

**Drain:** WR FERTIG **Drain #:** 176  
**Improvement/Arm:** CARMEL SCIENCE & TECHNOLOGY PARK  
**Operator:** J. LIVINGSTON **Date:** 12-15-03  
**Drain Classification:** Urban/Rural **Year Installed:** 1989

### GIS Drain Input Checklist

- Pull Source Documents for Scanning JWJ
- Digitize & Attribute Tile Drains \_\_\_\_\_
- Digitize & Attribute Storm Drains JWJ
- Digitize & Attribute SSD \_\_\_\_\_
- Digitize & Attribute Open Ditch JWJ
- Stamp Plans JWJ
- Sum drain lengths & Validate JWJ
- Enter Improvements into Posse JWJ
- Enter Drain Age into Posse \_\_\_\_\_
- Sum drain length for Watershed in Posse \_\_\_\_\_
- Check Database entries for errors JWJ

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

Drain-Improvement: WR FERTIG - CARMEL SCIENCE & TECHNOLOGY PARK

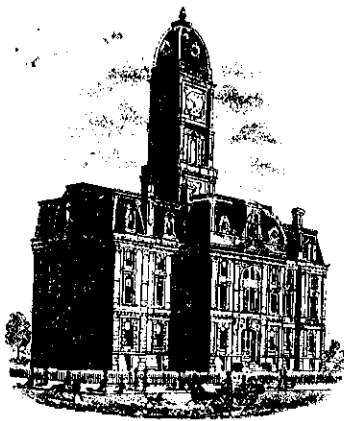
Drain Type:	Size:	Length ( )	Length (DB Query)	Length Reconcile	If Applicable	
					Price:	Cost:
CMP	12"	25'	0'	-25'		
RCP	12"	130'	40'	-90'		
	15"	194'	194'			
	18"	183'	183'			
	30"	783'	783'			
	36"	387'	387'			
	42"	878'	878'			
	54"	2332'	2332'			
PVC	12"	235'	235'			
OPEN DITCH	—	980'	460'	-520'		

Sum: 6127' 5492' -635' \$108408.00

Final Report: 6127'

Comments:

6012' IS THE LENGTH OF THE DRAIN AS <sup>ORIGINALLY</sup> INSTALLED. 520' OF OPEN DITCH WAS RECONSTRUCTED (LUNSFORD RELOCATION -1999). 90' OF 12" RCP & 25' OF 12" CMP WERE ERRONEOUSLY INCLUDED IN THE FINAL REPORT FOR THE CARMEL SCIENCE & TECHNOLOGY PARK ARM. THE REPORTED DRAIN LENGTH OF 6127' MINUS THE 115' OF ERRONEOUSLY INCLUDED DRAIN EQUALS 6012.'



SURVEYOR'S OFFICE  
**Hamilton County**

*Kenton C. Ward, Surveyor*

776-9626

*Noblesville, Ind. 46060* February 18, 1986

TO: Hamilton County Drainage Board

RE: W.R. Fertig Drain

Attached are plans, calculations and a request to approve the final plans of the relocation of the W.R. Fertig Drain. The approval of the preliminary relocation and reconstruction plans was done during a public hearing on August 11, 1983. The drain to be part of the regulated drain system is shown in red on the attached plans cover sheet. Also shown on this sheet is the portion to be maintained by the property owners association in blue and the City of Carmel in brown and the existing regulated drain in green.

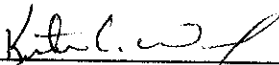
The property owners association will have the responsibility of maintaining the five (5) lakes or retention areas and the outlets for Lakes 1, 4 and 5. The City of Carmel will have the responsibility of maintaining the storm sewer system for street drainage. The subsurface drains along the streets will also be maintained by Carmel.

The regulated drain will be between the following structures: 639, 640, 637, 638, 635, 636, 514, 515, 516, 517, 504, 505, 506, 507, 508, 560, 561, 562, 563, 564, 565, 625, 627, 629, 630, 631, 632, 633, 634, and 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554 and 555. Not shown on the cover sheet is the clearing of obstructions and trees in the open ditch from Guilford Road to the Railroad as shown on Sheet three (3). Shown on the cover sheet, but not listed above is a 235 foot length of 12" PVC connecting existing Arm #2 to STR. 555. This is shown on sheet three (3) also. Sheet three (3) also has the location of an open ditch running from Meridian Street to STR 508, which is to be part of the regulated drain.

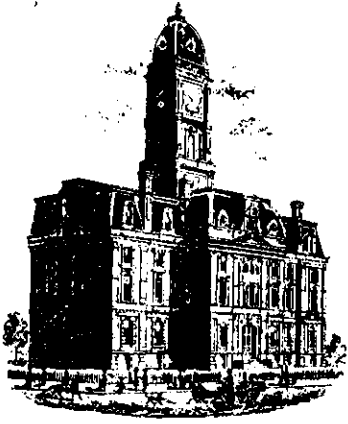
The drainage facilities will be constructed in Phases as shown on page fifteen (15) of the overall plan discussion. The drain shall be inspected, approved and accepted at the completion of each phase. The continuation of the drain from the Welch property to Guilford Road and the clearing of the open drain between Guilford Road and the railroad will be in the first phase.

I have reviewed the plans and calculations and believe it to conform to the requirements set for this drain and what was approved earlier. Therefore, I recommend the Board's approval of the final construction plans.

Sincerely,

  
\_\_\_\_\_  
Kenton C. Ward  
Hamilton County Surveyor

KCW/no



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

Re: **W. R. Fertig Drain - Carmel Science  
& Technology Park Arm**

Attached are as-builts, certificate of completion & compliance, and other information for Carmel Science & Technology Park. 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 February 18, 1996. The lengths of pipe are as follows: 12" CMP - 25' feet, 12" RCP - 130' feet, 15" RCP - 194' feet, 18" RCP - 183' feet, 30" RCP - 783' feet, 36" RCP - 387' feet, 42" RCP - 878' feet, 54" RCP - 2332' feet, open ditch - 980' feet, 12" PVC - 235' feet. Arms 1 & 2 were vacated along with the main Fertig drain from Sta 47 + 00 to Sta 65 + 75 this totaled 5,240 feet. The Carmel Science & Technology Park had a total length of 6,127 feet.

The net additional length of the drain due to the changes described above is now **887 feet.**

The non-enforcement was approved by the Board at its meeting on February 18, 1986.

The bond or letter of credit from Fidelity Bank & Trust, number 9584, dated April 4, 1989, in the amount of \$108,408.00, has expired.

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

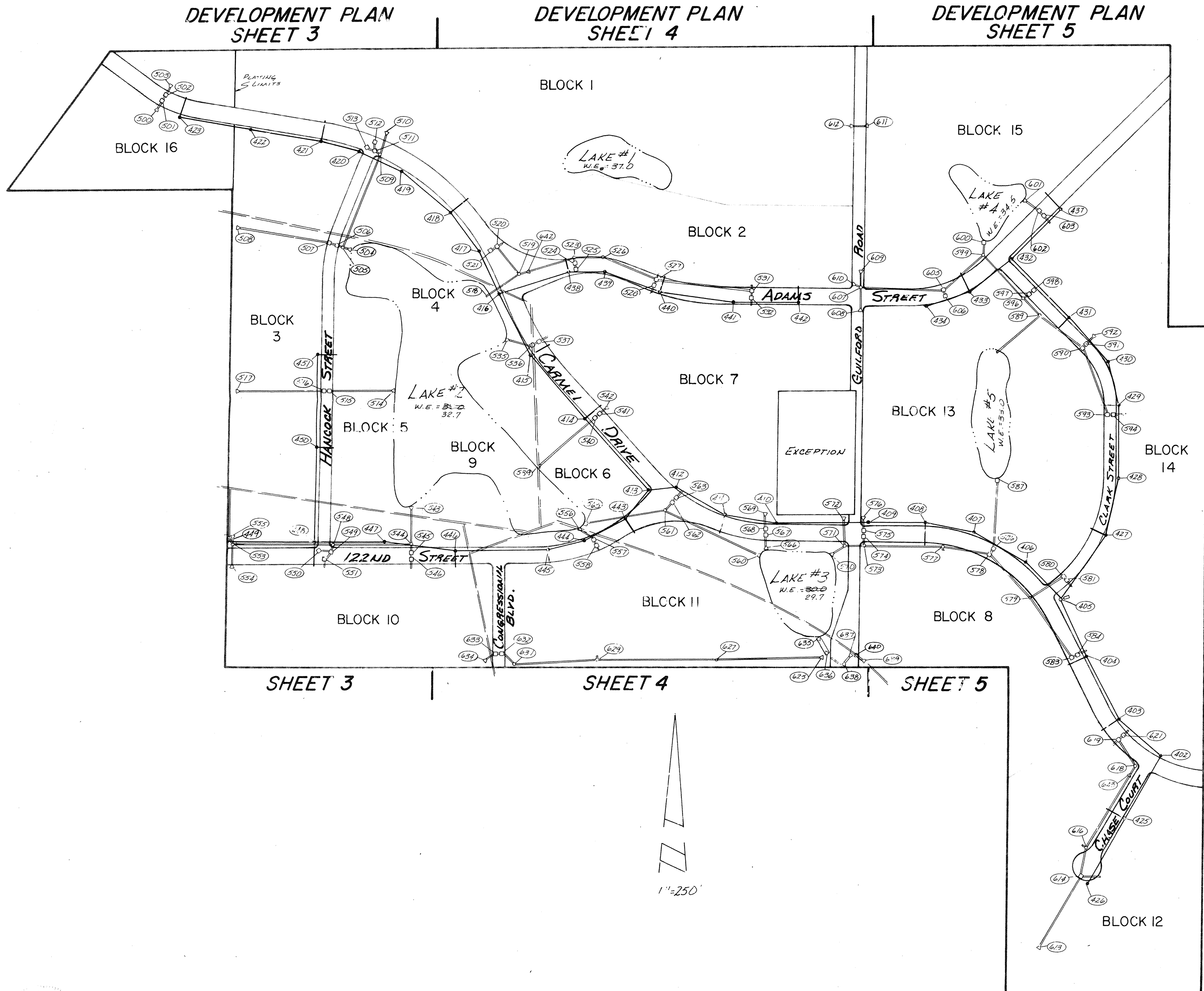
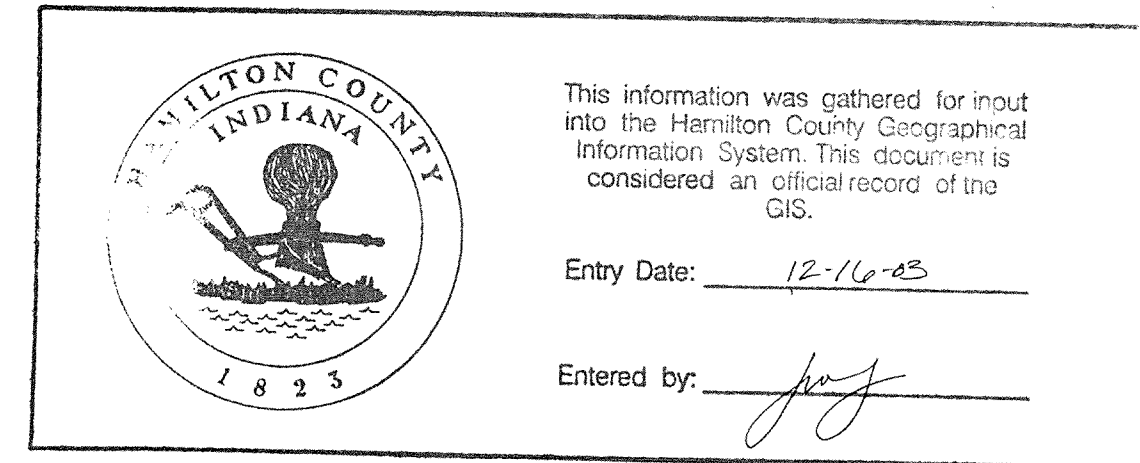
Sincerely,

