Drain: CRUOKED CREAK DROW	Drain #: 2 <i>5</i> 0
Improvement/Arm: ENGLISH OAKS	
Operator: JOH	Date: /z-4-03
Drain Classification: Urban/Rural	Year Installed: Zooo

#### **GIS Drain Input Checklist**

•	Pull Source Documents for Scanning	GFD, 1859
•	Digitize & Attribute Tile Drains	N/A
•	Digitize & Attribute Storm Drains	97412-4
•	Digitize & Attribute SSD	92012-4
•	Digitize & Attribute Open Ditch	gn412-4
•	Stamp Plans	977-12-4
•	Sum drain lengths & Validate	974 12-4
•	Enter Improvements into Posse	<del>370</del> 12-4
•	Enter Drain Age into Posse	of Done
•	Sum drain length for Watershed in Posse	* Done - Sphit Between two drains
•	Check Database entries for errors	C77-12-4

# Gasb 34 Footages for Historical Cost Drain Length Log

Drain-Improvement: CROOKED CREEK ORAW - ENGLISH OAKS

		Lanath		<u> </u>		
Orain Type:	Size:	Length (SURVEYES (REPORT )	Length (DB Query)	Length Reconcile	Price:	Cost:
550	6"	Z,823'	2823'	Ø		
RLP	/Z <sup>M</sup>	281	281	Ø		
	154	1062,991	<u> 1062.99'</u>	0		
	18"	/32.62'	132.62'	8		
OPEN DITCH		65'	65'	Ø		
						<del>-</del>
			***			· · · · · · · · · · · · · · · · · · ·
					,, <del>,,,,,</del> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Sum:	4/1161'	4//1.61	<u> </u>		
		·				
Final Report:						
Comments:						
<u> </u>						
·						



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 18, 2000

Re: Crooked Creek Drain, English Oaks Arm

Attached is a petition, non-enforcement request, plans, calculations, quantity summary and assessment roll for the English Oaks Arm, Crooked Creek Drain. 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:

6"	SSD	2,717	ft	18" RCP	133	ft
12"	RCP	28	ft	Open Ditch	65	ft
15"	RCP	1.063	f۲			

The total length of the drain will be 4,006 feet.

The retention pond (pond #1) located at the rear of Lots 2-5 and 7-8 is not to be considered part of the regulated drain. Only the inlet and outlet will be maintained as part of the regulated drain. The maintenance of the pond (lake) will be the responsibility of the Homeowners Association. The Board will however, retain jurisdiction for ensuring the storage volume for which the lake was designed will be retained. Thereby, allowing no fill or easement encroachments.

The offsite drainage facilities are regulated to the eastside of the existing 15" RCP culvert under Shelbourne Road. The pipe under Shelbourne Road will not become part of the regulated drain. The portion of open drain is from structure 725 to the eastside of the pipe under Shelbourne.

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 portion of the SSD which will be regulated other than those under curbs are as follows: Rear of Lots 4-6 and the underdrain crossing the open space from Callowell Court to Pond #1.

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 \$30.00 per lot, \$5.00 per acre for roadways, with a \$30.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$480.00.

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 widths as shown on the secondary plat for English Oaks as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for November 27, 2000.

Kentøh C. Ward

Hamilton County Surveyor

KCW/kkw

STATE OF INDIANA COUNTY OF HAMILTON )

TO: HAMILTON COUNTY DRAINAGE BOARD % Hamilton County Surveyor, Courthouse, Noblesville, IN 46060

In	the	matter	of	English Oaks		Subdivision,
Section_				Drain	Patition.	

Petitioner is the owner of all lots in the land affected by the proposed new regulated drain. The drainage will affect various lots in English Oaks , a subdivision in Hamilton County, Indiana. The general route of such drainage shall be in existing easements and along public roads as shown in the plans on file in the Surveyor's Office.

Petitioner believes that the cost, damages and expenses of the proposed improvement will be less than the benefits which will result to the owners of the land likely to be benefited thereby. Petetioner believes the proposed improvements will:

- (a) improve public health
- (b) benefit a public street
- (c) be of public utility

Petitioner agrees to pay the cost of construction of the drainage system and requests periodic maintenance assessments by the Board thereafter.

The Petitioner also agrees to the following:

- To provide the Drainage Board a Performance Bond for the portion of the drainage system which will be made a regulated drain. The bond will be in the amount of 100% of the Engineers estimate. The bond will be in effect until construction of 100% of the system is completed and so certified by the Engineer.
- The Petitioner shall retain an Engineer throughout the construction phase. At completion of the project the Petitioner's Engineer shall certify that the drainage system which is to be maintained as a regulated drain has been constructed as per construction plans.

Petitioner agrees to request in writing to the County Surveyor any changes from the approved plan and must receive written authorization from the County Surveyor prior to implementation of the change. All changes shall be documented and given to the Surveyor to be placed in the Drain File.

- 4. The Petitioner shall instruct his Engineer to provide a reproducable print on a 24" x 36" mylar of the final design of the Drainage System. This shall be submitted to the County Surveyor prior to the release of the Performance Bond.
- 5. The Petitioner shall comply with the Erosion Control Plan as as specified on the construction plans. Failure to comply with the Erosion Control Plan shall be determined by the Board as being an obstruction to the drainage system. The County Surveyor shall immediately install or repair the needed measures at Petitioners cost as per IC 36-9-27-46.

The Petitioner further requests that the Drain be classified as an Urban Drain.

Siffer	
Signed neurze.	
Craig von Deylen	
Printed Name	
Signed	
Printed Name	- 74
RECORDED OWNER(S) OF LAND INVOLVED	
DATE 12/14/00	
:	
The first of the second of the second	

#### FINDINGS AND ORDER

#### CONCERNING THE MAINTENANCE OF THE

#### Crooked Creek Drain, English Oaks Arm

On this 27th day of November 2000, the Hamilton County Drainage Board has held a hearing on the Maintenance Report and Schedule of Assessments of the Crooked Creek Drain, English Oaks Arm.

Evidence has been heard. Objections were presented and considered. The Board then adopted the original/amended Schedule of Assessments. The Board now finds that the annual maintenance assessment will be less than the benefits to the landowners and issues this order declaring that this Maintenance Fund be established.

HAMILTON COUNTY DRAINAGE BOARD

President

Member

Member

Attest: Sepethe Markanal

#### OFFICE OF

#### HAMILTON COUNTY DRAINAGE BOARD



Notice of Hearing to Establish Annual Assessments For The Periodic

Maintenance of The \_\_\_Crooked Creek \_\_\_\_\_\_ Drain.

English Oaks Arm

Deylen Development
9595 Valparaiso Ct.
Indianapolis, IN 46268

You are hereby notified that the maintenance report of the County Surveyor and the schedule of assessments made by the Drainage Board have been filed and are available for public inspection in the office of the County Surveyor.

