



SURVEYOR'S OFFICE
Hamilton County

Kenton C. Ward, Surveyor

776-9626

942 Maple Avenue

Noblesville, Indiana 46060 March 20, 1989

TO: Hamilton County Drainage Board

RE: Beaver & Brooks Drain

Attached is a petition for the reconstruction of the Beaver and Brooks Drain filed by the Mansur Corporation. The petition is accompanied by a plan for the reconstruction and calculations for the proposed system. The plan and accompanying documentation is to be considered as part of this report. Also attached is a schedule of assessments. At this time the drain is number 35 on the reconstruction Classification List.

I have reviewed the submittals and petition and have found each to be in proper form.

I have made a personal inspection of the land described in the petition. Upon doing so, I believe that the drain reconstruction 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 benefitted.

The present drain began in June 1897 with a petition from Marion and Nancy Beaver and Sam Brooks through Sections 3 and 4-17-5 presented to the Commissioners. Another attempt for a drain in this area was made in 1893 by a petition filed by Sam Brooks. This petition was later dismissed by the Commissioners Court. After a Viewers Report in July 1897 and a Reviewer's Report in November 1897 the drain was challenged and referred to Circuit Court in December 1897. In June 1903 the remonstrance was withdrawn and the ditch was ordered constructed. In September 1904 the Commissioners extended the contractors completion time. No further record can be found on the drain.

The proposed system will intercept the existing drain at or near STA 32+100 as

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per the 1897 Viewers Report. The new storm sewer will then ~~run~~ as shown on the attached plan and intercept the original drain again at STA 76+00 (STA 10+90 of the proposed drain) East of Brooks School Road. The new drain will then run in the original location to the terminus at STA 0+00 (STA 92+00 of the original Drain).

The proposed system also calls for the vacation of Arms 1 and 2 of the original 1897 Drain. Upon review I believe that because of the condition of these Arms, the criteria for vacation set out in IC 36-9-27-34 is met.

The new system shall consist of the following lengths:

18" RCP 2760 feet 24" RCP 240 feet

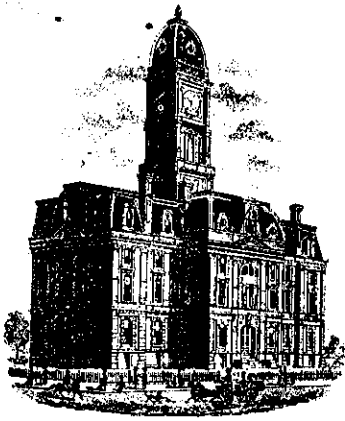
The proposed length of the drain including the 3200 feet of the original drain is 6200 feet.

The proposed lake will not be part of the drain but will be the maintenance responsibility of the Mansur Corporation until a Homeowners Association is formed to under take the maintenance. The regulated drain which will be maintained will be the original portion of the drain remaining along with the sections from STA 0+00 to 27+60 and 64+85 to 67+30 on the attached plan.

The reconstruction of the drain is necessary to accommodate the proposed construction of Hamilton Proper. The cost of the reconstruction is to be paid by the Mansur Corporation. Because of the proposed developmnet for the drainage shed the character of the shed will change from rural to urban. Therefore, I recommend the drain be classified as Urban Drain.

I have reviewed the plans and believe the drain will benefit each tract equally. Therefore, I recommend each tract be assessed equally. I recommend a maintenance assessment of \$2.00 per acre, with a \$30.00 minimum. With this assessment the total annual assessment for the drain/this section will be \$3,413.40.

I recommend a hearing be set for May 1989. If approved at the hearing I recommend that the petition be given one (1) year from date of approval for completion and submitt a performance bond or letter of credit for 100% of the estimate within thirty (30) days of approval. Said surity to run for a two (2) year period. The surity is to be released upon final inspection by the Surveyor and submittal of "As Built" Drawings.



SURVEYOR'S OFFICE
Hamilton County

Kenton C. Ward, Surveyor
776-9626

August 31, 1990

942 Maple Avenue
Noblesville, Indiana 46060

TO: Hamilton County Drainage Board

RE: Beaver-Brooks Drain

Attached are revised plans (Job# 88404-26700, (dated 2/12/90) from Paul I. Cripe, Inc. for the Beaver-Brooks Drain. Also attached is my March 20, 1990 report and letters of approval from Max Oyler, Dick Richwine, Fred Dorothy and Robert Meyer.

At the May 15, 1989 hearing the Board approved the drain reconstruction, but left the final plan between Brook School Road and Geist Reservoir unsettled. The engineer, developer, offsite landowners and I were to work out a final design and report back to the Board. This has been done and this report is meant to satisfy that condition.

The following are changes to my original report due to the final design. The changes will affect paragraphs 1,3,4 and 5 of page 2 of that report. The changes were necessary because of IDNR and Corp of Engineers' requirements and final subdivision design. The original concept and approximate route remains the same.

The proposed system will intercept(at STR. 618)The existing drain

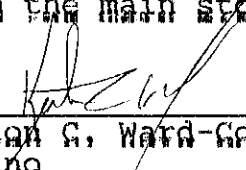
at or near STA 32+00 as per the 1897 Viewers Report. The new Storm sewer will then run as shown on Sheet 7 on the attached plan for 480 feet. (STR 615) and sheets 2,3,and 4 between STR 600 and 613.

The new system shall consist of the following lengths:

18"	RCP	2317ft
Twin 30"	CMP	94ft
36"	RCP	306ft ³⁴⁶
48"	RCP	480ft.
Open Ditch		105ft.

The proposed length of the drain including the 3200 feet of the original drain is 6542 feet.

The proposed lake will not be part of the drain but will be the maintenance responsibility of the Mansur Corporation until a Homeowners Association is formed to under take the maintenance. The regulated drain which will be maintained will be the original portion of the drain remaining along with the sections from STA 0+00 on page 7 (STR 615) to STA 26+63 on sheet 4 (STR 614) on the attached plan. The existing lake on the Richwine property is shown above as open ditch and runs between str 602 and 603. The maintenance responsibility for this ^{will} be the ~~cleanout~~ of siltation from the main storm line as discussed above.


KERTON G. WARD-GANNEY SURVEYOR
KCW/AG



SURVEYOR'S OFFICE
Hamilton County

Kenton C. Ward, Surveyor

Suite 146

776-8495

One Hamilton County Square

Noblesville, Indiana 46060-2230

July 28, 1995

To: Hamilton County Drainage Board

Re: Beaver & Brooks Legal Drain
Mansur Corp. Reconstruction

Attached are as-builts, certificate of completion & compliance and other information for Beaver & Brooks - Mansur Corp. 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 08/30/90. The changes are as follows:

The 36" RCP between Structures 603 and 604 was lengthened from 80' to 83'.
Structure 604 to 605 consists of 36" RCP which was lengthened from 266' to 273'.
Structure 605 to 606 consists of 18" RCP and was shortened from 400' to 394'.
Structure 606 to 607 was lengthened from 410' to 411'.
The RCP between Structure 607 and 608 was upgraded from 18" RCP to 30" RCP.
The 18" RCP between Structure 608 and 609 was lengthened from 205' to 206'.
Structure 651 is an additional structure that was placed between Str's 609 & 610.
This lengthened the 18" RCP from 398' to 408' total.
The 18" RCP between Str 610 to 611 & Str 611 to 612 was shortened from 390' to 381'.
Structure 613 to 614 consists of 18" RCP which was shortened from 155' to 153'.

The length of the drain due to the changes described above is now 3347 feet.

Non-enforcements for tracts between Brooks School Road and Geist Reservoir have been approved by the Board. Non-enforcements for Hamilton Proper developments will be approved by individual plats.

