

RAMSEY COUNTY DEPT. OF PUBLIC WORKS

CONSTRUCTION PLANS FOR EXCAVATION AND
INSTALLATION OF CONCRETE SEWER WITH
APPURTANCES FOR THE:

COUNTY DITCH 7 DIVERSION SYSTEM

LOCATION: NORTHERLY OF GERVAIS AND KOHLMAN LAKES
IN THE CITIES OF LITTLE CANADA AND MAPLEWOOD

E.P.A. PROJECT NO. S-804690020
RAMSEY COUNTY PUBLIC WORKS NO. 47280

INDEX

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 12/30/02 REG. NO. 11659 ENGR. David A. Schacht

THE 1978 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" SHALL GOVERN

RECOMMENDED FOR APPROVAL [Signature] DATE 12-30-82
COUNTY ENGINEER

APPROVED [Signature] DATE 1-31-83
CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED _____ DATE _____

APPROVED _____ DATE _____

RECOMMENDED FOR APPROVAL [Signature] DATE 12-30-82
TRAFFIC ENGR

RECOMMENDED FOR APPROVAL [Signature] DATE 12-30-82
ENV. ENGR

RECOMMENDED FOR APPROVAL [Signature] DATE 12-30-82
MAINT ENGR

RECOMMENDED FOR APPROVAL [Signature] DATE 12-30-82
CONST. ENGR

RECOMMENDED FOR APPROVAL [Signature] DATE 12-30-82
DESIGN ENGR

RECOMMENDED FOR APPROVAL [Signature] DATE 12-30-82
P.O.M. ENGR

APPROVED [Signature] DATE 12-30-82
COORDINATING ENGR

DESIGN SQUAD [Signature] DATE 12/30/82

DRAWN BY [Signature] DATE 12/30/82

CHECKED BY _____ DATE _____

PLAN REVISIONS		
DATE	SHEET NO.	BY

 ** STATEMENT OF ESTIMATED QUANTITIES **

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	FINAL ESTIMATED QUANTITIES
2021.501	MOBILIZATION	L.S.	1.0	
2101.502	CLEARING	TREE	56.0 49.0	
2101.507	GRUBBING	TREE	57.0 50.0	
2104.501	REMOVE CATCH BASIN	EACH	1.0	
2104.521	SALVAGE 18" R.C.P.	L.F.	66.0	
2104.523	SALVAGE CATCH BASIN CASTING	EACH	1.0	
2105.511	COMMON CHANNEL EXCAVATION	C.Y.	234.0 170.0	
2105.523	COMMON BORROW (LV)	C.Y.	740.0 971.0	
2105.525	TOPSOIL BORROW (LV)	C.Y.	240.0	
2211.501	AGGREGATE BASE CLASS 5	TON	299.0	
2221.501	AGGREGATE SHOULDERING, CLASS 2	TON	76.0	
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	2.1	
2341.508	WEARING COURSE MIXTURE	TON	24.0	
2341.510	BINDER COURSE MIXTURE	TON	24.0	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	11.0	
2503.511	15" R.C.P., CLASS II	L.F.	158.0	
2503.511	15" R.C.P., CLASS III	L.F.	154.0	
2503.511	15" R.C.P., CLASS IV	L.F.	142.0	
2503.511	18" R.C.P., CLASS II	L.F.	74.0 0.0	
2503.511	24" R.C.P., CLASS II	L.F.	408.0 1136.0	
2503.511	24" R.C.P., CLASS III	L.F.	156.0	
2503.511	24" R.C.P., CLASS IV	L.F.	140.0	
2503.573	15" R.C.P. APRONS	EACH	2.0	
2503.573	18" R.C.P. APRONS	EACH	2.0 0.0	
2503.573	24" R.C.P. APRONS	EACH	1.0 3.0	
2506.506	CONSTRUCT MANHOLES, DESIGN F	L.F.	15.2	
2506.506	CONSTRUCT MANHOLES, DESIGN F (MODIFIED)	L.F.	15.2	
2506.506	CONSTRUCT MANHOLES, DESIGN G (MODIFIED)	L.F.	13.7	
2506.507	CONSTRUCT CATCH BASINS, DESIGN F	L.F.	5.4 7.8	
2506.516	CASTING ASSEMBLIES	EACH	2.0 3.0	
2506.516	CASTING ASSEMBLIES (NEENAH R-1916-E OR EQ.)	EACH	6.0	
2506.521	INSTALL CASTINGS	EACH	4.0 10.0	
2511.501	RANDOM RIPRAP, CLASS A	C.Y.	10.0 12.0	
2511.504	FILTER BLANKET, TYPE 1	C.Y.	5.0 6.0	
2575.501	ROADSIDE SEEDING	ACRE	0.8	
2575.502	SEED MIXTURE 3	POUND	45.0	
2575.511	MULCH MATERIAL, TYPE 1	TON	0.8	
2575.503	SOBBING	S.Y.	534.0	
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	0.1	
503.607	PIPE BEDDING (CA-3)	TON	190.0	
506.602	CONSTRUCT DIVERSION STRUCTURE	EACH	1.0	
506.602	CONSTRUCT SURP MANHOLE	EACH	1.0	

 ** STANDARD DETAIL PLATES **

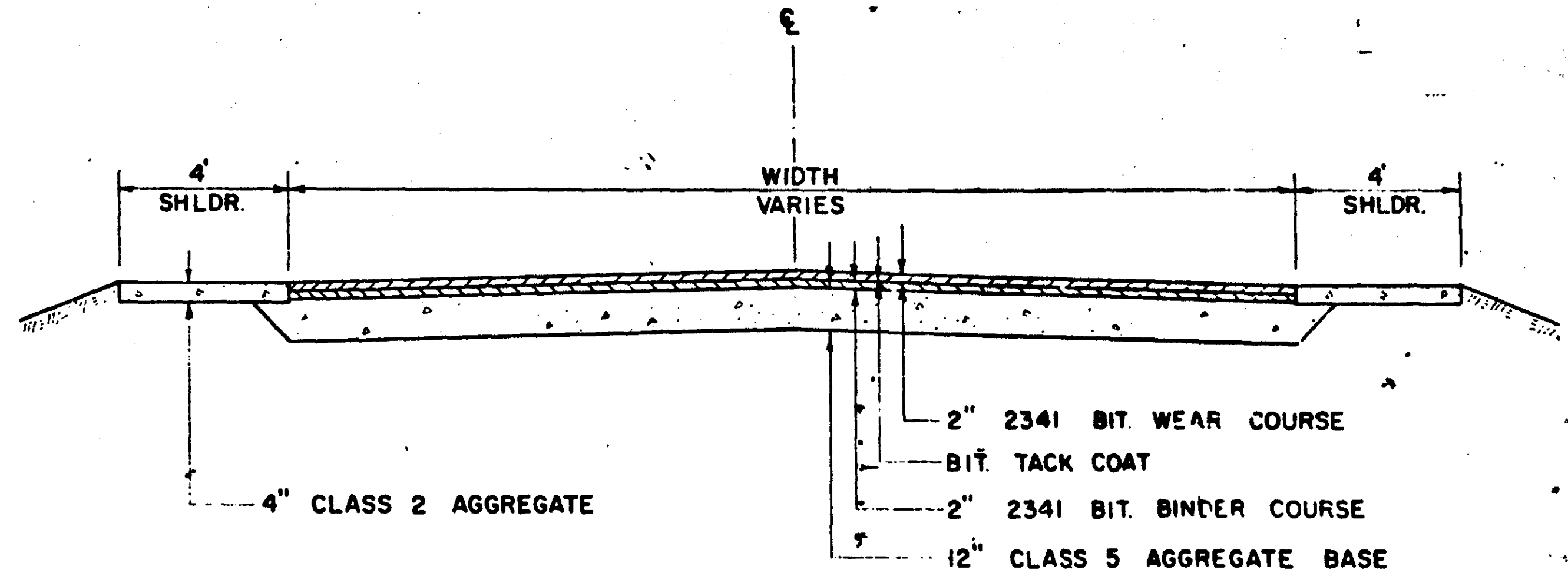
PLATE NUMBER	PLATE
0003 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000 I	REINFORCED CONCRETE PIPE
3006 C	GASKET JOINT FOR R.C. PIPE
3123 A	RIPRAP AT RCP OUTLETS
3145 A	CONCRETE PIPE JOINT TIES
4005 K	MANHOLE OR CATCH BASIN
4010 E	CONCRETE SHORT CONE & ADJUSTING RING
4011 D	PRECAST CONCRETE BASE
4019 B	MANHOLE OR CATCH BASIN
4101 C	RING CASTING FOR MANHOLE OR CATCH BASIN
4110 D	COVER CASTING FOR MANHOLE
8000 H	STANDARD BARRICADES

REVISIONS	DATE	BY
Quantities	5/25/82	JST

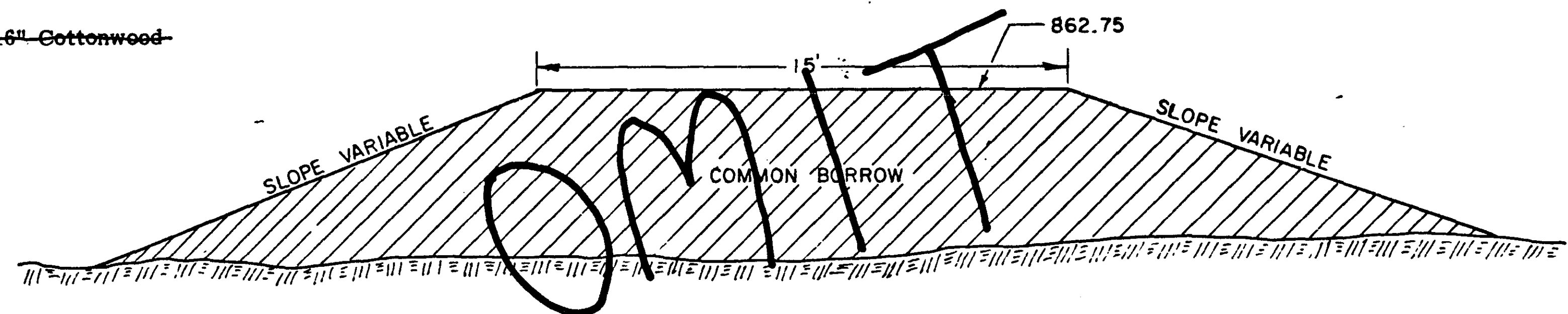
I hereby certify that the plan, specification, and contract documents for the project mentioned herein are true and correct and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 David J. St. John
 12-30-82 Reg. No. 11659

CLEAR & GRUB CHART

Station	L	R
9+16 to 10+48	5" Box-elder 9" Box-elder	12" Cottonwood 10" Cottonwood
10+48 to 12+26	11" Cottonwood 6" Cottonwood 5" Cottonwood 9" Cottonwood 5" Cottonwood 16" Cottonwood 9" Cottonwood 12" Cottonwood 8" Cottonwood 7" Cottonwood 12" Cottonwood 8" Cottonwood 5" Cottonwood	8" Cottonwood 11" Cottonwood 9" Cottonwood 6" Cottonwood 6" Box-elder 5" Cottonwood 15" Cottonwood 14" Cottonwood 18" Cottonwood
12+26 to 13+63	10" Stump 6" Willow 10" Box-elder 18" Box-elder 16" Box-elder	6" Box-elder 10" Box-elder 8" Box-elder 6" Box-elder 8" Box-elder 8" Box-elder 8"/5"/9" Box-elder 12" Box-elder
20+00 to 21+65	8"/7"/5" Tri. Box-elder 7" Poplar 4" Box-elder 7" Poplar 5" Poplar	15" Cottonwood 7" Cottonwood 5" Cottonwood 7" Cottonwood 10" Cottonwood
22+00-23	14" Cottonwood 14" Cottonwood 12" Cottonwood 10" Cottonwood 18" Cottonwood 18" Cottonwood 8" Cottonwood	16" Cottonwood

