

Drain: THOR RUN DRAIN **Drain #:** 309
Improvement/Arm: BROOKS MANOR
Operator: JDH **Date:** 10-22-03
Drain Classification: Urban/Rural **Year Installed:** 2003

GIS Drain Input Checklist

- Digitize & Attribute Tile Drains N/A
- Digitize & Attribute Storm Drains JDH 10-23
- Digitize & Attribute SSD JDH 10-23
- Digitize & Attribute Open Ditch JDH 10-23
- Sum drain lengths & Validate JDH 10-23
- Enter Improvements into Posse JDH 10-23
- Enter Drain Age into Posse JDH
- Sum drain length for Watershed in Posse JDH
- Stamp Plans JDH 10-23
- Pull Source Documents for Scanning JDH 10-23

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

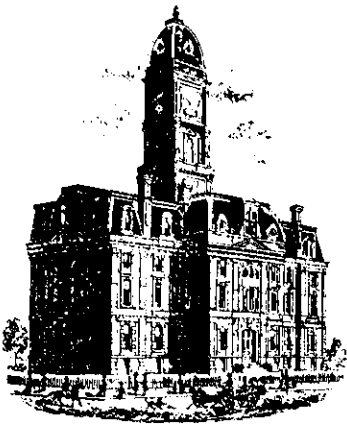
Drain-Improvement: THOR RUN DRAIN - BROOKS MANOR

Drain Type:	Size:	Length <small>SURVEYORS (FINAL REPORT)</small>	Length (DB Query)	Length Reconcile	Price:	Cost:
SSD	6"	3652'	3652'	∅		
ACP	12"	623.4'	623.4'	∅		
	15"	206.2'	206.2'	∅		
	18"	135.7'	135.7'	∅		
	24"	929.94'	929.94'	∅		
OPEN DITCH		864'	864'	∅		

Sum: 6,411.24' 6,411.24"

Final Report: _____

Comments:



SURVEYOR'S OFFICE

Hamilton County

Kenton C. Ward, Surveyor

Phone (317) 776-8495

Fax (317) 776-9628

Suite 188

*One Hamilton County Square
Noblesville, Indiana 46060-2230*

To: Hamilton County Drainage Board

July 16, 2001

Re: Thor Run Drain, Brooks Manor Arm

Attached is a petition, non-enforcement request, plans, calculations, quantity summary and assessment roll for the Thor Run Drain, Brooks Manor Arm. 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 consist of the following:

Open Ditch 1,044 ft	15" RCP - 199 ft
6" SSD - 3,507 ft	18" RCP - 139 ft
12" RCP - 380 ft	24" RCP - 929 ft

The total length of the drain will be 6,198 feet.

The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs and those main lines between lots or in rear yards. Only the main SSD lines, which are located within the easement (right of way), are to be maintained as regulated drain. Laterals for individual lots will not be considered part of the regulated drain.

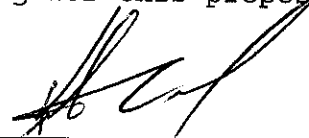
The open ditch listed above is that portion of Thor Run adjacent to lots 13-20 and between lots 20-21 from Str. 713 to Thor Run. The remaining portion of Thor Run was regulated with Brooks Landing Section 1 (see report dated May 20, 1998) No portion of the flood plain for Thor Run will be allowed to be filled.

I have reviewed the plans and believe the drain will benefit each lot equally. Therefore, I recommend each lot be assessed equally. I also believe that no damages will result to landowners by the construction of this drain. 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 this drain/this section will be \$1,331.80.

I believe this proposed drain meets the requirements for Urban Drain Classification as set out in IC 36-9-27-67 to 69. Therefore, this drain shall be designated as an Urban Drain.

I recommend that upon approval of the above proposed drain that the Board also approve the attached non-enforcement request. This request is for the reduction of the regulated drain easement to those easement widths as shown on the secondary plat for Brooks Manor as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for August 27, 2001.



Kenton C. Ward
Hamilton County Surveyor

KCW/11m

CERTIFICATE OF COMPLETION AND COMPLIANCE

TO: HAMILTON COUNTY SURVEYOR

RE: Brooks Manor

I hereby certify that:

- 1.) I am a Registered Land Surveyor in the State of Indiana,
- 2.) I am familiar with the plans and specifications for the above referenced subdivision,
- 3.) I have personally observed and supervised the completion of the Drainage Facilities for the above referenced subdivision, and
- 4.) To the best of my knowledge, information and belief, the Drainage Facilities within the subdivision has been installed and completed in conformity with all plans and specifications.

