



City of Albuquerque

September 15, 2000

Gregory J. Krenik, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, NM 87199

**RE: FURR'S VENTURA GAS STATION, NORTH ALBUQUERQUE ACRES (C20-D28)²⁰²⁴
DRAINAGE REPORT, GRADING AND DRAINAGE PLAN FOR SITE
DEVELOPMENT PLAN FOR BUILDING PERMIT, GRADING PERMIT AND
BUILDING PERMIT APPROVALS. ENGINEER'S STAMP DATED AUGUST 25,
2000.**

Dear Mr. Krenik:

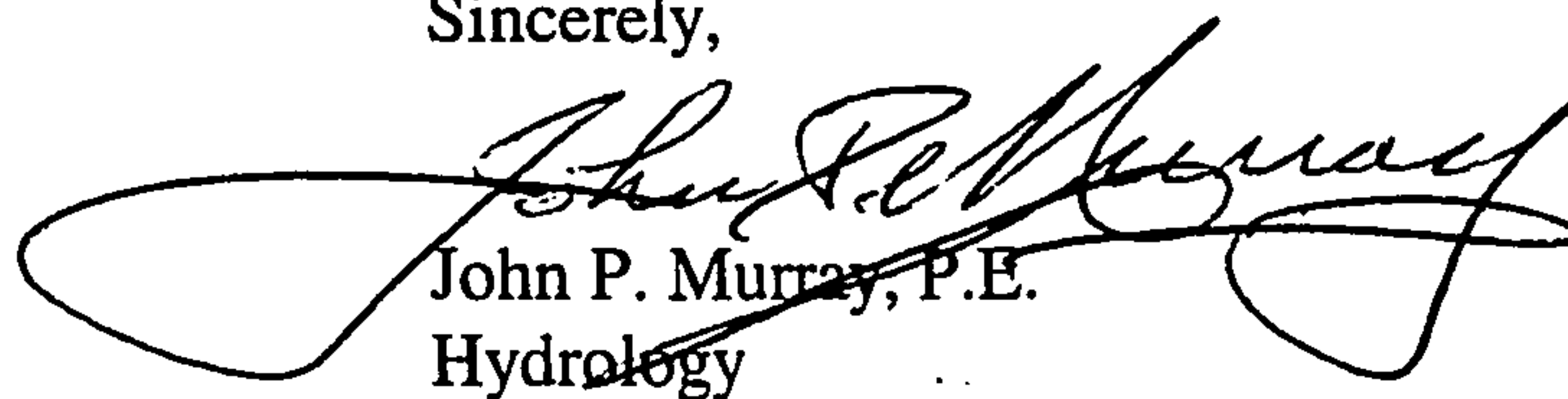
Based on the information provided on your August 25, 2000 submittal, the above referenced project is approved for Site Development Plan for Building Permit, Grading Permit and Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,


John P. Murray, P.E.
Hydrology

c: Whitney Reiersen
✓ File

See also
C20/D16
FURR'S

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Furr's - Ventura Gas Station ZONE/ATLAS/DRNG, FILE# C-20 / 100284*
DRB#: _____ EPC# _____ WORK ORDER#: _____
LEGAL DESCRIPTION: Tract C, Block 19, Unit 3, Tract 3, North Albuquerque Acres
CITY ADDRESS: _____

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Gregory J. Krenik, PE
ADDRESS:	P.O. Box 90606, Albuquerque, NM 87199	PHONE:	828-2200
OWNER:	Furr's	CONTACT:	G.T. Mason
ADDRESS:	4411 The 25 Way, Suite 100, Albuquerque, NM 87109	PHONE:	998-3877
ARCHITECT:	George Rainhart Architect	CONTACT:	Mike Salvador
ADDRESS:	2325 San Pedro, Suite 2B, Albuquerque, NM 87110	PHONE:	884-9110
SURVEYOR:	N/A	CONTACT:	_____
ADDRESS:	_____	PHONE:	_____
CONTACTOR:	N/A	CONTACT:	_____
ADDRESS:	_____	PHONE:	_____

TYPE OF SUBMITTAL:

☒ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL
☐ ENGINEER'S CERTIFICATION
☐ OTHER
☐ EASEMENT VACATION

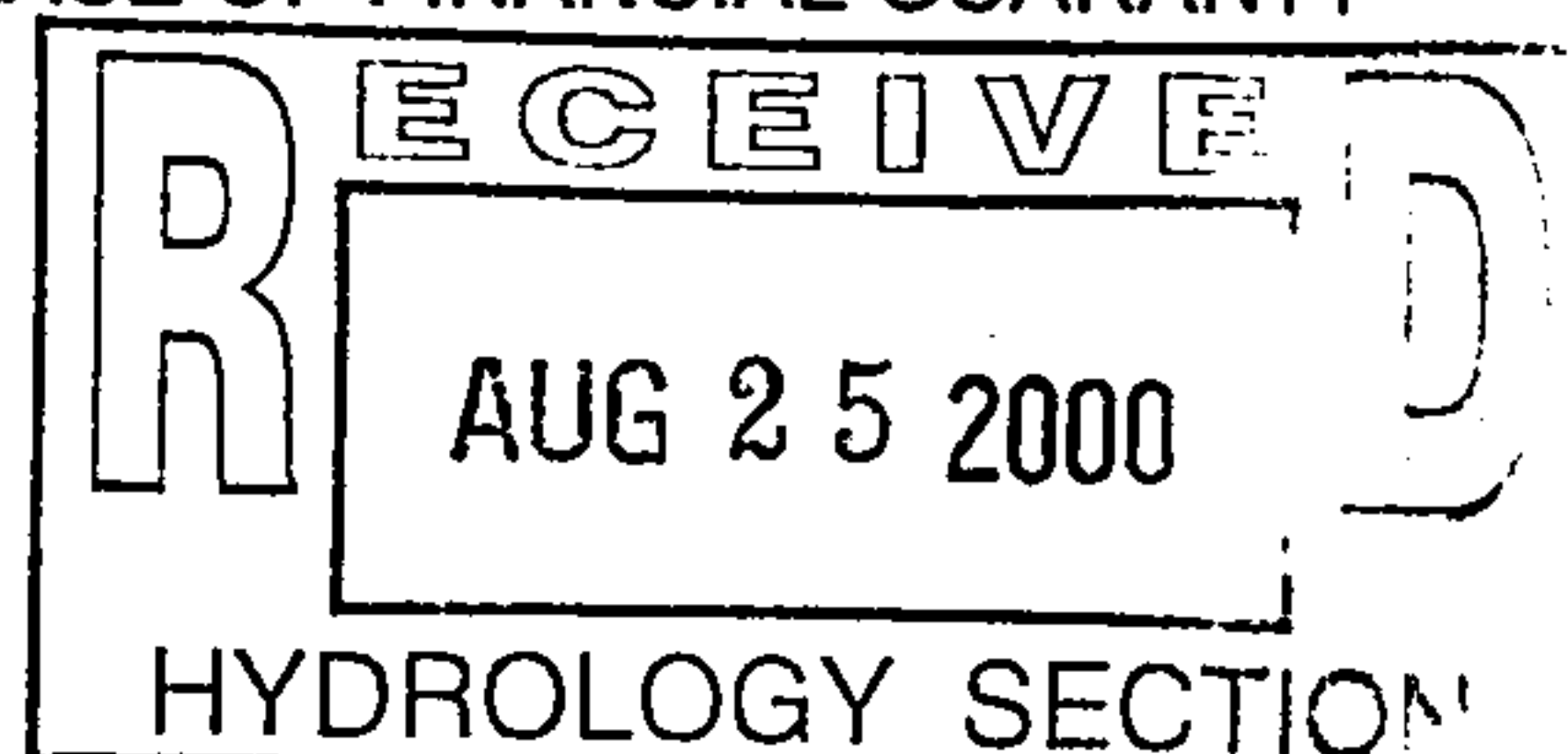
PRE-DESIGN MEETING:

