City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 11, 2002

James D. Hughes, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: BROADWAY INDUSTRIAL CENTER UNIT 1 LOT 3 (M-14/D5)
(2700 Karsten SE) (Karsten Expansion)
ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY
ENGINEERS STAMP DATED 5/15/2002
ENGINEERS CERTIFICATION DATED 9/10/2002

Dear Mr. Hughes:

Based upon the information provided in your Engineers Certification submittal dated 9/10/2002, the above referenced site is approved for Permanent Certificate of Occupancy.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,

Teresa A. Martin

Teresa A. Martin
Hydrology Plan Checker
Development & Bldg. Ser. Division

C: Certificate of Occupancy Clerk, COA
approval file
drainage file

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

M-14/D5

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV.1/11/2002)

PROJECT TITLE: KARSTEN MANUFACTURING EXPANSION ZONE MAP/DRB FILE#: M-14-Z

DRB# _____ EPC# _____ WORK ORDER#: _____

LEGAL DESCRIPTION: LOT 3, BROADWAY INDUSTRIAL CENTER, ALB., N.M.

CITY ADDRESS: _____

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: DOUG HUGHES, P.E.

ADDRESS: P.O. Box 90606 Albuquerque NM 87119 PHONE: 828-2200

CITY, STATE: Albuquerque NM ZIP CODE: 87119

OWNER: KARSTEN MANUFACTURING CONTACT: Clay Latimer

ADDRESS 2700 Karsten S.E. PHONE: 242.5580

CITY, STATE: Albuquerque, N.M. 87102 ZIP CODE:

ARCHITECT: NIMS, CALVANI & ASSOC. CONTACT: Chuck Carlson

ADDRESS. 525 San Pedro N.E. Ste. 110 PHONE: 505-255-6400

CITY, STATE: Alb. N.M. ZIP CODE: 87108

SURVEYOR: _____ CONTACT. _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE. _____

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ____ EROSION CONTROL PLAN
- ____ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- X ENGINEER'S CERTIFICATION (TCL)
- ____ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
- ____ OTHER

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- X NO
- ____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SIA / FINANCIAL GUARANTY RELEASE
- ____ PRELIMINARY PLAT APRROVAL
- ____ 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
- X CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TEMP)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

RECEIVED SEP 1 0 2002 HYDROLOGY SECTION

DATE SUBMITTED: 9-10-02 BY: James D. Hughes

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of to the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5).
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5).
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

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City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 24, 2002

Doug Hughes
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, New Mexico 87119

RE: Drainage and Grading Plan for Karsten Manufacturing Expansion (M14-D[redacted])
Dated May 15, 2002

M-14/D5

Dear Mr. Hughes:

The above referenced drainage plan received May 16, 2002 is approved for building permit. Prior to the release of the Certificate of Occupancy the engineer will need to certify the project per the DPM.

If you have any questions please contact me 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

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

P.O. Box 90606 ❖ Albuquerque, NM 87199
(505) 828-2200 ❖ (505) 797-9539 fax
e-mail: dmg@swcp.com

LETTER OF TRANSMITTAL

TO: Carlos A. Montoya
City of Albuquerque
Hydrology Dept.

DATE: May 15, 2002

Karsten Manufacturing
Expansion

M14/D5

We are sending:

Quantity	Date	Description
1		Revised Plan per your comments in letter of 5-10-02
1		Copy of Approved Grading & Drainage Plan Sheet C-2 dated 11-97

✔ For your approval ✔ For your records

____ As you requested ____ For your comments

____ Pre-Design Meeting

RECEIVED
MAY 16 2002
HYDROLOGY SECTION

Project Engineer James D. Hughes, PE.

SIGNED: Bernadette Mares
Bernadette Mares

f:\\forms\transmittal letter

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

M-14/D5

(REV.1/11/2002)

PROJECT TITLE: KARSTEN MANUFACTURING EXPAN. ZONE MAP/DRB FILE#: M-14-Z

DRB#: _____ EPC# _____ WORK ORDER#: _____

LEGAL DESCRIPTION: LOT 3, BROADWAY INDUSTRIAL CENTER, ALB., N.M.

CITY ADDRESS:

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: DOUG HUGHES, P.E.

ADDRESS: P.O. Box 90606 Albuquerque NM 87119 PHONE: 828-2200

CITY, STATE: Albuquerque NM ZIP CODE: 87119

OWNER: KARSTEN MANUFACTURING CONTACT: CLAY LATIMER

ADDRESS: 2700 KARSTEN S.E. PHONE: 242-5580

CITY, STATE: ALBUQUERQUE, N.M. 87102 ZIP CODE:

ARCHITECT: NIMS, CALVANI & ASSOC. CONTACT: CHUCK CARLSON

ADDRESS: 525 SAN PEDRO N.E., Ste. 110 PHONE: 505-255-6400

CITY, STATE: ALB., N.M. ZIP CODE: 87108

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE. _____

TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- X DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ___ CLOMR/LOMR
- ___ TRAFFIC CIRCULATION LAYOUT (TCL)
- ___ ENGINEER'S CERTIFICATION (TCL)
- ___ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
- ___ OTHER

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ___ YES
- X NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SIA / FINANCIAL GUARANTY RELEASE
- ___ PRELIMINARY PLAT APRROVAL
- ___ S. DEV. PLAN FOR SUB'D. APPROVAL
- ___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY (PERM)
- ___ CERTIFICATE OF OCCUPANCY (TEMP)
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ WORK ORDER APPROVAL
- ___ OTHER (SPECIFY)

RECEIVED MAY 16 2002 HYDROLOGY SECTION

DATE SUBMITTED: 5-16-02 BY: Dave Stars

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of to the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5).
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5).
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

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

P.O. Box 90606 ❖ Albuquerque, NM 87199
(505) 828-2200 ❖ (505) 797-9539 fax
e-mail: dmg@swcp.com

LETTER OF TRANSMITTAL

TO: CITY OF ALBUQUERQUE
Hydrology Dept.

DATE: APRIL 26, 2002

Karsten Manufacturing
Lot 3, Broadway Industrial
Center, Alb N.M.

