City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 2, 1992

Mark Goodwin
D. Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

RE: RE: DRAINAGE PLAN FOR PRESBYTERIAN RADIATION THERAPY (J19-D57)
ENGINEER'S STAMP DATED 10/26/92.

Dear Mr. Goodwin:

Based on the information provided on your October 26, 1992 submittal, the above referenced drainage plan is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Also, please be advised that any roof run-off entering a landscaped area will need to be provided with a curb cut to access water onto the paved area.

If I can be of further assistance, please feel free to call me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineering Assistant

BJM/dl/WPHYD/3746

xc: Alan Martinez
File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Presbyterian Radiation Therapy ZONE ATLAS/DRNG.FILE#: J-19 / D57

LEGAL DESCRIPTION: Tract C of the East End Addition
CITY ADDRESS: 8020 Constitution Place NE

ENGINEERING FIRM: D. Mark Goodwin & Assoc., PA CONTACT: John M. MacKenzie, PE
ADDRESS: P.O. Box 90606 Albuq., NM 87199 PHONE: 828-2200

OWNER: Presbyterian Healthcare Services CONTACT: Richard Vigliano
ADDRESS: 4775 Indian School NE PHONE: 260-6330

ARCHITECT: Steven, Mallory, Pearl & Campbell CONTACT: David Hassard
ADDRESS: 115 Amherst NE PHONE: 255-8668

SURVEYOR: D. Mark Goodwin & Assoc, PA CONTACT: Richard Borgel
ADDRESS: P.O. Box 90606 PHONE: 828-2200

CONTRACTOR: N/A CONTACT:
ADDRESS: PHONE:

PRE-DESIGN MEETING

____ YES
XX NO
____ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____
EPC NO. _____
PROJ NO. _____

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OCT 26 1992
HYDROLOGY DIVISION

TYPE OF SUBMITTAL

____ DRAINAGE REPORT
XX DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
XX GRADING PLAN
____ EROSION PLAN
____ ENGINEER'S CERTIFICATION

TYPE OF APPROVAL SOUGHT

____ SKETCH PLAT APPROVAL
XX PRELIMINARY PLAT APPROVAL
____ SITE DEVELOPMENT PLAN APPROVAL
XX FINAL PLAT APPROVAL
XX BUILDING PERMIT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ CERTIFICATION OF OCCUPANCY APPROVAL
____ ROUGH GRADING PERMIT APPROVAL
____ GRADING / PAVING PERMIT APPROVAL
____ OTHER _____

DATE SUBMITTED: October 26, 1992

BY: John M. MacKenzie
John M. MacKenzie, PE

D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

JOB Presbyterian Radiation Therapy
SUBJECT Drainage
JOB NO. 92-69 SHEET 1 OF 4
BY JMM DATE 10/26/92
CHECKED _____ DATE _____

This plan involves the expansion of an existing lot to accommodate an addition to Presbyterian's Radiation Therapy Facility. The existing lot line will be moved approximately 63 feet to the southeast to which the new parking lot will extend.

The area involving this expansion will drain toward the south and west into the existing concrete swale. The capacity of this swale will allow free discharge based upon an evaluation by Jake Bordenave, approved 9/27/84. Refer to File No. J 19/D22A

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$Q = \frac{2}{3} L \sqrt{2g} h^{3/2}$

$\frac{2}{3}(2)(2(32.3))^{1/2}(.5)^{3/2}$

$(10.69)(.3535)$

3.78 cfs

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OCT 26 1992
YDRCLOG: 2

EXISTING CONDITION

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 AHYMO PROGRAM (AHYMO392) - AMAFCA VERSION OF HYMO - MARCH, 1992
      RUN DATE (MON/DAY/YR) = 10/23/1992
      START TIME (HR:MIN:SEC) = 10:37:07      USER NO.= Z_GOODWN.S92
      INPUT FILE = PRESBYT.RAD

***** WATERSHED HYDROGRAPH FOR THE PRESBYTERIAN RADIATION THERAPY-EXISTING

***** OCTOBER 1992

RAINFALL              TYPE=1 RAIN QUARTER=0.0 IN
                      RAIN ONE=2.06 IN RAIN SIX=2.49 IN
                      RAIN DAY=3.98 IN DT=0.0333 HR

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

DT = .033300 HOURS			END TIME =			5.994000 HOURS
.0000	.0025	.0050	.0076	.0103	.0130	.0157
.0186	.0215	.0244	.0275	.0306	.0338	.0371
.0405	.0439	.0475	.0512	.0550	.0590	.0631
.0673	.0717	.0763	.0810	.0860	.0912	.0966
.1024	.1084	.1148	.1205	.1265	.1330	.1465
.1772	.2247	.2929	.3863	.5090	.6656	.8607
1.0990	1.3277	1.4216	1.5005	1.5707	1.6344	1.6931
1.7476	1.7985	1.8462	1.8911	1.9335	1.9735	2.0114
2.0472	2.0812	2.1135	2.1442	2.1733	2.1816	2.1884
2.1948	2.2010	2.2069	2.2125	2.2180	2.2232	2.2283
2.2332	2.2380	2.2426	2.2471	2.2515	2.2557	2.2599
2.2639	2.2679	2.2718	2.2755	2.2792	2.2829	2.2864
2.2899	2.2933	2.2967	2.3000	2.3032	2.3064	2.3095
2.3126	2.3157	2.3187	2.3216	2.3245	2.3274	2.3302
2.3329	2.3357	2.3384	2.3411	2.3437	2.3463	2.3489
2.3514	2.3539	2.3564	2.3588	2.3613	2.3637	2.3660
2.3681	2.3707	2.3730	2.3752	2.3775	2.3797	2.3819

