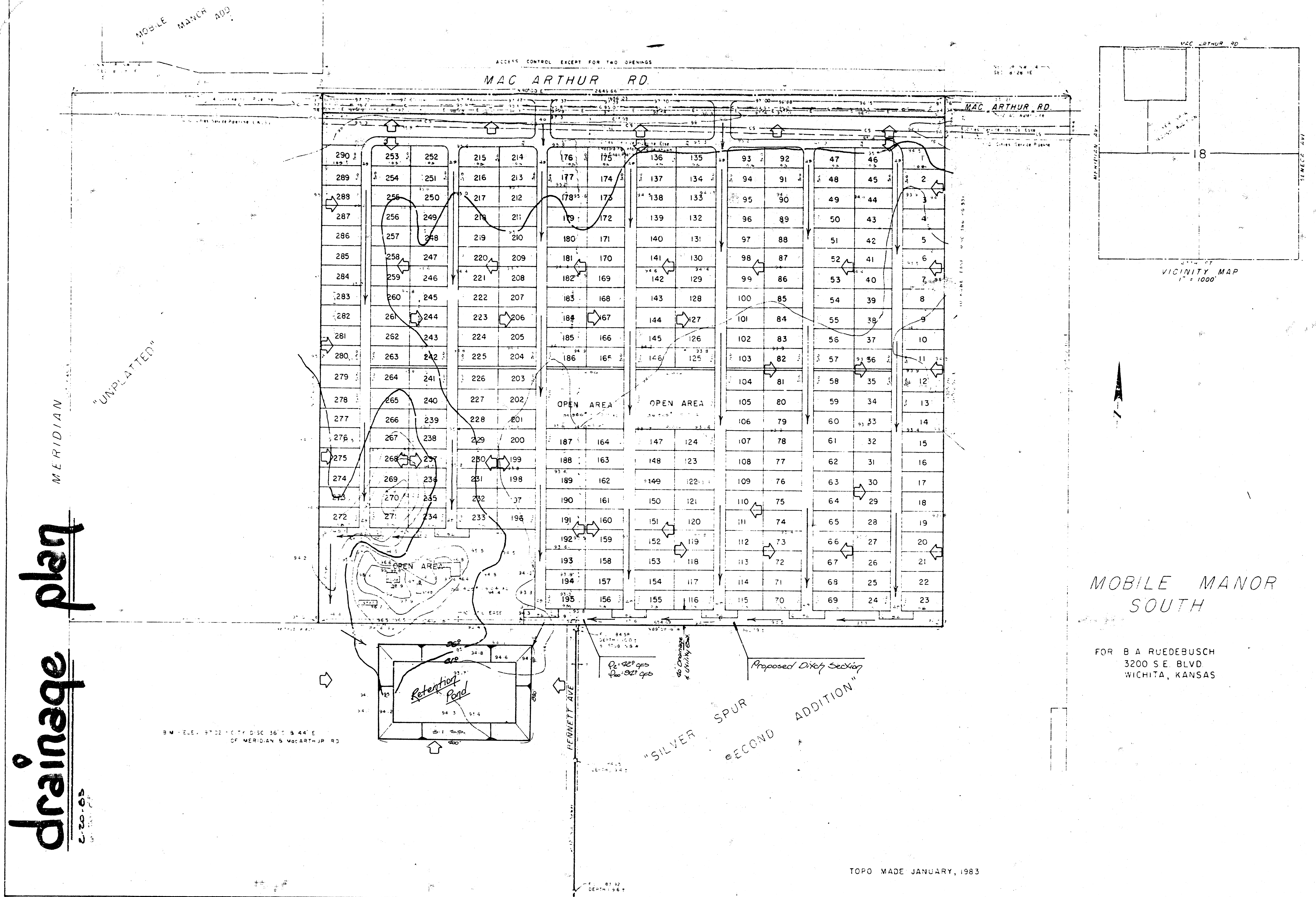


drainage plan

2-20-85



MOBILE MANOR SOUTH

FOR B A RUEDEBUSCH
3200 S.E. BLVD
WICHITA, KANSAS

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 330 LAURA • WICHITA, KANSAS 67211

