Drain: Asthou	RY PARK	Drain #: 328				
Improvemen	t/Arm: <u>A</u>	AHBURY ADRX -SE	COON Z			
Operator:	JOH		Date: 5-21-04			
Drain Classif	ication:	Urban/Rural	Year Installed: 2002			

# **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

Drain: ASHONCY PARK ORA	Drain #: 328
Improvement/Arm:	HBURY PARK-SECTION 2
Operator: Jow	Date: <u>871-07</u>
<b>Drain Classification:</b>	Urban/Rural Year Installed: 2007

# **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

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NA
9 <sup>10</sup>
JH
Ma
-9 <sup>48</sup>
- Am-
gn
SIm
Slm
Am

# <u>Gasb 34 Footages for Historical Cost</u> <u>Drain Length Log</u>

		Length	Ioneth		If App	licable
Drain Type:	Size:	Length SURVERT	Length (DB Query)	Length Reconcile	Price:	Cost:
550	64	5,492'	5492'	ø		
RU	12'	781'	781.1	+.1'		
	15°	725'	737.8	+12.8		
	18'	256'	247	+9		
	21*	139'	139,6'	+.6'		
<u>,</u>	241	157'	155.2'	-1.81		
	27'	4 <b>41</b> ′	437.6	- 3,4'		
	30 "	163'	158'	- 3,4' -5'		
CMP	12"	70'	70	ø		
			-			
					×	
	Sum:	<u>8,27</u> ¥	8218.3'			
nal Report: 82	183'					
omments:			-			
·····	· · · · · · · · · · · · · · · · · · ·					

Drain-Improvement: ASHAWAY DORK ORAM - REMOVEY PARK-SECTION 2



Phone (317) 776=8495 Fax (317) 776-9628

Noblesville, Indiana 46060=2230 August 14, 2000

Re: Ashbury Park Drain, Section 2 Arm

To: Hamilton County Drainage Board

Attached is a petition, non-enforcement requests, plans, calculations, quantity summary and assessment rolls for the Section 2 Arm of the Ashbury Park 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	5,492	ft	15"	RCP	725	ft	24"	RCP	157	ft
12"	CMP	70	ft	18"	RCP	256	ft	27"	RCP	441	ft
12"	RCP	781	ft	21"	RCP	139	ft	30"	RCP	163	ft

The total length of the drain will be 8,224 feet.

The retention pond (lake) located in Common area F is to be considered part of the regulated drain. The Board will maintain the pond and retain jurisdiction for ensuring the storage volume for which the lake was designed will be retained. Thereby, allowing no fill or easement encroachments.

The 12" CMP's listed above are those which are under 136th Street. These are the dual culverts located 90' east of the centerline of Schaefer Way and the single culvert 200 feet west of the centerline of Schaefer Way.

The subsurface drains (SSD) to be part of the regulated drain are those located under the curbs and those main lines between lots of 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 72-77 in Common Area E and H, 136th Street right of way on north side of Common Area E.

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 \$65.00 per lot, \$10.00 per acre for roadways, \$5.00 per acre for common areas, with a \$65.00 minimum. With this assessment the total annual assessment for this drain/this section will be \$3,587.70.

Parcels assessed for this drain may be assessed for the Collins-Osborn or Williams Creek Drain at sometime in the future. Parcels assessed for this drain will also be assessed for the O. F. Henley Drain.

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 Ashbury Park, Section 2 as recorded in the office of the Hamilton County Recorder.

I recommend the Board set a hearing for this proposed drain for September 25, 2000.

KCW/kkw

Kenton C. Ward Hamilton County Surveyor

HCDB-2002-00348

# SUBDIVISION IMPROVEMENTS PERFORMANCE BOND

#### BOND NO: 887704S

KNOW ALL MEN BY THESE PRESENTS:

THAT we, **PITTMAN PARTNERS, INC.** 

as Principal. and DEVELOPERS SURETY AND INDEMNITY COMPANY, a corporation organized and doing business and under and by virtue of the laws of the State of Iowa and duly licensed to conduct surety business in the State of Indiana , as Surety, are held and firmly bound unto

### BOARD OF COMMISSIONERS, HAMILTON COUNTY, One Hamilton Square, Noblesville IN 46060

Dollars. (\$ 8,000.00 ) for which payment, well and truly to be made, we bind ourselves, our heirs, executors and successors, jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGATION IS SUCH THAT:

WHEREAS, the above named Principal, has agreed to construct in Ashbury Park, Section 2 Subdivision.

following improvements: Erosion Control

NOW, THEREFORE, the condition of this obligation is such, that if the above Principal shall well and truly perform said agreement or agreements during the original term thereof or of any extension of said term that may be granted by the Obligee with or without notice to the Surety, this obligation shall be void, otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said Principal is hereto affixed and the corporate seal and the name of the said Surety is hereto affixed and attested by its duly authorized Attorney- in-F act, this 3nd Day of October 2002.

PITTMAN PARTNERS, INC.

Steve Pittman

President

Principal

the

DEVELOPERS SURETY AND INDEMNLTY COMPANY

BY Haward Howard E. McConnell Attorney- in-F act

### POWER OF ATTORNEY FOR DEVELOPERS SURETY AND INDEMNITY COMPANY INDEMNITY COMPANY OF CALIFORNIA

PO BOX 19725, IRVINE, CA 92623 • (949) 263-3300

KNOW ALL MEN BY THESE PRESENTS, that except as expressly limited, DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA, do each severally, but not jointly, hereby make, constitute and appoint:

### \*\*\*HOWARD E. MCCONNELL\*\*\*

as the true and lawful Attorney(s)-in-Fact, to make, execute, deliver and acknowledge, for and on behalf of said corporations as sureties, bonds, undertakings and contracts of suretyship giving and granting unto said Attorney(s)-in-Fact full power and authority to do and to perform every act necessary, requisite or proper to be done in connection therewith as each of said corporations could do, but reserving to each of said corporations full power of substitution and revocation, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This Power of Attorney is granted and is signed by facsimile under and by authority of the following resolutions adopted by the respective Board of Directors of DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA, effective as of November 1, 2000:

RESOLVED, that the Chairman of the Board, the President and any Vice President of the corporation be, and that each of them hereby is, authorized to execute Powers of Attorney, qualifying the attorney(s) named in the Powers of Attorney to execute, on behalf of the corporations, bonds, undertakings and contracts of surctyship; and that the Secretary or any Assistant Secretary of the corporations be, and each of them hereby is, authorized to attest the execution of any such Power of Attorney;

RESOLVED, FURTHER, that the signatures of such officers may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures shall be valid and binding upon the corporation when so affixed and in the future with respect to any bond, undertaking or contract of suretyship to which it is attached.

IN WITNESS WHEREOF, DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA have severally caused these presents to be signed by their respective Executive Vice President and attested by their respective Secretary this 8<sup>th</sup> day of November, 2000.

By

David H. Rhodes, Executive Vice President

)SS.

Walter A. Crowell, Secretary

STATE OF CALIFORNIA

#### COUNTY OF ORANGE

B١

On November 8, 2000, before me, Diane J. Kawata, personally appeared David H. Rhodes and Walter A. Crowell, personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same in their authorized capacities, and that by their signatures on the instrument the entity upon behalf of which the persons acted, executed the instrument.

WITNESS my hand and official scal.

Signature



#### CERTIFICATE

The undersigned, as Chief Operating Officer of DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA, does hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked, and furthermore, that the provisions of the resolutions of the respective Boards of Directors of said corporations set forth in the Power of Attorney, are in force as of the date of this Certificate.

This Certificate is executed in the City of Irvine, California, the \_\_\_\_\_ day of \_\_\_\_\_,

Βv

David G. Lane, Chief Operating Officer







OFFICE OF HAMILTON COUNTY SURVEYOR This copy printed from the Digital Archive of the Hamilton County Surveyor's Office; One Hamilton Co. Square, Ste. 188; Noblesville, In 46060

;

# SUBDIVISION IMPROVEMENTS PERFORMANCE BOND

BOND NO: 887703S

### KNOW ALL MEN BY THESE PRESENTS:

THAT we, <u>PITTMAN PARTNERS, INC.</u> as Principal, and DEVELOPERS SURETY AND INDEMNITY COMPANY, a corporation organized and doing business and under and by virtue of the laws of the State of Iowa and duly licensed to conduct surety business in the State of Indiana ,as Surety, are held and firmly bound unto

### BOARD OF COMMISSIONERS, HAMILTON COUNTY, One Hamilton Square, Noblesville IN 46060

THE CONDITION OF THE OBLIGATION IS SUCH THAT:

WHEREAS, the above named Principal, has agreed to construct in Ashbury Park, Section 2 Subdivision,

following improvements: \_\_\_\_\_\_Storm Sewers and sub surface drains

NOW, THEREFORE, the condition of this obligation is such, that if the above Principal shall well and truly perform said agreement or agreements during the original term thereof or of any extension of said term that may be granted by the Obligee with or without notice to the Surety, this obligation shall be void, otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said Principal is hereto affixed and the corporate seal and the name of the said Surety is hereto affixed and attested by its duly authorized Attorney- in-F act, this <u>3nd</u> Day of <u>October</u> 2002.

PITTMAN PARTNERS, INC.

