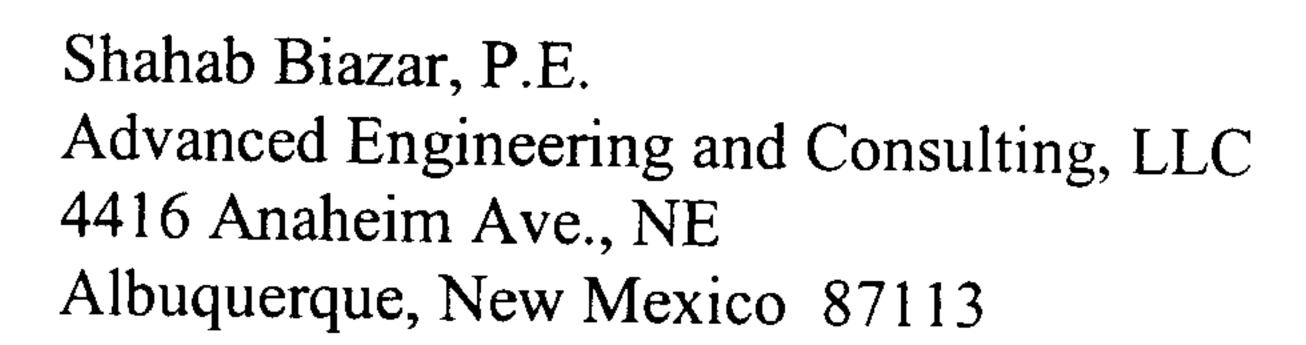
PLANNING DEPARTMENT - Development & Building Services

April 21, 2008



DOC SAVAGE SUPPLY, 600 Candelaria NE RE: (H15 - D 064)Revised - Grading Plan for Building Permit & SO-19 (PE Stamped 03-21-08)

Dear Mr. Biazar:

Based upon the information provided in your submittal dated 03/24/08 the above referenced revised plan cannot be approved for Grading & Building Permits, nor SO-19 until the following comments are addressed:

PO Box 1293

Albuquerque

NM 87103

- A Retention Pond cannot be allowed for this site, which has adequate offsite capacity.
- If the proposed pond is constructed, it must be equipped as necessary to be drained within 96-hours.
- Given this condition, you may choose to reconfigure your plan back to the original grades, and only lower enough of the site to accommodate the loading docks, and then you only need to pump out or drain those areas.
- Note that the telephone number provided for NM One Call in "Notice To Contractors" note #3 is incorrect; their current number is 260-1990 or "811."
- NOTE: Future Grading Plan submittals must include off-site contours and topographic information for 25' minimum beyond the property line per DPM Check List.

www.cabq.gov

If you have any questions or would like to schedule a meeting to discuss this, you may contact me at 924-3981.

Sincerely,

Gregory R. Olson, P.E.

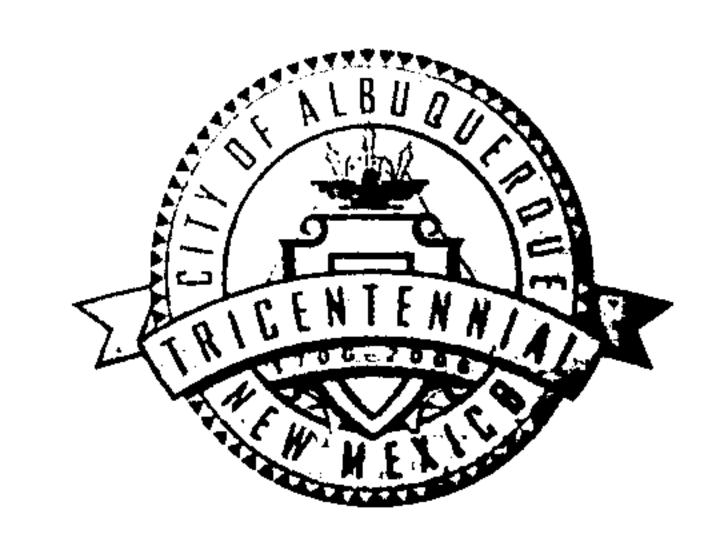
Hydrology Section

XC: Bradley Bingham, COA-PLN/Hydrology

file H15-D 064



FAX 897-4996



November 15, 2007

Shahab Biazar, P.E.
Advanced Engineering and Consulting, LLC
4016 Anaheim Ave. NE
Albuquerque, NM 87113

Re: Doc Savage Supply, 600 Candelaria NE

Grading and Drainage Plan

Engineer's Stamp dated 11-05-07 (H15-D064)

Dear Mr. Biazar,

Based upon the information provided in your submittal received 11-02-07, the above referenced plan is approved for Grading Permit, Building Permit and SO-19 permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

P.O. Box 1293

This project will also require a National Pollutant Discharge Elimination System (NPDES) permit. Inquiries regarding this permit should be directed to Sertil Kandar at 768-3645. In addition to submitting an NOI to the EPA and preparing a SWPPP, please send a copy of their SWPPP on a CD in .pdf format to Kathy Verhage with the Department of Municipal Development Storm Drainage Division at the following address.

Albuquerque

New Mexico 87103

www.cabq.gov

Department of Municipal Development Storm Drainage Division P.O. Box 1293, One Civic Plaza, Rm. 301 Attn: Kathy Verhage Albuquerque, NM 87103

Sincerely.

If you have any questions, you can contact me at 924-3977.

Rudy E. Rael, Associate Engineer Planning Department.

Development and Building Services

C: Antoinette Baldonado, Construction Services
Dwayne Schmitz, DMD Street / Storm Maintenance
Kathy Verhage, DMD Storm Drainage Design
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (Rev. 12/05)

PROJE	ECT TITLE: DOC SAVAGE SUPPLY	ZONE ATLAS/DRG. FILE #: H15 D0 (
DRB#	EPC #:	WORK ORDER #:
LEGA	L DESCRIPTION: TRACT 2-A OF MUELLER IND	USTRIAL SUBDIVISION
	ADDRESS: 600 CANDELARIA RD. NE	
ENGIN	NEERING FIRM: Advanced Engineering and Consulting, LLC ADDRESS: 4416 Anaheim Ave., NE	CONTACT: Shahab Biazar PHONE: (505) 899-5570
	CITY, STATE: Albuquerque, New Mexico	ZIP CODE: 87113
OWNE	R:	CONTACT:
	ADDRESS:CITY, STATE:	PHONE: ZIP CODE:
ARCH	ITECT:	CONTACT:
	ADDRESS: CITY, STATE:	PHONE: ZIP CODE:
	CHI, SIAIE:	
SURVI	EYOR:	CONTACT:PHONE:
	ADDRESS: CITY, STATE:	ZIP CODE:
CONT	D A CTOD.	CONTACT:
CONT	RACTOR: ADDRESS:	PHONE:
	CITY, STATE:	ZIP CODE:
CHEC:	K TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
	DRAINAGE REPORT	SIA / FINANCIAL GUARANTEE RELEASE
	DRAINAGE PLAN 1ST SUBMITTAL	PRELIMINARY PLAT APPROVAL
	DRAINAGE PLAN RESUBMITTAL	S. DEV. PLAN FOR SUB'D. APPROVAL
	CONCEPTUAL GRADING & DRAINAGE PLAN	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
X	GRADING PLAN	SECTOR PLAN APPROVAL
	EROSION CONTROL PLAN	FINAL PLAT APPROVAL
	ENGINEER'S CERTIFICATION (HYDROLOGY)	FOUNDATION PERMIT APPROVAL
· · · · · · · · · · · · · · · · · · ·	_ CLOMR / LOMR	X BUILDING PERMIT APPROVAL
	TRAFFIC CIRCULATION LAYOUT (TCL)	CERTIFICATE OF OCCUPANCY (PERM.)
	ENGINEER/ARCHITECT CERT (TCL)	CERTIFICATE OF OCCUPANCY (TEMP.)
	ENGINEER/ARCHITECT CERT (DRB S.P.)	X GRADING PERMIT APPROVAL
··	ENGINEER/ARCHITECT CERT (AA)	PAVING PERMIT APPROVAL
	OTHER (SPECITY)	WORK ORDER APPROVAL X SO 19 C E
WAS A	PRE-DESIGN CONFERENCE ATTENDED:	1 D NOV 0 6 2007
τ 	YES	INDIANO TONI
X	NO	HYDROLOGY SECTION
	_ COPY PROVIDED	HYDE
DATE	SURMITTED: 11 / 05 / 2007	BY: Shahab Biazar, P.E.

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 the following levels of submittals may be required based on the following:

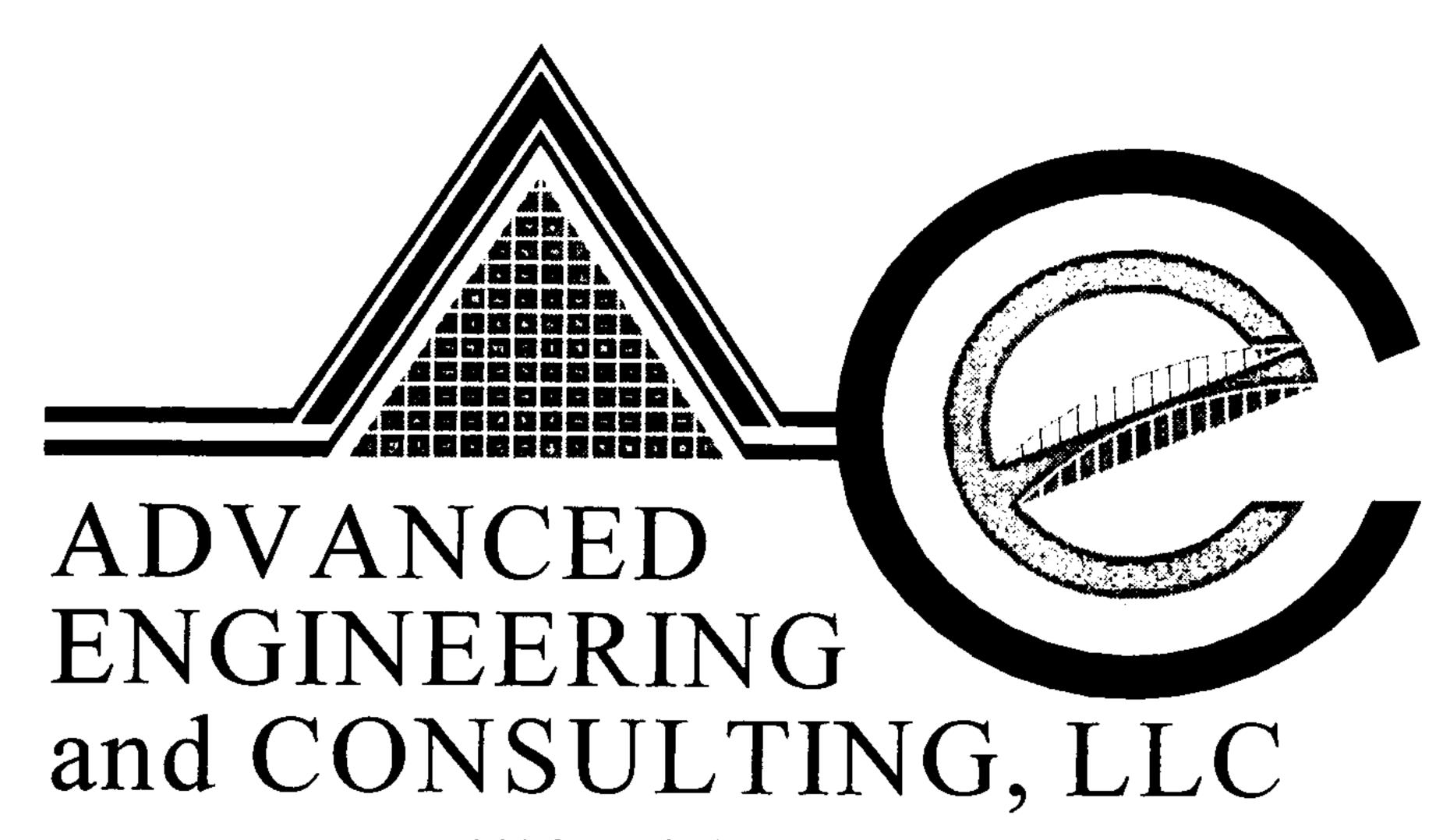
- 1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) and Sector Plans.
- 2. Drainage Plans: Required for building permits, grading permits, paving permits and site plans less than five (5).
- 3. Drainage Report: Required for subdivisions containing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

DRAINAGE REPORT FOR

DOC SAVAGE SUPPLY

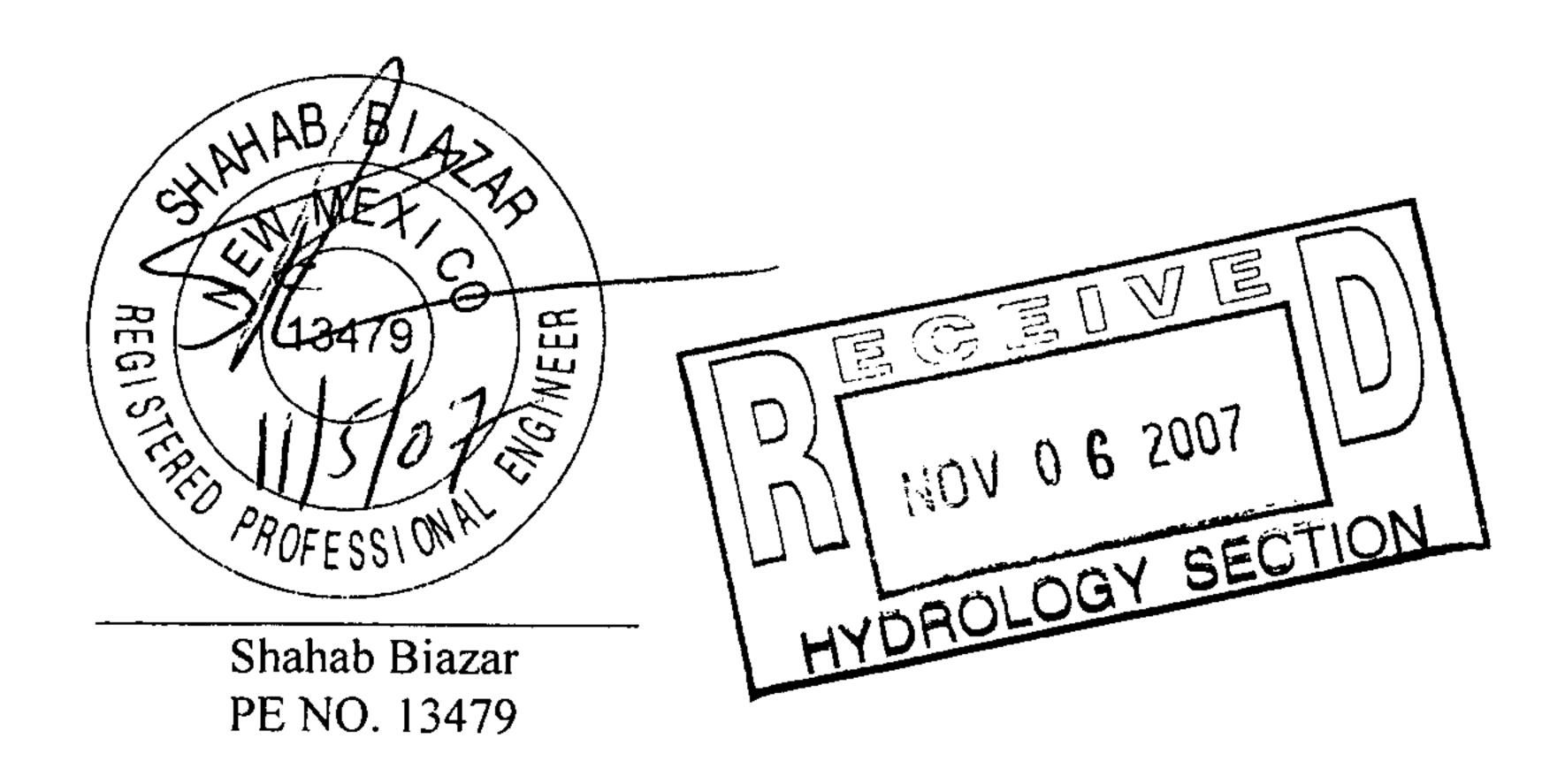
(TRACT 2-A OF MUELLER INDUSTRIAL SUBDIVISION 600 CANDELARIA RD. NE)

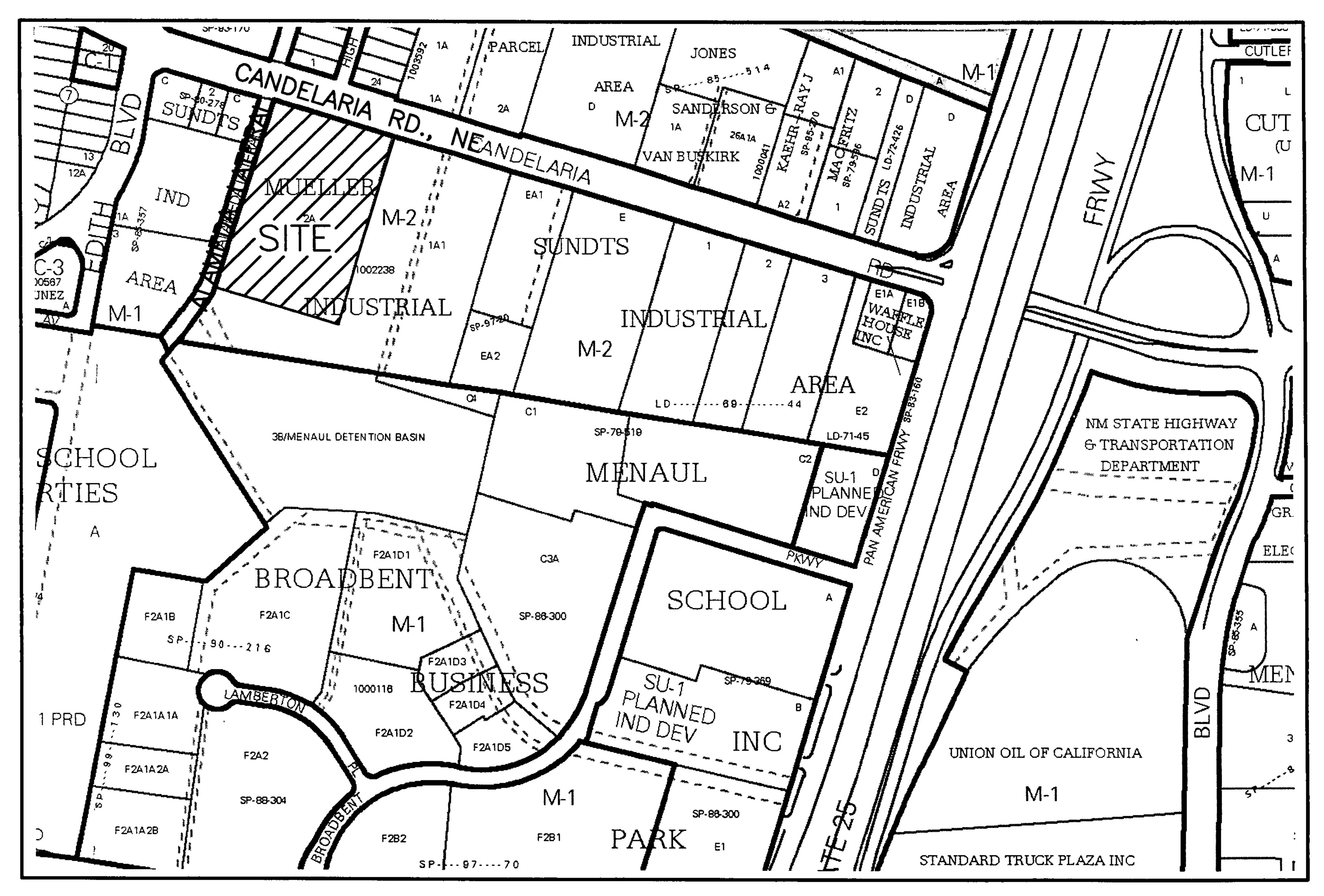
Prepared by:



4416 Anaheim Ave., NE Albuquerque, New Mexico 87113

November 5, 2007





VICINITY MAP:

Location

Doc Savage Supply is Tract 2-A of Muller Industrial Subdivision located at 600 .

Candelaria Road. See attached portion of Zone Atlas page number H-15 for exact location.

Purpose

The purpose of this drainage report is to present a grading and drainage solution for the proposed sites. We are requesting rough grading approval and building permit approval as well SO-19 approval for the construction of the sidewalk culverts and modification to the existing inlet.

Existing Drainage Conditions

Under the historical conditions the site will generate a runoff of 8.19 cfs. This Lot drains from east to west and then north to Candelaria Road. The runoff is then intercepted by a series of inlets on Candelaria Road. There is an existing building located to the east of the project on the property line. The offsite runoff to the south drains west and does not enter this site. The offsite runoff to the north is intercepted by curb and gutter on Candelaria Road and the existing Alameda Lateral is located to the west. Therefore, no offsite runoff enters this site. The site does not fall within a 100-year floodplain.

N. sknod p.sch.

T M M T

Proposed Conditions and On-Site Drainage Management Plan

Under the developed conditions the site will generate a runoff of 23.66 cfs. The onsite drainage pattern will remain the same as existing conditions. The runoff will be drain west and then north to 6-6" diameter openings. Then the runoff will drain out at a detained flow rate of 7.55 cfs (less than historical flow rate of 8.19 cfs) to the back of 2-2' sidewalk culverts. The sidewalk culverts will drain to Candelaria Road and to the exiting inlets within the road.

Calculations

City of Albuquerque, Development Process Manuel, Section 22.2, Hydrology Section, was used for runoff calculations. See this report for Summary Table for runoff results. See also this report for ponding calculations as well as the AHYMO input and output files for runoff calculations.

Disch Lake 7.55d

RUNOFF CALCULATION RESULTS

BASIN	AREA (SF)	AREA (AC)	AREA (MI ²)
ON-SITE	228968.54	5.2564	0.008213

HISTORICAL

BASIN	Q-100	Q-10	TREATMENT
	CFS	CFS	A, B, C, D
ON-SITE	8.19	1.96	100%, 0%, 0%, 0%

PROPOSED

BASIN	Q-100	Q-10	TREATMENT
	CFS	CFS	A, B, C, D
ON-SITE	23.66	15.37	0%, 5%, 5%, 90%

RUNOFF CALCULATIONS

(INPUT DATA FOR AHYMO CALCULATIONS)

The site is @ Zone 2

DEPTH (INCHES) @ 100-YEAR STORM

 $P_{60} = 2.01 \text{ inches}$

 $P_{360} = 2.35 \text{ inches}$

 $P_{1440} = 2.75 \text{ inches}$

DEPTH (INCHES) @ 10-YEAR STORM

 $P_{60} = 2.01 \times 0.667$ = 1.34 inches

 $P_{360} = 1.57$

 $P_{1440} = 1.83$

See the summary output from AHYMO calculations.

