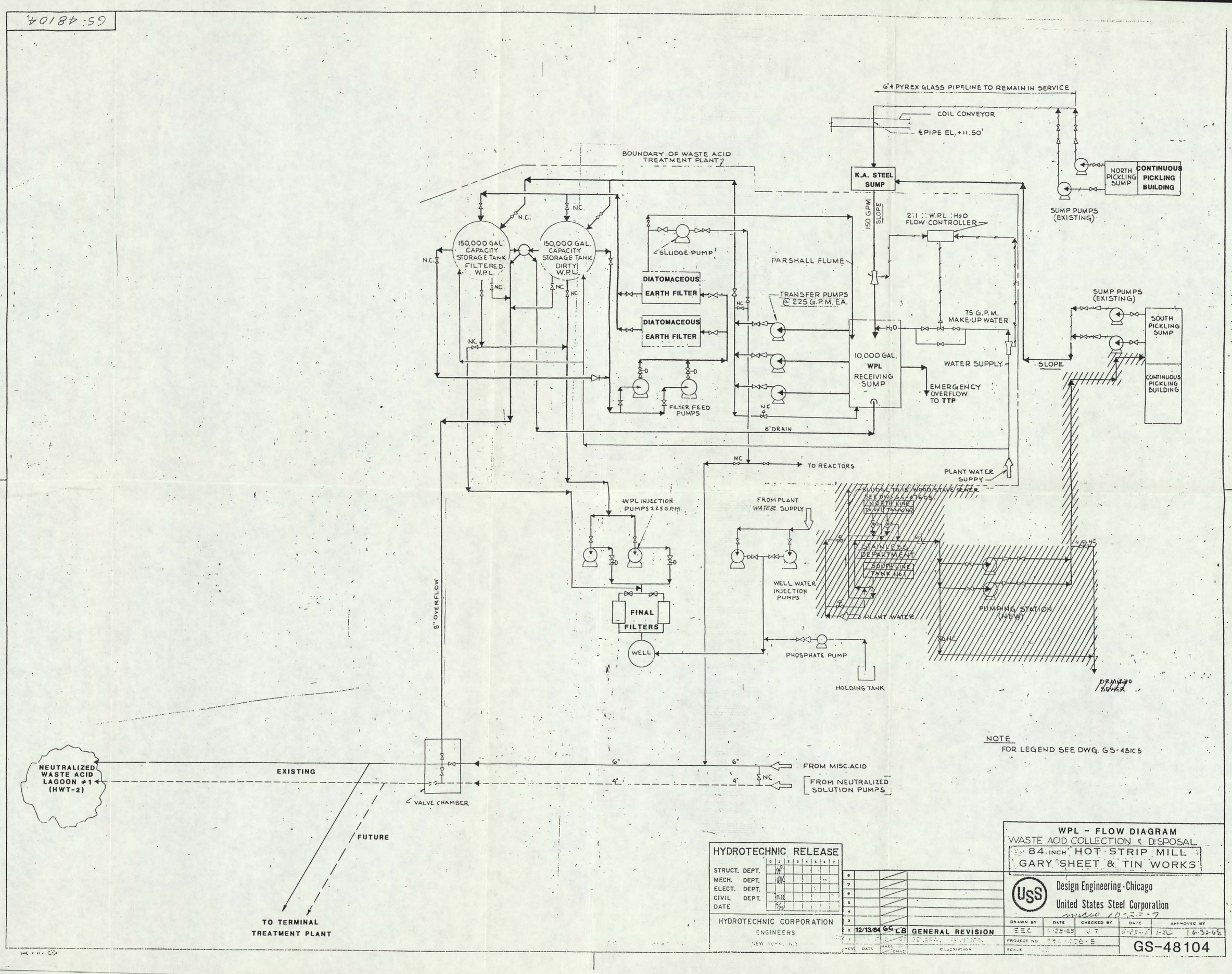
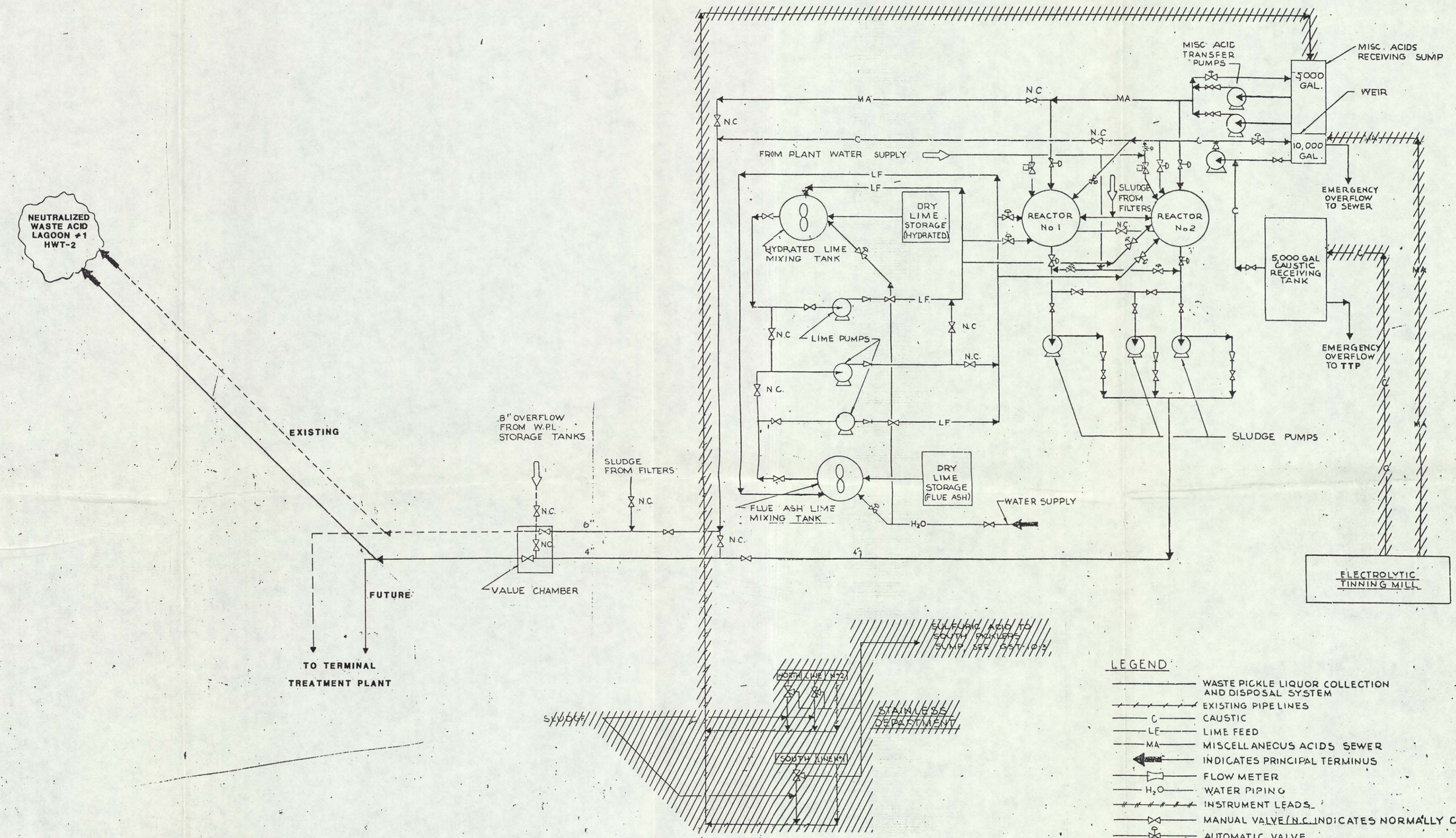


