



SURVEYOR'S OFFICE

Hamilton County

Kenton C. Ward, Surveyor

Suite 146

776-8495

One Hamilton County Square

Noblesville, Indiana 46060-2230

March 27, 1994

TO: Hamilton County Drainage Board

RE: Exit Ten Drain

Attached is a petition, non-enforcement request, plans, calculations, quantity summery and assessment roll for the Exit Ten 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 this 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:

15" ?	198 LF	36" ?	314 LF
18"	369 LF	42"	578 LF
21"	385 LF	48"	1199 LF
24"	3147 LF	Open Ditch	
27"	282 LF	Pipe #45 to #46	560 LF
30"	443 LF	Pipe #47 to Mud Creek	200 LF

The Total length of the drain will be 7675 Feet.

The retention pond (lake) located on the proposal 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 Exit Ten, Inc.. 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.

Pipes shown on plan by Howard K. Bell Consulting Engineers, Inc, which are be part of the regulated drain are listed below. The composite drainage plan is date October 22, 1993, Sheet 3 of 26.

<u>Pipe #</u>	<u>Length</u>	<u>Size</u>
1	17'	18"
2	58'	15"
3	385'	21"
4	58'	15"
5	10'	24"
6	120'	24"
7	192'	24"
8	10'	18"
9	282'	27"
10	443'	30"
11	62'	15"
12	30'	18"
12A	52'	36"
13	17'	18"
14	40'	18"
15	205'	18"
16	262'	36"
17	10'	26" 18"
18	261'	42"
19	10'	18"
20	10'	15"
21	317'	42"
22	10'	18"
23	10'	15"
24	500'	48"
25	10'	18"
26	10'	18"
27	394'	48"

Outfall to Mud Creek

38	230'	24"
39	371'	24"
40	278'	24"
41	341'	24"
42	464'	24"
43	500'	24"
44	500'	24"
45	141'	24"
46	223'	48"
47	82'	48"

Open Drain (ditch)

From 45 to 46	560 feet
From 47 to Mud Creek	200 feet

I have reviewed the plans and believe the drain will benefit each tract equally when developed. Therefore, I recommend each tract 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 \$10.00 per acre, with a \$50.00 minimum. With this assessment the total annual assessment for the drain/this section will be \$ 2,263⁰⁰,

Parcels assessed for this drain may be assessed for Mud Creek at sometime in the future.

I believe this proposed drain meets the requirements for Urban Drain Classification as set out in IC 26-9-27-67 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 requests. These requests are for the reduction of the regulated drain.

easement to those easement widths as shown on the form for Exit
Ten, Inc., Bertus J. & Richard N. Beitman, David & Marilyn Carter
and Richard Nay.

I recommend the Board set a hearing for this proposed drain
for May 1994.

Kenton C. Ward
Hamilton County Surveyor

KCW/no

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

Drain-Improvement: EXIT TREN - PHASE I & II

Drain Type:	Size:	Length ()	Length (DB Query)	Length Reconcile	If Applicable	
					Price:	Cost:
RCP	15"	198'	198'			
	18"	340'	340'			
	21"	385'	385'			
	* 24"	3049'	2835'	-214		
	27"	282'	282'			
	30"	443'	443'			
	36"	314'	314'			
	42"	560'	560'			
	48"	898'	898'			
	60"	309'	309'			
STEEL PIPE	18"	124'	124'			
OPEN DITCH	-	856'	856'			

Sum: 7758' 7544' -214 301,975.51

Final Report: *7758'

Comments:
* 214' OF 24" RCP REMOVED & REPLACED WITH TWIN 30" RCP
FOR DEER CREEK INDUSTRIAL PARK CONSTRUCTION

CHANGE ORDER

AIA DOCUMENT G701

OWNER
 ARCHITECT
 CONTRACTOR
 FIELD
 OTHER

PROJECT: Exit Ten, Inc.
 (name, address) Storm Sewer 1, 2 & 3
 Hamilton Commons

TO CONTRACTOR:
 (name, address) Skinner & Broadbent Const.
 201 N. Illinois Street
 Indianapolis, IN 46204

CHANGE ORDER NUMBER: 1
 DATE: 12/19/96
 ARCHITECT'S PROJECT NO: 96-215
 CONTRACT DATE:
 CONTRACT FOR: Storm Sewer 1,2 & 3

The Contract is changed as follows:

Add to the above referenced contract to upsize the RCP pipe from 54" to 60" under Ohio Road at the request of Hamilton County = \$17,968.91.

Add general conditions as follows to cover (31) days extension on schedule:

Superintendent	1900	Insurance	15
Utilities	250		
Phone	125		
Travel	50		
Temp. Toilet	37.50		
Project Mgr.	500		
Additional Mgt. Fee	2293.10		

Not valid until signed by the Owner, Architect and Contractor.

The original (Contract Sum) (Guaranteed Maximum Price) was \$ 278,836.00
 Net change by previously authorized Change Orders \$ 0.00
 The (Contract Sum) (Guaranteed Maximum Price) prior to this Change Order was \$ 278,836.00
 The (Contract Sum) (Guaranteed Maximum Price) will be (increased) (decreased)
 (unchanged) by this Change Order in the amount of \$ 23,139.51
 The new (Contract Sum) (Guaranteed Maximum Price) including this Change Order will be \$ 301,975.51

The Contract Time will be (increased) (decreased) (unchanged) by thirty-one calendar days (31) days.
 The date of Substantial Completion as of the date of this Change Order therefore is January 20, 1997

NOTE: This summary does not reflect changes in the Contract Sum, Contract Time or Guaranteed Maximum Price which have been authorized by Construction Change Directive.

ARCHITECT	Skinner & Broadbent Const. 201 N. Illinois St, 23rd Fl. Indianapolis, IN 46204	OWNER	Exit Ten, Inc. 2006 Robinwood Muncie, IN 47304
Address	Address	Address	Address
BY	<i>Pamela K. Mathias</i> Pamela K. Mathias	BY	Marshall Roch, M.D.
DATE	DATE	DATE	DATE



CAUTION: You should sign an original AIA document which has this caution printed in red. An original assures that changes will not be obscured as may occur when documents are reproduced.

STATEMENT OF COMPLETION AND COMPLIANCE

To: Mr. Jerry L. Liston
HAMILTON COUNTY SURVEYOR'S OFFICE
Suite 146
One Hamilton County Square
Noblesville, IN 46060

Re: EXIT TEN/HAMILTON COMMONS
PUBLIC DRAINAGE FACILITIES

I hereby state 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 development.
3. I have inspected the drainage facilities for the above referenced development after construction was completed. This inspection was made during two field visits to the site.
4. The drainage facilities within the above referenced development to the best of my knowledge, information and belief and from information compiled and furnished by others have been installed and completed in conformity with all plans and specifications with the exception of the improvements listed on the attached sheet.

Signature:  Date: March 28, 1996

Type or Print Name: Kevin J. Brian

Business Address: Howard K. Bell Consulting Engineers, Inc.
111 East Kentucky Street
Louisville, KY 40203

Telephone Number: (502) 584-8877 Fax Number: (502) 584-9393

SEAL



INDIANA REGISTRATION NUMBER

FILED

19300488

MAR 29 1996

OFFICE OF HAMILTON COUNTY SURVEYOR

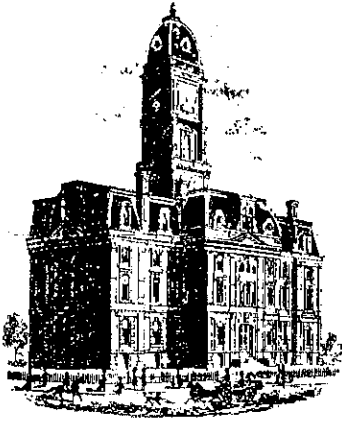
HAMILTON COMMONS AND E. 136TH STREET IMPROVEMENT

PHASE I CONSTRUCTION PLANS

The following is a list of roadway, drainage and sanitary sewer additions not completed as of December, 1995.

1. SR 238 turning lane improvements at the Olio Road intersection. (sheet 8)
2. Olio Road improvements from SR 238 and E. 136th Street. (sheet 8)
3. Storm line '1' from E. 136th Street to the north side of SR 238. (sheet 7)
4. Large retention pond near Pennington Road. (sheet 9) This facility is about 60% complete.
5. Storm line '2' from the large retention pond to Olio Road. (sheets 13 and 18)
6. Off-site drain pipe to Mud Creek (sheet 17)
7. Sanitary Sewer line 'C' and 'C-1' from the WWTP to SR 238. (sheets 15 and 20)

The above items are scheduled for construction in the Spring and Summer of 1996.



SURVEYOR'S OFFICE

Hamilton County

Kenton C. Ward, Surveyor

Phone (317) 776-8495

Fax (317) 776-9628

Suite 146

One Hamilton County Square

Noblesville, Indiana 46060-2230

To: Hamilton County Drainage Board

December 30, 1998

Re: Exit Ten Drain

Attached are as-builts, certificate of completion & compliance, and other information for Exit Ten Drain. 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 March 27, 1994. The changes are as follows:

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

str 5-6a	not	installed	24	0	10	-10
6a	840.06	838.23				
6	841.38	838.14	18	124	120	4
6	841.38	838.14				
7	841.5	837.5	24	192		
7	841.5	837.5				
stub# 8			18	10		
7	841.5	837.5				
9	842.2	836.7	27	282		
46		820.45				
47	831.24	819.4	60	232	48" - 223	9
47	821.24	819.3				
47a		818.61	60	77	48" - 82	-5
45a		821.9				
45	834.99	822.49	24	214	141	73
45	834.99	822.49				
44	852.4	823.61	24	484	500	-16
44	852.4	823.69				
43	840.18	824.75	24	501	500	1

43	840.18	824.8				
42	841.43	826.13	24	505	464	41
42	841.43	826.11				
41	841.71	827.33	24	499	341	158
41	841.71	827.37				
39	840.42	828.5	24	427	371	56
39	840.42	828.57				
38		829	24	227	230	-3
pipe 40	not	installed	24	0	278	-278
27a		827.39				
27	838.5	828.86	48	394		
27	838.5	833.09				
24	840.2	830.13	48	504	500	4
24	840.2	830.13				
21	841.5	831.03	42	304	317	-13
21	841.5	831.03				
18	837.5	831.81	42	256	261	-5
stub# 25			18	10		
stub# 26			18	10		
stub# 22			18	10		
stub# 23			15	10		
stub# 19			18	10		
stub# 20			15	10		
stub# 17			18	10		
3	842.8	938.61				
9	842.2	837.46	21	385		
9	842.2	836.71				
10	838	832.98	30	443		
10	838	832.98				
12a	837.85	832.72	36	64	52	12
12a	837.85	832.72				
16	837.5	831.81	36	250	262	12
3	842.8	839.11				
2	842.21	839.15	15	6		
2	842.21	839.15				
2a	842.47	839.47	15	52		
9	842.2	837.76				
4	840.31	837.19	15	6		
4	840.31	837.19				
4a	840.55	838.05	15	52		
12a	837.85	834.25				
11	838.35	835.35	15	62		
stub# 1			18	17		
10	838	832.98				
15	836.7	833.59	18	215	205	10
15	836.7	833.59				

14	836.67	833.59	18	8	additional	8
14	836.67	833.59				
14a	836.67	833.73	18	40		
Stub# 13	not	installed	18	0	17	-17

RCP Pipe Totals:

15"	198
18"	464
21"	385
24"	3049
27"	282
30"	443
36"	314
42"	560

48"	898
60"	309
Other Drain:	
open ditch 45-46	650
open ditch 47-mud	206

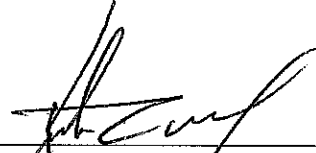
The length of the drain due to the changes described above is now **7,758 feet**.

The non-enforcement was approved by the Board at its meeting on June 27, 1994 and recorded under instrument #9432305.

This project was a tiff district area and constructed with these funds. Therefore, bonds were not obtained.

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

Sincerely,

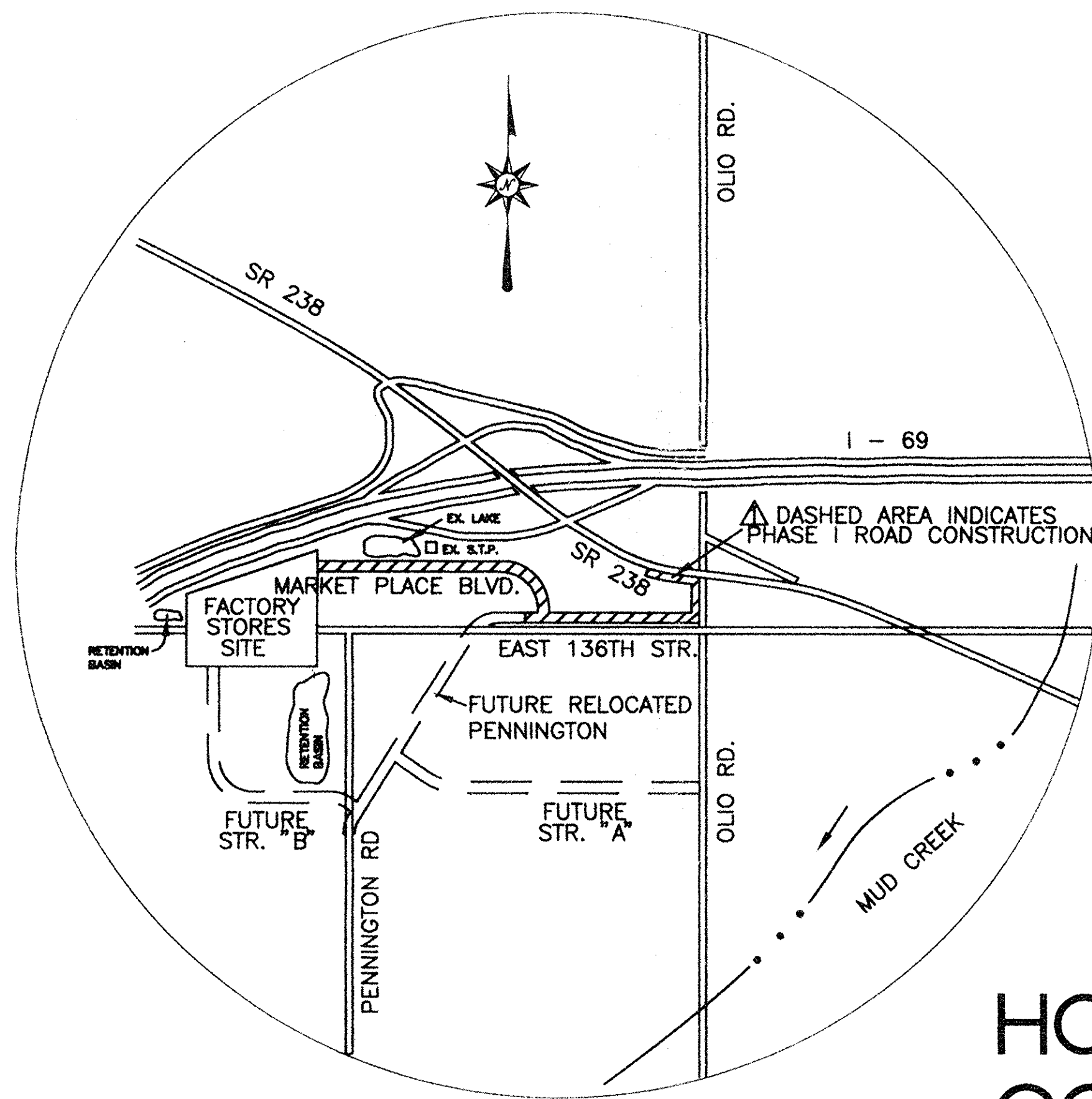
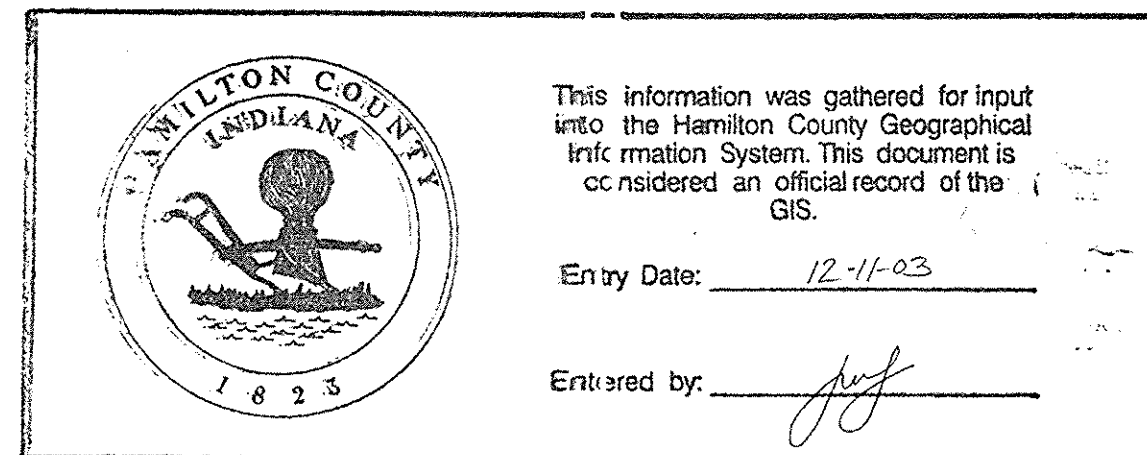


Kenton C. Ward,
Hamilton County Surveyor

KCW/slm

CONTRACT 459-93-1
HAMILTON COMMONS AND
EAST 136TH IMPROVEMENTS
EXIT 10 INCORPORATED
HAMILTON COUNTY, INDIANA
1993

1 PHASE I CONSTRUCTION PLANS



LOCATION MAP
NO SCALE

RECORD DRAWINGS
THESE RECORD DRAWINGS HAVE BEEN PREPARED ON THE BASIS OF INFORMATION COMPILED AND FURNISHED BY THE CONTRACTOR DURING CONSTRUCTION. THE ENGINEER IS NOT RESPONSIBLE FOR ANY RESULTING ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THIS DOCUMENT. PART OF THE STORM DRAINAGE FACILITIES, ROADWAYS, AND SANITARY SEWERS SHOWN ON THESE PLANS WERE NOT COMPLETED AT THE TIME THESE RECORD DRAWINGS WERE PREPARED. THESE IMPROVEMENTS ARE SHOWN AS "NOT CONSTRUCTED".

HOWARD K. BELL
CONSULTING ENGINEERS, INC.
LEXINGTON - HOPKINSVILLE - LOUISVILLE

INDEX TO DRAWINGS

SHEET NO.	TITLE
1	COVER SHEET
2	PROJECT MAP
3	COMPOSITE DRAINAGE PLAN
4	EROSION CONTROL PLAN AND SOIL SURVEY
5	PLAN & PROFILE EAST 136TH STREET IMPROVEMENTS
6-7	PLAN & PROFILE MARKET PLACE BOULEVARD & SMALL EASTERNMOST RETENTION POND
8	STATE ROUTE 238 AND OLIO ROAD IMPROVEMENTS
9	LARGE RETENTION BASIN
10	SMALL WESTERNMOST RETENTION POND
11	ROADWAY TYPICAL SECTION AND STANDARD DETAILS
12	PLAN & PROFILE FUTURE RELOCATED PENNINGTON ROAD
13	PLAN & PROFILE FUTURE STREET 'A' AND STORM LINE '2'
14	PLAN & PROFILE FUTURE STREET 'B'
15-16	SANITARY SEWERS AND STORM LINE '1-1'
17	OFFSITE DRAINAGE IMPROVEMENTS TO MUD CREEK
18	STORM PROFILES
19-20	SANITARY SEWER PROFILES
21-22	STANDARD BEDDING AND MANHOLE DETAILS
23	SEWAGE PUMP STATION DETAILS
24	ELECTRICAL DETAILS
25-26	STANDARD SPECIFICATIONS
27	MAINTENANCE OF TRAFFIC PLAN
28-29	PAVEMENT MARKING & SIGNAGE PLAN

- REVISIONS:**
- 1 12-17-93 PLANS REVISED TO CONFORM TO HAMILTON COUNTY HIGHWAY DEPARTMENT, HAMILTON COUNTY SURVEYOR'S OFFICE, AND CITY OF NOBLESVILLE TAC COMMENTS.
 - 2 7-08-94 PLANS REVISED PER INDOT COMMENTS.
 - 3 7-21-94 PLANS REVISED TO CONFORM TO HAMILTON COUNTY HIGHWAY DEPARTMENT, HAMILTON COUNTY SURVEYOR'S OFFICE, AND CITY OF NOBLESVILLE TAC COMMENTS.
 - 4 8-22-94 PLANS REVISED TO CONFORM TO HAMILTON COUNTY HIGHWAY DEPARTMENT COMMENTS.
 - 5 3-4-96 AS BUILT REVISIONS, 15'

- NOTES:**
- THE ENGINEERING DATA ADDRESSED BELOW WERE PROVIDED TO HKB BY THE OWNER FOR INCORPORATION INTO THE CIVIL ENGINEERING SITE DEVELOPMENT DESIGN FOR THE SUBJECT PROJECT. HKB ASSUMES NO LIABILITY FOR THE ACCURACY OF FURNISHED DATA.
 - TOPOGRAPHICAL SURVEY DATA SHOWN ON THESE PLANS WERE PROVIDED TO HKB BY THE OWNER.
 - LEGAL BOUNDARY SURVEY DATA SHOWN ON THESE PLANS WAS PROVIDED BY THE OWNER THROUGH MILLER SURVEYING, INC.
 - TRAFFIC IMPACT ANALYSIS FOR THIS PROJECT WAS PROVIDED BY THE OWNER BY A & F ENGINEERING CO., INC. RECOMMENDATIONS FROM THE ANALYSIS WERE CONSIDERED BY THE OWNER AND HKB IN THE GEOMETRIC LAYOUT OF ROADS AND INTERSECTIONS SHOWN ON THESE PLANS.
 - STORMWATER DRAINAGE STUDY FOR THIS PROJECT WAS PREPARED BY WARREN T. HOBSON & ASSOCIATES INC. THE DRAINAGE CONCEPTS DEVELOPED IN THE STUDY (RETENTION BASIN AND GENERAL STORM LAYOUT) WERE A SUBSTANTIAL BASIS FOR THESE DESIGN FEATURES.

PLAN PRINT DATE: 8/22/94

FILED
APR 16 1996
OFFICE OF HAMILTON COUNTY SURVEYOR

PIPE CALCULATIONS

PIPE NO.	A ACRES	Q C.F.S.	LENGTH FEET	SIZE INCHES	SLOPE %	VELOCITY F.P.S.	Tc MIN.	I INTEN.	CAPACITY CFS
1	1.5	6.2	17	18	0.30	4.0	10.0	5.0	6.8
2	0.2	0.9	58	15	0.62	3.3	10.0	5.0	5.8
3	2.0	8.0	385	21	0.30	4.4	10.3	5.0	11.0
4	0.2	0.9	58	15	0.50	3.1	10.0	5.0	5.2
5	-	12.0	10	24	0.25	4.6	-	-	15.0
6	-	12.0	120	24	0.25	4.6	-	-	15.0
7	-	12.0	192	24	0.25	4.6	-	-	15.0
8	2.0	8.3	10	18	0.50	5.2	10.0	5.0	8.6
9	9.0	19.9	292	27	0.28	5.3	11.2	4.8	20.0
10	11.2	28.4	443	30	0.83	6.5	10.0	5.0	34.0
11	2.3	6.9	62	15	1.77	8.5	12.1	4.7	44.0
12	0.4	0.7	30	18	0.30	2.5	10.0	5.0	15.0
13	1.0	4.1	17	18	0.50	5.0	10.0	5.0	6.8
14	0.1	0.4	40	15.18	0.35	2.0	10.0	5.0	4.0
15	1.2	5.0	205	18	0.20	2.9	10.3	5.0	5.0
16	17.1	48.8	262	36	0.39	7.2	13.1	4.6	50.0
17	1.3	5.4	10	18	0.50	4.8	10.0	5.0	8.6
18	18.4	52.6	261	42	0.30	6.2	13.7	4.5	58.8
19	2.2	9.1	10	18	1.00	7.2	10.0	5.0	13.0
20	0.9	3.7	10	15	1.00	5.8	10.0	5.0	7.2
21	21.5	63.0	317	42	0.35	6.7	14.4	4.4	64.6
22	2.1	8.7	10	18	1.00	7.0	10.0	5.0	13.0
23	1.7	7.0	10	15	2.00	8.5	10.0	5.0	11.0
24	25.3	75.4	500	48	0.25	6.0	15.2	4.3	78.0
25	2.6	10.8	10	18	1.00	7.5	10.0	5.0	13.0
26	2.4	10.0	10	18	1.00	7.2	10.0	5.0	13.0
27	30.3	91.4	394	48	0.35	7.3	16.6	4.2	92.3
28	6.8	28.2	17	30	0.50	7.1	10.0	5.0	34.0
29	7.3	30.5	40	30	0.50	7.2	10.0	5.0	34.0
30	7.8	32.7	218	30	0.67	7.1	10.1	5.0	40.0
30A	7.8	32.7	121	30	0.50	7.1	10.0	5.0	35.0
31	3.4	14.0	17	21	0.60	6.2	10.0	5.0	15.5
32	3.8	15.4	40	21	0.60	6.0	10.0	5.0	15.5
33	0.8	3.6	153	15	0.60	4.6	10.0	5.0	6.0
34	4.8	19.6	180	24	0.70	6.6	11.1	4.8	22.5
35	1.4	3.4	150	12	0.66	4.5	11.7	4.8	3.5
36	2.8	10.9	145	18	0.86	6.0	12.4	4.7	11.0
37	-	2.5	90	12	0.50	3.2	-	-	2.5
38	-	15.0	230	24	0.25	4.8	-	-	15.0
39	-	15.0	371	24	0.25	4.8	-	-	15.0
40	-	15.0	278	24	0.25	4.8	-	-	15.0
41	-	15.0	341	24	0.25	4.8	-	-	15.0
42	-	15.0	464	24	0.25	4.8	-	-	15.0
43	-	15.0	500	24	0.25	4.8	-	-	15.0
44	-	15.0	500	24	0.25	4.8	-	-	15.0
45	-	15.0	141	24	0.25	4.8	-	-	15.0
46	61.0	167.0	305	54	0.55	6.5	16.5	3.6	170.0
48	14.0	56.7	298	48	0.20	4.8	13.8	4.5	69.8
12A	12.8	34.5	52	36	0.72	8.9	13.0	4.6	64.0

* PIPES NOT CONSTRUCTED

NOTES:

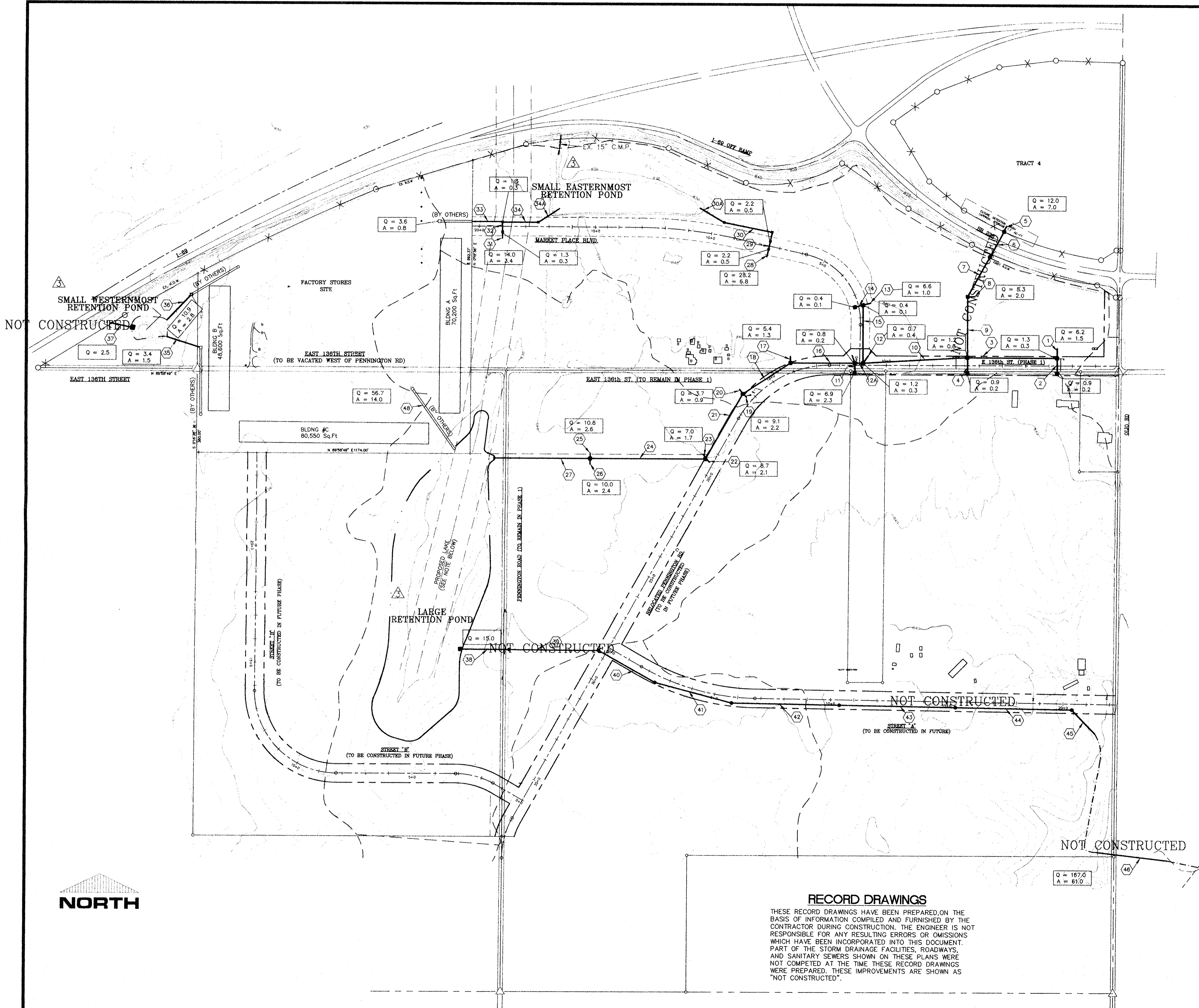
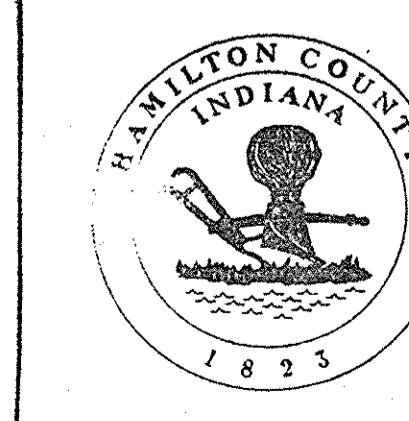
- ALL PERSONS ON SITE MUST ABIDE BY ALL I.O.S.H.A. STANDARDS INCLUDING BUT NOT LIMITED TO "GENERAL CONSTRUCTION PRACTICES" AND "TRENCH SAFETY STANDARDS".
- SLOPES AND SIDES OF EXCAVATIONS SHALL BE STABILIZED AND SHALL COMPLY WITH CODES AND ORDINANCES HAVING JURISDICTION. SHORE AND BRACE WHERE SHORING IS NOT POSSIBLE BECAUSE OF SPACE RESTRICTIONS OR STABILITY OF MATERIAL EXCAVATED.
- MAINTAIN SIDES AND SLOPES OF EXCAVATIONS IN SAFE CONDITION UNTIL COMPLETION OF BACKFILLING.
- SHEETING AND SHORING OF TRENCHES SHALL BE PROVIDED BY THE CONTRACTOR WHERE NECESSARY TO PROTECT LIFE, PROPERTY AND THE NEW OR EXISTING STRUCTURES FROM DAMAGE OR TO MAINTAIN MAXIMUM PERMISSIBLE TRENCH WIDTH AT TOP OF PIPE. ALL NECESSARY MATERIALS, INCLUDING, BUT NOT LIMITED TO, SHEETING, SHEET PILING, TRENCH JACKS, BRACES, SHORES AND STRINGERS, SHALL BE USED TO HOLD TRENCH WALLS. SHEETING AND SHORING MAY BE WITHDRAWN AS THE TRENCHES ARE BEING BACKFILLED. AFTER BACKFILL HAS BEEN TAMPED OVER TOP OF PIPE AT LEAST 18 INCHES. IF REMOVAL BEFORE BACKFILL IS COMPLETED TO SURFACE ENDANGERS LIFE AND ADJACENT STRUCTURES. THEN THE SHEETING AND SHORING SHALL BE LEFT IN PLACE UNTIL SUCH DANGER HAS PASSED, AND THEN PULLED IF PRACTICAL. VOIDS CAUSED BY SHEETING WITHDRAWAL SHALL BE BACKFILLED AND TAMPED. IF NOT WITHDRAWN, SHEETING SHALL BE CUT OFF AT LEAST 18 INCHES BELOW FINAL SURFACE GRADE.
- CULVERTS AND STORM SEWERS ARE DESIGNED FOR A TEN YEAR STORM EVENT.
- THE RATIONAL METHOD WAS UTILIZED TO CALCULATE PEAK DISCHARGES. A RUNOFF COEFFICIENT OF 0.83 WAS USED FOR UNDEVELOPED AREAS TO ALLOW FOR FUTURE DEVELOPMENT. MANNING'S N OF 0.012 WAS USED FOR CONCRETE PIPE.
- A RETENTION POND WILL BE PROVIDED IN THE FUTURE WHEN TRACT 4 DEVELOPS. THE RETENTION POND SHALL BE DESIGNED TO LIMIT THE 100 YEAR POST-DEVELOPED OUTFLOW (TO PIPE #6) TO 12 CFS.
- STORM PIPES DRAINING THE HAMILTON COUNTY ROAD RIGHT-OF-WAYS AND PIPE FROM THE LARGE RETENTION POND TO MUD CREEK SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76. PIPE SHALL BE CLASS II AND CLASS IV (BACKFILL GREATER THAN 14 FT.) WALL "B" TYPE.
- ADS PIPE MAY BE USED FOR PIPES 5,6,7,8,35,36 AND 37.
- PIPES 38 THROUGH 45 (24-INCH RCP) ARE SIZED FOR THE 100 YEAR POST-DEVELOPED OUTFLOW FROM THE LARGE RETENTION POND. THE 100 YEAR POST-DEVELOPED OUTFLOW IS LESS THAN THE 10 YEAR PRE-DEVELOPED OUTFLOW.

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Entry Date: 12-11-93

Entered by: [Signature]

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RECORD DRAWINGS

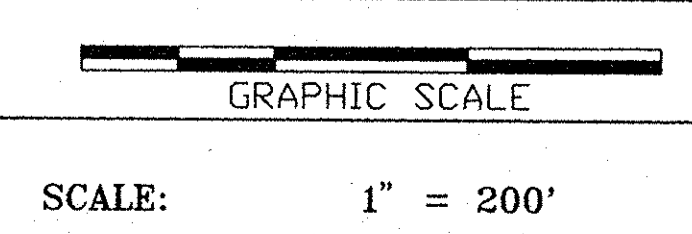
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DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAG COMMENTS
CHECKED	KJB	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAG COMMENTS
APPROVED	?	9/4/96	CLT	AS BUILT REVISIONS

HOWARD K. BELL CONSULTING ENGINEERS, INC.
 LEXINGTON - HOPKINSVILLE - LOUISVILLE
 (606) 278-5412 (502) 886-5486 (502) 584-8877
 (606) 278-2911 (FAX) (502) 886-5122 (FAX) (502) 584-9383 (FAX)

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HAMILTON COMMONS AND
 EAST 136TH STREET IMPROVEMENTS
 EXIT 10 INCORPORATED
 HAMILTON COUNTY, INDIANA

COMPOSITE DRAINAGE PLAN

DIVISION	CONTRACT NO. 459-93-1
DATE	OCT. 22, 1993
SHEET NO.	3 OF 29

C:\A0421\1996\CM\459-93-02.dwg 11/27/96 11:25:19

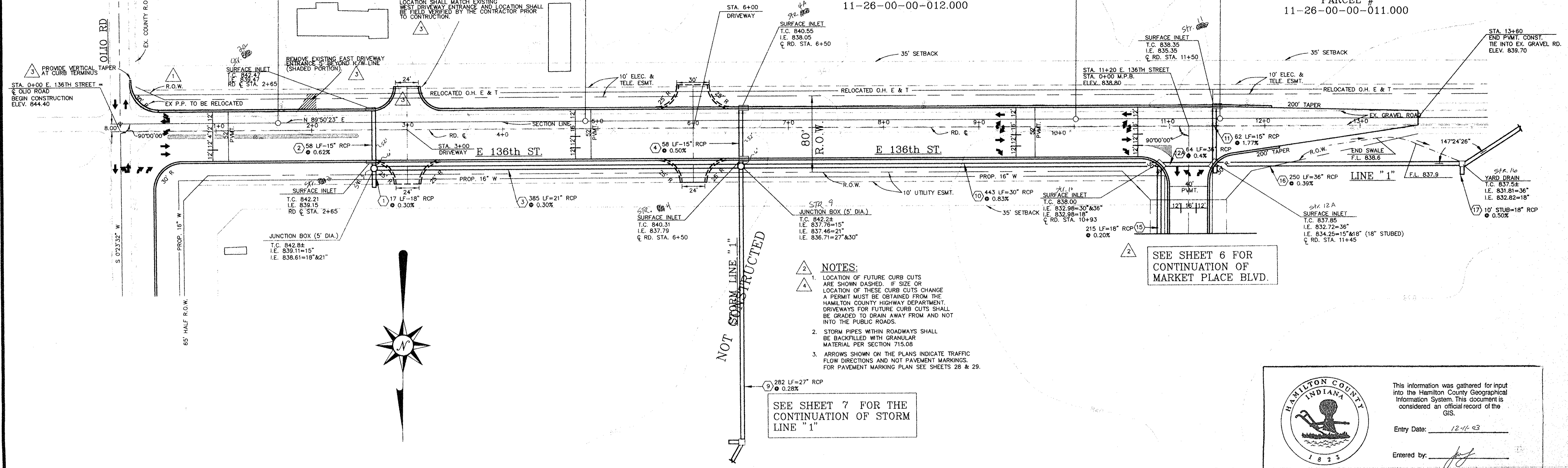
BETHLEHEM UNITED METHODIST CHURCH PARCEL # 11-26-00-00-014.000

JOE & BARBARA LEE GINDER PARCEL # 11-26-00-00-013.000

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RALPH & AUDREY M. WEAVER PARCEL # 11-26-00-00-012.001

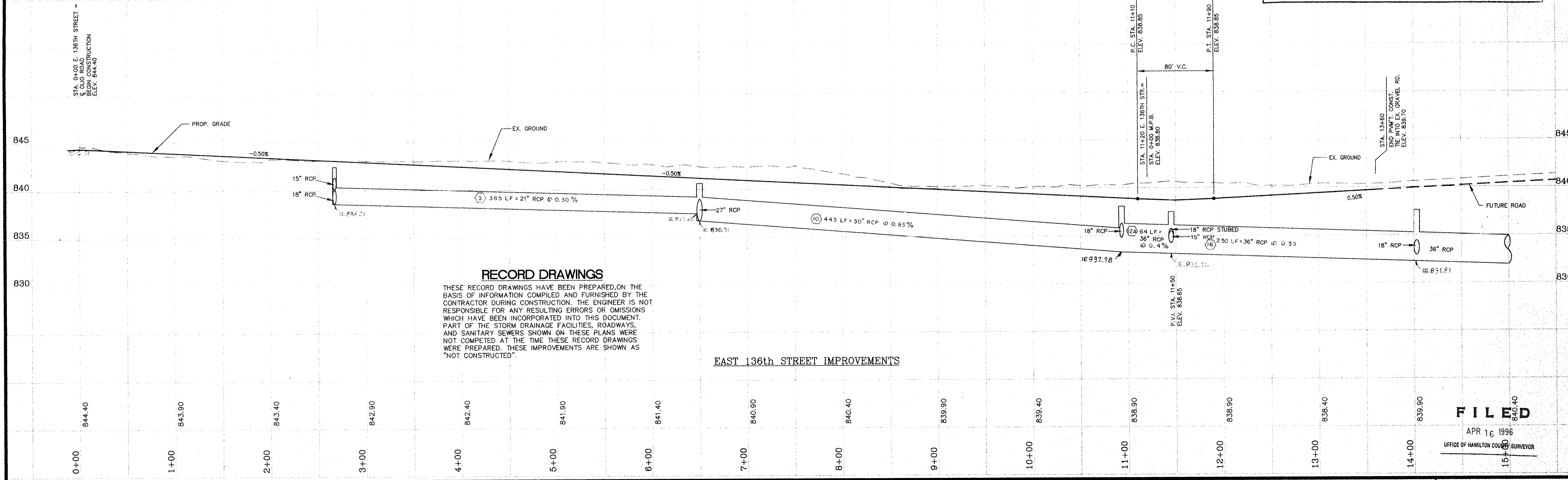
RICHARD M. NAY PARCEL # 11-26-00-00-011.000



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Entered by: [Signature]



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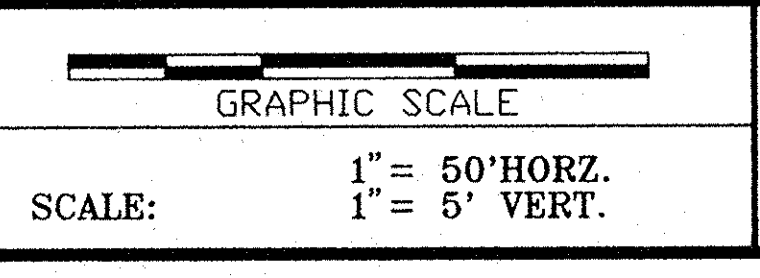
DESIGNER	DATE	BY	REVISION
KJB	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
RCG	2/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
KJB	8/22/94	CLT	PER COUNTY HIGHWAY COMMENTS
KJB	3/7/96	CLT	AS BUILT REVISIONS

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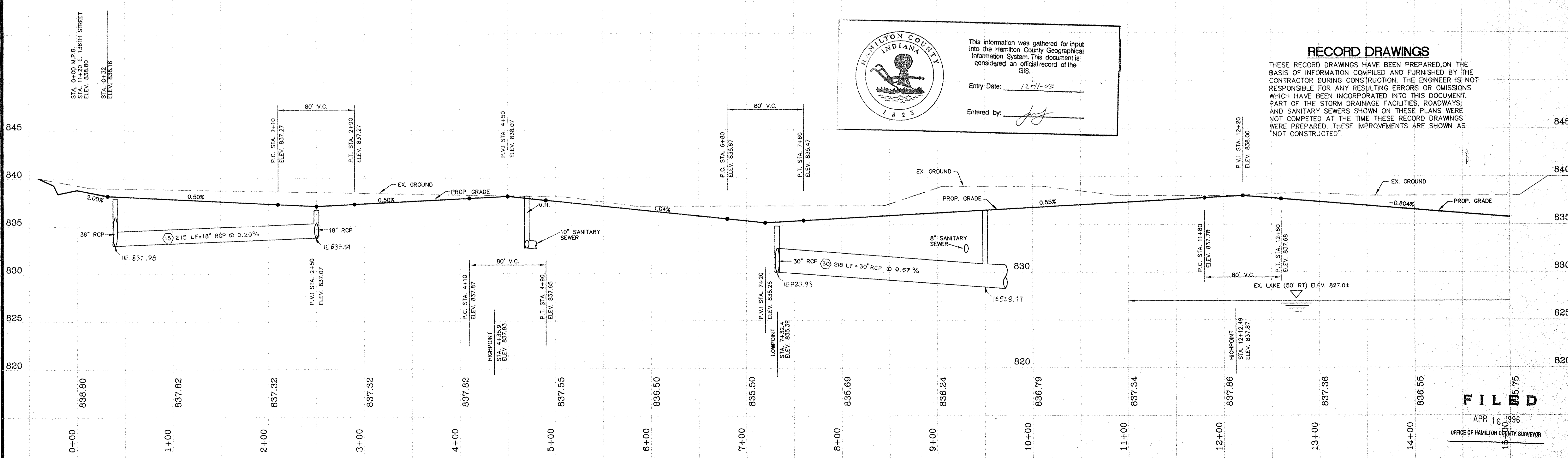
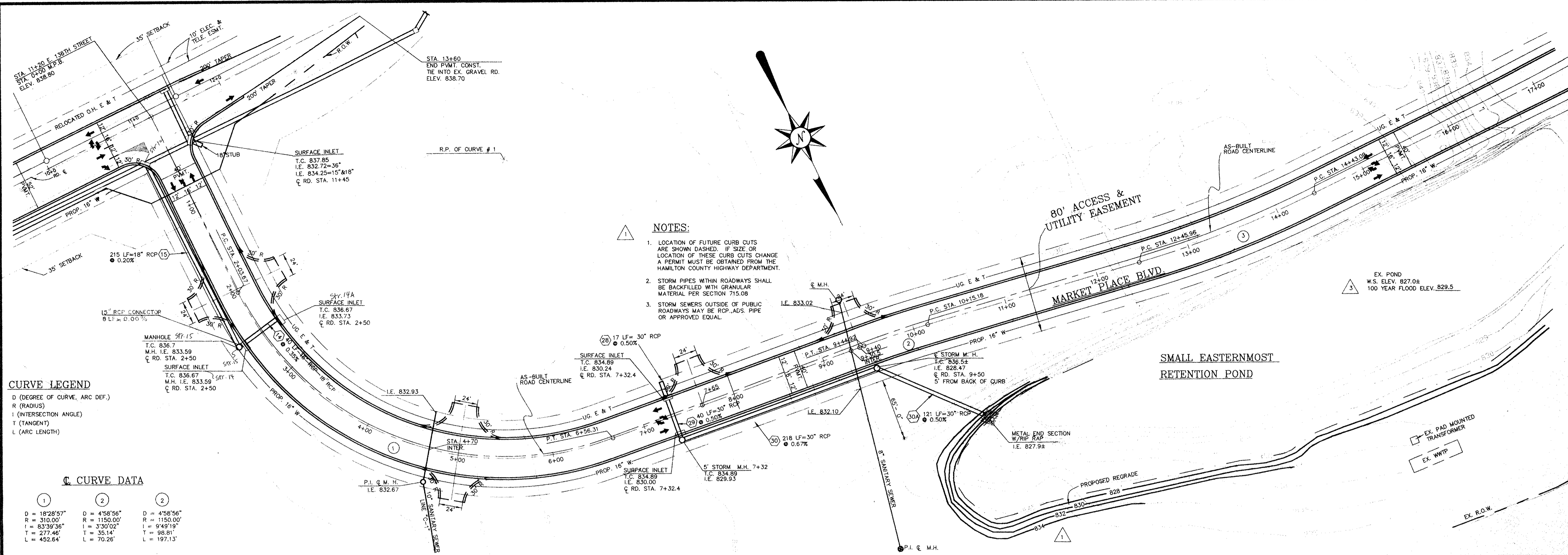
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HAMILTON COMMONS AND EAST 136TH STREET IMPROVEMENTS EXIT 10 INCORPORATED HAMILTON COUNTY, INDIANA

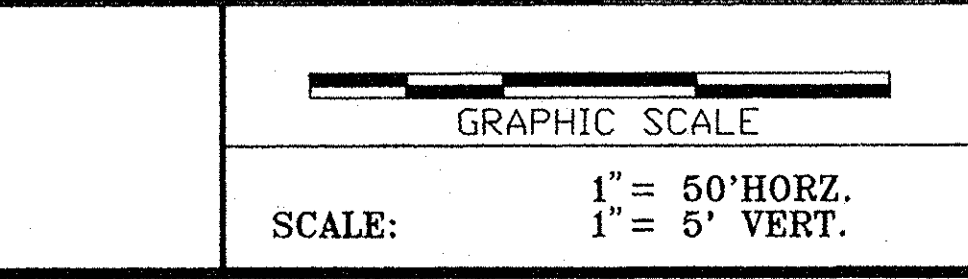
PLAN & PROFILE EAST 136TH STREET STA. 0+00 - STA. 13+60

DIVISION	CONTRACT NO. 459-93-1
DATE	OCT. 22, 1993
SHEET NO.	5 OF 29



DESIGNER	DATE	BY	REVISION
KJB	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
RCG	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
KJB	10/28/94	CLT	REVISED MARKET PLACE BLVD. ALIGNMENT & GRADING
?	?	?	AS BUILT REVISIONS

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HAMILTON COMMONS AND
 EAST 136 STREET IMPROVEMENTS
 EXIT 10 INCORPORATED
 HAMILTON COUNTY, INDIANA

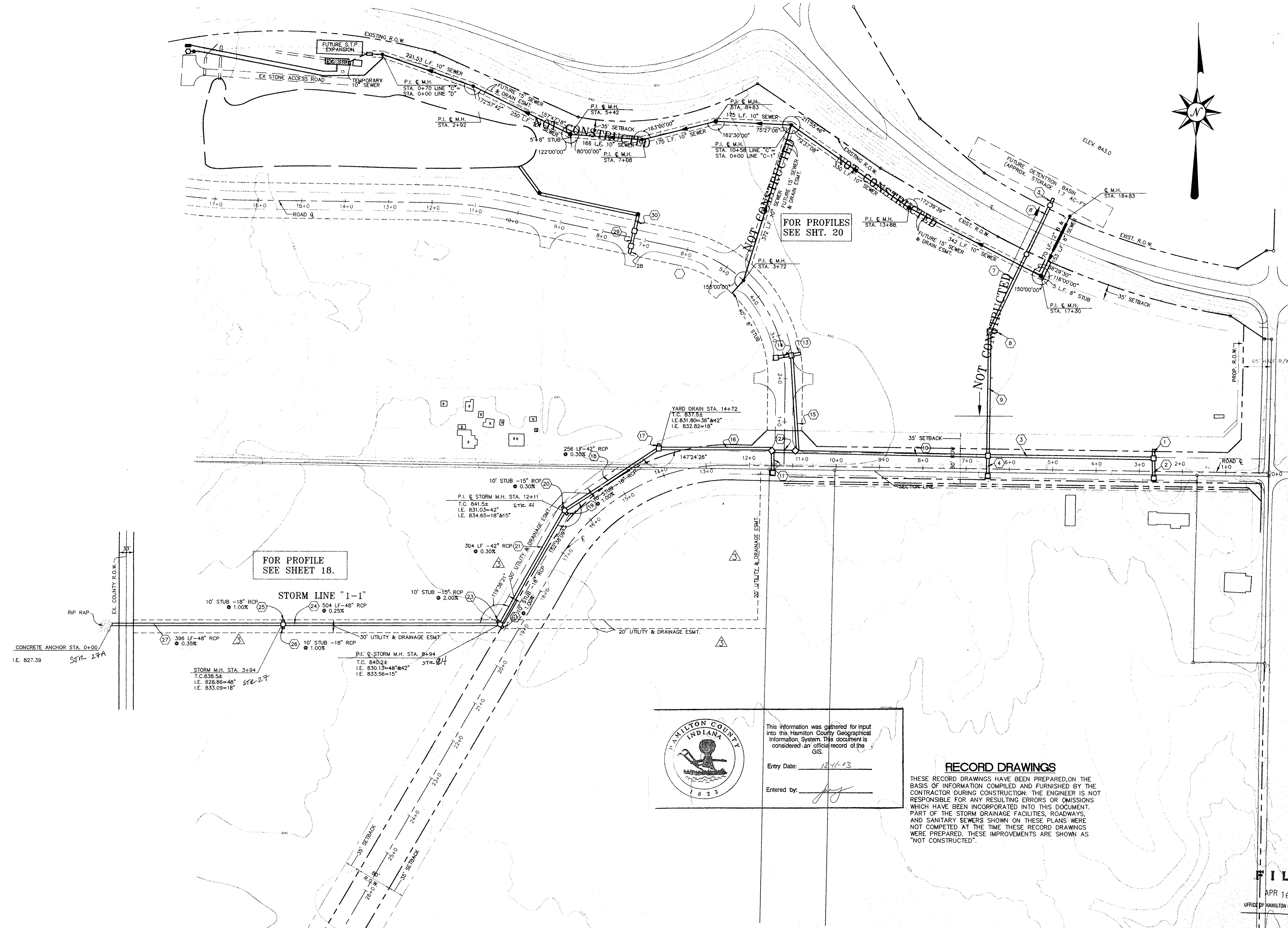
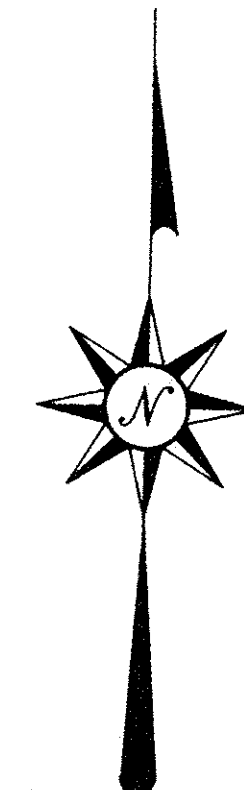
PLAN & PROFILE
 MARKET PLACE BLVD.
 & SMALL EASTERNMOST RETENTION POND
 STA. 0+00 - STA. 15+00

DIVISION
 CONTRACT NO. 459-93-1
 DATE OCT. 22, 1993
 SHEET NO. 6 OF 29

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FOR PROFILE
SEE SHEET 18.