We are sending:

Quantity	Date	Description
1		Grading & Drainage Plan

X For your approval

____ For your information

____ As you requested

____ For your comments

____ Pre-Design Meeting

Project Engineer DOUG HUGHES, P.E.

SIGNED: Dave Stars

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City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 10, 2002

Doug Hughes
Mark Goodwin & Associates, PA
P.O. Box 90606
Albuquerque, New Mexico 87119

M-14/D5

RE: Drainage and Grading Plan for Karsten Manufacturing Expansion ~~(M14-D138)~~
Dated April 26, 2002

Dear Mr. Hughes:

I have reviewed the referenced drainage plan received April 29, 2002 and forward the following comments.

1. The symbol used for the pond is not correct. The pond bottom is not shown in the correct location.
2. Please show some existing spot elevations for the pond.
3. As you mention the plan was approved as a future improvement. Please submit so I can approve this building permit.

If you have any questions please contact me 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV.1/11/2002)

M14-D5

PROJECT TITLE: KARSTEN MANUFACTURING EXPANSION ZONE MAP/DRB.FILE#: M-14-Z

DRB#: _____ EPC# _____ WORK ORDER#: _____

LEGAL DESCRIPTION: LOT 3, BROADWAY INDUSTRIAL CENTER, ALB., N.M.

CITY ADDRESS: _____

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: DOUG HUGHES, P.E.

ADDRESS: P.O. Box 90606 Albuquerque NM 87119 PHONE: 828-2200

CITY, STATE: Albuquerque NM ZIP CODE: 87119

OWNER: KARSTEN MANUFACTURING CONTACT: Clay Latimer

ADDRESS: 2700 Karsten S.E. PHONE: 242.5580

CITY, STATE: Albuquerque, N.M. 87102 ZIP CODE:

ARCHITECT: NIMS, CALVANI & ASSOC. CONTACT: Chuck Carlson

ADDRESS: 525 San Pedro N.E. Ste. 110 PHONE: 505-255-6400

CITY, STATE: Alb. N.M. ZIP CODE: 87108

SURVEYOR: _____ CONTACT. _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- X DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ____ EROSION CONTROL PLAN
- ____ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERTIFICATION (TCL)
- ____ ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
- ____ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SIA / FINANCIAL GUARANTY RELEASE
- ____ PRELIMINARY PLAT APRROVAL
- ____ S. DEV. PLAN FOR SUB'D. APPROVAL
- ____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TEMP)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- X NO
- ____ COPY PROVIDED

RECEIVED APR 29 2002 HYDROLOGY SECTION

DATE SUBMITTED: 4-26-02 BY: James D. Hughes

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of to the following levels of submittal may be required based on the following:

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3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

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DRAINAGE INFORMATION SHEET

New File D5

PROJECT TITLE: Golden Ventures LLC ZONE ATLAS/DRNG.FILE#: M14 - [redacted]

DRB #: 97-271 EPC #: WORK ORDER #:

LEGAL DESCRIPTION: Lot 3, Broadway Industrial Center

CITY ADDRESS: 2700 Karsten Ct. S. E.

ENGINEERING FIRM: D Mark Goodwin & Assoc. CONTACT: Doug Hughes

ADDRESS: PO Box 90606 Albuquerque NM 87199 PHONE: 828-2200

OWNER: Golden Ventures LLC CONTACT: ~~J.P. Darling~~ Clay Latimer

ADDRESS: PHONE: 909-927-7985

ARCHITECT: J.P. Darling CONTACT: J.P.

ADDRESS: PHONE: 714 379

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: Cam Co Pacific CONTACT: Duane Campbell

ADDRESS: PHONE: 714-424-9500

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
___ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
X ENGINEER'S CERTIFICATION Temporary
___ OTHER

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
Temporary ✓ CERTIFICATION OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (Specify)

30 day Temp C.O. on 7-14-98

DATE SUBMITTED: 7-14-98

BY: Janelle D. Beyl

RECEIVED
JUL 13 1998
HYDROLOGY SECTION

1" = 100'

GIS PRODUCT REFERENCE: TIFF M-14 OPTIONS 85 10 02 PWPRV PWDCAM #QQCGRA

D.R.B. Case No. 97-~~217~~ 271
D.R.C. Project No.
10-28-97 Date Submitted ~~10/7/97~~
Prelim. Plat Approved
11-4-97 Prelim. Plat Expires

Stormdrain to include manholes, inlets, riprap and outfall.

Engineer's Certification for Private Grading and Drainage per DPM as shown on the Grading Plan for Release of SIA and Financial Guarantees.

Water infrastructure to include valves, fittings, valveboxes and fire hydrants.

Sanitary sewer to include manholes and service connections.

(1) Interior Sidewalk Construction Deferral
(2) Deferred Construction

Prepared By: James D. Hughes

Print Name: James D. Hughes, PE

Firm: Mark Goodwin & Associates, PA

Development Review Board Member Approvals

11-04-97 10-28-97	Transportation Dev. Date	11/4/97 10/28/97	Utility Dev. Date
11-4-97 10-28-97	Parks & General Services Date	11-4-97 10-28-97	Engineer/AMAFCA Date
11/4/97 10/28/97	DRB Chairman Date	N/A	NMUI Date

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JDH

D.R.B. Case No. 97-~~217~~ 271
D.R.C. Project No.
Date Submitted ~~10/7/97~~ 10-28
Prelim. Plat Approved ~~10-28-97~~
Prelim. Plat Expires
11-4-97 DHA

Figure 12

EXHIBIT "A"
To Subdivision Improvements Agreement
DEVELOPMENT REVIEW BOARD (DRB) REQUIRED INFRASTRUCTURE LISTING
for Broadway Industrial Center, Units 1 and 2

Following is a summary of Public/Private Infrastructure required to be constructed or financially guaranteed to be constructed for the above development. This summary is not necessarily a complete listing. During the design process, if the City determines that appurtenant items have not been included in the summary, those items will be included in the listing and related financial guarantee, if the items normally are the Subdivider responsibility. In addition, any unforseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility are the responsibility of the Subdivider and will be included in the financial guarantee provided to the City.