GS-48104
6" ϕ PYREX GLASS PIPELINE TO REMAIN IN SERVICE
COIL CONVEYOR
℄ PIPE EL. +11.50'
BOUNDARY OF WASTE ACID TREATMENT PLANT
K.A. STEEL SUMP
NORTH PICKLING SUMP
CONTINUOUS PICKLING BUILDING
SUMP PUMPS (EXISTING)
150 GPM
SLOPE
2:1 :: W.P.L. : H2O FLOW CONTROLLER
150,000 GAL. CAPACITY STORAGE TANK FILTERED W.P.L.
150,000 GAL. CAPACITY STORAGE TANK DIRTY W.P.L.
N.C.
SLUDGE PUMP
PARSHALL FLUME
DIATOMACEOUS EARTH FILTER
DIATOMACEOUS EARTH FILTER
TRANSFER PUMPS @ 225 G.P.M. EA.
75 G.P.M. MAKE-UP WATER
SUMP PUMPS (EXISTING)
SOUTH PICKLING SUMP
CONTINUOUS PICKLING BUILDING
10,000 GAL. WPL RECEIVING SUMP
WATER SUPPLY
EMERGENCY OVERFLOW TO TTP
FILTER FEED PUMPS
8" DRAIN
TO REACTORS
PLANT WATER SUPPY
WPL INJECTION PUMPS 225 G.P.M.
FROM PLANT WATER SUPPLY
STAINLESS DEPARTMENT
SOUTH LINE TANK No. 1
WELL WATER INJECTION PUMPS
PLANT WATER
PUMPING STATION (NEW)
FINAL FILTERS
WELL
PHOSPHATE PUMP
HOLDING TANK
8" OVERFLOW
DRAIN TO SEWER
NOTE
FOR LEGEND SEE DWG. GS-48105
NEUTRALIZED WASTE ACID LAGOON #1 (HWT-2)
EXISTING
VALVE CHAMBER
FUTURE
TO TERMINAL TREATMENT PLANT
6"
4"
FROM MISC. ACID
FROM NEUTRALIZED SOLUTION PUMPS
HYDROTECHNIC RELEASE
STRUCT. DEPT.
MECH. DEPT.
ELECT. DEPT.
CIVIL DEPT.
DATE
HYDROTECHNIC CORPORATION
ENGINEERS
NEW YORK, N.Y.
12/13/84 GC LB GENERAL REVISION
WPL - FLOW DIAGRAM
WASTE ACID COLLECTION & DISPOSAL
84 INCH HOT STRIP MILL
GARY SHEET & TIN WORKS
USS
Design Engineering - Chicago
United States Steel Corporation
DRAWN BY
DATE
CHECKED BY
APPROVED BY
PROJECT NO.
SCALE
GS-48104

GS-48105



LEGEND

- WASTE PICKLE LIQUOR COLLECTION AND DISPOSAL SYSTEM
- EXISTING PIPE LINES
- C — CAUSTIC
- LF — LIME FEED
- MA — MISCELLANEOUS ACIDS SEWER
- INDICATES PRINCIPAL TERMINUS
- FLOW METER
- H_2O — WATER PIPING
- INSTRUMENT LEADS
- MANUAL VALVE (N.C. INDICATES NORMALLY CLOSED)
- AUTOMATIC VALVE
- SOLENOID VALVE
- OUT OF SERVICE

HYDROTECHNIC RELEASE

	0	1	2	3	4	5	6	7
STRUCT. DEPT.								
MECH. DEPT.								
ELECT. DEPT.								
CIVIL DEPT.								
DATE								

HYDROTECHNIC CORPORATION
ENGINEERS
NEW YORK, N.Y.

