

Drain: CLARA KALUTTS Drain #: 210  
Improvement/Arm: RECONSTRUCTION PHASE I  
Operator: J. LIVINGSTON Date: 2-23-04  
Drain Classification: Urban/Rural Rural Year Installed: 1987

### GIS Drain Input Checklist

- Pull Source Documents for Scanning
- Digitize & Attribute Tile Drains
- Digitize & Attribute Storm Drains
- Digitize & Attribute SSD
- Digitize & Attribute Open Ditch
- Stamp Plans
- Sum drain lengths & Validate
- Enter Improvements into Posse
- Enter Drain Age into Posse
- Sum drain length for Watershed in Posse
- Check Database entries for errors

JL  
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**Gasb 34 Footages for Historical Cost  
Drain Length Log**

Drain-Improvement: CLARA KNOTTS - RECONSTRUCTION PHASE I

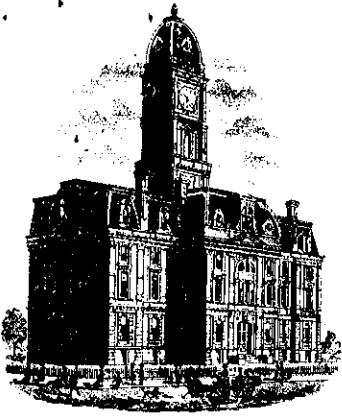
Drain Type:	Size:	Length	Length (DB Query)	Length Reconcile	If Applicable	
					Price:	Cost:
RCP	18"	1374'	995'	-379'		
	21"	1094.5'	1094.5'			
	24"	21.5'	21.5'			
	36"	693.5'	693.5'			
	48"	695.5'	695.5'			
OPEN DITCH	-	4100'	300'	-3800'		

Sum: 7979'    3800'    -4179'    \$273,915.<sup>64</sup>

Final Report: 7979'

Comments:

2200' OF OPEN DITCH RECONSTRUCTED AS STORM DRAIN FOR MERIDIAN CORPORATE PLAZA. 1100' OF OPEN DITCH & 379' OF STORM DRAIN RECONSTRUCTED FOR PARKWOOD CROSSING.



SURVEYOR'S OFFICE  
**Hamilton County**

Kenton C. Ward, Surveyor

776-9626

Noblesville, Ind. 46060 January 27, 1986

TO: Hamilton County Drainage Board

Approved 3-10-86

RE: Clara Knotts Drainage Area

Attached are plans and profile sheets for the proposed reconstruction of the Clara Knotts Drain along with a schedule of assessments, drain map and a drainage shed map.

The proposed drain involves relocating and abandoning various portions of the existing drain.

The new drain shall begin at the North West corner of 96th Street and College Avenue. An open ditch shall be constructed from this point to the North West ending at the intersection of platted Pennsylvania Street and 102nd Street. A storm sewer will then be installed North to 103rd Street and South to the Timberlane survey in the Pennsylvania Street Right of Way. Other sections of storm sewer are planned North along New Jersey to 102nd Street, North along Washington Blvd, between 103rd Street and 104th Street to intercept the existing Luther Cravens tile Drain and West along 96th Street between Washington Blvd. and Pennsylvania.

The Clara Knotts Drainage Area shall consist of the Clara Knotts, Luther Cravens and the 96th and College Drains.

The Clara Knotts Drain was ordered constructed by the Circuit Court in 1910. It involved a Main Ditch, 4040 feet in length with an Arm #1 432 feet and Arm #2, 300 feet for a total length of 4772 feet. All but 540 feet were tile.

The Luther Cravens Drain was ordered constructed in 1930 by the Circuit Court. This drain entered the Clara Knotts Drain and consisted of 3069 feet of tile drain.

The 96th and College Drain was ordered constructed by the County Commissioners in 1967. This drain consists of 1960 feet of tile drain.

The new relocated drain will cause the abandonment of the Clara Knotts Drain from Station 0 to 35 plus, all of Arm 1 and Arm 2. The drain will also abandon the Luther Cravens Drain between Station 14 to 40+69. The Main Ditch will consist of 4700 feet of open ditch and 1545 feet of eighteen (18") inch RCP. The 130 feet of S.S.D. along the North side of 103rd Street East of Pennsylvania Street will not be part of the regulated drain, but will be installed in order to intercept an existing private drain. The section along New Jersey will consist of 610 feet of fifteen (15") inch RCP. The section along 96th Street will consist of 680 feet of eighteen (18") inch RCP. The section along Washington Blvd. will consist of 1083 feet of fifteen (15") inch R.C.P. The total length of the proposed drain is 8618 feet.

The estimated cost for the project is as follows:

Open Ditch	\$ 65,000.00
Pennsylvania Street	37,000.00
New Jersey Street	11,000.00
Washington Blvd.	26,000.00
96th Street	21,000.00
	<u>\$160,000.00</u>
10% Cont.	16,000.00
	<u>\$176,000.00</u>
Engineering Fees	12,000.00
TOTAL	<u>\$188,000.00</u>

Residential lots shall be assessed at \$50.00 per lot for reconstruction, \$100.00 per acre with \$50.00 minimum. Commercial property shall be assessed at \$1420.00 per acre, with \$500.00 minimum. The County and State Highways shall be assessed \$300.00 per acre.

The maintenance cost shall be \$2.00 per acre, with a \$6.00 minimum for Residential, Commercial and Highways.

The following owners should be credited the indicated amounts prior payment of the reconstruction assessments.

Spore-Huffman	\$ 200.00
MMW Corporation	1000.00
Cedar Wood	1000.00

The assessment roll shows the total assessment for the owners and does not reflect

the above reductions.

Upon considering benefits of the tracts within the drainage shed, it is my opinion that Commerical properties will benefit more from the reconstruction than the Residential properties and the Highways. I also believe that within each of the three (3) groups all Commerical property will have equal benefit; All Residential property will have equal benefit and Highways will have equal benefit. Commercial and Residential properties have been determined from the Clay Township Offical Zoning Map dated January 21, 1980.

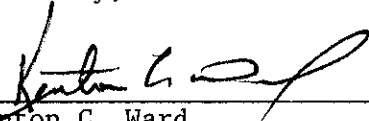
Maintenance benefits have also been considered. Upon doing so , I believe that all the tracts within the drainage shed have equal benefits.

Damages have been considered on various tracts along the regulated drain. I believe that no damages should be allowed to property owners as no damages will be done.

The proposed project is the first phase of solving the drainage problems in this area. After this project is completed, further investigation can be done to determine the condition of existing drains and how to further relieve problems within the area.

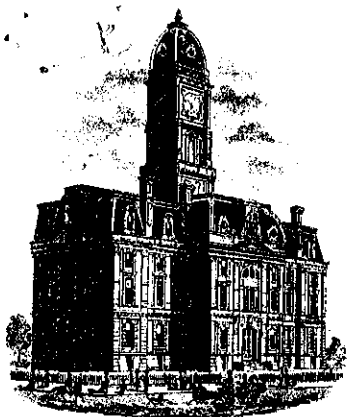
A hearing should be held March 10, 1986.

Sincerely,

  
Kenton C. Ward  
Hamilton County Surveyor

KCW/no

**FILED**  
FEB 10 1986  
HAMILTON COUNTY DRAINAGE BOARD  
SECRETARY



SURVEYOR'S OFFICE  
**Hamilton County**

*Kenton C. Ward, Surveyor*

776-9626

*Noblesville, Ind. 46060* for December 8, 1986

TO: Hamilton County Drainage Board

RE: Clara Knotts Drainage Area Revised Report

Attached are plans and profile sheets for the proposed reconstruction on the Clara Knotts Drain along with a schedule of assessments, drain map and a drainage shed map.

The proposed drain involves relocating and abandoning various portions of the existing drain.

The new drain shall begin at the NorthWest corner of 96th Street and College Avenue. An open ditch shall be constructed from this point to the North West ending at the intersection of platted Pennsylvania Street and 102nd Street. A storm sewer will then be installed North to 103rd Street and South to the Timberlane survey in the Pennsylvania Street Right of Way. Other sections of storm sewer are planned North along New Jersey Street to 102nd Street, North along Washington Blvd., between 103rd Street and 104th Street to intercept the existing Luther Cravens tile Drain and West along 96th Street between Washington Blvd. and Pennsylvania Street.

The Clara Knotts Drainage Area shall consist of the Clara Knotts, Luther Cravens and the 96th and College Street Drains.

The Clara Knotts Drain was ordered constructed by the Circuit Court in 1910. It involved a Main Ditch, 4040 feet in length with an Arm #1 432 feet and Arm #2, 300 feet for a total length of 4772 feet. All but 540 feet were tile.

The 96th and College Drain was ordered constructed by the County Commissioners in 1967. This drain consists of 1960 feet of tile drain.

The new relocated drain will cause the abandonment of the Clara Knotts Drain from STA 0 to 35, plus all of Arm #1 and Arm #2. The drain will also abandon the Luther Cravens Drain between STA 14 to 40+69. The Main Ditch will consist of 4700 feet of open ditch and 1545 feet of eighteen (18") inch RCP. The 130 feet of S.S.D. along the North side of 103rd Street East of Pennsylvania Street will not be part of the regulated drain, but will be installed in order to intercept an existing private drain. The section along New Jersey will consist of 610 feet of fifteen (15") inch RCP. The section along 96th Street will consist of 680 feet of eighteen (18") inch RCP. The section along Washington Blvd. will consist of 1083 feet of fifteen (15") inch RCP. The total length of the proposed drain is 8618 feet.

I arrived at the estimated cost by using the three bids which the Drainage Board had received. Two bids were received on May 12, 1986 and amounted to \$ 443,816.00 and \$232,547.00. The third bid was received October 14, 1986 and amounted to \$273,699.00. The average is \$316,688.00. Adding engineering of \$12,000, the subtotal is \$328,688.00. Adding a 5% contingency of \$16,434.40 the total estimated cost is now \$345,122.40.

Residential lots shall be assessed at \$100.00 per lot for reconstruction, \$100.00 per acre with \$100.00 minimum. Commercial property shall be assessed at \$2900.00 per acre, with \$500.00 minimum. The County and State Highways shall be assessed \$300.00 per acre.

The maintenance cost shall be \$5.00 per acre, with a \$10.00 minimum for Residential, Commercial and Highways.

The following owners should be credited the with the indicated amounts as prior payment of the reconstruction assessments.

Spore-Huffman	\$ 200.00
MMW Corporation	1000.00
Cedar Wood	1000.00

The assessment roll shows the total assessment for the owners and does not reflect

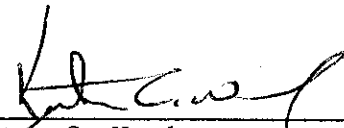
Upon considering benefits of the tracts within the drainage shed, it is my opinion that Commerical properties will benefit more from the reconstruction than the Residential properties and the Highways. I also believe that within each of the three (3) groups all Commerical property will have equal benefit; all Residential property will have equal benefit and Highways will have equal benefit. Commerical and Residential properties have been determined from the CLay Township Offical Zoning Map dated January 21, 1980.

Maintenance benefits have also been considered. Upon doing so, I believe that all the tracts within the drainage shed have equal benefits.

Damages have been considered on various tracts along the regulated drain. I believe that no damages should be allowed to property owners as no damages will be done.

The proposed project is the first phase of solving the drainage problems in this area. After this project is completed, further investigation can be done to determine the condition of existing drains and how to further relieve problems within the area.

A hearing should be held January 12, 1987.

  
\_\_\_\_\_  
Kepton C. Ward  
Hamilton County Surveyor

KCW/no





SURVEYOR'S OFFICE

# Hamilton County

Kenton C. Ward, Surveyor

775-6110 Ext. 19  
776-9626

SECRETARY  
Noblesville, Ind. 46060

February 5, 1988

TO: Hamilton County Drainage Board

RE: Clara Knotts Drain Phase I final report

Attached is a set of "As Built" plans for the Clara Knotts Drain, Phase I. Upon inspection of the project in October the drain was found to be complete and acceptable. The delay in the final report was caused by the interval between that time and January for receipt of "As Built" drawings.