☐ YES
☒ NO
☐ COPY PROVIDED

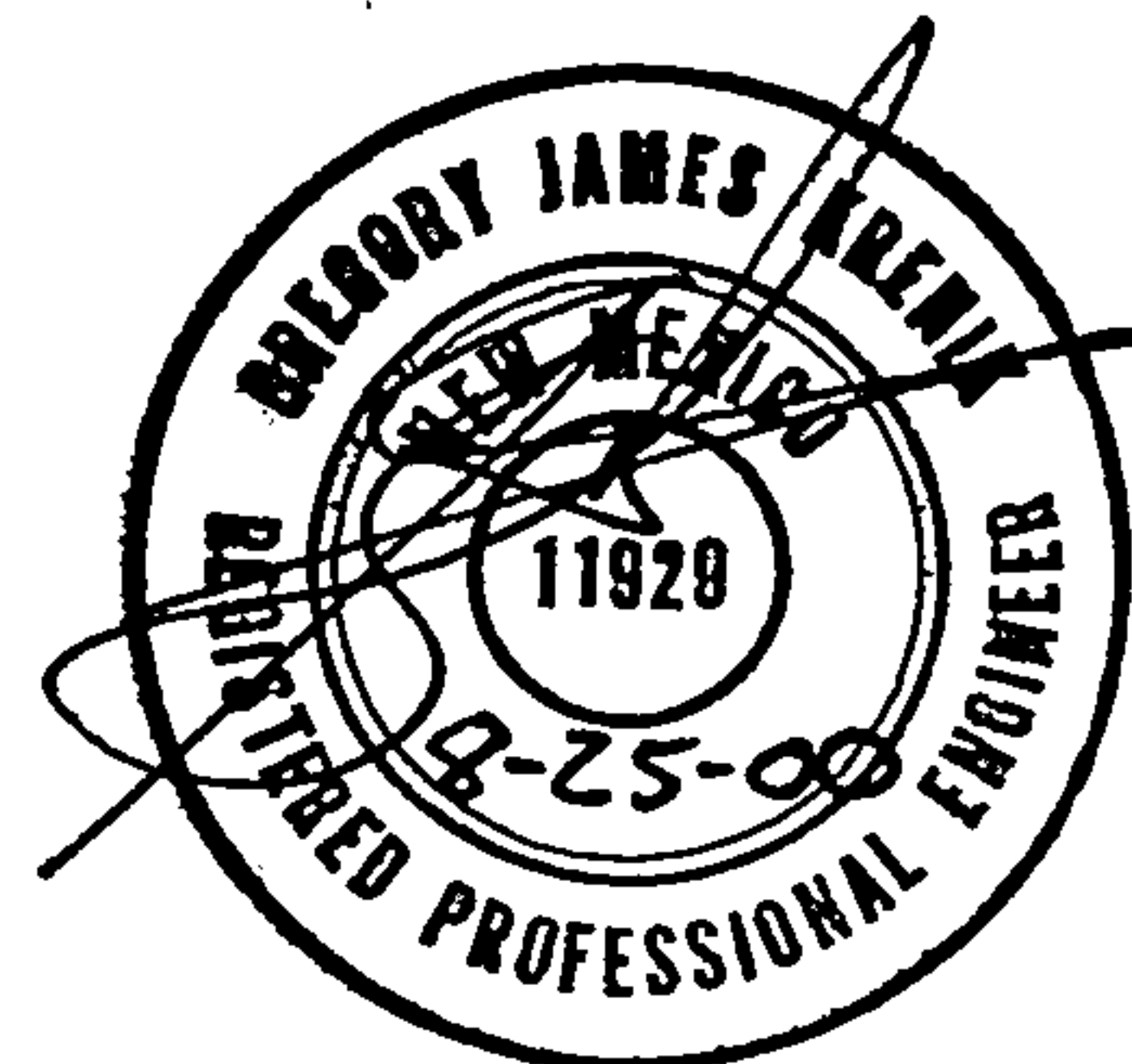
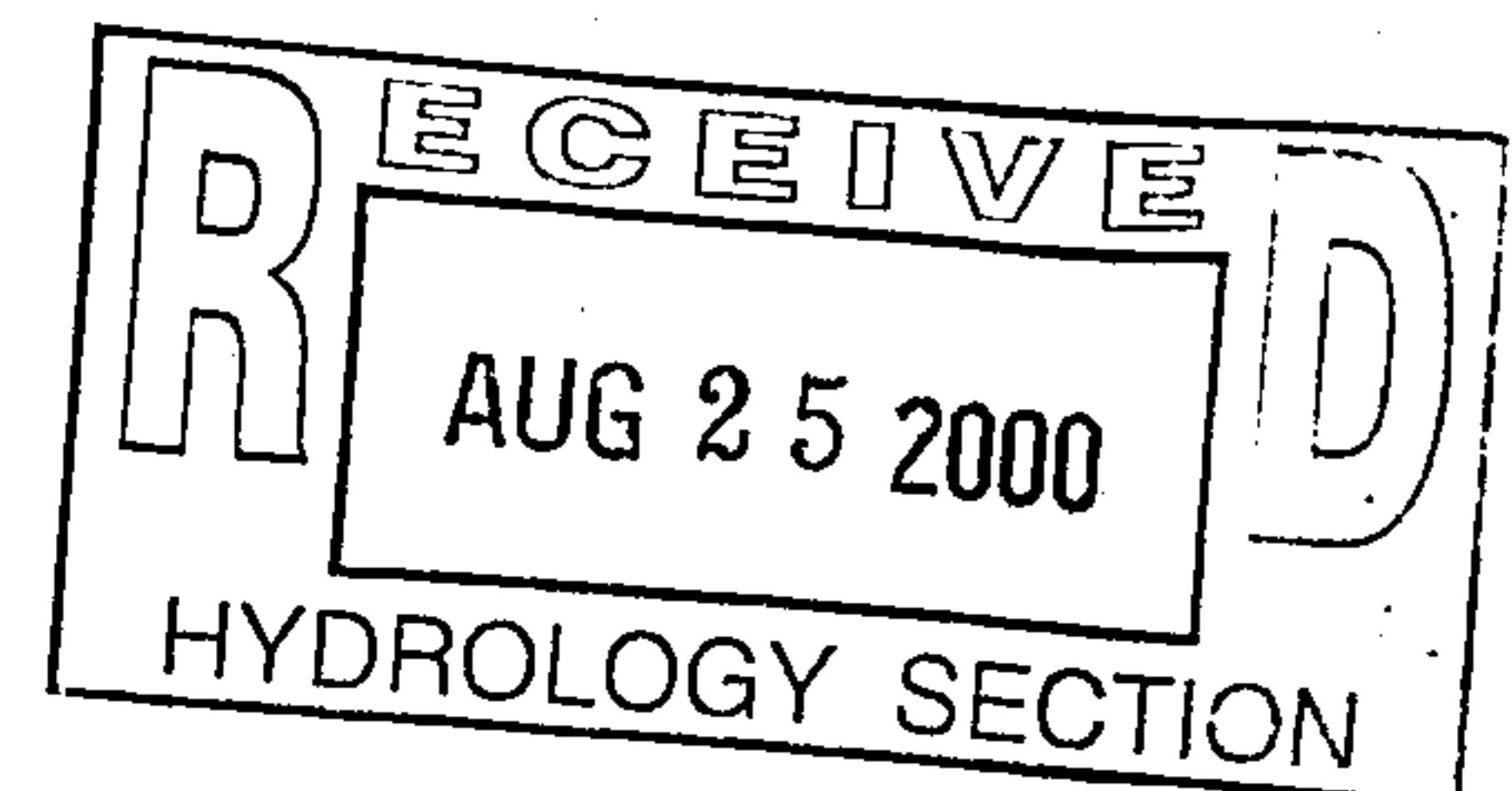
CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☒ S. DEV. PLAN FOR BLDG PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ CERTIFICATION OF OCCUPANCY APPROVAL
☒ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER
☐ RELEASE OF FINANCIAL GUARANTY