The Surveyor has estimated that the annual cost of periodically maintaining the drain is  $$\frac{480.00}{100}$  and that the schedule shows you are the owner of the following lands:

Description of Land	Acres	Acres	Maint.	% of
Sec. $_{-5}^{5}$ , Twp. $_{-17}^{17}$ , Range $_{-3}^{3}$	in Tract	Benefit'd	Assmt.	Total
English Oaks Ct, Corsham Cir,				
Stratton Cir, Callowwell Ct.	4.40 Ac	4.40 Ac	\$30.00	6.25%
Lots 1 thru 8 & 27 @ \$30/each	9 Parcels	9 Parcels	\$270.00	56.25%
Blks B thru F	5 Parcels	5 Parcels	\$150.00	31.25%
Blk A	3.23 Ac	2.23 Ac.	\$ 30.00	6.25%

A hearing will be held by the Drainage Board in Commissioner's Court at 9:05 A.M. on November 27, 2000, on the Surveyor's maintenance report and the schedule of assessments. The law requires that objections must be written and filed not less than five (5) days before the above hearing on the ground that benefits assessed are excessive. Written evidence in support of objections may also be filed. The failure of any owner to file an objection constitutes a waiver of his right to thereafter object on such ground to any final action of the Board. On or before the hearing date the Surveyor or any owner of lands named in the schedule of assessments may cause written evidence to be filed in support of or in rebuttal to any objection filed.

HAMILTON COUNTY DRAINAGE BOARD

THIS IS NOT A BILL. If approved by the Board, you will receive a Drainage Assessment Statement after costs have been certified to the County Auditor.

# BEFORE THE HAMILTON COUNTY DRAINAGE BOARD IN THE MATTER OF Crooked Creek Drain, English Oaks Arm

#### NOTICE

ro W	hom	Ιt	May	Concern	and:	

Notice is hereby given of the hearing of the Hamilton County Drainage Board on the Crooked Creek Drain, English Oaks Arm on November 27, at 9:05 A.M. in Commissioners Court, Hamilton County Judicial Center, One Hamilton County Square, Noblesville, Indiana, and which construction and maintenance reports of the Surveyor and the Schedule of Assessments made by the Drainage Board have been filed and are available for public inspection in the office of the Hamilton County Surveyor.

Hamilton County Drainage Board

Attest: Kimbal Wallack

ONE TIME ONLY

# BEFORE THE HAMILTON COUNTY DRAINAGE BOARD IN THE MATTER OF THE Crooked Creek Drain, English Oaks Arm

#### NOTICE

Notice is hereby given pursuant to Section 405 of the 1965 Indiana Drainage Code that this Board, prior to final adjournment has issued an order adopting the Schedule of Assessments, filed the same and made public announcement thereof at the hearing and ordered publication. If judicial review of the findings and order of the Board is not requested pursuant to Article Eight of this code within twenty (20) days from the date of this publication, the order shall be conclusive.

Hamilton County Drainage Board

Attest: Juste Maskrees

ONE TIME ONLY

#### CERTIFICATE OF COMPLETION AND COMPLIANCE

TO: HAMILTON COUNTY SURVEYOR RE: English Oaks Subdivision I hereby certify that: I am a Registered Land Surveyor in the State of Indiana, 1.) 2.) I am familiar with the plans and specifications for the above referenced subdivision. I have personally observed and supervised the completion of the Drainage 3.) Facilities for the above referenced subdivision, and To the best of my knowledge, information and belief, the Drainage 4.) Facilities within the subdivision has been installed and completed in conformity with all plans and specifications. \_\_\_\_ Date: <u>8-/2-03</u> Type or Printed Name:\_ Joseph A. Sharp Business Address:\_\_\_ 7172 Graham Road Indianapolis, IN 46250 (317) 842–6777

Telephone:





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

Fax (317) 776=9628

To: Hamilton County Drainage Board

Suite 146 One Hamilton County Square Noblesville, Indiana 46060-2230

December 3, 2003

Re: Crooked Creek Drain: English Oaks Arm

Attached are as-builts, certificate of completion & compliance, and other information for English Oaks. 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 October 18, 2000. The report was approved by the Board at the hearing held November 27, 2000. (See Drainage Board Minutes Book 5, Pages 507-508) The changes are as follows:

Structure:		T.C.:	I.E.:	Pipe:	Length:	Grade:	Original:	Difference:
7.	14	900.93	897.6					
7.	15	901.14	897.4	15	69.65	-0.2		
7.	15	901.14	897.4					
7	16	893.9	893.9	15	192.26	-0.2		
7	17	901.08	897.8					
7	18	900.94	897.7	12	28	-0.21		
7	18	900.94	897.6					
7	19	900.57	897.2	15	199.08	-0.2		
7	19	900.57	897.2					
7:	20		896.9	18	132.62	-0.2		
7:	23		896.9					
7:	24	898.97	896.9	15	22	-0.2		
7:	24	898.97	896.8					
7:	25		895	15	580	-0.33	1	

6" SSD Streets:

o cop chosts.						
Callowell Ct	531					
English Oaks Ct	65					
Corsham Cir	355					
Stratton Cir	279					
v2	1230					

Total:

2460

**RCP Pipe Totals:** 

12	28
15	1062.99
18	132.62

**Total:** 1223.61

Other	
Drain:	
Open Ditch	65

6" SSD Lots:		Total:	65
Lots 4-6 & CA	363		•

Lots 4-6 & CA 363

Total: 363

The length of the drain due to the changes described above is now 4111.61 feet.

The non-enforcement was approved by the Board at its meeting on November 27, 2000 and recorded under instrument #2001-00002890.

The following sureties were guaranteed by Developers Surety and Indemnity Company and released by the Board on its August 25, 2003 meeting.

Bond-LC No: 266 Bond-LC No: 265

Insured For: Storm Sewers Insured For: Erosion Control

**Amount:** \$52,300 **Amount:** \$8,740

Issue Date: June 23, 2000 Issue Date: June 22, 2000

Bond-LC No: 267

Insured For: Sub Surface Drains

**Amount: \$42,685** 

Issue Date: June 23, 2000

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

Sincerely,

Kenton C. Ward,

Hamilton County Surveyor

KCW/slm

#### **Asbuilt Structures**

Drain:

Crooked Creek #250

Improvement-Arm: English Oaks

Engineer:

Paul I Cripe

Asbuilt Project #:

0990478-20000

Structure:		T.C.:	I.E.:	Pipe:	Length:	Grade:	Original:	Difference:
	714	900.93	897.6	T				
	715	901.14	897.4	15	69.65	-0.2		
	715	901.14	897.4					
	716	893.9	893.9	15	192.26	-0.2		
	717	901.08	897.8					
	718	900.94	897.7	12	28	-0.21		
	718	900.94	897.6					
	719	900.57	897.2	15	199.08	-0.2		
	719	900.57	897.2					
	720		896.9	18	132.62	-0.2		
	723		896.9					
	724	898.97	896.9	15	22	-0.2		
	724	898.97	896.8					
	725		895	15	580	-0.33		

6" SSD Streets:

Callowell Ct	531
English Oaks Ct	65
Corsham Cir	355
Stratton Cir	279
x2	1230
	27.7.2.2

Total: 2460

6" SSD Lots:

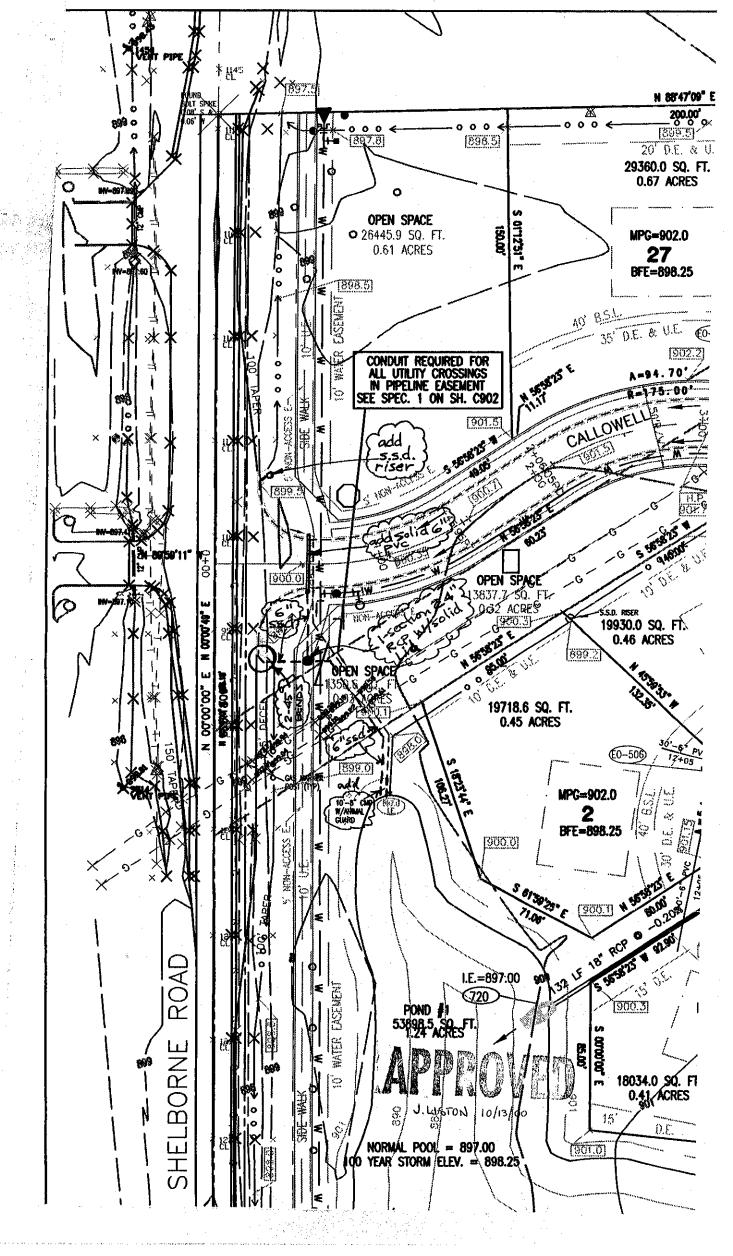
Lots 4-6 & CA 363 Total: 363

RCP Pipe Totals:

		-
	12	28
	15	1062.99
	18	132.62
Total:		1223.61

Other Drain:	
Open Ditch	65
Total:	65

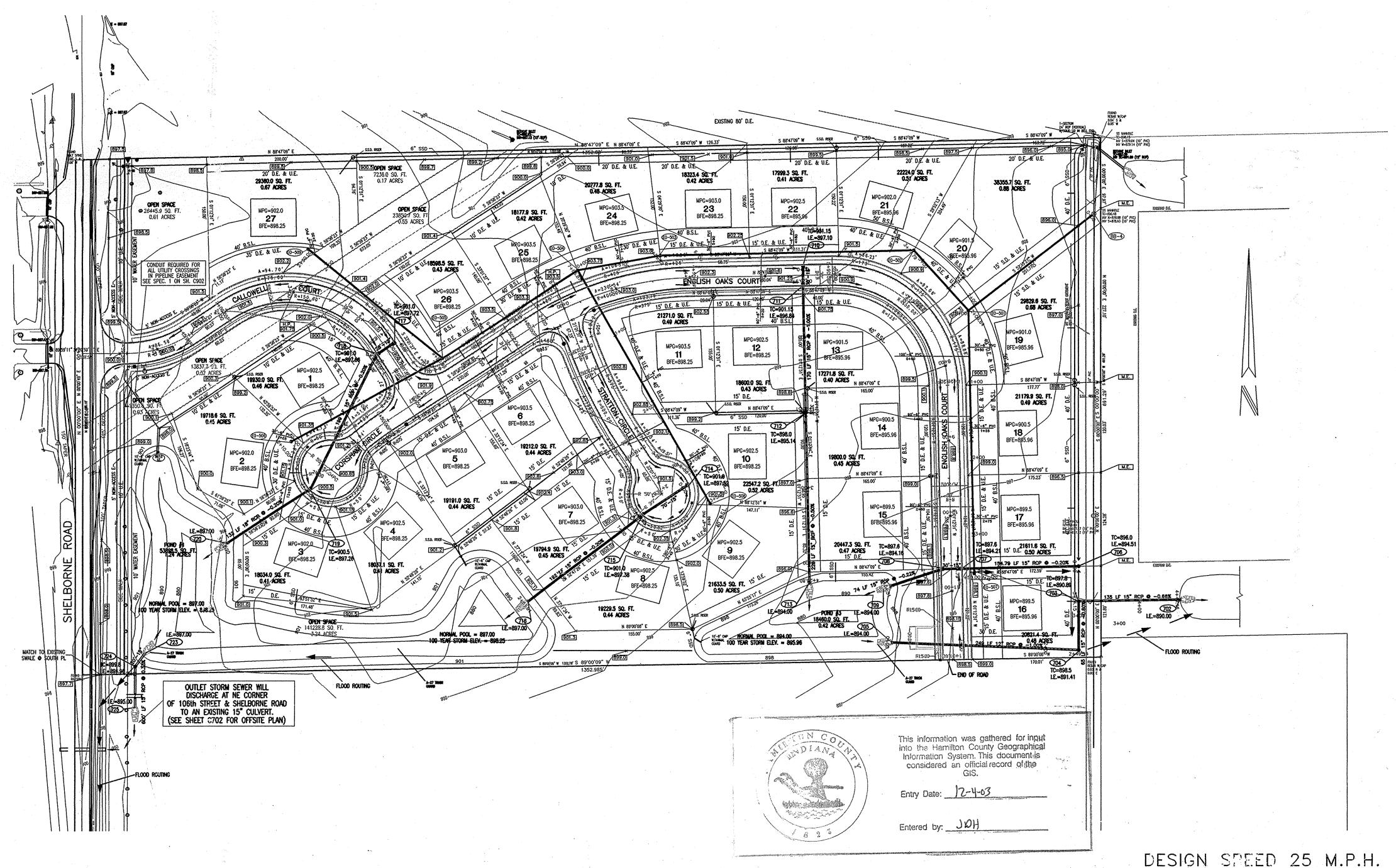
Drain Total: 4111.61



# CONSTRUCTION PLANS ENGLISH OAKS

Developer: Deylen Development

Site Engineers / Surveyors Paul I. Cripe Inc.