The drain was constructed with six (6) change orders, which are listed below.

1. STA 0+00--storm inlet changed to 48" manhole on 96th Street line
2. Add tile outlet pipe on tile outletting into open ditch
3. Add tile outlet pipe on open ditch, install riprap for surface waterway into open ditch, change location for New Jersey line from South along New Jersey to West along 102nd Street and change open ditch along 102nd Street to storm sewer
4. Replace lid at STA 33 (end of Delaware Street) with redesigned lid
5. Extend 96th Street storm pipe to open ditch
6. Add 48" manhole at 103rd Street and Penn, so as to angle storm pipe to miss Bell structure

The final length of the drain reconstruction is as follows. The lengths were taken from the "As Built" drawings and may vary slightly with the billing lengths, because of measurement.

Washington Blvd.	1116 ft	18" RCP
96th Street	52 ft	21" RCP
	707 ft	18" RCP
Open Ditch	4112 ft	
New Jersey Street	302 ft	21" RCP
Pennsylvania Street	793 ft	21" RCP
	693.5 ft	36" RCP
102nd Street (was part of Open Ditch)	22 ft	24" RCP
	695.5ft	48" RCP

FILED

HAMILTON COUNTY DRAINAGE BOARD  
*Nancy L. ...*

The total length installed was 8492 feet.

With the construction of Phase Two I recommend that the Board consider abandonment of the balance of the Luther Cravens Drain (STA 0 to STA 14). The Board should be reminded that the existing Knotts Drain (STA 35 to 40+40 of the 1911 report) is still a regulated drain. STA 0+00 of the reconstruction corresponds with STA 38+25 of the 1911 stationing. STA 40+40 is the point where the culvert under 96th Street East of College is located. I also want to note to the Board that the existing storm sewer along Washington Blvd South of 103rd Street should be included as regulated drain with Phase II.

The total cost of the project is as follows:

Weihe Engineers	10,950.00
William Noland & Son	<u>262,965.64</u>
Total Phase I	\$ 273,915.64

The original bid was \$219,556.63. Although the final construction cost was \$262,965.64, the cost was still lower than the estimate of \$316,688.00. The total cost of \$273,915.64 is lower than the estimate of \$345,122.40.

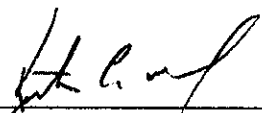
The constrator has submitted a statement that all expenses have been paid. The contractor has received all monies due as have the engineering firm. I recommend the Board accept the work as complete.

The cost of the project was further reduced by the sale of Topographic information this income is as follows:

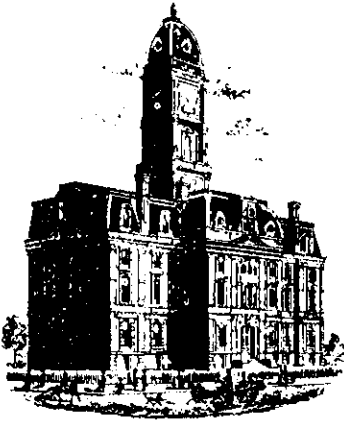
Duke Associates	\$1215.00
Trummeell Crow Associates	<u>1500.00</u>
	\$2715.00

This along with the amount of prior payments as noted in my December 8, 1986 report of \$2200.00 reduces the amount needed from the American National Bank by \$4915.00 to \$269,000.64.

Although the assessments were based on the \$345,122.40, I recommend that revisions not be made. If Phase II is not approved at hearing a portion of this difference will be needed to pay for engineering after which revisions can be made. If Phase II is approved the difference can be used to offset the cost of that Phase.

  
\_\_\_\_\_  
Kenton C. Ward  
Hamilton County Surveyor

KCW/no



SURVEYOR'S OFFICE  
**Hamilton County**

*Kenton C. Ward, Surveyor*

*Phone (317) 776-8495*

*Fax (317) 776-9628*

*Suite 146*

*One Hamilton County Square*

*Noblesville, Indiana 46060-2230*

To: Hamilton County Drainage Board

December 31, 1997

**Re: Clara Knotts Drain: Reconstruction - 1986**

Attached are as-builts and other information for the Clara Knotts Reconstruction. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

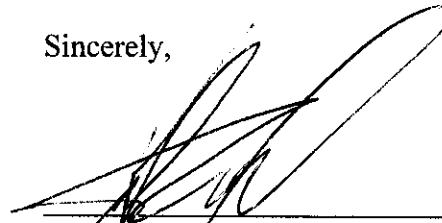
During construction, changes were made to the drain which will alter the plans submitted with my report for this drain dated January 27, 1986. The changes are as follows:  
The open ditch total was shortened from 4700' feet to 4100' feet. The length of drain totals are as follows: 18" RCP - 1374' ft 21" RCP - 1094.5' ft 24" RCP - 21.5' ft 36" RCP - 693.5 ft 48" RCP - 695.5' ft

The length of the drain due to the changes described above is now **7,979 feet.**

There was 4,232 feet of the Clara Knotts original drain vacated. This leaves 540 feet of the original drain. This would give the Clara Knotts drain a net total of 8,519' ft. The Luther Cravens drain was vacated from Sta 14+00 to Sta 40+69. This leaves 14+00 of the Cravens Drain. The original 96<sup>th</sup> Street drain did not lose any length in drain. The Grand total length of drain for the Clara Knotts Shed is **11,879' ft.**

I recommend the Board approve the drains construction as complete and acceptable.

Sincerely,



---

Kenton C. Ward,  
Hamilton County Surveyor

KCW/slm

### Asbuilt Structures

Project: Clara Knotts Recon.

Structure:      T.C.:      I.E.:      Pipe:      Length:      Original Plans:      Difference:

MAIN LINE	OUTLET PIPE 0+00		828.74	48"		
	MANHOLE 0+48 #700	837.31	828.37	48"	49'	
	MANHOLE 3+83 #703	836.57	829.77	48"	338.5'	
	MANHOLE 6+86 (2) #704	836.46	830.51	48"	308.0'	
102 <sup>ND</sup> ST E.	MANHOLE 0+48 #700	837.31	828.37			
	MANHOLE 0+78 #701	837.60	831.29	24"	21.5'	
	M.H. HYBRID 3+63 #702	835.74	832.81	21"	301.5'	
N of 102 <sup>ND</sup>	MANHOLE 0+00 (2) #704	836.46	830.51			
	M.H. 2+25 #705	839.07	831.55	36"	229.3'	
	M.H. 6+25 #706	840.90	832.50	36"	401.7'	
	M.H. 6+75 #707	841.05	832.53	36"	62.5'	
S. OF 102 <sup>ND</sup>	MANHOLE 0+00 (2) #704	836.46	830.51			
	M.H. 4+00 #708	840.49	831.92	21"	397'	
	M.H. 8+00 #709	842.29	835.79	21"	396'	

6" SSD Streets:


Total: \_\_\_\_\_

6" SSD Lots:


Total: \_\_\_\_\_

RCP Pipe Totals:

21"	1094.5
24"	21.5
36"	693.5
48"	695.5

Other Drain:	
open ditch	4100'

Total Length of Drain: \_\_\_\_\_

### Asbuilt Structures

Project: CLARA KNOTT RECONSTRUCTION

Structure:      T.C.:      I.E.:      Pipe:      Length:      Original Plans:      Difference:

103RD  
&  
WASHINGTON

96TH ST.  
EAST OF  
WASHINGTON

0+00 M.H. #710		837.60				
0+51 M.H. #711	843.28	837.69	18"	51'		
3+20 M.H. #713	844.34	838.44	18"	275'		
6+70 M.H. #714	846.51	838.98	18"	341'		
0+00 M.H.	830.0	824.66				
0+72 M.H.	829.26	825.06	18"	72'		
7+10 M.H.	-	825.71	18"	635'		

6" SSD Streets:


Total: \_\_\_\_\_

6" SSD Lots:


Total: \_\_\_\_\_

RCP Pipe Totals:

18"	1374'


Other Drain:

Total Length of Drain:

7979'

# Fidelity and Deposit Company

HOME OFFICE OF MARYLAND BALTIMORE, MD. 21203

## General Form Status Inquiry

Hamilton Co. Drainage Board  
Kenton Ward  
Courthouse  
Noblesville, IN 46060

January 6, 1988

OUR BOND NO. 30062686

CONTRACTOR:  
WILLIAM N. NOLAND DEB WM. NOLAND & SON LANDSCAPING

DESCRIPTION:  
KNOTTS DRAINAGE AREA. INSTALL 4050 FT. NEW OPEN DITCH & 3930 FT. CF  
21 IN., 36 IN. & 18 IN. REINFORCED CONCRETE PIPE. HAMILTON COUNTY IN.

OWNER:  
HAMILTON COUNTY DRAINAGE BOARD

CONTRACT PRICE \$219,557.00 BOND(S) \$219,557.00 EFFECTIVE DATE 02/17/87

WITHOUT PREJUDICING YOUR RIGHTS OR AFFECTING OUR LIABILITY UNDER OUR BOND(S) DESCRIBED ABOVE, WE WOULD APPRECIATE SUCH OF THE FOLLOWING INFORMATION AS IS NOW AVAILABLE.

VERY TRULY YOURS,

BY Jan L. Jacobs  
Jan L. Jacobs, Resident Vice President

- IF CONTRACT COMPLETED, PLEASE STATE:  
APPROXIMATE DATE OF COMPLETION OF WORK (OR FINAL DELIVERY) Nov '87  
APPROXIMATE ACCEPTANCE DATE DEC 87  
FINAL CONTRACT PRICE \$ 221,897.00
- IF CONTRACT UNCOMPLETED, PLEASE STATE:  
APPROXIMATE PERCENTAGE OR DOLLAR AMOUNT OF CONTRACT COMPLETED OR DELIVERED \_\_\_\_\_
- DO YOU KNOW OF UNPAID BILLS FOR LABOR OR MATERIAL? (CHECK) YES \_\_\_\_\_ NO X  
ESTIMATED COMPLETION DATE Nov '87
- REMARKS: (IF ANY) \_\_\_\_\_

SIGNATURE Robert W. L.  
TITLE HAMILTON COUNTY SURVEYOR  
DATE 7 JAN 1988


It is understood that the information contained herein is furnished as a matter of courtesy for the confidential use of the surety and is merely an expression of opinion. It is also agreed that in furnishing this information, no guaranty or warranty of accuracy or correctness is made and no responsibility is assumed as a result of reliance by the surety, whether such information is furnished by the owner or by an architect or engineer as the agent of the owner.

