SDMS US EPA REGION V -1

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INDIANA
ENTRY
PLANT
ILLINOIS
DIVISION OF
CORPS OF ENGINEERS
UNITED STATES ARMY

UNCLASSIFIED

GREAT LAKES DIVISION
CHICAGO DISTRICT

COPY NO.

CONFIDENTIAL

WAR DEPARTMENT

INDUSTRIAL FACILITIES INVENTORY

ST. LOUIS C.W.S. PLANT

U. S. ENGINEER OFFICE

CHICAGO, ILLINOIS

1 MAY 1944

CONFIDENTIAL

[redacted]

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INDEX

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ARMY CHEMICAL CENTER

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PART I

GENERAL INFORMATION

and

DESCRIPTION OF PROPERTY

PART I, Section 1 GENERAL DATA

1. CONTRACT NUMBER:	a. A. E. M.	W-266-CWS-119 DA-W-266-CWS-1
	b. Construction:	W-1103-eng-3688 W-1103-eng-3722 W-1103-eng-3857 W-1103-eng-3938
	c. Operating:	W11-021-CWS-239
2. NAME OF PLANT:		St. Louis Chemical Warfare Service Plant
3. LOCATION OF PLANT:		Monsanto (East St. Louis), Illinois
4. SPONSORING AGENCY OR OWNER:		War Department, Army Service Forces, Chemical Warfare Service
5. OPERATOR:		Monsanto Chemical Co., incorporated in the state of Delaware, operating this plant as a branch of its main plant, adjacent.
6. ADDRESS MAIN OFFICE OF OPERATOR:		1700 South Second Street St. Louis, Missouri
7. ARCHITECT-ENGINEER:		Monsanto Chemical Company
8. ADDRESS OF ARCHITECT-ENGINEER:		1700 South Second Street St. Louis, Missouri
9. PRODUCTION:		
	a. Major Products:	CC2, a clothing inpregnator (this is not the chemical formula)
	b. Principal By-Products:	None
10. PRODUCTIVE AREA:		77,924 sq. ft.
11. NON-PRODUCTIVE AREA:		71,139 sq. ft.
12. TOTAL PLANT AREA:		149,063 sq. ft.
13. MAXIMUM EMPLOYMENT:		
	a. First shift:	206
	b. Second shift:	54
	c. Third shift:	54
	TOTAL	314

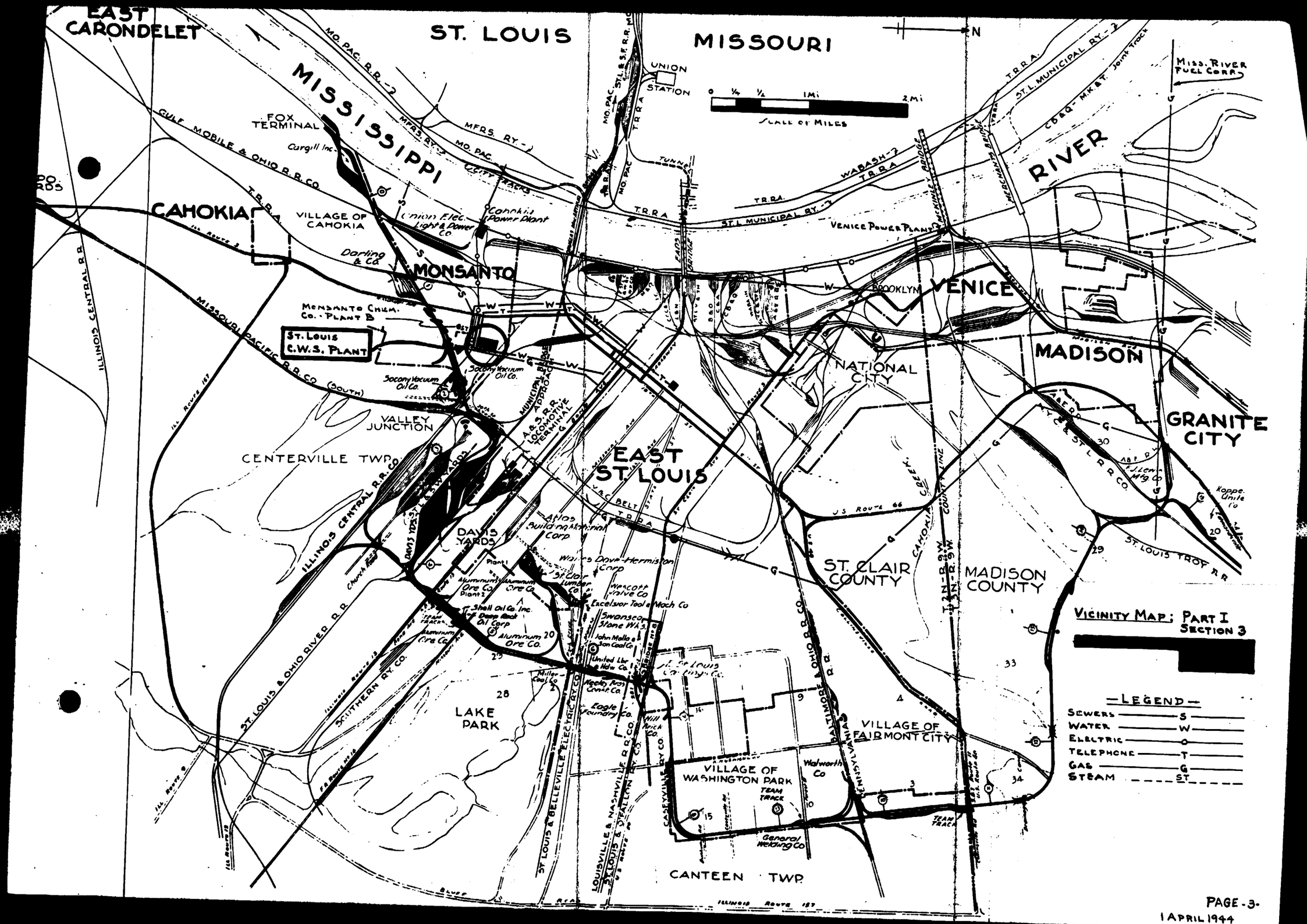
PART I, Section 2 PRESENT EMPLOYMENT

PROJECT: St. Louis Chemical Warfare Service Plant DATE: 1-2-44

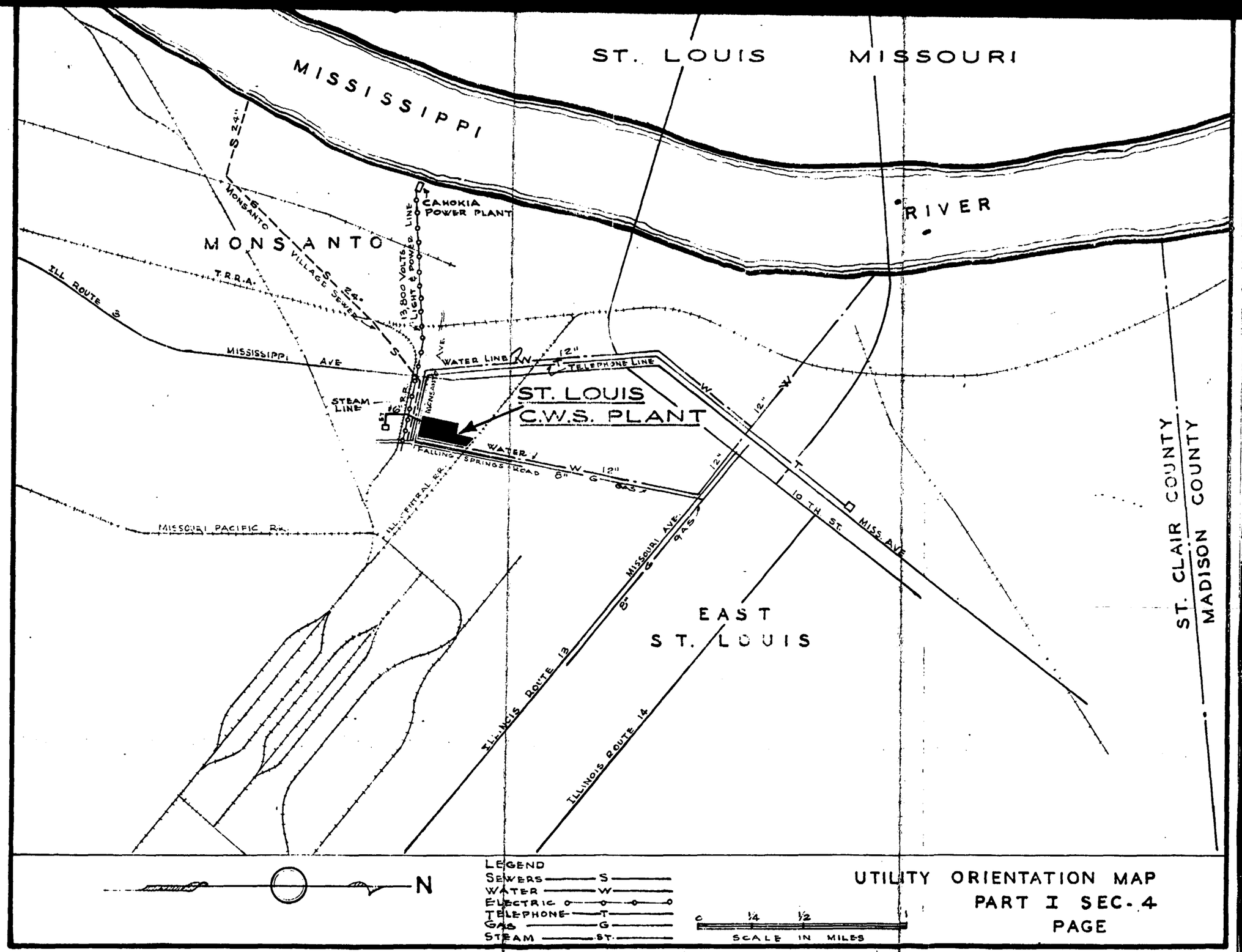
CLASS	WHITE MALE	WHITE FEMALE	NEGRO MALE	NEGRO FEMALE	TOTAL
PRODUCTIVE					
Highly skilled	0	0	0	0	0
Skilled	60	0	15	0	75
Semi-skilled	0	0	0	0	0
Unskilled	12	11	50	0	73
NON-PRODUCTIVE					
Skilled	56	0	0	0	56
Semi-skilled	11	1	0	0	12
Unskilled	53	16	29	0	98
Total	192	28	94	0	314

(These cover Production & Services for CC-2.
L.D.M.)

Part 1


EAST CARONDELET
ST. LOUIS
MISSOURI
MISSISSIPPI
RIVER
N
SCALE OF MILES
0 1/4 1/2 1Mi 2Mi
UNION STATION
MO. PAC. R.R.
MFRS. RY.
GULF MOBILE & OHIO R.R. CO.
FOX TERMINAL
Cargill Inc.
CAHOKIA
VILLAGE OF CAHOKIA
Union Elec. Light & Power Co.
Cahokia Power Plant
Darling & Co.
MONSANTO
Monsanto Chem. Co. - Plant B
ST. LOUIS C.W.S. PLANT
Socony Vacuum Oil Co.
MISSOURI PACIFIC R.R. CO. (SOUTH)
ILLINOIS CENTRAL R.R.
VALLEY JUNCTION
CENTERVILLE TWP.
DAVIS YARDS
A.&S.R.R. LOCOMOTIVE TERMINAL
EAST ST. LOUIS
VAC BELT
Atlas Building Material Corp.
Wilkins Dove-Herniston Corp.
St. Clair Lumber Co.
Wescott Valve Co.
Excelsior Tool & Mach. Co.
Swansea Stone W.S.
John Mello & Son Coal Co.
United Lbr. & Hdw. Co.
Aluminum Ore Co.
Shell Oil Co. Inc.
Deep Rock Oil Corp.
Miller Coal Co.
Neeley Ass. Const. Co.
Eagle Foundry Co.
Hill Brick Co.
LAKE PARK
ST. LOUIS & OHIO RIVER R.R.
SOUTHERN RY. CO.
ST. LOUIS & BELLEVILLE ELECTRIC RY. CO.
LOUISVILLE & NASHVILLE R.R. CO.
ST. LOUIS & EAST LINE R.R. CO.
CASEYVILLE RY. CO.
BALTIMORE & OHIO R.R. CO.
PENNSYLVANIA
VILLAGE OF WASHINGTON PARK
TEAM TRACK
General Welding Co.
Walworth Co.
CANTEEN TWP.
ST. CLAIR COUNTY
MADISON COUNTY
T.2N.-R.9W.
T.3N.-R.9W.
VILLAGE OF FAIRMONT CITY
NATIONAL CITY
BROOKLYN
VENICE
MADISON
GRANITE CITY
Venice Power Plant
ST. L. MUNICIPAL RY.
WABASH
T.R.R.A.
C.B.&Q. - M.K.&T. Joint Track
Miss. River Fuel Corp.
Merchants Bridge
McKinley Bridge
Eads Bridge
Municipal Approach
ST. LOUIS TROY R.R.
Koppe Unite Co.
Fullen Mfg. Co.
ILLINOIS ROUTE 157
U.S. ROUTE 66
VICINITY MAP; PART I
SECTION 3
[redacted]
LEGEND
SEWERS S
WATER W
ELECTRIC
TELEPHONE T
GAS G
STEAM ST

1 APRIL 1944



UTILITY ORIENTATION MAP
PART I SEC. 4
PAGE

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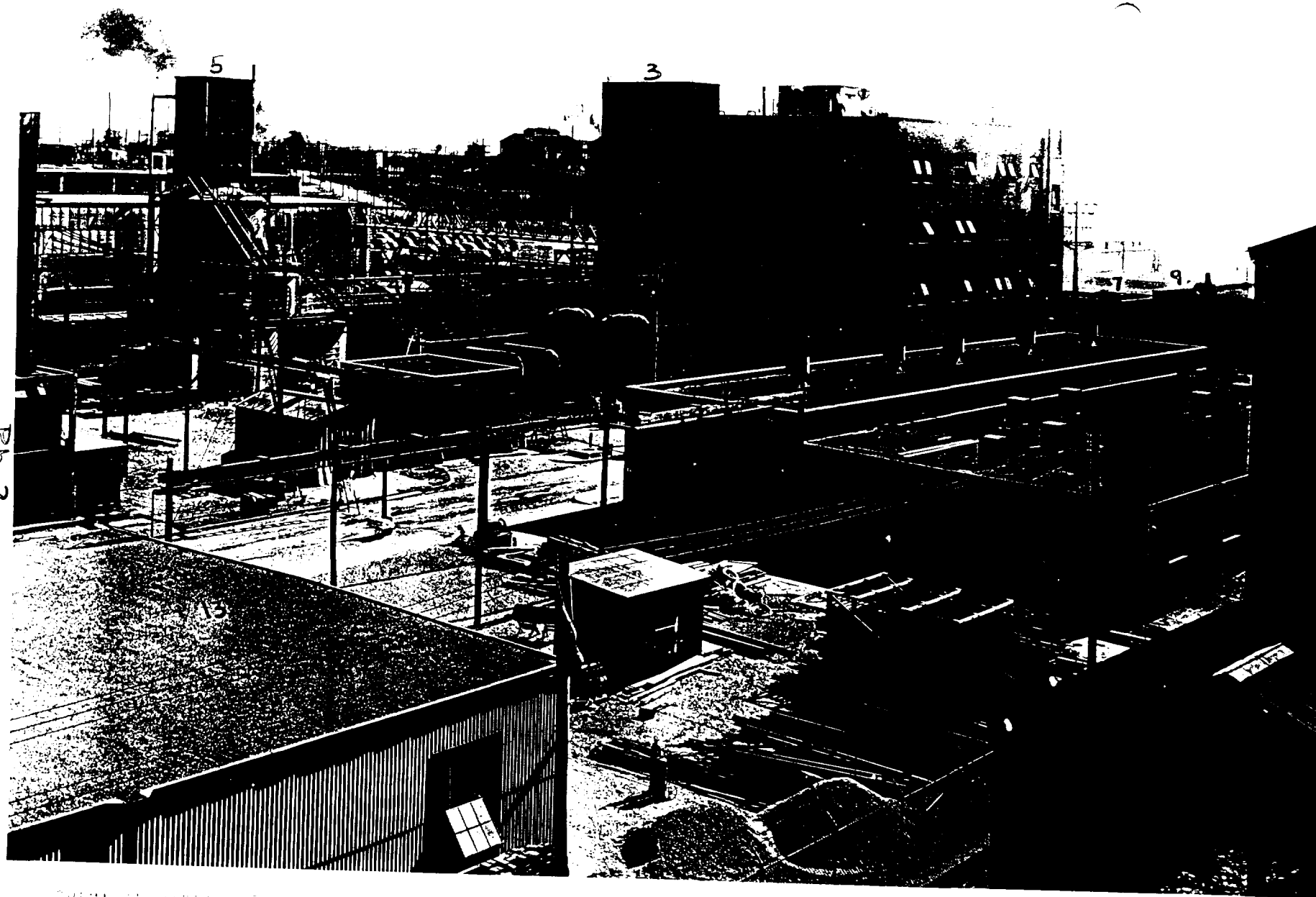

Ph-2

[illegible] WARREN [illegible] PLANT PROJ. BACKGROUND, [illegible] ORIGINAL
ST. L[illegible] MISSOURI [illegible] SITE. BLDG. FOREGROUND. [illegible] HOUSE AND CHARGE
HOUSE ADDITION [illegible] LOOKING S.E.

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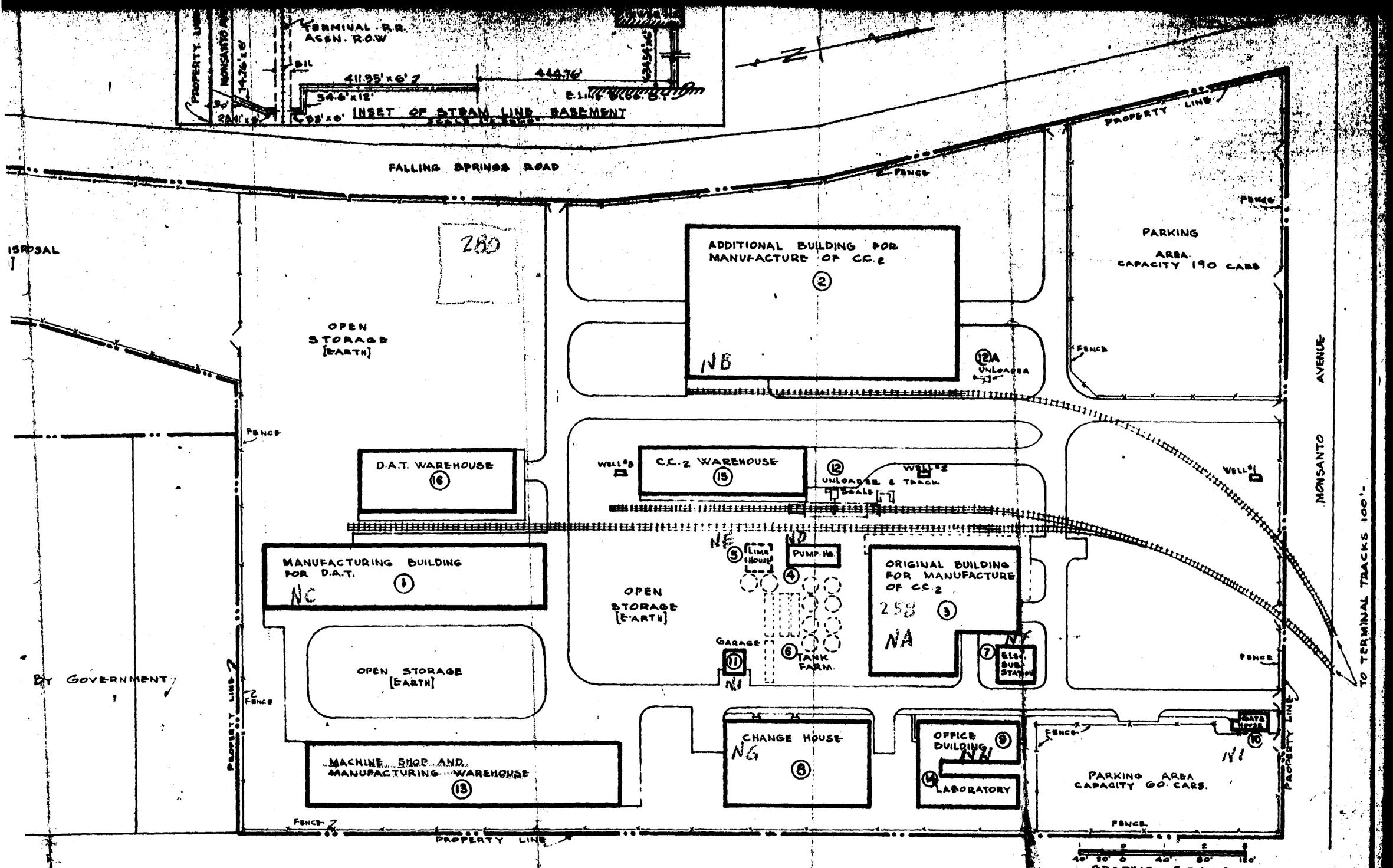
PART [illegible] SECTION [illegible]
PHOTOGRAPHS
PAGE No. 11