# **INDEX** DESCRIPTION C302 | STREET PLAN & PROFILE SANITARY PLAN & PROFILE SANITARY PLAN & PROFILE SANITARY DETAILS STORM PLAN & PROFILE STORM PLAN & PROFILE STORM DETAILS WATERMAIN PLAN C901 | STANDARD DETAILS C902 | STANDARD SPECIFICATIONS

## **BENCHMARKS**

B.M.- RIM OF SANITARY M.H. LOCATED 6' NORTH AND 9' WEST OF THE NORTHEAST CORNER OF SUBJECT TRACT.

B.M.- TOP OF RAILROAD SPIKE IN CENTER OF SHELBORNE RD. (NORTH WEST CORNER, S.W. 1/4, SEC. 5-17-3) 1331.8' NORTH OF THE NORTHWEST CORNER OF SUBJECT TRACT.

### CONTACT CO. / PERSON FOR

	NAME	PHONE NO.	FAX NO.
OWNER	DEYLEN DEVELOPMENT	823-2411	879-938
DEVELOPER	DEYLEN DEVELOPMENT	823-2411	879-938
POWER	CINERGY/PSI	800-521-2232	
GAS	INDIANA GAS CO.	800-666-3096	776-533
TELEPHONE	AMERITECH	352-4258	252-500
CABLE	TIME WARNER CABLE	972-9700	
WATER	INDPLS. WATER CO.	327-5772	263-640
CO.SURVEYOR	KENT WARD	776-8495	776-962
PLANNING	TERRY JONES	571-2426	
TRAFFIC	HAM CTY HWY	773-7770	776-961
SANITARY	CLAY TWP. RWD	844-9200	
DRAINAGE	HAM CO SURV	776-8495	776-962
EROSION	HAM CO SWCD	773–1406	776-1101
•			



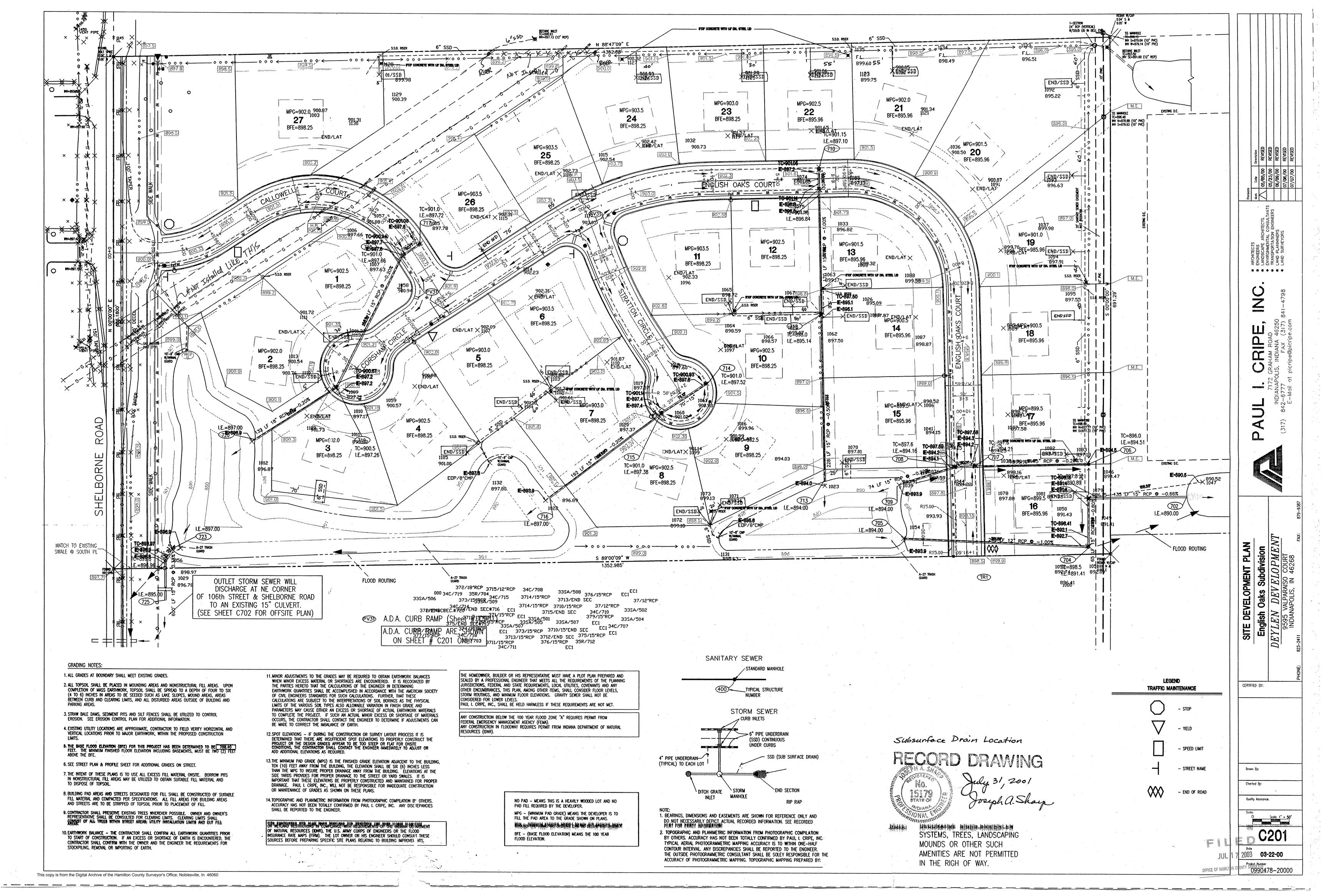
1-800-382-5544 1-800-428-5200

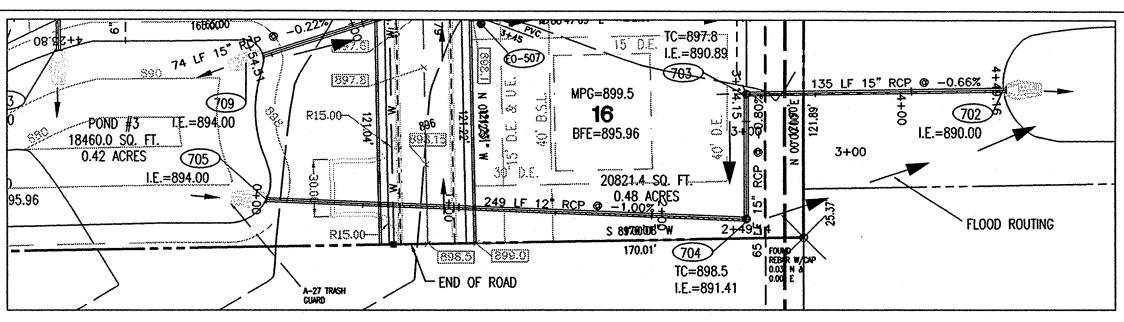
FAX-841-4798 PROJECT MANAGER BRIAN NEWMAN PROJECT ENGINEER PROJECT SURVEYOR DENNIS SINGER