Size	Type Improvement	Location	From	To
		UNIT I		
	TRANSPORTATION			
6'	Sidewalk Std C & G (EAST Side)	Broadway Blvd	N Prop Line	San Jose Ave
12'	Rt turn Ln w/art pvmt Std C & G (per TIS) 6' Sidewalk (EAST Side)	Broadway Blvd	San Jose Ave	Bethel Ave
12'	Med modification & art pvmt for left turn lane per TIS	Broadway Blvd	Alamo Ave	San Jose Ave
N/A	Restriping (per TIS)	Intersection of Broadway Blvd @ Gibson Rd		
40' FF	Industrial pvmt Std C & G (Both sides) 6' Sidewalk (S side)[1]	San Jose Ave	Broadway Blvd	E. TERMINUS
24' FF[2]	Res Pvmt ~~(Alternation)~~ Std C & G (North Side)	Bethel Ave	Broadway Blvd	E end cul-de-sac

271

11-4-97 DWK D.R.B. Case No. ~~97-217~~
D.R.C. Project No.
~~10-23-97~~ Date Submitted ~~10/7/97~~
Prelim. Plat Approved
Prelim. Plat Expires

Size	Type Improvement	Location	From	To
	UTILITIES			
8"	Sanitary Sewer	Broadway Blvd	Bethel Ave	San Jose Ave
8"	Sanitary Sewer	35' Esmt	Exist 8" SAS in Bethel Ave	S end of Karstan Ct
10"	Waterline	San Jose Ave	Exist 20" WL in Broadway Blvd	Karstan Ct
10"	Waterline	Karstan Ct	San Jose Ave	S end Karstan Ct
6"	Waterline	35' Easement	Exist 6" WL in Bethel Ave	S end Karstan Ct
	STORM			
DWK ~~Per Design~~ 18"-24"	Storm Sewer	Intersection of San Jose Ave & Broadway Blvd		
DWK ~~Per Design~~ 36"	Storm Sewer	Intersection of San Jose Ave & Karstan Ct		
DWK ~~Per Design~~ 18"	Storm Sewer	Broadway @ Lot line btw Lot 5 and 6		
	UNIT 2			
	TRANSPORTATION			
40' FF	Industrial pvmt Std C & G (Both Sides) 6' Sidewalk (W side)(1)	Karstan Ct	San Jose Ave	S end of cul-de-sac
	STORM DRAINAGE			
DWK ~~Per Design~~ 18"-~~24"~~ 36"	Storm Sewer	Bethel Ave & storm esmt, Lot 1	Broadway Blvd	Karstan Ct
Per Design [redacted]	Temp retention pond	Temp esmt, Lot 1		

```
AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 10/30/1997
     START TIME (HR:MIN:SEC) = 16:01:27     USER NO.= M_GOODWN.I01
     INPUT FILE = KAR99.DAT

START                TIME=0.0
***** GOLDEN VENTURES L.L.C.
***** GRADING PLAN FOR BUILDING PERMIT ON LOT #3 BROADWAY INDUSTRIAL CENTER
***** 100-YEAR 6-HOUR STORM EVENT
***** OCT. 28, 1997
RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=1.97 IN RAIN SIX=2.29 IN
                     RAIN DAY=2.65 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   .0015   .0029   .0045   .0060   .0076   .0092
               .0109   .0126   .0143   .0161   .0180   .0199   .0218
               .0238   .0258   .0280   .0302   .0324   .0348   .0372
               .0397   .0423   .0450   .0479   .0508   .0539   .0572
               .0606   .0642   .0680   .0734   .0792   .0854   .0982
               .1277   .1731   .2383   .3276   .4449   .5947   .7813
              1.0091  1.2279  1.3176  1.3932  1.4602  1.5212  1.5773
              1.6295  1.6781  1.7238  1.7667  1.8072  1.8455  1.8817
              1.9160  1.9485  1.9794  2.0087  2.0365  2.0439  2.0498
              2.0553  2.0606  2.0656  2.0705  2.0751  2.0795  2.0838
              2.0879  2.0919  2.0958  2.0995  2.1031  2.1067  2.1101
              2.1134  2.1167  2.1199  2.1230  2.1260  2.1290  2.1319
              2.1347  2.1375  2.1402  2.1429  2.1455  2.1480  2.1506
              2.1530  2.1555  2.1579  2.1602  2.1625  2.1648  2.1671
              2.1693  2.1714  2.1736  2.1757  2.1778  2.1798  2.1819
              2.1839  2.1858  2.1878  2.1897  2.1916  2.1935  2.1954
              2.1972  2.1990  2.2008  2.2026  2.2043  2.2060  2.2078
              2.2095  2.2111  2.2128  2.2144  2.2161  2.2177  2.2193
              2.2208  2.2224  2.2240  2.2255  2.2270  2.2285  2.2300
              2.2315  2.2330  2.2344  2.2359  2.2373  2.2387  2.2401
              2.2415  2.2429  2.2443  2.2456  2.2470  2.2483  2.2496
              2.2510  2.2523  2.2536  2.2549  2.2562  2.2574  2.2587
              2.2599  2.2612  2.2624  2.2636  2.2649  2.2661  2.2673
              2.2685  2.2697  2.2708  2.2720  2.2732  2.2743  2.2755
              2.2766  2.2778  2.2789  2.2800  2.2811  2.2822  2.2833
              2.2844  2.2855  2.2866  2.2877  2.2887  2.2898

***** UPSTREEM OFFSITE BASINS RUNNING THROUGH THIS SITE (#101 & 108)
COMPUTE NM HYD       ID=1 HYD NO=101.0 AREA=0.00283 SQ MI
                     (A,B,C,D)    0 40 0 60
                     TP=0.13333 HR MASS RAINFALL=-1

    K =    .072665HR    TP =    .133330HR    K/TP RATIO =    .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =    6.7023    CFS    UNIT VOLUME =    .9975       B =    526.28       P60 = 1.9700
    AREA =       .001698 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
```

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

    K =    .131635HR     TP =    .133330HR     K/TP RATIO =    .987285      SHAPE CONSTANT, N =  3.576408
    UNIT PEAK =    2.7667     CFS    UNIT VOLUME =     .9955        B =    325.86       P60 = 1.9700
    AREA =       .001132 SQ MI     IA =     .50000 INCHES     INF =    1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033300

PRINT HYD            ID=1 CODE=1

                                    PARTIAL HYDROGRAPH    101.00

    RUNOFF VOLUME =      1.52996 INCHES      =         .2309 ACRE-FEET
    PEAK DISCHARGE RATE =        6.60 CFS  AT    1.499 HOURS    BASIN AREA =    .0028 SQ. MI.