Steve Pittman

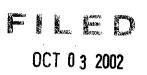
President

Principal

the

DEVELOPERS SURETY AND INDEMNITY COMPANY

Attorney in-Fact



10ge

OFFICE OF HAMILTON COUNTY SURVEYOR

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÷

### POWER OF ATTORNEY FOR DEVELOPERS SURETY AND INDEMNITY COMPANY INDEMNITY COMPANY OF CALIFORNIA

PO BOX 19725, IRVINE, CA 92623 • (949) 263-3300

KNOW ALL MEN BY THESE PRESENTS, that except as expressly limited, DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA, do each severally, but not jointly, hereby make, constitute and appoint:

### \*\*\*HOWARD E. MCCONNELL\*\*\*

as the true and lawful Attorney(s)-in-Fact, to make, execute, deliver and acknowledge, for and on behalf of said corporations as surcties, bonds, undertakings and contracts of suretyship giving and granting unto said Attorney(s)-in-Fact full power and authority to do and to perform every act necessary, requisite or proper to be done in connection therewith as each of said corporations could do, but reserving to each of said corporations full power of substitution and revocation, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This Power of Attorney is granted and is signed by facsimile under and by authority of the following resolutions adopted by the respective Board of Directors of DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA, effective as of November 1, 2000:

RESOLVED, that the Chairman of the Board, the President and any Vice President of the corporation be, and that each of them hereby is, authorized to execute Powers of Attorney, qualifying the attorney(s) named in the Powers of Attorney to execute, on behalf of the corporations, bonds, undertakings and contracts of suretyship; and that the Secretary or any Assistant Secretary of the corporations be, and each of them hereby is, authorized to attest the execution of any such Power of Attorney;

RESOLVED, FURTHER, that the signatures of such officers may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures shall be valid and binding upon the corporation when so affixed and in the future with respect to any bond, undertaking or contract of suretyship to which it is attached.

IN WITNESS WHEREOF, DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA have severally caused these presents to be signed by their respective Executive Vice President and attested by their respective Secretary this 8th day of November, 2000.

1936

(ONN

)SS.

)

David H. Rhodes, Executive Vice President

Walter A. Crowell, Secretary

STATE OF CALIFORNIA

#### COUNTY OF ORANGE

By

Bу

On November 8, 2000, before me, Diane J. Kawata, personally appeared David H. Rhodes and Walter A. Crowell, personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same in their authorized capacities, and that by their signatures on the instrument the entity upon behalf of which the persons acted, executed the instrument.

WITNESS my hand and official seal.

Jeane 1 Kriwate



COMPANY

OCT.5 1967

NDEMM

#### CERTIFICATE

The undersigned, as Chief Operating Officer of DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA, does hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked, and furthermore, that the provisions of the resolutions of the respective Boards of Directors of said corporations set forth in the Power of Attorney, are in force as of the date of this Certificate.

This Certificate is executed in the City of Irvine, California, the \_\_\_\_\_ day of \_\_\_\_\_,

Βy

David G. Lane, Chief Operating Officer

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- Real Estate Consulting
- Transportation Engineering

## CERTIFICATE OF COMPLETION AND COMPLIANCE

To: Hamilton County Surveyor

Re: Asbury Park, Section Two

I hereby certify that:

1. I am a Registered Engineer in the State of Indiana.

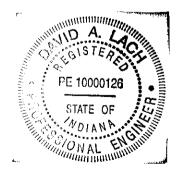
2. I am familiar with the plans and specifications for the above referenced subdivision.

3. I have personally observed and supervised the completion of the drainage facilities for the above referenced subdivision.

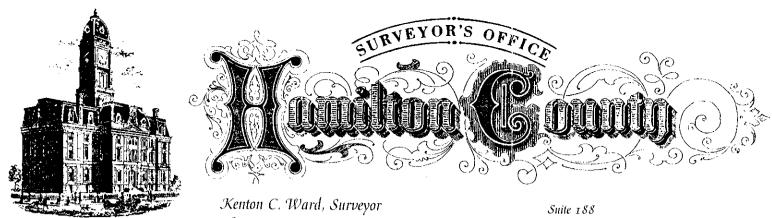
4. The drainage facilities within the above referenced subdivision to the best of my knowledge, information and belief have been installed and completed in conformity with all plans and specifications.

Date: 8/ Signature: 2004

David A. Lach, P.E. #10000126







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

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

To: Hamilton County Drainage Board

August 30, 2004

Re: Ashbury Park Drain: Sec. 2 Arm

Attached are as-builts, certificate of completion & compliance, and other information for Ashbury Park Sec. 2. 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 14, 2000. The report was approved by the Board at the hearing held September 25, 2000. (See Drainage Board Minutes Book 5, Pages 460-461) The changes are as follows:

Structure:	T.C.:	I.E.:	Pipe:	Length:	Grade:	Original:	Difference:
720	877.42	874.22					
72	5 875.36	871.46	12	441.9	0.62	441	0.9
72	5 875.36	871.46					0.9
724	876.28	870.93	15	142.8	0.37	143	-0.2
724	876.28	870.78					-0.2
723	878.6	868.6	27	303.6	0.72	307	-3.4
723	878.6	868.6					
722		867.9	30	158	0.44	163	-5
730		873				100	
729	877.25	872.65	15	119.6	0.29	111	8.6
729	877.25	872.55			0.40		0.0
728	875.95	872.5	15	52.9	0.09	50	2.9
728	875.95	871.08				0	2.9
727	876.1	871.06	18	29.6	0.07	30	-0.4
727	876.1	871					-0,4
724	876.28	870.98	21	20.5	0.34	18	2.5
737	882.6	878.64					2.0
736	882.23	878.26	12	75.9	0.67	78	-2.1
736	882.23	877.76					-2.1
735	882.65	877.1	15	59.4	0.44	58	1.4
735	882.65	876.9					
732	881.04	875.94	15	113.9	0.84	116	-2.1
732	881.04	875.72					- <u> </u>

731	876.28	872.93	15	249.2	0.72	247	2.2
731	876.28	871.28					
724	876.28	870.78	18	53.8	0.56	54	0.0
742	877.84	875.14			0.00		-0.2
741	878.38	874.83	12	54.8	0.57	55	-0.2
741	878.38	874.73	·				
740	878.43	874	12	124.5	0.59	125	-0.5
740	878.43	873.83				120	
739	878.07	873.52	24	29.9	1.04	30	-0.1
739	878.07	873.52					-0.1
738		873	27	134	0.4		
Ex		879.98					
744A	879.75	877.3	12"cmp	18	10		
744A	879.75	875.85					
744	878.11	874.76	18	163.6	0.67	172	-8.4
744	878.11	874.66	····				+.0-
743	879.03	874.53	21	119.1	0.11	121	-1.9
743	879.03	874.33					-1.9
740	878.43	873.83	24	125.3	0.28	127	-1.7
745	879.09	874.74			0.20		-1.7
743	879.03	874.43	12	39	0.79	37	-2
734	880.37	876.95					-2
733	880.41	876.56	12	29.8	1.31	30	-0.2
733	880.41	875.76					-0.2
732	880.95	875.98	12	15.2	1.45	15	0.2

The length of the drain due to the changes described above is now 8218.3 feet.

The non-enforcement was approved by the Board at its meeting on September 25, 2000 and recorded under instrument #200300011396.

The following sureties were guaranteed by Developers Surety and Indemnity Company and released by the Board on its September 15, 2004 meeting.

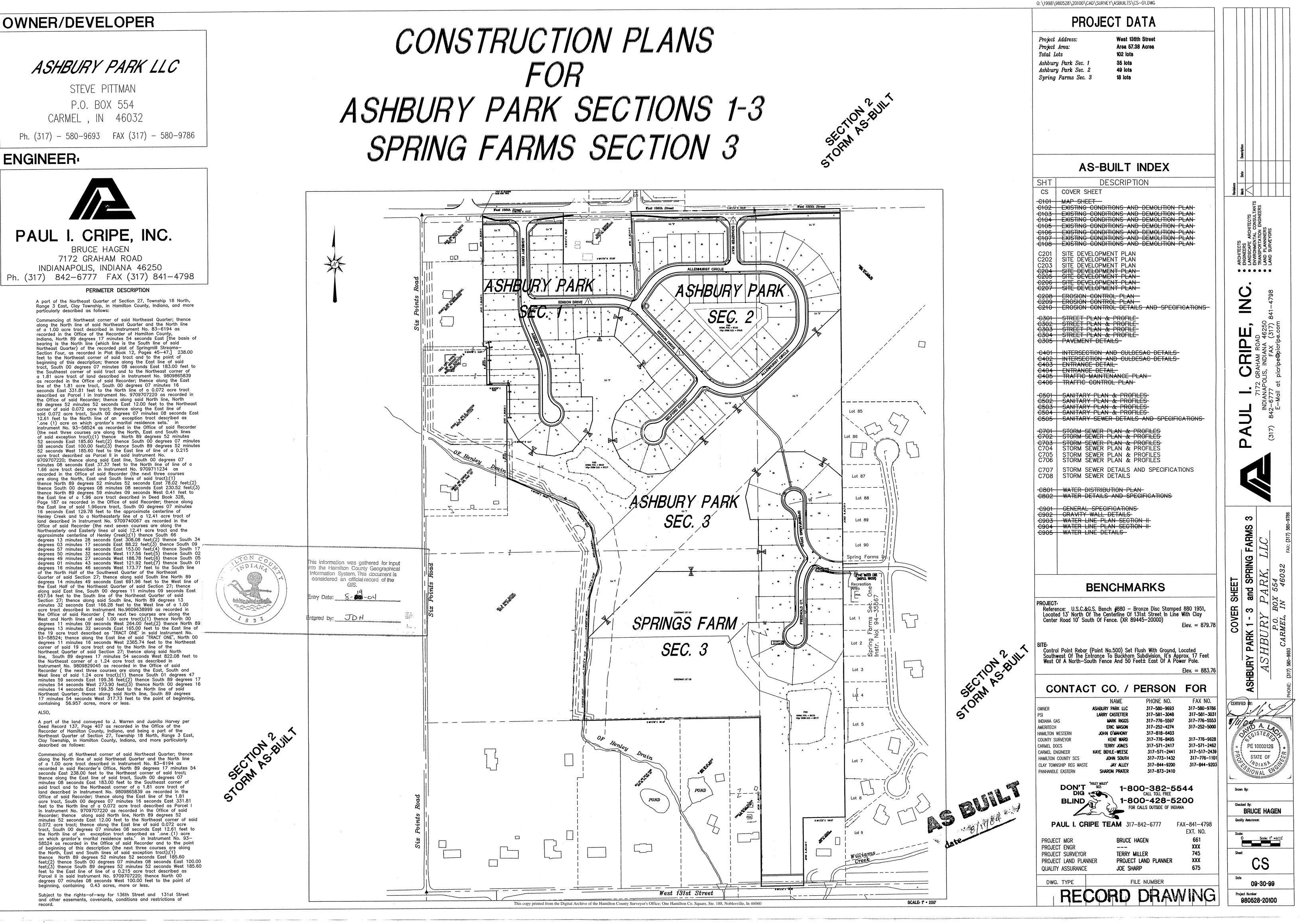
Bond-LC No: 887703S Insured For: Storm Sewers Amount: \$140,000 Issue Date: October 3, 2002