PROJECT LAND PLANNER JOE SHARP ENGINEERING ASSOCIATE RUDY TAVAREZ TOM SCHELLENBERGER QUALITY ASSURANCE

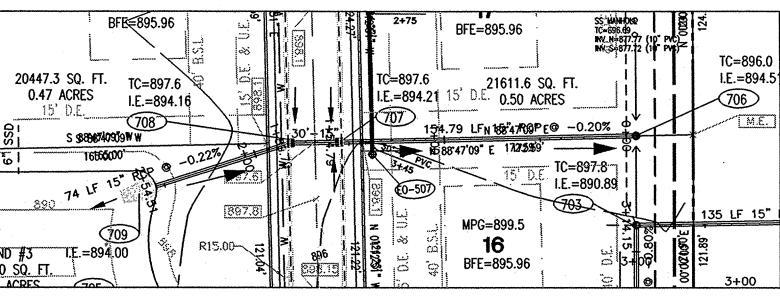
Quality Assurance:

EXT. NO.

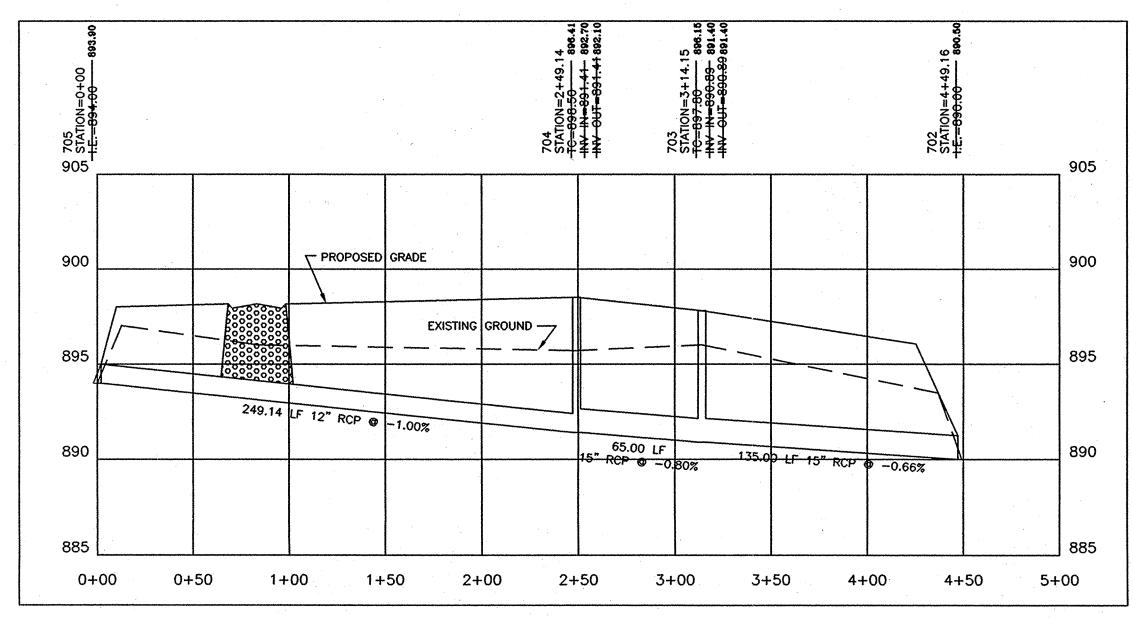




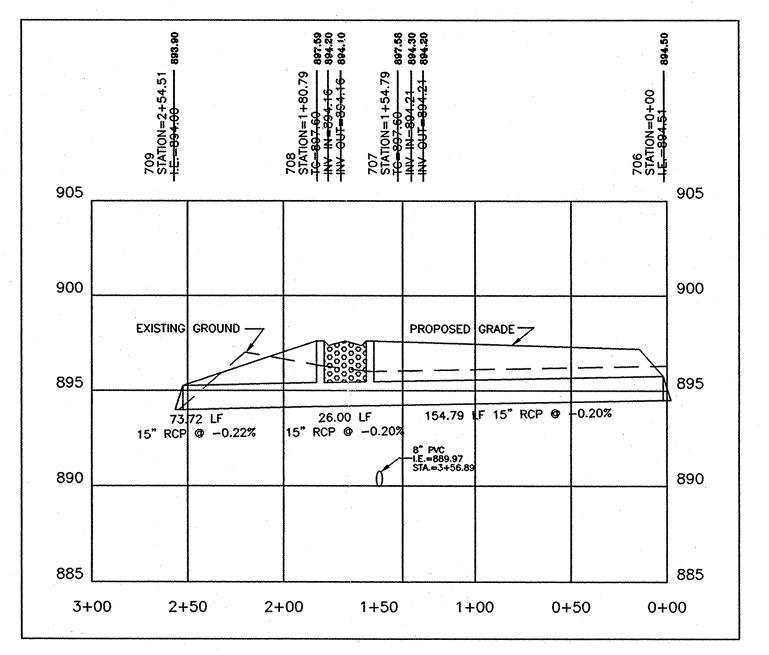
PLAN ONE



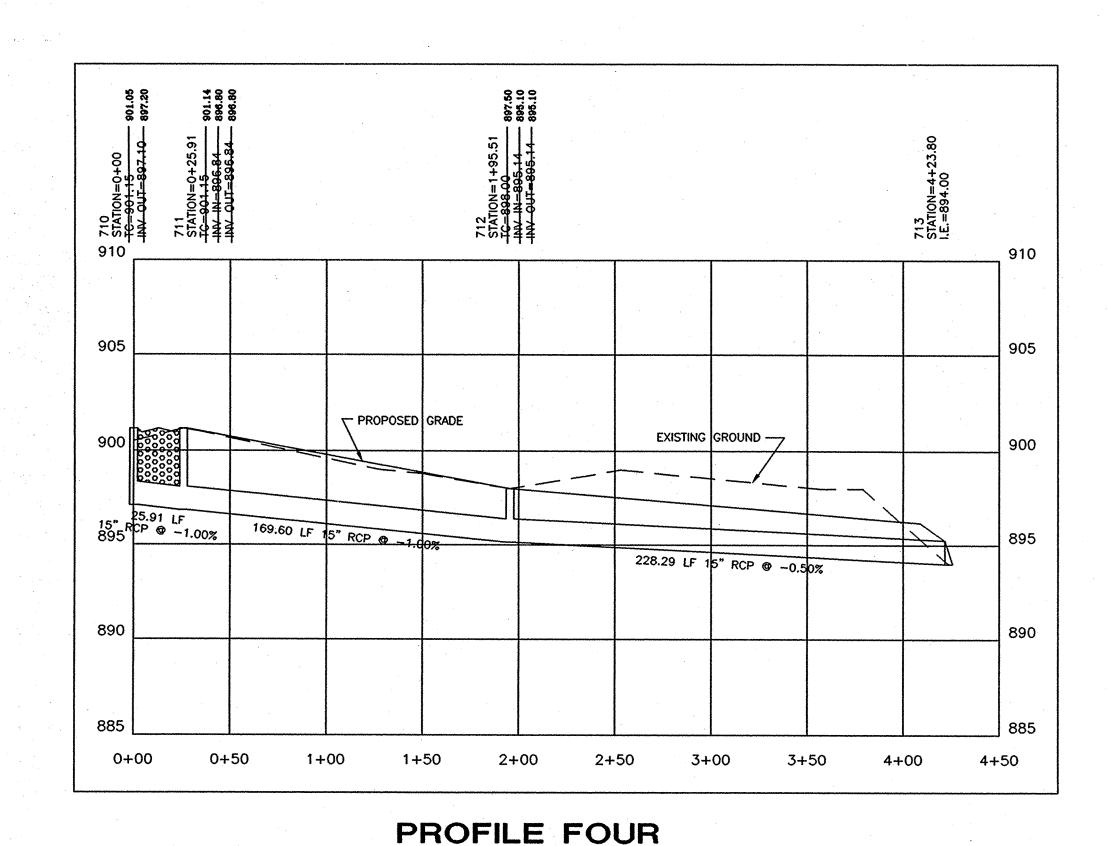
PLAN TWO



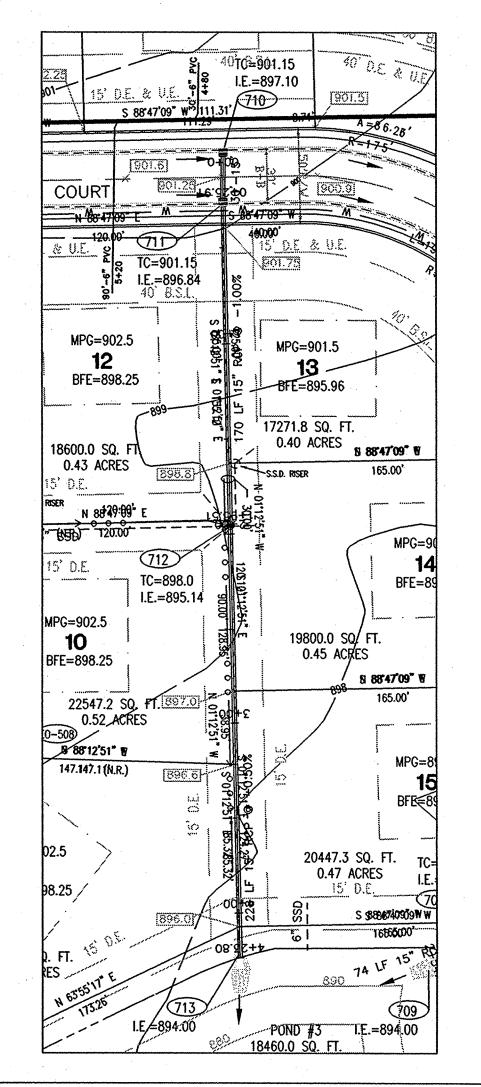
PROFILE ONE

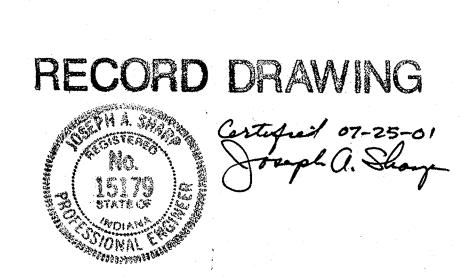


PROFILE TWO



PLAN FOUR





STORM SEWER PLAN AND PROFILE NOTES-

FLOW INTO THE STRUCTURE.

1. 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.

2. IN ADDITION, EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.

3. ALL STRUCTURES SHALL HAVE CASTINGS, JOINTS, LIFT RINGS, STEPS AND PIPE CONNECTIONS WELL GROUTED, TROWELED SMOOTH AND BRUSH FINISHED.

4. ALL STRUCTURES (IE: MANHOLES, INLETS) SHALL HAVE POURED FLOW LINES AND BENCH WALLS. THE FLOW LINES AND BENCHWALLS SHALL BE TROWELED SMOOTH AND BRUSH FINISHED. 5. FIELD ADJUSTMENTS OF TOP OF CASTING (T.C.) OF STRUCTURES MAY BE REQUIRED TO MEET FIELD CONDITIONS. ADJUSTMENTS EXCEEDING FIVE TENTHS (0.5) OF A FOOT MUST BE