COMPUTE NM HYD       ID=8 HYD NO=108.0 AREA=0.00197 SQ MI
                     (A,B,C,D)    0 0 70 30
                     TP=0.13333 HR MASS RAINFALL=-1

    K =    .072665HR     TP =    .133330HR     K/TP RATIO =    .545000      SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =    2.3328     CFS    UNIT VOLUME =     .9941        B =    526.28       P60 = 1.9700
    AREA =       .000591 SQ MI     IA =     .10000 INCHES     INF =     .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033300

    K =    .107019HR     TP =    .133330HR     K/TP RATIO =    .802661      SHAPE CONSTANT, N =  4.461616
    UNIT PEAK =    3.9804     CFS    UNIT VOLUME =     .9972        B =    384.85       P60 = 1.9700
    AREA =       .001379 SQ MI     IA =     .35000 INCHES     INF =     .83000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033300

PRINT HYD            ID=8 CODE=1

                                    PARTIAL HYDROGRAPH    108.00

    RUNOFF VOLUME =      1.37541 INCHES      =         .1445 ACRE-FEET
    PEAK DISCHARGE RATE =        4.45 CFS  AT    1.499 HOURS    BASIN AREA =    .0020 SQ. MI.


ADD HYD              ID=8 SUM NO=108.1 IDS=1 & 8
PRINT HYD            ID=8 CODE=1

                                    PARTIAL HYDROGRAPH    108.10

    RUNOFF VOLUME =      1.46642 INCHES      =         .3754 ACRE-FEET
    PEAK DISCHARGE RATE =       11.05 CFS  AT    1.499 HOURS    BASIN AREA =    .0048 SQ. MI.
```

```
***** ONSITE DEVELOPED BASIN
***** (A 13.95 ac. PORTION OF PRE-DEVELOPED BASINS 115 & 116)
COMPUTE NM HYD       ID=15 HYD NO=115.0 AREA=0.02180 SQ MI
                     (A,B,C,D)   0 0 10 90
                     TP=0.13333 HR MASS RAINFALL=-1

    K =   .072665HR    TP =   .133330HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   77.443    CFS   UNIT VOLUME =    .9992       B =   526.28      P60 = 1.9700
    AREA =      .019620 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


    K =   .107019HR    TP =   .133330HR    K/TP RATIO =   .802661     SHAPE CONSTANT, N =  4.461616
    UNIT PEAK =   6.2924    CFS   UNIT VOLUME =    .9983       B =   384.85      P60 = 1.9700
    AREA =      .002180 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=15 CODE=1

                                  PARTIAL HYDROGRAPH   115.00


    RUNOFF VOLUME =     1.95879 INCHES     =       2.2774 ACRE-FEET
    PEAK DISCHARGE RATE =      62.07 CFS  AT   1.499 HOURS   BASIN AREA =   .0218 SQ. MI.


ADD HYD              ID=15 SUM NO=108.1 IDS=15 & 8
PRINT HYD            ID=15 CODE=1

                                  PARTIAL HYDROGRAPH   108.10


    RUNOFF VOLUME =     1.86993 INCHES     =       2.6528 ACRE-FEET
    PEAK DISCHARGE RATE =      73.12 CFS  AT   1.499 HOURS   BASIN AREA =   .0266 SQ. MI.


ROUTE RESERVOIR      ID=5 HYD NO=115.9 INFLOW ID=15 CODE=5
                       OUTFLOW   STORAGE   ELEV
                         0.0      0.00     85.5
                         8.3      0.02     87.0
                        15.9      0.04     87.5
                        19.0      0.07     88.0
                        21.7      0.12     88.5
                        24.1      0.17     89.0
                        26.2      0.24     89.5
                        28.2      0.32     90.0
                        30.1      0.42     90.5
                        31.8      0.54     91.0
                        33.5      0.67     91.5
```

35.1	0.82	92.0
49.9	0.99	92.5
75.7	1.19	93.0
108.7	1.41	93.5

* * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	85.50	.000	.00
.17	.00	85.50	.000	.00
.33	.00	85.50	.000	.00
.50	.00	85.50	.000	.00
.67	.00	85.50	.000	.00
.83	.00	85.50	.000	.00
1.00	.00	85.50	.000	.00
1.17	.05	85.50	.000	.02
1.33	20.01	87.37	.035	13.88
1.50	73.12	90.30	.379	29.33
1.67	37.44	91.62	.706	33.88
1.83	23.94	91.41	.648	33.21
2.00	17.25	90.77	.485	31.02
2.16	7.88	89.65	.264	26.79
2.33	3.64	87.36	.034	13.77
2.50	2.22	85.94	.006	2.44
2.66	1.46	85.78	.004	1.57
2.83	1.02	85.70	.003	1.09
3.00	.75	85.64	.002	.79
3.16	.58	85.61	.001	.60
3.33	.48	85.59	.001	.49
3.50	.42	85.58	.001	.43
3.66	.39	85.57	.001	.39
3.83	.36	85.57	.001	.37
4.00	.35	85.56	.001	.35
4.16	.34	85.56	.001	.34
4.33	.33	85.56	.001	.33
4.50	.33	85.56	.001	.33
4.66	.33	85.56	.001	.34
4.83	.34	85.56	.001	.34
5.00	.35	85.56	.001	.35
5.16	.36	85.56	.001	.36
5.33	.37	85.57	.001	.37
5.49	.38	85.57	.001	.38
5.66	.40	85.57	.001	.40
5.83	.41	85.57	.001	.41
5.99	.44	85.58	.001	.43
6.16	.17	85.54	.001	.24
6.33	.05	85.51	.000	.06
6.49	.02	85.50	.000	.03
6.66	.01	85.50	.000	.01
6.83	.00	85.50	.000	.01

```
    6.99        .00     85.50        .000        .00
 PEAK DISCHARGE =        33.923 CFS - PEAK OCCURS AT HOUR    1.70
 MAXIMUM WATER SURFACE ELEVATION =        91.632
 MAXIMUM STORAGE =          .7097 AC-FT      INCREMENTAL TIME=     .033300HRS

PRINT HYD           ID=15 CODE=1

                                  PARTIAL HYDROGRAPH   108.10


    RUNOFF VOLUME =     1.86993 INCHES     =       2.6528 ACRE-FEET
    PEAK DISCHARGE RATE =      73.12 CFS  AT   1.499 HOURS   BASIN AREA =   .0266 SQ. MI.


