

Drain: BRIDLEWOOD DRAIN **Drain #:** 66
Improvement/Arm: BRIDLEWOOD-SECTION 3
Operator: JDH **Date:** 10-29-03
Drain Classification: Urban/Rural **Year Installed:** 1990

GIS Drain Input Checklist

- Digitize & Attribute Tile Drains N/A
- Digitize & Attribute Storm Drains JRH 10-29
- Digitize & Attribute SSD JRH 10-30
- Digitize & Attribute Open Ditch JKJ 11-21
- Sum drain lengths & Validate JRH 10-30
- Enter Improvements into Posse JRH 10-30
- Enter Drain Age into Posse JKJ 11-21
- Sum drain length for Watershed in Posse JKJ 11-21
- Stamp Plans JRH 10-30
- Pull Source Documents for Scanning JRH 10-30



TO: Hamilton County Drainage Board

SURVEYOR'S OFFICE

Hamilton County

Kenton C. Ward, Surveyor
776-9626

August 31, 1990
942 Maple Avenue
Noblesville, Indiana 46060

TO: Hamilton County Drainage Board

RE: Bridlewood Drain- Section 3

Attached is a petition, non-enforcement request, plans, calculations, quantity summary and assessment roll for the Bidlewood Drain, Section 3.

I have reviewed the submittals and petition and have found each to be in proper form.

I have made a personal inspection of the land described in the petition. Upon doing so, I believe that the drain is practicable; will improve the public health; benefit a public highway and be of public utility; and that the costs, damages and expenses of the proposed drain will probably be less than the benefits accruing to the owners of land likely to be benefited. The drain will

consists:

6" SSD	945ft	21" RCP	172ft
12" RCP	617ft	Open Ditch	1209.78ft
15" RCP	24ft		
18" RCP	84ft		

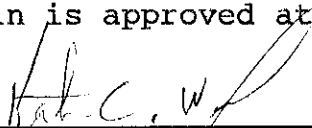
The total length of the drain will be 3051.78 feet.

The storm lines running between STRUCTURES 37, 43A, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53 and 54 were included with Section 2 and was listed with that section. Along with those lines the lines on the North side of Lots 106 and 107, South side of 106 and the open ditch between STR 54 and Cool Creek was included in the length for Section 2. Also not included in the above lengths, but included with Section 1 are the lengths of storm line between STR 19, 20, 21, 22, 22A, and 27.

I have reviewed the plans and believe the drain will benefit each lot equally. Therefore, I recommend each lot be assessed equally. I recommend a maintenance assessment of \$50.00 per lot, \$5.00 per acre for roadways, with a \$50.00 minimum. With this assessment the total annual assessment for the drain/this section will be ~~\$2150.00~~ ^{\$2200.00}

Included in the above lengths as open ditch is the portion of Cool Creek which borders the subdivision. The measurement begins at the South side of Section 1 and continues to the North side of future Section 4. The length will continue South when Section 4 is petitioned. Also included is the run of 6" SSD in the rear of Lots 119, 120 and 121.

I recommend a hearing be set for November 1990. I also recommend the Board approve the non-enforcement request at such time the drain is approved at hearing.


Kenton C. Ward—County Surveyor

KCW/no

Irrevocable Letter of Credit

INB National Bank
One Indiana Square
Indianapolis, Indiana 46266



INB

Date: August 6, 1990 cw

SWIFT Address: INB! US 44 Telex Number 205615 Phone: 266-6153

INB NO.
SB 035238

Credit Number Advising Bank No.

Advising Bank

Applicant

Land Innovators Co., An Indiana
Limited Partnership
234 S. Franklin Road
Indianapolis Indiana 46219

Beneficiary

Amount

Hamilton County Commissioners, The
Westfield Town Board of Trustees,
Hamilton County Drainage Broad
Hamilton County Courthouse
Noblesville Indiana 46060

U.S.D. \$101,000.00

Expiration Date

September 1, 1991

We hereby issue in your favor this irrevocable letter of credit which is available against the following documents:

Drafts drawn at— sight

on INB National Bank

bearing the clause; "Drawn under Irrevocable letter of credit No. **SB 035238**
Other documents:

Beneficiary's signed certificate stating that the applicant has failed to construct the necessary drainage improvements at the applicant's Bridlewood Section III Subdivision.

Special Conditions:

SUM OF US\$ 101,000.00

We hereby engage with You drawers and/or bona fide holders that drafts drawn and negotiated in conformity with the terms of this credit will be duly honored on presentation and that drafts accepted within the terms of this credit will be duly honored at maturity.

The amount of each draft must be endorsed on the reverse of this credit by the negotiating bank.

~~The Advising Bank is requested to notify the beneficiary within 10 days of the date of this credit.~~
XXXXXXXXXXXX

Very truly yours,

Advising Bank's Notification

Place/date/name/signature of advising bank.

Except so far as otherwise expressly stated, this documentary credit is subject to the "Uniform Customs and Practice for Documentary Credits" (1983 Revision) International Chamber of Commerce (Publication No. 400)

ORIGINAL



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

July 23, 1996

TO: Hamilton County Drainage Board

RE: Bridlewood Drain-Section 3

Attached are As-Builts, Certificate of Completion and Compliance, and other information for Bridlewood Drain-Section 3. 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 August 31, 1990. The changes are as followed:

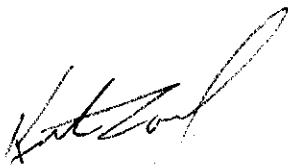
The correct total of 6" SSD is 5,506.84 feet

The length of the drain due to the changes described above is now 7,613.62 feet.

The non-enforcement request was approved by the Board at its meeting on July 26, 1993.

The Bond of Letter of Credit from Indiana National Bank, number SB 035238 dated August 6, 1990, in the amount of \$101,000.00 has expired.

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

A handwritten signature in black ink, appearing to read 'Kenton C. Ward', written in a cursive style.

Kenton C. Ward
Hamilton County Surveyor
KCW/no

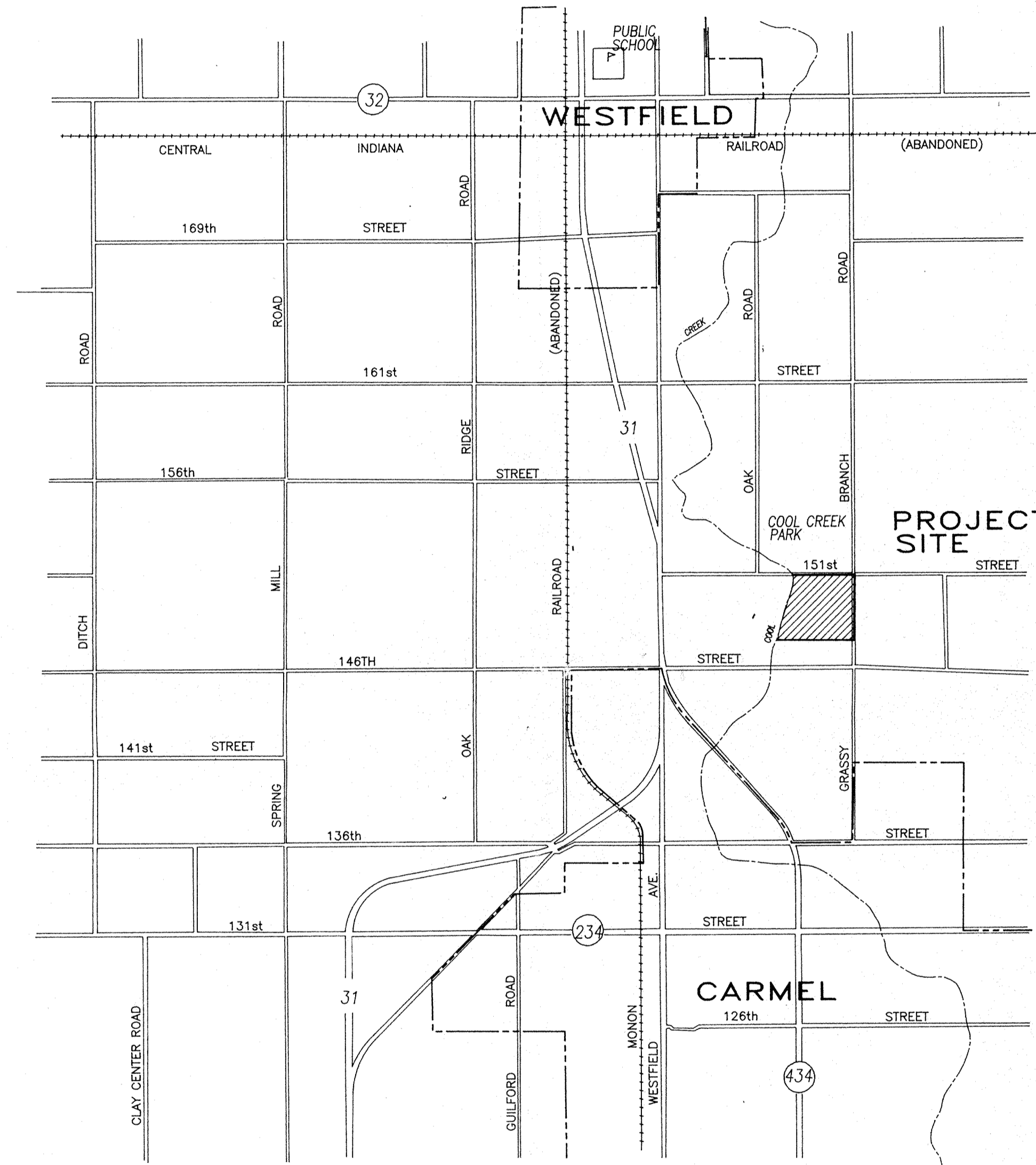
CONSTRUCTION PLANS FOR BRIDLEWOOD SECTION III

INDIANA DEPARTMENT OF HIGHWAYS
STANDARD SPECIFICATIONS LATEST EDITION
TO BE USED WITH THESE PLANS.

DESIGN DATA:

No. OF LOTS = 43
AREA = 23.978

BRIDLEWOOD DRIVE	= 789.80 FT	0.150mi.
CURRY LANE	= 1077.37 FT	0.204mi.
HORSESHOE DRIVE	= 464.09 FT	0.088mi.
TOTAL	= 2331.26 FT	0.442mi.



SHEET INDEX

1. COVER SHEET
2. FINAL PLAT
3. MASTER SEWER AND WATER PLAN
4. SITE GRADING PLAN
5. BRIDLEWOOD DRIVE
6. CURRY LANE
7. HORSESHOE DRIVE, STORM STR'S. 55, 56, 59 & 60
8. SANITARY SEWER 151st STREET
9. INTERSECTION DETAILS - STR. CHART - MH CHART
10. EROSION CONTROL PLAN
11. SPECIFICATIONS
12. MISC. STANDARD DETAILS

Prepared By:

Evergreen
Planners, Inc.
234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219
317/353-6161

THESE PLANS PREPARED BY:

FILED
JUL 19 1991
OFFICE OF HAMILTON COUNTY SURVEYOR

Arthur L. Kaser
ARTHUR L. KASER
REGISTERED LAND SURVEYOR NO. S052



RECORD PLAT BRIDLEWOOD SECTION III

Part of Southeast 1/4, Section 18, T. 18 N., R 4 E., Washington Twp., Hamilton Co., Indiana

RECEIVED
FOR RECORD
JUL 23 11 15 AM '99
SHARON K. CHERRY
RECORDER
HAMILTON CO., IN.

Instrument No. 9020866
P.C. No. _____ Slide No. _____

PLAN COMMISSION CERTIFICATE

UNDER AUTHORITY PROVIDED BY TITLE 36, ARTICLE 7, CHAPTER 4, ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF INDIANA, AND ALL ACTS AMENDATORY THERETO, AND AN ORDINANCE ADOPTED BY THE TOWN BOARD OF TRUSTEES OF THE TOWN OF WESTFIELD, INDIANA AS FOLLOWS:

APPROVED BY THE WESTFIELD-WASHINGTON TOWNSHIP PLAN COMMISSION AT A MEETING HELD August 21, 1989.

WESTFIELD-WASHINGTON TOWNSHIP PLAN COMMISSION

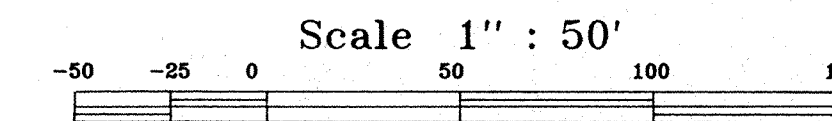
Angela H. Preston
PRESIDENT
Angela H. Preston

John C. White
SECRETARY
John C. White

BRIDLEWOOD SECTION I
PB 15 pg 92

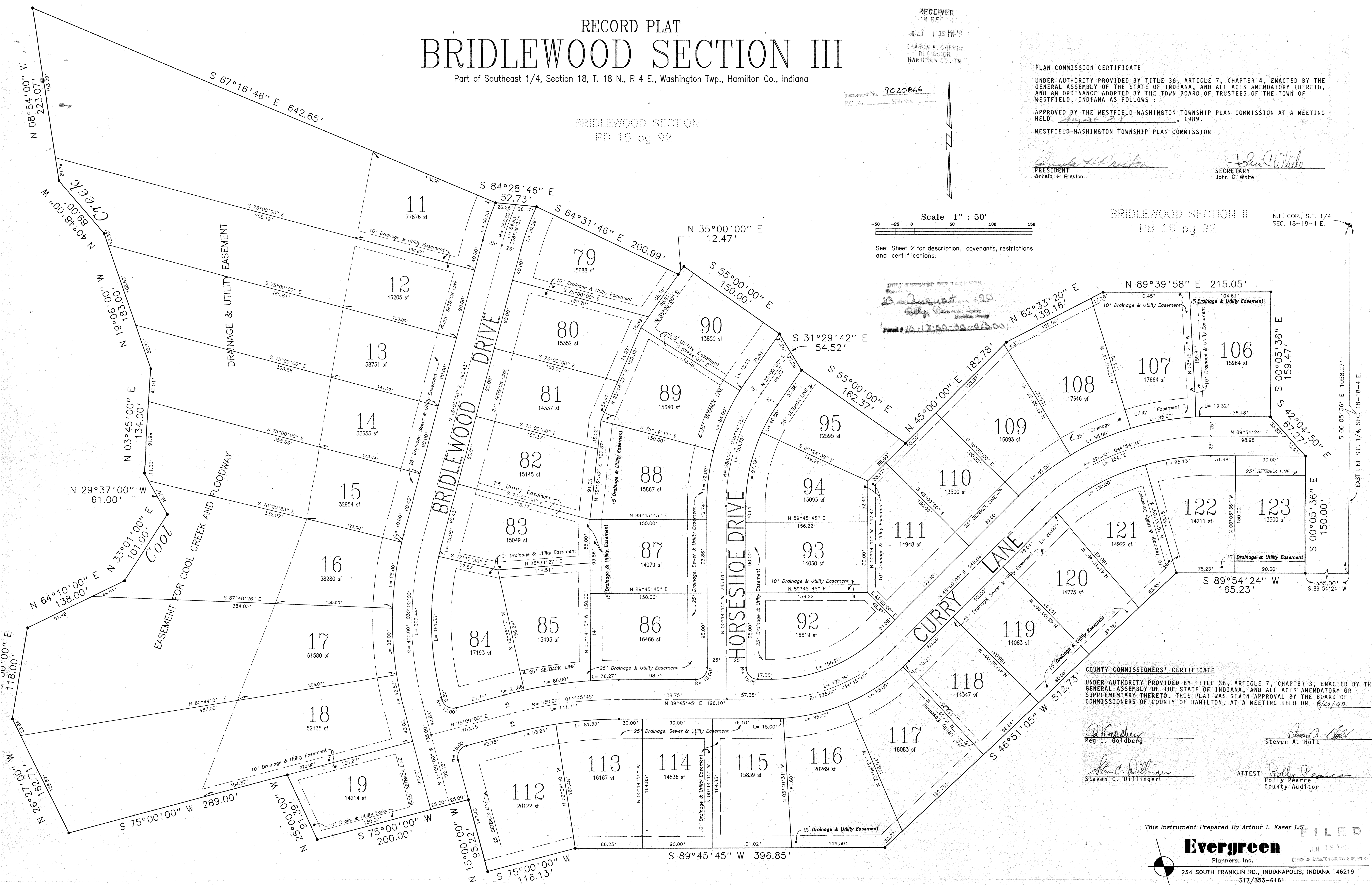
BRIDLEWOOD SECTION II
PB 16 pg 92

N.E. COR., S.E. 1/4
SEC. 18-18-4 E.



See Sheet 2 for description, covenants, restrictions and certifications.