FOR PROFILES
SEE SHT. 20



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RECORD DRAWINGS

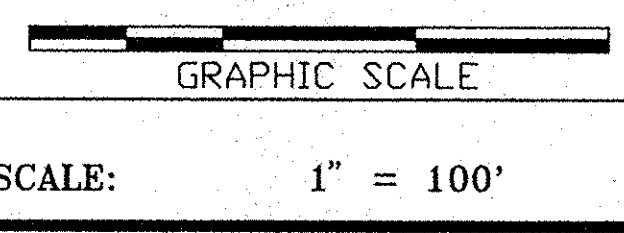
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DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	DFS	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
APPROVED		3/4/96	CLT	AS BUILT REVISIONS

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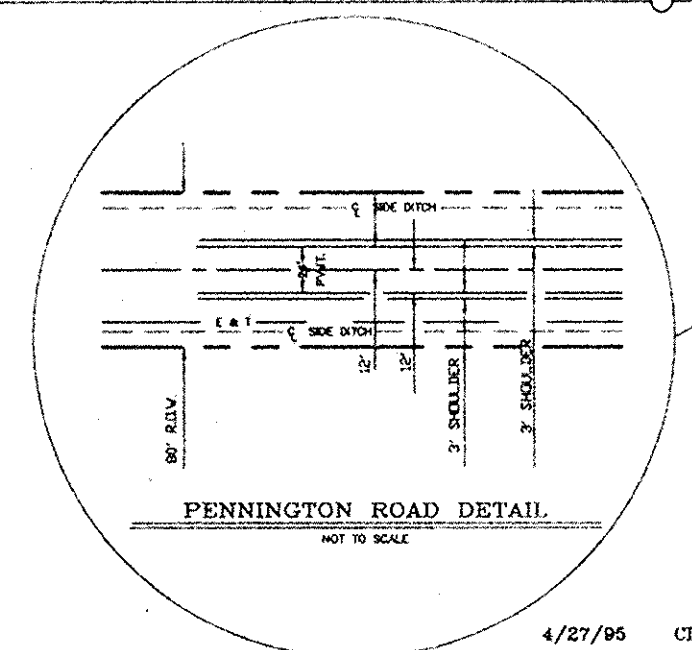
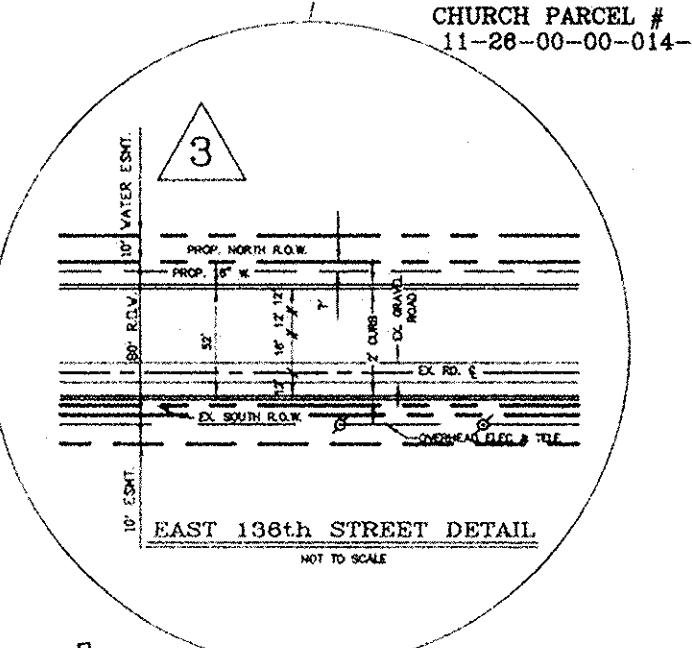
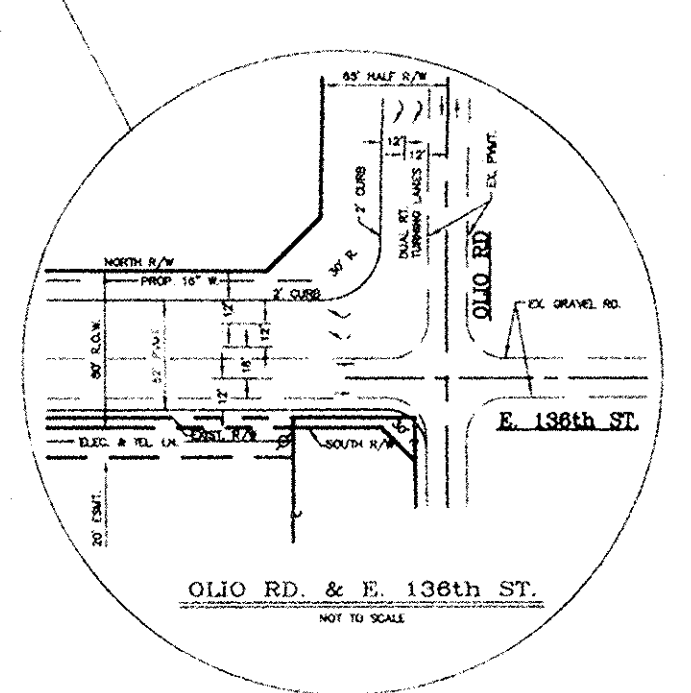
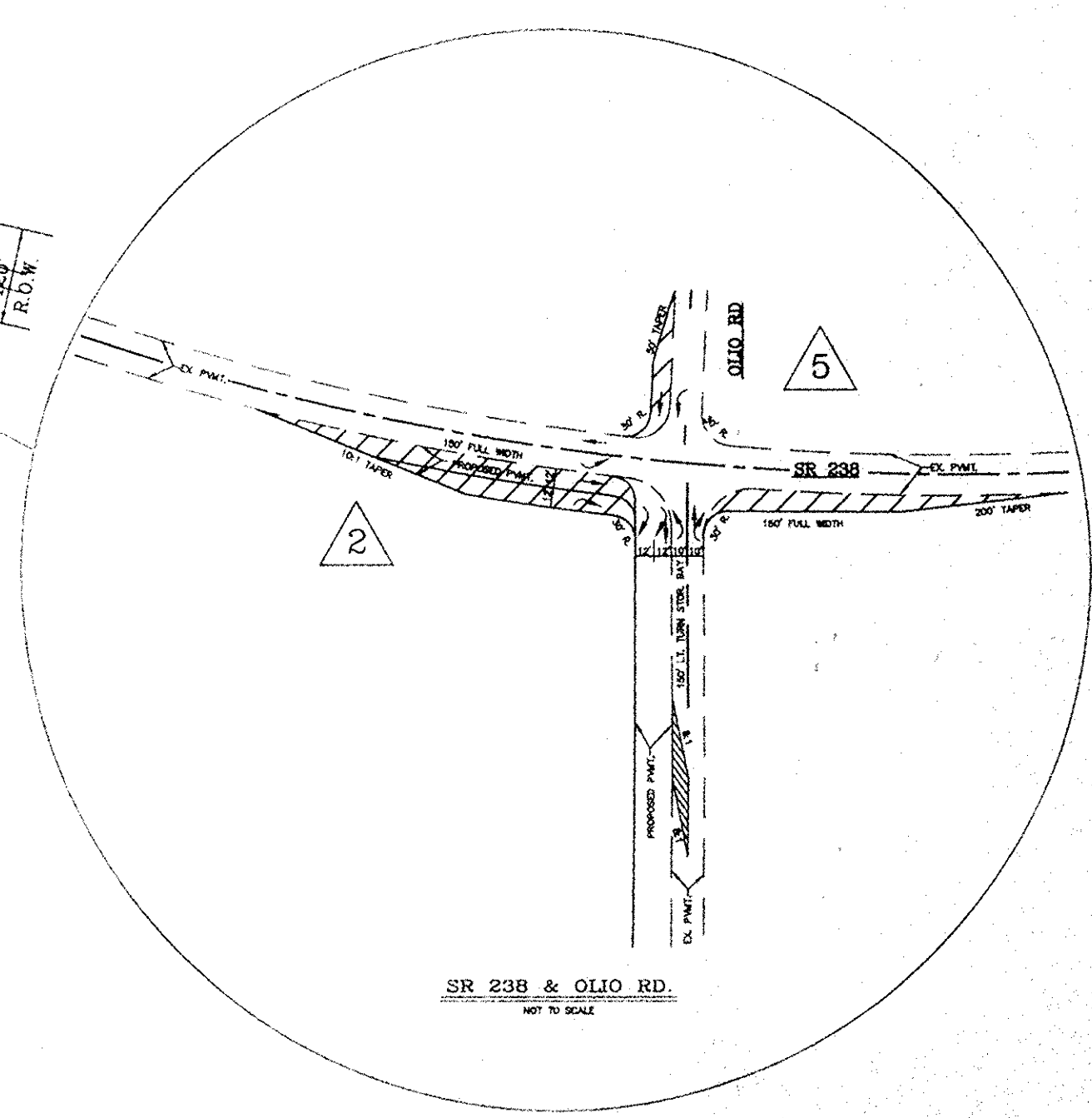
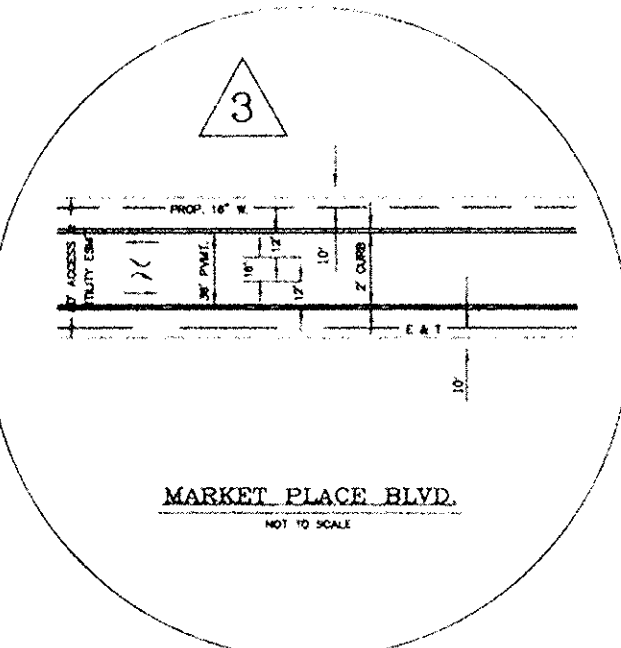
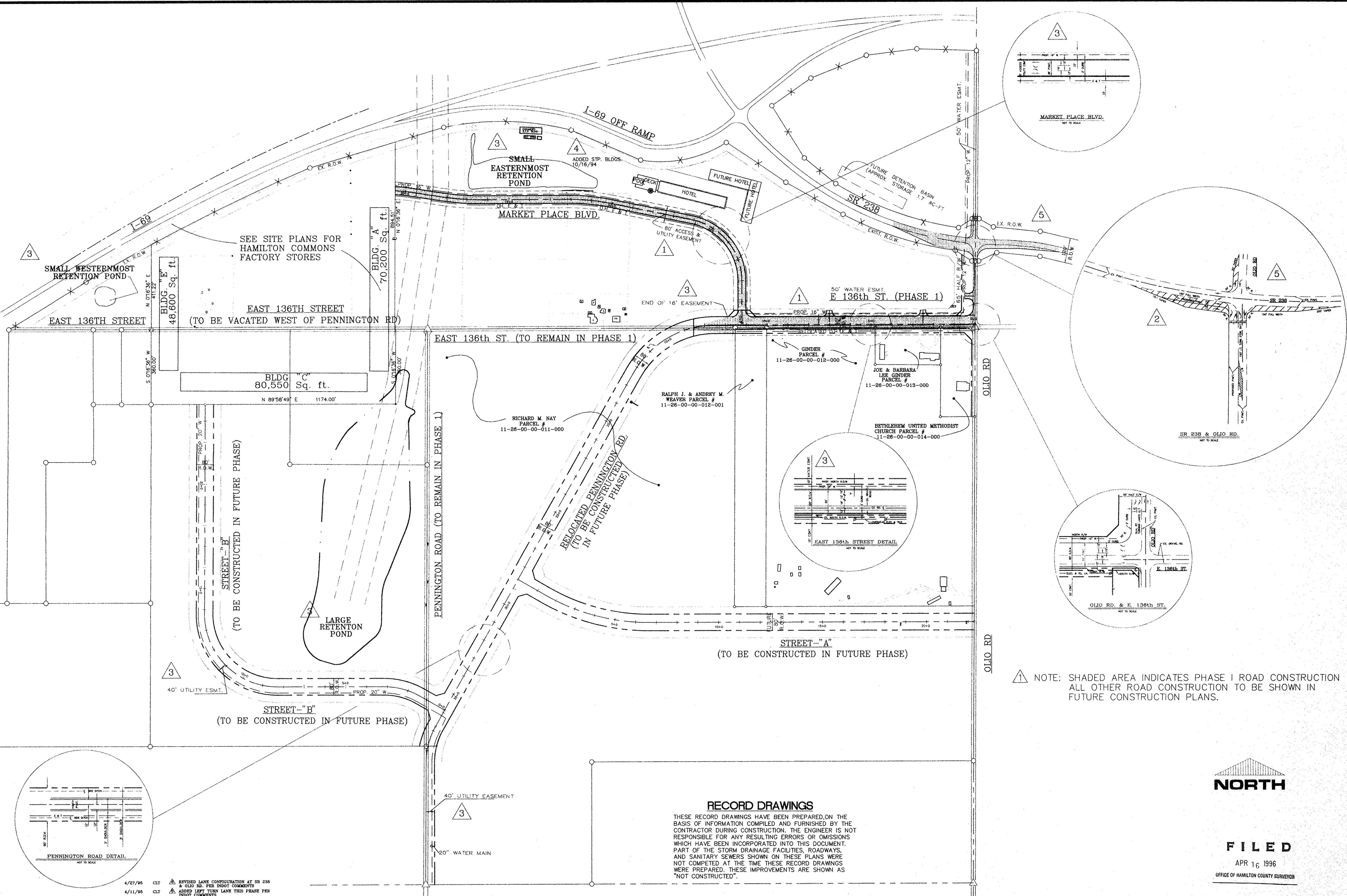
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HAMILTON COMMONS AND
EXIT 10 INCORPORATED
HAMILTON COUNTY, INDIANA

SANITARY SEWER LINES "C" & "C-1"
STORM LINE "1-1"

DIVISION
CONTRACT NO. 459-93-1
DATE OCT. 22, 1993
SHEET NO. 15 OF 29



NOTE: SHADED AREA INDICATES PHASE I ROAD CONSTRUCTION ALL OTHER ROAD CONSTRUCTION TO BE SHOWN IN FUTURE CONSTRUCTION PLANS.

RECORD DRAWINGS
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 APR 16 1996
 OFFICE OF HAMILTON COUNTY SURVEYOR

4/27/95 CLT REVISED LANE CONFIGURATION AT SR 238 & OLIO RD. PER INDOT COMMENTS
 4/11/95 CLT ADDED LEFT TURN LANE THIS PHASE PER INDOT COMMENTS
 10/16/94 CLT ADDED STP. BLDGS.

DESIGNER	DATE	BY	REVISION
KJB	12/17/93	RCG	PER COUNTY HIGHWAY, SURVEYOR AND NOBLESVILLE TAC COMMENTS
RCG	7/08/94	CLT	ADDED CROSSHATCHING PER INDOT COMMENTS
KJB	7/21/94	CLT	PER COUNTY HIGHWAY, SURVEYOR AND NOBLESVILLE TAC COMMENTS
?			ON-BUILD REVISIONS IN 48060

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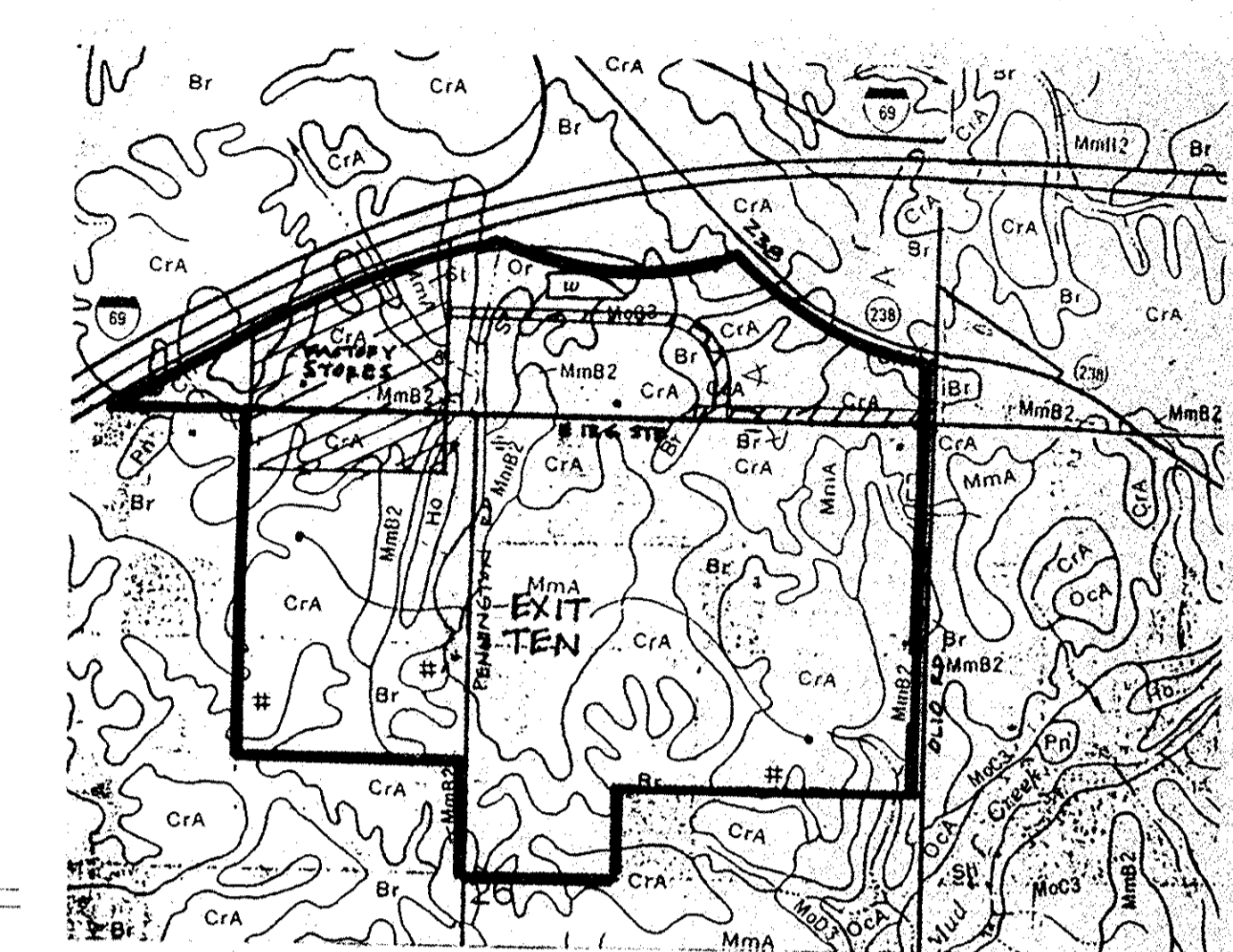
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GRAPHIC SCALE
 SCALE: 1" = 200'

HAMILTON COMMONS AND
 EAST 136TH STREET IMPROVEMENTS
 EXIT 10 INCORPORATED
 HAMILTON COUNTY, INDIANA

PROJECT MAP

DIVISION
CONTRACT NO. 459-93-1
DATE OCT. 22, 1993
SHEET NO. 2 OF 29



HAMILTON COUNTY, INDIANA
SOIL SURVEY
SCALE: 1"=1000'

SOIL LEGEND

The first capital letter is the initial one of the soil name. The lower case that follows separates mapping units having names that begin with the same letter, except that it does not separate sloping or eroded phases. The second capital letter indicates the class of slope. Symbols without a slope letter are those with a slope range of 0 to 2 percent, or they are for miscellaneous areas with considerable range of slope. A final number, 2 or 3, in the symbol indicates that the soil is eroded or severely eroded, respectively.

SYMBOL	NAME
Br	Brookston-silty clay loam
CrA	Crooby silt loam, 0 to 3 percent slopes
FxA	Fox loam, 0 to 2 percent slopes
FxB2	Fox loam, 2 to 6 percent slopes, eroded
FxC3	Fox clay loam, 6 to 18 percent slopes, severely eroded
Ge	Genesee silt loam
HeF	Hennepe silt loam, 18 to 50 percent slopes
Ho	Houghton muck
MxA	Miami silt loam, 0 to 2 percent slopes
MxB2	Miami silt loam, 2 to 8 percent slopes, eroded
MxC2	Miami silt loam, 6 to 12 percent slopes, eroded
MxD2	Miami silt loam, 12 to 18 percent slopes, eroded
MeC3	Miami clay loam, 6 to 12 percent slopes, severely eroded
MoD3	Miami clay loam, 12 to 18 percent slopes, severely eroded
MxA	Milton Variant silt loam, 0 to 2 percent slopes
NxA	Nineveh loam, 0 to 2 percent slopes
OxA	Ockley silt loam, 0 to 2 percent slopes
OxB2	Ockley silt loam, 2 to 6 percent slopes, eroded
Or	Oakliff
Pa	Paines muck
Ph	Palms silty clay loam
Pl	Patton silty clay loam, limestone substratum
Pt	Pitts
Ra	Randolph Variant silt loam
Ro	Ross loam
Sh	Shoals silt loam
Sl	Steens loam
Sa	Shaw silty clay loam, sandy substratum
Wa	Wadsworth silty clay loam
Wh	Wheatley loam

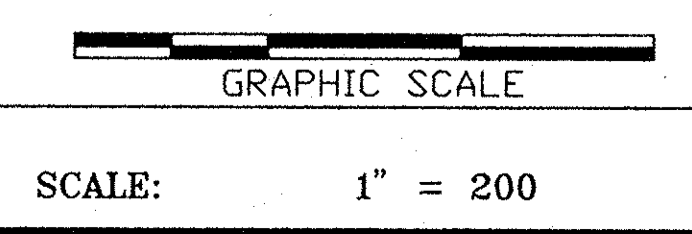
NOTES:

- FOR EROSION AND SEDIMENT CONTROL PRACTICES THE SITE CONTRACTOR SHALL REFERENCE THE INDIANA DEPARTMENT OF TRANSPORTATION "TEMPORARY EROSION AND SEDIMENT CONTROL GUIDELINES" SEPTEMBER 1993, AND THE INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS PUBLISHED BY DIVISION OF SOIL CONSERVATION, IDNR.
- EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE ADEQUATE TO MAINTAIN SILT AND SEDIMENT ON SITE. ANY MODIFICATIONS TO SILT CONTROLS SHOWN ON THE PLANS AS A RESULT OF ACTUAL FIELD CONDITIONS OR CONSTRUCTION PRACTICES, SHALL BE INSTALLED IN COMPLIANCE WITH THE LOCAL SOIL CONSERVATION SERVICE AND THE HAMILTON COUNTY SURVEYOR.
- THE SITE CONTRACTOR SHALL UTILIZE INTERIM STABILIZATION PRACTICES DURING CONSTRUCTION. STABILIZATION PRACTICES MAY INCLUDE: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SOD STABILIZATION, VEGETATIVE BUFFER STRIPS, AND OTHER APPROPRIATE MEASURES. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.
- THE SITE CONTRACTOR SHALL IMPLEMENT STRUCTURAL CONTROLS TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS, OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SUCH CONTROLS MAY INCLUDE SILT FENCES, EARTH DIKES, DRAINAGE SWALES, SEDIMENT TRAPS, STORM DRAIN INLET PROTECTION, ROCK OUTLET PROTECTION, GABIONS AND TEMPORARY OR PERMANENT SEDIMENT BASINS.
- THE SITE CONTRACTOR SHALL IMPLEMENT AN OPERATION AND MAINTENANCE PLAN FOR ALL TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES. THIS PLAN SHOULD INCLUDE BUT NOT LIMITED TO CLEANING OUT SEDIMENT BASINS, REPAIRING SEEDED, SODDED, OR OTHER VEGETATIVELY STABILIZED AREAS, AND MAINTAINING AND REPLACING ROCK DITCH CHECKS AND SILT FENCES.
- STORM DRAIN INLETS MADE OPERATIONAL BEFORE PERMANENT STABILIZATION OF THE DISTURBED DRAINAGE AREA SHALL BE INSTALLED WITH STRAW BALE INLET FILTERS. SEE DETAIL.
- FOR EROSION CONTROL DETAILS SEE STANDARD DETAIL SHEET.
- TEMPORARY & PERMANENT SEEDING MIXTURES SHALL BE IN ACCORDANCE WITH INDOTS TEMPORARY EROSION AND SEDIMENT CONTROL GUIDELINES AND SECTION 621 OF THE STANDARDS SPECIFICATIONS.
- DURING CONSTRUCTION ALONG SR 238 AND OLIO ROAD THE CONTRACTOR SHALL MAINTAIN AND PROTECT THE EXISTING DRAINAGE DITCH AND 15" CMP. WHEN CONSTRUCTION IS COMPLETED ALL SILT & SEDIMENT SHALL BE REMOVED FROM THE DRAINAGE SYSTEM.
- THE EXISTING REGULATED DRAIN (12" CLAY TILE) TO SAND CREEK SHALL BE PROTECTED FROM SILT & SEDIMENT AT ALL TIMES DURING CONSTRUCTION.
- LOCATIONS OF TEMPORARY CONSTRUCTION ENTRANCES SHALL BE APPROVED BY THE HAMILTON COUNTY ENGINEER PRIOR TO CONSTRUCTION. ALL COUNTY AND STATE ROADWAYS SHALL BE KEPT CLEAN OF MUD AND DEBRIS DURING CONSTRUCTION.

DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	KJB	7/08/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
APPROVED	?	3/4/98	CLT	AS BUILT REVISIONS

HOWARD K. BELL
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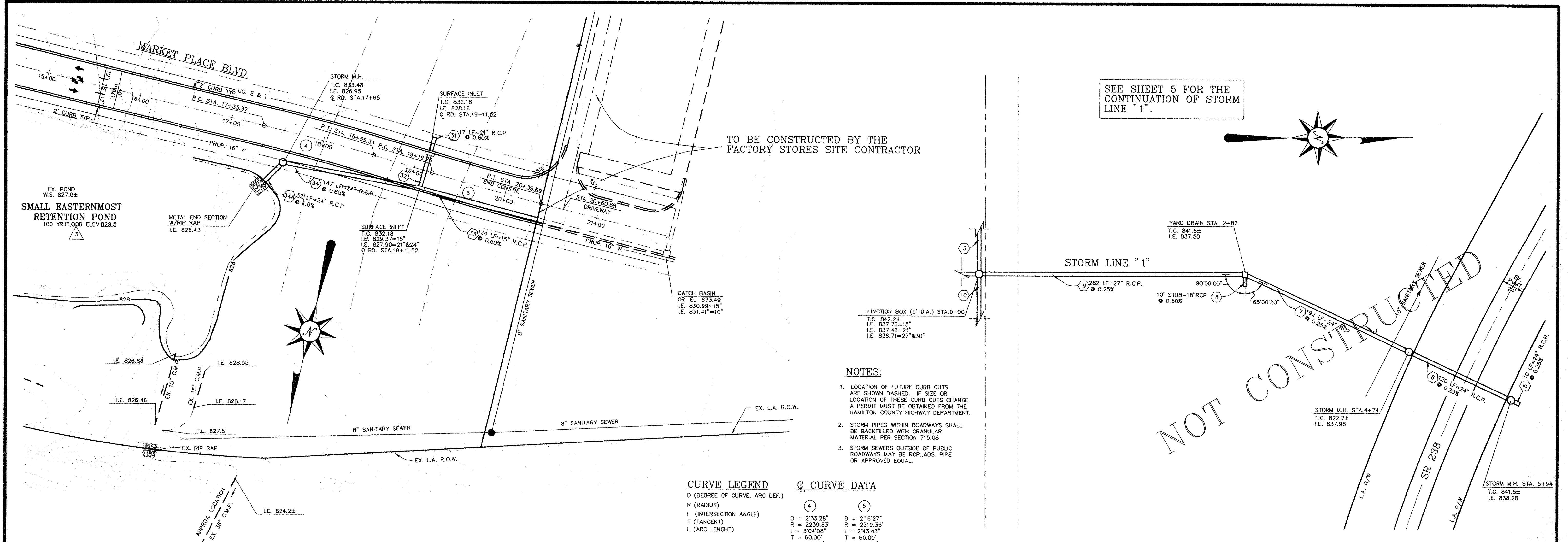
HAMILTON COMMONS AND
EAST 136TH STREET IMPROVEMENTS
EXIT 10 INCORPORATED
HAMILTON COUNTY, INDIANA

EROSION CONTROL PLAN
& SOIL SURVEY

DIVISION
CONTRACT NO. 459-93-1
DATE OCT. 22, 1993
SHEET NO. 4 OF 29

RECORD DRAWINGS

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SEE SHEET 5 FOR THE CONTINUATION OF STORM LINE "1".

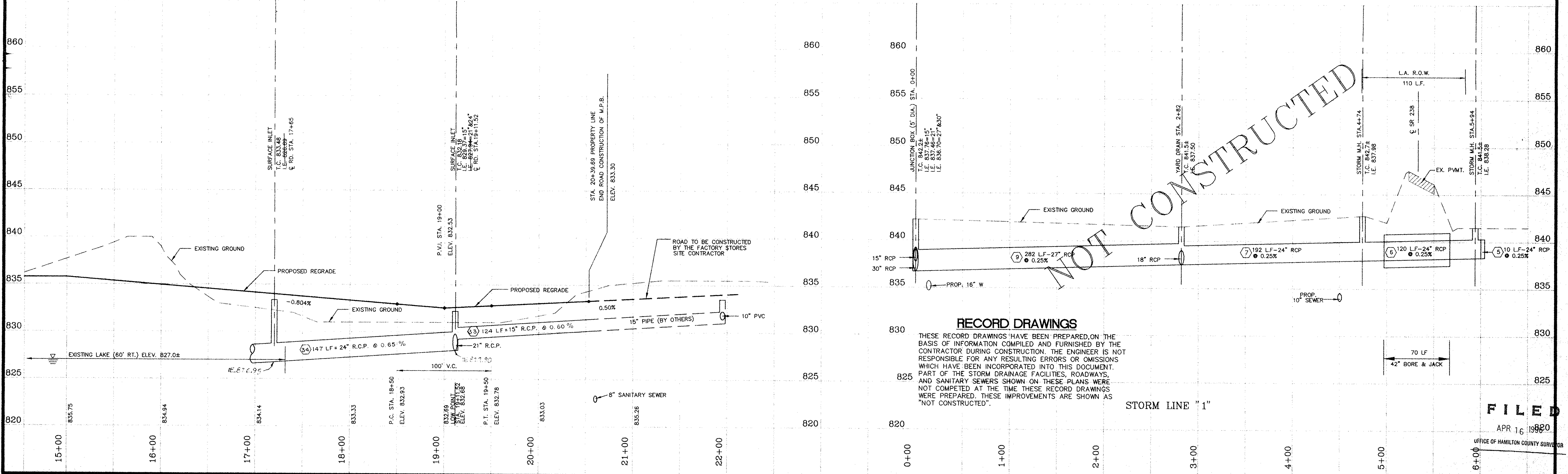
TO BE CONSTRUCTED BY THE FACTORY STORES SITE CONTRACTOR

NOT CONSTRUCTED

- NOTES:**
1. LOCATION OF FUTURE CURB CUTS ARE SHOWN DASHED. IF SIZE OR LOCATION OF THESE CURB CUTS CHANGE A PERMIT MUST BE OBTAINED FROM THE HAMILTON COUNTY HIGHWAY DEPARTMENT.
 2. STORM PIPES WITHIN ROADWAYS SHALL BE BACKFILLED WITH GRANULAR MATERIAL PER SECTION 715.08
 3. STORM SEWERS OUTSIDE OF PUBLIC ROADWAYS MAY BE RCP, ADS, PIPE OR APPROVED EQUAL.