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Kenton C. Ward,  
Hamilton County Surveyor

KCW/slm

# CONSTRUCTION PLANS FOR CARMEL SCIENCE & TECHNOLOGY PARK



### INDEX

Sht.	Description
1	TITLE SHEET
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7	STREET PLAN & PROFILE - CARMEL DRIVE (EAST HALF)
8	STREET PLAN & PROFILE - HANCOCK STREET
9	STREET PLAN & PROFILE - 122ND STREET & CONGRESSIONAL BLVD.
10	STREET PLAN & PROFILE - ADAMS STREET
11	STREET PLAN & PROFILE - CLARK STREET & CHASE COURT
12-14	STREET DETAILS
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20	STORM SEWER PLAN & PROFILE - STR. 15 505-513
21	STORM SEWER PLAN & PROFILE - STR. 15 514-517, 543-547
22	STORM SEWER PLAN & PROFILE - STR. 15 570-587
23	STORM SEWER PLAN & PROFILE - STR. 15 544-552, 548-552
24	STORM SEWER PLAN & PROFILE - STR. 15 570-587, 531-640
25	STORM SEWER PLAN & PROFILE - STR. 15 611-612, 613-622
26	STORM SEWER PLAN & PROFILE - STR. 15 588-600, 589-599
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28	STORM SEWER PLAN & PROFILE - STR. 15 405-426
29	STORM SEWER PLAN & PROFILE - STR. 15 410-413
30	STORM SEWER PLAN & PROFILE - STR. 15 410-413
31	STORM SEWER PLAN & PROFILE - STR. 15 410-413
32	STORM SEWER PLAN & PROFILE - STR. 15 410-413
33	STORM SEWER PLAN & PROFILE - STR. 15 410-413
34	STORM SEWER PLAN & PROFILE - STR. 15 410-413
35	STORM SEWER PLAN & PROFILE - STR. 15 410-413
36	STORM SEWER PLAN & PROFILE - STR. 15 410-413
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38	STORM SEWER PLAN & PROFILE - STR. 15 410-413
39	STORM SEWER PLAN & PROFILE - STR. 15 410-413
40-43	FORCE MAIN PLAN & PROFILE
44	LIFT STATION DETAIL
45	LIFT STATION PLAN
46	DUPLEX PUMPING STATION & CONTROLS
47	STANDARD DETAILS
48	STANDARD DETAILS & SPECIFICATIONS
30A	ALTERNATE GRAVITY SAN SEWER LINE
30B	ALTERNATE GRAVITY SAN SEWER LINE

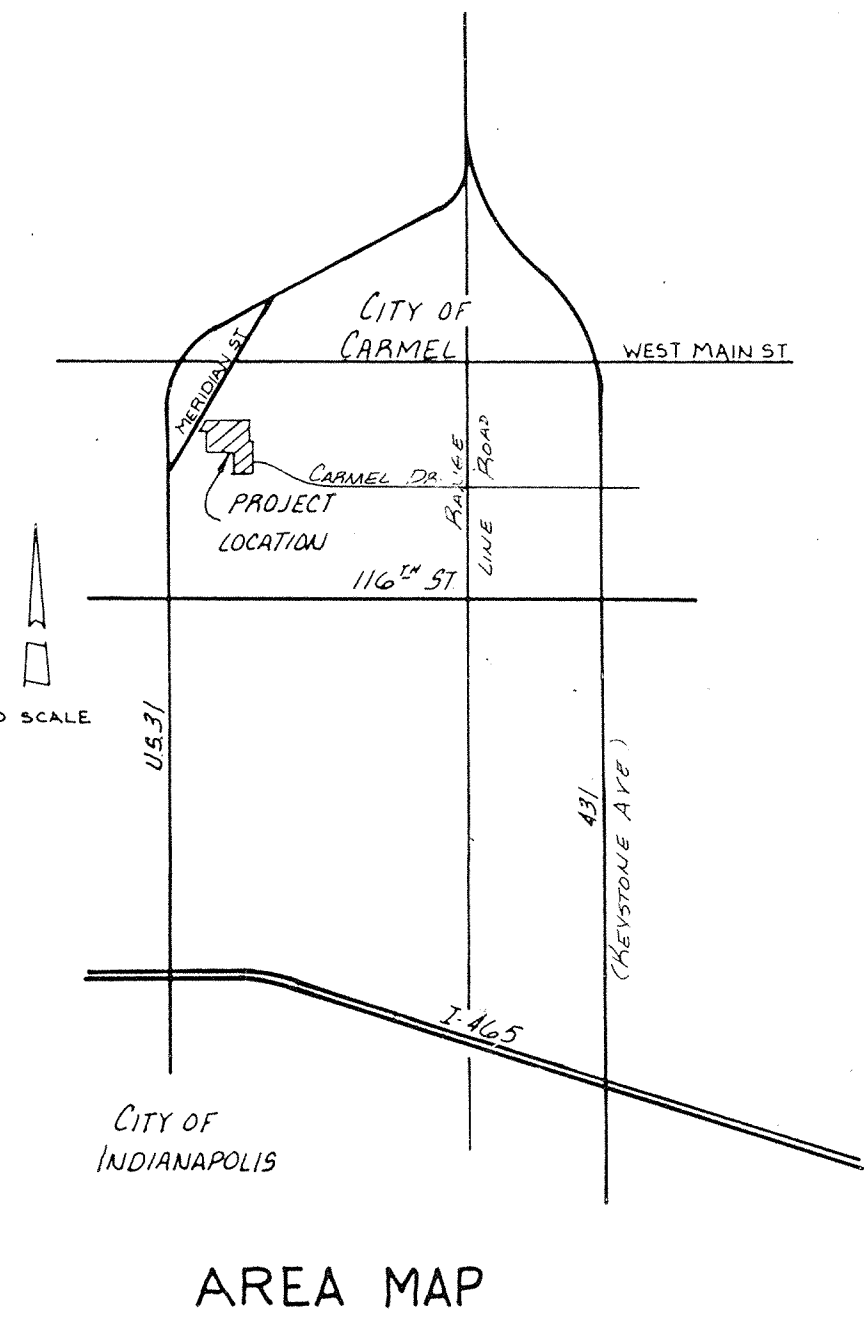
### BENCHMARKS

Model: All topo is based on USGS Bench Mark 21-42-1934 located 2 miles along Chicago, Indianapolis and Louisville R.R. from Station at Carmel, 11.5 Ralls north of mile post 1-70, 10 Ralls north of crossing of Indiana Railroad, 7 Ralls south of crossing of 111th Street, 2 miles east of east rail, top of northeast corner of concrete Switch Base, 0.5 feet lower than track. Standard description marked 1-42-1934. Elevation = 859.000.

IB1: Nail in west side of Power pole #107-261, 50 feet south of centerline of Carmel Drive, 1300 feet east of Guilford Road. Elevation = 840.16.

IB2: PK nail in northwest side of Power pole #86-718, 107-723, east of Guilford Road 50 ± feet north of south property line. Elevation = 837.54.

IB3: Nail in Power pole #182-916 on east side of Penn Road, second pole south of northwest corner of trailer park. Elevation = 855.01.



**AS BUILT**  
FERTIG LEGAL DRAIN  
date 7/20/87

	CERTIFIED BY 	DATE 4/10/06
	REVISIONS 2-10-06 DELETED SAN STR. 15 435, 436 2-12-06 ADDED BLOCK 16 3-10-06 DELETED STR. 15 435, 436 ADDED SAN STR. 15 435, 436	K.S.B. A.I. BY REV. PER DRAFTING CHECK K.S.B. 7-20-07 FERTIG LEGAL DRAIN AS BUILT'S K.S.B. REV. DESCRIPTION

**PAUL I. CRIFE, INC.**  
7172 GRAHAM ROAD  
INDIANAPOLIS, INDIANA 46250  
(317) 842-6777

- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- LAND PLANNING

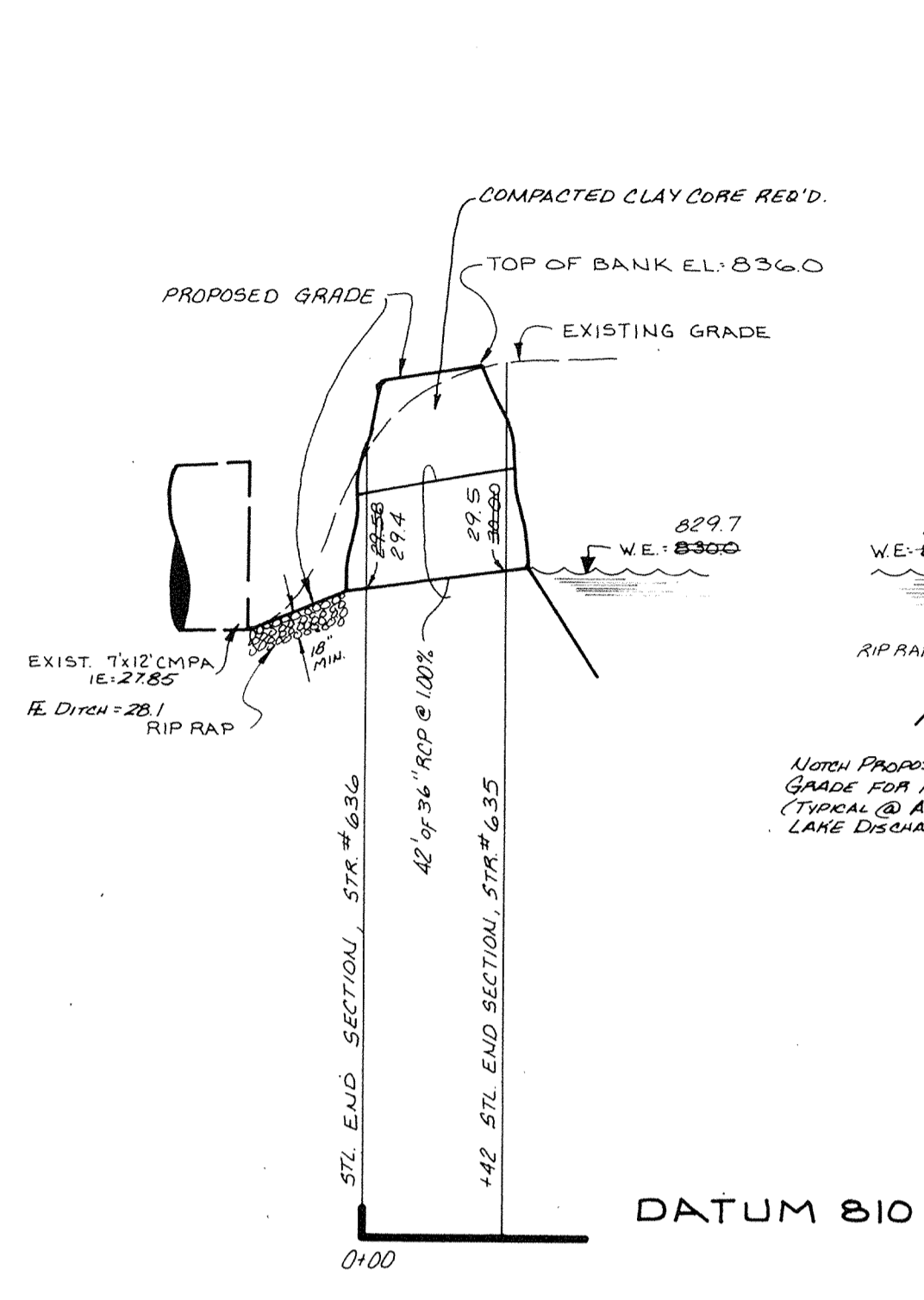
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DFTNG. CHK.	K.S.B.	AS NOTED	1-2-86	CARMEL SCIENCE & TECHNOLOGY PARK
DRAWING TITLE		COVER SHEET		

