly on the land outside the area, along the Niagara River, the shore of Lake Ontario, along what is now Ridge Road, and on the escarpment to the south.

14. The Holland Land Company sold the land in this area to the settlers at prices ranging from $2.00 to $5.00 an acre.

15. With the outbreak of the War of 1812 there was a great exodus of the settlers, due to the exposed and dangerous position of the region and it was a number of years before the settlement again became active.

16. In December 1941, A Survey and Report by the Fraser Brace Company on the suitability of the site was submitted to the Office of the Chief of Engineers. This report was favorable.

17. The acquisition of the various parcels of land needed for the Project was accomplished under the direction of the War Department, Corps of Engineers, Real Estate Branch, Construction Division.

PLETCHER ROAD (LOOKING WEST)

DORMITORIES (IN REAR) #735

PLETCHER ROAD (LOOKING EAST)

AEM-1 AEM-3 AEM-2

MAIN OFFICE (ADMINISTRATION) BUILDING # 703

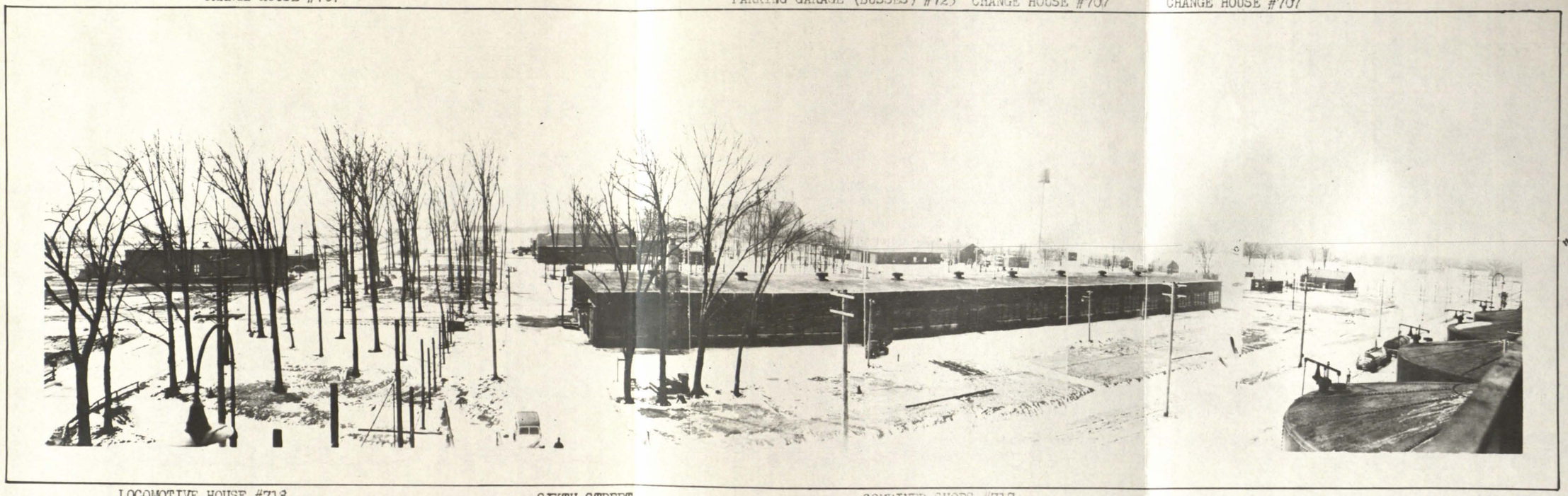
STAFF & ORDNANCE GARAGE #728

CAFETERIA #708

MEDICAL SERVICE BUILDING # 719

EMPLOYMENT BUILDING #705

LAUNDRY BUILDING #723
SUPERVISORS OFFICE #704
GENERAL STOREHOUSE #713
MEETING HOUSE #733 MILLWRIGHTS SHOP #722
MATERIAL SHED #714 CHANGE HOUSE #707
GARAGE AND REPAIR SHOP #716
RIGGERS SHOP #722
CHANGE HOUSE #707
PARKING GARAGE (BUSSES) #725 CHANGE HOUSE #707
CHANGE HOUSE #707



LOCOMOTIVE HOUSE #718 SIXTH STREET COMBINED SHOPS #717

PANORAMA OF SHOPS AREA
LOOKING SOUTH FROM "O" STREET AT END OF SIXTH ST.

COOLING WATER TOWER

ANHYDROUS AMMONIA STORAGE L.P.
BLDG. NO. 301 L.P.

AMMONIA OXIDATION PLANT
BLDG. NO. 302

COOLER CONDENSERS
NO. 302-16

LABORATORY & SUPERVISOR'S OFFICE
BLDG. NO. 706

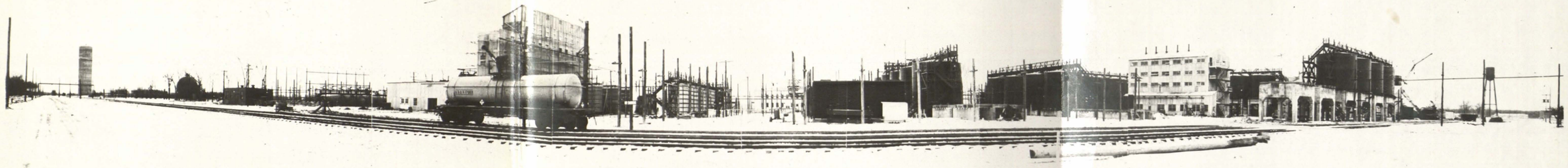
93.2% DARK SULPHURIC ACID STORAGE
NO. 305-61

93.2% CLEAR S.A. SALES STORAGE
NO. 305-81 (in rear)

SULPHURIC ACID CONC. HOUSE
NO. 308 (in rear)

FIRE WATER TOWER
RESIDUAL ACID LINE FROM TNT AREA

"N" ST. LOOKING EAST



"N" ST. LOOKING WEST

MAIN STEAM LINE TO TNT AREA

AREA SHOPS
BLDG.NO. 722

ANHYDROUS AMMONIA STORAGE H.P.
BLDG. NO. 301 H.P.

CAR LOADING SPOT FOR
62% NITRIC ACID

62% NITRIC ACID STORAGE TANKS NO. 302-24
CONDENSATE TANK - NO. 302-22 (in rear)

CONC. MIX CIRCULATORS
& COOLERS NO. 305-4

CONCENTRATING MIX ACID STORAGE
NO. 305-5

NITRIC ACID CONCENTRATOR HOUSE
BLDG. NO. 303

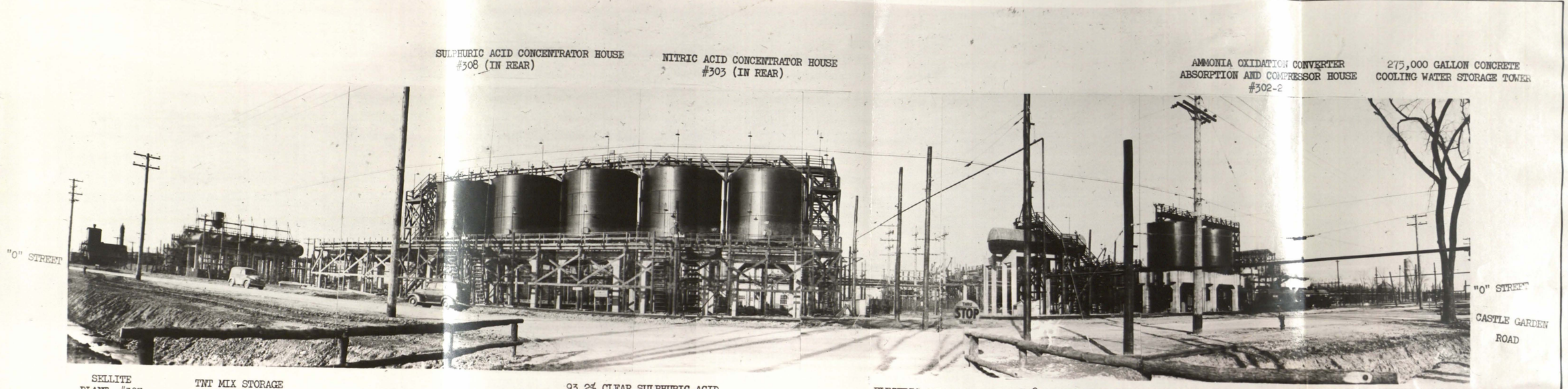
TNT RESIDUAL ACID STORAGE
NO. 305-35

PANORAMA OF ACID AREA
LOOKING SOUTH FROM "N" STREET

STRONG MIX ACID CIRCULATING TANKS &
STRONG N.A. STORAGE NO. 305-10

N.A. CONC & RESIDUAL S.A. STORAGE
NO. 303-27

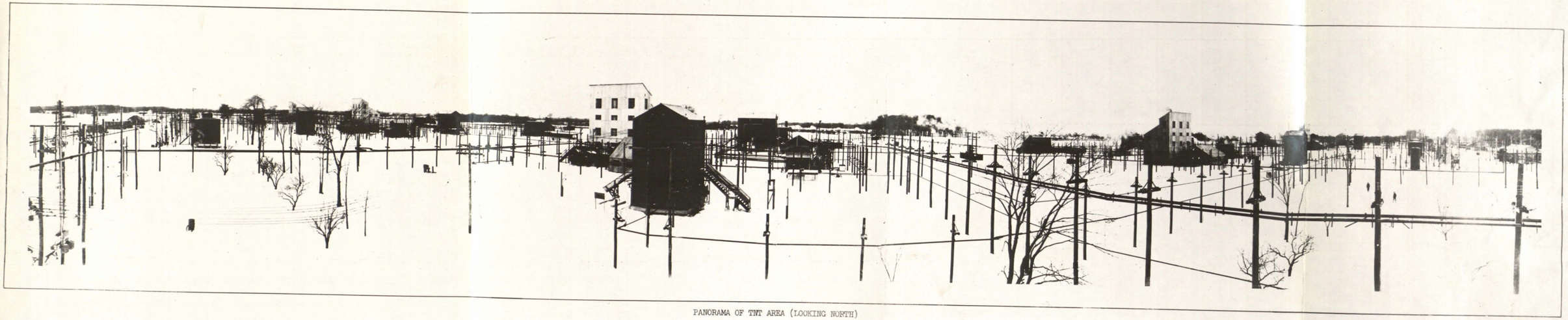
FUEL OIL STORAGE
NO. 308-56



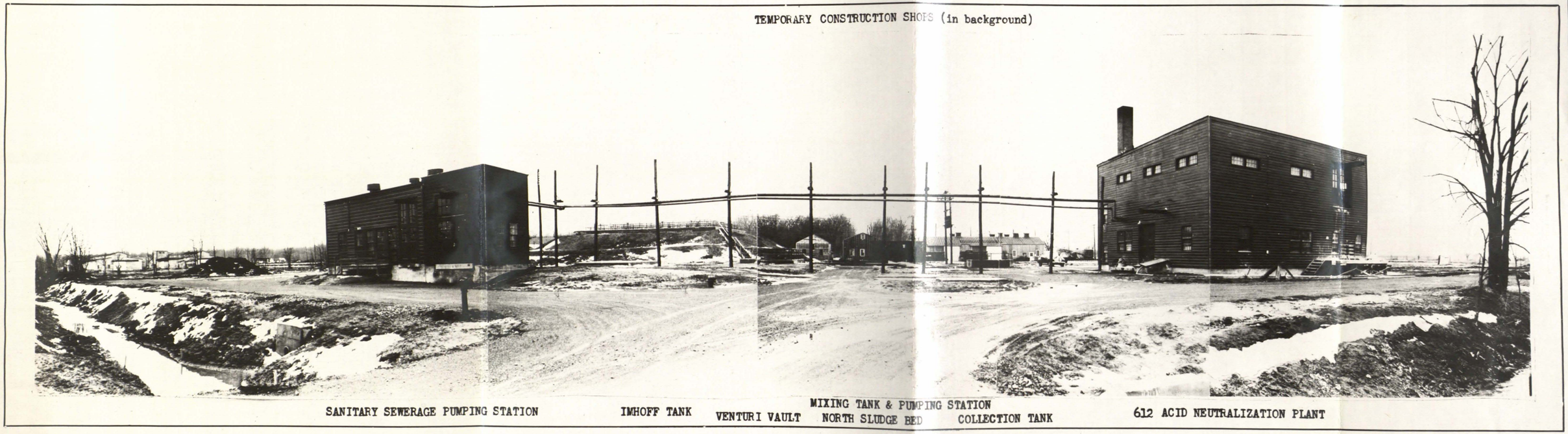
PANORAMA OF ACID AREA

(LOOKING NORTH FROM "O" STREET AT END OF SIXTH STREET)

PANORAMA OF T.N.T. AREA (LOOKING SOUTH ALONG 4th LINE)



PANORAMA OF TNT AREA (LOOKING NORTH)



PANORAMA OF SEWERAGE DISPOSAL AREA
(LOOKING WEST FROM LUTTS RD.)

REPRODUCED AT THE NATIONAL ARCHIVES

property; thence due west across Great Lot No. 26 to the northeast corner of the property now or formerly owned by J.W.H. Kelly, Inc., this corner being the beginning point of the northern boundary line of Great Lot No. 34; thence along the northern boundary line of Great Lot No. 34 to its intersection with the eastern right of way line of the Blairville Creek Road; and thnce in a northerly direction along the east side of the Blairville Creek Road to the place of beginning; containing in all approximately seven thousand five hundred (7500) acres, more or less."

"Excepting thereout and therefrom the land and property of the Lutheran Church and Parsonage located in the northwest corner of Great Lot No. 24 and in the southwest corner of Great Lot No. 25, lying immediately north and south of the Balmer Road where it intersects with the Blairville Creek Road."

31. This land is part of the historic Niagara Frontier, termed by the Indians, "the land of the Basswood." It lies on the Ontario plain in a fertile section of Niagara County, with numerous farms, orchards and large wooded areas.

32. The very intensive cultivation at the time the area was acquired is clearly shown on the Aerial Photographic Mosaic taken in 1938. See page 18. Each white patch shows a plowed field, the lighter gray patches show growing crops and the darker gray areas, grass, pasture or grain. The stippled or dotted areas show orchards and the black areas, that look like piled up coal, indicate woods.

Orchards

33. A survey was made of all of the orchards and vineyards and a map was prepared locating and classifying 227, covering 923 acres, which were found outside the Manufacturing Area. Within the Manufacturing Area there were 25 more which were demolished or abandoned. Hence a total of 252 orchards and vineyards were acquired.

34. The orchards, located outside of the Manufacturing Area, which were turned over to the Operating Company for cultivation and control are as follows:

Apples - 81 orchards, covering 478.5 acres, bearing McIntosh, Greening, Baldwin, Cortland, Delicious, Wealthy and Rome Beauty, as the principal varieties.

Peaches - 44 orchards, covering 159.2 acres, bearing Alberta, Jubilee, South Haven, Hale Haven and Hale, as the principal varieties.

Prunes - 46 orchards, covering 118.2 acres, bearing principally the Fellenberg variety.

REPRODUCED AT THE NATIONAL ARCHIVES

Pears - 18 orchards, covering 60.7 acres, bearing Bartlett, Bosc, Sheldon, Dutchess, Seckel Clargan, Flemish Beauty as the principal varieties; also a few Kieffer and Clapp.

Grapes - 9 vineyards, covering 31.7 acres, bearing Concord and Niagara varieties.

Plums - 7 orchards, covering 13.9 acres, bearing Damson and Niagara varieties.

Cherries - 5 orchards, covering 11.0 acres, bearing Montmorency, English Morello and Early Richmond, as the sour varieties; and Senecas, Red June, Windsor, Black Tartarian, Schmidt's Bigerau, Bing, and Lambert as the sweet varieties.

Mixed - 17 orchards, covering 49.8 acres, bearing mixed fruit of the above mentioned varieties.

35. The majority of these orchards, ie. 141, covering 616 acres, were in Porter Township, and 86, covering 307 acres, were in Lewiston Township.

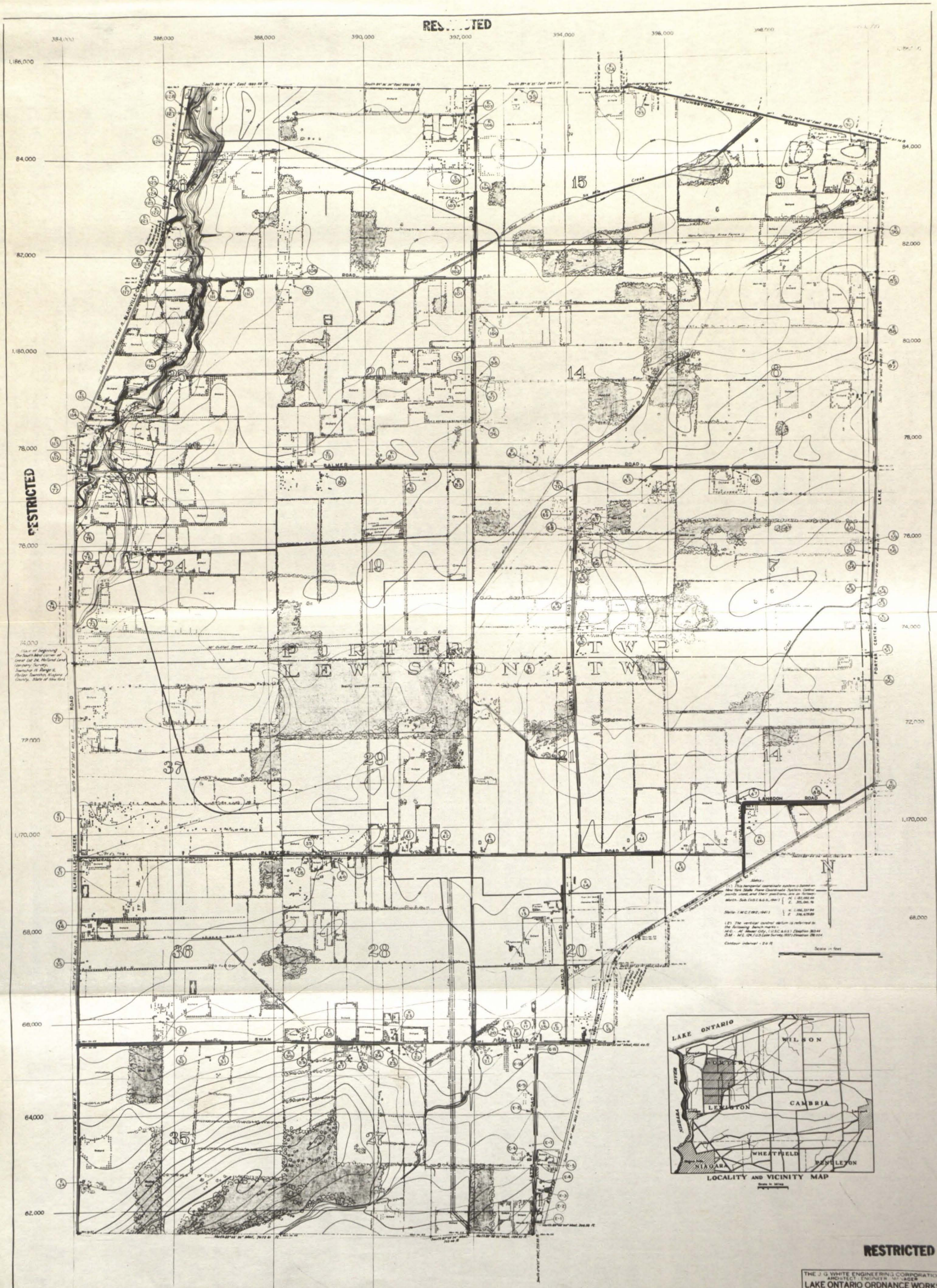
Woodlands

36. At the time the Project site was acquired there were forty patches of woods covering 654.38 acres within the boundaries. These were about equally distributed as to number between Lewiston and Porter Townships. However, the larger acreage was in Lewiston. See the Topographic map of the Entire Area, page 21.

37. In the area contained within the guard fence, ie. the Manufacturing Area, there were 284.24 acres of standing timber. This was reduced by clearing and grubbing in the Magazine and Storage area to make way for streets, ditches and igloos, wherever necessary. Extensive clearing and grubbing was also required in the TNT Area and also in the easterly and southerly portion of the Shops Area and at the Boiler House site. Here and there, swaths had to be cut through scattered wood lots for the railroad, for roads and for drainage ditches.

38. Outside the Manufacturing Area there were 370.14 acres of standing timber, most of which was in two very heavily wooded areas, the larger one to the west of the Acid Area and the smaller one on the highest land in the Project between Swan Road and the south boundary. A clearing for

RESTRICTED



RESTRICTED

RESTRICTED

THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT ENGINEER MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

TOPO MAP OF ENTIRE AREA

DECLASSIFIED
Authority 745067
By DL NARA Date 2/27/09

LOOW-001

REPRODUCED AT THE NATIONAL ARCHIVES

the 30" Outfall Sewer Line had to be cut through parts of the larger wood, about 200 feet north of the Porter Township line.

39. Most of the standing timber is second growth. The predominating woods in the order named are elm, oak, maple, ash, walnut, beech and boxwood. Small growths of ironwood, hickory, butternut, gum and birch may be found scattered about. Tulip trees, poplars and chestnuts have nearly disappeared. Evergreens are practically nonexistant. Practically the whole area was formerly heavily timbered with hardwoods. Little lumbering has been done here in the last fifteen or twenty years.

40. A great deal of the lumber obtained from clearing and grubbing was used in making railings for the roads, along ditches, at bridges and at culverts.

Wheat

41. In January, 1942 field representatives of the Agricultural Adjustment Administration, United States Department of Agriculture, visited the farmers in the Project area and listed the fields planted in wheat.

42. Wheat had been sowed in 84 fields on 62 Tracts purchased by the Government. These plantings totalled 547.6 acres within the Project area, of which 290.8 acres were in Lewiston Township and 256.8 acres were in Porter Township. In addition, 57.8 acres of mixed grain had been sowed in 10 fields in Porter Township.

Other Land Uses

43. Appraiser H. L. Lantz, who was the Chief Reviewing Appraiser on the lands acquired for the Project, estimated that in an average 100 acres of these lands, 70.3 acres of the land is tillable and 6.5 acres is pasture. This would give a total of 5,269.1 acres of tillable land and 487.2 acres of pasture.

44. In addition to wheat, oats, rye, timothy and alfalfa were grown within the area in unknown acreages. Good crops of garden vegetables and hay were also raised.

45. There were numerous poultry farms and dairy farms also within the Project site, as shown by the 134 barns and 141 poultry houses which existed at the time the site was acquired.

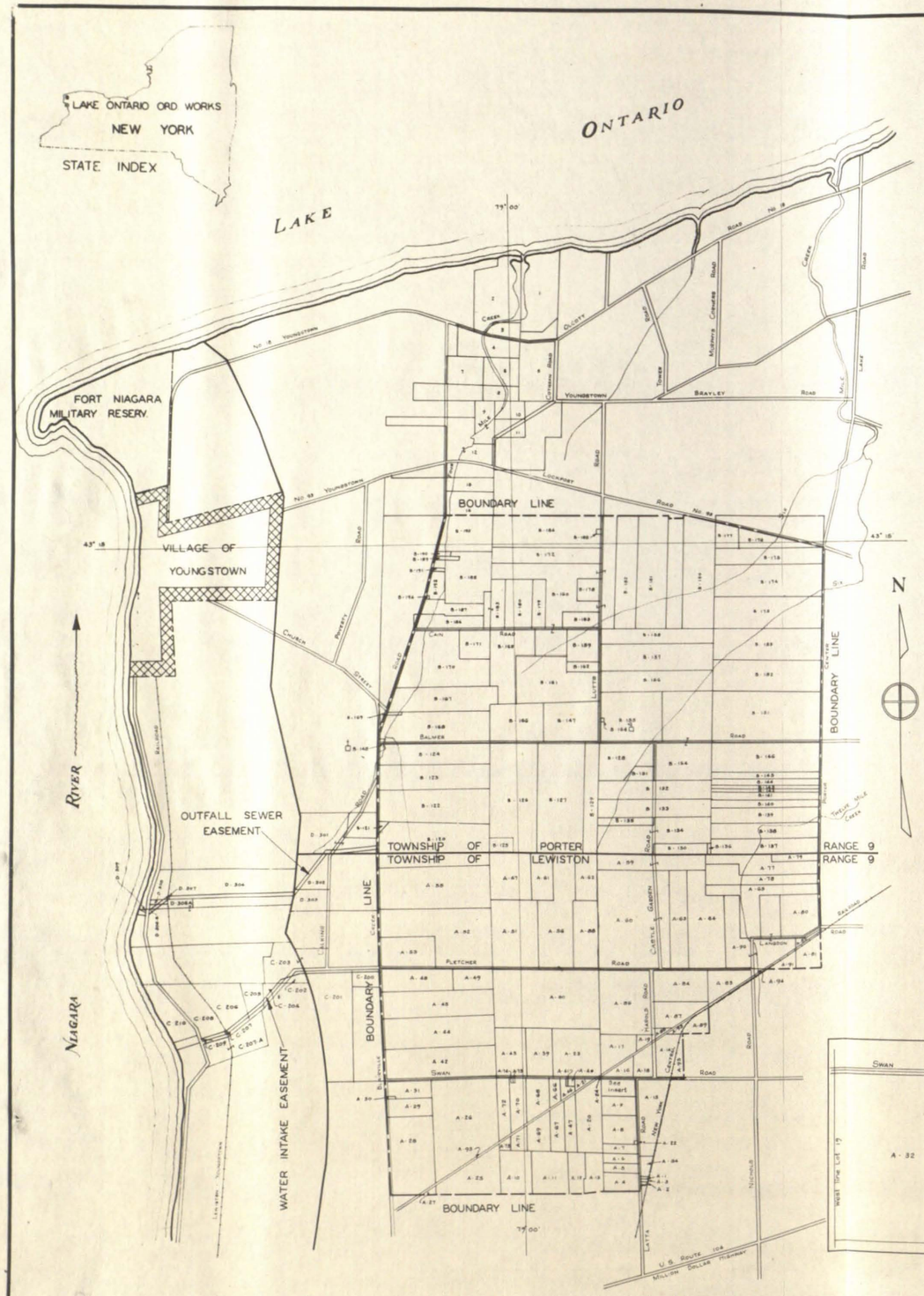
REPRODUCED AT THE NATIONAL ARCHIVES

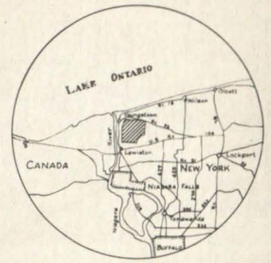
Easements

46. Three perpetual easements were obtained by the Government for the rights of way and land areas in addition to the Project site. These are known as (1) the Water Intake Easement, (2) the Outfall Sewer Easement and (3) the Fourmile Creek Easement.

47. The Water Intake Easement consists of a 68 foot right-of-way from the west boundary of the Project contignous to and along Pletcher Road, running west and southwest to the Lewiston-Youngstown State Highway, also known as the River Road, and thence into a wider area in Tract C-210, known as the Water Intake Area, between the River Road and the Niagara River. This right-of-way starts at the northwest corner of former Great Lot 36 in Lewiston Township, at the west boundary of the Project site south of Pletcher Road and extends west through part of Tracts C-200, C-201 and C-202; thence it crosses Pletcher Road taking part of Tract C-203 whence it continues in a southwesterly direction on the northerly side of Pletcher Road to the River Road, through Tracts C-204, C-205, C-206, C-207, C-208 and C-209. An area of .017 acres was acquired in Tract C-207 A on the south side of Pletcher Road just east of the River Road. The tract designations, names of vendors, acreage acquired, and locations are shown on the Real Estate Map on page 24. "The Description of Easement in Land Under the Waters of the Niagara River to be Acquired from the State of New York for Water Intake Line", dated October 29, 1942, is as follows:

> "All that tract or parcel of land situated west of lot 14, Niagara River Mile Reserve, County of Niagara, State of New York, bounded and described as follows:
>
> Beginning at a point on the easterly shore line of the Niagara River, and the westerly line of lot 14, marked with a concrete monument, said point of beginning being North 89° 54' 20" West 189.44 Ft. and North 2° 35' 40" East 622.19 Ft. from Stella I.W.C., U.S. Coast and Geodetic Survey Monument; said point of beginning also being North 89° 54' 20" West 1045.54 Ft. and South 19° 25' 20" East 35.95 Ft. from the intersection of the center lines of Pletcher Road and the Lewiston-Youngstown State Highway; thence from the point of beginning North 89° 54' 20" West 480.0 Ft.; thence North 0° 05' 40" East 175.0 Ft.; thence South 89° 54' 20" East 435.0 Ft. to the easterly shore line of the Niagara River; thence South 15° 33' 00" East 181.72 Ft. ± along said shore line to the point of beginning and containing 1.84 acres of land more or less."



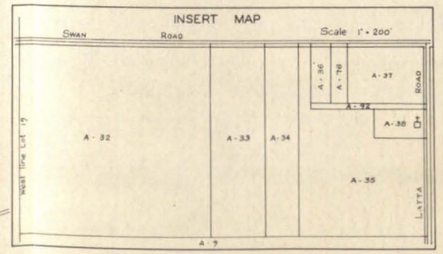


VICINITY MAP
Scale 1" = 10 MI.

WATER INTAKE EASEMENT		
TRACT NO.	VENDOR	ACREAGE
C 201	FRANK H BUTTERY	2.82
C 200	WALTER SATTLEBERG	1.61
C 202	WILLIAM SATTLEBERG	.50
C 203	FRANK H BUTTERY	.64
C 204	BRUCE BAILEY	1.90
C 205	JOSEPH K MYERS	.89
C 206	L. D RUMSEY ESTATE	1.50
C 207	LEWISTON & YOUNGS. R.R.	.10
C 208	L. D RUMSEY ESTATE	1.53
C 209	UNKNOWN	.07
C 210	L. D RUMSEY ESTATE	12.00
C 203A	ACADEMY OF SACRED HEART	.017

OUTFALL SEWER EASEMENT		
TRACT NO	VENDOR	ACREAGE
D 301	LEONARD TRUESDALE	3.49
D 302	JOHN CALKINS	2.83
D 303	JOHN W PERSOHN	.19
D 304	CHARLES M DIVINS	7.86
D 305	ANNA AUSTIN ESTATE	.51
D 306B	W DOUGLAS HOPKINS	.56
D 307	LEWISTON & YOUNGS RR	.073
D 308	S SEWARD HOPKINS	1.88
D 309	W. DOUGLAS HOPKINS	.37
D 306A	W DOUGLAS HOPKINS	.62

FOUR MILE CREEK EASEMENT		
TRACT NO.	VENDOR	ACREAGE
1	CLYDE KYLE	12.40
2	LEONARD J. ALLEN	15.10
3 & 4	JAMES L. ALLEN	9.80
6 & 8	NIAGARA FRONT CO CLUB	12.00
9	MARTIN PREMUS	7.30
10	RALPH SANDERSON	2.60
12	LUKE TOWER	14.70
13	CHARLES E BALCOM	1.20
14	RAY E. TOWER	3.90



TRACT NO.	VENDOR	ACREAGE
B 120	S. HOPKINS	144.75
B 121	A. HILLMAN	2.25
B 122	A. DELANSKY	107.00
B 123	W. KOLLOFF	80.00
B 124	W. LEDERHOUSE	68.50
B 125	W. KOLLOFF	10.00
B 126	W. SMITHSON EST.	139.50
B 127	W. KINCAID	152.39
B 128	M. TRUESDELL	50.50
B 129	D. WISNER JR.	47.97
B 130	G. CLARKE	19.00
B 131	C. HUFFORD	12.00
B 132	F. AMSDELL	60.00
B 133	D. McCOLLUM	60.00
B 134	E. CLARK	88.00
B 135	F. RECTOR	12.00
B 136	O. MARTIN EST.	1.00
B 137	J. STRASSNER	50.00
B 138	W. GIESELER	51.50
B 139	A. HENSELING	48.00
B 140	A. SCHMIDT	25.00
B 141	M. SCHMIDT	25.00
B 142	N. BELDEN	10.00
B 143	D. DeMASON	10.00
B 144	C. PAUL	20.00
B 145	W. RUSSELL	20.00
B 146	E. ROBERTSON	100.00
B 147	C. BROEKER	60.00
B 148	ST. JOHN'S G. L. CHURCH	1.31
B 149	NOT USED	
B 150	S. ROBERTSON	97.00
B 151	E. BAKER	159.50
B 152	J. TRUESDALE EST.	100.00
B 153	D. MOSS	103.40
B 154	A. McCOLLUM	133.75
B 155	W. CORRIGAN	89.60
B 156	M. SMITHSON	66.66
B 157	G. TRUESDALE	83.33
B 158	M. LLOYD	99.03
B 159	E. HOBBS	30.87
B 160	L. MARTIN	170.75
B 161	A. BROEKER	100.00
B 162	A. LANGDON	10.00
B 163	K. TOWER	17.50
B 164	SCHOOL NO. 11	40
B 165	W. MARSH	64.00
B 166	J. McCANN	60.00
B 167	M. HOGARTH	79.50
B 168	G. McGRAW HACKETT	97.00
B 169	J. HAYES	2.02
B 170	L. TRUESDALE	113.90
B 171	G. ROBINSON	26.00
B 172	E. O'BRIEN	50.00
B 173	H. TRUESDALE	100.00
B 174	E. BAKER	100.36
B 175	L. MYERS	49.75

TRACT NO	VENDOR	ACREAGE
A 1	W. LANDERS	.26
A 2	J. GALLIHER	.56
A 3	E. HEWITT	.23
A 4	M. SUTHERLAND	20.00
A 5	C. SANBORN	10.00
A 6	E. HEWITT	10.00
A 7	C. LANDERS	10.26
A 8	A. WATSON	27.64
A 9	R. WIDMER	20.17
A 10	J. W. H. KELLEY EST.	37.00
A 11	EARL FREEMAN	41.50
A 12	F. MARTIN	20.50
A 13	E. FREEMAN	21.00
A 14	P. NICHOLS	22.20
A 15	J. WISEMAN	38.80
A 16	J. BLACKLOCK	12.70
A 17	J. BLACKLOCK EST.	29.80
A 18	G. P SWANN	17.10
A 19	G. P SWANN	6.20
A 20	B. SUTHERLAND	51.00
A 21	A. WATSON	2.67
A 22	R. CREWE	.43
A 23	W. KOLLER	70.62
A 24	W. KOLLER	.50
A 25	M. JAKUBOWSKI	54.90
A 26	M. JAKUBOWSKI	159.40
A 27	F. KOWOLCZYK	.83
A 28	F. KOWOLCZYK	100.11
A 29	M. DOMINSKI	25.02
A 30	J. DOMINSKI	.69
A 31	F. KOWOLCZYK	22.47
A 32	J. GIRARD	8.75
A 33	C. KNEEPLE	2.34
A 34	W. WAGER EST.	1.42
A 35	M. SIEVERT	3.54
A 36	C. EHRHART EST.	.33
A 37	L. MEIGS	.70
A 38	MODELTOWN PRESB. CH.	.33
A 39	M. SWANN	40.00
A 40	H. McARDLE	2.29
A 41	E. MEITZ	.46
A 42	W. CIURCZAK	100.00
A 43	R. SWANN	42.50
A 44	M. & T. WALSH	100.00
A 45	J. ZIMMERMAN	78.50
A 46	H. TAYLOR	4.19
A 47	H. TAYLOR	18.91
A 48	F. ROGOZINSKI	50.00
A 49	E. G. CLARK	26.00
A 50	E. WAGONER	196.56
A 51	I. PLETCHER	95.00
A 52	F. BUTTERY	150.00
A 53	R. MATEJOVIC	50.00
A 54	B. SUTHERLAND	4.30
A 55	G. CARTER	126.90
A 56	F. PLETCHER	101.50
A 57	W. HOPKNS EST.	61.00
A 58	M. ROGENA EST.	42.81
A 59	E. HILLMAN	50.00
A 60	S. MERONTO	206.00
A 61	F. BUTTERY	30.50
A 62	W. D WISNER JR.	28.85
A 63	W. HILL	50.00
A 64	P. CASTOFF	87.33
A 65	W. McGRATH & J. DURK	59.00
A 66	A. C. WATSON	7.50
A 67	A. C. WATSON	19.33
A 68	A. CROWN	21.35
A 69	A. CROWN	21.85
A 70	G. HOUCK JR.	17.50
A 71	G. HOUCK JR.	10.30
A 72	J. McCABE	23.50
A 73	J. McCABE	5.60
A 74	G. HOUCK SR.	2.26
A 75	Z. CUNARD	1.13
A 76	MODEL CITY U.C. CHURCH	.18
A 77	O. KOLLER	50.51
A 78	J. RAFAJAC	45.71
A 79	ANNA KNEEPLE EST.	11.00
A 80	R. GIESELER	50.00
A 81	R. GIESELER	19.50
A 82	T. WILLS	1.00
A 83	P. HILDEBRANDT	26.50
A 84	S. TALARICO	52.50
A 85	W. J. McCORMICK	3.75
A 86	L. HAROLD	97.00
A 87	T. HAROLD EST.	32.80
A 88	NOT USED	
A 89	T. HAROLD EST.	13.20
A 90	D. & S. JOWDY	97.44
A 91	D. & S. JOWDY	7.35
A 92	UNKNOWN	.13
A 93	N. Y. C. RAILROAD	21.95
A 94	J. BOWMAN	1.20
A 95	P. NICHOLS	8.00

PROJECT OWNERSHIP

STATE NEW YORK (TYPE OF MAP)
COUNTY NIAGARA
DIVISION MIDDLE ATLANTIC
DISTRICT BUFFALO
SERVICE COMMAND NO. 3
USING AGENCY U. S. ORDNANCE
3 MILES S. E. OF YOUNGSTOWN
10 MILES N. OF NIAGARA FALLS

— TRANSPORTATION FACILITIES —

N.Y.C. & L. & R. R.R. — RAILROAD
NOS. 18, 93 — STATE ROAD
ROUTE 104 — FEDERAL ROAD
AIRLINE

— LAND AREA —

ACRES OWNED BY W.D.
ACRES LEASED BY W.D.
ACRES LEASED FROM W.D.
ACRES TRANSFERRED TO W.D.
ACRES DONATED TO W.D.

— DISPOSALS —

ACRES SOLD
ACRES TRANSFERRED
ACRES EXCHANGED
ACRES OTHERWISE

— LEGEND —

RESERVATION LINE
STATE OR PROVINCE LINE
COUNTY LINE
CIVIL DISTRICT PRECINCT
LAND-GRANT LINE
CITY, VILLAGE, OR BOROUGH
CEMETERY, SMALL PARK, ETC.
TOWNSHIP LINE
SECTION LINE

— SCALE —
Feet
0 1000 2000 4000 6000 8000

WAR DEPARTMENT, O.C.E.
CONSTRUCTION DIVISION

REAL ESTATE

LAKE ONTARIO ORDNANCE WORKS

MILITARY RESERVATION

RECOMMENDED: DATE
APPROVED: DATE

COMPILED: TRACED: CHECKED:

DATE	BY	REVISIONS	APPROVED

SHEETS 1 OF 1 DRAWING NO. 4 - 37

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48. The Judgment on the Declaration of Taking - Lake Ontario Ordnance Plant Intake Line was signed by the Honorable John Knight , the Judge presiding, United States District Court in and for the Western District of New York, at Buffalo, New York, August 1942.

49. The Outfall Sewer Easement acquired a perpetual right-of-way 75 feet wide from the west boundary of the Project site beginning near the southwest corner of former Great Lot 24 in Porter Township, slightly north of the Township Line, and runs in a westerly direction through Tract D-301 to a point west of Calkins Road, thence southwesterly through Tract D-302 to the New York State Reservation line where it bends and runs westerly through Tract D-304, to the Lewiston-Youngstown Railroad, where it goes through Tr Tract D-307 and proceeds southwesterly through Tracts D-305, D-306 A, and D-306 B to the River Road. It crosses the River Road and extends into the Outfall Area in Tracts D-308 and D-309 lying between the River Road and the Niagara River. The Tract designations, names of vendors, acreages acquired and locations are shown on the Real Estate Map on page 24 . The "Description of Easement in Land Under the Waters of the Niagara River to be Acquired from the State of New York for Outfall Sewer Line", dated October 29, 1942 is as follows:

> "All that tract or parcel of land situated west of lots 10 and 11, Niagara River Mile Reserve, County of Niagara, State of New York, bounded and described as follows:
>
> Beginning at a point on the easterly shore line of the Niagara River and the westerly line of lot 11 marked with a concrete monument, said point being north 72° 52' 42" West 306.29 Ft. and South 87° 18' 48" West 261.47 Ft. to a point in the center line of the Lewiston-Youngstown State Highway, said point being "A", and South 6° 04' 42" East 259.0 Ft. from the intersection of the North line of lot 11 and the center line of the Lewiston-Youngstown State Highway, and measured along the center line of said highway; said point "A" also being tied in with the Stella I.W.C. U.S. Coast and Geodetic Survey monument as follows:
>
> Beginning at point "A", said point being N 6° 37' 20" West 2096.34 ft., and North 39° 26' 20" West 2151.84 ft.; and North 16° 58' 20" West 771.48 ft.; and North 52° 24' 26" East 1034.77 ft. from the Stella I.W.C. U.S. Coast and Geodetic Survey Monument; thence from the point of beginning North 72° 52' 42" West 350.0 ft.; thence North 19° 06' 11" East 405.0 ft.; thence South 49° 46' 12" East 420.0 ft.; to a

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concrete monument on the east shore line of the Niagara River; thence southerly along the shore line of the Niagara River 225.03 ft. ± to the place of beginning and containing 2.80 acres of land more or less."

50. The Judgment on the Declaration of Taking - Lake Ontario Ordnance Plant Outfall Sewer was signed by the Honorable John Knight, the Judge presiding, United States District Court in and for the Western District of New York at Buffalo, New York, December 2nd, 1942. This "adjudged, ordered, and decreed that a perpetual easement for the location, construction, operation, maintenance and patrol of a sewer in, over, under and across the following described land situate in the County of Niagara, New York, to wit: Tract No. D-301, Tract No. D-303, Tract No. D-306 A, Tract No. D-306 B, Tract No. D-308, and Tract No. D-309" (each separately described) "is vested in the United States of America upon the filing of said declaration of taking and the deposit in the registry of the Court of the said sum of Two Thousand Three Hundred Dollars ($2,300.00) ---."

51. The Fourmile Creek Easement covers a right-of-way extending almost due north from the northwest corner of the Project site to Lake Ontario, following the course of Fourmile Creek to the Lake.. Fourmile Creek now carries off the waters from the new Southwestern Drainage Ditch and the new Central Drainage Ditch which drain most of the Project Area. This easement is to obtain perpetual rights by the Government in connection with the use of this Creek for the purpose mentioned. This easement covers portions of land in Porter Township in Tracts 1, 2, 3, 4, 6, 8, 9, 10, 12, 13 and 14. The designations of the Tracts, names of the vendors, acreages acquired and locations are shown on the Real Estate Map on page 24.

52. The Judgment on the Declaration of Taking had not been made at the time this Report was prepared.

Licenses and Mineral Rights

53. The Amended Order for Immediate Possession for the land acquired reads "subject to the rights of the State of New York in all gold and silver mines as described in the original patent from the state, and subject also to existing easements, for public utilities, for railroads and for pipe lines."

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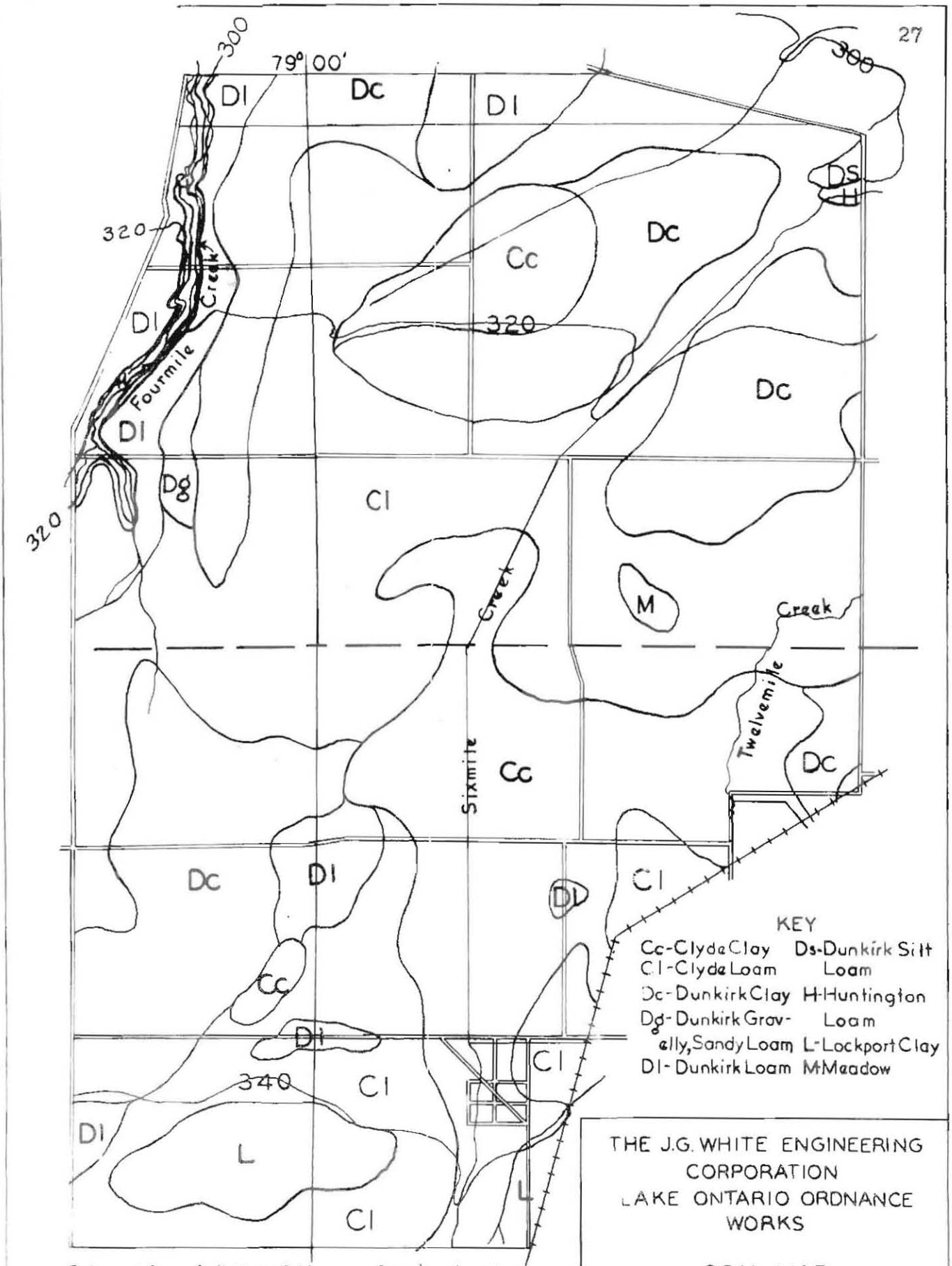


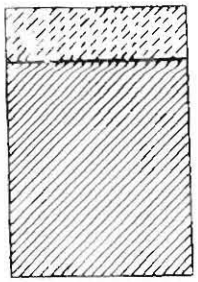
Enlarged from Soil Map of Niagara County, New York.
United States Department of Agriculture - Soil Bureau
1906

THE J.G. WHITE ENGINEERING CORPORATION
LAKE ONTARIO ORDNANCE WORKS

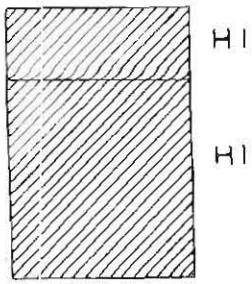
SOIL MAP

H.E.W.

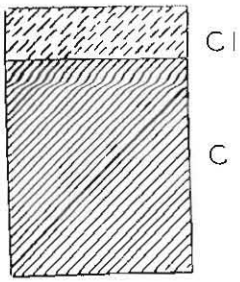
December, 1942



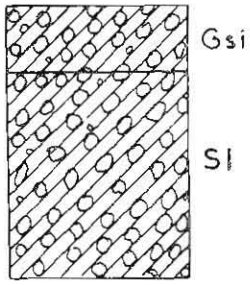
Clyde Clay



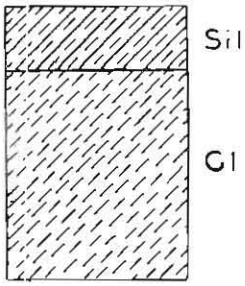
Clyde Loam



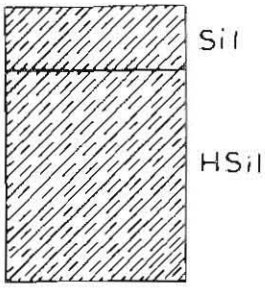
Dunkirk Clay



Dunkirk Gravelly, Sandy Loam

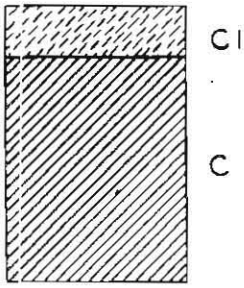


Dunkirk Loam

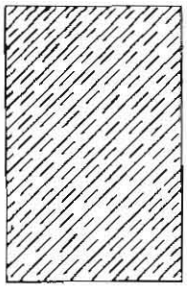


Dunkirk Silt Loam

Huntington Loam



Lockport Clay



Meadow
[Similar to Huntington Loam, Poorly Drained]

LEGEND
C - Clay
Cl - Clay Loam
Gsi - Gravelly Sandy Loam
Hl - Heavy Loam
HSil - Heavy Silt Loam
Sl - Sandy Loam
Sil - Silty Loam

From Soil Map of Niagara County, New York.
United States Department of Agriculture - Soil Bureau.
1906

THE J.G. WHITE ENGINEERING CORPORATION
LAKE ONTARIO ORDNANCE WORKS

TYPICAL SOIL SECTIONS
[3 FEET DEEP]

M.J.R. December, 1942

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SOIL DATA

Types of Soil and Areal Distribution

54. Nine of the seventeen different types of soil existing in Niagara County are found within the boundaries of the Project. These soils and their distribution are as follows:

TYPE	PERCENT	ACRES
(1) Clyde Loam	40.81	3,059
(2) Dunkirk Clay	25.69	1,925
(3) Clyde Clay	18.87	1,414
(4) Dunkirk Loam	8.39	629
(5) Lockport Clay	3.49	262
(6) Huntington Loam	1.49	112
(7) Dunkirk Gravelly Sandy Loam .	0.64	48
(8) Meadow	0.32	24
(9) Dunkirk Silt Loam	0.30	22
	100.00%	7,495 acres

55. See Soil Map, page 27 and Typical Soil Sections, page 28.

Soil Conditions *

56. All of these soils have been formed under the influence of glacial lakes. The basal formations consist of shales, sandstones and limestones, which have a dip of 25 feet to the mile to the south and have been eroded so that the edges of the successively older formations are exposed from south to north.

57. The advance of the glacial ice swept away all of the residual products, and the present soil materials were formed mainly in the lakes and drainage water that accompanied the northward retreat of the ice margin. The lake materials are generally fine textured, their continuity depending upon the uniformity of the lake conditions. With the retreat of the ice the lake levels dropped successively and, owing to the general northward slope of the country in this region, became more extensive until the different bodies of water were united and formed, first, glacial Lake Warren on the Erie plain, and, later, Lake Iroquois on the Ontario plain. See the relief map and section from the Block Map of the United States Geological Survey on page 30.

* Abstracted, or quoted verbatim, from "SOIL SURVEY OF NIAGARA COUNTY, NEW YORK", by Elmer O. Fippin, Grove B. Jones, W. J. Geib, Orla L. Ayrs and C. W. Mann. U. S. Department of Agriculture, 1906.

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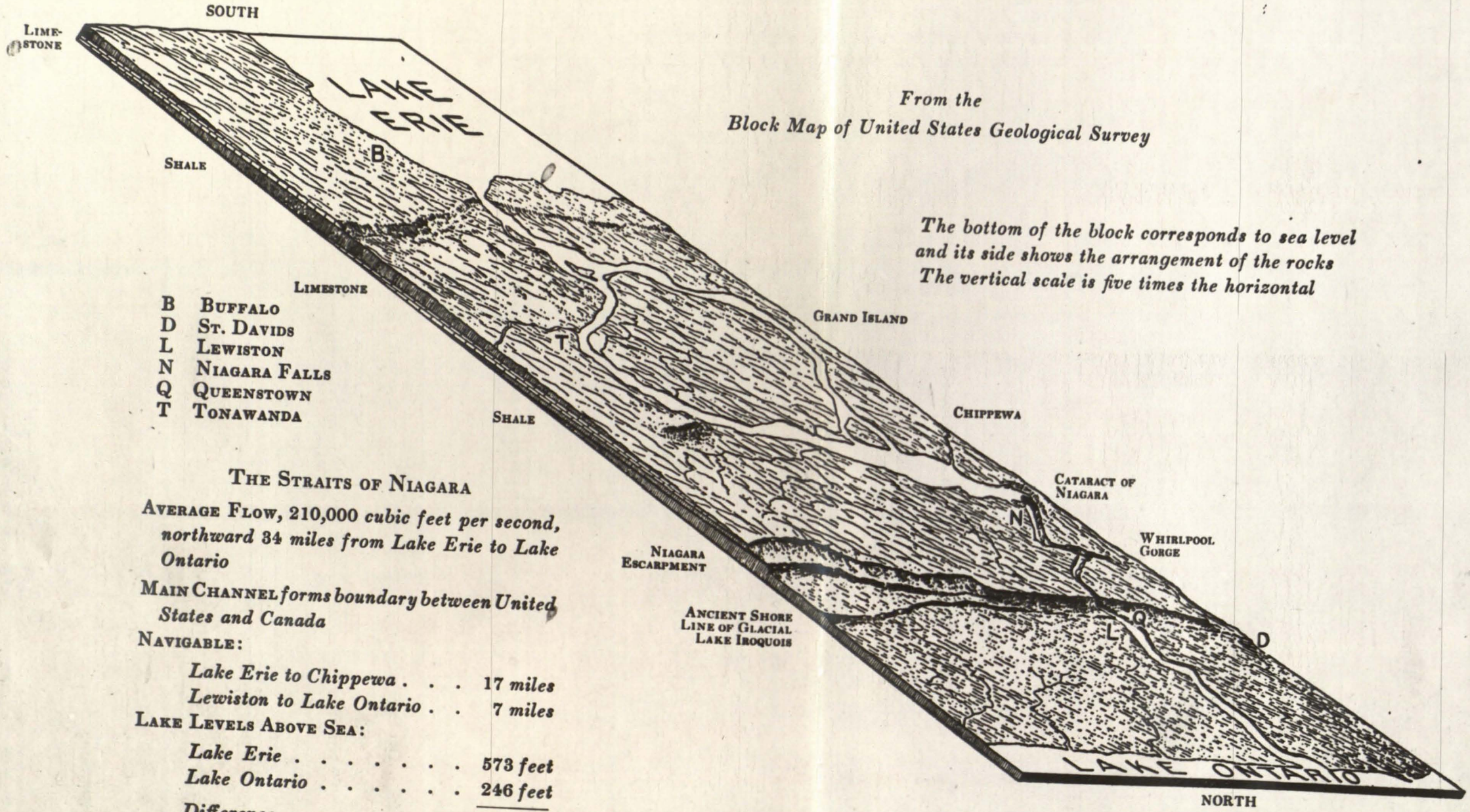

From the
Block Map of United States Geological Survey

The bottom of the block corresponds to sea level and its side shows the arrangement of the rocks The vertical scale is five times the horizontal

B BUFFALO
D ST. DAVIDS
L LEWISTON
N NIAGARA FALLS
Q QUEENSTOWN
T TONAWANDA

THE STRAITS OF NIAGARA

AVERAGE FLOW, 210,000 *cubic feet per second, northward 34 miles from Lake Erie to Lake Ontario*

MAIN CHANNEL *forms boundary between United States and Canada*

NAVIGABLE:

Lake Erie to Chippewa . . .	17 *miles*
Lewiston to Lake Ontario . .	7 *miles*

LAKE LEVELS ABOVE SEA:

Lake Erie	573 *feet*
Lake Ontario	246 *feet*
Difference	327 *feet*

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58. Many successive levels are recognized by the shore and terrace deposits. One of the most general materials found in these lakes was clay, another consisted of various textures of gravel. A further variation of the conditions was the presence of the melting ice masses containing more or less earthy material that had been picked up in its southward movement. Superglacial streams and ponds sorted and concentrated these materials, and upon the final disappearance of the ice they were deposited in a somewhat promiscuous manner. There is consequently a considerable variation in the present soil conditions.

59. All these phases of glacial conditions appear to have existed over the Project area, which was very completely subjected to lake conditions. Some soils were deposited in deep quiet water, while others formed by swift currents or by wave action, and between the extremes are ranged soils of intermediate fineness. All of the lighter colored sediments are classed in the Dunkirk series. Where the materials which would have given rise to Dunkirk soils have been subject to marshy or swampy conditions since glaciation and as a result of poor drainage have accumulated considerable amounts of organic matter that imparts a dark or black color, they are classed in the Clyde series. The type which has been most perfectly sorted and elevated above continuous overflow is the Huntington loam. Low, wet, variable land constitutes Meadow.

60. At a number of points on the Ontario plain the underlying red shale approaches very near the surface where it has decayed and become mixed with glacial materials to form Lockport clay. These areas were probably elevations when the ice advanced and served to hinder the underflow of the ice so that a great many boulders, often of large size, were stranded. Much of the surface of this type is now strewn with these boulders, most of which are crystalline in character.

Characteristics of each Type of Soil *

Clyde Loam

61. The surface soil of the Clyde loam to a depth of from 8 to 15 inches ranges from a dark-gray to black heavy sandy loam. The subsoil is a gray, or yellow and gray mottled loam or clay loam, somewhat silty and usually streaked with iron stains or the pink color derived from the red Medina shale. Clyde loam usually possesses decidedly clayey properties and occupies low, level, poorly drained positions. The phase of this soil found on the Project is generally free from stone and gravel. The soil is a heavy black loam and in some instances a clay loam, with an accumulation of organic matter upon the surface. The natural drainage is poor.

* See Reference at foot of page 29.

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62. This soil occupies glacial lake beds and depressions and is composed of the finer grades of glacial material washed in from the higher land. This material remained for a long period in a swampy condition. Crops planted on this soil are frequently drowned out if the drainage is deficient. This type of soil is the best in the County for growing corn. It should be well drained.

Dunkirk Clay

63. This soil is lacustrine[1] in origin, consisting of uniform, fine particles derived from reworked glacial material deposited in quiet water near the close of the glacial period. The general level character of this type, together with its low lying position and heavy texture makes it a poorly drained soil.

64. It consists of a clay loam or clay from 5 to 8 inches deep, blue drab or gray, frequently mottled with iron stains. Owing to its fine texture care must be taken in working this soil as it clods easily if not dried out in the Spring.

65. The principal crops grown on this soil are wheat and timothy and either red or alsike clover. Thorough drainage is required.

Clyde Clay

66. This soil contains a relatively high percentage of organic matter which gives it a dark brown or black color. It consists of a heavy clay loam 4 to 8 inches deep. When dug, deep cracks are formed which extend into the subsoil for 2 or 3 feet, while the surface soil cracks into small cubical blocks from one-sixteenth to one-fourth inch in diameter. During the freezing weather of winter the soil heaves badly, causing considerable injury to the roots of growing wheat and grass. The subsoil to a depth of 36 inches or more is a heavy waxy clay. It varies in color from a blue-black to dark-gray or drab, and in some cases is a bluish-brown. Cultivation is extremely difficult because of the generally heavy character of this type. The areas within the Project are considered quite extensive and typical, but better drained than the majority of areas of this type, being cared for by the natural drainage of two branches of Sixmile Creek and by Twelvemile Creek.

67. The Clyde Clay is usually in the clay formations of depressions, shallow, flat bottomed or saucer shaped, with very poor natural drainage. Much of the land where this soil is found becomes flooded in Spring. Some of it remains in a semi-swampy condition, still covered with timber, especially elms. Owing to the lateness of its drying out in Spring, it is usually Fall plowed for oats.

1 - Lacustrine - pertaining to, or growing in, lakes

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68. It is a soil very good for hay and corn. In the North Central States it is a very good soil for sugar beets. On the Project pears and plums have been very successfully grown.

Dunkirk Loam

69. The soil of the Dunkirk loam consists of a dark to light-brown rather silty loam from 7 to 12 inches in depth. Silt and sand are present in varying amounts, forming on the average a mellow, easily cultivated soil. The subsoil is variable in texture, and is made up of lenticular[2] strata of clay or clay loam, silt, and sandy material, giving it the average texture of a loam. The relation of these is not uniform, but it is usual to find under the soil a heavy stratum of clay loam which gives way to silty or sandy material, and in the bottom of the 3-foot section appears another band of heavy material.

70. Borings near each other are frequently quite different in the order and thickness of the materials. This is apparent from the lenticular structure and cross bedding. Even thin strata of coarse sand and gravel may sometimes be encountered, but these are not common. Sometimes the clayey band may form the surface and give way to the lighter materials in the upper subsoil. The characteristic of the section is great variability in texture from point to point, but no single class of material is very extensive either in areal distribution or thickness. The sandy loam, clay or silt strata may occur at any horizon in the section and in any order.

71. Dunkirk loam is a soil of high natural productivity and good cultural qualities. It is the best general purpose soil in the Project Area, or in Niagara County. It gives good yields of all grain and hay crops and is especially well adapted to fruits of all kinds suited to the climate. The following trees thrive on this soil; hard maple, elm, basswood, tulip, poplar, black walnut, some oaks, chestnut, beech and hickory. It is also excellent for corn, beans and potatoes.

72. Apples grown on this soil are of superior flavor, color and keeping quality. The same results are obtained with peaches, pears, plums and cherries.

Lockport Clay

73. The Lockport clay is a heavy red to brown clay loam from 4 to 8 inches deep, underlain by a stiff Indian-red clay. The red Medina shale sometimes occurs within 3 feet of the surface. Where the shale is comparatively near the

2 - Lenticular - shaped like a double convex lens.

LOOW-001

surface it has given rise to the Lockport Clay. The soil, therefore is largely residual, being the weathered product of the red shaly rock mixed with some glacial material near the surface. Under most of the type the bed rock occurs at a depth greater than 3 feet, but occasionally it is encountered within the third foot. The surface soil has undergone but little change, still possessing the characteristic red color of the parent rock. In depressions where organic matter has been incorporated with the soil it takes on a rusty-brown color.

74. This soil is located in the southern portion of the Project between the south boundary line and Swan Road and also in the southeast corner just west of the railroad track.

75. The larger area is on the highest ground in the Project at an elevation 350 feet above sea-level and extends roughly to the 340 foot contour. Most of this Lockport clay area is heavily wooded and presently not planned for use. This type of soil is usually thickly strewn with granitic boulders and owing to its stony nature is best adapted to pasture or wood lots.

Huntington Loam

76. The typical Huntington loam consists of a brown silty loam that rests upon a sandy loam. It has been formed from the deposits of streams at time of overflow.

77. Two areas occur within the Project boundaries, the larger along Fourmile Creek, in the northwestern section, and the smaller along Sixmile Creek, near Porter Center Road, at the northeast corner. Neither of the areas where this soil occurs are contemplated for construction purposes., Where it is found here it is subject to overflow and should probably be left to grass. It is a productive soil for grains and vegetables.

Dunkirk Gravelly Sandy Loam

78. The surface soil of the Dunkirk gravelly sandy loam is a dark or light-brown gravelly sandy loam from 10 to 15 inches deep. The soil contains a high percentage of small waterworn pebbles about the size of a pea. The subsoil is a light-brown or reddish-brown medium to coarse sand or sandy loam containing a considerable quantity of small gravel. The deep subsoil consists of stratified gravel and sand. Besides the small gravel some parts of the type contain from 30 to 60 percent of large cobblestones.

79. This soil is found on the Project in a narrow strip extending north and south of Balmer Road about $\frac{1}{2}$ mile east of Creek Road, being sandwiched between Dunkirk clay on the

east and Dunkirk loam on the west. It is an excellent soil for growing fruits, especially cherries, melons and also for market garden crops. The subsoil makes an excellent road surfacing material.

Meadow

80. The Meadow soil is composed of poorly drained material similar to Huntington loam, except that it is usually much wetter. In the Project Area it was found between Sixmile Creek and Twelvemile Creek east of Castle Garden Road. It was in the TNT Area and has been covered with Clyde loam from the surrounding spaces when this whole section was extensively graded.

Dunkirk Silt Loam

81. The surface soil of the Dunkirk silt loam consists of a light-brown to yellow silt loam from 8 to 12 inches deep. The soil is usually free from stone and gravel and contains a considerable percentage of very fine sand. The subsoil is a brown, yellow, or pink silty or fine sandy loam usually grading into a heavy silty loam.

82. This soil is sedimentary in origin and consists of the finer grades of glacial material reworked and deposited by lakes and streams. It is a very good soil for fruit trees.

83. This soil is found on the Project at the northeast corner, just north of the Huntington Loam, at the juncture of Porter Center Road and Youngstown Road where no construction is contemplated.

SOIL DATA

64. MECHANICAL ANALYSES AND ESTIMATED BEARING POWER OF SOILS WITHIN THE PROJECT * *

TYPE	DESCRIPTION	FINE GRAVEL %	COARSE SAND %	MEDIUM SAND %	FINE SAND %	VERY FINE SAND %	SILT %	CLAY %	ORGANIC MATTER	ESTIMATED BEARING POWER Tons
Clyde Loam	Soil Subsoil	0.5 0.3	2.7 1.9	2.3 1.7	16.3 12.8	24.1 21.4	39.2 47.8	14.1 14.1	Sometimes on surface	Dry-2 Wet-1½
Dunkirk Clay	Soil Subsoil	0.5 0.1	1.8 0.8	1.4 .7	3.4 1.7	2.4 1.4	50.4 43.3	40.0 52.8	No	Soft-1 Ordinary-2
Clyde Clay	Soil Subsoil	0.1 0.0	1.5 0.3	2.1 0.4	4.8 1.2	3.7 3.5	46.2 48.0	41.4 45.7	Relatively High	1½
Dunkirk Loam	Soil Subsoil	0.9 0.0	4.2 1.7	3.3 1.4	6.4 5.5	13.5 4.3	52.9 54.9	18.4 32.1	No	2
Lockport Clay	Soil Subsoil	0.7 0.2	2.2 2.0	1.9 1.5	3.3 3.5	4.0 6.0	53.0 48.1	34.6 37.8	Sometimes in depressions	1½
Huntington Loam	Soil Subsoil	0.2 0.0	0.3 0.0	0.2 0.0	1.5 1.6	9.1 18.9	67.8 60.7	20.5 17.9	No	½
Dunkirk Gravelly Sandy Loam	Soil Subsoil	8.1 7.8	15.5 16.7	11.5 9.8	18.4 23.3	8.3 8.2	30.7 28.2	7.2 15.9	No	3½
Meadow	Soil Subsoil	Low lying areas partly covered by water most of the time. Not good for cultivation or buildings. Similar to Huntington Loam.								
Dunkirk Silt Loam	Soil Subsoil	1.1 0.6	2.0 1.4	1.0 .9	4.9 3.7	15.2 13.2	66.3 62.2	9.1 17.3	No	1

* * The Analyses are taken from "SOIL SURVEY OF NIAGARA COUNTY, NEW YORK". See footnote, page 29 .

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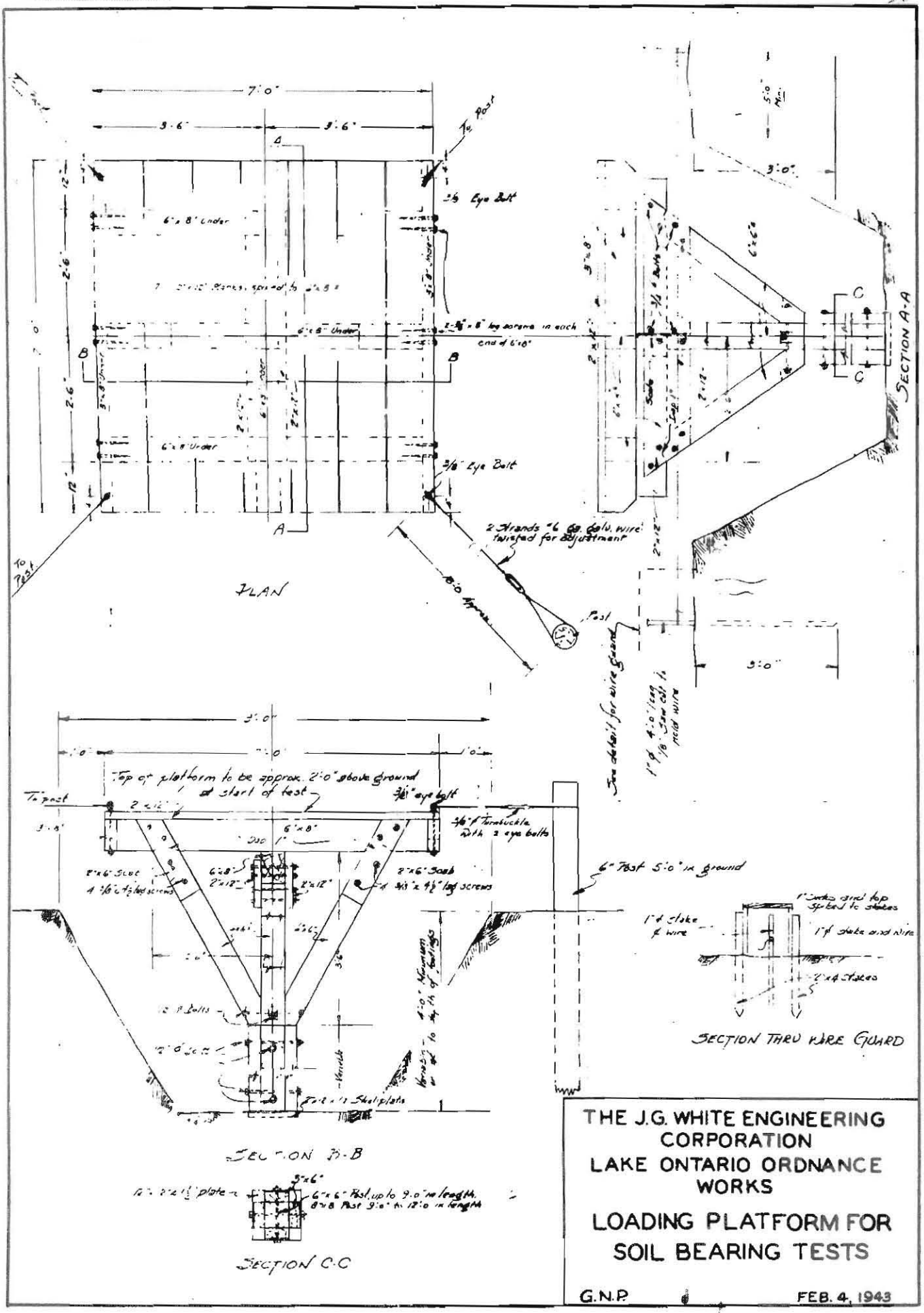

THE J.G. WHITE ENGINEERING CORPORATION
LAKE ONTARIO ORDNANCE WORKS

LOADING PLATFORM FOR SOIL BEARING TESTS

G.N.P. FEB. 4, 1943

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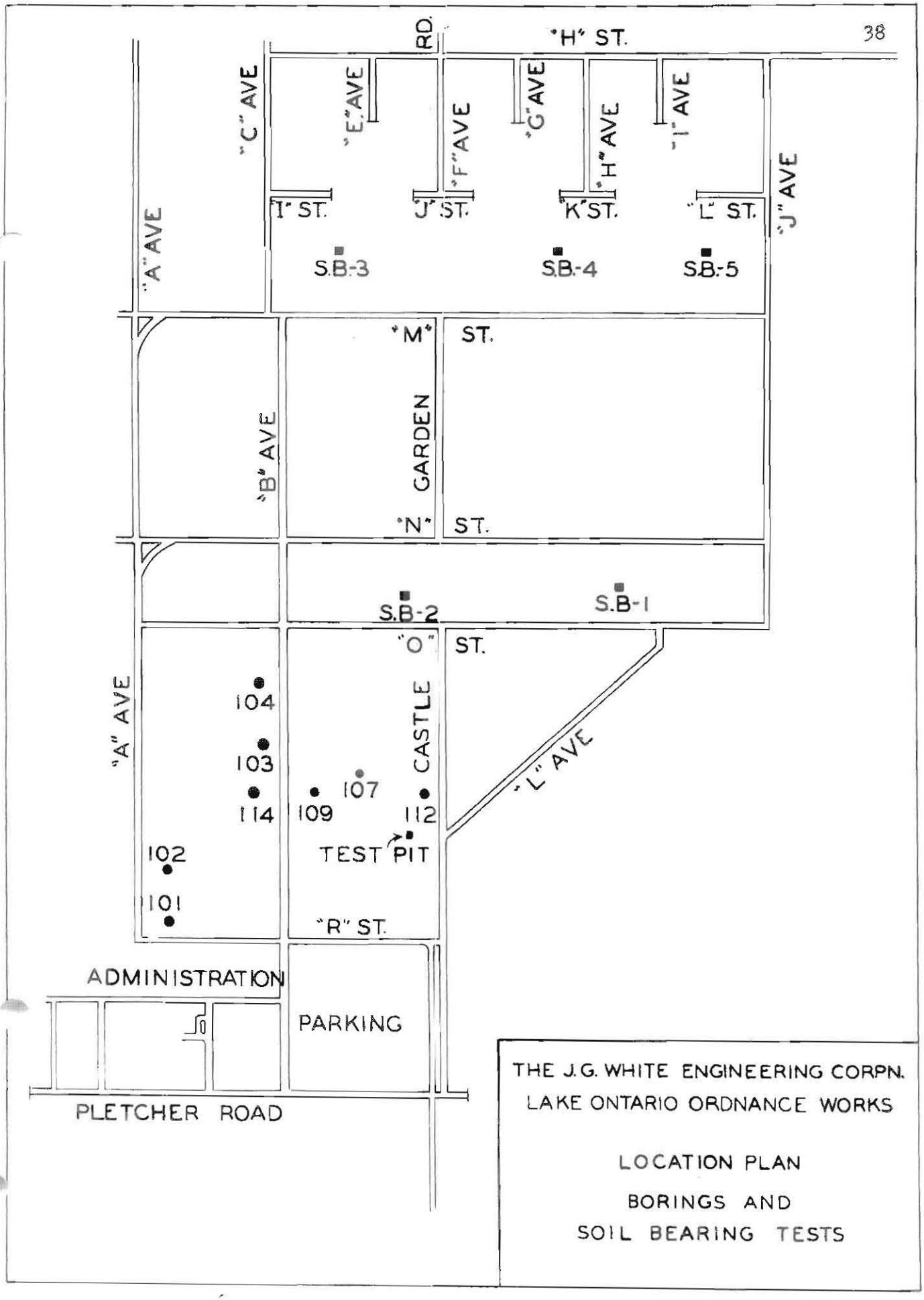


THE J.G. WHITE ENGINEERING CORPN.
LAKE ONTARIO ORDNANCE WORKS

LOCATION PLAN
BORINGS AND
SOIL BEARING TESTS

REPRODUCED AT THE NATIONAL ARCHIVES

SOIL DATA

Soil Bearing Tests, Borings and Test Pit

Soil Bearing Tests

85. Five soil bearing tests within the Project area were made by the Field Engineering Department, two in the Acid Area and three in the TNT Area. The loads consisted of a varying number of 94 pound bags of cement placed on a 7'x7'x2" wood loading platform on a pedestal resting on a $1\frac{1}{2}$"x12"x12" steel plate, leveled off in the center of a pit 4 feet below the surface. See sketch on page 37. The locations of these tests are shown on the Location Plan - Borings and Soil Bearing Tests, page 38.

86. Soil Bearing Test No. 1 was begun on March 4, 1942, about 260 feet north of "O" Street, and 1180 feet east of Castle Garden Road. The test lasted for 33 hours. Maximum settlement of .03 foot was obtained with 10,660 pounds and no further settlement was noticed during 20 hours application of this load.

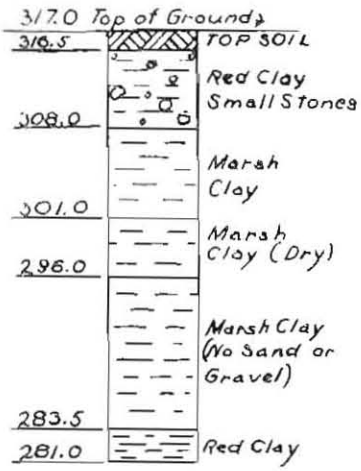
87. Soil Bearing Test No. 2 was begun on March 5, 1942, about 200 feet north of "O" Street, and 250 feet west of Castle Garden Road. The test lasted for 46 hours. Maximum settlement of .06 foot was obtained with 10,660 pounds and no further settlement was noticed during 27 hours application of this load.

88. Soil Bearing Test No. 3 was begun on April 8, 1942, about 440 feet north of "M" Street, and 470 feet east of "C" Avenue (now Wesson Street). The test lasted 48 hours. Maximum settlement of .025 foot was obtained with 10,660 pounds and no further settlement was observed during 25 hours application of this load.

89. Soil Bearing Test No. 4 was begun on April 9, 1942, about 440 feet north of "M" Street, and 1,430 feet east of Soil Bearing Test No. 3. The test lasted 54 hours. The maximum settlement of .04 foot was obtained with 8,648 pounds and no further settlement was observed during 31 hours.

90. Soil Bearing Test No. 5 was begun on April 18, 1942, about 440 feet north of "M" Street, and 970 feet east of Soil Bearing Test No. 4. The test lasted $38\frac{1}{2}$ hours. The maximum settlement of .04 foot was obtained after a load of 8,460 pounds had been applied for 21 hours. No further settlement was observed $3\frac{1}{2}$ hours thereafter.

91. The Engineering Department of the A-E-M decided, after careful study of the results obtained from the above mentioned Soil Bearing Tests, the 8 Test Holes or Borings, (page 38), and the Test Pit, (page 38), to use a loading value of 3000 pounds per square foot in the Power and Water Treatment Area, the Sewage Disposal Plant Area and the Acid



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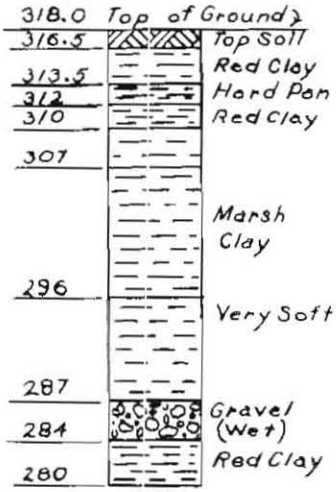

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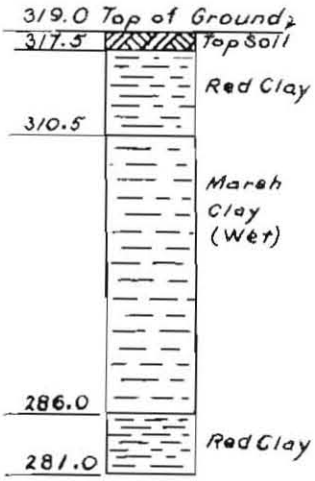

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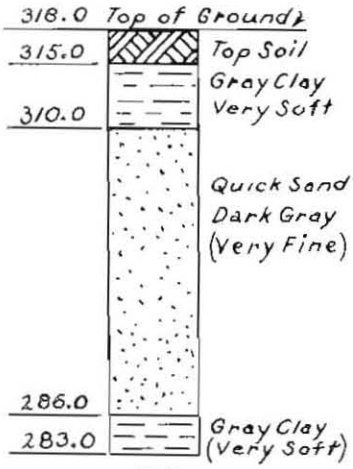

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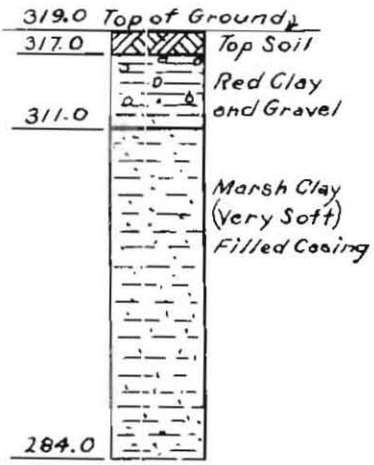

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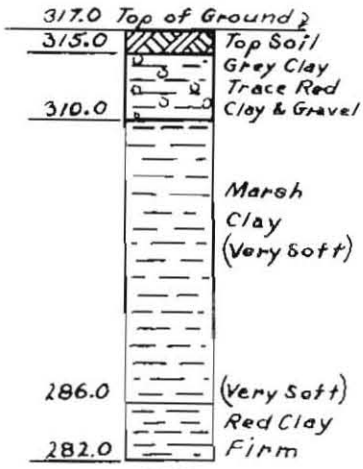

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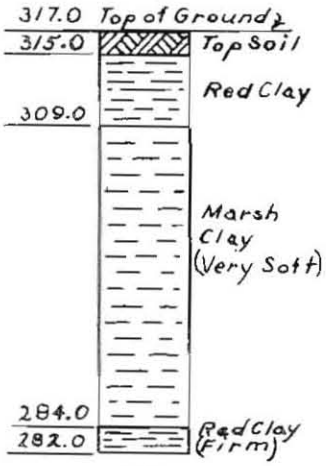

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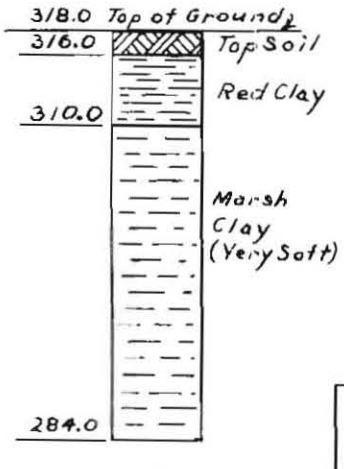

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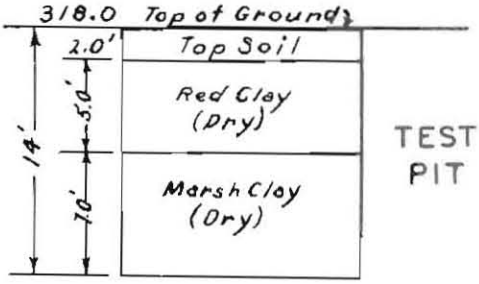


Note: Excavation Caved in From 3' Level Reduced Depth to 11 Feet Two Days After Excavation. Hole Dry.

THE J.G. WHITE ENGINEERING CORPN.
LAKE ONTARIO ORDNANCE WORKS

SECTIONS
BORINGS
AND TEST PIT

REPRODUCED AT THE NATIONAL ARCHIVES

Manufacturing Area, and to use 4000 pounds per square foot in the Administration Area, the TNT Manufacturing Area and all other Areas.

Borings

92. On March 18, 1942, subcontract No. 12 to the contract DA-W-138 Eng.-1, was awarded to William Strassburg and Son of Sanborn, New York, to cover test borings. A total of twenty-four test borings totalling 1,138 feet, were made at a unit price of $3.00 per foot, in three different locations (a) within the Project Area, (b) at the site of the Water Intake and Pumping Station, and (c) at the Waste Disposal Outlet Site.

Within the Project Area (8 Test Holes)

93. Test Hole No. 101 was drilled on April 6, 1942 at the proposed site for the Water Treatment Plant. It ran from elevation 317.0 to 281.0, a depth of 36 feet.

94. Test Hole No. 102 was drilled on April 8, 1942 at the proposed location of the Ground Storage Reservoir for water. It ran from elevation 318.0 to 280.0, a depth of 38 feet.

95. Test Hole No. 103 was drilled on April 11, 1942 at the proposed site for the 75,000 gallon elevated Drinking Water Tower. It ran from elevation 319.0 to 281.0, a depth of 38 feet.

96. Test Hole No. 104 was drilled on April 1, 1942 at the proposed site for the Sewage Disposal Plant. It ran from elevation 318.0 to 283.0, a depth of 35 feet.

97. Test Holes originally designated as 105, 106, 108, 110, 111 and 113 were not drilled as they were cancelled by the Engineering Manager on April 10, 1942.

98. Test Hole No. 107 was drilled April 2, 1942, 320 feet east of "B" Avenue (now Campbell Street) and 17 feet south of the north side of the Boiler Plant. It ran from elevation 319.0 to 284.0, a depth of 35 feet.

99. Test Hole No. 109 was drilled April 3, 1942, 240 feet east of "B" Avenue and 25 feet north of the south side of the Boiler Plant. It ran from elevation 317.0 to 282.0, a depth of 35 feet.

100. Test Hole No. 112 was drilled April 3, 1942, due east of No. 109 and 165 feet west of Castle Garden Road in the Boiler Plant Area. It ran from elevation 317.0 to 282.0, a depth of 35 feet.

REPRODUCED AT THE NATIONAL ARCHIVES

SOIL DATA

101. Test Hole No. 114 was drilled April 4, 1942, about 400 feet due west of Test Hole No. 109. It ran from elevation 318.0 to 284.0, a depth of 34 feet.

102. The locations of each of the above mentioned test holes are shown on page 38.

103. Soil sections of each of these test holes are shown on page 40 .

At the Site of the Water Intake and Pumping Station (12 Test Holes)

104. Test Hole No. 1 was drilled March 20, 1942 about 60 feet south of the intake line and 80 feet east of the east edge of the Niagara River. It ran from elevation 263.0 to 201.0, a depth of 62 feet.

105. Test Hole No. 2 was drilled March 23, 1942. It was located 135 feet north of the intake line and about 80 feet east of the east edge of the Niagara River. It ran from elevation 263.0 to 201.0, a depth of 62 feet.

106. Test Hole No. 3 was drilled March 24, 1942. It was located 135 feet north of the intake line and about 110 feet west-northwest of the northwest corner of the Pumping Station. It ran from elevation 265.0 to 188, a depth of 77 feet.

107. Test Hole No. 4 was drilled March 25, 1942. It was located 115 feet north of the intake line and about 30 feet north-northwest of the northwest corner of the Pumping Station. It ran from elevation 271.0 to 211.0, a depth of 60 feet.

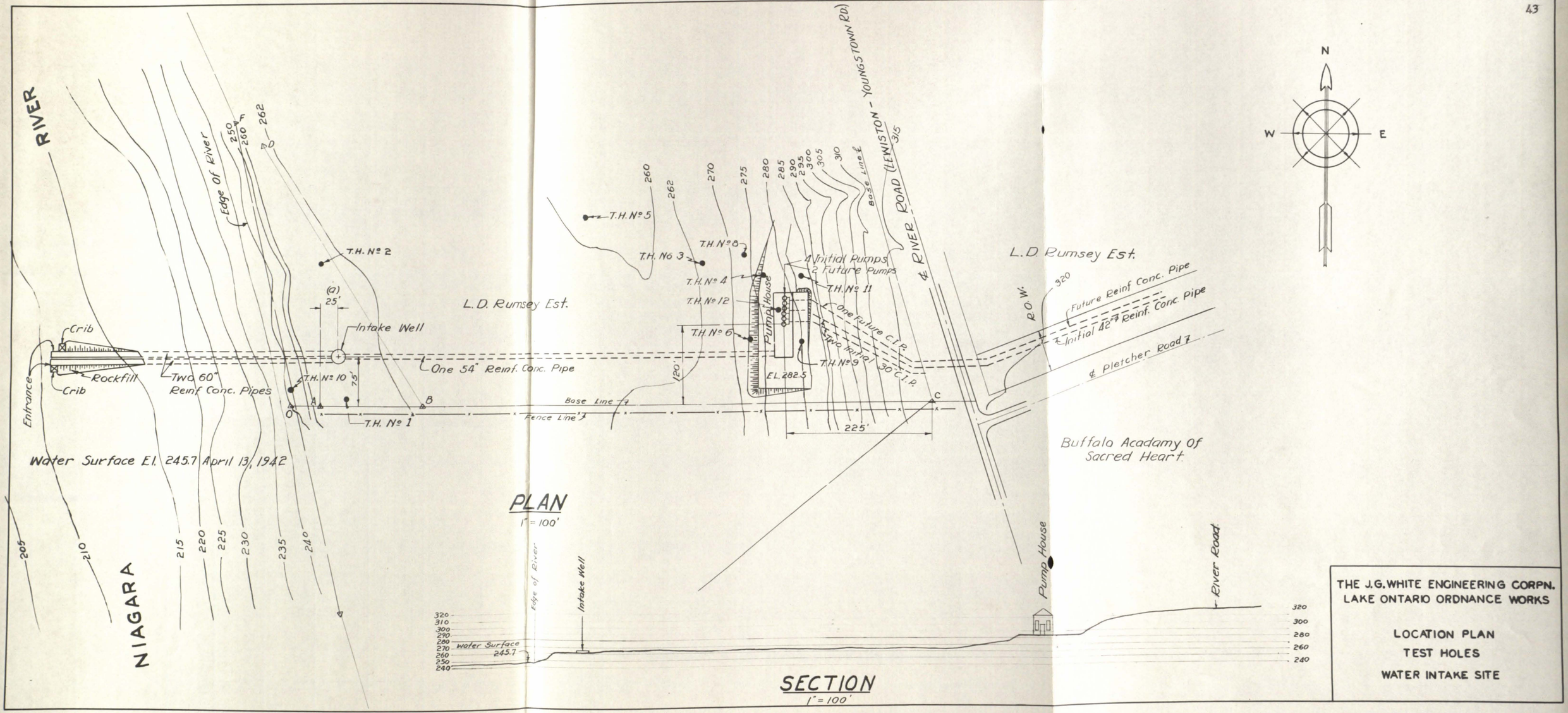
108. Test Hole No. 5 was drilled March 30, 1942. It was located 200 feet north of the intake line and 180 feet west-northwest of Test Hole No. 3. It ran from elevation 262.0 to 200.0, a depth of 62 feet.

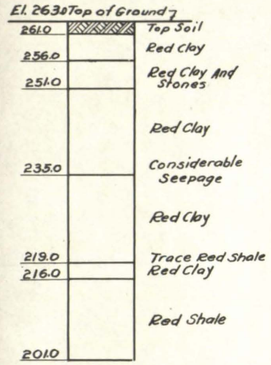
109. Test Hole No. 6 was drilled April 16, 1942. It was located 50 feet west of the center line of the Pumping Station and 20 feet north of the intake line. It ran from elevation 272.0 to 212.0, a depth of 60 feet, and required 11 hours and 20 minutes to drill.

110. Test Hole No. 7 was drilled on April 15, 1942. It was located approximately 60 feet west of Test Hole No. 6. After it was bored for 3 feet the contractor was ordered to discontinue further drilling at that location. No other record of the location or section are here shown.

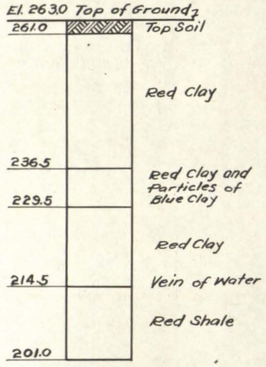
111. Test Hole No. 8 was drilled on April 14, 1942. It was located 145 feet north of the intake line and about 70 feet north-northwest of the northwest corner of the

LOOW-001

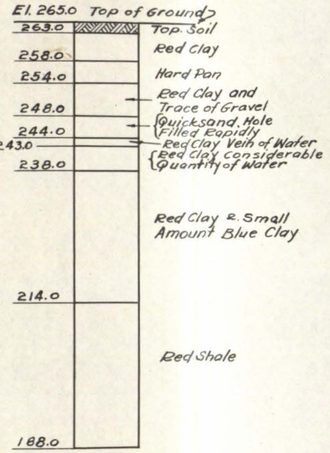

RIVER
NIAGARA
Edge of River
Crib
Rockfill
Crib
Entrance
Two 60" Reinf. Conc. Pipes
Intake Well
One 54" Reinf. Conc. Pipe
T.H. No 1
T.H. No 2
T.H. No 3
T.H. No 4
T.H. No 5
T.H. No 6
T.H. No 8
T.H. No 9
T.H. No 10
T.H. No 11
T.H. No 12
L. D. Rumsey Est.
Base Line
Fence Line
Water Surface El. 245.7 April 13, 1942
Pump House
4 Initial Pumps
2 Future Pumps
One Future C.I.P.
Two Initial 30" C.I.P.
EL. 282.5
225'
120'
75'
25'
(a)
A
B
C
D
Base Line
℄ RIVER ROAD (LEWISTON - YOUNGSTOWN RD.)
L. D. Rumsey Est.
R.O.W.
Future Reinf Conc. Pipe
Initial 42" Reinf. Conc. Pipe
℄ Pletcher Road
Buffalo Acadamy Of Sacred Heart
N
W
E
PLAN
1" = 100'
Edge of River
Intake Well
Pump House
River Road
Water Surface 245.7
SECTION
1" = 100'
THE J.G. WHITE ENGINEERING CORPN.
LAKE ONTARIO ORDNANCE WORKS
LOCATION PLAN
TEST HOLES
WATER INTAKE SITE



Test Hole No.1

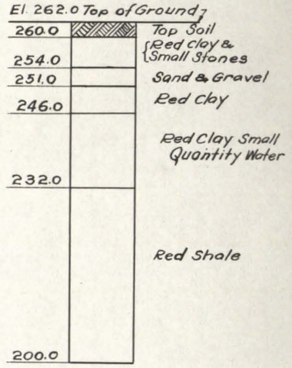


Test Hole No.2

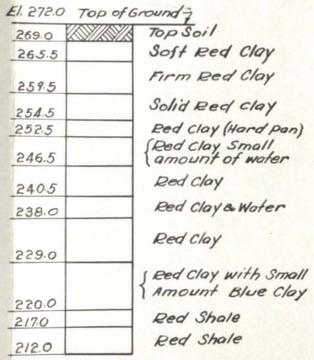


Test Hole No.3

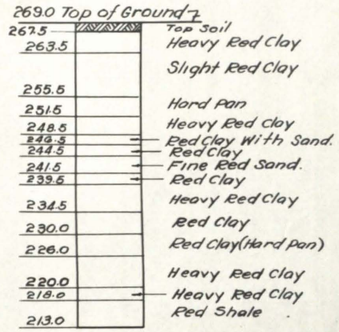
Test Hole No. 4



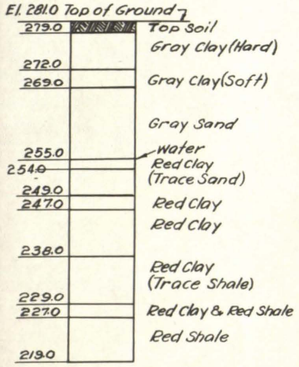
Test Hole No. 5



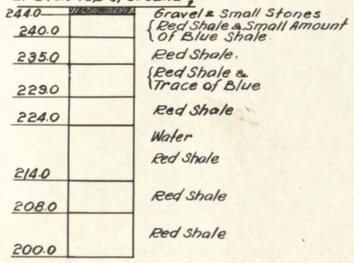
Test Hole No. 6



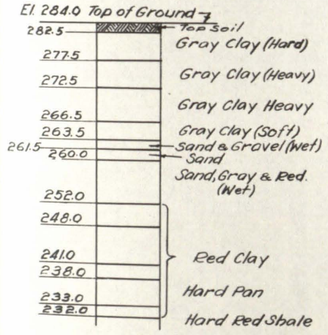
Test Hole No.8



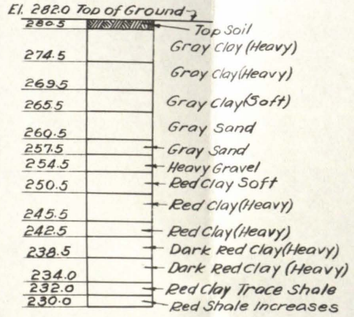
Test Hole No. 9



Test Hole No. 10



Test Hole No. 11



Test Hole No. 12

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LAKE ONTARIO ORDNANCE WORKS

TEST HOLES
SOIL SECTIONS
WATER INTAKE SITE

A.L.D. DEC. 9, 1942

Pumping Station. It ran from elevation 269.0 to 213.0, a depth of 56 feet, and required 11 hours and 35 minutes to drill.

112. Test Hole No. 9 was drilled on April 15, 1942. It was located about 28 feet east of the center line of the Pumping Station and 25 feet north-northeast of the southeast corner of that building. It ran from elevation 281.0 to 219.0, a depth of 72 feet, and required 10 hours and 35 minutes to drill.

113. Test Hole No. 10 was drilled on April 18, 1942. It was located about ten feet east of the east edge of the Niagara River and 48 feet south of the center line of the intake. It ran from elevation 245.0 to 200.0, a depth of 45 feet, and required 12 hours and 55 minutes to drill.

114. Test Hole No. 11 was drilled on April 20, 1942. It was located about 30 feet north-northeast of the northeast corner of the Pumping Station. It ran from elevation 284.0 to 232.0, a depth of 52 feet, and required 15 hours and 25 minutes to drill.

115. Test Hole No. 12 was drilled on April 21, 1942. It was located about 5 feet west of the center line of the Pumping Station and 60 feet north of the center line of the intake. It ran from elevation 282.0 to 230.0, a depth of 52 feet, and required 13 hours and 40 minutes to drill.

116. The locations of the test holes at the Water Intake and Pumping Station site are shown on page 43.

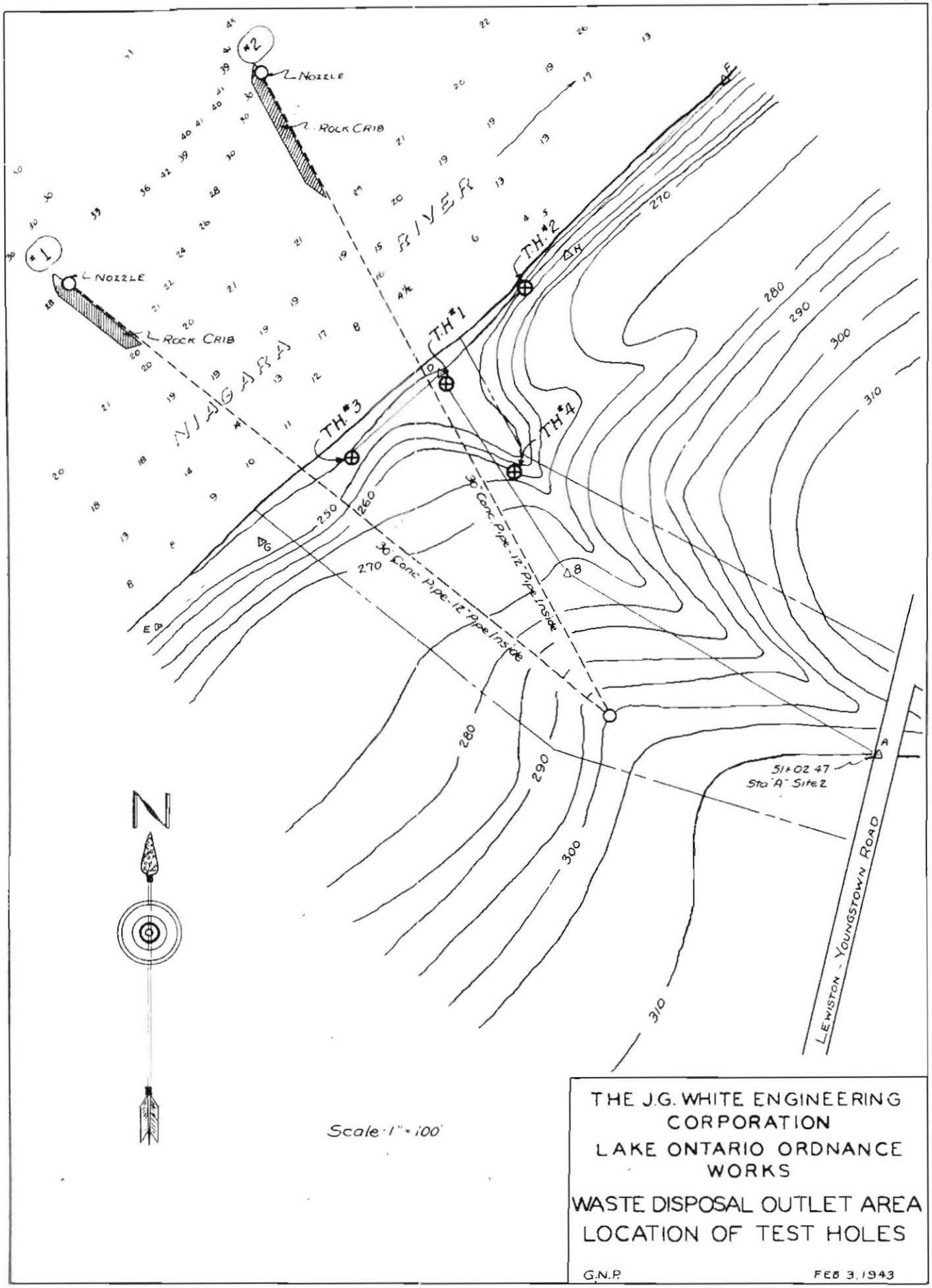
117. The sections of test holes at the Water Intake and Pumping Station are shown on page 44 .

At the Waste Disposal Outlet Site (4 Test Holes)

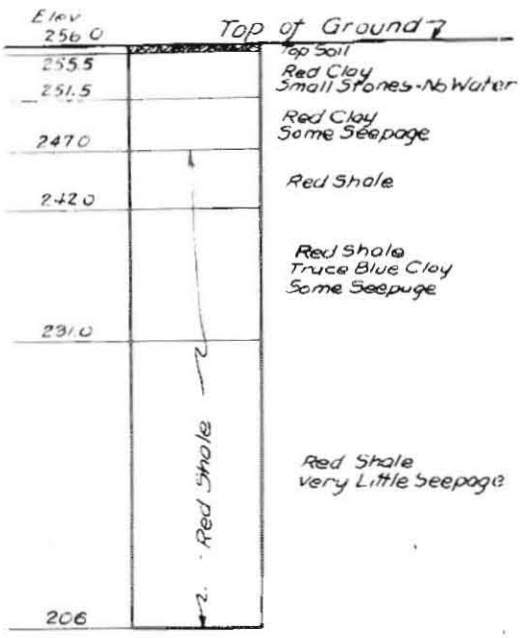
118. Test Hole No. 1 was drilled April 27, 1942. It was located about 25 feet southeast of the water's edge of the Niagara River and 10 feet northeast of the northerly outfall line. It ran from elevation 256.0 to 206.0, a depth of 50 feet. It took 9 hours and 50 minutes to drill.

119. Test Hole No. 2 was drilled April 23, 1942. It was located approximately 100 feet northeast of Test Hole No. 1 and 12 feet from the river's edge. It ran from elevation 250.0 to 200.0, a depth of 50 feet. It required 12 hours and 50 minutes to drill.

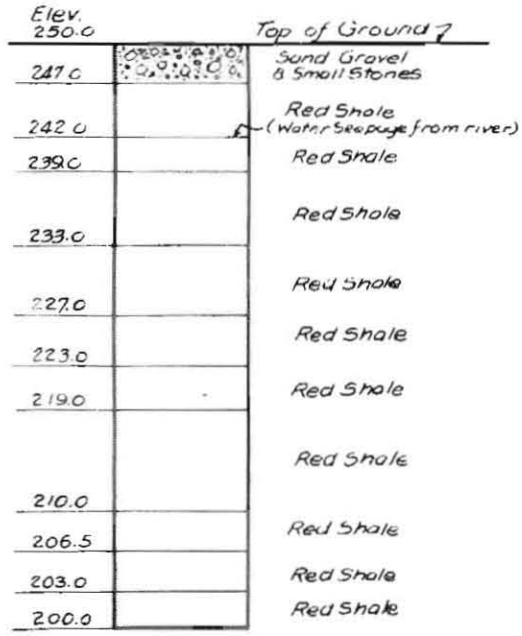
120. Test Hole No. 3 was drilled April 25, 1942. It was located about 100 feet southwest of Test Hole No. 1 and 20 feet in from the river's edge. It ran from elevation 250.0 to 200.0, a depth of 50 feet. It required 13 hours and 50 minutes to drill.


#2
Nozzle
Rock Crib
#1
Nozzle
Rock Crib
NIAGARA RIVER
T.H. #1
T.H. #2
T.H. #3
T.H. #4
30" Conc. Pipe - 12" Pipe Inside
30" Conc. Pipe - 12" Pipe Inside
270
280
290
300
310
250
260
511+02.47
Sta "A" Site 2
Lewiston - Youngstown Road
N
Scale: 1" = 100'
THE J.G. WHITE ENGINEERING CORPORATION
LAKE ONTARIO ORDNANCE WORKS
WASTE DISPOSAL OUTLET AREA
LOCATION OF TEST HOLES
G.N.P.
FEB 3, 1943

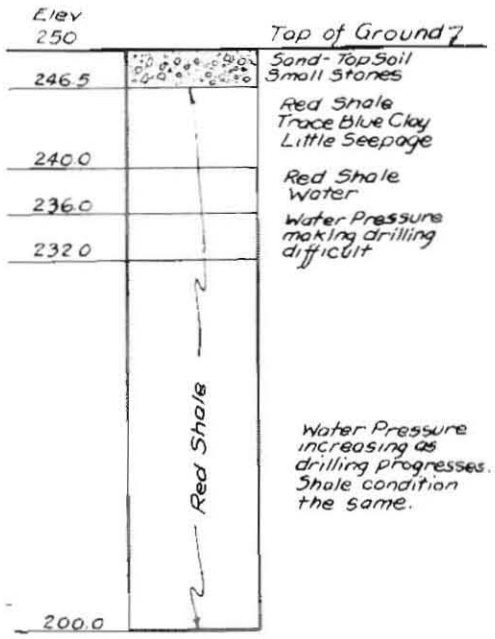
REPRODUCED AT THE NATIONAL ARCHIVES



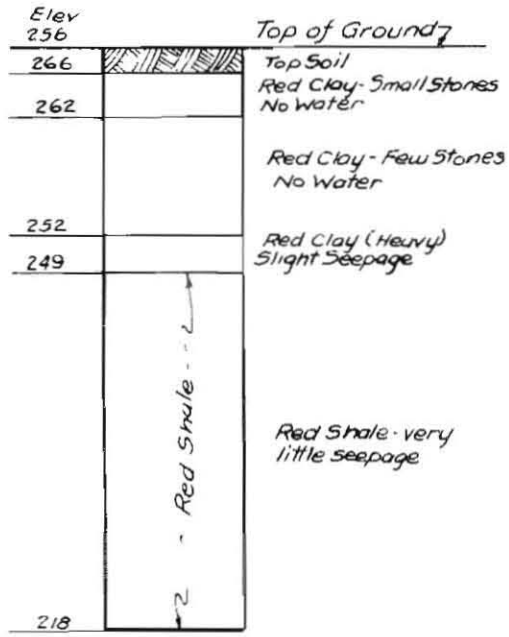
TEST HOLE NO. 1



TEST HOLE NO. 2



TEST HOLE NO. 3



TEST HOLE NO. 4

THE J.G. WHITE ENGINEERING CORPORATION

LAKE ONTARIO ORDNANCE WORKS

WASTE DISPOSAL OUTLET AREA

TEST HOLE SECTIONS

G.N.P. FEB 3.1943

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121. Test Hole No. 4 was drilled April 28, 1942. It was located about 95 feet southeast and inshore from Test Hole No. 1. It ran from elevation 256.0 to 218.0, a depth of 38 feet and took ten and a half hours to drill.

122. The locations of the test holes at the Waste Disposal Outlet Area at the Niagara River are shown on page 46 .

123. The sections of the test holes at the Water Disposal Outlet Area at the Niagara River are shown on page 47.

Test Pit

124. A Test Pit was dug on April 4, 1942 by Poirier and McLane, southeast of the Boiler Plant location and about 200 feet west of Castle Garden Road where it is joined by "L" Avenue (now Vine Street). This pit was 14 feet deep, from a surface elevation of 318.0 feet. The location is shown on page 38, and the section is shown on sheet 40.. On April 6, 1942 the sides caved in from the 3 foot level reducing the depth to 11 feet. The hole was dry.

Ground Water Conditions

Surface Water

125. As over half of the Project area, 3,968 acres, is covered with Dunkirk clay, Clyde clay and Lockport clay, which soils and subsoils have a high proportion of clay in their analyses, (see page 36) and are consequently very impervious to water, it is easy to understand why rain or melted snow is not readily absorbed.

126. Even where there is a smaller proportion of clay, as in the case of the Clyde Loam, which covers 3,059 acres, the percentages of fine sand and very fine sand in this soil and its subsoil are so great that we find great compactness and a low effective size for the sand, retarding absorption and subsurface flow. (The effective size varies as the square of the diameter of the grains of sand.)

127. Further, the slope of the hydraulic grade line in the Project area from south to north, is comparatively small, being about 40/24,000 or less than 2 inches per 100 feet, which is exceedingly flat. In the Administration area the surface has practically no slope.

128. During the spring of 1942, many cellars in existing buildings, used for offices or storehouses, were flooded and had to be pumped out, again and again. Excavations for foundations were filled with water and muddy fields prevented or retarded grading and other earth movements.

REPRODUCED AT THE NATIONAL ARCHIVES

SOIL DATA

129. The Project area is fortunate in having certain natural streams for run-off into Lake Ontario. These are Fourmile Creek, Sixmile Creek and Twelvemile Creek.

130. Fourmile Creek enters the Project from the west, just south of Balmer Road, and flows inside the northerly half of the west boundary.

131. There are two branches of Sixmile Creek. One branch, called the West Branch, starts between Balmer and Cain Roads, about half a mile west of Lutts Road and angles in an east-northeast direction towards the northeast corner of the Project but turns in a more northeasterly direction before reaching it and crosses the Youngstown-Ransomville Road about a third of a mile to the west of its junction with Porter Center Road.

132. The other branch of Sixmile Creek starts outside the Project, south of Modeltown, at the foot of the escarpment and runs past the Tugwell Wiseman Canning Factory and then due north in a line paralleling the west Patrol Road until it reaches a point just north of "M" Street when it turns northeast and runs out of the Project at a point on the east boundary about 1,200 feet south of the northeast corner of the Project.

133. Twelvemile Creek enters the easterly portion of the Project from the south, near Nichols Road and Pletcher Avenue and arcs across the east-central portion to emerge about 4,000 feet north of the junction of Porter Center Road and Langdon Road.

134. Several of these streams were deepened, enlarged and straightened, in places, during the early eighteen nineties, greatly increasing their drainage capacities.

135. Further modifications have been effected, such as diverting part of Sixmile Creek in the Magazine Area, and covering it by the use of culverts, wood stave pipe, back cover, and grading in the Administration Area, and diverting part of the Twelvemile Creek to the eastward in the vicinity of the Classification Yard.

136. Inasmuch as certain waste waters from the manufacturing processes are discharged after treatment into Fourmile Creek, careful studies were required to determine the best method of treatment and the effects of adding this water to probable flood waters from surface drainage, from the standpoint of high water levels, overflow, culvert and bridge levels and capacities and also the effects of the waste waters upon any water taken from this stream for any purpose, or the effects of the resultant waters in the Creek or drawn from the Creek upon animals or persons, vegetation, trees, fruits, grains, or other private or public property along the course of the Creek.

LOOKING EAST ON FLETCHER ROAD

LOOKING NORTHWEST TOWARD FLETCHER ROAD FROM HAROLD ROAD

FLETCHER ROAD

FLETCHER ROAD

HIGH WATER ON SITE OF NEW ADMINISTRATION BUILDING

LOOKING WEST ON SWAN ROAD FROM LATTA ROAD

FLETCHER ROAD

SWAN ROAD NEAR THE CREEK ROAD

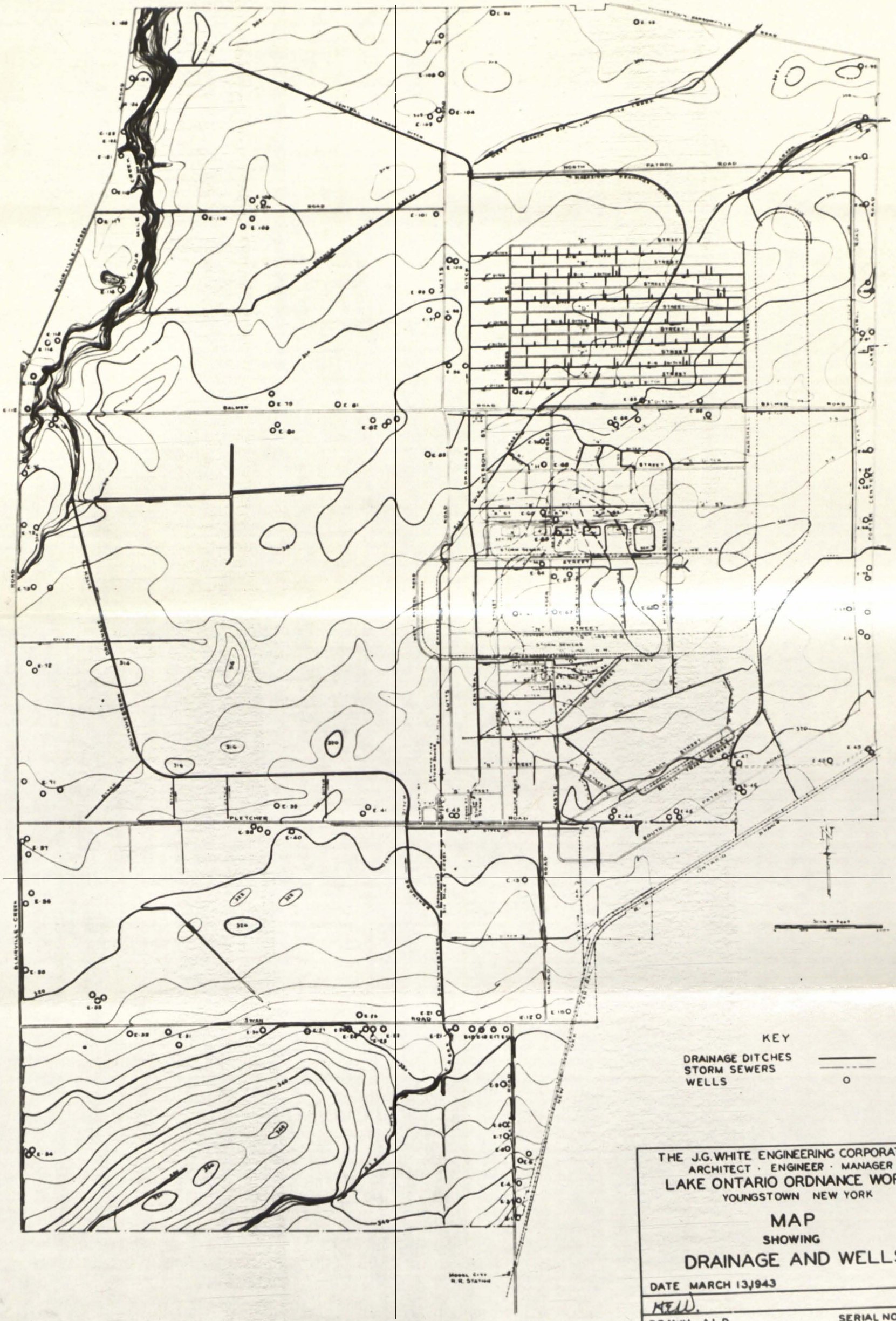
FLETCHER ROAD NEAR THE HAROLD FARM

SURFACE WATER CONDITIONS

MARCH 7, 1942

REPRODUCED AT THE NATIONAL ARCHIVES

LOOW-001


KEY
DRAINAGE DITCHES
STORM SEWERS
WELLS
THE J.G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN NEW YORK
MAP
SHOWING
DRAINAGE AND WELLS
DATE MARCH 13, 1943
DRAWN A.L.D.
SERIAL NO. C-224

LOOW-001

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137. In the past, during the winter months, these creeks would, as a rule, become frozen and snow and debris blown by the wind would assist in clogging these sources of drainage so that the surface water would not flow off, or if it did, it was over ice and snow in the creeks or ditches and at overflow levels.

138. Frozen ground also prevents water from being absorbed. According to farmers who have lived 40-50 years on the Project Area, the frost line within this area usually extends from one foot to one and a half feet below the surface and occasionally, during seasons with little snow, will extend to two feet or more. The deepest on record, near here, was $5\frac{1}{2}$ feet in 1935, at Rochester. For design purposes four feet was taken as the frost line in laying out foundations.

139. See Page 50, for views of flood conditions on the Project on March 9, 1942.

Subsurface Conditions

140. All wells and water pumps, outlets and faucets had signs affixed to them, in January, 1942, condemning the water and prohibiting its use for drinking purposes. During March 1942, a field survey was made in order to locate all the wells on a map of the Project site; 131 wells were found. In April 1942, an inspection was made of the wells to ascertain the depth of water in each of them.

141. During the summer of 1942 many of these wells were dry. Some of the former inhabitants state that, for years, during the summer it has been necessary to truck water in tanks or barrels from the Niagara Falls water main in Youngstown, or Lewiston, to provide water for drinking and general service requirements, even for farm animals, for many of the farms.

142. Some of the wells have water with sulphur in it and one deep well at E-13 had sodium chloride in its water.

143. There are traces of natural gas escaping from the ground west of "Youngs Woods" which is the heavily wooded area near the center of the Project, in the northeast corner of former Great Lot 37, in Lewiston Township.

144. The locations of the wells are shown on the map showing Drainage and Wells, page 51.

145. The locations, depths and sizes of the wells, together with the depth of water found in them during the April inspection are shown in the following table.

REPRODUCED AT THE NATIONAL ARCHIVES

145. WELLS ON PROJECT

LOCATION	DRILLED DEPTH IN FEET	DRILLED WATER IN FEET	DUG DIAM. IN FEET	DUG DEPTH IN FEET	DUG WATER IN FEET	REMARKS
E-1				20	10	
E-2 - E-3				20	10	
E-4				10	5	
E-5	90	90				
E-5				20	15	
E-6				20	15	
E-7				12	6	
E-8				16	12	
E-9				20	20	
E-11				22	5	
E-12				18	3	
E-13				20	10	
E-13	60			20		Drilled well below 20' dug well
E-14				32	32	
E-14				27	14	
E-15	20			35	28	Drilled well below 35' dug well
E-16				19	3	
E-17				25	9	
E-18				19	4	
E-19				18	4	
E-20	50					
E-20				20	7	
E-21				20	16	
E-22	75					

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145. WELLS ON PROJECT (Continued)

LOCATION	DRILLED DEPTH IN FEET	DRILLED WATER IN FEET	DUG DIAM. IN FEET	DUG DEPTH IN FEET	DUG WATER IN FEET	REMARKS
E-23	40			20		Drilled well below 20' dug well
E-24				25	25	
E-25				35	10	
E-26				28	5	
E-27				28	2	
E-27				16	16	
E-28				18	7	
E-28				19	10	
E-29				20	20	
E-30				24	2	
E-31				20	10	
E-31				30	10	
E-32	46					
E-33						1 drilled well
E-33				28	12	
E-33				27	10	
E-34				20	5	
E-34	62					
E-35						1 drilled well
E-36				20	dry	
E-36						1 drilled well
E-37				40	5	
E-37				30	30	
E-37				40	40	
E-38 West of House	61	58				5' casing
E-38 Near log cabin			$4\frac{1}{2}$	17	16	
E-39 Between House and Barn			$3\frac{1}{2}$	18	16	

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145. WELLS ON PROJECT (Continued)

	LOCATION	DRILLED DEPTH IN FEET	DRILLED WATER IN FEET	DUG DIAM. IN FEET	DUG DEPTH IN FEET	DUG WATER IN FEET	REMARKS
E-39	Southeast of Barn			3	17	17	
E-40				4½	23	20	
E-40	(Across road from)			2½	17	16	
E-41	Near Porch			3½	60	40	
E-41	East of Barn			3½	30	10	
E-42				4	28	8	
E-43				3	22	12	
E-44		50	40				6" casing
E-45				3	17	9	
E-45	East of Barn			3½	22	12	
E-45	North of Barn	30	25				6" casing
E-46				3½	26	20	
E-47	Front of House			3	22	20	
E-47	North of Barn			4	25	25	
E-48				3	22	20	
E-49					20	15	
E-50				3	12	12	
E-51	Front of House			4	25	10	
E-51	West of Barn			3	20	20	
E-52	West of Barn				20	20	
E-52A	South of House			3	18	18	
E-53	East of Barn			5	24	24	Bricked
E-53	East of House			4	16	8	
E-55	East of House			3	21	12	
E-55	North of House			3½	20	20	
E-56		32	20				6" casing
E-57	In House	32	20				6" casing

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REPRODUCED AT THE NATIONAL ARCHIVES

145. WELLS ON PROJECT (Continued)

	LOCATION	DRILLED DEPTH IN FEET	DRILLED WATER IN FEET	DUG DIAM. IN FEET	DUG DEPTH IN FEET	DUG WATER IN FEET	REMARKS
E-58		52	42				6" casing
E-59				4	28	20	Bricked
E-60				3	15	15	Stone
E-60				3½	15	15	Stone
E-61	East of House			4	25	8	
E-61	Southwest of House			3	18	18	
E-62	South of House			3½	22	10	
E-62	South of Old House			3	20	20	
E-63	North of House			3½	28	20	
E-63	East of Barn			3½	30	30	
E-64		25	20				6" casing
E-65		41	38				6" casing
E-66	Near House			3½	31	25	
E-66	Near Barn			3	25	22	
E-68		55	40				6" casing
E-70				3½	20	20	
E-71	North of House			3½	30	28	
E-71	South of Barn			3	22	22	
E-72	South of House			3½	30	20	
E-72	West of Barn			3½	25	20	
E-73	South of House			3½	30	10	
E-73	South of Barn			3	25	25	
E-73	East of Barn			3	30	25	
E-75	East of House			3½	30	20	
E-75	South of Barn			3½	30	25	
E-76	South of House			3½	20	10	

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REPRODUCED AT THE NATIONAL ARCHIVES

145. WELLS ON PROJECT (Continued)

	LOCATION	DRILLED DEPTH IN FEET	DRILLED WATER IN FEET	DUG DIAM. IN FEET	DUG DEPTH IN FEET	DUG WATER IN FEET	REMARKS
E-76	Near Creek				15	15	
E-78				3½	20	12	
E-79				3½	31	11	
E-80	Near House			4	31	20	Bricked
E-80	North of Barn			3½	20	20	
E-80	East of Barn			3½	32	32	
E-81				3½	30	20	
E-82	In Barn			3½	30	30	
E-82	In Shed			3½	25	25	
E-82	In Field near Road			3	31	12	
E-83				3½	22	15	
E-84				3½	25	12	
E-85				3½	25	12	
E-101		25	16				
E-101				4	20	15	6" casing
E-108		50	35				6" casing
E-109	S.E. Corner of House			4	20	12	
E-109	West of Barn			4	20	17	
E-110				5	20	16	
E-112				3½	20	8	
E-113	South of House			3½	20	10	
E-113	East of Barn			1½	20	10	Tile Casing
E-114	In Cellar			1½	20	10	Tile Casing
E-115				1½	25	15	Tile Casing
E-116				3½	30	20	
E-117				3½	25	8	
S. W.	Corner B-179 .4 mile west of Lutts Road			3	22	20	

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REPRODUCED AT THE NATIONAL ARCHIVES

BUILDINGS

146. Buildings and Structures on this Project may be divided into three classes: (1) those acquired with the site, (2) "Permanent" and (3) Temporary.

147. Acquired with the Site. A total of 874 were acquired by Government purchase. The classes and numbers of these are shown in detail on the following page. The location of these are shown on the Topographic Map of the Area, page 21, with the designations of the dwelling houses indicated with the prefix "E". Summaries of the dwelling houses and their facilities and condition are given on pages 61 and 62.

148. Many of these buildings and structures have been repaired and remodelled, demolished, or relocated by the A-E-M with the approval of the Ordnance Department. Others were sold and removed by the purchaser. Others have been demolished by the Chemical Construction Corporation. The disposition of all classes of buildings is shown on page 60. Photographs of some of these buildings are shown on Plates XXIV, XXIX, XXX, and XXI.

149. "Permanent". A total of 503 buildings and structures were constructed by the A-E-M and other Prime Contractors in accordance with their contracts and government directives, under the supervision of the Contracting Officer, the Area Engineer.

150. These buildings and structures together with their post numbers, unit numbers, locations, type of construction, capacity and size, and an index covering the contracts, specifications and drawings applying to them are listed on pages 63 through 69. Photographs of these buildings and structures are shown on Plates I - XIV, and XVII, and in the Panoramas.

151. Temporary. A total of 208 buildings of a temporary nature, constructed by the A-E-M or subcontractors, for necessary use during construction, such as general and engineering offices, time and pay offices, garages, shops, warehouses, loading platforms, sentry boxes, first-aid stations, latrines, canteens and other houses.

152. These are briefly summarized and described on page 70. Photographs of many of them are shown on Plates XXV, XXVI, XXVII and XXVIII.

REPRODUCED AT THE NATIONAL ARCHIVES

Buildings and Structures Acquired with the Site

153. The A-E-M established a Land Acquisition Section in the Auxiliary Features Department in February, 1942. This section numbered all of the buildings from E-1 to E-128 inclusive, adding sub-letters for barns and auxiliaries, acquired on the Project Site. Wood signs, painted white, with large red letters and numbers, were made and affixed to all buildings.

154. The following buildings and structures were on the site when it became Federal property:

DWELLINGS		WELLS		HOG & SHEEP HOUSES	
Houses	121	Dug Wells	109	Hog or Pig Houses	4
Cottage	1	Drilled Wells	19	Hog Pens & Pigsties	7
Parsonage	1	Dug & Drilled	3	Sheep Pen	1
	123		131		12

BARNS AND STABLES		POULTRY BUILDINGS		MISCELLANEOUS	
Barns & Stables	124	Henhouses	121	Restaurants	2
Barn & Shed	1	Henhouse & Barn	2	Playhouses	2
Stable & Shed	1	Henhouse & Shed	1	Summerhouse	1
Wagon Barn	1	Poultry Houses	2	R.R. Boxcars	2
Wagon Sheds	5	Brooder Houses	11	Attached Cellar	1
Corn Barn	1	Brooder Coops	3	Outside Cellar	1
Feed Storage Barn	1	Pigeon House	1	Foundation	2
	134		141		11

GARAGES		SHEDS AND STORAGE BUILDINGS		SERVICE BUILDINGS	
Garages	56	Sheds	47	Outhouses	91
Garage & Barn	1	Lean-tos	3	Shops	2
Garage & Shed	2	Wood Shed	9	Tool Houses	3
Tractor Shed	1	Freight Car Shed	1	Tool Barn	1
	60	Coal House	1	Tool Sheds	3
		Fuel House	1	Spring Houses	2
PUBLIC BUILDINGS		Log House	1	Pump Houses	8
Churches	2	Silos	24	Milk & Pump House	1
School House	1	Silo and Shed	1	Milk Houses	15
	3	Granaries	2	Greenhouses	3
		Corn Cribs	37	Smoke House	1
		Storage Crib	1		130
		Ice House	1		
			129		

Total Buildings and Structures - 874

155. Field measurements and sketches of floor plans were made of 128 buildings including 123 dwellings, 1 church, 2 restaurants and 2 sheds. Finished tracings and ozalid

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prints of the floor plans were made. Photographs from two different angles were made of the exterior of each house. A survey was made of the condition of each house and the data obtained assembled on mimeographed forms constituting, with the floor plans and photographs, an "Historical Record". A summary giving the findings as a result of this survey is shown on the next two pages.

DISPOSITION OF ALL CLASSES OF BUILDINGS

Left in Original State	315
Demolished by A-E-M	265
Cleaned by A-E-M	85
Repairs or Improvements Made by A-E-M or Subcontractors	54
Used for Quarters for Officers or Civilians	27
Used for Offices	25
Used for Storage (In addition to Warehouses)	13
Used for Shops (Carpenter, Blacksmith, Machine, Paint,etc)	9
Used for Dispensary	1
Used for First Aid Stations	2

DISPOSITION OF ALL CLASSES OF BUILDINGS
BY AUTHORITY OF ORDNANCE DEPARTMENT

Moved away from Site	47
Moved within Site	9
Sold	48

156. Another building survey was made in August, 1942 and a fifty page tabulation compiled, which showed the building number, tract or parcel number, name of original owner, type of building, disposition or use of building, the nature of repairs and improvements, if made, and the date of inspection. This list was turned over to the Ordnance Department. See Map, page 21, to determine the location and designation of houses.

REPRODUCED AT THE NATIONAL ARCHIVES

BUILDINGS

SUMMARY OF DWELLING HOUSE SURVEY

Total Houses - 123

Type of Construction - 117 Wood Frame, 4 Brick, 1 Brick & Wood, 1 Pebble & Stone

Basements - 85 Full, 31 Without, 1 Half, 4 Attached Cellars, 2 Outside Cellars

Number of Stories - 23 - 1 Story, 5-1½ Stories, 91 - 2 Stories, 1- 2½ Stories, 3-3 Stories

Number of Rooms

All Floors

6-1 Room	23-6 Rooms	4-11 Rooms
0-2 Rooms	28-7 Rooms	3-12 Rooms
7-3 Rooms	11-8 Rooms	1-13 Rooms
11-4 Rooms	8-9 Rooms	0-14 Rooms
10-5 Rooms	10-10 Rooms	1-15 Rooms

First Floors		Second Floors	
6-1 Room	20-5 Rooms	9-1 Room	8-5 Rooms
5-2 Rooms	11-6 Rooms	20-2 Rooms	3-6 Rooms
27-3 Rooms	6-7 Rooms	32-3 Rooms	2-7 Rooms
47-4 Rooms	1-8 Rooms	23-4 Rooms	7 Attics

Roofs - 84 Wood Shingle, 27 Composition, 11 Tar Paper, 1 Asbestos Shingle

Condition of Exterior	Good	Fair	Poor	None
Roofs	73	38	12	
Wood Siding	84	22	11	
Asbestos Shingles	2	1		
Brick	2		1	
Paint	56	26	27	14
Porches	52	30	15	26
Steps	52	29	19	23
Condition of Interior				
Plaster	69	30	12	
Wall Board	2	3		

REPRODUCED AT THE NATIONAL ARCHIVES

SUMMARY OF DWELLING HOUSE SURVEY (Cont.)

Condition of Interior-(Cont.)

	Good	Fair	Poor	None
Unfinished	7			
Woodwork	53	48	14 (8 Unfin.)	
Floors	61	45	13 (4 Unfin.)	
Wall Paper	42	37	29	
Paint	3	1		11

Water Supply

Type 54 Hand Pumps
52 Electric Pumps
2 Bucket Wells
4 City Main
11 None

Condition-72 Good, 34 Fair, 6 Poor

Lighting

Type 111 Electric
12 Lamps
36 Wired for Electric Range

Condition-72 Good, 36 Fair, 3 Poor

Plumbing

Kitchen Sink
91 with sinks, 32 without
24 with Hot water, 99 without

Bathrooms
24 with stool, 25 with tub
20 with bowl, 2 with shower
22 with hot water, 101 without

Condition - 41 good, 8 fair

Heating

Type 63 Stoves
36 Hot Air
13 Hot Water
0 Steam
11 None

Fuel 105 Coal
6 Oil
1 Wood

Condition - 41 good, 8 fair

DWELLINGS SUITABLE FOR USE AS

Residences for Officers or Executives	37
Residences for Workingmen	84
Field Offices for Supervisor's	87
Field Offices for Contractors	79
Demolition	8
Suitable for Relocation, by moving.	101 yes; 22 no.
Located on Site of Proposed Building,	7 yes; 116 no.

POST NUMBER	UNIT NUMBER	NAME OF UNIT BUILDINGS AND STRUCTURES FOR VARIOUS FACILITIES	LOCATION AREA AND NUMBER OF UNITS: ACID	POWER AND WATER SUPPLY	SHOPS	GENERAL FACILITIES	ADMINISTRATION	TNT	STORAGE	TOTAL	TYPE OF CONSTRUCTION	CAPACITY AND SIZE OF UNIT	INSIDE FLOOR AREA SQUARE FEET	CUBICAL SPACE CUBIC FEET	INDEX TO PAGES LISTING DRAWINGS CONTRACTS SPECIFICATIONS
		CHLORINATION STATION													
5444		Chlorination Station 10" Drinking Water Line		1						1	Reinf. Conc. Found, Fl, and Frame Insulated Superstructure	12' x 12' x 16' Entire Drinking Water System	132	2,112	145
	617	SEWAGE TREATMENT PLANT													150-155
5671		Sewage Disposal Pump Station				1				1	Reinf.Conc.Found,Fl,&Wls.to Grade Above Gr,Fr,Drop Siding,4 Ply Roof	32'x30'x40'-2 Stories below Grade & 1 above.(1 story add. 14'x14'x12')	2,885	38,064	150
5672		Imhoff Tank				1				1	Reinf.Conc.Structure throughout All sides banked with earth Fill	62' x 57' x 28'	-	95,648	151
5673		Sludge Bed (North)				1				1	Reinf.Conc.Structure throughout. Gravel & Sand Fill on Conc.Fl.Slab	81' x 33' x 5'	2,560	12,800	152
5674		Sludge Bed (South)				1				1	Reinf.Conc.Structure throughout. Gravel & Sand Fill on Conc.Fl,Slab	81' x 33' x 5'	2,560	12,800	153
5675		Venturi Vault				1				1	Reinf.Conc.Structure throughout. Conc. Closed Top Slab	25' x 14' x 10' Floor 9' - 6" below Grade	312	3,120	154
5676		Chlorine Contact Tank				1				1	Reinf.Conc.Structure throughout. Wood Baffles,Open Top,Pipe Railing	22' x 14' x 11' Floor 9' - 0" below Grade	-	3,003	155
	620	PROCESS WASTE DISPOSAL PLANT													146,147,156,157
5612		Acid Neutralization Building				1				1	Reinf.Conc.to Grade incl.all Fls. Fr.Exter.above Gr,Roof Wood & Comp	52'x42'x52'-2 stories below grade & 2 above-(1 story ext.34'x12'x26')	9,723	145,405	146
5691		Red & Yellow Mix Tank & Pumping Station				1				1	Reinf.Conc.Constr.to Grade,Fr.above DropSiding,Wood Roof,Comp.Roofing	Tk.41'x40'x7'.Tk.House 34'x12'x32' Brick Lined.(Pump House 29x16x24)	912	11,158	156
5613		Collection Tank				1				1	Reinf. Conc. Structure Open Top	11' x 9' x 7' 4' below & 3' above Grade	-	560	147
5692		Outfall Head Chamber				1				1	Below Grade-Reinf.Conc.Struct. Above Grade House-Frame Structure	Below Grade-29'x17'x18' House Above Grade-14'x6'x8'	- 88	8,064 702	157
	614	GUARD TOWERS													218
No.1, 2, 2A, 2B, & 3 to 26 incl.		Elevated Sentry House (Along Guard Fence)				28				28	Conc. Piers, Timber Stairs & Landing, Frame House, Platform & Bracing	7' x 7' x 7' House Elevated 24' above Grade, equipped with Search Light	49	343	218

LAKE ONTARIO ORDNANCE WORKS
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT • ENGINEER • MANAGER

COMPLETION REPORT
PART II - BUILDINGS AND STRUCTURES
BUILDINGS AND STRUCTURES
FOR VARIOUS FACILITIES

SHEET 2 of 2

POST NUMBER	UNIT NUMBER	NAME OF UNIT BUILDINGS AND STRUCTURES FOR VARIOUS FACILITIES	LOCATION AREA AND NUMBER OF UNITS: ACID	POWER AND WATER SUPPLY	SEWERS	GENERAL FACILITIES	ADMINISTRATION	TNT	STORAGE	TOTAL	TYPE OF CONSTRUCTION	CAPACITY AND SIZE OF UNIT	INSIDE FLOOR AREA SQUARE FEET	CUBICAL SPACE CUBIC FEET	INDEX TO PAGES LISTING DRAWINGS CONTRACTS SPECIFICATIONS
	404	INTAKE WORKS													142-144
5441		River Pumping Station				1				1	Reinf.Conc. to Grade, Brick above, Wood Trusses,Gypsum Plank,Shingles	91' x 31' x 58' below Grade 90' x 30' x 22' above Grade	3,200 2,464	105,300 59,136	142
5442		River Gate and Valve House				1				1	Reinf.Conc.to Grade, Brick above, Wood Roof Rafters & Plank,Shingles	26' x 20' x 12' below Grade 25' x 19' x 11' above Grade	404 404	4,848 5,258	143
5443		River Intake Well				1				1	Reinf. Conc. Structure Entire Structure below Grade	21' x 21' x 21' base Section 21'diam.x11' Circ.Section above	-	13,071	144
	413	WATER STORAGE (GROUND)													132,148
5421		Cooling Water Reservoir				1				1	Reinf.Conc.Found,Fls, Walls and Interior Supports.Frame Superstr.	204' x 178' x 20' Reservoir 204' x 178' Superstr.4' to 12' high	-	726,240 290,496	132
5021		Fire Protection Reservoir				1				1	Reinf.Conc.Found,Fls, Walls and Interior Supports,Frame Superstr.	88' x 57' x 18' Reservoir 88' x 57' Superstr. 4' to 12' high	-	90,288 40,128	148
	414	WATER STORAGE (ELEVATED)													122,126,133,149
5421		Cooling Water Concrete Tower	1							1	Reinf. Conc. Circular Found. and Tank Structure 150' high	Structure 40'diam.x150' high,Tank Within 39'diam.x12'for 275,000 Gal.	-	36,716	122
5425		Drinking Water Tank		1						1	Reinf.Conc.Pier Found,Steel Tower Steel Dunnage Beams,Wood Tank	75,000 Gallons,Tower Support 138' Tank 24' diam. x 24' high	-	10,013	133
5020		Fire Protection Water Tank	1							1	Reinf.Conc.Pier Found. 108' Steel Tower Support. Welded Steel Tank.	100,000 Gallons,Tower Support 108' Tank 24' diam.x 40' high.	-	13,352	149
		Boiler Feedwater Reserve Tank		1						1	Reinf. Conc.Pier Found, 80' Steel Tower Support. Wood Tank	10,000 Gallons, Tower Support 80' Tank 14' diam. x 10' high	-	1,335	126
	403	WATER TREATMENT PLANT													131,134-140
5419		Pumping Station				1				1	Reinf.Conc. Found. & Fls.to Grade Conc.Block Walls & Fr.Inter.above	69'x67'x11' below Grade Superstr. 69'x49'x11' and 28'x18'x15'	8,828	101,084	131
5421		Surge Tank and Chamber				1				1	Reinf.Conc.Tank,Frame Pent House Reinf.Conc.& Frame Chamber Bldg.	18' diam. x 38' high Tank Tower Pent House 18' diam.x8' high	-	11,705	134
5422		Accelator (North)				1				1	Reinf.Conc. Found, Fls. and Walls, Wood Roof Framing and Passageways	62' diam. x 20' high	-	14,137	136
5423		Accelator (West)				1				1	Reinf.Conc. Found, Fls.and Walls, Wood Roof Framing and Passageways	62' diam. x 20' high	-	14,137	136
5424		Accelator (South)				1				1	Reinf.Conc. Found, Fls,and Walls, Wood Roof Framing and Passageways	62' diam. x 20' high	-	14,137	137
5425		Filter Building				1				1	Reinf.Conc.Found, Fls. & Walls also Conc. Block Walls	78' x 65' x 35' Main Bldg. Unloading Rooms - 54'x11'x26'	5,174	160,594	138
5426		Chemical Storage Building				1				1	Reinf.Conc.Struct. 33' high, Conc. Block&Fireproof Wood above for 26'	78'x17'x33' Conc.Section,Block and Fr. 48'x17',30'x17'x18',14'x14'x8'	1,024	51,204	139
5427		Recarbonation Basin				1				1	Reinf. Conc.Found, Fl. and Walls. Open Top. Pipe Railing	51' x 40' x 19' Fl.7'-0" below Normal Grade	-	33,378	140
5428	412	Slurry Pool				1				1	Earth Dike enclosed area with Ditch along perimeter of Pool	Ditch Invert 10' wide and 4' below Grade,Dike enclosed area 2.75 Acres	-	-	141

LAKE ONTARIO ORDNANCE WORKS
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COMPLETION REPORT
PART II - BUILDINGS AND STRUCTURES
BUILDINGS AND STRUCTURES FOR VARIOUS FACILITIES

SHEET 1 of 2

POST NUMBER	UNIT NUMBER	NAME OF UNIT	LOCATION AREA AND NUMBER OF UNITS: ACID	POWER AND WATER SUPPLY	SEWERS	GENERAL FACILITIES	ADMINISTRATION	TNT	STORAGE	TOTAL	TYPE OF CONSTRUCTION	CAPACITY AND SIZE OF UNIT	INCHES FLOOR AREA SQUARE FEET	CUBICAL SPACE CUBIC FEET	INDEX TO FIELD DRAWINGS & SPECIFICATIONS
		MANUFACTURING BUILDINGS & STRUCTURES													
8011-8012-8013 8014-8015-8016	801	Mono Nitrating House						6		6	Conc. Found. & Fl, Steel & Frame Struct, Drop Siding, Shingle Roof.	21' x 21' x 30'	841	13,877	178 thru 180
8021-8022-8023 8024-8025-8026	802	Bi and Tri Nitrating House						6		6	Conc. Footings, Elevated Steel and Frame Struct, Drop Siding, Shingle Rf.	Open First Story 36' x 19' x 12' Closed Elev. Struct. 37' x 20' x 21'	684	12,996	181 thru 183
8031-8032-8033 8034-8035-8036	803	Fortifying House						6		6	Conc. Found. & Fl, Steel & Frame Struct. Drop Siding, Shingle Roof	Main Bldg. 20' x 15' x 18' Lean-To 15' x 8' x 15'	648	6,734	194 & 195
8041-8043-8045	804	Toluene (Working) Storage						3		3	Reinf. Conc. Found. Steel Welded Tank	10' diam. x 20' 11,916 Gallons	-	1,591	186
8046-8047-8048	804	Toluene (Bulk) Storage						3		3	Ballast Stone, Sand and Stone Dust Found. Steel Welded Tank.	36' diam. x 35'-4" 270,000 Gallons.	-	3,605	187
8061-8062-8063 8064-8065-8066	806	Wash House						6		6	Conc. Found. & Fl, Steel & Frame Struct, Drop Siding, Shingle Roof	21' x 25' x 28' - 3 Stories 21' x 25' x 18' to 28' - 2 Stories	3,006	30,630	188 thru 190
	807	Covered Conveyor Lines						6		6	Conc. Pier Footings, Steel & Frame Structure, Galv. Iron Housing.	Approximately 460' long	-	-	188 thru 190
8082-8084-8086	808	Nailing House						3		3	Conc. Pier Footings, Frame Struct, Drop Siding, Asbestos Shingle Roof	20' x 18' x 10'	298	4,023	191
8121-8122-8123 8124-8125-8126	812	Acid and Fume Recovery Bldg.						6		6	Conc. Found.& Cinder Fl, Steel Struct, Corr. Asbestos Siding and Roof.	41' x 13' x 47' to 54'-Five Stories 41' x 22' x 31' to 42'-Three Stories	8,141	55,586	192 thru 194
8141	814	Box Factory and Shook Storage						1		1	Conc. Found. & Fl, Frame, "B" Roof, Corr. Steel Siding, Brick Fire Walls.	Box Fact. 120'x46'x16' & 120'x25'x12' Shook Storage 121' x 106' x 13'	20,622	369,434	195
	817	O. V. Storage Tank						6		6	Conc. Found. and Piers, Steel Grillage, Riveted Steel Tank.	24' diam. x 20'	-	9,048	207
	818	Wash House Barricade						6		6	Conc. Found, Timber Struct, Steel Rods, Earth Filled Type D Roof	Base 15' wide, Top 5' wide, 30' high, 46' long	-	-	208
4011	401	Boiler House		1						1	Conc. Found. & Fl, Steel Structure, Corr. Steel Siding and Roof.	Main Sect.136'x82'x64' one Story Sects. 112'x30' and 136'x30'x Average Rf. 24'	21,048	892,288	126 thru 129
8451	415	Main Air Compressor House						1		1	Conc.Found. & Fl, Conc. Block Walls, Wood Truss,Gyp.Plank,Asbestos Shingle.	96' x 41' x 12'	3,742	56,130	200
8581-8583-8585	508	Start-up Mixed Acid Storage Tank						3		3	Conc. Found. and Pier Saddles, Welded Steel Tank	6' diam. x 20' 4,400 Gallons	-	565	201
	601	Coal Trestle		1						1	Conc. Footings, Timber Structure, 23 Bents. Guard Rails	Single Track, 12' High, 16' Wide, 263' Long			229
		STORAGE BUILDINGS													
East to West "A" St. 9001 to 9058	811	Igloo							58	58	Reinf. Conc. Constr. Throughout. Protective Earth Blanket.	13'-3" Radius Arch Roof, 26'-6" Wide 60'-8" Long. 1600 Sq. Ft. Fl. Space	1,628	17,134	209

	ACID	POWER AND WATER SUPPLY	SEWERS	GENERAL FACILITIES	ADMINISTRATION	TNT	STORAGE	TOTAL
TOTAL BUILDINGS	18	6	16	44	15	57	64	220
TOTAL STRUCTURES	146	3	1	18	1	105	9	283
TOTAL BUILDINGS AND STRUCTURES	164	9	17	62	16	162	73	503

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MANUFACTURING BUILDINGS AND STRUCTURES

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POST NUMBER	UNIT NUMBER	NAME OF UNIT MANUFACTURING BUILDINGS & STRUCTURES	LOCATION AREA AND NUMBER OF UNITS: ACID	POWER AND WATER SUPPLY	SHOPS	GENERAL FACILITIES	ADMINISTRATION	TNT	STORAGE	TOTAL	TYPE OF CONSTRUCTION	CAPACITY AND SIZE OF UNIT	INSIDE FLOOR AREA SQUARE FEET	CUBICAL SPACE CUBIC FEET	INDEX TO PAGES LISTING DRAWINGS CONTRACTS SPECIFICATIONS
3054	305-10	55 Ton Tank Scale House	1							1	Conc. Found, Cinder Fl, Frame, Barn Bd. Siding, Type A Roof	15' x 9' x 8'	138	1,102	105
3055	305-37	F83 Storage Tanks	2							2	Welded Steel Tank, Reinf. Conc. Found, Piers & Elev. Saddle Struct.	9' diam. x 36' Horizontal	-	2,290	107
3056	305-25	109% Oleum Storage Tanks	5							5	Riv. Steel Tank, Reinf. Conc. Found, Piers & Elev. Struct. Wood Grillage	24' diam. x 20'	-	9,048	106
3058	305-81	93.2% (Dark) Sulphuric Acid Storage Tanks	7							7	Riv. Steel Tank, Reinf. Conc. Found. & Wall Structure, Wood Grillage	24' diam. x 20'	-	9,048	103
3056	305-35	TNT Residual Sulphuric Acid Storage Tanks	6							6	Riv. Steel Tank, Reinf. Conc. Found, Piers & Elev. Struct. Wood Grillage	24' diam. x 20'	-	9,048	109
3057	305-81	93.2% (Clear) Sulphuric Acid Sales Stor. Tanks	7							7	Riv. Steel Tank, Reinf. Conc. Found, Piers & Elev. Struct. Wood Grillage	24' diam. x 20'	-	9,048	109
3058	305-31	TNT Mixed Acid Storage Tanks	10							10	Welded Steel Tank, Reinf. Conc. Found, Piers & Elevated Saddle Structure	9' diam. x 36' Horizontal	-	2,290	110
3071	307	Sellite Manufacturing Plant										20 Ton Per Day			111 & 112
3071	307	Sulphur Storage Bin	1							1	Conc. Found, Cinder Fill and Conc. Fl. Slab, Wood Bin	40' x 32'	[illegible]	-	111 & 112
3071	307	Process Building	1							1	Conc. Found. & Fl, Timber Structure, Novelty Siding, Asphalt Shingle Roof	35' x 34' x 18'	1,186	20,804	111 & 112
3071	307	Soda Ash Storage Building	1							1	Conc. Found. & Fl, Timber Structure, Novelty Siding, Asphalt Shingle Roof	45' x 31' x 25' for 2 floors, Tower 14' x 11' x 17' for 2 floors	2,869	36,542	111 & 112
3071	307	Sellite Solution Storage Tanks	2							2	Wood Tank, Steel Rod Bands, Conc. Found. & Support, Wood Grillage	42' diam. x 20'	-	27,700	111 & 112
3081	308	Sulphuric Acid Concentrating Plant										Main Bldg. - 154'x58'x34' and 5 Lean-to, (1-150'x20'x19') (2-58'x30'x15')(2-24'x20'x26')			113 thru 119
3081	308	Dark S.A. Concentrating House	1							1	Conc. Found, Timber Structure Corr. Asbestos Siding & Roof		18,704	452,911	113 thru 119
3082	308-56	Fuel Oil Storage Tanks	2							2	Welded Steel Tank Reinf. Conc. Pad Foundation	120,000 Gallons Each 32' diam. x 20'	-	16,083	100
		Outside Safety Shower	29					66*		95	Plain Concrete Slab	4' x 4'			100 & 233
		Carspots (Platform Loading or Unloading)	6							6	Steel & Wood Stairs & Platform	For - (305-81)(305-25)(305-37) (301-2)			227 & 228
		Carspots (Pipe Loading or Unloading)	5							5	Pole with Counterweight Pipe	For - (305-31)(303-35) (302-22)			227 & 228
		Carspots (Platform Loading or Unloading)						9		9	Steel & Wood Stairs & Platform	For - 804 Toluene (Working) For - 817 O. V. Storage			227 & 228
		Carspots (Pipe Loading or Unloading)						3		3	Pole with Counterweight Pipe	For - 308 Start-up Mixed Acid			227 & 228

* locations shown on Architectural Drawings of Manufacturing Buildings

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3011	301	Low Pressure Anhydrous Ammonia Storage													87
3011	301	Compressor House	1							1	Conc. Found, Cinder Fl, Frame, Barn Bd. Siding, Type B Roof	22' x 18' x 10'	346	3,633	87
3011	301-5	Hortonsphere Storage Tank	1							1	Welded Steel Tank, Conc. Found. Steel Frame Support	38' diam. Spherical 5000 Barrels	-	12,033	87
3012	301	High Pressure Anhydrous Ammonia Storage													88
3012	301	Compressor House	1							1	Conc. Found, Cinder Fl, Frame, Barn Bd. Siding, Type B Roof	21' x 14' x 10'	260	2,730	88
3012	301-2	Ammonia Storage Tanks	12							12	Welded Steel Tanks, Insulated, Reinf. Conc. Saddle Bridge	8' diam. x 39' Horizontal 14,000 Gallons Each	-	1,869	88
3021	302	Ammonia Oxidation Plant													89 thru 94
3021	302	Convertor, Absorption & Compressor House	1							1	Reinf. Conc. Found, Steel Frame, Corr. Asbestos Siding and High Roof, Low Roof Type A Roof	96' x 84' x 17' - One Story 112' x 13' x 59' - Four Stories	16,063	215,379	89 thru 94
3022	302	Pump House and Office	1							1	Conc. Found. & Fl, Frame, Barn Bd. Siding, Type B Roof	30' x 21' x 12'	532	5,586	95
3021	302-16	Cooler Condensers	4							4	High Chrome Iron, Conc. Found. and Slab, Steel Frame	36' x 12' x 18'	-	-	89 thru 94
3023	302-24	62% N.A. Storage Tanks	8							8	Stainless Steel, Reinf. Conc. Found. & Wall, Steel Grillage	10' diam. x 14'	-	1,100	96
3023	302-22	62% N.A. Condensate Tank	1							1	Steel Tank Welded, Reinf. Conc., Found. & Wall, Wood Grillage	14' diam. x 12'	-	1,847	96
3031	303	Nitric Acid Concentrator Plant													97 thru 100
3031	303	N.A. Concentrating House & Office	1							1	Conc. Found. & Fls, Steel Frame, Corr. Asbestos Siding & Roof	84' x 27' x 43' - 5 Story Bldg. 100' x 6' x 18' - Lean to Bldg.	10,146	146,412	97 thru 100
	303-12	55% N. A. Storage Tanks	2							2	Stainless Steel Tanks, Conc. Found. and Wall, Steel Grillage	8' diam. x 6'	-	302	97 thru 100
	303-25	Residual Acid Cooling Tanks	2							2	Welded Steel Tank, Lead and Brick Lining, Conc. Pad Found	19' diam. x 6'	-	1,701	97 thru 100
3032	303-27	N. A. Conc. Residual S. A. Storage Tanks	6							6	Riv. Steel Tank, Reinf. Conc. Found. and Elev. Structure, Wood Grillage	24' diam. x 20'	-	9,048	101
	305	Acid Area Tank Farm													102 thru 110
3051	305-2	Concentrating Mix Circulator Tanks on Scales	6							6	Welded Steel Tank, Conc. Found, Steel Bridge Saddle Support.	8' diam. x 20' Horizontal	-	1,005	102
3051	305-4	Concentrating Mix Circulator Coolers	6							6	Conc. Found. and Slab, Wood Frame Structure	32' x 8' x 13' 4" Acid Cooler	-	-	102
3051	305-2	55 Ton Tank Scale Houses	3							3	Conc. Found, Cinder Fl, Frame, Barn Bd. Siding, Type A Roof	15' x 9' x 8'	138	1,102	102
3053	305-5	Concentrating Mix Acid Storage Tanks	6							6	Riv. Steel Tank, Reinf. Conc. Found. & Elev. Structure, Wood Grillage	24' diam. x 20'	-	9,048	104
3054	305-7	Strong Nitric Acid Storage Tanks	1							1	High Chrome Iron Tank, Conc. Found. and Bridge Saddle Support	8' diam. x 20' Horizontal	-	1,005	105
3054	305-8	Strong Nitric Acid Batch Tanks	2							2	High Chrome Iron Tank, Conc. Found. and Bridge Saddle Support	8' diam. x 20' Horizontal	-	1,005	105
3054	305-10	Strong Mixed Acid Circulating Tank on Scales	2							2	Welded Steel Tank, Conc. Found, Steel Bridge Saddle Support	8' diam. x 20' Horizontal	-	1,005	105
3054	305-12	Strong Nitric Acid Coolers	2							2	Conc. Found. and Fl. Slab, Wood Frame Structure	32' x 8' x 13' 4" Acid Cooler	-	-	105

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MANUFACTURING BUILDINGS AND STRUCTURES

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POST NUMBER	UNIT NUMBER	NAME OF UNIT AUXILIARY BUILDINGS	LOCATION AREA AND NUMBER OF UNITS: ACID	POWER AND WATER SUPPLY	SHOPS	GENERAL FACILITIES	ADMINISTRATION	TEST	STORAGE	TOTAL	TYPE OF CONSTRUCTION	CAPACITY AND SIZE OF UNIT	INSIDE FLOOR AREA SQUARE FEET	CUBICAL SPACE CUBIC FEET	INDEX TO PAGES LISTING DRAWINGS CONTRACTS SPECIFICATIONS
7181	718	Locomotive House			1					1	Conc. Found. & Fl, Frame, Barn Bd. Siding, Type B Roof	(106'x31'x21') 4 Small or 2 Large Locomotives	3,372	76,393	170
719	719	Medical Service Bldg. (Hospital)					1			1	Conc. Fts, Block Found. & Piers Frame, Shingle Roof & Siding	79'x40'& 144'x40'x10' (2 Doctors) 10 to 30 Beds, 5 to 15 Nurses	8,639	120,946	81
720	720	Guard Headquarters		1						1	Conc. Piers, Conc. Block Found, Frame, Asbestos Siding, D Roof	88'x41'x10' and 84'x41'x10' 2 Cells, 294 Lockers for 275 Guards	6,795	95,130	82
8214	721	Inspector's Laboratory						1		1	Conc. Found. & Fl, Frame, Drop Siding, Type B Roof	34' x 20' x 10'	627	6,584	197
8212	721	Inspector's Office						1		1	Conc. Found. & Fl, Frame, Drop Siding, Type D Roof	40' x 31' x 10'	1,170	16,380	196
7222	722	Millwright Shop			1					1	Conc. Found. & Fl, Frame, Barn Bd. Siding, Type D Roof	60' x 40' x 12'	2,419	38,704	172
9221-9222	722	Chocking Lumber Shed							2	2	Conc. Found. & Fl, Frame, Barn Bd. Siding, Type A Roof	31' x 19' x 11'	589	7,068	212
7221	722	Riggers Shop			1					1	Conc. Found. & Fl, Frame, Barn Bd. Siding, Type A Roof	40' x 20' x 10'	741	7,410	171
3221 8222-8224-8226	722	Area Shops	1					3		4	Conc. Found. & Fl, Frame, Barn Bd. Siding, Type A Roof	40' x 20' x 10'	741	7,410	121 & 198
7231	723	Laundry Bldg.			1					1	Conc. Found. & Fl, Frame, Barn Bd. Siding, Type A Roof	61' x 21' x 12' 65 lbs. Dry Weight Per Load	1,195	15,236	173
7241-9241	724	Gasoline Station			1				1	2	Steel Welded Conc. Saddle Anchorage	1000 Gal. Storage Area (4'x10') 12000 Gal. Shop Area (9'x24')	-	1 - 134 1 - 1,608	174 & 213
7251	725	Parking Garage (Busses)			1					1	Conc. Piers, Earth Fl, Frame Corr. Steel Siding, Type A Roof	30 Trucks 124'x92'x14'	11,547	158,858	175
7261	726	Acetylene Storage Bldg.			1					1	Conc. Found, Cinder Fl, Frame Barn Bd. Siding, Type A Roof	33' x 21' x 8' Live and Dead Storage	666	5,328	176
7261	726	Acetylene (Working) Storage Bldg.			2					2	Conc. Found, Cinder Fl, Frame Barn Bd. Siding, Type A Roof	16'x8'x8' Working Storage Hydrogen - Oxygen	115	920	176
8272-8274-8276	727	Comfort Station						3		3	Wood Sills, Frame Structure Barn Bd. Siding, Type B Roof	2 Stalls 7'x6'x7' Badger Chem-O-Let Bowl	36	252	199
728	728	Garage for Staff & Ordnance					1			1	Conc. Found, Cinder Fl, Frame, Barn Bd. Siding, Type B Roof	20 Automobiles 80' x 32' x 9'	2,473	29,676	83
730	730	Garage for Guard Headquarters		1						1	Conc. Found, Cinder Fl, Frame, Drop Siding, Type D Roof	6 Cars 64' x 23' x 8'	1,418	19,852	84
6331-9331	733	Service House (Coat Room)				1			1	2	Conc. Found. & Floor, Frame, Drop Siding, Type B Roof	36'x16'x10' (2 Coat Rooms)	561	6,171	161 & 214
7331	733	Meeting House			1					1	Conc. Found. & Floor, Frame, Drop Siding, Type D Roof	32' x 30' x 10' Meeting Room for 50 Persons	899	12,586	177
751 - North 752 - South	735	Dormitories					2			2	Conc. Block Piers, Frame, Drop Siding, Asphalt Shingle Roof	2 Stories 153'x30' (57 Beds) 129'x8' One Side Double Deck Porch	10,745	104,884	85 & 86
6111	736	Garbage and Rubbish Incinerator				1				1	Brick, Conc. and Cast Iron (Conc. Fl. & Frame House)	House - 21'x15' Incin. 17'x11' Overhead Charge - 2 Ton	Bldg. 300 Burner 205	3,000 1,748	160
6012-6011	601	Scale House and Track Scales	1			1				2	Conc. Found, Frame Bldg. Barn Bd. Siding, Type B Roof	14'x14'x8' House 67'x10'x6' Reinf. Conc. Scale Pit	163	1,517	159 & 158
9211-9212-9213 9214-9215-9216	821	Loading Docks Transfer Platform							6	6	Bolted Timber Structure Treated Wood Plank Fl.	18' x 12' x 4'	216	-	210
9217-9218		Barricades for Transfer Platform							2	2	Conc. Found, Wood & Steel Rod Structure, Earth Filled	254' x 10' x 16' Barricade for 3 Platforms	-	-	211
3841 8841	804	Foamite House (Mixing Station)	1					1		2	Conc. Block Found. & Walls, Conc. Fl. & Roof Slab. Comp. Roof	(12'x12'x8') Foamite Mixer & Storage	114	988	125 & 206
	605	Gate House (Campbell St. Entrance)					1			1	Conc. Found, Wood Fl, Frame Structure, Rolled Roof	13' x 6'-6" x 7'	78	546	219