PLEASE RETURN INQUIRY TO: FIDELITY AND DEPOSIT COMPANY OF MARYLAND  
722 CIRCLE TOWER BLDG.  
INDIANAPOLIS, INDIANA 46204

C315M-REV. 2-81  
General Form Status Inquiry-Federal cases to be submitted in duplicate. Addressed envelopes to be attached.  
SI 5541

# CLARA KNOTTS DRAIN CONSTRUCTION

STATE OF INDIANA — COUNTY OF HAMILTON

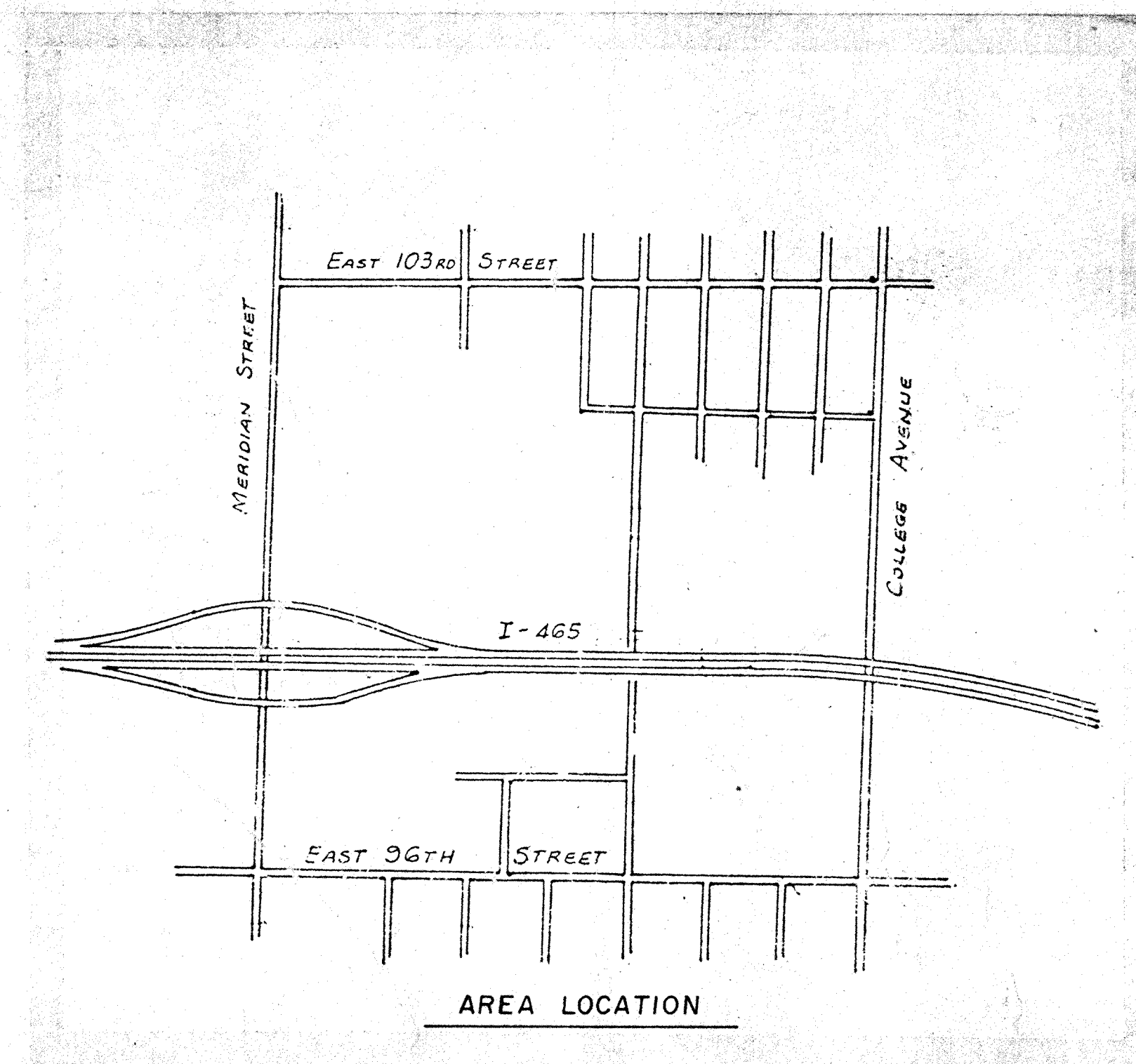


This information was gathered for input into the Hamilton County Geographical Information System. This document is considered an official record of the GIS.

Entry Date: 2-23-04

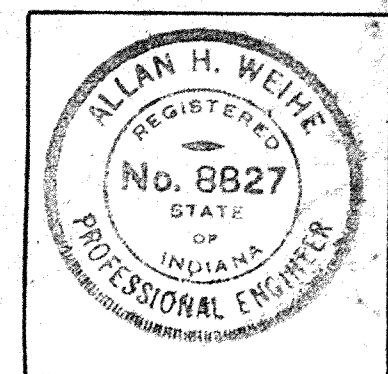
Entered by: [Signature]

INDEX	
SHEET	DESCRIPTION
1	TITLE SHEET
2-7	PLAN & PROFILE SHEETS
8	DETAILS
9	OVERALL LAYOUT



CERTIFIED BY:

Allan H. Weihe  
 ALLAN H. WEIHE - REG. P.E., IN. No. 8827



"Record Drawing" 11/20/57  
 "Record Drawing Revised" 1-16-68

NOTE: It shall be the responsibility of each contractor to verify all existing utilities and conditions pertaining to his phase of the work. It shall also be the contractors responsibility to contact the owners of the various utilities before work is started. The contractor shall notify in writing the owners or the engineers of any changes, errors or omissions found on these plans or in the field before work is started or resumed.

WEIHE ENGINEERS INC.  
 10505 NORTH COLLEGE AVENUE  
 INDIANAPOLIS, INDIANA 46280  
 LAND SURVEYORS  
 CIVIL ENGINEERS  
 LAND PLANNERS

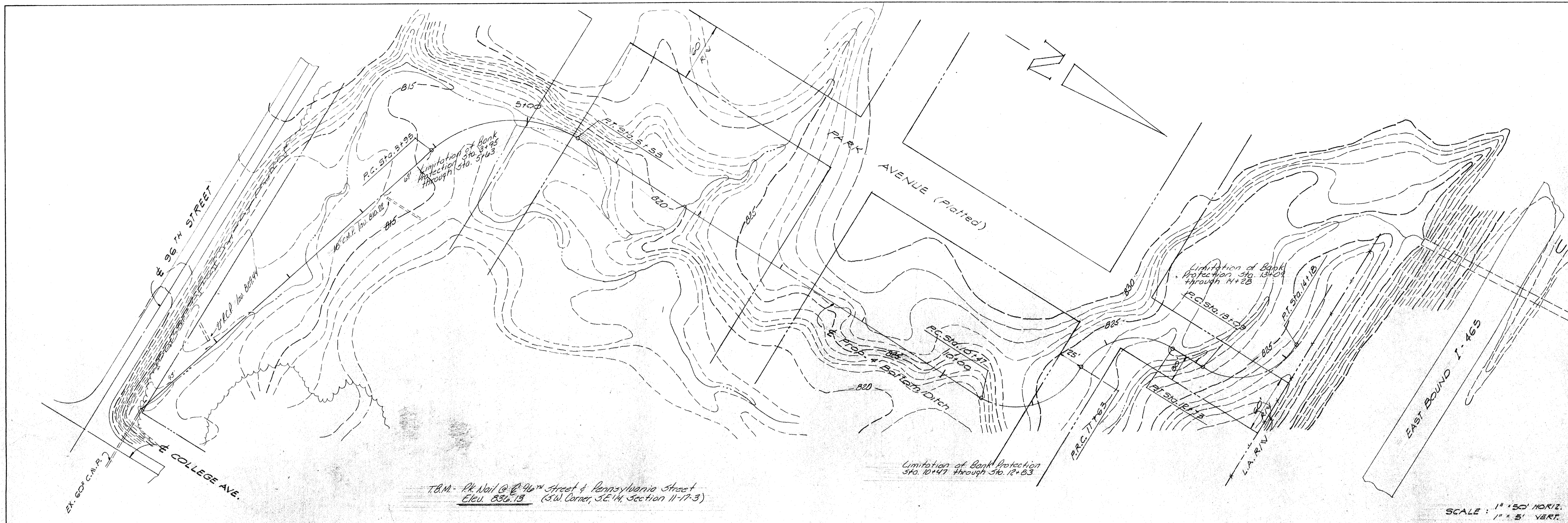
PREPARED FOR: DRAINAGE BOARD  
 HAMILTON COUNTY  
 TITLE SHEET CLARA KNOTTS DRAIN CONSTRUCTION

SHEET NO. 1 OF 9

REVISIONS: Board Drawing Revised 11/20/57  
 Board Drawing Revised 1-16-68

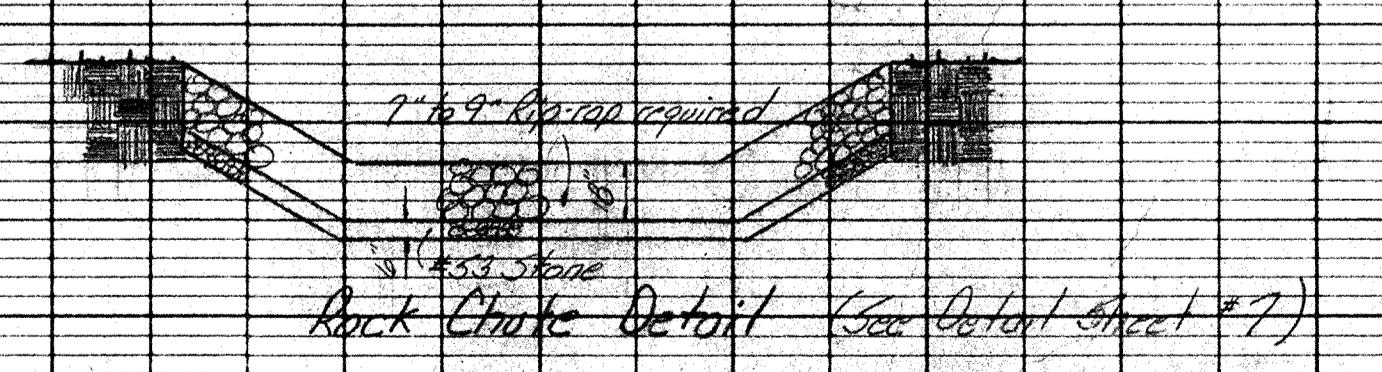
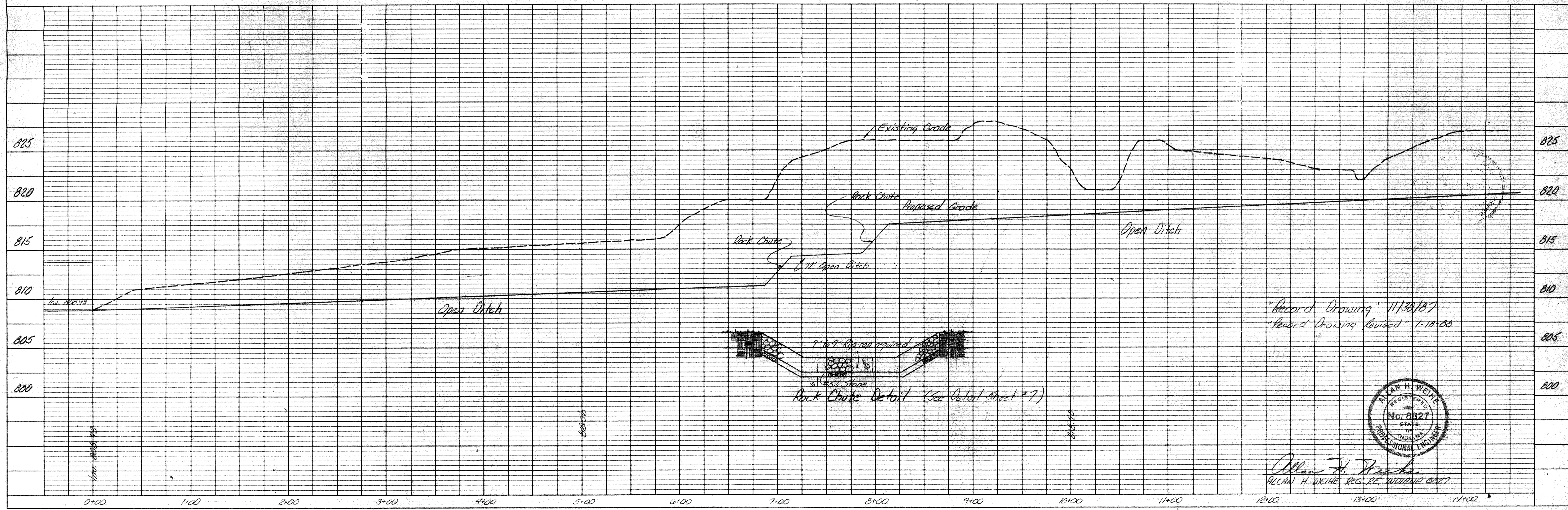
DRAWN BY: D.B.  
 CHECKED BY: [Signature]  
 DATE: 11/20/57

JOB NO. 85-530

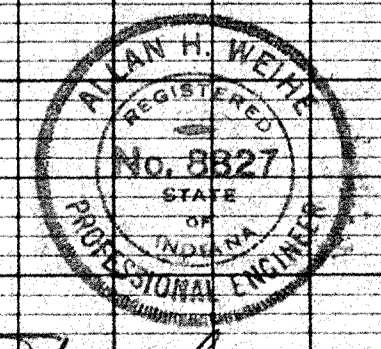


T.B.M. - Pk Nail @ 96th Street & Pennsylvania Street  
 Elev. 836.13 (S.W. Corner, S.E. 1/4, Section 11-17-3)

SCALE: 1" = 50' HORIZ.  
 1" = 5' VERT.



