PORSF
11.3.31.5.1

Port of Portland

THE PORT OF PORTLAND COMMISSION

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KENNETH N. WEBER, DIRECTOR, ENGINEERING SERVICES
BOB HRDLICKA, DIRECTOR, MARINE

SHEET NO.	DESCRIPTION
	CIVIL
1 (C-1)	SITE PLAN AND VICINITY MAP
2 (C-2)	PLAN
3 (C-3)	DETAILS AND TYPICAL SECTION
REFERENCE DRAWINGS:	
3A	DRAVO REFERENCE DRAWING NO. 5124-7-033
3B	DRAVO REFERENCE DRAWING NO. 5124-067
4	T5 96-9 T5 BUILDING PRE-LOAD

TERMINAL No. 5

SITE FILL

CONSTRUCTION SET

MARCH 1996

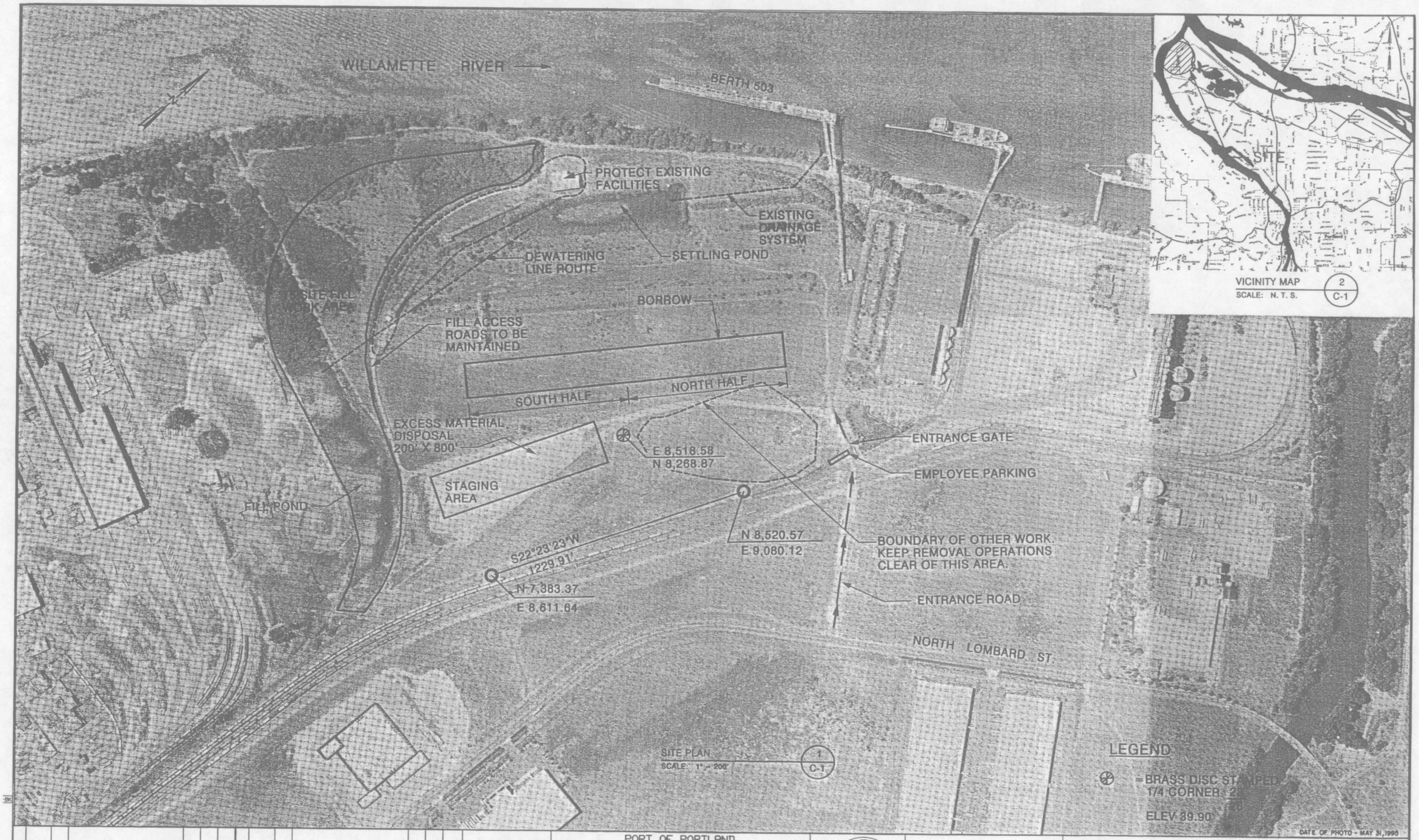
USEPA SF
1286498

AS CONSTRUCTED

DESIGN NO. 94D149 PROJECT MANAGER

PROJECT NO. 51755 DRAWING NO. T5 96-3

T5 - SITE FILL



NO.	DATE	BY	REVISIONS	CK'D	APP'V'D
2	9/96	T.T.	AS CONSTRUCTED.		
1	MARK 96	KLK	AS BID.		

