

Drain: CHARLES HUFFMAN Drain #: 299
Improvement/Arm: RECONSTRUCTION
Operator: J. LIVINGSTON Date: 1-30-04
Drain Classification: Urban/Rural Year Installed: 1990

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

J. Livingston
J. Livingston
J. Livingston
J. Livingston
J. Livingston
J. Livingston
J. Livingston
J. Livingston
J. Livingston
J. Livingston

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

Drain-Improvement: CHARLES HUFFMAN

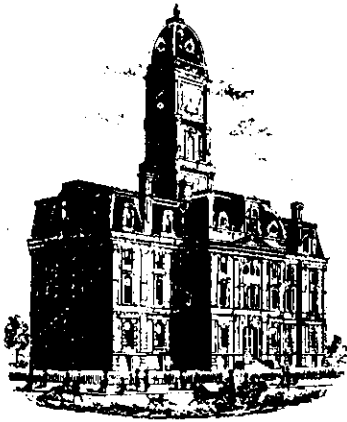
Drain Type:	Size:	Length ()	Length (DB Query)	Length Reconcile	If Applicable	
					Price:	Cost:
TILE	18"		1137'			
	24"		1662'			
DREDGING 4850'	—		0'			
REPAIRING TILE	—		0'			
BREATHERS, MANHOLES			0'			
ARM 1 - TILE	15"		920'			
	18"		1585'			220,392. ¹⁹
* OPEN DITCH	—		9345'		19. ⁵² /lf	182,694. ⁷⁵
** ARM 1 OF ARM 1 - TILE	14"		2237'		\$.25/lf	9507. ²⁵
** ARM 2 OF ARM 1	8"		207'		2. ⁰⁰ /lf	414. ⁰⁰

Sum: 17,093' \$413,008.¹⁹

Final Report: _____

Comments:

ALL LENGTHS MEASURED IN GALS
* PREVIOUSLY PART OF THE WILLIAM LOCKE DRAIN
** PREVIOUSLY EXISTING PRIVATE TILE
* To Put these on historical cost tab & index would be moot because it
would show an installation date of 1998... because it was pre-existing.



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

August 11, 1997

RE: Charles Huffman Drainage Area

Attached are plans, specifications, drain map, drainage shed map, and schedule of assessments for the reconstruction of the Charles Huffman Drainage Area. This shall consist of the Charles Huffman Drain and the portion of the William Locke Drain upstream of 211th Street. The Charles Huffman Drain is listed as number six (6) for reconstruction on the 1997 Classification List. The drainage area covers portions of Hamilton and Madison Counties with a total acreage of approximately 3476.64 acres, of which 1211.56 acres are situated within Madison County. The Madison County Drainage Board has waived their rights to a joint board on July 9, 1997.

The Charles Huffman Drain is the headwaters for the William Locke Drain. The Charles Huffman Drain was petitioned for advancement on the Reconstruction Classification List in 1981 by six property owners representing 32% of the watershed, and again for further advancement in 1994 by a group of six property owners representing 70% of the watershed. An engineering request was sent to the Hamilton County Soil and Water Conservation District on August 24, 1994 and plans were received on February 9, 1996. Those plans are incorporated by reference in this report.

The original construction reports and other information for the Charles Huffman Drain cannot be located. Upon review of the records the only information found was a reference in the legal description of the William Locke Drain stating that the Locke Drain began at the outlet of the Charles Huffman tile drain. The Charles Huffman does appear on the list of legal drains certified to the Auditor in 1957 by Mr. R.D. Horney, who was Surveyor at that time. However, there is not a length listed and it is noted that no record exists. It also appears on the County Drainage Map in 1932 and on a drainage map of the Locke Drainage Shed, date unknown. Upon checking with Madison County, the Surveyor there also cannot find a record of the drain. Information concerning this drain has been drawn from other sources for its repair and maintenance. Field investigations, landowner knowledge, aerial maps, the Locke Drain map, and the 1932 County Drain Map have all been valuable sources of information for this drain.