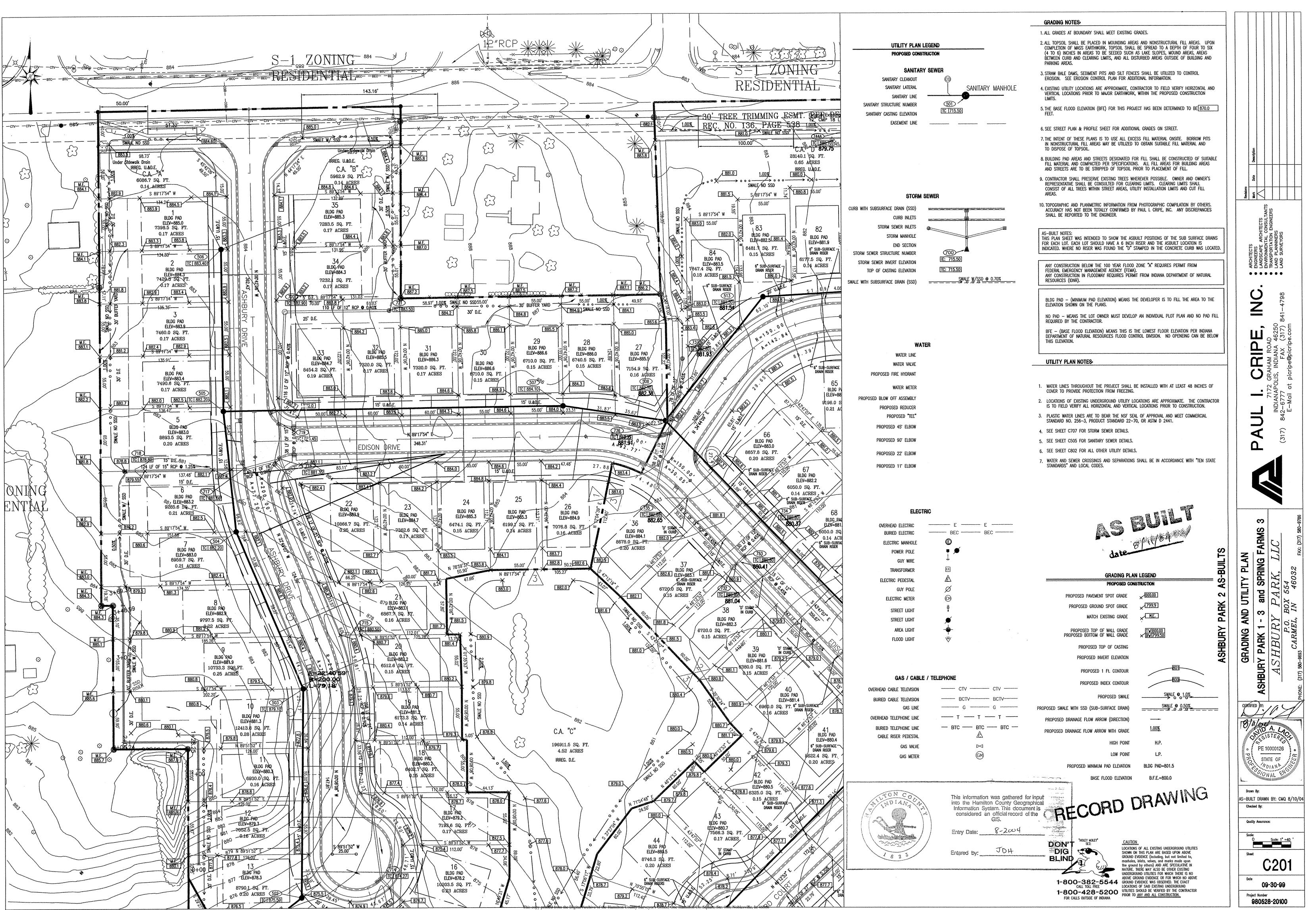
Bond-LC No: 887704S Insured For: Erosion Control Amount: \$8,000 Issue Date: October 3, 2002

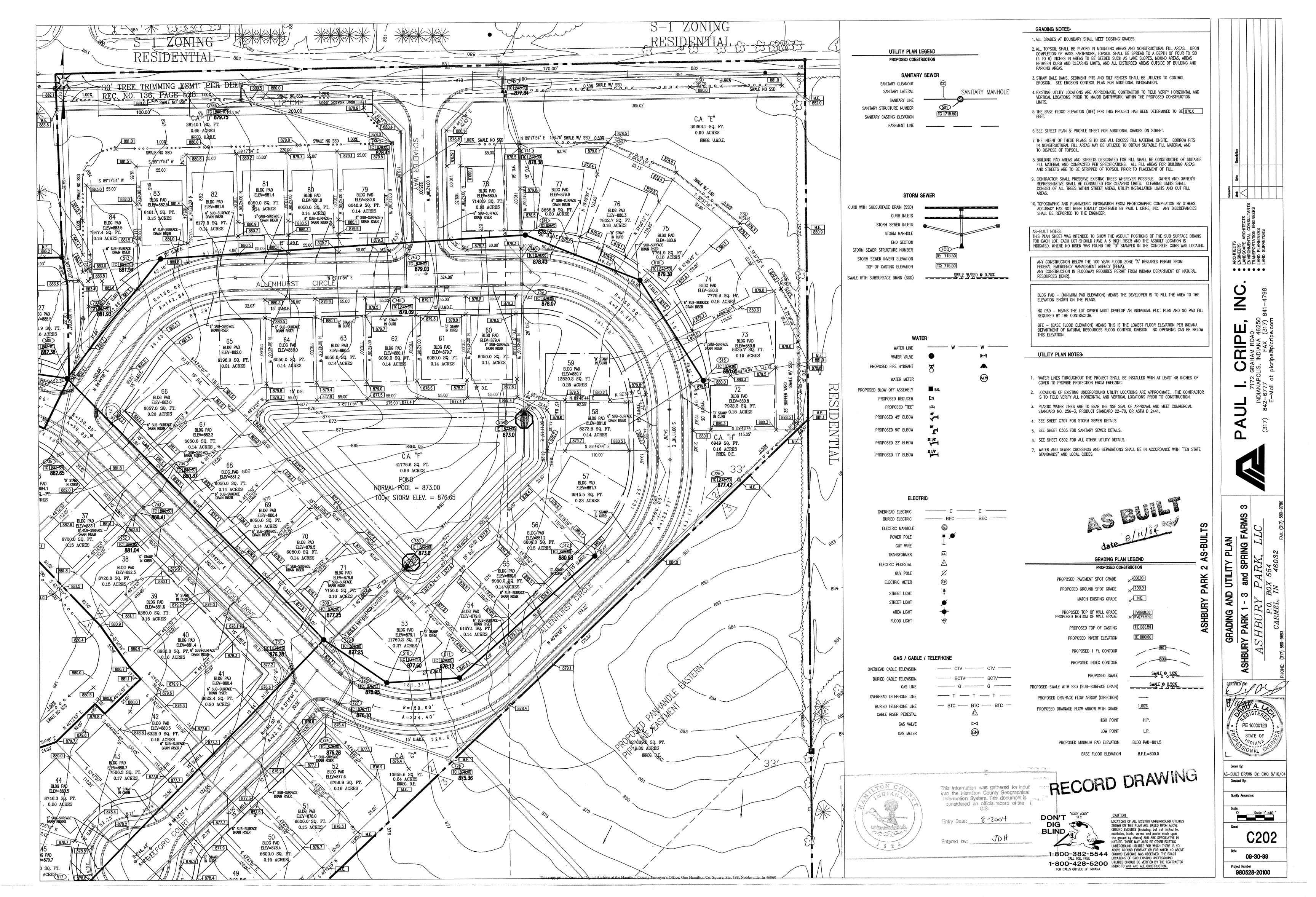
I recommend the Board approve the drain's construction as complete and acceptable.