PLOT PLAN

PART I SEC.5

INDEX TO SECTION

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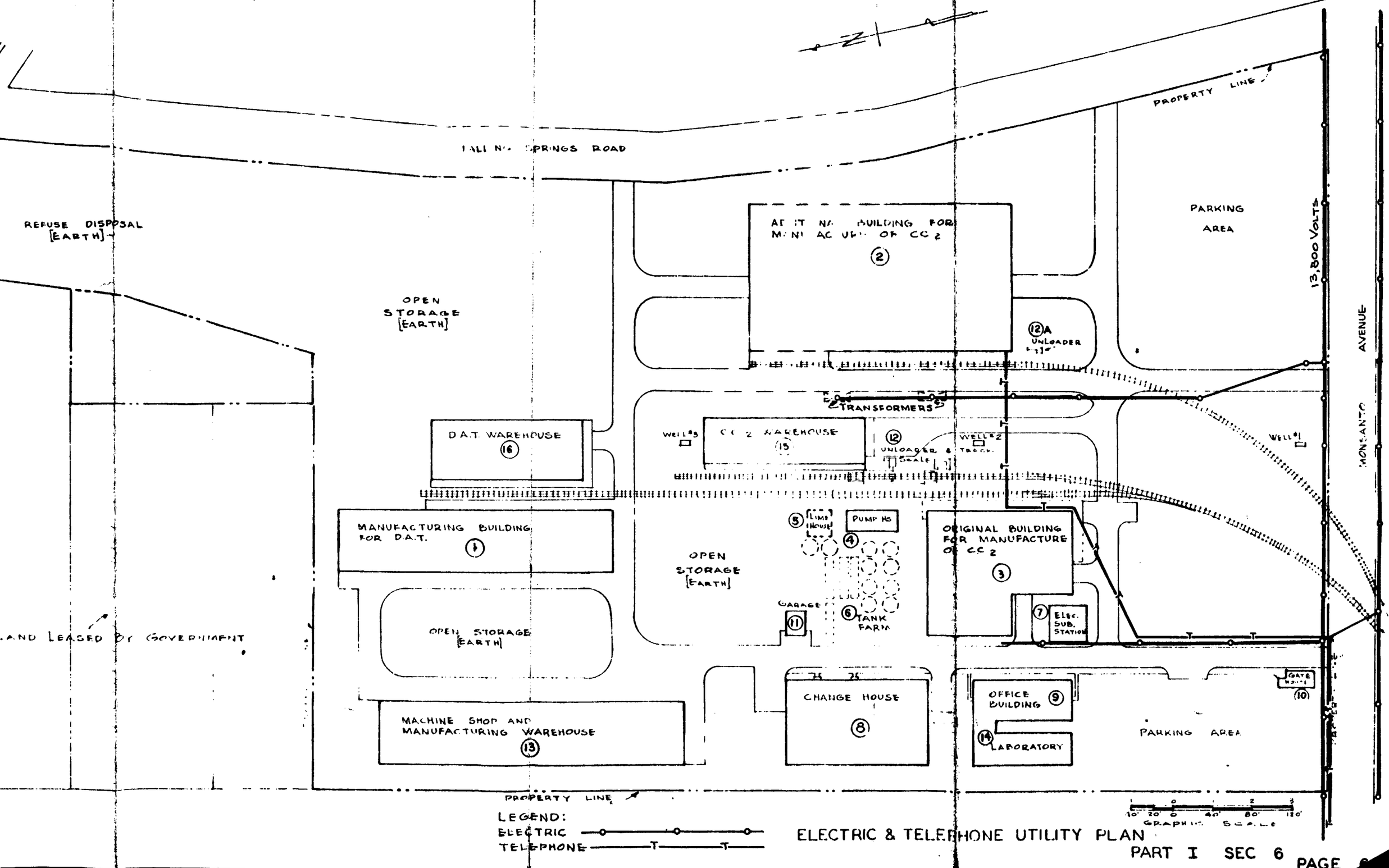
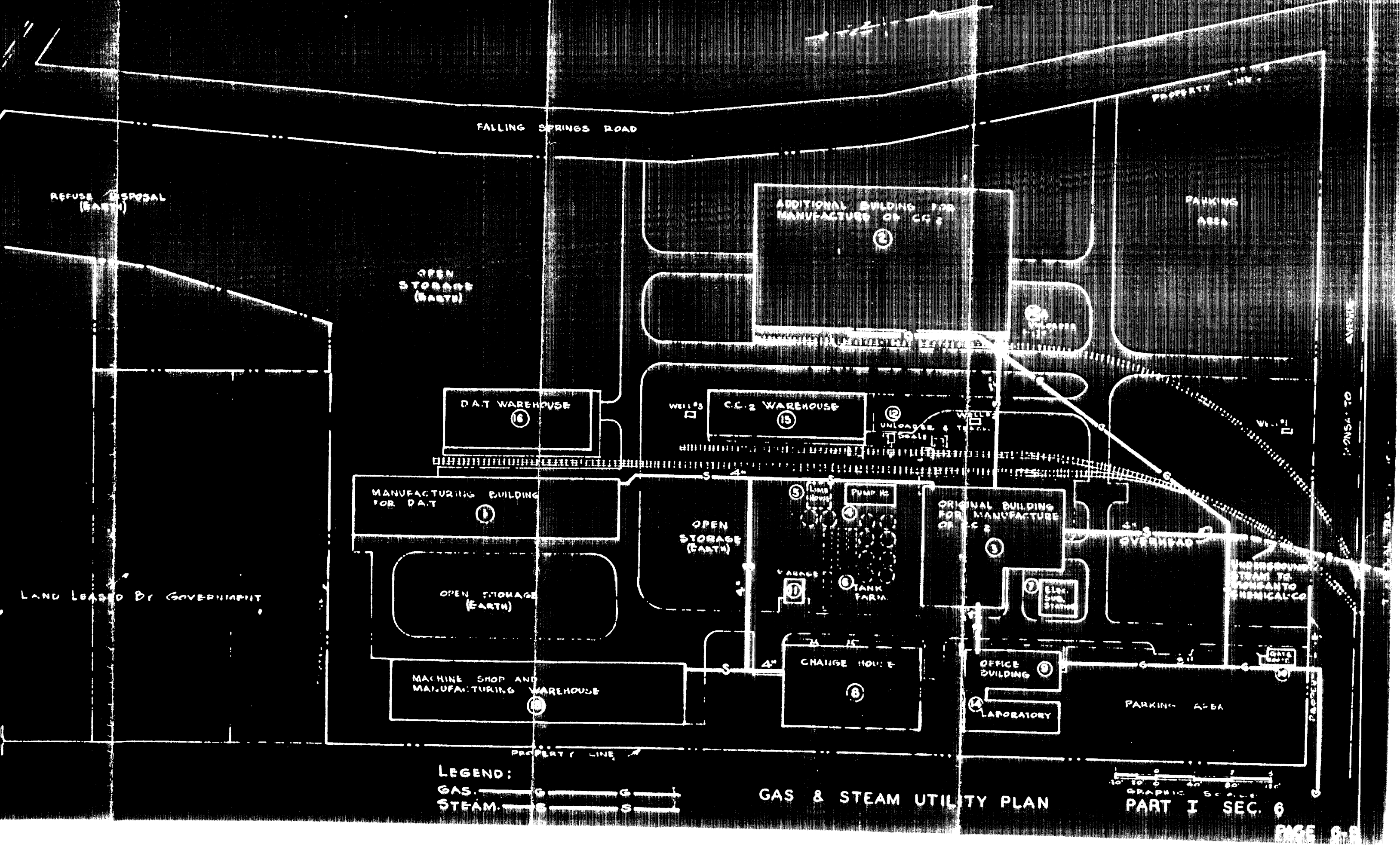
Electric and Telephone	6(a)
Gas and Steam Distribution	6(b)
Refrigeration and Water Distribution	6(c)
Sanitary and Storm Sewers	6(d)



ELECTRIC & TELEPHONE UTILITY PLAN

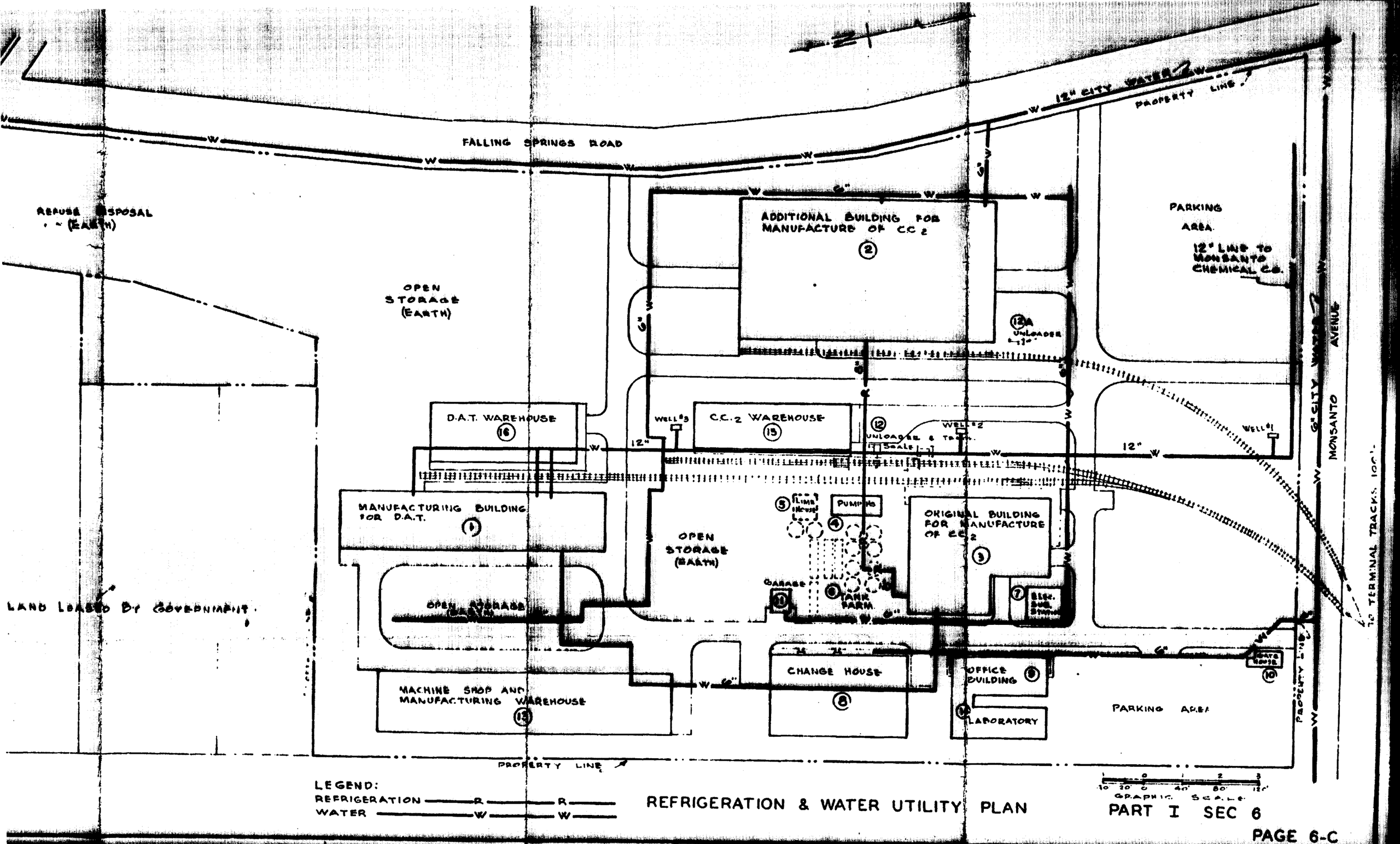
PART I SEC 6

PAGE

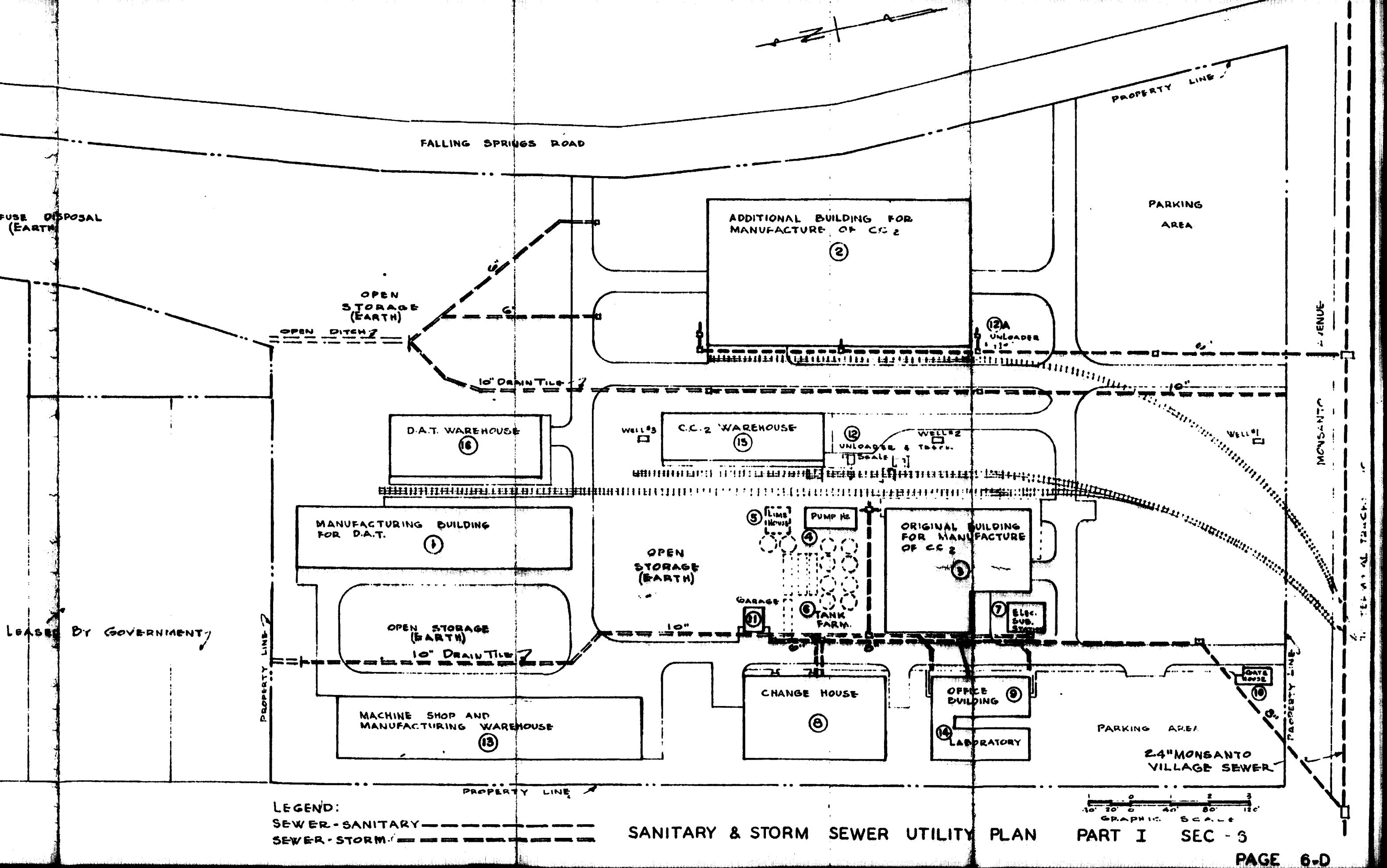


GAS & STEAM UTILITY PLAN

PART I SEC. 6



REFRIGERATION & WATER UTILITY PLAN



SANITARY & STORM SEWER UTILITY PLAN PART I SEC - 6

Looking toward South West corner Building No. 2. Photograph taken before erection of Reactor Platform. L. to R: Lead lined distillate tank for stills, feed tanks, and Haveg distillate and feed tanks.

Looking South along center line of Rector Platform Building No. 2

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PHOTOGRAPHS

Interior view Building No. 2 Filtrate Platform 2. Blow cases in foreground.

Interior View Building No. 2 taken from North East Corner looking South West. Column D-12 in foreground.

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Looking North in Building No. 2 - Filter Platform 1 in Foreground.

CHEMICAL WARFARE SERVICE PLANT PROJ.

SOUTH FILTRATION PLATFORM

ESSLINGER-MISCH COMPANY

ST. LOUIS MISSOURI ENGINEER DISTRICT

STARTING DATE 1-18-43

CONFIDENTIAL

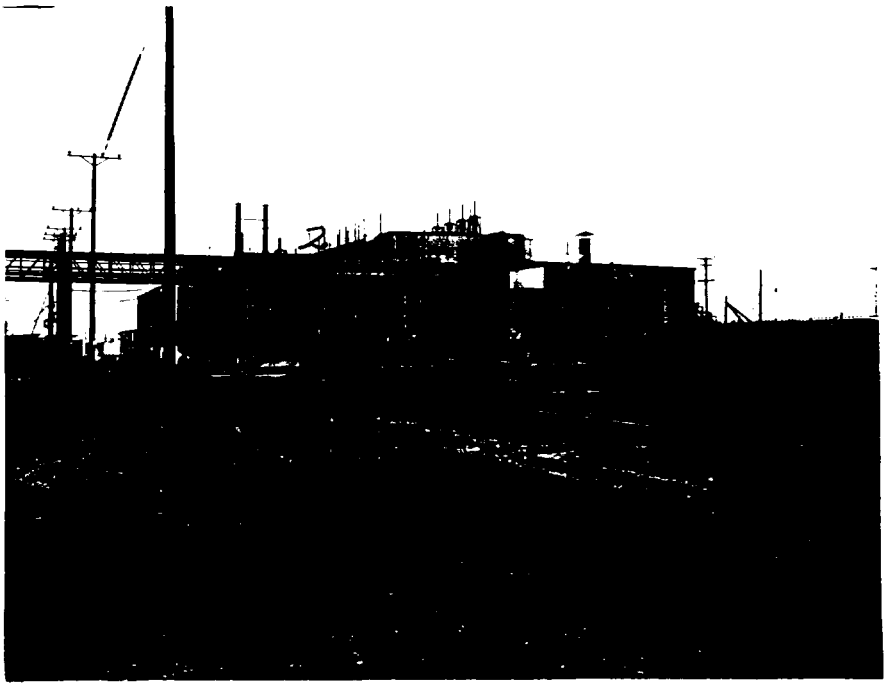
PART [illegible] SECTION 7

PHOTO SERIAL PHO

PHOTO No. 13

P4-5

Looking North from South End of Project. L. to R. Building 3, Pipe Bridge, and Buildings 5, 15, and 2.



Looking North East from South End of Project. Additional Building for Manufacture of CO2, No. 2.

Looking South from North End of Project.
L. to R. Buildings 1, 5, 6, 3, 9, 8, 13, 7, 12

Looking South East from Building 13.
L. to R. Buildings 11, 6, 3, 7, and (12) corner of 8.

INDEX TO SECTION

Description of Photograph	Page No.
Aerial - Vertical	8
" - Oblique	9
Exterior - Buildings 1,3,5,6,7,8,9,11,13	10
" - Buildings 3,8,7,9,11,14,15,4,5,2	11
General Exterior 2,5,15	12
Interior - Building No. 2	13
" - Building No. 2	14
" - Building No. 2	15

NOTE: Interior photographs of the Original Building for Manufacture of CC2 Building No. 3 are not furnished for the reason that the interior is so congested that no photographs of any value could be obtained. The interior views of the additional building for the Manufacture of CC2 Building No. 2 on the subsequent pages were taken during construction. These pictures could not be obtained again with the plant in its present state of completion.

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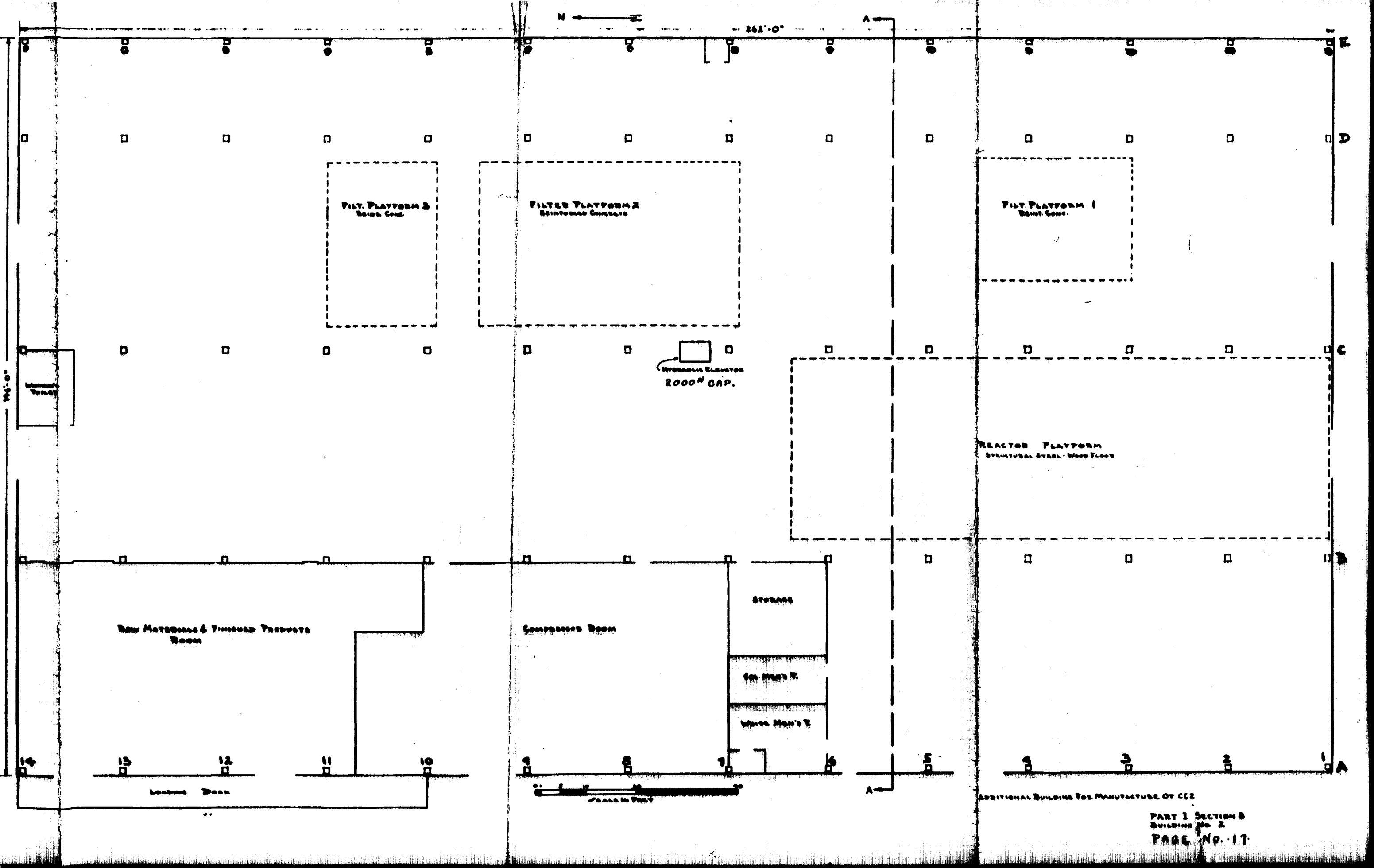
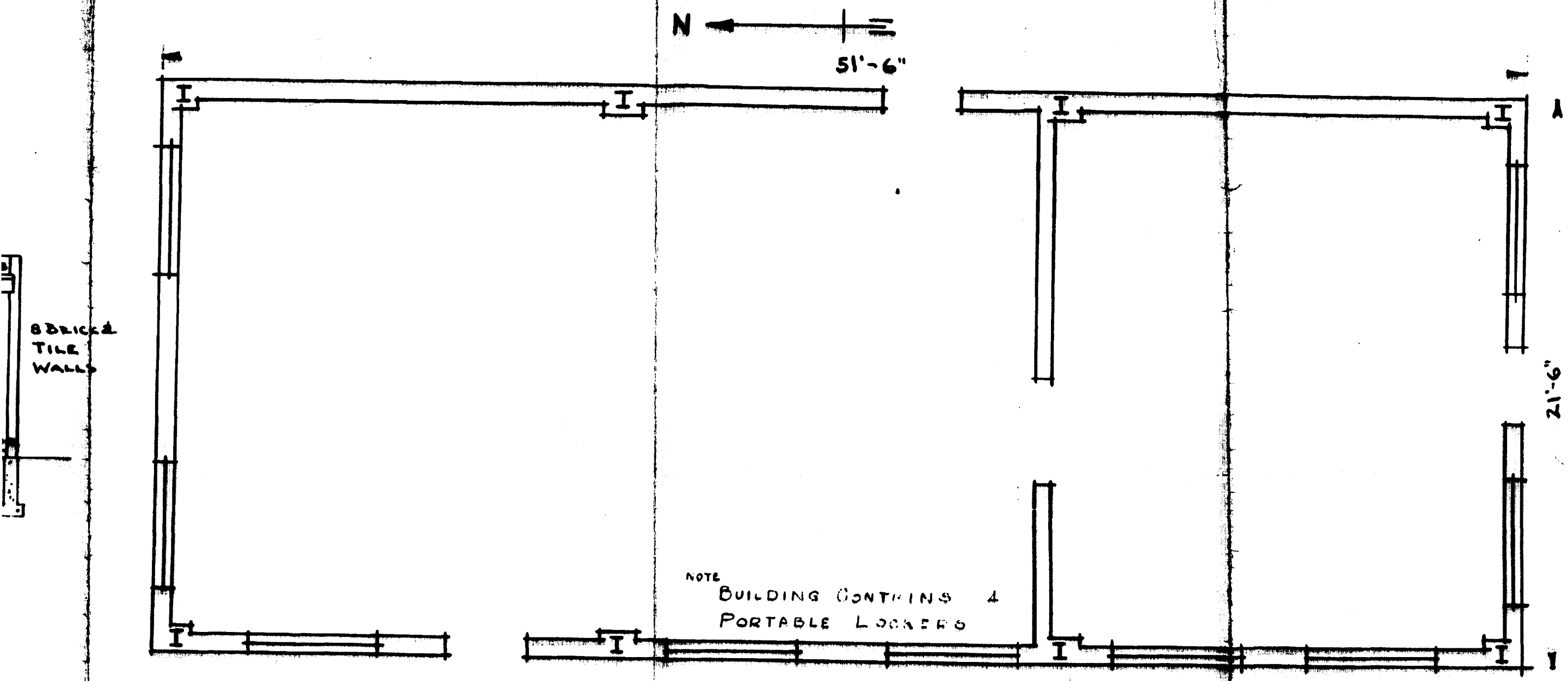
8	Change House	20
9	Office Building	21
13	Laboratory	21
14	Machine Shop & Warehouse	23
15	CC2 Warehouse	22
16	DAT Warehouse	23