CURVE LEGEND
 D (DEGREE OF CURVE, ARC DEF.)
 R (RADIUS)
 I (INTERSECTION ANGLE)
 T (TANGENT)
 L (ARC LENGTH)

Curve ID	D	R	I	T	L
4	2'33'28"	2239.83'	3704'08"	60.00'	119.97'
5	2'16'27"	2519.35'	2433'43"	60.00'	119.98'



NOT CONSTRUCTED

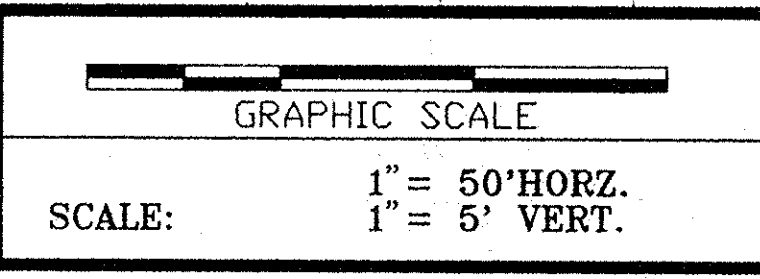
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DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	DFS	1/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
APPROVED	?	3/4/98	CLT	REVISED MARKET PLACE BLVD. ALIGNMENT & GRADE AS BUILT REVISIONS

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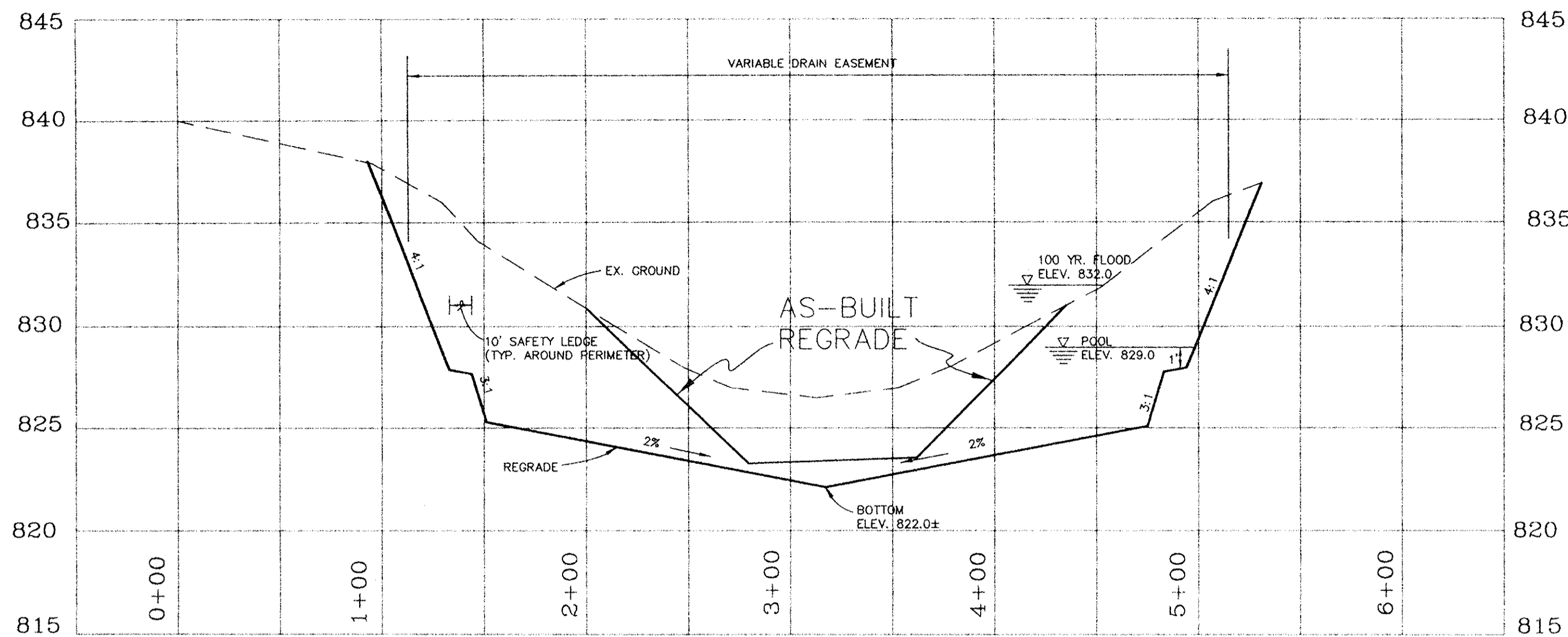
HAMILTON COMMONS AND
 EAST 136 STREET IMPROVEMENTS
 EXIT 10 INCORPORATED
 HAMILTON COUNTY, INDIANA

PLAN & PROFILE
 MARKET PLACE BLVD.
 STA. 15+0 - STA. 20+53

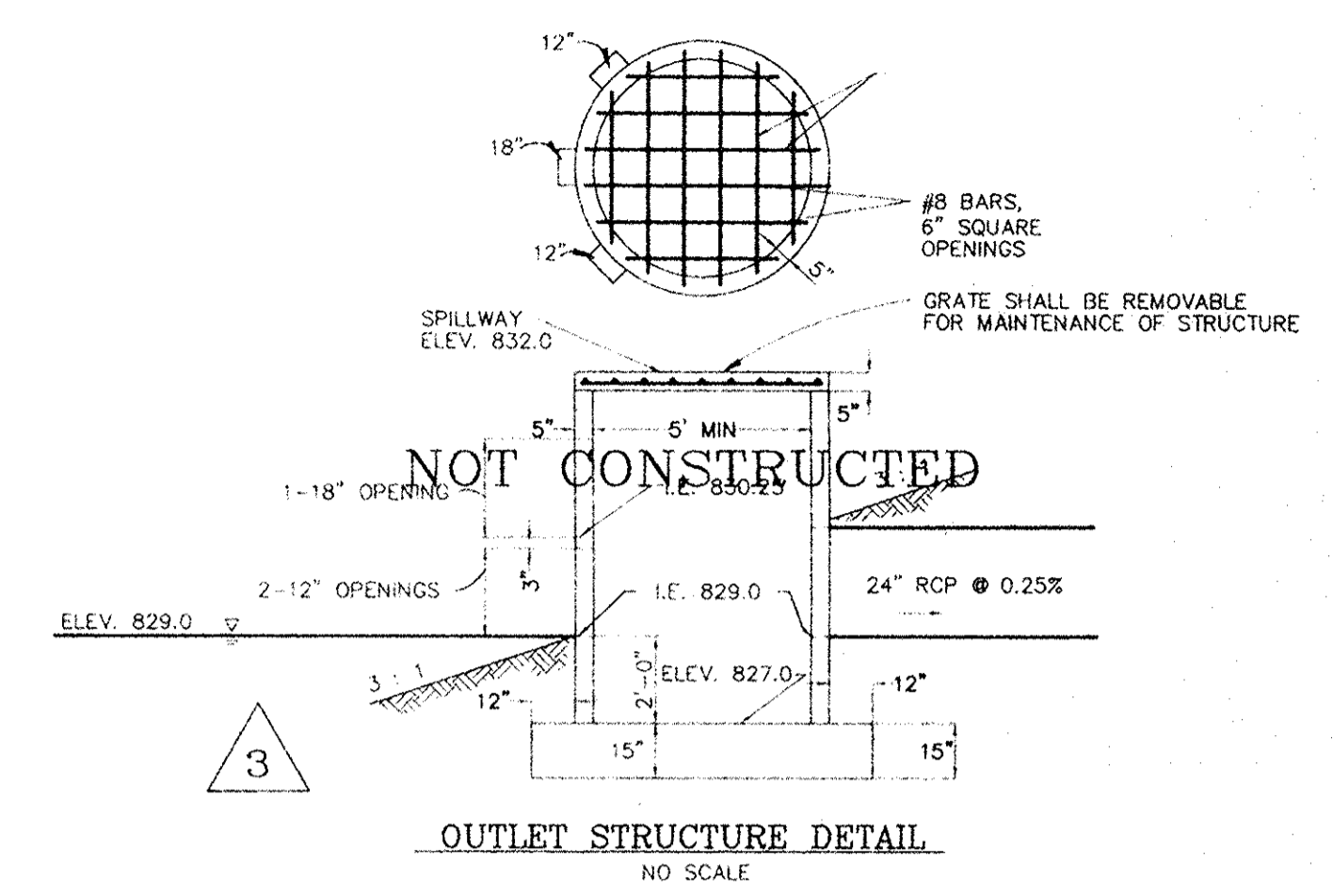
DIVISION
CONTRACT NO. 459-93-1
DATE OCT. 22, 1993
SHEET NO. 7 OF 29

C:\ACAD\DATA\HAMCON\45931\H05 WEB NRP 27 10 03 20 1995

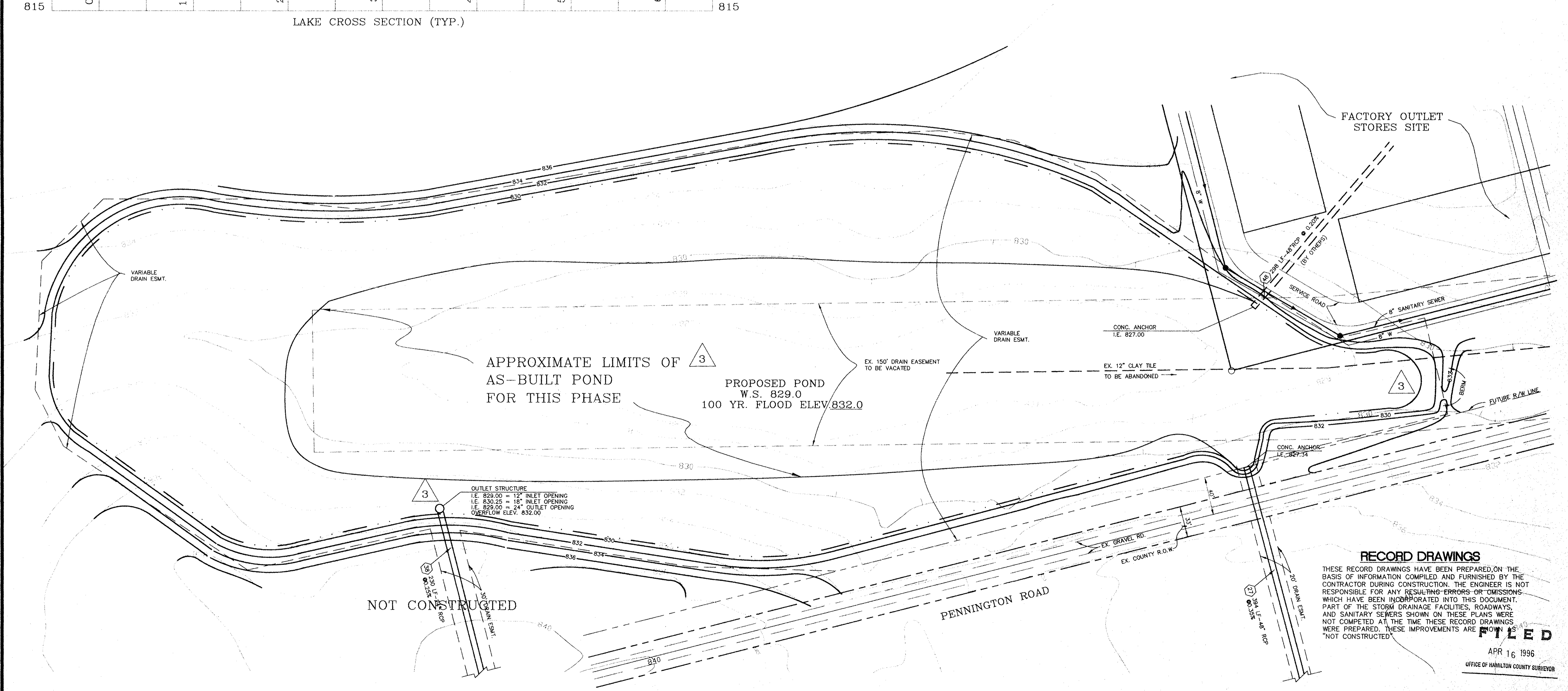
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LAKE CROSS SECTION (TYP.)



OUTLET STRUCTURE DETAIL
NO SCALE



RECORD DRAWINGS

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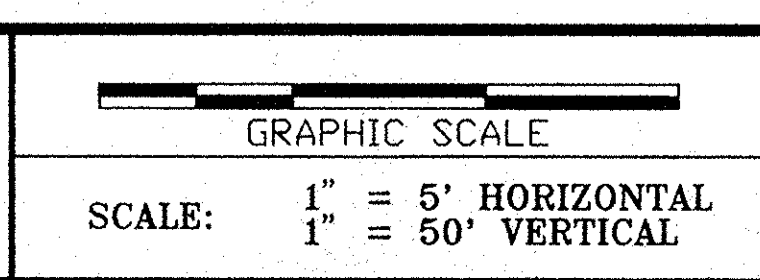
FILED

APR 16 1996
OFFICE OF HAMILTON COUNTY SURVEYOR

DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	DFS	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
APPROVED		3/4/98	CLT	AS BUILT REVISIONS

HOWARD K. BELL
CONSULTING ENGINEERS, INC.
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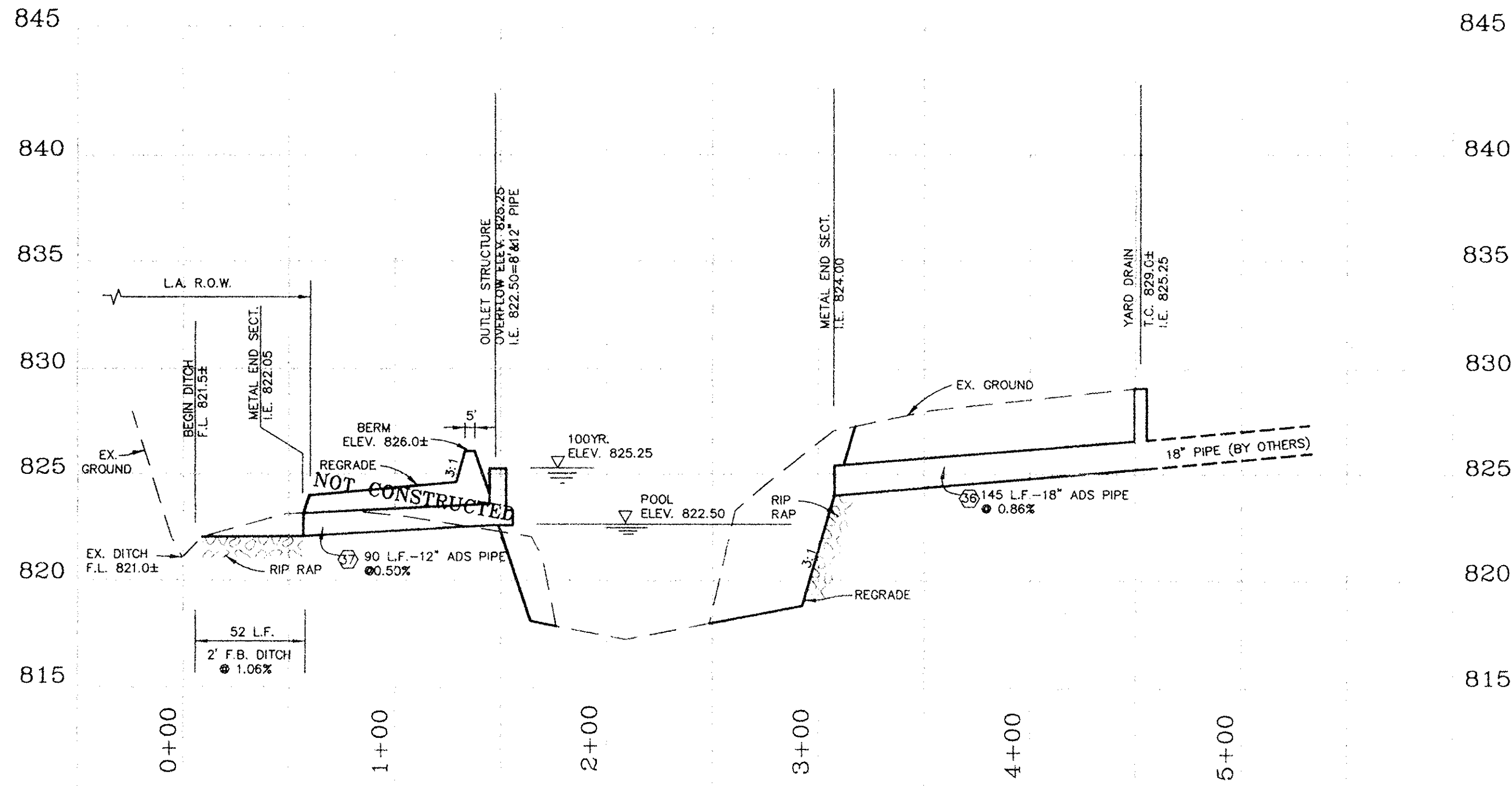
HAMILTON COMMONS AND
EAST 136TH STREET IMPROVEMENTS
EXIT TEN INCORPORATED
HAMILTON COUNTY, INDIANA

LARGE RETENTION POND

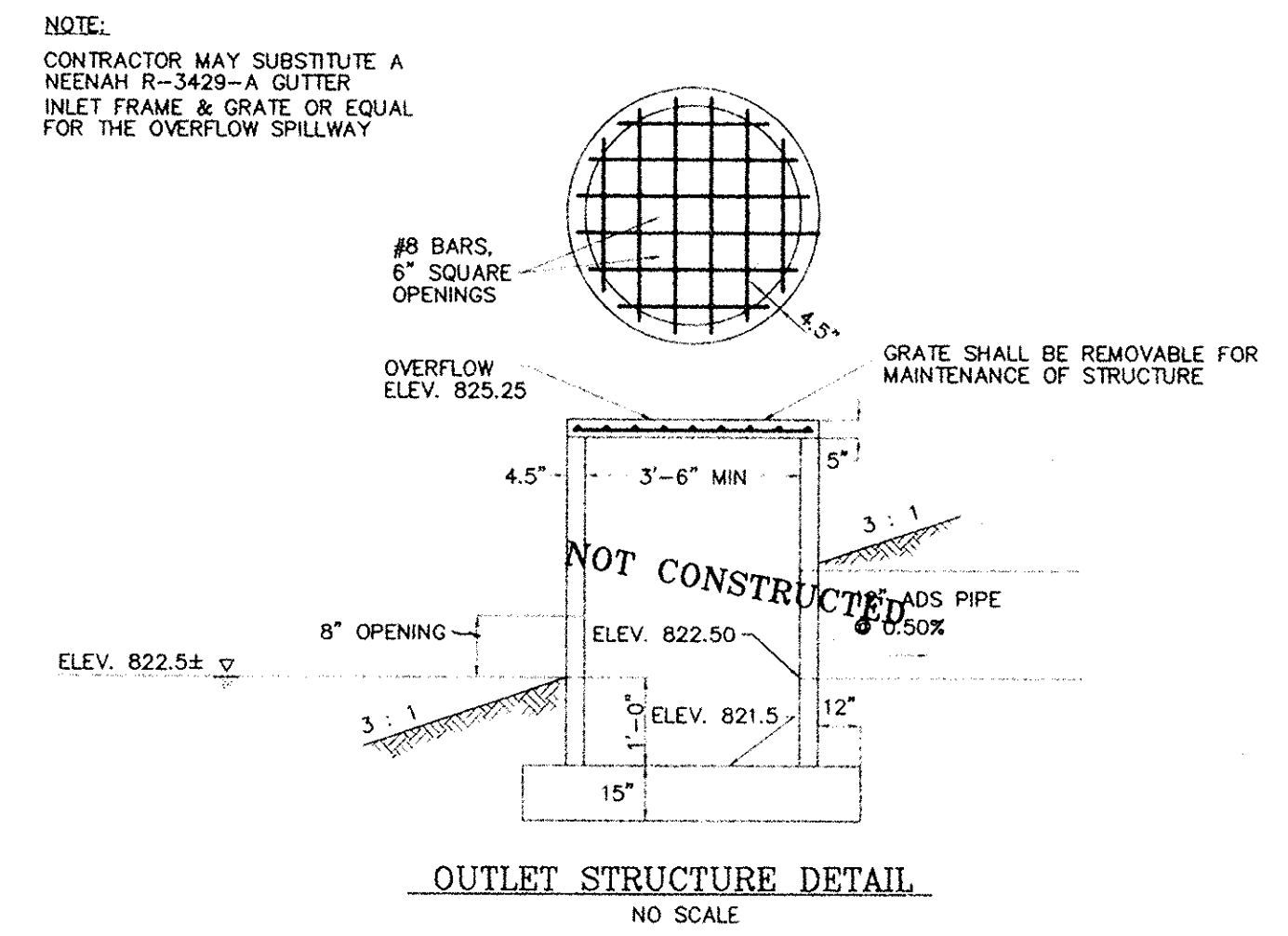
DIVISION	CONTRACT NO. 459-93-1
DATE	OCT. 22, 1993
SHEET NO.	9 OF 29

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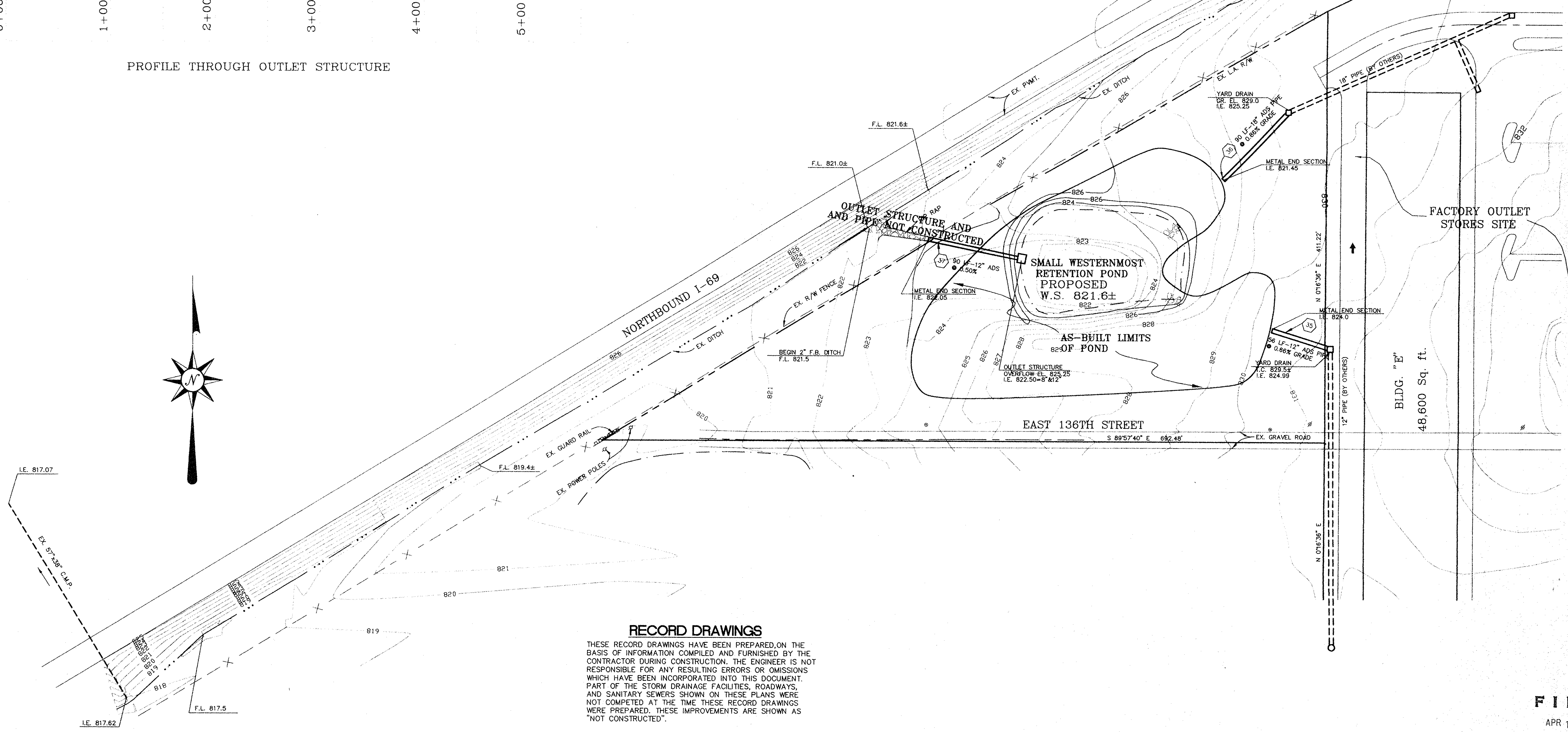
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PROFILE THROUGH OUTLET STRUCTURE



OUTLET STRUCTURE DETAIL
NO SCALE



RECORD DRAWINGS

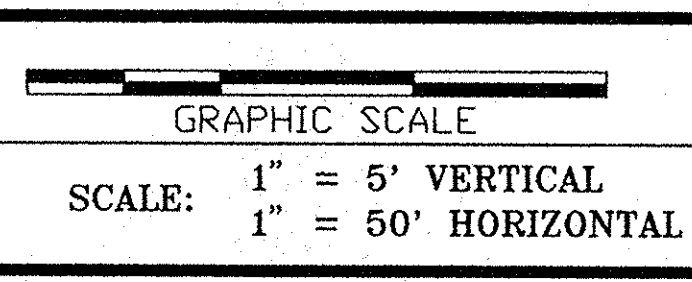
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FILED
APR 16 1996
OFFICE OF HAMILTON COUNTY SURVEYOR

DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	ROD	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	DFS	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
APPROVED	?	3/4/96	CLT	AS BUILT REVISIONS