AT NO COST TO THE OWNER. 6. STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE

APPROVED BY THE ENGINEER TO DETERMINE THE INTEGRITY OF THE STRUCTURE.

7. STORM PIPE INVERTS AT OUTLET STRUCTURES (IE: END SECTIONS), AND PIPE LENGTHS MAY REQUIRE FIELD ADJUSTMENTS TO MEET ACTUAL FIELD CONDITIONS.

8. FULL DEPTH GRANULAR BACKFILL SHALL BE REQUIRED UNDER AND WITHIN (5) FEET OF ALL PAVED AREAS, INCLUDING CURBS, EDGE OF PAVEMENT, AND SIDEWALKS.

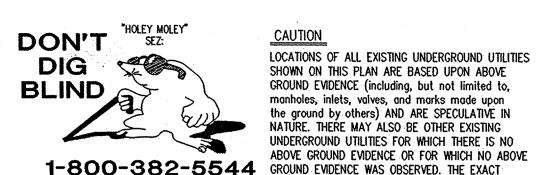
9. SEE SECTION 02720 FOR STORM SEWERAGE SPECIFICATIONS A) IN THE PROJECT MANUAL OR B) ON SHEET C90?

10. PIPES LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND INCLUDE END SECTIONS.

11. THE CONNECTION OF THE PROPOSED STORM SEWER TO AN EXISTING BRICK STRUCTURE MUST

BE DONE ACCORDING TO THE FOLLOWING CONDITIONS: A.) REHABILITATE AND COAT THE ENTIRE INTERIOR OF THE MANHOLE WITH NON-SHRINK GROUT.

B.) AT THE POINT OF CONNECTION OF THE PROPOSED PIPE, PLACE A THREE FOOT (3') DIAMETER BY A MINIMUM SIX INCH (6") THICK, 4,000 PSI CONCRETE COLLAR WITH 4x4x10 GUAGE WIRE MESH OVER THE EXTERIIOR OF THE MANHOLE. C.) ONCE THE CORE HAS BEEN MADE, INSTALL A RUBBER BOOT.