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AUXILIARY BUILDINGS

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POST NUMBER	UNIT NUMBER	NAME OF UNIT	LOCATION AREA AND NUMBER OF UNITS: ACIT	POWER AND WATER SUPPLY	SHOPS	GENERAL FACILITIES	ADMINISTRATION	TNT	STORAGE	TOTAL	TYPE OF CONSTRUCTION	CAPACITY AND SIZE OF UNIT	INSIDE FLOOR AREA SQUARE FEET	CUBICAL SPACE CUBIC FEET	INDEX TO PAGES LISTING DRAWINGS CONTRACTS SPECIFICATIONS
		AUXILIARY BUILDINGS													
701	701	Gate House & Clock Alleys					1			1	Conc. Found. & Fl, Frame Drop Siding, Type A Roof	48' x 33' x 10' 3 Gates	1,560	17,160	73
701	701	Examination Bldg.					1			1	Conc. Found. & Fl, Frame Drop Siding, Type A Roof	96' x 20' x 10' 6 Units	1,824	20,064	73
702	702	Telephone Bldg.					1			1	Conc. Found. & Fl, Brick Walls Conc. Roof, Type A Roof, Insul.	806 Automatic Telephones 48' x 21' x 10' high	995	10,840	74
703	703	Administration (Office) Bldg.					1			1	Conc. Block Found, Wood Frame Asb. Shingle Siding, Type "DD" Roof	2 Stories - 2 Bldgs. - 239'x 40' 400 Office Workers	39,954	478,164	75
	703	(Administration Bldg.) Fireproof Vault					1			1	Conc. Found, Floor & Roof Brick Walls, Type C Roof	28' x 16' x 9'	405	3,645	75
7041	704	Supervisor's Office (Shop Area)			1					1	Conc. Found. & Fl, Frame, Drop Siding, Type D Roof	83' x 32' x 10' 16 Office Workers	2,000	26,000	163
8742-8744-8746 9741	704	Supervisor's Office (T.N.T. Area) (Mag. Area)						3	1	4	Conc. Found. & Fl, Frame, Drop Siding, Type D Roof	49' x 31' x 10' 6 Office Workers	1,187	16,622	202 & 215
6741	704	Supervisor's Office (Yardmaster)				1				1	Conc. Found. & Fl, Frame, Drop Siding, Type D Roof	33' x 16' x 10'	684	7,476	162
705	705	Employment Office					1			1	Cinder Block Found. & Piers Frame, Shingle Roof & Siding	220' x 40' x 10' 44 Office Workers	8,821	122,374	76
3761	706	Laboratory and Supervisor's Office	1							1	Conc. Found, Wood Frame, Drop Siding, Type D Roof	60'x33'x10' - one Story 72'x39' two Stories	7,927	103,213	123
8762-8764-8766	706	Laboratories						3		3	Conc. Found. & Fl, Frame, Drop Siding, Type B Roof	51' x 20' x 10'	969	10,175	203
707	707	Change House (Adm. Area)					1			1	Conc. Found. & Fl, Frame, Drop Siding, Type A Roof	28' x 16' x 11' 28 Lockers	466	4,950	77
3771	707	Change House	1							1	Conc. Found. & Fl, Frame, Drop Siding, Type A Roof	48' x 39' x 11' 200 Lockers	2,173	22,971	124
4771	707	Change House		1						1	Conc. Found. & Fl, Frame Drop Siding, Type A Roof	28' x 19' x 11' 50 Lockers	616	6,413	130
7071-7072-7073 7074-7075-9771	707	Change House (Shop Area)				5			1	6	Conc. Found. & Fl, Frame Drop Siding, Type A Roof	35'x29' x 11' 108 Lockers	5 - 1,066 1 - 1,078	11,370 11,462	164 & 216
8772-8774-8776	707	Change House						3		3	Conc. Found. & Fl, Frame Drop Siding, Type A Roof	81' x 30' x 11' 220 Lockers	2,307	27,088	204
708	708	Cafeteria Building					1			1	Conc. Piers & Block Found, Frame, Conc. & Wood Fls, Shingle Siding, B&D Roof	(105'x84'x10') 300 Seating	9,384	110,197	78
709	709	Main Fire Headquarters Bldg.		1						1	Conc. Found. & Fl, Frame Asbestos shingles, Built-up Roof	(23'x10'x8')(43'x45'x14') House 2 Trucks	2,255	31,405	79
8791	709-B	Auxiliary Fire House						1		1	Conc. Found. & Fl, Frame Asbestos Shingle, Type D Roof	52' x 50' x 11' - 24' x 20' x 8'	3,077	39,240	205
	709-C	Hose Reel Shed	2		1	1	2	3	1	10	Conc. Footing, Block Found, Conc. Fl, Frame, Drop Siding	12' x 7' x 7'	72	502	217
712	712	Flags and Flag Pole					1			1	Reinf. Conc. Base Tube Steel Pole Welded	Flag Pole 100' above Grade for 12' x 20' Flag	-	-	80
7131	713	General Storehouse			1					1	Conc. Found. & Fl, Frame, Barn Bd. Siding, Type B Roof	141' x 73' x 13'	10,340	175,780	165
7141	714	Material Shed			1					1	Conc. Found, Cinder Fl, Frame, Barn Bd. Siding, Type D Roof	96' x 44' x 14'	3,955	94,920	166
7151	715	Oil and Paint Storage			1					1	Conc. Found. & Fl, Frame, Corr. Steel Siding & Roof	(41'x13'x9') Interior Cinder Block Fire Wall	528	5,808	167
7161	716	Garage and Repair Shop			1					1	Conc. Found. & Fl, Frame, Corr. Steel Siding & Roof	House 8 Trucks	4,093	73,674	168
7171	717	Combined Shops			1					1	Conc. Found. & Fl, Frame Barn Bd. Siding, Type A Roof	400' x 79' x 14'	31,679	665,259	169

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COMPLETION REPORT
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AUXILIARY BUILDINGS

SHEET 1 of 2

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TEMPORARY BUILDINGS

FIELD OFFICES

1 - A-E-M #1 - Area Engineer's Office - 2 story	31' x 111'
1 - A-E-M #2 - J.G. White Corpn. Admin. & Engineering - 2 story	31' x 111'
1 - A-E-M #3 - J.G. White Corpn. Gen'l, Purch., & Acctg. - 2 story	31' x 111'
1 - A-E-M #4 - J.G. White Corpn. Construction - 2 story	31' x 111'
1 - Baker-Smith	24' x 60'
1 - Stebbins	15' x 20'
27 - Portable	20' x 24'
37 - Portable	16' x 20'
3 - Receiving	20' x 50'

WAREHOUSES

1 - Warehouse #1	60' x 150'
1 - Warehouse #2	60' x 150'
1 - Warehouse #3	60' x 150'
1 - Warehouse #4 (A-100)	16' x 50'
1 - Warehouse #5 (A-101)	16' x 50'
1 - Warehouse #6 (Baker-Smith)	60' x 150'
1 - Warehouse (Lord Electric) Electrical	29' x 120'
1 - Warehouse (Chemical Construction)	40' x 60'
1 - Cement House	20' x 33'

SHOPS

1 - Carpenter Shop Mill	29' x 55'
1 - Carpenter Shop Extension	12' x 12' - 6"
1 - Paint	29' x 83'
1 - Welding, Blacksmith & Fabricating	58' x 100'
1 - Lead Burner	30' x 60'
1 - Pipe (Baker-Smith)	60' x 150'
1 - Welding (Baker-Smith)	40' x 100'
1 - Machine (Baker-Smith)	60' x 150'
1 - Ornamental Iron	58' x 101'
1 - Heavy Equipment	60' x 100'
1 - Truck Repair	30' x 160'

SHEDS

21 - Tool Sheds	12' x 16'
27 - Sheds	10' x 12'
12 - Guard Sheds	6' x 6'
1 - Oil Storage	24' x 36'

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TEMPORARY BUILDINGS

SHEDS (Continued)

1 - Boiler Shed	12' x 28'
1 - Boiler Shed	14' x 19'
1 - Bricklayer's Shed (Stebbins)	18' x 46'

LOADING PLATFORMS

2 - Pipe Storage (Baker-Smith)	50' x 204'

SERVICE BUILDINGS (Not otherwise listed)

1 - Cafeteria made of 5 buildings, each	20' x 24'
3 - Canteens, each	20' x 24'
40 - Field Toilets	4' x 6'
1 - Pump House	10' x 12'
1 - Small Car Garage and Tire Shed	50' x 100'
1 - Reproduction House and Brick Vault	48' x 31'

MISCELLANEOUS STRUCTURES

2 - Water Tower Supports	
110- Tool Boxes	3' x 4' x 6' long
1 - Corridor to Receiving Offices	15' x 20'
1 - Corridor bet. A-E-M #2 and A-E-M #3	144'-0" x 6'-6"
1 - Corridor joining above to A-E-M #1	42'-0" x 6'-6"

FACILITIES PROVIDED BY RENOVATIONS OR ADDITIONS TO EXISTING BUILDINGS

Initial A-E-M and Area Engineers' Offices - Tugwell Wiseman Canning Plant
Initial Ordnance Department Offices - E-11, E-40
Initial Chemical Construction Corporation Offices - E-20, E-21
Initial du Pont Offices - E-1, E-5
Interim Area Engineers Engineering and Safety Office - E-25
Interim A-E-M Engineering Offices - E-10, E-16, E-18, E-19
Interim A-E-M Construction, Cost Control, and Transportation Offices - E-13
A-E-M Central Receiving Office - House and Barn - E-15
Interim A-E-M Auxiliary Features and Safety Office - E-28
A-E-M Transportation and Fuel Dispensing Center - Steel Barn - E-13
Initial A-E-M Maintenance and Shops Center - Barns - E-38
A-E-M Field Construction Office, Magazine Area - E-85
A-E-M Field Construction Office, T.N.T. Area - E-66
A-E-M Field Construction Office, Acid Area - E-62
A-E-M Field Construction Office, Railroad - E-44
A-E-M Interim Time Offices, - E-64, E-83
Interim Storage, A-E-M Houses or Barns - E-2, E-3, E-51, E-53, E-84, E-89, E-91

TEMPORARY BUILDINGS

FACILITIES PROVIDED BY RENOVATIONS OR ADDITIONS

TO EXISTING BUILDINGS

(Continued)

Interim Storage - du Pont - House E-4, Barns E-41, E-48, E-51, E-63, E-66, E-70
A-E-M Infirmary and First-Aid Station E1 - E-40
A-E-M First-Aid Station E2 - E-65
A-E-M First-Aid Station #3 - E-85
Assigned as Field Offices to other Contractors than A-E-M - E-37, E-43, E-47, E-48, E-86, E-96, E-100

LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY GATE HOUSE & CLOCK ALLEYS & EXAMINATION BUILDING AREA ADMINISTRATION
UNIT NO. 701 POST NO. 701
Contracts PC 1,119,120 SC 20,27,41 Specifications 1,119,120

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plans, Elevations, Sections & Detail	701-719-201	12-14-42	
Architectural & Concrete (W57204)	701-719-202	2-7-42	
Details, Railings, Frames Gates	701-719-203	5-16-42	
Complete Heating System	701-719-501	11-10-42	
Electrical (W57288)	701-719-601	2-17-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY TELEPHONE BUILDING MEA ADMINISTRATION
UNIT NO. 702 POST NO. 702 Contracts: FC 36 & 64 SC: 25 & 36 Specifications: 36 & 64

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Revised Architectural Concrete & Elev. Plans Sec. & Det.	702-705-202	5-7-42	
Storm House Details	702-705-204	9-10-42	
Complete Heating System	702-705-501	10-6-42	
Electrical Only (W57214)	702-705-201	2-12-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY MAIN OFFICE AREA ADMINISTRATION
UNIT NO. 703 POST NO. 703 Contracts: PC 7 & 15. SC: 20,25,29. Specifications: 7 & 15.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL			
Concrete Foundation, Plan & Dets.	703-701-201	2-26-42	9-1-42
1st Floor Plan & Elev. & Electrical	703-701-202	3-10-42	4-20-42
2nd Floor Plan & Dets. & Electrical	703-701-203	3-10-42	
Sect. & Dets.	703-701-204	3-10-42	8-19-42
Roof Construction Section	703-701-206	4-1-42	
Interior Partition Details	703-701-209	4-20-42	
Telephone Layout - 1st Floor	703-701-210	6-23-42	
Telephone Layout - 2nd Floor	703-701-211	6-23-42	
PLUMBING & DRAINAGE	703-701-401	3-10-42	
HEATING	703-701-501	3-10-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY EMPLOYMENT OFFICE AREA ADMINISTRATION
UNIT NO. 705 POST NO. 705 Contracts: PC 1,86 SC 26,27,29 Specifications: 1,86.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural Details	705-716-204	4/15/42	5/7/42
Foundation & Framing Plan	705-716-202	4/12/42	5/7/42
Plan Elev. & Sec	705-716-203	4/15/42	5/7/42
Plumbing & Details	705-716-401	4/13/42	5/7/42
Heating Layout	705-716-501	4/15/42	11/5/42
Electrical	705-716-601	4/15/42	5/7/42

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY CHANGE HOUSE AREA ADMINISTRATION
UNIT NO. 707 POST NO. 707 Contracts: PC 1,36. SC: 29. Specifications: 1,36.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & CONC.	(W57331)	707-707-201	2-25-42	3-25-42
" " "	(W57318)	707-707-202	2-25-42	3-25-42
PLUMBING, Drainage & Service Piping		707-707-402	3-25-42	
HEATING		707-100-502	11-2-42	
ELECTRICAL	(W58397)	707-707-601	3-6-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY CAFETERIA BUILDING AREA ADMINISTRATION
UNIT NO. 708 POST NO. 708 Contracts: PC 1,36,129. SC: 20,25,29,53. Specifications: 1,36,129.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Foundation Plan	708-702-001	4-15-42	
Ground Floor Plan, Elev. & Sec.	708-702-201	4-15-42	
Miscellaneous Details	708-702-202	4-15-42	
Steam & Return Connections for Kitchen Equipment	708-702-203	10-26-42	
Additions & Alterations	708-702-204	6-16-42	
Vent Frame Details	708-702-205	10-13-42	
Plumbing Drainage & Service Piping Plans & Details	708-702-404	10-6-42	
Ventilation Exhaust System Arrg't.	708-702-501	10-16-42	
Electrical-Power	708-702-601	10-6-42	
Electrical-Lighting	708-702-602	9-30-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY MAIN FIRE HEADQUARTERS AREA ADMINISTRATION
UNIT NO. [illegible] POST NO. 709 Contracts: PC 1,36,86. SC: 25. Specifications: 1,36,86.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plan Elevation Sections & Details	709-401-203	5-21-42	
Complete Heating System	709-401-502		
Plumbing, Drainage & Service Piping	W57268		
Electrical	W58322	3-3-42	

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Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY FLAGPOLE NASA ADMINISTRATION
UNIT NO. [illegible] POLE NO. [illegible]
Contract PC 1. Modification 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
~~Location of Flag Pole, Plan, Sec, Elev.~~	712-713-202	5-20-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY MEDICAL SERVICE BUILDING AREA ADMINISTRATION
UNIT NO. 719 POST NO. 719 Contracts: PC 1,62,86,130. SC: 26,27,29. Specifications: 1,62,86,130

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Concrete Foundation Plan	719-716-201	4-11-42	
First Floor Plan - Roof Plan	719-716-202	4-9-42	5-7-42
Elevations & Sections	719-716-203	4-11-42	5-7-42
Architectural Details	719-716-204	4-11-42	5-7-42
Cupboards & Equipment	719-716-207	5-19-42	
Shower Stalls, Arch. & Conc.	719-716-208	8-18-42	
Plumbing Drainage & Heating	719-716-401	4-11-42	11-5-42
Plumbing Drainage & Heating	719-716-501	4-11-42	11-5-42
Electrical Plan	719-716-601	4-11-42	5-7-42

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY GUARD HEADQUARTERS AREA ADMINISTRATION
UNIT NO. 720 POST NO. 720 Contracts: PC 1,36. Specifications: 1,36.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Concrete Foundations, & Footings, Elev. & Det.	720-704-202	3/16/42	10/31/42
Arch'l. Plan & Sections	720-704-201	7/24/42	
Plumbing, Drainage & Service Piping Plan & Detail	W57254	2/14/42	
Electrical	W57324	2/18/42	
Addition for two cells	720-704-205	7/24/42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY GARAGE FOR STAFF & ORDNANCE AREA ADMINISTRATION
UNIT NO. 728 POST NO. 728 Contracts: PC 36 Specifications: 36.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Arch'l. & Concrete, Plan & Sec'n.	W57218	2/8/42	
Electrical	W58396	3/6/42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY GARAGE FOR GUARD HEADQUARTERS AREA ADMINISTRATION
UNIT NO. 730 POST NO. 730 Contracts: PC 36. Specifications: 36.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Arch. & Concrete, Plan, Elev. & Det.	W57197	3/3/42	
Electrical	W58332	3/6/42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY DORMITORY AREA ADMINISTRATION
UNIT NO. 735 POST NO. 751 Contracts: PC 141. Specifications: 141.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Found. Plan & Sect.	735-719-201	7/3/42	7/24/42
Floor Plan	735-719-202	12/15/42	
Elevations & Details	735-719-203	7/22/42	
Complete Heating System	735-719-503	8/23/42	

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LIST OF MAPS AND DRAWINGS

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BUILDING, STRUCTURE OR UTILITY DORMITORY AREA ADMINISTRATION
UNIT NO. 735 POST NO. 752 Contracts PC 141 Specifications 141

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Foundation Plan & Sect.	735-719-201	7-3-42	7-24-42
Floor Plan	735-719-202	12-15-42	
Elevations & Details	735-719-203	7-22-42	
Complete Heating System	735-719-503	8-21-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY: ANHYDROUS AMMONIA STORAGE (LOW PRESSURE)
UNIT NO. 301 POST NO. 3011
Specifications: 1,26,58,69,96,119,120,128.
AREA ACID
Contracts: FC 1,26,58,69,96,119,120,128. SC: 20,25.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT				
Plot Plan and Arrangement	(W58051)	301-301-902	4-2-42	
Diagram Piping Arrgt.	(W58053)	301-301-907	3-24-42	7-4-42
Compressor House Arrgt.	(W58052)	301-301-906	3-19-42	
Gauge Board	(D55093)	301-301-911	2-25-42	
Water Orifice Plate	(D55124)	301-301-912	2-18-42	
Condenser Water Pan	(D55115)	301-301-908	4-11-42	
Reflux Column	(D54924)	301-301-909	2-28-42	9-12-42
Condensate Tank	(D54925)	301-301-910	2-28-42	6-25-42
Pulsation Eliminator	(D54991)	301-301-913	3-9-42	
Equipment List for H.P. & L.P. Storage		W58895	3-28-42	
ARCHITECTURAL & CONCRETE DETAIL		301-301-203	4-8-42	5-27-42
HEATING		301-301-503	6-19-42	
STEEL				
Framing - Condenser Tower		W57147	1-27-42	
ELECTRICAL				
Light & Power - Plans & Sects.		W58586	4-1-42	2-25-42
Compressor Meter Control		W58587	4-1-42	9-29-42

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LIST OF MAPS AND DRAWINGS

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BUILDING, STRUCTURE OR UTILITY UNIT NO. 301 POST NO. 3012 — ANHYDROUS AMMONIA STORAGE (HIGH PRESSURE) — AREA ACID — Contracts: PC 1,26,96,119,120,128. SC: 20,25. Specifications: 1,26,96,119, 120,128.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT			
Plot Plan and Arrangement	W58112	3-20-42	5-15-42
Diagram Piping Arrgt.	W58113	3-20-42	5-15-42
Tank Car Unloading Platform	W58584	3-17-42	
Ammonia Storage Tank	D32673	4-9-42	5-15-42
Bayonet Heater	D32742	4-9-42	5-15-42
Standpipe - Storage Tanks	D46587	4-9-42	5-15-42
Expansion Bends	D46985	4-9-42	5-15-42
Ammonia Valves & Fittings	D56599	3-17-42	5-15-42
Equipment List for H.P. & L.P. Storage	W58895	3-28-42	
ARCHITECTURAL			
Plans, Sects. & Details	W57310	2-17-42	6-19-42
STEEL			
Tank Car Unloading Platform Car Spots	W58403	3-3-42	
HEATING	301-301-503		
ELECTRICAL	W58599	5-13-42	6-3-42

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY AMMONIA OXIDATION PLANT
UNIT NO. 302 POST NO. 3021

Specifications: 1,26,58,96,119,120,128.
AREA ACID
Contracts: PC 1,26,58,96,119,120,128. SC: 20,25,41,52,59.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT - Plot Plans, Plans, Steam	W58754	4/17/42	5/18/42
Plot Plans, Elev. Steam	W58755	4/17/42	6/18/42
Plot Plans, Plans, Water	W58752	4/17/42	5/18/42
Plot Plans, Elev. Water	W58753	4/17/42	5/18/42
Plot Plans, Plans, Air & Process	W58750	4/17/42	9/9/42
Plot Plans, Elev. Air & Process	W58751	4/15/42	5/18/42
Conv. & Absorp. Ho. Plans	W58034	4/18/42	9/9/42
Conv. & Absorp. Ho. Sects. Sh. #1	W58036	2/6/42	5/24/42
Conv. & Absorp. Ho. Sects. Sh. #2	W58037	4/18/42	11/19/42
Diag. Piping Arrgt. A.O.P.	W57328	3/24/42	9/8/42
Diag. Piping Arrgt. Ammo.	W58894	5/21/42	6/30/42
Ammo. Valves & Fittings	D56600	3/27/42	5/26/42
H.C.I. Valves & Fittings	D56511	4/6/42	8/3/42
Air Comp. Ho. Plans	W58038	3/17/42	8/10/42
Air Comp. Ho. Sects. Sh. #1	W58039	3/17/42	8/10/42
Air Comp. Ho. Sects. Sh. #2	W58040	3/18/42	8/10/42
64" Absorp. Column (Type "A").	W32813	3/26/42	
Brace	D25673	3/26/42	
Bubbler Plates	D32605	3/12/42	
Bubbler Cap. Sleeve & Studs	D32606X1	3/12/42	
Overflow Pipe & Cup	D32607	3/12/42	
Bubbler Plate Leg & Nut	D32608X2	3/12/42	
Column Support	D32778	4/7/42	
Cooling Coils	D35556	3/12/42	
Tray Supporting Ring Etc.	D38000	3/12/42	
Head Upper Interm - Lower Shell	D38018	3/21/42	
Water Return Manifold	D48696		
Welding Neck	D49435		
Welding Neck	D38146		
Ring Gasket	D32763		

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY AMMONIA OXIDATION PLANT (CONTD.) Specifications: 1,26,58,96,119,120,128.
UNIT NO. 302 POST NO. 3021 AREA ACID
Contracts: PC 1,26,58,96,119,120,128. SC: 20,25,41,52,59.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Pump House Arrgt.	W58758	3/30/42	8/27/42
Mist Catcher Arrgt.	W59345	4/21/42	4/23/42
Air Heater & Heat Exch. Arrgt.	W43695	3/14/42	
Air Heater & Arrgt.	W43510	4/11/42	
Shell	D32723X1		
Tube Sheet & Baffle	D32724X3		
Bleaching Column Arrgt. Type "B"	W32793	2/25/42	9/23/42
Air Inlet Pipe & Grillage	D30968X1	7/25/42	9/23/42
Column Support Arrgt.	W37935		
Spring Guide & Etc.	D42304	2/25/42	
Cooler Cond. Arrgt.	W57591	4/11/42	
Water Manifold	D56265		
8" Return Bend	D56212	4/11/42	
Steel Support	D56300	2/25/42	4/17/42
Water Distributor	D56266		
Coil	D56211	4/11/42	
Acid Separator	D56297	2/25/42	
Condensate Water Cooler	D53997	3/31/42	
Cooler Condenser Support - Steel Framing	D56374	4/11/42	
Orifice Plate for Acid Separator	D56759	4/7/42	
Condensate Tank	D56877	4/17/42	
Convertor Arrgt. Short-Body	W40312	4/16/42	
Screen, Gauze & Etc.	D32633	4/15/42	
Stud Bolts	D32759	4/16/42	
Heating Element	D32850	4/16/42	
Thermocouple Well	D53885	4/16/42	
Elbow	D45752	4/16/42	
Body - Short Type	D51915	4/16/42	
Water Jacketed Cover	D47844	4/16/42	
Water Jacketed Cover	D48268X1	4/16/42	
Converter Insert Ring	D56436	4/16/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY AMMONIA OXIDATION PLANT (CONTD.) Specifications: 1,26,58,96,119,1[illegible]8.
UNIT NO. 302 POST NO. 3021 AREA ACID
Contracts: PC 1,26,58,96,119,120,128. SC: 20,[illegible],41,52,59.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Converter Insert Ring	D56416	4/16/42	
Gasifier Body	D48430	4/16/42	
Coils	D54367	4/16/42	
Steel Support	D48366		
Gas Mixer Arrgt.	W45477	4/16/42	
Flange Nozzle & Etc.	D32797	4/16/42	
Gas Mixer Tee	D56214	4/16/42	
Flange & Pipe	D33082	4/16/42	
Screen & Baffle	D45754X1	4/16/42	
Shell	D45780X1		
Gas Regulating Valve Arrgt.	W26622		
Body	D32768		
Guide, Stem, Lever & Etc.	D32769	2/28/42	
Yoke, Cap & Nut	D32851		
Hand Wheel	D32852		
6" Discharge Pipe	D48596X1		
Welding Flange	D42219		
Ring Flange	D32762		
Bolts	D33100		
Std. Expanded Pipe Flanges	D24784		
Gauge Board	D46369X1		
Control Board	D48811	2/15/42	
Heat Exch. Arrgt.	W38536	4/17/42	
Shell	D43004	4/17/42	
Tube Sheets	D43005		
Baffles	D43010	4/20/42	
Gland	D43011	4/17/42	
Spool Piece	D45874	4/17/42	
Air Filter Arrgt.	W26739	3/12/42	
Ammonia Filter Arrgt.	W26740	3/14/42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 4 of 6

BUILDING, STRUCTURE OR UTILITY AMMONIA OXIDATION PLANT (CONTD) Specifications: 1,26,58,96,119,120,128.
UNIT NO. 302 POST NO. 3021 AREA ACID
Contracts: FC 1,26,58,96,119,120,128. SC: 20,25,41,52,59

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT -			
Sight Glass Arrgt.	W26693	2-25-42	
Body Cap & Nut	D32874	2-25-42	
Platinum Rec. Filter Arrgt.	W57124	4-4-42	6-16-42
Top & Bottom Shell	D56151	4-9-42	
Flange, Bearing Plate & Etc.	D53674	4-9-42	
Support	D53675X1	7-22-42	
Screen	D53676		
Grillage	D53677		
Orifice Plate	D56750		
Orifice Plate	D54670	2-25-42	
Pulsation Eliminator	D50089	2-25-42	
Temperature Switch	D50154	2-25-42	
Air Cylinder	D55164	2-28-42	10-24-42
Circulating Tank	D35645	2-25-42	
HCI Flanges	D32840X1	9-8-42	
Pump Drip Pan	D50758X1	3-6-42	
8" HCI Pipe Details	D56208		
6" HCI Pipe Details	D56209	5-11-42	
6" HCI Pipe Details	D48601	3-4-42	
3" HCI Pipe Details	D48600	3-4-42	
2" HCI Pipe Details	D56210	3-4-42	
HCI Bolt List	D56588		
HCI Ring Gasket List	D56589		
HCI Flange List	D56590		
HCI Pipe	D57014	5-15-42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY AMMONIA OXIDATION PLANT (CONTI.) Specifications: 1,26,58,96,119,120,128.
UNIT NO. [illegible] POST NO. 3021 AREA ACII
Contracts: PC 1,26,58,96,119,120,128. SC: 20,25,41,52,59

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
EQUIPMENT			
Platinum Recovery Filter - Spring Support	W61194	6-7-42	7-21-42
Platinum Recovery Filter - Bearing Washer & Support	D57320	6-17-42	7-21-42
Compressor House - Water Spray System	W16039	6-18-42	10-3-42
H.C.I. Pipe, Flange & Bolt List	D56651	4-21-42	9-22-42
H.C.I. Valves & Fittings	D56652	4-9-42	
ARCHITECTURAL			
Converter Abs. Air Comp. Ho. Floor Plans	W57296	2-17-42	6-26-42
Converter Abs. Air Comp. Ho. Elev. Sect. & Dets.	W57297	2-17-42	6-23-42
STEEL			
Absor. & Air Comp. Ho. Plans & Elevs.	W57153	1-27-42	6-8-42
Elev. & Sect.	W57154	1-28-42	7-24-42
CONCRETE			
Rec. Comp. Fnd. Det.	W57294	2-21-42	5-29-42
ELECTRICAL			
Light	W58740	3-26-42	6-3-42
Valve Control	W58409	3-26-42	6-23-42
Power Sheet #1	W61486	6-24-42	9-10-42
Power Sheet #2	W61263	6-24-42	9-10-42
Heating	302-302-504		
Miscellaneous Pump Foundations	302-302-211		
Pump House & Office Architectural & Concrete	302-302-210		
Absorption Tower Foundations	302-302-219		
Wall Foundations	302-302-220		
Revised Concrete Foundation Plan & Details	302-302-207		
Absorption Tower Enclosure	302-302-218		

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY AMMONIA OXIDATION PLANT (CONTD.) Specifications: 1,26,58,96,119,120,128.
UNIT NO. 302 POST NO. 3021 AREA ACID
Contracts: PC 1,26,58,96,119,120,128. SC: 20,25,41,52,59

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plans of Absorption Tower Enclosure	302-302-221		
Wind Bracing - Absorption Tower	302-302-307A		
Additional Wiring	302-302-603		
Central Wiring	302-302-604		

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BUILDING, STRUCTURE OR UTILITY PUMP HOUSE AND OFFICE AREA ACID
UNIT NO. 302 POST NO. 3022 Contracts PC 1,26,119,120,128 SC 20,25 Specifications 1,26,119,120,128

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & CONCRETE	302-302-210		
PUMP HOUSE ARRGT.	758758	3-27-42	8-27-42

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[illegible] STRUCTURE OF UTILITY [illegible] PLANT [illegible] AREA
[illegible] POST NO. [illegible] Contracts: [illegible] Specifications [illegible]

TITLE OF MAT OF DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LAST OF REVISION
ARRANGEMENT	[illegible]	2-23-42	2-23-42
Foundations	[illegible]		
Architectural, Walkways, Plans, Elev. Det.	[illegible]	2-22-42	9-10-42
Electrical	W58283	3-25-42	9-9-42
Pump House Arrgt.	W58282	2-20-42	8-27-42
Vertical Steel Tank Welded	D48523		

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY NITRIC ACID CONCENTRATOR PLANT Specifications: 1,26,58,77,96,120,125,128.
UNIT NO. 303 POST NO. 3031 AREA ACID
Contracts: PC 1,26,58,77,96,120,125,128. SC: 20,25,41.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT - Plot Plan (NA)	W57224	2/4/42	5/19/42
1st & 2nd Floor Plans, 2nd Mezz & 3rd Floor Plans	W57225		
Longitudinal Section	W57226	2/24/42	
Cross Section Sh. #1	W57227	2/24/42	
Acid Header - Plans	W57246	2/14/42	5/18/42
Acid Header - Sections	W57247	2/14/42	5/18/42
Air Steam & Cond. Headers - Arrgt. Plan	W57339	3/29/42	5/19/42
Air Steam & Cond. Headers - Arrgt. Sects.	W57340	3/29/42	5/19/42
Water Supply & Drain Headers - Arrgt. Plan	W57337	3/27/42	5/19/42
Water Supply & Drain Headers - Arrgt. Sects.	W57338	3/29/42	
Equipment List	W58734	3/18/42	5/25/42
NA Conc. Resid. SA Sto. Tk.Arrgt.	W57251	2/18/42	5/21/42
55% NA Sto. Tks.	W57248	2/18/42	
Drawing Mat. List Sh. #1	W58597	3/24/42	5/25/42
Drawing Mat. List Sh. #2	W58598	3/24/42	7/30/42
Gauge Board	D52551		
Steam Manifold	D46576X1	2/24/42	
Preheater - Arrgt.	W57306	2/26/42	
Distributing Tube Spring	D30481	2/25/42	
Distributing Tube Eye Bolt & Retainer	D30483	2/25/42	
Thermometer Well	D56305	2/25/42	
Casing & Gland	D30466X1	3/5/42	
Tubes	D45720	3/5/42	
Therm. Well Support & Nut	D56304	2/25/42	
Pauling Type Tower - Arrgt.	W57192	1/28/42	3/24/42
Tower Section Support	D26550	2/24/42	
Tower Support	D26559	2/24/42	
Surge Pot	D51500	3/6/42	
Surge Pot Pan	D56386	2/18/42	
Bleacher Arrgt.	W57326	2/17/42	3/28/42
95% NA Cooling Tank	D48232	2/25/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY UNIT NO. 303 POST NO. 3031

NITRIC ACID CONCENTRATOR PLANT (CONT'D)

AREA ACID

Contracts: PC 1,26,58,77,96,120,125,128. SC: 20,25,41 Specs: 1,26,58,77, 96,120,125,128

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT - HCI Pipe	D56326	2/25/42	7/16/42
"S" Bend Condenser Arrgt.	W57113	1/29/42	4/16/42
Distributing Trough	D26401	3/3/42	
Bracket	D54978	2/24/42	
Condenser	D26560	2/25/42	
Drip Plates	D26601	2/24/42	
Drip Pan & Coil	D55165	2/24/42	5/13/42
Hood & Stack	D56388	2/18/42	
"S" Bend Condenser Water Shield	D54437	2/27/42	
Condensate Water Tank	D49196	2/24/42	5/13/42
Duriron Ring	D55461	2/24/42	
Fume Absorption Col. Arrgt.	W37187	2/25/42	5/13/42
Fume Pipe 18-8 CB	D56307	2/24/42	5/21/42
Bubbler Plate	D32605	3/12/42	
Bubbler Cap, Sleeve & Stud	D32606X1	3/12/42	
Overflow Pipe, Cup & Support	D32607	3/12/42	
Bubbler Plate, Leg & Nut	D32608X2	3/12/42	
Cooling Coil	D35556	3/12/42	
Overflow Pipe	D38000	3/12/42	
Welding Nozzles	D38146		
Welding Nozzles	D49435		
Water Manifold	D46648	2/27/42	5/13/42
Fume Abs. Col. Muffler	D43430	2/25/42	5/13/42
Residual Acid Cooling Tank - Arrgt.	W43544	2/23/42	
Residual Acid Cooling Tank -	D48245	2/24/42	
Brick & Lead Lining	D48246	2/27/42	
Cooling Coils	D48629X2	10/15/42	
Catch Box	D55316	2/24/42	
Duriron Pipe, Fittings & Valve List	D56311	2/26/42	5/16/42
HCI Valves & Fittings List	D56312	2/16/42	5/16/42
Flanges for Lead Pipe	37#35	3/5/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY: NITRIC ACID CONCENTRATOR PLANT (CONT'D)

UNIT NO. 303 POST NO. 3031 AREA ACIT

Contracts: FC 1,26,58,77,96,120,125,128. SC: 20,25,41 Specs: 1,26,58,77,96,120,125,128.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT -			
Pioneer Alloy Valve List	D56650	4-9-42	6-8-42
Std. Welding Flanges for Tubing	D54552		
Gauge Rod & Lifting Hook	D49009	3-3-42	
HCl Pipe, Flange & Bolt List	D56651	4-21-42	9-22-42
ARCHITECTURAL -			
Plans & Details	W57308	2-24-42	
Elevations & Details	W57309	2-24-42	6-19-42
55% NA sto. tk. Walkways	W57327	2-22-42	9-10-42
STEEL -			
3rd & 4th Floor Plans	W57156	1-30-42	6-9-42
5th Floor & Roof Plans	W57157	1-30-42	6-9-42
Col. Sched. Stairs & Details	W57155	1-30-42	6-9-42
CONCRETE -			
3rd Fl. 2nd fl. Mezz. Plans & Dets.	W57256	2-14-42	6-1-42
2nd Fl. & Platform Plans	W57274	2-19-42	6-1-42
ELECTRICAL -			
Ground Floor	W58590	4-21-42	6-10-42
2nd Floor Mezz.	W58591	4-21-42	6-10-42
3rd, 4th & 5th Floors	W58592	4-21-42	6-10-42
1st Floor NA & 55%	W58593	4-21-42	6-16-42

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY NITRIC ACID CONCENTRATOR PLANT (CONT) AREA ACII
UNIT NO. 303 POST NO. 3031 Contracts: PC 1,26,58,77,96,120,125,128. SC: 20,25,41 Specs. 1,26,58,77,96, 120,125,128.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ELECTRICAL -			
Thermometer Well, Support, Nuts, Flanges	D57883		
Thermometer Well	D57884		
Heating	303-303-504		
Wiring to Emergency Heaters	303-303-605		
Enclosure of Absorption Columns	303-303-213		
Enclosure of Absorption Columns	303-303-214		
Concrete & Drainage	303-303-210		
Revisions in Structural Steel - Wave 4 addition	303-303-304		
Miscellaneous Pump Foundations	302-302-211		
Concrete Foundation Plan & Detail	303-303-206		

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY N.A.C. RESIDUAL S.A. STORAGE AREA ACID
UNIT NO. 303 POST NO. 3032
Contracts PC 1,26,70,125,148 SC 20,25,41 Specifications 1,26,70,125,148

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT	W57251	2-18-42	5-21-42
FOUNDATIONS	305-305-207		
SUPERSTRUCTURE	W58407	5-16-42	5-27-42
ELECTRICAL	W58107	3-24-42	6-6-42
WALKWAYS & STAIRS	W58096	2-26-42	6-19-42

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BUILDING, STRUCTURE OR UTILITY CONC. MIX CIRCULATORS & COOLERS AREA ACID
UNIT NO. 305 POST NO. 3051 Contracts: PC 1,26,119 SC: 20,25,32,41 Specifications: 1,26,119

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS & ARCHITECTURAL: -	305-305-218		
STEEL - Framing Saddle Bridge	W57305		
ELECTRICAL -	W58337	3-27-42	9-23-42
"	W61698	6-12-42	
ARRANGEMENT: -	W57195	2-19-42	5-28-42
Horizontal Steel Tank Welded	D36871X2	2-24-42	
4" Acid Cooler Arrgt.	D35711	3-3-42	
Water Distributor	D26401	3-3-42	
Tank Plug Valve Arrgt.	W25345	3-3-42	7-21-42
Return Bends	D1524	3-3-42	
Mix Acid Circ. Pipe	D35742	3-3-42	
Pipe Sleeve	D54694	3-4-42	
HCI Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stuffing Box & Gland	D31588	3-3-42	
Stand & Support	D40137	2-3-42	
Handle	D31590	3-3-42	
Pump Drip Pan	D50758X1	3-6-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCI Valve & Fitting List	D56652	4-9-42	9-22-42
HCI Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
HCI Red Flanges	D24796X1	9-8-42	12-19-42
Location of Safety Showers	305-305-002		
Miscellaneous Pump Foundations	302-302-211		
Guards for Pumps, Valves & Fittings	D56601		
Concentrating Mix Circulators Electrical	W61698	6-12-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY 93.2% DARK S.A. STORAGE AREA ACID
UNIT NO. 305 POST NO. 3052 Contracts PC 1,26,40,119,125,148 SC 20,25 Specifications 1,26,40,119,125,148

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS & ARCHITECTURAL			
93.2% Clear S.A. Sales Storage - Wave & Additions	305-305-219		
93.2% Clear S.A. Sales Storage	305-305-207		
WOOD DUNNAGE	W58043	3-5-42	6-6-42
ELECTRICAL	W58326	3-27-42	6-8-42
ARRANGEMENT	W57193	2-25-42	6-25-42
Vertical Steel Tank (Riveted)	D3580X1	2-24-42	5-29-42
Guards for Pumps, Valves and Fittings	D56601		
Tank Plug Valve Arrgt.	W25345	3-3-42	7-21-42
Sampling & Rodding Drip Pan	D56010	3-3-42	4-13-42
HCl Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stuffing Box & Gland	D31588	3-3-42	
Stand & Support	D40137	3-3-42	
Handle	D31590	3-3-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCl Valve & Fitting List	D56652	4-9-42	9-22-42
HCl Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
HCl Bed Flanges	D24796X1	9-8-42	12-19-42
Location of Safety Showers	305-305-002		
Miscellaneous Pump Foundations	302-302-211		

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BUILDING, STRUCTURE OR UTILITY CONCENTRATING MIX STORAGE AREA ACID
UNIT NO. 305 POST NO. 3053 Contracts PC 1,26,69,119,125,148 SC 20,25 Specifications 1,26,69,119,125,148

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS & ARCHITECTURAL			
Foundations Concentrating Mix acid Storage	305-305-216		
WOOD DUNNAGE	W58043	3-5-42	6-6-42
ELECTRICAL	W58325	3-27-42	6-6-42
ARRANGEMENT	W57199	2-18-42	5-21-42
Vertical Steel Tank (Riveted)	D35804X1	2-24-42	5-29-42
Guards for Pumps, Valves & Fittings	D56601		
Tank Plug Valve Arrgt.	W25345	3-3-42	7-21-42
Pipe Sleeve	D54694	3-4-42	
Sampling & Rodding Drip Pan	D56010	3-3-42	4-13-42
HCI Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stuffing Box & Gland	D31588	3-3-42	
Stand & Support	D40137	2-3-42	
Handle	D31590	3-3-42	
Pump Drip Pan	D50758X1	3-6-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCI Valve & Fitting List	D56652	4-9-42	9-22-42
HCI Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
HCI Red Flanges	D24796X1	9-8-42	12-19-42
Location of Safety Showers	305-305-002		
Miscellaneous Pump Foundations	302-302-211		

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Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY STRONG N.A. STORAGE & CIRC. AREA ACID
UNIT NO. 305 POST NO. 3054 Contracts: PC 1,26,119,125. SC: 20,25,32,41. Specifications: 1,26,119,125.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS & ARCHITECTURAL	305-305-215		
STEEL - Framing Saddle Bridge	W57305		
ELECTRICAL - Strong NA Sto. & Strong N.A. Circ.	W58324		
ARRANGEMENT	W57035	2-19-42	
Welding Nozzles	D49435		
Horizontal Steel Tank Welded	D36871X2	2-24-42	
Horizontal HCI Tank Welded	D36867X1	2-19-42	
Guards for Pumps, Valves & Fittings	D56601		
4" Acid Cooler Arrgt.	D35711	3-3-42	
Water Distributor	D26401	3-3-42	
Tank Plug Valve Arrgt.	W25345	3-3-42	7-21-42
Return Bends	D1524	3-3-42	
Pipe Sleeve	D54694	3-4-42	
Sampling & Rodding Drip Pan	D56010	3-3-42	4-13-42
HCI Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stuffing Box & Gland	D31588	3-3-42	
Stand & Support	D40137	2-3-42	
Handle	D31590	3-3-42	
Pump Drip Pan	D50758X1	3-6-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCI Valve & Fitting List	D56652	4-9-42	9-22-42
HCI Pressed Manhole	D38567	2-14-42	
HCI Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
HCI Red Flanges	D24796X1	9-8-42	12-19-42
Location of Safety Showers	305-305-002		
Foundations - F 83 & TNT Mix Storage	302-302-211		

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BUILDING, STRUCTURE OR UTILITY 109% OLEUM STORAGE

UNIT NO. 305 POST NO. 3055 (Part 1) AREA [illegible] 125,148

Contracts PC 1,26,70,119,125,148 SC 20,25 Specifications [illegible] 1,26,70,119

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS -	305-305-212		
CONCRETE -	W58111	3-14-42	5-27-42
ARCHITECTURAL -	W58097	3-3-42	6-19-42
STEEL - Framing Car Spot	W57148		
WOOD DUNNAGE -	W58043	3-5-42	6-6-42
ELECTRICAL -	W58736	3-27-42	6-11-42
ARRANGEMENT -	W57231	2-18-42	5-21-42
Support Lever & Bolt 3" Pipe	D56007	3-4-42	
Tank Car Loading & unl- Intra Plant O. Cars	W57258	3-5-42	6-1-42
Vertical Steel Tank (Riveted)	D35804X1	2-4-42	5-29-42
Guards for Pumps, Valves & Fittings	D56601		
Tank Plug Valve Arrgt.	W25345	3-3-42	7-21-42
Sampling & Rodding Drip Pan	D56010	3-3-42	4-13-42
HCI Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stand & Support	D40137	2-3-42	
Handle	D31590	3-3-42	
Pump Drip Pan	D50758X1	3-6-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCI Valve & Fitting List	D56652	4-9-42	9-22-42
HCI Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
HCI Red Flanges	D24796X1	9-8-42	12-19-42
Framing Car Spot	W57148		
Wood Dunnage	W58043	3-5-42	6-6-42
Concentrating Mix Circulators Electrical	W61698	6-12-42	
Location of Safety Showers	305-305-002		
Miscellaneous Pump Foundations	302-302-211		
Stuffing Box & Gland	D31588	3-3-42	

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BUILDING, STRUCTURE OR UTILITY F-83 STORAGE AREA ACID
UNIT NO. 305 POST NO. 3055 (Part 2)
Contracts PC 1,26,58,96,125 SC 20,25 Specifications 1,26,58,96,125

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS	305-305-211		
CONCRETE	W58098	3-14-42	5-27-42
ARCHITECTURAL	W58097	3-3-42	6-19-42
STEEL - Framing Car Spot	W57148		
ELECTRICAL	W58737	3-27-42	6-9-42
ARRANGEMENT	W57201	2-18-42	7-28-42
Support Lever & Bolt 3" Pipe	D56007	3-4-42	
Tank Car Loading & Unl. Intra Plant O. Cars	W57258	3-5-42	6-1-42
Horizontal Steel Tank Welded	D36871X2	2-24-42	
Tank Plug Valve Arrgt.	W25345	3-3-42	7-21-42
Pipe Sleeve	D54694	3-4-42	
Sampling & Rodding Drip Pan	D56010	3-3-42	4-13-42
HCI Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stand & Support	D40137	2-3-42	
Handle	D31590	3-3-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCI Valve & Fitting List	D56652	4-9-42	9-22-42
Gauge Rod & Lifting Hook	D49009	3-3-42	
HCI Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
HCI Red Flanges	D24796X1	9-8-42	12-19-42
Framing Car Spot	W57148		
Location of Safety Showers	305-305-002		
Foundations - F 83 & TNT Mix Storage	302-302-211		
Stuffing Box and Gland	D31588	3-3-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY TNT RESIDUAL ACID STORAGE
UNIT NO. 305 POST NO. 3056 AREA ACID
Contracts PC1,26,40,119,125,148 SC 20,25 Specifications 1,26,40,119,125,148

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS	305-305-219		
FOUNDATIONS	305-305-207		
ARCHITECTURAL	W58096	3-5-42	6-19-42
STEEL - Framing Car Spot	W57148		
WOOD DUNNAGE	W58043	3-5-42	6-6-42
ELECTRICAL	W58106	3-27-42	6-10-42
ARRANGEMENT	W57236	2-18-42	6-25-42
Support Lever & Bolt 3" Pipe	D56007	3-4-42	
Tk. Car Loading & Unl.- Intra Plant Cars	W57260		
Vertical Steel Tank (Riveted)	D35804X1	2-24-42	5-29-42
Guards for Pumps, Valves & Fittings	D56601		
Tank Plug Valve Arrgt.	W25345	3-3-42	7-21-42
Sampling & Rodding Drip Pan	D56010	3-3-42	4-13-42
HCI Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stand & Support	D40137	2-3-42	
Handle	D31590	3-3-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCI Valve & Fitting List	D56652	4-9-42	9-22-42
HCI Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
HCI Red Flanges	D24796X1	9-8-42	12-19-42
Location of Safety Showers	305-305-002		
Foundations - FB3 & TNT Mix Storage	302-302-211		
Stuffing Box & Gland	D31588	3-3-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY 93.2% CLEAR S.A. SALES STORAGE AREA ACID
UNIT NO. 305 POST NO. 3057
Contracts PC 1,26,40,119,125,148 SC 20,25 Specifications 1,26,40,119,125,148

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS	305-305-219		
FOUNDATIONS	305-305-207		
CONCRETE	W58407	3-14-42	5-27-42
ARCHITECTURAL	W58096	3-5-42	6-19-42
STEEL - Framing Car Spot	W57148		
WOOD DUNNAGE	W58043	3-5-42	6-6-42
ELECTRICAL	W58607		
ARRANGEMENT	W57232	2-18-42	5-25-42
Tk. Car Loading & Unl.- Intra Plant O. Cars	W57258	3-5-42	6-1-42
Vertical Steel tank (Riveted)	D35804X1	2-24-42	5-29-42
Guards for Pumps, Valves & Fittings	D56601		
Tank Plug Valve Arrgt.	W25345	3-3-42	7-21-42
Sampling & Rodding Drip Pan	D56010	3-3-42	4-13-42
HCI Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stand & Support	D40137	2-3-42	
Handle	D31590	3-3-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCI Valve & Fitting List	D56652	4-9-42	6-22-42
HCI Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
Overflow & Vent Piping Arrangement	305-305-916		
Location of Safety Showers	305-305-002		
Miscelaneous Pump Foundations	302-302-211		
Stuffing Box & Gland	D31588	3-3-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY TNT MIX STORAGE AREA ACID
UNIT NO. 305 POST NO. 3058 Contracts PC 1,26,125 SC 20,25 Specifications 1,26,125

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATIONS	305-305-211		
CONCRETE	W58098	3-14-42	5-27-42
ARCHITECTURAL	W58091	3-3-42	6-19-42
STEEL - Framing Car Spot	W57148		
ELECTRICAL	W58115	3-27-42	6-10-42
ARRANGEMENT	W57200	2-18-42	7-15-42
Support Lever & Bolt 2" Pipe	D55075	3-14-42	
Tk. Car Loading & Unl. - Intra Plant Cars	W57260		
Horizontal Steel Tank Welded	D36871X2	2-24-42	
Condenser Drip Plates	D56601	2-24-42	
Plug Valve Arrgt. (6")	W25345	3-3-42	7-21-42
Pipe Sleeve	D54694	3-4-42	
Sampling & Rodding Drip Pan	D56010	3-3-42	4-13-42
HCI Seal Pipe	D56216	2-24-42	
Plug Valve Body (6")	D31586	3-3-42	4-25-42
Stem & Jaw	D31587	3-3-42	
Lever & Stop	D31589		
Stand & Support	D40137	2-3-42	
Stuffing Box & Gland	D31588	3-3-42	
Handle	D31590	3-3-42	
Alloy Valve & Fitting	D56650	4-9-42	6-8-42
HCI Valve & Fitting List	D56652	4-9-42	9-22-42
Gauge Rod & Lifting Hook	D49009	3-3-42	
HCI Pipe Flanges & Bolt List	D56651	4-21-42	9-22-42
HCI Red Flanges	D24796X1	9-8-42	12-19-42
Location of Safety Showers	305-305-002		
Miscellaneous Pump Foundations	302-302-211		

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY SELLITE PLANT AREA ACID
UNIT NO. 307 POST NO. 3071
Contracts: PC 78. Specifications: 78.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Sulphur Furnace Detail	1273	11-21-36	4-7-42
Sulphur Furnace Assembly	1274	11-21-36	1-4-42
Reich Test. Equipment, Assembly and Details	1342	3-31-37	3-1-40
Sulphur Gun	1425	11-30-37	2-14-38
Sulphur Pump	1434	3-16-38	9-4-40
Standard Wiring Trough Details	2551		
Standard Lighting Details	2552	3-9-42	
Flow Diagram	2661	6-10-42	10-12-42
C.I. Gas Piping Details	2671	4-27-42	
Storage Tank Details	2680	5-22-42	11-23-42
Building Details, Sheet #2	2688		
General Arrangement, Plan and Elevation	2700	5-7-42	12-4-42
General Arrangement, Elevators	2702	5-20-42	12-4-42
Power and Pyrometer Layout and Details	2703	6-8-42	10-24-42
Light Wiring Layout	2704	6-26-42	10-21-42
Sulphur Pit Assembly and Detail	2705	4-29-42	
Power and Pyrometer Layout	2706	6-26-42	10-13-42
Saturating Tower Assembly	2707	5-12-42	11-17-42
Saturating Tower Details	2708	3-27-42	5-7-42
Absorption Tower Assembly	2709	5-11-42	
Absorption Tower Details	2710	5-7-42	
Liquor Circulating Lines	2713	5-29-42	12-8-42
Batch Tank Details	2715	5-18-42	
Batch Tank Assembly	2716	7-9-42	11-11-42
Screw Conveyor Assembly and Details	2717	4-8-42	
Pneumatic Conveyor Assembly and Details	2718	6-22-42	
Building and Apparatus Foundation Detail	2721	6-2-42	10-22-42
Building and Apparatus Foundation Detail	2722	6-2-42	10-22-42
Building and Apparatus Foundation Detail	2723	6-7-42	7-21-42
Building Process Plans and Elevation	2726	6-10-42	
Building Process Plans and Elevation	2727	6-10-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 2 of 2

BUILDING, STRUCTURE OR UTILITY SELLITE PLANT (CONTD.) AREA ACID
UNIT NO. 307 POST NO. 3071 Contracts: PC 78. Specifications: 78.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Miscellaneous Details	2728		
Soda Ash Storage Building, Sections	2729	6-22-42	
Soda Ash Storage Building, Plan and Elevation	2730	6-27-42	6-29-42
Soda Ash Storage Building, Typical Details	2731		
Platforms and Stairways	2732	6-27-42	6-29-42
Instruments and Control Panel Assembly and Details	2733	6-23-42	
Sulphur Bin	2734	6-10-42	
Exterior Conveyor Supports	2735	6-27-42	6-29-42
Hopper and Miscellaneous Details	2736	7-3-42	10-26-42

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY DARK SULPHURIC ACID CONCENTRATING HOUSE AREA ACID
UNIT NO. 308 POST NO. 3081 Contracts: PC 1,62,96,119,125,131,150. SC: 20,25,41,59. Specs: 1,62,96,119, 125,131,150.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Toilet Room under Mist Precipitator	308-306-401	9/30/42	
Heating	308-306-501	9/30/42	
Heating	308-306-502	9/30/42	
Building & Equipment Foundation	308-306-201	5/15/42	
Mist Precipitator and Substation Foundation	308-306-202	5/16/42	
Building & Equipment Foundation & Details	308-306-203	5/6/42	
Concrete Duct & Blower Foundation Details	308-306-204	5/18/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY DARK SULPHURIC ACID CONCENTRATING HOUSE AREA ACID
UNIT NO. 308 POST NO. 3081 Contracts: PC 1,62,96,119,125,131,150. SC: 20,25,41,59. Specs: 1,62,96,119, 125,131,150.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Concrete			
Mist Precipitator Substation and Gas Cooler	2050	3/21/42	5/13/42
Details - Concrete Duct Intakes for Blowers	2053	3/21/42	
Building & Equipment Foundation - Plan	2321	5/19/42	6/12/42
Building & Equipment Foundation - Details	2322	5/19/42	6/12/42
Reinforcing Bar Schedule	2323	5/19/42	6/5/42
Mist Precipitator & Substation Foundation Plan and Details - Sheet #2	2871	7/29/42	
Building & Equipment Foundation & Details	2872	7/29/42	8/20/42
Building & Equipment Foundation - Plan	2875	7/29/42	8/20/42
Reinforcing Bar Schedule	2876	7/28/42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 3 of 7

BUILDING, STRUCTURE OR UTILITY: DARK SULPHURIC ACID CONCENTRATING HOUSE
UNIT NO. 308 POST NO. 3081 AREA ACID
Contracts: PC 1,62,96,119,125,131,150. SC: 20,25,41,59. Specs: 1,62,96,119 125,131,150

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Structural			
Precipitator Platform Framing	2059	3/27/42	
Building Details - Sheet #1	2313	6/8/42	6/20/42
Building Details - Sheet #2	2314	6/8/42	
Sash and Door Detail	2315	6/8/42	
Building Floor Framing	2316	5/26/42	6/8/42
Building Framing Elevation	2317	5/26/42	6/23/42
Building Cross-Section	2318	5/26/42	6/13/42
Building Roof Framing - Plans	2319	5/26/42	7/8/42
Concentrator Platform Framing	2320	5/12/42	
Building Details, Sheet #1	2366	8/29/42	
Building Details, Sheet #2	2367	8/29/42	
Building Details, Sheet #3	2368	8/29/42	
Details - wood Doors & Louvres	2369	8/29/42	
Building Cross-Section	2370	8/29/42	
Building Floor Framing Plan	2371	8/29/42	
Building Framing Elevation	2372	8/29/42	
Building Roof Framing	2373	8/29/42	10/27/42
Concentrator Platform Framing, Sheet #1	2374	7/14/42	
Precipitator Platform Framing	2375	7/14/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY UNIT NO. 308 POST NO. 3081 — DARK SULPHURIC ACID CONCENTRATING HOUSE — AREA ACID — Contracts: PC 1,62,96,119,125,131,150. SC: 20,25,41,59. Specs: 1,62,96,119, 125,131,150.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Mechanical			
C.I. Corner Angles	CCC 142		
General Arrangement - Plan	501-1	6/24/42	
General Arrangement - Elevation	501-2	7/27/42	
4" Lead Washout Valve	1168	8/27/36	2/27/42
16" Damper	1483		
Flow Diagram	2061	5/8/42	6/24/42
Miscellaneous Steel Details	2062	4/20/42	
Substation Assembly - Sheet #1	2063	5/21/42	
Miscellaneous Piping Diagram	2064	5/19/42	6/9/42
Acid Tanks - Steel Detail & Assembly	2065	3/16/42	3/19/42
Substation Assembly - Sheet #2	2066	5/21/42	
C.I. Acid Piping Arrangement and Assembly	2072	3/25/42	3/27/42
Gas Piping - Steel Details and Assembly	2073	4/27/42	
Acid Cooler - Assembly and Detail	2203	3/19/41	3/30/42
Corner Castings - Precipitator Tie Rods	2425	9/30/42	
General Arrangement - Plan	2590	8/27/42	8/29/42
General Arrangement - Elevation	2591	8/27/42	8/29/42
4" Lead Washout Valve	2597	5/21/42	
Detail of Lead Gas Pipe and Supports	2649		7/10/42
Burner Holder	2668	5/11/42	
Substation Assembly - Sheet #1	2698	10/27/42	11/11/42
Substation Assembly - Sheet #2	2699	10/27/42	
Flow Diagram	2751	12/18/42	
Miscellaneous Piping Diagram	2752	1/4/43	
117 Tube Precipitator Steel Details (Carbon)	2855	3/6/42	3/10/42
C.I. Acid Piping and Arrangement	2866	9/29/42	
11'-0" concentrator Drum & Gas Cooler - Steel Details	2974	2/27/42	4/2/42
11'-0" Concentrator Drum & Gas Cooler Assembly	2975	6/26/42	11/19/42
Furnace Steel Details	2976		

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY: DARK SULPHURIC ACID CONCENTRATING HOUSE — AREA: ACID

UNIT NO. 308 POST NO. 3081 — Contracts: PC 1,62,96,119,125,131,150. SC: 20,25,41,59. Specs: 1,62,96,119, 125,131,150.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Mechanical			
11'-0" Furnace Assembly	2977	9/16/42	11/12/42
11'-0" Concentrator Drum - Detail A.P.I. Pipe	2978	2/27/42	5/5/42
11'-0" Concentrator Drum, C.I. Pipe and Flanges	2979	3/6/42	10/9/42
120 Tube Precipitator Steel Details (Lead)	2982	3/16/42	6/25/42
120 Tube Precipitator Assembly, Sheet #1 (Lead)	2983	5/12/42	
117 Tube Precipitator Assembly, Sheet #2 (Carbon)	2984	12/16/42	1/3/43
117 Tube Precipitator Assembly, Sheet #1 (Carbon)	2985	6/17/42	12/1/42
Assembly & Steel Detail - Insulator Hood	2986	3/26/42	3/24/42
Details - Carbon Tubes & Blocks	2990	4/8/42	
120 Tube Precipitator Assembly, Sheet #2 (Lead)	2994	5/12/42	

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BUILDING, STRUCTURE OR UTILITY UNIT NO. 308 POST NO. 3081 — DARK SULPHURIC ACID CONCENTRATING HOUSE — ACID — Contracts: PC 1,62,96,119,125,131,150. SC: 20,25,41,59. Specs: 1,62,96,119, 125,131,150.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Electrical			
Light Wiring Layout	2000	6/24/42	
Pyrometer & Power Wiring Diagram	2068	5/8/42	
Power Wiring Layout	2069	5/8/42	
Pyrometer Wiring Layout	2070	5/8/42	
Instrument Panel Assembly & Details	2071	5/8/42	
Name Plate Design Data	2366	4/27/42	
Standard Wiring Through Details	2551	12/16/41	4/23/42
Standard Wiring Details	2552	1/2/42	
Surge Protector	2608	7/1/42	11/23/42
Light Wiring Layout	2740	12/21/42	
Pyrometer & Power Wiring Diagram	2741	1/22/43	
Power Wiring Layout	2742	1/22/43	
Pyrometer Wiring Layout	2743	1/17/42	
Instrument Panel Assembly & Details	2744	12/16/42	
Name Plate Design Data	2984	12/16/42	1/3/43

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY: DARK SULPHURIC ACID CONCENTRATING HOUSE — ARMY ACID

UNIT NO. 308 POST NO. 3081 Contracts: PC 1,62,96,119,125,131,150. SC: 20,25,41,59. Specs: 1,62,96,119,125,131,150.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
DRAWING LISTS			
Concrete	Sk 2711		
Structural	Sk 2712		
Electrical	Sk 2713		
Mechanical	Sk 2714		
FLOW PLANS -			
D.A. Concentrator - Plan	W58896		
D.A. Concentrator - Sects.	W58897		
Chemico System	W64740		

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BUILDING, STRUCTURE OR UTILITY: FUEL OIL STORAGE
UNIT NO. [illegible] POST NO. [illegible]
Contracts FC 1,2,[illegible] [illegible]
MEN AND
Specifications 1,2,[illegible]

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Fuel Oil Storage Tank	555332	2-2-42	
Fuel Oil Storage Arrangement	308-300-903	7-14-42	9-12-42
Level Indicator Arrangement	552338	3-3-42	
Electrical	552738	5-2-42	

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BUILDING, STRUCTURE OR UTILITY AREA SHOP AREA ACID 120
UNIT NO. 722 POST NO. 3221 Contracts PC 1,71,74,89,96,119,120 Specifications 1,71,74,89,96,119,

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL - Concrete & Plumbing (W57215)	722-712-201	2-25-42	3-25-42
HEATING	722-712-502	11-17-42	
ELECTRICAL (W58400)	722-712-601	3-7-42	

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BUILDING, STRUCTURE OR UTILITY ELEVATED COOLING WATER STORAGE AREA ACID
UNIT NO. POST NO. 3531 Contracts: PC 1,96,100 SC: 20,25. Specifications: 1,96,100

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATION	503-500-225	6-12-42	
ARCHITECTURAL - Plans, Elevation & Details - ELECTRICAL - Plans & Diagram	503-500-2110	7-25-42	
DETAILS			
Piping	503-500-282	8-31-42	
Platform, Bracket, Bolts, Walkways, & Wood Doors	503-500-2100	9-16-42	
ARRANGEMENT of Liquid Level Gauge	503-500-931	9-12-42	

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BUILDING, STRUCTURE OR UTILITY LABORATORY & SUPERVISOR'S OFFICE AREA ACID 120,128
UNIT NO. 706 POST NO. 3761 Contracts PC 1,62,71,74,86,89,96,120,128 Specifications 1,62,71,74,86,89,96,

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
1st & 2nd Floors, Plans, Sections & Schedules		706-306-203	6-2-42	
Foundation Plan, Elev. & Exterior, Stair Detail		706-306-205	4-17-42	
Complete Heating System		706-306-502	6-14-42	
Lab. Ducts & Equipment		706-306-207	8-24-42	9-26-42
1st Floor Electrical		706-306-602		
2nd Floor Electrical		706-306-603	11-12-42	
Plumbing, Drainage & Service Piping, Plans & Detail	(W57281)	706-306-401	2-19-42	
Arch'l. Lab. Equipment & Details	(W57221	706-306-201	2-18-42	

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Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY CHANGE HOUSE AREA ACID
UNIT NO. 707 POST NO. 3771 Contracts PC 1,71,74,89,96,119,120 Specifications 1,71,74,89,96,119,120

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & CONCRETE (W57319)	707-309-204	2-25-42	
" " " DETAILS (W57318)	707-100-202	2-25-42	3-25-42
PLUMBING, Drainage & Service Piping	W57302	2-25-42	
ELECTRICAL	W58397	3-6-42	
HEATING	707-100-502	11-2-42	

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Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY FOAMITE MIXING STATION AREA ACID
UNIT NO. 308 POST NO. 3841
Contract PC 1 SC 20,25,41 Specifications 1

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Foamite Mixing Station	804-804-203	7-9-42	

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LIST OF MAPS AND DRAWINGS

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Specifications: 1,26,58,92,93,96,109,120,127,128.

BUILDING, STRUCTURE OR UTILITY BOILER HOUSE AREA POWER

UNIT NO. 401 POST NO. 4011 Contracts: PC 1,26,58,92,93,96,109,120,127,128. SC: 20,25,36,37,43,47,55,56,57

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Revised Concrete Foundations	401-400-315	4-16-42	
Revised Concrete Foundations	401-400-316	4-1-42	
Revised Concrete Foundations	401-400-317	5/7/42	
Revised Concrete Foundations	401-400-318	7-9-42	
Shed over Coal Cars at Unloading Hopper	401-400-323	8-10-42	9-30-42
Foundations Details for Recarbonation Equipment in Boiler House and Transformers	401-400-325	7-7-42	
Pipe Sleeves - Operating Floor	401-400-327	7-9-42	8-27-42
Stair Tower at Coal Silo	401-400-329	7-24-42	
Foundations - Column Line No. 12	401-400-332	7-27-42	
Coal Chute Enclosure Details	401-400-333	8-12-42	
Wood Platforms at Coal Chutes	401-400-341	12-28-42	
Office and Toilet Layout	401-400-401	8-1-42	
Heating, Ventilating and Plumbing	401-400-501	11-24-42	
Coal Silo Arrangement	401-400-502	1-14-42	
Boiler Control System - Electrical	401-400-604		2-6-43
Elevated Tank for Boiler Feed	401-400-901	6-26-42	
Elevated Tank for Boiler Feed	401-400-902	7-3-42	
Chemical Feed System for Water Treatment	401-400-903		7-25-42
Recarbonation Equipment in Boiler House	401-400-904	7-15-42	
Piping Connections to Boiler Feed Water Heater	401-400-905	7-15-42	1-1-43
Piping from Boiler Feed Water Tank to Boiler House	401-400-906	8-31-42	
Hopper Extension Riley Coal Feeders	401-400-910	9-12-42	
Fuel Oil Storage Filler Line - Tank Truck to Tanks	401-400-913	10-28-42	
Boiler Plant Layout	401-400-915	1-27-42	
Revised Coal Chutes from Silos to Coal Feeders	401-400-916	2-12-42	

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LIST OF MAPS AND DRAWINGS

Specifications: 1,26,58,92,93,96,109,120,127,128.

BUILDING, STRUCTURE OR UTILITY BOILER HOUSE AREA POWER 57

UNIT NO. 401 POST NO. 4011 Contracts: PC 1,26,58,92,93,96,109,120,127,128. SC: 20,25,36,37,43,47,55,56,

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Mechanical Equipment	RQ 1420	2-18-42	4-16-42
Electrical Equipment	RQ 1572	3-19-42	5-16-42
Fuel Oil Tank Outline	RQ 2101	3-19-42	
Piping System	RQ 2187	4-2-42	
Mechanical Equipment	RQ 2300	4-25-42	
Electrical Equipment	RQ 2858	4-21-42	6-16-42
Combustion System	RQ 2913	4-21-42	6-16-42
Electrical Equipment	RQ 3069	4-21-42	5-16-42
Electrical Equipment	RQ 3302	5-2-42	5-16-42
Electrical Equipment	RQ 3305	5-5-42	5-18-42
Electrical Equipment	RQ 3307	4-28-42	10-28-42
Electrical Equipment	RQ 3309	4-25-42	5-16-42
Piping System	RQ 3561	5-4-42	5-15-42
Piping System	RQ 3648	5-8-42	
Superstructure	RQ 5940	3-4-42	5-18-42
Superstructure	RQ 5941	3-21-42	7-6-42
Superstructure	RQ 5942	3-4-42	7-6-42
Superstructure	RQ 5951	4-24-42	7-30-42
Coal Handling Equipment	RQ 5954	4-17-42	7-16-42
Superstructure	RQ 5959	4-25-42	7-16-42
Steel Structure	RQ 7090	2-14-42	7-10-42
Steel Structure	RQ 7091	4-16-42	7-13-42
Steel Structure	RQ 7093	2-14-42	7-9-42
Steel Structure	RQ 7115	2-14-42	5-16-42
Steel Structure	RQ 7116	2-4-42	5-5-42
Steel Structure	RQ 7117	2-4-42	7-9-42
Steel Structure	RQ 7143	2-14-42	7-9-42
Steel Structure	RQ 7165	4-16-42	9-10-42
Steel Structure	RQ 7241	4-9-42	7-11-42
Steel Structure	RQ 7242	4-9-42	7-11-42
Piping System	RQ 7451	5-2-42	8-11-42

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BUILDING, STRUCTURE OR UTILITY BOILER HOUSE
UNIT NO. 401 POST NO. 4011

Specifications: 1,26,58,92,93,96,109,120,127,128.
AREA POWER
Contracts: PC 1,26,58,92,93,96,109,120,127,128. SC: 20,25,36,37,43,47,55,56,57

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Piping System	RQ 7454	5-2-42	8-11-42
Piping System	RQ 7455	5-4-42	8-11-42
Piping System	RQ 7457	3-4-42	8-7-42
Piping System	RQ 7458	3-4-42	8-7-42
Piping System	RQ 7459	5-4-42	8-11-42
Piping System	RQ 7460	5-4-42	8-11-42
Piping System	RQ 7461	4-23-42	8-11-42
Piping System	RQ 7462	4-21-42	8-7-42
Piping System	RQ 7463	4-21-42	8-7-42
Piping System	RQ 7464	4-22-42	8-7-42
Piping System	RQ 7465	4-8-42	8-11-42
Piping System	RQ 7467	2-19-42	8-4-42
Piping System	RQ 7468	5-15-42	8-4-42
Piping System	RQ 7469	2-19-42	8-4-42
Combustion System	RQ 7470	4-13-42	8-4-42
Mechanical Equipment	RQ 7544	2-19-42	8-7-42
Piping System	RQ 7552	4-8-42	8-11-42
Piping System	RQ 7601	4-24-42	8-11-42
Piping System	RQ 7602	4-24-42	8-7-42
Piping System	RQ 7603	4-28-42	8-11-42
Mechanical Equipment	RQ 7604	2-19-42	8-7-42
Electrical Equipment	RQ 8314	4-28-42	10-24-42
Electrical Equipment	RQ 8315	5-2-42	10-24-42
Electrical Equipment	RQ 8316	5-2-42	10-24-42
Electrical Equipment	RQ 8317	4-28-42	10-24-42
Electrical Equipment	RQ 8319	5-4-42	9-16-42
Electrical Equipment	RQ 8321	5-11-42	10-24-42
Electrical Equipment	RQ 8322	5-5-42	10-24-42
Electrical Equipment	RQ 8323	15-15-42	10-24-42
Electrical Equipment	RQ 8324	5-18-42	10-24-42
Electrical Equipment	RQ 8325	5-11-42	9-16-42

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BUILDING, STRUCTURE OR UTILITY BOILER HOUSE
UNIT NO. 401 POST NO. 4011

Specifications: 1,26,58,92,93,96,109,120,127,128.
AREA POWER 57
Contracts: PC 1,26,58,92,93,96,109,120,127,128. SC: 20,25,36,37,43,47,55,56,

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Electrical Equipment	RQ 8326	5-18-42	9-16-42
Electrical Equipment	RQ 8327	5-18-42	9-16-42
Electrical Equipment	RQ 8328	5-5-42	10-24-42
Electrical Equipment	RQ 8329	5-4-42	10-24-42
Electrical Equipment	RQ 8330	5-5-42	10-24-42
Electrical Equipment	RQ 8331	3-4-42	10-24-42
Electrical Equipment	RQ 8332	4-1-42	10-24-42
Electrical Equipment	RQ 8333	5-4-42	9-16-42
Electrical Equipment	RQ 8335	5-4-42	9-16-42
Preliminary Heat Balance - 308,000#/hr.	SQ 2064	3-19-42	9-16-42
Flow Diagram Continuous Blow Down Lines	SQ 7466	2-19-42	8-4-42
Flow Diagram Fuel Oil Lines	SQ 7553	2-19-42	8-4-42
Flow Diagram Boiler Feed Suction & Discharge	SQ 7554	2-7-42	8-4-42
Flow Diagram Boiler Blow Down and Drain Lines	SQ 7605	2-19-42	8-4-42

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BUILDING, STRUCTURE OR UTILITY CHANGE HOUSE AREA POWER
UNIT NO. 707 POST NO. 4771 Contracts: PC 1,71,74,89,96,119,120 Specifications: 1,71,74,89,96,119,120

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete, Plans, Sections, Elevations	(W57320)	707-100-203	2-23-42	
Complete Heating System		707-100-502	11-2-42	
Plumbing, Drainage & Service Piping		W57299	2-25-42	
Architectural & Concrete Details	(W57318)	707-100-202	2-25-42	3-25-42
Electrical	(W58333)	707-100-602	3-6-42	

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BUILDING, STRUCTURE OR UTILITY PUMP HOUSE AREA WATER TREATMENT
UNIT NO. 403 POST NO. 5412 Contracts: PC 1. SC: 20,21,25,41,42,45,57. Specifications: 1

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Foundation Plan	503-500-240	7-3-42	
Ground Floor Plan	503-500-241	7-3-42	
Elevations & Sections	503-500-242	7-3-42	
Section	503-500-243	7-3-42	
Concrete Foundation Slab	503-500-244	7-3-42	
Heating Layout	503-500-503	8-7-42	
Lighting Layout	503-500-602	10-27-42	
Power Wiring Layout	503-500-605	9-11-42	
Water Level Gauges, Details (Sh. 1)	503-500-911	8-20-42	10-12-42
Water Level Gauges, General Arrgt.	503-500-913	9-1-42	11-12-42
Sections of Piping Layout	503-500-914	7-9-42	
Layouts of Pumps and Piping	503-500-915	8-13-42	12-31-42
Water Level Gauges, Details (Sh. 2)	503-500-917	8-18-42	10-12-42
Pressure Gauge Connections	503-500-928	10-7-42	
Steam and Exhaust Piping	503-500-929	10-22-42	
Booster Pumps Zeolite Water to Soda-Ash Feeders	503-500-937	2-27-42	
Water Level Recorder - 270,000 Gal. Elevated Tank	503-500-614	10-27-42	1-5-43
Basement & Foundation Plan	503-500-289	11-8-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	
First Floor Plan	503-500-290	11-12-42	

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BUILDING, STRUCTURE OR UTILITY COOLING WATER RESERVOIR AREA WATER TREATMENT PLANT
UNIT NO. 413 POST NO. 5421 Contracts: PC 111. SC: 20,25. Specifications: 111.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Layout	503-500-215	6-1-42	
Underdrain & Superstructure	503-500-217	8-18-42	11-21-42
Reinforcement	503-500-218	6-1-42	
Reinforcing Details	503-500-219	6-1-42	
Reservoirs - Lighting Layout	503-500-617	10-12-42	
Basement & Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY ELEVATED DRINKING WATER STORAGE AREA WATER SUPPLY
UNIT NO. POST NO. 5423 Contracts: PC 1,96,108 SC: 20. Specifications: 1,96,108

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plot Plan, Elevation, Plans, & Structural Details	503-500-2112	5-20-42	
Piping Connections & Water Level Gauge Arrangement	503-500-910	7-30-42	
Walkway to Access Door to Dresser Coupling	503-500-2113	12-12-42	

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BUILDING, STRUCTURE OR UTILITY SURGE CHAMBER AREA WATER TREATMENT
UNIT NO. 403 POST NO. 5431 Contracts: PC 1,62. SC: 20,21,25,41,42. Specifications: 1,62.

TITLE OF MAP OR DRAWING	PLAN [illegible]	[illegible] OF DRAWING	[illegible] LATEST REVISION
Foundation Plan	503-500-255	7-8-42	
Piping Layout	503-500-250	[illegible]	
Reinforcement at El. 319.0	503-[illegible]	7-17-42	
Piping Details	503-500-251	7-2-42	
Accelator Roof Details	503-500-252	7-2-42	
Ground Floor Plan	503-500-253	7-2-42	
Pump House	503-500-256	7-10-42	
Accelator Details	503-500-257	7-25-42	
Details of Wood Flap Gate	503-500-259	7-15-42	
Overflow Flume to Ditch	503-500-264	7-29-42	
Reinforcement Details	503-500-267	8-13-42	
Flumes and Eff. to Recarb. Basin	503-500-268	8-4-42	
Heating System	503-500-505	8-7-42	
Basement & Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY NORTH ACCELATOR AREA WATER TREATMENT
UNIT NO. POST NO. 5432 Contracts: PC 1,62. SC: 20,21,25,41,57. Specifications: 1,62.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plan & Sections	503-500-248	7-1-42	
Roof Framing	503-500-266	8-1-42	
Lighting Layout	503-500-615	10-27-42	
Lighting Details	503-500-616	10-26-42	
Piping Details	503-500-905	7-10-42	7-13-42
Basement & Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY WEST ACCELATOR AREA WATER TREATMENT
UNIT NO. POST NO. 5433 Contracts: PC 1,62. SC: 20,21,25,41,57. Specifications: 1,62.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plan & Sections	503-500-248	7-1-42	
Roof Framing	503-500-266	8-1-42	
Lighting Layout	503-500-615	10-27-42	
Lighting Details	503-500-616	10-26-42	
Piping Details	503-500-905	7-10-42	7-13-42
Basement & Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. 5434 SOUTH ACCELATOR AREA WATER TREATMENT
Contracts: PC 1,62. SC: 20,21,25,41,57. Specifications: 1,62.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plan & Sections	503-500-248	7-1-42	
Roof Framing	503-500-266	8-1-42	
Lighting Layout	503-500-615	10-27-42	
Lighting Details	503-500-616	10-26-42	
Piping Details	503-500-905	7-10-42	7-13-42
Basement & Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY FILTER BUILDING AREA WATER TREATMENT
UNIT NO. 403 POST NO. 5435 Contracts: PC 1. SC: 20,21,25,41,42,45,57. Specifications: 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Concrete Design	503-500-226	6-24-42	
Reinforcement	503-500-227	6-24-42	
Concrete Details	503-500-228	6-24-42	
Plans & Elevations	503-500-229	6-24-42	12-7-42
Details of Walls & Floors	503-500-230	7-2-42	7-24-42
Miscellaneous Details	503-500-230A	7-13-42	
Spillways for Reservoirs	503-500-262	7-24-42	
Roof Plan	503-500-272	8-11-42	
Heating Layout	503-500-502	8-4-42	
First Floor Power and Control Wiring	503-500-609	8-11-42	
Second Floor Power and Control Wiring	503-500-610	9-11-42	
Control Wiring Diagram	503-500-611	8-2-42	
Filter Piping	503-500-906	7-16-42	12-31-42
Details of Piping	503-500-906A	7-20-42	
Piping to Electrodes	503-500-932	12-10-42	
Basement & Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY CHEMICAL STORAGE BUILDING AREA WATER TREATMENT
UNIT NO. POST NO. 5436 Contracts: PC 1,62. SC: 20,21,25,41,42,57. Specifications: 1,62.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Reinforcement (Sh. 1)	503-500-231	7-2-42	
Reinforcement (Sh. 2)	503-500-232	7-2-42	
Stairs and Access Doors	503-500-232F	10-17-42	
Plans & Sections	503-500-233	6-24-42	
Elevations	503-500-234	6-24-42	
Sections & Dets. of Bins	503-500-235	6-24-42	
Loading Platform - Concrete	503-500-254	7-24-42	
Loading Platform - Structural Steel	503-500-275	8-10-42	
Loading Platform - Steel Details	503-500-275A	9-3-42	
Lintels & Monorails	503-500-276	8-20-42	
Heating System	503-500-504	8-7-42	
Power & Control Wiring	503-500-608	8-2-42	9-10-42
Chemical Feeder Control Wiring	503-500-612	8-2-42	
Wiring for Conveyer Equipment	503-500-613	8-2-42	
Piping and Machinery Fdns.	503-500-2109	7-6-42	
Basement of Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY RECARBONATION BASIN AREA WATER TREATMENT
UNIT NO. 403 POST NO. 5437 Contracts: PC 111. SC: 20,21 Specifications: 111.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plans & Sections	503-500-222	6-9-42	12-5-42
Reinforcement	503-500-223	6-9-42	12-3-42
Basement & Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY SLURRY POOL AREA WATER TREATMENT
UNIT NO. 403 POST NO. 5438 Contracts: PC 1,111. SC: 21. Specifications: 1,111

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Details	503-500-288	8-30-42	
General Layout	503-500-2107	10-27-42	

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BUILDING, STRUCTURE OR UTILITY RIVER PUMPING STATION AREA WATER SUPPLY
UNIT NO. 404 POST NO. 5441 Contracts: PC 1,95. SC: 12,19,20,25,38,49. Specifications: 1,95.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Layout	503B-100-001	4-24-42	1-27-43
Equipment, Plans & Sections	503B-100-221	5-13-42	8-31-42
Equipment, Plans & Sections	503B-100-222	5-13-42	9-18-42
General Details, Super Structure	503B-100-223	5-13-42	12-19-42
Substructure, Floor Openings, Relief Valves	503B-100-224	1-23-42	1-28-43
Pump House Substructure	503B-100-241	5-13-42	1-28-43
Substructure Structural Details	503B-100-242	5-13-42	1-28-43
Sewage Disposal at River Pumping Station	503B-100-273	9-13-42	2-22-43
Forced Warm Air Heating System	503B-100-501	11-4-42	
Electric Power Layout	503B-100-601	6-25-42	3-4-43
Lighting Layout	503B-100-602	7-22-42	
Gauging Arrangement	503B-100-905	8-8-42	10-10-42
Superstructure Elev. Det.	503B-100-270	6-3-42	1-28-43
Superstructure Det.	503B-100-271	6-10-42	1-29-43
Superstructure Det.	503B-100-272	6-17-42	12-22-42

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BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. 5442 RIVER GATE HOUSE AREA WATER SUPPLY
Contracts: PC 1,79. SC: 12,19,20,25,49. Specifications: 1,79.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Layout	503B-100-001	4-24-42	1-27-43
Elevations Sections	503B-100-260	7-2-42	1-28-43

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BUILDING, STRUCTURE OR UTILITY RIVER INTAKE WELL AREA WATER SUPPLY
UNIT NO. POST NO. 5443 Contracts: PC 95. SC: 12,19,49. Specifications: 95.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Layout	503B-100-001	4-24-42	1-27-43
Well & Intake Structure	503B-100-202	4-27-42	1-27-43

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BUILDING, STRUCTURE OR UTILITY CREEK ROAD CHLORINATION STATION AREA WATER SUPPLY
UNIT NO. POST NO. 5444 Contracts: PC 1. SC: 20,25. Specifications: 1

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Equipment	503-500-2114	2/16/43	3/1/43
Architectural	503-500-2116	1/23/43	2/20/43

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BUILDING, STRUCTURE OR UTILITY ACID NEUTRALIZATION PLANT AREA SEWAGE DISPOSAL
UNIT NO. POST NO. 5612 Contracts: FC 1. SC: 20,25,41,45,57. Specifications: 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Sleeves and Opening in Concrete	505A-500-224	7-24-42	
Concrete - Reinforcement	505A-500-228	8-4-42	
Ground Floor - Reinforcement	505A-500-229	8-4-42	12-15-42
Basement Walls - Reinforcement	505A-500-230	8-4-42	12-15-42
Pipe Supports in Backfilled Areas	505A-500-237	8-20-42	
Superstructure over Manhole "A-2"	505A-500-243	9-4-42	
Supports for Cast Iron Pipe	505A-500-246	9-12-42	12-28-42
Overflow Sewer from Manhole to Ditch	505A-500-252	11-1-42	
Second Floor - Reinforcement	505A-500-303	7-8-42	
Basement Floor - Reinforcement	505A-500-304	7-9-42	
Basement and First Floor Plans	505A-500-305		
Second Floor Plan and section - Trolly Beams	505A-500-306	9-10-42	
Elevations and Sections	505A-500-307	7-8-42	
Plumbing Diagrams	505A-500-401	7-25-42	
Heating System - Ground and Basement Floors	505A-500-501	6-20-42	
Heating System - Second Floor	505A-500-502	6-20-42	
Power Wiring	505A-500-602	10-3-42	1-6-43
Water Level Gauges	505A-500-909	8-29-42	12-15-42
Lime Solution Tanks	505A-500-914	11-7-42	
Influent Sluice Gate	505A-500-915	11-19-42	
Float Rings for Pump Suctions	505A-500-916	11-26-42	

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BUILDING, STRUCTURE OR UTILITY COLLECTION TANK AREA SEWAGE DISPOSAL
UNIT NO. POST NO. 5613 Contract PC: 1. Spec.: 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Reinforcement	505A-500-232	8-11-42	

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BUILDING, STRUCTURE OR UTILITY FIRE PROTECTION RESERVOIR AREA WATER TREATMENT
UNIT NO. 413 POST NO. 5623
Contracts: PC 111. SC: 20,25. Specifications: 111.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Layout	503-500-212	6-1-42	7-11-42
Reinforcement	503-500-213	6-1-42	
Superstructure	503-500-214	5-30-42	11-20-42
Basement & Foundation Plan	503-500-289	11-8-42	
First Floor Plan	503-500-290	11-12-42	
Second & Third Floor Plans	503-500-291	11-16-42	
Location of Sampling Cocks	503-500-292	11-20-42	
Sectional Elevations	503-500-296	11-14-42	
Elevations	503-500-297	11-20-42	
Elevations, Sections	503-500-298	11-20-42	

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BUILDING, STRUCTURE OR UTILITY ELEVATED FIRE WATER TANK AREA WATER SUPPLY
UNIT NO. POST NO. 5622
Contract PC: 1,107. SC: 20. Specifications: 1,107.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Foundation, Plot & Structural Plans, & Details	503-500-2111	7-20-42	
Water Level Gauge	503-500-931	9-12-42	

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BUILDING, STRUCTURE OR UTILITY PUMPING STATION AREA SEWAGE DISPOSAL
UNIT NO. POST NO. 5671
Contract: RC 1,94. SC: 41,57 Specifications: 1,94.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Plan	505A-500-011	5-29-42	2-2-43
Plans, Sections & Details	505A-500-201	5-7-42	
Reinforcing Details	505A-500-202	5-7-42	
Miscellaneous Details	505A-500-203	9-22-42	12-15-42
Superstructure	505A-500-301	5-9-42	
Superstructure	505A-500-302	5-9-42	
Guard for Wallace & Tiernan Converters	505A-500-210	10-19-42	12-14-42
Plot Plan	505A-500-025	7-2-42	1-26-43
Details of Man Holes, Valve Boxes, Sleeves & Openings in Concrete, & Toilet Room	505A-500-213	8-21-42	
Addition - Storage for Chlorine cylinders	505A-500-250	9-21-42	
Sections	505A-500-253	11-28-42	
Heating	505A-500-502	6-20-42	
Electrical	505A-500-601	7-16-42	
Level Guages	505A-500-909	8-29-42	12-15-42

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BUILDING, STRUCTURE OR UTILITY IMHOFF TANK AREA SEWAGE DISPOSAL
UNIT NO. POST NO. 5672 Contracts: PC 94. Specifications: 94.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Plan	505A-500-011	5-29-42	2-2-43
Plans & Sections	505A-500-204	5-7-42	
Plans & Sections	505A-500-205	5-7-42	
Elevations & Piping	505A-500-206	5-7-42	
Reinforcing Details	505A-500-207	5-7-42	
Reinforcing Details	505A-500-208	5-7-42	
Miscellaneous Details	505A-500-209	5-7-42	

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BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. 5673 NORTH SLUDGE BED AREA SEWAGE DISPOSAL

Contracts: FC 94. Specifications: 94.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Plan	505A-500-011	5-29-42	2-2-43
Details	505A-500-212	5-4-42	
Plot Plan	505A-500-025	7-2-42	1-26-43

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BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. 5674 SOUTH SLUDGE BED Contracts: PC 94. Specifications 94. AREA SLUDGE DISPOSAL

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Plan	505A-500-011	5-29-42	2-2-43
Details	505A-500-212	5-4-42	
Plot Plan	505A-500-025	7-2-42	1-26-43

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BUILDING, STRUCTURE OR UTILITY VENTURI VAULT AREA SEWAGE DISPOSAL
UNIT NO. POST NO. 5675 Contracts: PC 94. SC: 41. Specifications: 94.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Plan	505A-500-011	5-29-42	2-2-43
Details	505A-500-210	10-19-42	12-14-42
Plot Plan	505A-500-025	7-2-42	1-26-43

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BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. 5676 CHLORINE CONTACT TANK AREA SEWAGE DISPOSAL

Contracts: PC 94. Specifications: 94.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Tank Details	505A-500-211	5-7-42	
General Plan	505A-500-011	5-20-42	2-2-43
Plot Plan	505A-500-025	7-2-42	1-26-43

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BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. 5691 — ACID NEUTRALIZATION MIXING TANK AND PUMP STATION — AREA SEWERAGE DISPOSAL

Contracts: 1,125. SC: 20,25,41. Specifications: 1,125.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plans and Sections	505A-500-218	8-[illegible]	1-[illegible]
Mixing Tank Flume	505A-500-231	11-3-[illegible]	12-15-42
Mixing Tank Reinforcement	505A-500-235	8-14-[illegible]	
Pumping Plant - Pumps and [illegible]	505A-500-257	12-[illegible]	
Pumping Plant - Addition	505A-500-258	12-2[illegible]-42	
Pumping Plant - Strainers for Pump [illegible]	505A-500-918	2-13-43	2-[illegible]

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BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. 5692 OUTFALL HEAD CHAMBER Contracts: 1,125. SC: 41. AREA Specifications: 1,125.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural	505A-500-233	8-1[illegible]-42	
Details	505A-500-234	8-1[illegible]-42	

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BUILDING, STRUCTURE OR UTILITY SCALE HOUSE AREA CLASSIFICATION YARD 119.
UNIT NO. 601 POST NO. 6011 Contracts: PC 1,71,89,96,119. SC: 20,25,32,41. Specifications: 1,71,89,96,

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete (W58334)	601-602-201	3-6-42	
Heating	808-808-503	6-17-42	
Heating	601-602-501	8-22-42	
Electrical (W58600)	601-602-601	3-16-42	
Scale Pit	601-602-204	5-13-42	

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BUILDING, STRUCTURE OR UTILITY SCALE HOUSE AREA ACID
UNIT NO. 601 POST NO. 6012 Contracts: PC 1,89. SC: 20,25,32,41. Specifications: 1,89.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL -				
Plans, Elev. & Sects.	(W58334)	601-602-201	3-6-42	
ELECTRICAL -	(W58600)	601-602-601	3-16-42	
Scale Pit		601-602-204	5-13-42	

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BUILDING, STRUCTURE OR UTILITY INCINERATOR
UNIT NO. 736 POST NO. 6111
Contracts: PC 1. SC: 20,25. Specifications: 1
AREA CLASSIFICATION YARD VICINITY

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Construction Details	736-720-202	12-18-42	
Plan & Elevations	736-720-201	12-16-42	

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BUILDING, STRUCTURE OR UTILITY COAT ROOMS
UNIT NO. 733 POST NO. 6331 AREA CLASSIFICATION YARD
Contracts: PC 60,74,96. SC: 20,25. Specifications: 60,74,96.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & CONCRETE (W57307)	733-202-200	3-3-42	3-25-42
ELECTRICAL (W58394)	733-202-601	3-7-42	
HEATING	733-202-502	6-13-42	

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BUILDING, STRUCTURE OR UTILITY YARDMASTER'S OFFICE AREA CLASSIFICATION YARD
UNIT NO. 704 POST NO. 6741 Contracts: PC 1,71,74,89,96. SC: 20,25. Specifications: 1,71,74,89,96.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete	(W57325)	704-601-201	2-18-42	
Plumbing, Drainage, & Service Piping	(W57261)	704-601-401	2-19-42	
Heating		704-201-502	11-3-42	
Electrical	(W58114)	704-814-601		

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BUILDING, STRUCTURE OR UTILITY
UNIT NO. 704 POST NO. 7041

SUPERVISOR'S OFFICE
Contracts: PC 1,7,15,60,74.

AREA SHOPS
Specifications: 1,7,15,60,74.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete	(W57330)	704-201-203	2-19-42	
Plumbing, Drainage & Service Pipes	(W57283)	704-201-401	2-19-42	
Completing Heating System		704-201-502	11-3-42	
Electrical	(W58114)	704-814-601		

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BUILDING, STRUCTURE OR UTILITY CHANGE HOUSES AREA SHOPS
UNIT NO. 707 POST NO. 7071 thru 7075 Contracts: PC 1,60,74. Specifications: 1, [illegible],74.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete	(W57320)	707-100-203	2-23-42	
Plumbing, Drainage & Service Piping	(W57316)	707-[illegible]2-403	2-[illegible]-42	
Electrical	(W58333)	707-100-[illegible]02	3-6-42	
Details	(W57318)	707-100-202	2-25-42	
Heating		707-100-[illegible]02	[illegible]-2-42	

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BUILDING, STRUCTURE OR UTILITY GENERAL STORE HOUSE AREA SHOPS
UNIT NO. 713 POST NO. 7131 Contracts: PC 1,60,74,86. SC: 20,25. Specifications: 1,60,74,86.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Complete Heating System	713-705-502	10-6-42	
Electrical (W57276)	713-705-601	2-13-42	
Architectural, Concrete, Plan, Elev. Section Details (W57190)	713-705-201	1-30-42	

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BUILDING, STRUCTURE OR UTILITY MATERIAL SHED AREA SHOPS
UNIT NO. 714 POST NO. 7141 Contracts: PC 1,60. Specifications: 1,60.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete, Plan, Sec. Det.	(W57186)	714-706-201	1-30-42	2-6-42
Electrical	(W57278)	714-706-601	2-13-42	
Bracing Plan & Detail		714-706-202	6-1-42	

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BUILDING, STRUCTURE OR UTILITY UNIT NO. 715 POST NO. 7151 OIL AND PAINT STORAGE AREA SHOPS

Contracts: PC 60,86,96,128. Specifications: 60,86,96,128.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Electrical	(W57323)	715-708-601	2-18-42	
Complete Heating System		715-708-501		
Architectural & Concrete, Plan, Elev. & Det.	(W57223)	715-708-201	2-7-42	

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BUILDING, STRUCTURE OR UTILITY GARAGE AND REPAIR SHOP AREA SHOPS
UNIT NO. 716 POST NO. 7161 Contracts: PC 1,60,74. Specifications: 1,60,74.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Ventilation & Exhaust System, Unit Heater Arrgt.	(W57273)	716-709-501	2-13-42	
Bracing Plan - Details & Storage Rack		716-709-202	6-1-42	
Complete Heating System		716-709-502	11-16-42	
Architectural, Concrete & Plumbing	(W57196)	716-709-201	2-6-42	
Electrical	(W58317)	716-709-601	2-26-42	

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BUILDING, STRUCTURE OR UTILITY COMBINED SHOPS AREA SHOPS
UNIT NO. 717 POST NO. 7171 Contracts: PC 1,60,74,86,128. SC: 20,25. Specifications: 1,60,74,86,128.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Bracing Plan & Details		717-710-205	6-1-42	9-12-42
Benches, Counters, Belt & Storage Racks		717-710-207	6-20-42	
Complete Heating System		717-710-502	11-5-42	
Architectural Sections & Details	(W58093)	717-710-203	2-25-42	
Concrete Plan & Section	(W58102)	717-710-204	2-27-42	
Plumbing-Drainage & Service Piping 1st Floor	(W57312)	717-710-401	2-27-42	
Ventilation Exhaust System	(W57314)	717-710-501	2-17-42	3-3-42
Architectural Plans	(W58092)	717-710-201	2-25-42	
Power Sheet #1 Electrical	(W58601)	717-710-601	3-19-42	
Power Sheet #2 Electrical	(W58602)	717-710-602	3-19-42	
Lighting Sheet #1 Electrical	(W58595)	717-710-603	3-19-42	
Lighting Sheet #2 Electrical	(W58596)	717-710-604	3-19-42	
Architectural Equipment Layout	(W58094)	717-710-202	3-25-42	
Welding Chuck Mounting		D51717	5-21-42	

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BUILDING, STRUCTURE OR UTILITY LOCOMOTIVE HOUSE AREA SHOPS
UNIT NO. 718 POST NO. 7181 Contracts: FC 1,60,74. SC: 20,25. Specifications: 1,60,74.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Storage Tank, Fuel Oil		D52857	6-9-42	
Electrical-Fuel Oil Storage Tank	(W58318)	718-711-602	3-6-42	
Electrical	(W58395)	718-711-601	3-6-42	
Complete Heating System		718-711-502	10-27-42	
Foundations fuel Oil Storage Tank & Revised Monorail Track		718-711-203	6-19-42	
Fuel Oil Storage		724-101-903	6-26-42	
Architectural	(W57205)	718-711-202	2-26-42	
Ventilation, Exhause System Arrg't.	(W57284)	718-711-501	2-17-42	
Concrete Foundations Plan & Detail	(W57315)	718-711-201	3-2-42	

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BUILDING, STRUCTURE OR UTILITY RIGGERS SHOP AREA SHOPS
UNIT NO. 722 POST NO. 7221 Contracts: PC 60,74. SC: 20,25. Specifications: 60,74.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL - Concrete & Plumbing	(W57215)	722-712-201	2-25-42	3-25-42
ELECTRICAL	(W58400)	722-712-601	3-7-42	
HEATING		722-712-502	11-17-42	

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BUILDING, STRUCTURE OR UTILITY MILLWRIGHT SHOP AREA SHOPS
UNIT NO. 722 POST NO. 7222 Contracts: PC 60,74. SC: 20,25. Specifications: 60,74.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ELECTRICAL (W58400)	722-718-601	3-7-42	
ARCHITECTURAL, Concrete & Plumbing (W57216)	722-712-202	2-26-42	3-5-42
Complete Heating System	722-712-502	11-17-42	
Bracing Plan & Details	722-712-204	8-21-42	

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BUILDING, STRUCTURE OR UTILITY LAUNDRY BUILDING AREA SHOPS
UNIT NO. 723 POST NO. 7231 Contracts: RC 1,60,74,86,128. SO: 20,25. Specifications: 1,60,74,86,128.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plumbing, Drainage, Service Piping, Plans & Det. (N57264)	723-713-401	2-25-42	
Architectural & Concrete, Plan, Elev. Sect. (N55042)	723-713-301	2-26-42	
Electrical (N59339)	723-713-601	3-3-42	
Heating	722-712-502	11-17-42	

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BUILDING, STRUCTURE OR UTILITY BULK GASOLINE STORAGE TANK AREA SHOPS
UNIT NO. 724 POST NO. 7241 Contracts: PC 1. SC: 20,25. Specifications: 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Tank 9' x 24', 12000 Gal. Cap.	D52857	3-17-42	
Electrical (W58399)	724-101-601	3-6-42	
Foundations Details	725-714-203	6-19-42	
Arrangement	724-101-903	6-26-42	

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BUILDING, STRUCTURE OR UTILITY UNIT NO. 725 POST NO. 7251 PARKING GARAGE BUILDING Contracts: PC 1,60. AREA SHOPS Specifications: 1,60.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Electrical (#57277)	725-714-501	2-11-42	
Garage Door Detail & Location	725-714-202	9-4-42	
Architectural, Concrete, Plans, Elev, Sec'n, Det'l, (#57187)	725-714-201	1-30-42	

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BUILDING, STRUCTURE OR UTILITY UNIT NO. 726 POST NO. 7261 ACETYLENE STORAGE BUILDING Contracts: PC 1,60, SC: 20. AREA SHOPS Specifications: 1,60.

TITLE OF MAP OR DRAWING	DRAWING NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete, Plan, Elev. Sects. (75S31)	726-715-201	3-7-42	

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LIST OF MAPS AND DRAWINGS

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BUILDING, STRUCTURE OR UTILITY MEETING HOUSE AREA SHOPS
UNIT NO. 733 POST NO. 7331
Contracts: PC 1,71,74,96. Specifications: 1,71,74,96.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete, Plan, Elev. Sec. (W57307)	733-202-200	3-3-42	3-25-42
Electrical (W58394)	733-202-601	3-7-42	
Complete Heating System	733-202-502	6-13-42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY MONO NITRATING HOUSE
UNIT NO. 801 POST NO. 8011 thru 8016

Specifications: 1,26,58,62,86,96,120,128.
AREA T.N.T.
Contracts: PC 1,26,58,62,86,96,120,128. SC: 20,25,31,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT - Plans	W57163	2/19/42	10/10/42
Sections	W57164	2/19/42	10/26/42
Piping at Nitrator	W60717	5/24/42	10/6/42
Direct Reading Therm. Lighting	W54840	2/7/42	
Sight Box Lighting	W54852	2/18/42	
H.C.I. Stud Bolts	D54491		
11050# Nitrator Arrgt.	W53124	2/18/42	8/21/42
11050# Nitrator Tank	D51474	2/13/42	
11050# Nitrator Cover	D45840	2/13/42	
11050# Nitrator Removal Cover	D51106	2/7/42	
11050# Nitrator Draft Tube	D45984	2/7/42	
11050# Nitrator Deflector	D52556	2/7/42	
11050# Nitrator 2'10" D. Pipe Coil	D45845	2/7/42	
11050# Nitrator 3'-7" D. Pipe Coil	D54187	2/7/42	
11050# Nitrator 4'-4" D. Pipe Coil	D45842	2/7/42	
11050# Nitrator 5'-1" D. Pipe Coil	D54186	2/7/42	
11050# Nitrator 5'-10" D. Pipe Coil	D54185	2/7/42	
11050# Nitrator Coil Supports	D45848	2/7/42	
11050# Nitrator Steel Frame	D45557	2/13/42	4/11/42
11050# Nitrator Agitator & Dr. Shafts	D45962	2/7/42	5/28/42
11050# Nitrator 24" Propellor	D28895	2/7/42	
Bevel Gear, Pinion, Brg. & Cap.	D26411	2/7/42	
Bearing Cap	D4311	2/7/42	
Direct Reading Thermom. Wells	D46086	2/7/42	8/12/42
Toluene Stand Pipe	D51203	2/7/42	
Handle for Dip Bottle	D52545	2/7/42	7/15/42
Safety Rod Support For Scale }	W53423		
Tanks - Gen. Dwg. 800 Area }			
Pull Cords For Q.O. Valves	W51648	2/7/42	
Sight Box	D54027	2/7/42	5/28/42
Pig	D53977	2/7/42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 2 of 3

BUILDING, STRUCTURE OR UTILITY MONO-NITRATING HOUSE (CONT'D) Specifications: 1,26,58,62,86,96,120,128
UNIT NO. 801 POST NO. 8011 thru 8016. AREA T.N.T.
Contracts: FC 1,26,58,62,86,96,120,128 SC: 20,25,31,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Mono Receiving Tank 3'-0" x 6'-0"	D49933	2/7/42	6/1/42
Mono Receiving Tank Cradle	D50042	2/7/42	
Mono Oil Pump Supports	D50609	2/7/42	6/1/42
M.A. Scale Tank 4'6" x 8'0"	D45571	2/7/42	
Cycle Acid Tank 4'6" x 8'0"	D45573	2/7/42	
Toulene Scale Tank 3'0" x 5'0"	D45574	2/7/42	
Lifting Device for Safety Discs	D51666	2/18/42	
Bevelled Fillers	D52772		
Fume & Vent Piping	D54257	2/24/42	6/6/42
Scale Tank Support Rods - Plates	D54412		
Gauge Board	D51728	2/28/42	6/23/42
Desk	D52685	2/20/42	
Sample Bottle Carrier	D52700	2/20/42	
Acid Sample Lead Tray	D52720		
Supply Cabinet	D52721		
Bulletin Board Frame	D52741		
Hose Rack	D52754	2/7/42	
Pipe Flanges - Reducing HCI - 800 Area (Gen.) D24	D24796		
Agitator Paddle	D52650	2/7/42	
1½" Cycle Acid Vent Piping 18-8CB	D55006	2/8/42	
Fume Recovery Piping Set	D54169	1/27/42	
Flapper for Vent Lines	D56389	3/5/42	
Thermometer Guard	D54000	7/21/42	
ARCHITECTURAL	W57189	2/7/42	9/11/42
STEEL - Framing	W57143	2/6/42	5/27/42

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BUILDING, STRUCTURE OR UTILITY MONO-NITRATING HOUSE (CONTD) Specifications: 1,26,58,62,86,96,120,128.
UNIT NO. 801 POST NO.8011 thru 8016 AREA T.N.T.
Contracts: PC 1,26,58,62,86,96,120,128. SC: 20,25,31,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ELECTRICAL	W58331	3-6-42	7-23-42
Foundations - Lines A.B. & C.	801-801-201		
Foundations - Lines D.E. & F.	801-801-203	5-7-42	5-23-42
Heating	801-801-503	6-18-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 3

BUILDING, STRUCTURE OR UTILITY BI & TRI NITRATING HOUSE
UNIT NO. 802 POST NO. 8021

Specifications: 1,26,58,62,86,96,120,128.
AREA T.N.T.
Contracts: PC 1,26,58,62,86,96,120,128. SC : 20,25,31,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT - Plans	W61454	6/1/42	10/21/42
Cross Sections	W61455	6/1/42	10/21/42
Long. Sections	W61456	6/1/42	10/27/42
Piping at Nitrator	W60717	5/24/42	10/6/42
Direct Reading Therm. Lighting	W54840	2/7/42	
Sight Box Lighting	W54852	2/18/42	
10700# Nitrator Arrgt.	W53088	2/13/42	7/25/42
10700# Nitrator Tank	D51474	2/13/42	
10700# Nitrator Cover	D45558	2/13/42	5/29/42
10700# Nitrator Removable Cover	D51471	2/7/42	5/29/42
10700# Nitrator 3'6" ϕ Pipe Coil	D54191	2/7/42	
10700# Nitrator 4'3" ϕ Pipe Coil	D54190	2/7/42	
10700# Nitrator 5'0" ϕ Pipe Coil	D54189	2/7/42	
10700# Nitrator 5'9" ϕ Pipe Coil	D54188	2/7/42	
10700# Nitrator 3'6" ϕ Pipe Coil Supp.	D45563	2/13/42	
10700# Nitrator 4'3" ϕ Pipe Coil Supp.	D45564		
10700# Nitrator 5'0" ϕ Pipe Coil Supp.	D45565	2/7/42	
10700# Nitrator 5'9" ϕ Pipe Coil Supp.	D45566	6/2/42	
10700# Nitrator	D45567	2/7/42	
10700# Nitrator	D45557	2/13/42	4/11/42
10700# Nitrator	D45562	2/7/42	5/28/42
Bevel Gear Pinion Bearing & Cap	D26411	2/7/42	
Bearing Cap	D4311	2/7/42	
Direct Reading Therm. Wells	D46086	2/7/42	8/12/42
Scale Tank Support Rods - Plates	D54712		
Safety Rod Support (Scale Tank)	W53423		
Pull Cords (Q.O.Valves)	W51648	2/7/42	
M.A. & O.V. Sto. Tanks	D45576	2/14/42	
M.A. Scale Tank	D45575	2/7/42	
Lifting Device (Safety Discs, Scale Tks.)	D51666	2/18/42	2/18/42
M.A. Scale Tank Stand Pipe	D52789	2/7/42	

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Specifications: 1,26,58,62,86,96,120,128.

BUILDING, STRUCTURE OR UTILITY BI & TRI NITRATING HOUSE (CONT'D) AREA T.N.T.

UNIT NO. 802 POST NO. 8021 thru 8026 Contracts: PC 1,26,58,62,86,96,120,128. SC: 20,25,31,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Mono. Oil Receiving Tank	D49933	2/7/42	6/1/42
Mono. Oil Pump Support	D50609	2/7/42	6/1/42
Sight Box	D54027	2/7/42	5/28/42
Special "Y" Branch	D50318	2/7/42	6/6/42
Piping 18-8 Cb	D54366	2/7/42	4/3/42
Fume Line Vent Conn.	D54169	1/27/42	
Flapper for Vent Line	D56389	3/5/42	
Bevelled Fillers	D52712		
Gauge Board	D51728	2/28/42	6/23/42
Desk	[illegible]	2/20/42	
Sample Bottle Carriers	D52700	2/20/42	
Supply Cabinet	D52721		
Hose Racks	D52754	2/7/42	
2" Std. Sight Glass Bullseye Type	D51867	3/4/42	
Lever for 2" Quick Opening Valve	D56606	3/17/42	
Gauge Rods, Pans & Covers - Steel	D52280	2/7/42	
Davit & Gauge Rod - Arrgt.	W53472	2/7/42	
Handle for Dip Bottle	D52545	2/7/42	7/15/42
Bulletin Board Frame	D52741		
H.C.I. Stud Bolts	D54491		
Thermometer Guard	D54000	2/7/42	6/17/42
ARCHITECTURAL - Plans, Elev. & Data.	W57162	2/21/42	8/7/42
STEEL - Framing	W57144	1/27/42	10/14/42
Framing - Nitrator Platform	W57282	2/12/42	
HEATING -	801-801-503	4/16/42	5/9/42

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BUILDING, STRUCTURE OR UTILITY BI & TBI NITRATING HOUSE Specifications: 1,26,58,62,86,96,120,128
UNIT NO. 802 POST NO. 8021 thru 8026 AREA T.N.T.
Contracts: PC 1,26,58,62,86,96,120,128. SC: 20,25,31,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ELECTRICAL	W61752	6-25-42	
Details	W61753	6-25-42	7-22-42
FOUNDATIONS	802-802-202	4-16-42	5-9-42

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Specifications: 1,26,58,62,86,96,119,120,128.

BUILDING, STRUCTURE OR UTILITY FORTIFYING HOUSE AREA T.N.T.

UNIT NO. 803 POST NO. 8031 thru 8036 Contracts: 1,26,58,62,86,96,119,120,128. SC: 20,25,31,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT -			
Nitrator Arrgt. - 10700# Cap.	W53088	2-13-42	7-25-42
Direct Reading Therm. Lighting	W54840	2-7-42	
N. A. Stand Pipes	D55313	2-7-42	8-14-42
Gauge Rod Pan & Cover	D54281	2-7-42	10-5-42
N. A. Scale Tank 3'0" x 5'0"	D45649	2-7-42	
N. A. Scale Tank Support	D50104	2-7-42	
Safety Rods	W53423		
Flapper for Vent Line	D56389	3-5-42	
Davit & Gauge Rod - Arrgt.	W53472	2-7-42	
Gauge Board	D51728	2-28-42	6-23-42
Tank	D51474	2-13-42	
Cover	D45558	2-13-42	5-29-42
Steel Framing	D45557	2-13-42	4-11-42
3'6" Ø Pipe Coil	D54191	2-7-42	
Coil Support	D45563	2-13-42	
Agitator Shaft & Drive	D45962	2-7-42	5-28-42
Thermo-Wall	D46086	2-7-42	8-12-42
Bearing for Agitator Shaft	D4311	2-7-42	
Removable Cover	D51641	2-7-42	5-29-42
Bevel Gear & Pinion	D26411	2-7-42	
Fortifier Drip Pan	D50337	2-7-42	
Blowcase	D42793X1B	2-7-42	
Safety Disc Adapter	W52309	2-7-42	3-25-42
HCI Stud Bolts	D54491		
HCI Piping	D54342	2-7-42	6-14-42
18-8 Cb Piping	D54343	2-13-42	6-6-42
Scale tank support rods plates	D54412		
Desk	D52685	2-20-42	
Carrier for 12 oz. Sample Bottles	D52700	2-20-42	
Supply Cabinet	D52721		

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY FORTIFYING HOUSE (CONTD) Specifications: 1,26,58,62,86,96,119,120,128.
UNIT NO. 803 POST NO. 8031 thru 8036 AREA T.N.T. Contracts: PC 1,26,58,62,86,96,119,120,128. Sc: 20,25,31,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT -			
Bulletin Board Frame	D52741		
Hose Rack	D52754	2-7-42	
H.C.L. Air & Vent Piping	D54609	2-7-42	10-6-42
Thermometer Guard	D54000	2-7-42	7-17-42
Blowcase Tank	D56796		
Nitrator Piping Arrgt.	W60541	5-28-42	7-25-42
Arrangement Plan	W61457	6-29-42	10-16-42
Cross Section	W61458	5-29-42	8-27-42
Motor Support for Nitrator Tank Agitator	803-803-207	8-20-42	
Sprinkler Connection	803-803-701	8-15-42	
ARCHITECTURAL			
Fortifier House	W57188	2-21-42	6-15-42
Blowcase Pit Enclosure	803-803-204	5-22-42	
ELECTRICAL -	W62609	6-23-42	8-23-42
STEEL - Framing	W57145	1-27-42	7-18-42
CONCRETE - Foundations	803-803-203	5-6-42	
HEATING	803-803-503	7-31-42	

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BUILDING, STRUCTURE OR UTILITY TOLUENE WORKING STORAGE TANKS AREA T.N.T.
UNIT NO. 804 POST NO. 8041-8043-8045. Specifications: PC 1,26. SC: 20,25. Specifications: 1,26.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT & Concrete	W57178	2-19-42	4-19-42
Vert. Sto. Tank	D51424	3-18-42	
ELECTRICAL	W58417	3-12-42	
FOUNDATIONS	800-800-007		

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BUILDING, STRUCTURE OR UTILITY TOLUENE BULK STORAGE TANKS
UNIT NO. 804 POST NO. 8046 thru 8048. AREA T.N.T.
Contracts: PC 1,69,149. SC: 20,25. Specifications: 1,69,149.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATION	804-804-101		
ARRANGEMENT	508-804-108		
ELECTRICAL	W58585	3-12-42	6-26-42

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BUILDING, STRUCTURE OR UTILITY WASH HOUSE
UNIT NO. 806 POST NO. 8061 thru 8066

Specifications: 1,26,58,62,82,86,96,119,120,128.
AREA [illegible].N.T.
Contracts: PC: 1,26,58,62,82,86,96,119,120,128. SC: 20,25,31,42,58

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT - Plans	W57170	2/19/42	6/10/42
Sections	W57171	6/19/42	6/12/42
Flaker Room - Arrgt.	W57172	2/24/42	7/10/42
Steam, Air & Water Piping Sections	W57177	2/19/42	7/27/42
Direct Reading Therm. Lighting	W54840	2/7/42	
Outside Catch Box Arrgt.	W57173	3/12/42	7/10/42
Sellite Unloading Arrgt.	W57174	3/11/42	5/16/42
Sight Box Lighting	W54852	2/18/42	
Oil Discharge Pipe & Spool Piece	D54823	2/7/42	6/15/42
Steam, Air & Water Piping Plans	W57176	2/19/42	7/11/42
Flaker - Vent Stack	D55111	2/7/42	
Wash Tank	W47542	2/24/42	3/27/42
Water Heater Assembly	W58128	2/7/42	3/12/42
Thermometer Well	D46355	2/7/42	
Wash Tank Propeller	D46066	[illegible]/42	
Direct Reading Ther. Guard	D54000	2/7/42	6/17/42
Filter Tank	W49601	3/23/42	
Filter Tank Vent	D54597	[illegible]7/42	
Depelleting Screen Hopper & Chutes	D54583	2/7/42	3/24/42
Blast Nozzle Support	D50859	2/7/42	
Inlet Strainer	D54691	2/7/42	
Blast Nozzle Bracket	D54675	2/7/42	
Melt Tank	W52804	2/7/42	6/24/42
Stacks Melt and F. & D. Tanks	D54676	2/7/42	6/6/42
Sight Box	D50209	2/7/42	
Bevelled Filler Piece	D52772		
Feed & Dryer Tank	W40640	2/18/42	8/12/42
Air Heater - F & D Tanks	W48182	2/7/42	
Thermometer Well	D46086	2/7/42	8/12/42

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BUILDING, STRUCTURE OR UTILITY WASH HOUSE (CONT'D.) Specifications: 1,26,58,62,82,86,96,119,120,128.
AREA T.N.T.
UNIT NO. 806 POST NO. 8061 thru 8066 Contracts: PC 1,26,58,62,82,86,96,119,120,128 SC: 20,25,31,42,58

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT.			
Sellite Sto. Tks. 6'0" x 20'0"	D45578	2/24/42	
Sellite Sto. Tks. Heater Coils	W40751	2/7/42	5/5/42
Sellite Measuring Tank	D45746	2/7/42	
Flaker Ducts	D54854	2/26/42	
Flaker Drip Pan	D54855	2/7/42	6/3/42
Gauge Board	D51728	2/28/42	6/23/42
Drive for Stirrer	D52023	2/7/42	
Desk	D52685	2/20/42	
Carrier For 12- 8 oz. Sample Bottles	D52700	2/20/42	
Lead Tray for Acid Samples	D52720		
Supply Cabinet	D52721		
Bulletin Board Frame	D52741		
Hose Rack	D52754	2/7/42	
Guard For Pistol Grip Switches	D54306		
Table For Stirring Machine	D52034	2/7/42	
Handle For Dip Bottle	D52545	2/7/42	7/15/42
Sample Dipper	D52550	2/7/42	
Carrier For 2- 2½ Liter Bottles	D52699	2/7/42	
Gauge Rods, Pump & Gauges - Steel	D54280		
Plug Valve Operating Lever & Brackets	D54278	2/18/42	
Davit & Gauge Rod - Asmbl.	D53472	2/7/42	
HCl Stud Bolts	D54491		
Dryer & Feed Tnk. Outlet - Adapter Flg.	D54840	2/7/42	
Flaker Inlet Screen	D54856	2/7/42	
Flaker Hopper & Obnoxious Vapor Piping	D54854	2/26/42	
Clean Out Cover	D54882	2/7/42	
Wash Ho. Decant. Piping	D54988	2/7/42	7/10/42
Sellite Storage Tank	D55322		

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BUILDING, STRUCTURE OR UTILITY WASH HOUSE
UNIT NO. 806 POST NO. 8061 thru 8066

Specifications: 1,26,58,62,82,86,96,119,120,128.
AREA T.N.T.
Contracts: PC 1,26,58,62,82,86,96,119,120,128. SC: 20,25,31,42,58

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL -			
Conveyors Between Bldgs. 806 & 808	W57175	2-27-42	
Plans, Sections & Details	W57161	2-24-42	
Elevs. & Dets.	W57160	2-24-42	4-7-42
Out Platform	W57159	2-24-42	
Outside Platforms	806-806-206	5-19-42	
Shed for Outside Catch Boxes	806-806-208	6-11-42	8-11-42
STEEL - Framing	W57146	1-27-42	
CONCRETE - Foundations	806-806-205	5-18-42	
HEATING -	806-806-503	9-4-42	
ELECTRICAL - TNT Wash House	W58401	3-25-42	8-13-42
Catch Box	W58414	3-26-42	
TNT Wash House & Sellite Unload. Sheet #2	W58402	3-24-42	8-13-42
Frame for Holophane Lighting	806-806-207	5-6-42	

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BUILDING, STRUCTURE OR UTILITY NAILING HOUSE
UNIT NO. 808 POST NO. 8082,8084,8086

Specifications: 1,26,96,120,128.
AREA T.N.T.
Contracts: PC 1,26,96,120,128. SC: 20,25,44.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT			
Desk (wood)	D52685	2-20-42	
Pistol Grip Switch Guard	D54306		
Conv. from 806 to 808	W57175	2-27-42	
ARCHITECTURAL			
Arrgt. & Conc. Plans, Sect. & Elev.	W57219	2-21-42	5-5-42
HEATING	808-808-503	9-4-42	
ELECTRICAL	W58321	3-6-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 3

Specifications: 1,26,58,62,96,119,120,125,128.

BUILDING, STRUCTURE OR UTILITY ACID & FUME RECOVERY BUILDING AREA T.N.T.

UNIT NO. 812 POST NO. 8121 thru 8126. Contracts: PC 1,26,58,62,96,119,120,125,128. SC: 20,25,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT - Plot Plan	W58044	3/11/42	5/26/42
1st Floor Plan	W58045	3/11/42	7/22/42
2nd, 3rd, 4th & 5th Floor Plan	W58046	3/11/42	8/17/42
Long. Section, Sheet #1	W58047	3/11/42	8/17/42
Long. Section, Sheet #2	W58048	3/11/42	5/26/42
Cross Section	W58049	3/11/42	6/20/42
Waste Acid Sto. Tank	D45576	2/14/42	
Gauge Rod, Hook, Cover & Pan	D51177	2/24/42	
Pump Drip Pan	D50758X1	3/6/42	
H.C.I. Pipe	D56539	3/5/42	7/22/42
TNT Separator Tank	D39561	2/28/42	
Expander Pipe Flanges	D24796		
Gauge Board	D52551		
WA Pre-Heater - Arrgt.	W58197	3/3/42	
Casings & Gland	D48633	3/5/42	
Eye Bolt	D30483	2/25/42	
Spring	D30481	2/25/42	
H.C.I. Pipe	D54452	3/5/42	4/1/42
Denitrating Tower Arrgt.	W47634	2/28/42	
Support	D26550	2/24/42	
Support	D26559	2/24/42	
Duriron Special Ell & Pipe	D54535	3/9/42	
Duriron Pipe & Fittings	D54584	2/24/42	
Gas Pressure Sys. Cooler, Type #2	D22566	2/28/42	
H.C.I. Tubing	D54451X1	4/30/42	
Pump Support	D55102	2/24/42	
Oxidation Tank	D51625	2/24/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY ACID & FUME RECOVERY BUILDING
UNIT NO. 812 POST NO. 8121 thru 8126

Specifications: 1,26,58,62,96,119,120,125,128.
AREA T.N.T.
Contracts: PC 1,26,58,62,96,119,120,128. SC: 20,25,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT			
Manifold	D51954	2/28/42	8/21/42
Water Scrubber Arrgt.	W49040	2/28/42	
Intermediate Bottom Cover Section	14435	2/28/42	
Distributor	D2145	2/24/42	
Spiral Packing Ring	D9743	2/24/42	
Muffler & Grillage	D51489	2/28/42	8/17/42
Pan	D51868	2/28/42	
Standard Weld Flanges for Tubing - Acid & Fume Rec. Houses (L.O.O.W., L.O.W., W.V.O.W. ONLY)	D54552	2/14/42	4/1/42
Thermometer Well	D57884	7/30/42	
Thermometer Well Supports, Nut & Flange	D57883	7/30/42	
Bleacher	D51639	2/24/42	
N.A. Storage Tank	D29781	2/28/42	
Welding Nozzle - or Neck	D49435		
Davit & Gauge Rod	W47239	2/28/42	
Horiz. H.C.I. Tank - Plug Valve	W40242	2/28/42	
Lever Stand	D45647	2/24/42	
Valve	D45648	2/28/42	
Absorption Tower	W47751	2/28/42	
"U" Bend	D51168	2/24/42	
Cover	D619	2/24/42	
Pan	D51869	2/28/42	
90° Elbow Pipe	14482	2/28/42	
Glass & "U" Bend	D52002	2/28/42	
Exhauster & Muffler	D56406	2/24/42	
Steam Jet Exhauster	D56407	2/24/42	
Overflow Pot Covers & Pot	14469	2/28/42	
Spigot	D8465	2/28/42	
Fulcometer	D8978	2/24/42	
Denitrated SA Cooler	W53400	2/24/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY ACID & FUME RECOVERY BUILDING
UNIT NO. 812 POST NO. 8121 thru 8126
Specifications: 1,26,58,62,96,119,120,125,128.
AREA T.N.T.
Contracts: PC 1,26,58,62,96,119,120,125,128. SC: 20,25,42.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT			
Cover & Baffle Box	D54262	2-28-42	
Condensate Water Tank & Coil	D49196	2-24-42	5-13-42
N.A. Storage Tank Cover & Float	D54522	2-24-42	4-1-42
Desk (Operating Equip.)	D52685	2-20-42	
Carrier	D52700	2-20-42	
Supply Cabinet	D52721		
Bulletin Board Frame	D52741		
HCl Valve & Fittings List	D54585	2-28-42	7-23-42
Pioneer Alloy Valve & Fitting List	D54586	2-28-42	
Wooden Clamps (Typical)	D6904	2-24-42	
Arrangement of Acid Joints (Typical)	D30#1045	2-24-42	
Denitrated S.A. Coolers - Cooling Water Arrangement	812-809-903		
ARCHITECTURAL - Plans & Details	W57334	2-21-42	3-13-42
Elevations & Details	W57335	2-20-42	
Outside Platforms & Walkways	W57336	2-29-42	3-13-42
Tank Enclosure	812-809-205	6-6-42	9-30-42
STEEL - Floor Plans - Sections & Details	W57149	1-28-42	2-12-42
Elevations	W57150	1-28-42	
CONCRETE - Foundation Plans & Details	W57287	2-18-42	3-18-42
ELECTRICAL - Plans, Sh. #1	W58415	4-4-42	6-12-42
Sections & Notes, Sh. #2	W58416	4-4-42	2-12-42
HEATING	812-809-501	6-16-42	

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LIST OF MAPS AND DRAWINGS

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BUILDING, STRUCTURE OR UTILITY BOX FACTORY & SHOOK STORAGE AREA T.N.T.
UNIT NO. 814 POST NO. 8141 Contracts: PC 1,71,86,89,96,119,120. SC: 20,25. Specifications: 1,71,86,89, 96,119,120.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL	W57341	6-25-42	
Truss Details	W58898	4-24-42	
Elevations	814-810-203		
PLUMBING - Drainage & Service Piping	W58899	4-29-42	
HEATING	814-810-504		
VENTILATING - Sawdust Removal System Arrgt.	W58035	2-24-42	
ELECTRICAL	W58594	3-13-42	7-8-42

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LIST OF MAPS AND DRAWINGS

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BUILDING, STRUCTURE OR UTILITY INSPECTOR'S OFFICE AREA T.N.T.
UNIT NO. 721 POST NO. 8212 Contracts: PC 1,71,74,89,96,119,120. Specifications: 1,71,74,89,96,119,120.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural Plans & Details	(W57252)	704-814-201	2-19-42	3-25-42
Electrical	(W58398)	721-100-601	3-6-42	
Complete Heating System		721-100-502	6-6-42	

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY INSPECTOR'S LABORATORY Specifications: 1,62,71,74,89,96,119,120,128.
UNIT NO. 721 POST NO. 8214 AREA T.N.T.
Contracts: PC 1,62,71,74,89,96,119,120,128. SC: 20,25.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
LABORATORY Equipment - Architectural	(W57230)	706-815-202		
ARCHITECTURAL & Concrete	(W57228)	706-815-204	2-18-42	
PLUMBING, Drainage & Service Piping	(W57270)	721-100-401	2-26-42	
HEATING		721-100-502	6-6-42	
ELECTRICAL		721-100-601	3-6-42	
LABORATORY DUCTS & Equipment		706-306-207		

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BUILDING, STRUCTURE OR UTILITY AREA SHOPS
UNIT NO. 722 POST NO. 8222-8224-8226

Specifications: 1,71,74,89,96,119,120.
AREA T.N.T.

Contracts: PC 1,71,74,89,96,119,120. SC: 20,25.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL, Concrete & Plumbing (W57215)	722-712-201	2-25-42	3-25-42
HEATING	722-712-502	11-17-42	
ELECTRICAL (W48400)	722-712-601	3-7-42	

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BUILDING, STRUCTURE OR UTILITY COMFORT STATIONS
UNIT NO. 727 POST NO. 8272-8274-8276 Contracts: PC 1,71,74. AREA T.N.T. Specifications: 1,71,74.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & Plumbing (W58410)	727-816-200	3-6-42	

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BUILDING, STRUCTURE OR UTILITY MAIN AIR COMPRESSOR STATION AREA T.N.T.
UNIT NO. 415 POST NO. 8451 Contracts: 1,120,128. SC: 20,25,30. Specifications: 1,120,128.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Foundation Plan & Details - Elevations	415-402-201	5-7-42	6-13-42
1st Floor Plan - Elevations & Details	415-402-202	5-7-42	7-4-42
Concrete Foundations	415-402-203	4-30-42	
Pipe Supports	415-402-205	10-10-42	
Electrical Power Layout	415-402-602	7-17-42	
Air Piping Arrangements	415-402-901	5-22-42	11-7-42
Equipment & Control Arrangement	415-402-902	5-28-42	9-24-42
Cooling Water Arrangement	415-402-903	5-23-42	6-24-42
Details of Guards	415-402-904	10-8-42	

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BUILDING, STRUCTURE OR UTILITY START UP MIX ACID STORAGE AREA T.N.T.
UNIT NO. 508 POST NO. 8581-8583-8585 Contracts: PC 1,26,62,77. SC: 20,25. Specifications: 1,26,62,77.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
TANK DETAILS	D55322	3-11-42	6-6-42

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BUILDING, STRUCTURE OR UTILITY SUPERVISOR'S OFFICES AREA T.N.T.
UNIT NO. 704 POST NO. 8742-8744-8746. Contracts: PC 1,71,74,89,96,119,120. Spec. 1,71,74,89,96,119,120.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL, Concrete & Plumbing (W57252)	704-814-201	2-19-42	3-25-42
HEATING	704-814-502		
ELECTRICAL	704-814-601		

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BUILDING, STRUCTURE OR UTILITY LABORATORY & SUPERVISOR'S OFFICE AREA T.N.T.
UNIT NO. 706 POST NO. 8762,8764,8766. Contracts: PC 1,62,71,74,89,96,119,120,128. SC: 20,25,46.
Specifications: 1,62,71,74,89,96,119,120,128

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Laboratory Equipment	(W57230)	706-815-202	2-18-42	5-25-42
ARCHITECTURAL & Concrete	(W57228)	706-815-204	2-18-42	
LABORATORY DUCTS & Equipment		706-306-207	8-24-42	9-26-42
PLUMBING, Drainage & Service Piping	(W57270)	721-100-401	2-26-42	
HEATING		706-306-502	6-14-42	
ELECTRICAL	(W58330)	706-815-601	3-2-42	

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BUILDING, STRUCTURE OR UTILITY CHANGE HOUSES AREA T.N.T.
UNIT NO. 707 POST NO. 8772-8774-8776. Contracts: PC 1,71,74,89,96,119. Specifications: 1,71,74,89,96,119

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Architectural & Concrete	(W57331)	707-707-201	2-25-42	3-25-42
Architectural & Concrete Details	(W57318)	707-707-202	2-25-42	3-25-42
Plumbing, Drainage & Service Piping	(W57303)	707-707-401	2-25-42	3-25-42
Heating		707-100-502	11-2-42	
Electrical	(W58397)	707-707-601	3-6-42	

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BUILDING, STRUCTURE OR UTILITY AUXILIARY FIRE HEADQUARTERS AREA T.N.T.
UNIT NO. 709 POST NO. 8791 Contracts: PC 1,71,74,89,96,120. Specifications: 1,71,74,89,96,120.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL - Plans, Sections, & Elevations	709-801-202	5-27-42	
PLUMBING - Heating, & Electrical Details	709-801-203	5-27-42	

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BUILDING, STRUCTURE OR UTILITY FOAMITE MIXING STATION AREA T.N.T.
UNIT NO. 804 POST NO. 8841 Contracts: PC 1. SC: 20,25,41. Specifications: 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOAMITE MIXING STATION	804-804-203	7-9-42	

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LIST OF MAPS AND DRAWINGS

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BUILDING, STRUCTURE OR UTILITY O. V. STORAGE TANK AREA T.N.T.
UNIT NO. 817 POST NO. Contracts: FC 1,26,62,77. Specifications: 1,26,62,77.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARRANGEMENT	817-811-903		
Plug Valve Arrangement	W25345	3-3-42	
Plug Valve Stand & Lever	D40137	2-3-42	
4" Valve Body & Plug	D34688	2-23-42	
Vertical Steel Sto. Tank - Mat. List	D35804X1	2-24-42	5-29-42
Valve Stem & Valve Stem Jaw	D31587	3-3-42	
4" x 6" Stuffing Box & Gland	D31588	3-3-42	
Lever & Lever Stop	D31589		
Handle & Lever Stand	D31590	3-3-42	
Gauge Rods, Pans & Covers - Steel	D54280	2-7-42	
Davit & Gauge Rod - Arrgt.	W53472	2-7-42	
STEEL - Framing Grillage	W57097	1-21-42	
ELECTRICAL - Electric Light & Power	W58336	3-6-42	

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BUILDING, STRUCTURE OR UTILITY UNIT NO. 818 POST NO.

BARRICADES FOR WASH HOUSE - AREA T.N.T.

Contracts: PC 1,26,119. Specifications: 1,26,119.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL - & Concrete	W57158	1-30-42	

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LIST OF MAPS AND DRAWINGS

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BUILDING, STRUCTURE OR UTILITY UNDERGROUND MAGAZINES AREA MAGAZINE
UNIT NO. POST NO. 9001 thru 9058 Contracts: PC 1,13. SC: 25. Specifications: 1,13.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Underground Magazine	901-101	2-24-42	4-14-42
Underground Magazine	901-102	2-28-42	3-26-42

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BUILDING, STRUCTURE OR UTILITY LOADING DOCKS AREA MAGAZINE
UNIT NO. POST NO. 9211 thru 9216 Contracts: PC 1. Specifications: 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
LOADING DOCKS	821-814-201	5-14-42	

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BUILDING, STRUCTURE OR UTILITY BARRICADES
UNIT NO. POST NO. 9217 - 9218 Contracts: PC 1. Specifications: 1. AREA MAGAZINE

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Barricades for Loading Docks	818-814-203	8-12-42	

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BUILDING, STRUCTURE OR UTILITY CHOCKING LUMBER SHEDS AREA MAGAZINE
UNIT NO. 722 POST NO. 9221-9222 Contracts: FC 1,60. SC: 25. Specifications: 1,60.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & Concrete	(W57332)	722-712-203	2-26-42	
ELECTRICAL	(W58400)	722-712-601	3-7-42	

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BUILDING, STRUCTURE OR UTILITY GASOLINE STATION AREA MAGAZINE
UNIT NO. 724 POST NO. 9241 Contracts: PC 1. SC: 20,25. Specifications: 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
FOUNDATION DETAILS	725-714-203	6-19-42	
TANK ARRANGEMENT	724-101-903	6-26-42	
ELECTRICAL (W58399)	724-101-601	3-6-42	

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BUILDING, STRUCTURE OR UTILITY COAT ROOMS AREA MAGAZINE
UNIT NO. 733 POST NO. 9331 Contracts: PC 60,74,96. SC: 20,25. Specifications: 60,74,96.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & CONCRETE (W57307)	733-202-200	3-3-42	3-25-42
ELECTRICAL (W58394)	733-202-601	3-7-42	
HEATING	733-202-502	6-13-42	

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BUILDING, STRUCTURE OR UTILITY SUPERVISOR'S OFFICE AREA MAGAZINE
UNIT NO. 704 POST NO. 9741 Contracts: PC 1,71,74,89,96,119,120. Specifications: 1,71,74,89,96,119,120.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & Concrete (W57252)	704-814-201	2-19-42	3-25-42
HEATING	704-814-502		
ELECTRICAL (W58114)	704-814-601		

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BUILDING, STRUCTURE OR UTILITY CHANGE HOUSE AREA MAGAZINE
UNIT NO. 707 POST NO. 9771 Contracts: PC 1,60,74. Specifications: 1,60,74.

TITLE OF MAP OR DRAWING		PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & Concrete	(W57320)	707-100-203	2-23-42	
ARCHITECTURAL & Concrete Details	(W57318)	707-100-202	2-25-42	
PLUMBING, Drainage, & Service Piping	(W57316)	707-202-403	2-25-42	
ELECTRICAL	(W58333)	707-100-602	3-6-42	
HEATING		707-100-502	11-2-42	

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BUILDING, STRUCTURE OR UTILITY HOSE REEL SHEDS AREA GENERAL FACILITIES
UNIT NO. 709C POST NO.
Contracts: PC 1. Specifications: 1.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL & CONCRETE	709C-100-201	7-4-42	

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BUILDING, STRUCTURE OR UTILITY UNIT NO. SENTRY HOUSES POST NO.

AREA AROUND FENCE

Contracts: PC 1,84. SC: 25. Specifications: 1,84.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ARCHITECTURAL - Plans, Elevations, Sections, & Details	605-101-202	5-7-42	
ELECTRICAL	605-101-601	5-1-42	9-17-42

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BUILDING, STRUCTURE OR UTILITY UNIT NO. 605 POST NO. OUTER BOUNDARY & INNER GUARD FENCES AREA

Contracts: PC 1,19,67 Specifications: 1,19,67

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Inner Fence Location	605-101-001	3-26-42	
Standard Fence & Details	605-101-201	3-26-42	
Entrance Gatehouse	605-101-204	4-29-42	5-10-42
General Plan	605-101-008	6-24-42	11-23-42
Details	605-101-208	6-6-42	11-20-42
Details	605-101-209	8-5-42	11-23-42

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BUILDING, STRUCTURE OR UTILITY FIRE ALARM SYSTEM
UNIT NO. 542 POST NO.
AREA UTILITIES & FACILITIES
Contracts: PC 1, SC 25. Specifications: 1

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Fire Alarm System	501-100-005	7-21-42	1-25-43

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BUILDING, STRUCTURE OR UTILITY OPEN DRAINAGE DITCHES & STORM SEWERS AREA UTILITIES & FACILITIES
UNIT NO. 505 511 POST NO. Contracts: PC 1,13,16,24. Specifications: 1,13,16,24.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Drainage Plan	511-100-001	3-18-42	6-23-42
12-Mile Creek Diversion Ditch)	511-501-001	3-20-42	12-21-42
12-Mile Creek Connecting Ditch)			
Central Drainage Ditch	511-502-001	3-30-42	10-12-42
Central Drainage Ditch	511-502-002	4-8-42	10-12-42
Central Drainage Ditch	511-502-003	4-17-42	10-12-42
Central Ditch Crossing at M, N, & O Streets	511-502-004	5-16-42	10-12-42
Southwestern Drainage Ditch	511-503-001	4-4-42	10-12-42
Southwestern Drainage Ditch	511-503-002	4-5-42	10-12-42
Southwestern Drainage Ditch	511-503-003	4-5-42	10-12-42
Southwestern Drainage Ditch	511-503-004	4-7-42	
Plan of 4-Mile Creek (Lake Ontario to Southwestern Drainage Ditch)	511-513-001	3-19-42	
"A" Ditch)	511-504-001	5-19-42	12-15-42
"B" Ditch)			
"C" Ditch)	511-512-001	7-19-42	12-19-42
"Y" Ditch)			
"D" Ditch)			
"U" Ditch)	511-518-001	8-10-42	12-22-42
6-Mile Creek Diversion Ditch)			
"E" Ditch)			
North of Balmer Road)	511-517-001	8-7-42	10-12-42
South of Balmer Road)			
"H" Ditch)	511-5109-001	7-16-42	10-12-42
"I" Ditch)			
"N" Street Sewer Outlet)			
"H" Spur #1)	511-511-001	6-16-42	12-12-42
"H" Spur #2)			
"K" Ditch)	511-510-001	5-21-42	10-12-42
"L" Ditch)			
"M" Ditch)	511-505-001	5-7-42	10-12-42
"M" Spur)			

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LIST OF MAPS AND DRAWINGS

OPEN DRAINAGE DITCHES & STORM SEWERS (CONTD)

BUILDING, STRUCTURE OR UTILITY UNIT NO. 505 511 POST NO. Contracts: PC 1,13,16,24. AREA UTILITIES & FACILITIES Specifications: 1,13,16,24.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
"N" Ditch)			
"N" Spur #1)			
"N" Spur #2)	511-516-001	8-6-42	
"N" Extension)			
"N" Ext. Spur)			
"Q" Ditch	511-508-001	5-19-42	10-12-42
"R" Ditch)	511-519-001	8-12-42	12-15-42
"X" Ditch)			
"S" Ditch	511-507-001	6-12-42	10-18-42
"Z" Ditch Extension	511-515-001	7-24-42	
A-B Ditch	511-907-001	5-1-42	
B-C Ditch	511-906-001	5-1-42	
C-D Ditch	511-904-001	4-14-42	
D-E Ditch	511-902-001	4-17-42	
E-F Ditch	511-905-001	4-20-42	
F-G Ditch	511-903-001	4-24-42	
G-H Ditch	511-901-001	4-22-42	4-22-42
Magazine Area Ditch	511-908-001	5-12-42	
Magazine Area Ditch	511-506-001	5-12-42	12-15-42
6-Mile Outside Site	511-514-001	3-25-42	
Storm Sewers for Acid Area	505A-100-001	6-16-42	6-17-42
Storm Sewers "M" Street and 10th Street	505A-100-002	8-21-42	5-22-42
Tile Underdrain for "M" Street & "H" Line Railroad	505A-100-003	6-8-42	
Rip-Rap Protection at Ditch Intersections	511-521-001	8-15-42	
Special Waterway Gates and Culverts	511-523-001	8-15-42	
Shop Area Ditches	603A-124-001		

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY UNIT NO. 501 POST NO. PRIMARY & SECONDARY ELECTRICAL DISTRIBUTION LINES AREA UTILITIES & FACILITIES

Contracts: PC 1,72,84. SC: 25. Specifications: 1,72,84.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Right-of-Way Incoming 115 K.V. Line	501-603-013		
Substation - 115 K.V. to 6.9 K.V.	401-400-601		2-23-43
Wiring Diagram Primary Feeders & Transformer Details	501-603-205		3-5-43
Underground Primary Distribution Lines At Main Substation	501-603-009A	3-3-43	3-1-43
Primary Distribution Lines - Sheet #1	501-603-001		11-25-42
Primary Distribution Lines - Sheet #2	501-603-002		3-4-43
Primary Distribution Lines - Sheet #3	501-603-003		3-3-43
Primary Distribution Lines to Sewer & Industrial Waste	505A-500-603		9-9-42
Primary Distribution Lines to River Pumps	501-601-014		1-5-43
Secondary Power & Light Distribution Lines - Admin. Area	501-603-004		3-4-43
Secondary Power & Light Distribution Lines - Shop Area	501-603-005		3-4-43
Secondary Power & Light Distribution Lines - Acid Area	501-603-006		3-4-43
Secondary Power & Light Distribution Lines - Acid Area	501-603-007		3-4-43
Secondary Power & Light Distribution Lines - TNT Area	501-603-008		3-4-43
Electrical - Telephone & Fire Alarm Distribution Poles, Sh. 1	501-603-010		10-1-42
Electrical - Telephone & Fire Alarm Distribution Poles, Sh. 2	501-603-011		10-12-42
Electrical - Telephone & Fire Alarm Distribution Poles, Sh. 3	501-603-012		11-3-42
Pole Assembly Details	501-603-204		
Pole Top Arrangements	501-603-203		8-29-42
Pothead Mounting on Poles & Selector Switch Arrangement	501-603-207		3-3-43
Electric Pole Assemblies	501-602-201		8-28-42
Arrangement of Pole Hung Transformers	501-603-206		3-3-43
Arrangement of Transformer Substations on Concrete Pads	501-603-208		3-3-43
Floodlighting - Classification Yard	601-100-601		3-1-43
Fence Lighting - Sentry Houses, etc.	605-101-005		10-9-42
Fence Around 115 K.V. Substation	401-400-337	8-28-42	
Connection of Lines Acquired from Niagara Hudson to New 6.9 K.V. Lines	501-603-015	11-23-42	3-4-43
Connection of Lines Acquired from Niagara Hudson to New 6.9 K.V. Lines	501-603-016	11-23-42	3-4-43
Street Lighting - Series Loop - Sheet #1	603-100-601		12-15-42
Street Lighting - Series Loop - Sheet #2	603-100-602		3-4-43

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LIST OF MAPS AND DRAWINGS

Sheet No. 2 of 2

BUILDING, STRUCTURE OR UTILITY UNIT NO. 501 POST NO.

PRIMARY & SECONDARY ELECTRICAL DISTRIBUTION LINES (CONTD.)

AREA UTILITIES & FACILITIES 72,84

Contracts: PC 1,72,84 SC 25 Specifications: 1,

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Street Lighting - Series Loop - Sheet #3	603-100-603		3-4-43
Street Lighting - Circuit #9	603-100-604		11-14-42
One-Line Power Wiring Diagram	401-400-605	2-25-43	
Covers for Electric Motors Installed Outdoors	Std. 53		

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 2

BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. AREA PLOT PLANS AREA ALL AREAS

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Layout Plan for 6-Line T.N.T. Plant	100-5	11-2-42	
Intake Pumping Plant Site	100-21	1-5-43	
Sewage Disposal Area	100-19	1-30-43	
Acid Area Showing Tank, Bin & Building Nos.	300-300-004	10-27-42	
Index Sheet	100-11A	1-30-43	
Slurry Pool	100-20	1-30-43	
T.N.T. Area Showing Tank Bin & Building Nos.	800-800-009	10-27-42	
Acid & Shop Area	100-15	1-30-43	
West Part Magazine Area	100-11	1-30-43	
East Part Magazine Area	100-12	1-30-43	
Nitration Area	100-13	1-30-43	
Area East of T.N.T. Area	100-14	1-30-43	
Area East of Acid Area	100-16	1-30-43	
Power, Administration & Water Treatment Areas	100-17	1-30-43	
Classification Yard Area	100-18	1-30-43	
Fire Protection Facilities	100-10	8-29-42	11-3-42

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY UNIT NO. POST NO. AREA PLOT PLANS AREA ALL AREAS

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Fire Alarm System	501-100-005	7-21-42	1-25-43
Shop Area	200-200-003	4-22-42	
Layout Plan Acid Area	300-300-001	3-25-42	
Layout Plan Acid Area	300-300-002	3-25-42	
Power Area	401-401-001	3-28-42	
Administration Area	700-700-001		8-10-42
T.N.T. Area	800-800-001	3-25-42	8-11-42
Sections thru T.N.T. Area	800-800-003	3-25-42	4-5-42
Typical T.N.T. Line	800-800-004	3-25-42	
Nitration Area	800-800-006	5-8-42	8-11-42
Revised Contour Map T.N.T. Area	800-800-008	5-18-42	
Auxiliary Buildings T.N.T. & Magazine Area	814-810-002	5-13-42	8-10-42
Magazine Area	901-1	3-20-42	8-10-42

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY OUTSIDE PROCESS LINES AREA ACID & T.N.T.
UNIT NO. 508 POST NO. Contracts: PC 1,96. SC: 20,25. Specifications: 1,96.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
ITEM -			
N.A. Tank Car Unloading	W58603	3-24-42	
Toluene Car Unloading	W58604	3-24-42	
O.V. Car Unloading	W58605	3-24-42	
Tank Unloading	W58606	3-24-42	
Pipe Conn. Tank (602)	D56104	3-14-42	
N.A. Tank Car (602)	W58583	3-19-42	
N.A. Tank Car (Safety Valve Cover) (602)	D54614	3-26-42	
Start Up N.A. Storage	W57182	2-29-42	6-9-42
O.S.L. Pipe Anchors	D52061		
O.S.L. Supports	D52310		
18-8 CB Fume Pipe O.S.L.	D54693	3-7-42	4-27-42
N.A. & Air Pipe O.S.L.	D54740	3-5-42	6-17-42
Brackets, Levers, Etc. O.S.L.	D55075		
Dip Tube Crane	D55121	3-12-42	
N.A. Tank Car Flange Bolts	D55446		
Guy Rods	D55408		
Tank Anchors	D42870X1	4-9-42	
Suction Pipe, Guide Flanges	D52435	4-9-42	
Profiles			
Tri-Oil Lines (802 to 806)	Pro. 2659		
Car Unloading (802 to 803) Sh. #1	Pro. 2672		
Car Unloading (802 to 803) Sh. #2	Pro. 2673		
Car Unloading Between Bldgs. 801-2-3 & 812 Sh. #1	Pro. 2657		
Car Unloading Between Bldgs. 801-2-3 & 812 Sh. #2	Pro. 2658		
Toluene, Start N.A. (804-508-801-803)	W58741		
Anhydrous Ammonia H.P. & L.P. Storage	508-300-001	5-11-42	7-9-42
Car Spots and Building No. 30	508-300-002	5-11-42	9-16-42
H. P. Storage to Gasifier	508-300-003	5-11-42	7-10-42
N. A. Car Spot & Storage Tanks	508-300-004	5-22-42	8-3-42
T.N.T. Storage & Dark S.A. Conc. House	508-300-008	5-22-42	9-21-42

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY OUTSIDE PROCESS LINES (CONTD.) AREA ACID & T.N.T.
UNIT NO. 508 POST NO. Contracts: PC 1,96. SC: 20,25. Specifications: 1,96.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Plot Plan - Process Lines	508-300-009	5-27-42	12-6-42
Dark S.A. Storage to N.A. Conc. House	508-300-010	8-12-42	9-16-42
Conc. Mix Circulators to Dark S.A. Storage	508-300-011	7-22-42	9-18-42
N.A. Gen. House to Res. S. A. Storage - Plan	508-300-012	8-3-42	9-23-42
N.A. Gen. House to Res. S.A. Storage - Profile	508-300-013	8-3-42	9-23-42
Steel Framing (Car Spots)	W58756	3-20-42	
M.C.I. Pipe & Stud Bolts	D33100		
Outside Process Lines, Pipe Hangers	509-100-901		
T.N.T. Area Outside Process Lines, Plot Plan	508-800-001	5-12-42	8-31-42
Outside Process Lines between Car Unloading and Bldgs. 802 & 803	508-800-101	5-16-42	9-13-42
Outside Process Lines between Bldgs. 802 and 806	508-800-102	[illegible]	[illegible]
Outside Process Lines between Bldgs. 801 - 802 - 803 - 812	508-800-103	5-6-42	8-29-42
Outside Process Lines between Bldgs. 801 - 802 - 803 - 812 - Supports	508-800-104	5-15-42	8-27-42
Outside Process Lines between Car Unloading and Bldgs. 802 & 803.	508-800-105		
Outside Process Lines between Car Unloading and Bldgs. 802 & 803.	508-800-106	5-10-42	
Outside Process Lines between Toluene and Start up MA & Car Unloading	508-800-107	6-7-42	
Outside Process Lines between Bldgs. 801-802-803 & 812	508-800-110	8-29-42	
Outside Process Lines between 4 Res. S.A. & 2" Wasts Acid by-pass	508-800-111	9-1-42	11-6-42
T.N.T. Res. S.A. Line from TNT Area to Acid Area	508-300-014	8-18-42	9-24-42

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY RAILROADS AREA
UNIT NO. POST NO. Contracts: PC 1,14 Specifications: 1,14

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
General Track Layout	601-100-001	4-14-42	11-18-42
Railroad "A" Line - 0+00 to 32+50	601-100-002	4-14-42	11-18-42
Railroad "A" Line - 32+50 to 71+00	601-100-003	4-14-42	11-18-42
Railroad "A" Line - 71+00 to 103+00	601-100-004	4-14-42	11-18-42
Railroad "A" Line - 103+00 to 140+00	601-100-005	4-14-42	11-18-42
Railroad "A" Line - (and Transition to "R" Line)	601-100-006	4-14-42	11-18-42
Railroad "R" Line - 168+68.8 to 205+00	601-100-007		11-18-42
Railroad "R" Line - 205+00 to 235+00	601-100-008		9-30-42
Railroad "R" Line - 235+00 to 254+53.01	601-100-009		9-30-42
Railroad "D" Line - 0+00 to 28+50	601-100-010		10-1-42
Railroad "D" Line	601-100-011		10-2-42
Railroad "B", "C", "E", & "F" Lines - Power & Shop Area	601-100-012	6-13-42	11-18-42
Railroad "G" Line - 0+00 to 24+00	601-100-014		11-18-42
Railroad "G" Line	601-100-015	5-16-42	11-18-42
Railroad "H" Line - 1+00 to 23+50	601-100-016	5-6-42	11-18-42
Railroad "H" Line - 23+00 to 49+35.54	601-100-017	5-6-42	11-18-42
Railroad "H-16" Line	601-100-018	5-16-42	11-18-42
Railroad "D" Line 56+57 to 82+77 (temporary), "H" Line 49+35 to 54+34, "H-18" 4+34 to 4+62	601-100-019		11-18-42
Railroad "E" Line Extension to Water Treatment Plant	601-100-020	7-8-42	12-16-42
Coal Trestle	601-100-024	6-18-42	11-18-42
Coal Trestle	601-100-025	6-17-42	11-14-42
Typical Sections	601-100-101		9-24-42
Supports over pipe	601-100-026	9-5-42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY **ROADS, DRIVES, WALKS AND PARKING LOTS** AREA UTILITIES AND FACILITIES
UNIT NO. 603 613 POST NO. Contracts: PC 1,24 Specifications: 1,24

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LAST REVISION
Pump House Road	503B-100-004	10/27/42	10/6/42
Typical Section of Roads	603 -100-003	3/27/42	
General Road Plan	603 -100-004	9/24/42	
"O" Street	603A-100-001	3/30/42	7/27/42
Pletcher Road, Sheet #1	603A-101-001	4/3/42	
Pletcher Road, Sheet #2	603A-101-002	5/8/42	9/4/42
Pletcher Road, Sheet #3	603A-101-003	5/8/42	9/15/42
Conc. Box Culvert Extension at Pletcher & Creek Rds.	603A-101-005	6/13/42	
Drop Inlet on Quad. Pipe - Pletcher Rd.	603A-101-006	4/28/42	
Outlet Ditches - Sta. 10 + 50 + 30 + 25	603A-101-007	7/2/42	
Outlet Ditches - Sta. 40 + 68 + 57 + 00	603A-101-008	8/11/42	
Plan and Profile of Harold Road	603A-102-001	4/18/42	
"N" Street	603A-103-001	4/20/42	6/11/42
"B" Avenue	603A-104-001	5/2/42	9/12/42
Plan of Portion of "B" Ave. - Gate and Gatehouse	603A-104-002	8/31/42	
"M" Street	603A-105-001	4/20/42	9/14/42
"C" Avenue	603A-107-001	5/4/42	6/1/42
"J" Avenue	603A-108-001	5/6/42	5/12/42
"H" Street	603A-109-001	5/11/42	6/3/42
"K" Ave. Extension	603A-110-001	6/2/42	6/4/42
"N", "O", "P" Aves. and "S" Street	603A-111-001	6/3/42	
"I" Avenue, "K" and "L" Streets	603A-112-001	6/1/42	6/19/42
"F", "G" and "H" Avenues	603A-113-001	6/4/42	7/7/42
"E" Avenue, "I" and "J" Streets	603A-114-001	6/22/42	8/17/42
"R" Avenue	603A-116-001	6/17/42	7/1/42
"R" Street Extension	603A-117-001	6/17/42	7/7/42
Castle Garden Rd. - Pletcher to "O" Street	603A-118-001	7/16/42	7/30/42
"L" Avenue	603A-119-001	7/30/42	8/17/42
Castle Garden Rd. - "N" St. to "M" St., "H" St. to Balmer Rd.	603A-120-001	8/1/42	
Swan Road - Sheet #1	603A-121-001	7/30/42	
Swan Road - Sheet #2	603A-121-002	7/30/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY ROADS, DRIVES, WALKS AND PARKING LOTS (CONTD.) AREA UTILITIES AND FACILITIES
UNIT NO. 603 613 POST NO. Contracts: PC 1,24 Specifications: 1,24

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Roads & Walks - Acid Area (Sheet #1)	603A-122-001	8/14/42	1/12/43
Roads & Walks - Acid Area (Sheet #2)	603A-122-002	8/14/42	
Roads & Walks - Nitration Area	603A-123-001	8/15/42	1/10/43
Shop Area	603A-124-001	9/12/42	9/16/42
Toluene Bulk Storage	603A-125-001	9/22/42	
Sewage Disposal Area	603A-126-001	9/28/42	
"P" Street - Pavt. & Drainage	603A-127-001	10/14/42	
"G" Street	603B-900-001	4/13/42	7/13/42
"K" Street	603B-901-001	5/8/42	
"D" Avenue	603B-902-001	4/23/42	4/28/42
"F" Street	603B-903-001	5/8/42	7/31/42
"E" Street	603B-904-001	5/8/42	
"B" Street	603B-905-001	5/8/42	
"C" Street	603B-906-001	5/8/42	
"D" Street	603B-907-001	4/25/42	
"A" Street	603B-908-001	5/8/42	7/14/42
Typical Igloo Driveway	603B-909-001	6/9/42	
Drive to Loading Docks - Sta. 2.9 ≠ 61.3	603B-910-001	8/5/42	
Drive to Loading Docks - Sta. 7 ≠ 61.3	603B-910-002	8/4/42	
"A" Avenue Patrol Road - Sheet #1	603C-100-001	6/2/42	6/15/42
"A" Avenue Patrol Road - Sheet #2	603C-100-002		
"R" Street Patrol Road	603C-101-001	6/3/42	9/12/42
Lutts Patrol Road	603C-102-001	5/20/42	7/24/42
South Patrol Road - Sheet #1	603C-103-001	6/29/42	7/10/42
South Patrol Road - Sheet #2	603C-103-002	7/14/42	7/14/42
East Patrol Road - Sheet #1	603C-104-001	6/17/42	8/26/42
East Patrol Road - Sheet #2	603C-104-002	6/17/42	9/7/42
North Patrol Road - Sheet #1	603C-105-001	8/21/42	
North Patrol Road - Sheet #2	603C-105-002	7/4/42	
Balmer Road Bridge over Central Drainage Ditch	603D-103-301	6/29/42	
North Patrol Road Bridge over Central Drainage Ditch	603D-104-301	7/14/42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY ROADS, DRIVES, WALKS AND PARKING LOTS (CONTD.) AREA UTILITIES AND FACILITIES
UNIT NO. 603 613 POST NO. Contracts: PC 1,24 Specifications: 1,24

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
5' x 7' Twin Culvert - Balmer Road & 4-Mile Creek	603D-106-301	7/22/42	
Portion of West Patrol Road	605 -101-006	10/2/42	10/23/42
Administration Area Parking Lot	613 -100-003	4/10/42	
Sewer & Contour Plan - Dormitory Area	700 -700-004	8/1/42	9/3/42
Tile Drain, & Cont. Plan - Administration Area	700 -700-005	8/3/42	8/28/42
Tile Drain, & Cont. - Medical & Employment Area	700 -700-006	8/1/42	8/22/42

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY SEWERAGE SYSTEM AREA GENERAL UTILITY
UNIT NO. 505 POST NO. Contracts: PC 88,99,125,153. Specifications: 88,99,125,153.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Sanitary Sewers, Cooling Water (Acid) Sewers			
Sanitary Sewers, Acid Sewers and Trade Waste Sewers in TNT, Acid and Sewage Disposal Plant Areas	505A-500-009	7-15-42	2-3-43
Profile of Sanitary and Acid Sewers, TNT Area	505A-500-019	2-8-43	
Profile of Acid Sewers of Acid Area	505A-500-020	2-9-43	
Profile of Sanitary Sewers, Acid & TNT Areas	505A-500-021	2-9-43	
Sanitary and Acid Sewers in Acid, Administration and Shop areas	505A-500-026	7-8-42	1-18-43
Sewers to Buildings Nos. 704, 707, 709 - 733 and 814	505A-500-030	8-13-42	
Sewers at Classification Yard Buildings	505A-500-033	10-30-42	
Profile Acid Sewer in Acid Area and Sanitary Sewer in Power Area	505A-500-108	2-9-43	
Manhole details	505A-500-215	6-3-42	
Sewer Pipe and Trench Details	505A-500-216		
Special Manhole "I" near Neutralization Plant	505A-500-227	7-21-42	
Sewers and Piping Arrangement for Safety Showers, Acid Area	505A-500-239		
Sewers and Piping Arrangement for Safety Showers, TNT Area	505A-500-240	2-14-42	
COLLECTION SEWERS			
Profile of Sewers, TNT Area to Pumping Plant	505A-500-018	5-30-42	7-2-42
Sewage and Surface Drainage at Bldgs. #806.	505A-500-029	7-28-42	
18" Trade Waste Sewer	505A-500-255	1-7-43	
Flume and Floor Trench Changes in Bldgs. #806	505A-500-256	2-16-42	2-16-42
OUTFALL SEWER TO NIAGARA RIVER			
Plan and Profile, Mixing Tank to Stn. 70	505A-500-012	7-12-42	
Plan and Profile, Sta. 70 to Sta. 100	505A-500-013	5-29-42	
Plan and Profile Sta. 100 to Sta. 160	505A-500-014	5-29-42	
Plan and Profile Sta. 160 to Head Tank	505A-500-016		
Right-of-Way Project to River Road	505A-500-017	5-29-42	
Profile of Pressure Outfalls and Details of Cribs	505A-500-023	8-12-42	8-14-42
Profile of Pressure Outfalls Showing Depths to Invert	505A-500-024	8-12-42	
Manholes, Subaqueous Pipe and Nozzle Details	505A-500-225	11-2-42	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY SEWERAGE SYSTEM AREA GENERAL UTILITY
UNIT NO. 505 POST NO. Contracts: PC 88,99,125,153. Specifications: 88,99,125,153.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Siphon at Two-Mile Creek	505A-500-238	8-26-42	9-22-42
Manhole Covers	505A-500-251		
Supports at Central Drainage Ditch Crossing	505A-500-902		
Center Line of Right-of-Way for Outfall Sewer	1-538		
Supports at Southeastern Ditch Crossing	505A-500-[illegible]		

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY STEAM & AIR LINES AREA
UNIT NO. POST NO. Contracts: PC 1,96. SC: 20,25. Specifications: 1,96.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Steam & Air Lines - Plot Plan	502-100-801	6-10-42	
Steam Line Boiler House to Acid Area	502-100-803		
Steam & Air Lines between M & N Sts.	502-100-802		
Steam Dist. Boiler House to Shop Admin. Area	502-100-805	7-6-42	11-3-42
Steam & Air Dist. TNT Area to Box Factory & Auxiliary Bldgs.	502-100-806		
Acid Area - Steam & Air Lines	502-300-001		9-19-42
Shop Area - Steam & Air Lines	502-200-001		
TNT Area - Steam & Air Lines	502-800-801		
Administration Area - Steam Lines	502-700-001		10-8-42
Steam Piping & Ejector Piping - Water Treat. Plant	503-500-929	10-22-42	
Steam Line for Heating Fire Res. - with Water Treatment Area Dwgs.	503-500-214	5-30-42	11-20-42

LOOW-001

LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 1

BUILDING, STRUCTURE OR UTILITY: TELEPHONE SYSTEM
UNIT NO. POST NO. GUARD REPORTING SYSTEM
Contracts: PC 1. SC: 25. Specifications: 1.
AREA UTILITIES & FACILITIES

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Automatic & Guard Reporting System	501-100-001	1-1-43	
Automatic & Guard Reporting System	501-100-002	7-21-42	2-27-43
Automatic & Guard Reporting System	501-100-003	7-21-42	2-25-43
Automatic Telephones to "E" Buildings and Line to River Pump House	501-100-006	1-1-43	
Automatic Telephones to "E" Buildings	501-100-007	1-1-43	
Telephone Layout for Medical and Employment Buildings	719-716-602	7-9-43	

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LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY UNIT NO. TEMPORARY BUILDINGS POST NO. AREA GENERAL

Contracts: PC 1. SC: 4,10,11,15,16,20,22,25,29. Specifications: 1

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
A.E.M. No. 2 - Floor Plan	T-31-1		
A.E.M. No. 3	T-32-1		
A.E.M. No. 4 - Floor Plan	T-22-1		
Connecting Corridors, A.E.M. Buildings	T-11-1		
Main Time Office	T-2-1		
Standard Details for Construction Field Offices (Portable)	T-3-1		
Standard Details for Constr. Field Offices, 16' x 20'	T-34-1		
Standard Details for Constr. Field Offices, 20' x 24'	T-35-1		
Check Offices	T-85-2		
Ornamental Iron Shop - Shop Area	T-79-1		
Lead Burners Shop - Acid Area	T-80-1		
Addition to Ornamental Iron Shop	T-79-1		
Baker Smith - Job Office	T-16-1		
Baker Smith - Pipe Shop	T-25-1		
Baker Smith - Machine Shop	T-26-1		
Baker Smith - Welding Shop	T-27-1		
Baker Smith - Loading & Storage Platforms	T-28-1		
Baker Smith - Building Location Plan	T-29-1		
Shelter for Welding Equipment	T-33-1		
Lord Electric Office and Storage	T-54-2		
Welding, Blacksmith, Fabrication Shops, Sheet 1	T-59-2		
Welding, Blacksmith, Fabrication Shops, Sheet 2	T-59-2		
Tool House and Stock Room	T-63-1		
Paint and Sign Shop	T-65-1		
Addition to Riggers Shop	T-73-1		
Loading and Storage Platforms	T-74-1		
Central Pay Office - White, Lord Electric, Baker Smith	T-85-2		
Transportation Center - Grease Pit	T-17-1		
Transportation Center - Garage	T-24-1		
Transportation Center - Heavy Equipment Repair Shops	T-39-2		

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100-WOW-001

LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY TEMPORARY BUILDINGS (CONTD) AREA GENERAL
UNIT NO. POST NO. Contracts: PC 1. SC: 4,10,11,15,16,20,22,25,29. Specifications: 1

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Transportation Center - Inst. Travelling Crane Repair Shop	T-39-2		
Transportation Center - Heavy Equipment Repair Shop	T-39-2		
Transportation Center - Truck Repair Shop	T-45-1		
Transportation Center - Trolley Beam - Truck Garage	T-86-1		
Transportation Center - Proposed 2" Water Line	T-109-1		
DuPont and Government Receiving Offices	T-9-1		
Standard Temporary Warehouse	T-37-2		
Standard Details for Temporary Warehouse	T-37-2		
Warehouse, 40' x 60', for C.C.C.	T-78-1		
Plan Showing Layout of Stalls in Barn E-82-A	T-123-1		
Plan Showing Layout of Stalls in Barn E-82-A	T-123-1		
Plan and Details of Rifle and Pistol Range	T-83-2		
Plan and Details of Rifle and Pistol Range	T-83-2		

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LIST OF MAPS AND DRAWINGS

Sheet No. 1 of 2

BUILDING, STRUCTURE OR UTILITY WATER DISTRIBUTION AREA UTILITIES & FACILITIES
UNIT NO. 503 POST NO. Contracts: FC 1,23,79,83. SC: 20. Specifications: 1,23,79,83.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
First Part of Drinking Water Supply & Distrib. System	503A-500-001	3-20-42	
First Part of Drinking Water Supply & Distrib. System	503A-500-002	3-22-42	
First Part of Drinking Water Supply & Distrib. System	503A-500-003	3-21-42	4-1-42
Water Distribution System - General Location Plans	503-500-004	4-4-42	8-24-42
Water Distribution System - General Location Plans	503-500-005	4-4-42	7-31-42
Water Distribution System - General Location Plans	503-500-006	4-4-42	7-31-42
Water Distribution System - General Location Plans	503-500-007	4-24-42	8-27-42
Water Distribution System - General Location Plans	503-500-008	4-4-42	7-31-42
Water Distribution System - General Location Plans	503-500-009	4-4-42	8-15-42
Water Distribution System - Profiles	503-500-014		
Water Distribution System - Profiles	503-500-015		
Water Distribution System - Profiles	503-500-016		
Water Distribution System - Profiles	503-500-017		
Water Distribution System - Typical Connections, Details	503-500-018		
Water Distribution System - Final Drawing - Shop Area	503-500-024	9-28-42	
Water Distribution System - Final Drawing TNT Area, C-D Lines	503-500-025	9-24-42	
Water Distribution System - Final Drawing TNT Area, A-B Lines	503-500-026	9-25-42	
Water Distribution System - Final Drawing TNT Area, E-F Lines	503-500-027	11-30-42	
Water Distribution System - Final Drawing Acid Area (East)	503-500-028E	11-30-42	
Water Distribution System - Final Drawing Acid Area (West)	503-500-028W	11-30-42	
Water Distribution System - Final Drawing Classification Yard	503-500-029	11-30-42	
Water Distribution System - Final Drawing Admin. Area	503-500-030	11-30-42	
Water Distribution System - Final Drawing Sew. Disp. Area	503-500-031	11-30-42	
Water Distribution System - Final Drawing Power & Water Treatment Areas	503-500-032	11-30-42	
Water Distribution System -	503-500-034	10-22-42	
Water Distribution System - Final Drawing, Water Line to A-E-M 4	503-500-035	11-30-42	
Water Distribution System - Final Drawing, Toluene, Box & Shook Magazine AREAS	503-500-036	11-30-42	
Water Distribution System - 2" Drinking Water Line to Transportation Center	503-500-037	1-9-43	
Connection for Booster Pump for Drinking and Service Water	503A-500-202	3-21-42	
Meter Pit for Service and Drinking Water	503A-500-203	3-22-42	

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LOOW-001

LIST OF MAPS AND DRAWINGS

BUILDING, STRUCTURE OR UTILITY WATER SYSTEM AREA UTILITIES & FACILITIES
UNIT NO. 503 POST NO. Contracts: PC 1,23,79,83. SC: 20. Specifications: 1,23,79,83.