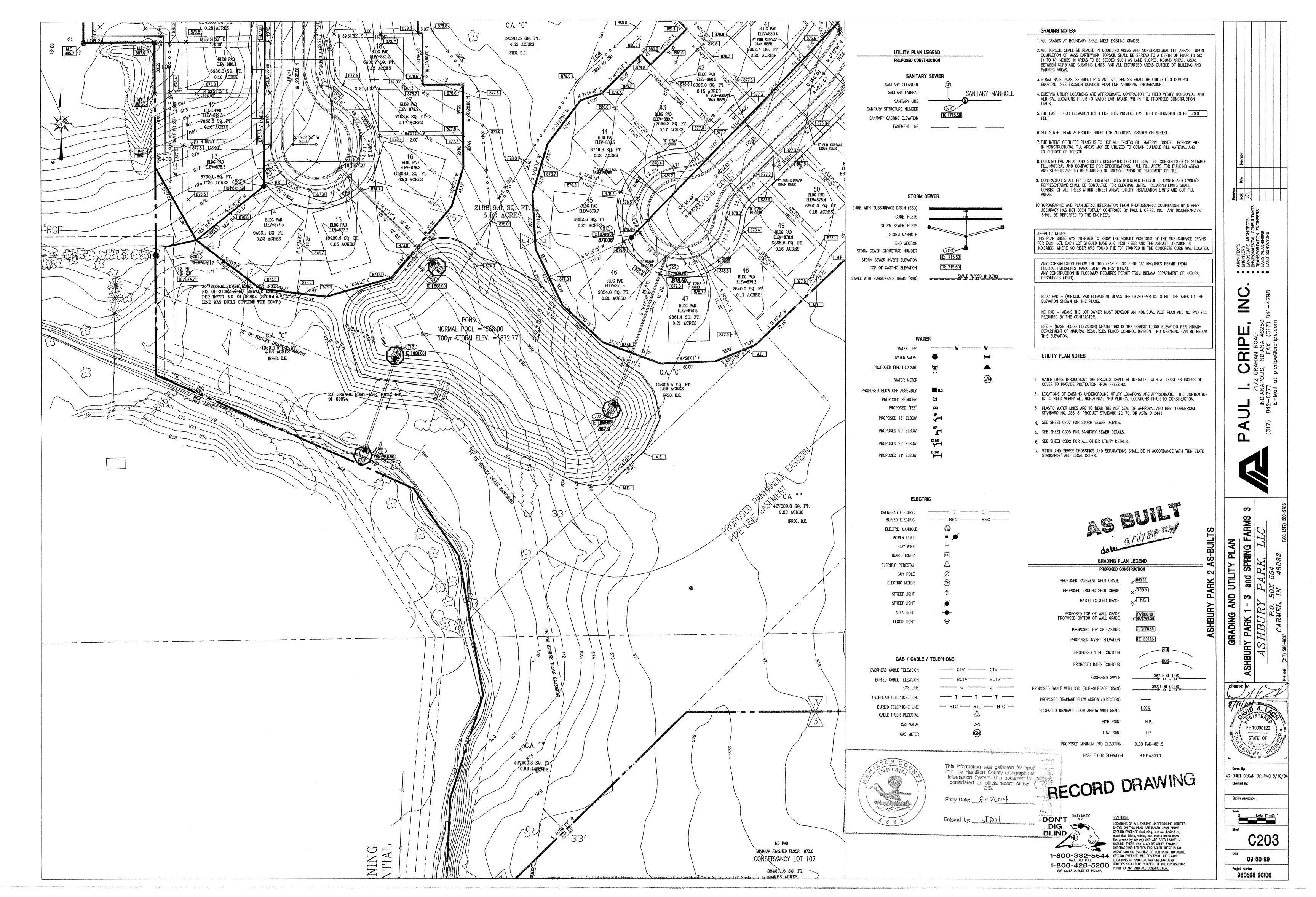
Sincerely Kenton C. Ward,

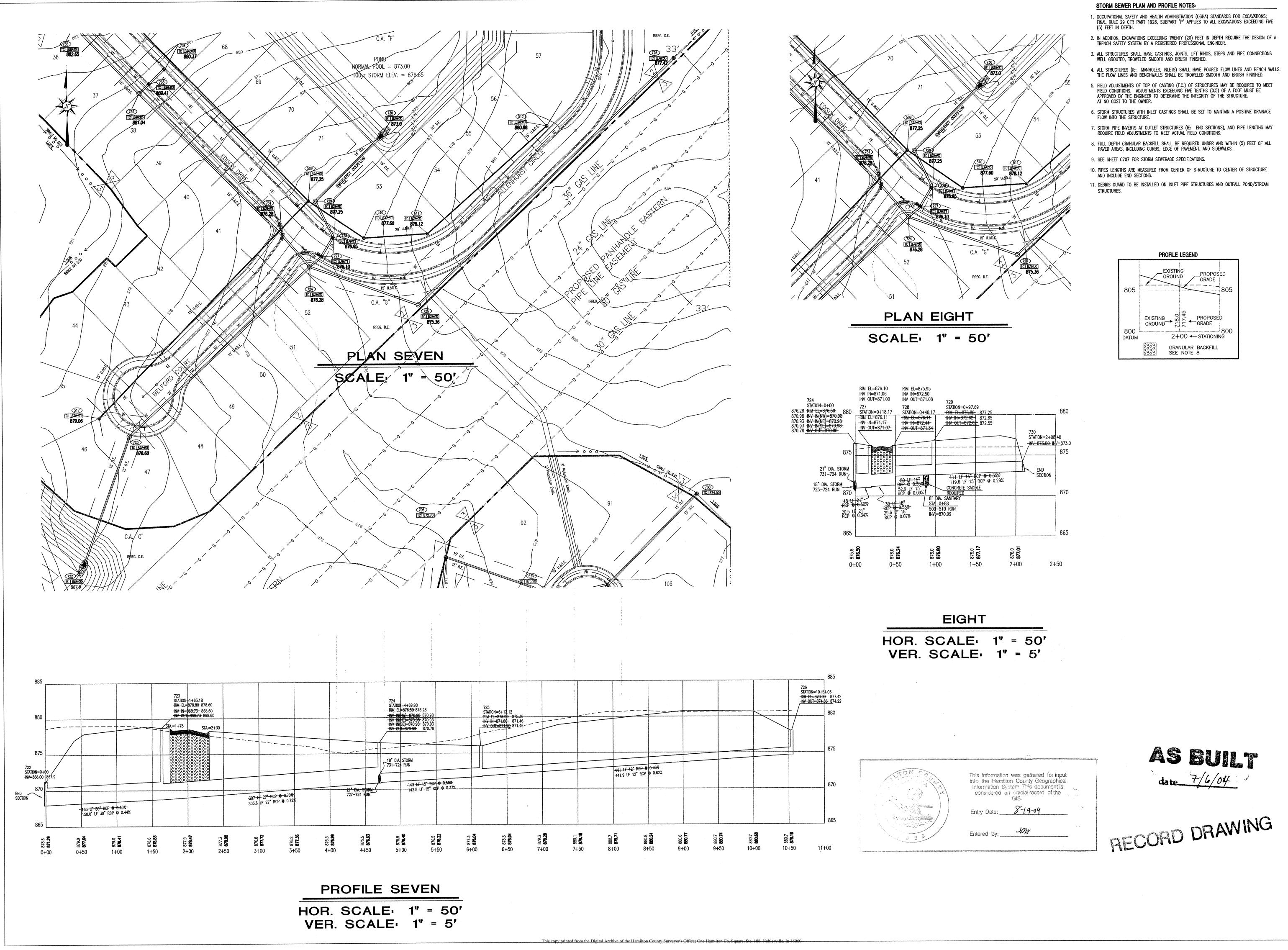
Kenton C. Ward, Hamilton County Surveyor