PORT OF PORTLAND
PORTLAND, OREGON

94D149 — DESIGN NUMBER
51755 — PROJECT NUMBER

REGISTERED PROFESSIONAL ENGINEER 10014 — OREGON — DEC. 15, 1978 — WALTER R. HAYNES
EXP: 6/30/ 2001

DESIGNED BY	W. HAYNES
DRAWN BY	R. SIMPSON
CHECKED BY	R. LYNCH
DATE	FEB. 1996
SCALE	AS SHOWN

TERMINAL 5

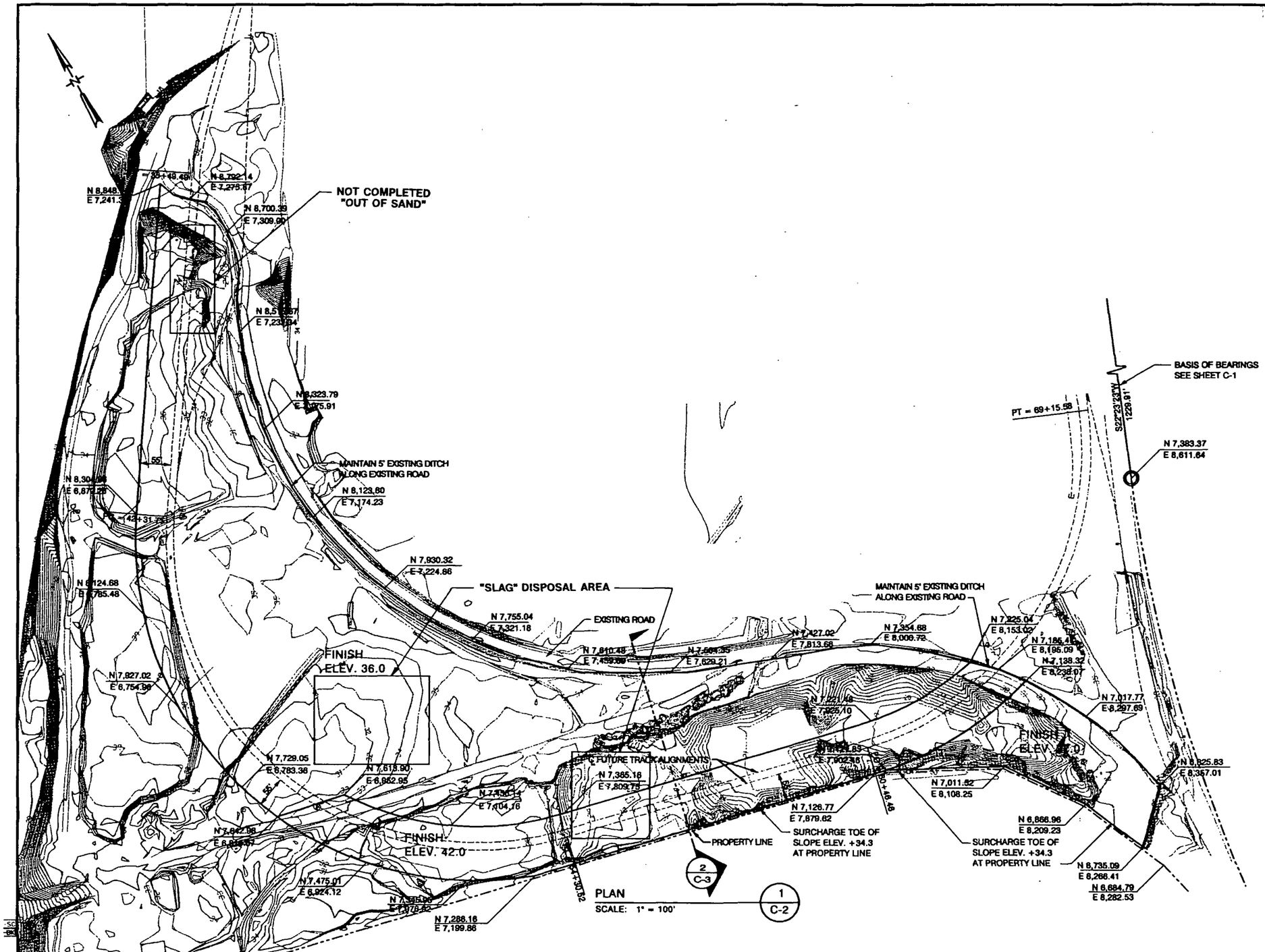
SITE FILL

SITE PLAN AND VICINITY MAP

SUBMITTED BY — PROJECT ENGINEER

DRAWING NO. T5 96-3 1/3 (C-1)

T5 96-3



LEGEND:

- FUTURE TRACK ALIGNMENTS
- PROPERTY LINE
- FILL PERIMETER
- 5/8" IRON ROD WITH PLASTIC CAP MARKED "R.E. MEYER CONSLTS.INC."