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

Sincerely

Kenton C. Ward,
Hamilton County Surveyor

KCW/jh

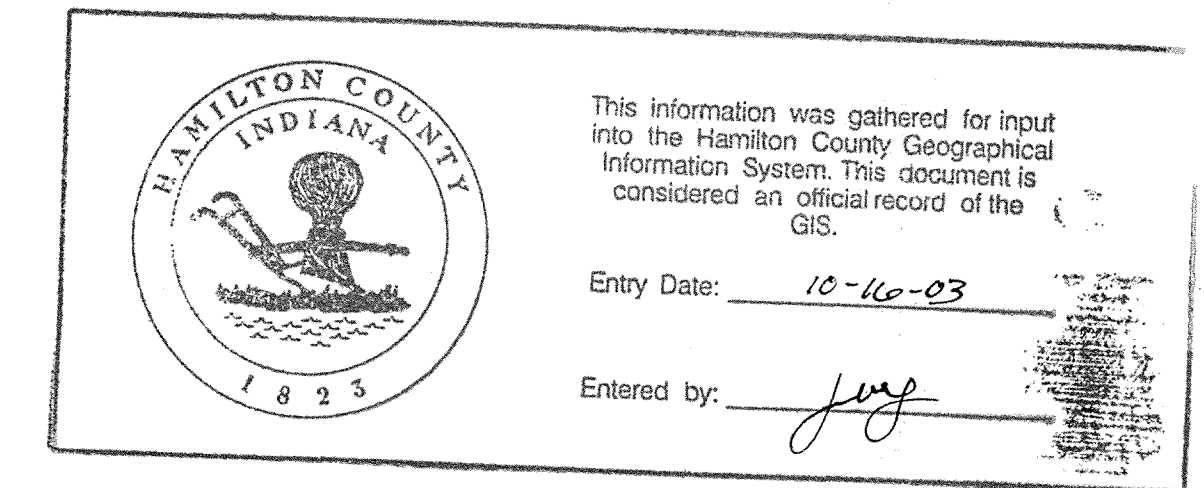
SITE WORK GENERAL NOTES AND SPECIFICATIONS

Notices and Permits

- A. The contractor shall be responsible for obtaining, or verifying, that all permits and approvals are obtained from the respective private, city, county and State and Federal agencies prior to starting construction.
- B. The Contractor shall contact all utility companies to locate all mains, conduits, service lines, etc. in the construction affected area. Existing utility structures are shown here in accordance with available information at time of design. The location and protection of utility structures and facilities, their support and maintenance during construction (in cooperation with applicable utility), is the express responsibility of the Contractor in the performance of the Contract and in the preparation of the bid. The contractor shall notify the engineer of any changes, errors or omissions found on these plans or in the field before work is started or resumed.
- C. It shall be the contractor's or developer's representative responsibility for notification and coordination of all construction with respective utility companies.
- D. It shall be the responsibility of the developer and contractor to maintain quality control throughout the project; failure to do so may result in removal and replacement of the defective work. It is recommended that the developer have a qualified supervisor on the job site at all times during construction.
- E. It is essential that the work to be done in conjunction with this project shall be installed according to these specifications. The engineer will be required to certify to certain portions of this project upon completion. Therefore, it is necessary to obtain approval and acceptance by the city that construction was done in compliance with these plans and specifications. Any damaged or defective work will be the contractor's responsibility to correct or replace. All changes or discrepancies in plans to be reviewed with engineer prior to implementing changes in field.
- F. All quantities given on the prints, verbally or in the Scope of Work section are estimates and shall be confirmed by the bidding contractor.

RE-CONSTRUCTION PLANS FOR BEAVER & BROOKS LEGAL DRAIN

HAMILTON COUNTY, INDIANA

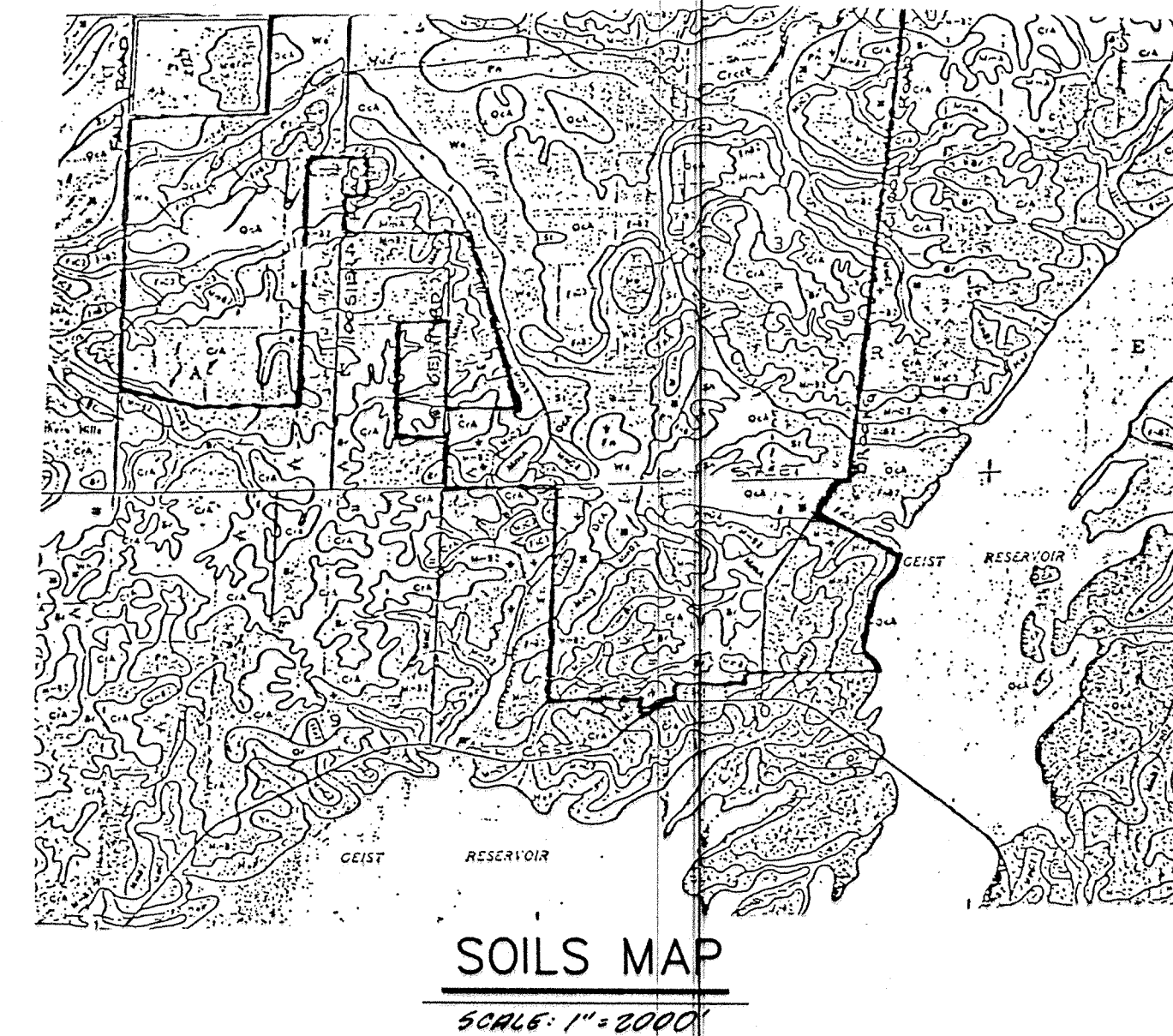
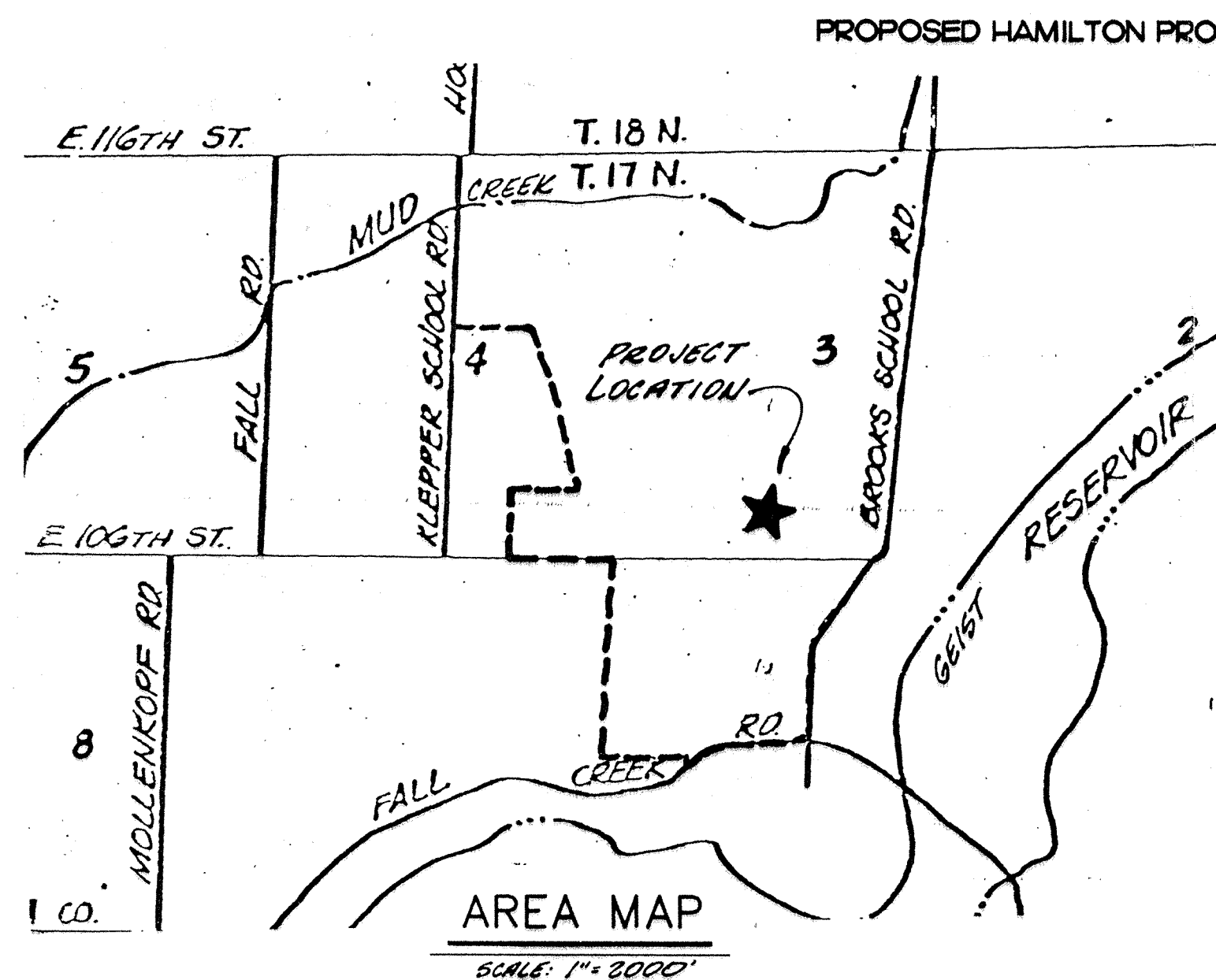
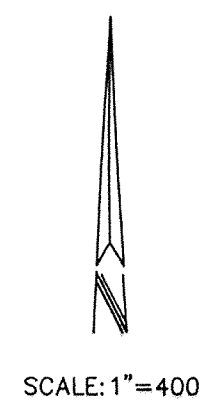
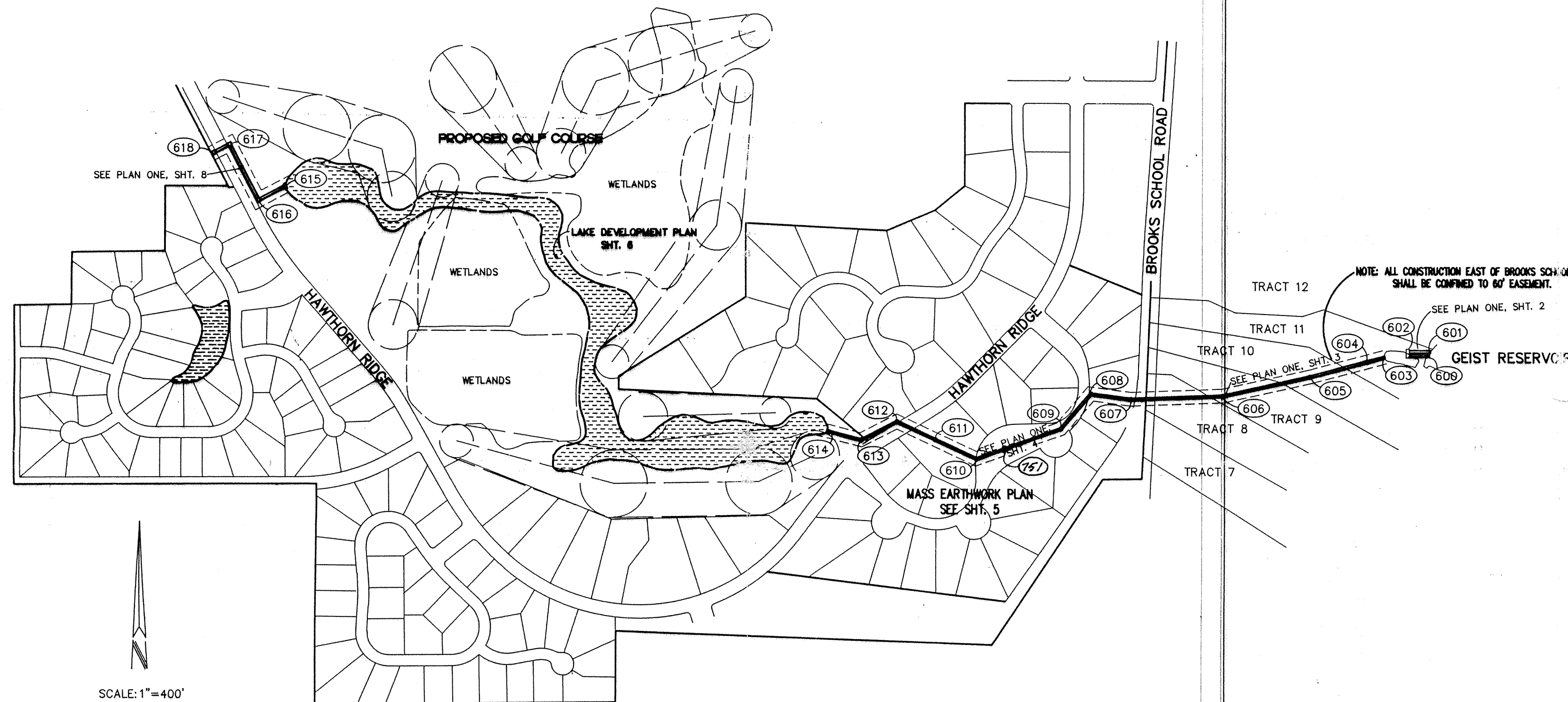


