1239277

[0076045H]

INFORMATION CLEARANCE FORM

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A. Information Category

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B. Document Number: HW-55176 PART 1 - 7

C. Title

Index of CPD (Chemical Processing Department) Crib Building Numbers Design of CPD Radioactive Liquid Waste Disposal Sites

D. Internet Address

E. Required Information

1. Is document potentially Classified? ☒ No ☐ Yes (MANDATORY)

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F. Complete for a Journal Article

1. Title of Journal

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G. Complete for a Presentation

1. Title for Conference or Meeting _____
2. Group Sponsoring _____
3. Date of Conference _____
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6. Will Material be Handed Out? ☐ No ☐ Yes

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B. M. Sullivan
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I. Reviewers

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All 7 part are Approved for Public Release
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A-6001-401 (12/00)

229

RELEASE AUTHORIZATION

Document Number:	HW-55176 Part 1 - 7
Document Title:	Index of CPD (Chemical Processing Department) Crib Building Numbers Design of CPD Radioactive Liquid Waste Disposal Sites, Parts 1 through 7.

This document, reviewed in accordance with DOE Order 241.1, "Scientific and Technical Information Management," and DOE G 241.1-1, "Guide to the Management of Scientific and Technical Information," does not contain classified or sensitive unclassified information and is:

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HANFORD ATOMIC PRODUCTS OPERATION - RICHLAND, WASHINGTON

DOCUMENT NO.
HW-55176 - ~~PT. 1~~

COPY NO. 201

DATE
March 10, 1958

ISSUING FILE

TITLE

INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

REFERENCE COPY

AUTHOR

V. W. Wood

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ROUTE TO	PAYROLL NO.	LOCATION	FILES ROUTE DATE	SIGNATURE AND DATE
W. L. Haney [redacted]		~~325~~		~~W. L. Haney~~ 3/12/58
[redacted]				
V. L. Caudill	60556	271-T	SEP 20 1968	
~~E. J. Bunker~~				
E. J. Current	60217	222-T	OCT 21 1968	
~~AEC Rt. Env. Safety + Tech Serv Div~~ (P. S. Rhodes)			SEP 14 1973	
~~C. B. Foster~~	60139	~~Fed~~	MAR 14 1974	
O. J. Current	63587	222-T	OCT 11 1974	
O. F. Tenpas	60262	2704W	MAY 20 1976	

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(CLASSIFICATION)

C-1599-MS (8-56)

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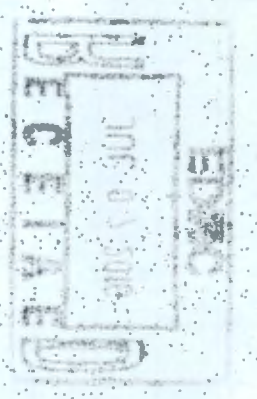

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part I of VII Parts
Process Technology - Study Report

by

V. W. Wood
Radiological Design and Development
Facilities Engineering Operation
CHEMICAL PROCESSING DEPARTMENT

March 10, 1958

D I S T R I B U T I O N

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INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part I of VII Parts
Process Technology - Study Report

INTRODUCTION

During the fourteen years or more which the separations areas have operated, many sites have been used for the disposal of radioactive liquid wastes. Various methods have been used in assigning building numbers to these sites and, in a number of cases, changes have been made which have brought about some confusion. One of the reasons being some currently used building numbers do not agree with the numbers existing on design prints for the facilities. Reference (2) was an effort to establish a listing of the liquid waste disposal sites. It required considerable time and research to locate information concerning these sites.

Many varied designs have been used for the disposal of radioactive liquid wastes. Reverse wells, trenches, cribs or caverns, etc, have been used. Specific information on these facilities is often difficult to obtain for in some instances they were constructed on work orders with no recorders being retained on the design. In general, the design on each facility has been different. This has made it extremely difficult for people to have a good working knowledge of the various waste disposal sites.

PURPOSE

The purpose of this report (Part I) is to provide a ready reference to the Purex liquid waste disposal sites as well as a compilation of sketches showing the basic information on the design of each facility.

Another objective is to establish a simplified and uniform numbering system. Still another objective is to provide an up-to-date tabulation. Subsequent parts of this report will provide information on cribs for such plants as Redox and "Z" plant.

SUMMARY AND CONCLUSIONS

All radioactive liquid waste disposal sites should have the 216 Building number designation. These should be further grouped by giving all such sites for Purex a prefix of 216-A. Other major series would be 216-S for Redox; 216-T for "T" Plant; 216-B for "B" Plant; 216-U for "U" Plant and 216-Z for "Z" Plant.

The numbering list in "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation should be revised to more closely follow the above numbering system.

RECOMMENDATIONS

It is recommended that the following action be taken:

1. All groups and services referring to the Purex cribs or report data concerning them should use the index numbering system as presented in this report. In the case of Purex this means practically no changes.

2. That all drawings concerning these disposal sites, including maps, be revised to show the proper locations and numbers for these cribs.

3. Any suggestions for improving the usefulness of this report should be referred to the author.

DISCUSSION

When all parts of the report are completed, and the work outlined in the report is completed, much confusion will be eliminated and more people will be better informed on the design of each waste disposal facility. The report will provide a firm basis for future building number assignments.

While some sincere effort has been made to try and keep a methodical system for recording waste disposal sites, a number of problems have developed. For example, HW-5000, Sheet 29 of 50 lists only two cribs in the 216-Z series. They are 216-Z-8 and 216-Z-9. Although no coordinates are given, it is doubtful if these refer to the same cribs with the same number as given in Reference "2".

As indicated earlier, the use of the crib index, as presented in this report should be very easy. In addition, information is presented which is very difficult to locate in the records and in some cases it is not available in the records.

REFERENCES

1. HW-5000, "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation.

2. HW-43121, "Tabulation of Radioactive Liquid Waste Disposal Facilities" by HV Clukey dated May 10, 1956.

3. HW-33305, "Tabulation of Radioactive Liquid Waste Disposal Facilities," by HV Clukey dated October 8, 1954.

Cross Reference for Purex Radioactive Liquid Waste Disposal Sites

Suggested Crib No.	Number Listed in HW-5000	Number Listed in HW-43121	Original or Number Used on Drawings	Remarks
216-A-1	216-A-1	216-A-1	216-A-1	
216-A-2	216-A-2	216-A-2	216-A-2	
216-A-3	216-A-3	216-A-3	216-A-3	
216-A-4	216-A-4	216-A-4	216-A-4	
216-A-5	216-A-5	216-A-5	216-A-5	
216-A-6	216-A-6	216-A-6	216-A-6	
216-A-7	216-A-7	216-A-7	216-A-7	
216-A-8	216-A-8	216-A-8	216-A-8	
216-A-9	216-A-9	216-A-9	216-A-9	
216-A-10	216-A-10	216-A-10	216-A-10	
216-A-11	216-A-11	216-A-11		
216-A-12	216-A-12	216-A-12		
216-A-13	216-A-13	216-A-13		
216-A-14	216-A-14	216-A-14		
216-A-15	216-A-15	216-A-15		
216-A-16	216-A-16	216-A-16	216-A-17 Overflow	
216-A-17	216-A-17	216-A-17		
216-A-18	216-A-18	216-A-18		
216-A-19	216-A-19	216-A-19		
216-A-20	216-A-20	216-A-20		
216-A-21	216-A-21	216-A-21		
216-A-22	216-A-22	216-A-22	216-A-22	
* 216-A-23 A&B	None	None	None	216-A-23 was originally another crib which was not built.
216-A-24	216-A-24	None	216-A-24	Alternate 216-A-8
216-A-25	Gable Mtn. Swamp			

* 216-A and B were built on a Work Order in fall of 1957 and no numbers assigned.

APPENDIX

A. Explanation of Parts to the Report

Part I will cover the Purex Radioactive Liquid Waste Disposal Sites.

Part II will cover the "Z" Plant Radioactive Liquid Waste Disposal Sites.

Part III will cover the Redox Plant Radioactive Liquid Waste Disposal Sites.

Part IV will cover the "U" Plant Radioactive Liquid Waste Disposal Sites.

Part V will cover the "T" Plant Radioactive Liquid Waste Disposal Sites.

Part VI will cover the "B" Plant Radioactive Liquid Waste Disposal Sites.

Part VII will cover the "C" Plant, Hot Semi-works, the 200 North Areas and miscellaneous.

B. Index for Purex Radioactive Liquid Waste Disposal Sites.

C. Sketches of Purex Waste Disposal Facilities.

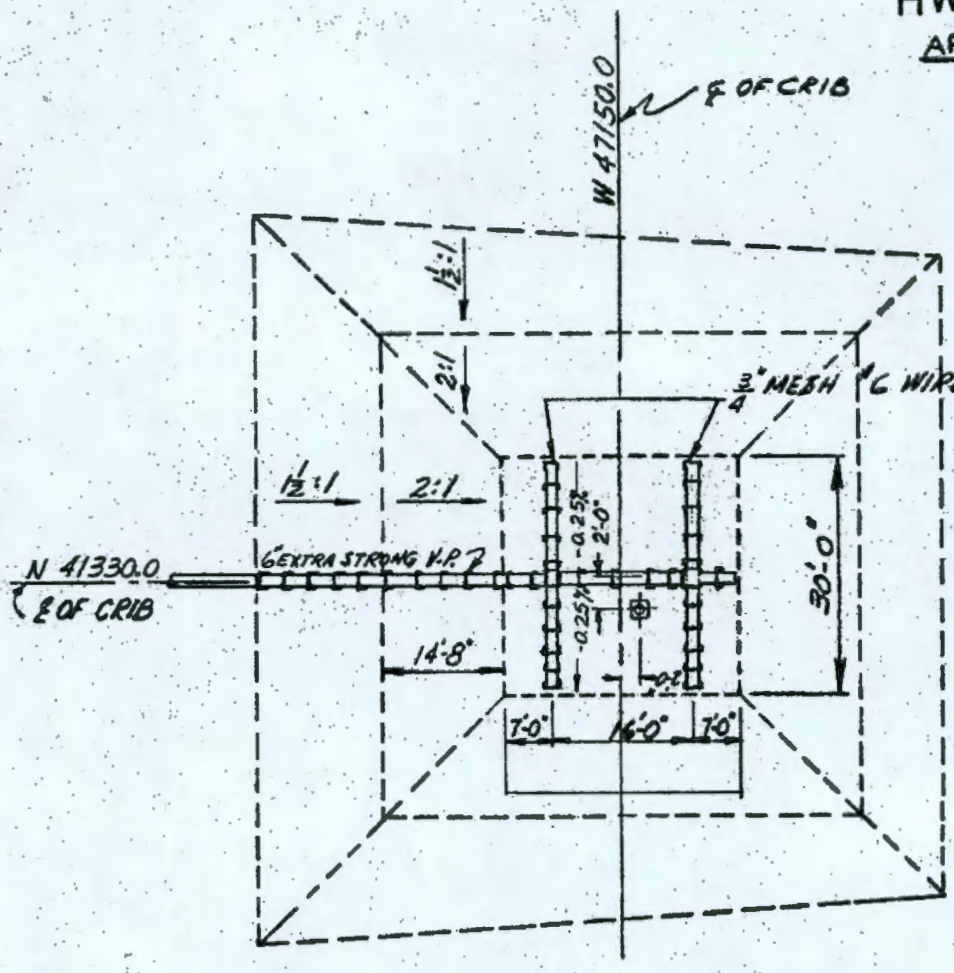
D. Map of Purex Crib Sites (SK-2-17798)

CRIB INDEX
PUREX

Number	Description Appendix Sheet	Service	Use Dates From	To	Status
216-A-1	C-1	Start-up Wastes	11/55	12/55	Abandoned
216-A-2	C-2	Organic Wastes	5/56	-	Active
216-A-3	C-3	203-A Silica Gel Wastes	3/56		Active
216-A-4	C-4	Laboratory & Stack Dia.	12/55	12/58	Replaced by A-21
216-A-5	C-5	Process Condensate	11/55		Active
216-A-6	C-6	Steam Condensate	11/55	1/61	Replaced by A-30
216-A-7	C-7	241-A-152 Box Drain	11/55	7/59	Replaced by Catch Tank
216-A-8	C-8	Tank Farm Condenser Effl.	11/55	5/58	Replaced by A-24
216-A-9	C-9	Fractionator Cond. Eff.	3/56	2/58	Effluent to Swamp
216-A-10	C-10	Process Condensate	Not Used		Replacement for A-5
216-A-11	C-11	Trap Pit #1 Drain	11/55	-	Active
216-A-12	C-11	Trap Pit #3 Drain	11/55	-	Active
216-A-13	C-12	Air Sample Seal Drain	11/55	-	Active
216-A-14	C-11	Vacuum Clean Pit Drain	11/55	-	Active
216-A-15	C-13	Prop. Sampler Pit Drain	11/55	-	Active
216-A-16	C-14	241-A Deentrainment Floor Drain	1/56	-	Active
216-A-17	C-14	Overflow from A-16	1/56	-	Active
216-A-18	C-15	Start-up Wastes	11/55	12/55	Abandoned
216-A-19	C-16	Start-up Wastes	11/55	12/55	Abandoned
216-A-20	C-17	Start-up Wastes	11/55	12/55	Abandoned
216-A-21	C-18 & 19	NH_3 Scrubber & Stack Drain Caustic Scrubber Wastes	12/58 10/57	- 6/58	Active
216-A-22	C-20	203-A Cond. & Floor Drain	11/55	-	Active
216-A-23A	C-21	241-A Fan House Drain	1957	-	Active
216-A-23B	C-21	Overflow from A-23A	1957	-	Active
216-A-24	C-22 & 23	Tank Farm Cond. Effl.	5/58	-	Active
216-A-25	C-24	Cooling Water	12/57	-	Active
216-A-26A	C-25 & 26	Fan Control Room Drain	3/59	-	Active
216-A-26B	C-25 & 26	291 Fan House Drain	3/59	-	Active

CRIB INDEX
PUREX

Number	Description Appendix Sheet	Service	Use Dates From	To	Status
216-A-27	C-27	Lab, Scrubber & Stack Drain	Not Used		Replace. for A-21
216-A-28	C-28	203-A Floor Drain	12/58		Active
216-A-29	None	Cooling Water & Chem. Waste	11/55	-	Active
216-A-30	C-29	Steam Condensate	1/61	-	Active
216-A-31	C-30	Organic Waste	Not Used		Replace. for A-2



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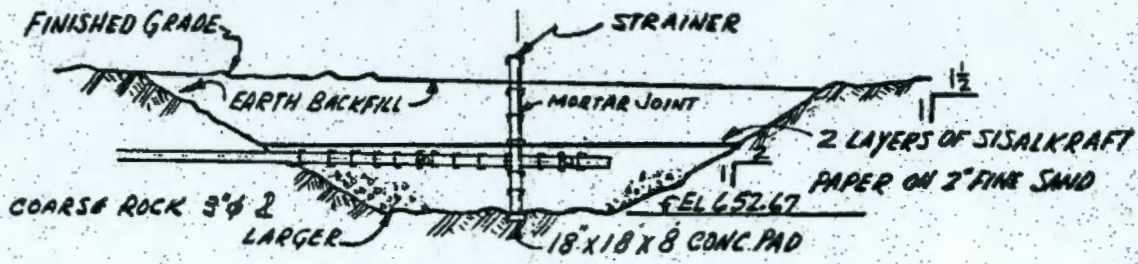

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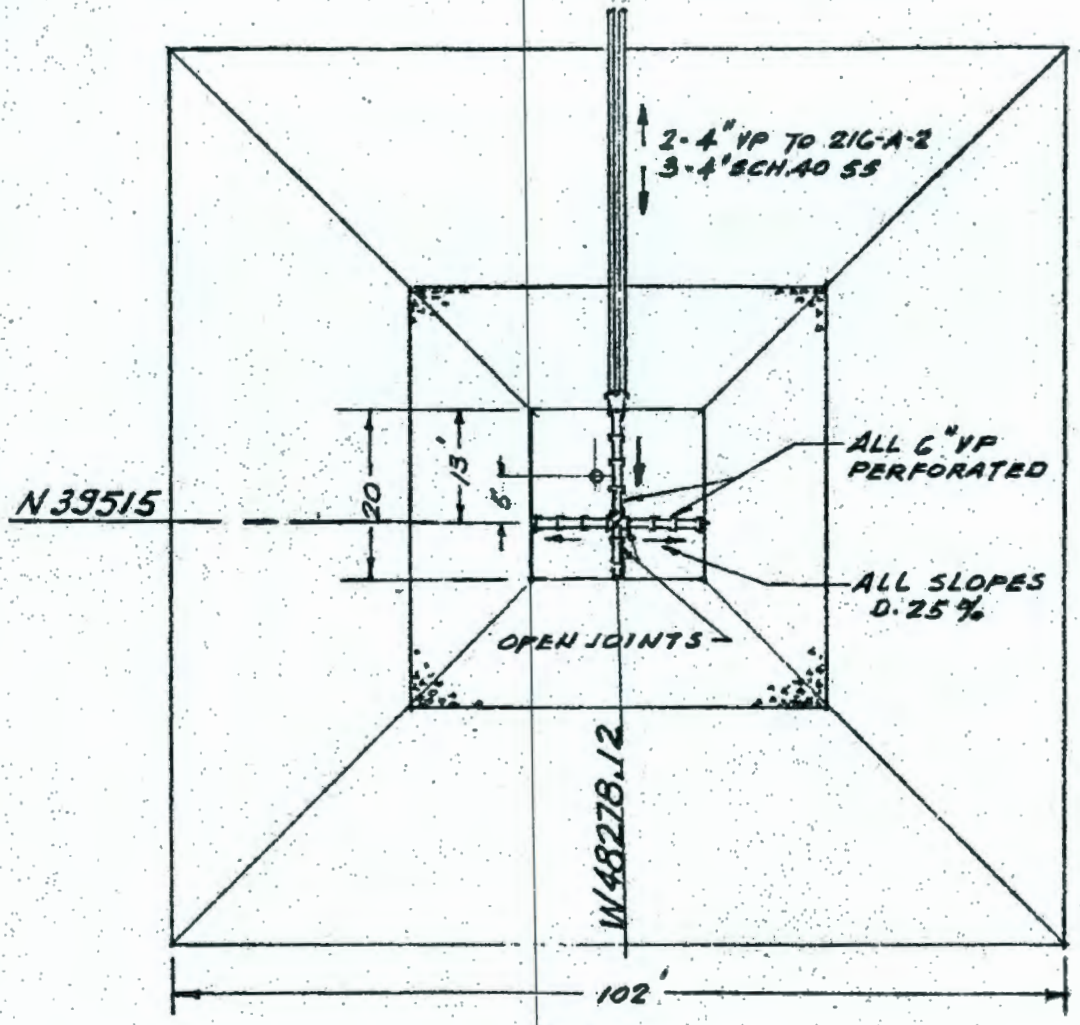

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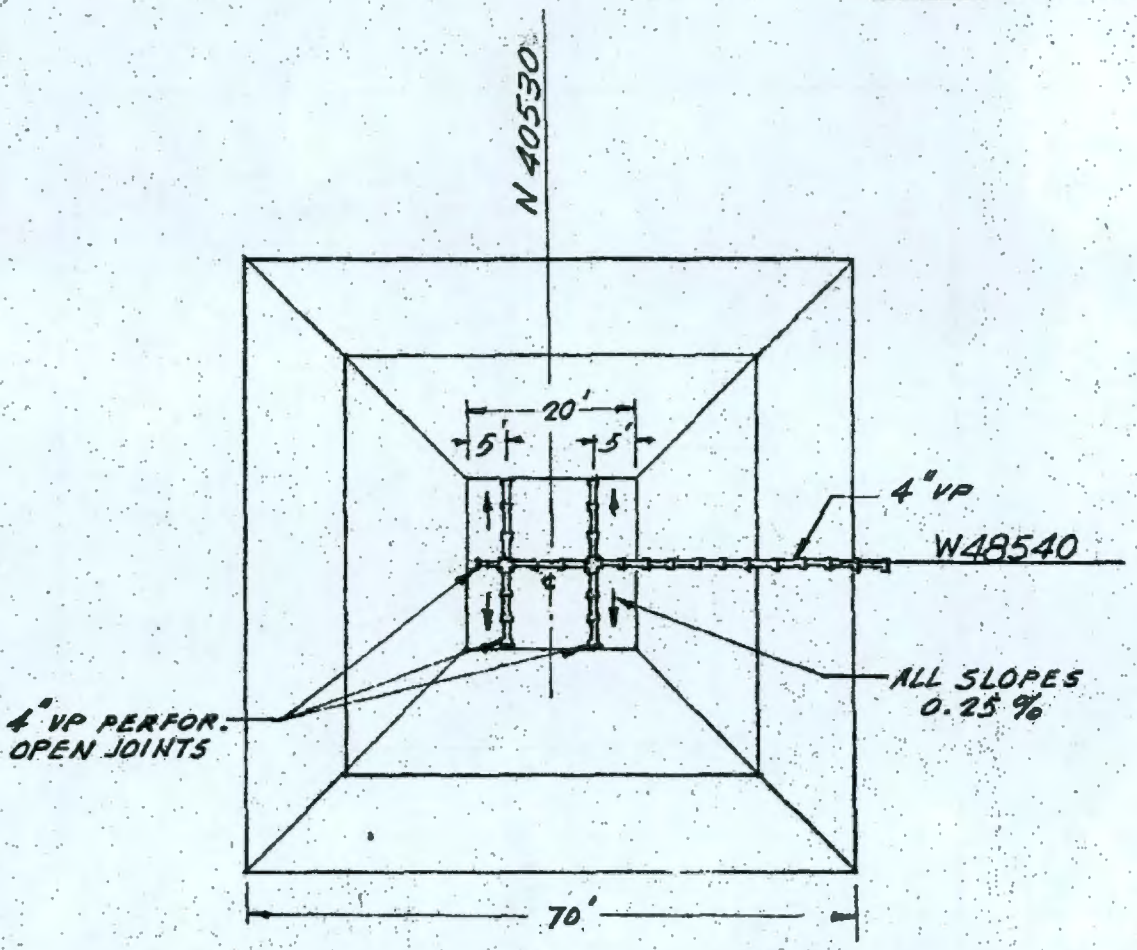
PUREX UNDERGROUND ROCK CRIB — 216-A-2



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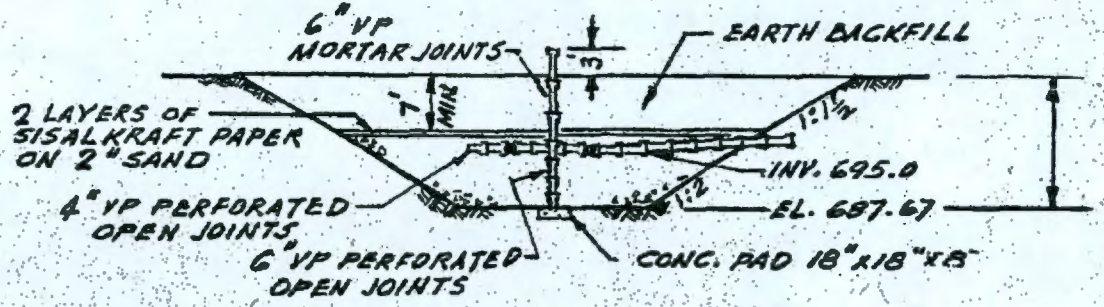

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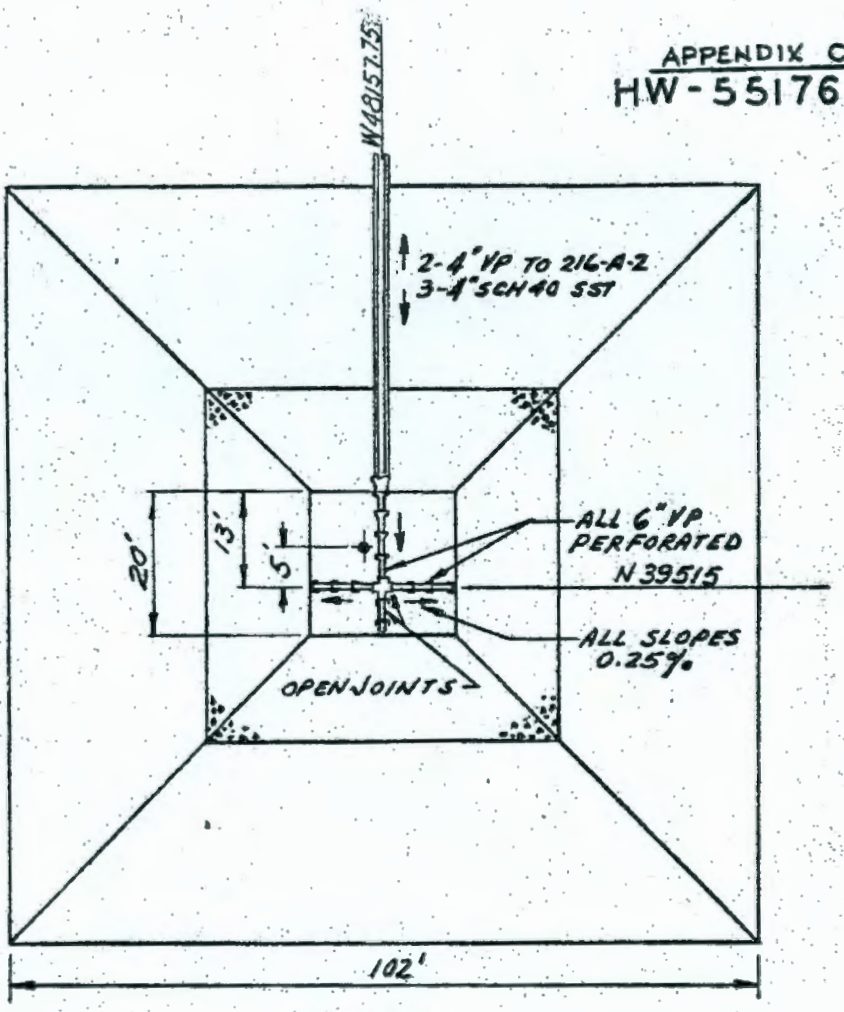

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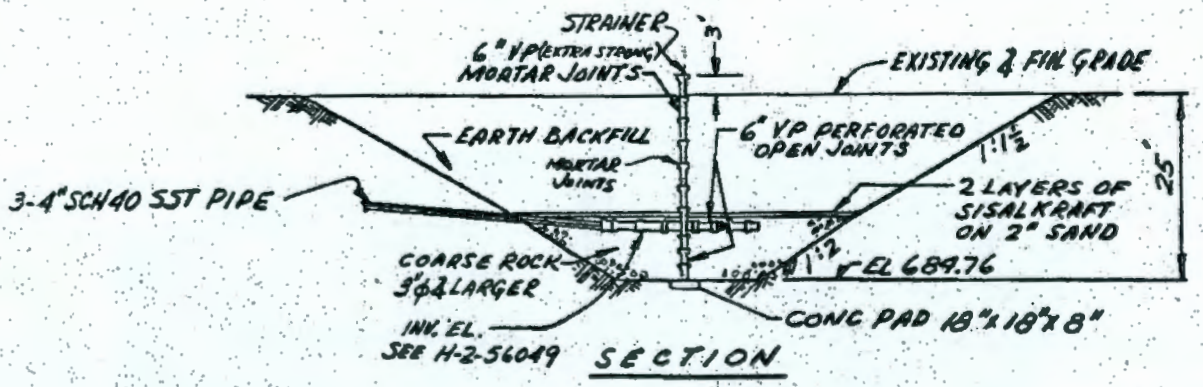

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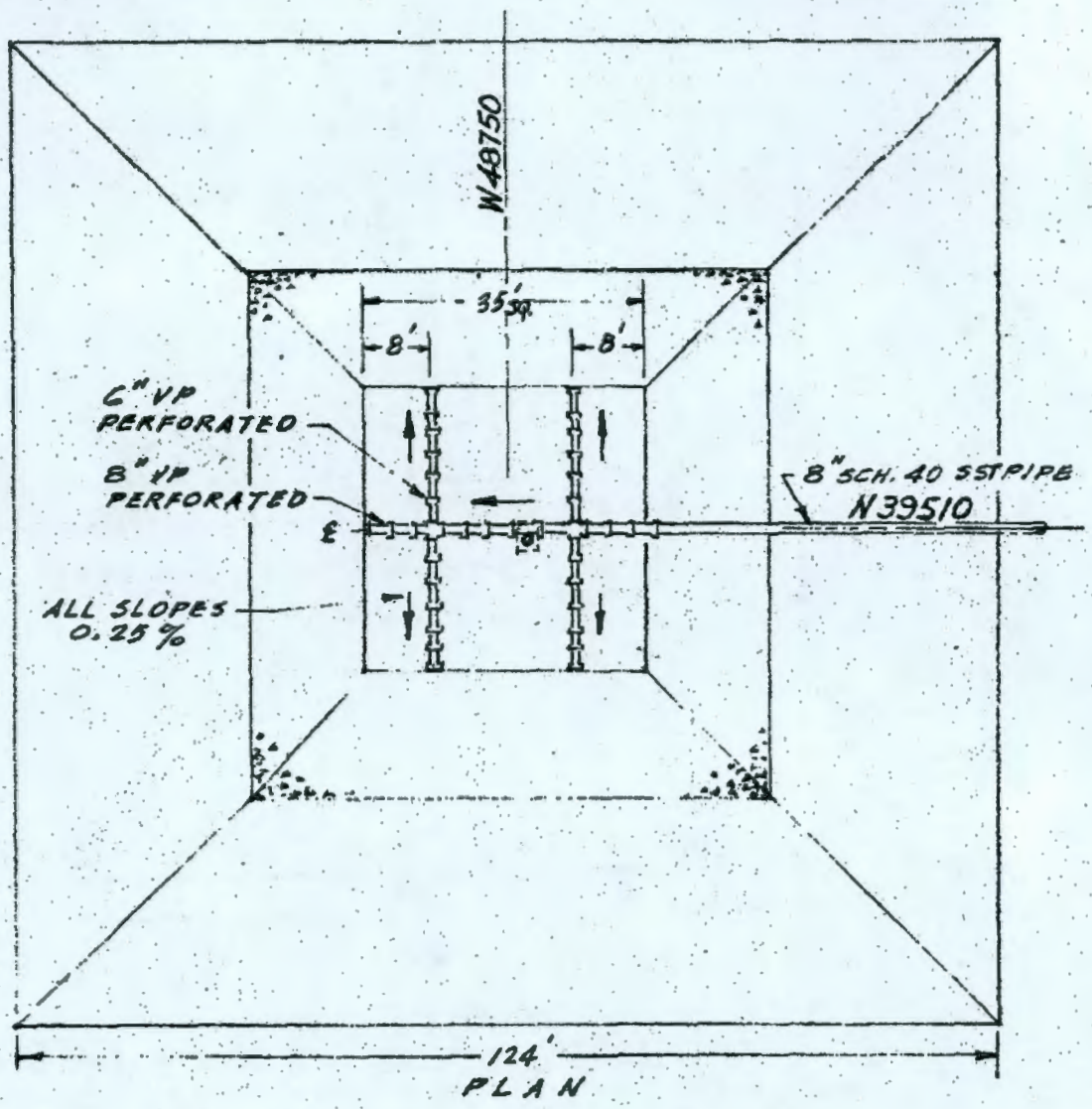

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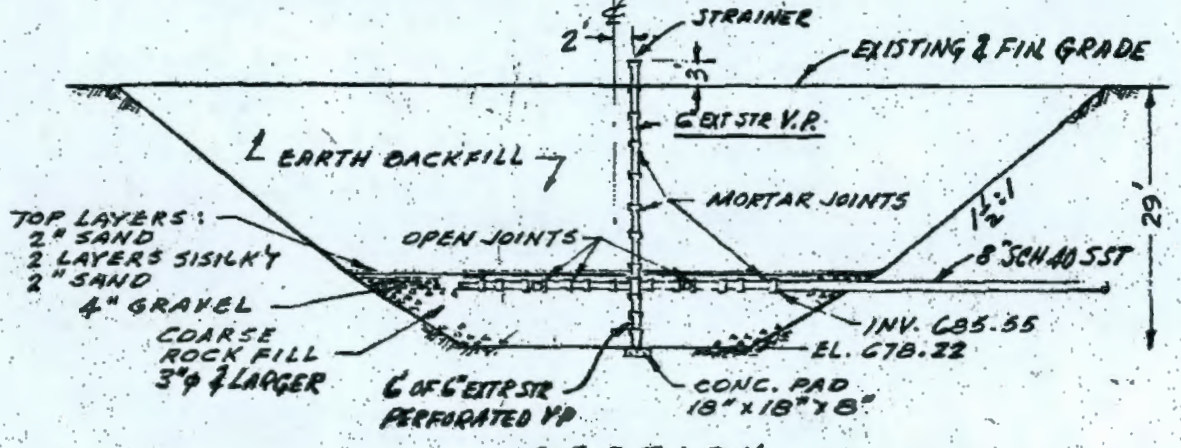

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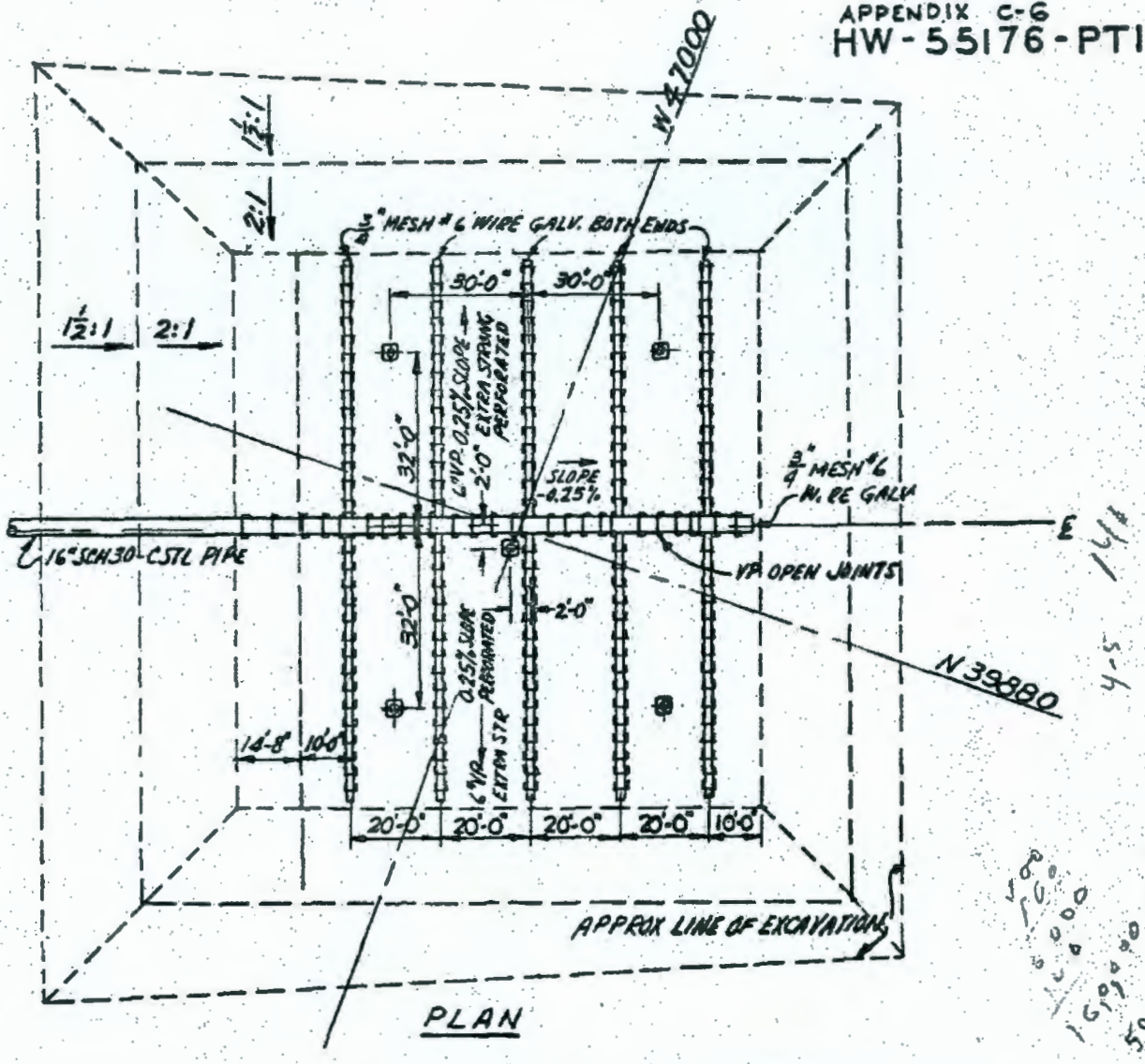

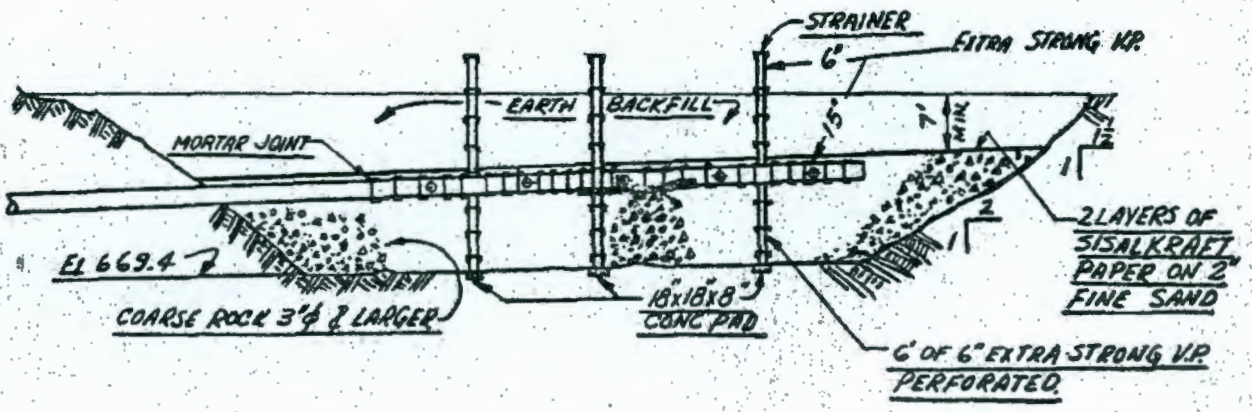

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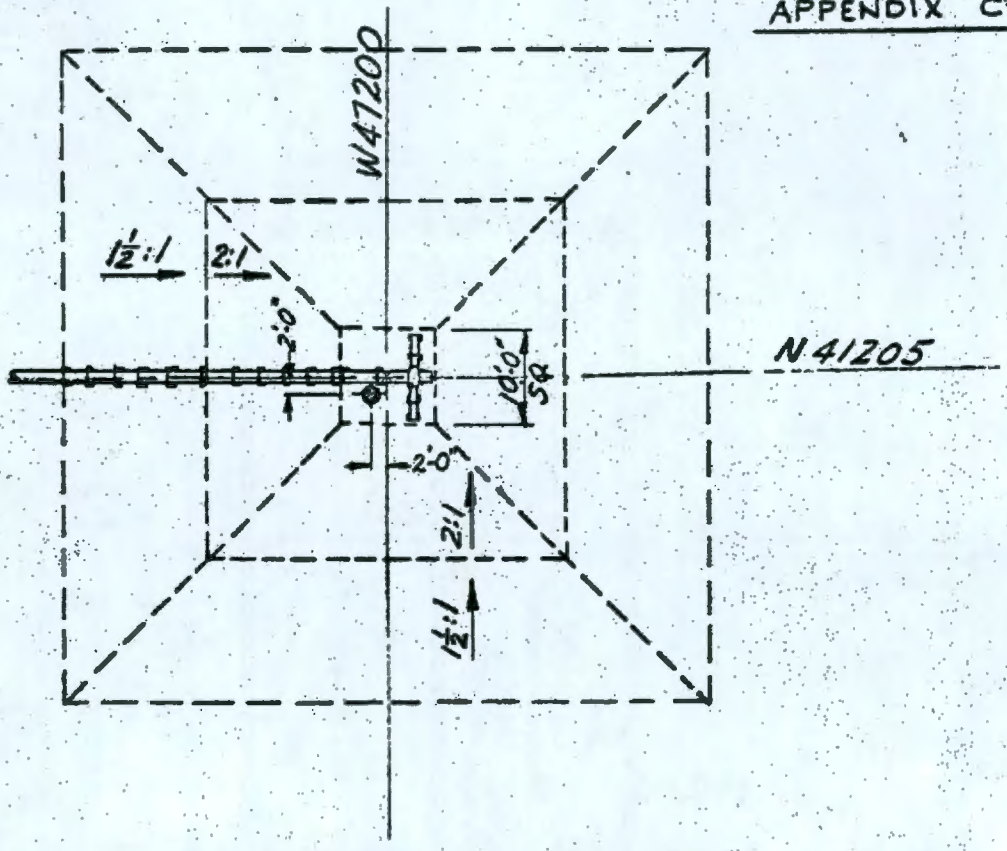

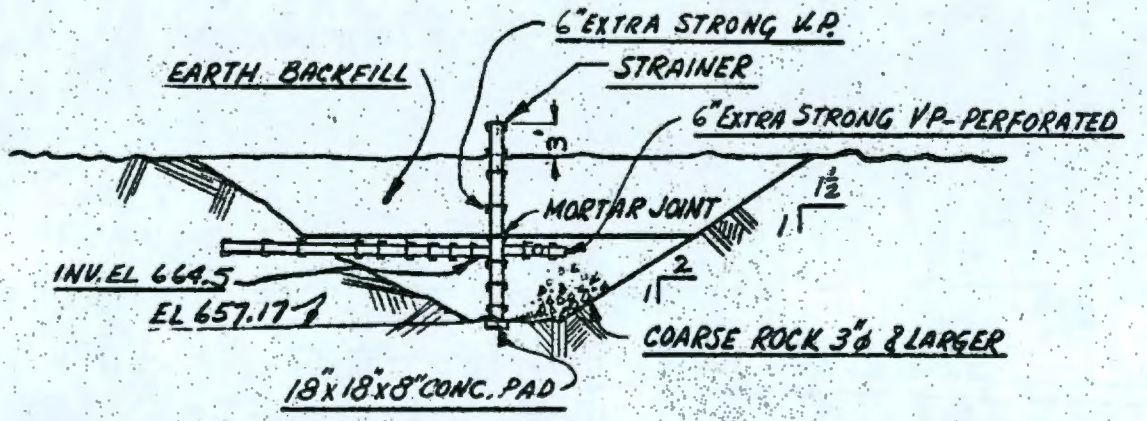

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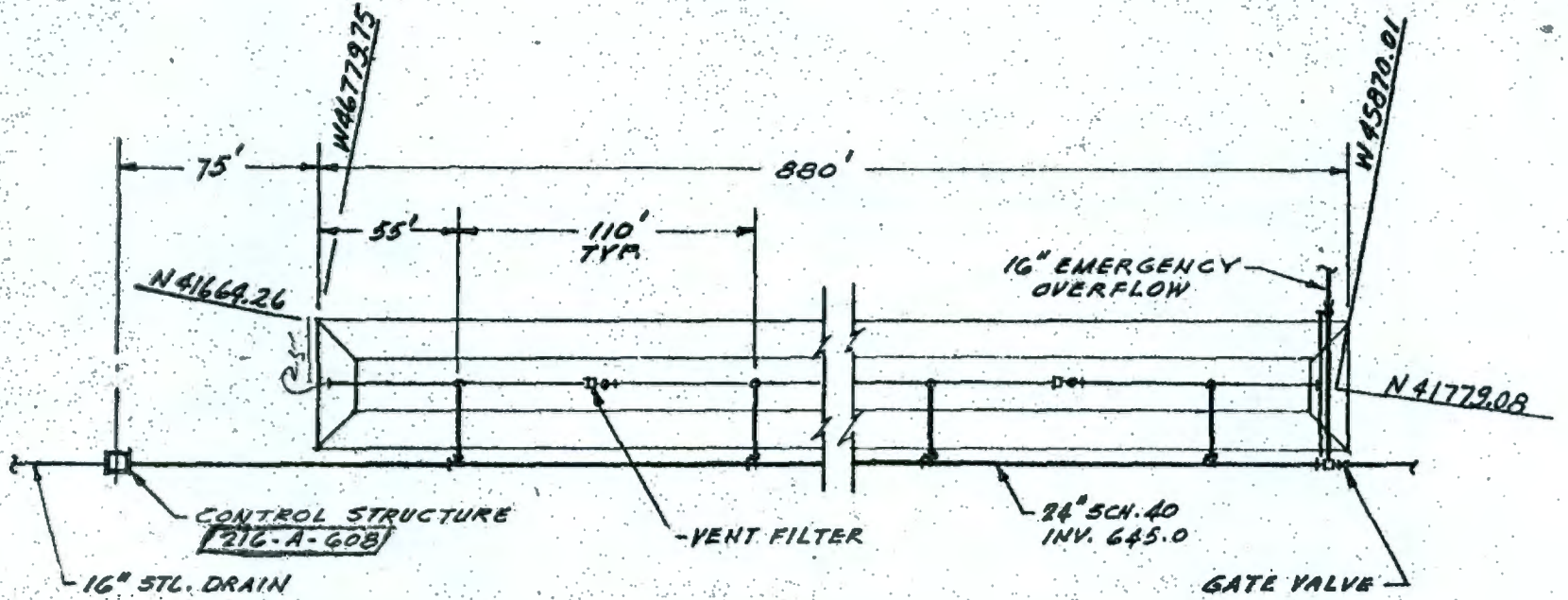

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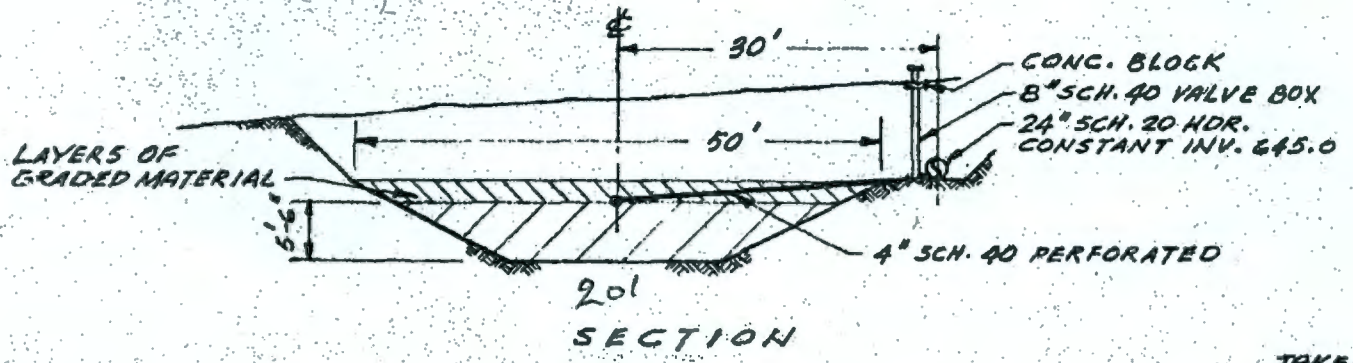

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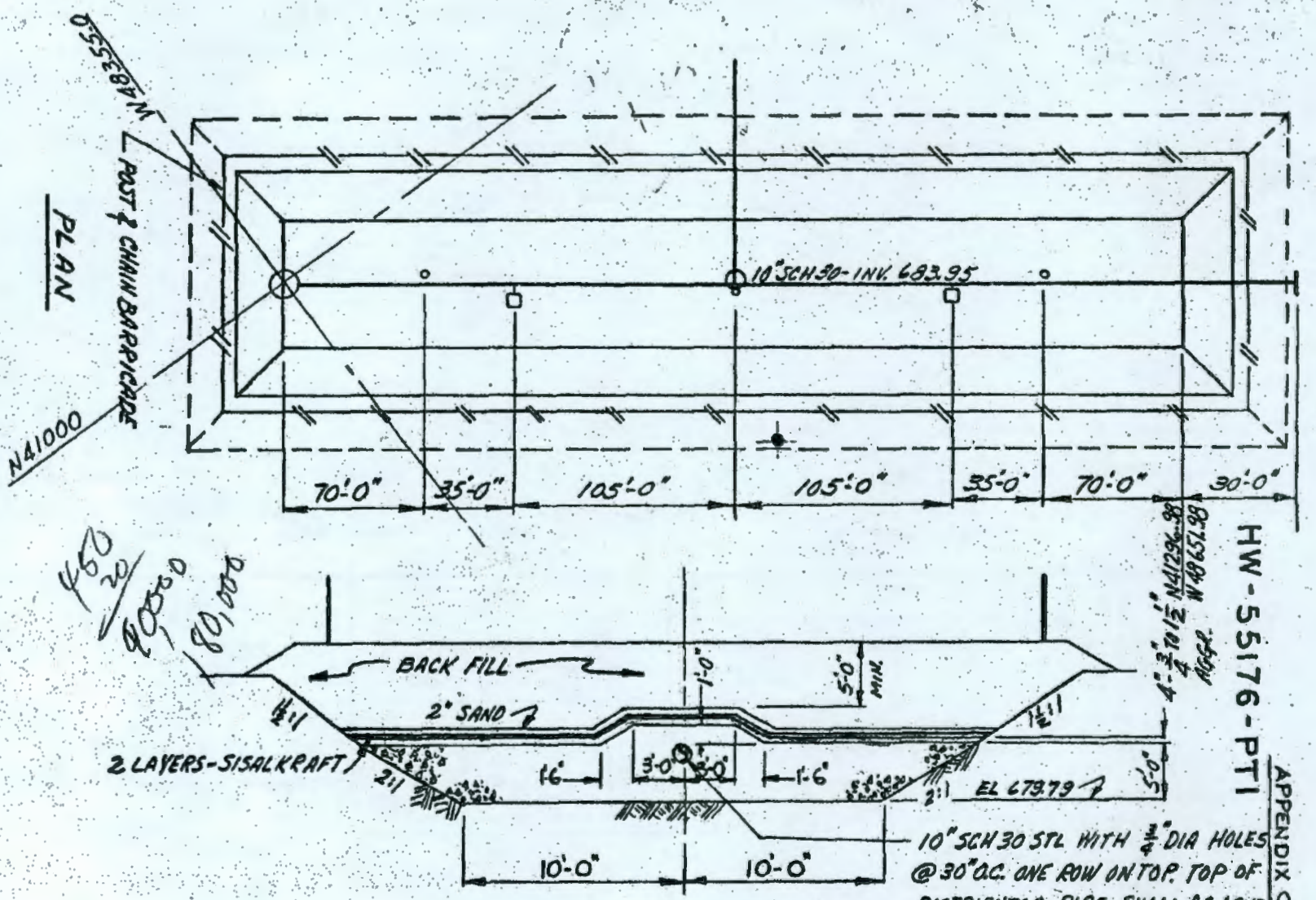
HW-55176-PTI
APPENDIX C-8



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216-A-9

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HW-55176-PTI

APPENDIX C-9

HW 55176-PART I
APPENDIX C-10
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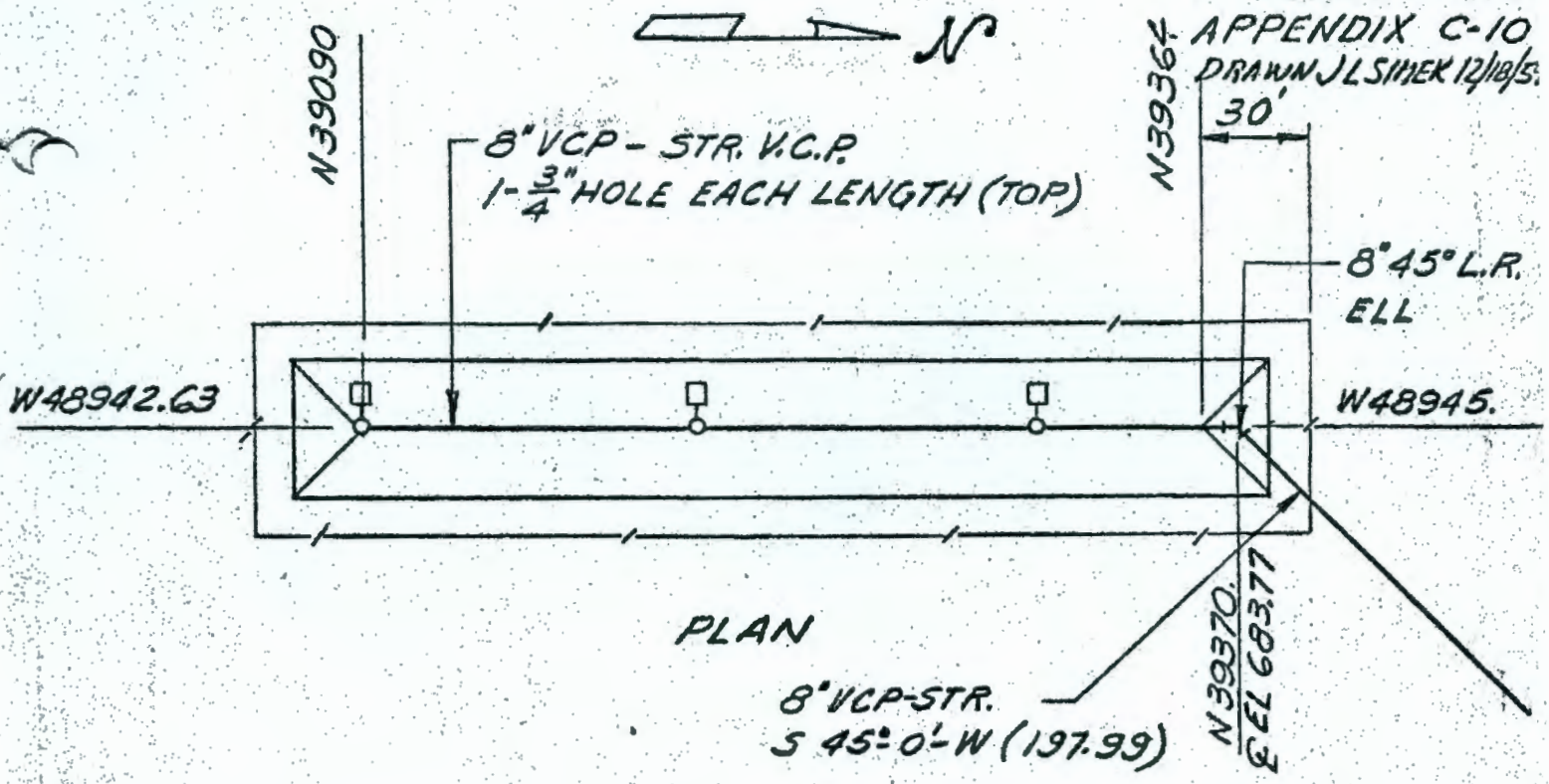

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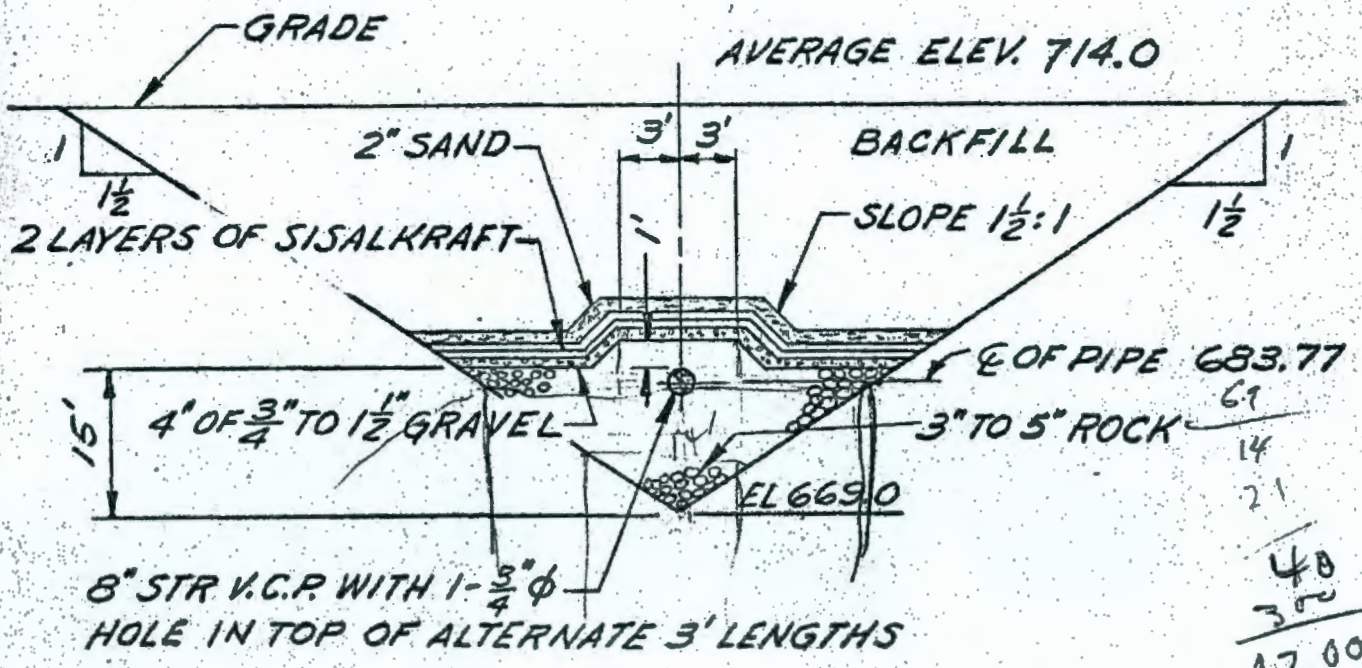

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216-A-10
H-2-55576

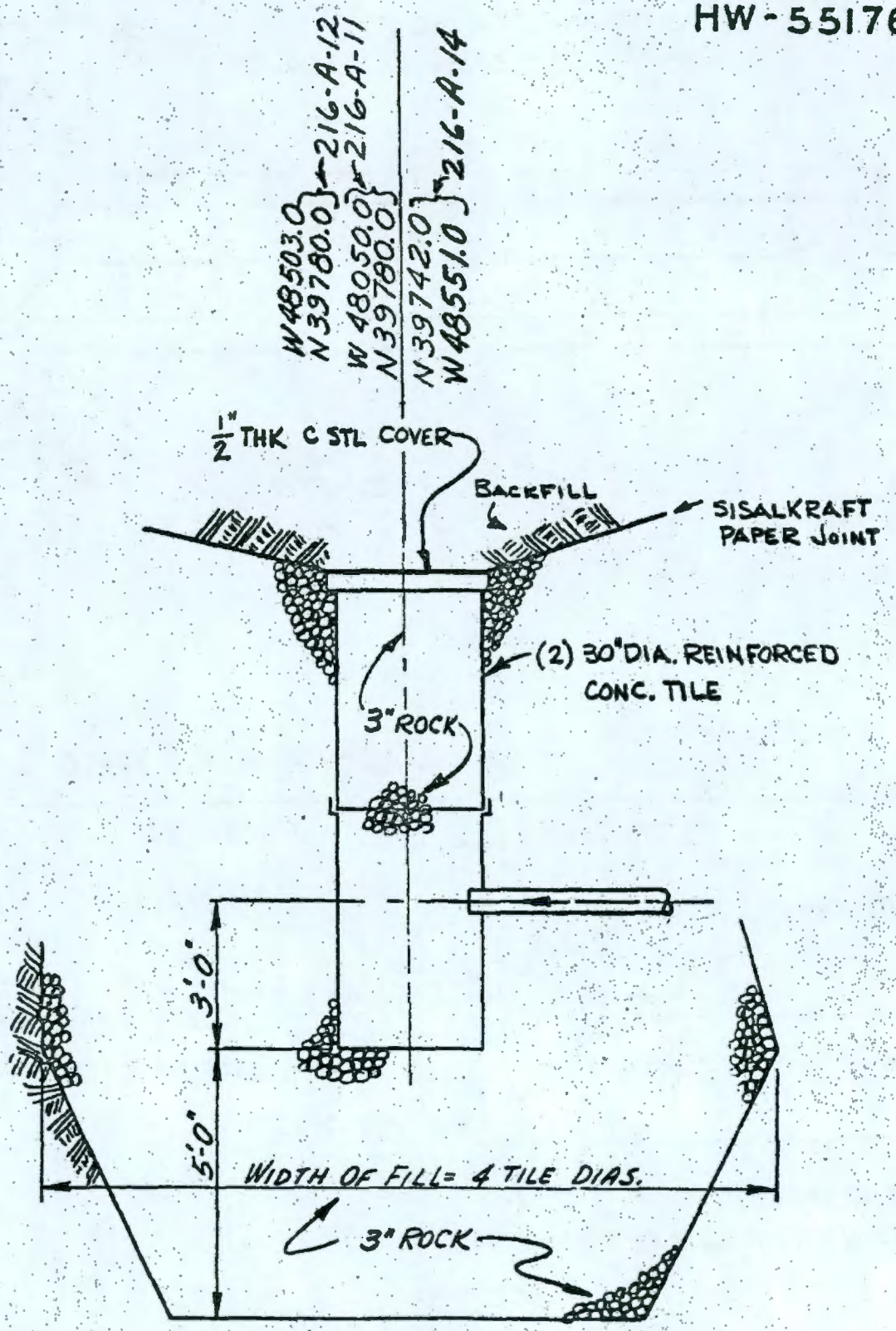
683
400
283

10 C.Y.

6.9
14
21

40
30
12,000
7,283

3.4X10⁶ ft³
7.5
26X10⁶ gal



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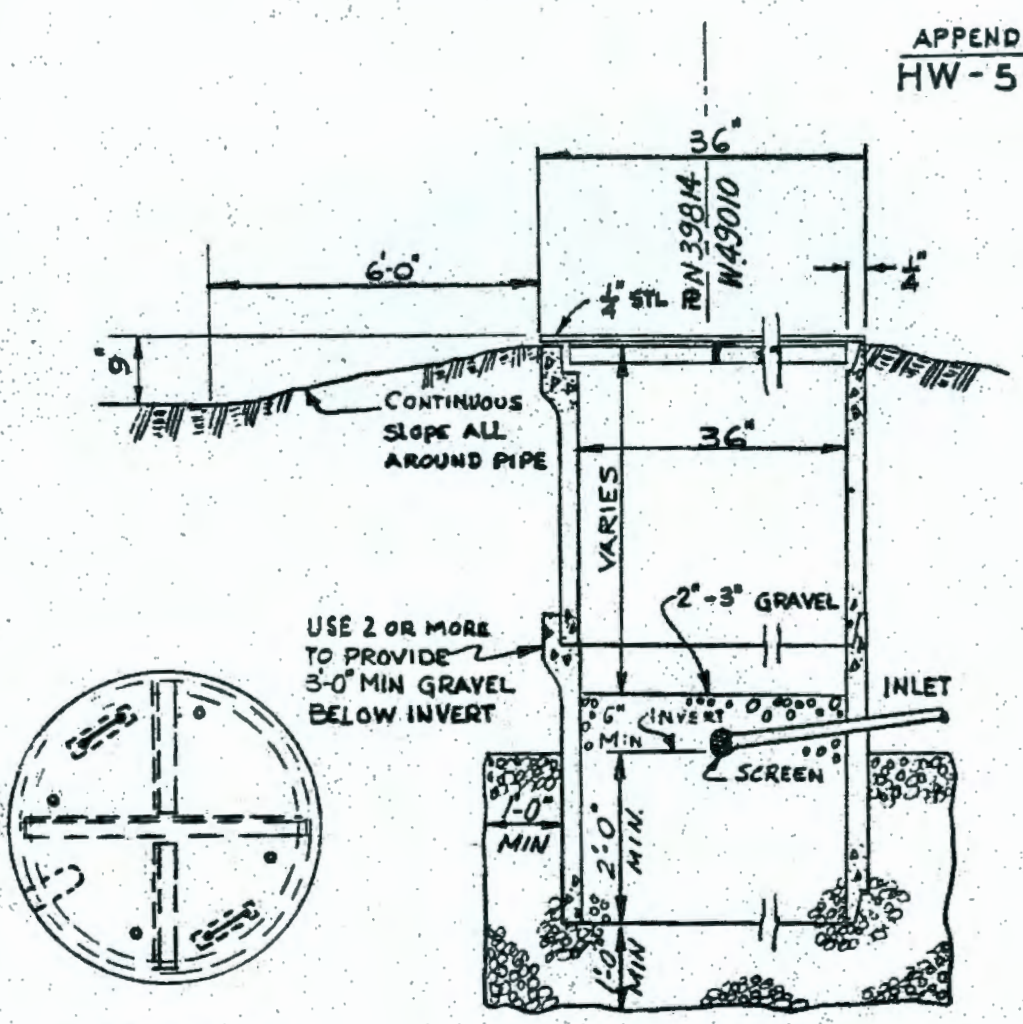

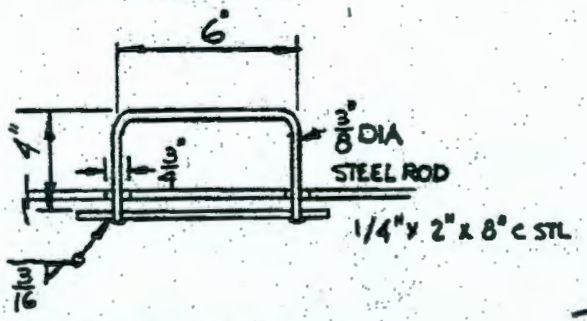

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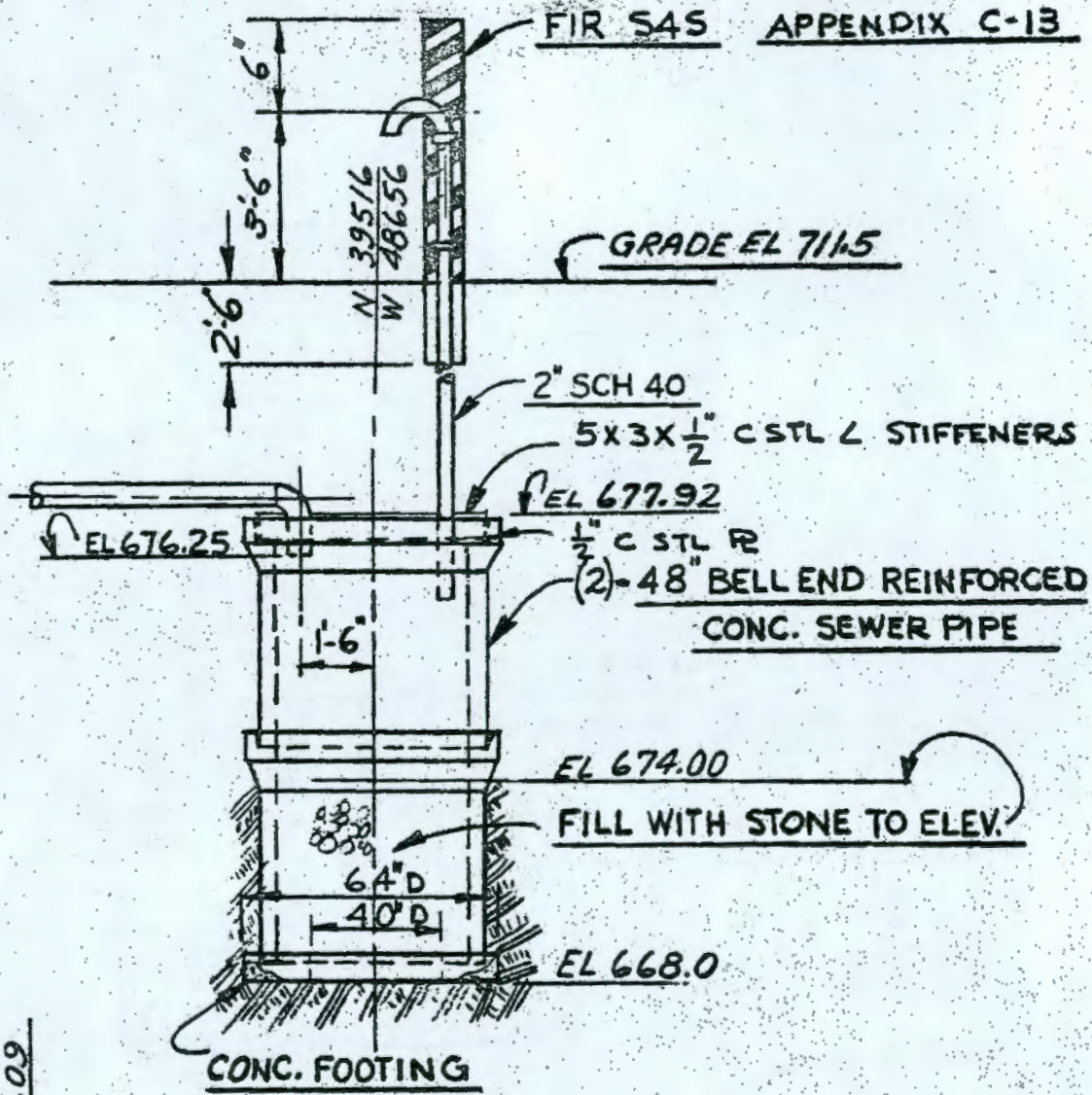
HW-55176-PTI



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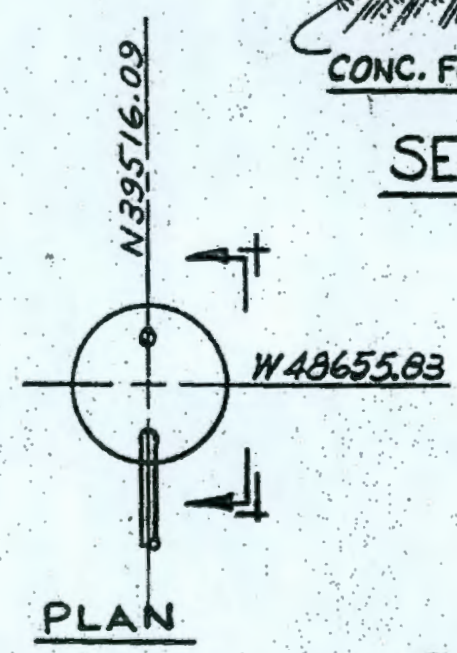
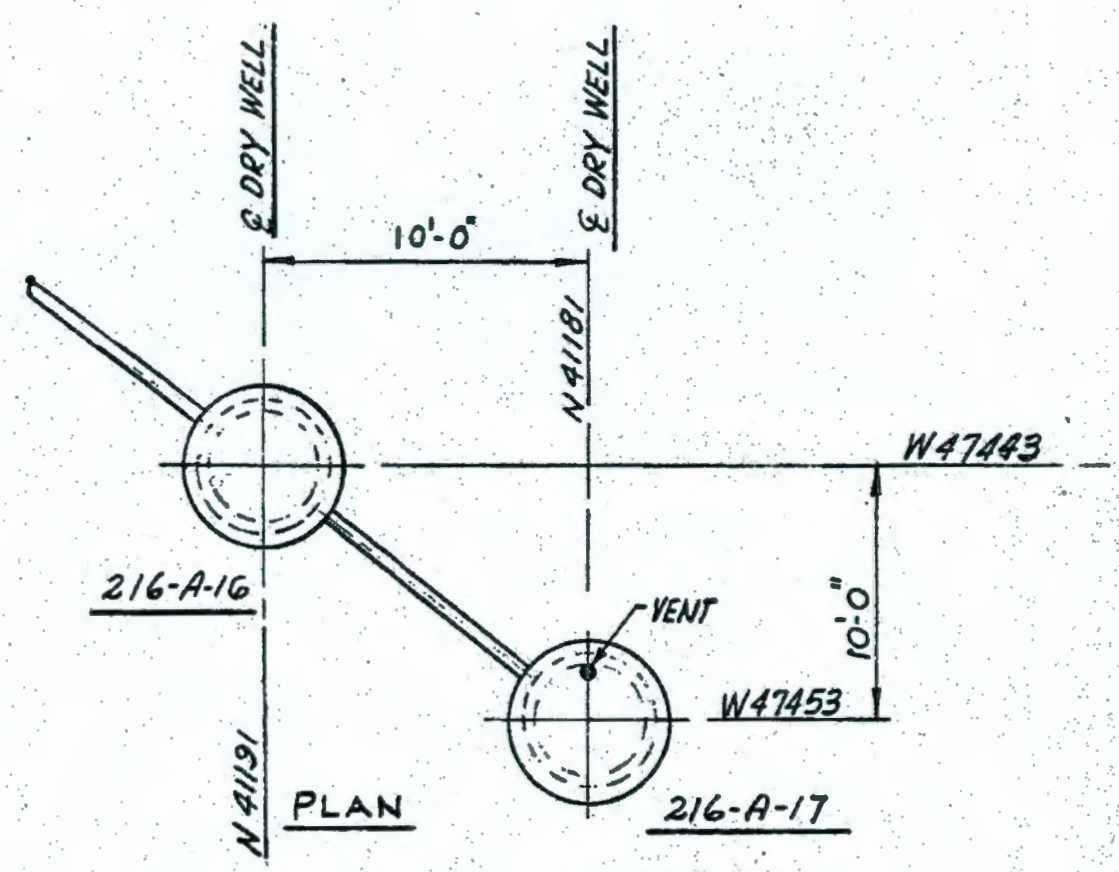
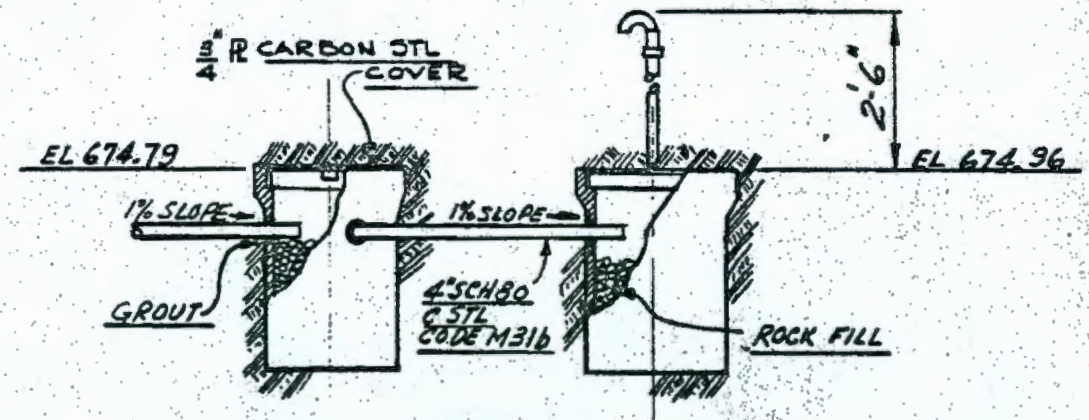


PLAN

TAKEN FROM H-2-56045

216-A-15





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216-A-16

216-A-17

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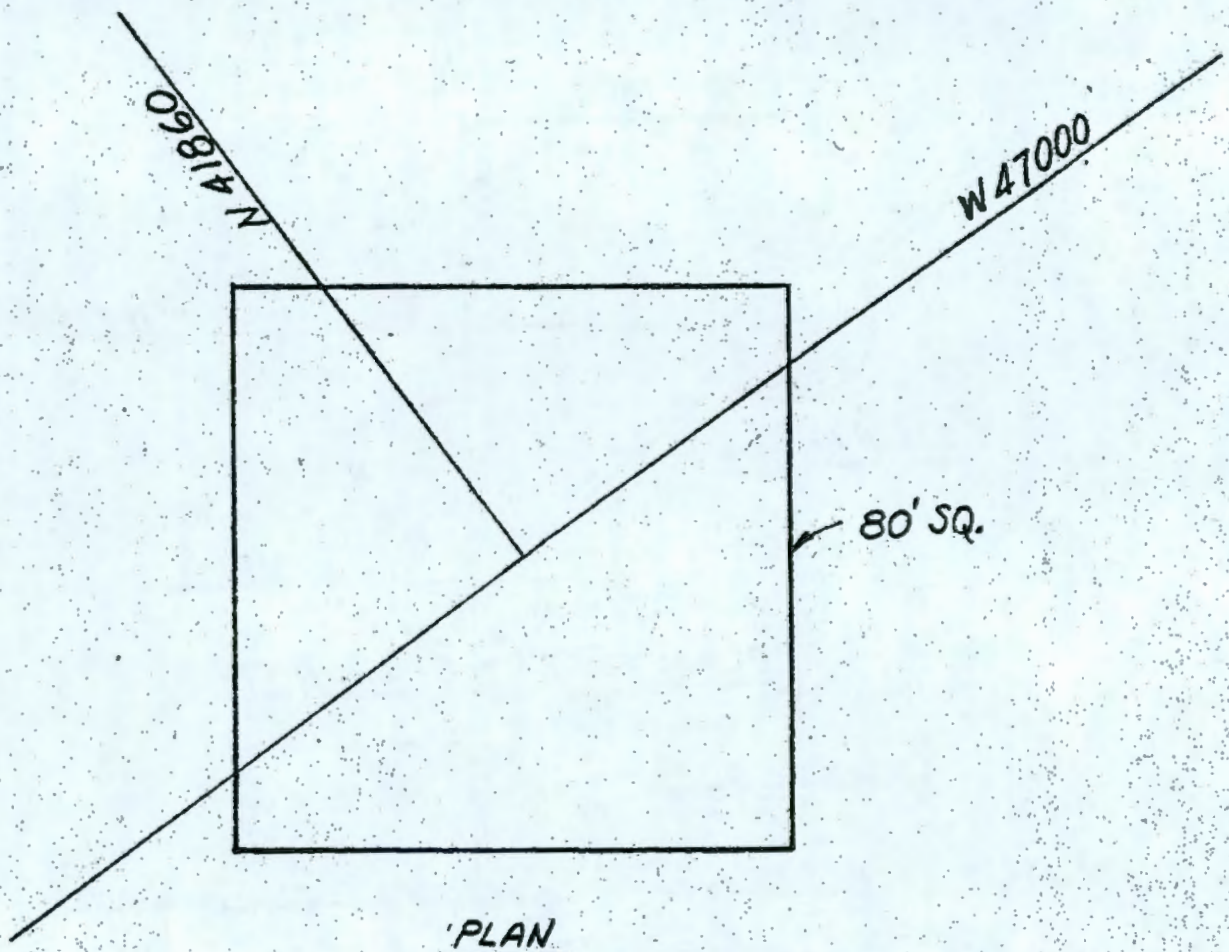
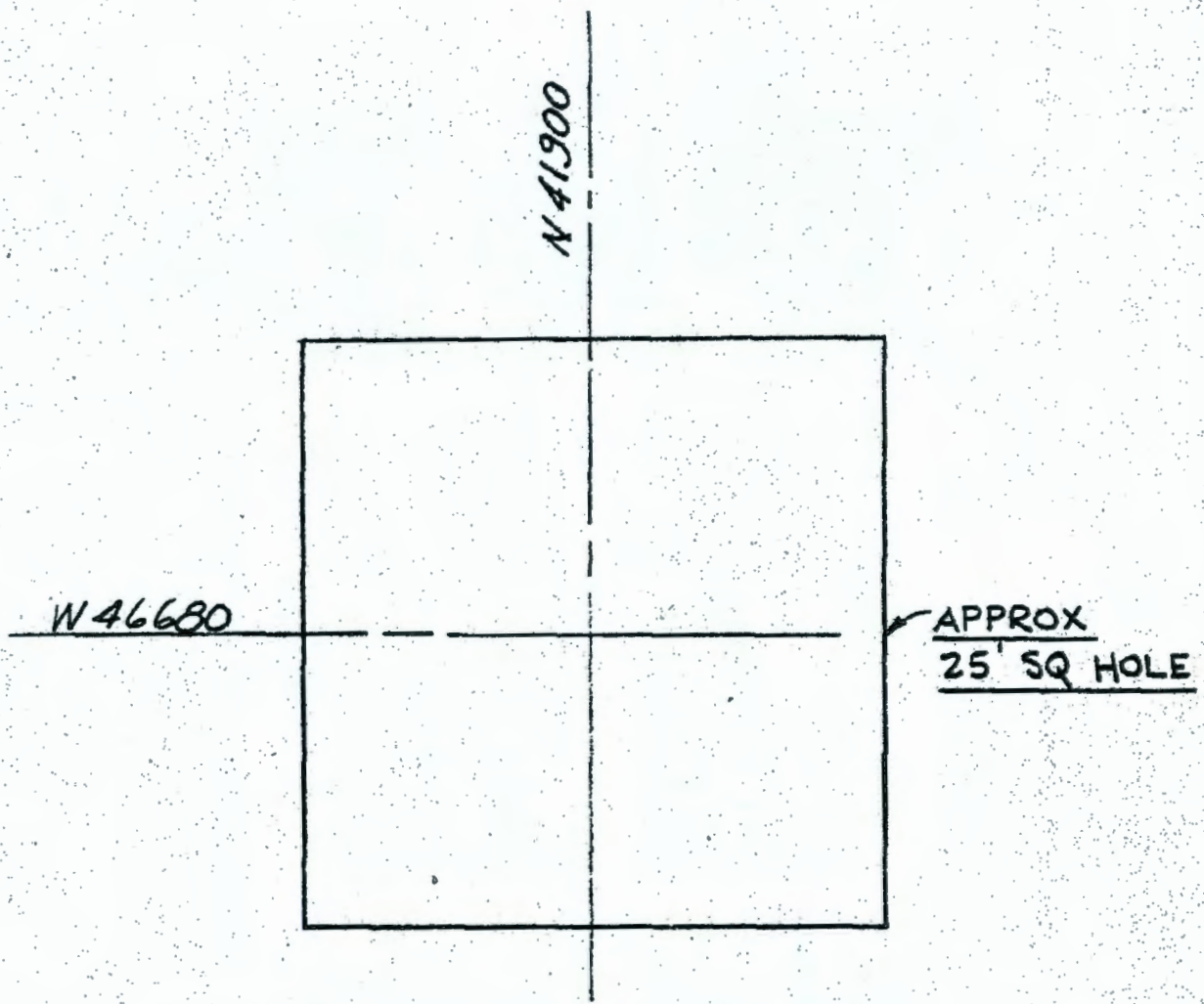


PLAN

EXCAVATION FILLED - CRIB NEVER BUILT
START-UP WASTES DISPOSED IN EXCAVATION

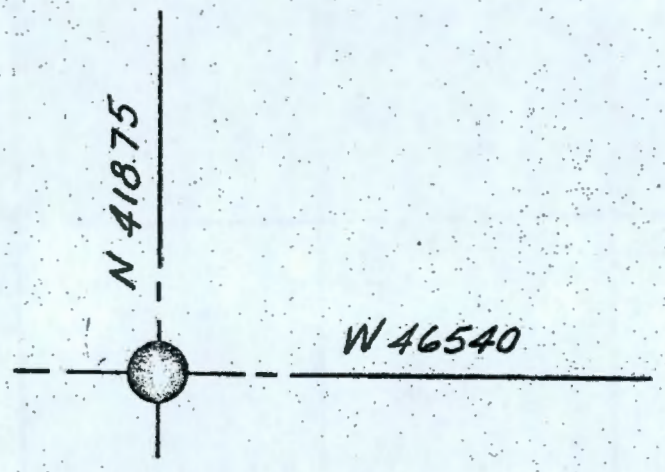
216-A-18

TAKEN FROM H-2-55900



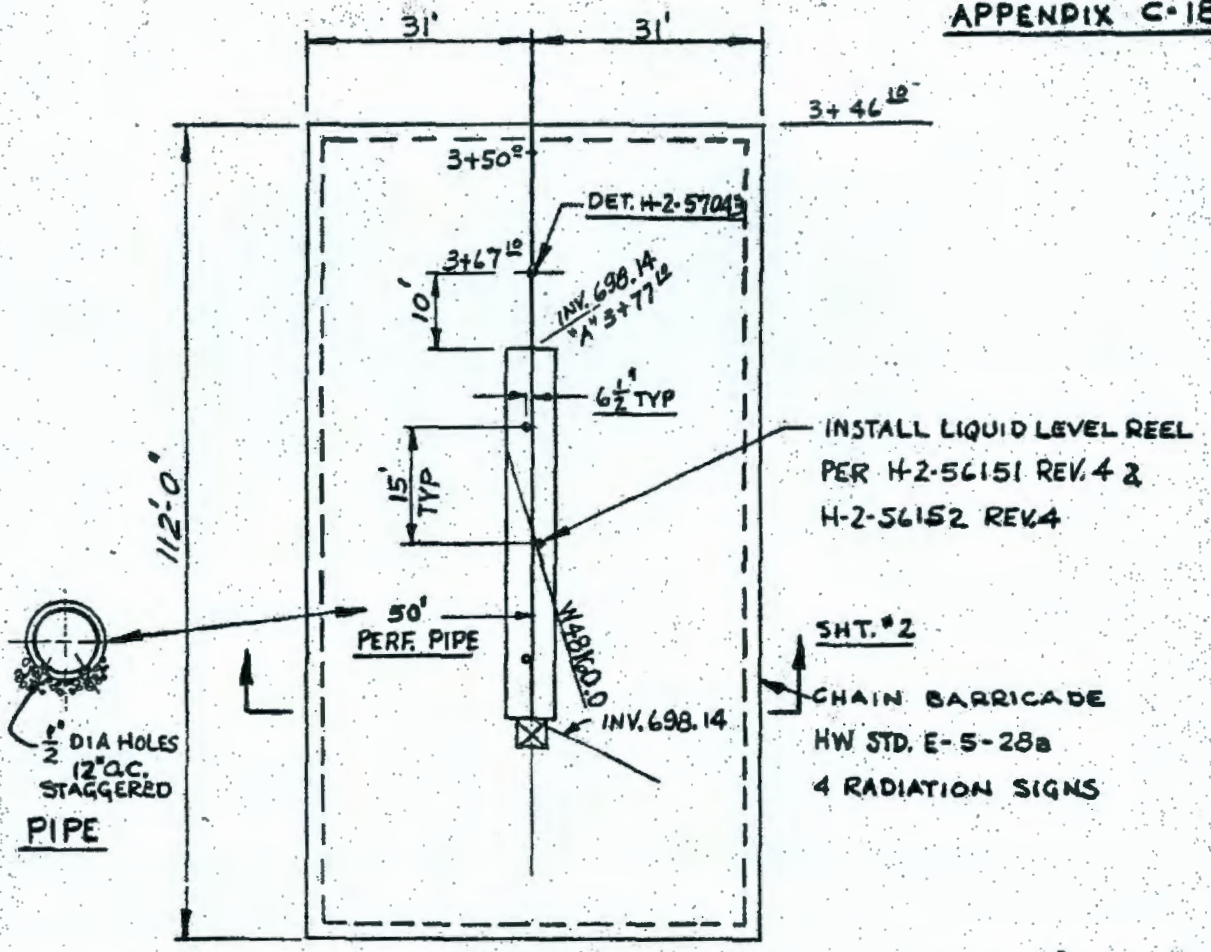
TEST HOLE EXCAVATED BY DRAGLINE
START-UP WASTES DISPOSED IN HOLE
BEFORE BACK-FILLING.

216-A-19

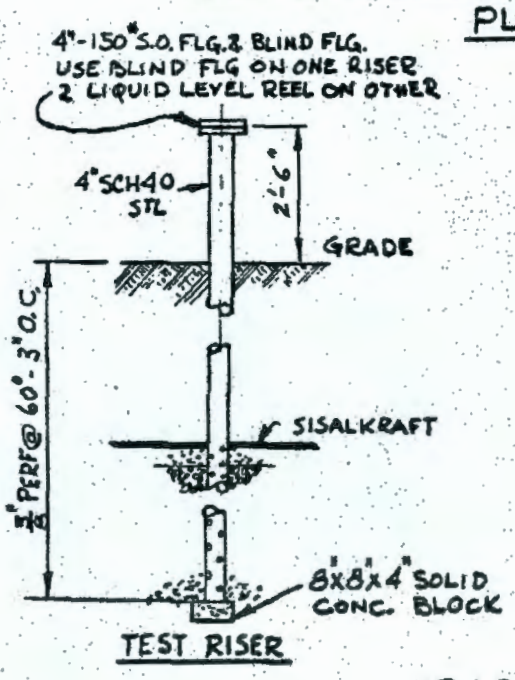


PLAN
TEST HOLE
TEST HOLE EXCAVATED BY DRAGLINE
START-UP WASTES DISPOSED IN HOLE
BEFORE BACK-FILLING.