The Charles Huffman Drain currently consists of the main drain and an arm. The main drain is approximately 6900 feet in length and the arm is approximately 4900 feet in length, for a total existing length of 11,800 feet. The approximate description of the existing tile is as follows:

Main Ditch- Begin approximately 1350 feet south of the northeast corner of section 8-19-6 and run northwest to a point 1200 feet west of the northeast corner of section 8-19-6. Thence northwest to a point 600 feet north of the northwest corner of the northeast quarter of section 8-19-6, thence southwest to a point 300 feet east of the northeast corner of the northwest quarter of the northwest quarter of section 8-19-6. Continuing in a southwesterly direction and intersecting Arm 1 at a point approximately 100 feet east and 150 feet south of the northeast corner of the northwest quarter of the northwest quarter of section 8-19-6. It then runs southwest to a point that is approximately 18 feet east of Cytheanne Road and 646 feet south of the north line of section 8-19-6. A revised description listing the proposed changes for the tile is given under Phase II of the overall project.

Arm 1- Begin approximately 3150 feet south of the northeast corner of section 8, township 19 north, range 6 east, and run in a general north westerly direction. Drain crosses the north line of the southeast quarter of section 8-19-6 approximately 1900 feet west of the northeast corner of the southeast quarter of section 8-19-6. The drain intersects the west line of the northeast quarter approximately 1000 feet south of the north line of section 8-19-6, and then runs north along said west line approximately 400 feet where it turns to the west northwest and intersects the Main Ditch.

The proposed project will be in two phases. Phase I shall be the portion of the William Locke open ditch between 211th Street and Cytheanne Road. The work consists of one sided clearing from station 174+50, 211th Street to station 268+00, 18 feet east of Cytheanne Road. Excavation shall commence at station 219+50 on the Flanders property and run to Cytheanne Road. The cost estimate for this work shall be as follows:

Phase I - Open Ditch - 211th Street to Cytheanne Road

Clearing - 11 acres @ \$4000.00 per acre	\$ 44,000.00
Channel Excavation - 4850' @ \$ 10.00 per lineal foot	\$ 48,500.00
Tile outlet pipes with animal guard	
a. 4 - 8" CMP @ \$500.00 each	\$ 2,000.00
b. 1 - 10" CMP @ \$600.00 each	\$ 600.00
c. 1 - 12" CMP @ \$ 650.00 each	\$ 650.00
Armor Ditch Corners -2 @ \$1050.00 each	\$ 2150.00
Install and maintain silt basins - 3 @ \$500.00 each	\$ 1,500.00
Seeding channel - 6.7 acres @ \$1000.00 per acre	\$ 6,700.00

Seeding 20 ft filter strip - 4.3 acres @ \$1000.00 per acre	\$ 4,300.00
Clean out Cytheanne Road Culvert	\$ 750.00
Install surface water pipes 15"x 30 ft.- 2 @ \$28.50 per foot	\$ 1,710.00
Repair Structure @ station 175+65	\$ 1,000.00
	Sub Total \$ 113,860.00
	+ 10 % contingencies \$ 11,386.00
	<hr/> Phase I Total \$ 125,246.00

The remainder of the William Locke Drain will be reconstructed and placed on maintenance at a later date

Not shown on the plans, but shall be considered as part of the reconstruction plans is the placement of twenty foot (20') filter strips along the west and north sides of the drain. These shall be installed by the Contractor as part of the leveling and seeding of the spoil. These shall be maintained annually as part of the maintenance program as per I.C. 6-1.1-6.7.

Upon a check of the Riverwood U.S.G.S. Quad Map I found that from the outlet at Cyntheanne Road to the intersection of the William Locke Drain with Stony Creek, the length of drain is approximately four (4) miles. Therefore, per I.C. 14-28-1-22 a permit from the Indiana Department of Natural Resources is not required.