"Record Drawing" 11/30/87  
 "Record Drawing Revised" 1-18-88



Allan H. Weihe  
 ALLAN H. WEIHE, REG. P.E., INDIANA 8827

WEIHE ENGINEERS INC.  
 10605 NORTH COLLEGE AVENUE  
 INDIANAPOLIS, INDIANA 46280  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS

JOB NO. 85-530  
 DRAWN BY D.J.  
 CHECKED BY [Signature]  
 DATE 3/29/88

DATE BY 3/29/88

REVISIONS

Hamilton County Drainage Board  
 Storm Sewer Plan of Profile Sheet

SHEET NO. 2 OF 9



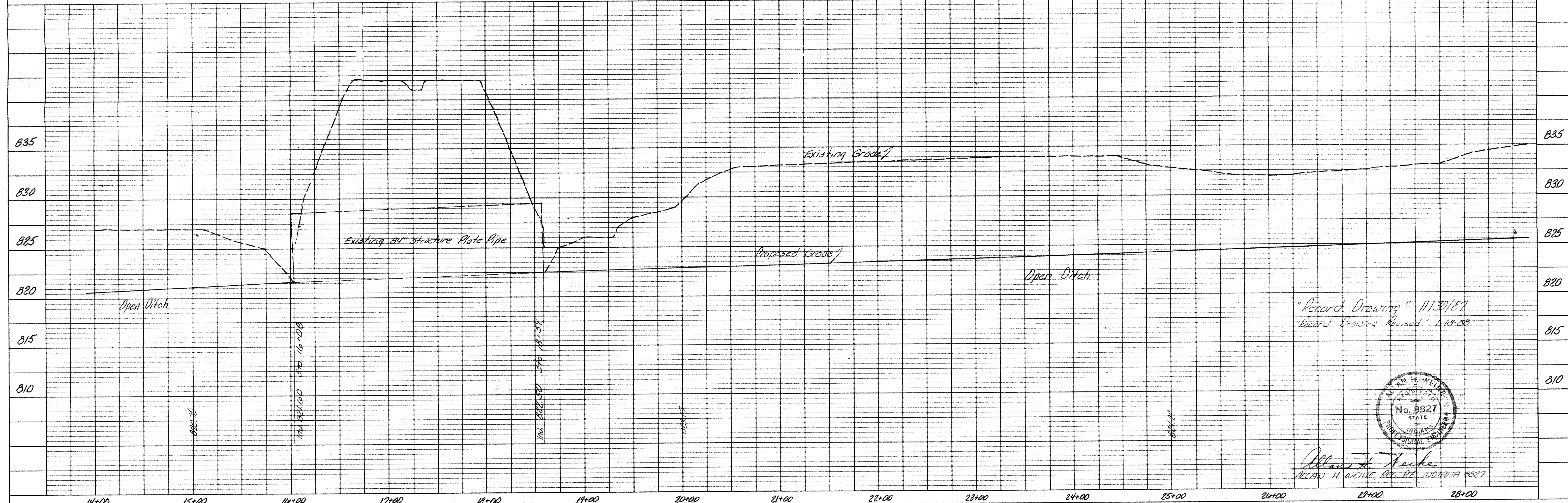
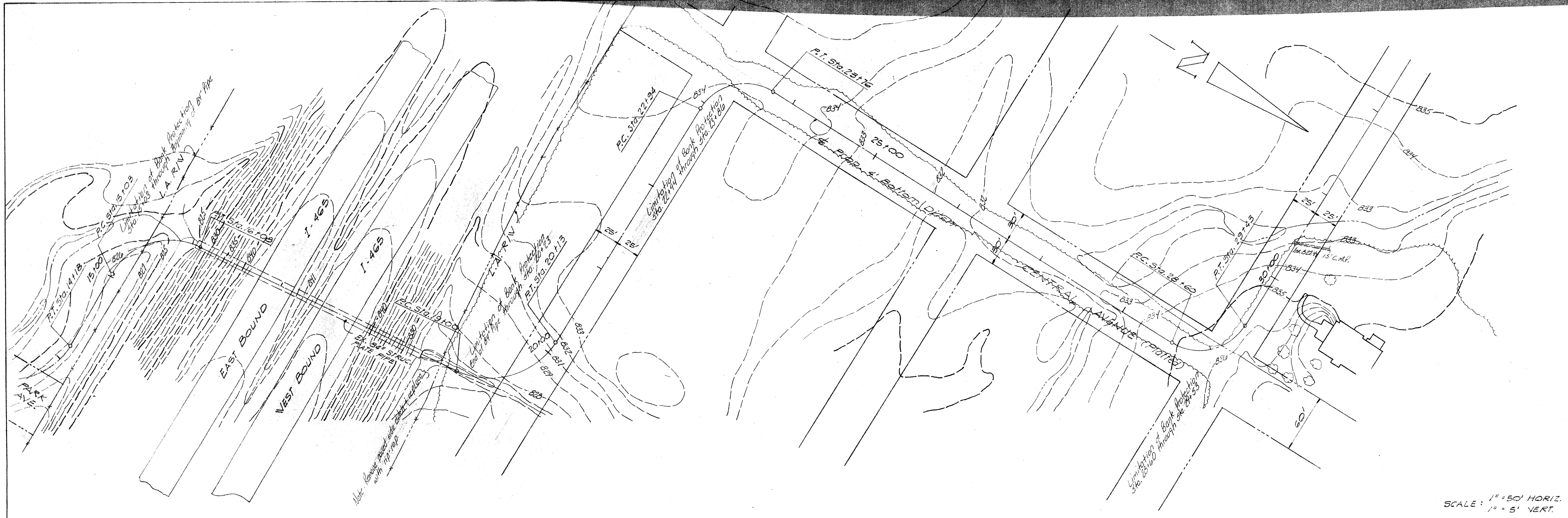
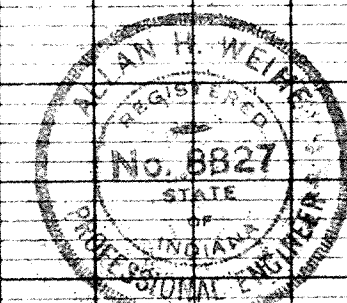


PLATE 1 SINGLE PLAN PROFILE  
CHARLES BRUNING CO.  
Made in U.S.A.

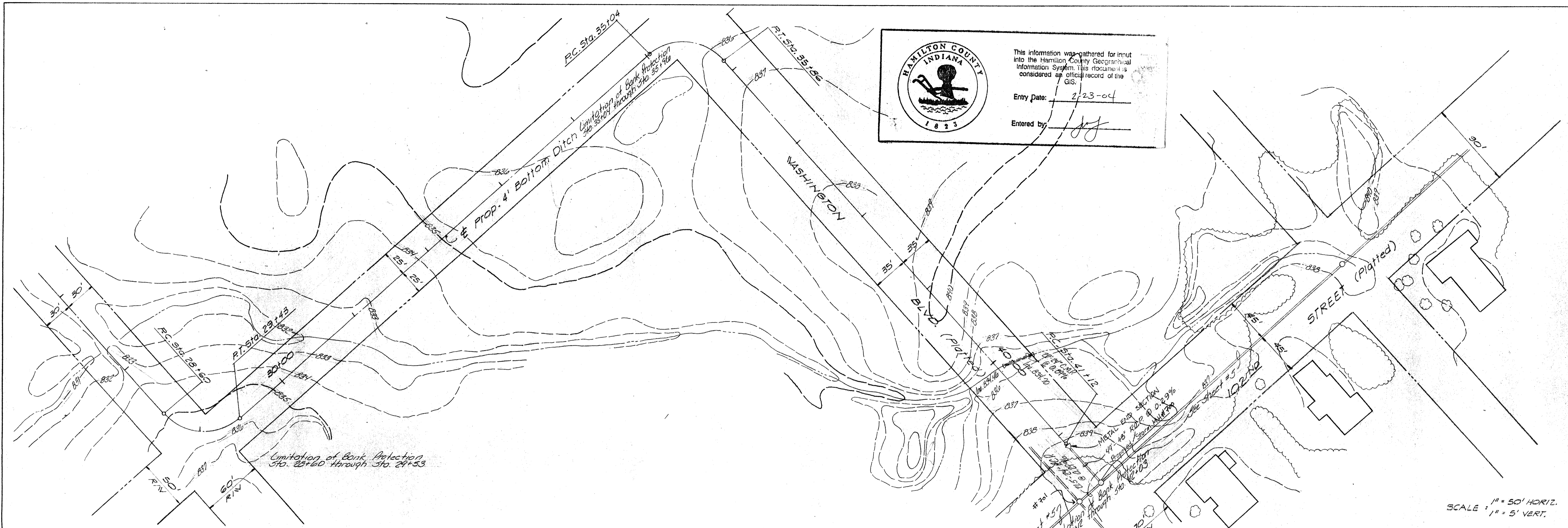
"Record Drawing" 11/30/87  
"Record Drawing Revised" 1/15/88



Allan H. Weihe  
ALLAN H. WEIHE, REG. P.E., INDIANA 8827

**WEIHE ENGINEERS INC.**  
 10505 NORTH COLLEGE AVENUE  
 INDIANAPOLIS, INDIANA 46280  
 LAND PLANNERS  
 LAND SURVEYORS  
 CIVIL ENGINEERS

JOB NO. 35-530	DRAWN BY D.J.	CHECKED BY D.J.	DATE 3/29/86
DATE BY			REVISIONS
Prepared For: Hamilton County Drainage Board Storm Sewer Plan & Profile Sheet			
SHEET NO.		3	
OF		9	



**HAMILTON COUNTY  
INDIANA  
1823**

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Entry Date: 2/23-04

Entered by: [Signature]

SCALE: 1" = 50' HORIZ.  
1" = 5' VERT.

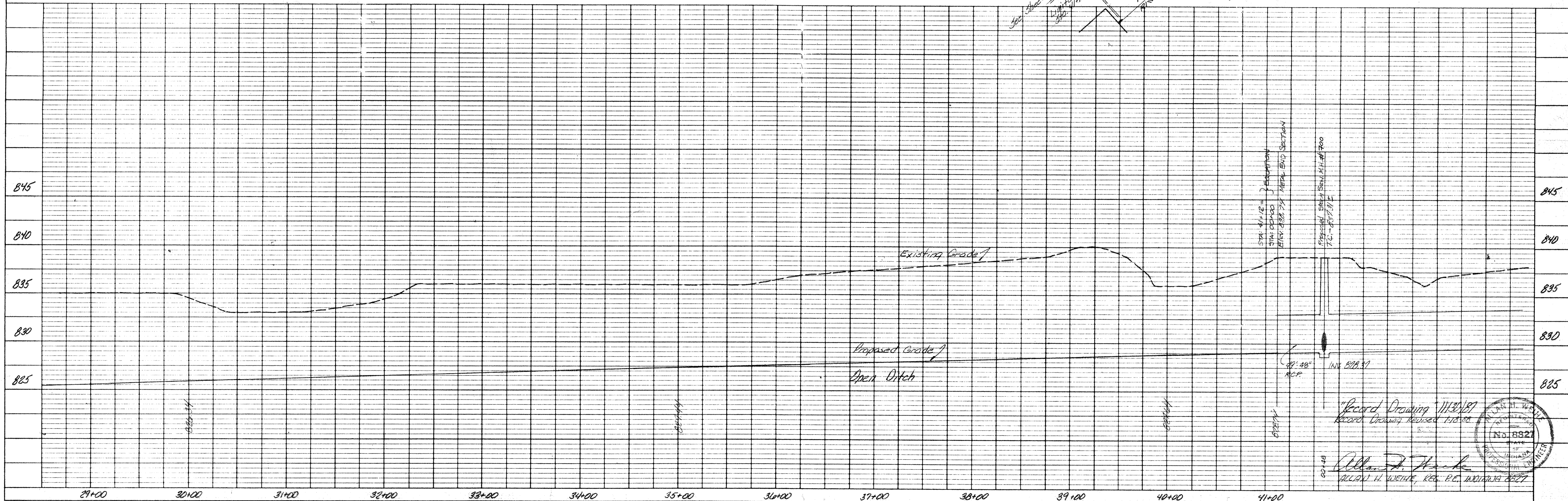


PLATE 1 SINGLE PLAN - PROFILE  
CHARLES BRUNING CO.  
Made in U.S.A.