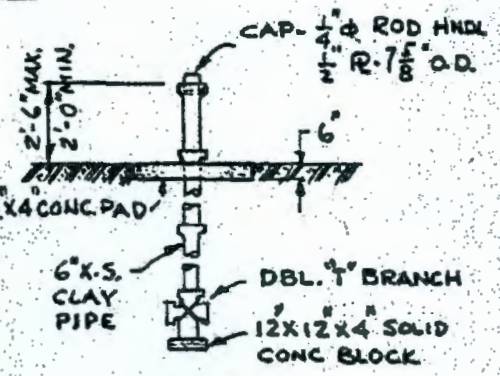
216-A-20



PLAN

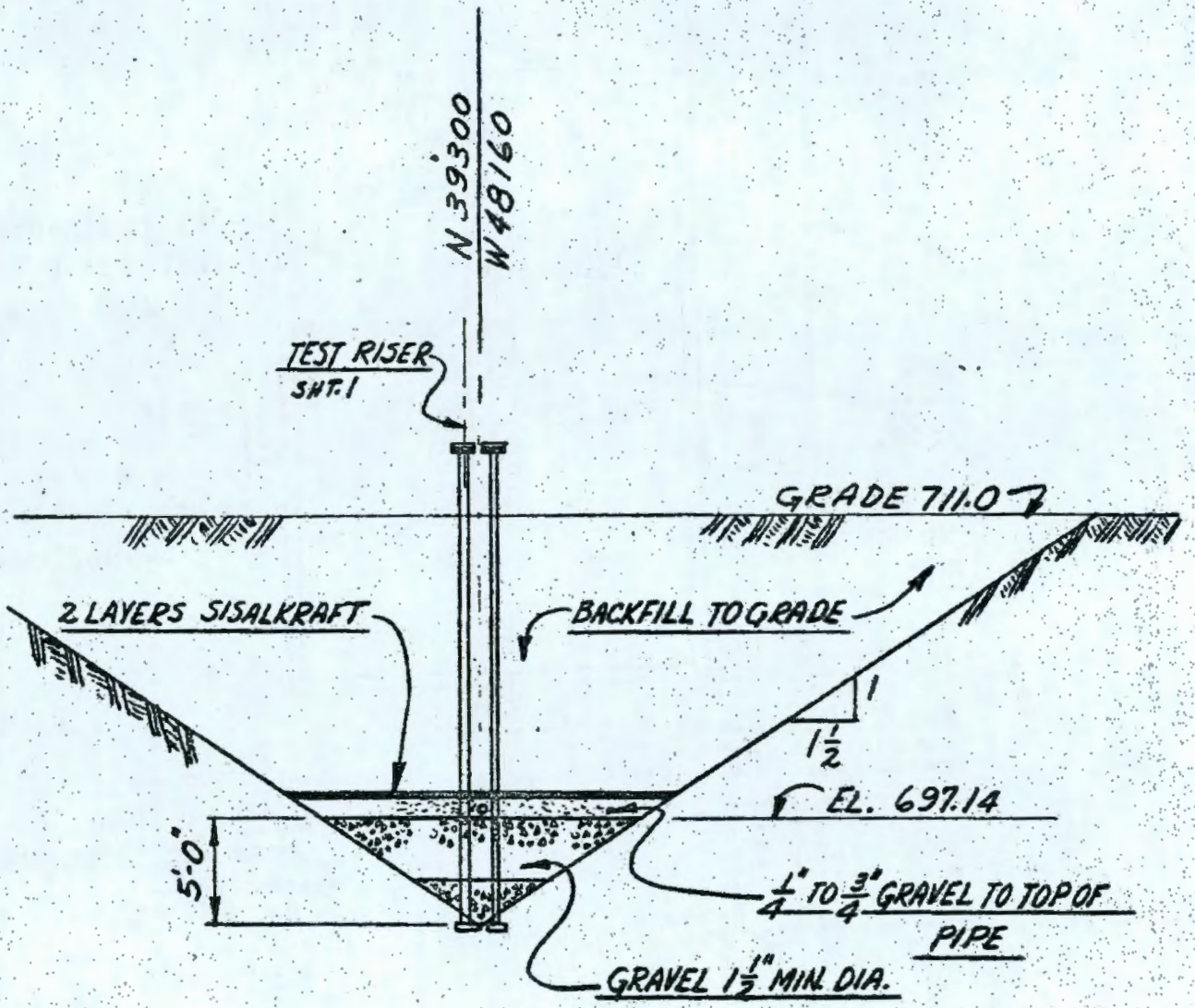


TEST RISER



SAMPLER

216-A-21-SHT. 1



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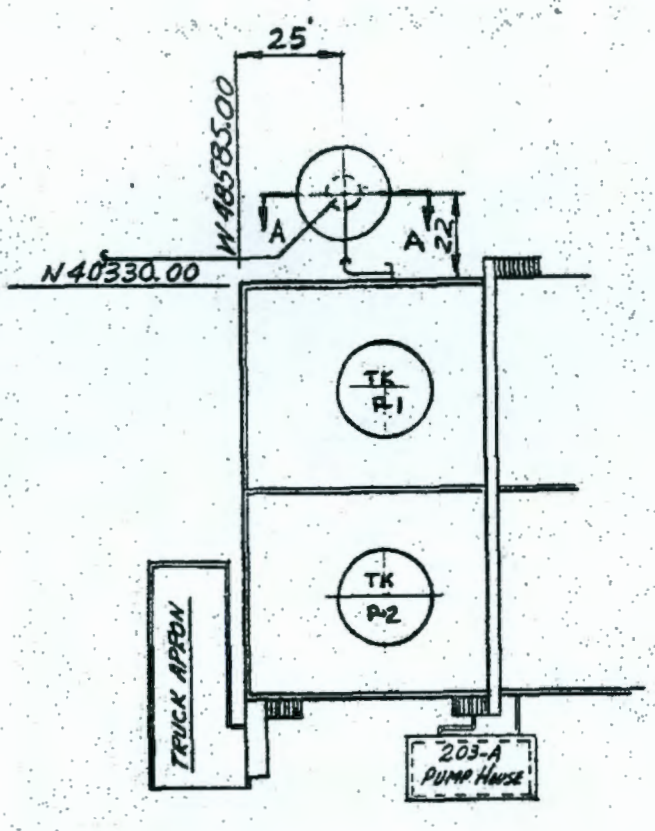
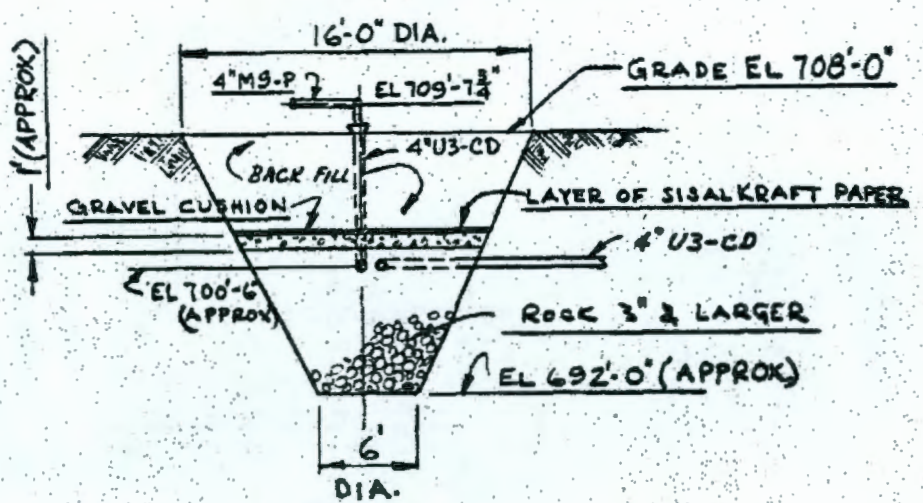
CRIB-216-A-21- SHT. 2

TAKEN FROM H-2-57043



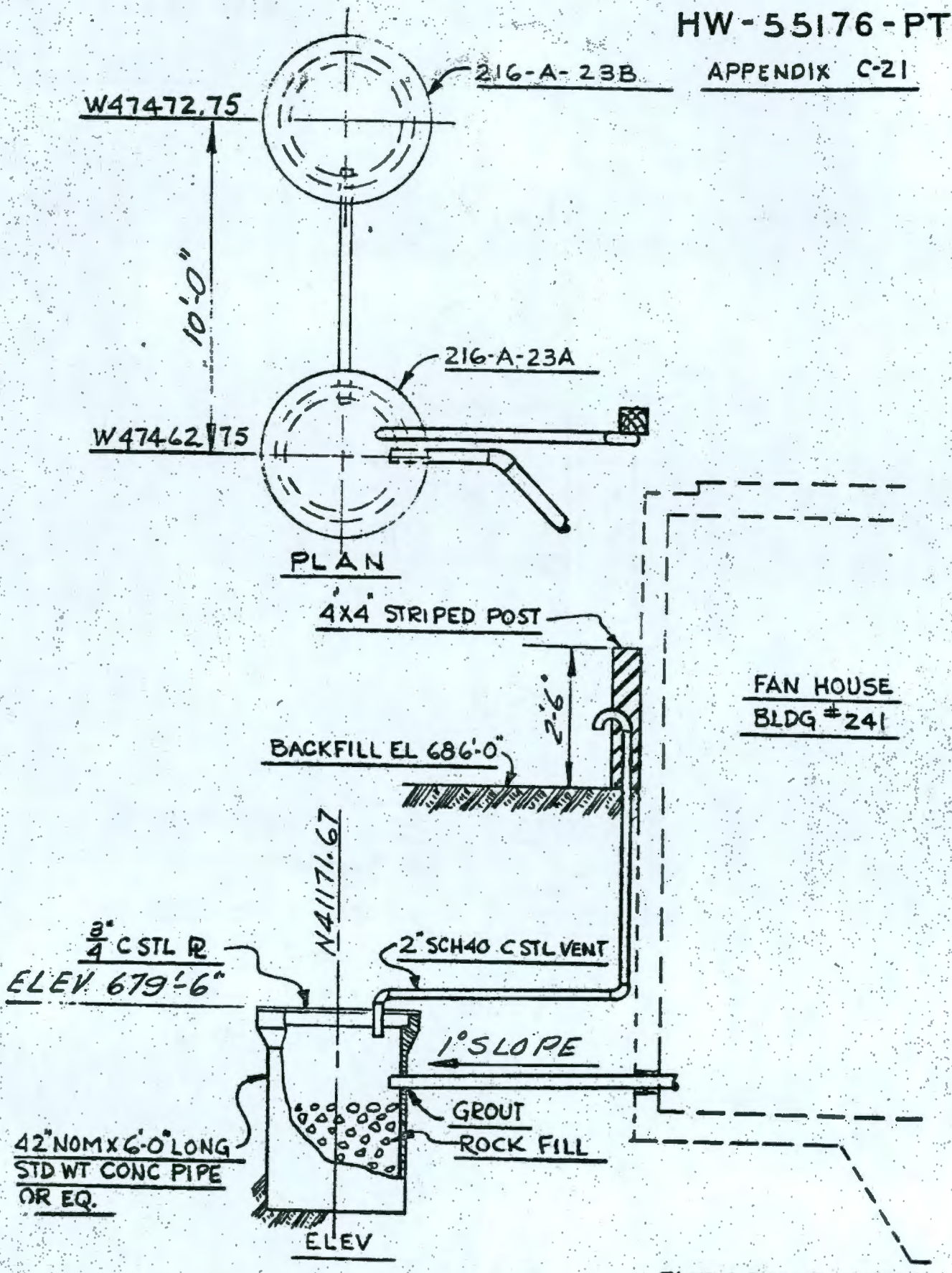
PLAN



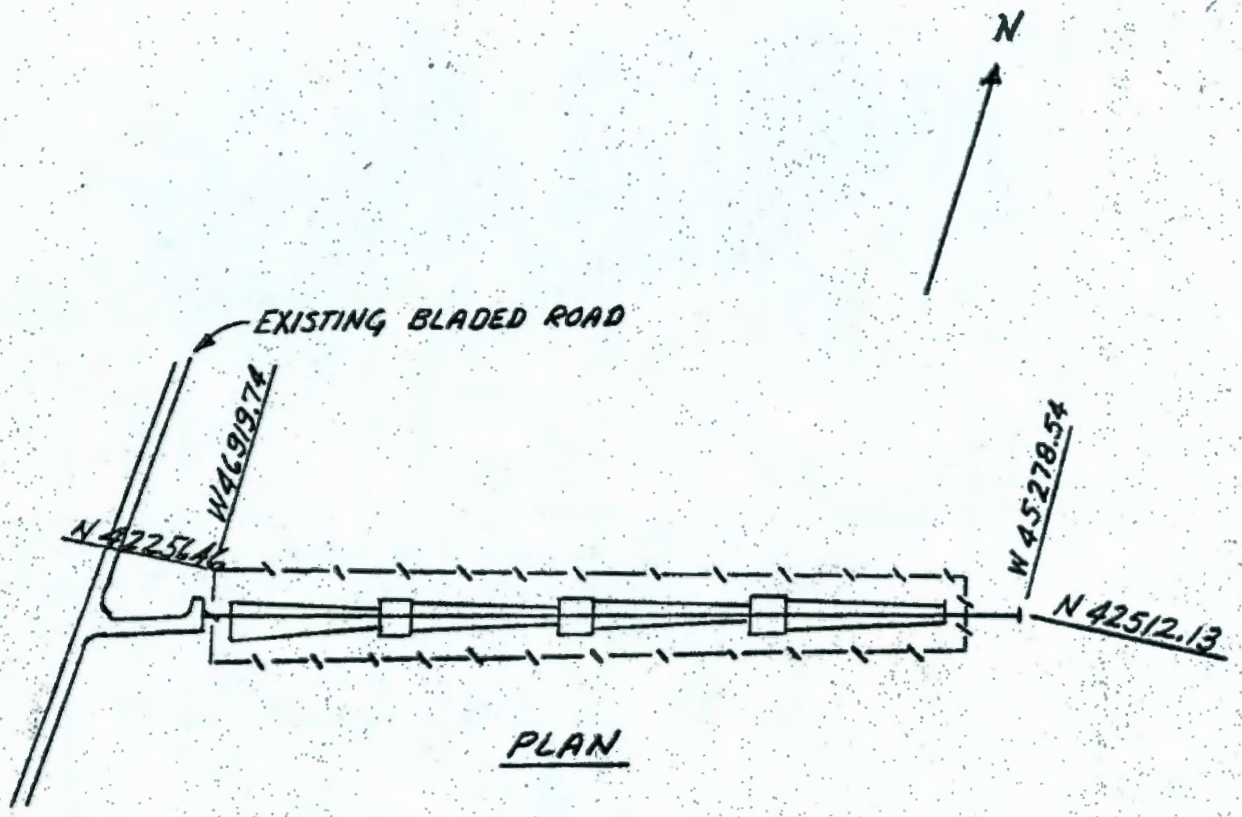
SECTION A-A

FRENCH DRAIN

216-A-22


216-A-23B
W47472.75
10'-0"
216-A-23A
W47462.75
PLAN
4X4 STRIPED POST
2'-6"
FAN HOUSE
BLDG # 241
BACKFILL EL 686'-0"
N41171.67
3/4" C STL PL
ELEV 679'-6"
2" SCH40 C STL VENT
1° SLOPE
GROUT
ROCK FILL
42" NOM X 6'-0" LONG
STD WT CONC PIPE
OR EQ.
ELEV
TAKEN FROM H-2-56999

216A-23A & 23B



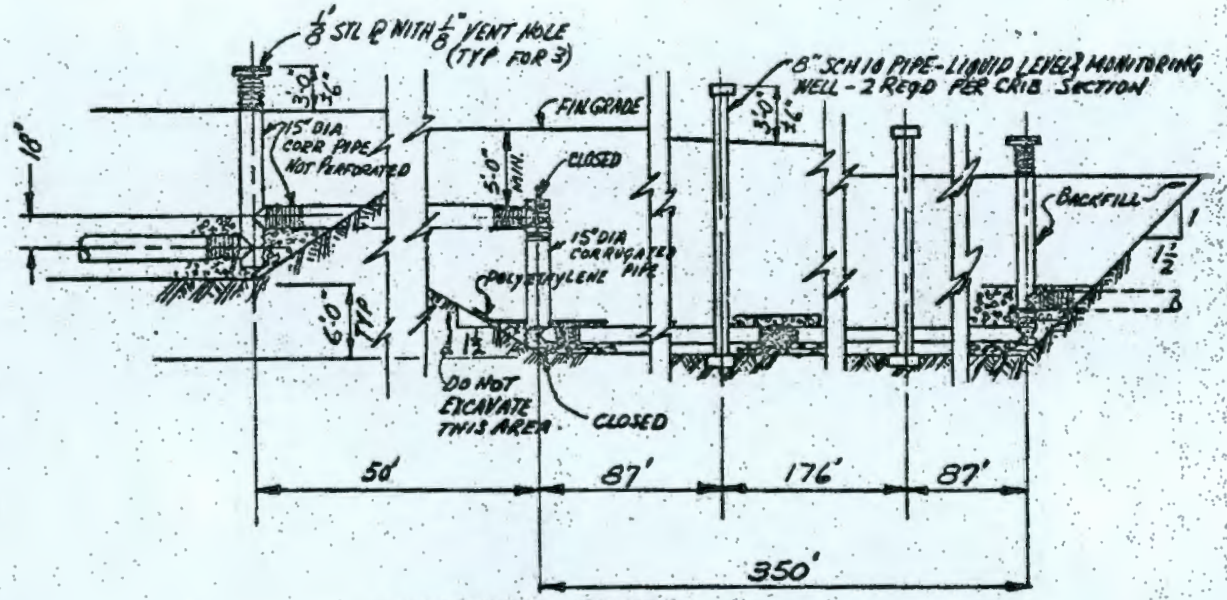
PLAN

TAKEN FROM H-2-56977

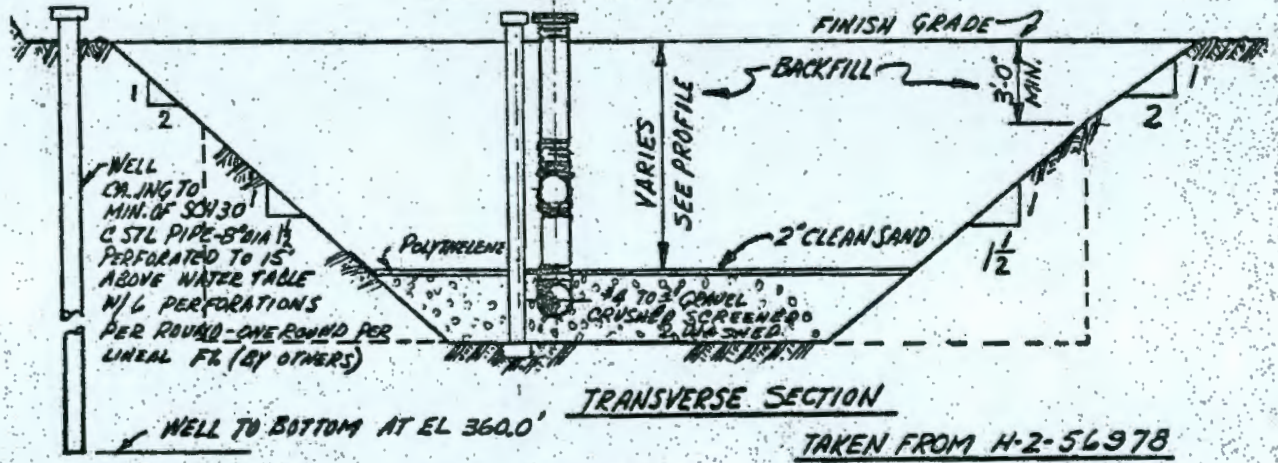
216-A-24
SHT NO. 1

APPENDIX C-23

HW-55176-PTI



LONGITUDINAL SECTION

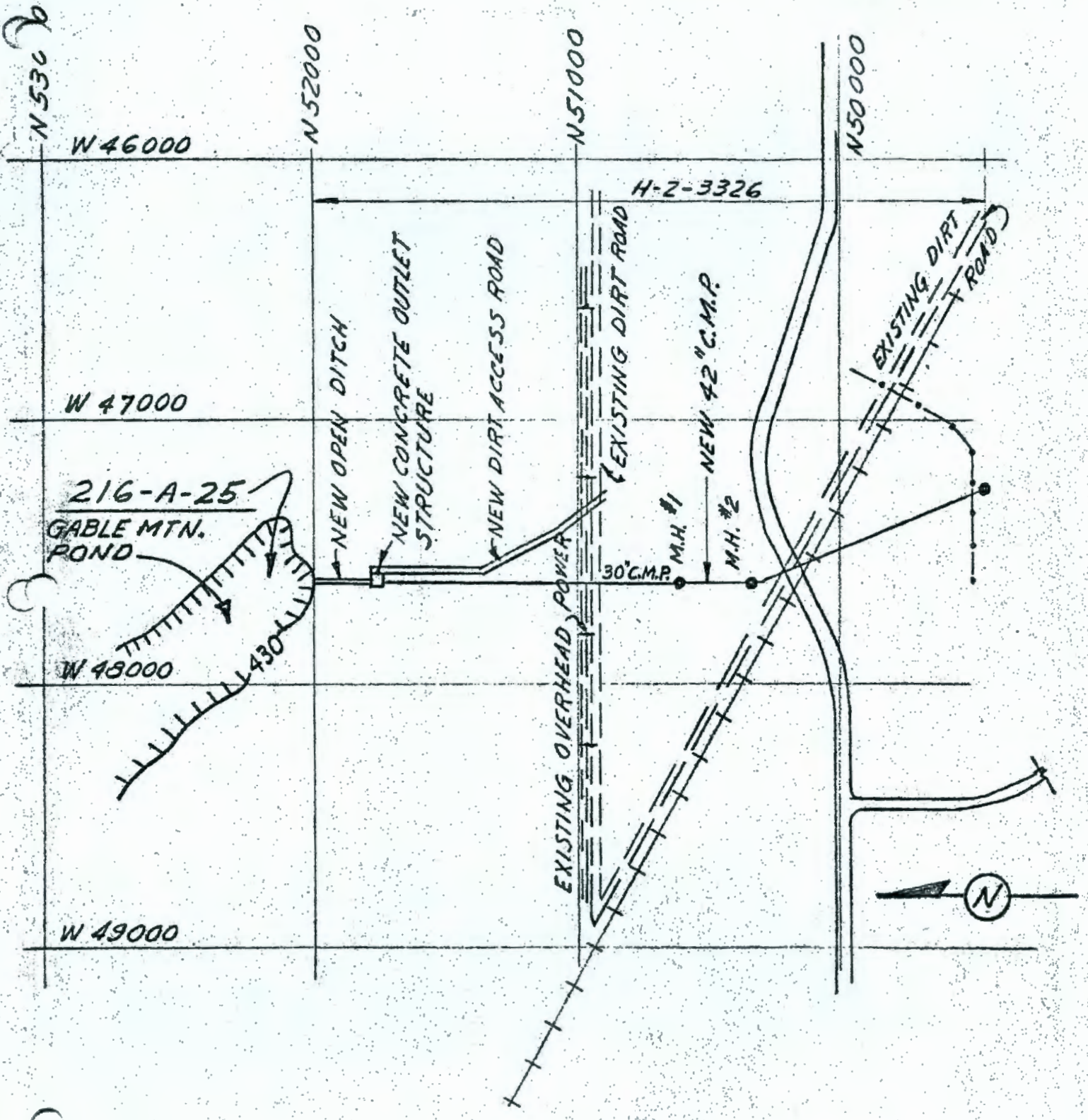


TRANSVERSE SECTION

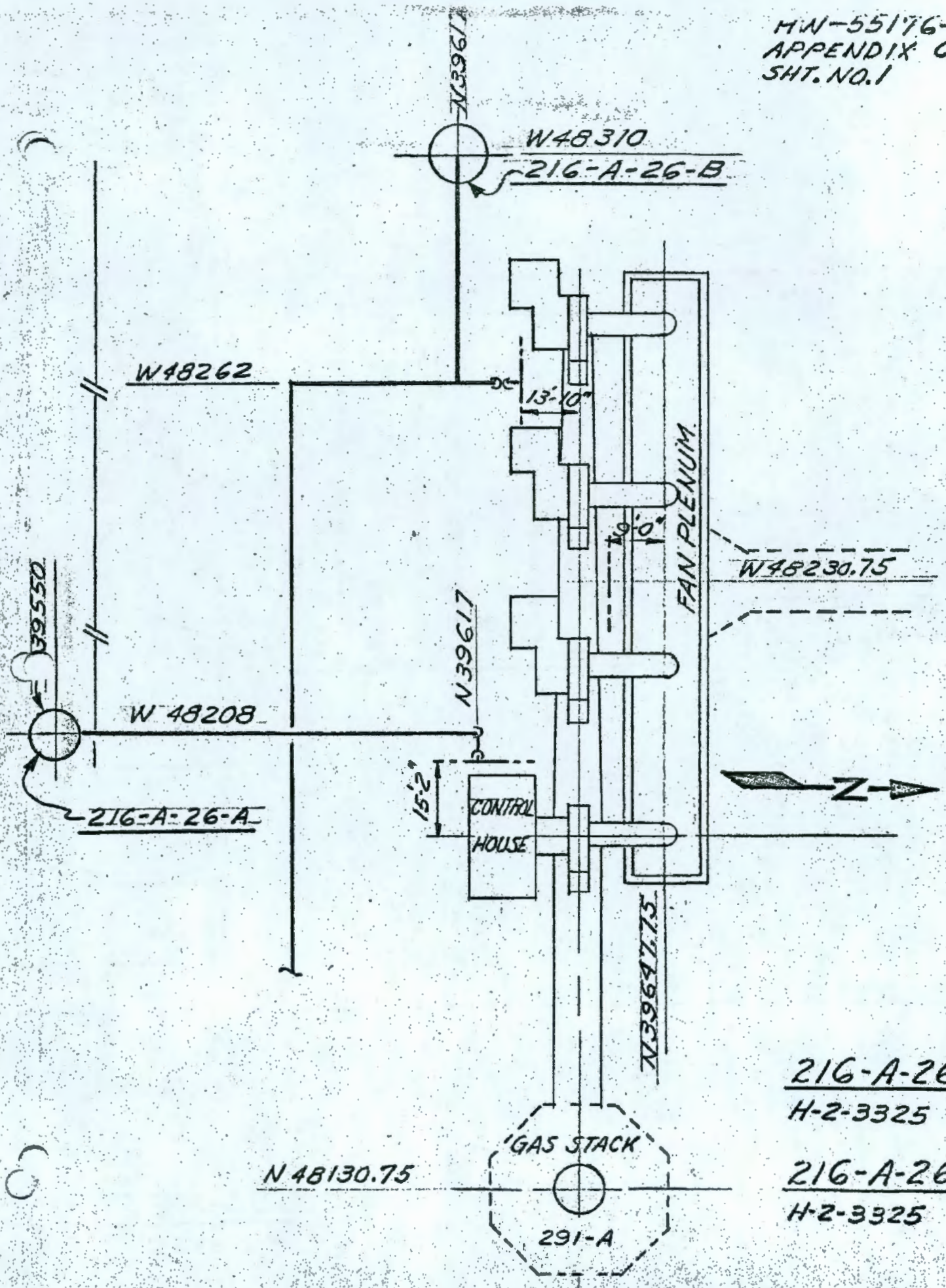
TAKEN FROM H-2-56978
H-2-56977

CRIB 216-A-24
SHT NO. 2

HW-55176-PT I
APPENDIX C-24
JJL 10-5-59

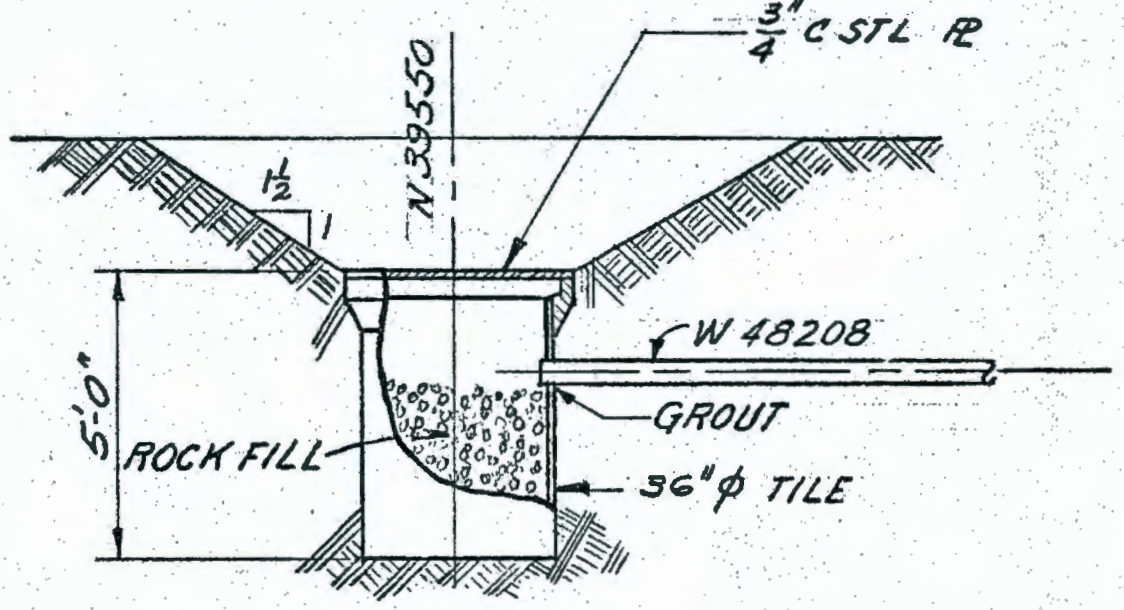


216-A-25
H-2-3325

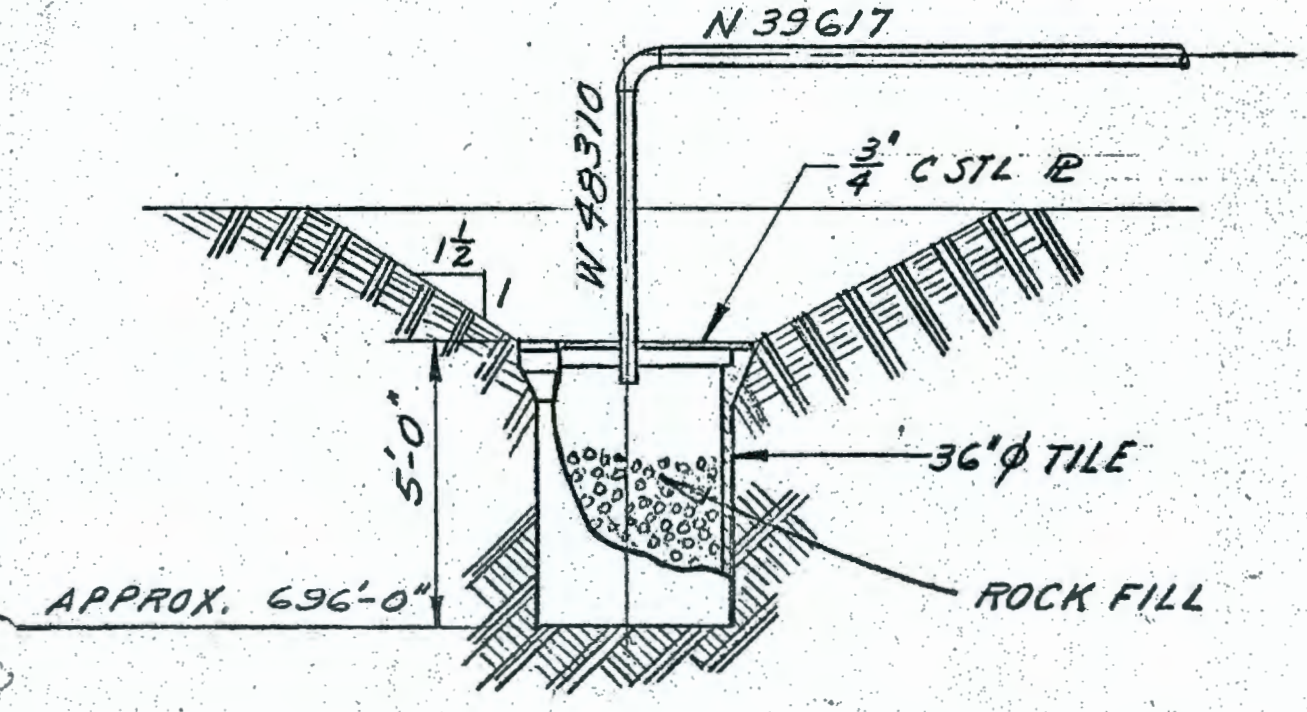


216-A-26A
H-2-3325

216-A-26B
H-2-3325

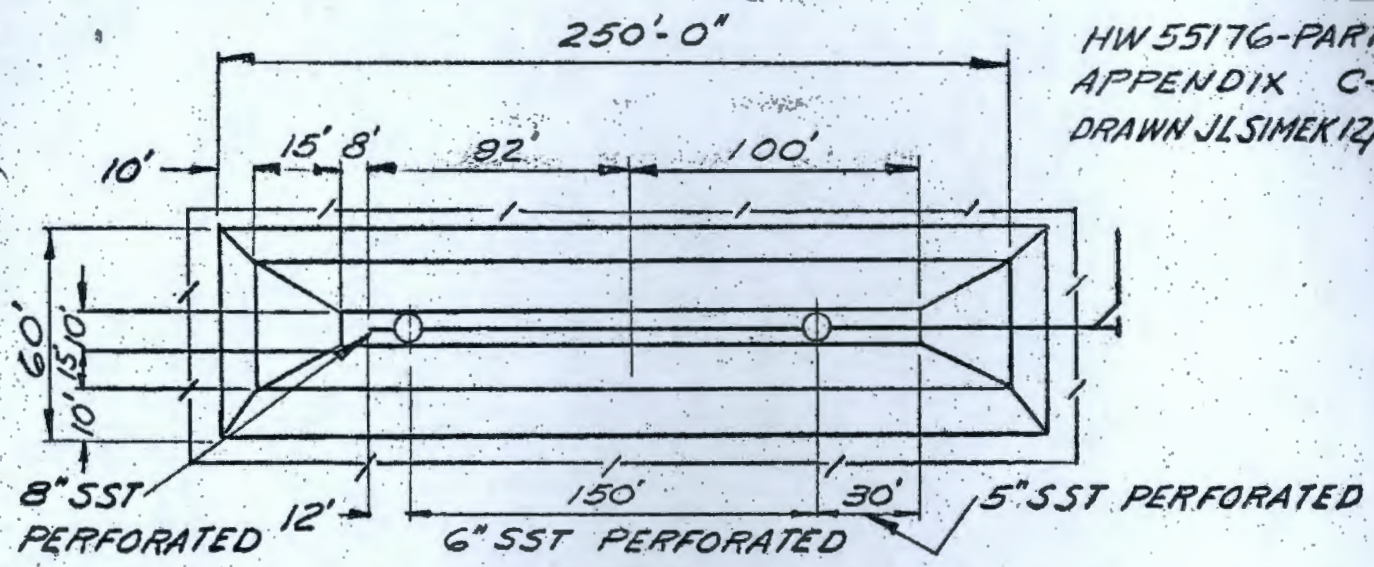


216-A-26A

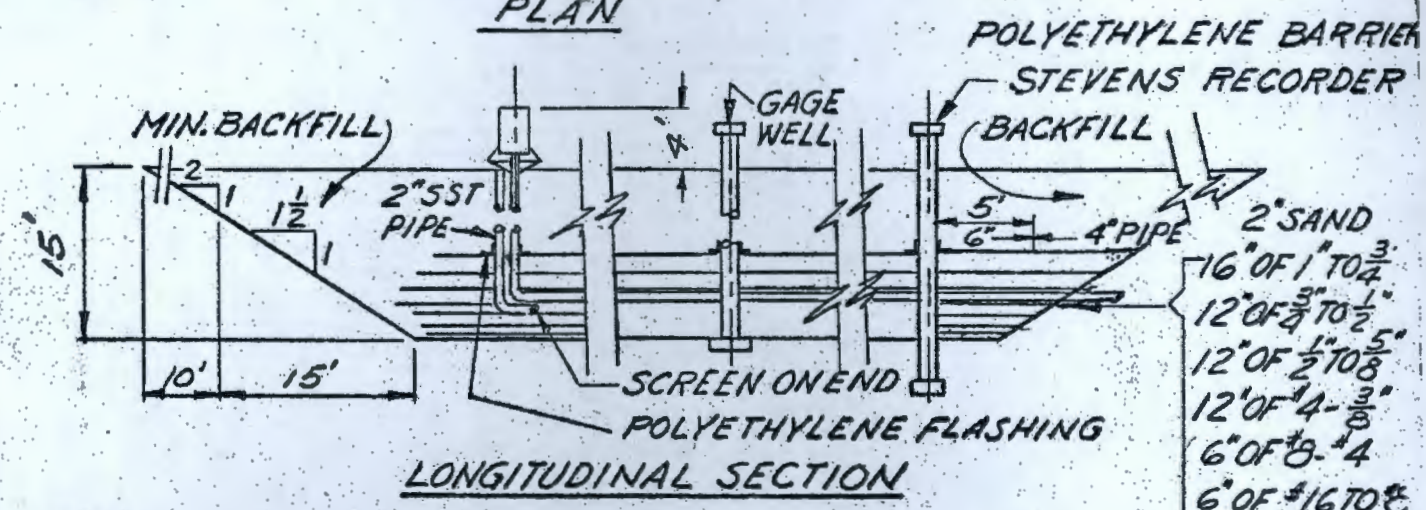


216-A-26B

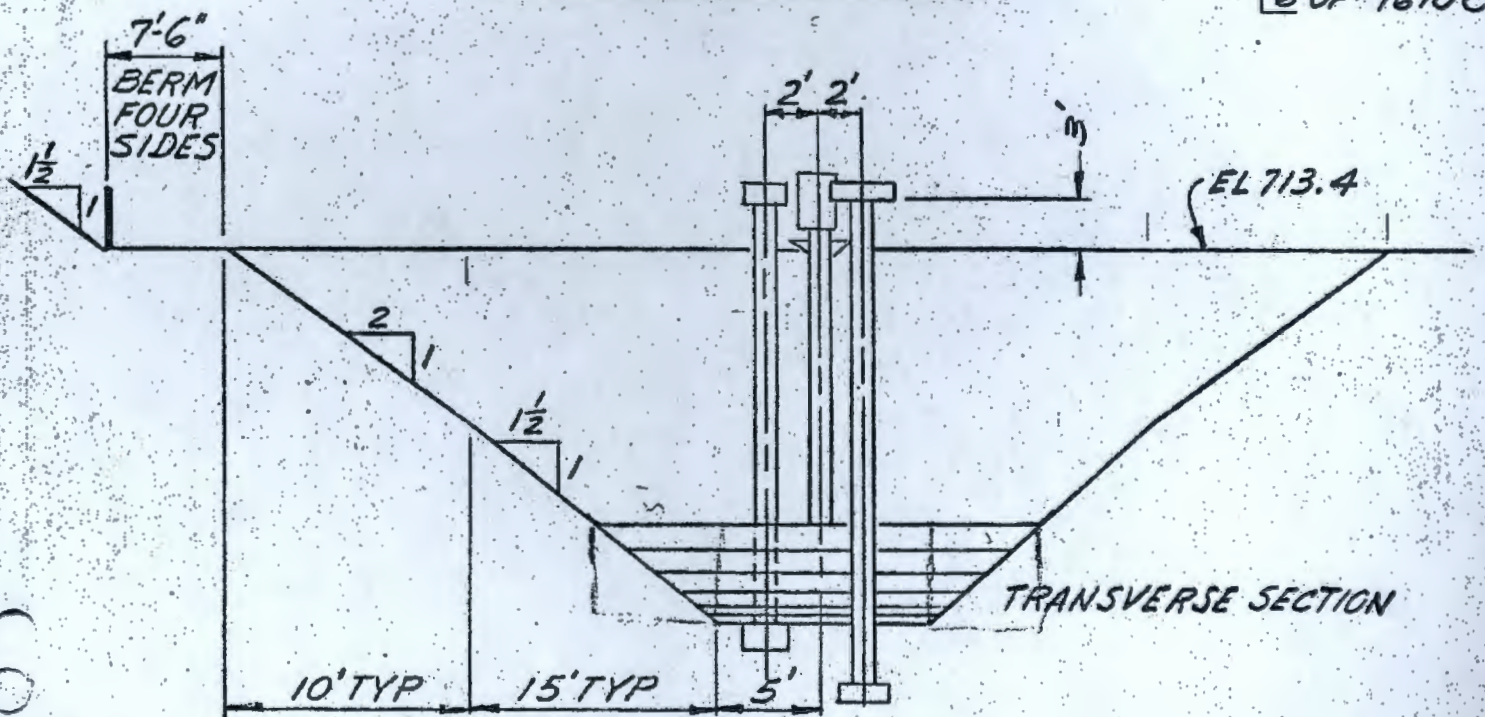
HW 55176-PART 1
APPENDIX C-27
DRAWN JL SIMEK 12/18/59



PLAN



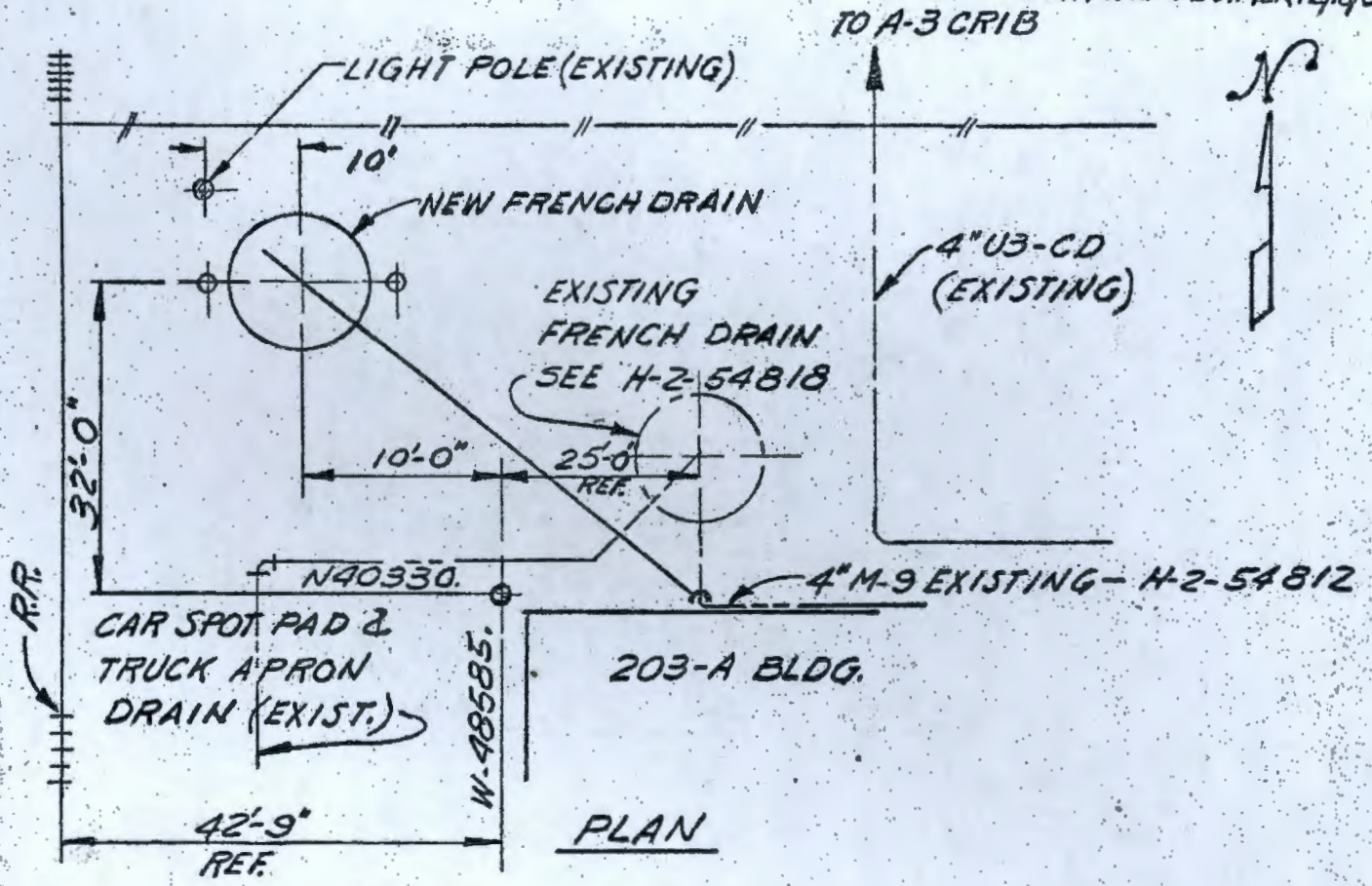
LONGITUDINAL SECTION

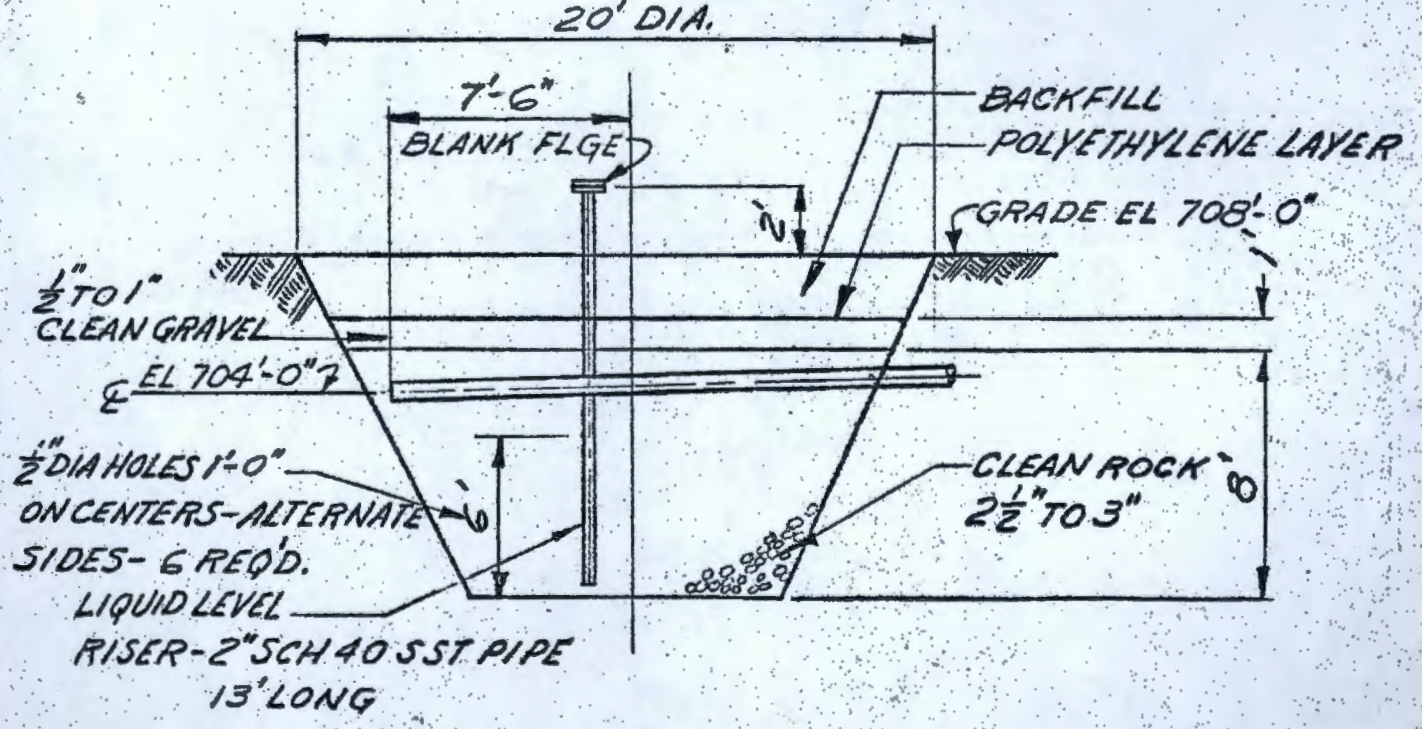


TRANSVERSE SECTION

216-A-27
H-2-57509

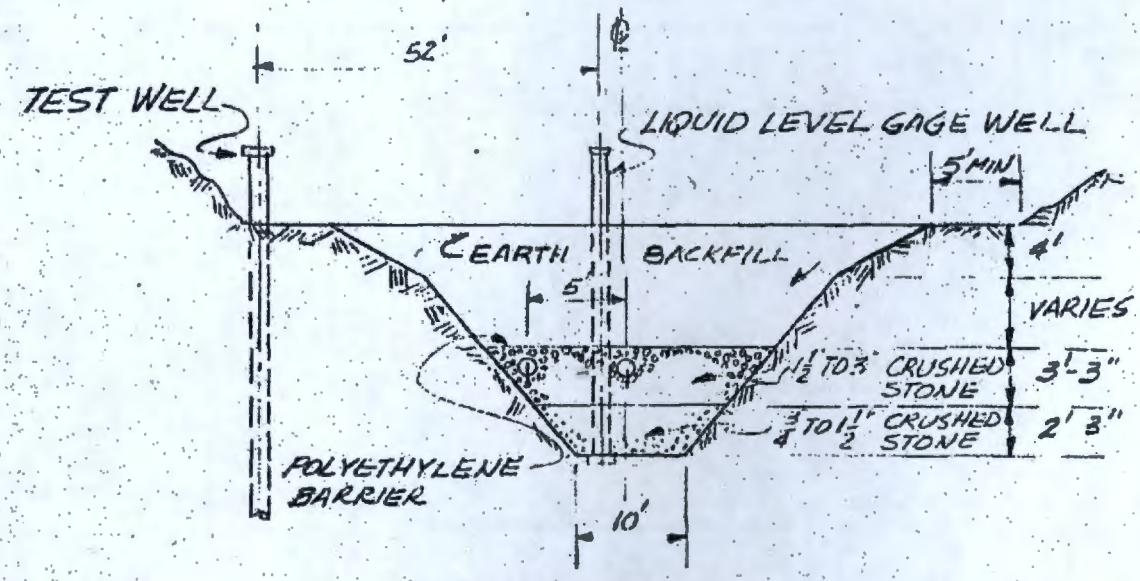
HW 55176-PART I
APPENDIX C-28
DRAWN JL SIMEK 12/18/59



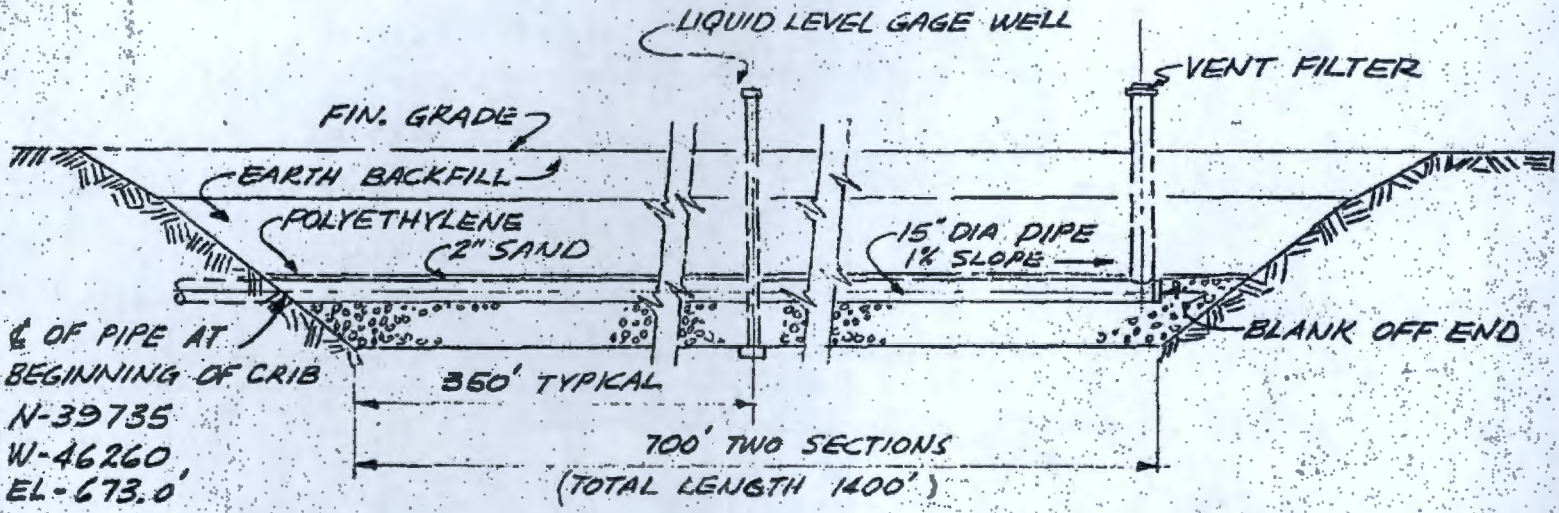


216-A-28
H-2-57617

HW-55176 PART T
APPENDEX C-29
DWN BY. J.E. SMITH 1-12-61



TYPICAL CRIB CROSS SECTION

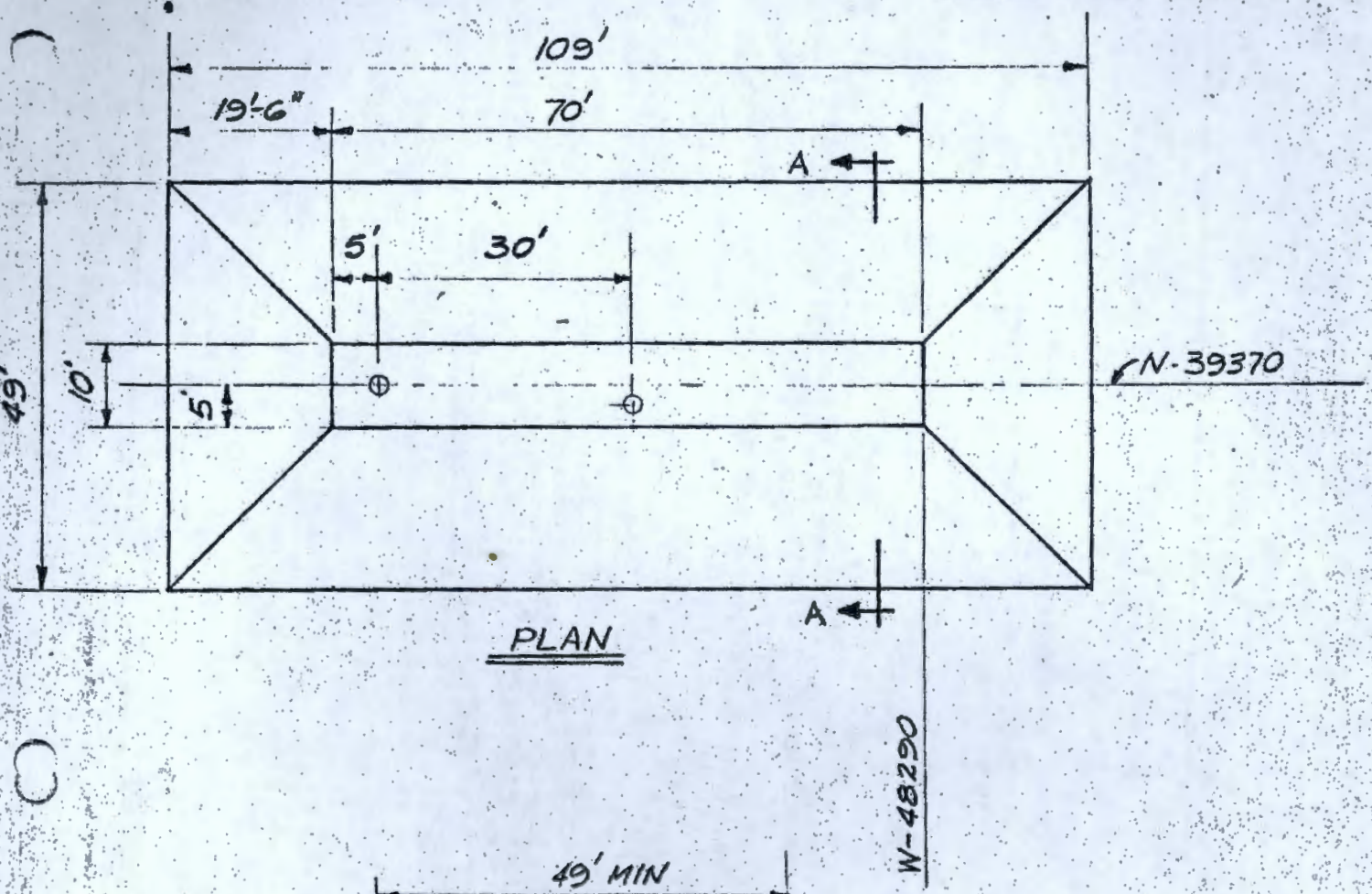


TYPICAL CRIB LONG SECTION

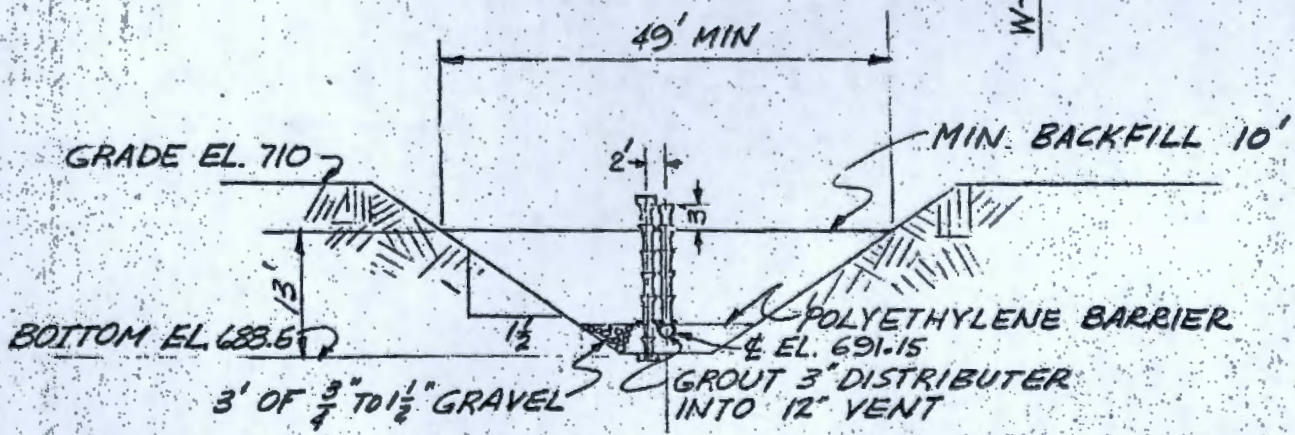
216-A-30

REF.—H-2-57720 & H-2-57719

HW-55176 PART 1
APPENDEX C-30
DWN BY: J.E.SMITH 1-11-61

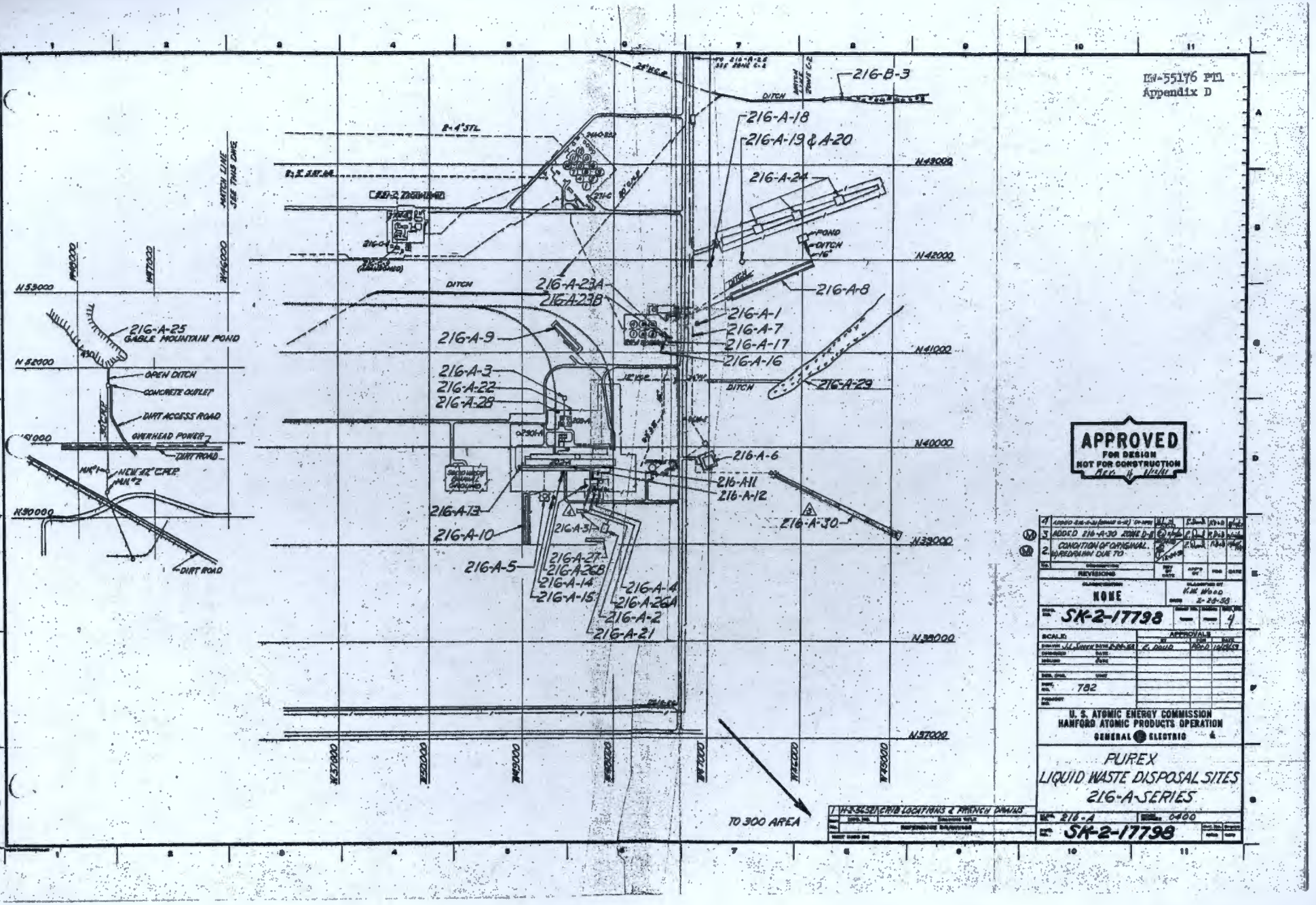


PLAN



SECTION "AA"

216-A-31
TAKEN FROM SK-2-18602



APPROVED
FOR DESIGN
NOT FOR CONSTRUCTION
Rec'd 11/1/57

4	ADDED 216-A-30 ZONE D-8				
3	CONDITION OF ORIGINAL				
2	REDRAWN DUE TO				
NO.	REVISIONS	BY	CHK'D	APP'D	DATE

CLASSIFICATION: NONE
CLASSIFIED BY: K.W. Wood
DATE: 2-26-58

DRAWING NO. SK-2-17798
SHEET NO. —
REV. NO. —
SHEET 4

SCALE:
DRAWN J.J. Tyler DATE 2-24-58
CHECKED DATE
TRACED DATE
DES. DRAFT. UNIT
DWG. NO. 782
PROJECT NO.

APPROVALS

BY	DATE
A. Dauld	2/26/58

U. S. ATOMIC ENERGY COMMISSION
HANFORD ATOMIC PRODUCTS OPERATION
GENERAL ELECTRIC

PUREX
LIQUID WASTE DISPOSAL SITES
216-A-SERIES

216-A 0400

DRAWING NO. SK-2-17798

HW-54529 CRIB LOCATIONS & FRENCH DRAINS

Z PLANT

UNCLASSIFIED
(CLASSIFICATION)

GENERAL ELECTRIC

HANFORD ATOMIC PRODUCTS OPERATION - RICHLAND, WASHINGTON

DOCUMENT NO.
HW-55176 - Pt. II

COPY NO.

TITLE
INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

DATE
March 20, 1958

ISSUING FILE

AUTHOR
V. W. Wood

ROUTE TO	PAYROLL NO.	LOCATION	FILES ROUTE DATE	SIGNATURE AND DATE
W A Haney		~~325~~		~~W A Haney~~ 3/20/58

C-1699-MS (5 - 56)

UNCLASSIFIED
(CLASSIFICATION)

TO BE USED ON UNCLASSIFIED AND OFFICIAL USE ONLY DOCUMENTS

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part II of VII Parts
Process Technology - Study Report

by

V. W. Wood
Radiological Design and Development
Facilities Engineering Operation
CHEMICAL PROCESSING DEPARTMENT

March 20, 1958

D I S T R I B U T I O N

CR Bergdahl	TG LaFollette
VM Bernard	CE Linderoth
A Bradway	WN Mobley
WG Browne	HE Parker
E Doud	HF Peterson
J Durbin	DW Pearce
JB Fecht	OH Pilkey
DR Gustavson	EL Reed
WA Haney	RA Roberts
JF Honstead	HP Shaw
IM Jacques	W Tressler
EB Jackson	VW Wood
CE Kent	300 Files

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part II of VII Parts
Process Technology - Study Report

INTRODUCTION

During the fourteen years or more which the separations areas have operated, many sites have been used for the disposal of radioactive liquid wastes. Various methods have been used in assigning building numbers to these sites and, in a number of cases, changes have been made which have brought about some confusion. One of the reasons being some currently used building numbers do not agree with the numbers existing on design prints for the facilities. Reference (2) was an effort to establish a listing of the liquid waste disposal sites. It required considerable time and research to locate information concerning these sites.

Many varied designs have been used for the disposal of radioactive liquid wastes. Reverse wells, trenches, cribs or caverns, etc, have been used. Specific information on these facilities is often difficult to obtain for in some instances they were constructed on work orders with no recorders being retained on the design. In general, the design on each facility has been different. This has made it extremely difficult for people to have a good working knowledge of the various waste disposal sites.

PURPOSE

The purpose of this report (Part II) is to provide a ready reference to the "Z" Plant liquid waste disposal sites as well as a compilation of sketches showing the basic information on the design of each facility.

Another objective is to establish a simplified and uniform numbering system. Still another objective is to provide an up-to-date tabulation. Subsequent parts of this report will provide information on cribs for such plants as Redox and "T" Plant.

SUMMARY AND CONCLUSIONS

All radioactive liquid waste disposal sites should have the 216 Building number designation. These should be further grouped by giving all such sites for Purex a prefix of 216-A. Other major series would be 216-S for Redox; 216-T for "T" Plant; 216-B for "B" Plant; 216-U for "U" Plant and 216-Z for "Z" Plant.

The numbering list in "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation should be revised to more closely follow the above numbering system.

RECOMMENDATIONS

It is recommended that the following action be taken:

1. All groups and services referring to the "Z" Plant cribs or report data concerning them should use the index numbering system as presented in this report. In the case of "Z" Plant this means a few changes. See cross reference, page 4.

2. That all drawings concerning these disposal sites, including maps, be revised to show the proper locations and numbers for these cribs.

3. Any suggestions for improving the usefulness of this report should be referred to the author.

DISCUSSION

When all seven parts of the report are completed, and the work outlined in the report is completed, much confusion will be eliminated and more people will be better informed on the design of each waste disposal facility. The report will provide a firm basis for future building number assignments.

While some sincere efforts have been made to try and keep a methodical system for recording waste disposal sites, a number of problems have developed - for example, HW-5000, Sheet 29 of 50 lists, only two cribs in the 216-Z series. They are 216-Z-8 and 216-Z-9. Although no coordinates are given, it is doubtful if these refer to the same cribs with the same number as given in Reference "2".

As indicated earlier, the use of the crib index, as presented in this report should be very easy. In addition, information is presented which is very difficult to locate in the records and in some cases it is not available in the records.

REFERENCES

1. HW-5000, "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation.

2. HW-43121, "Tabulation of Radioactive Liquid Waste Disposal Facilities" by HV Clukey dated May 10, 1956.

3. HW-33305, "Tabulation of Radioactive Liquid Waste Disposal Facilities," by HV Clukey dated October 8, 1954.

CROSS REFERENCE

"Z" PLANT RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Suggested Crib No.	Number Listed in HW-5000	Number Listed in HW-43121	Number Used On Drawings or Original Number	Remarks
216-Z-1	234-5-1	216-Z-7	234-5-1	
216-Z-2	234-5-2	216-Z-7	234-5-2	
216-Z-3	234-5-3 & 4	216-Z-8	234-5-3 & 4	
216-Z-4	231-1	216-Z-3	216-Z-3	231-W-3
216-Z-5 A,B	231-2	216-Z-5	231-W-1 & 2	231-W-1 & 2
216-Z-6	None	216-Z-4	216-Z-6	231-W-4
216-Z-7	None	216-Z-6	216-Z-7	231-W Trench
216-Z-8	216-Z-8	216-Z-9	216-Z-8	Recuplex
216-Z-9	216-Z-9	216-Z-10	216-Z-9	Recuplex
216-Z-10	None	216-Z-2	None	231-W-150 Reverse Well
216-Z-11	None	216-Z-1	None	Drainage Ditch to U Swamp
216-Z-12	None	None	216-Z-12	New Crib

APPENDIX

A. Explanation of Parts to the Report

Part I will cover the Purex Radioactive Liquid Waste Disposal Sites.

Part II will cover the "Z" Plant Radioactive Liquid Waste Disposal Sites.

Part III will cover the Redox Plant Radioactive Liquid Waste Disposal Sites.

Part IV will cover the "U" Plant Radioactive Liquid Waste Disposal Sites.

Part V will cover the "T" Plant Radioactive Liquid Waste Disposal Sites.

Part VI will cover the "B" Plant Radioactive Liquid Waste Disposal Sites.

Part VII will cover the "C" Plant, Hot Semi-Works, the 200 North Areas and miscellaneous.

B. Index for Z Plant Radioactive Liquid Waste Disposal Sites.

C. Sketches of Z Plant Waste Disposal Facilities.

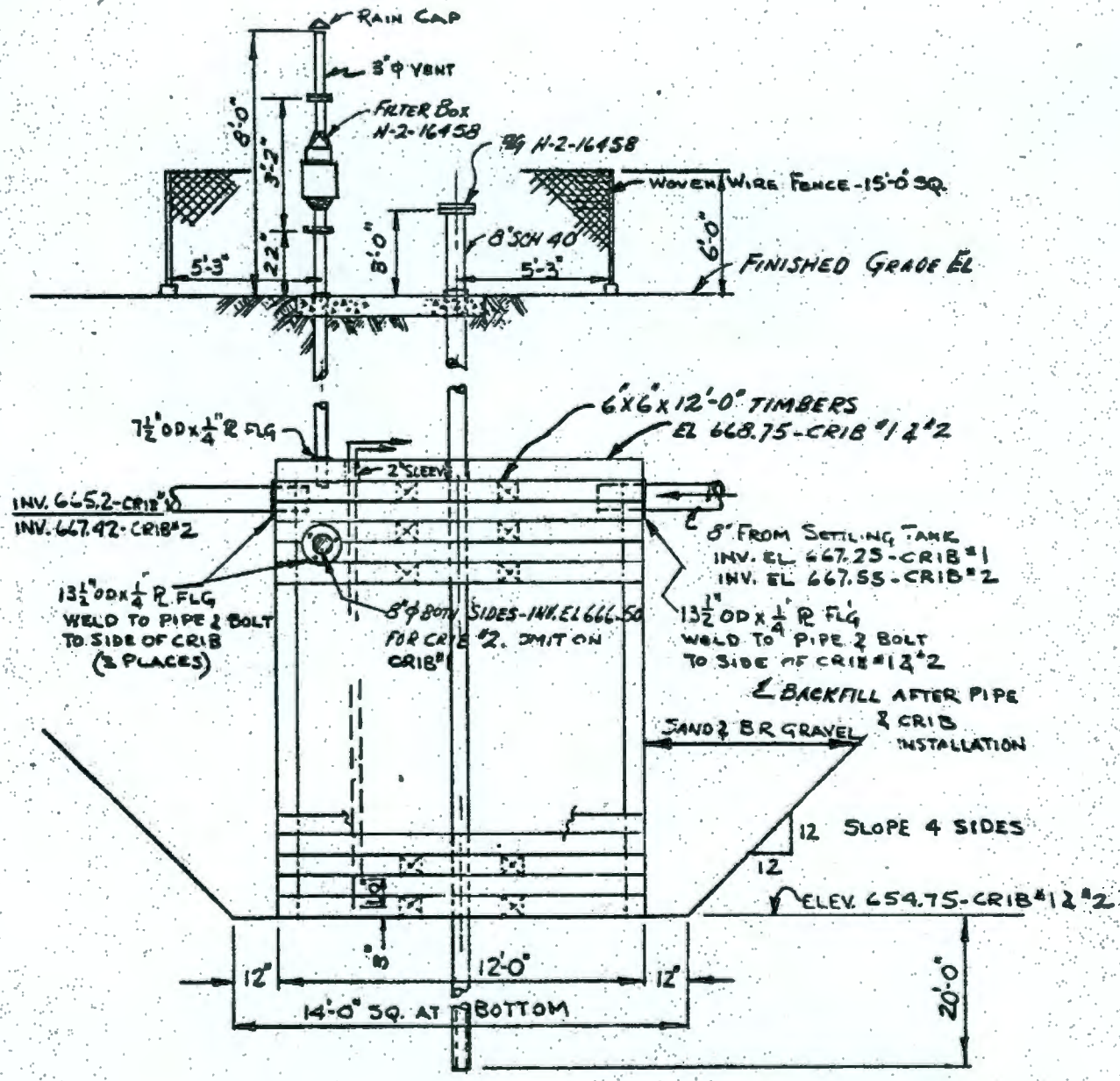
D. Map of Z Plant Sites. (SK-2-17807).

CRIB INDEX

Z Plant

Number	Description Appendix Sheet-	Service	Use Date From	To	Status
216-Z-1	C-1	D-6 Wastes	6/49	6/52	Replaced by Z-3
216-Z-1A	C-2	Overflow from Z-1, 2 & 3	6/49	3/59	Replaced by Z-12
216-Z-2	C-1	D-6 Wastes	6/49	6/52	Replaced by Z-3
216-Z-3	C-3 & 4	D-6 Wastes	6/52	3/59	Replaced by Z-12
216-Z-4	C-5	231-Z Lab Wastes		6/45	Abandoned
216-Z-5	C-6	231-Z Proc. Wastes	6/45	2/47	Replaced by Z-7
216-Z-6	C-7 & 8	231-Z Proc. Wastes		6/45	Abandoned
216-Z-6A	C-7	231-Z Proc. Wastes		6/45	Abandoned
216-Z-7	C-9 & 10	231-Z Lab Wastes	2/47	-	Active
216-Z-8	C-11 & 12	Silica Tk Overflow	7/55	-	Active
216-Z-9	C-11 & 13	Recuplex CAU Waste	7/55	-	Active
216-Z-10	C-14 & 15	231-Z Wastes	2/45	6/45	Replaced by Z-5
216-Z-11	C-16	Cooling Water	6/49	-	Active
216-Z-12	C-17 & 18	D-6 Wastes	3/59	-	Active
216-Z-13	C-19	234-5 Tunnel Drain	6/49	-	Active
216-Z-14	C-19	Evapor. Cond. Wtr.	6/49	-	Active
216-Z-15	C-19	Evapor. Cond. Wtr.	6/49	-	Active

HW-55176-PT2
APPENDIX C-1

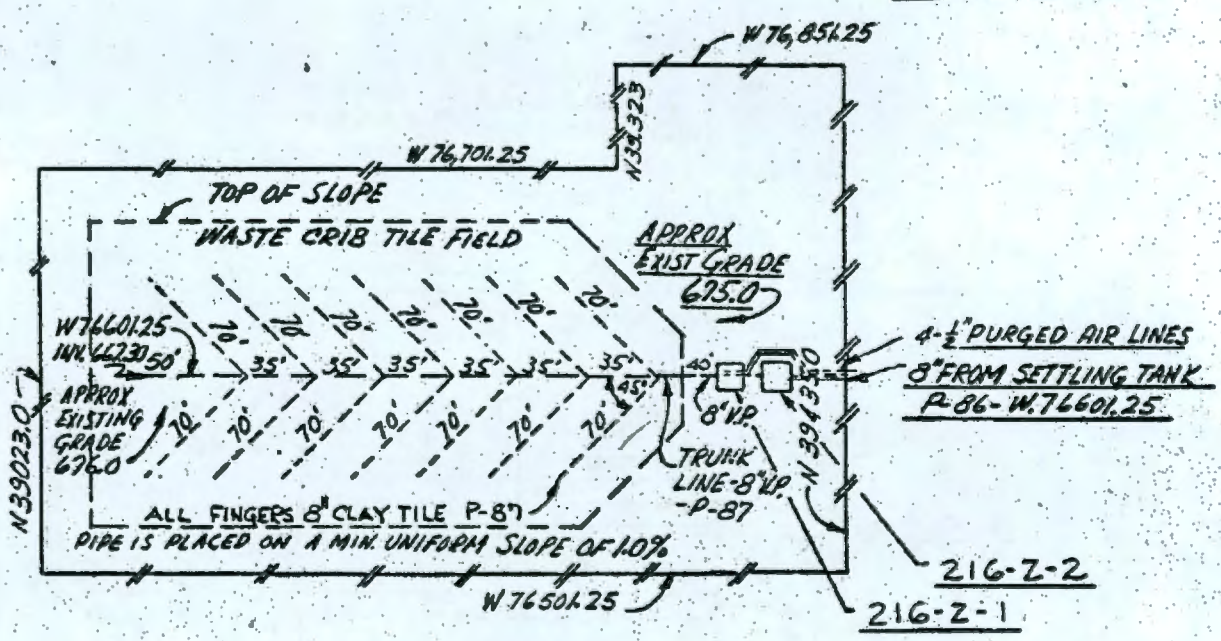


TAKEN FROM H-2-16459

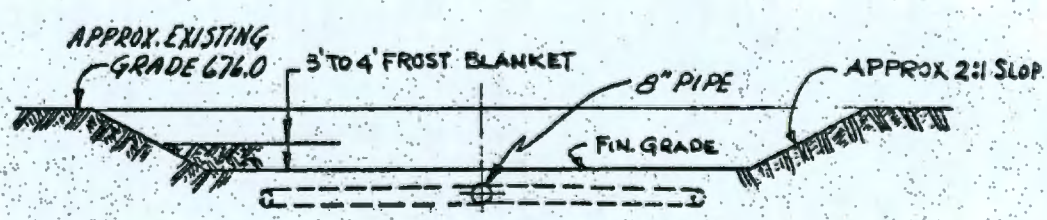
*CRIB #1 - AS SHOWN
CRIB #2 - AS SHOWN & NOTED

216-Z-1*
216-Z-2

HW-55176-PT2
APPENDIX C-2



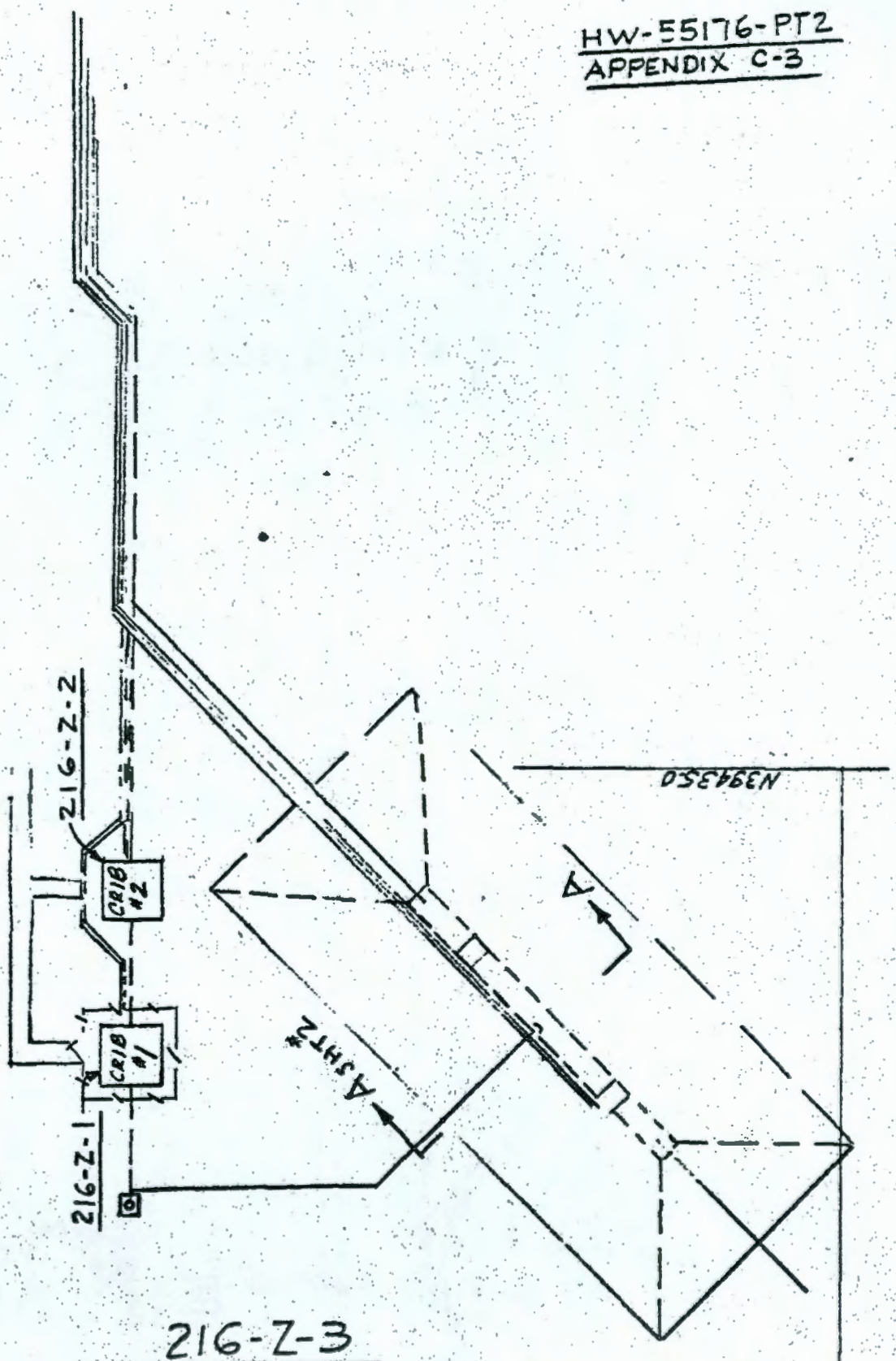
PLAN



SECTION

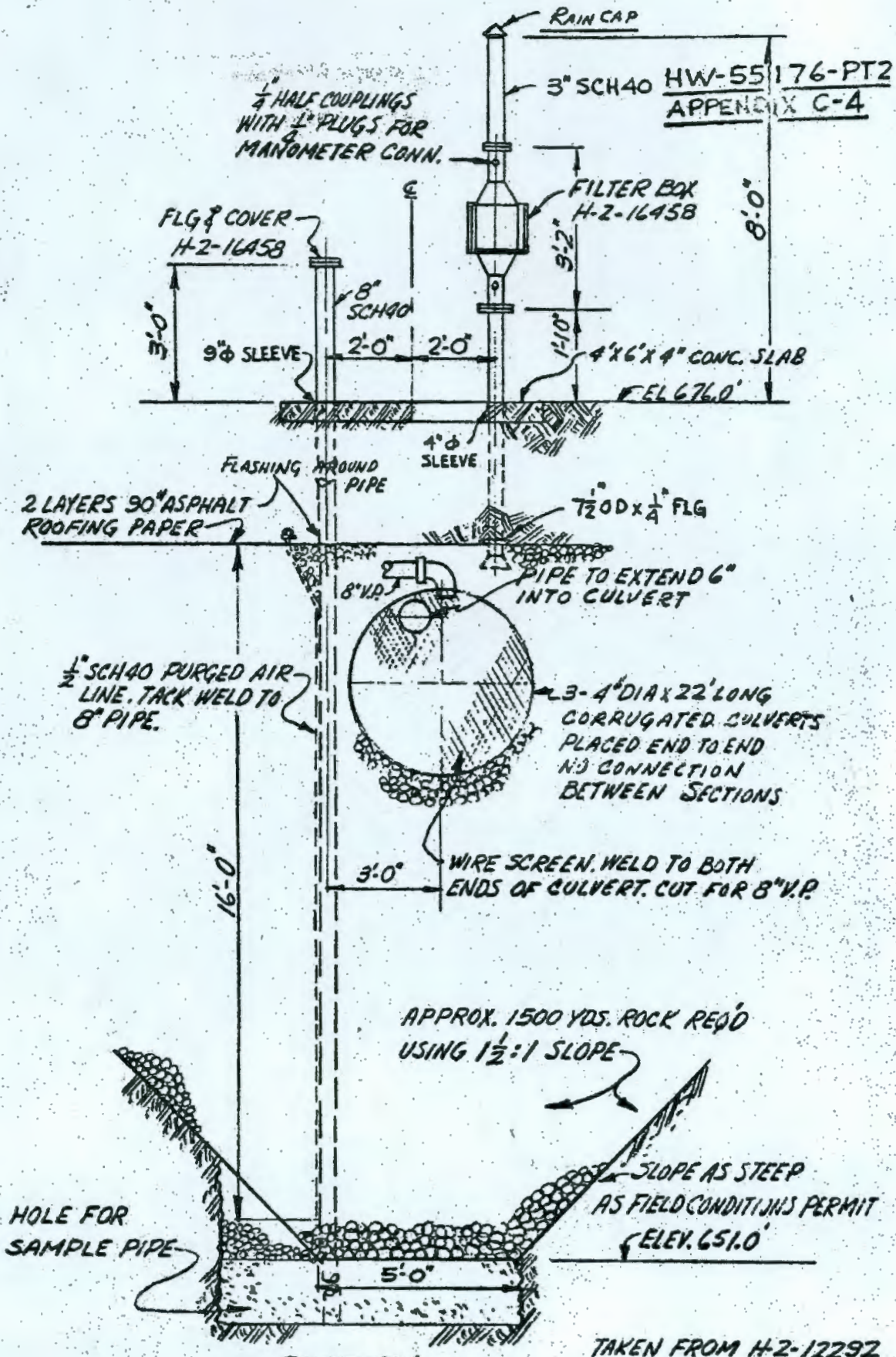
216-Z-1A
TILE FIELD

HW-55176-PT2
APPENDIX C-3



216-Z-3

TAKEN FROM H-2-12292

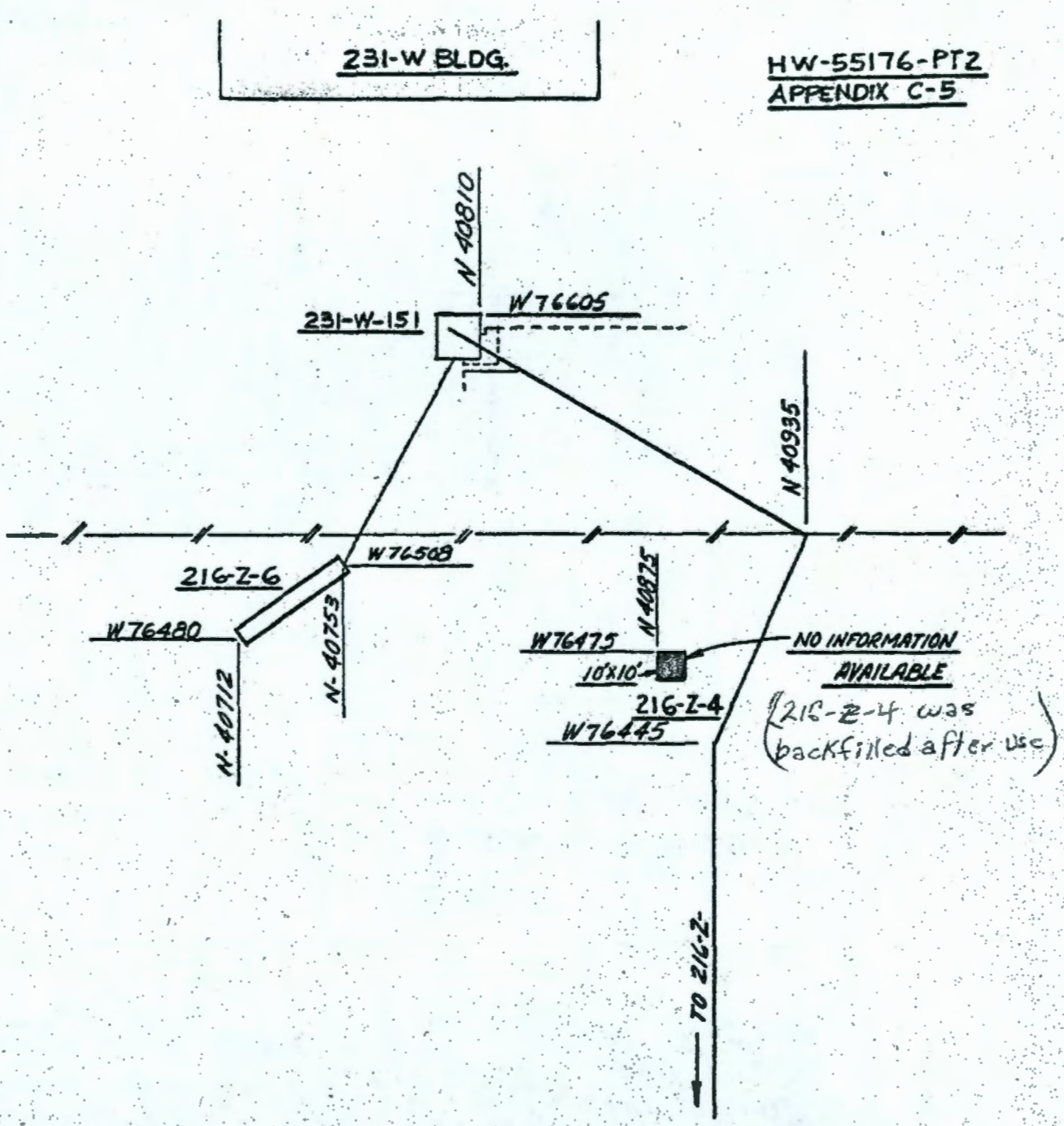


TAKEN FROM H-2-12292

SECTION A-A

216-Z-3

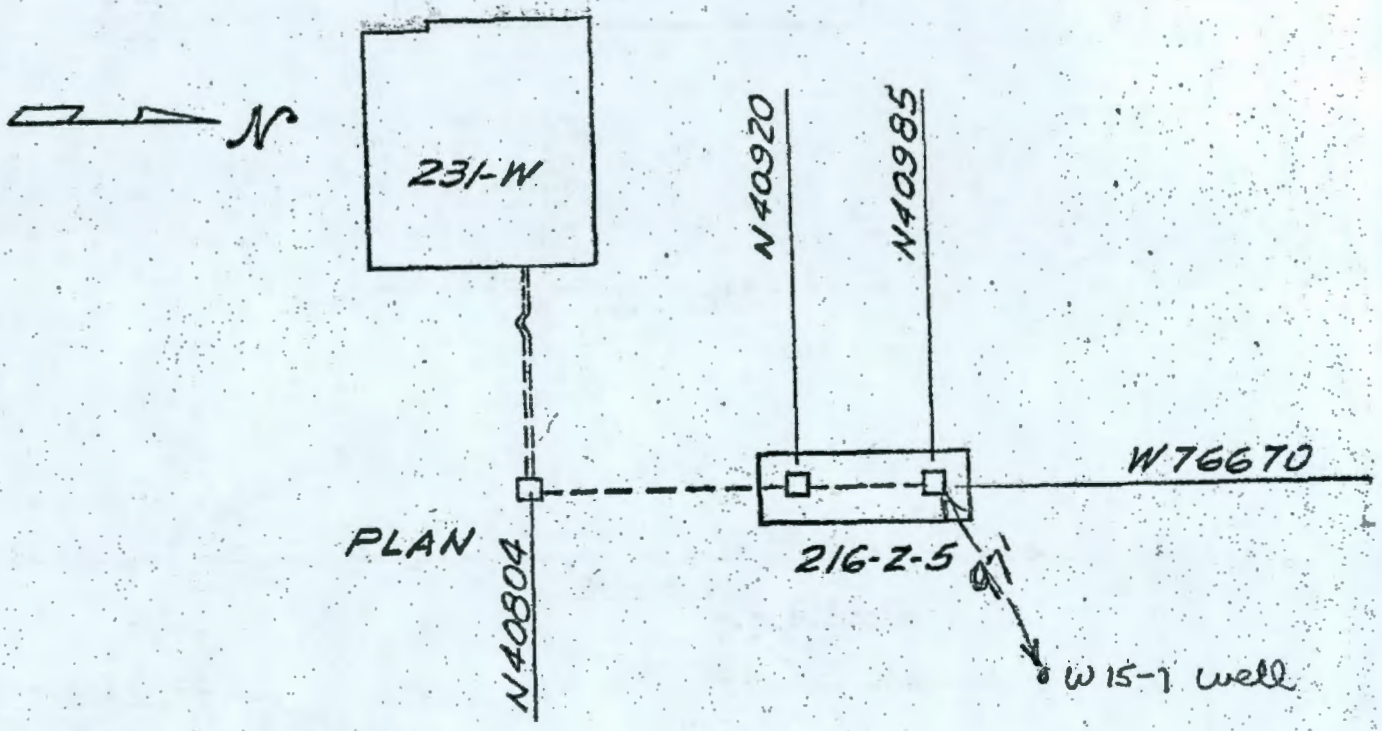
HW-55176-PT2
APPENDIX C-5

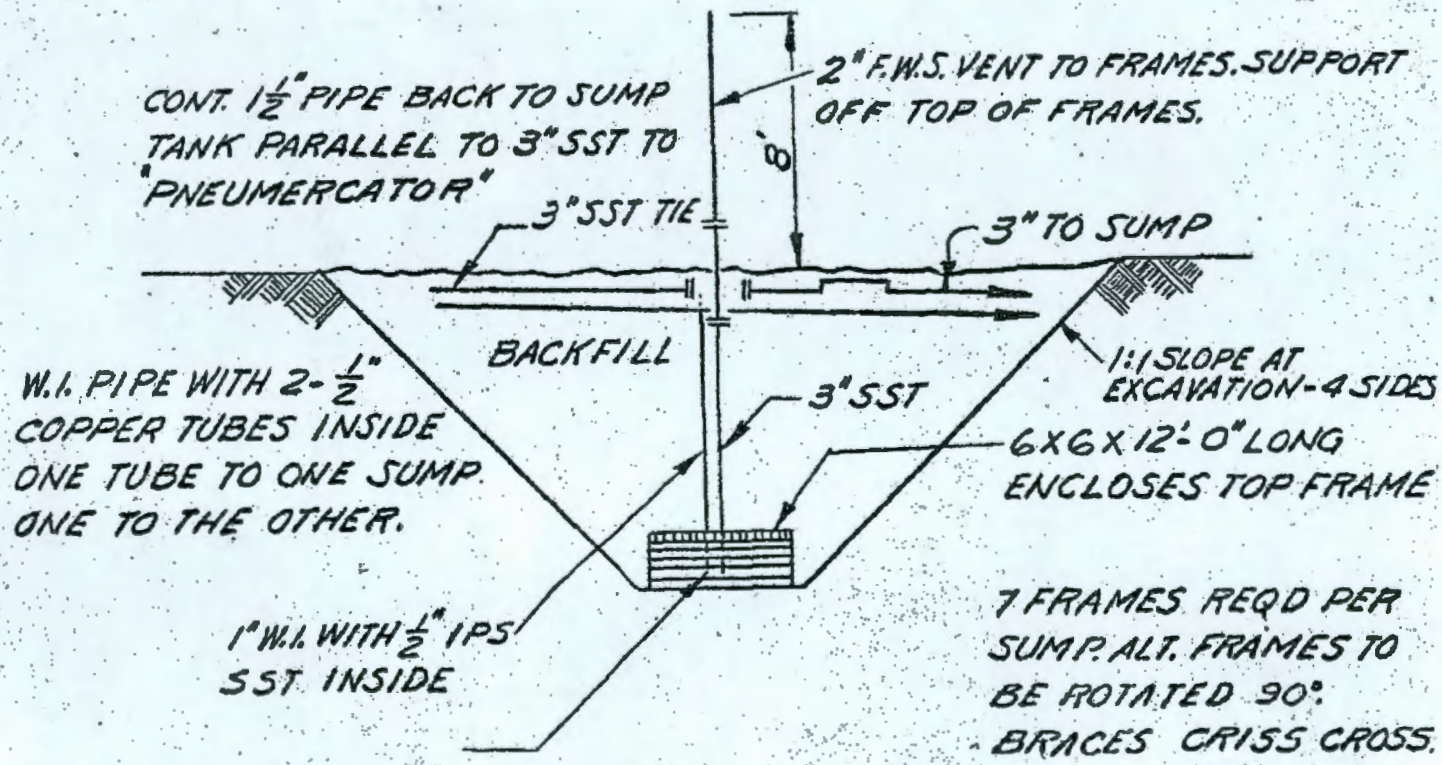


TAKEN FROM H-2-511
DOC. #43121

216-Z-4

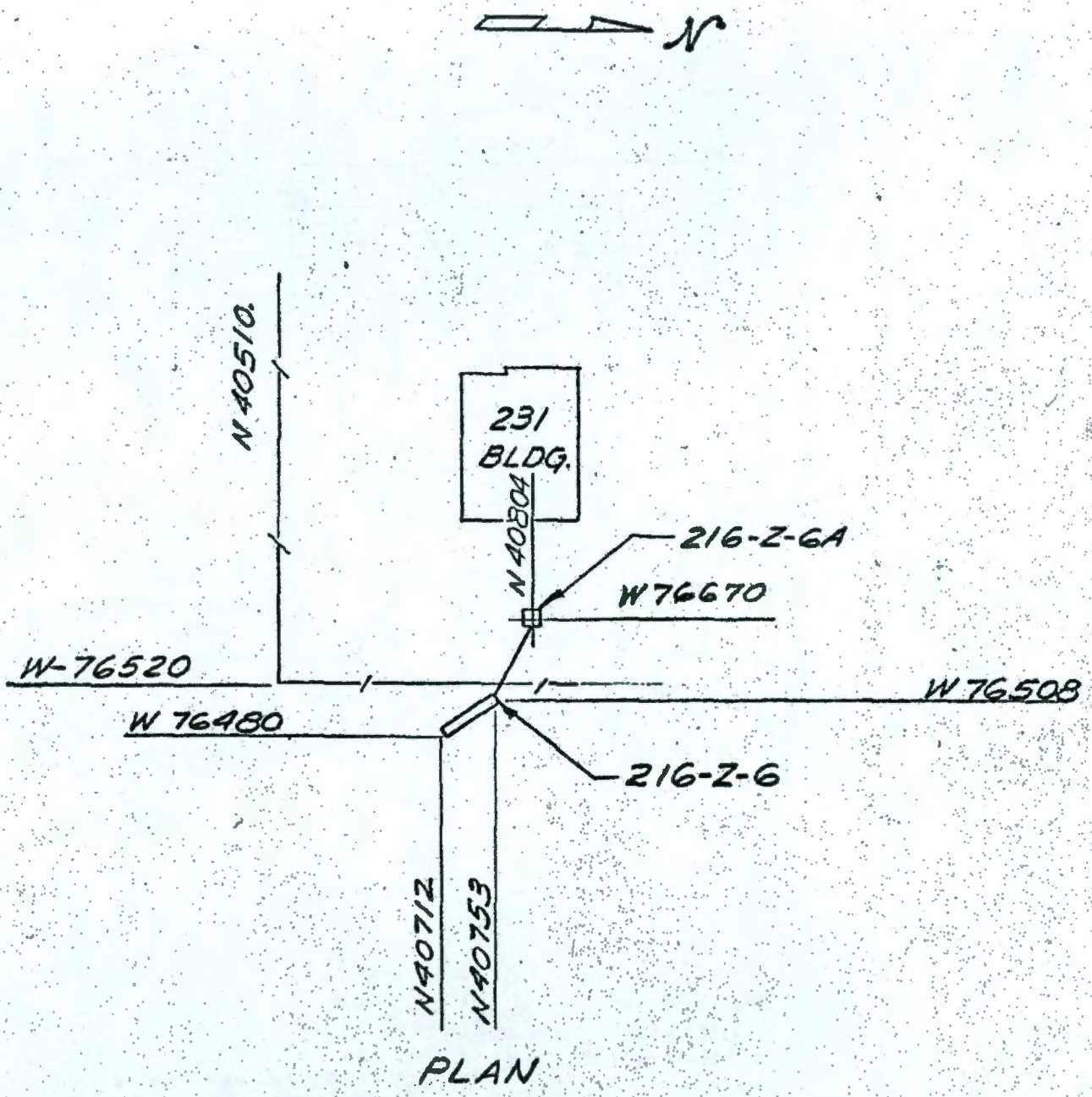
HW 55176-PART 2
APPENDIX C-6
DRAWN J.L.SIMEK 12/8/59





216-Z-5

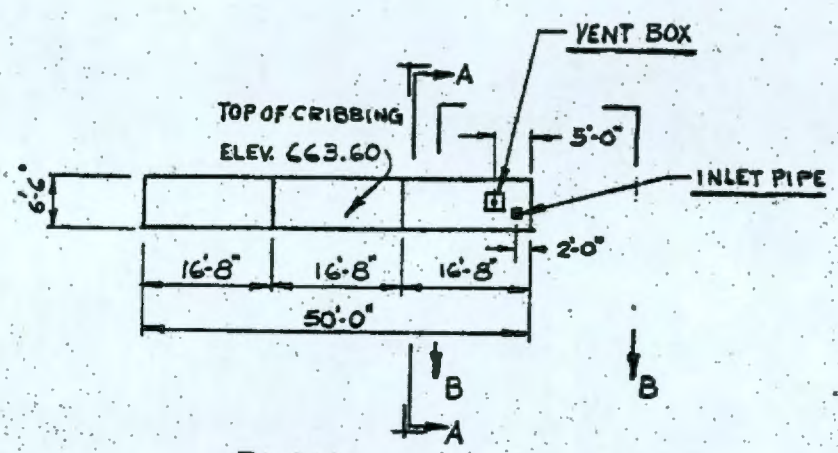
HW 55176-PART 2
APPENDIX C-7
DRAWN JLSIMEK 12/16/59