GRADING NOTES

1. Lake bottom elevations shall be a minimum of 8 feet deep from normal pool unless noted otherwise.
2. It is the intent of these plans to use all excess fill material onsite. Borrow pits in nonstructural fill areas may be utilized to obtain suitable fill material and waste topsoil.
3. Topographic and planimetric information from photographic compilation by others. Accuracy has not been totally confirmed by Paul I. Cripe, Inc. Any discrepancies shall be reported to the Engineer. The outside photogrammetric consultant shall be solely responsible for the accuracy of aerial mapping.
4. Building pad areas designated for fill for future buildings shall be constructed of suitable fill material and compacted per specifications. All fill areas for building and parking areas are to be stripped of topsoil prior to placement of fill.
5. Contractor shall preserve existing trees wherever possible. Owner and owner's representative shall be consulted for clearing limits. Clearing limits shall consist of all trees within street areas, utility installation limits and cut and fill areas. Cleared trees may be buried onsite at the direction of the owner's representative.
6. All topsoil shall be placed in soundings areas and nonstructural fill areas. Upon completion of mass earthwork, topsoil shall be spread to a depth of 4 to 6 inches in areas to be seeded such as lake slopes, mound areas, areas between curb and clearing limits, and all disturbed areas outside of building and parking areas.
7. Straw bale dams, sediment pits and silt fences shall be utilized to control erosion. See erosion control specifications and erosion details for additional information. See Soil Erosion Plan for additional information.
8. See Soils Report by Atec Associates, Inc. dated March 22, 1989 for fill recommendations and existing soil conditions. Any soil investigation data furnished to Contractor by owner shall be for the convenience of Contractor, and Owner will not be responsible for any variance in actual conditions with such data or interpretations or conclusions drawn therefrom. Data on subsurface conditions do not constitute a representation or warranty of the continuity of such conditions.
9. **Earthwork Balance** - The Contractor shall confirm all earthwork quantities prior to start of construction. If an excess or shortage or earth is encountered, the Contractor shall confirm with the Owner and Engineer the requirements for stockpiling, removal or importing of earth. Minor adjustments to the grades may be required to obtain earthwork balances when minor excess material or shortages are encountered. It is recognized by the parties hereto that the calculations of the Engineer in determining earthwork quantities shall be accomplished in accordance with the American Society of Civil Engineers Standards for such calculations. Further, that these calculations are subject to the interpretations of soil borings as the physical limits of the various soil types, also the allowable variation in finish grade and compaction permitted the contractor, and that all of these parameters may cause either an excess or shortage of actual earthwork materials to complete the project. If such an actual minor excess or shortage of materials occurs, the contractor shall contact the engineer to determine if adjustments can be made to correct the imbalance of earth.
10. **Spot Elevations** - If during the construction or survey layout process it is determined that there are insufficient spot elevations to properly construct the project or the design grades appear to be too steep or flat for on-site conditions, the contractor shall contact the engineer to adjust or add additional elevations as required.

UTILITY PLAN NOTES

1. Contractor shall verify depth and locations of all existing utilities prior to start of construction and notify the Engineer of any discrepancies with the plan information. Existing utilities have been shown on the plans according to the best available information. The exact location and protection of these facilities and structures, their support and maintenance in operation during construction is the express responsibility of the Contractor in the performance of his contract and in the preparation of his bid.
2. See Sewer Plan and Profile sheets for additional information.
3. If any existing field tile systems are encountered during the construction process, the contractor shall be responsible for reconstructing the tile to its original conditions or connect it into the proposed storm drainage system.
4. The contractor will be required to provide as-built drawings to the agency to certify the elevation and slope of storm sewers. Sewers installed at a grade by the agency will not be accepted. Provide for periodic as-built checks on the construction to assure that the maintained.