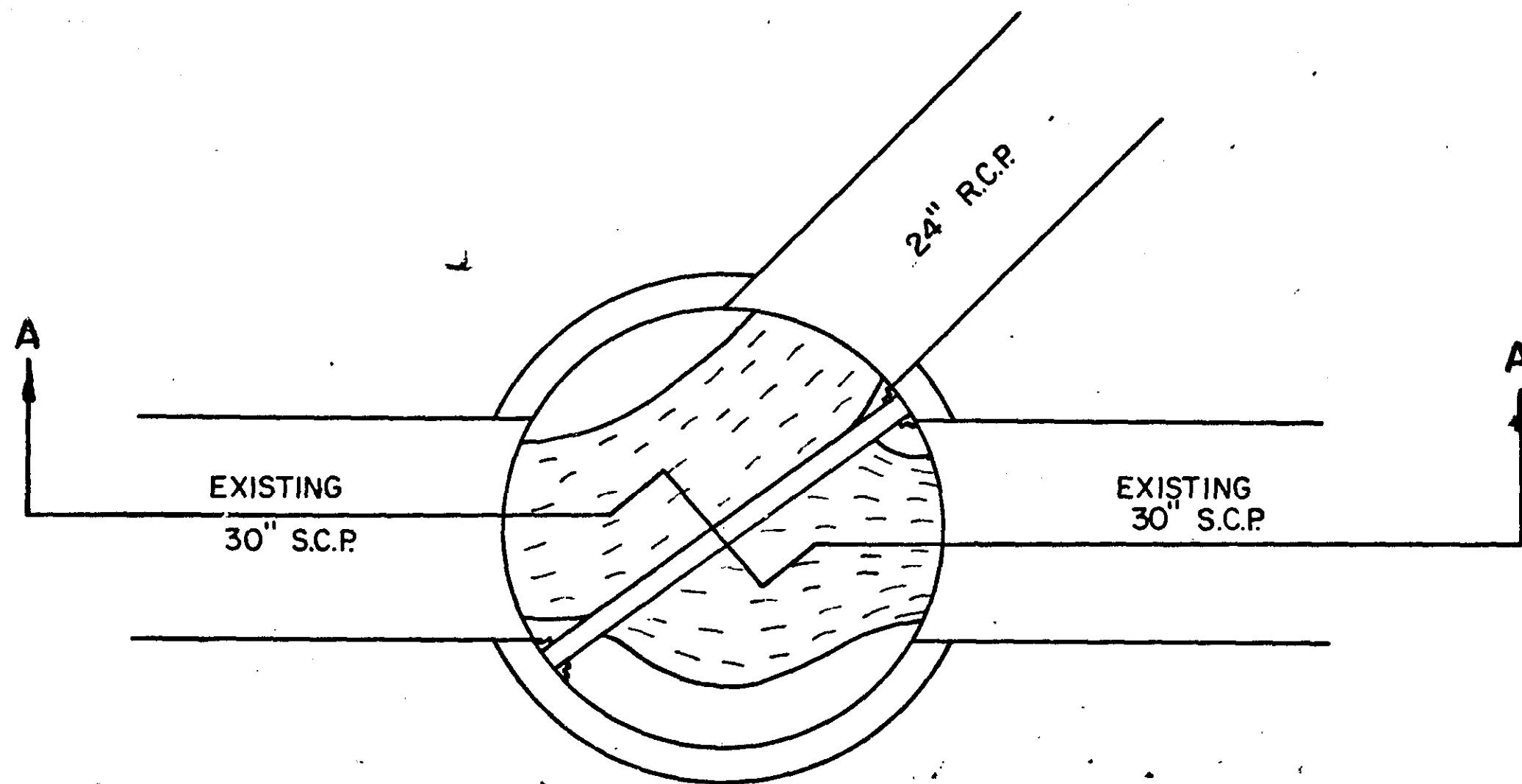


TYPICAL ROADWAY RESTORATION SECTION

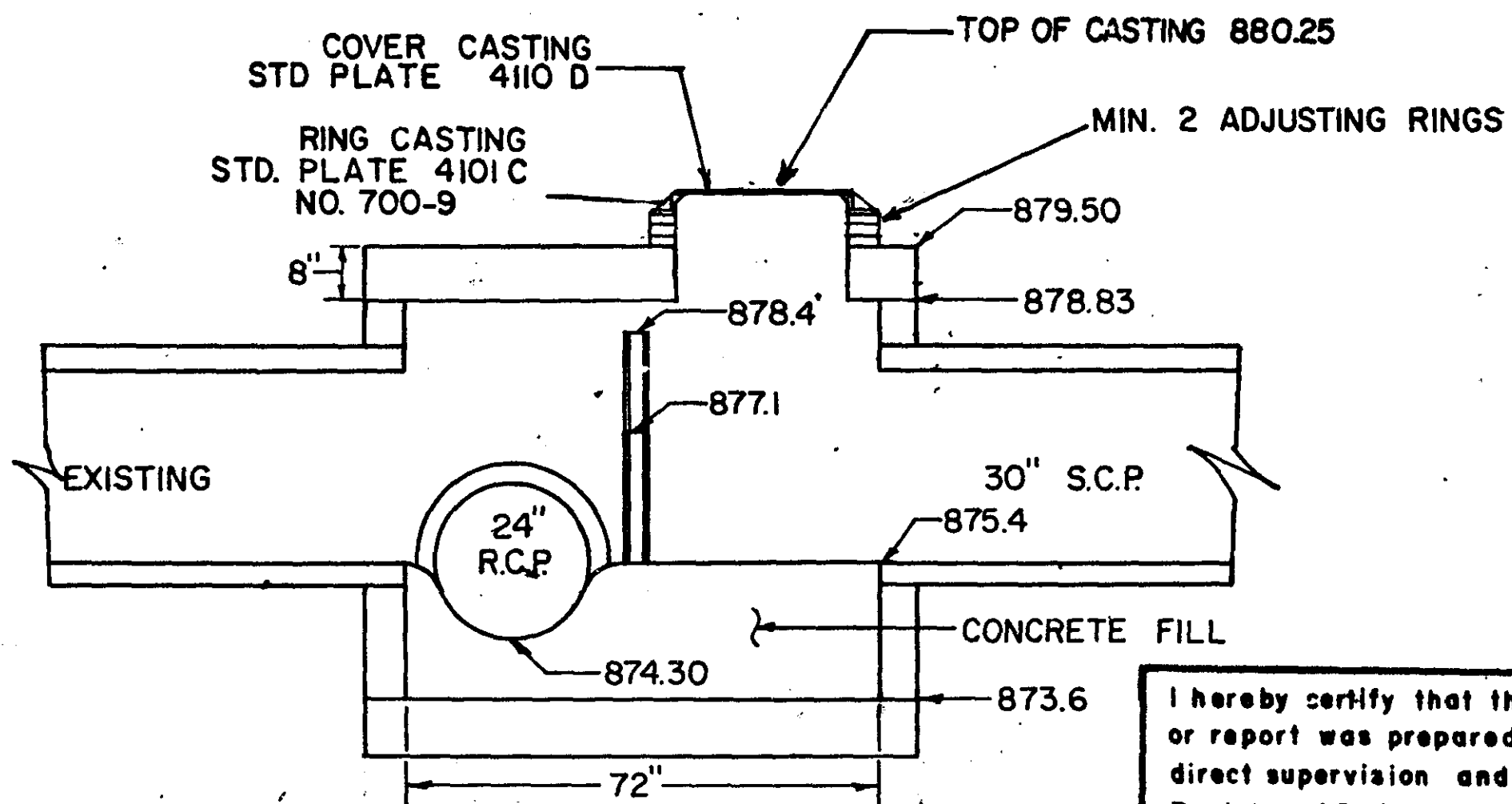


~~TYPICAL BERM SECTION~~

REVISIONS	DATE	BY
Omit Berm	2/25/03	JET



NO SCALE

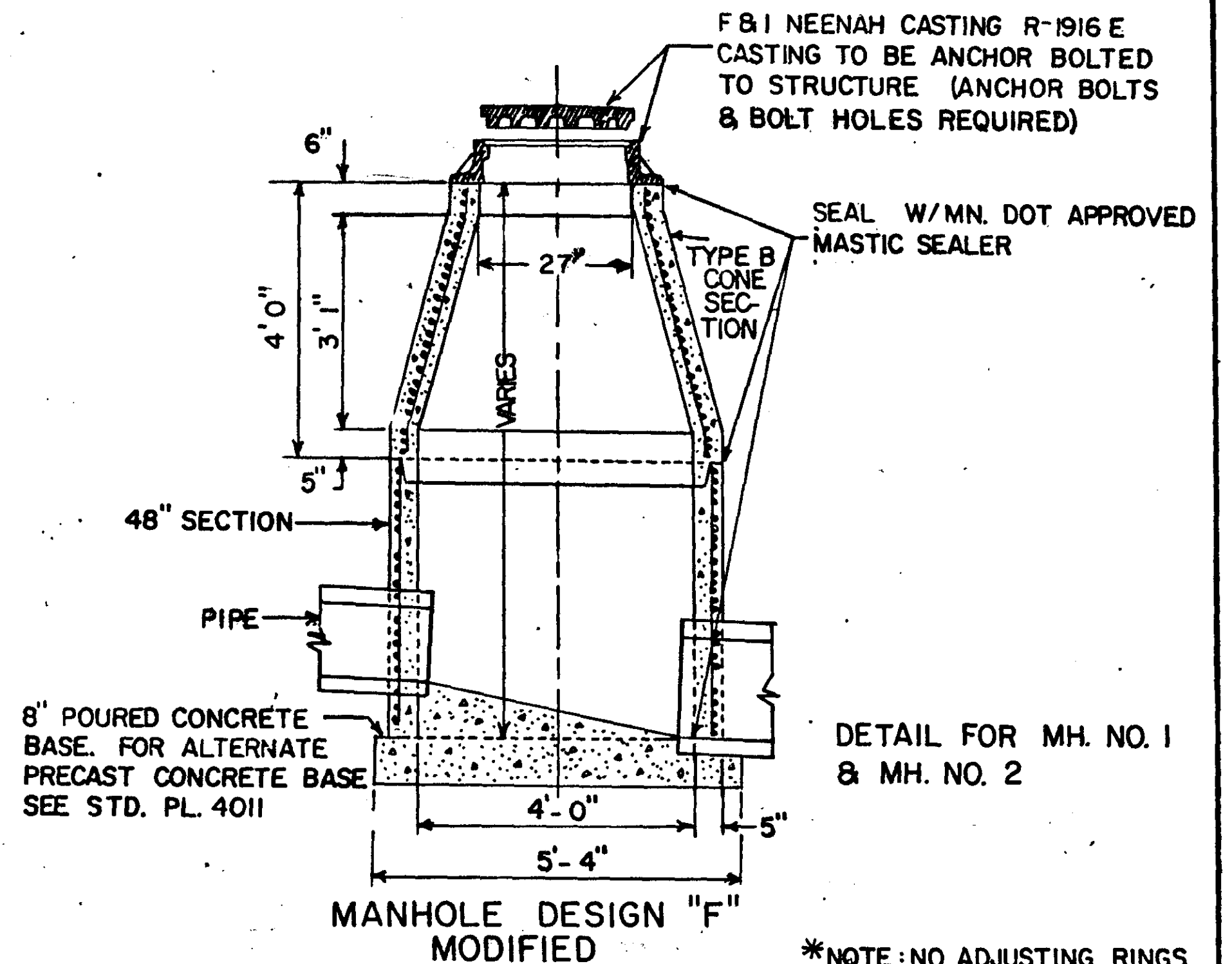


DIVERSION STRUCTURE SECTION A-A

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

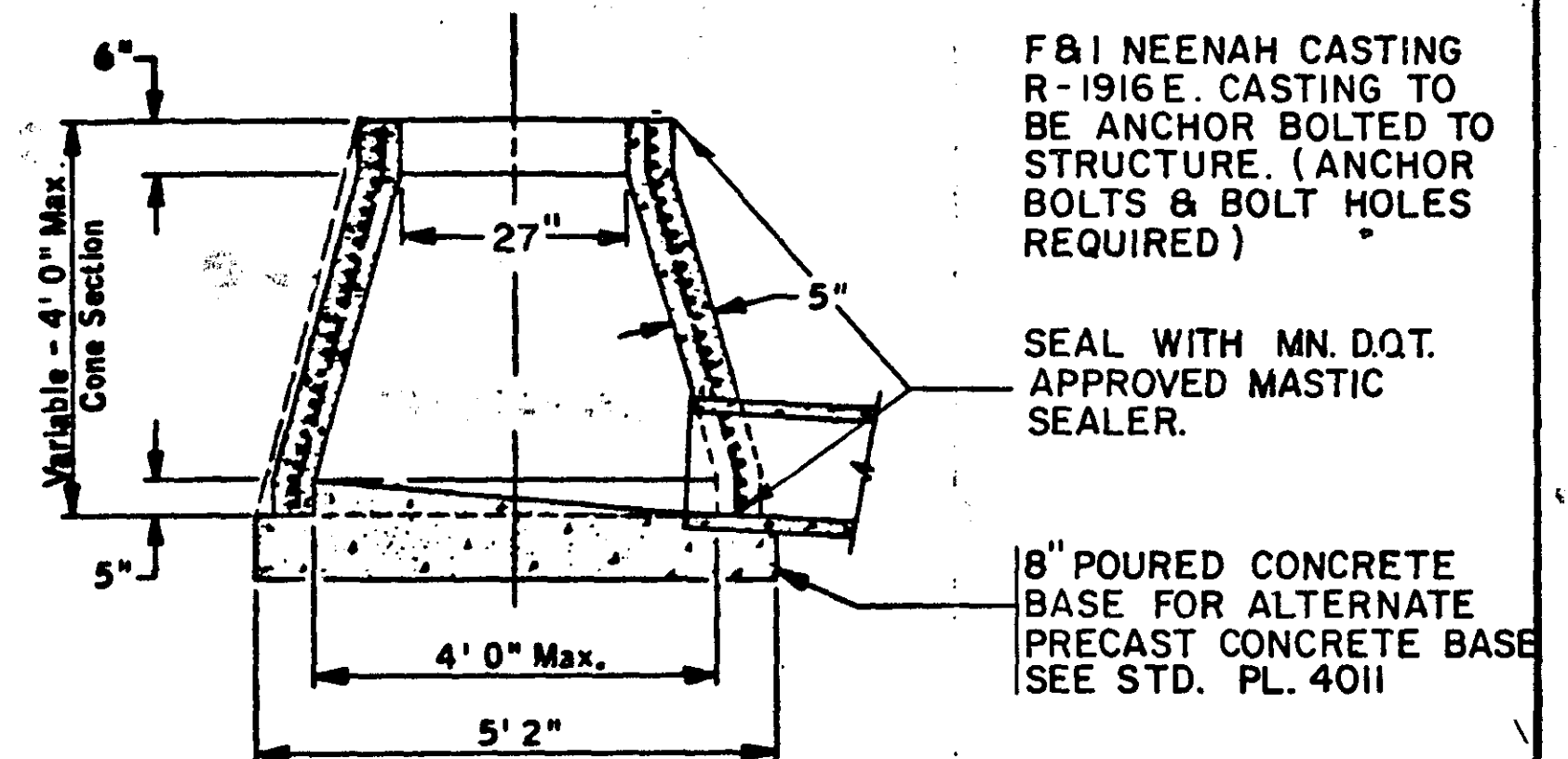
Daniel G. Schacht

Date 12-30-82 Reg. No. 11659



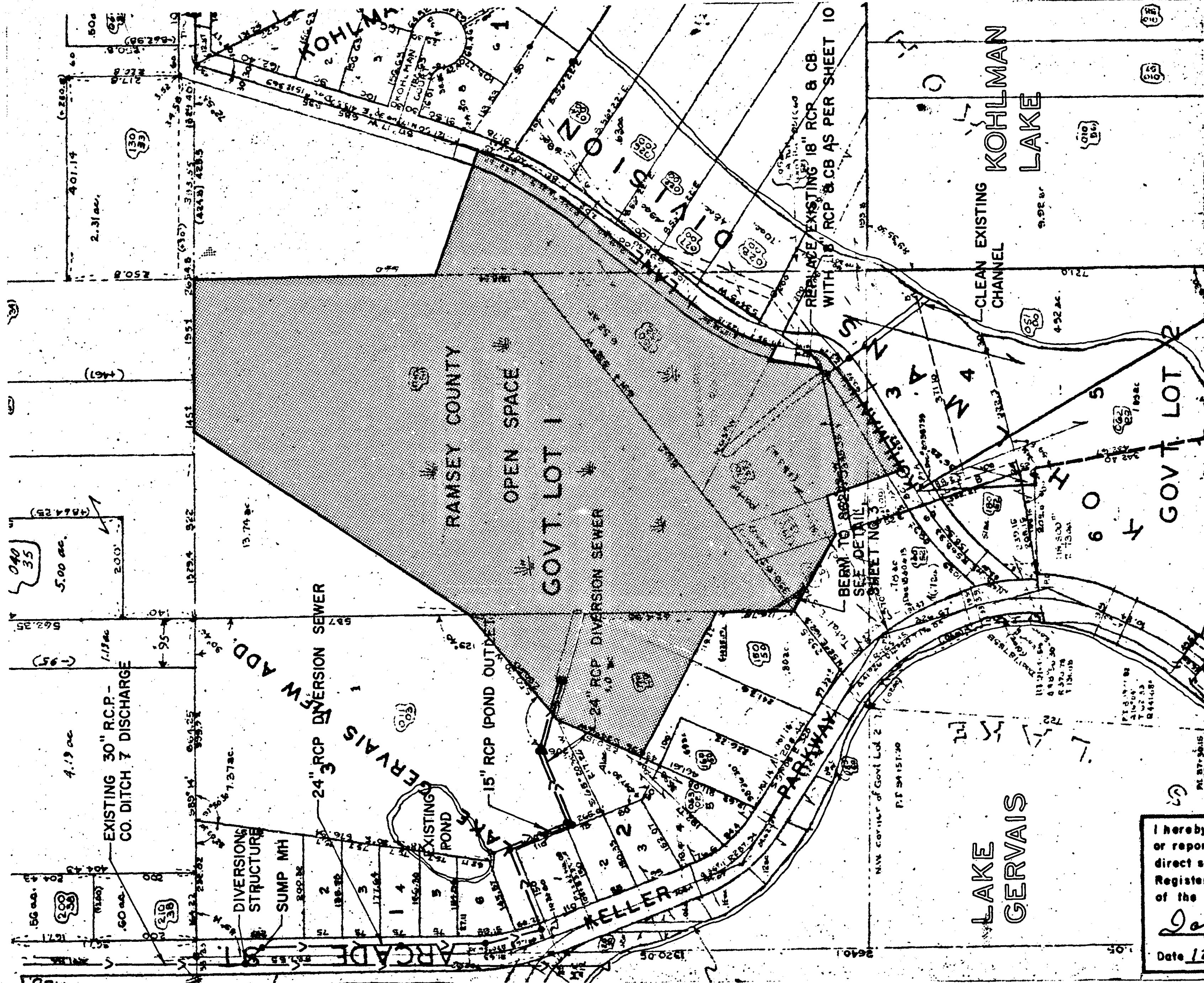
DETAIL FOR MH. NO. 1 & MH. NO. 2

*NOTE: NO ADJUSTING RINGS SHALL BE ALLOWED.