I have reviewed the drainage shed for Phase I of 3476.64 acres and upon considering each parcel individually, I believe that each parcel within the drainage shed will have equal benefits as provided by the drain. Therefore I recommend each tract be assessed on the same basis equally on Phase I. I also believe that no damages will result to landowners by the reconstruction of this drain. I recommend a reconstruction assessment for Phase I of \$36.00 per acre with a minimum assessment of \$36.00.

Phase II of the project shall consist of the reconstruction of the Charles Huffman Drain beginning 18 feet east of Cytheanne Road at station 268+00. At this location a new aluminum drop spillway shall serve as the outlet of the tile. A new 24" concrete tile shall run from this point east to station 285+33. From this point an 18" concrete will run east, replacing portions of Arm 1 of the original tile to station 302+50 where it will connect back into the original tile of Arm 1.

Lateral A on sheet 4 of the plan is a replacement of the original main tile from station 285+33 described above (station 0 of lateral A) to station 11+50 of lateral A with 18" concrete tile. At station 11+50 the tile shall connect to the original main drain.

Arm 1 to Arm 1 shall be an additional arm to the drain. This arm begins approximately 5000 feet south of the northeast corner of section 8, township 19 north, range 6 east and runs thence west and north entering Arm 1 at approximately station 9+00. The length of this arm is approximately 1950 feet.

Lateral B, as shown on the plans, shall be known as Arm 2 to Arm 1 and shall consist of 250 feet of 8" tile. It enters Arm 1 at station 298+50.

The cost estimate for this work shall be as follows:

Phase II - Tile Reconstruction - East of Cytheanne Road

Install structure #1 @ station 268+00	\$ 4,600.00
Construct grass waterway - 250ft./ .30 acre @ \$1000.00 per acre	\$ 300.00
Crush existing tile 1600 ft. @ \$2.50 ft.	\$ 4,000.00
Install field tile per plan	
24" concrete tile - 1730 ft. @ \$24.00 ft.	\$ 41,520.00
Install 4 ft. manhole - 1 each @ \$2500.00	\$ 2,500.00
18" concrete tile - 2870 ft. @ \$18.00 ft.	\$ 51,660.00
15" non-perforated HDPE tile - 1250 ft. @ \$20.00	\$ 25,000.00
Road crossing - 18" RCP - 40 ft @ \$30.00 ft	\$ 1,200.00
8" plastic tile - 250' @ \$8.17 per ft.	\$ 2,442.50
Tile breathers - 6 @ \$475.00 each	\$ 2850.50
Clearing - 2.4 acres @ \$4000.00 per acre	\$ 9,600.00
Seeding - 2.4 acres @ \$1000.00 per acre	\$ 2,400.00
	Sub Total \$ 148,073.00
	+10% contingencies \$ 14,807.00
	Phase II Total \$ 162,880.00

Phase I Total \$ 125,246.00

Phase II Total \$ 162,880.00

Total Cost \$ 288,126.00

I have reviewed the drainage shed for Phase II of 796.31 acres and upon considering each parcel individually, I believe that each parcel within the drainage shed will have equal benefits as provided by the drain. Therefore I recommend each tract be assessed on the same basis equally on Phase II. I also believe that no damages will result to landowners by the reconstruction of this drain. I recommend a reconstruction assessment for Phase II of \$204.00 per acre with a minimum assessment of \$204.00.

I recommend the Board place the Charles Huffman Drainage area on a maintenance program as set out in I.C. 36-9-27-38. This drainage area is not presently under a maintenance program.