Part I Section 8
Building No. 2
Page No. 17

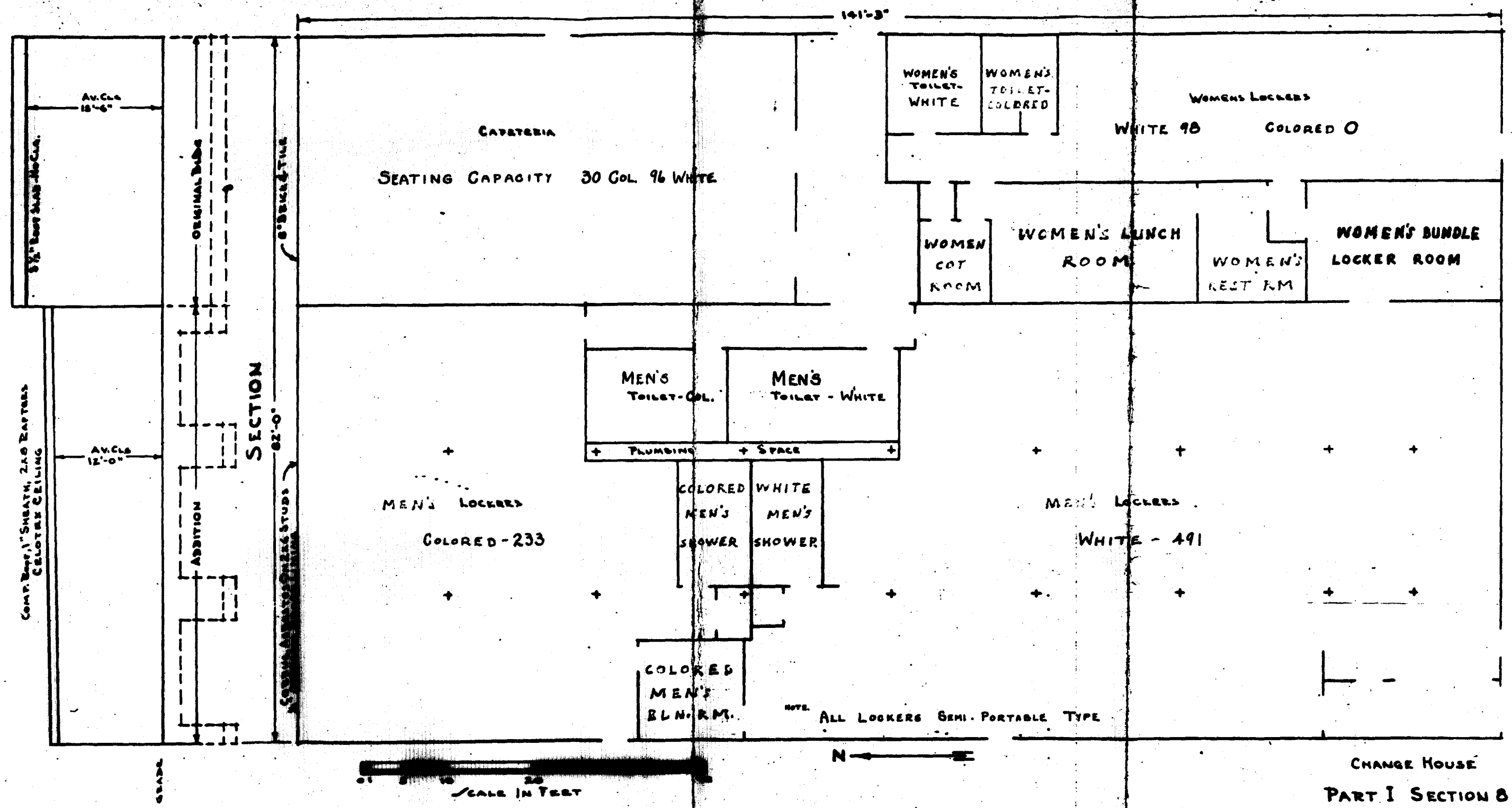


PLAN
SCALE: 1/4" = 1'-0"

PUMP HOUSE

PART I SECTION 8

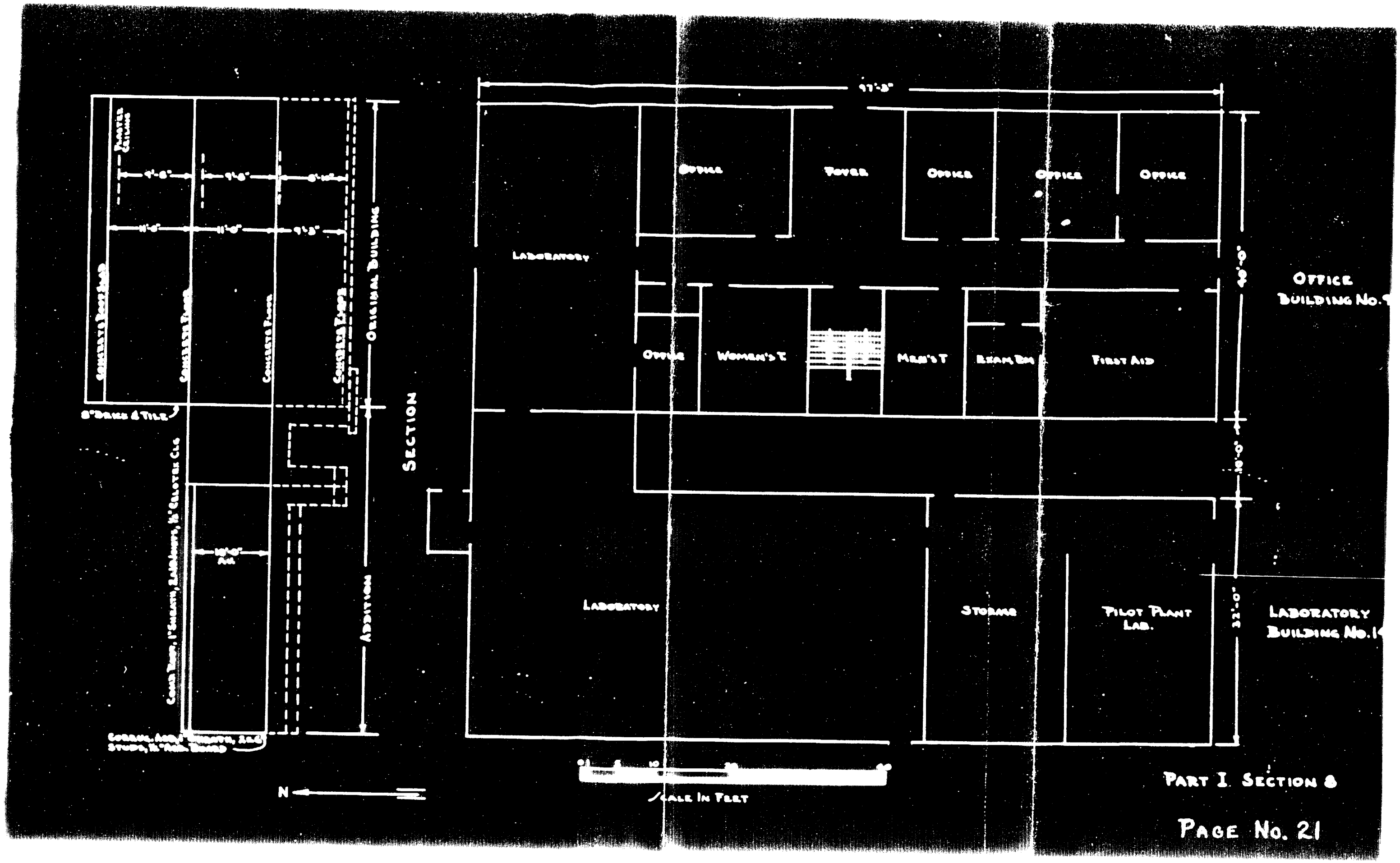
BUILDING No. 4

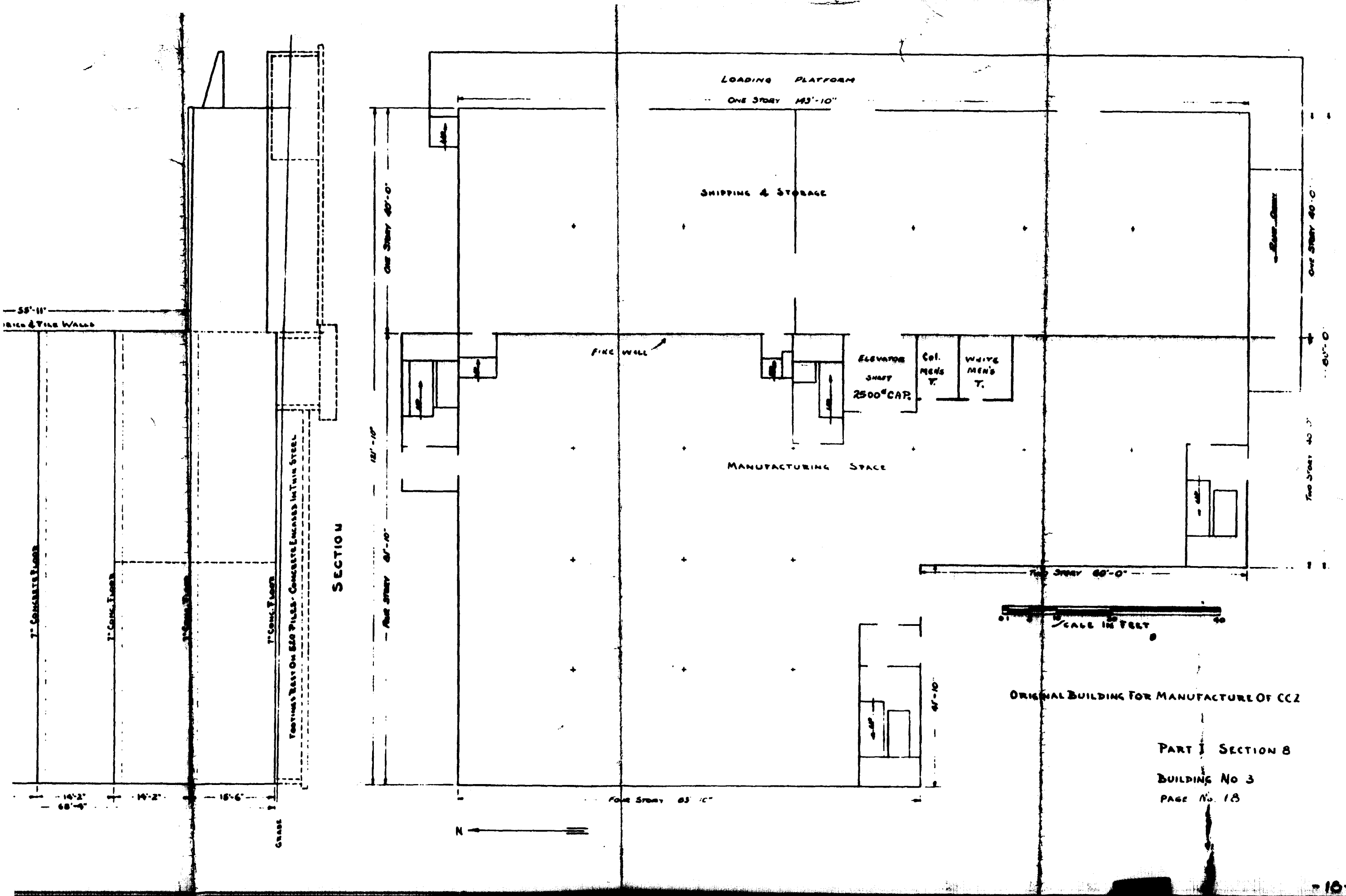


Change House

Part I Section 8

Building No. 8

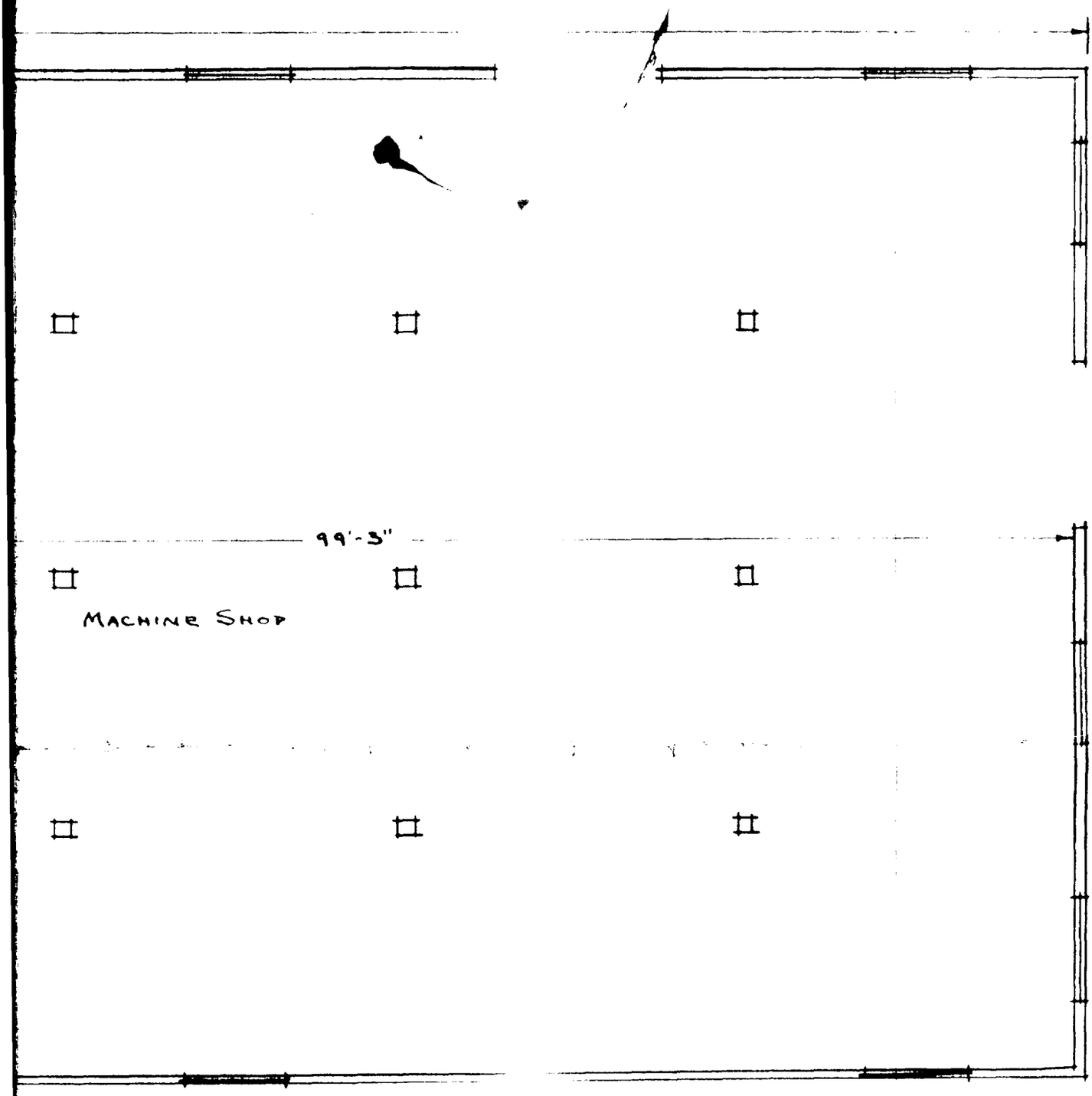

Section
Original Building
Addition
Concrete Floor
8" Brick & Tile
Laboratory
Office
Toilet
Office
Office
Office
Office
Women's T.
Men's T.
Exam Rm.
First Aid
Office Building No.
Laboratory
Storage
Pilot Plant Lab.
Laboratory Building No.
97'-3"
Scale in Feet
N


LOADING PLATFORM
ONE STORY 143'-10"
SHIPPING & STORAGE
FIRE WALL
ELEVATOR SHAFT 2500# CAP.
COL. MEN'S T.
WHITE MEN'S T.
MANUFACTURING SPACE
ONE STORY 40'-0"
ONE STORY 40'-0"
TWO STORY 40'-0"
TWO STORY 60'-0"
FOUR STORY 83'-0"
SECTION
BRICK & TILE WALLS
7" CONCRETE FLOOR
7" CONC. FLOOR
7" CONC. FLOOR
FOOTINGS REST ON 8&0 PILES - CONCRETE ENCASED IN TWIN STEEL
GRADE
14'-2"
14'-2"
15'-6"
N
SCALE IN FEET
ORIGINAL BUILDING FOR MANUFACTURE OF CC2
PART I SECTION 8
BUILDING NO 3
PAGE No. 18

SDMS US EPA REGION V
FORMAT- OVERSIZED - 5
IMAGERY INSERT FORM

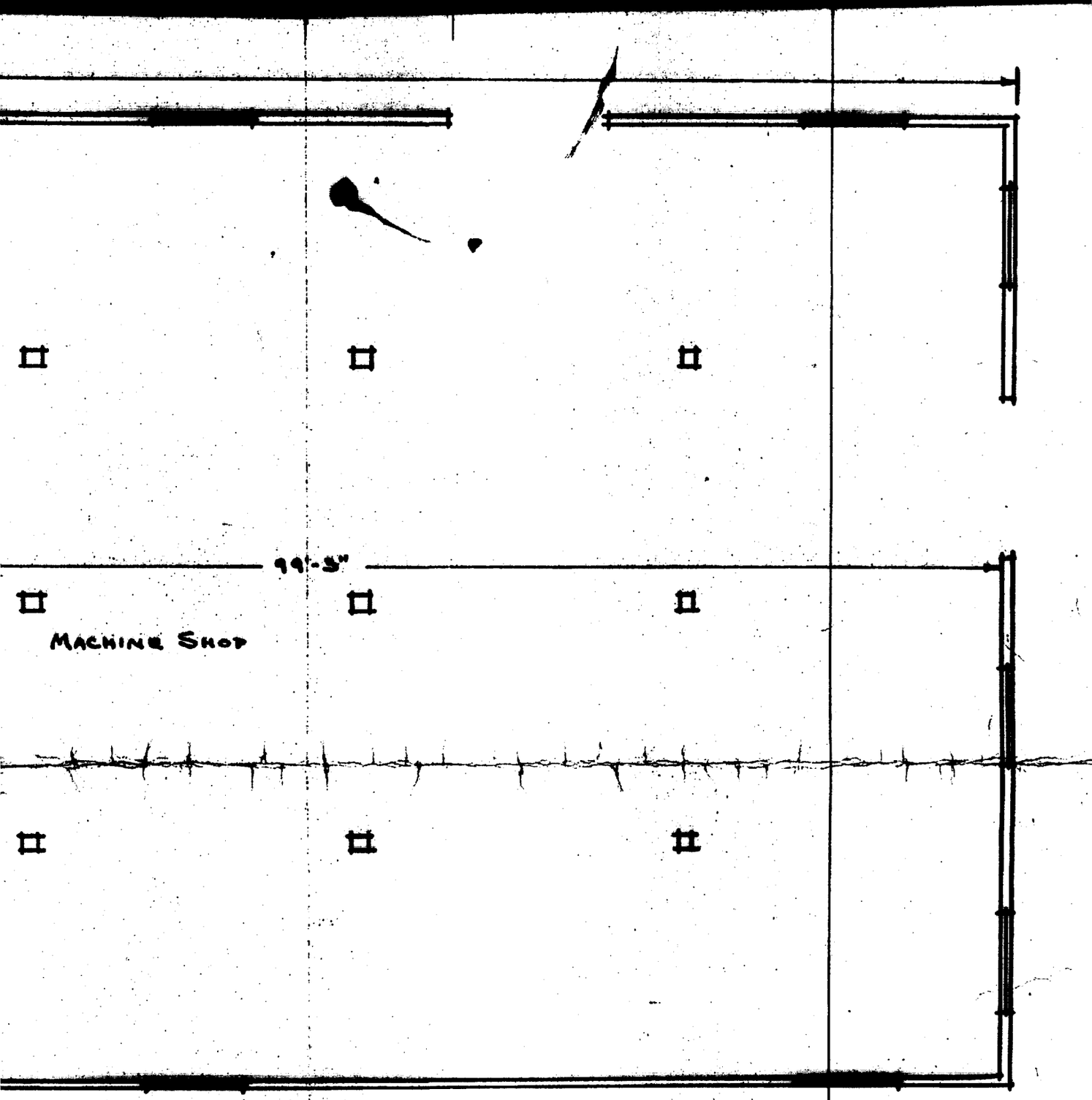
The item(s) listed below are not available in SDMS. In order to view original document or document pages, contact the Superfund Records Center.