### REVISIONS

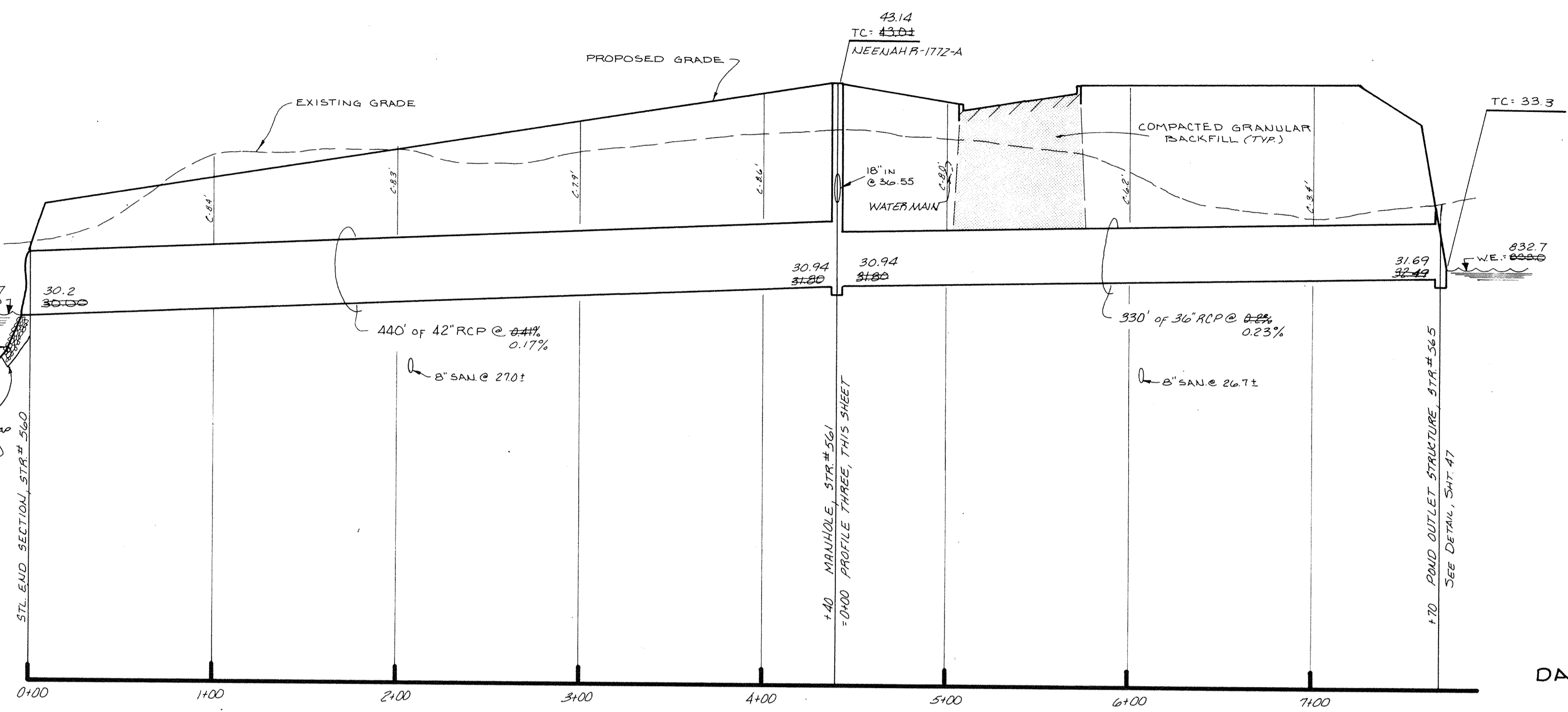
1-10-86	REV. LIFT STA. LOCATION - STORM SEWER (SEE SH. 18)
1-20-86	SEE SH. 2, 7, 11, 14, 17, 19, 22, 24, 26, 30, 31, 38, 47
1-21-86	SEE SH. 40
2-3-86	SEE SH. 3, 4, 5
2-4-86	SEE SH. 11, 14, 16
2-10-86	SEE SH. 1, 3, 4, 5, 11, 13, 14, 16, 18, 20
2-11-86	SEE SH. 22, 24, 29, 30, 31, 37, 40, 44
2-11-86	SEE SH. 12, 10, 17, 47, 48
2-13-86	SEE SH. 2, 3
2-11-86	SEE SH. 2, 30, 48
3-18-86	SEE SH. 1, 2, 3, 20
3-19-86	SEE SH. 4, 27, 12, 21, 25, 37
4-1-86	SEE SH. 1, 2, 3, 25, 33, 34, 35, 36
4-1-86	SEE SH. 14, 15, 16
4-1-86	SEE SH. 1, 2, 13, 16
4-1-86	SEE SH. 17, 18, 14, 20, 61, 22
4-1-86	SEE SH. 47, 24, 28
4-1-86	SEE SH. 11, 15
4-1-86	SEE SH. 27, 28, 29, 30, 31, 37, 40, 41, 42, 43, 44, 45, 47, 48
4-10-86	SEE SH. 9, 4
4-10-86	SEE SH. 9
5-5-86	ADDED SH. 30A, 30B, 30C
6-24-86	SEE SH. 30A, 30B, 40A, 40B, 41, 42, 43, 44, 45
6-24-86	ADDED SH. 47A
1-13-87	SEE SH. 4, 5, 7, 9, 10, 11, 13, 14, 15, 16, 25, 29, 30, 30, 47
7-20-87	FERTIG LEGAL DRAIN AS BUILT'S SH. 13, 17, 18, 22, 23

DWG. TYPE	FILE NUMBER	SHEET
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JOB NUMBER		OF 48
80381-10000		

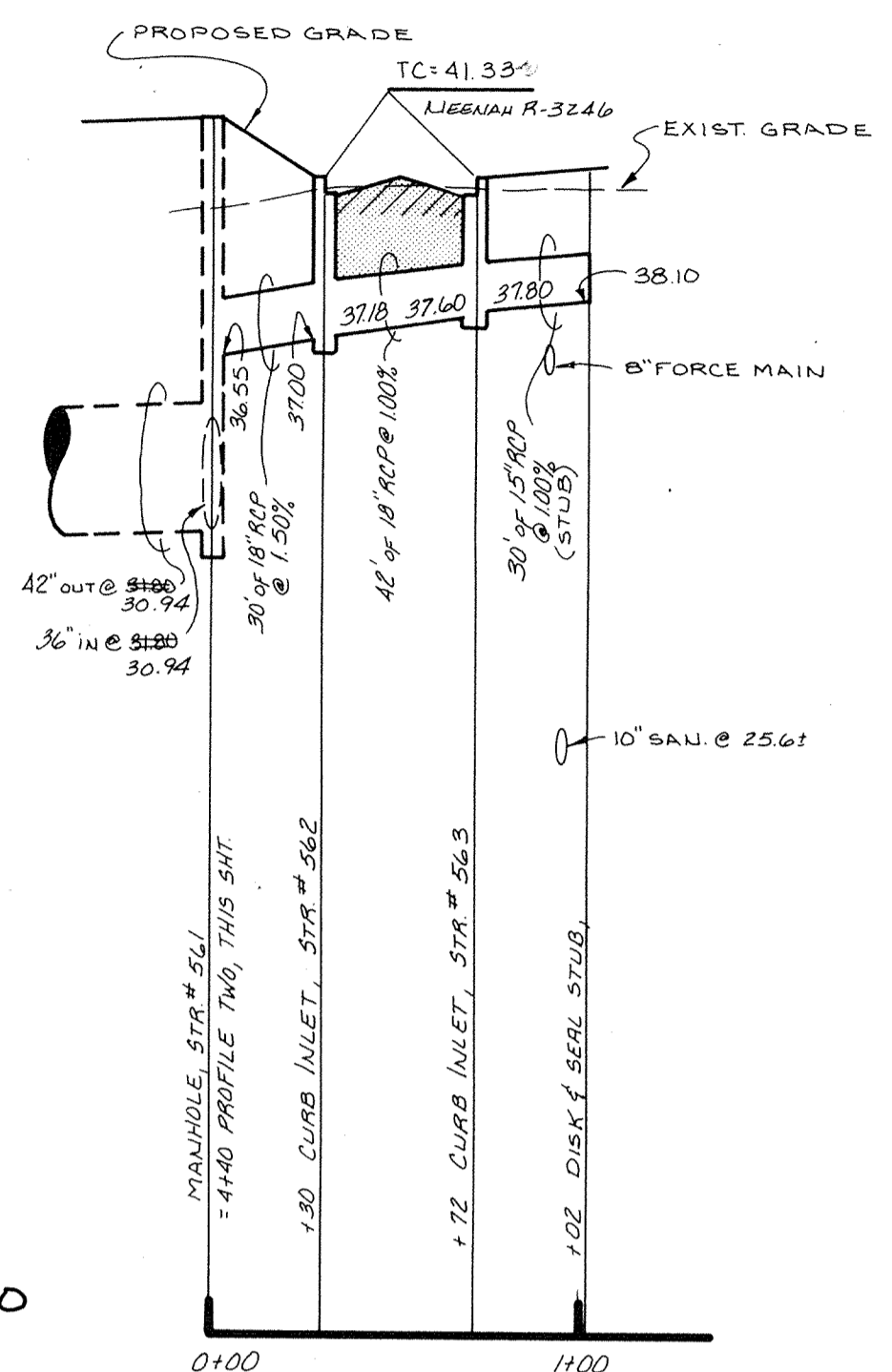
NOTE: CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXIST GRADE TO INVERT OF PIPE.