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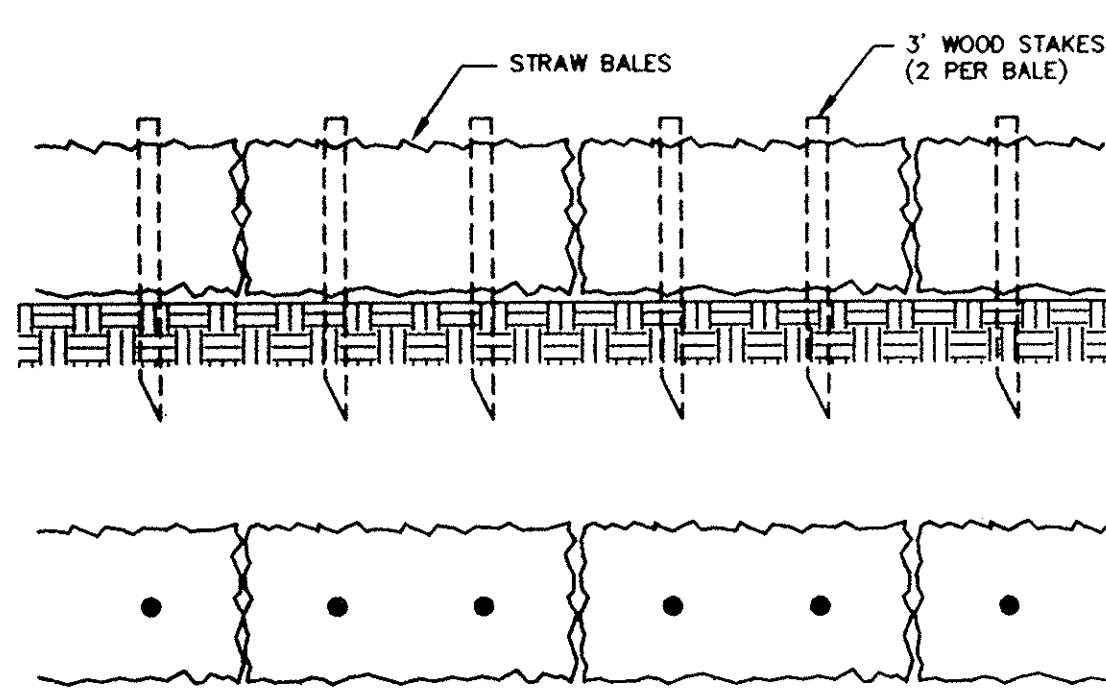
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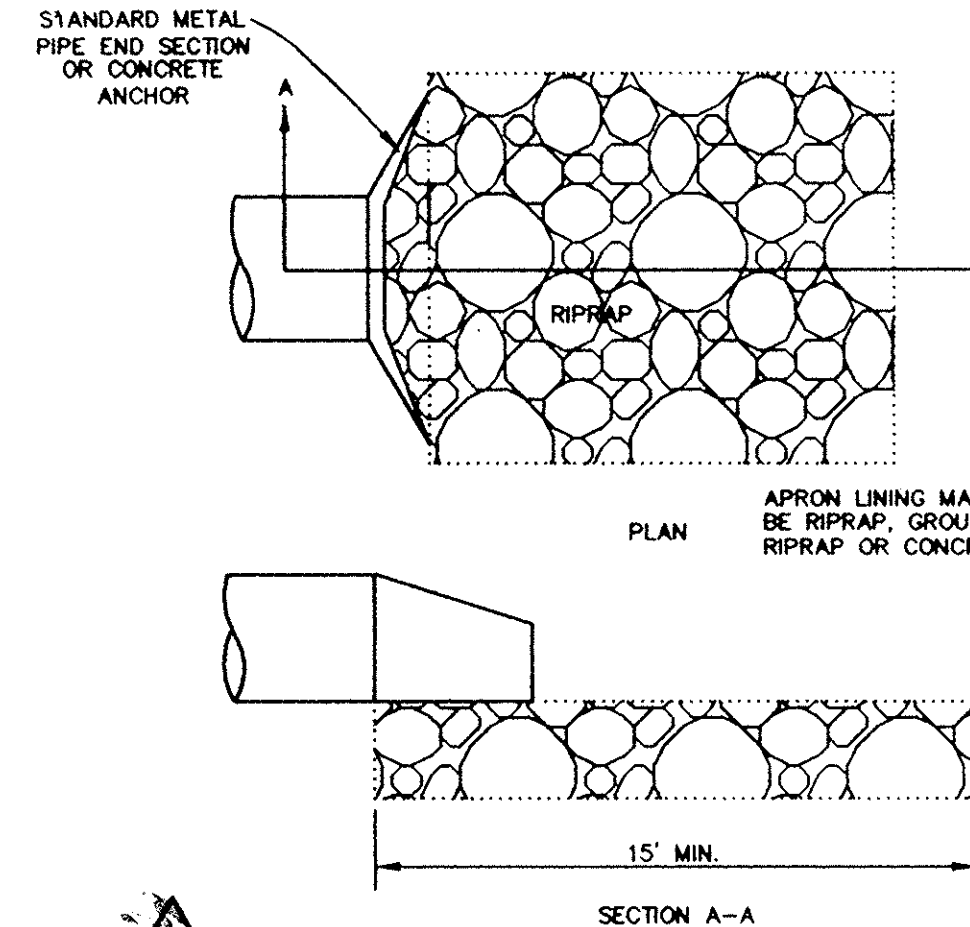
HAMILTON COMMONS AND
EAST 136TH STREET IMPROVEMENTS
EXIT TEN INCORPORATED
HAMILTON COUNTY, INDIANA

SMALL WESTERNMOST
RETENTION POND

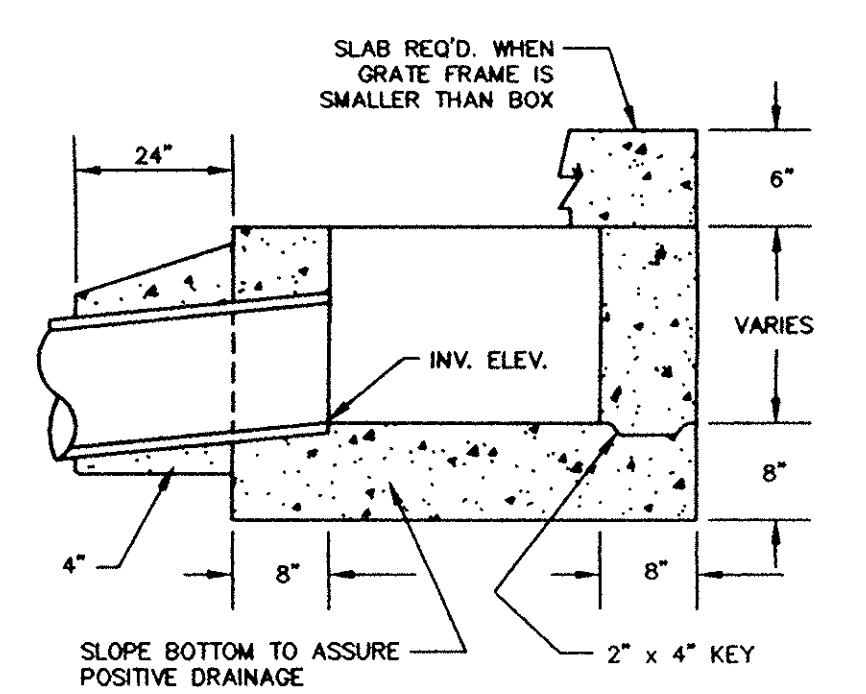
DIVISION
CONTRACT NO. 459-93-1
DATE OCT. 22, 1993
SHEET NO. 10 OF 29



STRAW BALE BARRIER DETAIL
NO SCALE



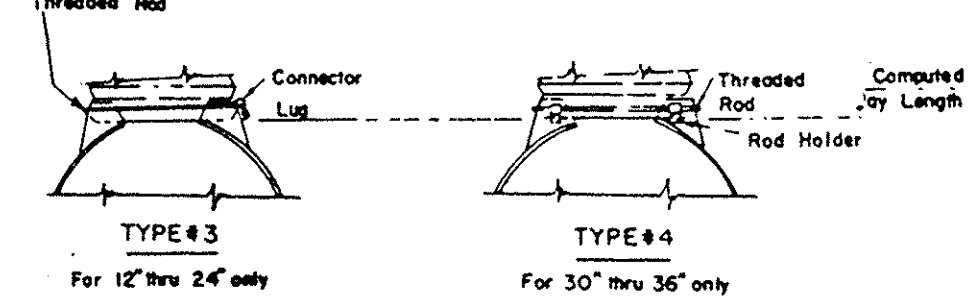
PIPE OUTLET PROTECTION
NO SCALE



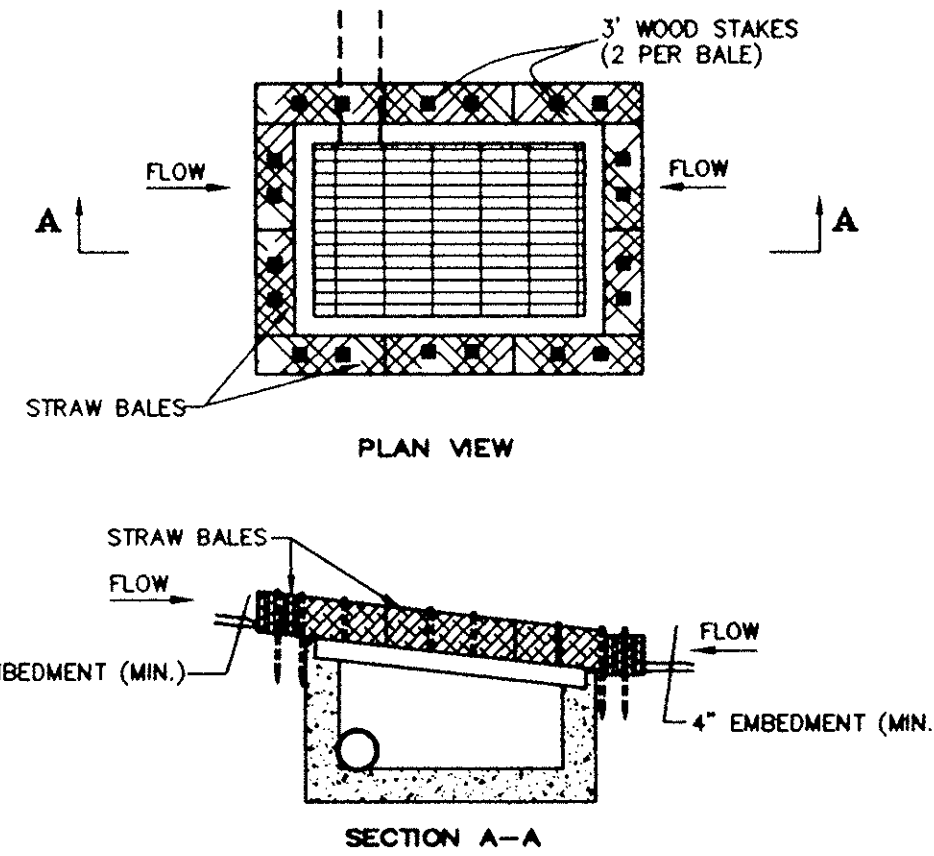
TYPICAL SURFACE INLET STRUCTURE FOR GRATES
NO SCALE

PIPE DIA.	DIMENSIONS				SLOPE BOOB APPROX.
	A	B	C	D	
12	66-1/4	6	6	24	2 1/2
15	66-1/4	7	8	26	2 1/2
18	66-1/4	8	10	31	2 1/2
21	66-1/4	9	12	36	2 1/2
24	66-1/4	10	14	41	2 1/2
30	67-1/2	12	16	51	2 1/2
36	67-1/2	14	19	60	2 1/2

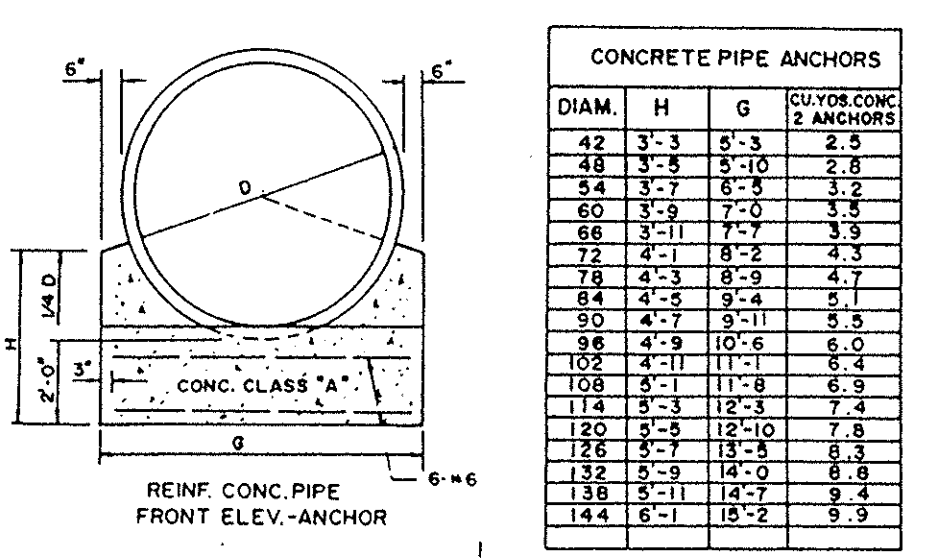
- End sections and Toe Plate Anchors shall conform to applicable requirements as set out in the Standard Specifications.
- Multiple panel bodies shall have lap seams which shall be tightly jointed with #4 galvanized sheet or bolts.
- The toe plate anchor shall be constructed of 0.138 Thickness Galvanized steel and be required on all steel pipe end section. It shall be matched-punched to fit holes in start lip and supplied loose, complete with #4 galvanized bolts. Cost thereof shall be included in the contract unit price per each for Pipe End Section.
- Primed Connection Bands may be used to connect Pipe End Section to Helically Corrugated pipe.
- 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.
- End sections will be paid for at the contract unit price each for Pipe End Section complete in place and accepted.
- Where Vitriol Clay Culvert or Cast Iron Culvert pipe is used a Pipe End Section comparable to that as shown for Metal or Concrete shall be furnished and shall be as approved by the Engineer.
- In areas of Acid or Mine Water the "Pipe End Section" shall be metal and shall be either stainless bonded Fully Bismuthium Coated with paved invert or of a metal of equal resistance to Acid or Mine Water.



METAL END SECTION
NO SCALE



BALE INLET FILTER
NO SCALE

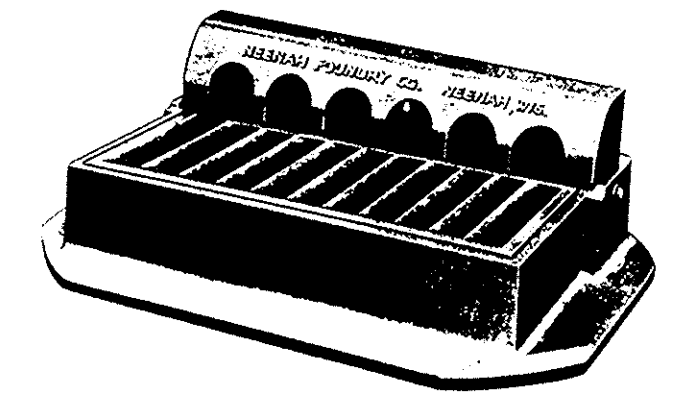


DIAM.	H	G	CONCRETE PIPE ANCHORS
42	3'-3"	5'-5"	2,5
48	3'-7"	5'-10"	2,8
54	3'-7"	6'-5"	3,2
60	3'-9"	7'-0"	3,6
66	4'-1"	7'-5"	4,0
72	4'-1"	8'-2"	4,3
78	4'-3"	8'-9"	4,7
84	4'-5"	9'-4"	5,1
90	4'-7"	10'-1"	5,5
96	4'-9"	10'-8"	6,0
102	4'-11"	11'-1"	6,4
108	5'-1"	11'-8"	6,8
114	5'-3"	12'-3"	7,4
120	5'-5"	13'-0"	7,8
126	5'-7"	13'-7"	8,3
132	5'-9"	14'-0"	8,6
138	5'-11"	14'-7"	9,1
144	6'-1"	15'-2"	9,5

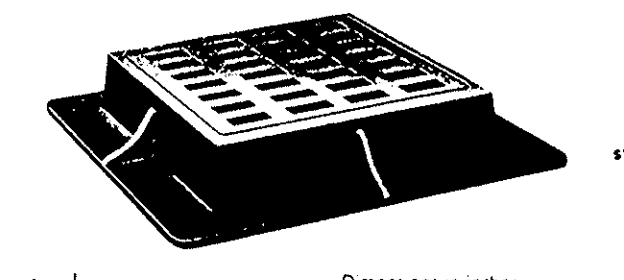
GENERAL NOTES

- Anchor straps shall be used of both upstream and downstream ends of all C.A., C.S. and structural pipe pipes and pipe arches with a diameter or span of 42 inches or greater.
- Hook bolts, in addition to anchor straps, shall be used of all C.A., C.S. and structural pipe pipes and pipe arches with a diameter or span of 84 inches or greater.
- Straps shall be either a galvanized No. 6 reinforcing bar or silico-coated 7/8" diameter aircraft cable. Installation shall be as shown in details.
- Riprap shall be placed at the ends of pipe structures when shown on plans.

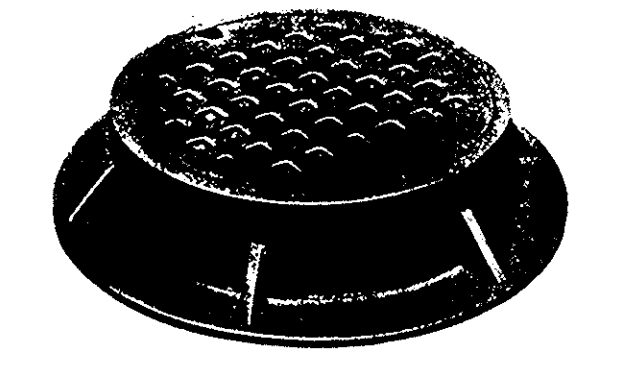
SINGLE PIPE CONCRETE ANCHORS
STATE OF INDIANA
MARCH 1987



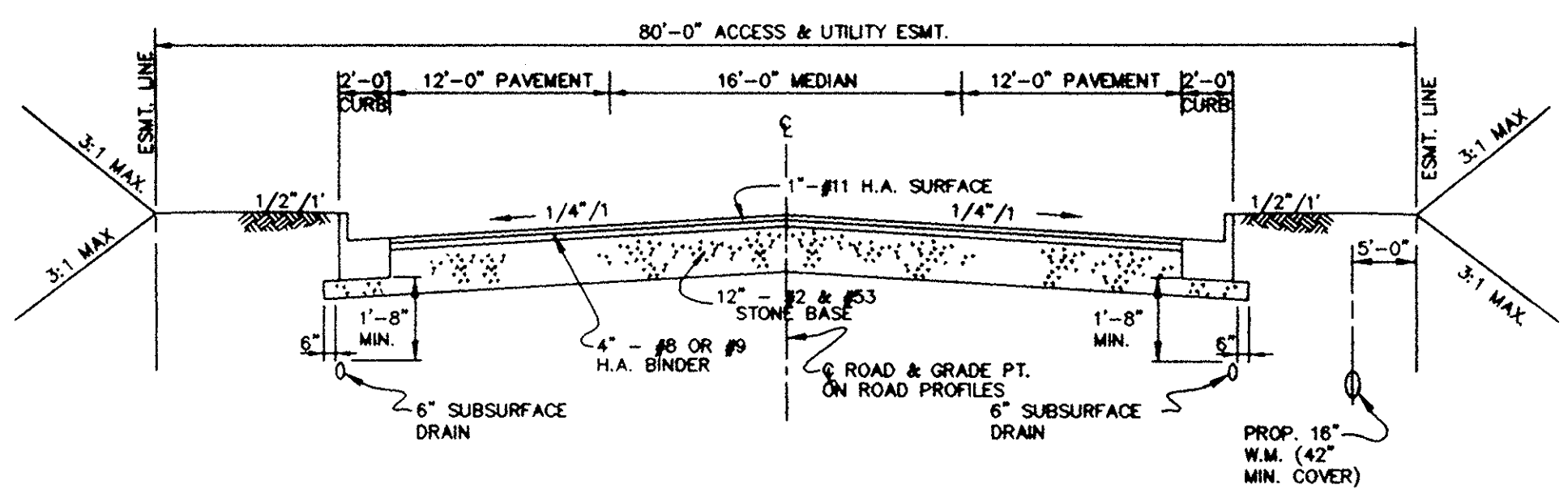
R-3287-10V Curb Inlet Frame, Grate and Curb Box
Heavy Duty Total Weight 665 Pounds



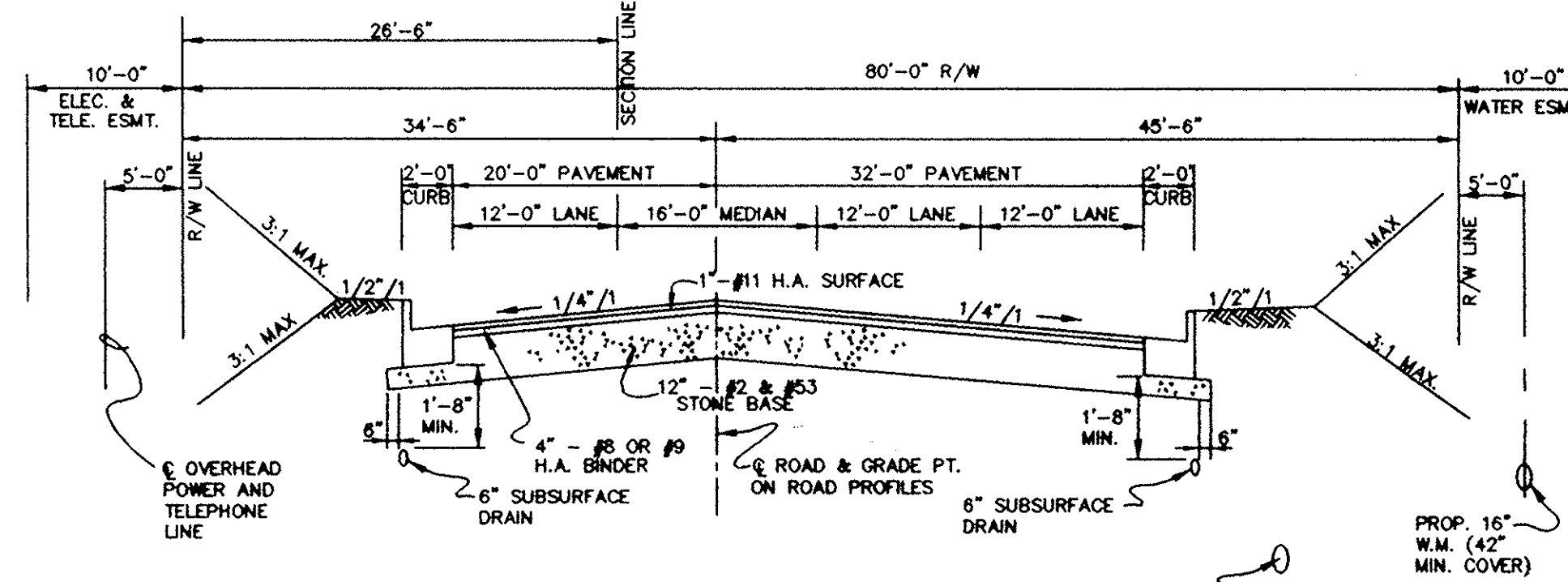
R-3429-38 Series Square Gutter Inlet Frames and Grates



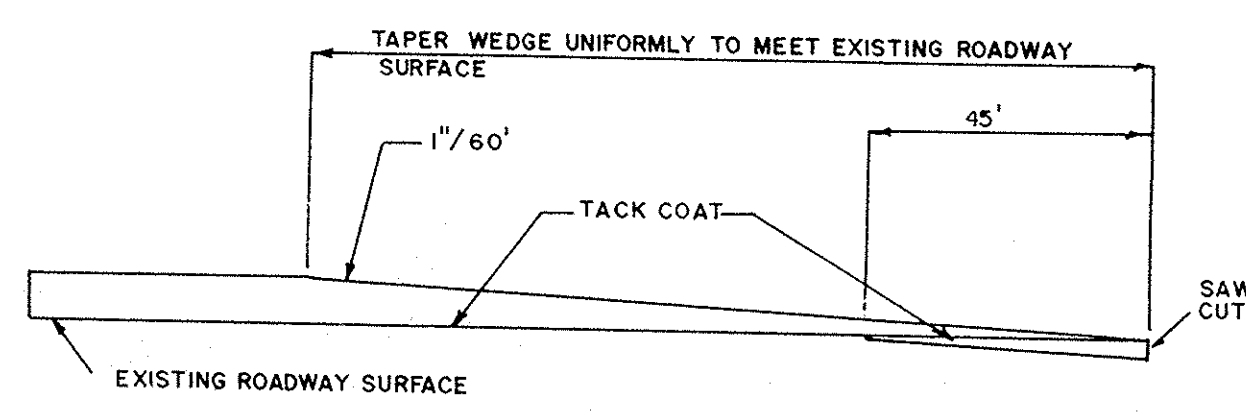
R-1726-A Manhole Frame, Solid Lid



MARKET PLACE BLVD.
TYPICAL ROADWAY SECTION
STA. 0+00 TO 19+85
NTS



EAST 136TH STREET
TYPICAL ROADWAY SECTION
STA. 0+00 TO 12+60
NTS



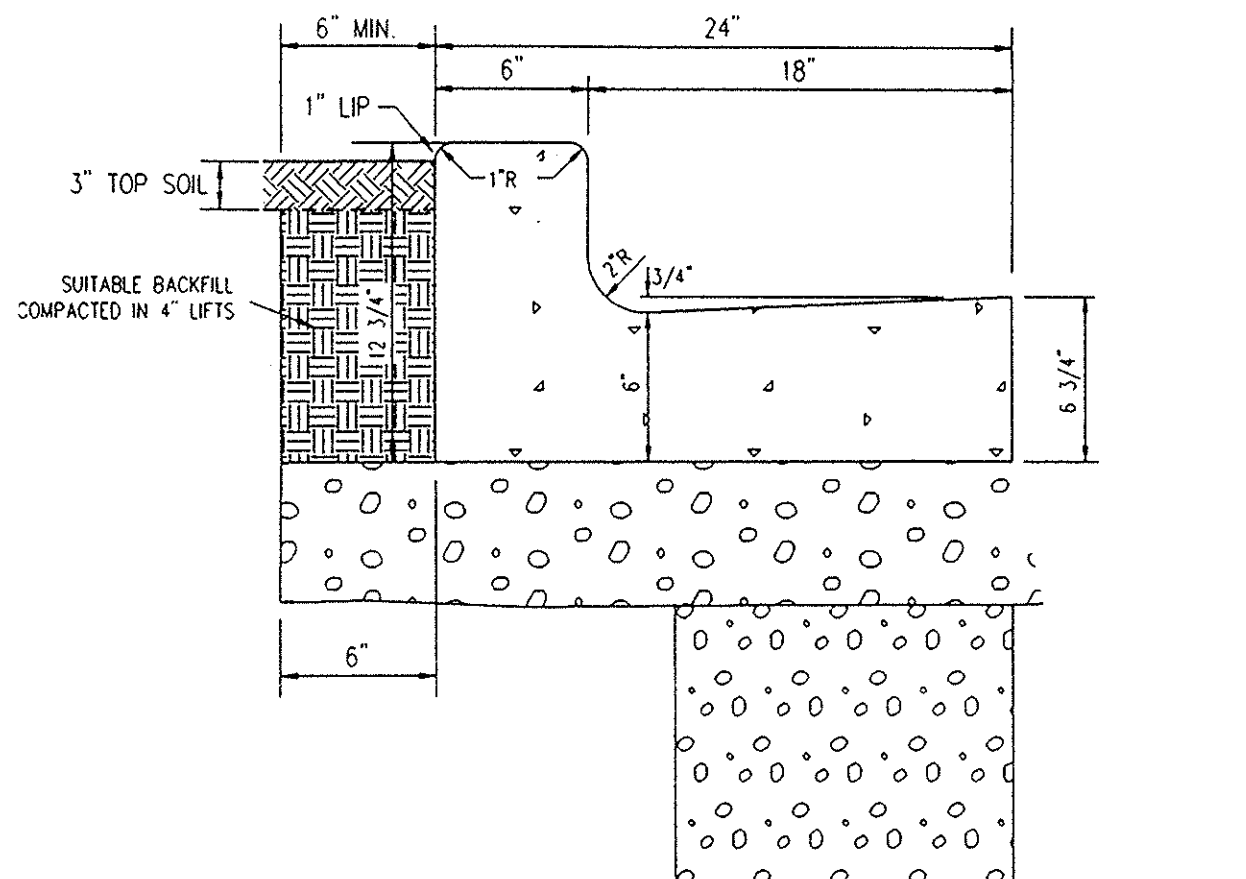
WEDGE DETAIL
NO SCALE

HAMILTON COUNTY HIGHWAY DEPARTMENT

RECOMMENDED: *Tom J. Williams* HAMILTON COUNTY ENGINEER 1-5-93 5/12

APPROVED: *Tom J. Williams* HAMILTON COUNTY DIRECTOR 1-5-93 5/12

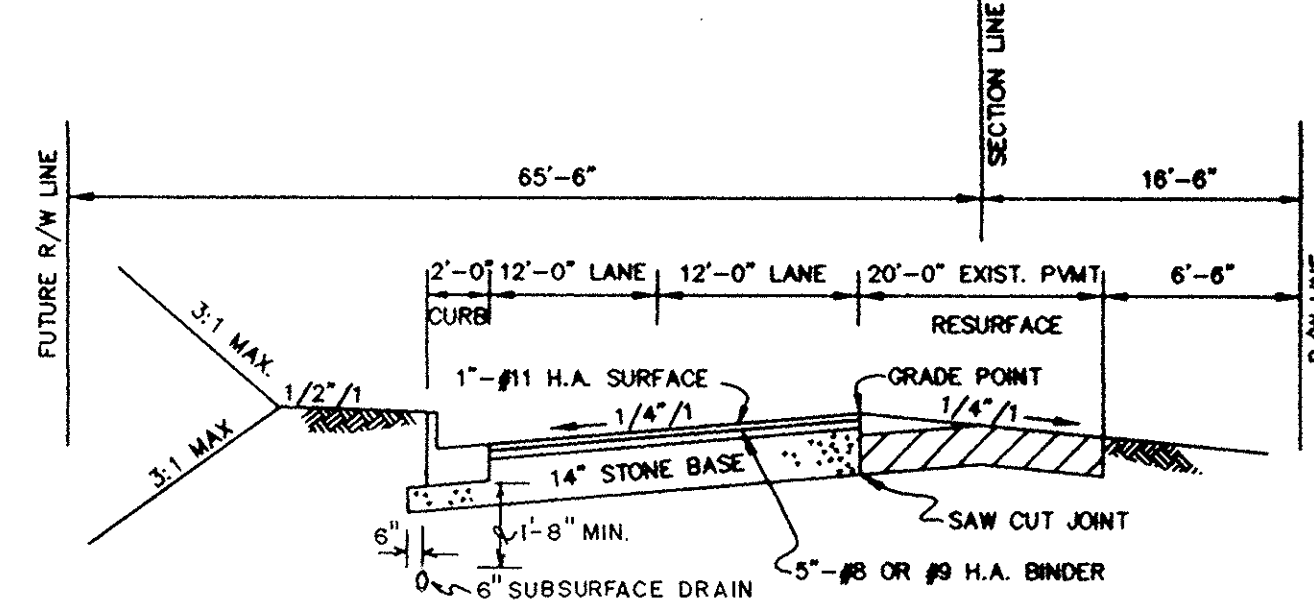
STANDARD PLAN C-4



- NOTES:
- Expansion joints are required at Storm inlets.
 - Contraction joints should be installed at 10' spacings.
 - Spacing shall be 5' on curve radii.
 - Contraction joints shall be tool or sawn in continuously poured curbs to a depth of 1/2" min.