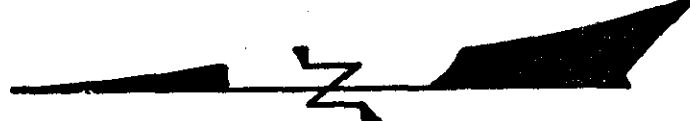


MANHOLE DESIGN "G" DETAIL FOR MANHOLES 3 THRU 6

COUNTY DITCH NO. 7 DIVERSION SYSTEM



PROJECT LAYOUT



SCALE : 1" = 200'

RAMSEY COUNTY SHALL SECURE ALL TEMPORARY AND PERMANENT EASEMENTS

CONTRACTOR SHALL CONDUCT ALL ACTIVITIES WITHIN AND IN ACCORDANCE WITH EASEMENT RESTRICTIONS

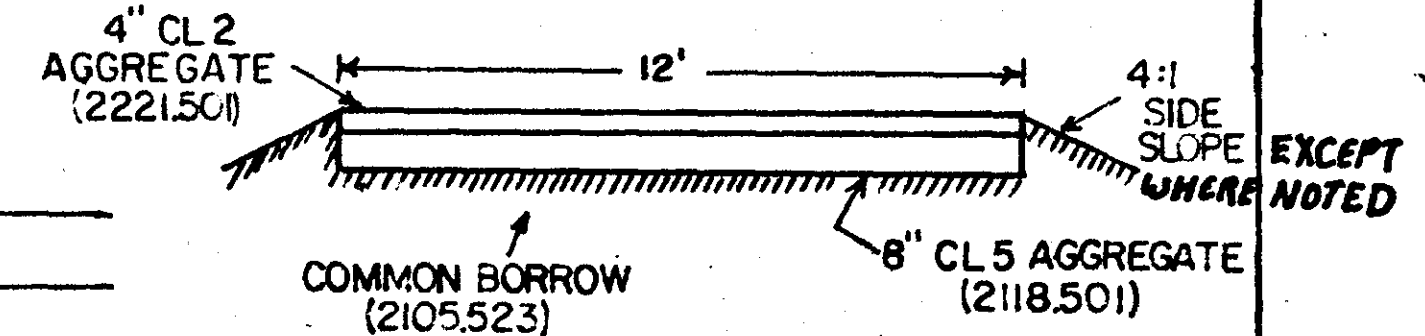
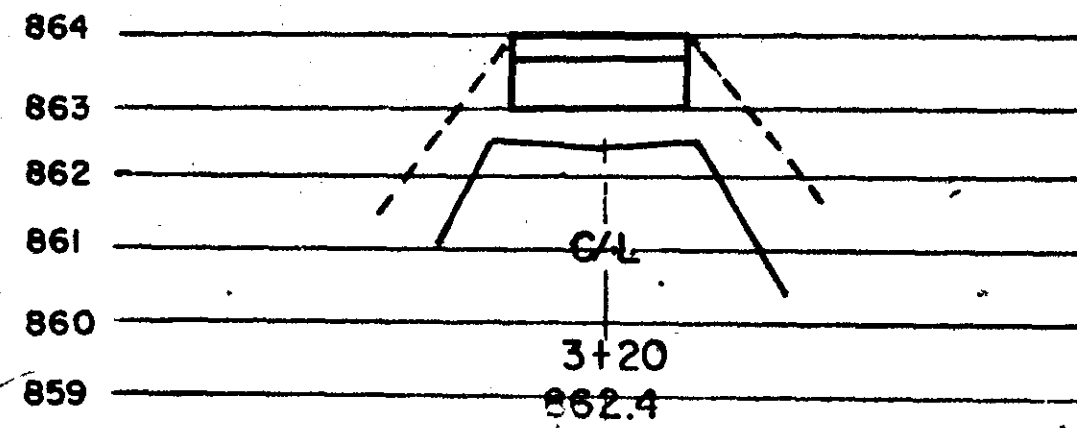
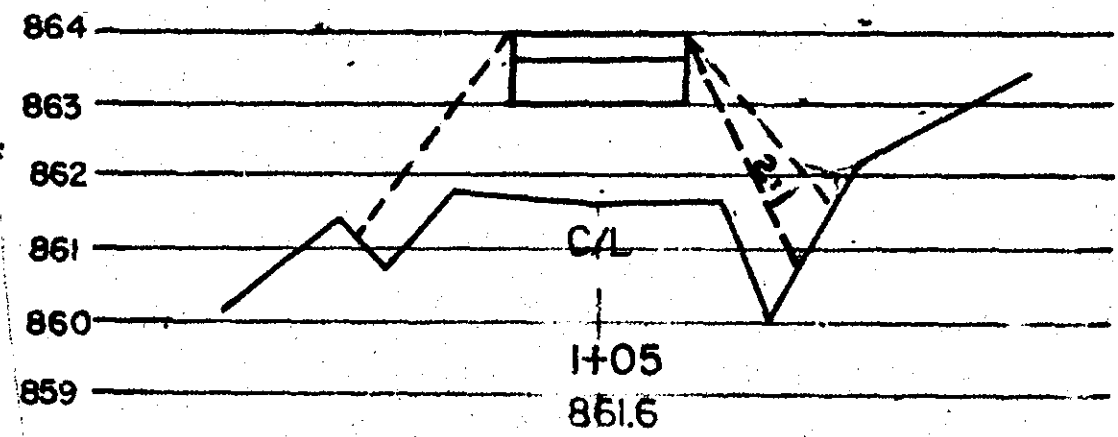
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