TITLE OF MAP OR DRAWING	PLAN NUMBER	DATE OF DRAWING	DATE OF LATEST REVISION
Design of Joint and Reinforcement for 42" Concrete Pipe			
General Layout 42" Wood Stave and Concrete Water Supply Line	503-500-010	5-14-42	
General Layout - ditto	503-500-011	5-14-42	7-2-42
General Layout - ditto	503-500-012	5-14-42	5-13-42
General Layout 10" Drinking Water and 42" Water Supply Line	503-500-013	5-14-42	
Details of Concrete Bends for 42" Wood Stave Line	503B-100-901A	6-24-42	
Manhole Details	503-500-902	7-3-42	
Leakage Repair Coupling for 42" Concrete Pipe	503-500-936	12-15-42	
Intake Piping Plan, Profiles, Sections	503B-100-201	7-28-42	1-27-43
30" Force Main Plans and Profiles	503B-100-904	8-6-42	9-17-42
CO_2 Pipe Line from Boiler House	503-500-901	8-17-42	
Water Distribution System - Regulation Valve Pits	503-500-207	5-5-42	
Standard Details for Drinking and Service Water	Standard AEM14	3-20-42	

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100-WOW-001

AS BUILT PLOT PLANS

TABULATION OF DUPONT AND L. K. O. BUILDING NUMBERS

ADMINISTRATION AREA	DUPONT NUMBER	L. K. O. NUMBER
GATE HOUSE AND CLOCK ALLEYS	701	701
TELEPHONE BUILDING	702	702
MAIN OFFICE BUILDING	703	703
EMPLOYMENT BUILDING	705	705
CHANGE HOUSE	707	707
CAFETERIA	708	708
MAIN FIRE HEADQUARTERS	709	709
FLAG POLE	712	712
MEDICAL SERVICE BUILDING	719	719
GUARD HEADQUARTERS	720	720
GARAGE FOR STAFF & ORDNANCE	728	728
GARAGE FOR GUARD M O T S	730	730
DORMITORY (NORTH)		751
DORMITORY (SOUTH)		752

SHOP AREA	DUPONT NUMBER	L. K. O. NUMBER
SUPERVISOR'S OFFICE	704	7041
CHANGE HOUSE S1	707	7071
CHANGE HOUSE - S2	707	7072
CHANGE HOUSE - S3	707	7073
CHANGE HOUSE S4	707	7074
CHANGE HOUSE - S5	707	7075
GENERAL STOREHOUSE	713	7131
MATERIAL SHED	714	7141
OIL AND PAINT STORAGE	715	7151
GARAGE AND REPAIR SHOP	716	7161
COMBINED SHOPS	717	7171
LOCOMOTIVE HOUSE	718	7181
WIGGINS SHOP S1	722	7221
MILLWRIGHT SHOP S2	722	7222
LAUNDRY	733	7331
GASOLINE STATION	724	7241
PARKING GARAGE	725	7251
ACETYLENE STORAGE	726	7261
MEETING HOUSE - S1	733	7331

POWER AREA	DUPONT NUMBER	L K O. NUMBER
BOILER HOUSE	401	4011
FUEL OIL STORAGE TANK		4012
CHANGE HOUSE	707	4771

ACID AREA	DUPONT NUMBER	L. K. O NUMBER
ANHYDROUS AMM STORAGE - L P	301	3011
- - - H P	301	3012
AMMONIA OXIDATION PLANT	302	3021
PUMP HOUSE AND OFFICE	302	3022
62 % NITRIC ACID STORAGE	302	3023
NITRIC ACID CONCENTRATOR PLANT	303	3031
N A & S A STORAGE TANKS	303	3032
CONCENTRATING MIX CIRCULATORS	305	3051
93.2% DARK S A STORAGE TANKS	305	3052
CONCENTRATING MIX STORAGE	305	3053
STRONG NITRIC ACID STORAGE	305	3054
F B S & OLEUM STORAGE	305	3055
TNT RESIDUAL S A. STORAGE	305	3056
93.2% CLEAR S A STORAGE	305	3057
TNT MIX STORAGE TANKS	305	3058
SELLITE PLANT	307	3071
S A CONCENTRATOR HOUSE	308	3081
FUEL OIL STORAGE TANKS	308	3082
- - -		3083
SHOP	722	3221
LAB, SUPERVISOR'S OFFICE	706	3761
CHANGE HOUSE	707	3771
FOAMITE BUILDING	804	3841

MAGAZINE AREA	DUPONT NUMBER	L. K. O. NUMBER
MAGAZINES NUMBERED E-W ON EACH		9001 TO
STREET BEGINNING WITH 'A' STREET	811	8058
LOADING DOCKS - PLATFORM - M 1	821	9211
- - - M 2	821	9212
- - - M 3	821	9213
- - - M 4	821	9214
- - - M 5	821	9215
- - - M 6	821	9216
BARRICADES FOR LOADING DOCKS	NO	9217
- - - -	SO.	9218
CHOCKING LUMBER SHOP M 1 NO	722	9221
- - - M2 SO	722	9222
GASOLINE STATION	724	9241
COAT ROOM - SERVICE HOUSE	733	9331
SUPERVISOR'S OFFICE	704	9741
CHANGE HOUSE	707	9771

CLASSIFICATION AREA	DUPONT NUMBER	L K O. NUMBER
SCALE HOUSE	601	6011
INCINERATOR	736	6111
COAT ROOM - SERVICE HOUSE	733	6331
YARDMASTER SUPERVISOR'S OFFICE	704	6741

BETWEEN ACID & T.N.T. AREAS	DUPONT NUMBER	L K O NUMBER
SCALE HOUSE	601	6012

NITRATION AREA	DUPONT NUMBER	L. K. O. NUMBER
MONO - NITRATING HOUSE - A	801A	8011
- - - B	801B	8012
- - - C	801C	8013
- - - D	801D	8014
- - - E	801E	8015
- - - F	801F	8016
DI & TRI NITRATING HOUSE - A	802A	8021
- - - - B	802B	8022
- - - - C	802C	8023
- - - - D	802D	8024
- - - - E	802E	8025
- - - - F	802F	8026
FORTIFYING HOUSE - A	803A	8031
- - B	803B	8032
- - C	803C	8033
- - D	803D	8034
- - E	803E	8035
- - F	803F	8036
WORKING TOLUENE STORAGE TANKS A	804A	8041
- - - - B	804B	8043
- - - - C	804C	8045
BULK - - - A	804A	8046
- - - - B	804B	8047
- - - - C	804C	8048
FOAMITE BUILDING	804	8841
WASH HOUSE A	806A	8061
- - B	806B	8062
- - C	806C	8063
- - D	806D	8064
- - E	806E	8065
- - F	806F	8066
NAILING HOUSE A	808A	8081
- - B	808B	8084
- - C	808C	8086
ACID & FUME RECOVERY BUILDING A	812A	8121
- - - - B	812B	8122
- - - - C	812C	8123
- - - - D	812D	8124
- - - - E	812E	8125
- - - - F	812F	8126
BOX FACTORY & SHOOK STORAGE	814	8141
INSPECTOR'S OFFICE & LAB A T1	721	8212
- - B-T2	721	8214
SHOP A T1	722A	8222
- B-T2	722B	8224
- C-T3	722C	8226
COMFORT STATION - A	727A	8272
- - B	727B	8274
- - C	727C	8276
COMPRESSOR HOUSE	413	8481
START-UP MIXED ACID STORAGE A	508A	8581
- - - B	508B	8583
- - - C	508C	8585
SUPERVISOR'S OFFICE A T1	704A	8742
- - B-T2	704B	8744
- - C-T3	704C	8746
LABORATORY A-T1	706A	8762
B-T2	706B	8764
C-T3	706C	8766
CHANGE HOUSE A-T1	707A	8772
- - B-T2	707B	8774
- - C-T3	707C	8776
AUXILIARY FIRE HOUSE	709	8791

WATER SUPPLY	COST ACC NUMBER	L K O NUMBER
PUMPING PLANT	403F	5412
COOLING WATER RESERVOIR	413A	5421
ELEVATED DRINKING WATER STORAGE	414B	5423
SURGE TANK	403A	5431
ACCELATOR - NORTH	403B	5432
- - WEST	403B	5433
- - SOUTH	403B	5434
FILTER BUILDING	403D	5435
CHEMICAL STORAGE BUILDING	403E	5436
RECARBONATION BASIN	403C	5437
SLURRY POOL		5438
RIVER PUMPING STATION	404A	5441
RIVER GATE HOUSE	404B	5442
RIVER INTAKE WELL	404C	5443
CHLORINATION STATION	414C	5444
FIRE STORAGE RESERVOIR		5621
ELEVATED FIRE STORAGE TANK	414C	5622
ELEVATED COOLING WATER TANK	503	3331

SEWAGE DISPOSAL	COST ACC NUMBER	L K O. NUMBER
ACID NEUTRALIZATION BUILDING	620A	5612
ACID NEUT COLLECTION TANK	620C	5613
SEW DISP PUMPING STATION	617A	5671
INNOFF TANK	617B	5672
SLUDGE BED - NORTH	617C	5673
- - SOUTH	617D	5674
VENTURI VAULT	617E	5675
BUILDING SUMPS TANK	617F	5676
ACID NEUT MIXING TANK	620B	5691
OUTFALL HEAD CHAMBER		5692

INDEX FOR PLOT PLANS

SHEET NUMBER	AREA COVERED	DRAWING NUMBER
1	INDEX TO BUILDING NUMBERS	100-11A
2	WEST PART MAGAZINE AREA	100-11
3	EAST PART MAGAZINE AREA	100-12
4	NITRATION AREA	100-13
5	AREA EAST NITRATION AREA	100-14
6	ACID AND SHOP AREAS	100-15
7	AREA EAST ACID AREA	100-16
8	ADM, POWER, WATER TREAT AREAS	100-17
9	CLASSIFICATION YARD AREA	100-18
10	SEWAGE DISPOSAL AREA	100-19
11	SLURRY POOL AREA	100-20
12	RIVER INTAKE AREA	100-21
13	TANK & BUILDING NOS. ACID AREA	300-300-004
14	TANK & BUILDING NOS T.N.T AREA	800-800-009

NOTE

L.K.O. Numbers 4012 and 3083 Items to be constructed by others

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REVISIONS BLOCK

SYMBOL	CHANGES	DATE	NAME

THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

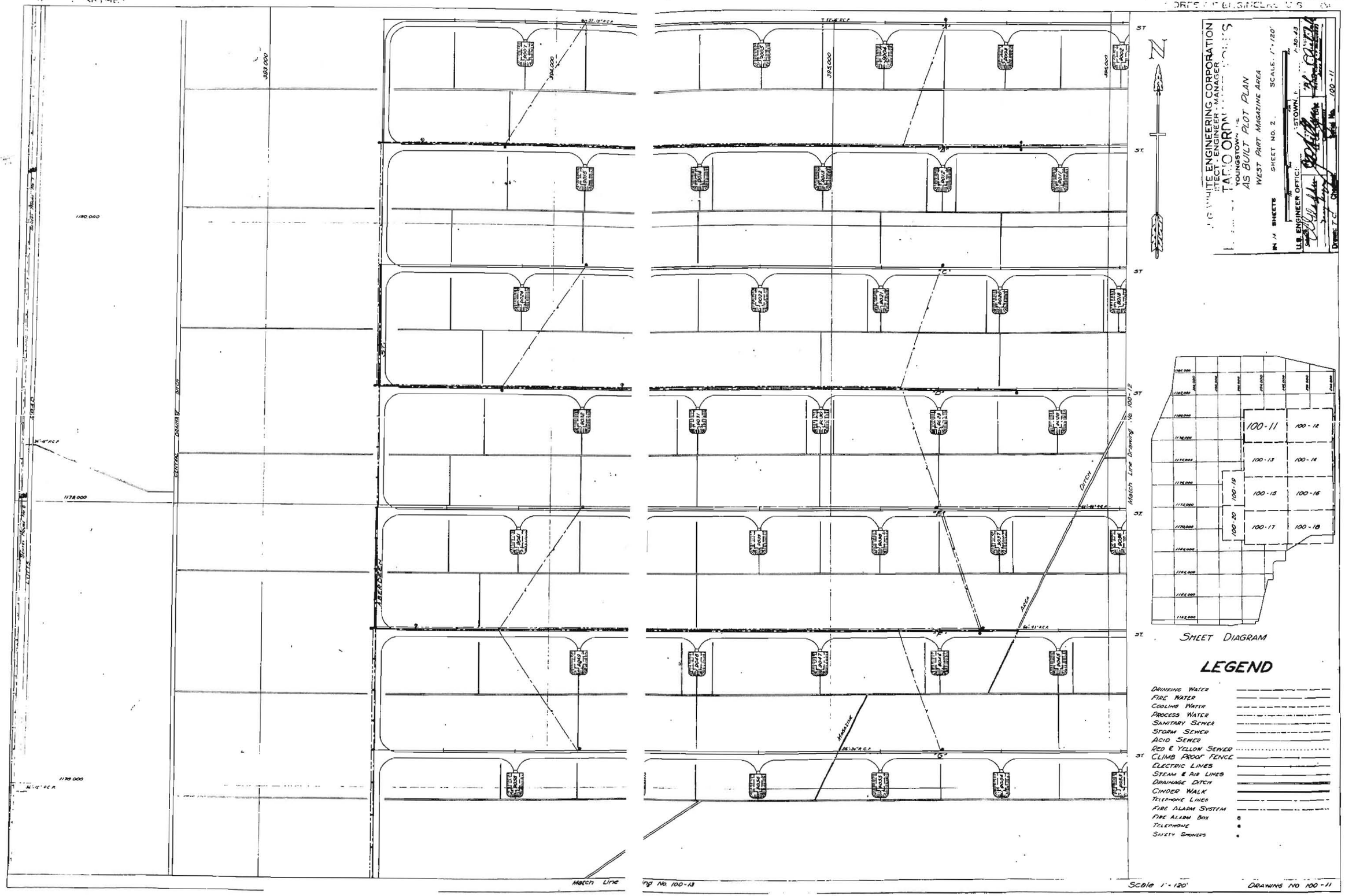
AS BUILT PLOT PLANS
INDEX SHEET

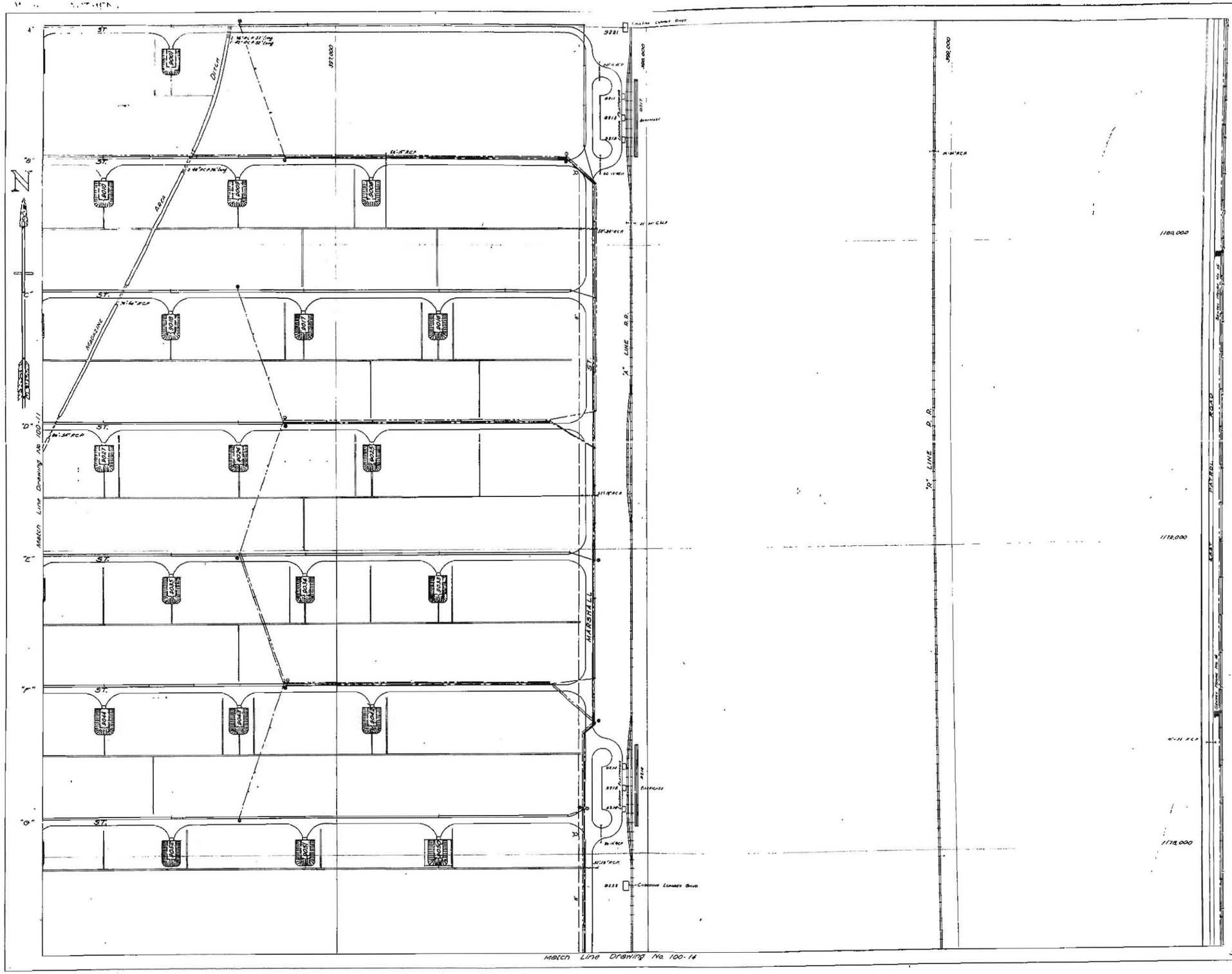
IN 4 SHEETS — SHEET NO. 1A — SCALE: SCALE IN FEET

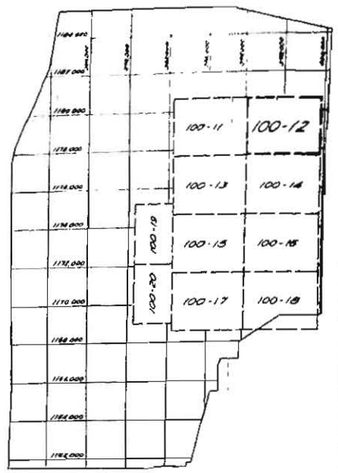
U. S. ENGINEER OFFICE - YOUNGSTOWN, N. Y. DATE 30 43

SUBMITTED: A. E. M. RESIDENT ENGINEER — APPROVAL RECOMMENDED: ASSISTANT DISTRICT ENGINEER — APPROVAL RECOMMENDED: DISTRICT ENGINEER

DRAWN T.C. CHECKED — DETAIL NO


WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
YOUNGSTOWN
AS BUILT PLOT PLAN
WEST PART MAGAZINE AREA
SHEET NO. 2
SCALE: 1" = 120'
IN 14 SHEETS
U.S. ENGINEER OFFICE
YOUNGSTOWN
Drawing No. 100-11
N
ST.
CENTRAL AVENUE
ALLEGHENY AVENUE
DITCH
MARSHLINE
AREA
Match Line
Drawing No. 100-13
Scale 1" = 120'
Drawing No. 100-11
100-11
100-12
100-13
100-14
100-15
100-16
100-17
100-18
100-19
100-20
SHEET DIAGRAM
LEGEND
Drinking Water
Fire Water
Cooling Water
Process Water
Sanitary Sewer
Storm Sewer
Acid Sewer
Red & Yellow Sewer
Climb Proof Fence
Electric Lines
Steam & Air Lines
Drainage Ditch
Cinder Walk
Telephone Lines
Fire Alarm System
Fire Alarm Box
Telephone
Safety Showers





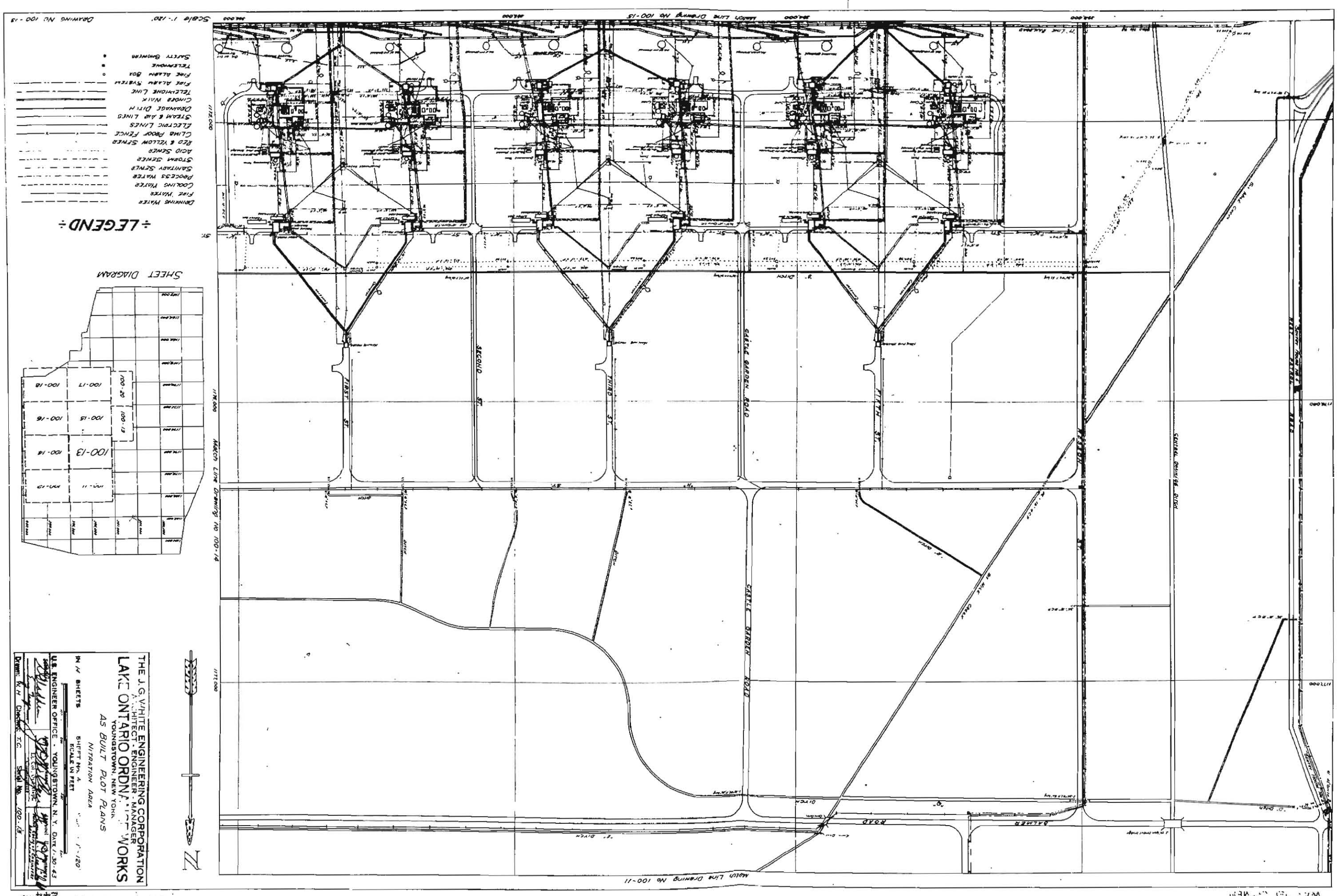
THE ENGINEERING CORPORATION
LOCKWOOD GREENE ENGINEERS
YOUNGSTOWN, NEW YORK
AS BUILT PLOT PLAN
EAST PART MAGAZINE AREA

IN 14 SHEETS — SHEET No. 3 — SCALE 1" = 120'

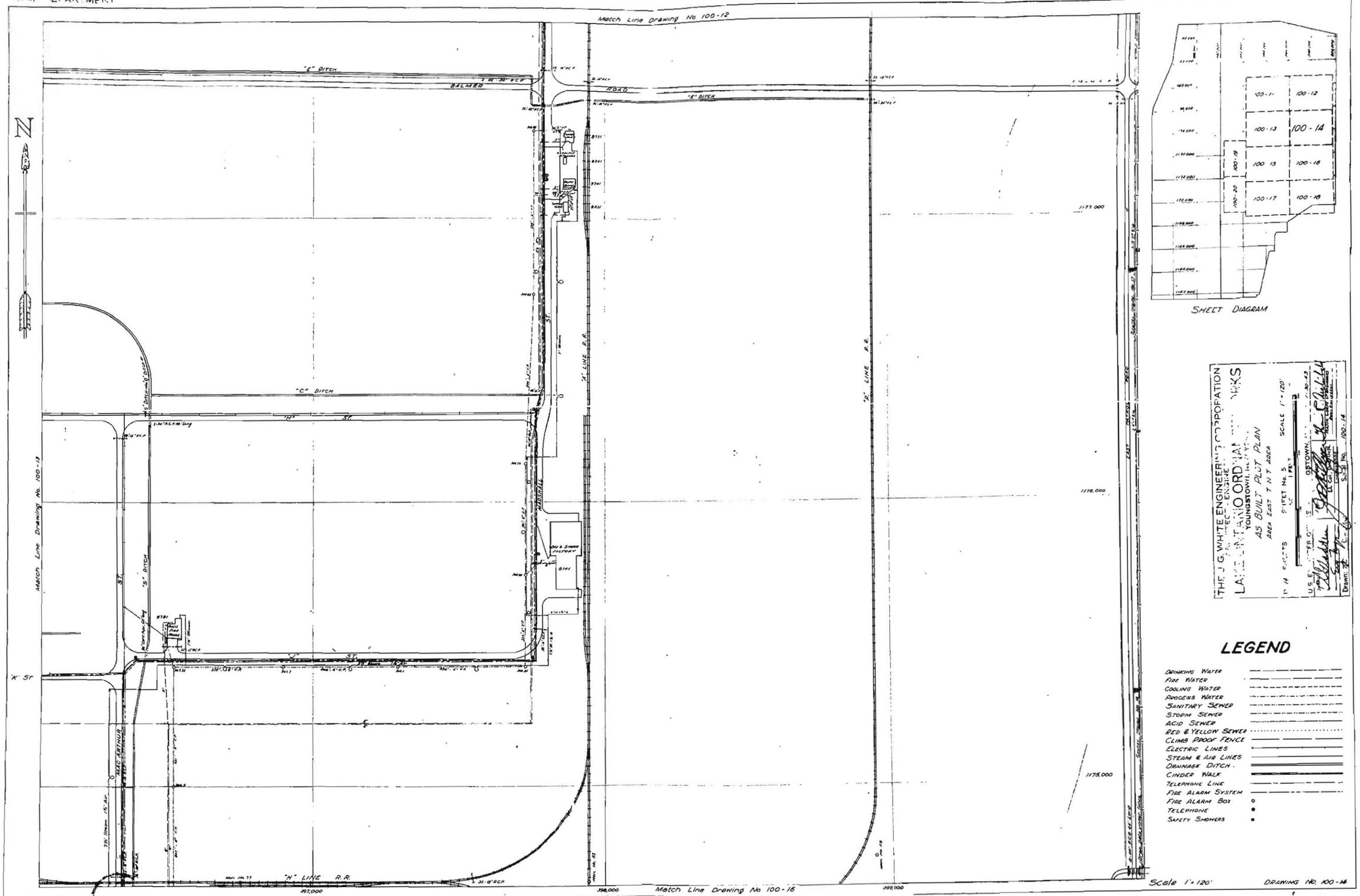
U.S. ENGINEER OFFICE — YOUNGSTOWN, N.Y.
Drawn: T.C. — Checked: T.C. — Scale No. 100-12

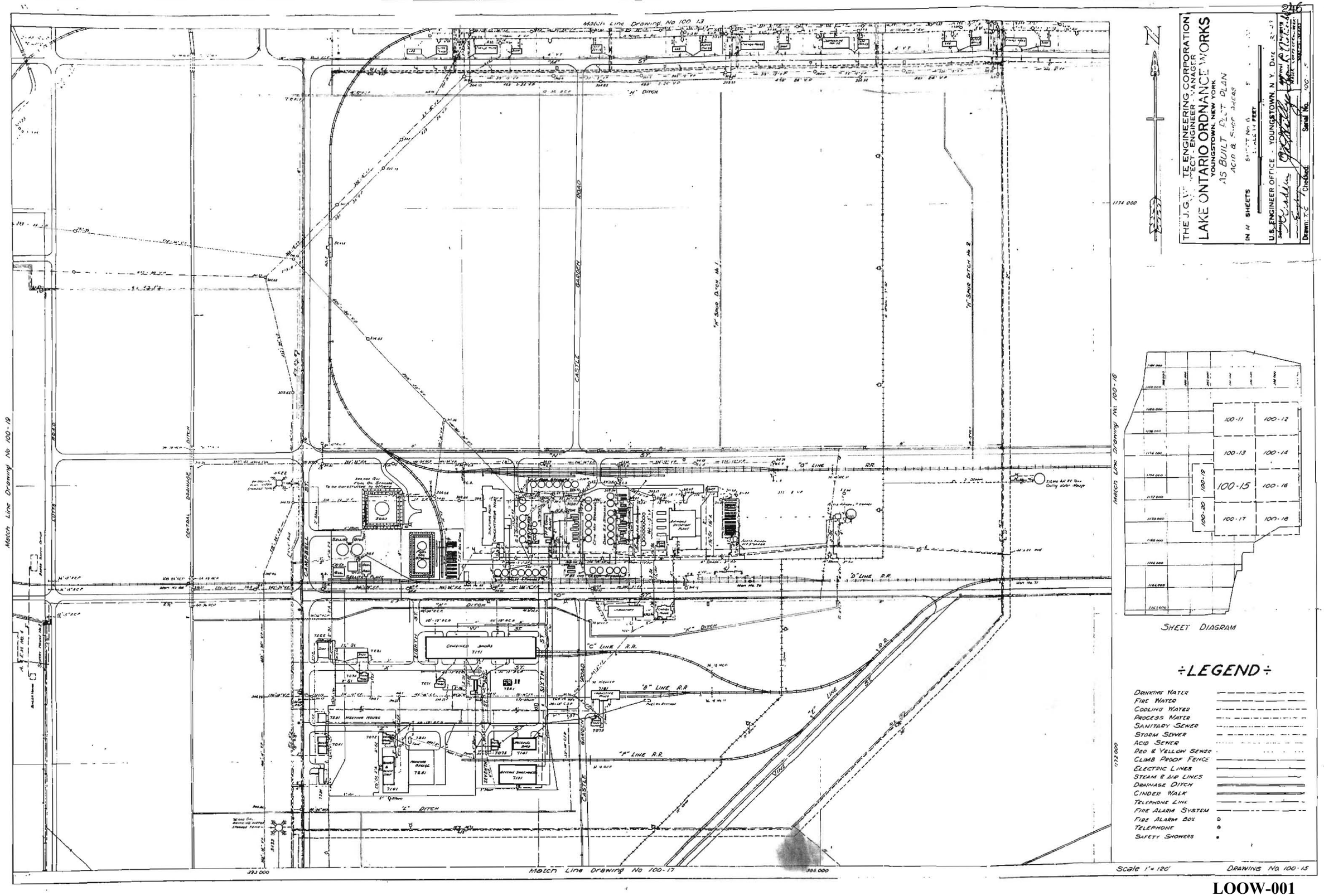
LEGEND

- Drinking Water
- Fire Water
- Cooling Water
- Process Water
- Sanitary Sewer
- Storm Sewer
- Acid Sewer
- Red & Yellow Sewer
- Climb Proof Fence
- Electric Lines
- Steam & Air Lines
- Drainage Ditch
- Cinder Walk
- Telephone Lines
- Fire Alarm System
- Fire Alarm Box
- Telephone
- Safety Showers

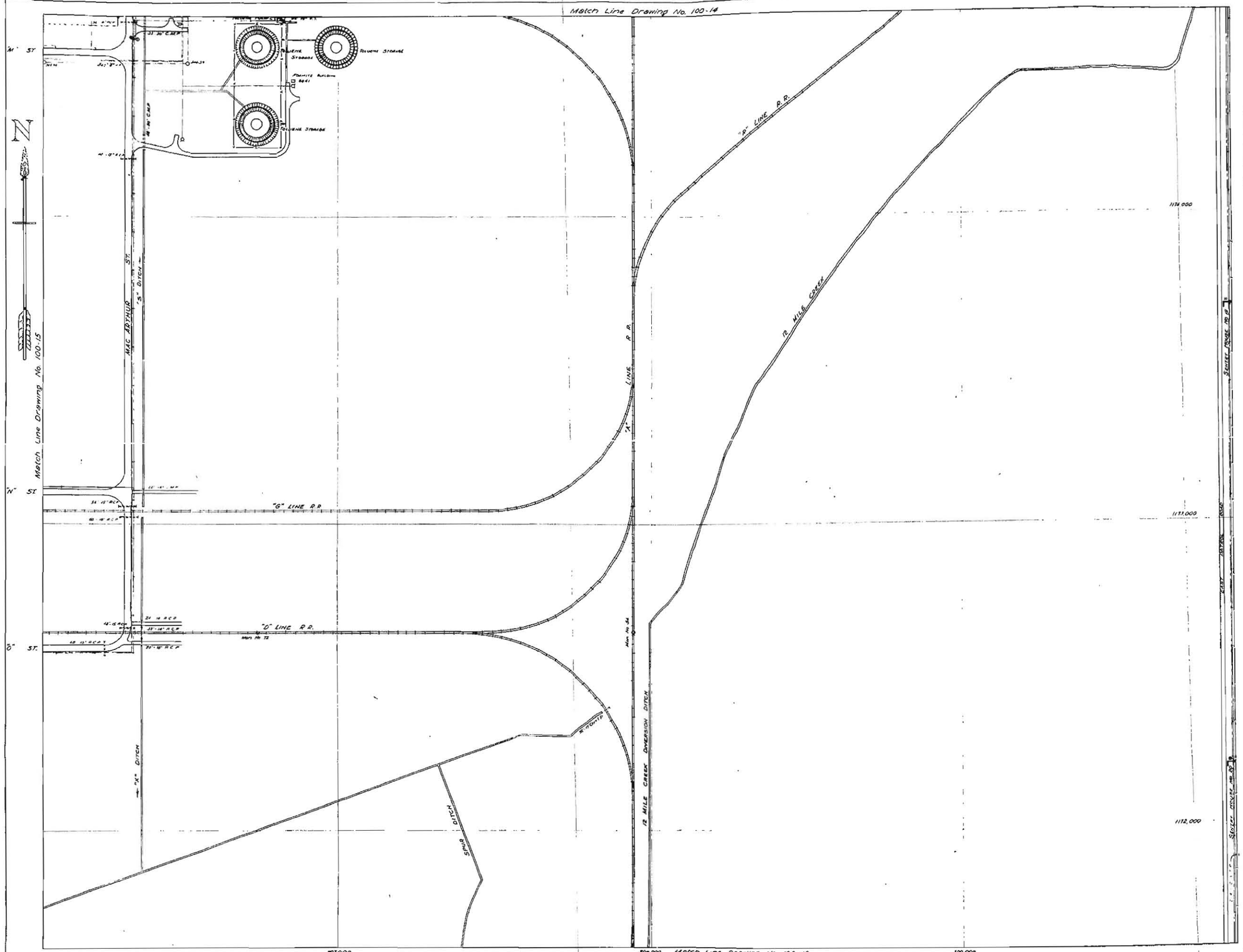

Scale 1"=120'
DRAWING No 100-13
MAIN LINE DRAWING No 100-15
MAIN LINE DRAWING No 100-14
MAIN LINE DRAWING No 100-11
LEGEND
DRINKING WATER
FIRE MAINS
COOLING WATER
PROCESS WATER
SANITARY SEWER
STORM SEWER
ACID SEWER
RED & YELLOW SEWER
ELECTRIC LINES
CLIMB PROOF FENCE
DRAINAGE DITCH
STEAM & AIR LINES
CINDER NAIX
TELEPHONE LINE
FIRE ALARM SYSTEM
FIRE ALARM BOX
TELEPHONE
SAFETY SHOWER
SHEET DIAGRAM
100-13
100-14
100-15
100-16
100-17
100-18
FIRST ST
SECOND ST
THIRD ST
FIFTH ST
SAILE GARDEN ROAD
SAILE GARDEN ROAD
SAILER ROAD
GENERAL ORDNANCE BLDG
N
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
YOUNGSTOWN, NEW YORK
LAKE ONTARIO ORDNANCE WORKS
AS BUILT PLOT PLANS
NITRATION AREA
SHEET No. A
SCALE IN FEET
1" = 120'
IN 14 SHEETS
U.S. ENGINEER OFFICE - YOUNGSTOWN, N.Y. DATE 1-30-43
Drawn: R.H.
Checked: T.C.
Serial No. 100-13

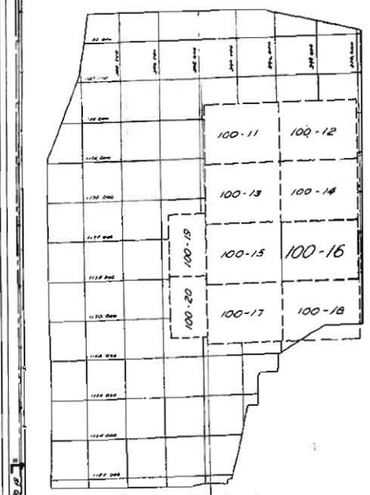
DEPARTMENT


Match Line Drawing No 100-12
"E" DITCH
BALMER
ROAD
"E" DITCH
N
"C" DITCH
"H" ST
"S" DITCH
"K" ST
MAC ARTHUR
"H" LINE R.R.
"A" LINE R.R.
"D" LINE R.R.
Match Line Drawing No. 100-13
Match Line Drawing No 100-16
397,000
398,000
399,000
1178,000
1175,000
1177,000
SHEET DIAGRAM
100-11
100-12
100-13
100-14
100-15
100-16
100-17
100-18
100-19
100-20
THE J. G. WHITE ENGINEERING CORPORATION
ENGINEERS - CONSULTANTS
YOUNGSTOWN, OHIO
LAKE CONTAINER CORPORATION
AS BUILT PLOT PLAN
AREA EAST 7 N T AREA
SCALE 1" = 120'
SHEET No. 5
OSTOWN
Sheet No. 100-14
LEGEND
Drinking Water
Fire Water
Cooling Water
Process Water
Sanitary Sewer
Storm Sewer
Acid Sewer
Red & Yellow Sewer
Climb Proof Fence
Electric Lines
Steam & Air Lines
Drainage Ditch
Cinder Walk
Telephone Line
Fire Alarm System
Fire Alarm Box
Telephone
Safety Showers
Scale 1" = 120'
DRAWING No. 100-14


THE J. G. W. TE ENGINEERING CORPORATION
PROJECT ENGINEER - MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
AS BUILT PLOT PLAN
ACID & SEWER AREAS
U.S. ENGINEER OFFICE - YOUNGSTOWN, N. Y.
Drawn: T.C. Checked
Serial No. 100-15
Match Line Drawing No 100-13
Match Line Drawing No 100-19
Match Line Drawing No 100-17
"H" DITCH
"N" ST.
"O" ST.
"W" ST.
"K" DITCH
"L" DITCH
"C" LINE R.R.
"B" LINE R.R.
"F" LINE R.R.
"D" LINE R.R.
"G" LINE R.R.
"E" LINE R.R.
"H" SAND DITCH No 1
"H" SAND DITCH No 2
CASTLE GARDEN ROAD
CAMPBELL ST.
SIXTH ST.
CONTROL DRAINAGE DITCH
COMBINED SHOPS
MEETING HOUSE
PACKING RANGE
SHEET DIAGRAM
100-11
100-12
100-13
100-14
100-15
100-16
100-17
100-18
100-19
100-20
÷LEGEND÷
Drinking Water
Fire Water
Cooling Water
Process Water
Sanitary Sewer
Storm Sewer
Acid Sewer
Red & Yellow Sewer
Climb Proof Fence
Electric Lines
Steam & Air Lines
Drainage Ditch
Cinder Walk
Telephone Line
Fire Alarm System
Fire Alarm Box
Telephone
Safety Showers
Scale 1" = 120'
DRAWING No 100-15

LOOW-001





SHEET DIAGRAM

THE J. G. WHITE ENGINEERING CO.

LAYOUT

AS-BUILT PLOT PLAN

AREA EAST OF ACID AREA

SHEET No 7

1" = 120'

Date: 7-6-

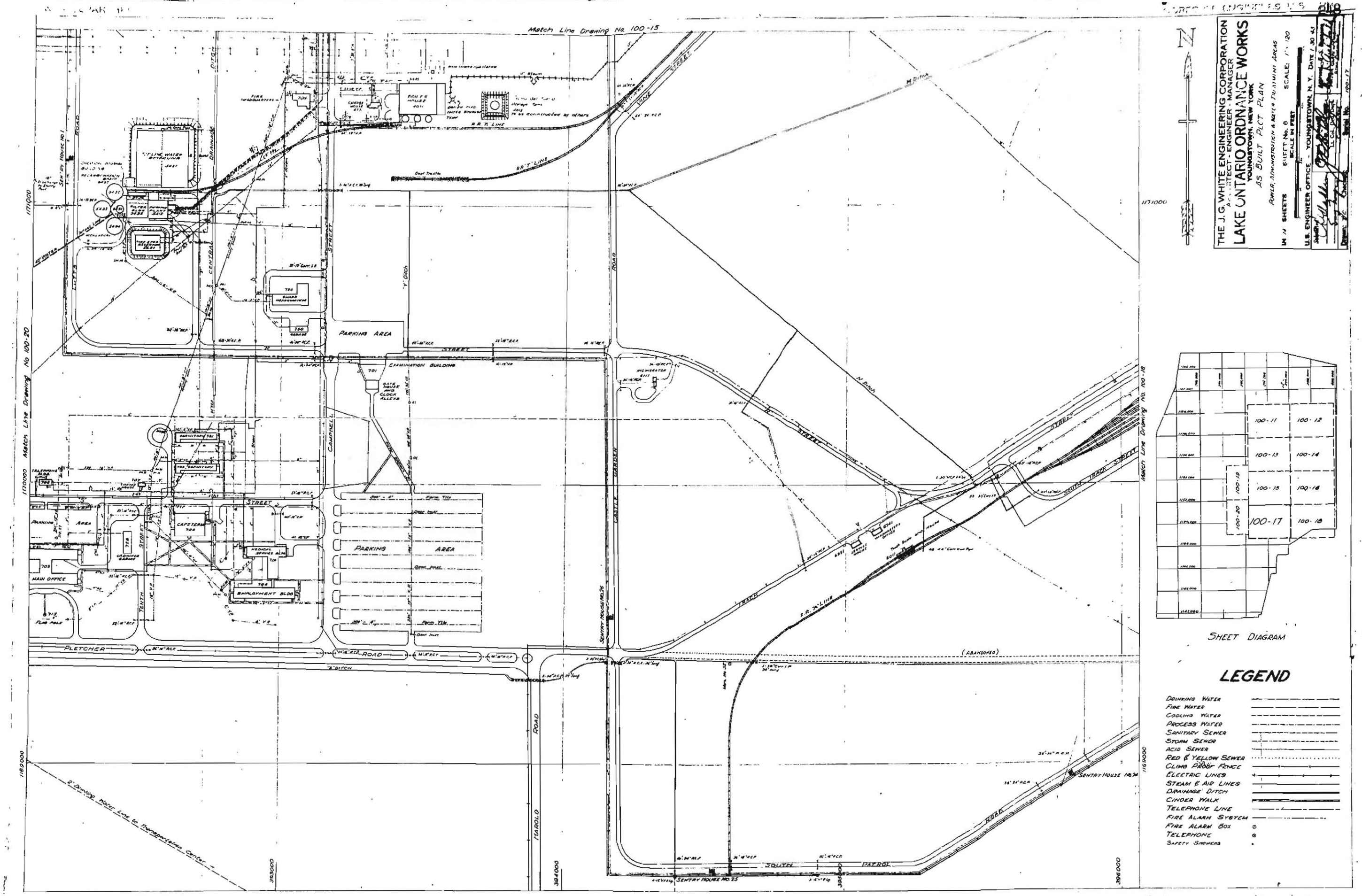
Drawing No. 100-16

LEGEND

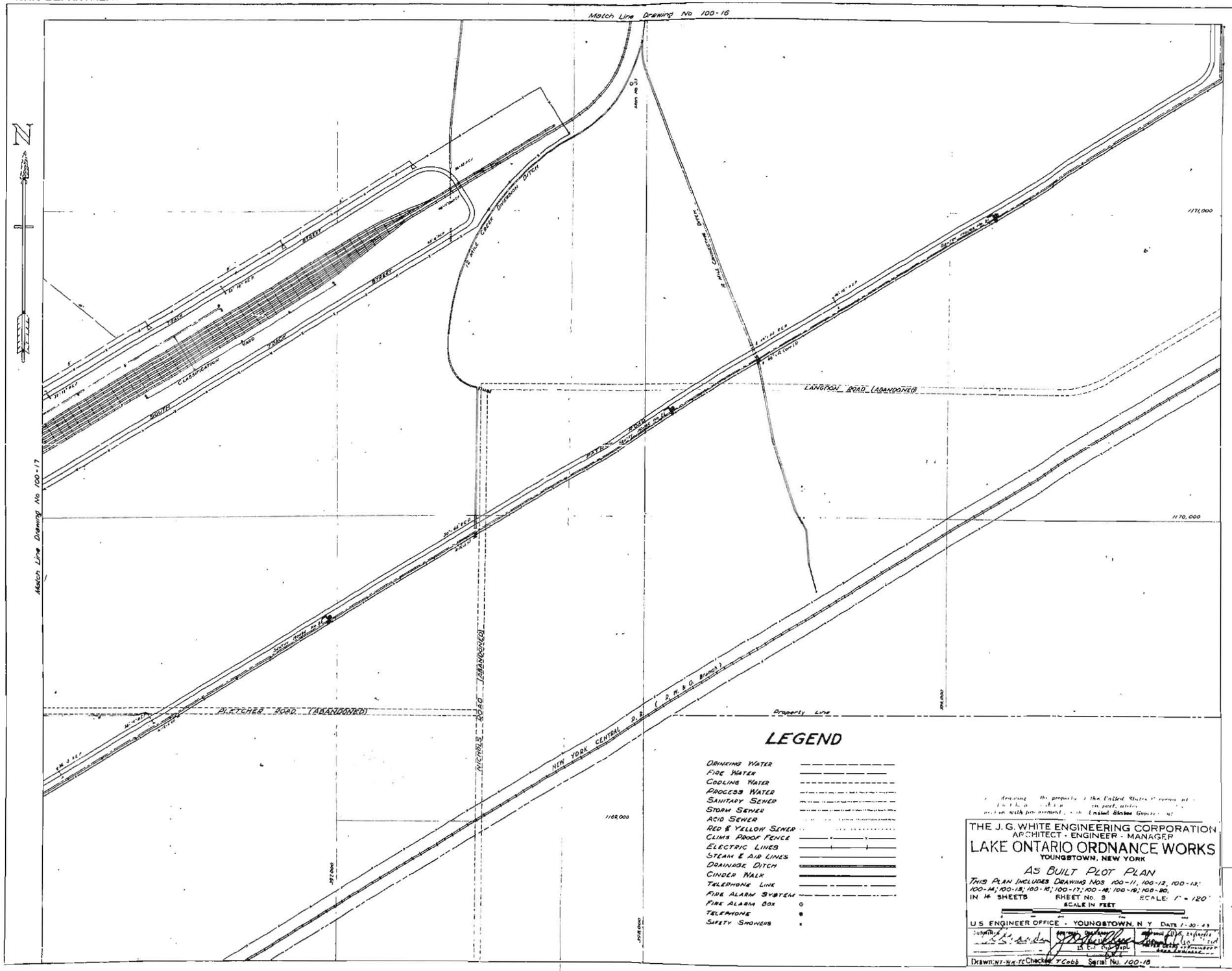
- Drinking Water
- Fire Water
- Cooling Water
- Process Water
- Sanitary Sewer
- Storm Sewer
- Acid Sewer
- Red & Yellow Sewer
- Climb Proof Fence
- Electric Lines
- Steam & Air Lines
- Drainage Ditch
- Cinder Walk
- Telephone Line
- Fire Alarm System
- Fire Alarm Box
- Telephone
- Safety Showers

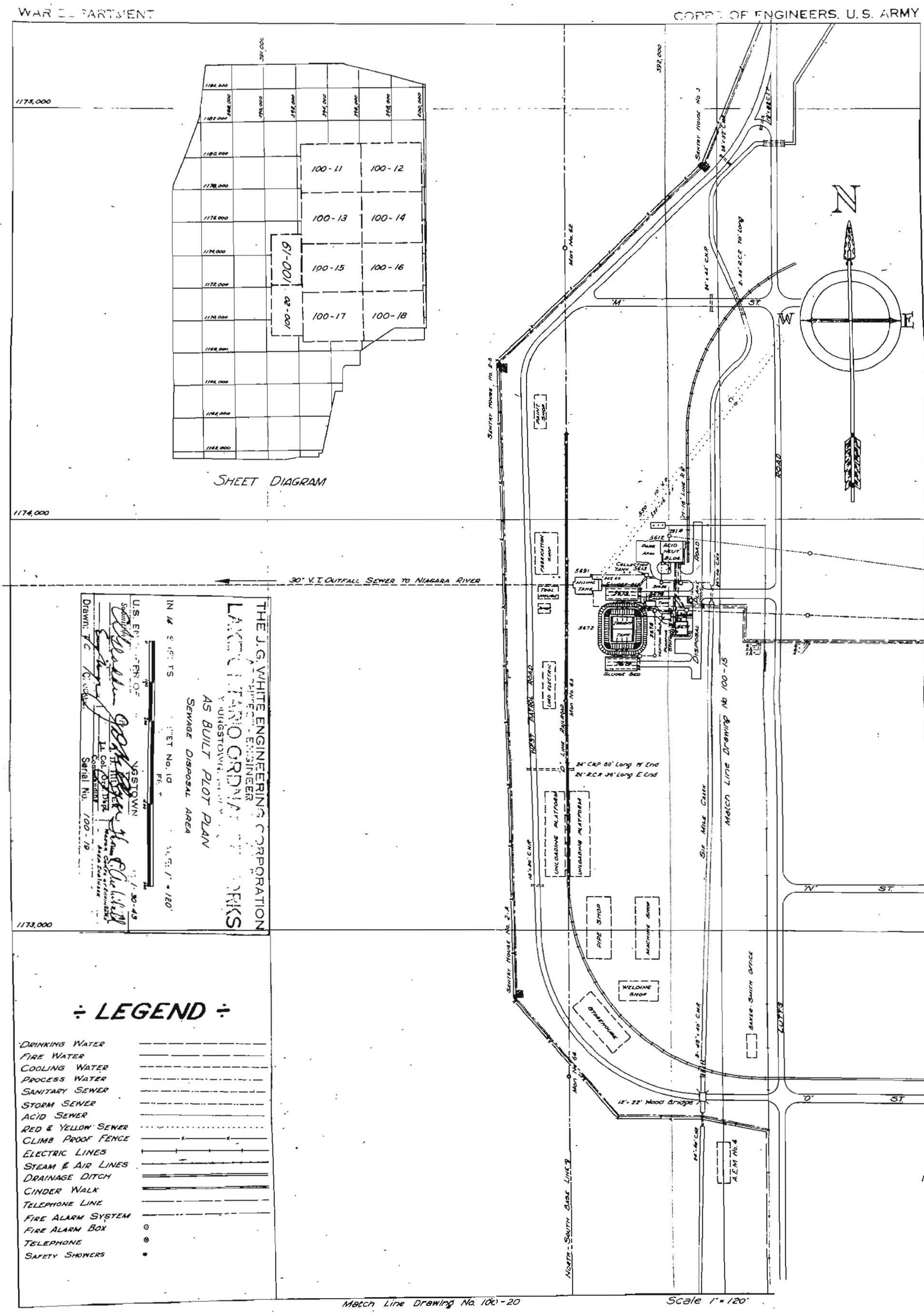
Scale 1" = 120'

DRAWING No. 100-16


THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
YOUNGSTOWN, NEW YORK
LAKE ONTARIO ORDNANCE WORKS
AS BUILT PLOT PLAN
ROHLER, ADAMSTRON & MAYER TRIMMING AREAS
IN 14 SHEETS
SHEET No. 6
SCALE 1" = 120'
SCALE IN FEET
U.S. ENGINEER OFFICE - YOUNGSTOWN, N.Y. DATE 1.30.41
Drawing No. 100-17
Match Line Drawing No. 100-15
Match Line Drawing No. 100-20
Match Line Drawing No. 100-18
N
171000
170000
169000
393000
394000
395000
396000
POWER HOUSE
R.R. "T" LINE
R.R. "K" LINE
PARKING AREA
EXAMINATION BUILDING
GATE HOUSE AND CLOCK ALLEYS
CAFETERIA
EMPLOYMENT BLDG
MAIN OFFICE
PLETCHER ROAD
HAROLD ROAD
CASTLE GARDEN ROAD
SENTRY HOUSE NO. 26
SENTRY HOUSE NO. 25
SENTRY HOUSE NO. 24
SOUTH PATROL ROAD
(ABANDONED)
TRACK
Drinking Water Line to Transportation Center
SHEET DIAGRAM
100-11
100-12
100-13
100-14
100-15
100-16
100-17
100-18
100-19
100-20
LEGEND
Drinking Water
Fire Water
Cooling Water
Process Water
Sanitary Sewer
Storm Sewer
Acid Sewer
Red & Yellow Sewer
Climb Proof Fence
Electric Lines
Steam & Air Lines
Drainage Ditch
Cinder Walk
Telephone Line
Fire Alarm System
Fire Alarm Box
Telephone
Safety Showers
Scale 1" = 120'
DRAWING No. 100-17

LOOW-001


Match Line Drawing No 100-16
Match Line Drawing No 100-17
N
CLASSIFICATION YARD
SOUTH YARD
12 MILE CREEK DIVERSION DITCH
12 MILE CONNECTING DITCH
LANGTON ROAD (ABANDONED)
PLETCHER ROAD (ABANDONED)
NICHOLS ROAD (ABANDONED)
NEW YORK CENTRAL R.R. (P. M. & O. Branch)
Property Line
1171,000
1170,000
1169,000
LEGEND
Drinking Water
Fire Water
Cooling Water
Process Water
Sanitary Sewer
Storm Sewer
Acid Sewer
Red & Yellow Sewer
Climb Proof Fence
Electric Lines
Steam & Air Lines
Drainage Ditch
Cinder Walk
Telephone Line
Fire Alarm System
Fire Alarm Box
Telephone
Safety Showers
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
AS BUILT PLOT PLAN
THIS PLAN INCLUDES DRAWING NOS 100-11, 100-12, 100-13, 100-14, 100-15, 100-16, 100-17, 100-18, 100-19, 100-20, IN 14 SHEETS
SHEET No. 3
SCALE: 1" = 120'
SCALE IN FEET
U.S. ENGINEER OFFICE - YOUNGSTOWN, N.Y. DATE 1-30-49
Drawn: NT-WH-TC Checked: T Cobb Serial No. 100-18
SHEET DIAGRAM
100-11
100-12
100-13
100-14
100-15
100-16
100-17
100-18
100-19
100-20
TITLE FOR COMPLETE ASSEMBLED MAP
This section (Drawing No 100-18) - as built plan of the Classification Yard area
DRAWING No 100-18

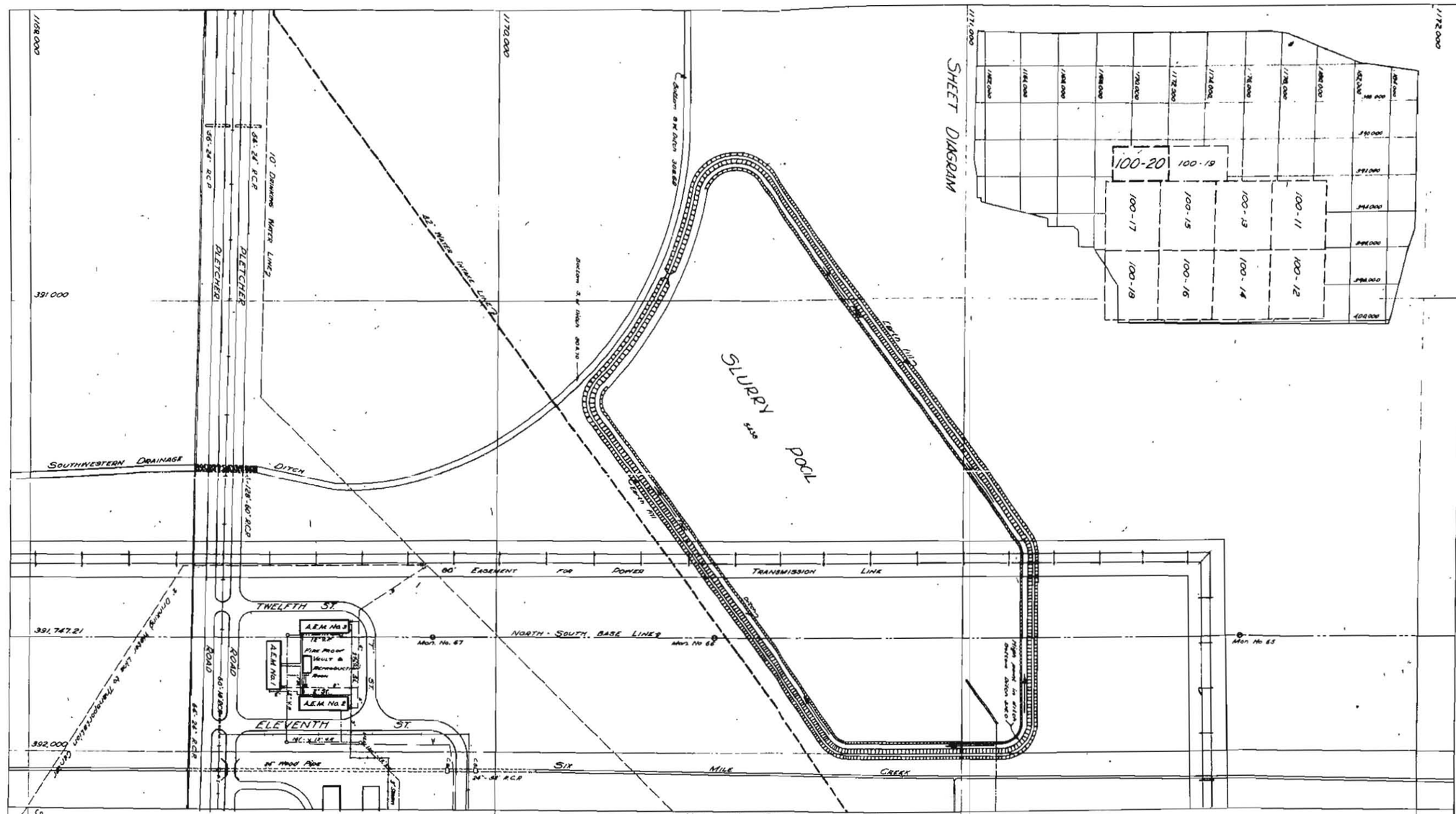

WAR DEPARTMENT
CORPS OF ENGINEERS, U.S. ARMY
SHEET DIAGRAM
100-11
100-12
100-13
100-14
100-15
100-16
100-17
100-18
100-19
100-20
30" V.T. OUTFALL SEWER TO NIAGARA RIVER
THE J.G. WHITE ENGINEERING CORPORATION
AS BUILT PLOT PLAN
SEWAGE DISPOSAL AREA
Serial No. 100-19
÷ LEGEND ÷
DRINKING WATER
FIRE WATER
COOLING WATER
PROCESS WATER
SANITARY SEWER
STORM SEWER
ACID SEWER
RED & YELLOW SEWER
CLIMB PROOF FENCE
ELECTRIC LINES
STEAM & AIR LINES
DRAINAGE DITCH
CINDER WALK
TELEPHONE LINE
FIRE ALARM SYSTEM
FIRE ALARM BOX
TELEPHONE
SAFETY SHOWERS
N
W
E
'M' ST.
'N' ST.
'O' ST.
SENTRY HOUSE No. 3
SENTRY HOUSE, No. 2-B
SENTRY HOUSE No. 2-A
PAINT SHOP
FABRICATION SHOP
TOOL HOUSE
LOAD ELECTRIC
UNLOADING PLATFORM
PIPE SHOP
MACHINE SHOP
WELDING SHOP
STOREHOUSE
BAKER-SMITH OFFICE
A.E.M. No. 4
ACID NEUT BLDG.
COLLECTION TANK 5613
MIXING TANK
SLUDGE BED
DISPOSAL PLANT ROAD
ROAD
SIX MILE CREEK
Match Line Drawing No. 100-15
Match Line Drawing No. 100-20
NORTH - SOUTH BASE LINE
24" CMP 80' Long W End
24" R.C.P. 36' Long E End
12' - 22' Wood Bridge
Scale 1" = 120'
250

LOOW-001

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY

Match Line Drawing No. 100-19



Scale 1" = 120' Drawing No. 100-20

LEGEND

- Drinking Water
- Fire Water
- Cooling Water
- Process Water
- Sanitary Sewer
- Storm Sewer
- Acid Sewer
- Red & Yellow Sewer
- Climb Proof Fence
- Electric Lines
- Steam & Air Lines
- Drainage Ditch
- Cinder Walk
- Telephone Line
- Fire Alarm System
- Fire Alarm Box
- Telephone
- Safety Showers

THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER

LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YO.

AS BUILT PLOT PLAN
SLURRY POOL

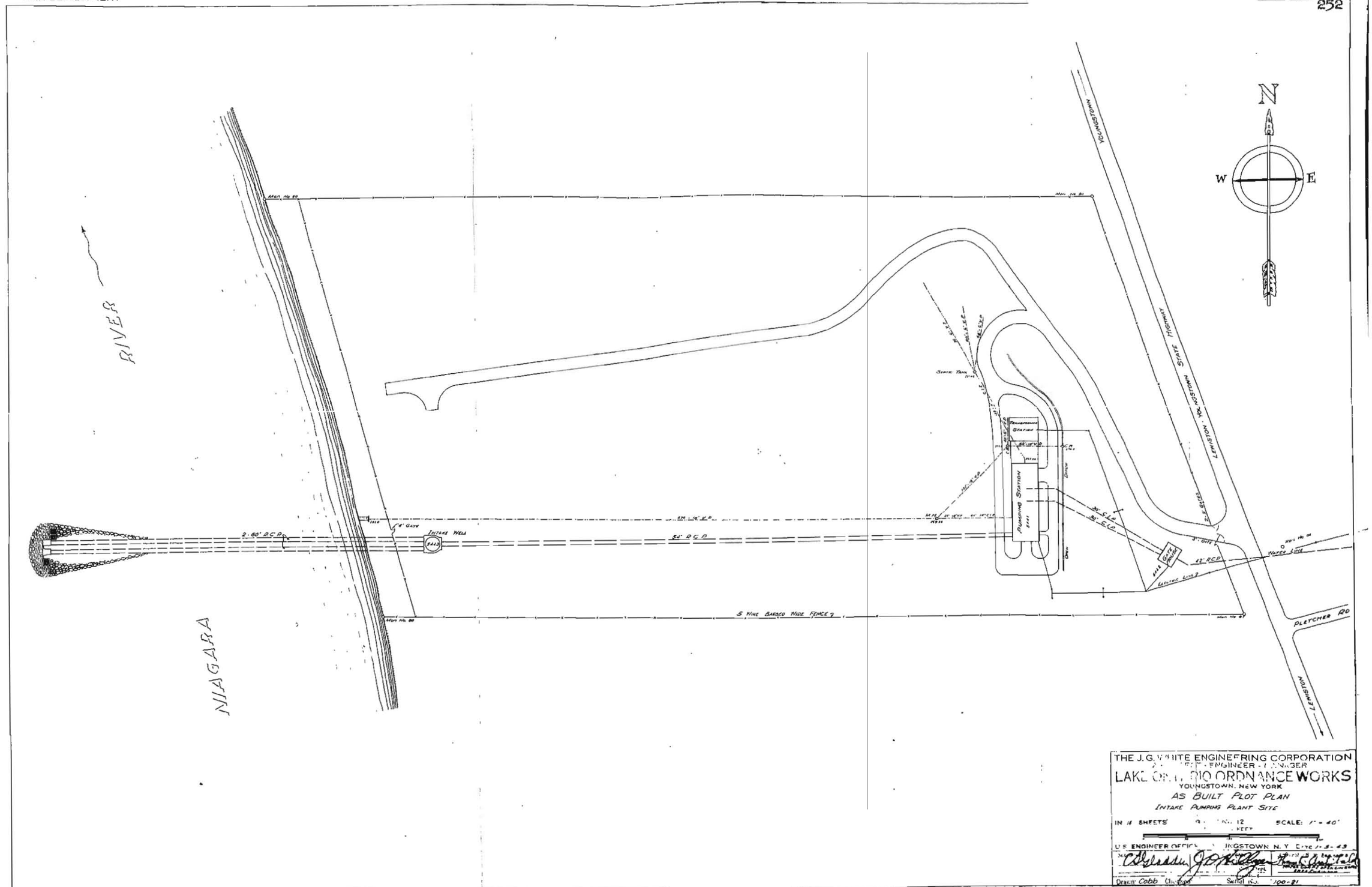
IN 4 SHEETS — SHEET No. 11 — 1" = 120'

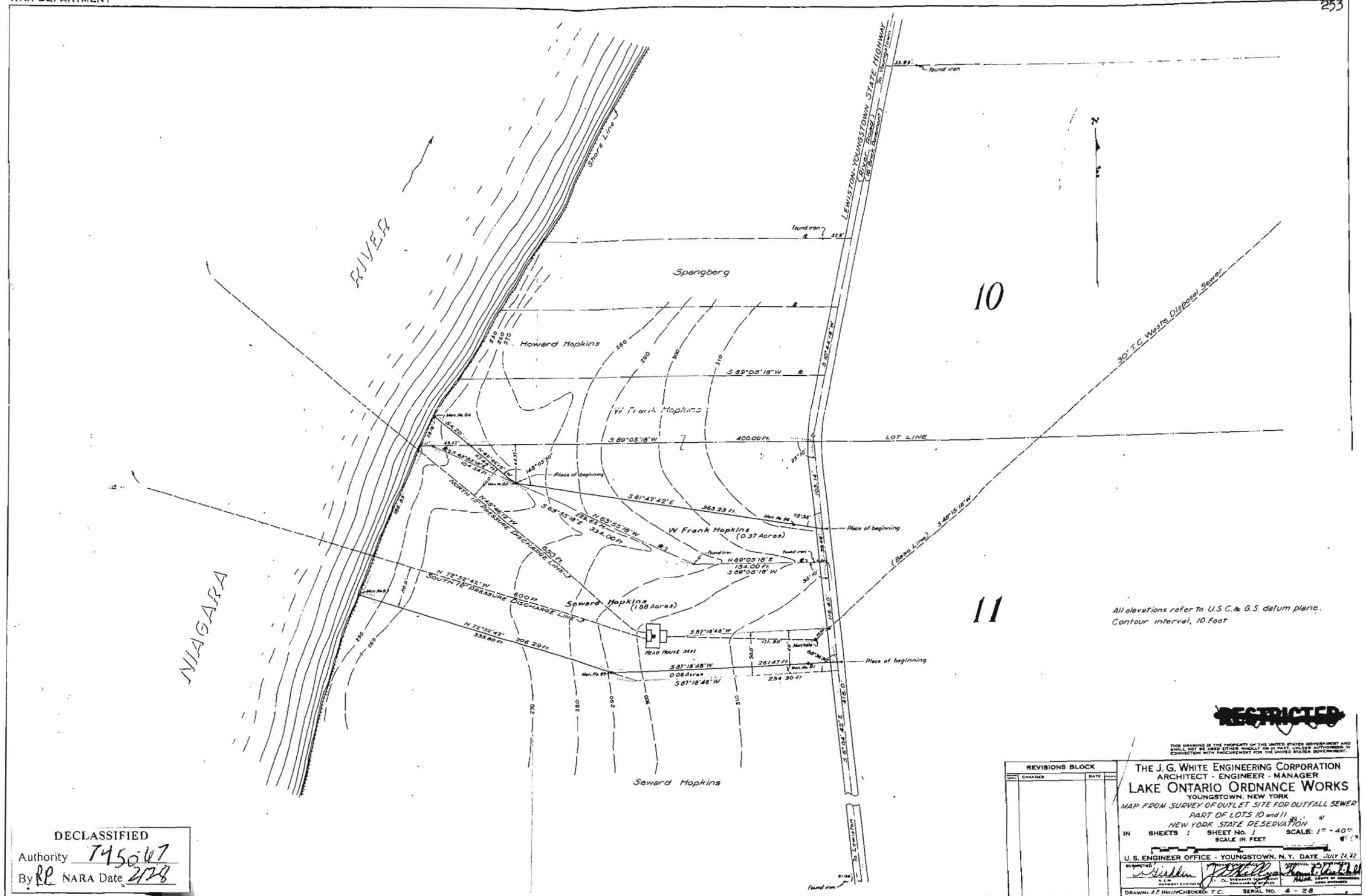
U.S. ENGINEER OFFICE - YOUNGSTOWN, N. Y. DATE 1-30-43

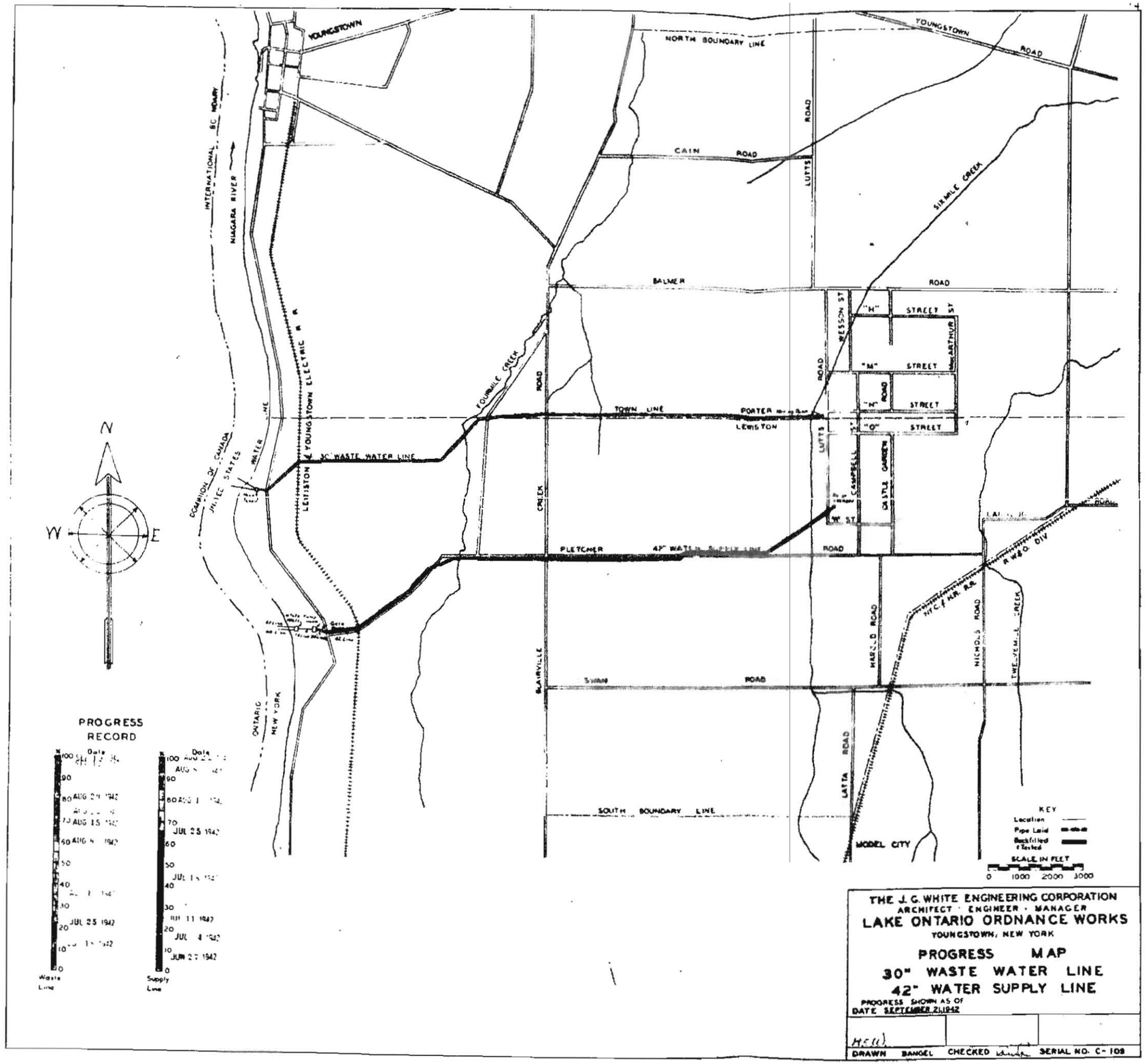
Submitted: [signature] — Approved: [signature] Lt. Col. Org. Dept. Commanding — Approved: [signature] Major Corps of Engineers Area Engineer

Drawn: W.H. Checked: T.C. Serial No. 100-20

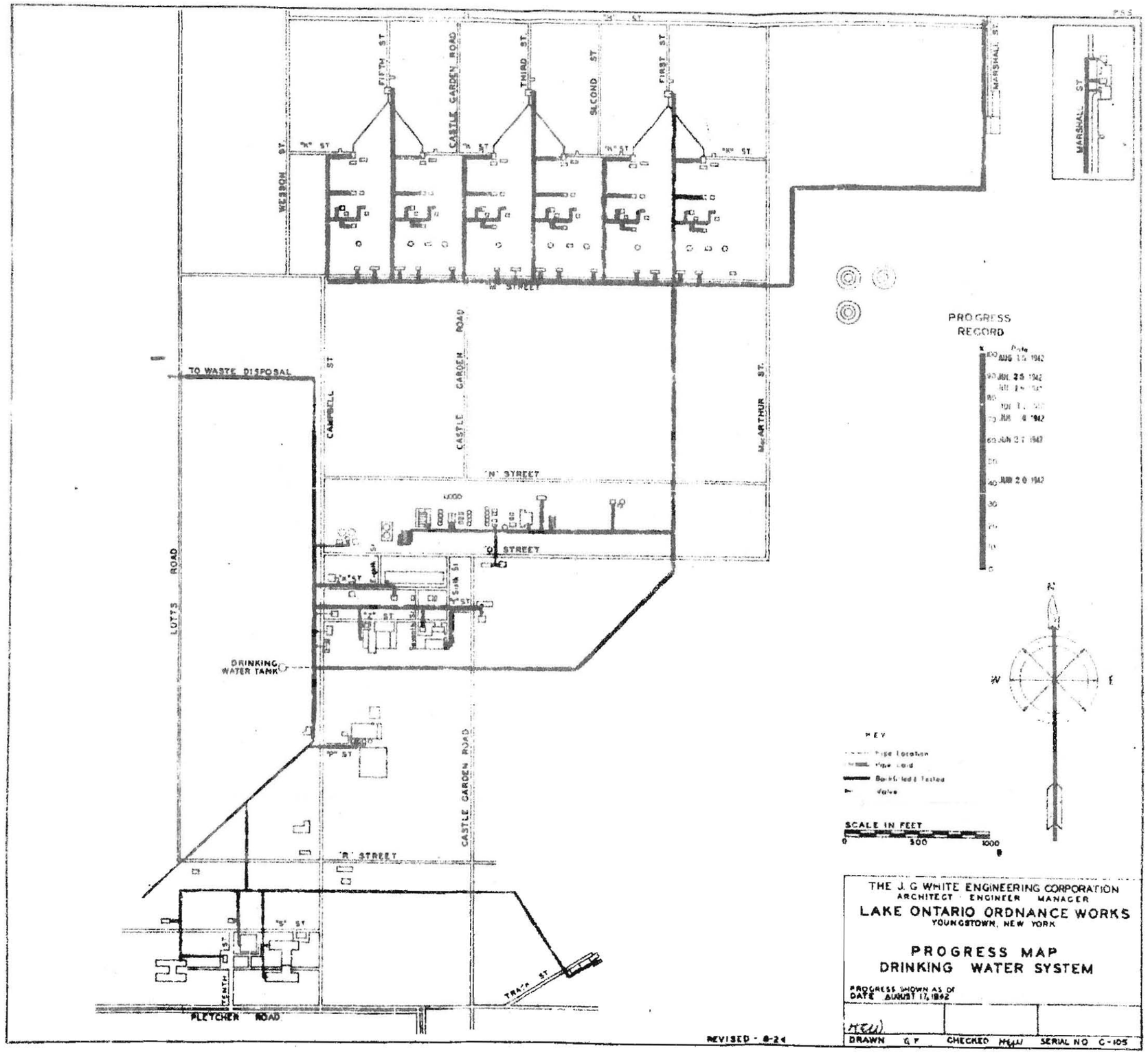
LOOW-001


N
W
E
NIAGARA RIVER
YOUNGSTOWN
STATE HIGHWAY
YOUNGSTOWN - LEWISTON
PLETCHER RD
LEWISTON
PUMPING STATION
SEWAGE TANK
INTAKE WELL
4" GATE
2-60" R.C.P.
54" R.C.P.
42" R.C.P.
WATER LINE
5 WIRE BARBED WIRE FENCE
THE J. G. WHITE ENGINEERING CORPORATION
ENGINEER - CONTRACTOR
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
AS BUILT PLOT PLAN
INTAKE PUMPING PLANT SITE
SCALE: 1" = 40'
Drawn: Cobb

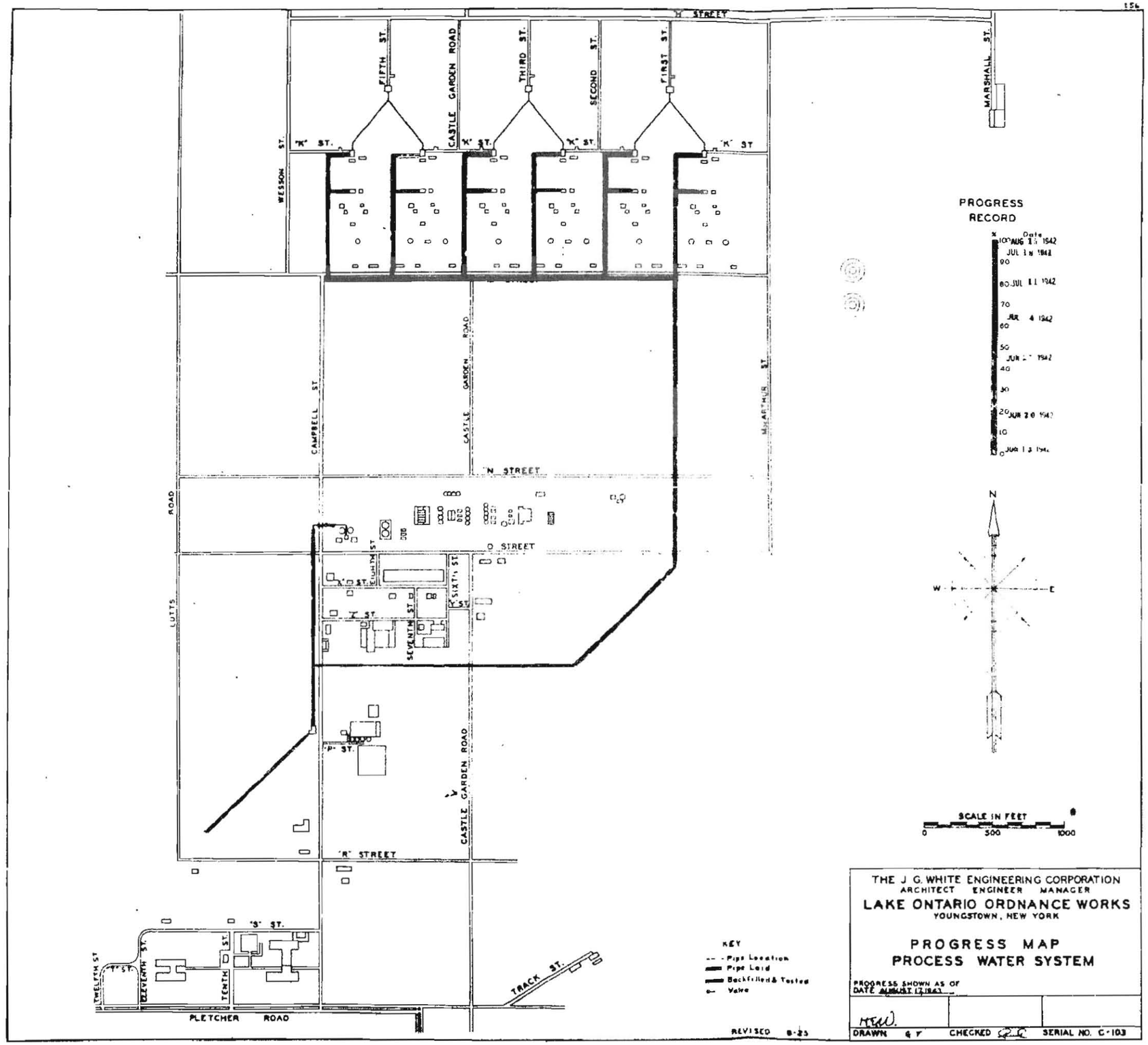

NIAGARA RIVER
Shore Line
LEWISTON-YOUNGSTOWN STATE HIGHWAY
(Route 104)
To Youngstown
To Lewiston
found iron
Spangberg
Howard Hopkins
W. Frank Hopkins
S 89°05'18" W
400.00 Ft.
LOT LINE
Place of beginning
S 81°42'42" E
363.23 Ft.
N 63°55'18" W
334.00 Ft.
W Frank Hopkins
(0.37 Acres)
N 89°05'18" E
154.00 Ft.
S 89°05'18" W
NORTH 18" PRESSURE DISCHARGE LINE
650 Ft.
N 72°55'42" W
SOUTH 18" PRESSURE DISCHARGE LINE
600 Ft.
Seward Hopkins
(1.88 Acres)
HEAD HOUSE SITE
S 87°18'48" W
0.08 Acres
261.47 Ft.
234.90 Ft.
306.29 Ft.
335.90 Ft.
(Base Line)
S 88°15'18" W
30" T.C. Waste Disposal Sewer
10
11
All elevations refer to U.S.C.& G.S. datum plane.
Contour interval, 10 Foot
RESTRICTED
THIS DRAWING IS THE PROPERTY OF THE UNITED STATES GOVERNMENT AND SHALL NOT BE USED EITHER WHOLLY OR IN PART, UNLESS AUTHORIZED IN CONNECTION WITH PROCUREMENT FOR THE UNITED STATES GOVERNMENT.
REVISIONS BLOCK
CHANGES
DATE
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
MAP FROM SURVEY OF OUTLET SITE FOR OUTFALL SEWER
PART OF LOTS 10 and 11
NEW YORK STATE RESERVATION
IN SHEETS 1 SHEET No. 1 SCALE: 1" = 40'
SCALE IN FEET
U. S. ENGINEER OFFICE - YOUNGSTOWN, N. Y. DATE JULY 24, 42
DRAWN: A.E. Weiss CHECKED: T.C. SERIAL No. 4 - 28
DECLASSIFIED
Authority 745067
By RL NARA Date 2/28


YOUNGSTOWN
NORTH BOUNDARY LINE
YOUNGSTOWN ROAD
CAIN ROAD
LUTTS ROAD
SIX MILE CREEK
INTERNATIONAL B.C. HOUSE
NIAGARA RIVER
BALMER ROAD
"H" STREET
"M" STREET
"N" STREET
"O" STREET
WESSON ST
ARTHUR ST
FOURMILE CREEK
TOWN LINE
PORTER
LEWISTON
30" WASTE WATER LINE
YOUNGSTOWN ELECTRIC R.R.
LEWISTON
CAMPBELL
CASTLE GARDEN
PLETCHER
42" WATER SUPPLY LINE
HAROLD ROAD
NICHOLS ROAD
N.Y.C. & H.R. R.R.
R.W.&O. DIV
SCAIRVILLE
SUTTON ROAD
LATTA ROAD
SOUTH BOUNDARY LINE
MODEL CITY
ONTARIO
NEW YORK
DOMINION OF CANADA
UNITED STATES
WATER LINE
N
W
E
PROGRESS RECORD
Date
Waste Line
Supply Line
JUL 25 1942
JUN 27 1942
KEY
Location
Pipe Laid
Backfilled & Tested
SCALE IN FEET
0 1000 2000 3000
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
30" WASTE WATER LINE
42" WATER SUPPLY LINE
PROGRESS SHOWN AS OF
DATE SEPTEMBER 21, 1942
DRAWN BANGEL CHECKED
SERIAL NO. C-108

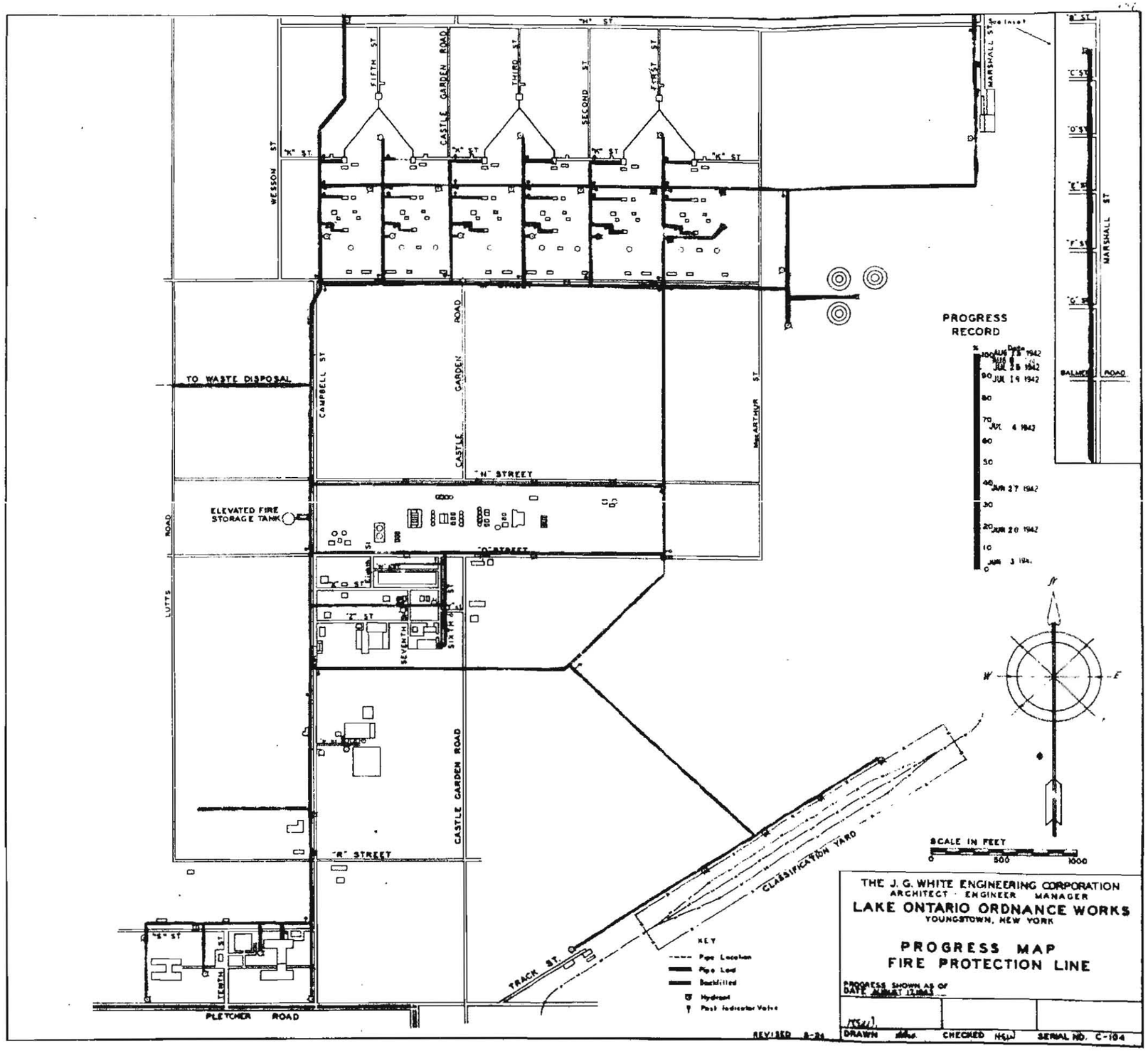
LOOW-001


FIFTH ST.
CASTLE GARDEN ROAD
THIRD ST.
SECOND ST.
FIRST ST.
MARSHALL ST.
WESSON ST.
"M" ST.
"L" ST.
"K" ST.
"J" ST.
"H" STREET
TO WASTE DISPOSAL
CAMPBELL ST.
CASTLE GARDEN ROAD
MacARTHUR ST.
"N" STREET
"O" STREET
LUTTS ROAD
DRINKING WATER TANK
"P" ST.
"R" STREET
TENTH ST.
TRACK ST.
FLETCHER ROAD
PROGRESS RECORD
Date
AUG 1 1942
JUL 25 1942
JUL 4 1942
JUN 27 1942
JUN 20 1942
100
90
80
70
60
50
40
30
20
10
0
N
W
E
KEY
Pipe Location
Pipe Laid
Backfilled & Tested
Valve
SCALE IN FEET
0
500
1000
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
DRINKING WATER SYSTEM
PROGRESS SHOWN AS OF
DATE AUGUST 17, 1942
HEW
DRAWN G.F.
CHECKED HEW
SERIAL NO. C-105
REVISED - 8-24

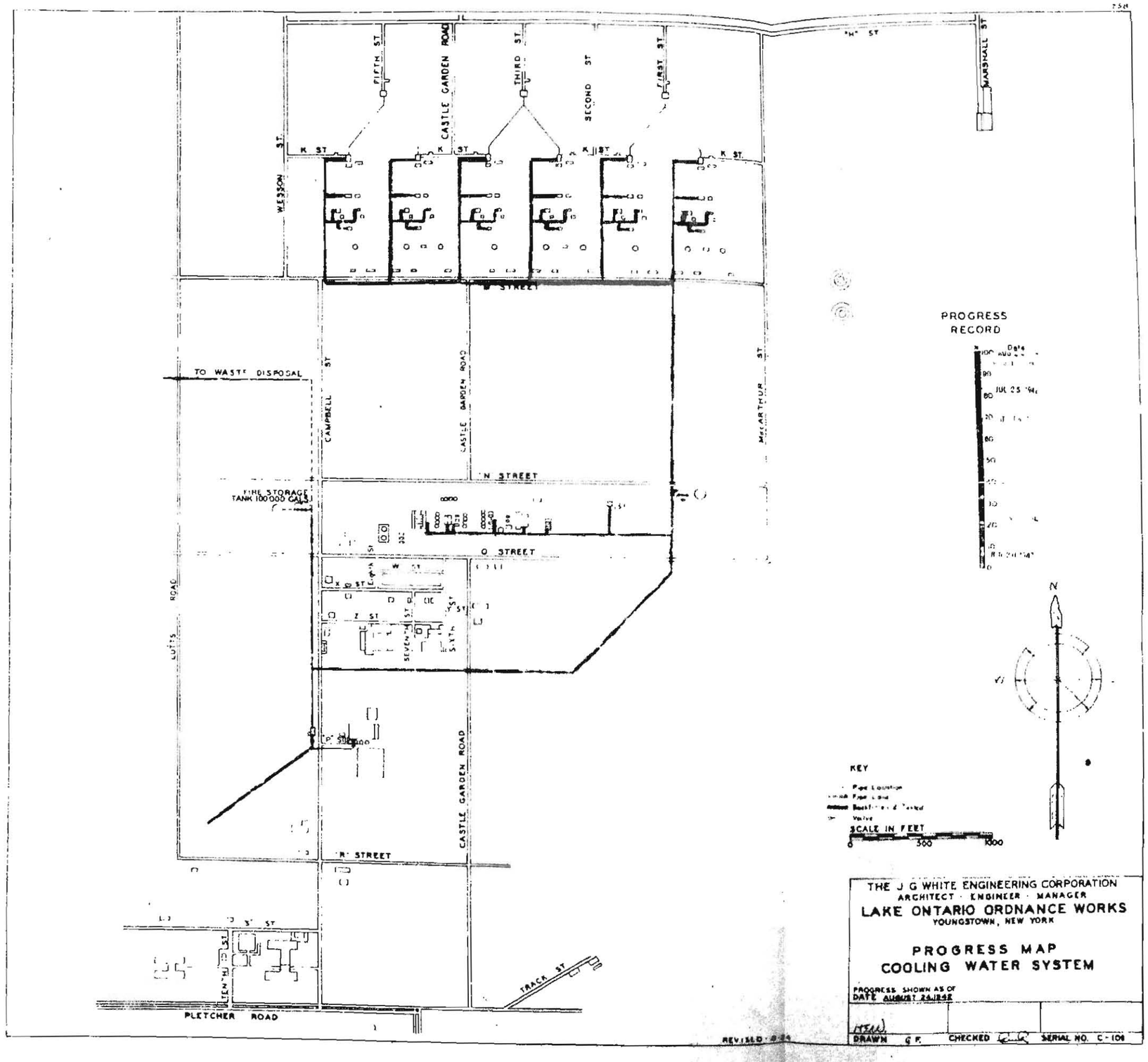
LOOW-001


H STREET
FIFTH ST.
CASTLE GARDEN ROAD
THIRD ST.
SECOND ST.
FIRST ST.
MARSHALL ST.
WESSON ST.
"K" ST.
PROGRESS RECORD
Date
AUG 13 1942
JUL 31 1942
JUL 11 1942
JUL 4 1942
JUN 27 1942
JUN 20 1942
JUN 13 1942
CAMPBELL ST.
CASTLE GARDEN ROAD
MCARTHUR ST.
"N" STREET
LUTTS ROAD
"O" STREET
EIGHTH ST.
SIXTH ST.
"X" ST.
"Y" ST.
"Z" ST.
SEVENTH ST.
N
W
E
"P" ST.
CASTLE GARDEN ROAD
SCALE IN FEET
0
500
1000
"R" STREET
"S" ST.
TWELFTH ST.
"T" ST.
ELEVENTH ST.
TENTH ST.
PLETCHER ROAD
TRACK ST.
KEY
Pipe Location
Pipe Laid
Backfilled & Tested
Valve
REVISED 8-25
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT ENGINEER MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
PROCESS WATER SYSTEM
PROGRESS SHOWN AS OF DATE AUGUST 17, 1942
DRAWN
CHECKED
SERIAL NO. C-103

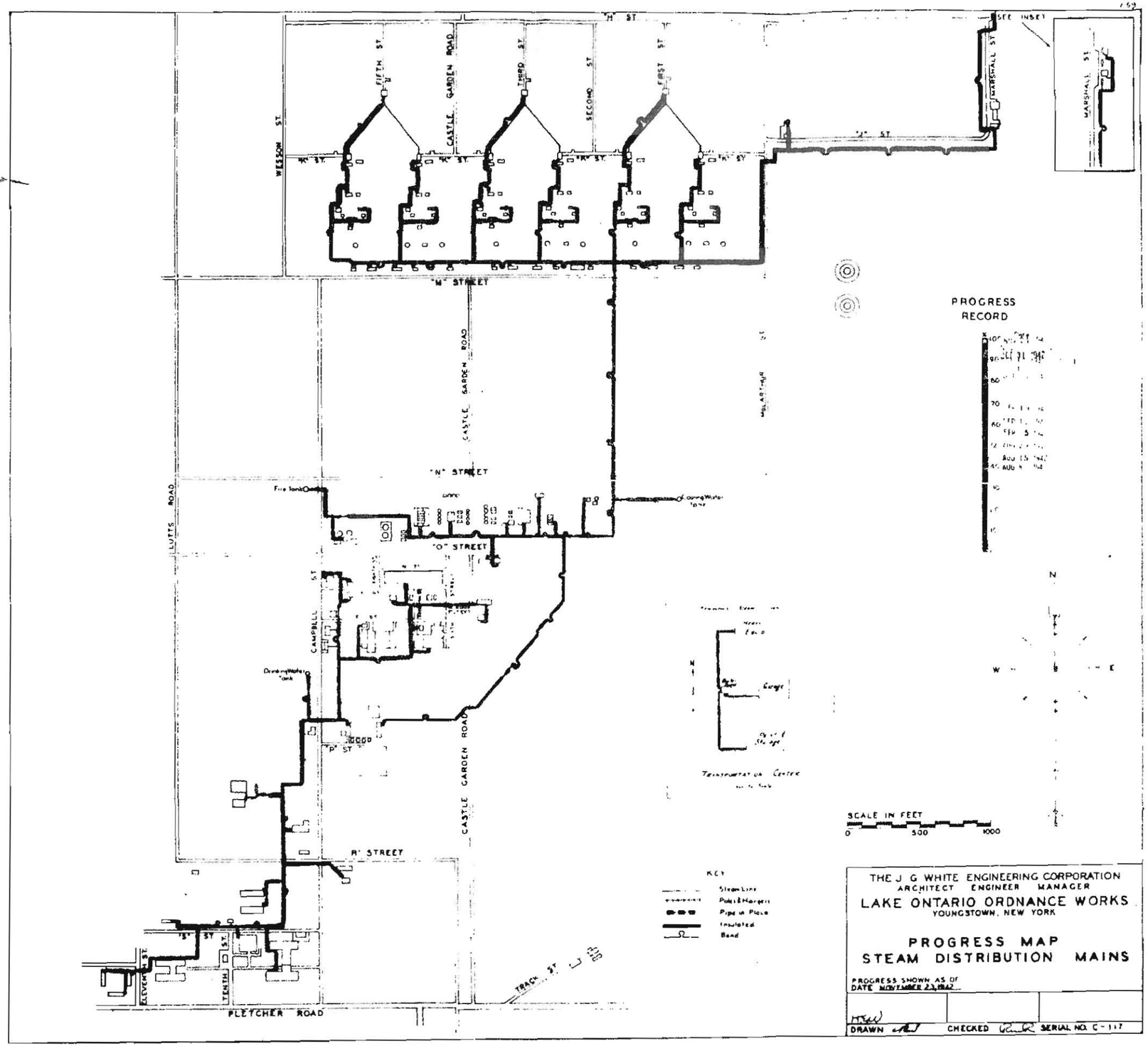
LOOW-001


"H" ST
FIFTH ST
CASTLE GARDEN ROAD
THIRD ST
SECOND ST
FIRST ST
MARSHALL ST
See Inset
"B" ST
"C" ST
"D" ST
"E" ST
"F" ST
"G" ST
BALMER ROAD
"K" ST
WESSON ST
TO WASTE DISPOSAL
CAMPBELL ST
CASTLE GARDEN ROAD
MacARTHUR ST
"N" STREET
ELEVATED FIRE STORAGE TANK
LUTTS ROAD
"O" STREET
"L" ST
SEVENTH ST
SIXTH ST
"R" STREET
"S" ST
TENTH ST
PLETCHER ROAD
TRACK ST.
CLASSIFICATION YARD
PROGRESS RECORD
AUG 7 1942
AUG 6
JUL 28 1942
JUL 14 1942
JUL 4 1942
JUN 27 1942
JUN 20 1942
JUN 3 1942
SCALE IN FEET
0
500
1000
KEY
Pipe Location
Pipe Laid
Backfilled
Hydrant
Post Indicator Valve
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
FIRE PROTECTION LINE
PROGRESS SHOWN AS OF
DATE AUGUST 12, 1943
DRAWN
CHECKED
SERIAL NO. C-104
REVISED 8-26

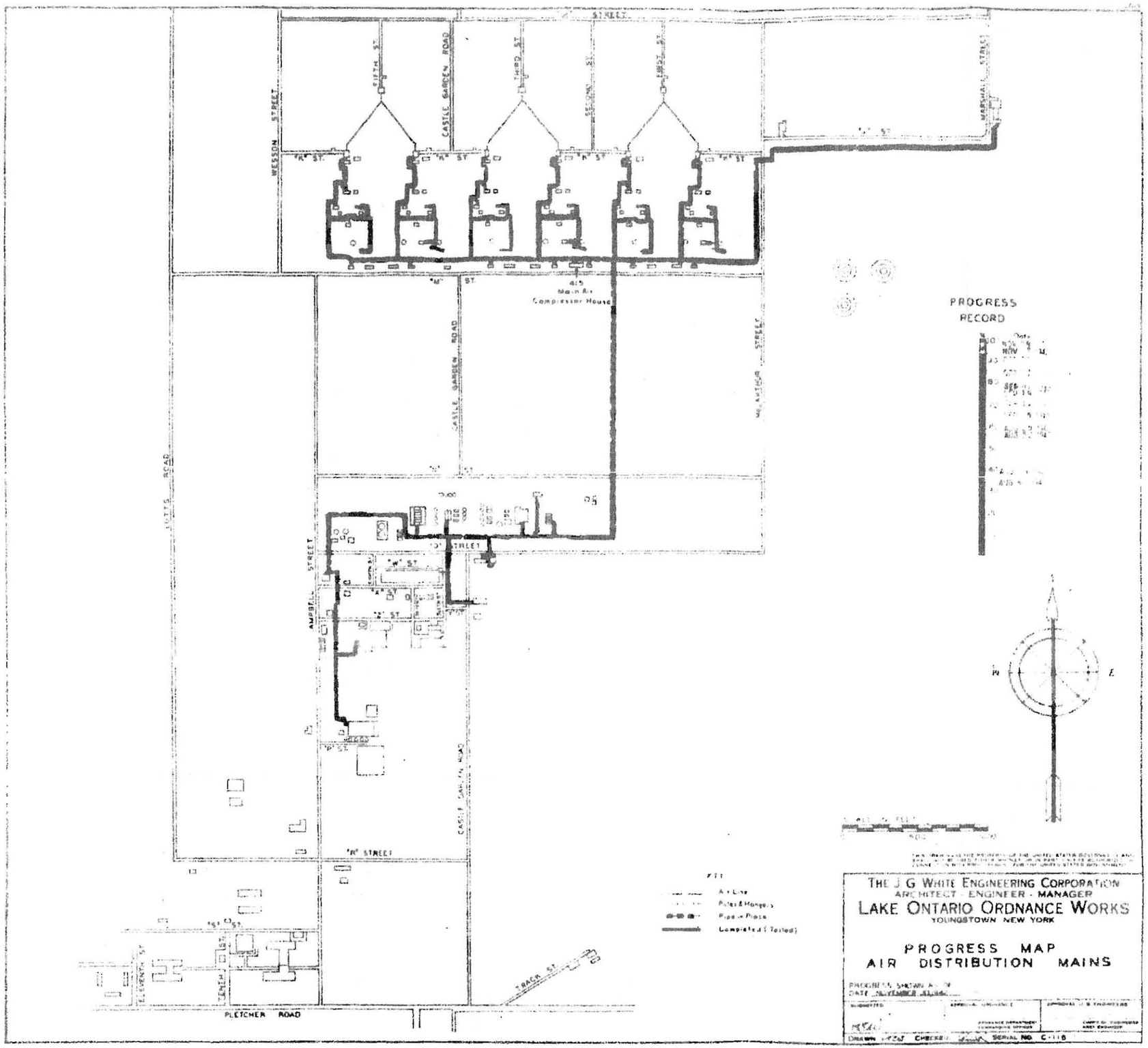
LOOW-001


FIFTH ST.
CASTLE GARDEN ROAD
THIRD ST.
SECOND ST
FIRST ST.
MARSHALL ST
K ST.
WESSON ST.
M STREET
PROGRESS RECORD
TO WASTE DISPOSAL
CAMPBELL ST
CASTLE GARDEN ROAD
MACARTHUR ST.
N STREET
FIRE STORAGE TANK 100,000 GALS
O STREET
LUTTS ROAD
CASTLE GARDEN ROAD
R STREET
TRACK ST
PLETCHER ROAD
KEY
SCALE IN FEET
0
300
1000
N
THE J G WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
COOLING WATER SYSTEM
PROGRESS SHOWN AS OF
DATE AUGUST 24,1942
DRAWN G.F.
CHECKED
SERIAL NO. C-106

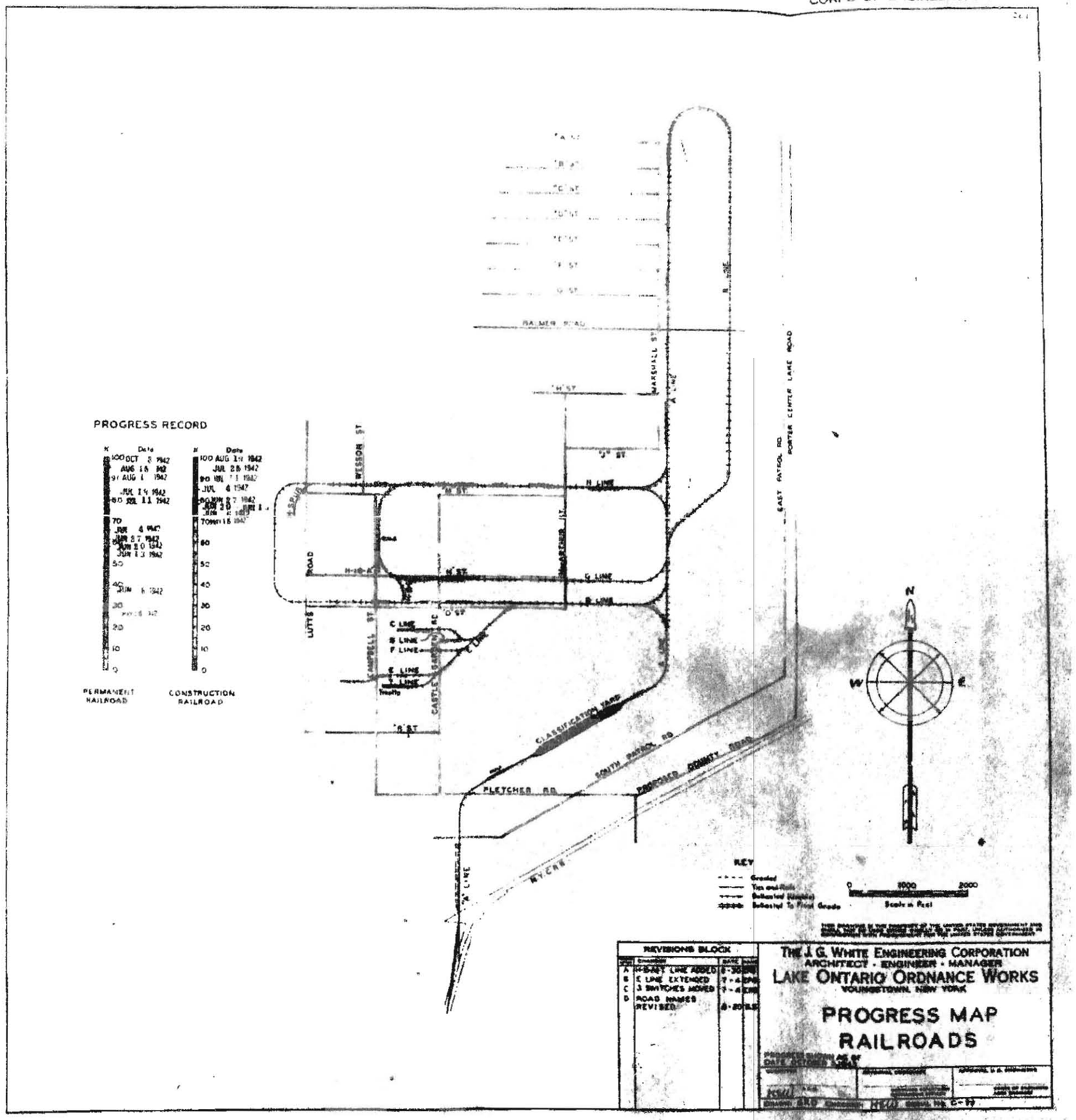
LOOW-001

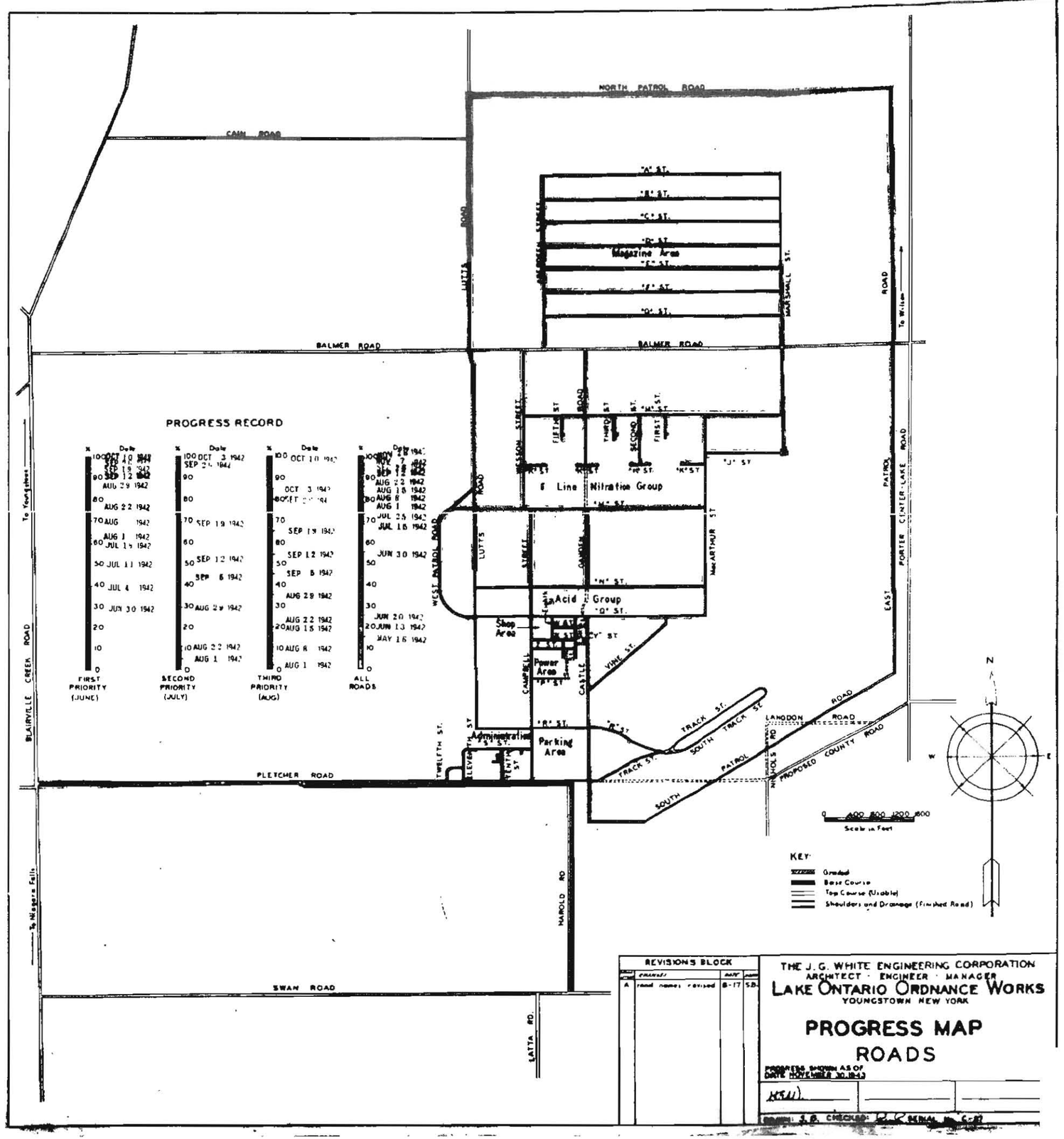

PROGRESS RECORD
SCALE IN FEET
0
500
1000
KEY
Steam Line
Poles & Hangers
Pipe in Place
Insulated
Band
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT ENGINEER MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
STEAM DISTRIBUTION MAINS
PROGRESS SHOWN AS OF
DATE NOVEMBER 23, 1942
DRAWN
CHECKED
SERIAL NO. C-117
"M" ST.
"N" STREET
"O" STREET
"P" ST.
"R" STREET
"S" ST.
"T" ST.
"U" ST.
"V" ST.
FIFTH ST.
FOURTH ST.
THIRD ST.
SECOND ST.
FIRST ST.
WESSON ST.
CASTLE GARDEN ROAD
LUTTS ROAD
CAMPBELL ST.
MARSHALL ST.
WALNUT ST.
ELEVENTH ST.
TENTH ST.
TRACK ST.
FLETCHER ROAD
SEE INSET
Fire tank
Drinking Water Tank
Transportation Center

LOOW-001

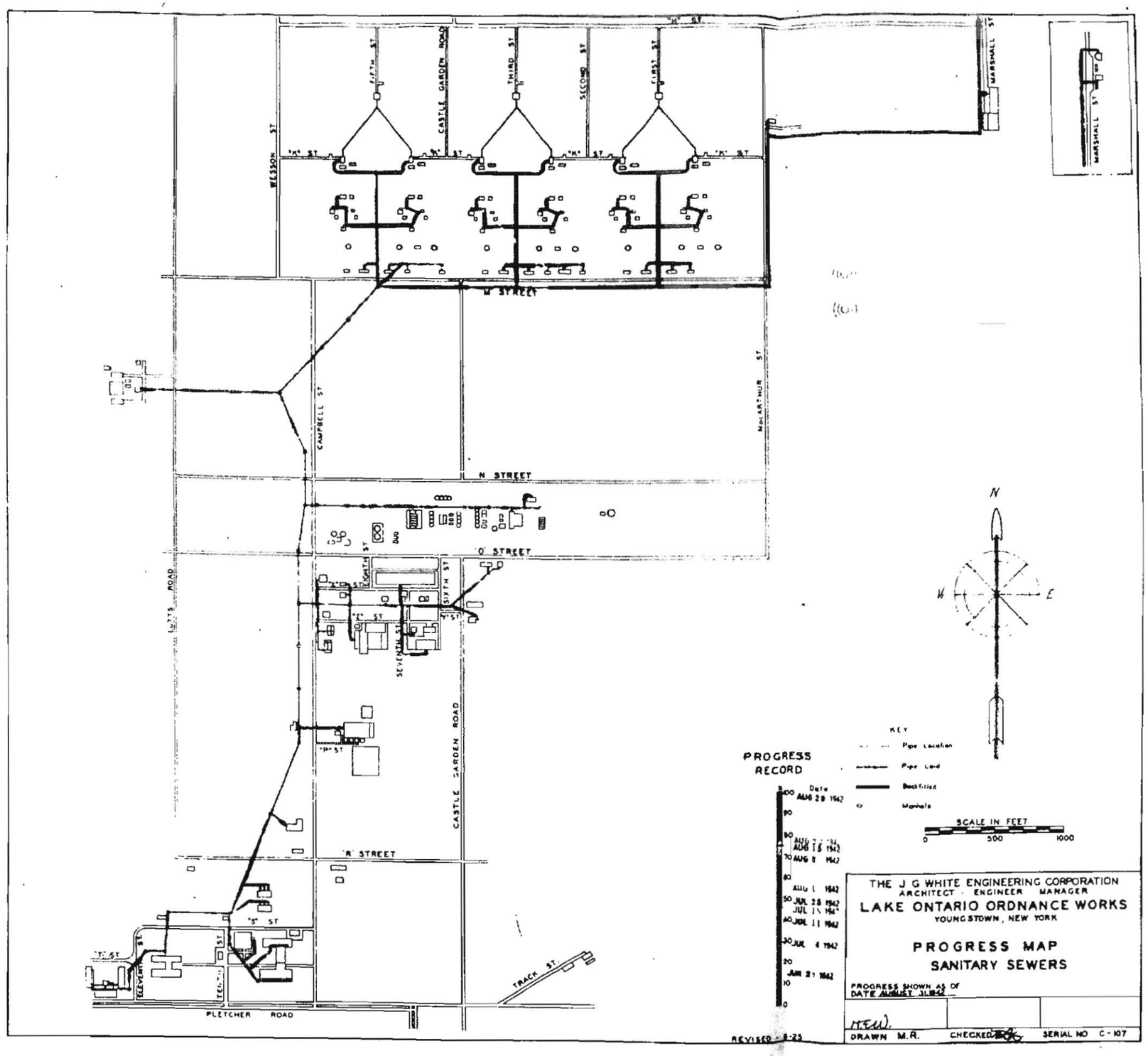

PROGRESS
RECORD
THE J G WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN NEW YORK
PROGRESS MAP
AIR DISTRIBUTION MAINS
Main Air Compressor House
WESSON STREET
CASTLE GARDEN ROAD
FIFTH ST.
THIRD ST.
SECOND ST.
MARSHALL STREET
"A" ST.
"M" ST.
"N" ST.
"O" ST.
"P" ST.
"R" STREET
"S" STREET
"T" STREET
"W" ST.
"X" ST.
"Y" ST.
"Z" ST.
WEST ARTHUR STREET
AMHERST STREET
FLETCHER ROAD
TRACK ST.
SEVENTH ST.
CENTER ST.
Air Line
Pipe & Hangers
Pipe in Place
Completed (Tested)
SERIAL NO. C-116

LOOW-001


PROGRESS RECORD
PERMANENT RAILROAD
CONSTRUCTION RAILROAD
WESSON ST
LUTTS ROAD
CAMPBELL ST
CASTLE
MARSHALL ST
PALMER ROAD
EAST PATROL RD
PORTER CENTER LAKE ROAD
CLASSIFICATION YARD
SOUTH PATROL RD
PROPOSED PRIMARY ROAD
FLETCHER RD
N
W
E
REVISIONS BLOCK
A N-S EAST LINE ADDED
B E LINE EXTENDED
C 3 SWITCHES MOVED
D ROAD NAMES REVISED
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
RAILROADS

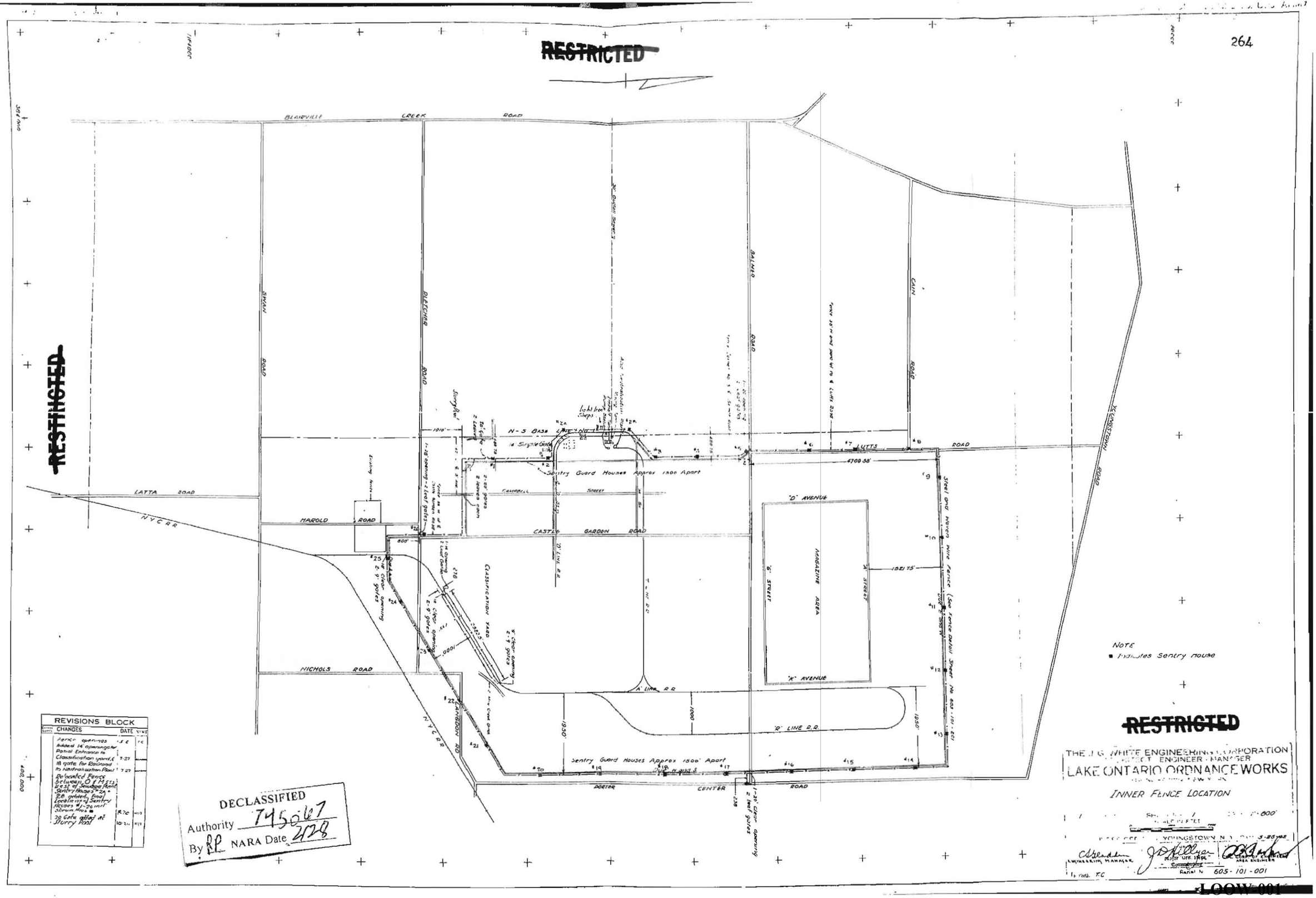

NORTH PATROL ROAD
CAIN ROAD
BALMER ROAD
"A" ST.
"B" ST.
"C" ST.
"D" ST.
Magazine Area
"E" ST.
"F" ST.
"G" ST.
MARSHALL ST.
LUTTS ROAD
WESSON STREET
FIFTH ST.
THIRD ST.
SECOND
FIRST ST.
"K" ST.
"J" ST.
"L" ST.
"M" ST.
"N" ST.
"O" ST.
"P" ST.
"R" ST.
"S" ST.
"T" ST.
"V" ST.
6 Line Nitration Group
Acid Group
Shop Area
Power Area
Administration
Parking Area
WEST PATROL ROAD
LUTTS STREET
CANNON
MacARTHUR ST.
CAMPBELL
CASTLE
VINE ST.
TWELFTH ST.
ELEVENTH ST.
TENTH ST.
TRACK ST.
SOUTH TRACK ST.
SOUTH PATROL
LANDON ROAD
NICHOLS RD.
PROPOSED COUNTY ROAD
EAST PORTER CENTER-LAKE ROAD
To Wilson
To Youngstown
BLAIRVILLE CREEK ROAD
To Niagara Falls
PLETCHER ROAD
HAROLD RD.
SWAN ROAD
LATTA RD.
PROGRESS RECORD
FIRST PRIORITY (JUNE)
SECOND PRIORITY (JULY)
THIRD PRIORITY (AUG)
ALL ROADS
Scale in Feet
KEY:
Graded
Base Course
Top Course (Usable)
Shoulders and Drainage (Finished Road)
N
W
E
REVISIONS BLOCK
A road names revised 8-17
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN NEW YORK
PROGRESS MAP
ROADS
PROGRESS SHOWN AS OF DATE NOVEMBER 30, 1943

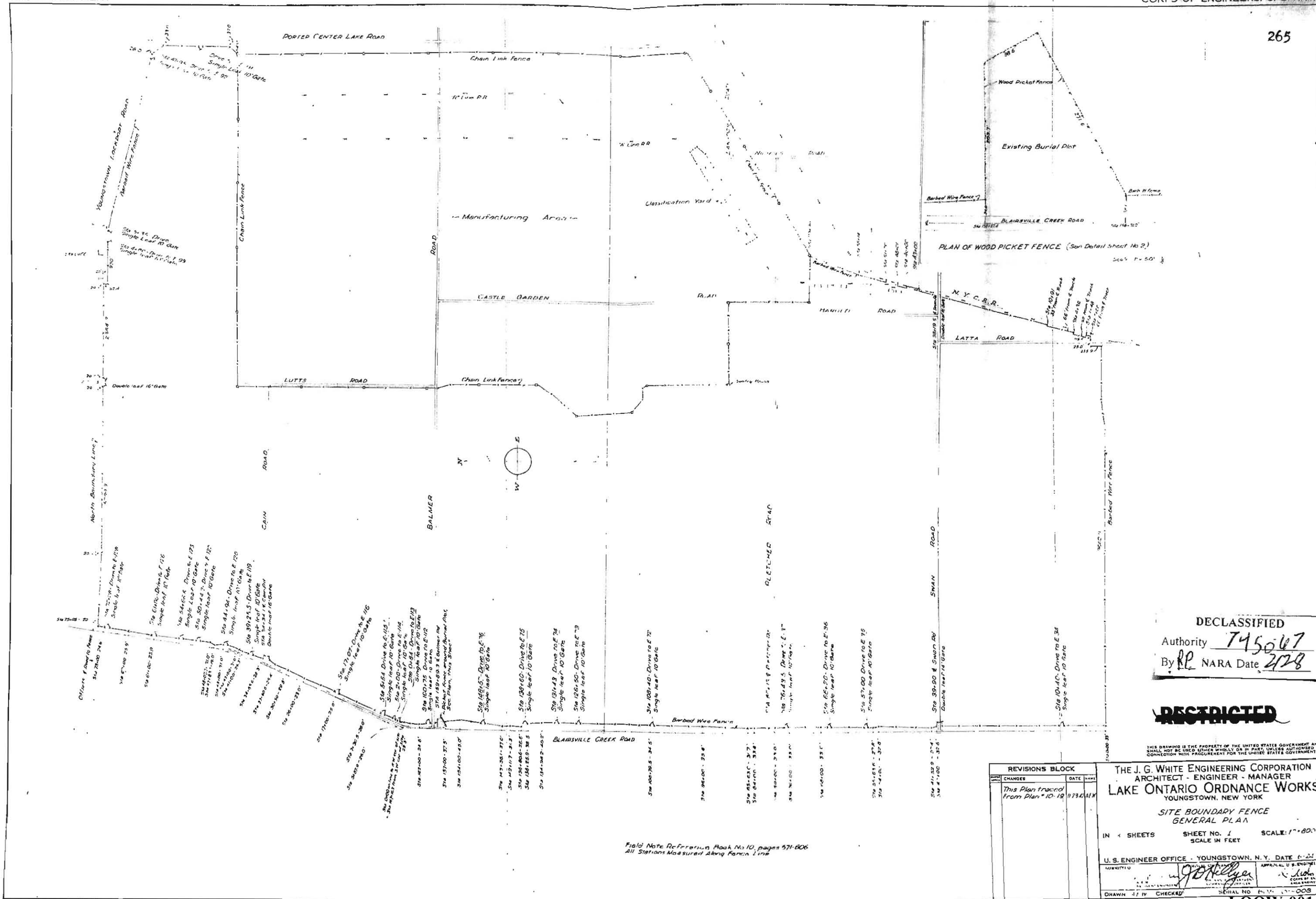
LOOW-001


FIFTH ST
CASTLE GARDEN ROAD
THIRD ST
SECOND ST
FIRST ST
MARSHALL ST
WESSON ST
'M' ST
'N' ST
'O' STREET
CAMPBELL ST
McARTHUR ST
SIXTH ST
SEVENTH ST
'P' ST
'R' STREET
'S' ST
'T' ST
TRACK ST
PLETCHER ROAD
N
W
E
KEY
Pipe Location
Pipe Laid
Backfilled
Manhole
SCALE IN FEET
0
500
1000
PROGRESS RECORD
Date
AUG 28 1942
AUG 18 1942
AUG 8 1942
AUG 1 1942
JUL 28 1942
JUL 18 1942
JUL 11 1942
JUL 4 1942
JUN 27 1942
100
90
80
70
60
50
40
30
20
10
0
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
SANITARY SEWERS
PROGRESS SHOWN AS OF
DATE AUGUST 31 1942
DRAWN M.R.
CHECKED
SERIAL NO C-107
REVISED - 8-25

LOOW-001

~~RESTRICTED~~


BLAIRVILLE CREEK ROAD
LATTA ROAD
NICHOLS ROAD
HAROLD ROAD
SWAN ROAD
FLETCHER ROAD
BALMO ROAD
CAIN ROAD
YOUNGSTOWN ROAD
LUTTS ROAD
PORTER CENTER ROAD
CAMPBELL STREET
CASTLE GARDEN ROAD
N.Y.C.R.R.
N-S BASE LINE
Sentry Guard Houses Approx 1500 Apart
CLASSIFICATION YARD
MAGAZINE AREA
"D" AVENUE
"K" AVENUE
"B" STREET
"A" LINE R.R.
"R" LINE R.R.
Steel and Heavy Wire Fence (See Fence Detail Sheet No. 605-101-001)
Note
Indicates Sentry House
REVISIONS BLOCK
CHANGES
DATE
Fence openings
Added 14 openings for
Patrol Entrance to
Classification yard
18 gate for Railroad
Its Neutralization Pool
Relocated Fence
Between O & P
Sentry Houses #24
R.R. gateway
Location of Sentry
Houses #1-24 and
Sheets No. 2
28 Gate added at
Slurry Pool
DECLASSIFIED
Authority 745067
By RP NARA Date 2/28
~~RESTRICTED~~
THE J. G. WHITE ENGINEERING CORPORATION
PROJECT ENGINEER-MANAGER
LAKE ONTARIO ORDNANCE WORKS
INNER FENCE LOCATION
YOUNGSTOWN, N.Y.
Rafiel N
605-101-001



DECLASSIFIED
Authority 745067
By RP NARA Date 2/28

~~RESTRICTED~~

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REVISIONS BLOCK			
	CHANGES	DATE	NAME
	This Plan traced from Plan # 10-19	11-23-42	

THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

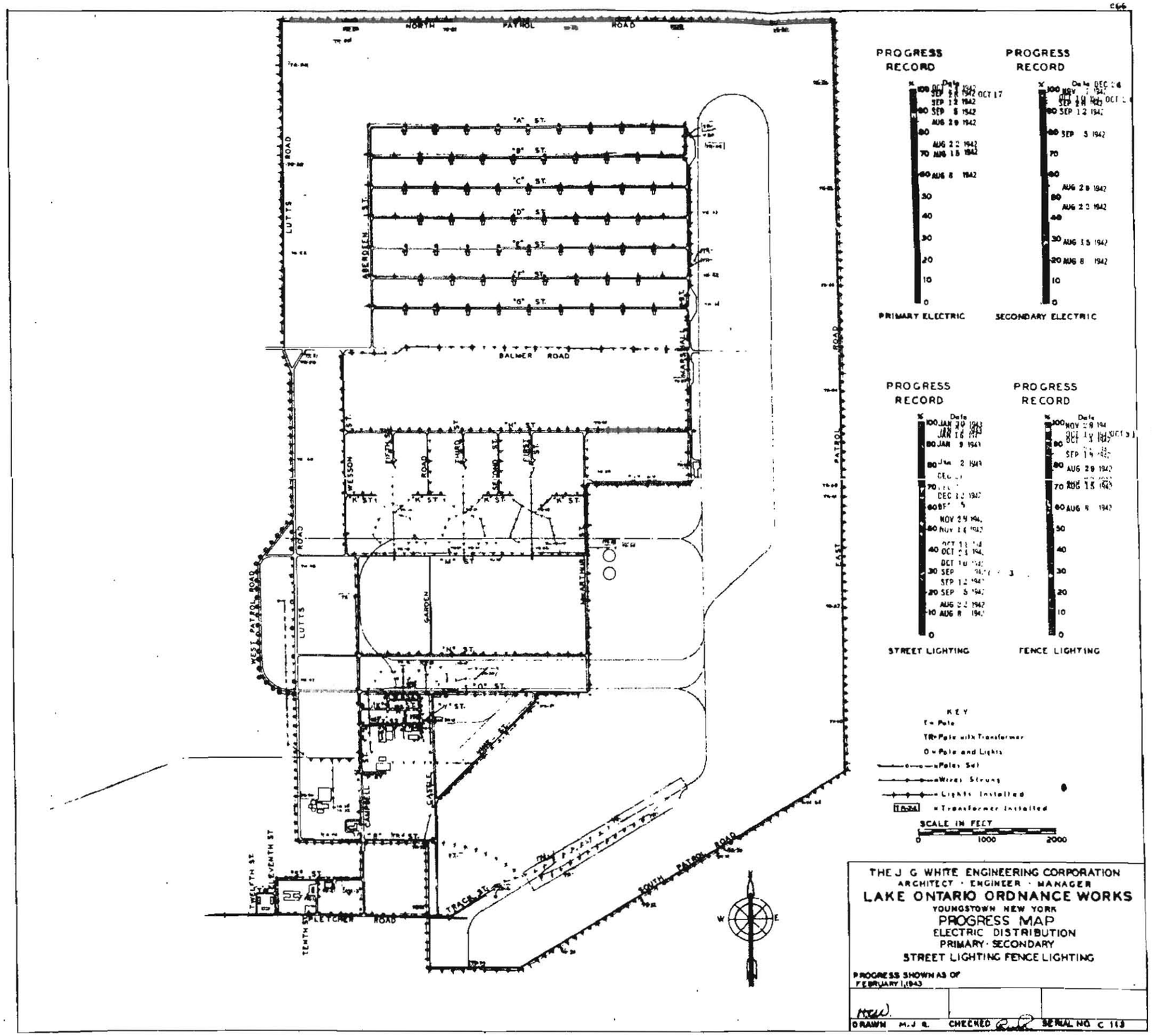
SITE BOUNDARY FENCE
GENERAL PLAN

IN 1 SHEETS — SHEET NO. 1 — SCALE: 1" = 800'
SCALE IN FEET

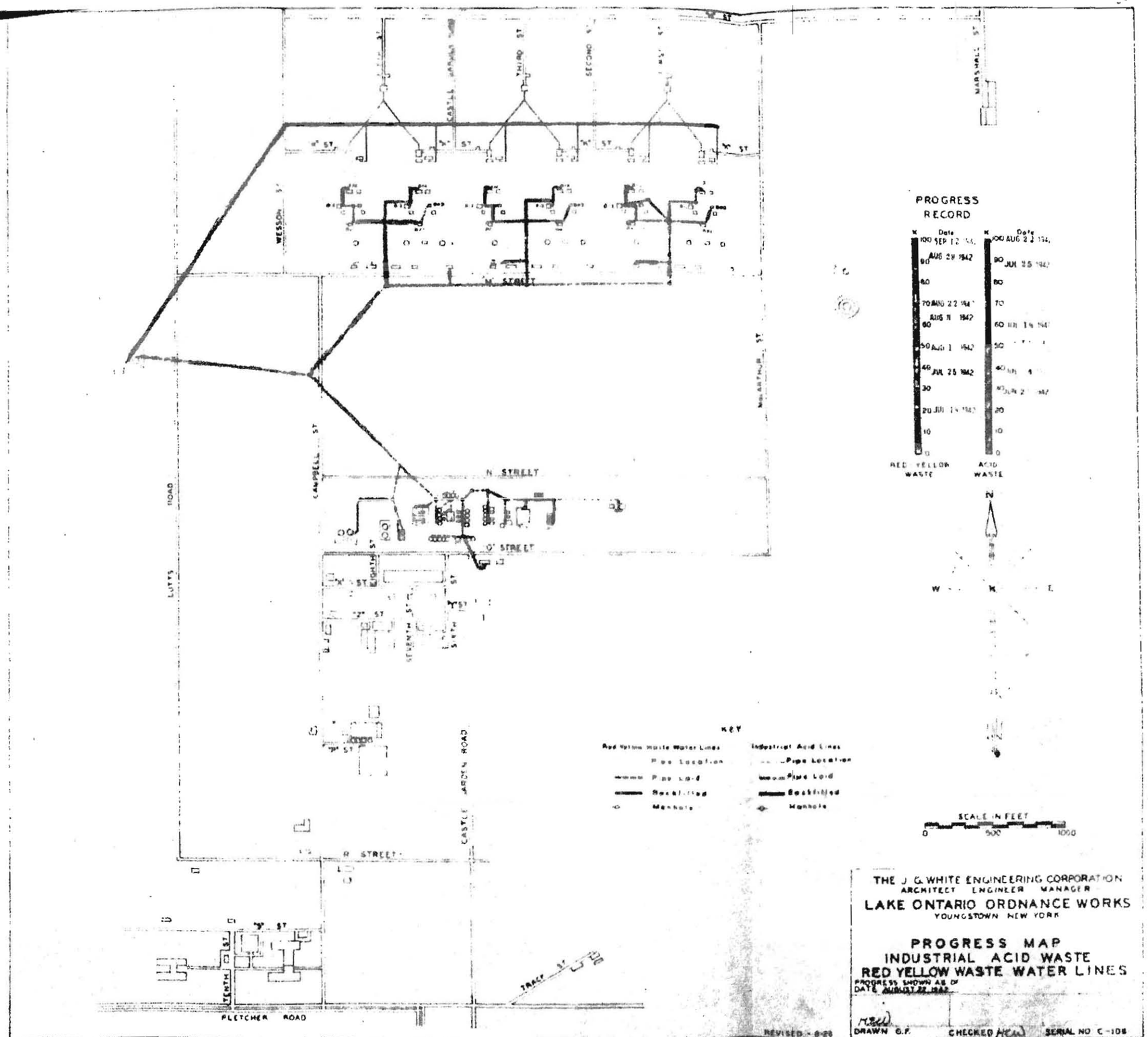
U. S. ENGINEER OFFICE - YOUNGSTOWN, N. Y. DATE 6-24-42

SUBMITTED — DIVISION ENGINEER — APPROVAL U. S. ENGINEER

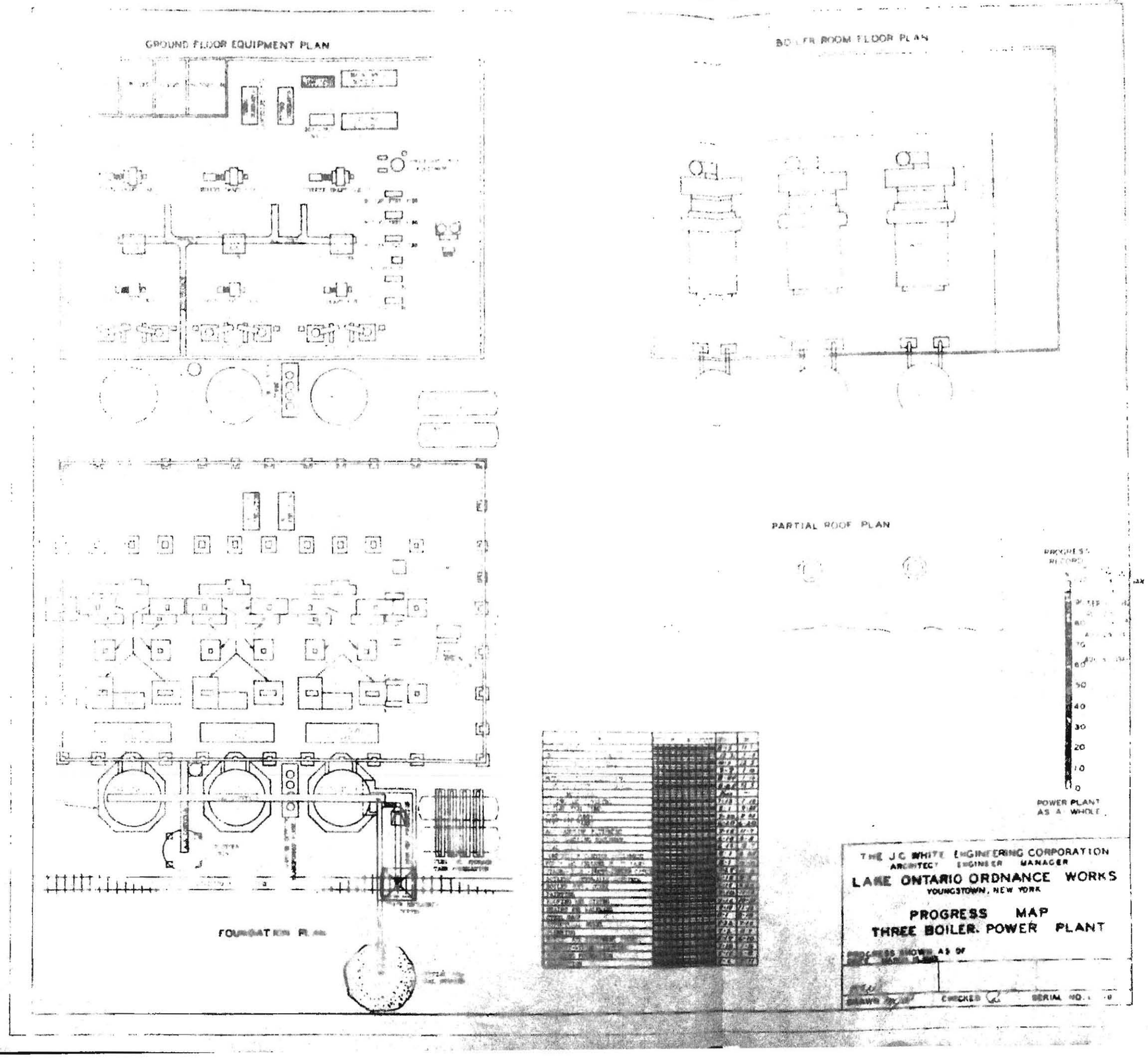
DRAWN — CHECKED — SERIAL NO. 6-24-42-008

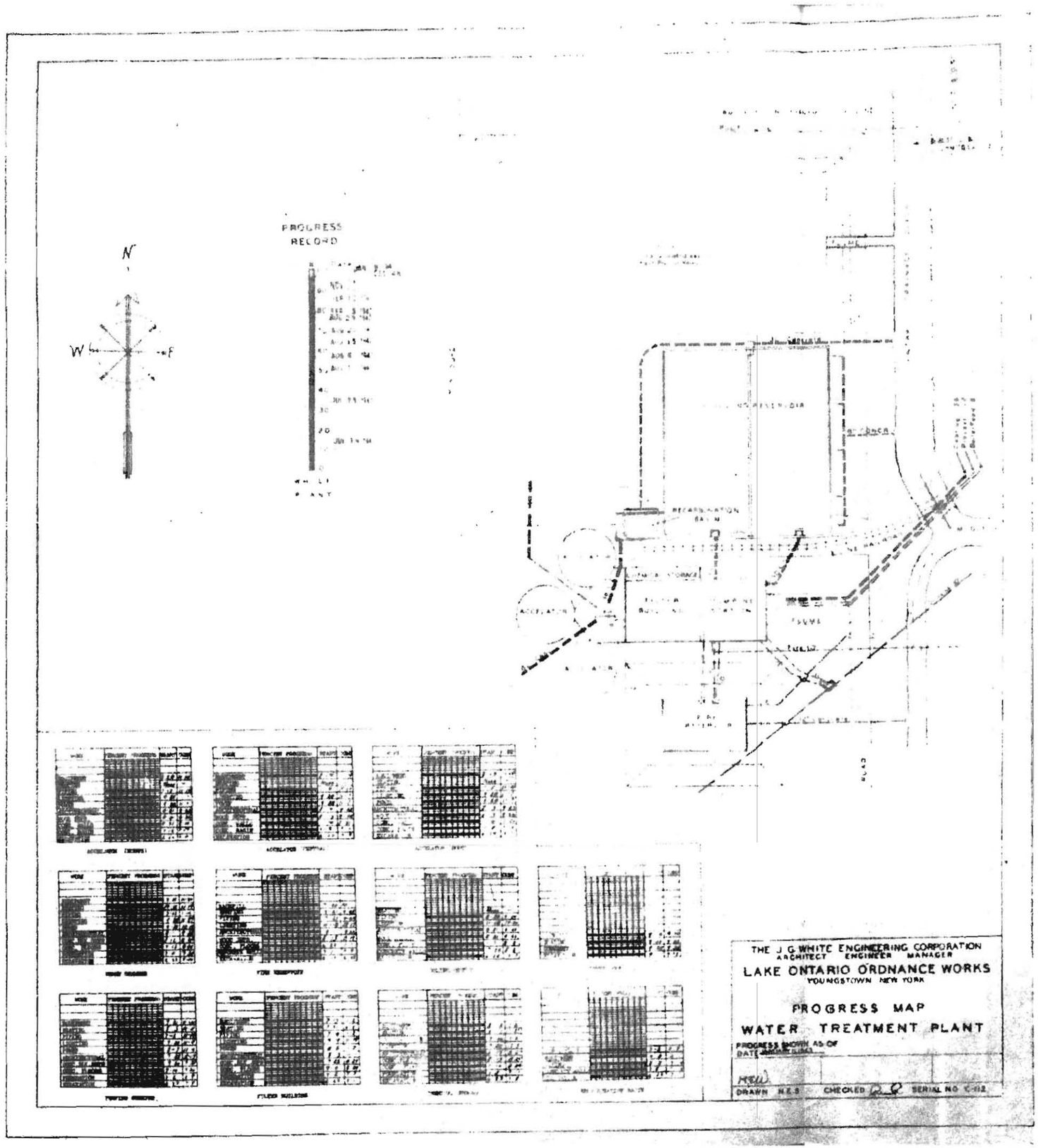

NORTH PATROL ROAD
LUTTS ROAD
ABERDEEN ST.
"A" ST.
"B" ST.
"C" ST.
"D" ST.
"E" ST.
"F" ST.
"G" ST.
BALMER ROAD
MARSHALL ST.
PATROL ROAD
EAST
WESSON ST.
LUTTS ROAD
FIRST ST.
SECOND ST.
"H" ST.
"K" ST.
"N" ST.
"O" ST.
"P" ST.
WEST PATROL ROAD
LUTTS ROAD
GARDEN
MACARTHUR
CATTLE
TRACK ST.
SOUTH PATROL ROAD
TWELFTH ST.
ELEVENTH ST.
TENTH ST.
VALLEYVIEW ROAD
PROGRESS RECORD
Date
PRIMARY ELECTRIC
PROGRESS RECORD
Date
SECONDARY ELECTRIC
PROGRESS RECORD
Date
STREET LIGHTING
PROGRESS RECORD
Date
FENCE LIGHTING
KEY
Pole
TR Pole with Transformer
Pole and Lights
Poles Set
Wires Strung
Lights Installed
Transformer Installed
SCALE IN FEET
0
1000
2000
W
E
THE J G WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN NEW YORK
PROGRESS MAP
ELECTRIC DISTRIBUTION
PRIMARY · SECONDARY
STREET LIGHTING FENCE LIGHTING
PROGRESS SHOWN AS OF
FEBRUARY 1, 1943
DRAWN M.J.R.
CHECKED
SERIAL NO. C 113

LOOW-001

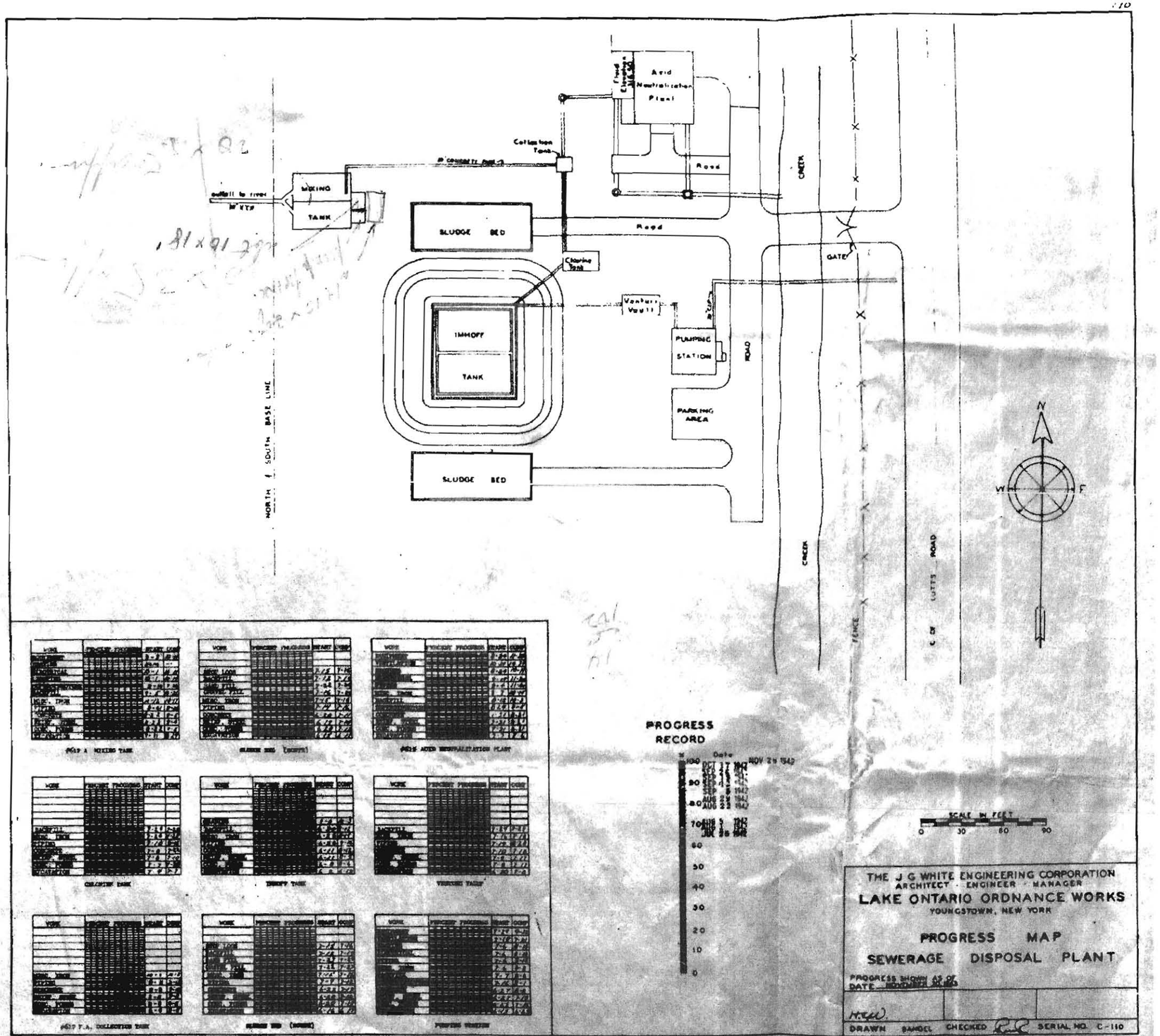

PROGRESS RECORD
Date
RED YELLOW WASTE
ACID WASTE
N
W
E
S
KEY
Red Yellow Waste Water Lines
Pipe Location
Pipe Laid
Backfilled
Manhole
Industrial Acid Lines
Pipe Location
Pipe Laid
Backfilled
Manhole
SCALE IN FEET
0
500
1000
N STREET
O STREET
R STREET
WESSON ST
CAMPBELL ST
LUTTS ROAD
CASTLE ARDEN ROAD
MARSHALL ST
TRACK ST
PLETCHER ROAD
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT ENGINEER MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN NEW YORK
PROGRESS MAP
INDUSTRIAL ACID WASTE
RED YELLOW WASTE WATER LINES
PROGRESS SHOWN AS OF
DATE AUGUST 22 1942
DRAWN G.F.
CHECKED
SERIAL NO C-108

LOOW-001

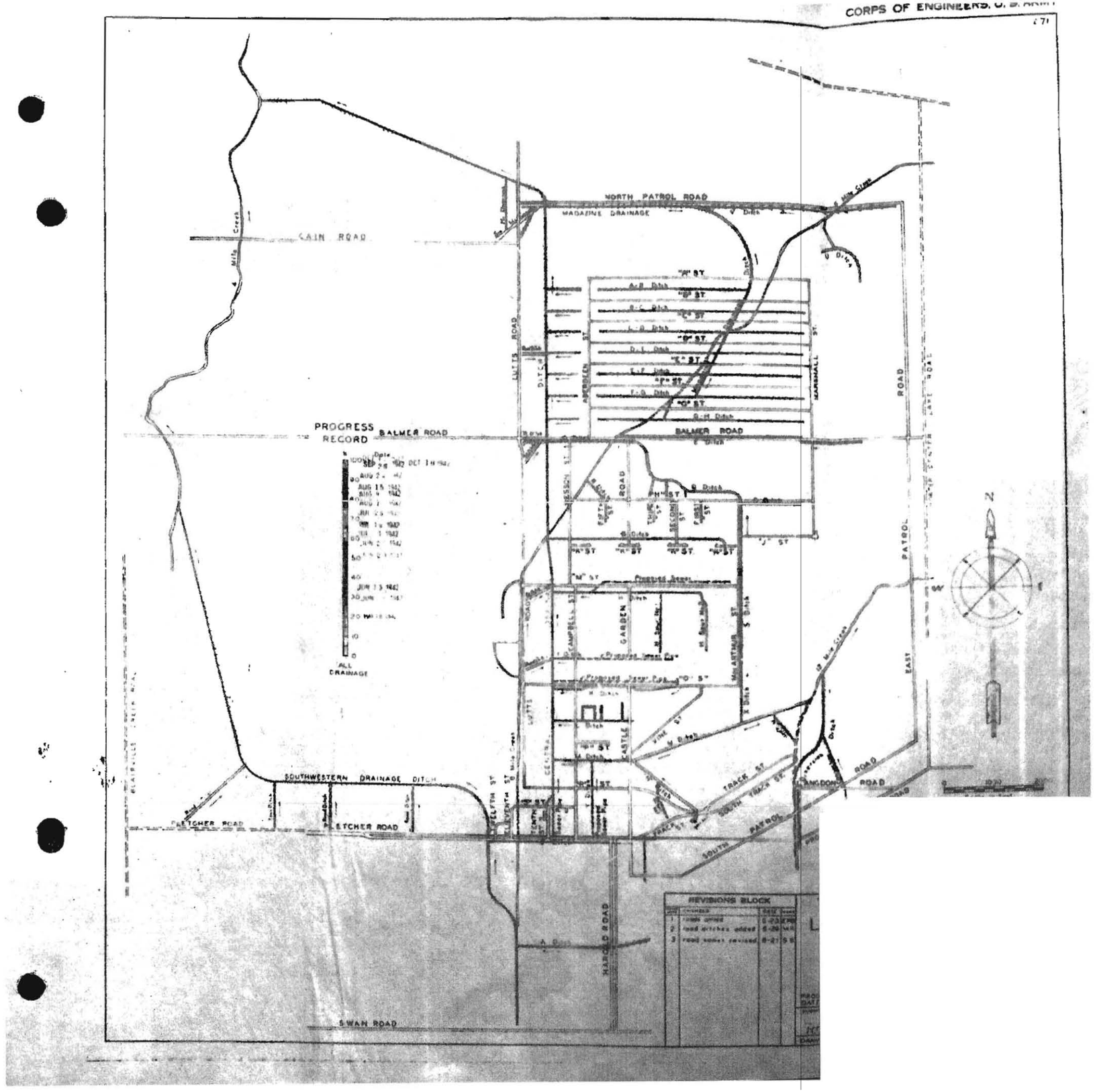

GROUND FLOOR EQUIPMENT PLAN
BOILER ROOM FLOOR PLAN
PARTIAL ROOF PLAN
FOUNDATION PLAN
PROGRESS RECORD
100
90
80
70
60
50
40
30
20
10
0
POWER PLANT AS A WHOLE
THE J.G. WHITE ENGINEERING CORPORATION
ARCHITECT ENGINEER MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
THREE BOILER POWER PLANT
CHECKED
SERIAL NO.