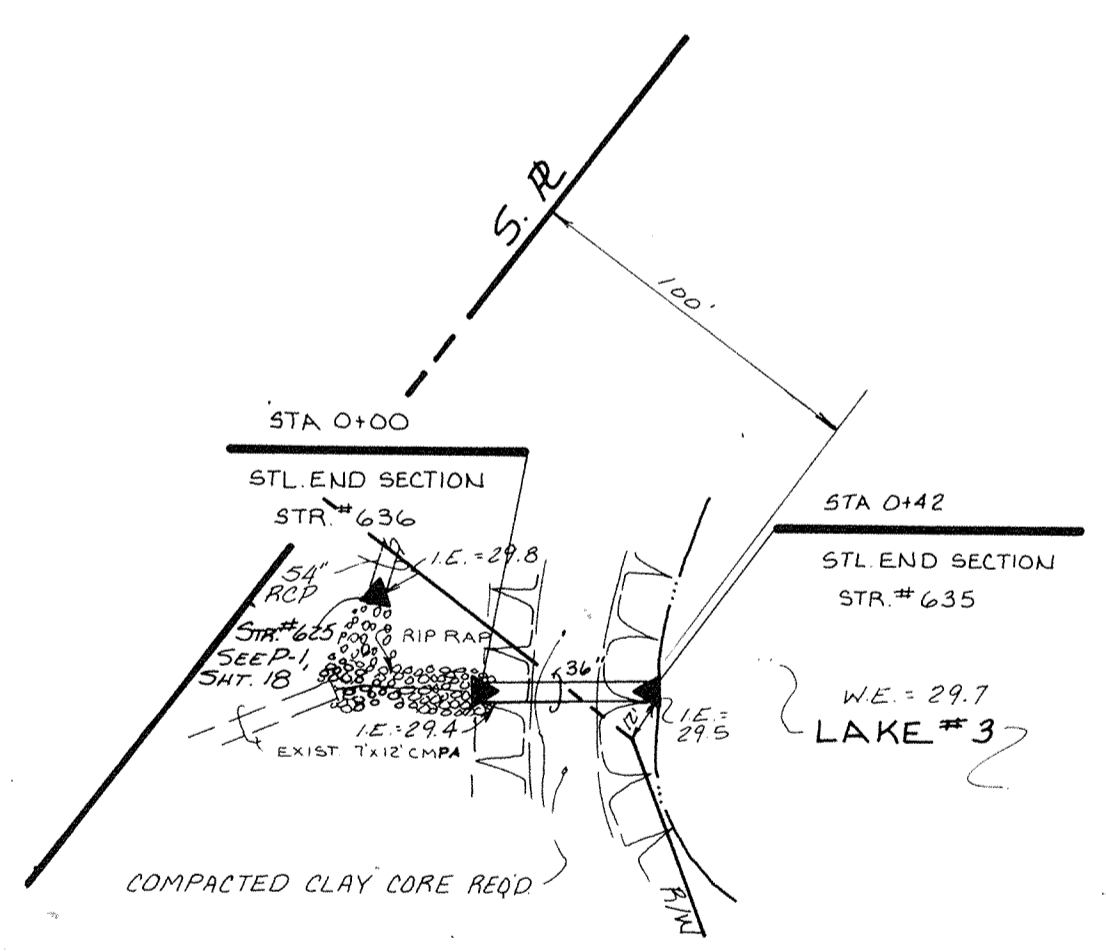
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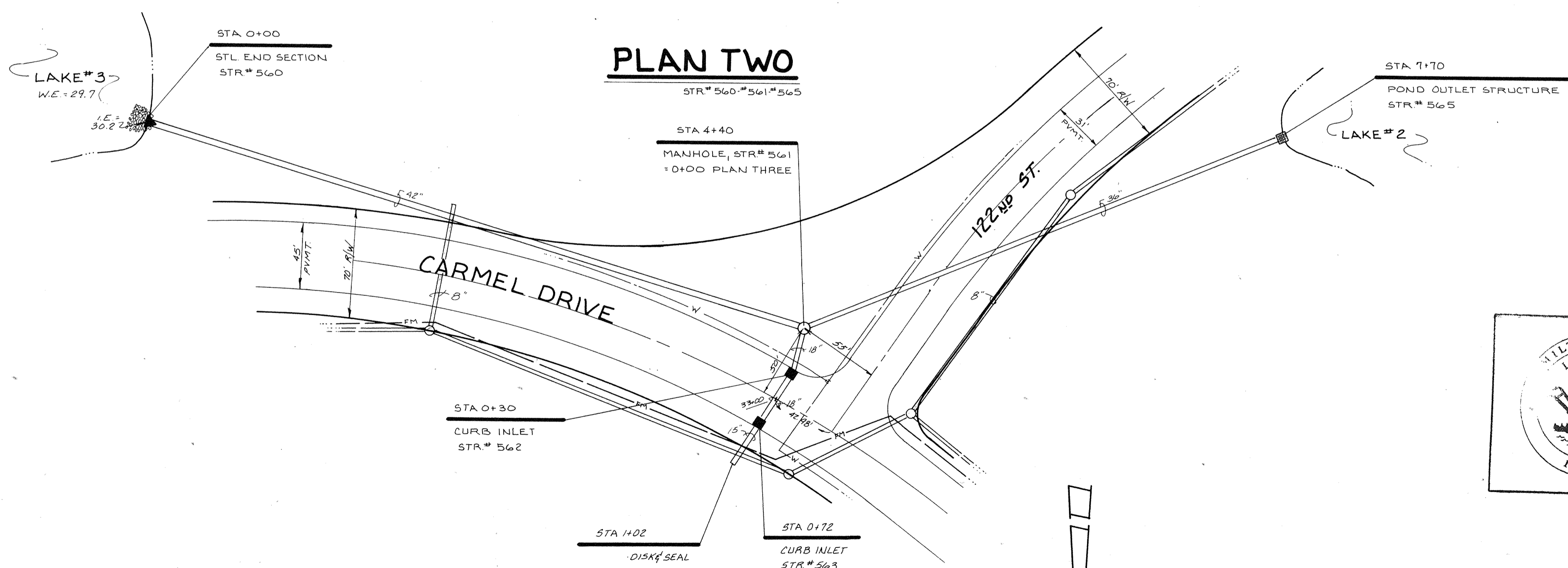
**PROFILE TWO**



**PROFILE THREE**



**PLAN ONE**



**PLAN TWO**

**PLAN THREE**

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Entry Date: 12-16-03

Entered by: *[Signature]*

**AS BUILT**  
FERTIG LEGAL DRAIN  
date 7/20/07

	CERTIFIED BY <i>[Signature]</i> DATE: 7/20/07	REVISIONS 1-20-06 On P.D. See 458 2-20-06 Misc. Rev. PLAN ONE 458 4-4-06 SEC. FOR DRAFTING CHECK 7-20-07 FERTIG LEGAL DRAIN AS BUILT
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**PAUL I. CRIFE, INC.**

7172 GRAHAM ROAD  
 INDIANAPOLIS, INDIANA 46250  
 317-842-6777

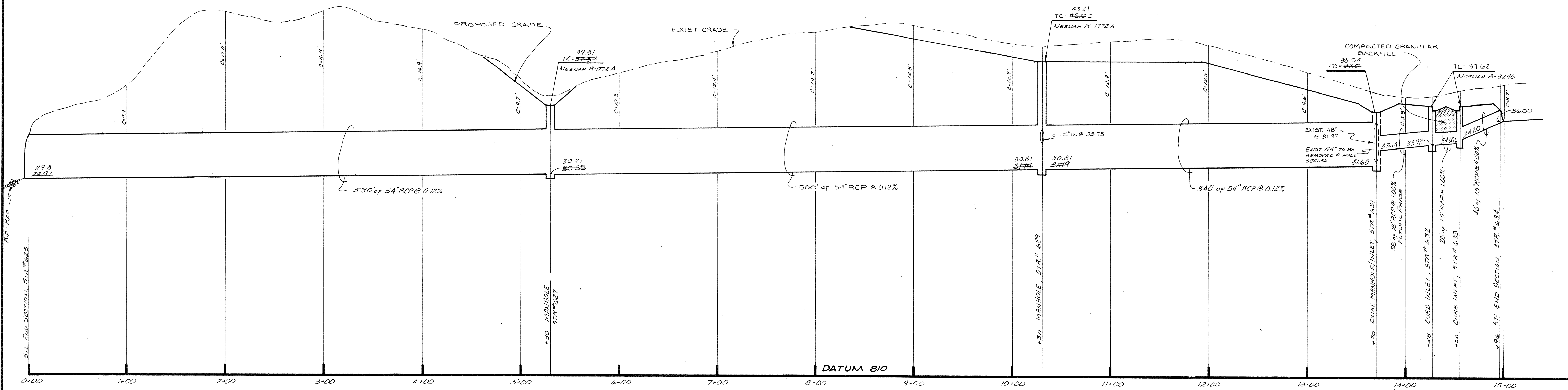
- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- LAND PLANNING

TECH. CHK.	DRAWN BY	SCALE	DATE	CLIENT
DFTNG. CHK.	<i>[Signature]</i>	HORIZ. 1"=50' VERT. 1"=2'	1-2-06	CARMEL SCIENCE & TECHNOLOGY PARK.
DRAWING TITLE				
<b>STORM SEWER - PLAN &amp; PROFILE</b>				

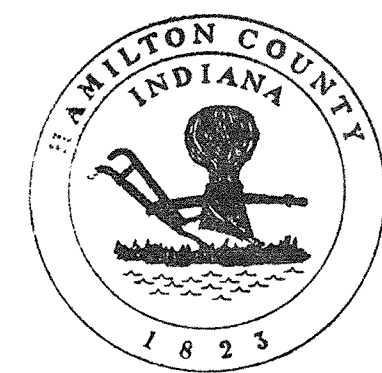
DWG. TYPE	FILE NUMBER	SHEET
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JOB NUMBER		OF 48
80381-10000		



NOTE: CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXIST. GRADE TO INVERT OF PIPE.