INDEX	
SHT	DESCRIPTION
1	COVER SHEET
2	STORM SEWER - PLAN & PROFILE
3	STORM SEWER - PLAN & PROFILE
4	STORM SEWER - PLAN & PROFILE
5	MASS EARTHWORK PLAN
6	LAKE DEVELOPMENT PLAN
7	WETLANDS CONSTRUCTION DETAILS
8	STORM SEWER - PLAN & PROFILE
9	EROSION CONTROL DETAILS & SPECIFICATIONS
10	STANDARD DETAILS & SPECIFICATIONS

BENCHMARKS	
LARGE HINGE NAIL SET IN S.W. SIDE OF PWP, NORTH SIDE OF 106TH. ST. & 30' WEST OF BROOKS SCHOOL ROAD.	ELEV. 797.18
LARGE HINGE NAIL SET IN WEST SIDE OF TWIN 10" PINE SOUTH SIDE OF GRAVE YARD EAST SIDE OF HOOSIER ROAD.	ELEV. 814.31

REVISIONS	
7-2-90	REVISED SHEETS 1, 3, 4 JMR

FILED
AUG 03 1994
HAMILTON COUNTY DRAINAGE BOARD
SECRETARY

CERTIFIED BY:	REVISIONS	<p>PAUL I. CRIFE, INC. 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777</p> <ul style="list-style-type: none"> • CIVIL ENGINEERING • LAND SURVEYING • ARCHITECTURE • LAND PLANNING 	TECH CHK: JG	DRAWN BY: B.T.	SCALE: AS NOTED	DATE: 4-30-90	CLIENT: MANSOUR DEVELOPMENT CORP.	DWG. TYPE	FILE NUMBER	SHEET: 1
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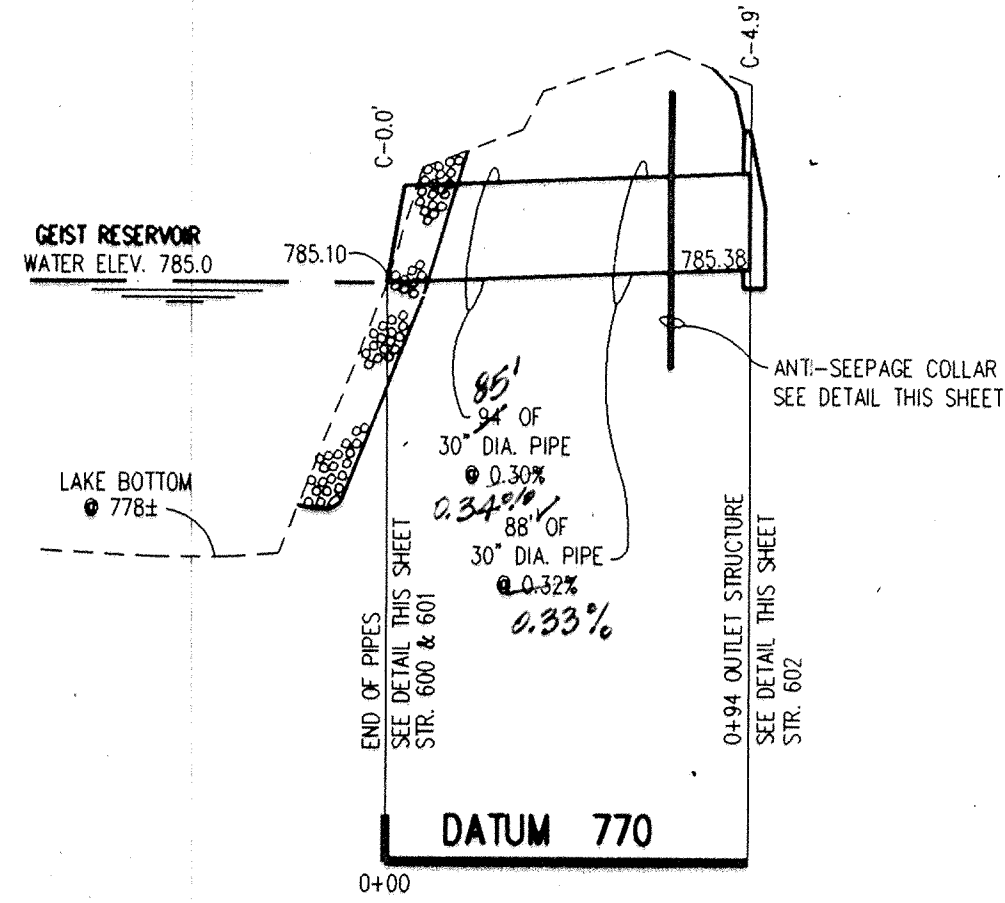
HAMILTON COUNTY INDIANA

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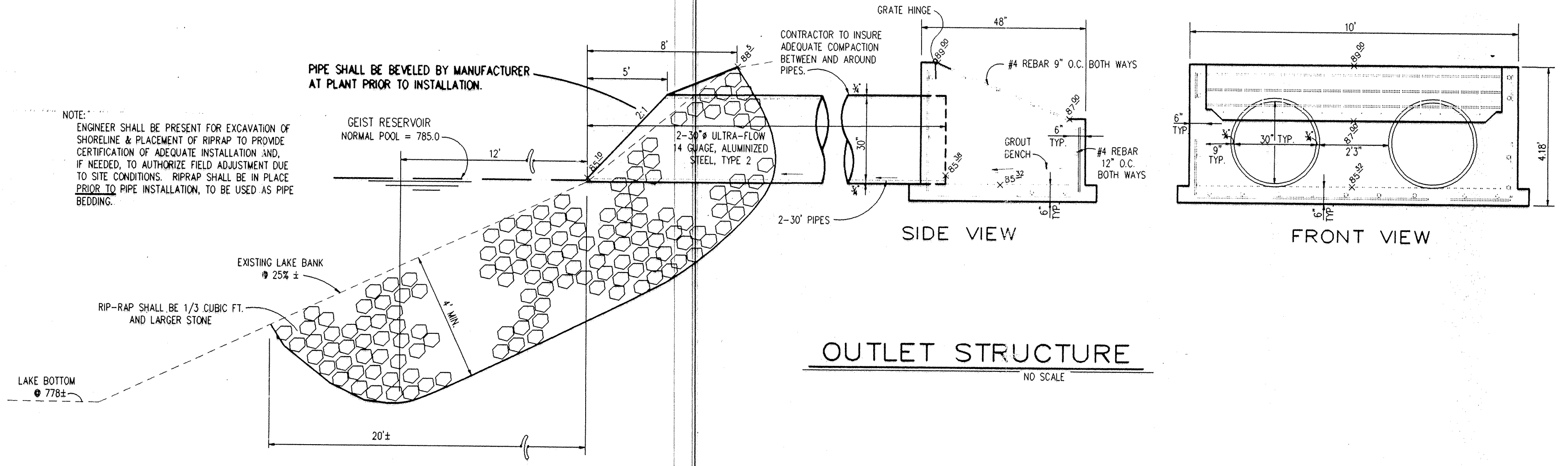
Entry Date: 10-14-03

Entered by: JWL

NOTE:
 1. CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXISTING GRADE TO INVERT OF PIPE.
 2. FIELD ADJUSTMENT BY ENGINEER MAY BE REQUIRED AT ALL OUTFALL POINTS TO INSURE PROPER OUTFALL CONDITIONS.