The nature of the maintenance work which may be required is as follows:

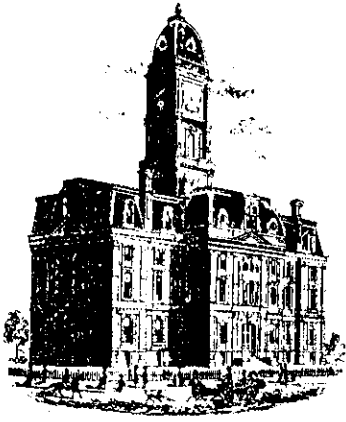
- a. Removal and/or prevention of brush within the drainage easement by hand, mechanical or spray methods.
- b. Re-excavating of open ditch to original grade line.
- c. Installation and /or repair of surface water structure as might be required.
- d. Bank erosion protection and/or seeding as might be required.
- e. Repair of private tile outlet ends as might be required.
- f. Repair of regulated tile outlet at drain end.
- g. Replacement of broken tile outlet ends as might be required.
- h. Cleaning and/or repair of existing catch basins as might be required.
- i. Installation of catch basins or inlets as may be required.
- j. Removal of debris and/or blockage from the existing tile drain including jetting or video work.
- k. Installation and/or repair of breather pipes.
- l. Removal of debris and/or blockage from the existing open drain.
- m. Maintain grass filter strips.
- n. Any other repairs necessary to restore the drain to it's original intended condition.

The frequency with which maintenance work should be performed annually is as required by the condition of the drain.

The Frank Huffman Drainage Area, which flows into the Charles Huffman Drainage Area, is currently on a maintenance program in conjunction with Madison County, as Hamilton County and Madison County combined efforts through a joint board to place it on a maintenance program in 1984. The maintenance rates for the Frank Huffman Drain are \$2.00 per acre, and \$6.00 minimum per parcel. The current account balances for the Frank Huffman Drain are \$17,177.00 in Madison County and - \$ 1,586.63 in Hamilton County. \$2,625.00 is owed to Hamilton County for an unpaid bill for work done in 1993. There is currently a claim to the Madison County Auditor for the unpaid bill that should be paid within 30 - 60 days. The Frank Huffman Drain shall not be maintained as part of the Charles Huffman Drain. Landowners within the Frank Huffman Drainage shed shall also be assessed for the Charles Huffman Drainage area.

I have reviewed the plans and drainage shed and believe that the drain will benefit each tract equally for the purpose of maintenance. Therefore I recommend each tract within the drainage shed be assessed for maintenance equally at a rate of \$2.00 per acre with a minimum assessment set at \$10.00 per tract. The annual maintenance collection will be \$7133.00.

I recommend the Board set a hearing for this proposed reconstruction and maintenance project for October 27, 1997.



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 28, 1998

Re: Charles Huffman Reconstruction Project
 Final Inspection Report

FINAL INSPECTION REPORT

Please regard this letter as the inspector's final report on the Charles Huffman Regulated Drain Reconstruction, located in Sections 5, 7, 8, 18, Township 19 North, Range 6 East, White River and Wayne Townships in Hamilton County, Indiana.

As of the date of this report, I hereby attest to and agree that the reconstruction was installed according to the specified plans and change orders. All inspections have been completed. Frank Mills of the Hamilton County Surveyor's Office has submitted all grade checks and as-built plans.

The Hamilton County Drainage Board awarded the contract on February 9th, 1998.

A notarized statement of all expenses incurred for materials paid was received dated August 4th, 1998.

There were a total of four change orders for additional work or field revisions on the project.

Change Order #1

Approved by the Hamilton County Drainage Board June 8, 1998

Phase I - Open Drain

Outlet Pipes

1 - 10" CMP -----	\$287.00
4 - 8" CMP, @ \$220.00 each -----	\$880.00

Surface Water Pipes - 2 - 15" x 30' @ \$750.00 each ----- \$1500.00
 Rip Rap - 13.3yds @ \$19.50 per yard----- \$253.27

Phase II - Tiled Drain

Stone Bedding - 58.6 yards @ \$19.00 per yard ----- \$1113.40
 Backhoe - 12 hours @ \$60.00 per hour ----- \$720.00
 Change Order #1 Total ----- \$4753.67

Change Order #2

Approved by the Hamilton County Drainage Board June 8, 1998

Phase I - Open Drain

Outlet pipes

1 - 6" x 20' CMP ----- \$186.00
 2 - 8"x 20' CMP ----- \$500.00
 2 - 10"x 20' CMP ----- \$600.00
 1 - 15"x 20' CMP ----- \$370.00
 1 - 6" animal guard ----- \$7.62
 1 - 15" animal guard ----- \$40.00

Phase II - Tiled Drain

2' of #2 stone covered with filter mat, 1' of #8 bedding stone for 700' of 18" tile.