SITE NAME	SAUGET AREA 1		
DOC ID #	156811		
DESCRIPTION OF ITEM(S)	MACHINE SHOP & MAINTENANCE WAREHOUSE PARI I SECTION 8 BUILDING NO. 13 - PAGE NO. 22		
REASON WHY UNSCANNABLE	_X_OVERSIZED	OR	___ FORMAT
DATE OF ITEM(S)			
NO. OF ITEMS	1		
PHASE	SID- SITE IDENTIFICATION BACKGROUND		
PRP			
PHASE (AR DOCUMENTS ONLY)	___ Remedial ___ Removal ___ Deletion Docket ___ AR ___ Original ___ Update # ___ Volume ___ of ___		
O.U.			
LOCATION	Box # _____ Folder # _____ Subsection _____		
COMMENT(S)			
PARTIAL COPY			



INE SHOP & MAINTENANCE WAREHOUSE
SCALE: 1/8" = 1'-0"

PART I SECTION
BUILDING No. 13
PAGE No. -22



NE SHOP & MAINTENANCE WAREHOUSE
SCALE: 1/8" = 1'-0"

PART I SECTION 8
BUILDING No. 13
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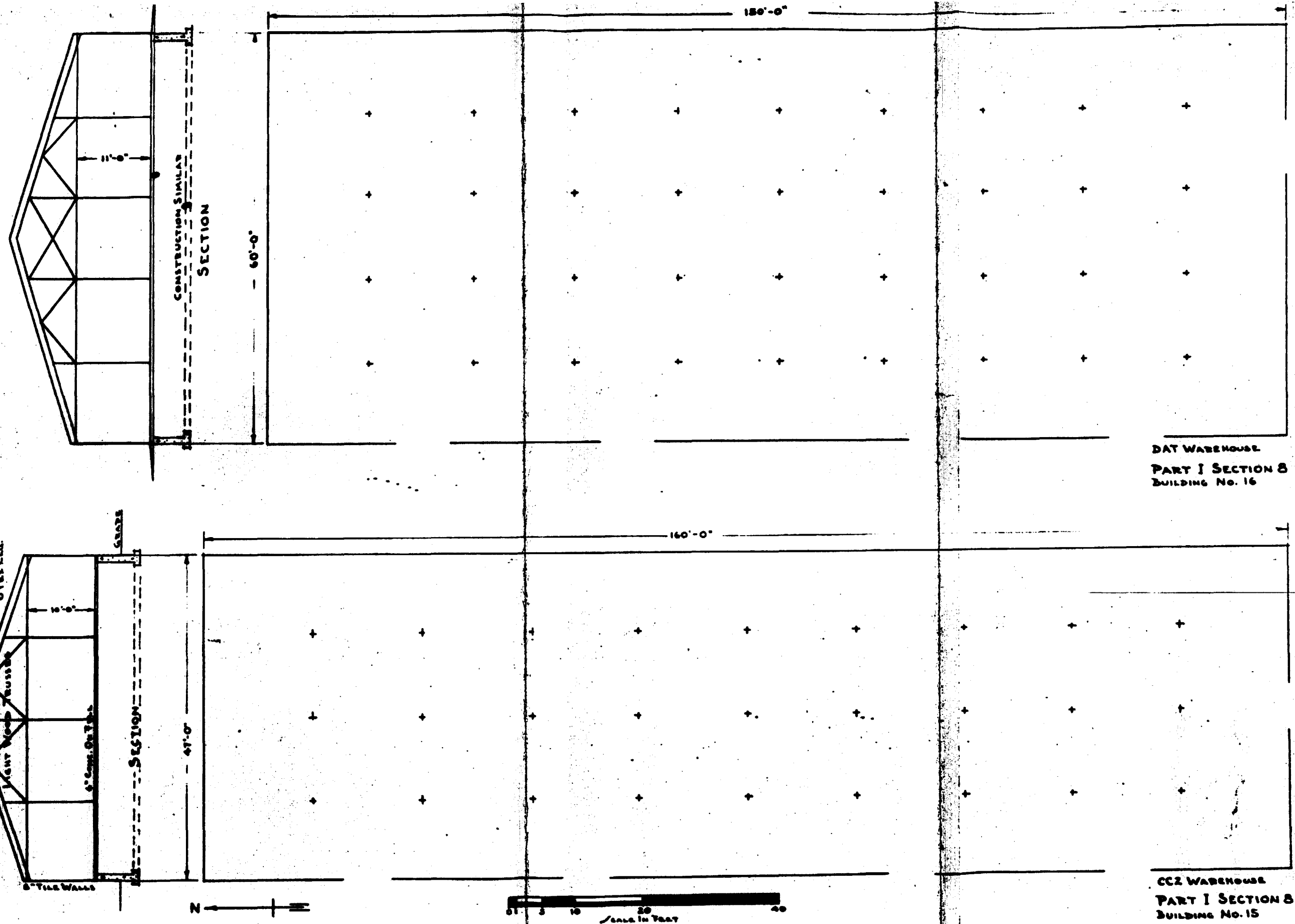
150'-0"
11'-0"
CONSTRUCTION SIMILAR
SECTION
60'-0"
DAT WAREHOUSE
PART I SECTION 8
BUILDING No. 16
160'-0"
CONC. ROOF, 1" SHEATH.
2x10 RAFTERS, CEL-
OTEX CLG.
GRADE
10'-0"
LIGHT WOOD TRUSSES
6" CONC. OR TILE
SECTION
47'-0"
8" TILE WALLS
N
SCALE IN FEET
CC2 WAREHOUSE
PART I SECTION 8
BUILDING No. 15

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C W S

Lime House

Sub-Station

Change House

Office Building

Gate House

Garage

Machine Shop & Warehouse

Laboratory

CC2 [redacted]

DAT [redacted]

BUILDING NO. 2
ADDITIONAL CC2 BUILDING

		Total Floor Area in Sq. Ft.		
		Basement	1st	2nd
1.	Total productive area:	0	36586	11426
2.	Total non-productive area:	0	833	833
3.	Laboratory & testing area:	0	0	573
4.	Office area:	0	0	260

5. Cafeteria seating capacity: None.
6. Toilet capacity:

	W.C.	Lav.	Urinals	Showers
a. Men:				
1. Colored:	2	2	2	0
2. White:	3	3	3	0
b. Women:				
1. Colored:	0	0	0	0
2. White:	2	2	0	0

7. Locker Capacity: None.
8. Design and construction details:
   a. Floor construction: Concrete slab on approved fill.
   b. Floor finish (general area): Trowled concrete.
   c. Structural frame: Wood trusses & columns.
   d. Wall construction: Wood studding. 1" sheathing & corrug. trans.
   e. Clear height: 21'-6"; Monitor Section 29'-6".
   f. Design limits Floor loads: 1st 1500#/sq.ft. Mezz.-75# per. sq. ft.
   g. Type of heating: Steam (unit heaters).
   h. Type of cooling: None.
   i. Type of air filteration: None.
   j. Power distribution:
      1. Voltage: 120 - 208 & 440.
      2. Type: Conduit, Knob & tube.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Sprinkler system stand pipe lines with hose and reel and hand extinguishers.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings with some driven piles.
   o. Design soil pressures: 1500 lbs./sq ft.
   p. Roof deck construction: 2" wood decking.
   q. Roofing:
      1. Type 4-ply tar & gravel.
      2. Guarantee: 15 years.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None.
9. Notes of special features: Elevator (see drawing, page 17); 2000# capacity; total rise of 12'-5"; electric hydraulic; car platform 4'-0" x 6'-0" three sides enclosed to height of 3 ft. Complies with regulations of Elevator Code of Illinois.

BUILDING NO. 3
ORIGINIAL CC2 BUILDING

	Total Floor Area in Sq. Ft.				
	Basement	1st	2nd	3rd	4th
1. Total productive area:	0	8140	7838	6967	6967
2, Total non-productive area:	0	6460	1122	647	647
3. Laboratory & testing area:	0	0	0	0	0
4. Office area:	0	0	90	0	0

5. Cafeteria seating capacity: None.
6. Toilet capacity:

a. Men:	W.C.	Lav.	Urinals	Showers
1. Colored	1	1	1	0
2. White:	2	2	2	0

b. Women: None
7. Locker capacity: None
8. Design & construction details:
   a. Floor construction: 6" concrete slab.
   b. Floor finish (general area): Troweled concrete.
   c. Structural frame: Steel.
   d. Wall construction: Tile
   e. Clear Height: 14' - 0"
   f. Design limits floor loads: 75 lbs. sq.ft. plus equipment.
   g. Type of heating: Steam unit heaters.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power distribution:
      1. Voltage: 110, 220 & 440
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Sprinkler.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Pile
   o. Design soil pressure: 1500#/sq. ft.
   p. Roof deck construction: Precase concrete tile.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Guarantee: 20 years.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None.
9, Notes of special features: Elevator (see drawing, page 18); 2500# capacity; total rise of 12'-5", electric hydraulic, freight; car platform 4'-9" x 6'-9", two sides enclosed to height of 3'-0". Complies with regulations of Elevator Code of Illinois.

BUILDING NO. 4
PUMP HOUSE

		Total Floor Area in Sq.Ft.	
		Basement	1st
1.	Total productive area:	0	0
2.	Total non-productive area:	0	1030
3.	Laboratory & testing area:	0	0
4.	Office area:	0	0

5. Cafeteria seating capacity: None
6. Toilet capacity: None
7. Locker capacity:
   a. Men:
      1. Colored: None
      2. White: 4 lockers-portable
   b. Women: None
8. Design & construction details:
   a. Floor construction: Concrete slab.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Steel.
   d. Wall construction: Hollow tile.
   e. Clear height: 11'-6".
   f. Design limits floor loads: 6000#/sq.ft., (Slab poured on grade)
   g. Type of heating: Steam.
   h. Type of cooling: None
   i. Type of air filteration: None
   j. Power distribution:
      1. Voltage: 110 - 220 - 440
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Sprinkler.
   m. Type of soil: Sandy loam.
   n. Type foundations: Spread footings
   o. Design soil pressures: 6000 lbs./ sq. ft.
   p. Roof deck construction: Precast cement tile.
   q. Roofing:
      1. Type: 4-ply.
      2. Guarantee: 20 years.
   r. Roof insulation: None
   s. Description of other process piping layouts: None.
9. Notes of other special features: None.

C
W
S

BUILDING NO. 5
LIME HOUSE

		Total Floor Area in Sq. Ft.				
		Basement	1st	2d	3d	4th
1.	Total productive area:	0	0	0	0	0
2.	Total non-productive area:	0	527	110	110	110
3.	Laboratory & testing area:	0	0	0	0	0
4.	Office area:	0	0	0	0	0

5. Cafeteria seating capacity: None
6. Toilet capacity: None
7. Locker capacity: None
8. Design & construction details:
   a. Floor construction: Concrete slab and steel grating.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Steel.
   d. Wall construction: Hollow tile and wood.
   e. Clear height: 12'-6".
   f. Design limits floor loads: 75 lbs./ sq. ft.
   g. Type of heating: None.
   h. Type of cooling: None.
   i. Type of air filteration: None.
   j. Power distribution:
      1. Voltage: 110
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: None
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 6000 lbs./ sq. ft.
   p. Roof deck construction: Precast cement tile.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Grarantee: 20 years.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None
9. Notes of special features: None.

BUILDING NO. 7
SUB-STATION

		Total Floor Area in Sq. Ft.	
		Basement	1st
1.	Total productive area:	0	0
2.	Total non-productive area:	0	679
3.	Laboratory & testing area:	0	0
4.	Office area:	0	0

5. Cafeteria seating capacity: None
6. Toilet capacity: None
7. Locker capacity: None
8. Design and construction details:
   a. Floor construction: Concrete slab.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Steel.
   d. Wall construction: Hollow tile.
   e. Clear height: 12'-2"
   f. Design limits floor loads: 6000#/sq.ft.(Slab poured on grade)
   g. Type of heating: None.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power distribution:
      1. Voltage: 110 - 440
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Hand extinguishers.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 6000 lbs./sq. ft.
   p. Roof deck construction: Precast cement tile.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Guarantee: 20 years.
   r. Roof insulation: None.
   s. Description of other process piping: None.
9. Notes of special features: None.

BUILDING NO. 8
CHANGE HOUSE

		Total Floor Area in Sq. Ft.	
		Basement	1st
1.	Total productive area:	0	0
2.	Total non-productive area:	0	11674
3.	Laboratory & testing area:	0	0
4.	Office area:	0	0

5. Cafeteria seating capacity:
   a. Colored: 30 seats
   b. White: 96 seats

6. Toilet capacity:

	W.C.	Lav.	Urinals	Showers
a. Men:				
1. Colored:	5	5	5	0
2. White:	6	6	6	0
b. Women:				
1. Colored:	0	0	0	0
2. White:	3	3	0	0

7. Locker capacity:
   a. Men:
      1. Colored: 233 lockers, semi-portable
      2. White: 491 lockers, semi-portable
   b. Women:
      1. Colored: None
      2. White: 98 lockers, semi-portable

8. Design & construction details:
   a. Floor construction: Concrete slab.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Steel - Wood posts & rafters.
   d. Wall construction: Hollow tile - Wood studs, sheathing, transite.
   e. Clear height: 14' - 0"; 11' - 6".
   f. Design limits floor loads: 6000# & 1500#/sq.ft. (Slab poured on grade.)
   g. Type of heating: Steam Unit heaters.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power distribution:
      1. Voltage: 110 - 220
      2. Type: Conduit - Knob & tube.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Sprinklers in shop, hand extinguishers in balance.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 6000 lbs./sq.ft. - 1500 lbs./sq.ft.
   p. Roof deck construction: Precast concrete tile - 1" wood deck.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Guarantee: 20 year and 15 years.
   r. Roof insulations: None.
   s. Description of other process piping layouts: None.

9. Notes of special features: None.

BUILDING NO. 9
OFFICE BUILDING

		Total Floor Area in Sq. Ft.		
		Basement	1st	2nd
1.	Total productive area:	0	0	0
2.	Total non-productive area:	3900	3900	3900
3.	Laboratory & testing area:	0	896	0
4.	Office area:	0	1216	3900

5. Cafeteria seating capacity: None
6. Toilet capacity:

	W. C.	Lav.	Urinals	Showers
a. Men:				
1. Colored:	0	0	0	0
2. White	4	4	4	0
b. Women:				
1. Colored	0	0	0	0
2. White:	3	3	3	0

7. Locker capacity:
   a. Men:
      1. Colored: None
      2. White: 110 lockers, semi-portable
   b. Women:
      1. Colored: None
      2. White: 12 lockers, semi-portable
8. Design & construction details:
   a. Floor construction: Concrete slab.
   b. Floor finish (general area): Cement; tile.
   c. Structural frame: Steel.
   d. Wall construction: Hollow tile.
   e. Clear height: 10' - 6"
   f. Design limits floor loads: 75 lbs./sq. ft.
   g. Type of heating: Steam.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power distribution:
      1. Voltage: 110 - 220.
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Standpipe, hose & reel; hand extinguishers.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 6000 lbs./sq.ft.
   p. Roof deck construction: Precast cement tile.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Guarantee: 20 years.
   r. Roof insulation: None.
   s. Description of other process piping: None.
9. Notes of special features: None.

[redacted]

BUILDING NO. 10
GATE HOUSE

	Total Floor Area in Sq. Ft.	
	Basement	1st
1. Total productive area:	0	0
2. Total non-productive area:	0	275
3. Laboratory & testing area:	0	0
4. Office area:	0	275

5. Cafeteria seating capacity: None
6. Toilet capacity: None
7. Locker capacity: None
8. Design and construction details:
   a. Floor construction: Concrete slab.
   b. Floor finish (general area): Troweled Cement.
   c. Structural frames: Steel.
   d. Wall construction: Hollow tile.
   e. Clear height: 8' - 4".
   f. Design limits floor loads: 6000#/sq.ft. (Slab poured on grade.)
   g. Type of heating: Oil heater.
   h. Type of cooling: None.
   i. Type of air filteration: None.
   j. Power distribution:
      1. Voltage: 110 - 220.
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Hand extinguishers.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 6000 lbs./sq.ft.
   p. Roof deck construction: Precast cement tile.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Guarantee: 20 years.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None.
9. Notes of special features: None.

BUILDING NO. 11
GARAGE

		Total Floor Area in Sq. Ft.	
		Basement	1st
1.	Total productive area:	0	0
2.	Total non-productive area:	0	480
3.	Laboratory & testing area:	0	0
4.	Office area:	0	0

5. Cafeteria seating capacity: None
6. Toilet capacity: None
7. Locker capacity: None
8. Design and construction details:
   a. Floor construction: Concrete.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Steel.
   d. Wall construction: Hollow tile.
   e. Clear height: 12' - 0".
   f. Design limits floor loads: 6000#/sq.ft. (Slab poured on grade.)
   g. Type of heating: Steam.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power distribution:
      1. Voltage: 110 - 220.
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: None.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 6000 lbs./sq.ft.
   p. Roof deck construction: Precast cement tile.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Guarantee: 20 years.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None.
9. Notes of special features: None.

[redacted]

BUILDING 13
MACHINE SHOP & MAINTENANCE WAREHOUSE

		Total Floor Area in Sq. Ft.	
		Basement:	1st
1.	Total productive area:	0	0
2.	Total non-productive area:	0	18000
3.	Laboratory & testing area:	0	0
4.	Office area:	0	660

5. Cafeteria seating capacity: None
6. Toilet capacity:

	W.C.	Lav.	Urinals	Showers
a. Men:				
1. Colored:	0	0	0	0
2. White:	2	2	2	0
b. Women:	None			

7. Locker capacity: None
8. Design and construction details:
   a. Floor construction: Concrete slab on approved fill.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Wood posts & girders.
   d. Wall construction: Studding, 1" sheathing & corrugated transite.
   e. Clear height: 14' - 0".
   f. Design limits floor loads: Slab poured on grade.
   g. Type of heating: Steam Unit heaters.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power distribution:
      1. Voltage: 120, 208 & 440.
      2. Type: Knob and tube
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Sprinkler systems.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 1500 lbs./ sq.ft.
   p. Roof deck construction: 2" wood decking.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Guarantee: 15 years.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None.
9. Notes of special features: None.

[redacted]

BUILDING NO. 14
LABORATORY

		Total Floor Area in Sq. Ft.	
		Basement	1st
1.	Total productive area:	0	0
2.	Total non-productive area:	0	3282
3.	Laboratory & testing area:	0	3282
4.	Office area:	0	0

5. Cafeteria seating capacity: None
6. Toilet capacity: None
7. Locker capacity: None
8. Design and construction details:
   a. Floor construction: Concrete slab on approved fill.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Iron posts and rafters.
   d. Wall construction: Wood studding, 1" sheathing & corrug. trans.
   e. Clear height: 9' - 3".
   f. Design limits floor loads: 1500#/sq.ft. (Slab poured on grade.)
   g. Type of heating: Steam unit heaters.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power distribution:
      1. Voltage: 110 - 220.
      2. Type: Knob and tube.
   k. Type of lighting: Fluorescent.
   l. Type of fire protection: Hand extinguishers.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 1500 lbs./sq.ft.
   p. Roof deck construction: 1" wood decking.
   q. Roofing:
      1. Type: 4-ply tar and gravel.
      2. Guarantee: 15 years.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None.
9. Notes of special features: None.

BUILDING NO. 15 No
CC2 WAREHOUSE

		Total Floor Area in Sq. Ft.	
		Basement	1st
1.	Total productive area:	0	0
2.	Total non-productive area:	0	8971
3.	Laboratory & testing area:	0	0
4.	Office area:	0	0

5. Cafeteria seating capacity: None
6. Toilet capacity: None
7. Locker capacity: None
8. Design and construction details:
   a. Floor construction: Concrete slab on fill mesh reinforced.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Wood columns and trusses.
   d. Wall construction: Hollow tile.
   e. Clear height: 12' - 6".
   f. Design limits floor loads: 1500#/sq.ft. (Slab poured on grade.)
   g. Type of heating: None.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power distribution:
      1. Voltage: 110 - 220.
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Sprinkler.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 1500 lbs./sq.ft.
   p. Roof deck construction: Wood decking.
   q. Roofing:
      1. Type: 90 lb. slate covered roll roofing.
      2. Guarantee: None.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None.
9. Notes of special features: None.