STANDARD PLAN C-4

COMBINED CONCRETE CURB & GUTTER (TYPE II)
NO SCALE



OLTO ROAD IMPROVEMENTS
TYPICAL ROADWAY SECTION
VIEW LOOKING NORTH
NTS

NOTES:

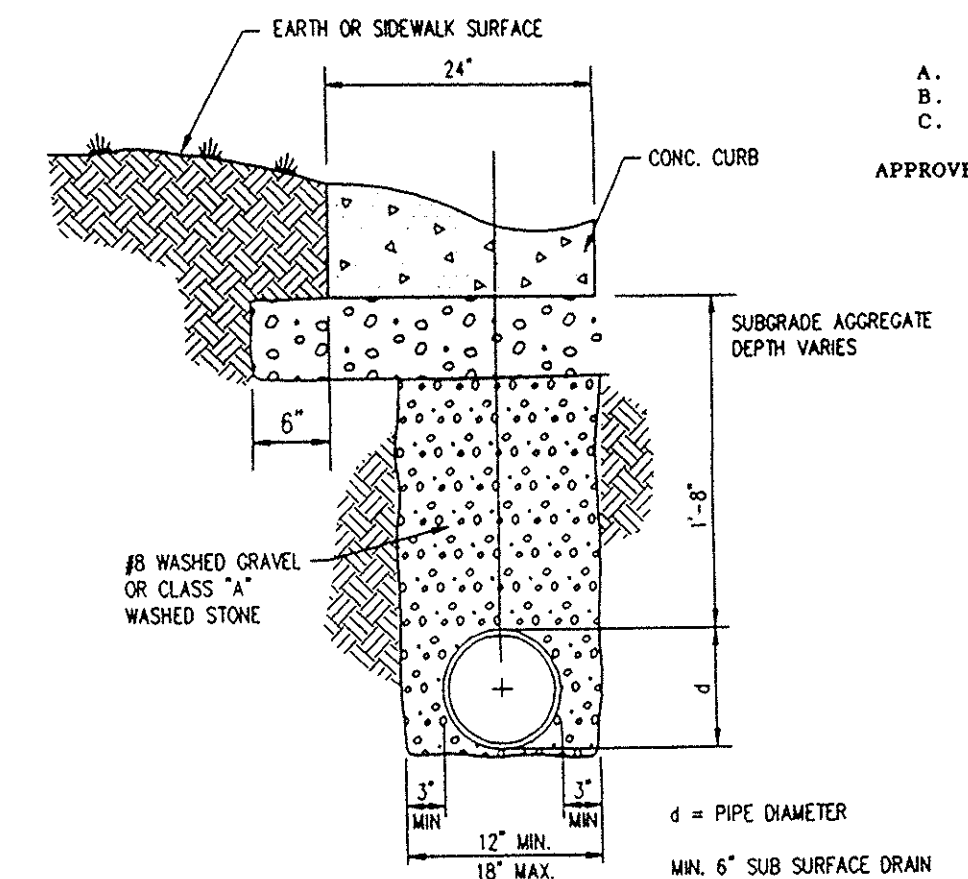
- PROVIDE SAW CUT JOINT BETWEEN NEW AND EXISTING PAVEMENT.
- RESURFACE EXISTING OLTO RD. AS FOLLOWS:
 - WEDGE AND LEVEL AT A RATE OF 500 TON/MILE WITH #9 BINDER
 - 2" #8 OR #9 H.A. BINDER
 - 1-1/2" #11 H.A. SURFACE
- SEE SHEET B FOR LIMITS OF RESURFACING
- PAVEMENT UNDERDRAIN ALONG OLTO RD. SHALL BE SLOPED TO DRAIN TOWARD SR.238 DRAINAGE DITCH.

PAVEMENT DATA

STREET	E 136TH STREET	MARKET PLACE BLVD.	OLTO RD.
R.O.W. WIDTH	80'	80'	65' HALF
CLASS	COLLECTOR	PRIVATE COMMERCIAL	ARTERIAL
PAVEMENT WIDTH	52'	40'	24'
#2 STONE	4"	4"	4"
#3 STONE	4"	4"	4"
#3 OR #9 H.A. BINDER	4"	4"	5"
#11 H.A. SURFACE	1"	1"	1"

NOTES:

- HAMILTON COUNTY STANDARDS FOR CONSTRUCTION OF ROAD IMPROVEMENTS SHALL BE USED ON THIS PROJECT. THE FOLLOWING STANDARD PLANS AND SPECIFICATIONS SHALL APPLY WHERE APPLICABLE:
 - A. COUNTY STREET & ROAD SPECIFICATIONS
 - B. COUNTY HIGHWAY DEPARTMENT STANDARD PLANS
 - C. COUNTY SURVEYOR STANDARD PLANS
 THESE STANDARDS ARE INTENDED TO BE MINIMUM STANDARDS.
- ALL IMPROVEMENTS SHALL BE CONSTRUCTED TO CONFORM TO THE CURRENT STANDARD SPECIFICATIONS OF THE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT), EXCEPT WHERE DEVIATIONS ARE ALLOWED OR VARIANCES GRANTED BY THE HAMILTON COUNTY STANDARDS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. IT IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES BEFORE WORK IS STARTED. PROPOSED UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE UTILITY COMPANIES.
- THE ENGINEER SHALL BE NOTIFIED OF ACTIVE UTILITIES ENCOUNTERED BUT NOT SHOWN ON THE PLANS. THE ENGINEER AND UTILITY REPRESENTATIVE SHALL BE ADVISED BEFORE WORK IS CONTINUED.
- STORM STRUCTURES SHALL BE EQUIPPED WITH NEENAH CASTINGS AS FOLLOWS:
 - A. CATCHBASINS IN STREETS R-3287-10V
 - B. YARD DRAINS R-3433
 - C. MANHOLES R-1726-A
 APPROVED EQUALS MAY BE SUBSTITUTED FOR THE ABOVE.



- NOTES:
- Installation of underdrain shall conform to section 718 of the Indiana Department Of Transportation Standard Specifications.
 - Underdrains shall not be installed until final grading and compaction is completed on subgrade.
 - Any contamination of underdrain backfill shall be removed prior to installation of aggregate base.
 - Underdrains shall not be installed until utilities located beneath the underdrains are in place. (i.e. watermains, storm sewers, sanitary sewers, ect.)

STANDARD PLAN P-1

PIPE UNDERDRAIN
NO SCALE

HAMILTON COUNTY HIGHWAY DEPARTMENT

RECORDED: *Tom J. Williams* HAMILTON COUNTY SURVEYOR 1-5-93 5/12

FILED

APR 16 1996

OFFICE OF HAMILTON COUNTY SURVEYOR

DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	DFS	8/22/94	CLT	PER COUNTY HIGHWAY COMMENTS
APPROVED				

HOWARD K. BELL
CONSULTING ENGINEERS, INC.

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GRAPHIC SCALE

SCALE: AS NOTED

HAMILTON COMMONS AND
EAST 136TH STREET IMPROVEMENTS
EXIT 10 INCORPORATED
HAMILTON COUNTY, INDIANA

ROADWAY TYPICAL SECTIONS
AND STANDARD DETAILS

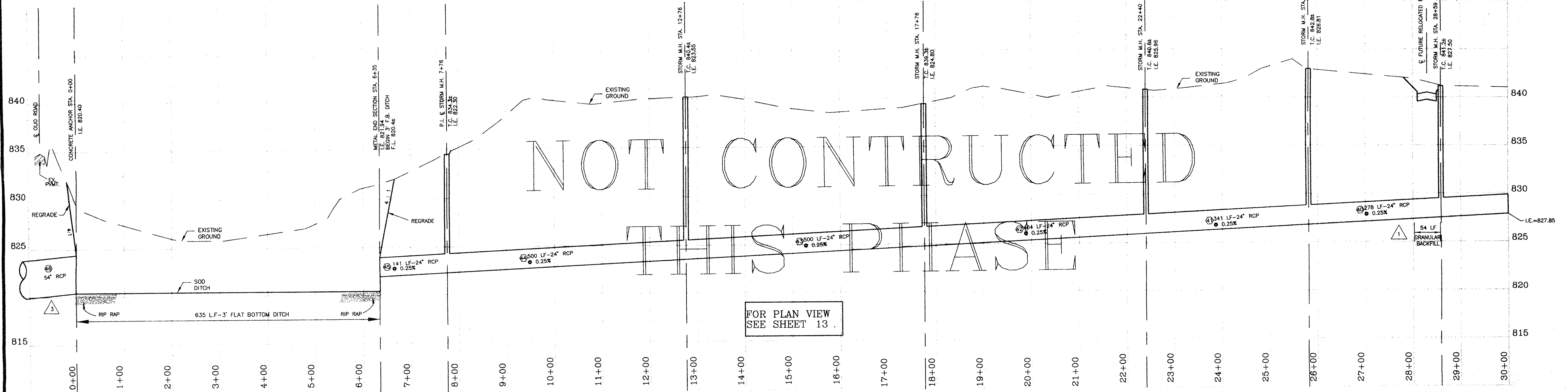
DIVISION

CONTRACT NO. 459-98-1

DATE OCT. 22, 1993

SHEET NO. 11 OF 29

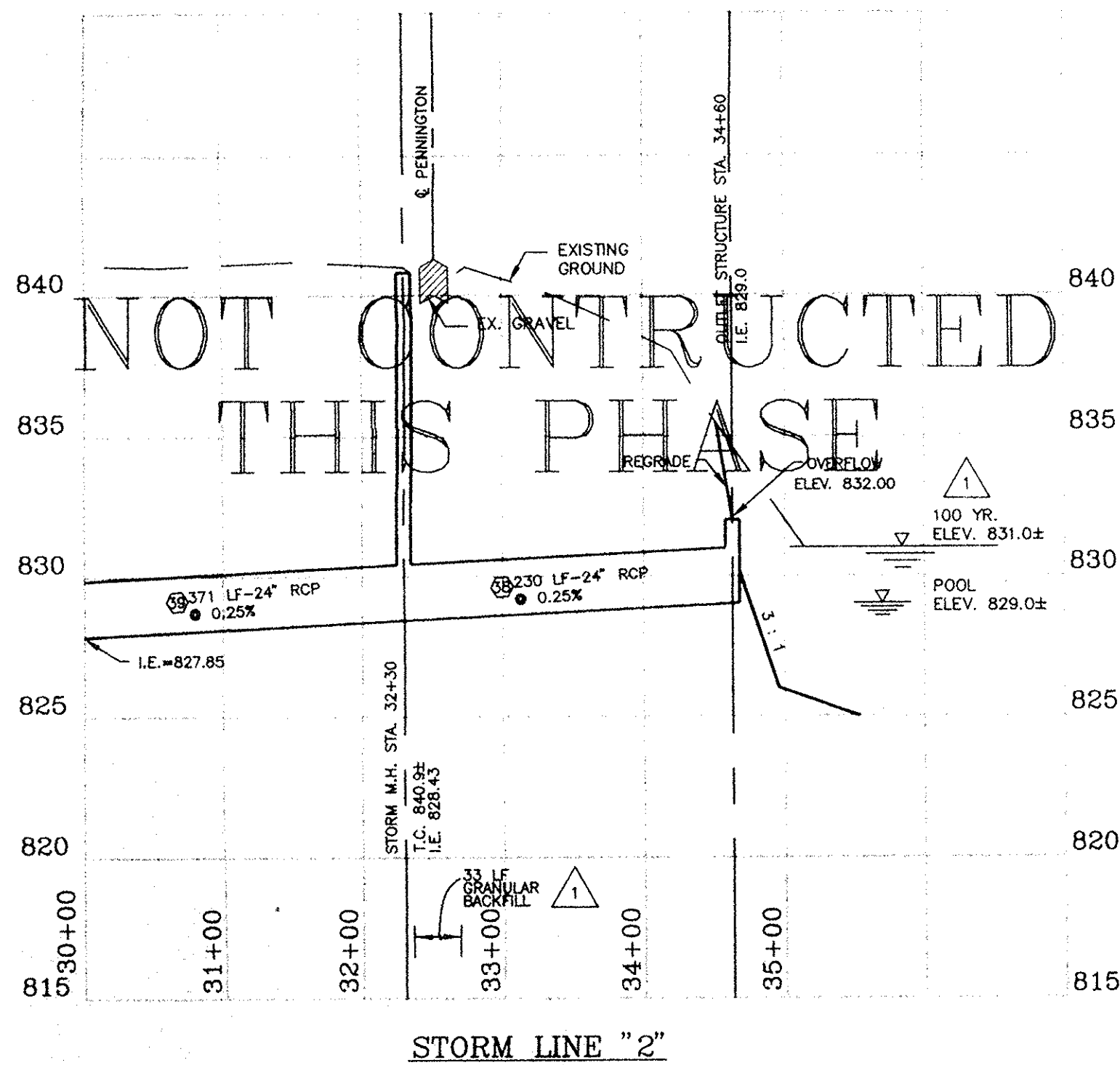
FOR CONTINUATION OF STORM DRAIN
EAST OF OLIO RD. TO MUD CREEK
SEE SHEET 17.



STORM LINE "2"

NOTE TO THE CONTRACTOR - TRENCH EXCAVATION

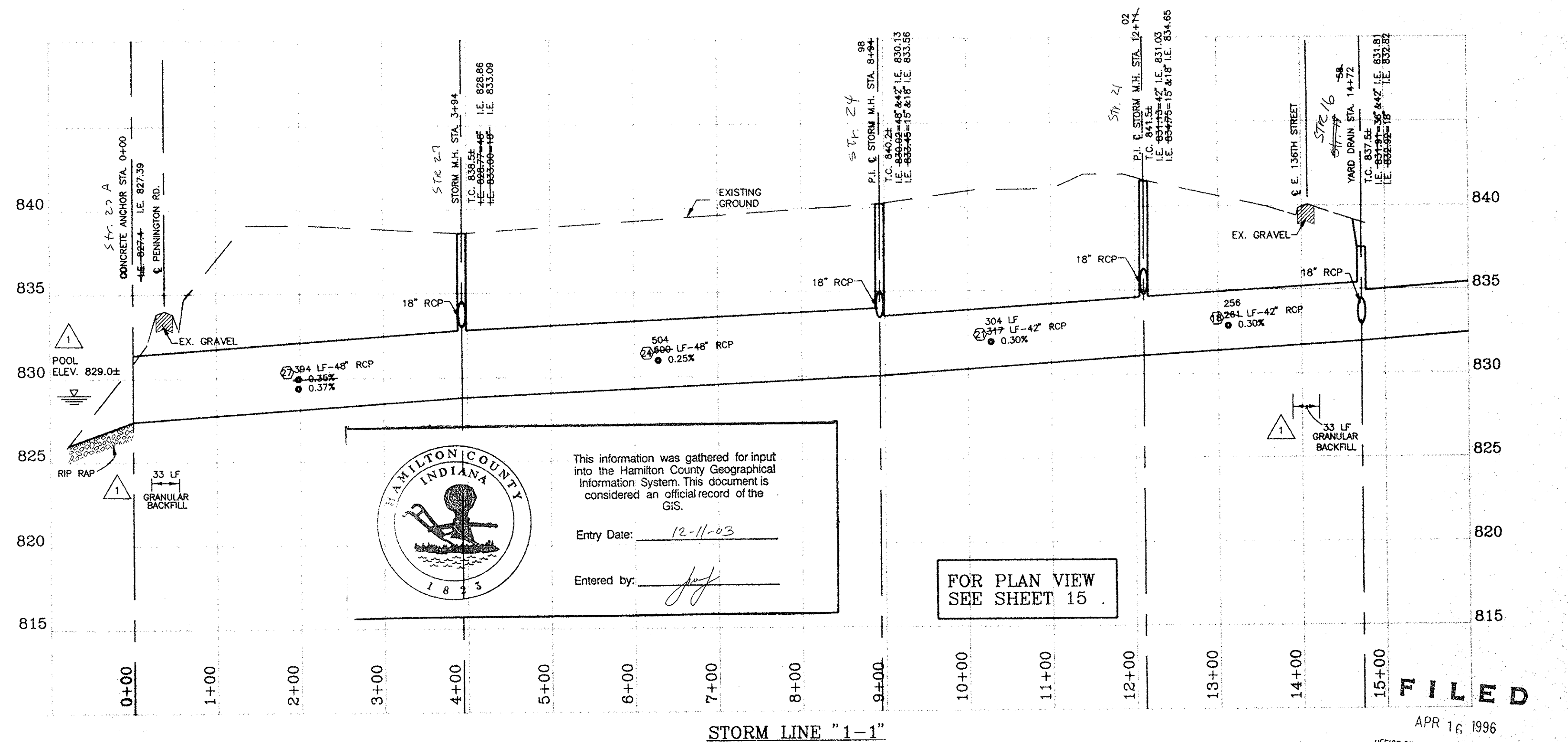
- ALL PERSONS ON SITE MUST ABIDE BY ALL I.O.S.H.A. STANDARDS INCLUDING BUT NOT LIMITED TO "GENERAL CONSTRUCTION PRACTICES" AND "TRENCH SAFETY STANDARDS".
- SLOPES AND SIDES OF EXCAVATIONS SHALL BE STABILIZED AND SHALL COMPLY WITH CODES AND ORDINANCES HAVING JURISDICTION. SHORE AND BRACE WHERE SLOPING IS NOT POSSIBLE BECAUSE OF SPACE RESTRICTIONS OR STABILITY OF MATERIAL EXCAVATED.
- MAINTAIN SIDES AND SLOPES OF EXCAVATIONS IN SAFE CONDITION UNTIL COMPLETION OF BACKFILLING.
- SHEETING AND SHORING OF TRENCHES SHALL BE PROVIDED BY THE CONTRACTOR WHERE NECESSARY TO PROTECT LIFE, PROPERTY AND THE NEW OR EXISTING STRUCTURES FROM DAMAGE OR TO MAINTAIN MAXIMUM PERMISSIBLE TRENCH WIDTH AT TOP OF PIPE. ALL NECESSARY MATERIALS, INCLUDING, BUT NOT LIMITED TO, SHEETING, SHEET PILING, TRENCH JACKS, BRACES, SHORES AND STRINGERS, SHALL BE USED TO HOLD TRENCH WALLS. SHEETING AND SHORING MAY BE WITHDRAWN AS THE TRENCHES ARE BEING BACKFILLED. AFTER BACKFILL HAS BEEN TAMPED OVER TOP OF PIPE AT LEAST 18 INCHES. IF REMOVAL BEFORE BACKFILL IS COMPLETED TO SURFACE ENDANGERS LIFE AND ADJACENT STRUCTURES, THEN THE SHEETING AND SHORING SHALL BE LEFT IN PLACE UNTIL SUCH DANGER HAS PASSED, AND THEN PULLED IF PRACTICAL. VOIDS CAUSED BY SHEETING WITHDRAWAL SHALL BE BACKFILLED AND TAMPED. IF NOT WITHDRAWN, SHEETING SHALL BE CUT OFF AT LEAST 18 INCHES BELOW FINAL SURFACE GRADE.



STORM LINE "2"

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STORM LINE "1-1"



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Entry Date: 12-11-03

Entered by: [Signature]

FOR PLAN VIEW
SEE SHEET 15

FILED

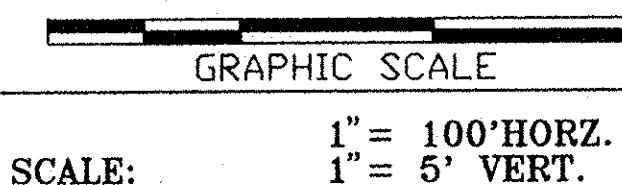
APR 16 1996

OFFICE OF HAMILTON COUNTY SURVEYOR

DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/03	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	KJB	7/08/04	CLT	REVISED PIPE SIZE
APPROVED	?	7/21/04	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS

HOWARD K. BELL
CONSULTING ENGINEERS, INC.
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HAMILTON COMMONS AND
EAST 136TH STREET IMPROVEMENTS
EXIT 10 INCORPORATED
HAMILTON COUNTY, INDIANA

PROFILE
STORM LINES "1-1" & "2"

DIVISION
CONTRACT NO. 459-93-1
DATE OCT. 22, 1993
SHEET NO. 16 OF 29

PIPE CALCULATIONS

PIPE NO.	A ACRES	Q C.F.S.	LENGTH FEET	SIZE INCHES	SLOPE %	VELOCITY F.P.S.	Tc MIN.	I INTEN.	CAPACITY CFS
1	1.5	6.2	17	18	0.30	4.0	10.0	5.0	6.8
2	0.2	0.9	58	15	0.62	3.3	10.0	5.0	5.8
3	2.0	8.0	385	21	0.30	4.4	10.3	5.0	11.0
4	0.2	0.9	58	15	0.50	3.1	10.0	5.0	5.2
5	-	12.0	10	18	0.25	4.6	-	-	15.0
6	-	12.0	124	18	0.07	4.6	-	-	15.0
7	-	12.0	192	24	0.25	4.6	-	-	15.0
8	2.0	8.3	10	18	0.50	5.2	10.0	5.0	8.6
9	9.0	19.9	282	27	0.28	5.3	11.2	4.8	20.0
10	11.2	28.4	443	30	0.83	8.5	12.1	4.7	44.0
11	2.3	6.9	62	15	1.77	6.5	10.0	5.0	15.0
12	0.4	0.7	30	18	0.30	2.5	10.0	5.0	6.8
13	1.0	4.1	17	18	0.50	5.0	10.0	5.0	4.0
14	0.1	0.4	40	15	0.35	2.0	10.0	5.0	5.0
15	1.2	5.0	205	18	0.20	2.9	10.3	5.0	5.0
16	17.1	48.8	282	36	0.39	7.2	13.1	4.8	50.0
17	1.3	5.4	10	18	0.50	4.8	10.0	5.0	8.8
18	18.4	52.6	261	42	0.30	6.2	13.7	4.5	59.8
19	2.2	9.1	10	18	1.00	7.2	10.0	5.0	13.0
20	0.9	3.7	10	15	1.00	5.8	10.0	5.0	7.2
21	21.5	63.0	317	42	0.35	6.7	14.4	4.4	64.6
22	2.1	8.7	10	18	1.00	7.0	10.0	5.0	13.0
23	1.7	7.0	10	15	2.00	8.5	10.0	5.0	11.0
24	26.3	75.4	500	48	0.25	6.0	15.2	4.3	78.0
25	2.6	10.8	10	18	1.00	7.5	10.0	5.0	13.0
26	2.4	10.0	10	18	1.00	7.2	10.0	5.0	13.0
27	30.3	91.4	394	48	0.35	7.3	16.6	4.2	92.3
28	6.8	28.2	17	30	0.50	7.1	10.0	5.0	34.0
29	7.3	30.5	40	30	0.50	7.2	10.0	5.0	34.0
30	7.8	32.7	218	30	0.67	7.1	10.1	5.0	40.0
30A	7.8	32.7	121	30	0.50	7.1	10.0	5.0	35.0
31	3.4	14.0	17	21	0.60	6.2	10.0	5.0	15.5
32	3.8	15.4	40	21	0.60	6.0	10.0	5.0	15.5
33	0.8	3.6	153	15	0.60	4.6	10.0	5.0	6.0
34	4.8	19.6	180	24	0.70	6.6	11.1	4.8	22.5
35	1.4	3.4	150	12	0.66	4.5	11.7	4.8	3.6
36	2.8	10.9	145	18	0.86	6.0	12.4	4.7	11.0
37	-	2.5	90	12	0.50	3.2	-	-	2.5
38	-	15.0	230	24	0.29	4.8	-	-	15.0
39	-	15.0	427	24	0.28	4.8	-	-	15.0
40	-	15.0	278	24	0.25	4.6	-	-	15.0
41	-	15.0	500	24	0.23	4.8	-	-	15.0
42	-	15.0	500	24	0.26	4.8	-	-	15.0
43	-	15.0	500	24	0.24	4.8	-	-	15.0
44	-	15.0	500	24	0.24	4.8	-	-	15.0
45	-	15.0	208	24	0.27	4.8	-	-	15.0
46	61.0	167.0	232	60	0.45	6.5	16.5	3.6	170.0
47	61.0	167.0	77	60	0.90	-	-	-	64.0
48	14.0	56.7	298	48	0.20	4.8	13.8	4.5	69.8
12A	12.8	34.5	52	36	0.72	8.9	13.0	4.6	64.0

* STEEL PIPE

NOTES:

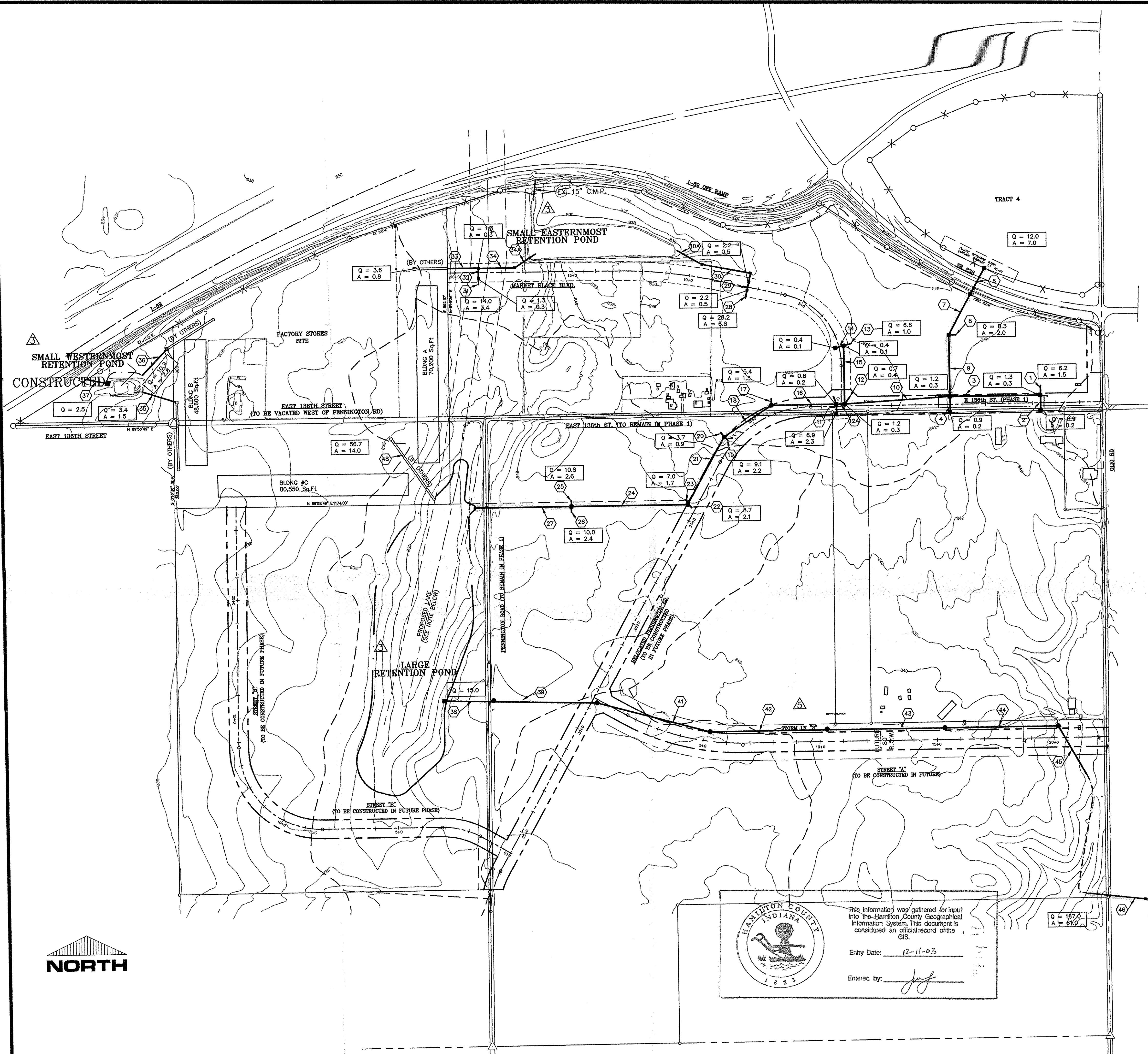
- ALL PERSONS ON SITE MUST ABIDE BY ALL I.O.S.H.A. STANDARDS INCLUDING BUT NOT LIMITED TO "GENERAL CONSTRUCTION PRACTICES" AND "TRENCH SAFETY STANDARDS".
- SLOPES AND SIDES OF EXCAVATIONS SHALL BE STABILIZED AND SHALL COMPLY WITH CODES AND ORDINANCES HAVING JURISDICTION. SHORE AND BRACE WHERE SLOPING IS NOT POSSIBLE BECAUSE OF SPACE RESTRICTIONS OR STABILITY OF MATERIAL EXCAVATED.
- MAINTAIN SIDES AND SLOPES OF EXCAVATIONS IN SAFE CONDITION UNTIL COMPLETION OF BACKFILLING.
- SHEETING AND SHORING OF TRENCHES SHALL BE PROVIDED BY THE CONTRACTOR WHERE NECESSARY TO PROTECT LIFE, PROPERTY AND THE NEW OR EXISTING STRUCTURES FROM DAMAGE OR TO MAINTAIN MAXIMUM PERMISSIBLE TRENCH WIDTH AT TOP OF PIPE. ALL NECESSARY MATERIALS, INCLUDING BUT NOT LIMITED TO, SHEETING, SHEET PILING, TRENCH JACKS, BRACES, SHORES AND STRINGERS, SHALL BE USED TO HOLD TRENCH WALLS. SHEETING AND SHORING MAY BE WITHDRAWN AS THE TRENCHES ARE BEING BACKFILLED, AFTER BACKFILL HAS BEEN TAMPED OVER TOP OF PIPE AT LEAST 18 INCHES. IF REMOVAL BEFORE BACKFILL IS COMPLETED TO SURFACE ENDANGERS LIFE AND ADJACENT STRUCTURES. THEN THE SHEETING AND SHORING SHALL BE LEFT IN PLACE UNTIL SUCH DANGER HAS PASSED, AND THEN PULLED BACKFILLED AND TAMPED. IF NOT WITHDRAWN, SHEETING SHALL BE CUT OFF AT LEAST 18 INCHES BELOW FINAL SURFACE GRADE.
- CULVERTS AND STORM SEWERS ARE DESIGNED FOR A TEN YEAR STORM EVENT.
- THE RATIONAL METHOD WAS UTILIZED TO CALCULATE PEAK DISCHARGES. A RUNOFF COEFFICIENT OF 0.85 WAS USED FOR UNDEVELOPED AREAS TO ALLOW FOR FUTURE DEVELOPMENT. MANNING'S N OF 0.012 WAS USED FOR CONCRETE PIPE.
- A RETENTION POND WILL BE PROVIDED IN THE FUTURE WHEN TRACT 4 DEVELOPS. THE RETENTION POND SHALL BE DESIGNED TO LIMIT THE 100 YEAR POST-DEVELOPED OUTFLOW (TO PIPE #6) TO 12 CFS.
- STORM PIPES DRAINING THE HAMILTON COUNTY ROAD RIGHT-OF-WAYS AND PIPE FROM THE LARGE RETENTION POND TO MUD CREEK SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-76 PIPE SHALL BE CLASS III AND CLASS IV (BACKFILL GREATER THAN 14 FT.) WALL "B" TYPE.
- ADS PIPE MAY BE USED FOR PIPES 5,6,7,8,35,36 AND 37.
- PIPES 38 THROUGH 45 (24-INCH RCP) ARE SIZED FOR THE 100 YEAR POST-DEVELOPED OUTFLOW FROM THE LARGE RETENTION POND. THE 100 YEAR POST DEVELOPED OUTFLOW IS LESS THAN THE 10 YEAR PRE-DEVELOPED OUTFLOW.

Phase II, - SLN 12/30/98

RECORD DRAWINGS

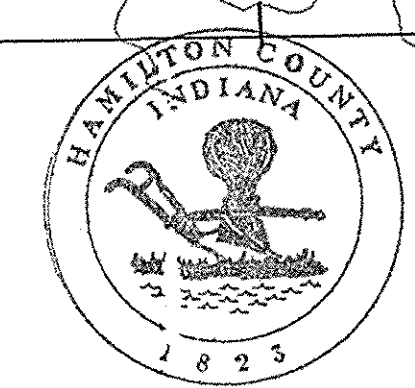
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PLOT DATE 2/9/98



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: 12-11-03
Entered by: [Signature]



DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	KJB	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
APPROVED	KJB	3/4/98	CLT	AS BUILT REVISIONS
	KJB	3/4/98	CLT	MOVED STORM LN "B" APPROX 60' TO THE NORTH

HOWARD K. BELL
CONSULTING ENGINEERS, INC.
LEXINGTON - HOPKINSVILLE - LOUISVILLE
(606) 278-5412 (502) 886-5466 (502) 584-8877
(606) 278-2911(FAX) (502) 886-5122(FAX) (502) 584-9393(FAX)

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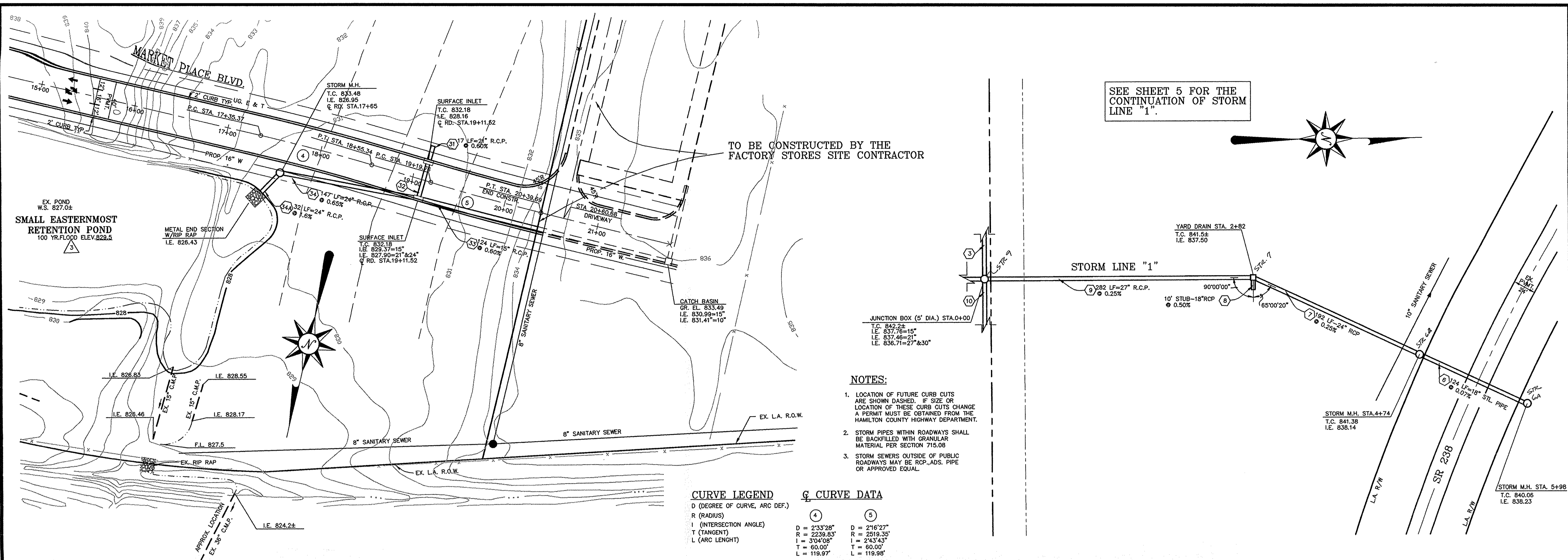
GRAPHIC SCALE
SCALE: 1" = 200'

HAMILTON COMMONS AND EAST 136TH STREET IMPROVEMENTS EXIT 10 INCORPORATED HAMILTON COUNTY, INDIANA

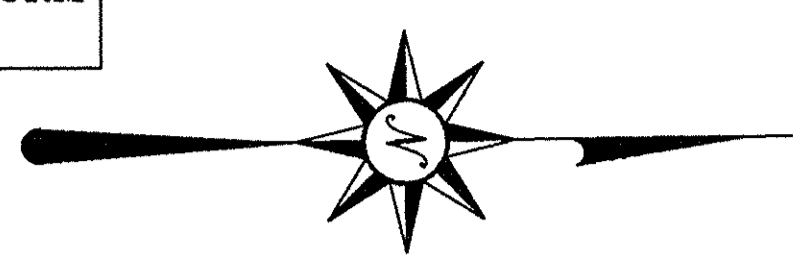
COMPOSITE DRAINAGE PLAN

FILED DIVISION
FEB 10 1998
OFFICE OF HAMILTON COUNTY ENGINEER

CONTRACT NO. 459-93-1
DATE OCT. 22, 1993
SHEET NO. 3 OF 29



SEE SHEET 5 FOR THE CONTINUATION OF STORM LINE "1".

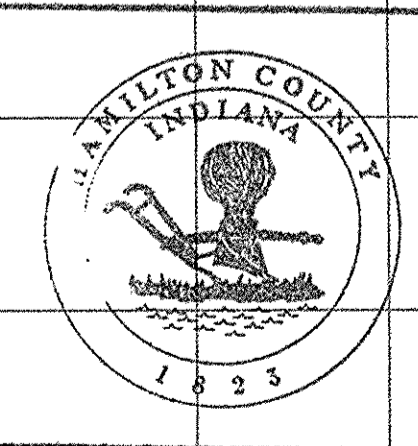
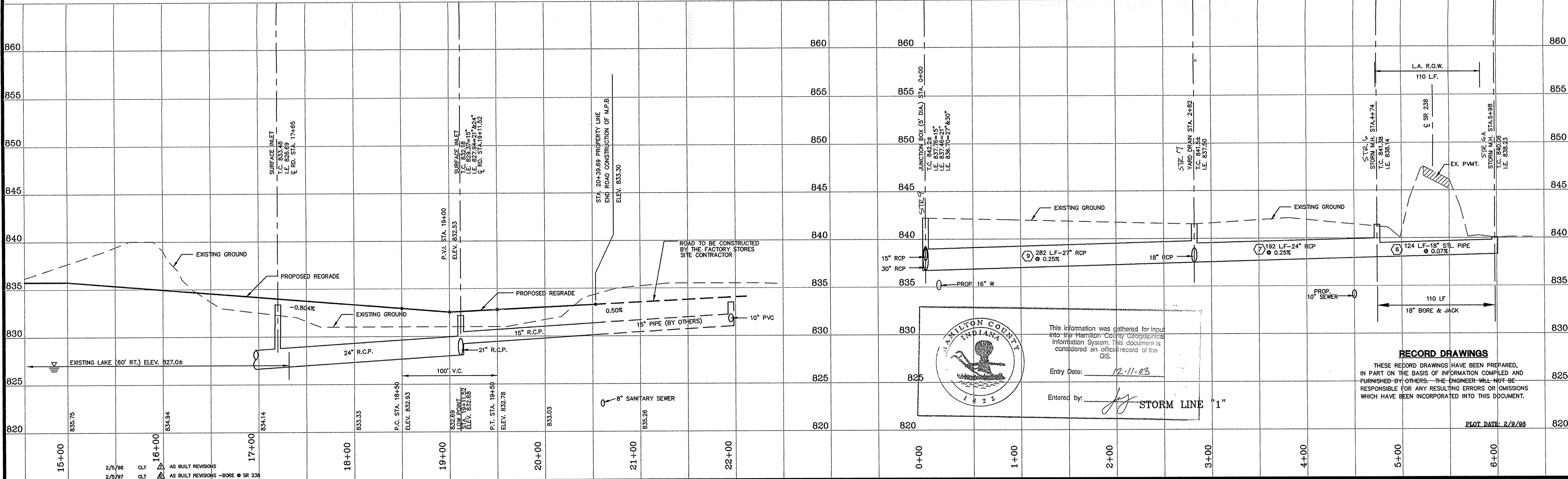


TO BE CONSTRUCTED BY THE FACTORY STORES SITE CONTRACTOR

NOTES:

1. LOCATION OF FUTURE CURB CUTS ARE SHOWN DASHED. IF SIZE OR LOCATION OF THESE CURB CUTS CHANGE A PERMIT MUST BE OBTAINED FROM THE HAMILTON COUNTY HIGHWAY DEPARTMENT.
2. STORM PIPES WITHIN ROADWAYS SHALL BE BACKFILLED WITH GRANULAR MATERIAL PER SECTION 715.08
3. STORM SEWERS OUTSIDE OF PUBLIC ROADWAYS MAY BE R.C.P., ADS. PIPE OR APPROVED EQUAL.

CURVE LEGEND		C CURVE DATA	
D (DEGREE OF CURVE, ARC DEF.)		④	⑤
R (RADIUS)		D = 2'33'28"	D = 2'16'27"
I (INTERSECTION ANGLE)		R = 2236.83'	R = 2518.35'
T (TANGENT)		I = 3'04'03"	I = 2'43'43"
L (ARC LENGTH)		T = 60.00'	T = 60.00'
		L = 119.97'	L = 119.98'

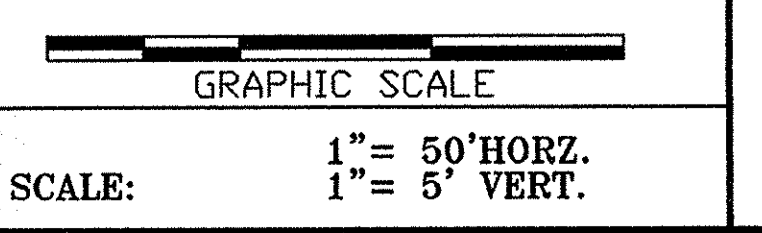


This information was gathered for input into the Hamilton County Geographic Information System. This document is considered an official record of the GIS.
 Entry Date: 12-11-03
 Entered by: [Signature] STORM LINE "1"

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DESIGNER	DATE	BY	REVISION
KJB	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
RCG	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
DFS	10/20/94	CLT	REVISED MARKET PLACE BLVD. ALIGNMENT & GRADE
?	3/4/96	CLT	AS BUILT REVISIONS

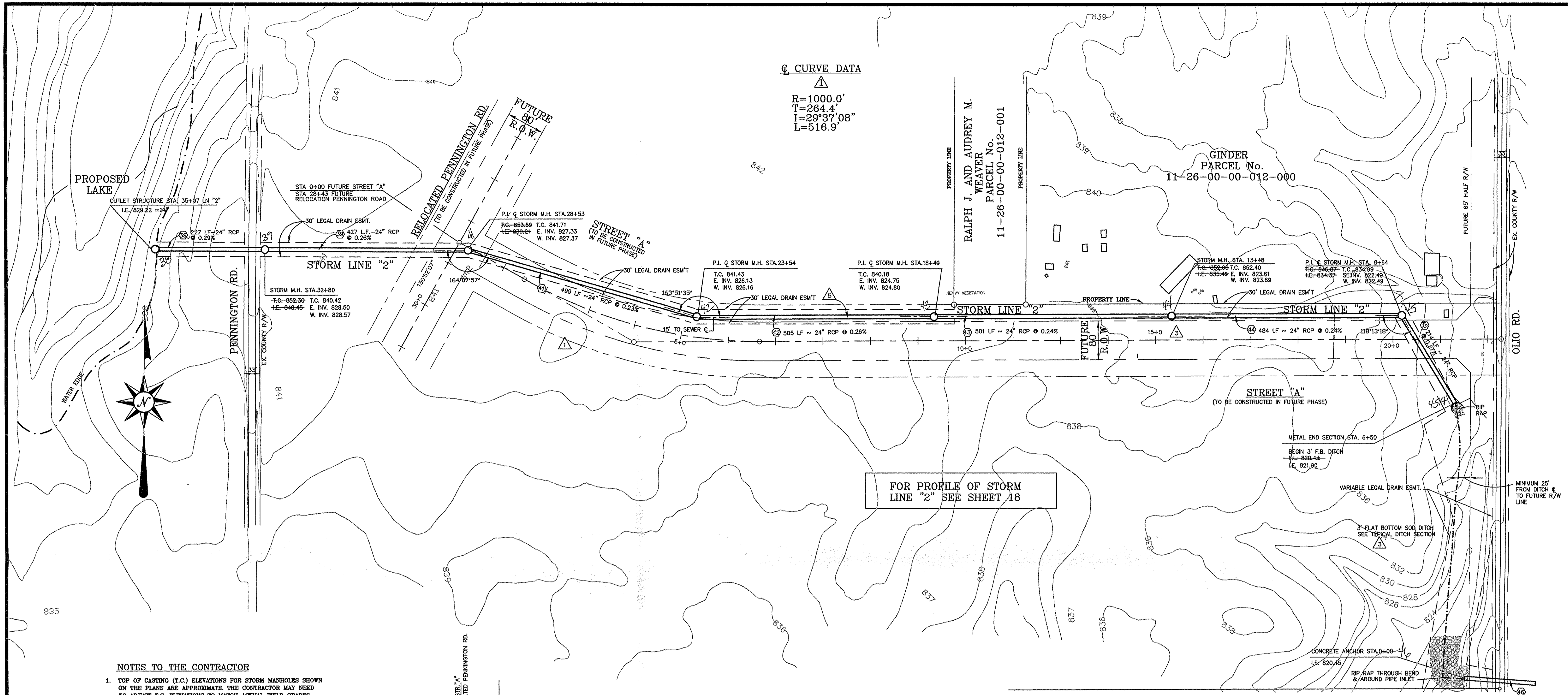
HOWARD K. BELL CONSULTING ENGINEERS, INC.
 LEXINGTON - HOPKINSVILLE - LOUISVILLE
 (606) 278-5412 (502) 886-5466 (502) 584-8877
 (606) 278-2911(FAX) (502) 886-5122(FAX) (502) 584-9393(FAX)



HAMILTON COMMONS AND EAST 136 STREET IMPROVEMENTS
 EXIT 10 INCORPORATED
 HAMILTON COUNTY, INDIANA

PLAN & PROFILE
 MARKET PLACE BLVD.
 STA.15+0 - STA.20+53

CONTRACT NO. 459-93-1
 DATE: OCT. 22, 1993
 SHEET NO. 7 OF 29



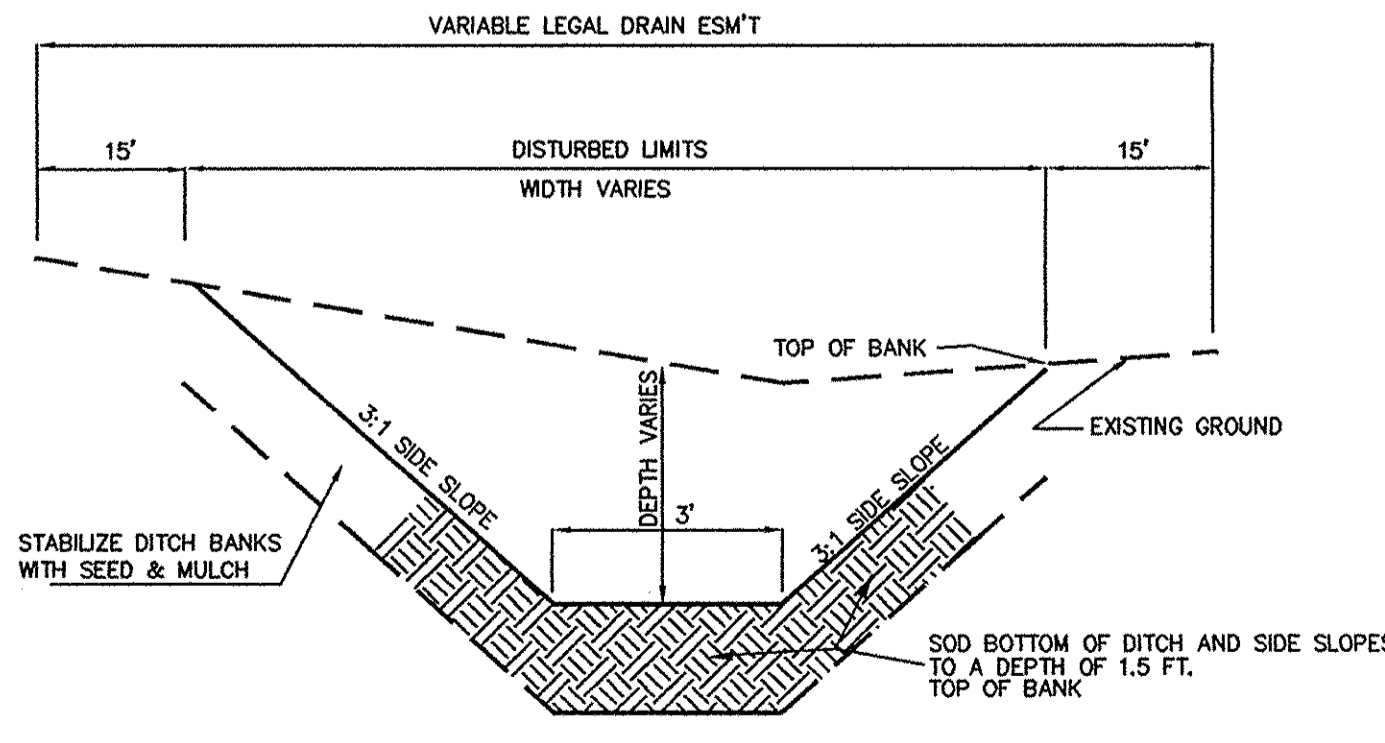
Δ CURVE DATA
 R=1000.0'
 T=264.4'
 L=29°37'08"
 L=516.9'



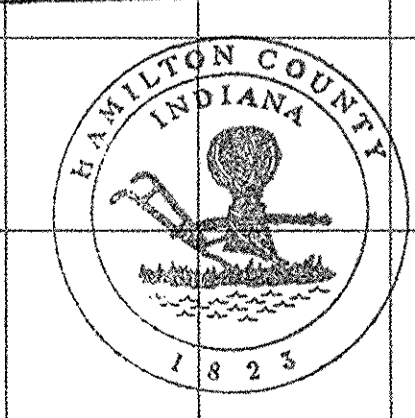
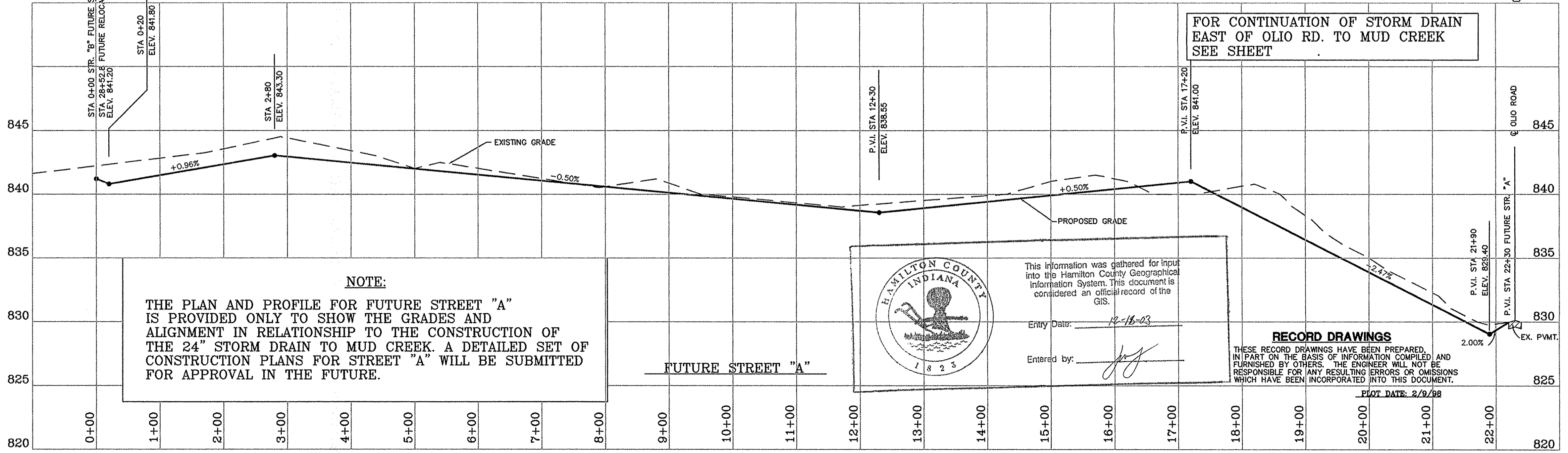
FOR PROFILE OF STORM LINE "2" SEE SHEET 18

NOTES TO THE CONTRACTOR

- TOP OF CASTING (T.C.) ELEVATIONS FOR STORM MANHOLES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR MAY NEED TO ADJUST T.C. ELEVATIONS TO MATCH ACTUAL FIELD GRADES.
- GRADE RINGS SHALL BE INSTALLED ON ALL STORM MANHOLES TO ALLOW FOR FUTURE GRADE ADJUSTMENT.