- BRASS DISC STAMPED 1/4 CORNER 23/26 ELEV. 39.90

NOTES:

VERTICAL DATUM NGVD

AS CONSTRUCTED

NO.	DATE	BY	REVISIONS	CK'D	APP'VD
2	9/96	T.T.	AS CONSTRUCTED.		
1	MAR 96	KLK	AS BID		

PORT OF PORTLAND
PORTLAND, OREGON

94D149 — DESIGN NUMBER
51755 — PROJECT NUMBER

REGISTERED PROFESSIONAL ENGINEER 10014 OREGON DEC. 15, 1978 WALTER R. HAYNES
EXP: 6/30/97

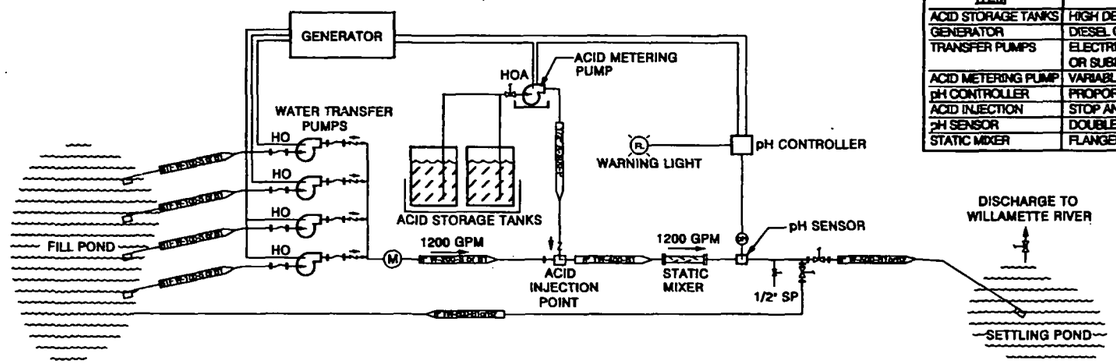
DESIGNED BY	W. HAYNES
DRAWN BY	R. SIMPSON
CHECKED BY	R. LYNCH
DATE	FEB 1996
SCALE	AS SHOWN

TERMINAL 5

SITE FILL
PLAN

SUBMITTED BY — PROJECT ENGINEER

DRAWING NO. T5 96-3 2/3 (C-2)