BUILDING NO. 16
DAT WAREHOUSE

		Total Floor Area in Sq. Ft.	
		Basement	1st
1.	Total productive area:	0	0
2.	Total non-productive area:	0	7549
3.	Laboratory & testing	0	0
4.	Office area:	0	0

5. Cafeteria seating capacity: None
6. Toilet capacity: None
7. Locker capacity: None
8. Design and construction details:
   a. Floor construction: Concrete slab on fill mesh reinforced.
   b. Floor finish (general area): Troweled cement.
   c. Structural frame: Wood columns and trusses.
   d. Wall construction: Hollow tile.
   e. Clear height: 12' - 6".
   f. Designs limits floor loads: 1500#/sq. ft. (Slab poured on grade)
   g. Type of heating: None.
   h. Type of cooling: None.
   i. Type of air filtration: None.
   j. Power Distribution:
      1. Voltage: 110 - 220
      2. Type: Conduit.
   k. Type of lighting: Incandescent.
   l. Type of fire protection: Sprinkler.
   m. Type of soil: Sandy loam.
   n. Type of foundations: Spread footings.
   o. Design soil pressures: 1500 lbs./sq. ft.
   p. Roof deck construction: Wood decking.
   q. Roofing:
      1. Type: 90 lb. slate covered roll roofing.
      2. Guarantee: None.
   r. Roof insulation: None.
   s. Description of other process piping layouts: None
9. Notes of special features: None.

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1. CODES APPLICABLE TO CONSTRUCTION: (a) Rules & Regulations of the Industrial Commission of the State of Illinois. (b) Fire & Safety Codes of the Dep't of Public Safety of Illinois. (c) Rules & Regulations of the Dep't of Public Health of Illinois.

2. DOES CONSTRUCTION COMPLY WITH LOCAL AND STATE CODES: The construction at this plant complies with the above codes and with best engineering practices.

[redacted]

PART I, Section 11 — DATA ON UTILITIES

1. LAND AREAS:

Gov. Owned	? 15.711 - 15.738	
Leased	5.694	+ 1.41
Total	21.405	

2. PARKING LOT CAPACITY: 250 Cars

3. STORAGE AREAS:
   a. Covered:
      1. Unheated: 16,520 sq. ft.
   b. Uncovered:
      1. Unpaved: 46,000 sq. ft.
   c. Fuel Oil: 155,000 gallons (tank farm)
   d. Gas Storage: None.

4. NUMBER OF BUILDINGS: 13

5. ELECTRICAL POWER:
   a. Source: Union Electric Co. of Illinois
   b. Incoming Voltage: 13,800 volts
   c. Phase: 3
   d. Cycle: 60
   e. Installed Capacity: 4,400 KVA
   f. Installed Generating cap. None

6. WATER:
   a. Source:
      1. E. St. Louis and Interurban Water Company supplies water for human consumption and for manufacturing processes.
      2. 3-105' deep wells supply water for cooling process equipment.
   b. Average Usage:

1. City water	1,250,000 g.p.d.	Ave 868 G.PM
2. Well water	1,750,000 g.p.d.	1215 GPM
Total	3,000,000 g.p.d.	

   c. Chemical Characteristics:
      1. City water: Max Hardness 230 p/m, Av. Hardness 170 p/m, Min. Hardness 110 p/m, Alkalinity 80 to 180 p/m, Ca. 42 p/m, Mg. 15 p/m, SO_4 68 p/m, Cl. 14.5 p/m.
      2. Well water: Ca. 190 p/m, Mg. 6 p/m, Iron 120 p/m, Basicity (As Carbonate) 45 p/m, Sulfate 330 p/m, Cl. 50 p/m, Ammonia 5 p/m, Total Solids 1240 p/m.

7. GAS:
   a. Source: Illinois-Iowa Power Company
   b. B.T.U. Content: 970 BTU/cu.ft.
   c. Average Usage: 700 cu.ft. hour
   d. Type of Gas: Mixed

[redacted]

8. OTHER FACILITIES:

a. Compressed Air:	800 CFM @ 60 lb./sq.in.
b. D.C. capacity:	None
c. High Cycle:	None
d. Steam Capacity:	50,000 lb./hr. @ 190 lb. gauge
1. Type fuel:	Purchased from Monsanto Chem. Co.
2. Av. Daily Use:	450,000 lb.
e. Refrigeration:	400 tons
f. Other special features:	
Micronizer Compressor:	3400 cu.ft./min. @ 110 lb.

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PART II

SUPPLEMENTARY INFORMATION

and

COST OF PROJECT

Part II—Sec. 1

[redacted]

1. LOCATION AND CUSTODIANSHIP OF RECORDS.

   a. PROPERTY MAPS AND DESCRIPTIONS: Available in the Office Chief of Engineers, Real Estate Division, Washington, D. C., and in the Office of the Division Engineer, Real Estate Branch, Chicago, Illinois. Abstracts of title on the 15.738 acres of land purchased from the Monsanto Chemical Company are filed in the Judge Advocate's Office, Washington, D. C. Copy of Leases covering all of the areas acquired under lease are in the Office of the Division Engineer, Real Estate Branch, Chicago, Illinois.

   b. AUDIT OF COST: Available in the U. S. Engineer's Office, Chicago District, Chicago, Illinois.

   c. RECORD DRAWINGS: Available in the Office of Chief, Chemical Warfare Service, Washington, D. C.

   d. RECORD SETS OF SPECIFICATIONS: Available in the Office of Chief, Chemical Warfare Service, Washington, D. C.

   e. CONFORMED COPIES OF CONSTRUCTION CONTRACTS: Available in the U. S. Engineer Office, Chicago District, Chicago, Illinois.

   f. CONFORMED COPIES OF OPERATING CONTRACTS: Available in the Office of Chief, Chemical Warfare Service, Washington D. C.

   g. BUILDING PERMITS, OR OTHER PERMITS: None

2. DATE PROJECT AUTHORIZED: 21 October 1940

3. DATE CONSTRUCTION STARTED:

a.	Original CC2 Plant	1 Feb. 1941
b.	Warehouses	29 Apr. 1942
c.	Ventilating Equipment	9 May 1942
d.	CC2 Expansion	15 Dec. 1942
e.	Micronizor Unit	27 Feb. 1943

4. DATE CONSTRUCTION COMPLETED:

a.	Original CC2 Plant	15 Jan. 1942
b.	Warehouses	31 July 1942
c.	Ventilating Equipment	31 Aug. 1942
d.	CC2 Expansion	1 Oct. 1943
e.	Micronizer Unit	1 Oct. 1943

[redacted]

[redacted]

PART II, Section 1(cont'd) RECORDS, CAPACITIES AND SPECIAL FEATURES

5. DATE OPERATOR ACCEPTED PLANT:

a.	Original CC_2 Plant	16 Jan. 1942
b.	Warehouses	31 July 1942
c.	Ventilating Equipment	31 Aug. 1942
d.	CC_2 Expansion	9 Oct. 1943
e.	Micronizer Unit	9 Oct. 1943

6. DATE INITIAL OPERATION:

a.	Original CC_2 Plant	9 Mar. 1942
b.	CC_2 Expansion	8 Nov. 1943

7. DESIGN CAPACITY: 24 hrs. per day, 7 days per week, 3 shifts per day: ten (10) tons per day.

8. MAXIMUM ATTAINED CAPACITY: 24 hrs. per day, 7 days per week: ten (10) tons per day.

9. PRESENT OPERATING RATE: 24 hrs. per day, 7 days per week: 0.833 tons per day. (1 April 1944) [redacted]

10. UNUSUAL FEATURES None.

11. ANY SPECIAL CONTRACTURAL FEATURES:

a. Ownership of Land: & P. 39

1. 15.738 acres - War Department, U. S. Government.
2. 5.694 acres - Under Lease.
3. 3.60 acres - Title is held in the name of lessor, Illinois Central Railway Co.
4. 0.874 acres - Title is held in the name of the lessor, American Zinc Company.
5. 1.22 acres - Title is held in the name of the American Zinc Company.

Note: 3,4,&5 above are cancellable on 30 days notice by the government.

b. Easements:

Steam line Easement - Copy of Agreement between Monsanto Chemical Company, a Delaware Corporation and the United States of America. Copy on file in the Office of the Division Engineer, Great Lakes Division, Chicago, Illinois.

c. Purchase Options: None.

[redacted]

[redacted]

PART II, Section 1(cont'd) RECORDS, CAPACITIES AND SPECIAL FEATURES

11. ANY SPECIAL CONTRACTUAL FACTURES.(cont'd)

d. Others

1. Monsanto Chemical Company reserved the right to repurchase the 5.73 acres of land conveyed to the Government by warrany deed from the Monsanto Chemical Company to the United States of America, dated 15 March 1941, recorded as document No. 354454 in the Office of Recorder of Deeds, St. Clair County, Illinois. Such option is only exercisable if and when the Secretary of War determines the United States no longer needs the land for any purpose of the United States.

2. Monsanto Chemical Company reserved the right to repurchase the 2.91 acres of land conveyed by deed from the Monsanto Chemical Company to the United States of America, dated 15 January 1942. Such Option is only exercisable if and when the Secretary of War determines the United States no longer needs the land for any purpose of the United States.

3. Monsanto Chemical Company, in granting the Steam Line easement to the United States of America on 21 April 1942, limited the life of the Easement to the continuation of Contract No. W-266-CWS-119.

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15.738
8.64
7.098

5.73
2.91
8.64

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1. DISCUSSION OF PLANT LAYOUT AS TO SALE AS WHOLE OR IN UNITS: Consideration of the plant layout and the type of construction of the buildings indicate that separation into four areas is possible (see sketch, page 45(a)). Each of these four areas are served by a rail spur, each includes from one to five buildings, accessible by road, and each has an open space or spaces suitable for adaptation to storage or parking uses. None of the major buildings are of such size or plan to accommodate heavy manufacturing but seem adaptable to light manufacturing processes.

   a. ARRANGEMENTS FOR UTILITIES IF PLANT DISPOSED OF IN UNITS:

      1. STEAM: At present supplied from main plant of Monsanto Chemical Company adjacent. A metering system would have to be devised.

      2. WATER: Mains might have to be replaced, depending upon loads required by each unit or area. Well water should be treated if used for human consumption.

      3. ELECTRIC: A metering system and possibly some replacement of feeders would be required.

      4. GAS: Gas service is not provided to Building No. 1 section but could be picked up on Falling Springs Road which adjoins this section.

      5. SEWERS: No adjustments of a major nature would be required.

      6. RAILROADS: The Building No. 1 section would utilize a rail spur jointly with Building No. 3 section. Agreements would be necessary to handle this joint usage.

   b. TRANSPORTATION AND PARKING: No changes of a major nature would be required.

   c. SKETCH SHOWING POSSIBLE BREAKDOWN: A sketch indicating the separations suggested in paragraph 1 appears as page 45(a).

2. USE OF PLANT BY PRESENT OPERATOR:

   a. Because of the nearness to the Monsanto Chemical Company Plant, located at Monsanto, Illinois and because several of the Utilities of the Chemical Warfare Service Plant are connected with the Monsanto Plant, it is probable that Monsanto could use the Chemical Warfare Service

[redacted]

2. USE OF PLANT BY PRESENT OPERATOR: (cont'd)

Plant in the future. It is believed that Monsanto Chemical Company could make better use of the entire plant than any other potential purchaser.

3. POTENTIAL USES OF PLANT: The Chemical Warfare Service Plant probably has potential use for the manufacture of organic chemicals or intermediates. Other considerations are light manufacturing or as storage.

4. PRECAUTIONS SHOULD PLANT LIE IDLE:

a. STRUCTURES:

1. HEATING SYSTEM: The heating systems must be maintained operating in the manufacturing buildings. Because of the many plastic materials used throughout the plant a cold shutdown is not advisable as some of these materials will break up when the temperature falls below 50. For the balance of the buildings the heating systems should be kept in operating condition but should be shut off and drained.

2. PLUMBING SYSTEM: Plumbing system must be maintained for operation.

3. POWER PLANT: Power is purchased. Disconnection can be accomplished.

4. ELECTRIC EQUIPMENT: Electric Equipment in the manufacturing buildings should be carefully cleaned, lacquered and covered with water proofing to protect the internal parts from corrosion. The larger Synchronous motors should be carefully cleaned and covered to protect them against moisture and fumes.

5. WATER SYSTEM: Water Systems should be protected against freezing. City water service should be shut off. Deepwell pumps should be maintained in operable condition to supply fire protection. Arrangements should be made with the Monsanto Chemical Company to maintain the pressure on the cross-section between the Chemical Warefare Service Plant and Plant "B" for use in case of fire.

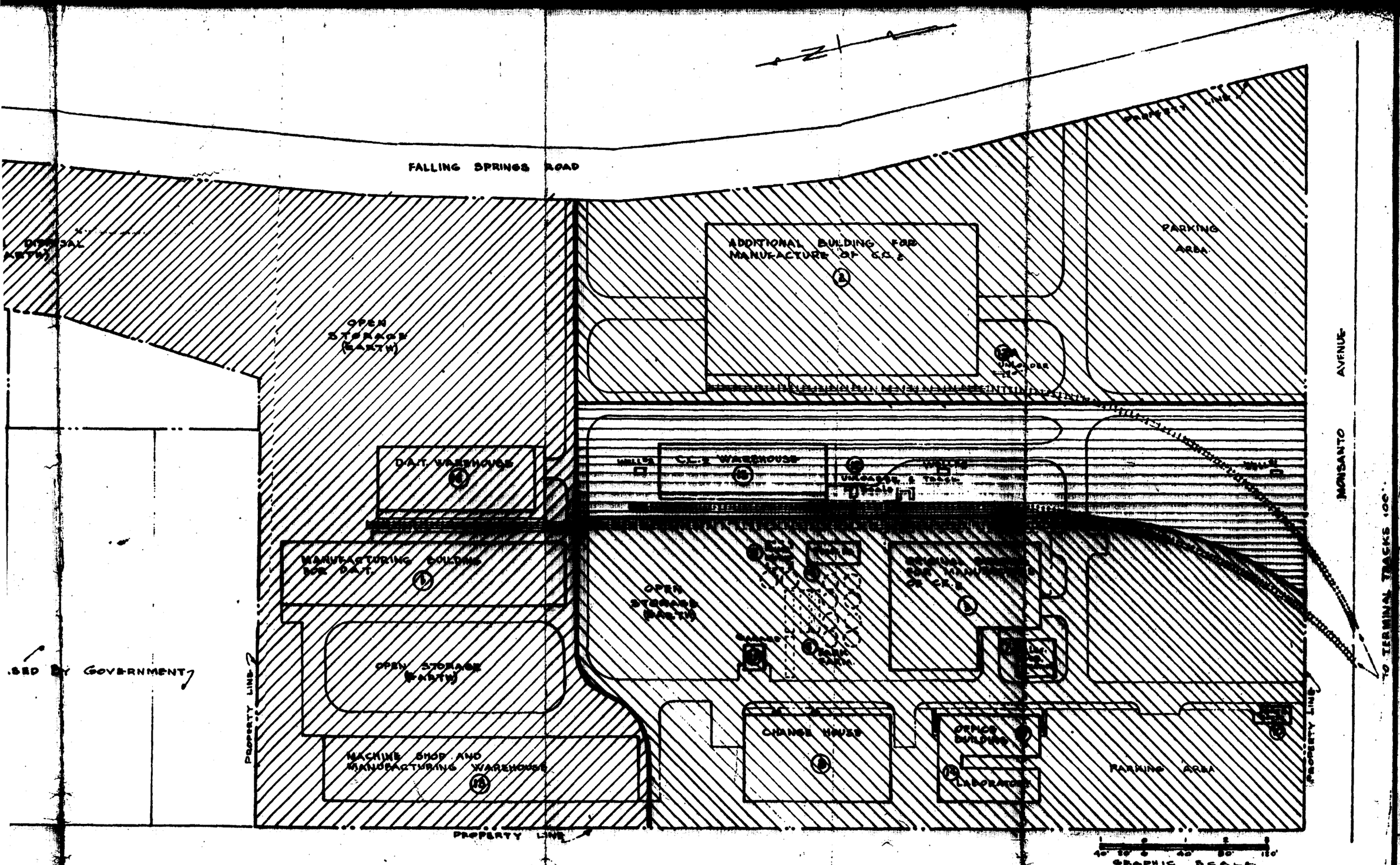
6. GAS: Gas System is furnished by the Gas Company and should be shut off and system blown clear.

7. COMPRESSED AIR SYSTEM: This should be thoroughly cleaned and lubricated and placed in a stand-by condition. One unit should be left operating to supply air to the air actuated valves for operating the heating system and fire protection system.

8. GENERAL: All the equipment and material should be painted thoroughly to resist corrosion. The atmosphere in the vicinity of the plant is highly corrosive. A guard and skeleton maintanence crew should be provided.

b. PROCESS PIPING: This system should be carefully washed and dried. All bolts and flanges carefully lubricated to protect them from corrosion.

c. PROCESS MACHINERY AND EQUIPMENT: All machinery and equipment should be carefully washed and dried. The tanks and reaction vessels should be thoroughly dried, all parts [redacted] lubricated and exposed metal surfaces painted.



SKETCH SHOWING POSSIBLE BREAKDOWN PART II SEC. 2

Part II Sec 3

Note - this information [illegible] on 18 Oct.
Mr Williams, CC-2 Bldg 5, [illegible]

Supp 5-330

Date	Bldg	Mach	Bldg	Mach
Fac. Inv.	2,350,576.00	2,575,419.86	414 853	335,399
31 Dec 44	0		—	—
28 June 44	0	0	—	—
30 Sept 44	0	4877	—	—
31 Dec 44	0	Mach - 3467 ✓ Lab - 3446 ✓	0	Mach 1590 ✓ Lab. 1425 ✓
31 Mar 45	0	M 486 ✓ L 708 ✓	0	M 347 ✓ L 283 ✓
30 June 45	0	M 351 ✓ L 744 ✓	0	M 42 ✓ L 60 ✓
30 Sept	0	0	0	0
Total	2,350,576.00	2,575 420 M+L 2 877 M 4304 L 4898 14,079	414,853	335 399 M 1979 L 1768
	2,350 576	2,589,499	414 853	339 146
Total	$ 4,940,075		$ 753 999	$ 3947
Grand Total		$ 5,694 074.00		

Mail 12 copies

Div. Eng. Room 1053

Chicago 6, Ill. Paul S. Williams.

Schedule I LAND AND LAND IMPROVEMENTS

(a)	Land (see pp. 39 + 41. $69.04 per annum for 4.47 acres on lease	$ 16,763.00
(b)	Land Improvements	$ 21,669.00
	Total I	$ 38,432.00 LDM.

Schedule II BUILDINGS, ETC.

(a)	Buildings	$976,120.00
(b)	Building Installations (not mech)	$228,100.00
(c)	Leasehold Improvements	$437,016.00
(c-1)	Off-Leasehold Improvements	$ None
(d)	Service Costs	$709,340.00
	Total II	$2,350,576.00

$ 1,204,220 LDM.

Schedule III MACHINERY, EQUIPMENT ETC.

(a)	Machinery & Equipment (including installations)	
	1. Machine Tools	$ 19,679.58 P.57
	2. Production Equipment	$1,881,678.00 Pp. 61a & 64a
(b)	Building Installations (mech)	$ 628,794.00
(c)	Laboratory and Testing Equip. Sec 2	$ 9,148.94 P.66
(d)	Furniture and Fixtures Secs 3 + 4.	$ 36,119.34 Pp. 67 + 68
	Total III	$2,575,419.86

Schedule IV PORTABLE TOOLS AND AUTOMOTIVE EQUIPMENT

(a)	Portable Tools	$ 19,790.00
(b)	Automotive Equipment	$ 16,484.00 P.69
	Total IV	$ 36,274.00

Schedule V DURABLE TOOLS

(a)	Special Jigs & Fixtures	$ None
(b)	Special Functional Gages	$ None
(c)	Special Dies, Patterns, etc.	$ None
	Total V	$ None
	GRAND TOTAL	~~$4,990,701.86~~ 5,000,701 LDM.

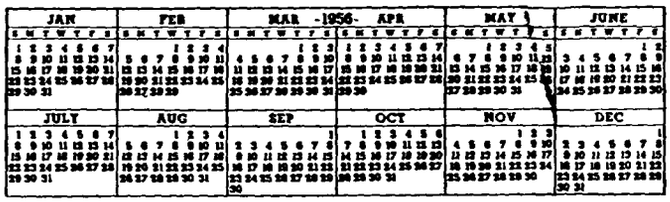
[redacted]

Leasehold Improvements
Include:
Electrical Dist.
City Water Lines
Well " "
Sanitary Sewers
Steam Supply
Railroads
Fencing.

From Supplement Part II Sect.
L.S.M.

Summary

Land	$16,763
" Improvements (Grading, Roads etc	53.593
Bldgs (wi. Fire Prot., H&V., Plumb., Light., Etc.	$1,534.065
Leasehold Imp. (Utilities)	484.311
Production Equipm.	$2,212,077 {Mach. $1,295,957 / Lab. $585 771}
Bldg. Installations (Mechanical)	633,794
Machine Tools	19,680
Portable Tools	19,790
Automotive	16,484 ($5915 of this To Gr. City)
Laboratory & Test Equip.	9,149
Furniture & Fixtures	36,119
Total	$5,035,825
Service Costs	747,053
GRAND TOTAL WHOLE PLANT (ORIG & SUPPL. REPORTS)	$5,782,878
LATER EQUIPM. ADDITIONS (From NOTES ENG Corps FAC. INV.)	17 826
	$5,800,704



LAST MONTH

1956 July 1956

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1956 AUGUST 1956

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NEXT MONTH

1956 September 1956

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24	25	26	27	28	29

THURSDAY 2 AUGUST

ENGAGEMENTS	MEMORANDA
8:00	
8:30	
9:00	
9:30	
10:00	
10:30	
11:00	
11:30	
12:00	
12:30	
1:00	
1:30	
2:00	
2:30	
3:00	
3:30	
4:00	
4:30	
5:00	
5:30	

SOME EQUIP

SOLD ON SURPLUS LISTS
& TRANSFERRED TO OTHER
AGENCIES.