Signature: Joseph A. Sharp Date: 7/14/03
Type or Printed Name: Joseph A. Sharp
Business Address: 7172 Graham Road
Indianapolis, IN 46250
Telephone: (317) 842-6777

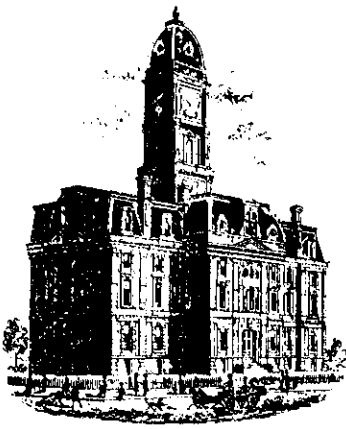
INDIANA REGISTERED NUMBER

LS80040076

FILED

JUL 21 2003

OFFICE OF HAMILTON COUNTY SURVEYOR



SURVEYOR'S OFFICE

Hamilton County

Kenton C. Ward, Surveyor
 Phone (317) 776-8495
 Fax (317) 776-9628

Suite 188
 One Hamilton County Square
 Noblesville, Indiana 46060-2230

To: Hamilton County Drainage Board

October 22, 2003

Re: Thor Run Drain: Brooks Manor Arm

Attached are as-builts, certificate of completion & compliance, and other information for Brooks Manor Sec. 1. 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 July 16, 2001. The report was approved by the Board at the hearing held August 27, 2001. (See Drainage Board Minutes Book 6, Pages 115-116)

The changes are as follows:

Structure:	T.C.:	I.E.:	Pipe:	Length:	Original Plans:	Difference:
714	842.24	837.23				
713	842.68	833.38	12	106.4	84	22.4
713	842.68	829.41				
715		821.7	12	181.4	not on original	181.4
700	840.67	835.18				
707	844.04	837.19	15	152.6	150.52	2.08
707	844.04	837.09				
708	844.13	837.53	12	28.3	not on original	28.3
709	845.42	841.77				
710	845.42	841.12	12	78.5	68.91	9.59
710	845.42	841.12				
711	846.47	840.52	12	36.7	38.86	-2.16
711	846.47	834.42				
712		829.8	12	146.4	149.41	-3.01
706	839.95	833.55				
700	840.68	835.28	24	238.04		
700	840.68	835.18				
701	843.35	836.05	24	150.4	144.56	5.84
701	843.35	836.05				
702	844.04	837.74	24	316.7	317.02	-0.32
702	844.04	837.74				
703	844.19	838.87	24	224.8	228.41	-3.61
703	844.19	838.77				

704	844.74	839.54	18	135.7	138.34	-2.64
704	844.74	839.49				
705	844.62	839.82	15	53.6	48.18	5.42
705	844.62	839.82				
706	844.52	839.97	12	45.7	37.97	7.73

6" SSD Streets:

Thor Run Dr	1563.73
Thor Run Culdesac	122.5
Christie Ann Drive	139.68
x2	

Total: 3652

RCP Pipe

Totals:

12	623.4
15	206.2
18	135.7
24	929.94
Other Drain:	
open ditch	864

The length of the drain due to the changes described above is now **6411 feet**.

Note: There was 180 feet of open drain enclosed when Structure 713 was extended to Thor Run.

The non-enforcement was approved by the Board at its meeting on August 27, 2001 and recorded under instrument #200200027368.

The bond or letter of credit from First Merchants Bank, number FMB-1342; dated May 29, 2001; in the amount of \$60,000 for storm sewers; was released August 25, 2003. The bond or letter of credit from First Merchants Bank, number FMB-1343; dated May 29, 2001; in the amount of \$2,500 for erosion control; was also released August 25, 2003.

I recommend the Board approve the drain's construction as complete and acceptable.