REV.	DATE	MADE BY	DESCRIPTION
8			
7			
6			
5			
4			
3			
2	12/13/84	GS LB	GENERAL REVISION
1			

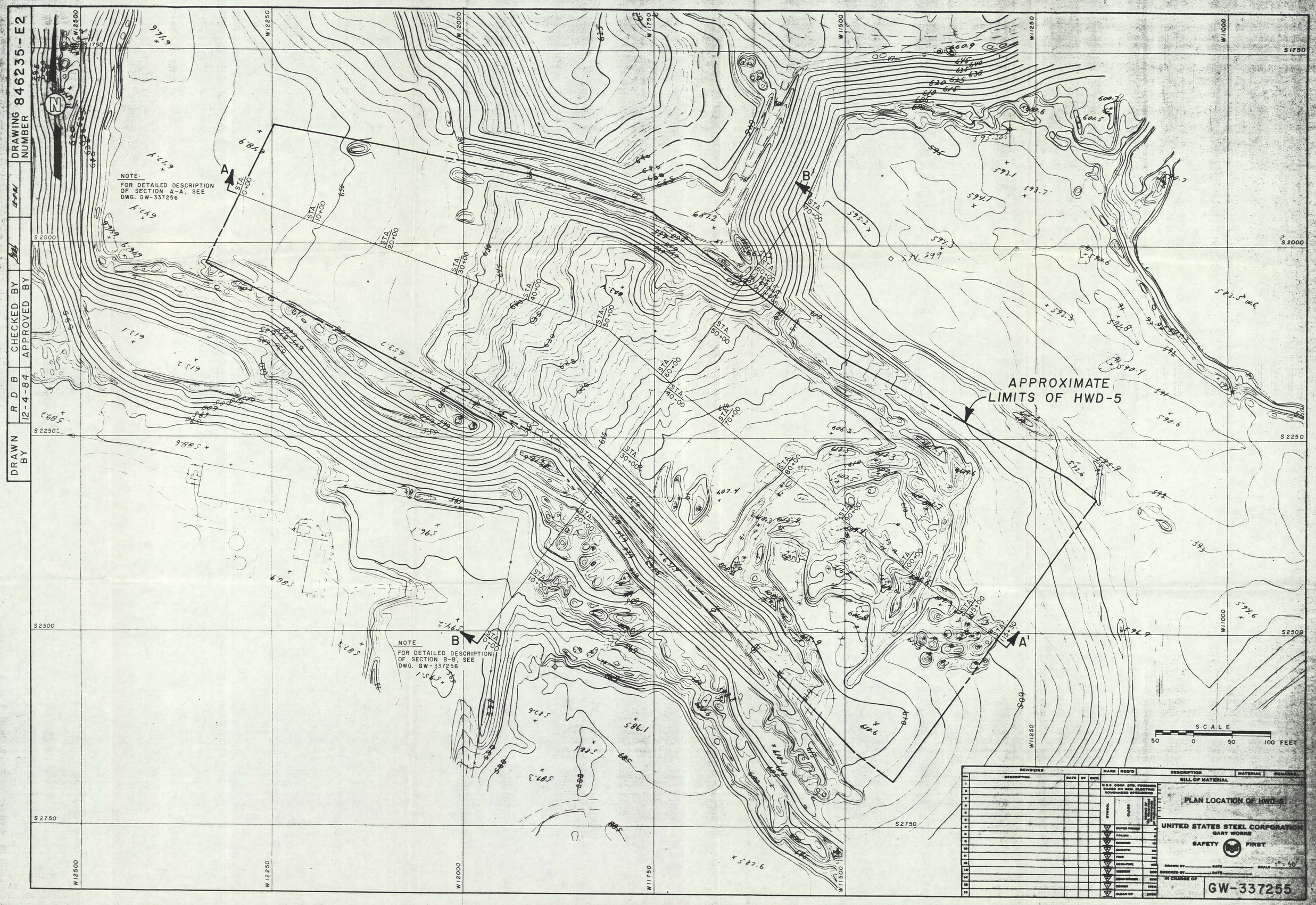
MISCELLANEAOUS ACIDS-FLOW DIAGRAM
WASTE ACID COLLECTION & DISPOSAL
84 INCH HOT STRIP MILL
GARY SHEET & TIN WORKS

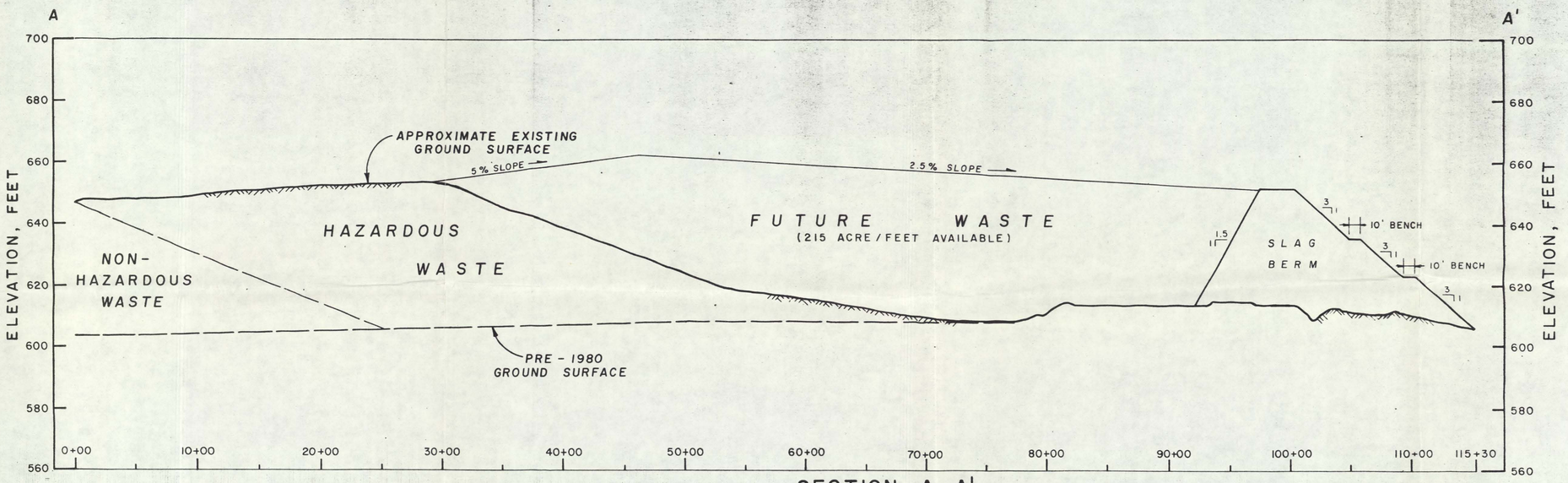
USS Design Engineering-Chicago
United States Steel Corporation

DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY

PROJECT NO.
SCALE

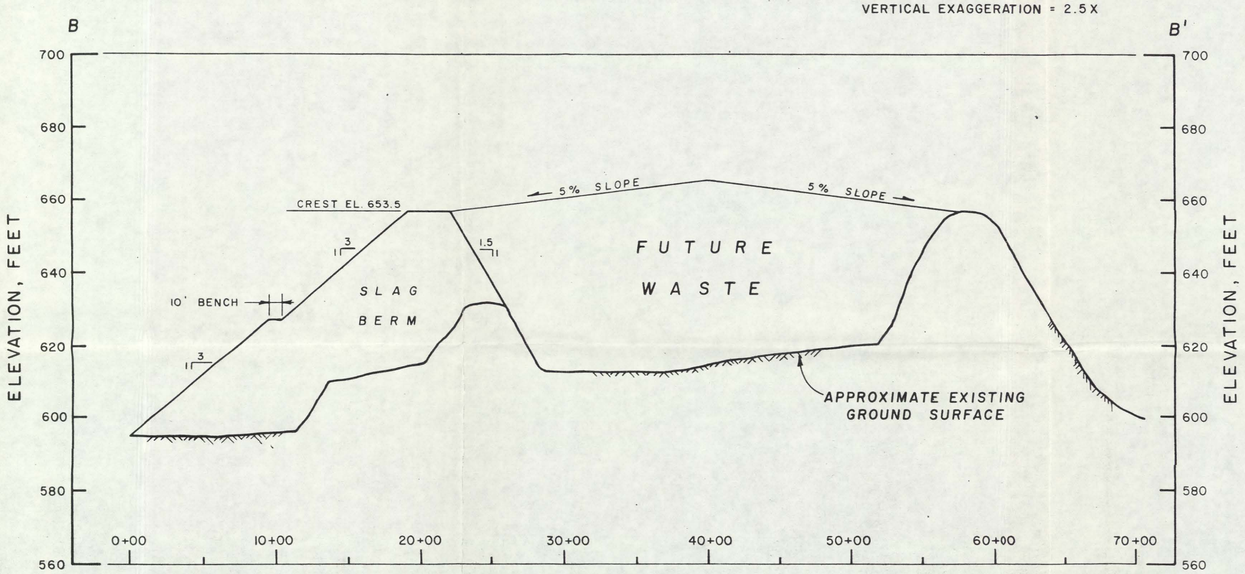
GS-48105


DRAWING NUMBER 846235-E2
DRAWN BY R D B 12-4-84
CHECKED BY
APPROVED BY
NOTE:
FOR DETAILED DESCRIPTION OF SECTION A-A, SEE DWG. GW-337256
NOTE:
FOR DETAILED DESCRIPTION OF SECTION B-B, SEE DWG. GW-337256
APPROXIMATE LIMITS OF HWD-5
SCALE
50 0 50 100 FEET
REVISIONS
DESCRIPTION
DATE
BY
CHK'D
MARK
REQ'D
DESCRIPTION
MATERIAL
BILL OF MATERIAL
PLAN LOCATION OF HWD-5
UNITED STATES STEEL CORPORATION
GARY WORKS
SAFETY FIRST
DRAWN BY
DATE
SCALE 1" = 50'
CHECKED BY
DATE
IN CHARGE OF
GW-337255



SECTION A-A'

HORIZONTAL SCALE 50 0 50 FEET
VERTICAL SCALE 20 0 20 FEET
VERTICAL EXAGGERATION = 2.5X



SECTION B-B'

HORIZONTAL SCALE 50 0 50 FEET
VERTICAL SCALE 20 0 20 FEET
VERTICAL EXAGGERATION = 2.5X

NOTE:

FOR PLAN LOCATION OF SECTIONS A-A' AND B-B', SEE DWG. GW-337255

REVISIONS					MARK	REQ'D	DESCRIPTION	MATERIAL	REMARKS
REV	DESCRIPTION	DATE	BY	CH'K.			BILL OF MATERIAL		

U.S.S. CORP. STD. FINISHES BASED ON GEN. ELECTRIC ROUGHNESS SPECIMENS

SYMBOL	CLASS	DESCRIPTION OF FINISH
	SUPER FINISH	4
	POLISH	8
	GROUND	16
	SMOOTH	32
	FINE	63
	SEMI-FINE	125
	MEDIUM	250
	SEMI-ROUGH	500
	ROUGH	1000
	CLEAN UP	2000