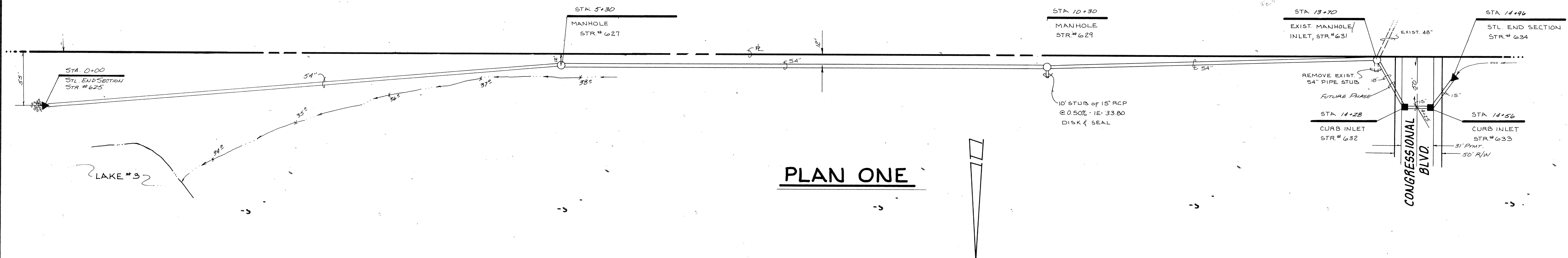
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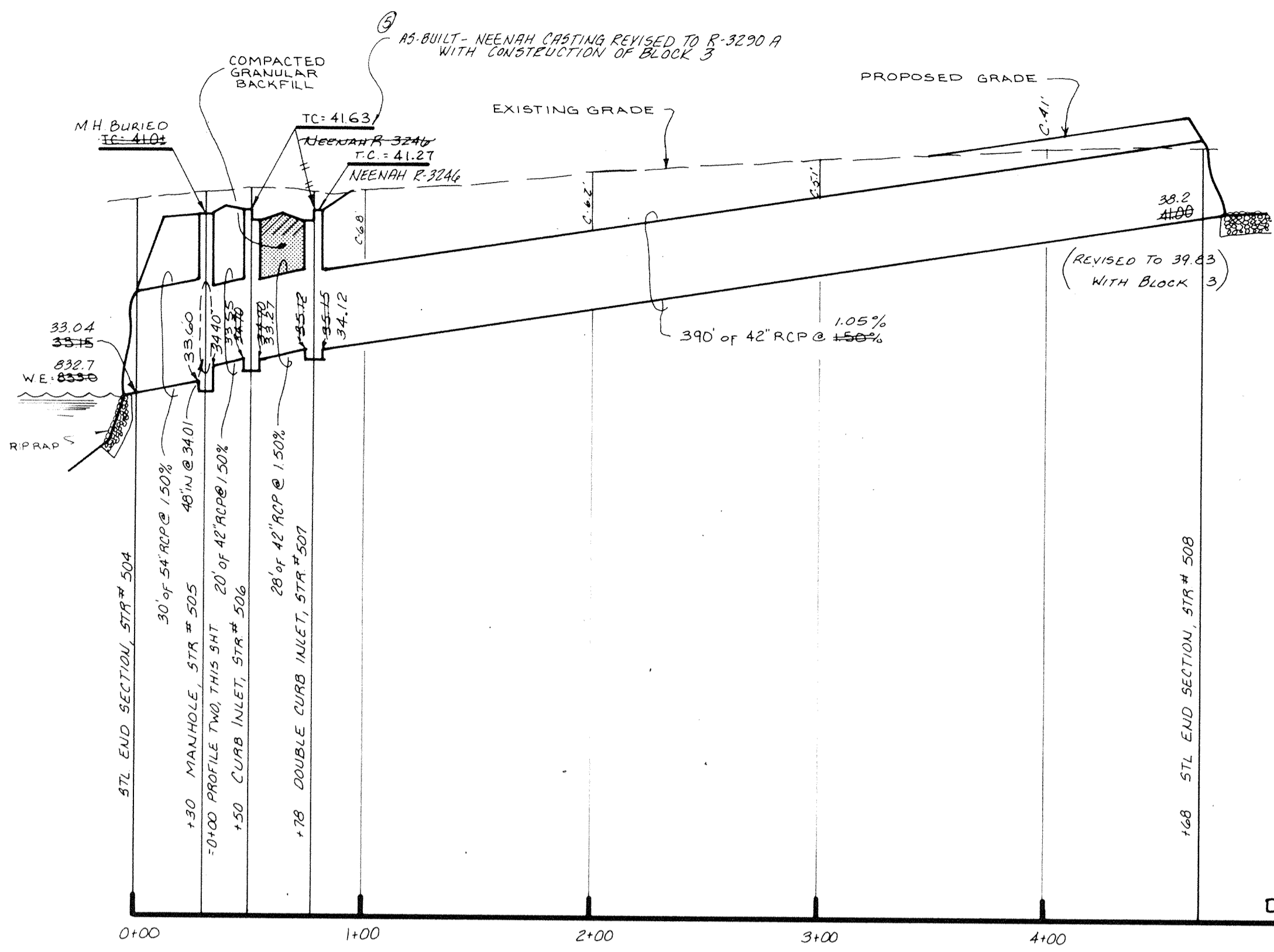
**PLAN ONE**

*THIS PLAN IS SAME AS PROJECT NO. 12-16-03-106 AT THE POLITICAL SUBDIVISION OF HAMILTON COUNTY, INDIANA. DATE: 12-16-03*

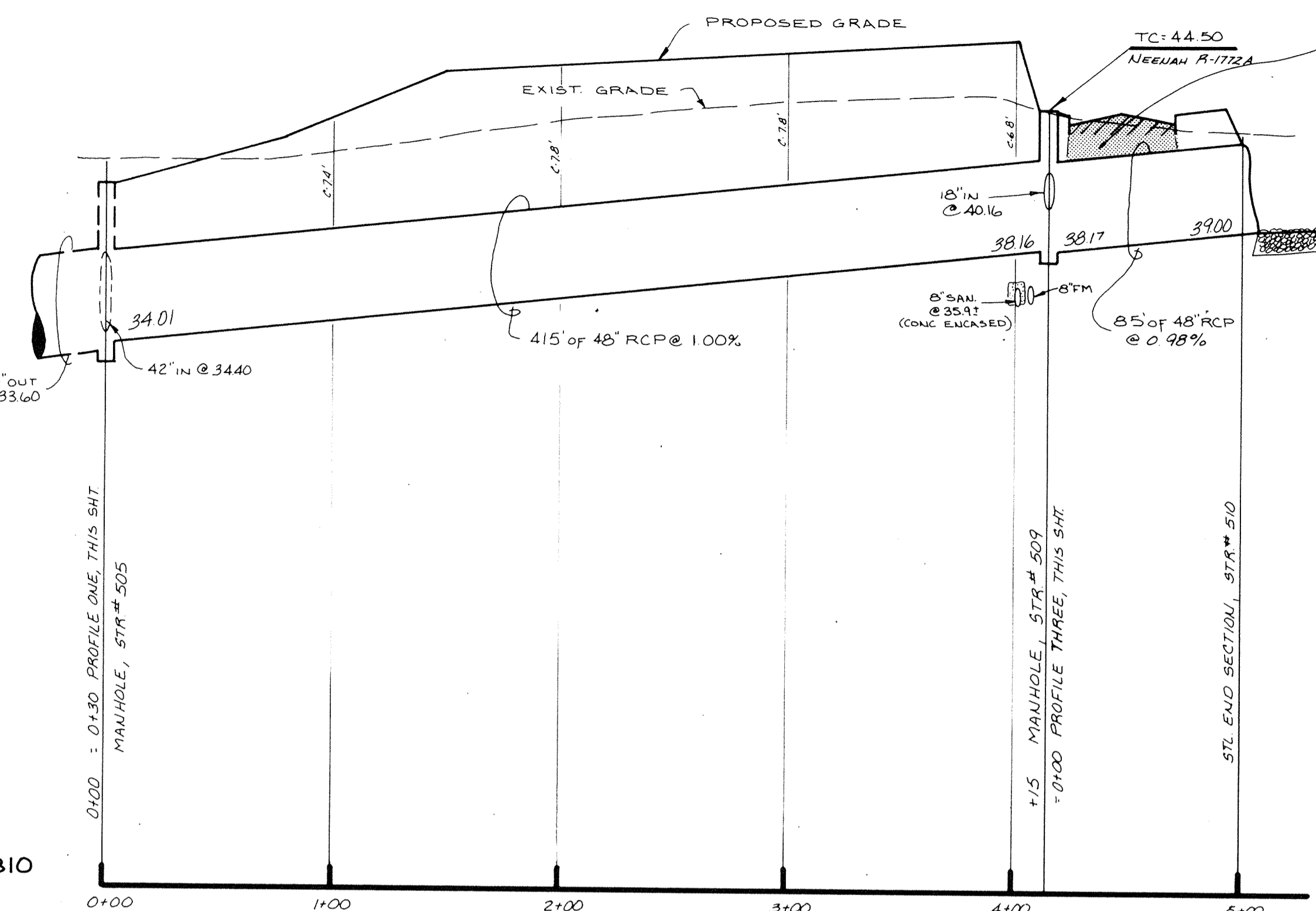
**AS BUILT**  
FERTIG LEGAL DRAIN  
date 7/20/07

<p><b>CERTIFIED BY</b> <i>[Signature]</i> DATE</p>	<p><b>REVISIONS</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> <tr> <td>1</td> <td>7-20-07</td> <td>FERTIG LEGAL DRAIN AS BUILT</td> <td>K.S.B.</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> </tr> </table>	NO.	DATE	DESCRIPTION	BY	1	7-20-07	FERTIG LEGAL DRAIN AS BUILT	K.S.B.	2				3				4				<p><b>PAUL I. CRIFE, INC.</b> 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777</p> <ul style="list-style-type: none"> <li>• CIVIL ENGINEERING</li> <li>• LAND SURVEYING</li> <li>• ARCHITECTURE</li> <li>• LAND PLANNING</li> </ul>	<p>TECH. CHK. DFTNG. CHK.</p>	<p>DRAWN BY <i>[Signature]</i></p>	<p>SCALE HORIZ. 1"=50' VERT. 1"=5'</p>	<p>DATE 1-2-06</p>	<p>CLIENT CARMEL SCIENCE &amp; TECHNOLOGY PARK</p>	<p>DWG. TYPE FILE NUMBER JOB NUMBER 8 0 3 8 1 - 1 0 0 0 0</p>	<p>SHEET 18 OF 48</p>
NO.	DATE	DESCRIPTION	BY																										
1	7-20-07	FERTIG LEGAL DRAIN AS BUILT	K.S.B.																										
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3																													
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<p><b>DRAWING TITLE</b> STORM SEWER - PLAN &amp; PROFILE</p>																													

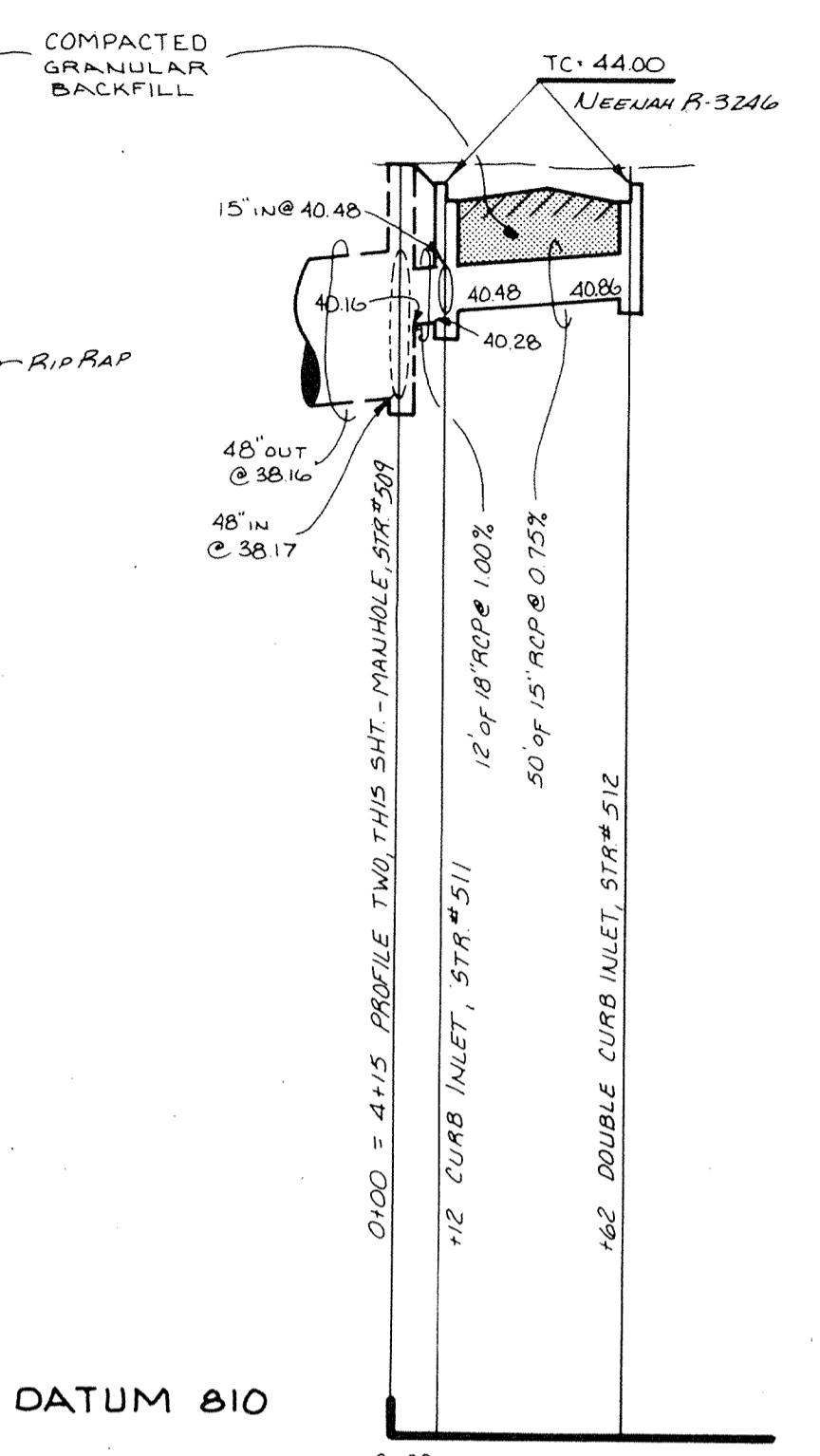
NOTE CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXIST. GRADE TO INVERT OF PIPE.