AHYMO INPUT FILE

* ZONE 2	
* 100-YEAR,	**************************************
**************************************	**************************************
* ON-SITE COMPUTE NM HYD	ID=1 HYD NO=100.0 AREA=0.008213 SQ MI PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00 TP=0.1333 HR MASS RAINFALL=-1
* 10-YEAR,	**************************************
START RAINFALL	TIME=0.0 TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=1.34 IN RAIN SIX=1.57 IN RAIN DAY=1.83 IN DT=0.03333 HR
* ON-SITE COMPUTE NM HYD	<pre>ID=1 HYD NO=110.0 AREA=0.008213 SQ MI PER A=100.00 PER B=0.00 PER C=0.00 PER D=0.00 TP=0.1333 HR MASS RAINFALL=-1 ************************************</pre>
* 100-YEAR,	6-HR STORM (UNDER PROPOSED CONDITIONS) * ***********************************
START RAINFALL	TIME=0.0 TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=2.01 IN RAIN SIX=2.35 IN RAIN DAY=2.75 IN DT=0.03333 HR
* ON-STIE COMPUTE NM HYD	ID=1 HYD NO=101.0 AREA=0.008213 SQ MI PER A=0.00 PER B=5.00 PER C=5.00 PER D=90.00 TP=0.1333 HR MASS RAINFALL=-1
* 10-YEAR,	**************************************
START RAINFALL	TIME=0.0 TYPE=1 RAIN QUARTER=0.0 IN RAIN ONE=1.34 IN RAIN SIX=1.57 IN RAIN DAY=1.83 IN DT=0.03333 HR
* ON-SITE COMPUTE NM HYD	ID=1 HYD NO=111.0 AREA=0.008213 SQ MI PER A=0.00 PER B=5.00 PER C=5.00 PER D=90.00 TP=0.1333 HR MASS RAINFALL=-1
**************************************	****************

SUMMARY OUTPUT FILE

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - INPUT FILE = 712

FINISH

- VERSION: 1997.02d

RUN DATE (MON/DAY/YR) =11/05/2007 USER NO.= AHYMO-I-9702c01000R31-AH

	HYDROGRAPH	FROM ID	TO ID	AREA	PEAK DISCHARGE	RUNOFF VOLUME	RUNOFF	TIME TO PEAK	CFS PER	PAGE =	: 1
COMMAND	IDENTIFICATION	NO.	NO.	(SQ MI)	(CFS)	(AC-FT)	(INCHES)	(HOURS)	ACRE	NOTATI	ON
START										TIME=	.00
	PE=1									RAIN6=	2.350
COMPUTE NM H	IYD 100.00	-	1	.00821	8.19	.233	.53121	1.533	1.558	PER IMP=	.00
START										TIME=	.00
RAINFALL TY	PE=1									RAIN6=	1.570
COMPUTE NM H	IYD 110.00		1	.00821	1.96	.055	.12517	1.533	.372	PER IMP=	.00
START										TIME =	.00
RAINFALL TY	PE=1									RAIN6=	2.350
COMPUTE NM H	IYD 101.00	_	1	.00821	23.66	.875	1.99749	1.500	4.502	PER IMP=	90.00
START										TIME=	.00
RAINFALL TY	PE= 1									RAIN6=	1.570
COMPUTE NM H	IYD 111.00	_	1	.00821	15.37	.544	1.24199	1.500	2.925	PER IMP=	90.00

VOLUME CALCULATIONS

DETENTION POND

Ab - Bottom Of The Pond Surface Area

At - Top Of The Pond Surface Area

D - Water Depth

Dt - Total Pond Depth

C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$

C = (At - Ab) / Dt

Ab = 0.00 @ ELEV. = 4994.87 At = 20,206.23 @ ELEV. = 4997.00 Dt = 2.13C = 9486.49

6-OPENINGS

ACTUAL	DEPTH	VOLUME	Q
ELEV.	(FT)	(AC-FT)	(CFS)
4994.87	0.00	0.0000	0.00
4995.00	0.13	0.0018	2.05
4995.20	0.33	0.0119	3.26
4995.40	0.53	0.0306	4.13
4995.60	0.73	0.0580	4.85
4995.80	0.93	0.0942	5.47
4996.00	1.13	0.1390	6.03
4996.20	1.33	0.1926	6.54
4996.40	1.53	0.2549	7.02
4996.60	1.73	0.3259	7.46
4996.80	1.93	0.4056	7.88
4997.00	2.13	0.4940	8.28

Orifice Equation

Q = CA SQRT(2gH)

C = 0.6Diameter (in) 6
Area (ft^2)= 0.1963 g = 32.2

H (Ft) = Depth of water above center of orifice

Q(CFS)=Flow

AHYMO INPUT FILE (PONDING CONDITIONS)

* ZONE 2 ***********	*****	******	*****
	6-HR STORM (UNDE		
******	· ·		
START	TIME=0.0		
RAINFALL	TYPE=1 RAIN QUART	rer=0.0 in	
	RAIN ONE=2.01 IN	RAIN $SIX=2.35$ IN	
	RAIN DAY= 2.75 IN	DT=0.03333 HR	
* ON-STIE			
COMPUTE NM HYD		.0 AREA=0.008213 S	
		=5.00 PER C=5.00 I	PER $D=90.00$
	TP=0.1333 HR MASS		
· **********			•
*	PONDING CONDITION		*

ROUTE RESERVOIR		.1 INFLOW ID=10 CO	
		STORAGE (AC-FT) 0.0000	4994.87
	0.00 2.05	0.0000	4995.00
	2.05 3.26	0.00130	4995.20
	4.13	0.01190	4995.40
	4.85	0.05800	4995.60
	5.47	0.09420	4995.80
	6.03	0.13900	4996.00
	6.54	0.19260	4996.20
	7.02	0.25490	4996.40
	7.46	0.32590	4996.60
	7.88	0.40560	4996.80
	8.28	0.49400	4997.00
******	****	*****	*****
*			

FINISH

SUMMARY OUTPUT FILE (PONDING CONDITIONS)

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - INPUT FILE = 712pd

- VERSION: 1997.02d

RUN DATE (MON/DAY/YR) = 11/05/2007

USER NO. = AHYMO-I-9702c01000R31-AH

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	PAGE =	
START RAINFALL TY COMPUTE NM H ROUTE RESERV FINISH		- 10	10 20	.00821	23.66	.875 .875	1.99749	1.500			.00 2.350 90.00 .342

AHYMO OUTPUT FILE (PONDING CONDITIONS)

AHYMO PROGRAM (AHYMO 97) -

- Version: 1997.02d

```
RUN DATE (MON/DAY/YR) = 11/05/2007
                                             USER NO. = AHYMO-I-9702c01000R31-AH
        START TIME (HR:MIN:SEC) = 11:41:05
        INPUT FILE = 712pd
* ZONE 2
                  6-HR STORM (UNDER PROPOSED CONDITIONS)
**************
START
                  TIME=0.0
RAINFALL
                  TYPE=1 RAIN QUARTER=0.0 IN
                  RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                  RAIN DAY=2.75 IN DT=0.03333 HR
              COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                     .033330 HOURS
                                        END TIME =
                                                      5.999400 HOURS
              DT =
                                                              .0102
                 .0000
                        .0016
                                .0033
                                        .0049
                                               .0066
                                                       .0084
                                                              .0241
                        .0139
                 .0120
                                .0158
                                        .0178
                                               .0199
                                                       .0219
                 .0263
                                .0309
                                        .0333
                                                              .0411
                        .0286
                                               .0358
                                                       .0384
                                       .0529
                                                              .0631
                 .0439
                        .0467
                                .0497
                                               .0561
                                                       .0596
                 .0669
                                        .0807
                                                              .1066
                        .0709
                                .0751
                                               .0866
                                                       .0930
                                       .3434
                                                              .8106
                 .1371
                        .1840
                                               .4644
                                                       .6186
                                .2514
                               1.3533
                                      1.4300
                                              1.4982
                                                     1.5602
                                                             1.6174
                1.0449
                       1.2624
                                                             1.9273
                1.6704
                       1.7200
                               1.7664
                                      1.8102
                                              1.8514
                                                     1.8904
                1.9622
                       1.9953
                               2.0268
                                      2.0566
                                              2.0850
                                                     2.0915
                                                             2.0976
                               2.1140
                2.1033
                                      2.1191
                                              2.1239
                                                     2.1285
                                                             2.1329
                       2.1088
                2.1373
                                                             2.1604
                               2.1454
                                      2.1494
                                              2.1531
                                                     2.1568
                       2.1414
                                              2.1771
                2.1639
                               2.1706
                                      2.1739
                                                             2.1832
                       2.1673
                                                     2.1802
                2.1862
                               2.1919
                                      2.1947
                                                     2.2002
                                                             2.2028
                       2.1891
                                              2.1975
                               2.2105
                                      2.2130
                                                     2.2178
                2.2054
                                                             2.2202
                       2.2080
                                              2.2154
                               2.2270
                                      2.2293
                                                     2.2336
                                                             2.2358
                2.2225
                       2.2248
                                              2.2315
                       2.2399
                               2.2420
                                      2.2440 2.2460
                                                     2.2480
                               2.2557
                       2.2538
                                      2.2576
                                                     2.2612
                2.2519
                                              2.2594
                                                             2.2631
                2.2648
                               2.2684
                                                             2.2752
                       2.2666
                                      2.2701
                                                     2.2735
                                              2.2718
               2.2769
                               2.2802
                                      2.2818
                                                     2.2850
                                                             2.2866
                       2.2785
                                              2.2834
                               2.2912
                                      2.2928
                                                     2.2958
                                                             2.2973
               2.2881
                                              2.2943
                       2.2897
               2.2987
                               2.3017
                                      2.3031
                                                     2.3060
                                                             2.3074
                       2.3002
                                              2.3045
               2.3088
                               2.3115
                                      2.3129
                                                     2.3156
                                                             2.3169
                       2.3102
                                              2.3143
               2.3183
                              2.3209
                                      2.3222
                                                     2.3248
                                                             2.3261
                       2.3196
                                              2.3235
                               2.3298
                                      2.3311
                                                     2.3335
               2.3273
                                              2.3323
                                                             2.3348
                       2.3286
               2.3360 2.3372 2.3384 2.3396 2.3408 2.3419
                                                             2.3431
               2.3443 2.3454 2.3466 2.3477
                                              2.3488 2.3500
* ON-STIE
PER A=0.00 PER B=5.00 PER C=5.00 PER D=90.00
                  TP=0.1333 HR MASS RAINFALL=-1
         .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
    UNIT PEAK = 29.183 CFS UNIT VOLUME = .9990
                                                                 526.28 	 P60 = 2.0100
                                                      B =
                                                               .04000 INCHES PER HOUR
               .007392 \text{ SQ MI} IA = .10000 \text{ INCHES} INF =
    AREA =
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
    K = .119767HR TP = .1333300HR K/TP RATIO = .898476
                                                                  SHAPE CONSTANT, N = 3.944947
    UNIT PEAK = 2.1656 CFS UNIT VOLUME = .9946 B = 351.48 P60 = 2.0100
    AREA = .000821 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330
```

```
*************
                  PONDING CONDITION
***********
                  ID=20 HYD NO=501.1 INFLOW ID=10 CODE=24
ROUTE RESERVOIR
                                   STORAGE (AC-FT) ELEVATION (FT)
                  OUTFLOW (CFS)
                                                    4994.87
                                        0.00000
                      0.00
                                                    4995.00
                                        0.00180
                      2.05
                                                    4995.20
                                        0.01190
                      3.26
                                                    4995.40
                                        0.03060
                      4.13
                                                    4995.60
                                       0.05800
                      4.85
                                                    4995.80
                                        0.09420
                      5.47
                                                    4996.00
                                        0.13900
                      6.03
                                                    4996.20
                                        0.19260
                      6.54
                                                    4996.40
                                        0.25490
                      7.02
                                                    4996.60
                                        0.32590
                      7.46
                                                    4996.80
                                        0.40560
                      7.88
                                                    4997.00
                                        0.49400
                      8.28
                                         OUTFLOW
             INFLOW
                      ELEV
                               VOLUME
   TIME
                      (FEET)
                                         (CFS)
             (CFS)
                                (AC-FT)
    (HRS)
                                             .00
                                   .000
                     4994.87
     .00
                .00
                                   .000
                                             .00
                     4994.87
      .80
                .00
                                            7.16
                     4996.46
                                   .277
    1.60
              16.33
                                            6.48
                                   .186
                     4996.17
    2.40
                .99
                                             .20
                                   .000
    3.20
                     4994.88
                .20
                                             .13
                                   .000
    4.00
                .13
                     4994.88
                                             .13
    4.80
                                   .000
                .13
                     4994.88
                                             .14
                                   .000
    5.60
                     4994.88
                .14
                                             .01
                                   .000
                     4994.87
    6.40
                .01
                       7.546 CFS - PEAK OCCURS AT HOUR
                                                       1.87
 PEAK DISCHARGE =
                                    4996.641
MAXIMUM WATER SURFACE ELEVATION =
                                                             .033330HRS
                                         INCREMENTAL TIME=
                         .3421 AC-FT
 MAXIMUM STORAGE =
```

FINISH

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 11:41:05

SIDEWALK CULVERT CALCULATIONS

Sidewalk culvert flow capacity calculations were done using the orifice equation.

2-24" Sidewalk Culvert Flow Capacity Calculation Using Orifice Equation

Orifice Equation: $Q=CA\sqrt{2gh}$

h (head) =
$$0.67$$
'
A = 2.68 sf
g = 32.20

$$Q = 0.60 \times 2.68 \times \sqrt{(2 \times 32.2 \times 0.67)}$$

= 10.52 cfs

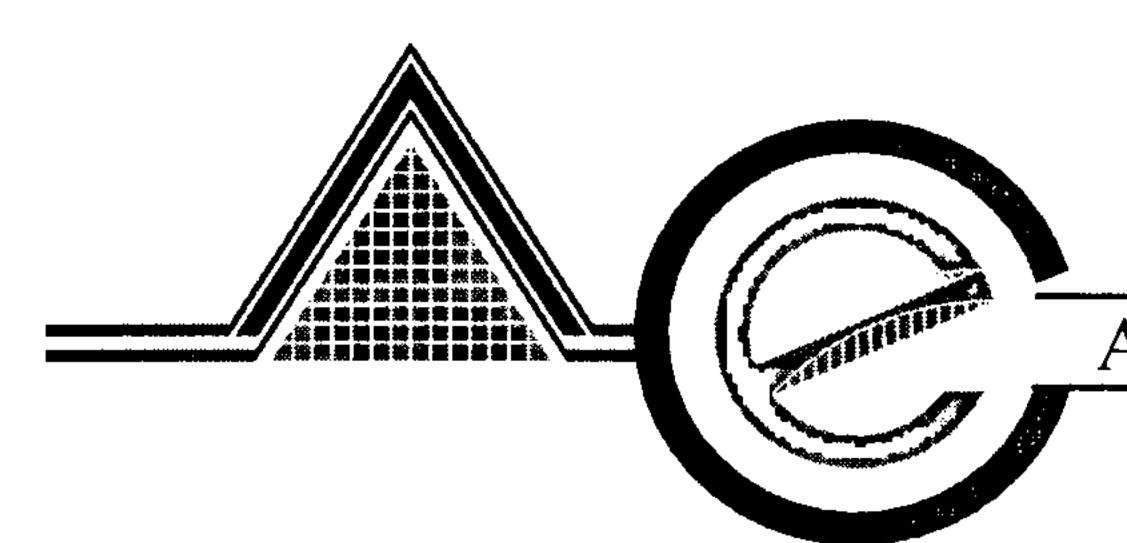
10.52 cfs > 7.55 cfs (Discharge From Site)

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (Rev. 12/05)

PROJECT TITLE: DOC SAVAGE SUPPLY	<u></u>			ZONE ATLAS/DRG. FILE #:	H15 / D064
DRB#:	#:			WORK ORDER #:	
		Company 4 T	CHE TENTO EN TECNE CO	™ .†	
	-A OF MUELLER INDU	SIKIAL	PORDIAIZIO	<u> </u>	
CITY ADDRESS: 600 CANDELARIA R	RD. NE	.			
ENGINEERING FIRM: Advanced Engineering a	and Consulting, LLC	-	CONTACT:		
ADDRESS: 4416 Anaheim Ave., NE		-	PHONE:	(505) 899-5570	
CITY, STATE: Albuquerque, New Mex	Kico	-	ZIP CODE:	87113	
OWNER:		-	CONTACT:	<u> </u>	<u> </u>
ADDRESS:	<u></u>	-	PHONE: ZIP CODE:		<u></u>
CITY, STATE:	<u></u>		ZII CODE.		
ARCHITECT:		_	CONTACT:		
ADDRESS:	 	-	PHONE: ZIP CODE:	<u> </u>	
CITY, STATE:	<u> </u>	-	ZII CODE		
SURVEYOR:		_	CONTACT:	_	
ADDRESS:		-	PHONE: ZIP CODE:		
CITY, STATE:			ZII CODE.		· <u></u>
CONTRACTOR:		_	CONTACT:		
ADDRESS:	<u> </u>	_	PHONE:	· · · · · · · · · · · · · · · · · · ·	
CITY, STATE:	<u></u>	-	Zii CODE.		
CHECK TYPE OF CHOMITTAL.		CHECK	TYPE OF AF	PROVAL SOUGHT:	
CHECK TYPE OF SUBMITTAL:		CITOCIS		NCIAL GUARANTEE RELEASE	
DRAINAGE REPORT					
DRAINAGE PLAN 1ST SUBMITTAL				ARY PLAT APPROVAL	
DRAINAGE PLAN RESUBMITTAL				AN FOR SUB'D. APPROVAL	
CONCEPTUAL GRADING & DRAINAGE	PLAN		S. DEV. PL	AN FOR BLDG. PERMIT APPRO	VAL
X GRADING PLAN			SECTOR P	LAN APPROVAL	
EROSION CONTROL PLAN			FINAL PLA	T APPROVAL	
ENGINEER'S CERTIFICATION (HYDRO	LOGY)		FOUNDAT	ION PERMIT APPROVAL	
CLOMR / LOMR		X	BUILDING	PERMIT APPROVAL	
	[)			ATE OF OCCUPANCY (PERM.)	
TRAFFIC CIRCULATION LAYOUT (TCI	·			ATE OF OCCUPANCY (TEMP.)	
ENGINEER/ARCHITECT CERT (TCL)	\				
ENGINEER/ARCHITECT CERT (DRB S.I	۲.)			PERMIT APPROVAL	
ENGINEER/ARCHITECT CERT (AA)		,		ERMIT APPROVAL	THE PARTY TO SEE
OTHER (SPECITY)		. <u> </u>	WORK OR	BERAPPROVAL	
		X	SO-19	The same with th	
WAS A PRE-DESIGN CONFERENCE ATTENDED:				JUN 0 9 2008	
YES					
X NO				hww. (G)	
COPY PROVIDED					
DATE SUBMITTED: 06 / 06 / 2	2008			BY:Shahab Biazar, P.E.	
DAID OUDMILL LEDI	_				· _ · · · · · · · · · · · · · · · · · ·

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 the following levels of submittals may be required based on the following:

- 1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) and Sector Plans.
- 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 containing five (5) acres or more.



ADVANCED ENGINEERING and CONSULTING, LLC

Consulting
Design
Development
Management
Inspection
Surveying

June 6, 2008

Mr. Gregory R. Olson, P.E.
Hydrology Section
Development and Building Services
600 Second Street NW
Albuquerque, New Mexico 87102

RE: DOC SAVAGE SUPPLY - 600 CANDELARIA NE (H15-D064) GRADING AND DRAINAGE PLAN

Dear Mr. Olson:

This letter and submittal is based on your comments received dated April 21, 2008. The following are the responses to your comments:

- The retention pond was changed to detention pond by adding swamp pump.
- The pump for the detention pond is based on a 40 GPM min. flow at the discharge point of the pump. The pond will drain in 19 hours and 12 minutes. See attached AHYMO runs and calculations for the pond discharge analysis. Since the drainage of the pond lasts longer than 6 hours the AHYMO run was done based on the 24 hour storm.
- Note #3 under the "Notice To Contractors" was changed to show the correct phone number for the NM One Call.
- We will show the existing contours 25' beyond the property line for the future projects.

Please contact me if there are any questions or concerns regarding this submittal.

Sincerely yours,

Shahab Biazar, P.E.

RECEIVED

JUN 09 2008

HYDROLOGY SECTION

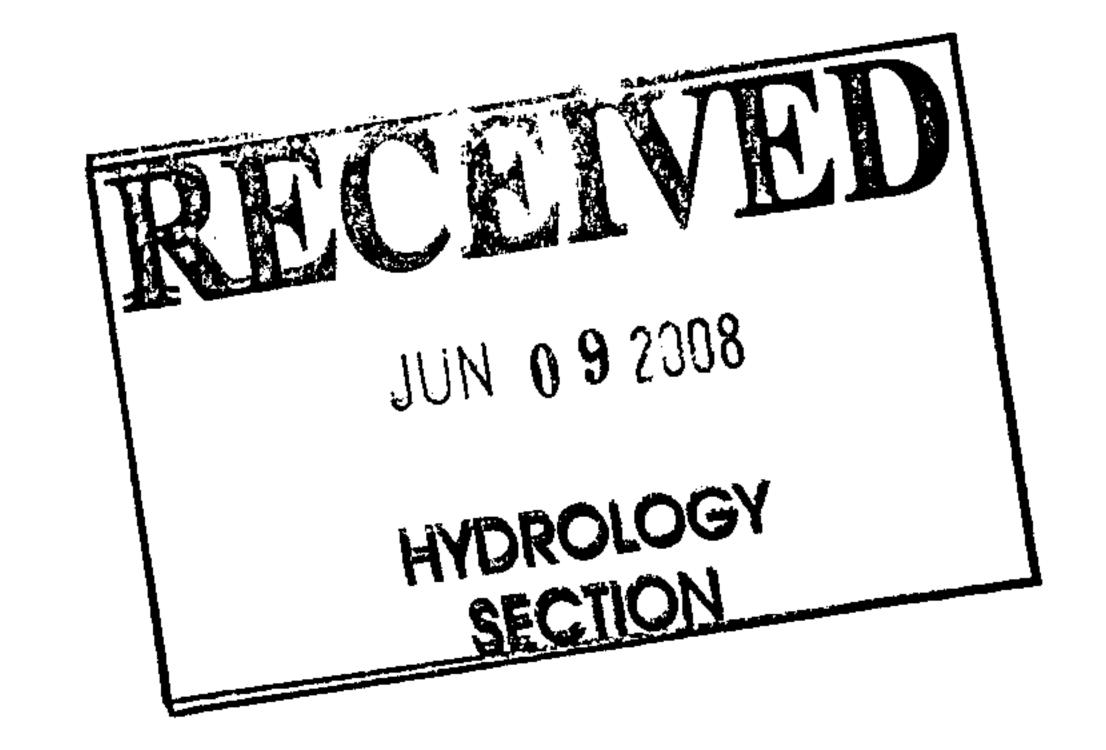
AHYMO INPUT FILE (PONDING CONDITIONS-LOADING AREA)

* ZONE 2							

* 100-YEAR,	24-HR STORM (UNDEF	R PROPOSED CONDIT	IONS) *				
*****	*****	*****	****				
START	TIME=0.0						
RAINFALL	TYPE=2 RAIN QUART						
	RAIN ONE=2.01 IN						
	RAIN DAY= 2.75 IN	DT = 0.03333 HR					
* ON-STIE LOADING							
COMPUTE NM HYD	ID=30 HYD $NO=101$.						
	PER A=0.00 PER B=		PER $D=90.00$				
	TP=0.1333 HR MASS						
*****	*****	*****	****				
*	PONDING CONDITION		*				

ROUTE RESERVOIR	$ID=40 \ HYD \ NO=501.$						
	OUTFLOW (CFS)		ELEVATION (FT)				
	0.00	0.000	4987.00				
	0.0880	0.0043	4987.50				
	0.0881	0.0114	4988.00				
	0.0882	0.0212	4988.50				
	0.0883	0.0338	4989.00				
	0.0884	0.0491	4989.50				
	0.0885	0.0671	4990.00				
	0.0886	0.0879	4990.50				
	0.0887	0.1113	4991.00				
	0.0888	0.1376	4991.50				
	0.0889	0.1665	4992.00				
	0.0890	0.1982	4992.50				
	0.0891	0.2326	4993.00				
*********	****	*****	****				
*							

FINISH



VOLUME CALCULATIONS

DETENTION POND

Ab - Bottom Of The Pond Surface Area

At - Top Of The Pond Surface Area

D - Water Depth

Dt - Total Pond Depth

C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$

C = (At - Ab) / Dt

Ab = 259.78 At = 3,117.97

@ ELEV. =@ ELEV. =

4987.00

4993.00

Dt = 6.00

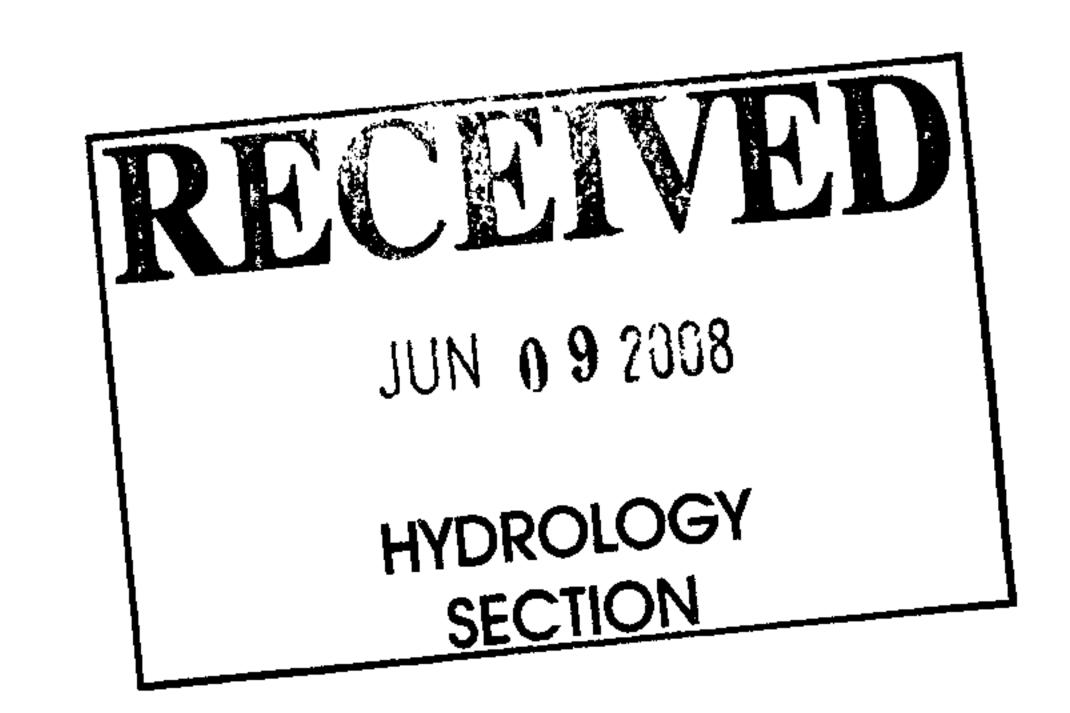
C = 476.37

40 GPM PUMP

			10 01 141 1 01411
ACTUAL	DEPTH	VOLUME	Q
ELEV.	(FT)	(AC-FT)	(CFS)
4987.00	0.00	0.0000	0.00
4987.50	0.50	0.0043	0.089
4988.00	1.00	0.0114	0.089
4988.50	1.50	0.0212	0.089
4989.00	2.00	0.0338	0.089
4989.50	2.50	0.0491	0.089
4990.00	3.00	0.0671	0.089
4990.50	3.50	0.0879	0.089
4991.00	4.00	0.1113	0.089
4991.50	4.50	0.1376	0.089
4992.00	5.00	0.1665	0.089
4992.50	5.50	0.1982	0.089
4993.00	6.00	0.2326	0.089

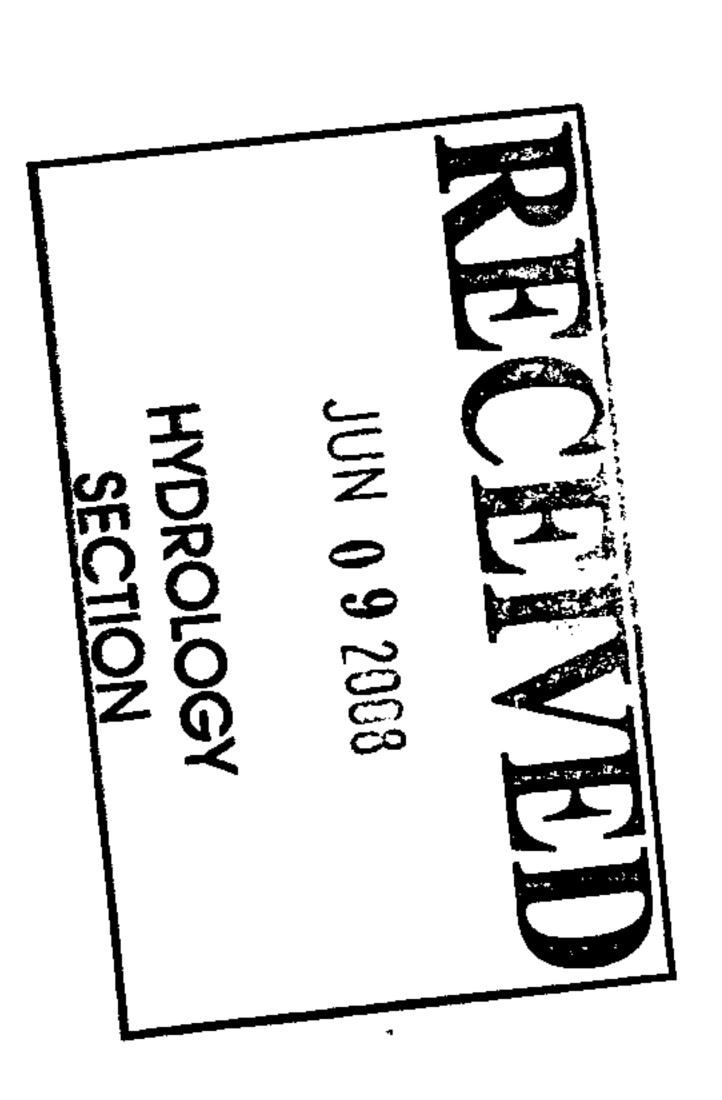
USE A PUMP WITH MIN. FLOW RATE OF 40 GPM AT DISCHARGE POINT