SECTIONS A-A' AND B-B'
HWD-5

UNITED STATES STEEL CORPORATION
GARY WORKS
SAFETY FIRST

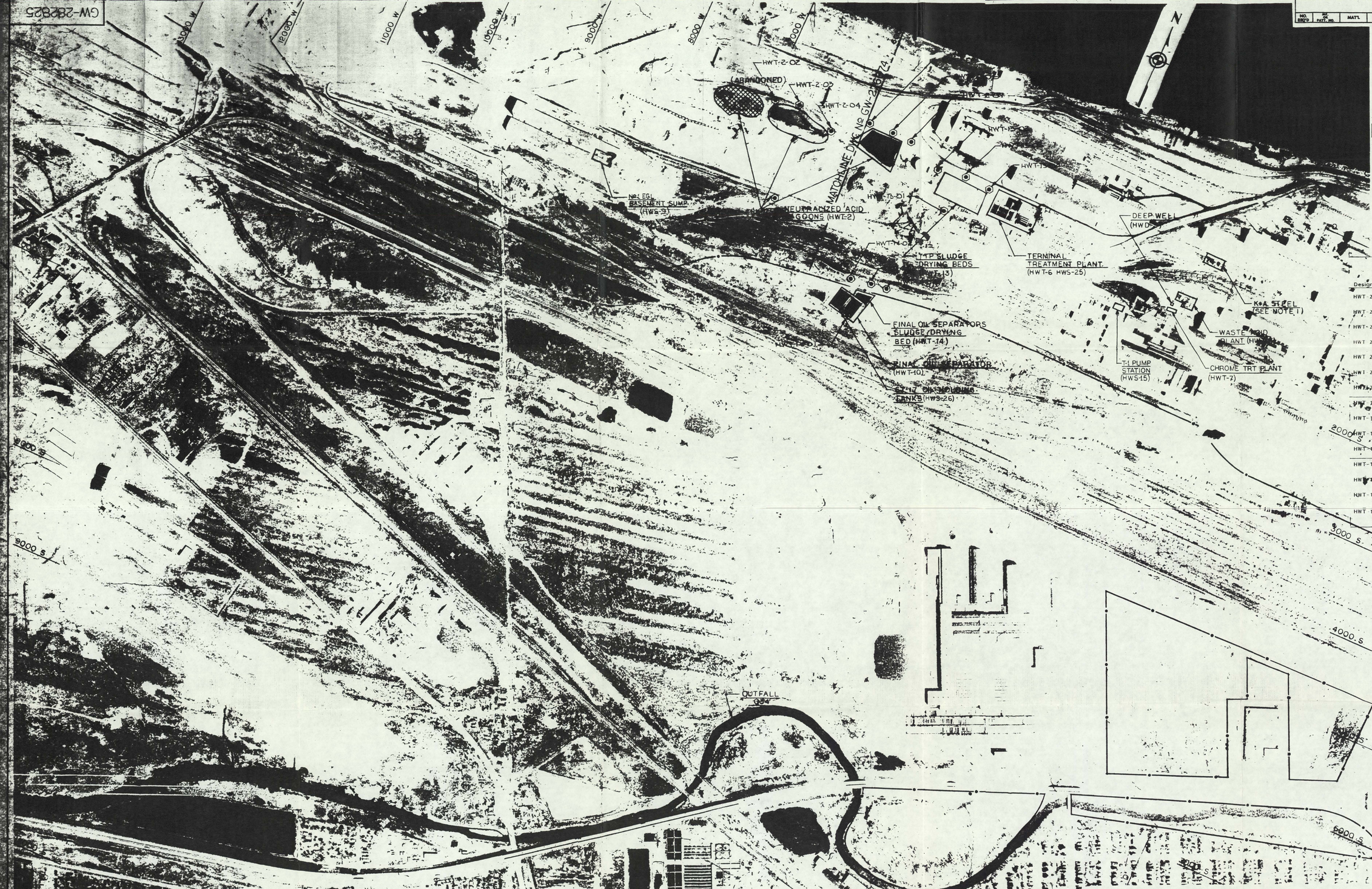
DRAWN BY ____ DATE ____ SCALE ____
CHECKED BY ____ DATE ____
IN CHARGE OF

GW-337256

DRAWN BY R D B 12-3-84
CHECKED BY
APPROVED BY
DRAWING NUMBER 846235-E1

18-1253 HERCULENE, A&B SMITH CO. PGH., PA.

GW-282825



NO. REQ'D	REF. OR PATT. NO.	MAT'L	DESCRIPTION	WT. EACH OR TOTAL	ORDER NO.

BILL OF MATERIAL

LEGEND:

- WPL WASTE PICKLE LIQUOR
- HWD HAZARDOUS WASTE DISPOSAL
- HWS HAZARDOUS WASTE STORAGE
- HWT HAZARDOUS WASTE TREATMENT
- HAZARDOUS WASTE FACILITY
- ABANDONED HAZARDOUS WASTE FACILITY
- USS PROPERTY LINE
- PLANT OUTFALLS AND INTAKES
- GROUND WATER MONITORING WELL LOCATION

NOTES:

1) K&A STEEL IS LOCATED ON PROPERTY LEASED FROM USSC.