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 1-800-382-5544

CALL TOLL FREE

ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND 1-800-428-5200 UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION. FOR CALLS OUTSIDE OF INDIANA

. . . . . . . .

N N



AND PROFILE
Subdivision
/ELOPMENT
AISO COURT
IN 46268 PLAN AI n Oaks S V DEVI DEY

CERTIFIED BY: REGISTERES No. 15179 STATE OF

Checked By: Quality Assurance:

C701

03-22-00 7 0990478-20000

PROFILE LEGEND

GROUND

GROUND CONTRACTOR GRADE

EXISTING

DATUM

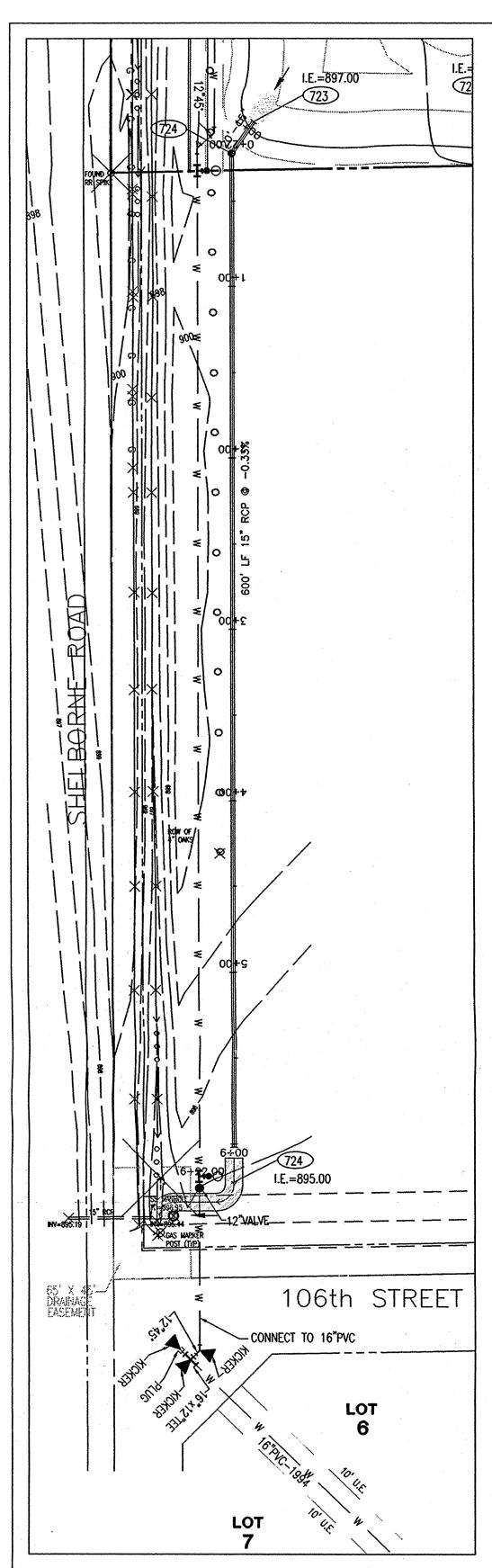
PROPOSED

GRADE

PROPOSED

2+00 ← STATIONING

GRANULAR BACKFILL



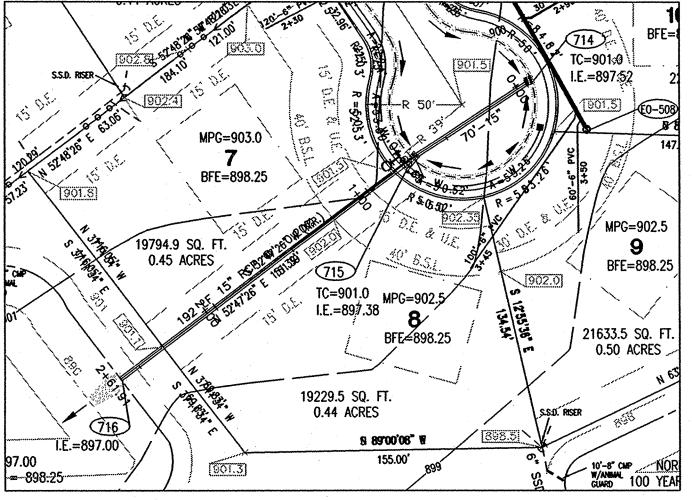
OFFSITE PLAN

900

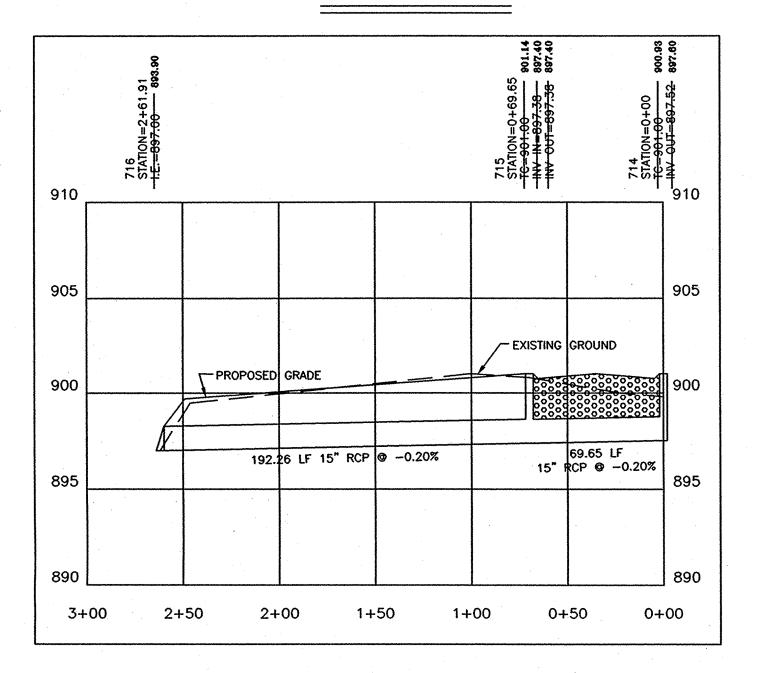
22.00 LF 15" RCP @ -0.20%

1+00

1+50



PLAN ONE



PROFILE ONE

580.00 UF 15" RCP @ +0.33%

3+50

4+00

3+00

OFFSITE PROFILE

\_\_\_\_\_\_\_

2+00

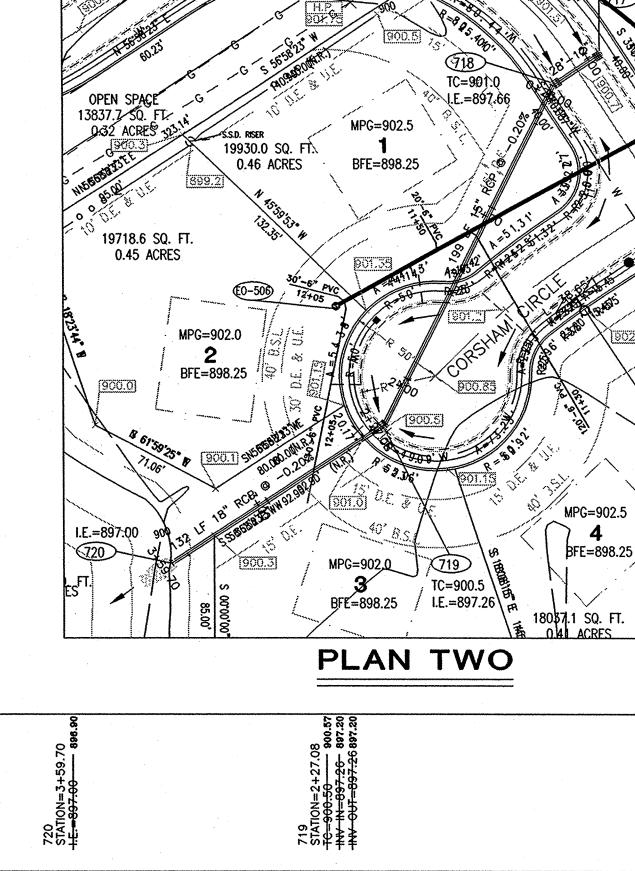
2+50

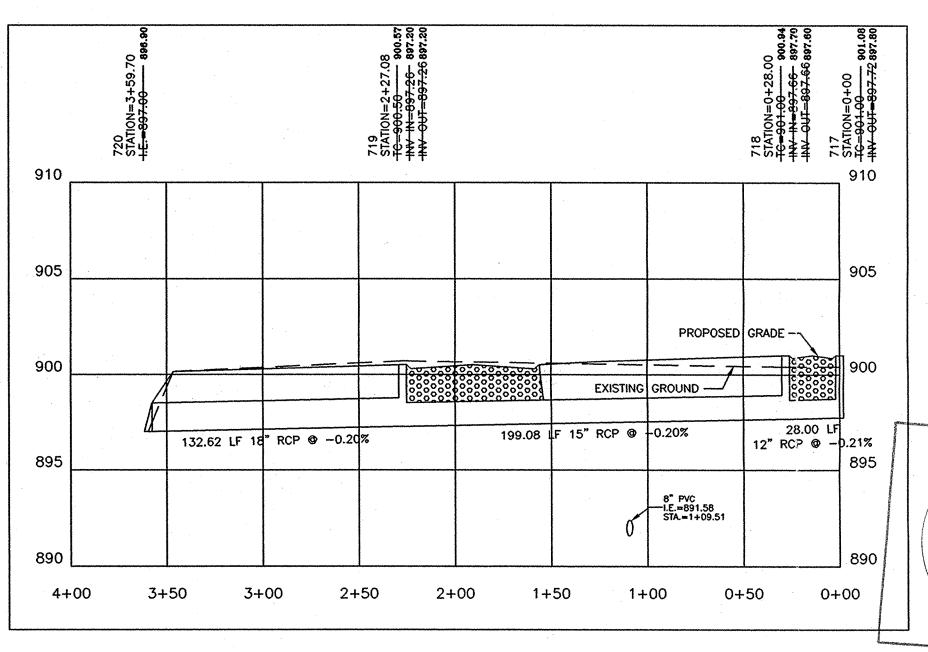
/ EXISTING GROUND

5+00

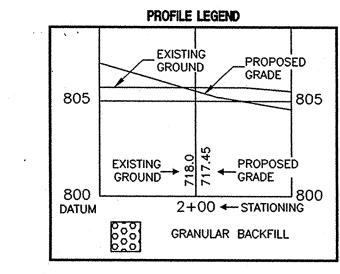
5+50

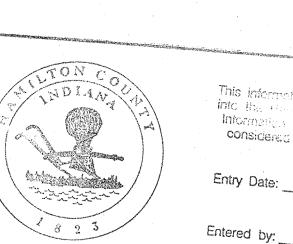
6+00





BFE=898.25





This information was purious considered Entry Date: 12-4-03

Entered by: JOH

# PROFILE TWO

## STORM SEWER PLAN AND PROFILE NOTES:

- 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.
- 2. IN ADDITION, EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
- 3. ALL STRUCTURES SHALL HAVE CASTINGS, JOINTS, LIFT RINGS, STEPS AND PIPE CONNECTIONS WELL GROUTED, TROWELED SMOOTH AND BRUSH FINISHED. 4. ALL STRUCTURES (IE: MANHOLES, INLETS) SHALL HAVE POURED FLOW LINES AND BENCH WALLS. THE FLOW LINES AND BENCHWALLS SHALL BE TROWELED SMOOTH AND BRUSH FINISHED.