Q = 40 GAL / MIN = 0.0891 CFS



SUMMARY OUTPUT FILE (PONDING CONDITIONS-LOADING AREA)

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - INPUT FILE = 712PDL				- VERSION: 1997.02d RUN DATE (MON/DAY/YR) =06/06/2008 USER NO.= AHYMO-I-9702c01000R31-AH							
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	PAGE =	
START RAINFALL TY COMPUTE NM H ROUTE RESERV		- 30	30 40	.00114	3.29	.139	2.29516 2.24954	1.500		TIME= RAIN24= PER IMP= AC-FT=	.00 2.750 90.00 .104



AHYMO OUTPUT FILE (PONDING CONDITIONS-LOADING AREA)

```
- Version: 1997.02d
   AHYMO PROGRAM (AHYMO 97) -
         RUN DATE (MON/DAY/YR) = 06/06/2008
                                                 USER NO. = AHYMO-I-9702c01000R31-AH
         START TIME (HR:MIN:SEC) = 13:26:43
         INPUT FILE = 712PDL
* ZONE 2
         100-YEAR, 24-HR STORM (UNDER PROPOSED CONDITIONS)
**************
                    TIME=0.0
START
                    TYPE=2 RAIN QUARTER=0.0 IN
RAINFALL
                    RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                    RAIN DAY=2.75 IN DT=0.03333 HR
               COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                                                           19.964670 HOURS
                                             END TIME =
                        .033330 HOURS
               DT =
                                                             .0084
                                                                     .0102
                                                    .0066
                                            .0049
                                   .0033
                           .0016
                   .0000
                                                             .0219
                                                                     .0241
                                                    .0199
                                   .0158
                                            .0178
                           .0139
                   .0120
                                                             .0384
                                                                     .0411
                                                    .0358
                                   .0309
                                            .0333
                           .0286
                   .0263
                                                                     .0631
                                                             .0596
                                                    .0561
                                            .0529
                                   .0497
                   .0439
                           .0467
                                                             .0930
                                                                     .1066
                                                    .0866
                                   .0751
                                            .0807
                           .0709
                   .0669
                                                             .6186
                                                                     .8106
                                                    .4644
                                            .3434
                                   .2514
                   .1371
                           .1840
                                                           1.5602
                                                                    1.6174
                                                   1.4982
                                           1.4300
                                  1.3533
                          1.2624
                 1.0449
                                                           1.8904
                                                                    1.9273
                                                   1.8514
                                           1.8102
                                  1.7664
                          1.7200
                 1.6704
                                                           2.0915
                                                                    2.0976
                                                   2.0850
                                           2.0566
                                  2.0268
                          1.9953
                 1.9622
                                                           2.1285
                                                                    2.1329
                                                   2.1239
                                           2.1191
                                  2.1140
                 2.1033
                          2.1088
                                                                    2.1604
                                                   2.1531
                                                           2.1568
                                           2.1494
                                  2.1454
                          2.1414
                 2.1373
                                                                    2.1832
                                                           2.1802
                                                   2.1771
                                           2.1739
                                  2.1706
                          2.1673
                 2.1639
                                                           2.2002
                                                                    2.2028
                                                   2.1975
                                  2.1919
                                           2.1947
                          2.1891
                 2.1862
                                                                    2.2202
                                                           2.2178
                                           2.2130
                                                   2.2154
                                  2.2105
                          2.2080
                 2.2054
                                                                    2.2358
                                                           2.2336
                                                   2.2315
                                           2.2293
                                  2.2270
                          2.2248
                 2.2225
                                                                    2.2500
                                                           2.2480
                                                   2.2460
                                           2.2440
                                  2.2420
                          2.2399
                 2.2379
                                                                    2.2631
                                                           2.2612
                                                   2.2594
                                           2.2576
                                  2.2557
                          2.2538
                 2.2519
                                           2.2701
                                  2.2684
                                                   2.2718
                 2.2648
                          2.2666
                                                                    2.2866
                                                           2.2850
                                                   2.2834
                                           2.2818
                                  2.2802
                          2.2785
                 2.2769
                                                                    2.2973
                                                           2.2958
                                                   2.2943
                                           2.2928
                                  2.2912
                          2.2897
                 2.2881
                                                           2.3060
                                                                    2.3074
                                                   2.3045
                                           2.3031
                                  2.3017
                          2.3002
                 2.2987
                                                                    2.3169
                                                           2.3156
                                                   2.3143
                                           2.3129
                                  2.3115
                          2.3102
                 2.3088
                                                                    2.3261
                                                           2.3248
                                                   2.3235
                                           2.3222
                                  2.3209
                          2.3196
                 2.3183
                                                                    2.3348
                                                           2.3335
                                                   2.3323
                                           2.3311
                                  2.3298
                          2.3286
                 2.3273
                                                            2.3419
                                                                    2.3431
                                                   2.3408
                                           2.3396
                                  2.3384
                          2.3372
                 2.3360
                                                                    2.3511
                                                           2.3500
                                           2.3477
                                                   2.3488
                                  2.3466
                          2.3454
                 2.3443
                                                                    2.3591
                                                           2.3580
                                                   2.3568
                                           2.3557
                                  2.3546
                          2.3534
                 2.3523
                                                           2.3658
                                                                    2.3669
                                                   2.3647
                                           2.3636
                                  2.3625
                          2.3613
                  2.3602
                                                           2.3735
                                                                    2.3746
                                                   2.3724
                                           2.3713
                                  2.3702
                          2.3691
                  2.3680
                                                           2.3811
                                                                    2.3822
                                                   2.3801
                                           2.3790
                                  2.3779
                          2.3768
                  2.3757
                                                                    2.3897
                                                           2.3886
                                                   2.3876
                                           2.3865
                                  2.3854
                          2.3844
                  2.3833
                                                                    2.3970
                                                            2.3960
                                                   2.3949
                                           2.3939
                                  2.3928
                          2.3918
                  2.3907
                                                                    2.4043
                                                           2.4032
                                                   2.4022
                                           2.4012
                                  2.4001
                          2.3991
                  2.3981
                                                                    2.4114
                                                            2.4104
                                                   2.4094
                                           2.4083
                                  2.4073
                          2.4063
                  2.4053
                                                                    2.4184
                                                            2.4174
                                                   2.4164
                                           2.4154
                                  2.4144
                          2.4134
                  2.4124
                                                                    2.4253
                                                            2.4243
                                                   2.4233
                                           2.4224
                                  2.4214
                          2.4204
                  2.4194
                                                                    2.4321
                                                   2.4302
                                                            2.4312
                                           2.4292
                                  2.4282
                          2.4273
                  2.4263
                                                                    2.4388
                                                            2.4379
                                                   2.4369
                                           2.4360
                                  2.4350
                          2.4341
                  2.4331
                                                                    2.4455
                                                            2.4445
                                                   2.4436
                                           2.4426
                                  2.4417
                          2.4408
                  2.4398
                                                                    2.4520
                                                           2.4511
                                                   2.4502
                                           2.4492
                                  2.4483
                          2.4474
                  2.4464
                                                                    2.4585
                                                           2.4575
                                                   2.4566
                                           2.4557
                                   2.4548
                          2.4539
                  2.4529
                                           2.4621
                                                   2.4630
                                  2.4612
                          2.4603
                  2.4594
                                                                    2.4711
                                                            2.4702
                                                   2.4693
                                           2.4684
                          2.4666
                                  2.4675
                  2.4657
                                                            2.4764
                                                                    2.472
                                                   2.4756
                          2.4729
                                           2.4747
                                   2.4738
                  2.4720
                                                            2.4826
                                                   2.4817
                                           2.4808
                                   2.4799
                          2.4791
                  2.4782
                                                            2.4886
                                                   2.4878
                                           2.4869
                                   2.4860
                          2.4852
                  2.4843
                                                                    2.4955
                                                                                JUN 997308
                                                           2.4946
                                                   2.4938
                                           2.4929
                                   2.4921
                          2.4912
                  2.4903
                                                                    2.5014
                                                            2.5005
                                                   2.4997
                                           2.4988
                                   2.4980
                 2.4963
                          2.4971
                                                                    2.507/2
                                                            2.5064
                                                   2.5055
                                           2.5047
                                   2.5039
                          2.5030
                  2.5022
                                                                                HYDROLOGY
SECTION
```

```
2.5088
                 2.5097
                         2.5105
                                  2.5113
                                           2.5121
                                                   2.5129
2.5080
                                           2.5178
        2.5146
                 2.5154
                          2.5162
                                  2.5170
                                                   2.5186
2.5138
                                           2.5235
                                                   2.5243
2.5194
        2.5203
                 2.5211,
                         2.5219
                                  2.5227
                                  2.5282
                                           2.5290
                                                   2.5298
2.5251
        2.5259
                 2.5267
                          2.5274
                                           2.5345
                 2.5322
                                  2.5338
2.5306
        2.5314
                          2.5330
                                                   2.5353
                 2.5377
                                  2.5392
                                           2.5400
2.5361
        2.5369
                          2.5384
                                                   2.5408
2.5415
                 2.5431
                                  2.5446
                                           2.5454
                                                   2.5461
        2.5423
                          2.5438
                                           2.5507
                 2.5484
                                  2.5500
                                                   2.5515
2.5469
        2.5477
                          2.5492
                                  2.5552
                 2.5537
                                           2.5560
                                                   2.5567
2.5522
        2.5530
                          2.5545
                                  2.5605
                                           2.5612
2.5575
        2.5582
                 2.5590
                          2.5597
                                                   2.5619
                                           2.5664
        2.5634
                 2.5642
                          2.5649
                                  2.5656
                                                   2.5671
2.5627
        2.5686
                 2.5693
                                  2.5707
                                           2.5715
                                                   2.5722
2.5678
                          2.5700
        2.5736
                 2.5744
                                  2.5758
                                           2.5765
                          2.5751
                                                   2.5773
2.5729
                                  2.5808
                                           2.5815
        2.5787
                 2.5794
                          2.5801
                                                   2.5823
2.5780
                                  2.5858
                                           2.5865
                                                   2.5872
        2.5837
                 2.5844
                          2.5851
2.5830
        2.5886
                 2.5893
                          2.5900
                                  2.5907
                                           2.5914
                                                   2.5921
                                  2.5956
        2.5935
                 2.5942
                         2.5949
                                           2.5963
                                                   2.5970
2.5928
                                  2.6004
                                           2.6011
                                                   2.6018
        2.5983
                 2.5990
                          2.5997
2.5976
                 2.6038
                                  2.6052
                                           2.6058
                                                   2.6065
        2.6031
                          2.6045
2.6024
                 2.6085
                                  2.6099
                                           2.6106
                                                   2.6112
2.6072
        2.6079
                          2.6092
                 2.6132
                          2.6139
                                  2.6146
                                           2.6152
                                                   2.6159
        2.6126
2.6119
                 2.6179
                          2.6186
                                  2.6192
                                           2.6199
                                                   2.6205
2.6166
        2.6172
                                           2.6245
        2.6219
                 2.6225
                          2,6232
                                  2.6238
                                                   2.6251
2.6212
                                           2.6290
        2.6264
                 2.6271
                          2.6277
                                  2.6284
                                                   2.6297
2.6258
                                           2.6335
        2.6310
                 2.6316
                          2.6322
                                  2.6329
                                                   2.6342
2.6303
        2.6355
                 2.6361
                          2.6367
                                  2.6374
                                           2.6380
                                                   2.6386
2.6348
        2.6399
                 2.6405
                                  2.6418
                                           2.6424
                                                   2.6431
2.6393
                          2.6412
                 2.6449
                          2.6456
                                  2.6462
                                           2.6468
        2.6443
                                                   2.6474
2.6437
                                  2.6506
                                           2.6512
                                                   2.6518
        2.6487
                 2.6493
                          2.6499
2.6481
                 2.6536
                                  2.6549
                                           2.6555
                                                   2.6561
        2.6530
                          2.6543
2.6524
        2.6573
                 2.6579
                                  2.6592
                                           2.6598
                          2.6586
                                                   2.6604
2.6567
                 2.6622
                                  2.6634
                                           2.6640
        2.6616
                          2.6628
                                                   2.6646
2.6610
                 2.6664
                                  2.6676
                                           2.6682
                                                   2.6688
        2.6658
                          2.6670
2.6652
                                           2.6724
        2.6700
                 2.6706
                          2.6712
                                  2.6718
                                                   2.6730
2.6694
                                           2.6765
        2.6742
                 2.6748
                          2.6754
                                  2.6760
2.6736
                                                   2.6771
                                  2.6801
                                                   2.6812
        2.6783
                 2.6789
                          2.6795
                                           2.6807
2.6777
                 2.6830
                                  2.6841
        2.6824
                          2.6836
2.6818
```

* ON-STIE LOADING AREA

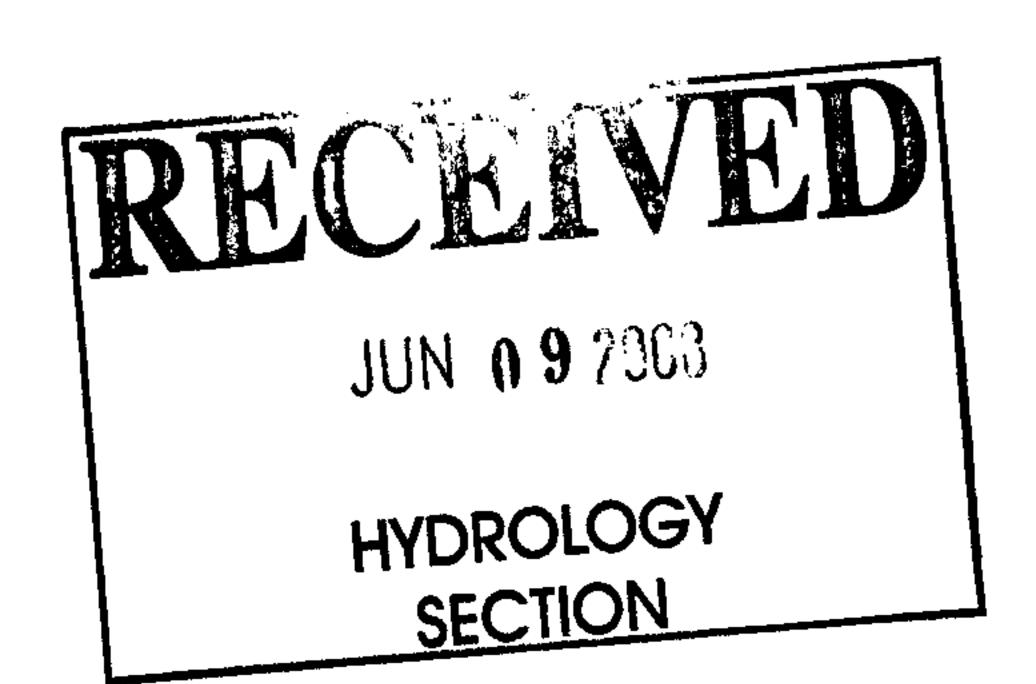
COMPUTE NM HYD

ID=30 HYD NO=101.0 AREA=0.001135 SQ MI PER A=0.00 PER B=5.00 PER C=5.00 PER D=90.00 TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420 UNIT PEAK = 4.0329 CFS UNIT VOLUME = .9965 B = 526.28 P60 = 2.0100 AREA = .001022 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .119767HR TP = .133300HR K/TP RATIO = .898476 SHAPE CONSTANT, N = 3.944947 UNIT PEAK = .29927 CFS UNIT VOLUME = .9550 B = 351.48 P60 = 2.0100 AREA = .000114 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

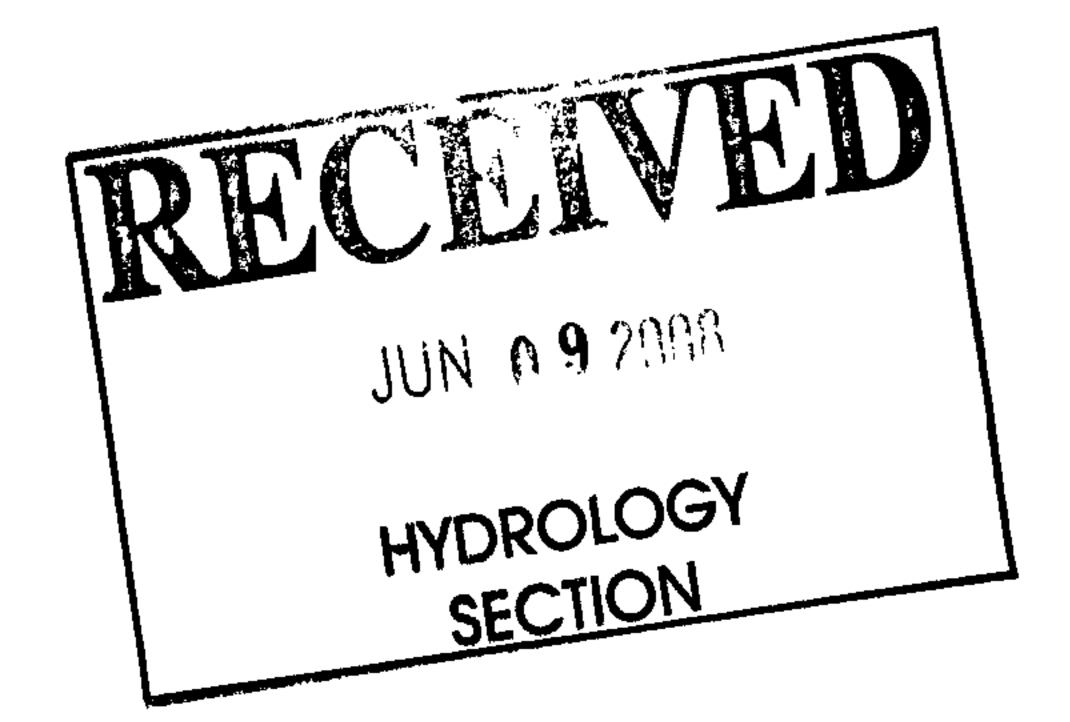
ROUTE RESERVOIR ID=40 HYD NO=501.1 INFLOW ID=30 CODE=24 OUTFLOW (CFS) STORAGE (AC-FT) ELEVATION (FT) 0.0000 4987.00 0.00 0.0043 4987.50 0.0880 0.0114 4988.00 0.0881 0.0212 4988.50 0.0882 0.0338 4989.00 0.0883 0.0491 4989.50 0.0884 4990.00 0.0671 0.0885 0-0879 4990.50 0.0886 4991.00 0.0887 0.1113 4991.50 0.1376 0.0888 4992.00 0.1665 0.0889 4992.50 0.1982 0.0890 4993.00 0.2326 0.0891



* * *	* * *	* * *	* * *	* * *		
TIME	INFLOW	ELEV	VOLUME	OUTFLOW		
(HRS)	(CFS)	(FEET)	(AC-FT)	(CFS)		
.00	.00	4987.00	.000	.00		
.80	.00	4987.00	.000	.00		
1.60	2.27	4989.69	.056	.09		
2.40	.13	4990.85	.104	.09		
3.20	.03	4990.80	.102	.09		
4.00	.02	4990.71	.098	.09		
4.80	.02	4990.61	.093	.09		
5.60	.02	4990.51	.088	.09		
6.40	.02	4990.40	.084	.09		
7.20	.02	4990.30	.079	.09		
8.00	.02	4990.19	.075	.09		
8.80	.02	4990.08	.070	.09		
9.60	.02	4989.96	.066	.09		
10.40	.02	4989.83	.061	.09		
11.20	.02	4989.70	.056	.09		
12.00	.02	4989.57	.052	.09		
12.80	.02	4989.43	.047	.09		
13.60	.01	4989.27	.042	.09		
14.40	.01	4989.11	.037	.09		
15.20	.01	4988.94	.032	.09		
16.00	.01	4988.74	.027	.09		
16.80	.01	4988.54	.022	.09		
17.60	.01	4988.30	.017	.09		
18.40	.01	4988.05	.012	.09		
19.20	.01	4987.71	.007	.09		
PEAK DISCHARG	SE =	.089 CF	S - PEAK (OCCURS AT HOUR	2.53	
MAXIMUM WATER	SURFACE	ELEVATION :	= 499(0.854		
MAXIMUM STORA	AGE =	-1.04.5	AC-FT	INCREMENTAL TI	ME=	.033330HRS
· * * * * * * * * * * * * * * * * * * *	*****	*****	*****	******	*****	*
TINISH						