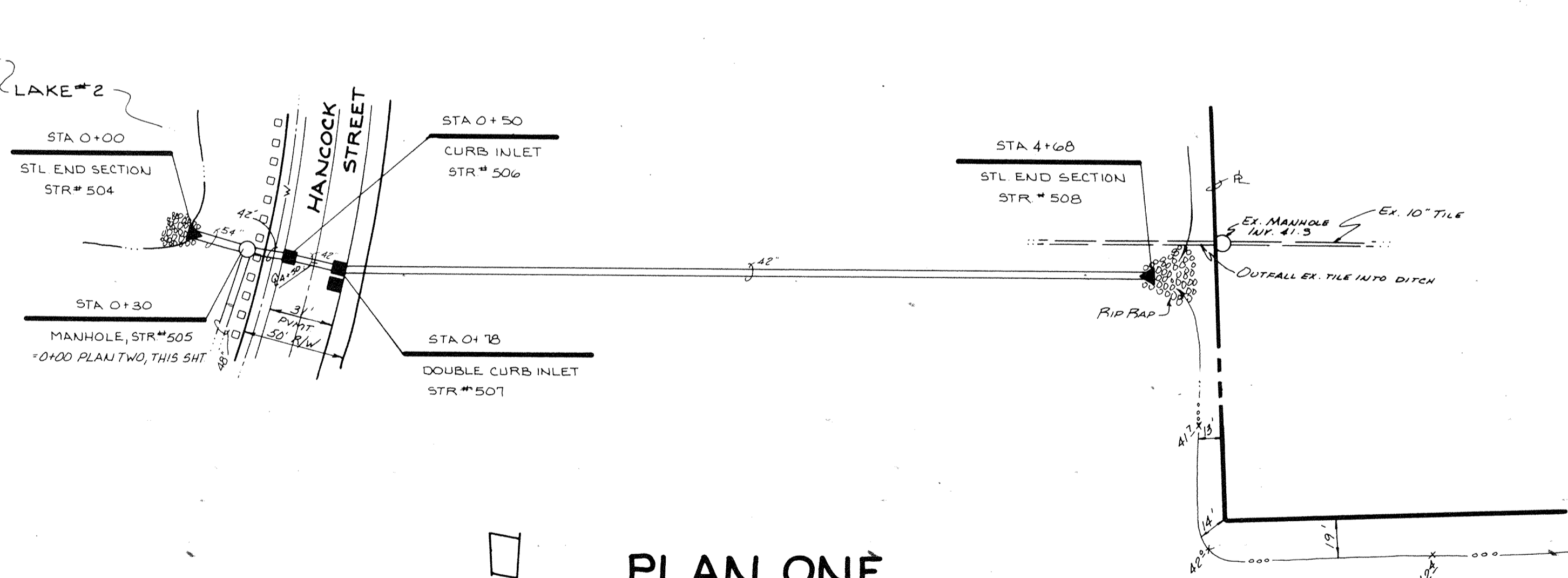
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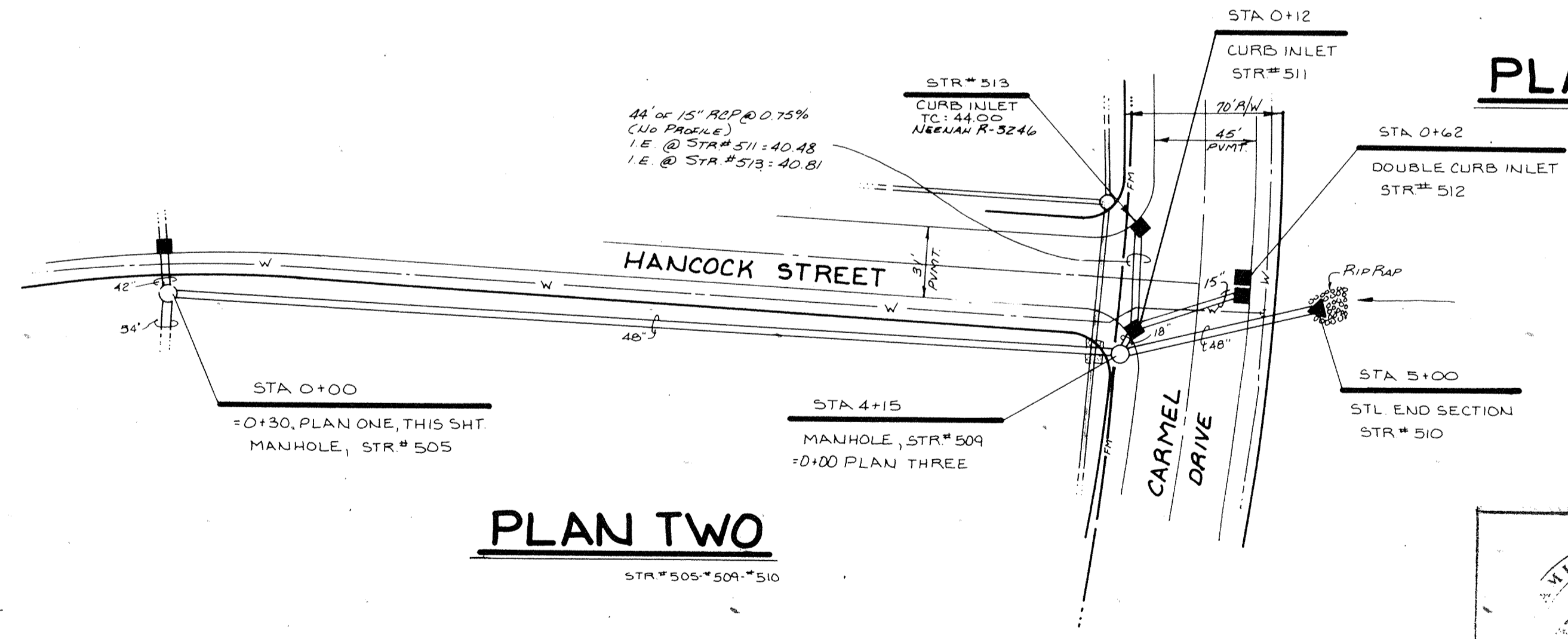
**PROFILE TWO**



**PROFILE THREE**



**PLAN ONE**



**PLAN TWO**

**PLAN THREE**

WILTON COUNTY INDIANA 1823

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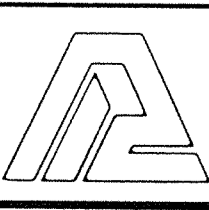
Entry Date: 12-16-03

Entered by: [Signature]

**AS BUILT**  
FERTIG LEGAL DRAIN  
date 7/20/07

CERTIFIED BY  
[Signature]  
DATE

REVISIONS	
02-08 REV EX FIELD TIE LOCATION	K.S.B.
02-11-08 REV ROAD GRADE PROFILE ONE	K.S.B.
04-08 REV PER DRAFTING CHECK	K.S.B.
02-07 FERTIG LEGAL DRAIN AS BUILT	



**PAUL I. CRIFE, INC.**  
7172 GRAHAM ROAD  
INDIANAPOLIS, INDIANA 46250  
317-842-6777

- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- AND PLANNING

TECH. CHK.  
DFTNG. CHK.