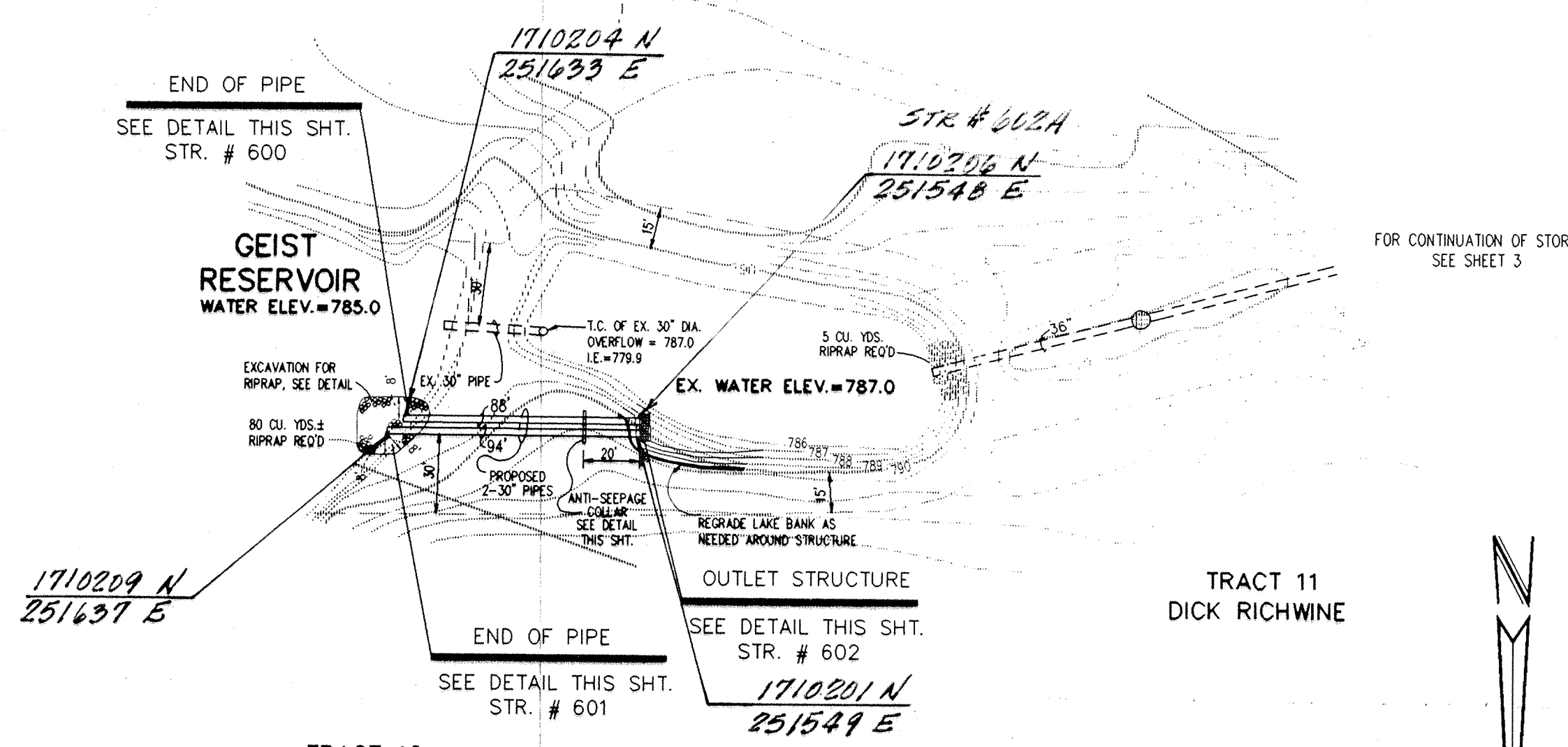
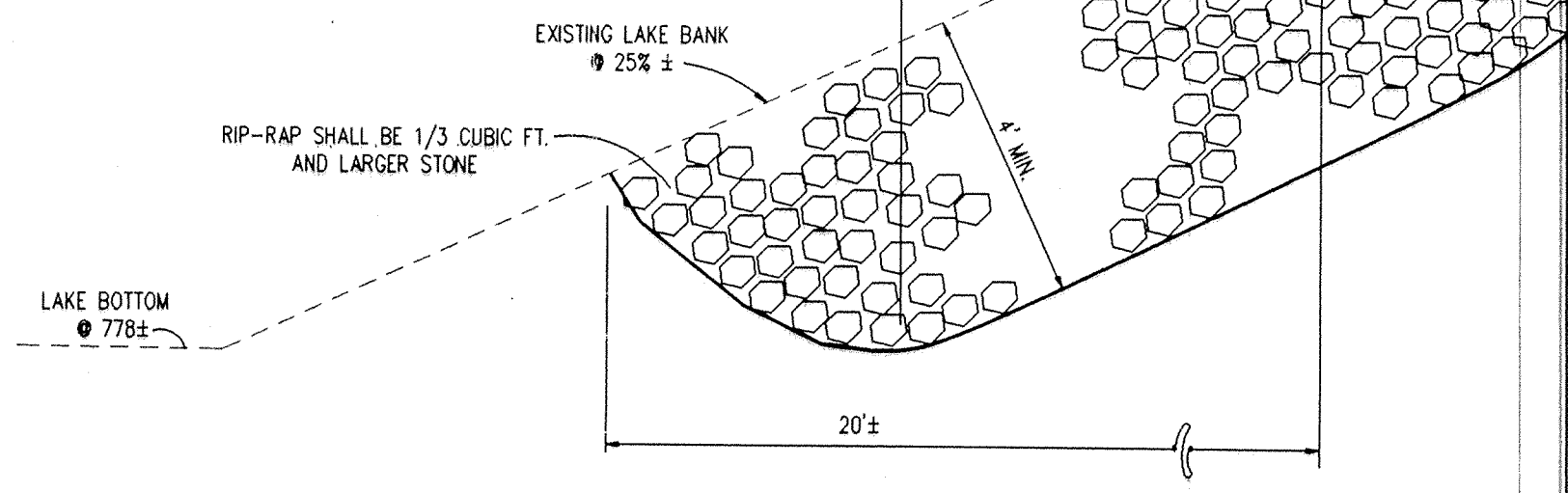


PROFILE ONE



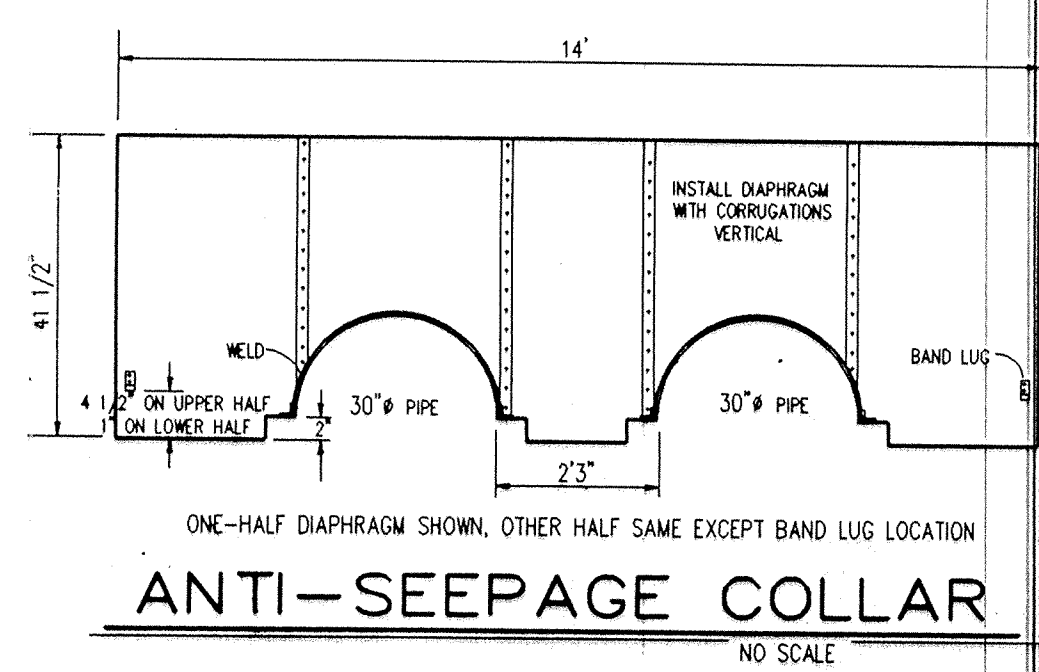
OUTLET STRUCTURE
NO SCALE

NOTE:
 ENGINEER SHALL BE PRESENT FOR EXCAVATION OF SHORELINE & PLACEMENT OF RIPRAP TO PROVIDE CERTIFICATION OF ADEQUATE INSTALLATION AND, IF NEEDED, TO AUTHORIZE FIELD ADJUSTMENT DUE TO SITE CONDITIONS. RIPRAP SHALL BE IN PLACE PRIOR TO PIPE INSTALLATION, TO BE USED AS PIPE BEDDING.

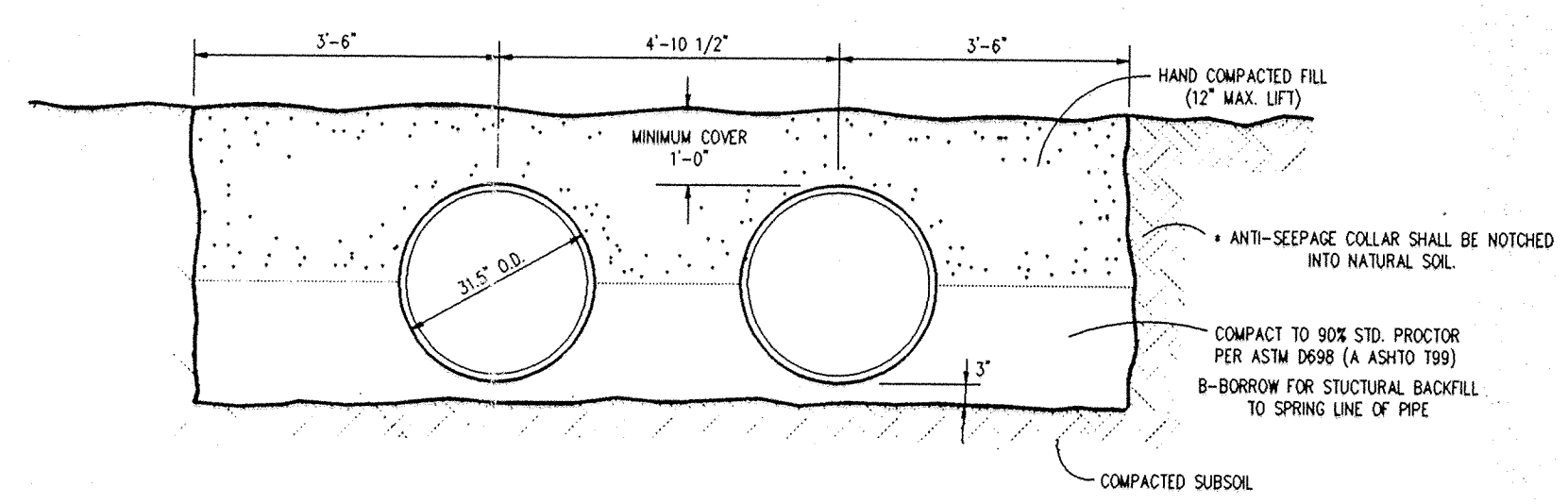


PLAN ONE

NOTE:
 TRENCH SHALL BE LIMITED TO NO MORE THAN 12 FEET TOTAL WIDTH TO INSURE EFFECTIVENESS OF ANTI-SEEPAGE COLLAR AND TO REDUCE BACKFILL REQUIREMENTS. NO EXCAVATED MATERIALS SHALL BE DISCHARGED IN GEIST RESERVOIR OR POND.