GROUND WATER MONITORING WELL DATA

Designation	Top of 6" Protective Casing Elevation (Feet)	Bottom of Well Elevation (Feet)	Coordinates of Well Centerline (Feet)
HWT-2-01	17.73	-36.92	S-2,219.64 W-6,883.15
HWT-2-02	25.65	-38.00	S-1,152.09 W-7,169.75
HWT-2-03	28.37	-35.70	S-1,131.66 W-6,780.59
HWT-2-04	28.70	-41.30	S-1,168.37 W-6,425.11
HWT-2-05	26.07	-39.40	S 962.67 W-6,010.35
HWT-2-06	26.19	29.30	S 915.16 W-5,809.28
HWT-2-07	25.44	-34.00	S-1,000.15 W-5,634.17
HWT-13-01	25.03	-37.10	S-1,561.03 W-4,750.40
HWT-13-02	25.60	-38.80	S-1,030.81 W-5,103.15
HWT-13-03	25.92	-38.60	S 968.28 W-4,752.27
HWT-13-04	25.46	-40.70	S- 965.58 W-4,626.67
HWT-14-01	14.89	-36.90	S-3,093.38 W-5,442.33
HWT-14-02	14.04	-36.20	S-2,573.98 W-5,541.35
HWT-14-03	13.94	35.30	S-2,573.33 W-5,394.76
HWT-14-04	12.92	36.80	S-2,552.26 W-5,217.35

ENGINEERING-SCIENCE

REV.	REVISIONS DESCRIPTION	DATE	BY	CH'K
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

U.S.S. CORP. STD. FINISHES BASED ON GEN. ELECTRIC ROUGHNESS SPECIMENS

SYMBOL	CLASS	RANGE OF ROUGHNESS (MICRO-INCHES)
▽	SUPER FINISH	4
▽	POLISH	8
▽	GROUND	16
▽	SMOOTH	32
▽	FINE	63
▽	SEMI-FINE	125
▽	MEDIUM	250
▽	SEMI-ROUGH	500
▽	ROUGH	1000
▽	CLEAN UP	2000

MARK	REQ'D	DESCRIPTION	MATERIAL	REMARKS
		BILL OF MATERIAL		

- PLANT GENERAL
- SOUND WASTE STUDY 1980
- HAZARDOUS WASTE PROGRAM
- LOCATION PLAN
- FORMERLY ENGINEERING-SCIENCE DWG #42

UNITED STATES STEEL CORPORATION
GARY WORKS
SAFETY USS FIRST

DRAWN BY © DATE 9-10-80 SCALE 1-400'
CHECKED BY DATE
IN CHARGE OF

GW-282825

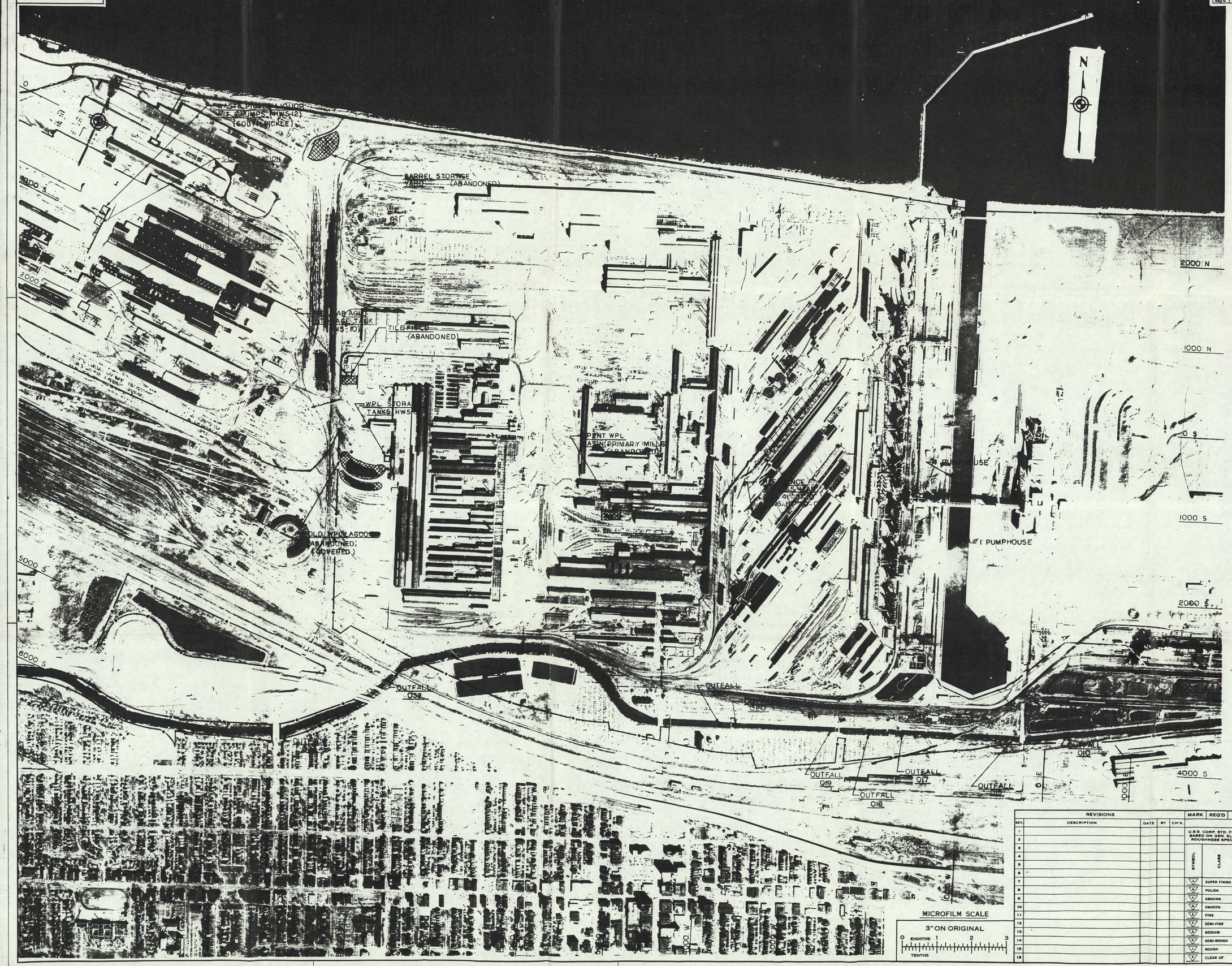
MICROFILM SCALE
3" ON ORIGINAL
0 EIGHTHS 1 2 3
TENTHS

GW-282826

BILL OF MATERIAL					
NO. REQ'D	FOR OR PATT. NO.	MAT'L	DESCRIPTION	EST. FOR. WT. TOTAL	ORDER NO.