Sum price total----- \$4,985.50
 Change Order #2 Total ----- \$6,689.12

Change Order #3

Approved by the Hamilton County Drainage Board July 13, 1998

Phase II - Tiled Drain

Shell Pipeline Crossing. County to be reimbursed by Shell Pipeline.

2 - 3'x3' concrete manhole structures @ \$1100.00----- \$2200.00
 15 bags Sakrete @ \$5.50 each ----- \$82.50
 78' of 15" SDR 35 PVC pipe @ \$9.50 ----- \$741.00
 15 hours excavator @ \$85.00 ----- \$1275.00
 8 hours bulldozer @ \$85.00 ----- \$680.00
 14 hours backhoe @ \$70.00 ----- \$980.00
 46 ¾ hours labor @ \$25.00 ----- \$1168.00

Total Cost - Shell Pipeline Crossing ----- \$8,055.90

220' of 16" Concrete Tile @ \$9.98 per foot----- \$2195.60
 Change Order #3 Total ----- \$10,251.50

Change Order #4

Approved by the Hamilton County Drainage Board October 12, 1998

Phase I – Open Drain

Additional items:

1 - Corner protection -----	\$1000.00
1 - 6" CMP -----	\$186.00
1 - 6" Animal guard -----	\$7.62

Deleted items:

1 - 12" x 20' CMP -----	Less \$350.00
1 - Fence gate-----	Less \$500.00

Phase II – Tiled Drain

Additional items:

10' - 15" HDPE pipe -----	\$85.00
100' - 4" perforated pipe -----	\$26.00
2 - 4" animal guards @ \$4.95 each -----	\$9.90
2 - 4" end caps @ \$1.10 each -----	\$2.20
10' - 4" PVC @ \$1.25 per foot -----	\$12.50
6 - tons #53 stone @ \$9.00 per ton-----	\$54.00

2 hours backhoe @ \$65.00 per hour -----	\$130.00
2 hours labor @ \$10.00 per hour -----	\$20.00
1 - 24"x 6" concrete tee -----	\$78.00
1 - manhole structure -----	\$1200.00
2 hours excavator @ \$100.00 per hour -----	\$200.00
4 hours labor @ \$25.00 per hour -----	\$100.00
16' - 8" concrete tile @ \$1.70 -----	\$27.20
8' - 16" concrete tile @ \$4.91 -----	\$39.28
3 - bags Sackrete @ \$5.50 -----	\$16.50

Change Order #4 Total -----	\$3194.20
Less deleted items from Contractor's Bid -----	\$850.00
<u>Change Order #4 Net Total -----</u>	<u>\$2344.20</u>

Reduction in amount on Change Order # 2

Two items on Change Order #2 were less than the estimated cost. This resulted in a reduction in cost of \$86.00 for Change Order #2.