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 13:26:43

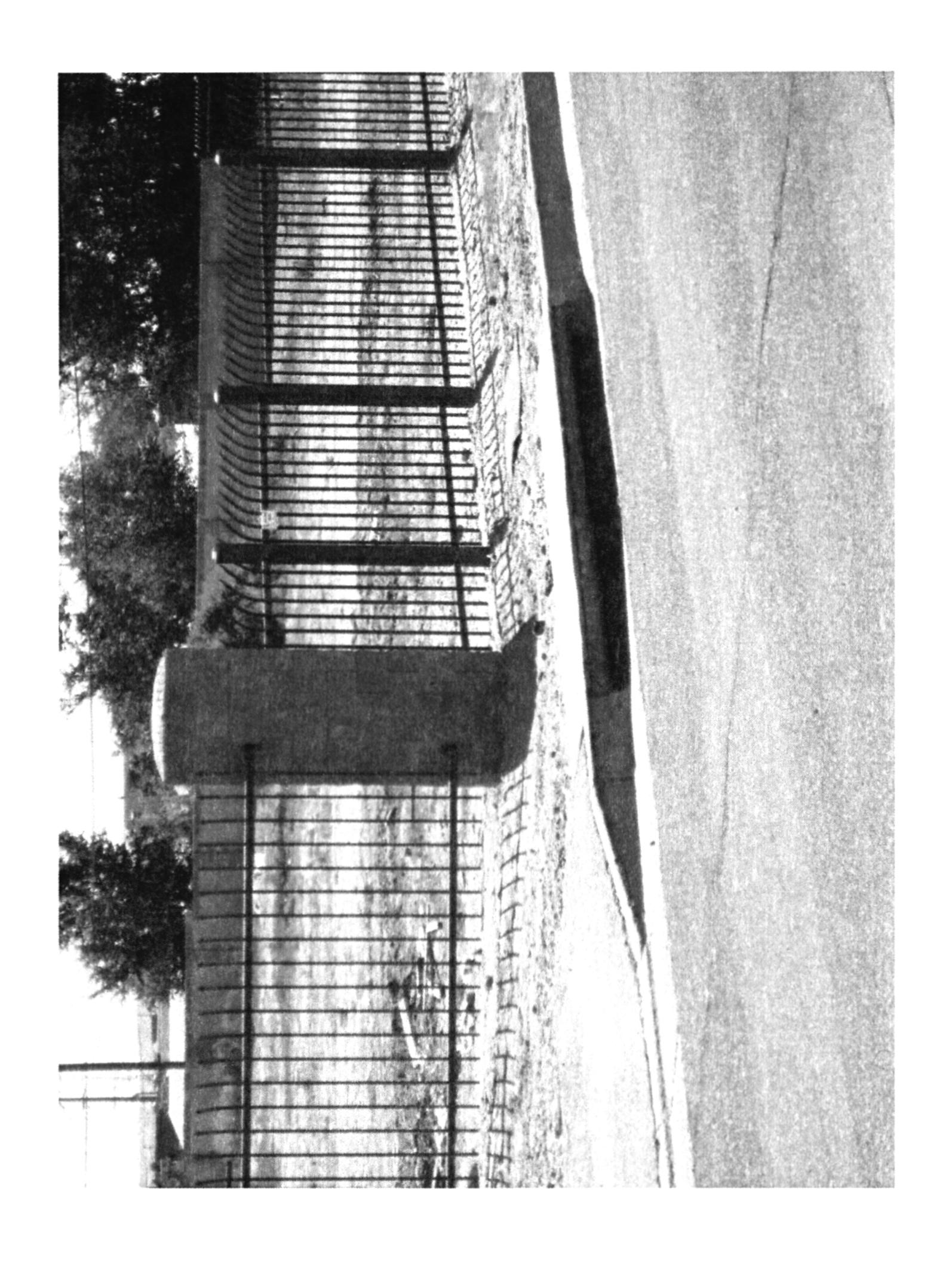


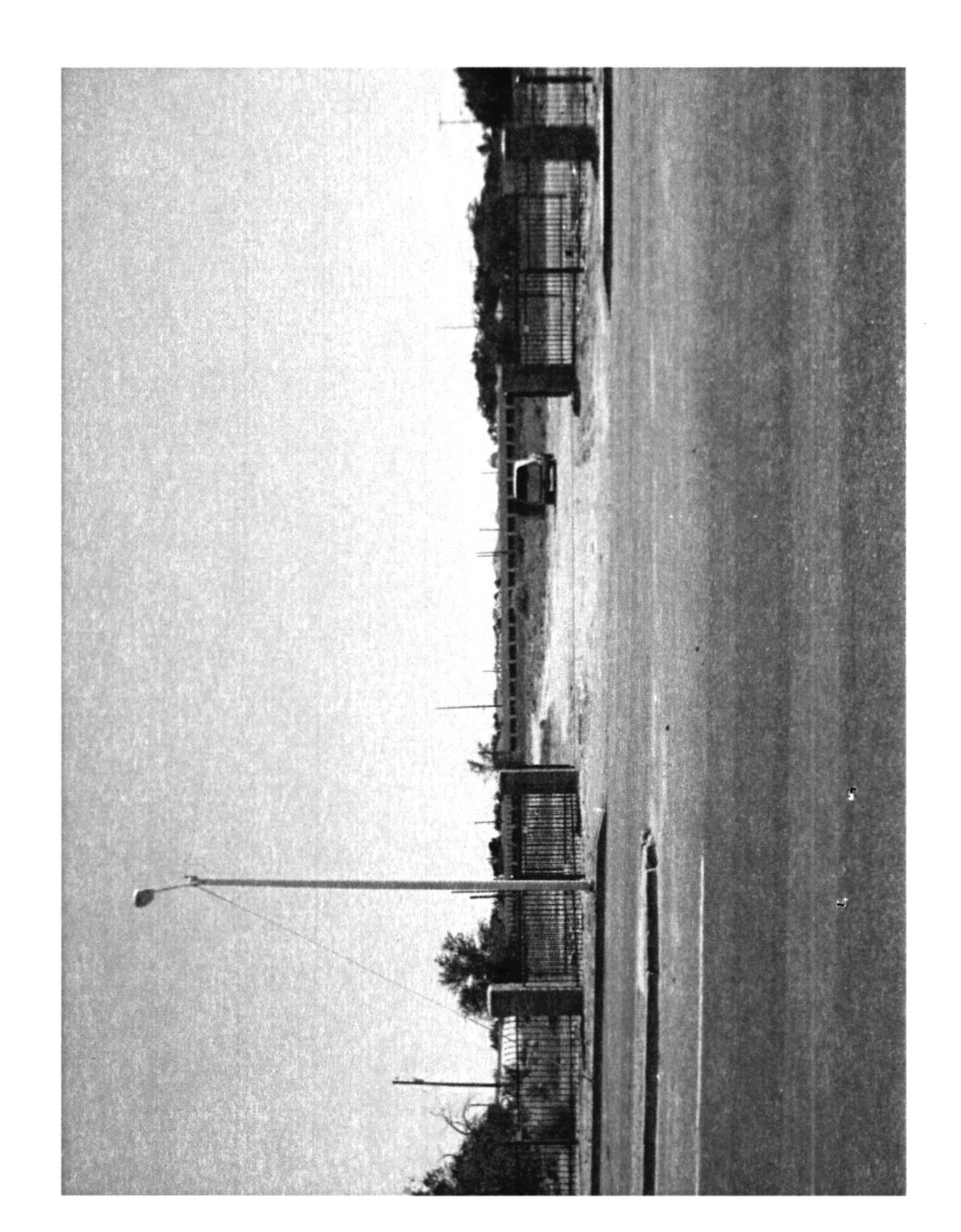
	(Rev. 12/05)	H-15/D064
$\mathcal{D}_{\mathcal{D}} = \mathcal{D}_{\mathcal{D}} = $		I_{\perp}^{\prime}
PROJECT TITLE: DOC SAVAGE SUPP	ZONE MAP/DR	G. FILE # #=15-Z
DRB#: EPC#:	WORK ORDER	#:
1-21 MAIN-11-	1117/20	•
LEGAL DESCRIPTION: LOT CH - /VIUGUEIZ	INDUSIRIAL	
LEGAL DESCRIPTION: LOT ZA - MUGUEZ CITY ADDRESS: 600 CAUDELAZIA	RD. NE	
ENGINEERING FIRM: AWAWCED ENGINEEFRING	CONTAC	CT: SHAHAB BLAZARZ
ADDRESS: 4416 ANKHEIM NE	PHONE	
CITY, STATE: ABO UM	ZIP COD	E: 87113
OWNER:	CONTAC	CT: ED DOWAHUE
ADDRESS: ZIO CLAREMONT NE	PHONE:	
CITY, STATE: ABQ UM	ZIP COD	E: 87107
Manner Land		
ARCHITECT: MASIERUDIEKS ARCHITECTS WC	CONTAC	CT: JIM CLAPPIC
ADDRESS: 56 1 th St NW	PHONE:	242-1866
CITY, STATE: ABO NU	ZIP COD	E: 87102
SURVEYOR:	CONTAC	CT:
ADDRESS:	PHONE:	
CITY, STATE:	ZIP COD	E:
CONTRACTOR INTERNATIONAL CONTRACTOR		Z., 1
CONTRACTOR: WEIMAN COMMERCIAL	CONTAC	T: BILL WELMAN
ADDRESS: 5/05 WATGECRESS	PHONE:	220-2438
CITY, STATE: ABQ NM	ZIP COD	E: 87113
TYPE OF SUBMITTAL:	CHECK TYPE OF APPRO	
DRAINAGE REPORT		GUARANTEE RELEASE
DRAINAGE PLAN 1 st SUBMITTAL		PLAT APPROVAL
DRAINAGE PLAN RESUBMITTAL	- 	OR SUB'D APPROVAL
CONCEPTUAL G & D PLAN		DG. PERMIT APPROVAL
GRADING PLAN EDOCIONI CONTROL DI ANI	SECTOR PLAN	
ENCONTROL PLAN	FINAL PLAT AP	
ENGINEER'S CERT (HYDROLOGY)		ERMIT APPROVAL
CLOMR/LOMR TD AFFIC CIDCUIT ATTONIA AVOITE	X BUILDING PERI	
TRAFFIC CIRCULATION LAYOUT ENIGNEED (A DOLLITE CT CEDT (TCL)		F OCCUPANCY (PERM)
ENGINEER/ARCHITECT CERT (TCL)		F OCCUPANCY (TEMP)
ENGINEER/ARCHITECT CERT (DRB S.P.)	GRADING PERM	
ENGINEER/ARCHITECT CERT (AA)	PAVING PERMI	PAPPROVAL VILLE
OTHER (SPECIFY)	1	
RESUBMITTAL	OTHER (SPECIF	_
		AUG 2 8 7008
WAS A PRE-DESIGN CONFERENCE ATTENDED: YES		
NO		HYDROLOGY
NO COPY PROVIDED		SECTION -
	j L	2EC HON
SUBMITTED BY: COMMOS Clark	*** 1 ********************************	20 A
DUDIVILLED DI.	DATE: _	28 Aug-08

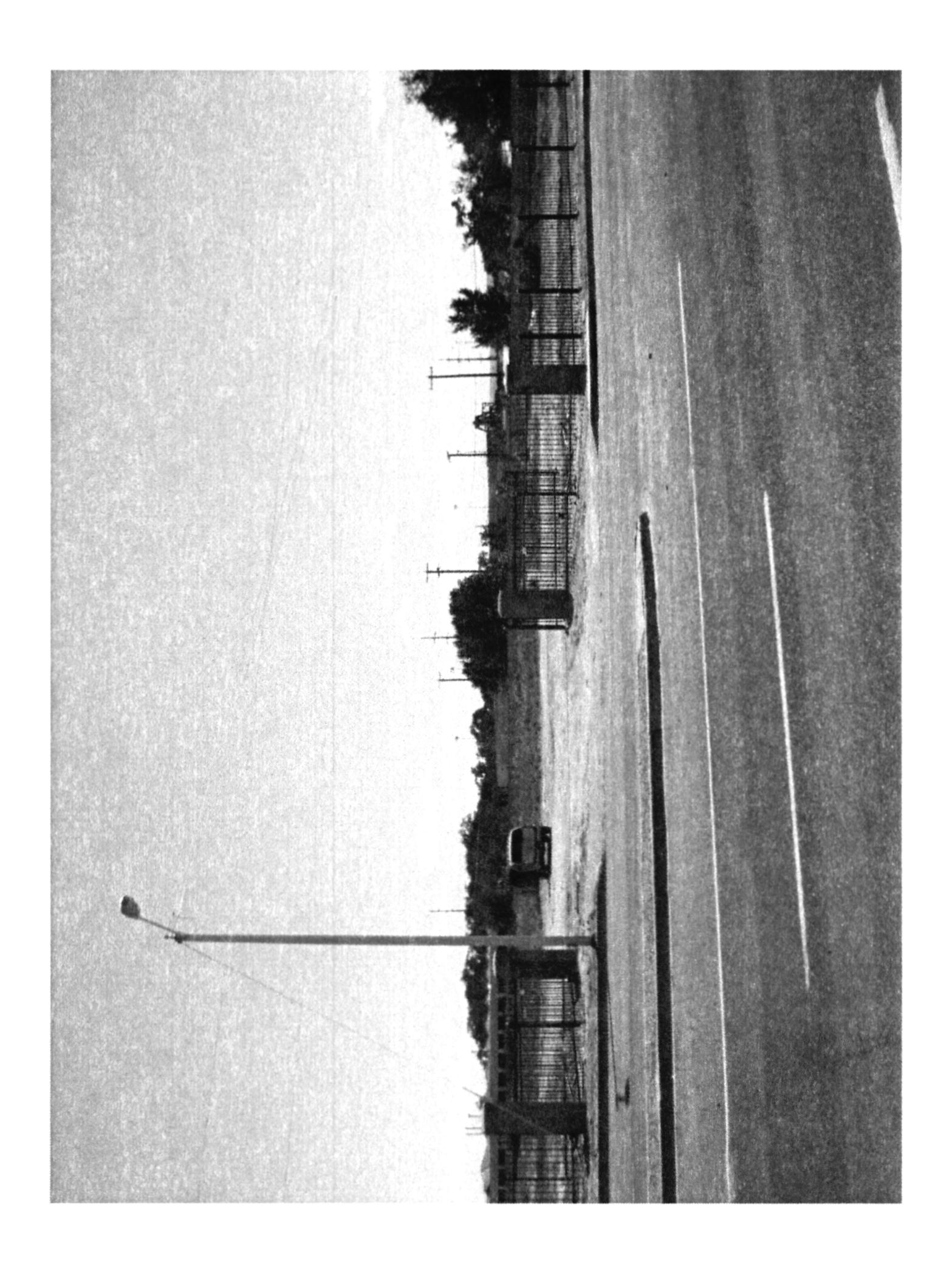
DRAINAGE AND TRANSPORTATION INFORMATION SHEET

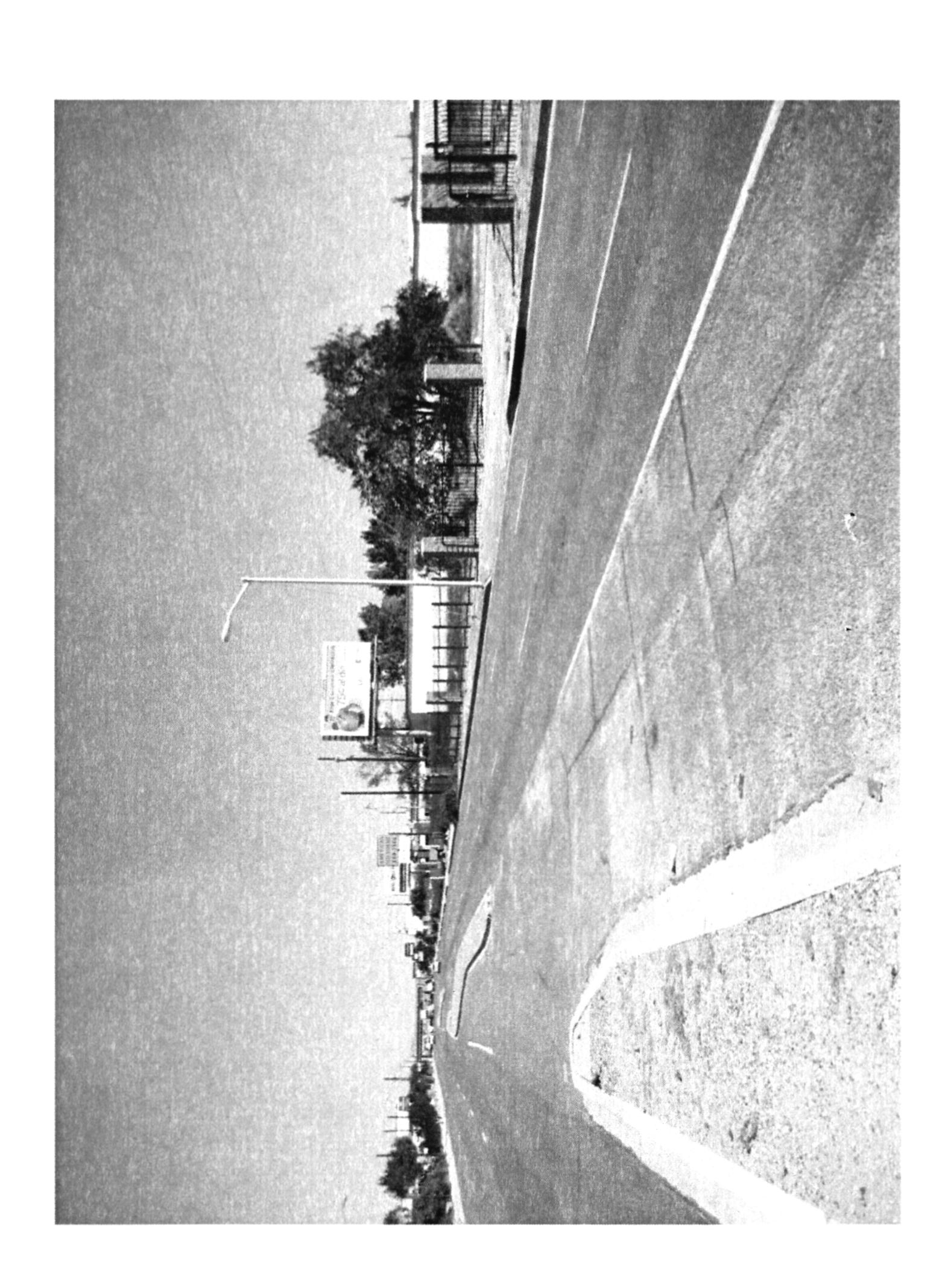
Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of the following levels of submittal may be required based on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

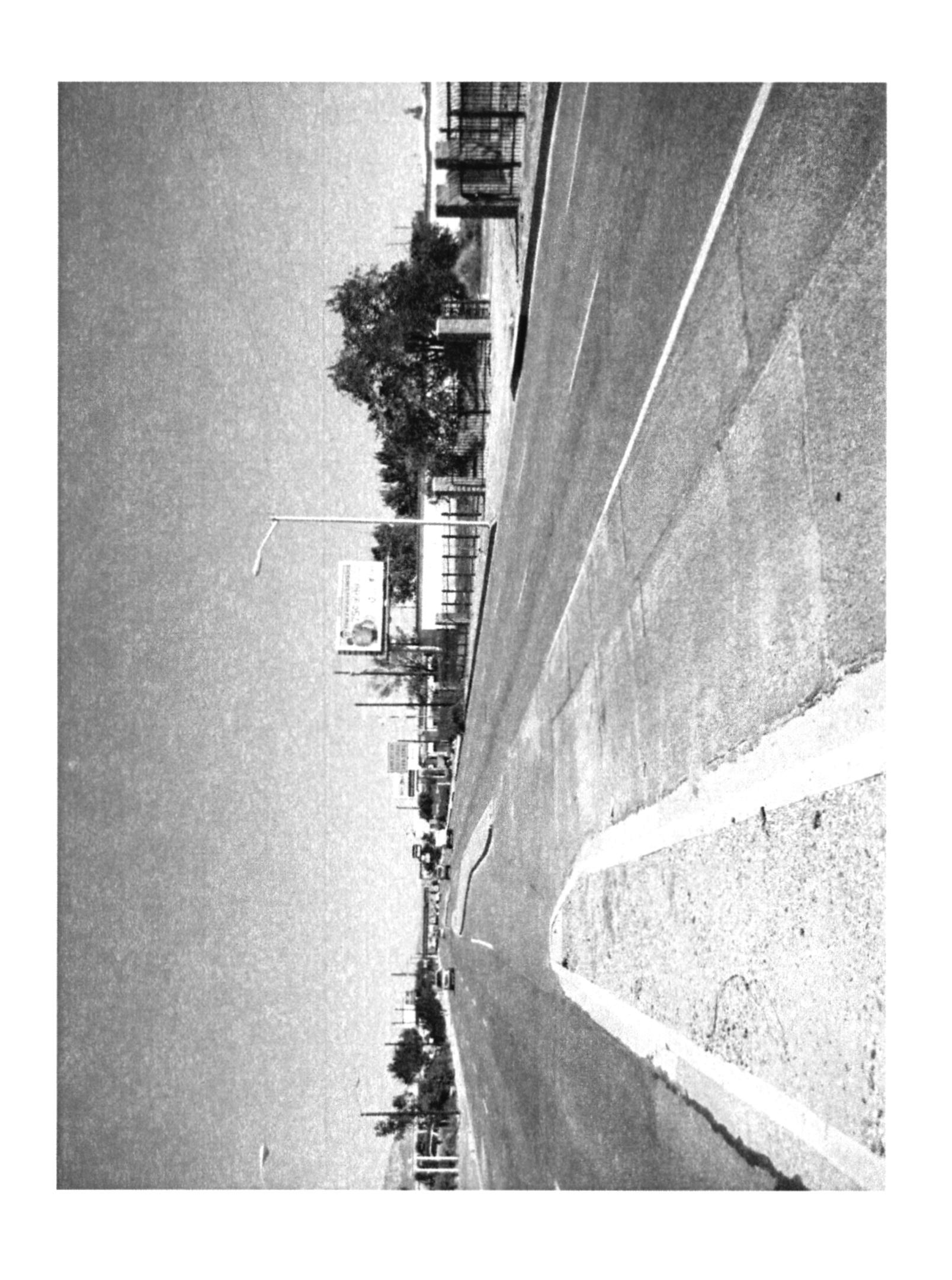
- 1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
- 2. Drainage Plans: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
- 3. Drainage Report: Required for subdivision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