Sincerely,



Kenton C. Ward,
Hamilton County Surveyor

KCW/slm

Asbuilt Structures

Project: BROOKS MANOR

Engineering Project #: 960514-20600

Structure:	T.C.:	I.E.:	Pipe:	Length:	Original Plans:	Difference:
714	842.24	837.23				
713	842.68	833.38	12	106.4	84	22.4
713	842.68	829.41				
715		821.7	12	181.4	not on original	181.4
700	840.67	835.18				
707	844.04	837.19	15	152.6	150.52	2.08
707	844.04	837.09				
708	844.13	837.53	12	28.3	not on original	28.3
709	845.42	841.77				
710	845.42	841.12	12	78.5	68.91	9.59
710	845.42	841.12				
711	846.47	840.52	12	36.7	38.86	-2.16
711	846.47	834.42				
712		829.8	12	146.4	149.41	-3.01
706	839.95	839.55				
700	840.68	835.28	24	238.04		
700	840.68	835.18				
701	843.35	836.05	24	150.4	144.56	5.84
701	843.35	836.05				
702	844.04	837.74	24	316.7	317.02	-0.32
702	844.04	837.74				
703	844.19	838.87	24	224.8	228.41	-3.61
703	844.19	838.77				
704	844.74	839.54	18	138.7	138.34	-2.64
704	844.74	839.49				
705	844.62	839.82	15	53.6	48.18	5.42
705	844.62	839.82				
706	844.52	839.97	12	46.7	37.97	7.73

840.68

835.18
835.28
835.95

839.49
839.54

6" SSD Streets:

Thor Run Dr	1563.73
Thor Run Culdesac	122.5
Christie Ann Drive	139.68
x2	

Total: 3652

RCP Pipe Totals:

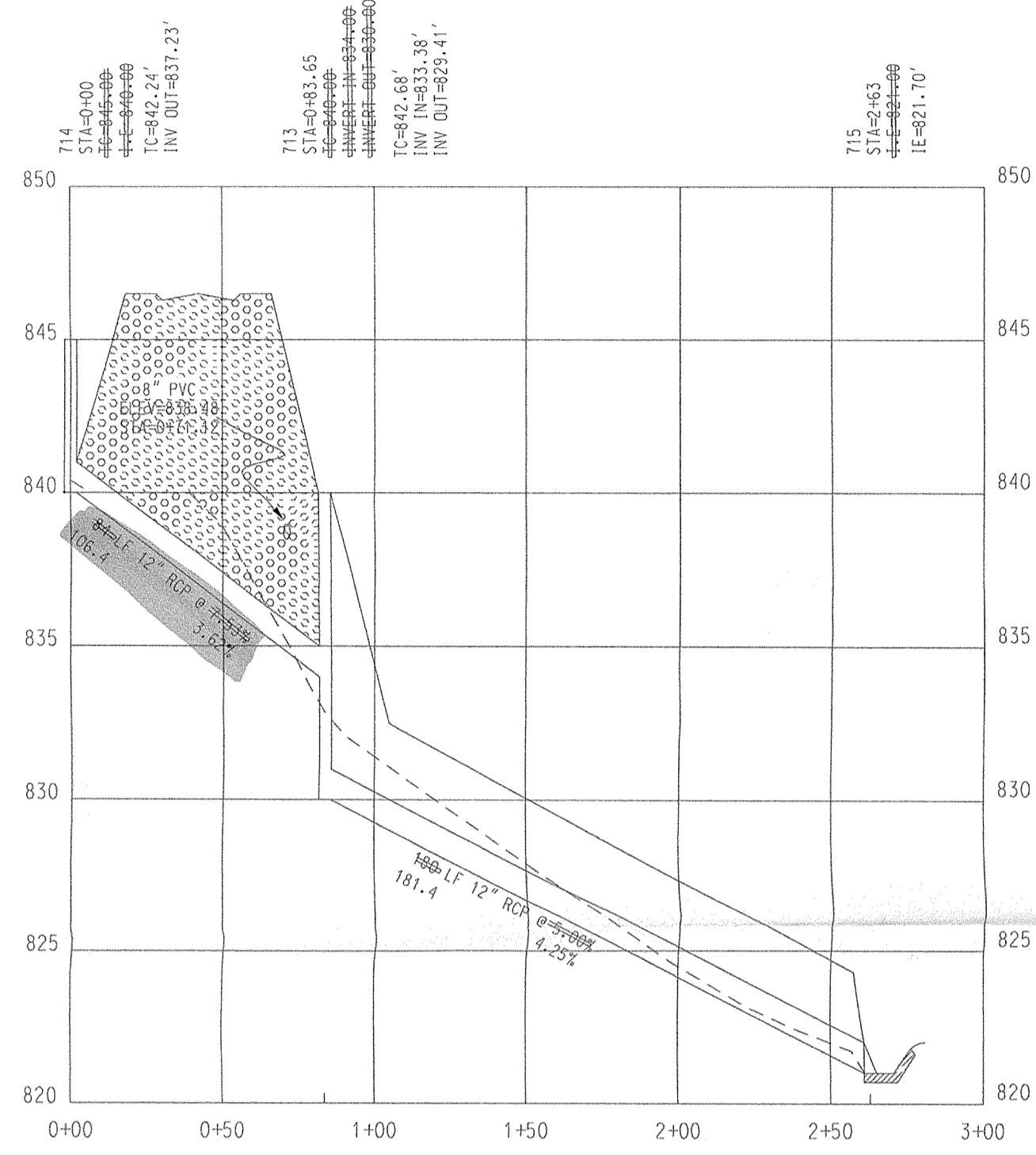
12	623.4
15	206.2
18	135.7
24	929.94

Other Drain:

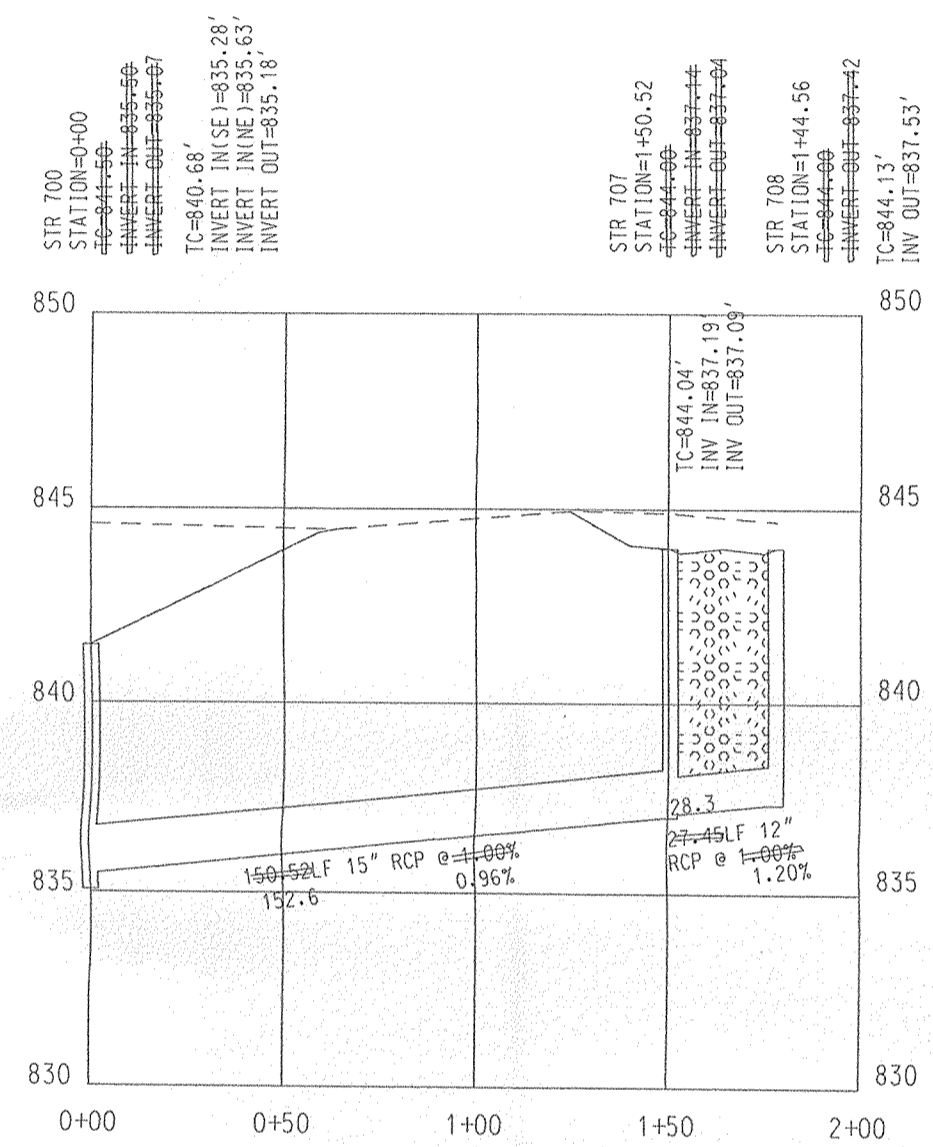
open ditch	864
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Total Length of Drain: 6411