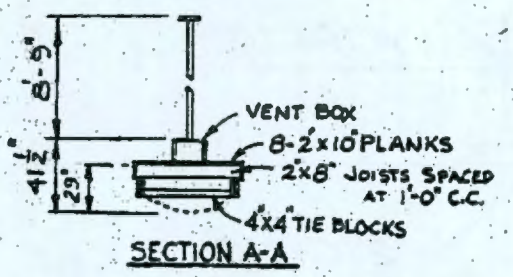
PLAN

231-Z-6
231-Z-6A
H-7-50R

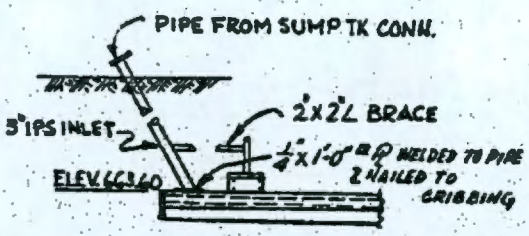
HW-55176-PT2
APPENDIX C-8



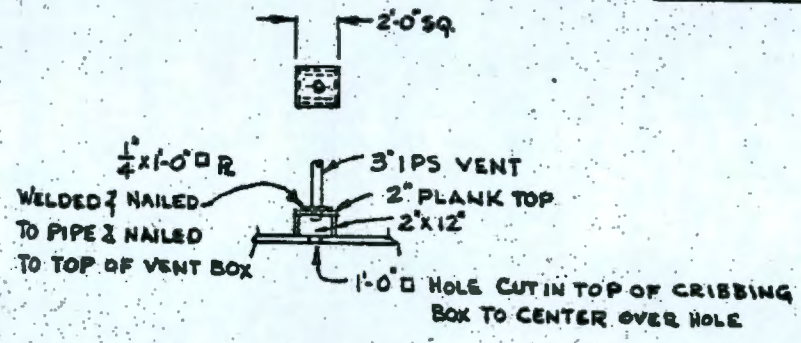
PLAN
TRENCH CRIBBING



SECTION A-A



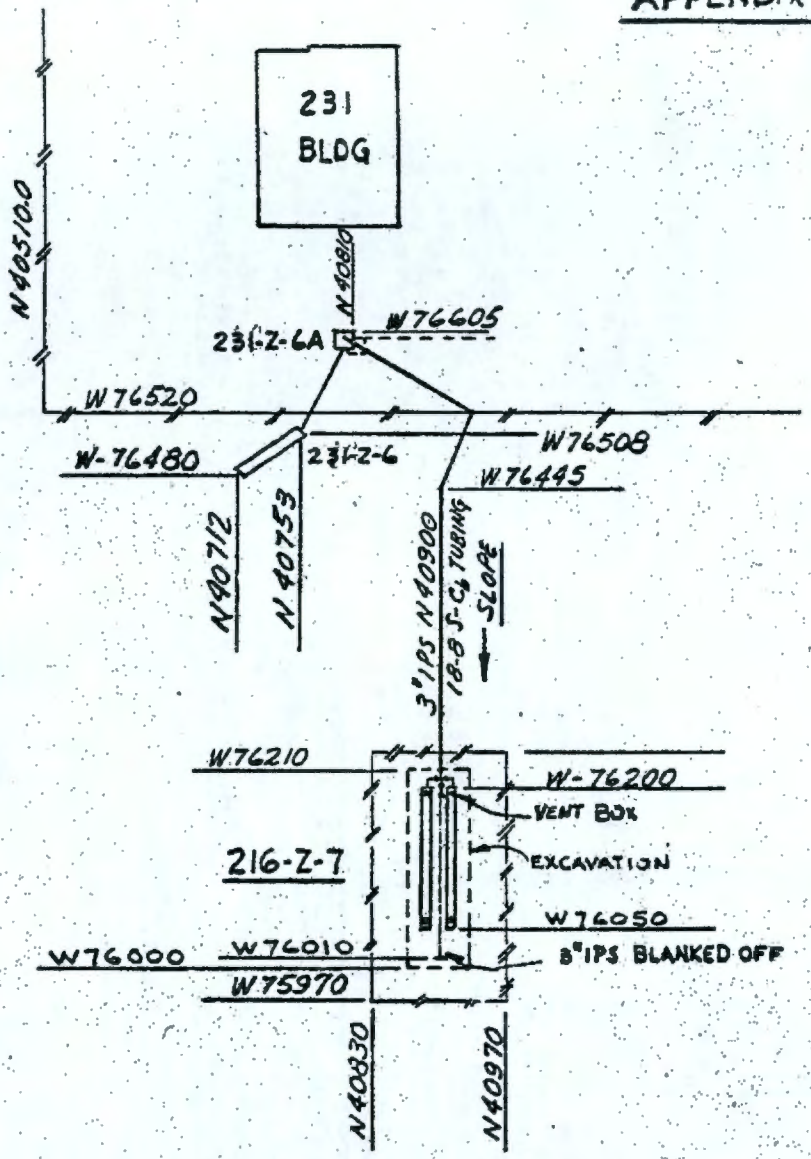
SECTION B-B



DETAILS

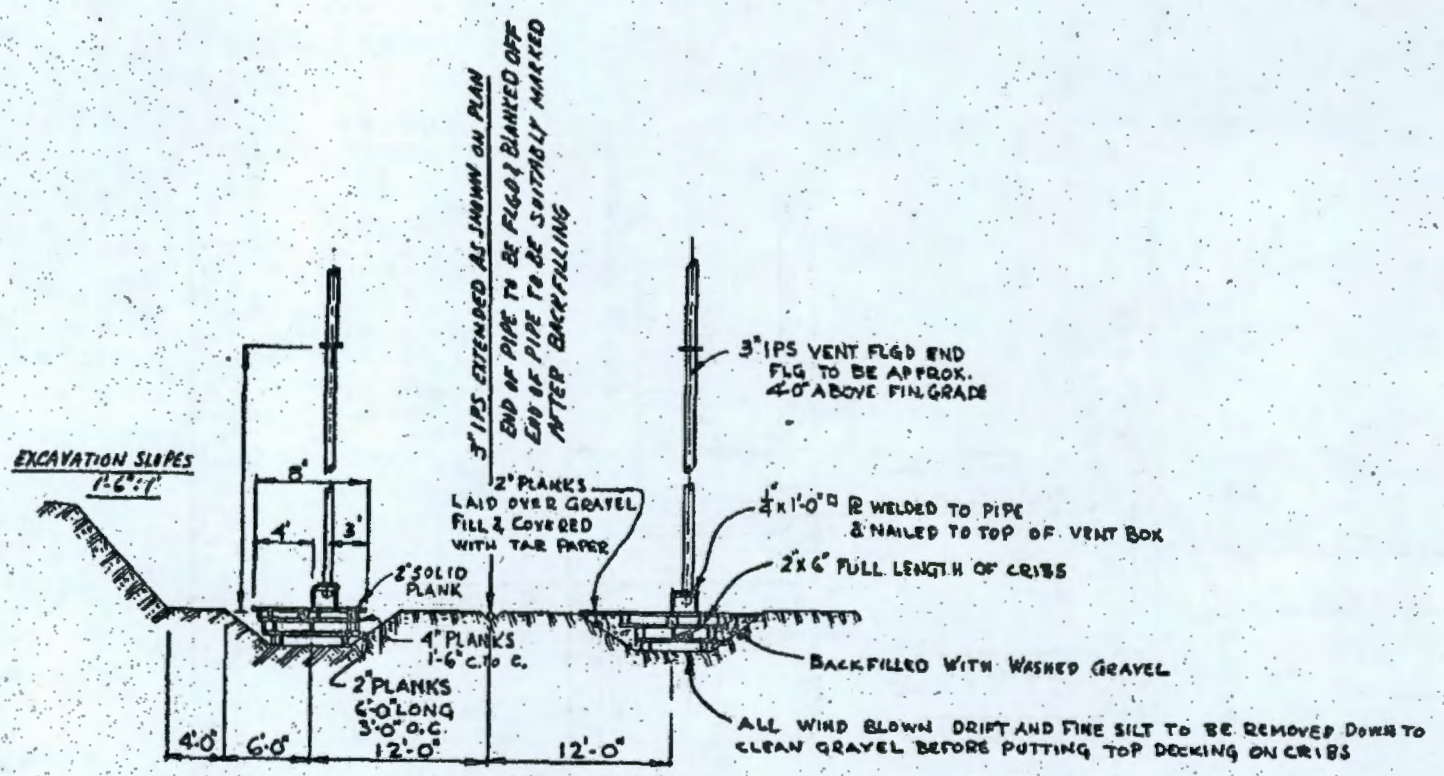
TAKEN FROM H-2-508

216-Z-6



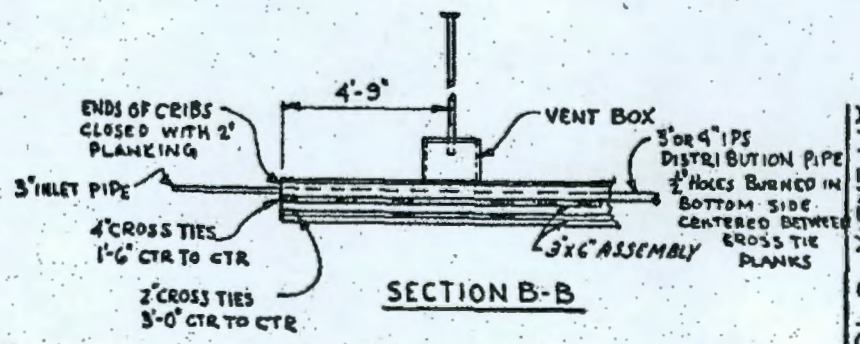
PERMANENT DISPOSAL TRENCH

216-Z-7



TRENCH CRIBS IDENTICAL

SECTION A-A



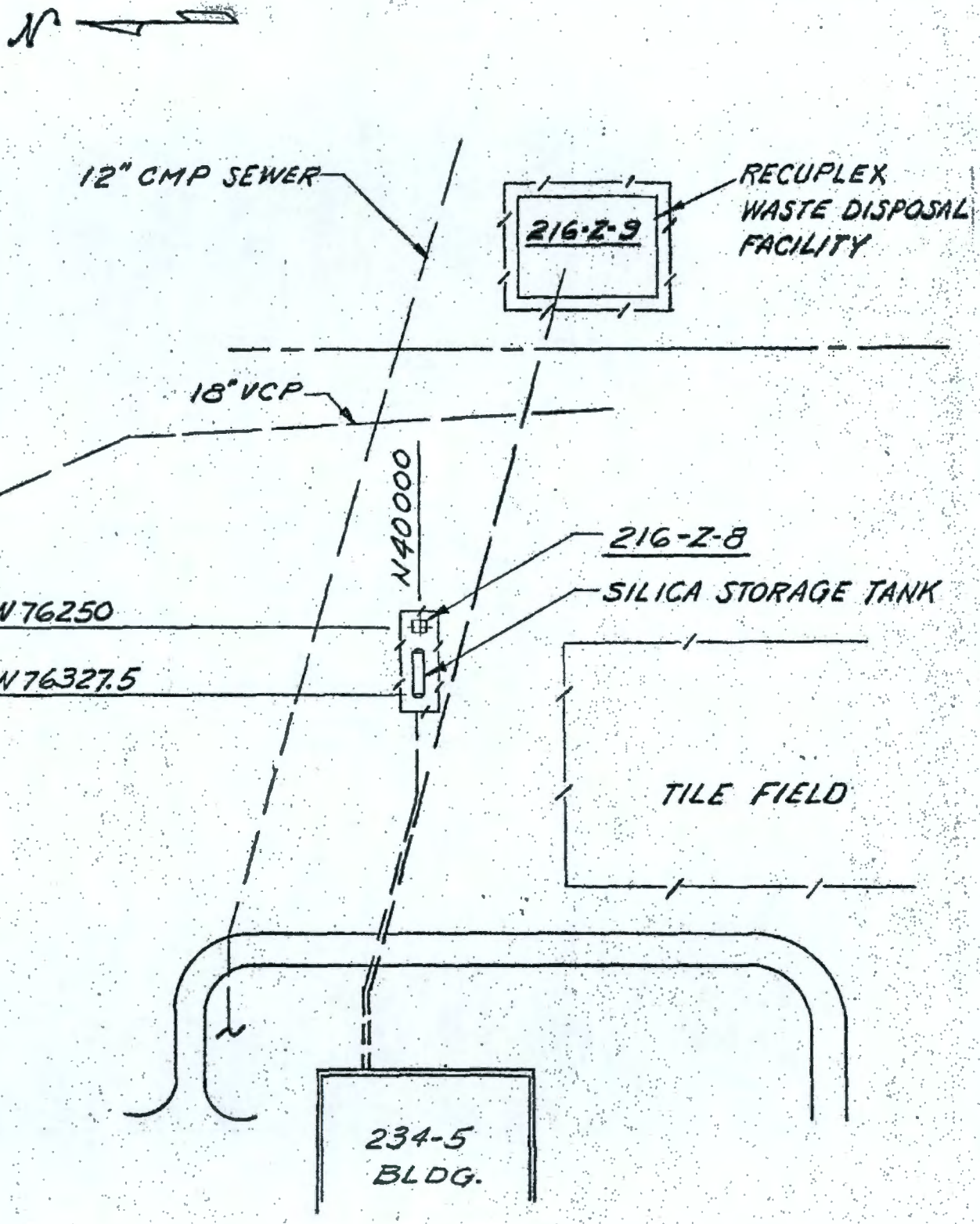
SECTION B-B

TAKEN FROM H-2-511

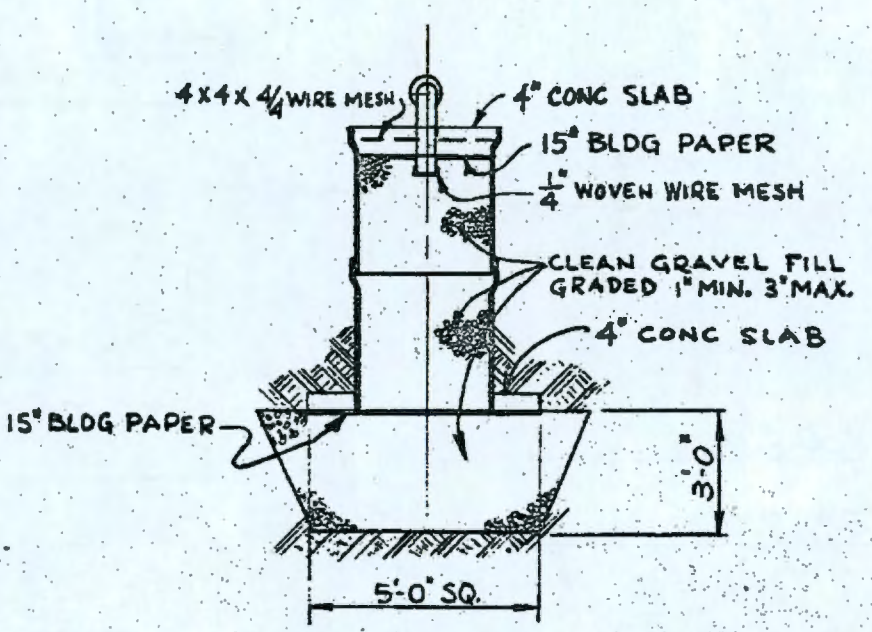
216-Z-7

HW-55176-PT2
APPENDIX C-10

HW 55176-PART 2
APPENDIX C-11
DRAWN JLSIMEK 12/17/59



216-Z-8
216-Z-9
H-2-16653



SECTION

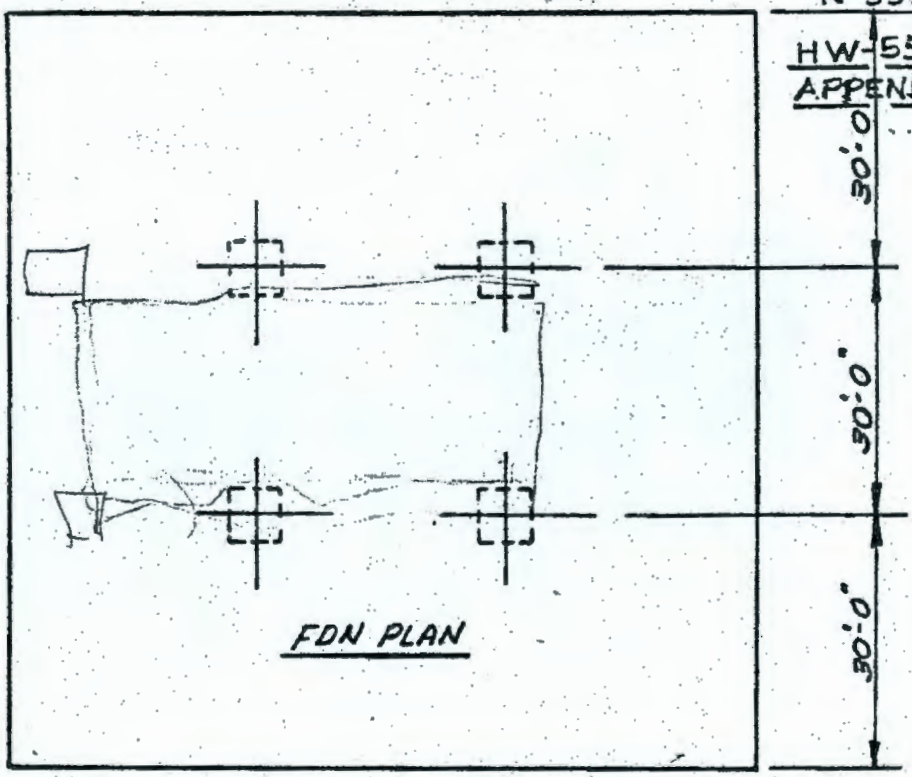
TAKEN FROM H-2-16653

216-Z-8

N 39920

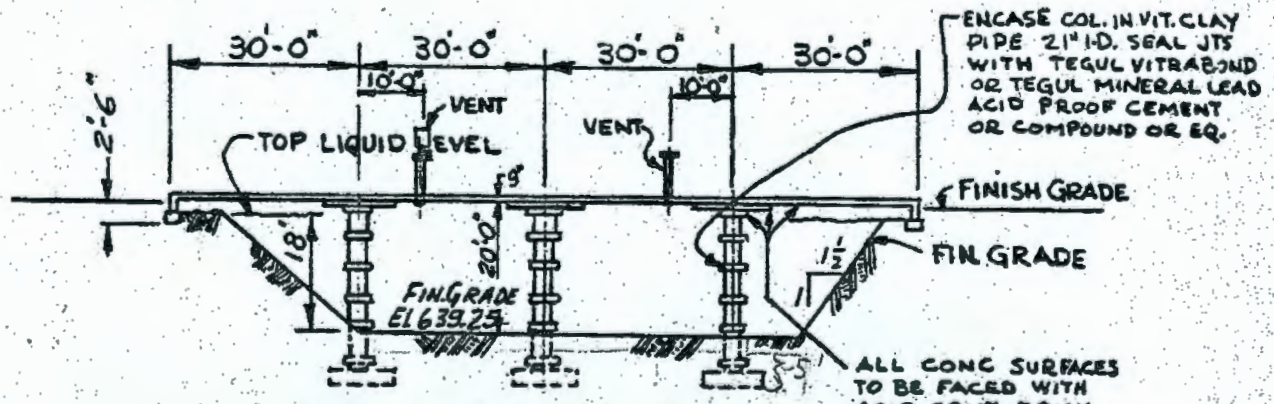
HW-55176-PT2

APPENDIX C-13



FDN PLAN

W 75955



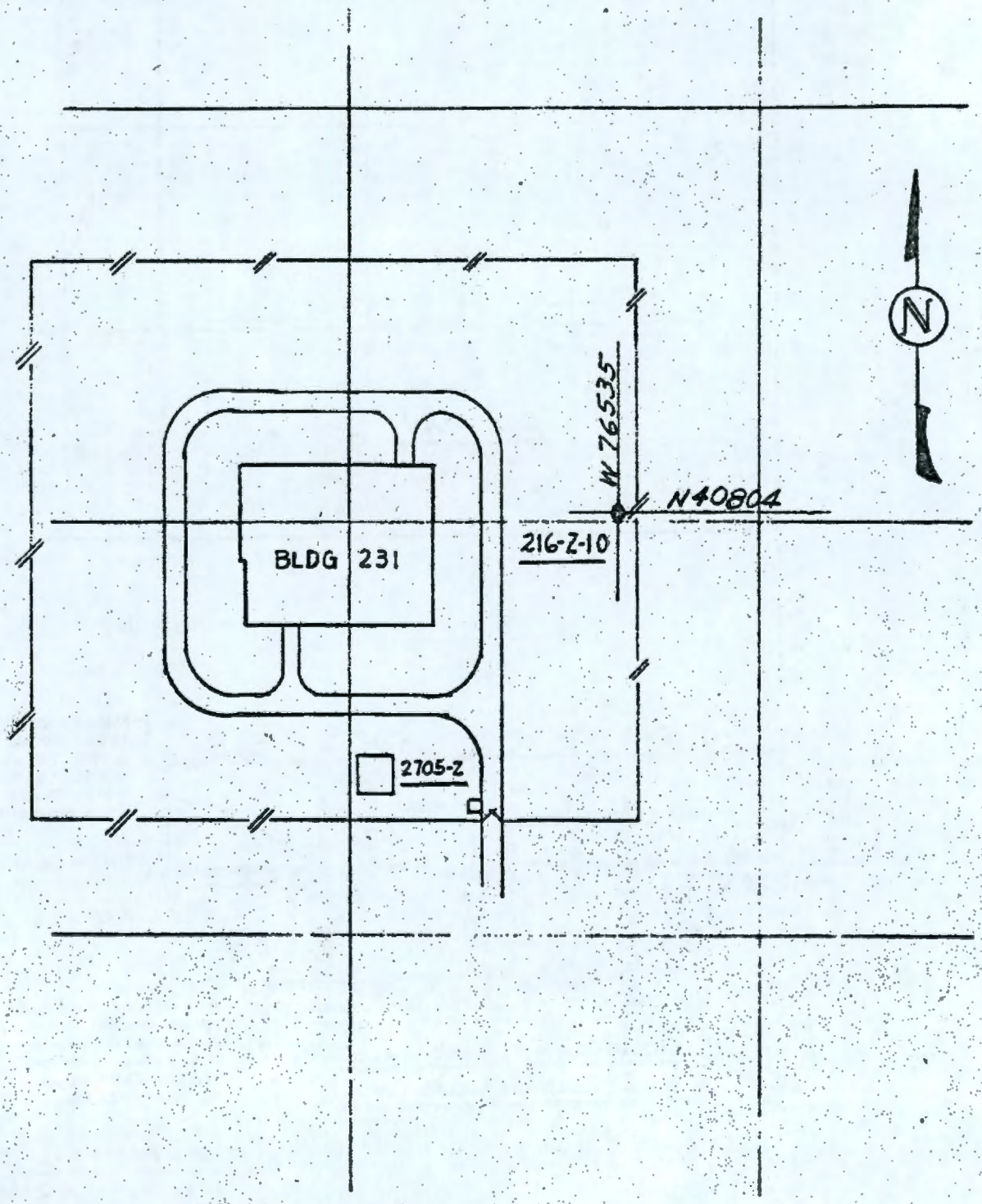
LIQUID CAP. 765,000 GALS.

WHEN FILLED TOP LIQUID LEVEL

TAKEN FROM H-2-15492

H-2-15491

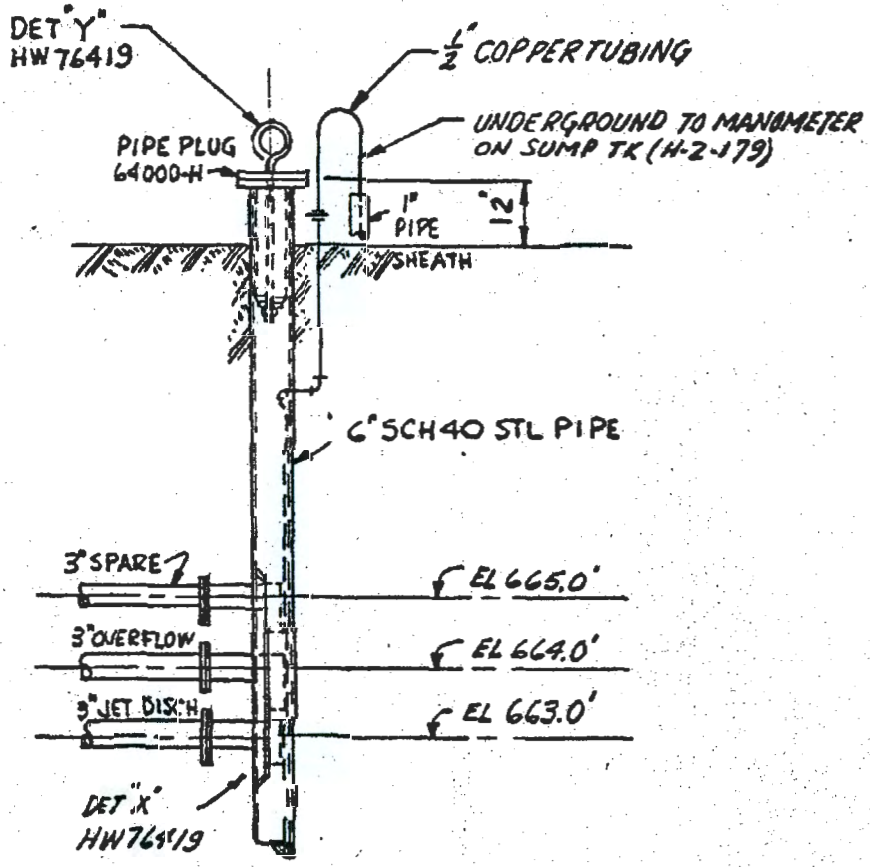
216-7-9



PLAN
216-Z-10

TAKEN FROM
H-2-1697
HW-76419

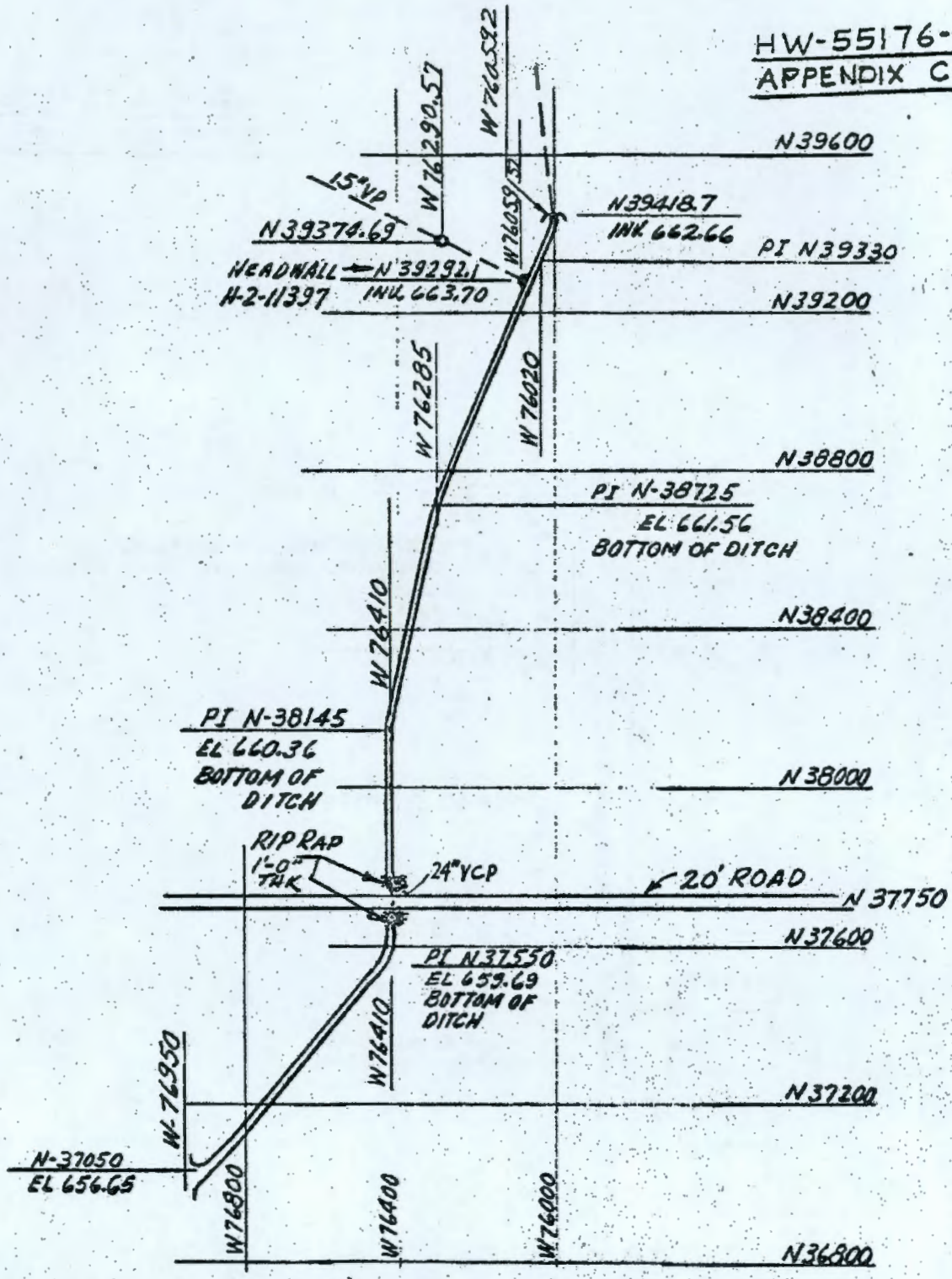
HW-55176-PT2
APPENDIX C-15



SECTION
216-Z-10

TAKEN FROM
HW-76419

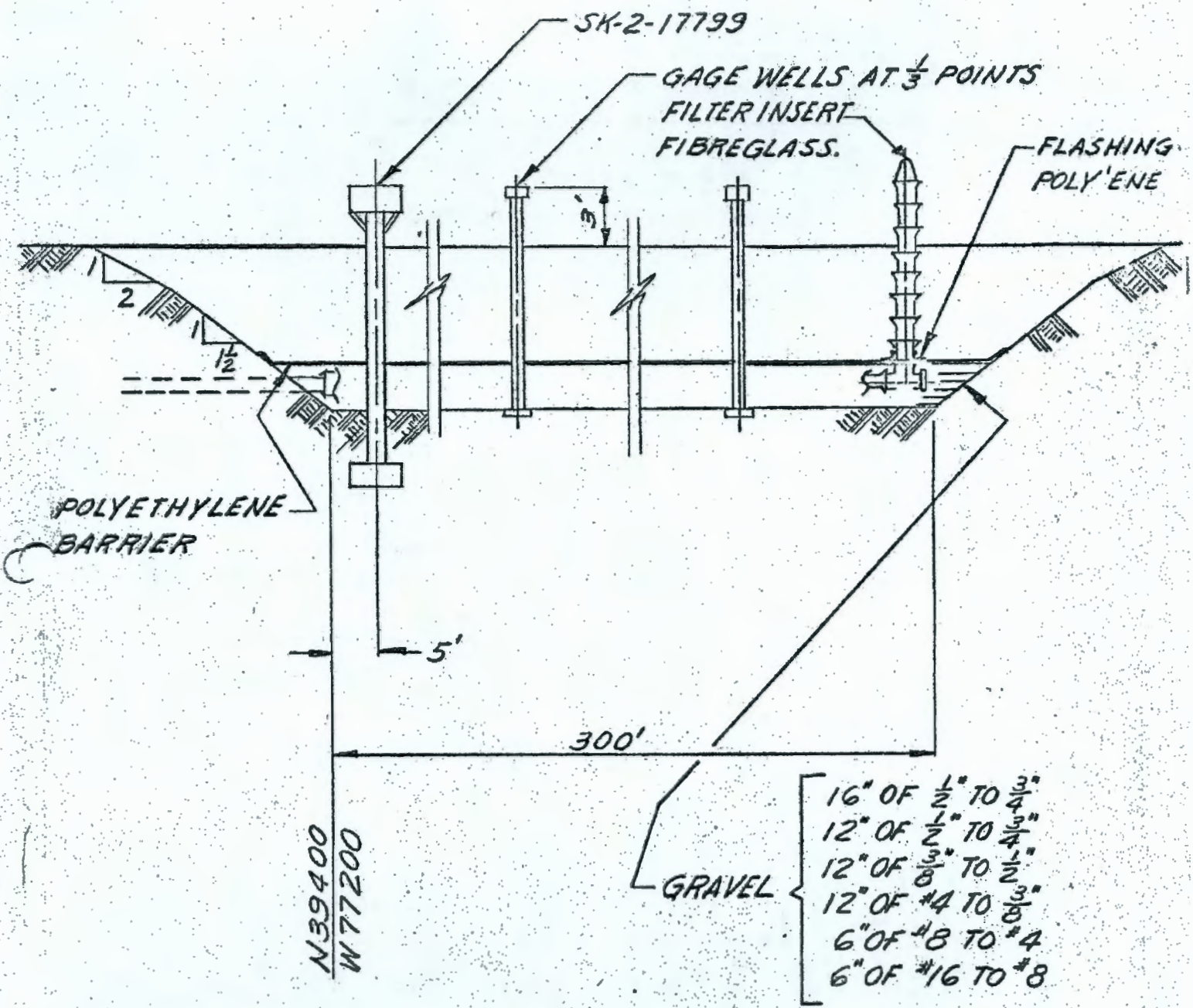
HW-55176-PT2
APPENDIX C-16



MINIMUM DITCH SECTION
4'-0" WIDE AT BOTTOM
2'-0" DEEP
2½:1 SIDE SLOPES
GRADE 0.05%

216-Z-11

HW 55176-PART 2
APPNDIX C-17
DRAWN J.L.SIMEK 12/1959



216-Z-12
H-2-20986
H-2-20987

HW 55176-PART 2
APPENDIX C-18
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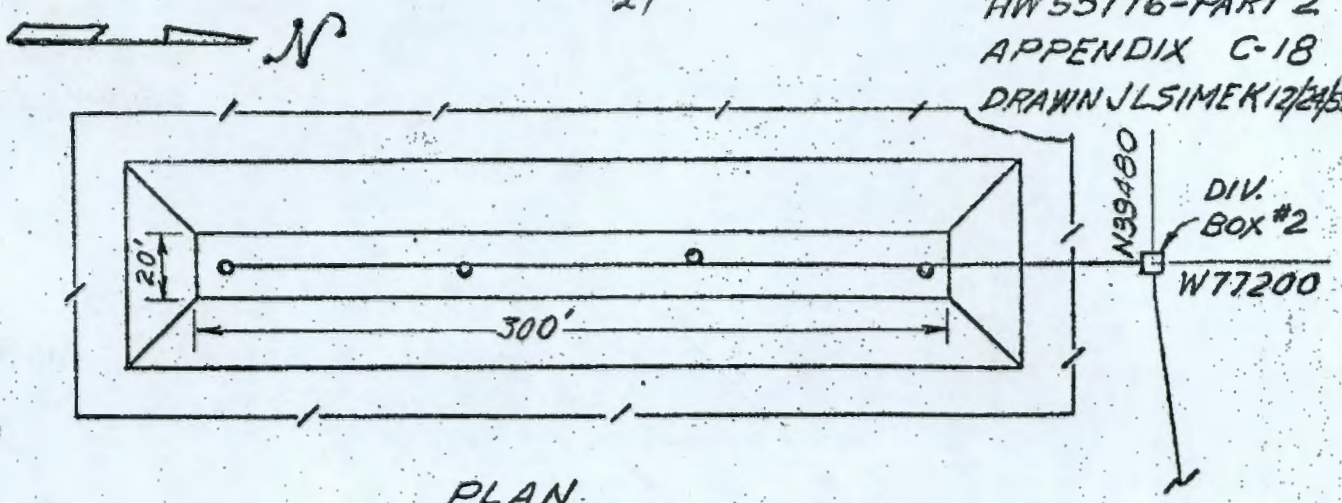
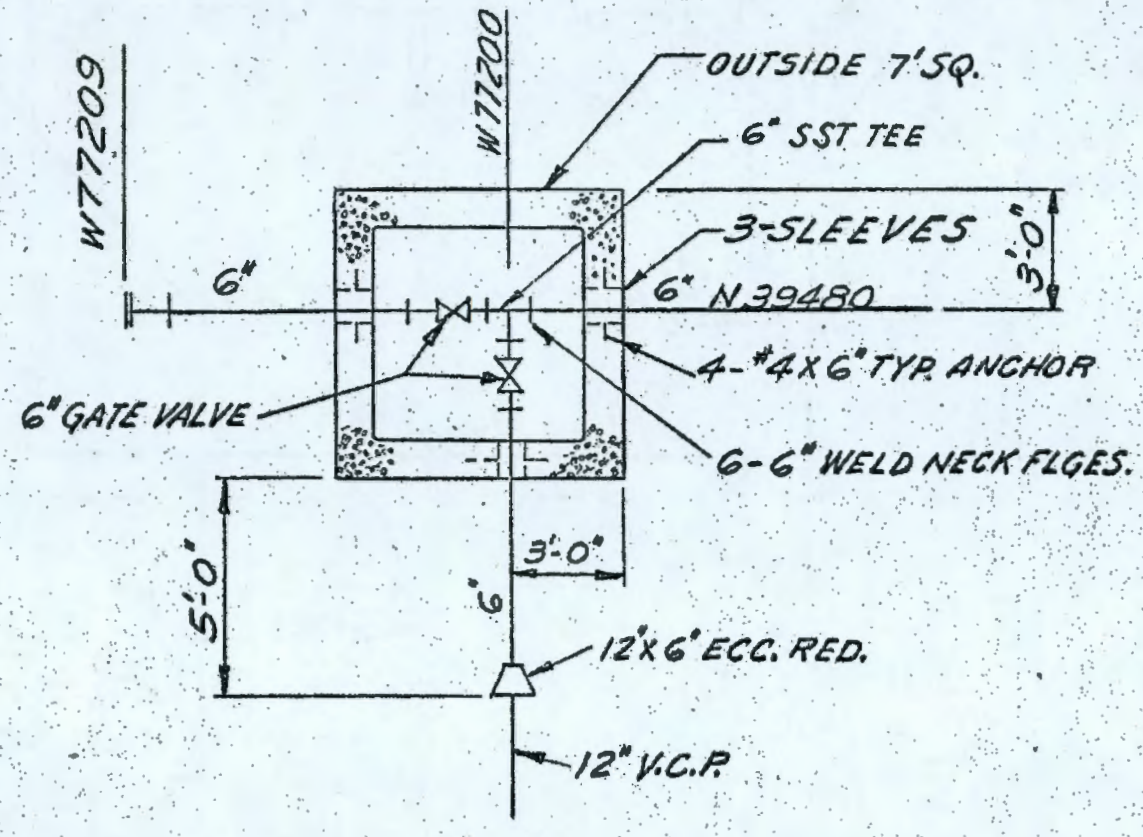


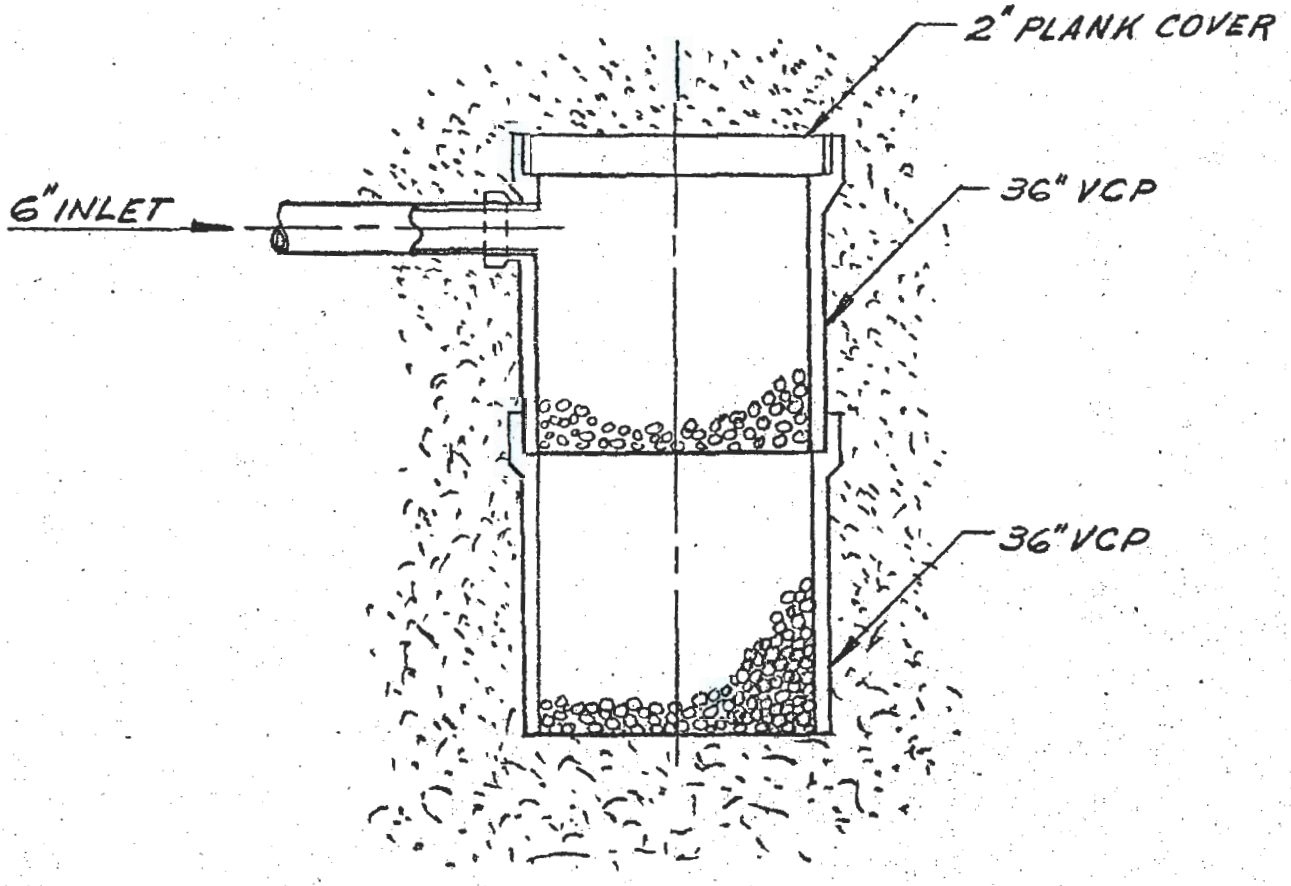
PLAN
FOR LONGITUDINAL SECTION SEE C-17



PLAN
DIVERSION BOX NO. 2

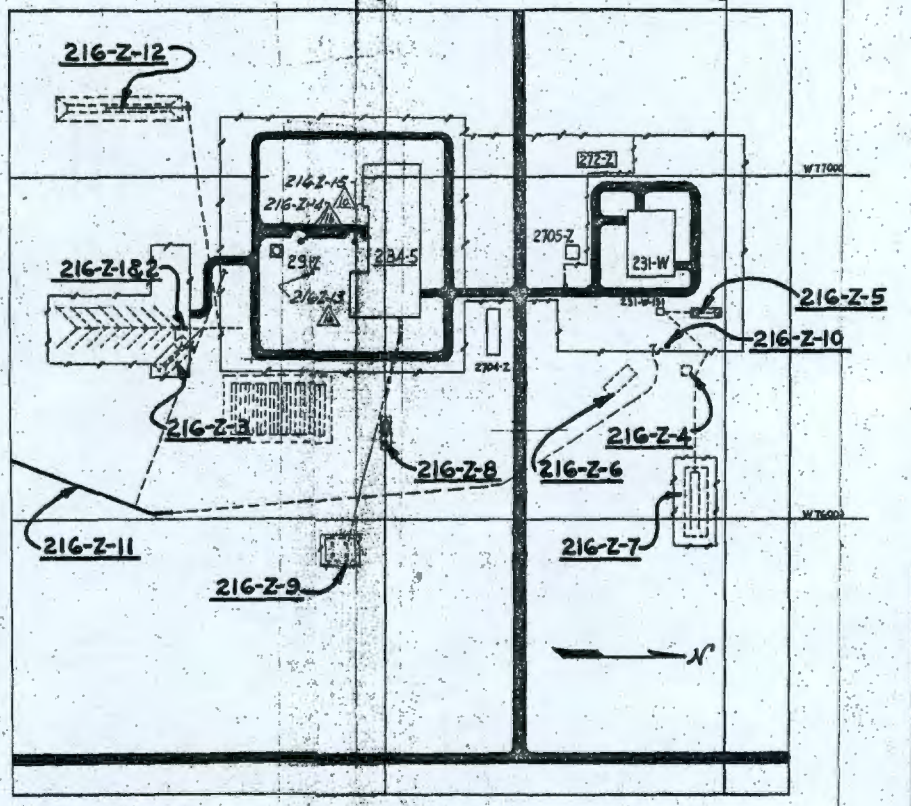
216-Z-12
H-20987

HW 5517G-PART 2
APPENDIX C-19
DRAWN JL SIMEK 12/16/80



216-Z-15
216-Z-14
216-Z-13
H-2-16412

HW-55176-PT II
APPENDIX 'D'



APPROVED
FOR DESIGN
NOT FOR CONSTRUCTION

SK-2-17807
NONE
3/11/58
762

U. S. ATOMIC ENERGY COMMISSION
HANFORD ATOMIC PRODUCTS OPERATION
GENERAL ELECTRIC

"Z" PLANT
LIQUID WASTE DISPOSAL SITES
216-Z SERIES

SK-2-17807

REDOX

UNCLASSIFIED
(CLASSIFICATION)

GENERAL ELECTRIC

HANFORD ATOMIC PRODUCTS OPERATION - RICHLAND, WASHINGTON

DOCUMENT NO.
HW-55176, Part III

COPY NO.

TITLE

INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

DATE
April 21, 1958

ISSUING FILE

AUTHOR

V. W. Wood

ROUTE TO	PAYROLL NO.	LOCATION	FILES ROUTE DATE	SIGNATURE AND DATE
W A Hunney				

C-1899-MS (5 - 56)

UNCLASSIFIED
(CLASSIFICATION)

TO BE USED ON UNCLASSIFIED AND OFFICIAL USE ONLY DOCUMENTS

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part III of VII Parts
Process Technology - Study Report

by

V. W. Wood
Radiological Design and Development
Facilities Engineering Operation
CHEMICAL PROCESSING DEPARTMENT

April 21, 1958

D I S T R I B U T I O N

CR Bergdahl	TG LaFollette
JM Bernard	CE Linderoth
A Bradway	WN Mobley
WG Browne	HE Parker
E Doud	HF Peterson
J. Durbin	DW Pearce
JB Fecht	OH Pilkey
DR Gustavson	EL Reed
CT Groswith	RA Roberts
WA Haney	HP Shaw
JF Honstead	ML Short
IM Jacques	W Tressler
EB Jackson	VW Wood
CE Kent	300 Files

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part III of VII Parts
Process Technology - Study Report

INTRODUCTION

During the fourteen years or more which the separations areas have operated, many sites have been used for the disposal of radioactive liquid wastes. Various methods have been used in assigning building numbers to these sites and, in a number of cases, changes have been made which have brought about some confusion. One of the reasons being some currently used building numbers do not agree with the numbers existing on design prints for the facilities. Reference (2) was an effort to establish a listing of the liquid waste disposal sites. It required considerable time and research to locate information concerning these sites.

Many varied designs have been used for the disposal of radioactive liquid wastes. Reverse wells, trenches, cribs or caverns, etc, have been used. Specific information on these facilities is often difficult to obtain for in some instances they were constructed on work orders with no recorders being retained on the design. In general, the design on each facility has been different. This has made it extremely difficult for people to have a good working knowledge of the various waste disposal sites.

PURPOSE

The purpose of this report (Part III) is to provide a ready reference to the Redox Plant liquid waste disposal sites as well as a compilation of sketches showing the basic information on the design of each facility.

Another objective is to establish a simplified and uniform numbering system. Still another objective is to provide an up-to-date tabulation. Subsequent parts of this report will provide information on cribs for such plants as "B" and "T" Plant.

SUMMARY AND CONCLUSIONS

All radioactive liquid waste disposal sites should have the 216 Building number designation. These should be further grouped by giving all such sites for Purex a prefix of 216-A. Other major series would be 216-S for Redox; 216-T for "T" Plant; 216-B for "B" Plant; 216-B for "B" Plant; and 216-Z for "Z" Plant.

The numbering list in "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation should be revised to more closely follow the above numbering system.

RECOMMENDATIONS

It is recommended that the following action be taken:

1. All groups and services referring to the Redox Plant cribs or report data concerning them should use the index numbering system as presented in this report. In the case of Redox Plant this means several changes. See cross reference, page 4.

2. That all drawings concerning these disposal sites, including maps, be revised to show the proper locations and numbers for these cribs.

3. Any suggestions for improving the usefulness of this report should be referred to the author.

DISCUSSION

When all seven parts of the report are completed, and the work outlined in the report is completed, much confusion will be eliminated and more people will be better informed on the design of each waste disposal facility. The report will provide a firm basis for future building number assignments.

While some sincere efforts have been made to try and keep a methodical system for recording waste disposal sites, a number of problems have developed, for example, HW-5000, Sheet 29 of 50 lists, only eight cribs in the 216-S series. Also reference 2 has assigned numbers which do not agree with the crib numbers assigned on many drawings.

As indicated earlier, the use of the crib index, as presented in this report should be very easy. In addition, information is presented which is very difficult to locate in the records and in some cases it is not available in the records.

REFERENCES

1. HW-5000, "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation.

2. HW-43121, "Tabulation of Radioactive Liquid Waste Disposal Facilities" by HV Clukey dated May 10, 1956.

3. HW-33305, "Tabulation of Radioactive Liquid Waste Disposal Facilities" by HV Clukey dated October 8, 1954.

4. HW-41535, "Uncofined Underground Radioactive Waste and Contamination in the 200 Areas" by KR Heid dated January 17, 1956.

CROSS REFERENCE
REDOX PLANT RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

Suggested Crib No.	Number Listed in HW-5000	Number Listed in HW-43121	Number Used On Drawings or Original Number
216-S-1	216-S-1	216-S-5	216-S-1
216-S-2	216-S-2	216-S-5	216-S-2
216-S-3	216-S-3	216-S-8	216-S-3
216-S-4	216-S-4	216-S-7	216-S-4
216-S-5	216-S-5	216-S-9	216-S-5
216-S-6	216-S-6	216-S-13	216-S-6
216-S-7	216-S-7	216-S-15	216-S-7
216-S-8	216-S-8	216-S-3	216-S-8
216-S-9	None	None	216-S-9
216-S-10	None	216-S-10	216-S-10
216-S-11	None	216-S-11	None
216-S-12	None	216-S-12	None
216-S-13	None 276-S Crib	216-S-6	None
216-S-14	None	216-S-4	None
216-S-15	None	216-S-2	None
216-S-16	None	216-S-16	None
216-S-17	None	216-S-1	None
216-S-18	None	216-S-14	None
216-S-19	216-SL-7	216-SL-1	None
216-S-20	None	216-SL-2	None
216-S-21	216-SX-1, 2	216-SX-1	216-SX-1
216-S-22	Fractionator Crib		

APPENDIX

A. Explanation of Parts to the Report

Part I will cover the Purex Radioactive Liquid Waste Disposal Sites.

Part II will cover the "Z" Plant Radioactive Liquid Waste Disposal Sites.

Part III will cover the Redox Plant Radioactive Liquid Waste Disposal Sites.

Part IV will cover the "U" Plant Radioactive Liquid Waste Disposal Sites.

Part V will cover the "T" Plant Radioactive Liquid Waste Disposal Sites.

Part VI will cover the "B" Plant Radioactive Liquid Waste Disposal Sites.

Part VII will cover the "C" Plant, Hot Semi-Works, the 200 North Areas and miscellaneous.

B. Index for Redox Plant Radioactive Liquid Waste Disposal Sites.

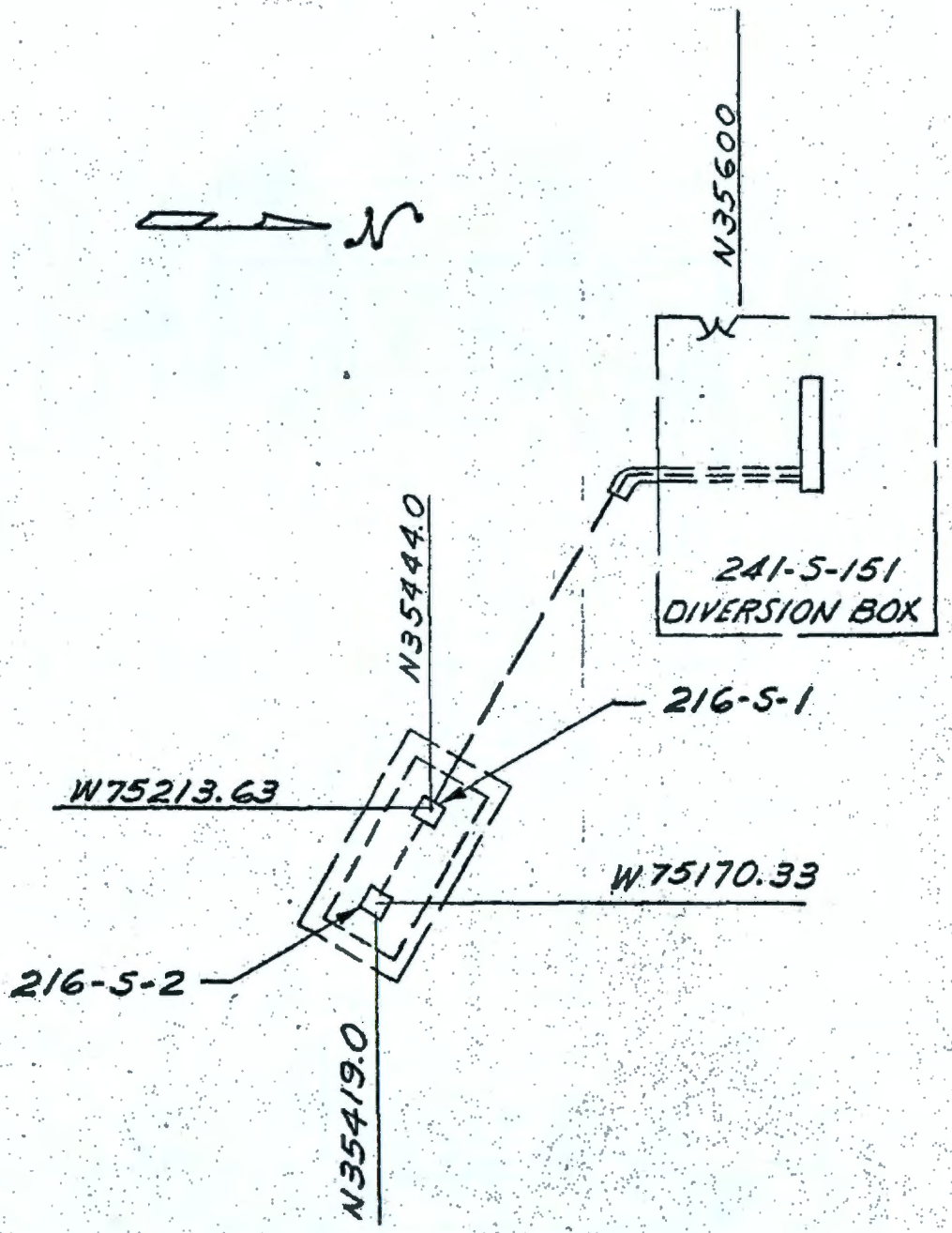
C. Sketches of Redox Plant Waste Disposal Facilities.

D. Map of Redox Plant Sites (SK-2-17808).

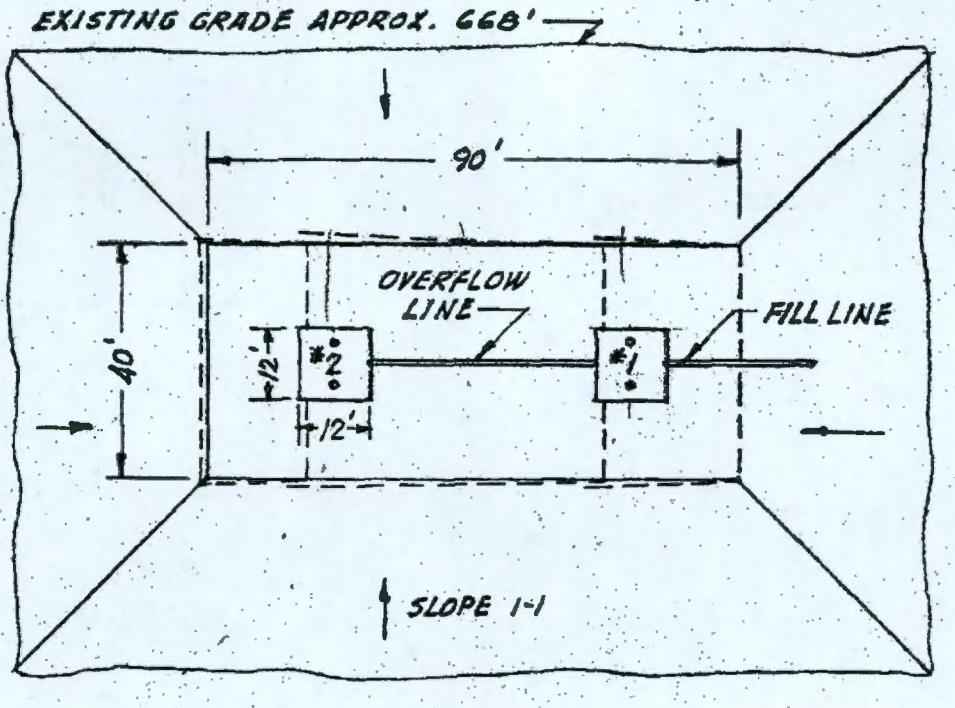
CRIB INDEX

Redox

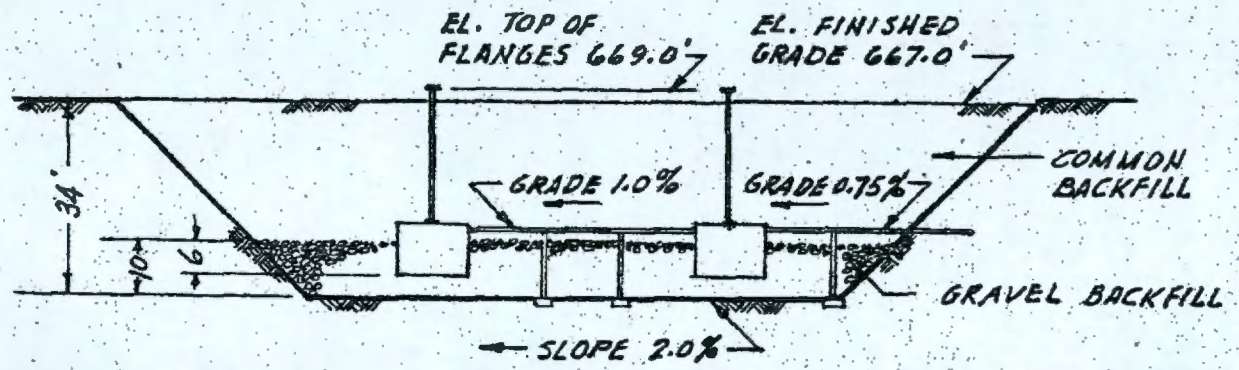
Number	Description Appendix Sheet	Service	Use Dates From	To	Status
216-S-1	C-1, 2 & 3	D-2 Process Condensate	1/52	1/56	Replaced by S-7
216-S-2	C-1, 2 & 3	Overflow from S-1	1/52	1/56	Replaced by S-7
216-S-3	C-4	241-S TK 101 & 104 Condensate	8/53	-	Abandoned
216-S-4	C-4	241-S TK 101 & 104 Condensate	8/53	-	Abandoned
216-S-5	C-5, 6 & 7	Steam Condensate	3/54	11/54	Replaced by S-6
216-S-6	C-8 & 9	Steam Condensate	11/54	-	Active
216-S-7	C-10 & 11	D-2 Process Condensate	1/56	-	Active
216-S-8	C-12	Startup Wastes	11/51	2/52	Abandoned
216-S-9	None	Ditch to Chemical Waste Pit	2/54	-	Active
216-S-10	C-16	Chemical Waste Pit	2/54	5/54	Replaced by S-11
216-S-11	C-16	Chemical Waste Pit	5/54	-	Active
216-S-12	C-17	291-S Stack Wash Water		7/54	Abandoned
216-S-13	C-18 & 19	Organic Waste	2/52	-	Active
216-S-14	C-20	Organic Startup Waste		1/52	Abandoned
216-S-15	C-21	241-S TK 110 Condensate		10/52	Abandoned
216-S-16	C-22	Cooling Water Swamp	4/54	-	Active
216-S-17	C-23	Cooling Water Swamp	3/52	4/54	Replaced by S-16
216-S-18	C-24	Steam Cleaning Pit	10/54	-	Not in use
216-S-19	C-25	222-S Cooling Water	1/52	-	Active
216-S-20	C-26,27 & 28	222-S & 300 Area Wastes	3/52	-	Active
216-S-21	C-29 & 30	241-SX Condensate	11/54	-	Active
216-S-22	C-31	293-S Caustic Scrubber Wastes	1957	-	Inactive



216-S-1
216-S-2
H-2-1813
H-2-1774



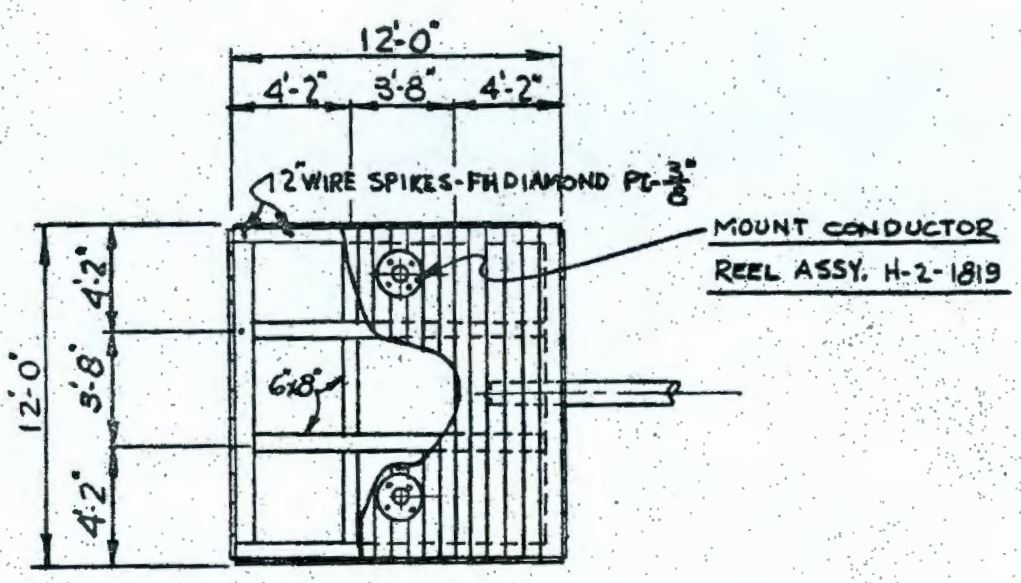
PLAN



LONGITUDINAL SECTION

TAKEN FROM H-2-1813

216-5-1 & 2 Cribs



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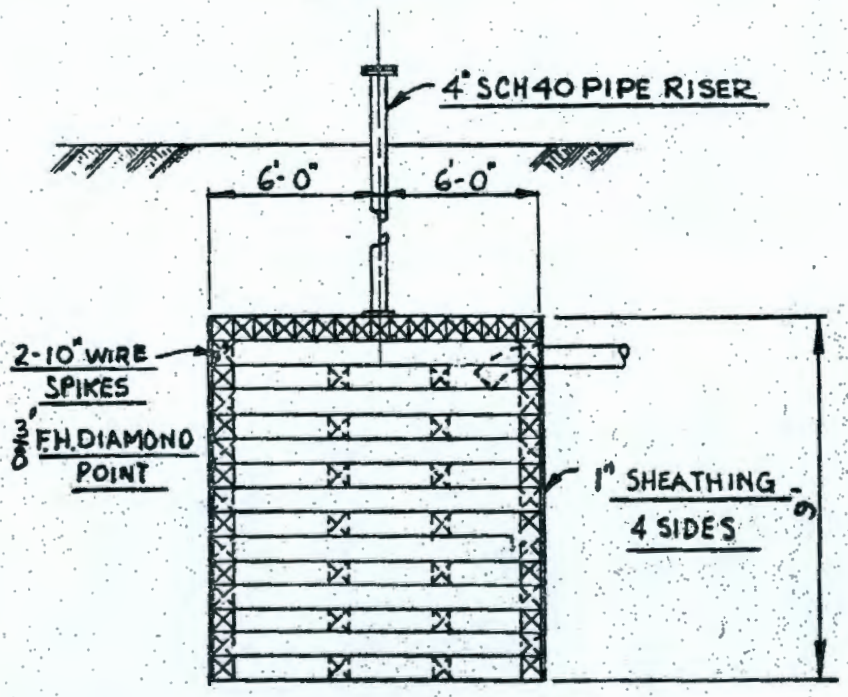

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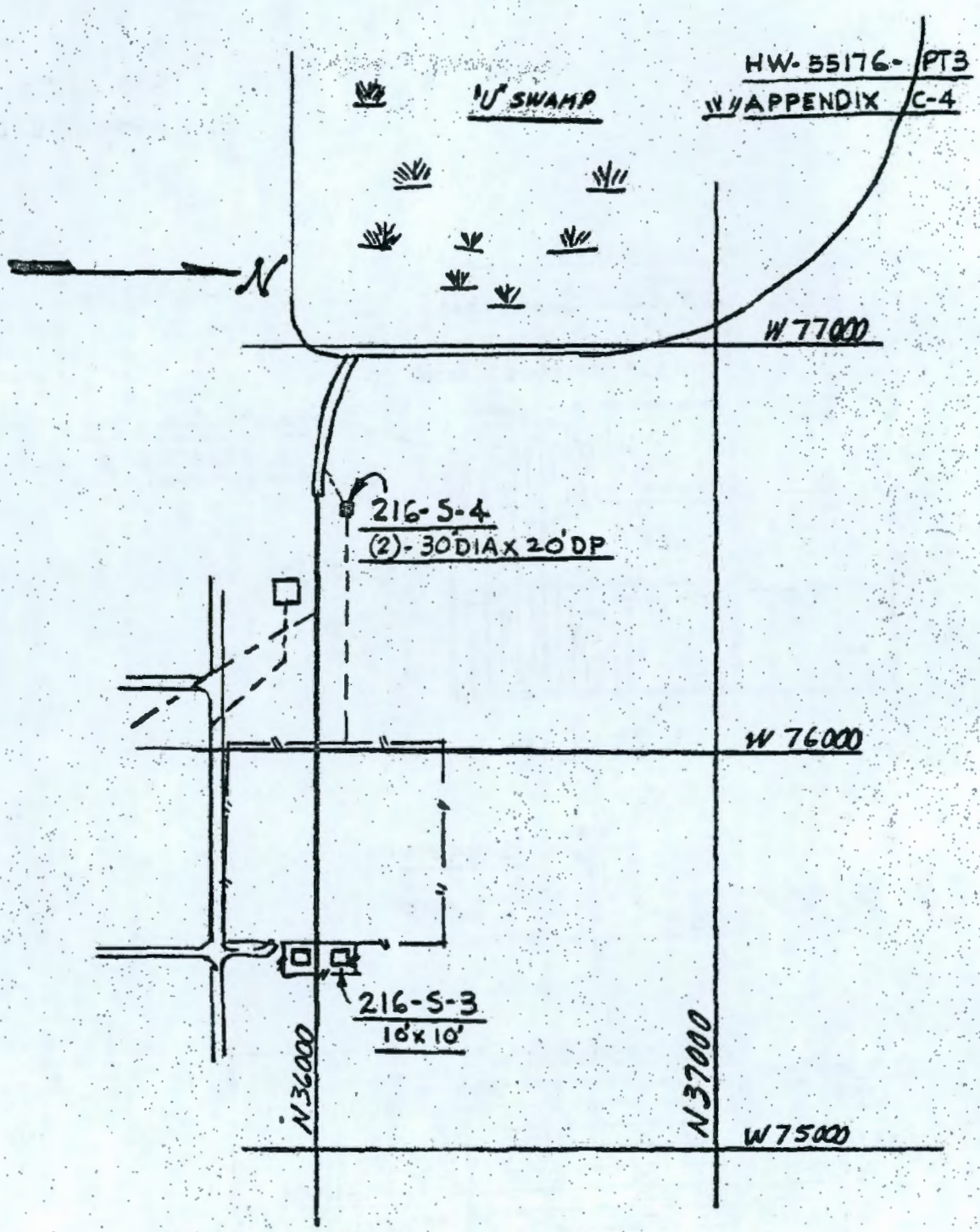
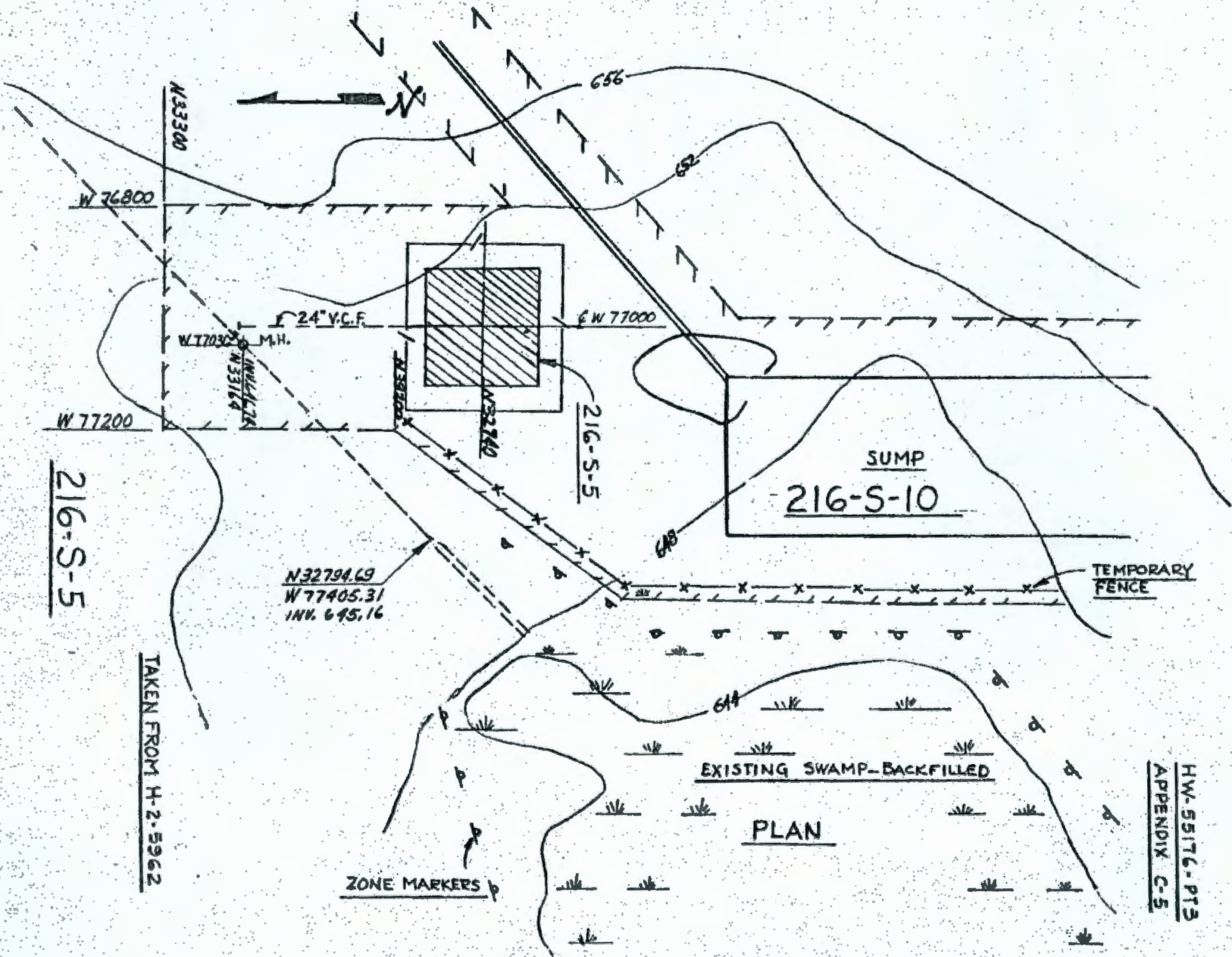


TAKEN FROM SK-2-1726
SUPERSEDED BY H-2-39574
NO INFORMATION AVAILABLE
2892 - SHT 19

216-S-3
216-S-4

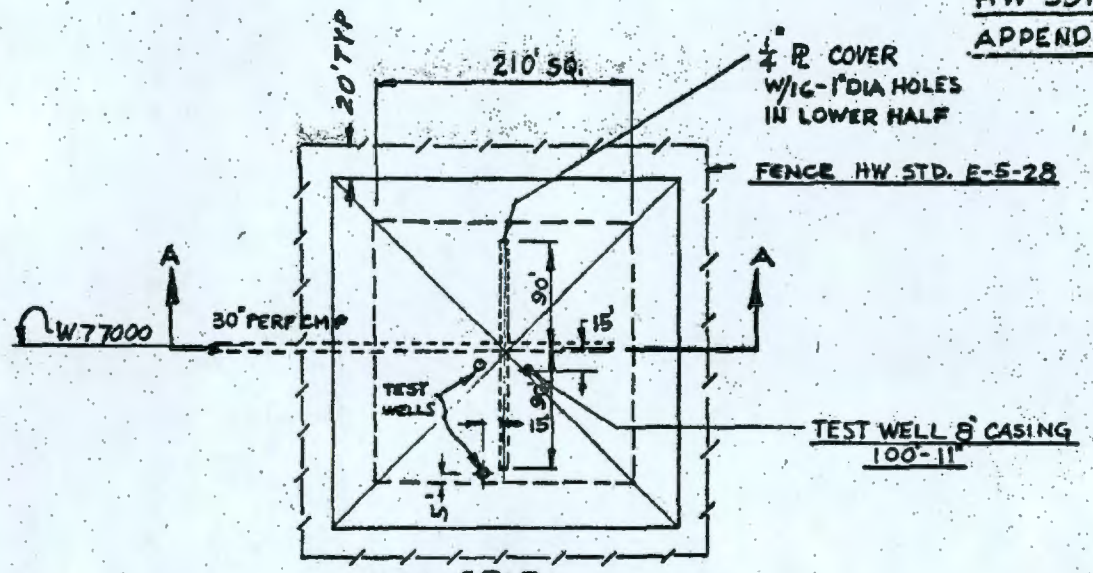
5



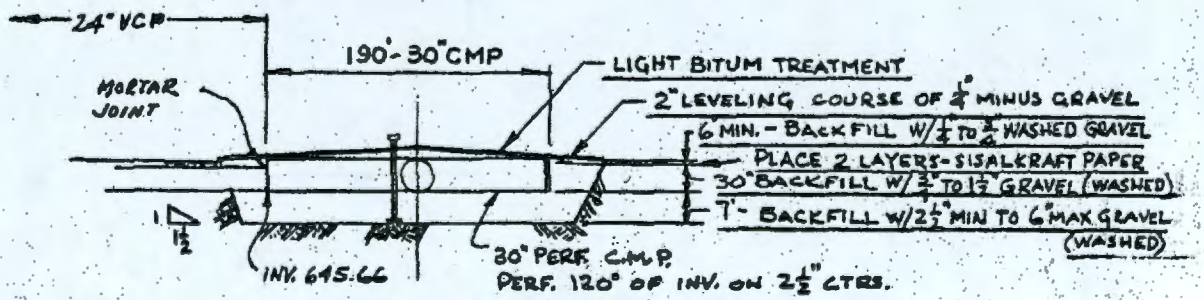
PLAN

216-S-5

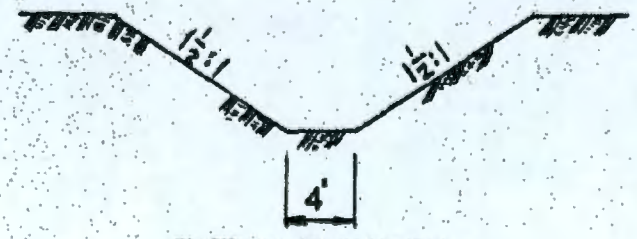
HW-55176-PT3
APPENDIX C-5



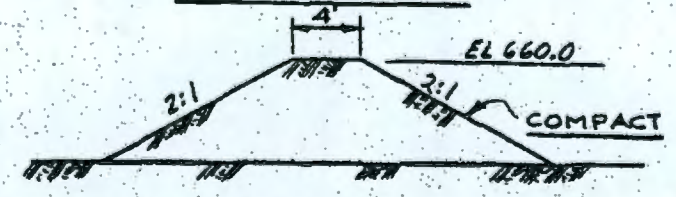
CRIB
216-S-5



SECTION A-A



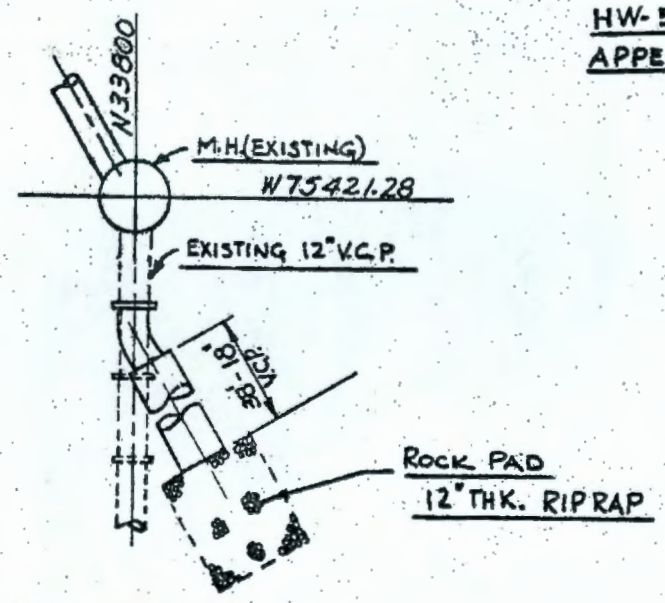
SECTION THRU DITCH



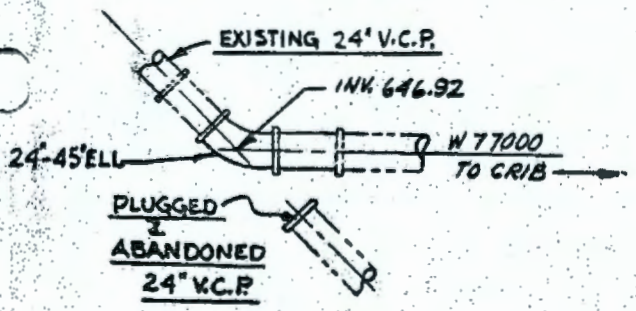
SECTION THRU DIKE

TAKEN FROM H-2-5963

216-S-5



TIE-IN AT DITCH INLET



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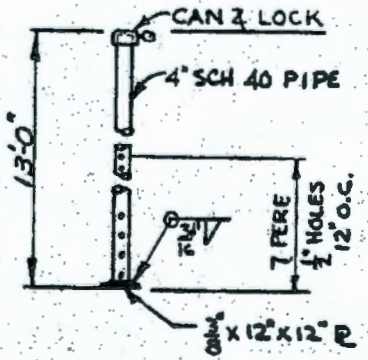
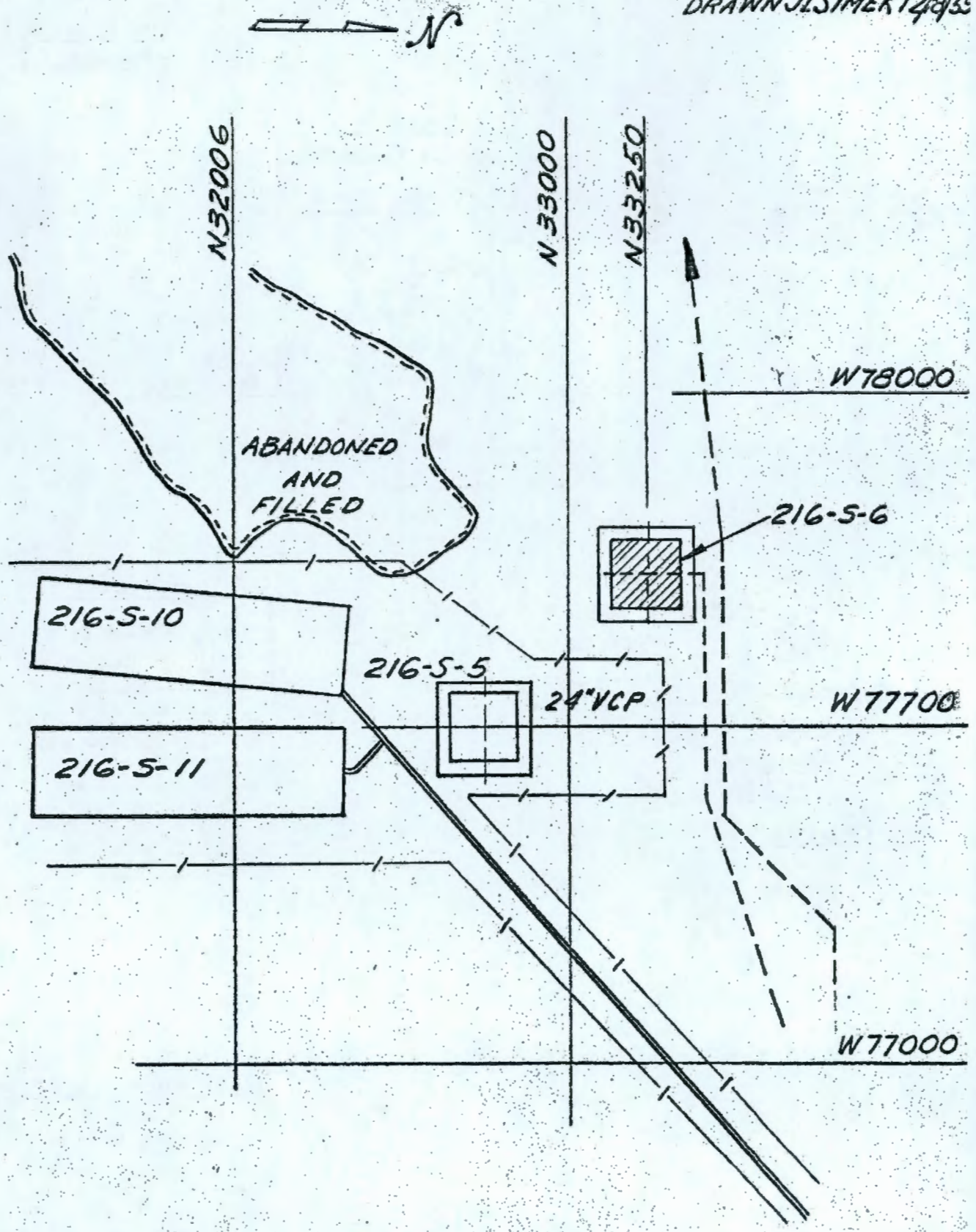