FILED
23 August 99
Polly Pearce
County Auditor



COUNTY COMMISSIONERS' CERTIFICATE

UNDER AUTHORITY PROVIDED BY TITLE 36, ARTICLE 7, CHAPTER 3, ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF INDIANA, AND ALL ACTS AMENDATORY OR SUPPLEMENTARY THERETO, THIS PLAT WAS GIVEN APPROVAL BY THE BOARD OF COMMISSIONERS OF COUNTY OF HAMILTON, AT A MEETING HELD ON 8/20/90

Peg L. Goldberg
Peg L. Goldberg

Steven A. Holt
Steven A. Holt

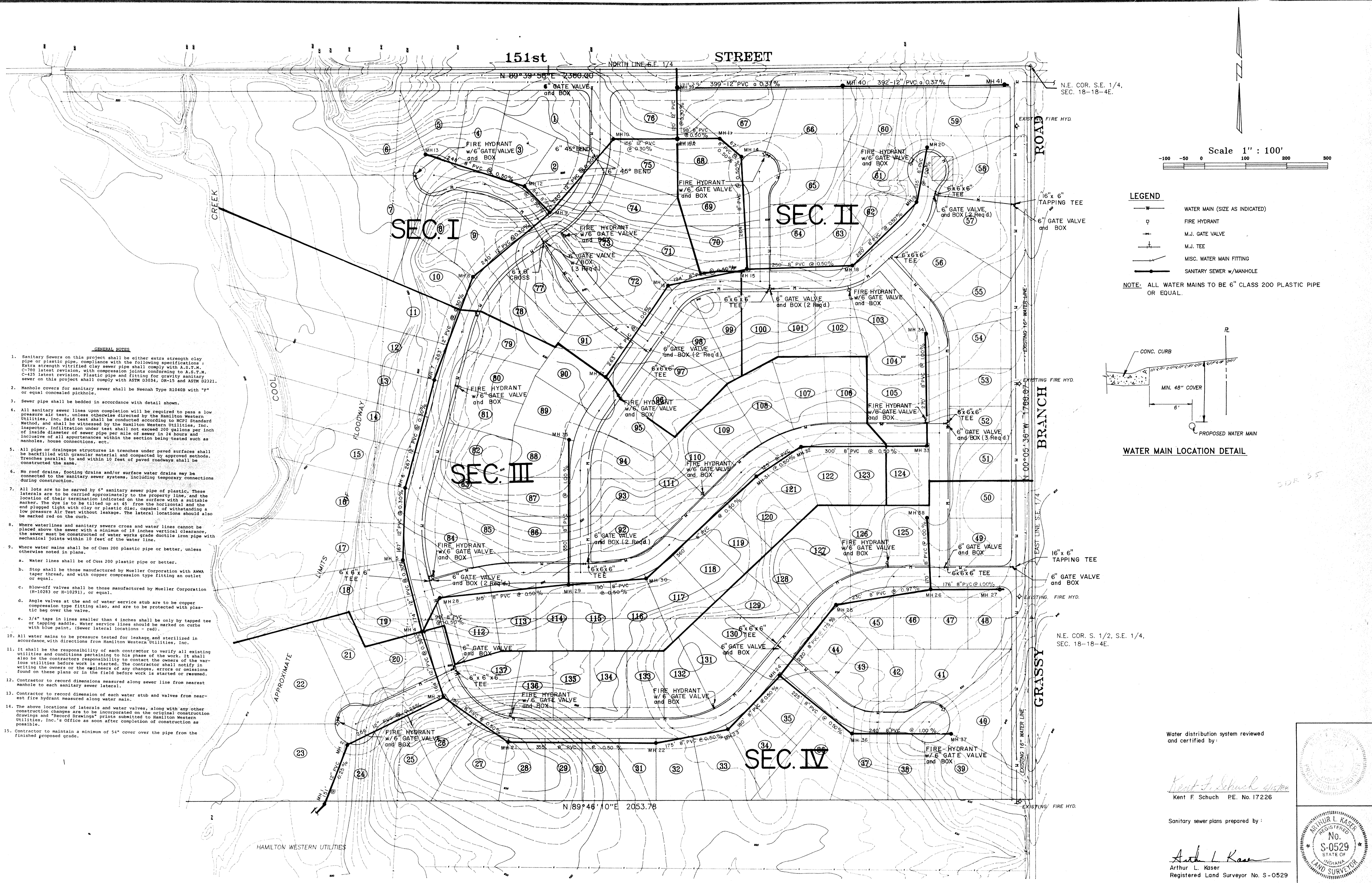
Steven C. Dillinger
Steven C. Dillinger

ATTEST
Polly Pearce
Polly Pearce
County Auditor

This Instrument Prepared By Arthur L. Kaser L.S.

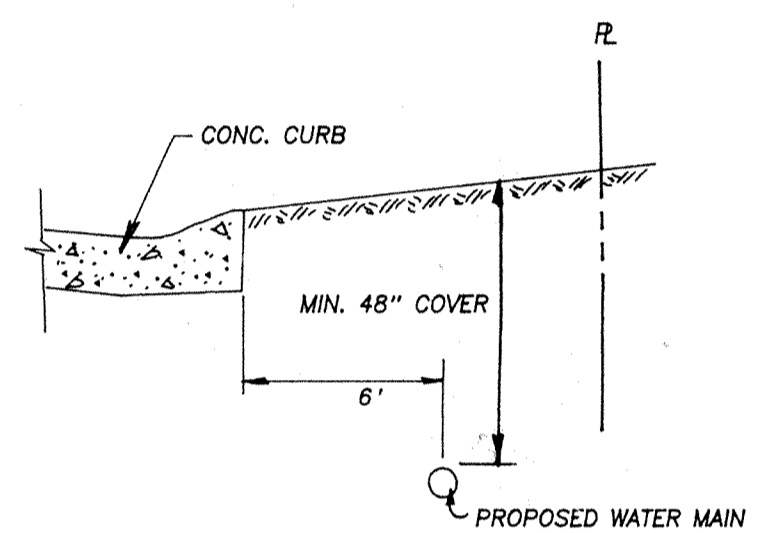
Evergreen
Planners, Inc.
OFFICE OF HAMILTON COUNTY SURVYOR
234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219
317/353-6161

FILED
JUL 19 1999



Scale 1" = 100'

- LEGEND**
- W — WATER MAIN (SIZE AS INDICATED)
 - ⊕ FIRE HYDRANT
 - ⊕ M.J. GATE VALVE
 - ⊕ M.J. TEE
 - ⊕ MISC. WATER MAIN FITTING
 - S — SANITARY SEWER w/ MANHOLE
- NOTE:** ALL WATER MAINS TO BE 6" CLASS 200 PLASTIC PIPE OR EQUAL.



WATER MAIN LOCATION DETAIL

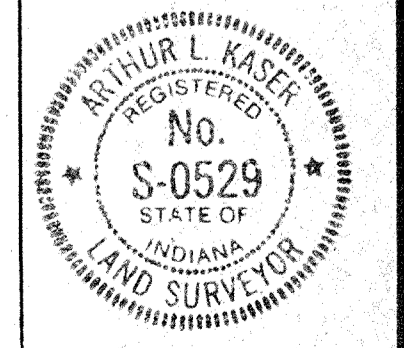
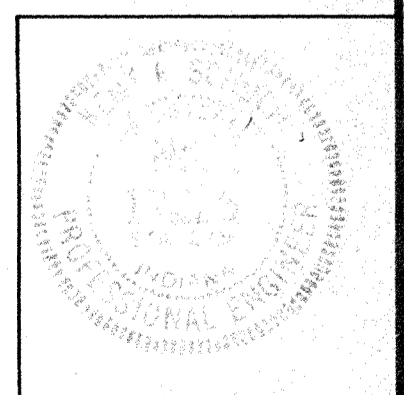
- GENERAL NOTES**
- Sanitary sewers on this project shall be either extra strength clay pipe or plastic pipe, compliance with the following specifications: Extra strength vitrified clay sewer pipe shall comply with A.S.T.M. C-700 latest revision, with compression joints conforming to A.S.T.M. C-425 latest revision. Plastic pipe and fitting for gravity sanitary sewer on this project shall comply with ASTM D3034, DR-15 and ASTM D2321.
 - Manhole covers for sanitary sewer shall be Neenah Type R1040B with "p" or equal concealed pickhole.
 - Sewer pipe shall be bedded in accordance with detail shown.
 - All sanitary sewer lines upon completion will be required to pass a low pressure air test, unless otherwise directed by the Hamilton Western Utilities, Inc. Said test shall be conducted according to RCP Standard Method, and shall be witnessed by the Hamilton Western Utilities, Inc. Inspector. Infiltration under test shall not exceed 200 gallons per inch of inside diameter of sewer pipe per mile of sewer in 24 hours and inclusive of all appurtenances within the section being tested such as manholes, house connections, ect.
 - All pipe or drainage structures in trenches under paved surfaces shall be backfilled with granular material and compacted by approved methods. Trenches parallel to and within 10 feet of paved roadways shall be constructed the same.
 - No roof drains, footing drains and/or surface water drains may be connected to the sanitary sewer systems, including temporary connections during construction.
 - All lots are to be served by 6" sanitary sewer pipe of plastic. These laterals are to be carried approximately to the property line, and the location of their termination indicated on the surface with a suitable marker. The eye is to be tilted up at 45° from the horizontal and the end plugged tight with clay or plastic disc, capable of withstanding a low pressure Air Test without leakage. The lateral locations should also be marked and on the curb.
 - Where waterlines and sanitary sewers cross and water lines cannot be placed above the sewer with a minimum of 18 inches vertical clearance, the sewer must be constructed of water works grade ductile iron pipe with mechanical joints within 10 feet of the water line.
 - Where water mains shall be of Class 200 plastic pipe or better, unless otherwise noted in plans.
 - Water lines shall be of Class 200 plastic pipe or better.
 - Stop shall be those manufactured by Mueller Corporation with ANMA taper thread, and with copper compression type fitting an outlet or equal.
 - Blow-off valves shall be those manufactured by Mueller Corporation (H-1021 or H-1021), or equal.
 - Angle valves at the end of water service stub are to be copper compression type fitting also, and are to be protected with plastic bag over the valve.
 - 3/4" taps in lines smaller than 4 inches shall be only by tapped tee or tapping saddle. Meter service lines should be marked on curbs with blue paint. (Sewer lateral locations - red).
 - All water mains to be pressure tested for leakage, and sterilized in accordance with directions from Hamilton Western Utilities, Inc.
 - 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 contractor's responsibility to contact the owners of the 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.
 - Contractor to record dimensions measured along sewer line from nearest manhole to each sanitary sewer lateral.
 - Contractor to record dimension of each water stub and valves from nearest fire hydrant measured along water main.
 - The above locations of laterals and water valves, along with any other construction changes are to be incorporated on the original construction drawings and "Record Drawings" prints submitted to Hamilton Western Utilities, Inc.'s Office as soon after completion of construction as possible.
 - Contractor to maintain a minimum of 54" cover over the pipe from the finished proposed grade.

Water distribution system reviewed and certified by:

Kent F. Schuch
Kent F. Schuch P.E. No. 17226

Sanitary sewer plans prepared by:

Arthur L. Kaser
Arthur L. Kaser
Registered Land Surveyor No. S-0529



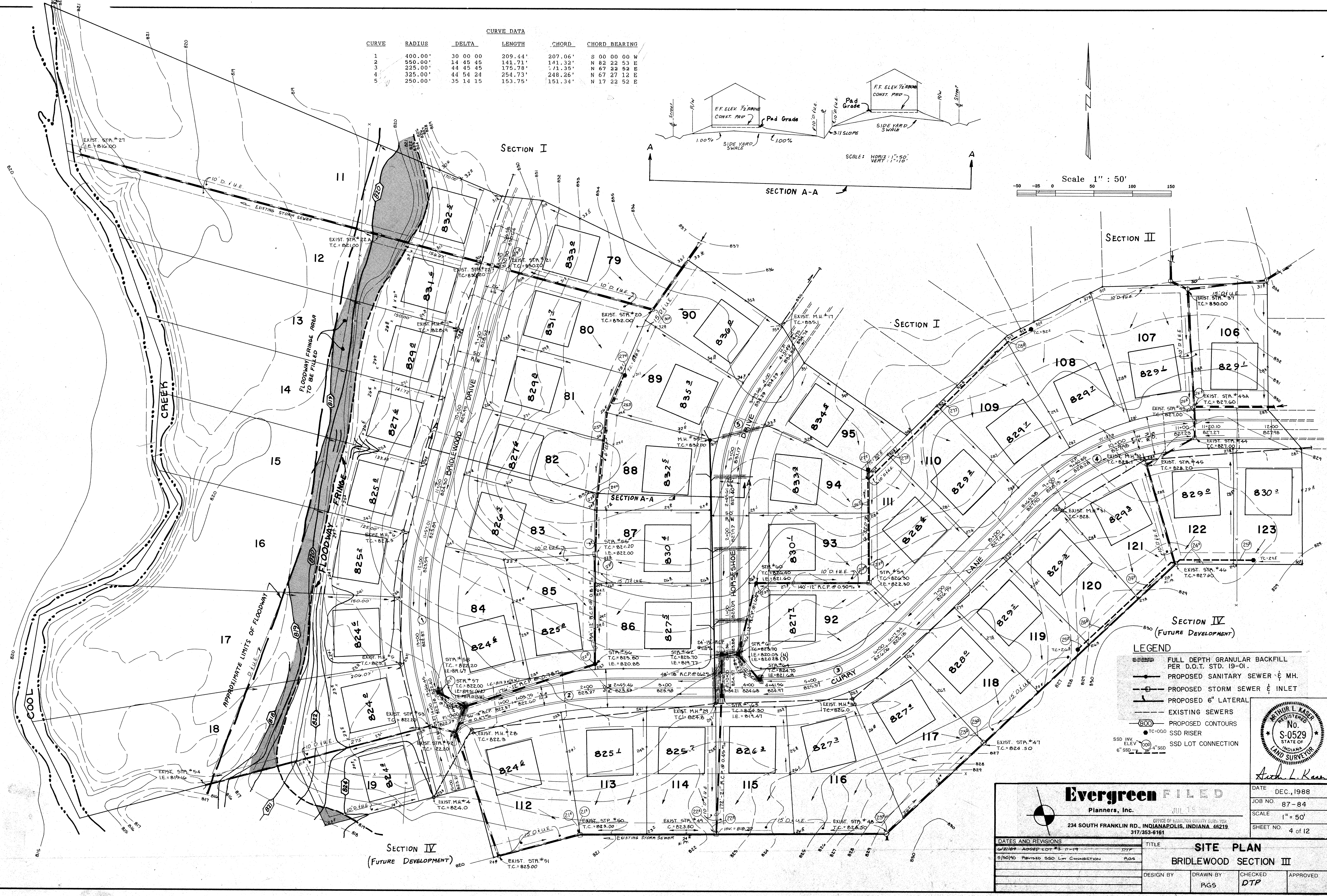
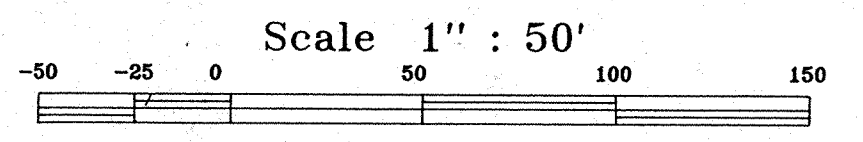
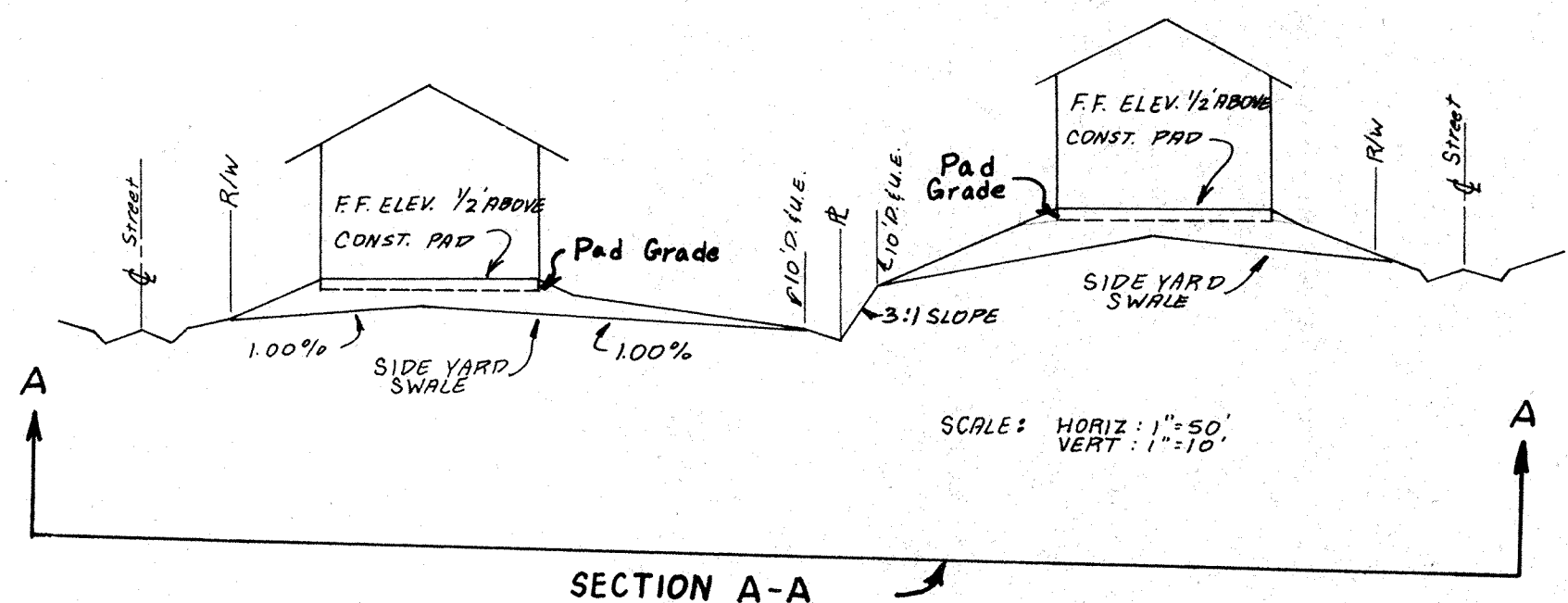
DATES AND REVISIONS		TITLE			
1-5-89	ADD W. MAIN L. M.H. 41	MASTER SEWER & WATER PLAN BRIDLEWOOD			
3-8-88	MOVED WATER LINE W. CUL. DE. SALS				
DESIGN BY	DRAWN BY	CHECKED	APPROVED		
ALK	HASP				

Evergreen
Planners, Inc.