David G. Schott

Date 12-30-82 Reg. No. 11654

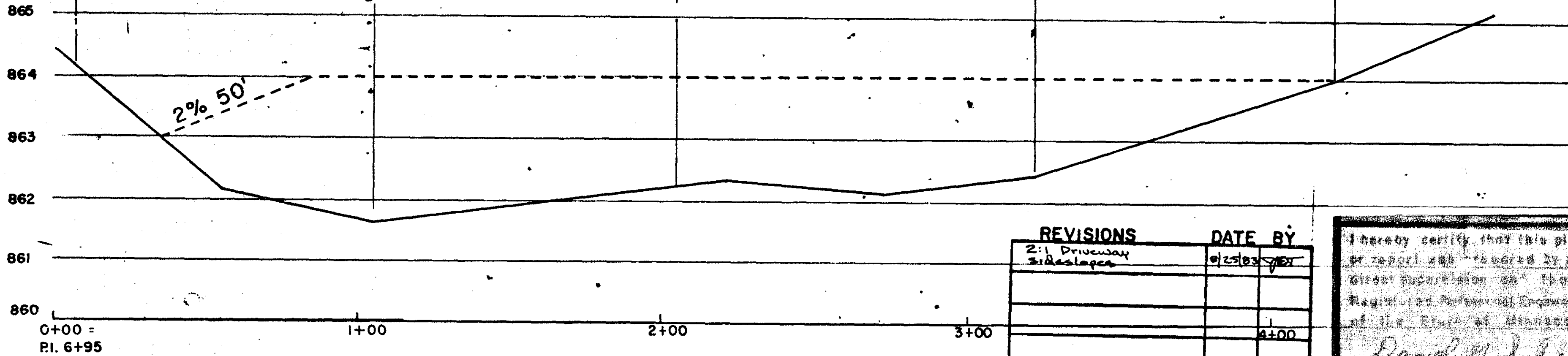
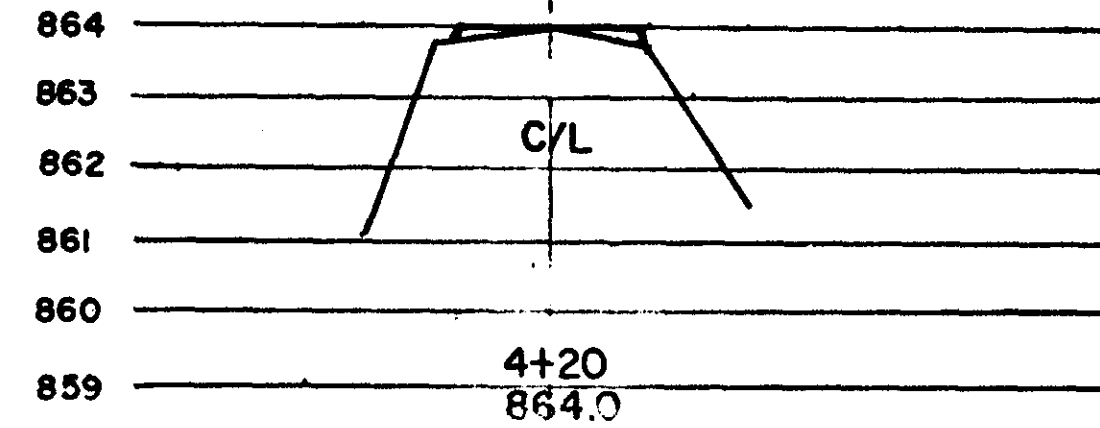
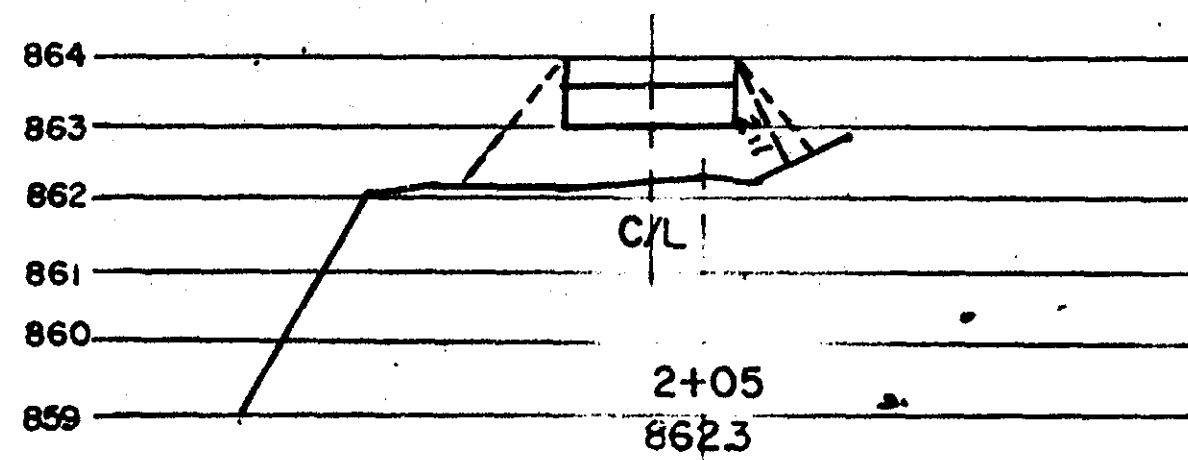
DRIVEWAY RECONSTRUCTION

TYPICAL SECTION



SCALE

VERT 1" = 4'
HOR 1" = 20'



SCALE

VERT 1" = 2'
HOR 1" = 40'

REVISIONS	DATE	BY
2:1 Driveway Sidelopes	12/25/03	JEB

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

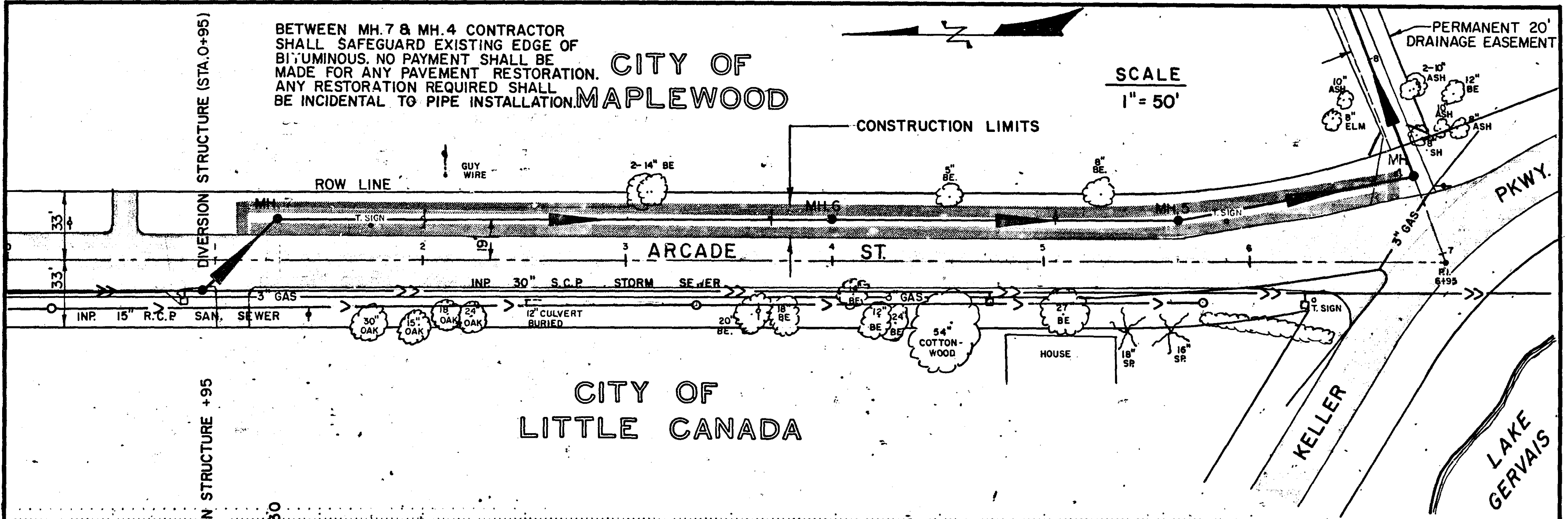
David A. J. [Signature]

Date 12/25/03 Reg. No. 11639

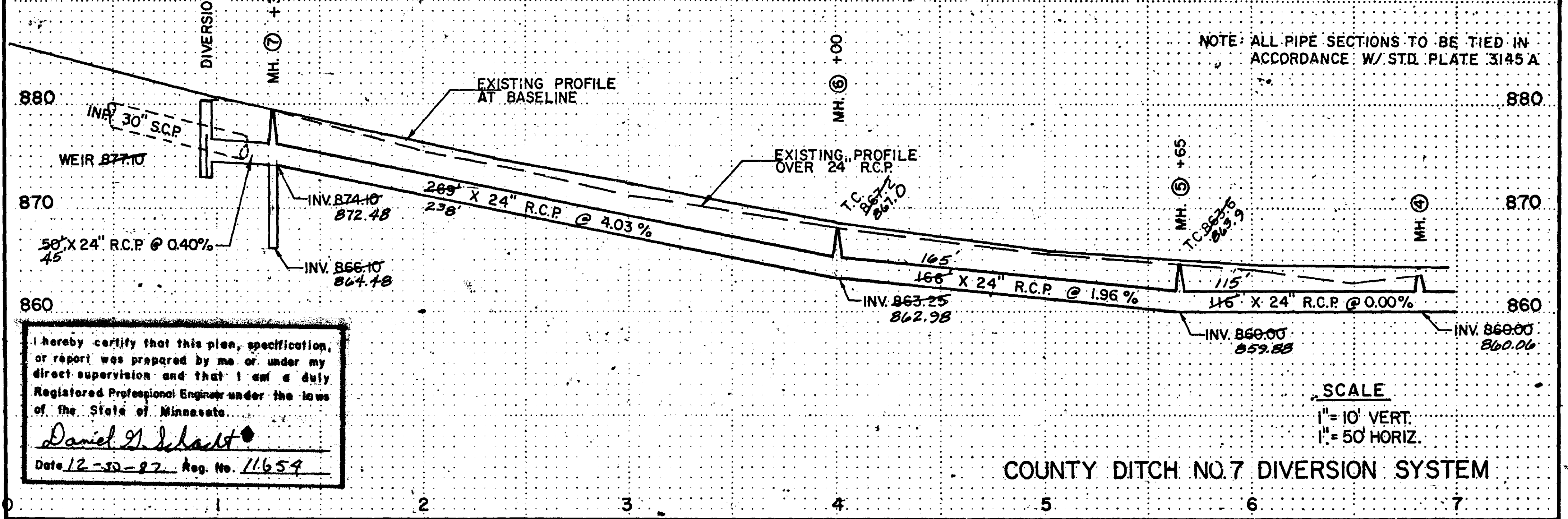
BETWEEN MH.7 & MH.4 CONTRACTOR SHALL SAFEGUARD EXISTING EDGE OF BITUMINOUS. NO PAYMENT SHALL BE MADE FOR ANY PAVEMENT RESTORATION. ANY RESTORATION REQUIRED SHALL BE INCIDENTAL TO PIPE INSTALLATION.

CITY OF MAPLEWOOD

SCALE
1" = 50'