N
W
E
PROGRESS
RECORD
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT ENGINEER MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN NEW YORK
PROGRESS MAP
WATER TREATMENT PLANT
PROGRESS SHOWN AS OF
DATE
DRAWN
CHECKED
SERIAL NO

LOOW-001


Acid Neutralization Plant
Fixed Elevation Mixing Tank
Collection Tank
Road
CREEK
GATE
MIXING TANK
outfall to river
SLUDGE BED
Clarifier Tank
Venturi Vault
IMHOFF TANK
PUMPING STATION
ROAD
PARKING AREA
SLUDGE BED
NORTH & SOUTH BASE LINE
N
W
E
FENCE
C OF LUTTS ROAD
PROGRESS RECORD
Date
NOV 29 1942
SCALE IN FEET
0 30 60 90
THE J G WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
PROGRESS MAP
SEWERAGE DISPOSAL PLANT
PROGRESS SHOWN AS OF
DATE
DRAWN
CHECKED
SERIAL NO. C-110

LOOW-001


NORTH PATROL ROAD
MAGAZINE DRAINAGE
CAIN ROAD
PROGRESS RECORD
BALMER ROAD
SOUTHWESTERN DRAINAGE DITCH
FLETCHER ROAD
SWAN ROAD
HAROLD ROAD
SOUTH PATROL ROAD
EAST PATROL ROAD
KINGDOM ROAD
REVISIONS BLOCK

REPRODUCED AT THE NATIONAL ARCHIVES

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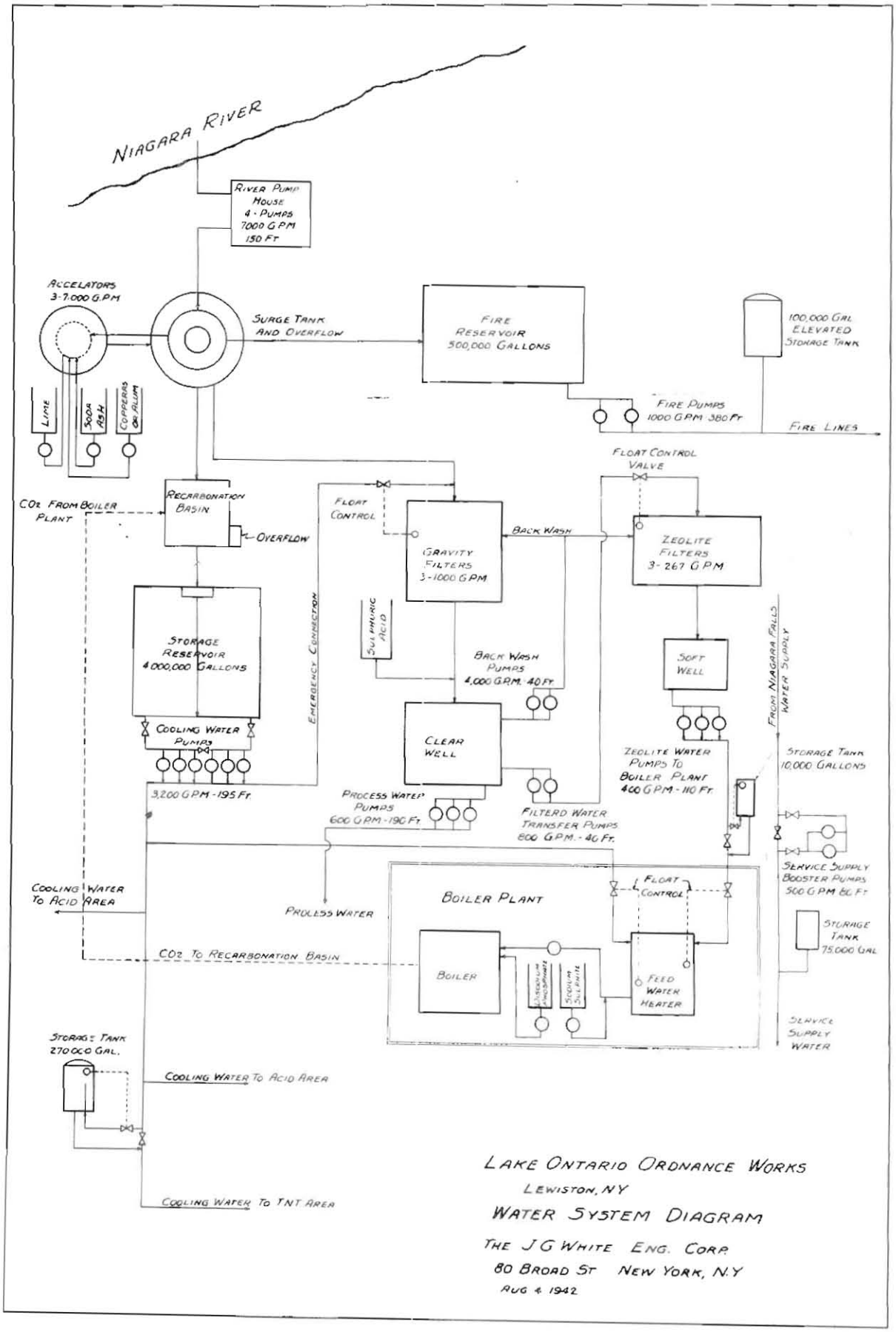

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UTILITIES

Water

Water Intake and River Pumping Station

159. The Water Intake Plant and Pumping Station is located on the site known as the "Five Mile Meadow", west of the intersection of Pletcher and River Roads, covered by the Water Intake Easement, extending to the shore line of the Niagara River, including the under water rights of an area approximately 175' wide and 485' into the river beyond the shore line, a distance of 100' beyond the end of rock crib at the intake. The under water section of the intake consists of two 60" reinforced concrete pipes laid in a trench in the bed of the river and backfilled. The water intake section is laid in a rock crib. These pipes extend inshore to the circular concrete intake well on the river bank, top of which is 16' above the normal water level of the river, and effects the transition between the two river intake pipes and the single 54" reinforced concrete pipe line to the pump pit in the Pumping Station substructure. See Dwg. 100-21 page 252.

160. The Pumping Station is equipped with four 7,000 G.P.M. motor driven pumps at 150' head, one of which is a spare, making the initial rated capacity of the Pumping Station 21,000 G.P.M. as compared with the initial maximum demand of 17,500 G.P.M. for a 6-Line T.N.T. Plant. The substructure, however, has been constructed large enough to house six 7,000 G.P.M. pumps, sufficient for a 12-Line T.N.T. Plant. These pumps are vertical, deep well type, due to a variation of more than 30' in the water level in the lower Niagara River, caused by ice jams. The pump manifold in the Pumping Station connects through two 30" cast iron force mains to the manifold at the Gate House. See photographs of the Pumping Station and Intake Site on Plate XIV.

161. In the Gate House the connection is made to the single 42" diam. reinforced concrete pipe, which extends approximately 8,538' eastward, along Pletcher Road, to its junction with the 42" diam. wood stave pipe, encased in a concrete envelope, which runs 7,687' to a concrete circular ring surge chamber, at the Water Treatment Plant. Manholes have been provided the full length of the 42" supply main. In order to prevent reverse flow in this main, a hinged, double, horizontal type check valve is installed at the supply main connection with the surge chamber. See photograph of the Gate House on Plate XIV.

162. The Fraser-Brace Report on the site for the Lake Ontario Ordnance Works, submitted on December 16, 1941, in Section 6, "Water Supply", states: "The water supply for a plant at the site under consideration will be unusually good and unusually easy and cheap to install."

REPRODUCED AT THE NATIONAL ARCHIVES

Water

Water Intake and River Pumping Station (Continued)

163. The Subsurface conditions at the intake were so shaly that the deep excavation required was difficult, slow and expensive. The intake well for the pumps under the River Pumping Station required extensive steel piling. A hairpin loop type of road had to be built for construction and maintenance purposes to afford access from the River Road above.

164. Further, the Fraser-Brace Report read: "The general surface of the manufacturing area is less than fifty feet above the level of the water in Niagara River and Lake Ontario which will reduce the pumping costs below what it frequently is in similar plants".

165. As already stated, it was necessary to provide pumps at the River Pumping Station suitable for a 150 ft. head. The elevation of the invert of the intake in the Niagara River is 211.3. The normal river level is 245.0. The pump floor level is 283.0. The level of the surge chamber overflow crest within the Project is 340.5. The difference in levels between the intake invert and the overflow crest in the surge tank is 129.2 feet.

166. The sizes and lengths of the pipes in the Water Supply line from the Niagara River to the Surge Tank are:

60" diam. reinforced concrete Intake Pipes from the Niagara River to Intake Well	864'
54" diam. reinforced concrete pipe from Intake Well to the Pumping Station	675'
30" diameter cast iron force mains from Pumping Station to the Gate House	360'
42" diameter main (part reinforced concrete and part wood stave) from Gate House to Surge Tank	16,225'
	18,124'

REPRODUCED AT THE NATIONAL ARCHIVES

Water

Water Treatment Plant

167. The Fraser-Brace Report, Section 6, "Water Supply", stated: "The quality of the water obtained at these points" (ie. the Niagara River or Lake Ontario) "will be so good that it will not require treatment for the process uses. The hardness is about 5 parts per million, which means that a slight and inexpensive treatment will be required for the small amount of water which will be required for the boiler feed."

168. On March 13, 1942 the hardness of the water in the Niagara River was between 112-114 parts per million. During January and February 1943 the hardness of the raw water in the intake line was from 130 - 140 parts per million. The present low reading, for hardness varies from 115-125 p.p.m. and the high reading for hardness varies from 135-145 p.p.m. Hence it became imperative to treat the water for process and other uses and to install the extensive water treatment plant which was constructed to provide separate handling, storing and pumping for five different types of water.

169. At the Water Treatment Plant site the foundations had to be designed for 3,000 pounds per square foot loading. This and the necessity for storing and handling large quantities of chemicals for treatment purposes, the necessity of filters, recarbonation, and large storage reservoirs, increased the size and cost of the plant many times over the original estimated size and cost.

170. The Water Treatment Plant is located on the west side of the Power and Water Treatment Area and consists of the following fifteen buildings and structures:

1 - Surge Tank (or chamber), concrete 26'-0" in diam. with one story frame building over area around tank

3 - Accelators (or cold process lime softeners) each 62'-6" diam. by 18' deep, of 5,600 G.P.M. capacity, concrete with wood roofs.

1 - Recarbonation Basin, 34'-9" x 48'-11" with open concrete basin

1 - Cooling Water Storage Reservoir, 178'-4" x 204'-8", concrete with wood roof, 4,000,000 gallons capacity

1 - Fire Water Reservoir, 57'-10" x 87'-10", concrete with wood roof, 500,000 gallons capacity

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UTILITIES

Water

Water Treatment Plant (Continued)

1 - Clear Well, for process or filtered water, 38'-5" x 76'-0" x 7'-6" with total capacity of 136,300 gallons.

1 - Soft Well, for Zeolite treated water, 16'-8" x 32'-0" x 9'-0" with total capacity of 29,000 gallons

1 - Chemical Storage Building, 16'-0" x 78'-0", 3 story and basement, concrete, concrete block and frame building

1 - Filter and Water Treatment Building, 67'-4" x 78'-0", 2 story and basement, concrete, concrete block and frame building

1 - Pumping Station, 67'-4" x 68'-10", one story concrete, concrete block and frame building, containing 26 pumps, 25 electrically driven (totalling 1,700 H.P. connected load) and 1 steam driven, for drinking water, cooling water, fire service, process water, boiler feed water, lime slurry pumping and back wash, and wet pits.

1 - Venturi Vault, 17'-1" x 23'-0", concrete vault below grade

1 - Overflow Flume from Surge Chamber, 4'-0" x 11'-0", concrete section in Filter Building and Pumping Station basements, and 4 - 24" reinforced concrete pipes to drainage ditch

Reservoir blow off, 30" and 12" reinforced concrete pipe lines to drainage ditch

1 - Slurry Pool and spillways, earth dykes

171. The plot plan of the Water Treatment Plant is shown on page 248 and the slurry pool is shown on page 251. Photographs of the plant are shown on plates XIII and XIV.

REPRODUCED AT THE NATIONAL ARCHIVES

WATER

USE	SOURCE	REQUIREMENTS (6-Line Plant for 24 Hrs.)	INSTALLED CAPACITY	STORAGE CAPACITY
Drinking Water and Service Water	Metered and purchased from Niagara Falls water supply	187,200 gallons per day 130 G. P. M.-Av. 500 G.P.M.-Peak	10" Main at 100# Pressure 2 Service Supply Booster Pumps 500 G.P.M.-80 Ft. Head	75,000 gallons Wood Elevated Tank on steel supports
Fire Protection Water	Raw water from Niagara River	1,450 G. P. M. when fire engines are pumping	750 G.P.M. Fire Engine 500 G.P.M. Fire Engine 2 Fire Pumps 1,000 G.P.M.-380 Ft. Head	100,000 gallons Steel Elevated Tank 500,000 gallons Ground Storage Reservoir
Cooling Water	Water from Niagara River treated	23,364,400 gallons per day 16,225 G. P. M.	28,000 G.P.M. at Intake Pumping Plant 6-Cooling Water Pumps 3,200 G.P.M.-195 Ft. Head	4,000,000 gallons Ground Storage Reservoir 275,000 gallon concrete Water Tower
Boiler Feed Water	Water from Niagara River treated and filtered and again treated	300 G. P. M.	3 Filtered Water Transfer Pumps 800 G.P.M.-40 Ft. Head 3 Zeolite Water Pumps to Boiler Plant 600 G.P.M.-110 Ft. Head	10,000 gallons wooden Elevated Storage Tank on steel supports 29,000 gallons concrete Soft Well at Treatment Plant
Process Water to TNT Area	Water from Niagara River treated and filtered	1,635,600 gallons per day 1,136 G. P. M.	28,000 G.P.M. at Intake Pumping Plant 3 Process Water Pumps 600 G.P.M.-190 Ft. 2 Backwash Pumps 4,000 G.P.M.-40 Ft.	Clear Well 136,300 gallons

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Water

Drinking and Service Water

173. The drinking and service water supply is obtained from the City of Niagara Falls 12" water main supplying Youngstown and Fort Niagara. The connection to the city main is made adjacent to the Pletcher Road crossing over the Lewiston and Youngstown Frontier Railroad, by connecting a 12" x 10" reducer section and 10" valve to the existing 12" tee controlled by a 12" valve at this point. The 10" class "C" cast iron bell and spigot pipe line crosses under Pletcher Road to the north side into the meter pit where all water used on the project is metered. The service pressure is 100 lbs. per square inch. See photograph of the pipe line on Plate XX.

174. The 10" pipe line continues from the meter pit in an easterly direction on the Government right of way, to the chlorination station at the east side of Blairville Creek Road at the intersection of and on the south side of Pletcher Road, where chlorination in small quantities up to 15 pounds per 24 hours, and a certain amount of anhydrous ammonia is added, to counteract the chlorine taste in the water, thence to all parts of the plant where water is required for drinking, lavatories, laboratories, showers, hospital and cafeteria.

175. Where this line passes the pumping station a by-pass is made to duplicate booster pumps so that, should the pressure in the city main be too low, sufficient pump capacity will be available to maintain the required pressure service for the plant. About 1110 feet north of the pumping station an elevated wood tank supported on a steel tower is used as a reserve storage of 75,000 gallons for the water supply. See photograph Plate XII.

LENGTHS OF DRINKING AND SERVICE WATER DISTRIBUTION LINES

Size	Supply Main	Adm. Area	Trans-portation	Power & Shop	Acid Area	TNT Area	Total
10" C.I. Pipe	16273'	--	--	5568'	--	2391'	24,232'
8"	--	1237'	--	--	1579'	4727'	7,543'
6"	--	1433'	--	960'	212'	3467'	6,072'
4"	--	122'	--	3063'	287'	3868'	7,340'
2"	--	--	3663'	--	960'	--	4,623'
3" G.I. Pipe	--	825'	--	1074'	718'	669'	3,286'
2½"	--	--	--	1496'	--	166'	1,662'
2"	--	767'	1977'	1034'	958'	5802'	10,518'
1½"	--	182'	--	--	--	132'	314'
1"	--	193'	--	85'	--	--	278'
3/4"	--	--	--	29'	--	--	29'
	16273'	4759'	5610'	13309'	4714'	21202'	65,897'

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Water

Fire Protection

176. The water for fire protection purposes goes into the fire protection mains having fire hydrants and into the Sprinkler Systems of various buildings.

177. Raw water from the Niagara River is pumped into the surge tank at the Water Treatment Plant and the overflow goes through a circular concrete spillway into the 500,000 gallon ground storage reservoir, overflow from this goes into the drainage ditch.

178. From the reservoir connections are made to two stationary 1,000 G.P.M., 380 ft. head, fire pumps, one steam driven and one electrically driven, in the Pumping station, from which a 10" - Class "D", bell and spigot cast iron pipe laid underground with caulked lead joints constitutes the fire protection main. Two hydrants were installed so that a fire engine pumper could be connected to pump water from the Storage Reservoir into the fire protection main.

179. The 10" main reduces to 8" and again to 6" and finally to 4" in the Shop Area.

180. An elevated cylindrical steel tank of 100,000 gallons capacity for fire protection water storage was installed 2,370 feet northeast of the Project Pumping Station. The upper water elevation governed by a float valve, is 450 ft., the top of the stand pipe is at 417.5 ft. elevation.

181. The sizes and lengths of pipe for the fire-protection system are:

FIRE PROTECTION SYSTEM PIPING
(Length in Feet)

Size	Adm. Area	Classif-ication	Power & Shop	Acid Area	TNT & Magazine	Total Feet
10"	1,328	1,826	4,040	--	--	7,194
8"	824	1,002	8,500	5,316	15,393	31,035
6"	841	1,678	1,291	48	11,495	15,353
4"	--	--	45	--	--	45
	2,993	4,506	13,876	5,364	26,888	53,627

Water

Cooling Water

182. The cooling water is used for cooling chemical processes through, or over, coils, condensers, closed or open heat exchangers or in water jackets.

183. This water is taken from the Niagara River and forced by the River Pumping Station into the surge tank at the Water Treatment Plant, here it goes into the accelators where it is softened and treated, then through the recarbonation basin into the 4,000,000 gallon (which is sufficient for 4½ hours normal requirements) ground storage reservoir on the north side of the Water Treatment Plant.

184. This reservoir is connected to six rotary, electrically driven, cooling water pumps, each of 3,200 G.P.M. capacity, which discharge into a 36" diam. Venturi meter and a 36" diam. Class "C" cast iron bell and spigot underground main with leadite joints.

185. Cooling water is carried to the Power, Acid and T.N.T. Areas. In the Acid Area the main reduces to 24" diam. pipe and is connected to the 275,000 gallon concrete water tower, which is in the east end of this Area.

186. This elevated cooling water storage is required so that, in case of pump failure, 165,000 gallons of cooling water would be available for the T.N.T. Area and from 68,000 to 110,000 gallons would be available for the Acid Area. These quantities are considered sufficient to complete the manufacturing cycles of the product in process at a time when a failure of water supply might occur due to current failure, breakage of water line, or otherwise.

187. The water stored in the concrete cooling tower between elevations 456.0 and 468.0 is available for use in the Acid Area. After this has been utilized the water between elevations 432.0 and 456.0 is available for the T.N.T. Area.

188. This tank is equipped with an electric water-level recording device and signal system, by which the operator at the Pumping Station of the Water Treatment Plant can determine the level of water in the concrete tower, which is 4,460 feet distant, at any time. When the water reaches the 468.0 foot level, which is six inches below the top of the overflow pipe, the high-water alarm is given by a bell and repeated at 3-minute intervals until the operator reduces the pumping capacity.

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Water

Cooling Water (Continued)

189. When the water recedes to four feet below the high-alarm level, a low-water alarm signal of a different tone is given at 3-minute intervals until the operator increases the pumping capacity. Should the water continue to recede until the minimum low level is reached, 12 feet below the top level, which is the outlet of the pipe to the T.N.T. Area, a siren signal is given which will continue at 3-minute intervals until the pump operator has corrected the pumping condition. At this elevation the Acid Area reserve has been entirely used and the T.N.T. Area begins to draw on the 165,000 gallon reserve.

190. The sizes and lengths of pipe in the cooling water system are:

COOLING WATER SYSTEM PIPING
(Length in Feet)

Pipe Size	Power Area	Acid Area	T.N.T. "M" Street	T.N.T. Branches	Total Feet
36"	4,287	50	--	--	4,337
24"	1,920	1,215	2,396	--	5,531
18"	--	423	--	--	423
16"	--	37	--	--	37
14"	--	183	--	--	183
12"	--	--	--	2,598	2,598
10"	340	70	--	--	410
8"	1,300	42	--	3,010	4,352
6"	1,590	110	--	4,050	5,750
4"	--	111	--	980	1,091
3"	--	44	--	--	44
2½"	314	--	--	--	314
	9,751	2,285	2,396	10,638	25,070

Boiler Feed Water

191. The boiler feed water comes from the Niagara River as raw water to the surge tank at the Water Treatment Plant. Then it goes through the softening and treatment processes in the accelators to the gravity filters and the clear well, undergoing further treatment, then the water goes through the 800 G.P.M. filtered water transfer pumps to the 3 Zeolite Filters, each of 267 G.P.M. capacity to the soft well. Three 400 G.P.M.

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Water

Boiler Feed Water (Continued)

Zeolite water pumps force the boiler feed water from the Water Treatment Plant to the feed water heater in the Boiler House through an 8" cast iron bell and spigot underground pipe line, 937 feet long.

192. In the Boiler House the water is again treated with disodium phosphate and sodium sulphite in its flow between the feed water heater and the boilers.

193. At the Boiler House an outdoor, elevated, 10,000 gallon capacity, wood storage tank provides emergency storage for boiler feed water. An automatic float valve in the tank and level indicator for the boiler operators within the Boiler Plant are provided.

Process Water

194. The process water is used in manufacturing T.N.T. as part of the chemical process and comes into direct contact with the product.

195. Raw water from the Niagara River is pumped by the River Pumping Station into the surge tank at the Water Treatment Plant, is softened and treated in the accelators and then goes through the gravity filters, is again treated and goes into the 136,300 gallon clear well, which contains two hours' normal capacity supply for six T.N.T. Lines, from which it goes to 3-600 G.P.M. Process Water Pumps in the Project Pumping Station and thence through a 14" diam. Class "C", bell and spigot cast iron pipe main into the underground process water system having leadite joints.

196. The sizes and lengths of the pipe for the process water system are:

PROCESS WATER SYSTEM PIPING
(Lengths in Feet)

Pipe Size	Power Area	Acid Area	T.N.T. "M" Street	T.N.T. Branches	Total Feet
14"	598	--	--	--	598
12"	5,299	--	--	--	5,299
10"	--	--	2,394	--	2,394
8"	--	--	--	4,221	4,221
6"	964	--	206	2,102	3,272
4"	--	--	--	1,133	1,133
2"	--	332	--	--	332
	6,861	332	2,600	7,456	17,249

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UTILITIES

Gas

197. Gas is not used as a fuel or illuminant on the Project, nor was any known commercial supply available within the Project area at the time it was acquired.

198. The A-E-M and its subcontractors used tanks of compressed Pyrofax, Oxygen, Carbogen, and Acetylene for various purposes during construction, as follows:

GAS	CYLINDERS	CU. FT.	USE
Pyrofax	85	76,500	Heating driers in reproduction building
Oxygen (Commercial)	3,083	752,252	Welding and Burning
Carbogen (93% O, 7% CO_2)	6	1,464	Medical
Acetylene	1,502	434,048	Welding and Burning

REPRODUCED AT THE NATIONAL ARCHIVES

Electric System

Estimated maximum demand 7,200 KW.
Specified capacity 8000 KVA at 90% Power Factor.
Installed capacity 10,000 KVA.

High Tension Transmission Line

199.The Buffalo Niagara Electric Corporation acquired a sixty foot right of way, starting from the southwest corner of the Tuscarora Indian Reservation, across the road from their Gibson-Lockport feeders #103 and #104 and extending due north 3.08 miles to the south boundary of the Project. The U. S. Government granted the Corporation an 80 foot easement through the Project Area to the Electric Substation. See pages 21, 248 and 251. This easement and the transmission line within the Project Area will revert to the Electric Corporation in 1951.

200.Prime Contract DA-W-138-Eng. 72 for the construction of the line was awarded to the Buffalo Niagara Electric Corporation on July 2, 1942 and construction was begun July 6, and completed September 11, 1942.

201.This is a 115 KV, 3 phase, 60 cycle, single circuit line, mounted on two pole wood bents, having a 22 ft. double cross-arm at the top and double knee bracing at the center. These bents are spaced approximately 500 feet apart, except where the line bends toward the northwest and then proceeds north, just within the south boundary of the Project. The line runs north until it reaches a point west of the Main Electric Substation where it turns east and continues to the switchyard just north of the Boiler House.

202.The conductors are #2/0 medium hard drawn, stranded, bare copper wire, suspended from strings of seven unit suspension insulators. The conductors are spaced ten feet apart, horizontally, the middle one being centered on the bent. The average clearance above ground is 30 feet, at the low point of the span. The present line is so placed on the right of way that another similar line could be erected beside it, if found necessary. The line is 5.49 miles long. It can be connected through 3 P., D.T., pole-top, ground operated, disconnect switches, to either Gibson-Lockport feeder #103, or Gibson-Lockport feeder #104. See plate XXII for views of this transmission line.

Main Electric Substation

203.The 115 KV switchyard is a wooden structure consisting of poles with cross-arms, with concrete slabs on the ground for the outdoor transformers and is enclosed by a chain-link, non-climbable fence.

204.The transformer equipment at the substation is as follows:

2 - main transformers, 10,000 KVA, 115 Kv to 6900 V, 3 phase, 60 cycle, furnished by Westinghouse Electric & Mfg. Co., arranged

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Electric System (Continued)

Main Electric Substation (Continued)

for delta/delta connection to give 6900 V. on the secondary side. They may in future be reconnected to give 12,000 V. on the secondary side with "Y" connection of the secondary transformer coils. Secondary connections are provided to permit operation of either transformer. The transformers, by addition of forced air cooling, will permit a 33-1/2% increase in capacity with moderate expenditure for additional equipment.

2 - Primary disconnect switches, 115 KV, pole top mounted.

6 - Primary lightning arresters, 115 KV.

6 - Primary 80 Amp. S & C fuses; characteristics to give interruption on short circuit to clear in 33 cycles.

6 - Secondary lightning arresters, 6900 V.

205. Metering equipment is on the secondary side, housed in a brick building constructed by the A-E-M. This metering equipment was furnished and installed by the Buffalo-Niagara Electric Corporation.

206. The main switchboard for the 6900 volt distribution system is located near the northeast corner on the ground floor of the Boiler House.

207. An underground duct system of 12 fibre conduits laid in concrete was built from the Substation to the Boiler House. Each conduit contains one 1,000,000 C M cable. Two of these cables were installed for each phase from each transformer. A pit was built at the main switchboard for both incoming cables and outgoing feeders.

208. The secondary leads from one transformer go through an oil circuit breaker to one side of a bus (sectionalized by knife switches in the center) while the secondary leads from the other transformer go through another oil circuit breaker to the other side of the bus.

209. These two oil circuit breakers are controlled from the switchboard by hand control switches which are electrically interlocked so that the second switch cannot be closed electrically with the first switch closed. Both transformers cannot be operated in parallel. This provision by Stone & Webster is retained, as the feeder switches are not of sufficient interrupting capacity to clear a short circuit close to the bus with both transformers serving simultaneously.

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Electric System (Continued)

Main Electric Substation (Continued)

210. Ten three phase feeder circuits are provided, five on either side of the sectionalized bus. These are controlled by oil circuit breakers which can be operated by hand control switches on the main switchboard. One of these feeders is used to supply electricity for power and light for the Boiler House. Eight circuits become primary distribution feeders supplying power and light for various areas of the Project. One circuit at present is a spare for future use.

211. The outgoing feeders were installed underground from the 6900 V. switchboard to the poles in the switchyard, using fibre duct in concrete. These are 3-conductor, 500 M C M, 7500 V, PILC cables, which were bought to facilitate delivery and simplify the field work. All cables are pot-headed at both ends to protect them against moisture. See the photographs on plates XI and XXXIV.

Primary Distribution - 6900 Volts

212. This system was completely designed by the A-E-M, including determination of wire sizes, pole classes and lengths, type of hardware, length of spans, direction of runs, location and sizes of 92 transformer stations, etc. All wire used was bare wire for 6900 V, 3 phase, 60 cycle current. The sizes of copper used on the system were calculated in accordance with the assigned power loads in each case. All classes of wooden poles from 1 to 5, inclusive, were used in lengths from 25 ft. to 55 ft., inclusive. All insulators used to support the wires were of 23 KV capacity, to permit a change from 6900 V. to 13.2 KV, if necessary. Each circuit is protected at the Boiler House switchboard by an oil switch with overload trip protection. Nine feeders are provided from the switchboard, with one spare switch for the possible 10th feeder. See map on page 266. See photographs on plates XXII and XXIII.

PRIMARY FEEDERS

Cubicle No.	Feeder No.	Supply to	Estimated Max. K.W.
1	Spare		
2	2	(Guard fence lighting, Fire (Hdqts. (Guard Hdqts. & Hospital	216
3	3	T. N. T. Area	1550
4	4	Building lighting	924
5	5	Process water	2027
12	6	Acid Area	2027

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Electric System (Continued)

Primary Distribution - 6900 Volts (Continued)

Cubicle No.	Feeder No.	Supply to	Estimated Max. K.W.
13	7	Yard lighting (Series)	140
14	8	T. N. T. Area	Alternate to #3
15	9	Process water	Alternate to #5
16	10	Station, lighting & power	650

213.A double primary line is used for serving the water-supply system. One line will carry the main intake pumps at the River Pumping Station. The other line will carry all of the pumping load normally operating in the Pump House of the Water Treatment Plant, pumps in Sewage Area, and River Pumping Station auxiliary power and lighting and will be maintained in service in case of emergency.

214.In general, the arrangement of feeders at the switchboard is in accordance with the one-line diagram as furnished by the Stone & Webster Engineering Corp. Feeder assignment of loads has been modified only in respect to the handling of emergency power loads, and changes incidental to type of substation and omission of one emergency generator.

215.Layout plans were made, giving the pole number of every pole in addition to its location. Standard detail sheets of letter size were made up with notation thereon of the pole numbers to which each standard pole-top construction applied. Small standard sheets were also made up for the street lighting. Prints of these standard sheets and of the general layout drawings were supplied to the electrical field crews for erection use.

216.The distribution lines of the Buffalo Niagara Electric Corp. within the property boundaries were acquired by purchase. Arrangements to feed these existing primaries from the 6900 V. plant distribution system have been made at two points so that all primary distribution lines so acquired will be utilized, except where these old primary lines are to be removed.

217.Ninety-two transformer banks have been located throughout the area, exclusive of those used purely for residential lighting. These transformer installations total 11,543 KVA, consisting of 1,649.5 KVA for lighting and small motors and 9,893.5 KVA for power. Our drawing shows the distribution of transformer stations in relation to supply feeders. These transformers are delta/delta connected for 6900 V secondary for primary distribution, but they can be "Y" connected to furnish 12,000 V. on the secondary side if found advisable in the future.

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Electric System (Continued)

Primary Distribution - 6900 Volts (Continued)

218. Prime Contract DA-W-138-Eng. 84 for the construction of primary distribution lines from the initial pole adjacent to the power house to the secondaries of the distribution transformers and for the guard fence lighting was awarded to O'Connell Electric Co. of Rochester, N. Y. on May 21, 1942. Work began June 16 and was completed December 9, 1942. The power house and cable work was done by the Lord Electric Co. as Sub-contractor to the A-E-M.

Secondary Distribution - Mostly 440 Volts

219. The A-E-M prepared the complete design of this system, including wire sizes, both classes and lengths, type of hardware, length of spans, direction of runs, etc. Weather proof wire was used throughout. From the various substation transformer banks, secondary distribution lines were specified in accordance with load requirements.

220. Secondary voltages for all power needs consisted of 440V, 3-phase circuits except for the laundry (Bldg. #723) and part of the River Pumping Station, which required 220 V, 3-phase circuits, because the vendors could not deliver the 440 V. equipment in time to start operation of this plant. Also, in buildings housing the ammonia compressor units for nitric acid, the blowers for the precipitators in the sulphuric acid concentrating plant, the air compressors in the Plant Compressor House and the water pumps in River Pumping Station, 2300 V, 3-phase power was used for these larger motors. All lighting circuits were 1 115/230 V, single phase, run from separate transformers.

221. Secondary power distribution lines were carried on wooden poles with racks used, in general, for one, two or three wire circuits. Cross-arms were used when 440 V service was carried on secondary distribution poles.

222. The majority of transformer banks are on pole structures or cross-arm mounted. Where the load is in excess of two tons, a double-pole transformer structure was used. On transformer banks exceeding 300 KVA capacity, concrete pads were installed at ground level and all equipment enclosed by a fence. Lightning arresters and fused cutouts are used with every transformer installation. See photographs on plate XXIII.

223. Contracts for buildings erected as a group included the electrical lighting work. A prime contract DA-W-138-Eng. 71, for the electric lighting in 27 buildings erected by the force account, was awarded to Rohrer Electric Co., Inc., of Niagara Falls, N. Y., on May 9, 1942. Work began May 19, 1942 and was completed November 10, 1942.

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Electric System (Continued)

Secondary Distribution - Mostly 440 Volts (Continued)

224. All other work was done by Lord Electric Co., Inc., as Sub-contractor for the A-E-M, on a fixed fee basis. This work included the secondary lines for distribution of load from the secondary side of the distribution transformers to the various power-load consuming devices and the erection of all pole structures for the steam and process pipe lines.

Outdoor Lighting

225. The entire outdoor illumination system was designed by the A-E-M, consisting of 15 circuits, each containing one constant current transformer with controller, protector, electric time switch and $1\frac{1}{2}$ KVA transformer to operate the time switch. A total of approximately 700 - 300 W, 6.6A series luminaires was used on these 15 circuits. Mast arms used for fence lights are 8'-9" long as the primary distribution line was located 6'-9" inside the fence. Brackets 4'-0" long were used for the street lights.

Fence Lighting

226. Fence or guard lighting consisted of six circuits with an average of 56 lamps per circuit, spaced 125 ft. apart. The luminaires were so located that the light source was two feet outside of the guard fence at an elevation of 23 ft. above grade, with light distribution such that a well-illuminated band 100 ft. wide outside of the fence was provided, with comparatively slight illumination inside of the fence.

227. Guard towers were so located that they were above the light source and were equipped with searchlights which could be used for spot illumination of any questionable detail. These sentry houses were spaced at approximately 1,500 feet intervals, so that the intervening area was normally visible from two stations. Each tower is also equipped with electric heating and guard telephone connection to the central guard house.

228. The primary feeder energizing the six constant-current 20 KVA transformers for the lighting circuits was also used to energize 28 - 5 KVA, single-phase transformers which were used to operate a 1,960,000 beam c.p. searchlight mounted on the roof of each guard tower, and also to light and heat these guard towers.

229. The fence and guard-tower lighting system was supplied through a primary distribution line direct from the main switchboard at the power house. All series lighting circuits were controlled through time switches located at each constant-current transformer, with a control circuit to the nearest sentry house.

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Electric System (Continued)

Street Lighting

230.Street lighting comprised nine series loop circuits of approximately 375 total lights, with transformers from 5 to 30 KVA capacity. In addition to lighting the streets within the guard fenced area, street lighting was placed on three main roads leading to this area within the Project site. In general, street lights were placed on every third pole or 450 ft. apart, except where higher illumination was necessary on roads used for transportation of explosives, where a light was located on every pole. Poles were set six feet from the shoulder of the road.

231.All series lighting circuits are controlled through time switches located at each constant-current transformer.

232.General lighting was also furnished by multiple flood lights installed in the Classification Yard, Main Parking Area, Transportation Center and some other isolated places not reached by series lighting. See photographs on plate XXIII.

Telephone System

233.Two separate systems were designed. One was used for general intercommunication and connected to the New York Telephone Co. system and of the automatic type; the other was the guard telephone system with a manual board in the Guard Headquarters building. A common cable was used for both systems where practical.

234.The central automatic telephone exchange was purchased from and installed by the American Automatic Telephone Co. in the brick telephone building, #702, designed for this purpose, and was initially equipped for 350 extensions with provision to extend to an 800 line capacity, sufficient for a 12-line plant. This board is wired and equipped for 20 trunk lines to Niagara Falls and 5 trunks to Lewiston, N. Y.

235.Telephones throughout the manufacturing area and the Administration buildings were laid out as called for by the schedule of telephone service indicated by DuPont and drawings were prepared showing the distribution by multiple lead-covered cable throughout the area. A 400 pair cable is brought out from the telephone bldg. and run overhead on electrical distribution system poles. A 200 pair cable is installed in underground circuit to the Administration Bldg., for present and future needs. The cable size diminishes from 400 pair in successive steps, as pairs are utilized, until it becomes an 11 pair minimum cable. Telephone service is also furnished to many

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Electric System (Continued)

Telephone System (Continued)

residences on the site. Operators are required to handle outgoing calls only, as the intercommunication phone sets are all automatic.

236. The Guard telephones are located outdoors, with an operator constantly on duty at Guard Headquarters to check reporting calls by the guards. The DuPont Manual specified a magnetic-type telephone system for the guards but inability to get delivery required the use of a standard non-dialling telephone system. Each sentry tower along the guard fence is connected to the guard central and there are also connections from various strategic locations throughout the area within the guard fence where watchmen's telephones are located.

Fire Alarm System

237. The A-E-M designed the fire-alarm system, consisting of 47 alarm stations divided into two alarm circuits and one circuit for recorders and alarm bells located in two fire houses and the Boiler House, and gongs only in the water pumping plant, the main office building, the combined shops and Guard Headquarters. The wires to the alarm boxes are strung on poles used for the primary distribution system and street lighting. The complete system was installed by the A-E-M.

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UTILITIES

Heating

238. Careful study of the heating requirements for all new buildings resulted in the installation of 127,739 sq. ft. of radiation, or 38,559 sq. ft. increase over the original amount recommended in the DuPont Specifications for Utility Requirements for this Project.

239. Steam from the Boiler Plant is distributed, as described under Steam Lines, and takes care of 126,171 sq. feet of steam radiation in the buildings.

240. Electric heaters account for 1,370 sq. feet of radiation in the office of Building #701 (Gate House) and 198 sq. feet in Buildings #601 (Scale Houses).

241. Hot Air is used at the River Pumping Station and exhaust steam is used in the Filter Building of the Water Treatment Plant.

242. The great increase in heating is due to the fact that the original designs were for installations in localities with a warmer climate than that found on the Niagara Frontier and the south shore of Lake Ontario.

243. Temporary buildings were heated with oil, burned in large stationary burners or portable stoves.

244. Most of the existing buildings, used for quarters or offices, were heated with coal. A few were heated with oil. See page 62.

245. Steamlines and heaters were also installed at all the elevated water storage tanks and the fire storage reservoir, to provide heating.

246. Twenty-eight sheds were built for steam traps and reducing valves.

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UTILITIES

Boiler House

247. The Stone and Webster Engineering Corporation of Boston, Mass. and the U. S. Government entered into a contract, W-175 Eng. 1297, whereby the Corporation was to furnish designs, specifications and engineering and procurement services in connection with seven boiler plants for T.N.T. Projects. This contract included the design and procurement of the boiler house and its equipment for the Lake Ontario Ordnance Works, with the exception of the boiler feed, water treatment, fuel handling facilities and miscellaneous details which were taken care of by the A-E-M.

248. The original Boiler House design called for the initial installation of four boilers. This was later changed to three but not until after foundations had been poured for four boilers and for their auxiliaries.

249. The main building is 136', east to west, and 82' north to south, of structural-steel framing on concrete foundations, with asbestos-protected metal siding and roofing supported on wood girts and purlins. Steel sash is used, and the roof is fitted with an open-ridge ventilator to its full length. The original design for the Boiler House foundations allowed for 4,000 lbs. per sq. foot soil pressure. All foundations had to be redesigned, 3,000 lbs. per sq. ft. pressure to suit the load-bearing qualities of the relatively soft underlying clay at this location. See photographs on plate XI.

250. The main building houses three Riley pulverized-coal-fired steam generators, each having a capacity of 100,000# per hour of saturated steam at 185 lbs. gauge pressure. Each unit is complete with steam-turbine-driven induced and forced draft fans, motor-driven pulverizers and coal feeders, and is complete with automatic combustion control. The building also houses auxiliaries, including boiler-feed pumps, fuel-oil pumps, deaerating open-feed water heater, chemical feeding equipment, and air compressors for the control system.

251. Attached to the north side of the main section is the electrical bay, 136' x 30', in which is installed an emergency 500 KW turbo-generator with provision for a future duplicate unit, switchboards, battery room, and motor-generator set. This bay also houses the office, locker and toilet rooms. On the east end of the main section is a bay, 112' x 30' housing scrubbers and pumps for the purpose of delivering clean flue gas from the uptakes to the Water Treatment Plant, 1/3 of a mile distant.

252. Fuel and ashes are handled with facilities located in the area south of the Boiler House.

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Boiler House (Continued)

Boilers

253. The three coal and oil-fired steam generating units, including pulverizers, feeders and connecting ductwork, were furnished by the Riley Stoker Corp. of 109 Neponset St., Worcester, Mass. These units each have a continuous capacity of 100,000 lbs. of steam per hour at 185 p.s.i. with feed water at 210 deg. F. when burning coal having a heat content as fired of 10,500 BTU per pound.

254. Each Riley type R.P. boiler is of two-drum design, the upper being 60" and the lower 36" in diameter and 18'-1" long. The upper steam drum is equipped with a steam separator for collecting dry steam for exit from the boiler, and a collector for the continuous blow-down system. 9,440 sq. ft. of heating surface is provided by $3\frac{1}{4}$" and $2\frac{1}{2}$" tubes in the boiler proper, and 2,735 sq. ft. are provided by $3\frac{1}{4}$" tubes, making up water walls and floor screen. The furnace has 6,400 cu. ft. of volume, being 18'-3" wide by 14'-10" long by 23'-9" mean height, providing a heat release of 20,600 BTU per cu. foot per hour.

255. The whole boiler is encased in a #10 gauge steel casing lined with mineral wool, insulating block and interlocking firebrick, and is equipped with 12 valve-in-head Diamond soot blowers, five 4" safety valves, one Reliance high- and low-alarm water column, vent and feed valves continuous blow-down valve, and five blow-off valves.

256. Performance data is contained in the A-E-M's Historical Report.

Pulverizers

257. Two #4 Double Riley Atrita Unit Pulverizers serve each boiler, each pulverizer having a capacity to generate 70,000 lbs. of steam per hour when pulverizing coil with 18% moisture. Coal is fed from the silos through chutes by gravity to the hoppers of the dual coal feeders which are located on the operating floor. Each feeder is driven through a common variable-speed drive from a $1\frac{1}{2}$ H.P., 1,150 r.p.m., constant-speed motor. The variable speed drive is automatically regulated by the pneumatic control system according to the steam demands of the boiler. The feeders are equipped with magnetic separators for removing tramp iron from the coal. Metered coal drops from the feeders and, together with preheated primary air, enters the pulverizers. Air preheating is accomplished by mixing hot furnace gas, taken through the furnace front wall, with air through adjustable dampers at the boiler front.

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Boiler House (Continued)

Pulverizers (Continued)

258. The pulverizers reduce the coal to its final size in two stages, first in a hammer mill, by impact, and then in an attrition mill, by rubbing. Powdered coal in suspension then passes through the pulverizer primary air fan, and is discharged through round ducts to the burners located on the operating floor. It is noteworthy that these pulverizers are extremely quiet in operation and have little vibration.

Burners

259. Each boiler is equipped with two Riley flare-type coal burners with Enco (the Engineer Co.) fuel-oil burners at its center. Intimate mixing of coal, oil, and air, and the shape of the flame, is accomplished in the burners by arrangement of sets of adjustable vanes.

260. The oil burners are arranged so that either mechanical or steam atomizing units can be used, according to requirements. Both types are furnished. Oil-burner capacities range from 10 to 300 G.P.H., which will generate from 1,200 to 36,000 lbs., of steam per hour. The oil burners are used for initial operation when warming up a boiler, and it has been found necessary to use fuel oil to supplement coal at ratings below 30,000 lbs. per hour. At low steaming rates the furnace temperature becomes sufficiently low so that ignition of coal alone is slow, making combustion somewhat unstable, with some puffing. Addition of small amounts of fuel oil correct this condition.

Forced Draft

261. The forced-draft equipment consists of one steam-turbine-driven forced-draft fan, and one steam-turbine-driven induced-draft fan for each unit.

262. The forced-draft fans were furnished by the Green Fuel Economizer Co., Inc. The units are double inlet, with ring-oiled bearings on independent pedestals, and are driven by Terry turbines through Folk flexible couplings. The performance data is as follows:

Pounds of air per hour	165,000	125,000
Temperature of air (deg. F.)	100	80
Cu. ft. per minute	39,000	28,400
Static pressure (in. H_2O)	7	4

Boiler House (Continued)

Forced Draft (Continued)

Rev. per min.	1,860	1,490
Brake h.p.	66	27
Static efficiency (%)	65	66.2
Pounds of steam per hr.	5,550	2,800

Induced Draft

263. The induced draft fans were furnished by the American Blower Corp. The units are double-inlet "Sirocco" type, complete with inlet boxes and discharge scroll housings. The wheels are provided with wearing pads on the blades. Ring oiling water-jacketed bearings are supported with independent pedestals. The variable speed adjustment of draft is further controlled by louvre dampers. The units are driven by Worthington-Moore turbines through herring-bone reduction gears; all assembled on a common bed plate. The performance data of these units are specified to be as follows:

Pounds of gas per hour	180,000	140,000
Temperature (deg. F.)	625	570
Cu. ft. per minute	82,300	60,700
Static pressure (in. H_2O)	9.0	5.0
Rev. per minute	935	680
Brake h.p.	164	67.5
Static efficiency (%)	71.0	71.0
Pounds of steam per hr.	6,960	4,540

Combustion Control

264. The combustion-control system, furnished by the Bailey Meter Co., was designed and purchased by Stone & Webster. The control is effected by a complete system of Bailey air-operated automatic-control equipment which automatically maintains constant steam-header pressure, proper fuel-air ration, and furnace draft in each boiler. It includes means for obtaining automatic control of pulverized coal feed, forced and induced draft-fan speeds, and forced draft and induced draft fan damper positions. In addition, a system of electrical interlocks are provided to prevent the starting of the pulverizers or feeders until air flow through the boilers has been established, and to stop fuel-oil and coal supply on loss of air flow.

265. A control panel for each boiler is located on the operating floor in front of each boiler, on which are installed the Bailey steam-flow air-flow recorder controller, selector switches for manual and automatic operation of air and fuel

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Boiler House (Continued)

Combustion Control (Continued)

speed controls, furnace draft control, and start-stop switches for pulverizers, coal feeders, and boiler-feed pumps. In addition, on these panels are mounted Bailey multipointer Draft Gauges, indicating forced draft, wind box, furnace, uptake and I. D. Fan intake draft; gauges indicating boiler feed water pressure and fuel-oil pressure; and pulverizer ammeters. Thus the complete control of the boiler unit is effected, and indication of conditions of operation are before the operator at this one location.

266. Air for the control system is furnished by two Worthington two-stage, three-cylinder air compressors of 60 c.f.m. capacity driven by 15 H.P. motors. Air is delivered to a 152-cubic-feet receiver, and from the receiver to the various units of the control system. One compressor is of sufficient capacity to meet the requirements of three boiler units, so that a stand-by compressor is always available.

Boiler Feed Water System

267. The boiler feed water system was designed by the A-E-M from point of entry to the Power Area, to the suction header for the boiler feed pumps. From this point to the boilers the layout is by Stone & Webster.

268. Water (Zeolite softened) is delivered to the Boiler House through an 8" main, and is fed through an 8" air-operated Clayton float valve, furnished by the Crane Co., to a 10,000-gallon wood stave tank located on a steel tower 80 ft. high at the east end of the Boiler House.

269. Water is fed by gravity through the float feed valve of the Cochrane open-tray-type deaerating heater, purchased from the Cochrane Corp. of Philadelphia. This is a #6066 heater having a capacity of 400,000# per hr., and is equipped with a vent condenser, and water inlet regulating valve as standard equipment. A second water inlet regulating valve was installed as a special feature for this job, 3'-5" below the standard valve to provide an emergency supply of treated cooling water to the heater in event of failure of the regular Zeolite-softened water. Steam is furnished from the auxiliary exhaust header to the heater at 3 p.s.i., water enters at from 35 deg. F. to 65 deg. F., and is discharged to the suction header of the boiler-feed pumps at 220 deg. F. A valved by-pass piping is provided around the storage tank and feed water heater direct to the pumps.

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Boiler House (Continued)

Boiler Feed Water System (Continued)

270. Three 2-stage DeLaval centrifugal boiler-feed pumps with 4" suction and 3" discharge openings, specified to deliver 450 g.p.m. at 625 ft. head of water at 220 deg. F. with suction head of 22 ft., discharge the heated feed water to a 6" header manifolding the three boilers. Each pump has an excess of 35 per cent capacity to meet the maximum steam-output demand of the plant. Each of two pumps is direct coupled to a DeLaval single stage, non-condensing steam turbine equipped with constant-speed governor and separate over-speed trip, the third pump is driven by a 100 H.P., 3,600 r.p.m., 3 phase, 440 V. squirrel-cage induction-type, splashproof motor.

271. At each boiler the feed water passes through a Fisher Governor Co.'s 4" differential pressure-regulating valve and a Swartwout feed water regulator to the upper drum of the boiler.

272. Paralleling the feed water header is a duplicate auxiliary header receiving feed water from individual pump-discharge connections and supplying each boiler through a separate connection having a manual regulating valve. This auxiliary piping system insures the boilers a supply of water in the event of failure of any of the feed water regulating or piping equipment.

Continuous Boiler Blow-down System

273. The blow-down system for the boilers is of Stone and Webster design, and the principal equipment was purchased by them.

274. The water from the 3/4" continuous blow-down metering valves, furnished by the boiler manufacturer, is discharged through a 3" collecting header to a 4'-0" diam. x 7'-10" flash tank furnished by the Cochrane Corp. This flash tank is built for 50 lbs. working pressure, and is equipped with a relief valve, high-water alarm, and float valve.

275. About 16% of the water entering the tank passes as steam to the low-pressure main, while the balance passes through the float valve to the blow-off tank, furnished by the Pennsylvania Furnace & Iron Co. of Warren, Pa., and is located on the south side of the Boiler House. This blow-off tank is 7'-0" x 5'-0" diam., and is furnished with a vent and overflow connection to waste. Blow-offs from the water columns, water-wall headers and mud drums of the boilers discharge directly to the outside blow-off tank.

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Boiler House (Continued)

Chemical Treatment of Boiler Feed Water

276. Consulting advice concerning the problem of chemical treatment of the boiler water was rendered by W.H. & L.D. Betz, Philadelphia, Pa.

277. The boilers receive soft, deaerated water, having received Zeolite treatment before entering the Boiler House, and deaeration in the Cochrane Deaerating Heater. A chemical feed system introduces an estimated requirement of one gallon of 5% disodium phosphate and 1/6 gallon of 5% sodium sulfite solutions per 100,000 lbs. of steam directly to the upper drums of the boilers. Sodium phosphate solutions of 5% concentration are mixed in a 100 gal. tank, and sodium sulphite solutions of from 2% to 5% concentrations are mixed in a 52 gal. tank fitted with a floating cover to keep exposure to the air at a minimum. The disodium phosphate solution is fed to the boilers by either of two variable-stroke chemical proportioning pumps, Hills-McCanna Co., Chicago, Ill., type RM-1F. The sodium sulphite solution is fed into the suction header of the boiler feed pumps by a third variable-stroke chemical-proportioning pump.

278. Ahead of the continuous blow-down metering valve at each boiler, a sampling connection has been made and equipped with a sampling cooler. From the chemical analysis of water taken periodically, the rate of blow-down and rate of disodium phosphate and sodium sulphite feed is determined.

Coal Handling Equipment

279. The coal-handling equipment was purchased by Stone & Webster from the Jeffrey Mfg. Co. of Columbus, Ohio, and comprised the following:

1 - 10,000 lb. capacity car puller
1 - Track hopper with supporting girders and grating
1 - Apron feeder
1 - Rotary ring crusher
1 - Continuous bucket elevator
1 - Magnetic separator
1 - Scraper Conveyor

280. The operation of these units is as follows: The car puller is used for moving empty and loaded cars. The coal from the railroad cars is received into the track hopper, which is provided with a 6" mesh grating and track

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Boiler House (Continued)

Coal Handling Equipment (Continued)

From the hopper, the apron feederfeeds to the rotary ring crusher. The chute to the crusher is provided with a 3/4" mesh bar grating so that fines will by-pass the crusher and pass directly to the continuous bucket elevator, while the coal over 3/4" will pass to the crusher to be reduced to 3/4", or finer, and discharge to the continuous bucket elevator. The continuous bucket elevator carries coal up and discharges it to the magnetic separator, located atop the easterly silo, which removes tramp iron and then discharges the coal to the scraper conveyor. The scraper conveyor then conveys coal to openings in the top of each silo. This entire equipment has a rated capacity of 70 tons per hour with continuous feed.

281. The reclaiming conveyor was purchased by the A-E-M from W.B. Neill Co. of New York City and was built by the Link Belt Co. of Chicago, Ill. This is a belt conveyor designed to receive coal from the three silo dead storage discharge valves and discharge it into the chute feeding the continuous bucket elevator, at the rate of 70 tons per hour.

Coal Silos

282. The outline drawings and specifications for three coal silos were furnished by Stone & Webster, and the silos were constructed under Contract DA-W-138-Eng.93, by W.B. Neill of New York City. The original design called for silo structures 21 ft. in diameter and 78 ft. high, located axially in front of each boiler and having a floor sloped toward the Boiler House at an angle of 47 deg. and with a mean elevation of 45 ft. above grade. This provided for a live storage of 250 tons of coal for each boiler. Climatic conditions warranted a small additional expenditure to provide an inside dead storage of about 270 tons in the lower portion of each of the silos. An overflow chute from the live storage, and an inclined floor and valve in the bottom of the silos feed a reclaiming conveyor, which in turn discharges to the live-storage conveying system, was erected. This provides a total, sheltered, dead storage capacity of 800 tons, which may be delivered into any of the three silos.

Coal Storage

283. An outside yard coal-storage space is provided, covering approximately $3\frac{1}{2}$ acres, allowing for storage of 40,000 tons of bituminous coal, when graded to a depth of 14 feet, thus

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Boiler House (Continued)

Coal Storage (Continued)

providing facilities for storing about a 6-months supply of fuel for the Boiler House. This storage is served by a separate railroad spur on a coal trestle 262 ft. long and elevated 15 ft. above grade. A deisel engine-driven tractor and scraper-bucket truck ("Carrymore") distributes coal over the storage space. This method of distribution was favored, because it lends itself most readily to evenly depositing and compacting the coal in thin layers and for maintenance of uniform consistency throughout the pile. This lessens the probabilities of spontaneous combustion. See photographs on plate XI.

284. Coal is moved from dead storage to the track hopper, located at grade, serving the coal silos by means of the scraper bucket and tractor, or by means of a bulldozer tractor. This arrangement for dead coal storage is all of A-E-M design.

Fuel-Oil System

285. The fuel-oil system serving the oil burners was designed by Stone & Webster, and the fuel-oil pumps, tanks and specialties were purchased by them.

286. The fuel-oil storage facilities consist of two 12,000 gallon horizontal tanks, 10'-0" diam. x 24'-0" long, with dished heads and tested to 15 p.s.i. The tanks were furnished by the Buffalo Tank Co. Each tank is equipped with a 6" fill pipe extending to within 6 inches of the bottom of the tank, and located so as to receive fuel from either tank car or tank wagon, a 1" water-removal line, liquid level gauge and 24" manhole. The 3" oil suction lines supply two fuel-oil pumps, through a twin strainer, from either or both tanks. One pump, driven by a 10 H.P., 875 r.p.m., 3 phase, induction-type splash-proof motor, is a double-helical-gear rotary pump, supplied by Worthington Pump & Machinery Corp. The second pump is a $7\frac{1}{2}$" x 4" x 10" horizontal, standard-pattern piston pump suitable for working pressures up to 350 p.s.i., and is equipped with visible-feed lubricator and steam governor valve. This pump was furnished by the Union Steam Pump Co. A pulsation chamber, 18" diam. x 7'-0" long, with gauge cocks and glass, is located in the steam pump discharge piping. The fuel oil discharged from these pumps is delivered to the boilers at 250 p.s.i., charge. A Ruggles & Klingeman electric solenoid valve is located at each boiler to shut off the fuel-oil supply, in the event of failure of draft in the boilers.

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Boiler House (Continued)

Fuel-Oil System (Continued)

287. The Chemical Construction Corporation under a directive received from the Ordnance Dept., purchased a supplementary oil-storage tank to be erected above ground, having a capacity of 132,000 gallons. Oil will be pumped from oil-tank cars into this storage by means of two 75 g.p.m. Viking oil pumps, and reclamation may be accomplished be either discharging directly into the fuel pump suction or into either of the under-ground oil-storage tanks. Piping is arranged for both methods of reclamation. See panorama on page iii.

Ash Handling

288. The ash-disposal system was designed and purchased by Stone & Webster from the United Conveyor Corporation, Chicago, Ill. The system includes ash hoppers, pneumatic conveyor, radial brick storage bin, and unloader.

289. Ashes are collected in refractory-lined hoppers below the boiler furnaces. Fly ash from the cyclone separator located in the induced fan discharge and from the last pass hopper to the stacks is pneumatically conveyed through a system of piping to the receiver and separator located above the ash-storage bin. Air passes through the 8" steam exhauster, through a dust separator and silencer to the atmosphere. Ash and dust drop into the bin below. The glazed radial tile ash bin is located on a steel supporting structure allowing truck clearance below. The bin is approximately 23 ft. high and has a 14 ft. inside diameter, and is equipped with a dustless unloader on the underside for discharging ashes into trucks.

290. The ash system is designed to handle 15 tons of dry ash per hour, using an average of 225 lbs. of steam per ton of ash. Ash can be unloaded from the bin at the rate of 25 tons per hour.

Stacks and Flues

291. The flue gas discharged from the upper rear of each boiler is carried down to each induced draft fan, located on the basement floor, through a split duct fabricated of 3/16 steel. From the fan outlet the gases then pass upward to the base of each stack. These ducts are provided with bellows-type expansion joints.

292. The three steel stacks are 6'-6" in diameter at the base, and 5'-0" at the top. They rest on the steel framing of the building, with the bases 42 ft. above the basement operating floor, extending 37 ft. above the

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Boiler House (Continued)

Stacks and Flues (Continued)

roof, and are unlined. Suspended from the base of the stack is a soot hopper with valved connection to the ash-collecting system.

293. The stacks and ducts were designed and purchased by Stone & Webster Corp. from the United Boiler Heating & Foundry Co., Inc., of Hammond, Indiana. The flues were purchased by the A-E-M from the Dover Boiler Works, Jersey City, N. J.

Steam Piping

294. Steam at 185 lbs. p.s.i. from the three boilers drops into a 16" header, located about three feet above the operating floor on the north side of the Boiler House. Steam for distribution for the T.N.T. Area and Acid Area is taken from the east end of this header, and for the Administration Area and Shops Area from the west end. A Republic Flow Meter records the amount of steam distributed through each take-off. An auxiliary steam line serves the auxiliaries of the Boiler House. This line completely loops the Boiler House, and takes its steam from two connections to the main steam header and is equipped with sectionalizing valves so that repairs can readily be made with the plant under steam.

295. A low-pressure steam line receives steam from the auxiliary turbine exhausts, and from the blow-off flash tank, and supplies steam to the deaerating heater and Boiler House heating. The low-pressure steam line is equipped with a Cochrane Multiport Relief Valve sized to pass the full volume of auxiliary turbine exhausts at 6 p.s.i. A 4" Masoneilon, pilot operated, Pressure Reducing Valve furnishes steam to the low-pressure lines, when auxiliary exhausts are insufficient to meet low-pressure steam demands. Condensate from steam line drip traps is collected in an 18" dia. x 36" receiver and is raised to the feed water heater by means of a lift trap, furnished by W. M. Acker Organization, Inc., of Cleveland, Ohio.

296. All steam piping in the Boiler Plant is insulated with double-thick 85% Magnesia covering. The exhaust piping is insulated with single thickness, 85% Magnesia covering.

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Boiler House (Continued)

Emergency Turbo Generator

297. Two 500 KW turbo generators, specified and purchased by Stone & Webster, were to have been installed to pick up the emergency lighting load in the event of electric power failure. However, due to Government reallocation, only one unit has been erected. The Terry Steam Turbine Co. furnished this unit complete as follows:

1 - 500 KW Type C-2 Terry two stage reaction turbine complete with constant-speed governor valve, separate quick-opening valve and sentinel type relief valve.

1 - Weston Electric Co. electric indicating tachometer.

1 - 8" Ruggles & Klingeman, Fig. 229L. solenoid operated trip valve complete with auxiliary switch and adjustable oil dash pot.

298. On power failure, the solenoid-operated steam valve opens at a rate established by the oil dash pot setting, admitting steam to the turbine. On restoration of outside power supply, the steam valve is automatically closed. The turbine exhausts directly to the atmosphere.

299. Furnished by the same vendor and direct driven by the above turbine, through a flexible coupling, is

1 - General Electric 500 KW, 625 KVA, 6,900 V, 3 phase 60 cycle General Electric Co. generator with direct connected 125 V, D-C exciter.

300. In case of power failure requiring automatic starting of the turbine, the emergency generator is connected through its switchboard to the emergency station power transformer to the Boiler House units necessary to maintain operation. This generator may also be connected by the operator through the switchboard to the main 6,900 volt switchboard to supply a limited amount of power to outgoing feeders to supply selected emergency power and lighting needs.

301. In case of interruption of the A-C supply, emergency lighting in the Boiler House is provided by an automatic throwover switch which transfers the supply to the emergency lights from the normal A.C. source to the D.C. 125 V. storage battery.

REPRODUCED AT THE NATIONAL ARCHIVES

UTILITIES

302. BOILER HOUSE CONTRACTS

DESCRIPTION OF WORK	PRIME CONTRACTS	WORK STARTED 1942	WORK COMPLETED 1942
Concrete foundations	Poirier & McLane Corp.	April 6	June 24
Steel erection	Schieve Construction Co.	June 15	July 22
Siding and roofing	American Steel Band Co.	July 18	October 10
Glass and glazing	Pittsburgh Plate Glass Co.	June 30	September 12
Plumbing and heating	H. C. Mapes Corp.	July 8	November 16
Erecting boilers	Champion Construction & Eng. Co.	June 12	September 30
Coal silos	W. F. Neill, Inc.	June 17	October 14
Ash bin and equipment	United Conveyor Corp.	July 13	October 29
Pipe covering	Paul J. Krez Company	September 29	January 16, 1943
	SUB-CONTRACTS		
Steam piping	Baker, Smith & Co., Inc.	July 13	January 15, 1943
Electrical work	Lord Electric Co., Inc.	July 18	January 16, 1943
Supervising Eng.	Bailey Meter Company	August 27	February 8, 1943
Supervising Eng.	Jeffrey Manufacturing Co.	August 17	August 29
Supervising Eng.	Westinghouse Electric & Mfg. Co.	December 4	March 18, 1943
Operator's services	Riley Stoker Corporation	September 14	October 10
Boiler inspections	Hartford Steam Boiler Inspection & Insurance Co.	July 6	December 12
Cons. Eng. services	W. H. & L. D. Betz	September 14	January 9, 1943

FORCE ACCOUNT WORK

Erection of steel sash
Erection of steel stacks
Erection of stairs & misc. steel & iron
Erection of wood girts, purlins, etc.
Erection of interior partitions
Concrete floors and finish
Painting
Grading around building, walks & roads
Installation of equipment except as covered by contracts.

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UTILITIES

Steam Lines

303. Steam is provided from the Boiler House through outside, overhead, insulated steam lines for process, water heating and building heating purposes.

304. The General Data and Utility Requirements Report prepared by the duPont Company required that process steam be furnished to the various buildings of the Acid Area at not less than 150 lbs. pressure, and to the T.N.T. Area at 125 lbs. pressure.

305. Starting with saturated steam at 185 lbs. pressure at the Boiler House, the lines were sized to deliver steam at the required pressures at the various buildings. In general, the velocity does not exceed 6,000 ft. per minute.

306. The total peak demand for Acid and T.N.T. Areas after applying a diversity factor is approximately 100,000 lbs. per hour. Steam is carried in a 12" main a distance of about 2,500 ft. to the point where the lines to these areas branch off, and the steam to each area is metered.

307. Steam leaves the Boiler House in the other direction through an 8" main with a metered branch to the Shops Area, and continues on through a meter to the Water Treatment Plant and the Administration Area. The total peak demand of these areas, after correcting for diversity, is 34,000 lbs. per hour.

308. The mains are carried on wood poles which, in some areas, also carry the compressed air lines. In general a pitch of $2\frac{1}{2}$" per 100 ft. has been maintained, and poles are spaced generally from 14 ft. apart for $1\frac{1}{2}$" pipe to 20 ft. for 12" pipe. Clearances of approximately 5 ft. are maintained in unoccupied areas, 8 ft. in T.N.T. Area, 12 ft. in Acid Area, 15 ft. over roads, and 22 ft. over railroads.

309. The mains are dripped at all low points, and at intermediate points in long runs, comparatively small sized traps being used to provide frequent operation to prevent freezing in extremely cold weather. Traps are protected by small shelter houses and discharge to adjacent drainage ditches.

310. Expansion of lines is taken care of by means of double offset expansion U Bends, together with changes in direction of pipe. The vertical loops required at road and railroad crossings were also utilized to take up expansion. In general, expansion loops were spaced about 400 ft. apart on the long runs.

REPRODUCED AT THE NATIONAL ARCHIVES

Steam Lines (Continued)

311. The piping is Schedule 40 standard black steel pipe with welding fittings and welded construction throughout, with the exception of the valve connections, which are flanged for sizes 2" and larger, and the trap connections, which are screwed. Valves are provided where branches are taken from the mains, and also at various points in the main where it is desired to segregate certain areas. Pressure-reducing valves are provided at buildings where low-pressure steam is required for heating or domestic hot-water heating.

312. All outside steam piping is covered with fibre glass insulation with a waterproof covering of roofing paper wired on. A thickness of 2" was used for lines 4" and over, and standard thicknesses for smaller lines.

See progress map for steam lines page 259 and photographs, Plate XXI.

313. LENGTHS OF STEAM LINES

SIZE	LENGTH	SIZE	LENGTH
12"	2,450 ft.	3"	5,050 ft.
10"	2,440	2½"	2,700
8"	1,660	2"	6,380
6"	1,760	1½"	1,540
5"	5,010	1¼"	3,210
4"	5,657	Total (all sizes)	37,817 ft.

Compressed Air Lines

314. Demand indicated the estimated total requirement at 4,750 cubic feet per minute for a 6-line plant producing 65,000 pounds per line per day at a pressure of 80 to 100 lbs. per square inch.

315. Compressed air distribution mains are in general carried on the same poles which carry the steam lines. Air leaves the Compressor House at 85 lbs. per square inch pressure, and is required to be delivered at the various buildings at not less than 50 lbs. per square inch. Piping was sized to maintain these delivery pressures. At low points in the line, separator tanks 2'-6" x 4'-0" are installed to remove condensation. These tanks are piped with by-pass connections, and are housed with the steam main drip traps.

REPRODUCED AT THE NATIONAL ARCHIVES

Compressed Air Lines (Continued)

316. LENGTHS OF AIR LINES

SIZE	LENGTH	SIZE	LENGTH
5"	960 ft.	2"	8,612 ft.
4"	475	1½"	260
3"	6,464	1¼"	4,540
2½"	2,380	1"	260

Total (all sizes) 23,951 ft.

Air Compressor House

317. The data furnished by duPont in the Utility Requirements Report listed the requirements for compressed air by buildings. Selection of the equipment and the design of the compressor station, as well as its location, was to be done by the A-E-M. It was decided to locate it in the T.N.T. Area on "M" Street, east of Castle Garden Road, to reduce the length of the air lines.

318. The Air Compressor House, 41' x 96' x 13' high, was erected by force account from plans prepared by the A-E-M. The construction is of concrete foundations and floor on ground, concrete block walls, fireproofed wood roof framing, Gypsteel plank roof with roll roofing, standard wood D. H. windows and doors, steam heating, roof ventilators, and electrical work. See photograph on plate V.

Equipment

319. Four Worthington 2-stage compressors, 2 3/14 x 14", Type DC-2, rated at 1,600 c.f.m., with intercoolers, 5 step variable capacity control, and automatic unloaders connected by a common header through two aftercoolers, each of 5,450 c.f.m. capacity, and through two receivers to the outgoing air supply lines. Valves were located in the piping system so that any compressor, or aftercooler with its receiver, can be cut out of service without interrupting the air supply. The aftercoolers are proportioned to give cooling at 4,800 c.f.m. from 100 deg. F. free air to a final temperature of 90 deg. F. at the receivers. Each of the two receivers is 5'-6" diameter by 18'-0" high, arranged for vertical mounting outside of the compressor station. Four #40 C H American air filters were installed, one on the intake to each compressor.

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REPRODUCED AT THE NATIONAL ARCHIVES

UTILITIES

Air Compressor House (Continued)

Equipment (Continued)

320. Each compressor is driven by a 300 H.P., 2,300 volt, 3 phase, 60 cycle, 80% leading power factor, synchronous engine type motor, with a 7½ KW, 125 V, D.C. exciter direct connected and driven by a 10 H.P., 440 V, 3 phase, 60 cycle, induction motor. Each unit is supplied with General Electric Co. C.R. 7065-M 7 C magnetic full voltage synchronous motor starter with overload, single phase, and under-voltage protection. The exciter motor starter is a G. E. C. R. 7006-D-30B magnetic switch with thermal overload protection.

321. The starting and stopping push button station mounted on the synchronous motor starting panel controls the exciter as well as the synchronous motor operation. An exciter field rheostat mounted on the panel controls the synchronous motor field current and the power factor, which is to be maintained at 80% leading. Low voltage control at 115 V, 60 cycle, is supplied by one 1½ KVA transformer for each unit from the 2,300 volt supply to the main motor starter.

322. Each unit is fed from the 6,900 V, 3 phase, 60 cycle, primary distribution line through a 300 KVA, 3 phase, 6,900 V primary to 2,300 volt secondary delta/delta connected transformer. Power for the exciter motor generator set at 440 volt, 3 phase, 60 cycle, is taken through three single phase, 10 KVA transformers from the 6,900 volt primary lines, this source being common to all four units.

See photograph on plate XXXVIII, for the interior of the Air Compressor House.

Process Pipe Lines

323. These are outside, overhead lines of steel, high chrome iron, and stainless steel duct, used for carrying acids, other fluid chemicals and chemical mixtures from railroad unloading points, storage facilities to and between manufacturing buildings and tanks and from the same to railroad loading points.

324. This piping is supported on wood poles and crossarms, with a minimum distance above grade of 12 feet. Where required, steam tracers of seamless copper tubing were wired to the pipes and the whole covered with 1"thick 85% magnesia insulation, weatherproofed with tarpaper wired on.

325. The Acid Area is furnished with a main pole line extending the length of the Area, forming a distribution trunk with branch lines serving manufacturing buildings and storage tanks.

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UTILITIES

Process Pipe Lines (Continued)

326. The six lines of the T.N.T. Manufacturing Area were divided into three pairs of lines, the process piping for each pair being identical except for constant difference in elevation between pairs caused by topography of the areas.

327. In accordance with a request from the Chemical Construction Corporation, the operating company, a 4" diam. extra heavy pipe line was installed connecting the Acid and Fume Recovery Residual Acid storage tanks of the six T.N.T. lines to the Residual S. A. storage tanks in the Acid Area. This eliminates the necessity of operating one tank car on continuous shuttle service between these areas to transport this acid. Railroad facilities were retained for loading and unloading Residual Sulphuric Acid for use when maintenance requires the outage of the pipe line.

328. LENGTHS OF PROCESS PIPE LINES

SIZE	STEEL	HIGH CHROME IRON	STAINLESS STEEL DUCT
8"	--	--	492 ft.
5"	--	--	726
4"	3,678 ft.	1,450 ft.	1,254
3"	26,217	435	--
2"	6,070	4,985	--
$1\frac{1}{2}$"	40	--	--
$1\frac{1}{4}$"	120	60	--
Total	36,125 ft.	6,930 ft.	2,472 ft.

Grand total 45,527 ft.

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Sanitary Sewers

329. Analysis of the DuPont Utility Requirements Report and other available data determined an average flow of 635 G P M and maximum flow of 1430 G. P. M. for the sanitary sewage disposal system.

330. The pipe sewers were designed to flow 70% full using Kutters Formula with "n" equals 0.015 Vitrified tile pipe was used throughout the collection system and ranges from 4" or 6" pipe at the outlying buildings to 30" pipe from the junction manhole to the disposal plant.

331 The sewer from the T. N. T. Area is an 18" pipe and from the other areas 24" pipe, reducing to 18" to the Administration Area to provide for future housing developement.

SANITARY SEWERS

332. TILE PIPE SIZES AND LENGTHS IN FEET

SANITARY SEWERS

TILE PIPE SIZED AND LENGTHS IN FEET

Pipe Sizes	Administration Area	Administration Area Force Acct.	Shop & Power	Acid Area	Acid Area Force Acct.	T. N. T. to Disposal Plant	T. N. T. Area A-B Line	T. N. T. Area C-D Line	T. N. T. Area E-F Line	T. N. T. to Magazines	T. N. T. to Magazines Force Acct.	Total of Sizes
30"						982						982
24"			443	1113								1556
18"	1820		768			1010						3598
15"						1251						1251
12"	699	545		1537		960	135	140	135			4151
10"			1100				275	270	275			1920
8"	368	383	952				1653	1491	1566	1821		8234
6"	210	1670	2266	265	390		1200	1708	2270	3654	2190	15823
4"		158	161	1166	395				680		1761	4321
Total Lin. Ft.	3097	2756	5690	4081	785	4203	3263	3609	4926	5475	3951	41836

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Sewage Disposal Plant

333. The Sewage Disposal Plant is located northwest of the Acid Area and adjoining it. See the map on page 250, the panorama on page 15 and the photographs on plates XV and XXXV. It has a capacity of 5,760 gallons per day.

334. The Sewage Pumping Plant is of ample size to rapidly relieve any unusual peak flows, so very little, if any, pressure can develop on the trunk sewers. It consists of a concrete sewage well and pump pit with frame superstructure housing four Yeoman Brothers Company non-clogging sewage pumps. This group contains one 500 GPM, two 1,000 GPM, and one 1,500 GPM pumps, arranged in sequence to give pump capacities increasing by 500 GPM stages up to the maximum of 2,000 GPM. A sump pump is installed in the pump pit. Incoming sewage passes through a bar screen and screenings are sent to the Project incinerator in cans.

335. The concrete Imhoff tank is divided into two tanks for primary treatment of raw sewage. There are four flowing-through chambers with adjustable weirs at each end over which treated effluent passes to the collection channel, from which a 24" wood pipe sewer carries it away.

336. Sludge from the Imhoff tanks flows to two sludge beds constructed of concrete with 18" of sand fill.

337. Chlorine is piped from the chlorine house which is part of the superstructure building over the pump well, to a concrete chlorine contact tank which holds the effluent long enough for chlorination. The chlorine control equipment is in the Pumping Station and consists of two Wallace & Tiernan Co., Inc., converters with capacities of 400 lbs./24 hours each. Storage for cylinders is provided here also, but a separate frame building houses the large tank storage for chlorine.

338. There is a concrete Venturi vault where the sewage flow is measured ahead of the Imhoff tank, and the Venturi tube regulates the chlorination. Chlorinated effluent flows through an 18" steel pipe to the Collection Tank included under the Trade Waste Water System.

339. An underdrain system of tile pipe around the plant empties any sewage leakage into a manhole on the incoming collection sewer.

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UTILITIES

Trade Waste Water Disposal and Outfall

340 "Trade Wastes", consist of red and yellow acid waters from the purification of T.N.T. The average amount of red and yellow acid waste water from a 6-line T.N.T plant would be about 323,700 gallons per day according to a report by W A. Peters. Jr , dated March 16, 1942.

341. The purification process occurs in the wash houses and the red and yellow waste water is carried from these buildings in a wooden flume and also in half tile to the trade waste sewer. A 10" vitrified tile sewer takes care of the easterly operating line and the remainder of the lines empty into an 18" vitrified tile sewer. Both these sewers have acid resisting joint compound and are encased in concrete

342. These two sewers are 110 and 125 ft. north of the wash houses, respectively and run westerly across Wesson St. thence southwesterly to the deep well in the Collection Tank This deep well is lined with 4" acid resisting brick. Two 600 G.P.M., 30 ft. head pumps and two 300 G.P.M , 15 ft. head pumps alternate in pumping the red and yellow waste water into a mixing tank where it is diluted at least ten parts with neutralized and cooling water

343. This diluted mixture then flows into a 30" vitrified tile outfall sewer with acid resisting joint compound and encased in concrete and runs into a head chamber on the bank of the Niagara River. See map on page 253 and photographs on plates XV and XX.

344. From the head chamber the red and yellow waste water flows into the Niagara River through two 12" acid resisting pressure lines where it is diluted about one part in 200,000. These pressure lines diverge about 30 degrees and are laid out into the river to a depth of 35 feet. They are protected by cribbing.

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UTILITIES

Acid and Alkaline Water Sewer System

345. The collection system for acid and alkaline waste was laid out from a typical DuPont design and their Utility Requirements Report. Pipe sizes were determined for peak capacities when flowing one half full.

346. The bulk of the waste comes from the Acid Area and the balance from the T.N.T. Area The collection sewers from the T.N.T. and all acid areas were laid out to angle across the Safety Area and flow into the Acid Neutralization Plant. These sewers also connect with drains from the safety showers. The total amount of waste collected at this plant amounts to 24,000,000 G.P D.

Acid Neutralization Building

347 In the Acid Neutralization building, see panorama on page 15 and photographs on plates XV and XXXV, the waste waters are neutralized with lime and discharged through a 36" cast iron pipe into the drainage system at Sixmile Creek near the building. As much of the neutralized water as is needed is also run through a 24" wood stave pipe to the mixing tank where it is used to dilute the red and yellow acid waste water.

COOLING WATER & ACID SEWER SYSTEM

TILE PIPE SIZES AND LENGTHS IN FEET

SIZE	T.N.T. AREA A-B LINE	T.N.T. AREA C-D LINE	T.N.T. AREA E-F LINE	T.N.T. TO DISPOSAL PLANT	ACID AREA	ALL FORCE ACCOUNT	TOTAL OF SIZES
36"				1117			1117
30"				863	1986		2849
24"	440	442	440	2824			4146
18"	549	314	327			136	1326
15"	518	382	377		1394		2671
12"						228	228
10"	661	706	698		1071		3136
8"					670	1482	2152
6"	436	413	556		496	220	2121
4"					115	265	380
Total lin.ft. in Area	2604	2257	2398	4804	5732	2331	20126

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REPRODUCED AT THE NATIONAL ARCHIVES

UTILITIES

Drainage

349. The flatness of the terrain and the natural sources of drainage have been mentioned in the section on Ground Water Conditions, under Soil Data. See pages 48 - 52.

350. It was necessary to provide two new principal open cut drainage ditches, known as the Southwestern Drainage Ditch and the Central Drainage Ditch, laid out with a view of possible expansion of the present manufacturing plant to the West and diverting storm waters from a generally northeasterly flow to a generally northwesterly flow into Fourmile Creek.

351. A third primary ditch, to carry off the waters in the Magazine Area, was also constructed paralleling the existing Sixmile Creek in this Area and connecting with the Central Drainage Ditch whence its waters flow into Fourmile Creek.

352. Secondary and tertiary ditches drain the Areas and conduct the waters into the aforementioned main ditches or, in a few instances, into the existing creeks.

353. Storm sewers were installed in the Areas where open ditches would have been unsuitable. These were the Acid, Shop, Administration, and Parking Areas.

354. Sixmile Creek was diverted in two places, south of Pletcher Road into the Southwestern Drainage Ditch and in the Magazine Area into the new main ditch which connects with the Central Drainage Ditch. Twelvemile Creek was diverted and relocated near the northeast end of the Classification Area.

See the Drainage Map on page 51, and also the panoramas on pages III and IV, and the photographs on plate XVIII and XIX.

355. Southwestern Drainage Ditch, whose section has an area of 89 square feet, has a bottom width of 15 feet, with side slopes of 1 on $1\frac{1}{2}$. During maximum rainfall, estimated at 2.75 inches per hour, it would contain about 4.3 feet of water flowing at 4 feet per second. This would deliver 350 c.f.s. into Fourmile Creek.

356. Central Drainage Ditch has a varying bottom width with a maximum of 20 feet. During the period of flood, water would be 6 feet deep and flowing with a velocity of 5.4 feet per second, adding 1,030 c.f.s. (including water from the Magazine Drainage Ditch) into Fourmile Creek.

357. The Magazine Drainage Ditch has a bottom width of 10 feet and at flood would have 5.4 feet of water, flowing with a velocity of 4.6 feet per second and delivering 451 c.f.s. into the Central Drainage Ditch.

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UTILITIES

Drainage (continued)

358. The prime contract, DA-W-138-Eng. 16, for the open drainage ditches, was awarded to Dump Truck Service, Inc. of Buffalo, New York, on March 21, 1942. The drainage ditches in the Magazine Area were part of the Concrete Magazines contract DA-W-138-Eng. 13 with Poirier and McLane of New York, N. Y. The drainage ditches for roads were part of the road contract, DA-W-138-Eng. 24 with William J. Gallagher, Inc. of Medina, New York. The A-E-M force account built many drainage ditches and road ditches.

359. The quantities of earth moved were:

General Drainage	794,095 cu. yards
Magazine Drainage	73,640
Road Drainage	26,650
Total	894,385 cu. yards

360. The lengths of the various ditches were:

Primary	46,563.53 ft. or	8.82 miles
Secondary	73,418.78	13.91
Tertiary	34,593.79	6.55
By Force Account		7.57
Total open ditches -		36.85 miles

361. Storm sewers 10,300 ft. 1.95 miles

362. The excavation was accomplished in the following manner: 46% by draglines, 26% by carry all pans, 16% by backhoes, 10% by clam shells and 2% by shovels.

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UTILITIES

Roads

363. The roads in the Project may be divided into three classes, (1) Existing when the area was acquired, (2) New or "Permanent" and (3) Temporary or Construction Roads.

Existing (13.96 miles within the Project)

364. The existing town and county roads were very useful, though not entirely adequate for the construction of the Project. For access purposes the north and south roads, also forming the boundaries, were particularly advantageous; these were the Blairville Creek Road on the west and the Porter Center Road on the east. Latta Road, also a north and south road, was used as the principal access road and the main entrance was on this road at the southeast corner of the site. Other north and south-roads within the Project are Harold Road, Lutts Road and Castle Garden Road. Part of Nichols Road was used but later abandoned between the New York Central Railroad and Langdon Road.

365. The east and west roads were Swan Road, Pletcher Road, Balmer Road and Cain Road. Part of the northern boundary is formed by the Youngstown-Lockport Road. These Roads are shown on the General Road Plan, Dwg. 603-100-004 on page

366. EXISTING ROADS

NAME	TYPE	WIDTH	LENGTH WITHIN PROJECT	DISPOSITION
Latta Road	Bituminous Macadam	20'	3,690'	Left as found
Harold Road	Gravel	16'	3,850'	Abandoned after new parallel road was built
Castle Garden Road	Gravel	16'	8,110'	Part rebuilt. Part abandoned
Lutts Road	Gravel	16'	7,920'	Part rebuilt as Patrol Rd. Remainder abandoned

REPRODUCED AT THE NATIONAL ARCHIVES

366. EXISTING ROADS
(Continued)

NAME	TYPE	WIDTH	LENGTH WITHIN PROJECT	DISPOSITION
Cain Road	Gravel	14'	6,675'	Left as found
Balmer Road	Bituminous Macadam	18'	15,700'	Left as found
Pletcher Road	Stabilized Gravel	16'	13,520'	Westerly 5826 Ft. widened to 40 Ft. bituminous macadam rd. Remainder widened to 22' & a new second lane built
Swan Road	Stabilized Gravel	16'	10,100'	Widened to 20'
Nichols Road	Bituminous Macadam	20'	1,400'	Abandoned
Langdon Road	Bituminous Macadam	20'	2,750'	Westerly 1500' abandoned
			73,715'	

New Roads

367. The authorized new or "permanent" roads are of four classes, (1) Service Roads, (2) Magazine Roads, (3) Patrol Roads and (4) Drives.

368. The layout of these roads was based upon the du Pont plan for a U. S. Special 6-Line T.N.T. Plant.

369. The typical section, which was adopted, consisted of a 10" bottom course of run of bank gravel or chemical slag with a 3" penetration top course for all roads except the Patrol Roads, which were built with an 8" subbase and a 3" penetration top course. All of the subgrade was properly drained and the finished road elevation was made higher than the surrounding terrain. Where swampy conditions were found, all of the topsoil was first removed and a suitable subbase was built. These roads are shown on the General Road Plan. A record plan and profile was prepared for each road, at a horizontal scale of 1" = 100' and a vertical scale of 1" = 5'.

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Roads

New Roads

370. SERVICE ROADS

NAME	TYPE	WIDTH (In Ft.)	LENGTH (In Ft.)
"H" Street	Bituminous Macadam	20	4754
"J" St.		20	1425
"K" St.		12	403
"K" St.		12	356
"K" St.		12	356
"K" St.		12	405
"M" St.		20	4530
"N" St.		20	4022
"O" St.		20	3949
"P" St. (North)	Bituminous Macadam	16	220
"P" St. (South)		16	280
"R" St.		14	1088
"S" St.		20	1258
"T" St.	Stabilized Gravel	20	250
"W" St.	Bituminous Macadam	20	430
"X" St.		20	812
"Y" St.		16	130
"Z" St.		20	810
First St.		20	454
Second St.		12	900
Third St.		20	454
Fifth St.		20	455
Sixth St.		20	680
Seventh St.		20	420
Eighth St.	Bituminous Macadam	20	230
Tenth St.		20	483
Eleventh St.		20	413
Twelfth St.	Stabilized Gravel	20	280
Wesson St.	Bituminous Macadam	20	2955
Campbell St.		20	4023
Campbell St.		30	1075
Castle Garden Rd.			
"R" to "O" Sts.		20	2104
"M" to "N" Sts.		20	1406
"K" to "H" Sts.		20	900
"H" to Balmer Rd.	Bituminous Macadam	20	1178
Vine St.		20	1843
MacArthur St.		20	3732
Marshall St.		20	1968
Pump House Rd.		16	1030

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UTILITIES

Roads (Continued)

New Roads (Continued)

371. MAGAZINE ROADS

NAME	TYPE	WIDTH (In Ft.)	LENGTH (In Ft.)
"A" St.	Bituminous Macadam	20	4225
"B" St.	Bituminous Macadam	20	4375
"C" St.	Bituminous Macadam	20	4375
"D" St.	Bituminous Macadam	20	4375
"E" St.	Bituminous Macadam	20	4375
"F" St.	Bituminous Macadam	20	4375
"G" St.	Bituminous Macadam	20	4375
Aberdeen St.	Bituminous Macadam	20	3251
Marshall St.	Bituminous Macadam	20	4718

372. PATROL ROADS

NAME	TYPE	WIDTH (In Ft.)	LENGTH (In Ft.)
North Patrol Rd.	Bituminous Macadam	14	7741
"R" St.	Bituminous Macadam	14	1900
Track St.	Bituminous Macadam	14	3655
South Track St.	Bituminous Macadam	14	2250
South Patrol Rd.	Bituminous Macadam	14	6449
West Patrol Rd.	Bituminous Macadam	14	3200
Lutts Rd.	Bituminous Macadam	14	11584
Castle Garden Rd.	Bituminous Macadam	14	1805
East Patrol Rd.	Bituminous Macadam	14	10619
Pump House Rd. to River	Stabilized Gravel	14	800

374. The prime contract for the new roads, DA-W-138 Eng. 24, was awarded to W. J. Gallagher, Inc., Medina, N. Y. on March 31, 1942. The contractor began work on April 2 and the contract was deemed completed on November 5, 1942, although the final trim for the shoulders and road ditches was not finished. Arrangements were made to deduct the amount to be paid for uncompleted work which will be finished under the supervision of the Operating Company when weather and other conditions permit.

REPRODUCED AT THE NATIONAL ARCHIVES

UTILITIES

Roads (Continued)

New Roads (Continued)

374. Clearing and grubbing was done where required and the earth moved and materials used were as follows:

Earth moved	274,468 Cu. Yds.
Earth manipulated only	9,989 Cu. Yds.
Chemical slag	77,917 Cu. Yds.
Slag and stone	190,567 Tons
Sand and stone dust filler	40,266 Tons
Asphalt emulsion	547,663 Gallons
Hot asphalt	287,053 Gallons

375. Reinf. Conc. Pipe Culverts

Diameter	Lin. Ft.
15"	2204
18"	936
24"	632
30"	1308
36"	564
42"	500
48"	708
54"	256
60"	560

Drives

376. The A-E-M force account built 2.3 miles of "permanent" drives. These included all turnouts from old or new roads to buildings, especially, garages, warehouses, office buildings, dormitories, parking areas, the burning area, and the approach from River Road to the Intake Pumping Station. In addition, guard fences along ditches and at bridges and culverts and railings, and bumpers were built along all classes of roads by the A-E-M force account.

Temporary Roads

377. Temporary roads, bypasses, approaches and service roads for construction purposes were also built by the A-E-M force account. These totalled over sixty in number and many of them required the installation of culverts, drains and ditches, guard rails and bumpers.

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UTILITIES

Railroads

378. There were 15.7 miles of standard gauge railroad constructed on the Project, with the general location of all tracks governed by the U.S. Special Six-line T.N.T. Plant Layout furnished by the duPont Company and adapted to this Project.

379. It was found necessary to strip the topsoil from the full width of the railroad bed and leave a subgrade which sloped 2 inches in 11 feet each side of the center line. On this subgrade the following track section was placed: 6 inches of cinder subballast, 10 feet each side of the center line of track, then 12 inches of slag ballast under the ties, extending 7 feet each side of the center line of track into a slope width of 2' - 9".

380. Approximately 80% of the track was made with 80 lb. A.S.C.E. rails and 20% with 85 lb. A.S.C.E. rails which were used in special places. Creosoted ties Nos. 1, 2 and 3 - 6" x 8" x 8'-0" were used. All switches are complete with frogs, switch stands and guard rails. No. 8 turnouts were used for all crossovers.

381. The maximum curve is 14 degrees and 40 minutes and the grades are generally much less than 1%, with the exception of the approach to the coal trestle, which grade is 3.44%.

382. Wooden whistle posts and clearance markers were placed 1320 feet from all crossings and at the clearance point on all turnouts which do not have a derail.

383. The various tracks and sidings were given letter and number designations, which appear on the General Track Layout, Dwg. 601-100-001, page . Record drawings for each line are shown in plan and profile at a horizontal scale of 1" = 100' and a vertical scale of 1" = 20'.

384. A heavy, timbered, single track, coal trestle, 262 feet long, was built on the "T" line, south of the Power House. Between this trestle and the Power House, a coal apron was provided on the ground level "E" line for dumping hopper-bottom coal cars.

385. Two track scales, each of 240 tons capacity, were installed, having an effective length of 60 feet for the weighing rails. One scale is located on the "A" line southwest of the classification yard and the other is on the "H-16" line between "M" Street and "N" Street.

REPRODUCED AT THE NATIONAL ARCHIVES

386. The construction of the railroad was covered by Contract DA-W-138 Eng.-14, dated March 19, 1942, which was placed with A. S. Wikstrom, Bound Brook, New Jersey on a Unit Price Basis. Work started April 1, 1942 and was considered complete and acceptable on September 12, 1942.

387. The A-E-M force constructed 630 feet of the "A" track outside the Project Area, 479 feet of "E" track and 287.6 feet of "H-18" track, the track scale foundations and installation, several culverts and the coal trestle, also all road crossings.

388. The New York Central Railroad constructed the service tracks and connections to its railroad outside the Project Area, amounting to 2847.2 feet, and tracks within the Project Area amounting to 4540.8 feet, which is included in the total length previously given.

389. The work included the necessary clearing and grubbing for the right of way and the following quantities of earth and other materials handled or used:

Stripping topsoil	657,818 S.F.
Subgrade excavation	1,423 C.Y.
Ditch and culvert excavation	675 C.Y.
Embankment and grading	146,564 C.Y.
Slag ballast	62,247 C.Y.
Cinder ballast	34,648 C.Y.
Railroad trackage	75,658 L.F.
Culvert pipe	2,269 L.F.
Turnouts or crossovers	67
Bumpers	26
Derailers	3

390. Standard gauge rolling stock purchased by the A-E-M was as follows:

2 - 45 tons, Porter Diesel electric locomotives
1 - 65 tons, Porter Diesel electric locomotive
2 - 30 feet flat cars, 15 tons capacity.

391. Standard gauge tank cars were purchased by the E.I. duPont de Nemours Co. from the General Transportation Corporation as follows:

6 - Steel tank cars of 7,000 gallons capacity each
1 - Steel tank cars of 10,000 gallons capacity.

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392. All of the prime contracts negotiated by the A-E-M for the Government, the "Specifications for General Utilities" and the "Specifications for Building Materials", contain the following:

"Guarantees

When all work is completed and accepted, the Contractor shall furnish to the Contracting Officer written and signed statements guaranteeing all materials and workmanship for a period of one (1) year from date of acceptance.

The Contractor will also be required to furnish manufacturer's guarantees covering certain equipment.

Upon receipt of written notice the Contractor shall, at no expense to the United States, promptly make good all defective workmanship and replace all defective materials, and make such adjustments as are necessary."

393. Purchase Orders placed by the A-E-M for material to which the above mentioned specifications apply, and to which the vendors were referred, would cause such material to be guaranteed for a period of one year from date of acceptance.

394. Equipment or material, ordered by the Stone and Webster Engineering Corporation for the Boiler Plant, which was installed by the A-E-M or other prime contractors is covered by Stone and Webster purchase orders and specifications concerning which that corporation stated by letter to the General Manager of the A-E-M, dated December 16, 1942, "We advise that it was our intention to hold the vendors to their respective guarantees, which were given in the specifications and again on the back of their copy of the purchase orders by means of their acceptance copy of the orders, and we did not intend to require them to furnish written guarantees."

395. Equipment or material, ordered by the E. I. du Pont de Nemours & Company for the Project, which was installed by the A-E-M or other prime contractors, under Contract DA-W 138-Eng. 1, is covered by du Pont purchase orders and specifications. The du Pont Company notified the A-E-M that guarantees applied to three of their purchase orders for this Project as follows:

REPRODUCED AT THE NATIONAL ARCHIVES

GUARANTEES

PURCHASE ORDER	EQUIPMENT OR MATERIAL	VENDOR
TWC 1	Sulphuric Acid Concentrating Plant	Chemical Construction Corporation, New York, N. Y.
TWC 235	Alco RD2H Valve, 1600 pound pressure with 5 pound pressure drop	Alco Valve Company St. Louis, Mo.
TWC 3014	Shaft sleeves and seal ring housings for 8-Wilfley Model A.C. Pumps	A.R. Wilfley & Sons Co. New York, N. Y.

APPENDIX 12-B

Completion Report
Lake Ontario Ordnance Works
Youngstown, New York

Volume 2

Montreal Plants Branch

COMPLETION REPORT

LAKE ONTARIO ORDNANCE WORKS

YOUNGSTOWN - NEW YORK

JANUARY 1, 1942 - MARCH 15, 1943

OFFICE OF THE AREA ENGINEER

APRIL 1, 1943

VOL. 2

RODUCED AT THE NATIONAL ARCHIVES

CONSTRUCTION DATA

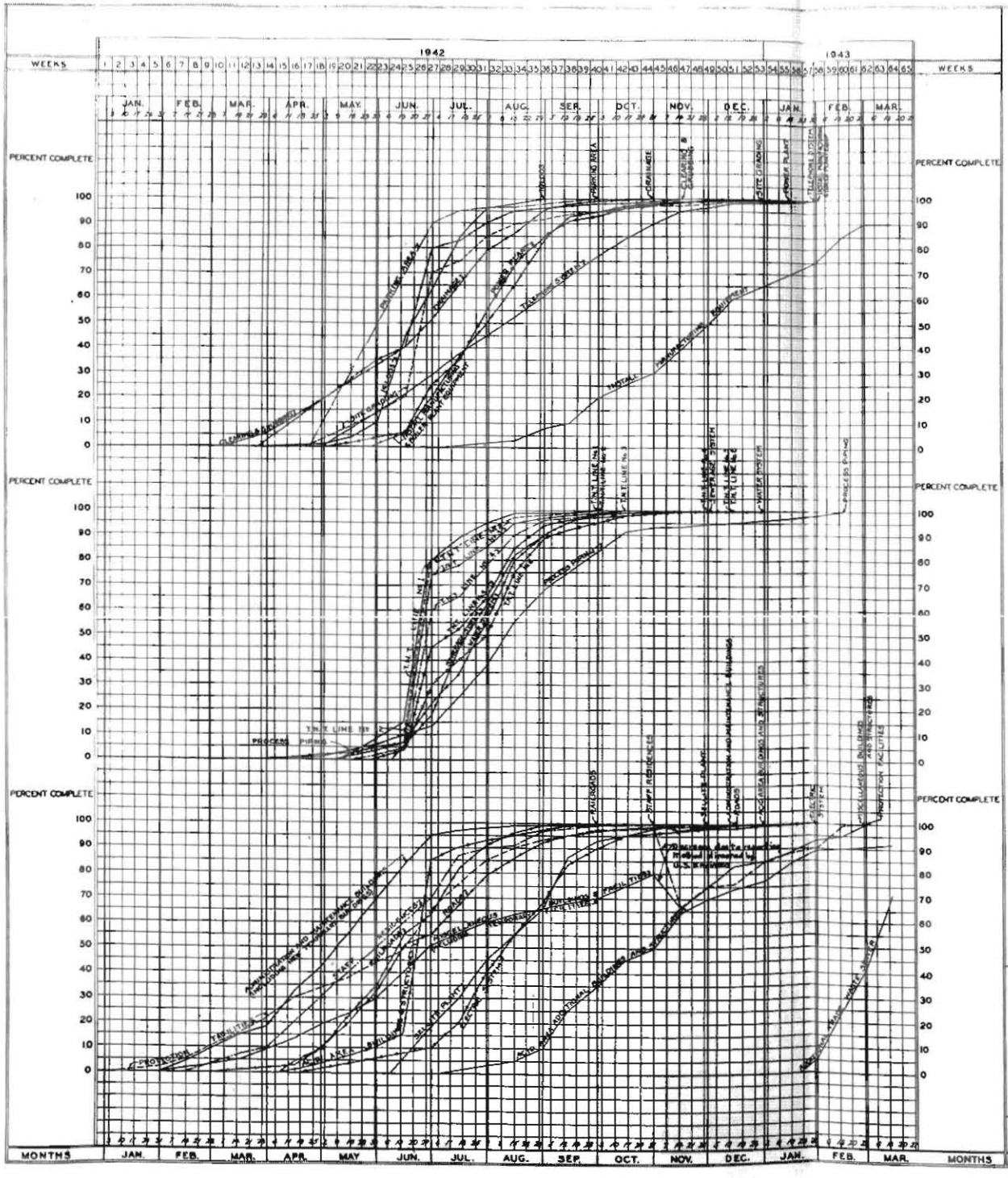
TRANSFER OF NEW CONSTRUCTION

The list of O.C.E. Forms 290, 290 A and 290 B, "Transfer of New Construction" is given on pages 327 - 334, inclusive.

Under the main heading, "Transferred to Using Service", on pages 327 - 334, will be found the serial numbers of these transfers together with the dates.

One copy of each of these forms is on file in the Office of the Commanding Officer, Lake Ontario Ordnance Works.

Another copy of each of these forms is in the files of the Area Engineer, Lake Ontario Ordnance Works, stored in the Office of the District Engineer, U.S.A. Corps of Engineers, Buffalo, New York.



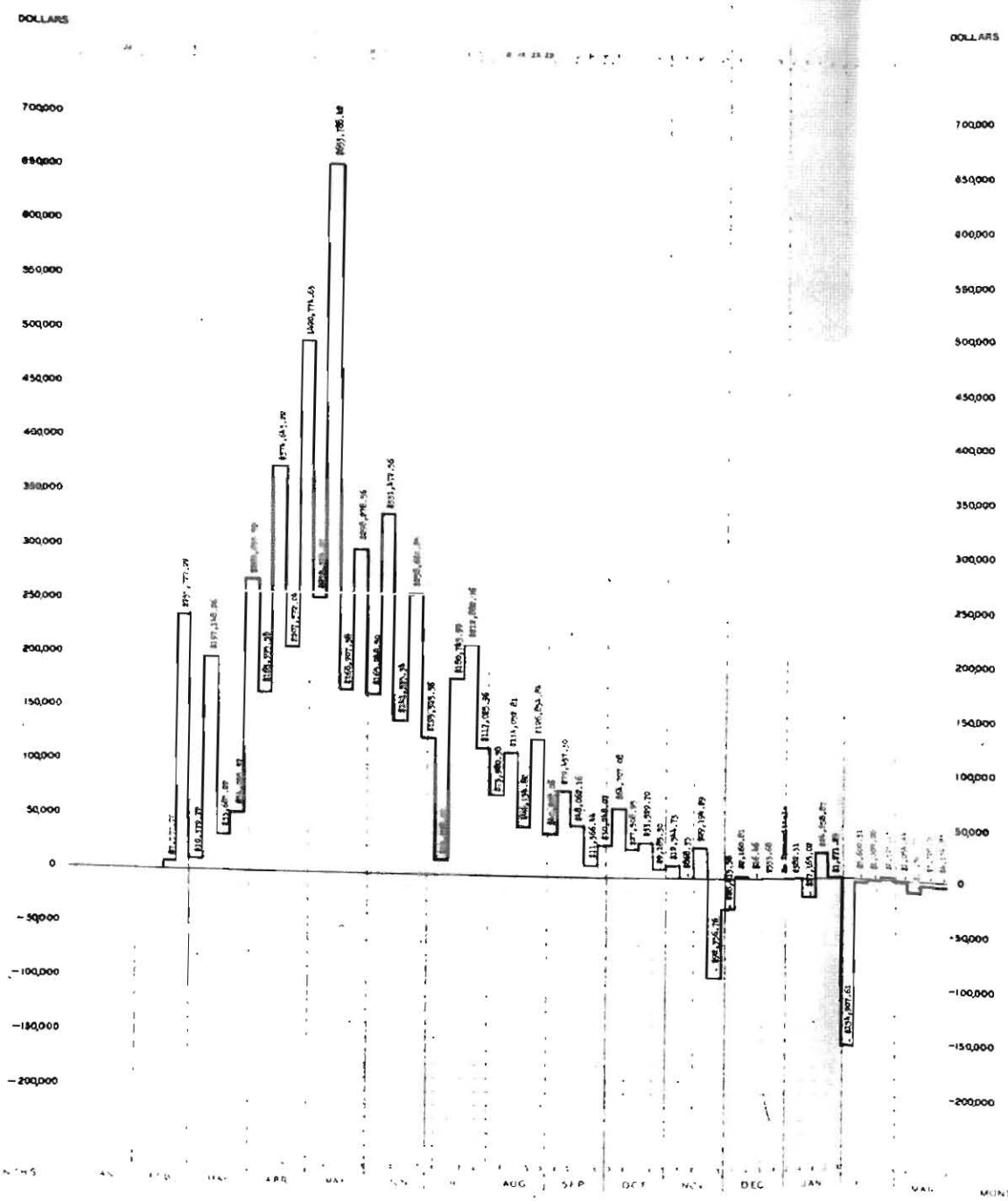
THE J.G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER

LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

WEEKLY
CONSTRUCTION PROGRESS

DATE MARCH 25, 1943

DRAWN	G.H.P.	CHECKED	A.L.D.	SERIAL NO.	C-225



A-E-M PURCHASE ORDERS
SHOWING WEEKLY TRANSMITTALS APPROVED BY CHIEF PROJECT AUDITOR
DOLLARS

WEEK ENDING	FOR CONSTRUCTION	FOR A.E.M.	FOR O.T.S.	WEEKLY TOTAL	ACCUMULATIVE TOTAL
1943					
January 10					
17					
24					
31					
February 7					
14					
21		7,507.70		7,507.70	7,507.70
28	295,323.88	10,446.16		231,727.22	243,234.92
March 7	2,956.89	7,460.83		10,379.72	253,614.64
14	192,360.91	4,888.34		197,148.25	450,762.90
21	29,106.88	5,578.34		33,685.22	484,448.12
28	32,489.16	1,682.21		34,395.39	518,843.49
April 4	564,261.20	5,798.39		269,697.99	808,195.08
11	198,308.09	7,089.96		165,399.58	973,594.66
18	153,468.19	21,035.09		174,443.23	1,148,233.88
25	201,306.58	4,265.96		279,372.04	1,427,605.92
May 2	188,719.34	1,949.13	176.00	490,774.69	1,918,380.57
9	143,097.04	4,297.93		253,374.97	2,171,755.54
16	450,483.92	3,304.50		453,788.42	2,625,543.96
23	167,189.77	1,717.63		168,907.38	2,794,451.34
30	290,687.60	7,591.36		298,278.96	3,092,730.30
June 6	164,713.86	389.96	144.65	165,248.47	3,257,978.77
13	130,921.32	379.26	171.78	131,472.36	3,389,451.13
20	142,114.32	170.57	53.45	142,338.34	3,531,789.47
27	297,273.47	1,009.22	376.14	298,659.83	3,830,449.30
July 4	123,392.98	1,926.66	26.38	125,346.02	3,955,795.32
11	13,697.92	150.35		13,848.27	3,969,643.59
18	160,728.07	3.41	31.55	160,763.03	4,130,406.62
25	205,462.95	7,773.55	247.36	213,483.86	4,343,890.48
August 1	115,551.13	1,980.33	62.50	117,593.96	4,461,484.44
8	71,870.34	108.50	3.54	71,982.38	4,533,466.82
15	113,997.69	2,687.69	677.65	114,362.83	4,647,829.65
22	45,753.44	88.48	.90	45,842.82	4,693,672.47
29	127,360.19	- 288.45	19.56	127,091.30	4,820,763.77
September 5	39,348.69	233.62	38.74	39,621.05	4,860,384.82
12	79,477.31	- 4.81	4.81	79,477.31	4,939,862.13
19	47,853.07	119.19	35.95	47,908.21	4,987,770.34
26	11,293.61	112.83		11,406.44	4,999,176.78
October 3	53,113.63	11.05	121.40	53,246.07	5,052,422.85
10	63,996.97	711.71	5.20	64,713.88	5,117,136.73
17	27,523.71	- 14.76		27,508.95	5,144,645.68
24	11,368.19	3,440.71	20.49	14,829.39	5,159,475.07
31	9,474.00	- 290.70		9,183.30	5,168,658.37
November 7	12,309.68	372.25	63.00	12,744.93	5,181,403.30
14	- 1,697.23	731.87	97.00	- 868.36	5,180,534.94
21	29,396.05	- 99.96	-72.00	29,184.09	5,209,719.03
28	-91,247.69	- 299.07		-91,546.76	5,118,172.27
December 5	-30,054.60	1,626.29	14.73	-28,413.58	5,089,758.69
12	[illegible]	[illegible]		[illegible]	[illegible]
19	401.12	- 419.58		- 18.46	5,089,740.23
26	- 1,130.07	1,685.77		555.68	5,090,295.91
1944					
January 2					5,090,295.91
9	399.60	- 49.69	32.40	382.31	5,090,678.22
16	-17,431.34	466.28		-17,165.02	5,073,513.20
23	24,857.96	200.91		24,658.07	5,098,171.27
30	1,432.39	- 188.90	7.80	1,271.29	5,099,442.56
February 6	-159,126.98	717.37		-154,977.81	4,944,464.75
13	- 5,999.71	- .80		- 5,890.91	4,938,573.84
20	- 281.09	- 221.93	63.09	- 1,999.00	4,936,574.84
27	2,158.08			2,158.35	4,938,733.19
March 6	- 1,066.73		33.28	- 1,066.44	4,937,666.75
13	-10,641.91		72.10	-10,569.81	4,927,096.94
20	- 8,815.30		- 418.70	- 9,234.00	4,917,862.94
27	- 4,144.45		9.62	- 4,134.83	4,913,728.11

THE [illegible]
[illegible]

LAKE ONTARIO ORDNANCE WORKS
[illegible]

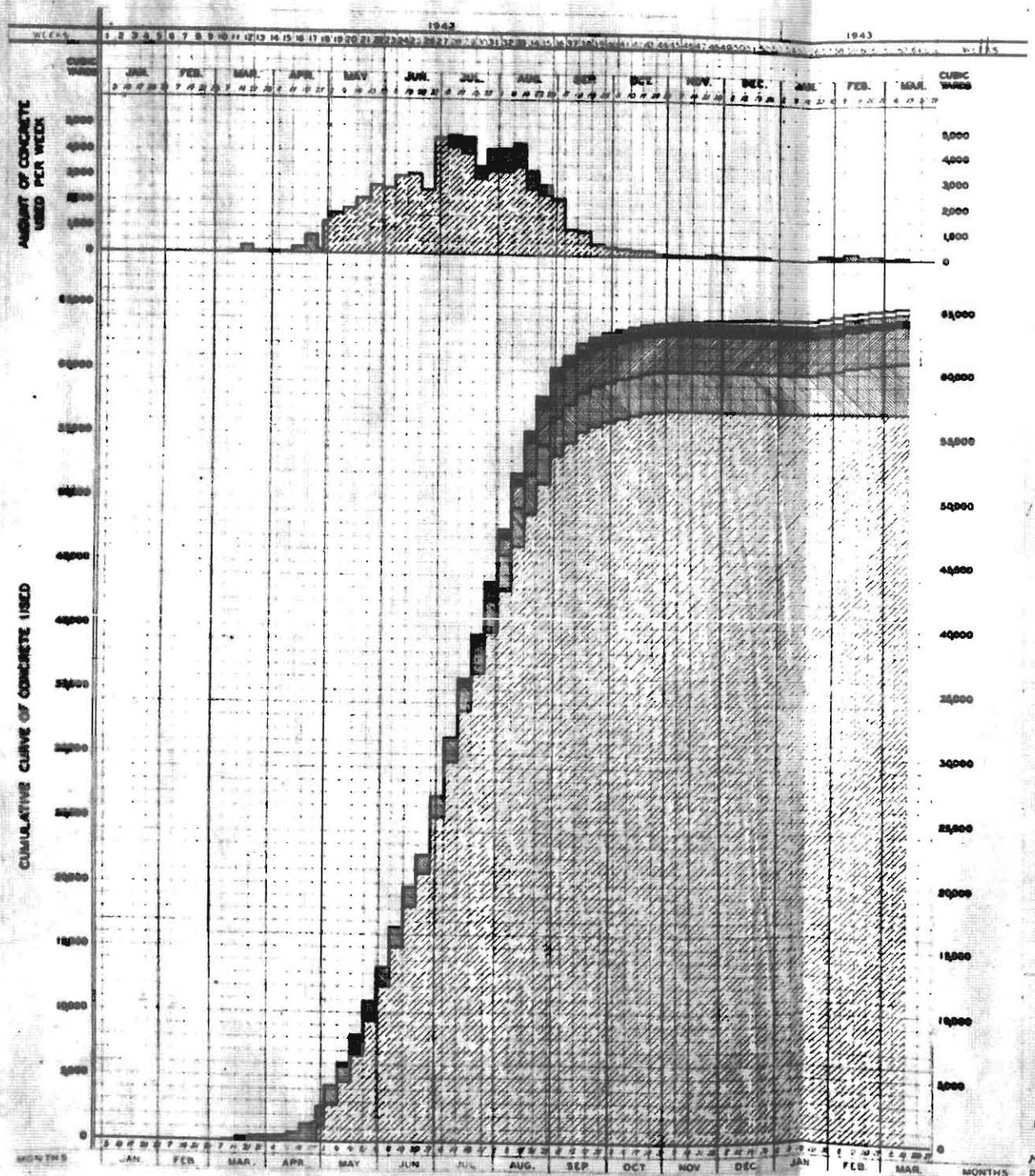
A-E-M PURCHASE ORDERS

SHOWING WEEKLY NET AMOUNT
APPROVED BY CHIEF PROJECT AUDITOR

DATE MARCH 29, 1943

DRAWN G.N.P CHECKED A.L.D C-216

DUCED AT THE NATIONAL ARCHIVES



Week Ending	Cooney Brothers Batching Plant	Empire Builders Supply Co.	Olsher Builders Supply & Coal Co.	L-2 Pour Superior	U.S. Neill, Inc.	Freland Co.	Weekly Total	Cumulative Total
1942								
March 7								
14							4	4
21			4				37	41
28			63				63	104
April 4								
11			73				73	177
18			33				33	210
25			215.5				215.5	425.5
May 2			888				888	1,313.5
9	1385.5	384					1,769.5	3,083
16	1390						1390	4,473
23	1776						1776	6,249
30	2245.5						2245.5	8,493.5
June 6	2296.5						2296.5	10,790
13	2968						2968	13,758
20	3243						3243	16,001
27	3497.5						3497.5	19,497
July 4	4326						4326	23,823.5
11	4485.5	268	72		158		4883.5	28,707
18	3988	240	244		288		4760	33,467
25	3987.5	288	88			145	4508.5	37,975.5
August 1	3888	288	288		19	179	4519	42,494.5
8	3889	288	479		35		4688	47,182.5
15	3648	240	1440		64	8	4360	51,542.5
22	3888		1152		33		5073	56,615.5
29	3336		288			12	3727	60,342.5
September 5	2388.5		25		9		2426.5	62,769
12	990		14		9		1013	63,782
19	898					15	913	64,695
26	472.5					14	487.5	65,182.5
October 3	343.5				9		352.5	65,535
10	288						288	65,823
17	288.5						288.5	66,111.5
24	285						285	66,396.5
31	289.5						289.5	66,686
November 7	21						21	66,707
14				78			78	66,785
21				39			39	66,824
28				114			114	66,938
December 5				62			62	67,000
12				32			32	67,032
19				43			43	67,075
26				58			58	67,133
1943								
January 2							0	67,133
9		5					5	67,138
16							0	67,138
23		31.5					31.5	67,169.5
30		159	45				159	67,328.5
February 6		90	36				126	67,454.5
13		270	9				279	67,733.5
20		198	9				216	67,949.5
27		179	0	1.5			178.5	68,128
March 6		160					160	68,271
13		214					214	68,485
20								
27								

COONEY BROTHERS BATCHING PLANT
EMPIRE BUILDERS SUPPLY CO.
OLSHER BUILDERS SUPPLY & COAL CO.
W.S. NEILL, INC.
FRELAND CO.
A-E-M FORCE ACCOUNT

THE J.G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER

LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

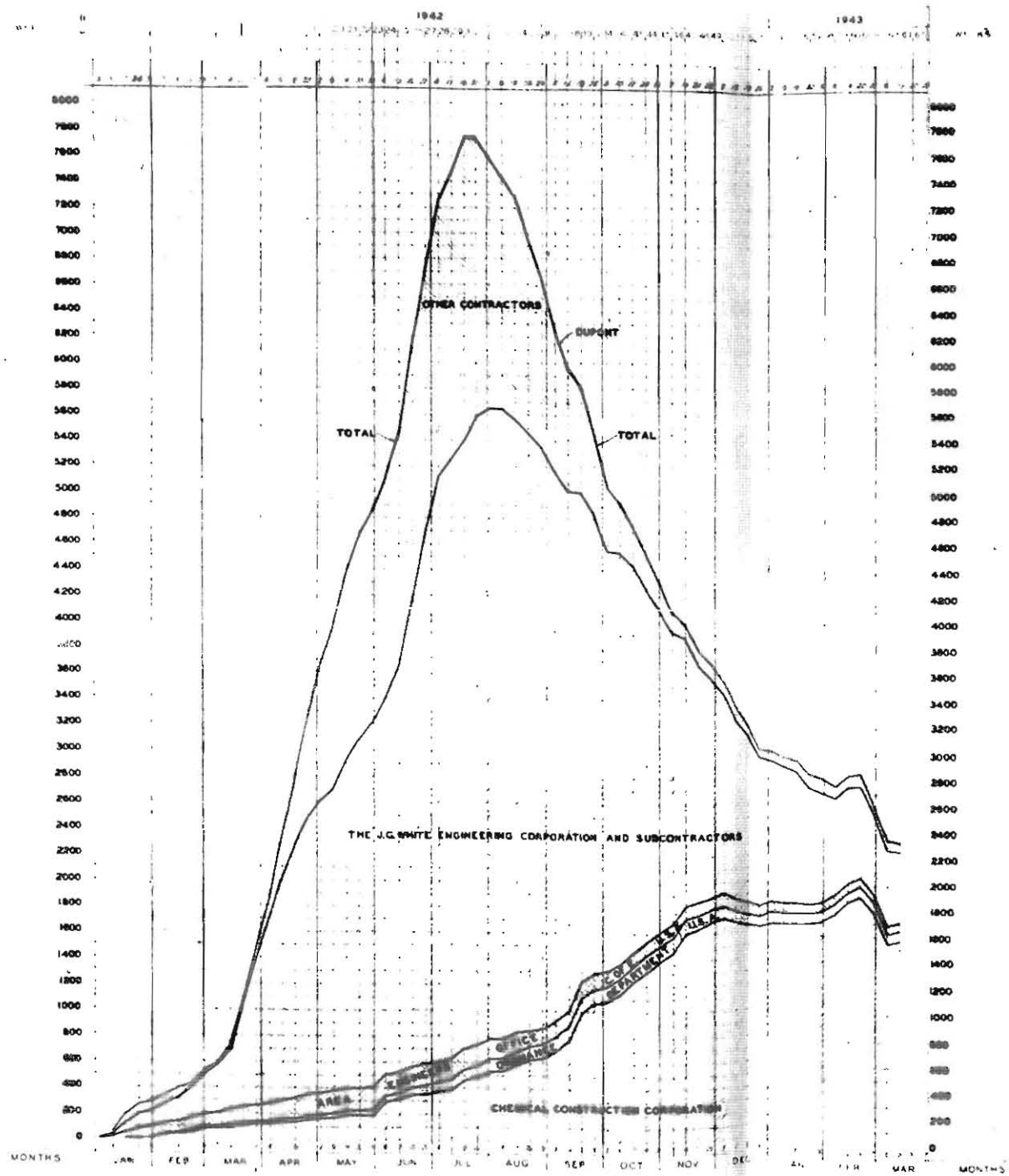
CONCRETE

USED IN CONSTRUCTION

DATE MARCH 18, 1943

DRAWN G.N.P. CHECKED A.L.B. SERIAL NO. C-281

ODUCED AT THE NATIONAL ARCHIVES



TOTAL EMPLOYMENT AT SITE
ALL PERSONNEL

			O.	C.	O.	C.				
1942										
January	3	-	-	-	1	2	4	-	-	7
	10	-	-	-	2	14	25	21	-	62
	17	3	2	-	3	41	70	42	-	159
	24	4	7	-	4	73	109	81	-	274
	31	19	3	-	6	94	137	88	-	349
February	7	43	3	-	6	99	148	96	-	349
	14	49	3	1	6	77	146	77	-	359
	21	48	5	7	6	88	179	27	-	321
	28	85	5	7	6	90	211	26	4	534
March	7	87	6	8	6	97	268	3	6	983
	14	98	6	11	6	112	469	75	7	768
	21	113	6	15	6	120	609	96	10	1113
	28	128	6	14	7	123	1126	70	12	1476
April	4	129	8	14	7	131	1450	139	14	1882
	11	135	8	15	7	139	1903	325	11	2543
	18	140	8	18	11	147	1974	495	12	2755
	25	156	9	19	11	159	2175	760	13	3260
May	2	162	9	22	15	164	2544	1063	14	3607
	9	172	12	21	8	168	2316	1247	14	3957
	16	189	12	23	8	160	2523	1482	16	4222
	23	199	12	26	9	164	2687	1596	16	4608
	30	200	12	33	9	165	2805	1638	16	4866
June	6	202	12	37	8	163	2897	1738	17	5124
	13	224	12	39	8	160	3126	1801	17	5379
	20	256	12	43	7	159	3593	1981	17	5676
	27	257	12	54	9	155	4095	2051	18	6751
July	4	283	12	55	8	154	4509	2139	18	7278
	11	296	12	67	8	154	4626	2011	18	7690
	18	289	12	76	8	151	4482	2135	18	7968
	25	290	12	79	8	159	4854	2133	18	7965
August	1	336	12	77	8	153	4865	1924	18	7583
	8	343	12	61	8	143	4867	1787	18	7437
	15	396	12	54	8	139	4726	1722	18	7305
	22	622	12	54	7	136	4623	1461	18	6955
	29	677	12	54	6	132	4484	1263	17	6577
September	5	690	12	59	5	120	4270	1080	16	6243
	12	775	12	[illegible]	4	116	4087	962	15	5998
	19	798	13	[illegible]	4	113	3980	797	14	5821
	26	1084	13	[illegible]	4	112	3466	633	13	5449
October	3	1083	13	[illegible]	5	112	3260	485	13	5053
	10	1137	13	[illegible]	5	112	3183	385	11	4931
	17	1230	14	[illegible]	5	108	2979	325	11	4759
	24	1308	14	[illegible]	5	[illegible]	2722	240	11	4533
	31	1384	13	[illegible]	5	[illegible]	2500	20-	10	4329
November	7	1455	14	[illegible]	5	[illegible]	2244	197	10	4080
	14	1508	14	[illegible]	5	[illegible]	2042	129	10	3900
	21	1635	13	[illegible]	5	[illegible]	1818	109	10	3787
	28	1685	13	[illegible]	5	[illegible]	1685	139	9	3681
December	5	1719	10	[illegible]	5	[illegible]	1539	87	9	3468
	12	1727	10	[illegible]	5	[illegible]	1389	80	9	3314
	19	1697	11	[illegible]	5	[illegible]	1302	64	9	3205
	26	1645	10	[illegible]	5	[illegible]	1147	61	5	3025
1943										
January	2	1684	10	[illegible]	5	[illegible]	1090	73	5	3020
	9	1677	9	[illegible]	5	[illegible]	1094	72	5	2972
	16	1688	9	[illegible]	5	[illegible]	1137	85	5	2944
	23	1689	9	[illegible]	5	[illegible]	903	93	5	2850
	30	1711	9	[illegible]	5	[illegible]	842	105	4	2820
February	6	1793	6	[illegible]	5	[illegible]	[illegible]	87	4	[illegible]
	13	1868	5	[illegible]	5	[illegible]	[illegible]	-	4	[illegible]
	20	1922	6	[illegible]	4	[illegible]	[illegible]	-	-	[illegible]
	27	1988	6	[illegible]	4	[illegible]	[illegible]	5	-	[illegible]
March	6	1958	5	[illegible]	4	[illegible]	[illegible]	17	-	[illegible]
	13	1969	5	[illegible]	4	[illegible]	[illegible]	[illegible]	-	[illegible]
	20									
	27									

O. - Officers
C. - Civilians
* - No. actually working. [illegible]

THE J.G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER

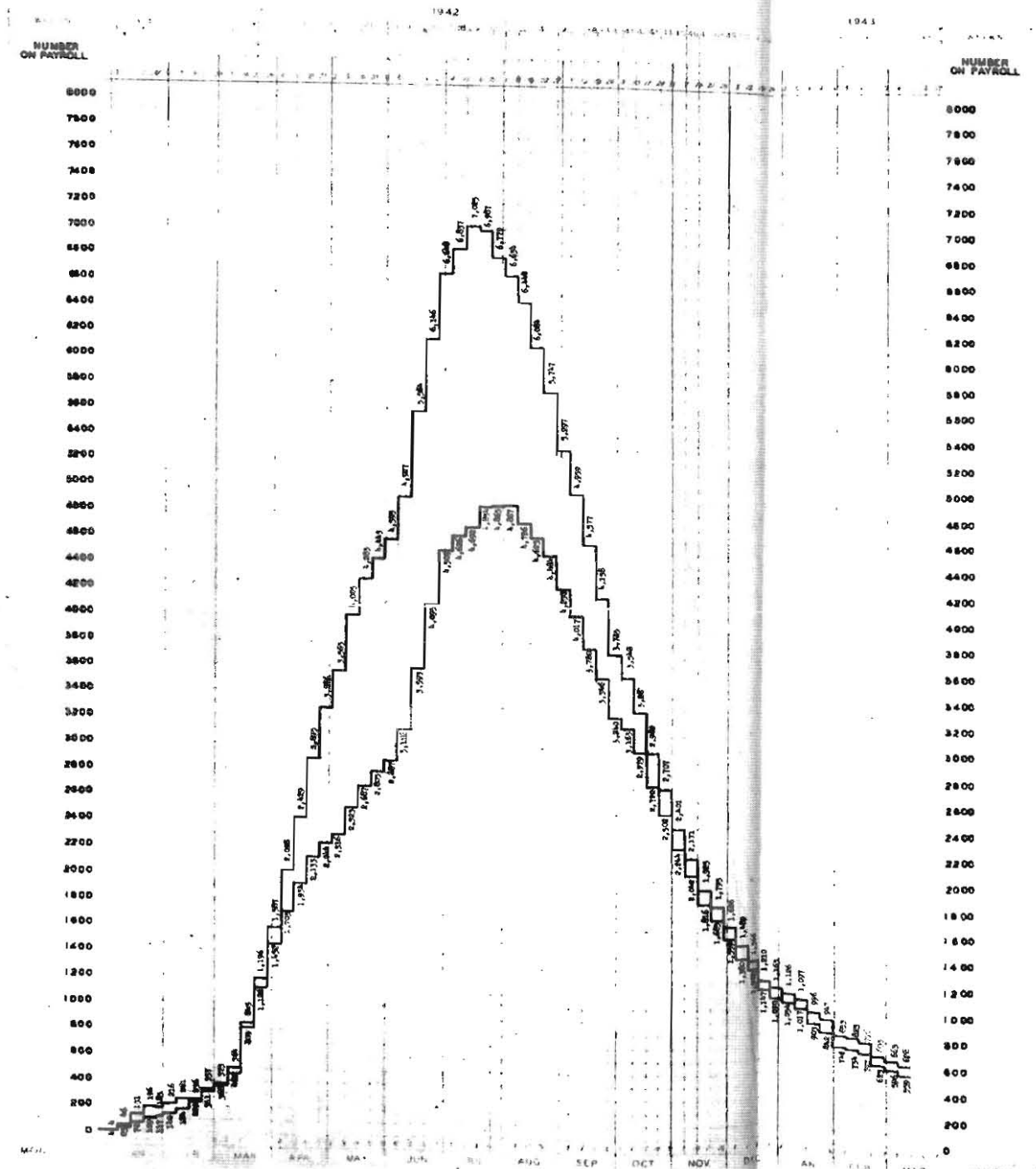
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

TOTAL EMPLOYMENT AT SITE
ALL PERSONNEL

DATE MARCH 15, 1943

DRAWN A.L.B. CHECKED G.N.P. SERIAL NO. C-217

DUCED AT THE NATIONAL ARCHIVES



CONTRACTORS' PERSONNEL
WORKING AT SITE
WEEKLY TOTAL ON PAYROLL

WEEK ENDING 1942	J.G. WHITE ENGINEERING CORPORATION	OTHER CONTRACTORS AND SUB-CONTRACTORS	TOTAL
January 7	4	0	4
14	35	11	46
21	93	60	153
28	129	57	186
31	137	58	195
February 7	160	76	236
14	184	77	261
21	189	77	266
28	213	24	237
March 7	268	5	273
14	689	75	764
21	889	36	925
28	1156	39	1195
April 4	1458	135	1593
11	1703	325	2028
18	1934	445	2379
25	2537	365	2902
May 2	2844	342	3186
9	2746	1217	3963
16	2523	1682	4205
23	2687	1596	4283
30	2805	1638	4443
June 6	2887	1708	4595
13	3126	1781	4907
20	3593	1981	5574
27	4295	2051	6346
July 4	4509	2139	6648
11	4606	2233	6839
18	4682	2339	7021
25	4954	2133	7087
August 1	4885	1934	6779
8	4897	1737	6634
15	4796	1722	6518
22	4823	1643	6466
29	4484	1243	5727
September 5	4130	1089	5219
12	4097	962	5059
19	3963	797	4760
26	3568	612	4180
October 3	3216	655	3871
10	3243	365	3608
17	3078	305	3383
24	3122	260	3382
31	3100	179	3279
November 7	2214	157	2371
14	2045	159	2204
21	1914	108	1922
28	1685	110	1795
December 5	1339	87	1426
12	1380	89	1469
19	1308	58	1366
26	1247	63	1310
1943			
January 2	1300	43	1343
9	1236	93	1329
16	1207	85	1292
23	893	93	986
30	812	35	847
February 6	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]
March 6	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]
20			
27			

TOP GRAPH - TOTAL ALL CONTRACTORS

BLUE - AE&I TOTAL PERSONNEL ON PAYROLL

ORANGE - OTHER CONTRACTORS' PERSONNEL ON THEIR PAYROLLS

THE J. G. WHITE ENGINEERING CORPORATION
ENGINEER - MANAGER

LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

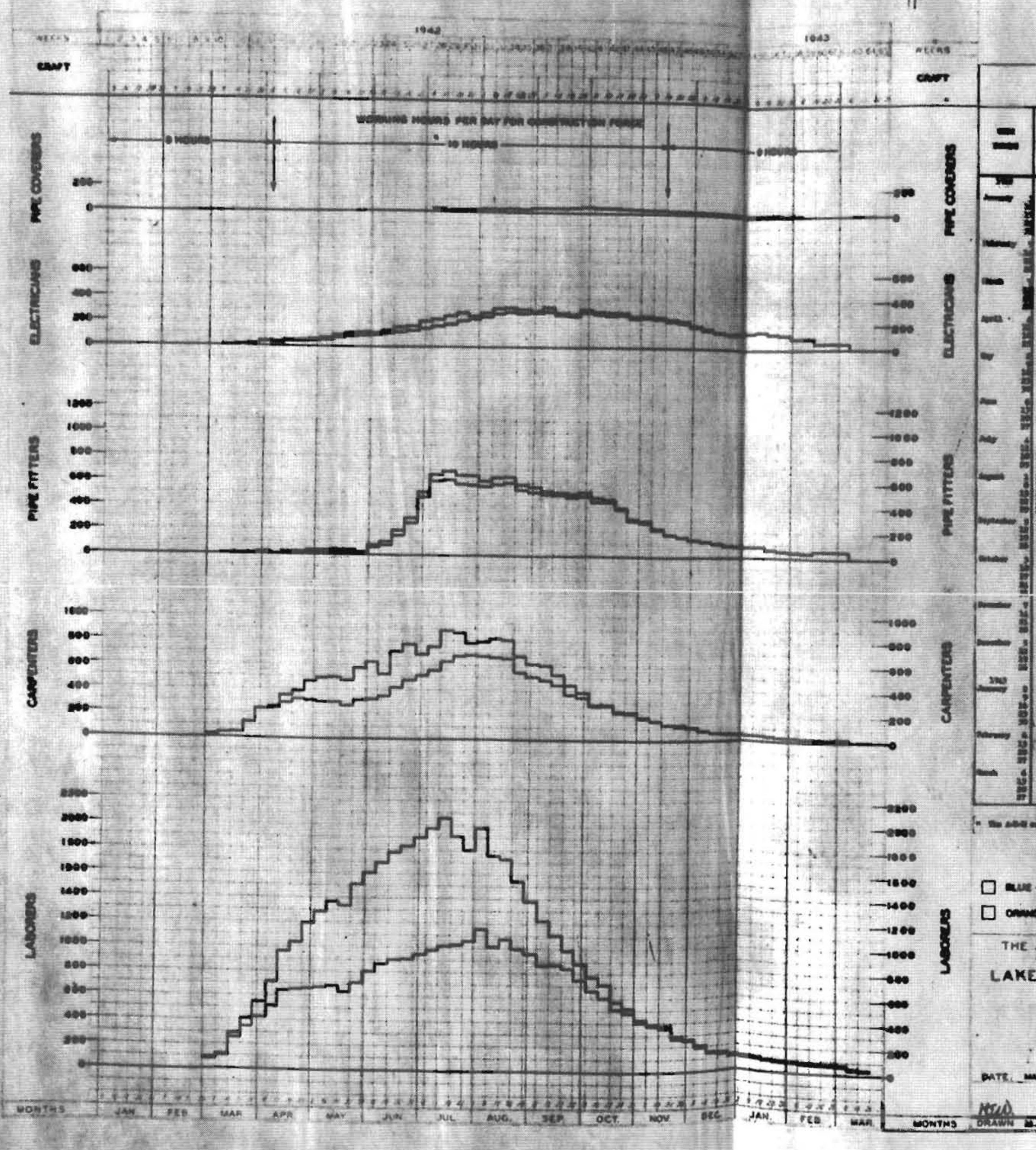
CONTRACTORS' PERSONNEL WORKING AT SITE
WEEKLY TOTAL ON PAYROLLS

DATE MARCH 15, 1943

DRAWN [illegible] CHECKED G.N.R.

ODUCED AT THE NATIONAL ARCHIVES

ODUCED AT THE NATIONAL ARCHIVES



* The A-D-G employed on Pipe Coverers.

☐ BLUE - EMPLOYEES OR SUBCONTRACTORS OF A.E.M.

☐ ORANGE-EMPLOYEES OF OTHER PRIME CONTRACTORS

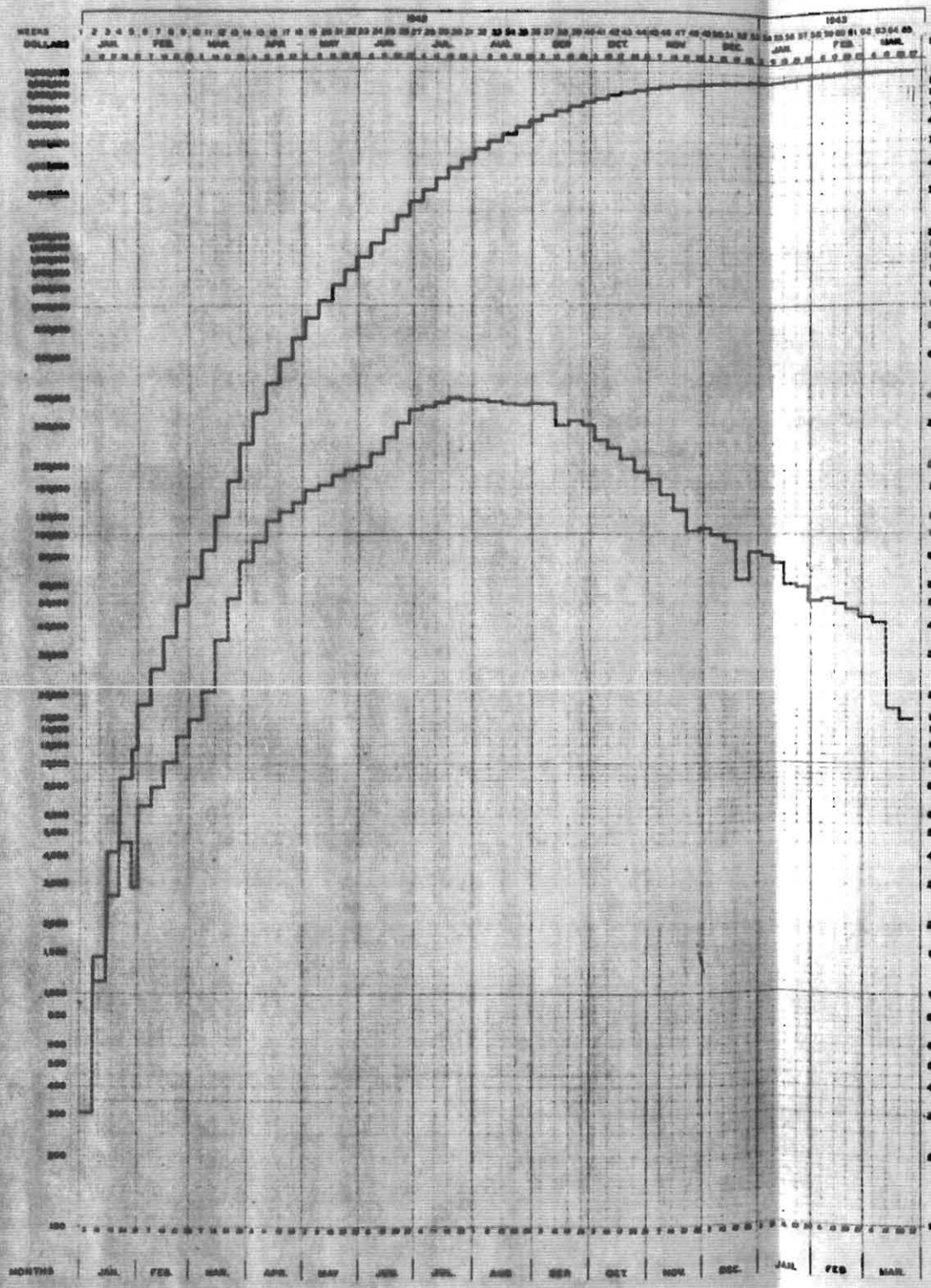
THE J.C. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER

LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

JOURNEYMEN PER WEEK
NUMBER ON PAYROLL
CERTAIN CRAFTS

DATE: MARCH 22, 1943

DRAWN M.J.R. | CHECKED A.L.D. | SERIAL NO. C-202



A-E-M PAYROLL DATA

No.	Week Ending	Day	F.O.A.A.	Withholding Tax	Miscellaneous Ins.	Gross	Weekly Cumulative Amount
	1942						
1	January 7	[illegible]	[illegible]			[illegible]	[illegible]
2	14	[illegible]	[illegible]			[illegible]	[illegible]
3	21	[illegible]	[illegible]		7.42	[illegible]	[illegible]
4	28	[illegible]	[illegible]		14.73	[illegible]	[illegible]
5	31	[illegible]	[illegible]			[illegible]	[illegible]
6	February 7	[illegible]	[illegible]			[illegible]	[illegible]
7	14	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
8	21	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
9	28	[illegible]	[illegible]			[illegible]	[illegible]
10	March 7	[illegible]	[illegible]			[illegible]	[illegible]
11	14	[illegible]	[illegible]			[illegible]	[illegible]
12	21	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
13	28	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
14	April 4	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
15	11	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
16	18	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
17	25	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
18	May 2	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
19	9	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
20	16	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
21	23	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
22	30	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
23	June 6	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
24	13	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
25	20	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
26	27	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
27	July 4	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
28	11	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
29	18	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
30	25	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
31	August 1	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
32	8	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
33	15	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
34	22	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
35	29	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
36	September 5	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
37	12	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
38	19	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
39	26	[illegible]	[illegible]			[illegible]	[illegible]
40	October 3	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
41	10	[illegible]	[illegible]			[illegible]	[illegible]
42	17	[illegible]	[illegible]			[illegible]	[illegible]
43	24	[illegible]	[illegible]			[illegible]	[illegible]
44	31	[illegible]	[illegible]			[illegible]	[illegible]
45	November 7	[illegible]	[illegible]			[illegible]	[illegible]
46	14	[illegible]	[illegible]			[illegible]	[illegible]
47	21	[illegible]	[illegible]			[illegible]	[illegible]
48	28	[illegible]	[illegible]			[illegible]	[illegible]
49	December 5	[illegible]	[illegible]			[illegible]	[illegible]
50	12	[illegible]	[illegible]			[illegible]	[illegible]
51	19	[illegible]	[illegible]			[illegible]	[illegible]
52	26	[illegible]	[illegible]			[illegible]	[illegible]
	1943						
53	January 2	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
54	9	[illegible]	[illegible]	[illegible]	.50	[illegible]	[illegible]
55	16	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
56	23	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
57	30	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
58	February 6	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
59	13	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
60	20	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
61	27	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
62	March 6	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
63	13	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
64	20	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
65	27	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]

—— CUMULATIVE COST AT END OF WEEK

—— AUDITED AMOUNT OF PAYROLL FOR WEEK, INCLUDING SUPPLEMENTARY PAYROLLS

THE J.G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER

LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, N.Y. YORK

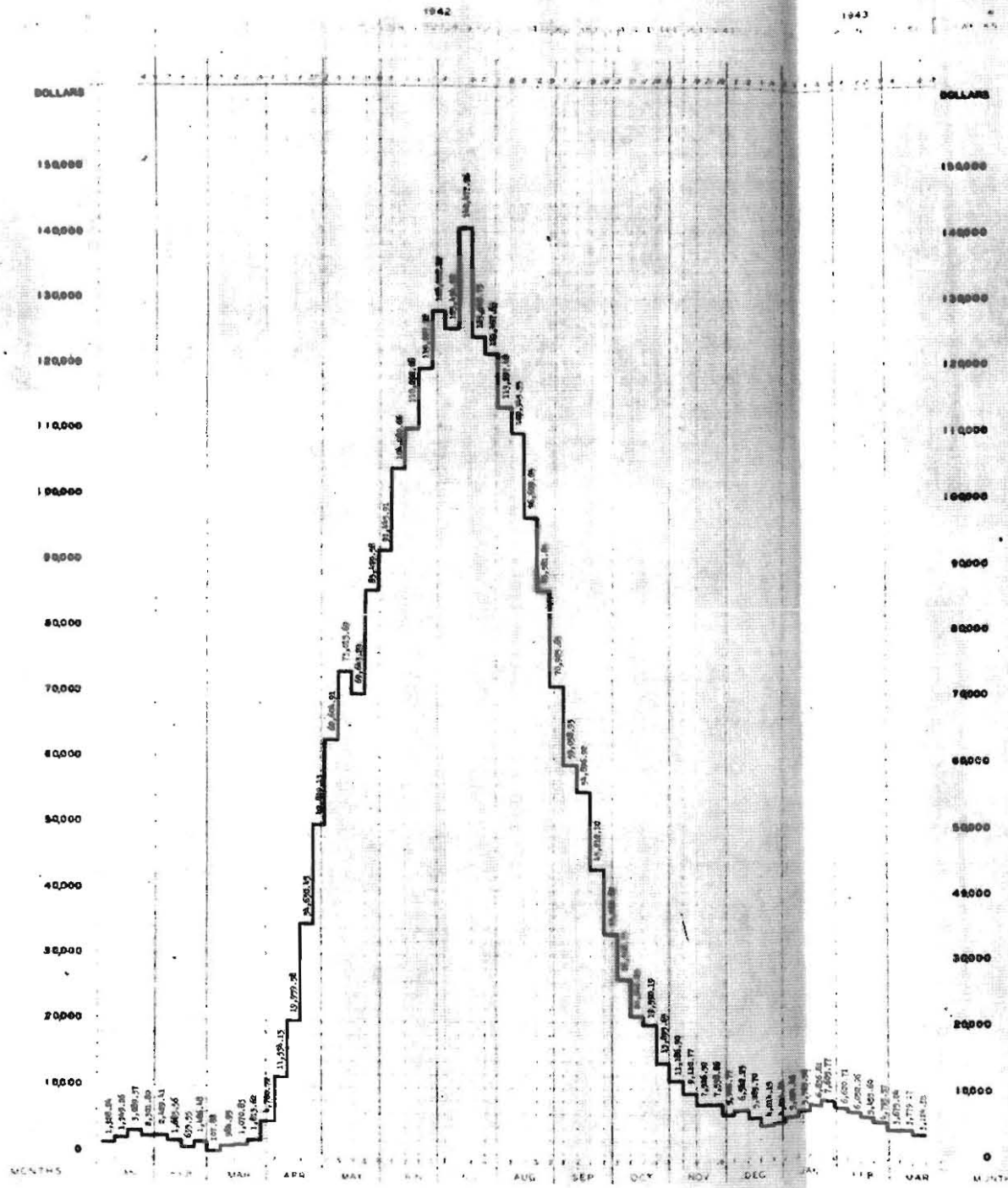
A-E-M PAYROLL DATA

COST EACH WEEK AND CUMULATIVE AMOUNT IN DOLLARS

DATE MARCH 23, 1943

DRAWN G.M.R. CHECKED A.L.D. C-294

DUCED AT THE NATIONAL ARCHIVES



[illegible]	[illegible]	[illegible]	[illegible]
1942			
January 30	[illegible]	$ [illegible]	$ [illegible]
31	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
February 7	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]
March 7	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]
April 4	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]
May 2	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]
June 6	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]
July 4	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]
August 1	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]
September 5	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]
October 3	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]
November 7	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]
December 5	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]
1943			
January 2	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]
February 6	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]
March 6	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]

THE J.G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER

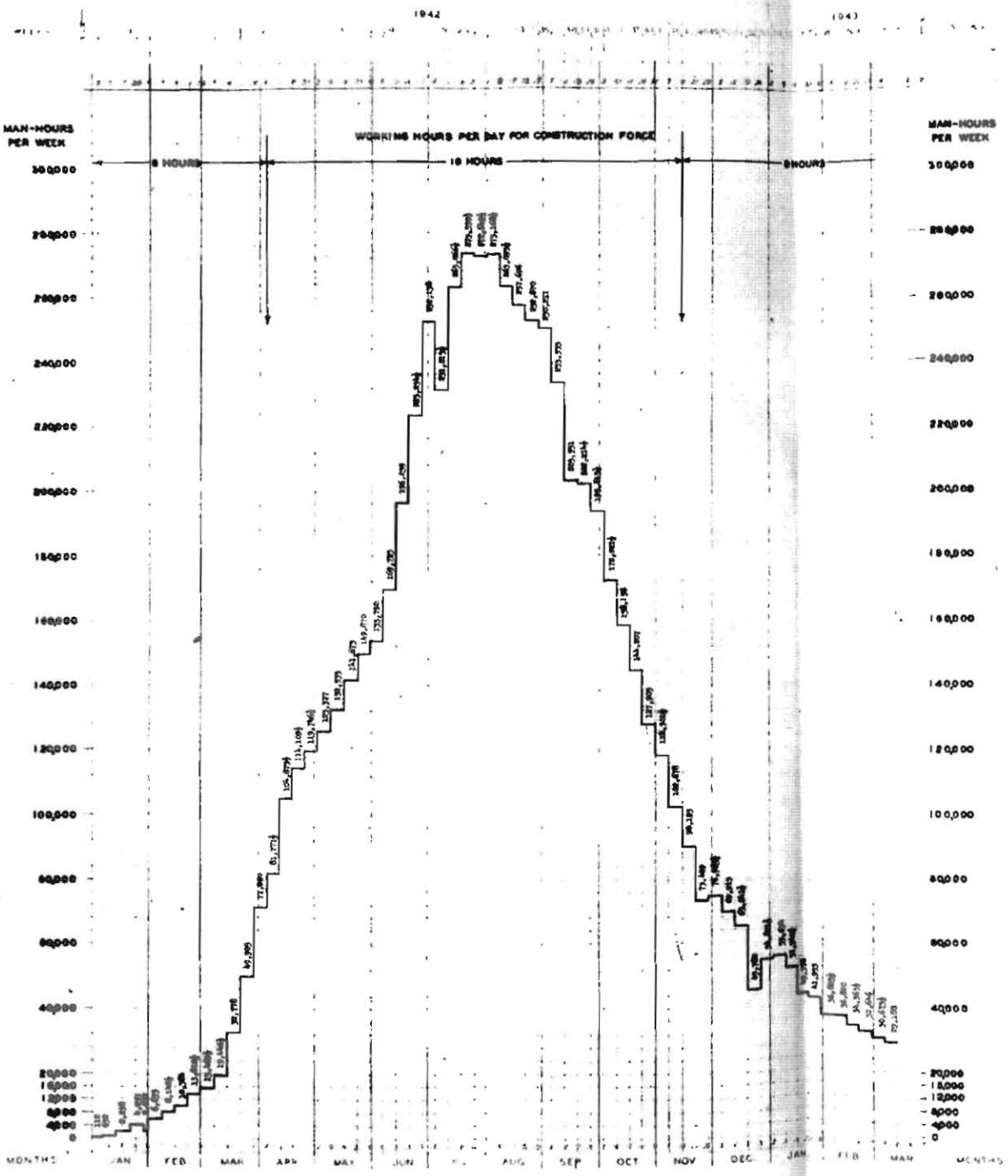
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

WEEKLY PAYROLLS
ALL CONTRACTORS
OTHER THAN A-E-M

DATE MARCH 22, 1943

DRAWN G.N.P. CHECKED A.L.D. SERIAL NO. C-218

ODUCED AT THE NATIONAL ARCHIVES



WEEK ENDING	WORKERS EMPLOYED	MAN HOURS EACH WEEK	MAN HOURS EACH MONTH	MAN HOURS COMPLETIVE TOTAL
1942				
January 7	4	132		
14	95	630		
21	70	2,798		
28	139	4,233		
31	137	2,692	9,947	9,947
February 7	160	6,035		
14	184	8,148		
21	279	10,346		
28	311	13,018	38,480	48,427
March 7	366	15,688		
14	469	19,664		
21	809	36,798		
28	1,126	45,408	127,599	176,026
April 4	1,450	71,099		
11	1,903	85,773		
18	1,934	102,978		
25	2,133	121,108	371,855	547,881
May 2	2,861	129,748		
9	2,355	137,777		
16	2,323	138,535		
23	2,687	140,673		
30	2,806	149,970	669,703	1,217,583
June 6	2,887	153,791		
13	3,184	166,721		
20	3,293	186,279		
27	4,099	203,134	710,925	1,928,508
July 4	[illegible]	[illegible]		
11	[illegible]	[illegible]		
18	[illegible]	[illegible]		
25	[illegible]	275,379	1,024,998	2,953,506
August 1	[illegible]	[illegible]		
8	[illegible]	[illegible]		
15	[illegible]	[illegible]		
22	[illegible]	[illegible]		
29	[illegible]	290,890	1,319,479	[illegible]
September 5	[illegible]	298,211		
12	[illegible]	231,753		
19	[illegible]	209,351		
26	[illegible]	208,344	[illegible]	[illegible]
October 3	[illegible]	[illegible]		
10	[illegible]	[illegible]		
17	[illegible]	[illegible]		
24	[illegible]	[illegible]		
31	2,588	137,905	796,407	[illegible]
November 7	[illegible]	[illegible]		
14	[illegible]	[illegible]		
21	[illegible]	[illegible]		
28	[illegible]	[illegible]	[illegible]	[illegible]
December 5	[illegible]	[illegible]		
12	[illegible]	[illegible]		
19	[illegible]	[illegible]		
26	[illegible]	[illegible]	[illegible]	[illegible]
1943 January 2	[illegible]	[illegible]		
9	[illegible]	[illegible]		
16	[illegible]	[illegible]		
23	[illegible]	[illegible]		
30	[illegible]	[illegible]	[illegible]	[illegible]
February 6	[illegible]	[illegible]		
13	[illegible]	[illegible]		
20	[illegible]	[illegible]		
27	[illegible]	[illegible]	[illegible]	[illegible]
March 6	[illegible]	[illegible]		
13	[illegible]	[illegible]		
20				
27				

[illegible] WHITE ENGINEERING CORPORATION
[illegible] ENGINEERS [illegible] MANAGERS

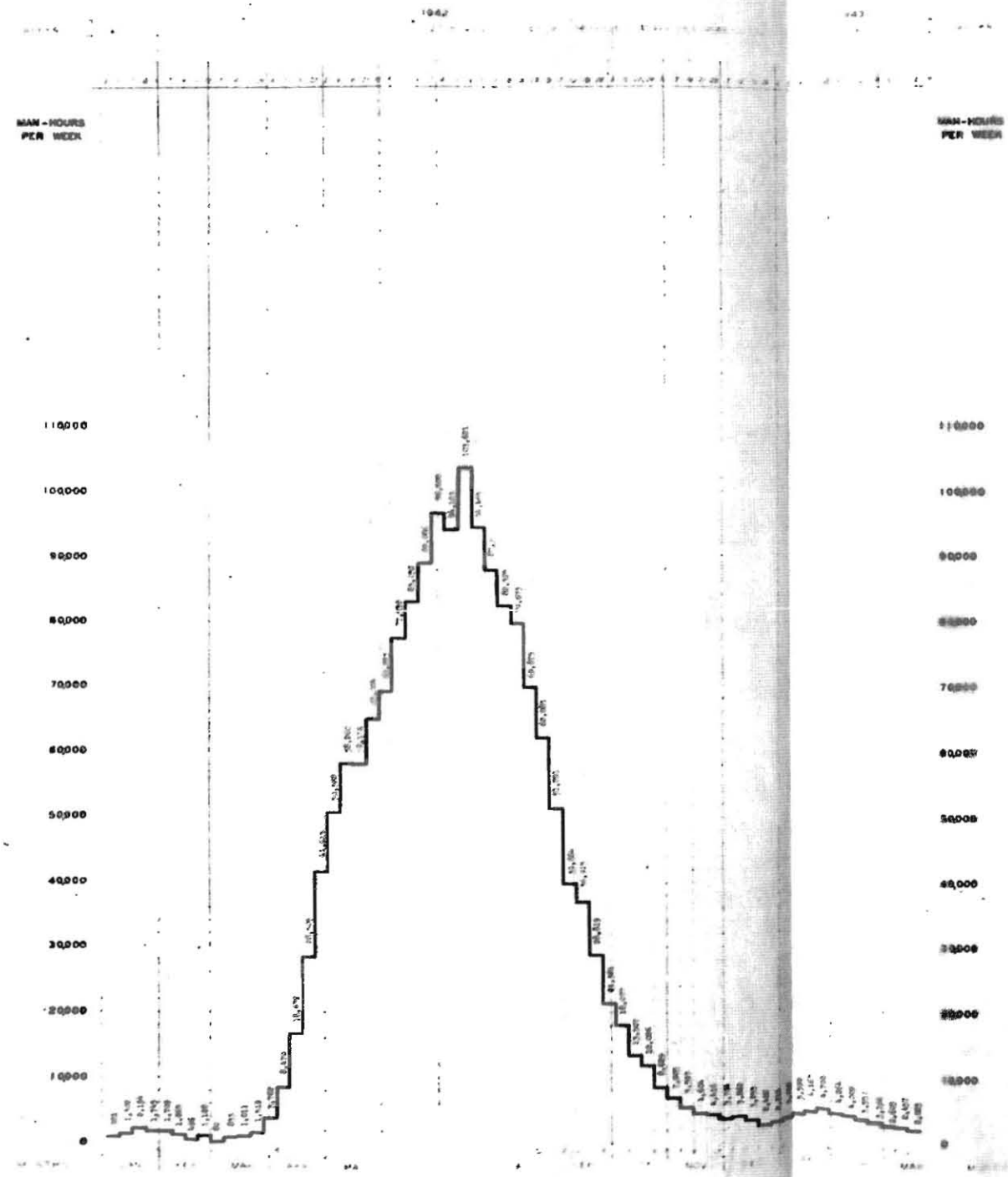
LAKE ONTARIO ORDNANCE WORKS
[illegible]

AEM

MAN-HOURS WORKED PER WEEK

DATE MARCH 15 1943

DRAWN M.J.B. CHECKED [illegible] C-213



WEEK ENDING	STRENGTH END OF WEEK	MAN-HOURS EACH WEEK	MAN-HOURS EACH MONTH	MAN-HOURS CUMULATIVE TOTAL
1942				
January	[illegible]	[illegible]	[illegible]	
February	[illegible]	[illegible]	[illegible]	[illegible]
March	[illegible]	[illegible]	[illegible]	[illegible]
April	[illegible]	[illegible]	[illegible]	[illegible]
May	[illegible]	[illegible]	[illegible]	[illegible]
June	[illegible]	[illegible]	[illegible]	[illegible]
July	[illegible]	[illegible]	[illegible]	[illegible]
August	[illegible]	[illegible]	[illegible]	[illegible]
September	[illegible]	[illegible]	[illegible]	[illegible]
October	[illegible]	[illegible]	[illegible]	[illegible]
November	[illegible]	[illegible]	[illegible]	[illegible]
December	[illegible]	[illegible]	[illegible]	[illegible]
1943 January	[illegible]	[illegible]	[illegible]	[illegible]
February	[illegible]	[illegible]	[illegible]	[illegible]
March	[illegible]	[illegible]		[illegible]

THE WHITE ENGINEERING CORPORATION
ARCHITECTS ENGINEERS MANAGERS

LAKE ONTARIO ORDNANCE WORKS
MUNITIONS, NEW YORK

MAN-HOURS WORKED PER WEEK
ALL CONTRACTORS
OTHER THAN A-E-M

DATE MARCH 22, 1943

REF.