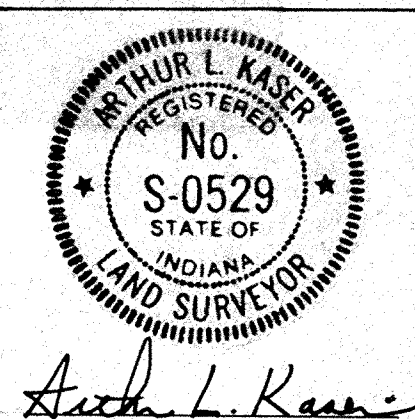
234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219
317/353-6161

DATE Dec., 1988
JOB NO. 87-84
SCALE 1" = 100'
SHEET NO. 3 of 12

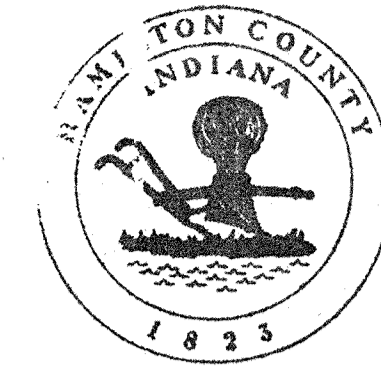
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1	400.00'	30 00 00	209.44'	207.06'	S 00 00 00 W
2	550.00'	14 45 45	141.71'	141.32'	N 82 22 52 E
3	225.00'	44 45 45	175.78'	171.35'	N 67 22 52 E
4	325.00'	44 54 24	254.73'	248.26'	N 67 27 12 E
5	250.00'	35 14 15	153.75'	151.34'	N 17 22 52 E



- LEGEND**
- FULL DEPTH GRANULAR BACKFILL PER D.O.T. STD. 19-01.
 - PROPOSED SANITARY SEWER & M.H.
 - PROPOSED STORM SEWER & INLET
 - PROPOSED 6" LATERAL
 - EXISTING SEWERS
 - PROPOSED CONTOURS
 - SSD RISER
 - SSD LOT CONNECTION



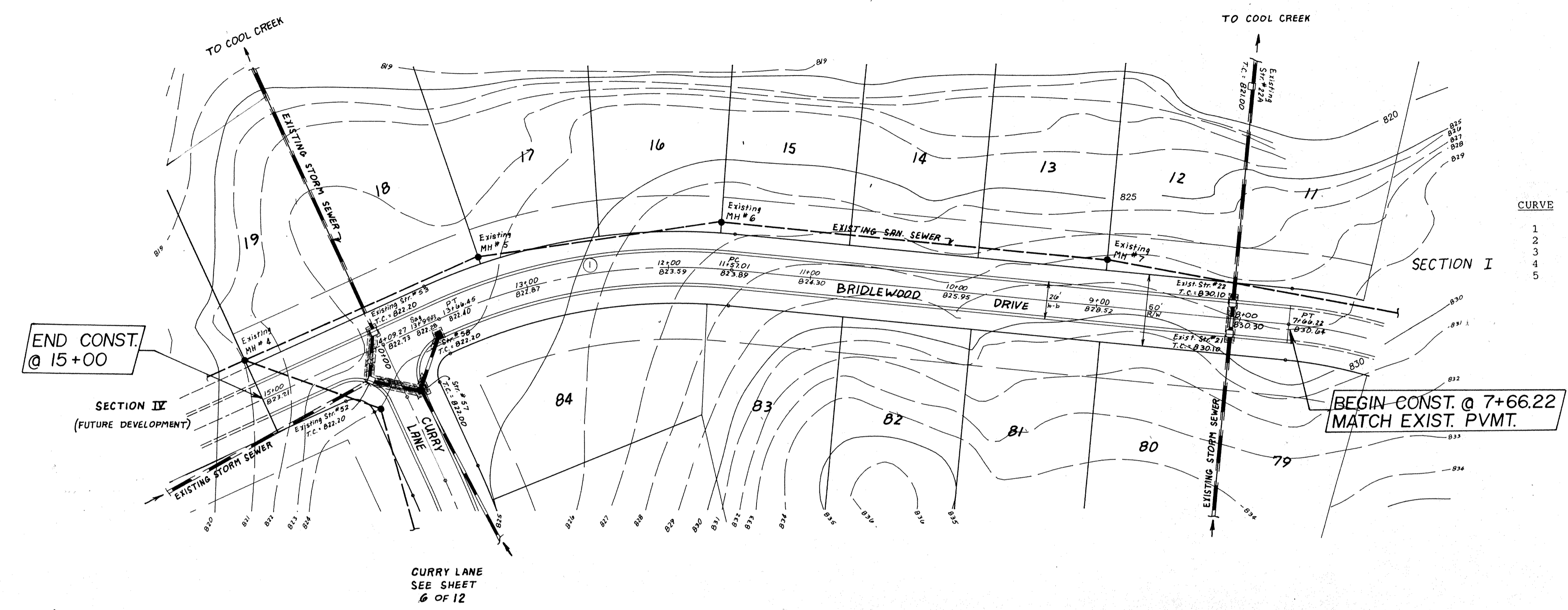
Evergreen FILED Planners, Inc. 234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219 317/353-6161		DATE	DEC., 1988
		JOB NO.	87-84
OFFICE OF HAMILTON COUNTY SURVEYOR 234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219 317/353-6161		SCALE	1" = 50'
DATES AND REVISIONS 1/21/89 - ADDED LOT #3 11-19 777 3/30/90 - REVISED SSD LOT CONNECTION 805		SHEET NO.	4 of 12
SITE PLAN BRIDLEWOOD SECTION III		DESIGN BY	RG5
		DRAWN BY	DTP
CHECKED APPROVED			



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

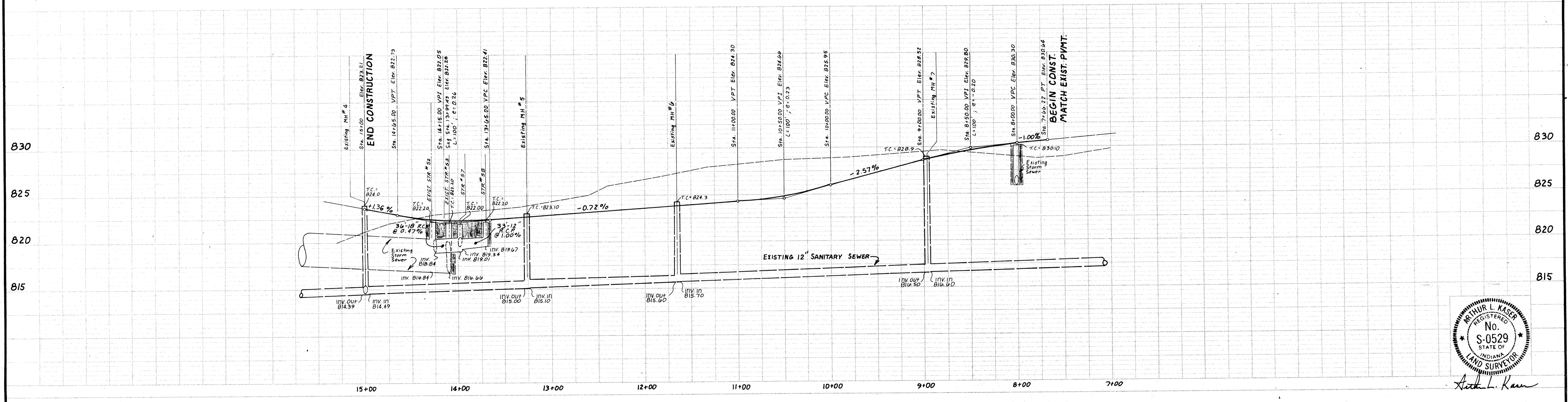
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Entered by: JPH



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5	250.00'	35 14 15	153.75'	151.34'	N 17 22 52 E

- LEGEND**
- 7" CONC. PAVEMENT
 - 4" CONC. WALK PER D.O.T. STD. 14-01.
 - FULL DEPTH GRANULAR BACKFILL PER D.O.T. STD. 19-01.
 - PROPOSED SANITARY SEWER & MH.
 - PROPOSED STORM SEWER & INLET
 - PROPOSED 6" LATERAL
 - EXISTING SEWERS



ARTHUR L. KASER
REGISTERED
No. S-0529
STATE OF INDIANA
LAND SURVEYOR

Arthur L. Kaser

DATES AND REVISIONS		TITLE	
		BRIDLEWOOD DRIVE BRIDLEWOOD SEC. III	
DESIGN BY	DRAWN BY	CHECKED	APPROVED
ALK/DTP	HASP/DTP	DTP	

Evergreen
Planners, Inc.

324 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219
317/353-6161

JUL 19 1988

OFFICE OF HAMILTON COUNTY SURVEYOR

DATE	DECEMBER 1988
JOB NO.	87-84
SCALE	HORIZ: 1" = 50' VERT: 1" = 5'
SHEET NO.	5 of 12

PLAN

DATE: 10/27/03

PROJECT: BRIDLEWOOD DRIVE

SCALE: 1" = 50'

BY: JPH

PROFILE

DATE: 10/27/03

PROJECT: BRIDLEWOOD DRIVE

SCALE: 1" = 50'

BY: JPH

TITLE: BRIDLEWOOD DRIVE

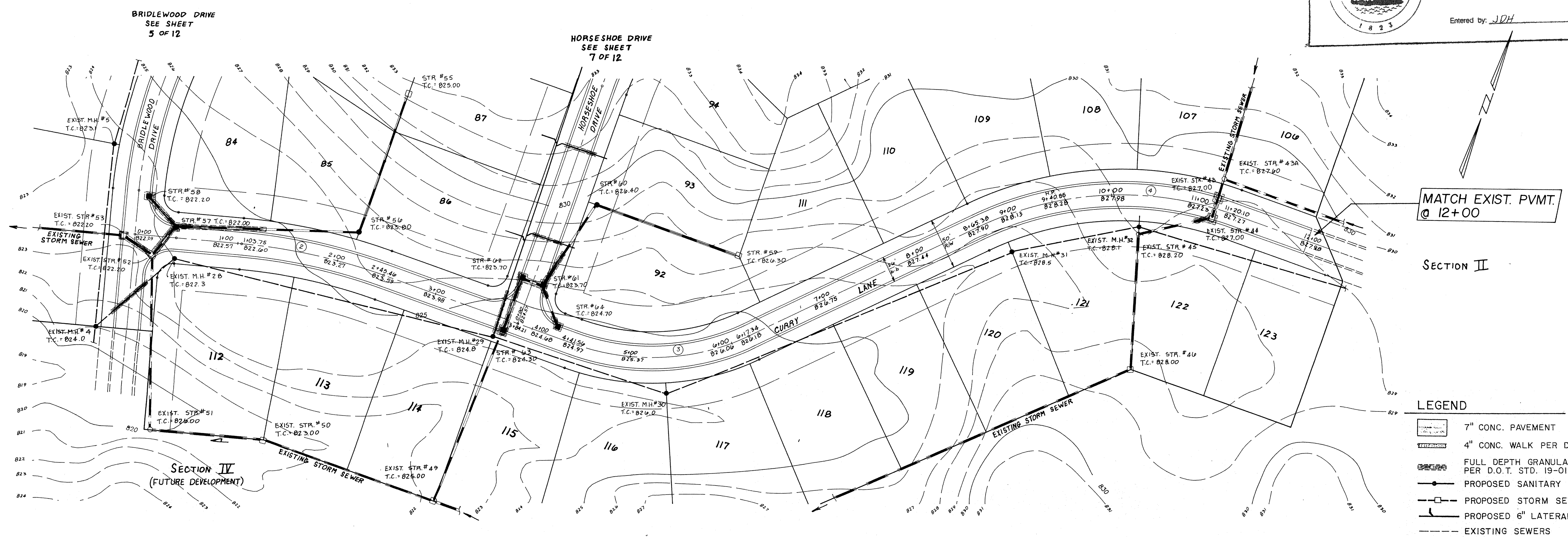
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Entry Date: 10-29-03

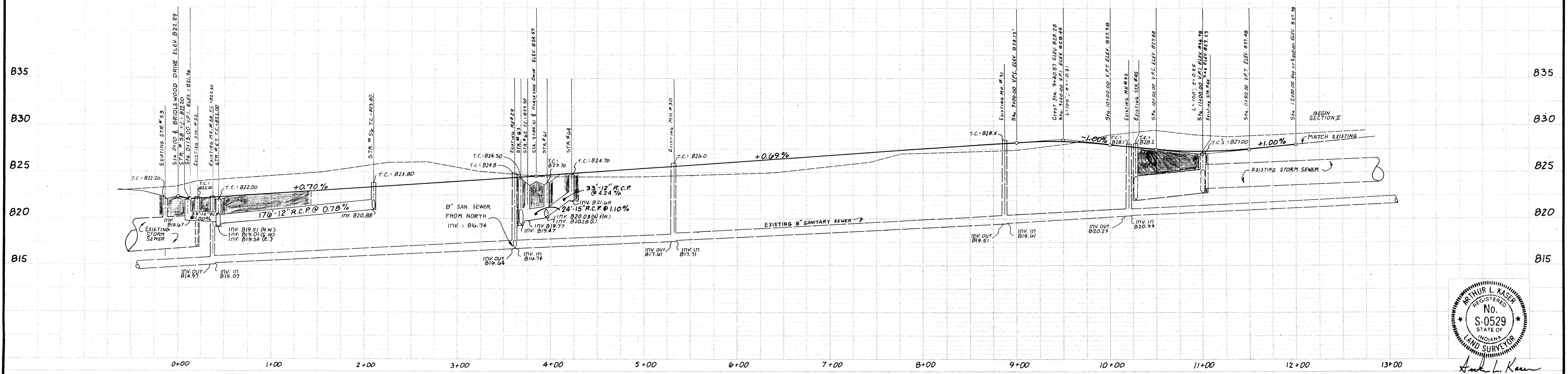
Entered by: JDH



MATCH EXIST. PVMT. @ 12+00

SECTION II

- LEGEND**
- 7" CONC. PAVEMENT
 - 4" CONC. WALK PER D.O.T. STD. 14-01.
 - FULL DEPTH GRANULAR BACKFILL PER D.O.T. STD. 19-01.
 - PROPOSED SANITARY SEWER & MH.
 - PROPOSED STORM SEWER & INLET
 - PROPOSED 6" LATERAL
 - EXISTING SEWERS



ARTHUR L. KASER
REGISTERED
No. S-0529
STATE OF INDIANA
LAND SURVEYOR

Arthur L. Kaser


DATES AND REVISIONS		TITLE	
		CURRY LANE BRIDLEWOOD SEC. III	
DESIGN BY	ALK/DTP	DRAWN BY	DTP
CHECKED	DTP	APPROVED	

Evergreen Planners, Inc.
OFFICE OF HAMILTON COUNTY SURV. REG.