CONFIRMATION MEMO

PROJECT: Mobile Manor Addition

DATE: June 20, 1983

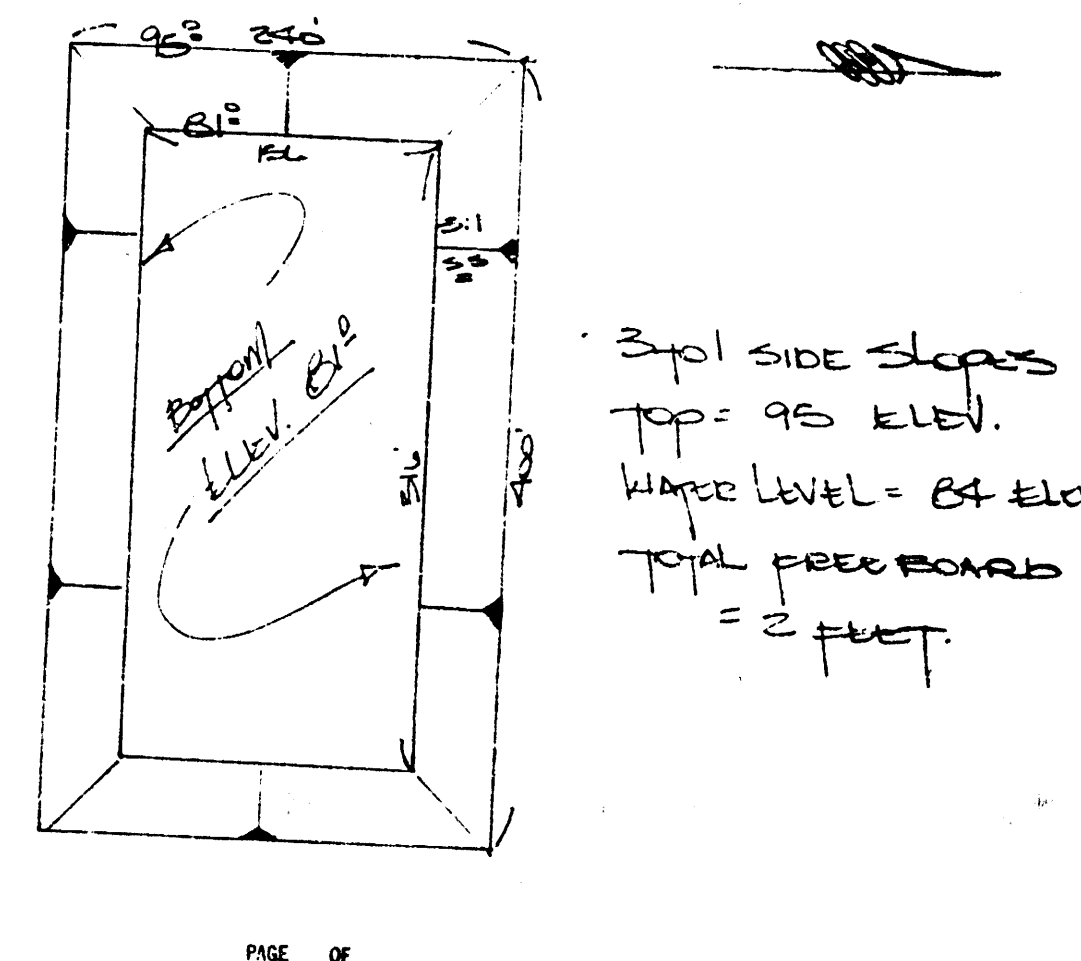
TO: Chris Breitenstein

FROM: Brent Mooton

REFERENCE: Drainage Plan Addendum

COPIES TO:

The REQUIRED STORAGE VOLUME FOR THIS SITE IS 82 AC.FT. FOR THE MAJOR STORM DISCHARGE. PROPOSED POND SITE DIMENSIONS FOR THE RETENTION POND ARE INDICATED BELOW.