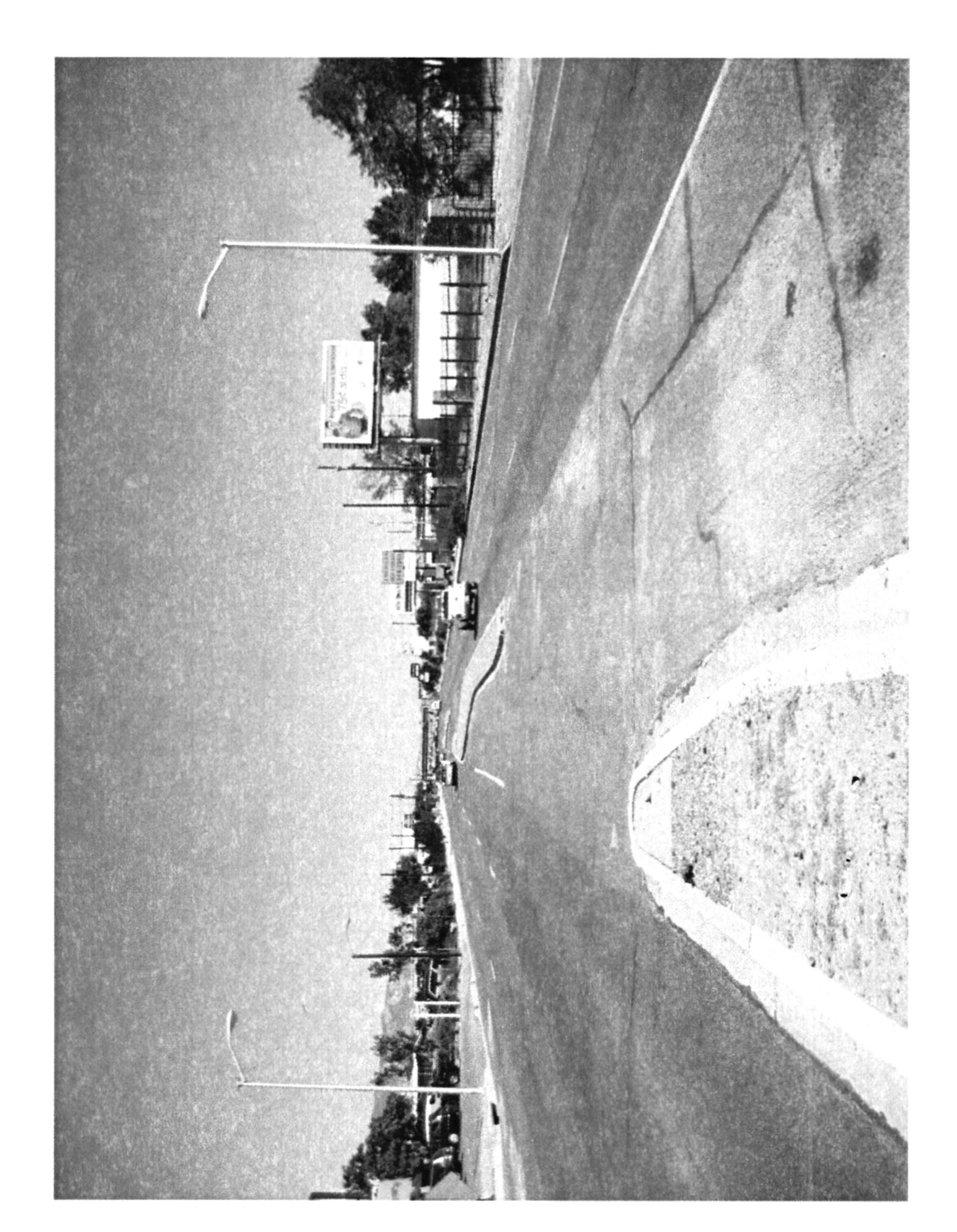


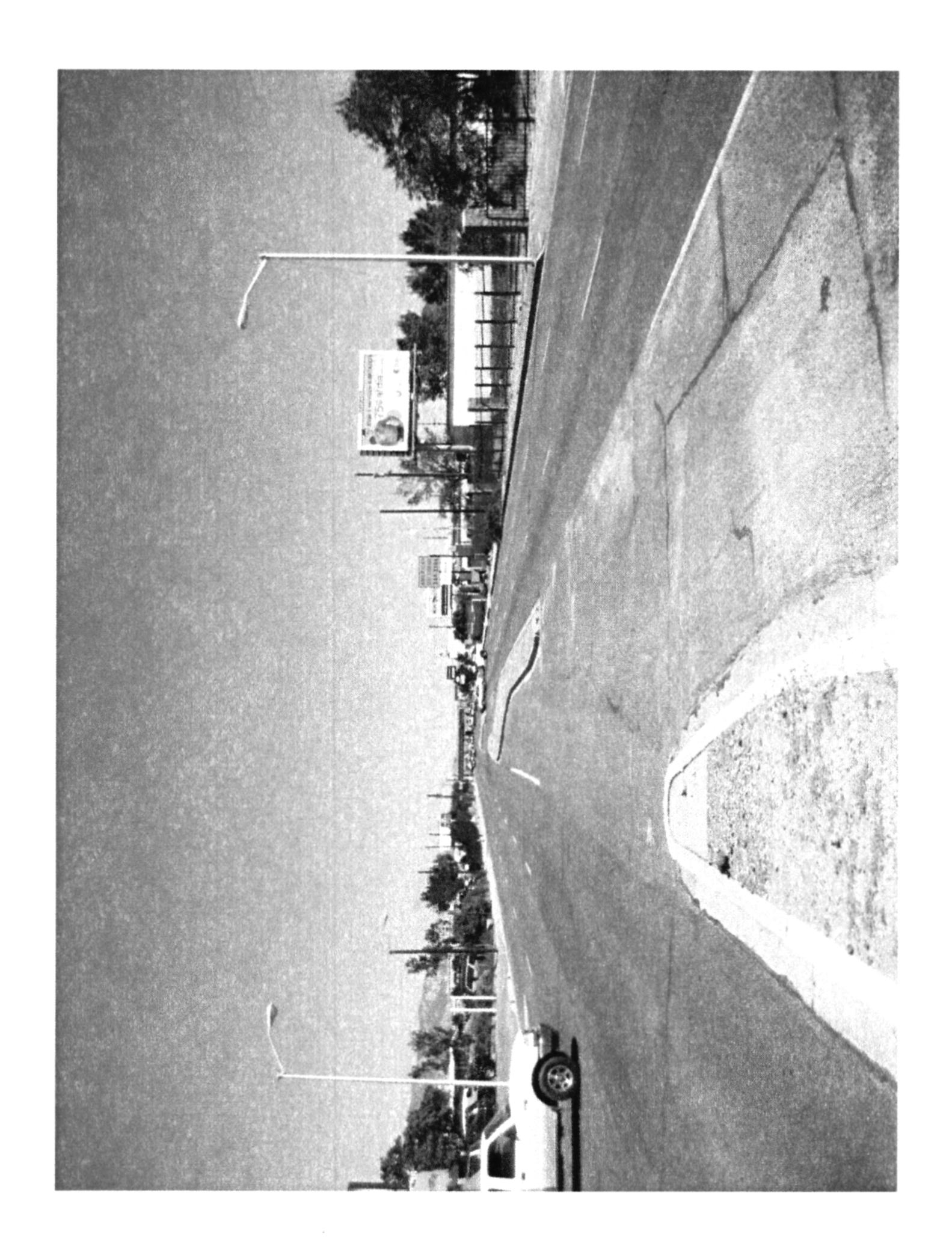


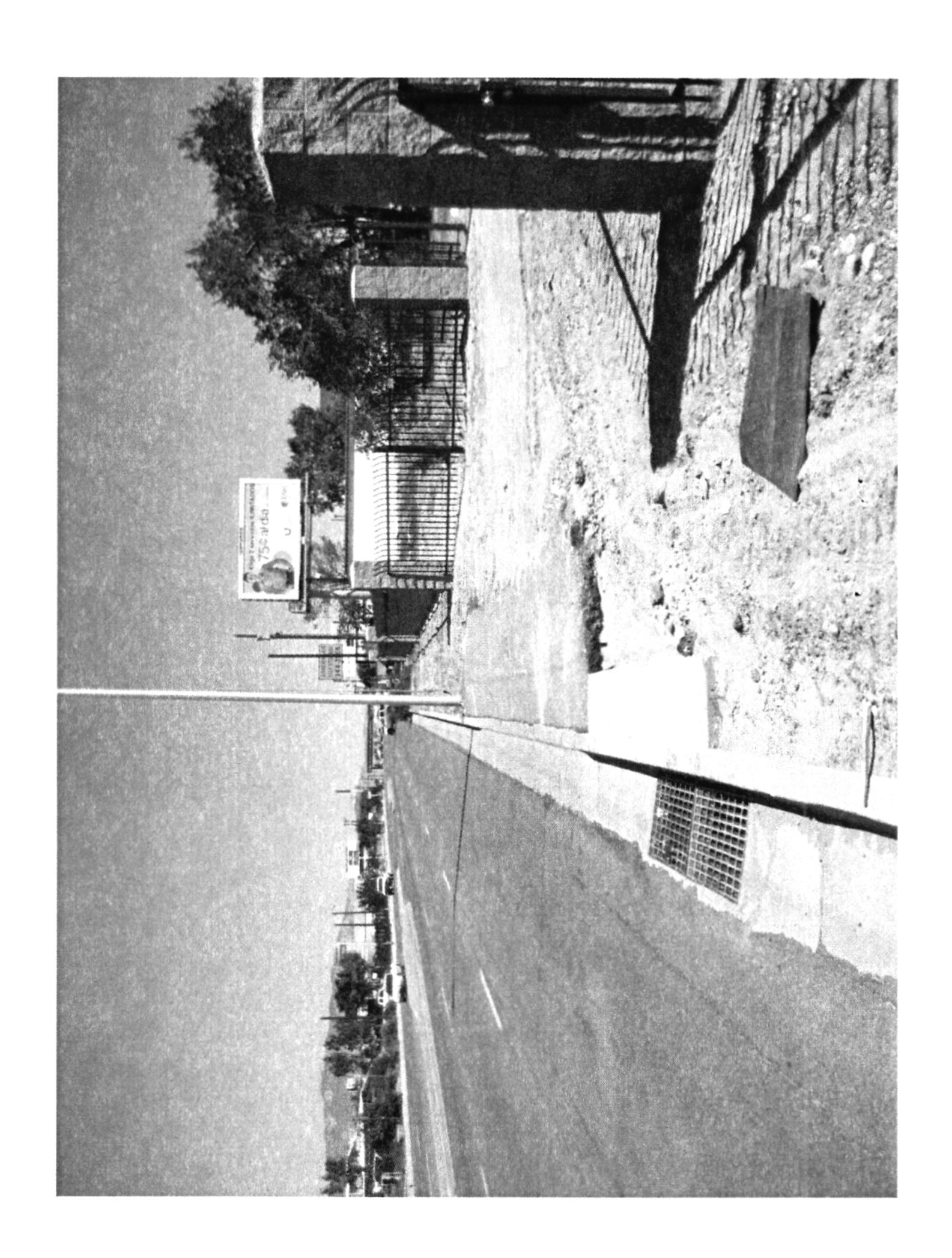


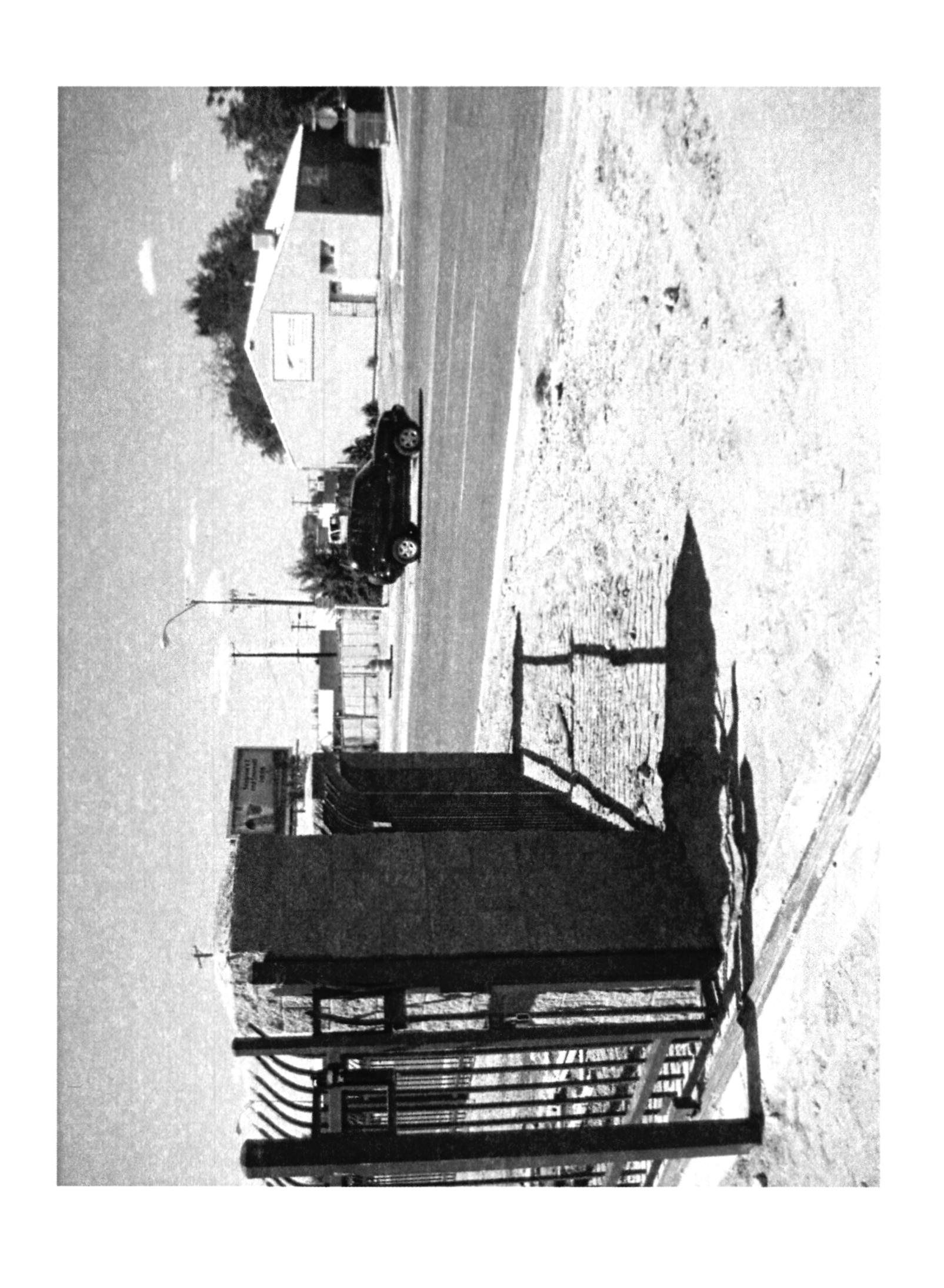


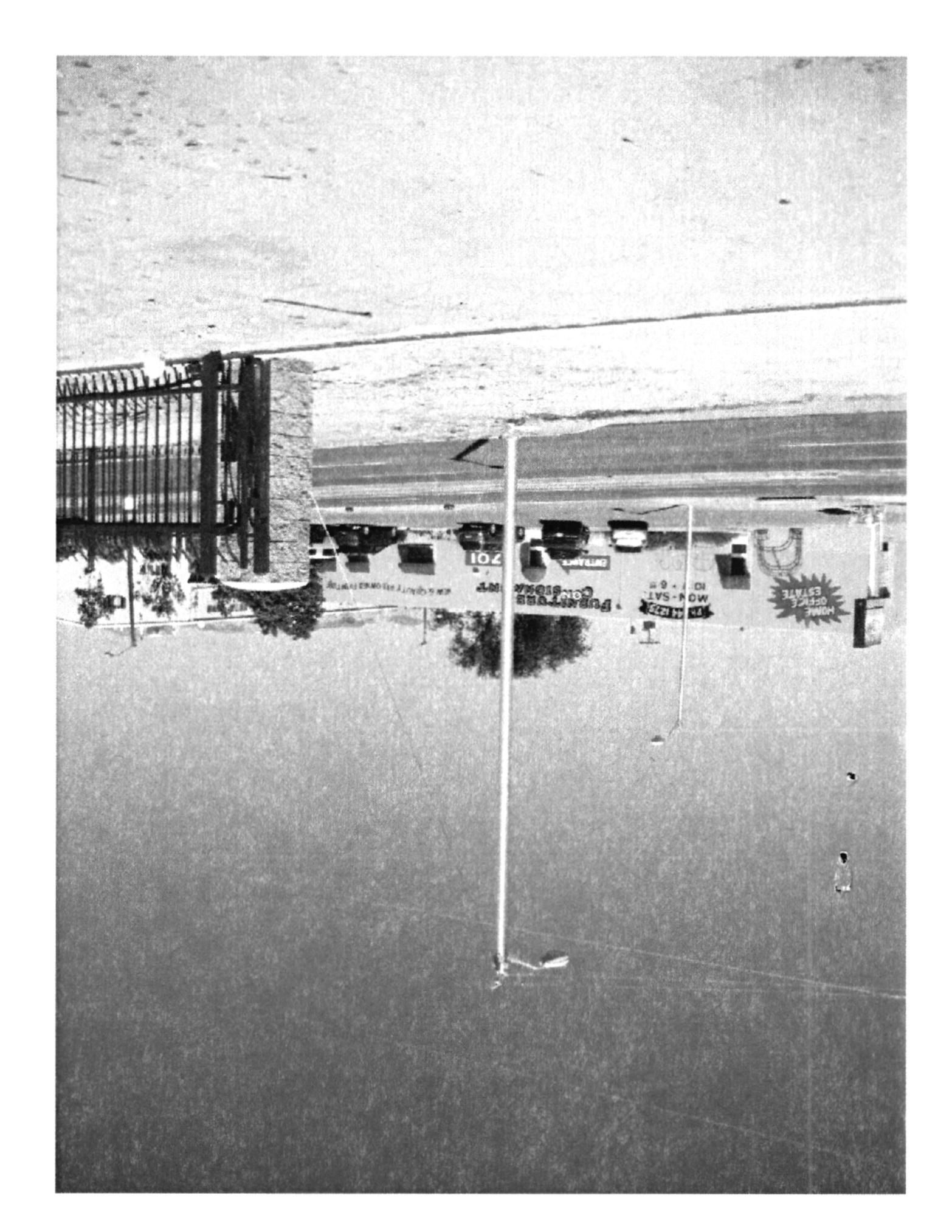


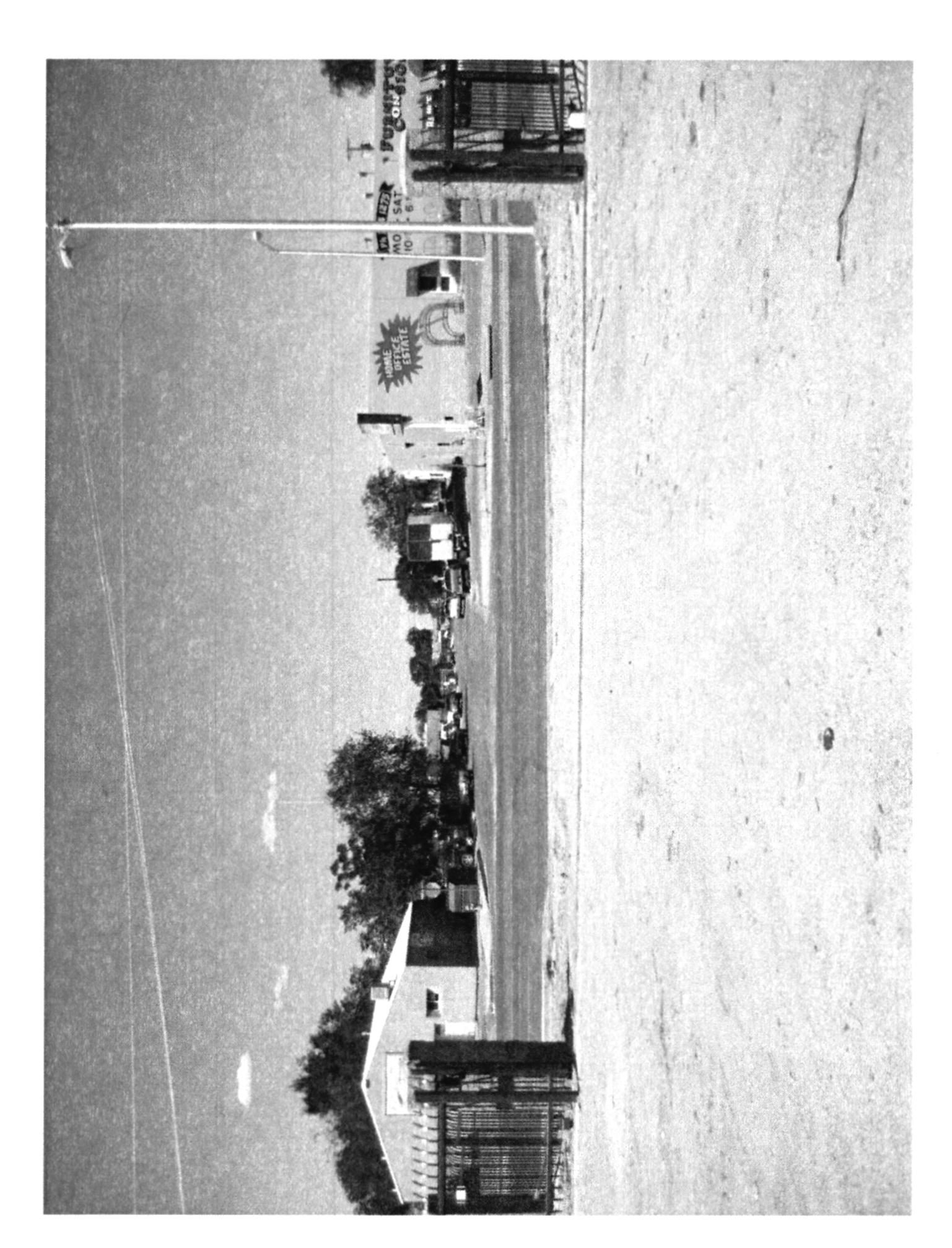


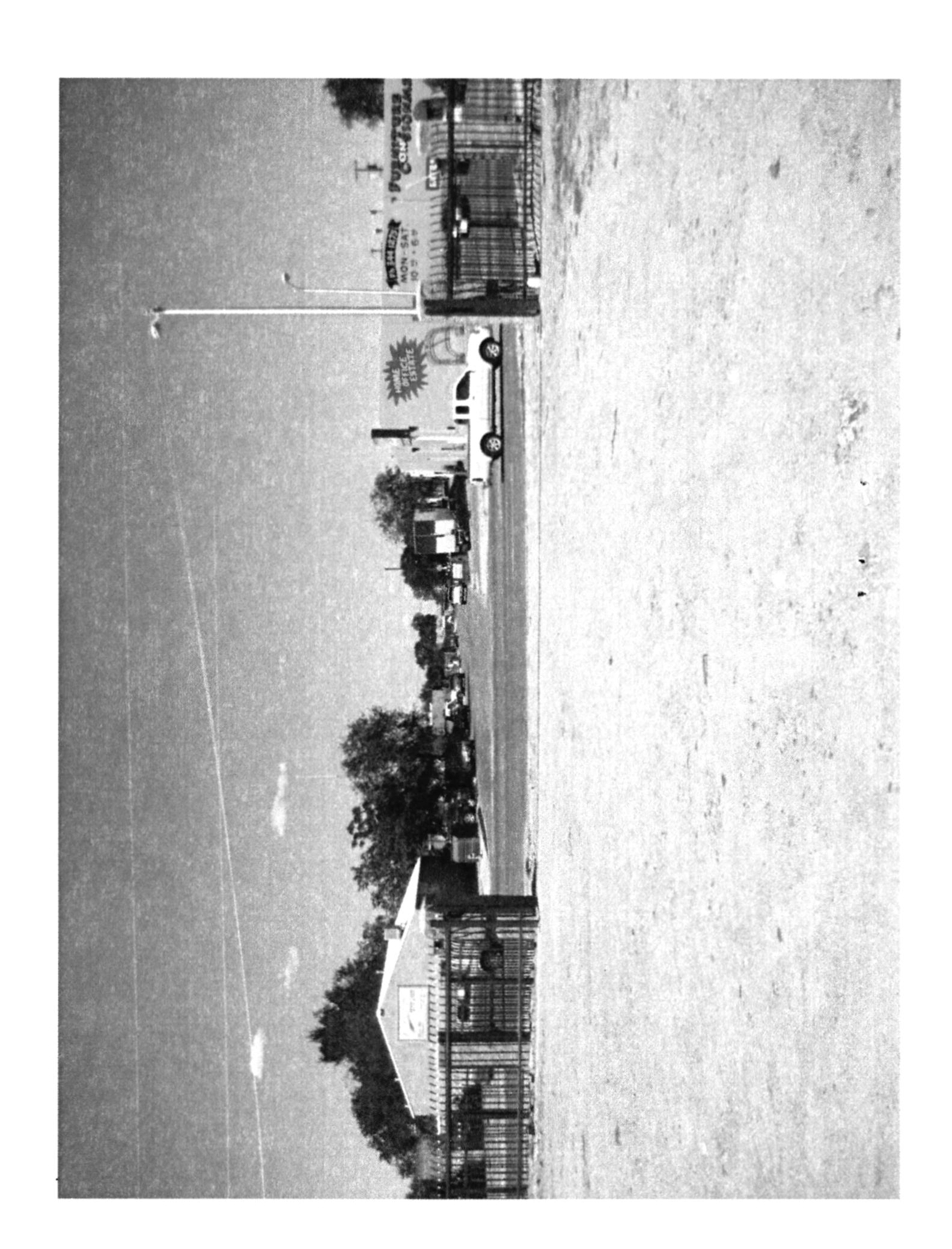














August 15, 2008

James Benjamin Clark, R.A.

Masterworks Architects, Inc.
516 Eleventh St. NW
Albuquerque, NM 87102

Re: Doc Savage Supply, 600 Candelaria Rd. NE, Traffic Circulation Layout Architect's Stamp dated 8-04-08 (H-15/D054)

Dear Mr. Clark,

Based upon the information provided in your submittal received 8-06-08, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

- 1. For a project of this size, all information for the Traffic Circulation Layout should be provided on one sheet.
- 2. Candelaria Road is a major arterial roadway. Therefore, the entrance must be a minimum of 36 feet in width. In addition, this site will require curb returns with a minimum radius of 20 feet. Exist 34' drups to remain
 - 3. Identify what is to the East of the drive pad. Is this an overhead sign?
 - 4. Clarify and detail the "Depressed Curb." Does this meet current ADA standards?
- 5. Please identify what appear to be planters within the sidewalk area. These items appear to intrude into the sidewalk clear distance. Please call out the clear distance within these areas.
- 6. Identify all line types. There appears to be new lot lines along the middle of the property. Please clarify if these are easements, phase lines, or lot lines.

If you have any questions, you can contact me at 924-3991.

Sincerely,

Kristal D. Metro, P.E.

Traffic Engineer, Planning Dept.

Development and Building Services

C: File

Albuquerque - Making History 1706-2006

PLANNING DEPARTMENT – Development & Building Services



June 19, 2008

Shahab Biazar, P.E.
Advanced Engineering and Consulting, LLC
4416 Anaheim Ave., NE
Albuquerque, New Mexico 87113

RE: DOC SAVAGE SUPPLY, 600 Candelaria NE (H15 – D 064)

Revised - Grading Plan for Building Permit & SO-19 (PE Stamped 06-06-08)

Dear Mr. Biazar:

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

Thank you for the time to meet yesterday morning to discuss the subject site and drainage solution options. As follow-up to that meeting and based upon the information provided in your submittal dated 06/09/08 the above referenced, **revised** plan <u>cannot</u> be approved for Grading & Building Permits, nor SO-19 until the following comments are addressed:

• The proposed modification of the City Storm inlet at the driveway entrance from Candelaria will require DRC approved plans and a City Work Order to construct.

- Is relocation of the driveway further east a possibility to avoid disturbance of the existing inlet and associated work order?
- O Conversion of the inlet from a Type "A" to Type "D" is allowed, however the first inlet in the collection system (which this is) must be a type "A" with curb opening, so a Type "A" inlet is required on the upstream side of the proposed driveway.
- We have reservations regarding the proposed Detention Pond, the deep hole in the corner of the lot and extended pumping becoming a long term maintenance issue. From review of site grades and adjacent storm drain inverts, it appears that a private gravity storm drain could be installed on site, with shallower depressed, detention area near the SW corner of the tract, and outfall line tied to the back of the westerly storm inlet on Candelaria. Inlet(s) and proper sizing of the lower reach of the private storm drain line could probably eliminate the need for the sidewalk drains and valley gutter, to offset drain line costs.
- Final grades in the parking lot and depressed area at the SW corner of the site must provide for emergency overflow to discharge from that area north, through the site, so that it does not overflow to adjacent properties south and west of the site.

If you have any questions or would like to schedule a meeting to discuss this, you may contact me at 924-3981.

Sincerely,

Gregory R. Olson, P.E. Hydrology Section

XC: Bradley Bingham, COA-PLN/Hydrology file H15-D 064

1 of 1



September 8, 2008

James Benjamin Clark, R.A. Masterworks Architects, Inc. 516 Eleventh St. NW Albuquerque, NM 87102

Re: Doc Savage Supply, 600 Candelaria Rd. NE, Traffic Circulation Layout

Architect's Stamp dated 8-28-08 (H-15/D064)

Dear Mr. Clark,

The TCL submittal received 8-28-08 is approved for Building Permit. The plan is stamped and signed as approved. A copy of this plan will be needed for each of the building permit plans. Please keep the original to be used for certification of the site for final C.O. for Transportation. Public infrastructure or work done within City Right-of-Way shown on these plans is for information only and is not part of approval. A separate DRC and/or other appropriate permits are required to construct these items.

PO Box 1293

If a temporary CO is needed, a copy of the original TCL that was stamped as approved by the City will be needed. This plan must include a statement that identifies the outstanding items that need to be constructed or the items that have not been built in "substantial compliance," as well as the signed and dated stamp of a NM registered architect or engineer. Submit this TCL with a completed <u>Drainage and Transportation Information Sheet</u> to Hydrology at the Development Services Center of Plaza Del Sol Building.

Albuquerque

NM 87103

When the site is completed and a final C.O. is requested, use the original City stamped approved TCL for certification. A NM registered architect or engineer must stamp, sign, and date the certification TCL along with indicating that the development was built in "substantial compliance" with the TCL. Submit this certification TCL with a completed <u>Drainage and Transportation Information Sheet</u> to Hydrology at the Development Services Center of Plaza Del Sol Building.

www.cabq.gov

Once verification of certification is completed and approved, notification will be made to Building Safety to issue Final C.O. To confirm that a final C.O. has been issued, call Building Safety at 924-3306.

Sincerely,

Kristal D. Metro, P.E.

Traffic Engineer, Planning Dept.

Development and Building Services

C: File

144

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (Rev. 12/05)

PROJECT TITLE: DOC SAVAGE SUPPLY DRB#: EPC#:	ZONE MAP/DRG. FILE #H-15-7/06 WORK ORDER#:
LEGAL DESCRIPTION: LOT 2 A - MUELLER CITY ADDRESS: LOO CANDELARIA	
ENGINEERING FIRM: ADVANCED ENGINEERING FIRM: ADVANCED ENGINEERING ANAHEIM NE CITY, STATE: ABQ NM	CONTACT: SHAHAB BIAZAR. PHONE: 899-5570 ZIP CODE: 87113
OWNER:ED_DONATUE ADDRESS: ZIJO CVAREMONT NE CITY, STATE: ABO IVM	CONTACT: ED DONAMUE PHONE: 884-2656 ZIP CODE: 87107
ARCHITECT: MASTERWORKS ARGUNTHOTS INC. ADDRESS: 516 11th ST NW CITY, STATE: ABO UM	CONTACT: JIM CLARIC PHONE: 242-1866 ZIP CODE: 87102
SURVEYOR: ADDRESS: CITY, STATE:	CONTACT: PHONE: ZIP CODE:
CONTRACTOR: WIEMAN COMMEDICAL ADDRESS: 5105 WATERILESS NE CITY, STATE: ABQ NM	CONTACT: BULWIEMAU PHONE: 720-2438 ZIP CODE: 871/3
DRAINAGE REPORT DRAINAGE PLAN 1 st SUBMITTAL DRAINAGE PLAN RESUBMITTAL CONCEPTUAL G & D PLAN GRADING PLAN EROSION CONTROL PLAN ENGINEER'S CERT (HYDROLOGY) CLOMR/LOMR X TRAFFIC CIRCULATION LAYOUT ENGINEER/ARCHITECT CERT (TCL) ENGINEER/ARCHITECT CERT (DRB S.P.) ENGINEER/ARCHITECT CERT (AA) OTHER (SPECIFY)	CHECK TYPE OF APPROVAL SOUGHT: SIA/FINANCIAL GUARANTEE RELEASE PRELIMINARY PLAT APPROVAL S. DEV. PLAN FOR SUB'D APPROVAL S. DEV. 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) JUL 0 9 2009
WAS A PRE-DESIGN CONFERENCE ATTENDED: YESNOCOPY PROVIDED SUBMITTED BY:COUNTY	HYDROLOGY SECTION DATE: 9 JULY 0 9

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define the degree of drainage detail. One or more of 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) acres and Sector Plans.
- 2. Drainage Plans: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
- 3. Drainage Report: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.



Planning Department Transportation Development Services Section

July 10, 2009

James B. Clark, Registered Architect Masterworks Architects, Inc. 516 Elventh Street NW Albuquerque, NM 87102

Re:

Approval of Permanent (Final) Certificate of Occupancy (C.O.) for

Doc Savage Supply, [H-15 /D064]

600 Candelaria Road NE

Engineer's Stamp Dated 07/08/09

Dear Mr. Clark:

The TCL / Letter of Certification submitted on July 9, 2009 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

PO Box 1293

Albuquerque

NM 87103

Nilo E. Salgado-Fernandez, P.E.