234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219
317/353-6161

DATE: DECEMBER 1988
JOB NO: 87-84
SCALE: HORIZ: 1" = 50'
VERT: 1" = 5'
SHEET NO: 6 of 12

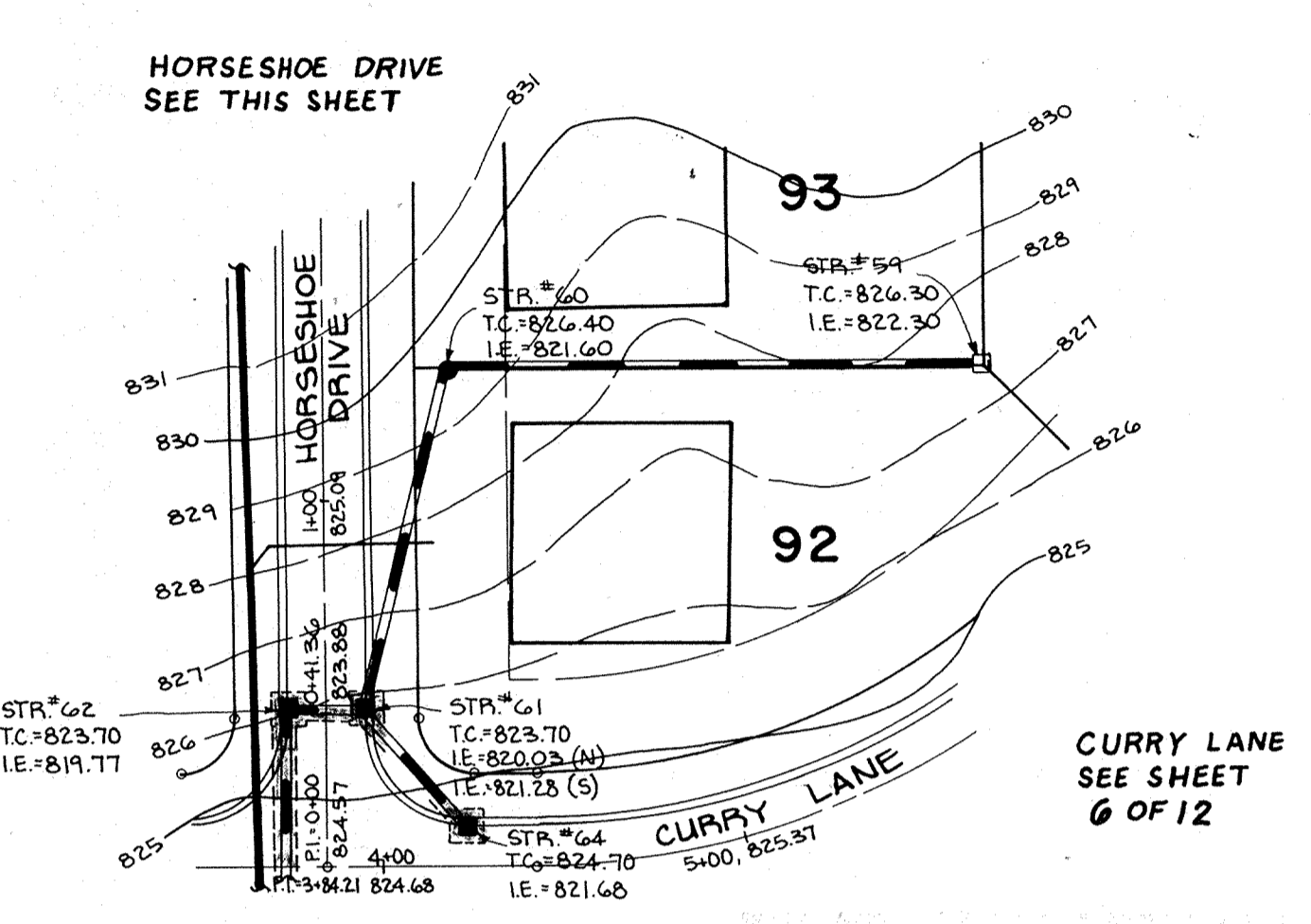
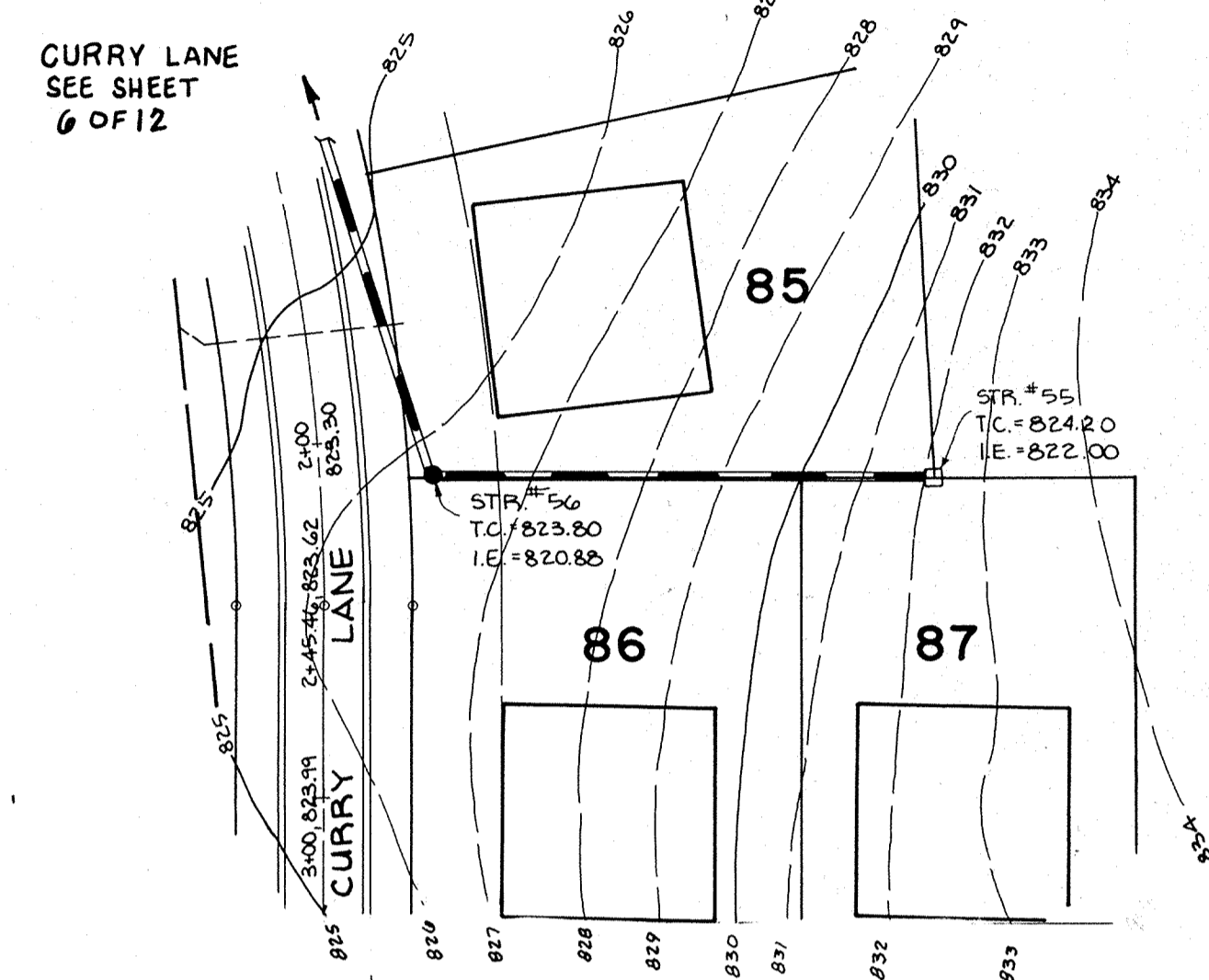
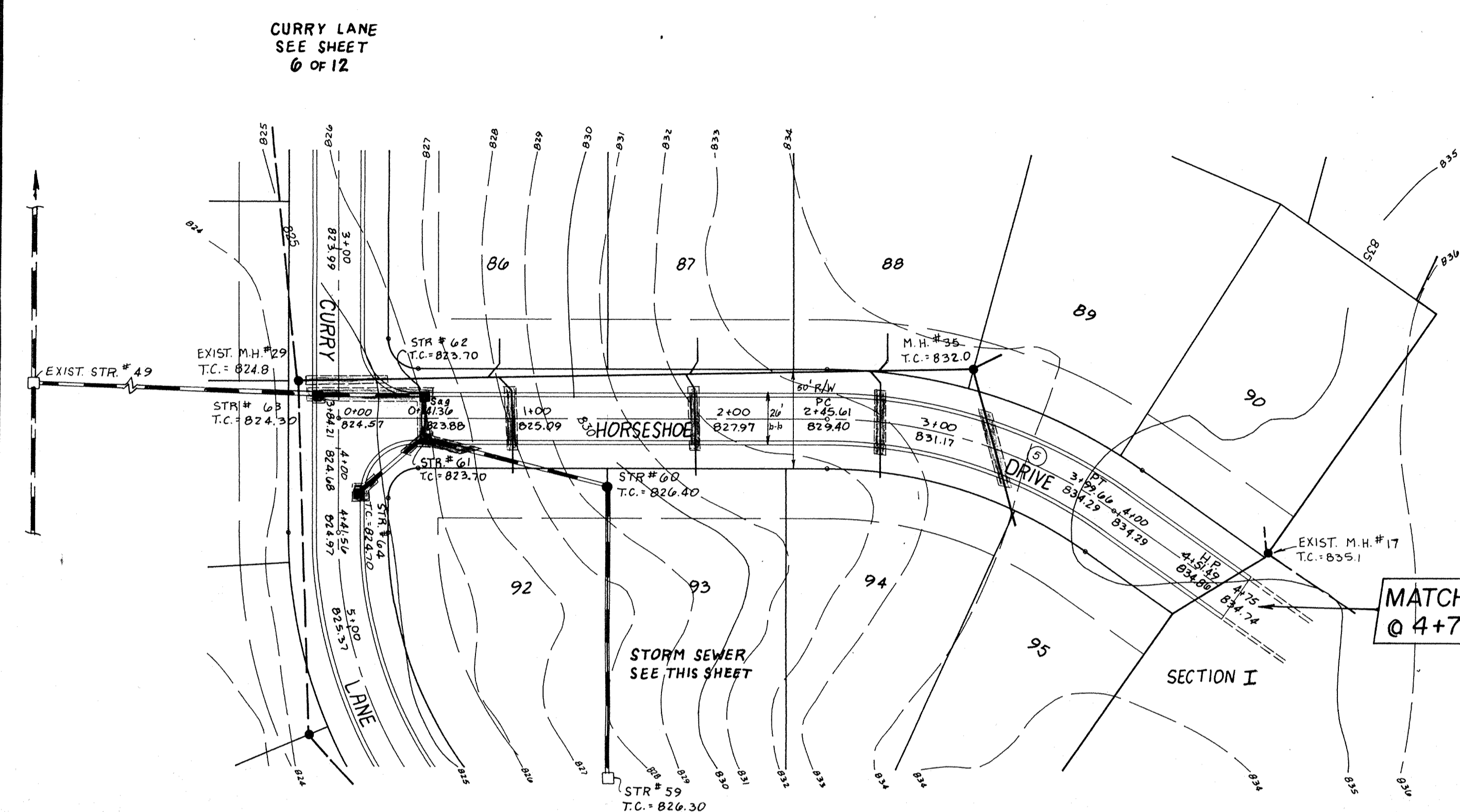
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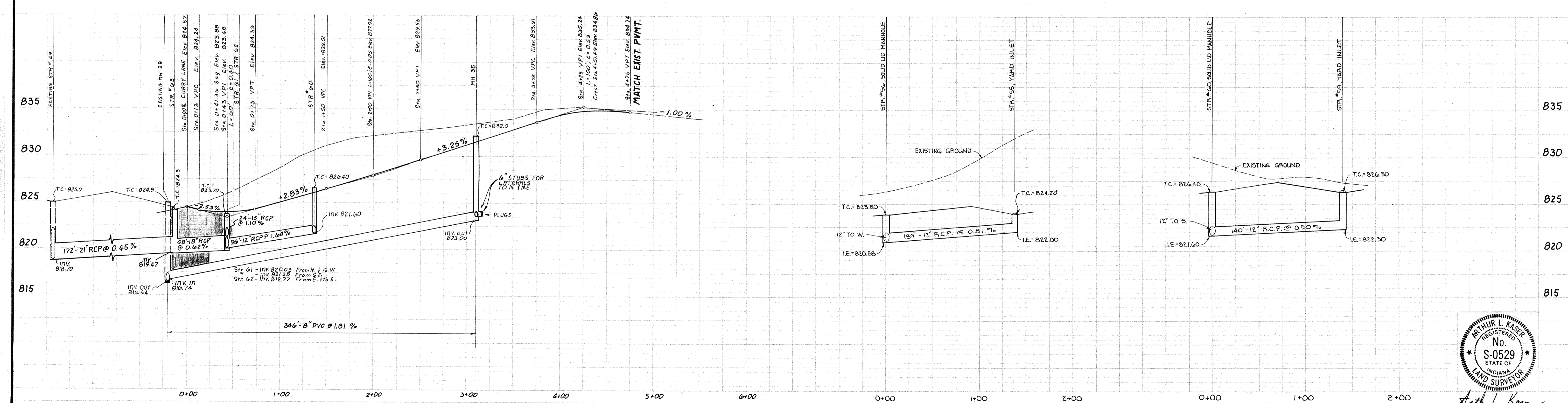
Entry Date: 10-29-83
 Entered by: JPH

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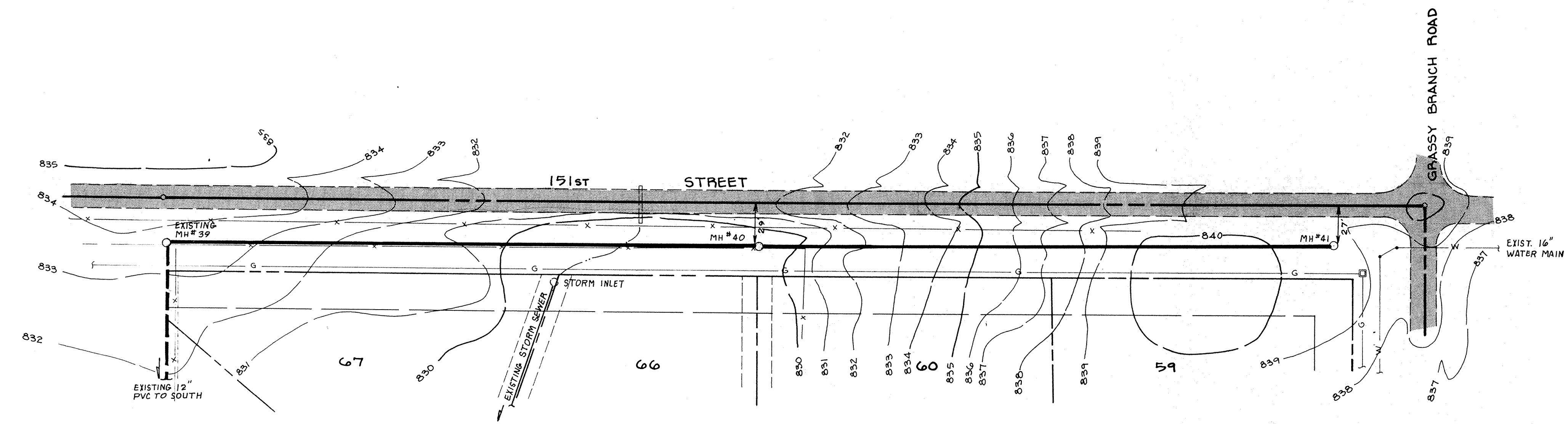
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 - FULL DEPTH GRANULAR BACKFILL PER D.O.T. STD. 19-01.
 - PROPOSED SANITARY SEWER $\frac{1}{2}$ M.H.
 - PROPOSED STORM SEWER $\frac{1}{2}$ INLET
 - PROPOSED 6" LATERAL
 - EXISTING SEWERS

NOTE:
 All main line sanitary sewer pipe to be PVC or PVC Truss Pipe with gasketed joints.