ANTI-SEEPAGE COLLAR
NO SCALE



ULTRAFLOW PIPE BEDDING
NO SCALE

FILED
 AUG 03 10:04
 HAMILTON COUNTY ENGINEERING BOARD

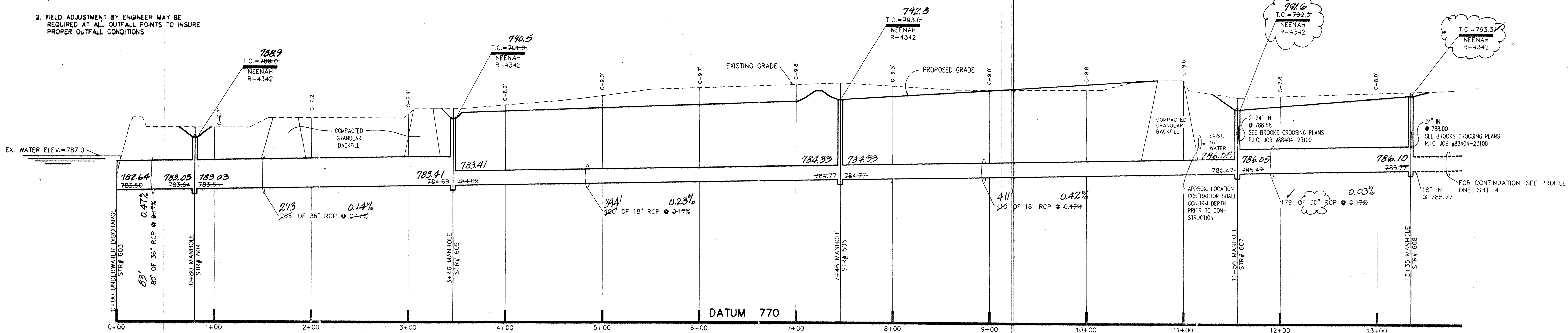
REGISTERED PROFESSIONAL ENGINEER
 No. 19864
 STATE OF INDIANA

Donald M. Gwinup, Jr.
 MELTON-PACKARD & ASSOCIATES, INC.
AS-BUILT 5-11-94

BEAVER & BROOKS LEGAL DRAIN

DATE	REVISIONS	PAUL I. CRIFE, INC. 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777	CIVIL ENGINEERING	ENG. CHK:	DRAWN BY: <i>JMR</i>	SCALE: HORIZ: 1"=50' VERT: 1"=5'	DATE: 4-30-90	CLIENT: MANSUR DEVELOPMENT CORP.	DWG. TYPE	FILE NUMBER	SHEET: 2 OF 10
			LAND SURVEYING	TECH CHK:	DRAFTING CHK:	DRAWING TITLE: STORM SEWER - PLAN & PROFILE	JOB NUMBER	8 8 4 0 4 - 2 6 7 0 0			

NOTE:
 1. CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXISTING GRADE TO INVERT OF PIPE.
 2. FIELD ADJUSTMENT BY ENGINEER MAY BE REQUIRED AT ALL OUTFALL POINTS TO INSURE PROPER OUTFALL CONDITIONS.

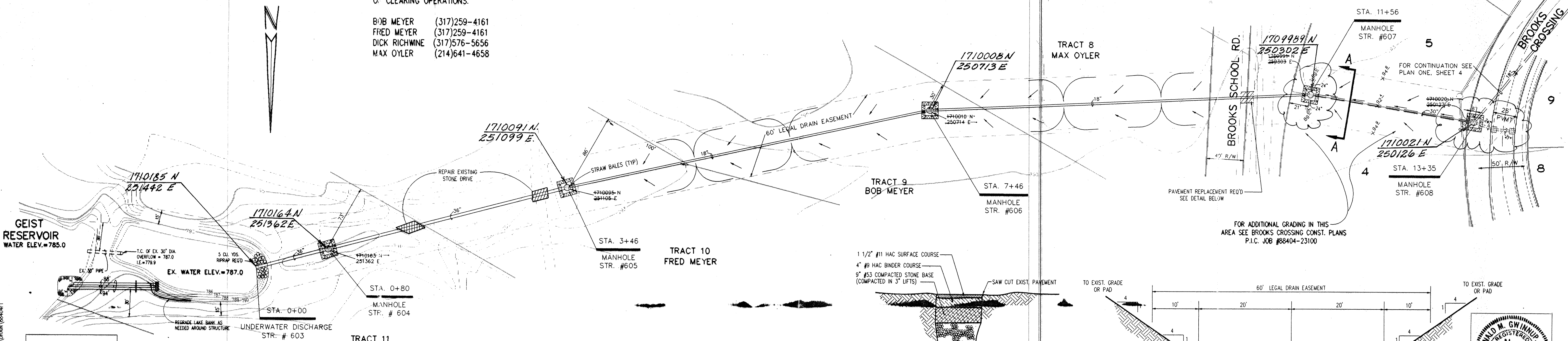


PROFILE ONE

HAMILTON COUNTY INDIANA
 This information was entered for input into the Hamilton County Geographical Information System. This document is considered an official record of the GIS.
 Entry Date: 10-16-03
 Entered by: jwf

NOTE:
 LIMITS OF CONSTRUCTION SHALL BE CONFINED TO PROPOSED 60' EASEMENT WIDTH. ALL DISTURBED AREAS SHALL BE REVEALED UPON COMPLETION. PROPERTY OWNERS SHALL BE CONTACTED BY CONTRACTOR PRIOR TO THE COMMENCEMENT OF CLEARING OPERATIONS.

- BOB MEYER (317)259-4161
- FRED MEYER (317)259-4161
- DICK RICHWINE (317)576-5656
- MAX OYLER (214)641-4658



PLAN ONE

PAVEMENT REPLACEMENT
 NO SCALE

CROSS SECTION A-A
 NO SCALE

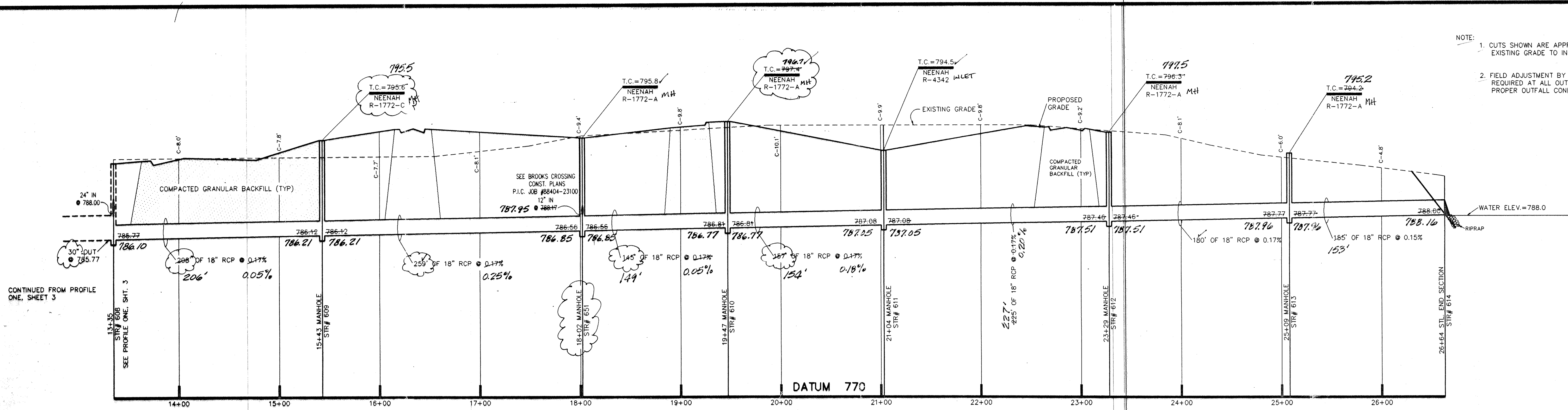
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 AUG 03 1994
 HAMILTON COUNTY DRAINAGE BOARD
 DONALD M. GWINN, JR.
 No. 19864
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