Senior Traffic Engineer

Development and Building Services

Planning Department

www.cabq.gov

Engineer
Hydrology file
CO Clerk

Kristal D. Metro, P.E. Traffic Engineering, Planning Department Development and Building Services City of Albuquerque P.O. Box 1293
Albuquerque, New Mexico 87103

Re: Traffic Certification for Final CO

Project: Doc Savage Supply, 600 Candelaria Rd. NE

Traffic Circulation Layout

Architect's Stamp dated 8-28-08 (H-16/D064)

I, James B. Clark, NMRA #1047, of Masterworks Architects, Inc., hereby certify that this project is in substantial compliance with and in accordance with the design intent of the TCL Approved Plan dated 28 August 2008.

Two modifications were made during construction which do not alter the validity of the approved TCL Plan:

a. The asphalt paving was extended south to 20' north of the south property line;

b. The nine (9) staff parking spaces were moved from adjacent to the southwest corner of the building to the southeast corner of the asphalt-paved apron extension.

I further certify that I personally visited the site on 8 July 2009 and have determined by visual inspection that the survey data provided is representative of the actual site conditions and is true and correct to the best of my knowledge and belief.

This Certification is submitted in support of a request for Certificate of Occupancy (Perm).

The record information presented hereon is not necessarily complete and is intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent we income the record document are advised to obtain independent and the record document are advised to obtain independent are advised to obtain the record document are advised to ob

accuracy before using it for any other propose.

Respectfully submitted,

JAMES BENJAMIN O CLARK, III

James B. Clark, RA President

CRED ARC

JUL 0 9 2009

HYDROLOGY

SECTION

Encl: Approved TCL Plan dated 11 December 2008



CITY OF ALBUQUERQUE



March 6, 2009

Shahab Biazar, P.E.
Advanced Engineering and Consulting, LLC
4416 Anaheim Ave NE
Albuquerque, NM 87113

Re: Doc Savage Supply Grading and Drainage Plan Engineer's Stamp dated 7-25-08, Revised 3-6-09 (H15/D064)

Dear Mr. Biazar,

Based upon the information provided in your submittal received 7-21-08 and revisions made 3-6-09, the above referenced plan is approved for Building Permit and SO 19 Permit.

PO Box 1293

To obtain a temporary or permanent CO, Engineer Certification of the Grading Plan per the DPM is required and the storm drain work in the City ROW must be inspected and accepted. Please contact Duane Schmitz, 235-8016, to schedule an inspection.

Albuquerque

If you have any questions, you can contact me at 924-3695.

NM 87103

Curtis A. Cherne, P.E.

Sincerely,

www.cabq.gov

Senior Engineer, Planning Dept.

Development and Building Services

C: file

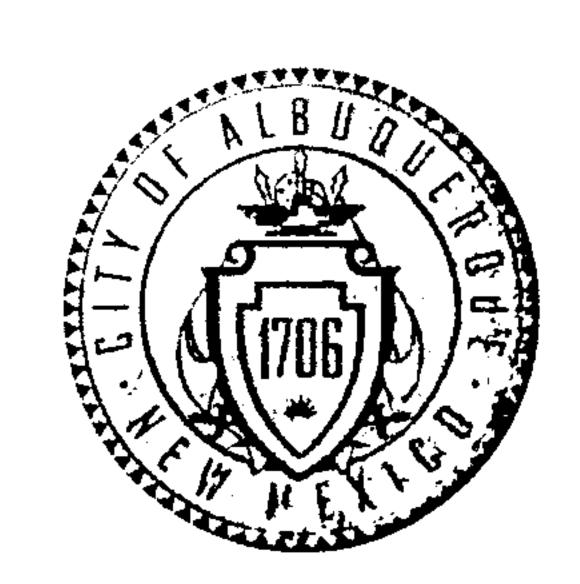
Duane Schmitz, Street/Storm Drain Maintenance

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development & Building Services

July 25, 2008

Shahab Biazar, P.E. Advanced Engineering and Consulting, LLC 4416 Anaheim Ave., NE Albuquerque, New Mexico 87113



DOC SAVAGE SUPPLY, 600 Candelaria NE RE:

(H15 - D 064)

Revised - Grading Plan for Building Permit & SO-19 (PE Stamped 07-25-08)

Dear Mr. Biazar:

Based upon the information provided in your submittal received 7/21/08 with corrected plan dated 7/25/08, the above referenced Grading and Drainage Plan is approved for Building Permit, conditioned upon compliance with the NPDES/SWPPP requirements below.

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

PO Box 1293

SWPPP: This project requires a National Pollutant Discharge Elimination System (NPDES) permit. You are required to send a copy of the P.E. certified Storm Water Pollution Prevention Plan (SWPPP) on a CD to City of Albuquerque, Storm Drainage Division at:

Albuquerque

Department of Municipal Development, Storm Drainage Division P.O. Box 1293, One Civic Plaza, Rm. 301, Albuquerque, NM 87103

If you have any question concerning the SWPPP, please contact Kathy Verhage 768-3654.

NM 87103

<u>SO-19</u>: A separate permit is required for construction within City R/W. A copy of this approval letter must be on hand when applying for the excavation permit. To obtain a temporary or permanent CO the sidewalk culverts must be inspected and accepted.

Please contact Duane Schmitz, 235-8016, to schedule an inspection.

www.cabq.gov

Prior to final Certificate of Occupancy approval, an Engineer's Certification of compliance with this plan is required per the DPM.

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

Sincerely,

Gregory R. Olson, P.E.

XC:

Brad Bingham

Kathy Verhage, COA/DMD-Storm Drainage Antoinette Baldonado, Excavation and Barricading Duane Schmitz, Street/Storm Drain Maintenance

Drainage file H15-D 064

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (Rev. 12/05)

	DOC SAVAGE SUPPLY	ZONE ATLAS/DRG. FILE #: H15 / D064
DRB #:	EPC #:	WORK ORDER #:
LEGAL DESCRIPTION:	TRACT 2-A OF MUELLER IND	USTRIAL SUBDIVISION
CITY ADDRESS:	600 CANDELARIA RD. NE	
ENGINEERING FIRM:	Advanced Engineering and Consulting, LLC	CONTACT: Shahab Biazar
ADDRESS:	4416 Anaheim Ave., NE	PHONE: (505) 899-5570
CITY, STATE:	Albuquerque, New Mexico	ZIP CODE: 87113
OWNER:		CONTACT:
ADDRESS: _ CITY, STATE:	······································	PHONE: ZIP CODE:
ARCHITECT: ADDRESS:	· · · · · · · · · · · · · · · · · · ·	CONTACT: PHONE:
CITY, STATE:		ZIP CODE:
SURVEYOR:		
ADDRESS:		CONTACT:PHONE:
CITY, STATE:		ZIP CODE:
CONTRACTOR:		CONTACT:
ADDRESS:		PHONE:
CITY, STATE:	· / · · · · · · · · · · · · · · · · · ·	ZIP CODE:
HECK TYPE OF SUBMIT	AL:	CHECK TYPE OF APPROVAL SOUGHT:
DRAINAGE REPO	RT	SIA / FINANCIAL GUARANTEE RELEASE
DRAINAGE PLAN	1ST SUBMITTAL	PRELIMINARY PLAT APPROVAL
DRAINAGE PLAN	RESUBMITTAL	S. DEV. PLAN FOR SUB'D. APPROVAL
CONCEPTUAL GR	RADING & DRAINAGE PLAN	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
X GRADING PLAN		SECTOR PLAN APPROVAL
EROSION CONTR	OL PLAN	FINAL PLAT APPROVAL
- Marie	TIFICATION (HYDROLOGY)	FOUNDATION PERMIT APPROVAL
CLOMR / LOMR		X BUILDING PERMIT APPROVAL
	ATION LAYOUT (TCL)	
	ITECT CERT (TCL)	CERTIFICATE OF OCCUPANCY (PERM.)
		CERTIFICATE OF OCCUPANCY (TEMP.)
	ITECT CERT (DRB S.P.)	X GRADING PERMIT APPROVAL
	ITECT CERT (AA)	PAVING PERMIT APPROVAL
OTHER (SPECITY))	WORK ORDER APPROVAL
		X SO-19
VAS A PRE-DESIGN CONFI	ERENCE ATTENDED:	
YES		
X NO		
COPY PROVIDED		
ATE SUBMITTED:	07 / 25 / 200e	10 1.7. CIL. I I I I I I I I I I I I I I I I I I
ALE SUDMILLED;	07 / 25 / 2008	BY: Shahab Biazar, P.E.

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 the following levels of submittals may be required based on the following:

1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) and Sector Plans.

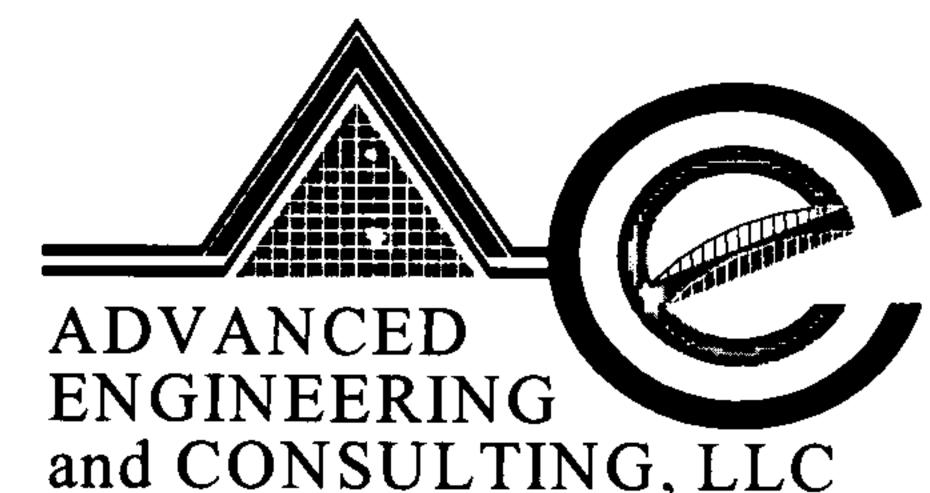
2. Drainage Plans: Required for building permits, grading permits, paving permits and site plans less than the control of the

3. Drainage Report: Required for subdivisions containing more than ten (10) lots or containing five (5) deres of more.

ess third CEVED
(5) Theres of there

JUL 287008

HYDROLOGY SECTION



LETTER OF TRANSMITTAL

7-28-08

DATE:

ADVA	NCED			JOB #:	200712	
	NEERING ONSULTIN	G, LLC		RE: Do	c Savage Supply	
	(505) 899-557	' 0			<u> </u>	
4416 Anahei		iquerque, NM 87113	3		<u> </u>	
TO Greg Olsen					· · · · · · · · · · · · · · · · · · ·	
		<u></u>	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
WE ARE SENDING	YOU	Attached		Under Sepa	rate cover via	the following ite
Shop drawing	gs	Prints	X	Plans	Samples	Specifications
Copy of letter	•	Change order				
COPIES	DATED	NO.		<u>-</u>	DESCRIPTION	
2			Revised G	rading and	Drainage Plan	
					· · · · · · · · · · · · · · · · · · ·	<u> </u>
				<u>. </u>		
	<u> </u>					
	<u> </u>					
	<u>-</u>					
				_		
<u>-</u>	<u></u>	<u> </u>		. <u></u>		
THESE ARE TRAI	NSMITTED as	checked below:				
For approval		Approved as sub	mitted	FOR SIGN	ATURE(S)	
x For your use		Approved as note	ed			
As requested		Returned for corr	rections	·	<u>, _ , _ , _ , _ , _ , _ , _ , _ , _ , _</u>	
For review & c	comments [
		For setting up DF	C Schedule			
For Bids Due				PRINTS / I	PLANS RETURNED	
REMARKS			<u> </u>		· · · · · · · · · · · · · · · · · · ·	
	<u> </u>	<u>. </u>		. <u>.</u>		
	·· <u>·</u>	<u> </u>	<u> </u>			
			<u> </u>	<u> </u>		
PRINT YOU NAN	ME:					
PECENIED DV.	v 6, 1	d = 00		~~~	ግእ የምንዋን ተታ - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 -	
RECEIVED BY	~ Kulles	Helickley	<u>. </u>	SIC	GNED Kymberly Shuti	va, Receptionist
		•				

FAX (505) 897-4996

If enclosures are not as noted, kindly notify us at once

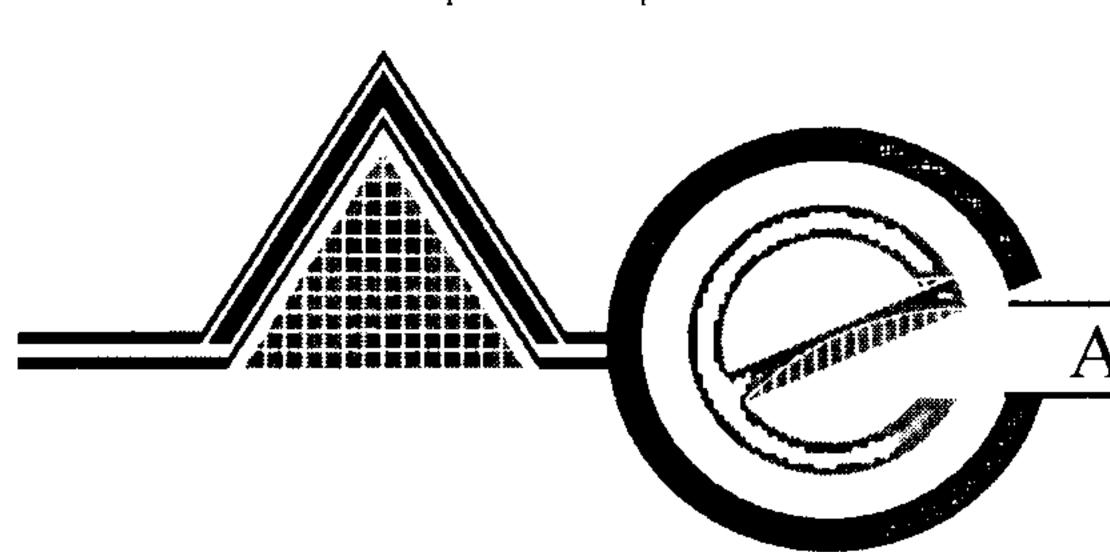
e-mail: AECLLC@aol.com

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (Rev. 12/05)

PROJECT TITLE:	DOC SAVAGE SUPPLY		ZONE ATLAS/DRG. FILE #: H15 / D064
DRB #:	EPC #:		WORK ORDER #:
LEGAL DESCRIPTION:	TRACT 2-A OF MUELLER IND	USTRIAL	SUBDIVISION
CITY ADDRESS:	600 CANDELARIA RD. NE		· · · · · · · · · · · · · · · · · · ·
ENGINEERING FIRM:	Advanced Engineering and Consulting, LLC		CONTACT: Shahab Biazar
ADDRESS	· · · · · · · · · · · · · · · · · · ·		PHONE: (505) 899-5570
CITY, STATE	: Albuquerque, New Mexico	_	ZIP CODE: 87113
OWNER:	·-·-		CONTACT:
ADDRESS CITY, STATE			PHONE: ZIP CODE:
CITI,SIAIE	······································		
ARCHITECT:	···· ····	· •	CONTACT:
ADDRESS CITY, STATE			PHONE: ZIP CODE:
	** ***		
SURVEYOR: ADDRESS	· · · · · · · · · · · · · · · · · · ·	_	CONTACT:PHONE:
CITY, STATE		 -	ZIP CODE:
CONTRACTOR: ADDRESS	<u> </u>		CONTACT:PHONE:
CITY, STATE			ZIP CODE:
CHECK TYPE OF SUBM	ITTAL:	<u>CHECK</u>	TYPE OF APPROVAL SOUGHT:
DRAINAGE RE	PORT		SIA / FINANCIAL GUARANTEE RELEASE
DRAINAGE PL	AN 1ST SUBMITTAL		PRELIMINARY PLAT APPROVAL
DRAINAGE PL	AN RESUBMITTAL		S. DEV. PLAN FOR SUB'D. APPROVAL
	GRADING & DRAINAGE PLAN		S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
X GRADING PLA			SECTOR PLAN APPROVAL
EROSION CON			FINAL PLAT APPROVAL
	ERTIFICATION (HYDROLOGY)	_, <u></u>	FOUNDATION PERMIT APPROVAL
 			
CLOMR / LOM			BUILDING PERMIT APPROVAL
	CULATION LAYOUT (TCL)		CERTIFICATE OF OCCUPANCY (PERM.)
ENGINEER/AR	CHITECT CERT (TCL)		CERTIFICATE OF OCCUPANCY (TEMP.)
ENGINEER/AR	CHITECT CERT (DRB S.P.)	<u>X</u>	GRADING PERMIT APPROVAL
ENGINEER/AR	CHITECT CERT (AA)		PAVING PERMIT APPROVAL
OTHER (SPECI	TY)		WORK ORDER APPRENTILL
		<u>X</u>	SO-19
			JUL 2 1 2008
	NFERENCE ATTENDED:		
YES NO			HYDROLOGY
X NO	rn		SECTION
COPY PROVID	比 <i>D</i>		
DATE SUBMITTED:	07 / 18 / 2008		BY: Shahab Biazar, P.E.

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 the following levels of submittals may be required based on the following:

- 1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) and Sector Plans.
- 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 containing five (5) acres or more.



ADVANCED ENGINEERING and CONSULTING, LLC

Consulting
Design
Development
Management
Inspection
Surveying

July 18, 2008

Mr. Gregory R. Olson, P.E.
Hydrology Section
Development and Building Services
600 Second Street NW
Albuquerque, New Mexico 87102

RE: DOC SAVAGE SUPPLY - 600 CANDELARIA NE (H15-D064) GRADING AND DRAINAGE PLAN

Dear Mr. Olson:

This letter and submittal is based on your comments received dated June 19, 2008. The following are the responses to your comments:

- The owner are proposing to use the existing entrance to the site. Therefore, the exiting inlet will remain as it is.
- The owner would like to keep the proposed detention pond with the pump. We have raised the bottom of the pond by 3'. The pond will have a 100-year water surface elevation of 4992.26'. The water in the loading area can pond up to 4997.00' elevation (total ponding volume of 1.46 ac-ft). Please see the revised calculations.
- The headerwall along the west property line will be extended to the southwest corner of the site and then some along the southerly boundary. The top of wall elevation would be set at 4997.45'. Therefore, the runoff will overflow north without draining to any adjacent property once it exceeds the 4997.00' elevation.

Please contact me if there are any questions or concerns regarding this submittal.

Sincerety yours,

RECLED

Shahab Biazar, P.E.

JUL 2 1 2008

HYDROLOGY
SECTION

SUMMARY OUTPUT FILE (PONDING CONDITIONS-LOADING AREA)

AHYMO PROGRA	AM SUMMARY TABLE (= 712DOC	AHYMO_	97) -			VERSION: 19			· ·	/YR) =07/1 9702c01000	
	HYDROGRAPH	FROM	TO ID	AREA	PEAK DISCHARGE	RUNOFF VOLUME	RUNOFF	TIME TO PEAK	CFS PER	PAGE =	1
COMMAND	IDENTIFICATION	NO.	NO.	(SQ MI)	(CFS)	(AC-FT)	(INCHES)	(HOURS)	ACRE	NOTATI	ON
START RAINFALL TO COMPUTE NM ROUTE RESERVENTSH		- 30	30 40	.00114	3.29	.139	2.29516 2.40547	1.500	4.524	TIME= RAIN24= PER IMP= AC-FT=	.00 2.750 90.00 .104

Loading Dock
Area ONLY

Balonce of S. H. Drain

POND CALCULATIONS PROPOSED DETENTION POND

—	COI ODLI							
						VOL. (CF)	VOL. (AC-FT)	•
	25,050	.63 SF	@ ELEVATION	4,997.00	FT	63,667.78	1.4616	
	22,456	.53 SF	@ ELEVATION	4,996.50	FT			
	19,862	.43 SF	@ ELEVATION	4,996.00	FT	51,790.99	1.1890	
	17,550	.18 SF	@ ELEVATION	4,995.50	FT	41,211.25	0.9461	
	15,237	.92 SF	@ ELEVATION	4,995.00	FT	31,858.10	0.7314	
			@ ELEVATION	4,994.50		23,661.08	0.5432	*
						16,968.06	0.3895	
			@ ELEVATION	4,994.00		12,126.94	0.2784	
	5,474	.17 SF	@ ELEVATION	4,993.50	FΤ	8,800.80	0.2020	feek W.S.
TOP SURFACE ARE OF THE POND =	3,117	.97 SF	@ ELEVATION	4,993.00	FT	6,652.77	0.1527	92.255
BOTTOM SURFACE ARE OF THE POND =	1,317	.21 SF	@ ELEVATION	4,990.00	FT			
SAMPLE CALCULATIONS: DEPTH OF THE POND =	3	.00 FT	L					
SLOPE OF THE POND = VOLUME @ (4,993.00) =		3:1 .97 +		* 3.00	<u>—</u>	6 652 77 C		
1 ODOITE (T,775.00)	5,117		1,517.21) / 2.00	3.00	_	6,652.77 C		

AHYMO INPUT FILE (PONDING CONDITIONS-LOADING AREA)

* ZONE 2			

·	24-HR STORM (UNDER		
*****		****	****
START	TIME=0.0		
RAINFALL	TYPE=2 RAIN QUART		
	RAIN ONE=2.01 IN		
	RAIN DAY=2.75 IN	DT=0.03333 HR	
* ON-STIE LOADING A			
COMPUTE NM HYD	ID=30 HYD NO=101.		
	PER A=0.00 PER B=		2ER D=90.00
	TP=0.1333 HR MASS		
· * * * * * * * * * * * * * * * * * * *			•
*	PONDING CONDITION		*

ROUTE RESERVOIR	ID=40 HYD $NO=501$.		
	OUTFLOW(CFS)		·
	0.0880	0.0000	4990.00
	0.0881	0.0168	4990.50
	0.0882	0.0371	4991.00
	0.0883	0.0609	4991.50
	0.0884	0.0880	4992.00
	0.0885	0.1187	4992.50
	0.0886	0.1527	4993.00
	0.0887	0.2020	4993.50
	0.0888	0.2784	4994.00
	0.0889	0.3895	4994.50
	0.0890	0.5432	4995.00
	0.0891	0.7314	4995.50
	0.0892	0.9461	4996.00
	0.0893	1.1890	4996.50
	0.0894	1.4616	4997.00
******	****	****	· * * * * * * * * * * * * * * * * * * *
*			

FINISH

AHYMO OUTPUT FILE (PONDING CONDITIONS-LOADING AREA)

- Version: 1997.02d AHYMO PROGRAM (AHYMO 97) -RUN DATE (MON/DAY/YR) = 07/16/2008START TIME (HR:MIN:SEC) = 14:18:45USER NO. = AHYMO-I-9702c01000R31-AHINPUT FILE = 712DOC* ZONE 2 *************** 100-YEAR, 24-HR STORM (UNDER PROPOSED CONDITIONS) *************** TIME=0.0START TYPE=2 RAIN QUARTER=0.0 IN RAINFALL RAIN ONE=2.01 IN RAIN SIX=2.35 IN RAIN DAY=2.75 IN DT=0.03333 HR COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR. 19.964670 HOURS .033330 HOURS END TIME =DT =.0049 .0084 .0016 .0033 .0000 .0066 .0102 .0219 .0139 .0158 .0178 .0199 .0241 .0120

.0309 .0333 .0384 .0263 .0286 .0358 .0411 .0497 .0529 .0596 .0631 .0439 .0467 .0561 .0751 .0669 .0930 .0709 .0807 .0866 .1066 .2514 .3434 .6186 .8106 .1371 .1840 .4644 1.2624 1.3533 1.4982 1.5602 1.6174 1.0449 1.4300 1.7200 1.7664 1.8102 1.8514 1.8904 1.6704 1.9273 1.9622 1.9953 2.0268 2.0566 2.0850 2.0915 2.0976 2.1285 2.1088 2.1140 2.1191 2.1239 2.1329 2.1033 2.1373 2.1414 2.1454 2.1494 2.1531 2.1568 2.1604 2.1802 2.1639 2.1673 2.1706 2.1739 2.1771 2.1832 2.1947 2.1919 2.2002 2.1862 2.1891 2.1975 2.2028 2.2178 2.2054 2.2080 2.2105 2.2130 2.2154 2.2202 2.2248 2.2315 2.2336 2.2225 2.2270 2.2293 2.2358 2.2399 2.2480 2.2379 2.2420 2.2440 2.2460 2.2500 2.2538 2.2557 2.2594 2.2612 2.2519 2.2576 2.2631 2.2735 2.2684 2.2718 2.2752 2.2648 2.2666 2.2701 2.2802 2.2818 2.2834 2.2850 2.2785 2.2769 2.2866 2.2881 2.2897 2.2912 2.2928 2.2943 2.3017 2.3031 2.3045 2.3060 2.3074 2.3002 2.2987 2.3143 2.3156 2.3102 2.3115 2.3169 2.3129 2.3088 2.3209 2.3235 2.3248 2.3196 2.3222 2.3261 2.3183 2.3323 2.3335 2.3286 2.3298 2.3311 2.3348 2.3273 2.3372 2.3408 2.3419 2.3431 2.3384 2.3396 2.3360 2.3454 2.3466 2.3488 2.3500 2.3511 2.3477 2.3443 2.3534 2.3546 2.3568 2.3580 2.3523 2.3557 2.3591 2.3613 2.3625 2.3636 2.3647 2.3658 2.3602 2.3669 2.3691 2.3702 2.3713 2.3724 2.3735 2.3746 2.3680 2.3811 2.3768 2.3779 2.3790 2.3801 2.3822 2.3757 2.3886 2.3844 2.3854 2.3865 2.3876 2.3897 2.3833 2.3918 2.3928 2.3939 2.3949 2.3960 2.3970 2.3907 2.3991 2.4001 2.4012 2.4022 2.4032 2.4043 2.3981 2.4063 2.4073 2.4083 2.4094 2.4104 2.4114 2.4053 2.4134 2.4144 2.4164 2.4174 2.4184 2.4154 2.4124 2.4233 2.4243 2.4204 2.4214 2.4224 2.4253 2.4194 2.4302 2.4312 2.4273 2.4282 2.4292 2.4321 2.4263 2.4369 2.4379 2.4388 2.4341 2.4350 2.4360 2.4331 2.4436 2.4445 2.4408 2.4417 2.4426 2.4455 2.4398 2.4511 2.4483 2.4502 2.4520 2.4474 2.4492 2.4464 2.4566 2.4575 2.4539 2.4548 2.4557 2.4585 2.4529 2.4621 2.4630 2.4639 2.4648 2.4603 2.4612 2.4594 2.4675 2.4684 2.4693 2.4702 2.4711 2.4666 2.4657 2.4756 2.4764 2.4729 2.4738 2.4747 2.4817 2.4826 2.4834 2.4791 2.4799 2.4808 2.4782 2.4886 2.4895 2.4878 2.4843 2.4852 2.4860 2.4869 2.4946 2.4921 2.4938 2.4955 2.4903 2.4912 2.4929 2.5005 2.4997 2.5014 2.4971 2.4980 2.4988 2.4963 2.5064 2.5039 2.5055 2.5072 2.5030 2.5047 2.5022 2.5121 2.5097 2.5113 2.5129 2.5088 2.5105 2.5080