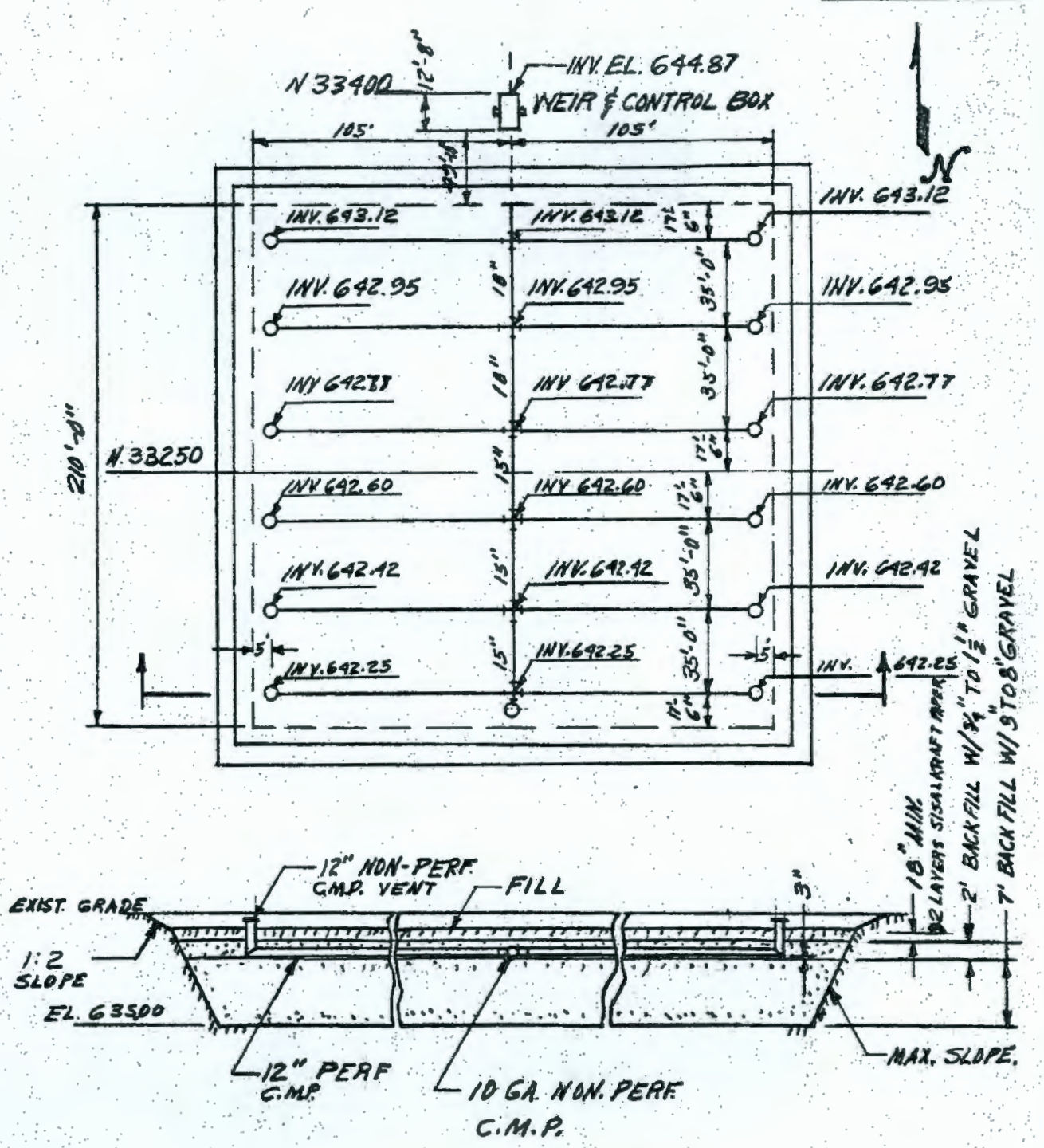
TEST WELL

TAKEN FROM H-2-5963

IIW 5517G-PART 3
APPENDIX C-8
DRAWN JLSIMEK 12/8/88



216-S-6
H-2-2594



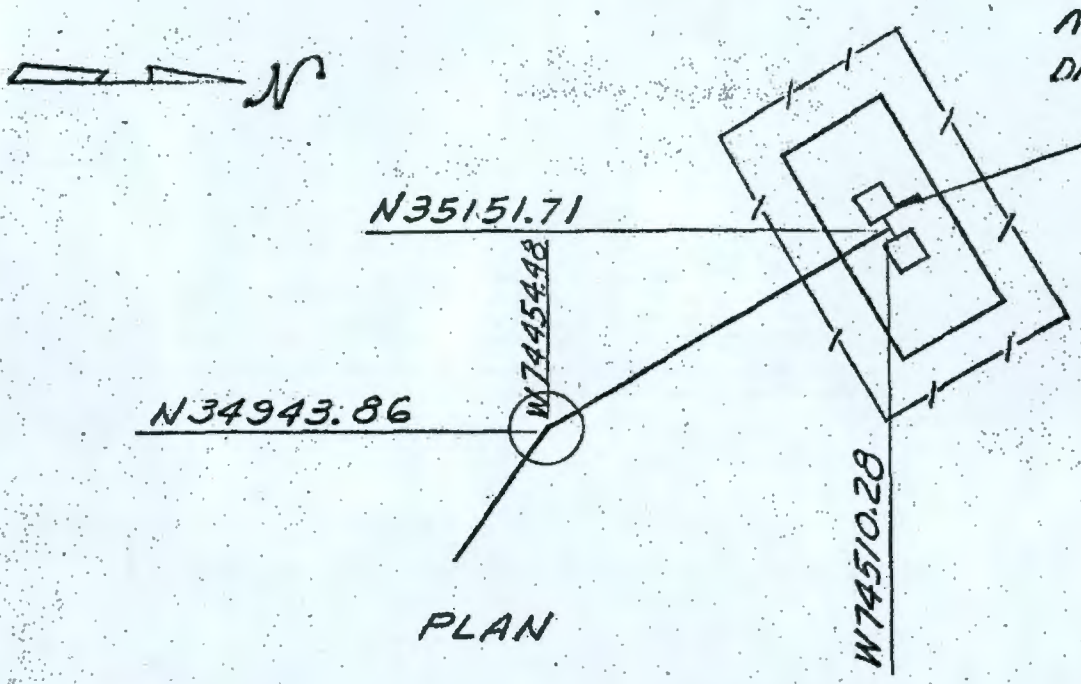
TAKEN FROM H-2-2595

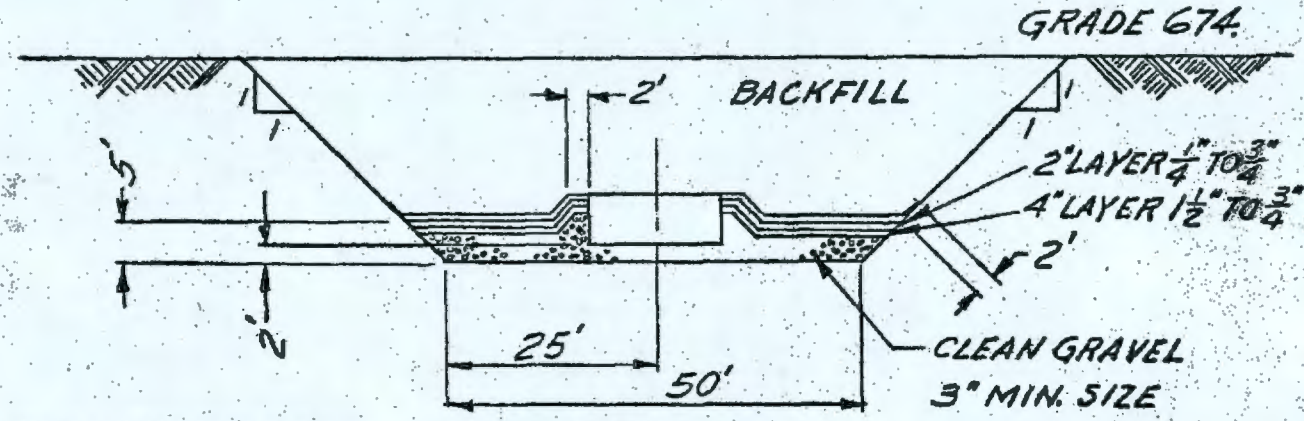
REDOX WASTE WATER DISPOSAL FACILITIES

CRIB & CONTROL STRUCTURE

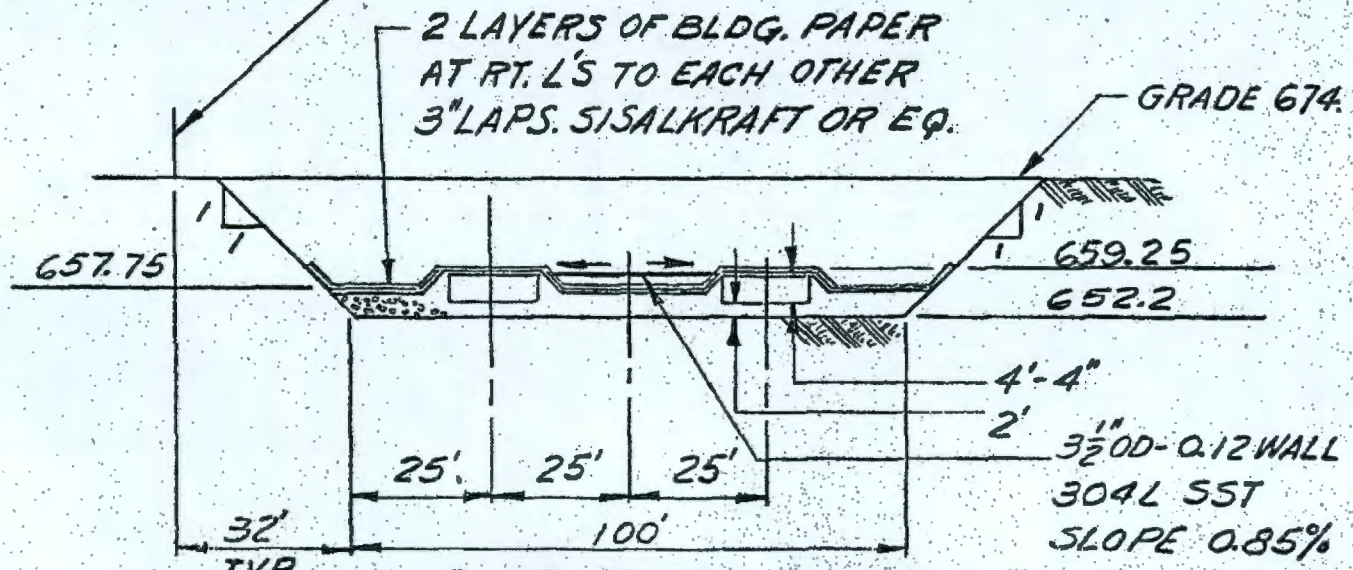
216-S-6

HW 55176-PART 3
APPENDIX C-10
DRAWN JLSIMEK 12/18/59

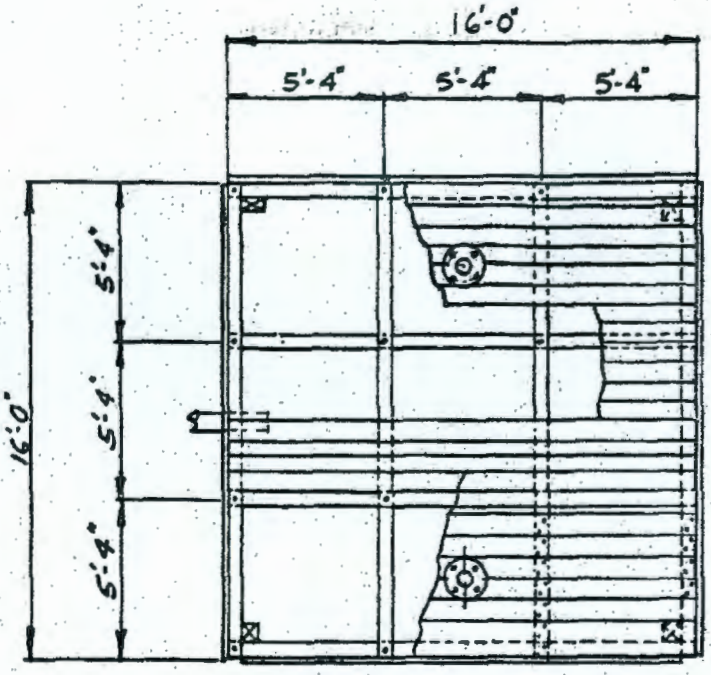


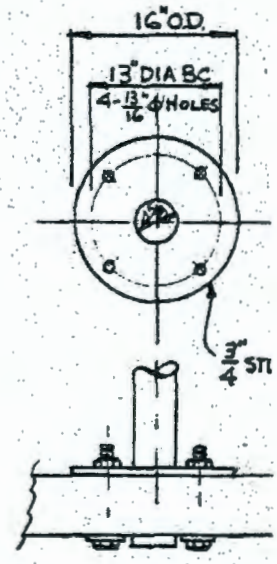


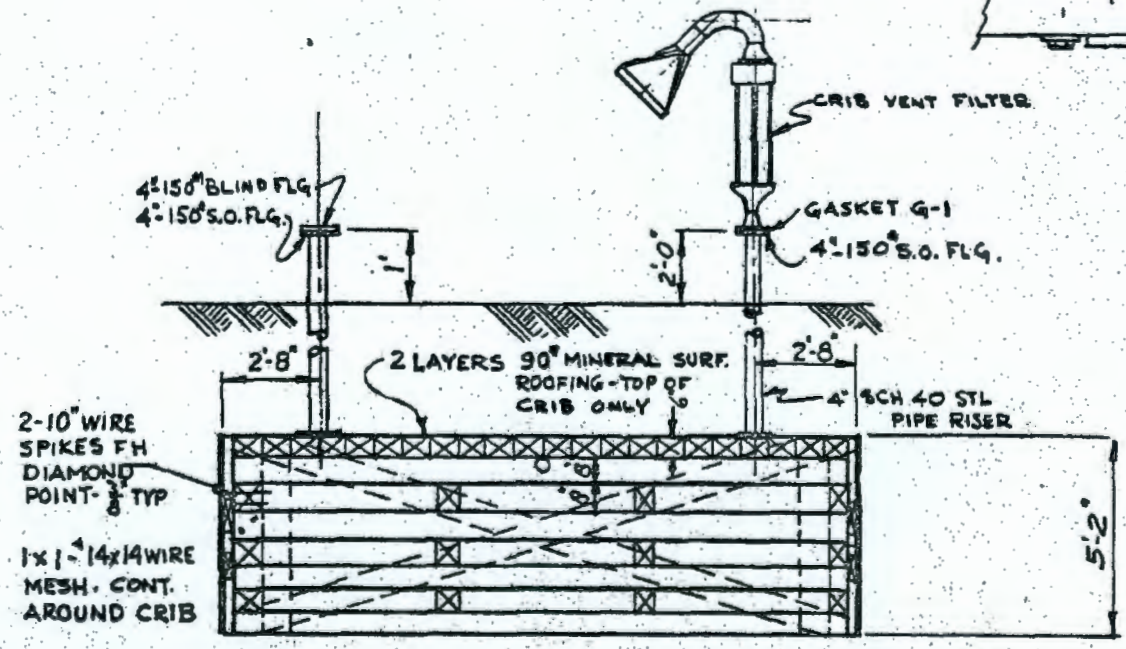
CHAIN BARRICADE
HWS E-5-23A



216-5-7
H-2-30135

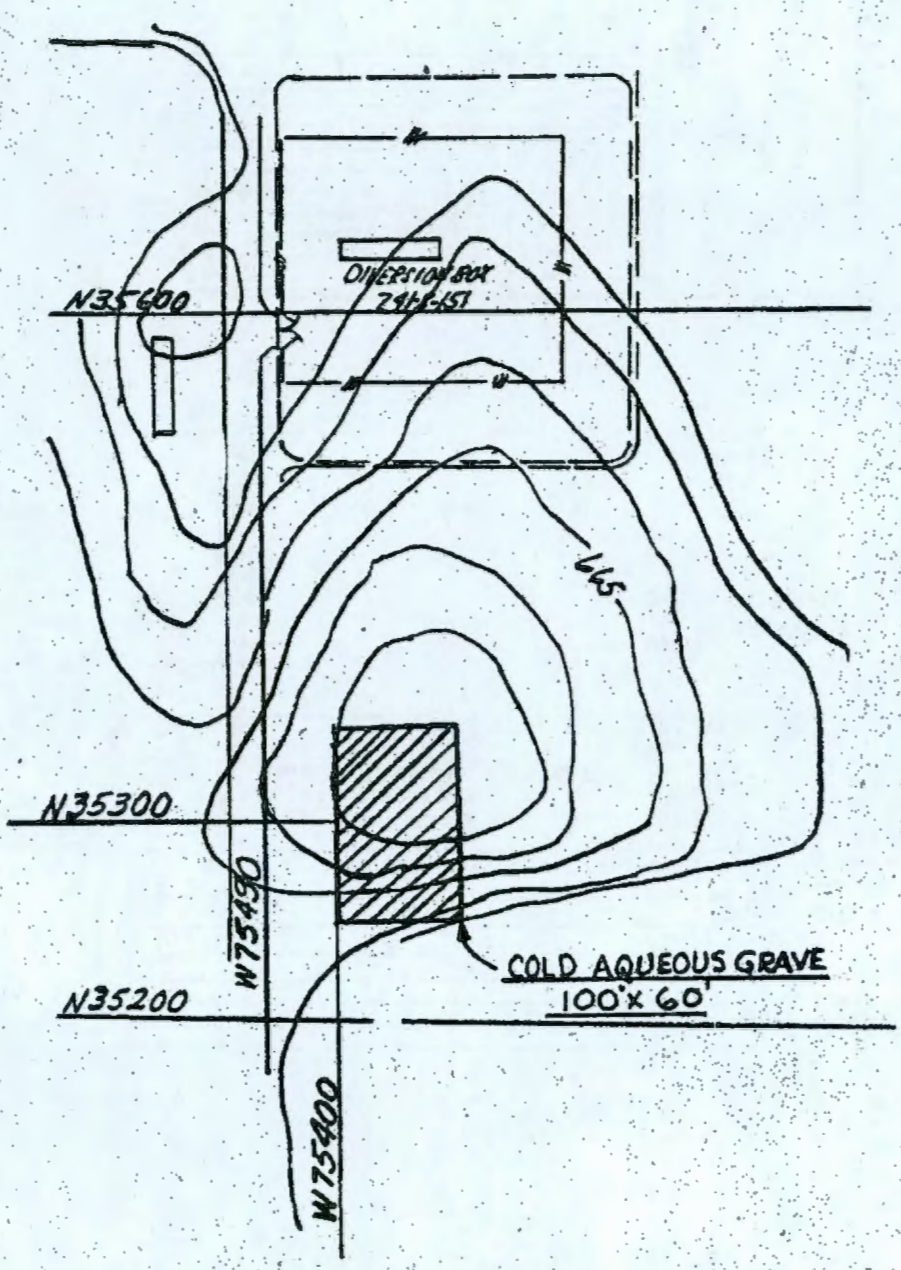




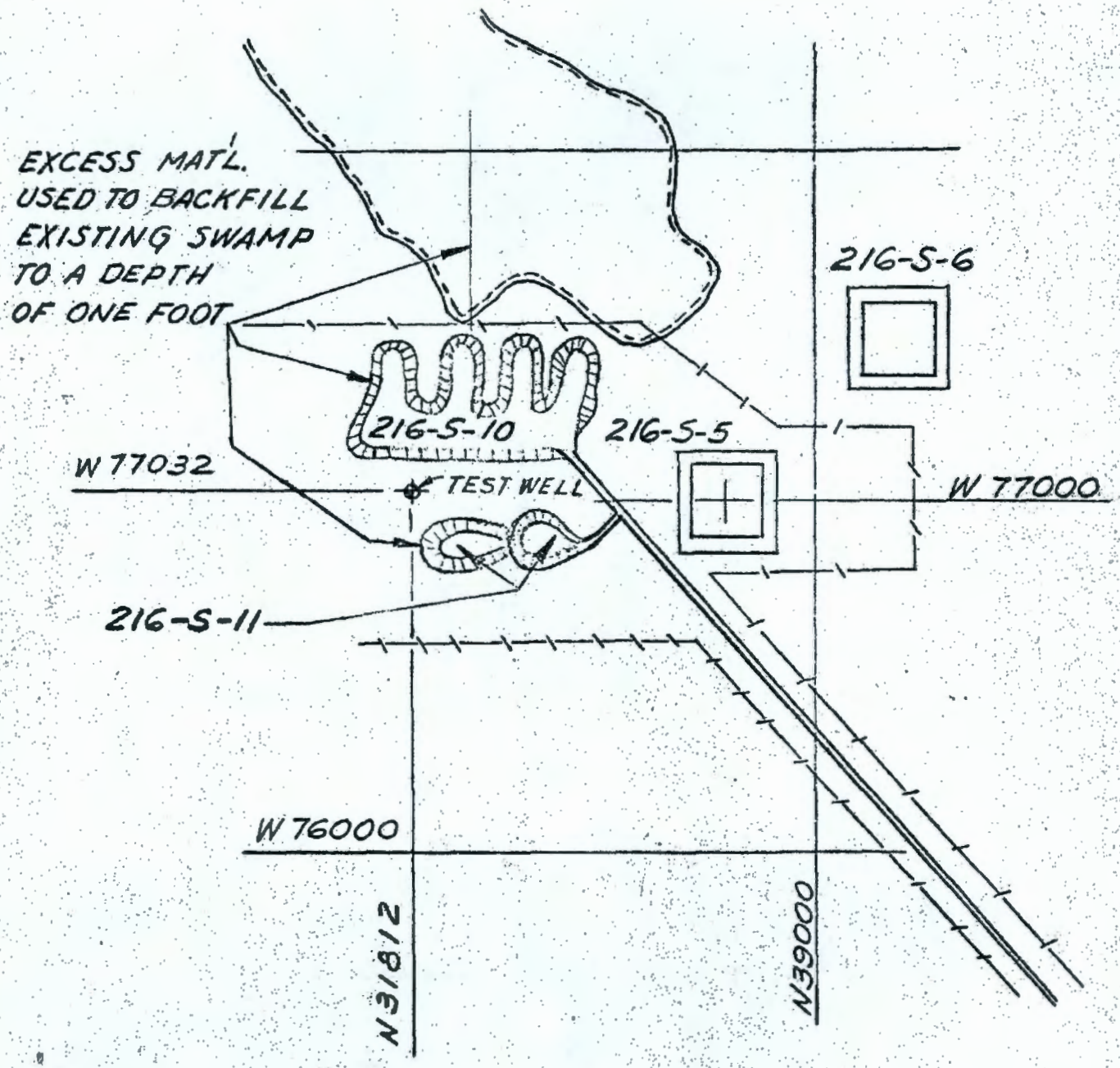


TAKEN FROM H-2-301

216-S-7


DIVERSION BOX
241-S-151
N35600
N35300
N35200
W75450
W75400
645
COLD AQUEOUS GRAVE
100'x 60'
N

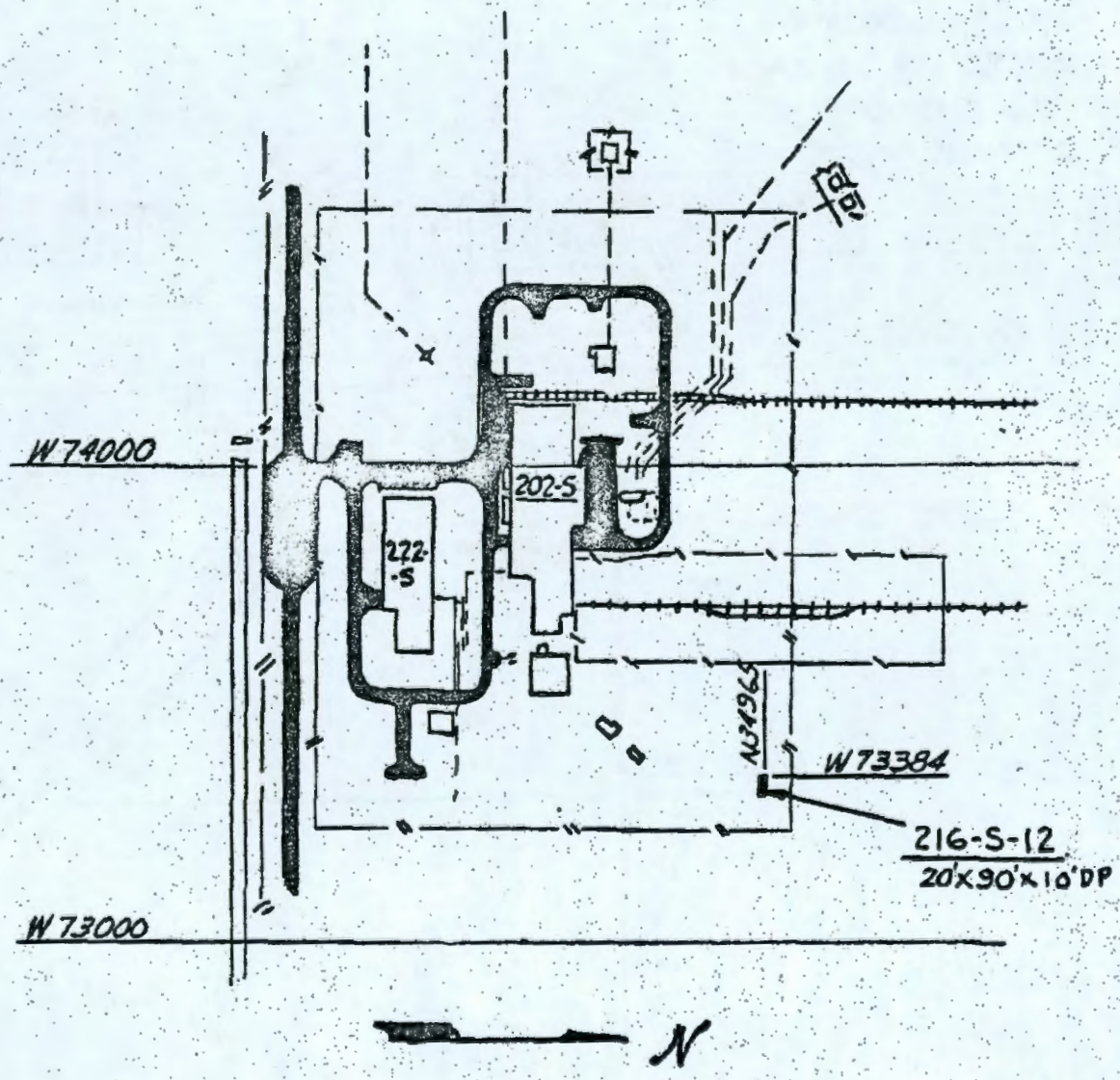
216-S-8



216-S-10

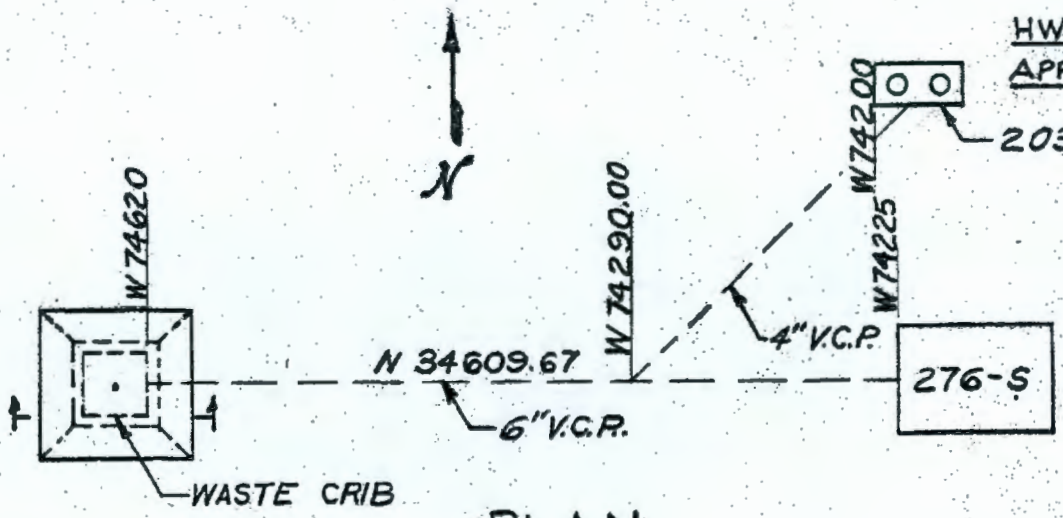
216-S-11

H-2-5962

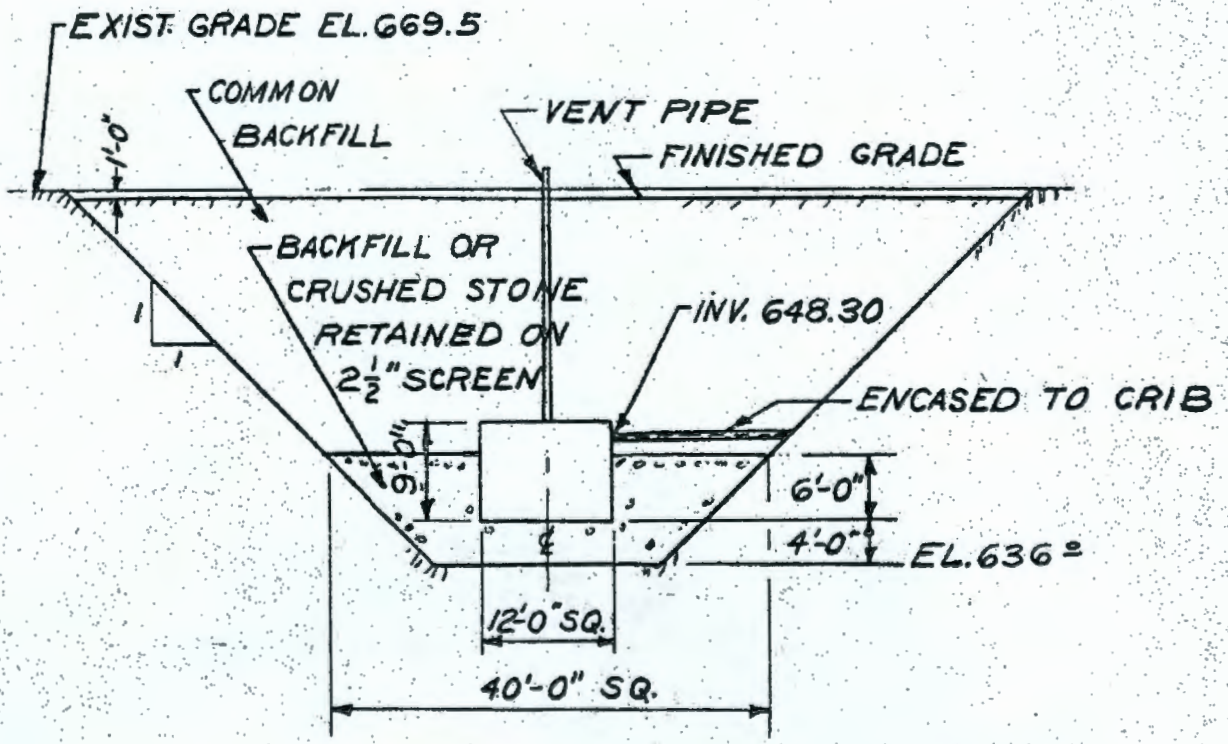


TAKEN FROM H-2-2430

216-S-12



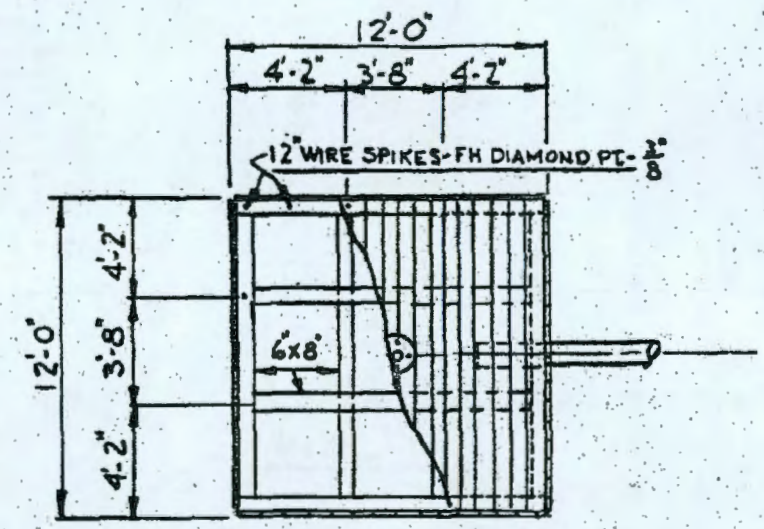
PLAN

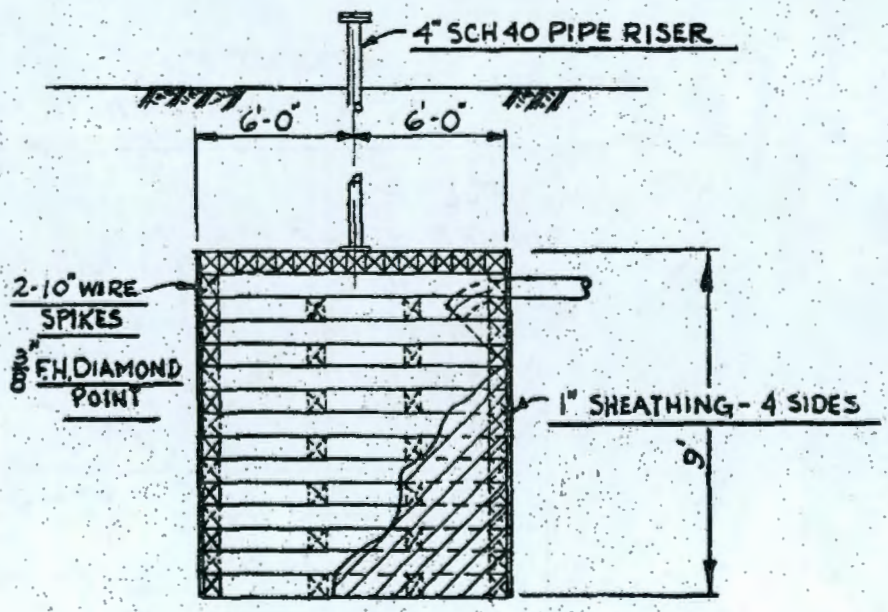


TAKEN FROM H-2-5385

276-S ORGANIC-SOLVENT MAKE-UP & 203-S DECONTAMINATED METAL STORAGE -CRIB & WASTE LINE- BLDG. 276-S & 203-S

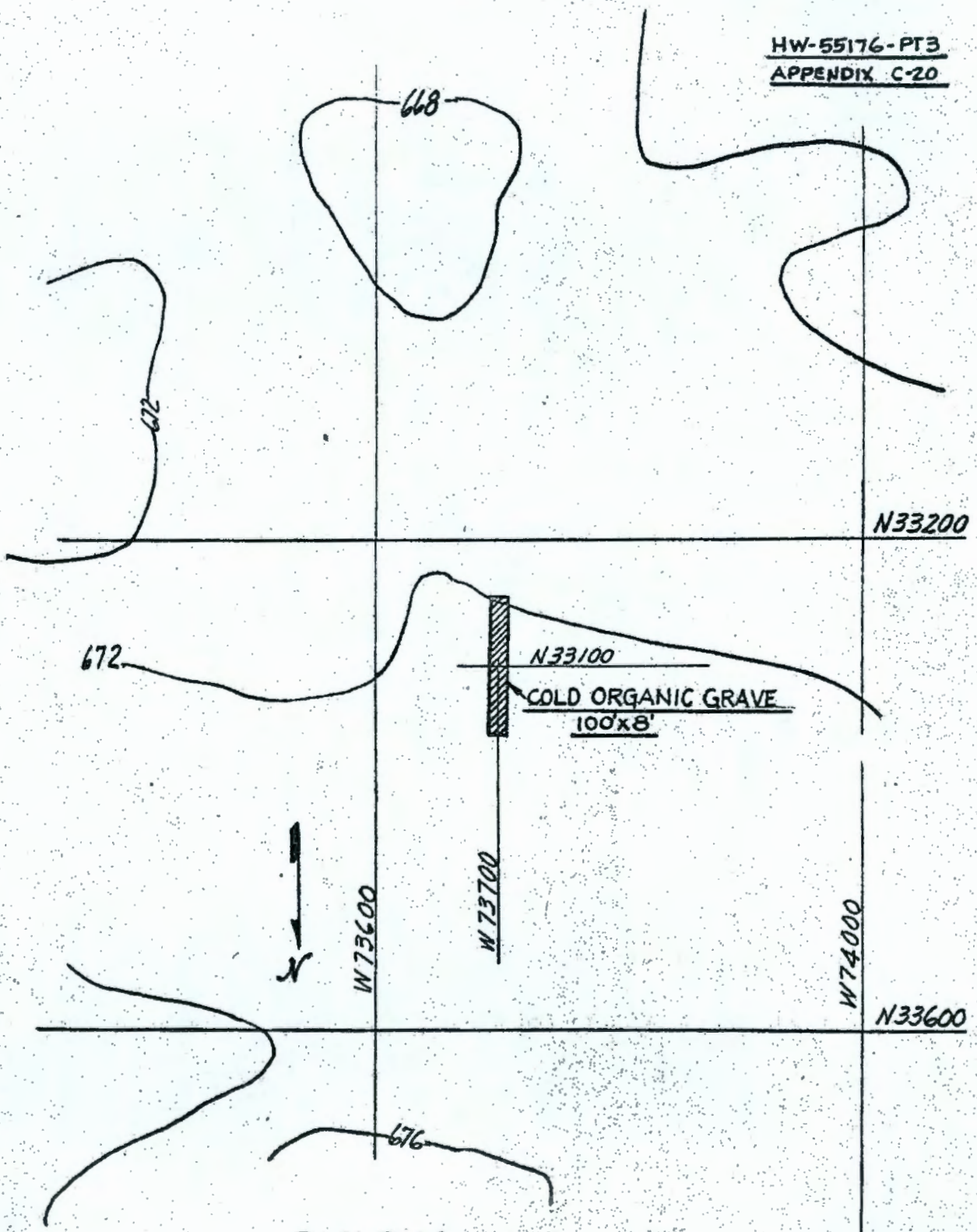
216-S-13



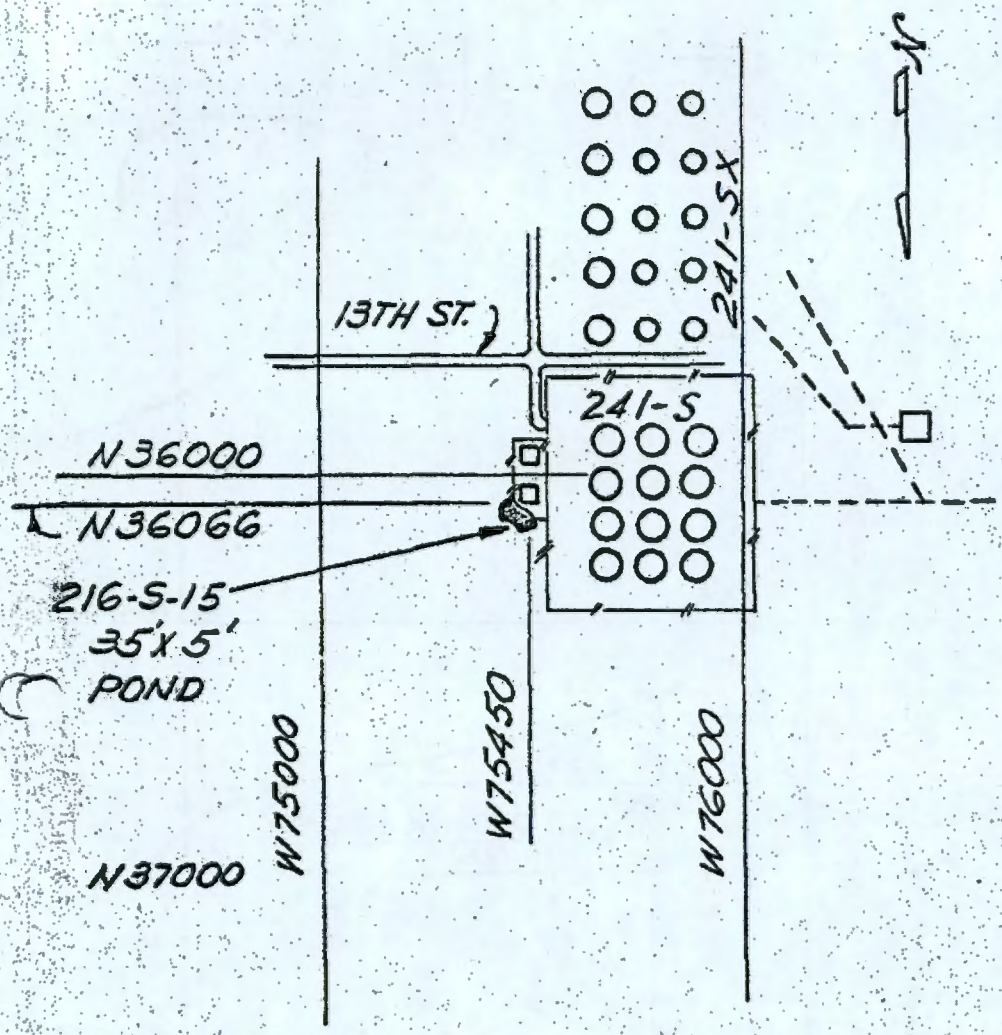


CRIB

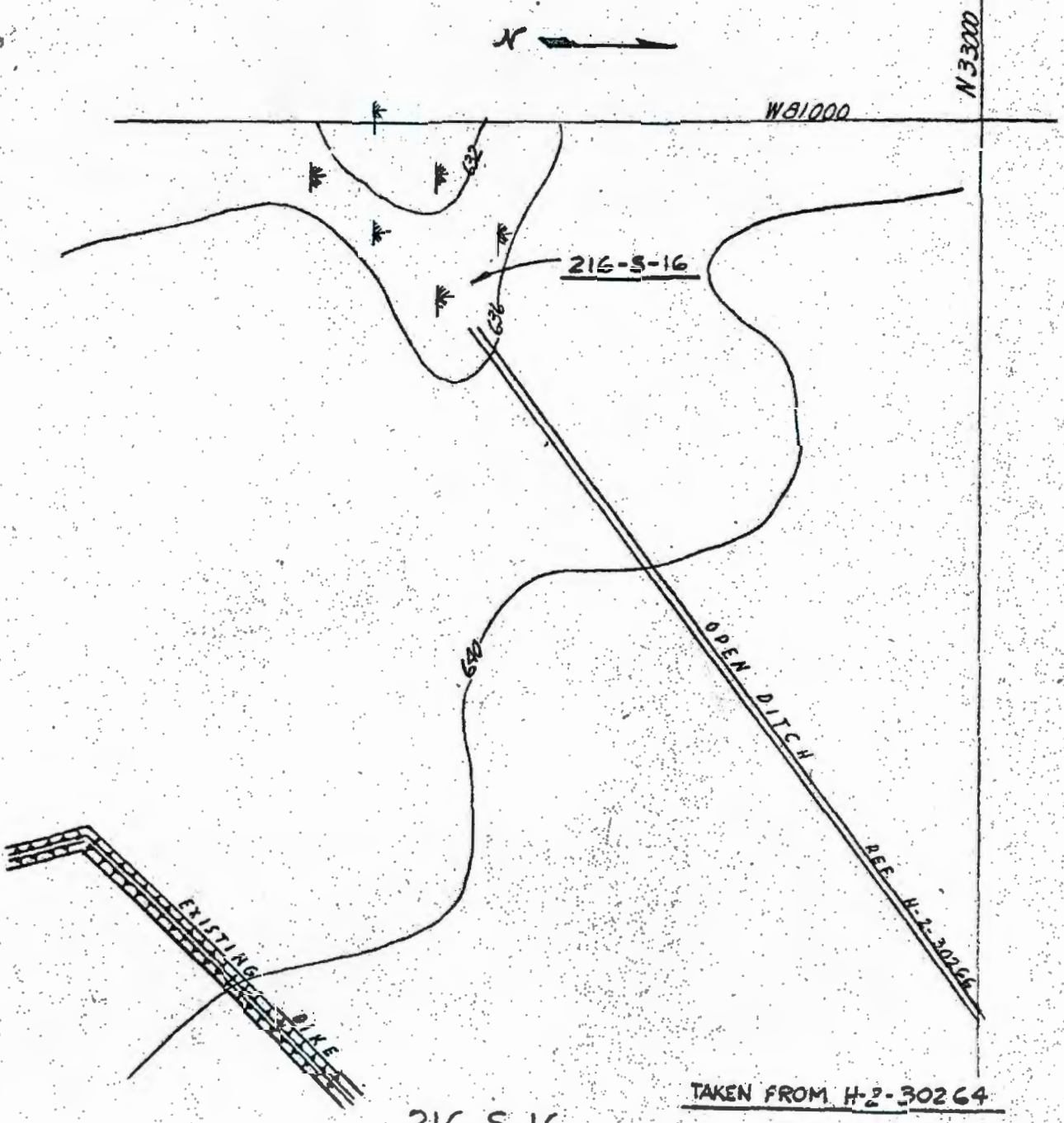
TAKEN FROM H-2-5385


668
672
672
N33200
N33100
COLD ORGANIC GRAVE
100'x8'
W73600
W73700
W74000
N33600
676

216-S-14



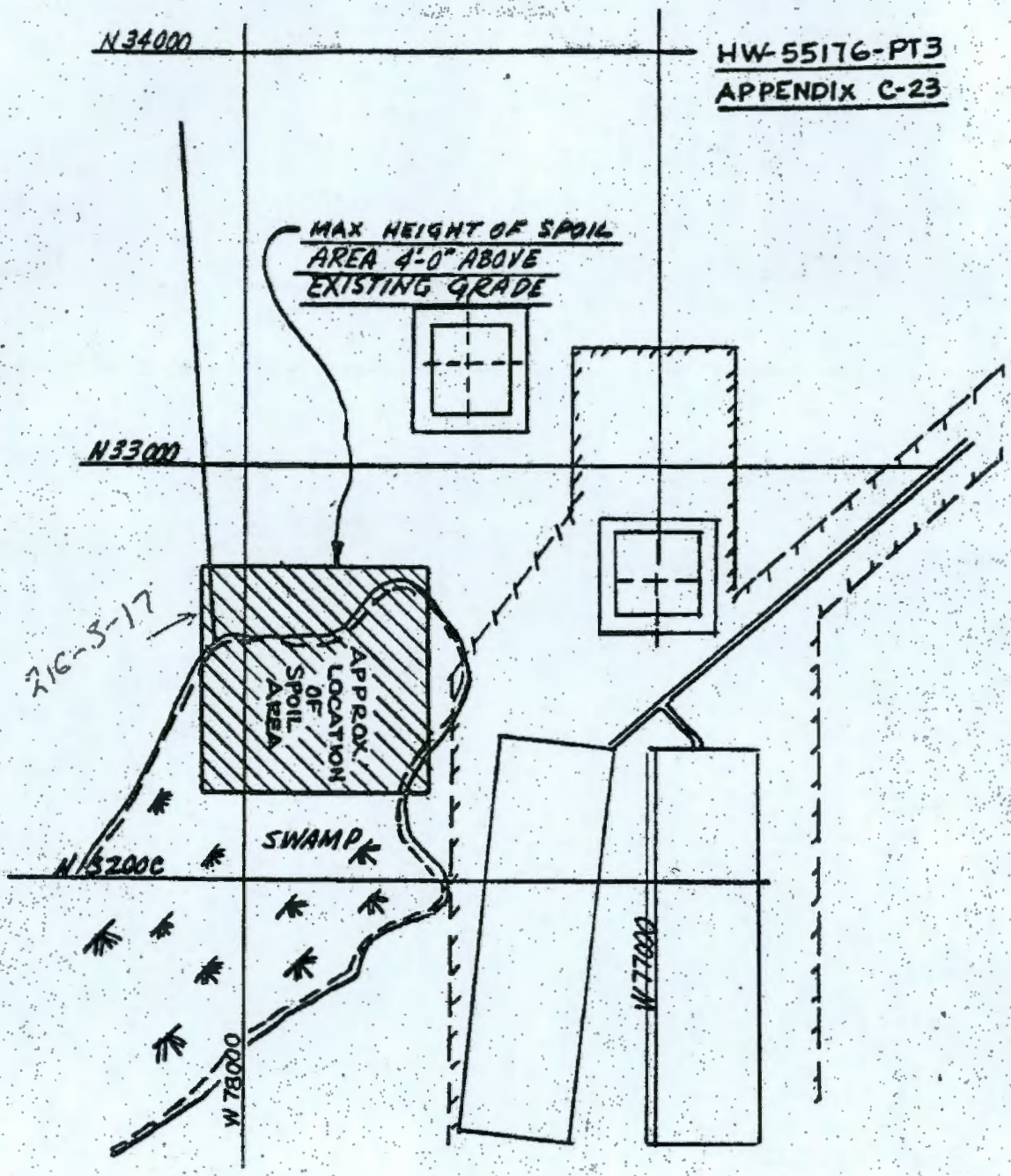
216-S-15
H-2-2430



TAKEN FROM H-2-30264

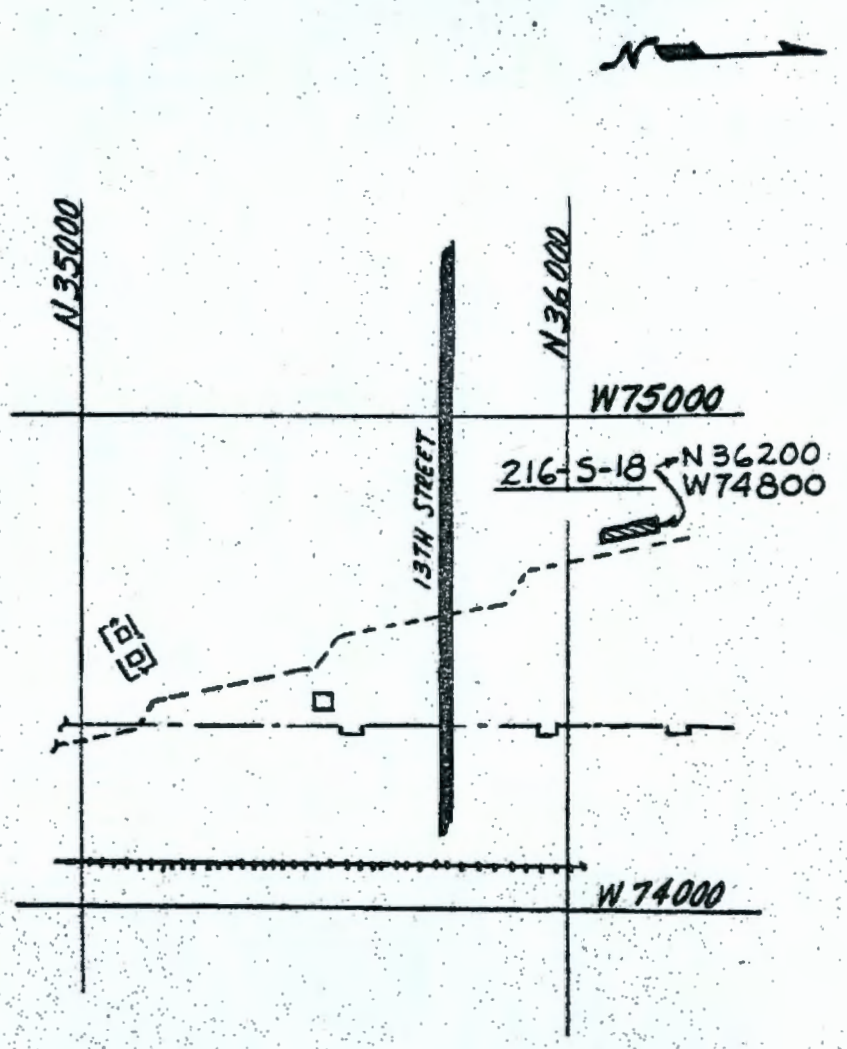
216-S-16

HW-55176-PT3
APPENDIX C-23



TAKEN FROM H-2-2594

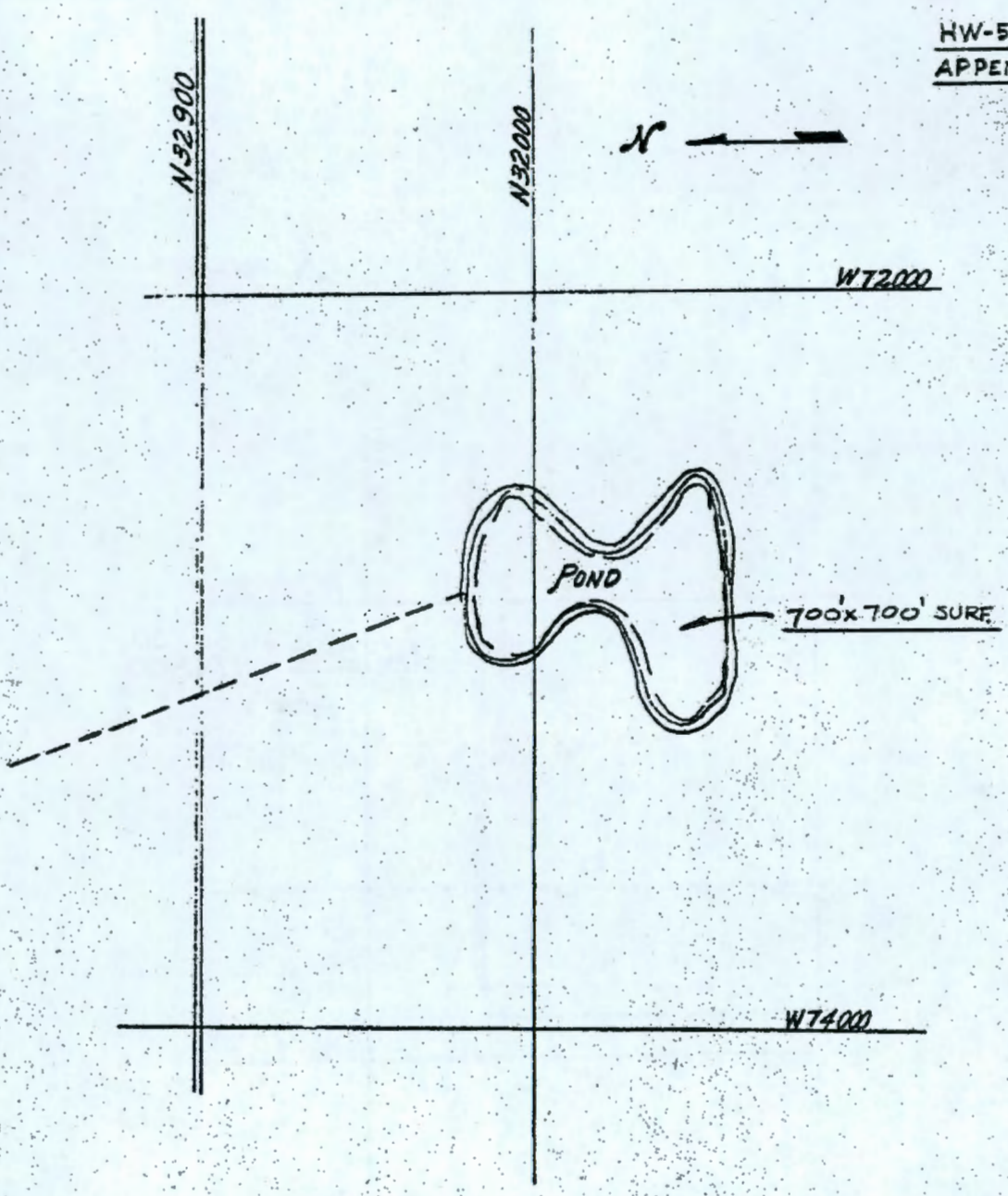
216-S-17



TAKEN FROM H-2-2430

216-S-18

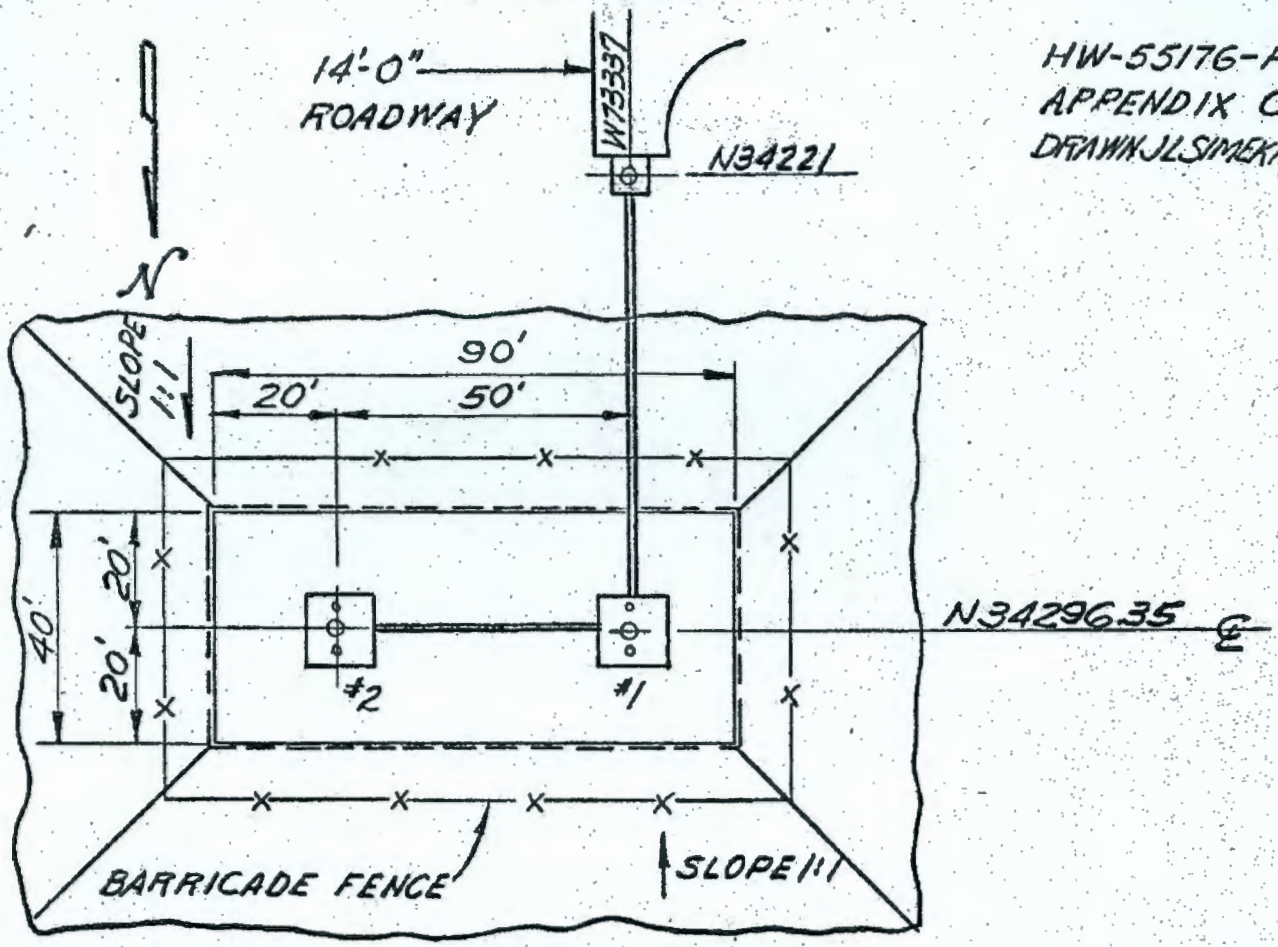
HW-55176-PT3
APPENDIX C-25



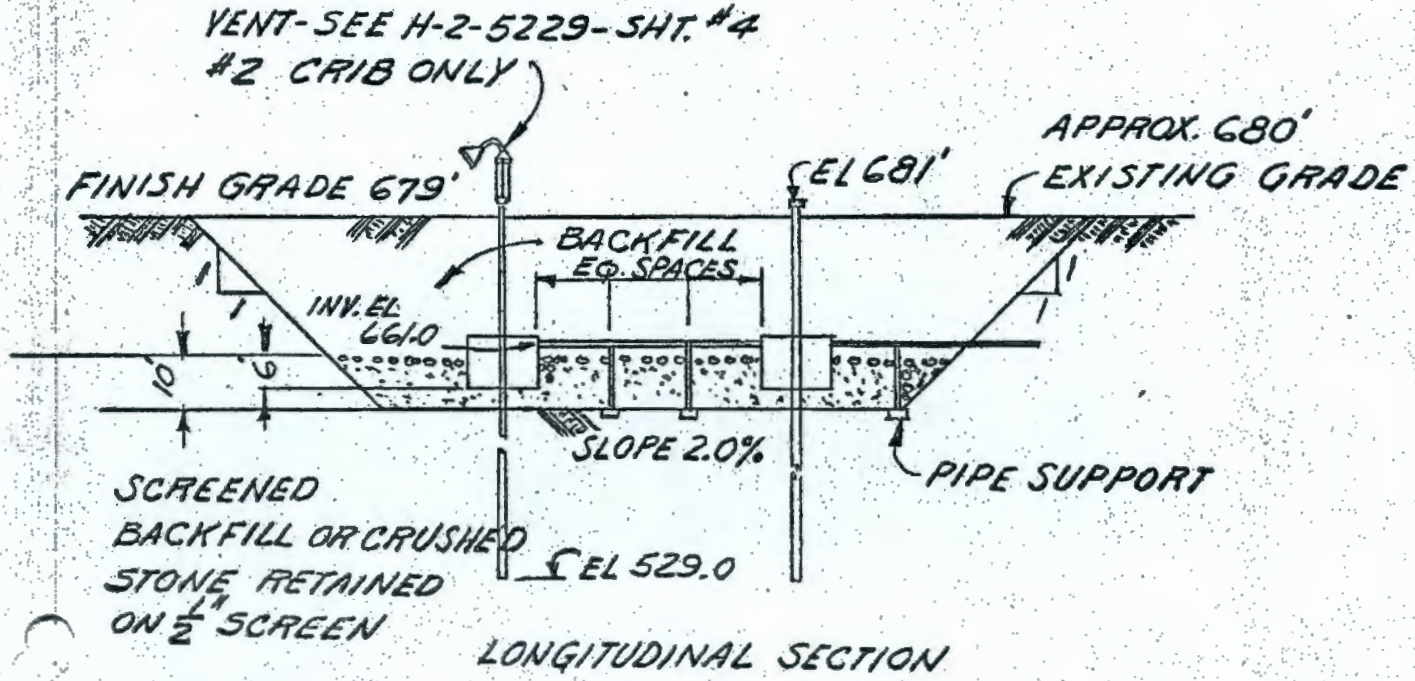
TAKEN FROM H-2-5101
M2892-SHT 27

216-S-19

HW-55176-PT 3
APPENDIX C-26
DRAWN JLS/MEK 12/4/53



PLAN

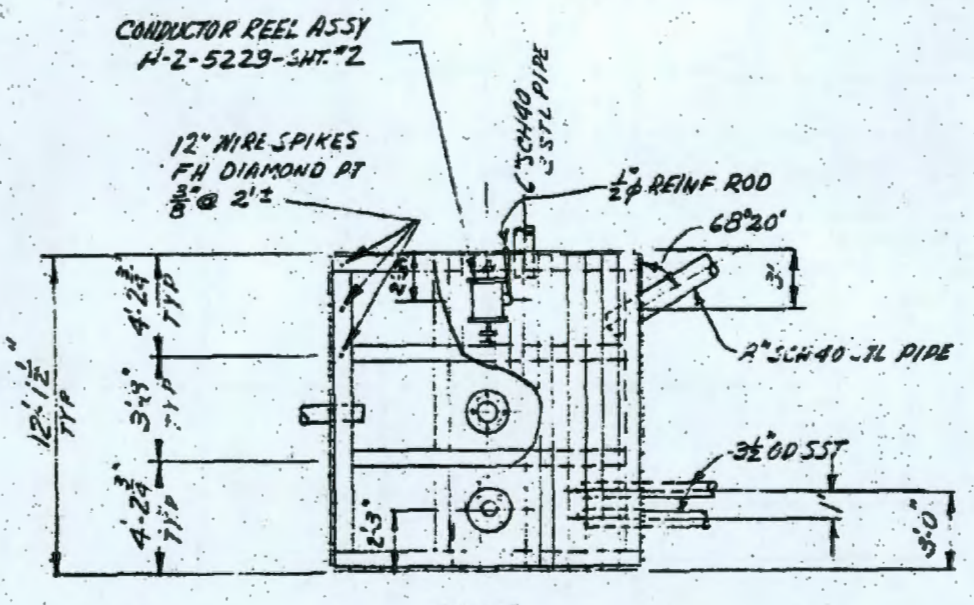


LONGITUDINAL SECTION

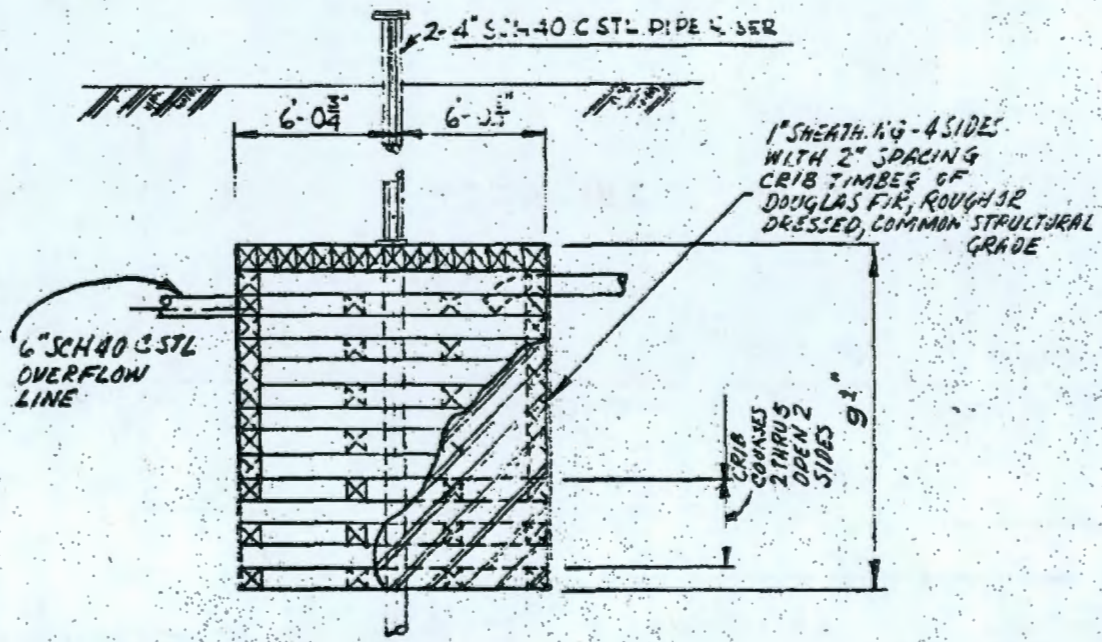
216-5-20

H-2-5229

H-2-5224



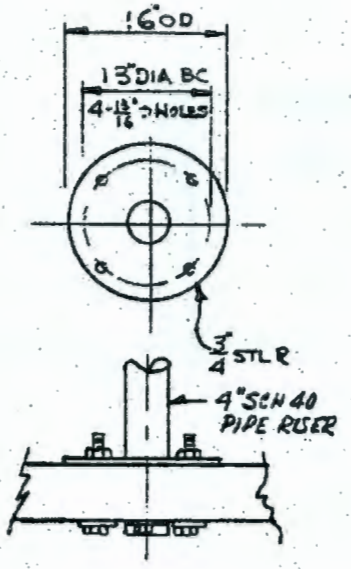
PLAN



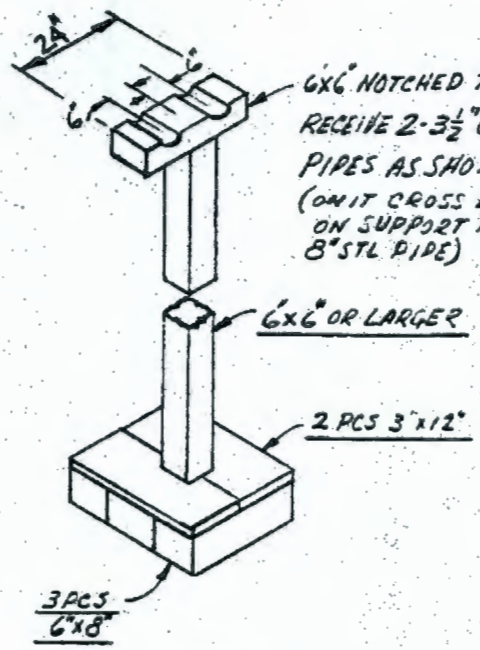
ELEVATION

TAKEN FROM H-2-5229

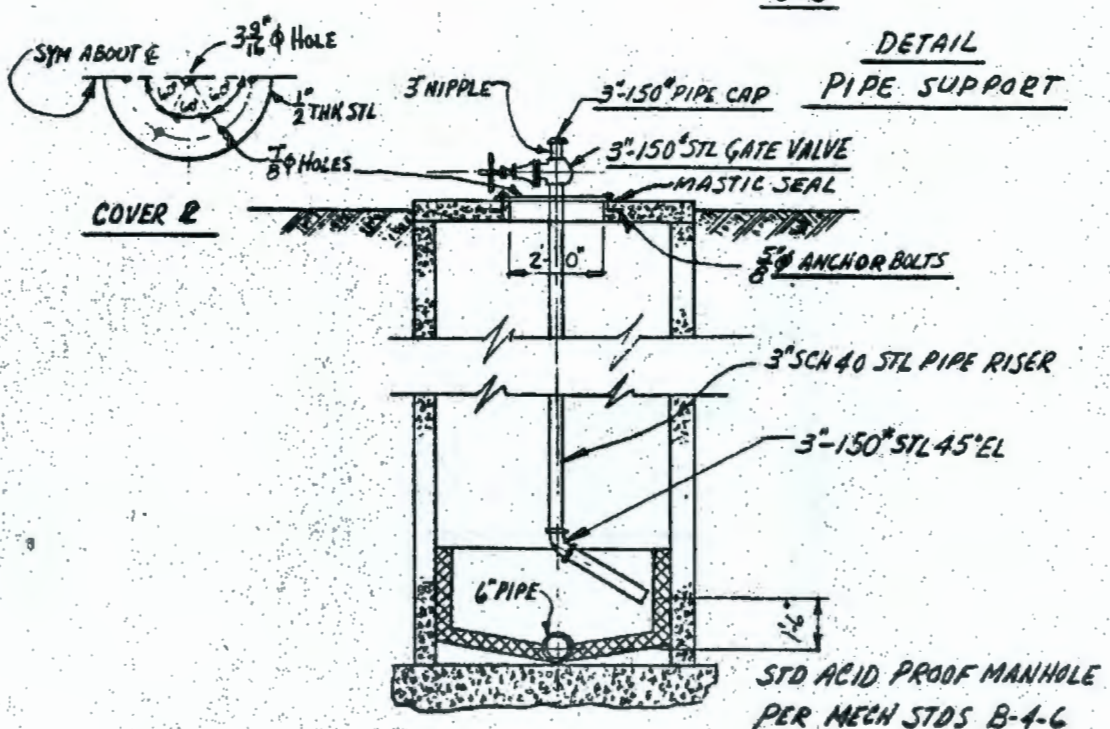
216-S-20



DETAIL
RING PLATE



DETAIL
PIPE SUPPORT

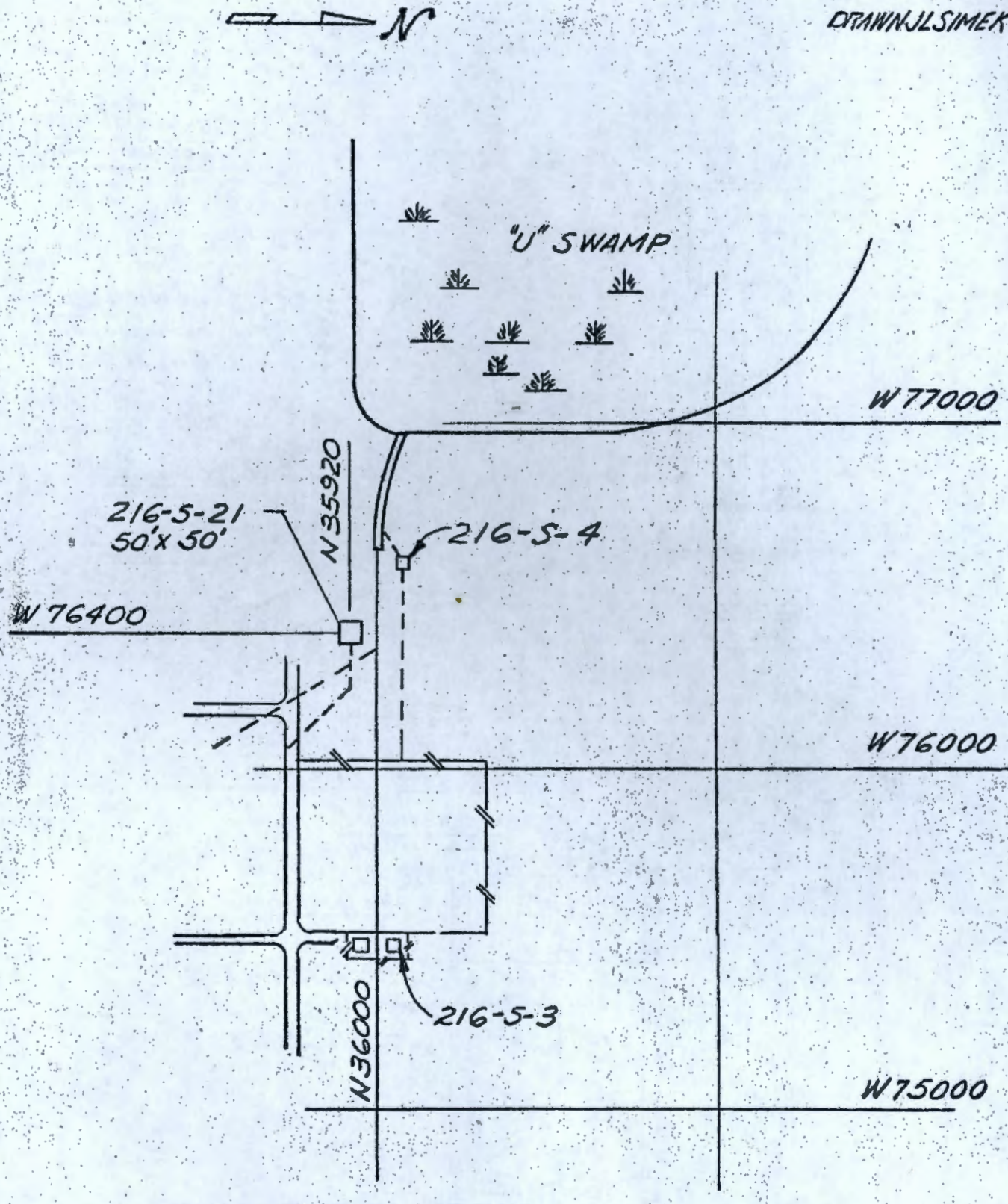


MANHOLE

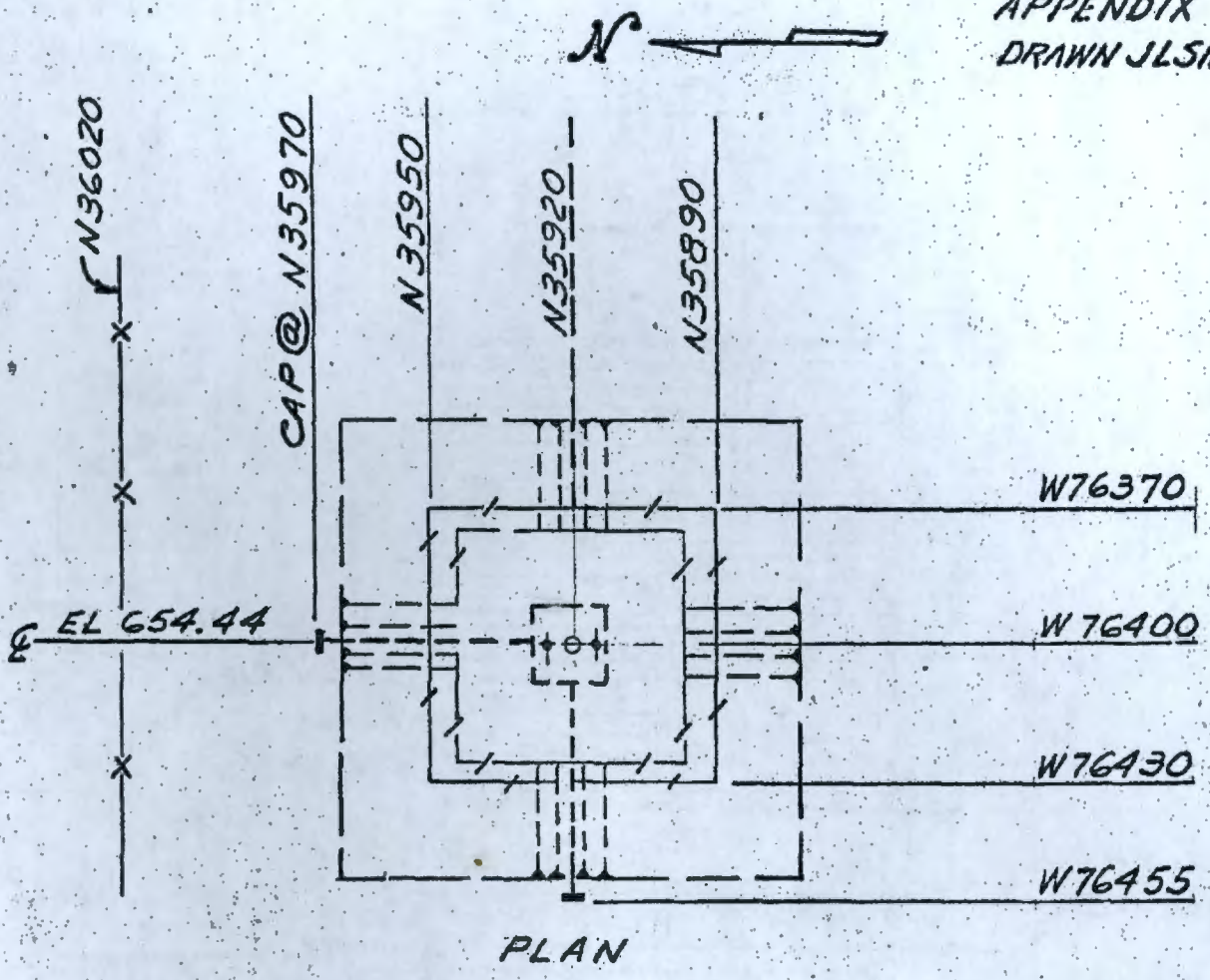
TAKEN FROM H-[illegible]

216-S-20

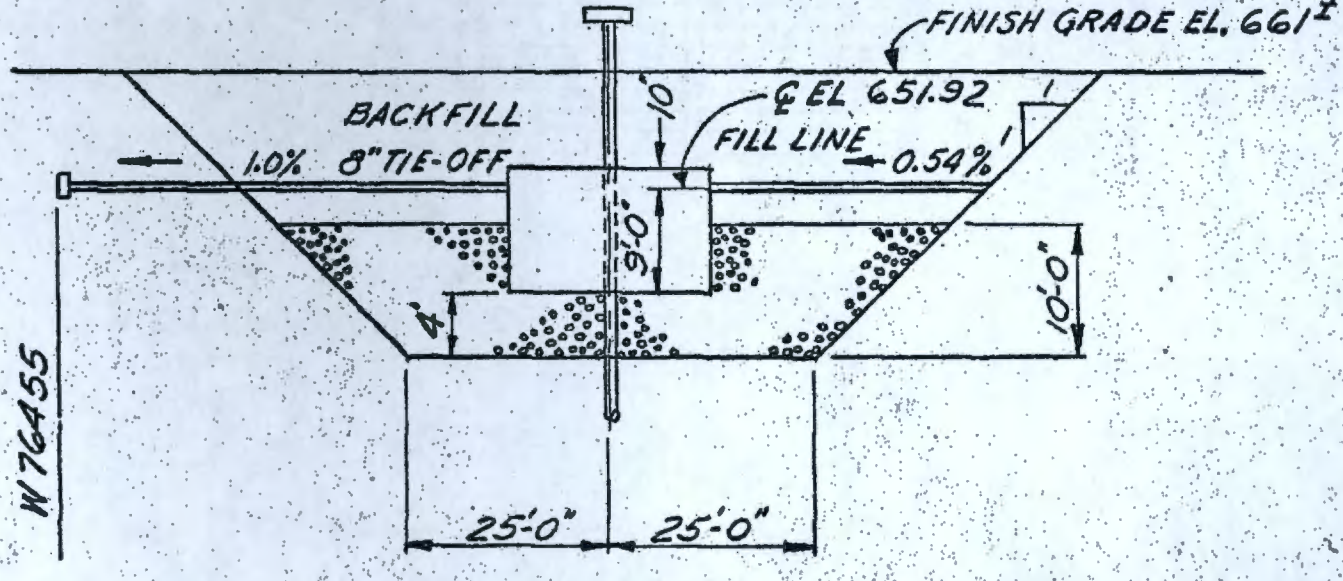
HW-55176-PT3
APPENDIX C-29
DRAWN JLSIMEK 12/14/59



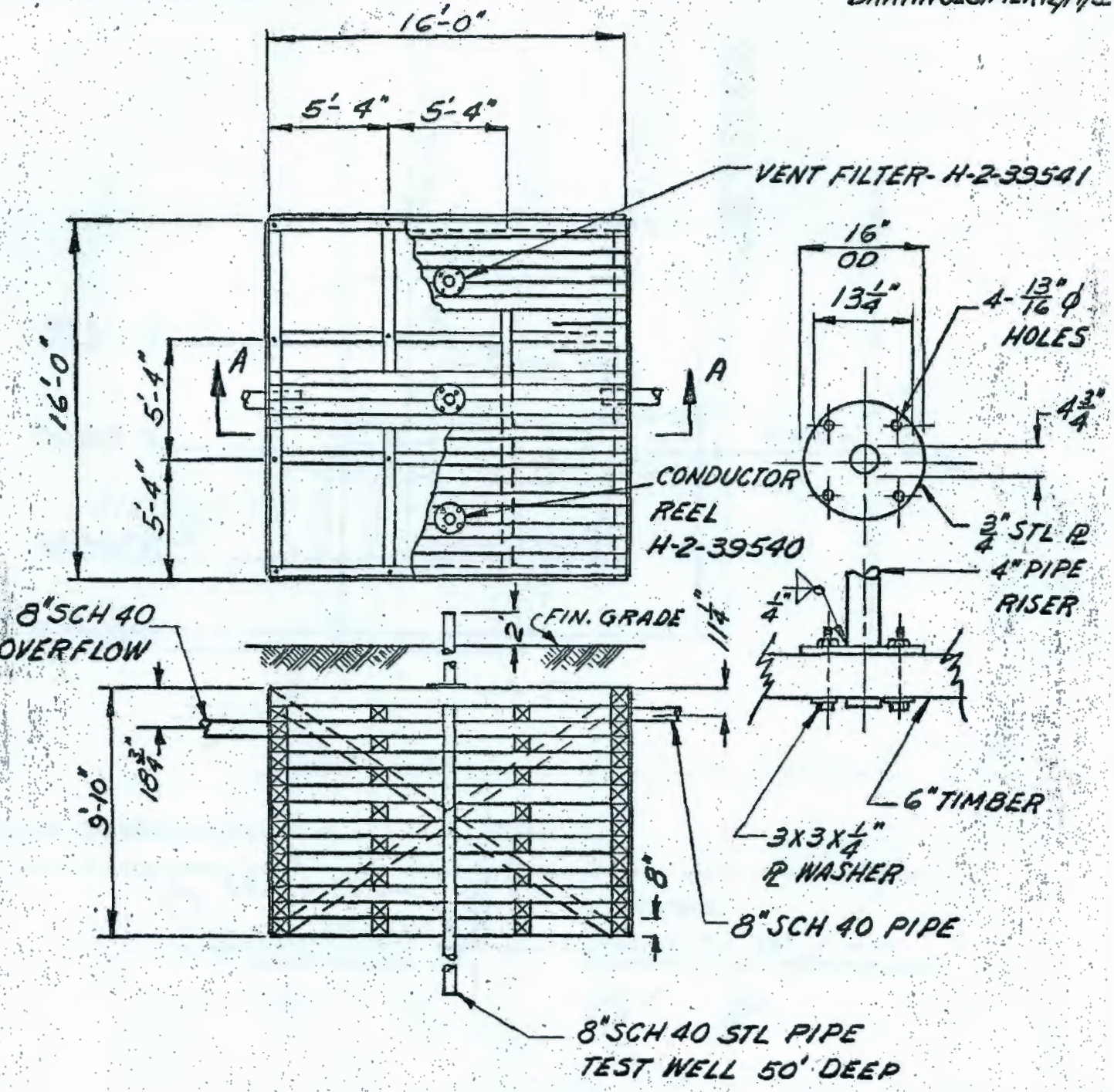
216-S-21
H-2-39579



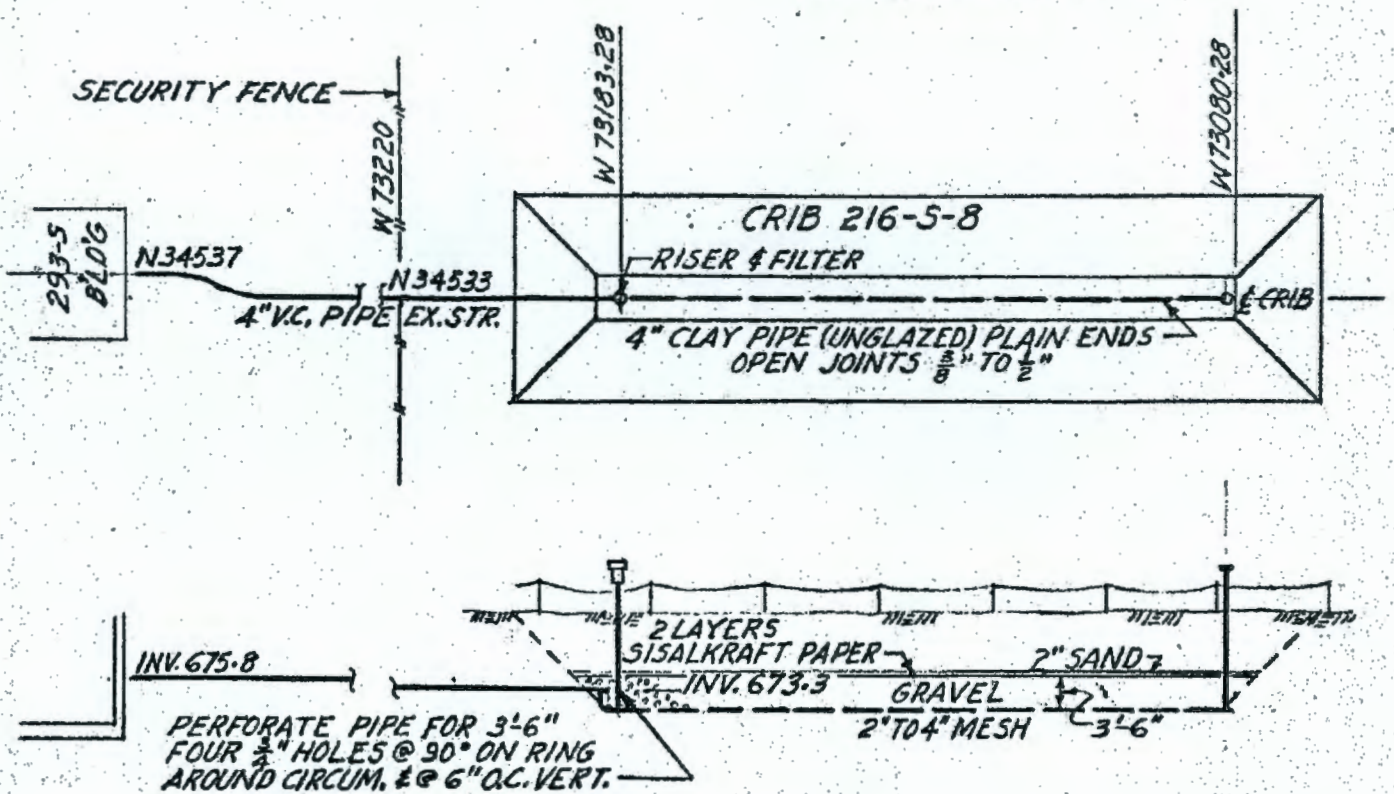
PLAN

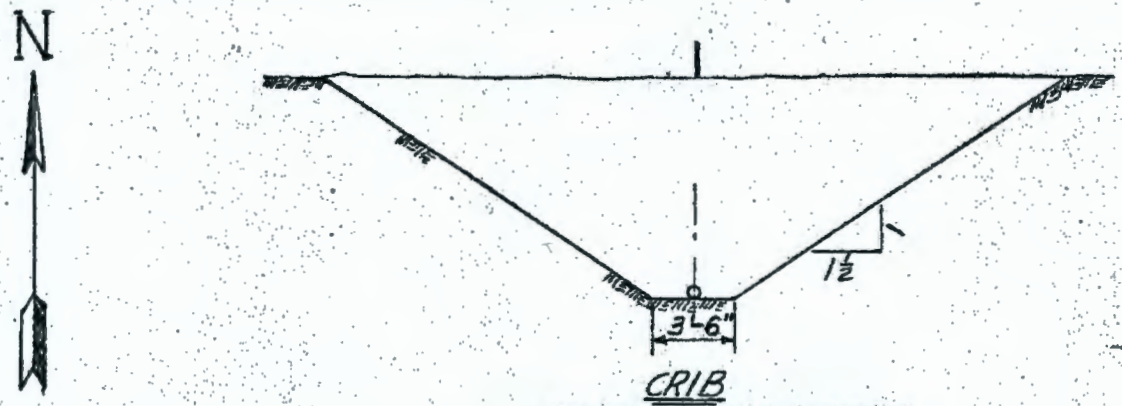


216-S-21
H-2-39509
SEE C-30a



216-S-21
H-2-39549

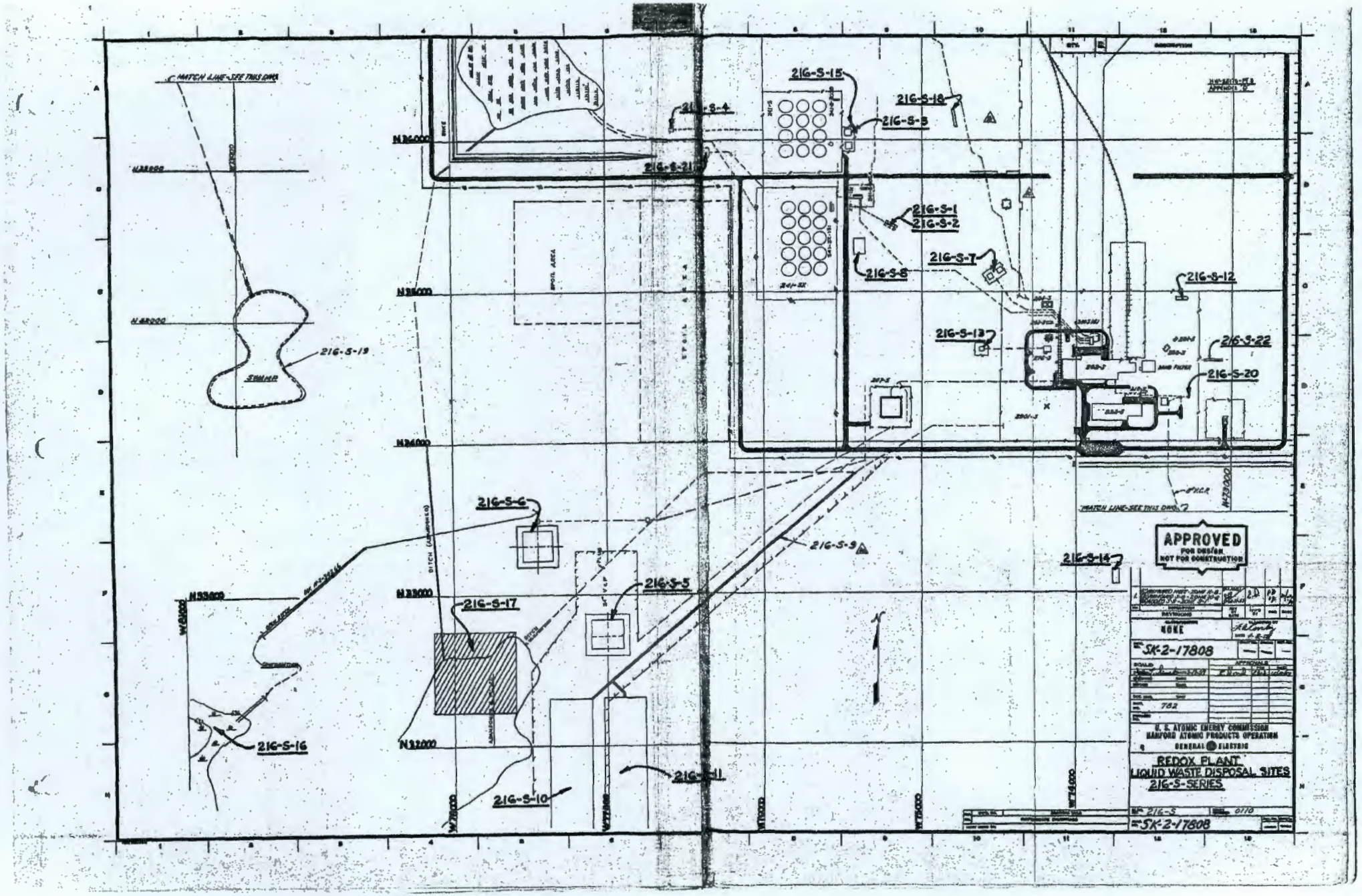




CRIB
TYPICAL CROSS SECTION
⅛" = 1'-0"

TAKEN FROM H-2-31047

216-5-22


216-S-15
216-S-18
216-S-4
216-S-3
216-S-21
216-S-1
216-S-2
216-S-7
216-S-8
216-S-12
216-S-13
216-S-22
216-S-20
216-S-19
216-S-6
216-S-9
216-S-14
216-S-5
216-S-17
216-S-16
216-S-11
216-S-10
N36000
N35000
N34000
N33000
N32000
W78000
W77000
W76000
W75000
W74000
MATCH LINE-SEE THIS DWG
APPROVED
FOR DESIGN
NOT FOR CONSTRUCTION
SK-2-17808
U. S. ATOMIC ENERGY COMMISSION
HANFORD ATOMIC PRODUCTS OPERATION
GENERAL ELECTRIC
REDOX PLANT
LIQUID WASTE DISPOSAL SITES
216-S-SERIES
SK-2-17808

LI PLANT

UNCLASSIFIED
(CLASSIFICATION)

GENERAL ELECTRIC

HANFORD ATOMIC PRODUCTS OPERATION – RICHLAND, WASHINGTON

DOCUMENT NO.
HW-55176, Part IV

COPY NO.

DATE
April 29, 1958

ISSUING FILE

TITLE

INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

AUTHOR

V. W. Wood

ROUTE TO	PAYROLL NO.	LOCATION	FILES ROUTE DATE	SIGNATURE AND DATE
W.A. Haney		300		4/29/58

C-1899-MS (5 – 56)

UNCLASSIFIED
(CLASSIFICATION)

TO BE USED ON UNCLASSIFIED AND OFFICIAL USE ONLY DOCUMENTS

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part IV of VII Parts
Process Technology - Study Report

by

V. W. Wood
Radiological Design and Development
Facilities Engineering Operation
CHEMICAL PROCESSING DEPARTMENT

April 29, 1958

D I S T R I B U T I O N

CR Bergdahl	TG LaFollette
JM Bernard	CE Linderoth
WG Browne	WN Mobley
E Doud	HE Parker
J Durbin	HF Peterson
JB Fecht	DW Pearce
DR Gustavson	OH Pilkey
CT Groswith	EL Reed
WA Haney	RA Roberts
JF Honstead	HP Shaw
IM Jacques	ML Short
EB Jackson	VW Wood
CE Kent	300 Files

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part IV of VII Parts
Process Technology - Study Report

INTRODUCTION

During the fourteen years or more which the separations areas have operated, many sites have been used for the disposal of radioactive liquid wastes. Various methods have been used in assigning building numbers to these sites and, in a number of cases, changes have been made which have brought about some confusion. One of the reasons being some currently used building numbers do not agree with the numbers existing on design prints for the facilities. Reference (2) was an effort to establish a listing of the liquid waste disposal sites. It required considerable time and research to locate information concerning these sites.

Many varied designs have been used for the disposal of radioactive liquid wastes. Reverse wells, trenches, cribs or caverns, etc., have been used. Specific information on these facilities is often difficult to obtain for in some instances they were constructed on work orders with no records being retained on the design. In general, the design on each facility has been different. This has made it extremely difficult for people to have a good working knowledge of the various waste disposal sites.

PURPOSE

The purpose of this report (Part IV) is to provide a ready reference to the "U" Plant liquid waste disposal sites as well as a compilation of sketches showing the basic information on the design of each facility.

Another objective is to establish a simplified and uniform numbering system. Still another objective is to provide an up-to-date tabulation. Subsequent parts of this report will provide information on cribs for other areas.

SUMMARY AND CONCLUSIONS

All radioactive liquid waste disposal sites should have the 216 Building number designation. These should be further grouped by giving all such sites for Purex a prefix of 216-A. Other major series would be 216-S for Redox; 216-T for "T" Plant; 216-B for "B" Plant; 216-U for "U" Plant and 216-Z for "Z" Plant.

The numbering list in "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation should be revised to more closely follow the above numbering system.

RECOMMENDATIONS

It is recommended that the following action be taken:

1. All groups and services referring to the "U" Area cribs or report data concerning them should use the index numbering system as presented in this report. In the case of U Plant this means several changes. See cross reference, page 4.

2. That all drawings concerning these disposal sites, including maps, be revised to show the proper locations and numbers for these cribs.

3. Any suggestions for improving the usefulness of this report should be referred to the author.

DISCUSSION

When all seven parts of the report are completed, and the work outlined in the report is completed, much confusion will be eliminated and more people will be better informed on the design of each waste disposal facility. The report will provide a firm basis for future building number assignments.

While some sincere efforts have been made to try and keep a methodical system for recording waste disposal sites, a number of problems have developed, for example, HW-5000, Sheet 29 of 50, lists only eight cribs in the 216-S series. Also reference 2 has assigned numbers which do not agree with the crib numbers assigned on many drawings.

As indicated earlier, the use of the crib index, as presented in this report should be very easy. In addition, information is presented which is very difficult to locate in the records and in some cases it is not available in the records.

REFERENCES

1. HW-5000, "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation.

2. HW-43121. "Tabulation of Radioactive Liquid Waste Disposal Facilities by HV Clukey dated May 10, 1956.

3. HW-33305, "Tabulation of Radioactive Liquid Waste Disposal Facilities" by HV Clukey dated October 8, 1954.

4. HW-41535, "Uncoffined Underground Radioactive Waste and Contamination in the 200 Areas" by KR Heid dated January 17, 1956.

CROSS REFERENCE
"U" AREA RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

Suggested Crib No.	Number Listed in HW-5000	Number Listed in HW-43121	Number Used On Drawings or Original Number	Remarks
216-U-1	216-U-1	216-U-3	216-U-1	361-WR
216-U-2	216-U-2	~~216-U-2~~ 216-U-3	216-U-2	
216-U-3	None	216-U-11	216-U-3	
216-U-4	None	216-U-3	222-U-10	Reverse Well
216-U-5	None	216-U-4	221-U-#2	Grave
216-U-6	None	216-U-5	221-U-#1	Grave
216-U-7	None	216-U-7	None	French Drain
216-U-8	216-WR 1&2	216-U-9	216-WR-1,2,3	
216-U-9	None	216-U-6	None	Ditch Abandoned
216-U-10	None	216-U-1	None	U Swamp
216-U-11	None	216-U-12	None	Ditch
	None	216-U-10	216-T-17	Changed to T Series See Part V

APPENDIX

A. Explanation of Parts to the Report

Part I will cover the Purex Radioactive Liquid Waste Disposal Sites.

Part II will cover the "Z" Plant Radioactive Liquid Waste Disposal Sites.

Part III will cover the Redox Plant Radioactive Liquid Waste Disposal Sites.

Part IV will cover the "U" Plant Radioactive Liquid Waste Disposal Sites.

Part V will cover the "T" Plant Radioactive Liquid Waste Disposal Sites.

Part VI will cover the "B" Plant Radioactive Liquid Waste Disposal Sites.

Part VII will cover the "C" Plant, Hot Semi-Works, the 200 North Areas and miscellaneous.

B. Index for "U" Plant Radioactive Liquid Waste Disposal Sites.

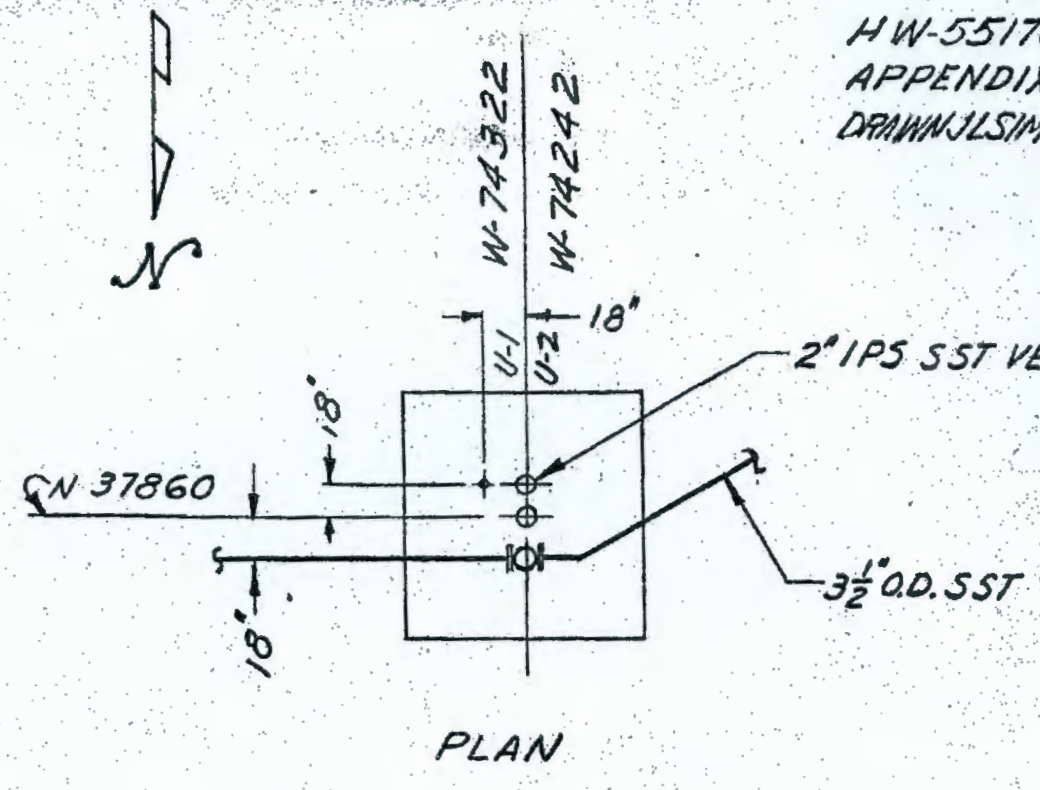
C. Sketches of "U" Plant Waste Disposal Facilities.