DATE SUBMITTED: 8-25-00
BY: Gregory J. Krenik, PE



DRAINAGE CALCULATIONS
FOR
FURR'S VENTURA GAS STATION
"TRACT C"



START TIME=0.0
 ***** HYDROGRAPH FOR TRACT C DETENTION POND
 RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
 RAIN ONE=2.18 IN RAIN SIX=2.60 IN
 RAIN DAY=3.10 IN DT=0.03333 HR
 *
 COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.001184 SQ MI
 PER A=0 PER B=12.24 PER C=0 PER D=87.76
 TP=0.1333 HR MASS RAINFALL=-1
 PRINT HYD ID=1 CODE=1
 *****RESERVOIR ROUTE THE DEVELOPED STORM - *2-4" PIPES*
 ROUTE RESERVOIR ID=5 HYD NO=101.5 INFLOW ID=1 CODE=24

OUTFLOW (CFS)	STORAGE (AC-FT)	ELEVATION (FT)
0.0	0.0	52.5
0.48	0.026	53.0
0.96	0.075	54.0

 PRINT HYD ID=5 CODE=1
 FINISH

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January,
1994

RUN DATE (MON/DAY/YR) = 08/24/2000

START TIME (HR:MIN:SEC) = 16:58:49

USER NO. =

M_GOODWN.I01

INPUT FILE = FURTRCPD.DAT

START

TIME=0.0

***** HYDROGRAPH FOR TRACT C DETENTION POND

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.18 IN RAIN SIX=2.60 IN

RAIN DAY=3.10 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA
ATLAS 2 - PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 5.999400