2.5162

2.5154

2.5146

2.5138

2.5170

2.5178

2.5186

```
2.5203
                 2.5211
                         2.5219
                                  2.5227
                                          2.5235
                                                   2.5243
2.5194
        2.5259
                 2.5267
                         2.5274
                                  2.5282
2.5251
                                          2.5290
                                                   2.5298
                 2.5322
                                  2.5338
                                          2.5345
        2.5314
                         2.5330
2.5306
                                                   2.5353
                                  2.5392
                 2.5377
        2.5369
                         2.5384
                                          2.5400
2.5361
                                                   2.5408
        2.5423
                 2.5431
                         2.5438
                                  2.5446
                                          2.5454
2.5415
                                                   2.5461
        2.5477
                 2.5484
                         2.5492
                                  2.5500
                                          2.5507
2.5469
                                                   2.5515
                                  2.5552
2.5522
        2.5530
                 2.5537
                         2.5545
                                          2.5560
                                                   2.5567
                 2.5590
                                  2.5605
                                          2.5612
2.5575
        2.5582
                         2.5597
                                                   2.5619
                                  2.5656
        2.5634
                 2.5642
                         2.5649
                                          2.5664
2.5627
                                                   2.5671
        2.5686
                 2.5693
                                  2.5707
                                          2.5715
2.5678
                         2.5700
                                                   2.5722
                 2.5744
                                  2.5758
                                          2.5765
        2.5736
                         2.5751
                                                   2.5773
2.5729
        2.5787
                 2.5794
                                  2.5808
                                          2.5815
2.5780
                         2.5801
                                                   2.5823
        2.5837
                                          2.5865
                 2.5844
                                  2.5858
2.5830
                         2.5851
                                                   2.5872
                 2.5893
        2.5886
                         2.5900
                                  2.5907
                                          2.5914
2.5879
                                                   2.5921
                 2.5942
                                  2.5956
                                          2.5963
        2.5935
                         2.5949
                                                   2.5970
2.5928
        2.5983
                 2.5990
                         2.5997
                                  2.6004
                                          2.6011
2.5976
                                                   2.6018
                                  2.6052
                                          2.6058
2.6024
        2.6031
                 2.6038
                         2.6045
                                                   2.6065
2.6072
        2.6079
                 2.6085
                         2.6092
                                  2.6099
                                          2.6106
                                                   2.6112
                         2.6139
                                          2.6152
2.6119
        2.6126
                 2.6132
                                  2.6146
                                                   2.6159
                                          2.6199
                         2.6186
2.6166
        2.6172
                 2.6179
                                  2.6192
                                                   2.6205
                 2.6225
                                  2.6238
                                          2.6245
        2.6219
                         2.6232
                                                   2.6251
2.6212
                 2.6271
                                  2.6284
                                          2.6290
                                                   2.6297
2.6258
        2.6264
                         2.6277
                                          2.6335
        2.6310
                 2.6316
                                  2.6329
2.6303
                         2.6322
                                                   2.6342
                                  2.6374
                                          2.6380
        2.6355
                 2.6361
                         2.6367
2.6348
                                                   2.6386
        2.6399
                 2.6405
                                  2.6418
                                          2.6424
2.6393
                         2.6412
                                                   2.6431
                 2.6449
                         2.6456
                                  2.6462
                                          2.6468
2.6437
        2.6443
                                                   2.6474
                                  2.6506
                                          2.6512
2.6481
        2.6487
                 2.6493
                         2.6499
                                                   2.6518
                 2.6536
                                  2.6549
                                          2.6555
2.6524
        2.6530
                         2.6543
                                                   2.6561
        2.6573
                 2.6579
                                  2.6592
                                          2.6598
2.6567
                         2.6586
                                                   2.6604
        2.6616
                 2.6622
                         2.6628
                                  2.6634
                                          2.6640
2.6610
                                                   2.6646
                 2.6664
                                  2.6676
                                          2.6682
        2.6658
                         2.6670
2.6652
                                                   2.6688
                                          2.6724
                                  2.6718
2.6694
        2.6700
                 2.6706
                         2.6712
                                                   2.6730
        2.6742
                 2.6748
                         2.6754
                                  2.6760
                                          2.6765
2.6736
                                                   2.6771
        2.6783
                 2.6789
                         2.6795
                                  2.6801
                                          2.6807
                                                   2.6812
2.6777
                                  2.6841
        2.6824
                 2.6830
                         2.6836
2.6818
```

* ON-STIE LOADING AREA

COMPUTE NM HYD

ID=30 HYD NO=101.0 AREA=0.001135 SQ MI PER A=0.00 PER B=5.00 PER C=5.00 PER D=90.00 TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420 UNIT PEAK = 4.0329 CFS UNIT VOLUME = .9965 B = 526.28 P60 = 2.0100 AREA = .001022 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .0333330

K = .119767HR TP = .133300HR K/TP RATIO = .898476 SHAPE CONSTANT, N = 3.944947 UNIT PEAK = .29927 CFS UNIT VOLUME = .9550 B = 351.48 P60 = 2.0100 AREA = .000114 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

```
*************
*
              PONDING CONDITION
**************
ROUTE RESERVOIR ID=40 HYD NO=501.1 INFLOW ID=30 CODE=24
              OUTFLOW (CFS) STORAGE (AC+FT)
                                     ELEVATION (FT)
                              0.0000 4990.00
                0.0880
                              0.0168 4990.50
                0.0881
                              0.0371 4991.00
                0.0882
                              0.0609 4991.50
                0.0883
                             0.0880 4992.00
                0.0884
                      0.1187 4992.50
                0.0885
                              0.1527 4993.00
                0.0886
                              0.2020
                                       4993.50
                0.0887
                                       4994.00
                              0.2784
                0.0888
                                       4994.50
                0.0889
                              0.3895
                0.0890
                              0.5432
                                       4995.00
                                       4995.50
                0.0891
                              0.7314
                                       4996.00
                              0.9461
                0.0892
                                       4996.50
                              1.1890
                0.0893
                                       4997.00
                              1.4616
                0.0894
```

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

TIME	INFLOW	ELEV	VOLUME	OUTFLOW	Pum	
(HRS)	(CFS)	(FEET)	(AC-FT)	(CFS)		
.00	.00	4550.01	-14.784	.00		
.80	.00	4990.00	.000	.09 /4	7 9 7	
1.60	2.27	4991.38	.055	.09		
2.40	.13	4992.25	.103	.09		
3.20	.03	4992.22	.101	.09		
4.00	.02	4992.14	.097	.09		
4.80	.02	4992.07	.092	.09		
5.60	m (.02)	4991.99	.088	.09		
6.40	. 02	4991.91	.083	.09		
7.20	934 .02	4991.83	.079	.09		
8.00 P	.02	4991.75	.074	.09		
8.80 /	.02	4991.66	.070	.09		
9.60	.02	4991.58	.065	.09		
10.40	.02	4991.49	.060	.09		
11.20	.02	4991.39	.056	.09		
12.00	.02	4991.29	.051	.09		
12.80	.02	4991.19	.046	.09		
13.60	.01	4991.09	.041	.09		
14.40	.01	4990.98	.036	.09		
15.20	.01	4990.86	.032	.09		
16.00	.01	4990.74	.027	.09		
16.80	.01	4990.62	.022	.09		
17.60	.01	4990.50	.017	.09		
18.40	.01	4990.35	.012	09		* *
19.20	.01	4990.20	.007	. 89.		11/6 2
PEAK DISCHA	RGE =	.088	CFS - PEXAK O	CCURS AT\HOUR	2.53	
MAXIMUM WAT	ER SURFACE	ELEVATION	I = (4992)	.255		
MAXIMUM STO	RAGE =	.1037	AC-FT	INCREMENTAL T	'IME= .033330HRS	
**********	*****	*****	******	*****	*****	

FINISH

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 14:18:45

--- orifice calcs ---

ORIFICE Equation

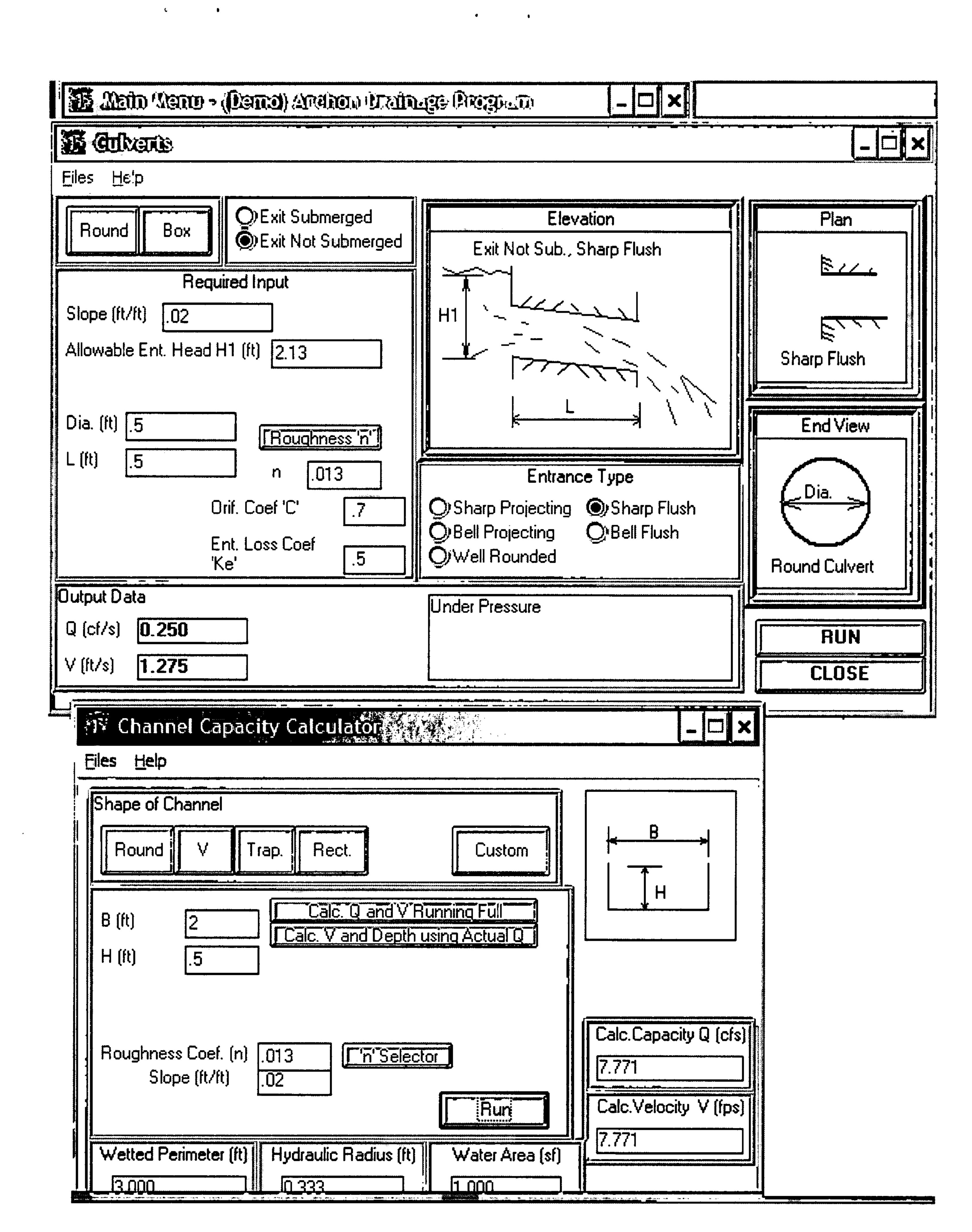
 $Q = CA (2gh)^{1/2}$

C = Constant (0.6)

g = 32.2

Rectangular		$Q = CA (2gh)^{1/2}$		Orifice Size	
	C =	0.6		Wide (ft)	High (ft)
	A =	1.34 sq.ft.	←	- 2	0.67
	g =	32.2 ft/sec/s	sec		
	h =	0.67 ft			
				# of Orifices	Total Q
	Q =	5.281246 cfs		2	10.56

<u>Circular</u>	_	Q = CA (2gh) ^{1/2}	Orif	ice Siz	ze	
	C =	0.6			6	-Ir	n. Dia.
	A =	0.19635	sq.ft.				
	g =	32.2	ft/sec/sec				
	h =	1.75	ft				
				# of	Orific	<u>es</u>	Total Q
	J =	1.250671	cfs		6		7.50



VOLUME CALCULATIONS

DETENTION POND

Ab - Bottom Of The Pond Surface Area

At - Top Of The Pond Surface Area

D - Water Depth

Dt - Total Pond Depth

C - Change In Surface Area / Water Depth

Volume = $Ab * D + 0.5 * C * D^2$

C = (At - Ab) / Dt

Ab = 0.00 @ ELEV. = 4994.87 At = 33,782.62 @ ELEV. = 4997.00 Dt = 2.13C = 15860.38

12" PIPE

			IZ FIFE
ACTUAL	DEPTH	VOLUME	Q
ELEV.	(FT)	(AC-FT)	(CFS)
4994.87	0.00	0.0000	0.00
4995.00	0.13	0.0031	1.36
4995.20	0.33	0.0198	2.17
4995.40	0.53	0.0511	2.75
4995.60	0.73	0.0970	3.23
4995.80	0.93	0.1575	3.65
4996.00	1.13	0.2325	4.02
4996.20	1.33	0.3220	4.36
4996.40	1.53	0.4262	4.68
4996.60	1.73	0.5449	4.97
4996.80	1.93	0.6781	5.25
4997.00	2.13	0.8260	5.52

Orifice Equation

Q = CA SQRT(2gH)

C = 0.6Diameter (in)= 12Area (ft^2)= 0.7854g = 32.2

H (Ft) = Depth of water above center of orifice

Q(CFS)= Flow

H15/15064

AHYMO INPUT FILE (PONDING CONDITIONS)

* ZONE 2 ************	*************	· + + + + + + + + + + + + + + + + + + +	· * * * * * * * * * * * * * * * * * * *
^	6-HR STORM (UNDER		•
START	TIME=0.0		
RAINFALL	TYPE=1 RAIN QUART	FR=0 OTN	
	RAIN ONE=2.01 IN		Ī
	RAIN DAY=2.75 IN		
* ON-STIE			
COMPUTE NM HYD	ID=10 HYD NO=101.	0 AREA=0.008213	SQ MI
	PER A=0.00 PER B=		
	TP=0.1333 HR MASS	RAINFALL=-1	
*****	*****	*****	*****
*	PONDING CONDITION		*

ROUTE RESERVOIR	ID=20 HYD NO=501.		
	OUTFLOW (CFS)	·	•
	0.00	0.0000	4994.87
	1.36	0.0018	4995.00
	2.17	0.0119	4995.20
	2.75	0.0306	4995.40
	3.23	0.0580	4995.60
	3.65	0.0942	4995.80
	4.02	0.1390	4996.00
	4.36	0.1926	4996.20
	4.68 4.97	0.2549 0.3259	4996.40 4996.60
	4.97 5.25	0.3239	4996.80
	5.23 5.52	0.4030	4990.00
**********	- - -		
*			

FINISH

SUMMARY OUTPUT FILE (PONDING CONDITIONS)

AHYMO PROGRA		(AHYMO_	97) -			VERSION: 199	7.02d		-	/YR) =03/0 9702c01000	
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	PAGE =	
START RAINFALL TY	YPE= 1									TIME= RAIN6=	.00
COMPUTE NM I	HYD 101.00		10	.00821	23.66	.875	1.99749	1.500	4.502	PER IMP=	90.00
ROUTE RESERV	VOIR 501.10	10	20	.00821	5.37	.875	1.99746	2.033	1.023	AC-FT=	.447

FINISH

AHYMO OUTPUT FILE (PONDING CONDITIONS)

```
- Version: 1997.02d
   AHYMO PROGRAM (AHYMO 97) -
        RUN DATE (MON/DAY/YR) = 03/04/2009
                                              USER NO. = AHYMO-I-9702c01000R31-AH
        START TIME (HR:MIN:SEC) = 12:45:42
        INPUT FILE = 712PDB
* ZONE 2
100-YEAR, 6-HR STORM (UNDER PROPOSED CONDITIONS)
                   TIME=0.0
START
                   TYPE=1 RAIN QUARTER=0.0 IN
RAINFALL
                   RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                   RAIN DAY=2.75 IN DT=0.03333 HR
              COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                                         END TIME =
                                                        5.999400 HOURS
                      .033330 HOURS
                                        .0049
                                                        .0084
                                                               .0102
                         .0016
                                .0033
                                                .0066
                 .0000
                                                        .0219
                                                               .0241
                         .0139
                                .0158
                                        .0178
                                                .0199
                 .0120
                                                        .0384
                                                               .0411
                 .0263
                                .0309
                                        .0333
                                                .0358
                         .0286
                                                        .0596
                                                               .0631
                                        .0529
                 .0439
                         .0467
                                .0497
                                                .0561
                                                        .0930
                                                               .1066
                                        .0807
                 .0669
                         .0709
                                .0751
                                                .0866
                                                               .8106
                                                       .6186
                                .2514
                                        .3434
                                                .4644
                 .1371
                         .1840
                                                      1.5602
                                                              1.6174
                               1.3533
                                       1.4300
                                               1.4982
                1.0449
                        1.2624
                                                       1.8904
                                                              1.9273
                               1.7664
                                       1.8102
                                               1.8514
                1.6704
                        1.7200
                                                       2.0915
                                                              2.0976
                                       2.0566
                                               2.0850
                        1.9953
                               2.0268
                1.9622
                                                      2.1285
                                                              2.1329
                               2.1140
                                               2.1239
                                       2.1191
                2.1033
                        2.1088
                                                              2.1604
                                               2.1531
                                                       2.1568
                                       2.1494
                               2.1454
                2.1373
                        2.1414
                                                      2.1802
                                                              2.1832
                                       2.1739
                                               2.1771
                               2.1706
                2.1639
                        2.1673
                                                      2.2002
                                               2.1975
                                       2.1947
                               2.1919
                        2.1891
                2.1862
                                      2.2130
                                              2.2154 2.2178
                              2.2105
                2.2054
                        2.2080
                                                              2.2358
                                               2.2315
                                                       2.2336
                                       2.2293
                2.2225
                        2.2248
                               2.2270
                                                       2.2480
                                       2.2440
                                               2.2460
                2.2379
                        2.2399
                               2.2420
                                                       2.2612
                                                              2.2631
                                       2.2576
                                               2.2594
                2.2519
                        2.2538
                               2.2557
                                                              2.2752
                                                       2.2735
                                               2.2718
                               2.2684
                                       2.2701
                        2.2666
                2.2648
                                                       2.2850
                                                              2.2866
                                               2.2834
                               2.2802
                                       2.2818
                2.2769
                        2.2785
                                                              2.2973
                                               2.2943
                                                      2.2958
                               2.2912
                                       2.2928
                        2.2897
                2.2881
                                               2.3045
                                                       2.3060
                                                              2.3074
                               2.3017
                                       2.3031
                        2.3002
                2.2987
                                               2.3143
                                                      2.3156
                                       2.3129
                                                              2.3169
                        2.3102
                               2.3115
                2.3088
                                                       2.3248
                                               2.3235
                                                              2.3261
                               2.3209
                                       2.3222
                        2.3196
                2.3183
                                       2.3311
                                                      2.3335
                               2.3298
                                               2.3323
                                                             2.3348
                2.3273
                        2.3286
                                                      2.3419 2.3431
                              2.3384
                                       2.3396
                                               2.3408
                2.3360
                       2.3372
                                                      2.3500
                                               2.3488
                               2.3466
                                       2.3477
                       2.3454
                2.3443
* ON-STIE
                   ID=10 HYD NO=101.0 AREA=0.008213 SQ MI
COMPUTE NM HYD
                   PER A=0.00 PER B=5.00 PER C=5.00 PER D=90.00
                   TP=0.1333 HR MASS RAINFALL=-1
          .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
    UNIT PEAK = 29.183 CFS UNIT VOLUME = .9990 B =
                                                                               P60 = 2.0100
                                                                   526.28
```

.007392 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR

K = .119767HR TP = .133300HR K/TP RATIO = .898476 SHAPE CONSTANT, N = 3.944947

UNIT PEAK = 2.1656 CFS UNIT VOLUME = .9946 B = 351.48 P60 = 2.0100

AREA = .000821 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .0333330

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .0333330

AREA =

```
**************
                  PONDING CONDITION
                  ID=20 HYD NO=501.1 INFLOW ID=10 CODE=24
ROUTE RESERVOIR
                                   STORAGE (AC-FT)
                  OUTFLOW (CFS)
                                                  ELEVATION (FT)
                                                    4994.87
                      0.00
                                        0.0000
                      1.36
                                        0.0018
                                                    4995.00
                      2.17
                                                    4995.20
                                        0.0119
                      2.75
                                                    4995.40
                                        0.0306
                      3.23
                                        0.0580
                                                    4995.60
                      3.65
                                        0.0942
                                                    4995.80
                      4.02
                                        0.1390
                                                    4996.00
                      4.36
                                        0.1926
                                                    4996.20
                      4.68
                                                    4996.40
                                        0.2549
                      4.97
                                        0.3259
                                                    4996.60
                                                    4996.80
                                        0.4056
                                                    4997.00
                      5.52
                                        0.4940
                               VOLUME
                                         OUTFLOW
   TIME
             INFLOW
                      ELEV
    (HRS)
                      (FEET)
                                (AC-FT)
                                         (CFS)
             (CFS)
                                  .000
                                             .00
     .00
                     4994.87
                .00
     .80
                                  .000
                                             .00
                     4994.87
                .00
                                  .319
                                            4.94
    1.60
             16.33
                     4996.58
                                  .361
    2.40
               .99
                                            5.09
                     4996.69
                                  .095
    3.20
                                            3.66
                .20
                     4995.80
    4.00
                                  .000
                                            .13
                .13
                     4994.88
    4.80
                                  .000
                                             .13
                .13
                     4994.88
    5.60
                                  .000
                                             .14
                .14
                     4994.88
                                  .000
    6.40
                .01
                     4994.87
                                             .01
PEAK DISCHARGE =
                       5.375 CFS - PEAK OCCURS AT HOUR
                                                        2.03
MAXIMUM WATER SURFACE ELEVATION =
                                    4996.893
                         .4465 AC-FT
                                                             .033330HRS
MAXIMUM STORAGE =
                                         INCREMENTAL TIME=
*****************
*
FINISH
```

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 12:45:42

CITY OF ALBUQUERQUE



July 22, 2009

Shahab Biazar, P.E. Advanced Engineering & Consulting, LLC 4416 Anaheim Avenue NE Albuquerque, NM 87113

Doc Savage Supply, 600 Candelaria Rd. NE, Re: Approval of Permanent Certificate of Occupancy (C.O.) Engineer's Stamp dated 7-5-08 & 3-6-09, (H15/D064) Certification dated 7-20-09

Dear Mr. Biazar,

Based upon the information provided in your submittal received 7-20-09, the above PO Box 1293

referenced certification is approved for release of Permanent Certificate of Occupancy

by Hydrology.