D. Map of "U" Plant Sites. (SK-2-17815).

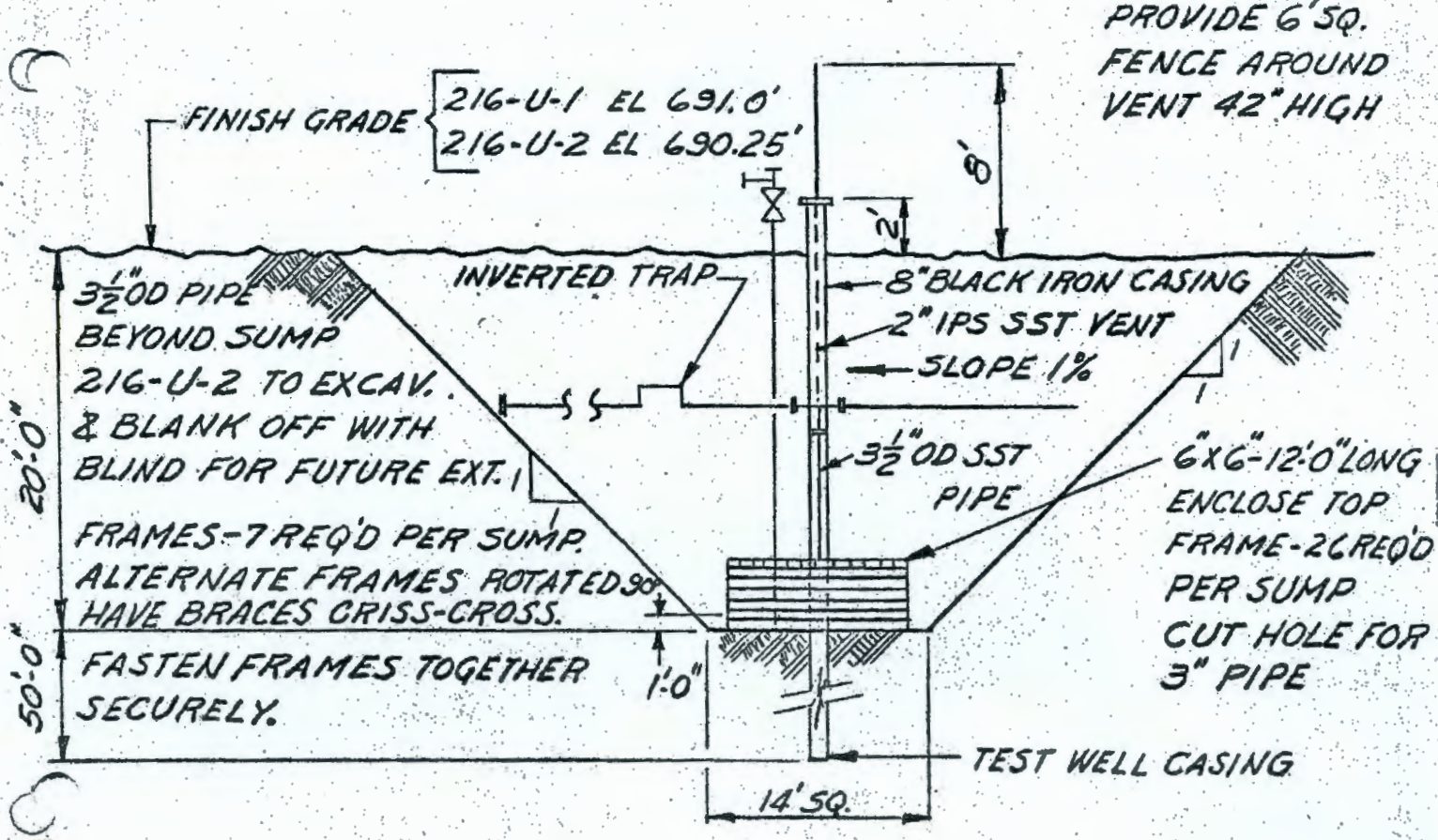
CRIB INDEX

U Plant

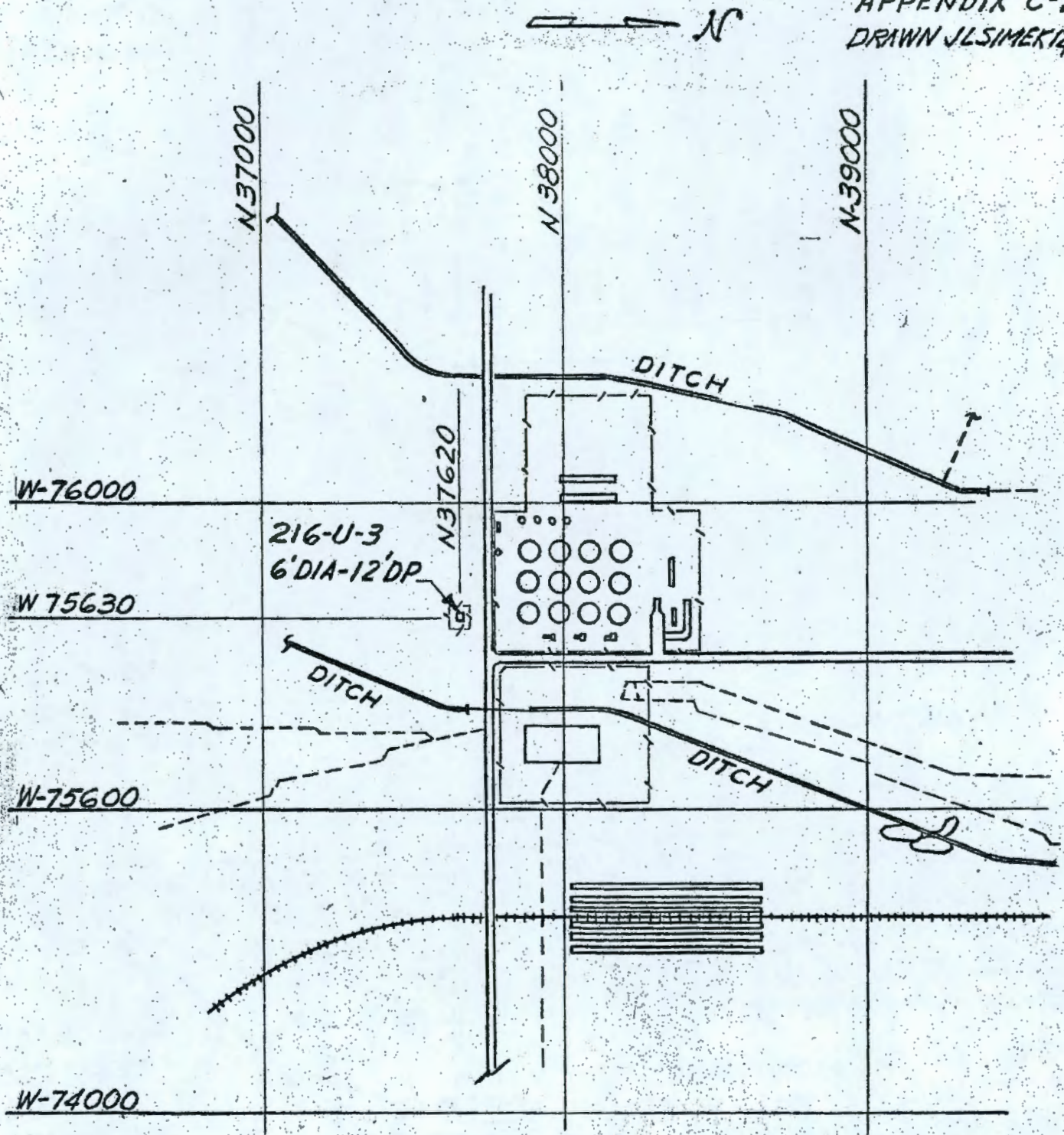
Number	Description Appendix Sheet	Service	Use Date From	To	Status
216-U-1	C-1	224-U Wastes	3/52	-	Abandoned
216-U-2	C-1	Overflow from U-1	3/52	-	Abandoned
216-U-3	C-2	241-U TK 110 Condensate	5/54	1959	Abandoned
216-U-4	C-3 & 4	222 U Waste	3/47	1959	Abandoned
216-U-5	C-5	Startup Wastes		1952	Abandoned
216-U-6	C-5	Startup Wastes		1952	Abandoned
216-U-7	C-6	Blower Pit Drain	6/53	-	Inactive
216-U-8	C-7 & 8	Process Condensate & Stack Drain	6/52	-	Active
216-U-9	C-9	Cooling Water & Chemical	3/52	3/54	Abandoned
216-U-10	C-10	Cooling Water & Chemical	3/52	-	Active
216-U-11	C-11 & 12	Overflow from U-10	3/52	-	Active
216-U-12	C-13	Process Condensate & Stack Drain	Not used		Replacement for U-8
216-U-13	None	241-UR Steam Cleaning Pit	1952	-	Inactive
216-U-14	None	Laundry Bldg. Ditch to U Swamp	1953	-	Active



PLAN



216-U-1
216-U-2



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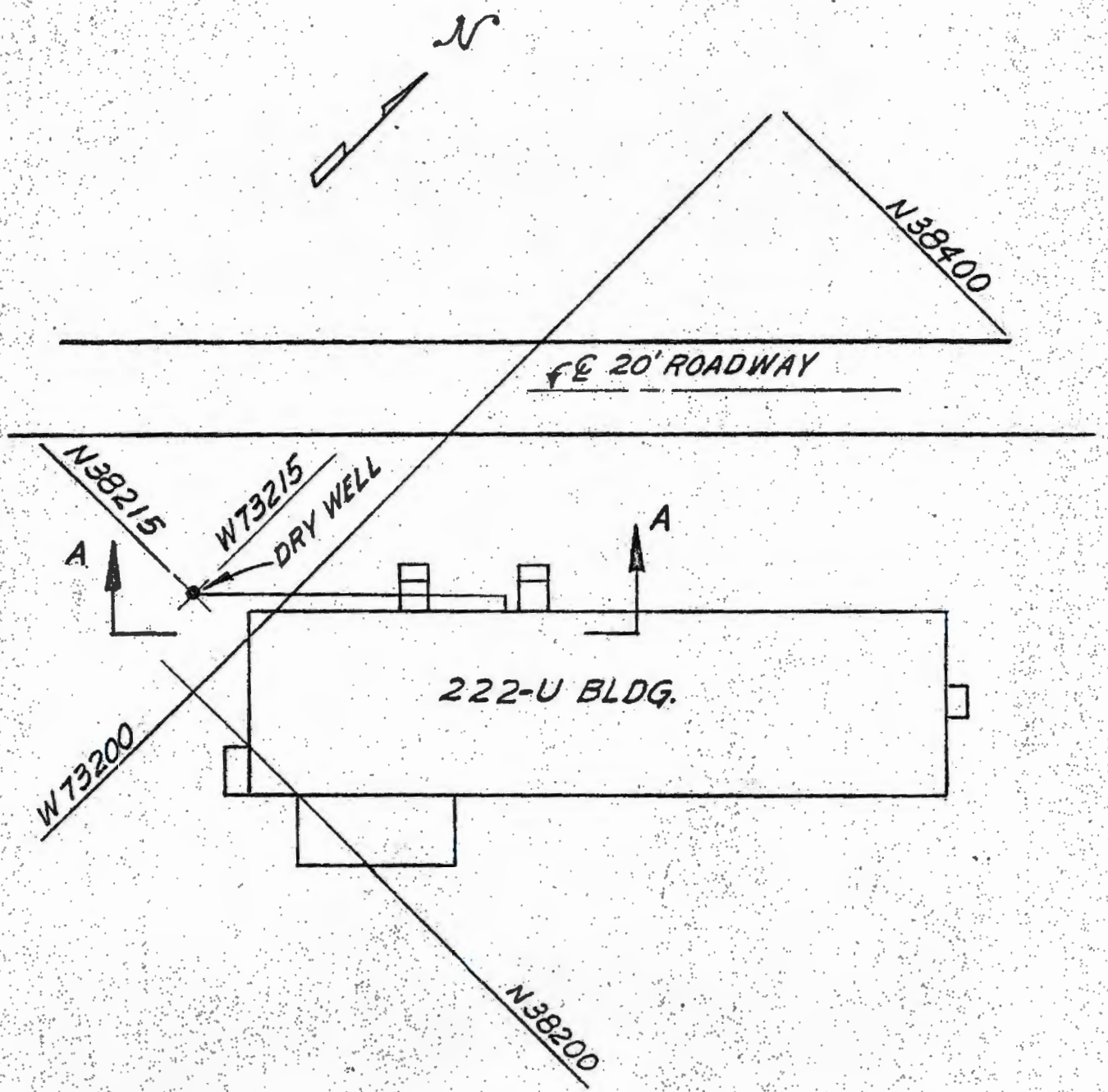
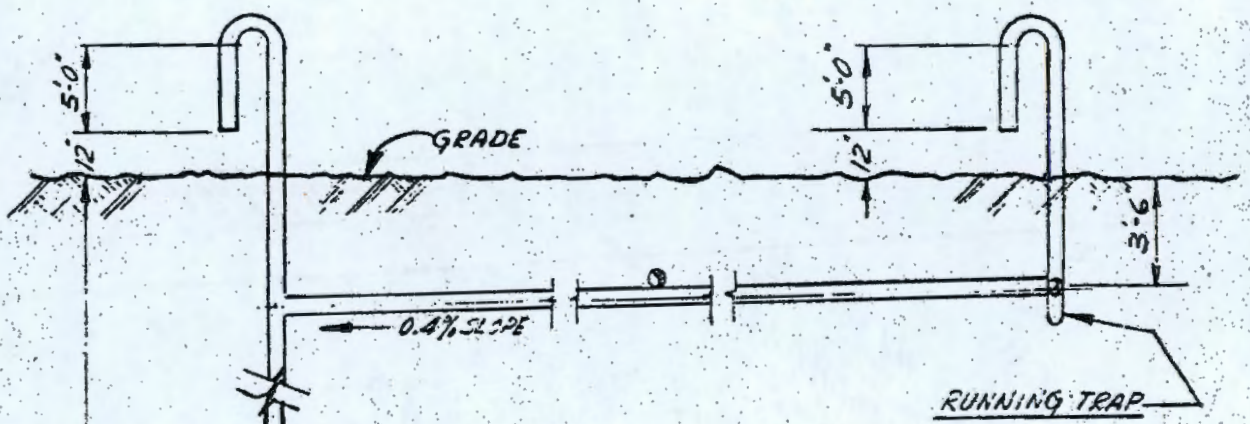
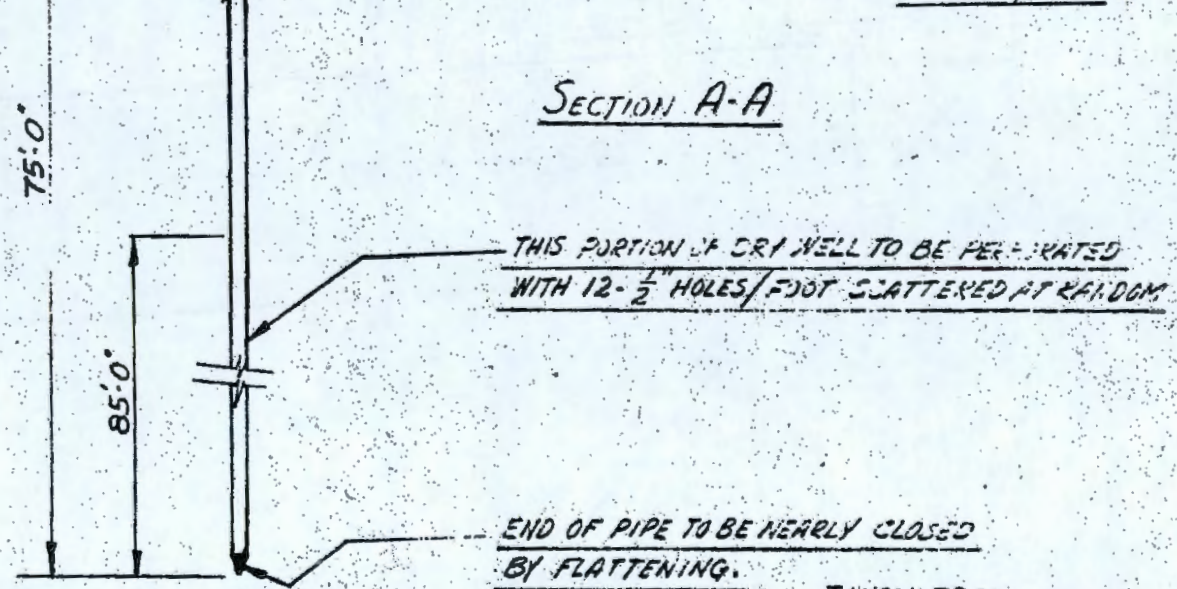
H-2-44004



216-U-4
H-2-43081
HW-69870-SHT 2
SEE C-4



SECTION A-A



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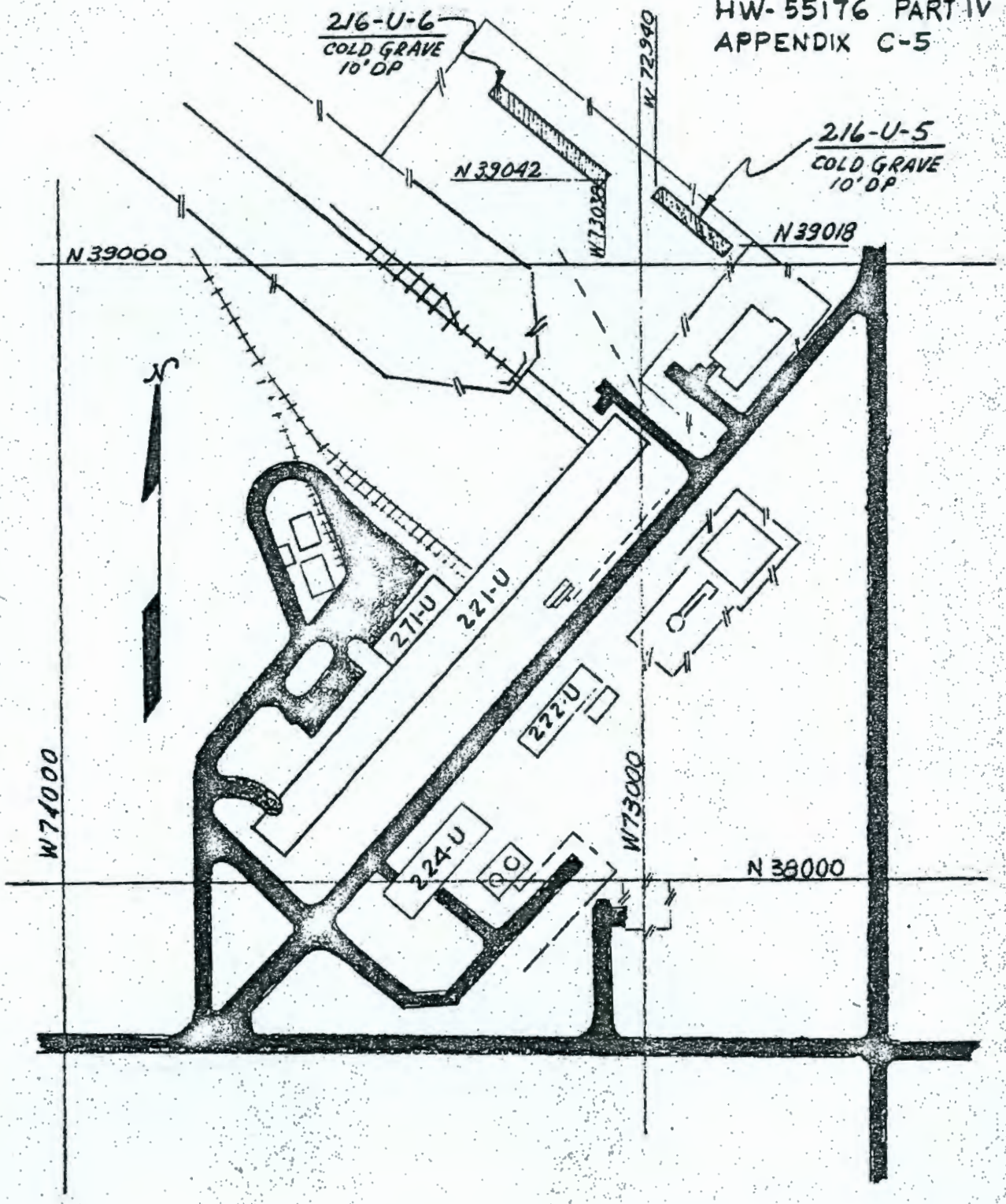
H-2-43081
HW 69877 SHT 2

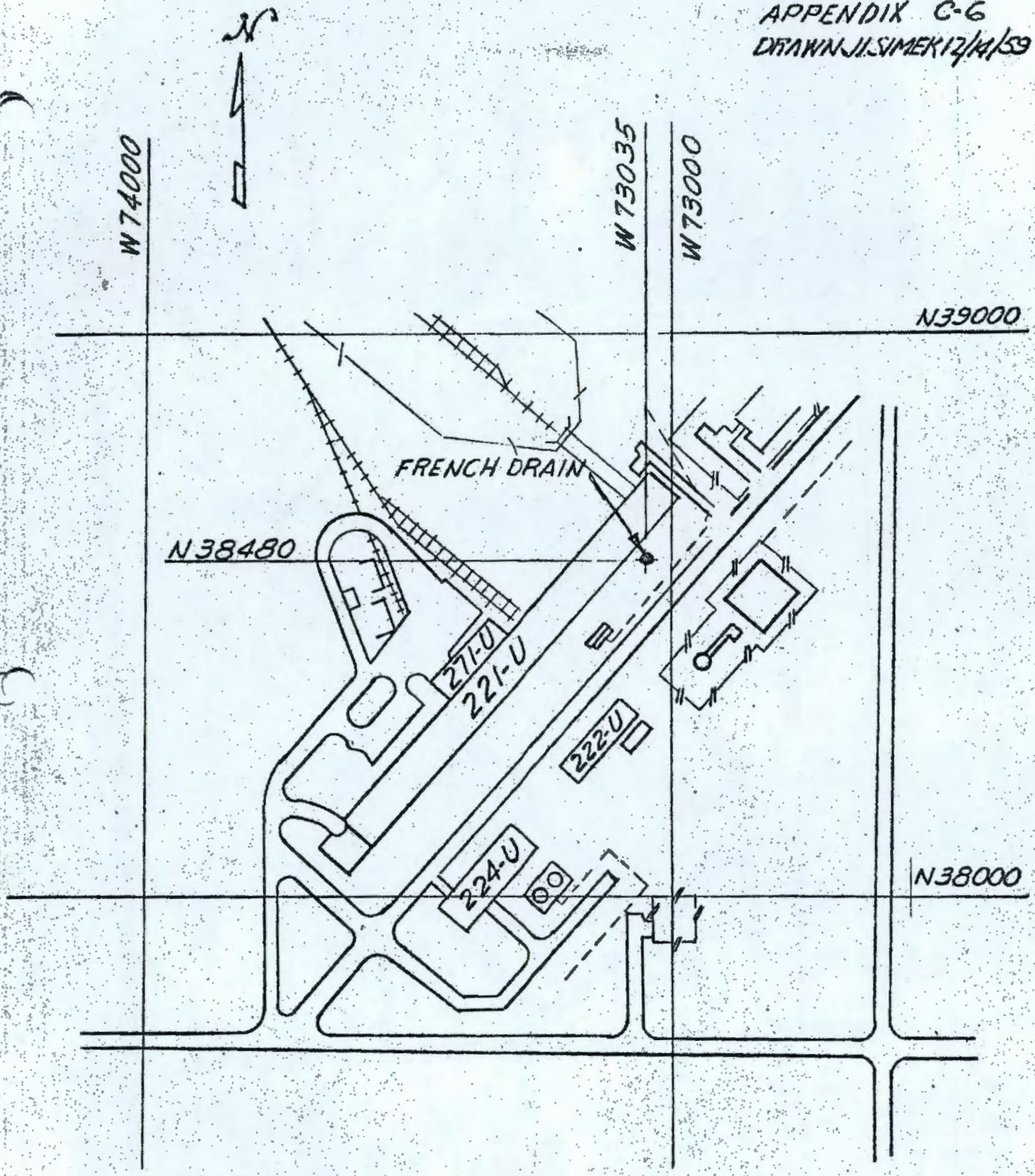
216-U-4



216-U-5
216-U-6

TAKEN FROM M 2600 W SH 19

HW-55176-PART 4
APPENDIX C-6
DRAWN J.L.SIMEK 12/14/59



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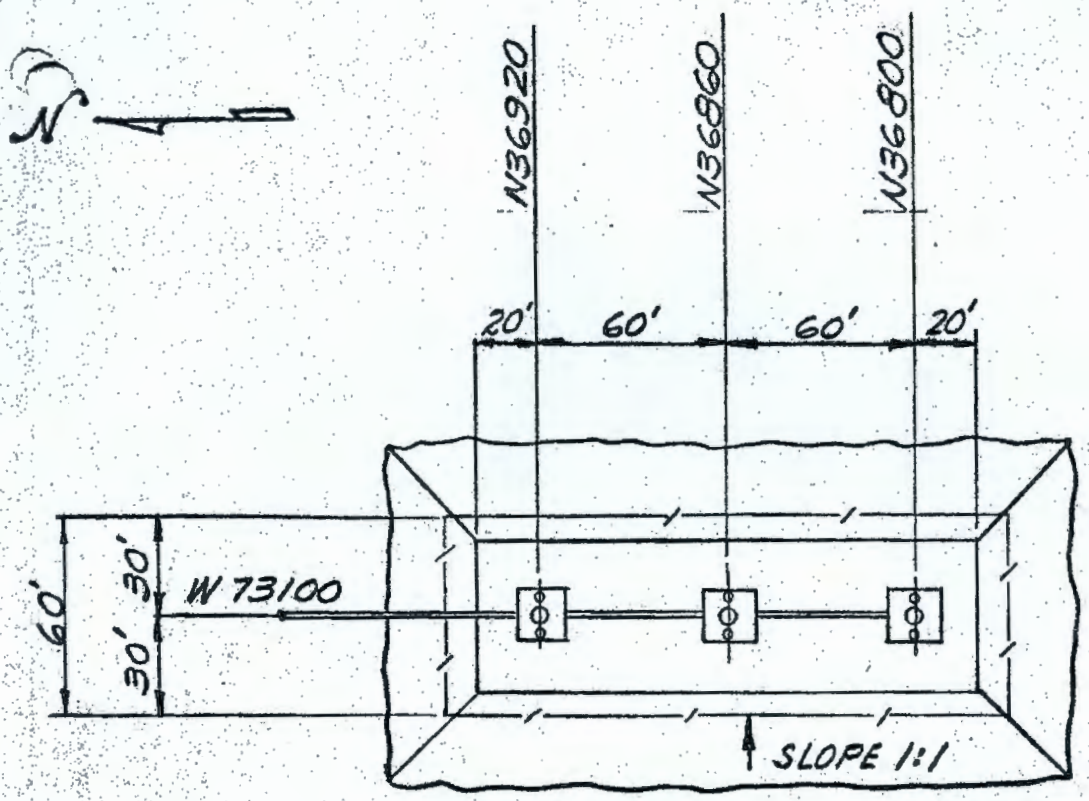
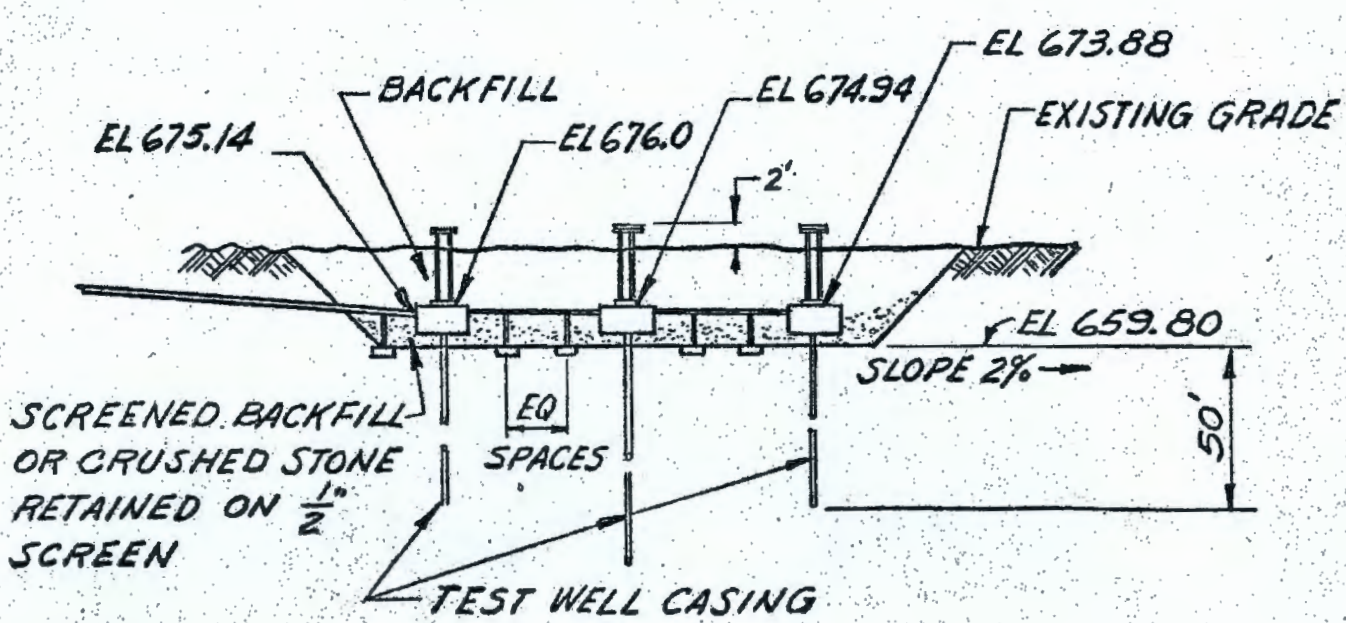
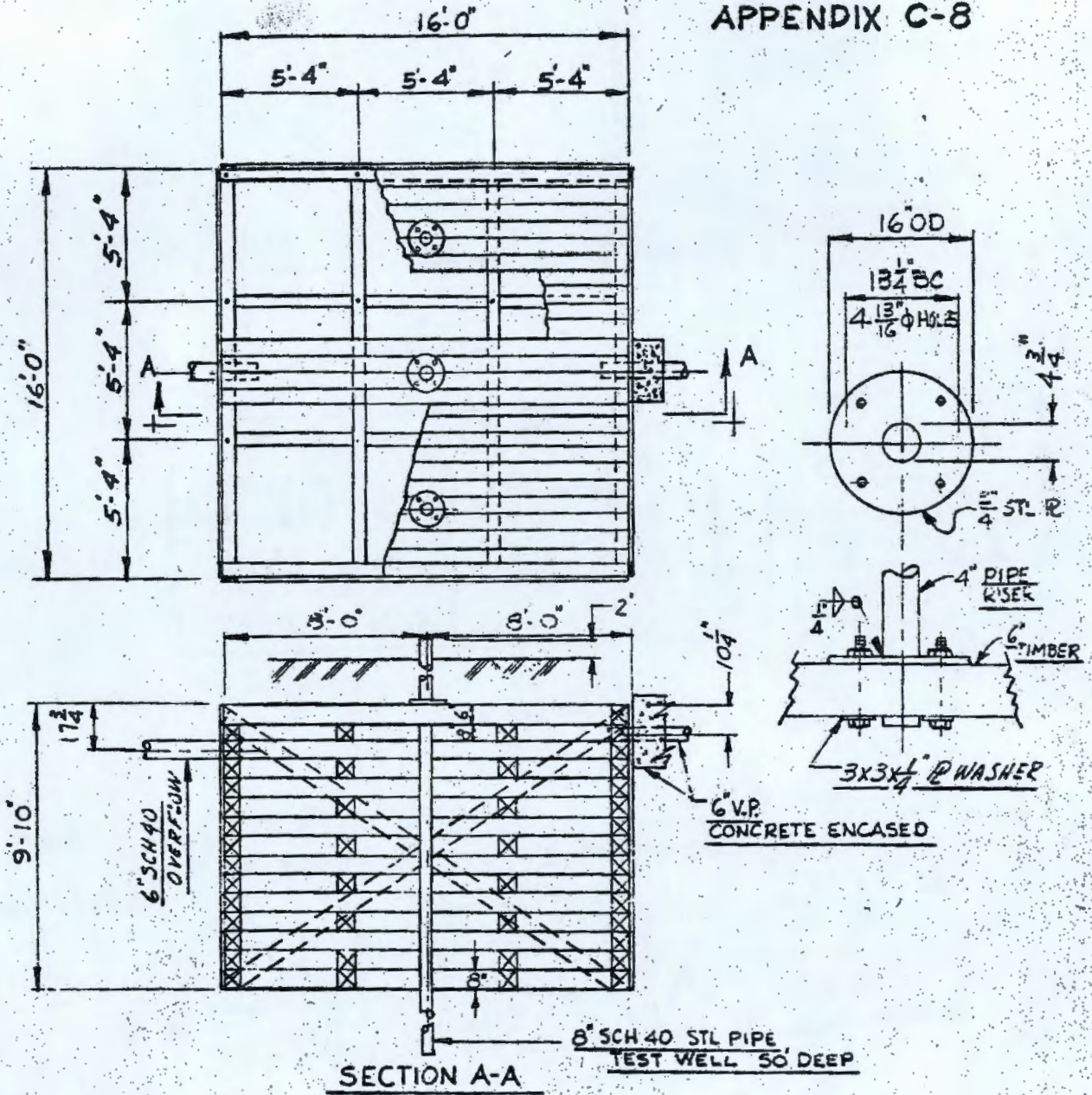
H-2-43039



PLAN



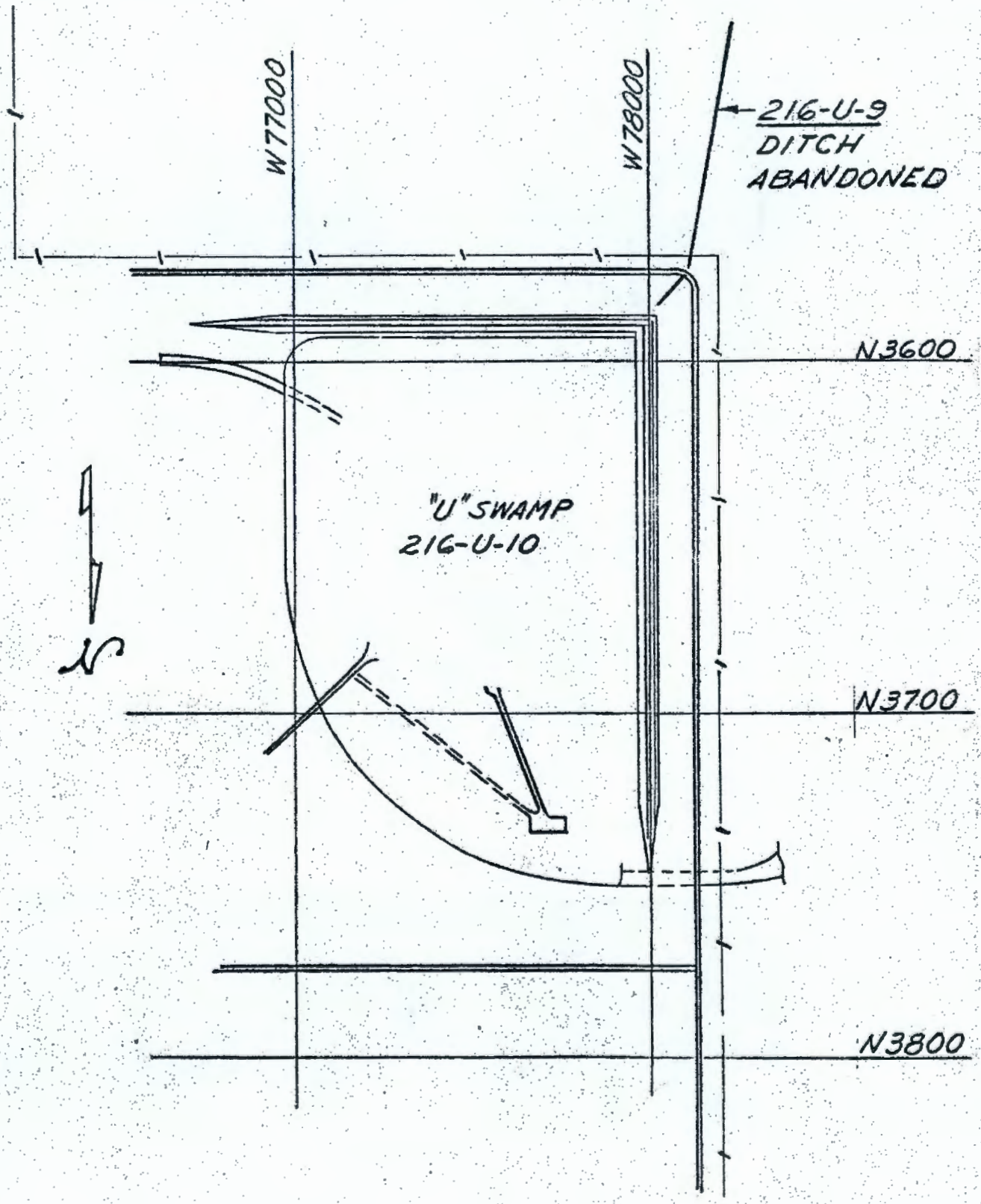
216-U-8
H-2-43028



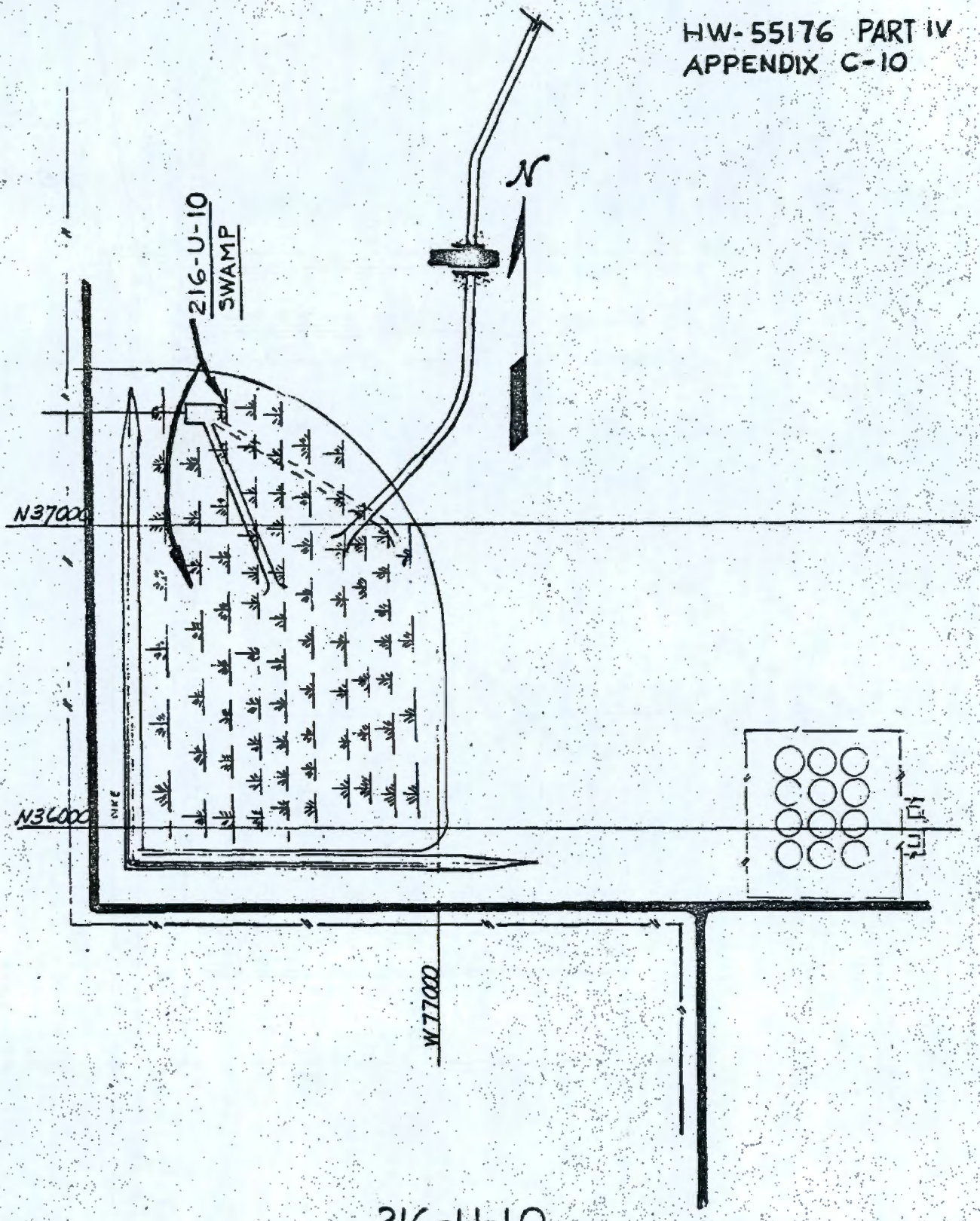
SECTION A-A

TAKEN FROM H-2-43027

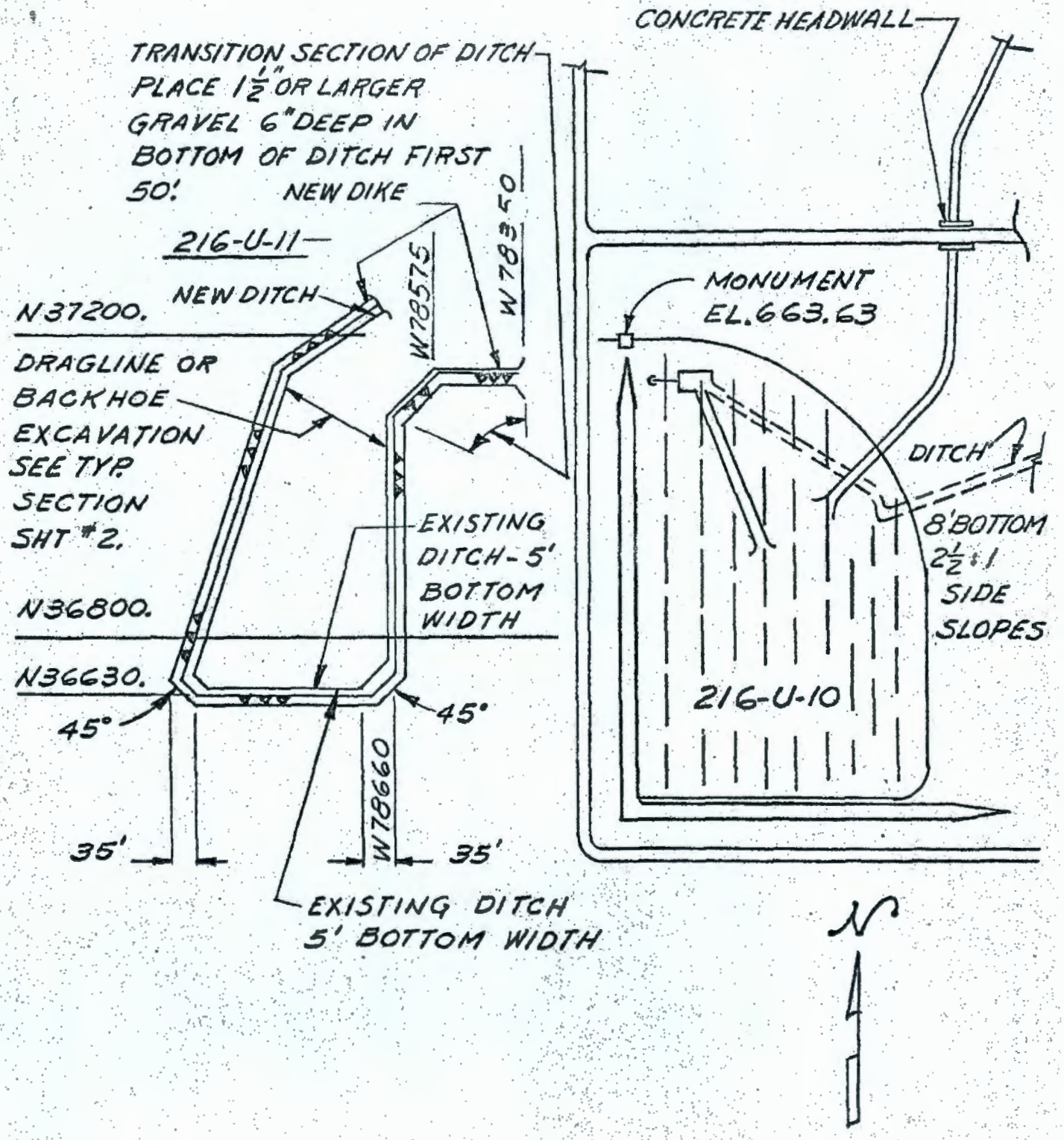
216-U-8



216-U-9-DITCH
H-2-2430

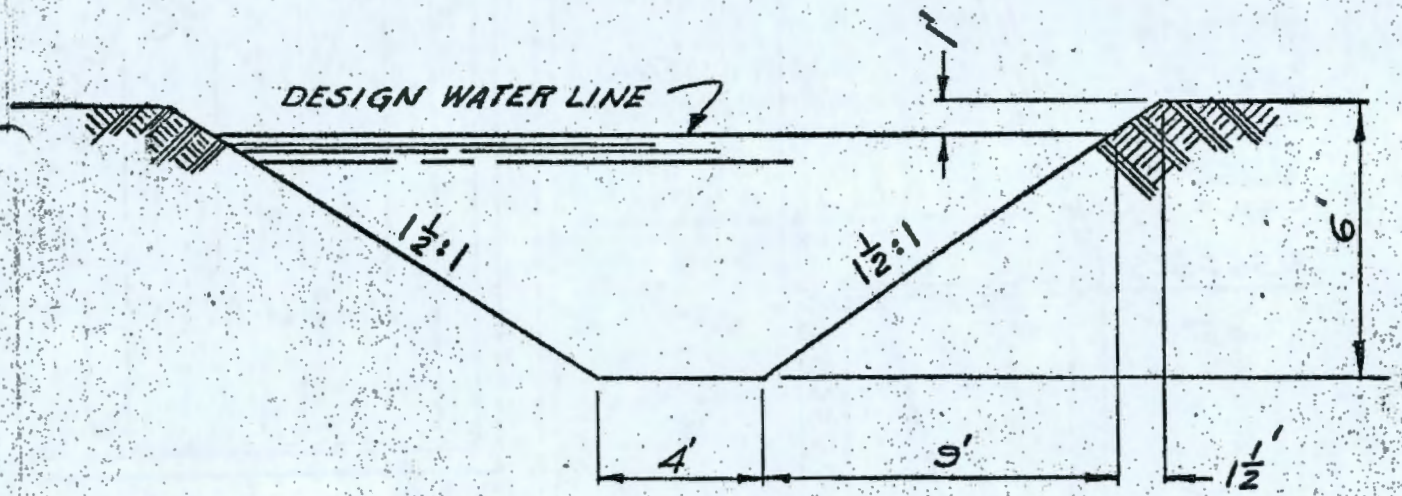


216-U-10

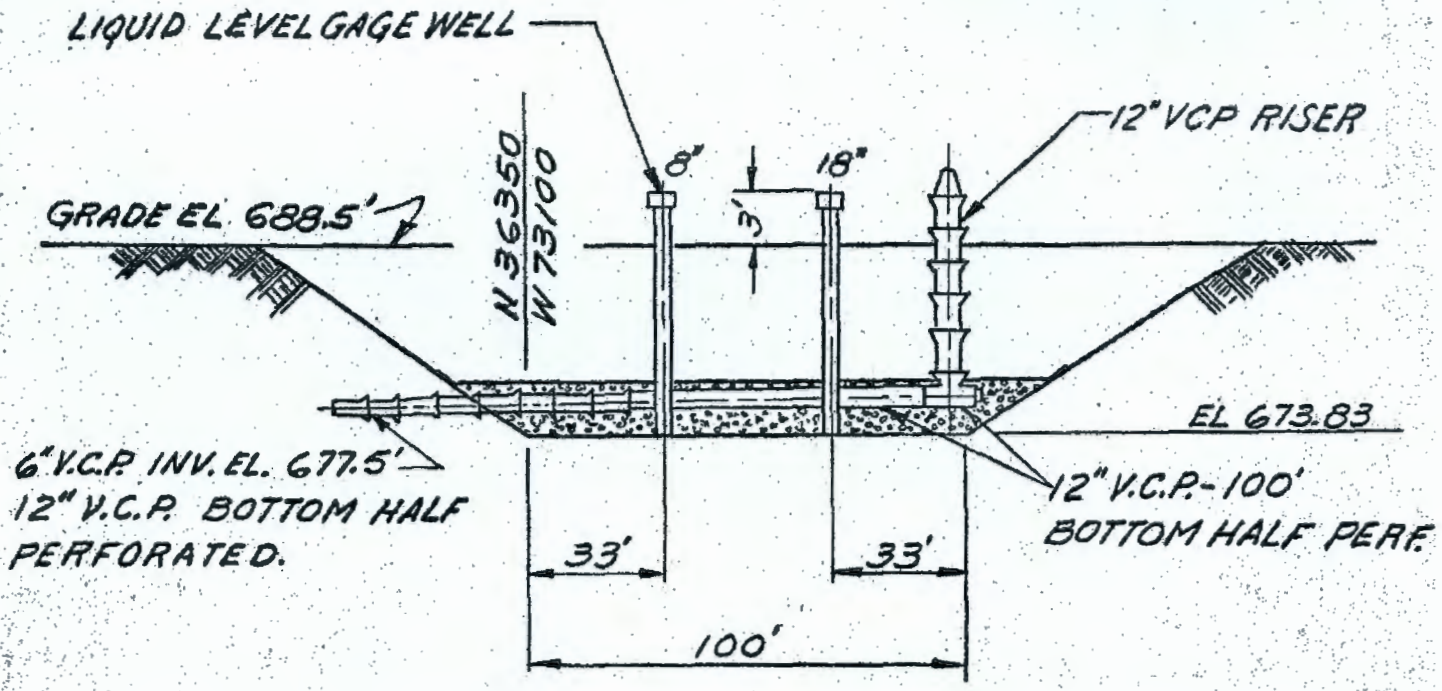


216-U-11
SK-2-1888

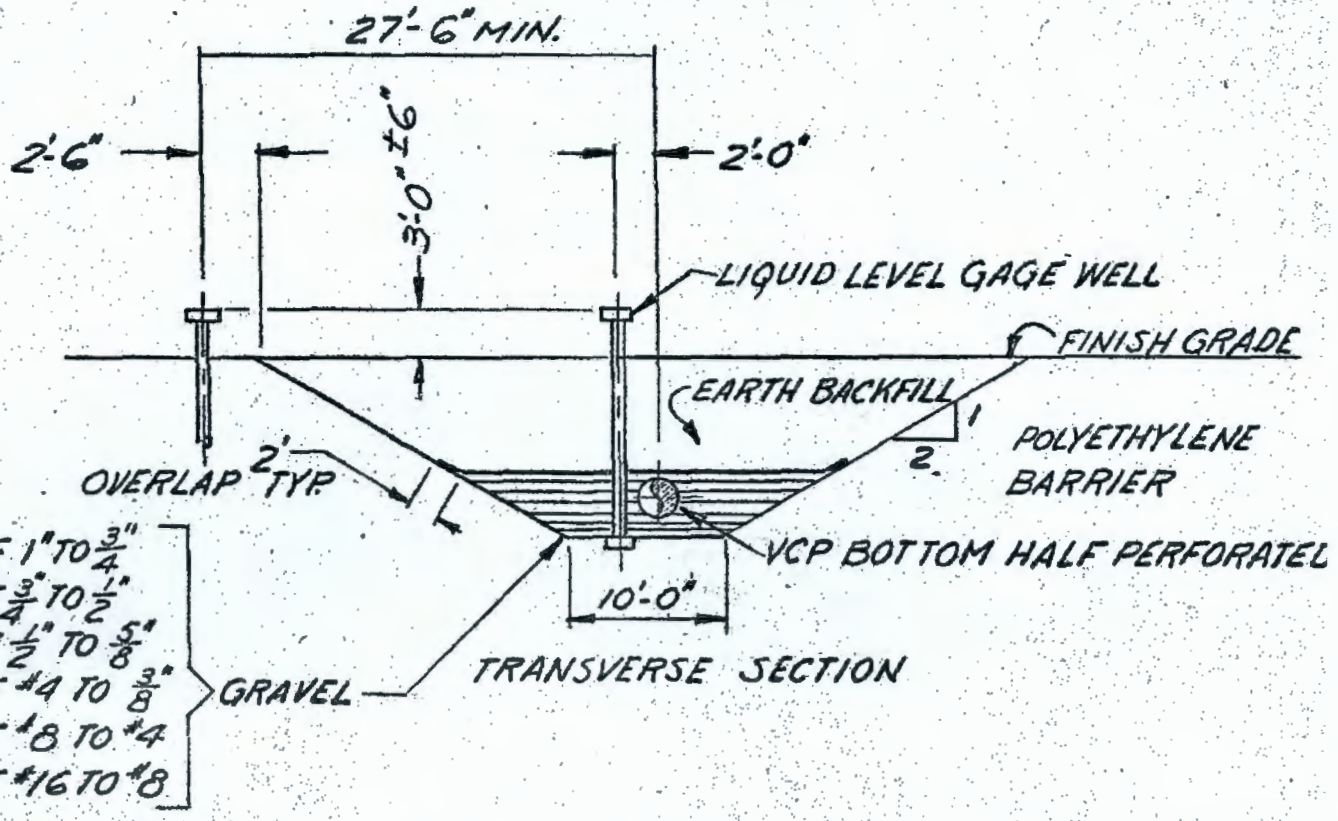
HW-55176-PT 4
APPENDIX C-12
JLB 10-12-59



TYPICAL SECTION

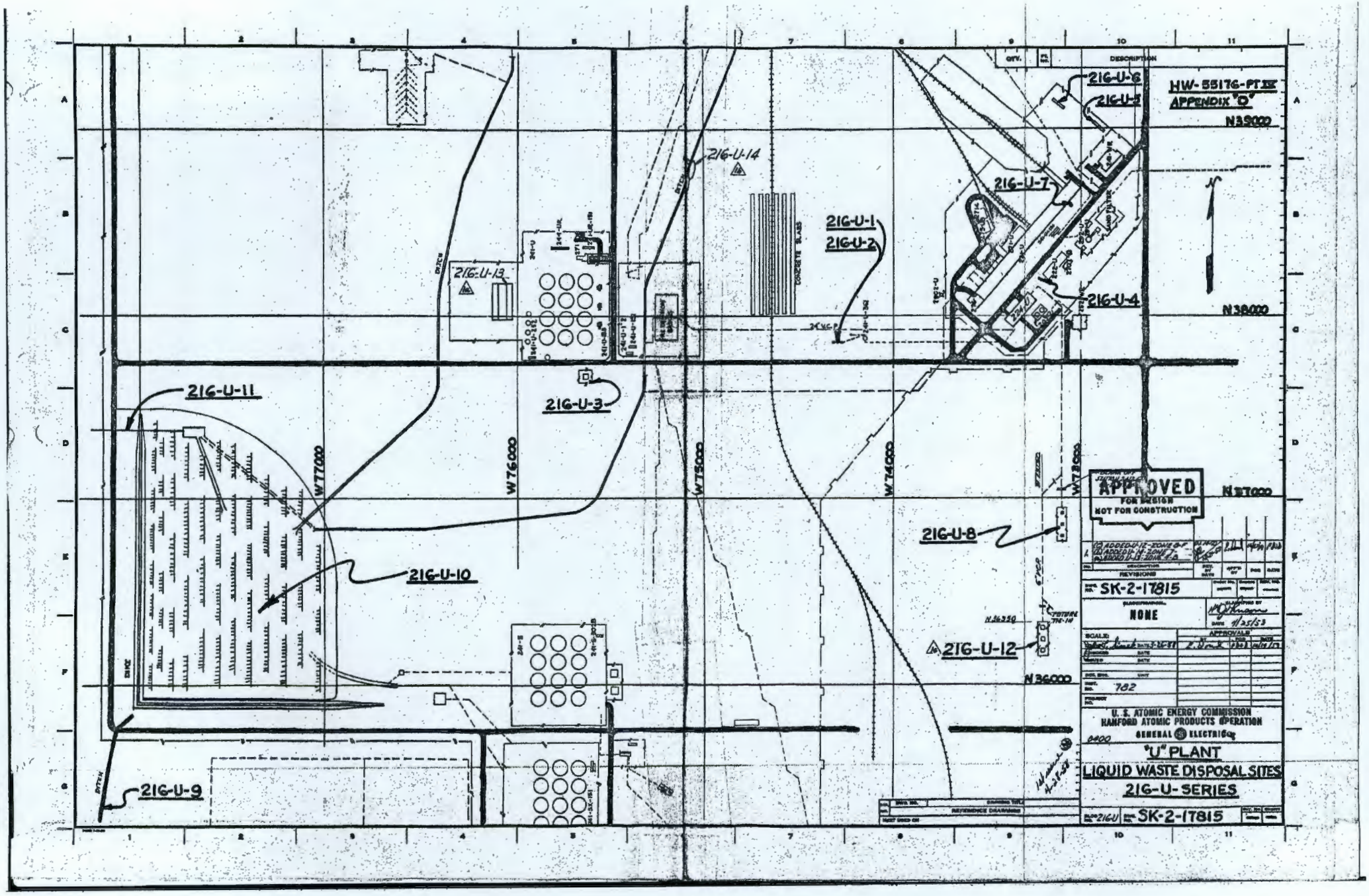


LONGITUDINAL SECTION



TRANSVERSE SECTION

216-U-12
H-2-31321
H-2-31322


HW-55176-PT III
APPENDIX "D"
216-U-6
216-U-5
216-U-14
216-U-7
216-U-1
216-U-2
216-U-13
216-U-4
216-U-11
216-U-3
216-U-10
216-U-8
216-U-12
216-U-9
N39000
N38000
N37000
N36000
W77000
W76000
W75000
W74000
W73000
APPROVED
FOR DESIGN
NOT FOR CONSTRUCTION
SK-2-17815
NONE
U. S. ATOMIC ENERGY COMMISSION
HANFORD ATOMIC PRODUCTS OPERATION
GENERAL ELECTRIC
"U" PLANT
LIQUID WASTE DISPOSAL SITES
216-U-SERIES
SK-2-17815

T PLANT

UNCLASSIFIED
(CLASSIFICATION)

GENERAL ELECTRIC

HANFORD ATOMIC PRODUCTS OPERATION - RICHLAND, WASHINGTON

DOCUMENT NO.
HW-55176 - Pt. V

COPY NO.

DATE
April 29, 1958

ISSUING FILE

TITLE

INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

AUTHOR

V. W. Wood

ROUTE TO	PAYROLL NO.	LOCATION	FILES ROUTE DATE	SIGNATURE AND DATE
WA Haney		~~325~~		~~W Haney~~ 5/1/58

UNCLASSIFIED
(CLASSIFICATION)

C-1899-MS (5 - 56)

TO BE USED ON UNCLASSIFIED AND OFFICIAL USE ONLY DOCUMENTS

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part V of VII Parts
Process Technology - Study Report

by

V. W. Wood
Radiological Design and Development
Facilities Engineering Operation
CHEMICAL PROCESSING DEPARTMENT

April 29, 1958

D I S T R I B U T I O N

CR Bergdahl	TG LaFollette
JM Bernard	CE Linderoth
WG Browne	HE Parker
E Doud	HF Peterson
J Durbin	DW Pearce
GK Carpenter	OH Pilkey
JR Cartmell	EL Reed
JB Fecht	RA Roberts
DR Gustavson	OC Schroeder SG Smolen
WA Haney	HP Shaw
JF Honstead	VW Wood
IM Jacques	Records Center
EB Jackson	300 Files
CE Kent	Extras

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part V of VII Parts
Process Technology - Study Report

INTRODUCTION

During the fourteen years or more which the separations areas have operated, many sites have been used for the disposal of radioactive liquid wastes. Various methods have been used in assigning building numbers to these sites and, in a number of cases, changes have been made which have brought about some confusion. One of the reasons being some currently used building numbers do not agree with the numbers existing on design prints for the facilities. Reference (2) was an effort to establish a listing of the liquid waste disposal sites. It required considerable time and research to locate information concerning these sites.

Many varied designs have been used for the disposal of radioactive liquid wastes. Reverse wells, trenches, cribs or caverns, etc, have been used. Specific information on these facilities is often difficult to obtain, for in some instances, they were constructed on work orders with no recorders being retained on the design. In general, the design on each facility has been different. This has made it extremely difficult for people to have a good working knowledge of the various waste disposal sites.

PURPOSE

The purpose of this report (Part V) is to provide a ready reference to the "T" Area waste disposal sites as well as a compilation of sketches showing the basic information on the design of each facility.

Another objective is to establish a simplified and uniform numbering system. Still another objective is to provide an up-to-date tabulation. Subsequent parts of this report will provide information on cribs for other areas.

SUMMARY AND CONCLUSIONS

All radioactive liquid waste disposal sites should have the 216 Building number designation. These should be further grouped by giving all such sites for Purex a prefix of 216-A. Other major series would be 216-S for Redox; 216-T for "T" Area; 216-B for "B" Area; 216-U for "U" Area and 216-Z for "Z" Area.

The numbering list in "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation should be revised to more closely follow the above numbering system.

RECOMMENDATIONS

It is recommended that the following action be taken:

1. All groups and services referring to the "T" Area cribs or report data concerning them should use the index numbering system as presented in this report.

2. That all drawings concerning these disposal sites, including maps, be revised to show the proper locations and numbers for these cribs.

3. Any suggestions for improving the usefulness of this report should be referred to the author.

DISCUSSION

When all parts of the report are completed, and the work outlined in the report is completed, much confusion will be eliminated and more people will be better informed on the design of each waste disposal facility. The report will provide a firm basis for future building number assignments.

While some sincere effort has been made to try and keep a methodical system for recording waste disposal sites, a number of problems have developed. For example, HW-5000, Sheet 29 of 50 lists only two cribs in the 216-Z series. They are 216-Z-8 and 216-Z-9. Although no coordinates are given, it is doubtful if these refer to the same cribs with the same number as given in Reference "2".

As indicated earlier, the use of the crib index, as presented in this report should be very easy. In addition, information is presented which is very difficult to locate in the records and in some cases it is not available in the records.

REFERENCES

1. HW-5000, "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation.

2. HW-43121, "Tabulation of Radioactive Liquid Waste Disposal Facilities" by HV Clukey dated May 10, 1956.

3. HW-33305, "Tabulation of Radioactive Liquid Waste Disposal Facilities," by HV Clukey dated October 8, 1954.

4. HW-41535, "Unconfined Underground Radioactive Waste and Contamination in the 200 Areas" by KR Heid.

CROSS REFERENCE FOR "T" AREA RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Suggested Crib No.	Number Listed in HW-5000	Number Listed in HW-43121	Original Or Number Used On Drawings	Remarks
216-T-1	216-T-1	216-T-1	None	"T" Trench
216-T-2	216-T-2	216-T-2	None	Reverse Well
216-T-3	None	216-T-3	None	Reverse Well
216-T-4	216-T-4	216-T-4	None	"T" Swamp
216-T-5	216-T-5	216-T-12	216-T-5	Trench
216-T-6	361-T-H2	216-T-5	361-T-H2	
216-T-7	None	216-T-7	241-T-H2	Crib & Tile Field
216-T-8	222-T-1&2	216-T-8	None	
216-T-9	None	216-T-9	None	Trench
216-T-10	None	216-T-10	None	Trench
216-T-11	None	216-T-11	None	Trench
216-T-12	None	216-T-11	207-T	Sludge Grave
216-T-13	None	216-T-12	269-W	Decontam. Trench
216-T-14	None	216-T-13	216-T-1	Graves
216-T-15	None	216-T-14	216-T-2	Graves
216-T-16	None	216-T-15	216-T-3	Graves
216-T-17	None	216-T-16	216-T-4	Graves
216-T-18	None	None	216-T-17	
216-T-19	None	216-TX-1	241-TX-153	Crib to Tile Field

Suggested Crib No.	Number Listed in HW-5000	Number Listed in HW-43121	Original Or Number Used On Drawings	Remarks
216-T-20	None	216-TX-2	155-TX	Contam. Acid Grave
216-T-21	241-TX-3	216-TX-3	241-TX	Trenches
216-T-22	241-TX-3	216-TX-4	241-TX	Trenches
216-T-23	241-TX-3	216-TX-5	241-TX	Trenches
216-T-24	241-TX-3	216-TX-6	241-TX	Trenches
216-T-25	None	216-TX-7		
216-T-26	216-TY-1	216-TY-1	216-TY	
216-T-27	216-TY-2	216-TY-2	216-TY	
216-T-28	216-TY-3	216-TY-3	216-TY	
216-T-29	None			
216-T-30	None			
216-T-31	None			
216-T-32	None	241-T #1 & 2	241-T #1 & 2	

APPENDIX

A. Explanation of Parts to the Report

Part I will cover the Purex Radioactive Liquid Waste Disposal Sites.

Part II will cover the "Z" Plant Radioactive Liquid Waste Disposal Sites.

Part III will cover the Redox Plant Radioactive Liquid Waste Disposal Sites.

Part IV will cover the "U" Plant Radioactive Liquid Waste Disposal Sites.

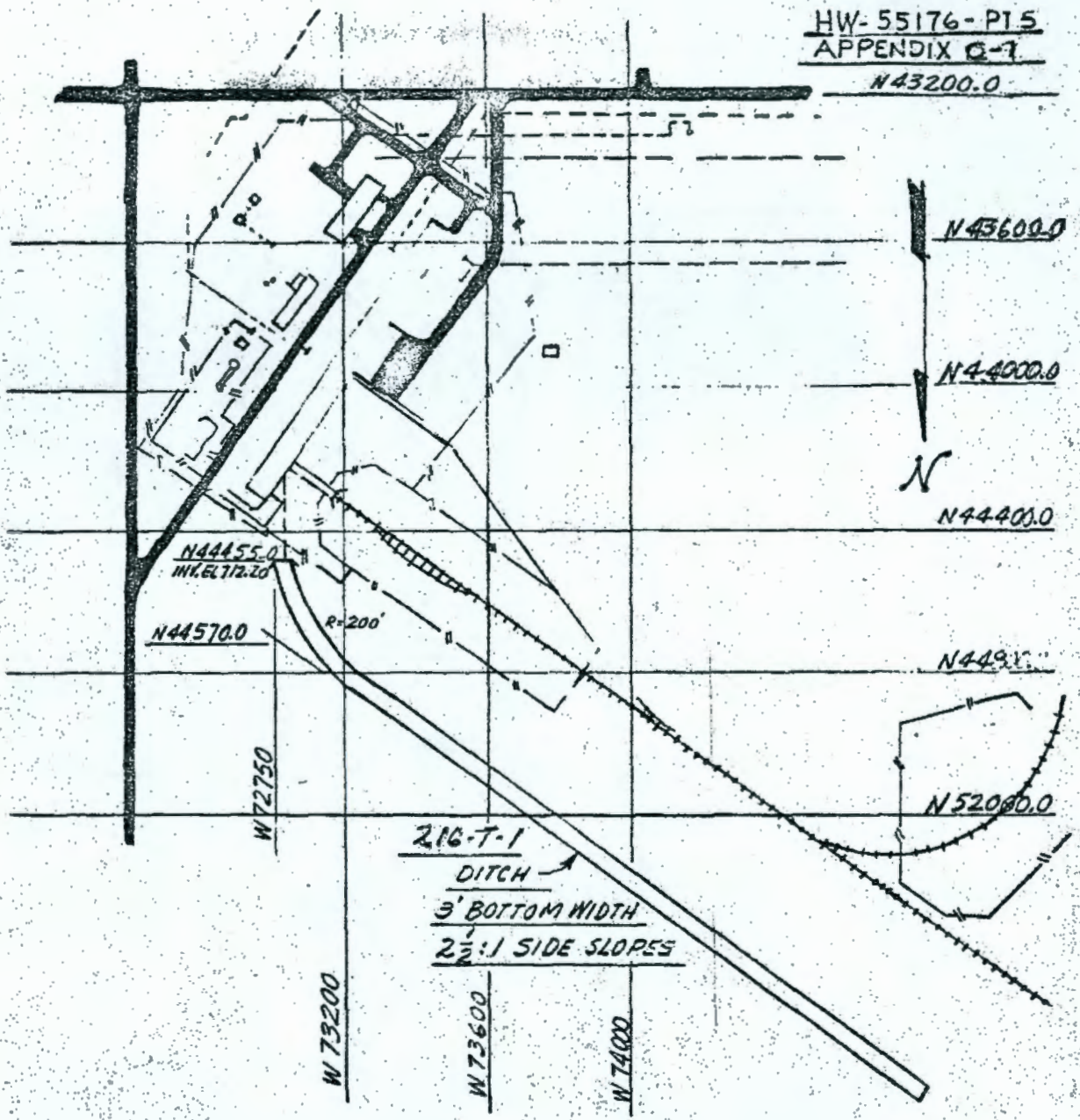
Part V will cover the "T" Area Radioactive Liquid Waste Disposal Sites.
Part VI will cover the "B" Plant Radioactive Liquid Waste Disposal Sites.
Part VII will cover the "C" Plant, Hot Semi-works, the 200 North Areas and miscellaneous.

B. Index for "T" Area Radioactive Liquid Waste Disposal Sites.
C. Sketches of "T" Area Waste Disposal Facilities.
D. Map of "T" Area Crib Sites. (SK-2-17813).

HW-55176, PTV
Appendix B
Revised 10/19/59

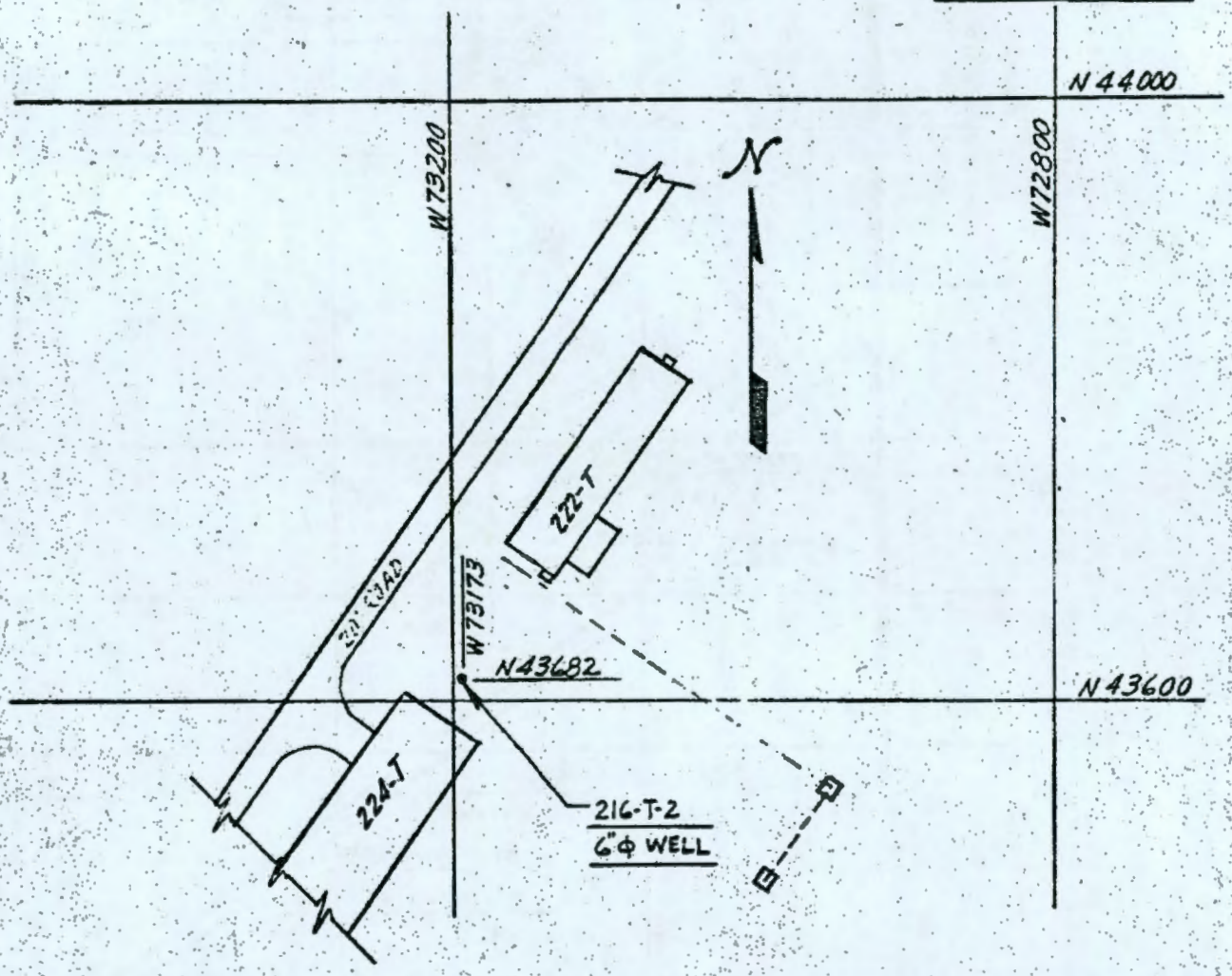
CRIB INDEX
T AREA

Number	Description Appendix Sheet	Service	Use Dates From	To	Status
216-T-1	C-1	Startup Wastes	1945		Abandoned
216-T-2	C-2	222-T Lab Wastes	1/45	4/50	Replaced by T-8
216-T-3	C-3	224-T and 5-6 Wastes	1/45	8/46	Abandoned
216-T-4	C-4	Cooling Water & Chemical Sewer	3/47	-	Active
216-T-5	C-4	2nd Cycle and 112-T Wastes		5/55	Specific Ret.
216-T-6	C-5 & 6	224-T and 5-6 Wastes	8/46	6/51	Abandoned
216-T-7	C-7 & 8	224-T, 5-6, and 2nd Cycle	4/48	1956	Abandoned
216-T-8	C-6 & C-9	222-T Lab Wastes	4/50	1956	Abandoned
216-T-9	C-10	Equipment Decontamination Wastes	6/51	3/54	Abandoned
216-T-10	C-10	Equipment Decontamination Wastes	6/51	3/54	Abandoned
216-T-11	C-10	Equipment Decontaminatinn Wastes	6/51	3/54	Abandoned
216-T-12	C-11	Retention Basin Sludge		11/54	Abandoned
216-T-13	C-12	Equipment Decontamination	6/54	-	Active
216-T-14	C-13	1st cycle Supernate	1/54		Spec. Retention
216-T-15	C-13	1st cycle Supernate	1/54	2/54	" "
216-T-16	C-13	1st cycle Supernate		2/54	" "
216-T-17	C-13	1st cycle Supernate	2/54	6/54	" "
216-T-18	C-14	Scavenged Wastes		11/53	" "
216-T-19	C-15	224-T, 242-T, 5-6, & 2nd cycle	9/51	1959	Abandoned
216-T-20	C-16	155 TX Catch Tank Wastes	11/52		Abandoned
216-T-21	C-17	1st cycle supernate	6/54		Spec. Retention
216-T-22	C-17	" " "	7/54		" "
216-T-23	C-17	" " "	7/54	8/54	" "
216-T-24	C-17	" " "		8/54	" "
216-T-25	C-18	Evaporator Bottoms		9/54	" "
216-T-26	C-19 & 20	Scavenged Wastes	8/55	11/56	Not being used
216-T-27	C-19 & 20	" "	Not used		" " "
216-T-28	C-19 & 20	" "	Not used		" " "
216-T-29	None	Sand Filter Drain	1950	-	Active
216-T-30	None	TX-154 Diversion Box Spill	1953		Abandoned
216-T-31	None	241-TX French Drain	1954		Abandoned
216-T-32	C-21	224-T Wastes	4/48	6/52	Abandoned



TAKEN FROM 2892-SHT. 11
H-2-5101

216-T-1



TAKEN FROM MAP 2924-SHT# 11

216-T-2

HW 55176-PT 5
APPENDIX C-3
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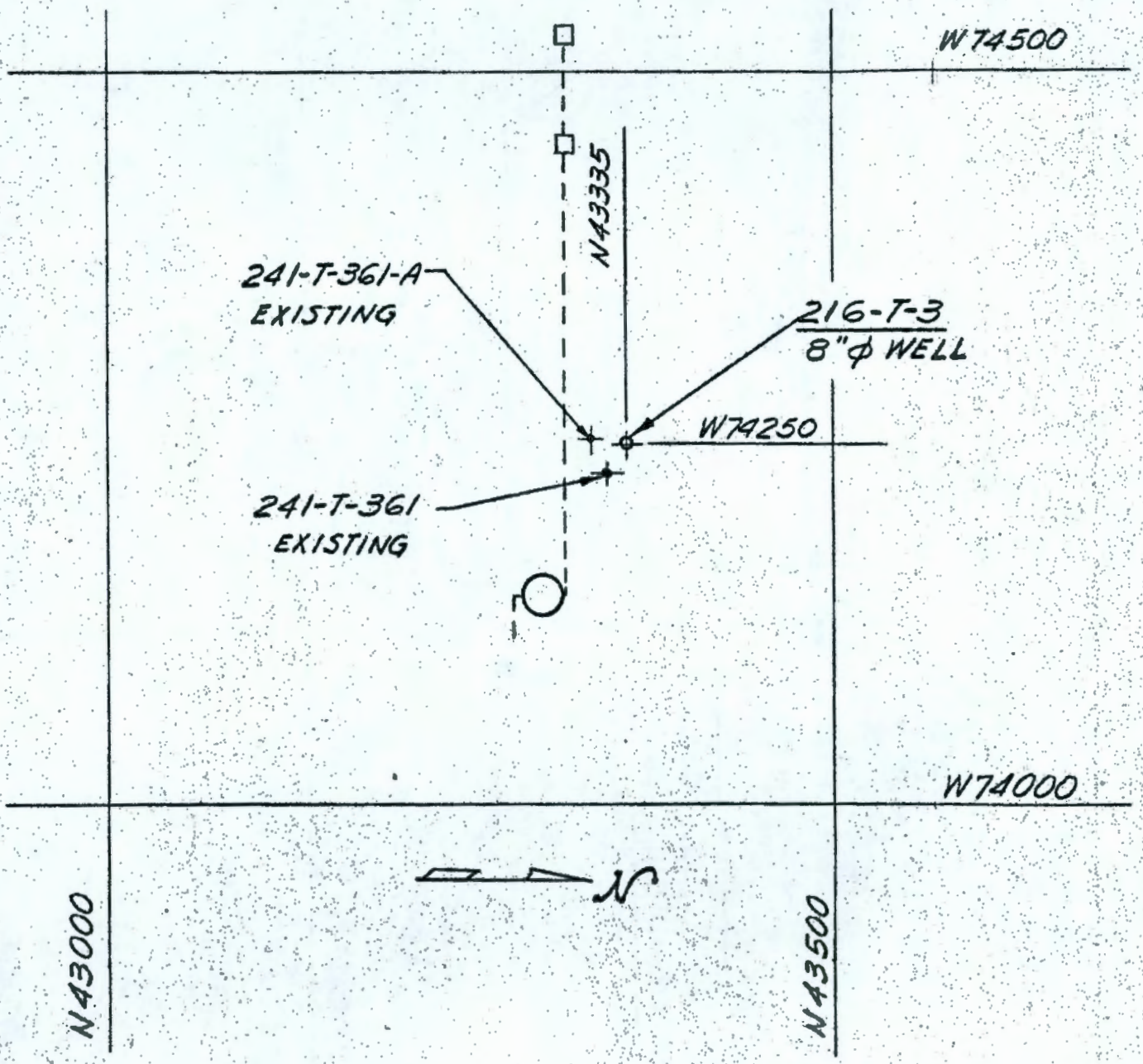
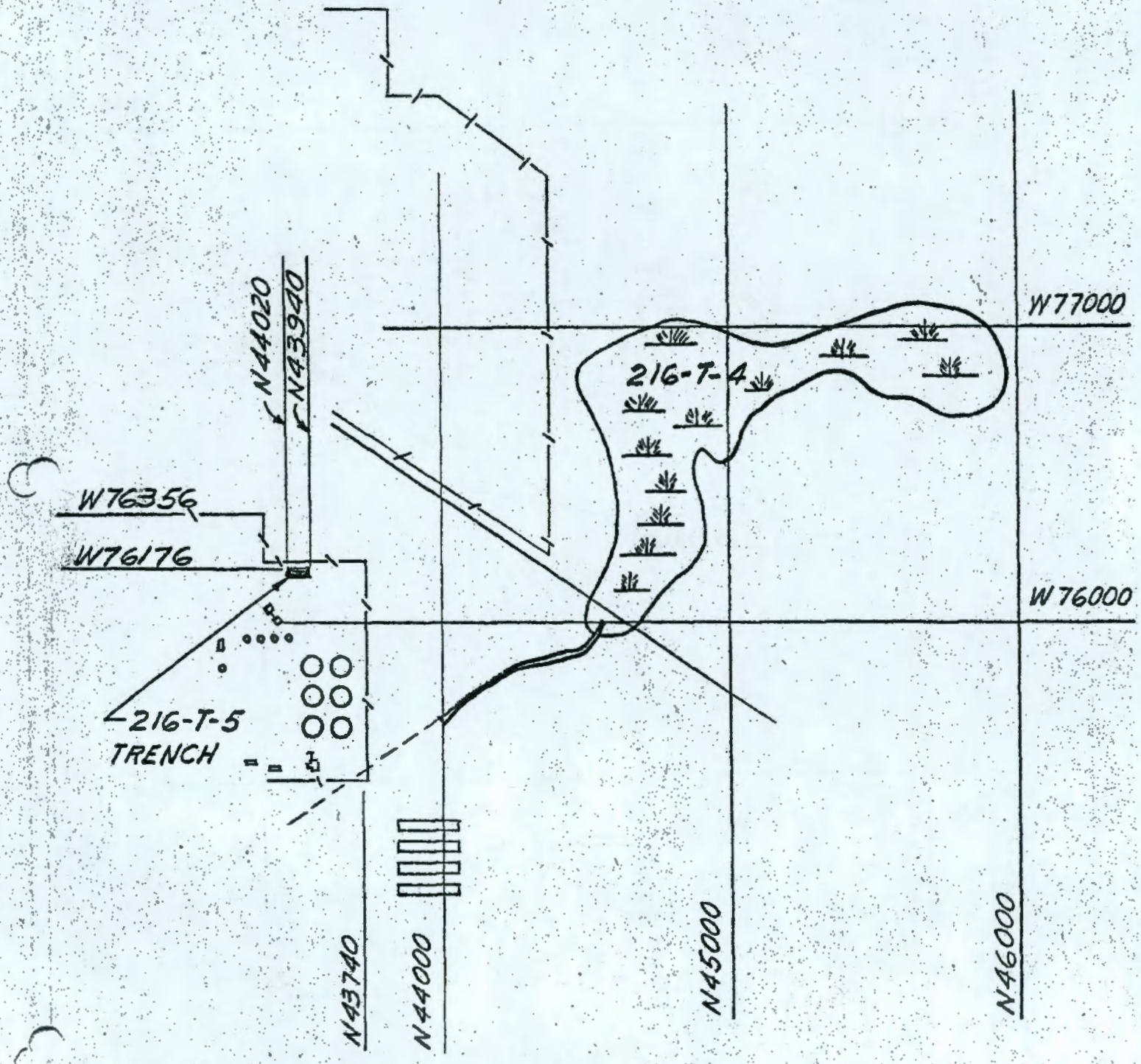
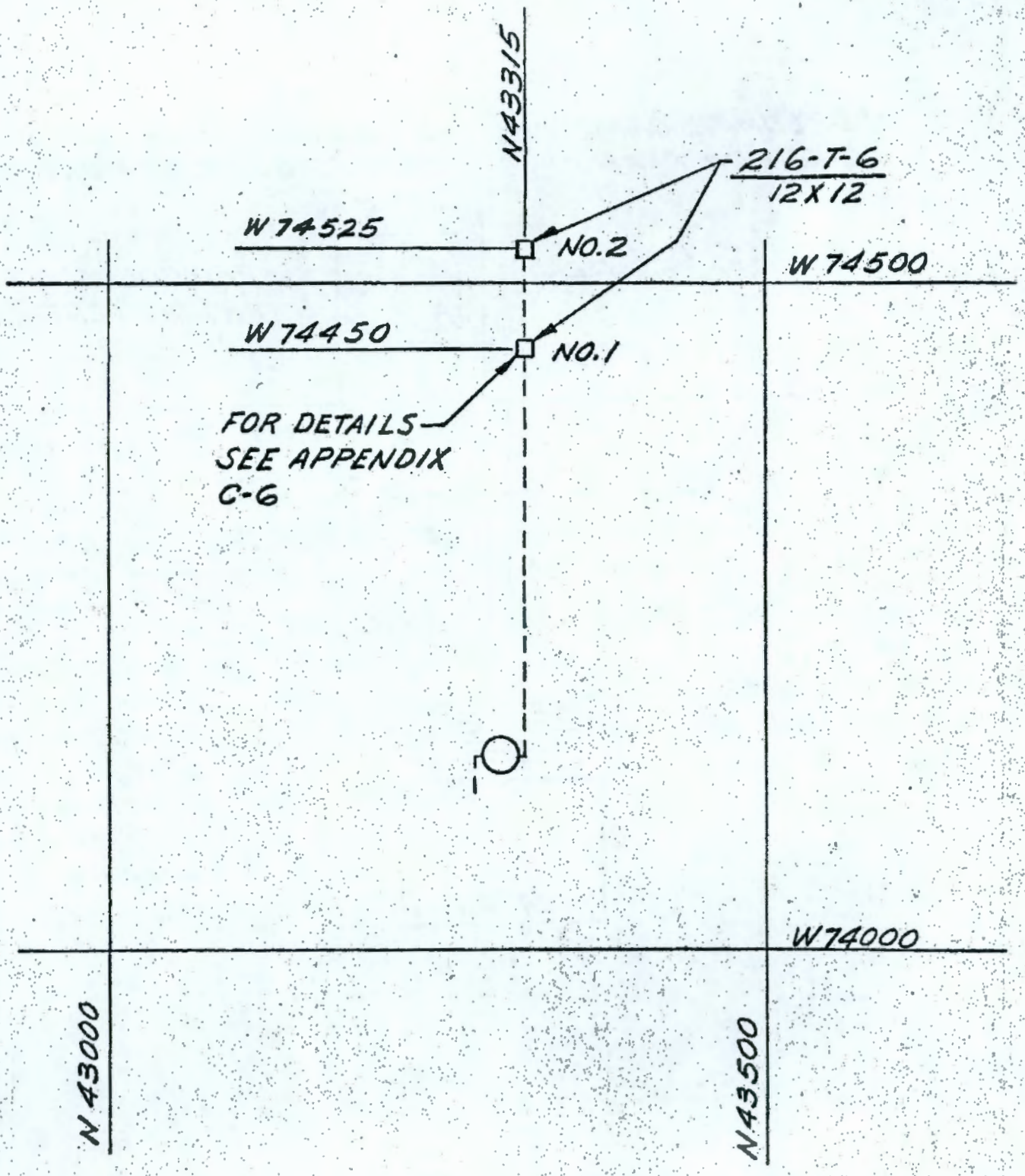


216-T-3
H-2-951

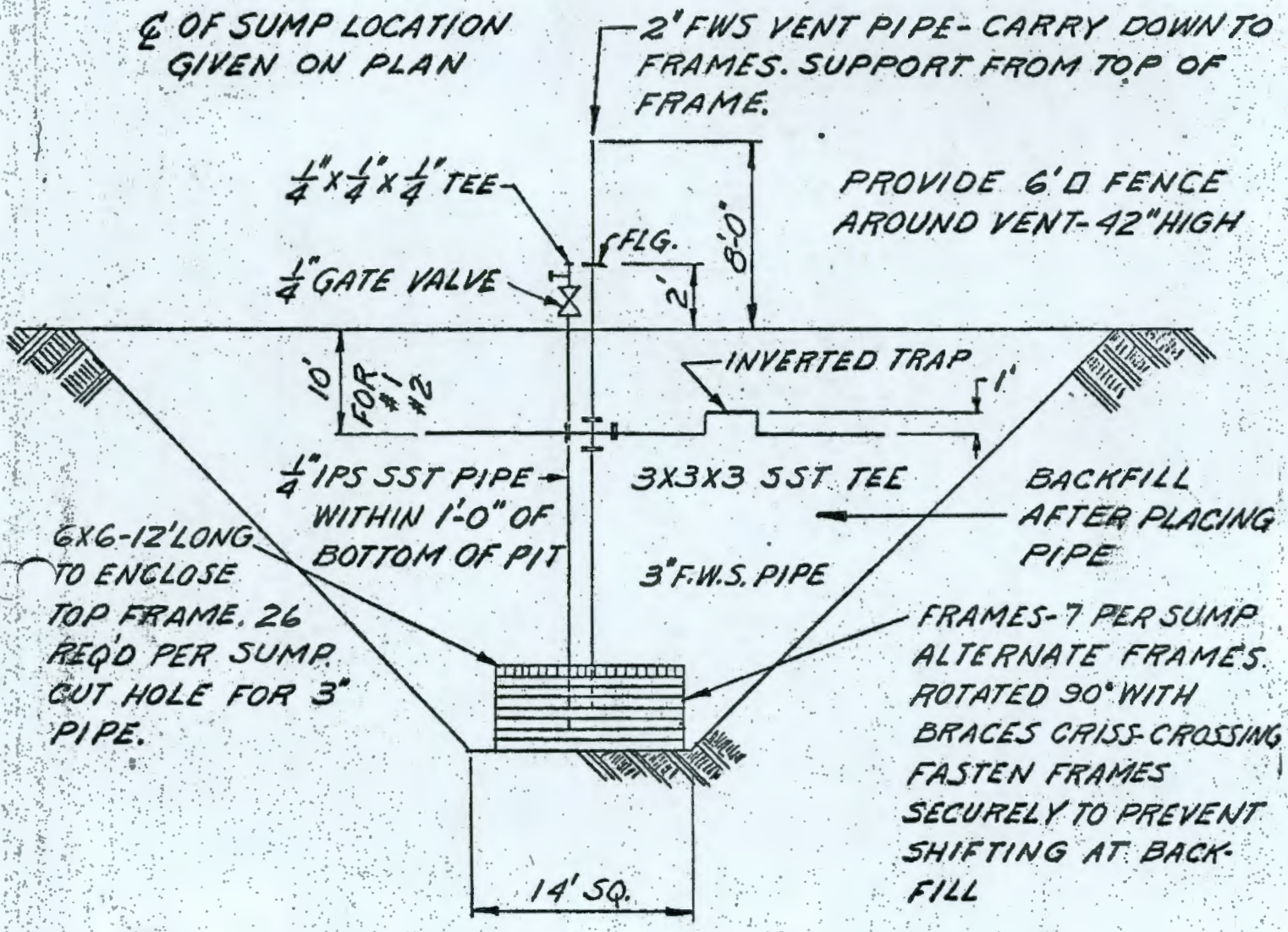
HW 55176-PART 5
APPENDIX C-4
DRAWN JL SIMEK 12/15/82