**WEIHE ENGINEERS INC.**  
10066 NORTH COLLEGE AVENUE  
INDIANAPOLIS, INDIANA 46280

CIVIL ENGINEERS  
LAND SURVEYORS  
LAND PLANNERS

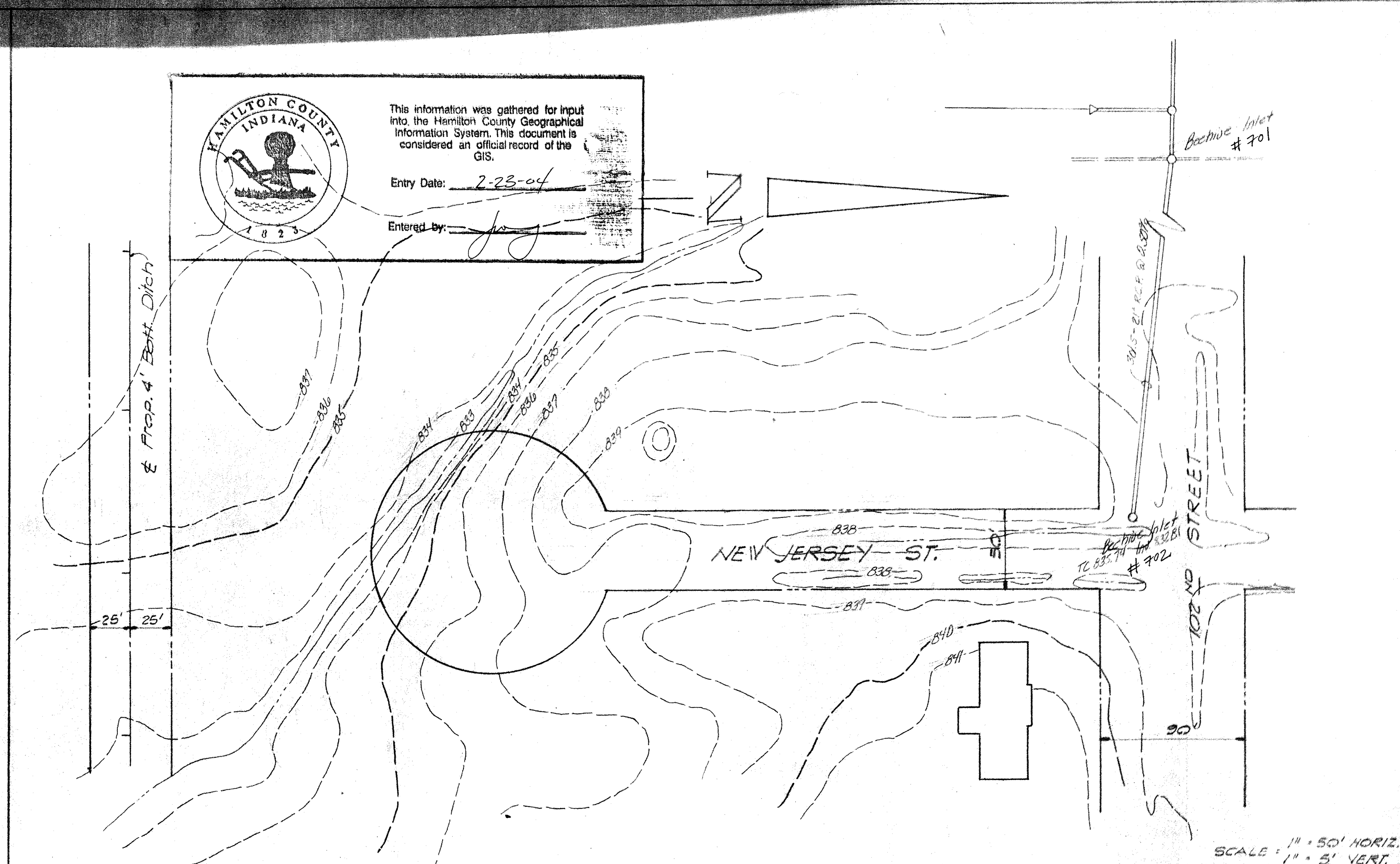
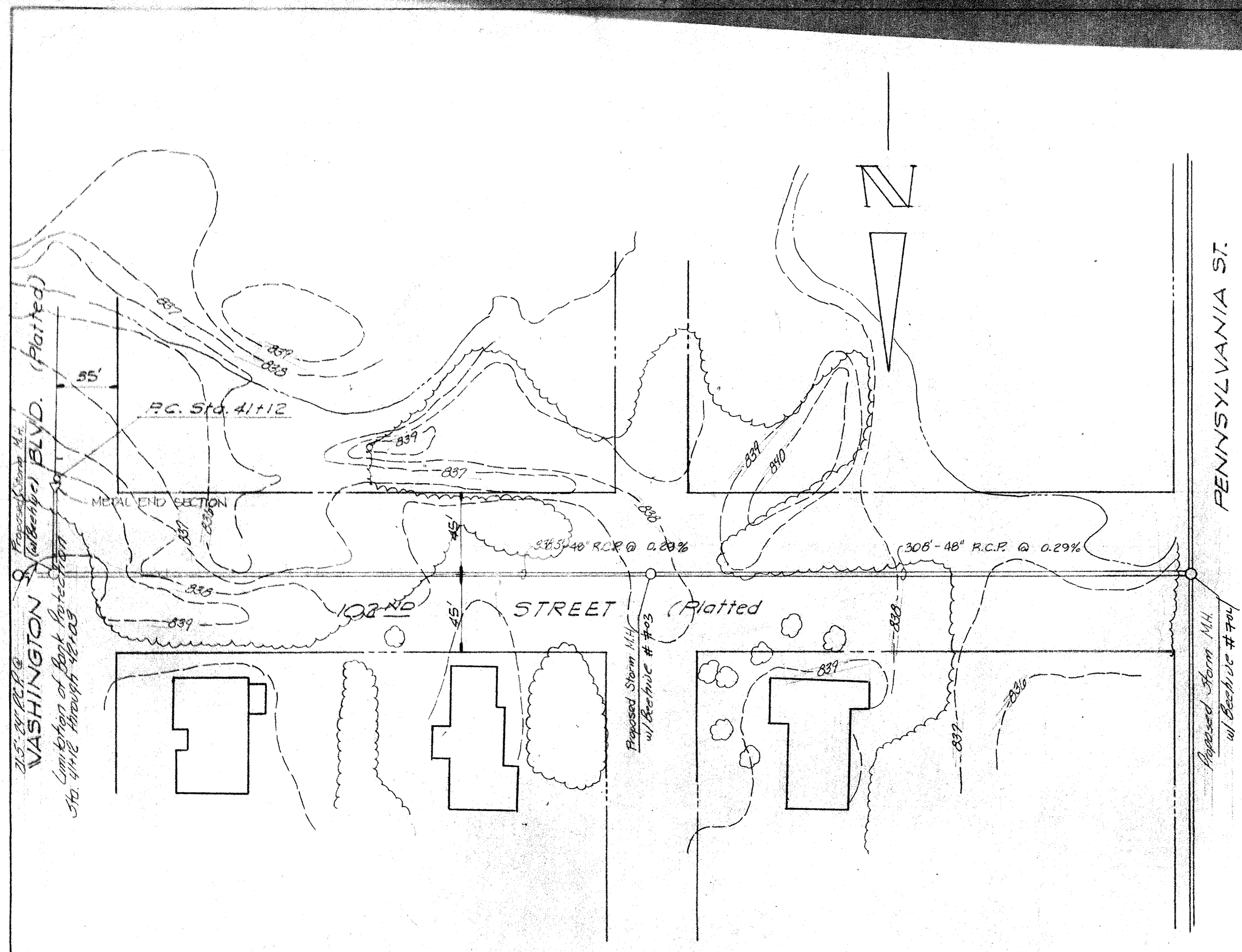
Prepared For: Hamilton County Drainage Board  
Storm Sewer Plan & Profile

SHEET NO. **4**  
OF 9

REVISIONS

DATE	BY
02/23/04	[Signature]

General Revision 3

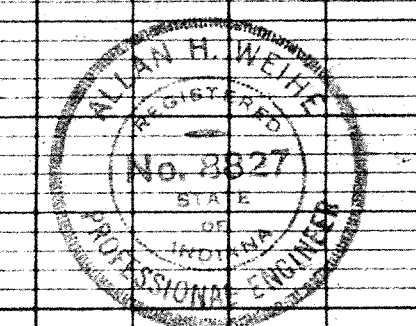
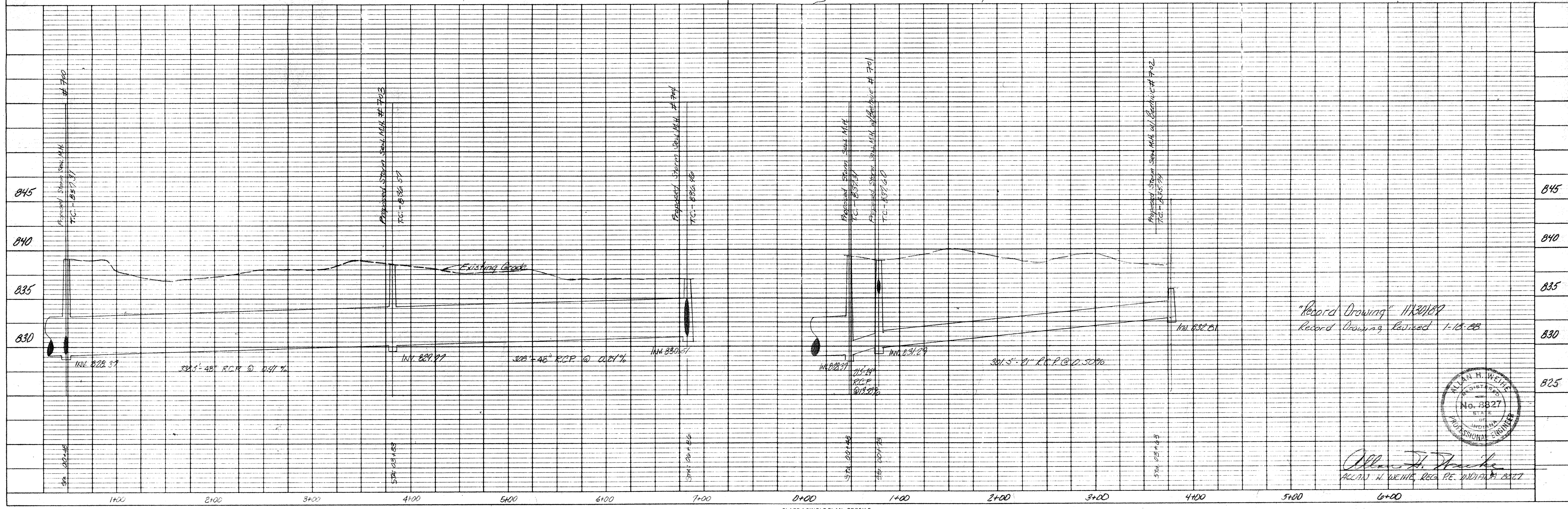


HAMILTON COUNTY  
INDIANA  
4823

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Entry Date: 2-23-04

Entered By: [Signature]



Allan H. Weihe  
ALLAN H. WEIHE, REG. P.E. INDIANA #3327

WEIHE ENGINEERS INC.  
10605 NORTH COLLEGE AVENUE  
INDIANAPOLIS, INDIANA 46238  
LAND SURVEYORS  
CIVIL ENGINEERS

ALLAN H. WEIHE, P.E., L.S.  
PRESIDENT

DATE BY: [Signature]