***** OFF-SITE BASINS TO THE NORTH TO BE DIVERTED AROUND THIS SITE
***** (102, 103, 107, & PART OF 116)
COMPUTE NM HYD      ID=2 HYD NO=102.0 AREA=0.00302 SQ MI
                    (A,B,C,D)   0 40 0 60
                    TP=0.13333 HR MASS RAINFALL=-1

    K =   .072665HR    TP =   .133330HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   7.1523    CFS   UNIT VOLUME =    .9978       B =   526.28      P60 = 1.9700
    AREA =      .001812 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

    K =   .131635HR    TP =   .133330HR    K/TP RATIO =   .987285     SHAPE CONSTANT, N =  3.576408
    UNIT PEAK =   2.9524    CFS   UNIT VOLUME =    .9955       B =   325.86      P60 = 1.9700
    AREA =      .001208 SQ MI    IA =    .50000 INCHES    INF =   1.25000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD           ID=2 CODE=1

                                  PARTIAL HYDROGRAPH   102.00


    RUNOFF VOLUME =     1.52996 INCHES     =        .2464 ACRE-FEET
    PEAK DISCHARGE RATE =       7.04 CFS  AT   1.499 HOURS   BASIN AREA =   .0030 SQ. MI.


COMPUTE NM HYD      ID=3 HYD NO=103.0 AREA=0.00592 SQ MI
                    (A,B,C,D)   0 0 90 10
                    TP=0.13333 HR MASS RAINFALL=-1

    K =   .072665HR    TP =   .133330HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =   2.3367    CFS   UNIT VOLUME =    .9948       B =   526.28      P60 = 1.9700
    AREA =      .000592 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300
```

```
K =   .107019HR    TP =   .133330HR    K/TP RATIO =   .802661     SHAPE CONSTANT, N =  4.461616
UNIT PEAK =   15.379    CFS   UNIT VOLUME =    .9996       B =   384.85      P60 = 1.9700
AREA =      .005328 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD           ID=3 CODE=1

                                PARTIAL HYDROGRAPH   103.00

RUNOFF VOLUME =     1.18095 INCHES     =        .3729 ACRE-FEET
PEAK DISCHARGE RATE =      12.16 CFS  AT   1.499 HOURS   BASIN AREA =   .0059 SQ. MI.


ADD HYD             ID=2 SUM NO=102.1 IDS=2 & 3
PRINT HYD           ID=2 CODE=1

                                PARTIAL HYDROGRAPH   102.10

RUNOFF VOLUME =     1.29878 INCHES     =        .6193 ACRE-FEET
PEAK DISCHARGE RATE =      19.20 CFS  AT   1.499 HOURS   BASIN AREA =   .0089 SQ. MI.

COMPUTE NM HYD      ID=4 HYD NO=104.0 AREA=0.00630 SQ MI
                    (A,B,C,D)   0 0 90 10
                    TP=0.13333 HR MASS RAINFALL=-1

K =   .072665HR    TP =   .133330HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
UNIT PEAK =   2.4867    CFS   UNIT VOLUME =    .9948       B =   526.28      P60 = 1.9700
AREA =      .000630 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


K =   .107019HR    TP =   .133330HR    K/TP RATIO =   .802661     SHAPE CONSTANT, N =  4.461616
UNIT PEAK =   16.366    CFS   UNIT VOLUME =    .9997       B =   384.85      P60 = 1.9700
AREA =      .005670 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD           ID=4 CODE=1

                                PARTIAL HYDROGRAPH   104.00

RUNOFF VOLUME =     1.18095 INCHES     =        .3968 ACRE-FEET
PEAK DISCHARGE RATE =      12.94 CFS  AT   1.499 HOURS   BASIN AREA =   .0063 SQ. MI.


COMPUTE NM HYD      ID=7 HYD NO=107.0 AREA=0.00395 SQ MI
```

```
                    (A,B,C,D)    0 0 70 30
                    TP=0.13333 HR MASS RAINFALL=-1

    K =    .072665HR     TP =    .133330HR     K/TP RATIO =    .545000      SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =    4.6774     CFS    UNIT VOLUME =     .9969        B =    526.28       P60 = 1.9700
    AREA =       .001185 SQ MI     IA =     .10000 INCHES     INF =     .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033300


    K =    .107019HR     TP =    .133330HR     K/TP RATIO =    .802661      SHAPE CONSTANT, N =  4.461616
    UNIT PEAK =    7.9810     CFS    UNIT VOLUME =     .9989        B =    384.85       P60 = 1.9700
    AREA =       .002765 SQ MI     IA =     .35000 INCHES     INF =     .83000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033300

PRINT HYD           ID=7 CODE=1

                                    PARTIAL HYDROGRAPH   107.00


    RUNOFF VOLUME =      1.37541 INCHES      =         .2898 ACRE-FEET
    PEAK DISCHARGE RATE =        8.90 CFS  AT    1.499 HOURS    BASIN AREA =    .0040 SQ. MI.


ADD HYD             ID=7 SUM NO=107.1 IDS=4 & 7
PRINT HYD           ID=7 CODE=1

                                    PARTIAL HYDROGRAPH   107.10


    RUNOFF VOLUME =      1.25583 INCHES      =         .6865 ACRE-FEET
    PEAK DISCHARGE RATE =       21.84 CFS  AT    1.499 HOURS    BASIN AREA =    .0103 SQ. MI.