- 5. FIELD ADJUSTMENTS OF TOP OF CASTING (T.C.) OF STRUCTURES MAY BE REQUIRED TO MEET FIELD CONDITIONS. ADJUSTMENTS EXCEEDING FIVE TENTHS (0.5) OF A FOOT MUST BE APPROXIDED BY THE ENGINEER TO DETERMINE THE INTEGRITY OF THE STRUCTURE. AT NO COST TO THE OWNER.
- 6. STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE FLOW INTO THE STRUCTURE.
- 7. STORM PIPE INVERTS AT OUTLET STRUCTURES (IE: END SECTIONS), AND PIPE LENGTHS MAY REQUIRE FIELD ADJUSTMENTS TO MEET ACTUAL FIELD CONDITIONS.
- 8. FULL DEPTH GRANULAR BACKFILL SHALL BE REQUIRED UNDER AND WITHIN (5) FEET OF ALL PAVED AREAS, INCLUDING CURBS, EDGE OF PAVEMENT, AND SIDEWALKS.
- 9. SEE SECTION 02720 FOR STORM SEWERAGE SPECIFICATIONS A) IN THE PROJECT MANUAL OR B) ON SHEET C90?
- 10. PIPES LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND INCLUDE END SECTIONS.
- 11. THE CONNECTION OF THE PROPOSED STORM SEWER TO AN EXISITING BRICK STRUCTURE MUST
- BE DONE ACCORDING TO THE FOLLOWING CONDITIONS:

  A.) REHABILITATE AND COAT THE ENTIRE INTERIOR OF THE MANHOLE WITH NON-SHRINK GROUT.
- B.) AT THE POINT OF CONNECTION OF THE PROPOSED PIPE, PLACE A THREE FOOT (3') DIAMETER BY A MINIMUM SIX INCH (6") THICK, 4,000 PSI CONCRETE COLLAR WITH

4x4x10 GUAGE WIRE MESH OVER THE EXTERIIOR OF THE MANHOLE.

FOR CALLS OUTSIDE OF INDIANA





900

890



C.) ONCE THE CORE HAS BEEN MADE, INSTALL A RUBBER BOOT.

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 1-800-382-5544 GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND

LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE 1-800-428-5200 UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

03-22-00

Checked By:

Quality Assurance:

PROFILE

STORM

· CERTIFIED BY:

No.

15179 STATE OF

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Project Number 10990478-20000

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