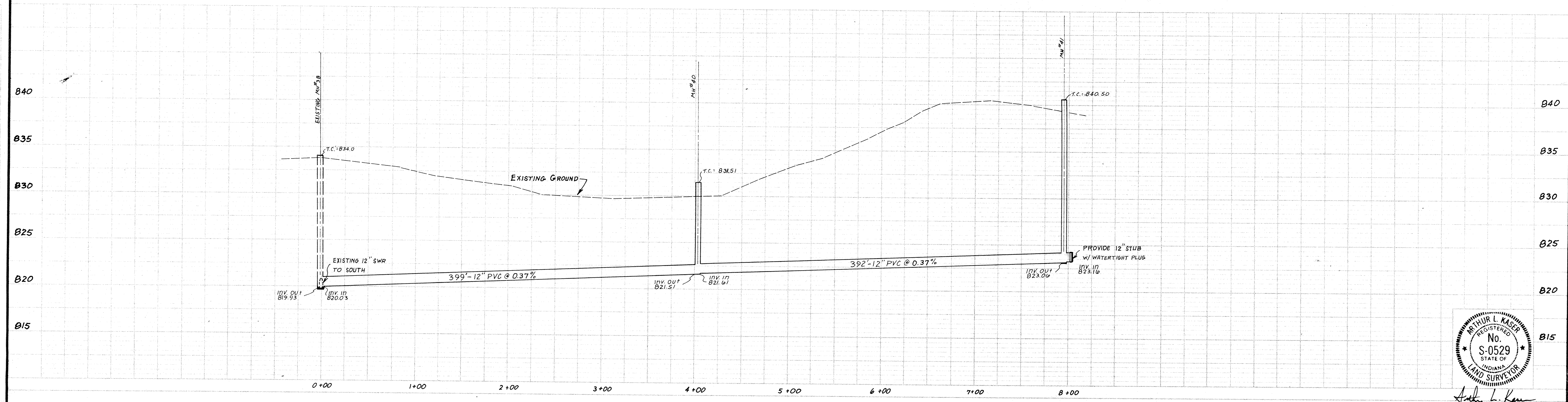
Arthur L. Kaset

DATES AND REVISIONS		TITLE HORSESHOE DRIVE & STR'S 55,56,59,60 BRIDLEWOOD SEC. III		DATE DECEMBER 1988	
DESIGN BY ALK/DTP	DRAWN BY DTP	CHECKED DTP	APPROVED	JOB NO. 87-84	
				SCALE HORIZ.: 1" = 50' VERT.: 1" = 5'	
234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219 317/353-6161				SHEET NO. 7 of 12	



LEGEND

- 7" CONC. PAVEMENT
- 4" CONC. WALK PER D.O.T. STD. 14-01.
- FULL DEPTH GRANULAR BACKFILL PER D.O.T. STD. 19-01.
- PROPOSED SANITARY SEWER & MH.
- PROPOSED STORM SEWER & INLET
- PROPOSED 6" LATERAL
- EXISTING SEWERS



WITHUR L. KASIR
 REGISTERED
 No. S-0529
 STATE OF INDIANA
 LAND SURVEYOR
 Andrew L. Kasir

FILED

DATES AND REVISIONS		TITLE	
		SANITARY SEWER BRIDLEWOOD	
DESIGN BY	DRAWN BY	CHECKED	APPROVED
	DTP		

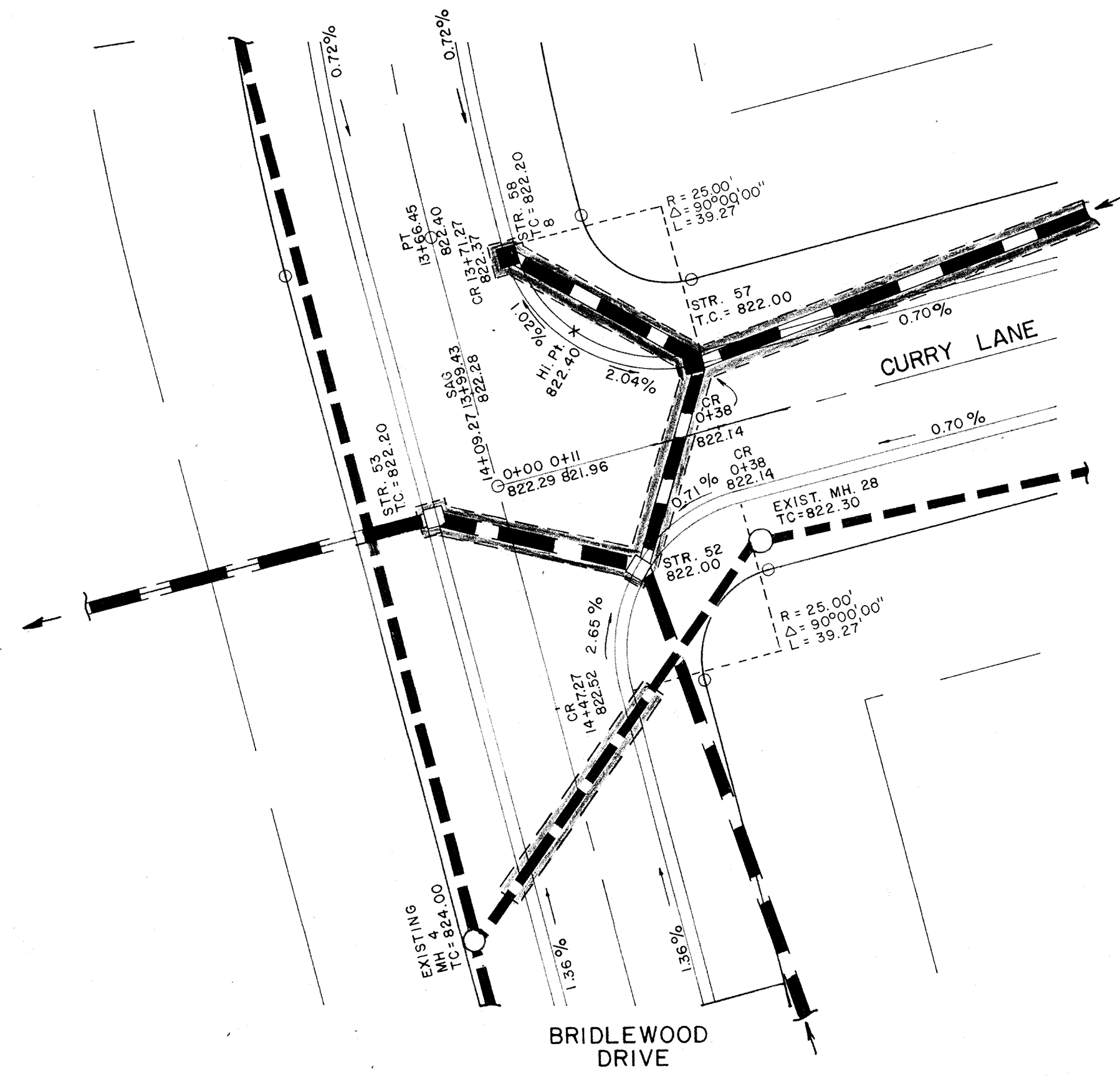
Evergreen Planners, Inc.
 JUL 19 1988
 OFFICE OF HAMILTON COUNTY SURVEYOR
 234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219
 317/353-6161

DATE	JANUARY 1989
JOB NO.	87-84
SCALE	HORIZ. 1" = 50'
	VERT. 1" = 5'
SHEET NO.	8 of 12

PLAN
 No. 151st Street
 No. 151st Street
 No. 151st Street
 No. 151st Street

PROFILE
 No. 151st Street
 No. 151st Street
 No. 151st Street
 No. 151st Street

TELEPHONE 800 762-7627

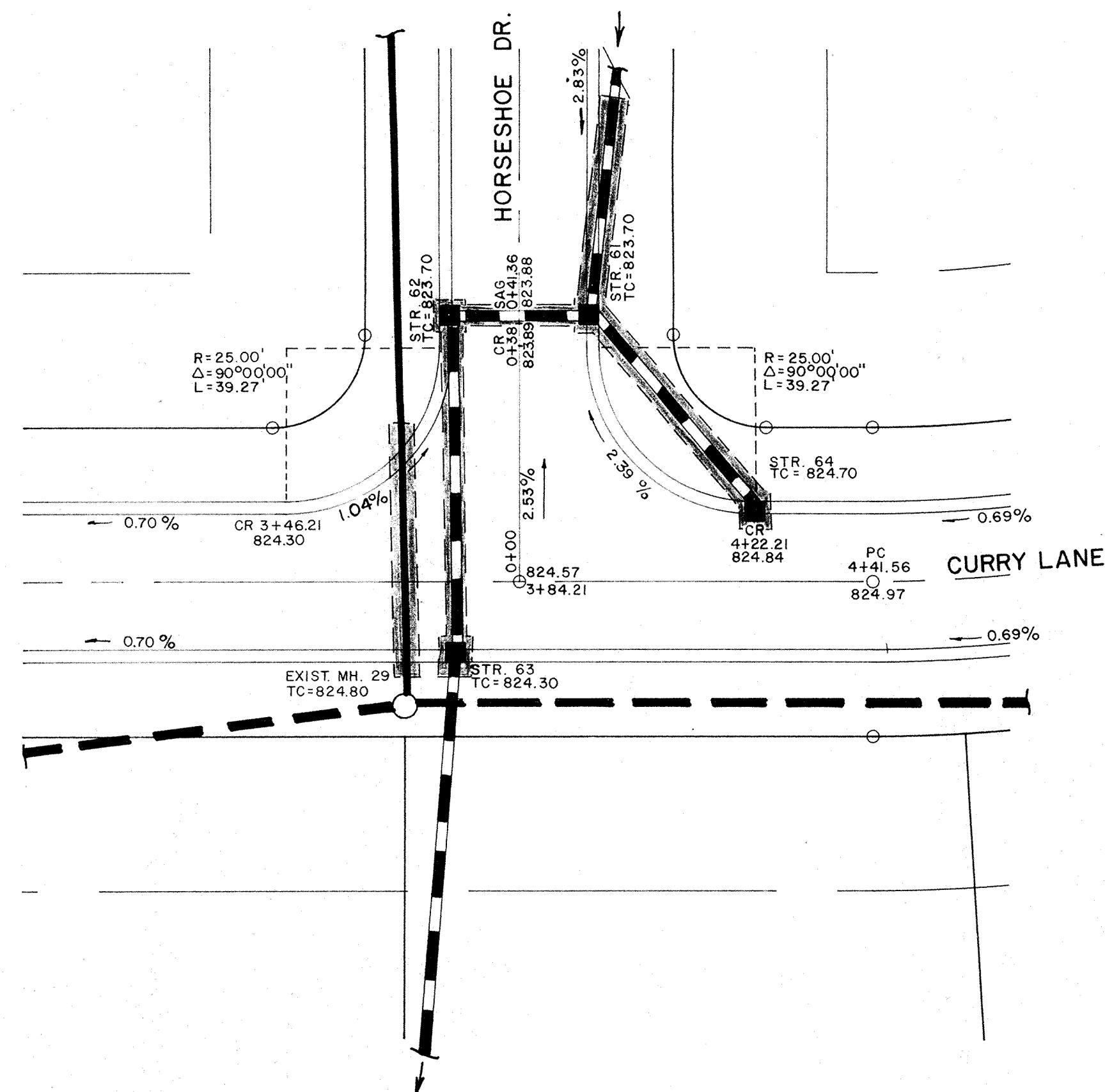


STRUCTURE DATA CHART

STR. No.	STRUCTURE TYPE	NEENAH CSTG. No.	TOP OF CASTING	INV. IN	INV. OUT	CASTING CAPACITY	IN-FLOW (CFS)	AREA (ACRES)
55	YARD INLET	R-4343-C	824.20	-----	822.00	4.39	3.16	1.58
56	SOLID LID MH	R-1077-A	823.80	820.88	820.88	-----	-----	-----
57	CURB INLET	R-3501-N	822.20	819.51	819.01	3.00	2.02	1.01
58	CURB INLET	R-3501-N	822.20	-----	819.67	3.00	2.06	1.03
59	YARD INLET	R-4343-C	826.30	-----	822.30	4.39	1.56	0.78
60	SOLID LID MH	R-1077-A	826.40	821.60	821.60	-----	-----	-----
61	CURB INLET	R-3501-N	823.70	820.28	820.03	3.00	1.48	0.74
62	CURB INLET	R-3501-N	823.70	819.77	819.77	3.00	1.44	0.72
63	CURB INLET	R-3501-N	824.70	819.47	819.47	3.00	2.40	1.20
64	CURB INLET	R-3501-N	824.30	-----	821.68	3.00	3.88	1.94

MANHOLE CHART

MH. No.	TOP OF CASTING	INV. IN	INV. OUT
35	832.00	-----	823.00
40	831.51	821.61	821.51
41	840.50	823.16	823.06



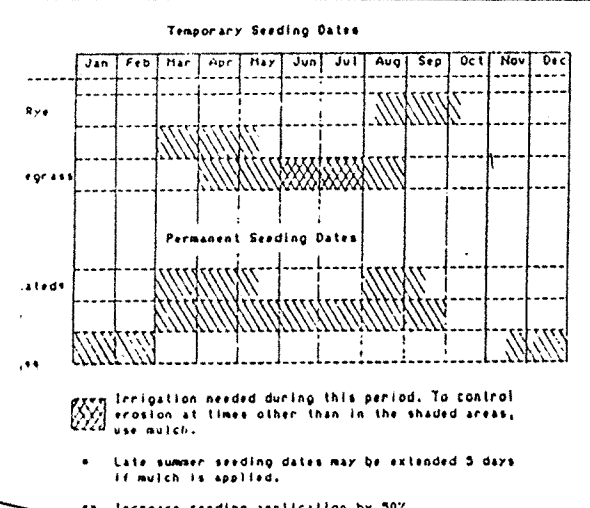
FILED
JUL 15 1988

Arthur L. Kasper

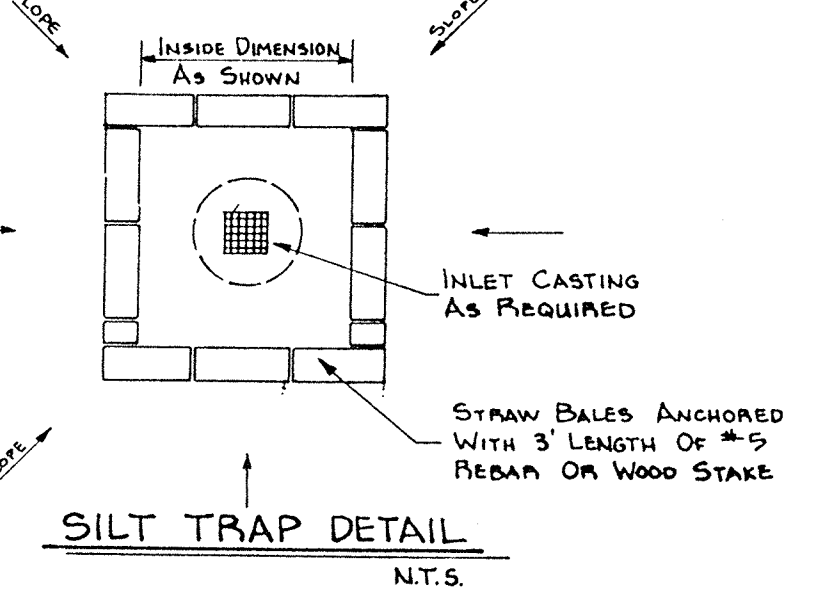
DATES AND REVISIONS		TITLE			
		INTERSECTION & STRUCTURE CHART			
		BRIDLEWOOD SECTION III			
DESIGN BY	ALK/DTP	DRAWN BY	MFH	CHECKED	DTP
		APPROVED			

Evergreen
Planners, Inc.
234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219
317/353-6161

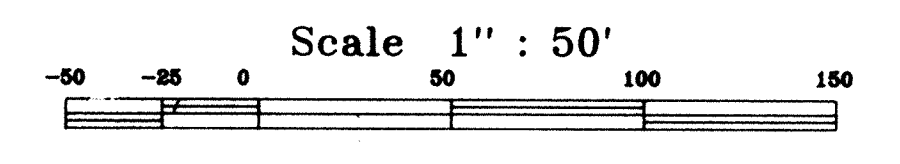
DATE	DEC., 1988
JOB NO.	87-84
SCALE	1"=20'
SHEET NO.	9 of 12



1. Swales / Grassed Waterways; permanent seeding shall take place between March 1 and May 15 or from August 10 to October 15 with the following per acre:
- 25 lbs. Kentucky 31 Fescue
 - 15 lbs. Kentucky Blue Grass
 - 1000 lbs. Fertilizer
 - 3000 lbs. Mulch (straw)
2. If grades are established between October 15 and December 30, either rye (grain) or wheat may be used at the rate of 2 bushels/ac. Oats may be used for early spring planting at the rate of 3 bushels/ac. All grains should be cut at the time of permanent seeding. All grains should be cut prior to seed maturing.
3. If grades are established between May 15 and August 10, a temporary seeding consisting of 40 lbs. of annual ryegrass shall be planted per acre.
4. If temporary seeding is established prior to permanent seeding, the mulch may be eliminated except in "bare" areas.
5. If grading occurs during December, January or February, no seeding to take place till spring planting; however it is imperative that all sediment filters and traps are in place prior to bulk earthmoving or clearing.