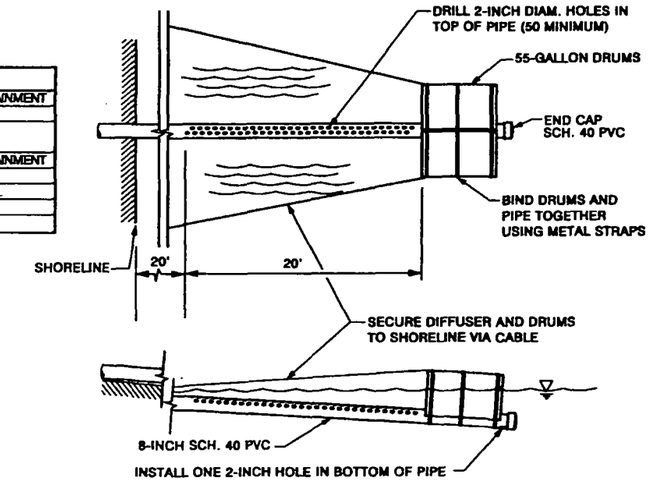


EQUIPMENT DESCRIPTION

ITEM	TYPE	SIZE	MAKE/MODEL	OTHER
ACID STORAGE TANKS	HIGH DENSITY POLYETHYLENE	55 GALLON OR GREATER	CONTRACTOR'S OPTION	SECONDARY CONTAINMENT
GENERATOR	DIESEL OR GAS POWERED	AS NEEDED	CONTRACTOR'S CHOICE	
TRANSFER PUMPS	ELECTRIC CENTRIFUGAL OR SUBMERSIBLE TRASH	AS SPECIFIED	CONTRACTOR'S OPTION	
ACID METERING PUMP	VARIABLE SPEED DIAPHRAM	15 GPH CAPACITY	LMI C781-36	SECONDARY CONTAINMENT
pH CONTROLLER	PROPORTIONING OUTPUT		LMI DP5000-1-B	
ACID INJECTION	STOP AND NOZZLE ASSEMBLY		LMI 10998 CORPORATION	
pH SENSOR	DOUBLE JUNCTION ENCAPSULATED		LMI S675 AND S855CD	
STATIC MIXER	FLANGED 3 STAGE	8 INCH I.D.	CONTRACTOR'S CHOICE	

NOTES:

1. MAXIMUM FLOW RATE IS 1350 GPM.
2. ALL PUMPING EQUIPMENT SHALL BE COMPATIBLE WITH CARBONATE SOLUTIONS OF pH + 10.5
3. ALL MATERIALS AND INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRIC CODE (NEC), STATE AND LOCAL CODES.
4. ALL PIPING DOWNSTREAM OF ACID INJECTION SHALL BE PVC (SCH 40, SDR 21, OR PIP)



SETTLING POND DIFFUSER DETAIL (2 / C-3)
SCALE: N. T. S.

ABBREVIATIONS:

A	HYDROCHLORIC ACID
W	LAGOON WATER
TW	TREATED WATER
B1	PVC, SCH. 40
B2	PVC, SCH. 40, SDR 21, OR PIP
S	CARBON STEEL, SCH 40
HO	HAND, OFF
HOA	HAND, OFF, AUTO
STF	SIZE TO FIT
SP	SAMPLING PORT