3' FLAT BOTTOM SOD DITCH ALONG OLIO RD. BETWEEN 24" RCP & 54" RCP NOT TO SCALE



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: 12-18-03
 Entered by: [Signature]

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 PLOT DATE: 2/9/98

DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
CHECKED	KJB	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
APPROVED	KJB	11/4/96	CLT	MOVED STORM LN "2" APPROX. 80' TO THE NORTH
		2/5/98	CLT	AS BUILT REVISIONS

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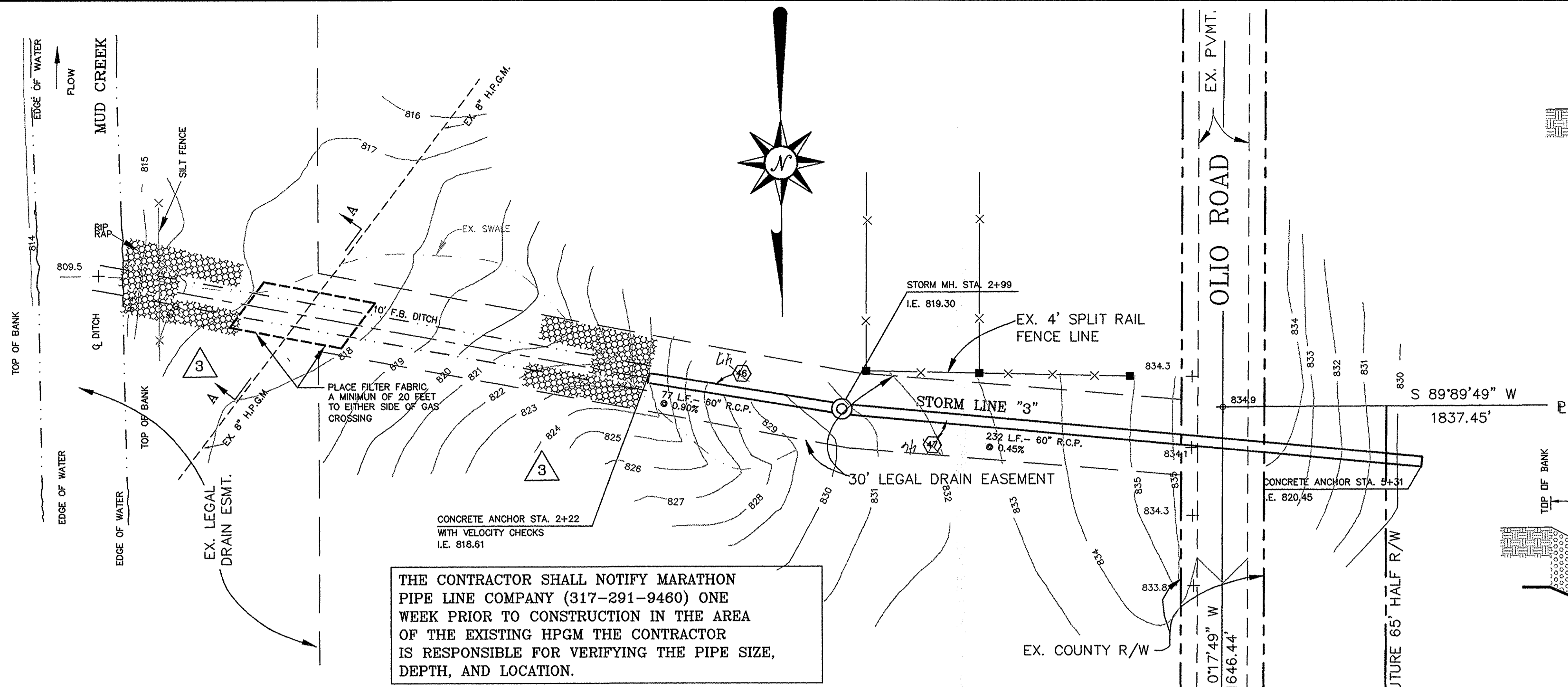
GRAPHIC SCALE
 SCALE: 1" = 100' HORIZ.
 1" = 5' VERT.

HAMILTON COMMONS AND EAST 136TH STREET IMPROVEMENTS
 EXIT 10 INCORPORATED
 HAMILTON COUNTY, INDIANA

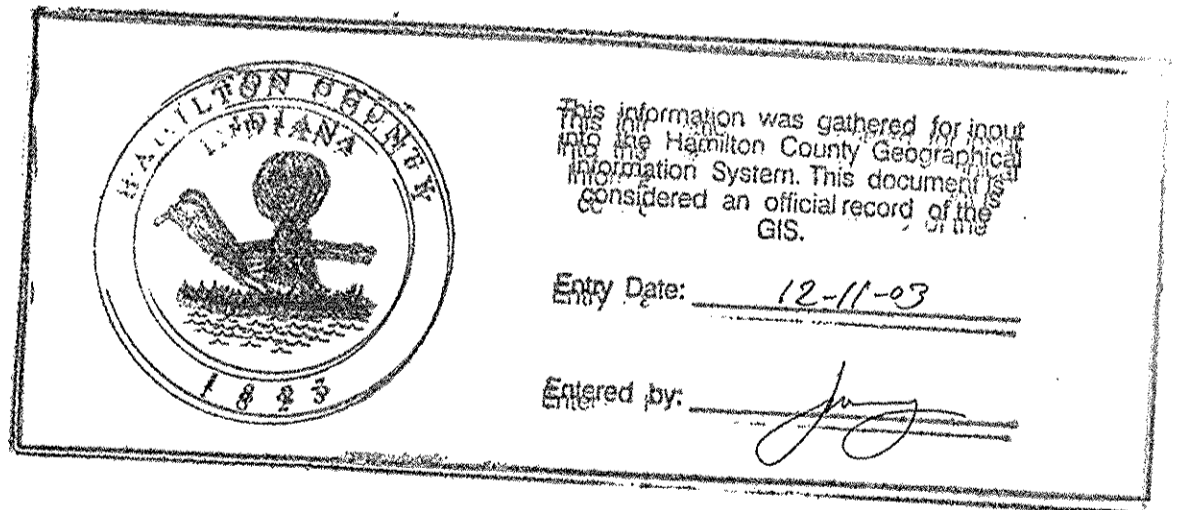
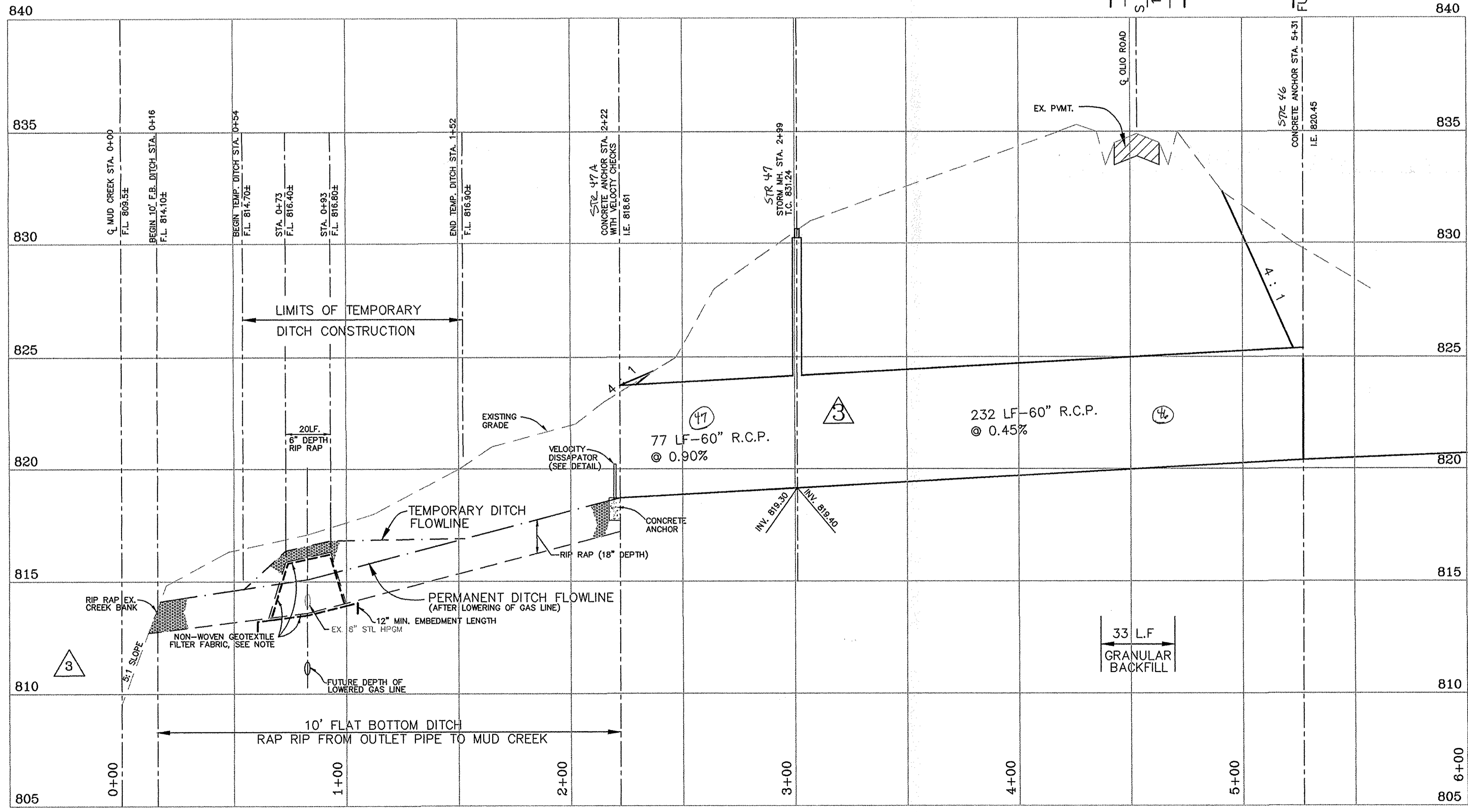
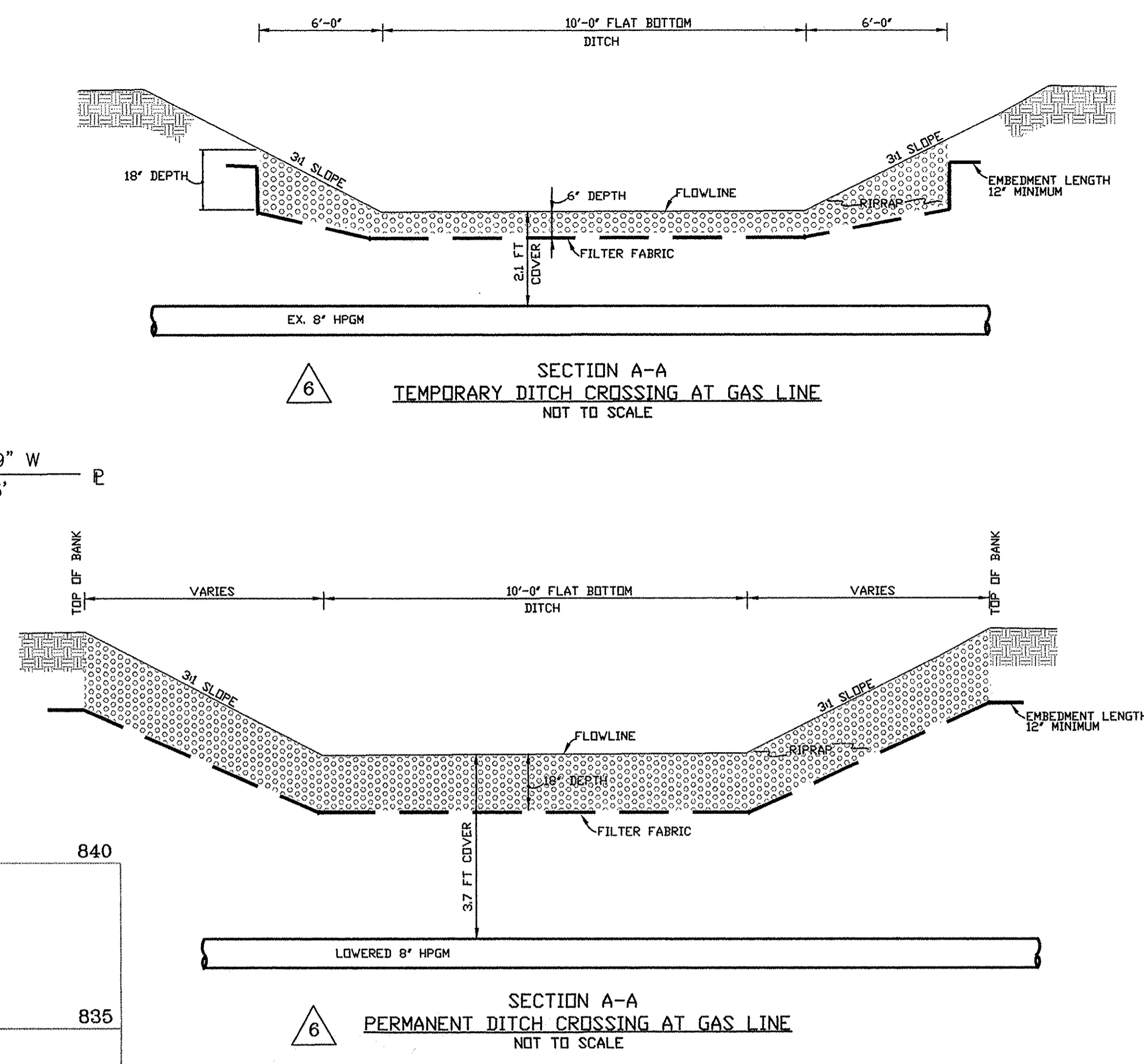
PLAN & PROFILE
 FUTURE STREET "A"
 STORM LINE "2"

FILED DIVISION
 FEB 10 1998
 OFFICE OF HAMILTON COUNTY SURVEYOR

CONTRACT NO. 459-93-1
 DATE OCT. 22, 1993
 SHEET NO. 13 OF 29



THE CONTRACTOR SHALL NOTIFY MARATHON PIPE LINE COMPANY (317-291-9460) ONE WEEK PRIOR TO CONSTRUCTION IN THE AREA OF THE EXISTING HPGM THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE PIPE SIZE, DEPTH, AND LOCATION.



RECORD DRAWINGS
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PLOT DATE: 2/9/98

DESIGNER	KJB	DATE	BY	REVISION
PRODUCTION	RCG	12/17/93	ROG	PER COUNTY HIGHWAY SURVEYOR AND MOBILEVILLE TAC COMMENTS
CHECKED	KJB	5/7/94	ROG	REVISED PIPE SIZE
APPROVED	DRF	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND MOBILEVILLE TAC COMMENTS
		3/11/96	CLT	REMOVED STORM MANHOLE

HOWARD K. BELL CONSULTING ENGINEERS, INC.
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30 15 0 30 60
 GRAPHIC SCALE

SCALE: 1" = 30' HORIZ.
 1" = 3' VERT.

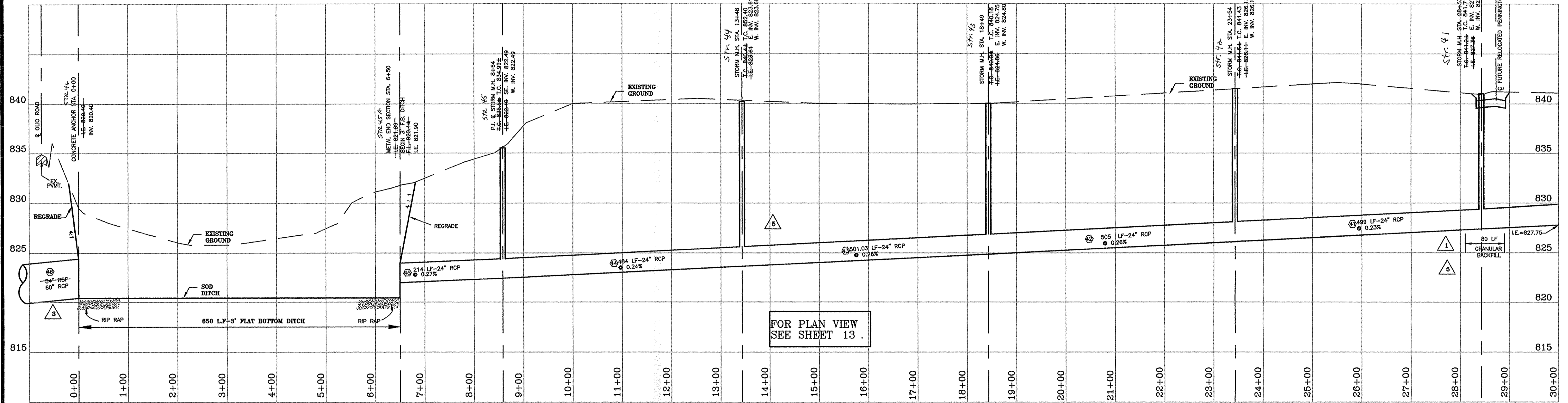
HAMILTON COMMONS AND EAST 136TH STREET IMPROVEMENTS
 EXIT 10 INCORPORATED
 HAMILTON COUNTY, INDIANA

DRAINAGE DITCH IMPROVEMENTS TO MUD CREEK MARATHON GAS CROSSING

FILED
 FEB 10 1994
 OFFICE OF HAMILTON COUNTY SUPERVISOR

DIVISION
 CONTRACT NO. 459-93-1
 DATE FEB. 28, 1997
 SHEET NO. 17 OF 29

FOR CONTINUATION OF STORM DRAIN
EAST OF OLO RD. TO MUD CREEK
SEE SHEET 17.

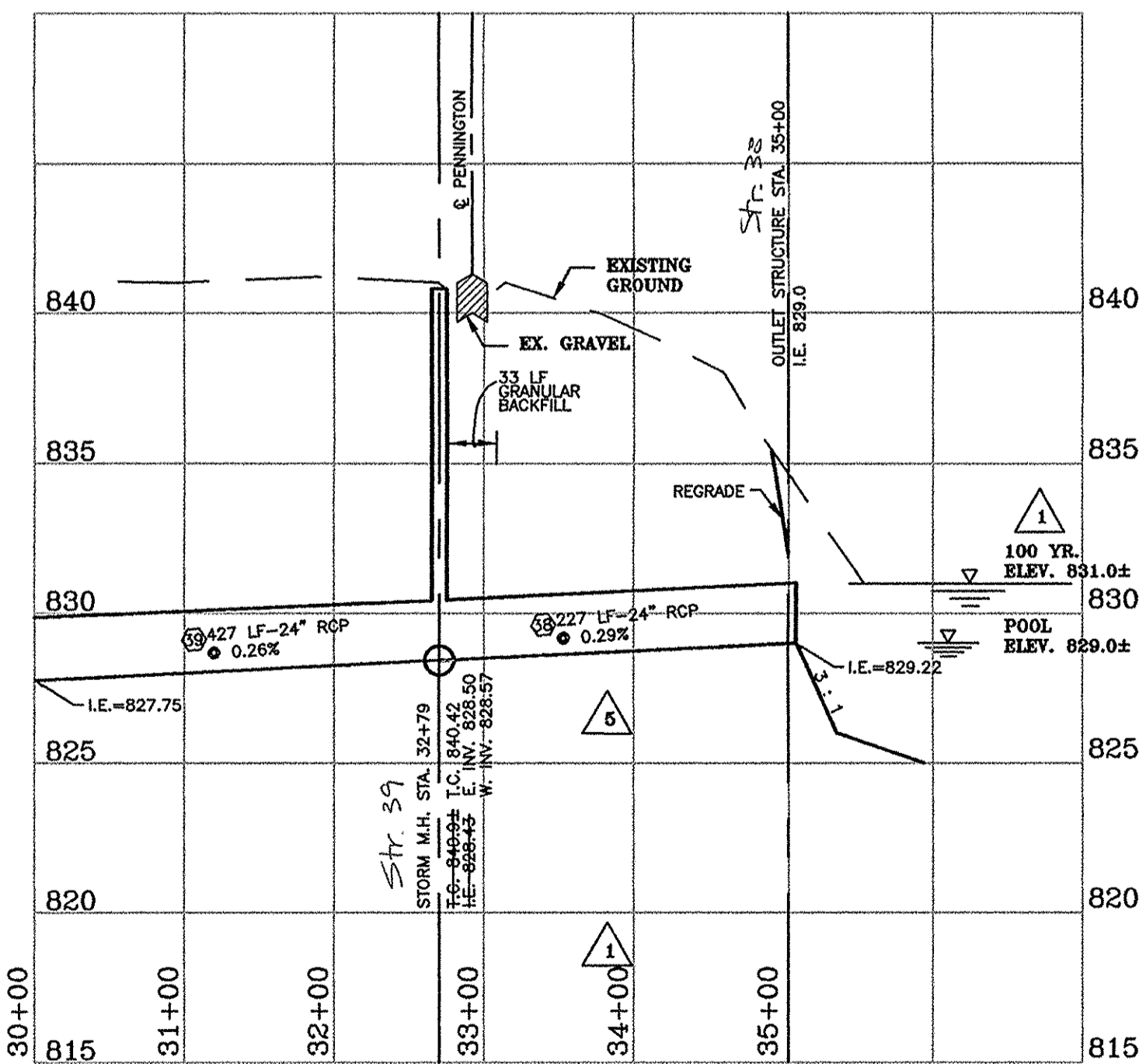


FOR PLAN VIEW
SEE SHEET 13.

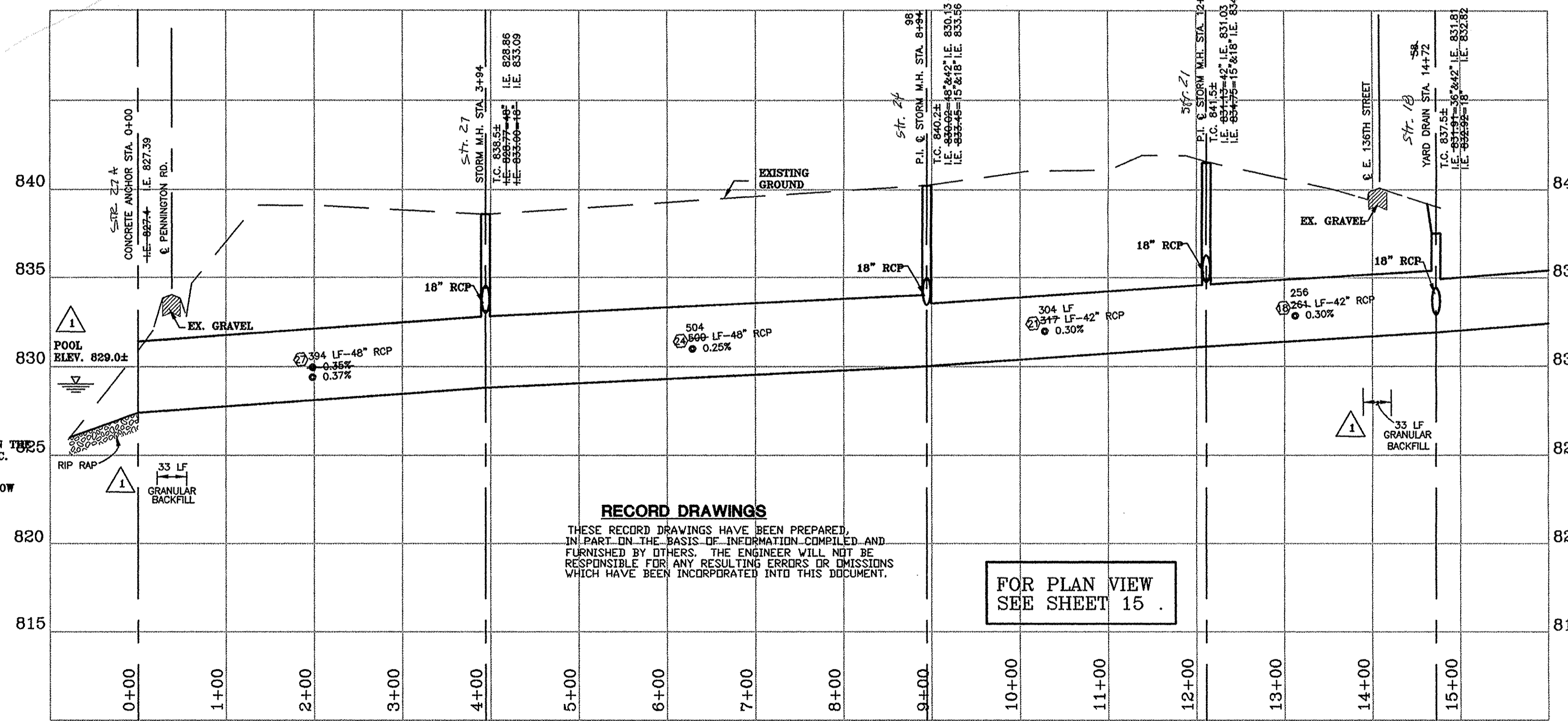
STORM LINE "2"
AS - BUILT

- NOTE TO THE CONTRACTOR - TRENCH EXCAVATION
- ALL PERSONS ON SITE MUST ABIDE BY ALL I.O.S.E.A. STANDARDS INCLUDING BUT NOT LIMITED TO "GENERAL CONSTRUCTION PRACTICES" AND "TRENCH SAFETY STANDARDS".
 - SLOPES AND SIDES OF EXCAVATIONS SHALL BE STABILIZED AND SHALL COMPLY WITH CODES AND ORDINANCES HAVING JURISDICTION. SHORE AND BRACE WHERE SLOPING IS NOT POSSIBLE BECAUSE OF SPACE RESTRICTIONS OR STABILITY OF MATERIAL EXCAVATED.
 - MAINTAIN SIDES AND SLOPES OF EXCAVATIONS IN SAFE CONDITION UNTIL COMPLETION OF BACKFILLING.
 - SHEETING AND SHORING OF TRENCHES SHALL BE PROVIDED BY THE CONTRACTOR WHERE NECESSARY TO PROTECT LIFE, PROPERTY AND THE NEW OR EXISTING STRUCTURES FROM DAMAGE OR TO MAINTAIN MAXIMUM PERMISSIBLE TRENCH WIDTH AT TOP OF PIPE. ALL NECESSARY MATERIALS, INCLUDING, BUT NOT LIMITED TO, SHEETING, SHEET PILING, TRENCH JACKS, BRACES, SHORES AND STRINGERS, SHALL BE USED TO HOLD TRENCH WALLS. SHEETING AND SHORING MAY BE WITHDRAWN AS THE TRENCHES ARE BEING BACKFILLED, AFTER BACKFILL HAS BEEN TAMPED OVER TOP OF PIPE AT LEAST 18 INCHES. IF REMOVAL BEFORE BACKFILL IS COMPLETED TO SURFACE ENDANGERS LIFE AND ADJACENT STRUCTURES. THEN THE SHEETING AND SHORING SHALL BE LEFT IN PLACE UNTIL SUCH DANGER HAS PASSED, AND THEN PULLED IF PRACTICAL. VOIDS CAUSED BY SHEETING WITHDRAWAL SHALL BE BACKFILLED AND TAMPED. IF NOT WITHDRAWN, SHEETING SHALL BE CUT OFF AT LEAST 18 INCHES BELOW FINAL SURFACE GRADE.

- NOTE TO THE CONTRACTOR - MANHOLES
- TOP OF CASTING (T.C.) ELEVATIONS FOR STORM MANHOLES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR MAY NEED TO ADJUST T.C. ELEVATIONS TO MATCH ACTUAL FIELD GRADES.
 - GRADE RINGS SHALL BE INSTALLED ON ALL STORM MANHOLES TO ALLOW FOR FUTURE ADJUSTMENT.



STORM LINE "2"
AS - BUILT



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FOR PLAN VIEW
SEE SHEET 15.

STORM LINE "1-1"
AS-BUILT

RECORD DRAWINGS
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PLOT DATE: 2/9/98

DESIGNER	DATE	BY	REVISION
KJB	12/17/93	RCG	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
KJB	7/08/94	CLT	REVISED PIPE SIZE
KJB	7/21/94	CLT	PER COUNTY HIGHWAY SURVEYOR AND NOBLESVILLE TAC COMMENTS
KJB	11/4/98	KJB	MOVED STORM LN. "2" APPROX. 80' TO NORTH

HOWARD K. BELL
CONSULTING ENGINEERS, INC.
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GRAPHIC SCALE
SCALE: 1" = 100' HORIZ.
1" = 5' VERT.

HAMILTON COMMONS AND
EAST 136TH STREET IMPROVEMENTS
EXIT 10 INCORPORATED
HAMILTON COUNTY, INDIANA

PROFILE
STORM LINES "1-1" & "2" FFB 10 1998
OFFICE OF HAMILTON COUNTY SURVEYOR

DIVISION
CONTRACT NO. 459-93-1
DATE OCT. 22, 1993
SHEET NO. 18 OF 29