216-T-4
216-T-5
H-2-2430 & H-2-57A


N43315
216-T-6
12X12
W74525
NO.2
W74500
W74450
NO.1
FOR DETAILS
SEE APPENDIX
C-6
W74000
N 43000
N43500

216-T-6
H-2-951



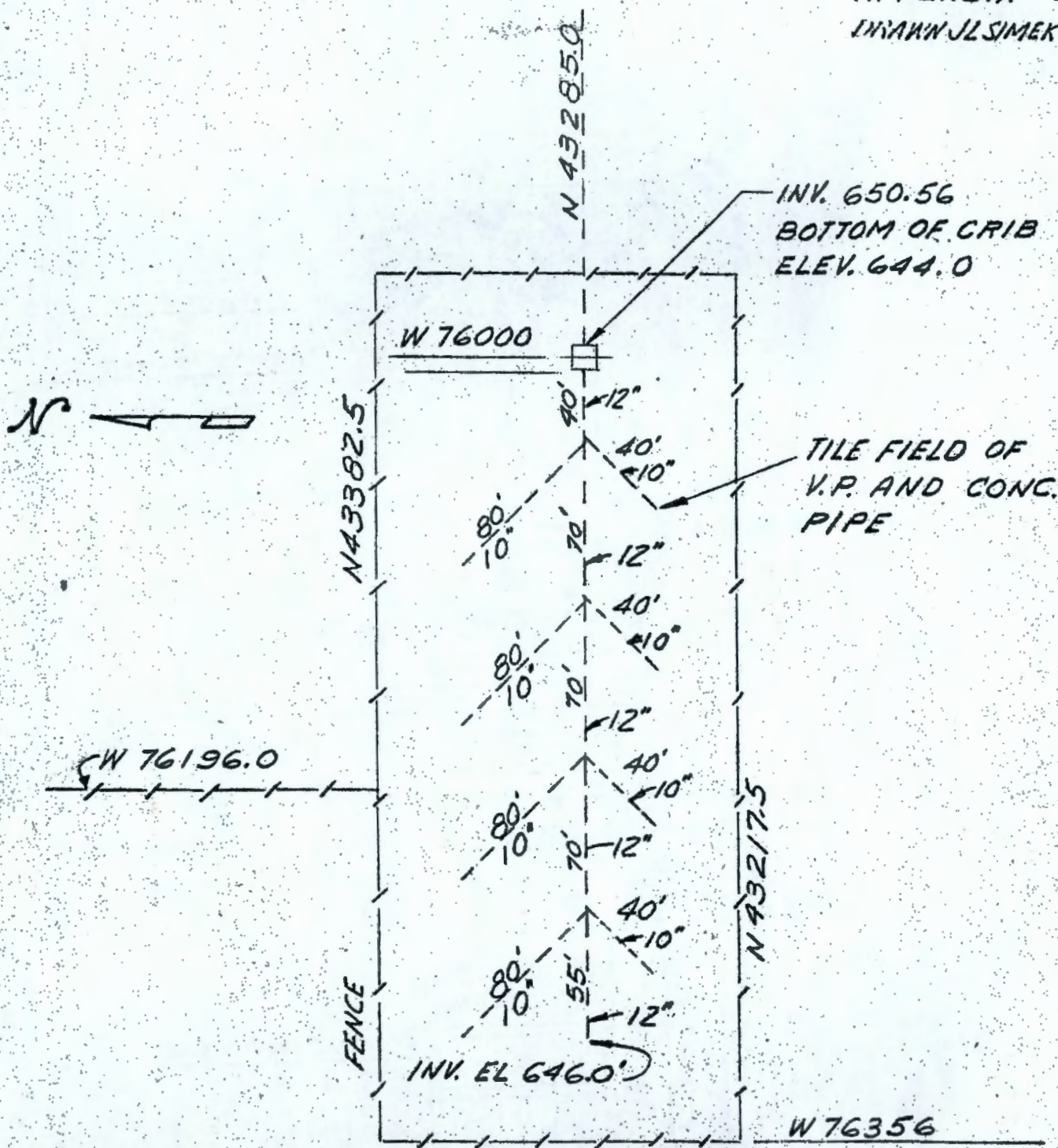
216-T-6

FOR PLAN – SEE APPENDIX C-5

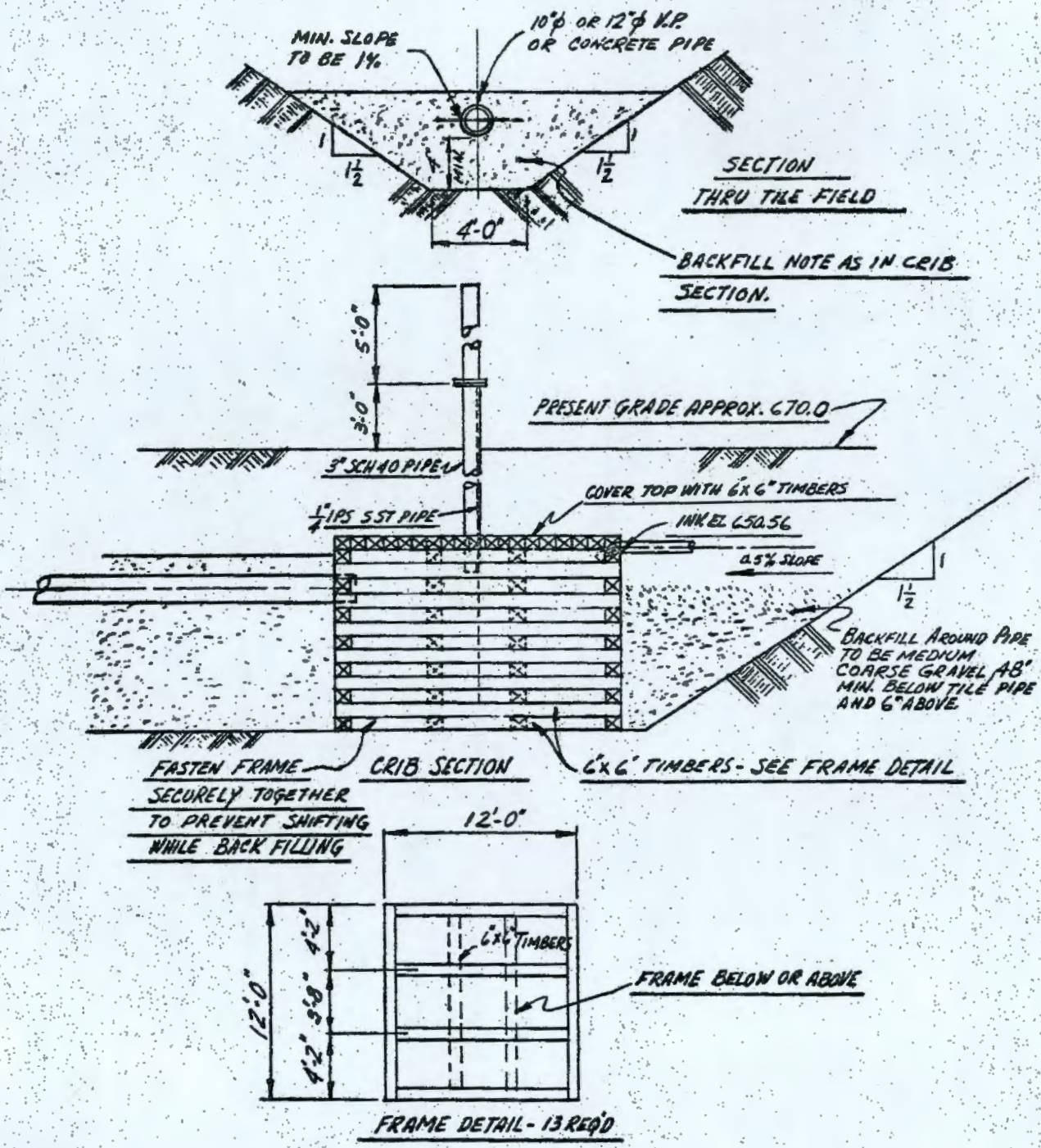
216-T-8

FOR PLAN – SEE APPENDIX C-9

DRAWN JL SIMEK 12/15/53



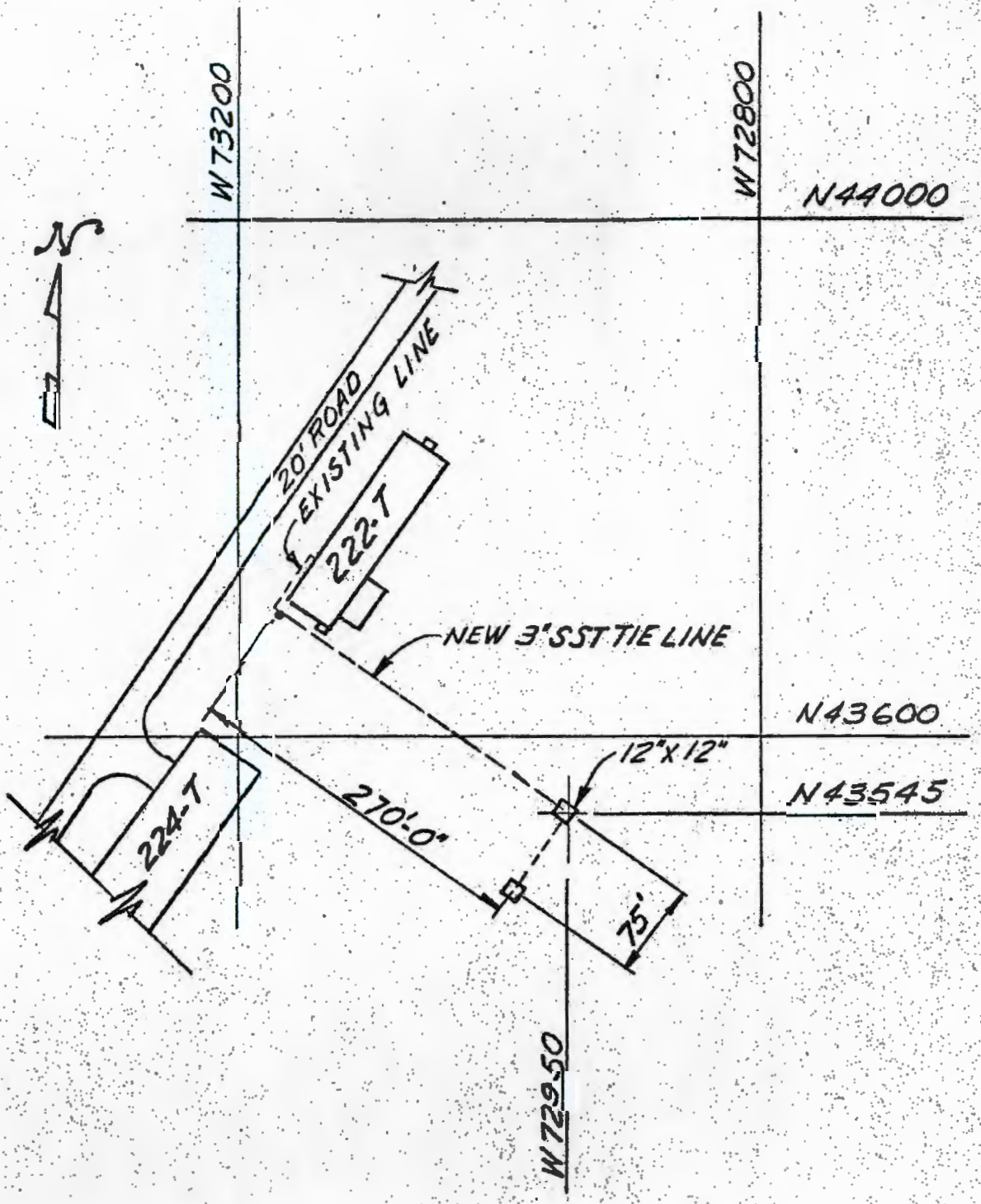
216-T-7
H-2-578



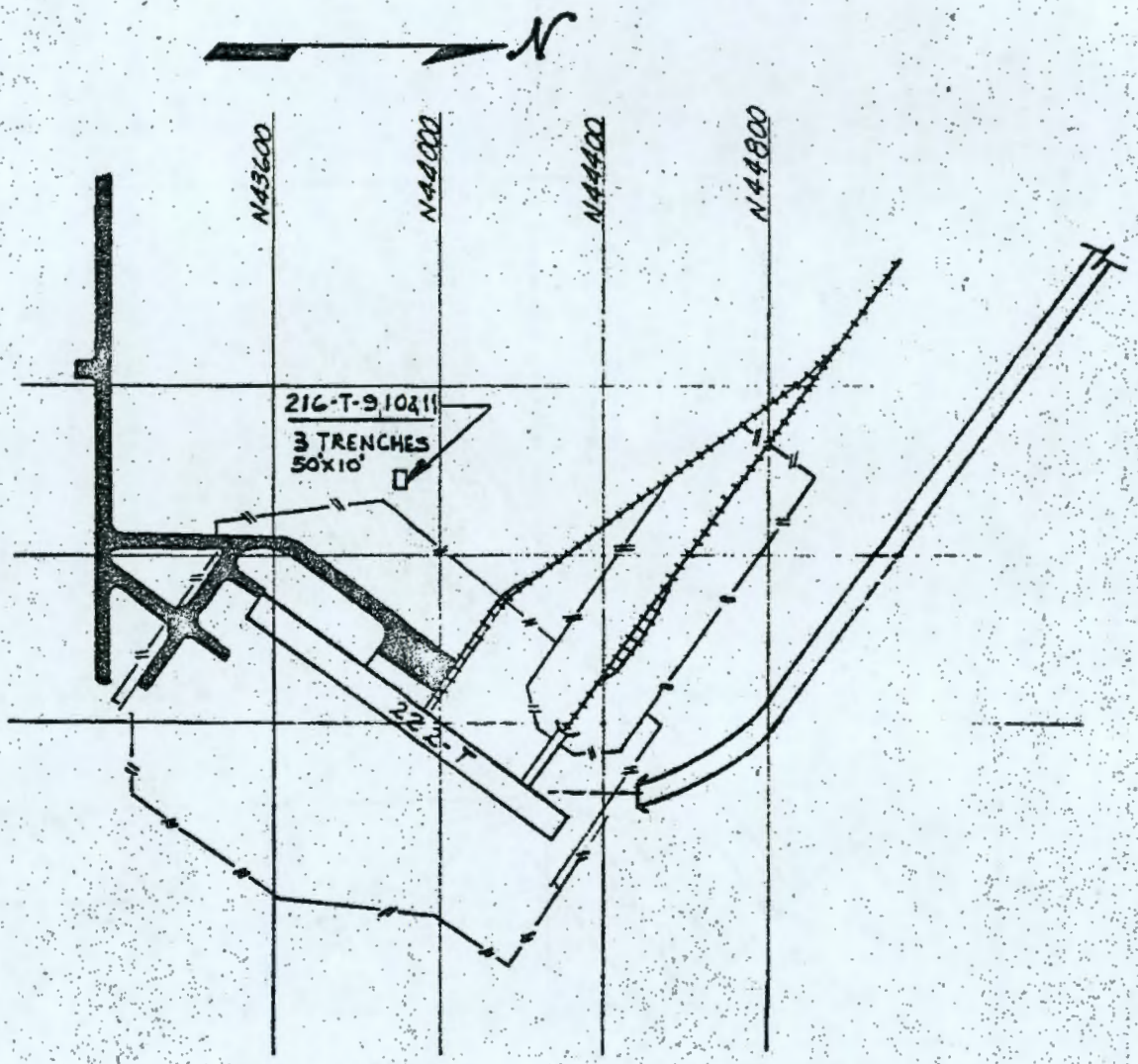
TAKEN FROM H-2-578

216-T-7

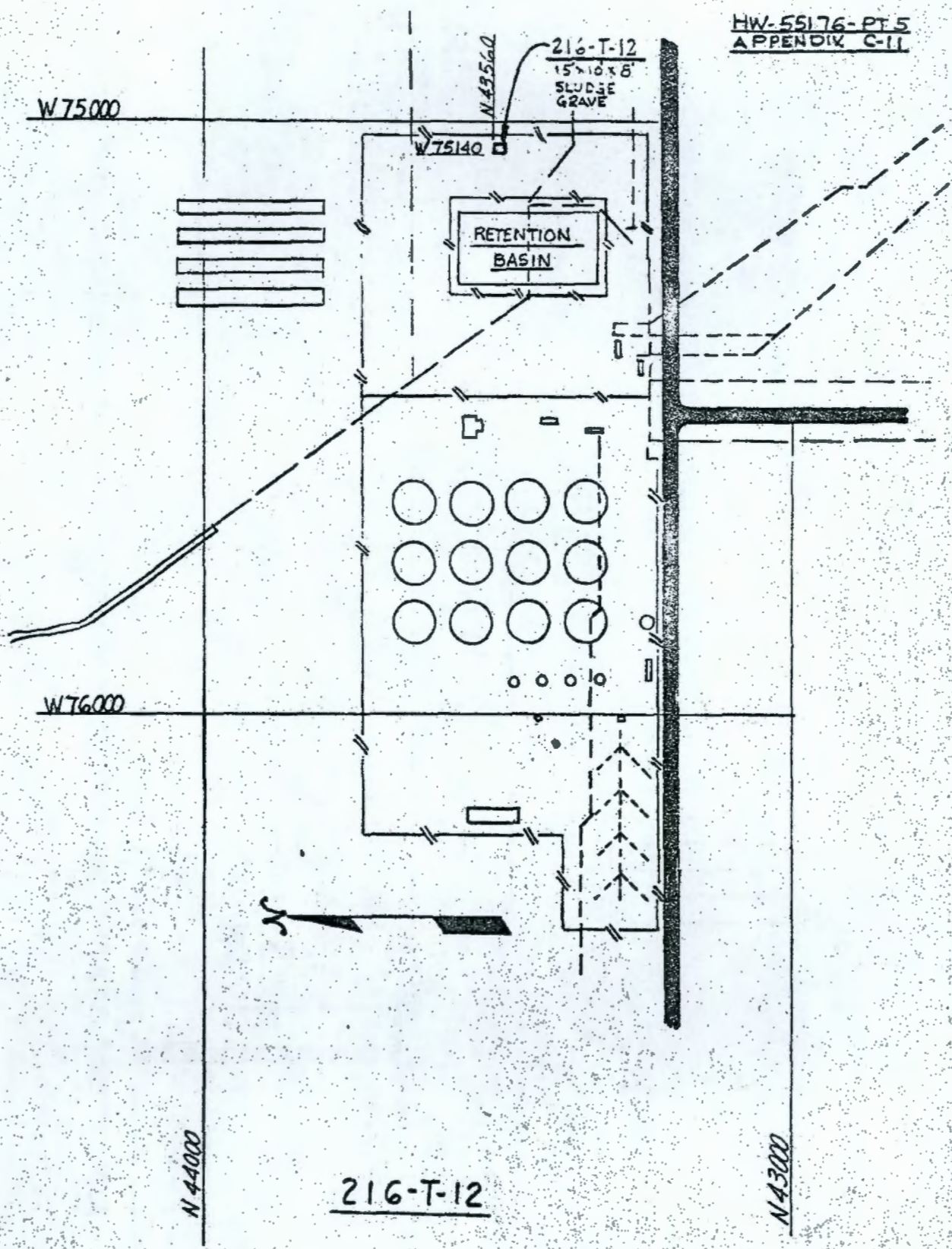
HW55176-PART5
APPENDIX C-9
DRAWN JLS IMEK 12/15/59



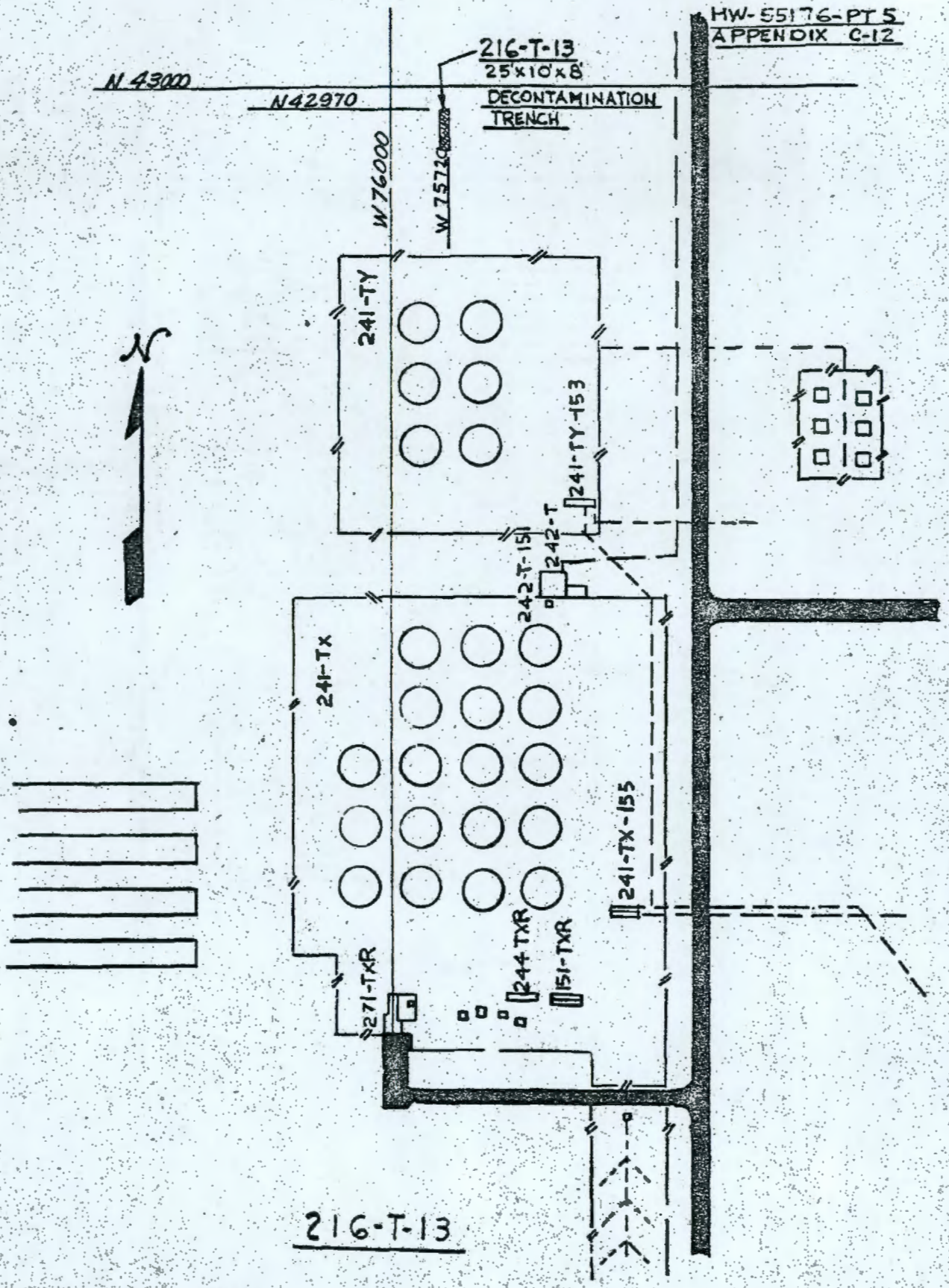
216-T-8
H-2-353


N
N43600
N44000
N44400
N44800
216-T-9,10&11
3 TRENCHES
50'x10'
222-T

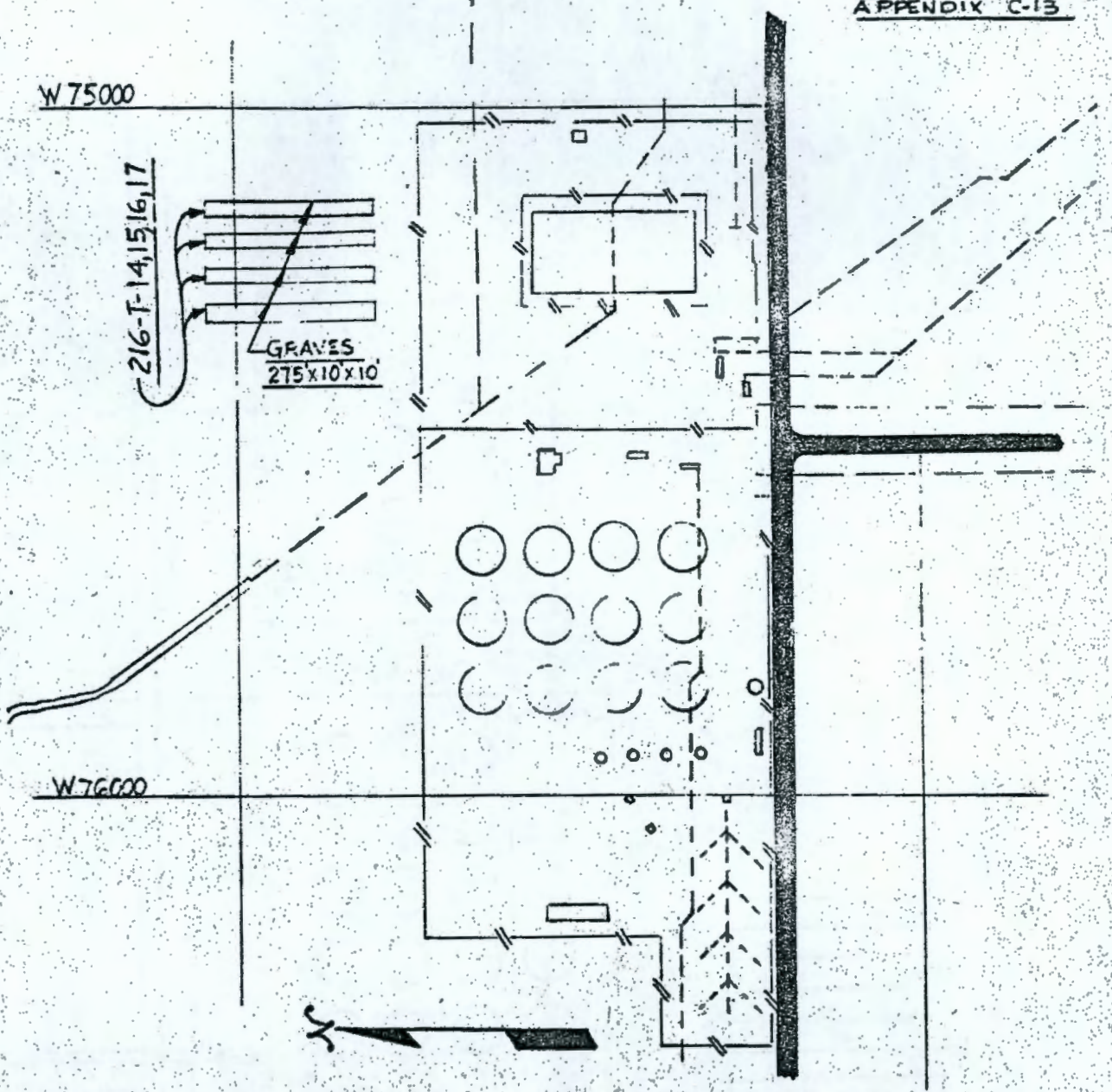
216-T-9,10&11


216-T-12
15'x10'x8'
SLUDGE
GRAVE
N43560
W75000
W75140
RETENTION
BASIN
W76000
N44000
N43000

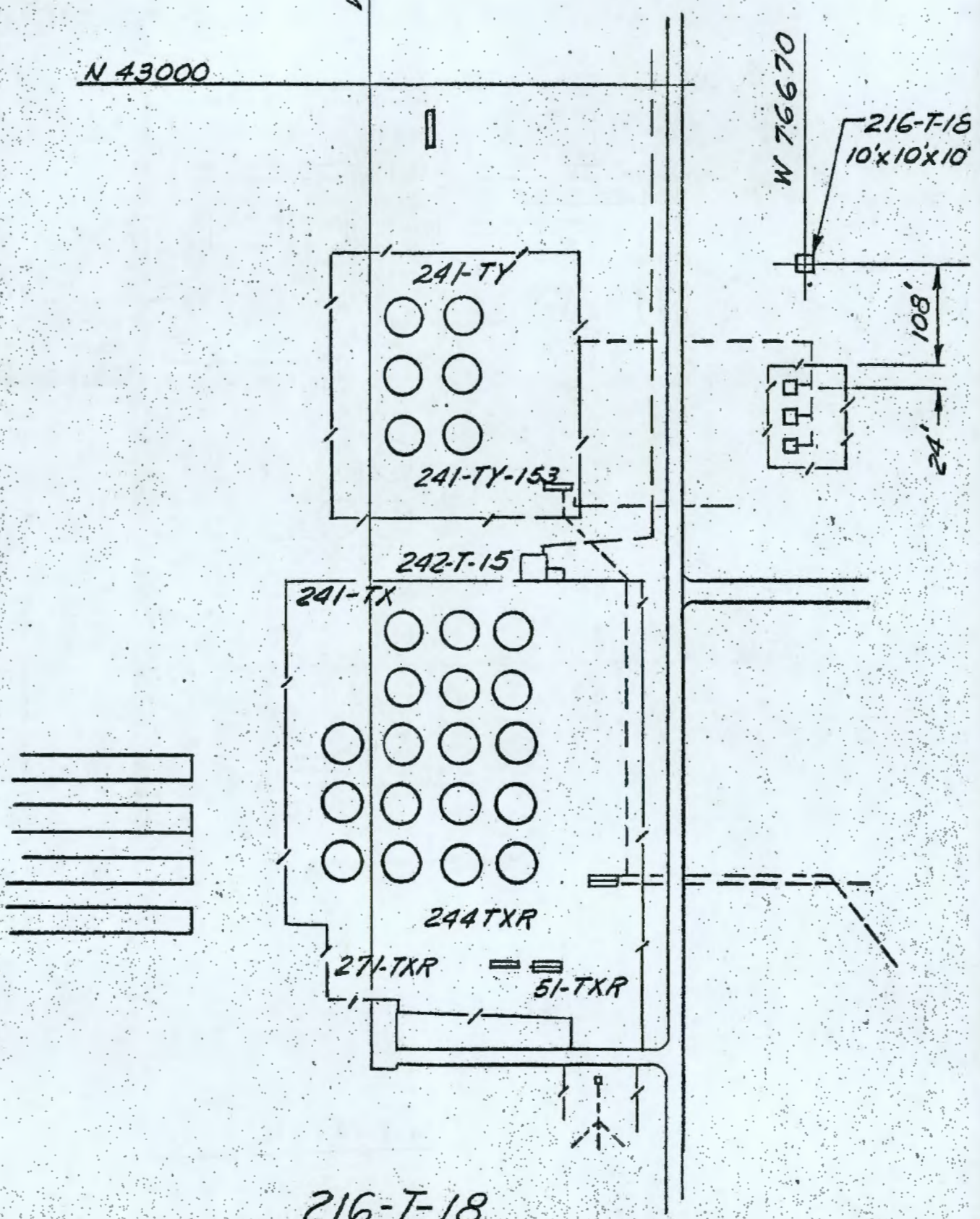
216-T-12


216-T-13
25'x10'x8'
DECONTAMINATION
TRENCH
N 43000
N42970
W76000
W75720
241-TY
241-TY-153
242-T
242-T-151
241-TX
241-TX-155
244 TXR
151-TXR
271-TXR
N

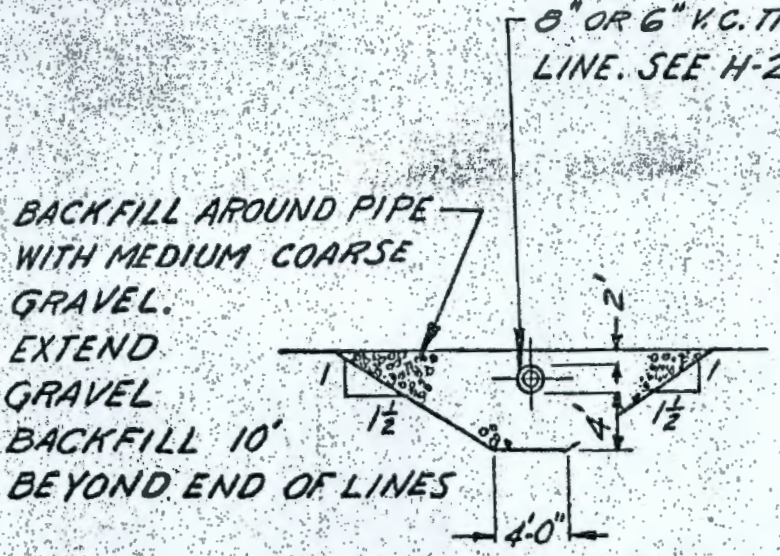
216-T-13



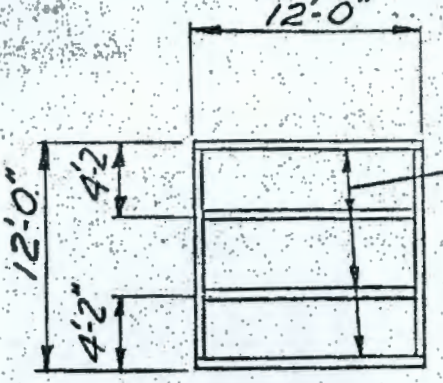
216-T-14,15,16,17



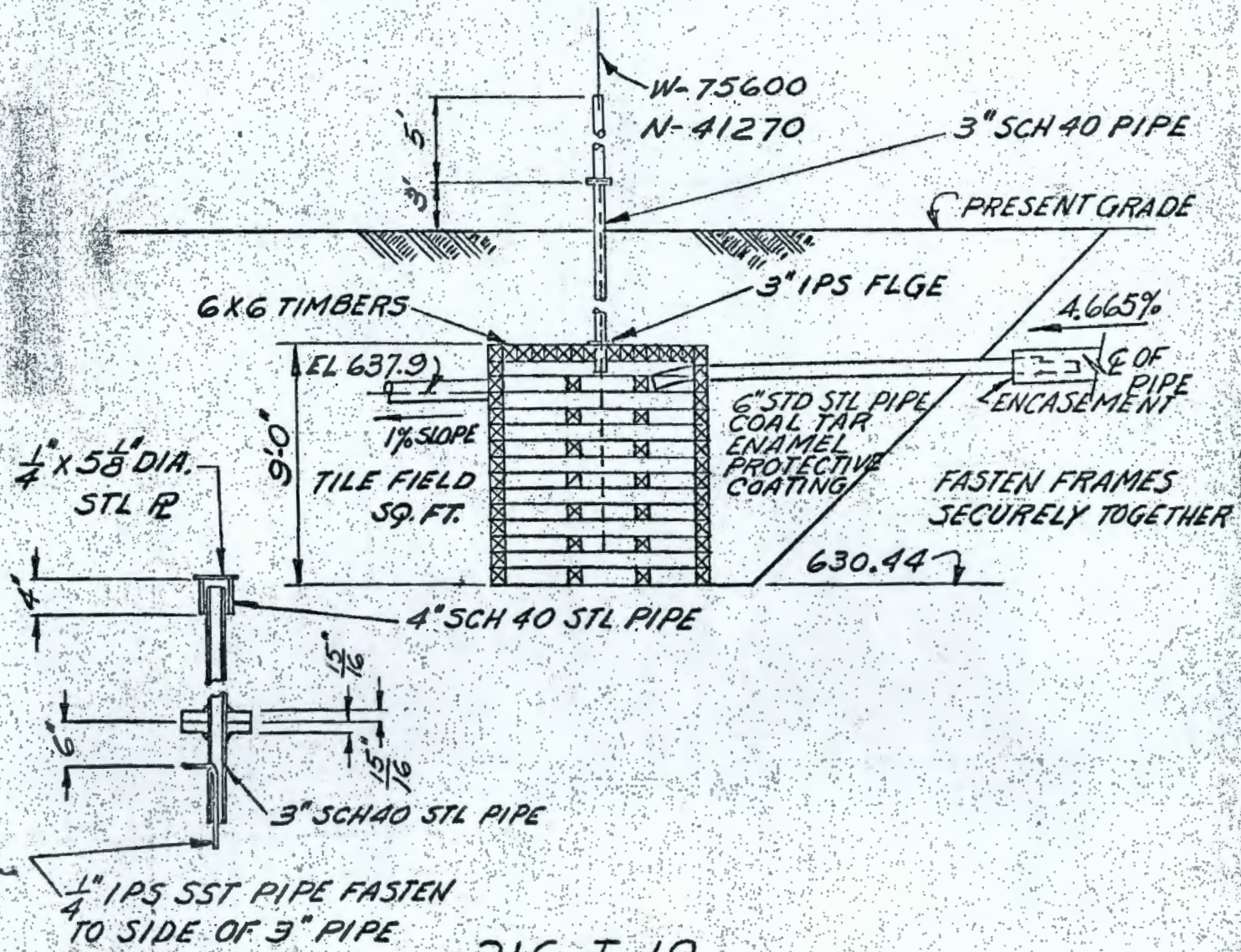
216-T-18
M2600-SHT 11



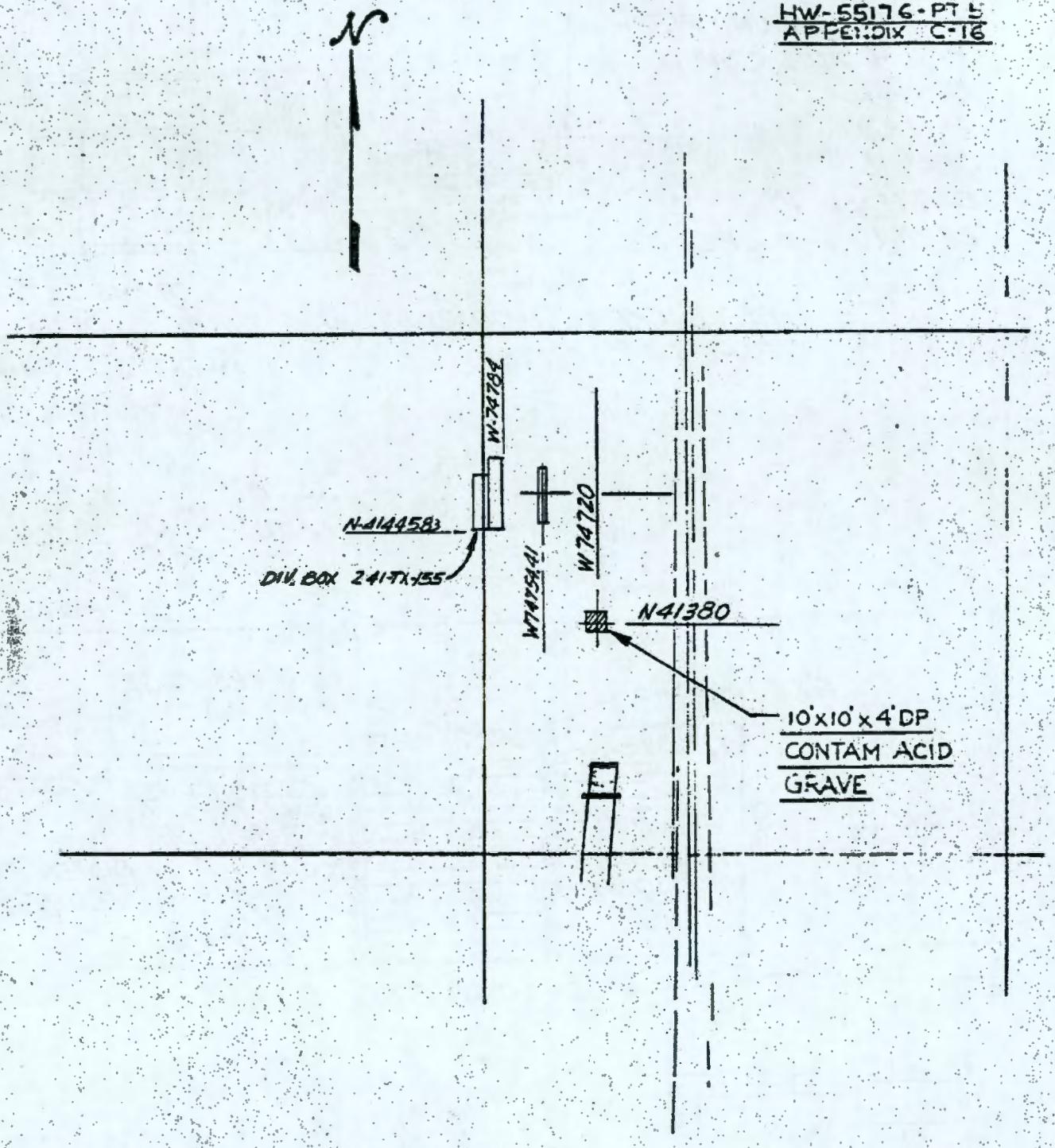
TYP BACKFILL AROUND DRAIN PIPE IN TILE FIELD.



FRAME DETAIL
18 REQ'D.- ALT. FRAMES ROTATED 90° HAVE BRACES

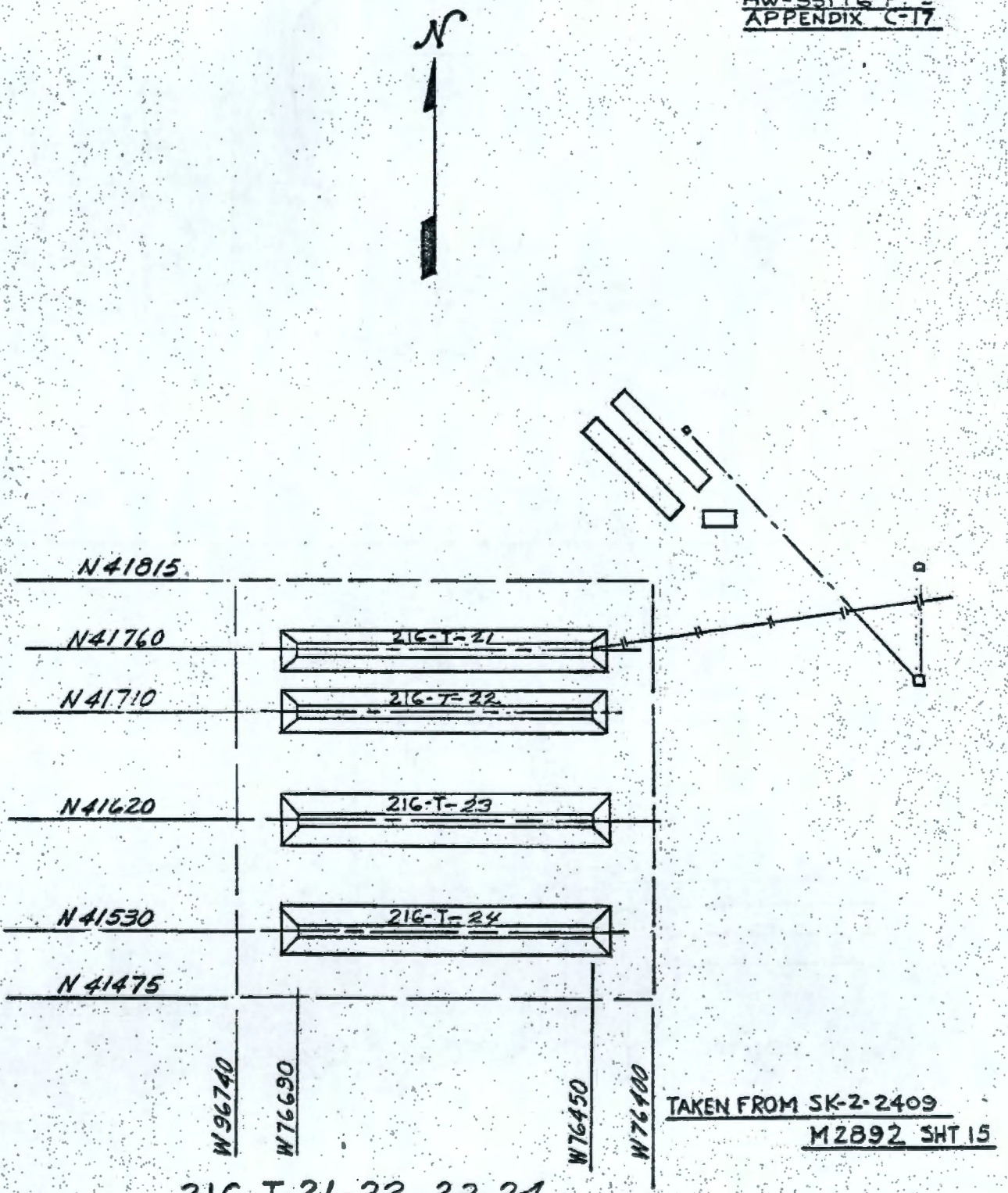


216-T-19
H-2-806
H-2-821



TAKEN FROM M 2892-SHT 14

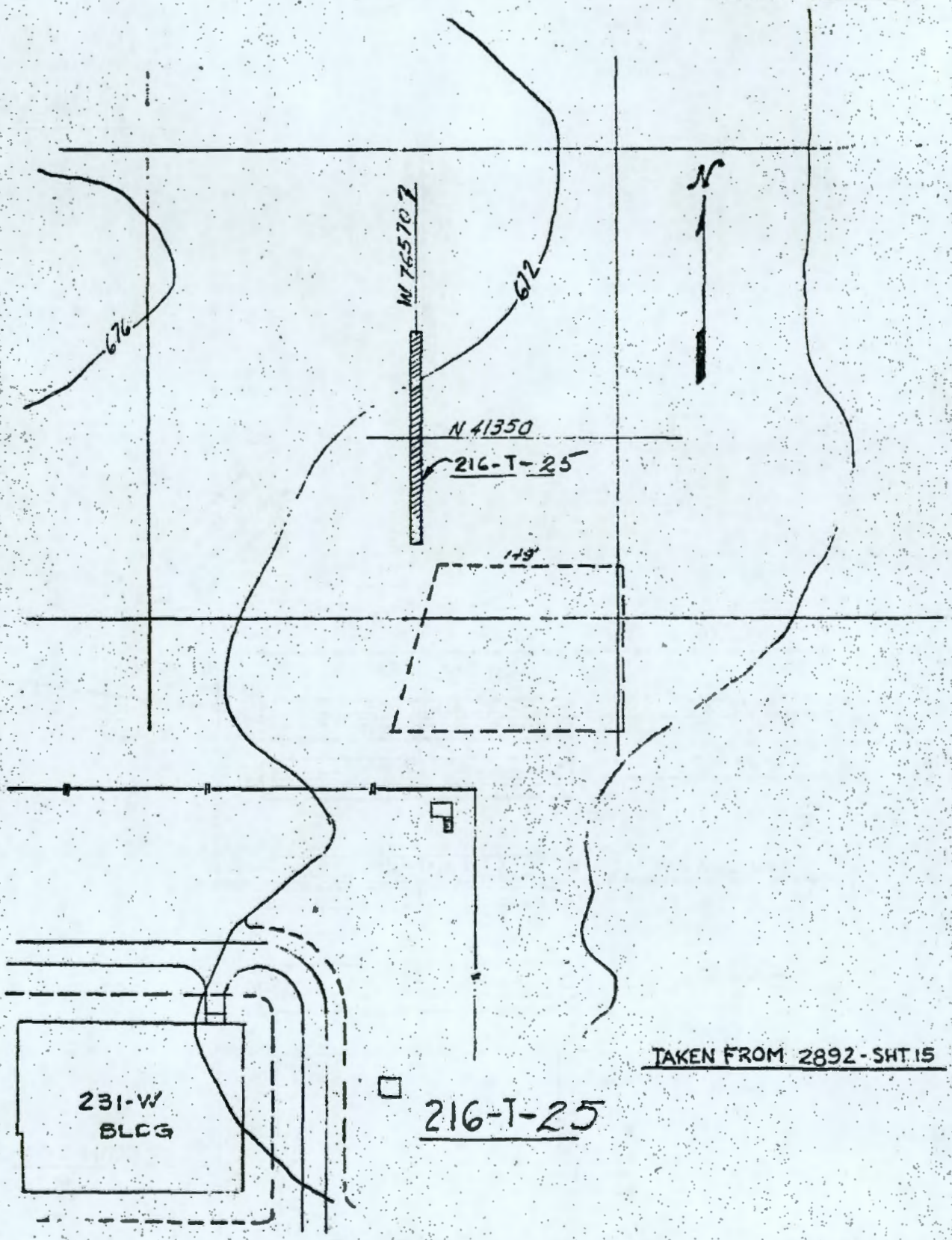
216-T-20



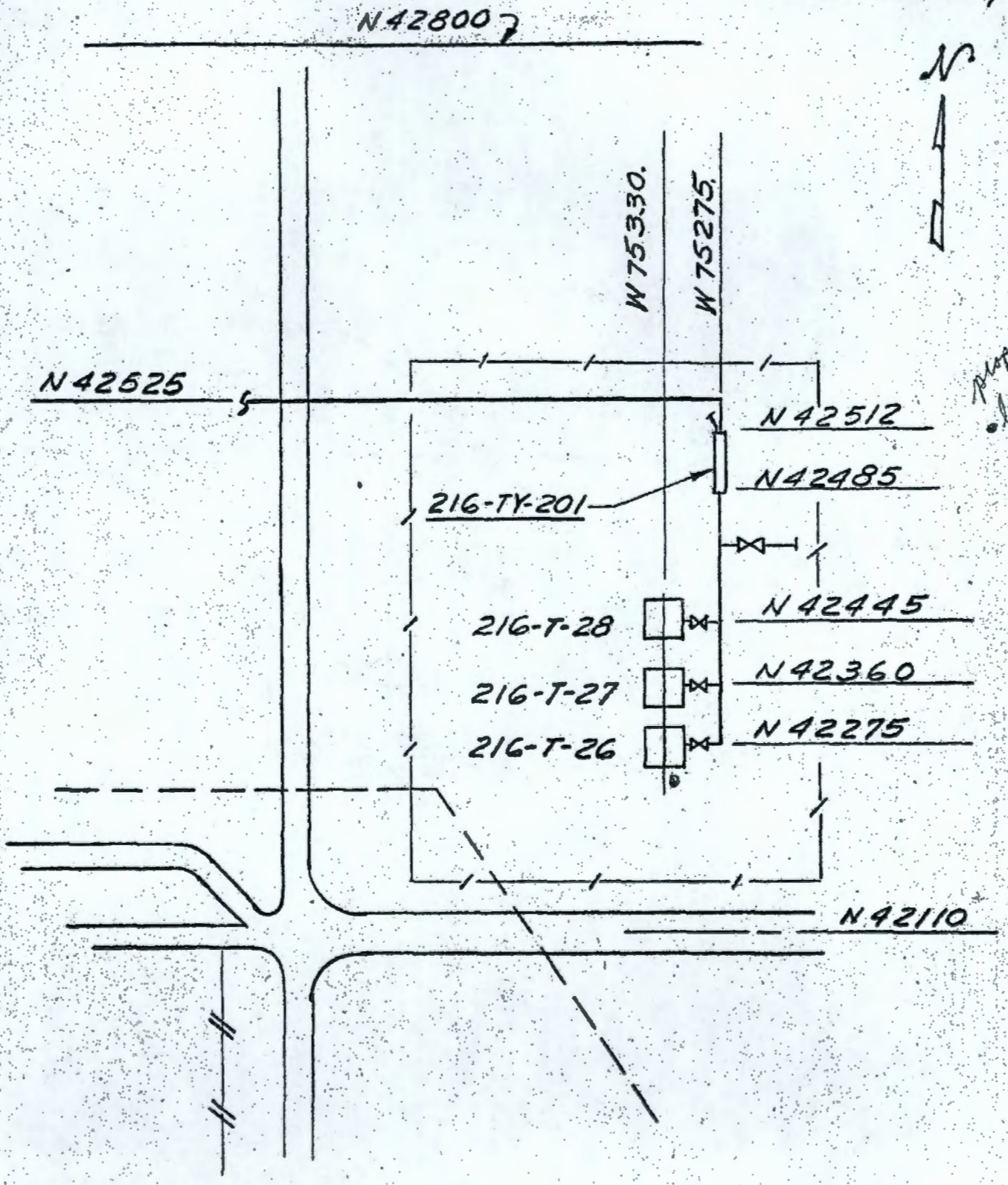
TAKEN FROM SK-2-2409
M2892 SHT 15

216-T-21-22-23-24

HW-55176-PT E
APPENDIX C-18

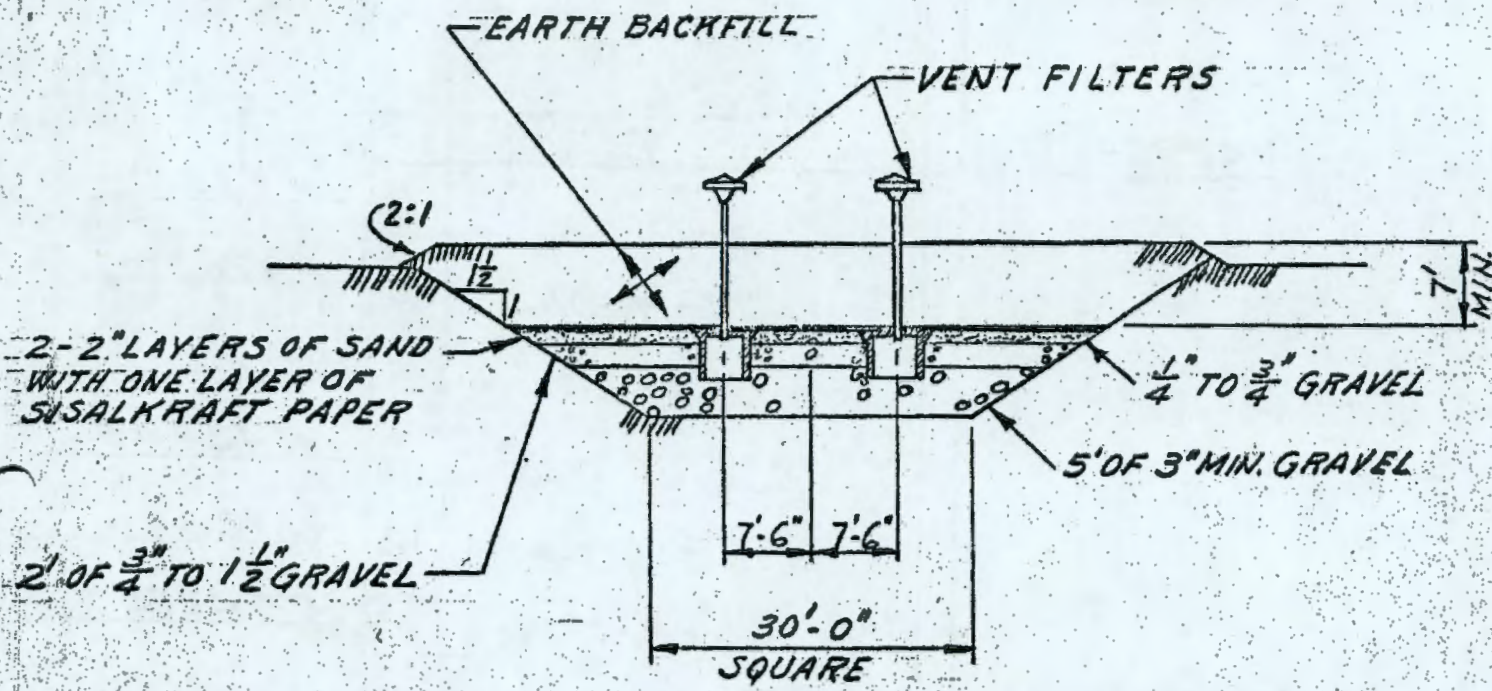


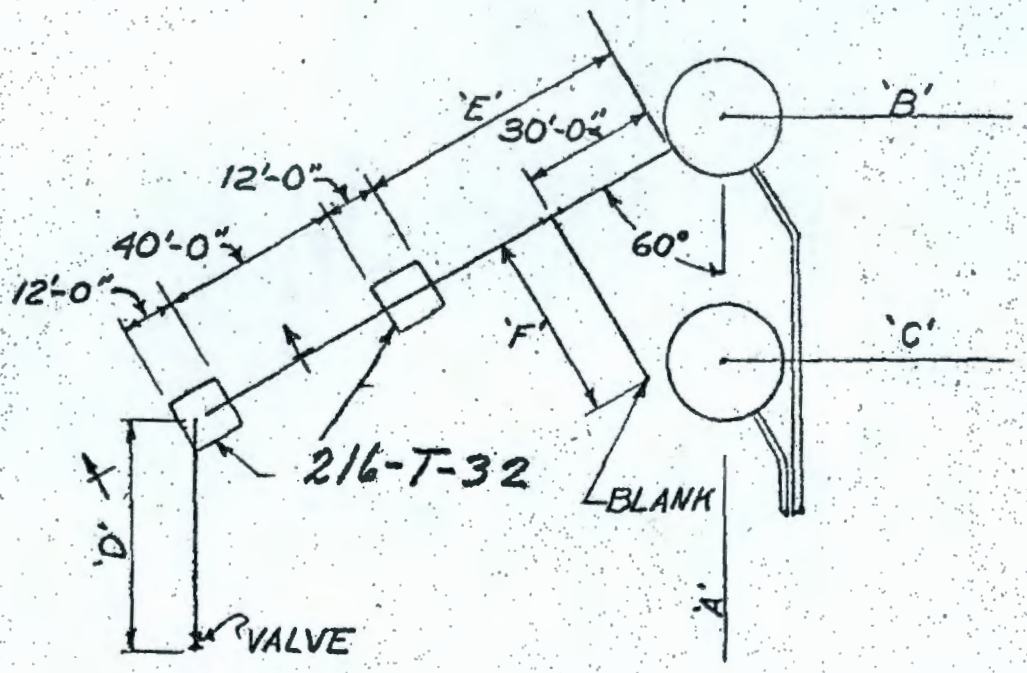
TAKEN FROM 2892-SHT 15



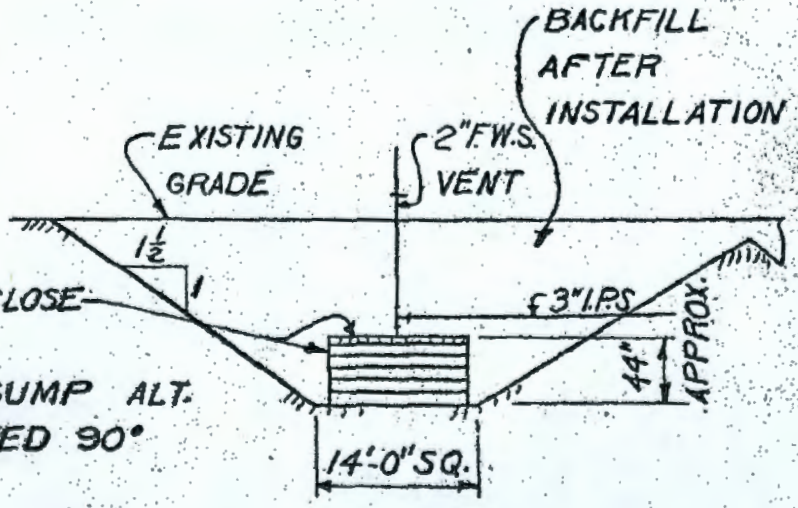
216-T-26-27-28

H-2-2733


EARTH BACKFILL
VENT FILTERS
2:1
1/2
1
7' MIN.
2-2" LAYERS OF SAND WITH ONE LAYER OF SISALKRAFT PAPER
1/4" TO 3/4" GRAVEL
5' OF 3" MIN. GRAVEL
2' OF 3/4" TO 1 1/2" GRAVEL
7'-6"
7'-6"
30'-0" SQUARE



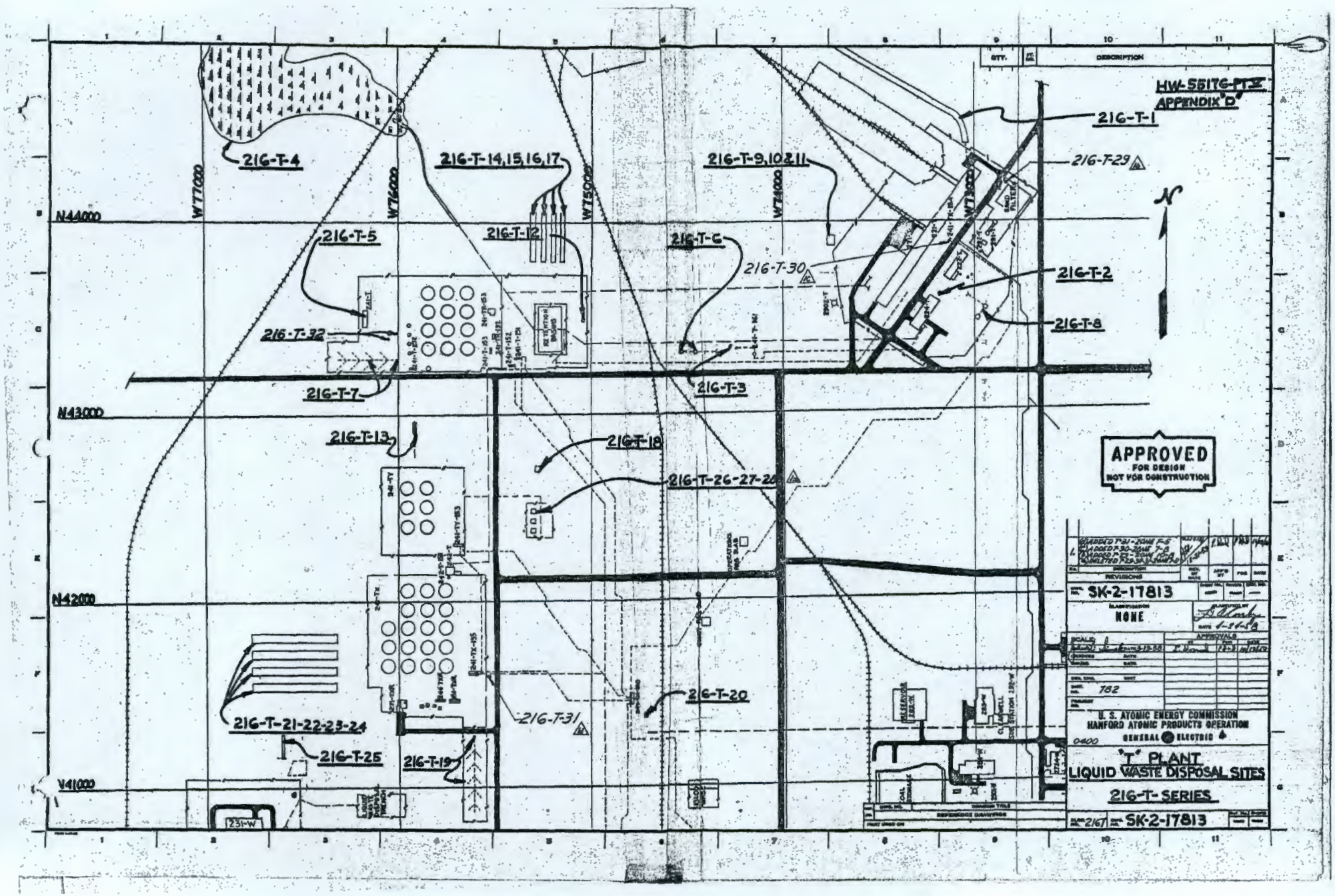
"DIM"	201-T	241-B
A	W 75937.5	N 45537.5
B	N 43472.5	W 52727.5
C	N 43422.5	W 52777.5
D	50'-0"	
E	60'-0"	84'-0"
F	40'-0"	25'-0"



6" x 6" x 12'-0" LONG TO ENCLOSE
TOP FRAME 26-REQ'D
7 FRAMES REQ'D PER SUMP ALT.
FRAMES TO BE ROTATED 90°

TAKEN FROM H-2-558
V.W. WOOD

ADDITIONAL WASTE FACILITIES IN 200 SERIES TANKS FOR 224 "T" & "B" BLDGS.


HW-55176-PT2
APPENDIX D
216-T-1
216-T-29
216-T-4
216-T-14,15,16,17
216-T-9,10&11
216-T-5
216-T-12
216-T-6
216-T-30
216-T-2
216-T-8
216-T-32
216-T-7
216-T-3
216-T-13
216-T-18
216-T-26-27-28
216-T-21-22-23-24
216-T-25
216-T-19
216-T-31
216-T-20
W77000
W76000
W75000
W74000
W73000
N44000
N43000
N42000
N41000
APPROVED
FOR DESIGN
NOT FOR CONSTRUCTION
SK-2-17813
NONE
U. S. ATOMIC ENERGY COMMISSION
HANFORD ATOMIC PRODUCTS OPERATION
GENERAL ELECTRIC
'T' PLANT
LIQUID WASTE DISPOSAL SITES
216-T-SERIES
SK-2-17813

UNCLASSIFIED
(CLASSIFICATION)

GENERAL ELECTRIC

HANFORD ATOMIC PRODUCTS OPERATION - RICHLAND, WASHINGTON

DOCUMENT NO.
HW-55176, Part VI

COPY NO.

DATE
June 18, 1958

ISSUING FILE

TITLE

INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

AUTHOR

V. W. Wood

ROUTE TO	PAYROLL NO.	LOCATION	FILES ROUTE DATE	SIGNATURE AND DATE
WA [redacted]		[redacted]		

UNCLASSIFIED
(CLASSIFICATION)

C-1899-MS (5 - 56)

TO BE USED ON UNCLASSIFIED AND OFFICIAL USE ONLY DOCUMENTS

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part VI of VII Parts
Process Technology - Study Report

by

V. W. Wood
Radiological Design and Development
Facilities Engineering Operation
CHEMICAL PROCESSING DEPARTMENT

June 18, 1958

D I S T R I B U T I O N

CR Bergdahl	TG LaFollette
JM Bernard	CE Linderoth
WG Browne	WN Mobley
E Doud	HE Parker
J Durbin	HF Peterson
JB Fecht	DW Pearce
DR Gustavson	OH Pilkey
CT Groswith	EL Reed
WA Haney	RA Roberts
JF Honstead	HP Shaw
IM Jacques	ML Short
EB Jackson	VW Wood
CE Kent	300 Files

INDEX OF CPD CRIB BUILDING NUMBERS DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part VI of VII Parts
Process Technology - Study Report

INTRODUCTION

During the fourteen years or more which the separations areas have operated, many sites have been used for the disposal of radioactive liquid wastes. Various methods have been used in assigning building numbers to these sites and, in a number of cases, changes have been made which have brought about some confusion. One of the reasons being some currently used building numbers do not agree with the numbers existing on design prints for the facilities. Reference (2) was an effort to establish a listing of the liquid waste disposal sites. It required considerable time and research to locate information concerning these sites.

Many varied designs have been used for the disposal of radioactive liquid wastes. Reverse wells, trenches, cribs or caverns, etc., have been used. Specific information on these facilities is often difficult to obtain for in some instances they were constructed on work orders with no records being retained on the design. In general, the design on each facility has been different. This has made it extremely difficult for people to have a good working knowledge of the various waste disposal sites.

PURPOSE

The purpose of this report (Part VI) is to provide a ready reference of the "B" Plant liquid waste disposal sites as well as a compilation of sketches showing the basic information on the design of each facility.

Another objective is to establish a simplified and uniform numbering system. Still another objective is to provide an up-to-date tabulation. Subsequent parts of this report will provide information on cribs for other areas.

SUMMARY AND CONCLUSIONS

All radioactive liquid waste disposal sites should have the 216 Building number designation. These should be further grouped by giving all such sites for Purex a prefix of 216-A. Other major series would be 216-S for Redox; 216-T for "T" Plant; 216-B for "B" Plant; 216-U for "U" Plant and 216-Z for "Z" Plant.

The numbering list in "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation should be revised to more closely follow the above numbering system.

RECOMMENDATIONS

It is recommended that the following action be taken:

1. All groups and services referring to the "B" Area cribs or report data concerning them should use the index numbering system as presented in this report. In the case of B Plant this means several changes. See cross reference, page 4.

2. That all drawings concerning these disposal sites, including maps, be revised to show the proper locations and numbers for these cribs.

3. Any suggestions for improving the usefulness of this report should be referred to the author.

DISCUSSION

When all seven parts of the report are completed, and the work outlined in the report is completed, much confusion will be eliminated and more people will be better informed on the design of each waste disposal facility. The report will provide a firm basis for future building number assignments.

While some sincere efforts have been made to try and keep a methodical system for recording waste disposal sites, a number of problems have developed, for example, HW-5000, Sheet 29 of 50, lists only eight cribs in the 216-S series. Also reference 2 has assigned numbers which do not agree with the crib numbers assigned on many drawings.

As indicated earlier, the use of the crib index, as presented in this report should be very easy. In addition, information is presented which is very difficult to locate in the records and in some cases it is not available in the records.

REFERENCES

1. HW-5000, "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation.

2. HW-43121, "Tabulation of Radioactive Liquid Waste Disposal Facilities by HV Clukey dated May 10, 1956.

3. HW-33305, "Tabulation of Radioactive Liquid Waste Disposal Facilities" by HV Clukey dated October 8, 1954.

4. HW-41535, "Uncoffined Underground Radioactive Waste and Contamination in the 200 Areas" by KR Heid dated January 17, 1956.

CROSS REFERENCE
"B" AREA RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Suggested Crib No.	Number Listed in HW-5000	Number Listed in HW-43121	Number Used On Drawings or Original Number	Remarks
216-B-1	216-B-1	None	216-B-1	H-2-2933
216-B-2	None	216-B-2	None	'B' Plant Ditch
216-B-3	None	216-B-3	None	'B' Plant Swamp
216-B-4	None	216-B-4	None	French Drain
216-B-5	None	216-B-5	241-B-361	Reverse Well
216-B-6	None	216-B-6	222-B-110	Reverse Well
216-B-7a & b	241-B-1 & 2	216-B-7	241-B-1 & 2	
216-B-8	241-B-3	216-B-8	241-B-3	Crib & Tile Field
216-B-9	216-361-B	216-B-9	241-B-361	
216-B-10a & b	222-B-1 & 2	216-B-10	222-B-1 & 2	
216-B-11a & b	242-B-1 & 2	216-B-11	242-B-1 & 2	
216-B-12	216-ER	216-B-12	216-ER-1, 2 & 3	
216-B-13	291-B	216-B-13		French Drain
216-B-14	216-BC-1	216-BC-1	216-BC-1	H-2-2907
216-B-15	216-BC-2	216-BC-2	216-BC-2	H-2-2907
216-B-16	216-BC-3	216-BC-3	216-BC-3	H-2-2907
216-B-17	216-BC-4	216-BC-4	216-BC-4	H-2-2907
216-B-18	216-BC-5	216-BC-5	216-BC-5	H-2-2907
216-B-19	216-BC-6	216-BC-6	216-BC-6	H-2-2907
216-B-20	216-BC-7	None	216-BC-7	H-2-3203
216-B-21	216-BC-8	None	216-BC-8	H-2-3203
216-B-22	216-BC-9	None	216-BC-9	H-2-3203
216-B-23	216-BC-10	None	216-BC-10	H-2-3232
216-B-24	216-BC-11	None	216-BC-11	H-2-3232
216-B-25	216-BC-12	None	216-BC-12	H-2-3232
216-B-26	216-BC-13	None	216-BC-13	H-2-3232
216-B-27	216-BC-14	None	216-BC-14	H-2-3232
216-B-28	216-BC-15	None	216-BC-15	H-2-3232
216-B-29	216-BC-16	None	216-BC-16	H-2-3336
216-B-30	216-BC-17	None	216-BC-17	H-2-3336
216-B-31	216-BC-18	None	216-BC-18	H-2-3336
216-B-32	216-BC-19	None	216-BC-19	H-2-3336
216-B-33	216-BC-20	None	216-BC-20	H-2-3336
216-B-34	216-BC-21	None	216-BC-21	H-2-3336
216-B-35	None	216-BX-1	216-BX-1	
216-B-36	None	216-BX-2	216-BX-2	
216-B-37	None	216-BX-3	216-BX-3	
216-B-38	None	216-BX-4	216-BX-4	
216-B-39	None	216-BX-5	216-BX-5	
216-B-40	None	216-BX-6	216-BX-6	

Suggested Crib No.	Number Listed in HW-5000	Number Listed in HW-43121	Number Used On Drawings or Original Number	Remarks
216-B-41	None	216-BX-7	216-BX-7	
216-B-42	None		216-BX-8	
216-B-43	216-BY-1	216-BY-1	216-BY-1	H-2-2603
216-B-44	216-BY-2	216-BY-2	216-BY-2	H-2-2603
216-B-45	216-BY-3	216-BY-3	216-BY-3	H-2-2603
216-B-46	216-BY-4	216-BY-4	216-BY-4	H-2-2603
216-B-47	216-BY-5	216-BY-5	216-BY-5	H-2-2603
216-B-48	216-BY-6	216-BY-6	216-BY-6	H-2-2603
216-B-49	216-BY-7	216-BY-7	216-BY-7	H-2-2603
216-B-50	216-BY-8	216-BY-8	216-BY-8	H-2-2603
216-B-51	216-BY-9	216-BY-9	216-BY-9	H-2-2908

APPENDIX

A. Explanation of Parts to the Report

Part I will cover the Purex Radioactive Liquid Waste Disposal Sites.

Part II will cover the "Z" Plant Radioactive Liquid Waste Disposal Sites.

Part III will cover the Redox Plant Radioactive Liquid Waste Disposal Sites.

Part IV will cover the "U" Plant Radioactive Liquid Waste Disposal Sites.

Part V will cover the "T" Plant Radioactive Liquid Waste Disposal Sites.

Part VI will cover the "B" Plant Radioactive Liquid Waste Disposal Sites.

Part VII will cover the "C" Plant, Hot Semi-Works, the 200 North Areas and miscellaneous.

B. Index for "B" Plant Radioactive Liquid Waste Disposal Sites.

C. Sketches of "B" Plant Waste Disposal Facilities.

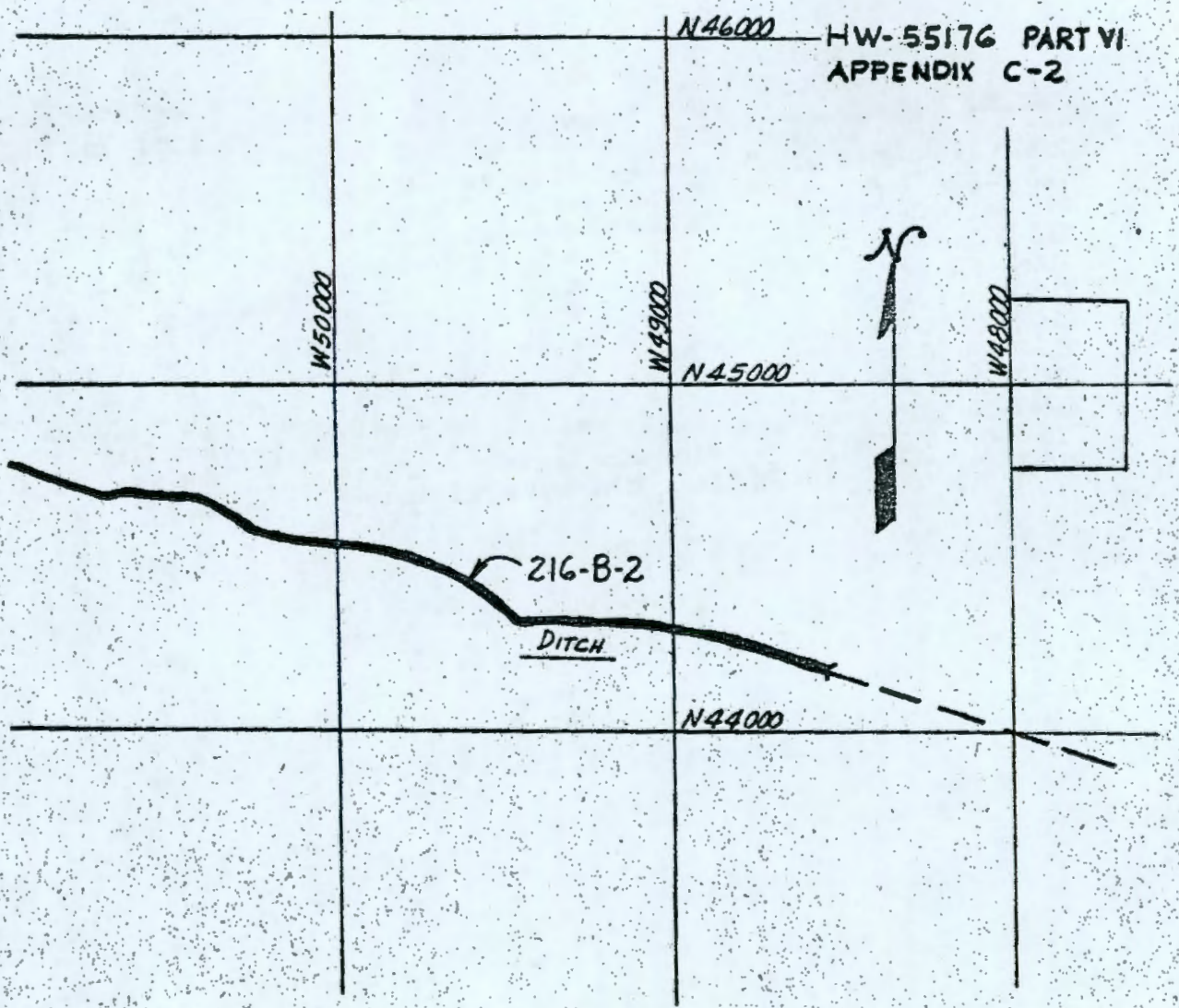
D. Map of "B" Plant Sites (SK-2-17840).

CRIB INDEX
B PLANT

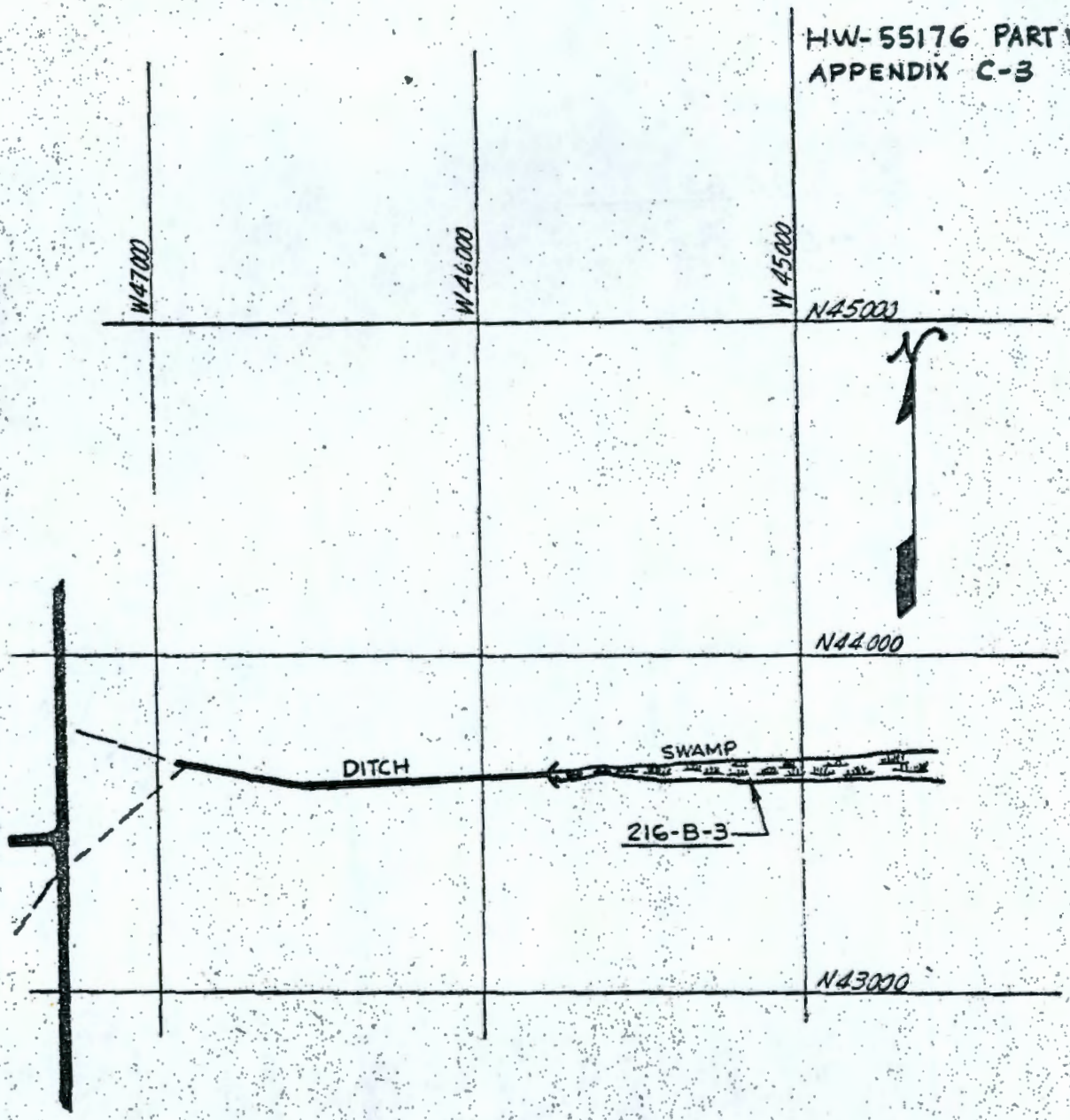
Number	Description Appendix Sheet	Service	Use Dates From	To	Status
216-B-1	None	Not built	-		-
216-B-2	C-2	Cooling Water and Chemical Sewer	4/45	-	Active
216-B-3	C-3	Cooling Water & Chemical Sewer	4/45	-	Active
216-B-4	C-4 & 5	292-B Floor Drain	4/45	12/49	Abandoned
216-B-5	C-6	224-B and 5-6 Wastes	4/45	10/47	Abandoned
216-B-6	C-7 & 8	222-B Wastes	4/45	12/49	Abandoned
216-B-7	C-9 & 10	224-B Wastes & 5-6 Cell Drain	9/46	1958	Abandoned
216-B-8	C-11 & 12	224-B, 5-6 and 2nd Cycle Wastes	1945	1952	Abandoned
216-B-9	C-13 & 14	5-6 and 2nd Cycle Wastes	8/48	7/51	"
216-B-10	C-15 & 16	222-B and 292-B Wastes	12/49	1958	"
216-B-11	C-17 & 18	242-B Condensate	12/51	11/54	"
216-B-12	C-19 & 20	U Plant Condensate	11/52	1957	"
216-B-13	C-21 & 22	291-B Stack Drain	4/45	-	Active
216-B-14	C-23, 23A & 24	U Plant Scavenged Waste	1/56	2/56	Abandoned
216-B-15	" " "	" " " "	4/56	12/57	"
216-B-16	" " "	" " " "	4/56	8/56	"
216-B-17	" " "	Tank Farm Scavenged Waste		1/56	"
216-B-18	" " "	U Plant Scavenged Waste	3/56	4/56	"
216-B-19	" " "	U Plant and Tank Farm Scavenged	2/57	10/57	"
216-B-20	C-25, 26 & 26A	" " " " "	8/56	9/56	Spec. Ret.
216-B-21	" " "	" " " " "	9/56	-	" "
216-B-22	" " "	" " " " "	10/56	-	" "
216-B-23	C-26, 27 & 28	" " " " "	10/56	-	" "
216-B-24	" " "	U Plant Scavenged Waste	10/56	11/56	" "
216-B-25	" " "	" " " "	11/56	12/56	" "
216-B-26	" " "	" " " "	12/56	1/57	" "
216-B-27	" " "	" " " "	2/57	4/57	" "
216-B-28	" " "	U Plant & Tank Farm Scavenged	4/57	5/57	" "
216-B-29	C-29 & 30	U Plant Scavenged Waste	6/57	-	" "
216-B-30	"	U Plant and Tank Farm Scavenged	6/57	-	" "
216-B-31	"	" " " " "	7/57	-	" "
216-B-32	"	" " " " "	8/57	9/57	" "
216-B-33	"	" " " " "	9/57	10/57	" "
216-B-34	"	" " " " "	10/57	11/57	" "
216-B-35	C-31 & 32	1st Cycle Supernatant	2/54	-	" "
216-B-36	"	"	4/54	-	" "
216-B-37	"	Evaporator Bottoms	8/54	9/54	" "
216-B-38	"	1st Cycle Supernatant	7/54	-	" "
216-B-39	"	"	12/53	11/54	" "
216-B-40	"	"	4/54	8/54	" "

CRIB INDEX B PLANT (cont.)

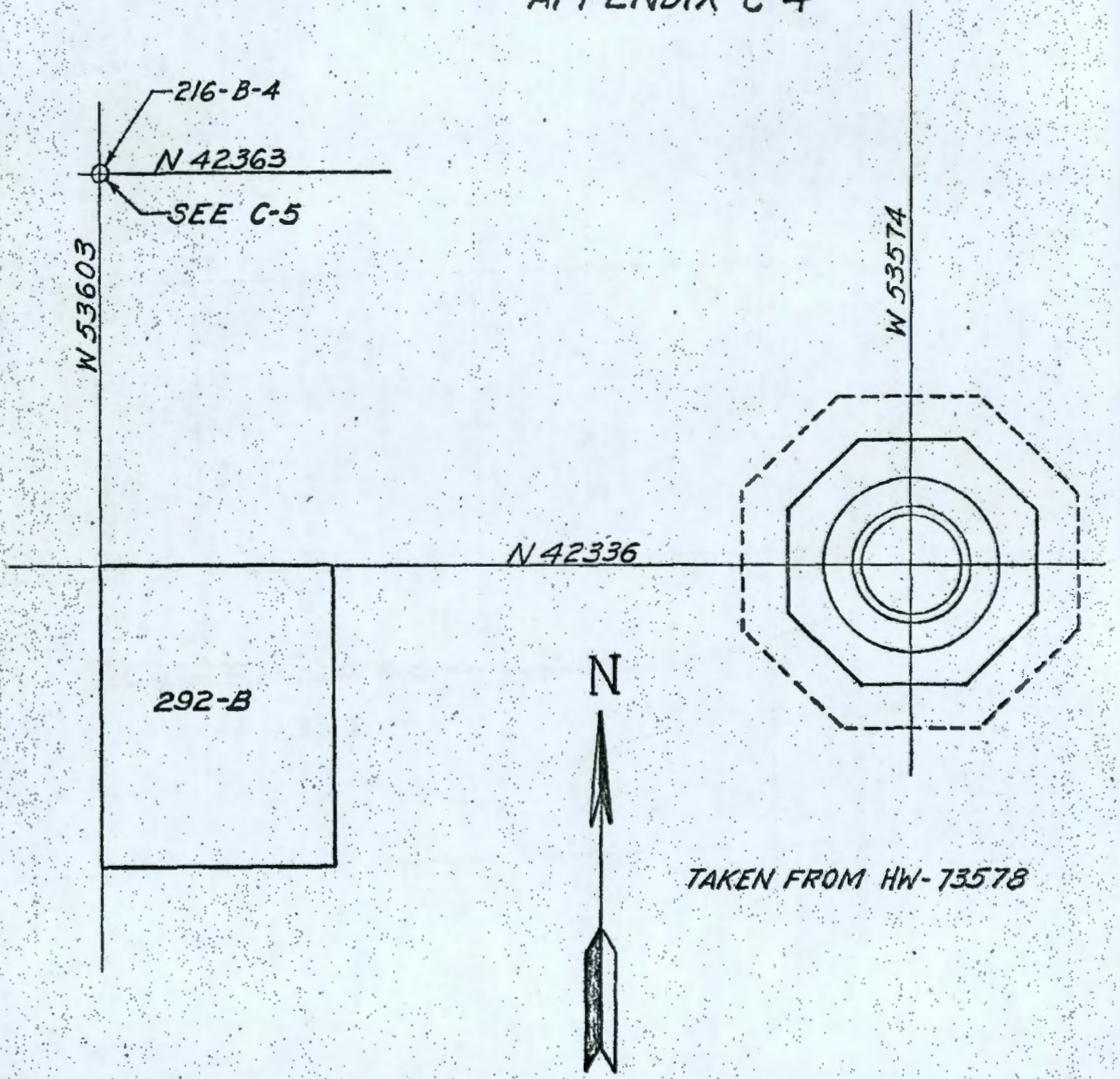
Number	Description Appendix Sheet	Service	Use Dates From	To	Status
216-B-41	C-31 & 32	1st Cycle Supernatant	11/54	-	Spec. Ret.
216-B-42	"	U Plant Scavenged Waste	2/55	-	" "
216-B-43	C-33	U Plant Scavenged Waste	11/54	-	Abandoned
216-B-44	C-33	"	12/54	3/55	"
216-B-45	C-33	"	4/55	6/55	"
216-B-46	C-33	"	9/55	12/55	"
216-B-47	C-33	"	9/55	-	"
216-B-48	C-33	"	11/55	2/57	"
216-B-49	"	"	11/55	12/55	"
216-B-50	"	"	Not Used		"
216-B-51	C-34 & 35	Pipe Line Drain	Not Used		Abandoned
216-B-52	C-26, 27 & 28	Tank Farm Scavenged Waste	12/57	1/58	Spec. Ret.



