

Drain: CHARLES OSBORN ; JR COLLINS#2 **Drain #:** 8495
Improvement/Arm: MERRIMAC SECTION 3 RELOCATION
Operator: J. LIVINGSTON **Date:** 5-12-04
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

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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

October 1, 1996

RE: Osborn & Collins #2 Drain

Attached are plans and calculations for a proposed regional detention facility on the above referenced drain.

The facility is proposed as a two (2) lake facility with the first lake constructed as part of Merrimac Section 3, at the Developers expense. The second facility would be located on tracts 09-15-00-00-009.000, owned by Jay W. & Eleanor G. Lang and 08-09-15-00-00-014.000 owned by Henry Joe & Raymond M Walker.

A similar proposal was made some time ago for the Glick project involving tracts 09-15-00-00-003.000 and 09-15-00-00-004.000. The proposal at that time involved one twenty-eight (28) acre facility.

The current drainage pattern is in the regulated drain/ditch is to an approximate 6'x9' CMP culvert under 146th Street with a capacity of approximately 360 cfs. The total watershed upstream of Merrimac is approximately 496 acres. This watersheds

estimated underdeveloped runoff rate for the 100, 10 and 3 year 6 hour storm events are respectively, 414 cfs, 214 cfs and 83 cfs. The pre-developed drainage basin from the Merrimac Section 3 to this regulated drain as an area of 75.5 acres and an estimate runoff rates for the 10 and 2 year 6 hour storm event of 47.2 cfs and 17.4 cfs. The proposed lake facility which will release to the 146th Street CMP road culvert is designed to accommodate the 100 year underdeveloped runoff rate from the upstream watershed and retain the peak discharge to within the capacity of the existing culvert under 146th Street (360 cfs)

Merrimac Section 3 will provide for a detention facility along the Charles Osborn and J. R. Collins #2 regulated Drain that will prevent the current road over-topping at 146th Street and clean and clear the existing channel, through the Merrimac sites. The proposed release rates for 100, 10 and 2 year storm events are 340 cfs, 164 cfs and 50 cfs and 10-2 requirements. The allowable release for the proposed 100 year event is determined from the 10 year redeveloped basin and the 100 year upstream basin totaling 461 cfs. The allowable release for the proposed 10 year event is determined from the 2 year pre-developed basin and the 10 year offsite basin totaling 232 cfs. The proposed 100, 10 and 2 year peak discharge rates from the lake facility within Section 3 of Merrimac are respectively, 340 cfs, 164 cfs and 50 cfs. These

discharges are considerably below the allowable rates and reduce the flow within the 100 year event to a level within the capacity of the existing culvert.

The runoff being accepted by the proposed lake facility from the 496 acres upstream watershed is the peak discharge from a 100 year storm event producing 414 cfs. This is approximately 0.93 cfs/acre.

A future conditions model has also been analyzed for the development of the 496 acre upstream watershed for the completion of a regional detention facility. A second lake facility upstream of the proposed lake within section 3 of Merrimac is estimated a a minimum of seven (7) acres in surface area with the ability of four (4') feet of storage. This will reduce the peak discharge from the offsite watershed area to 270 cfs during a 100 year storm event and in turn reduce the discharge within the lake in Merrimac to 274 cfs.

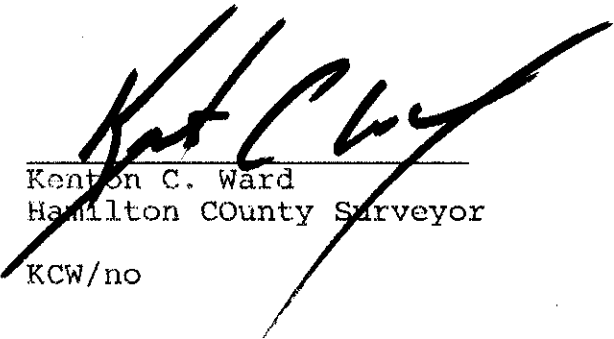
The future developed runoff conditions from the 496 acre offsite watershed to Merrimac is 270 cfs. This is approximately 0.54 cfs/acre.

The cost for the construction of the second basin will be borne by the upstream developer.

Since the construction of the basin is a change from the

Page #4

original specifications of the drain, a reconstruction hearing is required.