COMPUTE NM HYD      ID=16 HYD NO=116.0 AREA=0.01121 SQ MI
                    (A,B,C,D)    90 0 10 0
                    TP=0.13333 HR MASS RAINFALL=-1

    K =    .155781HR     TP =    .133330HR     K/TP RATIO =  1.168387      SHAPE CONSTANT, N =  3.035166
    UNIT PEAK =    23.935     CFS    UNIT VOLUME =     .9992        B =    284.68       P60 = 1.9700
    AREA =       .011210 SQ MI     IA =     .62000 INCHES     INF =    1.58600 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033300

PRINT HYD           ID=16 CODE=1

                                    PARTIAL HYDROGRAPH   116.00


    RUNOFF VOLUME =       .54195 INCHES      =         .3240 ACRE-FEET
    PEAK DISCHARGE RATE =       11.51 CFS  AT    1.532 HOURS    BASIN AREA =    .0112 SQ. MI.
```

```
ADD HYD              ID=16 SUM NO=116.7 IDS=7 & 16
PRINT HYD            ID=16 CODE=1

                                PARTIAL HYDROGRAPH   116.70

    RUNOFF VOLUME =       .88292 INCHES     =       1.0105 ACRE-FEET
    PEAK DISCHARGE RATE =      33.09 CFS  AT   1.499 HOURS   BASIN AREA =   .0215 SQ. MI.


ADD HYD              ID=16 SUM NO=116.8 IDS=16 & 2
PRINT HYD            ID=16 CODE=1

                                PARTIAL HYDROGRAPH   116.80

    RUNOFF VOLUME =     1.00521 INCHES     =       1.6298 ACRE-FEET
    PEAK DISCHARGE RATE =      52.29 CFS  AT   1.499 HOURS   BASIN AREA =   .0304 SQ. MI.


FINISH

    NORMAL PROGRAM FINISH          END TIME (HR:MIN:SEC) = 16:01:28
```

```
START                TIME=0.0
***** GOLDEN VENTURES L.L.C.
***** GRADING PLAN FOR BUILDING PERMIT ON LOT #3 BROADWAY INDUSTRIAL CENTER
***** 100-YEAR 6-HOUR STORM EVENT
***** OCT. 28, 1997
RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=1.97 IN RAIN SIX=2.29 IN
                     RAIN DAY=2.65 IN DT=0.0333 HR
***** UPSTREEM OFFSITE BASINS RUNNING THROUGH THIS SITE (#101 & 108)
COMPUTE NM HYD       ID=1 HYD NO=101.0 AREA=0.00283 SQ MI
                     (A,B,C,D)   0 40 0 60
                     TP=0.13333 HR MASS RAINFALL=-1
PRINT HYD            ID=1 CODE=1
COMPUTE NM HYD       ID=8 HYD NO=108.0 AREA=0.00197 SQ MI
                     (A,B,C,D)   0 0 70 30
                     TP=0.13333 HR MASS RAINFALL=-1
PRINT HYD            ID=8 CODE=1
ADD HYD              ID=8 SUM NO=108.1 IDS=1 & 8
PRINT HYD            ID=8 CODE=1
***** ONSITE DEVELOPED BASIN
***** (A 13.95 ac. PORTION OF PRE-DEVELOPED BASINS 115 & 116)
COMPUTE NM HYD       ID=15 HYD NO=115.0 AREA=0.02180 SQ MI
                     (A,B,C,D)   0 0 10 90
                     TP=0.13333 HR MASS RAINFALL=-1
PRINT HYD            ID=15 CODE=1
ADD HYD              ID=15 SUM NO=108.1 IDS=15 & 8
PRINT HYD            ID=15 CODE=1
ROUTE RESERVOIR      ID=5 HYD NO=115.9 INFLOW ID=15 CODE=5
                       OUTFLOW   STORAGE   ELEV
                         0.0      0.00     85.5
                         8.3      0.02     87.0
                        15.9      0.04     87.5
                        19.0      0.07     88.0
                        21.7      0.12     88.5
                        24.1      0.17     89.0
                        26.2      0.24     89.5
                        28.2      0.32     90.0
                        30.1      0.42     90.5
                        31.8      0.54     91.0
                        33.5      0.67     91.5
                        35.1      0.82     92.0
                        49.9      0.99     92.5
                        75.7      1.19     93.0
                       108.7      1.41     93.5
PRINT HYD            ID=15 CODE=1
***** OFF-SITE BASINS TO THE NORTH TO BE DIVERTED AROUND THIS SITE
***** (102, 103, 107, & PART OF 116)
COMPUTE NM HYD       ID=2 HYD NO=102.0 AREA=0.00302 SQ MI
                     (A,B,C,D)   0 40 0 60
                     TP=0.13333 HR MASS RAINFALL=-1
PRINT HYD            ID=2 CODE=1
COMPUTE NM HYD       ID=3 HYD NO=103.0 AREA=0.00592 SQ MI
```