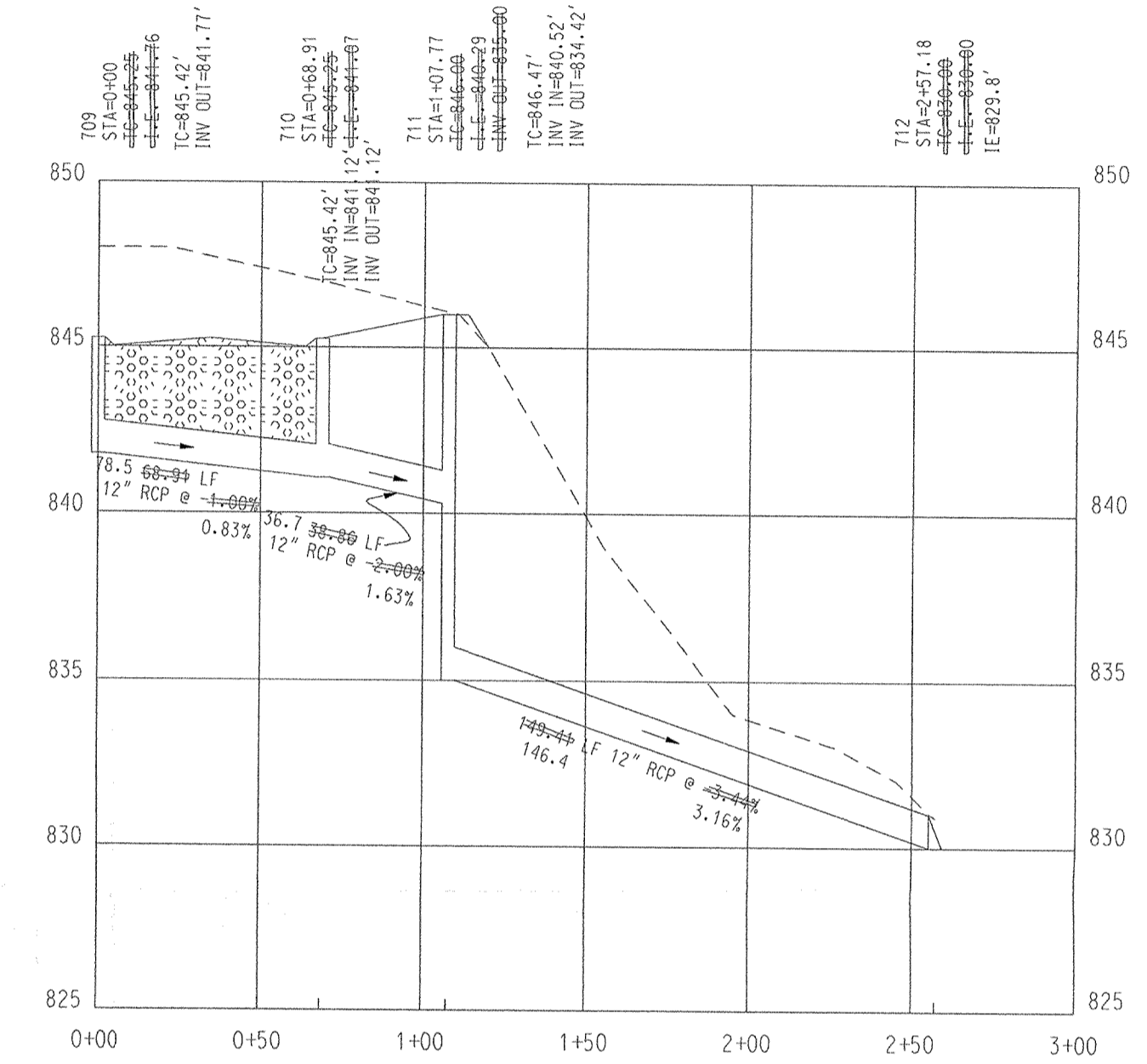
714 - 715



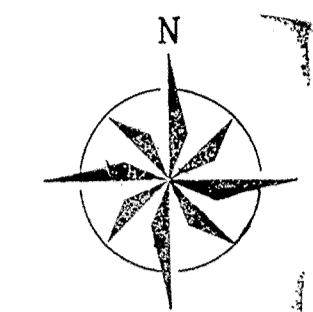
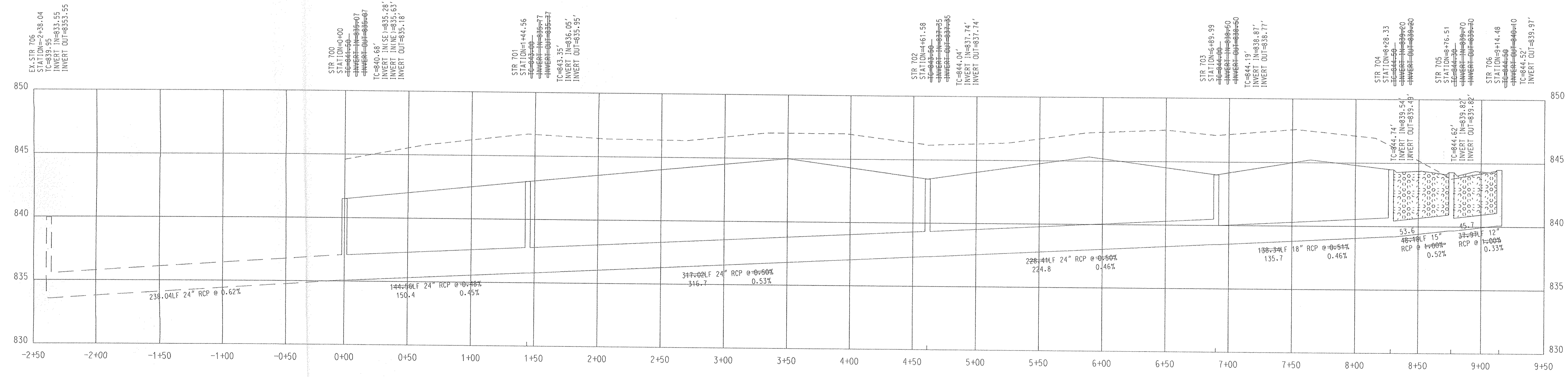
708 - 700




709 - 712



706 - 700