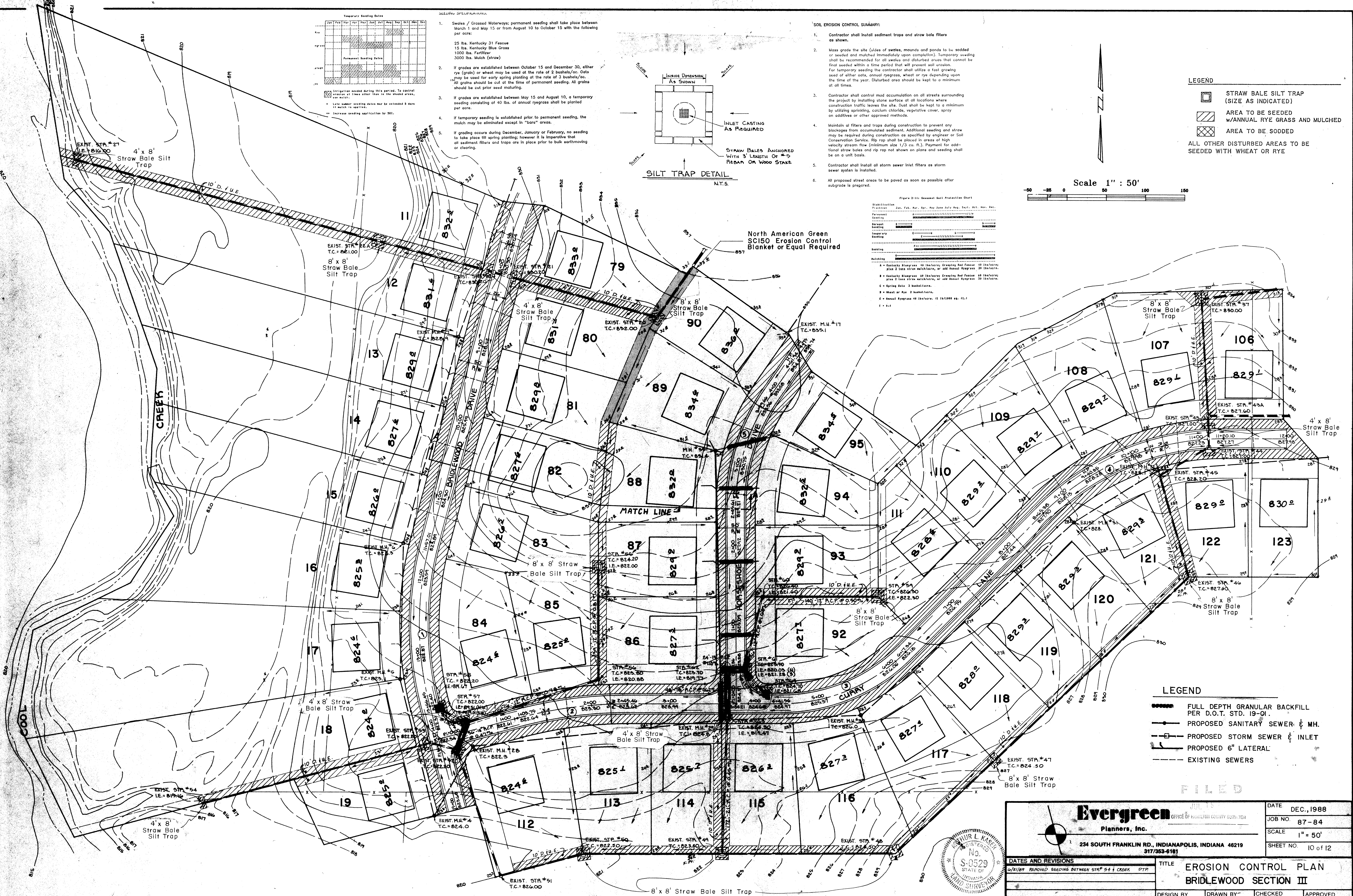
- SOIL EROSION CONTROL SUMMARY:**
- Contractor shall install sediment traps and straw bale filters as shown.
 - Mass grade the site (sides of swales, mounds and ponds to be seeded or sodded immediately upon completion). Temporary seeding shall be recommended for all swales and disturbed areas that cannot be final seeded within a time period that will prevent soil erosion. For temporary seeding the contractor shall utilize a fast growing seed of either oats, annual ryegrass, wheat or rye depending upon the time of the year. Disturbed area should be kept to a minimum at all times.
 - Contractor shall control mud accumulation on all streets surrounding the project by installing stone surface at all locations where construction traffic leaves the site. Dust shall be kept to a minimum by utilizing sprinkling, calcium chloride, vegetative cover, spray on additives or other approved methods.
 - Maintain all filters and traps during construction to prevent any blockages from accumulated sediment. Additional seeding and straw may be required during construction as specified by engineer or Soil Conservation Service. Rip rap shall be placed in areas of high velocity stream flow (minimum size 1/3 cu. ft.). Payment for additional straw bales and rip rap not shown on plans and seeding shall be on a unit basis.
 - Contractor shall install all storm sewer inlet filters as storm sewer system is installed.
 - All proposed street areas to be paved as soon as possible after subgrade is prepared.



- LEGEND**
- STRAW BALE SILT TRAP (SIZE AS INDICATED)
 - AREA TO BE SEEDED W/ANNUAL RYE GRASS AND MULCHED
 - AREA TO BE SODDED
 - ALL OTHER DISTURBED AREAS TO BE SEEDED WITH WHEAT OR RYE

Figure 210: Seasonal Soil Protection Chart

Stabilization	Seeding	Soil Erosion Control
Full Depth Granular Backfill	Annual Ryegrass	Straw Bale Silt Traps
Proposed Sanitary Sewer	Annual Ryegrass	Straw Bale Silt Traps
Proposed Storm Sewer	Annual Ryegrass	Straw Bale Silt Traps
Proposed 6" Lateral	Annual Ryegrass	Straw Bale Silt Traps
Existing Sewers	Annual Ryegrass	Straw Bale Silt Traps



- LEGEND**
- FULL DEPTH GRANULAR BACKFILL PER D.O.T. STD. 19-01.
 - PROPOSED SANITARY SEWER & MH.
 - PROPOSED STORM SEWER & INLET
 - PROPOSED 6" LATERAL
 - EXISTING SEWERS

Evergreen Planners, Inc.
 234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219
 317/353-6181

DATE: DEC., 1988
 JOB NO.: 87-84
 SCALE: 1" = 50'
 SHEET NO.: 10 of 12

EROSION CONTROL PLAN
BRIDLEWOOD SECTION III

DESIGN BY: [] DRAWN BY: RGS CHECKED: DTP APPROVED: []

GENERAL SITE WORK NOTES

- All construction work and material shall meet the specifications of the Indiana Department of Highways 1988.
- All trenches under or within five (5) feet of the street pavement shall be backfilled to the subgrade with granular material as directed by the engineer. Backfill shall be compacted per Section 211.
- Before earthwork is commenced, the contractor shall remove the topsoil in the area of the street and house pads that require fill. This topsoil shall be stockpiled as directed by the engineer in sufficient quantity so as to allow for the placement of at least three (3) inches over all disturbed areas before mulch seeding. The remainder of the topsoil shall be distributed in the front and rear yards.
- Grass strips placed under paved areas and house pads are to be installed in accordance with the standard practice (ASTM D-698) as shown on section 207.
 - Minimum elevation for the top of the slab of slab type structures or if a crawl space or basement is used, the flood protection grade would pertain to the lowest land grade around the exterior of the building, is two (2) feet above the 100-year flood elevation.
- Temporary silt settlement basins, two feet in depth shall be excavated at the entrance to storm structures, as directed by the engineer.
- Storm and Sanitary sewer material and installation shall be in direct accordance with the STANDARD SPECIFICATIONS FOR STORM AND SANITARY SEWER CONSTRUCTION IN MARION COUNTY, INDIANA as approved on the 20th day of June, 1974. The sanitary sewer contractor shall furnish to the owner certified infiltration tests showing that the leakage outward or inward (exfiltration or infiltration), by an air test (ASTM C828 preferred) shall not exceed 200 gallons per inch of pipe diameter per mile per day and deflection tests for PVC or Truss pipe for 100% of the project and any other tests required for acceptance of sewers by the Department of Public Works.
- Pavement is to be placed on a prepared subgrade with no traffic on the subgrade prior to paving, as per 1988 I.D.O.H. Specifications, Section 207.
- Concrete pavement to be placed as per 1988 I.D.O.H. Specifications, Section 400. Asphalt pavement to be placed as per 1988 I.D.O.H. Specifications, Section 400. For additional information see Street Detail Sheet.
- All construction within the dedicated right of way or in areas dedicated to the public shall conform to the City of Indianapolis, Department of Transportation's STANDARDS for STREET & BRIDGE DESIGN AND CONSTRUCTION as adopted on the 17th day of May 1972 and its periodic revisions.
- All natural areas which are disturbed by site development construction shall be seeded with a mixture of 60 pounds per acre of Perennial Rye grass and 60 pounds per acre of Kentucky 31 Paspalum or Alta Paspalum.
- Driveways and sidewalks, unless otherwise noted, are not to be installed as part of these plans and are the responsibility of the individual home builder.
- Prior to start of construction, a pre-construction conference shall be scheduled on site with Contractor, Subcontractor, Developer, Engineer for the Developer, or City Engineer (844-8900), and Utilities Department.
- All City of Lawrence permits shall be obtained prior to start of construction.

ELECTRIC AND TELEPHONE

- Conduit shall be required for all crossings under pavement areas.
- Granular backfill shall be required for all crossings under pavement areas and compacted per Section 211.
- Concrete pads for electric and telephone transformers shall be set at the approximate ground grade as shown on the Site Development Grading Plans for the respective locations.

CONCRETE CURBS AND WALKS

- See Detail Sheet for type and details. Curbs and walks within existing or proposed right of way shall be constructed in accordance with General Ordinance No. 49, 1972.
- Concrete shall be ready mix Portland cement conforming to A.S.T.M. C-150, and water. Aggregate shall conform to A.S.T.M. C-33. Compressive strength of concrete at 28 days shall be 4000 p.s.i. Where required, reinforcement shall be welded steel wire fabric conforming to A.S.T.M. A-185.
- Application
 - Place concrete only on a moist, compact subgrade or base free from loose material. Place no concrete on muddy or frozen subgrade.
 - Concrete shall be deposited so as to require as little rehandling as practical. When concrete is to be placed at an atmospheric temperature of 35 F. or less, Paragraph 702.10 of the I.D.O.H. Specifications, 1985 edition, shall apply.
 - Except as otherwise specified, cure all concrete by one of the methods described in Section 501.17 of the I.D.O.H. Specifications, 1985 edition.

SANITARY SEWER SPECIFICATIONS

- Current City of Indianapolis Sanitary Sewer District, County and State specifications shall prevail as to materials and methods of construction.
- Sanitary sewers shall be installed in accordance with the Indiana State Board of Health requirements.
- Sanitary sewers shown on the construction plans may be Poly-Vinyl Chlorine Pipe in accordance with A.S.T.M. D-3034 (S.D.R. 35), or A.B.S. Truss Pipe, where applicable, in accordance with A.S.T.M. D-2680 (8"-15" pipe and fittings), D-2751 (6" pipe and fittings).
- Construction of the sanitary sewers will not be allowed to commence until a valid SPC-15 permit is obtained from the Department of Environmental Management.
- Sanitary manholes shall be precast concrete in accordance with A.S.T.M. C-476. Manhole joints shall be O-RING type.
- Plastic sanitary sewers shall be marked for easy identification.
- Water and sewer line crossings and separations shall be in accordance with Ten States Standards and local codes.
 - Where water lines and sewer lines cross and the water line cannot be placed above the sewer line a minimum of 18" with a minimum cover of 48", the sewer line shall be constructed of waterworks grade cast iron pipe with mechanical joints.
 - Where water lines and sanitary sewer lines run parallel with one another, a minimum of 10' horizontal separation shall be maintained.
- Buildings shall be serviced by a 6" minimum sanitary sewer lateral. The sewer laterals' termination shall be indicated on the surface with a post set immediately above said termination point. The ends shall be plugged and sealed with a water tight clay or plastic disc. Wyes are to be tilted up to 45 degrees from the horizontal, with suitable fittings for all changes in direction. Identified with locator tape.
- The Contractor shall provide the Engineer with "as-built" locations and information for all sanitary sewers and laterals including elevations within ten days after completion.
- Manhole sections shall have "O" rings. In case of wet conditions, larger stone shall be used for bedding.
- Truss Pipe To Have Gasket Type Joints. No Glue Joints Allowed.