DRAWN BY  
DRAWING TITLE

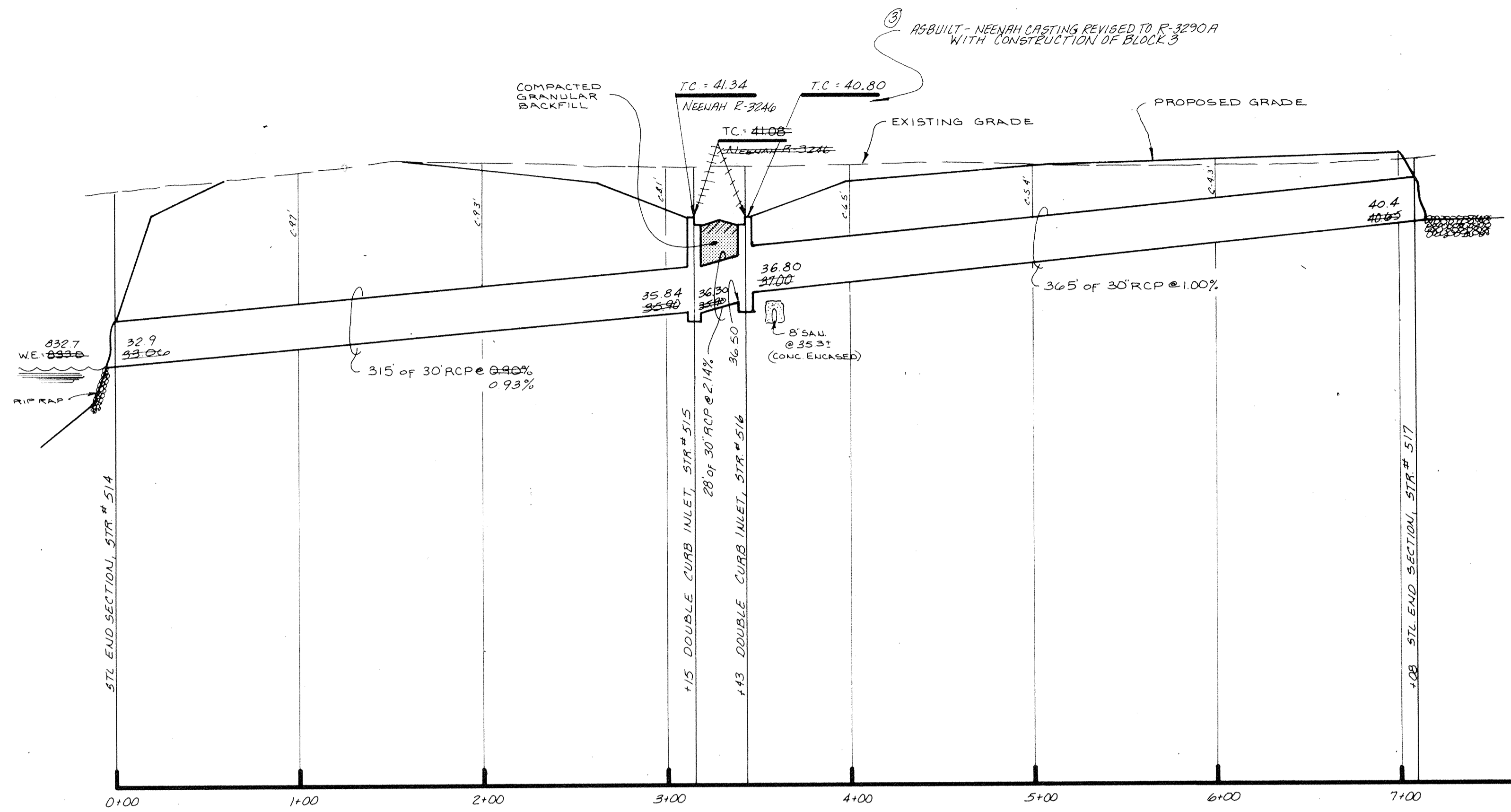
SCALE  
DATE

CLIENT  
CARMEL SCIENCE & TECHNOLOGY PARK

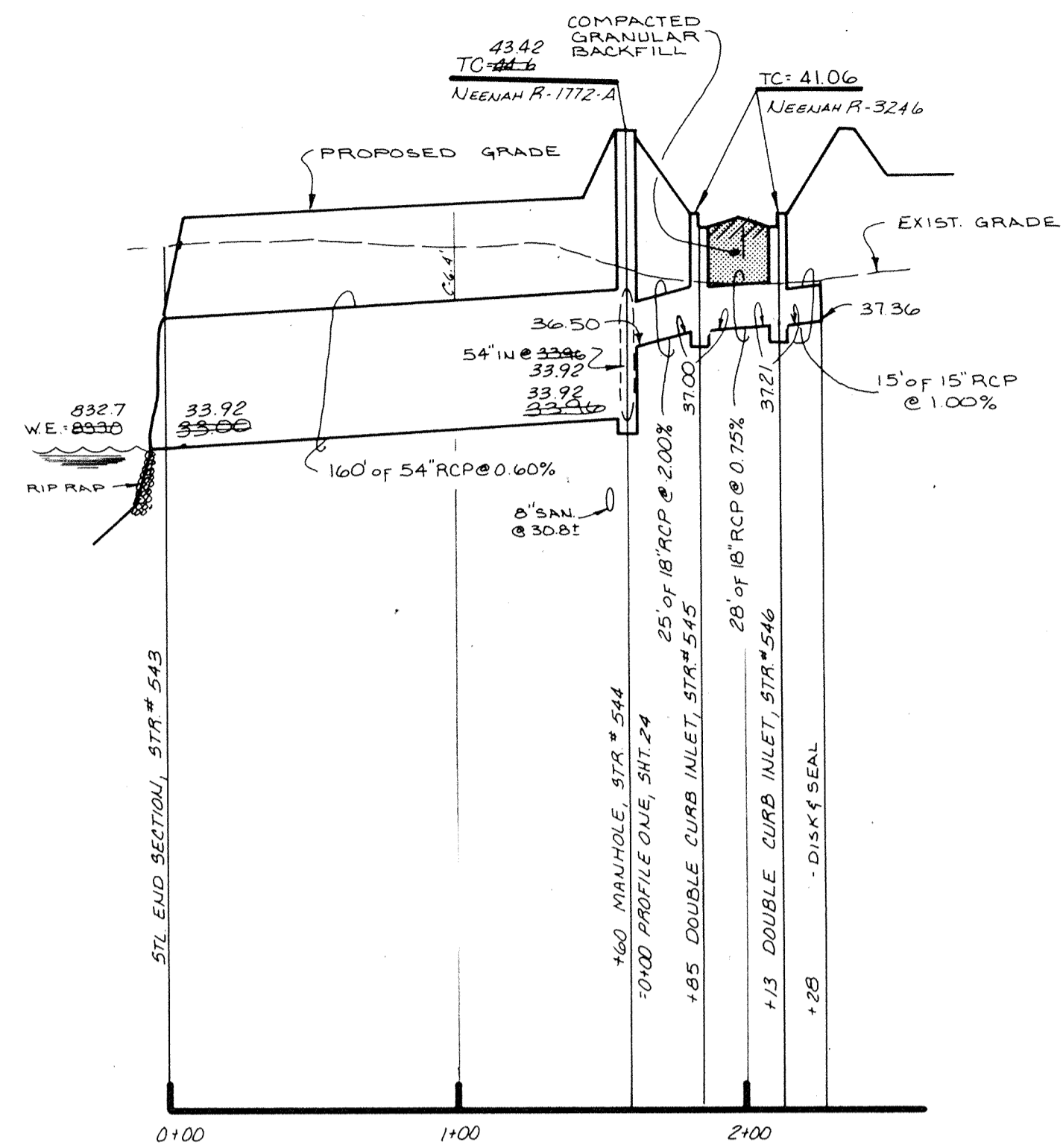
DWG. TYPE	FILE NUMBER	SHEET
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JOB NUMBER		OF 48
80381-10000		

**STORM SEWER-PLAN & PROFILE**

NOTE: CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXISTING GRADE TO INVERT OF PIPE