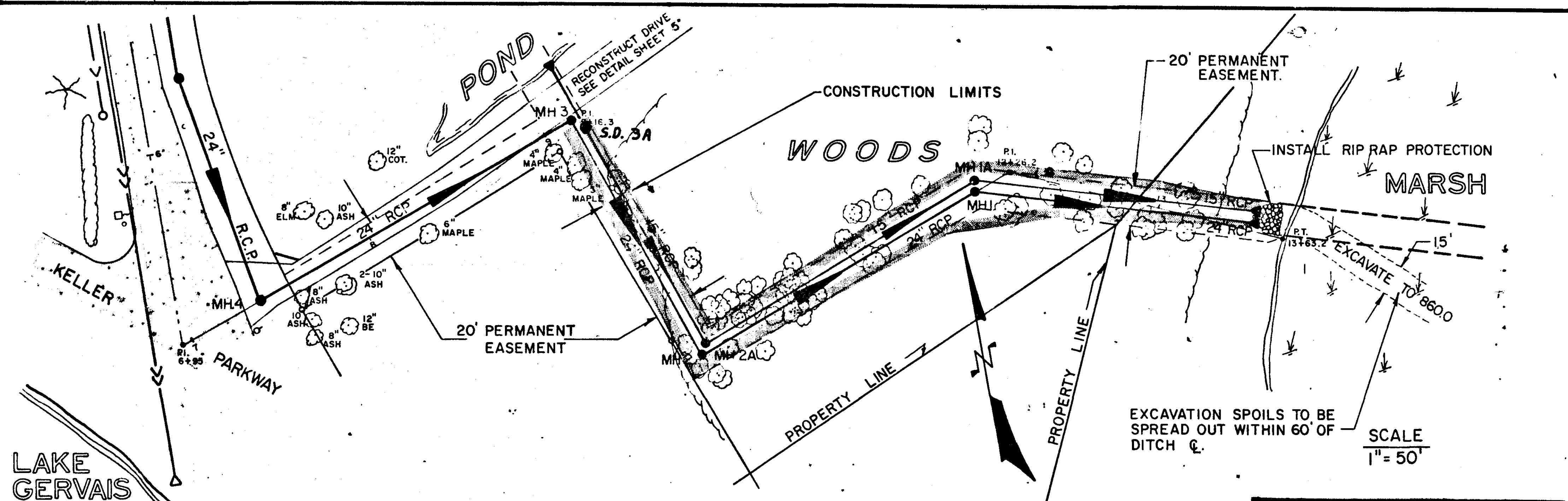
CITY OF LITTLE CANADA



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

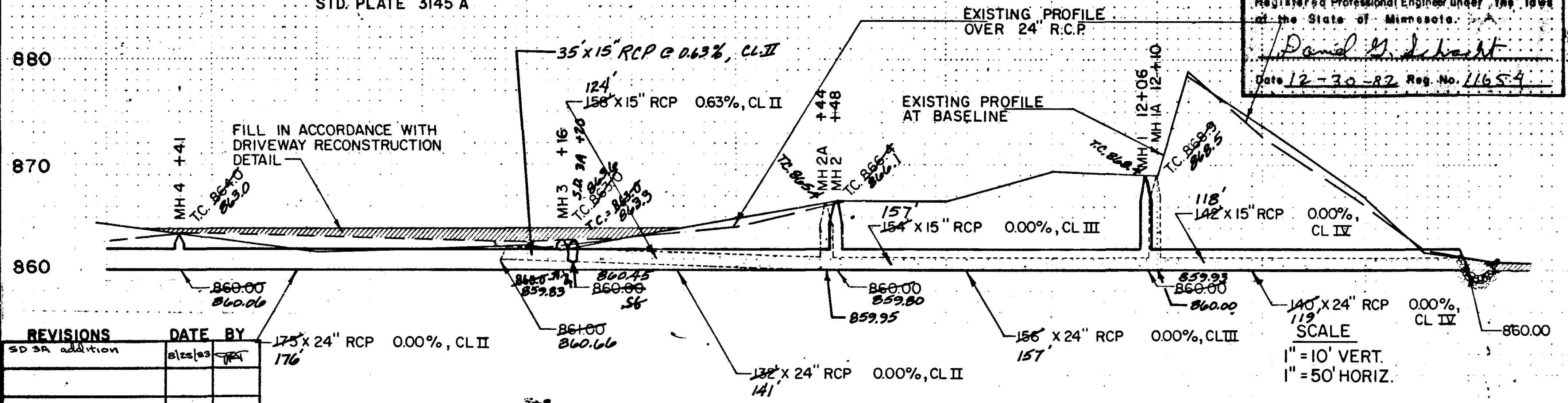
Daniel G. Schacht

Date 12-30-87 Reg. No. 11659



NOTE: ALL PIPE SECTIONS OF 24" R.C.P. TO BE TIED IN ACCORDANCE WITH STD. PLATE 3145 A

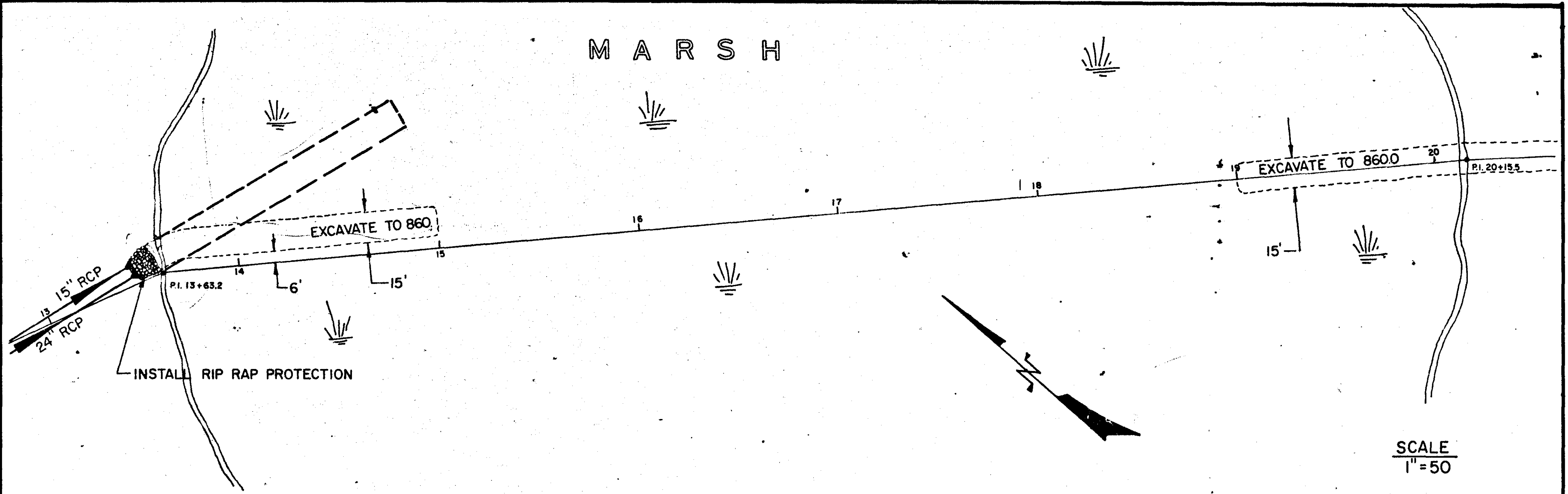
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
David G. Schacht
 Date 12-30-82 Reg. No. 11654



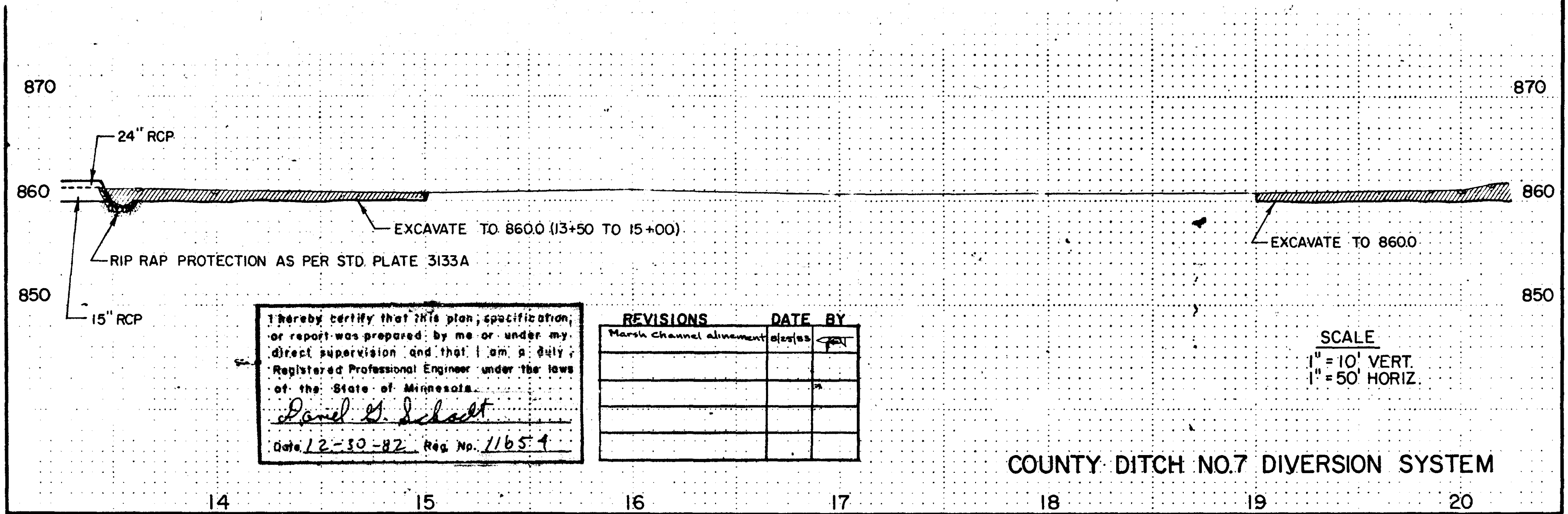
REVISIONS	DATE	BY
SD 3A addition	8/25/83	JK

COUNTY DITCH NO. 7 DIVERSION SYSTEM

M A R S H



SCALE
1" = 50'



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

David G. Scholt

Date 12-30-82 Reg. No. 11654

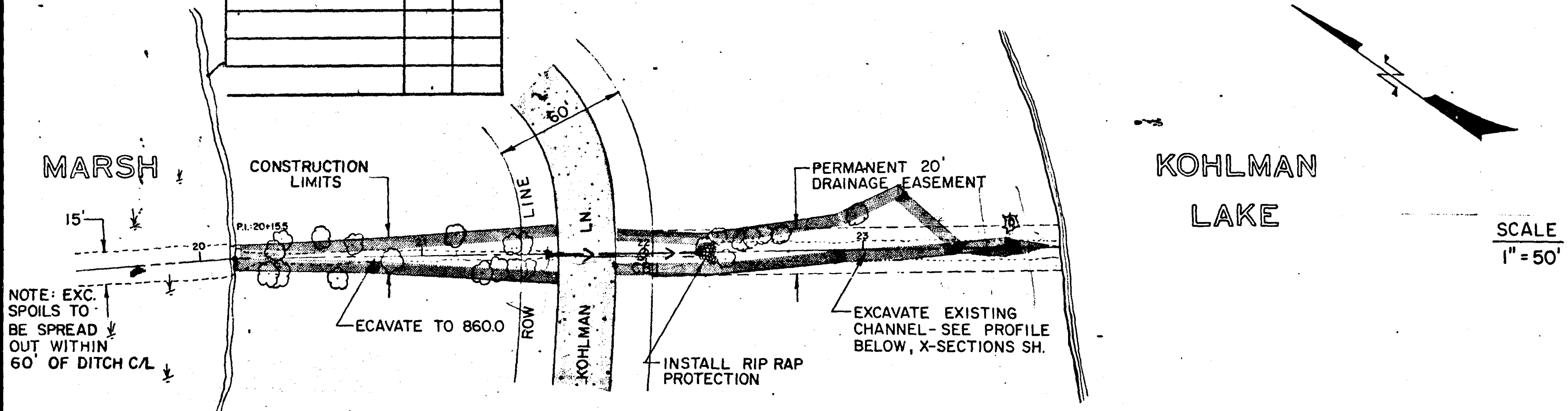
REVISIONS	DATE	BY
Marsh channel alignment	12/30/82	DS

SCALE
1" = 10' VERT.
1" = 50' HORIZ.

COUNTY DITCH NO.7 DIVERSION SYSTEM

REVISIONS	DATE	BY
24" RCP substitution	01/20/88	QBT

NOTE: EXCAVATED MATERIAL FROM THIS SITE, MAY BE USED AS COMMON BORROW.



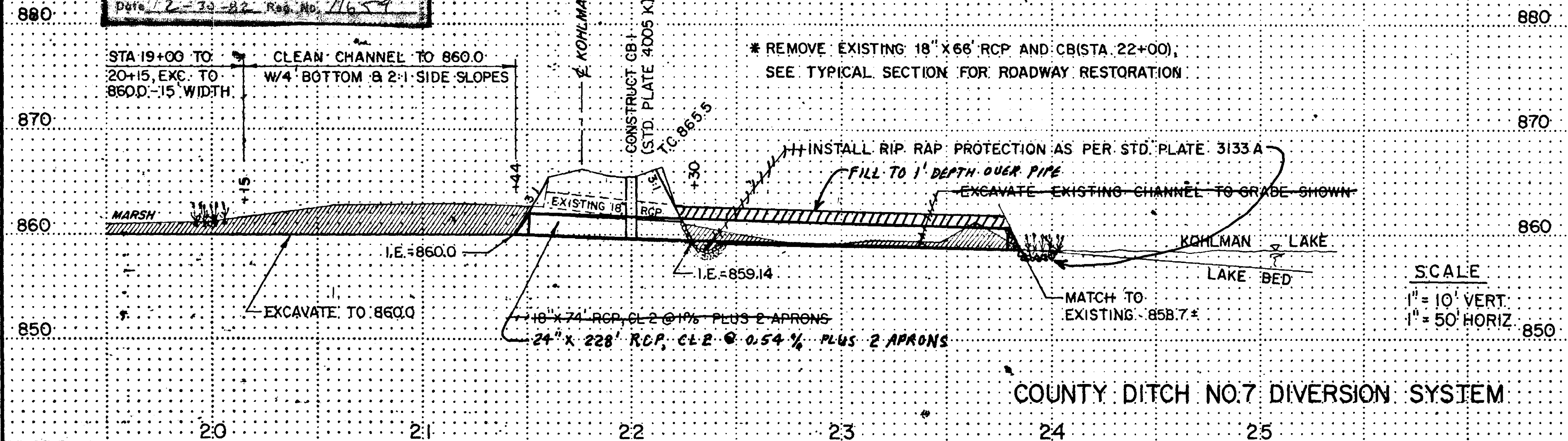
NOTE: EXC. SPOILS TO BE SPREAD OUT WITHIN 60' OF DITCH C/L

KOHLMAN LAKE

SCALE
1" = 50'