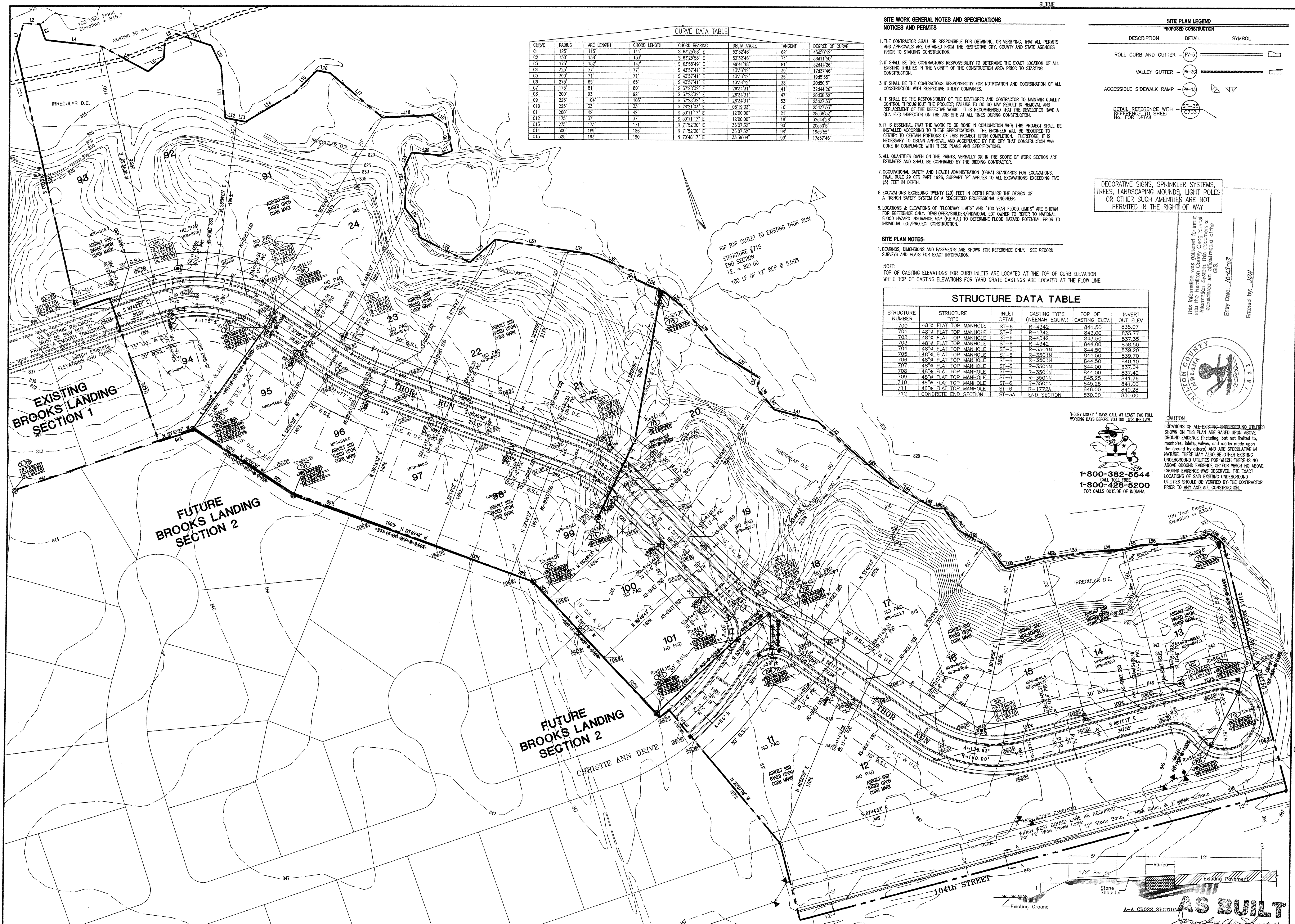
SCALE: 1" = 50'
 Printed from Cd provided
 by Paul I. Cripe.
 Profiles reflect Asbuilt
 information.
 Suzanne L. Mills 8-8-03