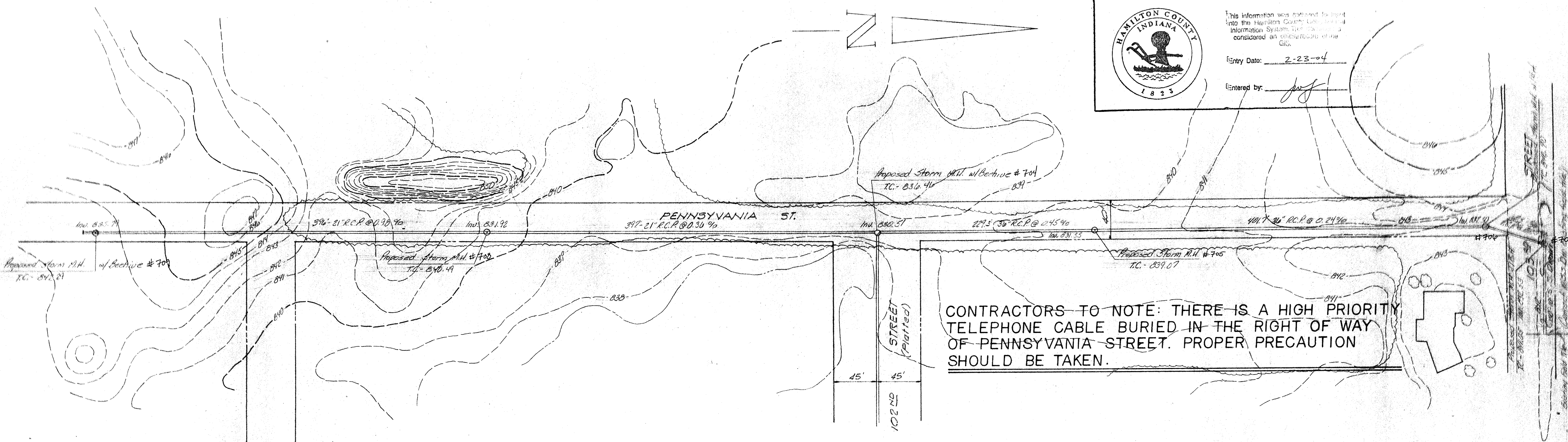
REVISIONS

Hamilton County Drainage Board  
Storm Sewer Plan & Profile Sheet

SHEET NO. 5 OF 9

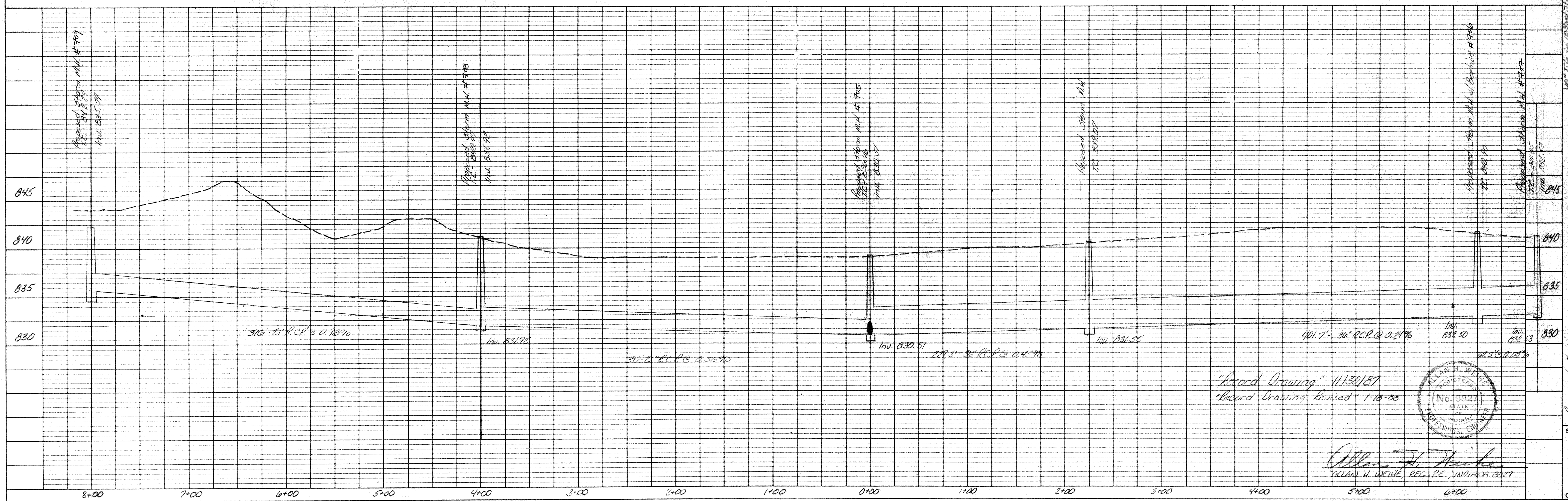


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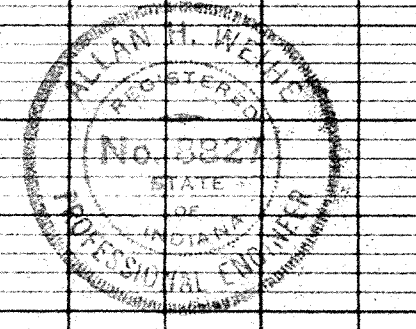


**CONTRACTORS TO NOTE: THERE IS A HIGH PRIORITY TELEPHONE CABLE BURIED IN THE RIGHT OF WAY OF PENNSYLVANIA STREET. PROPER PRECAUTION SHOULD BE TAKEN.**

SCALE: 1" = 50' HORIZ.  
 1" = 5' VERT.



"Record Drawing" 11/30/87  
 "Record Drawing Revised" 1-18-88

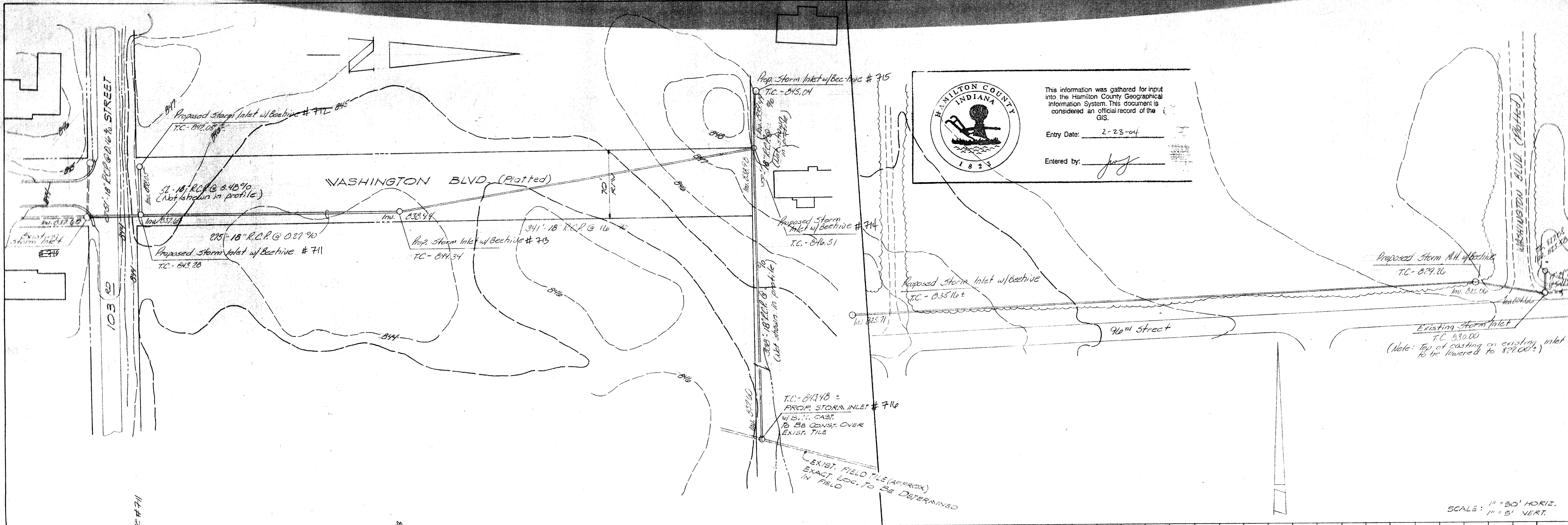


Allan H. Weithe  
 ALLAN H. WEITHE, REG. P.E., NUMBER 3827

**WEINE ENGINEERS INC.**  
 1035 NORTH COLLEGE AVENUE  
 INDIANAPOLIS, INDIANA 46202  
 CIVIL ENGINEERS

Hamilton County Drainage Board  
 Storm Sewer Plan & Profile Sheet

Prepared for: [Signature]  
 SHEET NO. 6 OF 9

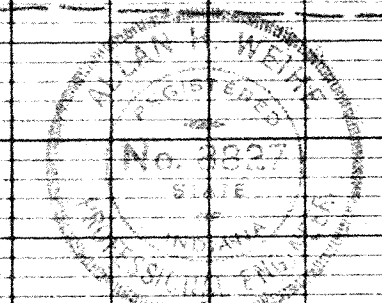
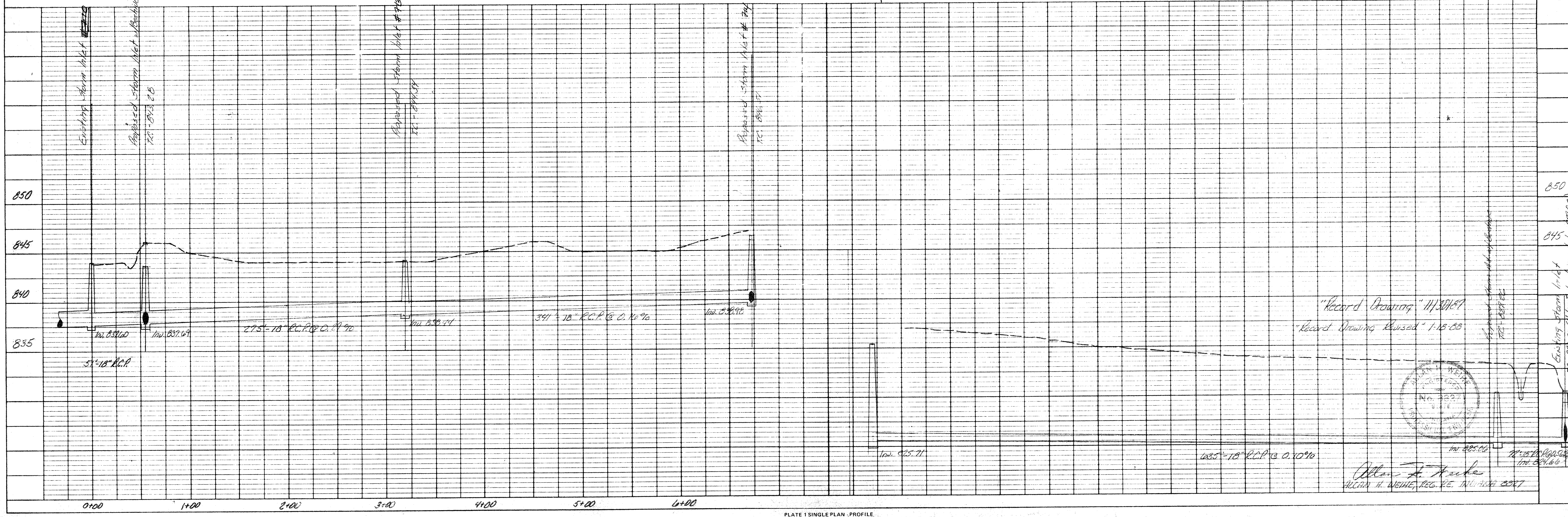


HAMILTON COUNTY  
 INDIANA  
 1825  
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 Entry Date: 2-23-04  
 Entered by: [Signature]

**WEIHE ENGINEERS INC.**  
 1806 NORTH COLLEGE AVENUE  
 INDIANAPOLIS, INDIANA 46204  
 CIVIL ENGINEERS  
 LAND SURVEYORS  
 LAND PLANNERS  
 ALLAN H. WEIHE, P.E., L.S.  
 PRESIDENT