MELTON-PACKARD & ASSOCIATES, INC.
AS-BUILT 5-11-94


BEAVER & BROOKS LEGAL DRAIN

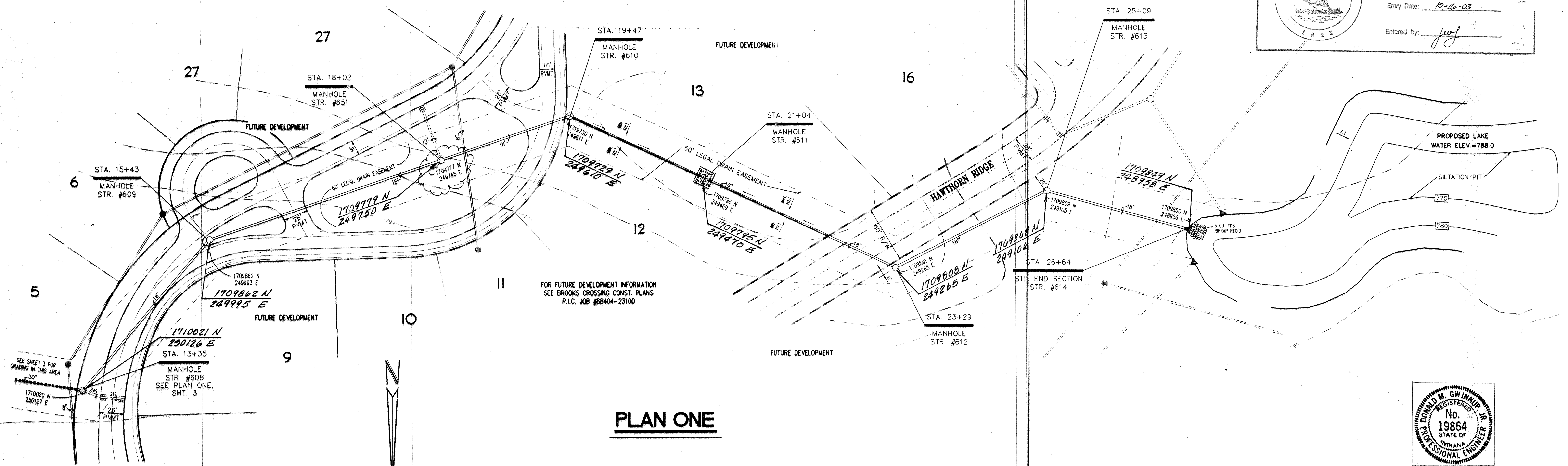
CERTIFIED BY:	REVISIONS	PAUL I. CRIFE, INC. 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777	CIVIL ENGINEERING • LAND SURVEYING • ARCHITECTURE • LAND PLANNING	ENG. CHK:	DRAWN BY:	SCALE:	DATE:	CLIENT:	DWG. TYPE:	FILE NUMBER:	SHEET:
	DATE:			TECH CHK:	DRFTNG. CHK:	DRAWING TITLE:	88404-26700	3			

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PROFILE ONE

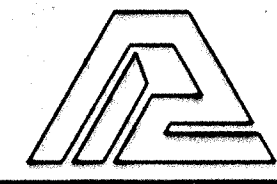

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PLAN ONE

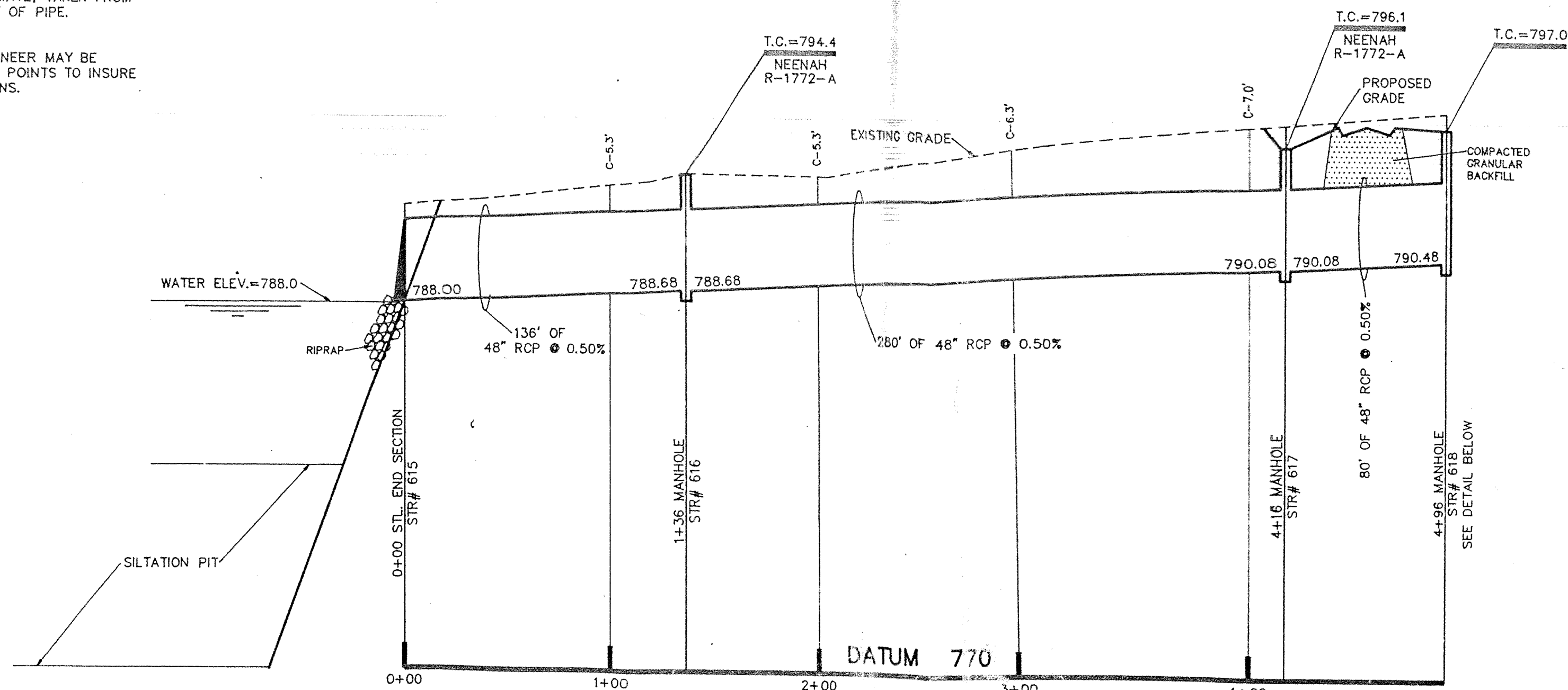


FILED *Don M. Gwin*
 AUG 03 1994
 MELTON-PACKARD & ASSOCIATES, INC.
AS-BUILT 5-11-94
 HAMILTON COUNTY DRAINAGE DISTRICT
 BEAVER & BROOKS LEGAL DRAIN