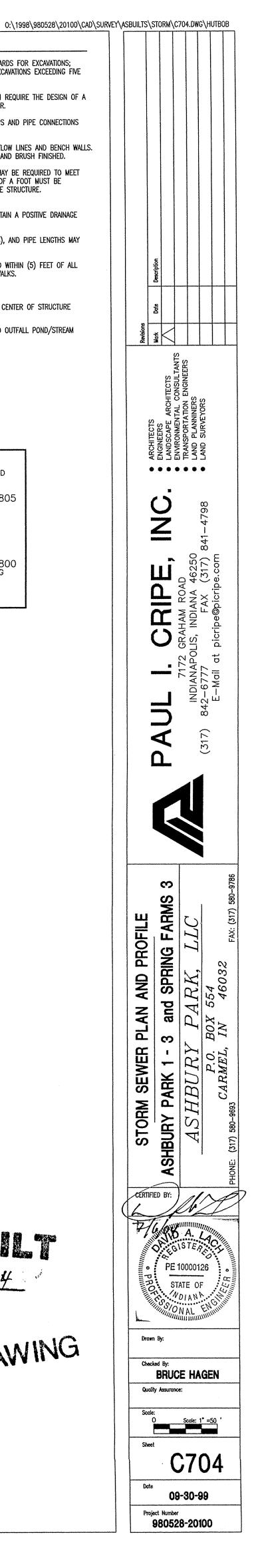


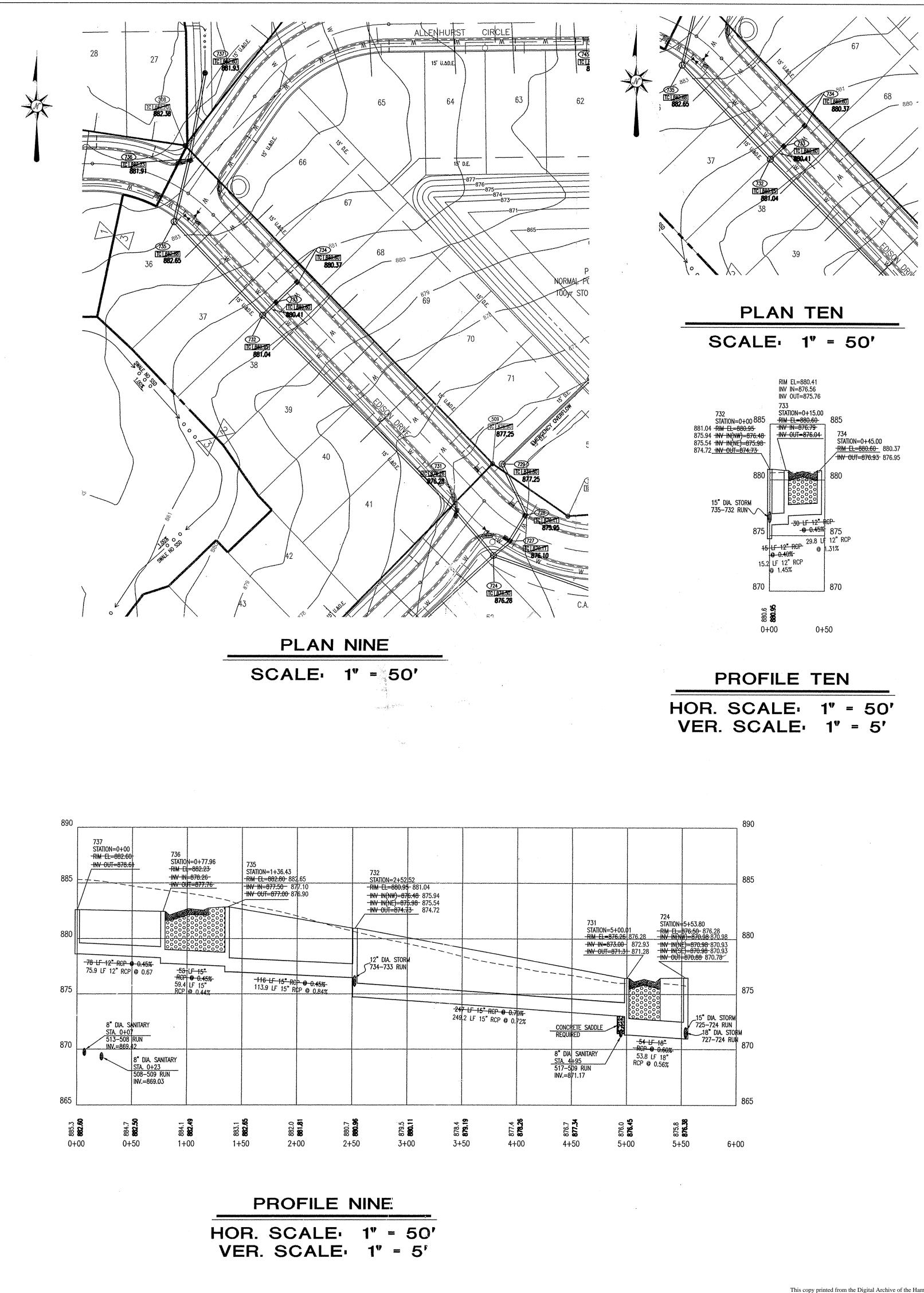


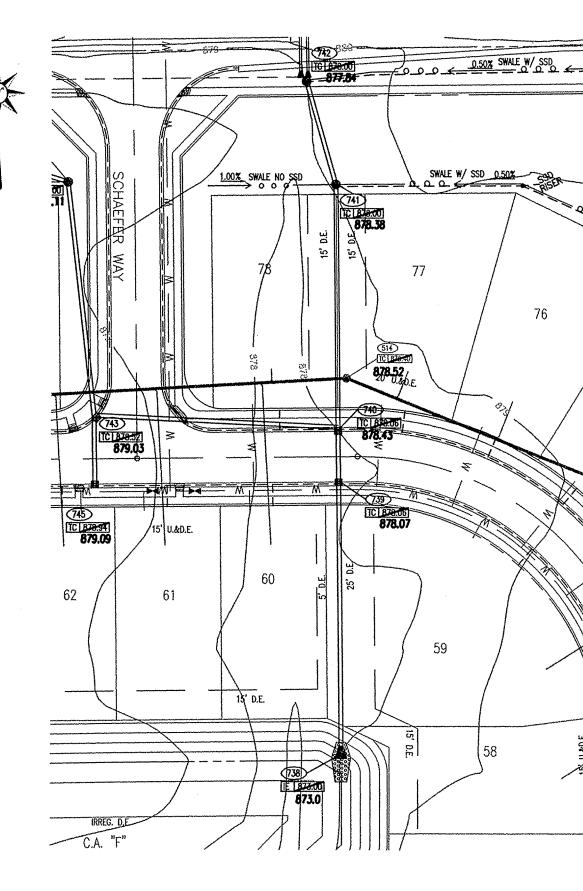




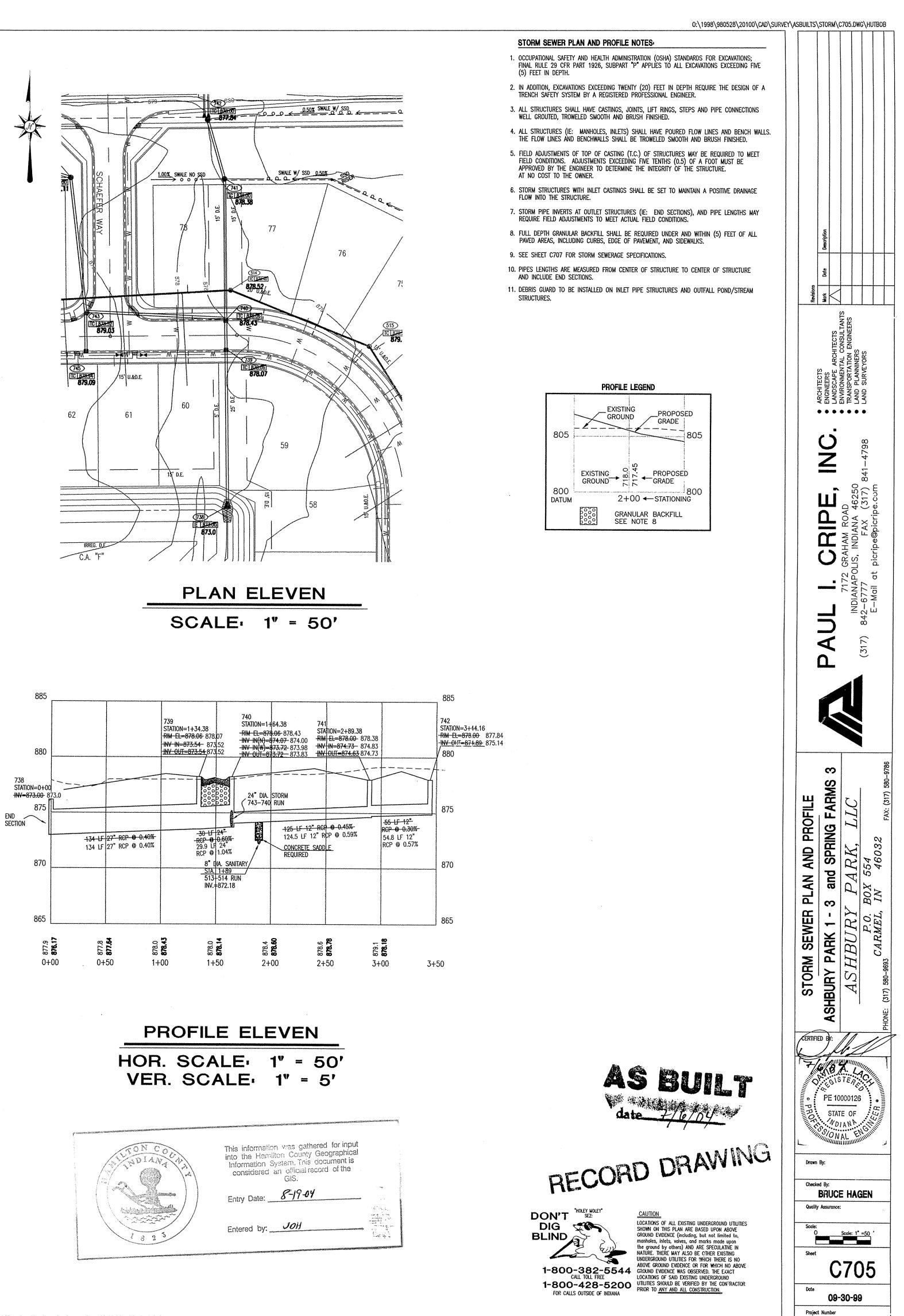




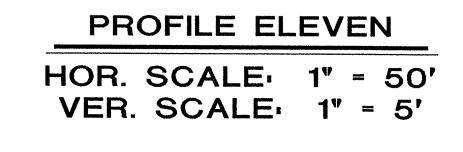


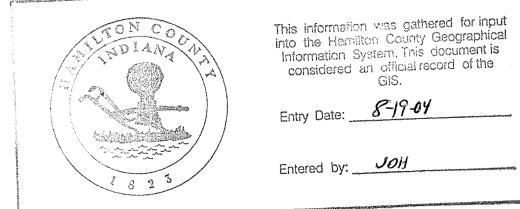


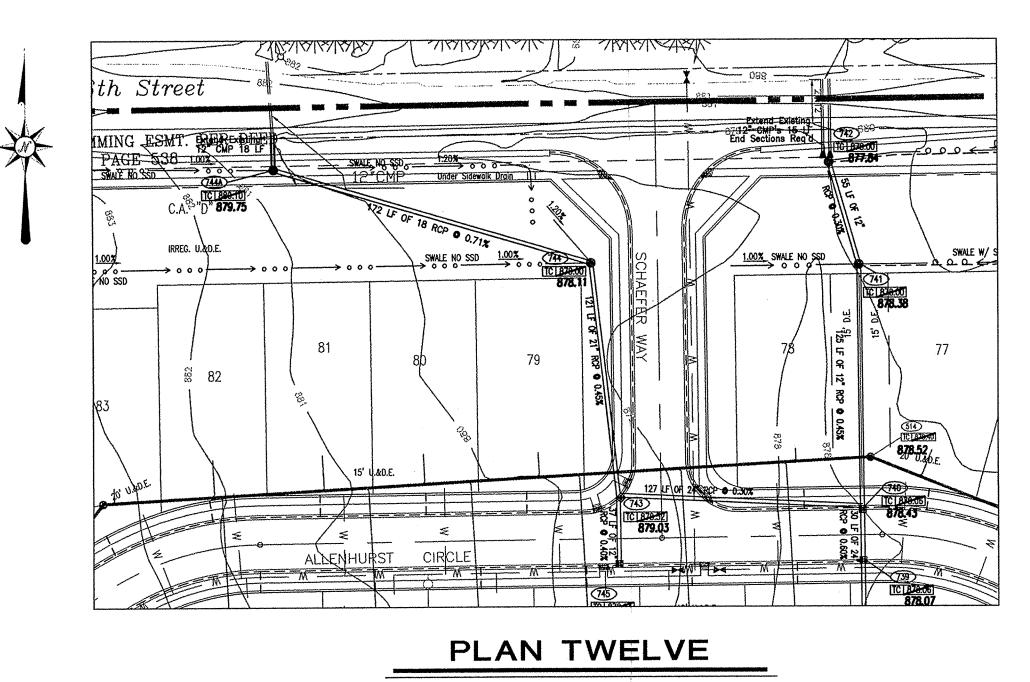