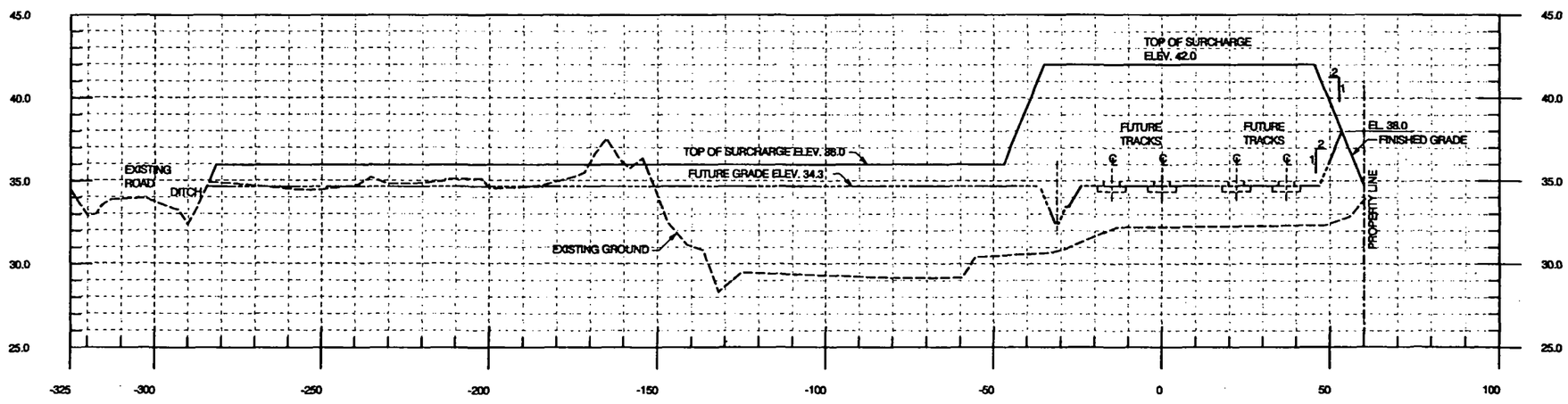
PIPE IDENTIFICATION:

PIPE DIAMETER
PIPE CONTENTS (SEE ABBREVIATIONS)
PIPE NUMBER
PIPE SPECIFICATIONS (SEE ABBREVIATIONS)
(E.G. 1" TW-500-B1)

LEGEND

- FLEXIBLE HOSE CONNECTION
- GATE VALVE
- FLANGE CONNECTION
- BUTTERFLY VALVE
- METER
- POWER TRANSMISSION WIRING
- CONTROL WIRING
- CHECK VALVE

PROCESS DIAGRAM (1 / C-3)
SCALE: N. T. S.



TYPICAL CROSS SECTION (3 / C-3)
SCALE: HORZ. 1" = 20' - 0"
VERT. 1" = 4' - 0"