DRAWN G.H.S. CHECKED A.L.D. DWG. NO. C-28

ODUCED AT THE NATIONAL ARCHIVES

BLDG. POST NO.	DESCRIPTION	PLANNING BEGAN	PLANNING COMPLETED	CONSTRUCTION BEGAN	CONSTRUCTION COMPLETED	ACCEPTANCE BY AREA ENGINEER WITH EXCEPTIONS	ACCEPTANCE BY AREA ENGINEER COMPLETE	TRANSFERRED TO DRING SERVICE SERIAL NO. OF FORM #290	DATE #290 SENT TO AREA ENGINEER	DATE TRANSFERRED TO ORDNANCE	TRANSFER OF PLANS AND OTHER INFORMATION RECORD DRAWINGS SPECIFICATIONS	CONTRACTS GUARANTEES
	ADMINISTRATION AREA:											
701	Gate House and Clock Alleys	12-13-42	12-14-42	6-5-42	11-4-42	9-28-42	12-12-42	56	9-29-42	9-30-42	12-21-42	12-21-42
701	Examination Building	12-13-42	12-14-42	6-5-42	11-4-42	9-28-42	12-12-42	56	9-29-42	9-30-42	12-21-42	12-21-42
702	Telephone Building	2-19-42	10-6-42	4-21-42	6-23-42 11-25-42		6-27-42	2	6-27-42	6-27-42	11-30-42	11-30-42
703	Main Office Building	2-12-42	9-1-42	3-3-42	6-20-42 9-22-42		6-22-42	1	6-22-42	6-22-42	9-22-42	9-22-42
705	Employment Building	3-30-42	11-5-42	4-28-42	7-20-42 9-14-42		7-20-42	18	8-8-42	8-17-42	12-18-42	12-18-42
707	Change House Ad. 1	3-4-42	11-2-42	4-20-42	6-23-42	8-3-42	12-1-42	3	6-27-42	6-27-42	11-30-42	11-30-42
708	Cafeteria	2-21-42	10-26-42	4-19-42	12-14-42	8-1-42	2-1-43	6	8-1-42	8-1-42	11-30-42	11-30-42
709	Main Fire Headquarters	3-3-42	7-23-42	4-21-42	12-17-42	7-11-42	12-19-42	10	8-8-42	7-20-42	11-30-42	11-30-42
719	Medical Service Building	3-28-42	11-5-42	4-28-42	10-5-42		10-26-42	17	8-8-42	8-11-42	12-18-42	12-18-42
720	Guard Headquarters	2-21-42	10-31-42	4-21-42	11-2-42		7-21-42	21	8-8-42	8-11-42	11-30-42*	11-30-42
728	Garage for Staff and Ordnance	2-13-42	3-13-42	4-20-42	7-10-42		8-3-42	8	8-5-42	8-5-42	11-30-42	11-30-42
730	Garage for Guard Headquarters	3-10-42	3-13-42	4-21-42	7-10-42		8-3-42	9	8-5-42	8-5-42	11-30-42	11-30-42
751	Dormitory (North)	6-19-42	12-15-42	8-7-42	11-15-42	11-6-42	11-18-42	66	12-18-42	10-29-42	2-3-43	2-3-43
752	Dormitory (South)	6-19-42	12-15-42	8-6-42	11-15-42	11-6-42	11-18-42	66	12-18-42	10-29-42	2-3-43	2-3-43
712	Flag Pole	5-15-42	5-29-42	5-28-42	11-13-42		7-6-42	4	7-13-42	7-13-42	2-3-43	2-3-43
	Telephone Apparatus - in Building	By American Automatic Electric Sales Company		4-29-42	10-7-42	8-17-42	10-16-42	37	8-22-42	8-19-42	12-10-42	12-10-42
	ACID AREA:											
3011	Low Pressure Anhydrous Ammonia Storage:											
	Compressor House & Horton Sphere	2-3-42	9-29-42	4-16-42	9-19-42		11-17-42	51	10-6-42	9-25-42	2-10-43	2-10-43
3012	High Pressure Anhydrous Ammonia Storage:											
	Wave 1 - Compressor House & 6 Tanks	2-24-42	9-23-42	4-30-42	10-28-42	9-17-42	10-14-42	84	1-25-43	9-17-42	2-10-43	2-10-43
	Wave 4 - 6 Tanks	6-4-42	9-23-42	8-21-42				84	1-25-43		2-10-43	2-10-43
3021	Ammonia Oxidation House:											
	Wave 1 - Ammonia Oxidation Unit #1	2-3-42	11-19-42	4-12-42	1-2-43	9-29-42	10-14-42	84	1-25-43	1-9-43	2-10-43	2-10-43
	Ammonia Oxidation Unit #2					10-2-42	10-14-42	84	1-25-43	1-9-43	2-10-43	2-10-43
	Ammonia Oxidation Unit #3					12-31-42	1-27-43	84	1-25-43	1-9-43	2-10-43	2-10-43
	Wave 4 - Ammonia Oxidation Unit #4	6-4-42	11-19-42	8-24-42				84	1-25-43		2-10-43	2-10-43
3022	Supervisor's Office & Pump House:	4-6-42	8-27-42	6-2-42	9-12-42	9-29-42	11-17-42	84	1-25-43	9-29-42	2-10-43	2-10-43
3023	62% HNO_3 Storage Tanks and Condensate Tank:											
	Condensate Tank and 8 Storage Tanks	3-1-42	9-23-42	5-14-42	9-29-42	9-29-42	10-14-42	84	1-25-43	2-29-42	2-10-43	2-10-43
3031	Nitric Acid Concentrating House:											
	Wave 1 - Nitric Acid Concentrating Unit #1	2-4-42	10-15-42	4-6-42	12-19-42	10-5-42	12-24-42	84	1-25-43	1-8-43	2-10-43	2-10-43
	Unit #2			4-6-42	12-19-42	10-5-42	12-24-42	84	1-25-43	1-8-43	2-10-43	2-10-43
	Unit #3			4-6-42	12-19-42	10-5-42	12-24-42	84	1-25-43	1-8-43	2-10-43	2-10-43
	Unit #4			4-6-42	12-19-42	10-5-42	12-24-42	84	1-25-43	1-8-43	2-10-43	2-10-43
	Unit #5			4-6-42	12-19-42	10-5-42	12-24-42	84	1-25-43		2-10-43	2-10-43
	Wave 4 - Unit #6	6-4-42	10-15-42	9-11-42				84	1-25-43		2-10-43	2-10-43
	Unit #7											

BLDG. POST NO.	DESCRIPTION ACID AREA: (CONTD)	PLANNING BEGAN	PLANNING COMPLETED	CONSTRUCTION BEGAN	CONSTRUCTION COMPLETED	ACCEPTANCE BY AREA ENGINEER WITH EXCEPTIONS	ACCEPTANCE BY AREA ENGINEER COMPLETE	TRANSFERRED TO USING SERVICE SERIAL NO. OF FORM #290	TRANSFERRED TO USING SERVICE DATE #290 SENT TO AREA ENGINEER	TRANSFERRED TO USING SERVICE DATE TRANSFERRED TO ORDNANCE	TRANSFER OF PLANS AND OTHER INFORMATION RECORD DRAWINGS SPECIFICATIONS	TRANSFER OF PLANS AND OTHER INFORMATION CONTRACTS GUARANTEES
3032	Residual Sulphuric Acid Storage Tanks:											
	Wave 1 - 4 Tanks	2-25-42	6-19-42	4-19-42	9-12-42		10-9-42	84	1-25-43	10-10-42	2-10-43	2-10-43
	Wave 4 - 2 Tanks	6-4-42	6-19-42	9-1-42				84	1-25-43		2-10-43	2-10-43
3051	Concentrating Mix Circulators:											
	Wave 1 - Scale House, 4 Circulator Tanks and 4 Coolers	2-26-42	12-19-42	5-3-42	11-14-42	10-8-42	11-17-42	84	1-25-43	10-8-42	2-10-43	2-10-43
	Wave 4 - Scale House, 2 Circulator Tanks and 2 Coolers	6-4-42	12-19-42	8-30-42				84	1-25-43		2-10-43	2-10-43
3052	Dark Sulphuric Acid Storage Tanks:											
	Wave 1 - 5 Tanks	2-10-42	12-19-42	4-20-42	9-22-42		9-25-42	50	10-1-42	9-26-42	2-10-43	2-10-43
	Wave 4 - 2 Tanks	6-4-42	12-19-42	8-30-42				84	1-25-43		2-10-43	2-10-43
3053	Concentrating Mixed Acid Storage Tanks:											
	Wave 1 - 4 Tanks	2-25-42	12-19-42	5-3-42	10-7-42	10-8-42	11-17-42	84	1-25-43	10-8-42	2-10-43	2-10-43
	Wave 4 - 2 Tanks	6-4-42	12-19-42	8-10-42				84	1-25-43		2-10-43	2-10-43
3054	Strong Nitric Acid Storage Tanks and Mixed Acid Circulators:											
	Wave 1 - Scale House, 2 Circulator Tanks, 2 Coolers & 3 Storage Tanks	2-10-42	12-19-42	5-25-42	12-12-42	10-12-42	12-24-42	84	1-25-43	10-12-42	2-10-43	2-10-43
3055	Oleum Storage Tanks:											
	Wave 1 - 2 Tanks	2-10-42	12-19-42	4-29-42	9-12-42		9-22-42	49	9-24-42	9-22-42	2-10-43	2-10-43
	Wave 4 - 3 Tanks	6-4-42	12-19-42	7-8-42	3-4-43			84	1-25-43		2-10-43	2-10-43
3055	F-83 Storage Tanks:											
	Wave 1 - 1 Tank	2-10-42	12-19-42	5-3-42	9-12-42		11-17-42	49	9-24-42	10-13-42	2-10-43	2-10-43
	Wave 4 - 1 Tank	6-4-42	12-19-42	8-13-42				84	1-25-43		2-10-43	2-10-43
3056	TNT Residual Acid Storage Tanks:											
	Wave 1 - 4 Tanks	2-10-42	12-19-42	4-19-42	9-18-42		10-3-42	84	1-25-43	9-18-42	2-10-43	2-10-43
	Wave 4 - 2 Tanks	6-4-42	12-19-42	9-1-42				84	1-25-43		2-10-43	2-10-43
3057	Clear Sulphuric Acid Storage Tanks:											
	Wave 1 - 5 Tanks	2-10-42	9-22-42	4-17-42	10-10-42		10-10-42	84	1-25-43	12-10-42	2-10-43	2-10-43
	Wave 4 - 2 Tanks	6-4-42	9-22-42	8-11-42				84	1-25-43		2-10-43	2-10-43
3058	TNT Mixed Acid Storage Tank:											
	Wave 1 - 8 Tanks	2-10-42	12-19-42	4-29-42	9-12-42		10-1-42	84	1-25-43	10-3-42	2-10-43	2-10-43
	Wave 4 - 2 Tanks	6-4-42	12-19-42	8-22-42				84	1-25-43		2-10-43	2-10-43
3071	Sellite Manufacturing Plant:	3-9-42	12-8-42	6-11-42	11-7-42	10-30-42	12-1-42	84	1-25-43	10-31-42	3-5-43	3-5-43
3081	Sulphuric Acid Concentrating House:											
	Wave 1 - Sulphuric Acid Concentrating											
	Unit #1						11-17-42	84	1-25-43	1-8-43	3-10-43	3-10-43
	Unit #2					9-29-42	11-17-42	84	1-25-43	1-8-43	3-10-43	3-10-43
	Unit #3	2-27-42	1-4-43	5-30-42	1-2-43		10-22-42	84	1-25-43	1-8-43	3-10-43	3-10-43
	Unit #4					12-24-42	1-27-43	84	1-25-43	1-8-43	3-10-43	3-10-43
	Wave 4 - Sulphuric Acid Concentrating Unit #5	6-4-42	1-4-43	9-16-42				84	1-25-43		3-10-43	3-10-43
	Unit #6							84	1-25-43		3-10-43	3-10-43

CONSTRUCTION DATA - SECTION "a"

BLDG. POST NO.	DESCRIPTION	PLANNING BEGAN	PLANNING COMPLETE	CONSTRUCTION BEGAN	CONSTRUCTION COMPLETE	ACCEPTANCE BY AREA ENGINEER WITH EXCEPTIONS	ACCEPTANCE BY AREA ENGINEER COMPLETE	TRANSFERRED TO USING SERVICE SERIAL NO. OF FORM #290	DATE #290 SENT TO AREA ENGINEER	DATE TRANSFERRED TO ORDNANCE	TRANSFER OF PLANS AND OTHER SPECIFICATIONS RECORD DRAWINGS SPECIFICATIONS	CONTRACTS GUARANTEES
	ACID AREA: (CONTD)											
3082	Fuel Oil Storage Tanks: Wave 1 - 2 Tanks	3-10-42	9-12-42	6-24-42	9-12-42		10-3-42	84	1-25-43	9-10-42	2-3-43	2-3-43
3221	Shop:	3-14-42	11-17-42	5-15-42	9-22-42 10-1-42		10-14-42	55	9-29-42	9-30-42	12-21-42	12-21-42
3761	Laboratory, Supervisor's Office:	2-18-42	11-12-42	5-8-42	11-9-42	10-31-42	11-23-42	34	8-11-42	8-14-42	12-21-42	12-21-42
3771	Change House:	3-4-42	11-2-42	5-13-42	10-6-42	10-31-42	12-1-42	68	12-18-42	10-8-42	12-21-42	12-21-42
3841	Foamite House: (Wave 4)	6-25-42	7-9-42	7-28-42	9-18-42		11-17-42	68	12-18-42	12-1-42	2-3-43	2-3-43
	Outside Process Lines: Wave 1	4-27-42	12-6-42	7-25-42	12-15-42		10-1-42	89	2-23-43	10-2-42	3-11-43	3-11-43
	Wave 4	6-4-42	12-6-42	11-16-42	2-6-43		2-23-43	89	2-23-43	2-23-43	3-11-43	3-11-43
	POWER AREA:											
4011	Power House						1-20-43	85	1-27-43	10-3-42	3-10-43	3-10-43
	Boiler #1					10-26-42	1-20-43	85	1-27-43	10-3-42	3-10-43	3-10-43
	Boiler #2	1-14-42	1-1-43	5-6-42	3-15-43	10-26-42	1-20-43	85	1-27-43	10-3-42	3-10-43	3-10-43
	Boiler #3					10-26-42	1-20-43	85	1-27-43	10-3-42	3-10-43	3-10-43
4771	Change House	3-2-42	11-2-42	8-19-42	10-21-42	11-11-42	12-1-42	69	12-19-42	11-13-32	12-21-42	12-21-42
	WATER SUPPLY: (EXCEPT WATER LINES)											
5412	Pumping Station			6-23-42	12-4-42	10-14-42	1-8-42	88	1-5-43	2-5-43	3-9-43	3-9-43
5331	Elev. Cooling Water Storage (Preload)	5-29-42	9-16-42	6-13-42	10-24-42	12-26-42	1-27-43	76	1-5-43	12-30-42	2-3-43	2-3-43
5421	Cooling Water Reservoir	5-18-42	11-21-42	6-22-42	12-10-42	10-24-42	1-8-43	86	1-5-43	2-5-43	3-9-43	3-9-43
5423	Elev. Drinking Water Storage	5-6-42	12-12-42	5-28-42	8-7-42	10-17-42	1-8-43	80	1-7-43	10-30-42	2-3-43	2-3-43
5431	Surge Tank	6-18-42	11-20-42	6-23-42	1-9-43	9-30-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5432	Accelator #3C	6-17-42	11-20-42	6-23-42	11-14-42	11-23-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5433	Accelator #2B	6-17-42	11-20-42	6-23-42	11-14-42	11-23-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5434	Accelator #1A	6-17-42	11-20-42	6-23-42	11-14-42	9-30-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5435	Zeolite Filter #1					9-30-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5435	Zeolite Filter #2					11-23-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5435	Zeolite Filter #3 (Filter Building)	6-10-42	12-31-42	6-23-42	1-2-43	11-23-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5435	Gravity Filter #1					11-23-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5435	Gravity Filter #2					11-23-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5435	Gravity Filter #3					9-30-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5436	Chemical Storage	6-10-42	11-20-42	6-23-42	1-2-43	9-30-42	2-4-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5437	Recarbonization Basin	5-26-42	11-20-42	6-22-42	10-1-42		1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5438	Slurry Pool	6-15-42	10-27-42	6-22-42	9-28-42		12-9-42	88	1-5-43	12-10-42	3-9-43	3-9-43
5441	River Pumping Station	1-16-42	11-4-42	6-2-42	12-5-42		10-27-42	86	1-27-43	12-28-42	3-9-43	3-9-43
5442	River Gate House & Valve House	4-10-42	1-28-42	8-3-42	10-3-42		10-27-42	86	1-27-43	12-28-42	3-9-43	3-9-43
5443	River Intake Well	4-10-42	1-27-42	6-2-42	9-19-42		10-8-42	86	1-27-43	12-28-42	3-9-43	3-9-43

BLDG. POST NO.	DESCRIPTION	PLANNING BEGAN	PLANNING COMPLETED	CONSTRUCTION BEGAN	CONSTRUCTION COMPLETED	ACCEPTANCE BY AREA ENGINEER WITH EXCEPTIONS	ACCEPTANCE BY AREA ENGINEER COMPLETE	TRANSFERRED TO USING SERVICE SERIAL NO. OF FORM #290	TRANSFERRED TO USING SERVICE DATE #290 SENT TO AREA ENGINEER	TRANSFERRED TO USING SERVICE DATE TRANSFERRED TO ORDNANCE	TRANSFER OF PLANS AND OTHER INFORMATION RECORD DRAWINGS SPECIFICATIONS	TRANSFER OF PLANS AND OTHER INFORMATION CONTRACTS GUARANTEES
	WATER SUPPLY (EXCEPT WATER LINES) (CONTD.)											
5621	Fire Storage Reservoir	5-16-42	11-20-42	6-17-42	12-17-42	10-24-42	1-8-43	88	1-5-43	2-5-43	3-9-43	3-9-43
5622	Elev. Fire Protection Water Storage	6-11-42	9-12-42	6-18-42	8-29-42	10-17-42	11-18-42	67	12-18-42	10-20-42	2-3-43	2-3-43
5444	Creek Road Chlorination Station	1-9-43	3-1-43	2-11-43		3-12-43		90	3-13-43		3-9-43	3-9-43
	SEWAGE DISPOSAL & ACID NEUTRALIZATION											
5612	Acid Neutralization Building	6-6-42	1-6-43	7-3-42	11-28-42	1-18-43	3-12-43	82	1-19-43	1-19-43	3-10-43	3-10-43
5613	Acid Neutralization Collection Tank	7-28-42	8-11-42	9-6-42	10-8-42	1-18-43	3-12-43	82	1-19-43	1-19-43	3-10-43	3-10-43
5671	Sewage Disposal Pump Station	4-23-42	2-2-43	6-13-42	9-24-42		9-15-42	79	1-26-43	1-22-43	2-10-43	2-10-43
5672	Imhoff Tank	4-23-42	2-2-43	6-2-42	10-3-42		9-15-42	79	1-26-43	1-22-43	2-10-43	2-10-43
5673	North Sludge Bed	4-20-42	2-2-43	6-15-42	7-24-42		9-15-42	79	1-26-43	1-22-43	2-10-43	2-10-43
5674	South Sludge Bed	4-20-42	2-2-43	6-16-42	7-24-42		9-15-42	79	1-26-43	1-22-43	2-10-43	2-10-43
5675	Venturi Vault	5-15-42	2-2-43	6-30-42	8-28-42	9-16-42	1-22-43	79	1-26-43	1-22-43	2-10-43	2-10-43
5676	Chlorine Contact Tank	4-23-42	2-2-43	7-4-42	9-12-42		1-22-43	79	1-26-43	1-22-43	2-10-43	2-10-43
5691	Red & Yellow Mix Tank & Pump Station	7-4-42	3-1-43	7-11-42 1-27-43	10-19-42						3-10-43	3-10-43
5692	Outfall Read Chamber	8-1-42	8-18-42	8-10-42	10-3-42		10-27-42	78	1-5-43	12-23-42	3-10-43	3-10-43
6011	Scale House	3-13-42	8-22-42	6-19-42	11-30-42	10-7-42	11-23-42	65	12-11-42	11-30-42	12-21-42	12-21-42
6331	Coat Room - Service House	3-10-42	6-13-42	5-1-42	11-30-42		11-23-42	22	8-8-42	8-17-42	12-8-42	12-8-42
6741	Yardmasters, Supervisor's Office	2-25-42	11-3-42	6-29-42	11-9-42		11-23-42	44	9-21-42	9-19-42	12-21-42	12-21-42
6111	Incinerator	9-14-42	12-18-42	9-28-42	11-7-42		11-13-42	71	12-22-42	12-15-42	2-3-43	2-3-43
	BUILDINGS LOCATED BETWEEN ACID AND TNT AREAS											
6012	Scale House	3-13-42	5-13-42	7-27-42	12-1-42		11-23-42	65	12-11-42	11-30-42	12-21-42	12-21-42
	SHOPS AREA:											
7041	Supervisor's Office	2-26-42	11-3-42	5-2-42	7-22-42		10-15-42	11	8-8-42	8-11-42	12-8-42	12-8-42
7071	Change House - S1	3-2-42	11-2-42	5-8-42	7-23-42	8-4-42	12-1-42	12	8-8-42	8-15-42	12-8-42	12-8-42
7072	Change House - S2	3-2-42	11-2-42	5-11-42	7-23-42	8-4-42	12-1-42	26	8-8-42	8-15-42	12-8-42	12-8-42
7073	Change House - S3	3-2-42	11-2-42	5-8-42	7-24-42	8-4-42	12-1-42	27	8-8-42	8-15-42	12-8-42	12-8-42
7074	Change House - S4	3-2-42	11-2-42	5-8-42	7-23-42	8-4-42	12-1-42	20	8-8-42	8-15-42	12-8-42	12-8-42
7075	Change House - S5	3-2-42	11-2-42	5-8-42	7-21-42	8-4-42	12-1-42	25	8-8-42	8-15-42	12-8-42	12-8-42
7131	General Storehouse	2-5-42	10-6-42	5-4-42	7-17-42	8-28-42	11-10-42	7	8-4-42	8-4-42	12-8-42	12-8-42
7141	Material Shed	2-5-42	6-1-42	5-9-42	7-17-42		8-28-42	15	8-8-42	8-15-42	12-8-42	12-8-42
7151	Oil and Paint Storage	2-14-42	2-25-42	5-1-42	7-22-42	10-12-42	11-16-42	33	8-8-42	8-6-42	12-8-42	12-8-42
7161	Garage & Repair Shop	2-13-42	11-16-42	5-5-42	7-30-42	7-31-42	1-4-43	28	8-8-42	8-11-42	12-8-42	12-8-42
7171	Combined shops	2-24-42	11-5-42	4-29-42	1-27-43	8-4-42		42	8-8-42	8-8-42	12-8-42	12-8-42
7181	Locomotive House	2-24-42	10-27-42	5-7-42	11-15-42	8-4-42	11-17-42	31	8-8-42	8-8-42	12-8-42	12-8-42
	Fuel Oil Storage	2-24-42	10-27-42	7-25-42	7-31-42		12-12-42	10	8-8-42	8-15-42	12-8-42	12-8-42
7221	Riggers Shop - S1	3-4-42	11-17-42	5-4-42	7-21-42		10-15-42	11	8-8-42	8-15-42	12-8-42	12-8-42
7222	Millwright Shop - S2	3-5-42	11-17-42	5-4-42	7-21-42		10-15-42	12	8-8-42	8-15-42	12-8-42	12-8-42
7231	Laundry	3-4-42	11-17-42	5-6-42	10-10-42		10-12-42	24	8-8-42	8-15-42	12-8-42	12-8-42
7241	Gasoline Station - Bulk	3-13-42	6-26-42	7-18-42	12-3-42		12-29-42	63	12-11-42	12-12-42	2-3-43	2-3-43

BLDG. POST NO.	DESCRIPTION T.N.T. AREA: (CONTD)	PLANNING BEGAN	PLANNING COMPLETED	CONSTRUCTION BEGAN	CONSTRUCTION COMPLETED	ACCEPTANCE BY AREA ENGINEER WITH EXCEPTIONS	ACCEPTANCE BY AREA ENGINEER COMPLETE	TRANSFERRED TO USING SERVICE SERIAL NO. OF FORM #290	TRANSFERRED TO USING SERVICE DATE #290 SENT TO AREA ENGINEER	TRANSFERRED TO USING SERVICE DATE TRANSFERRED TO ORDNANCE	TRANSFER OF PLANS AND OTHER INFORMATION RECORD DRAWINGS SPECIFICATIONS	TRANSFER OF PLANS AND OTHER INFORMATION CONTRACTS GUARANTEES
8126	Acid & Fume Recovery Bldg. -F	2-4-42	9-30-42	6-3-42	1-28-43	12-15-42	1-28-43	72	12-23-42	12-15-42	2-10-43	2-10-43
8141	Box Factory	3-4-42	7-8-42	5-13-42	2-12-42	10-28-42	2-13-43	62	12-11-42	8-11-42	12-21-42	12-21-42
8212	Inspector's Office & Laboratory -A-T1	2-26-42	6-6-42	5-8-42	11-2-42		11-23-42	42	9-10-42	9-18-42	12-21-42	12-21-42
8214	Inspector's Office & Laboratory -B-T2	2-25-42	6-6-42	5-5-42	10-10-42		11-23-42	40	8-28-42	8-31-42	12-21-42	12-21-42
8222	Shops - A-T1	3-4-42	11-17-42	5-12-42	1-26-43	10-5-42	10-31-42	42	9-10-42	9-18-42	12-21-42	12-21-42
8224	Shops - B-T2	3-4-42	11-17-42	5-5-42	1-26-43	10-5-42	10-31-42	42	9-10-42	9-18-42	12-21-42	12-21-42
8226	Shops - C-T3	3-4-42	11-17-42	5-12-42	1-26-43	10-5-42	10-31-42	43	9-18-42	9-18-42	12-21-42	12-21-42
8272	Comfort Station - A	3-6-42	3-13-42	7-16-42	9-5-42		8-24-42	39	8-28-42	8-31-42	12-21-42	12-21-42
8274	Comfort Station - B	3-6-42	3-13-42	7-16-42	9-5-42		8-24-42	39	8-28-42	8-31-42	12-21-42	12-21-42
8276	Comfort Station - C	3-6-42	3-13-42	7-16-42	9-5-42		8-24-42	39	8-28-42	8-31-42	12-21-42	12-21-42
8451	Compressor House	4-30-42	11-17-42	6-3-42	11-24-42	10-12-42	12-16-42	62	12-11-42	10-12-42	12-21-42	12-21-42
8581	Start Up Mixed Acid Storage - A	3-18-42	6-6-42	5-22-42	10-8-42	10-1-42	2-23-43	54	10-26-42	10-2-42	2-10-43	2-10-43
8583	Start Up Mixed Acid Storage - B	3-18-42	6-6-42	5-22-42	12-28-42	11-9-42	2-23-43	54	10-26-42	10-2-42	2-10-43	2-10-43
8585	Start Up Mixed Acid Storage - C	3-18-42	6-6-42	6-1-42	1-23-43		12-7-42	72	12-23-42	12-15-42	2-10-43	2-10-43
8742	Supervisor's Office - A-T1	2-26-42	3-25-42	5-8-42	1-26-43	10-31-42	11-23-42	35	8-11-42	8-14-42	12-21-42	12-21-42
8744	Supervisor's Office - B-T2	2-26-42	3-25-42	5-14-42	1-26-43	10-31-42	11-23-42	42	9-10-42	9-18-42	12-21-42	12-21-42
8746	Supervisor's Office - C-T3	2-26-42	3-25-42	5-16-42	1-26-43	10-31-42	11-23-42	43	9-18-42	9-18-42	12-21-42	12-21-42
8762	Laboratory - A-T1	2-25-42	9-26-42	5-11-42	1-26-43		10-31-42	62	12-11-42	12-18-42	12-21-42	12-21-42
8764	Laboratory - B-T2	2-25-42	9-26-42	5-5-42	1-26-43	10-31-42	12-18-42	62	12-11-42	12-18-42	12-21-42	12-21-42
8766	Laboratory - C-T3	2-25-42	9-26-42	5-11-42	1-26-43	10-31-42	12-18-42	62	12-11-42	12-18-42	12-21-42	12-21-42
8772	Change House - A-T1	3-4-42	11-2-42	5-12-42	1-26-43	10-31-42	12-1-42	42	9-10-42	9-18-42	12-21-42	12-21-42
8774	Change House - B-T2	3-4-42	11-2-42	5-5-42	1-26-43	10-31-42	12-1-42	42	9-10-42	9-18-42	12-21-42	12-21-42
8776	Change House - C-T3	3-4-42	11-2-42	5-9-42	1-26-43	10-31-42	12-1-42	43	9-18-42	9-18-42	12-21-42	12-21-42
8791	Auxiliary Fire Headquarters	5-13-42	5-27-42	6-23-42	10-8-42	11-13-42	12-19-42	62	12-11-42	10-26-42	12-21-42	12-21-42
8841	Foamite Building	6-25-42	7-9-42	7-21-42	10-15-42	8-17-42	10-14-42	38	8-22-42	8-21-42	2-3-43	2-3-43
	Area Electrical.	5-9-42	7-23-42	9-3-42	1-27-43	12-9-42	2-8-43	54	10-25-42	10-2-42	2-10-43	2-10-43
	O. V. Storage - A	1-28-42	5-29-42	5-9-42	10-13-42		10-1-42	54	10-26-42	10-2-42	2-10-43	2-10-43
	O. V. Storage - B	1-28-42	5-29-42	4-19-42	10-14-42		10-1-42	54	10-26-42	10-2-42	2-10-43	2-10-43
	O. V. Storage - C	1-28-42	5-29-42	5-18-42	11-7-42		11-9-42	62	12-11-42	11-12-42	2-10-43	2-10-43
	O. V. Storage - D	1-28-42	5-29-42	5-19-42	11-28-42		11-30-42	62	12-11-42	12-10-42	2-10-43	2-10-43
	O. V. Storage - E	1-28-42	5-29-42	6-1-42	12-19-42		12-15-42	72	12-23-42	12-15-42	2-10-43	2-10-43
	O. V. Storage - F	1-28-42	5-29-42	5-30-42	1-28-43		12-15-42	72	12-23-42	12-15-42	2-10-43	2-10-43
	Barricades - A	1-30-42	2-6-42	6-23-42	8-31-42		10-1-42	54	10-26-42	10-2-42	2-10-43	2-10-43
	Barricades - B	1-30-42	2-6-42	6-7-42	8-31-42		10-1-42	54	10-26-42	10-2-42	2-10-43	2-10-43
	Barricades - C	1-30-42	2-6-42	6-11-42	9-1-42		11-9-42	62	12-11-42	11-12-42	2-10-43	2-10-43
	Barricades - D	1-30-42	2-6-42	6-15-42	9-1-42		11-30-42	62	12-11-42	12-10-42	2-10-43	2-10-43
	Barricades - E	1-30-42	2-6-42	6-16-42	8-31-42		12-15-42	72	12-23-42	12-15-42	2-10-43	2-10-43
	Barricades - F	1-30-42	2-6-42	6-16-42	9-15-42		12-15-42	72	12-23-42	12-15-42	2-10-43	2-10-43
	Outside Process Lines - A	4-14-42	11-6-42	6-30-42	9-22-42		10-1-42	54	10-26-42	10-2-42	2-10-43	2-10-43
	Outside Process Lines - B	4-14-42	11-6-42	6-30-42	9-26-42		10-1-42	54	10-26-42	10-2-42	2-10-43	2-10-43
	Outside Process Lines - C	4-14-42	11-6-42	7-15-42	10-5-42		11-9-42	62	12-11-42	11-12-42	2-10-43	2-10-43
	Outside Process Lines - D	4-14-42	11-6-42	8-1-42	1-9-42		12-7-42	72	12-23-42	12-15-42	2-10-43	2-10-43
	Outside Process Lines - E	4-14-42	11-6-42	8-20-42	1-23-42		12-7-42	72	12-23-42	12-15-42	2-10-43	2-10-43
	Outside Process Lines - F	4-14-42	11-6-42	8-28-42	1-23-42		12-7-42	72	12-23-42	12-15-42	2-10-43	2-10-43

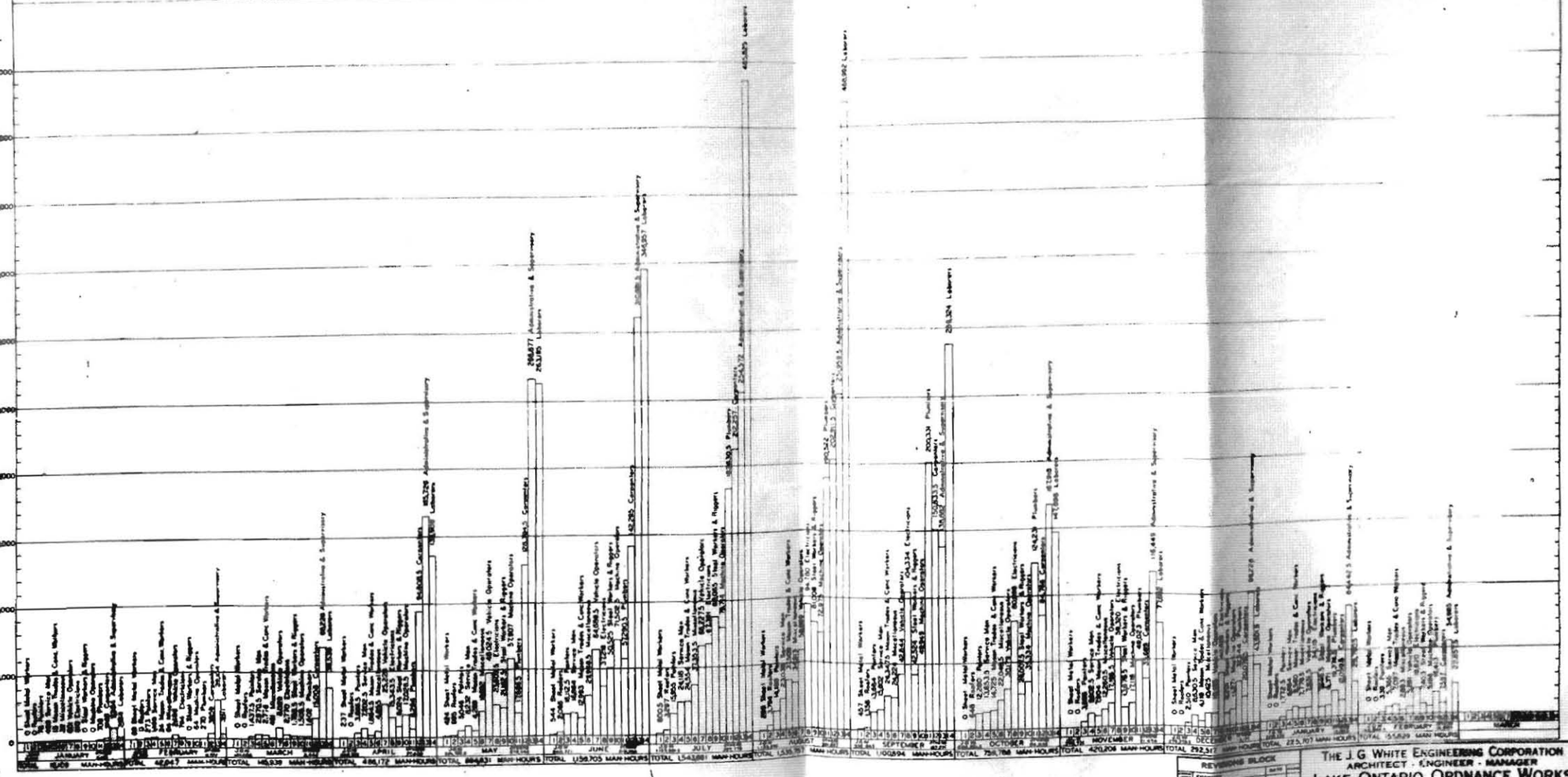
BLDG. POST NO.	DESCRIPTION SHOPS AREA: (CONTD.)	PLANNING BEGAN	PLANNING COMPLETED	CONSTRUCTION BEGAN	CONSTRUCTION COMPLETED	ACCEPTANCE BY AREA ENGINEER WITH EXCEPTIONS	ACCEPTANCE BY AREA ENGINEER COMPLETE	TRANSFERRED TO USING SERVICE SERIAL NO. OF FORM #290	TRANSFERRED TO USING SERVICE DATE #290 SENT TO AREA ENGINEER	TRANSFERRED TO USING SERVICE DATE TRANSFERRED TO ORDNANCE	TRANSFER OF PLANS AND OTHER INFORMATION RECORD DRAWINGS SPECIFICATIONS	TRANSFER OF PLANS AND OTHER INFORMATION CONTRACTS GUARANTEES
7251	Parking Garage - Buses	3-6-42	7-5-42	5-4-42	7-17-42		8-1-42	16	8-8-42	8-11-42	12-8-42	12-8-42
7261	Acetylene Storage	3-14-42	3-21-42	5-1-42	6-30-42		7-9-42	9	7-13-42	7-13-42	12-8-42	12-8-42
7331	Meeting House - S1	3-10-42	6-13-42	5-1-42	8-28-42		10-3-42	63	12-11-42	10-8-42	12-21-42	12-21-42
	TNT AREA:											
8011	Mono-Nitrating House - A	2-3-42	10-26-42	5-11-42	10-15-42	10-1-42	10-20-42	54	10-26-42	10-2-42	2-10-43	2-10-43
8012	Mono-Nitrating House - B	2-3-42	10-26-42	5-11-42	10-16-42	10-1-42	10-20-42	54	10-26-42	10-2-42	2-10-43	2-10-43
8013	Mono-Nitrating House - C	2-3-42	10-26-42	5-16-42	10-28-42	11-9-42	11-23-42	62	12-11-42	11-12-42	2-10-43	2-10-43
8014	Mono-Nitrating House - D	2-3-42	10-26-42	5-17-42	1-9-43	11-30-42	1-28-43	[illegible]	12-11-42	12-10-42	2-10-43	2-10-43
8015	Mono-Nitrating House - E	2-3-42	10-26-42	5-30-42	1-22-43	12-15-42	1-28-43	72	12-23-42	12-15-42	2-10-43	2-10-43
8016	Mono-Nitrating House - F	2-3-42	10-26-42	6-1-42	1-28-43	12-15-42	1-28-43	72	12-23-42	12-15-42	2-10-43	2-10-43
8021	Bi & Tri Nitrating House - A	2-3-42	10-27-42	5-7-42	10-15-42	10-1-42	10-20-42	54	10-26-42	10-2-42	2-10-43	2-10-43
8022	Bi & Tri Nitrating House - B	2-3-42	10-27-42	5-8-42	10-16-42	10-1-42	10-20-42	54	10-26-42	10-2-42	2-10-43	2-10-43
8023	Bi & Tri Nitrating House - C	2-3-42	10-27-42	5-16-42	11-20-42	11-9-42	11-23-42	62	12-11-42	11-12-42	2-10-43	2-10-43
8024	Bi & Tri Nitrating House - D	2-3-42	10-27-42	5-18-42	12-5-42		11-30-42	62	12-11-42	12-10-42	2-10-43	2-10-43
8025	Bi & Tri Nitrating House - E	2-3-42	10-27-42	5-29-42	12-19-42		12-15-42	72	12-23-42	12-15-42	2-10-43	2-10-43
8026	Bi & Tri Nitrating House - F	2-3-42	10-27-42	6-5-42	1-28-43		12-15-42	72	12-23-42	12-15-42	2-10-43	2-10-43
8031	Fortifying House - A	2-3-42	10-16-42	5-13-42	10-14-42	10-1-42	10-23-42	54	10-26-42	10-2-42	2-10-43	2-10-43
8032	Fortifying House - B	2-3-42	10-16-42	5-14-42	10-14-42	10-1-42	10-20-42	54	10-26-42	10-2-42	2-10-43	2-10-43
8033	Fortifying House - C	2-3-42	10-16-42	5-22-42	10-28-42	11-9-42	11-23-42	62	12-11-42	11-12-42	2-10-43	2-10-43
8034	Fortifying House - D	2-3-42	10-16-42	5-19-42	1-9-43	11-30-42	1-28-43	[illegible]	[illegible]	12-10-42	2-10-43	2-10-43
8035	Fortifying House - E	2-3-42	10-16-42	5-29-42	1-19-43	[illegible]	[illegible]	72	[illegible]	[illegible]	2-10-43	2-10-43
8036	Fortifying House - F	2-3-42	10-16-42	6-1-42	1-28-43	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2-10-43	2-10-43
8041	Toluene Storage Tanks - Working-A-T1	2-25-42	4-19-42	5-9-42	10-16-42						[illegible]	[illegible]
8042	Toluene Storage Tanks - Working-B-T2	2-25-42	4-19-42	5-12-42	11-23-42						2-10-43	[illegible]
8043	Toluene Storage Tanks - Working-C-T3	2-25-42	4-19-42	5-3-42	12-17-42						2-10-43	
8046	Toluene Storage Tanks - Bulk-A	[illegible]	[illegible]	[illegible]	[illegible]							
8047	Toluene Storage Tanks - Bulk-B	[illegible]	[illegible]	[illegible]	[illegible]							
8048	Toluene Storage Tanks - Bulk-C	[illegible]	[illegible]	[illegible]	[illegible]							
8061	Wash House - A	[illegible]	[illegible]	[illegible]	10-15-42							
8062	Wash House - B	[illegible]	[illegible]	[illegible]	10-15-42							
8063	Wash House - C	[illegible]	[illegible]	[illegible]	10-29-42							
8064	Wash House - D	[illegible]	[illegible]	[illegible]	[illegible]							
8065	Wash House - E	[illegible]	[illegible]	[illegible]	12-12-42							
8066	Wash House - F	[illegible]	[illegible]	[illegible]	1-28-43							
8082	Bailing House - A	[illegible]	[illegible]	[illegible]	10-[illegible]-42							
8084	Bailing House - B	[illegible]	[illegible]	[illegible]	10-[illegible]-42							
8086	Bailing house - C	[illegible]	[illegible]	[illegible]	12-15-42							
8121	Acid & Fume Recovery Bldg. -A	[illegible]	[illegible]	[illegible]	10-19-42							
8122	Acid & Fume Recovery Bldg. -B	[illegible]	[illegible]	[illegible]	10-15-42							
8123	Acid & Fume Recovery Bldg. -C	[illegible]	9-10-42	5-9-42	10-24-42							
8124	Acid & Fume Recovery Bldg. -D	[illegible]	9-10-42	5-16-42	12-5-42	[illegible]	[illegible]					
8125	Acid & Fume Recovery Bldg. -E	[illegible]	9-10-42	6-3-42	12-19-42	[illegible]	[illegible]					

BLDG. POST NO.	DESCRIPTION	PLANNING BEGAN	PLANNING COMPLETED	CONSTRUCTION BEGAN	CONSTRUCTION COMPLETED	ACCEPTANCE BY AREA ENGINEER WITH EXCEPTIONS	ACCEPTANCE BY AREA ENGINEER COMPLETE	TRANSFERRED TO USING SERVICE SERIAL NO. OF FORM #290	TRANSFERRED TO USING SERVICE DATE #290 SENT TO AREA ENGINEER	TRANSFERRED TO USING SERVICE DATE TRANSFERRED TO ORDNANCE	TRANSFER OF PLANS AND OTHER INFORMATION RECORD DRAWINGS SPECIFICATIONS	TRANSFER OF PLANS AND OTHER INFORMATION CONTRACTS GUARANTEES
	MAGAZINE AREA:											
9001-9038	Magazines (Igloos), numbered S-N on each street beginning with "A" Street	3-3-42	4-14-42	4-22-42	8-22-42		10-7-42	41	9-10-42	9-3-42	2-3-43	2-3-43
9211	Loading Docks - Transfer Platforms - #1	4-30-42	5-14-42	7-10-42	9-9-42		10-13-42	64	12-11-42	10-15-42	2-3-43	2-3-43
9212	Loading Docks - Transfer Platforms -#2	4-30-42	5-14-42	7-9-42	9-9-42		10-13-42	64	12-11-42	10-15-42	2-3-43	2-3-43
9213	Loading Docks - Transfer Platforms -#3	4-30-42	5-14-42	7-8-42	9-9-42		10-13-42	64	12-11-42	10-15-42	2-3-43	2-3-43
9214	Loading Docks - Transfer Platforms -#4	4-30-42	5-14-42	6-29-42	9-9-42		10-13-42	64	12-11-42	10-15-42	2-3-43	2-3-43
9215	Loading Docks - Transfer Platforms -#5	4-30-42	5-14-42	6-28-42	9-9-42		10-13-42	64	12-11-42	10-15-42	2-3-43	2-3-43
9216	Loading Docks - Transfer Platforms -#6	4-30-42	5-14-42	6-27-42	9-9-42		10-13-42	64	12-11-42	10-15-42	2-3-43	2-3-43
9217	Barricades for Loading Docks (Transfer Platforms)	7-28-42	8-12-42	8-15-42	9-9-42		10-13-42	64	12-11-42	10-15-42	2-3-43	2-3-43
9218	Barricades for Loading Docks (Transfer Platforms)	7-29-42	8-12-42	8-7-42	9-9-42		10-13-42	64	12-11-42	10-15-42	2-3-43	2-3-43
9221	Checking Lumber Shop - #1	2-26-42	3-7-42	6-11-42	7-21-42	8-4-42	11-10-42	29	8-8-42	8-8-42	12-8-42	12-8-42
9222	Checking Lumber Shop - #2	2-26-42	3-7-42	5-13-42	7-21-42	8-4-42	11-10-42	30	8-8-42	8-8-42	12-8-42	12-8-42
	BUILDINGS IN VICINITY OF MAGAZINE AREA:											
9241	Gasoline Station - 1,000 Gal. - #1	3-13-42	6-26-42	7-8-42	12-3-42		10-31-42	64	12-11-42	12-12-42	2-3-43	2-3-43
9331	Coat Room - Service House - #1	3-10-42	6-13-42	5-1-42	8-28-42		8-4-42	14	8-8-42	8-17-42	12-8-42	12-8-42
9741	Supervisor's Office - #1	2-26-42	3-25-42	5-8-42	1-27-43		12-29-42	64	12-11-42	10-5-42	12-21-42	12-21-42
9771	Change House - #1	3-2-42	11-2-42	3-9-42	7-10-42	7-25-42	12-1-42	25	8-8-42	8-7-42	12-8-42	12-8-42
	UTILITIES AND FACILITIES											
	Primary and Secondary Systems	3-14-42	3-3-42	6-16-42	12-26-42		2-8-43	87	1-30-43	2-8-43	3-11-43	3-11-43
	Street Lighting System	6-26-42	3-1-42	7-28-42	2-6-43		2-8-43	87	1-30-43	2-8-43	3-11-43	3-11-43
	Automatic Telephone System	4-15-42	2-27-43	4-29-42	1-30-43		1-7-43	88	3-23-43		3-11-43	3-11-43
	Drinking Water Lines	3-20-42	11-30-42	6-1-42	8-15-42	8-8-42	11-6-42	48	9-23-42	9-21-42 12-24-42	3-11-43	3-11-43
	42" Water Line	3-14-42	1-27-43	6-9-42	8-15-42		12-12-42	83	1-19-43	1-14-43	3-11-43	3-11-43
	Process Water Lines	3-20-42	11-30-42	6-1-42	8-1-42		9-18-42	47	9-22-42	9-21-42	3-11-43	3-11-43
	Fire Water Lines	3-20-42	11-30-42	6-1-42	8-15-42	9-30-42	11-23-42	52	10-2-42	10-2-42	3-11-43	3-11-43
	Cooling Water Lines	3-20-42	11-30-42	6-1-42	8-22-42		10-1-42	59	10-2-42	10-2-42	3-11-43	3-11-43
	Boiler Feed Water Line	3-20-42	11-30-42	6-1-42	8-22-42		10-1-42	47	9-22-42	9-21-42	3-9-43	3-9-43

CONSTRUCTION DATA-SECTION "a"

Dates Sheet 8 of 8

BLDG. POST NO.	DESCRIPTION UTILITIES AND FACILITIES (CONTD)	PLANNING BEGAN	PLANNING COMPLETED	CONSTRUCTION BEGAN	CONSTRUCTION COMPLETED	ACCEPTANCE BY AREA ENGINEER WITH EXCEPTIONS	ACCEPTANCE BY AREA ENGINEER COMPLETE	TRANSFERRED TO USING SERVICE SERIAL NO. OF FORM #290	TRANSFERRED TO USING SERVICE DATE #290 SENT TO AREA ENGINEER	TRANSFERRED TO USING SERVICE DATE TRANSFERRED TO ORDNANCE	TRANSFER OF PLANS AND OTHER INFORMATION RECORD DRAWINGS SPECIFICATIONS	TRANSFER OF PLANS AND OTHER INFORMATION CONTRACTS GUARANTEES
	CO^2 Line Pump House to Reserv. Basin	8-3-42	8-17-42	8-10-42	8-22-42		12-9-42	88	2-5-43	2-5-43	3-8-43	3-8-43
	Steam and Air Lines (Outside)	3-17-42	11-20-42	4-1-42	11-28-42		12-7-42	81	1-13-43	12-14-42	2-10-43	2-10-43
	Outfall to River	5-15-42	11-2-42	6-9-42	9-12-42		8-30-42	78	1-5-43	12-23-42	3-10-43	3-10-43
	Sewage Outfall from Treatment Plant to Lead Tank	5-15-42	11-2-42	6-8-42	9-19-42		10-1-42	57	10-1-42	10-2-42	3-10-43	3-10-43
	Sanitary Sewer Lines to Treatment Plant	2-14-42	2-9-43	6-20-42	9-5-42		9-19-42	53	9-19-42	9-22-42	2-10-43	2-10-43
	Acid Sewers	2-14-42	2-9-43	6-8-42	8-22-42		10-1-42	60	10-1-42	10-2-42	3-10-43	3-10-43
	Red and Yellow Water Sewer	2-14-42	2-9-43	7-6-42	9-12-42		10-1-42	58	10-1-42	10-2-42	2-10-43	2-10-43
	Storm Sewers	2-23-42	12-22-42	5-28-42	9-12-42		11-19-42	74	1-5-43	12-24-42	2-22-43	2-22-43
	Oxygen, Acetylene & Hydrogen Manifold System			9-8-42	11-4-42	12-16-42	1-29-43	83	1-19-43	1-12-43	3-11-43	3-11-43
	T.N.T. Residual Acid Line	8-4-42	9-24-42	9-15-42	12-5-42	11-21-42	12-5-42	81	1-13-43	11-23-42	2-10-43	2-10-43
	10 Hose Reel Sheds	6-20-42	7-4-42	9-2-42	12-19-42		11-7-42	70	12-22-42	12-12-42	2-3-43	2-3-43
	Drainage Ditches	2-23-42	12-22-42	3-1-42	10-31-42		11-19-42	46	9-21-42	12-24-42	2-22-43	2-22-43
	Open Drainage Ditches	2-23-42	12-22-42	3-1-42	10-21-42		11-19-42	74	1-5-43	12-24-42	2-22-43	2-22-43
	Sewer Separating System	4-15-42	2-27-43	10-21-42	2-6-43		1-7-43	93	3-19-43		3-11-43	3-11-43
	Fire Alarm System	7-7-42	1-23-43	10-21-42	2-27-43		2-26-43	91	3-11-43		3-11-43	3-11-43
	Railroad	2-15-42	12-16-42	3-1-42	10-3-42		11-23-42	45	10-6-42	10-14-42	2-10-43	2-10-43
	28 Sentry Houses	4-17-42	9-17-42	6-23-42	12-12-42	12-22-42	1-27-43	75	1-5-43	12-24-42	2-3-43	2-3-43
	All Roads, Including Drives, Culverts, Drainage	3-6-42	1-12-43	4-1-42	12-12-42		12-11-42	73	1-5-43	1-2-43	2-19-43	2-19-43
	Outer Boundary Fence	3-23-42	11-23-42	6-26-42	9-26-42		10-16-42	77	1-5-43	10-16-42	2-3-43	2-3-43
	Inner Fence	3-12-42	3-10-42	4-2-42	12-10-42		12-19-42	77	1-5-43	1-1-43	2-3-43	2-3-43
	Parking Areas Rear of 703 & Station 2 to 4-80 on X Avenue	3-21-42	6-4-42	8-24-42	10-17-42			61	10-6-42	10-8-42	2-19-43	2-19-43
	Parking Lots (Main)	3-27-42	4-10-42	4-23-42	8-1-42	8-18-42	12-11-42	36	8-22-42	8-21-42	2-19-43	2-19-43
	Cinder Walks	8-1-42	1-12-43	9-15-42	3-3-43		3-11-42	92	3-16-43		2-19-43	2-19-43



EXPLANATION

2. Roofers - Includes Waterproofers.
4. Service Men - Includes Fuel Dispensers, Garage Attendants, Auxiliary Features Service Men.
5. Mason Tenders & Concrete Workers - Includes Bricklayers, Plasterers, Stone Masons, Concrete Finishers, & Plasterers.
6. Miscellaneous - Includes Oilers, Firemen, Lead Burners & Asbestos Workers.
10. Machine Operators - Includes Equipment Operators of construction equipment, such as bulldozers, tractors, earthmovers, trench diggers, concrete mixers, dumpers, rollers, etc.
11. Plumbers - Includes Sheetfitters & Pipefitters.
12. Administrative & Supervisory - Includes all Office Personnel, Inspectors, Storekeepers, Draftsmen, Engineers, Superintendents & Assistants, General Foremen & Foremen, & Labor Pushers.

REVISIONS BLOCK

THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT - ENGINEER - MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

LABOR DISTRIBUTION CHART
SHOWING
MAN-HOURS WORKED EACH MONTH
A&M AND OTHER CONTRACTORS

DATE MARCH 31, 1943

Drawn G.N.F. Checked A.L.B. Drawing No. E-162

400. The A-E-M sent its first personnel from New York City during the first week in January. Office, clerical, drafting and other personnel were interviewed and employed during the first seven weeks at the offices in the Tugwell-Wiseman Canning Factory at Modeltown.

401. On February 17, 1942 the A-E-M opened an Employment Office at 360-362 Third Street in Niagara Falls. This office was maintained until September 12, 1942 when the A-E-M's Employment Office was discontinued in Niagara Falls and moved into the Project.

402. On January 2, 1942 a Wage Scale for the Project was issued by the Department of Labor at Washington, D. C. Employees hired by the A-E-M had to be paid these rates. It was soon found that the authorized wage scale for certain crafts was less than the local wage rates, also that other prime contractors and subcontractors, not bound by this scale, were hiring men at higher rates of pay than were permitted to the A-E-M. The Wage Scale of Jan.2,1942 is shown on pages 353,354.

403. In order to rectify this situation, and also to equalize wages with later changes in the Niagara Falls and Buffalo wage scales, the Department of Labor issued eighteen Wage Adjustment Orders over a period of eight months. These applied to the A-E-M Contract No. DA-W-138 Eng.-1, Date of Contract - December 30, 1941, Date of Determination - January 2, 1942, and were issued by the War Department, Office Chief of Engineers, Construction Division, as follows:

WAGE ADJUSTMENT ORDERS

NO.	CLASSIFICATION	BASIC RATE	REVISED BASIC RATE	REMARKS	EFFECTIVE DATE
1	All classifications of laborers and mechanics, including helpers and apprentices			Rate for work in excess of 8 hours each day-Saturday Rate - Sunday & Holiday Rate. $1\frac{1}{2}$ x Basic Rate	12/30/41
2	Electricians	$1.375 per hour	$1.50 per hour	The adjusted basic wage conforms to local prevailing practice as indicated by factual evidence available to this office.	3/5/42

403. WAGE ADJUSTMENT ORDERS

(Continued)

NO.	CLASSIFICATION	BASIC RATE Per Hr.	REVISED BASIC RATE Per Hr.	REMARKS	EFFECTIVE DATE
3	Mechanic, Auto	$0.90		These are additional classifications established on the Project by mutual agreement of all interested parties	4/12/42
	Mechanics Helper, Auto	0.75			
4	Plumbers	1.425	$1.50	The adjusted basic wages conform to local prevailing practice as indicated by factual evidence available to this office	3/5/42
	Steamfitters	1.425	1.50		
5	Air Tool Operators (jackhammer-vibrator)	0.80	0.95	The adjusted basic wages conform to local prevailing practice as indicated by factual evidence available in this office.	5/1/42
	Carpenter, journeyman	1.35	1.50		
	Laborers, building	0.68	0.85		
	Laborers, unskilled	0.68	0.85		
	Mason tenders	0.68	0.95		
	Mortar Mixers	0.68	0.95		
	Plasterers tenders	0.68	0.95		
	Wreckers	0.68	0.85		
	Power Equipment Operators:				
	Blade Graders	1.25	1.50		
	Bulldozers	1.25	1.50		
	Cranes, derricks draglines	1.50	1.75		
	Finishing Machine (cem.conc.paver)	1.25	1.50		
	Hoists	1.25	1.50		
	Motor Graders	1.25	1.50		
	Pile drivers	1.50	1.75		
	Rollers	1.25	1.50		
	Shovels	1.50	1.75		
	Tractors	1.25	1.50		

403. WAGE ADJUSTMENT ORDERS
(Continued)

NO.	CLASSIFICATION	BASIC RATE Per Hr.	REVISED BASIC RATE Per Hr.	REMARKS	EFFECTIVE DATE
6	Cement Finisher's Helper	$0.95		This additional classification has been found necessary for completion of the project. The classification and rate conform to local prevailing practice as indicated by factual evidence available to this office	5/1/42
7	Ironworker			The adjusted basic rate conforms to local prevailing practice as indicated by factual evidence available to this office	5/1/42
	Structural	1.50	1.625		
	Ornamental	1.50	1.625		
	Reinforcing	1.50	1.625		
8	Power Equipment Operators			These additional classifications have been found necessary for completion of the project. The classifications and rates conform to local prevailing practice as indicated by factual evidence available to this office	5/1/42
	Air Compressors, (over 220 C.F. capacity)	1.50			
	Pumps (over 2 inches)	1.50			
9				The effective date of Wage Adjustment Order No. 3 is changed from April 12, 1942 to March 1, 1942	
10	Lead Burner	1.75		These additional classifications were established on the project by mutual agreement of all interested parties	4/20/42
	Lead Burner Helper	0.85			

403. WAGE ADJUSTMENT ORDERS (Continued)

NO.	CLASSIFICATION	BASIC RATE Per Hr.	REVISED BASIC RATE Per Hr.	REMARKS	EFFECTIVE DATE
11	Boilermaker	$1.50	$1.625	The adjusted basic wages conform to local prevailing practice as indicated by factual evidence available to this office	5/1/42
	Boilermaker's Helper	$1.25	$1.375		
12				The date of Determination on Wage Adjustment Orders No. 4 & 7 is hereby corrected to read January 2, 1942	
13	Electricians Apprentices			The adjusted basic wages conform to local prevailing practice as indicated by factual evidence available to this office	3/5/42
	1st year	$0.60	$0.70		
	2nd year	$0.70	$0.80		
	3rd year	$0.80	$0.90		
	4th year	$0.90	$1.00		
14	Painters, brush	$1.25	$1.50	The adjusted basic wages conform to local prevailing practice as indicated by factual evidence available to this office	5/1/42
	Painters, spray	$1.53	$1.63		
	Painters, structural steel	$1.53	$1.63		
15	Plumbers, helpers	$0.90		These additional classifications have been found necessary for the completion of the project. The classifications & rates conform to local prevailing practice as indicated by factual evidence available to this office.	6/9/42
	Steamfitters, helpers	$0.90			

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403. WAGE ADJUSTMENT ORDERS
(Continued)

NO.	CLASSIFICATION	BASIC RATE Per Hr.	REVISED BASIC RATE Per Hr.	REMARKS	EFFECTIVE DATE
16	Truck drivers	$0.75	$0.90	The adjusted basic wage conforms to local prevailing practice as indicated by factual evidence available to this office.	8/6/42
17	Electricians Plumbers Steamfitters	$1.50 $1.50 $1.50	$1.675 $1.75 $1.75	The adjusted basic wages conform to local prevailing practice as indicated by factual evidence available to this office	5/1/42 6/9/42 6/9/42
18	Oilers	$0.75	$0.90	The adjusted basic wage conforms to local prevailing practice as indicated by factual evidence available to this office.	5/1/42

Labor Relations

404. Labor employed on the Project was to be 100% unionized in those classifications which were unionized; according to the Federal Government agreement with the American Federation of Labor.

405. The Local Unions and the United States Employment Service in Niagara Falls were very active and helpful to the A-E-M Employment Office in obtaining the required craftsmen, helpers, and other employees. A Labor Pool Office was opened in the Project. It was first located in existing building E-12. This pool operated for the benefit of all prime contractors and subcontractors.

406. Generally speaking, no serious labor disturbances were encountered during the job. From time to time minor complaints arose but these were promptly handled by the A-E-M and the Area Engineer's Office.

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Labor Relations (Continued)

407. The principal difficulties encountered were the necessary adjustment of wage scales, the most embarrassing of which were the following:

Truck drivers, who were receiving 75 cents an hour, threatened to strike unless paid more than the 85 cents an hour which laborers were receiving at the time. This was settled by Wage Adjustment Order No. 16 which made the revised basic rate 90 cents an hour.

Electricians complained that the original basic rate of $1.375 an hour was below the prevailing Niagara Falls scale of $1.50 an hour. Wage Adjustment Order No. 2 which was effective March 5, 1942 revised the scale to $1.50 per hour. Later, the Electricians complained that their rate of pay should be the same as the rate paid in Buffalo, which was $1.675 per hour. Wage Adjustment Order No. 17 increased the base rate to $1.675 to be effective from May 1, 1942.

Plumbers and Steamfitters, according to the January 2, 1942 wage scale had a basic rate of $1.425 per hour. This caused dissatisfaction because it was lower than the Niagara Falls rate of $1.50 per hour and was increased to a revised basic rate of $1.50 an hour by Wage Adjustment Order No. 4, effective March 5, 1942. Later, the Plumbers and Steamfitters complained because the revised basic rate was lower than the Buffalo rate of $1.75 per hour and Wage Adjustment Order No. 17 increased the rate to a new revised basic rate of $1.75 per hour, effective June 9, 1942 for both of these classifications.

Labor Supply

408. At times there were threatened shortages in certain crafts. Field Progress Reports indicate the following:

June 15, 1942	- Need immediately: 200 pipefitters
June 30, 1942	- Need immediately: 100 carpenters
August 31, 1942	- No shortage is expected for the remainder of the Job.
September 30, 1942	- Recently a shortage of Electricians and Lead Burners occurred. Now rectified.

However, no serious shortages developed.

409. The number of employees and the wage scale for the A-E-M, both crafts and non-manual, at the time of the peak employment are shown by classifications on pages 355-360.

Labor Supply (Continued)

410. The maximum number of certain crafts, including employees of all contractors and subcontractors were:

CLASSIFICATION	NUMBER	WEEK ENDING
Laborers	2062	July 18
Carpenters	889	July 18
Pipefitters	688	July 18
Const. Equip. Operators	479	July 11
Electricians	327	August 22
Iron Workers	285	July 25
Truck Drivers	219	June 20
Painters & Glaziers	90	July 4
Cement Finishers	67	July 25
Bricklayers & Masons	58	August 22
Pipe Coverers	47	October 3
Roofers & Waterproofers	32	June 20

411. Labor Statistics - Charts

Total Employment at Site - All Personnel. See page 338

Contractors' Personnel Working at Site. See page 339

Journeymen Per Week - Certain Crafts. See page 340

A-E-M Payroll Data. See page 341

Weekly Payrolls - All Contractors (other than A-E-M) See page 342

Manhours Worked Per Week - A-E-M. See page 343

Manhours Worked Per Week - All Contractors (other than A-E-M). See page 344

Labor Distribution Chart Showing Manhours Per Month. See page 345

Table Showing Analysis of Payroll of A-E-M Peak Week, pages 355-360.

Efficiency of Labor

412. Laborers were below average as a whole group, some iron workers were below average, many electricians were lazy and influenced by the work policies of the local Union.

January 2, 1942

LABOR WAGES IN EFFECT AT
LAKE ONTARIO ORDNANCE WORKS

	Per Hour
Air tool op. (jackhammerman, vibrator)	$ .80
Asbestos workers	1.325
" " helpers	.70
Asphalt rakers	.65
" tampers	.68
Blacksmiths	1.00
" helpers	.70
Blasters	1.00
Boilermakers	1.50
" helpers	1.25
Bricklayers	1.625
Carpenters, journeymen	1.35
" apprentices:	
1st. year 40% of Journeyman's rate	
2nd. " 50% " " "	
3rd. " 60% " " "	
4th. " 75% " " "	
Cement Finishers	1.625
Electricians	1.375
" Apprentices: 1st. year	.60
2nd. "	.70
3rd. "	.80
4th. "	.90
Fireman	1.00
Glasiers	1.25
Iron Workers, Structural	1.50
" " Ornamental	1.50
" " Reinforcing	1.50
" " Apprentices:	
1st 6 months 50% of journeyman's rate	
2nd 6 months 60% " " "	
2nd year 66-2/3% " " "	
Laborers, building	.68
" unskilled	.68
Lathers	1.50
" apprentices: 1st year	.75
2nd year	1.00
3rd year	1.25
Mason tenders	.68
Mortar mixers	.68
Oilers	.75
Painters, brush	1.25
" spray	1.53
" structural steel	1.53
" Apprentices:	
1st year 30% of journeyman's rate	
2nd " 50% " " "	
3rd " 75% " " "	

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412. LABOR January 2, 1942

LABOR WAGES IN EFFECT AT
LAKE ONTARIO ORDNANCE WORKS
(Continued)

	Per Hour
Piledriverman	$ 1.35
Plasterers	1.625
" tenders	.68
Plumbers	1.425
" apprentices: 1st year	.50
2nd year	.60
3rd year	.70
4th year	.80
Power equipment operators:	
Air compressors	1.25
Blade graders	1.25
Bulldozers	1.25
Cranes, derricks, draglines	1.50
Finishing mach. (Com. conc. pave.)	1.25
Hoists	1.25
Miners, under 1 cu. yd.	1.25
" 1 cu. yd. and over	1.50
Motor graders	1.25
Pile Drivers	1.50
Pumps	1.25
Rollers	1.25
Shovels	1.50
Tractors	1.25
Trenching machines	1.50
Roofers, composition	1.10
Sheet Metal Workers	1.25
" " " apprentices	
1st 6 months 35% of journeyman's rate	
2nd 6 " 40% " " "	
3rd 6 " 45% " " "	
4th 6 " 50% " " "	
5th 6 " 55% " " "	
6th 6 " 60% " " "	
7th 6 " 70% " " "	
8th 6 " 80% " " "	
Steam fitters	1.425
" " apprentices: 1st year	.50
2nd year	.60
3rd year	.70
4th year	.80
Stone masons	1.625
Teamsters	.75
Terrazzo workers	1.375
" " helpers	.65
Tile setters	1.375
" " helpers	.60
Truck drivers	.75
Waterproofers	1.10
Welders--receive rate prescribed for craft performing operation to which welding is incidental	
Wreckers	.68

LAKE ONTARIO ORDNANCE WORKS
THE J.G. WHITE ENGINEERING CORPORATION

ANALYSIS OF PAYROLL #32 FOR WEEK ENDING AUGUST 8, 1942

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Accountant, Chief	1		48	$ 110.00	$ 110.00	
" Assistant Chief	1		48	85.00	99.17	
" Cost	1		48	70.00	70.00	
" Cost	1		48	75.00	75.00	
" Invoice	1		48	75.00	82.81	
Accountant	3		48	60.00	210.00	
"	1		48	65.00	65.00	
"	3	12	48	75.00	243.75	$ 955.73
Architect, Chief	1	1	48	110.00	110.00	110.00
Auditor	1	1	48	80.00	98.33	98.33
Auto Mechanic Foremen	4		40	1.00	321.50	
Auto Mechanic	24		40	.90 hr.	1,504.37	
" " Helper	10	38	40	.75 hr.	519.19	2,345.06
Bookkeeper	1	1	48	55.00	67.03	67.03
Bricklayer, Foremen	2		40	1.75	262.06	
Bricklayer	12	14	40	1.625	1,012.39	1,274.45
Buyer	1		48	60.00	60.00	
"	3		48	65.00	195.00	
"	2		48	75.00	150.00	
"	1	7	48	90.00	90.00	495.00
Carpenter, General Foremen	2		40	2.00	149.00	
Carpenter, Foremen	6		40	1.875	914.07	
" "	19		40	1.75	2,547.20	
" "	33		40	1.65	4,122.19	
Carpenter	607	667	40	1.50	63,651.35	71,383.81
Cement Finisher, Foremen	2		40	1.80	292.50	
Cement Finisher	32		40	1.625	3,708.61	
" " Helper	5	39	40	.95	352.71	4,353.82
Chauffeur	45	45	48	40.00	1,655.15	1,655.15
Chief Clerk, Construction	1		48	50.00	62.50	
"	1		48	55.00	55.00	
"	1	3	48	75.00	91.41	208.91
Chief Clerk, Designing	1	1	48	75.00	75.00	75.00
" " Electrical	1	1	48	92.30	92.30	92.30

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Chief Clerk, Engineering	1	1	48	$ 92.00	$ 92.00	$ 92.00
" " Equipment	1	1	48	60.00	60.00	60.00
" " Invoice	1	1	48	60.00	69.17	69.17
Chief Clerk, Material	1		48	62.00	62.00	
"	1		48	77.00	77.00	
"	1	3	48	80.00	93.33	232.33
Chief Clerk, Material (DuPont)	1	1	48	87.00	108.75	108.75
Chief Clerk, Paymaster	1	1	48	60.00	72.50	72.50
Chief Clerk, Pay Roll	1		48	75.00	86.72	
" "	1	2	48	85.00	85.00	171.72
Chief Clerk, Property	1	1	48	70.00	70.00	70.00
" " Receiving	1	1	48	70.00	70.00	70.00
" " Timekeeping	1	1	48	85.00	106.25	106.25
" " Asst. "	1	1	48	80.00	100.00	100.00
" " Warehouse	1	1	48	70.00	87.50	87.50
" " " (Equipment & Repair)	1	1	48	60.00	75.00	75.00
Chief Clerk	1		48	55.00	55.00	
" "	1		48	60.00	75.00	
" "	1	3	48	85.00	93.85	223.85
Clerks, Accounting	1		48	20.00	26.00	
"	2		48	25.00	65.00	
"	1		48	30.00	30.00	
"	6		48	35.00	278.00	
"	1	11	48	40.00	64.00	463.00
Clerks, Administration	5		48	20.00	133.38	
"	1		48	24.00	31.20	
"	2		48	25.00	57.50	
"	1		48	30.00	39.00	
"	1	10	48	45.00	62.72	323.80
Clerks, Auxiliary Features	5	5	48	30.00	208.50	208.50
Clerks, Blue Print	5		48	20.00	112.50	
" "	4		48	24.00	147.30	
" "	1		48	27.00	39.15	
" "	2		48	30.00	103.88	

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LAKE ONTARIO ORDNANCE WORKS
THE J.G. WHITE ENGINEERING CORPORATION

ANALYSIS OF PAYROLL #32 FOR WEEK ENDING AUGUST 8, 1942

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Clerks, Bonds	1	1	40	$ 40.00	$ 67.00	$ 67.00
Clerks, Calculator Supv'sr	1		40	35.00	52.06	
"	1		40	20.00	29.75	
"	2		40	25.00	47.19	
"	2	6	40	30.00	89.26	218.26
Clerks, Comptometer	1		40	20.00	26.00	
"	1	2	40	25.00	32.50	58.50
Clerks, Construction	1		40	20.00	26.00	
"	3		40	24.00	104.40	
"	3		40	25.00	72.50	
"	35		40	30.00	1,545.03	
"	1		40	32.00	41.60	
"	2		40	35.00	85.09	
"	1		40	39.00	68.25	
"	1		40	40.00	70.00	
"	1	48	48	50.00	52.60	2,065.47
Clerks, Cost	1		40	18.00	23.40	
"	8		40	35.00	379.76	
"	1	10	40	40.00	52.00	455.16
Clerks, Engineering	3		40	24.00	74.40	
"	5		40	25.00	163.44	
"	10		40	30.00	376.50	
"	2		40	31.00	85.26	
"	2		40	40.00	140.00	
"	1	23	48	65.00	65.00	904.60
Clerk, Equipment	16		40	30.00	627.18	
"	4		40	35.00	182.00	
"	1		40	40.00	70.00	
"	2	23	48	50.00	112.50	991.68
Clerk, Equip. & Storeroom	1	1	40	30.00	39.00	39.00
Clerk, Field	1		40	25.00	32.50	
"	1		40	30.00	39.00	
"	1		48	47.00	47.00	
"	1	4	40	41.56	41.56	160.06
Clerks, File	2		40	20.00	46.00	
"	1	3	40	32.50	32.50	78.50

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Clerks, Fuel Dispenser	10		40	$ 27.00	$ 472.60	$
	1		40	35.00	71.75	
" Gas Dispenser	2	13	40	30.00	93.75	638.10
Clerks, General Office	1	1	40	20.00	26.00	26.00
" Insurance	1	1	40	60.00	60.00	60.00
" Invoice	2		40	25.00	62.19	
"	9		40	30.00	357.40	
"	2		40	35.00	101.50	[illegible]
"	2	15	40	40.00	99.50	680.59
Clerks, Machine Parts	2	2	40	30.00	78.00	78.00
Clerks, Material	1		40	20.00	26.00	
"	13		40	24.00	409.20	
"	1		40	25.00	32.50	
"	96		40	30.00	3,703.88	
"	24		40	35.00	1,099.88	
"	4		40	47.00	188.00	
"	4		40	50.00	250.00	
"	2		40	52.00	104.00	
"	2	147	40	55.00	110.00	5,923.46
Clerks, Messenger	2		40	16.00	41.60	
"	2		40	18.00	46.80	
"	1	5	40	20.00	26.00	113.80
Clerks, Mimeograph	1	1	40	20.00	26.00	26.00
Clerks, Payroll	2		40	35.00	91.00	
"	21		40	40.00	1,254.00	
"	3		40	45.00	199.13	1,544.13
Clerks, Personnel	3		40	25.00	97.50	
"	1		40	28.00	36.40	
"	1		40	30.00	39.00	
"	1	6	40	35.00	45.50	218.40
Clerks, Property	2		40	20.00	52.00	
"	7		40	24.00	199.20	
"	12		40	30.00	438.38	
"	6	27	40	35.00	273.00	962.58

PRODUCED AT THE NATIONAL ARCHIVES

LAKE ONTARIO ORDNANCE WORKS
THE J.G. WHITE ENGINEERING CORPORATION

ANALYSIS OF PAYROLL #32 FOR WEEK ENDING AUGUST 8, 1942

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Clerks, Purchasing	3		40	$ 20.00	$ 84.38	$
"	2		40	24.00	66.00	
"	1		40	25.00	41.41	
"	4		40	30.00	101.06	
"	1		48	50.00	50.00	
"	1	10	48	55.00	55.00	397.85
Clerks, Record	6		40	20.00	156.00	
"	1		40	24.00	31.20	
"	1	8	40	30.00	39.00	226.20
Clerks, Report	1		40	30.00	30.00	
" Stock	1	2	40	25.00	32.50	62.50
Clerk, Time	34	34	40	30.00	1,668.63	1,668.63
Clerks, Transportation (Fwn)	1		48	50.00	50.00	
"	1	2	40	30.00	39.00	89.00
Clerks, Typist	29		40	20.00	716.85	
"	2		40	25.00	68.75	
"	1	32	40	30.00	39.00	826.63
Clerks, Warehouse	2		40	30.00	78.00	
"	1		40	35.00	45.50	
"	1	4	48	50.00	62.50	186.00
Clerks	1		40	24.00	31.20	
"	1		40	27.00	35.10	
"	1		40	30.00	39.00	
"	1		40	32.00	50.00	
"	1	5	48	50.00	50.00	205.30
Clerks, Engineering	4		48	50.00	212.50	
"	1	5	48	60.00	75.00	287.50
Computer, Cost	1		48	70.00	70.00	
" Construction	1		48	75.00	92.97	
Computer	1		40	46.00	59.80	
"	1		48	63.00	77.44	
"	1		48	68.00	85.00	
"	4		48	70.00	332.47	
"	1		48	75.00	75.00	
"	2	12	48	80.00	200.00	992.68
Dispatchers	6		40	30.00	284.62	

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Dispatchers	2		40	$ 35.00	$ 109.38	$
"	1	9	40	55.00	68.75	462.77
Chief Draftsman	1		48	92.30	92.30	
Draftsman	1		40	23.00	29.00	
"	1		40	25.00	40.00	
"	1		40	30.00	39.00	
"	1		40	32.00	56.00	
"	2		40	35.00	106.75	
"	5		40	40.00	303.50	
"	1		48	45.00	65.25	
"	5		48	52.00	273.00	
"	3		48	55.00	155.83	
"	2		48	58.00	145.00	
"	5		48	60.00	315.00	
"	3		48	65.00	211.25	
"	1		48	69.00	69.00	
"	2		48	68.00	136.00	
	1	35	48	70.00	87.50	2,125.28
Electrician Foremen	22		40	1.825 hr.	2,933.68	
General Line Foremen	2		40	2.00	308.50	
Electrician	226		40	1.675 hr.	26,871.46	
" 2nd yr. app.	1		40	.80 hr.	50.20	
" 3rd yr. app.	6		40	.90 hr.	322.00	
" 4th yr. app.	9	266	40	1.00 hr.	460.00	31,145.84
Chief Engineer	1		48	138.46	138.46	
Assistant Chief Engineer	5	6	48	138.46	692.30	830.76
Engineer, Cost	1		48	115.38	115.38	
" " (Junior)	1		40	40.00	52.00	
" " "	1	3	48	59.00	59.00	226.38
Engineer, Divisional	3		48	85.00	309.01	
" "	1	4	48	90.00	112.50	421.51
Engineer, Electrical	1		48	100.00	100.00	
" "	1	2	48	126.00	126.00	226.00
Engineer, Field Chief	1		48	165.00	165.00	
" Field	1		48	65.00	81.25	
" "	1		48	72.00	90.00	
" "	37		48	75.00	3,382.86	
" "	4		48	80.00	400.00	
" "	7		48	85.00	642.81	

ODUCED AT THE NATIONAL ARCHIVES

LAKE ONTARIO ORDNANCE WORKS
THE J.G. WHITE ENGINEERING CORPORATION

ANALYSIS OF PAYROLL #32 FOR WEEK ENDING AUGUST 8, 1942

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Engineer, Field	2		48	$ 90.00	$ 202.50	$
" "	2		48	92.00	101.58	
" "	1	56	48	92.30	92.30	5,158.30
Engineer, Mechanical	1	1	48	110.00	110.00	110.00
Engineer, Office	1		48	68.00	85.00	
" "	1		48	75.00	93.75	
" "	3		48	80.00	267.50	
" "	2		48	85.00	191.25	
" "	3		48	90.00	270.00	
" "	1		48	100.00	100.00	
" "	2	13	48	115.00	230.00	1,237.50
Engineer, Assistant	1		48	69.00	69.00	
" "	1		48	75.00	75.00	
" "	1	3	48	80.00	80.00	224.00
Engineer, Junior	3		40	35.00	126.75	
" "	1		48	50.00	50.00	
" "	3	7	48	60.00	180.00	356.75
Engineer Designers, Architectural	1	1	48	70.00	87.50	87.50
Chief Designer	1	1	48	125.00	125.00	125.00
Engineer Designer	1		48	60.00	75.00	
" "	1		48	65.00	65.00	
" "	3		48	68.00	204.00	
" "	14		48	75.00	1,395.41	
" "	3		48	85.00	276.25	
" "	2		48	90.00	180.00	
" "	1		48	92.30	92.30	
" "	1		48	100.00	100.00	
" "	3	29	48	103.00	309.00	2,696.96
Expediter, Chief	1		48	130.00	130.00	
Expediter, Traffic	2		48	75.00	150.00	
Expediter	3		48	50.00	162.50	
"	2		48	55.00	110.00	
"	1		48	60.00	75.00	
"	1	10	48	75.00	93.75	721.25
Fireman	3	3	40	1.00 hr.	172.00	172.00
Garage Foreman	1	1	48	60.00	75.00	75.00

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Inspectors, Building	4		48	$ 68.00	$ 340.00	$
" "	1	5	48	69.00	86.25	426.25
Inspectors, Concrete	1		48	50.00	62.50	
" "	2		48	60.00	150.00	
" "	1	4	48	69.00	86.25	298.75
Inspectors, Construction	2		48	60.00	150.00	
" "	2	4	48	68.00	170.00	320.00
Inspectors, Drainage	2		48	55.00	119.75	
" "	1		48	60.00	70.63	
" "	1		48	65.00	67.71	
" "	2	6	48	69.00	158.08	416.17
Inspectors, Electrical	1		48	55.00	68.75	
" "	1	2	48	60.00	75.00	143.75
Inspectors, Engineering	1		48	68.00	85.00	
" "	1	2	48	69.00	86.25	171.25
Inspectors, Forest	2	2	48	60.00	150.00	150.00
" Lumber	1	1	48	50.00	62.50	62.50
" Magazine	1		48	68.00	85.00	
" "	1	2	48	69.00	86.25	171.25
Inspectors, Pipe	1		48	60.00	75.00	
" "	2		48	68.00	170.00	
" "	1	4	48	69.00	86.25	331.25
Inspectors, Plumbing	1	1	48	60.00	75.00	75.00
" Power	1	1	48	65.00	81.25	81.25
Inspectors, Road	1		48	55.00	61.87	
" "	3		48	60.00	200.00	
" "	3		48	68.00	254.29	
" "	3	10	48	69.00	258.75	774.91
Inspectors, Safety	1		48	35.00	61.25	
" "	3		48	50.00	187.00	
" "	1	5	48	65.00	81.25	329.50
Inspectors, Sanitation	1	1	48	60.00	75.00	75.00

DUCED AT THE NATIONAL ARCHIVES

LAKE ONTARIO ORDNANCE WORKS
THE J.G. WHITE ENGINEERING CORPORATION

ANALYSIS OF PAYROLL #32 FOR WEEK ENDING AUGUST 8, 1942

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Inspectors, Sewers	1		48	$ 55.00	$ 68.75	$
" "	3		48	60.00	224.38	
" "	10	14	48	68.00	870.00	1,163.13
Inspectors, Steel	1		48	60.00	75.00	
" "	1	2	48	69.00	86.25	161.25
Inspectors, Utility	1		48	55.00	68.75	
" "	1	2	48	68.00	85.00	153.75
Inspectors, Water	1		48	50.00	50.00	
" "	1	2	48	68.00	85.00	135.00
Inspectors, Water Intake	1	1	48	50.00	62.50	62.50
" Water Mains	1	1	48	68.00	85.00	85.00
Inspectors	1		48	50.00	20.83	
"	1	2	48	60.00	75.00	95.83
Ironworker Foreman	3		40	2.03 hr.	276.00	
Structural Steel Foreman	28		40	1.875 hr.	3,447.69	
Ironworker	218		40	1.625 hr.	23,514.08	
" 2nd yr. app.	3		40	1.0833 hr.	242.10	
" 2nd yr.6mo. app.	18		40	.975 hr.	1,201.00	
" 1st yr.6mo. app.	4	274	40	.812 hr.	203.13	28,884.00
Janitor, Assistant Head	2		40	25.00	65.00	
Janitors	5	7	40	20.00	142.63	207.63
Labor, General Foreman	1		48	70.00	87.50	
Laborer Foreman	43		40	1.25 hr.	4,107.24	
Laborer Pusher	47		40	1.00 hr.	3,568.50	
Laborers	1152	1243	40	.85 hr.	63,828.03	71,591.27
Levelman	1	1	40	36.00	63.00	63.00
Manager, Engineering	1		48	173.00	173.00	
" Office	1	2	48	138.46	138.46	311.46
Mason Tender	15	15	40	.95 hr.	973.76	973.76
Matron	23	23	40	17.00	504.26	504.26
Nurse, Superintendent	1		48	50.00	50.00	
Nurse	15	16	40	27.00	526.50	576.50

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Oiler	57	57	40	$ .90 hr.	$ 3,759.40	$ 3,759.40
Operators, Air Compressors	54		40	1.50 hr.	5,929.97	
" Air Tool	2		40	.95 hr.	161.50	
" Blade Grader	8		40	1.50 hr.	885.01	
" Bull Dozer	54		40	1.50 hr.	5,881.20	
" Crane Foreman	5		40	2.00 hr.	764.00	
" Crane Foreman	40		40	1.75 hr.	5,345.81	
" Dragline	5		40	1.75 hr.	684.70	
" Mixer	1		40	1.25 hr.	113.75	
" Roller	2		40	1.50 hr.	279.75	
" Shovel	25	196	40	1.75 hr.	3,391.13	23,436.82
Painter, General Foreman	1		40	2.125 hr.	148.75	
Painter Foreman	2		40	1.65 hr.	231.00	
Painter, Structural Steel Fmn.	1		40	1.78 hr.	119.26	
" Spray	3		40	1.63 hr.	336.19	
Painter, Structural Steel	7		40	1.63 hr.	526.17	
" Brush	43	57	40	1.50 hr.	4,077.00	5,438.37
Parking Attendent	7		40	31.00	272.80	
" "	1	8	40	35.00	45.50	318.30
Party Chief	27	27	40	68.00	2,255.33	2,255.33
Personnel Director	1		40	85.00	85.00	
Asst. " "	1	2	40	75.00	81.25	166.25
Photographer	1	1	40	55.00	55.00	55.00
Photostat Operator	1	1	40	40.00	70.00	70.00
Physicians	2	2	40	58.00	116.00	116.00
Plumber Foreman	2		40	1.875 hr.	262.50	
Plumbers	7		40	1.75 hr.	850.51	
" 4th yr. app.	2	11	40	.80 hr.	112.00	1,225.01
Purchasing Agent	1		40	161.00	161.00	
Asst. " "	1		40	92.30	92.30	
Purchasing & Material Chief	1	3	40	126.92	126.92	380.22
Rodman	3		40	23.00	103.51	
"	1		40	28.00	49.00	
"	1		40	29.00	50.75	
"	48	53	40	31.00	2,529.53	2,732.79

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LAKE ONTARIO ORDNANCE WORKS
THE J.G. WHITE ENGINEERING CORPORATION

ANALYSIS OF PAYROLL #32 FOR WEEK ENDING AUGUST 8, 1942

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Sheet Metal Worker	1	1	40	$ 1.25 hr.	$ 87.50	$ 87.50
Steam Fitter Foreman	39		40	1.875 hr.	5,019.88	
Steamfitter	525		40	1.75 hr.	61,012.94	
" 4 yr. app.	28		40	.80 hr.	1,509.86	
" 3 yr. app.	1		40	.70 hr.	49.00	
" 2 yr. app.	7	600	40	.60 hr.	280.00	67,871.68
Stenographers, Construction	1		40	25.00	32.50	
" Engineering	1		40	25.00	32.50	
" Material	1		40	20.00	26.00	
" Payroll	1		40	30.00	51.38	
" Personnel	1		40	30.00	39.00	
" Property	1	6	40	20.00	26.00	207.38
Stenographers	14		40	20.00	321.50	
"	47		40	25.00	1,515.00	
"	17	78	40	30.00	688.89	2,525.39
Secretaries	3		40	35.00	122.42	
"	3	6	48	50.00	160.42	282.05
Superintendents, Auxiliary Features	1	1	48	92.30	92.30	92.30
" Construction	1		48	110.00	110.00	
" "	5		48	115.00	480.00	
" "	3		48	125.00	375.00	
" "	2		48	138.46	276.92	
" Asst. "	2		48	75.00	187.50	
" " "	2		48	100.00	200.00	
" " "	1		48	103.00	103.00	
" " "	1		48	105.00	105.00	
" " "	2		48	110.00	220.00	
" " "	7	26	48	115.00	805.00	2,862.42
" Construction, Drainage	1	1	48	85.00	105.36	105.36
" " Ironworkers	1	1	40	2.25 hr.	192.94	192.94
" Electrical	1		48	160.00	160.00	
" "	1	2	40	2.25 hr.	168.75	328.75
" Heavy Equipment	1	1	48	125.00	125.00	125.00
" Piping	1		40	2.50 hr.	175.00	
" "	1		48	160.00	160.00	
" Asst. Piping	8	10	40	2.125 hr.	1,221.88	1,556.88

CLASSIFICATION	NO.	TOTAL NO.	HOURS PER STD. WEEK	RATE PER STD. WEEK	TOTAL AMOUNT PER CLASS	TOTAL AMOUNT
Superintendents, Transportation	1		40	$ 92.30	$ 92.30	
" Asst. "	1	2	40	70.00	87.50	$ 179.80
Assistant Superintendents	1		40	69.00	86.25	
" "	1		40	92.30	92.30	
" "	1	3	40	100.00	100.00	278.55
Surveyor Chief	1		40	85.00	106.25	
Asst. " "	1	2	40	75.00	93.75	200.00
Telephone Operator, Chief	1		40	32.50	32.50	
" "	8		40	30.00	234.00	
" "	1	10	40	25.00	25.00	291.50
Time Checkers	16		40	30.00	801.97	
Time Keepers	5		40	40.00	319.39	
" "	1	22	40	40.00	70.00	1,191.36
Traffic & Expediting	1		40	55.00	55.00	
" "	1		40	60.00	60.00	
" "	2		40	70.00	140.00	
" "	1		40	75.00	75.00	
" "	2	7	40	80.00	160.00	490.00
Transitmen	44	44	40	40.00	2,928.00	2,928.00
Truckdrivers	143	143	40	.75 hr.	7,698.57	7,698.57
Waterboys	11	11	40	20.00	221.63	221.63
GRAND TOTAL		4867				$ 391,173.14

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413. At the start of the Project, a housing survey was made of the vicinity. The survey was made with the cooperation of the Chamber of Commerce, other civic organizations, by local advertising and personal canvas. Others aiding were: The Real Estate Board, Builders Guild, The Mayor, Chief of Police, Hotel Association, Falls City Trust Co., Junior Chamber of Commerce at Niagara Falls, Ontario, and numerous public spirited citizens.

414. A list was made of all hotels, tourist lodgings and all vacant buildings that could be adapted for housing. The original survey showed the following:

997 beds available in Niagara Falls, N. Y.
484 beds available in nearby Ontario, Canada
28 beds available in Lewiston, N. Y.
128 beds available in Youngstown, N. Y.

415. The following are from the housing survey file:

Available	Rooms	Beds	Total Employed All Personnel
March 2, 1942	1347	1824	534
April 1, 1942	1153	1585	1882
May 1, 1942	907	1286	3667
June 1, 1942	844	1070	4866
July 1, 1942	523	690	7278
Aug. 1, 1942	343	510	7583
Sept. 1, 1942	372	553	6243

Rooms rented from February 5, 1942 - Sept. 1, 1942 - 2788
Beds rented from February 5, 1942 - Sept. 1, 1942 - 3520

416. A number of rooms were available in Lockport but due to the difficulties in transportation most of these could not be used. On April 8, 1942 practically all housing facilities for negros were exhausted.

417. The weekly range was from $7.00 up. Monthly rates from $25.00 with running water to $100.00 per month for 2 room suite with bath. A detailed tabulation on February 4, 1942 showed that there were quarters available for 2300 men.

418. At a meeting of the zoning board of the Town of Lewiston, an attempt was made to establish a trailer camp at Bond Lake. This did not materialize. However, some A-E-M employees and their families did park their trailers at the lake during the summer.

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HOUSING

419. There were many summer homes for rent along Lake Ontario, at Fort Niagara Beach, Wilson, Olcott, and other shore points. The rentals were high. Many employees took advantage of them. When colder weather came along these employees again presented a problem in housing, as they all had to find warmer accommodations elsewhere, mostly, in Niagara Falls and Buffalo.

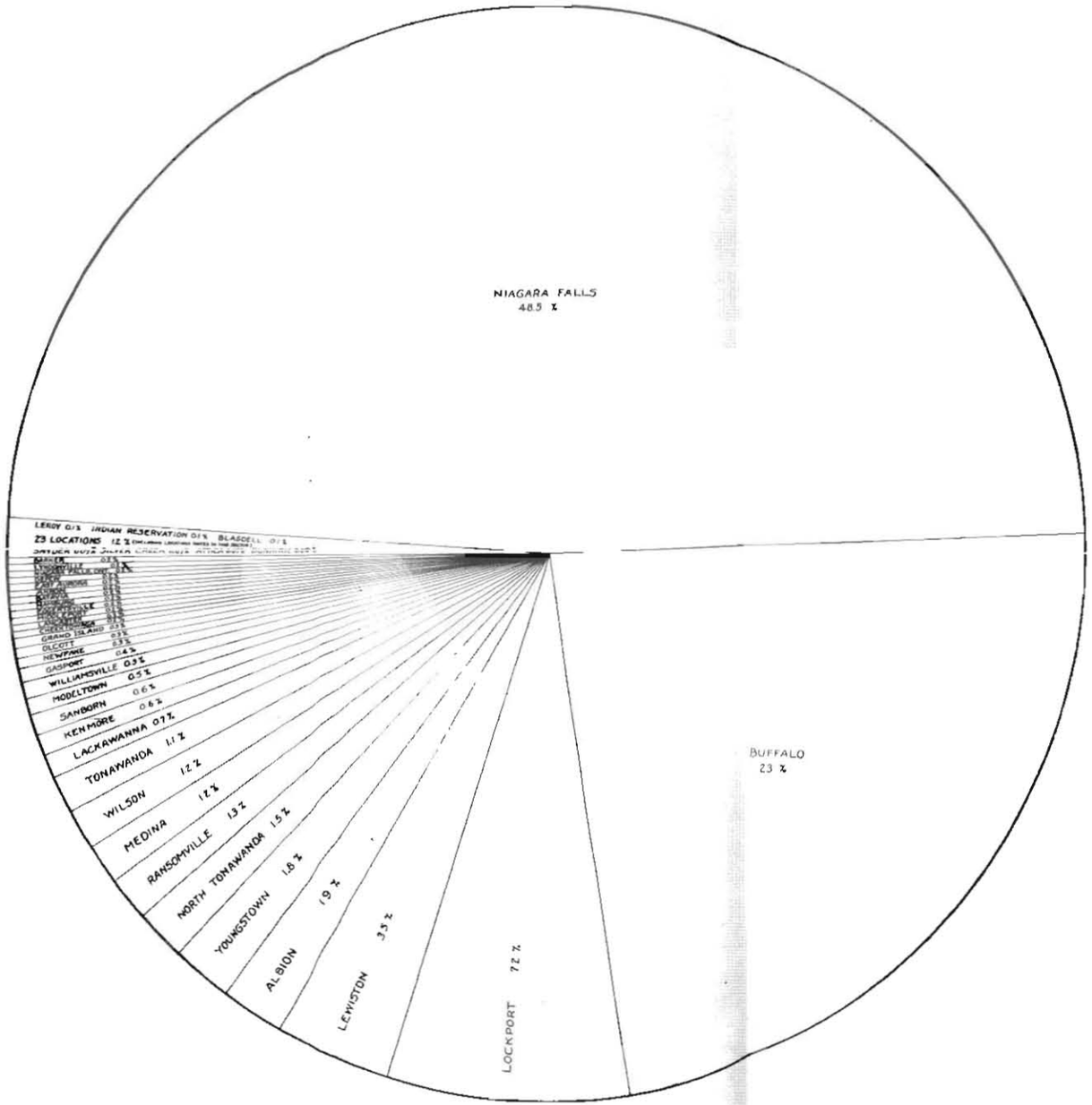
420. The Housing Section, established in the employment office of the A-E-M did all it could to take care of requests for rooms. Newspaper advertissements were clipped, real estate firms notified and the local Chamber of Commerce was constantly contacted. Also, bulletin boards were placed in various office buildings. Notices of available quarters were posted and anyone wishing a room could put his or her name and type of room wanted on the board where all might see. Both the Housing Section and the bulletin board were used to a good advantage on this Project.

421. A clipping from the Buffalo Courier-Express for the morning of February 18th, 1943 reads:

"At the same time, the Bureau of the Census reported that in 1942 Niagara Falls was among the four areas of the United States which had the 'irreducible minimum' of vacancies in residential properties and that Buffalo last year had only 1.3 per cent of its available houses vacant in July."

422. There was an acute shortage of living space and a real housing problem, especially for construction employees. A considerable number of prospective employees who came from other cities, seeking jobs at the Project, could not find places to live and therefore could not accept employment. Those encountering the greatest difficulty were men having a family with children.

423. The Housing Analysis Chart, on page 363, shows the distribution of all Construction employees, A-E-M and others, at the time of peak employment.



HOUSING ANALYSIS
ALL CONTRACTORS EMPLOYEES
AT TIME OF PEAK FORCE

TOWN OR CITY	NUMBER OF EMPLOYEES	%	[illegible]	[illegible]
Niagara Falls	3,498	48.5	23	[illegible]
Buffalo	1,611	23.3	[illegible]	[illegible]
Lockport	505	7.2	[illegible]	[illegible]
Lewiston	253	3.5	1	[illegible]
Albion	137	1.9	[illegible]	[illegible]
Youngstown	125	1.8	[illegible]	[illegible]
N. Tonawanda	106	1.5	[illegible]	[illegible]
Ransomville	90	1.3	1	[illegible]
Medina	85	1.2	[illegible]	[illegible]
Wilson	81	1.2	[illegible]	[illegible]
Tonawanda	78	1.1	[illegible]	[illegible]
Lackawanna	46	0.7	7	[illegible]
Kenmore	45	0.6	1	[illegible]
Sanborn	42	0.6	[illegible]	[illegible]
Modeltown	34	0.5	5	[illegible]
Williamsville	25	0.3	[illegible]	[illegible]
Gasport	20	0.3	[illegible]	[illegible]
Newfane	24	0.3	[illegible]	[illegible]
Olcott	22	0.3	[illegible]	[illegible]
Grand Island	18	0.3	[illegible]	[illegible]
Cheektowaga	16	[illegible]	[illegible]	[illegible]
Lancaster	16	[illegible]	[illegible]	[illegible]
Middleport	15	0.2	[illegible]	[illegible]
Eggertsville	15	0.2	[illegible]	[illegible]
Hamburg	14	0.2	[illegible]	[illegible]
Batavia	12	0.2	[illegible]	[illegible]
Barker	12	[illegible]	[illegible]	[illegible]
Akron	12	[illegible]	[illegible]	[illegible]
East Aurora	12	[illegible]	[illegible]	[illegible]
Depew	11	[illegible]	[illegible]	[illegible]
Niagara Falls, Ont.	10	[illegible]	[illegible]	[illegible]
Lyndonville	10	[illegible]	[illegible]	[illegible]
Leroy	9	0.1	[illegible]	[illegible]
Indian Reservation	9	0.1	[illegible]	[illegible]
Blasdell	8	0.1	[illegible]	[illegible]
Dunkirk	6	[illegible]	[illegible]	[illegible]
Attica	5	[illegible]	[illegible]	[illegible]
Snyder	5	[illegible]	[illegible]	[illegible]
Silver Creek	5	[illegible]	[illegible]	[illegible]
[illegible]	5	[illegible]	[illegible]	[illegible]
Orchard Park	5	[illegible]	[illegible]	[illegible]
Alden	4	[illegible]	[illegible]	[illegible]
Holland	4	[illegible]	[illegible]	[illegible]
Springville	4	[illegible]	[illegible]	[illegible]
Bond Lake	3	[illegible]	[illegible]	[illegible]
Clarence Center	3	[illegible]	[illegible]	[illegible]
Gardenville	3	[illegible]	[illegible]	[illegible]
Gowanda	3	[illegible]	[illegible]	[illegible]
Clarence	2	[illegible]	[illegible]	[illegible]
East Pembroke	2	[illegible]	[illegible]	[illegible]
Boweansville	2	[illegible]	[illegible]	[illegible]
Sloan	2	[illegible]	[illegible]	[illegible]
South Wales	1	[illegible]	[illegible]	[illegible]
Welland, Ont.	1	[illegible]	[illegible]	[illegible]
St. Catherines, Ont.	1	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]		

THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER

LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK

HOUSING ANALYSIS
SHOWING
DISTRIBUTION OF ALL CONTRACTORS EMPLOYEES
BY CITIES AND TOWNS FROM WHICH THEY COMMUTED

DATE MARCH 9, 1943

DRAWN G. N. P. CHECKED [illegible] SERIAL NO C-223

IDUCED AT THE NATIONAL ARCHIVES

TRANSPORTATION

424. A survey on transportation facilities for the vicinity was made early in January 1942. The following was the result.

AREA	PRESENT FACILITIES	POSSIBLE FACILITIES	RECOMMENDED FACILITIES
Niagara Falls, New York	No facilities except as provided by A-E-M	Shuttle train or bus from N.Y.C. Station	Shuttle train
Niagara Falls, Ont.	Bus to Niagara Falls, then same as above	Bus to Niagara Falls, then same as above	Same as above
Lewiston	Bus	Bus	Bus
Youngstown	Bus	Bus	Bus

425. The suggested shuttle train did not eventually seem to be as suitable as busses because of the necessity of employees taking other transportation from their houses to reach the train.

426. At the start of the Project the Schultz Bus Co. and the International Railway Co. ran busses from Niagara Falls to the Canning Factory offices at Modeltown, N. Y. and later to the Administration Area within the Project. This arrangement took fairly good care of the people living in Niagara Falls and vicinity who did not have other means of transportation. See pages 367 and 368.

427. For those people living in Buffalo, the International Railway Company tried out a bus line direct from Buffalo to the Plant. This bus line turned out to be expensive and inconvenient and was soon discontinued.

428. The traffic manager for the International Bus Co. stated that at various times special busses were run to take care of gangs who worked odd hours. The Bus Co. did its best to meet all requests. The number of busses varied from week to week as the employment rose and fell, also according to weather conditions.

RODUCED AT THE NATIONAL ARCHIVES

TRANSPORTATION

429. On April 17, 1942 a Transportation Questionnaire was made up with the following questions:

Name, Address, Identification No., Employer, Nearest Phone and Occupation.

1. Do you drive your own car NOW to the Project? _____
2. Do you plan to drive your car for the duration of your employment? _____
3. What is the passenger capacity of your car? _____
   (a) Model and year of car _____
   (b) Registration No. (State) _____
   (c) How much mileage left on your tires? _____
4. How many passengers do you now have? _____
5. Would you use bus transportation if available? _____
6. What are your present regular working hours? _____

430. These forms were handed out to all employees to be filled in, also another questionnaire was sent out to all those who desired rides. The two types of forms were then sorted and grouped together so as to give each driver all the passengers he could conveniently pick up.

431. Among those who took advantage of the car pool was an employee from Lockport, N. Y. This man owned a bus and drove a load of laborers to and from the Project each day.

432. If anyone desired a ride, he or she, could put his or her name and address on notices on the bulletin boards where anyone passing might see them.

433. When tire rationing and gas rationing went into effect, a good many drivers had to lay up their cars. This also caused a lot of drivers to double up, each one taking turns driving for a period of days.

434. A gas and tire rationing board office was established on the Project for the convenience of employees. It is the general belief that tire rationing caused the most embarrasment in connection with the transportation problem.

435. The average distance travelled per man by the construction personnel during the employment peak was 37.87 miles per day.

Material on this page deleted.

NIAGARA FALLS MODELTOWN BUS SERVICE

EFFECTIVE APRIL 9, 1942
Subject to Change Without Notice

WEEKDAYS AND SATURDAYS

Leave Niagara Falls IRC Terminal		Leave Ordnance Works	
A.M.	P.M.	A.M.	P.M.
6:10	4:16L	6:40L	4:45
7:15	4:40L	7:45L	5:15L
7:35	5:25	8:05L	6:00L
9:00L	6:00L	9:35L	6:35L
10:10L	6:30L	10:45L	7:05L
11:30L	7:40L	P.M.	8:15L
P.M.	8:50L	12:05L	9:25L
12:40L	10:00L	1:15L	10:35L
1:50L	11:10L	2:25L	11:45L
3:00L	A.M.	3:35L	A.M.
3:30L	12:20L	4:05	12:55L
3:55L	1:30L	4:35	2:00L

L—Via Lewiston Road-Ridge Road Lewiston. Other trips via Creek Road (Cut-off).

Passengers may board or alight at any bus stop.

Buses operate from IRC Terminal, Riverway in Falls St., Third St., Main St., Lewiston Road, Ridge Road and Modeltown Road.

FARES

Zone 1 Niagara Falls to	One Way	Round Trip
Zone 2 (City Line to Riverdale Cemetary)	15c	25c
Zone 3 (Riverdale Cemetary to Lewiston Heights)	20c	30c
Zone 4 (Lewiston Heights to Ridge Rd.-Creek Rd. Intersection)	25c	35c
Zone 5 (Ridge Rd.-Creek Rd. Intersection to Lake Ontario Ordnance Works)	30c	45c
20-trip 30-day Commutation Ticket between Zones 1 and 5	$4.00	

Free transfers to and from local buses in Niagara Falls.

INTERNATIONAL RAILWAY COMPANY

IRC

Riverway
Niagara Falls

Telephone
2-1231

NIAGARA FALLS ORDNANCE WORKS BUS SERVICE

EFFECTIVE APRIL 24, 1942
Subject to Change Without Notice

WEEKDAYS AND SATURDAYS

Leave Niagara Falls IRC Terminal		Leave Ordnance Works	
A.M.	P.M.	A.M.	P.M.
6:05	4:15L	6:45L	5:00
6:45	4:30	7:25L	5:15
7:10	5:00L	7:50L	5:45
7:30	5:15L	8:15L	6:00L
8:30L	6:00L	9:15L	6:45L
10:00L	7:30L	10:45L	8:15L
11:30L	9:00L	P.M.	9:45L
P.M.	10:30L	12:15L	11:15L
1:15L	A.M.	3:00L	A.M.
[illegible]	[illegible]	[illegible]	[illegible]
3:00L	* 3:45L	4:15	* 4:20

*—Operate Tuesday through Sunday Mornings.

L—Via Lewiston Road-Ridge Road Lewiston. Other trips via Creek Road (Cut-off).

Passengers may board or alight at any bus stop.

Buses operate from IRC Terminal, Riverway in Falls St., Third St., Main St., Lewiston Road, Ridge Road and Latta Road.

FARES

Zone 1 Niagara Falls to	One Way	Round Trip
Zone 2 (City Line to Riverdale Cemetary)	15c	25c
Zone 3 (Riverdale Cemetary to Lewiston Heights)	20c	30c
Zone 4 (Lewiston Heights to Ridge Rd.-Creek Rd. Intersection)	25c	35c
Zone 5 (Ridge Rd.-Creek Rd. Intersection to Lake Ontario Ordnance Works)	30c	45c
20-trip 30-day Commutation Ticket between Zones 1 and 5	$4.00	

Free transfers to and from local buses in Niagara Falls.

INTERNATIONAL RAILWAY COMPANY

IRC

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Niagara Falls

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NIAGARA FALLS ORDNANCE WORKS BUS SERVICE

EFFECTIVE OCTOBER 4, 1942
Subject to Change Without Notice

WEEKDAYS & SATURDAYS		SUNDAYS	
Leave IRC Terminal	Leave Ordnance Works	Leave IRC Terminal	Leave Ordnance Works
A.M.	A.M.	A.M.	A.M.
6:05	6:45LC		
6:45	7:25LC	6:45	8:30L
7:10	7:50L		
7:30	8:30		
8:30L	9:15LC	10:15L	11:00LC
10:15L	11:00LC		
P.M.	P.M.	P.M.	P.M.
1:00L	1:45L		
2:30	3:15LC	2:45	4:30
2:45	3:45		
3:30L	4:30		
4:15L	5:00		
4:30L	5:15		
5:00L	5:45		A.M.
10:45L	A.M. 12:30	10:45L	12:30

L—Via Lewiston Road-Ridge Road Lewiston (Ball Park)
LC—Via Ridge Road, Center St. to Fourth St. Lewiston Thence to Niagara Falls.
Other trips via Creek Road (cut-off).

Passengers may board or alight at any bus stop.

Buses operate from IRC Terminal, Riverway, via Falls St., Third St., Main St., Lewiston Road, Ridge Road and Latta Road.

FARES

Zone 1 Niagara Falls to	One Way	Round Trip
Zone 3 Lewiston Heights	20c	30c
Zone 4 Lewiston (to Ridge Rd.-Creek Rd. Intersection)	25c	35c
Zone 5 Ridge Rd.-Creek Rd. Intersection to Lake Ontario Ordnance Works	30c	45c
20-trip 30-day Commutation Ticket between Zones 1 and 5	$4.00	

Free transfers to and from local buses in Niagara Falls.

INTERNATIONAL RAILWAY COMPANY

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Niagara Falls

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TRANSPORTATION
BUS SCHEDULE

267

RODUCED AT THE NATIONAL ARCHIVES

NIAGARA FALLS ORDNANCE WORKS BUS SERVICE

EFFECTIVE NOVEMBER 1, 1942
Subject to Change Without Notice

WEEKDAYS & SATURDAYS		SUNDAYS	
Leave IRC Terminal	Leave Ordnance Works	Leave IRC Terminal	Leave Ordnance Works
A.M.	A.M.	A.M.	A.M.
6:05	6:45LC		
6:35	7:15L		
6:45	7:25LC	6:45	8:30L
7:10	7:50L		
7:30	8:30L		
8:30L	9:15LC	10:15L	11:00LC
10:15L	11:00LC		
P.M.	P.M.	P.M.	P.M.
1:00L	1:45L		
2:30	3:15LC	2:45	4:30
2:45	3:45		
3:30L	4:30		
4:15L	5:00		
4:30L	5:15		
5:00L	5:45		A.M.
5:20L	6:10L		
10:45L	A.M.	10:45L	12:30
	12:30		

L—Via Lewiston Road-Ridge Road Lewiston (Ball Park)
LC—Via Ridge Road, Center St. to Fourth St. Lewiston Thence to Niagara Falls.
Other trips via Creek Road (cut-off).
Passengers may board or alight at any bus stop.
Buses operate from IRC Terminal, Riverway, via Falls St., Third St., Main St., Lewiston Road, Ridge Road and Latta Road.

FARES

Zone 1 Niagara Falls to	One Way	Round Trip
Zone 2 Upper Mountain Rd.	15c	25c
Zone 3 Lewiston Heights	20c	30c
Zone 4 Lewiston (to Ridge Rd.-Creek Rd. Intersection)	25c	35c
Zone 5 Ridge Rd.-Creek Rd. Intersection to Lake Ontario Ordnance Works	30c	45c
20-trip 30-day Commutation Ticket between Zones 1 and 5	$4.00	

Free transfers to and from local buses in Niagara Falls.

INTERNATIONAL RAILWAY COMPANY

IRC

Riverway
Niagara Falls

Telephone
2-1231

NIAGARA FALLS ORDNANCE WORKS BUS SERVICE

EFFECTIVE DECEMBER 27, 1942
Subject to Change Without Notice

WEEKDAYS & SATURDAYS		SUNDAYS	
Leave IRC Terminal	Leave Ordnance Works	Leave IRC Terminal	Leave Ordnance Works
A.M.	A.M.	A.M.	A.M.
6:05	6:45LC		
6:35	7:15L		
6:45	7:25LC	6:45	8:30L
7:10	7:50L		
7:30	8:30L		
8:30L	9:15LC	10:15L	11:00LC
10:15L	11:00LC		
P.M.	P.M.	P.M.	P.M.
1:00L	1:45L		
2:30	3:30L	2:45	4:30
2:45			
3:30L	4:30		
4:15L	5:00		
4:35L	5:20		
5:00	5:45		
5:15L	6:00L		
	A.M.		A.M.
10:45L	12:30	10:45L	12:30

L—Via Lewiston Road-Ridge Road Lewiston (Ball Park)
LC—Via Ridge Road, Center St. to Fourth St. Lewiston Thence to Niagara Falls.
Other trips via Creek Road (cut-off).
Passengers may board or alight at any bus stop.
Buses operate from IRC Terminal, Riverway, via Falls St., Third St., Main St., Lewiston Road, Ridge Road and Latta Road.

FARES

Zone 1 Niagara Falls to	One Way	Round Trip
Zone 2 Upper Mountain Rd.	15c	25c
Zone 3 Lewiston Heights	20c	30c
Zone 4 Lewiston (to Ridge Rd.-Creek Rd. Intersection)	25c	35c
Zone 5 Ridge Rd.-Creek Rd. Intersection to Lake Ontario Ordnance Works	30c	45c
20-trip 30-day Commutation Ticket between Zones 1 and 5	$4.00	

Free transfers to and from local buses in Niagara Falls.

INTERNATIONAL RAILWAY COMPANY

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Niagara Falls

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NIAGARA FALLS ORDNANCE WORKS BUS SERVICE

EFFECTIVE FEBRUARY 10, 1943
Subject to Change Without Notice

WEEKDAYS & SATURDAYS		SUNDAYS	
Leave IRC Terminal	Leave Ordnance Works	Leave IRC Terminal	Leave Ordnance Works
A.M.	A.M.	A.M.	A.M.
6:05L	6:45LC		
6:35L	7:15L		
6:45L	7:25LC	6:45L	8:30L
7:10L	7:50L		
7:30L	8:30L		
8:30L	9:15LC	10:15L	11:00LC
10:15L	11:00LC		
P.M.	P.M.	P.M.	P.M.
1:00L	1:45L		
2:30L	3:30L	2:45L	4:30L
2:45L			
3:30L	4:30L		
4:15L	5:00L		
4:35L	5:20L		
5:15L	6:00L		
7:25L	8:10L		
9:15L	10:00L		
	A.M.		A.M.
10:45L	12:30L	10:45L	12:30

L—Via Lewiston Road-Ridge Road Lewiston (Ball Park)
LC—Via Ridge Road, Center St. to Fourth St. Lewiston Thence to Niagara Falls.
Passengers may board or alight at any bus stop.
Buses operate from IRC Terminal, Riverway, via Falls St., Third St., Main St., Lewiston Road, Ridge Road and Latta Road.

FARES

Zone 1 Niagara Falls to	One Way	Round Trip
Zone 2 Upper Mountain Rd.	15c	25c
Zone 3 Lewiston Heights	20c	30c
Zone 4 Lewiston (to Ridge Rd.-Creek Rd. Intersection)	25c	35c
Zone 5 Ridge Rd.-Creek Rd. Intersection to Lake Ontario Ordnance Works	30c	45c
20-trip 30-day Commutation Ticket between Zones 1 and 5	$4.00	

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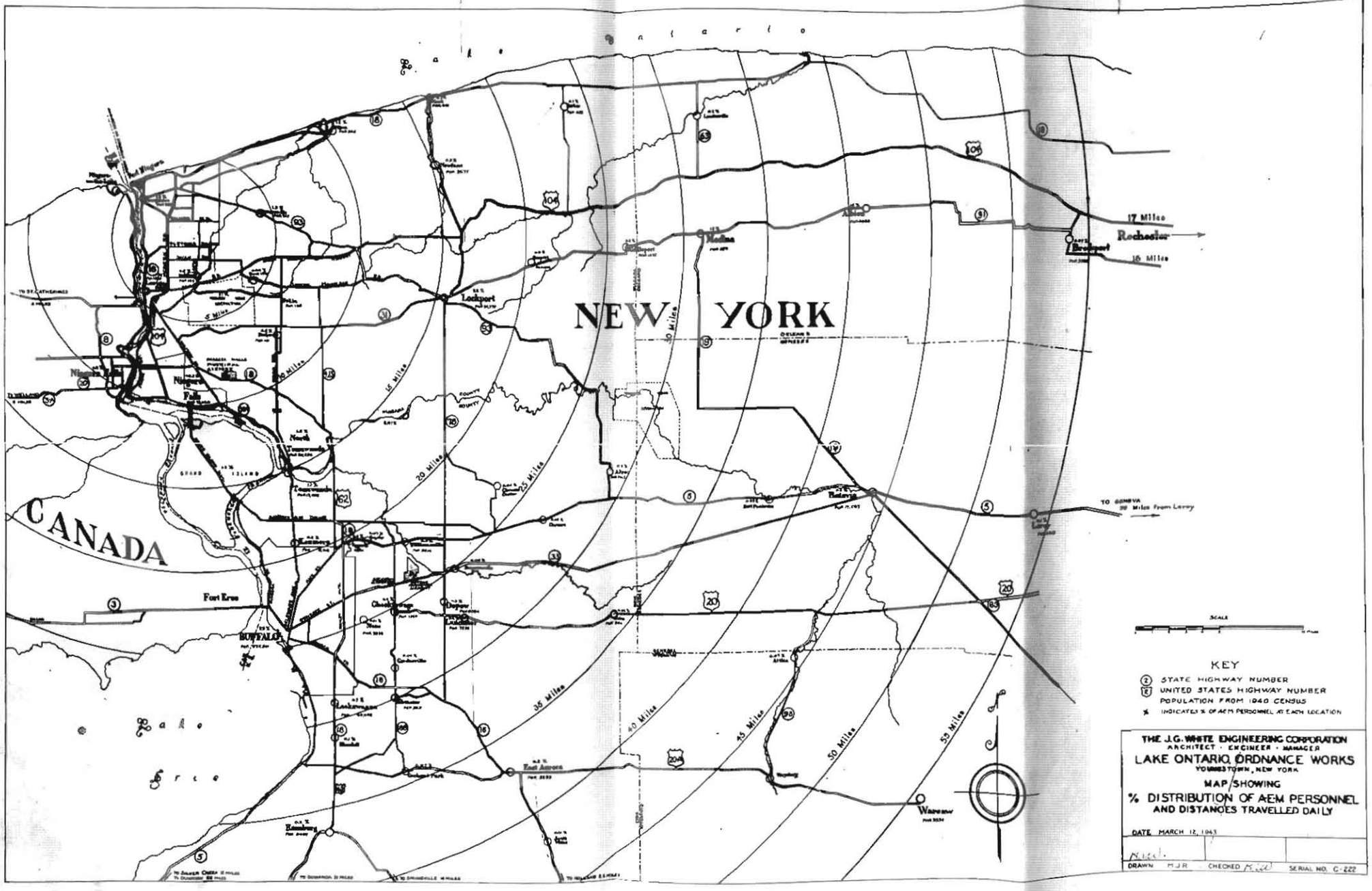


ODUCED AT THE NATIONAL ARCHIVES

WEATHER

436 The site of the Project lies in the path usually followed by the storms which originate off the Pacific coast of the United States, southern Alaska, west of the Mississippi, western and central Canada and over the Great Lakes. These pass eastward over Ontario and the Saint Lawrence River to the Atlantic Ocean area. Hence, one must expect many days with rain and more days with winds in this locality as the areas of high pressure as well as the areas of low pressure follow much the same course over the American continent.

437. The construction period from the first of January 1942 to the fifteenth of March 1943 was one of greater than average precipitation both of rain and snow, as will be readily comprehended by reference to the chart showing the Weather Record for Lewiston during this time, see page 374. The excessive amounts of surface water together with the impervious nature of the soil greatly hampered construction in the early stages. It even held up surveys.

438. Copies of the Monthly Meteorological Records, U. S. Weather Bureau Form 1009, for Lewiston, N. Y., from January 1942 through February 1943, prepared by Supervisor Percy Morgan of the Town of Lewiston, who cooperated most generously and courteously, are to be found in Section "E" of the Appendix.

General Weather Conditions

439. From January 1, 1942 to March 1, 1943 there were 154 - "clear days", (sky less than 40% overcast), 130 - "partly cloudy days", (sky 40% - 79% overcast) and 140 - "cloudy days", (sky 80% - 100% overcast). During this period there were 125 days with a trace or more of rain, 75 days with snow and 5 additional days with both rain and snow, a total of 205 days with some precipitation. Many cases of respiratory infections, colds, sore throat, "sinus trouble" and pneumonia developed in the contractors' and other personnel.

Temperature

440. During the construction period from January 1, 1942 to March 15, 1943 there were 161 days when the temperature was below the freezing point and 21 additional days when the minimum was 32° F., or freezing.

441. In June 1942, a maximum and minimum thermometer was obtained and daily readings were taken near the center of the Project, except for Saturdays and Sundays. A comparison of the maxima and minima within the area and those obtained from the Cooperative Observer, Mr. Percy Morgan, for Lewiston, (several miles away, taken near the Niagara River) shows a definite and stabilizing effect from the River upon the nearby

atmosphere and indicates that the temperature in the Administration Area, at the site, averages about 5° F. higher than the Lewiston temperatures.

442. The maximum temperature recorded on the site was 101° F. on July 14, 1942, that for Lewiston on the same day was 93° F.

443. The minimum temperature recorded on the site was -10°F. on February 15, 1943. The Lewiston reading for the same day was -11° F.

444. Generally speaking, the temperatures from October through April are relatively so low that it was necessary to provide insulation to the walls of many buildings and additional heating in many buildings, where it was already provided, and to provide heating for numerous buildings where no heating was originally planned.

445. Additional housing had to be provided for large installations of equipment in the Acid Area and for many tanks in the T.N.T. Area because of the low temperatures prevalent in this vicinity.

446. The daily temperature range is shwon on the chart of the Weather Record on page 374.

Precipitation

447. In planning drainage ditches and storm sewers a maximum hourly precipitation of 2.75 inches per hour was used for this Project. The recorded maxima for this vicinity, having a definite official status, are those of Buffalo, as follows:

5 minutes maximum 0.82"
15 minutes maximum 0.92"
60 minutes maximum 2.22" August 8, 1885
Monthly maximum 10.6" August 1885
Yearly maximum 60.2" in 1877

448. The precipitation records for Lewiston cover a period of 21 years, up to the time of starting construction on the Project. They were made on a 24 hour basis with readings from approximately 6 P.M. one day to 6 P.M. the next day, giving a total, covering 6 hours of one day and 18 hours of the next.

RODUCED AT THE NATIONAL ARCHIVES

449. The monthly records for Lewiston, from January 1942 through February 1943, are as follows:

MONTH	PRECIPITATION	AVERAGE FOR SAME MONTH (21 yrs.)	1942-DEVIATION FROM AVERAGE
January 1942	0.91"	1.58"	- 0.67"
February	4.10"	1.59"	+ 2.51"
March	4.22"	1.74"	+ 2.48"
April	2.21"	1.88"	+ 0.33"
May	5.64"	2.08"	+ 3.56"
June	1.45"	2.45"	- 1.00"
July	3.80"	2.31"	+ 1.49"
August	1.18"	1.88"	- 0.70"
September	3.25"	2.80"	+ 0.45"
October	2.82"	2.43"	+ .39"
November	4.15"	1.74"	+ 2.41"
December	4.07"	1.35"	+ 2.72"
Total for 1942	37.80"	21 Yr. Av. 23.83"	+13.97"
January 1943	1.34"	22 Yr.Av. 1.55"	- 0.21"
February 1943	1.87"	22 Yr.Av. 1.60"	+ 0.27"

450. The amount of daily precipitation is shown in hundredths of an inch on the Weather Record on page 374. The surface water conditions due to rain and melted snow on March 9, 1942 are shown on the photograph on page 50.

Winds

451. The frequencies of prevailing winds by weeks during 1942 were as follows:

Northeast - 20	North - 3
Southwest - 14	East - 2
Northwest - 4	South - 1
West - 4	Variable - 4

452. High winds were recorded on 28 days and gales on 5 days. Thunder was recorded on 8 days during 1942. Several interruptions to electrical service occurred during the construction period due to the wind blowing down wires or causing them to sway together with resulting short circuits.

453. No anemometer readings are available but observations of the Post flag atop the 100 ft. flag pole indicate prevailing winds with a velocity of twenty-five miles per hour during the winter months with gusts and intermittent blasts from 60 - 65 miles per hour.

454. The intensity and frequency of the winds which occur on the site required additional wind bracing in many of the buildings, over and above that provided in the duPont designs.

RODUCED AT THE NATIONAL ARCHIVES

WEATHER

Weather Forecasts and Reports

455. The Cost, Schedules and Reports Department of the A-E-M made arrangements with Mr. A. P. Keller of the Buffalo Office, United States Weather Bureau, for daily information, which was received by telephone, covering the weather forecast for the day and the two following days and promptly distributed this information by telephone or typed reports to interested department heads, Army officers, construction superintendents and operating supervisors. Mr. Keller and his Bureau were especially cooperative.

456. In addition, this department of the A-E-M made readings of maxima and minima temperatures on the site subsequent to June 18, 1942 and barometric readings subsequent to December 26, 1942. It also obtained daily, by telephone, readings of Lewiston temperatures, precipitation and other weather data from Mr. Percy Morgan. These readings were plotted on the Weather Record Chart for Lewiston, N. Y. (see page 374), and distributed periodically.

457. A typical daily forecast is as follows:

WEATHER REPORT AND FORECAST

RECEIVED FROM THE U. S. WEATHER BUREAU, BUFFALO AIRPORT

SATURDAY - March 27, 1943

Continued moderately cold today and tonight. Lowest temperature tonight about 24°.

WIND DIRECTION

Gentle to moderate northerly winds.

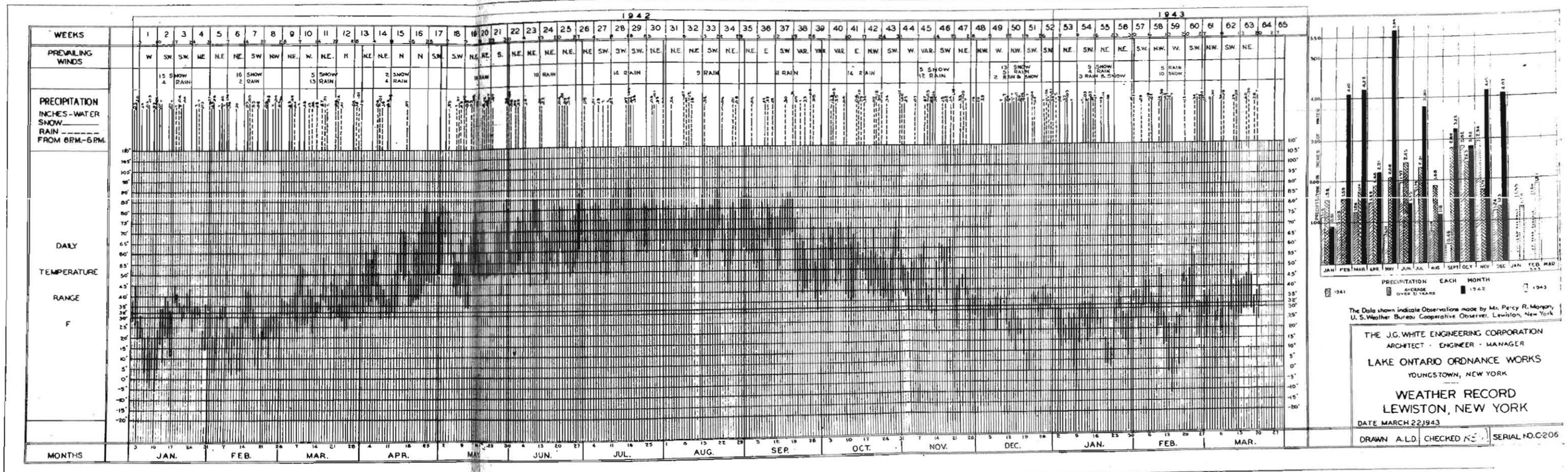
SUNDAY - March 28, 1943

Continued cold, followed by light rain or snow late at night.

Unofficial Forecast for MONDAY - March 29, 1943

Partly cloudy with rising temperature and occasional rain or snow and moderate winds.

Barometer on Project at 12:45 P.M. (3-27-43) - 29.92" - Falling


1942
1943
WEEKS
PREVAILING WINDS
PRECIPITATION
INCHES-WATER
SNOW
RAIN
FROM 6PM.-6PM.
DAILY TEMPERATURE RANGE F
MONTHS
JAN.
FEB.
MAR.
APR.
MAY
JUN.
JUL.
AUG.
SEP.
OCT.
NOV.
DEC.
JAN.
FEB.
MAR.
PRECIPITATION EACH MONTH
AVERAGE OVER 51 YEARS
1941
1942
1943
The Data shown indicate Observations made by Mr. Percy R. Morgan, U. S. Weather Bureau Cooperative Observer, Lewiston, New York
THE J.G. WHITE ENGINEERING CORPORATION
ARCHITECT · ENGINEER · MANAGER
LAKE ONTARIO ORDNANCE WORKS
YOUNGSTOWN, NEW YORK
WEATHER RECORD
LEWISTON, NEW YORK
DATE MARCH 22, 1943
DRAWN A.L.D.
CHECKED
SERIAL NO. C-206

LAKE ONTARIO ORDNANCE WORKS
THE J. G. WHITE ENGINEERING CORPORATION
ARCHITECT • ENGINEER • MANAGER

CONTRACTS CONTROL CHART

SHEET 1 OF 2
WEEK ENDING March 13, 1943

Contract No. DA-W-138 ENG-1, etc. - Construction Only

CONTRACT NO	DESCRIPTION	PROJECT CONSTRUCTION SCHEDULE START	PROJECT CONSTRUCTION SCHEDULE FINISH	J. G. W. DRAWING SCHEDULE START	J. G. W. DRAWING SCHEDULE FINISH	COMP. SPECS	INVITATION TO BID SENT OUT	INVITATION TO BID COMPARED	CONTRACT OFFICER APPROVAL
1	Architect-Engineer-Manager Neg. Cost plus Fixed Fee	1942 Jan. 8	1943 Mar. 28	1942 Jan. 8	Record Mar. 28 1943				
7	Foundation for Main Office Building Lump Sum	Mar. 3	Apr. 2	2/14	2/24	Feb. 24	Feb. 24	Feb. 28	Mar. 2
12	Ready-Mix Concrete Unit Price	Mar. 13	To End of Job	No Drawings		Mar. 5	Mar. 5	1 Bid Mar. 7	Mar. 7
13	Concrete Magazines Lump Sum	Apr. 1	Aug. 1	2/1	3/2	Mar. 9	Mar. 9	1 Bid Mar. 14	Mar. 14
14	Railroad Unit Price	Apr. 1	June 10	2/16	3/6	Mar. 11	Mar. 11	2 Bids Mar. 18	Mar. 18
15	Main Office Building Lump Sum	Mar. 24	May 8	2/16	3/12	Mar. 19	Mar. 19	1 Bid Mar. 19	Mar. 21
16	Drainage (Open Ditch) Lump Sum	Mar. 26	Sept. 24	3/1	3/14	Mar. 14	2-Mar. 14 10-Mar. 16	8 Bids Mar. 19	Mar. 21
19	Guard Fence Lump Sum	Mar. 26	June 4	3/1	3/17	Mar. 17	3 Mar. 17	3 Bids Mar. 20	Mar. 25
23	Drinking Water System Unit Price	Apr. 1	May 11	1/26	3/23	Mar. 26	Mar. 26	3 Bids Mar. 26	Mar. 30
24	Roads & Grading Lump Sum	Apr. 2	Sept. 27	3/1	3/27	Mar. 14	4-Mar. 14 5-Mar. 16	4 Bids Mar. 18	Mar. 31
26	General & Boiler House Foundations Lump Sum & Unit Price	Apr. 3	July 2	2/25	3/25	Mar. 25	Mar. 25	1 Bid Mar. 30	Apr. 1
36	Administration Group Neg. Lump Sum	Apr. 18	May 17 & June 1	DuPont Drawings Used		Apr. 1	9-Apr. 1	Apr. 16	Apr. 17
40	Erecting 14 Steel Tanks in Acid Area Neg. Lump Sum	May 16	July 25	No Drawings by J. G. White		Apr. 4	5-Apr. 4	2 Bid Apr. 10	Apr. 20
58	Erect Steel for Boiler House, Acid Area and TNT Area Neg. Lump Sum & Unit Price	Apr. 28	June 20	Stone & Webster Plans		Apr. 4	Apr. 4	Apr. 24	Apr. 27
60	Construction Buildings in Shop Area Neg. Lump Sum	Apr. 27	June 1 & July 20	DuPont Plans Used		Apr. 8	7-Apr. 8	1 Bid Apr. 20	Apr. 25
62	Furnish and Install Chemical Lead in TNT & Acid Areas. Neg. Unit Price Constr.	May 15	Acid A8-15 TNT 9-15	Drawings by DuPont		Apr. 8	Apr. 15	1 Bid Apr. 29	May 5
64	Furnish and Install Telephone Apparatus Neg. Lump Sum Constr.	Apr. 29	July 18	No Drawings by J. G. White		Apr. 28	Apr. 28	2 Bids Apr. 29	Apr. 29
67	Erect Boundary & Wood Fence Neg. Lump Sum & Unit Price	June 1	Aug. 10	4/24	6/13	Apr. 24	4-Apr. 24	2 Bids	May 13
69	Erect 9 Tanks of Various Kinds Neg. Lump Sum	June 1	Aug. 1	No Drawings by J.G.White		Apr. 25	Apr. 25	DuPont May 12	May 12
70	Erection of 6 Tanks Neg. Lump Sum	June 10	Aug. 4	No Drawings by J. G. White		Apr. 28	Apr. 28	1 Bid May 18	May 18
71	Electrical Work in 27 Buildings Neg. Lump Sum	May 12	July 1	Specifications Only		Apr. 30	3-Apr. 30	3 Bids May 9	May 9
72	Installation of Power Lines Neg. Installation Contract	July 2	Aug. 1	Mar. 15	May 7	May 7	Neg. by Buffalo Office Dist. Eng.		July 2
74	Plumbing for Misc. Aux. Buildings Neg. Lump Sum	May 12	July 1	3/1	3/20	Apr. 30	4-Apr. 30	1 Bid May 12	May 12
77	Erection of 9 Tanks Neg. Lump Sum	June 1	Aug. 30	No Drawings by J. G. White		Apr. 24	Apr. 24	1 Bid May 19	May 19
78	Sellite Plant Neg. Lump Sum & Unit Price	June 15	Sept. 1	No Drawings by J. G. White					May 18
79	Fabricating, Installing & Mfg. Water Lines from River Pump Station-Treatment Tanks. Neg. Lump Sum	May 16	Aug. 7	3/1	5/15	May 11	May 11	1 Bid May 15	May 15
82	Erect Electric Dumbwaiters Neg. Lump Sum	July 1	July 21	No Drawings by J. G. White		May 5	May 5	May 18	May 18
83	Water Distributing System Neg. Lump Sum	June 1	July 20	3/1	5/7	May 7	5-May 7	4 Bids May 19	May 19
84	Primary Distributing System & Guard Fence Lighting Neg. Lump Sum	June 1	Aug. 4	3/15	5/6	May 8	4-May 8	3 Bids May 21	May 21

CONTRACT NO	CONTRACT LET TO	DATED	AMT	NOTIFIED TO PROCEED	FIELD WORK CONTRACTED START	FIELD WORK CONTRACTED FINISH	MATERIAL SUPPLIED BY CONTR %	MATERIAL SUPPLIED BY CONTR CRITICAL ITEMS	FIELD WORK ACTUAL START	FIELD WORK ACTUAL FINISH	% COMP.	PERSONNEL
1	The J.G.White Eng.Corp.	Jan. 13	18,821,480.82		Jan.8, 1942	Mar.28, 1943			Jan. 8			
7	Balling Brothers 401 Bennett Street North Tonawanda, N. Y.	Mar. 2	C.O.#1 F 6,971.00	Mar. 2	Mar. 3	May 5	100	100	Mar. 3	May 5	100	100
12	Cooney Brothers, Inc. Tarrytown, N. Y.	Mar. 7	C.O.#1,2, 3 & 4 454,000.00	Mar. 7	Mar. 13	To End of Job	100	100	Mar. 13	Nov. 7	100	100
13	Poirier & McLane, 33 W. 42nd Street New York, N. Y.	Apr. 1	S.Report F CO#1,2,3,4&5 575,877.86	Apr. 1	Apr. 1	Sept. 12	100	100	Apr. 1	Sept. 12	100	100
14	A. S. Wikstrom, Bound Brook, New Jersey	Mar. 19	CO#1,2,3, 4,5&6 F 495,992.46	Mar.19	Apr. 1	Sept. 12	100	100	Mar. 27	Sept. 12	100	100
15	Wright & Kremers, Inc. Pine Avenue & Main St. Niagara Falls, N. Y.	Mar. 21	CO#1,2,3, 4& F 116,848.50	Mar. 21	Mar. 24	May 30	100	100	Mar. 24	June 4	100	100
16	Dump Truck Service Inc. 50 Wecker Street Buffalo, N. Y.	Mar. 21	CO#1 F 162,775.36	Mar.21	Mar. 26	Sept. 10	none required		Mar. 27	Sept. 15	100	100
19	American Steel & Wire Co. 1403 Liberty Bank Bldg. Buffalo, N. Y.	Mar.25	CO.#1,2,3 58,834.92 F	Mar.25	Mar. 26	Dec. 10	100	100	Apr. 2	Dec. 10	100	100
23	Bison Contracting Corp. 493 Washington Highway Snyder, New York	Mar.30	F C.O.#1&2 35,159.27	Mar.30	Apr. 1	Aug. 8	100	100	Apr. 1	Aug. 8	100	100
24	William J. Gallagher, Inc. 520 Orient Street Medina, New York	Apr.1	CO#1,2,3, 4,5&6 F 981,506.73	Apr. 1	Apr. 2	Nov. 7	100	100	Apr. 1	Nov. 7	100	100
26	Poirier & McLane Corp. 33 W. 42nd Street New York, N. Y.	Apr. 1	Revised CO #1,2,3 F 291,631.95	Apr. 1	Apr. 3	July 31	100	100	Apr. 3	July 31	100	100
36	Balling Brothers 401 Bennett Street North Tonawanda, N. Y.	Apr. 17	CO#1,2,3,4, 5,6,7,8,9 F 353,921.57	Apr.17	Apr. 18	Oct. 26	100	100	Apr. 17	Aug. 1	100	100
40	General American Trans.Co. Sharon, Pennsylvania	Apr.22	CO#1&2 F 32,527.76	Apr. 30	May 16	July 25	100	100	May 16	July 20	100	100
58	Schieve Construction Co. Buffalo, New York	Apr.28	CO#1,2,3 &4 F 43,477.62	Apr. 28	Apr. 28	July 25	100	100	May 6	July 22	100	100
60	W. F. Hendrich Co., Buffalo, New York	Apr.27	CO#1,2,3,4, 5,6&7 F 404,782.43	Apr.27	Apr.27	Aug. 10	100	100	Apr. 26	Aug. 7	100	100
62	O. G. Kelley & Co. Neponset Station Boston, Mass.	Apr.29	CO#1,2,3, 4,5,6 F 149,067.63	May 8	May 15	10 days after work is ready	100	100	June 15	Feb. 27, 1943	100	100
64	American Automatic Electric Sales Co. Chicago, Illinois	Apr.29	CO#1,2,&3 F 34,906.81	Apr. 29	Apr. 29	Oct. 10	100	100	Apr. 29	Oct. 7	100	100
67	Anchor Post Fence Co. Baltimore, Maryland	May 12	CO#1&2 F 18,123.81	May 13	June 1 to June 15	Sept. 23	100	100	June 26	Sept. 21	100	100
69	Chicago Bridge & Iron Co. Philadelphia, Pa.	May 12	CO#1&2 F 27,580.46	May 12	June 1	Aug. 15	100	100	June 1	Aug. 13	100	100
70	Pittsburgh DesMoines Steel Co. New York, N. Y.	May 22	F 12,000.00	May 22	June 10	Aug. 4	100	100	June 10	Aug. 13	100	100
71	Rohrer Electric Co., Inc. Niagara Falls, New York	May 9	CO#1,2,& 3 F 21,578.00	May 9	May 12	Nov. 10	100	100	May 19	Nov. 10	100	100
72	Buffalo Niagara Electric Corp. Buffalo, N. Y.	July 2	F 45,701.04	July 2	July 2	Aug. 1	100	100	July 6	Sept. 11	100	100
74	George Schank 116-16th Street Buffalo, New York	May 12	C.O.#1,2, 3 & 4 F 66,301.81	May 12	May 12	Nov. 7	100	100	May 19	Nov. 7	100	100
77	Chattanooga Boiler & Tank Co. Chattanooga, Tenn.	May 19	F 17,050.00	May 20	June 1	Aug. 30	100	100	May 30	Aug. 15	100	100
78	Chemical Construction Corp. New York, New York	May 18	F CO#1,2&3 34,248.79	May 26	June 15	Oct. 12	100	100	June 15	Oct. 29	100	100
79	H. P. Darling Williamsville, N. Y.	May 15	CO#1,2,3, 4,5,6,7&8 F 462,874.78	May 16	May 16	Dec. 12	100	100	June 9	Dec. 12	100	100
82	Otis Elevator Co. Buffalo, New York	May 22	CO#1,2,3, 3 4,889.92	May 22	July 1	5 days after receipt of critical mat.	100	100	June 23	Nov. 18	100	100
83	Poirier & McLane 33 W. 42nd Street New York, N. Y.	May 19	CO#1,2,&3 F 170,293.97	May 23	June 1	Oct. 8	100	100	June 1	Oct. 7	100	100
84	O'Connell Electric Co. Rochester, New York	May 21	CO#1,2,3 90,592.24 F	May 23	June 1	14 days after receipt of critical mat.	100	100	June 16	Dec. 9	100	100

* Estimated Total Amount

F - Final Payment

LAKE ONTARIO ORDNANCE WORKS

THE J. G. WHITE ENGINEERING CORPORATION

ARCHITECT • ENGINEER • MANAGER

CONTRACTS CONTROL CHART

SHEET 2 OF 2

WEEK ENDING March 15, 1943

Contract No. DA-W-138 ENG-1, etc. - Construction Only

CONTRACT NO.	DESCRIPTION	PROJECT CONSTRUCTION SCHEDULE START	PROJECT CONSTRUCTION SCHEDULE FINISH	J. G. W. DRAWING SCHEDULE START	J. G. W. DRAWING SCHEDULE FINISH	COMP. SPECS	INVITATION TO BID SENT OUT	INVITATION TO BID COMPAR'D	CONTRACT OFFICER APPROVAL	CONTRACT LET TO	CONTRACT DATED	CONTRACT AMT.	NOTIFIED TO PROCEED ON	FIELD WORK CONTRACTED START	FIELD WORK CONTRACTED FINISH	MATERIAL SUPPLIED BY CONTR. % ORD.	% DEL.	CRITICAL ITEMS	FIELD WORK ACTUAL START	FIELD WORK ACTUAL FINISH	% COMP. THIS WK SCH	% COMP. THIS WK ACT	PERSONNEL ADMIN. AND OFFICE	PERSONNEL ENG.	PERSONNEL CONSTR. NON-MANUAL	PERSONNEL CONSTR. MANUAL
86	Installation & Completion of Sprinkler Systems. Neg. Lump Sum & Unit Price	June 1	July 20	4/15	5/14	5/14	5/14	1 Bid May 26	May 26	Automatic Sprinkler Corporation of America Buffalo, New York	May 26	C.O.#1,2, &3 F 30,462.48	May 26	June 1	Building #300 complete Sept. 12	100	100		June 9	Sept. 19	100	100				
88	Marine Work - Process Water Supply & Waste Water Discharge Neg. Lump Sum & Unit Price	June 1	Aug. 10	3/1	5/27	5/27	5/27	2 Bids May 27	May 27	Merritt-Chapman & Scott Corp. Cleveland, Ohio	May 27	C.O.#1 F 237,791.10	May 27	June 1	Aug. 20	100	100		June 9	Aug. 15	100	100				
89	Heating 24 Buildings Neg. Lump Sum & Unit Price	June 1	July 31	4/15	5/19	5/19	5/19	4 Bids May 28	May 28	C. H. Kremers & Son Niagara Falls, N. Y.	May 28	CO#1,2,3, &4 F 30,836.39	May 28	June 1	7 days after last building is ready	100	100		June 1	Oct. 20	100	100				
92	Roofing & Siding for Boiler House #401 Neg. Lump Sum & Unit Price	June 10	Aug. 20	Drawings by Stone & Webster		5/14	5/14	2 Bids May 28	May 28	American Steel Band Co. P.O. Box 565 Pittsburgh, Penn.	May 28	CO#1,2,3, &4 F 20,180.82	May 28	June 10	14 days after ready for flashing	100	100		July 18	Oct. 10	100	100				
93	Coal Silos Neg. Lump Sum & Unit Price	June 8	Aug. 24	4/14	5/13	5/13	5/13	4 Bids May 28	May 28	W. B. Neill, Inc. 30 Vesey Street New York, N. Y.	May 28	CO#1,2,3,4 &5 F 54,449.45	May 28	June 8	14 days after coal conveyor found, completed	100	100		June 17	Oct. 14	100	100				
94	Sewage Disposal Plant Neg. Lump Sum & Unit Price	June 1	July 30	1/26	5/14	5/14	5/14	5 Bids May 28	May 28	The W.F.Hendrich Co., Inc. Buffalo, New York	May 28	CO#1,2,3, &4 F 142,695.75	June 1	June 1	Aug. 24	100	100		June 1	Aug. 20	100	100				
95	Sub-Structure - Pumping Station, Inc. Land Section of Intake & Waste Water Discharge Neg. Lump Sum & Unit Price	June 1	Aug. 7	3/1	5/15	5/15	5/15	2 Bids June 1	June 1	McLain Construction Corp. 1209 Hertel Ave. Buffalo, New York	June 1	F CO#1,2,3,4,5 348,944.59	June 1	June 1	Sept. 25	100	100		June 2	Oct. 8	100	100				
96	Heat Insulation and Pipe Covering Neg. Lump Sum & Unit Price	June 22	5 days after pipe completed	Specifications Only		May 20	May 20	4 Bids June 15	June 18	Paul J. Kres Company 444 North LaSalle St. Chicago, Ill.	June 18	CO#1,2,3, 4 & 5 F 185,361.[illegible]	June 18	June 22	5 days after pipe completion	100	100		July 6	Cancelled as of Jan. 29	100	100				
99	Sewage Collection System Neg. Lump Sum & Unit Price	June 5	Aug.25	2/20	5/29	May 14	May 14	4 Bids June 5	June 5	Herbert F. Darling Williamsville, N. Y.	June 5	CO#1,2,3, 4&5 F 505,608.54	June 5	June 5	10 days after receipt of critical mats	100	100		June 8	Oct. 1	100	100				
100	275,000 Gal.Elv. Conc. Water Stor.Tank Neg. Lump Sum	June 20	Aug.20	Drawings by Pre-Load Co.		6/5	6/5	3 Bids June 5	June 5	Preload Co. Long Island City, N. Y.	June 5	C.O. #1,2 3 & 4 F 31,249.71	June 5	June 20	Sept. 30	100	100		June 29	Dec. 5	100	100				
107	100,000 Gal.Elv.Tank for Fire Protection Change from P.O.#2778 Neg. Lump Sum	June 20	Oct. 7	By Contractor				Changed from P.O.	June 11	Pittsburgh Des Moines Steel Co., 270 Broadway New York, N. Y.	June 10	CO#1&2 F 12,128.03	June 11	June 20	Aug. 15	100	100		July 20	Aug. 29	100	100				
108	75,000 Gal. Tank for Drinking Water Change from P.O. #1861 Neg. Lump Sum	June 15	July 22	By Contractor				Change from P. O.	June 11	Bennis Tank Co. 39 Cortland Street New York City	June 11	CO#1 F 11,730.00	June 11	June 15	July 22	100	100		July 8	Aug. 7	100	100				
109	Erection of 3 Boilers at Boiler House #401 Neg. Lump Sum	June 12	Aug. 28	Stone & Webster		June 8	June 8	2 Bids June 11	June 11	[illegible] Engineering Co., Inc. Long Island City, N. Y.	June 11	CO#1,2&3 93,442.47	June 11	June 12	10 days after receipt of materials	100	100		June 12	Sept. 28	100	100				
111	Construction of 2 Ground Storage Res. Neg. Lump Sum & Unit Price	June 15	Sept. 22	May 1	June 2	June 2	June 2	3 Bids June 9	June 13	Wright & Kremers, Inc. Niagara Falls, N. Y.	June 13	CO#1,2,3 &4 F 197,463.[illegible]	June 13	June 15	Super.Oct.17 Sub.Sept.22	100	100		June 17	Oct. 20	100	100				
119	Application of Roofing, TNT & Acid Areas and Misc. Neg. Lump Sum & Unit Price	June 24	Aug. 2	Specifications Only		June 5	June 5	3 Bids June 13	June 22	Joseph A. Sanders & Sons Inc. Buffalo, New York	June 22	CO#1,2,3 &4 F 9,625.21	June 22	June 24	7 days after last bldg. is ready	100	100		June 24	Sept. 1	100	100				
120	Glass and Glazing Neg. Lump Sum & Unit Price	June 24	5 days after last sash	Specifications Only		June 3	June 3	3 Bids June 11	June 22	Pittsburgh Plate Glass Co. Buffalo, New York	June 22	CO#1A2 F 3,991.68	June 22	June 24	5 days after last sash	100	100		July 2	Sept. 12	100	100				
125	Laying Acid Resistant Brick Work Neg. Lump Sum & Unit Price	June 30	after other work is ready	Specifications Only		June 8	June 8	2 Bids June 24	June 27	Stebbins Engineering and Manufacturing Co. Watertown, New York	June 27	CO #1,2F S.A.-A,B 107,581.55 F	June 27	June 30	March 15,1943	100	100		July 1	Feb. 19	100	100				
127	Ash Storage Bin & Equipment Neg. Lump Sum & Unit Price	July 6	Aug. 10	By Contractor		June 27	June 27	1 Bid June 30	July 1	United Conveyor Corp. Chicago, Ill.	July 1	C.O.#1,2 14,425.78	July 3	July 6	Oct. 29	100	100		July 15	Oct. 28	100	100				
128	Heating and Plumbing in Manufacturing Buildings. Neg. Lump Sum & Unit Price	July 7	Aug. 20	May 16	June 25	June 25	June 26	2 Bids July 2	July 6	F. C. Mapes Corporation Lockport, New York	July 6	CO#1,2,3,4, 5,6,7 SA.A 118,423.42F	July 6	July 7	5 days after receipt of critical mat.	100	100		July 8	Nov. 16	100	100				
129	Furnishing and Setting Kitchen and Cafeteria Equipment Lump Sum Neg. Contract	May 20	June 30	Purchase Ord.#2955				Changed from P.O.	May 20	S. H. Heilbron Company Lexington, Kentucky	May 20	C.O.#1,2 15,328.29F	May 20	May 20	5 days after delivery	100	100		May 20	Nov. 4	100	100				
130	Furnishing & Installing X-Ray Equipment Neg. Lump Sum	June 10	July 24	Purchase Ord.#3638				Changed from P.O.	June 6	Westinghouse Electric & Manufacturing Co. Buffalo, New York	June 6	C.O.# 1F 5,180.00	June 6	June 10	Oct. 14	100	100		June 10	Oct. 14	100	100				
131	Erection of 2 Electric Mist Precipitators Neg. Lump Sum Contract	July 23	Aug.13	By DuPont			July 7	1 Bid July 8	July 11	Graver Tank & Mfg. Co., Inc. New York City	July 11	C.O.#1 F 5,753.95	July 13	July 23	Aug. 27	100	100		July 28	Aug. 27	100	100				
141	Construction of 2 Dormitory Buildings inc. plumbing, Heating and Electrical work. Neg. Lump Sum Contract	Aug. 10	Sept. 21	June 20	June 29	June 30	June 30	4 Bids July 7	July 25	Wright & Kremers Inc. Niagara Falls, N. Y.	July 25	CO#1,2,3, &4 F 85,738.67	July 27	Aug. 10	Nov. 14	100	100		July 30	Nov. 15	100	100				
148	Erection of (13) 24'x20' Riveted Steel Storage Tanks Neg. Lump Sum Contract	Dec. 1	Feb. 15	By DuPont	4th Wave		Oct. 1	1 Bid Oct. 5	Oct. 15	General American Trans. Corporation Sharon, Penn.	Oct.15	* 30,144.00	Oct. 15	Dec. 1	Feb. 15	100	95	Delay due to late material delivery	Dec. 14		**	80	1		2	10
149	Erection of (1) 250,000 Gallon Toluene Storage Neg. Lump Sum Contract	Nov. 23	Dec.12	By DuPont	4th Wave		Oct. 7	1 Bid Oct. 9	Oct. 15	Chicago Bridge & Iron Co. Philadelphia, Pa.	Oct.15	F 3,140.00	Oct. 15	Nov. 23	Dec. 12	100	100		Nov. 27	Dec. 23	100	100				
150	Erection of 1 Electric Mist Precipitator Neg. Lump Sum Contract	Nov. 25	Dec. 8	By DuPont	4th Wave		Oct. 16	2 Bids Oct. 20	Oct. 30	Graver Tank and Mfg. Co. Inc. 424 Madison Ave. New York City	Oct.30	F 3,224.00	Oct. 30	Nov. 25	Dec. 23	100	100		Nov. 28	Dec. 23	100	100				
153	Additional Acid Sewer Neg. Lump Sum & Unit Price	Jan. 12 1943	Mar. 12 1943	Dec. 21	Dec. 28	Dec. 28	Dec. 28	3 Bids Dec. 31	Jan. 8	Herbert F. Darling Williamsville, New York	Jan. 8	* 70,000.00	Jan. 12	Jan. 12	Mar. 12	100	80		Jan. 21		**	72			5	19

(Contract Pending) Railroad Track constructed by New York Central Railroad 11,012.15 Estimated

Government Field Overhead for Nov. 12 Estimate 800,000.00

Total Nov. 12 Estimate 26,957,414.00

* Estimated Total Amount

F-Final Payment

** Time extension pending

ODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-1 Directive Consecutive No. 15, M-249, M-466

Description of Work: Architect-Engineer-Manager in connection with the engineering and construction of the Lake Ontario Ordnance Works.

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad St., New York, N. Y.

Subcontractors Description of Work
(See separate sheet for each subcontractor)

Contract Data

Type of Contract - Cost Plus Fixed Fee
Date of Award - December 30, 1941
Date Notice to Proceed - December 27, 1941. Authority to proceed-Letter of Intent. Formal Notice - January 24, 1942.
Actual Starting Date - January 1, 1942
Schedule Completion Date - January 2, 1943
Actual Completion Date - Construction Completed March 15, 1943
Amount of Original Contract - $13,850,000.00 Plus Fee $297,400.00 Plus Reimbursable Cost $554,000.00
Supplement No. 1 to Directive No. 15 reduces amount ($686,250.) to Construction 13,220,000. Plus Fee $286,210. Plus Reimbursable Cost $531,320.
Directive No. M-249 increases amount ($2,311,174.) to Construction $15,393,700. Plus Fee $323,870. Plus Reimbursable Cost $606,786.
Supplement No. 2 to Directive No. 15 increases amount ($3,000,000.) to Construction $18,392,700. Plus Fee $323,870. Plus Reimbursable Cost $606,786.
Directive No. M-466 Stables. No increase in Amount
Fee Agreement reduces amount of Fee $653.00 Construction $18,393,353. Plus Fee $323,217. Plus Reimbursable Cost $606,786.
Supplement No. 1 to Directive No. M-249 increases amount $3,525,487 to Construction $21,918,840. Plus Fee $323,217. Plus Reimbursable Cost $606,786.
Letter. Time Schedule, 5th and 6th TNT Lines to start up December 15, 1942 increased Acid Area facilities complete by March 28, 1943
Stop Order. Work to stop January 15, 1943
Stop Order Cancellation. Work to Stop February 28, 1943.
Supplement No. 2 to Directive No. M-249 increases amount ($3,585,360.) to Construction $25,680,054. Plus Fee $323,217

ODUCED AT THE NATIONAL ARCHIVES

Contract No. DA-W-138 Eng-1 (Cont'd.)

Revised Allotted Amount - $26,003,271.00 for construction and Fixed Fee
Revised Allotted Amount - $18,708,856.22 for J. G. White Engineering Corporation Force Account work, Subcontracts, Supply Contracts and Purchase Orders.

Remarks:

1. Organization - Fair to start, excellent later
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Good

ODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-[illegible]-138 Eng.-7 Directive Consecutive No. 15

Description of Work: Foundation for Main Office Building

Contractor: Name: Balling Brothers
Address: 401 Bennett St., North Tonawanda, N.Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - March 2, 1942

Date Notice to Proceed - March 3, 1942

Actual Starting Date - March 3, 1942

Schedule Completion Date - April 2, 1942 (30 days)

Actual Completion Date - May 5, 1942

Amount of Original Contract - $6,971.00

Change Order No. 1 Completion date extended to May 5, 1942

Revised Contract Amount - No change Final Payment $6,971.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-12 Directive Consecutive No. 15, W-249

Description of Work - Ready Mixed Concrete

Contractor: Name: Cooney Brothers, Inc.
Address: Tarrytown, N. Y.

Contract Data

Type of Contract - Unit Price

Date of Award - March 7, 1942

Date Notice to Proceed - March 7, 1942

Actual Starting Date - March 13, 1942

Schedule Completion Date - end of job

Actual Completion Date - November 7, 1942

Amount of Original Contract - Approximately $276,760.00 or 37,000 cu.yds.

Change Order No. 1 - Added cost of F. & P. Bonds - $830.28
Total $277,590.28
Change Order No. 2 - Added grout to be purchased on P. O.
Change Order No. 3 - Decreased amount to $276,573.76
Change Order No. 3 (Corr.) - Increased amount to $276,733.00
Change Order No. 4 - Reduced amount to $276,388.80

Revised Contract Amount - $417,897.94 Estimated

Remarks:

1. Organization - Fair
2. Efficiency of Operations - Fair
3. Initiative and Resourcefulness - Fair
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Fair

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-4 -138 Eng.-13 Directive Consecutive No. 15

Description of Work: Concrete Underground Magazines (Igloo Type)

Contractor: Name: Poirier & McLane Corporation
Address: 33 W. 42nd St., New York, N. Y.

Subcontractors		Description of Work
Name:	Doster & Hagan	Lightning Protection
Address:	249 East Water Street Syracuse, New York	
Name:	Railroad Waterproofing Co.	Waterproofing
Address:	350 Hendrichson Ave., Lynbrook, L.I., N. Y.	
Name:	C. A. Kendrick, Inc.	Reinforcing
Address:	747 Ellicott Sq. Bldg. Buffalo, New York	

Contract Data

Type of Contract - Lump Sum & Unit Price
Date of Award - March 14, 1942
Date Notice to Proceed - April 1, 1942
Actual Starting Date - April 1, 1942
Schedule Completion Date - August 1, 1942
Actual Completion Date - September 12, 1942
Amount of Original Contract - $581,239.90

Change Order No. 1	Credit $7.48 per cu. yd. against Lump Sum Price
Change Order No. 2	Increased Estimate $60,000.00
Change Order No. 3	Change Completion date to September 1, 1942
Change Order No. 4	Decrease amount of contract to $568,280.84 & extend completion date to September 12, 1942
Change Order No. 5	Decrease amount to $564,244.86
Revised Contract	Final Payment $575,877.86

Remarks:

1. Organization - Good
2. Efficiency of Operations - Poor Planning
3. Initiative and Resourcefulness - Fair
4. Manner of Execution of Contract - Difficulty in getting this contractor to complete any work 100%
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-14 Directive Consecutive No. 15

Description of Work: Construction of Railroads

Contractor: Name: A. S. Wikstrom
Address: Bound Brook, N. J.

Contract Data

Type of Contract - Unit Price
Date of Award - March 18, 1942
Date of Notice to Proceed - April 1, 1942
Actual Starting Date - March 27, 1942
Schedule Completion Date - June 10, 1942
Actual Completion Date - September 12, 1942
Amount of Original Contract - Approximately $561,675.25

Change Order No. 1	Payments on Contract semi-monthly.
Change Order No. 2	Increases amount to $609,078.18
Change Order No. 3	Decreases amount to $609,065.20
Change Order No. 4	Increases amount to $612,110.20 and extends completion date.
Change Order No. 5	No Change.
Change Order No. 6	Decreases amount to $609,868.16 and extends completion date to September 12, 1942.
Revised Contract	Final Payment $495,992.46

Remarks:

1. Organization - Poor to start, later improved to very good
2. Efficiency of Operations - Poor to start, later improved to very good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - The Contractor was called into the office and threatened with having his contract taken away unless he improved his method of operation. From that date on his work improved.
5. Reputation as to Prompt Payment - Poor to start, later improved to very good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-15 Directive Consecutive No. 15

Description of Work: Main Office Building (Superstructure)

Contractor: Name: Wright & Kremers, Inc.
Address: Pine Ave. and Main St., Niagara Falls, N.Y.

Subcontractors	Description of Work
Name: Woolcott Plumbing & Heating Co. Address: 2217-15th St., Niagara Falls, N.Y.	Plumbing
Name: Arthur Ekstrom Address: 2437 Whitney Ave., Niagara Falls, N.Y.	Painting
Name: Asbestos-Asphalt Corp. Address: 2564 Seneca Ave., Niagara Falls, N. Y.	Roofing, Sheet Metal
Name: Thomas Cox Co., Inc. Address: 205 Memorial Pwky., Niagara Falls, N.Y.	Insulating
Name: C. H. Kremers & Son Address: 4003 Glenn St., Niagara Falls, N. Y.	Heating
Name: Beir Brothers Address: 123 Falls St., Niagara Falls, N. Y.	Window Shades
Name: Rohrer Electric Co. Address: 1313 Main St., Niagara Falls, N. Y.	Electrical

Contract Data

Type of Contract - Lump Sum
Date of Award - March 21, 1942
Date Notice to Proceed - March 24, 1942
Actual Starting Date - March 24, 1942
Schedule Completion Date - May 8, 1942
Actual Completion Date - June 4, 1942
Amount of Original Contract - $112,499.00 (approximately)

Change Order No. 1	No change
Change Order No. 2	Increases amount to $119,039.00
Change Order No. 3	Decreases amount to $118,908.50
Change Order No. 4	Decreases amount to $116,848.50 Final Payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUPPLY SHEET

Contract No. DA-W-138 Eng.-16 Directive Consecutive No. 15

Description of Work: Drainage (open ditch) Work

Contractor: Name: Dump Truck Service, Inc.
Address: 50 Becker Street, Buffalo, New York

Contract Data

Type of Contract - Unit Price

Date of Award - March 21, 1942

Date Notice to Proceed - March 26, 1942

Actual Starting Date - March 27, 1942

Schedule Completion Date - September 24, 1942 (180 days completed.)

Acutal Completion Date - September 15, 1942

Amount of Original Contract - Approximately $213,300.00

Change Order No. 1 - Decreases amount to $213,147.23

Revised Contract - Final Payment $162,775.36

Remarks:

1. Organization - Good
2. Efficiency of Operations - Slow in starting, but after difficulty of equipment was overcome, operations were satisfactory.
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-19 Directive Consecutive No. 15

Description of Work: Guard Fence (Inner Chain Link)

Contractor: Name: The American Steel & Wire Company of New Jersey (Cyclone Fence Division)
Address: Cleveland, Ohio

Contract Data

Type of Contract - Lump Sum and Unit Price

Date of Award - March 25, 1942

Date Notice to Proceed - March 26, 1942

Actual Starting Date - April 2, 1942

Schedule Completion Date - June 4, 1942

Actual Completion Date - December 10, 1942

Amount of Original Contract - $57,566.20

Change Order No. 1 Extended completion Date 'Indefinate'.

Change Order No. 2 Increases amount to $58,353.20

Change Order No. 3 Increases amount to $59,985.16 and extends completion date to December 10, 1942

Revised Contract Amount - Final Payment $58,834.92

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

ODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-23 Directive Consecutive No. 15

Description of Work: Drinking Water Supply & Distribution System (Part #1)

Contractor: Name: Bison Contracting Corporation
Address: 493 Washington Highway
Snyder, New York

Contract Data

Type of Contract - Unit Price

Date of Award - March 30, 1942

Date Notice to Proceed - April 1, 1942

Actual Starting Date - April 1, 1942

Schedule Completion Date - May 11, 1942

Actual Completion Date - August 8, 1942

Amount of Original Contract - Approximately $34,420.00

Change Order No. 1 - Extends completion date

Change Order No. 2 - Increases amount to $34,703.37 and extends completion date to August 8, 1942

Revised Contract - Final Payment $35,159.27

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good at first, later slowed down.
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good. It was found that this contractor has sub-let work without being properly authorized to do so.
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-24 Directive Consecutive No. 15

Description of Work: Roads and Grading

Contractor: Name: William J. Gallagher, Inc.
Address: 510 Orient Street, Medina, New York

Contract Data

Type of Contract - Unit Price

Date of Award - March 31, 1942

Date Notice to Proceed - April 2, 1942

Actual Starting Date - April 1, 1942

Schedule Completion Date - September 28, 1942 (180 days)

Actual Completion Date - November 7, 1942

Amount of Original Contract - Approximately $851,925.00

Change Order No. 1 - No change in cost
Change Order No. 2 - Increased amount to $951,335.00
Change Order No. 3 - Increased amount to $1,047.395.00
Change Order No. 4 - No change in amount.
Change Order No. 5 - Increased amount to $1,058,895.00 and extends completion date to November 7, 1942
Change Order No. 6 - Decreased amount to $1,007,045.81

Revised Contract - Final Payment $981,508.73

Remarks:

1. Organization - Poor
2. Efficiency of Operations - No Planning
3. Initiative and Resourcefulness - Nil
4. Manner of Execution of Contract - Lack of organization, lack of planning and lack of coordination with other contractors have seriously delayed this contractor.
5. Reputation as to Prompt Payment - This office has received two complaints regarding lack of payment.