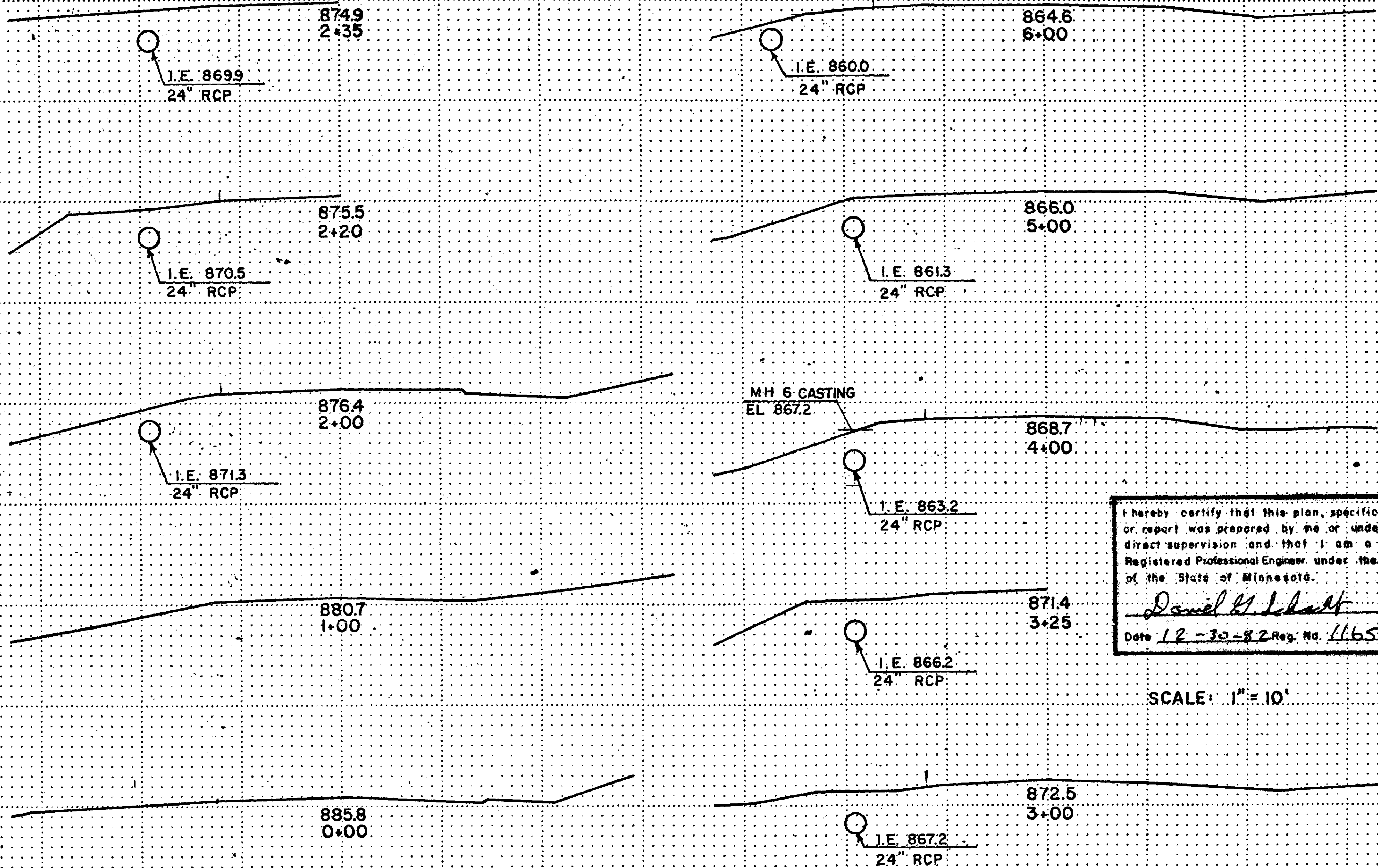
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Daniel H. Schmitt
Date: 12-30-82 Reg. No. 11659

NOTE: THE THREE END PIPE SECTIONS AT EACH END SHALL BE TIED IN ACCORDANCE W/ STD. PLATE 3145A



SCALE
1" = 10' VERT.
1" = 50' HORIZ.

COUNTY DITCH NO. 7 DIVERSION SYSTEM

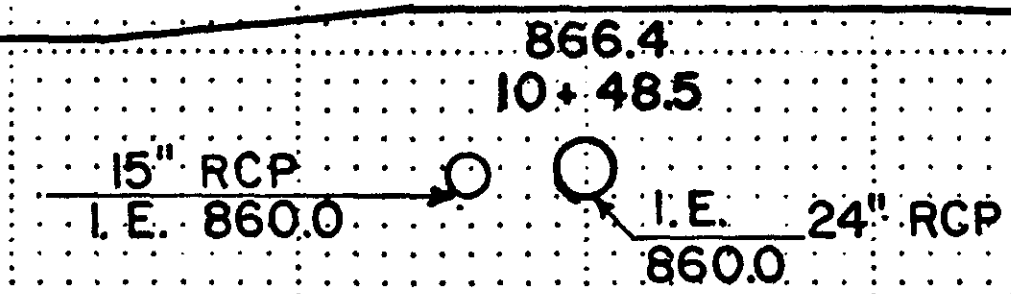
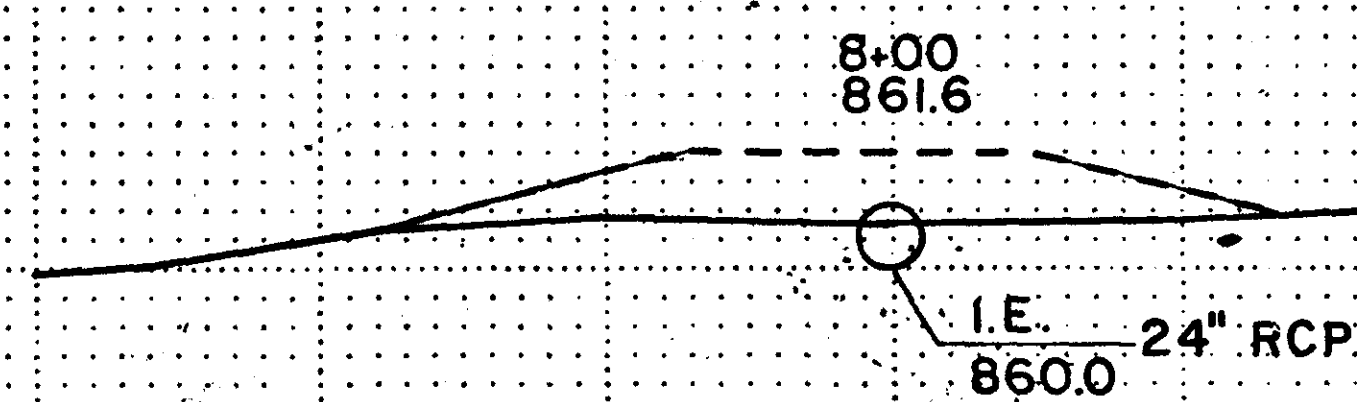
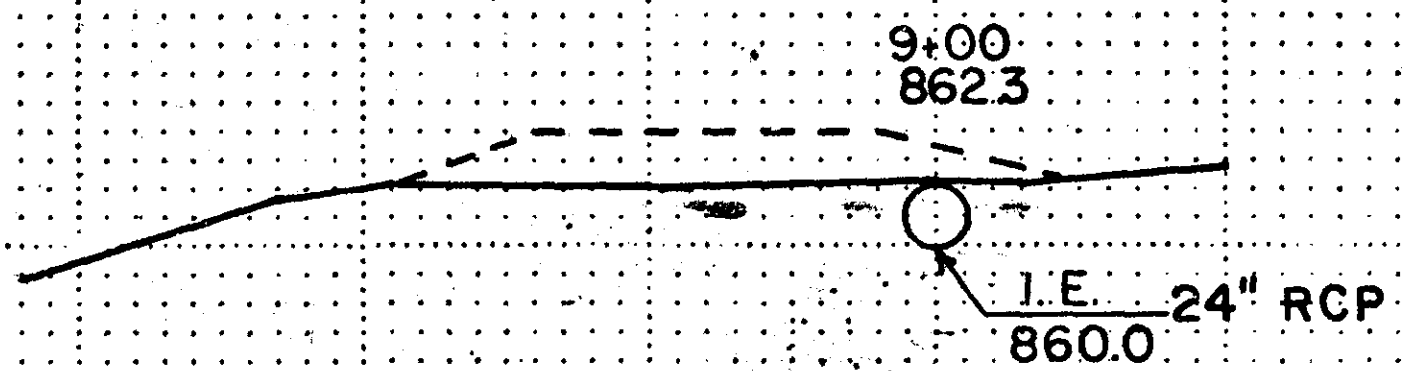
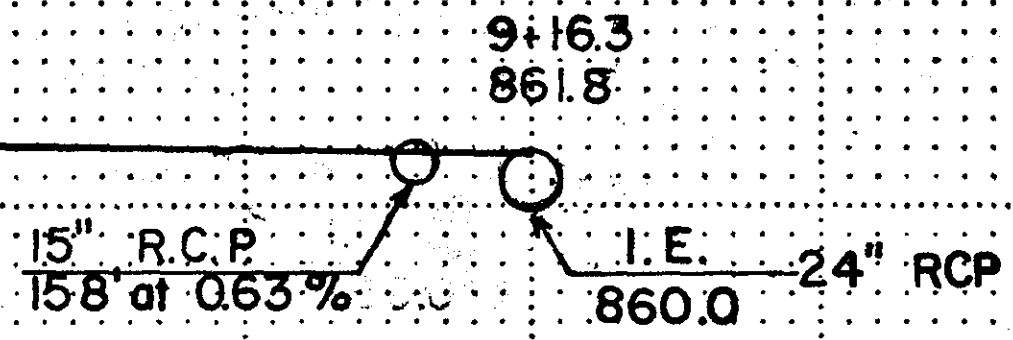
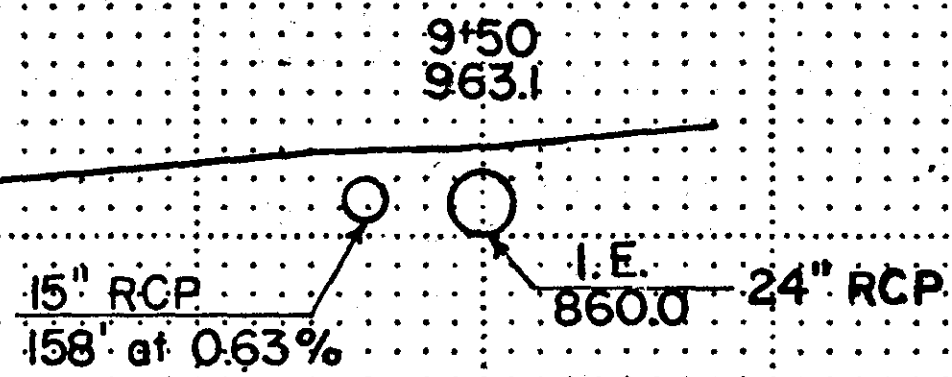


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

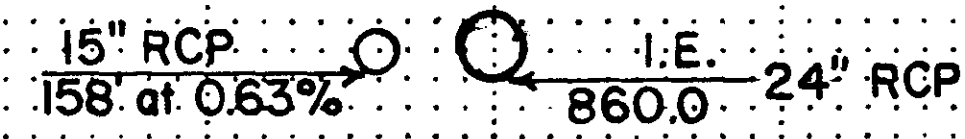
Donald H. Schmitt

Date 12-30-82 Reg. No. 11659

SCALE: 1" = 10'



10+00
864.9



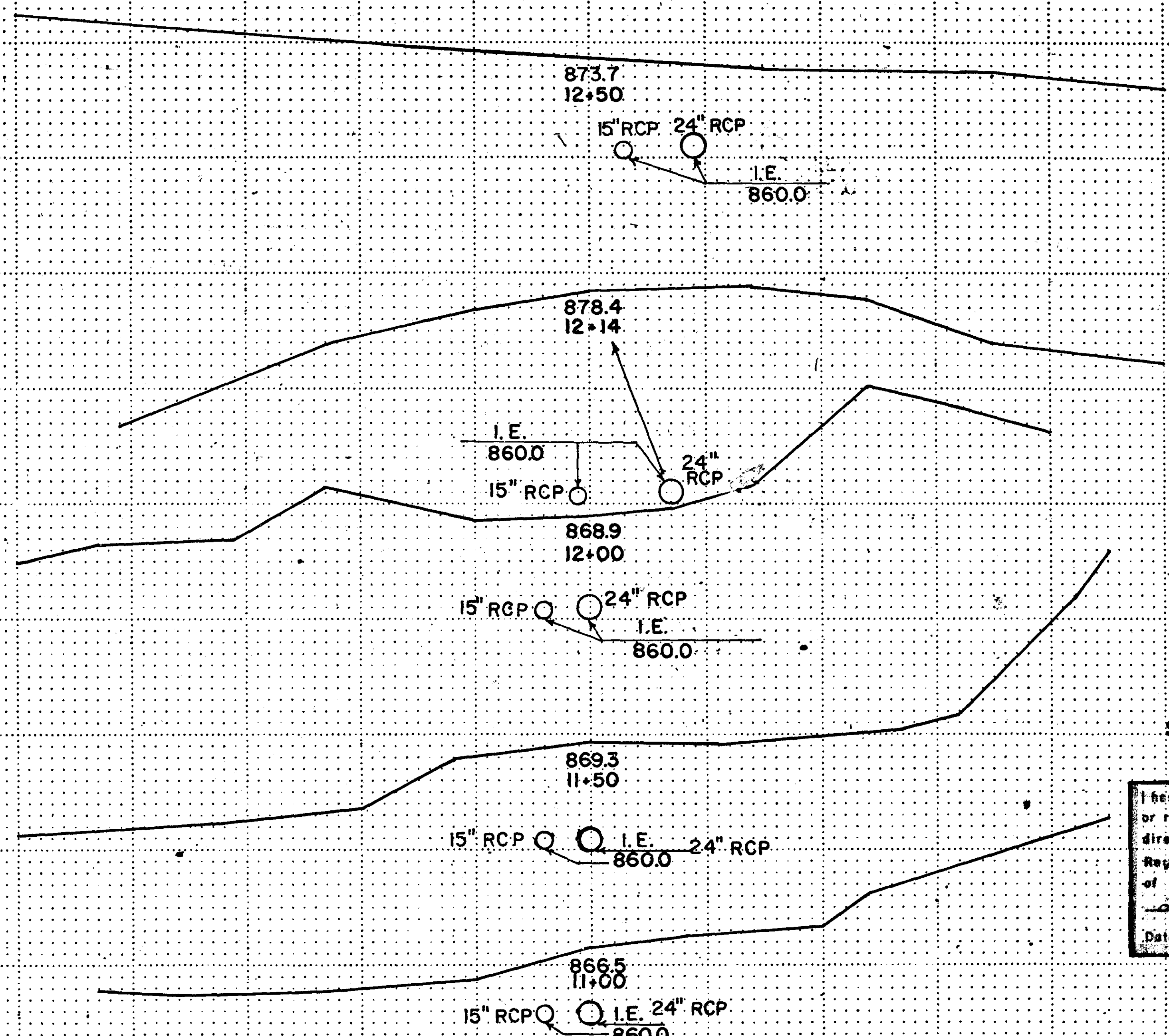
864.4
6+95

SCALE: 1" = 10'