NOTES:

1) FOR LEGEND SEE DWG Nº GW-282825.
2) THERE ARE TWO SEPARATE GRID SYSTEM AT THE GARY WORKS ONE FOR THE EAST SIDE AND ONE FOR THE WEST SIDE.



MICROFILM SCALE

3" ON ORIGINAL

0 EIGHTHS 1 2 3

TENTHS

ENGINEERING-SCIENCE

REVISIONS				MARK	REQ'D	DESCRIPTION	MATERIAL	REMARKS
REV	DESCRIPTION	DATE	BY	CH'K				
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

U.S.S. CORP. STD. FINISHES BASED ON GEN. ELECTRIC ROUGHNESS SPECIMENS

SYMBOL	CLASS	SURFACE FIN. ROUGHNESS RMS MICRO-INCHES AT 90% CONFIDENCE
▽	SUPER FINISH	4
▽	POLISH	8
▽	GROUND	16
▽	SMOOTH	32
▽	FINE	63
▽	SEMI-FINE	125
▽	MEDIUM	250
▽	SEMI-ROUGH	500
▽	ROUGH	1000
▽	CLEAN UP	2000

BILL OF MATERIAL

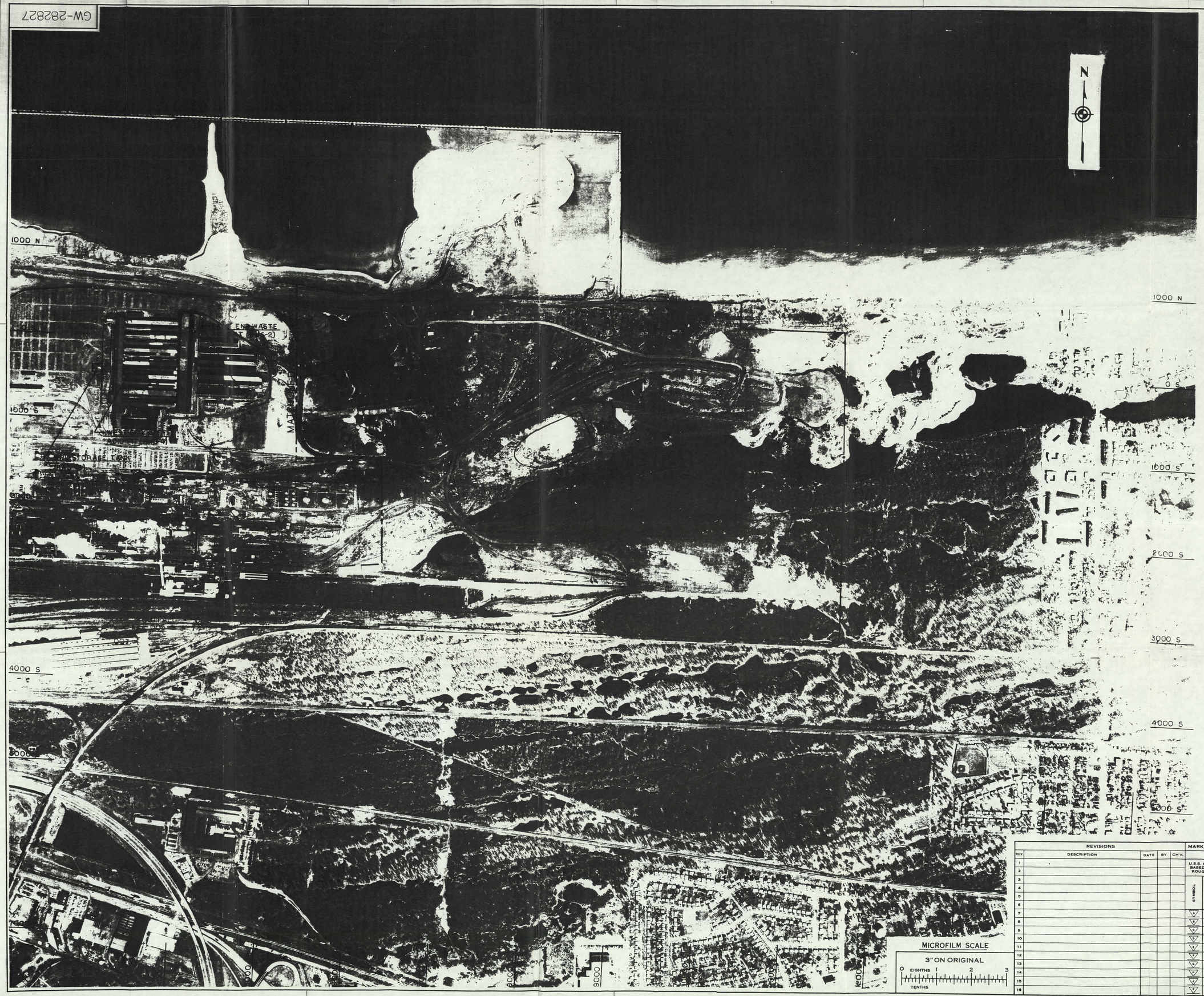
- PLANT GENERAL
- SOUND WASTE STUDY 1980
- HAZARDOUS WASTE MANAGEMENT FACILITIES
- LOCATION PLAN
- FORMERLY ENGINEERING-SCIENCE DWG #43

UNITED STATES STEEL CORPORATION
GARY WORKS
SAFETY USS FIRST

DRAWN BY © DATE 9-10-80 SCALE 1" = 400'
CHECKED BY _____ DATE _____
IN CHARGE OF

GW-282826

GW-282827



BILL OF MATERIAL					
NO. REQ'D	MK. OR PATT. NO.	MAT'L	DESCRIPTION	EST. RGN. WT. TOTAL	ORDER NO.