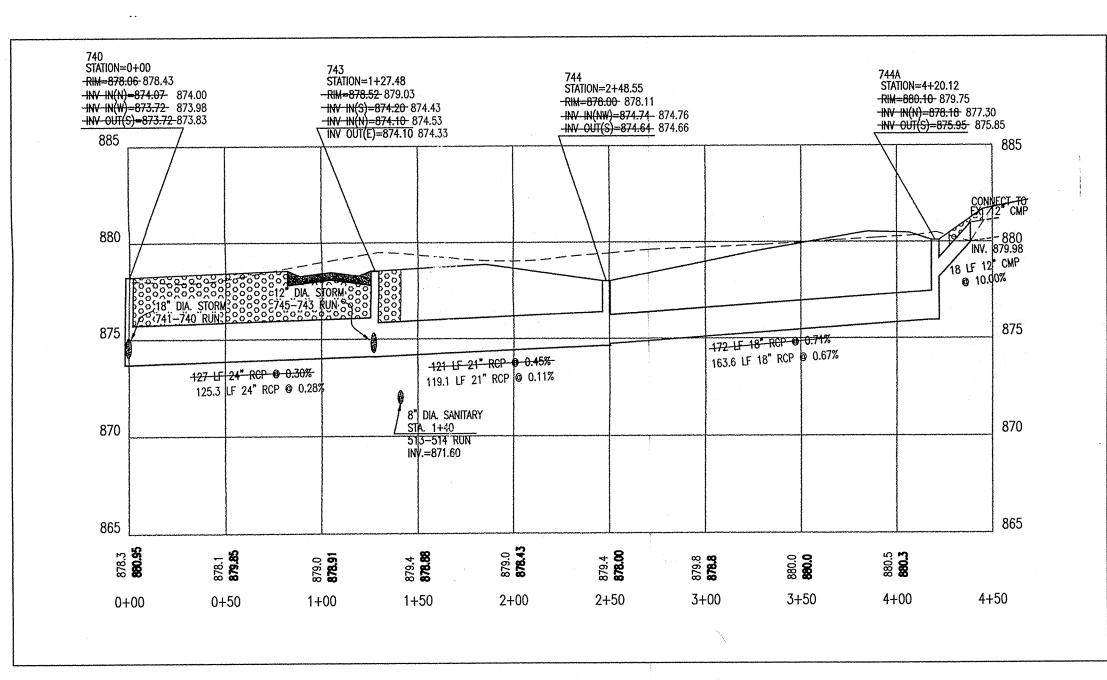
980528-20100





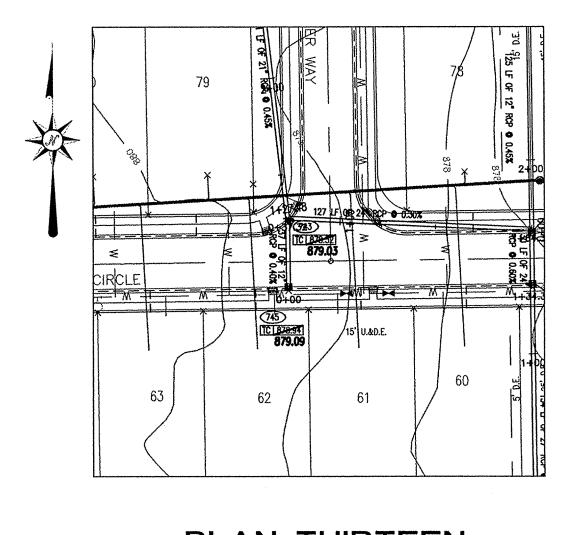


SCALE: 1" = 50'

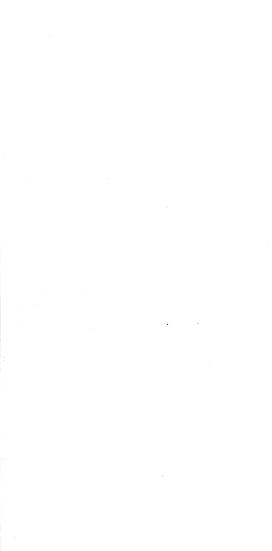


# PROFILE TWELVE

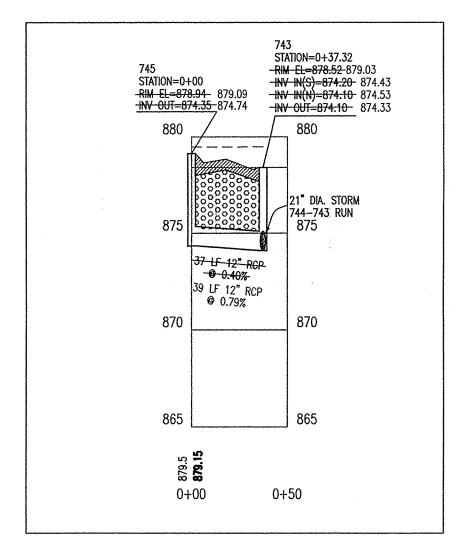
HOR. SCALE: 1" = 50' VER. SCALE: 1" = 5'