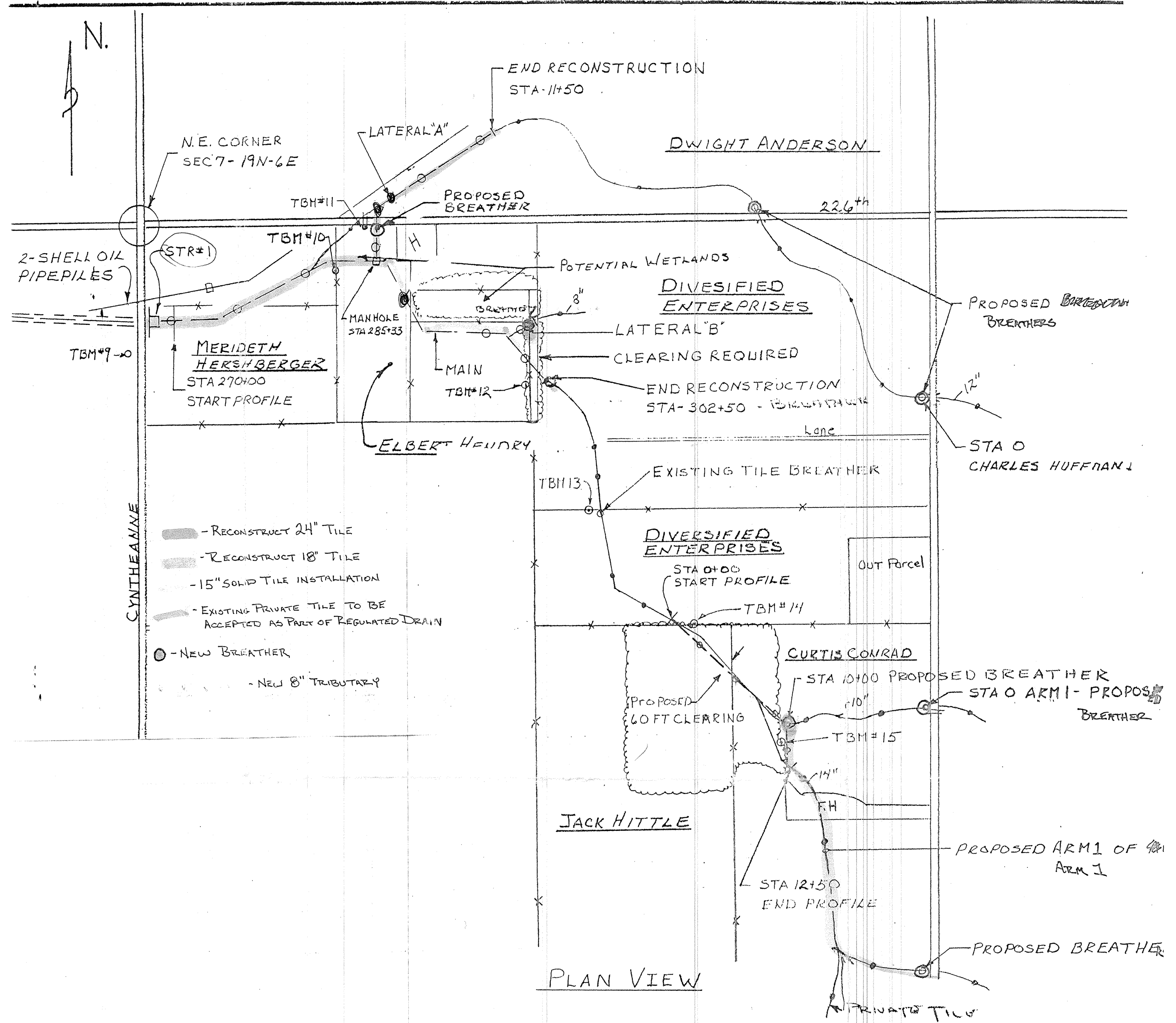
Claim #1 submitted 3/2/98	\$15,300.00
15% Retainage withheld	<u>\$2,295.00</u>
Check amount paid on 3/24/98	\$13,005.00
Claim #2 submitted 4/7/98	\$20,948.60
15% Retainage withheld	<u>\$3,142.29</u>
Check amount paid on 4/28/98	\$17,806.31
Claim #3 submitted 6/3/98	\$92,832.39
15% Retainage withheld	<u>\$13,924.86</u>
Check amount paid on 6/23/98	\$78,907.53
Claim #4 submitted 5/6/98	\$32,399.62
15% Retainage withheld	<u>\$4,859.94</u>
Check amount paid on 5/27/98	\$27,539.68
Claim #5 submitted 7/7/98	\$8,055.90
15% Retainage withheld	<u>\$1,208.39</u>
Check amount paid on 7/28/98	\$6,847.51
Claim #6 submitted 7/6/98	\$30,887.00
15% Retainage withheld	<u>\$4,633.05</u>
Check amount paid on 7/28/98	\$26,253.95
Claim #7 submitted 7/6/98	\$2,195.60
15% Retainage withheld	<u>\$329.34</u>
Check amount paid on 7/28/98	\$1,866.26
Claim #8 submitted 8/3/98	\$17,390.10
15% Retainage withheld	<u>\$2,608.58</u>
Check amount paid on 8/25/98	\$14,781.52
Claim #9 submitted 8/3/98	\$382.98
15% Retainage withheld	<u>\$57.45</u>
Check amount paid on 8/25/98	\$325.53
Total Retainage Withheld	\$33,058.90
Claim # 10 submitted 10/9/98	\$33,058.90
Check amount paid on 10/27/98	\$33,058.90