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-26 Directive Consecutive No. 15

Description of Work: General Foundations, Boiler House Foundations and Tank Supports.

Contractor: Name: Poirier & McLane Corporation
Address: 33 W. 42nd Street, New York, N.Y.

Contract Data

Type of Contract - Lump Sum & Unit Prices

Date of Award - April 1, 1942

Date Notice to Proceed - April 3, 1942

Actual Starting Date - April 3, 1942

Schedule Completion Date - Boiler House Foundations - May 2, 1942 General Foundations - July 2, 1942

Actual Completion Date - July 31, 1942

Amount of Original Contract - $77,371.00

Change Order No. 1 - Increased amount to $228,305.10
Change Order No. 1 Revised - Increased amount to $263,916.10
Change Order No. 2 - Extends completion date to July 31, 1942
Change Order No. 3 - Increases amount to $291,631.95. Final Payment

Remarks:

1. Organization -
2. Efficiency of Operations
3. Initiative and Resourcefulness
4. Manner of Execution of Contract
5. Reputation as to Prompt Payment

) This contractor was called into the office and notified that unless he changed his method of operation and work, the contract would be taken away from him. From that time on, work and operation improved. The execution of this contract was never satisfactory

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-36 Directive Consecutive No. 15

Description of Work: Administration Group (Bldgs. No. 702, 707, 708, 709, 720, 728, 730)

Contractor: Name: Balling Brothers
Address: 401 Bennett St., North Tonawanda, N.Y.

Subcontractors	Description of Work
Name: Foller Brothers Address: 240 Grove St., Tonawanda, N.Y.	Carpentry
Name: George Schank Address: 155-16th St., Buffalo, N. Y.	Plumbing
Name: R. J. Moran & Son Address: 428 Woodward St., Buffalo, N. Y.	Heating, Ventilating
Name: Steele Electric Equipment Co. Address: 913 Oxford St., Niagara Falls, N. Y.	Electrical
Name: James J. Draper Address: 440 Oppenheimer St., Buffalo, N.Y.	Roofing, Sheet Metal
Name: Norman J. Kobel Address: 51 Roosevelt St., Buffalo, N. Y.	Painting
Name: Allen Floor Covering Co. Address: 426 Pearle St., Buffalo, N. Y.	Tile

Contract Data

Type of Contract - Lump Sum
Date of Award - April 17, 1942
Date Notice to Proceed - April 18, 1942
Actual Starting Date - April 17, 1942
Schedule Completion Date - June 1, 1942 - Bldgs. 702,707,709, 720,728,730 May 17, 1942 - Bldg. 708
Actual Completion Date - August 3, 1942
Amount of Original Contract - $145,344.00
Change Order No. 1 - No change in amount
Change Order No. 2 - No change in amount
Change Order No. 3 - Increases amount to $149,525.56
Change Order No. 4 - Increases amount to $154,236.47
Change Order No. 5 - Increases amount to $155,508.07
Change Order No. 6 - Increases amount to $155,911.07
Change Order No. 7 - Increases amount to $156,032.07
Change Order No. 8 - Decreases amount to $155,999.07
Change Order No. 9 - Decreases amount to $153,921.57 and extends completion date to October 26, 1942
Revised Contract amount - Final Payment $153,921.57

Remarks:
1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-40 Directive Consecutive No. 15

Description of Work: Erecting 14 Steel Tanks in Acid Area

Contractor: Name: General American Transportation Corporation
Address: Chicago, Illinois

Contract Data

Type of Contract - Lump Sum

Date of Award - April 22, 1942

Date Notice to Proceed - May 14, 1942

Actual Starting Date - May 16, 1942

Schedule Completion Date - July 25, 1942

Actual Completion Date - July 20, 1942

Amount of Original Contract - $32,930.06

Change Order No. 1 - Decreased amount to $32,739.00

Change Order No. 2 - Decreased amount to $32,527.76 Final Payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

:ODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No DA-W-138 Eng. 58 Directive Consecutive No. 15

Description of Work: Erection of Steel for Boiler House No. 401 and Bldgs. Nos. 301, 302. 303, 305, 801, 802, 803, 806, 812, 817

Contractor: Name: Schieve Construction Company
Address: Buffalo N. Y.

Contract Data

Type of Contract - Lump Sum and Unit Price

Date of Award - April 27, 1942

Date of Notice to Proceed - May 11 1942

Actual Starting Date - May 6, 1942

Schedule Completion Date - May 25. 1942 for Boiler House 401
June 19, 1942 for all other bldgs.

Actual Completion Date - July 22, 1942

Amount of Original Contract - $45,105.00

Change Order No. 1 - Extends completion date to May 25, 1942

Change Order No. 2 - Extends completion date to July 15, 1942

Change Order No. 3 - Increases amount to $45 324.86

Change Order No. 4 - Increases amount to $45,379.93

Revised Contract - Final Payment $43 477.62

Remarks:

1 Organization - Excellent
2 Efficiency of Operations - Excellent
3 Initiative and Resourcefulness - Excellent
4 Manner of Execution of Contract - Excellent
5 Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-60 Directive Consecutive No. 15

Description of Work: Construction of Buildings in Shop Area - No 704, 707, 713, 714, 715, 716, 717 718, 722 723, 725 726, 733

Contractor: Name: The W. F. Hendrich Company Inc.
Address: 775 Main Street, Buffalo, N. Y.

Subcontractors	Description of Work
Name: Wipperman & Mitchell Address: 404 North Oak St., Buffalo, N.Y	Electrical
Name: Chippewa Contractors, Inc. Address: 374 Delaware Ave., Buffalo, N.Y.	Plumbing, Heating
Name: Paul F. Podzuweit Address: Transit Road, Williamsville, N.Y.	Painting
Name: Georgen-Mackwirth Co., Inc. Address: 817 Sycamore St, Buffalo, N.Y.	Ventilating
Name: Joseph A Sanders & Son Address: 107 Lathrop Street Buffalo, N.Y.	Roofing, Sheet Metal
Name: Troup Engineering Co Address: 1807 Elmwood Ave. Buffalo, N.Y.	Folding Doors
Name: John C Bevier Co. Address: 70 Pacific St. Buffalo, N.Y.	Mono-Rail System
Name: American Steel & Wire Co. of N.J. (Cyclone Fence Division) Address: Liberty Bank Bldg. Buffalo, N.Y.	Chain-Link Fence

Contract Data

Type of Contract - Lump Sum
Date of Award - April 27 1942
Date Notice to Proceed - April 27, 1942
Actual Starting Date - April 26, 1942
Schedule Completion Date - Bldgs. 713 - 717 by June 1, 1942
Other buildings by July 20, 1942
Actual Completion Date - August 7, 1942
Amount of Original Contract - $402,108.00
Change Order No 1 - Extends completion date
Change Order No 2 - Increases amount to $402,626.00
Change Order No. 3 - Increases amount to $405 297.00
Change Order No 4 - No increase in amount
Change Order No 5 - Decreases amount to $405,283.32
Change Order No. 6 - Decreases amount to $405,150.72
Change Order No 7 - Decreases amount to $404,782.43 Final Payment

Remarks:
1 Organization - Excellent
2 Efficiency of Operations - Excellent
3 Initiative and Resourcefulness - Excellent
4 Manner of Execution of Contract - Excellent
5 Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-62 Directive Consecutive No. 15, W-249

Description of Work: Furnish and Install Chemical Lead in T.N.T. and Acid Areas.

Contractor: Name: O. G. Kelley & Company
Address: Neponset Station, Boston, Mass.

Contract Data

Type of Contract - Unit Price

Date of Award - May 5, 1942

Date Notice to Proceed - June 15, 1942

Actual Starting Date - June 15, 1942

Schedule Completion Date - September 15, 1942

Actual Completion Date - February 27, 1943

Amount of Original Contract - $.095 per lb. Labor) No lump sum price given in contract.
.085 per lb. Materials)

Change Order No. 1 - Increases scope of work
Change Order No. 2 - Extends completion date
Change Order No. 3 - Extends completion date
Change Order No. 4 - Extends completion date to 10 days after last tank and/or pipe is ready.
Change Order No. 5 - Increases scope of work.

Revised Contract Amount - $149,067.63 Estimated

Remarks:

1. Organization - Field Organization weak.
2. Efficiency of Operations - Excellent.
3. Initiative and Resourcefulness - Good.
4. Manner of Execution of Contract - Field supervision apparently more concerned about union conditions than efficiency of operation.
5. Reputation as to Prompt Payment - Field Organization weak.

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-64 Directive Consecutive No. 15

Description of Work: Private Branch Automatic Telephone Apparatus

Contractor: Name: American Automatic Electric Sales Company
Address: 1033 West Van Buren St., Chicago, Ill.

Subcontractors	Description of Work
Name: National Construction & Engineering Co. Address: 1033 W. VanBuren St., Chicago, Ill.	Erection

Contract Data

Type of Contract - Lump Sum

Date of Award - April 29, 1942

Date Notice to Proceed - April 29, 1942

Actual Starting Date - April 29, 1942

Schedule Completion Date - July 18, 1942

Actual Completion Date - October 7, 1942

Amount of Original Contract - $34,961.00

Change Order No. 1 - No increase.

Change Order No. 2 - Decreases amount to $34,906.81

Change Order No. 3 - Extends completion date to October 10, 1942

Revised Contract Amount $34,906.81 Final Payment

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to prompt payment - Very Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-67 Directive Consecutive No. 15

Description of Work: Erect Boundary and Wood Fence

Contractor: Name: Anchor Post Fence Company
Address: Baltimore, Maryland

Contract Data

Type of Contract - Unit Price

Date of Award - May 12, 1942

Date Notice to Proceed - June 24, 1942

Actual Starting Date - June 26, 1942

Schedule Completion Date- August 3, 1942

Actual Completion Date - September 21, 1942

Amount of Original Contract - $20,226.18

Change Order No. 1 - extends completion date

Change Order No. 2 - increases amount to $20,637.69 and extends completion date to September 23, 1942

Revised Contract Amount - Final Payment $18,123.81

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng. 69 Directive Consecutive No. 15

Description of Work: Erect 9 Steel Storage Tanks of Various Kinds.

Contractor: Name: Chicago Bridge & Iron Company
Address: Chicago, Illinois

Contract Data

Type of Contract - Lump Sum

Date of Award - May 12, 1942

Date Notice to Proceed - June 1, 1942

Actual Starting Date - June 1, 1942

Schedule Completion Date - August 1, 1942

Actual Completion Date - August 13, 1942

Amount of Original Contract - $27,880.00

Change Order No. 1 - Extends completion date to August 15, 1942

Change Order No. 2 - Decreases amount to $27,580.46 Final payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng. 70 Directive Consecutive No. 15

Description of Work: Erection of 6 Steel Storage Tanks

Contractor: Name: Pittsburgh Des Moines Steel Company
Address: Neville Island Post Office,
Pittsburgh, Pa.

Contract Data

Type of Contract - Lump Sum

Date of Award - May 22, 1942

Date Notice to Proceed - June 10, 1942

Actual Starting Date - June 10, 1942

Schedule Completion Date - August 29, 1942

Actual Completion Date - August 13, 1942

Amount of Original Contract - $12,000.00

Revised Contract Amount - Final Payment $12,000.00

Remarks:

1. Organization - Fair
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Lack of proper type of superintendents caused delays on this contract.
4. Manner of Execution of Contract - Definite delays due to lack of proper types of superintendents and organization.
5. Reputation as to Prompt Payment - Fair

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng. 71 Directive Consecutive No. 15

Description of Work: Electrical Installation in 27 Buildings

Contractor: Name: Rohrer Electric Company, Inc.
Address: Niagara Falls, N. Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - May 9, 1942

Date Notice to Proceed - May 12, 1942

Actual Starting Date - May 19, 1942

Schedule Completion Date - July 1, 1942

Actual Completion Date - November 10, 1942

Amount of Original Contract - $19,800.00

Change Order No. 1 - Increases amount to $20,545.00 and extends completion date to August 15, 1942

Change Order No. 2 - Increases amount to $20,945.00 and extends completion date to September 30, 1942

Change Order No. 3 - Increases amount to $21,578.00 and extends completion date to November 10, 1942

Revised Contract Amount - $21,578.00 Final Payment

Remarks:

1. Organization - Fair
2. Efficiency of Operations - Fair
3. Initiative and Resourcefulness - Fair
4. Manner of Execution of Contract - It was apparent that the contract obligations taken by this company on this Project were larger than they had previously taken responsibility for.
5. Reputation as to Prompt Payment - Fair

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng. 72 Directive Consecutive No. 15

Description of Work: Installation of Power Lines

Contractor: Name: Buffalo Niagara Electric Corporation
Address: Buffalo, New York

Contract Data

Type of Contract - Lump Sum with refund agreement

Date of Award - July 2, 1942

Date Notice to Proceed - July 2, 1942

Actual Starting Date - July 6, 1942

Schedule Completion Date - August 1, 1942

Actual Completion Date - September 11, 1942

Amount of Original Contract - $45,701.04

Revised Contract Amount - Final Payment $45,701.04

Remarks:

1. Organization)
2. Efficiency of Operations)
3. Initiative and Resourcefulness)
4. Manner of Execution of Contract)
5. Reputation as to Prompt Payment)

This is a Public Service Company, and the method of operation is constant. In all cases their work was efficient and co-operative.

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-74 Directive Consecutive No. 15

Description of Work: Plumbing Installation in 27 Buildings

Contractor: Name: George E. Schank
Address: 116-16th Street, Buffalo, New York

Subcontractors	Description of Work
Name: Frontier Insulation & Roofing Co. Address: 230 Winchester Avenue, Buffalo, New York	Pipe Covering

Contract Data

Type of Contract - Lump Sum

Date of Award - May 12, 1942

Date Notice to Proceed - May 12, 1942

Actual Starting Date - May 19, 1942

Amount of Original Contract - $56,418.60

Schedule Completion Date - July 1, 1942

Actual Completion Date - November 7, 1942

Change Order No. 1 - Increases amount to $57,238.60

Change Order No. 2 - Increases amount to $60,708.60

Change Order No. 3 - Increases amount to $63,458.60

Change Order No. 4 - Increases amount to $66,301.81 and changes completion date to November 7, 1942

Revised Contract Amount - Final Payment $66,301.81

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Difficulty in having this contractor complete his work 100%.
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-77 Directive Consecutive No. 15

Description of Work: Erection of 9 Steel Storage Tanks

Contractor: Name: Chattanooga Boiler & Tank Company
Address: Chattanooga, Tennessee

Contract Data

Type of Contract - Lump Sum

Date of Award - May 19, 1942

Date Notice to Proceed - June 1, 1942

Actual Starting Date - May 30, 1942

Schedule Completion Date - August 30, 1942

Actual Completion Date - August 15, 1942

Amount of Original Contract - $17,050.00

Revised Contract Amount - $17,050.00 Final Payment

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-78 Directive Consecutive No. 15

Description of Work: Sellite Plant

Contractor: Name: Chemical Construction Corporation
Address: New York, N. Y.

Subcontractors	Description of Work
Name: Poirier-McLane Corp. Address: 33 W. 42nd Street New York, N. Y.	Foundation Concrete
Name: O. G. Kelley & Co. Address: Neponset Station Boston, Mass.	Lead Installation
Name: Stebbins Eng. & Mfg. Co. Address: Watertown, N. Y.	Brick Work
Name: Industrial Electric Co. Address: 740 Rabway Avenue Elizabeth, N. J.	Electrical

Contract Data

Type of Contract - Lump Sum
Date of Award - May 18, 1942
Date Notice to Proceed - June 15, 1942
Actual Starting Date - June 15, 1942
Schedule Completion Date - November 1, 1942
Actual Completion Date - October 29, 1942
Amount of Original Contract - $37,930.00
Change Order No. 1 - Extends completion date to October 12, 1942
Change Order No. 2 - Decreases amount to $35,374.31.
Change Order No. 3 - Decreases amount to $34,748.79 Final Payment

Remarks:

1. Organization
2. Efficiency of Operations
3. Initiative and Resourcefulness
4. Manner of Execution of Contract
5. Reputation as to Prompt Payment

) This is the Construction Department of the Operating Company and it would be rather difficult to give an accurate analysis of their operations.

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-79 Directive Consecutive No. 15

Description of Work: 42" Reinforced Concrete Water Supply Line from River Pumping Station to Water Treatment Plant.

Contractor: Name: Herbert F. Darling
Address: Williamsville, N. Y.

Contract Data

Type of Contract - Unit Price

Date of Award - May 15, 1942

Date Notice to Proceed - May 16, 1942

Actual Starting Date - June 9, 1942

Schedule Completion Date - August 7, 1942

Actual Completion Date - December 12, 1942

Amount of Original Contract - $542,850.00

Change Order No. 1 - No change in amount.
Change Order No. 2 - Extends completion date.
Change Order No. 3 - Decreases amount to $455,155.00
Change Order No. 4 - Increases amount to $460,555.00
Change Order No. 5 - Increases amount to $465,715.60
Change Order No. 6 - Increases amount to $486,761.10
Change Order No. 7 - Decreases amount to $481,811.98
Change Order No. 8 - Decreases amount to $481,613.89
Change Order No. 9 - Decreases amount to $462,874.78 and changes completion date to December 12, 1942.

Revised Contract Amount - $462,874.78 Final Payment

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - When Material situation was straightened out, the execution of this contract was very satisfactory.
5. Reputation as to Prompt Payment - Very Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-82 Directive Consecutive No. 15

Description of Work: Erection and Completion of 6 Electric Dumbwaiters

Contractor: Name: Otis Elevator Company
Address: Philadelphia, Penna.

Contract Data

Type of Contract - Lump Sum

Date of Award - May 18, 1942

Date Notice to Proceed - July 1, 1942

Actual Starting Date - June 23, 1942

Schedule Completion Date - July 21, 1942

Actual Completion Date - November 18, 1942

Amount of Original Contract - $4,587.42

Change Order No. 1 - Decreases amount to $4,126.68

Change Order No. 2 - Increases amount to $4,779.24 and extends completion date to 5 days after receipt of critical materials.

Change Order No. 3 - Increases amount to $4,896.45

Change Order No. 3 'Corrected' - Decreases amount to $4,889.92 Final Payment.

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-83 Directive Consecutive No. 15

Description of Work: Complete Construction of Water Distribution System

Contractor: Name: Poirier & McLane Corporation
Address: 33 W. 42nd Street
New York, N. Y.

Contract Data

Type of Contract - Unit Price

Date of Award - May 19, 1942

Date Notice to Proceed - June 1, 1942

Actual Starting Date - June 1, 1942

Schedule Completion Date - July 20, 1942

Actual Completion Date - October 7, 1942

Amount of Original Contract - $160,887.00

Change Order No. 1 - Extends completion Date

Change Order No. 2 - Extends completion date

Change Order No. 3 - Increases amount to $171,125.56 and extends completion date to October 8, 1942.

Revised Contract Amount - Final Payment $170,293.97

Remarks:

1. Organization - Fair
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Nil
4. Manner of Execution of Contract - The apparent lack of planning delayed this work and tied up areas within the Project and prevented other contractors from doing their work.
5. Reputation as to Prompt Payment - Fair

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-84 Directive Consecutive No. 15

Description of Work: Construction of Primary Distribution System and Guard Fence Lighting.

Contractor: Name: O'Connell Electric Company
Address: Rochester, New York

Contract Data

Type of Contract - Lump Sum & Unit Price

Date of Award - May 21, 1942

Date Notice to Proceed - June 1, 1942

Actual Starting Date - June 16, 1942

Schedule Completion Date - August 4, 1942

Actual Completion Date - December 9, 1942

Amount of Original Contract - $61,450.00

Change Order No. 1 - Extends completion date.

Change Order No. 2 - Extends completion date to 14 days after receipt of critical materials.

Change Order No. 3 - Increases amount to $90,594.21

Revised Contract Amount - $90,594.21 Final Payment

Remarks:

1. Organization - Fair
2. Efficiency of Operations - Fair
3. Initiative and Resourcefulness - Fair
4. Manner of Execution of Contract - Apparent lack of planning is delaying this work.
5. Reputation as to Prompt Payment - Fair

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-86 Directive Consecutive No. 15

Description of Work: Labor and Material for Complete Installation of Wet Pipe Sprinkler Systems.

Contractor: Name: Automatic Sprinkler Corporation of America
Address: Youngstown, Ohio

Contract Data

Type of Contract - Lump Sum & Unit Price

Date of Award - May 26, 1942

Date Notice to Proceed - June 1, 1942

Actual Starting Date - June 9, 1942

Schedule Completion Date - July 20, 1942

Actual Completion Date - September 19, 1942

Amount of Original Contract - $21,357.00

Change Order No. 1 - Decreases amount to $21,230.43

Change Order No. 2 - Extends completion date to 7 days after 1st building is ready.

Change Order No. 3 - Changes completion date to September 12, 1942 for #803 buildings and increases amount to $24,261.23.

Revised Contract Amount - Final Payment $30,462.48.

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-88 Directive Consecutive No. 15

Description of Work: Marine Work - Process Water Supply and Waste Water Discharge

Contractor: Name: Merritt-Chapmen & Scott Corporation
Address: Cleveland, Ohio

Contract Data

Type of Contract - Lump Sum

Date of Award - May 27, 1942

Date Notice to Proceed - June 1, 1942

Actual Starting Date - June 9, 1942

Schedule Completion Date - August 10, 1942

Actual Completion Date - August 15, 1942

Amount of Original Contract - $233,145.50

Change Order No. 1 - Increases amount to $237,791.10 and extends completion date to August 20, 1942

Revised Contract Amount - Final Payment $237,791.10

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - The planning and execution of contract was very satisfactory.
5. Reputation as to Prompt Payment - Excellent.

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CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-89 Directive Consecutive No. 15

Description of Work: Heating System for 24 Buildings

Contractor: Name: C. H. Kremers & Son
Address: Niagara Falls, N. Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - May 28, 1942

Date Notice to Proceed - May 28, 1942

Actual Starting Date - June 1, 1942

Schedule Completion Date - July 31, 1942

Actual Completion Date - October 20, 1942

Amount of Original Contract - $31,658.00

Change Order No. 1 - Decreases amount to $30,516.24

Change Order No. 2 - Increases amount to $30,917.04

Change Order No. 3 - Extends completion date to 7 days after last building is ready for heat insulation.

Change Order No. 4 - Decreases amount to $30,836.39

Revised Contract Amount - Final Payment $30,836.39

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - some delay in work on this contract due to lack of an expediting department with his organization.
5. Reputation as to Prompt Payment - Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng.-92 Directive Consecutive No. 15

Description of Work: Roofing and Siding for Boiler House #401

Contractor: Name: American Steel Band Company
Address: P. O. Box 565, Pittsburgh, Penn.

Contract Data

Type of Contract - Lump Sum

Date of Award - May 28, 1942

Date Notice to Proceed - June 10, 1942

Actual Starting Date - July 18, 1942

Schedule Completion Date - August 20, 1942

Amount of Original Contract - $21,108.50

Actual Completion Date - October 10, 1942

Change Order No. 1 - Increases amount to $21,812.50

Change Order No. 2 - Decreases amount to $20,588.50

Change Order No. 3 - Extends completion date to 14 days after ready for flashing.

Change Order No. 4 - Decreases amount to $20,180.82. Final Payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent cooperation and planning from this contractor.
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-93 Directive Consecutive No. 15

Description of Work: Construction of three Coal Silos of Monolithic Concrete

Contractor: Name: W. B. Neill Inc.
Address: 30 Vesey Street, New York, N. Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - May 28, 1942

Date Notice to Proceed - June 8, 1942

Actual Starting Date - June 17, 1942

Schedule Completion Date - August 24, 1942

Actual Completion Date - October 14, 1942

Amount of Original Contract $46,280.00

Change Order No. 1 - decreases amount to $38,315.00

Change Order No. 2 - extends completion date of 1 silo to Aug. 12, 1942

Change Order No. 3 - decreases amount to $35,520.62

Change Order No. 4 - extends completion date to 14 days after coal conveyor floor is complete

Change Order No. 5 - decreases amount to $34,449.45

Revised Contract Amount - Final Payment $34,449.45

Remarks:

1. Organization - Poor
2. Efficiency of Operations - Poor
3. Initiative and Resourcefulness - Nil
4. Manner of Execution of Contract - lack of planning and cooperation have delayed this contract.
5. Reputation as to Prompt Payment - Poor

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CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-94 Directive Consecutive No. 15

Description of Work: Sewage Disposal Plant

Contractor: Name: The W. F. Hendrich Company, Inc.
Address: 775 Main Street, Buffalo, N. Y.

Subcontractors	Description of Work
Name: Chippewa Contractors, Inc. Address: 374 Delaware Ave.,Buffalo, N.Y.	Plumbing, Heating, Ventilating
Name: Wipperman-Mitchell, Inc. Address: 404 North Oak St., Buffalo, N. Y.	Electrical
Name: Joseph A. Sanders & Sons, Inc. Address: 107 Lathrop St., Buffalo, N. Y.	Sheet Metal
Name: August Feine & Son Address: 140 Terrace, Buffalo, N. Y.	Miscellaneous Steel
Name: Doyle Painting Co. Address: 72 Norward Ave., Buffalo, N. Y.	Painting

Contract Data

Type of Contract - Lump Sum
Date of Award - May 28, 1942
Date Notice to Proceed - June 1, 1942
Actual Starting Date - June 1, 1942
Schedule Completion Date - July 30, 1942
Actual Completion Date - August 20, 1942
Amount of Original Contract - $146,430.00
Change Order No. 1 - extends completion date to August 24, 1942
Change Order No. 2 - increases amount to $146,813.75
Change Order No. 3 - decreases amount to $143,529.71
Change Order No. 4 - decreases amount to $142,695.75
Revised Contract - Final Payment $142,695.75

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Contract Executed in a very satisfactory manner.
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-95 Directive Consecutive No. 15

Description of Work: Construction and Completion of Intake Works, Pumping Station Substructure and Outfall of Waste Water Disposal.

Contractor: Name: McLain Construction Corporation
Address: 1209 Hertel Ave., Buffalo, N. Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - June 1, 1942

Date Notice to Proceed - June 1, 1942

Actual Starting Date - June 2, 1942

Schedule Completion Date - August 7, 1942

Actual Completion Date - October 8, 1942

Amount of Original Contract - $349,460.00

Change Order No. 1 - No change in amount

Change Order No. 2 - No change in amount

Change Order No. 3 - Extends completion date to September 23, 1942

Change Order No. 4 - Decreases amount to $330,132.37

Change Order No. 5 - Increases amount to $348,944.59. Final Payment.

Remarks:

1. Organization - Poor
2. Efficiency of Operations - Poor
3. Initiative and Resourcefulness - Nil
4. Manner of Execution of Contract - Lack of planning and cooperation have delayed this contract.
5. Reputation as to Prompt Payment - Poor.

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CONTRACT SUMMARY SHEET

Contract No. DA-[illegible]-138 Eng.-96 Directive Consecutive No. 15, M-249

Description of Work: Installation of Heat Insulation and Pipe Covering

Contractor: Name: Paul J. Krez Company
Address: 444 North LaSalle St., Chicago, Ill.

Contract Data

Type of Contract - Unit Price

Date of Award - June 18, 1942

Date Notice to Proceed - June 22, 1942

Actual Starting Date - July 6, 1942

Schedule Completion Date - Within 5 days after last items to be covered is ready.

Actual Completion Date - January 29, 1943

Amount of Original Contract - $122,538.00

Change Order No. 1 - increases amount to $122,861.80

Change Order No. 2 - increases amount to $122,961.86

Change Order No. 3 - change in unit prices

Change Order No. 4 - change in unit prices

Change Order No. 5 - increases amount to $123,112.00

Revised Contract Amount - Final Payment $185,361.19

Remarks:

1. Organization - Fair
2. Efficiency of Operations - Fair
3. Initiative and Resourcefulness - Poor
4. Manner of Execution of Contract - This contractor has not had a thoroughly competent superintendent on the job to plan and execute his contract.
5. Reputation as to Prompt Payment - Fair

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CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-99 Directive Consecutive No. 15

Description of Work: Sewage Collection System

Contractor: Name: Herbert F. Darling
Address: Williamsville, N. Y.

Contract Data

Type of Contract - Unit Price

Date of Award - June 5, 1942

Date Notice to Proceed - June 5, 1942

Actual Starting Date - June 8, 1942

Schedule Completion Date - August 25, 1942

Actual Completion Date - October 1, 1942

Amount of Original Contract - $416,934.81

Change Order No. 1 - no increase in amount

Change Order No. 2 - increases amount to $419,514.81

Change Order No. 3 - extends completion date to 10 days after receipt of critical materials

Change Order No. 4 - increased amount to $498,264.81

Change Order No. 5 - increased amount to $502,090.97

Revised Contract Amount - Final Payment $505,608.54

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - This contractor had sub-rosa agreements with individuals to help execute contract. One of these individuals proved to be quite incompetent and the phase of the work into which he entered suffered thereby. Nevertheless, a complete analysis of the contract shows that the Prime Contractor, Herbert F. Darling, can be recommended for this type of work.
5. Reputation as to Prompt Payment - Very Good

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CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-100 Directive Consecutive No. 15

Description of Work: 275,000 Gallon Elevated Water Tank

Contractor: Name: The Preload Company
Address: Long Island City, N. Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - June 5, 1942

Date Notice to Proceed - June 20, 1942

Actual Starting Date - June 23, 1942

Schedule Completion Date - August 20, 1942

Actual Completion Date - December 5, 1942

Amount of Original Contract - $33,835.00

Change Order No. 1 - decreased amount to $33,634.00

Change Order No. 2 - increased amount to $33,887.00

Change Order No. 3 - extends completion date to Sept. 30, 1942

Change Order No. 4 - decreases amount to $31,249.71

Revised contract amount - $31,249.71 Final Payment

Remarks:

1. Organization - Fair
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Lack of competent superintendence on this contract delayed its completion and cost of poor work, which had to be repaired, was charged to the contractor.
5. Reputation as to Prompt Payment - Fair

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng.-107 Directive Consecutive No. 15

Description of Work: 100,000 Gallon Water Tank on Steel Tower

Contractor: Name: Pittsburgh-DesMoines Steel Co.
Address: Neville Island Post Office, Pittsburgh, Pa.

Contract Data

Type of Contract - Lump Sum

Date of Award - June 10, 1942

Date Notice to Proceed - July 20, 1942

Actual Starting Date - July 20, 1942

Schedule Completion Date - August 15, 1942

Actual Completion Date - August 29, 1942

Amount of Original Contract - $12,349.20

Change Order No. 1 - increased amount to $13,019.20

Change Order No. 2 - decreased amount to $12,128.03

Revised Contract Amount - Final Payment $12,128.03

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - This contract was handled in a very satisfactory manner.
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-108 Directive Consecutive No. 15

Description of Work: Furnishing, delivering and Erecting on Foundation to be constructed by the Contracting Office, one 140 ft. Steel Tower with 75,000 Gallon Wood Tank.

Contractor: Name: Wenneis Tank Co.
Address: 39 Cortland St., New York, N. Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - June 11, 1942

Date Notice to Proceed - July 6, 1942

Actual Starting Date - July 8, 1942

Schedule Completion Date - August 12, 1942

Actual Completion Date - August 7, 1942

Amount of Original Contract - $12,080

Change Order No. 1 - decreased amount to $11,730.00

Revised Contract Amount - Final Payment $11,730.00

Remarks:

1. Organization - Poor
2. Efficiency of Operations - Poor
3. Initiative and Resourcefulness - Poor
4. Manner of Execution of Contract - Apparent lack of organization delayed the starting and completion of this contract.
5. Reputation as to Prompt Payment - We have been requested on two occasions to help subcontractors collect from this contractor.

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CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-109 Directive Consecutive No. 15

Description of Work: Erection of 3 Boilers at Boiler House #401

Contractor: Name: Champion Construction & Engineering Co., Inc.
Address: Long Island City, N. Y.

Subcontractors	Description of Work
Name: Schieve Construction Co. Address: 38 Parkridge Ave., Buffalo, N. Y.	Steel Erection

Contract Data

Type of Contract - Lump Sum

Date of Award - June 11, 1942

Date Notice to Proceed - June 11, 1942

Actual Starting Date - June 12, 1942

Schedule Completion Date - August 28, 1942

Actual Completion Date - September 28, 1942

Amount of Original Contract - $95,212.70

Change Order No. 1 - increased amount to $95,505.90

Change Order No. 2 - decreased amount to $93,439.53

Change Order No. 3 - increased amount to $93,442.47 Final Payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operation - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - This company did everything they could do to do a good and quick job on this contract. Work in all phases very satisfactory.
5. Reputation as to Prompt Payment - Excellent.

CONTRACT SUMMARY SHEET

Contract No DA W-138 Eng 111 Directive Consecutive No 15

Description of Work: Construction of 2 Ground Storage Reservoirs

Contractor: Name: Wright & Kremers, Inc
Address: Niagara Falls N. Y.

Subcontractors	Description of Work
Name: Arthur Ekstrom Address: 2437 Whitney Ave , Niagara Falls, N.Y	Painting
Name: Mackwirth Brothers Co Address: 201 Oak Street, Buffalo, N. Y.	Roofing
Name: Dump Truck Service Address: 50 Wrecker Street, Buffalo, N. Y	Excavation
Name: Ross Steel Erection Corp Address: 423 19th St Niagara Falls, N. Y.	Steel Erection

Contract Data

Type of Contract - Lump Sum
Date of Award - June 13 1942
Date Notice to Proceed - June 15, 1942
Actual Starting Date - June 17 1942
Schedule Completion Date - September 22, 1942
Amount of Original Contract - $185,749.00
Change Order No 1 - no increase in amount
Change Order No 2 - decreases amount to $184 989.98
Change Order No 3 extends completion date to - Substructure - September 22, 1942 Superstructure - October 17, 1942
Change Order No. 4 - increased amount to $197 463.29
Revised Contract Amount - Final Payment $197,463.29

Remarks:

1. Organization Excellent
2. Efficiency of Operations - Excellent
3 Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5 Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No DA-W-138 Eng -119 Directive Consecutive No. 15, M-249

Description of Work: Application of Roofing TNT and Acid Areas and Misc.

Contractor: Name: Joseph A. Sanders & Sons, Inc
Address: Buffalo N. Y.

Contract Data

Type of Contract - Unit Price

Date of Award - June 22, 1942

Date Notice to Proceed - June 24, 1942

Actual Starting Date - June 24, 1942

Schedule Completion Date - August 2,1942

Actual Completion Date - September 1, 1942

Amount of Original Contract - $6,611.02

Change Order No 1 - increased amount to $8.202.02

Change Order No. 2 - extends completion date to 7 days after last building is ready

Change Order No. 3 - increases amount to $11,178.22

Change Order No 4 - decreases amount to $11,151.52

Revised Contract Amount - Final Payment $9,625.21

Remarks:

1 Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - This contractor was apparently making every effort, but for some reason fell short of being a first-class contractor.
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-120 Directive Consecutive No. 15

Description of Work: Glass and Glazing

Contractor: Name: Pittsburgh Plate Glass Co.
Address: Pittsburgh, Pa.

Contract Data

Type of Contract - Lump Sum & Unit Price

Date of Award - June 22, 1942

Date Notice to Proceed - June 24, 1942

Actual Starting Date - July 2, 1942

Schedule Completion Date - Within 5 days after last sash is available.

Actual Completion Date - September 12, 1942

Amount of Original Contract - $3,108.00

Change Order No. 1 - no change in amount

Change Order No. 2 - increases amount to $3,991.68

Revised Contract Amount - Final Payment $3,991.68

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-125 Directive Consecutive No. 15, M-249

Description of Work: Engineering Supervision and Laying Acid Proof Brick

Contractor: Name: Stebbins Engineering and Manufacturing Co.
Address: Watertown, N. Y.

Contract Data

Type of Contract - Unit Price

Date of Award - June 27, 1942

Date Notice to Proceed - June 30, 1942

Actual Starting Date - July 1, 1942

Schedule Completion Date - October 1, 1942

Actual Completion Date - February 19, 1943

Amount of Original Contract - $48,200.00

Change Order No. 1 - increases amount to $48,811.30

Supplemental Agreement A - increases amount to $59,143.30

Supplemental Agreement B - increases amount to $88,940.26

Revised Contract Amount - Final Payment $107,581.56

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-127 Directive Consecutive No. 15

Description of Work: Ash and Fly Ash Handling Equipment.

Contractor: Name: United Conveyor Corp.
Address: Chicago, Illinois

Contract Data

Type of Contract - Lump Sum

Date of Award - July 1, 1942

Date Notice to Proceed - July 6, 1942

Actual Starting Date - July 15, 1942

Schedule Completion Date - August 10, 1942

Actual Completion Date - October 28, 1942

Amount of Original Contract - $18,745.00

Change Order No. 1 - decreases amount to $18,480.00

Change Order No. 2 - decreases amount to $18,425.78

Revised Contract Amount $14,425.78 Final Payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resoucefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-128 Directive Consecutive No. 15

Description of Work: Heating & Plumbing in Manufacturing Bldgs.

Contractor: Name: H. C. Mapes Corp.
Address: Lockport, N. Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - July 6, 1942

Date Notice to Proceed - July 7, 1942

Actual Starting Date - July 8, 1942

Schedule Completion Date - August 20, 1942

Actual Completion Date - November 16, 1942

Amount of Original Contract - $113,120.00

Change Order No. 1 - Increases amount to $114,632.00
Change Order No. 2 - Decreases amount to $109,526.90
Change Order No 3 - Decreases amount to $109,270.90
Change Order No. 4 - Increases amount to $111,095.74 and extends completion date to 5 days after receipt of critical materials
Change Order No. 5 - Increases amount to $111,947.78
Supplemental Agreement - Increases amount to $114,362.78
Change Order No. 6 - Increases amount to $114,814.43
Revised Contract Amount - Final Payment $118,423.42

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - This contractor gets his work started well and is apparently well organized, but seems to have extreme difficulty in finishing up his contract.
5. Reputation as to Prompt Payment - Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-129 Directive Consecutive No. 15

Description of Work: Furnishing & Setting Kitchen & Cafeteria Equipment

Contractor: Name: E. H. Heilbron Co.
Address: 424 W. Short St., Lexington, Kentucky

Contract Data

Type of Contract - Lump Sum

Date of Award - May 20, 1942

Date Notice to Proceed - May 20, 1942

Actual Starting Date - May 20, 1942

Schedule Completion Date - June 30, 1942

Actual Completion Date - November 4, 1942

Amount of Original Contract - $13,959.54

Change Order No. 1 - Increased amount to $15,757.29 and extended completion date to 5 days after equipment is received.

Change Order No. 2 - Decreased amount to $15,328.29

Revised Contract Amount - Final Payment $15,328.29

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

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CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-130 Directive Consecutive No. 15

Description of Work: Furnishing & Installing X-Ray Equipment

Contractor: Name: Westinghouse Electric & Manufacturing Co.
Address: Pittsburgh, Pennsylvania

Contract Data

Type of Contract - Lump Sum

Date of Award - June 6, 1942

Date Notice to Proceed - June 10, 1942

Actual Starting Date - June 10, 1942

Schedule Completion Date - July 24, 1942

Actual Completion Date - October 14, 1942

Amount of Original Contract - $5,180.00

Change Order No. 1 - Extends completion date to October 14, 1942

Revised Contract Amount - Final Payment $5,180.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Due to the pressure of business, deliveries from this company are based on Government Priorities, therefore no accurate check of their performance can be set down.
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-131 Directive Consecutive No. 15

Description of Work: Erection of 2 Electric Mist Precipitators

Contractor: Name: Graver Tank & Manufacturing Co., Inc.
Address: East Chicago, Illinois

Contract Data

Type of Contract - Lump Sum

Date of Award - July 11, 1942

Date Notice to Proceed - July 15, 1942

Actual Starting Date - July 28, 1942

Schedule Completion Date - August 13, 1942

Actual Completion Date - August 27, 1942

Amount of Original Contract - $5,810.00

Change Order No. 1 - Deduct $56.05

Revised Contract Amount - $5,753.95 Final Payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Due to the pressure of business, deliveries from this company are based on Government Priorities, therefore no accurate check of their performance can be set down.
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-141 Directive Consecutive No. 15

Description of Work: Construction of 2 Dormitory Buildings

Contractor: Name: Wright and Kremers, Inc.
Address: Niagara Falls, N. Y.

Subcontractors	Description of Work
Name: Arthur Ekstrom Address: 2437 Whitney Ave., Niagara Falls, N.Y.	Painting
Name: Woolcott Plumbing & Heating Co. Address: 2217-15th St., Niagara Falls, N. Y.	Plumbing
Name: C. H. Kremers & Son Address: 4003 Glenn Ave., Niagara Falls, N. Y.	Heating
Name: Rohrer Electric Address: 1313 Main St., Niagara Falls, N. Y.	Electrical
Name: Thomas Cox, Inc. Address: 205 Memorial Pkwy., Niagara Falls, N.Y.	Insulating
Name: Beir Brothers, Inc. Address: 123 Falls St., Niagara Falls, N. Y.	Window Shades

Contract Data

Type of Contract - Lump Sum
Date of Award - July 25, 1942
Date Notice to Proceed - July 27, 1942
Actual Starting Date - July 30, 1942
Schedule Completion Date - September 21, 1942
Actual Completion Date - November 15, 1942
Amount of Original Contract - $88,160.00
Contract Cancelled
Supplemental Agreement reinstated contract and extended completion date to October 1, 1942
Change Order No. 1 - Decreased amount to $87,284.00
Change Order No. 2 - Increased amount to $87,448.00
Change Order No. 3 - Decreased amount to $85,155.67 and extends completion date
Change Order No. 4 - Increased amount to $85,738.67 and extended completion date to November 14, 1942
Revised Contract Amount - Final Payment $85,738.67

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-143 Directive Consecutive No. 15, M-249

Description of Work: Erection of 13 - Tanks 24' x 20' - Riveted Steel Storage Tanks

Contractor: Name: General American Transportation Corp.
Address: Sharon, Pennsylvania

Contract Data

Type of Contract - Lump Sum

Date of Award - October 15, 1942

Date Notice to Proceed - November 30, 1942

Actual Starting Date - December 14, 1942

Schedule Completion Date - February 15, 1943

Actual Completion Date - March 31, 1943

Amount of Original Contract - $30,394.00

Revised Contract Amount - Estimated $29,727.66

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-149 Directive Consecutive No. 15

Description of Work: Erection (1) 250,000 Gallon Toluene Storage Tank

Contractor: Name: Chicago Bridge and Iron Co.
Address: Philadelphia, Pennsylvania

Contract Data

Type of Contract - Lump Sum

Date of Award - October 15, 1942

Date Notice to Proceed - November 27, 1942

Actual Starting Date - November 27, 1942

Schedule Completion Date - December 12, 1942

Actual Completion Date - December 23, 1942

Amount of Original Contract - $3,144.00

Revised Contract Amount - $3,140.00 Final Payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-150 Directive Consecutive No. 15, M-249

Description of Work: Erection of (1) Electric Mist Precipitator

Contractor: Name: Graver Tank and Manufacturing Company, Inc.
Address: 424 Madison Ave., New York, N. Y.

Contract Data

Type of Contract - Lump Sum

Date of Award - October 30, 1942

Date Notice to Proceed - November 16, 1942

Actual Starting Date - November 28, 1942

Schedule Completion Date - December 23, 1942

Actual Completion Date - December 23, 1942

Amount of Original Contract - $3,224.00

Revised Contract Amount - Final Payment $3,224.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Due to the pressure of business, deliveries from this company are based on Government Priorities, therefore no accurate check of their performance can be set down.
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng.-153 Directive Consecutive No. 15

Description of Work: Additional Acid Sewer

Contractor: Name: Herbert F. Darling
Address: Williamsville, New York

Contract Data

Type of Contract - Lump Sum

Date of Award - January 8, 1942

Date Notice to Proceed - January 12, 1942

Actual Starting Date - January 21, 1942

Schedule Completion Date - March 12, 1942

Actual Completion Date - not complete March 31, 1943

Amount of Original Contract - $58,828.23

Revised Contract Amount - Estimated $65,000.00

Remarks:

1. Organization - Very Good to Excellent
2. Efficiency of Operations - Very Good to Excellent
3. Initiative and Resourcefulness - Very Good to Excellent
4. Manner of Execution of Contract - Very Good to Excellent
5. Reputation as to Prompt Payment - Very Good to Excellent

REPRODUCED AT THE NATIONAL ARCHIVES

THE J. G. WHITE ENGINEERING CORPORATION

LAKE ONTARIO ORDNANCE WORKS

Lewiston, N. Y.

PROGRESS REPORT

STRUCTURES

March 27, 1943

Sub Contr. No.	Date of Award 1942	Awarded To	Description of Work	Amount	Start Actual	Completion Actual	% Compl. this date	Amount Paid March 27, 1943
1	1/7	Wright & Kremers, Inc. Niagara Falls, N. Y.	Alteration of Turnell & Wiseman Plant (Temporary Offices)	$ 11,180.00	1-7	2-6	100	$ 11,180.00 F
2	1/8	Woolcock Plumbing & Heating Co. Niagara Falls, N. Y.	Plumbing & Heating in temporary offices of Turnell & Wiseman Plant	4,741.33	1-7	2-1	100	4,741.33 F
3	1/5	Steele Equipment Co. Niagara Falls, N. Y.	Electrical work in temporary offices of Turnell & Wiseman Plant	3,714.61	1-6	2-5	100	3,714.61 F
4	2/2	Gaylord S. Gunther Co., Inc. Niagara Falls, N. Y.	Cafeteria Building, remodeling church personnel office in Niagara Falls	7,527.00	2-2	Cafet. 2-23 Church 2-6 Per.Off. 2-11	100	7,527.00 F
5	2/5	Hamer Sinclair Corp. Niagara Falls, N. Y.	Alterations to temporary employment office in Niagara Falls, N. Y.	1,304.82	2-6	2-11	100	1,304.82 F
6	1/17	Industrial Welding Co., Inc. Niagara Falls, N. Y.	Retubing south boiler at Turnell and Wiseman Plant	1,290.00	1-18	1-26	100	1,290.00 F
7	Cancelled							
8	1/24	Wright & Kremers, Inc. Niagara Falls, N. Y.	Construction of 20 stall garage on Turnell & Wiseman Property	8,025.00	1-26	2-12	100	8,025.00 F
9	1/25	City of Niagara Falls	Service Water	917.05	1-19	4-19-43	100	917.05 F
10	1/30	Wright & Kremers, Inc. Niagara Falls, N. Y.	Construction of temporary guard house	1,262.00	1-31	2-17	100	1,262.00 F
11	2/11	Woolcock Plumbing & Heating Co. Niagara Falls, N. Y.	Plumbing and Heating in temporary Cafeteria	2,382.25	2-11	2-22	100	2,382.25 F
12	3/18	William Strassburg Sanborn, N. Y.	Test borings for water intake works and pumping station site	3,414.00 $3.00 per ft.	3-18	4-27	100	3,414.00 F
13	2/9	Niagara Hardware & Plumbing Supply Corp. Niagara Falls, N.Y.	Hot water heating, water softener & electrical work at C.O.'s residence E-117	2,115.00	2-9	2-18	100	2,115.00 F
14	Cancelled							
15	2/2	Gaylord S. Gunther Co. Niagara Falls, N. Y.	One Temporary Payroll House	1,415.00	2-2	2-27	100	1,415.00 F
16	3/24	H. C. Mapes Corp. Lockport, N. Y.	Plumbing & Drainage for 4 A.E.W. Bldgs.	10,000.00	3-25	5-4	100	10,000.00 F
17	1/11	Rohrer Electric Co., Inc. Niagara Falls, N. Y.	Electrical work on Col. Parker's Office	247.86	1-11	4-30	100	247.86 F
18	Cancelled							
19	4/3	Creager and Nussbaumer Buffalo, N. Y.	Consulting Engineering Services Designs and Estimates	12,500.00	4-5	1-14-43	100	12,500.00 F
20	3/28	Baker Smith & Company 576 Greenwich Street New York, New York	Installation of Steam & Process Piping (Estimated Cost $2,761,126.00)	Estimated F.F. 69,065.00	3-28	3-15-43	100	61,200.00
21	4/4	W. H. & L. D. Betz Philadelphia, Pa.	Consulting Engineering Services Water Treatment Problems	C.O. #182 9,350.00	4-4	2-4-43	100	9,350.00 F
22	4/4	R. J. Horan & Sons 436 Woodward Ave. Buffalo, N. Y.	Forced Warm Air heating 4 AEW Bldgs.	15,902.00 C.O. #1	4-24	7-20	100	15,902.00 F
23	4/27	George Bauman & Sons Lockport, N. Y.	Moving E-93 to foundations at site of former Bldg. E-111	1,200.00	5-4	5-27	100	1,200.00 F
24	2/14	W. Cesare Dunkirk, N. Y.	Cafeteria Service L.K.O.	none	2-14	Cancelled Aug. 22, 1942		
25	5/1	Lord Electric Company New York, N. Y.	Electrical work & Equipment in Manufacturing Area (Estimated Cost $1,297,000.00)	Estimated F.F. 31,277.50	5-4	3-15-43	200	26,932.50
26	5/2	H.C. Mapes Corporation Lockport, N. Y.	Plumbing and heating Buildings 705, 719	26,000.00	5-28	6-30	100	26,000.00 F
27	5/2	Rohrer Electric Co., Inc. Niagara Falls, N. Y.	Electric work in Buildings 701, 705, 719	5,655.00	5-8	11-7	100	5,655.00 F
	4/17	Chemical Construction Corp. New York, N. Y.	Designing sulphuric acid building and catwalk	3,000.00	4-18	4-18	100	3,000.00 F
29	5/13	Clarton Asbestos Co. Buffalo, N. Y.	Pipe Covering and flat work	1,853.36	5-13	7-28	100	1,853.36 F
30	6/11	Ingersoll Rand Company Philadelphia, Penn.	Supervising Engineer Erection Services for installing air compressors	Estimated 548.49	6-18	1-15-43	100	
31	6/11	Toledo Scale Co. Toledo, Ohio	Supervising Engineer Erection Services for installing, testing of scales	C.O. #1 2,112.00	7-6	12-12	100	2,112.00 F
32	6/11	Howe Scale Co. Philadelphia, Penn.	Supervising Engineer Erection Services for Installations, testing of 55 Ton Scales	Estimated 363.20	6-24	10-28-42	100	326.88
33	4/4	Arrow Tank Company Buffalo, N. Y.	10,000 Gallon Wood Water Tank	615.78	4-9	4-10	100	615.78 F

REPRODUCED AT THE NATIONAL ARCHIVES

Sheet 2 THE J. G. WHITE ENGINEERING CORPORATION
LAKE ONTARIO ORDNANCE WORKS
Lewiston, N. Y.

PROGRESS SHEET
SUBCONTRACTS

Dated March 22, 1943

Sub Contr. No.	Date of Award	Awarded To	Description of Work	Amount	Start Actual	Complete Actual	% Compl. This Date	Amount Paid March 15, 1943
34	3/1	Dr. Henry R. Alderman Lewiston, N. Y.	Medical Service at the L.K.O.	754.00	3-1	5-30	100	754.00 F
35 & 4	6/26	Brinks, Inc. Buffalo, N. Y.	Making up Payroll	Estimated 14,069.54 6¢ per envelope & 10¢ per envelope	4-1	3/12/43	100	11,821.54
36	7/6	Bailey Meter Company Cleveland, Ohio	Supr. Engr. Erect. Service assembling & starting up of service meters and Combustion Control	650.00	9-27	2-3-43	100	650.00 F
37	7/13	The Jeffery Mfg. Co. Columbus, Ohio	Supr. Engr. Erect. Service assembling & starting up of Coal handling equip.	Corrected Contr. 440.00 plus trans.	8-17	8-20	100	440.00 F
38	7/13	Layne - New York Co., Inc. Linden, New Jersey	Supervising Engineer Erect. Service of 4 Heavy Duty Pumps	$77.50 per day pay 6.00 per day expenses 665.70	9-3	9-28	100	665.70 F
39	7/13	Rupp Equipment Company Buffalo, New York	Labor, Material, Transportation for blasting	1,031.15	3-13	7-15	100	1,031.15 F
40	6/12	Birch Creek Coal Co., Inc. 215 Citizen's Bank Bldg. Brazil, Indiana	Supr. Erection Engineer Services in Connection with reassembling of Page Dragline	272.15	6-15	6-25	100	272.15 F
41	8/14	A.W. Thorpe 175-77 Canisteo Street Hornell, New York	Application of Ten (10) Year built up Asphalt Roofing	Change Ord. #1,2,3 & S. A. 7,369.68	8-27	12-10	100	7,369.68 F
42	8/14	Coon-Fuchs, Inc. 1057-59 Kensington Buffalo, N. Y.	Labor and Materials for completion of Metal Safety Chutes, Down Spouts and O. G. Gutter	2,530.54	8-18	12-7	100	2,530.54 F
43	7/3	Hartford Steam Boiler Inspection and Insurance Co. Cleveland, Ohio	Inspection of three Boilers at the L.K.O.	125.60 C.O. #1	7-6	12-22	100	125.60 F
44	4/8	Niagara Linoleum Co. 1602 Main Street Niagara Falls, N. Y.	Furnishing & Installing Linoleum at the L.K.O.	1,092.38	4-11	11-1	100	1,092.38 F
45	9/12	Raymond E. Kelley, Inc. Burbank Drive Snyder, N. Y.	Application of Damp-proofing in Filter Building and Acid Neutralization	Final 1,003.00	9-14	9-26	100	1,003.00 F
46	2/24	Hoddick & Taylor, Inc. 71 W. Eagle St. Buffalo, N. Y.	Furnishing & Installing Linoleum in Miscellaneous Buildings	C. O. #1 568.52	2-24	6-3	100	568.52 F
47	9/12	Riley Stoker Corp. Worcester, Mass.	Services of Expert Operator to start up Boilers and Fuel Burning Equipment	1,009.00	9-14	10-10	100	1,009.00 F
48	1/31	Sanker Thompson Niagara Falls, N. Y.	Supplying & delivering of ice	235.29	1-31	6-1	100	235.29 F
49	7/6	William P. Creager Buffalo, New York	Consulting Engineering Services General designs and direction of detail design for temporary location of River Pumping Station	900.00	7-6	7-23	100	900.00 F
50	6/1	Cataract Ice Co. Niagara Falls, N. Y.	Supplying & Delivering ice	2,300.10	6-1	1-11-43	100	2,300.10 F
51	5/21	Myers & Warner 118 Pleasant Ave. Lancaster, N. Y.	Well drilling for House E-111	590.00	5-21	6-10	100	590.00 F
52	10/20	Ingersoll Rand Co. Philadelphia, Pa.	Services of Supervising Erection Engineer Fourth Wave; Pre.Compressor and Power Recovery Compressor TWC #3001	Estimated 103.83	3-1-43	3-12-43	100	
53	10/30	Allen Floor Covering Co., Inc. 426-428 Pearl Street Buffalo, New York	Labor & material required for 3/16" Asphalt Tile floor covering for permanent Cafeteria Building	1,565.58	11-21	12-14	100	1,565.58 F
54	6/27	George B. Edwards 1140 Ontario Avenue Niagara Falls, N. Y.	Oil Burning unit and Boiler at E-40	467.00	6-30	7-6	100	467.00 F
55	10/28	Westinghouse Electric & Manufacturing Company 253 Second Street Niagara Falls, New York	Supervising Erection of Electric Switchboard at Main Power House	Estimated 549.36	12-4	3-18-43	100	
56	7/23	Westinghouse Electric & Manufacturing Company 253 Second Street Niagara Falls, N. Y.	Supervising Installation & Testing Service of two 10,000 K.V.A. transformers	420.00	7-23	8-7	100	420.00 F
57	9/12	Infilco Incorporated 925 West 25th Street Chicago, Ill.	Supervision of erection and installation of Water Treatment equipment	Estimated 1,000.00	9-12	2-6-43	100	
58	2/27/43	Gaylord S. Guenther & Co., Inc. 611 Eighth Street Niagara Falls, N. Y.	Construction and installation of wooden trade waste flumes in (6) Buildings #806	3,720.00	2-28	3-12-43	100	3,720.00 F
59	2/6/43	Industrial Roofing and Asbestos Corporation Buffalo, N. Y.	Pipe Covering & block insulation Buildings 302 and 308	Estimated 1,686.28 Labor only	3-5-43	3-14-43	100	
				285,019.97				266,936.69

HHW/RCW
3/20/43

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1 - 1 Directive Consecutive No.15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad St., New York, New York

Subcontractors		Description of Work
Name:	Wright & Kremers Inc.	Alteration of Tugwell and Wiseman Plant. Temporary Project Office.
Address:	Niagara Falls, N. Y.	

Contract Data

Type of Contract - Lump Sum

Date of Award - January 6, 1942

Date Notice to Proceed - January 6, 1942

Actual Starting Date - January 7, 1942

Schedule Completion Date - February 13, 1942

Actual Completion Date - February 6, 1942

Amount of Original Contract - $11,180.00

Revised Contract Amount - Final Payment $11,180.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-2 Directive Consecutive No.15

Description of ~~Work:~~ Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Woolcock Plumbing & Heating Co. Address: Niagara Falls, N. Y.	Plumbing & heating temporary offices at Tugwell & Wiseman Plant.

CONTRACT DATA

Type of Contract - Unit Price

Date of ~~Award -~~ January 6, 1942

Date Notice to Proceed - January 6, 1942

Actual Starting Date - January 7, 1942

Schedule Completion Date - February 6, 1942

Actual Completion Date - March 1, 1942

Amount of Original Contract - $5,944.33

Revised Contract Amount - Final Payment $5,944.33

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-3 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Steele Equipment Co. Address: Niagara Falls, N. Y.	Electrical work temporary offices at Tugwell & Wiseman Plant

Contract Data

Type of Contract - Unit Price

Date of Award - January 5, 1942

Date Notice to Proceed - January 6, 1942

Actual Starting Date - January 6, 1942

Schedule Completion Date - March 4, 1942

Actual Completion Date - March 5, 1942

Amount of Original Contract - $3,714.63

Revised Contract Amount - Final Payment $3,714.63

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-4 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Gaylord S. Guenther Co., Inc. Address: Niagara Falls, N. Y.	Construction of Temporary cafeteria, Pay office, Time Office and Remodeling Church for use as Engineer's Office.

Contract Data

Type of Contract - Lump Sum

Date of Award - February 1, 1942

Date Notice to Proceed - February 2, 1942

Actual Starting Date - February 2, 1942

Schedule Completion Date - March 1, 1942

Actual Completion Date - February 23, 1942

Amount of Original Contract - $7,527.00

Revised Contract Amount - Final Payment $7,527.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-5 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Knack Sinclair Corporation Address: Niagara Falls, N. Y.	Alteration to temporary office in Niagara Falls Employment office.

Contract Data

Type of Contract - Lump Sum

Date of Award - February 5, 1942

Date Notice to Proceed - February 6, 1942

Actual Starting Date - February 6, 1942

Schedule Completion Date - February 11, 1942

Actual Completion Date - February 11, 1942

Amount of Original Contract - $1,304.82

Revised Contract Amount - Final Payment $1,304.82

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng-1-6 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Industrial Welding Co., Inc. Address: Niagara Falls, N. Y.	Retubing south Boiler at Tugwell and Wiseman Plant temporary offices

Contract Data

Type of Contract - Lump Sum

Date of Award - January 17, 1942

Date Notice to Proceed - January 17, 1942

Actual Starting Date - January 18, 1942

Schedule Completion Date - January 27, 1942

Actual Completion Date - January 26, 1942

Amount of Original Contract - $1,290.00

Revised Contract Amount - Final Payment $1,290.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

REPRODUCED AT THE NATIONAL ARCHIVES

Contract No. DA-W-138 Eng-1-7 CANCELLED

EPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-8 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Wright and Kremers, Inc. Address: Niagara Falls, N. Y.	Construction of 20 car garage on Tugwell & Wiseman Property

Contract Data

Type of Contract - Lump Sum

Date of Award - January 24, 1942

Date Notice to Proceed - January 24, 1942

Actual Starting Date - January 26, 1942

Schedule completion Date - February 1, 1942

Actual Completion Date - February 12, 1942

Amount of Original Contract - $8,025.00

Revised Contract Amount - Final Payment $8,025.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-9 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: City of Niagara Falls, N. Y. Address:	Service Water

Contract Data

Type of Contract - Unit Price

Date of Award - March 25, 1942

Date Notice to Proceed - April 10, 1942

Actual Starting Date - April 19, 1942

Schedule Completion Date - 1 year contract

Actual Completion Date - Cancelled Sept. 15, 1942

Amount of Original Contract - To be unit measure

Revised Contract Amount - Final Payment $917.05

Remarks:

1. Organization - Municipality - Water Dept.
2. Efficiency of Operations -
3. Initiative and Resourcefulness -
4. Manner of Execution of Contract -
5. Reputation as to Prompt Payment -

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-10 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Wright and Kremers Inc. Address: Niagara Falls, N. Y.	Construction of Guard House

Contract Data

Type of Contract - Lump Sum

Date of Award - January 30, 1942

Date Notice to Proceed - January 30, 1942

Actual Starting Date - January 31, 1942

Schedule Completion Date - February 7, 1942

Actual Completion Date - February 10, 1942

Amount of Original Contract - $1,262.00

Revised Contract Amount - Final Payment $1,262.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng-1-11 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Woolcock Plumbing and Heating Co. Address: Niagara Falls, N. Y.	Plumbing & Heating in temporary Cafeteria

Contract Data

Type of Contract - Lump Sum

Date of Award - February 11, 1942

Date Notice to Proceed - February 11, 1942

Actual Starting Date - February 11, 1942

Schedule Completion Date - February 21, 1942

Actual Completion Date - February 22, 1942

Amount of Original Contract - $2,382.25

Revised Contract Amount - Final Payment $2,382.25

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1.12 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: William Strassburg & Son Address: Sanborn, New York	Test borings for intake and Pumping Station

Contract Data

Type of Contract - Unit Price

Date of Award - March 18, 1942

Date Notice to Proceed - March 18, 1942

Actual Starting Date - March 18, 1942

Schedule Completion Date - as directed

Actual Completion Date - April 27, 1942

Amount of Original Contract - $3,420.00

Revised Contract Amount - Final Payment $3,414.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-13 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, New York

Subcontractors	Description of Work
Name: Niagara Hardware and Plumbing Supply Corp. Address: Niagara Falls, New York	Hot water heating, Water Softener and Electrical Work at E 117

Contract Data

Type of Contract - Lump Sum

Date of Award - February 8, 1942

Date Notice to Proceed - February 9, 1942

Actual Starting Date - February 9, 1942

Schedule Completion Date - February 18, 1942

Actual Completion Date - February 18, 1942

Amount of Original Contract - $2,135.00

Revised Contract Amount - Final Payment $2,135.00

Remarks:

1. Organization - Fair
2. Efficiency of Operations - Fair
3. Initiative and Resourcefulness - Fair
4. Manner of Execution of Contract - Fair
5. Reputation as to Prompt Payment - Fair

REPRODUCED AT THE NATIONAL ARCHIVES

Contract No. DA-W-138 Eng-1-14 CANCELLED

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-17 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Rohrer Electric Co., Inc. Address: Niagara Falls, N. Y.	Electrical Work on Col. Parker's office, Main Office and temporary Cafeteria

Contract Data

Type of Contract - Lump Sum

Date of Award - January 11, 1942

Date Notice to Proceed - January 13, 1942

Actual Starting Date - January 11, 1942

Schedule Completion Date - January 17, 1942

Actual Completion Date - April 30, 1942

Amount of Original Contract - $247.86

Revised Contract Amount - Final Payment $247.86

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-18 CANCELLED

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-19 Directive Consecutive No. 15, M249

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Creager and Nussbaumer Address: Buffalo, New York	Designs and Estimates for River Intake Works Pumping Station, Discharge Manifolds and Valve Houses.

Contract Data

Type of Contract - Lump Sum

Date of Award - April 3, 1942

Date Notice to Proceed - April 3, 1942

Actual Starting Date - April 5, 1942

Schedule Completion Date - June 2, 1942

Actual Completion Date - January 14, 1943

Amount of Original Contract - $12,500.00

Change Order No. 1 - extends completion date to January 14, 1943

Revised Contract Amount - Final Payment $12,500.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operation - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-20 Directive Consecutive No. 15, M-249

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Baker Smith & Company Address: 40 West 40th St., New York, N.Y.	Installation of Piping

Contract Data

Type of Contract - Fixed Fee
Date of Award - March 28, 1942
Date Notice to Proceed - March 28, 1942
Actual Starting Date - March 28, 1942
Schedule Completion Date - within 248 days from date of contract
Actual Completion Date - March 15, 1943
Amount of Original Contract - Fixed Fee $55,000.00 Contract $1,789,900.00
Change Order No. 1 - Changes completion date to Oct. 1, 1942
Change Order No. 2 - Changes completion date to 15 days after receipt of last critical materials to be installed.
Supplemental Agreement No. 1 - extends completion date to February 28, 1943, increases Fixed Fee to $69,500.00 and increases contract amount to $2,763,126.00
Supplemental Agreement No. 2 - extends completion date to March 15, 1943
Supplemental Agreement No. 3 - reduces fee to $69,065.00
Revised Contract Amount - $69,065.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-21 Directive Consecutive No. 15, M-249

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: W. H. & L. D. Betz Address: Philadelphia, Pa.	Consulting Engineering Services Water Treatment Problems

Contract Data

Type of Contract - Lump Sum

Date of Award - April 4, 1942

Date Notice to Proceed - April 4, 1942

Actual Starting Date - April 4, 1942

Schedule Completion Date - November 7, 1942

Actual Completion Date - February 4, 1943

Amount of Original Contract - $6,600.00

Change Order No. 1 - increases amount to $9,000.00

Change Order No. 2 - increases amount to $9,350.00 and extends completion date to February 4, 1943

Revised Contract Amount - $9,350.00 Final Payment

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-22 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: R. J. Moran & Sons Address: 438 Woodward Ave., Buffalo, N. Y.	Forced Air Heating 4 AEM Buildings

Contract Data

Type of Contract - Lump Sum

Date of Award - April 4, 1942

Date Notice to Proceed - April 9, 1942

Actual Starting Date - April 24, 1942

Schedule Completion Date - May 12, 1942

Actual Completion Date - July 20, 1942

Amount of Original Contract - $15,920.00

Change Order No. 1 - decreased amount to $15,802.00

Revised Contract Amount - Final Payment $15,802.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Subcontractor poor
3. Initiative and Resourcefulness - Subcontractor poor
4. Manner of Execution of Contract - Subcontractor poor
5. Reputation as to Prompt Payment - Good

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-23 Directive Consecutive No.15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: George Daunce & Sons Address: Lockport, N. Y.	Moving E-53 to Foundation at site of former Bldg. E-111

Contract Data

Type of Contract - Lump Sum

Date of Award - April 27, 1942

Date Notice to Proceed - May 4, 1942

Actual Starting Date - May 4, 1942

Schedule Completion Date - May 12, 1942

Actual Completion Date - May 27, 1942

Amount of Original Contract - $1,200.00

Change Order No. 1 - extends completion date to May 27, 1942

Revised Contract Amount - Final Payment $1,200.00

Remarks:

1. Organization - Good
2. Efficiency of Operation - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

REPRODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-24 Directive Consecutive No.15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: W. Cease Address: Dunkirk, N. Y.	Cafeteria Service

Contract Data

Type of Contract - No charge

Date of Award - February 14, 1942

Date Notice to Proceed - February 14, 1942

Actual Starting Date - February 14, 1942

Schedule Completion Date - 30 days after notice

Actual Completion Date - Cancelled Aug. 22, 1942

Amount of Original Contract - None

Revised Contract Amount - None

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-27 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Rohrer Electric Co., Inc. Address: Niagara Falls, N. Y.	Electrical Work in Bldgs. 701-705-719

Contract Data

Type of Contract - Lump Sum

Date of Award - May 2, 1942

Date Notice to Proceed - May 6, 1942

Actual Starting Date - May 8, 1942

Schedule Completion Date - as buildings 701, 705 and 719 are completed

Actual Completion Date - November 7, 1942

Amount of Original Contract - $5,655.00

Revised Contract Amount - Final Payment $5,655.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

ODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-28 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Chemical Construction Corporation Address: 30 Rockefeller Plaza, New York, N. Y.	Designing Sulphuric Acid Bldg. and catwalk

Contract Data

Type of Contract - Lump Sum

Date of Award - April 17, 1942

Date Notice to Proceed - April 18, 1942

Actual Starting Date - April 18, 1942

Schedule Completion Date - none

Actual Completion Date - August 31, 1942

Amount of Original Contract - $3,000.00

Revised Contract Amount - Final Payment $3,000.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Slow on furnishing plans
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-29 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Claxton Asbestos Co. Address: Buffalo, N. Y.	Pipe covering and Flat Work

Contract Data

Type of Contract - Unit Price

Date of Award - May 13, 1942

Date Notice to Proceed - May 13, 1942

Actual Starting Date - May 13, 1942

Schedule Completion Date - as directed

Actual Completion Date - July 25, 1942

Amount of Original Contract - $2,035.15

Revised Contract Amount - Final Payment $1,853.36

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-30 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Ingersoll Rand Co. Address: Philadelphia, Pa.	Supervising Erection of 3 Air Compressors in Building 302-2

Contract Data

Type of Contract - Unit Price

Date of Award - June 11, 1942 Not signed.

Date Notice to Proceed - June 19, 1942

Actual Starting Date - June 19, 1942

Schedule Completion Date - as directed

Actual Completion Date - January 15, 1943

Amount of Original Contract - $671.83 Approx.

Revised Contract Amount - $548.49 Estimated

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good;slow on last quarter of contract
5. Reputation as to Prompt Payment - Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng-1-31 Directive Consecutive No. 15, M-249

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Toledo Scale Co. Address: Toledo, Ohio	Supervising of Installing and Testing of Scales

Contract Data

Type of Contract - Unit Price

Date of Award - June 11, 1942

Date Notice to Proceed - July 6, 1942

Actual Starting Date - July 6, 1942

Schedule Completion Date - none

Actual Completion Date- December 12, 1942

Amount of Original Contract - $1,645.25

Change Order No. 1 - increases amount to $2,112.00

Revised Contract Amount - Final payment $2,112.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng-1-32 Directive Consecutive No. 15, M-249

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Howe Scale Co. Address: Philadelphia, Pa.	Supervising of Installation & testing of 55 ton Scales

Contract Data

Type of Contract - Unit Price

Date of Award - June 11, 1942

Date Notice to Proceed - June 25, 1942

Actual Starting Date - June 24, 1942

Schedule Completion Date - as directed

Actual Completion Date - October 28, 1942

Amount of Original Contract - $463.16 approximate

Change Order No. 1 - decreases amount to $381.36

Supplemental Agreement A - increases amount to $472.16 and increases the scope of work.

Revised Contract Amount - $363.20 Estimated

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-33 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Arrow Tank Co. Address: Buffalo, N. Y.	10,000 Gallon Wood Water Tank

Contract Data

Type of Contract - Lump Sum

Date of Award - April 4, 1942

Date Notice to Proceed - April 9, 1942

Actual Starting Date - April 9, 1942

Schedule Completion Date - April 10, 1942

Actual Completion Date - April 10, 1942

Amount of Original Contract - $615.78

Revised Contract Amount - Final Payment $615.78

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-34 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Dr. Henry R. Alderman Address: Lewiston, N. Y.	Medical Service at the L.K.O.

Contract Data

Type of Contract - Lump Sum

Date of Award - March 1, 1942

Date Notice to Proceed - March 1, 1942

Actual Starting Date - March 1, 1942

Schedule Completion Date - May 30, 1942

Actual Completion Date - May 30, 1942

Amount of Original Contract - $754.00

Revised Contract Amount - Final Payment $754.00

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to prompt Payment - Very Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-35 Directive Consecutive No. 15,
DA-W-138 Eng-1-35 A M-249, M-466

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Brinks Inc. Address: Buffalo, N. Y.	Making up pay envelopes and paying same.

Contract Data

Type of Contract - Unit Price

Date of Award - June 26, 1942

Date Notice to Proceed - April 2, 1942

Actual Starting Date - April 2, 1942

Schedule Completion Date - on receipt of 30 day notice

Actual Completion Date - March 12, 1943

Amount of Original Contract - Approximately $8,000.00

Rider - decrease in unit price

Revised Contract Amount - Estimated $13,711.05

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-36 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Bailey Meter Co. Address: Cleveland, Ohio	Super. Eng. Erection and Service assembling and Starting up of Service Meters and Combustion Control

Contract Data

Type of Contract - Unit Price

Date of Award - July 6, 1942

Date Notice to Proceed - August 27, 1942

Actual Starting Date - August 27, 1942

Schedule Completion Date - as directed

Actual Completion Date - February 8, 1943

Amount of Original Contract - $500.00

Revised Contract Amount - Final Payment $650.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-37 Directive Consecutive No. 15

Description of Work; Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: The Jeffery Mfg. Co. Address: Columbus, Ohio	Super. Eng. Erection Service assembling and starting up of Coal handling equipment.

Contract Data

Type of Contract - Unit Price

Date of Award - July 13, 1942

Date Notice to Proceed - August 17, 1942

Actual Starting Date - August 17, 1942

Schedule Completion Date - as directed

Actual Completion Date - August 29, 1942

Amount of Original Contract - $440.00

Corrected Contract Amount - Final payment $440.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-38 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Layne - New York Co., Inc. Address: Linden, N. J.	Erection Service of 4 heavy duty pumps

Contract Data

Type of Contract - Unit Price

Date of Award - July 13, 1942

Date Notice to Proceed - September 3, 1942

Actual Starting Date - September 3, 1942

Schedule Completion Date - as directed

Actual Completion Date - September 28, 1942

Amount of Original Contract - $430.15

Change Order No. 1 - increases amount to $437.20

Revised Contract Amount - Final Payment $665.70

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-39 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Rupp Equipment Co. Address: Buffalo, N. Y.	Labor, Materials & Transportation for Blasting

Contract Data

Type of Contract - Unit Price

Date of Award - March 13, 1942

Date Notice to Proceed - March 13, 1942

Actual Starting Date - March 13, 1942

Schedule Completion Date - November 1, 1942

Actual Completion Date - July 15, 1942

Amount of Original Contract - $1,002.32

Revised Contract Amount - Final Payment $1,031.15

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-40 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Birch Creek Coal Co., Inc. Address: 215 Citizens Bank Bldg, Brazil, Indiana	Super., Erect. Engineers Service in connection with reassembling of Page Drag Line

Contract Data

Type of Contract - Lump Sum

Date of Award - June 12, 1942

Date Notice to Proceed - June 15, 1942

Actual Starting Date - June 15, 1942

Schedule Completion Date - as directed

Actual Completion Date - June 25, 1942

Amount of Original Contract - $272.15

Revised Contract Amount - Final Payment $272.15

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-41 Directive Consecutive No. 15, M-249

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: A. W. Thorpe Address: 175-77 Canisteo St., Hornell, N. Y.	Application of 10 year Built up Asphalt Roofing

Contract Data

Type of Contract - Unit Price

Date of Award - August 14, 1942

Date Notice to Proceed - August 24, 1942

Actual Starting Date - August 27, 1942

Schedule Completion Date - 7 days after last structure is ready for Roofing

Actual Completion Date - December 10, 1942

Amount of Original Contract - $3,313.76

Change Order No. 1 - increases amount to $3,913.26

Supplemental Agreement A - increases amount to $13,779.91

Change Order No. 2 - decreases amount to $7,170.12

Change Order No. 3 - increases amount to $7,369.68

Revised Contract Amount - Final Payment $7,369.68

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-42 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Coon-Fuch, Inc. Address: 1057-59 Kensington, Buffalo, N. Y.	Furnish Materials in connection with Metal Safety Chutes, Down Spouts and O.G. Gutters

Contract Data

Type of Contract - Unit Price

Date of Award - August 14, 1942

Date Notice to Proceed - August 18, 1942

Actual Starting Date - August 18, 1942

Schedule Completion Date - August 31, 1942

Actual Completion Date - December 7, 1942

Amount of Original Contract - $1,249.88

Change Order No. 1 - increases amount to $1,983.98 and extends completion date to September 30, 1942

Change Order No. 2 - extends completion date to 10 days after last building is ready for flashing

Revised Contract Amount - Final Payment $2,530.54

Remarks:

1. Orga nization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-43 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Hartford Steam Boiler Inspection & Insurance Co. Address: Cleveland, Ohio	Inspection of Boilers in Boiler House

Contract Data

Type of Contract - Lump Sum

Date of Award - July 3, 1942

Date Notice to Proceed - July 6, 1942

Actual Starting Date - July 6, 1942

Schedule Completion Date - August 6, 1942

Actual Completion Date - December 22, 1942

Amount of Original Contract - $72.00

Change Order No. 1 - increases amount to $88.00 and increases the number of boilers to 4, and extends completion date to Sept. 15, 1942

Change Order No. 2 - increases amount to $125.60 and extends completion date to December 22, 1942

Revised Contract Amount - Final Payment $125.60

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-44 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Niagara Linoleum Co. Address: 1602 Main St., Niagara Falls, N.Y.	Furnishing and Installing Linoleum at the L.K.O.

Contract Data

Type of Contract - Unit Prices

Date of Award - April 8, 1942

Date Notice to Proceed - April 10, 1942

Actual Starting Date - April 11, 1942

Schedule Completion Date - November 1, 1942

Actual Completion Date - November 1, 1942

Amount of Original Contract - $1,032.62

Revised Contract Amount - Final Payment $1,092.38

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-46 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Hoddick & Taylor Inc. Address: 71 W. Eagle St., Buffalo, N. Y.	Furnishing & Installing Linoleum in Misc. Bldgs.

Contract Data

Type of Contract - Lump Sum

Date of Award - February 24, 1942

Date Notice to Proceed - February 24, 1942

Actual Starting Date - February 24, 1942

Schedule Completion Date - June 3, 1942

Actual Completion Date - June 3, 1942

Amount of Original Contract - $843.50

Change Order No.1 - reduces amount to $568.52

Revised Contract Amount - $568.52 Final Payment

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-47 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Riley Stoker Corp. Address: Worcester, Mass.	Starting up Boiler and Fuel Burning Equipment.

Contract Data

Type of Contract - Unit Price

Date of Award - September 12, 1942

Date Notice to Proceed - September 14, 1942

Actual Starting Date - September 14, 1942

Schedule Completion Date - as directed

Actual Completion Date - October 10, 1942

Amount of Original Contract - $541.00

Revised Contract Amount - Final Payment $1,009.00

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-48 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Sankey Thompson Address: Niagara Falls, N. Y.	Supply and delivering of ice

Contract Data

Type of Contract - Unit Price

Date of Award - January 31, 1942

Date Notice to Proceed - January 31, 1942

Actual Starting Date - January 31, 1942

Schedule Completion Date - As directed

Actual Completion Date - June 1, 1942

Amount of Original Contract - Unit Price

Revised Contract Amount - Final Payment $235.29

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-49 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Con ractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: William P. Creager Address: Buffalo, New York	Eng. Service, General designs River Pumping Station

Contract not approved by Area Engineer.

Contract Data

Type of Contract - Lump Sum

Date of Award - July 6, 1942

Date Notice to Proceed - July 6, 1942

Actual Starting Date - July 6, 1942

Schedule Completion Date - As directed

Actual Completion Date - October 1, 1942

Amount of Original Contract - $900.00

Revised Contract Amount - Final Payment $900.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. D_a-W-138 Eng-1-50 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Cataract Ice Co. Address: Niagara Falls, N. Y.	Supply and delivering of ice

Contract Data

Type of Contract - Unit Price

Date of Award - June 1, 1942

Date Notice to Proceed - June 1, 1942

Actual Starting Date - June 1, 1942

Schedule Completion Date - as directed

Actual Completion Date - January 11, 1943

Amount of Original Contract - none

Revised Contract Amount - Final payment $2,300.10

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-51 Directive Consecutive No.15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Myers & Warner Address: 118 Pleasant Ave., Lancaster, N. Y.	Well drilling for House E-111

Contract Data

Type of Contract - Lump Sum

Date of Award - May 21, 1942

Date Notice to Proceed - May 21, 1942

Actual Starting Date - May 21, 1942

Schedule Completion Date - June 15, 1942

Actual Completion Date - June 10, 1942

Amount of Original Contract - $590.00

Revised Contract Amount - Final Payment $590.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-52 Directive Consecutive No.M-249

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractor	Description of Work
Name: Ingersoll Rand Co. Address: Philadelphia, Pa.	Supervising Erection Engineer Fourth Wave: Pre. Compressor and Power Recovery Compressor T.W.C. #3001

Contract Data

Type of Contract - Unit Price

Date of Award - October 20, 1942

Date Notice to Proceed - March 1, 1943

Actual Starting Date - March 1, 1943

Schedule Completion Date - as directed

Actual Completion Date - March 12, 1943

Amount of Original Contract - Unit Price

Revised Contract Amount - $103.83 Estimated

Contract not returned signed by Contractor.

Remarks:

1. Organization - Fair
2. Efficiency of Operation - Fair
3. Initiative and Resourcefulness - Fair
4. Manner of Execution of Contract - Fair
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-53 Directive Consecutive No.15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Allen Floor Covering Co., Inc. Address: Buffalo, New York	Labor & material required for 3/16" Asphalt Tile floor covering for permanent Cafeteria Bldg.

Contract Data

Type of Contract - Unit Price

Date of Award - October 30, 1942

Date Notice to Proceed - November 14, 1942

Actual Starting Date - November 21, 1942

Schedule Completion Date - November 16, 1942

Actual Completion Date - December 14, 1942

Amount of Original Contract - $1,677.50

Change Order No. 1 - changes starting date to November 21, 1942, completion date to December 14, 1942

Revised Contract Amount - Final Payment $1,565.58

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138-Eng-1-54 Directive Consecutive No.15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: George B. Edwards Address: Niagara Falls, N. Y.	Installing New Heating Plant & Boiler; House E-40

Contract Data

Type of Contract - Lump Sum

Date of Award - June 27, 1942

Date Notice to Proceed - June 30, 1942

Actual Starting Date - June 30, 1942

Schedule Completion Date - July 6, 1942

Actual Completion Date - July 6, 1942

Amount of Original Contract - $467.00

Revised Contract Amount - Final Payment $467.00

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-55 Directive Consecutive No.15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Westinghouse Electric & Mfg. Co. Address: Niagara Falls, N. Y.	Supervising Erection of Main Switchboard at Main Power House

Contract Data

Type of Contract - Unit Price

Date of Award - November 28, 1942

Date Notice to Proceed - November 30, 1942

Actual Starting Date - November 30, 1942

Schedule Completion Date - as directed

Actual Completion Date - March 18, 1943

Amount of Original Contract - $294.60 approximately

Revised Contract Amount - $549.36 Estimated

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-56 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Westinghouse Electric and Mfg. Co. Address: Pittsburgh, Pa.	Supervising the installation and testing service for 2 main transformers

Contract Data

Type of Contract - Lump Sum

Date of Award - July 23, 1942

Date Notice to Proceed - July 23, 1942

Actual Starting Date - July 23, 1942

Schedule Completion Date - as directed

Actual Completion Date - August 7, 1942

Amount of Original Contract - $420.00

Revised Contract Amount - Final Payment $420.00

Remarks:

1. Organization - Excellent
2. Efficiency of Operations - Excellent
3. Initiative and Resourcefulness - Excellent
4. Manner of Execution of Contract - Excellent
5. Reputation as to Prompt Payment - Excellent

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-57 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Infilco Inc. Address: 325 West 25th St., Chicago, Ill.	Supervision of erection and installation of water treatment equipment

Contract Data

Type of Contract - Unit Price

Date of Award - September 12, 1942

Date Notice to Proceed - September 12, 1942

Actual Starting Date - September 12, 1942

Schedule Completion Date - as directed

Actual Completion Date - February 6, 1943

Amount of Original Contract - $412.50

Revised Contract Amount - $1,000.00 Final Payment

Remarks:

1. Organization - Good
2. Efficiency of Operations - Good
3. Initiative and Resourcefulness - Good
4. Manner of Execution of Contract - Good
5. Reputation as to Prompt Payment - Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-58 Directive Consecutive No. 15

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractors	Description of Work
Name: Gaylord S. Guenther & Co., Inc. Address: 611 Eighth Street Niagara Falls, N. Y.	Construction and Installation of Wooden Trade Waste Flumes in (6) Bldgs. No. 806

Contract Data

Type of Contract - Lump Sum

Date of Award - February 27, 1943

Date of Notice to Proceed - February 27, 1943

Actual Starting Date - February 28, 1943

Schedule Completion Date - March 13, 1943

Actual Completion Date - March 12, 1943

Amount of Original Contract - $3,720.00

Revised Contract Amount - Final Payment $3,720.00

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

RODUCED AT THE NATIONAL ARCHIVES

CONTRACT SUMMARY SHEET

Contract No. DA-W-138 Eng-1-59 Directive Consecutive No. M-249

Description of Work: Architect-Engineer-Manager for Lake Ontario Ordnance Works

Contractor: Name: The J. G. White Engineering Corporation
Address: 80 Broad Street, New York, N. Y.

Subcontractor	Description of Work
Name: Industrial Roofing & Asbestos Corp. Address: 574 Fillmore Avenue, Buffalo, N. Y.	Application of Pipe Covering and Block Insulation in Buildings No. 302 and 308

Contract Data

Type of Contract - Unit Price

Date of Award - March 5, 1943

Date of Notice to Proceed - March 5, 1943

Actual Starting Date - March 5, 1943

Schedule Completion Date - March 15, 1943

Actual Completion Date - March 14, 1943

Amount of Original Contract - $2,745.31

Revised Contract Amount - $1,486.28 Estimated

Remarks:

1. Organization - Very Good
2. Efficiency of Operations - Very Good
3. Initiative and Resourcefulness - Very Good
4. Manner of Execution of Contract - Very Good
5. Reputation as to Prompt Payment - Very Good

DATED March 15, 1943

LAKE ONTARIO ORDNANCE WORKS

The J. G. White Engineering Corporation

SUPPLY CONTRACTS

CONTRACT NO. DA-W-138 ENG-	DATE AWARDED	AWARDED TO	EQUIPMENT OR JOB	AMOUNT	FINAL INSPECTION OR DELIVERY DATE	PAYMENTS TO DATE
2	1-14	General Motors Corp. Detroit, Michigan	10 Vehicles - 8-Passenger station wagon type.	$ 9,762.80	2-24-42	$ 9,762.80 F
3	1-12	New York Telephone Co.	Telephone Service	87,924.76	Paid Mar.15,1943	87,924.76
4	1-12	New York Telephone Co.	Teletype Service	422.54	12-31-42	422.54 F
5	1-14	Fargo Motor Corp. Detroit, Michigan	10 Vehicles - 5-passenger, 4-door sedan type.	7,625.00	2-24-42	7,625.00 F
6	2-14	General Motors Corp. Pontiac, Michigan	6 Vehicles - 5-passenger, 4-door sedan - Pontiac.	4,497.00	2-24-42	4,497.00 F
8	3-4	H. Wetherald Buffalo, New York	1 H.D.-14 Tractor and Angle Dozer 1 H.D.-10 Tractor and Angle Dozer 2 Model AD Motor Graders	30,110.00	4-6-42	30,110.00 F
9	3-4	Syracuse Supply Co. Buffalo, New York	1 Model T4 Traxcavator mounted on D-4 Caterpillar tractor with bull dozed blade that can be substituted for traxcavator.	5,182.00	5-7-42	5,182.00 F
10	3-6	The Wheeler Equipment Co. Buffalo, New York	1 Marmon-Herrington Ford Model MH6-4, 4 wheel drive with Gar Wood Model 4MB-15 Ton winch and platform stake body. 1 Marmon-Herrington Ford Model M-M-3-6, 6 wheel drive with Gar Wood Model 4MB-15 Ton winch and platform stake body.	7,140.00	4-2-42	7,140.00 F
11	3-6	Boyle & Perl Garage Niagara Falls, N. Y.	1 5-Ton International truck with 14' stake platform body and cab, directional lights, heater and defroster and front tow hook.	2,877.43	4-8-42	2,877.43 F
17	1-9	Ryan & Williams, Inc. Buffalo, New York	1 Lot Office Furniture	2,576.30	4-3-42	2,576.30 F
18	3-24	Boyle & Perl Garage Niagara Falls, N. Y.	2 - 30 Passenger International Passenger Busses.	5,727.52	6-10-42	5,727.52 F
20	3-27	Dignelt & Eisenhardt, Inc. Philadelphia, Pa.	1 Class A Lovekin Pipe Expanding and Flanging Machine $7,150.00 Change Order decreased amount to	7,075.00	6-5-42	7,075.00 F
21	3-26	White Motor Co. Buffalo, New York	1 Dump Truck, 3½ yard capacity	3,883.00	4-21-42	3,883.00 F
22	1-7	Millington Lockwood, Inc. Buffalo, New York	1 Lot Office Furniture	2,519.10	1-10-42	2,519.10 F
25	4-4	Syracuse Supply Co. Buffalo, New York	1 D8 Caterpillar Diesel Tractor with Hydrolic Angle Dozer	10,795.00	4-15-42	10,795.00 F
27	4-4	Brost Motors Inc. Buffalo, New York	20-½ Ton Pickup Dodge Trucks	14,000.00	4-14-42	14,000.00 F
28	4-8	Boyle & Perl Garage Niagara Falls, N. Y.	2 - 30 Passenger International Busses	5,727.52	5-25-42	5,727.52 F
29	4-10	Kenmore Motor Company Kenmore, New York	5 - 1942 Dump Trucks	9,759.50	4-25-42	9,759.50 F

ODUCED AT THE NATIONAL ARCHIVES

DATED March 15, 1943

LAKE ONTARIO ORDNANCE WORKS

The J. G. White Engineering Corporation

SUPPLY CONTRACTS

CONTRACT NO. DA-W-138 ENG-	DATE AWARDED	AWARDED TO	EQUIPMENT OR JOB	AMOUNT	FINAL INSPECTION OR DELIVERY DATE	PAYMENTS TO DATE
30	4-9	T. E. Potts Kenmore, New York	2 Lorain No. 830 Lifting (Crawler) Cranes.	$ 52,710.00	7-8-42	$ 52,710.00 F
31	4-14	Boyle & Perl Garage Niagara Falls, N. Y.	6 - International Stake Trucks $1128 each.	6,768.00	4-24-42	6,768.00 F
32	4-13	H. Wetherald Buffalo, New York	2 - Tractors, HD-10-W $15,050.00 less 10%	13,545.00	5-16-42	13,545.00 F
33	4-16	Lima Locomotive Works, Inc. Lima, Ohio	1 - Lima Model 1001 Clamshell Crane	44,835.00	6-21-42	44,835.00 F
34	4-16	L. B. Smith, Inc. Camp Hill, Pa.	2 Ford ½-ton Trucks, 1942	3,525.00	4-20-42	3,525.00 F
35	4-16	L. B. Smith, Inc. Camp Hill, Pa.	1 Smithco Fuel Tank Truck, 1942	2,394.50	4-20-42	2,394.50 F
37	4-17	Fraser-Brace Engineering Co. New York, N. Y.	Site Survey for L.K.O.	2,500.00	12-16-41	2,500.00 F
38	4-18	Syracuse Supply Co. Syracuse, New York	1 Highway Trailer Co. Model HD Earth Boring Machine. Mounted on Caterpillar Model D2 Diesel Tractor.	7,448.00	6-20-42	7,448.00 F
39	4-20	Firestone Tire & Rubber Co. Buffalo, New York	Miscellaneous Tires and tubes	4,649.04	5-7-42	4,649.04 F
41	4-21	Syracuse Supply Co. Syracuse, New York	1 - D-6 Caterpillar Tractor D6N Hyster Winch		Cancelled	
42	4-20	Brockway Motor Co. Buffalo, New York	1 Model 88 Brockway Truck and Tulsa Winch.	2,440.00	5-18-42	2,440.00 F
43	4-21	Brost Motor Company Buffalo, New York	10 - Dodge 1/2 ton Pickups 4 - Dodge 3/4 ton Pickups	9,730.00	4-29-42	9,730.00 F
44	4-21	Trailer Co. of America Buffalo, New York	2 - 24' Trailers 1 - 28' Trailer - $1,762.60 ea	5,287.80	5-7-42	5,287.80 F
45	4-21	Fruehauf Trailer Co. Detroit, Michigan	2 - 26' Trailers, Model 426 1 - 24' Trailer, Model 224	5,697.00	5-26-42	5,697.00 F
46	4-21	Brockway Motor Co. Buffalo, New York	2 Trucks, Model 166 $3,900.00 ea.	7,800.00	5-20-42	7,800.00 F
47	4-21	Mack International Truck Co. Buffalo, New York	2 Trucks, Model EQ $4,307.32	8,614.64	5-14-42	8,614.64 F
48	Cancelled				Cancelled	
49	4-23	Boyle & Perl Garage Niagara Falls, New York	3 Model K-1 one-half Ton International Pickup Trucks	2,085.00	4-25-42	2,085.00 F

ODUCED AT THE NATIONAL ARCHIVES

DATED March 15, 1942

LAKE ONTARIO ORDNANCE CORP.

T . . . White Engineering Corporation

SUPPLY CONTRACTS

CONTRACT NO. DA-W-138 ENG-	DATE AWARDED	AWARDED TO	EQUIPMENT OR JOB	AMOUNT	FINAL INSPECTION OR DELIVERY DATE	PAYMENTS TO DATE
50	4-23	Dow and Company Buffalo, New York	1 Heavy Duty 12' Tandem Motor Graders, with Scarifier: Cab & Elec. Lights.	$ 6,973.00	4-23-42	$ 6,973.00 F
51	4-28	Doyle & Perl Garage Niagara Falls, N. Y.	12 3/4-Ton K-2 International Pickups. $725.00 ea.	8,700.00	4-25-42	8,700.00 F
52	4-23	Krueger Motor Sales Co. Niagara Falls, N. Y.	2 General Motors Trucks with 14' Platform Body. $2,918.40 ea.	5,836.80	5-30-42	5,836.80 F
53	4-23	Brost Motors Co. Buffalo, New York	2 Dodge Trucks, Model WKA 63 F $2,773.75 ea.	5,547.50	5-11-42	5,547.50 F
54	4-23	Boyle & Perl Garage Niagara Falls, N. Y.	3 International Trailer Trucks Model K-8. $2,685.00 ea.	8,055.00	5-7-42	8,055.00 F
55	4-23	Brockway Motor Co. Buffalo, New York	3 Model 147 Brockway Trucks $2,730.00 ea.	8,190.00	5-26-42	8,190.00 F
56	4-24	Boyle & Perl Garage Niagara Falls, N. Y.	2 International Trucks - 3 Ton Model K-8. $2,860.00 ea.	5,720.00	5-2-42	5,720.00 F
57	4-24	Brockway Motor Co. Buffalo, N. Y.	4 Brockway Trucks Model 146 (Special) $2,900.00 each.	11,600.00	5-18-42	11,600.00 F
59	4-25	Syracuse Supply Co. Syracuse, New York	1 Motor Grader, 12' Heavy Duty Tandem, with Scarifier: Cab and Elec. Lights.	6,930.00	5-29-42	6,930.00 F
61	4-26	Harry H. Frank Rochester, New York	1 Ten Ton Roller 1931 Model	2,600.00	4-26-42	2,600.00 F
63	4-30	L. B. Smith Motor Co. Camp Hill, Pa.	4 Ford Station Wagons 2 Mercury Station Wagons	7,922.02	5-6-42	7,922.02 F
65	5-1	Kenmore Motor Co. Kenmore, New York	5-3 yard dump trucks	9,850.00	5-13-42	9,850.00 F
66	5-2	L. B. Smith Motor Co. Camp Hill, Pa.	5-3 yard Ford dump Trucks	11,875.00	5-2-42	11,875.00 F
68	4-29	L. B. Smith Motor Co. Camp Hill, Pa.	3 Ford 1,500 gal. water tank trucks.	7,251.00	5-11-42	7,251.00 F
73	5-11	Dow & Co. Buffalo, New York	1-T-14 International Tractor with Scarper	8,348.40	6-15-42	8,348.40 F
75	Cancelled				Cancelled	
76	5-5	George Doyle	30 Autos	23,171.70	6-6-42	23,171.70 F

DATED March 15, 1943

LAKE ONTARIO ORDNANCE WORKS

The J. G. White Engineering Corporation

SUPPLY CONTRACTS

CONTRACT NO. DA-W-138 ENG-	DATE AWARDED	AWARDED TO	EQUIPMENT OR JOB	AMOUNT	FINAL INSPECTION OR DELIVERY DATE	PAYMENTS TO DATE
80	5-16	Dow & Company Buffalo, New York	2 Adams Diesel Motor Trucks	$ 12,716.48	6-10-42	$ 12,716.48 F
81	5-18	Syracuse Supply Co. Syracuse, New York	3 Tandem Drive Diesel Motor Trucks	19,755.00	6-1-42	19,755.00 F
85	5-26	Kenmore Motor Co. Kenmore, N. Y.	4 1942-158" Dump Trucks	7,920.00	6-1-42	7,920.00 F
87	5-28	Lima Locomotive Works Lima, Ohio	Drag Line Model 1001	40,028.10	6-24-42	40,028.10 F
90	Cancelled					Cancelled
91	Cancelled					Cancelled
97	Cancelled					Cancelled
98	6-5	Syracuse Supply Co. Syracuse, New York	4, 4 wheel self load Scrapers $24,076.00 Change Order increased amount to	24,716.00	7-28-42	24,716.00 F
101	6-8	L. B. Smith Co., Inc. Camp Hill, Pa.	1 Lorain Crane (gas) 1 " " (Diesel)	18,475.00	6-26-42	18,475.00 F
102	6-1	Auto Car Sales and Service Co.	5 Model C-500 Dump Trucks	21,851.85	6-17-42	21,851.85 F
103	6-12	Mack-International Truck Corp. Buffalo, New York	3 Dump Trucks	13,309.56	6-16-42	13,309.56 F
104	Cancelled					Cancelled
105	6-12	White Motor Sales Buffalo, N. Y.	2 White Dump Trucks	9,100.00	6-18-42	9,100.00 F
106	6-11	T. E. Potts Kenmore, N. Y.	3 Cranes 1 Williams Clam Bucket			Cancelled
110	6-13	Mack International Motors Buffalo, N. Y.	2 1942 14' Stake trucks with 200,000 lb. loader	8,614.64	7-9-42	8,614.64 F
112	6-13	Krueger Motor Sales Co. Niagara Falls, N. Y.	2-5 Ton Dump Trucks $4,171.23 each	8,342.46	6-14-42	8,342.46 F
113	6-13	T. E. Potts Kenmore, N. Y.	Combination Crane, Shovel re- 3 Drag Line with Boom instated	27,734.00	delivered to another project	27,734.00 F
114	6-23	T. T. Dowdle McCook, Ill.	1 Drag Line Diesel	27,500.00	7-8-42	27,500.00 F
115	6-19	Autocar Sales & Service Buffalo, New York	3 - 3 ton Auto Tractors $2,685.00 each	8,055.00	7-17-42	8,055.00 F
116	6-20	Krueger Motor Sales Niagara Falls, N. Y.	2 - 2½ Ton 14' Stake Trucks $3,058.92 each	6,117.84	7-21-42	6,117.84 F

ODUCED AT THE NATIONAL ARCHIVES

DATED March 15, 1943

LAKE ONTARIO ORDNANCE WORKS

The J. G. White Engineering Corporation

SUPPLY CONTRACTS

CONTRACT NO. DA-W-138 ENG-	DATE AWARDED	AWARDED TO	EQUIPMENT OR JOB	AMOUNT	FINAL INSPECTION OR DELIVERY DATE	PAYMENTS TO DATE
117	6-20	Autocar Sales & Service Buffalo, New York	3 - 2½ ton 14' Stake Trucks $3,150.00 each	$ 9,450.00	7-22-42	$ 9,450.00 F
118	6-18	Dowe & Co., Inc. Buffalo, New York	1 - T. D. - 18 Tractor and S. I. 12 Wagon	11,750.00	6-18-42	11,750.00 F
121	7-3	Cancelled				
122	6-25	Lombardo Bros. Construction Company Cleveland, Ohio	1 Lorain 1941 Shovel	24,000.00	7-7-42	24,000.00 F
123	6-30	H. Wetherald Buffalo, New York	4 Bulldozer Blades	8,250.00	7-29-42	8,250.00 F
124	6-26	Allis Chalmers Co. Springfield, Ill.	6 Tractors 6 Crank Case Guards 6 Starting Equipment	20,276.33	7-29-42	20,276.33 F
126	6-29	Chautauqua County Highway Dept. State of New York	1 - 13 Ton Roller 1 - 12 Ton Roller 1 - Tractor & Bulldozer	11,500.00	6-26-42	11,500.00 F
132	7-21	General Electric Schnectady, N. Y.	1 - Diesel Locomotive	51,850.00	1-1-43	
133	7-22	Krueger Motor Sales Niagara Falls, N. Y.	2 - 5 Ton Dump Trucks $4,621.23 each	9,242.46	7-22-42	9,242.46 F
134	7-22	Krueger Motor Sales Niagara Falls, N. Y.	2 - 2½ Ton 14' Stake body Trucks $3,208.92 each	6,417.48	8-5-42	6,417.48 F
135	7-22	Autocar Sales & Service Buffalo, N. Y.	3 - 2½ Ton 14' Stake body Trucks $3,150.00 each	9,450.00	8-5-42	9,450.00 F
136	7-22	Autocar Sales & Service Buffalo, New York	3 - Auto Tractors 142 In. Wheel Base $2,685.00 ea.	8,055.00	8-15-42	8,055.00 F
137	7-22	Mack-International Truck Corp. Buffalo, New York	2 - Platform Trucks with 20 lb. Winch	Change Ord. 8,985.72	8-11-42	8,985.72 F
138	7-22	White Motor Sales Co. Buffalo, New York	2 - 5 Ton Dump Trucks $4,370.00 each	8,740.00	8-5-42	8,740.00 F
139	7-22	Mack-International Truck Corp. Buffalo, New York	3 - Model E. M. Mack Dump Trucks - 141" Chassis	13,511.25	7-31-42	13,511.25 F
140	7-[illegible]	The Autocar Sales & Service Co. Ardmore, Pa.	2 - Model C-60-D Dump Trucks Vacuum Brakes 3 - Model C-60-D Dump Trucks Air Brakes	22,576.85	8-4-42	22,576.85 F

DATED March 15, 1943

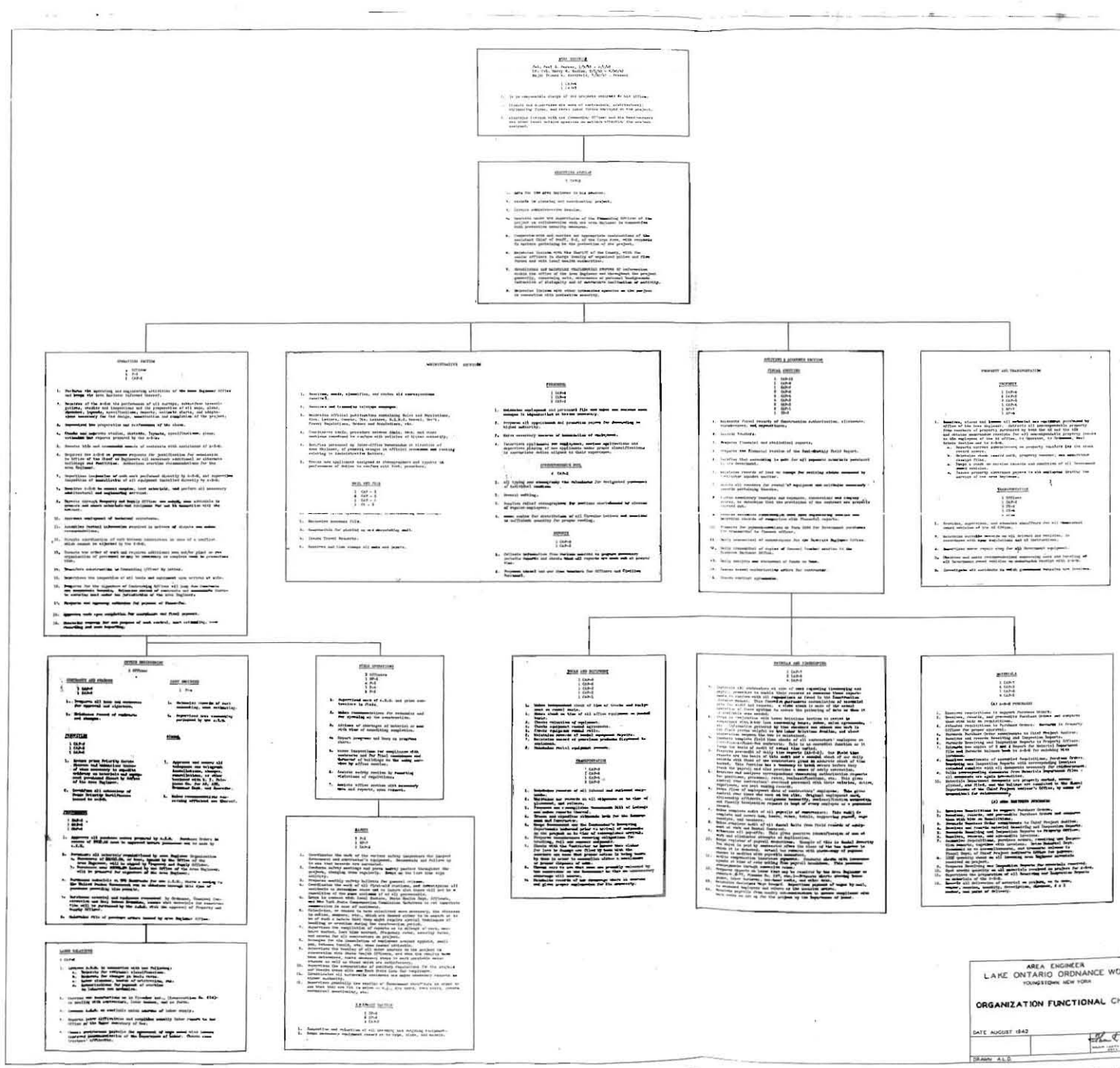
LAKE ONTARIO ORDNANCE WORKS

The J. G. White Engineering Corporation

SUPPLY CONTRACTS

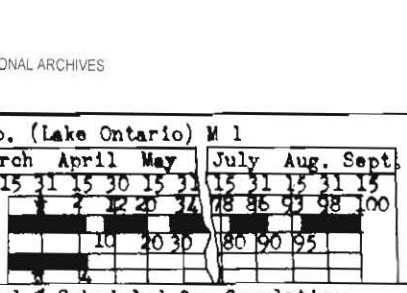
CONTRACT NO. DA-W-138 ENG-	DATE AWARDED	AWARDED TO	EQUIPMENT OR JOB	AMOUNT	FINAL INSPECTION OR DELIVERY DATE	PAYMENTS TO DATE	
142	8-6	Conshafter & Farr Buffalo, New York	8 Special Deluxe Plymouth sedans $913.70 each.	$ 7,309.60	8-14-42	$ 7,309.60	F
143	8-6	Dow & Company Buffalo, New York	1 Adams Diesel Motor Grader	6,973.00	8-5-42	6,973.00	F
144	8-18	H. Wetherald Buffalo, New York	3 - 1942 Heavy Duty Dump Trucks 3 - Ross Model RV-2-21-Snow Plows	11,998.80	11-19-42	11,998.80	F
145	8-21	Niagara Falls Motoramp Garage Niagara Falls, N. Y.	Storage of cars	147.21	9-13-42	147.21	F
146	8-25	Wyoming County Highway Dept. Warsaw, N. Y.	1 10-8 Tractor with R-8 Bulldozer	8,100.00	7-28-42		
147	9-14	New York Telephone Co.	Telephone Service at River Pumping Station	23.18	6-4-42	23.18	F
151	10-28	New York Telephone Co.	Telephone Service at River Pumping Station	34.67	9-30-42	34.67	F
				1,049,031.35		989,081.35	

HEW/RCW
3/18/43


AREA ENGINEER
LAKE ONTARIO ORDNANCE WORKS
TONAWANDA NEW YORK
ORGANIZATION FUNCTIONAL CHART
DATE AUGUST 1942
DRAWN A.L.B.

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1



FIELD PROGRESS REPORT
PART A

Sheet 1 of 3

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

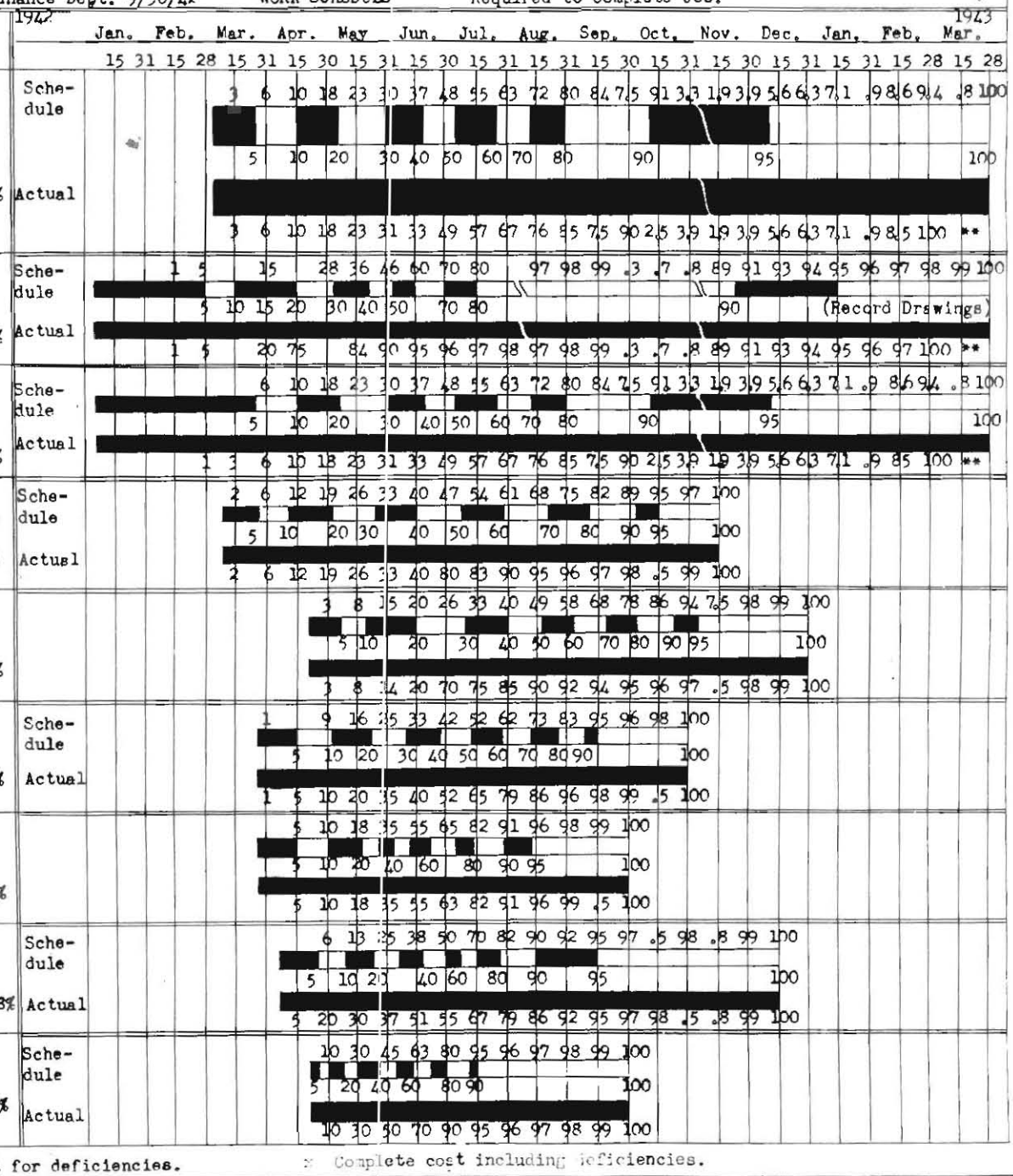
U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

1	Physical % Scheduled for Completion	99.4
2	Physical % Actually Completed	100 **
3	Date Work Started	March 3, 1942
4	Estimated Date Ready for Use	Sept.30,1942 *
5	Scheduled Completion Date	March 28, 1943
6	Required Completion Date	March 28, 1943
7	A.Original Working Est.End of Last Period	$16,692,424
	B.Original Working Est.For Add.Work Auth.	0
	C.Original Working Est.End of This Period	16,692,424
8	A.Present Working Est. End of Last Period	$26,957,414
	B.Present Working Est.Revisions This Per.	0
	C.Present Working Est.End of This Period	26,957,414
9	Present Working Est. (A/E Work Only)	$ 1,235,217

10	Allotments	$ 26,803,271
11	Estimated Cost Data	
	A.Cost of Work in Place End of Last Per.	$ 26,379,609
	B.Cost of Work Placed During Period	577,805
	C.Cost of Work in Place End of This Per.	26,957,414 x
	D.Cost of Materials Delivered on Site, in Excess of Materials in (C).	0
	E.Materials Ordered but not Delivered in Excess of (C) & (D).	0
	F.Contract and Subcontract Obligations for Work not yet Executed in Excess of (C), (D) & (E).	0
	G.Amount of Advances to Material Men and Subcontractors in Excess of Payments in (C) & (D)	0
	H.Amount of Materials not yet Ordered Required to Complete Job.	0

* Start up facilities available for use and transferred to Ordnance Dept. 9/30/42

WORK SCHEDULE



** Complete except for deficiencies.

x Complete cost including deficiencies.

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) W 1

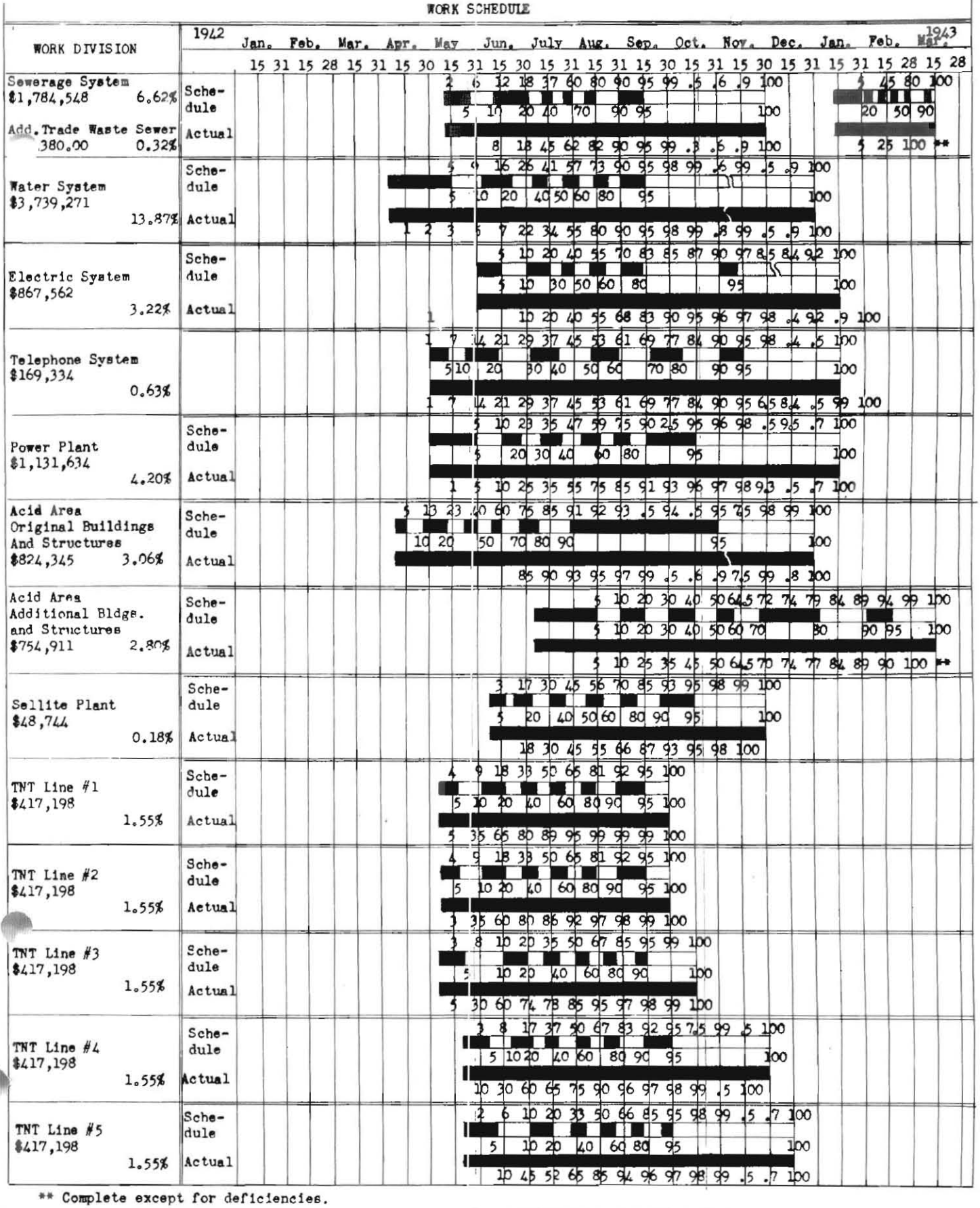
FIELD PROGRESS REPORT
PART A (Cont'd.)

Sheet 2 of 3

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

WORK SCHEDULE



** Complete except for deficiencies.

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

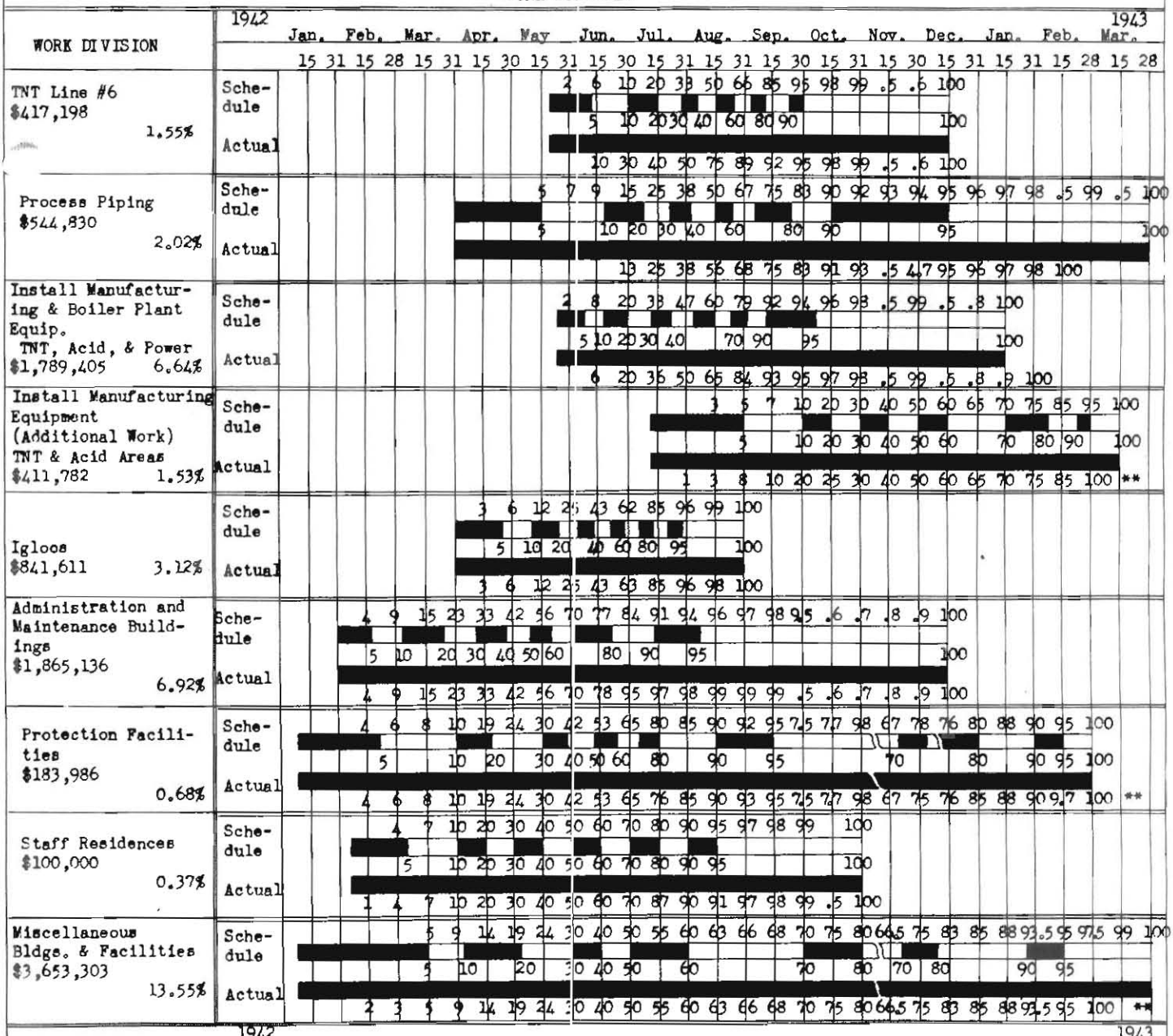
FIELD PROGRESS REPORT
PART A (Cont'd)

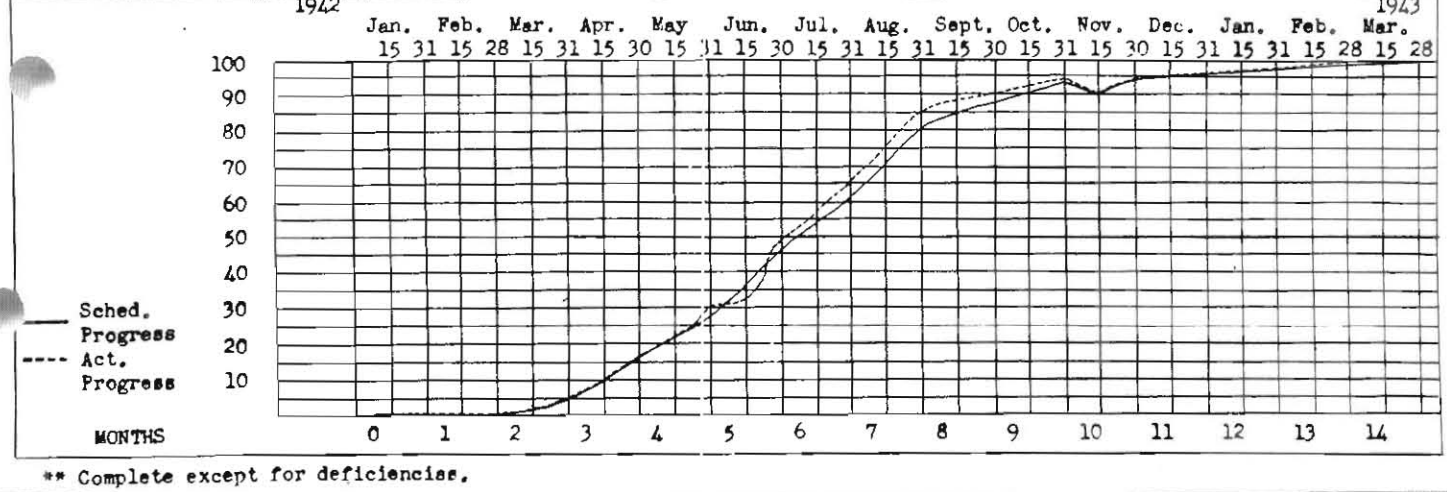
Sheet 3 of 3

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

WORK SCHEDULE





** Complete except for deficiencies.

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART B - 4

Sheet 1 of 2

Job Name Lake Ontario Ordnance Works
Location Youngstown, N. Y.

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

I - ORDNANCE AND CHEMICAL WARFARE DEPOTS

Type of Facility	Total Authorized No.	Total Authorized Area (Sq.Ft)	Ready for Use This Date No.	Ready for Use This Date Area (Sq.Ft)	Remarks
Inert Storage		None			None
Above Ground Mags.		None			None
.oos	58	93,260	58	93,260	
Mfg. Bldgs.	34	83,409	34	83,409	
Assembly Bldgs.		None			None
Closed Equip.Stor.	3	23,828	3	23,828	
Sched.Equip.Stor.		None			None
Open Equip.Stor.		None			None
Adm. Bldg.	1	20,059	1	20,059	
Railroads	14.5	Miles	14.5	Miles	
Highways	34.7	Miles	34.7	Miles	

II - ORDNANCE AND CHEMICAL WARFARE MANUFACTURING

Type of Facility	Est. or Actual Date Operation	Required Date for Operation	Remarks
Administration Facilities	June 22,1942	June 1, 1942	All Admin. Facilities are in use.
Railroads	July 25,1942	July 25,1942	Completed
Highways	Sept.27,1942	Sept.30, 1942 100% Usable.	100% Complete Dec.11, 1942
Power Plant	Sept.15-part Oct.15-compl.	Sept.30, 1942 99% Usable	100% complete Jan. 15, 1943
1st ¼ Production Storage	Aug.15, 1942	Sept. 1, 1942	Completed
2nd ¼ Production Storage	Sept. 1,1942	Sept. 15,1942	Completed
2nd ½ Production Storage	Sept. 1,1942	Sept.15, 1942	Completed

1. Description of Work:

A Plant for the manufacture of trinitrotoluene, more specifically described as follows:

This project consists of six complete TNT Lines with Nitration Houses, Absorption Towers, Wash Houses, Flake Houses, Administration Buildings, Shops, Railroads, Roads, Steam Lines, Air Lines, Electric Lines, Telephone Lines, Fencing, Lighting, Steam and Power Plants, Dormitories, Water System, Cafeterias, Guard Quarters, Fire Protection Apparatus and Housing, adequate Quarters for Firemen, and other Buildings, together with all equipment necessary or appropriate for a plant of this type. A nitric acid manufacturing plant using anhydrous ammonia is also to be constructed.

2. Authority of Work:

Directive Job No.	Directive Consecutive No.	Date of Letter	Date Received by Dist. Eng.	Original Working Est.	Description & Remarks
(Lake Ontario) M 1-1	15	1/15/42	1/21/42	$15,061,500.00	Design and Construction of Plant for manufacturing of TNT
(Lake Ontario) M 1-1	15 Suppl. No. 1	3/21/42	3/23/42	680,250.00	Deduct. Elimination of Power House Boilers
(Lake Ontario) M 1-2	M-249	6/16/42	6/23/42	2,311,174.00	Increase in capacity of TNT Lines
(Lake Ontario) M 1-2	15 Suppl. No. 2	9/5/42	9/8/42		Add. $3,000,000.00 To partially cover increase in estimated cost.
(Lake Ontario) M 1-2	M-249 Suppl. No. 1	9/28/42	9/30/42		Add. $3,525,487.00 To partially cover the increase in Estimated Cost.
(Lake Ontario) M 1-3	M-466	10/1/42	10/3/42		Alteration, Stables. Part Original Contract.
(Lake Ontario) M 1-2	M-249 Suppl. No. 2	1/20/43	1/22/43		Add. $3,585,360.00 to partially cover the increase in Estimated cost.

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART B - 4 (Cont'd)

Sheet 2 of 2

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

3. Status of Plans and Specifications: (Including work as per Directive of June 16, 1942)

	Date Started	% Compl. Plans	% Compl. Specs.	Date Complete	Date Approved	Reasons for Delay
Topographic Surveys	1-12-42	100	100	2-25-43		
Topographic Map	2 -5-42	100	100	5-30-42	6-30-42	
Site Plan	1-12-42	100	none	1-30-43	2-10-43	
General Grading	3 -1-42	100	100	11-21-42	12-8-42	
Water Supply	1-26-42	100	100	9-15-42	10-1-42	
Water Distribution	3 -1-42	100	100	9-15-42	10-1-42	
Water Storage	5 -1-42	100	100	9-15-42	10-1-42	
Sanitary Sewer System	6 -6-42	100	100	9-15-42	10-1-42	
Drainage	3 -1-42	100	100	11-1-42	11-11-42	
Railroads	2-19-42	100	100	9-12-42	10-1-42	
Roads	3 -1-42	100	100	11-25-42	10-8-42	
Electric Distr. System	3-15-42	99	100			Additional details required from time to time.

4. Factors Delaying Work:

Delays in deliveries of manufacturing equipment.

5. Passive Protection Measures:

As this station lies outside of the "critical areas" defined by Circular Letter No. 1086 (Construction Division No. 256) and Circular Letter No. 1375 (Construction Division No. 361), no passive protection is being provided.

6. Approval:

This report, consisting of Part A (3 sheets), Part B(2 sheets), Part C (1 sheet), Part D (11 sheets), and Part E (12 sheets), is hereby approved.

THE J. G. WHITE ENGINEERING CORPORATION:

[redacted]

Asst. Project Manager

Name Allen B. Ward

March 3, 1943

Asst. Project Manager's Home Address Red Coach Inn
Niagara Falls, N. Y.

Home Telephone Niagara Falls 8431

[redacted]

Area Engineer

Thomas R. Archibald
Major, Corps of Engineers

March 3, 1943

Area Engineer's Home Address Jefferson Apts.
Niagara Falls, N. Y.

Home Telephone Niagara Falls 6100

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART C

Sheet 1 of 1

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

I - EMPLOYMENT, MAN-HOURS, AND PAYROLLS AT THE SITE

	PROJECT EMPLOYEES	No. of Employees	Acc. Man-Hours Reported End of Last Per.	Man Hours Current Period	Acc. Man Hours End of this Period	Acc. Pay-Roll Rptd. End of Last Period	Pay-Roll Current Period	Acc. Pay-Roll End of This Period	Est. *No. of Employees next per.	Est.* Man Hours Next Period
1	Archt. Eng.-Total	0	0	0	0	0	0	0	0	0
	(a) Professional	0	0	0	0	0	0	0	0	0
	(b) Construction	0	0	0	0	0	0	0	0	0
4	[illegible]a Eng. Off. Total	65	314,250	12,998	327,248	268,369	13,695	282,064	48	9,720
5	Officer	4	0	0	0	0	0	0	3	0
6	Civilian Total **	61	314,250	12,998	327,248	268,369	13,695	282,064	45	9,720
7	Job	9	80,092	1,918	82,010	68,743	2,020	70,763	8	1,728
8	Engineering	2	18,680	426	19,106	15,544	449	15,993	2	432
9	Overhead	50	215,478	10,654	226,132	184,082	11,226	195,308	35	7,560
10	Hired Labor	0	0	0	0	0	0	0	0	0
11	W.P.A. x	0	0	0	0	0	0	0	0	0
12	Contr. & Subs. Total	778	8,665,080	166,536	8,831,616	11,925,917	261,643	12,187,560	344	142,805
13	L.Sum & U.Price Contr.	71	1,713,352	16,534	1,729,886	2,304,639	49,629	2,354,268	63	20,950
14	F.F.Contr.- Employees	194	1,280,904	39,375	1,320,279	2,514,070	74,693	2,588,763	18	27,545
15	AEM Employees	513	5,670,824	110,627	5,781,451	7,107,208	137,321	7,244,529	263	94,310
16	F.F.Contr.& AEM Total	707	6,951,728	150,002	7,101,730	9,621,278	212,014	9,833,292	281	121,855
17	Job	574	6,044,755	121,802	6,166,557	8,101,542	172,155	8,273,697	160	85,039
18	Engineering	48	434,612	10,200	444,812	734,797	14,417	749,214	40	13,320
19	Overhead	85	472,361	18,000	490,361	784,939	25,442	810,381	81	23,496
20	Proj. Employees Total	843	8,979,330	179,534	9,158,864	12,194,286	275,338	12,469,624	- 392	152,525
21	Job	654	7,838,199	140,254	7,978,453	10,474,924	223,804	10,698,728	231	107,717
22	Engineering	50	453,292	10,626	463,918	750,341	14,866	765,207	- 42	13,752
23	Overhead	139	687,839	28,654	716,493	969,021	36,668	1,005,689	- 119	31,056

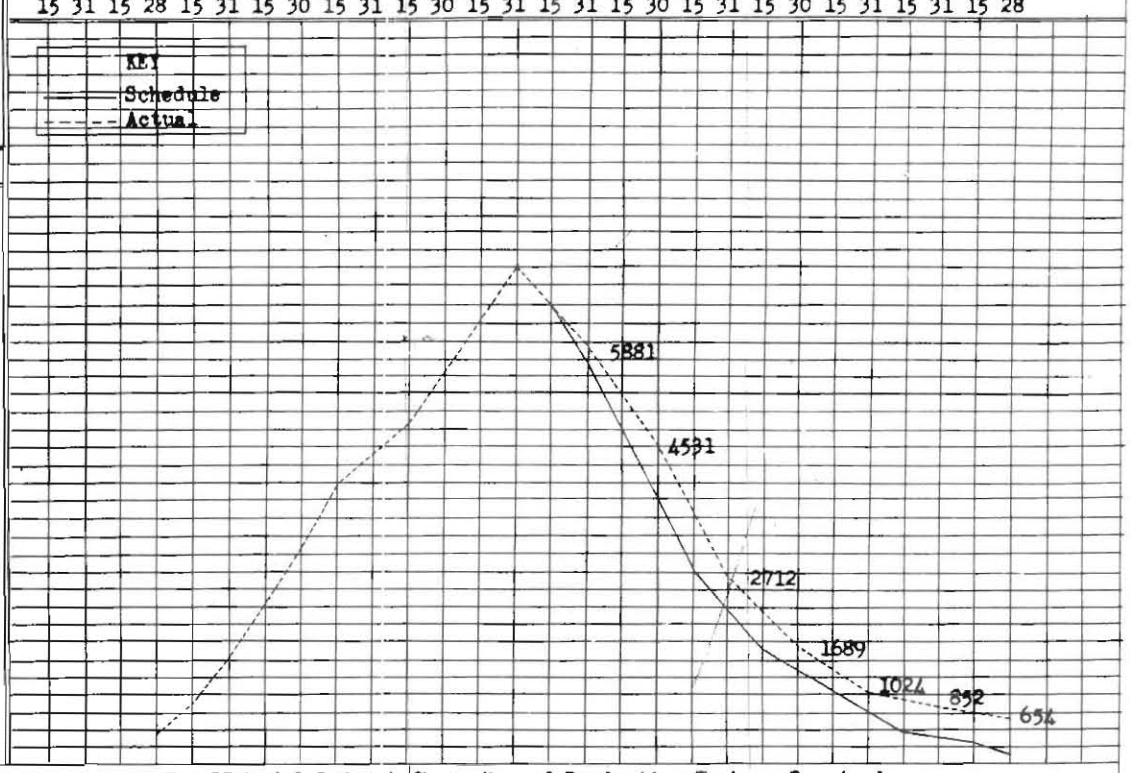
Line 21 = 7+10+11+13+17
Line 22 = 1+8+18
Line 23 = 5+9+19
Line 20 = 21+22+23+ = 1+4+10+11+12
Line 16 = 14+15 = 17+18+19
Line 1 = 2+3
Line 4 = 5+6 - 5+7+8+9
Line 12 - 13+14+15

* For clearing Construction deficiencies and engineering and overhead to April 3, 1943.
** Excludes 10 employees on terminal leave. x Figures based on Payroll of Feb. 20, 1943.

II - LABOR

1. Efficiency is a[illegible]ge except for laborers, which class is below average.
2. No shortage of employees is expected for remainder of this job.

III FORCE SCHEDULE



The "Schedule" Graph Shows No. of Productive Workers Required.
The "Actual" Graph Shows Employees on Payroll (Including sick, absent, etc.), but excludes engineering and overhead, per div. Memo. No. 155, dated 10/14/42.
Number of employees (654) as shown in graph, is line 21.

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART D

Sheet 1 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date: Awarded or Approved	Date: Work Started	Date: Sched. to Be comp.	Date: Est. to Be comp	Physical Percentage: Sched.	Physical Percentage: Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-1	J. G. White Engineering Corp. 80 Broad Street New York, N. Y.	Architect-Engineer-Manager Negotiated-Cost Plus Fixed Fee. Directive of June 16 increased amount. Letter of Aug. 8 OCE extends completion date	18,881,097.13	Jan. 13 Approved	Jan. 8	Mar. 28 1943	Mar. 28 1943	98.7	98.7
DA-W-138 Eng-7	Balling Brothers 401 Bennett Street North Tonawanda, N. Y.	Construction of Foundation for Main Administration Building. Negotiated Lump Sum-Constr. Change Order No. 1 Completion date extended	F 6,971.00	Mar. 2 Awarded	Mar. 3	May 5	May 5 A	100	100
DA-W-138 Eng-12	Cooney Brothers, Inc. Tarrytown, N. Y.	Batch aggregates on Site, mix and distribute concrete. Negotiated-Unit Price-Constr. Change Order No. 1 added cost of P.&P. bonds $830.28 Change Order No. 2 added grout to be purchased on P. O. Amount $277,590.28 Change Order No. 3 decreases amount to $276,573.76 Change Order No. 4 reduces amount to Overrun Total Cost	276,388.80 141,611.20 418,000.00	Mar. 7 Awarded	Mar. 13	Nov. 7	Nov. 7 A	100	100
DA-W-138 Eng-13	Poirier-McLane Corporation 33 W. 42nd Street New York, New York	Concrete Magazines. Negotiated-Lump Sum-Constr. Changes before contract signed-- Air Terminals $2525.90 Floor Covering 4350.00 Change Order No. 1 - Credit $7.48 per cu. yd. Change Order No. 2 increases Estimate $60,000.00 Change Order No. 3 changes time of completion to Sep. 1 Change Order No. 4 decreases amount to $568,280.84 and extends completion date Change Order No. 5 decreases amount to Overrun Total Cost	564,244.86 11,633.00 F 575,877.86	Mar. 14 Awarded	Apr. 1	Sept. 12	Sept. 12A	100	100
DA-W-138 Eng-14	A. S. Wikstrom Bound Brook, New Jersey	Railroad. Negotiated-Unit Price-Constr. $3947.65 added to original amount prior to signing of contract by negotiation with contractor. $561,685.25 Change Orders 2 & 3 increase amount to $609,065.20 Change Order No. 4 increases amount to $612,110.20 and changes completion date Change Order No. 5 no change Change Order No. 6 decreases amount and extends time to 9/12 Underrun Total Cost	609,868.16 113,875.70 F 495,992.46	Mar. 18 Awarded	Mar. 27	Sept. 12	Sept. 12A	100	100

F - Final Payment

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART D

Sheet 2 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date: Awarded or Approved	Date: Work Started	Date: Sched. to Be comp.	Date: Est. to Be comp.	Physical Percentage: Sched	Physical Percentage: Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-15	Wright & Kremers, Inc. Pine Ave. & Main St. Niagara Falls, N. Y.	Main Office Building Negotiated-Lump Sum-Constr. Amount increased before contract executed $549.00 Change Order No. 1 Apr. 30, 1942 Change Order No. 2 partitions added $6540.00. Change Order No. 3 May 14, 1942, reduction $40.50. C.O.#4 deduct $2150.00	F 116,848.50	Mar. 21	Mar. 21	May 30	June 4 A	100	100
DA-W-138 Eng-16	Dump Truck Service, Inc. 50 Wecker Street Buffalo, N. Y.	Drainage (Open Ditch) Negotiated-Lump Sum-Constr. $213,300.00 Change Order No. 1 decreases amount to Underrun Total Cost	213,147.23 50,371.87 F 162,775.36	Mar. 21 Awarded	Mar. 27	Sept.19	Sept.15A	100	100
DA-W-138 Eng-19	American Steel & Wire Co. 1403 Liberty Bank Bldg. Buffalo, N. Y.	Guard Fence. Negotiated-Lump Sum Constr. Cyclone Fence. Division of American Steel & Wire Co. Change Order No. 1 extends completion date indefinitely. Change Order No. 2 increases amount to $58,353.20 Change Order No. 3 increases amount to and fixes completion date	59,985.16	Mar.25 Awarded	Apr. 2	Dec. 10	Dec.10 A	100	100
DA-W-138 Eng-23	Bison Contracting Corp. 493 Washington Highway Snyder, New York	Drinking Water System. Negotiated-Unit Price-Constr. $34,420.00 Change Order No. 1 extends completion date Change Order No. 2 increases amount to and extends completion date to Aug. 8 Overrun Total Cost	34,703.57 455.70 F 35,159.27	Mar.30 Awarded	Apr. 1	Aug. 8	Aug.8A	100	100
DA-W-138 Eng-24	William J. Gallagher, Inc. 510 Orient St. Medina, New York	Roads and grading Negotiated-Unit Price-Constr. $851,925.00 Change Order No. 1 no change in cost Change Order No. 2 increase in Estimate $99,430.00 Total $951,335. Change Ord. No. 3 increases amount to $1,047,395.00 Change Order No. 4 no change in time or amount Change Order No. 5 increases amount to $1,058,895.00 and extends completion date Change Order No. 6 decreased amount to Underrun Total Cost	1,007,045.81 25,537.08 F 981,508.73	Apr. 1	Apr. 1	Nov. 7	Nov. 7A	100	100

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RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART D

Sheet 3 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date Awarded or Approved	Date Work Started	Date Sched. to Be comp.	Date Est. to Be comp	Physical Percentage Sched	Physical Percentage Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-26	Poirier-McLane Corp. 33 W. 42nd Street New York, N. Y.	General and Boiler House Foundations. Negotiated-Lump Sum and Unit Price-Constr. $77,371.00 Change Order No. 1 Increase in estimated cost and Unit Price to $228,305.10 Revised Change Order No. 1 increased contract to $263,916.10 Change Order No. 2 changes completion date to July 31, 1942 Change Order No. 3 increases amount to	F 291,631.95	Apr. 1 Awarded	Apr. 3	July 31	July 31A	100	100
DA-W-138 Eng-36	Balling Brothers 401 Bennett Street North Tonawanda, N. Y.	Administration Group Negotiated-Lump Sum-Constr. $145,344.00 Change Order No. 1 Removing of partitions Change Order No. 2 change in plans on building #702 Change Order No. 3 completion date extended and amount increased $4,181.56 Change Order No. 4 increased amount $4710.91 Change Order No. 5 Increased amount $1271.60 Change Order No. 6 increased amount $403.00 Change Order No. 7 increased amount $121.00 Change Order No. 8 decreases amount to $155,999.07 Change Ord. No. 9 decreases amount to and extends completion date	153,921.57 F	Apr. 17	Apr. 17	Change Ord. #9 Oct. 26	Aug. 3 A	100	100
DA-W-138 Eng-40	General American Transportation Co. Sharon, Pennsylvania	Erecting 14 Steel Tanks in Acid Area. Negotiated-Lump Sum-Constr. $32,932.06 Change Order No. 1 decreased amount to $32,739 Change Order No. 2 decreases amount to	F 32,527.76	Apr. 20 Awarded	May 16	July 25	July 20A	100	100
DA-W-138 Eng-58	Schieve Construction Co. Buffalo, N. Y.	Steel erection for Boiler House, Acid Area and TNT Area Negotiated-Lump Sum and Unit Price-Constr. $45,105.00 Change Order No. 1 extende completion date Change Order No. 2 extends completion date Change Order No. 3 increased amount $219.18 Change Order No. 4 decreases amount, extends time to 7/25 Underrun Total Cost	45,379.93 1,902.31 F 43,477.62	Apr. 27	May 6	July 25	July 22A	100	100

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RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART D

Sheet 4 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date: Awarded or Approved	Date: Work Started	Date: Sched. to Be comp.	Date: Est. to Be comp	Physical Percentage: Sched	Physical Percentage: Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-60	The W. F. Hendrich Co. 775 Main Street Buffalo, N. Y.	Construction of Buildings in Shop Area. Negotiated Lump Sum-Conatr. $402,108. Change Order No. 1 extends completion date. Change Order No. 2 increases amount to $402,626.00 Change order No. 3 increases amount to $405,297.00 Change Order No. 4 no cost Change Order No. 5 decreases amount to $405,283.32 Change Order No. 6 decreases amount to $405,150.72 Change Order No. 7 extends completion date to Aug. 10 and decreases amount to	F 404,782.43	Apr. 25	Apr. 26	Aug. 10	Aug. 7 A	100	100
DA-W-138 Eng-62	O. G. Kelley & Co. Neponset Station Boston, Mass.	Furnish and Install chemical lead in TNT & Acid Areas Negotiated-Unit Price-Constr. .095 Labor .085 Mat. per lb. Change Order No. 1 increases scope of work Change Order No. 2 extends completion date to Nov. 1 Change Order No. 3 extends completion date to Dec. 31 Change Order No. 4 extends completion date Change Order No. 5 increases scope of work Overrun Total Cost	41,800.00 100,200.00 142,000.00	Apr. 29 Awarded	June 15	10 days after last tank and/or piping is available.	Feb. 27 1943	100	100
DA-W-138 Eng-64	American Automatic Electric Sales Company 1033 W. Van Buren Chicago, Ill.	Furnish and Install telephone apparatus. Negotiated-Lump Sum-Constr. Change Order No. 1 no increase Change Order No. 2 reduced amount, $34,961.00 to Change Order No. 3 extends completion date	34,906.81 F	Apr. 29	Apr. 29	Oct. 10	Oct. 7 A	100	100
DA-W-138 Eng-67	Anchor Post Fence Company Baltimore, Maryland	Erection of boundary and wood fence. Negotiated-Lump Sum and Unit Price-Constr. $20,226.18 Change Order No. 1 extends comp. date to Sept. 21 Change Order No. 2 increases amount to and extends comp. date Underrun Total Cost	20,637.69 2,513.88 F 18,123.81	May 13 Awarded	June 26	Change Ord. #2 Sept. 23	Sept. 21A	100	100
DA-W-138 Eng-69	Chicago Bridge & Iron Co. 1700 Wlanut Street Philadelphia, Pa.	Erection of Tanks Negotiated-Lump Sum and Unit Price-Constr. $27,880.00 Change Order No. 1 changes completion date to Aug. 15 Change Order No. 2 decreases amount to	F 27,580.46	May 12 Awarded	June 1	Aug. 15	Aug. 13A	100	100

F - Final Payment

RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M1

FIELD PROGRESS REPORT

PART D

Sheet 5 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date Awarded or Approved	Date Work Started	Date Sched. to Be comp.	Date Est. to Be comp.	Physical Percentage Sched.	Physical Percentage Act.
(1)	(2)	(3)	(4)	( )	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-70	Pittsburgh DeMoines Steel Co. 270 Broadway New York, New York	Erection of steel tanks Negotiated-Lump Sum and Unit Price Constr.	F 12,000.00	May 18	June 10	Aug. 4	Aug.13 A	100	100
DA-W-138 Eng-71	Rohrer Electrical Company 1313 Main Street Niagara Falls, N. Y.	Electrical work (27 bldgs.) Negotiated-Lump Sum and Unit Price-Constr. $19,800. Change Order No. 1 increases amount to $20,545.00 and extends completion date to Aug. 15 Change Order No. 2 increases amount to $20,945. and extends time to Sept.30 Change Order No. 3 increases amount to and extends completion date	21,578.00 F	May 9 Awarded	May 19	Nov. 10 as bldgs are compl. by force account	Nov.10A	100	100
DA-W-138 Eng-72	Buffalo Niagara Electric Corp. Buffalo, N. Y.	Installation of Power Lines Negotiated Installation Contract	F 45,701.04	July 2 Awarded	July 6	Aug. 1	Sept.11 A	100	100
DA-W-138 Eng-74	George E. Schank 116-16th Street Buffalo, N. Y.	Plumbing work (27 bldgs.) Negotiated-Lump Sum and Unit Price-Constr. $56,418.60 Change Order No. 1 increases amount to $57,238.60 Change Order No. 2 increases amount to $60,708.60 Change Order No. 3 increases amount to $63,458.60 Change Order No. 4 increases amount to and changes completion date	F 66,301.81	May 12 Awarded	May 19	Nov. 7	Nov. 7A	100	100
DA-W-138 Eng-77	Chattanooga Boiler & Tank Co. Chattanooga, Tenn.	Erection of tanks Negotiated-Lump Sum and Unit Price-Constr.	F 17,050.00	May 19	May 30	Aug. 30	Aug.15 A	100	100
DA-W-138 Eng-78	Chemical Construction Co. 30 Rockefeller Plaza New York, N. Y.	Erection of Sellite Plant Negotiated-Lump Sum and Unit Price Constr. $37,930. Change Order No. 1 extends completion date Change Order No. 2 decreases amount to $35,374.31 Change Order No. 3 decreases amount to	F 34,748.79	May 18 Awarded	June 15	Oct. 12	Oct.29A	100	100
DA-W-138 Eng-79	H. F. Darling Williamsville, New York	Fabricating and installing Water Lines. Negotiated-Lump Sum and Unit Price-Constr. Supplemental Report correcting amount of contract from $548,260.00 to $542,850.00 Change Order No. 1 no increase Change Order No. 2 extends completion date Change Order No. 3 deduct $87,695.00 Change Order No. 4 add $5,400.00 Change Order No. 5 joins S.A. Contract to Contract. Total $465,715.60 Revised Change Order No. 6 increases amount to $486,761.10 Revised Change Order No. 7 decreases amount to $481,811.98 Correct-Revised Change Ord. No. 8 decreases amount to $481,613.89 Change Order No. 9 decreases amount to and changes completion date	462,874.78	May 15 Awarded	June 9	Dec. 12	Dec.12 A	100	100

ODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M1

FIELD PROGRESS REPORT

PART D

Sheet 6 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date Awarded or Approved	Date Work Started	Date Sched. to Be comp.	Date Est. to Be comp.	Physical Percentage Sched.	Physical Percentage Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-82	Otis Elevator Company 775 Main Street Buffalo, N. Y.	Installation of Electric Dumb Waiters. Negotiated-Lump Sum and Unit Price-Constr. $4,587.42 Change Order No. 1 decreases amount to $4,126.68 Change Order No. 2 increases amount to $4,779.24 and extends completion date Change Order No. 3 increases amount to $4,896.45 Corrected Change Order No. 3 decreases amount to	F 4,889.92	May 18 Awarded	June 23	5 days after receipt of critical materials	Nov.18 A	100	100
DA-W-138 Eng-83	Poirier-McLane Corp. 33 W. 42nd Street New York, N. Y.	Installation of Water Distribution System Negotiated-Lump Sum and Unit Price-Constr. $160,887.00 Change Order No. 1 completion date Aug. 20 Change Order No. 2 extends completion date Change Order No. 3 increases amount to and extends completion date Underrun Total Cost	171,125.56 831.59 F 170,293.97	May 19 Awarded	June 1	Oct. 8	Oct. 7 A	100	100
DA-W-138 Eng-84	O'Connell Electric Co. Rochester, N. Y.	Installation of primary Distribution System, etc. Negotiated-Lump Sum and Unit Price-Constr. Change Order No. 1 extends completion date to Sept.15 Change Order No. 2 extends completion date Overrun Total Cost	61,450.00 10,000.00 71,450.00	May 21	June 16	14 days after receipt of critical materials	Dec.9 A	100	100
DA-W-138 Eng-86	"Autometic" Sprinkler Corp. of America 402 Curtis Building Buffalo, New York	Installation and completion of eprinkler systems. Negotiated Lump Sum and Unit Price-Constr.$21,357. Change Order No.1 decreased amount to $21,230.43 Change Order No. 2 changes completion date to 7 days after last bldg. ie ready Change Order No. 3 changee completion date to Sept. 12 for #803 Buildinge and increased amount to Overrun Total Cost	24,261.23 6,201.25 F 30,462.48	May 26 Awarded	June 9	Sept.12 for #803 buildings	Sept.19A	100	100
DA-W-138 Eng-88	Merritt-Chapman & Scott Corporation 1348 Standard Building Cleveland, Ohio	Marine work - process water supply and waste water discharge. Negotiated-Lump Sum and Unit Price-Constr. $233,145.50 Change Order No. 1 increases amount to and extends completion date	237,791.10 F	May 27 Awarded	June 9	Aug. 20	Aug.15 A	100	100

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Job No. (L [illegible] Ontario) [illegible]

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Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1942

[illegible] DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Amount of Contract	Estimated Contract Cost	Date: Award Approved	Date: Work Started	Date: Schd. to Be comp.	Date: Act. Date Be comp.	Physical Percentage: Sch.	Physical Percentage: Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-89	C. H. Kremers & Son 4003 Glenn Street Niagara Falls, N. Y.	Heating 24 buildings. Negotiated-Lump Sum and Unit Price-Constr. $31,658. Change Order No. 1 decreased amount to $30,516.24 Change Order No. 2 increased amount to $30,917.04 Change Order No. 3 extends completion date to 7 days after last bldg. is ready for heat insulation Change Order No. 4 decreases amount to	F 30,836.39	May 28 Awarded	June 1	7 days after last bldg. is ready	Oct.20A	100	100
DA-W-138 Eng-92	American Steel Band Co. P. O. Box 565 Pittsburgh, Penn.	Roofing and Siding for Boiler House No. 401. Negotiated-Lump Sum and Unit Price-Constr. $21,108.50 Change Order No. 1 increased amount to $21,812.50 Change Order No. 2 decreases amount to $20,588.50 Change Order No. 3 extends comp. date Change Order No. 4 decreases amount to	F 20,180.82	May 28	July 18	14 days after ready for flashing	Oct.10 A	100	100
DA-W-138 Eng-93	W. B. Neill, Inc. 30 Vesey Street New York, N. Y.	Erection of Coal Silos. Negotiated-Lump Sum and Unit Price-Constr. $46,280. Change Order No.1 decreases amount to $38,315.00 Change Order No. 2 extends completion date of one silo to Aug. 12. Change Order No.3 decreases amount to $35,520.62 Change Order No. 4 extends completion date Change Order No. 5 decreases amount to	F 34,499.45	May 28 Awarded	June 17	14 days after coal conveyor floor is complete	Oct.14 A	100	100
DA-W-138 Eng-94	The W.F. Hendrich Co.,Inc. 775 Main Street Buffalo, N. Y.	Construction of sewage disposal plant. Negotiated-Lump Sum and Unit Price-Constr. $146,430.00 Change Order No. 1 time extension. Change Order No. 2 increased amount to $146,813.75 Change Order No. 3 decreases amount to $143,529.71 Change Order No. 4 reduces amount to	F 142,695.75	May 28 Awarded	June 1	Aug. 24	Aug.20A	100	100
DA-W-138 [illegible]95	McLain Construction Corporation 1209 Hertel Avenue Buffalo, N. Y.	Substructure of Pumping Station including Land Section of Intake and Land Section of Waste Water Discharge. Negotiated-Lump Sum and Unit Price-Constr. $349,460.00 Change Order No. 1 no change in amount Change Order No. 2 no change in amount Change Order No.3 extends completion date to Sept. 25 Change Order No. 4 decreases amount to $330,132.37 Change Order No. 5 increases amount to	F 348,944.59	June 1 Awarded	June 2	Sept.25	Oct.8 A	100	100

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RODUCED AT THE NATIONAL ARCHIVES

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART D

Sheet 8 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date Awarded or Approved	Date Work Started	Date Sched. to Be comp.	Date Est. to Be comp.	Physical Percentage Sched.	Physical Percentage Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-96	Paul J. Frez Company 444 North LaSalle St. Chicago, Illinois	Heat Insulation & Pipe Covering Negotiated-Lump Sum and Unit Price $122,538. Change Order No.1 increases amount to $122,861.80 Change Order No. 2 increases amount to $122,961.86 Change Ord. Nos. 3 & 4 change Unit Prices Change Order No.5 increases amount to Overrun Total Cost	123,112.00 62,249.19 F 185,361.19	June 18	July 6	5 days after pipe completion	Cancelled Jan.29A	100	100
DA-W-138 Eng-99	Herbert F. Darling 131 California Drive Williamsville, N. Y.	Sewage Collection System Negotiated-Lump Sum and Unit Price-Constr. $416,934.81 Change Order No. 1 no increase Change Order No. 2 increases amount to $419,514.81 Change Order No. 3 completion time 10 days after receipt of critical materials Change Order No. 4 increases amount to $498,264.81 Change Order No. 5 increases amount to Overrun Total Cost	502,090.97 3,517.57 F 505,608.54	June 5	June 8	10 days after receipt of critical released materials	Oct.1A	100	100
DA-W-138 Eng-100	Fre-Load Company 47-38 Fifth Street Long Island City, N.Y.	Erection of elevated Conc. Water Tank Negotiated-Lump Sum and Unit Price-Constr. $33,835. Change Order No. 1 decreases amount to $33,634 Change Order No.2 increases amount to Change Order No. 3 extends time to Sept. 30 Underrun Total Cost	33,887.00 2,700.00 31,187.00	June 5 Awarded	June 23	Sept.30	Dec. 5A	100	100
DA-W-138 Eng-107	Pittsburgh DesMoines Steel Co. 270 Broadway New York, N. Y.	100,000 Gallon elevated tank for fire Protection. Negotiated-Lump Sum and Unit Price. Change from P.O. # 2778. $12,349.20 Change Order No.1 increased amount to $13,019.20 Change Order No. 2 decreases amount to	F 12,128.03	June 10 Awarded	July 20	Aug. 29	Aug.29 A	100	100
DA-W-138 Eng-108	Wenneis Tank Co. 39 Courtland St. New York City, N. Y.	Construction of 75,000 Gal. Tank for Drinking Water. Negotiated-Lump Sum and Unit Price. Change from P.O. #1861. $12,080.00 C.O. #1 decreases amount to	F 11,730.00	June 11 Awarded	July 8	July 22	Aug. 7 A	100	100

F - Final Payment

Job No. (Lake Ontario) W 1

FIELD PROGRESS REPORT

PART D

Sheet 9 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date: Awarded or Approved	Date: Work Started	Date: Sched. to Be comp.	Date: Est. to Be compl.	Physical Percentage: Sched	Physical Percentage: Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-109	Champion Construction and Engineering Co., Inc. Long Island City, N. Y.	Erection of three boilers at Boiler House. Negotiated Lump Sum and Unit Price. Change to three Boilers reduces amount from $123,987.60 to $95,212.70 Change Order No.1 increases amount to $95,505.90 Change Order No.2 changes completion date and decreases amount to $93,439.53 Change Order No. 3 increases amount to	F 93,442.47	June 11	June 12	Change Ord. #2 10 days after receipt of materials	Sept.28A	100	100
DA-W-138 Eng-111	Wright & Kremers, Inc. Pine & Main Street Niagara Falls, N. Y.	Construction of two Ground Storage Reservoirs. Negotiated-Lump Sum and Unit Price. $185,749.08 Change Order No. 1 no change in price or time Change Order No. 2 decreases amount to $184,989.98 Change Order No. 3 extends completion date. Change Order No. 4 increases amount to	F 197,463.29	June 13	June 17	Sub.9/22 Super.10/17	Oct.20A	100	100
DA-W-138 Eng-119	Joseph A. Sanders & Sons, Inc. Buffalo, New York	Application of Roofing-TNT & Acid Areas & Miscl. Negotiated-Lump Sum and Unit Price. $6,611.02 Supplemental Agreement increased amount to $8,202.02 Change Order No. 2 extends completion date. Change Order No. 3 increases amount to $11,178.22 Change Order No. 4 decreases amount to Underrun Total Cost	11,151.52 1,526.31 F 9,625.21	June 22	June 24	7 days after last bldg. is ready	Sept.1A	100	100
DA-W-138 Eng-120	Pittsburgh Plate Glass Co. Buffalo, New York	Glass and Glazing Negotiated-Lump Sum and Unit Price $3,108.00 Change Order No. 1 & 2 increase amount to	F 3,991.68	June 22 Awarded	July 2	5 days after last sash	released Sept.12A	100	100
DA-W-138 Eng-125	Stebbins Engineering and Manufacturing Co. Watertown, N. Y.	Laying Acid Resistant Brick Work Negotiated Lump Sum and Unit Price $48,200.00 Change Order No.1 increases amount to $48,811.30 Supplemental Agreement A increases amount to $59,143.30 Supplemental Agreement B increases amount to Change Order No. 2 extends completion date Overrun Total Cost	88,940.26 16,059.74 105,000.00	June 27	July 1	Mar. 15	Feb.19A 1943	100	100
DA-W-138 Eng-127	United Conveyor Corp. Chicago, Ill.	Ash Storage Bin and Equipment. Negotiated Lump Sum & Unit Price $18,745.00 Change Order No. 1 decreases amount to $18,480.00 Change Order No. 2 decreases amount to and extends completion date	F 14,425.78	July 3	July 15	Oct. 29	Aug.28 A	100	100

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Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT

PART D

Sheet 10 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date Awarded or Approved	Date Work Started	Date Sched. to Be comp.	Date Est. to Be comp.	Physical Percentage Sched	Physical Percentage Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-128	H. C. Mapes Corporation Lockport, N. Y.	Heating and Plumbing in Manufacturing Buildings Negotiated Lump Sum and Unit Price $113,120.00 Change Order No.1 increased amount to $114,632 Change Order No. 2 decreases amt. to $109,526.90 Change Order No. 3 decreases amount to $109,270.90 Change Order No. 4 increases amount to $111,095.74 and extends completion date Change Ord. No. 5 increases amount to $111,947.78 Supplemental Agreement increases amount to $114,362.78 Change Ord. No. 6 increases amount to $114,814.43 Change Order No. 7 increases amount to	F 118,423.42	July 6	July 8	5 days after receipt of critical materials	Nov. 16A	100	100
DA-W-138 Eng-129	E. H. Heilbron Co. Lexington, Kentucky	Furnishing and setting Kitchen and Cafeteria Equipment. Negotiated Lump Sum and Unit Price $13,959.54 Change Ord. No. 1 increases amount to and extends completion date Underrun Total Cost	15,757.29 397.29 15,360.00	May 20 Orig. P.O.	May 20	5 days after equip. is received	Nov. 4A	100	100
DA-W-138 Eng-130	Westinghouse Electric & Manufacturing Co. Buffalo, New York	Furnishing and Installing X-Ray Equipment Lump Sum and Unit Price Change Order No. 1 extends completion date	F 5,180.00	June 6 Orig. P. O.	June 10	Oct. 14	Oct. 14A	100	100
DA-W-138 Eng-131	Graver Tank and Mfg. Co., Inc. 424 Madison Ave. New York, N. Y.	Erect 2 Electric Mist Precipitators Negotiated lump Sum and Unit Price Change Order No. 1 decreases amount to and extends completion date	5,753.95 F	July 11	July 28	Aug. 27	Aug. 27 A	100	100
DA-W-138 Eng-141	Wright & Kremers, Inc. Niagara Falls, N. Y.	Construction of 2 Dormitory Buildings, including plumbing, heating, and electrical work. Negotiated Lump Sum Contract $88,160.00 Contract Cancelled July 30. Supplemental agreement Aug. 6 reinstated contract and extended completion date to Oct. 1 Change Order No. 1 reduces amount to $87,284. Change Order No. 2 increases amount to $87,448. Change Order No. 3 reduces amount to $85,155.67 and extends completion date Change Ord. No. 4 extends completion date and increases amt. to	F 85,738.67	July 25	July 30	Nov. 14	Nov. 15A	100	100
DA-W-138 Eng-148	General American Transportation Corp. Sharon, Penn.	Erection of (13) 24'x20' Vertical Riveted Steel Storage Tanks Underrun Total Cost	30,394.00 250.00 30,144.00	Oct. 15	Dec. 14	Feb. 15 1943	Feb. 15 1943	61	61

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Job No. (Lake Ontario) # 1

FIELD PROGRESS REPORT

PART D

Sheet 11 of 11

Job Name Lake Ontario Ordnance Works
Location Youngstown, New York

U.S.E.D. District Buffalo
U.S.E.D. Division Great Lakes
Period Ending February 28, 1943

CONTRACT DATA

Official Contract No.	Name and Address of Contractor	Description of Work and Type of Contract	Estimated Contract Cost	Date: Awarded or Approved	Date: Work Started	Date: Sched. to Be comp.	Date: Est. to Be comp.	Physical Percentage: Sched	Physical Percentage: Act.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
DA-W-138 Eng-149	Chicago Bridge & Iron Co. 1700 Walnut St. Philadelphia, Pa.	Erection of (1) 250,000 Gal. Toluene Storage Tank	F 3,140.00	Oct. 15	Nov. 27	Dec. 12	Dec. 23A	100	100
-W-138 Eng-150	Graver Tank & Mfg. Co., Inc. 424 Madison Avenue New York City	Erect 1 Electric Mist Precipitator Change Order No. 1 changes completion date		Oct. 30	Nov. 28	Dec. 23	Dec. 23A	100	100
			3,344.00						
		Underrun	120.00						
		Total Cost	F 3,244.00						
DA-W-138 Eng-153	Herbert F. Darling Williamsville, New York	Additional Acid Sewer	58,828.23	Jan. 8	Jan. 21	Mar. 12 1943	Mar. 12A 1943	42	42
		Overrun	11,171.77						
		Total Cost	70,000.00						
		CONTRACT TO BE AWARDED							
		Railroad track installed by New York Central Railroad, inside project.	15,000.00	Estimated					
		Nov. 12 Estimate, Total	26,157,414.00	(Excludes ($800,000.00), Estimated Government Field Overhead)					

F - Final Payment

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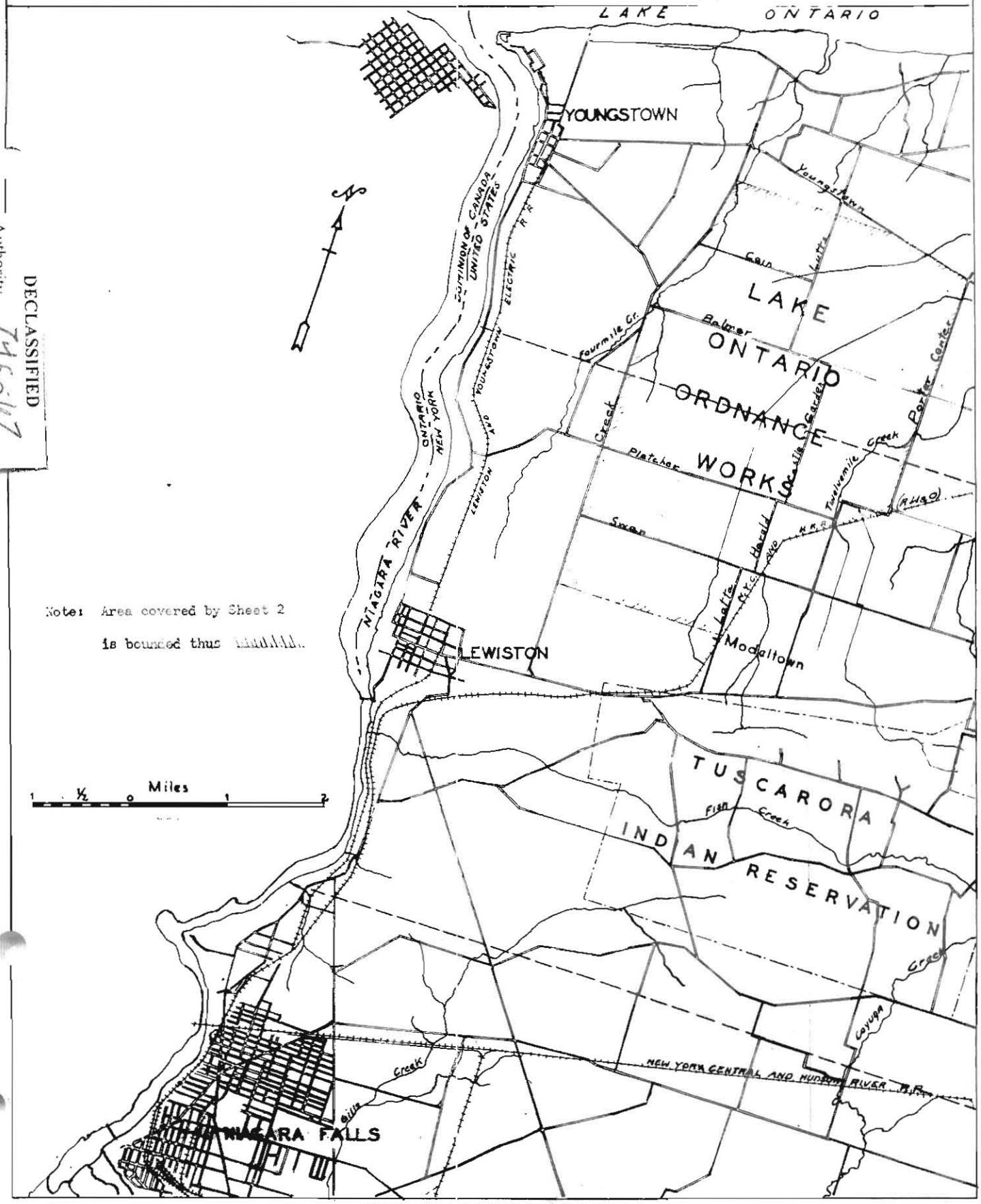
Job No. (Lake Ontario) M 7

FIELD PROGRESS REPORT
PART B

Sheet 1 of 12

Location Lake Ontario Ordnance Works
Youngstown, New York
Period Ending



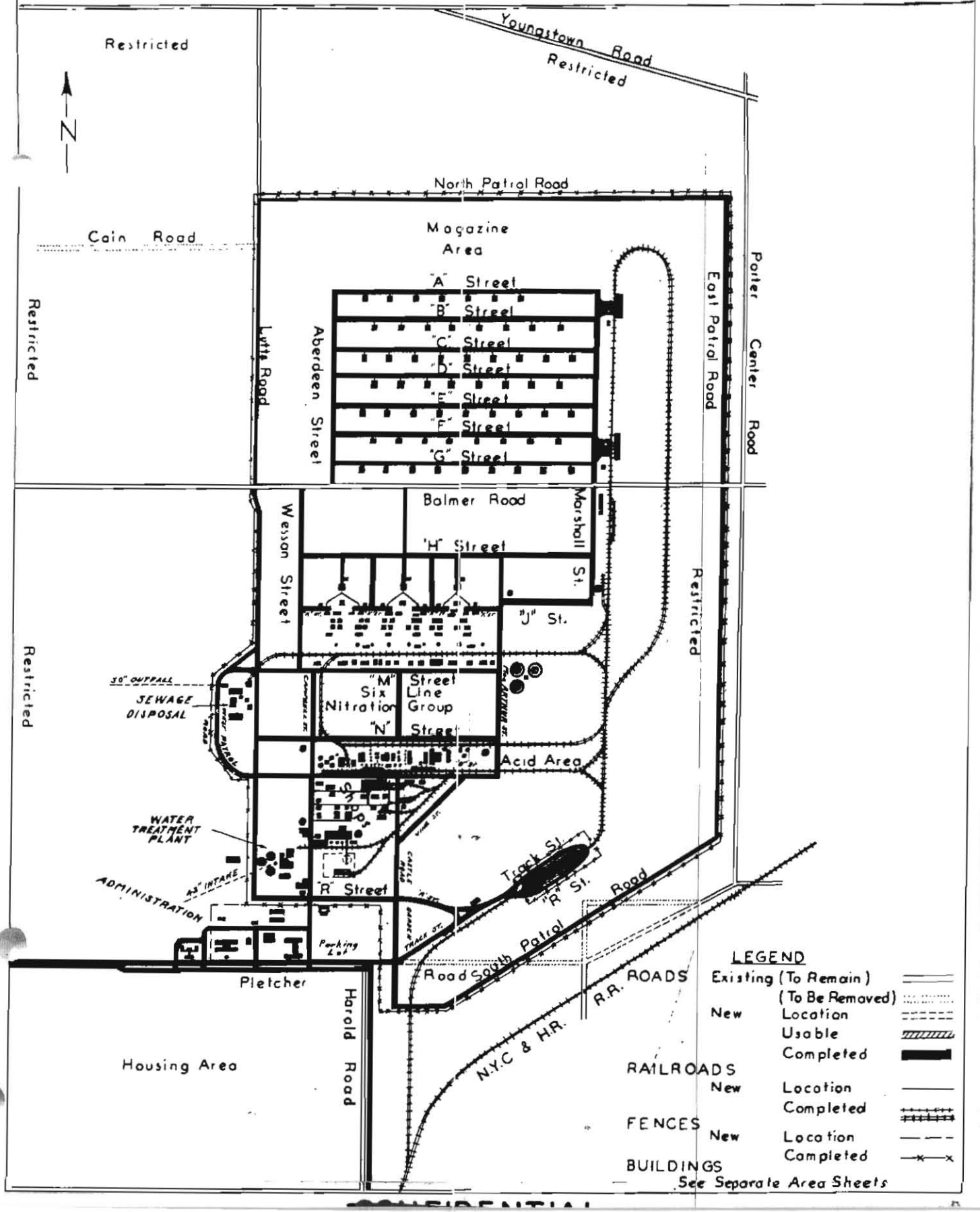
Note: Area covered by Sheet 2 is bounded thus

DECLASSIFIED
Authority 745647
By RP NARA Date 4/28

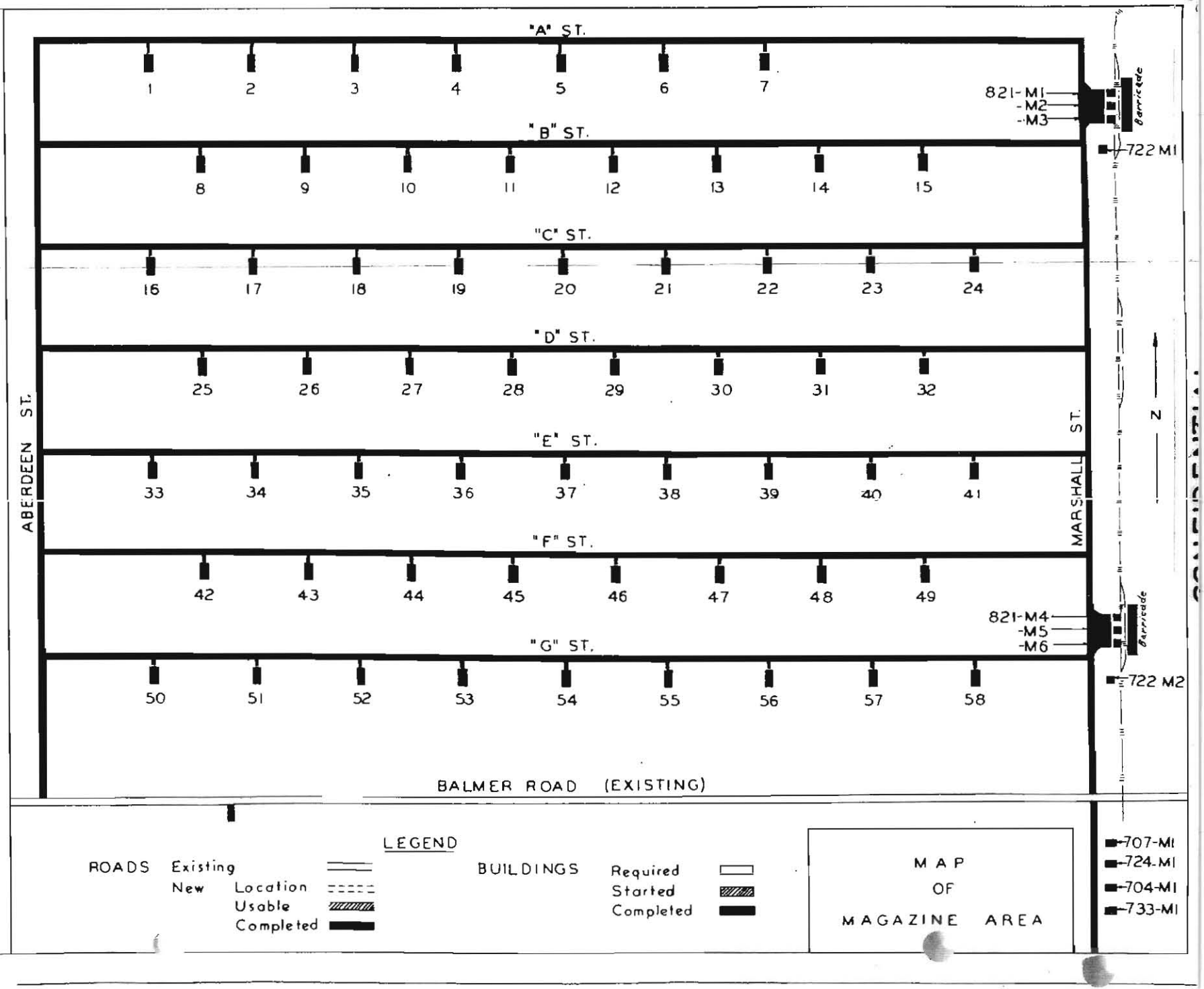
ODUCED AT THE NATIONAL ARCHIVES

DECLASSIFIED
Authority 745-07

Location [illegible] Ordnance Works
Portion [illegible]



522



Authority 17526 NARA Date 2/28/
By RP

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Authority 745067
By RP NARA Date 2/28

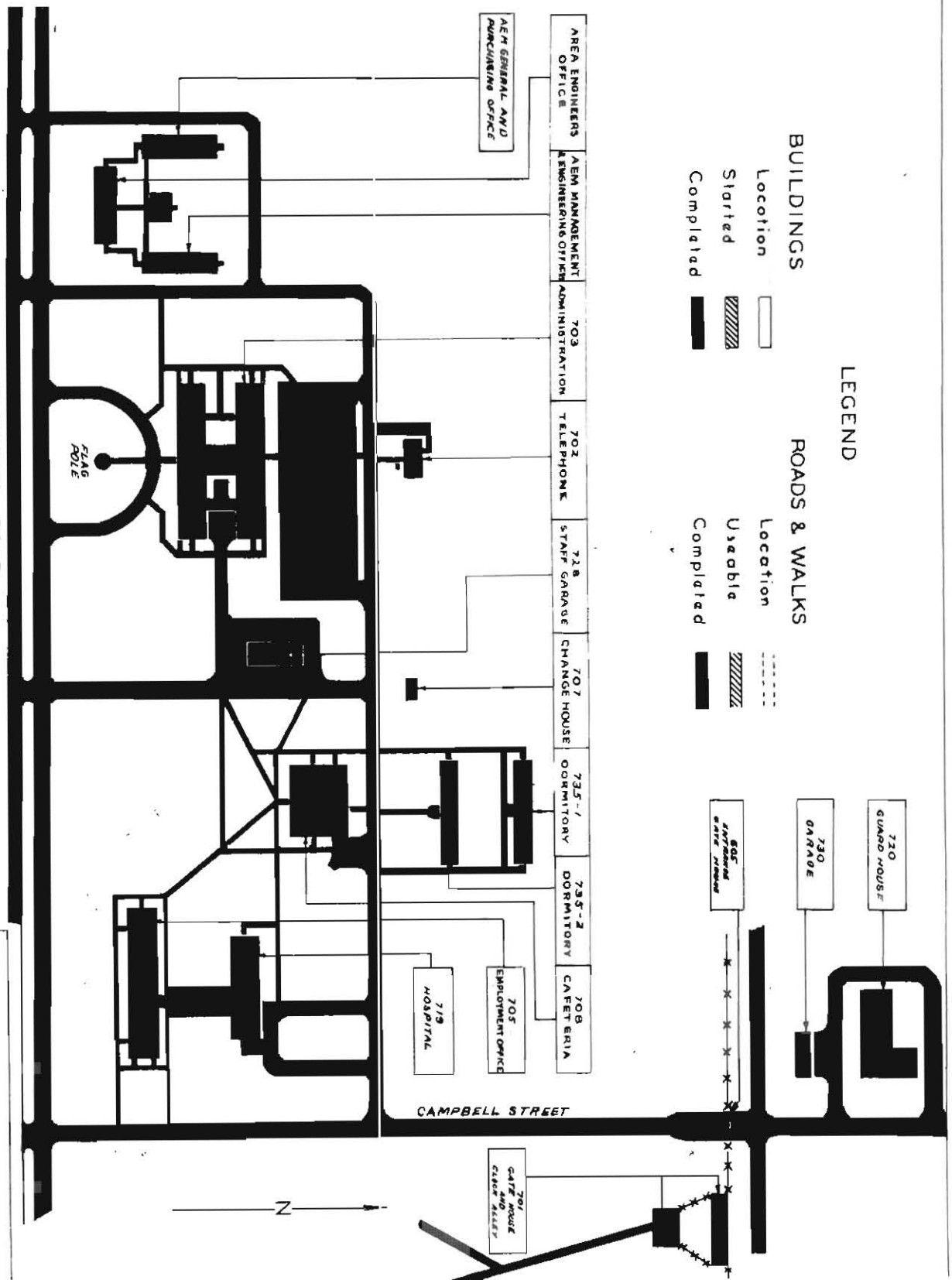
[redacted]

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT
PART E

Sheet 4 of 12

Location Lake Ontario Ordnance Works
Youngstown, New York
Period Ending



MAP OF
ADMINISTRATION AREA

Scale 1" = 16

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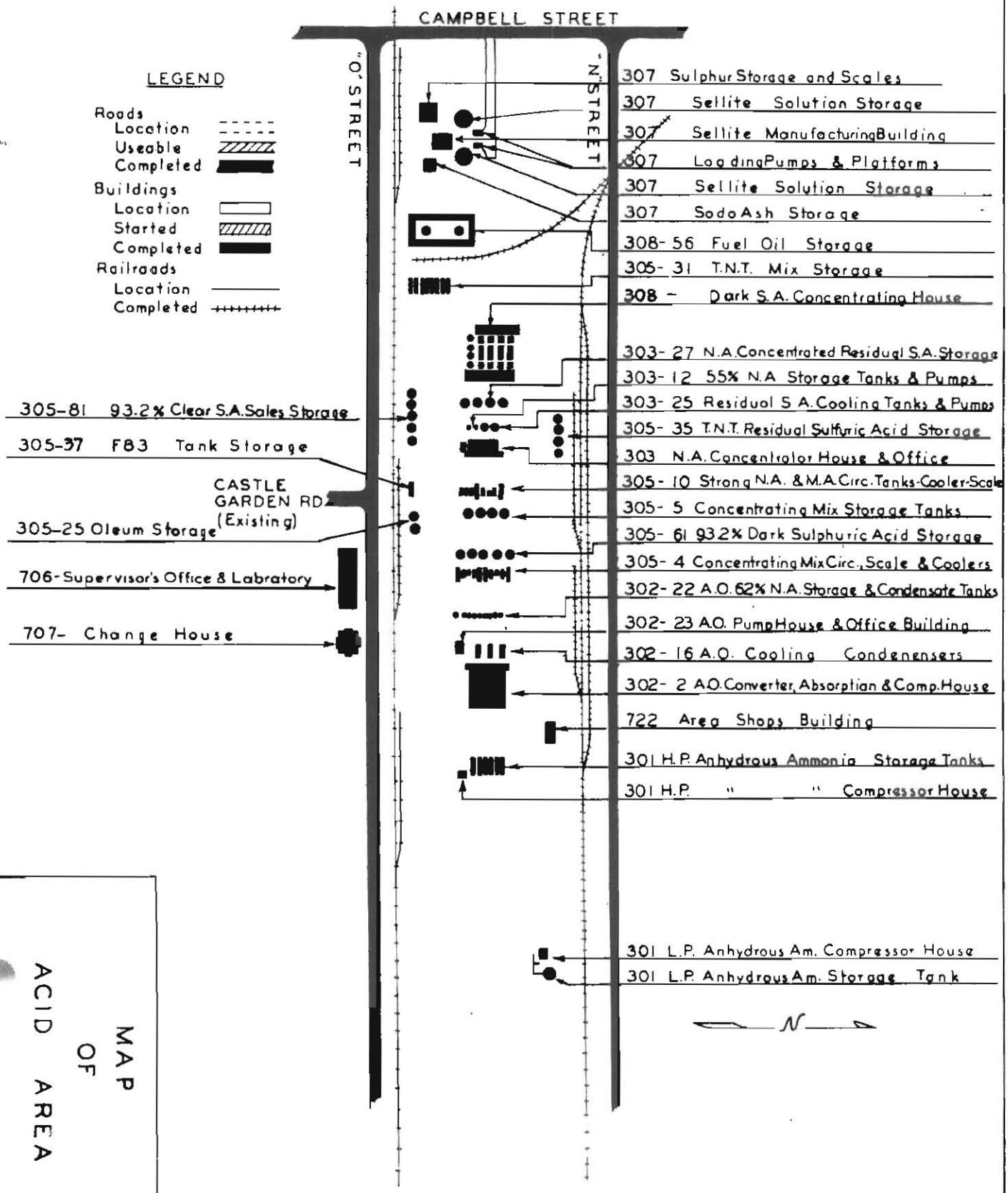
Authority 745067
By RP NARA Date 2/28

Job No. (Lake Ontario) M-1

FIELD PROGRESS REPORT
PART E

Sheet 5 of 12

Location Lake Ontario Ordnance Works, Youngstown, New York
Period Ending



MAP OF ACID AREA

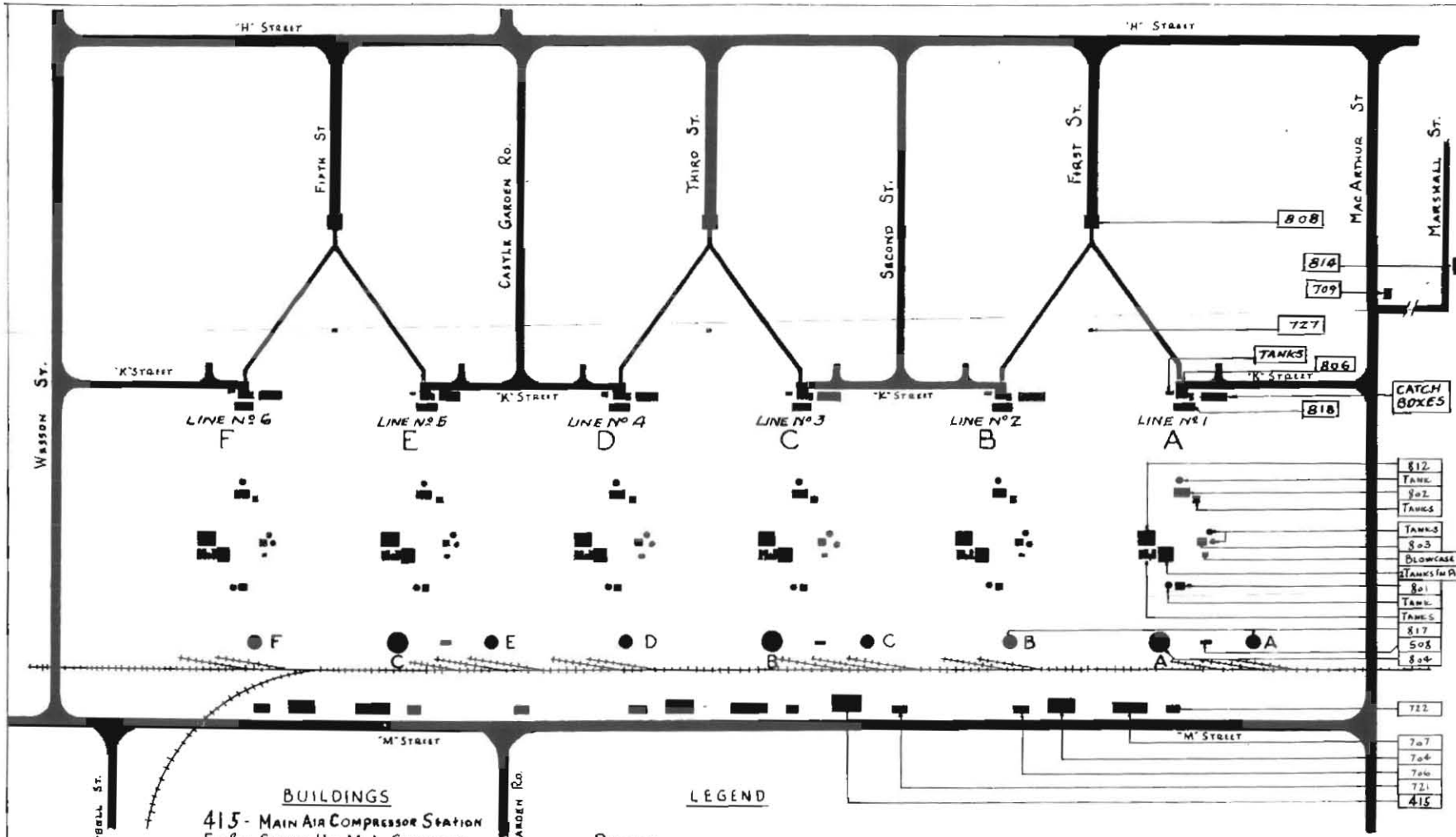
525

Location Lake Ontario Ordnance Works
Youngstown, New York
Period Ending

FIELD PROGRESS REPORT
PART E

Sheet 6 of 12

Job No. (Lake Ontario) M 1



BUILDINGS

415 - Main Air Compressor Station
508 - Start Up M A. Storage
704 - Supervisor's Office
706 - Laboratory
707 - Change Houses
721 - Inspector's Office (A), Laboratory (B)
722 - Shop Area
727 - Comfort Station
801 - Mono-Nitrating House
802 - Bi- & Tri-Nitrating House
803 - Fortifying House
804 - Toluene Storage
806 - Wash House
808 - Nailing House
817 - Oil Of Vitriol Storage
818 - Wash House Barricades
812 - Acid Fume Recovery

LEGEND

Roads
Existing - To Be Removed
New - Location
Usable
Completed

Railroads
New - Location
Completed

Buildings
Required
Started
Completed

814 - Box Factory and Shook Storage
709 - Auxiliary Fire Headquarters

MAP OF TNT AREA

Scale - 1" = 300'

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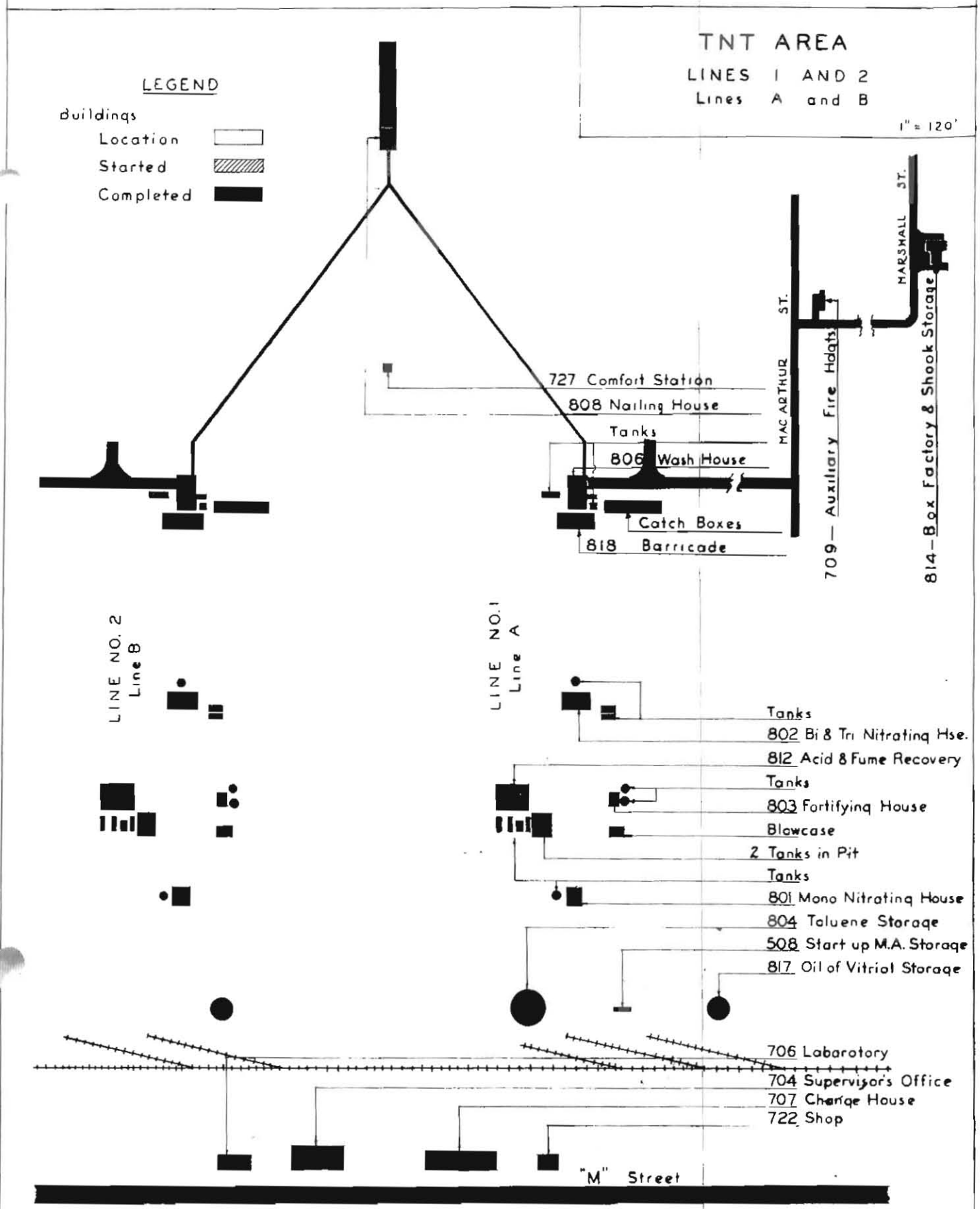
Authority 745067
By RP NARA Date 2/28

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT
PART E

Sheet 7 of 12

Location Lake Ontario Ordnance Works
Youngstown, New York
Period Ending



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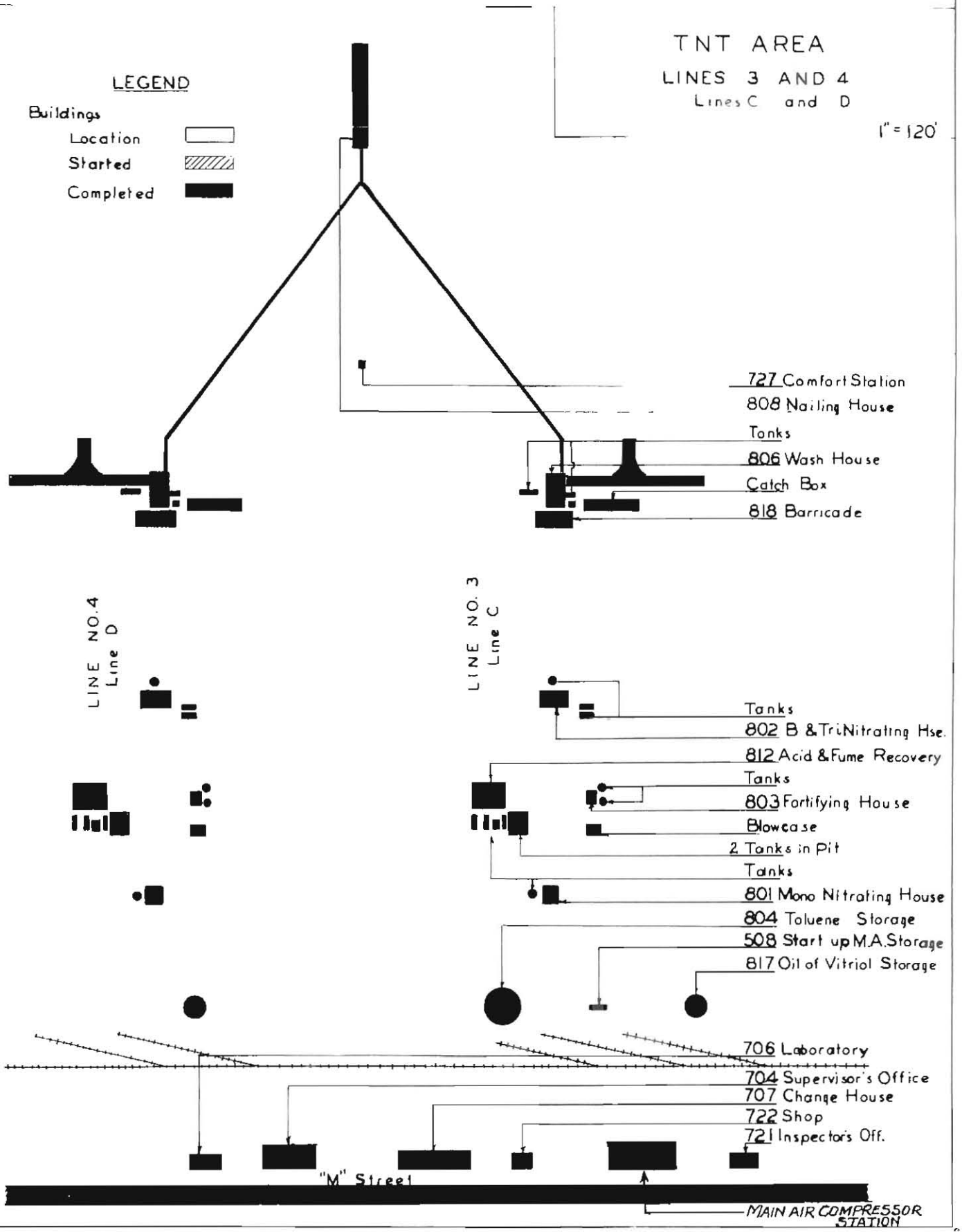
Authority 745067
By RP NARA Date 4/28

Location Ontario Ordnance Works
Youngstown, Ohio
Period Ending



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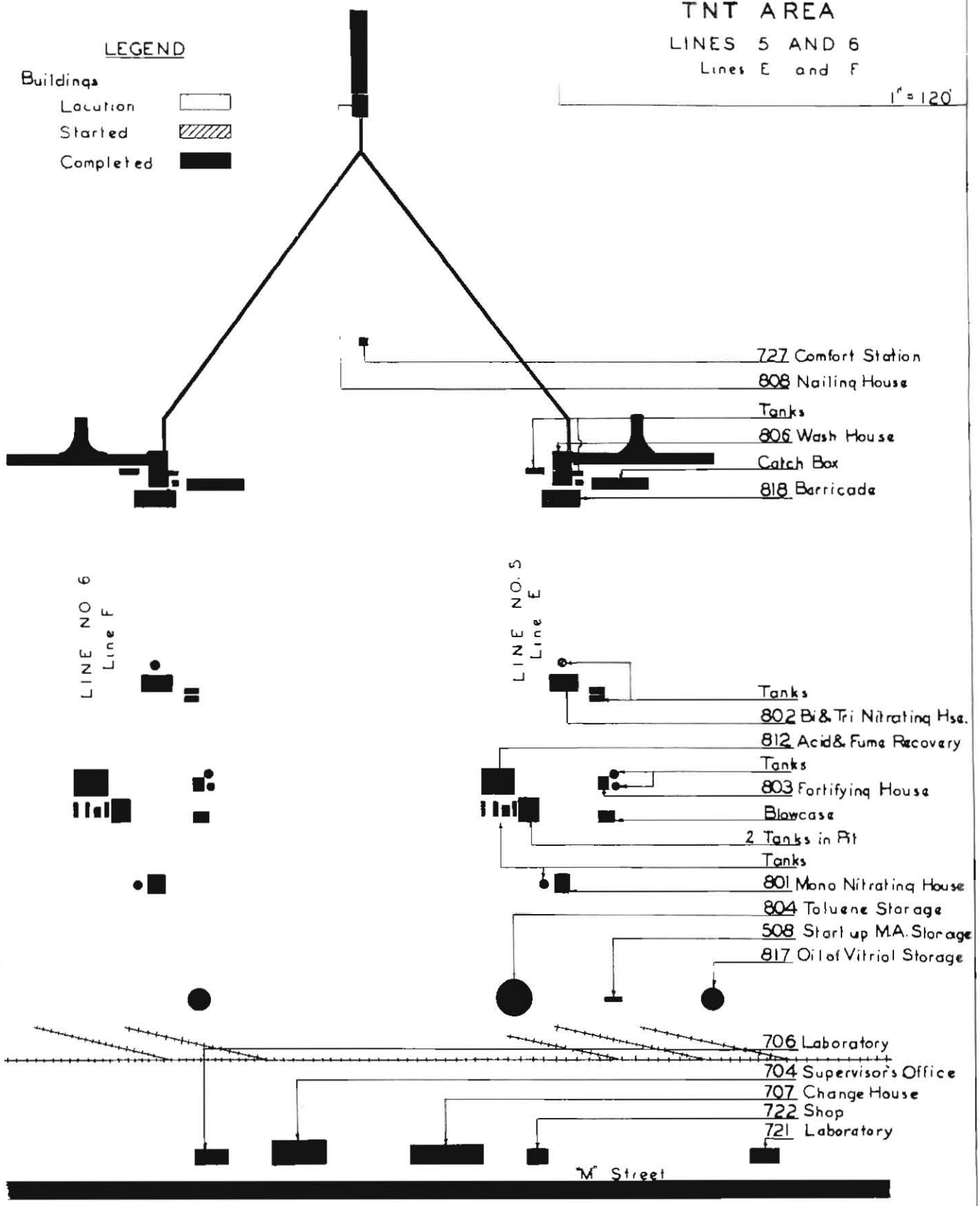
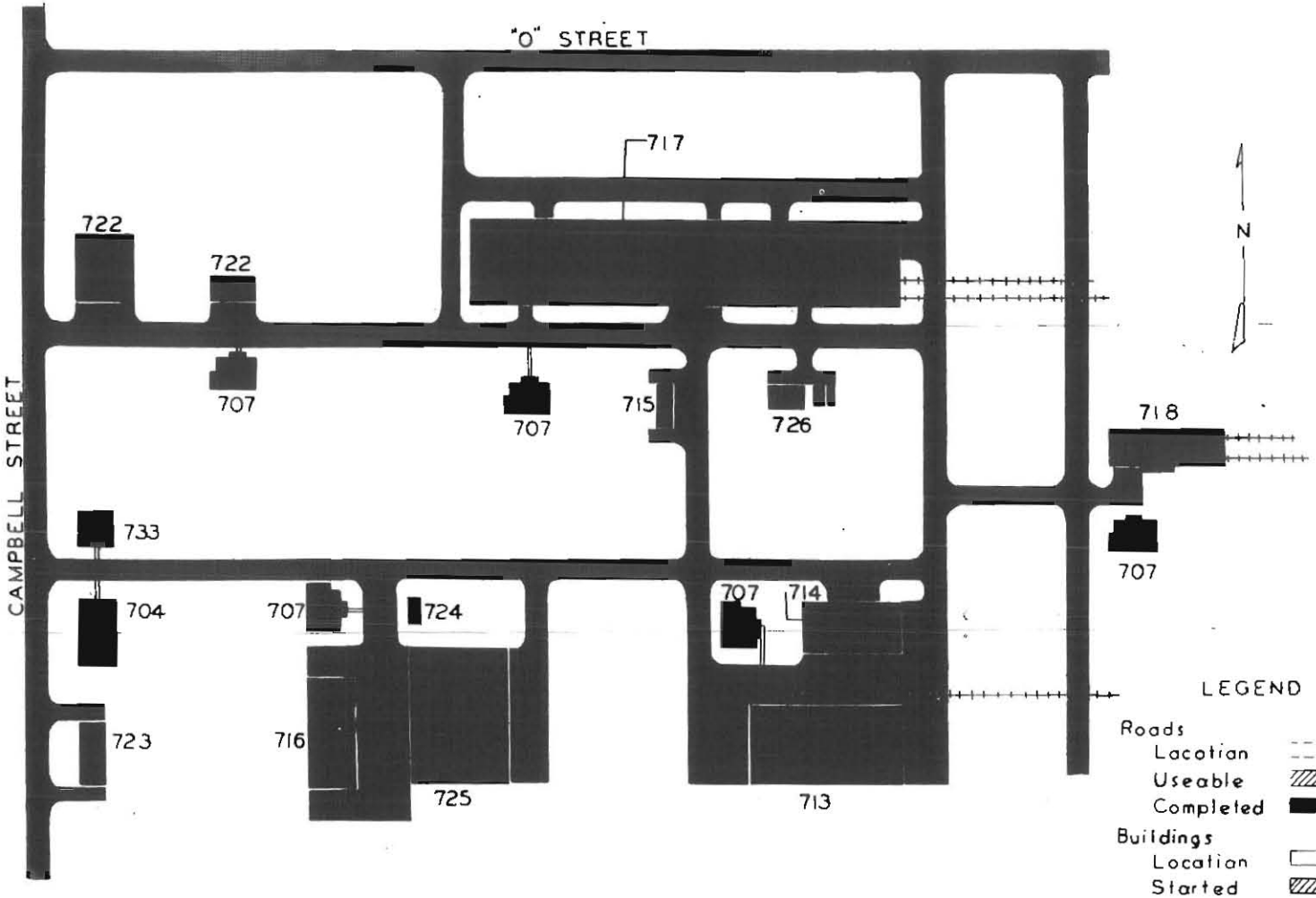
Lake Ontario, N.Y.

Location Lake Ontario Ordnance Works
Youngstown, New York
Period Ending —

Sheet 2 of 12



529



LEGEND

Roads
- Lacotian
- Useable
- Completed

Buildings
- Location
- Started
- Campleted

Railroads
- Location
- Completed

BUILDINGS

722 Millwright and Rigger Shop
733 Service House
704 Supervisor's Office
723 Laundry
707 Change Houses
716 Garage and Repair Shop
725 Parking Garage
724 Gasoline Station
717 Combined Shops
715 Oil and Paint Storage
726 Acetylene Storage
714 Materiol Storehouse
713 General Storehouse
718 Locomotive House

MAP OF SHOPS AREA

1" = 120'

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Authority 745647
By RP NARA Date 2/28/78

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Authority 745067
By RP NARA Date 4/28/

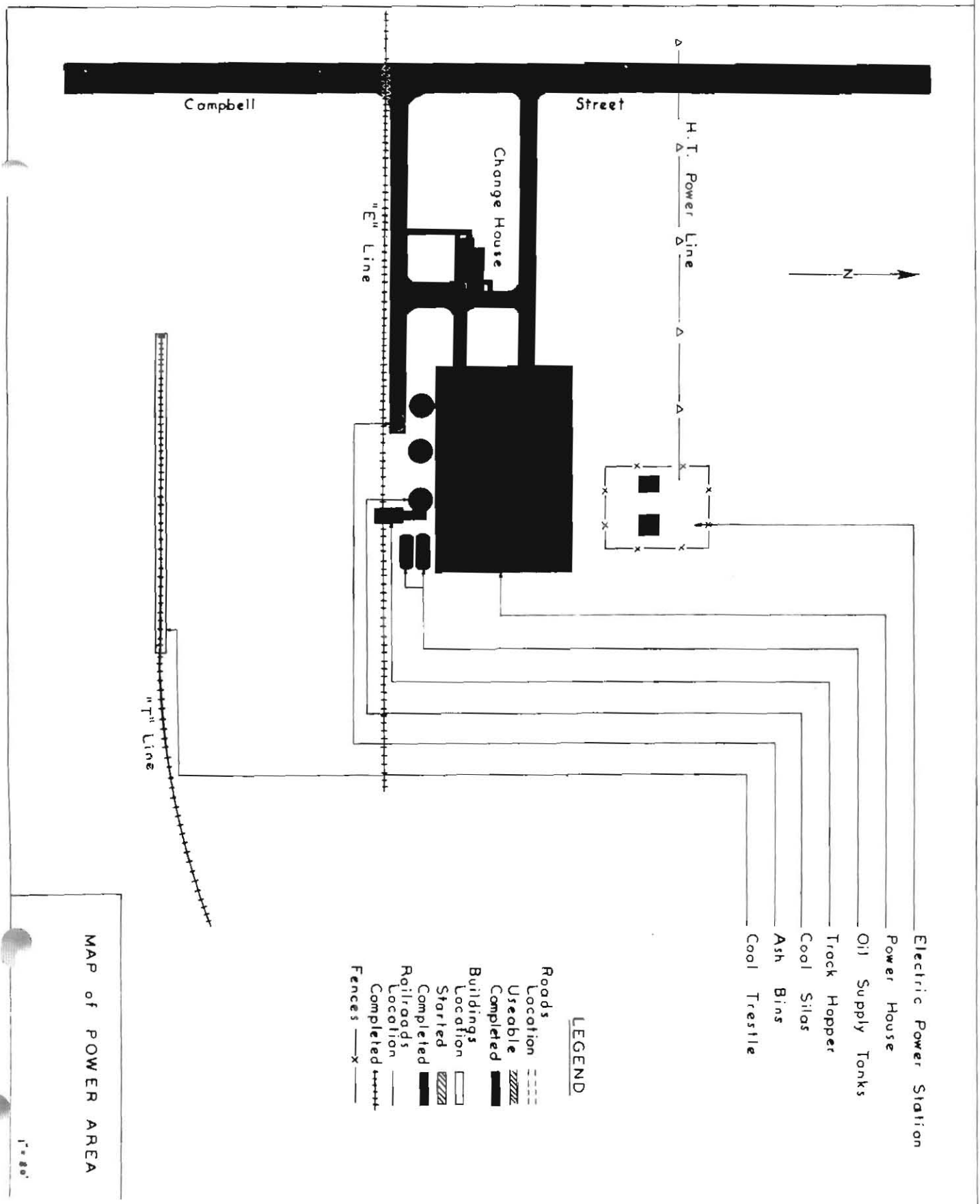
CONFIDENTIAL

Job No. (Lake Ontario) M 1

FIELD PROGRESS REPORT
PART E

Sheet 11 of 12

Location Lake Ontario Ordnance Works
Youngstown, New York
Period Ending



MAP of POWER AREA

1" = 80'

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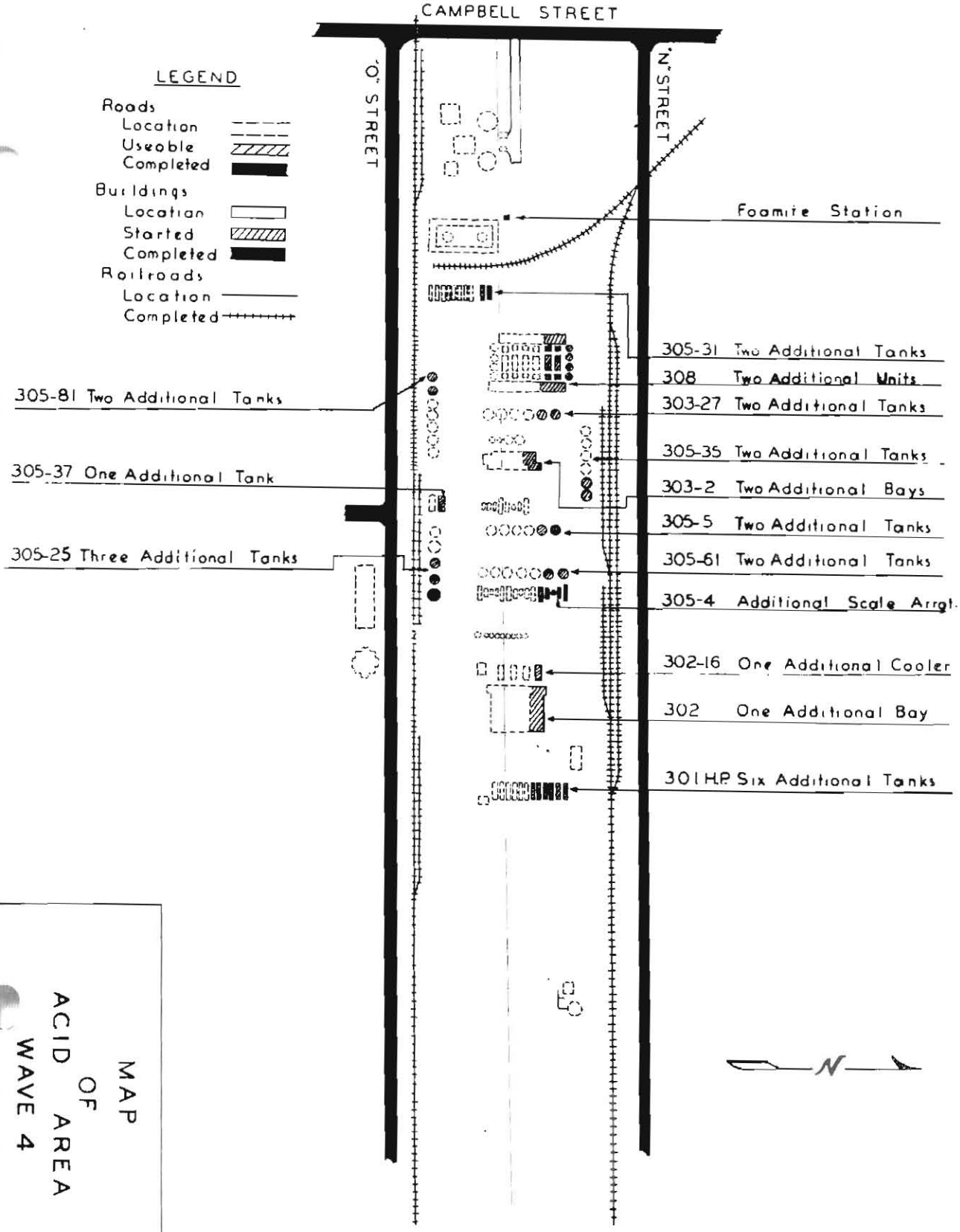
Authority 745067
By RP NARA Date 2/28/

Job No. (Lake Ontario) N 1

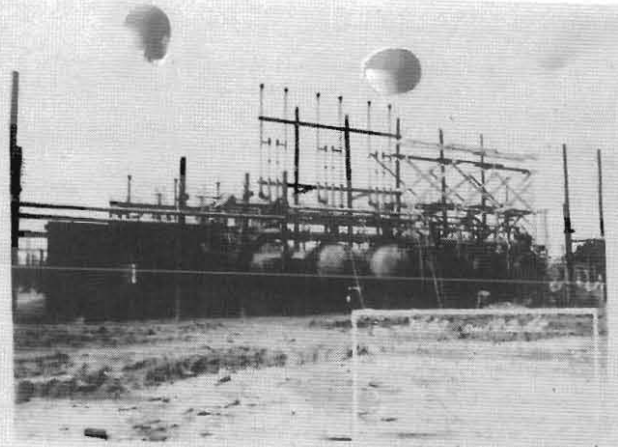
FIELD PROGRESS REPORT
PART B

Sheet 12 of 12

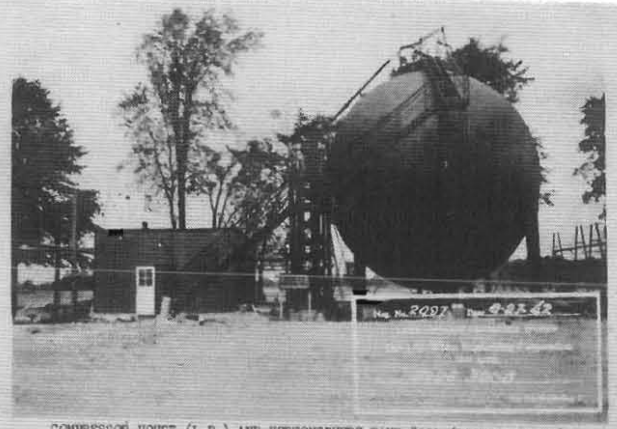
Location Lake Ontario Ordnance Works
Youngstown, New York
Period Ending



MAP OF ACID AREA WAVE 4



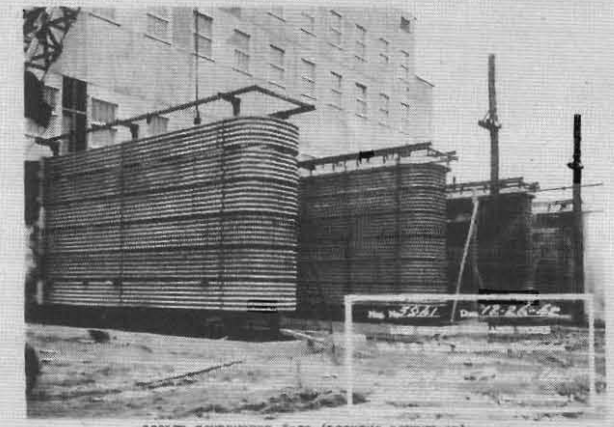
COMPRESSOR HOUSE (H.P.) AND AMMONIA STORAGE TANKS #301 (LOOKING NORTHWEST)



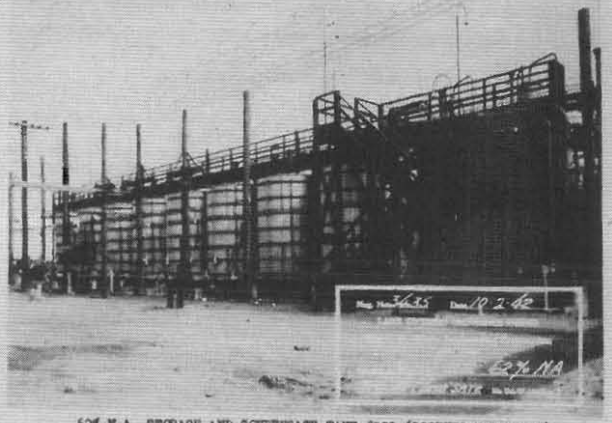
COMPRESSOR HOUSE (L.P.) AND HORTONSPHERE TANK #301 (LOOKING NORTH)

CONVERTER, ABSORPTION AND COMPRESSOR HOUSE #302 (LOOKING SOUTHEAST)

PUMP HOUSE AND OFFICE #302 (LOOKING NORTHWEST)

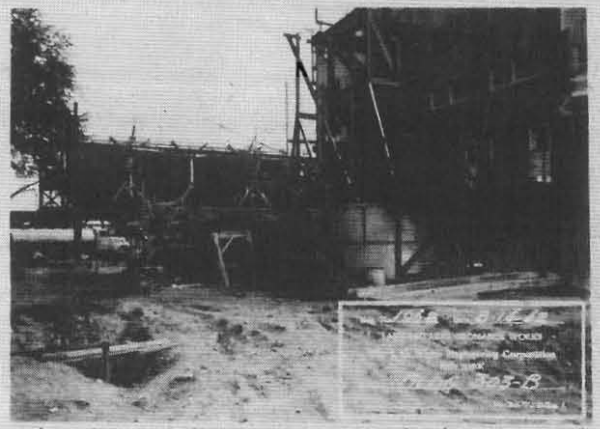


COOLER CONDENSERS #302 (LOOKING SOUTHEAST)

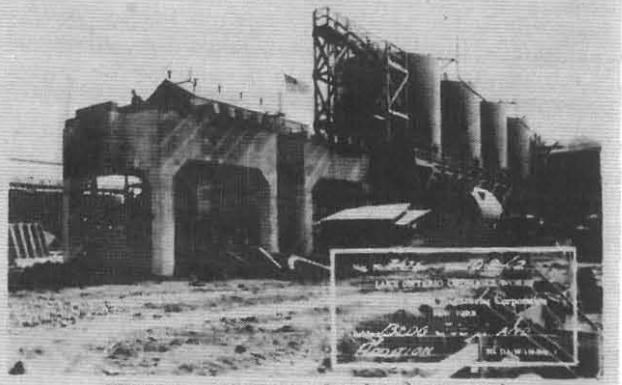


62% N.A. STORAGE AND CONDENSATE TANK #302 (LOOKING NORTHEAST)

N.A. CONCENTRATING HOUSE #303 (LOOKING SOUTHWEST)



55% N.A. STORAGE AND RESIDUAL S.A. COOLING TANKS #303 (LOOKING NORTHEAST)



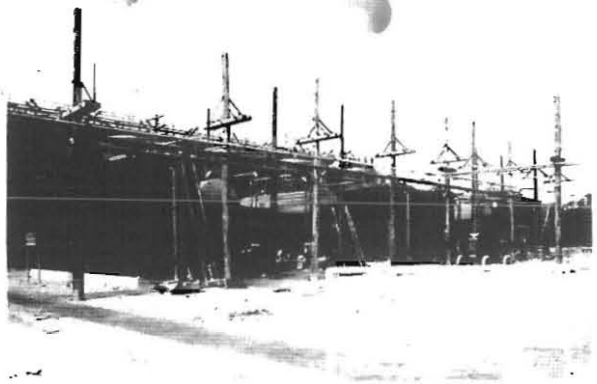
RESIDUAL S.A. STORAGE TANKS #303 (LOOKING SOUTHEAST)

"ACID AREA"
MANUFACTURING BUILDINGS AND STORAGE TANKS

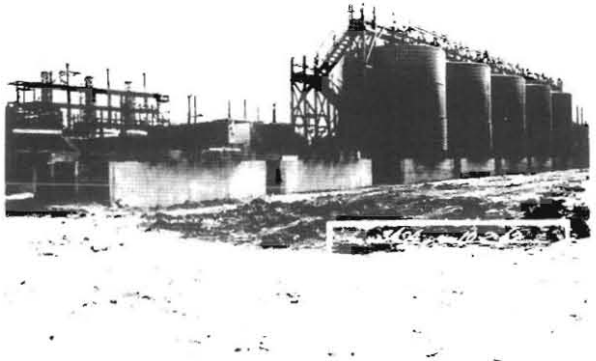
PLATE I

532

RODUCED AT THE NATIONAL ARCHIVES

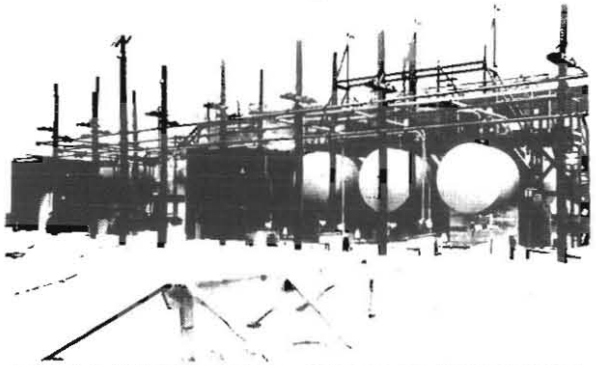


CONC. MIX CIRCULATOR TANKS ON SCALES AND MIX COOLERS #305 (LOOKING NORTHWEST)

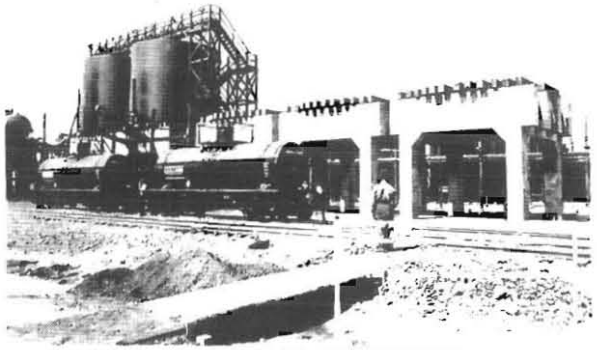


93.2% DARK S.A. STORAGE TANKS #305 (LOOKING SOUTHEAST)

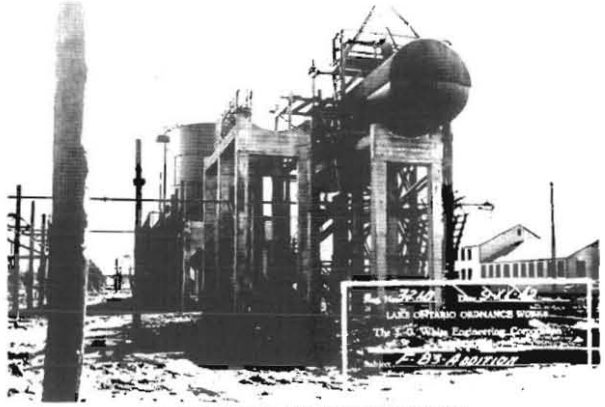
CONCENTRATING MIX STORAGE #305 (LOOKING SOUTHWEST)



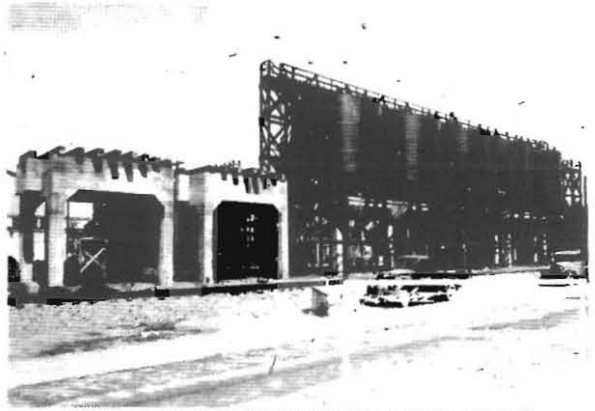
STRONG N. A. STORAGE AND STRONG M. A. CIRCULATORS #305 (LOOKING NORTHEAST)



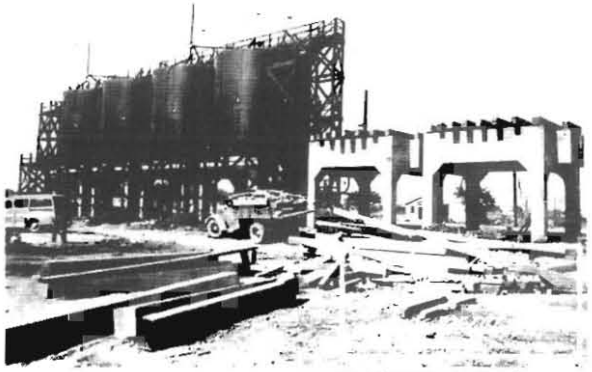
OLEUM STORAGE TANKS #305 (LOOKING NORTHWEST)



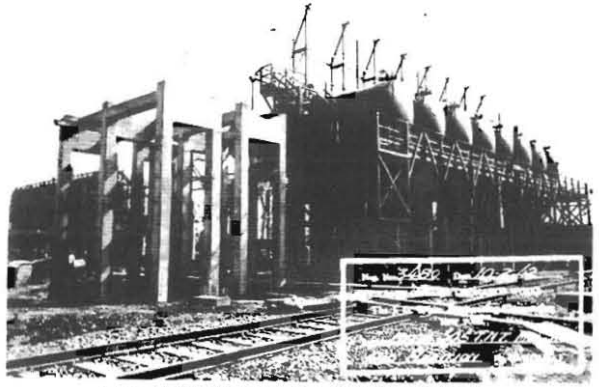
P83 STORAGE TANKS #305 (LOOKING SOUTHEAST)



93.2% CLEAR S.A. SALES STORAGE TANKS #305 (LOOKING NORTHEAST)



T.N.T. RESIDUAL ACID STORAGE TANKS #305 (LOOKING NORTHWEST)



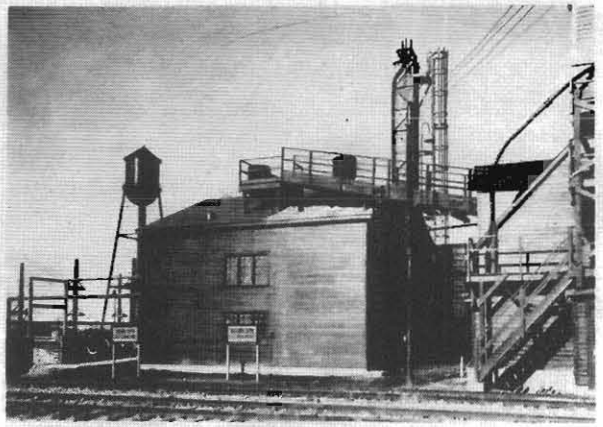
T.N.T. MIX STORAGE TANKS #305 (LOOKING SOUTHEAST)

"ACID AREA"
MANUFACTURING BUILDINGS AND STORAGE TANKS

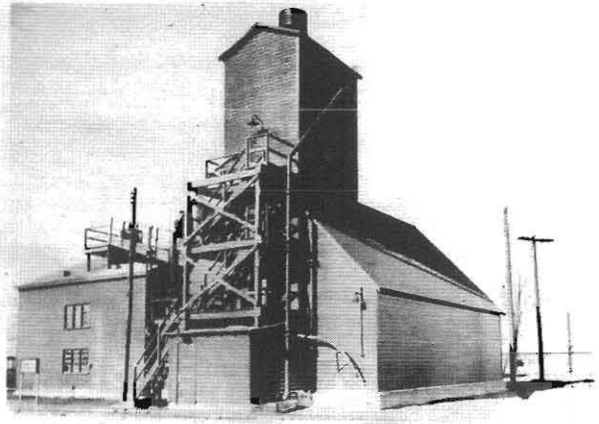
PLATE 11

533

PRODUCED AT THE NATIONAL ARCHIVES

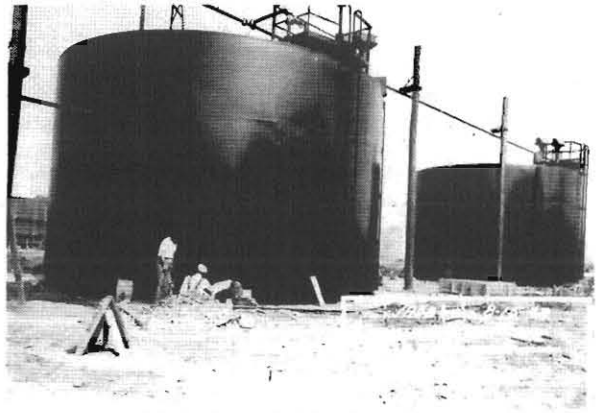


SULPHUR STORAGE, SCALES AND MIX HOUSE #307 (LOOKING NORTHWEST)

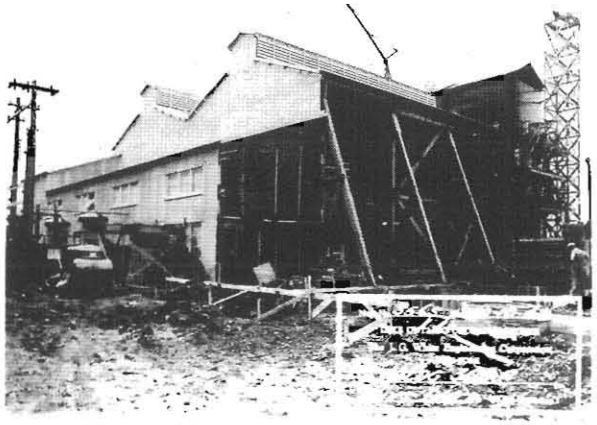


SODA ASH STORAGE BLDG. #307 (LOOKING NORTHWEST)

SELLITE SOLUTION STORAGE TANK #307 (LOOKING WEST)



FUEL OIL STORAGE #308 (LOOKING NORTHWEST)



DARK S.A. CONCENTRATING HOUSE #308 (LOOKING [illegible]

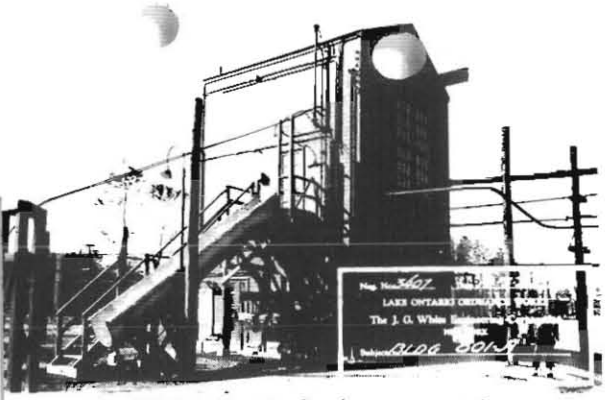
[illegible] END [illegible]

534

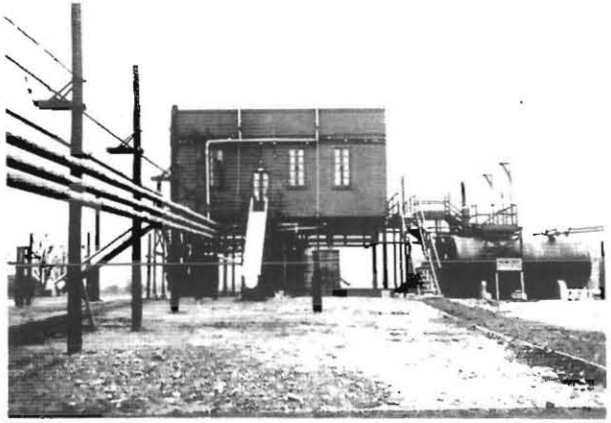
"AGTE APEAR"
MANUFACTURING BUILDING AND STORAGE

PLATE III

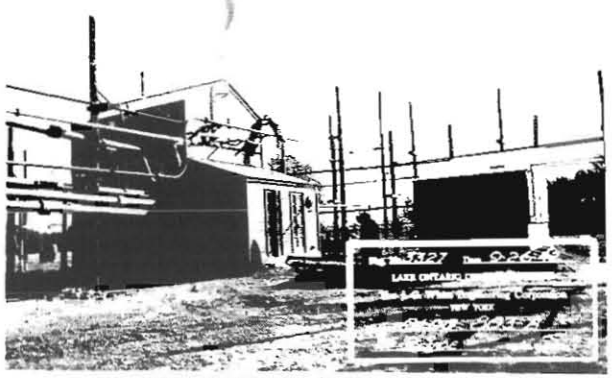
ODUCED AT THE NATIONAL ARCHIVES



MONO NITRATING HOUSE #801 (LOOKING SOUTHWEST)



BI & TRI NITRATING HOUSE #802 (LOOKING NORTH)



FORTIFYING HOUSE #803 (LOOKING NORTHEAST)

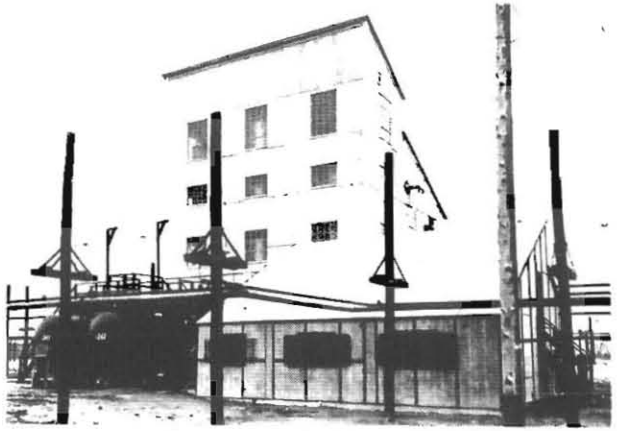
TOLUENE STORAGE (BULK) #804 (LOOKING NORTHWEST)

TOLUENE STORAGE (WORKING) #804 (LOOKING NORTHWEST)

WASH HOUSE AND CATCHBOXES #806 (LOOKING SOUTHWEST)

CONVEYOR LINES A-C-E #807 (LOOKING SOUTHEAST)

NAILING HOUSE #808 (LOOKING SOUTHWEST)



ACID AND FUME RECOVERY HOUSE #812 (LOOKING NORTHWEST)

MANUFACTURING BUILDINGS & STORAGE TANKS T.N.T. AREA

PLATE IV

PRODUCED AT THE NATIONAL ARCHIVES

BOX FACTORY AND SHOOK STORAGE #814 (LOOKING NORTHWEST)

BOX FACTORY AND SHOOK STORAGE #814 (LOOKING NORTHEAST)

BARRICADE #818 (LOOKING NORTHWEST)

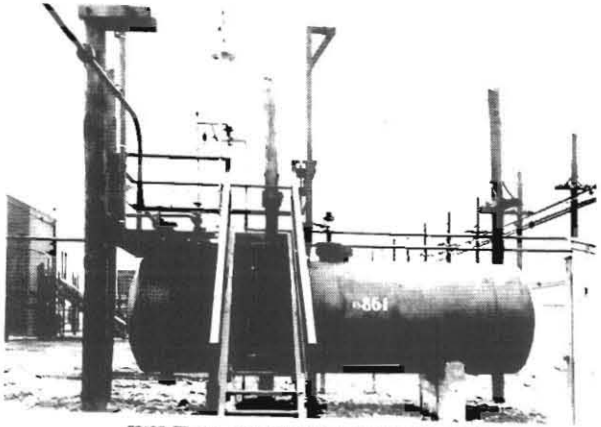
FOAMITE BUILDING (T.N.T. AREA) (LOOKING NORTHEAST)

MAIN AIR COMPRESSOR HOUSE #218 (LOOKING NORTHEAST)

O. V. STORAGE TANK #817 (LOOKING NORTHWEST)

TYPICAL CAR SPOT WITHOUT LOADING AND UNLOADING PLATFORM

TYPICAL CARSPOT WITH LOADING AND UNLOADING PLATFORM



START-UP M.A. STORAGE TANK #508 (LOOKING NORTH)

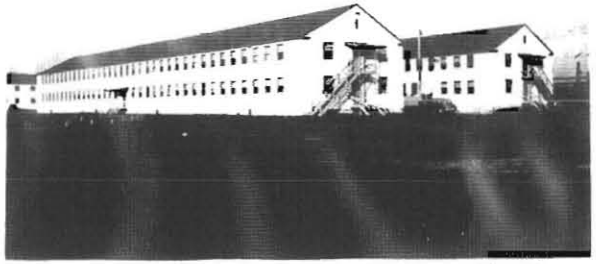
MANUFACTURING BUILDINGS AND STORAGE TANKS (T.N.T. AREA)
TYPICAL CAR SPOTS VARIOUS LOCATIONS

PLATE V

RODUCED AT THE NATIONAL ARCHIVES

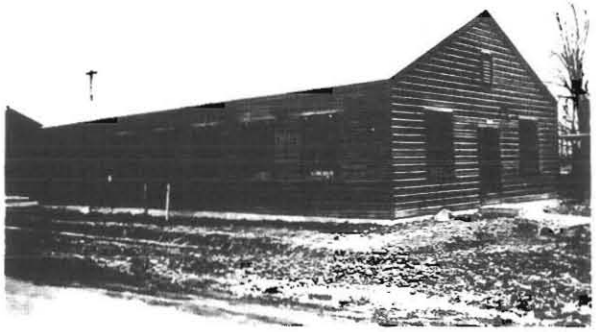
GATE HOUSE #701 (LOOKING NORTHEAST)

TELEPHONE BUILDING #702 (LOOKING NORTHEAST)



ADMINISTRATION (MAIN OFFICE) BUILDING #703 (LOOKING NORTHWEST)

SUPERVISOR'S OFFICE #704 CLASSIFICATION YARD (LOOKING NORTH)



SUPERVISOR'S OFFICE #704 SHOP AREA (LOOKING NORTHEAST)

SUPERVISOR'S OFFICE #704 T.N.T. AREA (LOOKING NORTHEAST)

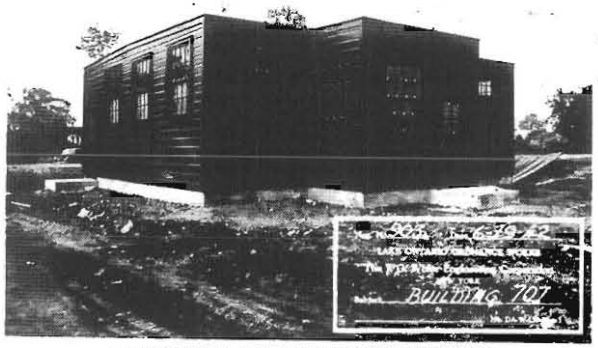
EMPLOYMENT OFFICE #705 (LOOKING NORTHWEST)

LABORATORY and SUPERVISORS OFFICE (ACID AREA) No. 706 (LOOKING SOUTHEAST)

LABORATORY #706 T.N.T. AREA (LOOKING NORTHEAST)

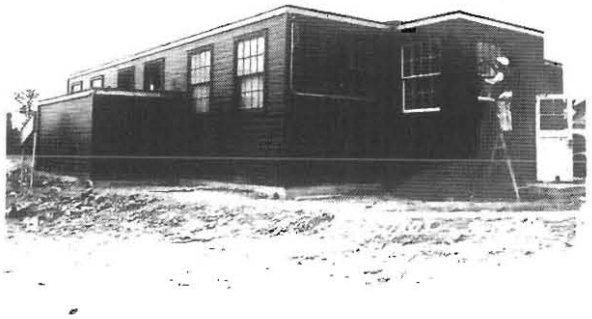
ADMINISTRATION, SERVICE AND MAINTENANCE BUILDINGS

PLATE VI

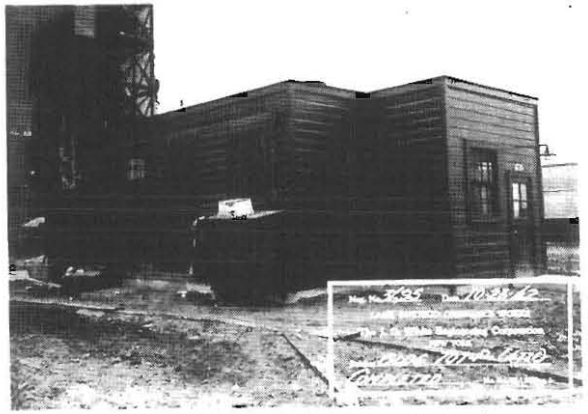


CHANGE HOUSE NO. 707 SHOP AREA (LOOKING SOUTHWEST)

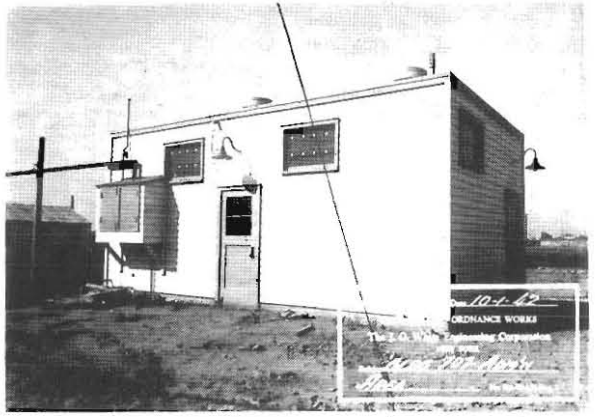
CHANGE HOUSE #707 T.N.T. AREA (LOOKING NORTHEAST)



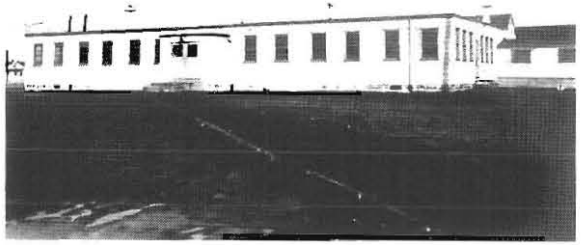
CHANGE HOUSE NO. 707 ACID AREA (LOOKING SOUTHEAST)



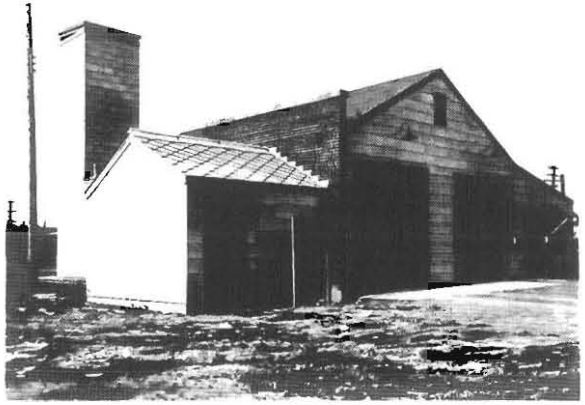
CHANGE HOUSE NO. 707 POWER AREA (LOOKING SOUTHEAST)



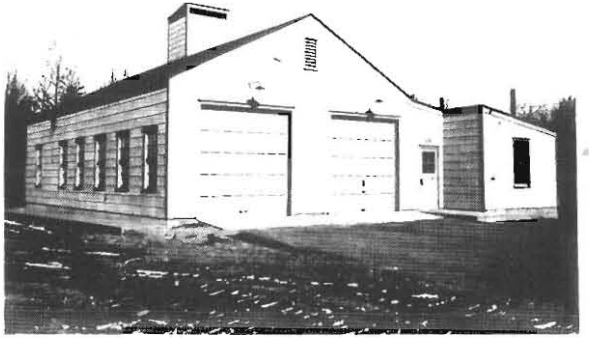
CHANGE HOUSE NO. 707 ADMINISTRATION AREA (LOOKING NORTHWEST)



CAFETERIA #708 (LOOKING NORTHWEST)



MAIN FIRE HEADQUARTERS #709 (LOOKING NORTHWEST)



AUXILIARY FIRE HOUSE #709 (LOOKING NORTHEAST)

GENERAL STOREHOUSE NO. 713 (LOOKING SOUTHWEST)

ADMINISTRATION, SERVICE AND MAINTENANCE BUILDINGS

PLATE VII

REPRODUCED AT THE NATIONAL ARCHIVES

MATERIAL SHED #714 (LOOKING SOUTHWEST)

OIL AND PAINT STORAGE #715 (LOOKING SOUTHWEST)

GARAGE AND REPAIR SHOP #716 (LOOKING SOUTHWEST)

COMBINED SHOPS #717 (LOOKING NORTHWEST)

LOCOMOTIVE HOUSE #718 (LOOKING NORTHEAST)

MEDICAL SERVICE BLDG. #719 (LOOKING NORTHEAST)

GUARD HEADQUARTERS #720 (LOOKING NORTHWEST)

INSPECTOR'S OFFICE #721 TNT AREA (LOOKING NORTHEAST)

INSPECTOR'S LABORATORY #721 TNT AREA (LOOKING NORTHEAST)

ADMINISTRATION, SERVICE AND MAINTENANCE BUILDINGS

PLATE VIII

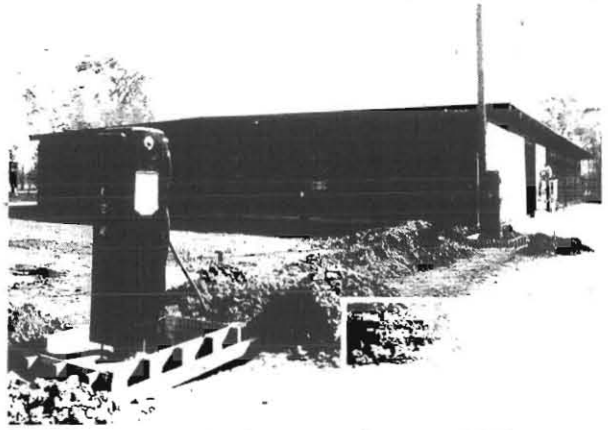
RODUCED AT THE NATIONAL ARCHIVES

MILLWRIGHT SHOP #722 (LOOKING NORTHEAST)

AREA SHOP #722 T.N.T. AREA (LOOKING NORTHEAST)

CHOCKING LUMBER SHED #722 (LOOKING SOUTHWEST)

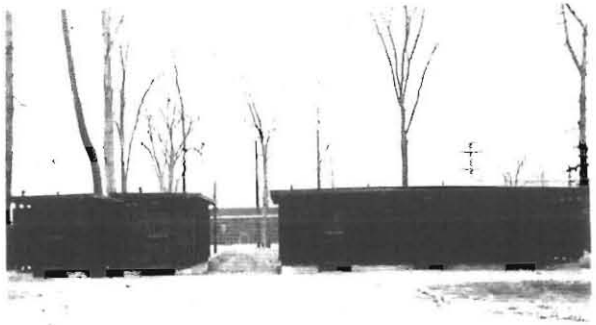
LAUNDRY #723 (LOOKING SOUTHEAST)



GASOLINE STATION #724 SHOP AREA (LOOKING SOUTHEAST)

GASOLINE STATION #724 MAGAZINE AREA (LOOKING EAST)

PARKING GARAGE (BUSSES) #725 (LOOKING SOUTHEAST)



ACETYLENE STORAGE #726 (LOOKING SOUTH)

COMFORT STATION #727 T.N.T. AREA (LOOKING SOUTHWEST)

PLATE IX

SERVICE AND MAINTENANCE BUILDINGS

REPRODUCED AT THE NATIONAL ARCHIVES

GARAGE FOR STAFF & ORDNANCE #728 (LOOKING SOUTHWEST)

GARAGE FOR GUARD HEADQUARTERS #730 (LOOKING SOUTHWEST)

SERVICE HOUSE #733 MAGAZINE AREA (LOOKING SOUTHEAST)

MEETING HOUSE #733 SHOP AREA (LOOKING SOUTHEAST)

DORMITORIES #735 (LOOKING NORTHWEST)

EXAMINATION BUILDING #701 (LOOKING NORTHEAST)

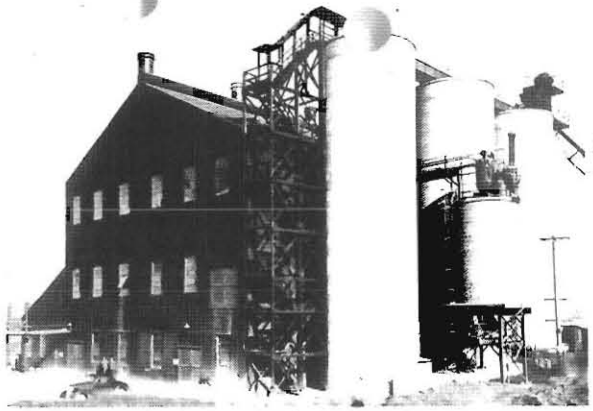
BARN E82 ON BALMER RD, REMODLED FOR MOUNTED GUARD HORSE STABLES (LOOKING SOUTHEAST)

MAIN PARKING AREA PLETCHER ROAD & CAMPBELL ST. (LOOKING NORTHWEST)

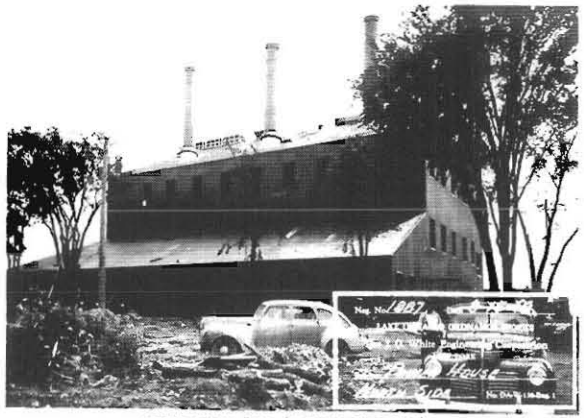
FLAG POLE FRONT OF ADMINISTRATION BLDG. (LOOKING NORTHWEST)

SERVICE AND MAINTENANCE BUILDINGS, PARKING AREA AND FLAG POLE

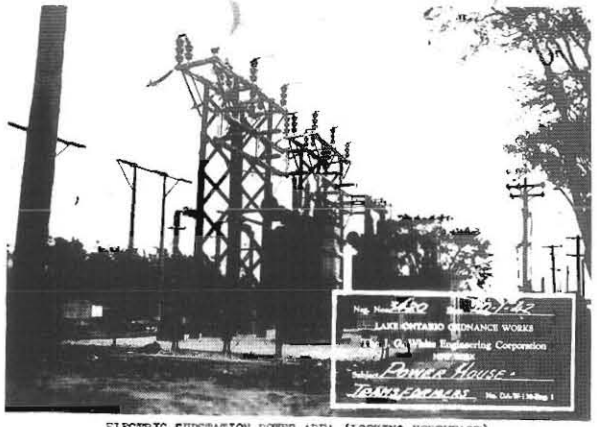
PLATE X



BOILER HOUSE #401 (LOOKING NORTHEAST)



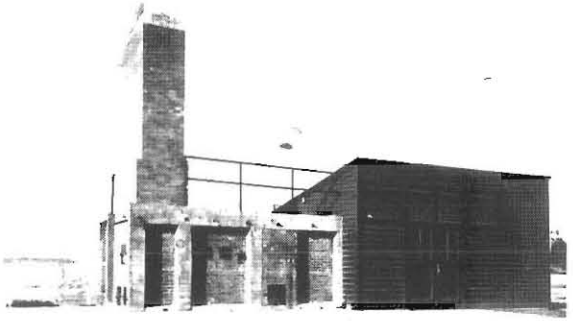
BOILER HOUSE #401 (LOOKING SOUTHEAST)



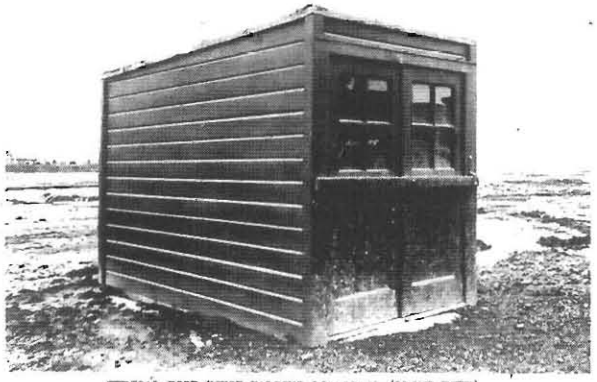
ELECTRIC SUBSTATION POWER AREA (LOOKING NORTHEAST)

BOILER FEED WATER TANK, POWER AREA (LOOKING NORTHWEST)

COAL STORAGE TRESTLE POWER AREA (LOOKING SOUTHEAST)



INCINERATOR (LOOKING NORTHWEST)



TYPICAL HOSE HOUSE VARIOUS LOCATIONS (FRONT VIEW)

COAL STORAGE YARD ADJACENT TO BOILER HOUSE

BURNING GROUNDS AREA AND CHARGING FLOOR RAMP TO INCINERATOR

POWER AREA STRUCTURES, MISCELLANEOUS SERVICE BUILDINGS, COAL STORAGE YARD AND BURNING GROUNDS AREA

PLATE XI

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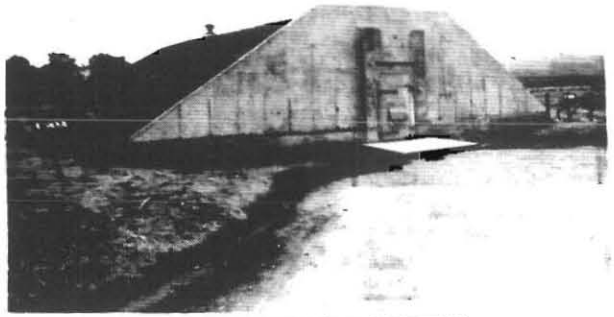
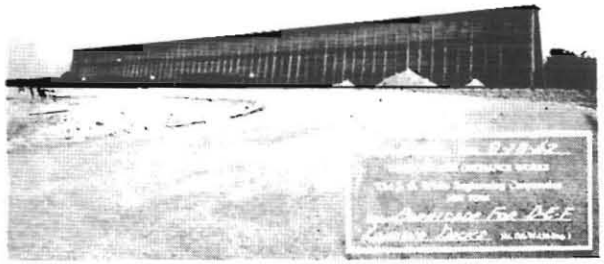


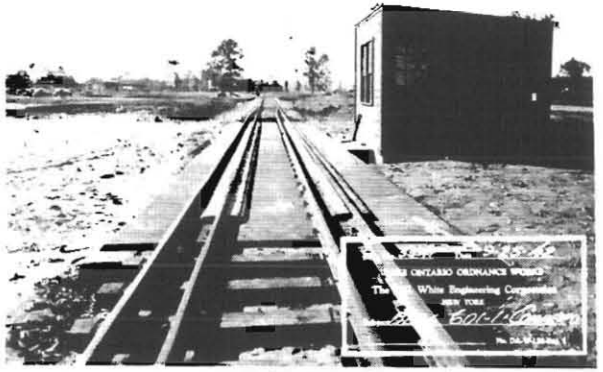
IGLOO #58 FRONT VIEW (LOOKING SOUTHWEST)

"E" STREET LOOKING EAST FROM "D" AVE.

LOADING PLATFORMS #821 MAGAZINE AREA (LOOKING NORTHEAST)

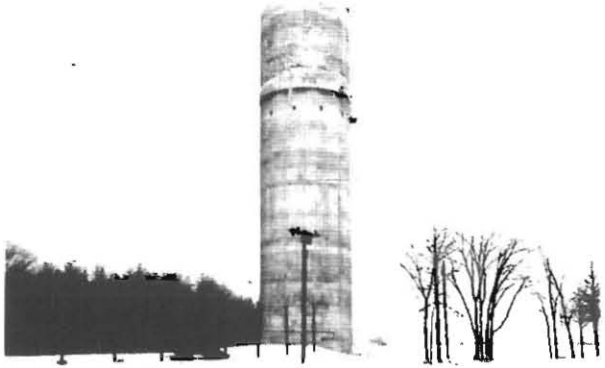


BARRICADE #618 MAGAZINE AREA (LOOKING NORTHEAST)



SCALE HOUSE AND TRACK SCALES #601 WEST OF ACID AREA (LOOKING SOUTH)

FUEL OIL AND GASOLINE TEMPORARY STORAGE TRANS. AREA (LOOKING NORTHEAST)



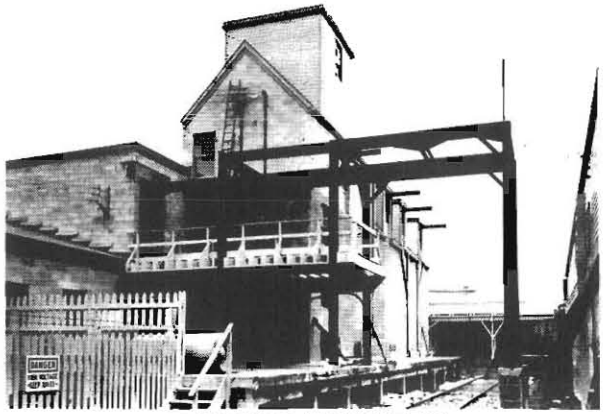
275,000 GALLON COOLING WATER STORAGE (ACID AREA) (LOOKING NORTHEAST)

DRINKING WATER STORAGE TANK NORTHWEST OF POWER AREA (LOOKING WEST)

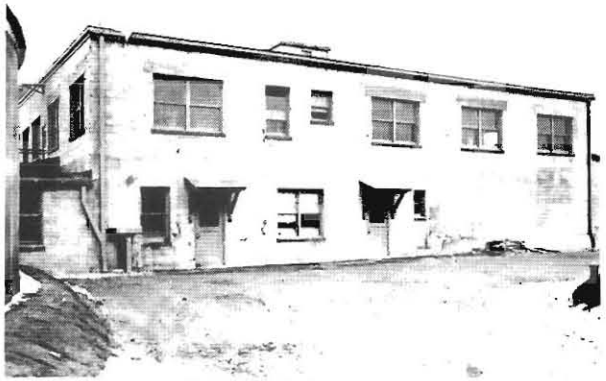
FIRE WATER STORAGE TANK WEST OF ACID AREA (LOOKING NORTHWEST)

MAGAZINE AREA STRUCTURES, SCALE HOUSE, TANKS AND ELEVATED WATER STORAGE TANKS

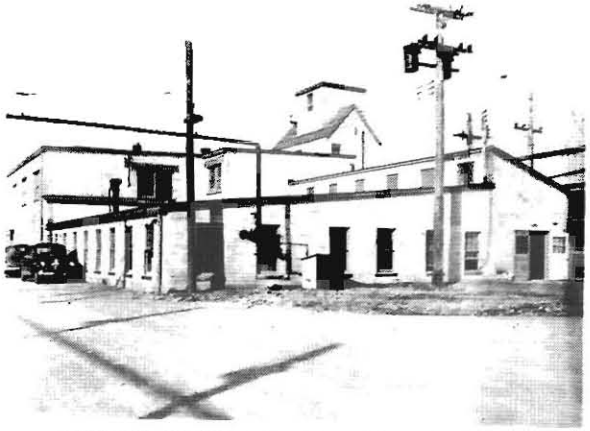
PLATE XII



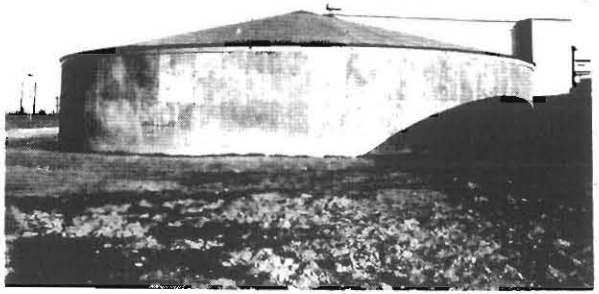
CHEMICAL STORAGE (LOOKING SOUTHWEST)



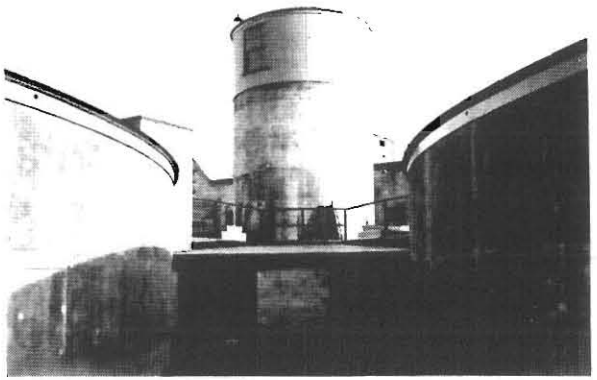
FILTER BUILDING (LOOKING NORTHEAST)



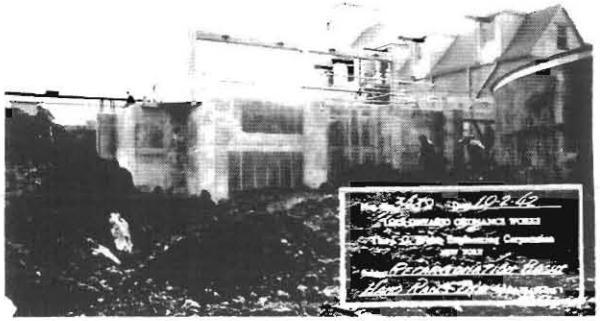
PUMPING STATION - WATER TREATMENT PLANT (LOOKING NORTHWEST)



ACCELATOR (LOOKING NORTHEAST)



SURGE TANK (LOOKING NORTHEAST)



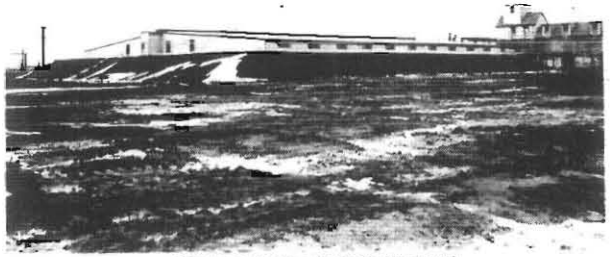
RECARBONATION BASIN (LOOKING SOUTHEAST)

WATER TREATMENT PLANT BUILDINGS AND TANKS

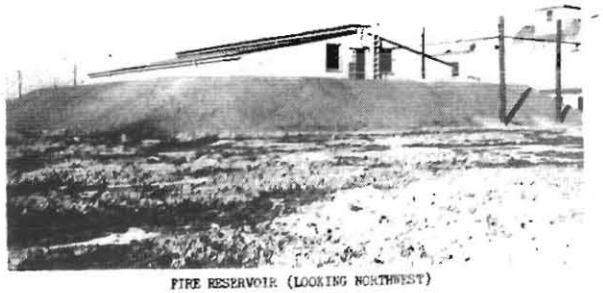
PLATE XIII

544

RODUCED AT THE NATIONAL ARCHIVES

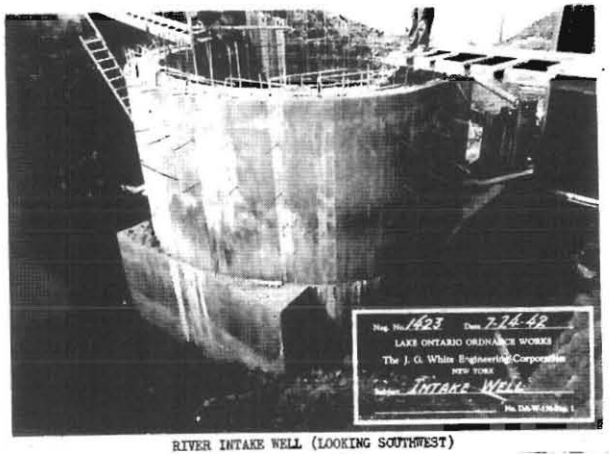


COOLING RESERVOIR (LOOKING SOUTHEAST)



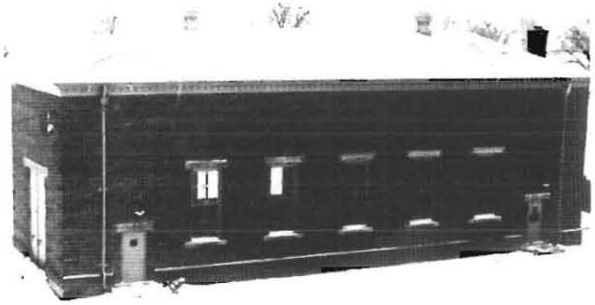
FIRE RESERVOIR (LOOKING NORTHWEST)

SLURRY POOL, EAST DIKE (LOOKING NORTHEAST)



RIVER INTAKE WELL (LOOKING SOUTHWEST)

RIVER INTAKE - PUMPING STATION (LOOKING SOUTHEAST)



RIVER INTAKE - PUMPING STATION (LOOKING NORTHWEST)

SIPHON TANKS IN OUTFALL UNDER 2 MILE CREEK (LOOKING NORTH)

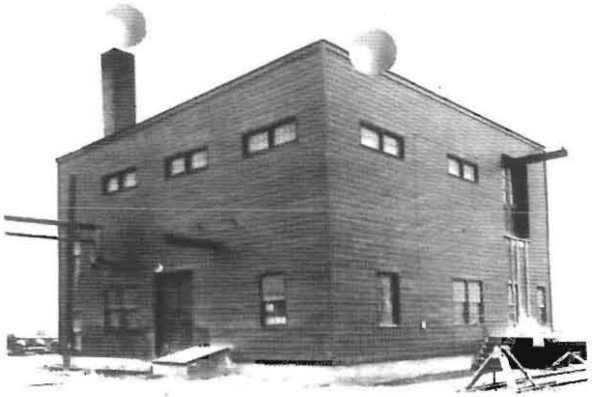
ROAD FROM INTAKE GATEHOUSE TO RIVER PUMPING STATION

INTAKE GATEHOUSE #404 (LOOKING NORTHWEST)

WATER TREATMENT PLANT, RESERVOIRS, SLURRY POOL, OUTFALL, SIPHON, INTAKE BUILDINGS AND ROADWAY

PLATE XIV

RODUCED AT THE NATIONAL ARCHIVES



ACID NEUTRALIZATION BUILDING (LOOKING NORTHWEST)

SEWAGE DISPOSAL PUMP STATION (LOOKING SOUTHWEST)

IMHOFF TANK (LOOKING NORTHWEST)

COLLECTION TANK (LOOKING NORTHEAST)

MIXING TANK (LOOKING NORTHEAST)

SOUTH SLUDGE BED (LOOKING WEST)

VENTURI VAULT (LOOKING NORTHEAST)

CHLORINE CONTACT TANK (LOOKING NORTHEAST)

OUTFALL HEAD TANK (LOOKING NORTHWEST)

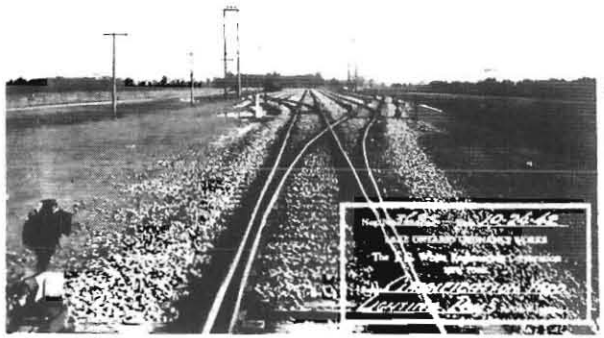
SEWAGE TREATMENT AND ACID NEUTRALIZATION PLANT

PLATE XV

RODUCED AT THE NATIONAL ARCHIVES

"R" LINE TRACK (LOOKING SOUTH)

RAILROAD TRACKS IN CLASSIFICATION YARD (LOOKING NORTHEAST)



"A" LINE TRACK INTO CLASSIFICATION YARD (LOOKING NORTHEAST)

"C" LINE TRACK INTO COMBINED SHOPS (LOOKING WEST)

"B" LINE TRACK INTO LOCOMOTIVE HOUSE (LOOKING WEST)

"D" LINE TRACK Y INTO "A" LINE TRACK (LOOKING EAST)

"H-16" LINE TRACK INTO ACID AREA AND H-16-A SPUR (LOOKING SOUTH)

"G" LINE TRACK ACID AREA (LOOKING EAST ALONG "N" STREET)

"H" LINE TRACK T.N.T. AREA (LOOKING WEST)

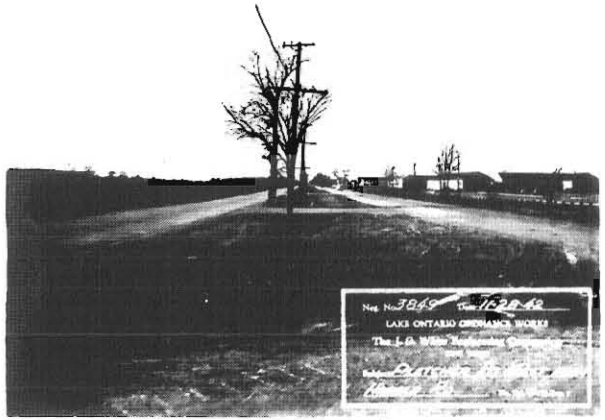
PLATE XVI

RODUCED AT THE NATIONAL ARCHIVES

PLETCHER ROAD START OF DOUBLE LANE (LOOKING EAST)

HAROLD ROAD LOOKING SOUTH TOWARD SWAN ROAD

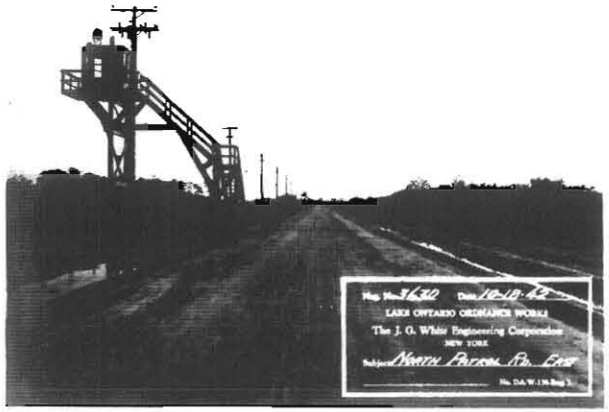
CAMPBELL STREET LOOKING SOUTH FROM "M" STREET



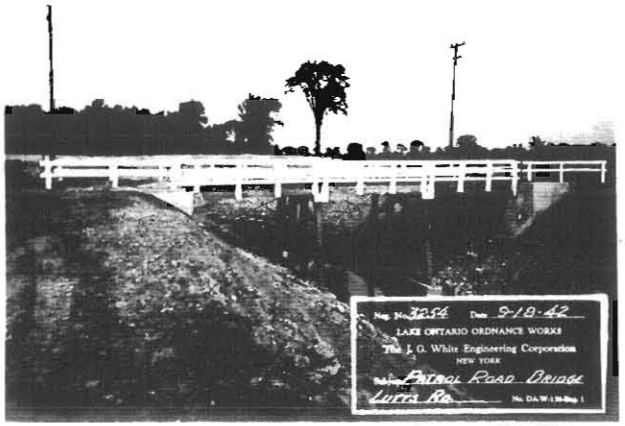
PLETCHER ROAD DOUBLE LANE (LOOKING WEST)

"O" ST. BETWEEN SHOP AND ACID AREA (LOOKING WEST)

EAST PATROL ROAD (LOOKING SOUTH)



NORTH PATROL ROAD (LOOKING EAST)



PATROL ROAD BRIDGE OVER CENTRAL DRAIN DITCH (LOOKING NORTHEAST)

BALMER ROAD BRIDGE OVER CENTRAL DRAIN DITCH (LOOKING NORTH)

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PLATE XVII

ROADS AND BRIDGES

RODUCED AT THE NATIONAL ARCHIVES

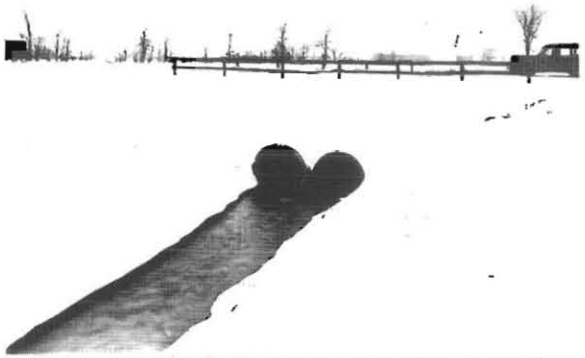
SOUTHWESTERN DRAIN DITCH (LOOKING NORTH)

CENTRAL DRAIN DITCH-AT MAGAZINE DITCH INLET (LOOKING SOUTH)

MAGAZINE AREA DRAINAGE DITCH (LOOKING WEST TOWARD CENTRAL DITCH)

CONCRETE PIPE DRAIN UNDER FLETCHER ROAD (SOUTHWESTERN DITCH)

CONCRETE PIPE DRAIN UNDER WEST PATROL ROAD (SIX MILE CREEK)



DOUBLE PIPE DRAIN UNDER "N" ST. CENTRAL DITCH (LOOKING NORTHWEST)

NEW DOUBLE CULVERT UNDER BALMER ROAD, S.W. DITCH (LOOKING NORTH)

ORIGINAL CULVERT UNDER BALMER ROAD S.W. DRAIN (LOOKING NORTHWEST)

OVERFLOW FROM PUMPING STATION BLDG #5412 INTO CENTRAL DITCH

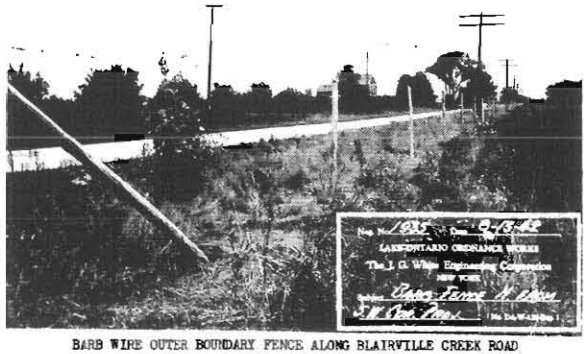
MAIN DRAINAGE DITCHES, CONCRETE PIPE DRAINS AND CULVERTS

PLATE XVIII

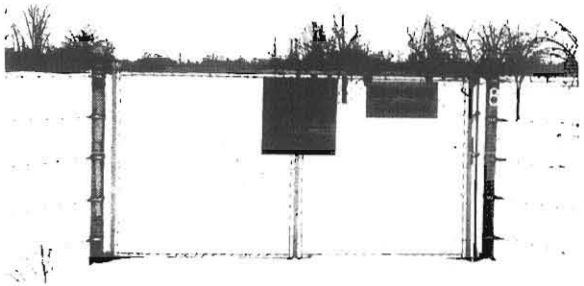
549

ED AT THE NATIONAL ARCHIVES

BARB WIRE OUTER BOUNDARY FENCE WEST SIDE INTAKE AREA

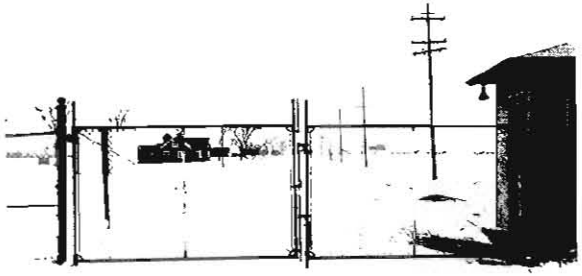


BARB WIRE OUTER BOUNDARY FENCE ALONG BLAIRVILLE CREEK ROAD



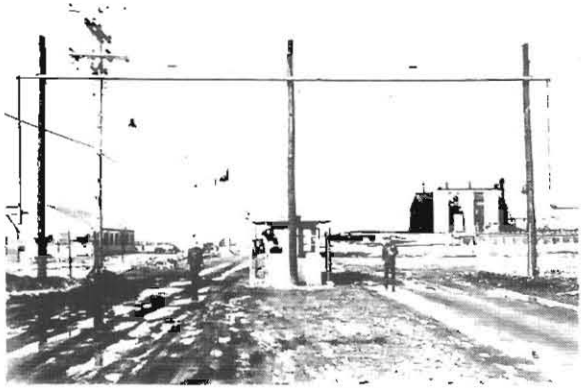
TYPICAL GATE IN BARB WIRE OUTER BOUNDARY FENCE

TYPICAL SECTION OF CLIMB PROOF INNER GUARD FENCE

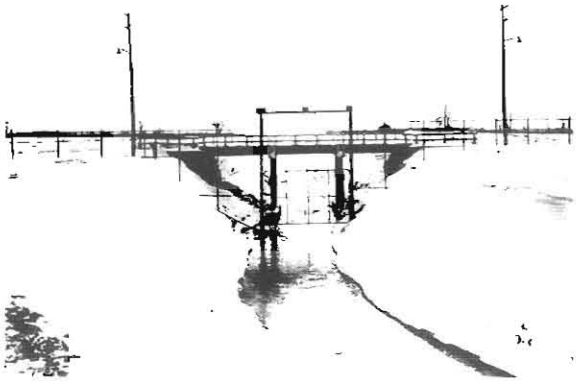


TYPICAL GATE IN CLIMB PROOF INNER GUARD FENCE

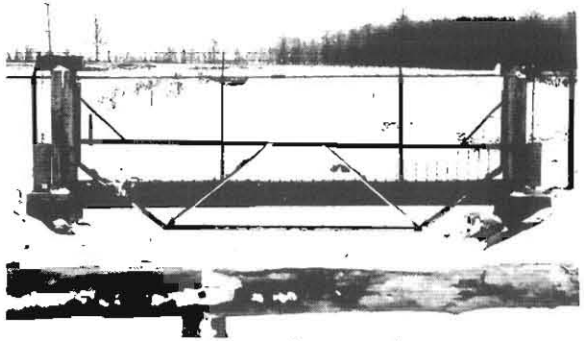
TYPICAL RAILROAD GATE IN CLIMB PROOF INNER GUARD FENCE



CAMPBELL ST. ENTRANCE GATE AT INNER GUARD FENCE



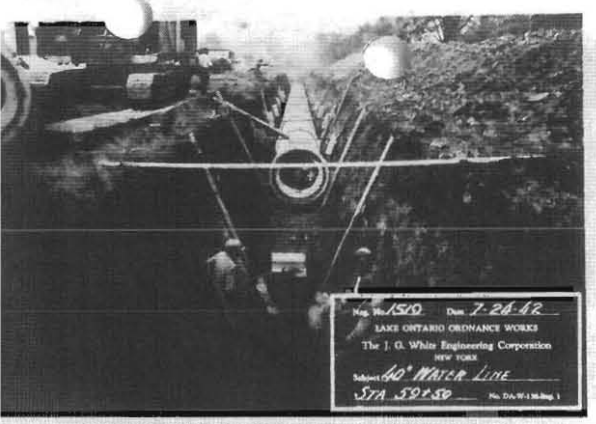
WINCH OPERATED GUARD GATE (CENTRAL DITCH) AT NORTH PATROL ROAD



COUNTER-WEIGHT GUARD GATE (12 MILE CREEK) EAST FENCE.

OUTER BOUNDARY AND INNER GUARD FENCES, ENTRANCE GATES AND DITCH GUARD GATES

PLATE XIX

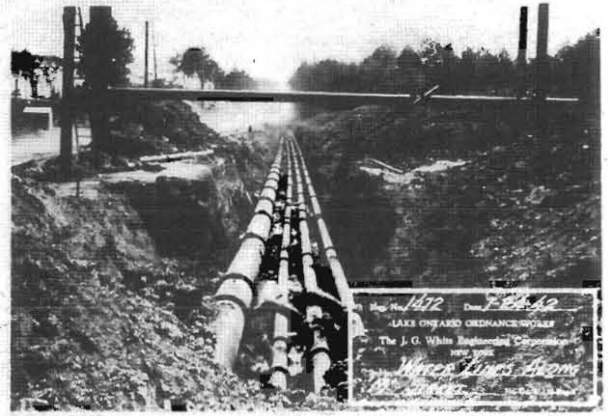


42" REINF. CONCRETE PIPE RAW WATER LINE (EARTH COVERED)

42" WOOD STAVE PIPE RAW WATER LINE

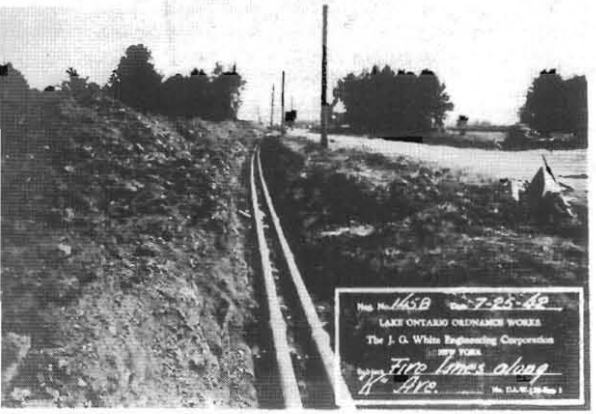
CONCRETE COVER FOR 42" WOOD STAVE PIPE RAW WATER LINE

10" CAST IRON PIPE DRINKING WATER LINE



24" COOLING, 8" FIRE, 10" DRINKING & PROCESS (C. I. PIPE WATER LINES)

8" COOLING & PROCESS, 4" DRINKING, 8" FIRE (C. I. PIPE WATER LINES)



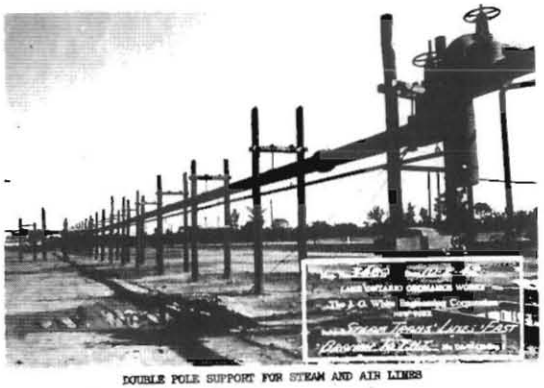
8" FIRE AND DRINKING WATER C. I. PIPE LINE

30" VITRIFIED TILE PIPE WASTE WATER LINE

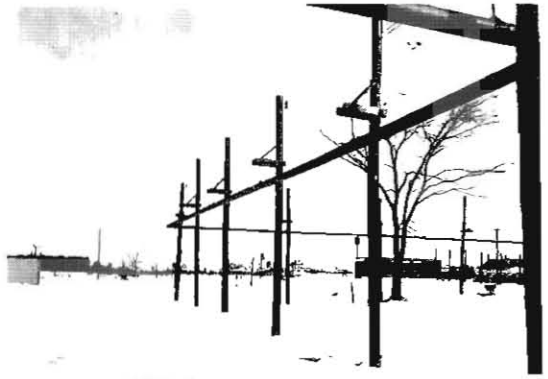
CONCRETE COVER FOR 30" WASTE WATER LINE

SECTIONS OF WATER PIPE LINES FOR RAW WATER, DRINKING, COOLING, PROCESS, FIRE AND WASTE

PLATE XX

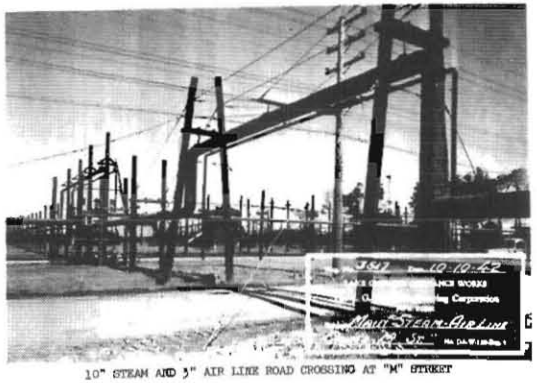


DOUBLE POLE SUPPORT FOR STEAM AND AIR LINES



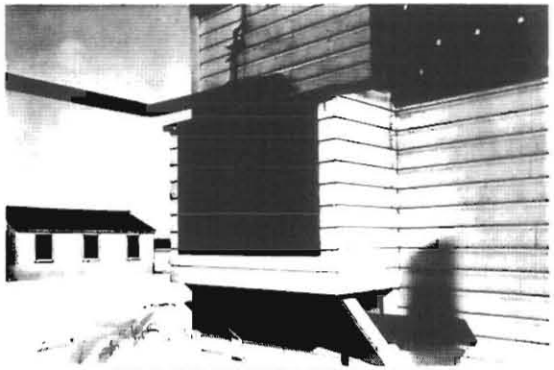
SINGLE POLE AND ARM SUPPORT FOR STEAM LINE

TYPICAL STEAM LINE EXPANSION BEND

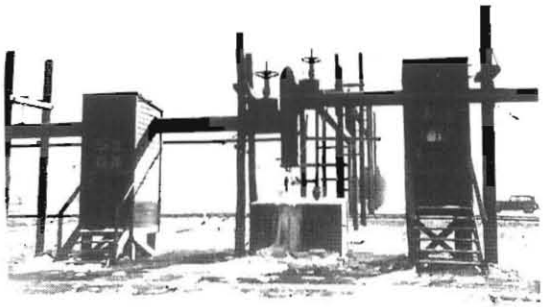


10" STEAM AND 3" AIR LINE ROAD CROSSING AT "M" STREET

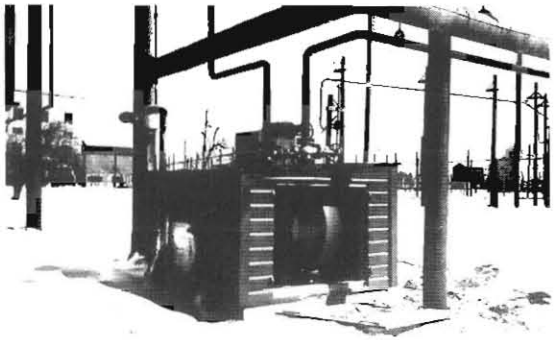
TYPICAL STEAM LINE GROUND DRIP TRAP HOUSE



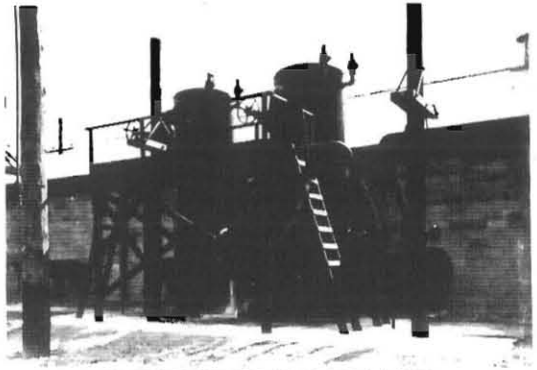
TYPICAL STEAM LINE PRESSURE REDUCING ENCLOSURE



10", 6" & 3" STEAM LINES, FLOW METER HOUSE & 3" AIR LINE PRESSURE REDUCING HOUSE



TYPICAL AIR LINE PRESSURE REDUCING HOUSE

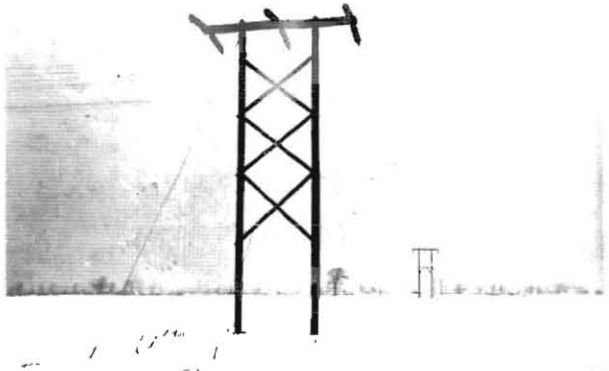


AIR SEPARATOR BLOW OFF TANKS AT COMPRESSOR HOUSE

STEAM AND AIR LINES, DRIP TRAP, FLOW METER AND PRESSURE REDUCING HOUSES

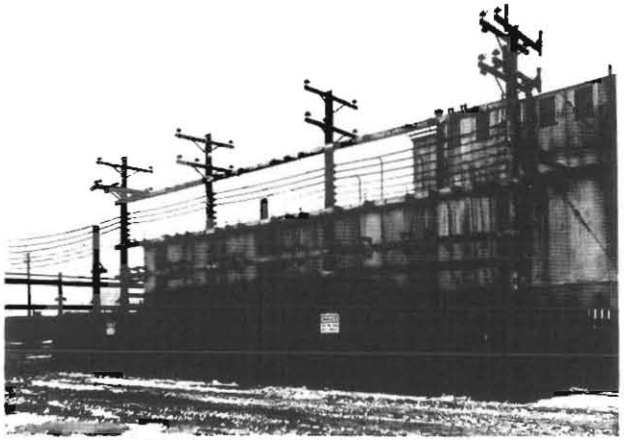
PLATE XXI

BUFFALO NIAGARA ELECTRIC 115 K. V. TRANSMISSION LINE (TANGENT CONSTRUCTION)

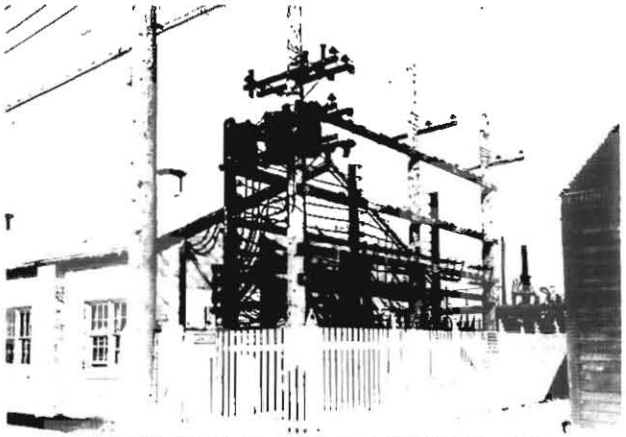


BUFFALO NIAGARA ELECTRIC 115 K. V. TRANSMISSION LINE (ANGLE CONSTRUCTION)

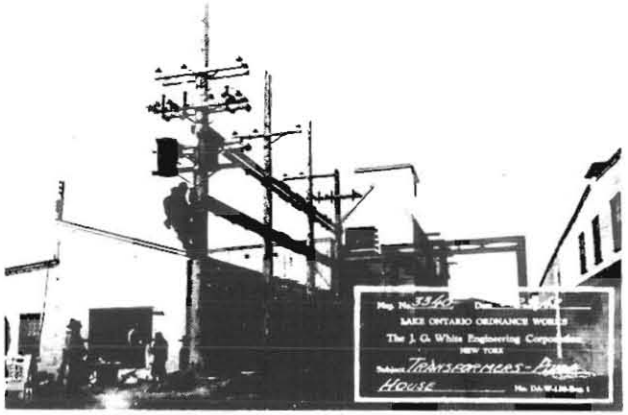
6.9 K. V. POWER LINE FROM SUB-STATION TO INTAKE PLANT TRANSFORMERS.



TRANSFORMER YARD BLDG. NO. 302 (ACID AREA)

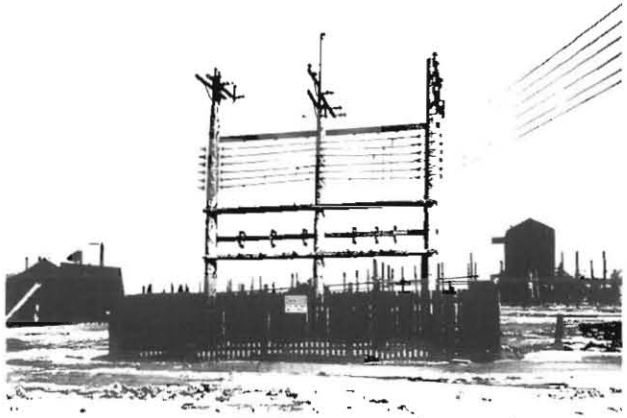


TRANSFORMER YARD MAIN AIR COMPRESSOR HOUSE (T.N.T. AREA)

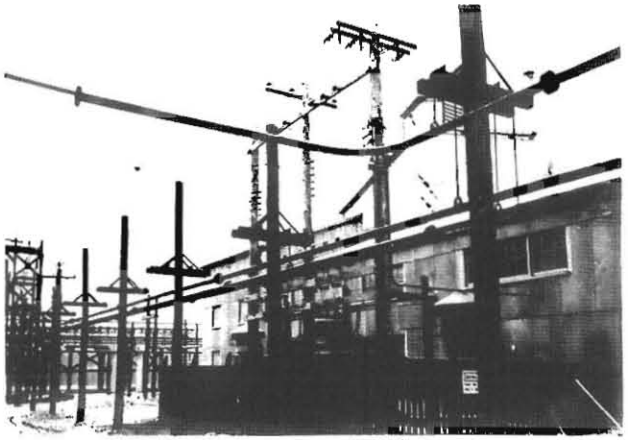


TRANSFORMER YARD PUMP HOUSE (WATER TREATMENT PLANT)

TRANSFORMER YARD PUMP HOUSE (INTAKE AREA)



TRANSFORMER YARD BETWEEN E AND F LINES (T.N.T. AREA)

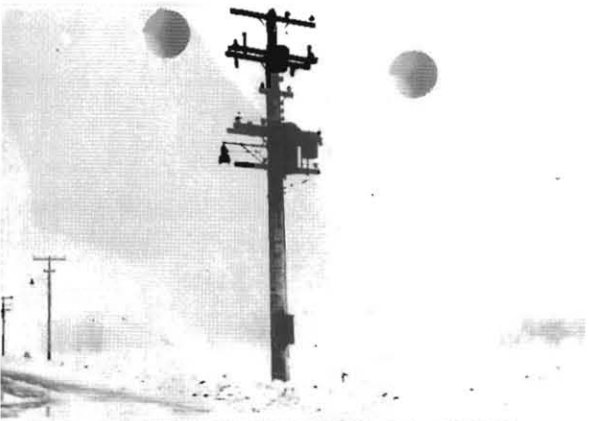


TRANSFORMER YARD BLDG. NO. 308 (ACID AREA)

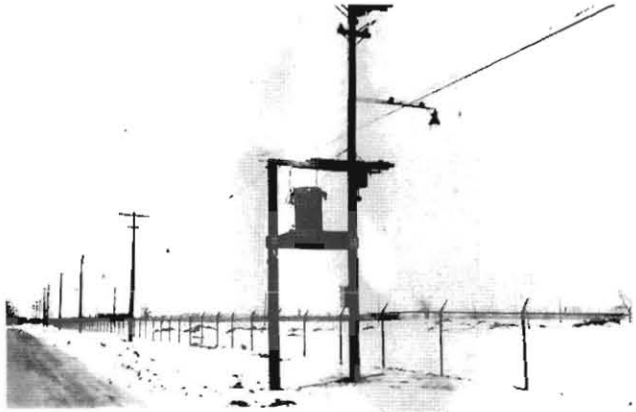
115 K. V. TRANSMISSION LINES AND OUTDOOR SUBSTATIONS

PLATE XXII

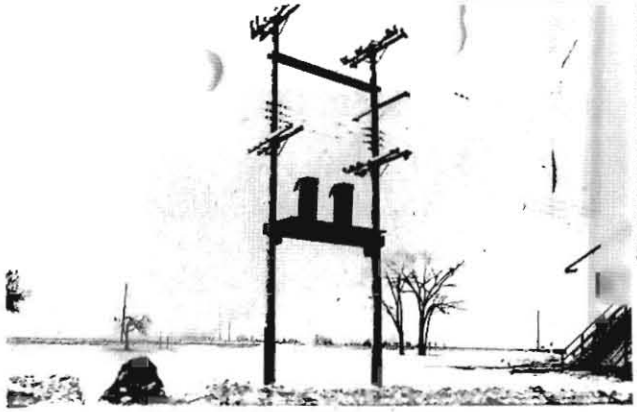
RODUCED AT THE NATIONAL ARCHIVES



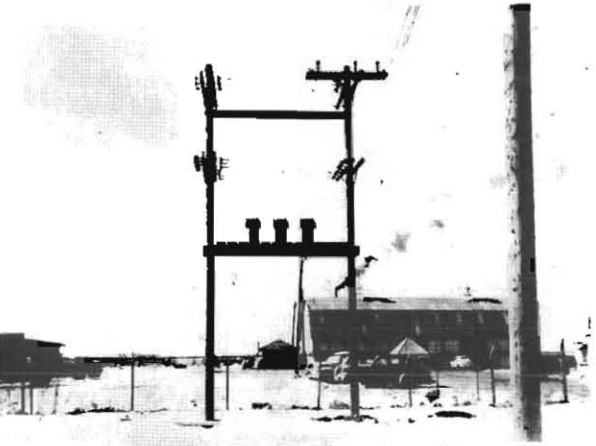
SINGLE CROSS ARM HUNG TRANSFORMER "K" AVE. NEAR BALMER ROAD



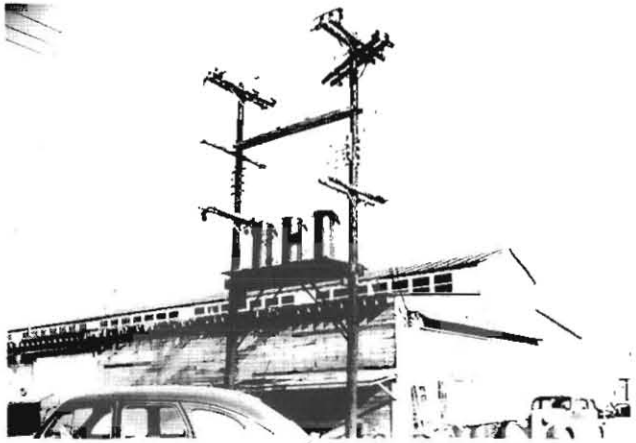
SINGLE PLATFORM TRANSFORMER ON "B" ST. NEAR "B" AVE.



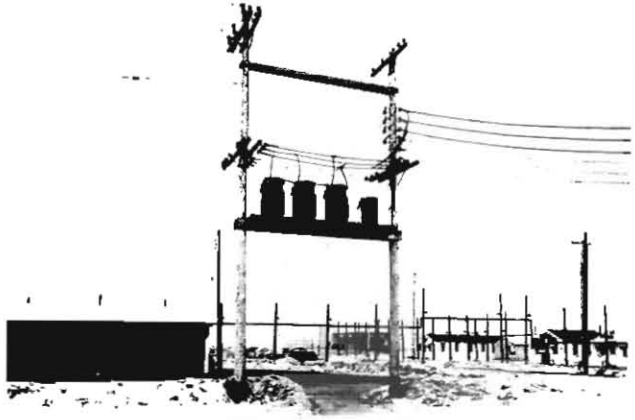
BANK OF 2 PLATFORM TRANSFORMERS EAST OF ADMINISTRATION BLDG.



BANK OF 3 PLATFORM TRANSFORMERS ON HAROLD ROAD



BANK OF 3 PLATFORM TRANSFORMERS IN BAKER SMITH AREA



BANK OF 4 PLATFORM TRANSFORMERS WEST OF CAFETERIA

FLOOD LIGHTING FOR CLASSIFICATION YARD

FLOOD LIGHTING FOR TRANSPORTATION AREA

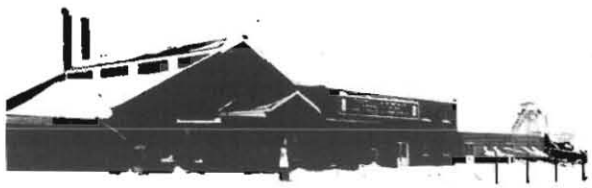
FLOOD LIGHTING FOR MAIN PARKING FIELD

TYPES OF TRANSFORMER and FLOOD LIGHTING STRUCTURES

PLATE XXIII

554

RODUCED AT THE NATIONAL ARCHIVES



ORIGINAL TEMP. ADM. BLDG, FOR A.E.M. & U.S. ENGS. (LOOKING NORTHWEST)

ORIGINAL TEMP. ADM. BLDG, FOR A.E.M. & U.S. ENGS. (LOOKING SOUTHWEST)

ORIGINAL TEMP. ADM. BLDG, FOR A.E.M. & U.S. ENGS. (LOOKING SOUTHWEST)

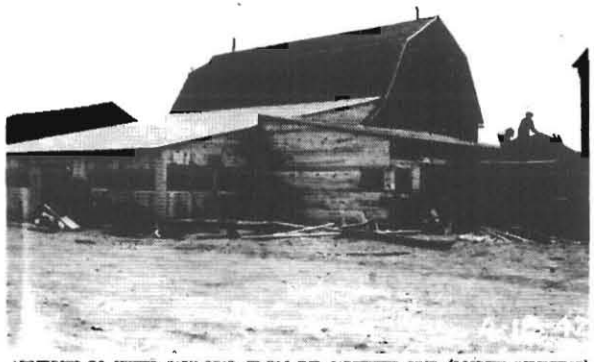
OUTER FENCE ENTRANCE GATE ON LATTA ROAD (LOOKING NORTHEAST)

PRESBY. CHURCH REMODLED FOR A.E.M. TEMP. ENG. DEPT. (LOOKING SOUTHWEST)

TRANSPORTATION CENTER WEST OF HAROLD ROAD (LOOKING NORTHWEST)

CENTRAL RECEIVING & PROPERTY SECTION ON SWAN ROAD (LOOKING NORTHEAST)

ORIGINAL BARNS REAR OF E38 REMODLED FOR SHOPS (LOOKING SOUTHEAST)



ADDITIONS TO CENTER BARN REAR OF E38 FOR CARPENTER SHOP (LOOKING NORTHWEST)

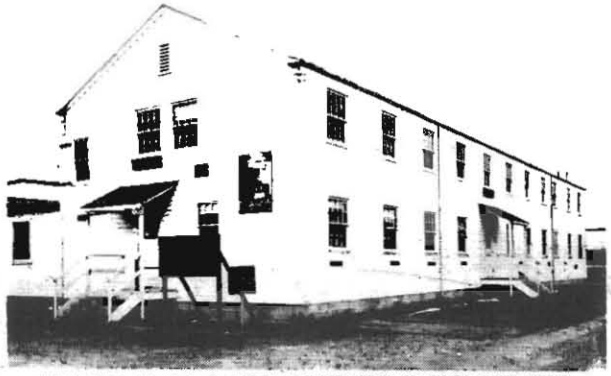
EARLY TEMPORARY OFFICES, RECEIVING AND CONSTRUCTION FACILITIES

PLATE XXIV

555

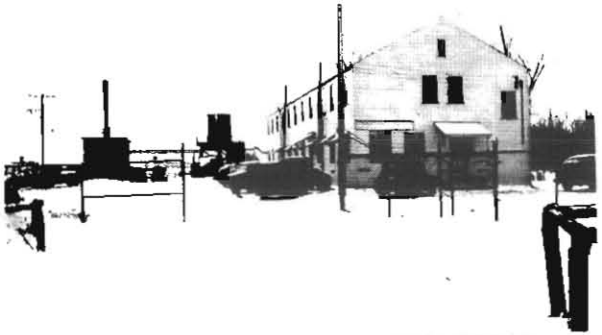
RODUCED AT THE NATIONAL ARCHIVES

A.E.M. BLDG. NO. 1;U. S. ENGINEERS PROJECT OFFICE



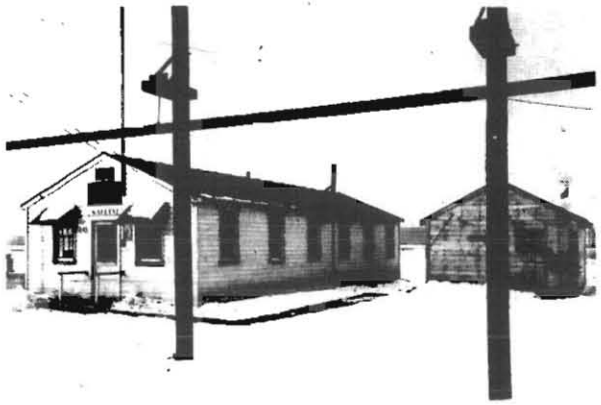
A.E.M. BLDG. NO. 2;J. G. WHITE ADMINISTRATION AND ENGINEERING OFFICE

A.E.M. BLDG. NO. 3;J. G. WHITE PAYROLL AND ACCOUNTING OFFICE



A.E.M. BLDG. NO. 4;J. G. WHITE ADMINISTRATION OFFICE OF CONSTRUCTION DEPT.

TIME OFFICE NO. 1 BUILDINGS-ADMINISTRATION AREA



OFFICE OF AUXILIARY FEATURES AND SAFETY DIVISION

OFFICE OF MATERIAL CONTROL AND RECORDS

OFFICE OF COST CONTROL

STORAGE AREA FOR FIELD BUILDINGS USED DURING CONSTRUCTION

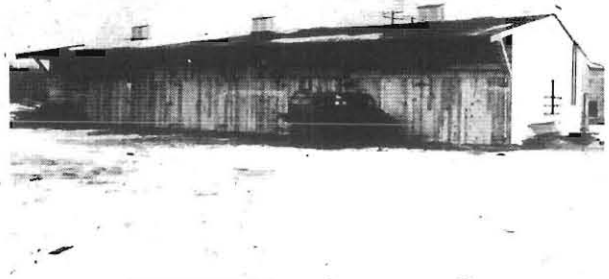
TEMPORARY OFFICE BUILDINGS CONSTRUCTED AT SITE AND USED DURING THE CONSTRUCTION OF THE PROJECT

PLATE XXV

556

RODUCED AT THE NATIONAL ARCHIVES

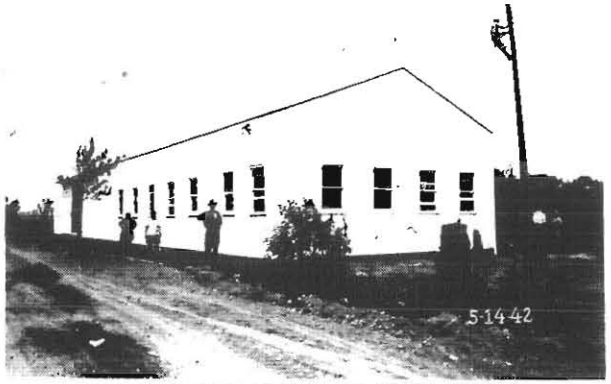
BAKER SMITH FIELD OFFICE (LOOKING NORTHEAST)



BAKER SMITH WELDING SHOP (LOOKING NORTHWEST)

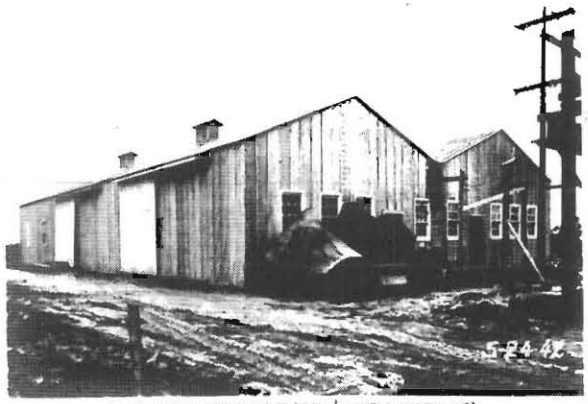
BAKER SMITH MACHINE SHOP (LOOKING NORTHWEST)

BAKER SMITH PIPE SHOP (LOOKING NORTHEAST)

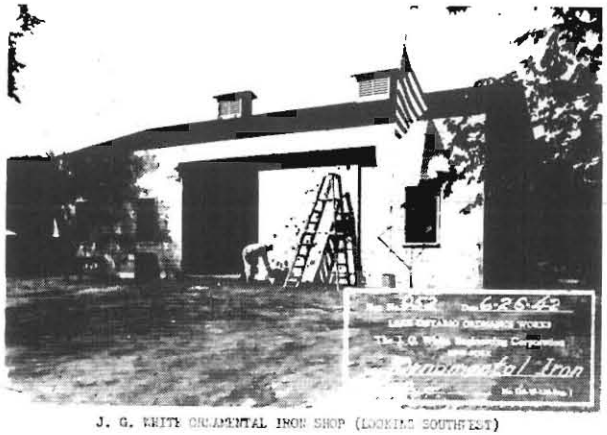


LORD ELECTRIC FIELD OFFICE AND SHOP (LOOKING NORTHEAST)

J. G. WHITE RIGGERS SHOP (LOOKING SOUTHEAST)



J. G. WHITE FABRICATION SHOP (LOOKING NORTHEAST)



J. G. WHITE ORNAMENTAL IRON SHOP (LOOKING SOUTHWEST)

J. G. WHITE PAINT SHOP AND STORAGE (LOOKING NORTHEAST)

TEMPORARY OFFICES AND SHOPS IN CONSTRUCTION SHOPS AREA

PLATE XXVI

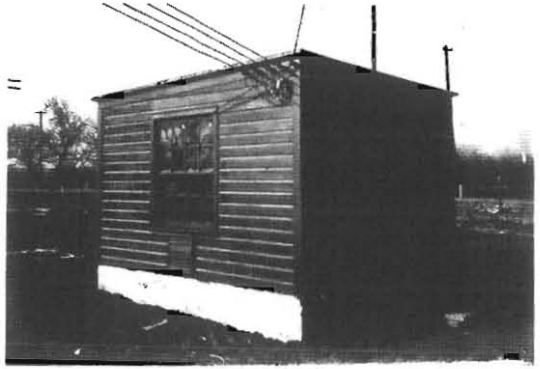
J. G. WHITE WAREHOUSE NO. 1 RECEIVING AREA (LOOKING SOUTHEAST)

DUPONT WAREHOUSE NO. 2 RECEIVING AREA (LOOKING NORTHWEST)

J. G. WHITE WAREHOUSE NO. 3 RECEIVING AREA (LOOKING SOUTHEAST)

BAKER-SMITH WAREHOUSE NO. 6 CONSTR. SHOPS AREA (LOOKING WEST)

BAKER-SMITH PIPE UNLOADING PLATFORMS



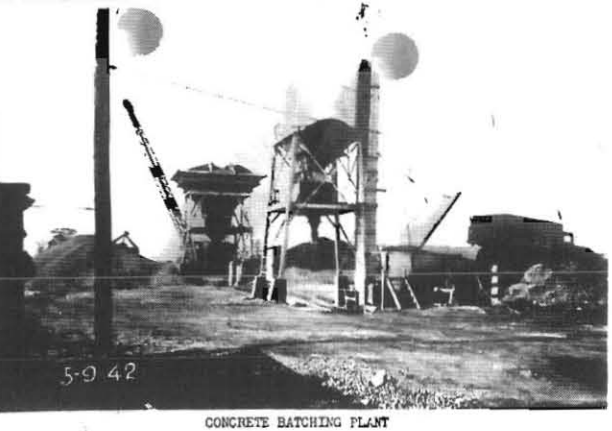
CREEK ROAD CHLORINATION STATION (LOOKING SOUTHWEST)

REPRODUCTION ROOM AND FIREPROOF VAULT, ADM. AREA (LOOKING SOUTHWEST)

TYPICAL ELEVATED GUARD HOUSE ALONG INNER GUARD FENCE

TEMPORARY WAREHOUSES AND PIPE PLATFORMS, ELEVATED GUARD HOUSE AND CHLORINATION STATION

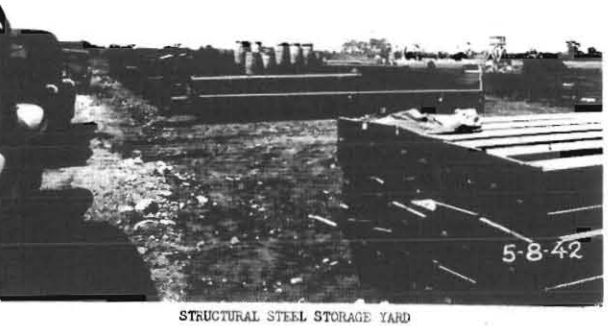
PLATE XXVII



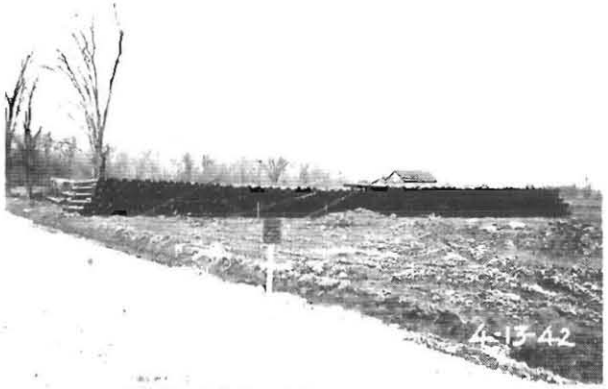
CONCRETE BATCHING PLANT

CONCRETE PIPE MANUFACTURING YARD

CONCRETE PIPE BATCHING PLANT



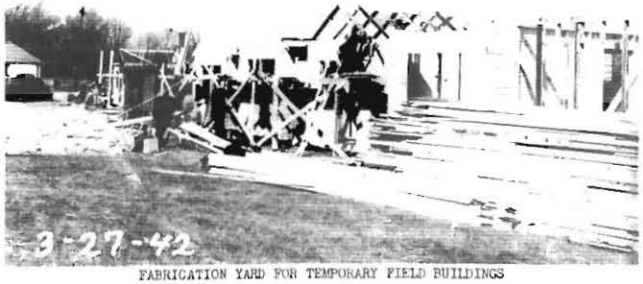
STRUCTURAL STEEL STORAGE YARD



CAST IRON PIPE STORAGE FOR DRINKING WATER LINE

LUMBER STORAGE YARD

FABRICATION YARD FOR SENTRY HOUSE



FABRICATION YARD FOR TEMPORARY FIELD BUILDINGS

EQUIPMENT USED FOR PLACING RIVER SECTIONS OF PIPE LINES

559

CONCRETE BATCHING PLANTS, FABRICATION AND STORAGE YARDS AND PIPE HANDLING EQUIPMENT

PLATE XXVIII

E 93 - YOUNGSTOWN ROAD

E 117 - BLAIRVILLE CREEK ROAD

E 25 - SWAN ROAD

E 76 - BLAIRVILLE CREEK ROAD

E 115 - BLAIRVILLE CREEK ROAD

E 39 - FLETCHER ROAD

E 113 - BLAIRVILLE CREEK ROAD

E 112 - BLAIRVILLE CREEK ROAD

E 27 - SWAN ROAD

HOUSES REMODELED FOR OCCUPANCY AS STAFF RESIDENCES

PLATE XXIX

RODUCED AT THE NATIONAL ARCHIVES

E 91 - PORTER CENTER ROAD

E 128 - BLAIRVILLE CREEK ROAD

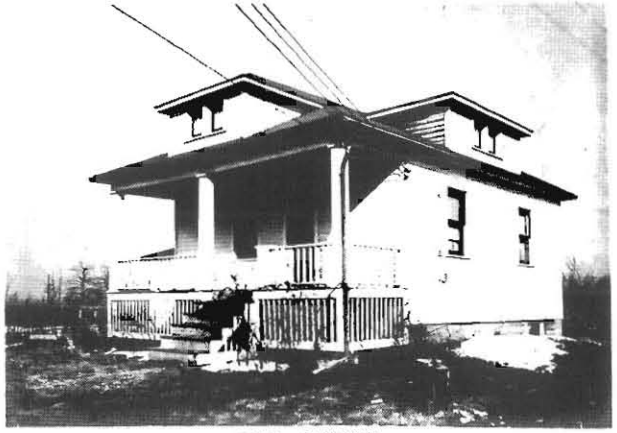
E 106 - LUTTS ROAD

E 38 - FLETCHER ROAD

E 121 - BLAIRVILLE CREEK ROAD

E 18 - SWAN ROAD

E 118 - BLAIRVILLE CREEK ROAD



E 108 - CAIN ROAD

E 111 - CAIN ROAD

HOUSES REMODELED FOR OCCUPANCY AS STAFF RESIDENCES

PLATE XXX

RODUCED AT THE NATIONAL ARCHIVES

E 78 - PALMER ROAD (STAFF [illegible])

[illegible]

K 17 - LATTA ROAD (ORIGINAL ORDNANCE OFFICE)

E 1 - LATTA ROAD (E. I. [illegible])

[illegible]

E 19 - HARRIS ROAD (ORIGINAL J. G. WHITE CONSTR. OFFICE)

E 44 - FLETCHER ROAD (J. G. WHITE RAILROAD FIELD OFFICE)

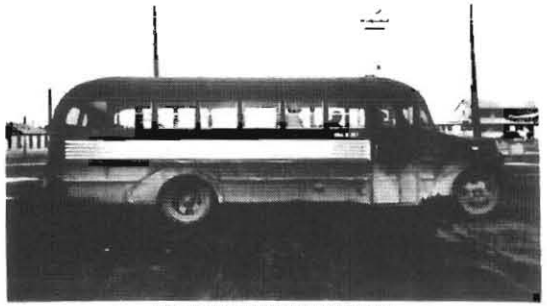
E 85 - PALMER ROAD (E. I. [illegible])

E 40 - FLETCHER ROAD (PROJECT INFIRMARY AND FIRST-AID STATION)

PROJECT HANDBOOK FOR THE [illegible] STAFF [illegible], PROJECT, FIRST-AID STATION

PLATE XXXI

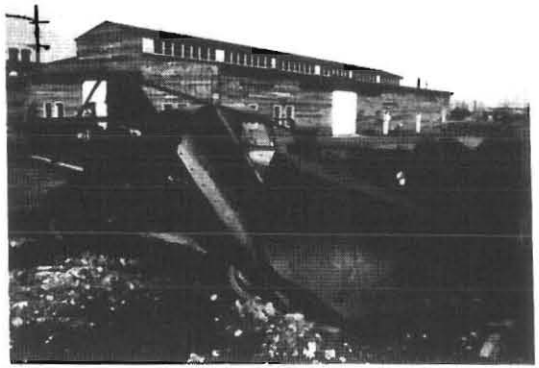
TRUCK FOR TRANSPORTATION OF EXPLOSIVES



BUS FOR INTER-PLANT TRANSPORTATION

PORTER DIESEL ELECTRIC LOCOMOTIVE

RAILROAD TRACK SNOW PLOW

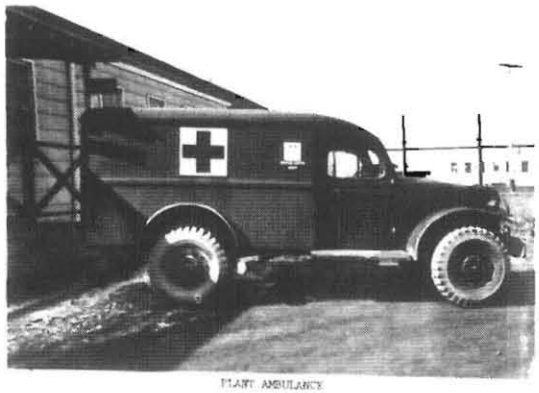


DOUBLE BLADE TRUCK SNOW PLOW

GUARD PATROL CAR

FIRE ENGINE TRUCK

CHEMICAL EMERGENCY FIRE TRUCK



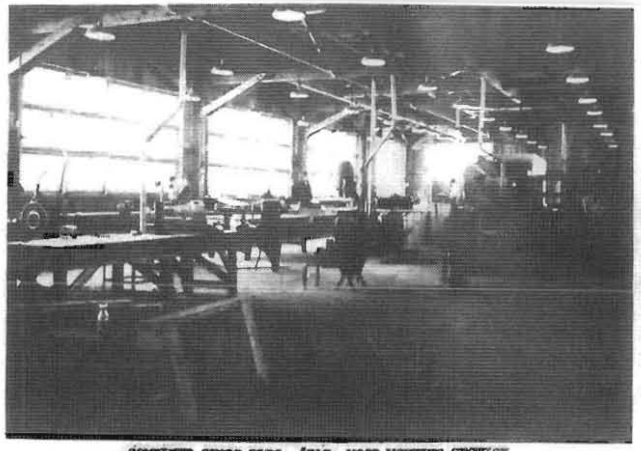
PLANT AMBULANCE

MOBILE MECHANICAL PLANT EQUIPMENT

PLATE XXXII

RODUCED AT THE NATIONAL ARCHIVES

COMBINED SHOPS BLDG. #717, MACHINE SHOP SECTION

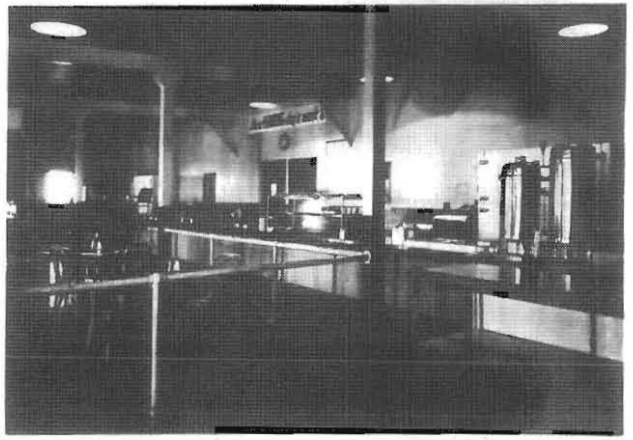


COMBINED SHOPS BLDG. #717, WOOD WORKING SECTION

COMBINED SHOPS BLDG. #717, SHEET METAL SECTION

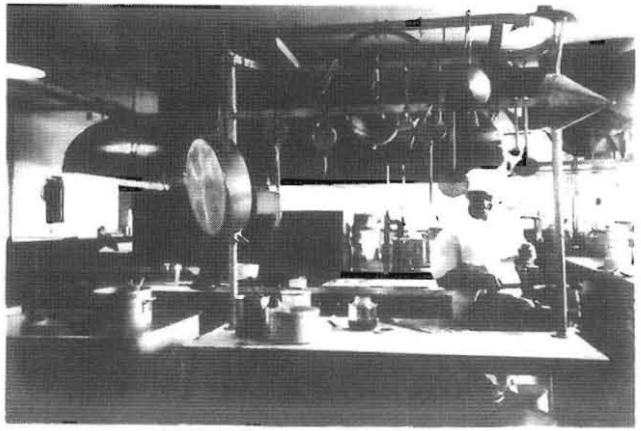
TYPICAL INTERIOR EQUIPMENT FOR AREA SHOPS #722

DINING ROOM SECTION OF CAFETERIA BLDG. #708

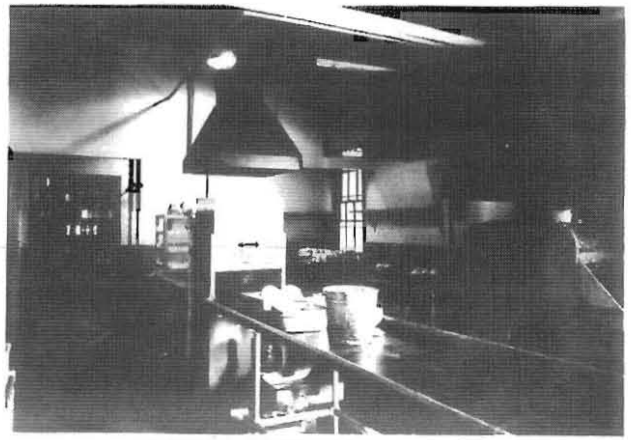


SERVING COUNTER SECTION OF CAFETERIA BLDG. #708

STORAGE BIN ARRANGEMENT IN GENERAL STOREHOUSE BLDG. #713



SECTION OF KITCHEN IN CAFETERIA BLDG. #708

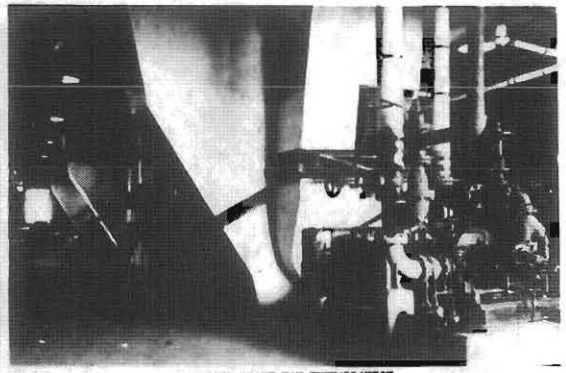


DISH WASHING SECTION IN CAFETERIA BLDG. #708

INTERIOR VIEWS OF COMBINED SHOPS, AREA SHOPS, GENERAL STOREHOUSE AND CAFETERIA BLDG.