Existing Storm Inlet  
 T.C. 830.00  
 (Note: Top of casting on existing inlet to be lowered to 829.00')

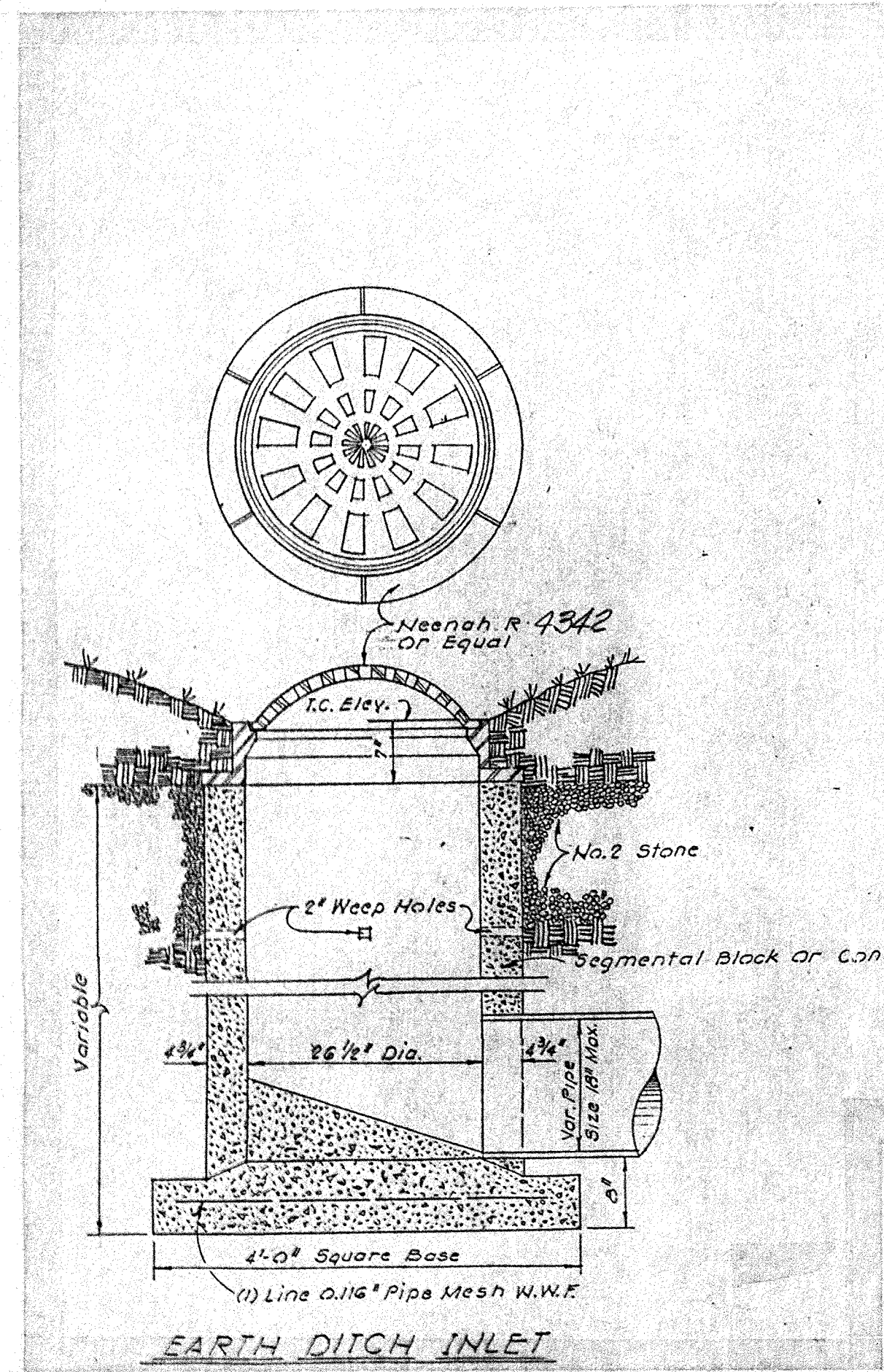
SCALE: 1" = 50' HORIZ.  
 1" = 5' VERT.



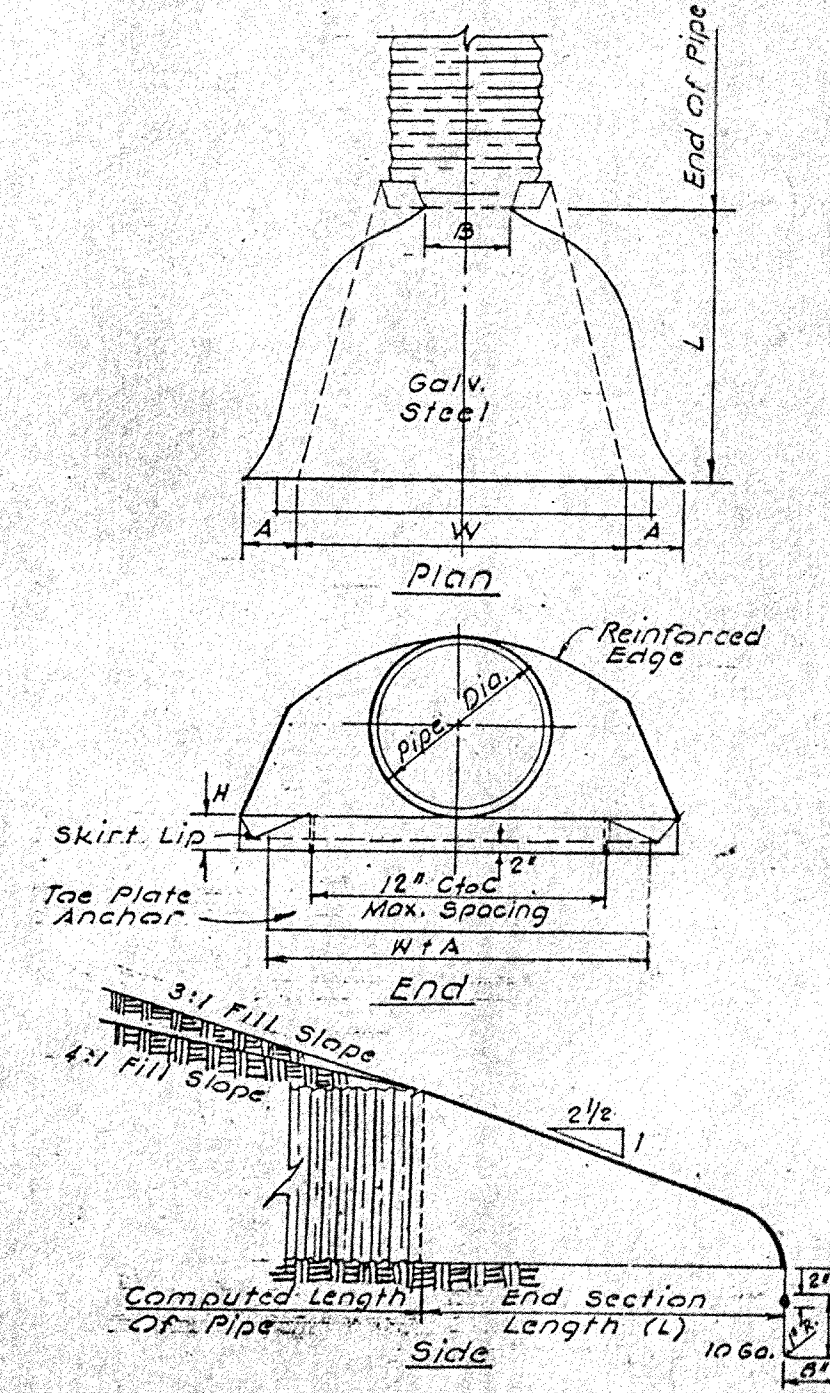
Allan H. Weihe  
 ALLAN H. WEIHE, P.E., L.S., No. 222, 2007

SHEET NO. 7 OF 9  
 Prepared For: Hamilton County Drainage Board  
 Storm Sewer Plan & Profile Sheet

PLATE 1 SINGLE PLAN, PROFILE  
 CHARLES BRUNING CO.  
 Made in U.S.A.