Kenton C. Ward
Hamilton County Surveyor

KCW/no

CERTIFICATE OF COMPLETION AND COMPLIANCE

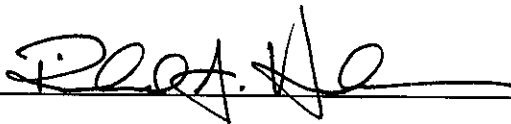
TO: HAMILTON COUNTY SURVEYOR

RE: MERRIMAC SECTION 3

I hereby certify that:

- 1). I am a Registered Professional Engineer in the State of Indiana,
- 2). I am familiar with the plans and specifications for the above referenced subdivision,
- 3.) I have personally observed and supervised the completion of the Drainage Facilities for the above referenced subdivision, and
- 4.) To the best of my knowledge, information and belief, the Drainage Facilities within the subdivision has been installed and completed in conformity with all plans and specifications.

Signature: _____



Date: 9/24/96

Typed or Printed Name: Richard A. Henderson

Business Address: Schneider Engineering Corp.

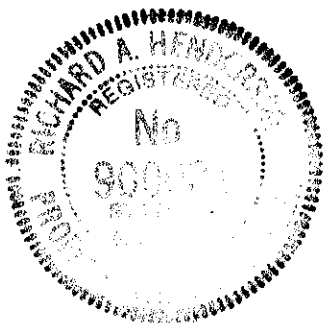
3020 North Post Road, Indianapolis, IN 46226

Telephone: 898-8282

Indiana Registration Number

900081

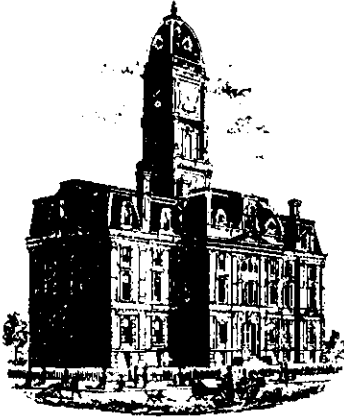
SEAL



FILED

SEP 25 1996

OFFICE OF HAMILTON COUNTY SURVEYOR



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 16, 1997

Re: Osborn & Collins # 2 - Merrimac Sec. 3
Regional Detention

Attached are as-builts, certificate of completion & compliance, and other information for Osborn & Collins #2 - Merrimac Sec. 3 Regional Detention. An inspection of the drainage facilities for this section has been made and the facilities were found to be complete and acceptable.

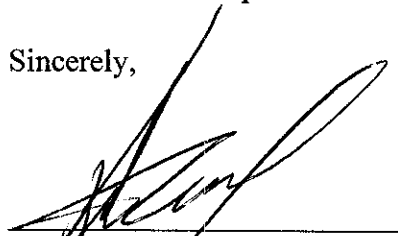
There were no significant changes made to the plans submitted with my report dated October 1, 1996. Therefore the length of the drain remains the same. The net length of the drain was not changed.

The non-enforcement was approved by the Board at its meeting on June 3, 1996 and recorded under instrument #9709720256.

The bond or letter of credit from Bank One, number ST05447 for the Lake, and ST05418 for erosion control; dated November 21, 1996 and December 20, 1996; in the amount of \$70,600.00, and \$41,225.00; was released November 24, 1997. The bond from Fidelity & Deposit Company of Maryland, dated November 22, 1996, in the amount of \$80,270.00 for storm sewers was released November 24, 1997.

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

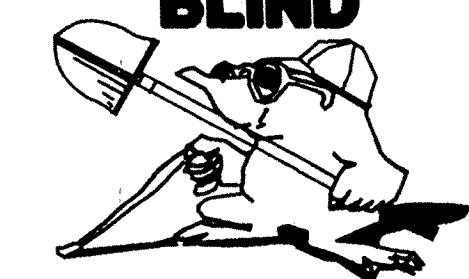
Sincerely,



Kenton C. Ward,
Hamilton County Surveyor

KCW/slm

"DON'T DIG BLIND"