AS CONSTRUCTED

NO.	DATE	BY	REVISIONS	CK'D	APP'VD
2	9/96	T.T.	AS CONSTRUCTED.		
1	MAR 96	KLK	AS BID		

PORT OF PORTLAND
PORTLAND, OREGON

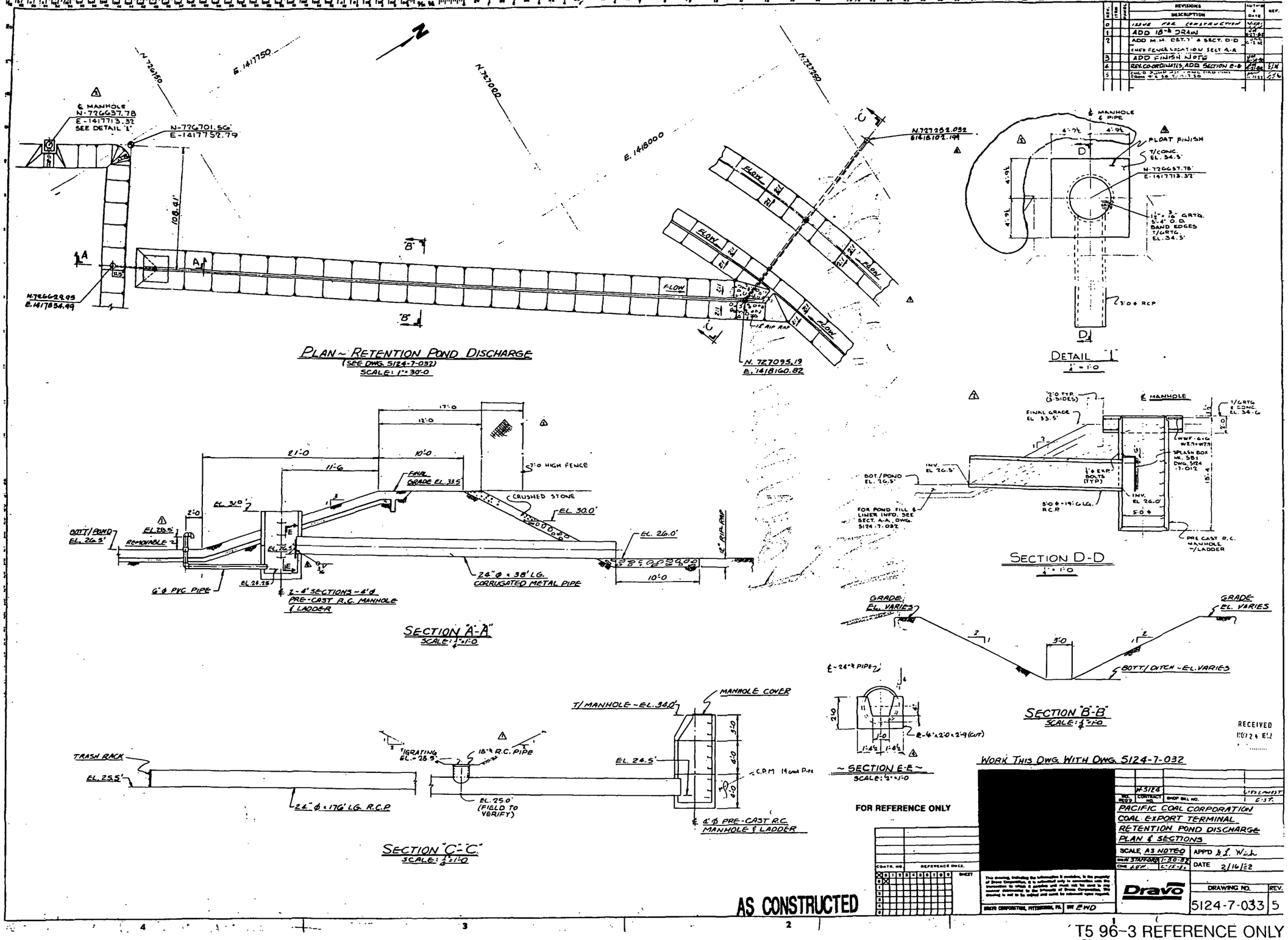
940149 (DESIGN NUMBER) 51756 (PROJECT NUMBER)