2.3988	2.4008	2.4029	2.4048	2.4068	2.4088	2.4107
2.4127	2.4146	2.4165	2.4183	2.4202	2.4221	2.4239
2.4257	2.4275	2.4293	2.4311	2.4329	2.4347	2.4364
2.4382	2.4399	2.4416	2.4433	2.4450	2.4467	2.4483
2.4500	2.4516	2.4533	2.4549	2.4565	2.4581	2.4597
2.4613	2.4629	2.4644	2.4660	2.4675	2.4691	2.4706
2.4721	2.4736	2.4751	2.4766	2.4781	2.4796	2.4811
2.4825	2.4840	2.4854	2.4869	2.4883	2.4897	

p 3 of 4

COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.000321 SQ MI

PER A=60.0 PER B=0.0 PER C=40.0 PER D=0.0

TP=0.1333 HR MASS RAINFALL=-1

K = .138540HR TP = .133300HR K/TP RATIO = 1.039312 SHAPE CONSTANT, N = 3.396646

UNIT PEAK = .75303 CFS UNIT VOLUME = .9816 B = 312.71 P60 = 2.0600

AREA = .000321 SQ MI IA = .53000 INCHES INF = 1.33400 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = .78957 INCHES = .0135 ACRE-FEET

PEAK DISCHARGE RATE = .48 CFS AT 1.532 HOURS BASIN AREA = .0003 SQ. MI.

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OCT 26 1992
HYDROLOGY DIVISION

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:37:07

DEVELOPED CONDITION

AHYMO PROGRAM (AHYM0392) - AMAFCA VERSION OF HYMO - MARCH, 1992

RUN DATE (MON/DAY/YR) = 10/23/1992

START TIME (HR:MIN:SEC) = 10:46:30 USER NO.= Z_GOODWN.S92

INPUT FILE = PRESBYT.RAD

*****WATERSHED HYDROGRAPH FOR THE PRESBYTERIAN RADIATION THERAPY-DEVELOPED

*****OCTOBER 1992

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.06 IN RAIN SIX=2.49 IN

RAIN DAY=3.98 IN DT=0.0333 HR

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

DT = .033300 HOURS END TIME = 5.994000 HOURS

.0000	.0025	.0050	.0076	.0103	.0130	.0157
.0186	.0215	.0244	.0275	.0306	.0338	.0371
.0405	.0439	.0475	.0512	.0550	.0590	.0631

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.0673	.0717	.0763	.0810	.0860	.0912	.0966
.1024	.1084	.1148	.1205	.1265	.1330	.1465
.1772	.2247	.2929	.3863	.5090	.6656	.8607
1.0990	1.3277	1.4216	1.5005	1.5707	1.6344	1.6931
1.7476	1.7985	1.8462	1.8911	1.9335	1.9735	2.0114
2.0472	2.0812	2.1135	2.1442	2.1733	2.1816	2.1884
2.1948	2.2010	2.2069	2.2125	2.2180	2.2232	2.2283
2.2332	2.2380	2.2426	2.2471	2.2515	2.2557	2.2599
2.2639	2.2679	2.2718	2.2755	2.2792	2.2829	2.2864
2.2899	2.2933	2.2967	2.3000	2.3032	2.3064	2.3095
2.3126	2.3157	2.3187	2.3216	2.3245	2.3274	2.3302
2.3329	2.3357	2.3384	2.3411	2.3437	2.3463	2.3489
2.3514	2.3539	2.3564	2.3588	2.3613	2.3637	2.3660
2.3684	2.3707	2.3730	2.3752	2.3775	2.3797	2.3819
2.3841	2.3863	2.3884	2.3905	2.3926	2.3947	2.3968
2.3988	2.4008	2.4029	2.4048	2.4068	2.4088	2.4107
2.4127	2.4146	2.4165	2.4183	2.4202	2.4221	2.4239
2.4257	2.4275	2.4293	2.4311	2.4329	2.4347	2.4364
2.4382	2.4399	2.4416	2.4433	2.4450	2.4467	2.4483
2.4500	2.4516	2.4533	2.4549	2.4565	2.4581	2.4597
2.4613	2.4629	2.4644	2.4660	2.4675	2.4691	2.4706
2.4721	2.4736	2.4751	2.4766	2.4781	2.4796	2.4811
2.4825	2.4840	2.4854	2.4869	2.4883	2.4897	

COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.000321 SQ MI

PER A=0.0 PER B=0.0 PER C=10.0 PER D=90.0

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420

UNIT PEAK = 1.1406 CFS UNIT VOLUME = .9896 B = 526.28

P60 = 2.0600

AREA = .000289 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .108010HR TP = .133300HR K/TP RATIO = .810277 SHAPE CONSTANT, N = 4.414578

UNIT PEAK = .91971E-01CFS UNIT VOLUME = .8773 B = 381.92

P60 = 2.0600

AREA = .000032 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 2.14301 INCHES = .0367 ACRE-FEET

PEAK DISCHARGE RATE = .98 CFS AT 1.499 HOURS BASIN AREA = .0003 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:46:30