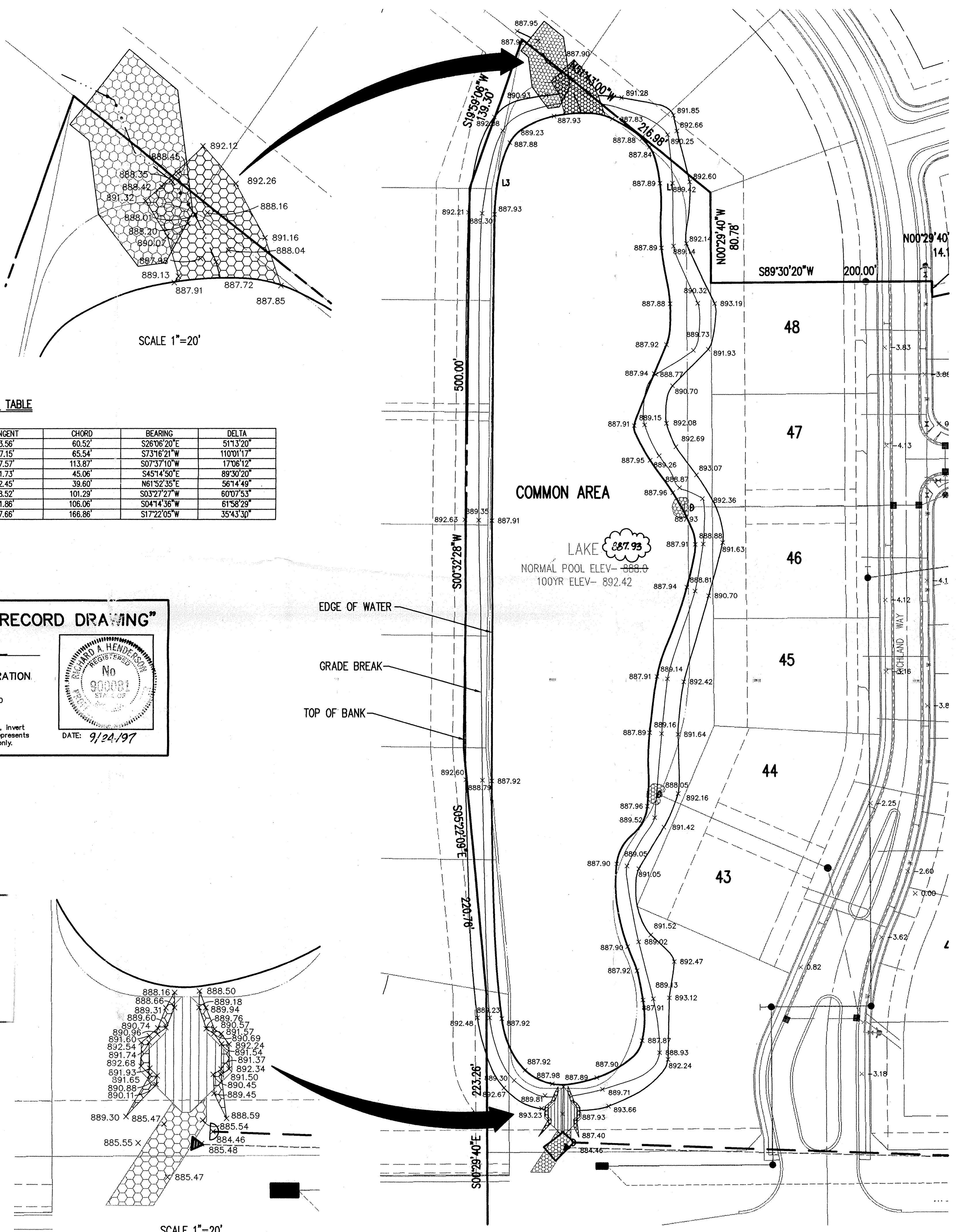


1-800-382-6544 CALL TOLL FREE

1-800-428-5200

FOR CALLS OUTSIDE OF INDIANA PER INDIANA STATE LAW IS-69-1991. IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.

ASSUMED NORTH SCALE: 1"=50'