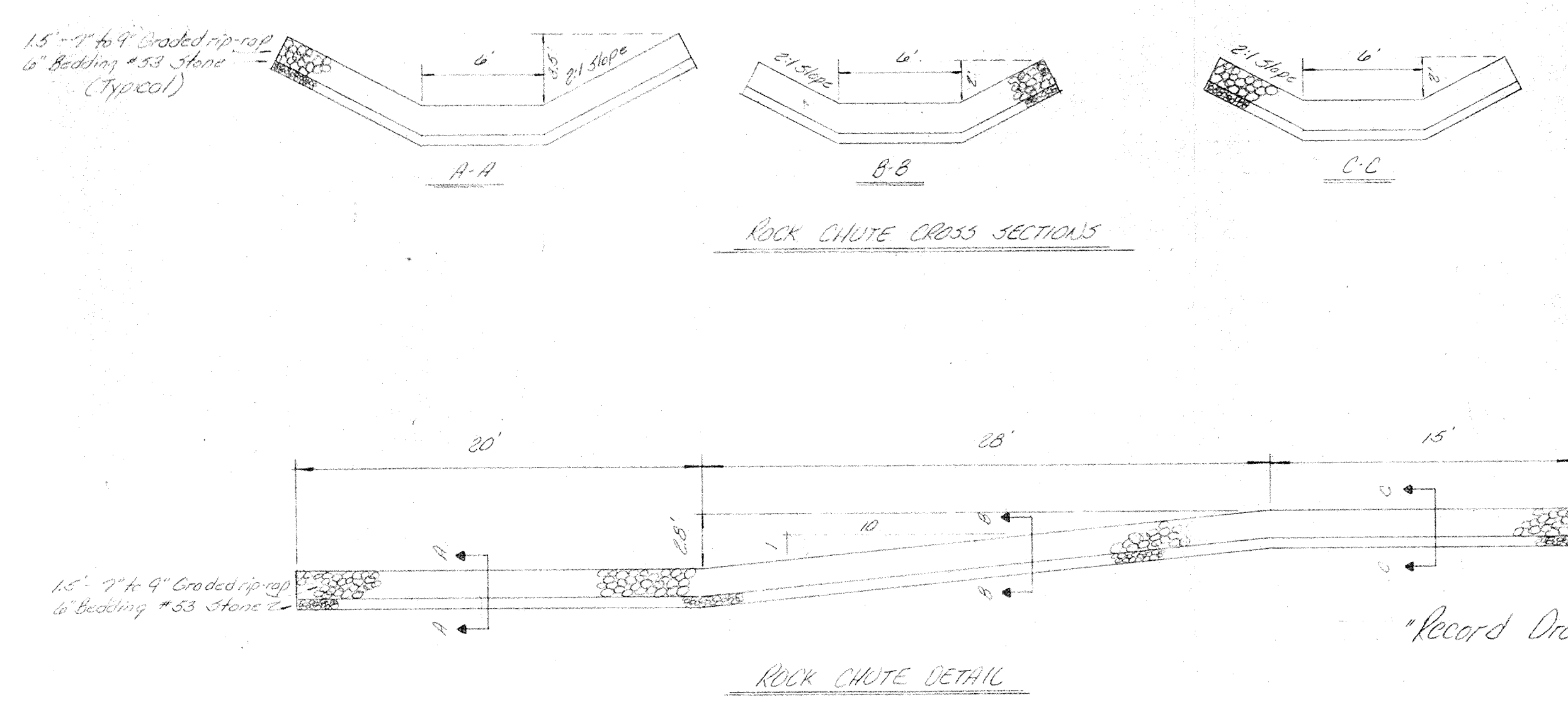
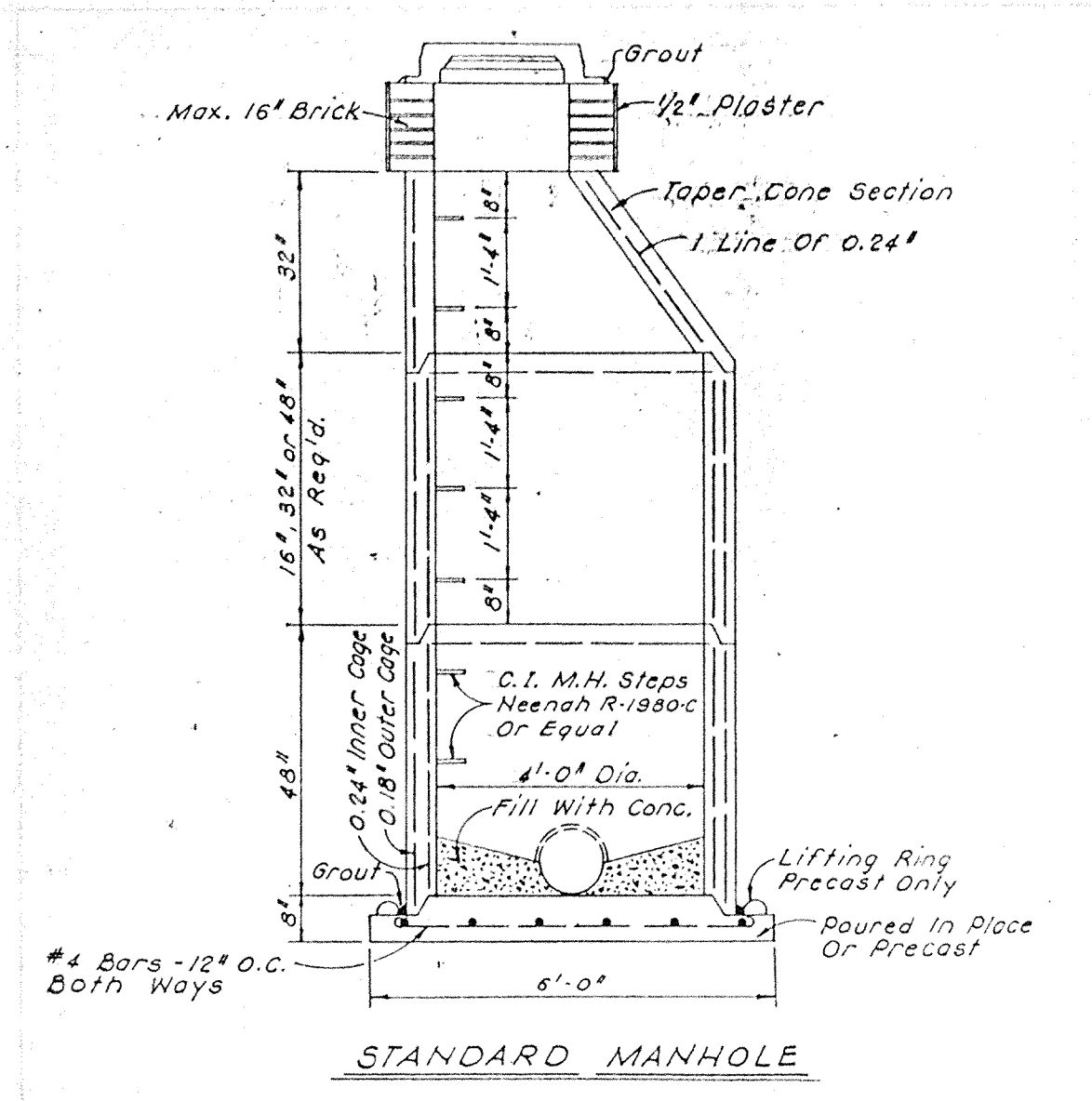
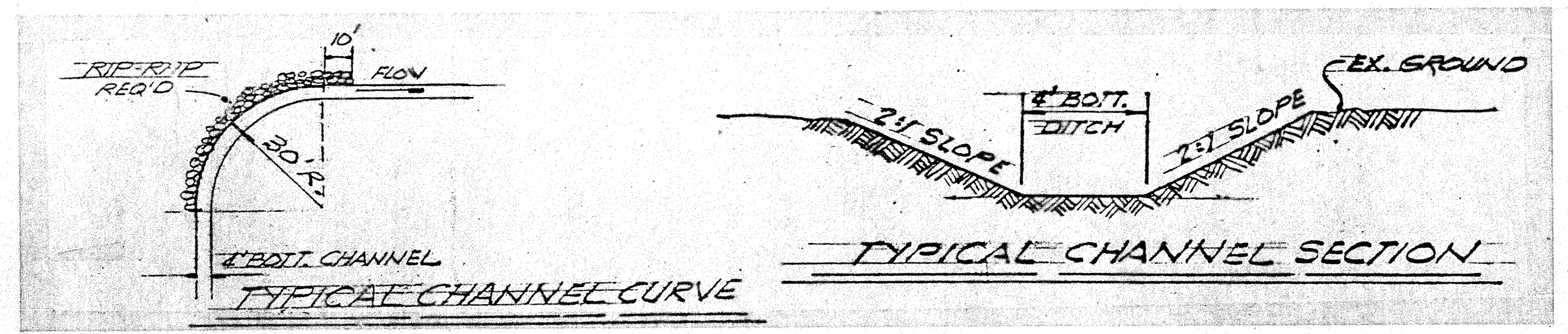
METAL END SECTION



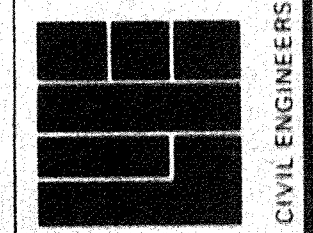
Pipe Arch Dimsn. Span/Rise	Ga.	Dimensions				Slope (App.)	Body		
		A	B	H	W				
18	11	16	7	9	6	19	30	2 1/2	1 Pc.
22	13	16	7	10	6	23	36	2 1/2	1 Pc.
25	16	16	8	12	6	25	42	2 1/2	1 Pc.
29	18	16	9	14	6	32	48	2 1/2	1 Pc.
36	22	14	10	16	6	39	60	2 1/2	1 Pc.
43	27	14	12	18	6	46	75	2 1/2	1 Pc.

Pipe Dia. 1\"/>								
	12	16	6	6	6	21	24	2 1/2
15	16	7	6	6	26	30	2 1/2	1 Pc.
18	16	8	10	6	31	36	2 1/2	1 Pc.
21	16	9	12	6	36	42	2 1/2	1 Pc.
24	16	10	13	6	41	48	2 1/2	1 Pc.
30	14	12	16	6	51	60	2 1/2	1 Pc.
36	14	14	19	9	60	72	2 1/2	1 Pc.

Notes:  
 End Sections & Toe Plate Anchors Shall Conform To All Applicable Requirements As Set Out In The Standard Specifications.  
 Multiple Panel Bodies Shall Have Lap Seams Which Shall Be Tightly Jointed With 3/8\"/>

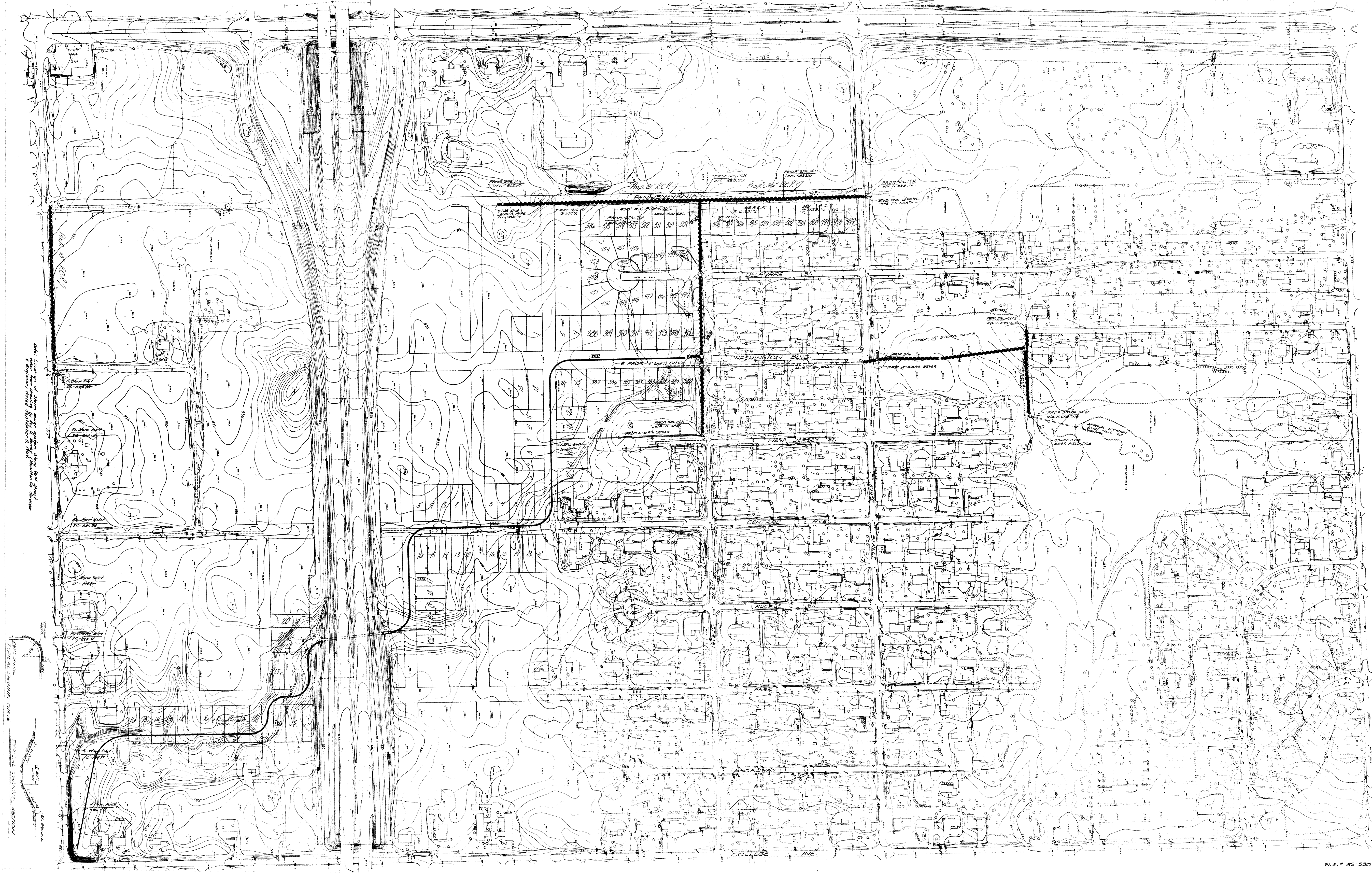


Allan H. Wehne  
 ALLAN H. WEHNE, REG. P.E., INDIANA 0027



REVISED BY	DATE	REASON
BY [Signature]	4/13/89	As per [Signature]
DRAWN BY	DATE	REASON
BY [Signature]	4/13/89	As per [Signature]
CHECKED BY	DATE	REASON
BY [Signature]	4/13/89	As per [Signature]

Prepared For: Hamilton County Drainage Board  
 Detail Street



N.E. 85-530

Scale 1" = 50'

Record Drawing 11/30/67

Legend  
 Proposed Storm Pipe  
 Proposed Storm Channel

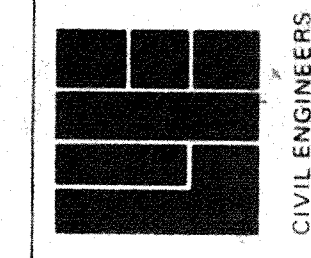
SHEET NO

OF 9

Prepared for  
 Adairson County Drainage Board  
 Overall Drainage System Layout

REVISIONS  
 General Revisions

DATE BY  
 4/21/67  
 85-530  
 DRAWN BY  
 O.B.  
 CHECKED BY  
 J.M.  
 DATE  
 2/22/66



**WEIHE ENGINEERS INC.**  
 10505 NORTH COLLEGE AVENUE  
 INDIANAPOLIS, INDIANA 46280  
 (317) 846-6611

LAND PLANNERS

LAND SURVEYORS

CIVIL ENGINEERS

ALLAN H. WEIHE, P.E., L.S.  
 PRESIDENT