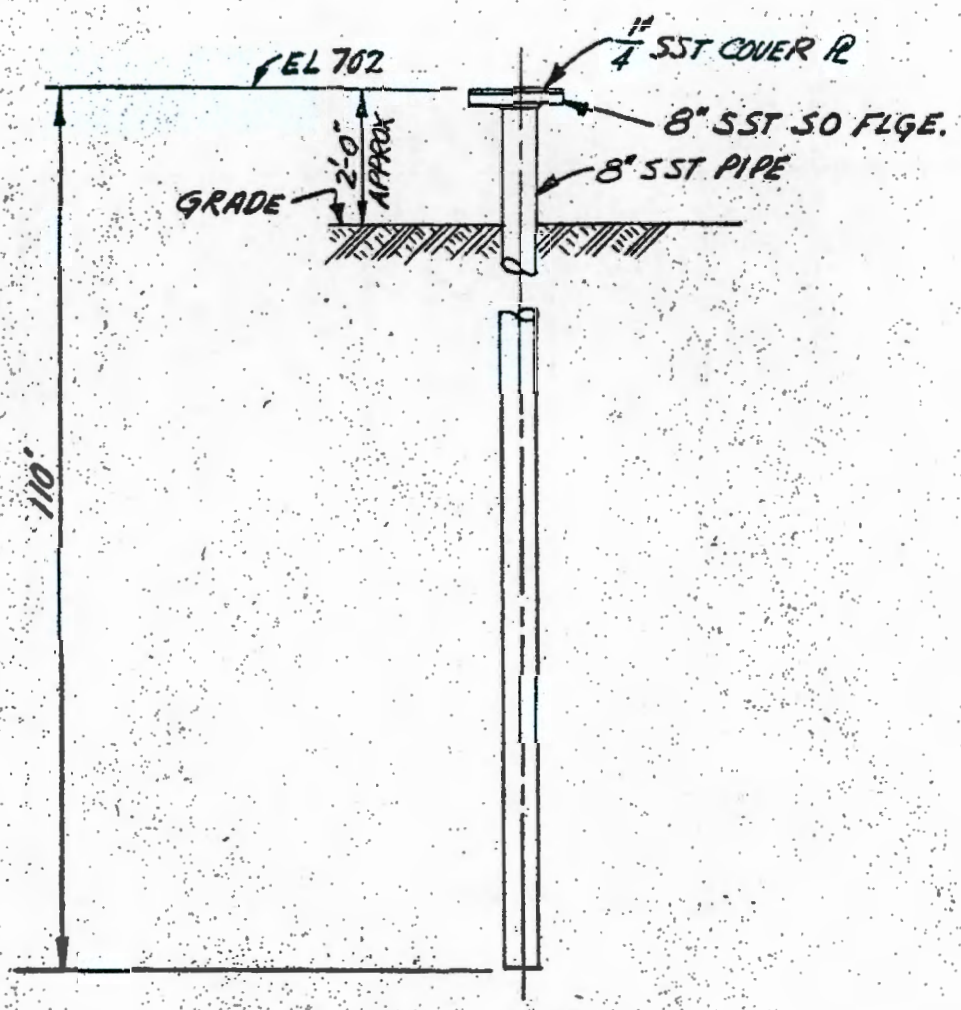
216-B-2


W47000
W46000
W45000
N45000
N44000
N43000
DITCH
SWAMP
216-B-3

216-B-3

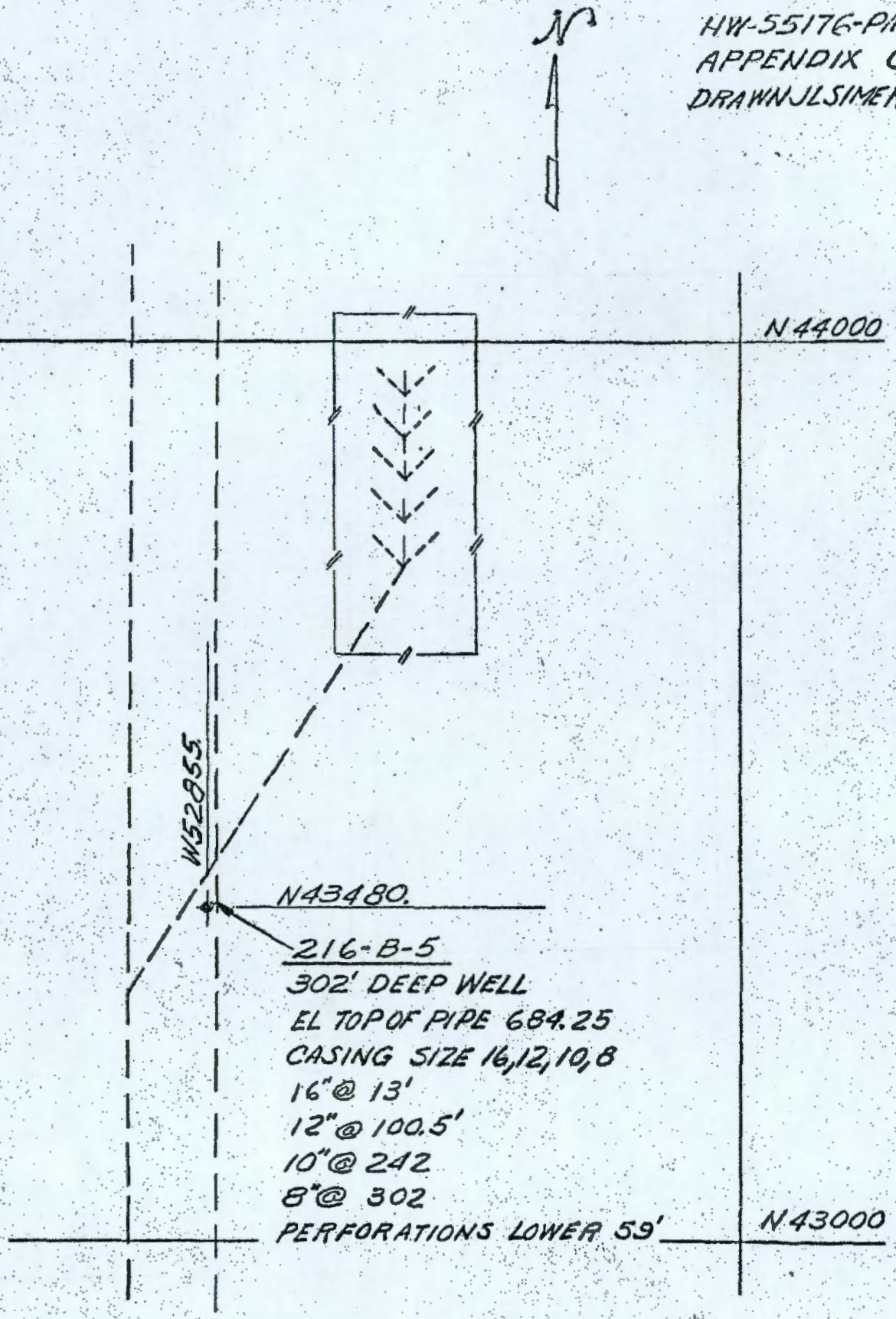

216-B-4
N 42363
SEE C-5
W 53603
W 53574
N 42336
292-B
N
TAKEN FROM HW-73578

216-B-4

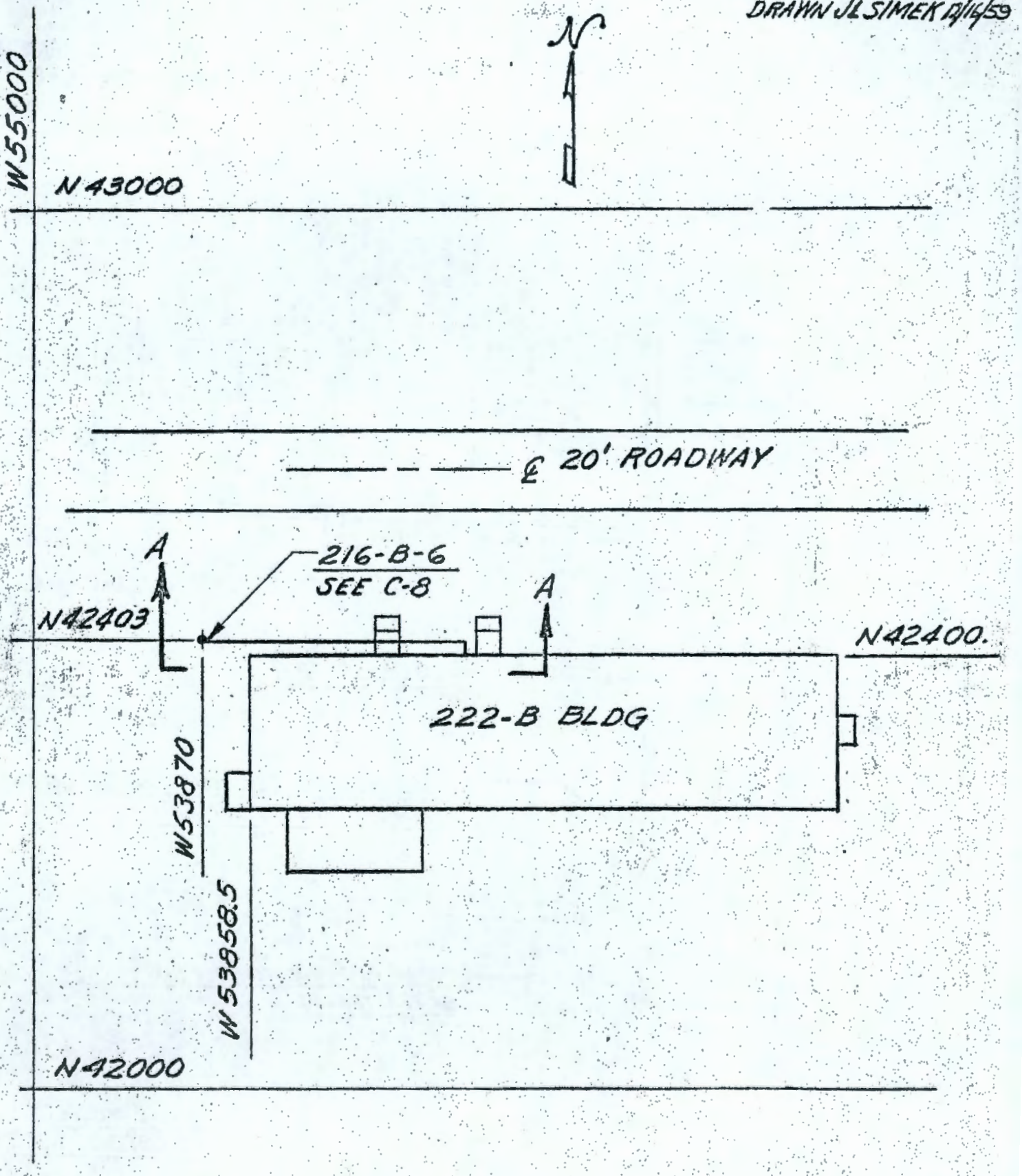


TAKEN FROM H-2-1100

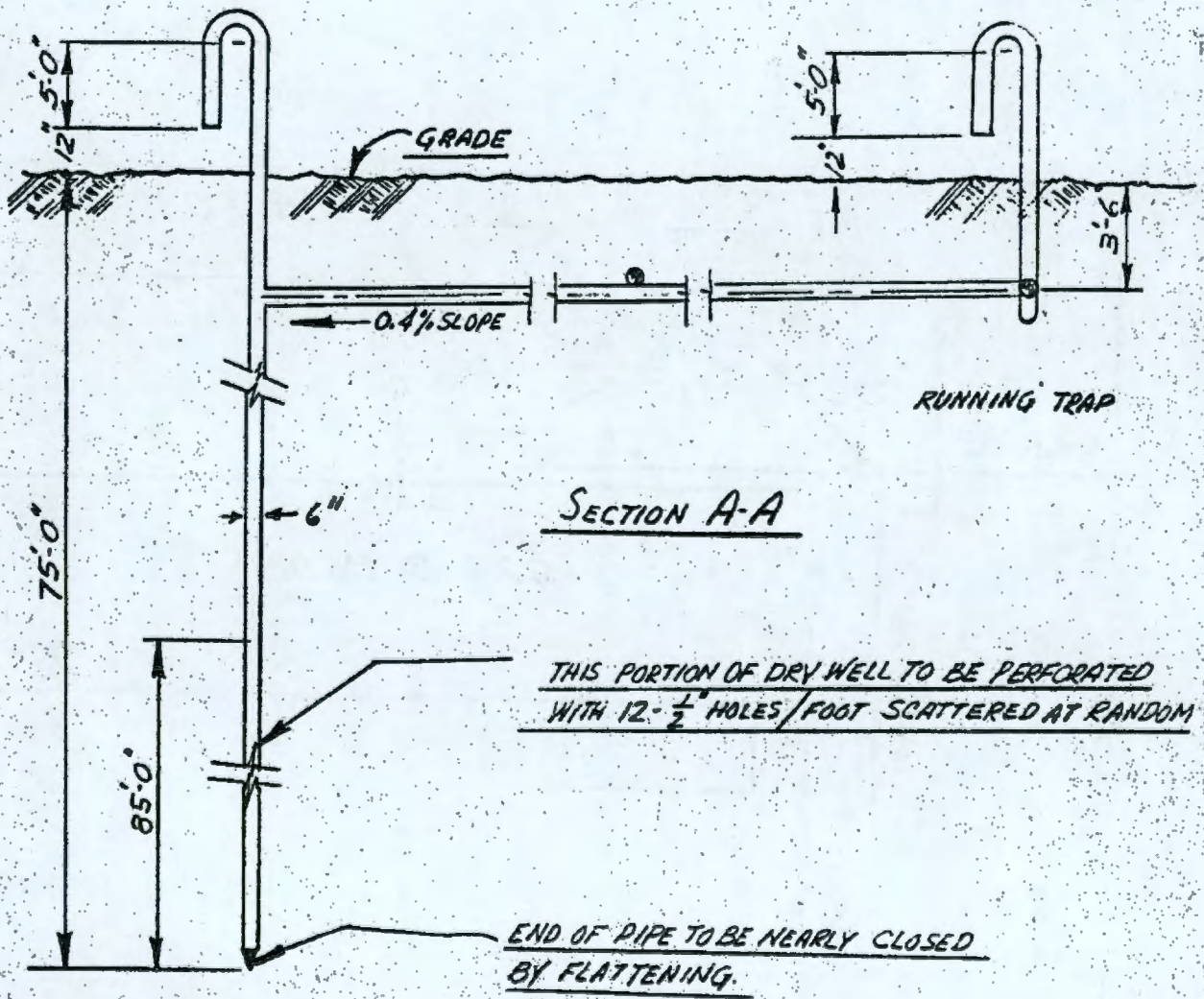
216-B-4



216-B-5
H-2-1123
H-2-1031



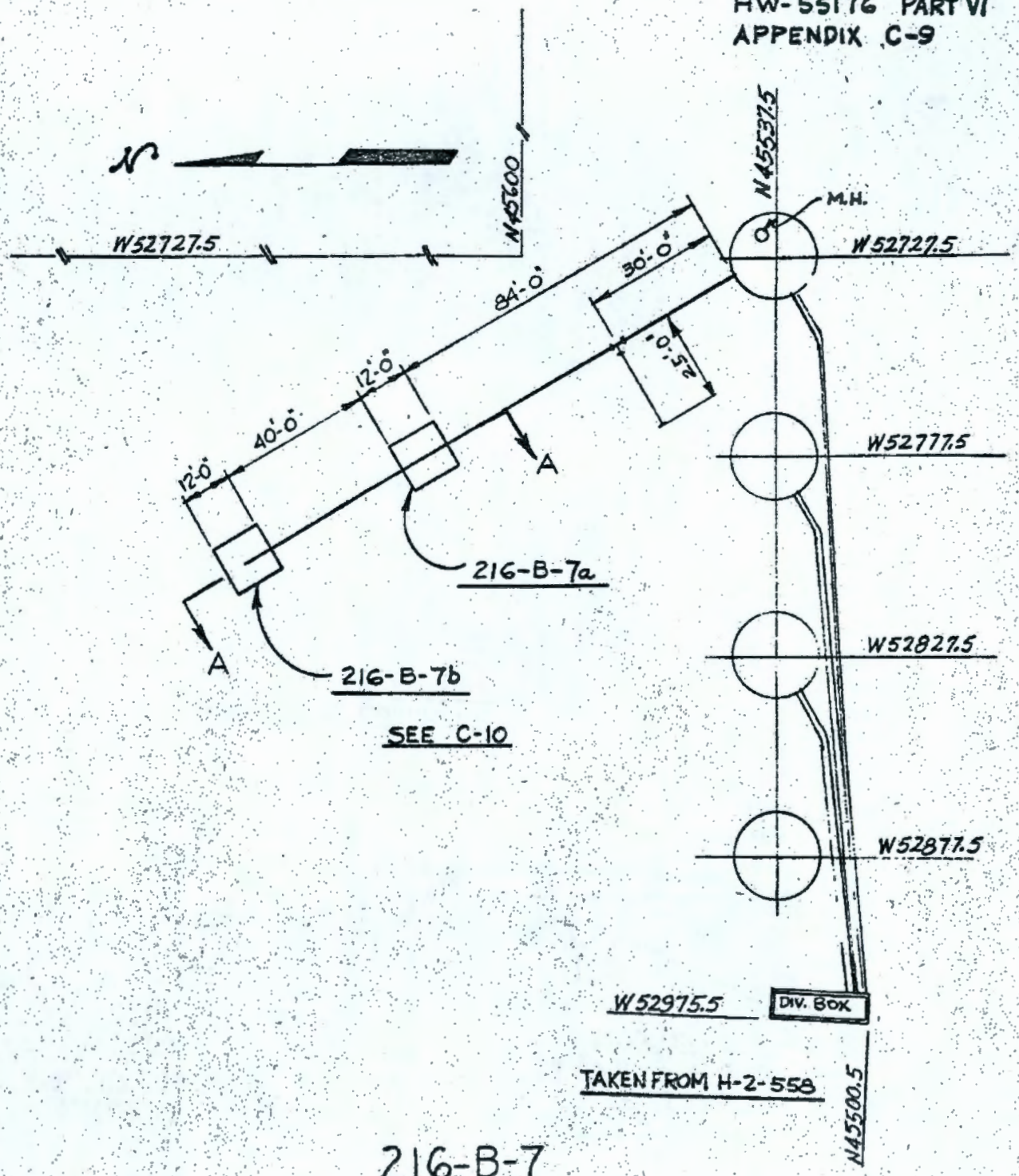
216-B-6
H-2-2431
HW 69870 SHT 3



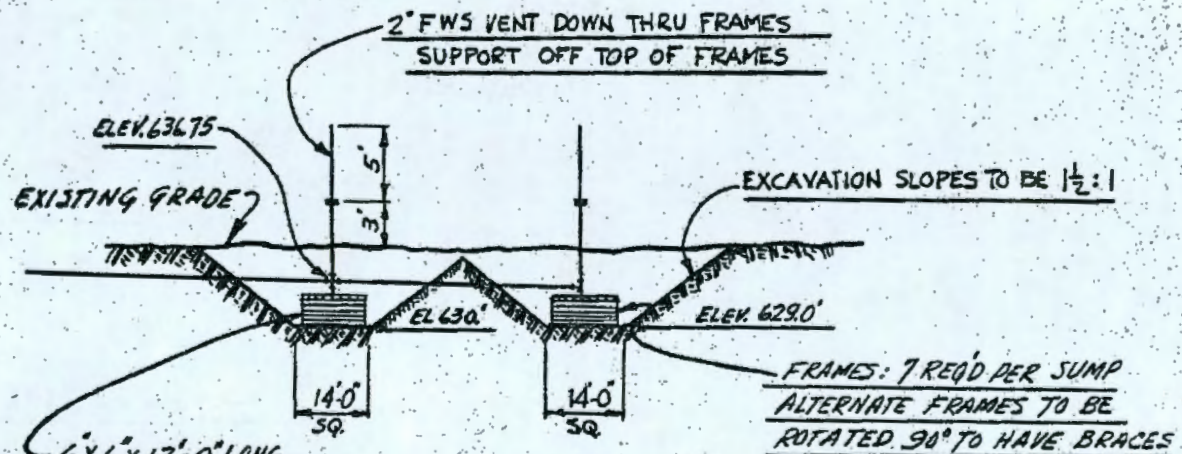
SECTION A-A

216-B-6

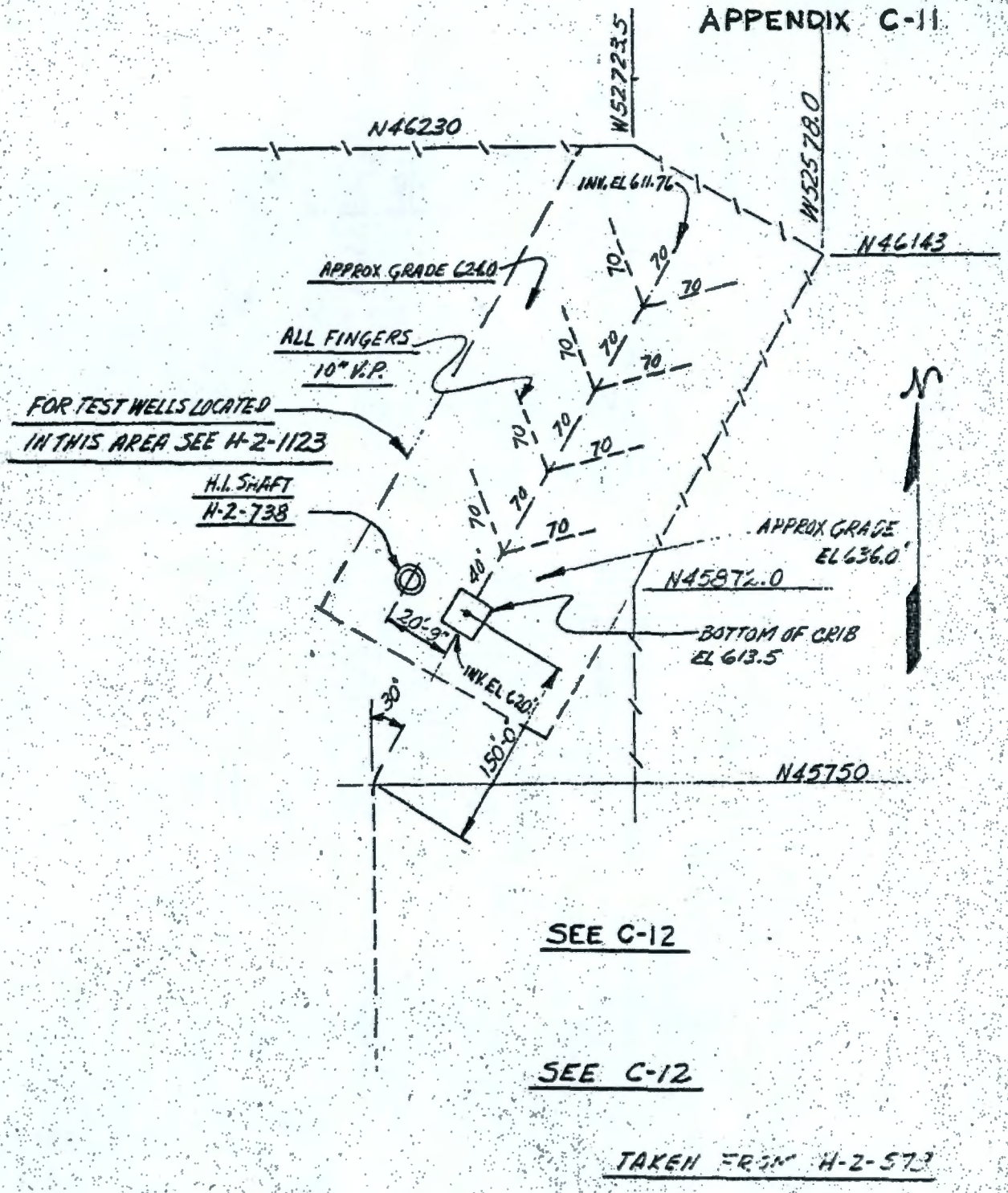
TAKEN FROM
HW 69870 SHT 3


N
N45600
W52727.5
N45537.5
M.H.
W52727.5
84'-0"
30'-0"
2.5'-0"
12'-0"
40'-0"
12'-0"
A
A
216-B-7a
216-B-7b
SEE C-10
W52777.5
W52827.5
W52877.5
W52975.5
DIV. BOX
TAKEN FROM H-2-558
N45500.5

216-B-7

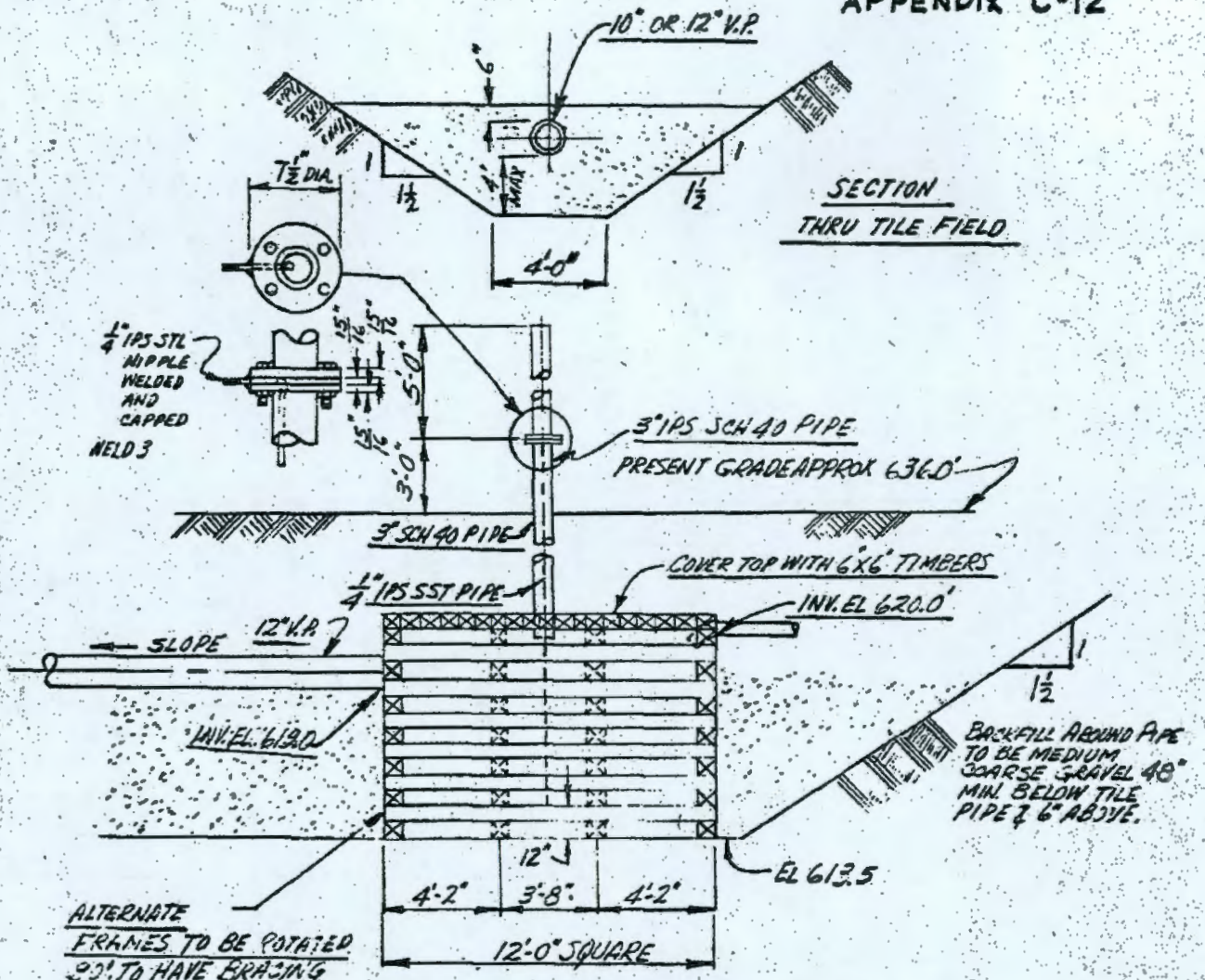

2" FWS VENT DOWN THRU FRAMES
SUPPORT OFF TOP OF FRAMES
ELEV. 636.75
EXISTING GRADE
5'
3'
EXCAVATION SLOPES TO BE 1½:1
EL 630'
ELEV. 629.0'
14'-0" SQ.
14'-0" SQ.
FRAMES: 7 REQ'D PER SUMP
ALTERNATE FRAMES TO BE
ROTATED 90° TO HAVE BRACES
CRISS-CROSSING.
6"x6"x12'-0" LONG
TO ENCLOSE TOP FRAME
26 REQ'D PER SUMP
CUT HOLES FOR 3" TIE LINES
& VENT PIPES
FRAMES TO BE SECURELY FASTENED
TOGETHER AT PIT TO PREVENT
SHIFTING AT BACKFILL.

216-B-7


N46230
W527235
W525780
INV. EL 611.76
N46143
APPROX GRADE EL 610
ALL FINGERS
10" V.P.
FOR TEST WELLS LOCATED
IN THIS AREA SEE H-2-1123
H.I. SHAFT
H-2-738
70
40'
20'-9"
INV. EL 620
30°
150'-0"
APPROX GRADE
EL 636.0'
N45872.0
BOTTOM OF CRIB
EL 613.5
N45750
N
SEE C-12
SEE C-12
TAKEN FROM H-2-573

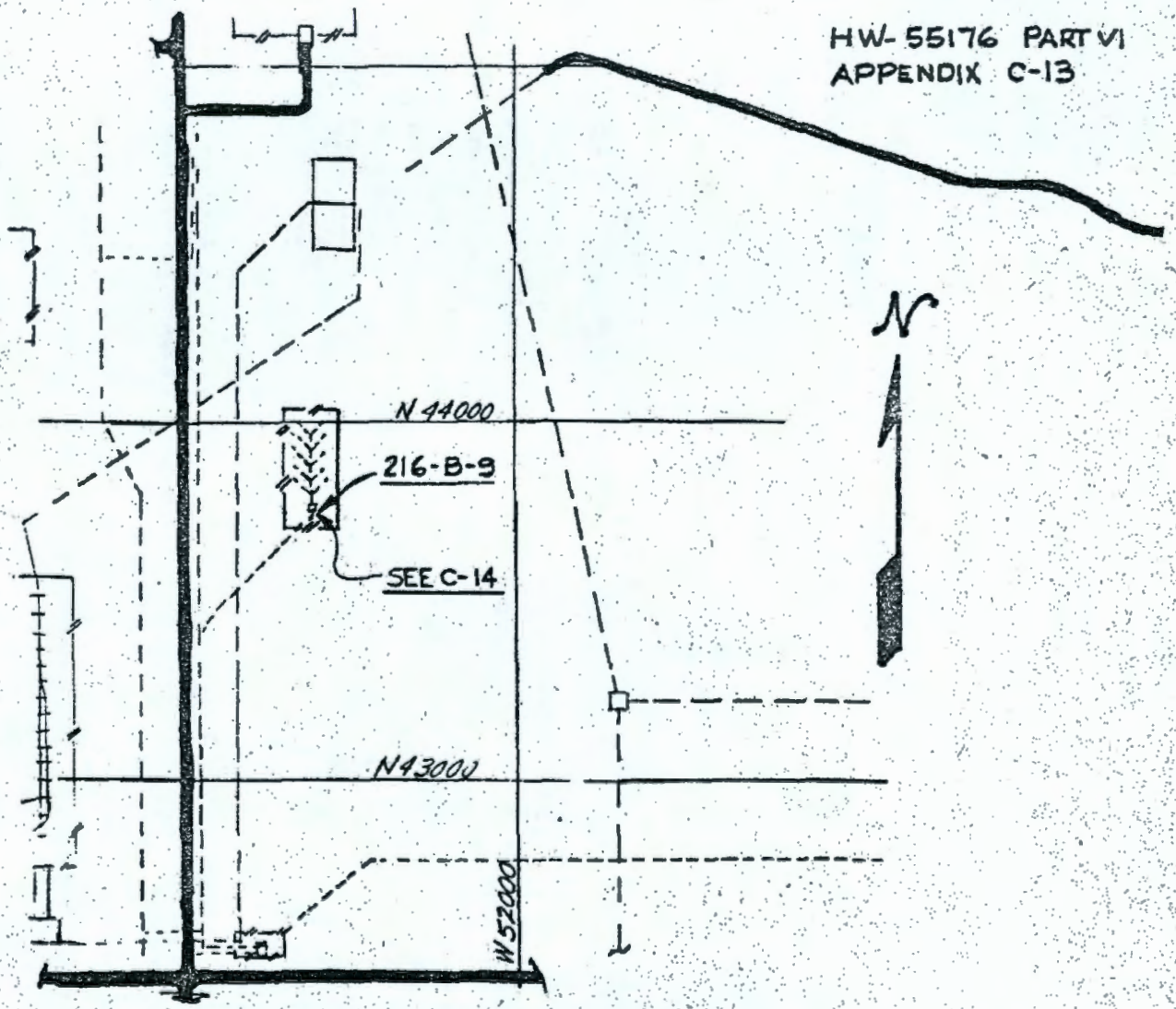
PLAN

216 B-8



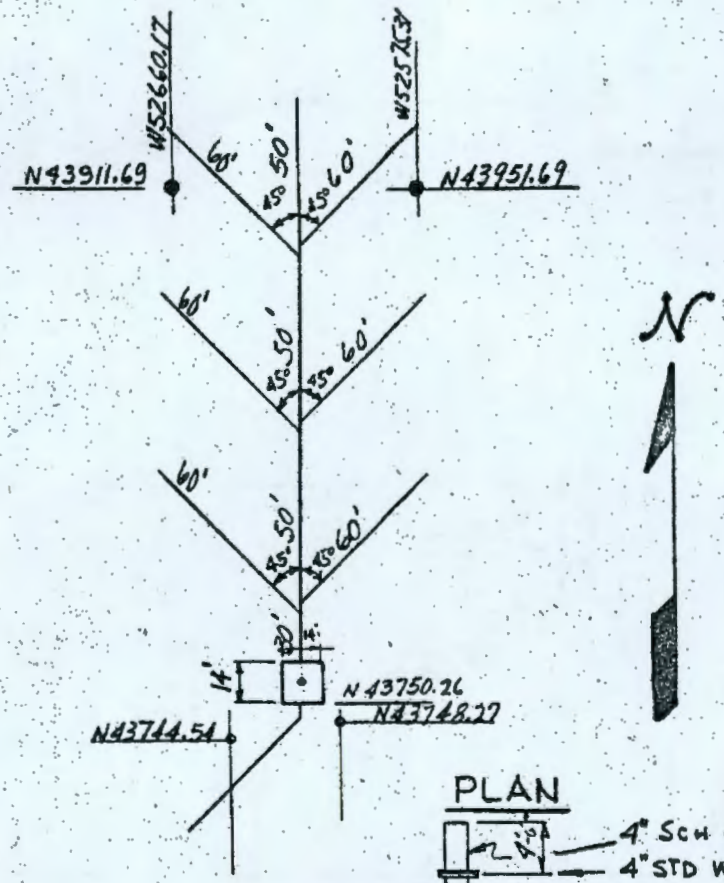
TAKEN FROM H-2-579

216-B-8

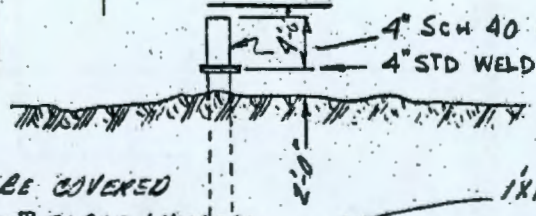


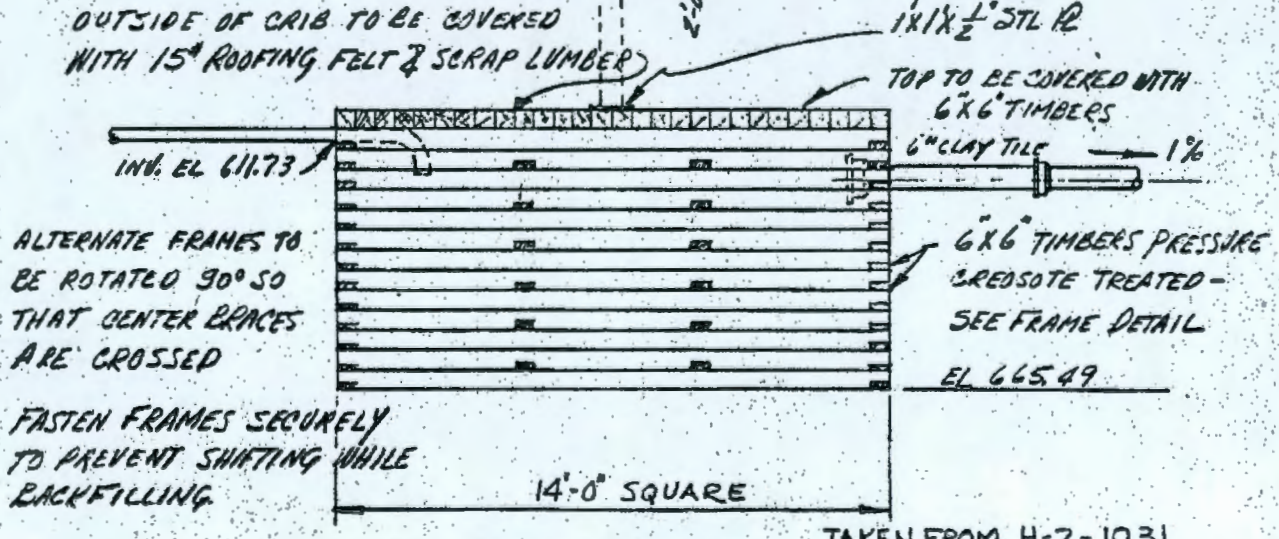
TAKEN FROM H-2-1123
H-2-1031

216-B-9



PLAN

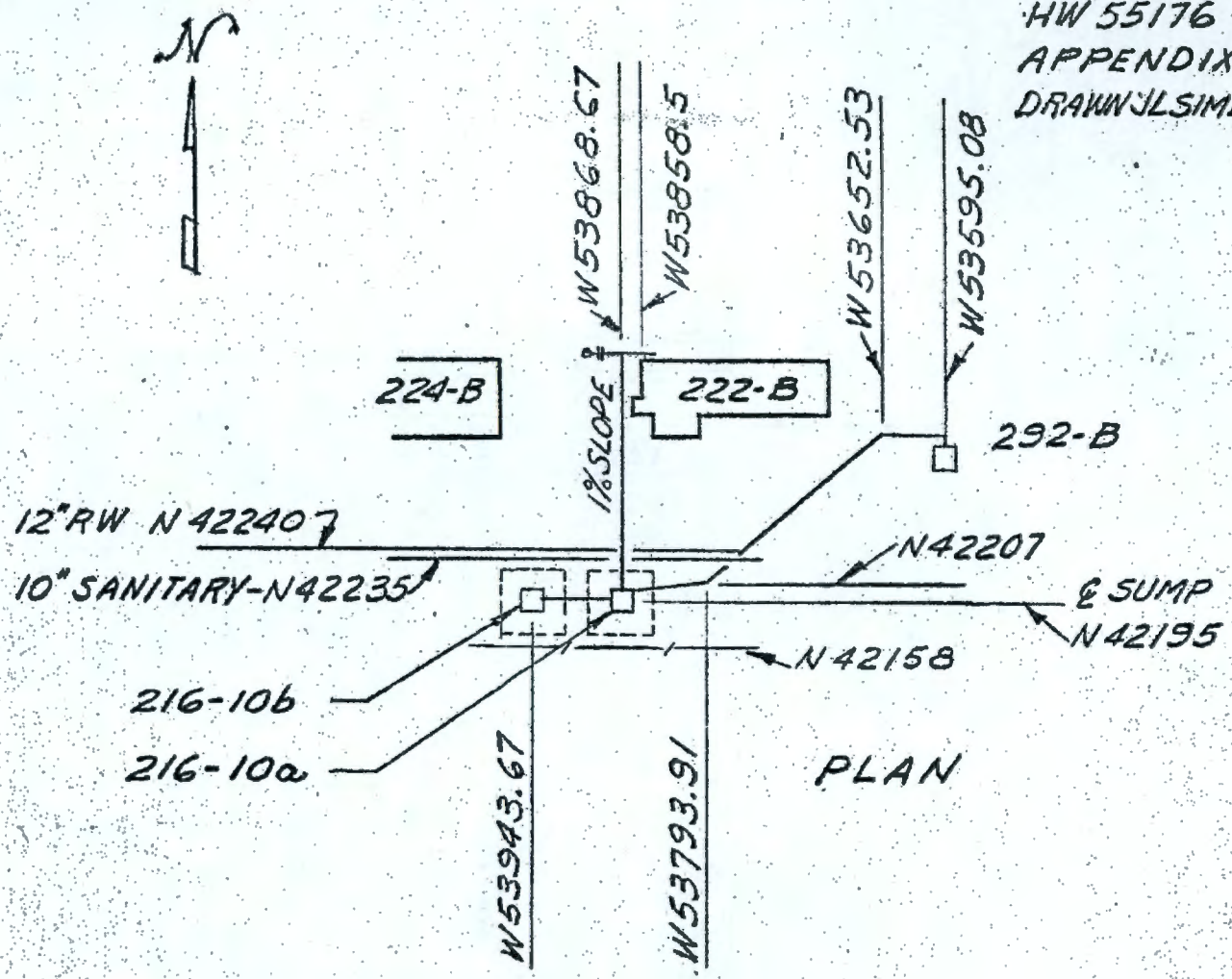


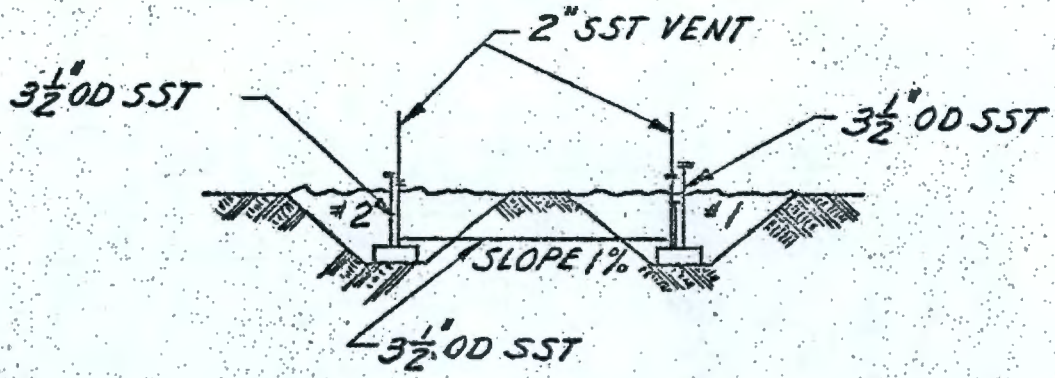


TAKEN FROM H-2-1031

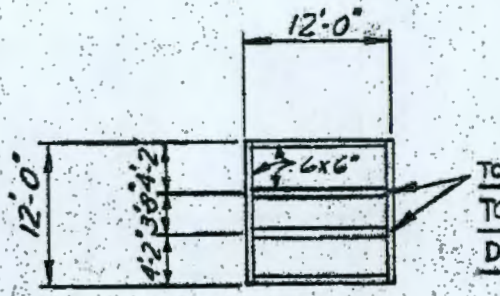
216-B-9

HW 55176 PART 6
APPENDIX C-15
DRAWN JLSIMEK 12/16/66



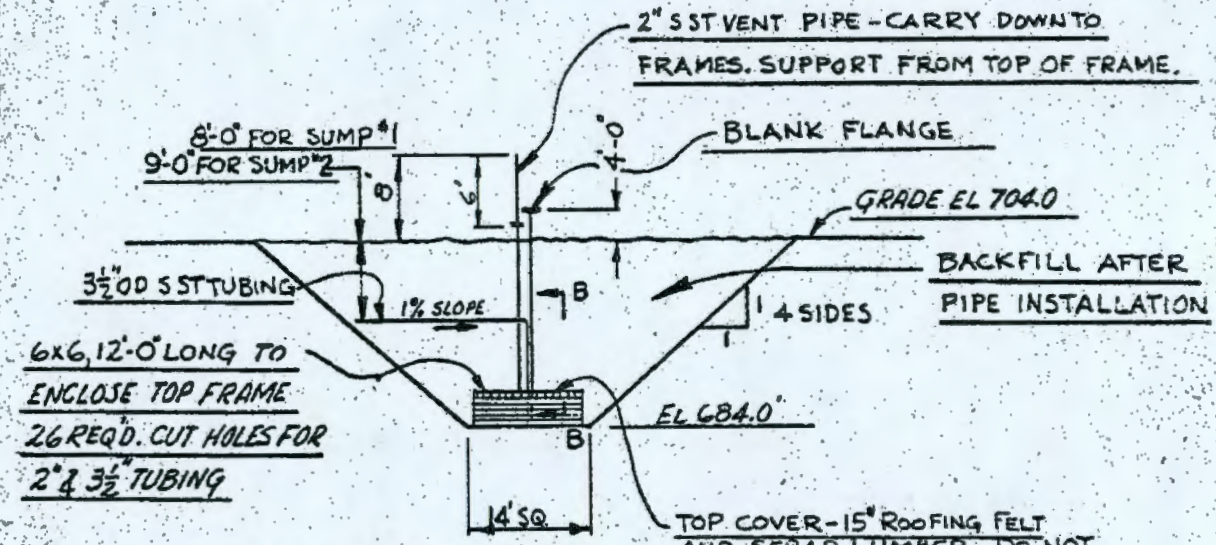


216-B-10a
216-B-10b
H-2-1649



TOE-NAIL TIMBERS TOGETHER WITH SPIKES OR USE DRIFT PINS

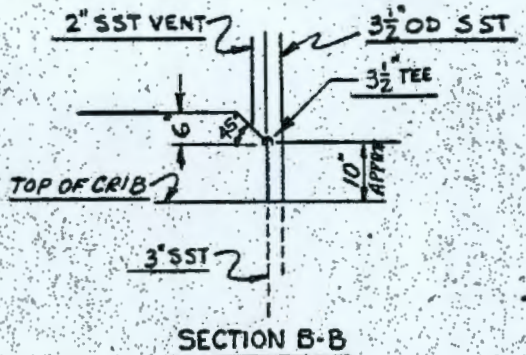
FRAME DETAIL



FRAMES - 7 REQ'D PER SUMP

ALTERNATE FRAMES TO BE ROTATED 90° TO HAVE BRACES CRISS-CROSSING

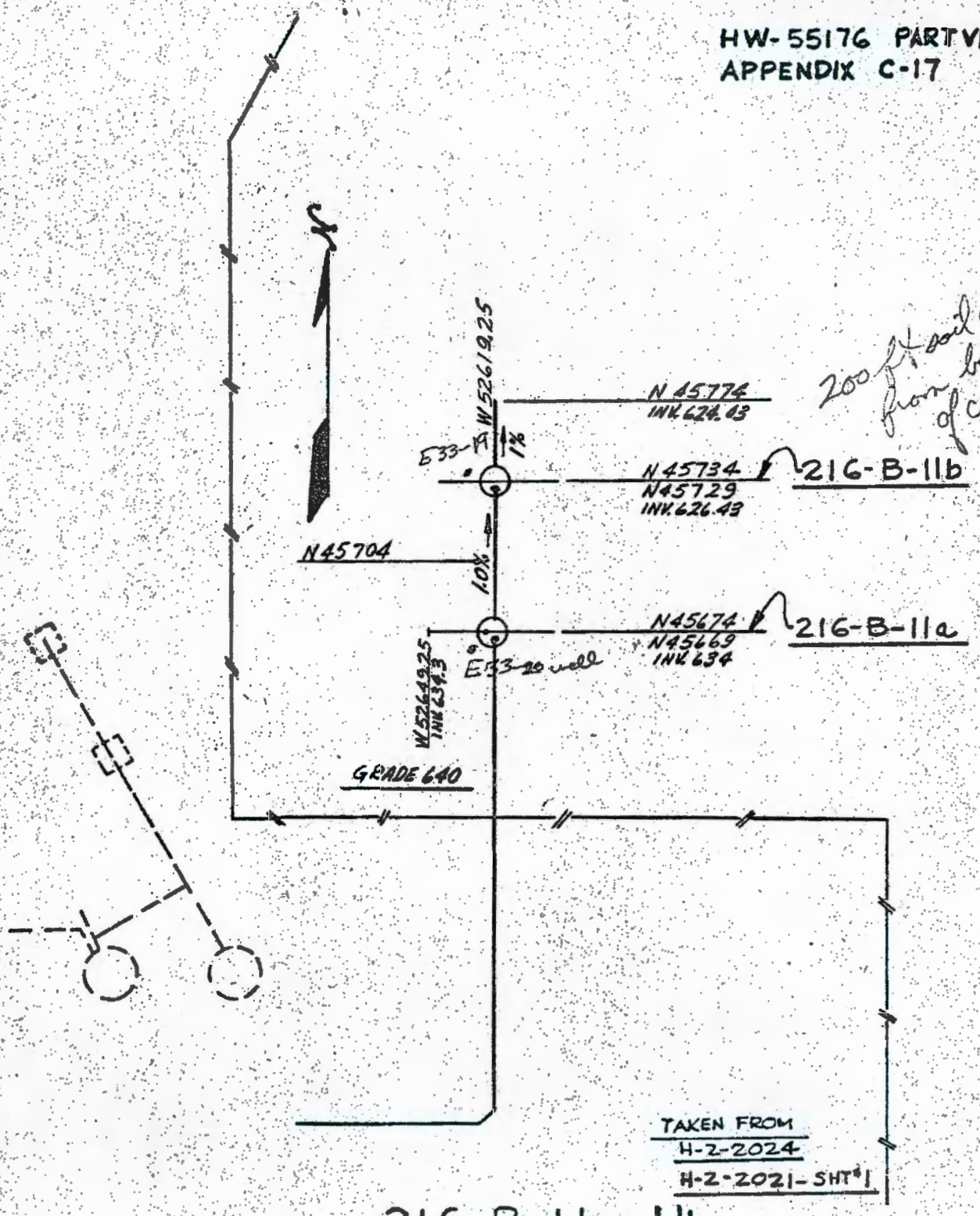
FASTEN FRAMES TOGETHER TO PREVENT SHIFTING AT BACKFILL.



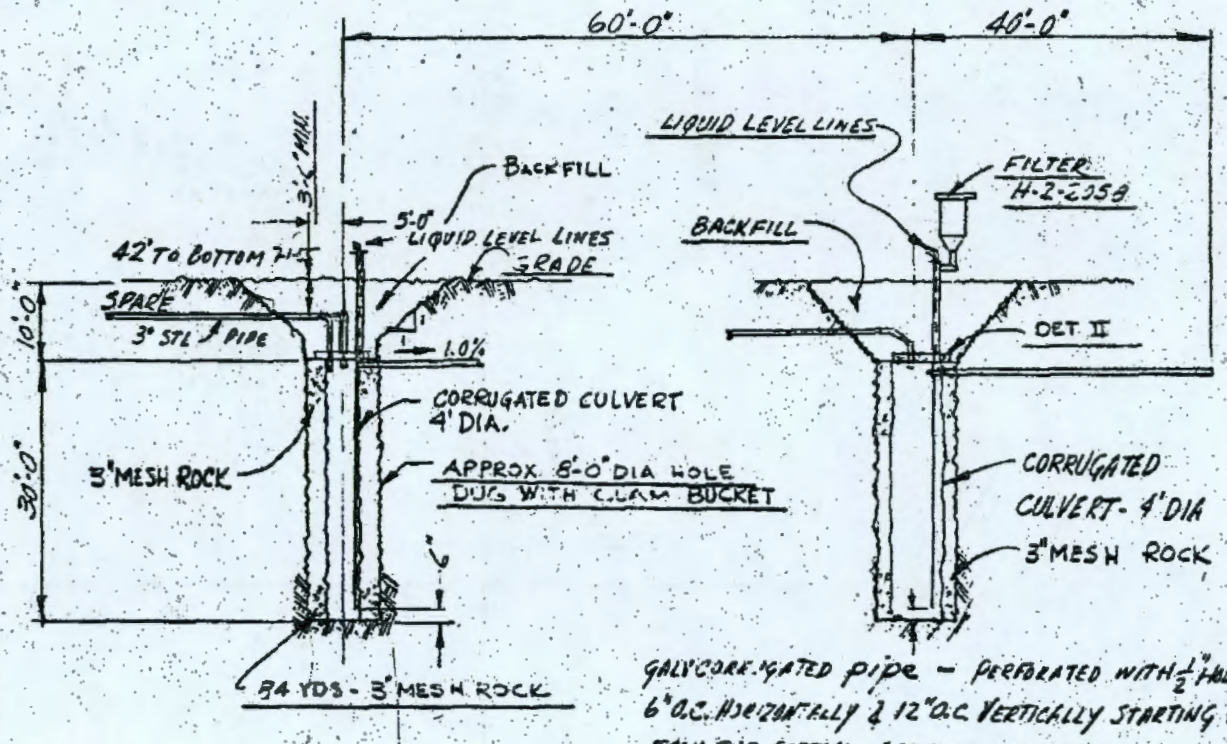
SECTION B-B

TAKEN FROM H-2-1649

216-B-10a & 10b


N45774
INV. 624.03
200 ft soil col. from bottom of cut to G.W.
W526+25
533+
1%
N45734
N45729
INV. 626.43
216-B-11b
N45704
10%
N45674
N45669
INV. 634
216-B-11a
E33+20 well
W526+25
INV. 633.3
GRADE 640
TAKEN FROM
H-2-2024
H-2-2021-SHT #1

216-B-11a & 11b



GALVCORRUGATED pipe – PERFORATED WITH ½" HOLES 6" O.C. HORIZONTALLY & 12" O.C. VERTICALLY STARTING 6" FROM THE BOTTOM. CULVERT COATED WITH BITUMASTIC MATL.