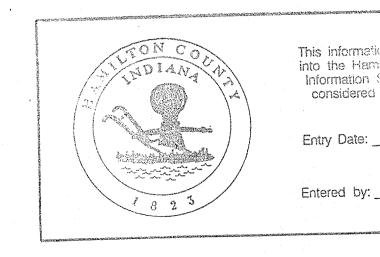


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# PROFILE THIRTEEN

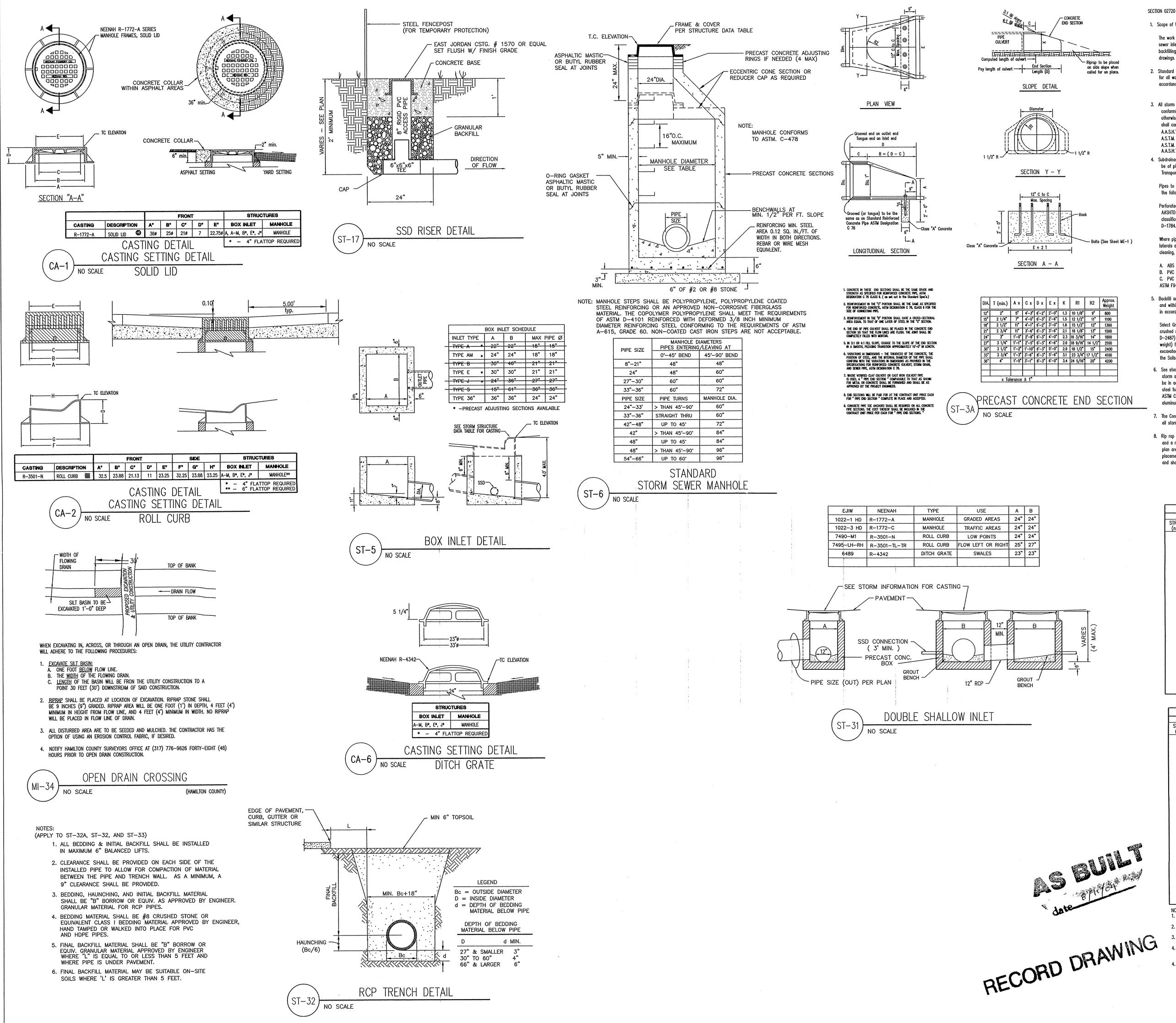
HOR.	SCALE	1" =	50'
VER.	SCALE	1" =	5'



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0:\1998\980528\20100\CAD\SURVEY\A	NSBUILTS\STORM\C706.DWG\HUTBOB
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	
<ul> <li>(5) FEET IN DEPTH.</li> <li>IN ADDITION, EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.</li> </ul>	
ALL STRUCTURES SHALL HAVE CASTINGS, JOINTS, LIFT RINGS, STEPS AND PIPE CONNECTIONS WELL GROUTED, TROWELED SMOOTH AND BRUSH FINISHED.	
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. 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 APPROVED BY THE ENGINEER TO DETERMINE THE INTEGRITY OF THE STRUCTURE. AT NO COST TO THE OWNER	
AT NO COST TO THE OWNER. . STORM STRUCTURES WITH INLET CASTINGS SHALL BE SET TO MAINTAIN A POSITIVE DRAINAGE FLOW INTO THE STRUCTURE.	
. STORM PIPE INVERTS AT OUTLET STRUCTURES (IE: END SECTIONS), AND PIPE LENGTHS MAY REQUIRE FIELD ADJUSTMENTS TO MEET ACTUAL FIELD CONDITIONS. . FULL DEPTH GRANULAR BACKFILL SHALL BE REQUIRED UNDER AND WITHIN (5) FEET OF ALL PAVED AREAS, INCLUDING CURBS, EDGE OF PAVEMENT, AND SIDEWALKS.	Desscription
. SEE SHEET C707 FOR STORM SEWERAGE SPECIFICATIONS. D. PIPES LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND INCLUDE END SECTIONS.	B
	Revisions
	ARCHITECTS ENGINEERS LANDSCAPE ARCHITECTS ENVIRONENNENTATION ENGINEERS LAND PLANNINERS LAND SURVEYORS
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PROFILE LEGEND	ARCHITECTS ENGINEERS LANDSCAFE / LANDSCAFE / TRANSPORTAT LAND PLANNII LAND SURVEY
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805 805	-4798
EXISTING $GROUND \rightarrow 12 \ 12 \ Cracket Cracket$	50 50 50
DATUM 2+00 - STATIONING GRANULAR BACKFILL SEE NOTE 8	<b>CRAHAM ROAD</b> GRAHAM ROAD JS, INDIANA 46250 FAX (317) picripe@picripe.com
	<b>CRAHAM ROAD</b> GRAHAM ROAD LIS, INDIANA 4 FAX ( FAX (
	L L CBRF 7172 GRAHAM RO 7172 GRAHAM RO INDIANAPOLIS, INDIANA 2-6777 E-Mail at picripe@picr
	71 INDIANA 842-6777 E-Mail
	<b>PAI</b>
	786
	STORM SEWER PLAN AND PROFILE         ASHBURY PARK 1 - 3 and SPRING FARMS 3         ASHBURY PARK 1 - 3 and SPRING FARMS 3         ASHBURY PARK 1 - 3 and SPRING FARMS 3         ASHBURY PARK 1 - 3 and SPRING FARMS 3         ASHBURY PARK 4 6032         P.O. BOX 554         ONE: (317) 580-9593
	STORM SEWER PLAN AND PROFILE BURY PARK 1 - 3 and SPRING FARI ASHBURY PARK, LLC P.O. BOX 554 CARMEL, IN 46032 FAX (317 580-9693
	AND P SPRIN RK, 46032
	STORM SEWER PLAN AN         ASHBURY PARK 1 - 3 and SI         PLOLE         ASHBURY PARK 1 - 3 and SI         ASHBURY 1 - 3 and SI         ASHBURY 1 - 3 and SI         ASHBURY 1 - 3 and SI         ASHAR         ASHBURY 1 - 3 and SI         ASHAR         ASHAR
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DIG BLIND UCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, monholes, inlets, valves, and marks mode upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING	Scale: O Scale: 1" =50 ' Sheet
1-800-382-5544 CALL TOLL FREE 1-800-428-5200 FOR CALLS OUTSIDE OF INDIANA	C706
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SECTION 02720 - STORM SEWERS

1. Scope of Work

- The work under this section includes all storm sewers, storm sewer inlets, and related items, including excavating and backfilling, necessary to complete the work shown on the drawinas.
- 2. Standard specifications of City of Carmel shall apply for all work and materials. Pipe shall be installed in accordance with Section 715.
- 3. All storm sewer pipe shall be reinforced concrete pipe conforming to ASTM Designation C-76 Class III, unless otherwise noted, in accordance with Section 906. Joints shall conform to ASTM C-433 latest revision. A.A.S.H.T.O. M 294 TYPE S (PIPES 12" - 36") A.S.T.M. D 3350 PIPES & FITTINGS A.S.T.M. D 2321 INSTALLATION A.A.S.H.T.O. T 99 BACKFILL (6" LIFTS W/95% COMPACTION)
- 4. Subdrainage system shall be installed as shown on plans and be of pipes designated in Section 906 of Indiana Dept. of Transportation specifictions as follows:

Pipes to be installed for subsurface drainage only shall be the following:

Perforated Corrugated drainage pipe in accordance with AASHTO M252 or AASHTO M 294. PVC shall have minimum cell classification conforming to requirement of 12344-C ASTM D-1784.

Where pipe is to be used for a collector of other subsurface laterals and/or sump pumps and installed with provisions for cleaning, it may be one of the following:

A. ABS Composite in accordance with ASTM D-2680. B. PVC in accordance with ASTM D-3034 SDR-35. C. PVC Corrugated with smooth interior in accordance with ASTM F949.

5. Backfill around all structures and cuts under paved areas and within 5 feet of pavement edges with granular material in accordance with Section 211.

Select Granular Fill - Well graded sand and gravel or crushed stone that has a uniformity coefficient (ASTM D-2487) of aggrregates and contains less than 5 percent (by weight) fines passing a No. 200 Sieve size. Onsite excavated granular materials may be utilized if approved by the Soils Engineer.

- 6. See standard detail sheet for construction dimensions of storm structures. Manholes, inlets and catch basins shall be in accordance with Section 720. Precast concrete and steel for manholes and inlets shall be in accordance with ASTM C-478, latest revision. Steps shall be ductile iron or aluminum integrally cast into catch basin sidewalls.
- 7. The Contractor shall provide a minimum of 2' of cover over all storm sewers. Contact engineer if problems are encountered.
- 8. Rip rap shall be a minimum 9" and a maximum of 17" in size and a minimum 18" in depth. Dimensions for rip rap on this plan are for estimating purposes only. Actual best placement of rip rap shall be determined by field conditions and shall be in accordance with Section 616.