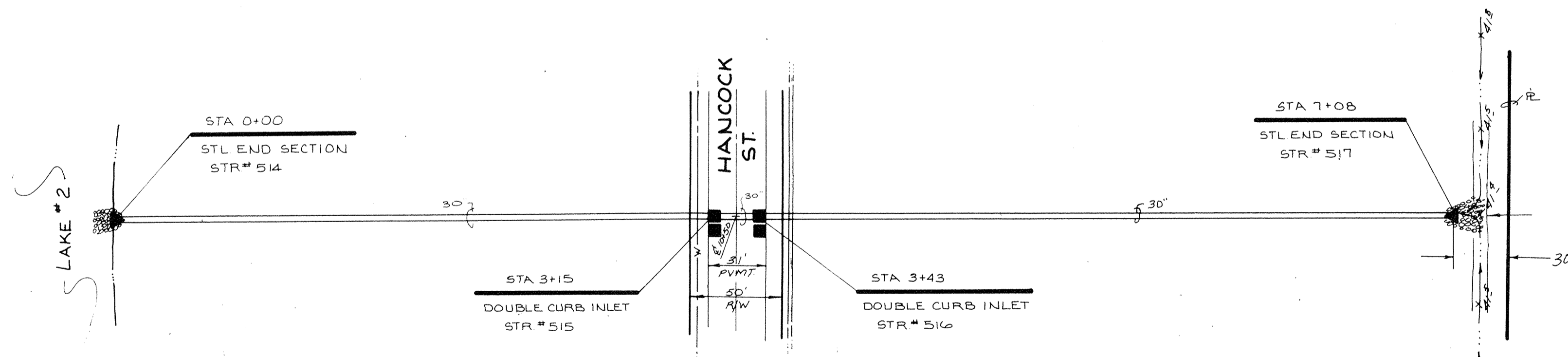


**PROFILE ONE**

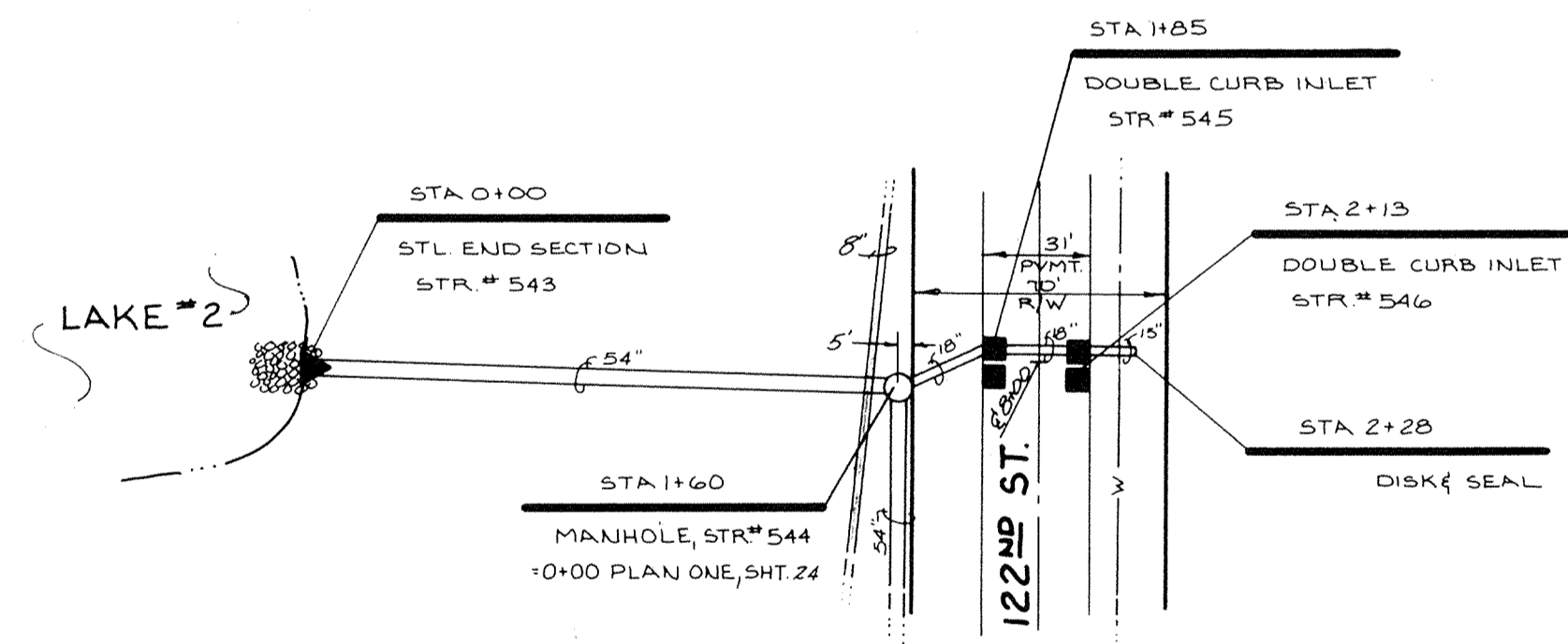


**PROFILE TWO**


DATUM 810



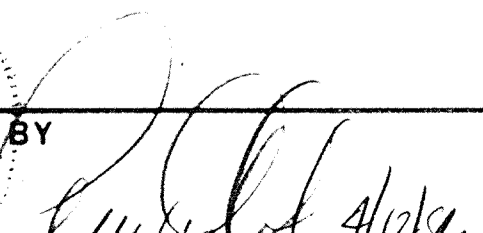

**PLAN ONE**



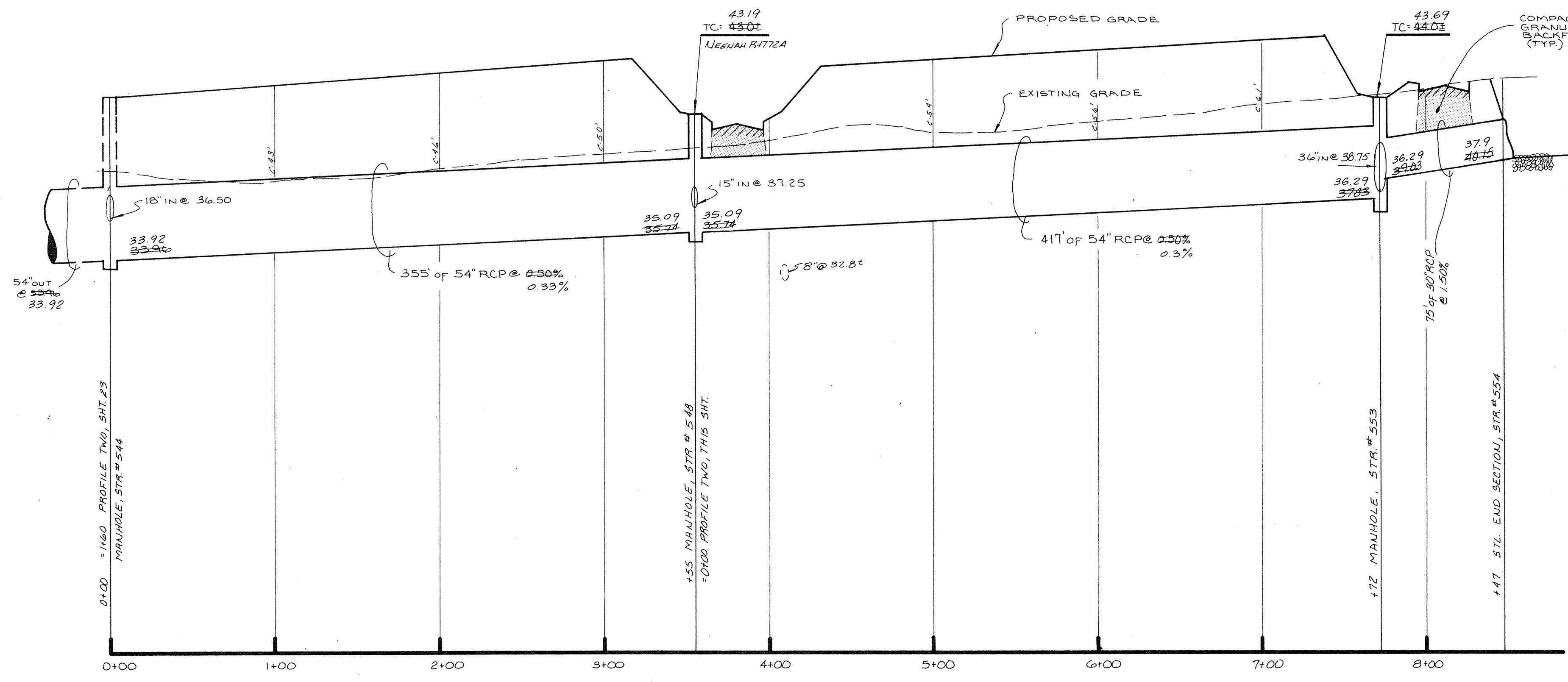
**PLAN TWO**


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 Entry Date: 12-16-03  
 Entered by: *[Signature]*

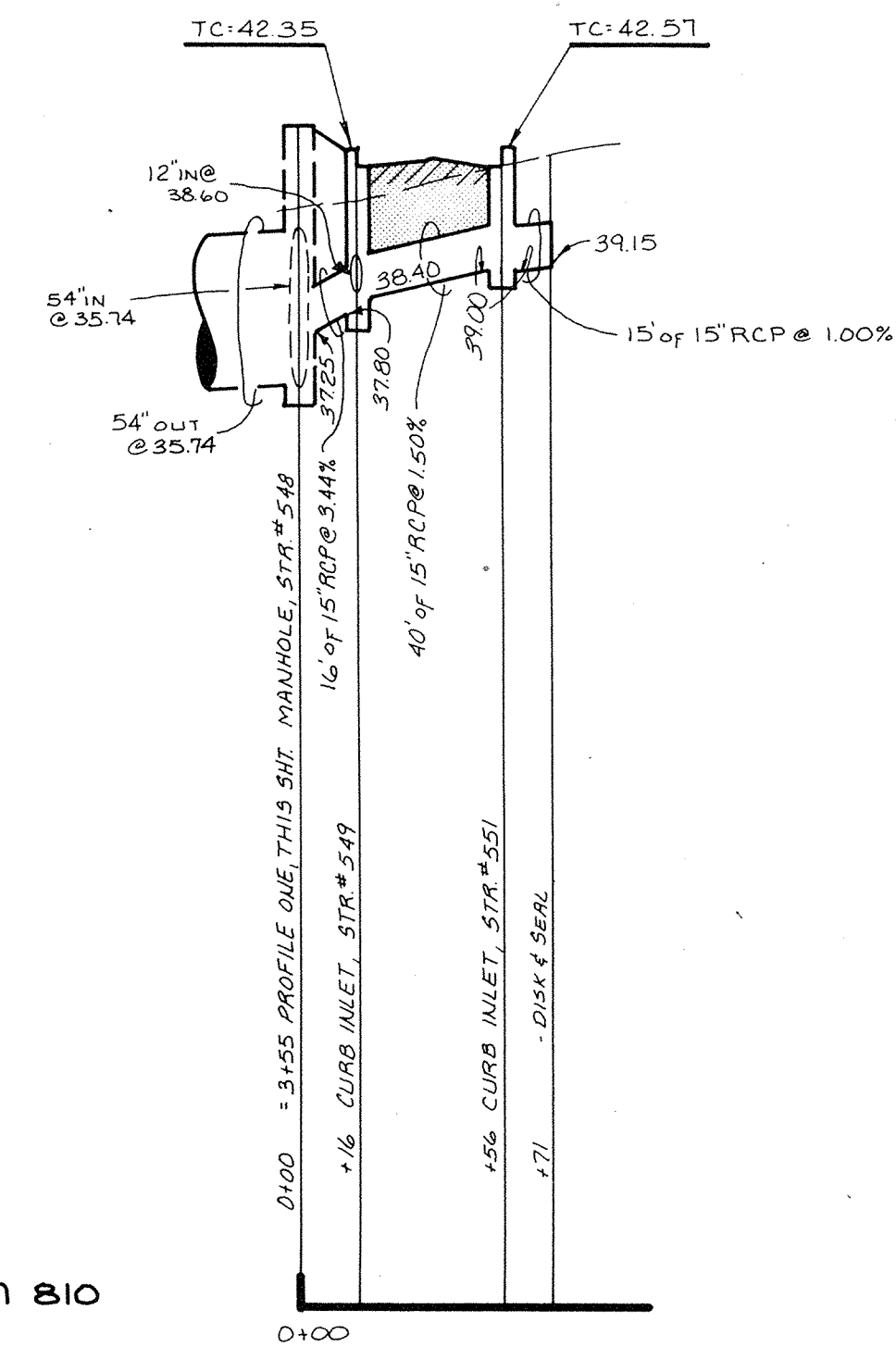
**AS BUILT**  
 FERTIG LEGAL DRAIN  
 date 7/20/07

<b>CERTIFIED BY</b>  DATE: 7/20/07	<b>REVISIONS</b> 4-5-06 Rev per Drafting Check A.S.B. 7-20-07 Fertig Legal Drain As BUILT 7-29-07 Add Casting Rev Note ③	 <b>PAUL I. CRIFE, INC.</b> 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777	• CIVIL ENGINEERING • LAND SURVEYING • ARCHITECTURE • LAND PLANNING	TECH. CHK. DRAWN BY: <i>[Signature]</i> SCALE: HORZ 1"=50', VERT 1"=5' DATE: 1-2-06 CLIENT: CARMEL SCIENCE & TECHNOLOGY PARK	DWG. TYPE: _____ FILE NUMBER: _____ JOB NUMBER: 80381-10000	SHEET: <b>23</b> OF 48
	<b>STORM SEWER - PLAN &amp; PROFILE</b>			80381-10000		

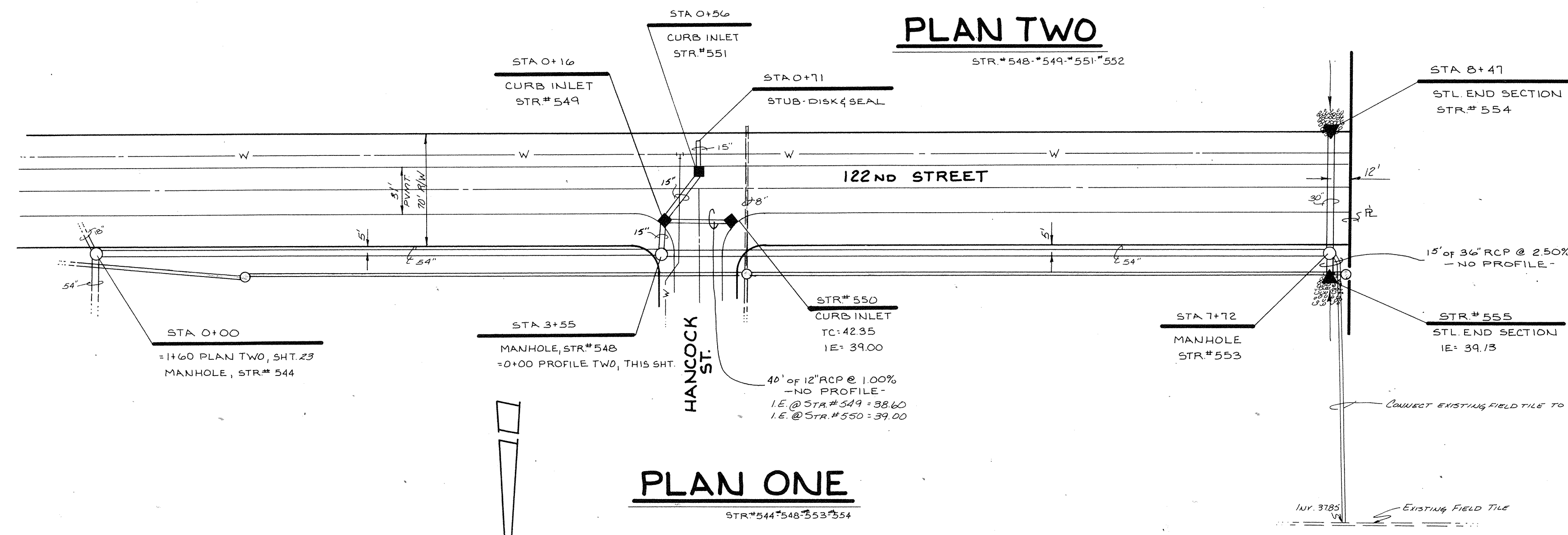
NOTE: CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXIST. GRADE TO INVERT OF PIPE.



**PROFILE ONE**



**PROFILE TWO**



**PLAN ONE**

**HAMILTON COUNTY INDIANA**

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

Entry Date: 12-16-03

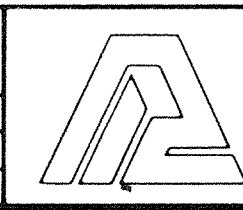
Entered by: [Signature]

**EXAMINED BY**

[Signature]

DATE

REVISIONS
1-20-04 REL. PIPE TO EXISTING FIELD TILE K.S.P.
4-5-06 REL. PER. DRAFTER CHECK K.S.P.
7-20-07 FERTIG LEGAL DRAIN AS BUILTS



**PAUL I. CRIFE, INC.**

7172 GRAHAM ROAD  
INDIANAPOLIS, INDIANA 46250  
(317) 842-6777

- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- LAND PLANNING

TECH. CHK. [Signature]

DFTNG. CHK. [Signature]

DRAWN BY [Signature]

DRAWING TITLE

SCALE  
HORZ 1"=50'  
VERT 1"=5'

DATE  
1-2-06

CLIENT  
CARMEL SCIENCE & TECHNOLOGY PARK

DWG. TYPE	FILE NUMBER	SHEET
		24
JOB NUMBER		OF 48
80381	10000	

**STORM SEWER-PLAN & PROFILE**

**AS BUILT**  
FERTIG LEGAL DRAIN  
DATE 7/20/07