JAN	FEB	MAR	APR	MAY	JUNE
JULY	AUG	SEP	OCT	NOV	DEC

-1956-

LAST MONTH

1956 July 1956						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1956 AUGUST 1956						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NEXT MONTH

1956 September 1956						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 30	24	25	26	27	28	29

TUESDAY 7 AUGUST

ENGAGEMENTS	MEMORANDA
8:00	
8:30	
9:00	
9:30	
10:00	
10:30	
11:00	
11:30	
12:00	
12:30	
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4:00	
4:30	
5:00	
5:30	

Supp. 47 296
orig. 437 016
484 311

	.00	*
Plumb.	57,263.00	
Fire P.	26,738.00	
N+V.	30,232.00	
Elec	91,969.00	
Air P.	10,740.00	
MechTr.	216,942.00	S
ArchTr.	987,278.00	
	1,204,220.00	*

DETAIL BUILDING COSTS

	Building No.	Plumbing	Fire Protection	Heating & Ventilating	Electrical	Architectural Trades	Compressed Air Piping	Total
261	No. 2 NB	$ 15,390	$ 9,459	$ 7,964	$ 33,318	$ 341,557	$ 6,445	$ 414,133
260	No. 3 NA	$ 14,697	$ 9,033	$ 7,606	$ 31,818	$ 332,918	$ 2,145	$ 398,217
Pump H	No. 4 ND	$ 1,353	$ 565	$ 456	$ 3,346	$ 37,739	$ 1,650	$ 45,109
[illegible] H	No. 5 NE	None	None	None	$ 718	$ 17,227	None	$ 17,945
[illegible] St	No. 7 NF	None	None	None	$ 6,983	$ 36,018	None	$ 43,001
[illegible] H.	No. 8 (NG + NN) (J 14)	$ 15,226	$ 860	$ 3,023	$ 5,674	$ 65,786	None	$ 90,569
[illegible]	No. 9 NH	$ 8,992	$ 1,546	$ 7,638	$ 5,327	$ 71,778	None	$ 95,281
[illegible] H.	No. 10 NI	None	None	$ 52	$ 273	$ 2,870	None	$ 3,195
[illegible]	No. 11 NJ	None	None	$ 238	$ 224	$ 3589	None	$ 4,051
[illegible] St.	No. 13 NL	None	$ 2,338	$ 1,834	$ 1,665	$ 20,502	None	$ 26,339
[illegible]	No. 14 NM	$ 1,605	None	$ 1,421	$ 1,211	$ 11,878	$ 500	$ 16,615
Warehouse	No. 15 NO	None	$ 1,274	None	$ 447	$ 22,708	None	$ 24,429
"	No. 16 NP	None	$ 1,663	None	$ 965	22,708	None	$ 25,336
	Totals	$ 57,263 +	$ 26,738 +	$ 30,232 +	$ 91,969 +	$ 987,278 +	$ 10,740 =	$ 1,204,220
								329845 Supplement
								1,534,065

PART III

TABULATION OF EQUIPMENT

INDEX TO SECTION

Description	Page No.
Original CC2 Building - 1st Floor	49
" " " - 2nd "	50
" " " - 3rd "	51
" " " - 4th "	52
" " " - Tank Farm	53
Additional CC2 Building No. 2	54

NOTE: The following equipment code itemizes the equipment in Building No. 2, additional CC2 plant, in order that the production processes may be logically followed. This equipment is also itemized in Part III, Section 2, page 62 to 64(a) where the make, type, serial no, etc., is also given. In addition the code numbers shown below, left hand column, may be used to identify each item in Part III, Section 2 and on the Equipment Layout Drawing, Page 54.

C
W
5

EQUIPMENT CODE

No.	Description
1	Pfaudler 2000 Gallon Reactors Step I
2	Pfaudler 2000 Gallon Reactors Step II
3	Pfaudler 2000 Gallon Reactors Step III
4	Pfaudler Stills Recovery System
5	Pfaudler 150 sq.ft. Condensers Step II
6	Pfaudler 1000 Gallon Blow Cases
7	Pfaudler P-1 Measuring Tanks Step II
8	Struthers Wells Karbate Condensers
9	John Nooter Boiler Works Lead-Lined Distillate Tanks Step I and Step II
10	Haveg Corporation Distillate Tanks Step III
11	John Nooter Boiler Works Lead-Lined Feed Tanks Step I
12	Haveg Corporation Feed Tanks Step III
13	Haveg Corporation Treatment Tanks Step I and III
14	Leader Iron Works R-1 Measuring Tanks Step I
15	John Nooter Boiler Works S-1 Measuring Tank Step I
16	Leader Iron Works R-10 Measuring Tanks Step II
17	John Nooter Boiler Works Lead-Lined Distillate Tanks for Stills
18	Oliver Filter Co. Dorrco Filter Step I and III
19	Oliver Filter Co. Repulpers Step I, II and III
20	Oliver Filter Co. Oliver Filter Step II
21	Oliver Filter Co. Oliver Filter Step II
22	Oliver Filter Co. Vacuum Receivers Step I, II and III
23	Oliver Filter Co. Vacuum Receivers Step I
24	Oliver Filter Co. Oliver Filter Step II
25	Oliver Filter Co. Oliver Filter Step II
26	Bird Centrifugal Co. Centrifugal Step I and III
27	John Nooter Boiler Works Melt Tank Step I

[redacted]

EQUIPMENT CODE

No.	Description
28	Haveg Corporation Repulping Tank Step I, II and III
29	Haveg Corporation Filtrate Storage Tanks Step I, II & III (3 for slurry agitator)
30	Haveg Corporation Make-up Tanks Step III
31	Dracco Corporation Filters Step II
32	Dracco Corporation Filters Step III
33	Raymond Corporation Kiln Mill Flash Dryer Step II
34	Raymond Corporation Kiln Mill Flash Dryer Step III
35	Raymond Corporation Cyclone Flash Dryer Step II
36	Raymond Corporation Cyclone Flash Dryer Step III
37	Ingersoll-Rand Air Compressors Step I, II and III
38	R-8 Make-up Tank Step II
39	Toledo Scale Company Platform Scale
40	Vilter Manufacturing Co. Ammonia Compressors Step I
41	Vilter Manufacturing Co. (Weiman Pump) Water Pumps Step I
42	Vilter Manufacturing Co. (Weiman Pump) Brine Pumps Step I
43	Vilter Manufacturing Co. Condensate Water Sump Tank Step I
44	Vilter Manufacturing Co. Ammonia Receivers Step I
45	Vilter Manufacturing Co. Brine Cooling Tanks Step I
46	Vilter Manufacturing Co. Evaporator Condensers Step I
47	"(Gen. Elec. Co.) " " Motor Generator Sets Step I
48	" " " " " " Starter Panels Step I
49	International Pulverizing Corp. Motor Generator Set Step III
50	International Pulverizing Corp. Air Compressor Step III
51	International Pulverizing Corp. After Cooler Step III
52	International Pulverizing Corp. Air Receiver Step III
53	Buffalo Forge Co. Conoidal Fans Step I and III
54	John Nooter Boiler Works Co. Filtrate Catch Tanks Step I and III
55	Duriron Co. Make-up Tanks Distillate Pumps Step I, II and III
56	Duriron Co. Filter Distillate Pumps Step I, II and III
57	Duriron Co. Evaporator Feed Pumps Step I, II and III
58	Duriron Co. Treatment Tank Pumps Step I, II and III
59	Duriron Co. Reactor Pump Step I and III
60	Duriron Co. Reactor Pump Step II
61	Duriron Co. Evaporator Distillate Pumps Step I, II and III
62	Lewis Pump Co. Make-up Tanks Pump Step II
63	Duriron Co. Filtrate Catch Tank Pump Step I and III
64	Duriron Co. Repulping Tank Pumps Step I and III
65	Duriron Co. Repulping Tank Pumps Step II
66	Duriron Co. Filtrate Receiver Pumps Step II

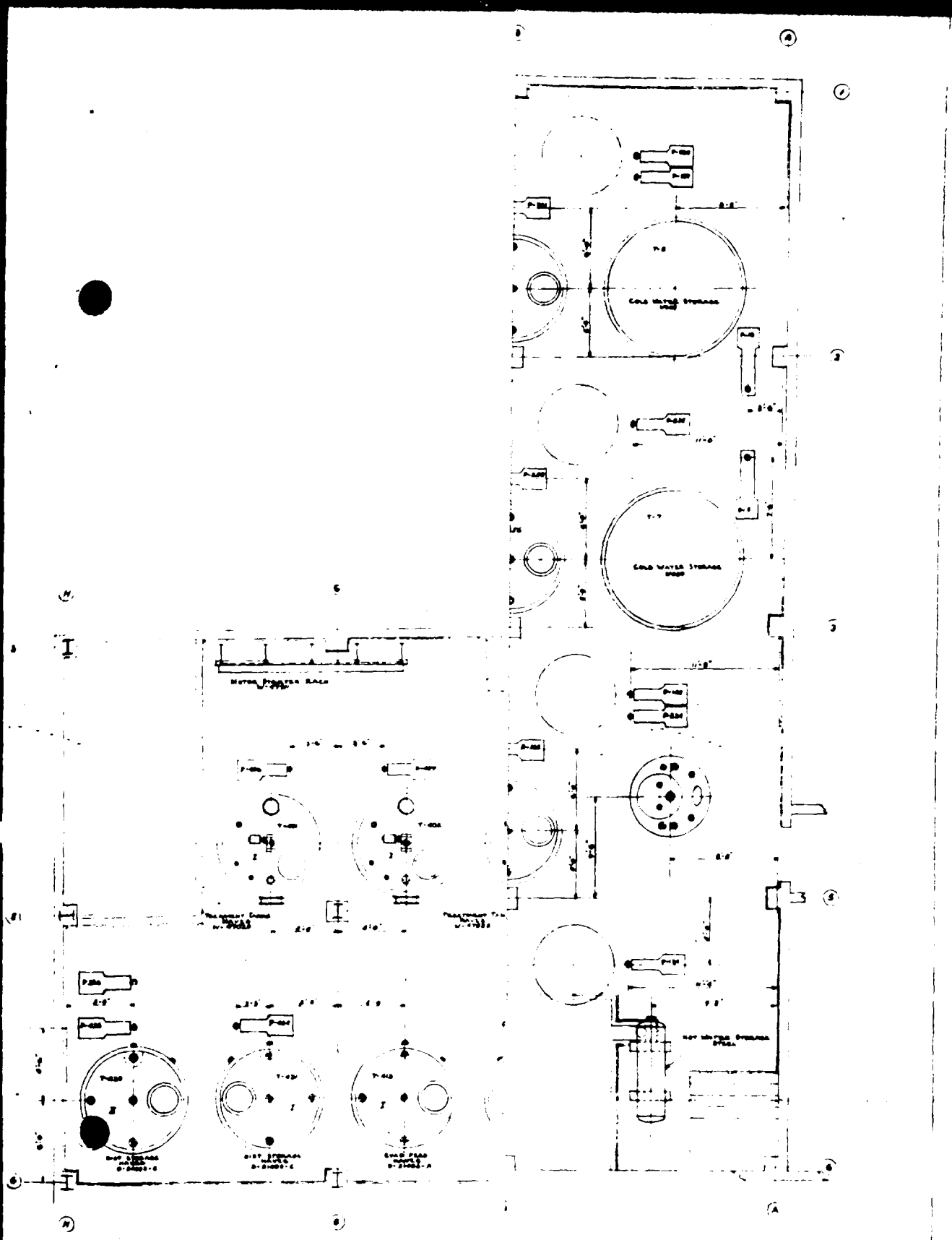
[redacted]

EQUIPMENT CODE

No.	Description
67	Stephens-Adamson Co. Redler Bin Feed Step II and III
68	Lewis Pump Co. Make-up Tank Pump Step III
69	Ingersoll Rand Co. Air Receiver Step I, II and III
70	Ingersoll Rand Co. After Cooler Step I, II and III
71	Duriron Co. P-1 and P-3 Filter Feed Pumps Step I and III
72	Duriron Co. P-2 Filter Feed Pumps Step II
73	Duriron Co. Filtrate Tank Pumps Step I, II and III
74	Neutralizing Sumps Step I, II and III
75	John Nooter Boiler Works Absorbers Step I, II and III
76	Blaw Knox R-5 Storage Tank Step I and III
77	J. A. Coy Co. Vaporizer for R-5 Step I and III
78	John Nooter Boiler Works Brine Tank Step I and III
79	Farrar Pump and Machine Co. Pump for R-5 Vaporization System Step I & III
80	Clarridge Fan Exit Flue Micronizer Filters
81	Dracco Corporation Filters Step III for Micronizer System
82	Lamson Gravity Roll Package Conveyor
83	Storage Bin for Micronized P-3
84	Toledo Scale Step III
85	International Pulverizing Corp. Micronizers
86	Jeffrey Mfg. Co. Barrel Packer
87	International Pulverizing Corp. Micronizer Feed Screws
88	Storage Bin for P-3 before P-3 is Micronized
89	Condenser for Step II for Reactor Vapors
90	John Nooter Boiler Works R-1 Catch Tank Step I
91	John Nooter Boiler Works R-10 Catch Tank Step II
92	Lewis Pump Co. R-1 Catch Tank Pump Step I
93	Lewis Pump Co. R-10 Catch Tank Pump Step II
94	Dracco Corporation Pneumatic Receiver Station for P-3 from Dept. 260
95	Conveyor from Receiver Station to Storage Bin No. 88
96	Roots-Connersville Vacuum Pump
97	Filter Wash Effluent Box
98	Electric Hydraulic Elevator for S-1A Drums
99	R-10 Measuring Tank Step II
100	R-10 Measuring Tank Step III
101	P-1 Still
102	P-1 Distillate Receiver
103	P-1 Distillate Receiver Pump
104	Wood Drowning Tank
105	Electric Hydraulic Elevator for P-1 Residue
106	P-1 Residue Buggies on Wheels
107	P-1 Catch Box
108	S-1 Storage Tank

EQUIPMENT CODE

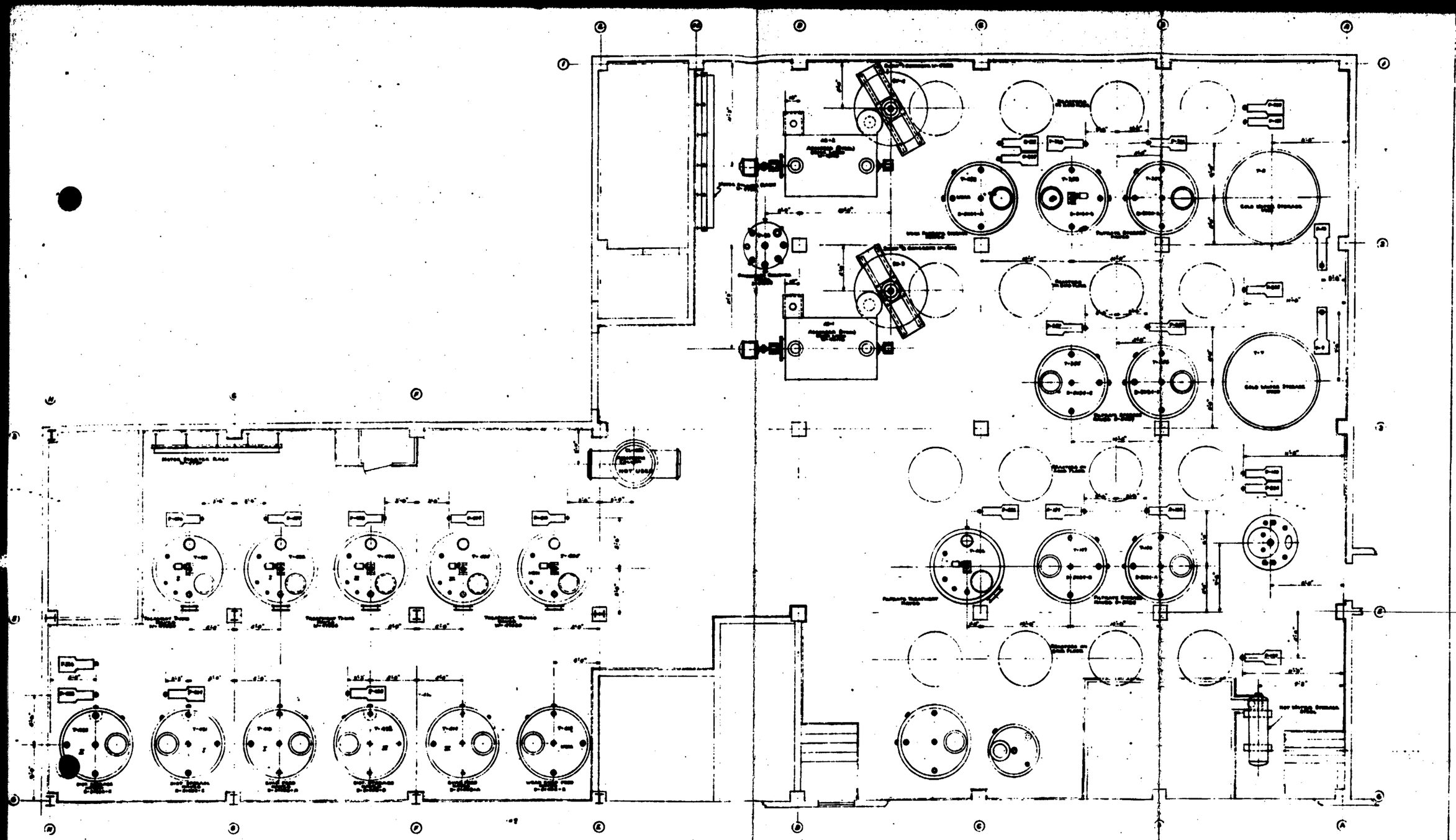
No.	Description
109	R-3 Measuring Tank
110	R-3 Storage Tank Pump
111	R-3 Storage Tank
112	R-3 Car Unloading Platform
113	Drowning Tank Submerged Pump



ST LOUIS PLANT CWS UNIT NO1 ALTERATION
MONSANTO, ILL

1ST FLOOR ARRANGEMENT
DEPT 260
DEPT 260
MONSANTO CHEMICAL CO
ST LOUIS, MO

5



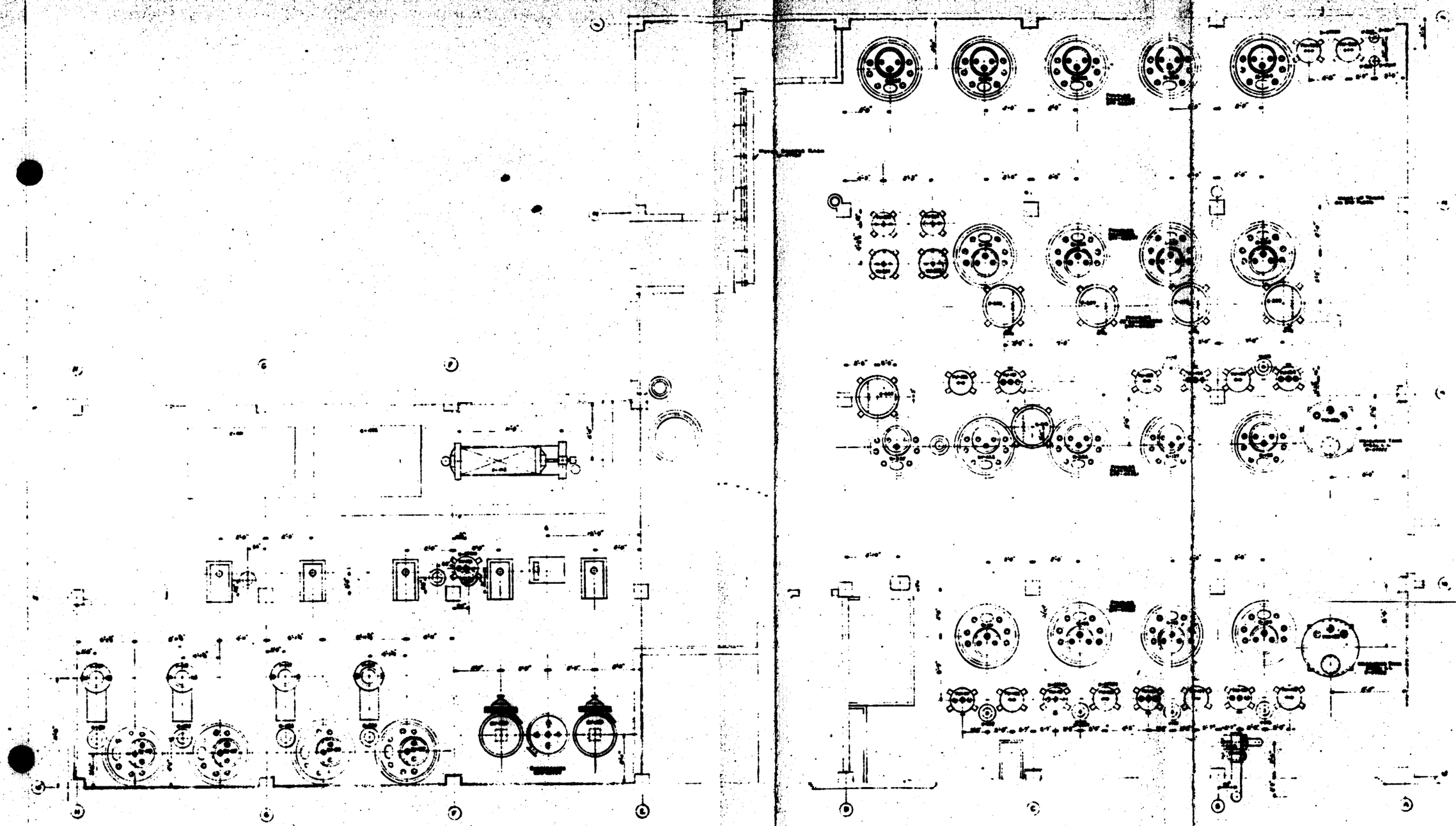
ORIGINAL BLDG. FOR MANUFACTURE OF CC2
EQUIPMENT LAYOUT DRAWING
PART III SECTION 1
BUILDING NO. 3 1st FLOOR
PAGE NO. 49

Sheet 1 of 6

ST LOUIS PLANT CWS UNIT NO1 ALTERATION
MONSANTO, MO.

1ST FLOOR ARRANGEMENT
DEPT 260
DEPT 260
MONSANTO CHEMICAL CO.
ST LOUIS, MO.