NOTES

1) FOR LEGEND SEE DWG. Nº GW-282825.
2) FOR LOCATION OF HWD-1 AND HWD-2 SEE DWG Nº GW-276873.
3) FOR LOCATION OF GROUND-WATER MONITORING WELLS SEE DWG. GW-276873

ENGINEERING-SCIENCE

REVISIONS				
REV.	DESCRIPTION	DATE	BY	CH'K.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

MICROFILM SCALE

3" ON ORIGINAL

0 EIGHTHS 1 2 3

TENTHS

MARK	REQ'D	DESCRIPTION	MATERIAL	REMARKS

BILL OF MATERIAL

U.S.S. CORP. STD. FINISHES BASED ON GEN. ELECTRIC ROUGHNESS SPECIMENS

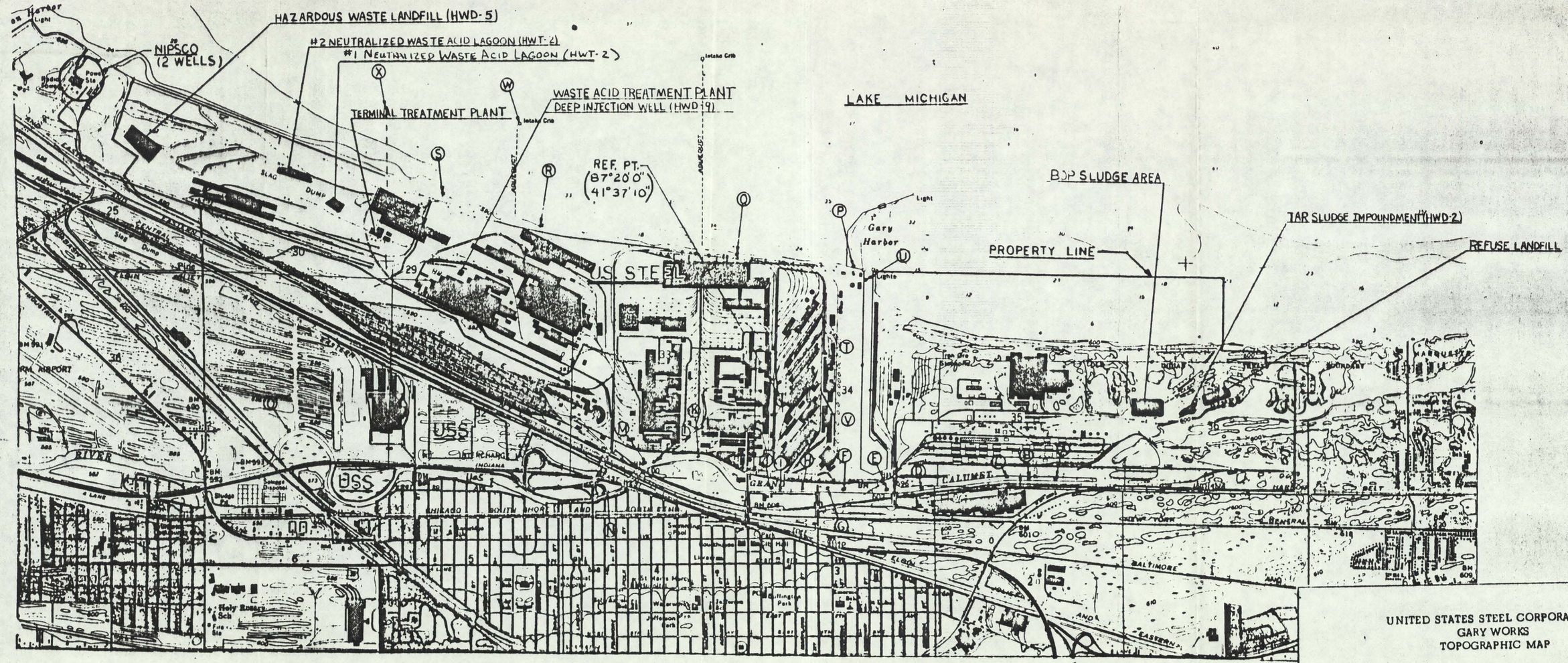
SYMBOL	CLASS	DEGREE OF FIN. ROUGHNESS MICROINCHES BY PROFILOMETER
A	SUPER FINISH	4
B	POLISH	8
C	GROUND	16
D	SMOOTH	32
E	FINE	63
F	SEMI-FINE	125
G	MEDIUM	250
H	SEMI-ROUGH	500
I	ROUGH	1000
J	CLEAN UP	2000

PLANT GENERAL
SOUND WASTE STUDY 1980
HAZARDOUS WASTE MANAGEMENT FACILITIES
LOCATION PLAN
FORMERLY ENGINEERING-SCIENCE DWG # 44

UNITED STATES STEEL CORPORATION
GARY WORKS
SAFETY USS FIRST

DRAWN BY G DATE 9-10-80 SCALE 1" = 400'
CHECKED BY _____ DATE _____
IN CHARGE OF

GW-282827



UNITED STATES STEEL CORPORATION
GARY WORKS
TOPOGRAPHIC MAP

(Scale 2-5/8" = 1 mile)

ENGINEERING-SCIENCE

DWG. NO. GW-282829