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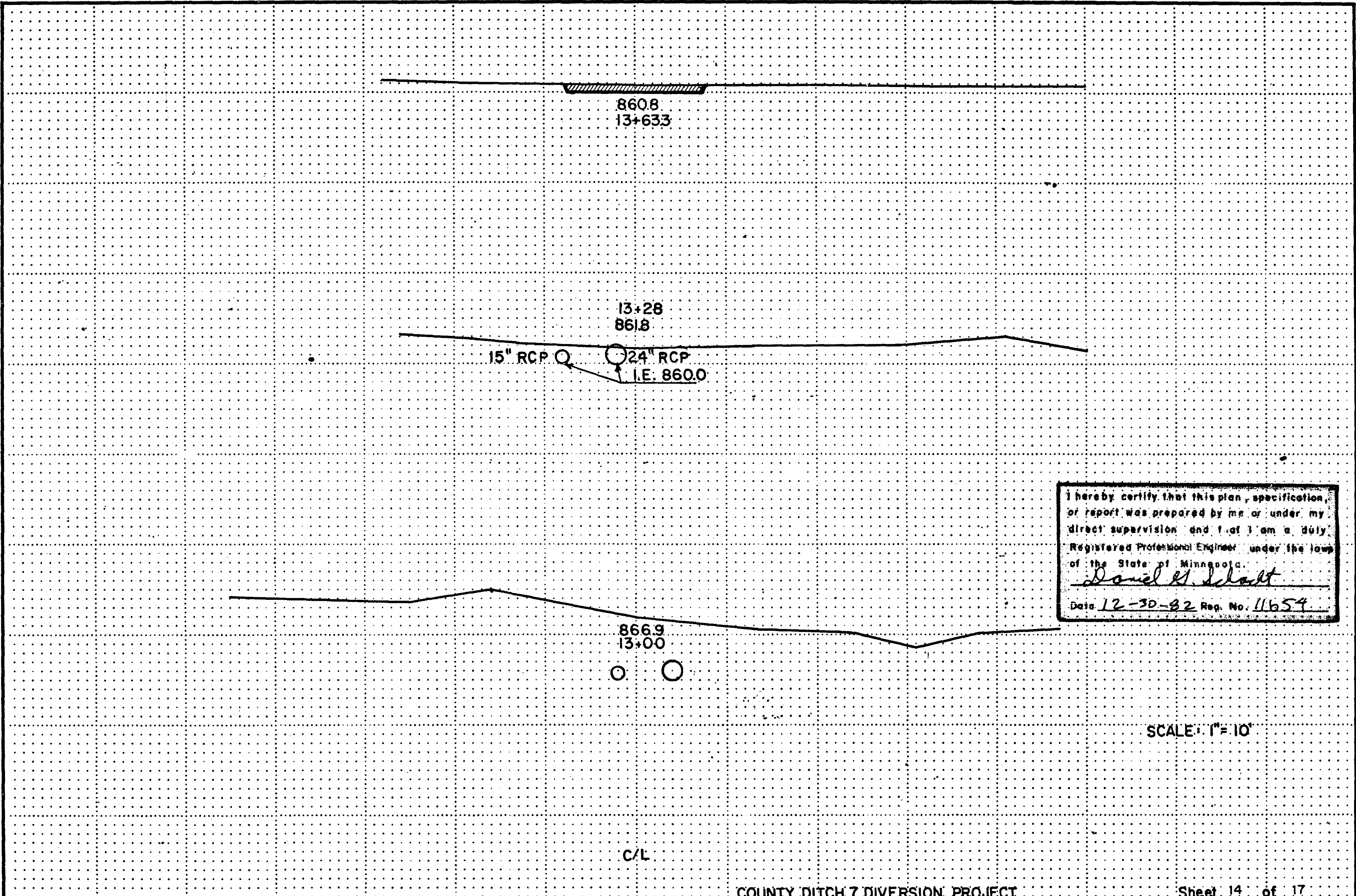
Daniel H. Schacht

Date 12-30-82 Reg. No. 11654



SCALE: 1" = 10'

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Donald H. Schacht
 Date 12-30-57 Reg. No. 11659



860.8
13+633

13+28
861.8

15" RCP

24" RCP
I.E. 860.0

866.9
13+00

C/L

I hereby certify that this plan, specification,
or report was prepared by me or under my
direct supervision and I am a duly
Registered Professional Engineer under the laws
of the State of Minnesota.
Daniel H. Scholt
Date 12-30-32 Reg. No. 11654

SCALE: 1" = 10'

860.7
17+00

861.0
16+00

860.8
15+00

861.1
14+00

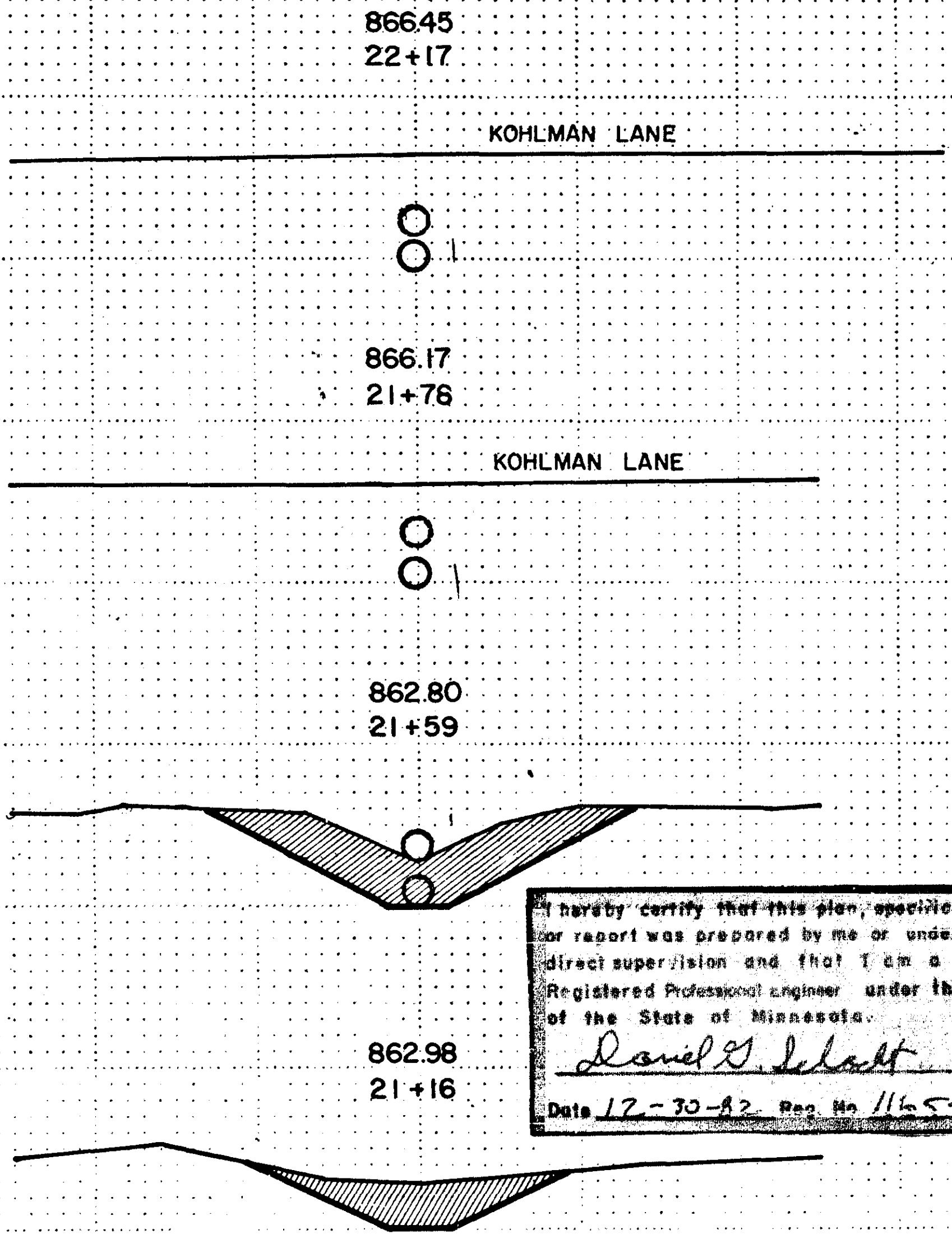
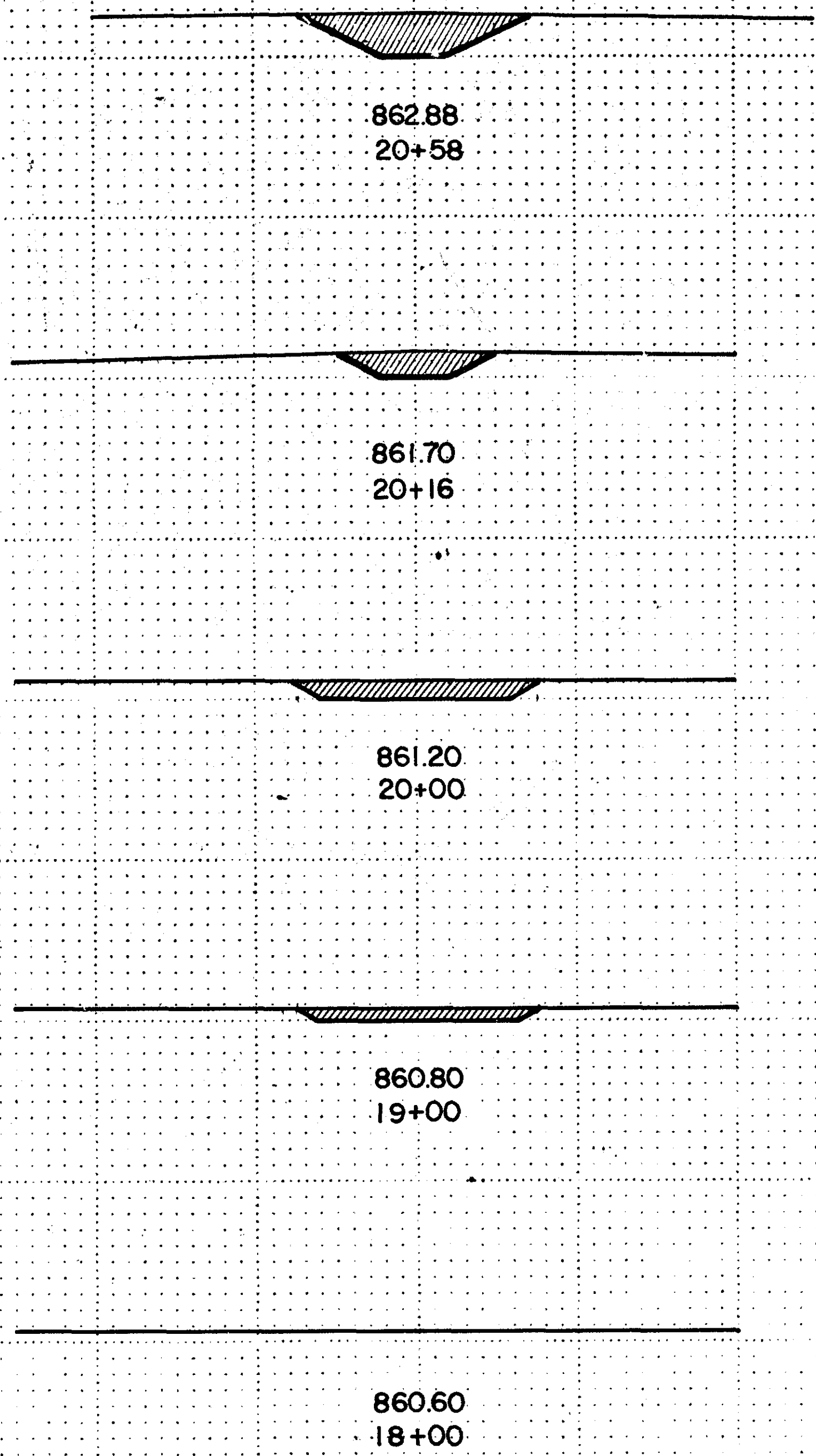
I hereby certify that this plan, specification,
or report was prepared by me or under my
direct supervision and that I am a duly
Registered Professional Engineer under the laws
of the State of Minnesota.
Daniel G. Scholt
Date 12-30-82 Reg. No. 11654

SCALE

1" = 10' VERT.
1" = 10' HORIZ.