STRUCTURE DATA

(detail)

ST--3A

ST--3A

ST-6

ST-6

ST-6

ST-6

ST-6

ST-5

ST-3A

ST-31

ST--3A

ST--JA

ST--3A

ST-31

ST-6

ST-6

ST-6

ST-5

ST-6

ST-6

ST-6

ST--3A

DEPIE

(feet)

9.78

5.73

7.3

7.35

4.38

3.17

3.42

5.44

9.76

7.57

7 44

3.41

5.14

4.73

4.19

SIRUCIURE

(number)

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701

702

703

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707

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719 720

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- 9. All drainage pipe and ditch outfalls to receiving streams shall be constructed in accordance with drawings, subject however, to any modification required by Engineer at the time installation is completed and to any adjustments needed for field conditions not adequately anticipated by the design drawings.
- Jordan approved equal. Castings shall be gray iron meeting ASTM A-48, latest revision. 11. Install gaskets in accordance with manufacturer's recommendations for use of lubricants, cements and other

10. Castings shall be as shown on detail sheet for manufacturer,

type and number. All castings shall be Neenah or East

- special installation requirements. 12. Place plugs in ends of incomplete piping at end of work day or whenever work stops, and at stubs for future development.
- 13. Carry depth of trenches for piping to establish indicated flow lines and invert elevations. Notch under pipe bells where applicable to provide solid bearing for entire body of
- 14. Trenching: Lay all pipe in open trenches, except when the local authority gives written permission for tunneling. Open the trench sufficiently ahead of pipe-laying to reveal any obstructions. The width of the trench shall be the outside pipe diameter plus 6 inches each side for 12 inches above the pipe. Sheet and brace trench as necessary to protect workmen and adjacent structures. All trenching to comply with Occupational Safety and Health Administration Standards. Keep trenches free from water while construction is in progress. Under no circumstances lay pipe or appurtenances in standing water. Conduct the discharge from trench dewatering to drains or natrual drainage channels.
- 15. Backfilling: For a depth of at least 12 inches above the top of the pipe, backfill with earth or granular material free from large stones, rock fragments, roots or sod. Tamp this backfill thoroughly, taking care not to disturb the pipe. For the remaining trench depth, backfill with earth or granular mataerial containing stones or rocks not larger than 4 inches. Backfill under walks, parking areas, driveways and streets shall be granular material only thoroughly compacted, by approved methods. Trenches parallel to and within 5 feet of paved roadways shall be constructed the same.
- 6. Manhole Inverts: Construct manhole flow channels of concrete, sewer pipe or brick, smoothly finished and of semi-circular section conforming to the inside diameter of the connecting sewers. Make changes in size or grade gradually and changes in direction by true curves. Provide such channels for all connecting sewers at each manhole.
- 17. Shop drawings of all drainage structures shall be submitted to the Engineer per City.

SIZE (inches)

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15 12

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PIPE DATA

LENGTH (feet)

787

180

272 447

149

64

157

170

97

139

258 196

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124

38 116

110

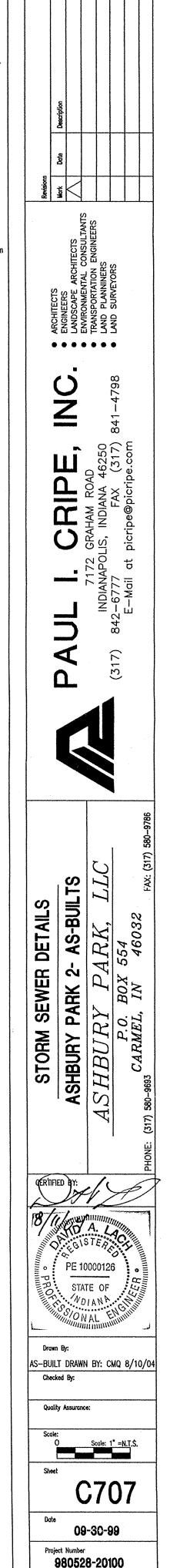
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- 1. THE DEPTH OF THE STRUCTURE IS CALCULATED FROM THE TC OR RIM ELEVATION TO THE INVERT OUT.
- 744A 4.63 R-3501-N 745 743 12 37 RCP ST-5

STRUCTURE	TYPE	DEPTH	CASTING	STRUC	CTURE	SIZE	LENGTH	TYPE
(number)	(detail)	(feet)	(Neenah)	US	DS	(inches)	(feet)	
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722	ST-3A	-	CONC. END SECTION		-	-	-	
723	ST-6	9.97	R-1772-A	723	722	30	163	RCP
724	ST-6	5.62	R-1772-A	724	723	27	307	RCP
725	ST-6	4.30	R-4342	725	724	15	143	RCP
726	ST-5	3.34	R-4342	726	725	12	441	RCP
727	ST-31	5.04	R-3501-N	727	724	21	18	RCP
728	ST-6	4.77	R-3501-N	728	727	18	30	RCP
729	ST-6	4.19	R-1772-A	729	728	15 :	50	RCP
730	ST3A		CONC. END SECTION	730	729	15	111	RCP
731	ST-31	4.83	R-3501-N	731	724	18	54	RCP
732	ST-5	6.22	R-1772-A	732	731	15	247	RCP
733	ST6	4.56	R-3501-N	733	732	12	15	RCP
734	ST-5	3.67	R-3501-N	734	733	. 12	30	RCP
735	ST-6	5.60	R-1772-A	735	732	15	116	RCP
736	ST6	4.44	R-3501-N	736	735	15	- 58	RCP
737	ST5	3.90	R-4342	737	736	12	78	RCP
738	ST-3A	-	CONC. END SECTION	-		-	-	
739	ST-6	5.16	R-3501-N	739	738	27	134	RCP
740	ST6	7.23	R-3501-N	740	739	24	30	RCP
741	ST-5	3.37	R-4342	741	740	12	125	RCP
742	ST-5	3.11	R-4342	742	741	12	55	RCP
743	ST6	4.33	R-3501-N	743	740	24	127	RCP
744	ST-5	3.36	R-4342	744	743	21	121	RCP
744A	ST-6	4.15	R-4342	744A	744	18	172	RCP

STORM SEWER NETWORK DATA TABL

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US DS

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CONC. END SECTION 712 711

CASTING

(Neenah)

ONC. END SECTION

CONC. END SECTION

CONC. END SECTION

R-4342

R-4342

R-4342

R-3501-N

R-3501-N

R-4342

CONC. END SECTION

CONC. END SECTION

CONC. END SECTO

R-3501-N

R-1772-A

R-3501-N

R-3501-N

R-4342

R-3501-N

R-1772-A

R-4342

STORM SEWER NETWORK DATA TABLE

R-3501-N

SEELOSTORM FOR MENTIONAN & PROFILES SHEETS TO CONFIRM PIPE LENGTHS AND STRUCTURE INFORMATION

4. ALL GRATED BOX END SECTIONS SHALL BE INDOT TYPE I AND SHALL CONFORM TO SHEET 1 GRATED BOX

STORM STRUCTURE DATA

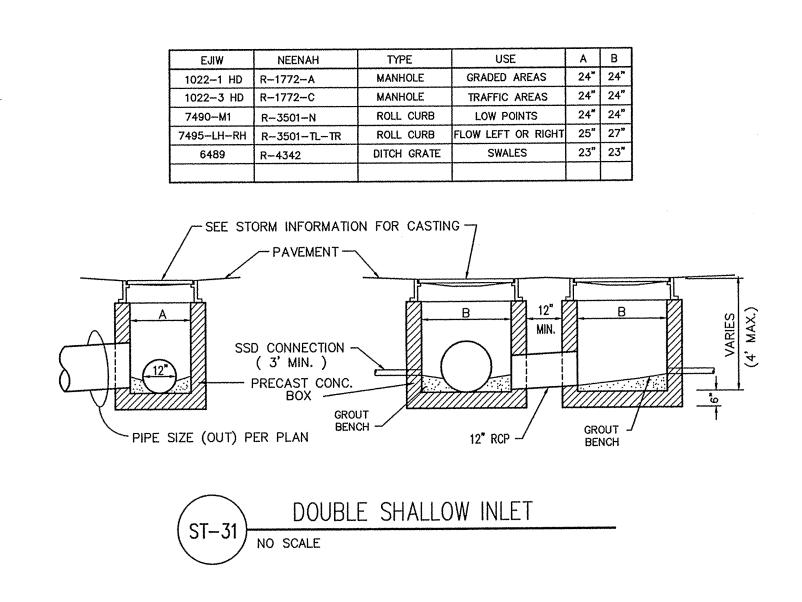
- 2. THE PIPE LENGTHS ARE FROM THE CENTER OF THE STRUCTUR TO THE CENTER OF THE STRUCTURE.

- 3. SEE SPECIFICATIONS FOR TYPES OF PIPES DESIGNATED OPT. (OPTIONAL).

END SECTIONS IN THE INDOT ROADWAY STANDARDS.

NO SCALE

ST-71



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Kenizio ARCH TAL NON ARCHITECTS ENGINEERS LANDSCAPE ENVIRONMEN TRANSPORTA LAND PLANN LAND SURVE ..... NO 4798 841-40 46250 (317) **.** CRIPE, FAX <u>ND</u> IS CR ъ -842-( E-J PA (317) STORM SEWER DETAILS SHBURY PARK 2- AS-BUILTS SHBURY PARK, LLC ASHBURY PARK 2- A ASHBURY PAK P.O. BOX 55 CARMEL, IN 4 CERTIFIED BY: EXITER I PE 10000126 STATE OF date date l' Drawn By: AS-BUILT DRAWN BY: CMQ 8/10/04 Checked By: Quality Assurance: Scale: O Scale: 1" =N.T.\$. Sheet C708 Date 09-30-99 Project Number 980528-20100