REGISTERED PROFESSIONAL ENGINEER 10014 OREGON DEC. 15, 1978 WALTER R. HAYNES
EXP: 6/30/97

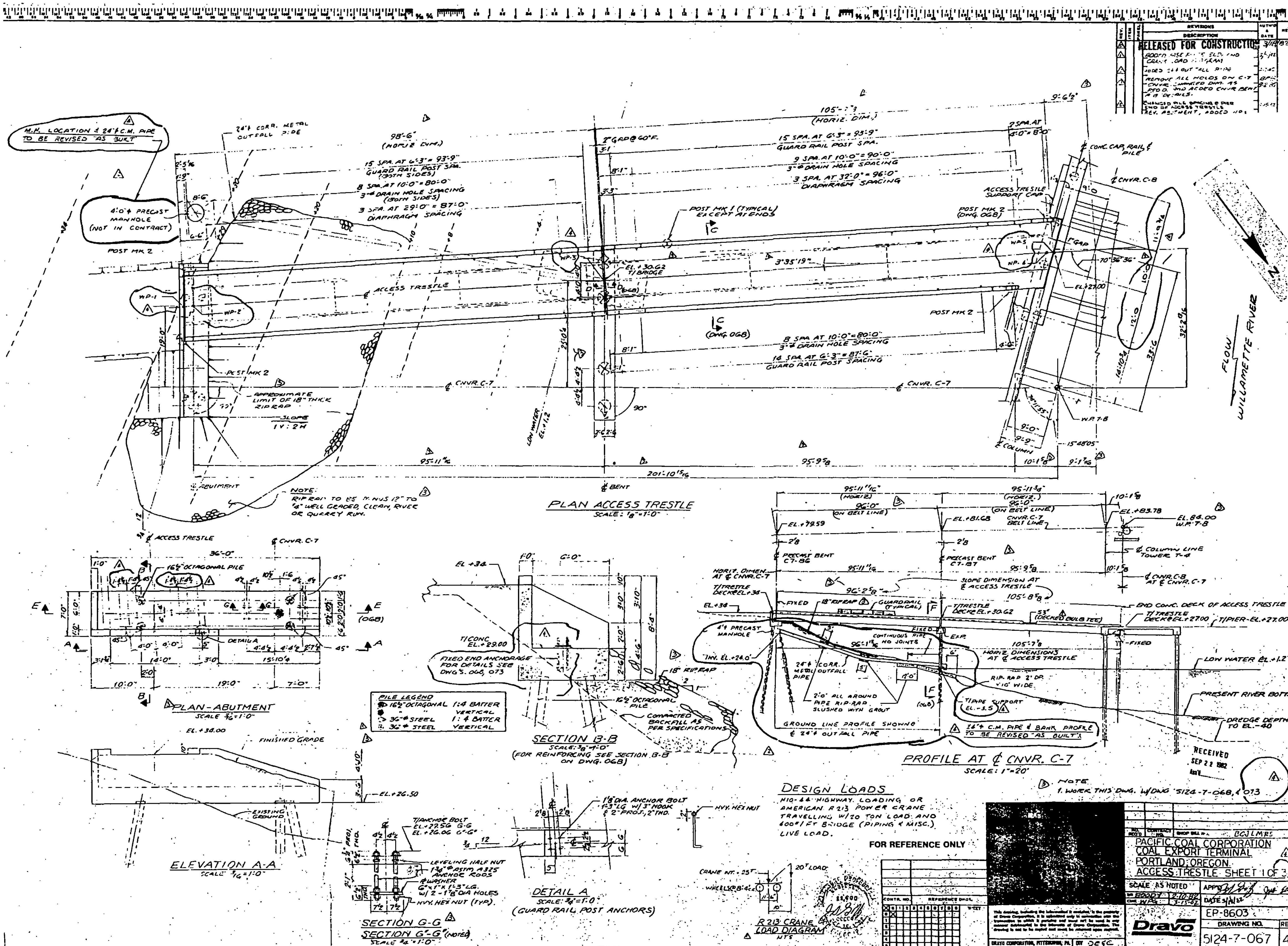
DESIGNED BY	W. HAYNES
DRAWN BY	D. HAYWARD
CHECKED BY	R. LYNCH
DATE	FEB. 1996
SCALE	AS SHOWN

TERMINAL 5
SITE FILL
DETAILS AND TYPICAL SECTION

SUBMITTED BY (PROJECT ENGINEER)
DRAWING NO. T5 96-3 3/3 (C-3)