COUNTY DITCH NO. 7 DIVERSION SYSTEM

Sheet No. 15 of 17 Sheets

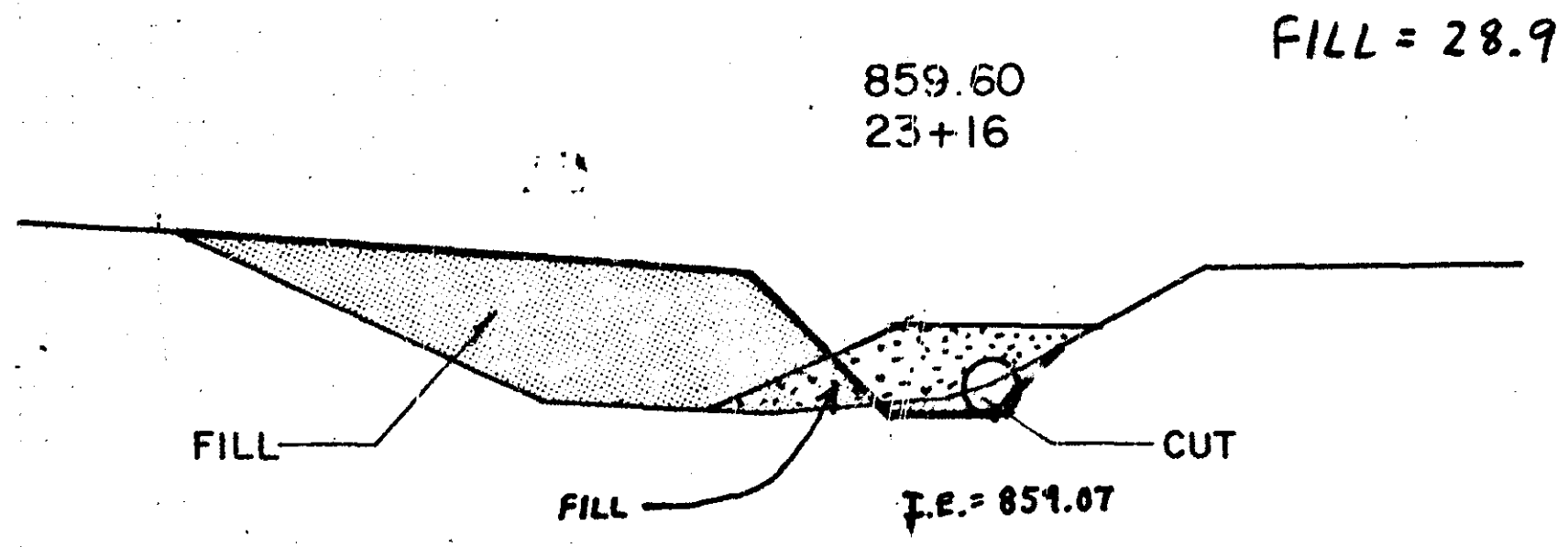


SCALE
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1" = 10' HORIZ.

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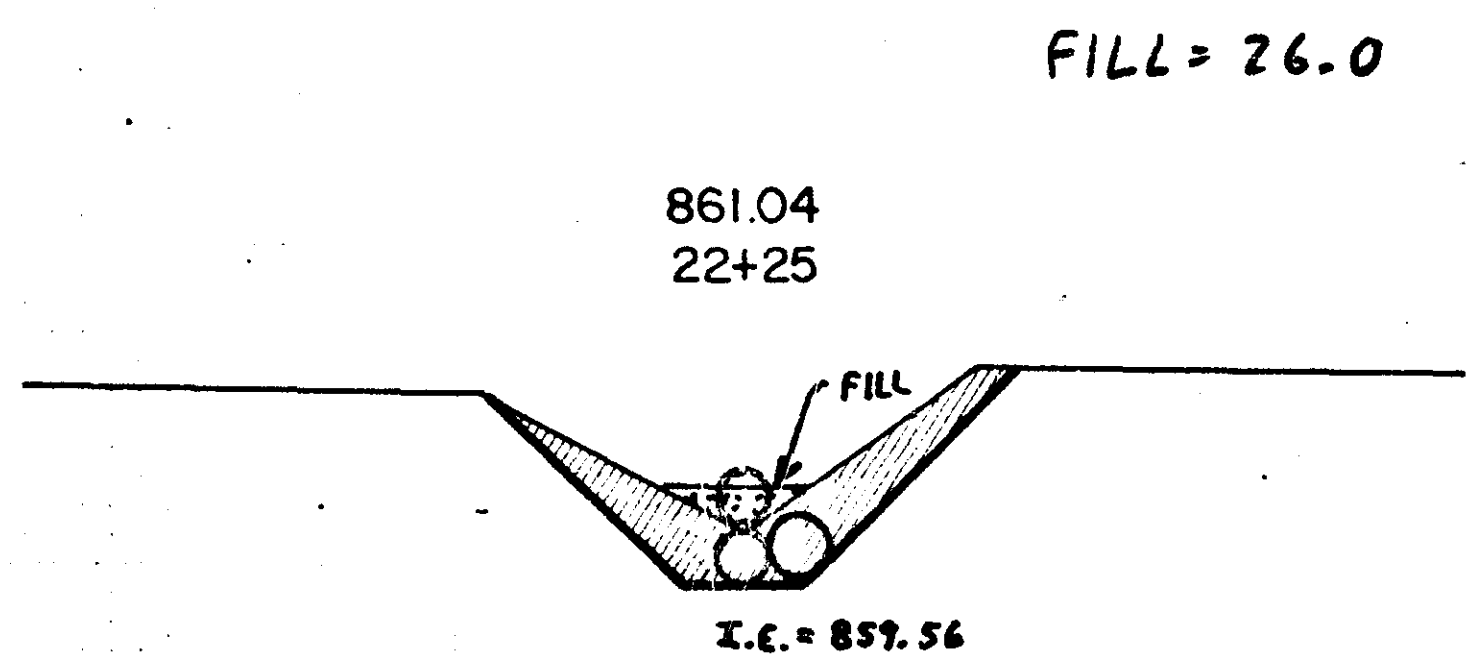
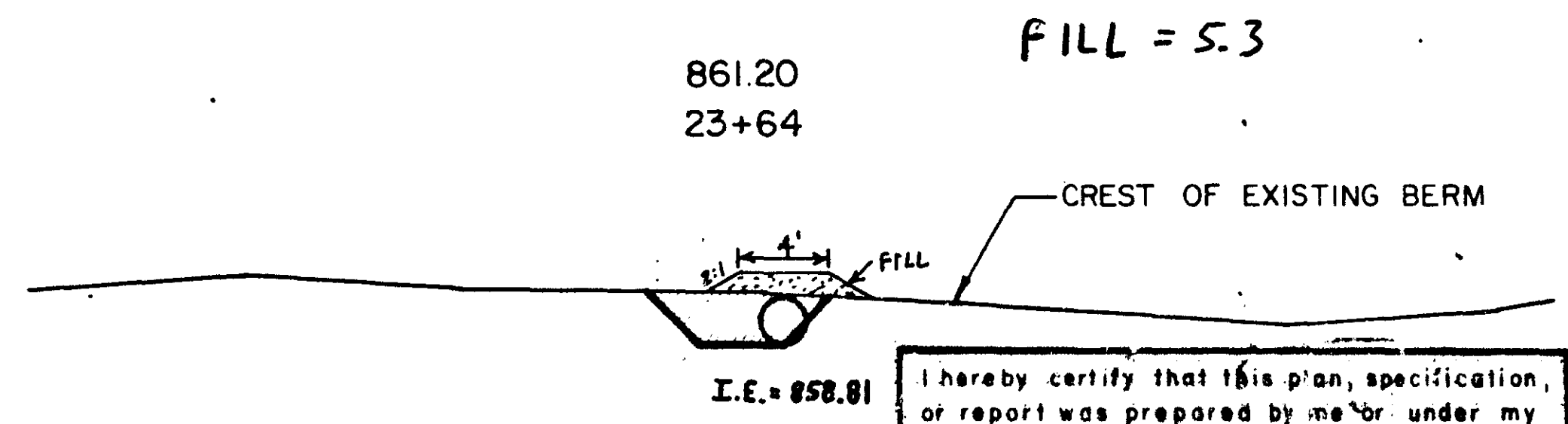
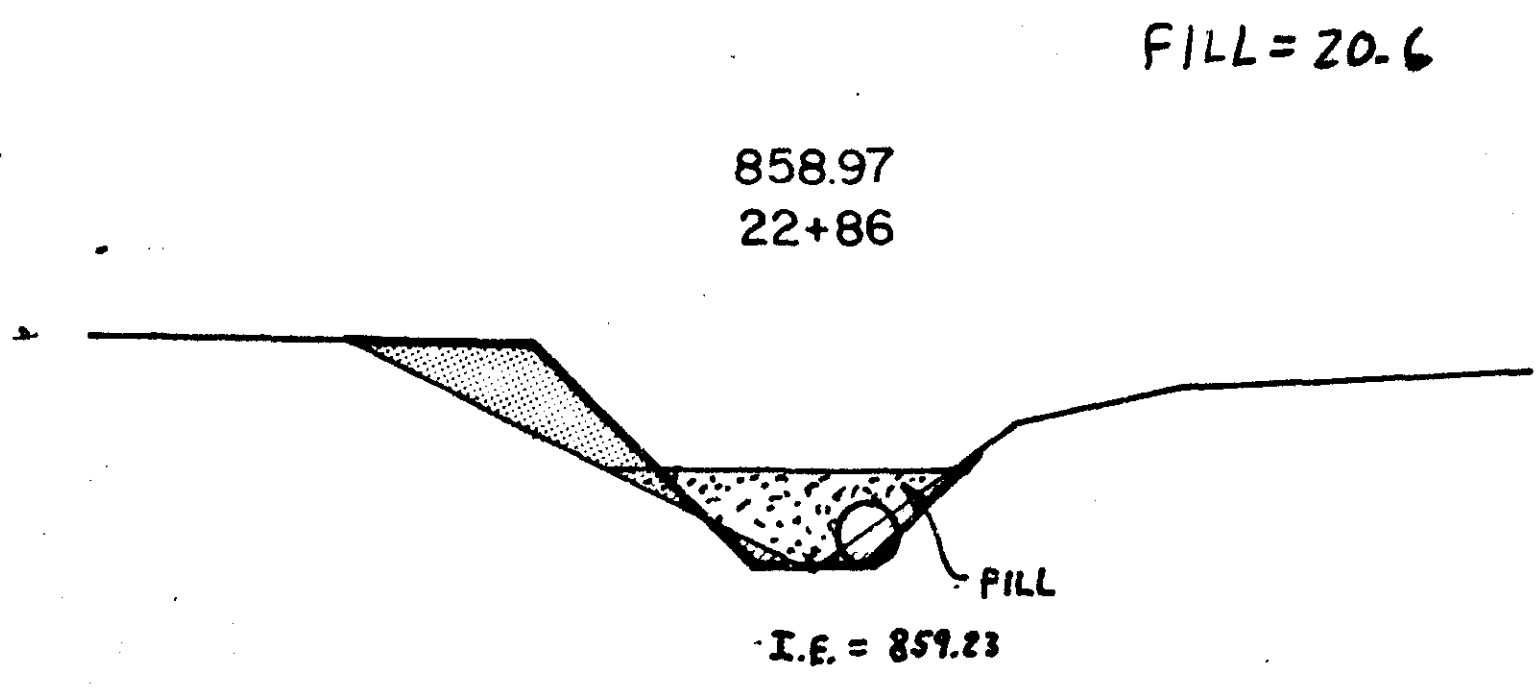
Daniel G. Schmitt

Date 12-30-82 Reg. No. 11654

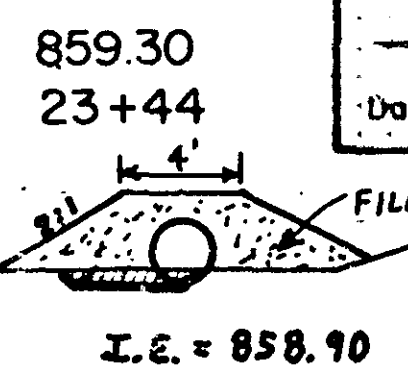


REVISIONS	DATE	BY
24" RCP Substitution	8/25/92	JET

858.70
23+86



FILL = 17.0



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Daniel H. Schacht

Date 12-30-92 Reg. No. 11654