STORM SEWERS

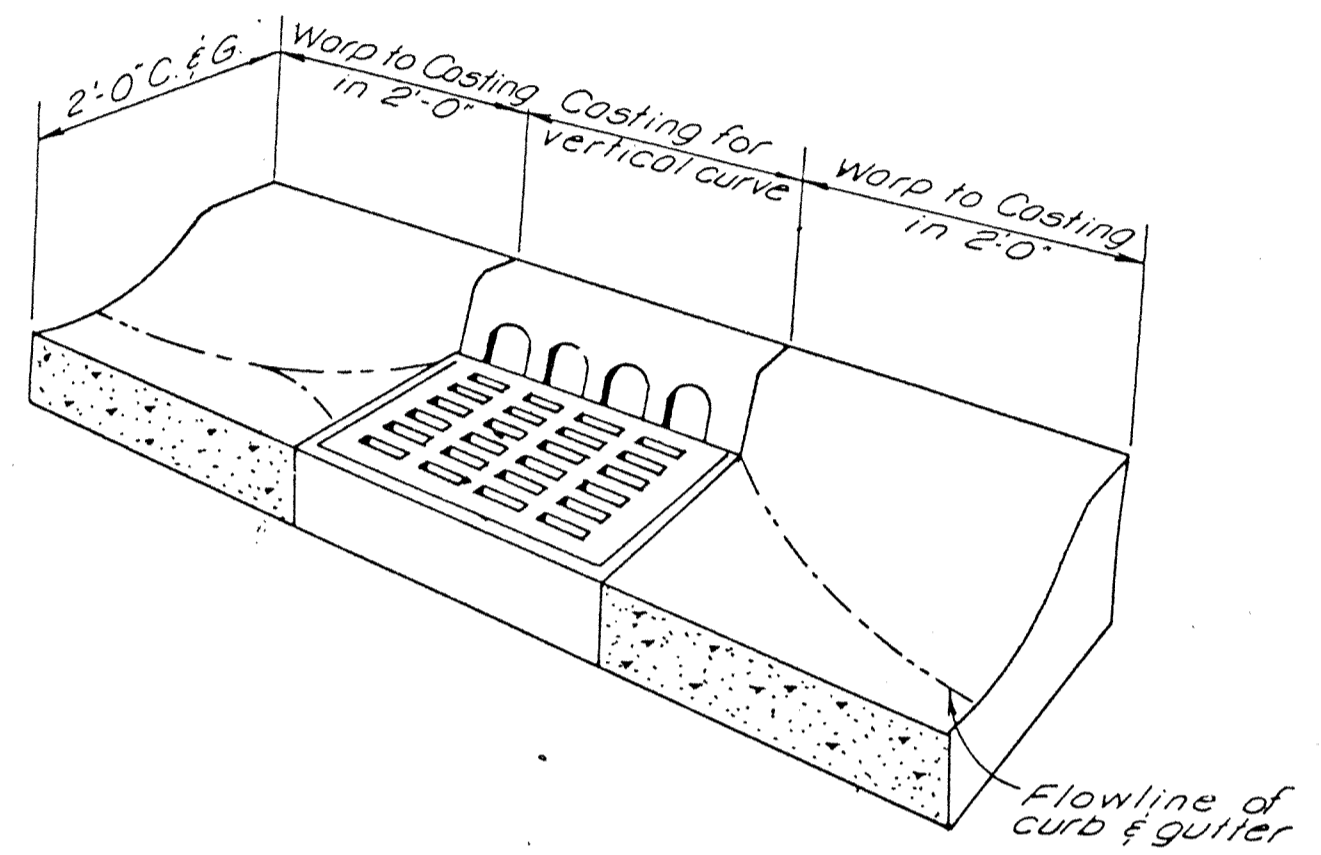
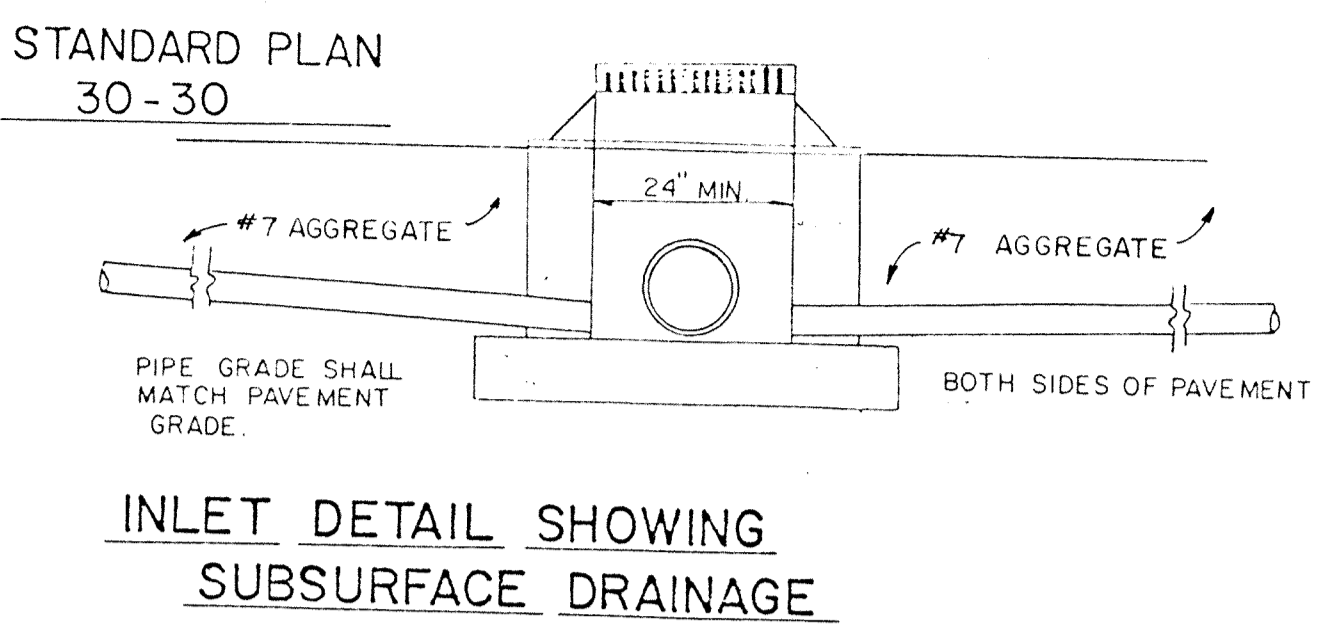
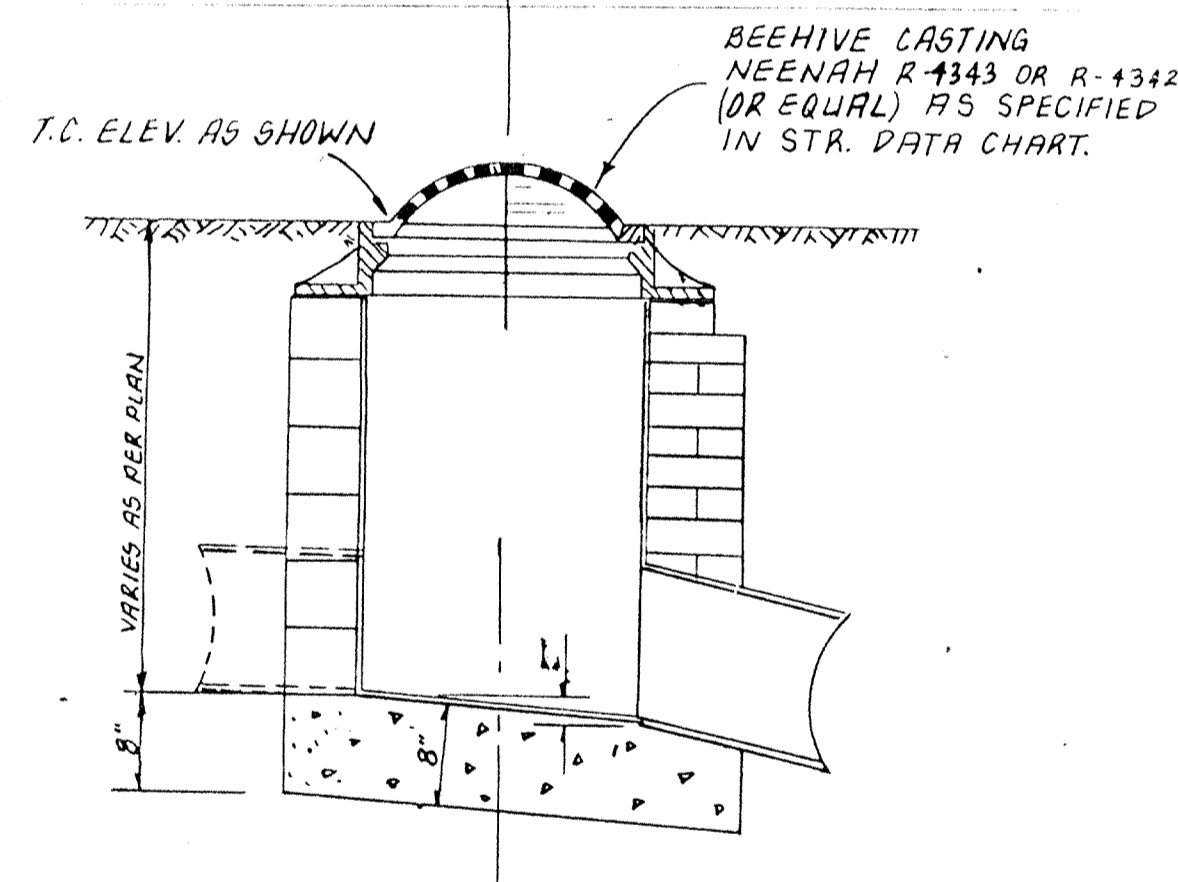
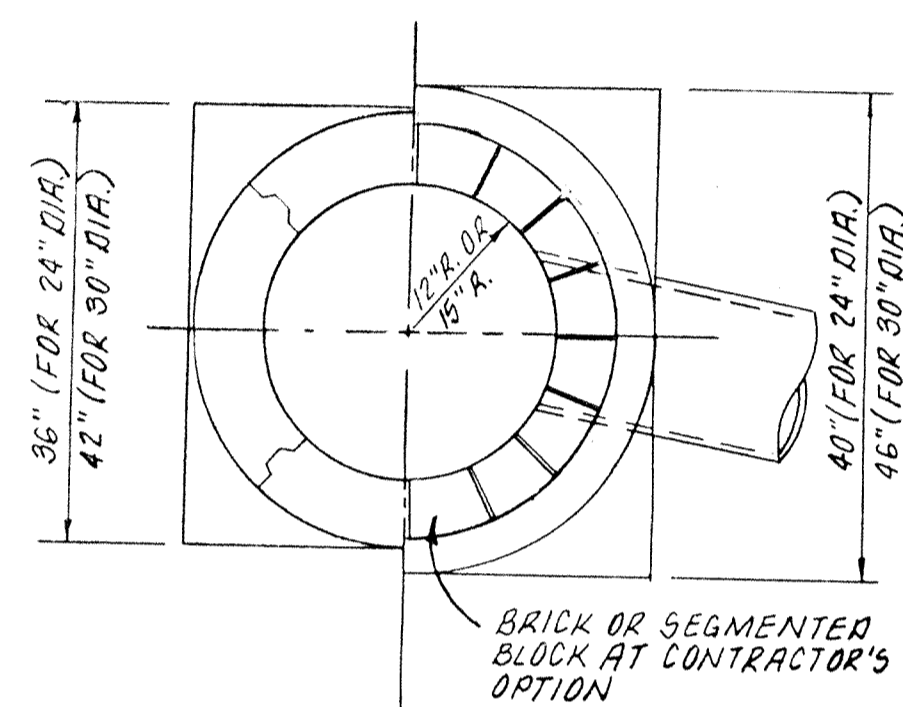
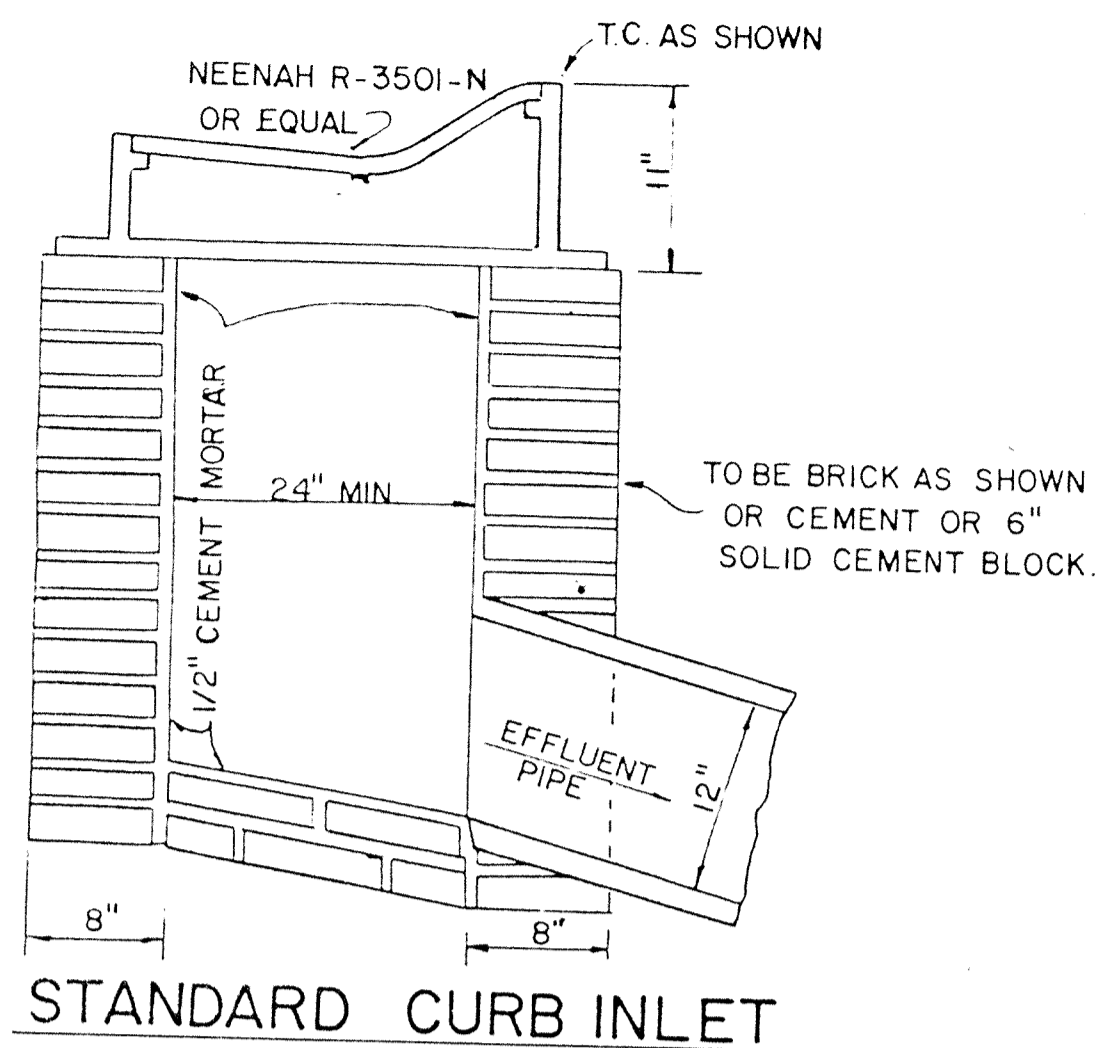
- Storm sewer structures shall comply with current specifications of the City, County and all agencies in respect to design and quality of construction.
- All storm sewer construction inside public right of way, either existing or to be dedicated, shall be in accordance with General Ordinance 49, 1972. Contractor shall notify the Indianapolis Department of Transportation forty-eight hours prior to commencement of storm sewer construction.
- Where reinforced concrete pipe is shown on the construction plans it shall be in accordance with A.S.T.M. C-76 Class III ball "B", unless otherwise specified on the plans.
- Where corrugated metal pipe is shown on the construction plans it shall be 16 gauge unless otherwise specified and shall have the connecting bands and seals as specified by the manufacturer. C.M.P. may be either aluminum pipe or zinc coated steel sheets in accordance with A.S.T.M. A-444.
- Manholes, catchbasins, and inlets may be precast concrete, brick or block.
- Precast concrete and steel for manholes and inlets shall be in accordance with A.S.T.M. C-476.
- Castings shall be as shown on the Structure Data Table for the manufacturer, type, and model number.
- Granular backfill shall be required for all crossings under pavement areas per D.O.T. Standard 19-01. Granular Backfill shall be compacted per Section 211.

NOTE: Section References refer to 1988 IDOH Standard Specifications.

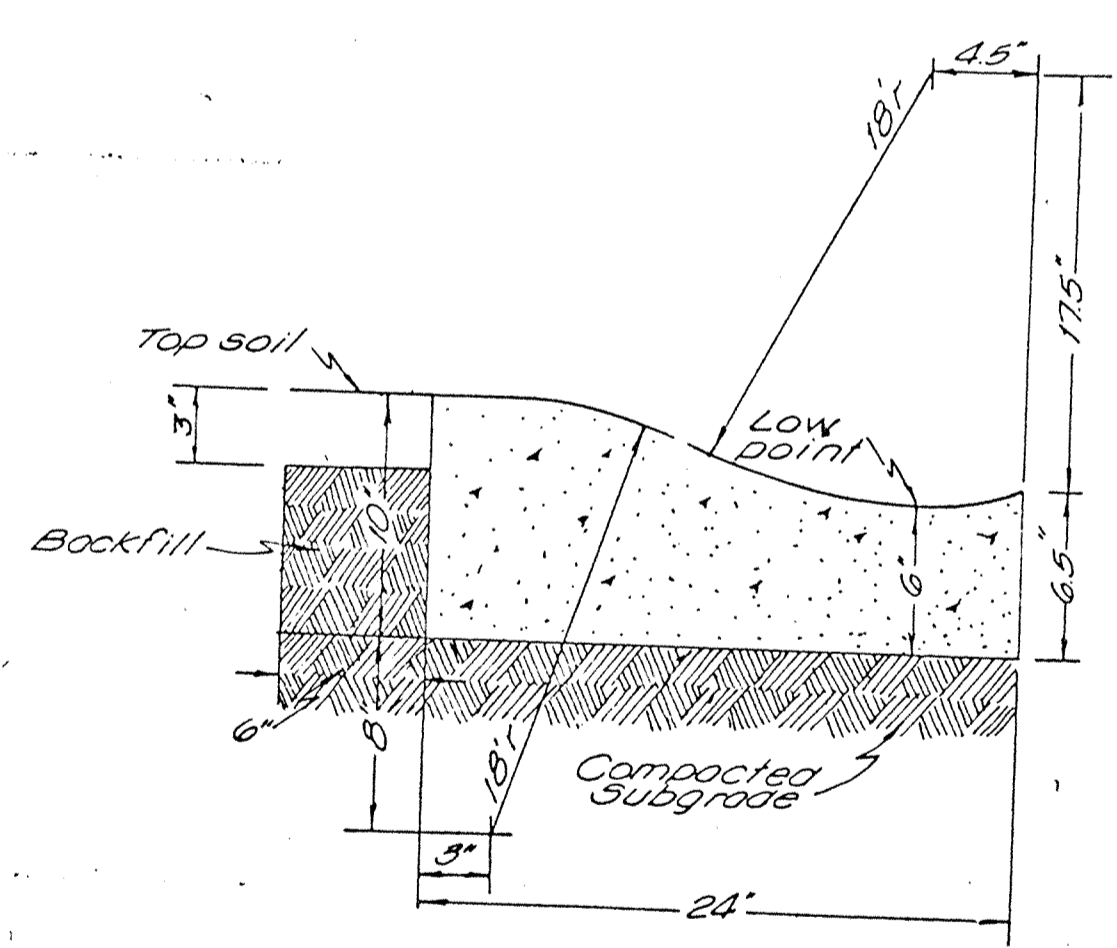
FILED
JUL 19 1988
OFFICE OF HAMILTON COUNTY SURVEYOR



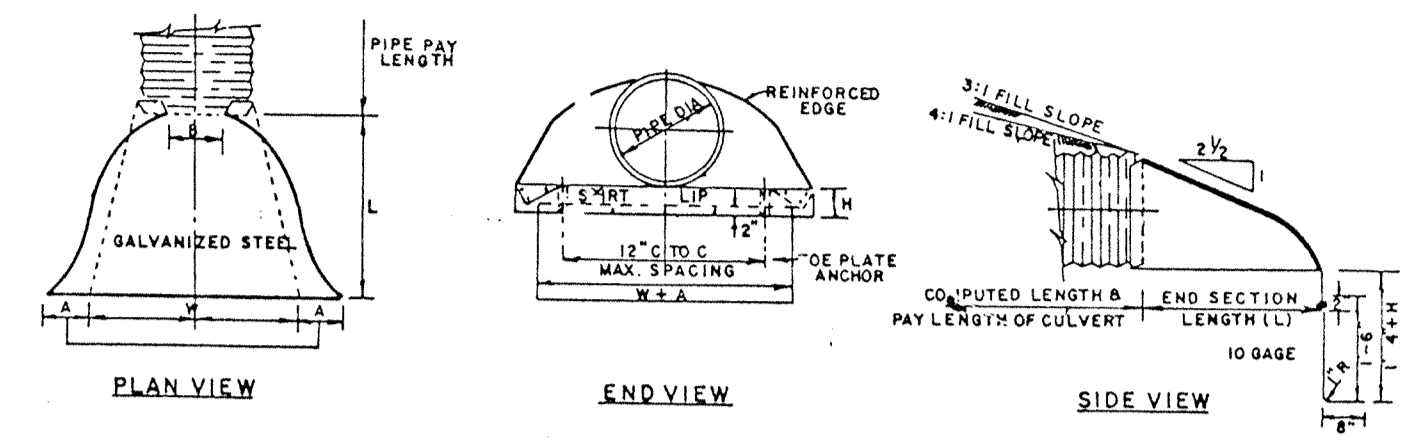
DATES AND REVISIONS		TITLE	
3-6-88	Rev Notes 8, 4, 10 San Sewer Specs	<h1>Specifications</h1>	
7-22-88	Rev Notes 8, 5, 10 San Sewer Specs		
10-10-88	Rev Notes 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100		
10-17-88	Rev Notes 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100		
DESIGN BY	DRAWN BY	CHECKED	APPROVED
		HASP	
Evergreen Development Corporation		234 SOUTH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219 317-353-6161	
DATE	NOV., 1988	SHEET	11 of 12