```
                    (A,B,C,D)    0 0 90 10
                    TP=0.13333 HR MASS RAINFALL=-1
PRINT HYD           ID=3 CODE=1
ADD HYD             ID=2 SUM NO=102.1 IDS=2 & 3
PRINT HYD           ID=2 CODE=1
COMPUTE NM HYD      ID=4 HYD NO=104.0 AREA=0.00630 SQ MI
                    (A,B,C,D)    0 0 90 10
                    TP=0.13333 HR MASS RAINFALL=-1
PRINT HYD           ID=4 CODE=1
COMPUTE NM HYD      ID=7 HYD NO=107.0 AREA=0.00395 SQ MI
                    (A,B,C,D)    0 0 70 30
                    TP=0.13333 HR MASS RAINFALL=-1
PRINT HYD           ID=7 CODE=1
ADD HYD             ID=7 SUM NO=107.1 IDS=4 & 7
PRINT HYD           ID=7 CODE=1
COMPUTE NM HYD      ID=16 HYD NO=116.0 AREA=0.01121 SQ MI
                    (A,B,C,D)    90 0 10 0
                    TP=0.13333 HR MASS RAINFALL=-1
PRINT HYD           ID=16 CODE=1
ADD HYD             ID=16 SUM NO=116.7 IDS=7 & 16
PRINT HYD           ID=16 CODE=1
ADD HYD             ID=16 SUM NO=116.8 IDS=16 & 2
PRINT HYD           ID=16 CODE=1
FINISH
```

MASTER PLAN

Lot 3 has an allowable discharge of 34.29 cfs including 11.05 cfs from off-site basins #101 and 108, and 23.24 cfs from on-site. That future pond is shown on Sheet C-1 of this plan for information only. It can not be build until the 72" masterplan line is constructed in Broadway Blvd in accordance with the South Broadway Sector Development Plan, City Project #1-05-1B. Instead, a temporary on-site retention pond, as shown on Sheet C-2, is to be constructed with this project thus effectively reducing developed flows from this site to zero.

Lot 4A has an allowable discharge of 58.88 cfs including 32.14 cfs from off-site basins #102, 103, 104 and 107, and 26.74 cfs from on-site. Under existing conditions a large portion of these flows naturally drain through lot #3 to Arno Street. A temporary retention pond (see pond #2 on Sheet C-1) to be constructed with this project will temporarily prevent these off-site flows from entering lot 3 and will remain in place until lot 4 is developed, at which time it will also be required to conform to the masterplan. Emergency overflow of 52.55 cfs will flow from the spillway on lot 4 to the 36" RCP that is to be stubbed out at the north end of the Broadway Industrial Center, Unit I construction of Karsten Court.

ON-SITE DRAINAGE

All on-site drainage is conveyed on the surface to lined rundowns in the on-site temporary retention pond (see pond #3 on Sheet C-2). Emergency overflow is to be provided by constructing the permanent detention pond outlet structure and temporarily plugging the primary outlet. The riser will function as the emergency overflow for both the temporary retention pond to be constructed now and for the future detention pond. Unit I of the Broadway Industrial Center Subdivision is expected to construct a stub out to this site from the existing 48" storm sewer at the intersection of San Jose Ave and Karsten Ct. As identified on the Broadway Industrial Center Master Drainage Plan, the existing 48" RCP has capacity for 227 cfs but the 100 year flow is only 123.57 cfs so it can handle the 73.12 cfs emergency overflow from this site. The 36" discharge pipe leading from the pond has been over-sized to accommodate not only the 34.29 cfs allowable 100 year flow from lot 3 but also the total peak emergency overflow of 73.12 cfs.

DRAINAGE NARRATIVE

for

GOLDEN VENTURES

LOT 3, BROADWAY INDUSTRIAL CENTER

DECEMBER 1997

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 12, 1997

Doug Hughes, P.E.
Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, NM 87199

D5

RE: GOLDEN VENTURES LLC (M14-[illegible]). GRADING AND DRAINAGE PLAN SUBMITTAL FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED 11-24-97.

Dear Mr. Hughes:

Based on the information provided on your November 24, 1997 submittal, the above referenced project is approved for Building Permit.

Prior to Certificate of Occupancy approval, and Engineer's Certification will be required.