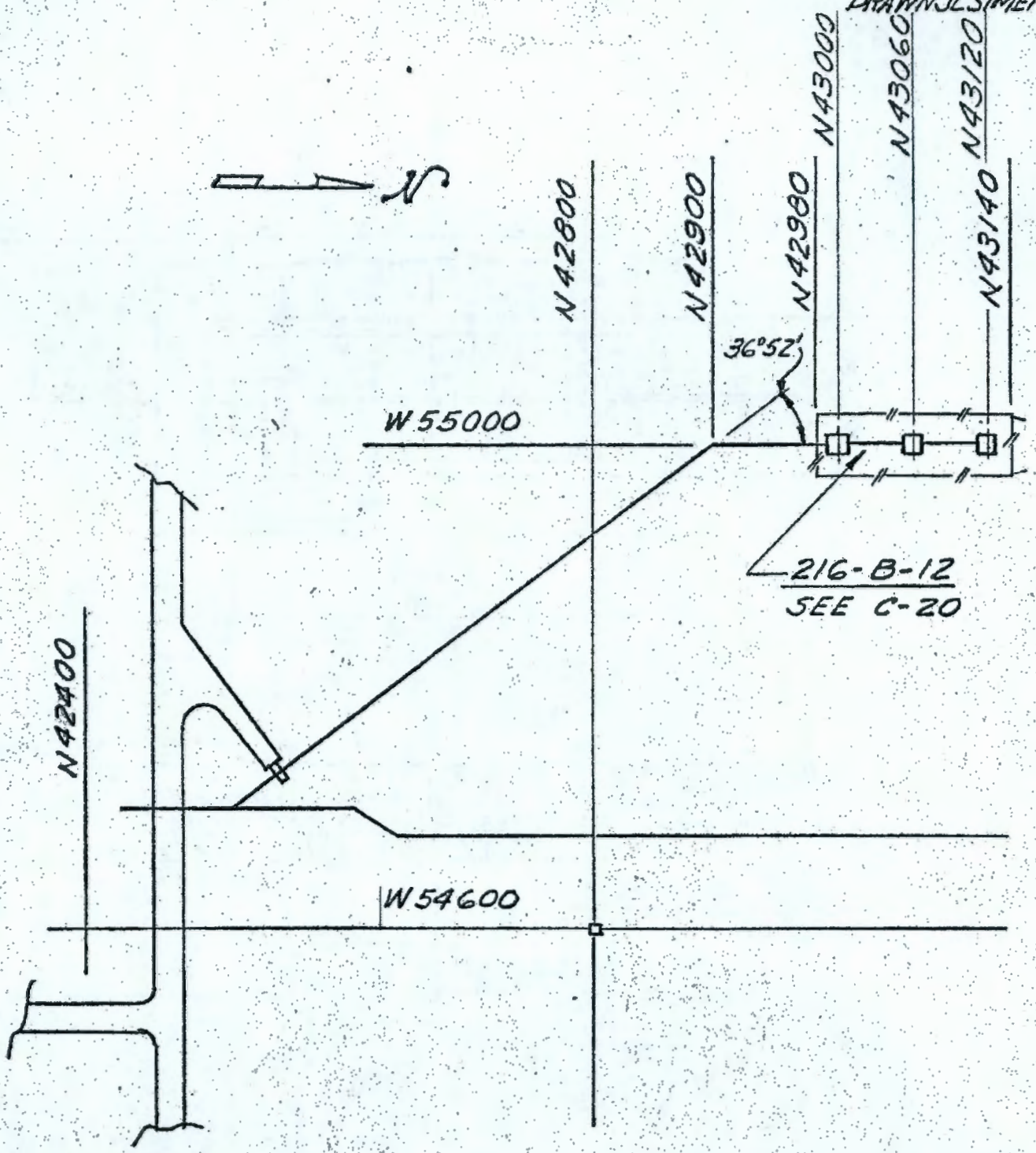
SECTION

14400

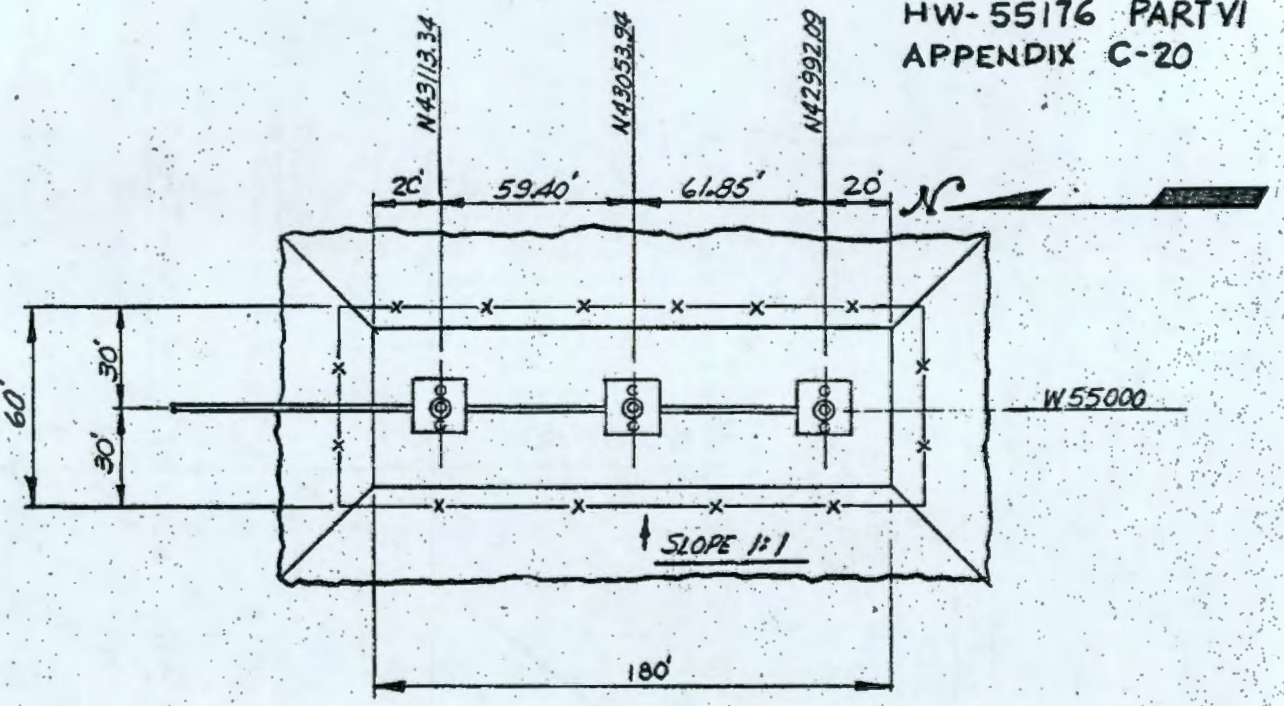
TAKEN FROM
H-2-2024
H-2-202 - MTP

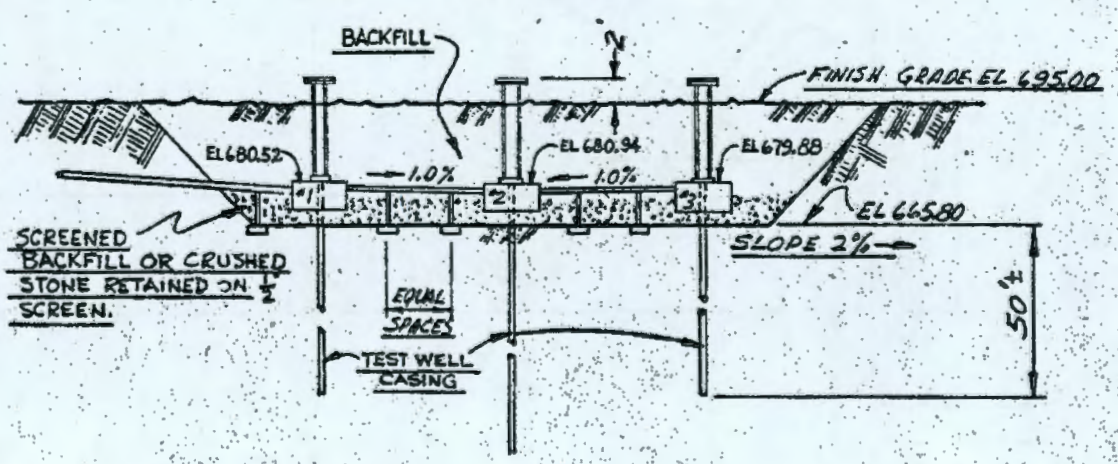
216-B-11a & 11b

DRAWN JLS/MEK 12/16/55



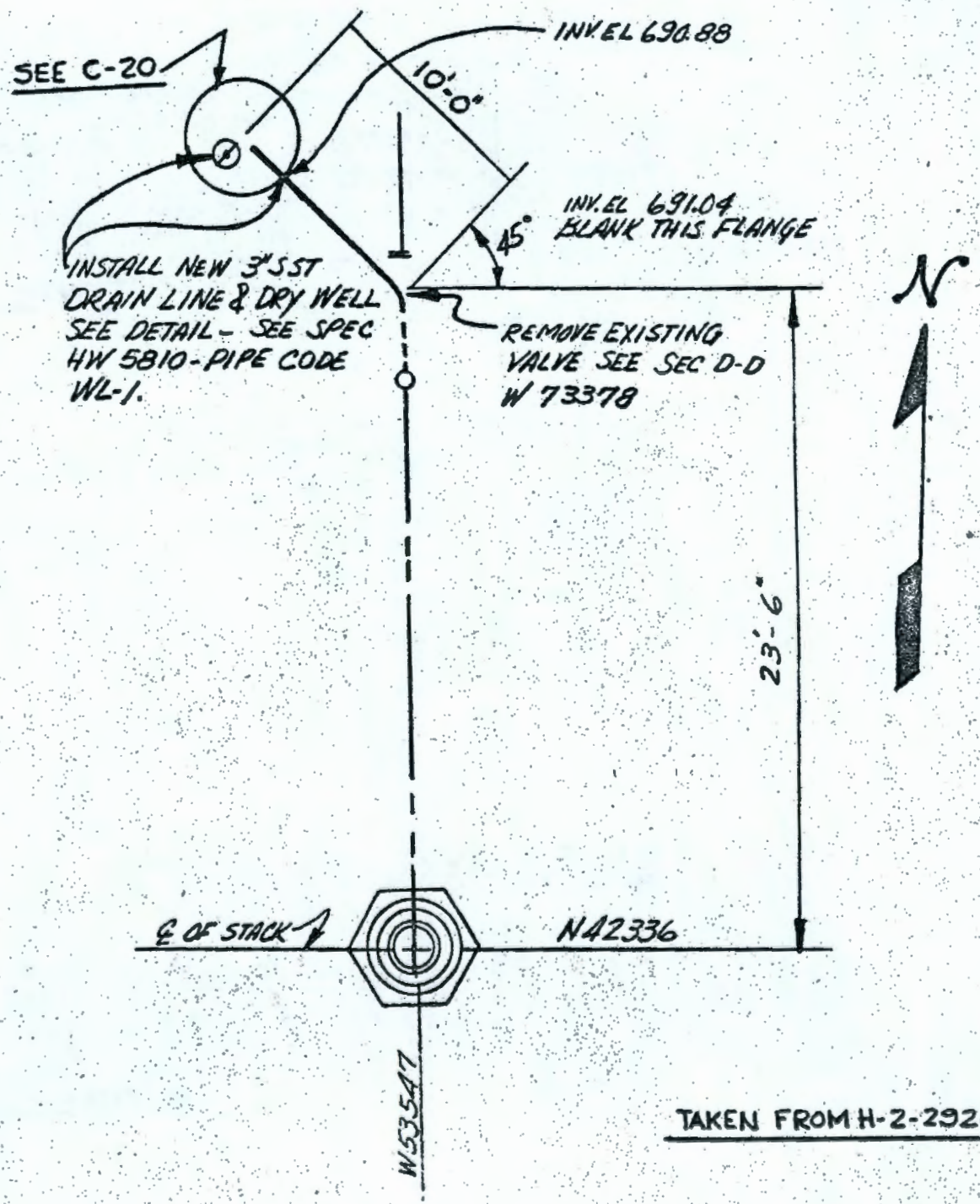
216-B-12
H-2-43046





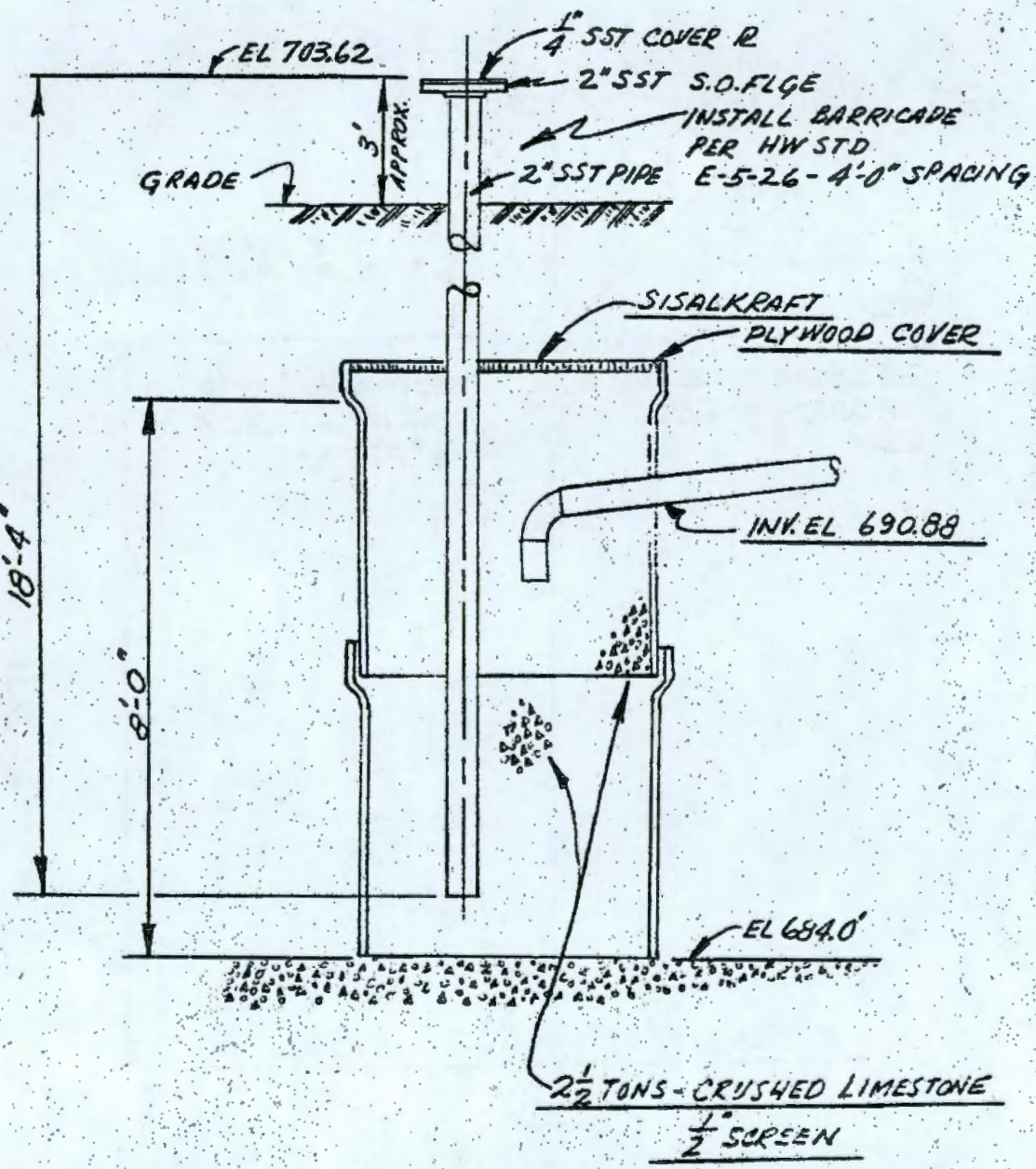
TAKEN FROM H-2-43029

216-B-12



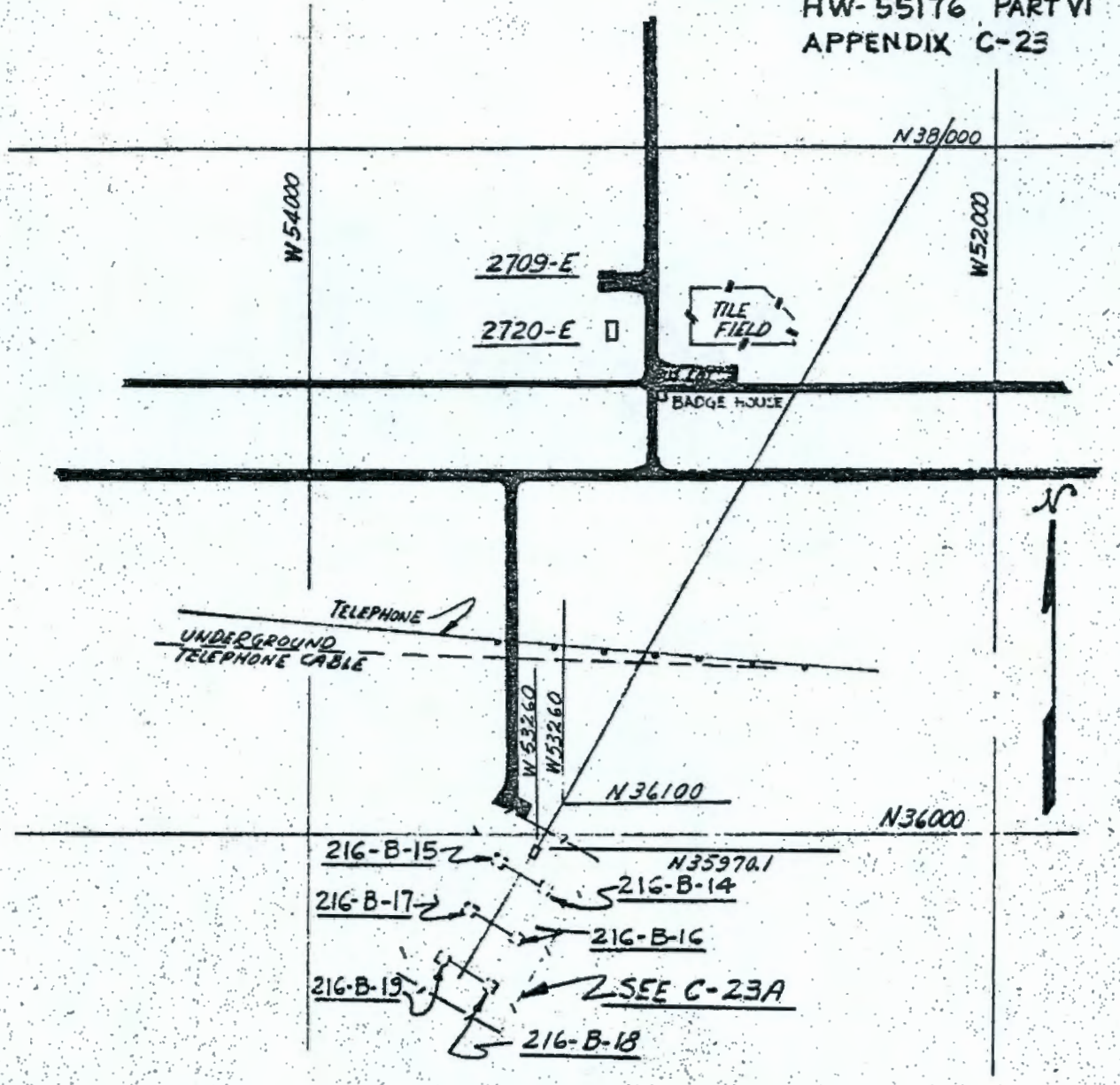
TAKEN FROM H-2-2926

216-B-13



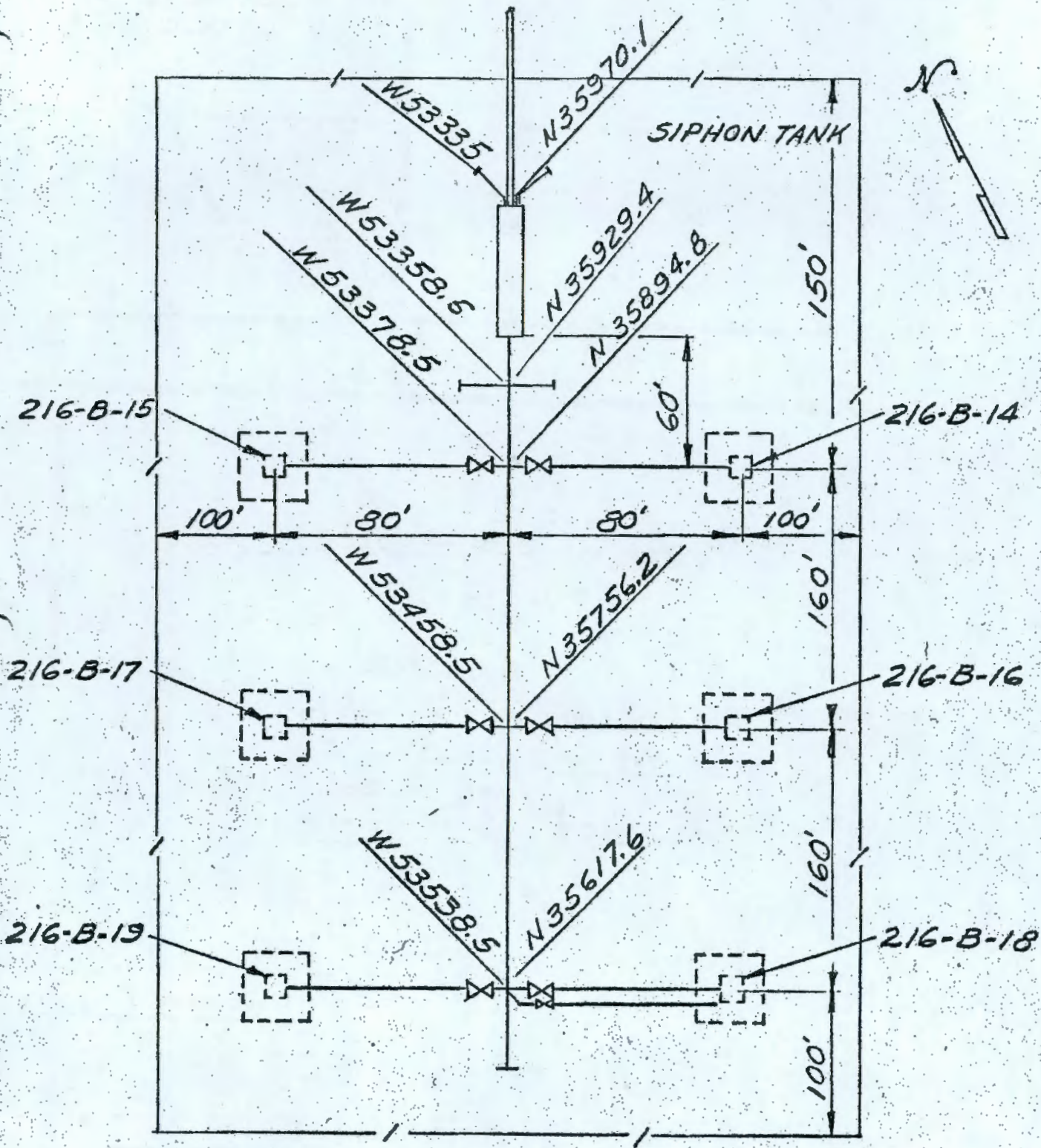
TAKEN FROM H-2-2926

216-B-13



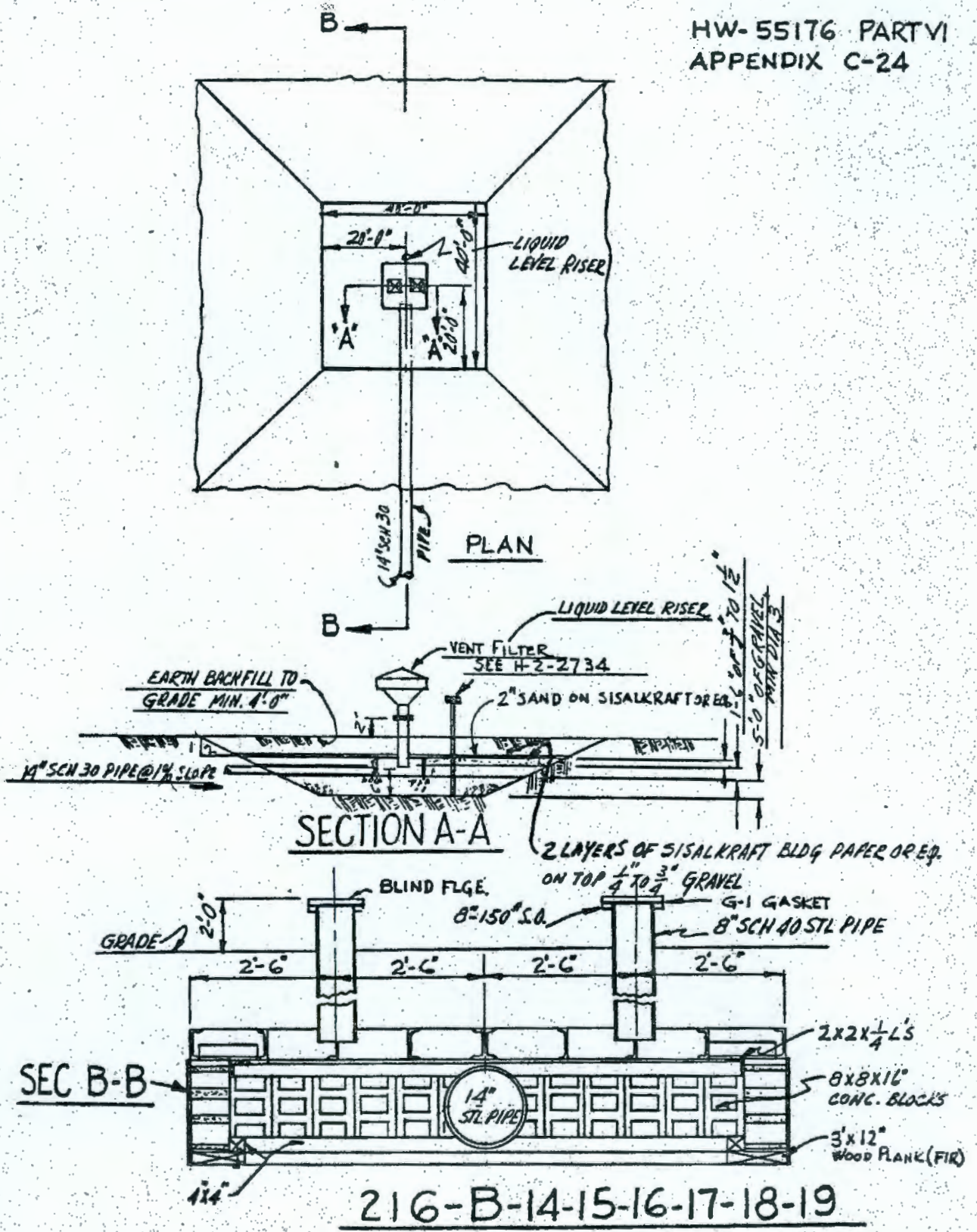
TAKEN FROM H-2-2900

216-B-14-15-16-17-18-19

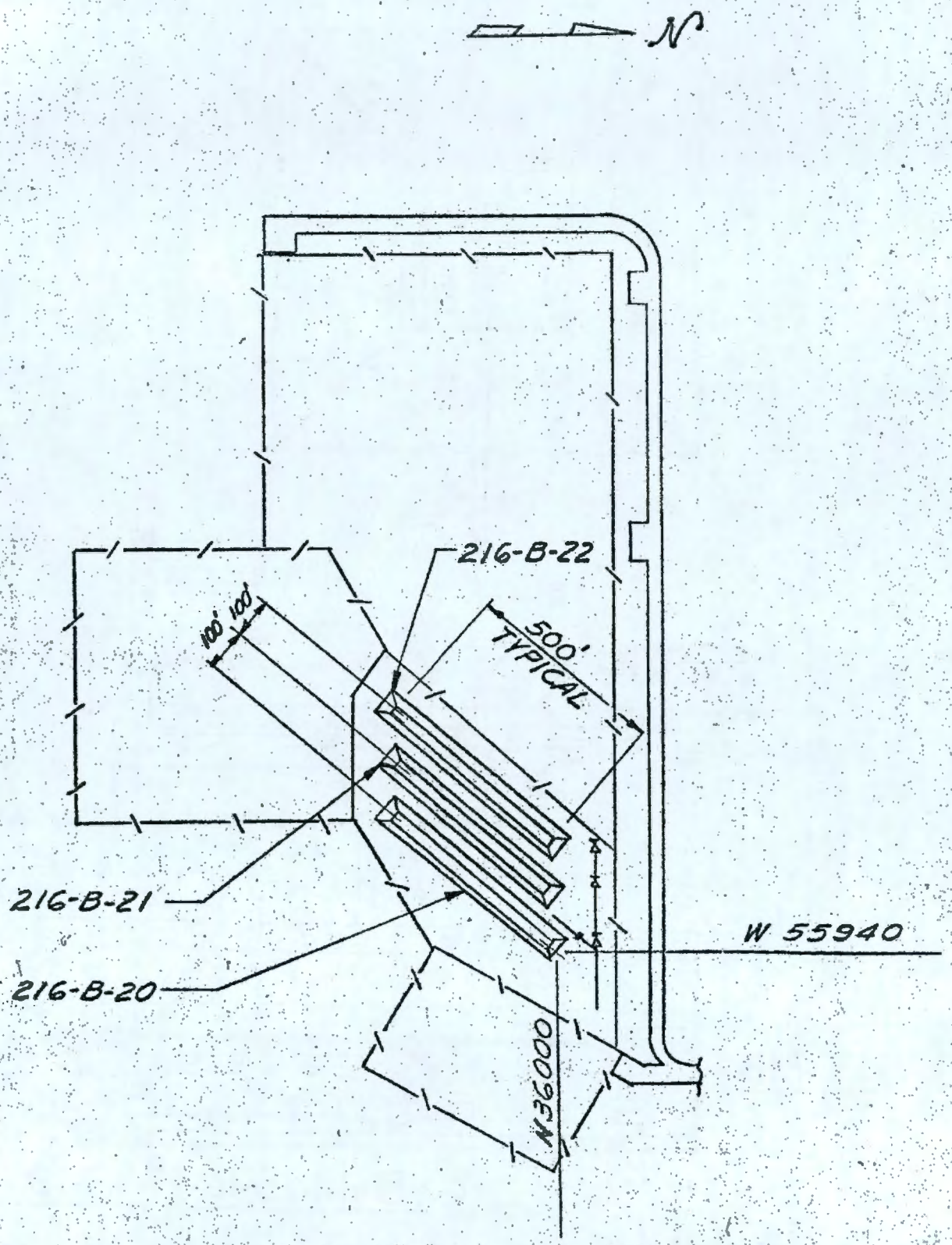


216-B-14-15-16-17-18-19

H-2-2907

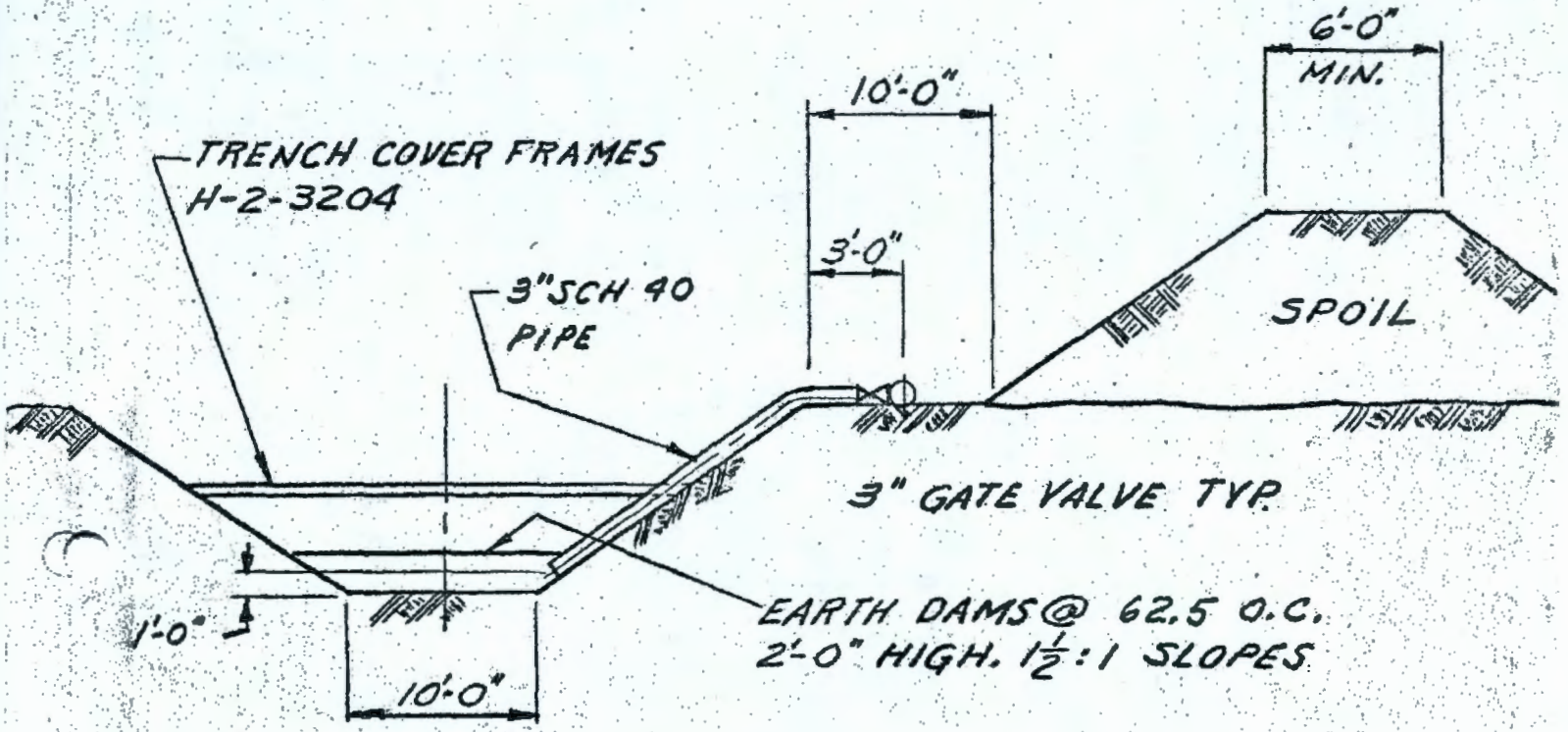


216-B-14-15-16-17-18-19

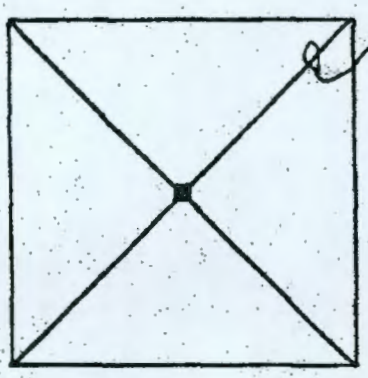


216-B-20-21-22

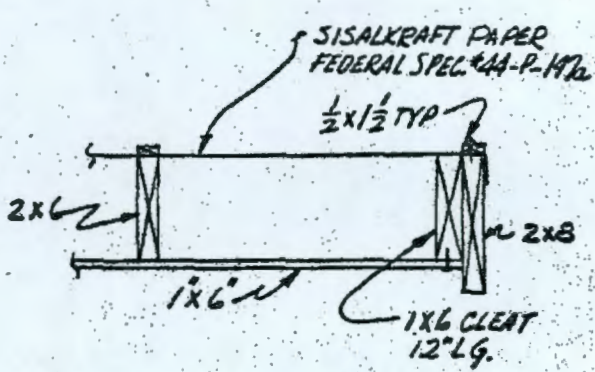
H-2-3203

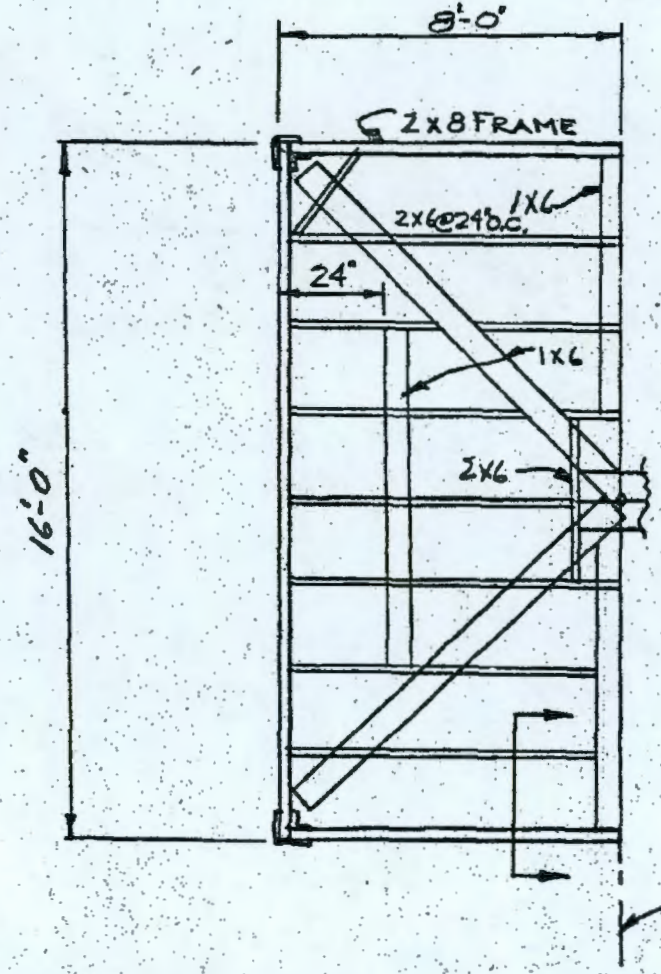


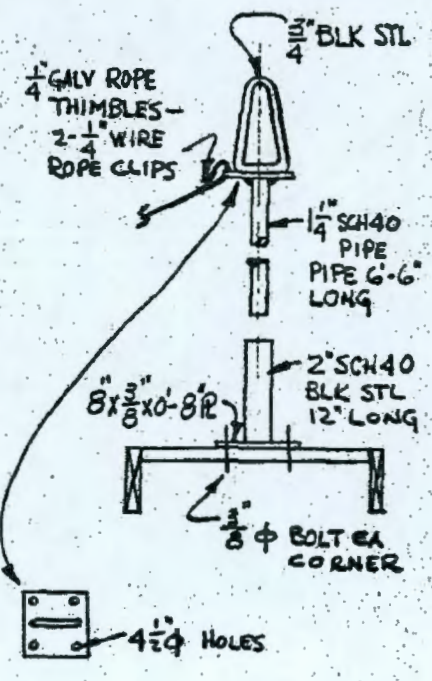
TYPICAL SECTION



PLAN



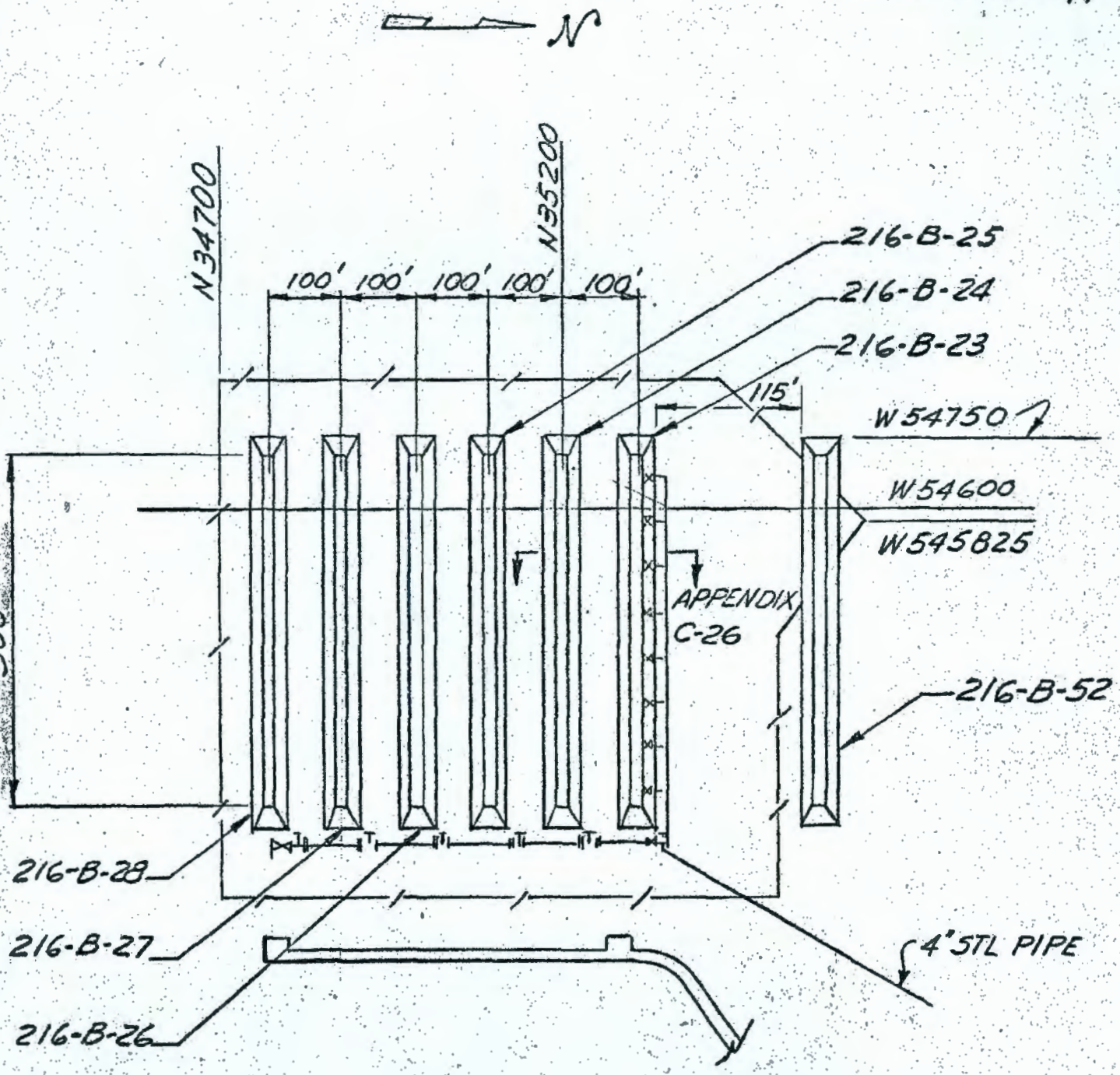




TAKEN FROM H-2-3204

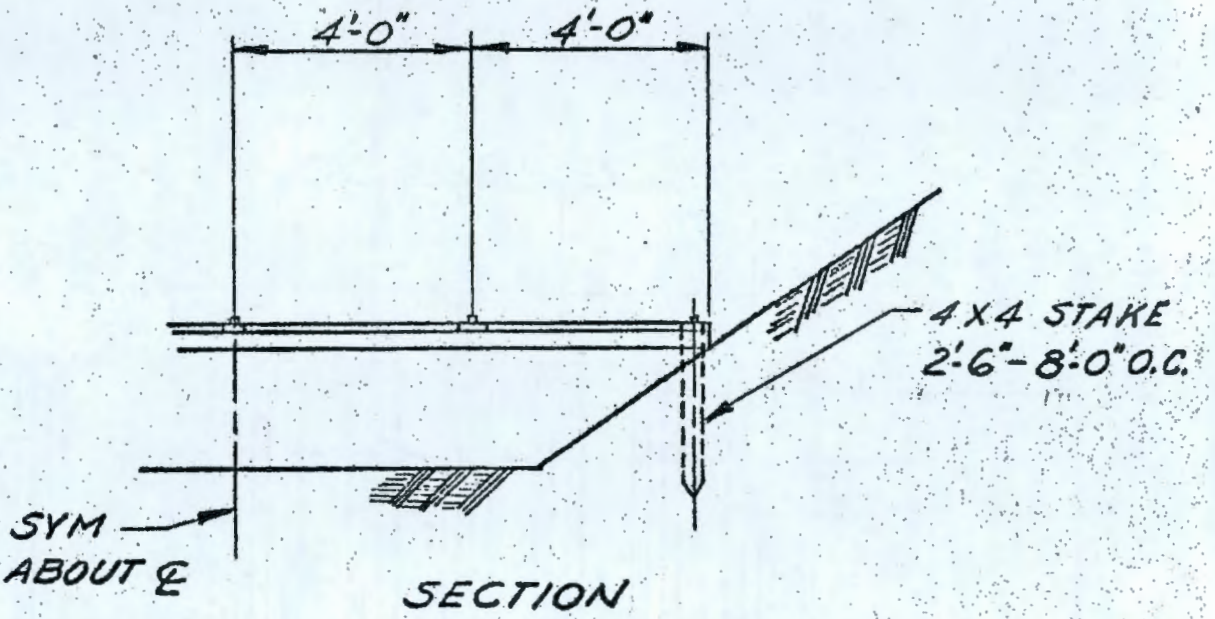
216-B-20-21-22

HW 55176-PART 6
APPENDIX C-27
DRAWN JLSIMEK 12/19/73

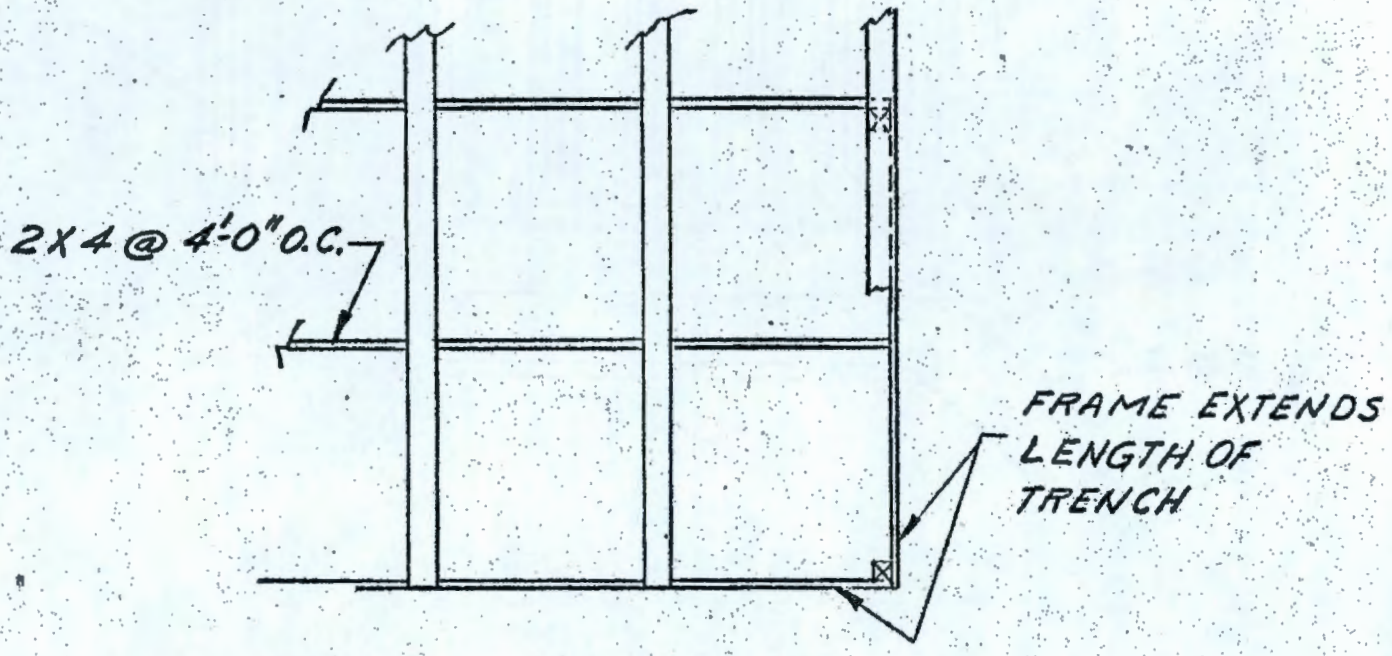


216-B-23-24-25-26-27-28-52

H-2-3232

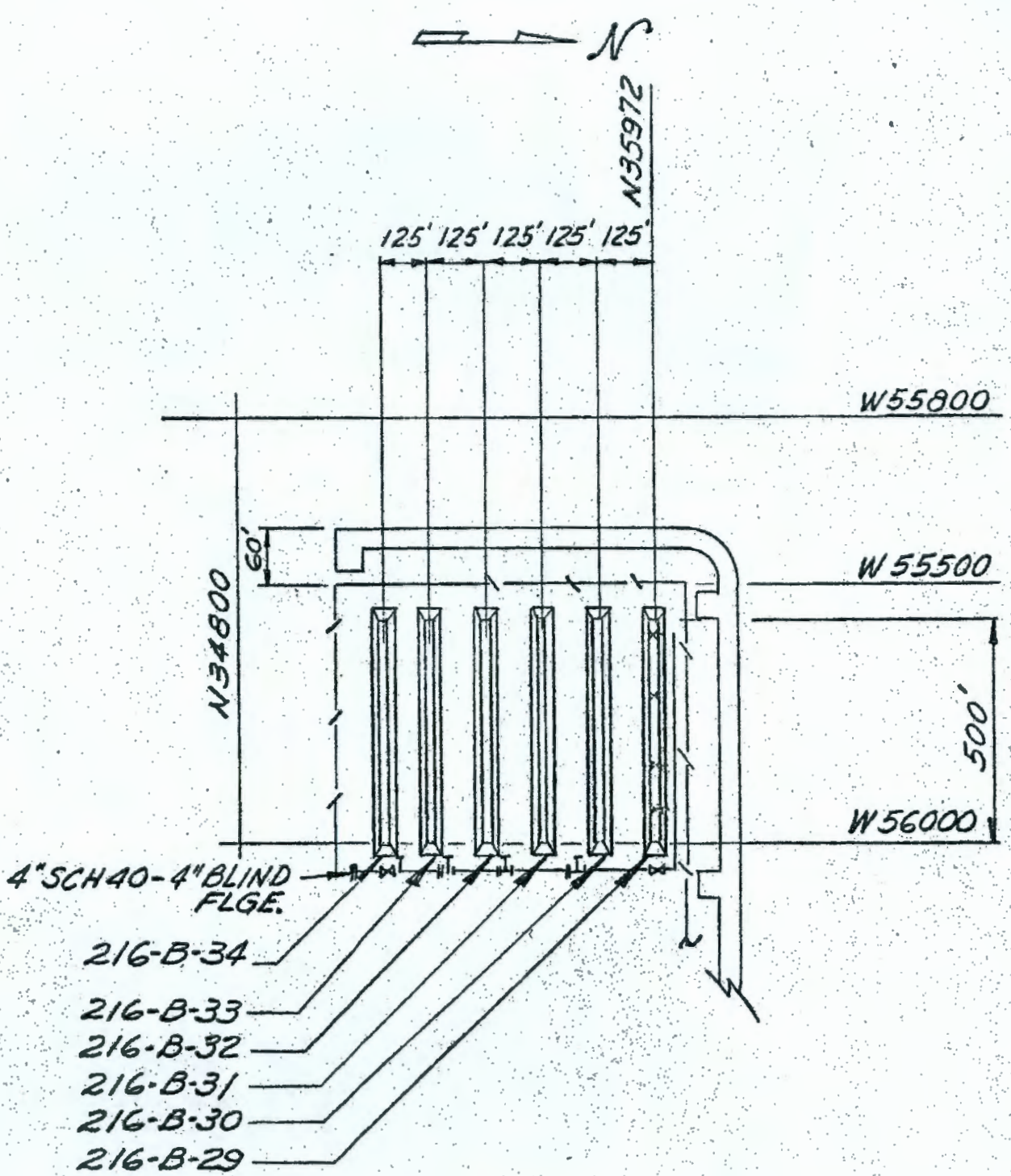


SECTION



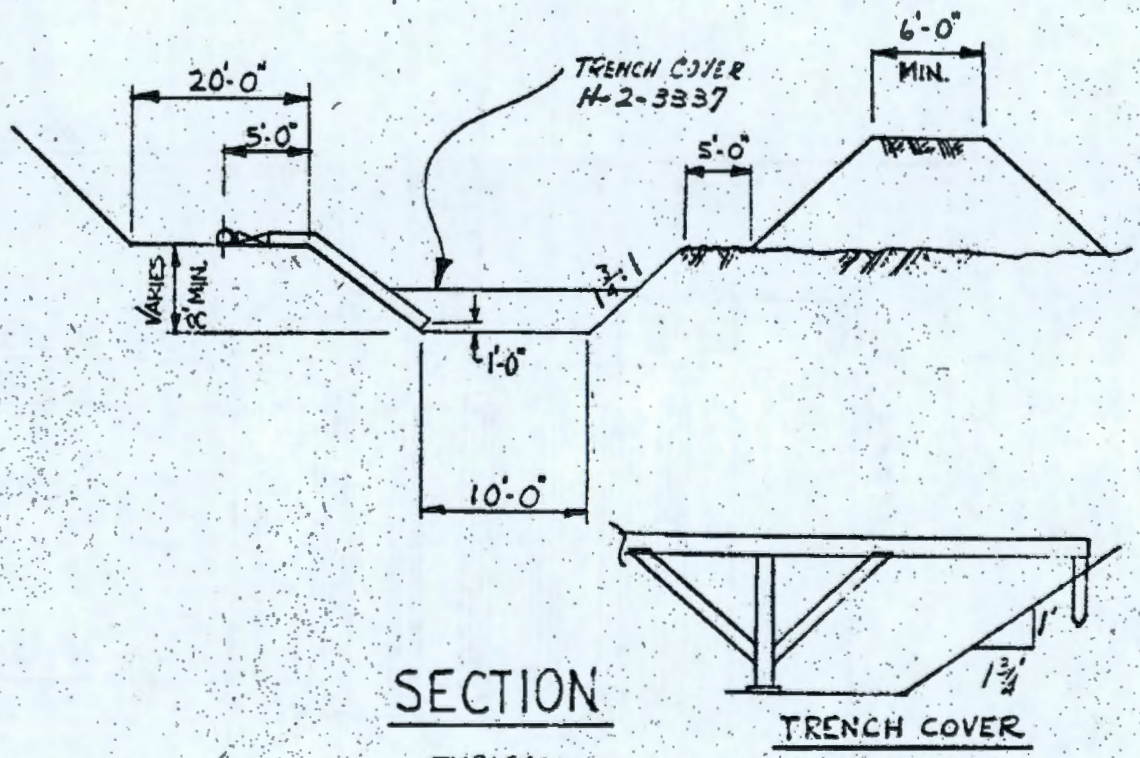
TRENCH COVER DETAIL

216-B-23-24-25-26-27-28-52



216-B-29-30-31-32-33-34

H-2-3336



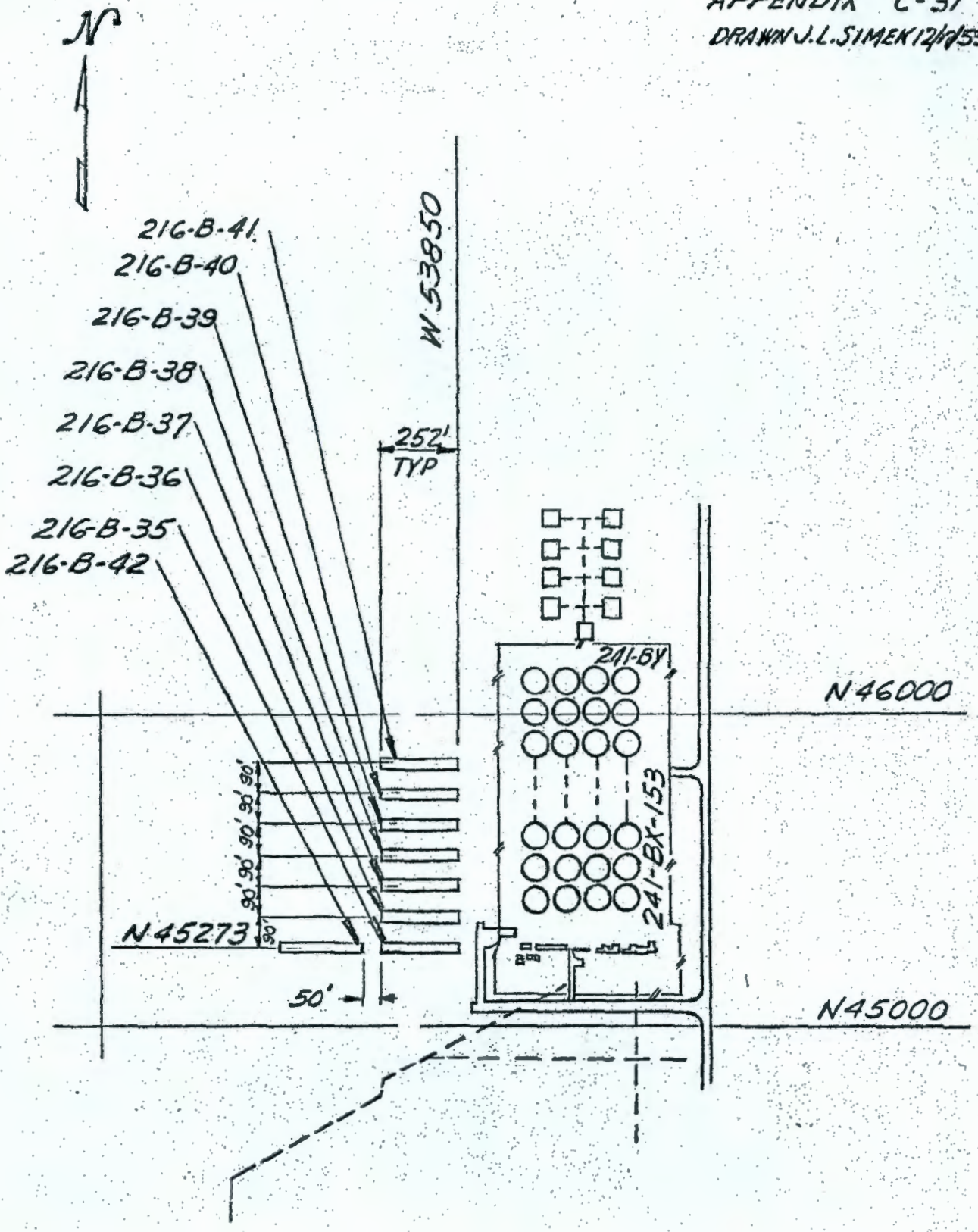
SECTION

TYPICAL

TAKEN FROM H-2-3337

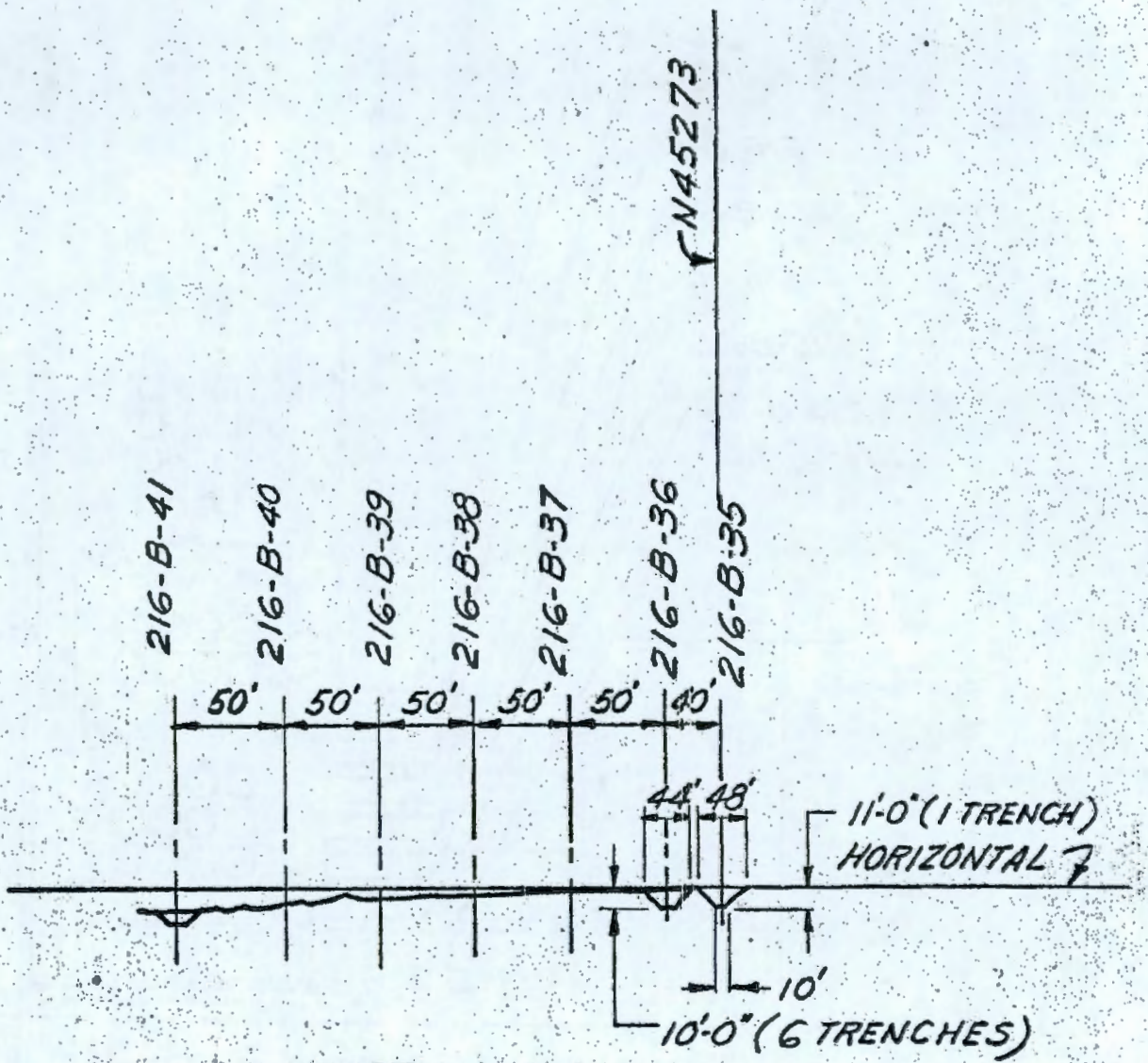
216-B-29-30-31-32-33-34

HW55176-PART 6
APPENDIX C-31
DRAWN J.L. SIMEK 12/1/55



216 B-35-36-37-38-39-40-41-42

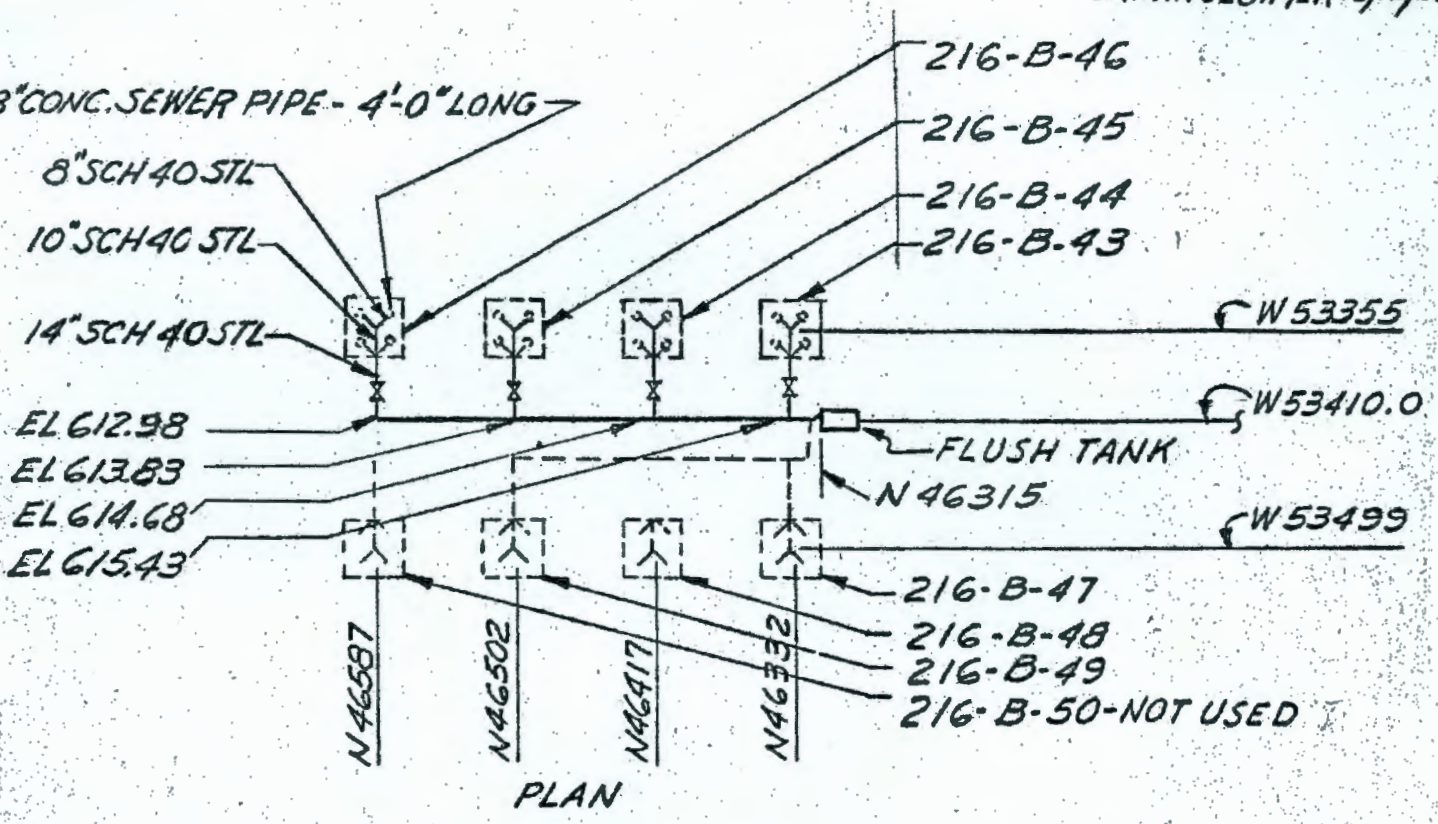
SK-2-2408

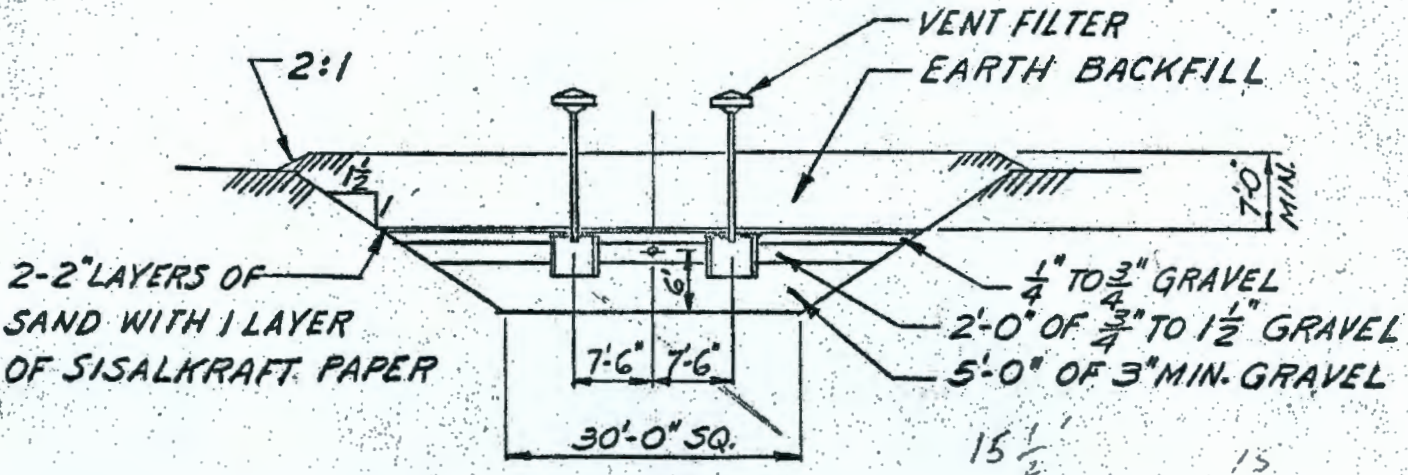


SECTION A-A

216B-35-36-37-38-39-40-41-42

SK-2-2408

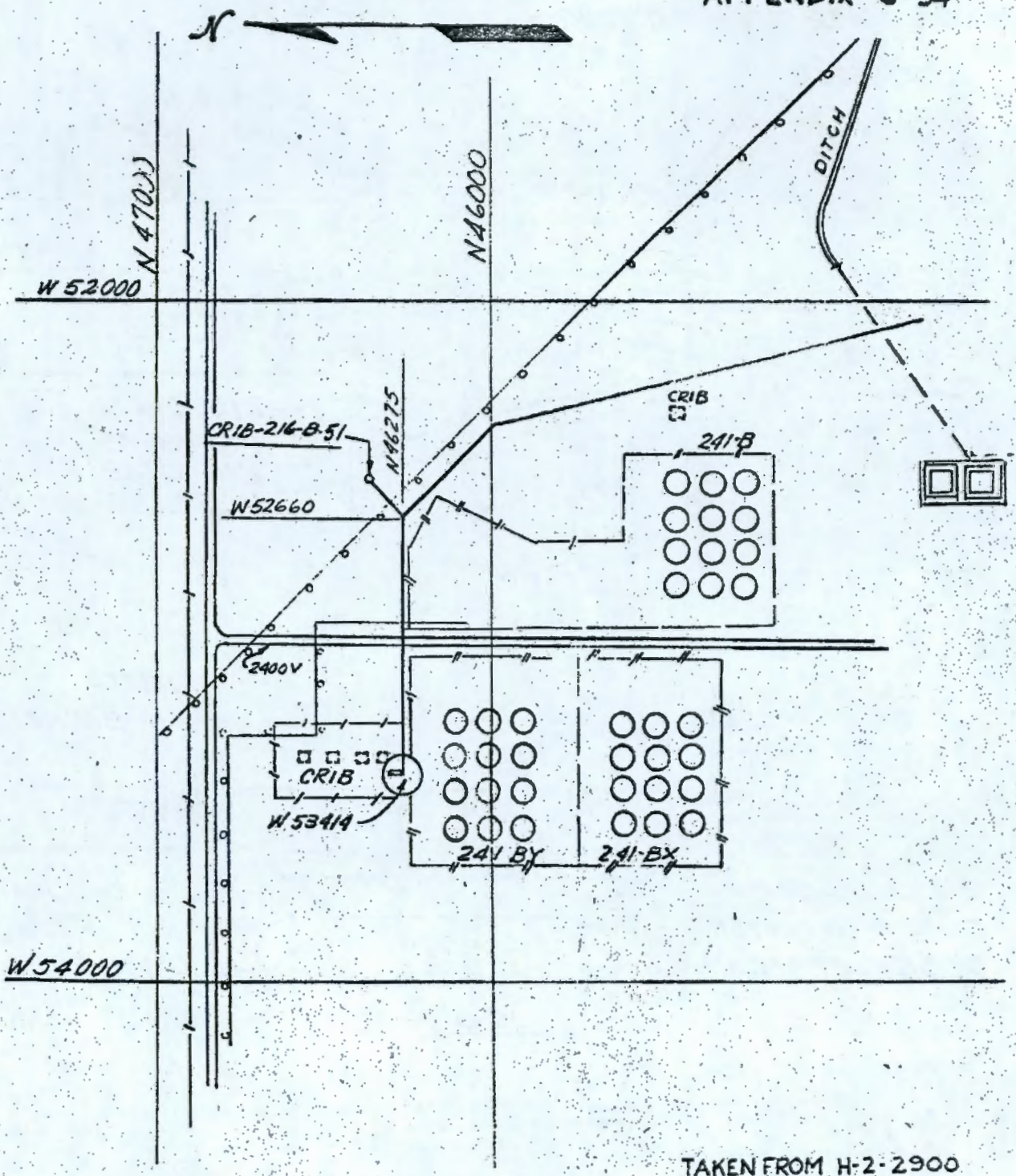




15 1/2 15

216-B-43-44-45-46-47-48-49-50

H-2-2603
H-2-2605



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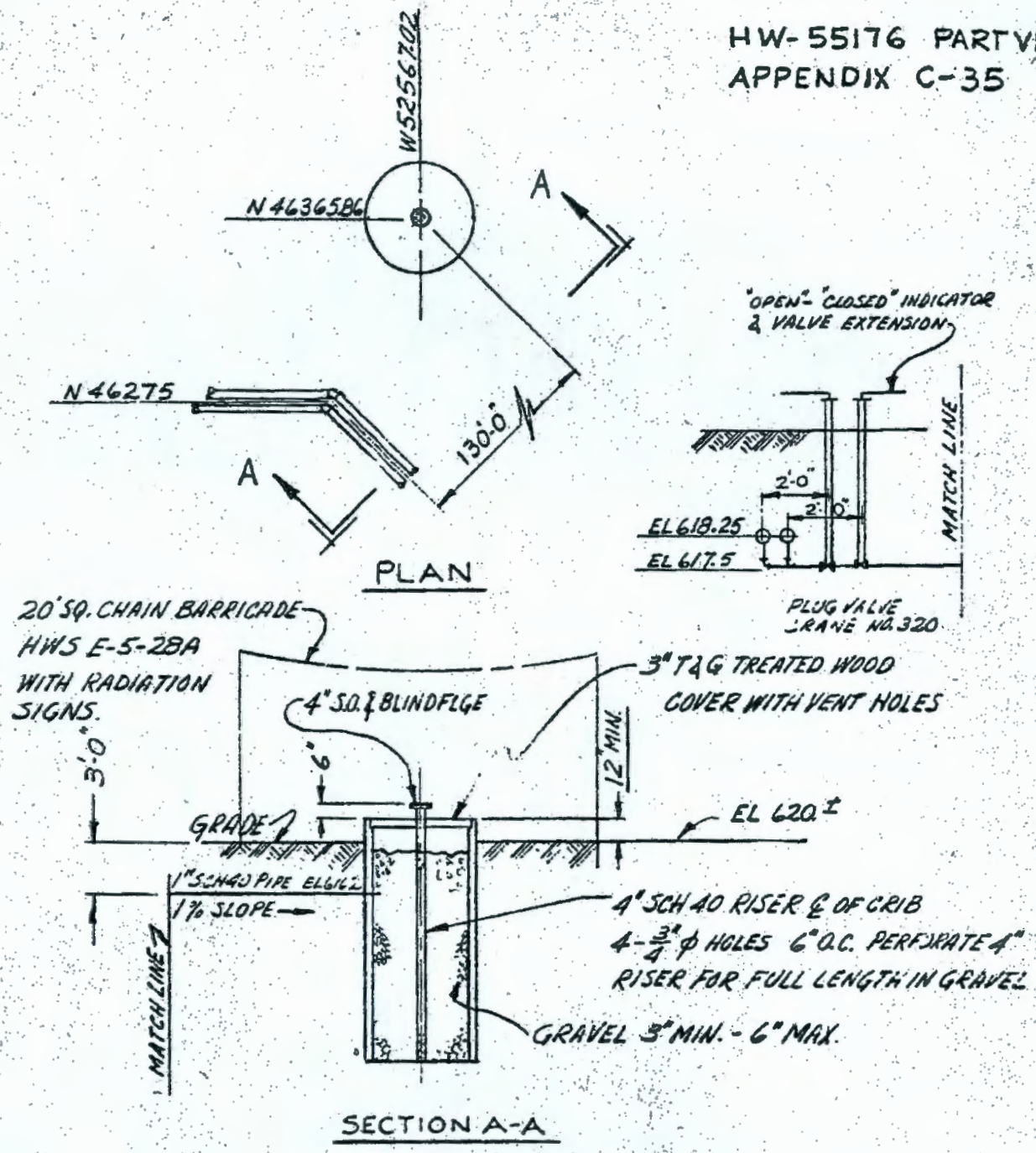

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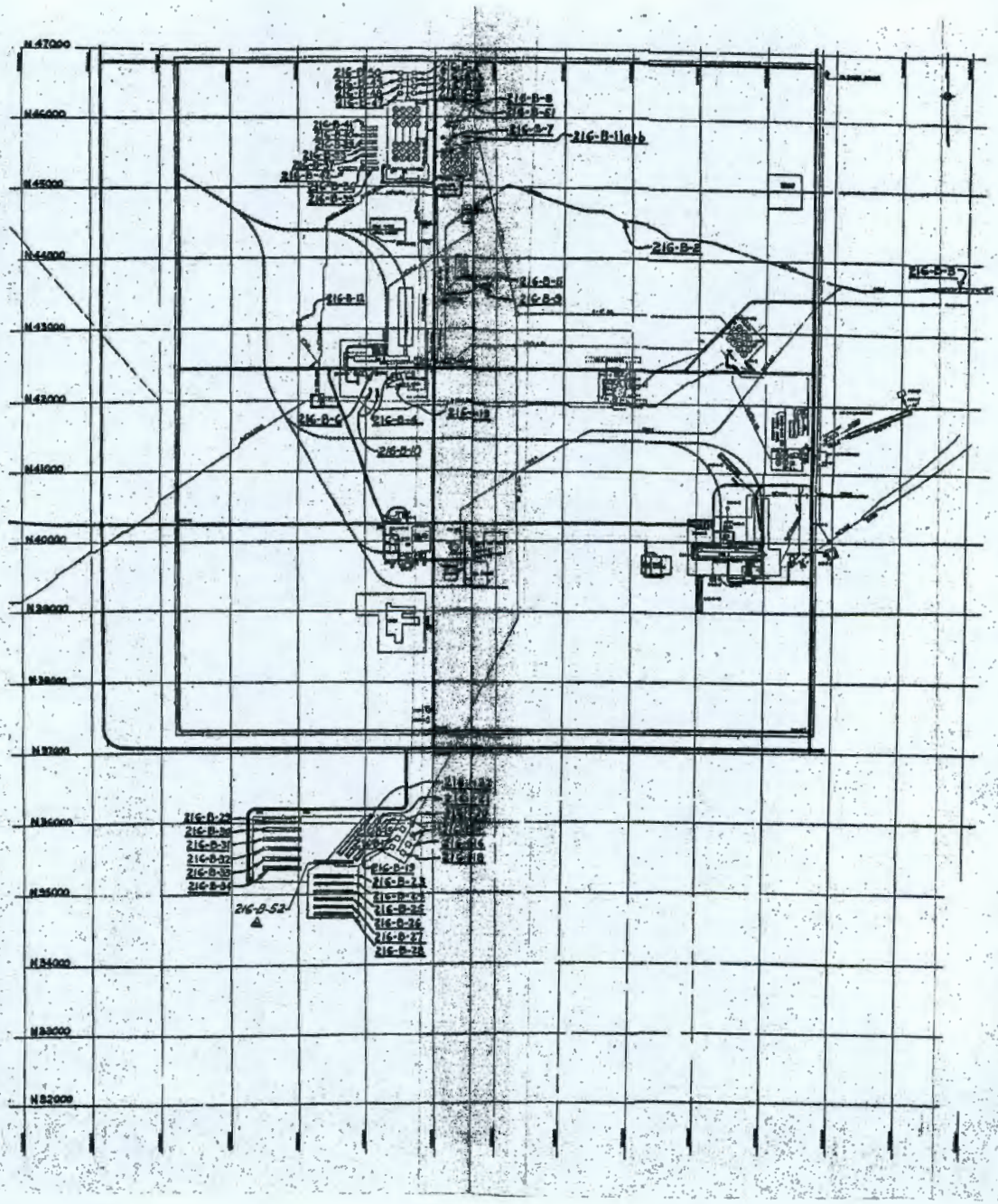

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RICHLAND, WASHINGTON
DESIGNED BY HANFORD

"B" PLANT
LIQUID WASTE DISPOSAL SYSTEM
216-B-SERIES

SK-2-17840

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INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE
DISPOSAL SITES

Part VII of VII Parts - Process Technology - Study Report

AUTHOR

E. Doud

ROUTE TO	PAYROLL NO.	LOCATION	FILES ROUTE DATE	SIGNATURE AND DATE
W. A. Kelley				

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INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part VII of VII Parts
Process Technology - Study Report

by

E. Doud
Radiological Development
Facilities Engineering
Chemical Processing Department

October 22, 1959

D I S T R I B U T I O N

CR Bergdahl	TG LaFollette
JM Bernard	CE Linderoth
A Bradway	PR McMurray
WG Browne	WN Mobley
GK Carpenter	HE Parker
JR Cartmell	HF Peterson
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INDEX OF CPD CRIB BUILDING NUMBERS
DESIGNS OF CPD RADIOACTIVE LIQUID WASTE DISPOSAL SITES

Part VII of VII Parts
Process Technology - Study Report

INTRODUCTION

During the fourteen years or more which the separations areas have operated, many sites have been used for the disposal of radioactive liquid wastes. Various methods have been used in assigning building numbers to these sites and, in a number of cases, changes have been made which have brought about some confusion. One of the reasons being some currently used building numbers do not agree with the numbers existing on design prints for the facilities. Reference (2) was an effort to establish a listing of the liquid waste disposal sites. It required considerable time and research to locate information concerning these sites.

Many varied designs have been used for the disposal of radioactive liquid wastes. Reverse wells, trenches, cribs or caverns, etc., have been used. Specific information on these facilities is often difficult to obtain for in some instances they were constructed on work orders with no records being retained on the design. In general, the design on each facility has been different. This has made it extremely difficult for people to have a good working knowledge of the various waste disposal sites.

PURPOSE

The purpose of this report (Part VII) is to provide a ready reference of the "C" Area, "N" Area, and miscellaneous liquid waste disposal sites as well as a compilation of sketches showing the basic information on the design of each facility.

Another objective is to establish a simplified and uniform numbering system. Still another objective is to provide an up-to-date tabulation. Previous parts of this report have provided information on cribs for other areas.

SUMMARY AND CONCLUSIONS

All radioactive liquid waste disposal sites should have the 216 Building number designation. These should be further grouped by giving all such sites for Purex a prefix of 216-A. Other major series would be 216-S for Redox; 216-T for "T" Plant; 216-B for "B" Plant; 216-U for "U" Plant; 216-Z for "Z" Plant; 216-C for "C" Area; and 216-N for "N" Area.

The numbering list in "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering should be revised to more closely follow the above numbering system.

RECOMMENDATIONS

It is recommended that the following action be taken:

1. All groups and services referring to the "C" Area and "N" Area cribs or report data concerning them should use the index numbering system as presented in this report.

2. That all drawings concerning these disposal sites, including maps, be revised to show the proper locations and numbers for these cribs.

3. Any suggestions for improving the usefulness of this report should be referred to the author.

DISCUSSION

This Part VII completes the series of reports on CPD waste disposal sites. The seven parts give a listing of the site designations, the locations and a description of each structure. These listings provide a basis for future building number assignments. Revisions and additions for each part will be issued as necessary to keep it current.

While some sincere efforts have been made to try and keep a methodical system for recording waste disposal sites, a number of problems have developed, for example, HW-5000, Sheet 29 of 50, lists only eight cribs in the 216-S series. Also reference 2 has assigned numbers which do not agree with the crib numbers assigned on many drawings.

As indicated earlier, the use of the crib index, as presented in this report should be very easy. In addition, information is presented which is very difficult to locate in the records and in some cases it is not available in the records.

REFERENCES

1. HW-5000, "Official Hanford Works Building List - Specification HW-5000" by Engineering Files - Construction Engineering Operation.

2. HW-43121, "Tabulation of Radioactive Liquid Waste Disposal Facilities," by HV Clukey dated May 10, 1956.

3. HW-33305, "Tabulation of Radioactive Liquid Waste Disposal Facilities," by HV Clukey dated October 8, 1954.

4. HW-60807, "Unconfined Underground Radioactive Waste and Contamination in the 200 Areas," by KF Baldridge dated July 15, 1959.

CROSS REFERENCE

"C" & "N" Area Radioactive Liquid Waste Disposal Sites

Suggested Crib No.	Number Listed In HW-5000	Number Listed in HW-33305	Number Used on Drawings or Original #	Remarks
216-C-1	216-C-1	216-C Crib	216-C	
216-C-2	216-C-2	291-C Dry Well	-	
216-C-3	216-C-3	201-C Leading Pit	-	
216-C-4	216-C-4	None	-	
216-C-5	216-C-5	None	-	
216-C-6	241-CX	None	241-CX	
216-C-7	None	None	-	
216-C-8	None	None	271-CR	
216-C-9	None	C Canyon Excavation	-	
216-N-1	None	212-N Swamp	-	
216-N-2	None	212-N #1 Trench	-	
216-N-3	None	212-N #2 Trench	-	
216-N-4	None	212-P Swamp	-	
216-N-5	None	212-P Trench	-	
216-N-6	None	212-R Swamp	-	
216-N-7	None	212-R Trench	-	

APPENDIX

A. Explanation of Parts to the Report

Part I will cover the Purex Radioactive Liquid Waste Disposal Sites.

Part II will cover the "Z" Plant Radioactive Liquid Waste Disposal Sites.

Part III will cover the Redox Plant Radioactive Liquid Waste Disposal Sites.

Part IV will cover the "U" Plant Radioactive Liquid Waste Disposal Sites.

Part V will cover the "T" Plant Radioactive Liquid Waste Disposal Sites.

Part VI will cover the "B" Plant Radioactive Liquid Waste Disposal Sites.

Part VII will cover the "C" Plant, Hot Semi-Works, the 200 North Areas and miscellaneous.

B. Index for C Plant and North Areas Radioactive Liquid Waste Disposal Sites.

C. Sketches of "C" Area Waste Disposal Facilities.

D. Map of C Area Crib Sites (SK-2-18149).

E. Map of N Area Crib Sites (SK-2-17842).

F. Map of Waste Burial Gardens 200-E Area (H-2-31269).

G. Map of Waste Burial Gardens 200-W Area (H-2-31268).

APPENDIX B - Revised 10/19/59

CRIB INDEX - C AREA

Number	Description Appendix Sheet No.	Service	Use Dates From	To	Status
216-C-1	C-1 1A	201-C Process Condensate	1/53		Inactive
216-C-2	C-2	291-C Stack & Filter Drum	1/53		Active
216-C-3	C-3	271-C Chemical Wastes	1/53	3/54	Abandoned
216-C-4	C-4	276-C Organic Wastes	7/55		Inactive
216-C-5	C-5	201-C High Salt Wastes	3/55		Inactive
216-C-6	C-6	241-CX Waste Storage Con.	9/55		Active
216-C-7	C-7	209-E Critical Lab Waste	Not Used		New
216-C-8	C-8	271-CR Ion Exchange Waste	Not Used		New
216-C-9	C-9	C Area Process Cooling Wtr	6/53		Active

CRIB INDEX - N AREA

216-N-1	None	212-N Basin Overflow	1944	6/52	Backfilled
216-N-2	None	212-N Basin Cleanout	-	1947	Abandoned
216-N-3	None	212-N Basin Cleanout	-	6/52	Inactive
216-N-4	None	212-P Basin Overflow	1944	6/52	Backfilled
216-N-5	None	212-P Basin Cleanout	-	6/52	Inactive
216-N-6	None	212-R Basin Overflow	1944	6/52	Backfilled
216-N-7	None	212-R Basin Cleanout	-	6/52	Inactive

APPENDIX B - Revised 10/19/59

Index of Burial Grounds and Gardens

Designation	Service	Use Dates From	To	Status
200 East Area (H-2-31269)				
A. Dry Waste Burial Ground				
#1	Boxed solid wastes	1945	1953	Depleted
#12	Boxed solid wastes	1956	-	Active
B. Industrial Burial Ground				
#2	Process equipment	1947	-	9 of 11 Trenches Used
#5	Process equipment	1954	1957	Depleted
#5A	Purex L Cell & Misc. Equip.	1958		Depleted
#10	Process equipment	1955	-	Active
C. Construction Burial Ground				
#4	221-B Plant Modif. Wastes	1955		Depleted
No number	293-A and Purex Crane Construction Wastes	1958		Included in Burning Ground
D. Miscellaneous Over Ground Storage				
#9 (adjacent to east side of Industrial Burial Gargen #2)	Metal Recovery Equipment	1953		Active
200 West Area (H-2-31268)				
A. Dry Waste Burial Garden				
#1	Boxed solid wastes	1944	-	Depleted
#2	Boxed solid wastes	-	1954	Depleted
#3	Boxed waste & process equipment	1954	-	Active
#4	Boxed solid wastes	Not used		Reserved
B. Industrial Burial Garden				
#1	Process equipment	1947	1954	Depleted
#2	Process equipment	Not Used		Reserved
C. Regulated Storage Area				
No Number	Contaminated Equipment	1954	-	Active

HW-55176-PT VII
APPENDIX C-1
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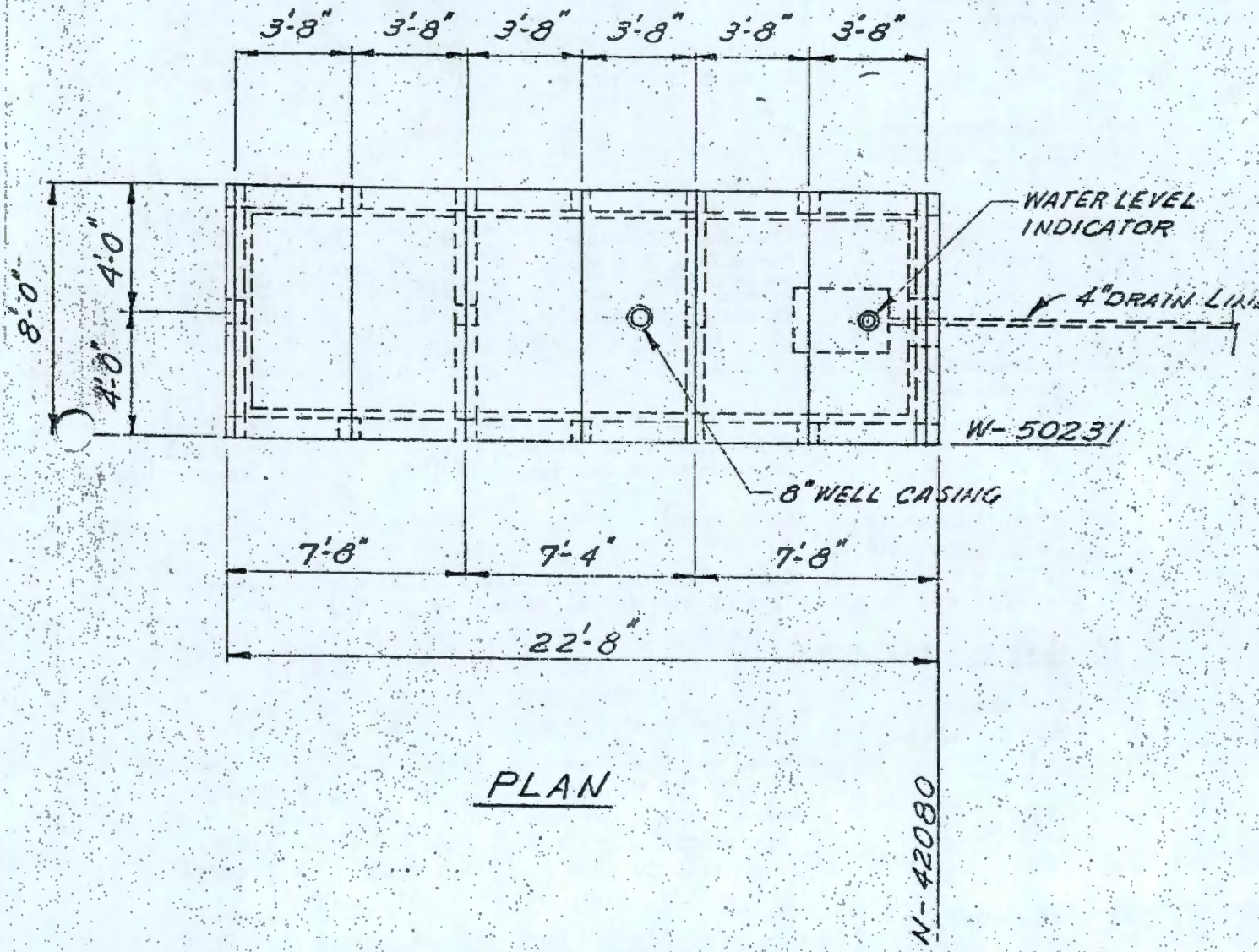
JP 10-9-59



PLAN

216-C-1

H-2-4037

APPENDIX
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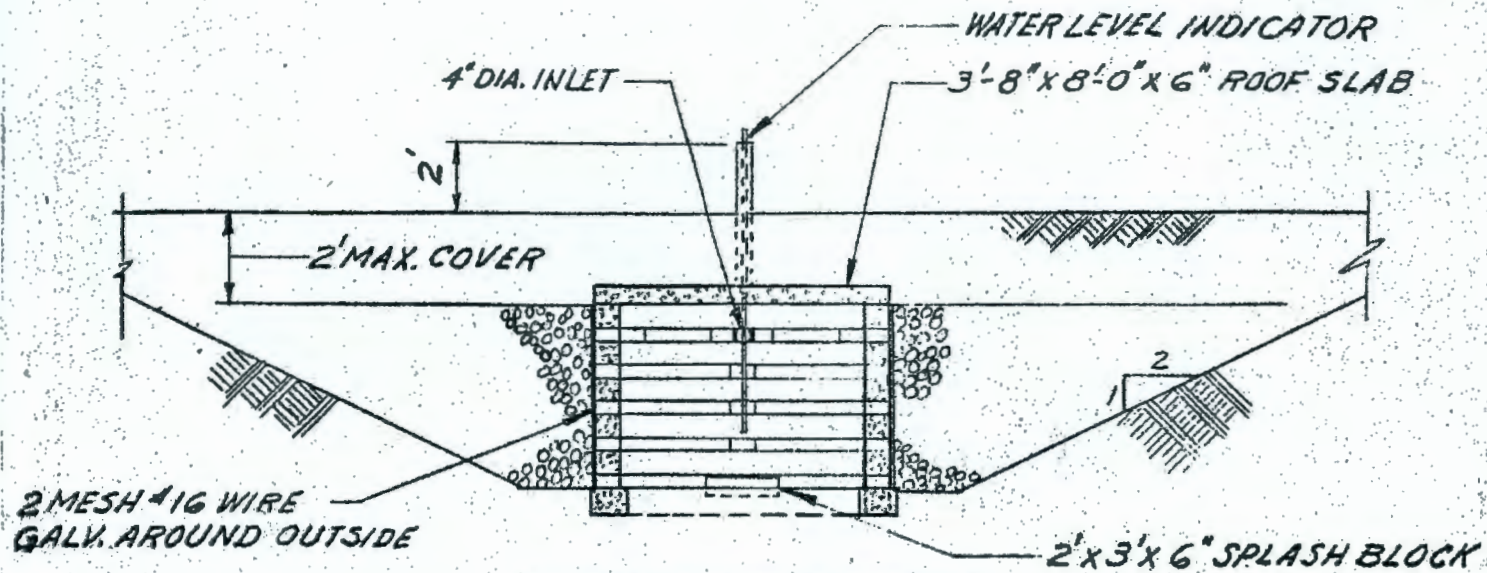

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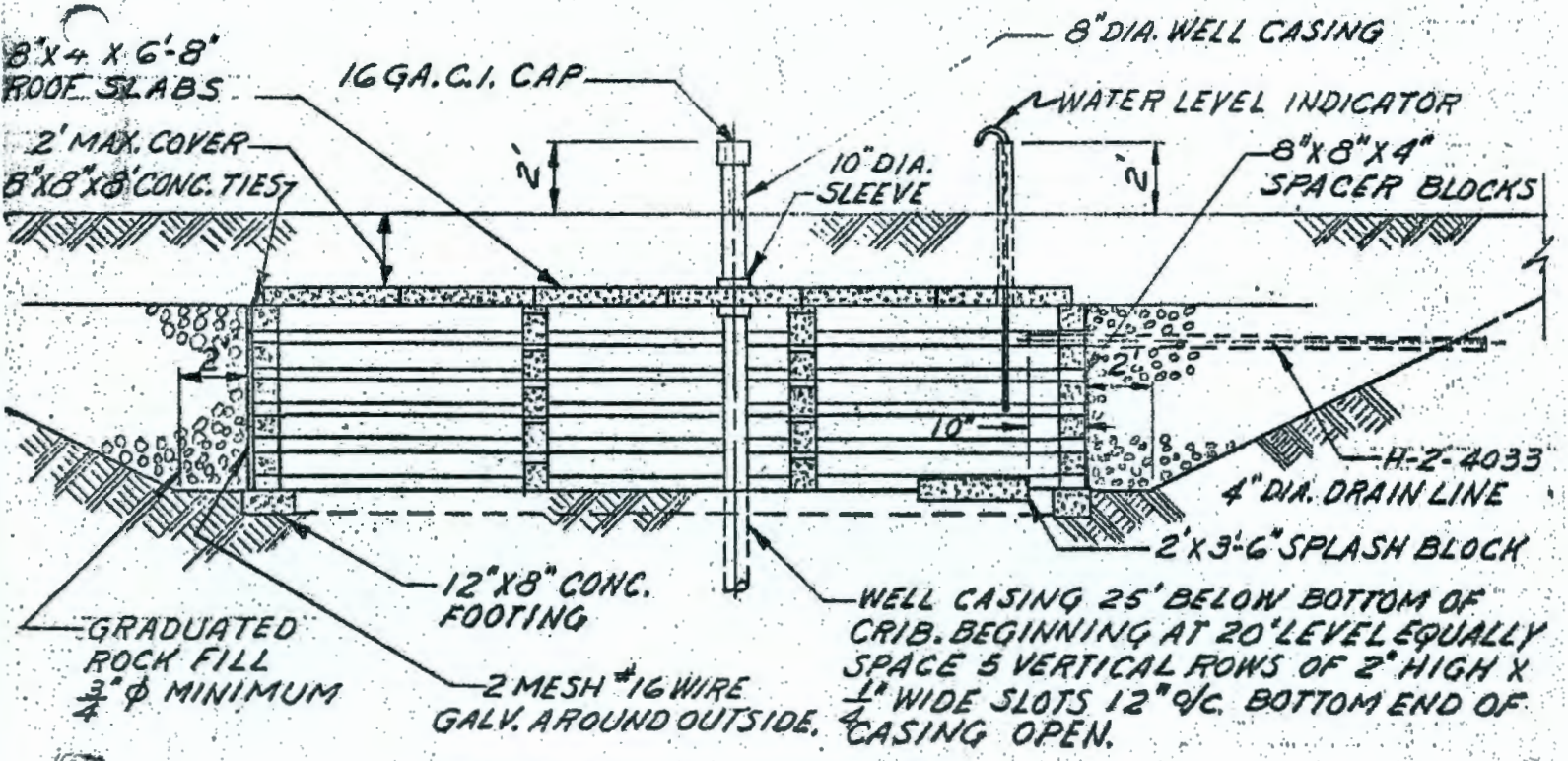

LONGITUDINAL SECTION

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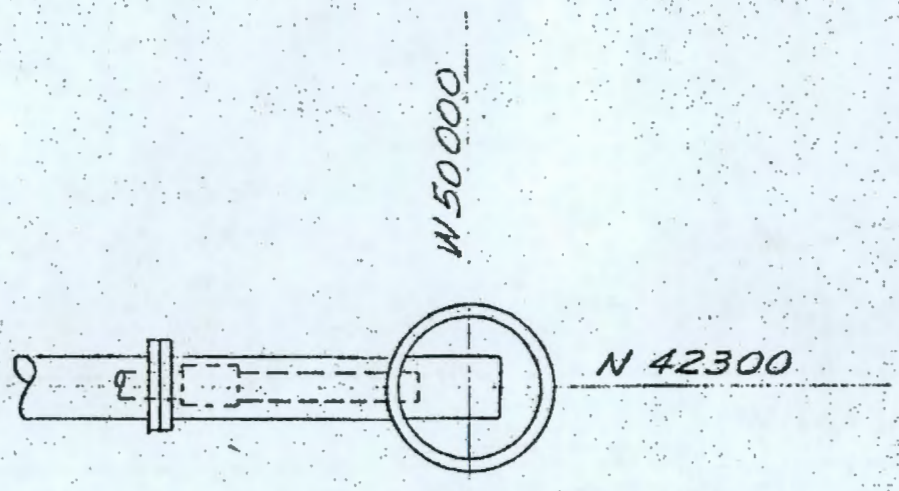

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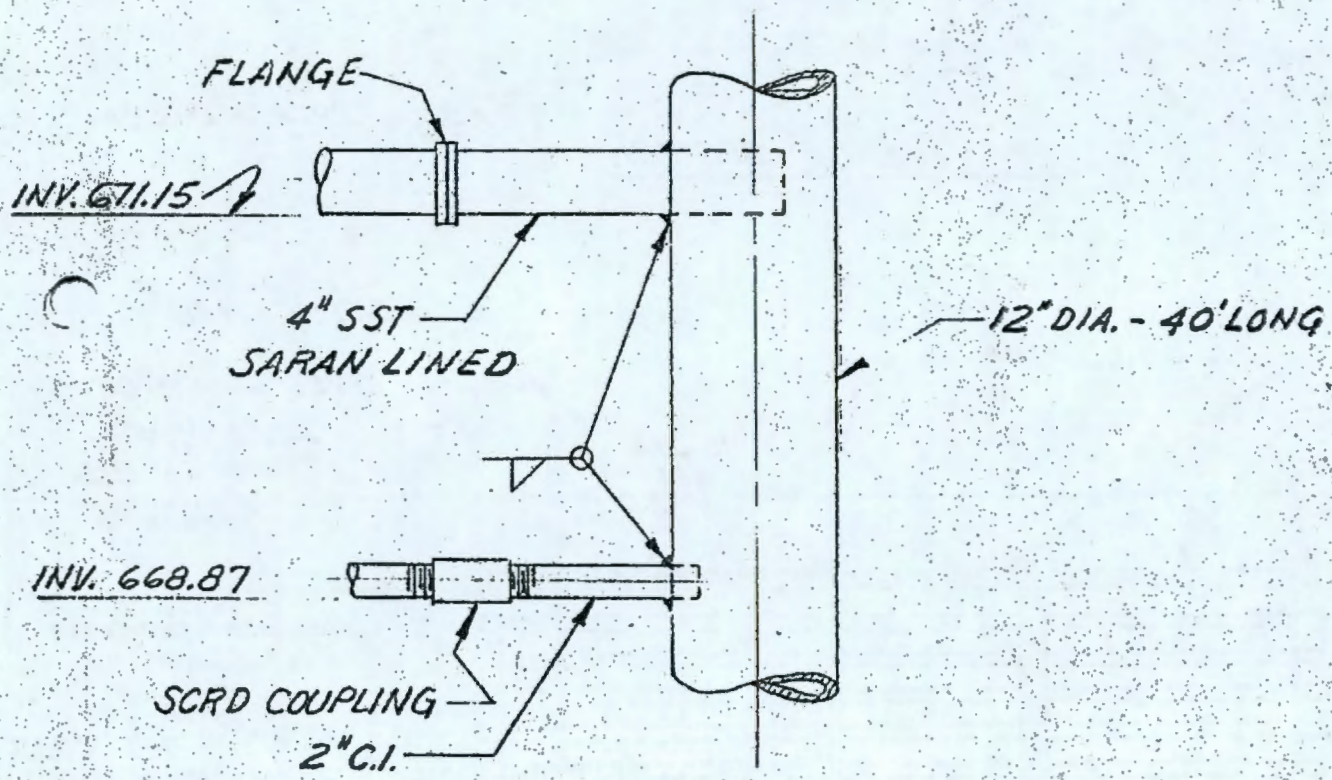

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216-C-2

H-2-4033

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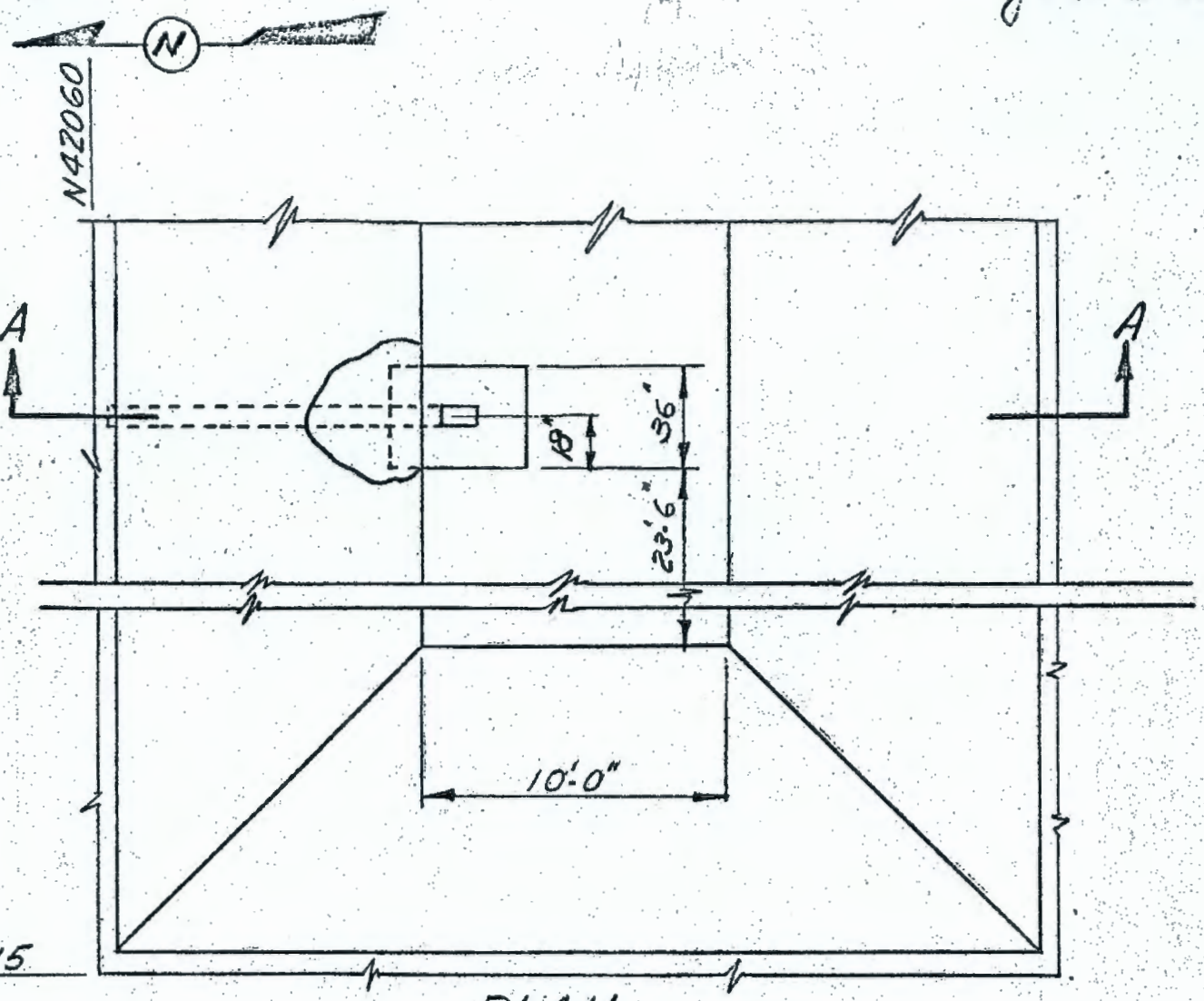

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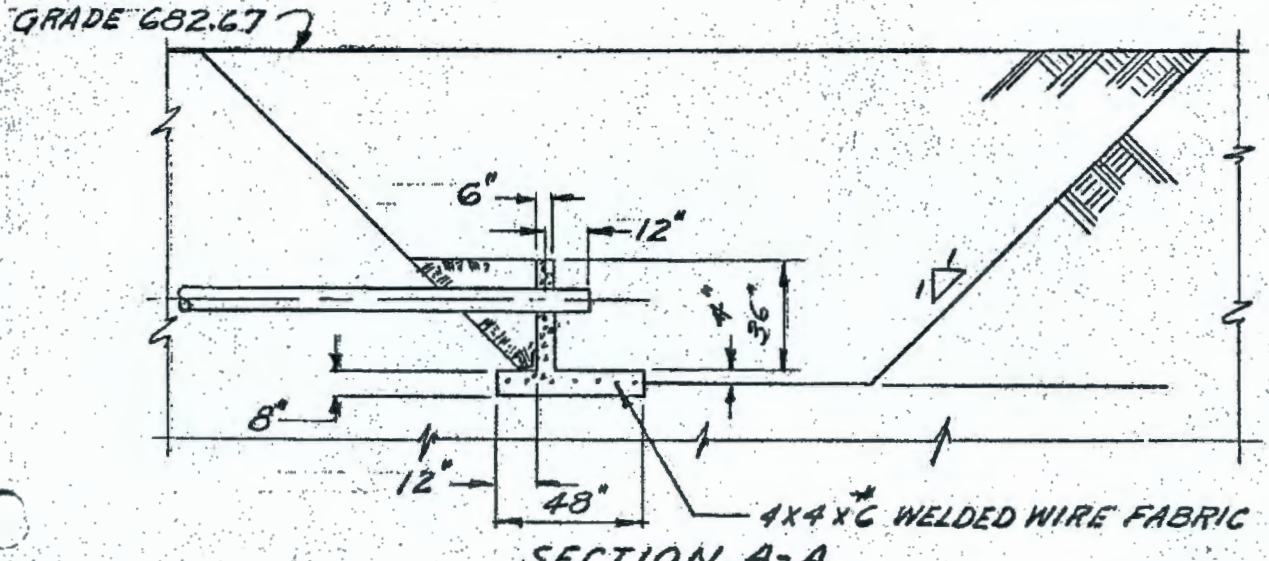

SECTION A-A

H-2-4034

216-C-3

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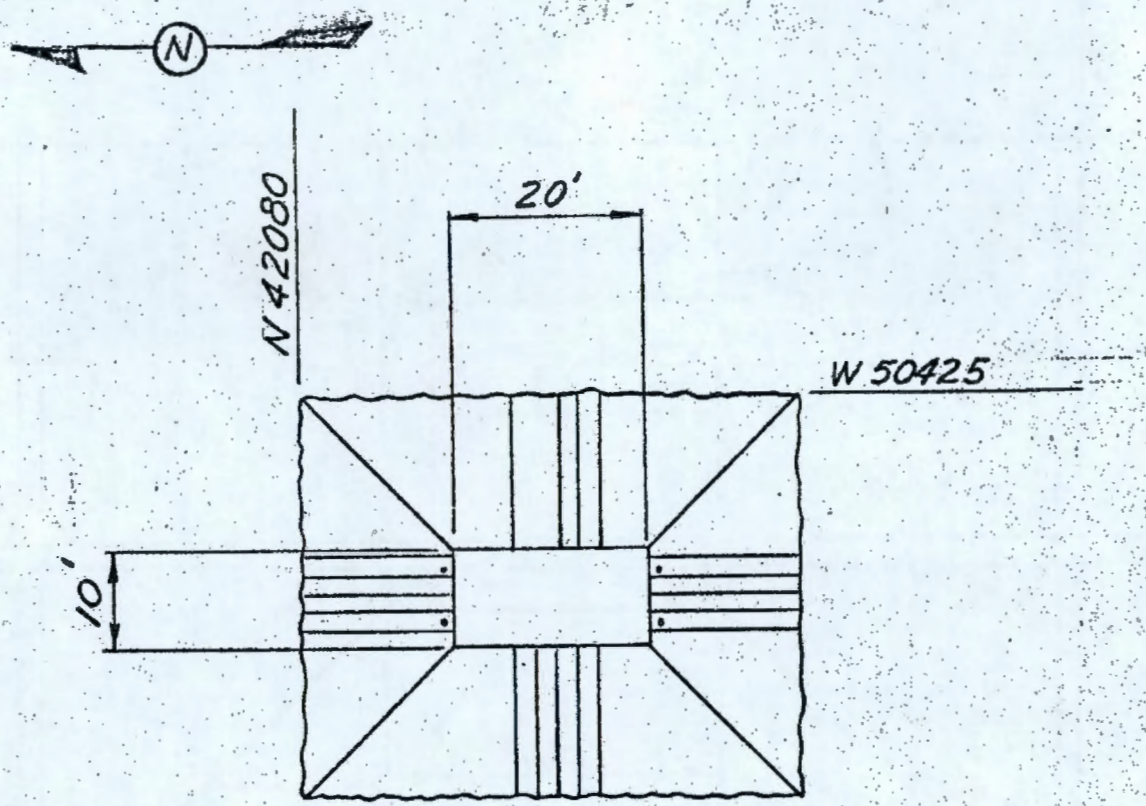

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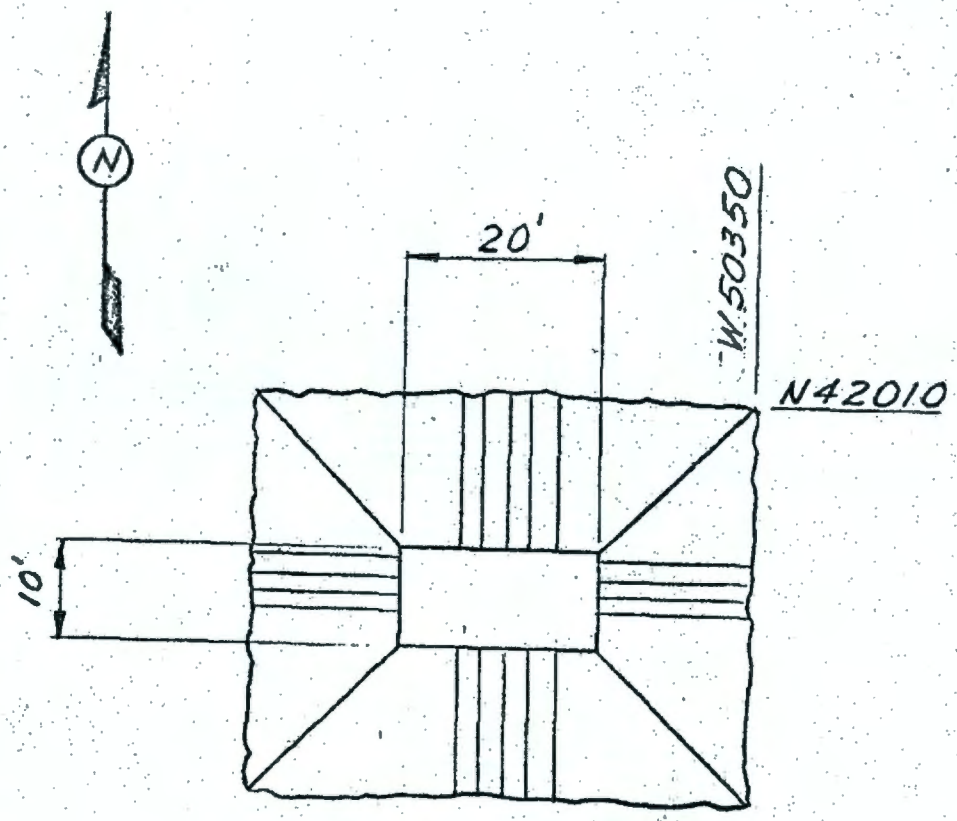
FOR LONGITUDINAL & TRANSVERSE SECTION - SEE 216-C-6 CRIB



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HW 56176-PTII
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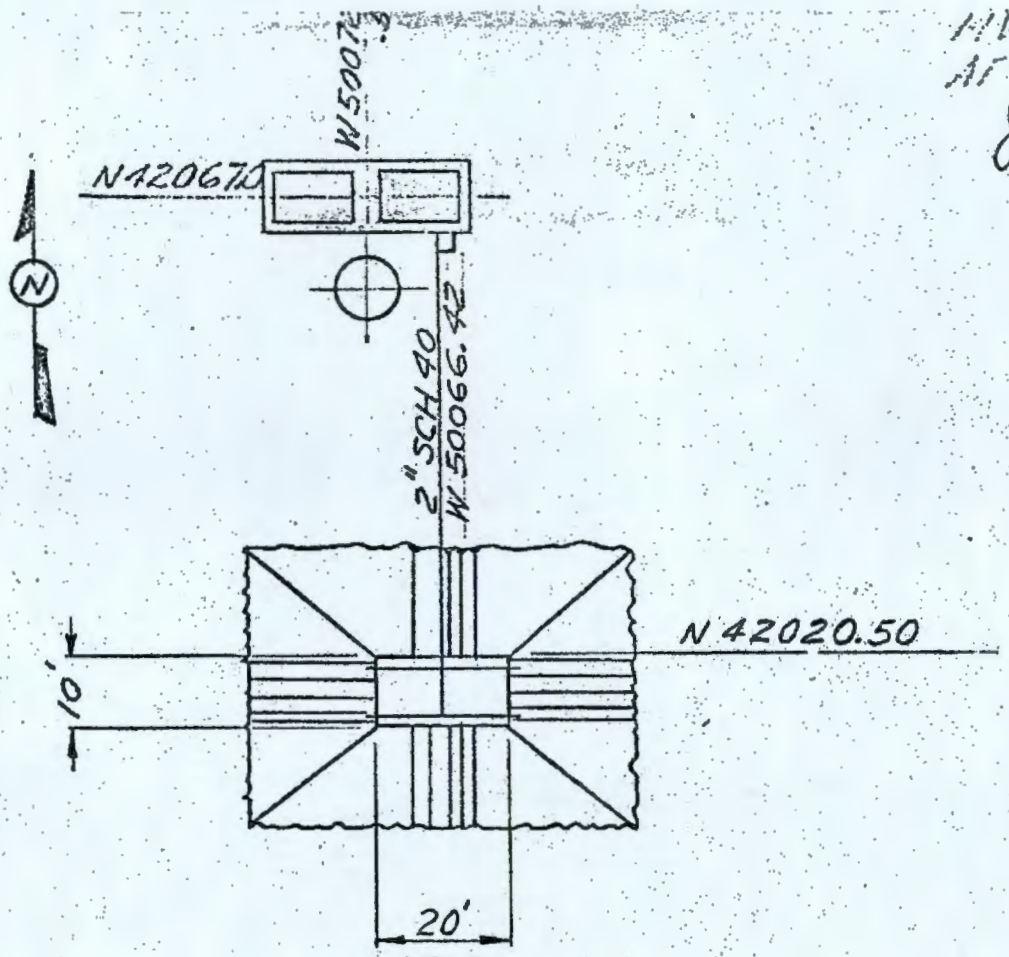

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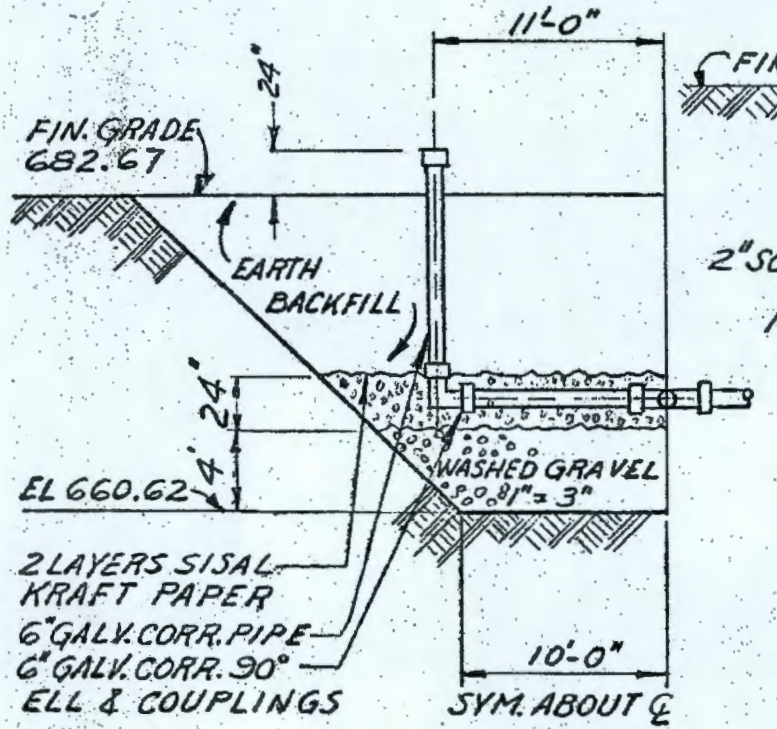

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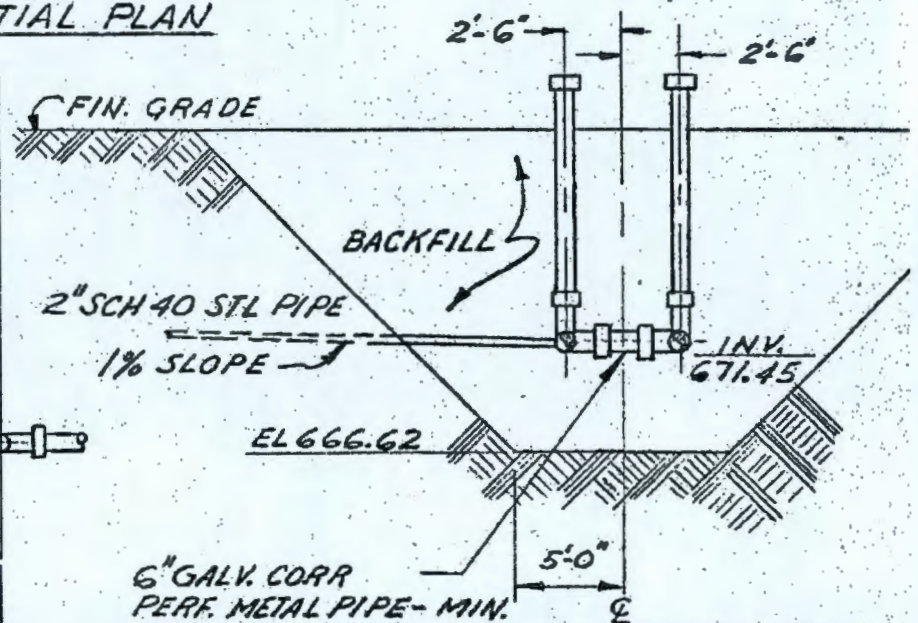

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HW-55116-PTVII
APPENDIX C-7
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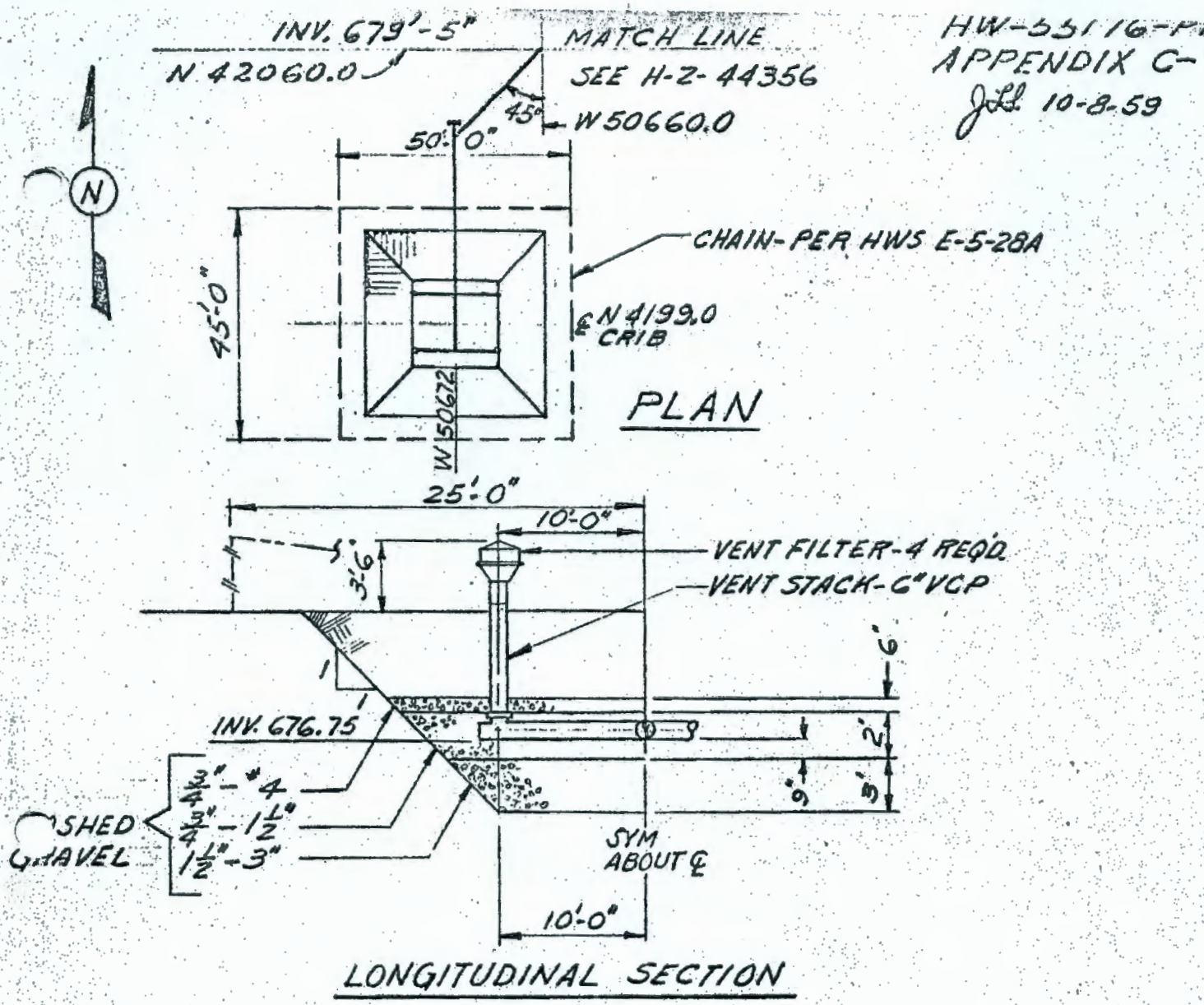

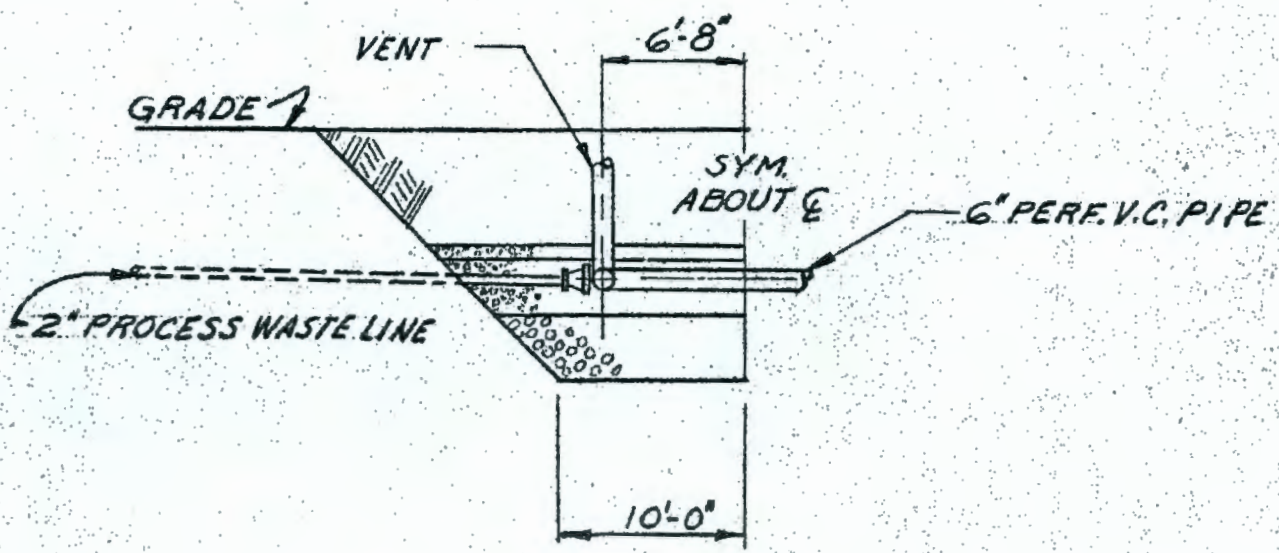

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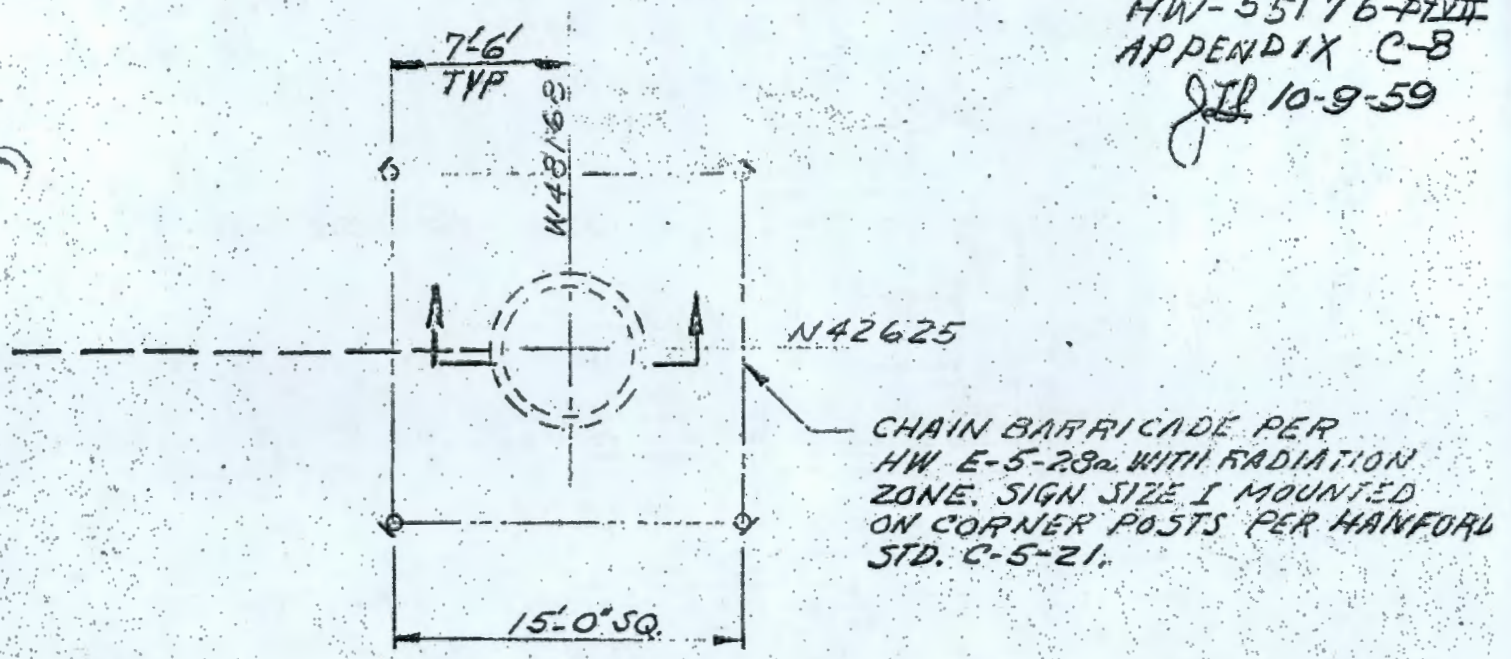

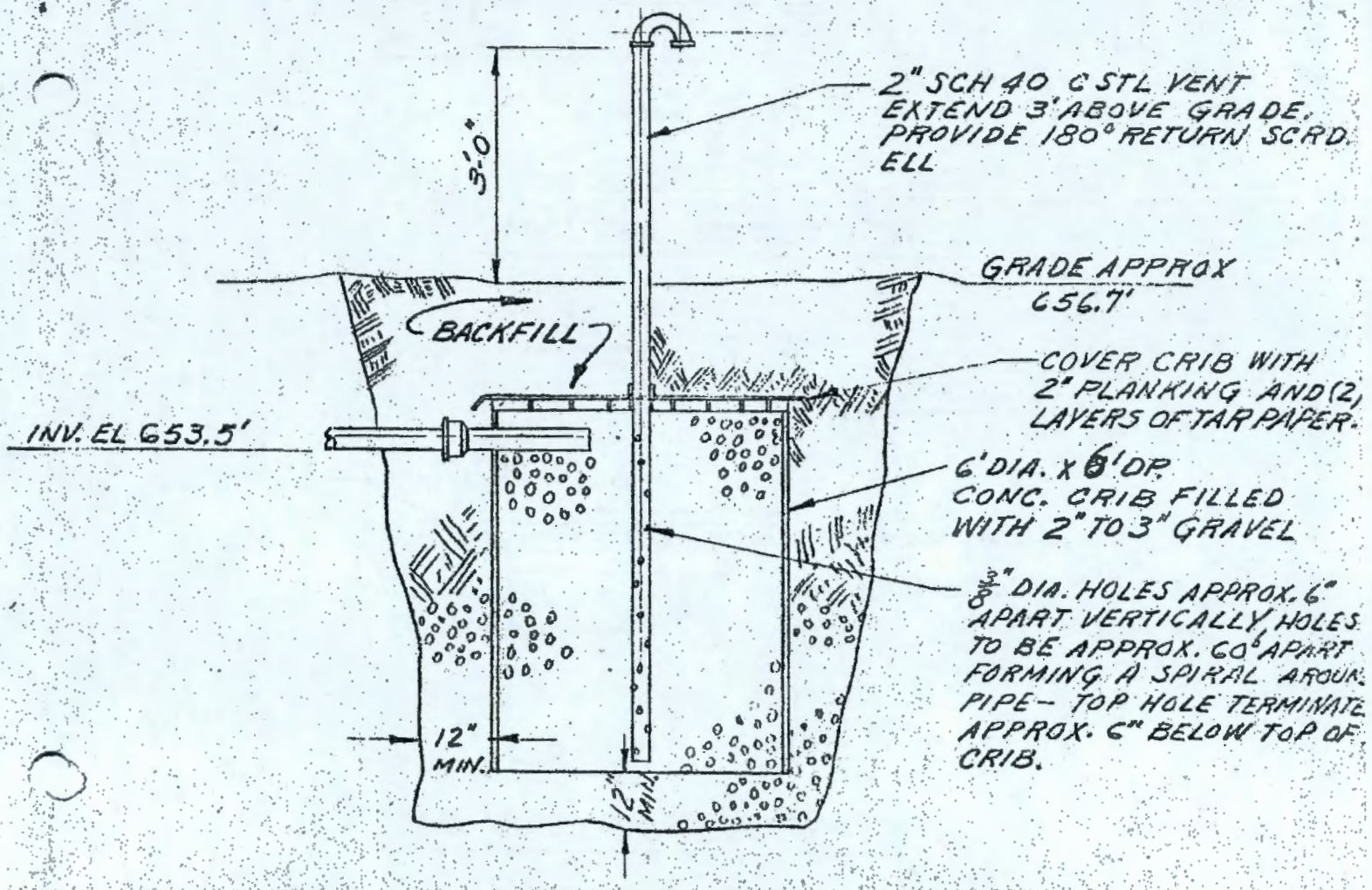

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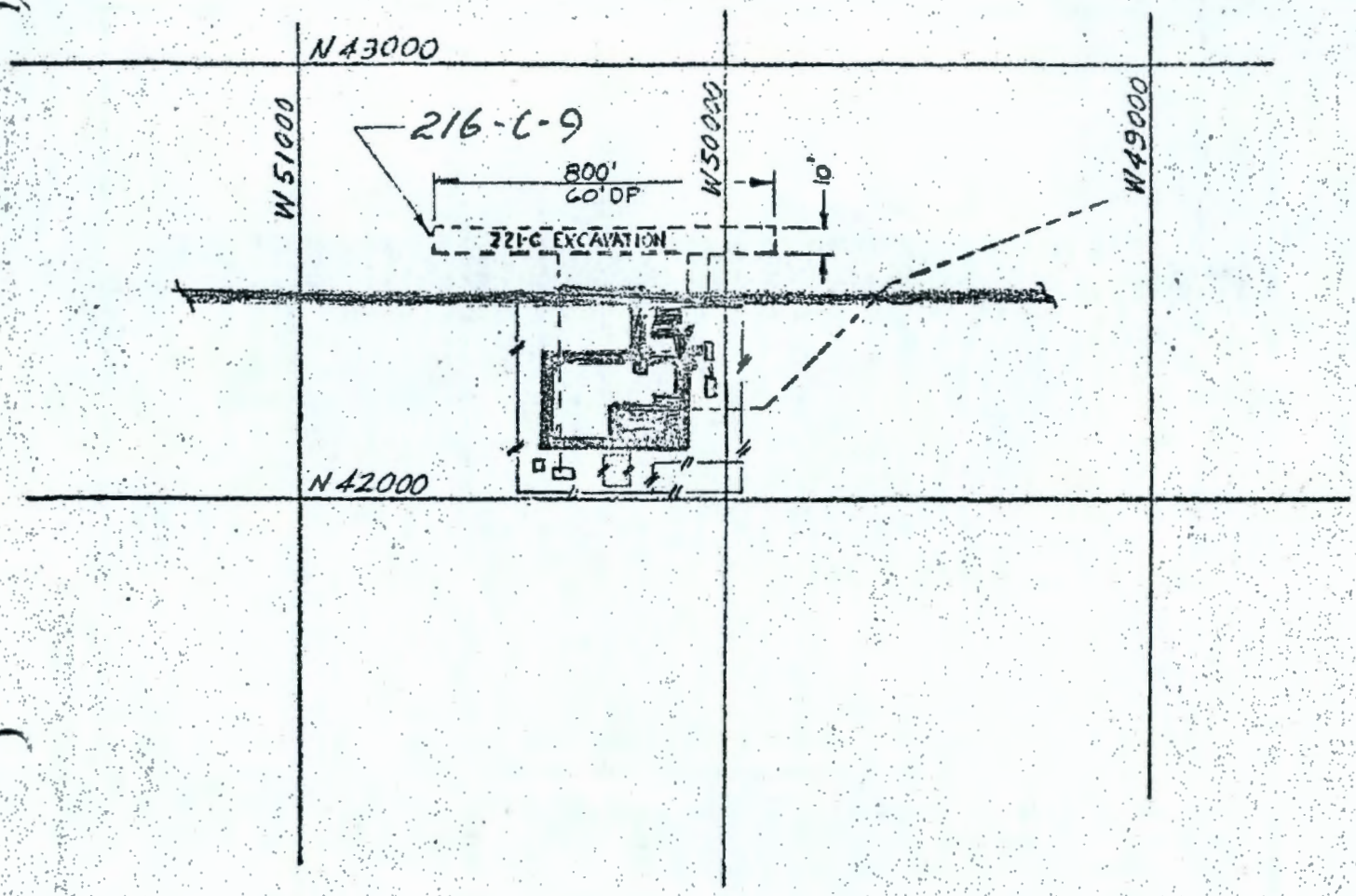

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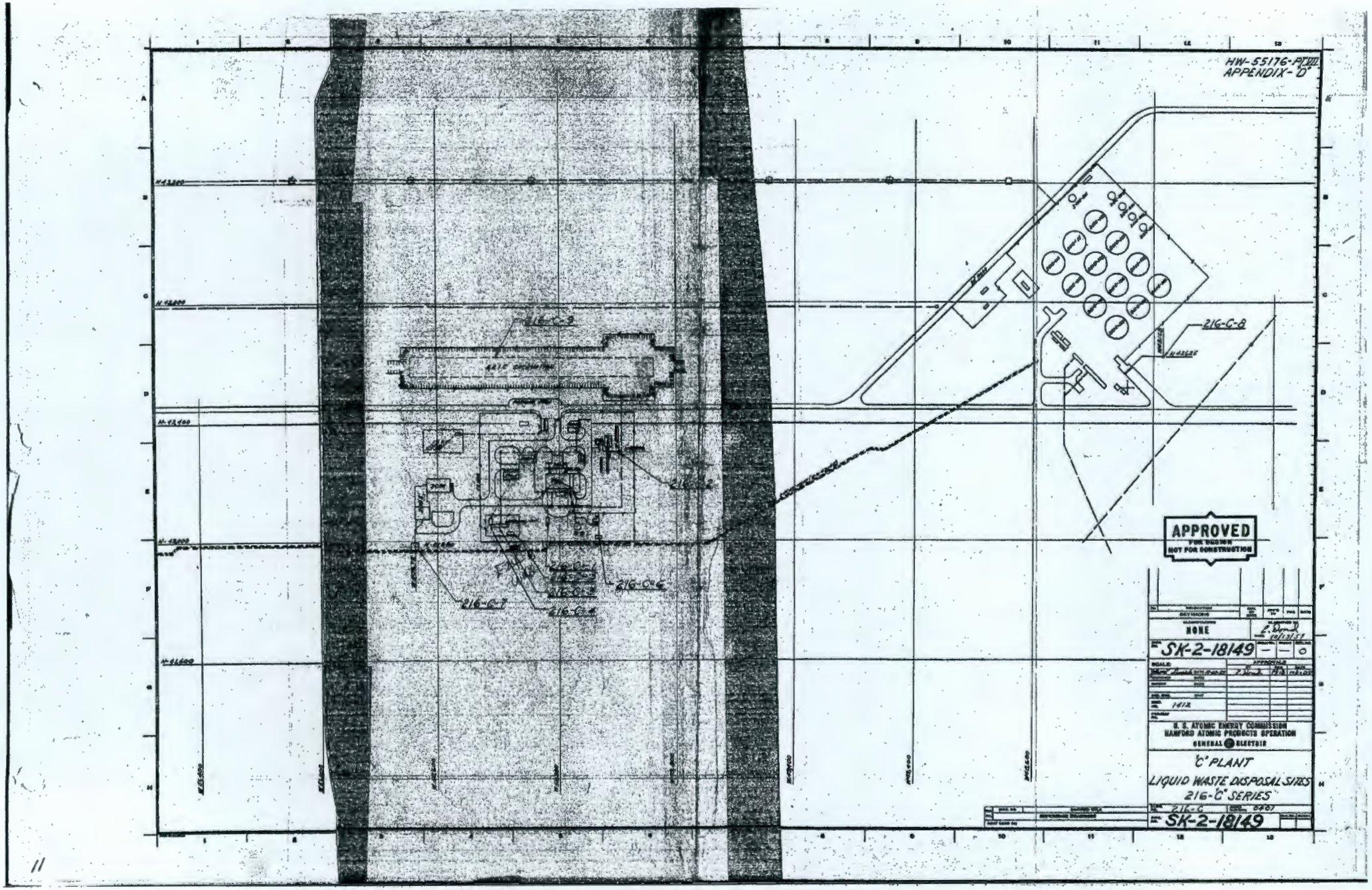
HW-55176-PT III
APPENDIX-D
216-C-8
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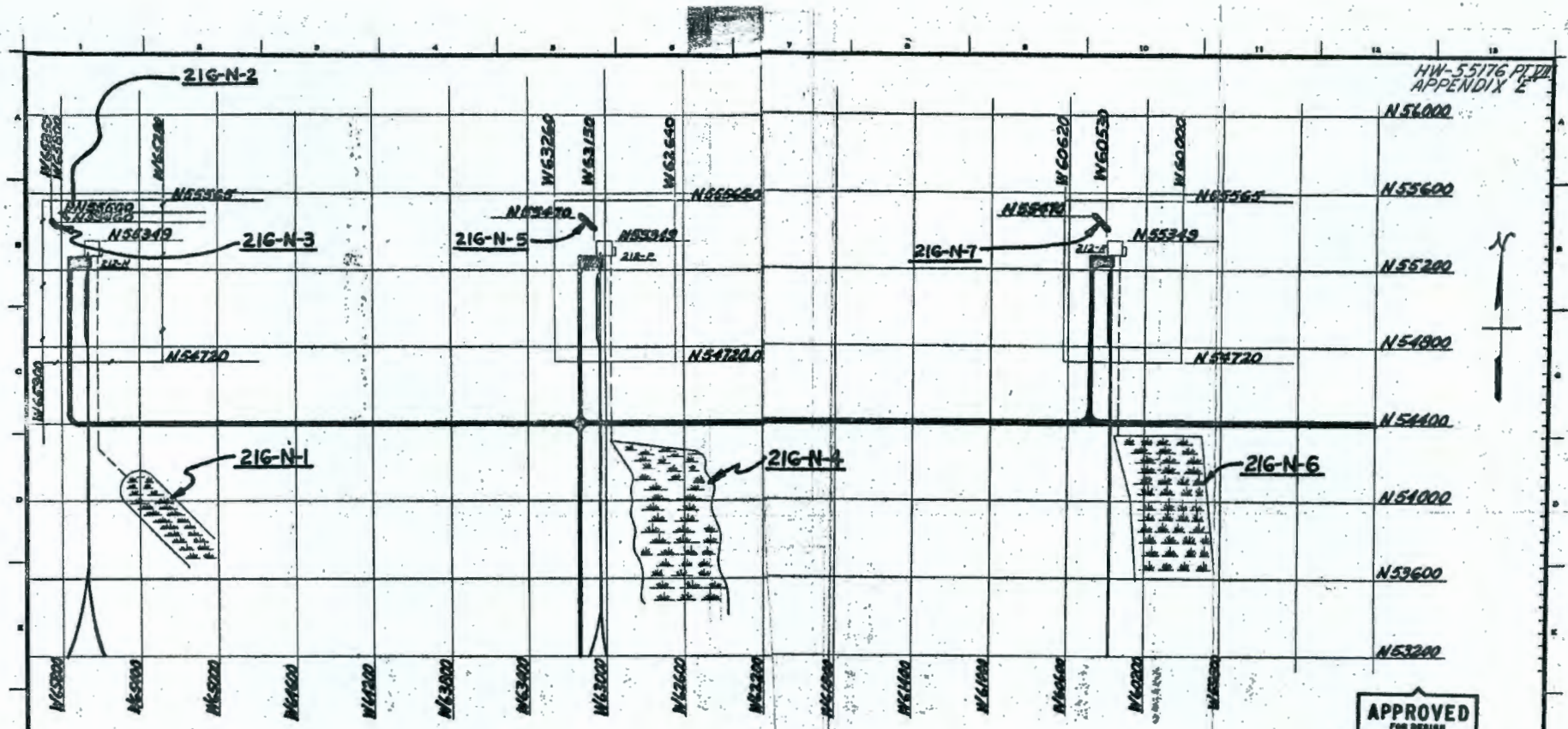
U. S. ATOMIC ENERGY COMMISSION
HANFORD ATOMIC PRODUCTS OPERATION
GENERAL ELECTRIC
'C' PLANT
LIQUID WASTE DISPOSAL SITES
216-'C' SERIES
216-C
SK-2-18149



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NONE

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NORTH AREA
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216-N SERIES.

216-N 0401

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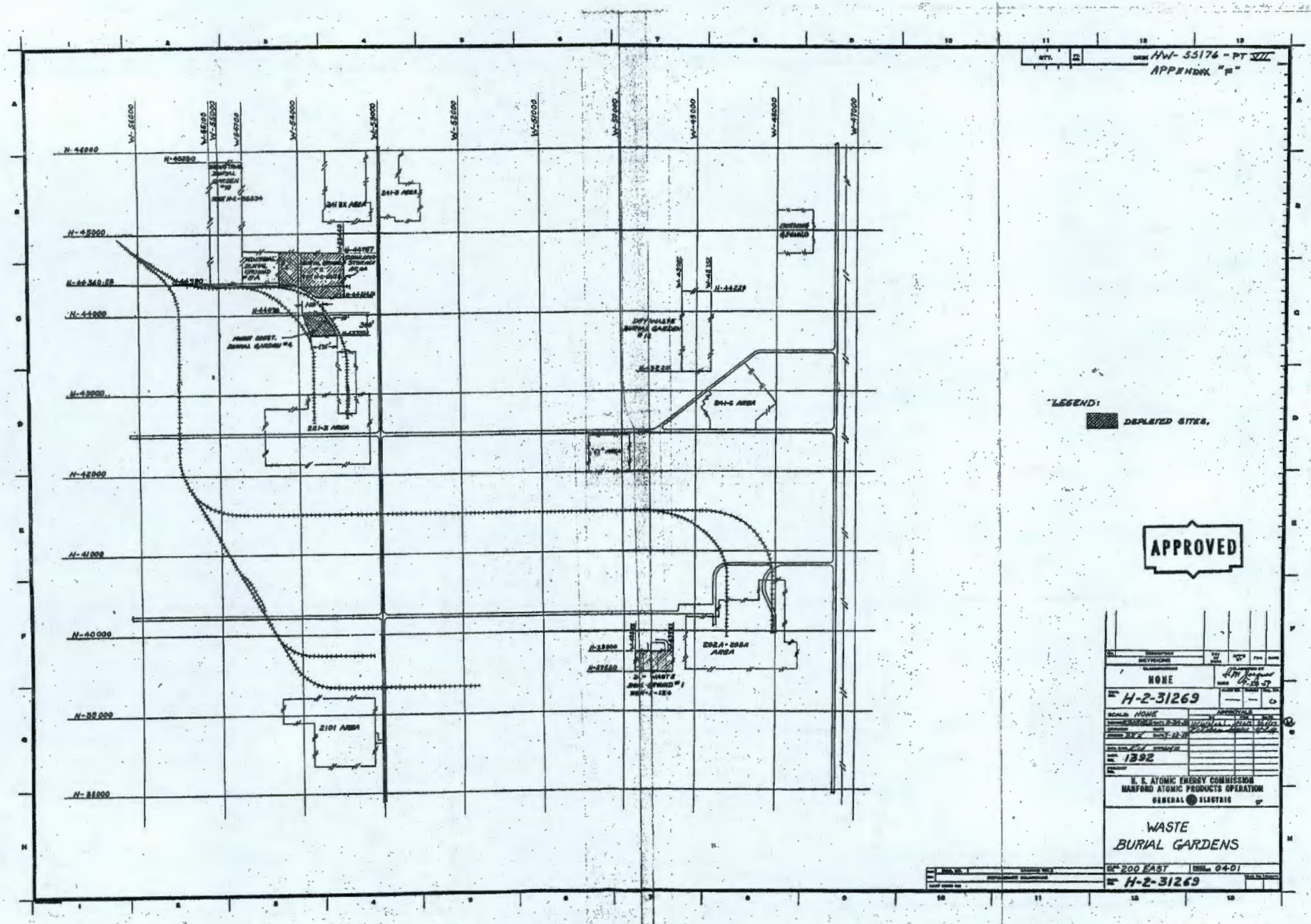

HW-55176 - PT XII
APPENDIX "B"

HW 55176 PT VII
APPENDIX C