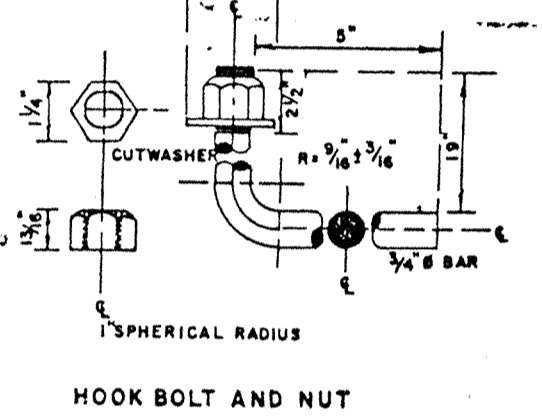
WARP PATTERN CURB & GUTTER INTO CASTING



PIPE DIA.	GA.	A	B	H	H ₁	W	SLOPE	W/FOOT	
18	11	16	4	9	15	30	2 1/2	1/2"	
22	13	16	7	10	6	23	36	2 1/2	1/2"
24	14	16	8	12	6	28	42	2 1/2	1/2"
28	18	18	9	14	6	32	48	2 1/2	1/2"
36	24	14	10	8	39	60	72	2 1/2	1/2"
42	27	14	12	10	8	42	84	2 1/2	1/2"

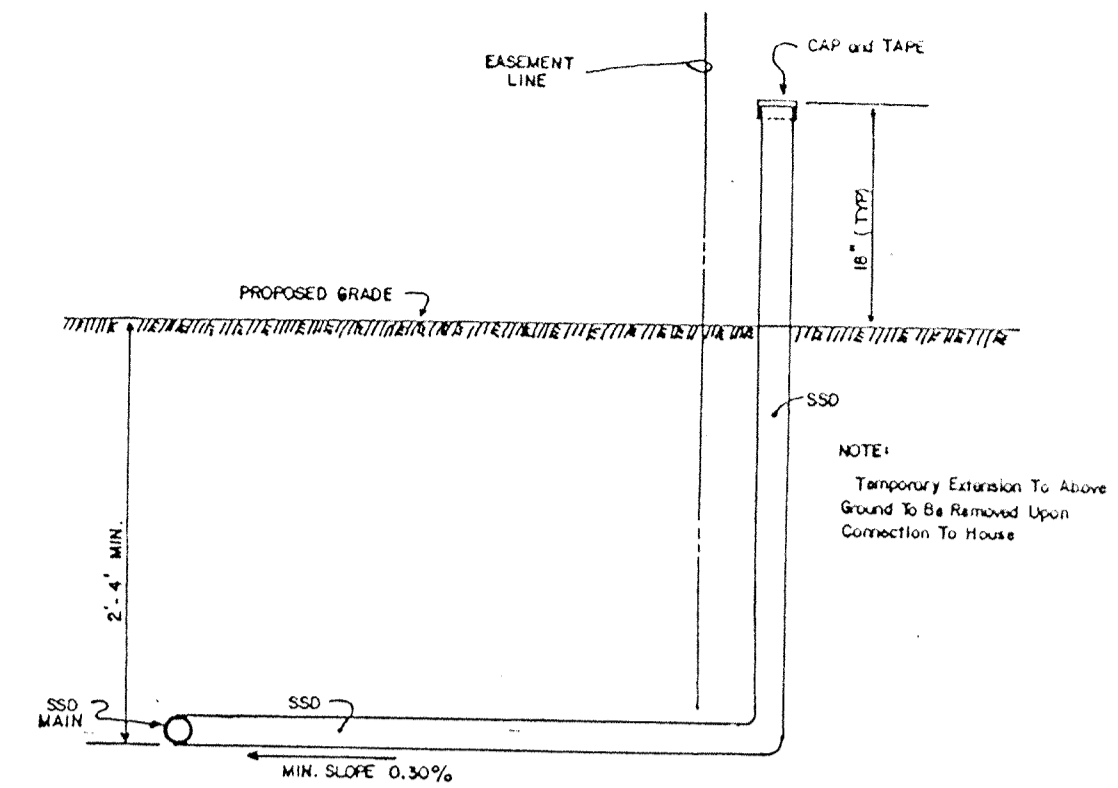


NOTES:
 END SECTIONS AND TOE PLATE ANCHORS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS AS SET OUT IN THE STANDARD SPECIFICATIONS.
 IF ALUMINUM ALLOY PIPE CULVERT IS FURNISHED, ALUMINUM ALLOY END SECTIONS SHALL ALSO BE USED AND ALL COMPONENT PARTS SHALL BE ALUMINUM ALLOY AS SET OUT IN THE STANDARD SPECIFICATIONS.
 MULTIPLE PANEL BODIES SHALL HAVE LAP SEAMS WHICH SHALL BE TIGHTLY JOINTED WITH 3/8" GALVANIZED RIVETS OR BOLTS.
 THE TOE PLATE ANCHOR SHALL BE CONSTRUCTED OF 10 GAGE GALVANIZED STEEL AND BE REQUIRED ON ALL STEEL PIPE END SECTIONS. IT SHALL BE MATCHED-PUNCHED TO FIT HOLES IN SKIRT LIP, AND SUPPLIED LOOSE, COMPLETE WITH 3/8" GALVANIZED BOLTS, SO IT THEREOF SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER EACH FOR "PIPE END SECTION".
 WHERE VITRIFIED CLAY CULVERT OR CAST IRON CULVERT PIPE IS USED A "PIPE END SECTION" COMPAREABLE TO THAT AS SHOWN FOR METAL OR CONCRETE SHALL BE FURNISHED AND SHALL BE APPROVED BY THE ENGINEER.
 END SECTIONS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "PIPE END SECTION" COMPLETE IN PLACE AND ACCEPTED.
 PIMPLED CONNECTION BAND MAY BE USED TO CONNECT PIPE END SECTION TO HELICALLY CORRUGATED PIPE.

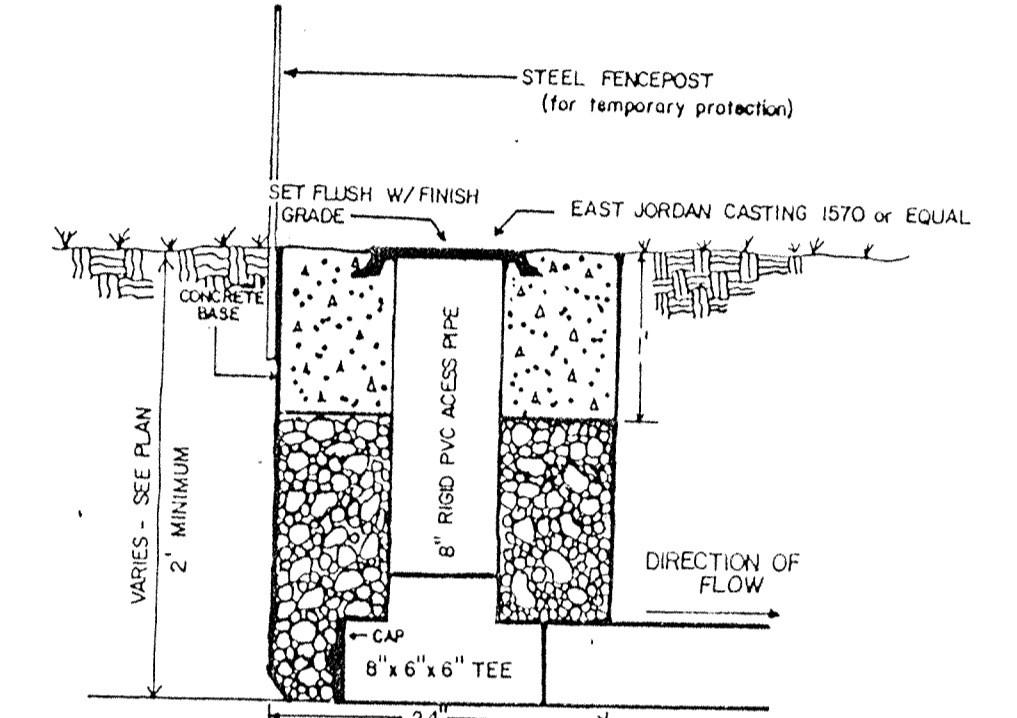


SPECIFICATION FOR HOOK BOLT AND NUT
 HOOK BOLT MATERIAL SHALL MEET THE CURRENT ASTM A-307. THREADS SHALL BE AMERICAN STANDARD COARSE THREAD SERIES, CLASS II FREE FIT BOLTS. CATEGORY A-157. THE THREADED PORTION SHALL NOT PREVENT TURNING THE NUT BY HAND.
 NUT AND WASHERS SHALL BE CARBON STEEL NOT DIP GALVANIZED TO MEET ASTM SPECIFICATION A-153. NUT THREADS SHALL BE AMERICAN STANDARD COARSE THREAD SERIES (MAXIMUM OVERSIZE) CLEANED AFTER OILING OR LUBING TO PROVIDE A FREE RUNNING FIT ON THE CLASS II BOLT. NUTS SHALL BE 1/16" ACROSS THE FLATS, 3/16" THICK, CURVE CROWNED TO APPROXIMATELY 1" RADIUS.

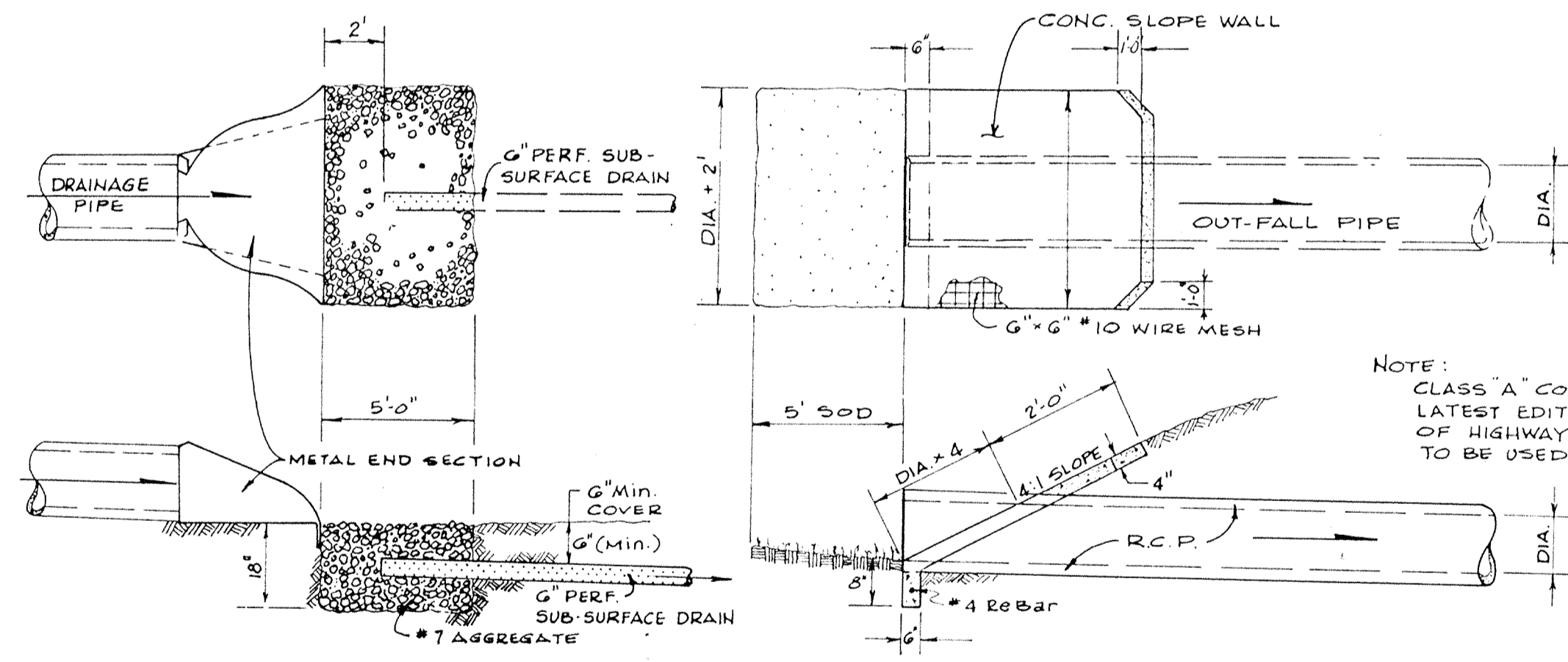
METAL END SECTION DETAIL



TYPICAL SSD CONNECTION TO INDIVIDUAL LOTS NO SCALE



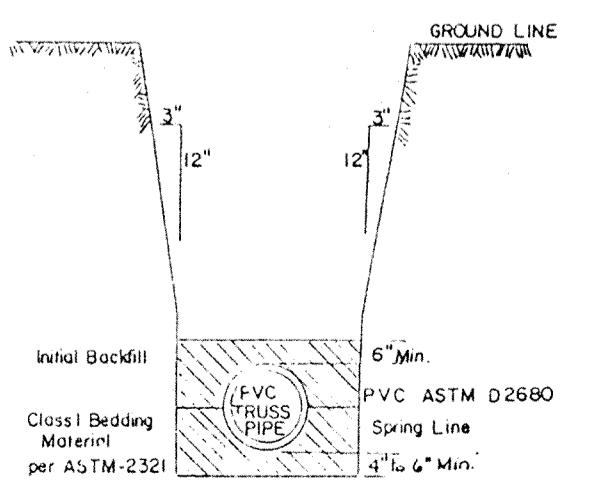
SUBSURFACE DRAIN (SSD) RISER DETAIL NO SCALE



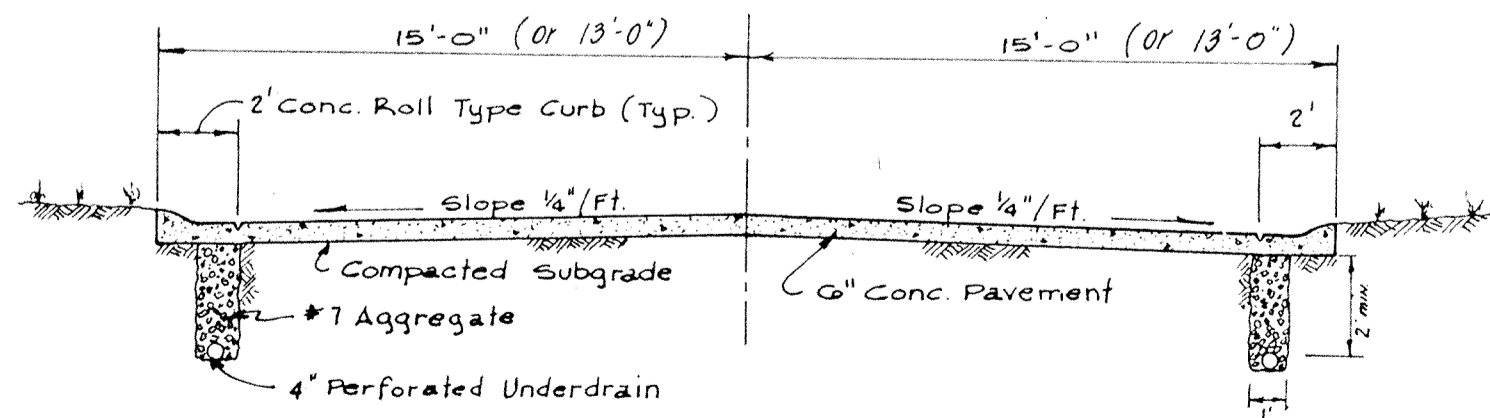
SPECIAL OUT-FALL TREATMENT

CONC. SLOPE WALL DETAIL

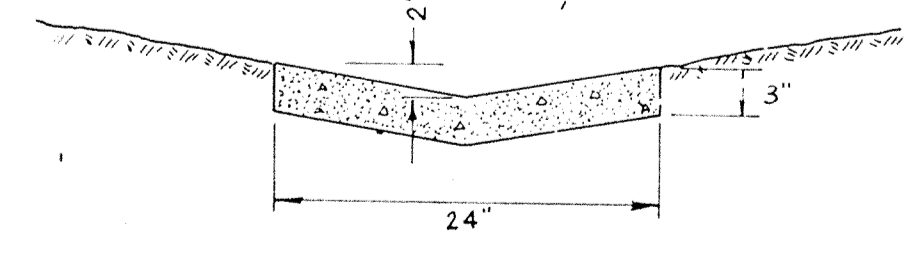
NOTE:
 FOR SAFETY REASONS:
 Contractor will be responsible to either use shoring, sheeting or a sewer box on all sewer construction deeper than 5 feet.



PVC ASTM D2689
 Class I Bedding Material as per ASTM-2321
 (1 D O T No 4 stone is acceptable class I Bedding Material)
 Bedding and Initial Backfill Material will extend from a minimum of 4" below bottom of pipe to a maximum of 2" above the top of the pipe.



TYPICAL PAVEMENT SECTION



CONC. SWALE DETAIL

FILED
 JUL 15
 OFFICE OF HAMILTON COUNTY SURVEYOR



TITLE MISC. DETAILS 3				DATE DECEMBER 1989	
DESIGN BY JLK				JOB NO. 87-84	
DRAWN BY EN				SCALE As shown	
CHECKED				SHEET NO. 12 OF 12	
APPROVED				Evergreen Development Corporation 231 SC 17TH FRANKLIN RD., INDIANAPOLIS, INDIANA 46219 317/553-6161	