T5 96-3 REFERENCE ONLY
SHEET 3A



AS CONSTRUCTED

T5 96-3 REFERENCE ONLY

SHEET 3B

T-5 BUILDING PRE-LOAD

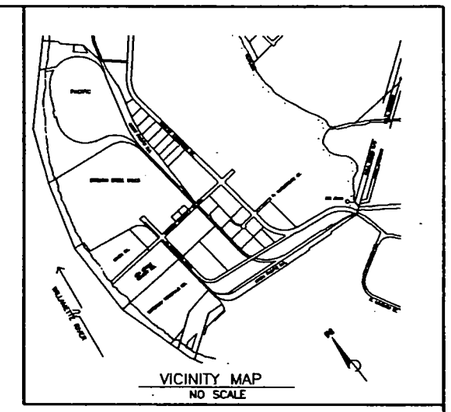
SURVEYED 2/20/1996

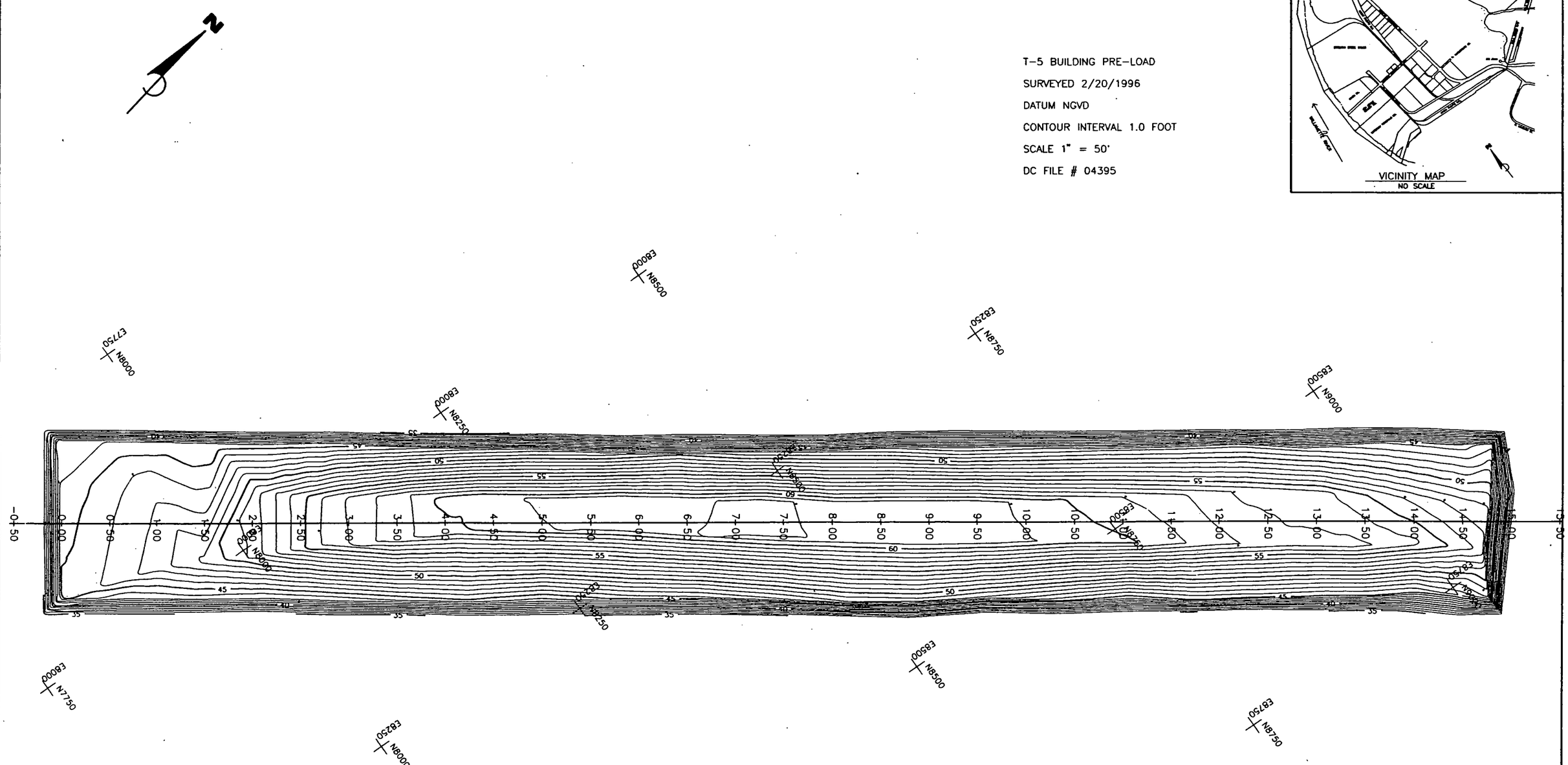
DATUM NGVD

CONTOUR INTERVAL 1.0 FOOT

SCALE 1" = 50'

DC FILE # 04395





FOR REFERENCE ONLY T5 1996-0003 4/3

NO.	DATE	BY	REVISIONS	CK'D	APP'V'D	NO.	DATE	BY	REVISIONS	CK'D	APP'V'D

PORT OF PORTLAND
PORTLAND, OREGON

PROJECT MANAGER

94D149 — DESIGN NUMBER

22386-360 — PROJECT NUMBER

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
DAVID A. FOSTER
1934
RENEWED THRU 12/31/97

DESIGNED BY	D. FOSTER
DRAWN BY	D. FOSTER
CHECKED BY	C. WILEY
DATE	FEB., 1996
SCALE	1" = 50'

TERMINAL 5

T-5 BUILDING PRE-LOAD
TOPOGRAPHIC SURVEY

SUBMITTED BY — MANAGER SURVEY

DRAWING NO. T5 96-9 1/1 (SU)

MICROFILMED