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MEMO

PROJECT: _____

DATE: _____

TO: _____

FROM: _____

REFERENCE: _____

COPIES TO:

EXISTING GROUND ELEVATION AT THE SITE = 95.0
EXISTING WATER LEVEL GROUND WATER = 84.0

PROPOSED BOTTOM OF POND SITE = 81.0
OR THREE FEET BELOW GROUND WATER.
PROPOSED FREEBOARD FOR SITE = TWO FEET
WATER TO REQUIRED ONE FOOT.

POND CAPACITY CONSIDERED ONLY FROM ELEVATION OF 84 TO 93. AVAILABLE CAPACITY = 15.1 AC.FT.

THE COEFFICIENT OF PERMEABILITY AVG FOR THE SITE AT THE ELEVATION OF 84.0 IS 34.45 IN./DAY.

FLOW FROM THE SITE VERTICALLY INTO THE WATER TABLE WOULD BE CALCULATED FROM $Q = KHA/NB$
 $H = 9$ FOOT TOTAL AVERAGE HEAD
 $NB =$ THICKNESS OF SAND LAYER AFFECTING FLOW = 3 FT.
 $K =$ PERM. FACTOR

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FROM: _____

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COPIES TO:

(VERTICAL FLOW) = $4.57 \text{ (IN/IN)} (5.0 \text{ IN/IN}) / 3 \text{ FT.}$
 $\phi = 174 \text{ FT}^3/\text{MIN.}$
SINCE THERE IS SUCH A SMALL AMOUNT OF SIDE SLOPE AREA TO CONSIDER WE WILL NOT CONSIDER ANY LATERAL FLOW AND CONSIDER ONLY THE VERTICAL FLOW.
BY CRITERIA OF DESIGN THE POND IS TO BE DISCHARGED IN FOUR DAYS TIME.
INFLOW AMOUNT = 82 AC.FT. = 574,992 CF.
W. A RATE OF DISCHARGE OF $174 \text{ FT}^3/\text{MIN.}$
TOTAL TIME = $574,992 / 174 = 3305 \text{ MIN.}$
= 55 HOURS OR 2.3 DAYS.
SO WITH AVERAGE MAINTENANCE THE POND WILL BE MAINTAINED AS A FUNCTIONAL PART OF THIS DEVELOPMENT.

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NOTE - SIDE SLOPES AND TOP AREA OF RETENTION SITE SHOULD BE SEEDED AND MULCHED. THE POND IS A RETENTION POND DESIGN WITH NO SLOW RELEASE OR PUMP STATION SYSTEM TO GUARANTEE DISCHARGE OTHER THAN DESIGN VERTICAL FLOW INTO THE WATER TABLE LEVELS. THEREFORE IT IS STRONGLY RECOMMENDED THAT SOME MAINTENANCE PRACTICE OR GUARANTEE BE ESTABLISHED TO INSURE THAT THE POND WILL IN FACT REMAIN AS A FUNCTIONAL PART OF THIS DEVELOPMENT.

BAUGHMAN COMPANY, P.A.
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CONFIRMATION MEMO

PROJECT: _____

DATE: _____

TO: _____

FROM: _____

REFERENCE: _____

COPIES TO:

15 June 1983

Mr. B. A. Ruedebusch
3200 S.E. Boulevard
Wichita, Kansas 67216

Re: Falling Head Permeability Tests
A/L File No. 50-83016-1530

Sir:

We have completed the referenced falling head permeability tests on samples delivered to the laboratory. Results of the tests are as follows:

- East Side
Coefficient of permeability "k" = $1.07 \times 10^{-3} \text{ cm/sec}$
= 36.3 in/day
- West Side
Coefficient of permeability "k" = $9.57 \times 10^{-4} \text{ cm/sec}$
= 32.6 in/day

All tests were conducted in accordance with Chapter VI of Lambe's "Soil Testing for Engineers".

If there are any questions concerning this data, please call at your convenience.

Respectfully submitted,

ALLIED LABORATORIES

John S. McDaniel, Jr.
Manager, Geo-Test Division

COPY