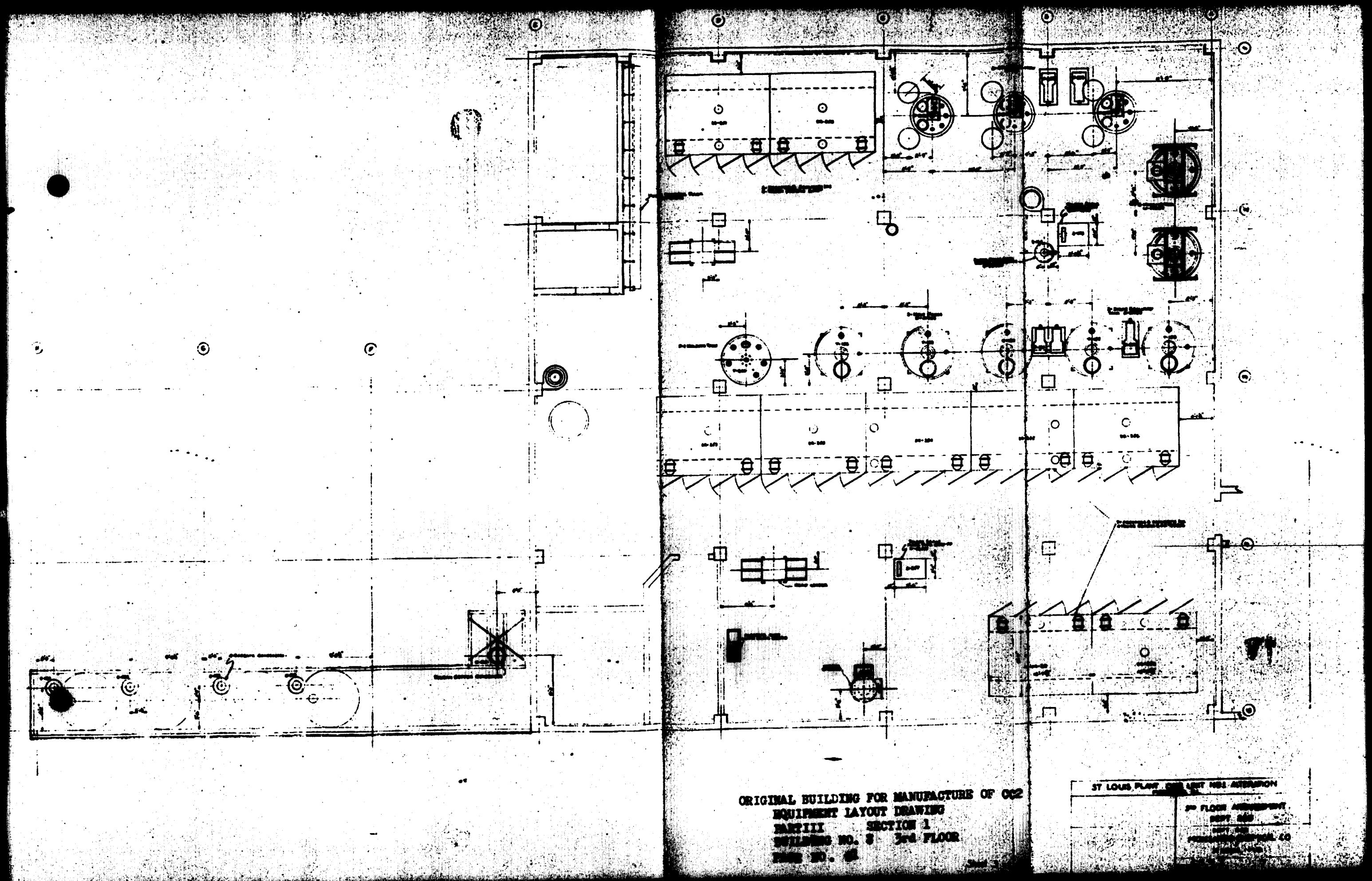
5

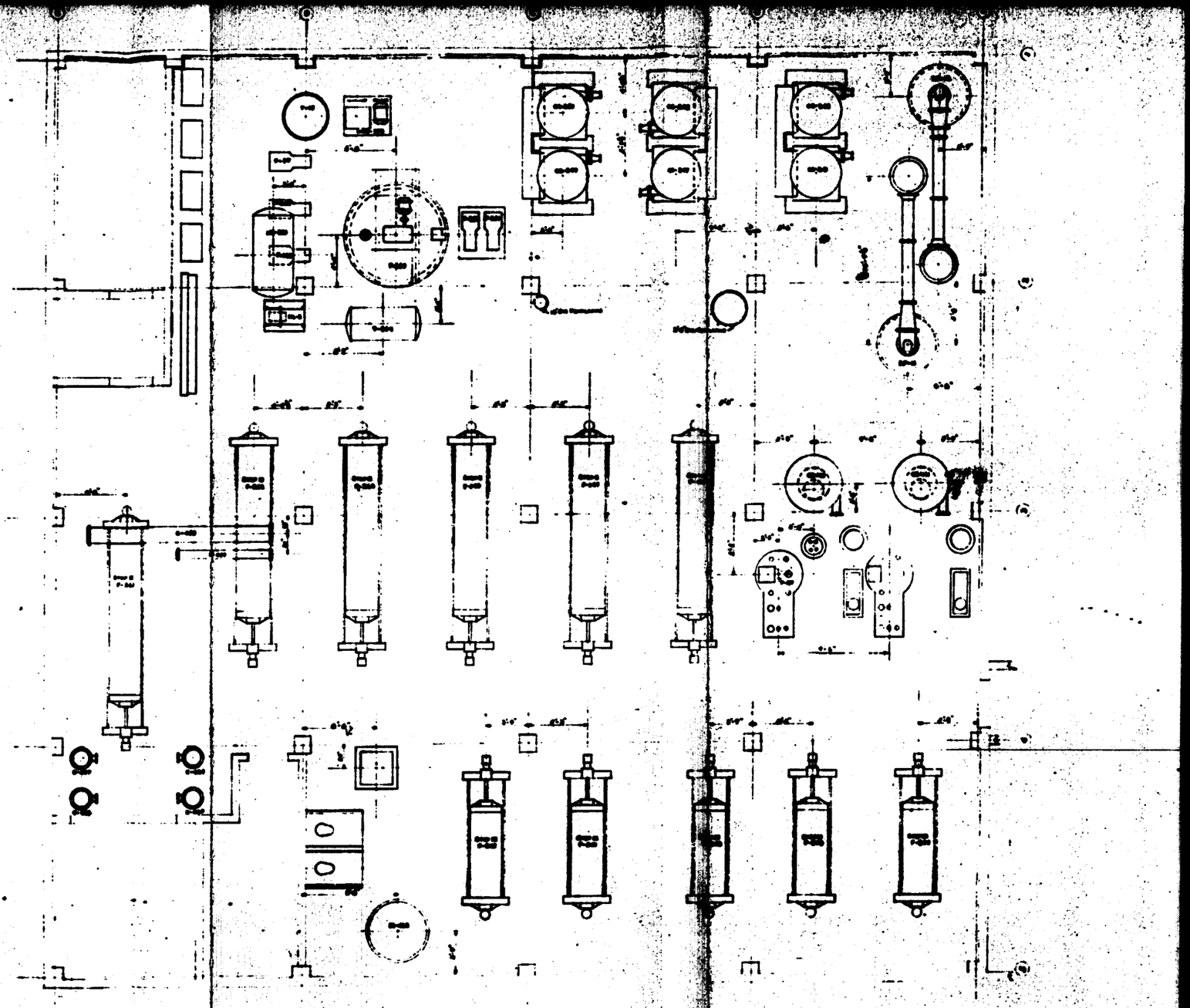


ORIGINAL BLDG. FOR MANUFACTURE OF CC2
EQUIPMENT LAYOUT DRAWING
PART III SECTION 1
BUILDING NO. 3 2nd FLOOR
PAGE NO. 80

ST LOUIS PLANT CWS UNIT NO1 ALTERATION
MONSANTO, ILL

2ND FLOOR ARRANGEMENT
DEPT 260
DEPT 260
MONSANTO CHEMICAL CO
ST LOUIS, MO.
6

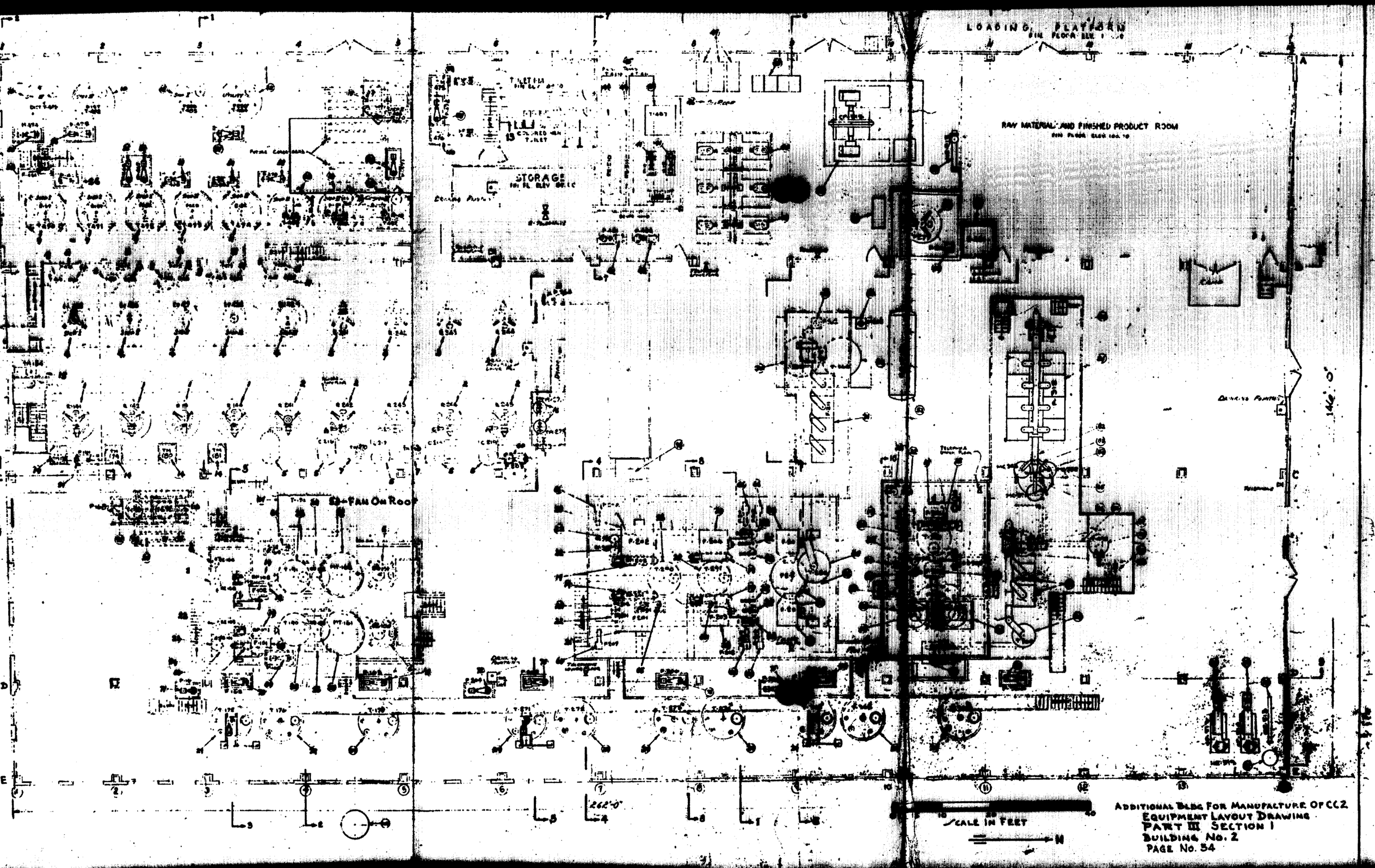

ORIGINAL BUILDING FOR MANUFACTURE OF CO2
EQUIPMENT LAYOUT DRAWING
SECTION 1
3rd FLOOR
ST LOUIS PLANT



ORIGINAL BUILDING FOR MANUFACTURE OF CO_2
EQUIPMENT LAYOUT DRAWING
PART III SECTION 1
BUILDING NO. 3 4th FLOOR
PAGE NO. 28 Sheet 4 of 6

ST LOUIS PLANT CWS UNIT NO 1 ACCURION

4TH FLOOR ARRANGEMENT
DEPT 260
DEPT 260
MONSANTO CHEMICAL CO
ST LOUIS, MO



ADDITIONAL BLDG FOR MANUFACTURE OF CC2
EQUIPMENT LAYOUT DRAWING
PART III SECTION I
BUILDING No. 2
PAGE No. 54

INDEX TO SECTION

Description	Page No.
Machine Tools	56
Production Equipment	
a. Building No. 3	58
b. Building No. 2	62
Laboratory and Testing Equipment	65

ITEM	SERIAL NUMBER	NO.	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	INSTALLED COST
MACHINE TOOLS								
Drill, Air	#B111657	1	Thor	2"	Upright	1941	135.00	135.00
" , Electric	#24078	1	Buffalo	#21	Back geared	"	445.00	445.00
Grinder, Electric	259408	1	Van Dorn	10"	Bench	"	125.00	125.00
" "	1377-44	1	Balder	12"	Pedestal	"	175.00	175.00
" "	119-43	1	Baldor	10½"	"	"	110.50	110.50
" "	479730	1	Thor	6"	Portable	"	100.00	100.00
"	8793	1	Sioux	6"	Bench	"	110.00	110.00
Joiner, 3 high speed steel knives	13-3456	1	Delta	6"	high speed	"	138.65	138.65
Lathe	18879	1	Reed Prentiss	14"x5'	Swing	"	1,185.00	1,185.00
"	2483-44	1	Delta	11"	Wood	"	1,365.00	1,365.00
"	136515	1	South Bend	14½" x 5"	Precision	"	1,222.50	1,222.50
"	1490	1	Lehman	16"x 18½"x 17'	Engine	"	4,165.00	4,165.00
" for Haveg Pipe	139-43	1	Midwest	16"	"	"	100.00	100.00
" Pipe	137-43	1	Landis	4"	threading & cutting	"	3,010.00	3,010.00
Machine, Hack Saw	D-3-B	1	Racine	6"x6"	Dry cut	"	331.00	331.00
" , Pipe	#245937	1	Toledo	½"-2"	Standard	"	310.50	310.50
" , " bending	#416	1	Chicago	16ga.	Hand oper.		495.00	495.00
" , " threading	FO-16	1	Oster	1/8" 2"	#502	"	326.06	326.06

ITEM	SERIAL NUMBER	NO.	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	INSTALLED COST
MACHINE TOOLS (cont'd)								
Machine, Wood-Working	9444	1	DeWalt	1.H.P.	Model G. V.	1941	275.00	275.00
Saw, Masonary	4400	1	Clipper	14"	E-41	"	170.00	170.00
"	3630	1	Wells	12"	Metal Band #8	"	175.00	175.00
" Electric	2655-44	1	Jones Superior Mach. Co.	20"	Circular	"	204.50	204.50
" "	4244	1	Clipper	14"	Tile & Masonary	"	268.00	268.00
Welder, Electric	106520	1	Lincoln	300 Amp.	Shield-Arc	"	395.00	395.00
" "	A-64423	1	" stationary	150 Amp.	Shield-Arc.	"	180.00	180.00
" "	A-22055	1	" portable	300 Amp.	SA	"	303.00	303.00
" "	A-601-53	1	" "	300 Amp.	Shield Arc	"	450.00	450.00
Shaper	8318	1	Columbia	20"	Back-Geared	"	1,400.00	1,400.00
Shear	5351-44	1	Excelsior Tool Machine	6"	Hand-operated lever	"	108.50	108.50
Miscellaneous Items costing less than $100.00 per unit							1,448.71	1,901.37
Total Machine Tools							19,226.92	19,679.58

1946 Inventory Sections IV & VII

ITEM	SERIAL NUMBER	NO. OF UNITS	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	INSTALLED COST
Bldg. #3, Orig. CC2 Bldg. 1st Floor								
Filtrate Stge. Tank & Cover	T-157-158	2	Haveg	7'x7'	Haveg	1941	3,233.00	4,709.00
Treatment Tanks	T- 01-405	5	"	7'-11 3/4x7'	"	"	15,564.00	22,667.00
" " Pumps	P-406-410	5	Duriron	2"x1½"	Durichlor	"	1,971.00	2,871.00
Distillate Storage Tank	T-430-32	3	Haveg	7'-3/8" x 7'	Haveg	"	4,942.00	7,198.00
Distillate Pumps	P-433-35	3	Duriron	3"x2"	Durichlor	"	1,487.00	2,166.00
Exaporator Feed Tank	T-413-15	3	Havey	7'-3/8" x 7'high	Haveg	"	4,716.00	6,868.00
Axeotropic Column	C1-456	1	Vulcan		Haveg	"	42,783.00	62,309.00
Treatment Tank	T-406	1	Havey	7'x7"-11-3/4	"	"	2,883.00	4,199.00
Weak Solvent Pump	P-453	1	Duriron	2"x1½"	Durichlor	"	395.00	575.00
Filtrate Pump	P-159-60	2	"	2"x1½	"	"	788.00	1,148.00
Reactor Pump	P-139-40	2	"	3"x2"	"	"	991.00	1,443.00
Absorber (Steel)	AB-1-2	2	Nooter	9'-10" x 16'-8 3/4"	Steel	"	7,521.00	10,954.00
Neutralizing Sump (Absorber)	SU-3-4	2	Field	8'x15'-3½"	Concrete	"	955.00	1,391.00
Condensate Receiver Tank	T-33	1	Leader	5'x5'	Steel	"	249.00	363.00
Refrig. Water Storage Tank	T-7-8	2	Houser	10'x10'	Wood	"	1,420.00	2,068.00
Refrig. Water Pump	P-9-10	2	Duriron	4"x2"	Cast Iron	"	1,278.00	1,861.00
Filtrate Storage Tank & Cover	T-255-56	2	Haveg	7'x7'	Haveg	"	3,313.00	4,825.00
Filtrate Pump	P-257-58	2	Duriron	2"x1½"	Durichlor	"	788.00	1,148.00

CONFIDENTIAL

ITEM	SERIAL NUMBER	NO. OF UNITS	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	INSTALLED COST
Reactor Pump	P-235	1	Duriron	3"x2"	Durichlor	1941	496.00	722.00
" "	P-335	1	"	3"x2"	"	"	496.00	722.00
Filtrate Storage Tank & Cover	T-358-59	2	Haveg	7'x7'	Haveg	"	3,043.00	4,432.00
Filtrate Pump	P-360-61	2	Duriron	2"x1½"	Durichlor	"	788.00	1,148.00
Weak Filtrate Storage Tank	T-451-52	2	Haveg	7'x7'	Haveg	"	3,093.00	4,505.00
Reactor Glass Lined	T-159	1	Pfaudler	66"x78"	Jacketed	"	9,784.00	14,249.00
Hot Water Storage (Steel)	H-8	1	Kewanee	3'x5'-6"	Steel	"	160.00	233.00
Reactor Pump	P-336	1	Duriron	3"x2"	Durichlor	"	496.00	722.00
" "	P-135-137	2	"	3"x2"	"	"	992.00	1,445.00
" "	P-234	1	"	3"x2"	"	"	496.00	722.00
Drowning Tank	T-436	1	Haveg	4'x4'	Haveg	"	513.00	747.00
Aseotropic Feed Tank	T-454	1	"	5'x7'	"	"	960.00	1,398.00
" " Pump Starter	P-455	1	Rowan	1"	Worthite	"	81.00	118.00
Misc. Scale Packer, etc.	PA-477		Jeffrey	18"x30"	Vibrating	"	3,818.00	5,561.00
Condensate Return Pumps	P-28	1	Ingersoll-Rand	3"	Cast iron	"	509.00	741.00
2nd Floor								
Reactors, Glass Lined	R-131-2-3-4-7-8 R-231-2-3-4-5-6 R-331-2-3-4-5	17	Pfaudler	1000 gal.	Jacketed	"	166,328.00	242,240.00
Evaporator Glass Lined	EV-422	1	"	"	"	"	5,729.00	8,344.00

ITEM	SERIAL NUMBER	NO. OF UNITS	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	INSTALLED COST
Weigh Tanks	T-102-109-T-203, T-117 124, T-204, T-301-303	21	Leader	1 ton	Steel	1941	13,315.00	19,392.00
Vaporizers	V-109-116	8	Nooter	12"	Steel	"	2,129.00	3,100.00
Measuring Tanks (Steel)	TM-125-126	2	Homogeneous	5'x6"	Lead lined	"	1,780.00	2,592.00
Reflux Condensor	C-205-210	6	Pfaudler	100#	enamel	"	8,965.00	13,057.00
Vaporizers	V-304-305	2	Nooter	12"	steel	"	989.00	1,440.00
Evaporator	EV-416-21	6	Vulcan	4'x8½'	copper	"	61,570.00	89,671.00
" Feed Tank	T-437-40	4	Nooter	3'x4'	steel	"	4,892.00	7,125.00
Platform Scale	S-437	1	Toledo	0-500#	dial	"	404.00	588.00
Filter Press	F-411-412	2	Shriver	36"	Shriver	"	6,133.00	8,932.00
Feeder	Msc. 110-1-2	3	JoHrey		vibrating	"	486.00	708.00
Portable Sludge Tank	T-201	1	Nooter	2"-6"-2'-9"	steel	"	1,039.00	1,513.00
Condensers	C-401-402	2	Pfaudler	24"	Pfaudler	"	4,534.00	6,603.00
3rd Floor								
4-truck tray dryers & Trucks	DR-351-56	6	Proctor	12'x10'	Cyclone	"	24,861.00	36,208.00
"	DR-251-53	3	Schwartz	-	-	"	12,430.00	18,103.00
Tray Loaders	B-254-357	2	Sturtevant	-	rubber-lined	"	1,036.00	1,509.00
Scales	S-257-476	2	Toledo	0-500#	dial	"	808.00	1,177.00
Reslurry Tanks	T-242-44	3	Nooter	4'-6"x 5'-10"	Stainless steel	"	4,140.00	6,029.00
Melt Tank & Agitator	T-152-156	5	Homogeneous			"	16,645.00	24,242.00
Filter Press Wash Water Separator	E-163-164	2	Andrews	60 gal.	steel	"	694.00	1,011.00
Reslurry Pumps	P-401-2-3-4-5	5	Duriron	2"x1½"	Durichlor	"	2,480.00	3,612.00