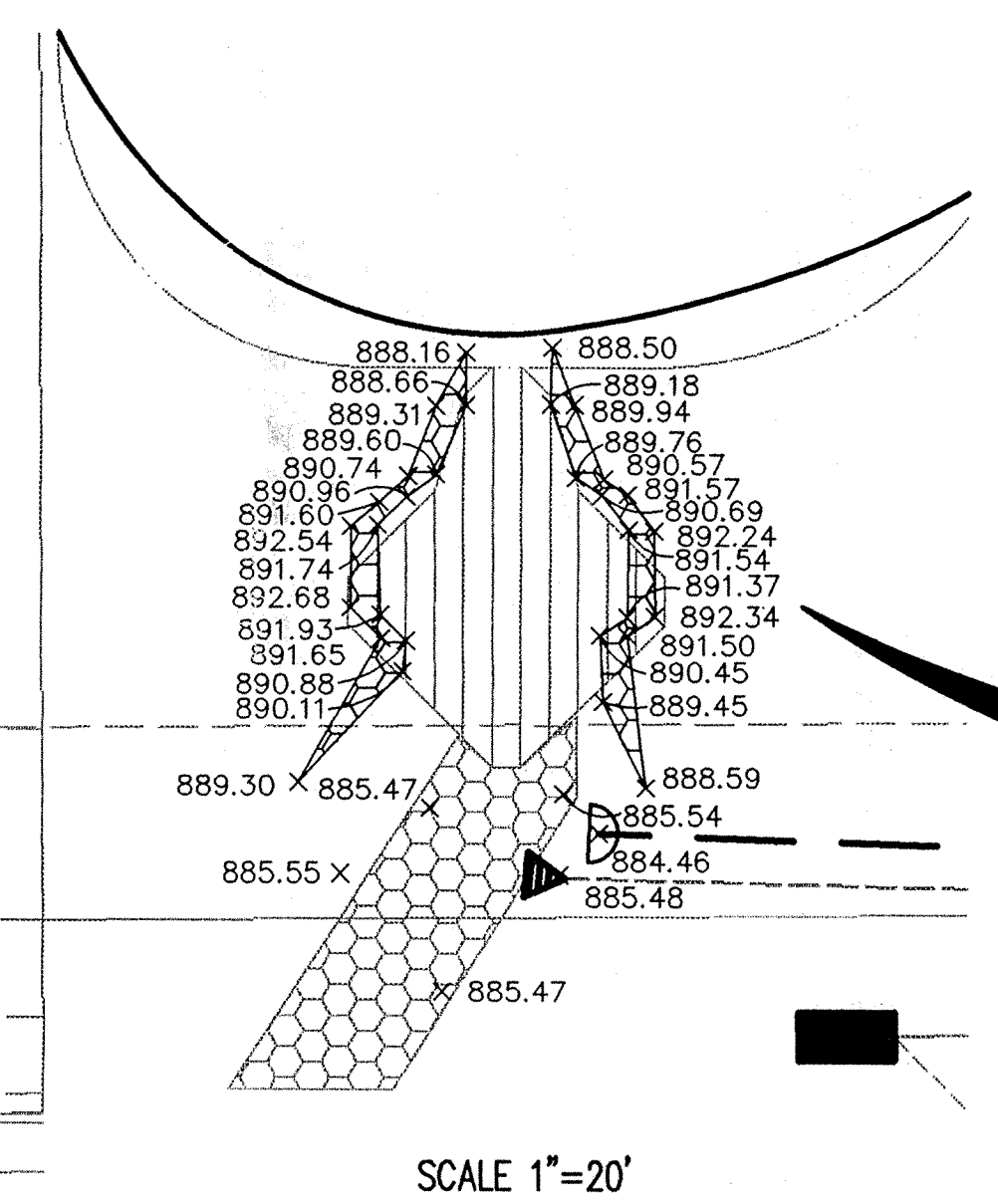


LAKE CURVE TABLE

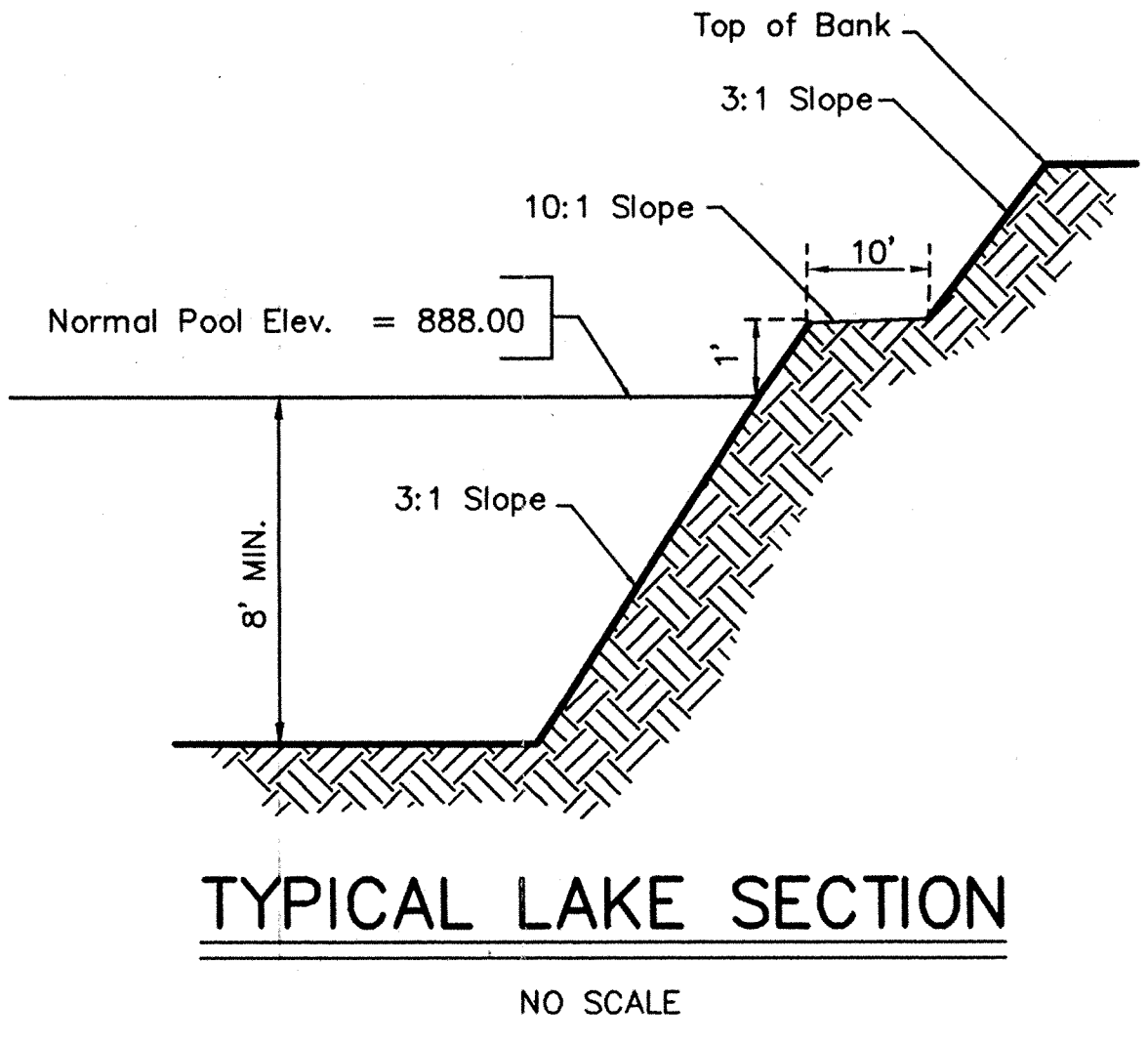
Table with 7 columns: CURVE, RADIUS, LENGTH, TANGENT, CHORD, BEARING, DELTA. Contains data for curves L1 through L8.

CERTIFICATION FOR "RECORD DRAWING" SCHNEIDER ENGINEERING CORPORATION. Includes signature and date 9/24/97.

Hamilton County Indiana logo and GIS information: "This information was gathered for input into the Hamilton County Geographical Information System..."



- LEGEND: Existing Storm Sewer, New Storm Sewer, Existing Sanitary Sewer, New Sanitary Sewer, Existing Contour, Existing Elevation, Storm Structure Number, Sanitary Structure Number, Approximate Pad Size, Subsurface Drain w/4" Lateral Connection, Swale (E).



LAKE RECORD DRAWING

- GENERAL NOTES: 1. ALL GRADES AT BOUNDARY SHALL MEET EXISTING GRADES. 2. IT SHALL BE THE RESPONSIBILITY OF EACH SUBCONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO HIS PHASE OF WORK...

Revisions: 1. BGG 9/16/96 REVISED LAKE

CERTIFIED BY: [Signature] THIS DRAWING AND THE IDEAS, DESIGNS AND CONCEPTS CONTAINED HEREIN ARE THE EXCLUSIVE INTELLECTUAL PROPERTY OF SCHNEIDER ENGINEERING CORPORATION...

Schneider Engineering Corporation logo and contact information: 3020 North Post Road, Indianapolis, Indiana 46226-0966.

MERRIMAC CORP. MERRIMAC SECTION 3 WESTFIELD, INDIANA

LAKE PLAN

Table with 4 columns: Date (2/18/96), Project No. (1045.03), Drawn (BGG), and Sheet No. (1045.03). Includes a 'FILED' stamp and date 9/25/1997.