CERTIFIED BY: DATE:	REVISIONS 1. 7-3-90 REVISED ALIGNMENT OF STR. #608-610, UPDATED BROOKS CROSSINGS 2. LAUREL ADDED STR. #611 & ADDED STR. COORDINATES	 PAUL I. CRIFE, INC. 7172 GRAHAM ROAD INDIANAPOLIS, INDIANA 46250 (317) 842-6777	CIVIL ENGINEERING LAND SURVEYING ARCHITECTURE LAND PLANNING	ENG. CHK: TECH. CHK:	DRAWN BY: <i>JMR</i> DRFTNG. CHK:	SCALE: HORIZ. = 1" = 50' VERT. = 1" = 5' DATE: 4-30-90 DRAWING TITLE: STORM SEWER - PLAN & PROFILE	CLIENT: MANSUR DEVELOPMENT CORP.	DWG. TYPE:	FILE NUMBER:	SHEET: 4 JOB NUMBER: 8 8 4 0 4 - 2 6 7 0 0
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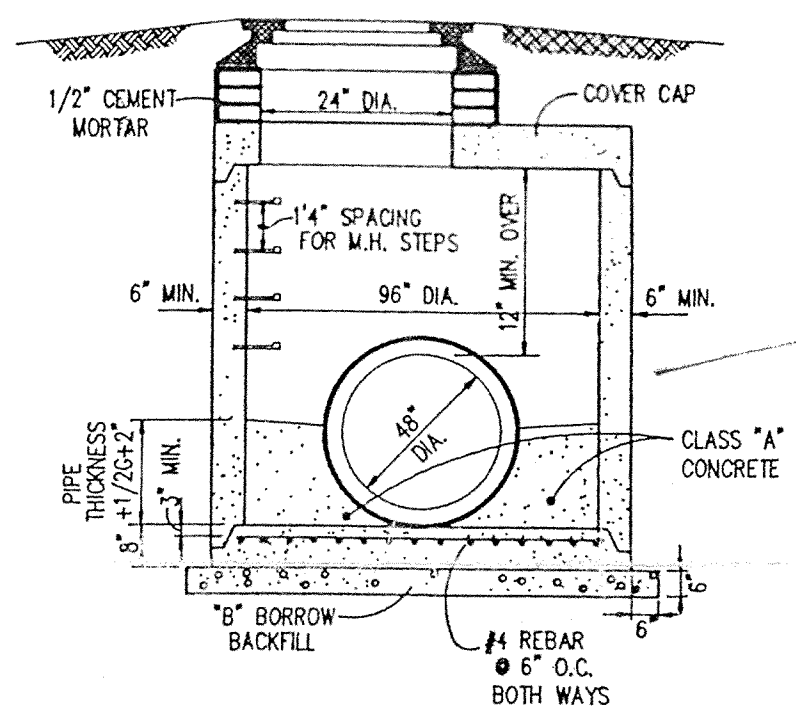
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NOTE:
 1. CUTS SHOWN ARE APPROXIMATE, TAKEN FROM EXISTING GRADE TO INVERT OF PIPE.
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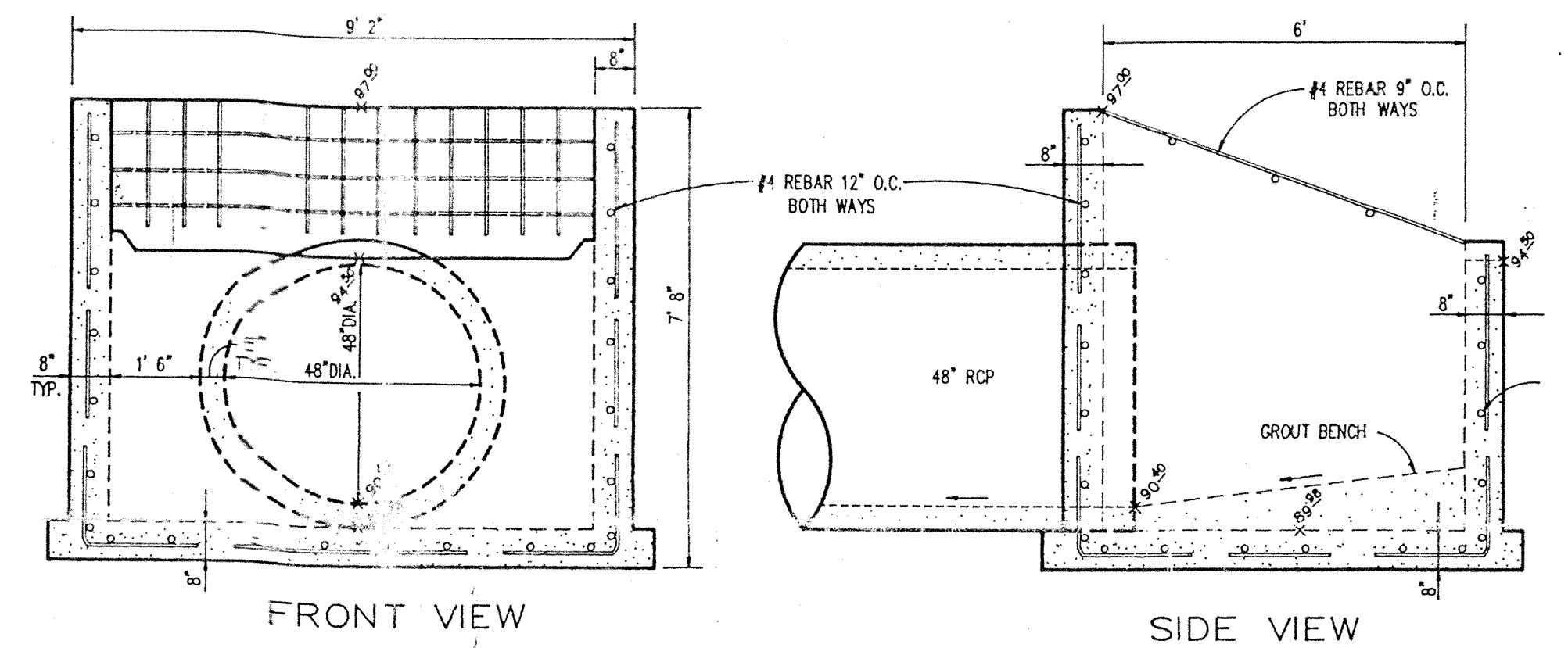
PROFILE ONE

HAMILTON COUNTY INDIANA
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 Entry Date: 11-15-03
 Entered by: [Signature]

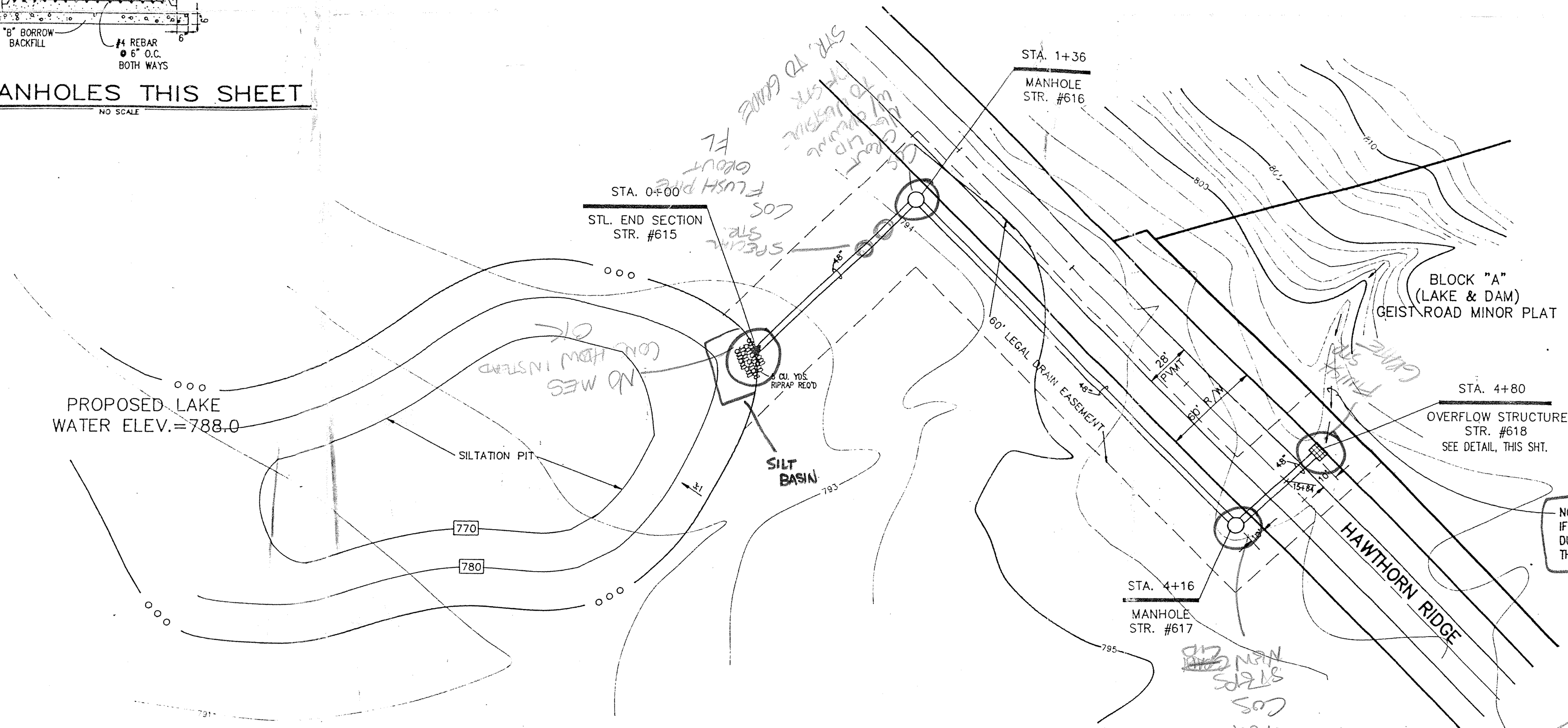


CHECK STRS. FOR STEPS & FLAT TOP ALIGNMENT.

STORM MANHOLES THIS SHEET



OVERFLOW STRUCTURE



PLAN ONE

NOTE:
 IF EXISTING REGULATED DRAIN TILE IS UNEARTHED DURING CONSTRUCTION, NOTIFY ENGINEER AND CONNECT THE TILE TO THE RELOCATED DRAIN.

FILE NAME: MANSUR\88404F4

CERTIFIED BY: _____
 DATE: _____

REVISIONS

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

- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- LAND PLANNING

TECH. CHK.: _____
 DRAWN BY: _____
 SCALE: HORIZ. 1" = 50'
 VERT. 1" = 5'
 DATE: 4-30-90
 CLIENT: MANSUR DEVELOPMENT
 DRAWING TITLE: STORM SEWER - PLAN & PROFILE

BEAVER & BROOKS LEGAL DRAIN

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