ITEM	SERIAL NO.	NO OF UNITS	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	INSTALLED COST
BLDG.#3, ORIGINAL CC2 BUILDING (Cont'd)								
3rd Floor								
R1 Holding Tank	-	1	Nooter	-		1941	1,000.00	1,456.00
Make-up Tank	TM-301	1	Haveg	7'x7'	Haveg	"	2,420.00	3,524.00
" " "	TM-205	1	"	7'x7'	"	"	2,172.00	3,163.00
Karbate Condensers	C-430-1-2-3	4	Struther	430 sq.ft.	Karbate	"	16,350.00	23,812.00
Separator	SE-161-2	2	Homo	11½Gal	Steel	"	710.00	1,034.00
4th Floor								
Filter Press	F-341-44	4	Shriver	36"	Shriver		14,332.00	20,873.00
" "	F-147-152 F-345	7	"	36"	"	"	25,081.00	36,528.00
Centrifuges (Wash)	CE-247-48	2	Bird	40"	Bird	"	11,060.00	16,108.00
" (Filtrate)	CE-241-42	2	"	40"	"	"	11,320.00	16,484.00
" (Filtrate)	CE-249-50	2	"	40"		"	11,320.00	16,484.00
Vacuum Refrigeration Unit	RF-11-12	2	Shutte	42"	Shutte-Koerling	"	9,881.00	14,391.00
Water Head Tank (Process)	T-15-16	2	Vulcan	2½x3½		"	4,305.00	6,270.00
Hot Water Circulating Pump	P-37	1	Durion	2"x1½"	Cast Iron	"	756.00	1,101.00
Pumps	1-2 P-255	4	Durion	3"x2"	Stainless Steel			
				2"x1½"	Cast Iron	"	1,616.00	2,354.00
Condensers	C-426-7-8-9	4	Vulcan	15"	Cooper	"	414.00	603.00
Agitator Tank	T-268	1	Atlanta Tank	9'x8'6"	Wood		1,232.00	1,794.00
Storage Tank	T-254	1	Nooter	3'x5'-6"	Steel	"	254.00	370.00

77500
229937
9793.21

307,230

Insulation 9797.21
Elec. 93094.35

93094
77500

15594

937,229
643,532

293,697 = 45.7 %±
643,532

254
116
370

5701
2380
7431

9881
4510
14391

4305
1970
6275

25081
11450
36,531

#293,697 - Installation Costs Maybe Largely Piping, Insulation Power Wiring Etc

Midwest 229,937 Lump Sum Bid
" 33,787.99 Extras
Johns-Manville 9797.21
Chapline 77,500 Lump Sum
" 15,594 Extras

.00 *
5,028.04
4,557.83
2,150.56
2,157.32
1,186.34
3,753.21
1,702.59
6,817.96
3,283.00
3,151.14
33,787.99 S

229,937.00
263,724.99 *

ITEM	SERIAL NO.	NO. UNITS	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	INSTALLED COST
BLDG. #3, ORIGINAL								
CC2 BUILDING								
4th Floor (Cont'd)								
Centrifuges (Wash)	CE-140-41	2	Bird	48"	Bird	1941	11,060.00	16,108.00
Tanks	T-151-52	2	Nooter-Heintz	6'x3'-7"	Steel	"	1,638.00	2,386.00
Hot Water Heater	H-34-35	2	Patterson	6"x58"	"	"	333.00	485.00
Pump House								
Main Air Compressors	CP-505-06	2	Ingersoll-Rand	8x7	Two-stage	"	5,101.00	7,429.00
Small " "	CP-508	1	" "	10x9	"	"	1,651.00	2,405.00
Pumps	P-512-518	6	Durion	2"x1½"	Stainless Steel	"	2,081.00	3,031.00
Water Jet Vacuum		2	Shutte-Koerling		Duschlor		77.00	105.00
Storage Tanks & Fittings	T-551-558	6	Leader Nooter	12'x12'	Steel & Alumn.	"	20,430.00	29,754.00
Misc. Items							24,549.00	35,753.00
GRAND TOTAL							643,532.00	937,229.00
								643 532
								293,697

1946 Inventory Sec I.

$\frac{293,697}{643,532}$ = 45.7±%

This % is uniform on all items

LBm.
3-10-61

ITEM	SERIAL NO.	CODE NO.	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	COST INSTALLED
BLDG. #2, ADDITIONAL CC2 BUILDING								
Glass Lined Reactors	R-141 thru 4 R-241 " 5 R-341 " 4	1,2 & 3	Pfaudler	2000 g.	Jewea	1943	127,187.00	184,112.00
" " Evaporators	EV-425 " 9	4	"	"	Steel	"	28,646.00	41,467.00
" " Blow Cases	T-100-101	6	"	1000 g.	Jck't.	"	13,134.00	19,012.00
Filtrate Storage Tanks	T271 thru 4 T361 " 3 T481 " 3	29	Haveg	8'-0" x9'-6"	Haveg	"	29,294.00	42,406.00
Dorroco Filters	R101,102, 301,302 F201,202 F203,thru 6	18, 20, 21, 24 & 25	Oliver	4'x2" 5'-3"x4' 4'x3'	Vacuum	"	104,312.00	151,000.00
Repulpers	RP101,102, 201, 202 & 203	19	Oliver	16"x4"	Rubber lined	"	8,664.00	12,541.00
Rubber Lined Centrifuges	C101 thru 4	26 7 53	Bird	4'-0"		"	20,578.00	29,789.00
Steel Meas. Tanks R-1	T-178,179, 475, 476	14	Leader	3'-0" 4'-6"	Steel	"	1,230.00	1,780.00
Non-Condensing Ejectors								
Vacuum Jets	*	22 & 23	Worthington	$2\frac{1}{2}$ x 4	(S)Haveg	"	6,350.00	9,192.00
Steel Storage Tank	T-184	15	Nooter	78"x98"	Lead Lined	"	2,362.00	3,419.00
Reactor Pump	P-161	60	Duriron	3"x2"	Durichlor	"	527.00	762.00
Filtrate Pumps	P-205, 206 365, 366	73	"	3"x2"	Durichlor	"	1,694.00	2,452.00
Repulp Tanks	T-190, 191, 290, 291	28	Haveg	5'0"x6'	Haveg	"	9,605.00	13,904.00
Melt Tanks	T-161, 162	27	Nooter	6'0"	Steel	"	3,455.00	5,001.00
Catch Tank R-1	T-192	90	Nooter	3'-6" x 3'-6"	Steel	"	677.00	979.00
Receivers-Filtrate	RE-107,108	68 & 54	Nooter	2'-6"x3"	Steel	"	1,230.00	1,780.00

* Property or Serial No. not obtainable

ITEM	SERIAL NO.	CODE NO.	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	COST INSTALLED
BLDG. #2, ADDITIONAL CO2 BUILDING								
Catch Tank P-1	T-1957	97	Goedde	11'x4'-6"	Lbr.	1943	1,228.00	1,778.00
Catch Tank-Brick Lined P-1	T-497	107	Alpha Tank	72"x72"	Steel	"	510.00	738.00
Pump Vacuum Receiver	P-167	61	Duriron	2"x1½"	Durichlor	"	250.00	362.00
Dust Collectors	F211-311	31 & 32	Dracco	2 comp.	Bag	"	6,036.00	8,738.00
Flash Dryers	DR-260,360	33,34, 35 & 36	Raymond	4 "	Steel	"	30,010.00	43,441.00
Measuring Tank	T-275-276	16, 99-100	Leader	2'6"x4'3"	Steel	"	308.00	445.00
Weigh Tanks	T-269,270	7	Pfaudler	250 g.	Glass lined	"	2,800.00	4,053.00
Condensers	C-216 thru 219	5	"	50s.q.	" "	"	9,340.00	13,520.00
Filter Pump	P-429	73	Duriron	2"x1½"	Durichlor	"	540.00	782.00
Pumps	P-200,362	92,93-113	Lewis	3"	Vart.Centr.	"	3,110.00	4,501.00
Filter Pumps	P-205,206, 334	71 & 72	Duriron	3"x2"	Durichlor	"	1,166.00	1,688.00
Steel Tank Leadlined	T-277	38	Nooter	90" dia.	R-8	"	2,892.00	4,186.00
Feed Pumps	P-468,470, 471,473	57-56	Duriron	2"x1½"	Centr.	"	1,643.00	2,378.00
Automatic Scale	S-264	30	Richardson	6-F-1	Automatic	"	1,678.00	2,429.00
Screw Conveyor	CV-307,308	87	Stephens	9"	Screw	"	4,115.00	5,597.00
Steel Catch Tank R-10	T-292	91	Nooter	300 gal.	Steel	"	360.00	521.00
Centrifugal Pump	P-169	79	Farrar P&M	2"	Vertical (Iron)	"	317.00	459.00
Pumps-Vacuum Rec.	P-167,207 thru 212	65-66	Duriron	2"x1½"	Centr.	"	1,606.00	2,324.00
Pumps-Evap. Rec.	P-476,477, 479, 480	61,63-64	"	2"x1½"	Durichlor	"	654.00	948.00
Redler Feeders-(Bin Dischargers)	FE-211,321	67	Stephens	8'x3'-6"	Steel	"	8,688.00	12,576.00
Slurry Tank (R-8)	T-365	30	Haveg	7'-0" x7'6"	Haveg	"	2,568.00	3,717.00

ITEM	SERIAL NO.	CODE NO.	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	COST INSTALLED
BLDG. #2, ADDITIONAL CC2 BUILDING								
Make-UP Tank (S-1)	T-366	30	Haveg	7'-0" x7'6"	Haveg	1943	2,717.00	3,933.00
Receiver Tanks	T-192, 292	18	Nooter	300 gal.	Lead Lined	"	1,230.00	1,780.00
Feed & Utility Tanks	T-485 thru 488	10 & 12	Haveg	8'0" 9'6"	Haveg	"	11,996.00	17,365.00
Treatment Tanks	*	13	Haveg	7'11 7/8" x 9'-9"	Haveg	"	21,051.00	30,473.00
Distillate Pump	P-426	73	Duriron	2"x1½"	Vart.Centr.	"	741.00	1,073.00
" Feed Pumps	P-365 thru 368,474,475	55-56	"	3"x2"	Centr.	"	2,215.00	3,207.00
Treatment Tank Pumps	P-165, 166	58	"	3"x2"	"	"	875.00	1,267.00
Karbate Condensers	C-461,2,3, 4,5	8	Struther	24" Dia.	Karbate	"	20,350.00	29,458.00
Distillate Receiver Tanks	T-460,1,2, 3,4	17	Nooter	3'-0" x 3'6"	Lead Lined	"	4,725.00	6,840.00
Distillate & Feed Tanks	T-470 thru 474	9 & 11	Nooter	90" x 8'-4"	Lead Lined	"	28,585.00	41,378.00
Refrigeration Unit	RF-13,14,15	40,41,42 43,44,45 46,47,48 78	Vilter	100.6 tons	Ammonia	"	76,457.00	110,678.00
Absorber Tanks	ABs-3,4,	75	Nooter	6'8" x 9'-10"	Steel	"	3,890.00	5,632.00
Neutralizing Sumps	SU-5,6	74	Agitators & Motors		Concrete	"	1,051.00	1,521.00
Dust Collector	F-312	81	Dracco	8-comp.	Bag	"	10,555.00	15,280.00
Conveyors-(Dracco)	CV-301,2,3	81 & 95	Stephens	9"	Screw	"	3,121.00	4,518.00
Conveyors-Screw	CV-201	32	"	6"	Screw	"	2,381.00	3,446.00
Conveyors-Cross-Screw	CV-304,5,6	81	"	9"	Screw	"	2,688.00	3,891.00
Pneumatic Conveyor	CV-300	96	Dracco	30'-6"	Vacuum	"	8,836.00	12,794.00

* Property or Serial No. not obtainable.

ITEM	SERIAL NO.	CODE NO.	MAKE	SIZE	TYPE	YEAR BUILT	F.O.B. FACTORY	COST INSTALLED
BLDG. #2, ADDITIONAL CC2 BUILDING								
Redler Elevator	CV-309	94	Stephens	500"	Loop Boot	1943	1,848.00	2,675.00
Syntron Feeders	FE-318,319 320	88	Snytron Co.	2500#/hr.	Gravimetric	"	2,465.00	3,569.00
Storage Tank R-5	T-561	76	Blaw Knox	8'-0" x 36'-0"	Steel	"	5,517.00	7,986.00
					GRAND TOTAL		652,424.50	944,499.00

1946 Inventory Section II.

LABORATORY & TESTING EQUIPMENT

	ITEM	NO. UNITS	UNIT COST	TOTAL COST
Shop	Ammeter, heavy duty, A.W. Portable AC Scale range 0/5 amp. 5 amp.	1	$ 216.00	$ 216.00
Disp	Autoclave, castle #669	1	351.00	351.00
	Balance, analytical, Christian Becker #1015 chainomatic with weights 100 gr. to 1 gr.	2	270.00	540.00
	Balance, analytical, Type BCTWLM-2 Damper	1	390.00	390.00
	Balance, analytical, with keyboard	1	390.00	390.00
	Balance, analytical, E & A 16782, Type 8A-B7622	1	180.00	180.00
	Balance, analytical, Seko #60	1	150.00	150.00
	Balance, analytical, Becker chainomatic SPG #110	1	180.00	180.00
	Electrophotometer, PH Coleman Model 3C	2	213.00	426.00
	Electrophotemeter, PH Model 7-101, Fisher Scientific	2	150.00	300.00
Shop	Indicators, gas, Davis Model I Unit #11-91	2	159.75	319.50
	Indicator, Potientometer	1	226.59	226.59
	Indicator, temperature, single range #8672-12	2	191.59	383.18
	Indicator, PH	1	162.00	162.00
Design	Instrument, surveyors, (complete)	1	147.84	147.84
	Machine, shaking, Cenco #S1537 1/6 H.P. Motor	1	235.00	235.00
	Meter, PH Beckman, Industrial type	1	150.00	150.00
	Miscroscope, binocular, Spencer	1	270.00	270.00
	Oven electric, drying, Type S-1 SER. #2751	1	245.00	245.00
	Oven, Electric Hot Air	1		
	Oven, Vacuum Model #510 35° to 180°	1	350.00	350.00
	Oven gravity convection atmospheric Weber type S-1	1	210.00	210.00
	Oven, Bacum, precision Frecas Precision #500	1	350.00	350.00
	Pump, Vacuum, Cenco Mesgravoc	1	155.00	155.00
	Purifier, water, Barnstead, automatic Ser. #25712	1	135.00	135.00
	Sieve Shaker, Ser. #2019 with #10 U.S. std. W/#10 screen RO top	1	260.00	260.00

LABORATORY & TESTING EQUIPMENT

ITEM	NO. UNITS	UNIT COST	TOTAL COST
Still, Barnstead	1	$ 134.50	$ 134.50
Laboratory equipment costing less than $100.00			2,292.33
TOTAL			$ 9,148.94

In General Considered
Inventory Sec II
LDM

FURNITURE & FIXTURES

	ITEM	NO. UNITS	UNIT COST	TOTAL COST
Disp	Apparatus, Breathing, 1-hr. MSA all vision face pc.	2	$222.00	$444.00
Lab	Bench, Lab. w/head attachment and blower	1	731.62	731.62
Caf	Cabinet, Ice cream with bottle box	1	372.00	372.00
	Cabinet, Acme, visible w/15 trays, door and lock	1	115.42	115.42
	Cabinet, Insite, Offset 818-10	6	133.65	801.90
	Cabinet, File ASE #1300, Blueprints, 2-five drawer section	1	191.50	191.50
	Cleaner, Vacuum	1	282.55	282.55
Caf	Cooker, Electric, Nesco 9998 w/pans	1	138.40	138.40
Caf	Counter, Service 27 ft. complete with steam table	1	772.50	772.50
	Dishwasher, complete with trays, 3/4 H. P. motor	1	513.00	513.00
Lab	Hood, Fume complete with baffle plates, lights and duct work	1	1,085.97	1,085.97
	Machine, floor scrubbing w/wire brush Model 841	1	170.00	170.00
	Machine, floor polishing	1	190.00	190.00
Caf	Refrigerator, Elec. Husman R-105	1	575.00	575.00
Caf	Register, Cash, National #121	1	170.00	170.00
	Safe, steel, Mosler #3348	1	340.00	340.00
Lab	Sink with drainboard, Alberene Dwg. W47092-W47093	4	144.90	579.60
Lab	Table, Laboratory 2'6" long 36" high	4	110.65	442.60
Caf	Table, dish	1	135.00	135.00
Disp	Table, First-Aid Room with Std. wood base, complete with cabinet above sink, plumbing fixtures to flow line	1	524.64	524.64
Lab	Table, Titration complete with burrette rods, reagent shelf	1	380.69	380.69
	Table, Utility complete with pegboard, 2 sinks	1	1,260.54	1,260.54
	Unit, Freezing, 4 hole Ice-Cream cabinet	1	350.00	350.00
Cit	Urn, coffee 5-10-15 gal. steam	1	275.00	275.00
	Washer, Car complete } Per - Bldg: NA & NB; are carried as Prod. Equip.	1	303.25	303.25
	Washer, Car w/o motor }	1	435.00	435.00
Caf	Washer, glass with 1/4 H.P. motor	1	287.00	287.00
	Misc. Items costing less than $100.00 per unit			12,066.22
	TOTAL			24,134.90

should be 23,933.40 RAM. 11-7-57

Sec VIII Dispensary $969.
Sec V Laboratory 4481
Sec XII Cafeteria 3588
$9038

Office (by Diff) $15,097
Sec IX (+ X)

OFFICE EQUIPMENT

ITEM	NO. UNITS	UNIT COST	TOTAL COST
Calculator, Marchant, Model D. Automatic Division	3	297.50	892.50
Calculator, Marchant	1	510.00	510.00
Calculator, Marchant	1	340.00	340.00
Calculator, Marchant	1	204.00	204.00
Clocks, Morse, tape, w/carrying case	4	121.00	484.00
Duplicator, Ditto Model 9d5	1	197.50	197.50
Machine, Adding, Elec. Burroughs 10 column	2	205.00	410.00
Machine, Comptometer 8 Bank	1	260.00	260.00
Machine, Stencil, Marsh, Model H. 1/2" Serial #4799	1	106.91	106.91
Recorder, Elec. Time In and Out, 7 column semi-mo.	1	231.00	231.00
Typewriter, Elite type, 26" Royal	1	103.50	103.50
Typewriter, Elec. IBM, Pica	4	241.60	966.40
Misc. Items costing less than $100.00 per unit			7,278.63
TOTAL			11,984.44

1946 Inventory Sec X

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AUTOMOTIVE EQUIPMENT

ITEM	SERIAL NO.	MAKE	MODEL	YEAR	COST DELIVERED
Two-door Sedan	BA 136169	Chevrolet	42-11	1942	$ 600.00
Two-door Sedan	21 E.G. 10-3602	Chevrolet	42-11	1942	600.00
Truck, Van type	8707463	Dodge	WCM-43	1942	1,200.00
Truck, Dump	26094	G.M.C.	CC-302	1942	1,310.94
Truck with Dempster-Dumpster Attachment	4770	International	K-6	1943	4,500.00
Carloader To Rocky Mt Arsenal 6/23/44	9357	Towmotor	LT-62	1942	3,515.00
Carloader sec I - P. 77	CL-41-487	Clark	Box tilt	1942	2,111.39
Carloader sec I - P 77	11443	Towmotor	104" Lift	1942	2,646.64
				TOTAL	$16,483.97

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(27) PLANT CONSTRUCTION INFO

March 3, 1942

SUBJECT: Report of Activities at St. Louis Plant, Chemical Warfare Service, January 15 - March 1, 1942.

TO: Office of Chief, Chemical Warfare Service, Washington, D. C.
Attn: Manufacturing Division.

1. Attached find monthly operation report, February 1942, submitted by Mr. J. F. Stickley, Monsanto Chemical Company Production Superintendent, at St. Louis Plant, Chemical Warfare Service. This report principally covers the period after February 16, 1942, when raw materials were first put into the system.

2. During the period of January 16 - February 15, 1942, the work was confined to cleaning, testing and calibrating the equipment in the plant, and completing the construction. In order to show the distribution of time on the jobs which the construction men worked on during that time, the following tables were prepared and are attached hereto.

A. Analysis of Work Performed Jan. 16 thru Jan. 31, 1942

Schedule No. 1	H. Chapline Electrical Co.
Schedule No. 2	Esslinger-Misch Company
Schedule No. 3	Midwest Piping & Supply Co.
Schedule No. 4	Monsanto (Monthly Men)
Schedule No. 5	Monsanto (Hourly Men)

B. Analysis of Work Performed Feb. 1 thru Feb. 15, 1942

Schedule No. 1	Esslinger-Misch Co.
Schedule No. 2	Midwest Piping & Supply Co.
Schedule No. 3	H. Chapline Electrical Co.
Schedule No. 4	Monsanto Hourly Employees
Schedule No. 5	Monsanto Monthly Employees

3. In the future, weekly reports will be submitted by the contractor, as required in Article 43, Contract W-266-CWS-194.

W. L. FINLEY,
Capt., C.W.S.,
Commanding Officer.

GWR:cg
cc Chicago C.W.P.D.

(28) PLANT CONSTRUCTION INFO

In Reply Refer To:
C.W.S. 600.914

March 3, 1942

SUBJECT: Progress Report, Unit No. 2, St. Louis Plant, C.W.S.

TO: Office of Chief, Chemical Warfare Service, Washington, D.C.
Attn: Captain Schneider, Industrial Service Division

1. Enclosed is graphic chart dated February 27, 1942, submitted by the contractor showing progress on this project.

2. Also copies of correspondence from Mr. R. I. Hayes, Construction Manager, Monsanto Chemical Company, to Lt. Col. C. L. Boyer, Area Engineer, discussing this matter.

3. It should be noted that due to inclement weather and inability to obtain permission for overtime work to make up for time lost, the completion date has been moved forward to July 1, 1942.

4. The suppliers of the critical equipment on which satisfactory delivery dates cannot be obtained, have been contacted by letter, telephone and telegraph during the past few days. The most up-to-date information relative to the status of these orders has been obtained and requests have been made through the priorities section, Office of Chief, Chemical Warfare Service, for a better priority on these items. If this cannot be obtained and/or in the hands of the suppliers without further loss of time it is probable that delivery of some equipment cannot be obtained until such time as the higher priority is supplied.

LEO J. HARDEN
1st Lt., C.W.S.

APPROVED:

W. L. FINLEY,
Captain, C.W.S.,
Commanding Officer

LJH:lb
Incl. 3
#1 Graphic Chart
#2 Ltr. dated 2/24/42
#3 Ltr. dated 2/23/42
cc: Office of Chief, C.W.S.
Procurement Planning Section
Priorities Division
Chicago C. W. P. D.

MAR 4 1942
CHICAGO CHEMICAL WARFARE PROCUREMENT DISTRICT