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

Sincerely,

Lisa Ann Manwill, P.E.
Hydrology

c: Andrew Garcia
File

DRAINAGE INFORMATION SHEET

New File D5

PROJECT TITLE: Golden Ventures LLC

ZONE ATLAS/DRNG.FILE#: M14 - [redacted]

DRB #: 97-271

EPC #:

WORK ORDER #:

LEGAL DESCRIPTION: Lot 3, Broadway Industrial Center

CITY ADDRESS: 2700 Karsten Ct. S. E.

ENGINEERING FIRM: D Mark Goodwin & Assoc.

CONTACT: Doug Hughes

ADDRESS: PO Box 90606 Albuquerque NM 87199

PHONE: 828-2200

OWNER: Golden Ventures LLC

CONTACT: ~~J.P. Darling~~ Clay Latimer

ADDRESS:

PHONE: ~~909-927-7985~~ 271-4598

ARCHITECT: J.P. Darling

CONTACT: J.P.

ADDRESS:

PHONE: ~~714-379~~ 714-756-8640

SURVEYOR:

CONTACT:

ADDRESS:

PHONE:

CONTRACTOR: Cam Co Pacific

CONTACT: Duane Campbell

ADDRESS:

PHONE: 714-424-9500

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- X ENGINEER'S CERTIFICATION Final
- ____ OTHER

'RE-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 Final
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ S.A.D. DRAINAGE REPORT
- ____ DRAINAGE REQUIREMENTS
- ____ OTHER _____ (Specify)

ATE SUBMITTED: ~~[illegible]~~ 7-28-98

(: Janice D. Reyes

RECEIVED
JUL 28 1998
HYDROLOGY SECTION

DRAINAGE INFORMATION SHEET

New File D5

PROJECT TITLE: Golden Ventures LLC ZONE ATLAS/DRNG.FILE#: M14 - [redacted]

DRB #: 97-271 EPC #: WORK ORDER #:

LEGAL DESCRIPTION: Lot 3, Broadway Industrial Center

CITY ADDRESS: 2700 Karsten Ct. S. E.

ENGINEERING FIRM: D Mark Goodwin & Assoc. CONTACT: Doug Hughes

ADDRESS: PO Box 90606 Albuquerque NM 87199 PHONE: 828-2200

OWNER: Golden Ventures LLC CONTACT: ~~J.P. Darling~~ Clay Latimer

ADDRESS: PHONE: 909-927-7985

ARCHITECT: J.P. Darling CONTACT: J.P.

ADDRESS: PHONE: 714 379

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: Cam Co Pacific CONTACT: Duane Campbell

ADDRESS: PHONE: 714-424-9500

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- X DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ____ EROSION CONTROL PLAN
- ____ ENGINEER'S CERTIFICATION
- ____ OTHER

PRE-DESIGN MEETING:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

RECEIVED
NOV 24 1997
HYDROLOGY SECTION

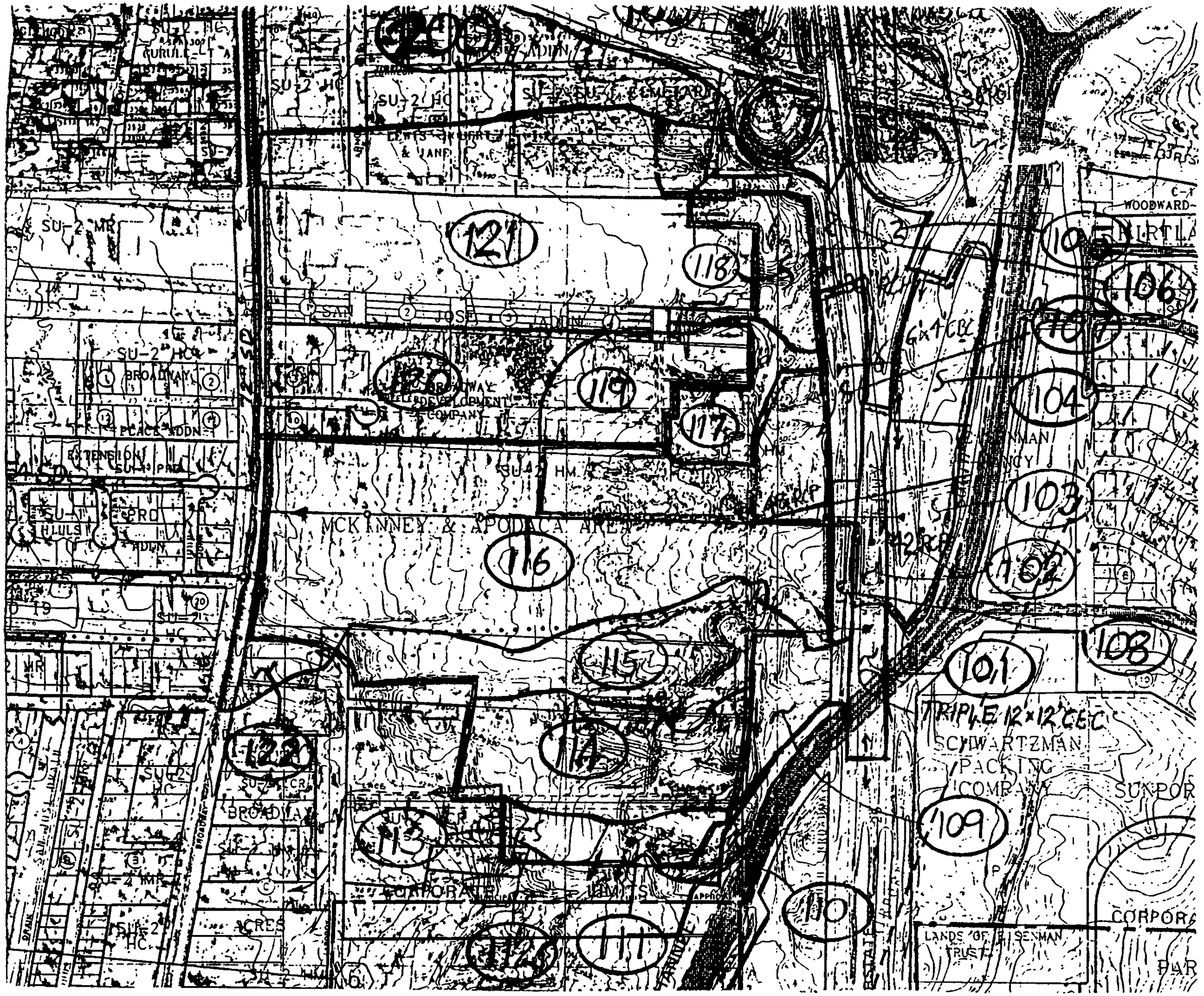
CHECK TYPE OF APPROVAL SOUGHT:

- ____ 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 ____ (Specify)

DATE SUBMITTED:

BY:

797-9539


SU-2 HC
SU-2 MR
SAN JOSE ADDN
BROADWAY
PEACE ADDN
EXTENSION
SU-1 PRO
HILLS ADDN
MCKINNEY & APODACA AREA
LEWIS & LANE
WOODWARD-
6x1 CBC
TRIPLE 12x12 CEC
SCHWARTZMAN PACKING COMPANY
LANDS OF EISENMAN TRUST
CORPORATE LIMITS
ACRES
121
118
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122

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =10/30/1997
INPUT FILE = KAR99.DAT USER NO.= M_GOODWN.I01

PAGE = 1

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION	
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	2.290
COMPUTE NM HYD	101.00	-	1	.00283	6.60	.231	1.52996	1.499	3.644	PER IMP=	60.00
COMPUTE NM HYD	108.00	-	8	.00197	4.45	.145	1.37541	1.499	3.530	PER IMP=	30.00
ADD HYD	108.10	1& 8	8	.00480	11.05	.375	1.46642	1.499	3.597		
COMPUTE NM HYD	115.00	-	15	.02180	62.07	2.277	1.95879	1.499	4.449	PER IMP=	90.00
ADD HYD	108.10	15& 8	15	.02660	73.12	2.653	1.86993	1.499	4.295		
ROUTE RESERVOIR	115.90	15	5	.02660	33.92	2.653	1.86993	1.698	1.993	AC-FT=	.710
COMPUTE NM HYD	102.00	-	2	.00302	7.04	.246	1.52996	1.499	3.643	PER IMP=	60.00
COMPUTE NM HYD	103.00	-	3	.00592	12.16	.373	1.18095	1.499	3.209	PER IMP=	10.00
ADD HYD	102.10	2& 3	2	.00894	19.20	.619	1.29878	1.499	3.356		
COMPUTE NM HYD	104.00	-	4	.00630	12.94	.397	1.18095	1.499	3.209	PER IMP=	10.00
COMPUTE NM HYD	107.00	-	7	.00395	8.90	.290	1.37541	1.499	3.522	PER IMP=	30.00
ADD HYD	107.10	4& 7	7	.01025	21.84	.687	1.25583	1.499	3.330		
COMPUTE NM HYD	116.00	-	16	.01121	11.51	.324	.54195	1.532	1.605	PER IMP=	.00
ADD HYD	116.70	7&16	16	.02146	33.09	1.011	.88292	1.499	2.409		
ADD HYD	116.80	16& 2	16	.03040	52.29	1.630	1.00521	1.499	2.687		
FINISH											