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: 10-23-03

Entered by: JDH



CURVE DATA TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT	DEGREE OF CURVE
C1	125	115	111	S 63°25'58\"	52°32'48\"	62	45650'12\"
C2	150	138	133	S 63°25'58\"	52°32'48\"	74	38411'50\"
C3	175	152	147	S 63°58'49\"	49°41'18\"	81	32444'26\"
C4	325	77	77	S 43°57'41\"	13°36'12\"	39	17437'46\"
C5	300	71	71	S 43°57'41\"	13°36'12\"	36	19465'55\"
C6	275	65	65	S 43°57'41\"	13°36'12\"	33	20520'53\"
C7	175	81	80	S 37°28'32\"	26°34'31\"	41	32444'26\"
C8	200	93	92	S 37°28'32\"	26°34'31\"	47	28433'52\"
C9	225	104	103	S 37°28'32\"	26°34'31\"	53	25427'53\"
C10	225	33	33	S 29°21'03\"	09°19'33\"	16	25427'53\"
C11	200	42	42	S 37°11'17\"	12°00'00\"	21	28536'52\"
C12	175	37	37	S 30°11'17\"	12°00'00\"	18	32444'26\"
C13	275	173	171	N 71°52'30\"	36°07'32\"	90	20450'5\"
C14	300	189	186	N 71°52'30\"	36°07'32\"	98	19465'55\"
C15	325	193	190	N 71°52'30\"	36°07'32\"	99	17437'46\"

SITE WORK GENERAL NOTES AND SPECIFICATIONS
NOTICES AND PERMITS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING, THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY FOR NOTIFICATION AND COORDINATION OF ALL CONSTRUCTION WITH RESPECTIVE UTILITY COMPANIES.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THE PROJECT. FAILURE TO DO SO MAY RESULT IN REMOVAL AND REPLACEMENT OF THE DEFECTIVE WORK. IT IS RECOMMENDED THAT THE DEVELOPER HAVE A QUALIFIED INSPECTOR ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
- IT IS ESSENTIAL THAT THE WORK TO BE DONE IN CONJUNCTION WITH THIS PROJECT SHALL BE INSTALLED ACCORDING TO THESE SPECIFICATIONS. THE ENGINEER WILL BE REQUIRED TO CERTIFY TO CERTAIN PORTIONS OF THIS PROJECT UPON COMPLETION. THEREFORE, IT IS NECESSARY TO OBTAIN APPROVAL AND ACCEPTANCE BY THE CITY THAT CONSTRUCTION WAS DONE IN COMPLIANCE WITH THESE PLANS AND SPECIFICATIONS.
- ALL QUANTITIES GIVEN ON THE PRINTS, VERBALLY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTOR.
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS, FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
- LOCATIONS & ELEVATIONS OF "FLOODWAY LIMITS" AND "100 YEAR FLOOD LIMITS" ARE SHOWN FOR REFERENCE ONLY. DEVELOPER/BUILDER/INDIVIDUAL LOT OWNER TO REFER TO NATIONAL FLOOD HAZARD INSURANCE MAP (FEMA) AND/OR TO DETERMINE FLOOD HAZARD POTENTIAL PRIOR TO INDIVIDUAL LOT/PROJECT CONSTRUCTION.

SITE PLAN NOTES

- BEARINGS, DIMENSIONS AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS AND PLATS FOR EXACT INFORMATION.
- NOTE:
TOP OF CASTING ELEVATIONS FOR CURB INLETS ARE LOCATED AT THE TOP OF CURB ELEVATION WHILE TOP OF CASTING ELEVATIONS FOR YARD GRATE CASTINGS ARE LOCATED AT THE FLOW LINE.