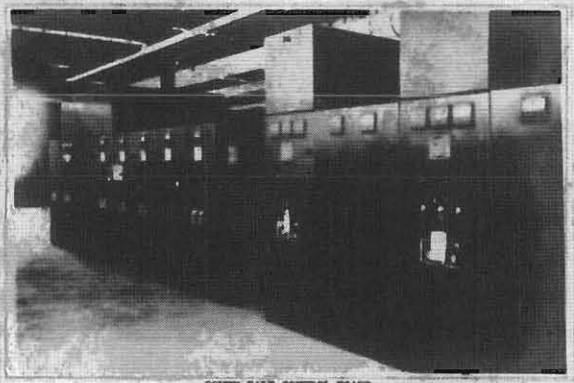
PLATE XXXIII

564

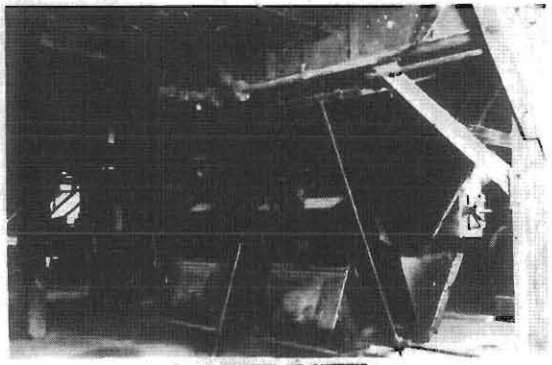


INDUCED DRAFT FAN INSTALLATION

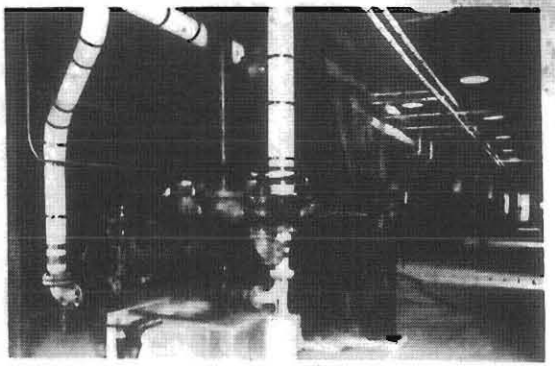
500 KVA - TURBINE GENERATOR



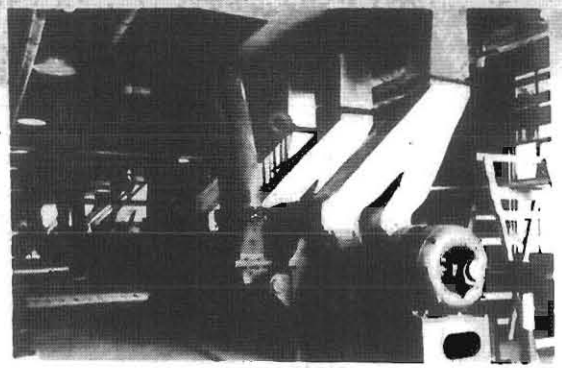
SOUTH HALF CONTROL BOARD



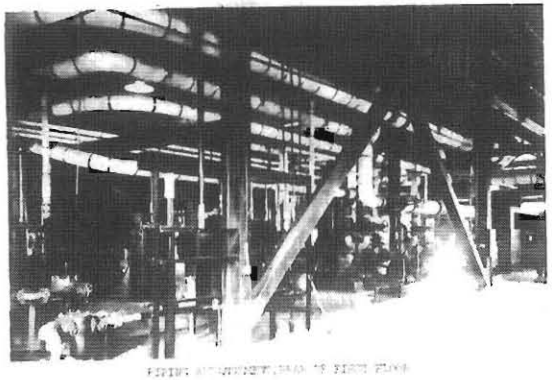
ASH RECEIVER AND CONVEYOR

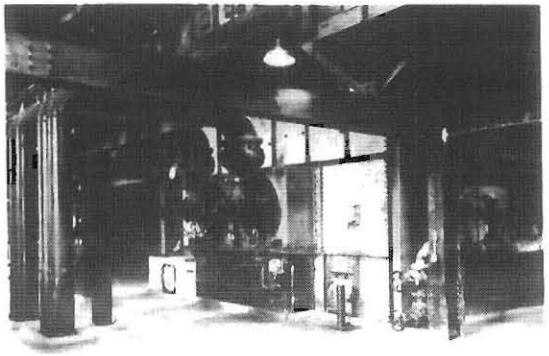


FORCED DRAFT EQUIPMENT



COAL PULVERIZERS





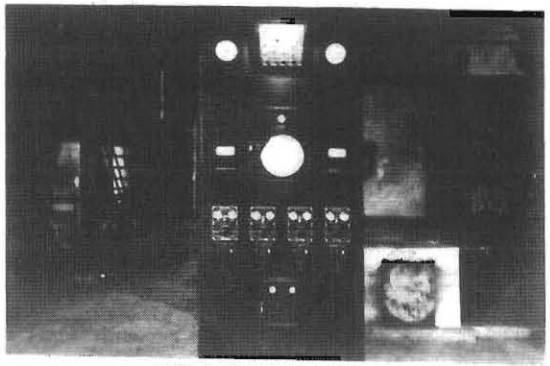


PLATE XXXIV

LINE VAN IN ACID NEUTRALIZATION BLDG.

SACRAMENTO COMMERCIAL VANES IN SEWAGE DISPOSAL PUMP HOUSE

VALVE CONTROLS IN THE SEWAGE DISPOSAL PUMP HOUSE

LINE CROSSES INTO LINE VAN SHOWS ACID NEUTRALIZATION BLDG.

PUMP HOUSES AND VANES LEAVE OUTER INTERCEPTOR PUMP HOUSE

INTERIOR VIEW OF NEUTRALIZATION BLDG., SHOWS DEFECTIVE PUMP PUTTY, WATER TREATMENT PUMP HOUSE AND PITTS INVARY [illegible]

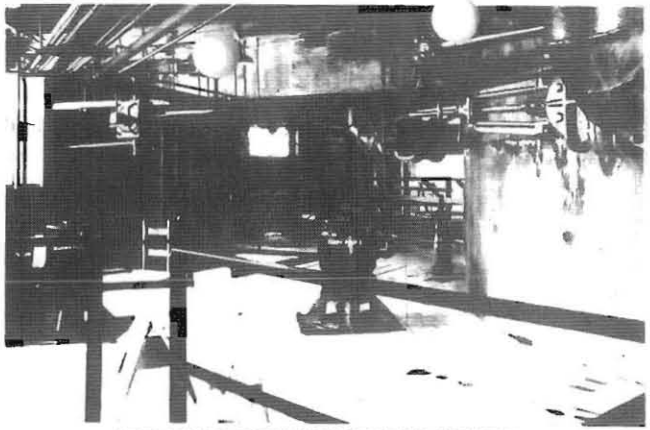
INTAKE PIPES AND VALVES IN BASEMENT OF ACID NEUTRALIZATION BUILDING

TEMPORARY EQUIPMENT IN ACID NEUTRALIZATION BLDG.

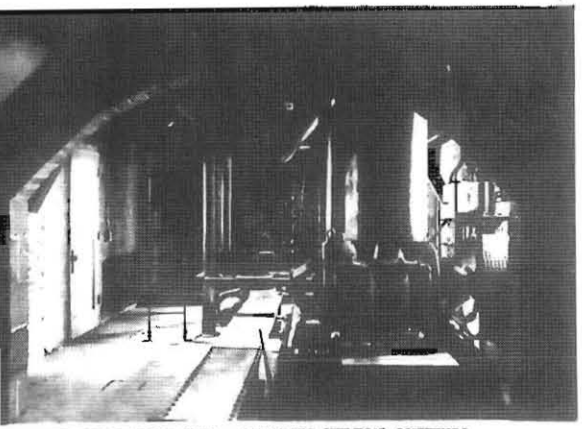
PLATE XXXV

PUMP HOUSE, ROTARY COOLING WATER PUMPS

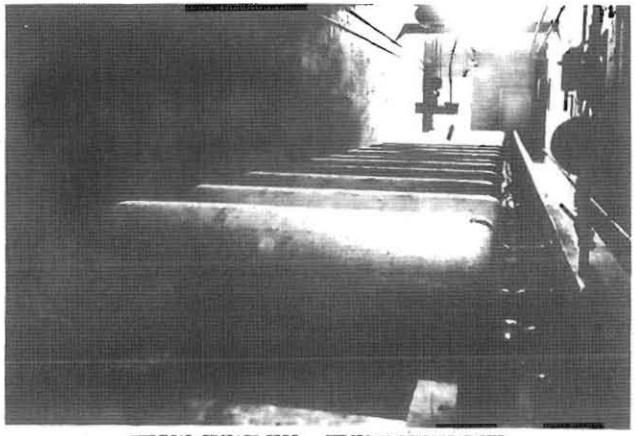
PUMP HOUSE, VALVES AND PUMPS FOR PLANT WATER SUPPLY



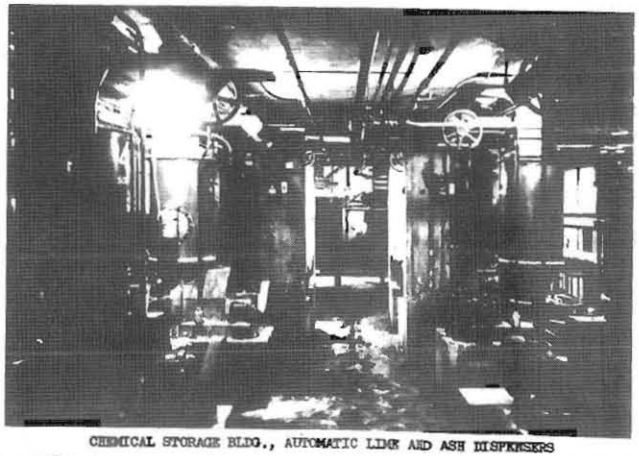
SURGE CHAMBER, SLURRY PUMPS AND PIPING ARRANGEMENT



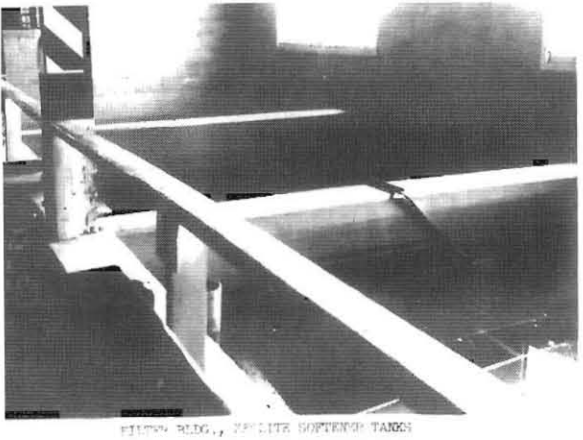
CHEMICAL STORAGE BLDG., AUTOMATIC CHEMICAL CONVEYORS



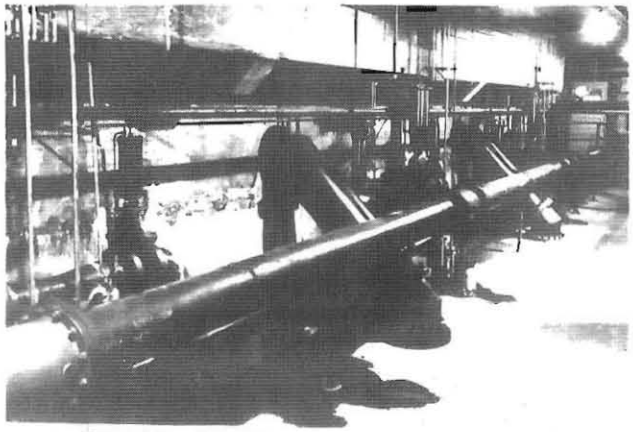
CHEMICAL STORAGE BLDG., CHLORINE STORAGE TANKS



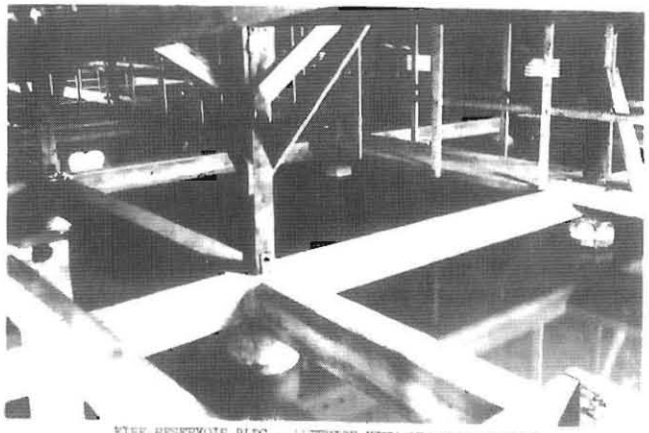
CHEMICAL STORAGE BLDG., AUTOMATIC LIME AND ASH DISPENSERS



FILTER BLDG., ZEOLITE SOFTENER TANKS



FILTER BLDG., BACK WASH PIPES (HORIZONTAL) AND WASTE PIPES

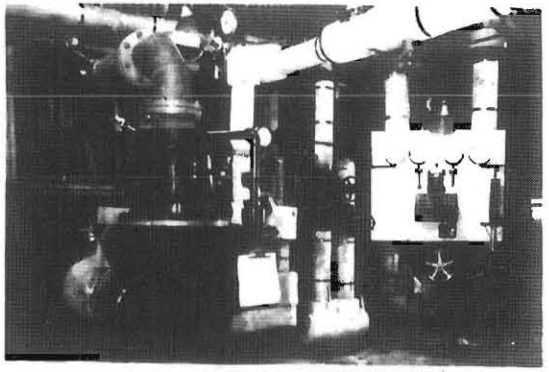


FIRE RESERVOIR BLDG., INTERIOR VIEW OF WATER STORAGE

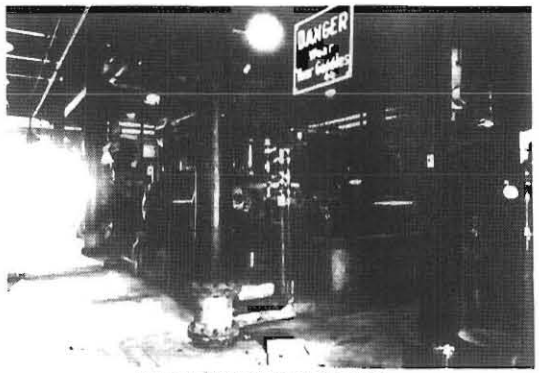
567

STEAM TURBINE BLDG. - INTERIOR VIEW

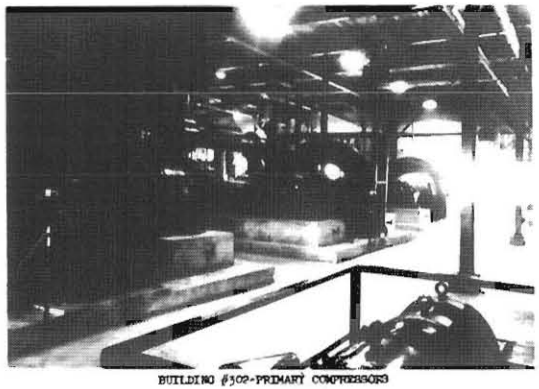
PLATE XXXVI



BUILDING #302-CONTROL PANEL AND CONVERTOR CHANGER



BUILDING #302-SECONDARY COMPRESSORS

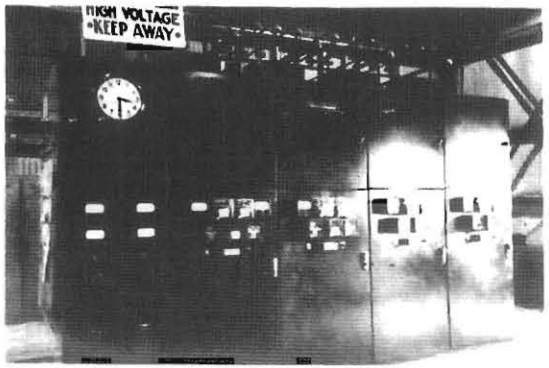


BUILDING #302-PRIMARY COMPRESSORS

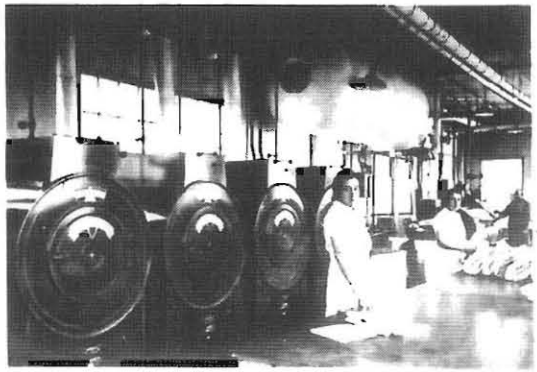
BUILDING #706-CORNER OF ACID LABORATORY

BUILDING #706-MAIN LABORATORY ROOM

BUILDING #706-CORNER OF LABORATORY



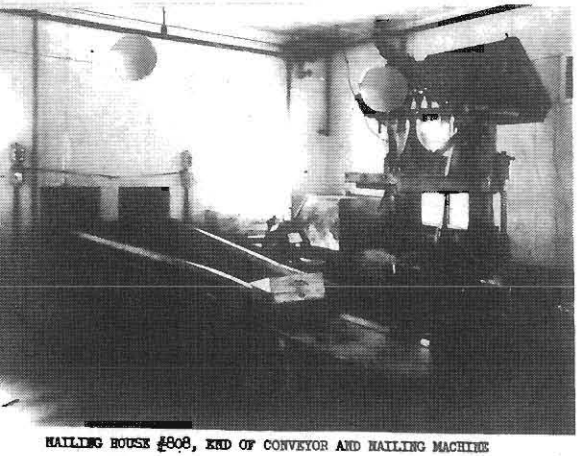
BUILDING #302-ELECTRIC CONTROL PANEL



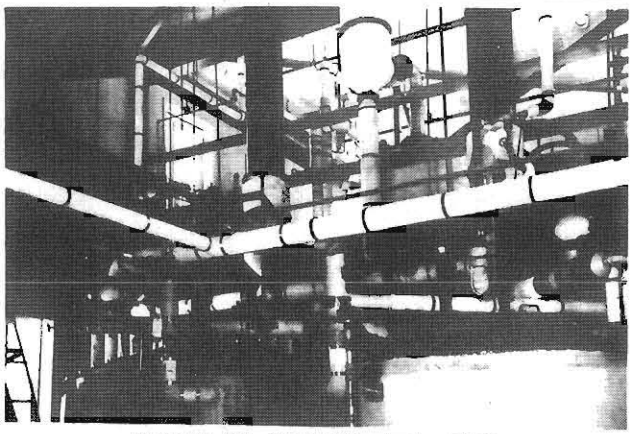
[illegible]

INTERIOR VIEWS OF [illegible] LABORATORY BUILDING IN [illegible] ON [illegible]

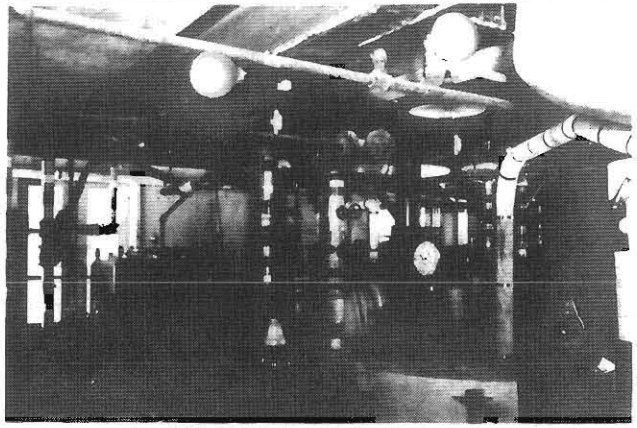
PLATE XXXVII



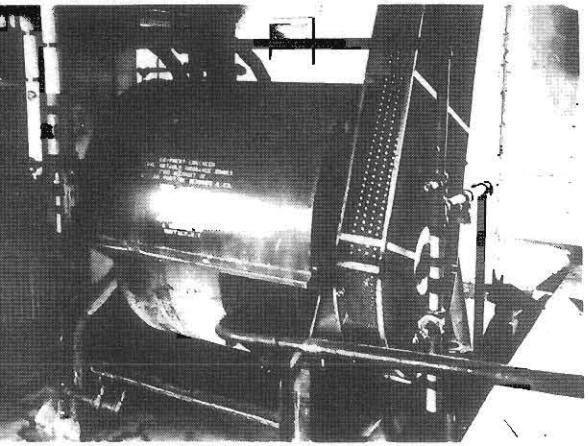
NAILING HOUSE #808, END OF CONVEYOR AND NAILING MACHINE



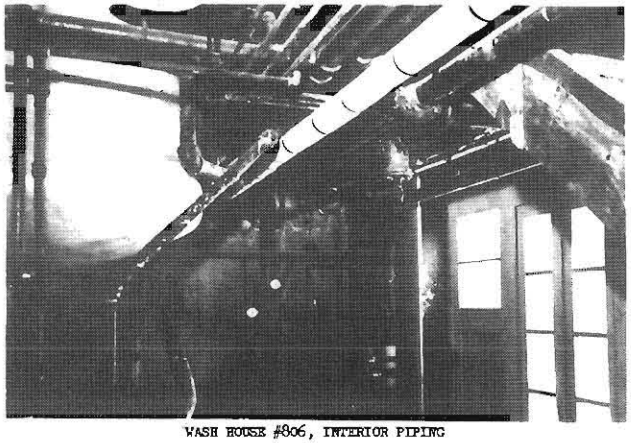
WASH HOUSE #806, PIPING ARRANGEMENT: - DRIERS



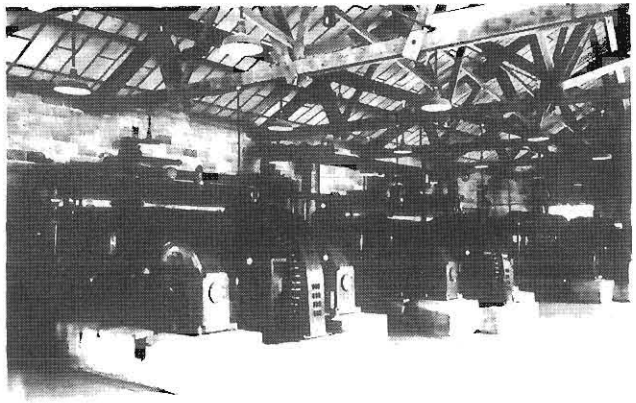
WASH HOUSE #806, PIPING ARRANGEMENT - FILTER AND WASH TANKS



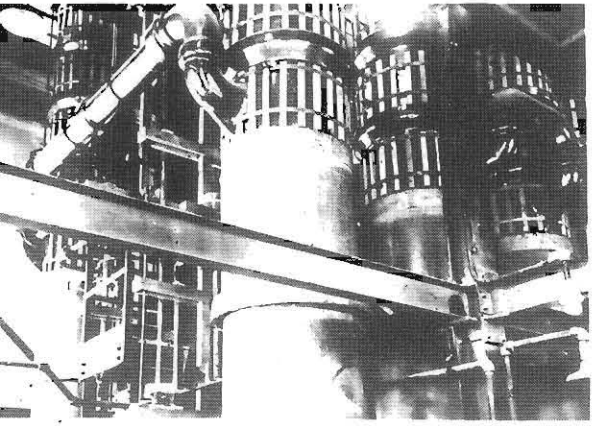
WASH HOUSE #806, DRYING MACHINE



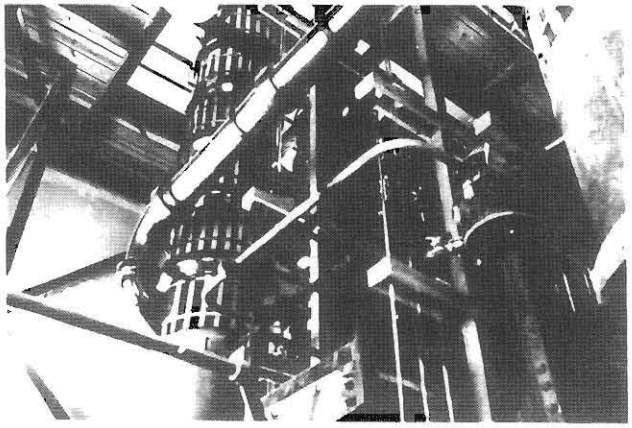
WASH HOUSE #806, INTERIOR PIPING



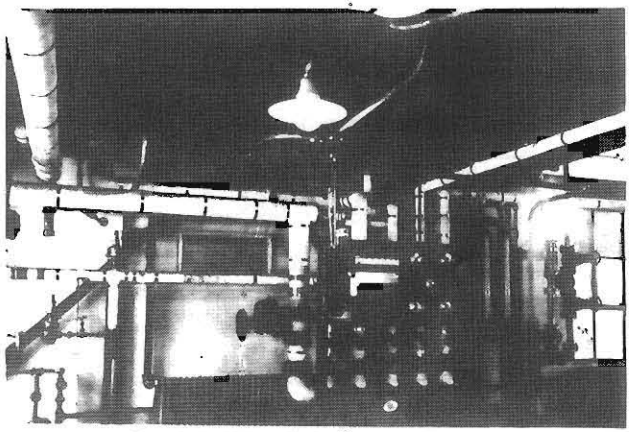
COMPRESSOR HOUSE #415, AIR COMPRESSORS



ACID & FUME RECOVERY BLDG. #812, PIPING AND LAGGING



ACID & FUME RECOVERY BLDG. #812, PIPING AND LAGGING



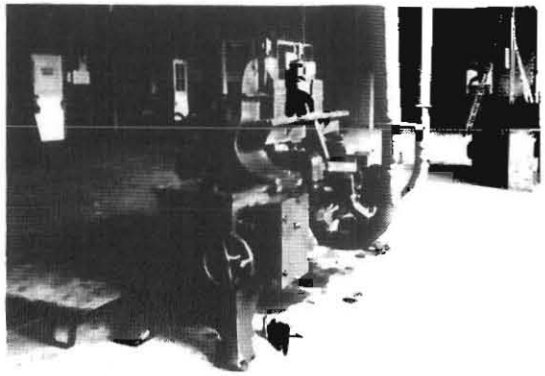
ACID & FUME RECOVERY BLDG. #812, INSTRUMENT BOARD

INTERIOR VIEWS OF NAILING HOUSE, WASH HOUSE, COMPRESSOR HOUSE AND ACID FUME RECOVERY BUILDING

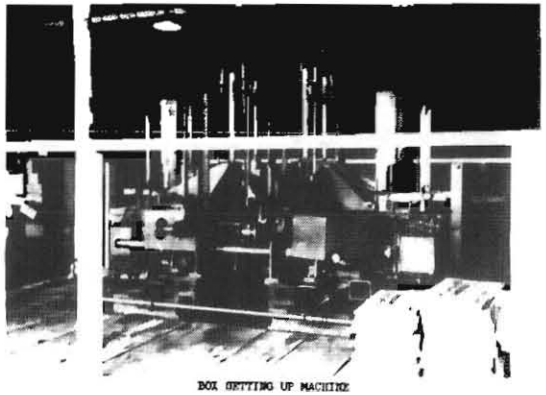
PLATE XXXVIII

RODUCED AT THE NATIONAL ARCHIVES

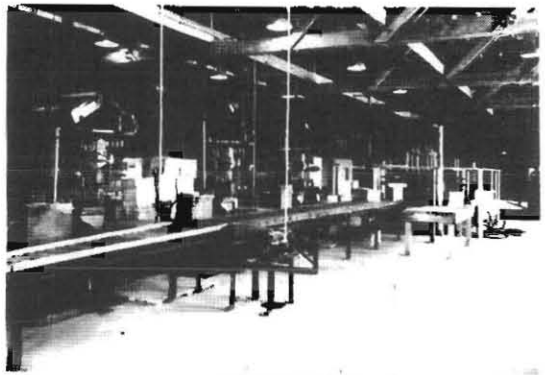
SHOCK PRINTING PRESS



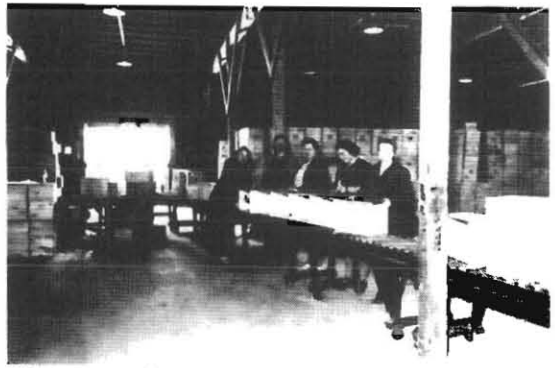
SHOCK LOCK CORNER CUTTER AND SPLICER



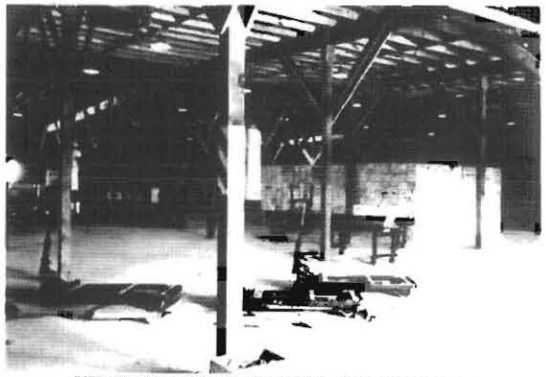
BOX SETTING UP MACHINE



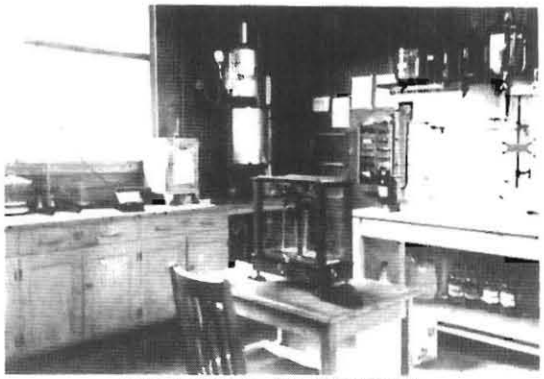
BOX NAILING MACHINES AND BELT CONVEYOR



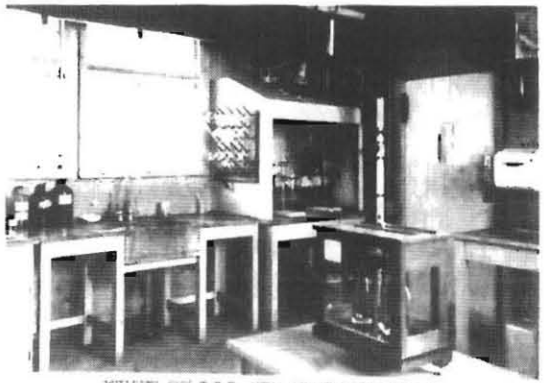
PORTABLE ROLL CONVEYOR IN BOX STORAGE



PORTABLE ROLL CONVEYORS, HAND TRUCKS AND BOX STORAGE ROOM



BUILDING #[illegible], T.N.T. AREA, ACID LABORATORY



BUILDING #[illegible], T.N.T. AREA, CORNER OF TOWER ROOM

INTERIOR VIEWS OF BOX FACTORY AND LABORATORY BLDG. IN T.N.T. AREA

PLATE XXXIX

RUDUCED AT THE NATIONAL ARCHIVES

RODUCED AT THE NATIONAL ARCHIVES

MAPS AND DRAWINGS

These are scattered or grouped by class, or use, in the various sections of the Report. See List of Illustrations, page ix.

There were over 2,000 maps and drawings of which the A-E-M prepared 50%, the DuPont Company 40% and the War Department, Stone and Webster and the Chemical Construction Corp. supplied 10%. For the dates on which maps, drawings, contracts and specifications, etc., were turned over to the Using Service, see the schedules on pages 327 - 334 inclusive, at the beginning of this volume.

Maps and Drawings, Contract Numbers and Specification Numbers are listed for each type of building and for all utilities in the "List of Maps and Drawings" on pages 73 - 240 inclusive in Volume 1. A separate sheet is supplied for each building or type of utility.

An Index to the page numbers covering the maps, drawings, contracts, and specifications for buildings will be found in the right hand column of the Data Sheets on "Buildings" on pages 63 - 69 inclusive in Volume 1.

An Index to the page numbers listing contracts and maps, drawings, specifications applying to Utilities will be found on page 272 in Volume 1.

MAPS AND DRAWINGS

FINANCIAL DATA

The Cost Report is not available, at this time, due to the inability to obtain complete distribution of Construction Equipment Charges to Features and to distribute Overhead Charges to Features before final costs are arrived at.

Direct Labor and Material Costs have been completed for all Features and Subfeatures. These cover twenty-seven Form B-39 sheets.

See Tentative Final Cost Summary on the following page.

PROJECT COST SUMMARY - MILITARY CONSTRUCTION

TENTATIVE

FINAL DETAIL COST STATEMENT

DISTRICT BUFFALO CONSTRUCTION LOCATION YOUNGSTOWN, N. Y.

MONTH ENDING MARCH 15, 1943 (TERMINATION OF A-E-M CONTRACT)

B M-1, LAKE ONTARIO ORDNANCE WORKS

ACCOUNT		UNIT OF MEASURE	QUANTITIES		TOTAL COSTS		UNIT COSTS	
NO.	DESCRIPTION		ACTUAL	ORIG. EST.	ACTUAL *	ORIGINAL ESTIMATE	ACTUAL	ORIG. EST.
	A. Manufacturing Buildings							
	1. Acid Area				1,880,578.	00		
	2. TNT Area				2,364,712.	03		
	B. Office & Admin. Bldg.				193,998.	48		
	C. Auxiliary Buildings				1,252,067.	20		
	D. Storage Buildings				609,930.	94		
	E. Staff Residences				93,796.	23		
	F. Preparation of Site				230,346.	30		
	G. Utilities				6,554,257.	27		
	Roads				1,402,014.	78		
	Railroads				1,271,211.	93		
	TOTAL				15,852,913.	16		
	Temporary Construction				1,107,908.	85		
	Construction Equipment				811,232.	45		
	Indirect (Overhead) Labor				2,800,000.	00		
	Indirect (Overhead) Materials (Office, Eng. & General Equipment and Supplies)				1,800,000.	00		
	Shop, Warehouse, Yard Operation and Repairs				1,185,000.	00		
	Insurance & Taxes				839,000.	00		
	Total Job Cost (Per Fm. 39-A)							

* Actual Final for Construction Items, without distributed overhead.

War Department - Engineers Form No. 39-B (Costs)

Estimate for Final Overhead charges.

RODUCED AT THE NATIONAL ARCHIVES

PROJECT COST SUMMARY - MILITARY CONSTRUCTION

TENTATIVE

FINAL DETAIL COST STATEMENT

DISTRICT BUFFALO CONSTRUCTION LOCATION YOUNGSTOWN, N. Y.

MONTH ENDING MARCH 15, 1943 (TERMINATION OF A-E-M CONTRACT)

JOB M-1, LAKE ONTARIO ORDNANCE WORKS

ACCOUNT		UNIT OF MEASURE	QUANTITIES		TOTAL COSTS		UNIT COSTS	
NO.	DESCRIPTION		ACTUAL	ORIG. EST.	* ACTUAL	ORIGINAL ESTIMATE	ACTUAL	ORIG. EST.
	Transportation				60,000.00			
	Travel				25,000.00			
	Telephone & Telegraph				90,000.00			
	Equipment Rentals				150,500.00			
	Surplus Material				685,000.00			
	Fixed Fee				323,217.00			
	Government Overhead				800,000.00			
	Miscellaneous - Purchases by Govt. for A-E-M, Inspection & Testing, Clean Up, etc.				145,000.00			
	Total to A-E-M &A.E.				$26,674,771.46			
	To Ordnance Dept. to complete				100,000.00			
					$26,774,771.46			
	* Actual Final for Construction Items, without distributed overhead. Estimate for Final Overhead charges.							
	Total Job Cost (Per Fm. 39-A)							

RODUCED AT THE NATIONAL ARCHIVES

COMPLETION OF THE CONTRACT

Termination of the Contract

This Contract, DA-W-138-Eng.-1, and any or all amendments thereto, were terminated as of 11:59 P.M., the 15th day of March, 1943, on Engineer Form No. 95, approved by the Chief of Engineers, February 1, 1943, entitled, "Notice of Termination for Convenience of the Government" addressed to The J. G. White Engineering Corporation, 80 Broad Street, New York, N. Y., dated Lewiston, New York, March 12, 1943.

Status of the Contract at Time of Termination

At the time of Termination the work covered by the Contract was 99.73% completed by the A-E-M. The remaining work to be done, ie. 0.27% consisted of the items listed on the seven following pages, which was delayed principally because of late deliveries of tanks and equipment.

Method of Completing the Work Covered by the Contract

All work except the installation of the steel tanks and the 18" Trade Waste Sewer will be done by the "force account" of the Operator, the Chemical Construction Corporation, under the jurisdiction of the Using Service, the Ordnance Department, U.S.A.

The installation of the steel tanks will be completed in accordance with negotiated lump sum Contract DA-W-138-Eng.-48 with the General American Transportation Corporation, Sharon, Pa. The installation of the 18" Trade Waste Sewer will be completed in accordance with negotiated lump sum and unit price Contract DA-W-138-Eng.-153 with Herbert F. Darling, Williamsville, New York. This work is being completed under the jurisdiction of the Area Engineer.

Location of A-E-M Records

In accordance with Article III, Section 2 page 16, of the A-E-M Contract, The J. G. White Engineering Corporation will store all pertinent Records and Books of Account, for a period of three years from March 15, 1943, in rooms 1001 and 1002, of the Record Storage Corporation, at 80-82 Pearl Street, Borough of Manhattan, New York County, N. Y.

Field notes, sketches, data, etc. are stored with the Area Engineer, Lake Ontario Ordnance Works, records in the United States Engineer's Office, at Buffalo, N. Y.

Certificate of Completion

This will be issued at a later date.

RODUCED AT THE NATIONAL ARCHIVES

WORK REMAINING TO BE DONE AT LKO UNDER CONTRACT DA-W-138-ENG.1
AS OF WORK STOPPAGE AT 6:00 P.M. ON MARCH 15, 1943

BUILDING 301 - Wave 4. Installation of 6 high pressure ammonia tanks.

Pipefitters:

Install ammonia pipe and fittings consisting of 2-2" headers and 1-3" header across tanks with valves, tees, elbows, and expansion bends, pressure heads, ammonia diffusers, and relief valves.
Install steam piping to bayonet heaters consisting of 1-3" steam header across tanks with valves, tees, elbows, strainers and steam traps.

Electricians:

Lighting and control wiring for 6 H.P. ammonia tanks.

Other Trades:

6 tanks to be installed in saddles and grouted in place.
6 tanks to be painted.
Walkway and stairs to be built over 6 tanks.
Steam trap enclosures to be built for 6 tanks.
6 tanks and all ammonia and steam piping to be insulated.
(See paragraph 13 under contract to be let.)

BUILDING 302 - Wave 4. Installation of 1 ammonia oxidation unit.

Pipefitters:

Install 4th wave gasifier consisting of gasifier shell, outer and inner steam coil, miscellaneous ammonia piping necessary to tie together Wave 1 and Wave 4 gasifiers and hook in Wave 4 gasifier to ammonia header; and hook up steam lines to coils and condensate lines. Install 3-6" HCI std. flanged tees and 2-6" HCI std. flanged elbows in 6" nitric oxide gas line to Power Recovery Compressor.

Electricians:

Control wiring for #4 ammonia oxidation unit and fourth wave gasifier. Siren control and condensate level gauge control wires to be revamped.

Other Trades:

Insulation of gasifier, ammonia piping at gasifier, steam piping at gasifier, exhaust gas manifold at gaugeboard and 2-6" tees in gas line from heat exchange to power recovery compressor. (See paragraph 13 under contract to be let.)

RODUCED AT THE NATIONAL ARCHIVES

BUILDING 303 - Wave 4. Installation of 2 nitric acid concentrating units 6-7.

Pipefitters:

Install 2 Rotometers in mixed acid lines at gauge boards for Units No. 6 and No. 7.
Install 2 - 4" blast gates in fume line between "S" condenser outlets and fume line header at Units No. 6 and No. 7.
Install 2 - 2" blast gates in nitric acid line at fume absorption column.

Electricians:

Installation of potentiometers on No. 6 and No. 7 nitric acid concentrating units.

BUILDING 305 - Wave 4. Installation of 6 vertical and 5 horizontal tanks.

Pipefitters:

Install acid piping for 2 vertical tanks, 303-27 residual sulphuric acid storage.
Install acid piping for 2 horizontal scale tanks, 305-3 concentrating mixed acid circulators.
Install acid piping for 2 horizontal tanks, 305-31 T.N.T. mixed acid storage.
Install acid piping for 2 vertical tanks, 305-35 residual sulphuric acid storage.
Install acid piping for 1 horizontal tank, 305-37 F-83 storage.
Install acid piping for 2 vertical tanks, 305-81 clear sulphuric acid storage.

Electricians:

Install lighting for Wave 4 tanks, 303-27 residual H_2SO_4 storage.
Install 1 push button at 303-27, residual H_2SO_4 storage.
Install lighting for Wave 4 tanks, 305-4 concentrating mixed acid circulators.
Install 6 push buttons and hookup target switch at 305-4, concentrating mixed acid circulators.
Complete wiring for 2 - 20 H.P. motors at 305-3, concentrating mixed acid circulators.
Install lighting for Wave 4 tanks 305-5, concentrating mixed acid storage.
Install 2 push buttons on top walkway 305-5, concentrating mixed acid storage.
Install push button and 20 H.P. motor starter at 305-6 pumps.
Install lighting for Wave 4 tanks 305-31, T.N.T. mixed acid storage.
Install lighting for Wave 4 tanks 305-35, residual H_2SO_4 storage.
Install lighting for Wave 4 tank 305-37, F-83 storage.
Install lighting for Wave 4 tanks 305-61, dark H_2SO_4 storage.

BUILDING 305 - (Continued)

Electricians: (Continued)

Install 2 push buttons on top walkway 305-61, dark H_2SO_4 storage.
Install lighting for Wave 4 tanks 305-81, clear H_2SO_4 storage.
Install 2 push buttons on top walkway 305-81, clear H_2SO_4 storage.

Other Trades:

Install and paint walkways over 2 vertical tanks, 303-27 residual H_2SO_4 storage.
Paint 2 vertical tanks 303-27 residual H_2SO_4 storage.
Install safety ladders at end of walkways, 303-27 residual H_2SO_4 storage.
Install 2 - 55 ton Howe scales, 305-2 concentrating mixed acid circulators.
Install 2 scale tank saddles, 305-2 concentrating mixed acid circulators.
Install and paint 2 horizontal scale tanks, 305-2 concentrating mixed acid circulators.
Install 2 - 20 H.P. motors, 305-3 concentrating mixed acid circulators.
Two horizontal tanks to be installed in saddles and grouted in place, 305-31, T.N.T. mixed acid storage.
Two horizontal tanks to be painted, 305-31 T.N.T. mixed acid storage.
Install and paint walkways over 2 horizontal tanks, 305-31 T.N.T. mixed acid storage.
Install and paint safety ladders at end of walkways, 305-31 T.N.T. mixed acid storage.
Paint 2 vertical tanks, 305-35 residual H_2SO_4 storage.
Install and paint walkways over 2 vertical tanks, 305-35 residual H_2SO_4 storage.
One horizontal tank to be installed in saddles and grouted in place, 305-37 F-83 storage.
Paint 1 horizontal tank, 305-37 F-83 storage.
Install and paint walkway over 1 horizontal tank, 305-37 F-83 storage.
Install and paint safety ladder at end of walkway, 305-37 F-83 storage.
Insulate top-half of 1 horizontal tank 305-37 F-83 storage. (See paragraph 13 under contract to be let).
Paint 2 vertical tanks, 305-81 clear H_2SO_4 storage.
Install and paint walkways over 2 vertical tanks, 305-81 clear H_2SO_4 storage.
Install and paint safety ladders at end of walkways, 305-81 clear H_2SO_4 storage.

BUILDING 308 - Wave 4. Lighting and power wiring on #5, #6, H_2SO_4 concentrating units.

BUILDING 308 (Continued)

Pipefitters:

Install 8 - 3" FA 20 Powell valves in strong acid lines and strong acid pumps.

Electricians:

Install lighting in 4th Wave substation.
Install 20 panel light circuit for 4th Wave building lights.
Install push buttons and wire 3 - 20 H. P. strong acid pump motors.
Wire 2 - 200 H. P. blower motors.
Complete installation of thermo-couples on Units No. 5 and No. 6.
One Rotary Rectifier Unit Control to be checked for incorrect voltage sequence.
Install hood heaters on #5 and #6 units.

Other Trades:

Complete installation of grating over weak acid pipe trench.
Install 2 American Blowers.
Install 2 - 200 H. P. American Blower Motors.
Install 3 - 20 H. P. Strong acid pump motors.
Paint staging over gas coolers.
Paint staging around precipitators.

BUILDING 401 - Boiler House

Pipefitters:

Install sprocket and chain on valve wheel of 1 - 8" boiler feed water valve. (See letter).
Install sprocket and chain on valve wheel of 3 - 4" CO_2 valves. (P.O. No. 8821 promised for delivery April 5, 1943).

Other Trades:

Installation of 3 chain hoists.

BUILDING 403 - Water Treatment Plant

Pipefitters:

Install 1 - 50 GPM booster pump for soda ash feeders.

Electricians:

Wire 1 - 50 GPM booster pump motor.

Other Trades:

Install 1 - 50 GPM Booster pump on soda ash feeder.

RODUCED AT THE NATIONAL ARCHIVES

BUILDING 404

Other Trades:

Install Ludlow valve stands.

BUILDING 501 - Outside electric lines.

Electricians:

Install cable supports in manhole at Campbell St. opposite Power House.
Install telephone cable crossing at railroad near Stella Niagara.
Guard phones, except in sentry houses to be grounded.
Install danger signs on Niagara Hudson lines at Pletcher Road crossing and Campbell Street crossing. (If advisable).
Complete building light circuit #4 along Balmer Road "A".
Clean up all temporary wire, transformers, crossarms, poles, etc. throughout entire project.

BUILDING 503 - Pletcher Road Chlorinator House

Pipefitters:

Install $1\frac{1}{4}$" suction and discharge Westco booster pumps.
Install automatically controlled W & T reagent feeder.
Install W & T chlorine comparator.
Install 30 gallon crock.
Install chlorinator differential convertor and chlorine cylinder scales.
Install sump pump.
Install water piping, chlorine piping and reagent piping.

Electricians:

Install lights, connect heater and wire up booster pump motor.

BUILDING 511

Other Trades:

Install additional culvert pipe where 12 Mile Creek enters site.

BUILDING 603 - Roads and Walks.

Other Trades:

Construct 90 linear feet of cinder walk in Acid Area.
Complete shoulder trim on roads at the following stations:

Road	Stations	% Uncompleted
"B" Ave.	0 + 10 - 11 + 00	15
"R" Ave.	0 + 83 - 10 + 00	15
S. Patrol Rd.	231 + 90.56 - 285 + 47.40	15

BUILDING 603 (Continued)

Other Trades: (Continued)

Road	Stations	% Uncompleted
S. Patrol Rd.	285 + 48.83 - 296 + 40.80	15
(Continued)	296 + 82.67 - 303 + 25	15
"K" Ave.Ext.	19 + 00 - 33 + 91.79	15
"H" St.	33 + 24 - 47 + 63.64	15
"A" Ave.	0 + 87 - 1 + 00	35
	1 + 00 - 67 + 03.57	35
	67 + 03.95 - 70 + 34.79	35
"M" St.	30 + 68 - 32 + 18	15
E. Patrol Rd.	200 + 00 - 231 + 80.58	10

Complete backfill of Borrow Pit, stump removal and clean ditches on Pletcher Road.

BUILDING 619 - Red & Yellow Trade Waste Pump Room

Pipefitters:

Install 2 - 600 GPM Ceco pumps.
Relocate 1 - 300 GPM pumps.
Install 6", 4" and 3" HCI piping from Red & Yellow Trade Waste tank to pumps and mixing tank.

Electricians:

Wire 2 - 600 GPM pump motors.
Relocate 1 - 300 GPM pump motor and rewire.

Other Trades:

Set 2 - 600 GPM pumps and motors.
Relocate 1 - 300 GPM pump and motor.

BUILDING 722 - B & C T.N.T. Area Maintenance Shops

Electricians:

Wire up 2 pipe threading machine motors.

Other Trades:

Set and install 1 pipe threading machine.

BUILDING 801 F and 802 F - T.N.T. Area F Line

Electricians:

Install 1 oil immersed Rowan control in 801 F.
Install 2 oil immersed Rowan controls in 802 F.

RODUCED AT THE NATIONAL ARCHIVES

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Paragraph 13 - Estimated status of uncompleted work under contracts (Prime and Subcontracts) Uncompleted as of March 15, 1943.

Contract DA-W-138-Eng.153	-	Herbert F. Darling - Laying 18" trade waste sewer - 72% complete on March 15, 1943.
Contract DA-W-138-Eng.148	-	General American Transportation Co. - erection of 13 vertical steel tanks - 77% complete on March 15.
Subcontract No. 32	-	Howe Scale Co., Supplemental Agreement A for Fourth Wave supervision on installation of 2 - 55 ton scales - 0% complete on March 15, 1943.

Contract to be let for insulation of 6 high pressure ammonia tanks, ammonia gasifier, F-83 tank and ammonia piping, 0% complete on March 15, 1943.

CONSTRUCTION MATERIAL PURCHASED

BY J. G. WHITE ENGINEERING CORPORATION

(Taken from Purchase Orders)

MATERIAL	QUANTITY
Acid-proof brick	57,600 pieces
Aluminum sheets	1,623 sq. ft.
Asbestos Pipe	70 ft.
Asbestos Sheets	171,384 sq. ft.
Asbestos shingles	3,325 squares
Asphalt shingles & roofing	4,520 squares
Bare Copper Wire	247,312 feet
Bituminous paving	308,077 gallons
Black Conduit	219,074 feet
Brass & copper pipe	13,799 feet
Built-up Roofing	139,930 pounds
Cast iron pipe	168,612 feet
Cement	3,442 Bbl.
Cinders	98 carloads
Clay pipe	128,199 feet
Common brick	354,940 pieces
Concrete blocks	53,210 pieces
Concrete pipe	13,654 feet
Copper & brass sheets	344 pounds
Covered copper wire	2,287,784 feet
Cross Arms	10,705
Crushed Stone	202,406 tons
Face brick	50,000 pieces
Galvanized conduit	14,450 feet
Glazed tile & brick	580 sq. ft.

CONSTRUCTION MATERIAL PURCHASED

BY J. G. WHITE ENGINEERING CORPORATION

(Taken from Purchase Orders)

(Cont'd.)

MATERIAL	QUANTITY
Gravel	241,663 tons
Gypsum lath & board	325,903 sq. ft.
Hydrants & Meters	63 Hydrants
Insulating board	105,687 sq. ft.
Insulating materials	208,696 sq. ft.
Iron & steel sheets - black	101,034 sq. ft.
Iron & steel sheets - galvanized	53,633 sq. ft.
Lead	151,315 pounds
Linoleum	1,279 sq. yds.
Lumber - 1" and under	2,031,242 Bd. ft.
Lumber - over 1"	4,769,477 Bd. ft.
Metal doors & windows	206 windows
Metal lath	8,230 sq. ft.
Metal piling	134,714 pounds
Motors	239
Nails	5,570 kegs
Paints & varnish	15,265 gallons
Pipe covering	7,639 feet
Plaster	308 bags
Plywood	330,602 sq. ft.
Poles treated	5,402
Poles untreated	804
Pre-mixed Concrete	113 yards
Railroad steel	2,633 ton

CONSTRUCTION MATERIAL PURCHASED

BY J. G. WHITE ENGINEERING CORPORATION

(Taken from Purchase Orders)

(Cont'd.)

MATERIAL	QUANTITY
Railroad ties, treated	48,320 ties
Ranges & stoves	15 Westinghouse
Refrigerators	15 Westinghouse
Reinforcing bars & mesh	795 ton
Roof coatings	4,219 gallons
Roofing felt	9,144 squares
Sand	5,431 tons
Slag	3,930 tons
Steel pipe	279,112 feet
Structural shapes	5,221,795 pounds
Tin plate	1,532 sq. ft.
Transformers	
Valves	11,978 valves
Welding rods	62,020 pounds
Window shades	475 shades
Wrought iron pipe	36,244 feet

APPENDIX
SECTION A

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON

Direc. Consec. No. 15
GLD-Buffalo-PL 1

File: CE 675 CEPL
(Lake Ontario Ordnance Works)
(Youngstown, New York)

January 15, 1942.

Subject: Construction of Lake Ontario Ordnance Works

To: The Division Engineer
Great Lake Division
419 Federal Building
Cleveland, Ohio

1. You are authorized to proceed immediately with the work described in 1st Indorsement, this office to the Division Engineer, Great Lakes Division, file number CE 675 CEPL (Lake Ontario Ordnance Works) Youngstown, New York, dated January 5, 1942, Subject: Proposed Ordnance Works.

2. Funds in the amount of $15,061,500 will be made available to your office under Procurement Authority Number DA-551-0023-P 531-32.

By Direction of the Chief of Engineers:

FRANCIS R. SCHERER
Lieut. Colonel, Corps of Engineers,
Chief, Plant Section
Engineering Branch

6286 (Modeltown, N.Y.)-48

APPENDIX
SECTION A

Directive Consec. No. 15
DSN - NAD-New York-3

CE 675 CEPL (Lake Ontario Ordnance Works)
Youngstown, New York

Subject: Proposed Ordnance Works

1st. Ind.

Office, C. of E., January 5, 1941. To: The Division Engineer, Great Lakes Division, 419 Federal Building, CLEVELAND, OHIO.

1. Upon advice of completion of contract negotiations by the Office of the Chief of Engineers, you will be authorized to proceed with the work described in the succeeding paragraphs. This directive is issued for advance information only, pending further instructions which will provide you with the applicable Procurement Authority Number and with the authority to proceed with the work.

2. a. The work is located at Youngstown, New York.

b. The work is to be supervised by the District Engineer at Buffalo, New York.

c. The work is to be completed on or before January 1, 1943.

3. The work to be done is fully described in the attached copy of "Construction and Engineering Information" dated January 3, 1942.

4. The estimated cost of the work, including allowances for the Field Overhead and for Architect-Engineer, is $15,061,500. A detailed breakdown of this cost is shown in the attached "Construction and Engineering Information".

5. The work will be prosecuted by a Cost-Plus-A-Fixed-Fee Architect-Engineer-Manager Contract, which will be negotiated in the Office of the Chief of Engineers.

By direction of the Chief of Engineers:

FRANCIS R. SCHERER
Lieut. Colonel, Corps of Engineers,
Chief, Plant Section,
Engineering Branch

One Inclosure
"Constr. & Engr. Information"
(C . of Cost Estimatedw/d)

APPENDIX
SECTION A

Consecutive No. 15
DSN - NAD-New York-3
Sheets/fg

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ORDNANCE
WASHINGTON

Attention of
Industrial Service,
Facilities

December 18, 1941

MEMORANDUM FOR Office of The Chief of Engineers
Construction Division

Subject: Proposed Lake Ontario Ordnance Works

1. In compliance with Memorandum dated June 4, 1941, QM 161C-ED, the following information is furnished:

a. The project is designated as the Lake Ontario Ordnance Works.

b. This office has been informed that the proposed site, in the vicinity of Youngstown, New York, has been approved and it is desired that negotiations for the collateral contract be instituted.

c. The Office of Production Management has approved a request for authority to negotiate a contract for the project. The Office of the Under Secretary of War has granted authority to enter into negotiations with Chemical Construction Corporation as operators of the proposed Lake Ontario Ordnance Works, Youngstown, New York.

d. This Plant is a plant for the manufacture of TNT, having an estimated average capacity of 240,000 pounds per day of twenty-four hours (6 Lines). Said Plant shall consist of all the necessary facilities, including but not limited to the following: a nitric acid manufacturing plant using anhydrous ammonia; a plant for the manufacture of sulphuric acid as 40% oleum; six (6) complete TNT lines with nitration houses, absorption towers, wash houses, flake houses; administration buildings, shops, railroads, roads, steam lines, air lines, electric lines, telephone lines, fencing, lighting, steam and power plant, power house, dormitories, water system, cafeterias, guard quarters, fire protection apparatus and housing thereof, adequate quarters for firemen, and other buildings together with all equipment necessary or appropriate for a plant of the approximate capacity aforesaid, with storage buildings adequate for about 30 days' supply of incoming materials and about 60 days' production of finished product.

e. The specific proposed site consists of about 10,000 acres located southeast of Youngstown, New York, near the Niagara River. This office has requested the procurement of the site as soon as possible, there being funds now

APPENDIX
SECTION A

Consec. No. 15
Dist. Seq. No. NAD-New York-3

To: Office of The Chief of Engineers
Construction Division

December 18, 1941

available.

f. (1) Typical designs for the subject project will be prepared by a master designer (E. I. du Pont de Nemours & Company) for this and several similar TNT plants under a collateral contract with the Government. The master designer will consult and advise with the Architect-Engineer on the project regarding the adaptation of the typical designs to the site. The equipment for this and for such similar TNT plants will be procured by the master designer under its collateral contract with the Government.

(2) The operating contract for the Plant will be negotiated by this office with Chemical Construction Corporation, New York. Under the proposed form of contract, the Contractor will furnish consultant service governing consultation with and advice to the collateral contractors regarding the adequacy of design, engineering and construction, will inspect installation of production equipment, will establish, equip and maintain guard and fire fighting forces, will train key personnel, and will operate the plant. Such contract will also contain a provision to the effect that the Government shall provide for the use of the operator during the construction period suitable office space and the necessary office equipment and facilities and utilities on the site of the project.

(3) Since the operating contractor (Chemical Construction Corporation) will be charged with the functions of consultant service, inspection of installation of production equipment and maintenance of guard and fire fighting forces, it is considered necessary that all collateral contracts make reference to these facts and contain provisions which will implement the contractor in carrying out the above functions.

g. The estimated cost of this project is inclosed herewith.

h. It is not contemplated that any particularly unusual conditions will be encountered.

i. It is the understanding of this office that J. G. White & Co. of New York, N. Y. will enter into a cost-plus-a-fixed-fee contract for architect-engineering services required and will adapt all of the designs (including the design of production equipment) furnished by the master designer under its collateral contract with the Government, and will prepare the necessary data to permit construction of the plant and installation of equipment to be accomplished on a fixed-price (lump-sum) basis. It is further understood that J. G. White & Co. will supervise construction of and installation of equipment in the Plant.

j. See i above.

k. Not applicable

APPENDIX
SECTION A

Consec. No. 15
Dist. Seq. No. NAD-New York-3

To: Office of The Chief of Engineers
Construction Division

December 18, 1941

1. Funds are available in this office to cover the proposed project and the allotment of the necessary funds will be made upon the signing of the contracts for architect-engineering and for construction by the Chief of Ordnance and his duly appointed Contracting Officer.

m. Date of required initial operation - November 1, 1942.
Date of required complete operation - January 1, 1943.

2. Major H. B. Sheets of this office, Room 5759, Social Security Bldg., Telephone Branch 5217, will be in charge of the project, and any further information desired may be obtained from him.

For the Chief of Ordnance:

Signed - L. H. CAMPBELL, Jr.
Brigadier General, Ordnance Dept.
Asst. Chief of Industrial Service, Facilities

1 Incl.
Cost Estimate

APPENDIX
SECTION A

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS
CONSTRUCTION DIVISION

CONSTRUCTION AND ENGINEERING INFORMATION

Date: January 3, 1942

STATION OR LOCATION: Lake Ontario Ordnance Works, Youngstown, New York.

I. BRIEF DESCRIPTION OF THE WORK:

A. This plant is a plant for the manufacture of TNT, having an estimated average capacity of 240,000 pounds per day of twenty-four hours (6 Lines). Said Plant shall consist of all the necessary facilities, including but not limited to the following: a nitric acid manufacturing plant using anhydrous ammonia; ~~a plant for the manufacture of sulphuric acid as 40% oleum~~; six (6) complete TNT lines with nitration houses, absorption towers, wash houses, flake houses; administration buildings, shops, railroads, roads, steam lines, air lines, electric lines, telephone lines, fencing, lighting, steam and power plant, power house, dormitories, water system, cafeterias, guard quarters, fire protection apparatus and housing thereof, adequate quarters for firemen, and other buildings together with all equipment necessary or appropriate for a plant of the approximate capacity aforesaid, with storage buildings adequate for about 30 days' supply of incoming materials and about 60 days' production of finished product. All buildings are to be of approved temporary five-year construction.

II. ESTIMATED CONSTRUCTION COST:

Note: The Net Construction Costs given below include all appurtenances and the Architect-Engineer-Managers supervisory and administrative overhead expenses.

A. Manufacturing Buildings	Units	Const. Cost Excl. Fees	Total
1. Acid Area			
Ammonia Oxidation		$ 120,000	
Sulphuric Acid Concentrator		75,000	
Nitric Acid Concentrator		94,000	
Sellite Manufacturing		42,000	
Conc. Mix Acid Unit		10,000	
Acid Mixing Plant		10,500	
Anhydrous Ammonia Storage		27,000	
Soda Ash Store House		7,000	
Condensate Storage		10,000	
Fuel Oil Storage		5,000	
Change Houses		33,000	$ 433,500

6286 (Youngstown, N.Y.)-26/1

Encl. #1

APPENDIX
SECTION A

CONSTRUCTION AND ENGINEERING INFORMATION

II. ESTIMATED CONSTRUCTION COST: (Contd.)

A. Manufacturing Buildings (Contd.)	Units	Const. Cost. Excl. Fees	Total
2. TNT Area			
Change Houses		62,000	
Clock Alleys		10,000	
Line Offices		20,000	
Mono-Nitrating Houses	6	110,000	
Bi and Tri Nitrating Houses	6	115,000	
Fortifying Houses	6	60,000	
Unloading Stations		12,000	
Wash Houses	6	175,000	
Tramways		115,000	
Tower Houses	6	525,000	
Valve Air Control Houses	6	5,000	
TNT Box Factory & Storage Bldgs.		200,000	
Box Pack Houses	3	20,000	
Sellite Storage Houses	6	25,000	
Area Shops	3	23,000	
Toluene Storage Pump House		5,000	
Waste Disposal Bldg.		178,000	
		1,660,000	
B. Office and Administration Building			
Main Office		90,000	
Plant Engineers Office		10,000	
Employment Office		25,000	
		125,000	
C. Auxiliary Buildings			
Laboratory & Equipment		180,000	
Sentry Houses		18,000	
Fire House		26,000	
Guard Headquarters		32,000	
Telephone Exchange		20,000	
Hospital		100,000	
Combined Shops		110,000	
Garage and Locomotive House		34,000	
Oil and Paint Shop		10,000	
General Warehouse		45,000	
Laundry		18,000	
Change Houses		75,000	
Cafeteria		32,000	
		700,000	

APPENDIX
SECTION A

CONSTRUCTION AND ENGINEERING INFORMATION

II. ESTIMATED CONSTRUCTION COST: (Contd)	Units	Const. Cost Excl. Fees	Total
D. Storage Buildings			
Magazines (Igloo Type)		675,000	
Car Bracing Lumber Shed		2,000	
Gasoline Station		3,000	
Loading Station		7,500	
Change Houses		20,000	
		$ 707,500	
E. Staff Residences		100,000	
TOTAL BUILDINGS			$ 3,726,000
F. Preparation of Site (Clearing and Grading)		317,000	
G. Utilities			
Power House		2,457,000	
Pump Houses		175,000	
Water Treatment Plant		325,000	
Fire Water Towers		85,000	
Water Storage		88,000	
Booster Pumps		44,000	
Sewage Disposal Plant		23,000	
Water Lines & Fire Protection		1,250,000	
Outside Electric Lines		130,000	
Substations on Plant		250,000	
Fence Lighting		35,000	
Street Lighting		49,000	
Power & Light Poles		48,000	
Steam & Air Lines		415,000	
Sewers, Drains & Ditches		284,000	
		5,658,000	
Roads			
Parking Lots		50,000	
Service Roads		410,000	
Magazine Roads		470,000	
Patrol Road		225,000	
		1,155,000	
Railroads & Transportation			
Broad Gauge R. R.		1,075,000	
Locomotives & Rolling Stock		274,000	
Autos & Trailers		65,000	
Fire Alarm & Guard Reporting System		50,000	
Telephone System		125,000	
Fencing, Boundary & Interior		200,000	
		1,789,000	
TOTAL UTILITIES			8,919,000

APPENDIX
SECTION A

CONSTRUCTION AND ENGINEERING INFORMATION

II. ESTIMATED CONSTRUCTION COST: (Contd.)	Units	Const. Cost Excl. Fees	Total
H. Installation Manufacturing Equipment			
1. Acid Area		$ 610,000	
2. TNT Area		595,000	
TOTAL INSTALLATION MANUFACTURING EQUIPMENT			$ 1,205,000
TOTAL NET CONSTRUCTION COST, excluding cost of Manufacturing Equipment, land, fees, engineering expense, Government Field and Washington Overheads			13,850,000
Architect-Engineer-Manager			851,400
a. Fee		297,400	
b. Reimbursable costs		554,000	
Government Field Overhead			360,100
Total to the Field			15,061,500
Administrative Overhead (Retained in the Office of the Chief of Engineers)			110,800
Total Funds Required from Ordnance			15,172,300
I. Manufacturing Equipment			
1. Acid Area			
Ammonia Oxidation		1,118,000	
Sulphuric Concentration		445,000	
Nitric Acid		352,000	
Mixing & Storage Factory		530,000	
Outside Lines		515,000	
		2,960,000	
2. TNT Area			
TNT Plant		1,347,000	
TNT Outside Lines		217,000	
		1,564,000	
3. General Equipment		79,000	
TOTAL MANUFACTURING EQUIPMENT			4,603,000
TOTAL COST OF PROJECT including cost of Manufacturing Equipment.			

APPENDIX
SECTION A

CONSTRUCTION AND ENGINEERING INFORMATION

III. ENGINEERING INFORMATION AVAILABLE:

A. E. I. du Pont de Nemours and Co., hereinafter called the Master Designer will prepare and furnish to the Architect-Engineer-Manager for a plant to produce 240,000 pounds of TNT per day, the following:

1. Typical layout of the plant, approved by the Contracting Officer.
2. Report covering all utility requirements.
3. Final designs, detailed working drawings and specifications for production equipment.
4. Final designs, detailed working drawings and specifications for all structures and buildings except the power house.
5. Adaptations of Government designs, drawings and specifications, and standards for production equipment, buildings and other structures, meeting the requirements of the approved typical layout of the plant and also detailed designs, drawings and specifications for which the Government designs are incomplete or unavailable.
6. Estimates of the building material, quantities and the production equipment required.

Note: All of the above mentioned detailed drawings and specifications shall, except insofar as the adaption to terrain may be a factor, be prepared for lump-sum or unit price advertising.

B. The Master Designer will also furnish the following:

1. Preliminary estimate of the cost of the typical plant, based on the approved designs drawings and specifications therefor.
2. A schedule showing the sequence of operations in the construction of the several portions of the work.
3. Estimates showing the amounts of materials, and items of production equipment in relation to the above schedule in regard to which difficulty of procurement is anticipated.
4. Labor estimates showing approximate numbers and trades, in relation to the above schedule.

C. The Master Designer will at the option of the Government furnish consultant service and advice to the Architect-Engineer-Manager regarding the adaptation of the typical design of the plant to the site, and the installation of the production equipment. The primary sources of consultation shall be at the Kankakee (Ill.) and the Alabama Ordnance Works, and in the Master-Designers offices at Wilmington, Delaware, only if the information required is not available at the above plants.

D. The Master-Designer will design production equipment and at the option of the Government do all things necessary for procurement of production equipment, expediting deliver, inspecting for acceptance and furnishing to the plant.

APPENDIX
SECTION A

CONSTRUCTION AND ENGINEERING INFORMATION

III. ENGINEERING INFORMATION AVAILABLE: (Contd.)

E. The Master Designer will not furnish topographical surveys or drawings; detailed final layout; development of, or adaptation to the terrain of any of the detailed working drawings and specifications; detailed layout, working drawings or specifications for outside utilities such as roads, railroads, fences, water systems, sewage disposal systems, power generation and distribution lines, etc.

F. The Operator will, under collateral contract with the Ordnance Department:

1. Operate the plant.
2. Train key personnel.
3. Establish, equip, and maintain guards, firefighting forces and hospital.
4. Consult and advise with the Master Designer and Architect-Engineer-Manager concerning the adequacy of design, engineering, and construction to the proper operation of the plant, and inspect the installation of manufacturing equipment, without, however, authority over or responsibility for the adequacy of such design, engineering or construction.

IV. WORK TO BE DONE BY THE ARCHITECT-ENGINEER-MANAGER:

A. The Architect-Engineer-Manager will promptly upon receipt from the Master Designer of plans and specifications for buildings and equipment, collaborate with the Contracting Officer on the preparation of necessary contract documents and on the award of contracts for individual items of construction, including installation of manufacturing equipment, on a lump sum or unit price basis. Such contracts are to be direct agreements between the Government and the contractors.

B. The Architect-Engineer-Manager will perform on force-account basis only such construction items for which it is not economical or feasible to award contracts. The Architect-Engineer-Manager shall in such cases assemble required tools and equipment not furnished by the Government, provide the necessary superintendents, foremen and skilled men and paying direct the purchase price of materials and labor required.

C. The Architect-Engineer-Manager will adapt to the soil and terrain (design foundations) for buildings, the estimated cost of which, excluding staff houses and power house but including the storage magazines is $ 3,626,000.

D. The Architect-Engineer-Manager will design for construction under lump-sum contract staff houses, the estimated cost of which is $100,000.

RODUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION A

CONSTRUCTION AND ENGINEERING INFORMATION

IV. WORK TO BE DONE BY THE ARCHITECT-ENGINEER-MANAGER (Contd.)

E. The Architect-Engineer-Manager will design utilities, including power house and its equipment, the estimated total cost of which utilities and power house and equipment is $ 8,919,000.

F. The Architect-Engineer-Manager will design outside process lines, listed under manufacturing equipment to be purchased by the Master-Designer, the estimated cost of which $ 732,000.

G. The Architect-Engineer-Manager will adapt to the terrain, plans and specifications for the layout of manufacturing equipment, the estimated cost of which is; Equipment, $ 3,871,000 (excluding outside process lines), Installation, $ 1,205,000.

H. Manage and supervise construction, the estimated cost of which is $13,850,000 including the installation of manufacturing equipment.

V. COMPLETION DATE

A. It is estimated that all construction work for this project will be completed on or before January 1, 1943.

APPENDIX
SECTION A

CE 675
(Lake Ontario Ordnance Works) COM
Lewiston, New York.

Supplement 1
Dir. Consec. No. 15
OLD-Buffalo-P1-1
Lake Ontario-M1-1

March 21, 1942

Subject: Revision of Construction Authorization, Lake Ontario Ordnance Works.

To: The Division Engineer
Great Lakes Division
500 Federal Reserve Building
Cleveland, Ohio

1. Reference is made to "Construction and Engineering Information" dated January 3, 1942, covering work authorized by Directive Consecutive No. 15.

2. The design and procurement of Power House boilers and auxiliary equipment is covered by Contract W-175 END-1297 with Stone and Webster and is to that extent being eliminated from the description of work authorized and covered by "Construction and Engineering Information" dated January 3, 1942.

3. The following revisions are therefore authorized:

a. Under Paragraph 11 add:

E. Power House Structure	$ 470,000

b. Change "Total Buildings" to 4,196,000

c. Under Paragraph 11 O., Change item "Power House" to 1,157,000
Change "Total Utilities" to 7,619,000

d. Change Paragraph 11 H. to read Installation of Manufacturing and Boiler Plant Equipment

e. Under Paragraph 11 H. add:

Item 3. Boiler Plant Equipment	200,000
Change "Total Installation" to	1,405,000

APPENDIX
SECTION A

To: Division Engineer, Great Lakes Division March 21, 1942.

f.	Change "Total Net Construction Cost" to Total Net Construction Cost, Excluding cost of Manufacturing Equipment, Boiler and Auxiliaries, Land, Fees, Engineering Expense, Government, Field and Washington Overheads		$ 13,220,000
g.	Under "Architect-Engineer-Manager" change		
	a. Fee to	$286,210	
	b. Reimbursable Costs to	$531,320	817,530
h.	Change "Government Field Overhead" to		343,720
i.	Change "Total to the Field" (District Engineer, Buffalo) to		14,381,250
j.	Change "Total Funds Required from Ordnance" to		14,492,050
k.	Change Item I to "Manufacturing and Boiler Plant Equipment". Add Item I 4.		
	I. 4. Equipment Procured by Boiler Plants Designer		630,000
	a. Power House Auxiliaries	$300,000	
	b. Power House Boilers	330,000	
	Boiler Plants Designer		50,250
	a. Fee	18,250	
	b. Reimbursable Costs	32,000	
	Total to the Field (District Engineer, Boston)		680,250
l.	Change "Total Manufacturing Equipment" to read		
	Total Manufacturing and Boiler Plant Equipment		5,283,250

By order of the Chief of Engineers:

JOHN M. JOHNSON
Lieut. Col., Corps of Engineers
Executive Officer, Operations Branch
Construction Division

CC:

Area Engr.

For Advance information.

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APPENDIX
SECTION A

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ORDNANCE
WASHINGTON
Pentagon Bldg.

Evans/dm

O.O. No. 400.3295/85487 Misc. (x)
Attention of
SPOIM
Fac. & Plt. Adm. Sec.

Directive Consec. No. M-249
GLD-Buffalo-M-9

June 5, 1942

MEMORANDUM FOR Construction Division
Office of the Chief of Engineers

Attention: Mr. F. R. Creedon

Subject: Proposed Addition to Lake Ontario Ordnance Works, Contract No. W-ORD-565 DA-W-ORD-48.

1. In compliance with Memorandum dated June 4, 1941, QM 161 C-ED, the following information is furnished:

a. The project is designated as an addition to the Lake Ontario Ordnance Works.

b. The site approved for the project is in the vicinity of Youngstown, New York.

c. A Site Letter covering the proposed addition has been approved by the Under Secretary of War.

d. The proposed addition comprises all necessary facilities to permit the TNT lines to have an approximate capacity of 360,000 pounds of TNT per day of 24 hours (6 lines of 60,000 pounds each) with acid and general service facilities to take care of production at the rate of 390,000 pounds of TNT per day of 24 hours (6 lines of 65,000 pounds each).

e. It is not contemplated at the present time that any additional land will be necessary.

f. (1) The proposed addition is to be designed, constructed and equipped in the same manner as the original Plant. Typical designs will be prepared by the master designer who will also procure the equipment under a collateral contract with the Government.

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APPENDIX
SECTION A

Directive Consec. No. M-249
GLD-Buffalo-M-9

Construction Division
Office of the Chief of Engineers
Attn: Mr. F. R. Creedon

June 5, 1942

f. (2) The operating contract for the Plant will be negotiated as Supplement 1 to the existing Contract No. W-ORD-565 DA-W-ORD-48. Under the Contract the Operator (Chemical Construction Corporation) will furnish consultant service covering consultation with and advice to the Collateral Contractors regarding the adequacy of design, engineering and construction, will inspect the installation of production equipment, will train key personnel and will operate the Plant.

g. Inclosed herewith is an estimate of cost of the addition.

h. It is not contemplated that any particularly unusual conditions will be encountered.

i. It is the understanding of this office that J. G. White Engineering Corporation, New York, N. Y., will enter into a supplement to their present contract for the architect-engineer services required and will do the necessary adaptation of the designs (including the design of production equipment) furnished by the master designer, and will prepare the necessary data to permit the accomplishment of the construction of the plant and installation of the equipment therein.

j. See i above.

k. The services to be performed by the A-E-M are believed to be of the same scope as under their Original Contract.

l. Sufficient funds to cover the construction phase of this project are available and allotment thereof will be made when the supplement to the A-E-M Contract is signed by the Chief of Ordnance and his duly appointed Contracting Officer.

m. The estimated date of completed operation is January 1, 1943.

For the Chief of Ordnance:

GEORGE V. RILEY
Maj., Ord. Dept.
Assistant

1 Incl.
Cost of Increase of Supp. 1 to Contr. W-ORD-565-DA-W-ORD-48.

RODUCED AT THE NATIONAL ARCHIVES

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SECTION A
6286(Lake Ontario Ordnance Works)-273

Dir. Cons. No. M-249
GLD-Buffalo-M-9
Job No. Lake Ontario-M1-2

A I R M A I L

CE 635 SPEOM (Lake Ontario Ordnance Works)
Modeltown, N. Y.

Subject Addition to Lake Ontario Ord. Works

1st Ind.

Office Chief of Engineers, June 16, 1942. To: The Division Engineer, Great Lakes Division, Room 500, 332 South Michigan Avenue, CHICAGO, ILLINOIS.

1. You are authorized to proceed immediately with the work described in the enclosed "Construction and Engineering Information" dated June 9, 1942. You will be advised promptly of the applicable Procurement Authority Number against which obligations may be incurred.

2. a. The work is located at the Lake Ontario Ordnance Works, Youngstown, New York.

b. The work is to be administered by the District Engineer at Buffalo, New York.

c. The work is to be completed on or before January 1, 1943.

3. The estimated cost of the work including allowances for Field Overhead and Engineering Cost, is $2,311,174. A detailed breakdown of this cost is shown in the enclosed "Construction and Engineering Information".

4. A supplement to the existing Architect-Engineer-Manager Fixed Fee Contract has been negotiated in the Office of the Chief of Engineers.

By order of the Chief of Engineers:

DONALD E. ANTES
Lt. Colonel, Corps of Engineers
Executive Officer, Operations Branch
Construction Division

One Inclosure:
Const. & Engr. Infrm.

"For Advanced Information"
C.C. To District Engineer, Buffalo, New York

RODUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION A

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS
CONSTRUCTION DIVISION

CONSTRUCTION AND ENGINEERING INFORMATION

Date: June 9, 1942.

STATION OR LOCATION: Lake Ontario Ordnance Works, Youngstown, New York.

I. BRIEF DESCRIPTION OF THE WORK:

A. This project will involve increasing the capacity of each of 6 TNT lines to approximately 60,000 lbs. of TNT per day of 24 hours for a total production of 360,000 lbs. per day and will add acid and general facilities to permit production of TNT at the rate of approximately 65,000 lbs. per line or a total of 390,000 lbs. per day of 24 hours.

II. ESTIMATED CONSTRUCTION COST:

Note: The following cost estimate is based upon all information available at the time the estimate was made. It is not intended for budgetary control. Allotted funds are intended to cover the cost of construction of all structures and facilities necessary for a complete plant within the scope defined in the contract.

A. Manufacturing Buildings and Structures:

1. Acid Area:

Ammonia Storage	$ 37,500
Ammonia Oxidation	35,000
Nitric Acid Concentration	42,500
Sulphuric Acid Concentration	49,400
Acid Tank Farm	350,000
	$ 514,400

2. TNT Area:

Fortifiers	$ 53,700
Bi-Tri Nitration	4,500
	$ 58,200

TOTAL BUILDINGS AND STRUCTURES $ 572,600

6286 (Lake Ontario Ordnance Works)-273/1

)DUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION A

B. General Outside Utilities

Power House	$ 50,000	
Pump Houses	81,000	
Water Lines and Fire Protection	125,000	
Roads and Walks	268,000	
Sewers Drains and Ditches	75,000	
Electric	103,000	
Pipe Lines and Supports	375,000	
Fence	59,000	
Clearing and Grading	107,100	
TOTAL UTILITIES		$ 1,243,100

C. Purchase Items

Automobiles, etc.	10,000

D. Installation of Manufacturing Equipment

1. Acid Area:

Ammonia Storage	$ 8,650	
Ammonia Oxidation	44,000	
Nitric Acid Concentration	64,250	
Sulphuric Acid Concentration	176,800	
Acid Tank Farm	45,300	
	$ 339,000	

2. TNT Area:

Fortifiers	8,000	
TOTAL INSTALLATION MANUFACTURING EQUIPMENT		$ 347,000
TOTAL ESTIMATED CONSTRUCTION COST, exclusive of fees, engineering costs, overhead allowances and contingencies.		$ 2,172,700

Architect-Engineer-Manager's Fee and Cost

1. Fee - Construction $25,210, A-E $12,450	37,660
2. Reimbursable Costs - 4% of $2,197,910 - $ 12,450 =	75,466
Government Field Overhead, 2.5% of $15,417,910-$360,100 =	25,348
Total to the Field	$ 2,311,174
Administrative Overhead (Retained in Office, Chief of Engineers) - 0.5% of $2,197,910	10,989
Total Funds Required from Ordnance	$ 2,322,163

APPENDIX
SECTION A

E. Manufacturing Equipment

1. Acid Area:

Ammonia Storage	$ 27,000
Ammonia Oxidation	195,000
Nitric Acid Concentration	61,200
Sulphuric Acid Concentration	314,600
Acid Tank Farm	61,200
	$ 659,000

2. TNT Area:

Fortifiers	13,000	
TOTAL MANUFACTURING EQUIPMENT		$ 672,000

Total Cost of Project, including cost of Manufacturing Equipment

III. ENGINEERING INFORMATION AVAILABLE

1. The Master Designer, E. I. duPont de Nemours and Company will furnish the A E M design information and services for this project as provided in the original contract W 138 Eng. 1734.

IV. WORK TO BE DONE BY THE A E M

1. In general all provisions of the original contract W-138 Eng. 1734, shall be extended to cover the construction of these additional facilities.

2. The A E M. will:

a. Adapt to soil and terrain the design of foundations for buildings and structures, the estimated cost of which is $ 572,600.

b. Design utilities, including power house additions, the estimated cost of which is $1,243,100.

c. Adapt to the terrain plans for the layout of manufacturing equipment, the estimated cost of which is: Equipment $ 672,000; Installation $ 347,000.

d. Purchase spare parts, automobiles and rolling stock, the estimated cost of which is $ 10,000.

e. Manage and supervise construction, the total estimated cost of which is $ 2,162,700, including installation of manufacturing equipment, excluding purchased items, (d, above).

V. COMPLETION DATE

No change.

RODUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION A

CORRECTED COPY

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON

Address Reply to
Chief of Engineers, U. S. Army
Washington, D. C.

Supplement No. 2
Dir. Consec. No. M-15
GLD-Buffalo-Pl-1
Lake Ontario M 1-1

Refer to File CE 121.2 SPEON (Lake Ontario Ord. Wks.)

September 5, 1942

SUBJECT: Additional Funds, Lake Ontario Ordnance Works,

TO: The Division Engineer
Great Lakes Division
Room 500, 332 South Michigan Avenue
CHICAGO, ILLINOIS

1. Confirming teletype from this office to the District Engineer, Buffalo, New York, Number 4077 SPEON, dated August 28, 1942, additional funds in the amount of $3,000,000 to cover increased cost of construction will be made available under Procurement Authority Number ORD 39204, Appropriation Symbol P 210-99 A 0141-03, against which obligations may be incurred and vouchers approved for payment prior to receipt of Form 23.

By order of the Chief of Engineers:

DONALD E. ANTES
Lt. Colonel, Corps of Engineers
Executive Officer, Operations Branch
Construction Division

CC: Direct to District Engineer, Buffalo, New York

APPENDIX
SECTION A

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON

Supplement No. 1 to
Dir. Cons. No. M-249
GLD-Buffalo-M-9
Lake Ontario M1-2

Refer to file No. CE 635 SPEOM
(Lake Ontario Ordnance Works)

September 28, 1942

Subject: Additional funds for Construction at the Lake Ontario Ordnance Works.

TO: The Division Engineer
Great Lakes Division
Room 500
332 South Michigan Avenue
CHICAGO, ILLINOIS

1. Reference is made to Estimate of Cost of the Lake Ontario Ordnance Works as of September 4, 1942, which was submitted to this Office by 21st Indorsement, dated September 12, 1942, from the District Engineer at Buffalo, New York.

2. Additional funds in the amount of $3,525,487 will be allotted the District Engineer at Buffalo, New York, to partially cover the increase in estimated cost of the Lake Ontario Ordnance Works. This allotment will be made on two Procurement Authorities as follows:

Procurement Authority No.	ORD 39204	$2,625,487
Procurement Authority No.	DA 551-0023	900,000
		$3,525,487

3. Prior to the receipt of Procurement Authorities Forms 23, you are authorized to incur obligations and approve vouchers for payment.

By order of the Chief of Engineers:

DONALD E. ANTES
Lt. Colonel, Corps of Engineers
Executive Officer, Operations Branch
Construction Division.

APPENDIX
SECTION A

DIR. CONS. No. M-466
GLD-Buffalo-M-15
Lake Ontario M1-3

WAR DEPARTMENT
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON

Refer to file No. CE 634 SPEOM
(Lake Ontario Ordnance Works)

October 1, 1942

Subject: Stables for Guard Horses, Lake Ontario Ordnance Works.

To: The Division Engineer
Great Lakes Division
Room 500
332 South Michigan Avenue
CHICAGO, ILLINOIS.

1. You are authorized to proceed immediately with the work described in the succeeding paragraphs.

2. a. The work is located at the Lake Ontario Ordnance Works, Youngstown, New York.

b. The work is to be administered by the District Engineer at Buffalo, New York.

c. The work consists of the necessary alterations to Barn 82A to make it suitable for a stable to house horses which are now used in the guard patrol.

d. The work is to be completed with the utmost dispatch.

3. The estimated cost of this work is $9,000. Sufficient funds are available to the District Engineer from funds previously allotted for the construction of the Lake Ontario Ordnance Works.

4. This work is not considered to be a change in the scope or character of the work covered by the original contract. However, if any change orders are required for this work, they will be prepared in this Office.

By order of the Chief of Engineers:

DONALD E. ANTES
Lt. Colonel, Corps of Engineers,
Executive Officer, Operations Branch
Construction Division

District Engineer, Buffalo, New York. "This shall constitute authority to proceed immediately with the work described. DEA"

This Directive received in District Office on October 3, 1942
6012 (Lake Ontario Ordnance)-1

APPENDIX
SECTION A

Supplement No. 2 to
Dir. Cons. No. M-249
GLD-Buffalo-M-9
Lake Ontario-M1-2

CE SPEOM
635 (Lake Ontario Ordnance Works)

January 20, 1943.

Subject: Additional Funds, Lake Ontario Ordnance Works

To: The Division Engineer,
Great Lakes Division
Room 500
332 South Michigan Avenue
CHICAGO, ILLINOIS.

1. Additional funds in the amount of $3,585,360 will be allotted the District Engineer at Buffalo, New York, to cover increase in estimated cost of construction at Lake Ontario Ordnance Works.

2. The amount as stated above corrects that shown in teletype which stated that $3,500,000 was being made available.

By order of the Chief of Engineers:

DONALD E. ANTES
Lt. Colonel, Corps of Engineers
Executive Officer, Operations Branch
Construction Division

6286 (Lake Ontario Ordnance Works)-387

This Directive received in District Office January 22, 1943.

RODUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION B
LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION Lewiston Township	ACRES ± CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PRICE	DATE WHEN POSSESSION WAS ORDERED DELIVERED TO UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
A-1	W. Landers	18	0.26		2-11-1942	X	
A-2	J. Galliher	18	0.56		2-11-1942	X	
A-3	E. Hewitt	18	0.23		2-11-1942	X	
A-4	M. Sutherland	18	20.0	1,500.	2-11-1942 2-20-1942*		X
A-5	C. Sanborn	18	10.0		2-11-1942	X	
A-6	E. Hewitt	18	10.0		2-11	X	
A-7	C. Landers	19	10.26	2,500.	2-11 6-20-1942*	X	
A-8	A. Watson	19	27.64	2,500.	2-11 6-20-1942*	X	
A-9	R. Widmer	19	20.17	2,500	2-11-1942		X
A-10	J.W.H. Kelley Est.	26	37.0		3-10	X	
A-11	Earl Freeman	26	41.5		3-10	X	
A-12	F. Martin	26	20.5		3-10	X	
A-13	E. Freeman	26	21.0		3-10	X	
A-14	P. Nichols	20	22.2		3-24	X	
A-15	J. Wiseman	19-18	38.8		2-11	X	
A-16	J. Blacklock	20	12.7		3-24	X	
A-17	J. Blacklock Est.	20	29.8		3-24	X	
A-18	G. P. Swann	20	17.1		3-24	X	
A-19	G. P. Swann	20	6.2		3-24	X	
A-20	B. Sutherland	27	51.0		3-24	X	

*Date Indicates date of "Declaration of Taking, Civil Number 977," signed by the Secretary of War.

RODUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION B

LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION Lewiston Township	ACRES ± CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PRICE	DATE WHEN POSSESSION WAS ORDERED DELIVERED TO UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
A-21	A. Watson	27	2.67		3-10	X	
A-22	R. Crewe	19	0.43	1,500.	2-11 6-20-1942*	X	
A-23	W. Koller	28	70.62		3-10	X	
A-24	W. Koller	28	0.5		3-10	X	
A-25	M. Jakubowski	35	54.9	See A-26	3-10 3-24-1942*		X
A-26	M. Jakubowski	35	159.4	8,500.	3-10 3-24-1942*		X
A-27	F. Kowolczyk	35	0.83		3-10	X	
A-28	F. Kowolczyk	35	100.11		3-10	X	
A-29	M. Dominski	35	25.02		3-10	X	
A-30	J. Dominski	35	0.69		3-10	X	
A-31	F. Kowolczyk	35	22.47		3-10	X	
A-32	J. Girard	19	8.75	5,500.	2-11 6-20-1942*	X	
A-33	C. Kneeple	19	2.34	250.	2-11 6-20-1942*	X	
A-34	W. Wager Est.	19	1.42	2,400	2-11 2-20-1942*		X
A-35	M. Sievert	19	3.54	3,500.	2-11 6-20-1942*	X	
A-36	C. Ehrhart (Est.)	19	0.33	4,800.	2-11 6-20-1942*	X	
A-37	L. Meigs	19	0.70		2-11	X	
A-38	Modeltown Presby.Ch.	19	0.33	6,500	2-11 2-20-1942*		X
A-39	M. Swann	28	40.0		3-10	X	
A-40	H. McArdle	27	2.29		3-10	X	

*Date indicates date of "Declaration of Taking, Civil Number 977," signed by the Secretary of War.

APPENDIX
SECTION B

LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION Lewiston Township	ACRES +- CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PARCEL	DATE WHEN POSSESSION WAS ORDERED DELIVERED TO UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
A-41	E. Meitz	27	0.46		3-10	X	
A-42	W. Ciurczak	36	100.0		3-10	X	
A-43	R. Swann	28	42.5		3-10	X	
A-44	M. and T. Walsh	36	100.0		3-10	X	
A-45	J. Zimmerman	36	78.5		3-10	X	
A-46	H. Taylor	27	4.19		3-10	X	
A-47	H. Taylor	27	18.91		3-10	X	
A-48	F. Rogozinski	36	50.0	5,600.	3-10 6-20-1942*		X
A-49	E. G. Clark	36	26.0		3-10	X	
A-50	E. Wagoner	28-36	196.56		3-10	X	
A-51	I. Pletcher	29	95.0		2-11	X	
A-52	F. Buttery	37	150.0	5,300.	3-10 3-24-1942*		X
A-53	R. Matejovic	37	50.0	4,500.	3-10 3-24-1942*		X
A-54	B. Sutherland	18	4.3		2-11	X	
A-55	G. Carter	37	126.9	7,500.	3-10 3-24-1942*		X
A-56	F. Pletcher	29	101.5	8,580	2-10 6-20-1942*	X	
A-57	W. Hopkins-Est.	29	61.0	2,000	2-10 2-20-1942*		X
A-58	M. Rogena-Est.	29	42.81	2,600.	2-10 2-20-1942*		X
A-59	E. Hillman	21	50.0		2-10	X	
A-60	S. Meronto	21	206.0	6,500.	2-10 2-20-1942*		X

*Date indicates date of "Declaration of Taking, Civil Number 977," signed by the Secretary of War.

APPENDIX
SECTION B

LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION Lewiston Township	ACRES ± CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PRICE	DATE WHEN POSSESSION WAS ORDERED DELIVERED TO UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
A-61	F. Buttery	29	30.5	1,200.	2-10 6-20-1942*	X	
A-62	W. D. Wisner Jr.	29	28.85	900.	2-10 6-20-1942*	X	
A-63	W. Hill	21	50.0		2-10	X	
A-64	P. Castoff	14-21	87.33		2-10	X	
A-65	W.McGrath & J. Durk	14	59.0		3-10	X	
A-66	A. C. Watson	27	7.5		3-10	X	
A-67	A. C. Watson	27	19.33		3-10	X	
A-68	A. Crown	27	21.35		3-10	X	
A-69	A. Crown	27	21.85		3-10	X	
A-70	G. Houck, Jr.	27	17.5		3-10	X	
A-71	G. Houck, Jr.	27	10.3		3-10	X	
A-72	J. McCabe	27	23.5	1,890.	3-10 2-26-1942*		X
A-73	J. McCabe	27	5.6	110.	3-10 2-26-1942*		X
A-74	G. Houck, Sr.	27	2.26		3-10	X	
A-75	Z. Cunard	27	1.13		3-10	X	
A-76	Model City Union Christian Church	19	0.18	200.	2-11 2-20-1942*		X
A-77	O. Koller	14	50.51		3-10	X	
A-78	J. Rafajac	14	45.71	1,900.	3-10 3-24-1942*		X
A-79	Anna Kneeple (Est.)	14	11.0	1,000.	3-10 3-24-1942*		X
A-80	R. Gieseler	14	50.0	3,000.	3-10 3-24-1942*		X

*Date indicates date of "Declaration of Taking, Civil Number 977," signed by the Secretary of War.

RODUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION B
LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION Lewiston Township	ACRES CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PRICE	DATE WHEN POSSESSION WAS ORDERED DELIVERED TO UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
A-81	R. Gieseler	14	19.5		3-10		X
A-82	T. Wills	14	1.0		3-10	X	
A-83	P. Hildebrandt	13	26.5		2-24	X	
A-84	S. Talarico	20	52.5	3,800.	2-24 2-26-1942*		X
A-85	W. J. McCormick	20	3.75		2-24	X	
A-86	L. Harold	20	97.0	16,900.	2-24 3-6-1942*		X
A-87	T. Harold, Est.	20	32.8	820.	2-24 3-6-1942*		X
A-88	See A-93 - New York Central Railroad				2-24		
A-89	T. Harold, Est.	20	13.2		2-24		X
A-90	D. and S. Jowdy	14	97.44		3-10	X	
A-91	D. and S. Jowdy	14	7.35		3-10	X	
A-92	Unknown	19	0.13	50.	2-11 2-20-1942*		X
A-93	N.Y.C. Railroad	35-27-20-13-14	21.95		2/24-3/10-1942	X	
A-94	J. Bowman	13	1.2		2-24	X	
A-95	P. Nichols	20	8.0		2-24	X	

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RODUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION B

LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION	ACRES ± CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PRICE	DATE WHEN POSSESSION WAS ORDERED DELIVERED TO UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
		Porter Township					
B-120	S. Hopkins	24-37	144.75	7,400.	3-10 3-24-1942*		X
B-121	A. Hillman	24	2.25		3-10	X	
B-122	A. Delansky	24	107.0	15,000.	3-10 3-24-1942*		X
B-123	W. Kolloff	24	80.0		3-10	X	
B-124	W. Lederhouse	24	68.5		3-10	X	
B-125	W. Kolloff	19	10.0		3-10	X	
B-126	W. Smithson (Est.)	19	139.5	9,000.	3-10 3-24-1942*		X
B-127	W. Kincaid	19	152.39		3-10	X	
B-128	M. Truesdell	13	50.5	3,800.	3-10 3-24-1942*		X
B-129	D. Wisner, Jr.	19	47.97		3-10	X	
B-130	G. Clarke	13	19.0	2,500.	3-10 6-20-1942*	X	
B-131	C. Hufford	13	12.0	6,000.	3-10 6-20-1942*	X	
B-132	F. Amsdell	13	60.0		3-10	X	
B-133	D. McCollum	13	60.0		3-10	X	
B-134	E. Clark	13	88.0		3-10	X	
B-135	F. Pector	13	12.0		3-10	X	
B-136	O. Martin (Est.)	13	1.0	150.	3-10 3-24-1942*		X
B-137	J. Strassner	7	50.0		3-10	X	
B-138	W. Gieseler	7	51.5		3-10	X	

*Date indicates date of "Declaration of Taking, Civil Number 977," signed by the Secretary of War.

RODUCED AT THE NATIONAL ARCHIVES

APPENDIX
SECTION B

LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION Porter Township	ACRES ± CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PRICE	DATE WHEN POSSESSION WAS ORDERED DELIVERED IN UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
B-139	A. Henseling	7	48.0		3-10	X	
B-140	A. Schmidt	7	25.0		3-10	X	
B-141	M. Schmidt	7	25.0	1,700.	3-10 6-20-1942*	X	
B-142	N. Belden	7	10.0		3-10	X	
B-143	D. De Mason	7	10.0		3-10	X	
B-144	C. Paul	7	20.0		3-10	X	
B-145	W. Russell	7	20.0		3-10	X	
B-146	E. Robertson	7	100.0		3-10	X	
B-147	C. Broeker	20	60.0		3-10	X	
B-148	St. Johns German Lutheran Ch.	24-25	1.31		3-10	X	
B-149	This Number not used.				3-10		
B-150	S. Robertson	15	97.0	21,520.	2-24 3-24-1942*		X
B-151	E. Baker	8	159.5		2-24	X	
B-152	J. Truesdale (Est.)	8	100.0		2-24	X	
B-153	D. Moss	8-9	103.4		2-24	X	
B-154	A. McCollum	13-14	133.75		2-10	X	
B-155	W. Corrigan	14	89.6		2-10	X	
B-156	M. Smithson	14	66.66		2-10	X	
B-157	C. Truesdale	14	83.33		2-10	X	
B-158	M. Lloyd	14-15	99.0		2-10	X	

* Date indicates date of "Declaration of Taking, Civil Number 977," signed by the Secretary of War.

APPENDIX
SECTION B

LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION Porter Township	ACRES ± CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PRICE	DATE WHEN POSSESSION WAS ORDERED DELIVERED TO UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
B-159	E. Hobbs	20	30.87	3,800.	3-10 6-20-1942*	X	
B-160	L. Martin	20-21-15	170.75	8,600.	2-24 3-6-1942*		X
B-161	A. Broeker	20	100.0		3-10	X	
B-162	A. Langdon	20	10.0	4,000.	3-10 3-24-1942*		X
B-163	K. Tower	21	17.5		3-10	X	
B-164	School No. 11 (Porter)	21	0.4	1,300.	2-10 2-20-1942*		X
B-165	W. Marsh	20	64.0		3-10	X	
B-166	J. McCann	20	60.0		3-10	X	
B-167	M. Hogarth	25-20	79.5	9,000.	3-10 6-20-1942*		X
B-168	G. McGraw Hackett	25	97.0	16,000.	3-10 3-24-1942*		X
B-169	J. Hayes	25	2.02		3-10	X	
B-170	L. Truesdale	25	113.9	21,000.	3-10 2-26-1942*		X
B-171	G. Robinson	25	26.0		3-10	X	
B-172	E. O'Brien	21	50.0		3-10	X	
B-173	H. Truesdale	9	100.0	13,500.	2-24 3-6-1942*		X
B-174	E. Baker	9	100.36		2-24	X	
B-175	L. Myers	9	49.75		2-24	X	
B-176	G. Carter	9	25.79		2-24	X	
B-177	E. Streblow	9	15.0		2-24	X	
B-178	L. James	21	15.0		2-24	X	

*Date indicates date of "Declaration of Taking, Civil Number 977," signed by the Secretary of War.

APPENDIX
SECTION B

LAND ACQUISITION RECORD

PARCEL NUMBER	OWNER OF PARCEL	GREAT LOT LOCATION Porter Township	ACRES ± CONTAINED IN PARCEL	GOVERNMENT ESTIMATED PRICE	DATE WHEN POSSESSION WAS ORDERED DELIVERED TO UNITED STATES OF AMERICA	SIGNED OPTION DIRECT PURCHASE	CONDEMNED FOR REFUSAL TO SIGN OPTION
B-179	A. Forgione	21	20.0	400.	3-10 3-24-1942*		X
B-180	A. Robinson	21	39.42	1,250.	3-10 3-24-1942*	X	
B-181	C. Myers	15	94.0		2-24	X	
B-182	F. Tower	15	67.5		2-24	X	
B-183	S. Olejarczyk	21-26	30.0		3-10	X	
B-184	H. Carter	21	98.875	12,000.	3-10 3-6-1942*		X
B-185	S. Carter	21	1.125	4,100.	3-10 3-6-1942*		X
B-186	L. Vanluven	26	26.75		3-10	X	
B-187	E. Lloyd	26	19.5		3-10	X	
B-188	R. Lutts	26	62.72	3,200.	3-10 3-24-1942*		X
B-189	D. De Mason	26	3.75		3-10	X	
B-190	G. Robinson	26	2.72		3-10	X	
B-191	B. Wardell	26	1.0		3-10	X	
B-192	L. VanLuven	26	8.28		3-10	X	
B-193	W. Morris	26	104.0		3-10	X	
B-194	J. Kyle	26	0.72		3-10	X	

ORDER AND DATE OF "DECLARATION OF TAKINGS, CIVIL NUMBER 977", SIGNED BY THE SECRETARY OF WAR.

"Taking"	Date - 1942
First	February 11
Second	February 20
Third	February 26
Fourth	March 6
Fifth	March 24
Sixth	June 20

*Date indicates date of "Declaration of Taking, Civil Number 977," signed by the Secretary of War.

W.B. FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY. TEMP. 5 PM
LATITUDE 43.16, LONGITUDE 79.03, ELEVATION 323. HOUR OF OBSERVATION
MONTH JAN, 1942, MERIDIAN OF TIME E.S. PRECIP. 5 PM

DATE	TEMPERATURE MAXIMUM	TEMPERATURE MINIMUM	TEMPERATURE [2] SET MAX.	PRECIPITATION TIME OF BEGINNING	PRECIPITATION TIME OF ENDING	PRECIPITATION [3] AMOUNT (INCHES & HUNDREDTHS)	PRECIPITATION SNOWFALL (INCHES & TENTHS)	PRECIPITATION SNOW ON GROUND AT OBSERVATION	PREVAILING WIND DIRECTION FOR THE DAY	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. OLD) CLEAR (0–3)	PARTLY CLOUDY (4–7)	CLOUDY (8–10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC.
	1	2	3	4	5	6	7	8	9		10		11
1	37	28	38	3	4	05	00	00	SEL		✓		
2	45	26	28	6	9	20	1"	1"	W G			✓	HIGH WIND
3	28	19	20			00	00	1	W L		✓		
4	31	21	25	N	N	19	3	3	NW L		✓		
5	25	10	10			00	0	3	NW L	✓			
6	20	3	20	SNOWFALL ALL DAY		01	1	4	W H			✓	HIGH WIND (FIRST FROST)
7	21	-1	3	N	N	01	1	4	W H		✓		HIGH WIND (FIRST ICE)
8	14	-14	8			00	0	4	W L	✓			MED ICE
9	20	5	20	3	4	02	1/2	4	W F		✓		HEAVY ICE
10	20	-6	8	N	N	05	1	5	SW L	✓			HEAVY ICE RIVER FULL
11	24	5	20	N	N	T	1/2	5	W L	✓			HEAVY ICE
12	33	17	34	AM	NOON	00	1/4	4 1/2	SW F			✓	LIGHT ICE
13	34	8	23			00	00	3 1/2	SW L		✓		NO ICE
14	40	21	38			00	00	2 1/2	SW H		✓		HIGH WIND NO ICE
15	38	20	31	AM	AM	01	00	2 1/2	SW F			✓	LIGHT ICE
16	33	11	16			T	T	2	NW L	✓			LIGHT ICE
17	42	11	39			00	00	2	NW L	✓			MED ICE
18	40	37	41	LIGHT SNOW ALL		T	00	T	SW L			✓	VERY LIGHT ICE
19	41	35	36	& SNOW ALL DAY		04	00	T	N L			✓	DENSE FOG NO ICE
20	37	32	34	N	N	T	00	T	W L		✓		NO ICE
21	35	28	32	N	N	04	00	T	NW		✓		NO ICE
22	36	30	35			00	00	T	W L			✓	NO ICE
23	42	33	39			00	00	00	SW L	✓			NO ICE
24	43	32	44			00	00	00	W L	✓			NO ICE
25	34	23	30			00	00	00	NE F			✓	NO ICE
26	35	29	31	4	5	T	T	T	NE L			✓	NO ICE
27	35	31	34	DRIZZLE		00	00	00	N L			✓	NO ICE
28	34	20	21	N	N	02	T	T	NE F			✓	NO ICE
29	23	14	16			00	00	T	NE L	✓			VERY LIGHT ICE
30	36	14	34			00	00	00	NE F		✓		NO ICE
31	39	33	37	N	3	27	00	00	NE L			✓	LIGHT FOG NO ICE
1 ST.	102 0	585				1.91	8			9	15	12	
SUM													

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP AND PRECIP FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

Percy R. Morgan
(COOPERATIVE OBSERVER)
Lewiston N.Y.
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 2-6-7-14
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE) 31
DENSE (VIS. LESS THAN 1/8 MI.) 19
DEPTH OF FROZEN GROUND AT END OF MO. FROZEN INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 32.9
MEAN MINIMUM, 18.8
MEAN MONTHLY, 25.8 DEPARTURE,
MAXIMUM, 45 ; DATE, 18
MINIMUM, -6 ; DATE, 20

PRECIPITATION
TOTAL, 1.91 INS. DEPARTURE,

GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE
.27	31		

SNOW
TOTAL SNOWFALL, 9 INCHES
GREATEST IN ANY OBSERVATIONAL DAY 3
DATE 31

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP,
0.25 INCH OR MORE, ; 1.00 INCH OR MORE,
CLEAR, PARTLY CLOUDY, CLOUDY,

REMARKS BY OBSERVER:
UNDER RULE I HAVE NOTED ICE CONDITIONS IN THE NIAGARA RIVER AT THIS POINT

N NE E SE S SW W NW

STATION LEWISTON
MONTH JAN, 1942

ED AT THE NATIONAL ARCHIVES

W.B. FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY.
LATITUDE 43 10, LONGITUDE 79 03, ELEVATION 323 HOUR OF OBSERVATION TEMP. 5:30 PRECIP. 5:30
MONTH FEB, 1942, MERIDIAN OF TIME E.S.T.

DATE	TEMPERATURE MAXIMUM (1)	MINIMUM (2)	[1]SET MAX. (3)	PRECIPITATION TIME OF BEGINNING (4)	TIME OF ENDING (5)	[3]AMOUNT INCHES & HUNDREDTHS (6)	SNOWFALL INCHES & TENTHS (7)	SNOW ON GROUND AT OBSERVATION (8)	PREVAILING WIND DIRECTION FOR THE DAY (9)	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.) CLEAR (0–3) (10)	PC.DY. (4–7) (10)	CLOUDY (8–10) (10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC. (11)
1	39	20	21	N	12	.25	2"	2	NW F			✓	NO ICE
2	21	3	11	N	11	05	1	3	N L		✓		LIGHT ICE
3	19	4	15		11	00	00	3	S L	✓			MED ICE
4	31	11	30	N	N	T	T	3	NE L			✓	LIGHT ICE
5	33	29	34	N	2	40	2	5	NE L	✓			VERY LIGHT ICE
6	35	28	35	LIGHT MIST	FREEZING	T	00	3	NE L	✓			NO ICE
SH 7	35	30	30	RAIN IN NIGHT 7 SNOW AT	TURNING RAIN	1.90	9	10	NE F	✓			
S 8	30	13	15	N	10	38	5	14	N L		✓		MED ICE
9	25	4	18			00	00	13	NE L	✓			LIGHT ICE
10	22	2	20			00	00	12	NE F			✓	LIGHT ICE
11	26	16	21	N	N	10	2	14	NE L	✓			LIGHT ICE
12	26	2	22			00	00	14	N L	✓			MED ICE
13	30	4	28			00	00	13	N L	✓			LIGHT ICE
14	34	20	22			00	00	10	NW L	✓			VERY LIGHT ICE
15	44	27	35	N	N	03	1	11	N	✓			" " "
16	42	35	40	8	INTERMITTENT ALL DAY	03	00	9	SE L			✓	NO ICE
17	41	32	33	N	N	53	00	6½	SW F			✓	
18	34	19	25			00	00	6½	S L			✓	
19	29	6	12	9 PM	10 AM	06	1	7½	SW H		✓		
20	22	5	18			00	00	7½	SW L			✓	LIGHT ICE
21	23	11	21			00	00	7½	NW F		✓		MED ICE
22	29	19	25	N	8	06	1	8	NW F			✓	LIGHT ICE
23	29	19	25	7	10	04	1½	8	NW		✓		GLAZE—DURING " "
24	30	10	27			00	00	8	N F			✓	VERY LIGHT ICE
25	31	23	29	SNOW SQUALLS		T	T	8	NW L		✓		" " "
26	31	19	27	430	N	04	T	8	SW L			✓	" " "
27	32	20	30	N	N	03	½	8½	NW L			✓	" " "
28	41	28	35	N	10	20	½	9	N L			✓	NO ICE
29													
30													
31													
1ST.	[2]864	449				[3]4.10	26½						
SUM	308	16.											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]

Lewiston
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 19
GLAZE, (FREEZING RAIN) 23
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE)
DENSE (VIS. LESS THAN 1/8 MI.)

DEPTH OF FROZEN GROUND AT END OF MO. 9" INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 30.8
MEAN MINIMUM, 16
MEAN MONTHLY, 23.4 DEPARTURE,
MAXIMUM, 44 ; DATE, 15th
MINIMUM, 2 ; DATE, 10 – 12

PRECIPITATION
TOTAL, 4.10 INS. DEPARTURE,

GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE
1.90	7		

SNOW
TOTAL SNOWFALL, INCHES
GREATEST IN ANY OBSERVATIONAL DAY
DATE

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP.,
0.25 INCH OR MORE, ; 1.00 INCH OR MORE,
CLEAR, PARTLY CLOUDY, CLOUDY,

REMARKS BY OBSERVER:
UNDER MISC I HAVE NOTED ICE CONDITIONS IN THE NIAGARA RIVER AT THIS POINT

N NE E SE S SW W NW

STATION Lewiston
MONTH Feb, 1942

08

WB FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY. TEMP. 6 PM
LATITUDE 43.10. LONGITUDE 79.03. ELEVATION 323. HOUR OF OBSERVATION
MONTH MARCH, 1942. MERIDIAN OF TIME E.S.W.S. PRECIP. 6 PM

DATE	TEMPERATURE MAXIMUM	TEMPERATURE MINIMUM	TEMPERATURE [2] SET MAX.	PRECIPITATION TIME OF BEGINNING	PRECIPITATION TIME OF ENDING	PRECIPITATION [3] AMOUNT INCHES & HUNDREDTHS	PRECIPITATION SNOWFALL INCHES & TENTHS	SNOW ON GROUND AT OBSERVATION	PREVAILING WIND DIRECTION FOR THE DAY	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. OLD.) CLEAR (0—3)	PC LDY. (4—7)	CLOUDY (8—10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC.
	1	2	3	4	5	6	7	8	9	10			11
1	39	31	36			00	00	8	N L			✓	NO ICE
2	38	31	36			00	00	7	NE L			✓	" "
3	36	31	32	N ALL DAY		83	11	18	NE F			✓	" "
4	39	25	36	N	N	62	05	15	SW L	✓			" "
5	39	32	37	N	2	04	T	11	SW L			✓	" "
6	42	28	35			00	00	9	NW L	✓			" "
7	50	23	49	7	8	T	T	8	SW L		✓		" "
8	55	41	51			00	00	6	NE L		✓		HEAVY RUN ICE
9	53	26	29	N 2	N RAIN - SNOW	48	1	1	W G			✓	GALE BAROMETER 28.10 LIGHT ICE
10	38	26	37			00	00	T	W M	✓			HIGH WIND NO ICE
11	45	27	42	4	—	1.2	00	T	W L			✓	" "
12	43	32	34	N	N	26	00	T	N F		✓		" "
13	40	22	37			00	00	00	NE F			✓	" "
14	37	30	35	13 PM	14 PM	15	00	00	E L			✓	" "
15	36	32	37			00	00	00	NE L			✓	" "
16	41	32	41	1	—	47	00	00	NE L			✓	THUNDER " "
17	58	38	45	N	10	71	00	00	SW C		✓		HIGH WIND " THUNDER VERY LIGHT ICE
18	45	37	37	3	5	T	00	00	SW F			✓	NO ICE
19	40	33	38	"		00	00	00	W F		✓		" "
20	47	29	42			00	00	00	SW L	✓			" "
21	53	32	45			05	00	00	SW L			✓	" "
22	45	30	33	N	N	14	00	00	NW F			✓	" "
23	36	30	35	N SNOW SQUALL	N	01	00	00	NW F			✓	MELTED " "
24	43	28	38			00	00	00	N L	✓			" "
25	45	23	43			00	00	00	N L	✓			" "
26	47	24	46			00	00	00	NE L	✓			" "
27	60	29	54			00	00	00	NE F	✓			" "
28	53	33	37	"	—	05	T	T	SE L			✓	MELTED " "
29	43	32	36	N ALL DAY		18	00	00	E L			✓	MOD. RUN ICE
30	45	31	41	N	N	.01	00	00	NE L	✓			VERY LIGHT ICE
31	41	28	34	2	—	10	T	T	NE S	✓			MELTED FOG LIGHT ICE
1 ST.	1372	926				422	17						
SUM	44.2	29.9											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP AND PRECIP FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
[redacted]
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 9-10-17
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS, 16-17
FOG, LIGHT (VIS. 5/8 MI. OR MORE) 31
DENSE (VIS. LESS THAN 1/8 MI.)
DEPTH OF FROZEN GROUND AT END OF MO. 0 INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 44.2
MEAN MINIMUM, 29.9
MEAN MONTHLY, 37 DEPARTURE,
MAXIMUM, ; DATE,
MINIMUM, ; DATE,

PRECIPITATION
TOTAL, 4.22 INS. DEPARTURE,

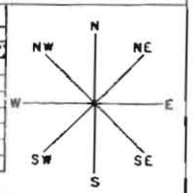
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE

SNOW
TOTAL SNOWFALL, 17 INCHES
GREATEST IN ANY OBSERVATIONAL DAY 11
DATE 3

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP,
0.25 INCH OR MORE, ; 1.00 INCH OR MORE,
CLEAR, PARTLY CLOUDY, CLOUDY,

REMARKS BY OBSERVER:
UNDER NAISE, I HAVE NOTED ICE CONDITIONS AT THIS POINT IN THE NIAGARA RIVER



STATION LEWISTON
MONTH MARCH, 1942

RODUCED AT THE NATIONAL ARCHIVES

FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD:

STATION LEWISTON, COUNTY NIAGARA STATE NY. TEMP. 6 PM
LATITUDE 43.10. LONGITUDE 79.03. ELEVATION 323 HOUR OF OBSERVATION
MONTH APRIL, 1942. MERIDIAN OF TIME E.S.T. PRECIP. 6 PM

DATE	TEMPERATURE MAXIMUM (1)	TEMPERATURE MINIMUM (2)	[2] SET MAX. (3)	PRECIPITATION TIME OF BEGINNING (4)	TIME OF ENDING (5)	[3] AMOUNT INCHES & HUNDREDTHS (6)	SNOWFALL INCHES & TENTHS (7)	SNOW ON GROUND AT OBSERVATION (8)	PREVAILING WIND DIRECTION FOR THE DAY (9)	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.) CLEAR (0-3) (10)	PC.LDY. (4-7) (10)	CLOUDY (8-10) (10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC. (11)
1	51	32	49			00			NW L	✓			LIGHT ICE
2	61	37	57			00			SW H	✓			HIGH WIND NO "
3	57	35	46			00			NE F		✓		NO "
4	57	37	54			00			NW L	✓			HEAVY "
5	62	45	47			00			NW L	✓			THUNDER VERY LIGHT "
6	64	38	51	N	N	06			NE L		✓		HEAVY "
7	51	36	38	N ALL DAY		1.01			NE L			✓	LIGHT "
8	45	29	43	N	N	14			NE L	✓			LIGHT "
9	43	35	35			00			NE F			✓	NO "
10	38	31	32	N SNOW	FROM ALL NIGHT	85	7	7	NE F			✓	LIGHT "
11	39	29	39	N	ALL DAY N NW	08	1/2	3	N H		✓		HIGH WIND LIGHT "
12	48	32	44			00	00	T	N L	✓			LIGHT "
13	52	29	49			00	00	00	N	✓			LIGHT "
14	60	35	59			00			SW L		✓		VERY LIGHT "
15	72	51	68			00			SW L		✓		LIGHT "
16	71	47	66			00			N L	✓			MED "
17	69	49	51	N	N	07			SW F		✓		HEAVY "
18	52	35	43			00			N F			✓	MED "
19	48	35	42			00			N L		✓		LIGHT "
20	66	37	52			00			N L		✓		LIGHT "
21	63	38	61			00			N L		✓		VERY LIGHT "
22	71	38	65			00			N L	✓			NO "
23	75	41	71			00			SW L	✓			NO "
24	82	45	75			00			SW L	✓			LAST ICE MED "
25	84	47	81			00			N L	✓			
26	80	46	74			00			NE L	✓			
27	74	46	64			00			NE L		✓		
28	81	45	79			00			SW L	✓			
29	78	50	69			00			SW L	✓			
30	84	50	80			00			SW L	✓			
31													
1 ST.	1879	1180				12.21				16	10	4	
SUM	62.6	39.3											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
Lewiston
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 2 – 11
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS, 5-7
FOG, LIGHT (VIS. 5/8 MI. OR MORE)
DENSE (VIS. LESS THAN 1/8 MI.)

DEPTH OF FROZEN GROUND AT END OF MO. 0 INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 62.6
MEAN MINIMUM, 39.3
MEAN MONTHLY, 50.9 DEPARTURE,
MAXIMUM, 84 ; DATE, 24 – 30
MINIMUM, 29 ; DATE, 8-11-13

PRECIPITATION
TOTAL, 2.21 INS. DEPARTURE,

GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE
1.01	7		

SNOW
TOTAL SNOWFALL, INCHES
GREATEST IN ANY OBSERVATIONAL DAY
DATE

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP.,
0.25 INCH OR MORE, ; 1.00 INCH OR MORE,
CLEAR, 11 PARTLY CLOUDY, 10 CLOUDY, 4

REMARKS BY OBSERVER:
UNDER MISC I HAVE NOTED ICE CONDITIONS IN THE NIAGARA RIVER AT THIS POINT

N NE E SE S SW W NW

STATION LEWISTON
MONTH APRIL, 1942

REPRODUCED AT THE NATIONAL ARCHIVES

y FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY.
LATITUDE 43.10. LONGITUDE 79.03. ELEVATION 323. HOUR OF OBSERVATION TEMP. 6 PM PRECIP. 6 PM
MONTH MAY, 1942 MERIDIAN OF TIME E.S.W.S.

DATE	TEMPERATURE MAXIMUM	MINIMUM	[2] SET MAX.	PRECIPITATION TIME OF BEGINNING	TIME OF ENDING	[3] AMOUNT INCHES & HUNDREDTHS	SNOWFALL INCHES & TENTHS	SNOW ON GROUND AT OBSERVATION	PREVAILING WIND DIRECTION FOR THE DAY	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.) CLEAR (0-3)	PC'LDY (4-7)	CLOUDY (8-10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC.
	1	2	3	4	5	6	7	8	9		10		11
1	83	55	74			00			SE L	✓			
2	82	68	80			00			SW F	✓			
3	81	59	78	7.30	"	.23			SW L		✓		THUNDER
4	77	54	54			00			N L			✓	
5	61	44	53			00			NW L			✓	
6	56	40	5[illegible]	5	—	T			E F			✓	
7	56	45	49	3.30	—	37			SW F			✓	
8	67	39	65	N	N	03			N L	✓			
9	71	46	56	3.30	4.30	.10			SW F	✓			
10	56	34	53	N	N	03			N L	✓			
11	64	34	55			00			NE L	✓			WHITE FROST
12	68	51	67	10	"	03			SW H		✓		HIGH WIND
13	77	50	75	N	N	02			N S	✓			
14	86	45	80			00			SW F		✓		
15	79	56	67	10	N	75			NE L			✓	
16	67	50	51	N	"	1.20			SW F			✓	
17	59	49	59			00			N L			✓	
18	70	43	63			00			NE F			✓	
19	76	49	72	10	"	.11			S L		✓		
20	71	47	53	2.30	—	.12			NE L			✓	
21	59	48	56	N	N	.05			NE L			✓	
22	57	49	56	ALL DAY		97			NE L			✓	
23	59	49	55	" "		T			SW F			✓	
24	55	50	54	N	N	07			SW L			✓	
25	70	48	65			00			S L	✓			
26	73	49	70			00			S L		✓		
27	70	51	61			06			NE L		✓		
28	74	40	73			00			NE L	✓			
29	84	49	76			00			S L	✓			
30	86	62	82	10	10	26			SW H		✓		~~THUNDER~~ HIGH WIND IN NIGHT
31	82	55	62	6 PM	3 AM	1.30			NE F		✓		HIGH WIND IN NIGHT LIGHT MAY THUNDER
1 ST.	2126	1509				5.64							
SUM	70.2	48.6											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP AND PRECIP FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
Lewiston
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 12-30-31
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL, 31
KILLING FROST,
THUNDERSTORMS, 3-30-31
FOG, LIGHT (VIS. 5/8 MI. OR MORE)
DENSE (VIS. LESS THAN 1/8 MI.)
DEPTH OF FROZEN GROUND AT END OF MO. 0 INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 70.2
MEAN MINIMUM, 48.6
MEAN MONTHLY, 59.4 DEPARTURE,
MAXIMUM, 86 ; DATE, 14-30
MINIMUM, 34 ; DATE, 10-11

PRECIPITATION
TOTAL, 5.64 INS. DEPARTURE,

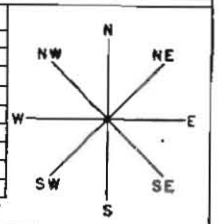
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE
1.30	31		

SNOW
TOTAL SNOWFALL, INCHES
GREATEST IN ANY OBSERVATIONAL DAY
DATE

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP,
0.25 INCH OR MORE, ; 1.00 INCH OR MORE,
CLEAR, PARTLY CLOUDY, CLOUDY,

REMARKS BY OBSERVER:



STATION LEWISTON
MONTH MAY, 1942

REPRODUCED AT THE NATIONAL ARCHIVES

FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY.
LATITUDE 43.10. LONGITUDE 79.03. ELEVATION 323. HOUR OF OBSERVATION TEMP. 6 PM PRECIP. 6 PM
MONTH JUNE, 1942. MERIDIAN OF TIME E.S.T.

DATE	TEMPERATURE MAXIMUM	TEMPERATURE MINIMUM	TEMPERATURE [2] SET MAX.	PRECIPITATION TIME OF BEGINNING	PRECIPITATION TIME OF ENDING	PRECIPITATION [3] AMOUNT INCHES & HUNDREDTHS	PRECIPITATION SNOWFALL INCHES & TENTHS	PRECIPITATION SNOW ON GROUND AT OBSERVATION	PREVAILING WIND DIRECTION FOR THE DAY	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.) CLEAR (0-3)	PC LDY. (4-7)	CLOUDY (8-10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC.
	1	2	3	4	5	6	7	8	9		10		11
1	62	50	50	N 8.30	N 9	.06			NE L			✓	LIGHT FOG
2	68	48	63			00			N L		✓		" "
3	72	51	69			02			N L		✓		
4	74	54	73	12	2	23			NE		✓		LIGHT FOG
5	75	56	73			00			NE L	✓			
6	81	51	75			00			NE L		✓		
7	74	61	63	N	N	.14			NE L			✓	
8	71	50	69			00			NE F	✓			
9	79	44	76			00			NE L	✓			
10	89	56	85			00			NE L		✓		
11	85	72	84			00			SW L		✓		
12	86	68	80			00			SW F		✓		
13	81	66	75	N	7	30			N L	✓			
14	75	54	58	8	10	22			NE F			✓	
15	68	45	67			00			N L	✓			
16	67	47	65			00			NE L			✓	
17	69	56	69			00			NE L		✓		
18	79	53	73			00			NW L		✓		
19	83	59	79			00			SW F		✓		
20	79	53	76			00			NE L	✓			
21	82	62	78	N	N	04			NE F	✓			
22	81	59	68	N 5.30	N 6	.01			NE L			✓	
23	73	54	65	N 2	N 4	.09			SW F		✓		
24	70	52	63	N 10	N 6.30 3	.34			SW			✓	
25	76	49	73			00			NE L	✓			
26	79	50	73			00			NE L	✓			
27	78	53	77			00			NE L	✓			
28	83	57	80			00			NE L	✓			
29	88	61	81			06			NE L	✓			
30	90	68	76			06			SW F		✓		
31													
1 ST.	2330	1558				1.45							
SUM	77.1	55.1											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
Lewiston
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS,
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE) 1-2-4
DENSE (VIS. LESS THAN 1/8 MI.)

DEPTH OF FROZEN GROUND AT END OF MO. ____ INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 77.1
MEAN MINIMUM, 55.1
MEAN MONTHLY, 66.1 DEPARTURE,
MAXIMUM, 90 ; DATE, 30
MINIMUM, 44 ; DATE, 9

PRECIPITATION
TOTAL, 1.45 INS. DEPARTURE,

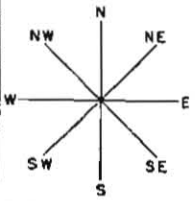
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE
.34	24		

SNOW
TOTAL SNOWFALL, ____ INCHES
GREATEST IN ANY OBSERVATIONAL DAY
DATE

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP.,
0.25 INCH OR MORE, ____ ; 1.00 INCH OR MORE, ____
CLEAR, ____ PARTLY CLOUDY, ____ CLOUDY, ____

REMARKS BY OBSERVER:



STATION
MONTH , 19

W. [redacted] 1009

U. S. D[redacted]ARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY. TEMP. 6.
LATITUDE 43 10. LONGITUDE 79.03. ELEVATION 323. HOUR OF OBSERVATION
MONTH JULY, 1942. MERIDIAN OF TIME E.S.T. PRECIP. 6

DATE	TEMPERATURE: MAXIMUM (1)	MINIMUM (2)	[2] SET MAX. (3)	PRECIPITATION: TIME OF BEGINNING (4)	TIME OF ENDING (5)	[3] AMOUNT INCHES & HUNDREDTHS (6)	SNOWFALL INCHES & TENTHS (7)	SNOW ON GROUND AT OBSERVATION (8)	PREVAILING WIND DIRECTION FOR THE DAY (9)	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.): CLEAR (0—3) (10)	P.CLDY (4—7) (10)	CLOUDY (8—10) (10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC. (11)
1	81	64	78	P	N	.09		[redacted]	SW L			✓	
2	78	52	70			00			NE L	✓			
3	82	51	80			00			E L	✓			
4	82	64	75	N	N	01			NE L			✓	
5	83	54	82			00			SW F	✓			
6	82	60	68	N	10	.15			N L		✓		
7	77	49	72			00			SW F		✓		
8	75	55	69	N	N	T			SW L	✓			
9	76	48	73			00			N L	✓			
10	74	49	67	4	—	T			NE L			✓	
11	85	60	80	N	N	02			NE F		✓		FOG
12	87	56	83			00			SW L	✓			
13	93	67	89			00			SW H	✓			
14	89	68	73			00			SW F	✓			
15	82	57	77			00			SW F	✓			
16	86	49	73			00			NE L	✓			THUNDER
17	90	67	82	8	9.20	70			SW L		✓		
18	94	69	86	6.15	[redacted]	1.99	✓		SW H	✓			HIGH WIND
19	90	69	78	3	N	.04			SW F		✓		
20	81	66	69	N	N	.35			NE L		✓		
21	81	57	77			00			N L	✓			
22	80	59	74			00			NE L			✓	
23	82	60	79			00			NE L	✓			
24	83	62	81			00			NE L	✓			
25	82	59	78			00			NE L	✓			
26	80	62	78			00			NE L	✓			
27	89	70	82	N	N	03			E L		✓		
28	86	64	83	N	N	01			NE L	✓			
29	82	65	68	7	9	35			E			✓	
30	78	60	76			00			NE L		✓		
31	84	63	81	4	9	06			NE		✓		
1 ST.	[1] 2512	1798				[1] 3.80							
SUM	81.2	58											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
Lewiston
(P.O. ADDRESS)

MONT[redacted] SUMMARY
(TO BE FILL[redacted] IN BY OBSERVER)

DATES OF –
HIGH WINDS, 18
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS, 16
FOG, LIGHT (VIS. 5/8 MI. OR MORE) 11
DENSE (VIS. LESS THAN 1/5 MI.)
DEPTH OF FROZEN GROUND AT END OF MO. ____ INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 81.2
MEAN MINIMUM, 58
MEAN MONTHLY, 69.6 DEPARTURE,
MAXIMUM, 94 ; DATE, 18
MINIMUM, 48 ; DATE, 9

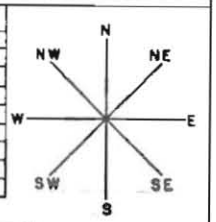
PRECIPITATION
TOTAL, 3.80 INS. DEPARTURE,
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE
1.99	18		

SNOW
TOTAL SNOWFALL, ____ INCHES
GREATEST IN ANY OBSERVATIONAL DAY ____
DATE ____

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP,
0.25 INCH OR MORE, ____ ; 1.00 INCH OR MORE,
CLEAR, ____ PARTLY CLOUDY, ____ CLOUDY,

REMARKS BY OBSERVER:



STATION
MONTH July, 19

C.C.

FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY
LATITUDE 43.10. LONGITUDE 79.03. ELEVATION 323
MONTH AUG, 1942. MERIDIAN OF TIME E.S.W.S.

HOUR OF OBSERVATION — TEMP. 6 PM — PRECIP. 6 PM

DATE	TEMPERATURE: MAXIMUM (1)	MINIMUM (2)	[2] SET MAX. (3)	PRECIPITATION: TIME OF BEGINNING (4)	TIME OF ENDING (5)	[3] AMOUNT INCHES & HUNDREDTHS (6)	SNOWFALL INCHES & TENTHS (7)	SNOW ON GROUND AT OBSERVATION (8)	PREVAILING WIND DIRECTION FOR THE DAY (9)	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.): CLEAR (0—3) (10)	P. CLDY. (4—7)	CLOUDY (8—10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC. (11)
1	81	60	78			00			NE L	✓			
2	82	65	81	N	N	24			NW F		✓		
3	80	56	74	"		00			NE L	✓			
4	78	56	70			00			NE L	✓			
5	70	48	69			00			NE F	✓			
6	76	50	73			00			NE L	✓			
7	82	55	74			00			NE L		✓		
8	77	63	67	2.30	—	07			E L			✓	
9	81	61	72	N	N 7.30	10			NE L			✓	
10	78	64	75	N 9.	N 10	12			N L		✓		
11	76	68	73	N	N	18			NE L		✓		
12	79	57	74			00			NE L	✓	✓		FOG L
13	82	57	78			00			NE L		✓		
14	81	61	77			00			NE L		✓		FOG L
15	87	60	82			00			SW L	✓			FOG M
16	82	67	78	8:30	10	32			SW L		✓		
17	79	57	74			00			NE L		✓		
18	82	53	75			00			SW L	✓			
19	82	64	76			06			SW L	✓			
20	85	66	78			00			SW L	✓			
21	89	71	83			00			SW F	✓			
22	86	72	76			00			SW H		✓		
23	77	59	68	N	N	06			NE L		✓		
24	68	52	63			00			NE L	✓			
25	74	44	66			00			NE L	✓			
26	81	53	75			00			NE L	✓			
27	83	59	70	4.30	5.10	01			SE		✓		
28	79	67	76	6	9	08			SE L		✓		
29	76	65	73			00			NE L		✓		
30	85	59	78			00			NE L	✓			
31	86	61	79			00			NE L	✓			
1 ST.	[1] 1067	1840				[1] 1.18							
SUM	802	593											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
Lewiston
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF—
HIGH WINDS, ____
GLAZE, (FREEZING RAIN) ____
SLEET, (SMALL ICE PELLETS) ____
HAIL, ____
KILLING FROST, ____
THUNDERSTORMS, ____
FOG, LIGHT (VIS. 5/8 MI. OR MORE) 12 - 14 - 15
DENSE (VIS. LESS THAN 1/8 MI.) ____
DEPTH OF FROZEN GROUND AT END OF MO. ____ INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, ____
MEAN MINIMUM, ____
MEAN MONTHLY, ____ DEPARTURE, ____
MAXIMUM, ____ ; DATE, ____
MINIMUM, ____ ; DATE, ____

PRECIPITATION
TOTAL, ____ INS. DEPARTURE, ____

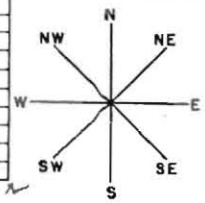
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE

SNOW
TOTAL SNOWFALL, ____ INCHES
GREATEST IN ANY OBSERVATIONAL DAY ____
DATE ____

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE, ____
MAX. TEMP. 32° OR BELOW, ____
MIN. TEMP. 32° OR BELOW, ____
MIN. TEMP. 0° OR BELOW, ____
WITH 0.01 INCH OR MORE PRECIP, ____
0.25 INCH OR MORE, ____ ; 1.00 INCH OR MORE, ____
CLEAR, ____ PARTLY CLOUDY, ____ CLOUDY, ____

REMARKS BY OBSERVER:



STATION LEWISTON
MONTH AUG, 1942

W.B. FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE N.Y. TEMP. 6 PM
LATITUDE 43.10. LONGITUDE 79.03. ELEVATION 323. HOUR OF OBSERVATION
MONTH SEPT, 1942. MERIDIAN OF TIME E.S.W.T. PRECIP. 6 PM

DATE	TEMPERATURE MAXIMUM (1)	TEMPERATURE MINIMUM (2)	[2] SET MAX. (3)	PRECIPITATION TIME OF BEGINNING (4)	PRECIPITATION TIME OF ENDING (5)	[3] AMOUNT INCHES & HUNDREDTHS (6)	SNOWFALL INCHES & TENTHS (7)	SNOW ON GROUND AT OBSERVATION (8)	PREVAILING WIND DIRECTION FOR THE DAY (9)	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.) CLEAR (0-3) (10)	PCLDY. (4-7) (10)	CLOUDY (8-10) (10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC. (11)
1	87	59	80			00			SW L	✓			
2	86	58	79			00			SW L	✓			
3	79	59	60	N + ALL DAY	DRIZZLE	06			NE L			✓	
4	74	53	67			00			NW L	✓			
5	76	51	67			00			N L		✓		
6	72	48	63			00			N L	✓			
7	83	45	76			00			E L	✓			
8	75	64	66	6AM ALL DAY		62			E L			✓	
9	82	62	80	N	10	55			E		✓		
10	80	66	67			00			NEF			✓	
11	77	61	73	N	N	01			N L	✓			
12	76	56	73			00			SW			✓	
13	76	50	68			00			SW L	✓			
14	79	62	76			00			W L		✓		
15	87	67	80			00			SW L	✓			
16	84	67	78	N 8	N 9	30			SW L			✓	THUNDER
17	88	69	81			00			SW L	✓			
18	88	67	80			00			SW L	✓			
19	81	68	75	N	5	31			S L		✓		
20	75	49	54	N	N	09			N		✓		
21	63	37	56			00			E L	✓			
22	67	45	46	12-30	1-30	T			S L		✓		
23	64	39	60			00			NE L			✓	
24	60	41	52	N	8	25			SW H		✓		
25	55	41	53			00			NE L		✓		
26	76	44	71	N	N	08			SW F		✓		
27	71	46	51	N	11	98			SW F			✓	
28	54	36	48			00			NW F	✓			FROST
29	62	31	54			00			W L	✓			FROST
30	62	38	58			00			S L		✓		
31													
1 ST.	2242	1567				3.25				13	10	7	
SUM	78.1	52											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]

Lewiston N.Y.
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 24
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST, 29
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE)
DENSE (VIS. LESS THAN 1/8 MI.)

DEPTH OF FROZEN GROUND AT END OF MO. ____ INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 78.1
MEAN MINIMUM, 52
MEAN MONTHLY, 65 DEPARTURE,
MAXIMUM, 88 ; DATE, 17-18
MINIMUM, 31 ; DATE, 29

PRECIPITATION
TOTAL, 3.25 INS. DEPARTURE,

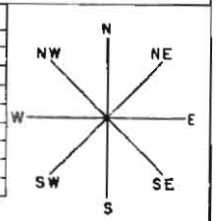
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE

SNOW
TOTAL SNOWFALL, ____ INCHES
GREATEST IN ANY OBSERVATIONAL DAY ____
DATE ____

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP,
0.25 INCH OR MORE, ____ ; 1.00 INCH OR MORE,
CLEAR, ____ PARTLY CLOUDY, ____ CLOUDY,

REMARKS BY OBSERVER:



STATION LEWISTON
MONTH SEP, 1942

OG

W.B. [illegible]009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY. TEMP. 6 PM
LATITUDE 43.10. LONGITUDE 79.03. ELEVATION 323. HOUR OF OBSERVATION
MONTH OCTOBER, 1942. MERIDIAN OF TIME ES. PRECIP. 6 PM

DATE	TEMPERATURE: MAXIMUM (1)	MINIMUM (2)	[2] SET MAX. (3)	PRECIPITATION: TIME OF BEGINNING (4)	TIME OF ENDING (5)	[3] AMOUNT INCHES & HUNDREDTHS (6)	SNOWFALL INCHES & TENTHS (7)	SNOW ON GROUND AT OBSERVATION (8)	PREVAILING WIND DIRECTION FOR THE DAY (9)	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. OLD.) (10): CLEAR (0–3)	P. CLDY. (4–7)	CLOUDY (8–10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC. (11)
1	68	44	60			00			E L	✓			FOG
2	61	40	52			00			E L	✓			
3	71	42	63			00			NE L	✓			
4	67	55	61	N	11	.23			SW F			✓	
5	70	54	57	4	—	05			W F		✓		
6	63	44	54	N	N	25			S L		✓		
7	70	47	56			00			NW L	✓			
8	73	44	70			00			SW H	✓			
9	70	55	59	9	10-30	04			N			✓	
10	62	38	54			00			E L	✓			
11	71	36	63			00			NE L	✓			
12	63	35	52			00			E F	✓			
13	67	36	56			00			NE L	✓			
14	58	45	55	11	—	06			NE L			✓	
15	63	52	56	N SHOWERS		15			E L			✓	
16	57	50	53	SHOWERS ALL DAY		79			E L			✓	
17	58	49	54	N	N	36			E L			✓	
18	65	45	56			00			NW	✓			
19	56	38	49			00			NW L		✓		
20	59	42	50			00			NW V	✓			
21	70	37	59	1	2	02			SE		✓	1	
22	58	45	51	N	N +	12			SW L			✓	
23	52	41	45	N	N	.30			SW L			✓	
24	56	37	49	N	N	T			SW L		✓		
25	58	36	54			00			SE L			✓	
26	54	37	39	N	9	34			NW L			✓	
27	44	30	41			00			SW H			✓	
28	56	34	46			00			W F	✓			
29	66	34	62			00			SE L		✓		
30	73	56	69			00			SW F		✓		
31	69	58	59	SHOWERS		11			SW L			✓	
1ST.	1948	1336				[1] 2.82							
SUM	62.8	43.0											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP AND PRECIP FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]

Lewiston NY
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 8-27
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST, 27
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE) 1
DENSE (VIS. LESS THAN 1/8 MI.)
DEPTH OF FROZEN GROUND AT END OF MO. ___ INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 62.8
MEAN MINIMUM, 43.
MEAN MONTHLY, 52.9 DEPARTURE,
MAXIMUM, 73 ; DATE, 7+30
MINIMUM, 30 ; DATE, 27

PRECIPITATION
TOTAL, 2.82 INS. DEPARTURE,

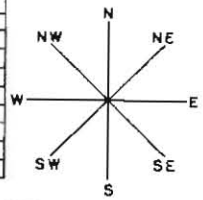
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE
79	16		

SNOW
TOTAL SNOWFALL, ___ INCHES
GREATEST IN ANY OBSERVATIONAL DAY ___
DATE ___

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP,
0.25 INCH OR MORE, ___ ; 1.00 INCH OR MORE,
CLEAR, ___ PARTLY CLOUDY, ___ CLOUDY,

REMARKS BY OBSERVER:



STATION LEWISTON
MONTH OCT, 1942

RODUCED AT THE NATIONAL ARCHIVES

W.B. 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY
LATITUDE 43.10, LONGITUDE 79.03, ELEVATION 323
MONTH NOV, 1942, MERIDIAN OF TIME ES, WS

HOUR OF OBSERVATION — TEMP. 5 PM, PRECIP. 5 PM

DATE	TEMPERATURE: MAXIMUM (1)	MINIMUM (2)	[2] SET MAX. (3)	PRECIPITATION: TIME OF BEGINNING (4)	TIME OF ENDING (5)	[3] AMOUNT INCHES & HUNDREDTHS (6)	SNOWFALL INCHES & TENTHS (7)	SNOW ON GROUND AT OBSERVATION (8)	PREVAILING WIND DIRECTION FOR THE DAY (9)	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.): CLEAR (0—3) (10)	PARTLY CLDY. (4—7)	CLOUDY (8—10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC. (11)
1	59	44	46	N	N	1.00			SW L	✓			
2	52	39	46	N SNOW	ERS N	25			W L			✓	
3	50	32	40			00			NW L		✓		
4	48	30	36			00			SE L		✓		
5	53	30	53			00			SW L		✓		
6	54	44	45	N	8	07			NW L	✓			
7	50	30	43			00			NE L	✓			
8	50	33	43			00			SW L	✓			
9	57	30	55			00			SE L	✓			
10	63	42	43	N	2	47			NW H			✓	
11	43	33	34	N MELTED	AS N FELL	03			NW F			✓	FIRST SNOW
12	37	30	36	N ALL	DAY	.05			SE F			✓	
13	45	28	29	N	N	17			NW G		✓		HIGH WIND
14	31	21	27	N	N	02	T	T	NW F		✓		
15	53	*19	53			00			SW F	✓			
16	62	49	59			00			SW F	✓			
17	61	53	54	3	—	15			SW F			✓	
18	60	41	53	N	N	08			SW L	✓			
19	*60	33	58			00			E L		✓		
20	64	52	55	3	—	14			SW L			✓	
21	55	33	34	N	N	1.16			NE L			✓	
22	38	29	31			00			N L	✓			
23	42	21	39			00			NE L		✓		
24	45	35	46	N	—	33			NE L			✓	
25	42	41	46	N	SHOWERS	.10			NE L			✓	
26	50	37	40	11	12	T			SW L		✓		
27	40	29	30			00			W F		✓		
28	35	23	31			00			NW L		✓		
29	37	28	34	N	ALL DAY	.16	2	2	NE L			✓	
30	37	27	31			00	0	T	NW L	✓			
31													
1 ST.	1478	1021				14.15							
SUM	492	34.0											

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
LEWISTON
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF—
HIGH WINDS, 13
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE)
DENSE (VIS. LESS THAN 1/8 MI.)

DEPTH OF FROZEN GROUND AT END OF MO. 1" INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 49.2
MEAN MINIMUM, 34
MEAN MONTHLY, 41.6 DEPARTURE,
MAXIMUM, 64 ; DATE, 19
MINIMUM, 19 ; DATE, 15

PRECIPITATION
TOTAL, 4.15 INS. DEPARTURE,

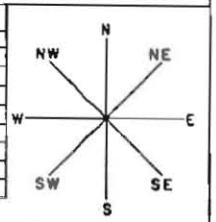
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE

SNOW
TOTAL SNOWFALL, INCHES
GREATEST IN ANY OBSERVATIONAL DAY
DATE

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP.,
0.25 INCH OR MORE, ; 1.00 INCH OR MORE,
CLEAR, PARTLY CLOUDY, CLOUDY,

REMARKS BY OBSERVER:



STATION LEWISTON
MONTH NOV., 1942

OB

W.B. 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE N.Y.
LATITUDE 43.10, LONGITUDE 7903, ELEVATION 323. HOUR OF OBSERVATION TEMP. 6 PM PRECIP. 6 PM
MONTH DEC, 1943. MERIDIAN OF TIME EST.

DATE	TEMPERATURE MAXIMUM 1	TEMPERATURE MINIMUM 2	TEMPERATURE SET MAX. 3	PRECIPITATION TIME OF BEGINNING 4	PRECIPITATION TIME OF ENDING 5	PRECIPITATION AMOUNT INCHES & HUNDREDTHS 6	PRECIPITATION SNOWFALL INCHES & TENTHS 7	SNOW ON GROUND AT OBSERVATION 8	PREVAILING WIND DIRECTION FOR THE DAY 9	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.) CLEAR (0-3) 10	PC. CLDY. (4-7) 10	CLOUDY (8-10) 10	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC. 11
1	41	26	41	N-4	2	.10	00	00	SE L			✓	
2	41	20	22	N	N	29	T	T	NW G			✓	HIGH WIND BAR 28.26
3	31	19	25			00	00	T	NW G		✓		HIGH WIND
4	30	20	28			00	00	T	NW H		✓		HIGH WIND
5	33	26	30			00	00	00	SW F		✓		
6	34	27	32			00	00	00	W F		✓		
7	32	26	28			00	00	00	NW L		✓		
8	36	19	30			.00	00	00	E L	✓			
9	39	20	34			.00	00	00	N L	✓			
10	35	28	34	5	—	T	T	T	E L			✓	
11	38	32	34	N	M	T	0	0	S L	✓			
12	36	22	24	N	N	.06	T	T	N L		✓		
13	24	17	18	N	11	T	T	T	NNE		✓		
14	29	14	26			T	T	T	NW H			✓	
15	32	25	29	3	—	T	T	T	SW L			✓	
16	29	10	11	N	10	.11	1½	1½	N F		✓		
17	26	8	25	N ALL DAY	N	.06	1	2½	E L			✓	EDDY FROZEN
18	25	18	19	N ALL DAY	N	.16	5	12	NE L			✓	EDDY OPEN
19	20	8	9	N ALL DAY	-3	.15	3½	7	NW L		✓		
20	9	-6	+5	N	N	T	½	6	NW L	✓			EDDY FROZEN LIGHT ICE
21	25	0	22			00	00	5	SW L		✓		VERY " "
22	37	19	39	LIGHT SNOW ALL		04	00	3	SW L			✓	VERY " "
23	38	33	36	N	11	02	06	2½	SW L			✓	VERY " "
24	36	33	36			00	00	2	SW L			✓	NO ICE
25	38	26	33			00	00	T	E L		✓		FOG AM NO ICE
26	33	19	27			.00	00	00	NE F			✓	NO "
27	41	25	42			T	00	00	SE L			✓	VERY LIGHT ICE
28	42	31	32	N ALL DAY		1.22	00	00	E F			✓	NO ICE
29	36	30	37	ALL DAY		27	00	00	E L			✓	FOG AM NO ICE
30	37	30	31	ALL DAY		1.41	41	4	SW			✓	NO "
31	31	23	26	N	8 PM	.18	1	4½	SW L		✓		NO ICE
1 ST.	1013	647				4.07	.6"			4	12	15	
SUM													

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
Lewiston
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 2-3-4
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE) 25 – 29
DENSE (VIS. LESS THAN 1/8 MI.)
DEPTH OF FROZEN GROUND AT END OF MO. 0 INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 32.6
MEAN MINIMUM, 20.8
MEAN MONTHLY, 26.7 DEPARTURE,
MAXIMUM, 42 ; DATE, 28
MINIMUM, -6 ; DATE, 20

PRECIPITATION
TOTAL, 4.07 INS. DEPARTURE,

GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE
1.41	30		

SNOW
TOTAL SNOWFALL, 16 INCHES
GREATEST IN ANY OBSERVATIONAL DAY 5"
DATE 18

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP.,
0.25 INCH OR MORE, ; 1.00 INCH OR MORE,
CLEAR, PARTLY CLOUDY, CLOUDY,

REMARKS BY OBSERVER:
UNDER REMARKS I HAVE NOTE ICE CONDITIONS IN THE NIAGARA RIVER AT THIS POINT

N NE E SE S SW W NW

STATION LEWISTON
MONTH DEC, 1943

REPRODUCED AT THE NATIONAL ARCHIVES

W.B FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY
LATITUDE 43.10, LONGITUDE 79.03, ELEVATION 323, HOUR OF OBSERVATION TEMP. 6 PM PRECIP. 6 PM
MONTH JAN, 1943, MERIDIAN OF TIME EST

DATE	TEMPERATURE MAXIMUM	TEMPERATURE MINIMUM	TEMPERATURE SET MAX.	PRECIPITATION TIME OF BEGINNING	PRECIPITATION TIME OF ENDING	PRECIPITATION AMOUNT INCHES & HUNDREDTHS	PRECIPITATION SNOWFALL INCHES & TENTHS	PRECIPITATION SNOW ON GROUND AT OBSERVATION	PREVAILING WIND DIRECTION FOR THE DAY	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. OLB.) CLEAR (0-3)	PARTLY CLDY. (4-7)	CLOUDY (8-10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC.
	1	2	3	4	5	6	7	8	9	10			11
1	[illegible]		[illegible]			T	00	4	N L		✓		[illegible]
2	31	16	30		/	08	2½	6	N			✓	[illegible]
3	30	12	[illegible]			00	00	4	E			✓	[illegible]
4	[illegible]	[illegible]	00	[illegible]	[illegible]	[illegible]	.12	15	NEL			✓	[illegible]
5	22	13	17	/	[illegible]	[illegible]	[illegible]	10	SW F			✓	LIGHT [illegible]
6	28	15	22			00	[illegible]	10	SW L	✓			[illegible]
7	25	15	17			00	00	9	N	✓			[illegible]
8	[illegible]	1	17			T	T	9	N	✓			
9	22	-9	18			00	00	8	N	✓			
10	32	13	30			[illegible]	[illegible]	7	NE L			✓	VERY [illegible]
11	23	[illegible]	[illegible]			T	T	6	SW F			✓	[illegible] LIGHT
12	[illegible]	21	[illegible]	/	[illegible]	[illegible]	[illegible]	[illegible]	SW F		✓		HEAVY [illegible]
13	27	[illegible]	[illegible]	/	2	—	T	[illegible]	SW L		✓		LIGHT ICE
14	33	16	34	[illegible]	[illegible]	[illegible]	1	7	SW H			✓	[illegible]
15	36	23	34			01	00	7	[illegible]		✓		[illegible]
16	22	18	29	✓	✓	[illegible]	1	7	NE L			✓	[illegible]
17	29	22	23			00	[illegible]	7	NE L		—		NO ICE
18	25	20	25	N ALL DAY		18	1	7	NE L			✓	MELTED [illegible]
19	30	16	17	SNOW SQUALLS		14	1	8	W H		✓		HIGH WIND LIGHT ICE
20	16	3	13			00	00	9	NW H	✓			HIGH WIND HEAVY ICE
21	13	3	4	ALL DAY		09	2	9	E F			✓	MED ICE
22	11	2	10			00	00	9	E F	✓			" "
23	30	5	30			00	00	8	SW L			✓	LIGHT ICE
24	34	23	32			00	00	8	E L			✓	VERY LIGHT ICE
25	43	30	35			00	00	7	SW L			✓	" " "
26	35	17	23			00	00	6	SW L			✓	" " "
27	28	10	22			00	00	7	NE L	✓			NO ICE
28	27	14	26			00	00	7	NE F		✓		VERY LITTLE ICE
29	29	7	27			00	00	7	E L	✓			" " "
30	36	23	35	N	—	01	T	7	SW L			✓	MELTED [illegible]
31	38	33	35	N	N	T	0	6	SW L			✓	NO ICE
TOT.	894	459				1.34	23			8	7	16	
MEAN													

SEE COVER FOR INSTRUCTIONS

1 ENTER TIME AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE COL. 11 REMAINS ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]
(COOPERATIVE OBSERVER)
Lewiston
(P.O. ADDRESS)

MONTHLY SUMMARY

(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 11-14-15-19-20
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE)
DENSE (VIS. LESS THAN 1/8 MI.)
DEPTH OF FROZEN GROUND AT END OF MO. ____ INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE

MEAN MAXIMUM, 28.8
MEAN MINIMUM, 14.8
MEAN MONTHLY, 21.8 DEPARTURE, —
MAXIMUM, 43 ; DATE, 25
MINIMUM, -9 ; DATE, 9

PRECIPITATION

TOTAL, 1.34 INS. DEPARTURE, ____

GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE

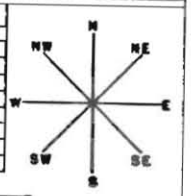
SNOW

TOTAL SNOWFALL, 23 INCHES
GREATEST IN ANY OBSERVATIONAL DAY 12"
DATE 6

NUMBER OF DAYS

MAX. TEMP. 90° OR ABOVE, ____
MAX. TEMP. 32° OR BELOW, ____
MIN. TEMP. 32° OR BELOW, ____
MIN. TEMP. 0° OR BELOW, ____
WITH 0.01 INCH OR MORE PRECIP, ____
0.25 INCH OR MORE, ____ ; 1.00 INCH OR MORE, ____
CLEAR, ____ PARTLY CLOUDY, ____ CLOUDY, ____

REMARKS BY OBSERVER:
UNDER MISC. I HAVE NOTED ICE CONDITIONS IN THE NIAGARA RIVER AT THIS POINT



STATION LEWISTON
MONTH JAN, 1943

W FORM 1009

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
COOPERATIVE OBSERVERS' METEOROLOGICAL RECORD

STATION LEWISTON, COUNTY NIAGARA, STATE NY. TEMP. 6 PM
LATITUDE 43 10. LONGITUDE 79.03. ELEVATION 323. HOUR OF OBSERVATION
MONTH FEB, 1943. MERIDIAN OF TIME EST. PRECIP. 6 PM

DATE	TEMPERATURE MAXIMUM	MINIMUM	[2] SET MAX.	PRECIPITATION TIME OF BEGINNING	TIME OF ENDING	[3] AMOUNT INCHES & HUNDREDTHS	SNOWFALL INCHES & TENTHS	SNOW ON GROUND AT OBSERVATION	PREVAILING WIND DIRECTION FOR THE DAY	CHARACTER OF DAY SUNRISE TO SUNSET (AVE. CLD.) CLEAR (0–3)	P. CLDY. (4–7)	CLOUDY (8–10)	MISCELLANEOUS PHENOMENA INCLUDING CHARACTER OF PRECIPITATION, AS RAIN, DRIZZLE, SNOW, SLEET, HAIL, THUNDERSTORMS, ETC.
	1	2	3	4	5	6	7	8	9		10		11
1	39	25	26	N	N	.25	0.6	5	SW M		✓		MED RAIN
2	39	19	26			00	00	4	SW L	✓			" "
3	32	12	32			00	00	4	NE L			✓	LIGHT "
4	45	31	41	N	N	09	0.	3	SW F		✓		" "
5	43	32	40			00	00	2	NW L	✓			NO "
6	43	32	37	N ALL DAY		18	00	T	SW F			✓	" "
7	37	28	31	N FLURRIES "		02	1	1½	NW M			✓	HEAVY FOG " "
8	33	27	32			00	00	1	NW F		✓		"
9	32	16	30			00	00	1	NE L	✓			" "
10	49	21	43	10	2	14	08	T	NE L			✓	" "
11	46	21	23	SNOW 22	MED	30	T	11	SW F		✓		" "
12	27	12	25	9	—	03	1	1	NW L			✓	MED "
13	25	13	22	1	—	17	3	3	NW L			✓	LIGHT "
14	22	-1	0	N	—	18	4	6	NW F		✓		MED "
15	5	-11½	5	N	N	05	1	5	NW L	✓			" "
16	22	3	17			00	00	5	SW F		✓		" "
17	27	17	18			00	00	4½	NW L		✓		" "
18	26	2	27			00	00	4	SW F		✓		" "
19	46	25	46			00	00	T	SW L	✓			NO "
20	47	42	44	13 V	3	13	00	00	SW F			✓	" "
21	44	29	40			00	00	00	SW L		✓		" "
22	49	27	46			00	00	00	SW L	✓			" "
23	57	34	55			00	00	0	SW F			✓	" "
24	55	31	33			25	00	00	NW L		✓		" "
25	3[illegible]	16	20			00	00	00	NE L	✓			" "
26	33	15	32			02	½	½	NE L			✓	LIGHT "
27	32	22	28	N	"	02	T	T	SW F			✓	NO "
28	38	26	28	7 AND 11 FLURRIES		01	00	00	SW M		✓		HEAVY FOG LIGHT "
29													
30													
31													
1 ST.	40.28	56.6				1							
SUM	36.7	20.2				1.87				7	11	10	

SEE COVER FOR INSTRUCTIONS

1 ENTER TEMP. AND PRECIP. FOR 1 ST. DAY OF FOLLOWING MO. WHERE OBS. IN MORNING ONLY
2 READING OF MAX. THERMOMETER IMMEDIATELY AFTER SETTING.
3 INCLUDING RAIN, HAIL, SLEET AND MELTED SNOW ON DAY OF MEASUREMENT.

(IN TRIPLICATE)

[redacted]

Lewiston
(P.O. ADDRESS)

MONTHLY SUMMARY
(TO BE FILLED IN BY OBSERVER)

DATES OF –
HIGH WINDS, 7 – 28
GLAZE, (FREEZING RAIN)
SLEET, (SMALL ICE PELLETS)
HAIL,
KILLING FROST,
THUNDERSTORMS,
FOG, LIGHT (VIS. 5/8 MI. OR MORE)
DENSE (VIS. LESS THAN 1/5 MI.)
DEPTH OF FROZEN GROUND AT END OF MO. ____ INS.

(NOT TO BE FILLED IN BY OBSERVER)

TEMPERATURE
MEAN MAXIMUM, 36.7
MEAN MINIMUM, 20.2
MEAN MONTHLY, 28.4 DEPARTURE,
MAXIMUM, 59 ; DATE, 23
MINIMUM, – ; DATE, –

PRECIPITATION
TOTAL, 1.87 INS. DEPARTURE,

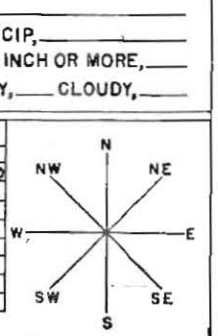
GREATEST AMOUNT

IN ANY OBSERVATIONAL DAY		COMPUTED FOR 24-HOUR PERIOD	
AMOUNT	DATE	AMOUNT	DATE

SNOW
TOTAL SNOWFALL, 10.2 INCHES
GREATEST IN ANY OBSERVATIONAL DAY
DATE

NUMBER OF DAYS
MAX. TEMP. 90° OR ABOVE,
MAX. TEMP. 32° OR BELOW,
MIN. TEMP. 32° OR BELOW,
MIN. TEMP. 0° OR BELOW,
WITH 0.01 INCH OR MORE PRECIP.,
0.25 INCH OR MORE, ; 1.00 INCH OR MORE,
CLEAR, PARTLY CLOUDY, CLOUDY,

REMARKS BY OBSERVER:
UNDER REC. I HAVE NOTED ICE CONDITIONS IN THE NIAGARA RIVER AT THIS POINT



STATION LEWISTON
MONTH FEB, 1943