Contractor's Bid -----	\$196,439.70
Change Order #1 -----	\$4753.67
Change Order #2 -Revised cost-----	\$6603.12
Change Order #3 -----	\$10,251.50
Change Order #4 -----	\$2344.20
Total Reconstruction Cost -----	\$220,392.19
Engineer's Estimate -----	\$288,126.00
Total Reconstruction Cost -----	\$220,392.19
Difference -----	\$67,733.81

Reconstruction Assessment	\$288,014.40
Total Reconstruction Cost	\$220,392.19
Excess Reconstruction Funds	\$67,622.21

Respectfully,

Andrew Conover
Inspector
Hamilton County Surveyor's Office



PLAN VIEW

- RECONSTRUCT 24" TILE
- RECONSTRUCT 18" TILE
- 15" SOLID TILE INSTALLATION
- EXISTING PRIVATE TILE TO BE ACCEPTED AS PART OF REGULATED DRAIN
- - NEW BREATHER
- NEW 8" TRIBUTARY

- Andrew Conour
Inspector 116-8495
Exp 116-9028
- New Breather
 - ▬ Reconstruction 24" tile
 - ▬ 15" solid tile installation
 - ▬ Reconstruct 18" tile
 - ▬ Existing private tile to be accepted as part of regulated drain

By the construction of a ditch beginning
 39 rods south of the N.E. corner of section
 Township 19 North of Range 5 East in
 Hamilton County Indiana and
 run thence N 87° W 80 ft. S 87° W 100 ft S 77° W
 45 ft, S 20° W 45 ft, S 36° W 64 ft South
 16 ft S 5° W 70 ft S 12° W 90 ft S 17° W 200 ft
 S 20° W 1700 ft S 29° W 450 ft S 45° W 450 ft
 S 30° W 450 ft S 27° W 250 ft S 46° W 250 ft
 S 64° W 450 ft S 68° W 450 ft S 6° W 450 ft
 S 23° W 700 ft S 40° W 260 ft S 69° W 90 ft
 S 44° W 50 ft S 60° W 600 ft S 33° W 400 ft
 S 37° W 200 ft S 22° W 400 ft S 41° W 900 ft
 S 30° W 900 ft S 30° W 1800 ft S 40° W 1400 ft
 S 3° E 250 ft. S 21° W 550 ft South 100 ft
 terminate 50 rods E of 40 rods south N.E. corner S 1/4 26-18-5

Also an arm to main ditch begin-
 ning 20 rods south of N.E. corner of S 1/4
 section 12 Township 19 North Range 5
 East and run S westerly along & with
 the bed of the Bogart ditch 80 ft and
 terminate on main ditch 80 ft below
 stake 136.

Below will be found a tabular
 statement of the depth of cut the
 width at bottom & top at each stake
 the number of cubic yards of
 each section the cost per cubic
 yard and the cost per section
 of 100 ft.