STRUCTURE DATA TABLE

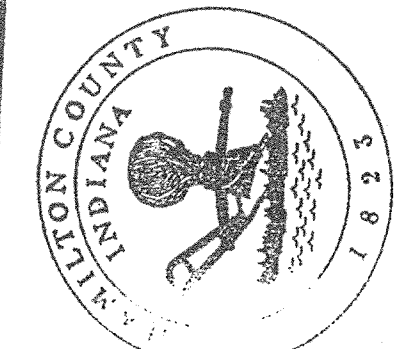
STRUCTURE NUMBER	STRUCTURE TYPE	INLET DETAIL	CASTING TYPE (NEENAH EQUIV.)	TOP OF CASTING ELEV.	INVERT OUT ELEV.
700	48" FLAT TOP MANHOLE	ST-6	R-4342	841.50	835.07
701	48" FLAT TOP MANHOLE	ST-6	R-4342	843.00	836.77
702	48" FLAT TOP MANHOLE	ST-6	R-4342	843.50	837.55
703	48" FLAT TOP MANHOLE	ST-6	R-4342	844.00	838.50
704	48" FLAT TOP MANHOLE	ST-6	R-3501N	844.50	839.20
705	48" FLAT TOP MANHOLE	ST-6	R-3501N	844.50	839.70
706	48" FLAT TOP MANHOLE	ST-6	R-3501N	844.50	840.10
707	48" FLAT TOP MANHOLE	ST-6	R-3501N	844.00	837.04
708	48" FLAT TOP MANHOLE	ST-6	R-3501N	844.00	837.42
709	48" FLAT TOP MANHOLE	ST-6	R-3501N	845.25	841.76
710	48" FLAT TOP MANHOLE	ST-6	R-3501N	845.25	841.00
711	48" FLAT TOP MANHOLE	ST-6	R-1772A	846.00	840.28
712	CONCRETE END SECTION	ST-3A	END SECTION	830.00	830.00

SITE PLAN LEGEND
PROPOSED CONSTRUCTION

DESCRIPTION	DETAIL	SYMBOL
ROLL CURB AND GUTTER	PV-5	
VALLEY GUTTER	PV-30	
ACCESSIBLE SIDEWALK RAMP	PA-13	
DETAIL REFERENCE WITH NO. FOR DETAIL	ST-35	
	C703	

DECORATIVE SIGNS, SPRINKLER SYSTEMS, TREES, LANDSCAPING MOUNDS, LIGHT Poles OR OTHER SUCH AMENITIES ARE NOT PERMITTED IN THE RIGHT OF WAY

This information was gathered for input into the GIS system. This information is considered an official record of the GIS.
Entry Date: 10-22-03
Entered by: JUD



"HOLEY MOLEY" SAYS CALL AT LEAST TWO FULL WORKING DAYS BEFORE YOU DIG. IT'S THE LAW.

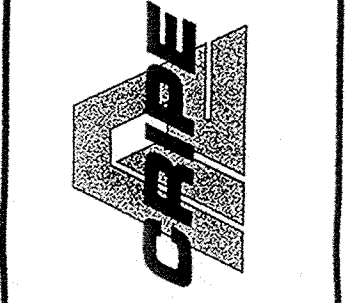
1-800-382-6544
CALL TOLL FREE
1-800-428-5200
FOR CALLS OUTSIDE OF INDIANA.

CAUTION
LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

Revision	Date	Description
1	10-08-02	EXTEND 12\"/>

CONSULTANTS:
• LANDSCAPE ARCHITECTURE
• LAND PLANNING
• ENVIRONMENTAL CONSULTANTS
• TRANSPORTATION ENGINEERS
• GIS

7172 GRAHAM ROAD
INDIANAPOLIS, INDIANA 46250
(317) 842-6777 FAX (317) 841-4798
E-Mail: pierce@pcipe.com



SITE DEVELOPMENT PLAN
BROOKS MANOR
MAC'S LANDING, LLC
9551 DELEGATES ROW
INDIANAPOLIS, INDIANA 46250
PHONE: (317) 814-4174

CERTIFIED BY:

JOSEPH A. SHARP
REGISTERED PROFESSIONAL ENGINEER
No. 15179
STATE OF INDIANA

Drawn By:
Checked By:
Quality Assurance:
Scale: 0 12' = 1\"/>

C201
Date: 01/29/02
Project Number: 960514-2000