HOURS

.0143	.0000	.0023	.0045	.0069	.0093	.0117
.0336	.0168	.0194	.0221	.0249	.0277	.0306
.0573	.0367	.0399	.0431	.0465	.0500	.0536
.0879	.0611	.0651	.0693	.0736	.0782	.0829
.1386	.0931	.0986	.1044	.1105	.1169	.1238
.9021	.1716	.2225	.2957	.3955	.5266	.6939
1.7771	1.1563	1.3922	1.4907	1.5739	1.6479	1.7152
2.1133	1.8347	1.8884	1.9388	1.9863	2.0310	2.0733
2.2987	2.1511	2.1871	2.2212	2.2536	2.2843	2.2917
2.3395	2.3053	2.3116	2.3176	2.3234	2.3290	2.3343
2.3715	2.3445	2.3493	2.3540	2.3586	2.3630	2.3673
2.3983	2.3756	2.3796	2.3835	2.3874	2.3911	2.3948
2.4216	2.4018	2.4053	2.4087	2.4120	2.4152	2.4184
2.4422	2.4247	2.4277	2.4307	2.4337	2.4366	2.4394
2.4609	2.4450	2.4477	2.4504	2.4531	2.4557	2.4583
2.4780	2.4634	2.4659	2.4684	2.4708	2.4732	2.4756
2.4938	2.4803	2.4826	2.4849	2.4872	2.4894	2.4916
2.5085	2.4959	2.4981	2.5002	2.5023	2.5044	2.5065
2.5223	2.5105	2.5125	2.5145	2.5165	2.5184	2.5204
2.5353	2.5242	2.5261	2.5280	2.5298	2.5317	2.5335
2.5476	2.5371	2.5389	2.5407	2.5424	2.5442	2.5459
	2.5493	2.5510	2.5527	2.5544	2.5561	2.5577

2.5594
2.5705
2.5812
2.5915
2.5610 2.5626 2.5642 2.5658 2.5674 2.5690
2.5721 2.5736 2.5752 2.5767 2.5782 2.5797
2.5827 2.5842 2.5857 2.5871 2.5886 2.5901
2.5929 2.5944 2.5958 2.5972 2.5986 2.6000

*
COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.001184 SQ MI
PER A=0 PER B=12.24 PER C=0 PER D=87.76
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000
SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 4.1023 CFS UNIT VOLUME = .9965 B =
526.28 P60 = 2.1800
AREA = .001039 SQ MI IA = .10000 INCHES INF =
.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
METHOD - DT = .033330

K = .134138HR TP = .133300HR K/TP RATIO = 1.006290
SHAPE CONSTANT, N = 3.508034
UNIT PEAK = .34889 CFS UNIT VOLUME = .9623 B =
320.91 P60 = 2.1800
AREA = .000145 SQ MI IA = .50000 INCHES INF =
1.25000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
METHOD - DT = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 2.18589 INCHES = .1380 ACRE-FEET
PEAK DISCHARGE RATE = 3.66 CFS AT 1.500 HOURS BASIN
AREA = .0012 SQ. MI.

*****RESERVOIR ROUTE THE DEVELOPED STORM - 6" ORIFICE
ROUTE RESERVOIR ID=5 HYD NO=101.5 INFLOW ID=1 CODE=24
OUTFLOW (CFS) STORAGE(AC-FT)
ELEVATION(FT)

0.0	0.0	52.5
0.48	0.026	53.0
0.96	0.075	54.0

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	52.50	.000	.00
.80	.00	52.50	.000	.00
1.60	2.54	53.61	.056	.77
2.40	.16	53.64	.058	.79

5

3.20	.04	52.93	.022	.41
4.00	.03	52.65	.008	.14
4.80	.02	52.56	.003	.06
5.60	.03	52.54	.002	.04
6.40	.00	52.52	.001	.02
7.20	.00	52.51	.000	.01
8.00	.00	52.50	.000	.00

PEAK DISCHARGE = .938 CFS - PEAK OCCURS AT HOUR 1.97
MAXIMUM WATER SURFACE ELEVATION = 53.953
MAXIMUM STORAGE = .0727 AC-FT INCREMENTAL TIME=
.033330HRS

PRINT HYD ID=5 CODE=1

PARTIAL HYDROGRAPH 101.50

RUNOFF VOLUME = 2.18564 INCHES = .1380 ACRE-FEET
PEAK DISCHARGE RATE = .94 CFS AT 1.966 HOURS BASIN
AREA = .0012 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 16:58:49