If you have any questions, you can contact me at 924-3982. Albuquerque

Sincerely

NM.87103

Plan Checker—Hydrology, www.cabq.gov

Development and Building Services

CO Clerk-Katrina Sigala

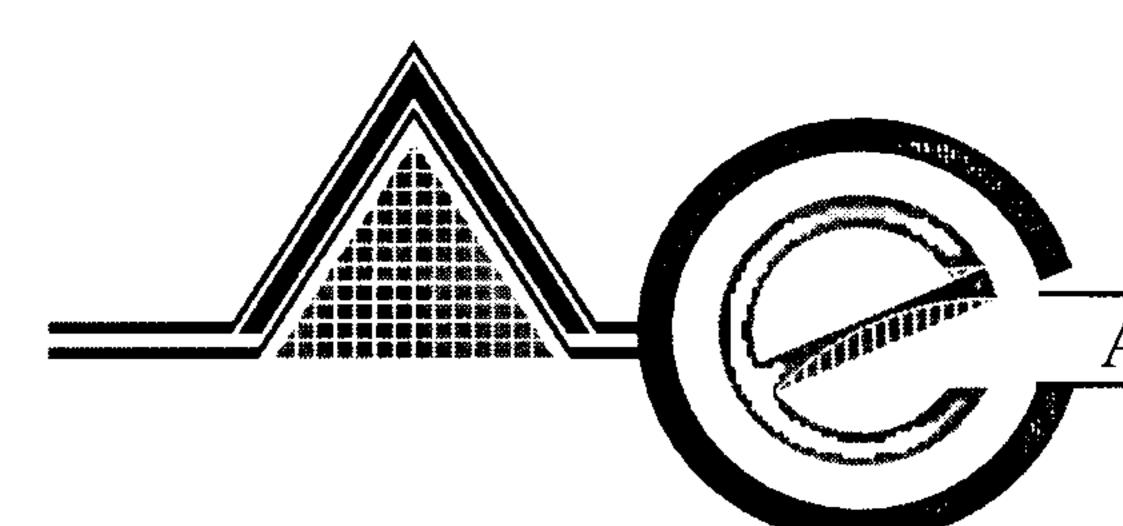
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (Rev. 12/05)

PROJECT TITLE: DOC SAVAGE SUPPLY	ZONE ATLAS/DRG. FILE #: H15 / D064
DRB #: EPC #:	WORK ORDER #:
TDACT 1 A OF MUE	LLER INDUSTRIAL SUBDIVISION
	LLEK INDUSTRIAL SUBDITION
ENGINEERING FIRM: Advanced Engineering and Consulti	ng, LLC CONTACT: Shahab Biazar PHONE: (505) 899-5570
ADDRESS: 4416 Anaheim Ave., NE CITY, STATE: Albuquerque, New Mexico	ZIP CODE: 87113
	CONTACT:
OWNER: ADDRESS:	PHONE:
CITY, STATE:	ZIP CODE:
A DCHITTCT.	CONTACT:
ARCHITECT: ADDRESS:	PHONE:
CITY, STATE:	ZIP CODE:
SURVEYOR:	CONTACT:
ADDRESS:	PHONE:
CITY, STATE:	ZIP CODE:
CONTRACTOR:	CONTACT:
ADDRESS:	PHONE: ZIP CODE:
CITY, STATE:	
CHECK TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
DRAINAGE REPORT	SIA / FINANCIAL GUARANTEE RELEASE
DRAINAGE REFORM DRAINAGE PLAN 1ST SUBMITTAL	PRELIMINARY PLAT APPROVAL
DRAINAGE I LAN 131 3000111 17112 DRAINAGE PLAN RESUBMITTAL	S. DEV. PLAN FOR SUB'D. APPROVAL
	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
CONCEPTUAL GRADING & DRAINAGE PLAN	SECTOR PLAN APPROVAL
GRADING PLAN	FINAL PLAT APPROVAL
EROSION CONTROL PLAN	FOUNDATION PERMIT APPROVAL
X ENGINEER'S CERTIFICATION (HYDROLOGY)	
CLOMR / LOMR	BUILDING PERMIT APPROVAL
TRAFFIC CIRCULATION LAYOUT (TCL)	X CERTIFICATE OF OCCUPANCY (PERM.)
ENGINEER/ARCHITECT CERT (TCL)	CERTIFICATE OF OCCUPANCY (TEMP.)
ENGINEER/ARCHITECT CERT (DRB S.P.)	GRADING PERMIT APPROVAL
ENGINEER/ARCHITECT CERT (AA)	PAVING PERMIT APPROVAL
OTHER (SPECITY)	GREEN APPROVAL
THAC A DDD DECICAL COMEDDENICE ATTEMBED.	7-20-09
WAS A PRE-DESIGN CONFERENCE ATTENDED:	JUL 2 0 2009
X YES NO	JUL 2 U Los
COPY PROVIDED	
	HYDROLOGY
DATE SUBMITTED: 07 / 20 / 2009	SECTION Shahab Biazar, P.E.

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 the following levels of submittals may be required based on the following:

- 1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) and Sector Plans.
- 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 containing five (5) acres or more.



ADVANCED ENGINEERING and CONSULTING, LLC

Consulting
Design
Development
Management
Inspection
Surveying

July 20, 2009

Mr. Curtis A. Cherne, P.E.
Sr. Engineer, Planing Dept.
Development and Building Services
600 Second Street NW
Albuquerque, New Mexico 87102

RE: FINAL CERTIFICATION OF OCCUPANCY FOR DOC SAVAGE SUPPLY (H15 / D064)

Dear Mr. Cherne:

This letter is in request of Final Certification of Occupancy for the above mentioned project and the following are the responses to your comments received dated July 10, 2009.

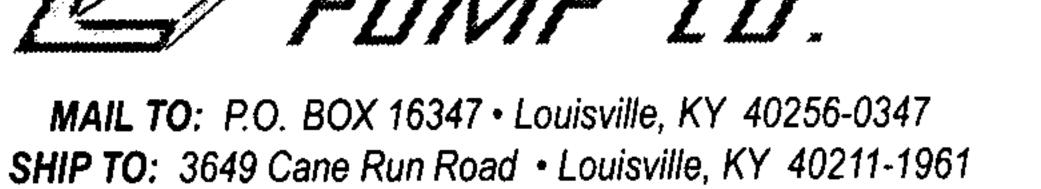
- The grate is installed at the end of the 12" pipe
- The specification sheets for the sump pump are attached with this letter.
- We had used a 40 gpm pump discharge rate in our calculations previously for the pump at the detention pond. The pump used (with a head of ± 10 feet) will discharge the pond at a flow rate of 60 gpm which is higher than what it was designed for. The wires were also connected.

We also have added a concrete rundown into the detention pond to avoid erosion. Please contact me if there are any questions or concerns regarding this submittal.

REGISTRATO PROFESSIONAL

Sincerely yours,

Shahab Biazar, P.E.





SECTION: 3.10.015

FM2164 0208 Supersedes

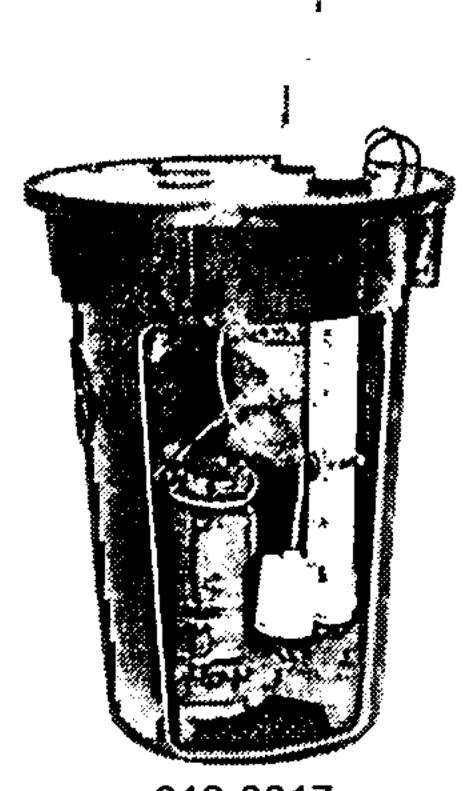
0507

visit our web site: www.zoeller.com

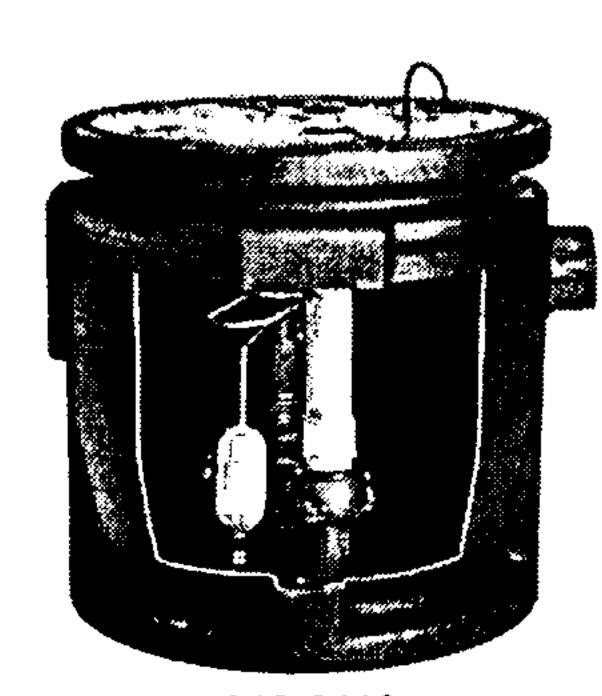
912 - SIMPLEX SEWAGE PACKAGE SYSTEMS (JOB READY/ASSEMBLED) Zoeller Preassembled Sewage Systems

(502) 778-2731 • 1 (800) 928-PUMP • FAX (502) 774-3624

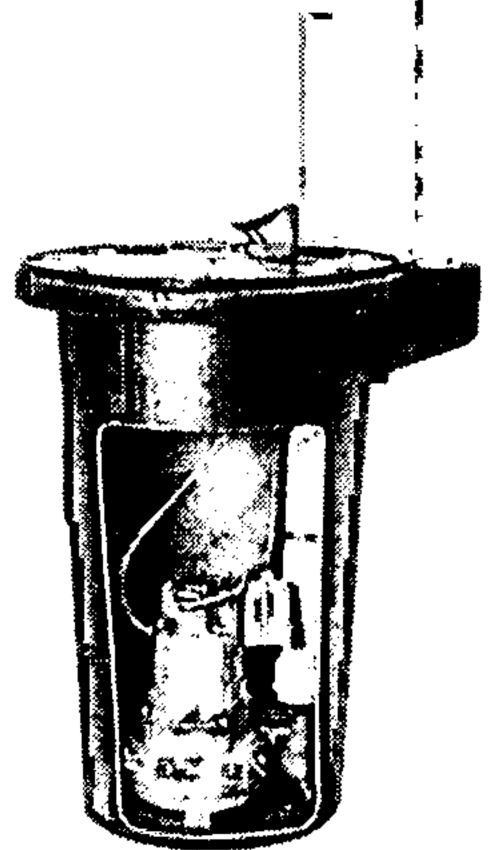
• More Choices • Easier Installation • Fast Delivery • Saves Labor • Reduces Installation Errors <u>SOLUTIONS</u>



912-0017 (Top Discharge)



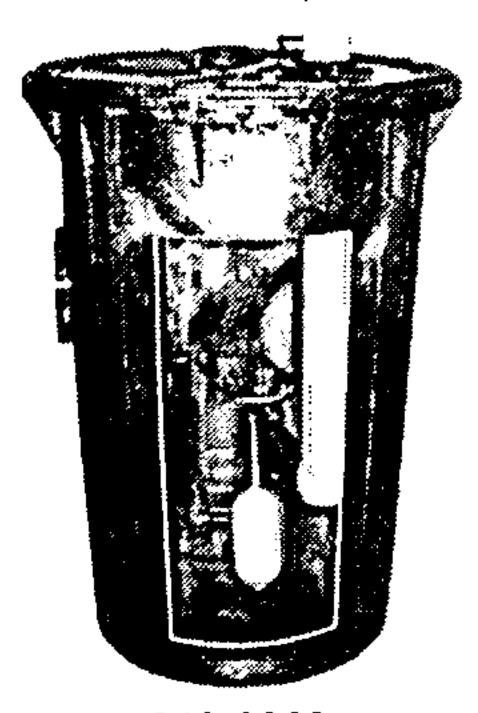
912-0116 Poly Molded Basin (Top Discharge)



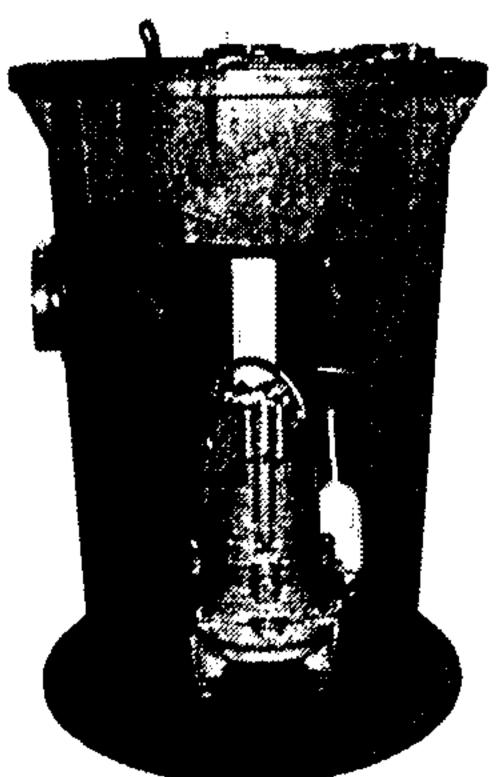
912-0056 (Top Discharge)

912-0082

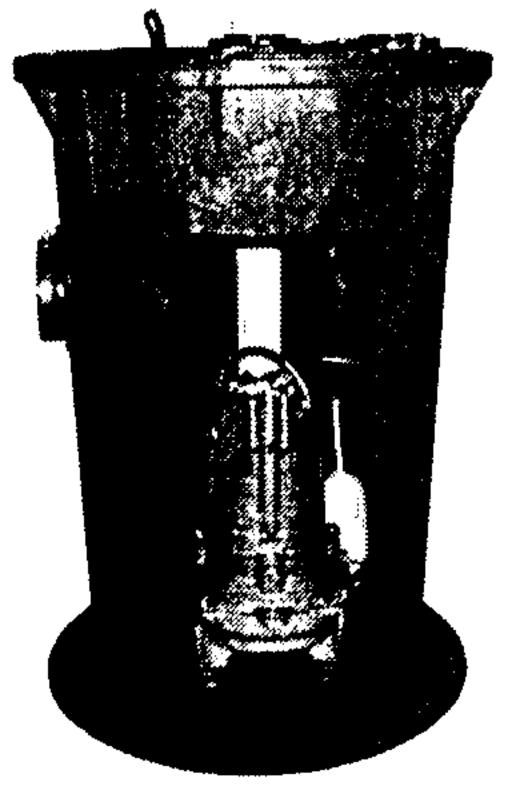
(Side Discharge)



912-0063 Deluxe Basin (Top Discharge)



912-0088 Premium Basin (Top Discharge)



MODELS		211		264		266	
Feet	Meters	Gal.	Liters	Gal.	Liters	Gal.	Liters
5	1.5	82	310	90	341	128	484
10	3.0	53	201	60	227	89	337
15	4.6	32	121	23	87	50	189
20	6.1	-	-	-	-	10	38
Shut-o	off Head:	19.5 f	t.(5.9m)	18 ft.	(5.5m)	21.51	t.(6.6m)

009969B

2009

0

03

SYSTEMS INCLUDE:

- 2" solids handling pump.
- 2" PVC discharge pipe, 30" long (24" long on 24" X 24") and (36" long on 24" X 36").
- · Basins polyethylene, poly-foam or fiberglass construction with poly or solid steel covers and 4" pipe seal hub, 4" PVC hub (Deluxe) or 4" cast iron hub on L.A. Code Systems.
- Check valve options 30-0151, 30-0020, 30-0021, 30-0101 or 30-0103 (Not Included).
- Systems available with alarms and preinstalled alarm float.
- Premium indoor systems have a split cover for easy pump inspection; torque stops and an anti-flotation device.
- Side Discharge systems rated for outdoor burial solid polyethylene structural foam lid and basin with 2" discharge on side.
- 3/16" vent hole drilled.

2" vent	3" vent			Paoin Sizo	Weight
Order by Item #	Order by Item #	Pump	Basin Type	Basin Size	Each
912-0073		M211	Polyethylene Structural Foam-Standard	18" X 30" 24" X 24"	39 50
912-0112* 912-1112*		11	Poly Molded Poly Molded with Alarm	24" X 24"	54
912-0007	912-0021	M264	Polyethylene Structural Foam-Standard	18" X 30"	56
912-1007		1	Polyethylene Structural Foam-Standard with Alarm	18" X 30"	59 35
912-0006	_	M	Poly-10' stack	18" X 30"	65 59
912-0061			Polyethylene Structural Foam-Deluxe	18" X 30" 18" X 30"	50
912-0069		**	Poly-with Integral Side Vent Premium Polyethylene Structural Foam w/ AFD	18" X 30"	64
912-0086 912-1086		Ħ	Premium Polyethylene Structural Foam w/ AFD & Alarm	18" X 30"	67
912-0114*		77	Poly Molded	24" X 24"	73
912-1114*			Poly Molded with Alarm	24" X 24"	75
912-0078*		DNO44 with DD VI ES	Polyethylene Structural Foam-Deluxe Polyethylene Structural Foam-Standard	24" X 36" 18" X 30"	82 39
912-0074 912-0113*		BN211 with P.B. V.L.F.S.	Poly Molded	24" X 24"	50
912-0113*		77	Poly Molded with Alarm	24" X 24"	54
912-0005	912-0029	BN264 with P.B.	Polyethylene Structural Foam-Standard	18" X 30"	56
912-1005		Variable Level	Polyethylene Structural Foam-Standard with Alarm	18" X 30"	59 78
912-0016**		Float Switch	Fiberglass-10' stack, LA code	18" X 30" 18" X 30"	50
912-0055		,	Poly with Integral Side Vent Poly with Integral Side Vent with Alarm	18" X 30"	53
912-1055 912-0065		•	Polyethylene Structural Foam-Deluxe	18" X 30"	59
912-0087		#	Premium Polyethylene Structural Foam w/ AFD	18" X 30"	64
912-1087		*	Premium Polyethylene Structural Foam w/ AFD & Alarm	18" X 30"	67
912-0115*		** **	Poly Molded Boly Molded with Alarm	24" X 24" 24" X 24"	73 75
912-1115*			Poly Molded with Alarm Polyethylene Structural Foam-Deluxe	24" X 36"	82
912-0080* 912-1080*			Polyethylene Structural Foam-Deluxe with Alarm	24" X 36"	85
912-0010	912-0025	M266	Polyethylene Structural Foam-Standard	18" X 30"	61
912-1010		1	Polyethylene Structural Foam-Standard with Alarm	18" X 30"	64
912-0012		# 	Fiberglass-Standard	18" X 30" 18" X 30"	74 64
912-0063		н	Polyethylene Structural Foam-Deluxe Poly-with Integral Side Vent	18" X 30"	55
912-0070 912-0088		TN TN	Premium Polyethylene Structural Foam w/ AFD	18" X 30"	69
912-0088		,	Premium Polyethylene Structural Foam w/ AFD & Alarm	18" X 30"	72
912-0116*		*	Poly Molded	24" X 24"	76 70
912-1116*		"	Poly Molded with Alarm	24" X 24" 24" X 36"	78 87
912-0079*	042.0022	BN266 with P.B.	Polyethylene Structural Foam-Deluxe Polyethylene Structural Foam-Standard	18" X 30"	61
912-0017 912-1017	912-0033	Variable Level	Polyethylene Structural Foam-Standard with Alarm	18" X 30"	64
912-0018		Float Switch	Poly-10' stack	18" X 30"	67
912-0019		#	Fiberglass-Standard	18" X 30"	75 70
912-0020**		**	Fiberglass-10' stack, LA code	18" X 30"	79 55
912-0056		"	Poly with Integral Side Vent with Alarm	18" X 30" 1 8" X 30"	58
912-1056	. [H	Poly with Integral Side Vent with Alarm Polyethylene Structural Foam-Deluxe	18" X 30"	64
912-0067 912-1067		#	Poly Structural Foam-Deluxe w/ Alarm	18" X 30"	67
912-0089		•	Premium Polyethylene Structural Foam w/ AFD	18" X 30"	69
912-1089		•	Premium Polyethylene Structural Foam w/ AFD & Alarm	18" X 30"	72
912-0117*		**	Poly Molded Roly Molded with Alarm	24" X 24" 24" X 24"	76 78
912-1117*	 i		Poly Molded with Alarm Polyethylene Structural Foam-Deluxe	24" X 36"	87
912-0081* 912-1081*		4	Polyethylene Structural Foam-Deluxe with Alarm	24" X 36"	90
	arga Racine	·			Weight
	arge Basins by Item #	Pump	Basin Type	Basin Size	Each
	· ,	M264	Polyethylene Structural Foam	18" X 30"	61
912-0082 912-1082		1VIZQ4 *	Polyethylene Structural Foam with Alarm	18" X 30"	66
912-1002		•	Premium Polyethylene Structural Foam w/ AFD	18" X 30"	72
912-1090		*	Premium Polyethylene Structural Foam w/ AFD & Alarm	18" X 30"	72
912-0083		BN264 w/ P.B. VLFS	Polyethylene Structural Foam	18" X 30" 18" X 30"	62 67
912-1083		*	Polyethylene Structural Foam with Alarm Premium Polyethylene Structural Foam w/ AFD	18" X 30"	72
912-0091 912-1091	 		Premium Polyethylene Structural Foam w/ AFD & Alarm	18" X 30"	76
912-1091		M266	Polyethylene Structural Foam	18" X 30"	62
912-1084			Polyethylene Structural Foam with Alarm	18" X 30"	67
912-0092		,	Premium Polyethylene Structural Foam w/ AFD	18" X 30" 18" X 30"	75 76
912-1092		BN266 w/ P.B. VLFS	Premium Polyethylene Structural Foam w/ AFD & Alarm Polyethylene Structural Foam	18" X 30"	63
912-0085		DINZOO W/ M.D. VLF3	Polyethylene Structural Foam with Alarm	18" X 30"	68
912-1085 912-0093		,	Premium Polyethylene Structural Foam w/ AFD	18" X 30"	3
912-1093	 	•	Premium Polyethylene Structural Foam w/ AFD & Alarm	18" X 30"	
	<u> </u>	<u> </u>		To deal	

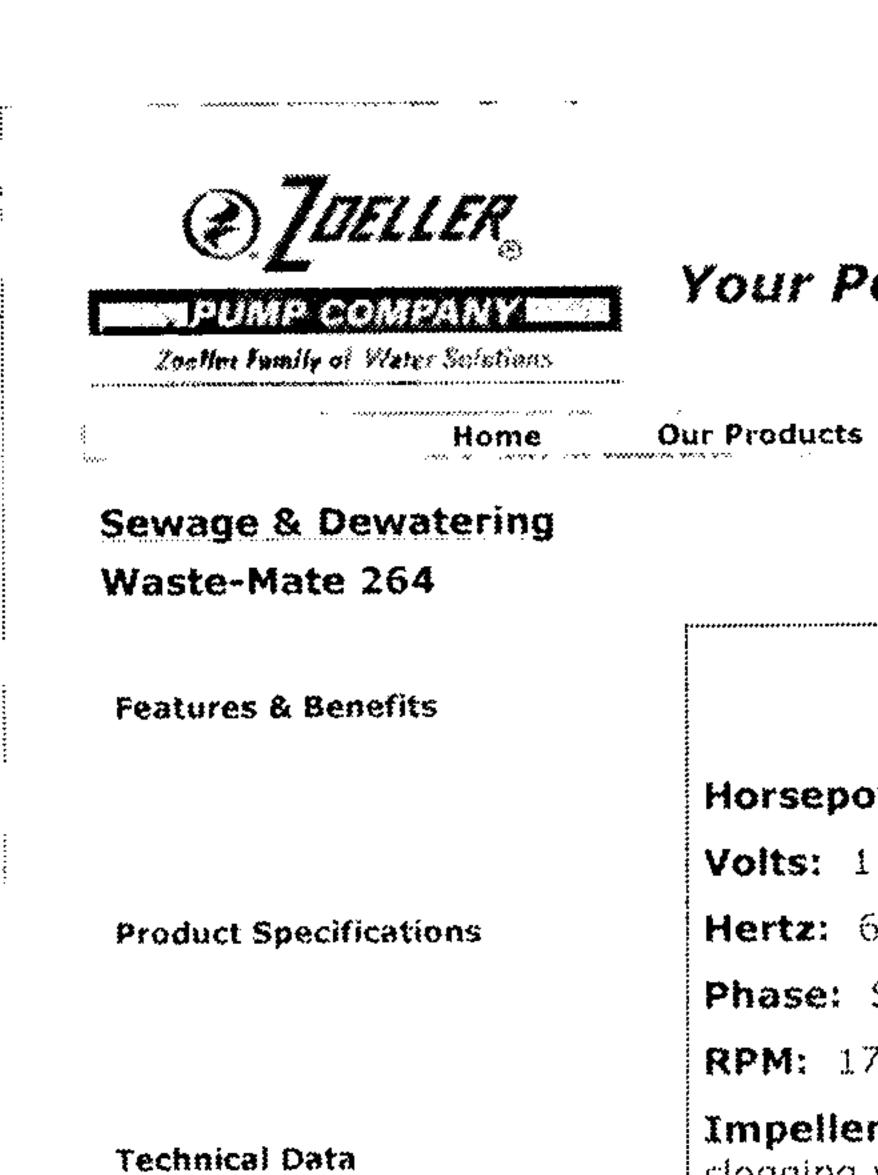
*24" X 24" and 24" X 36" shipped individually.

PACKAGING

18" X 30" Simplex Systems are shipped four units to a skid. 24" X 36" are shipped individually. All units are properly secured with a 2" PVC discharge pipe in the basins to avoid shifting or upsetting the pump and switch mechanism. Float switch is secured with tape that is easily removed through the inlet hub opening. Premium basins have torque stops for prevention of shipping damage to the pump. All other systems are packaged with environment safe peanuts that are water soluble. - No need to remove.

OPTIONS Replies recommends a High Water Harm foredded protection. Systems shown bove in bold include Alarm For over alarm options, see FM0732

^{**4&}quot; Cast Iron Hub on L.A. Code Systems.



Your Peace of Mind is Our Top Priority

Support

Product Search Search

Log-In

About Us

Where to Buy

Product Specifications

Horsepower: .4 HP **Volts:** 115 or 230 V Hertz: 60 Hz

Phase: Single Phase **RPM:** 1725 RPM

Impeller Type: Engineered, glass-filled plastic non-

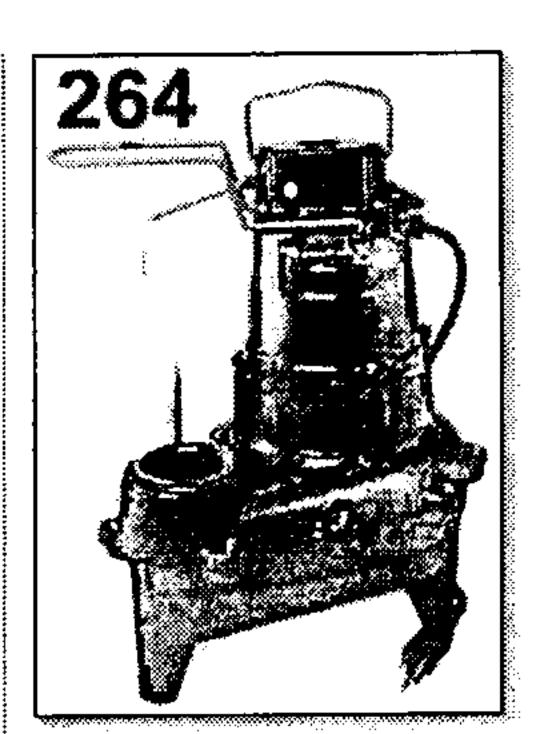
clogging vortex imp. w/ metal insert

Pump Sizing

Cord Length: 15 ft. standard for automatic

nonautomatic

Cord Type: UL listed, 3-wire cord and plug



Automatic Model



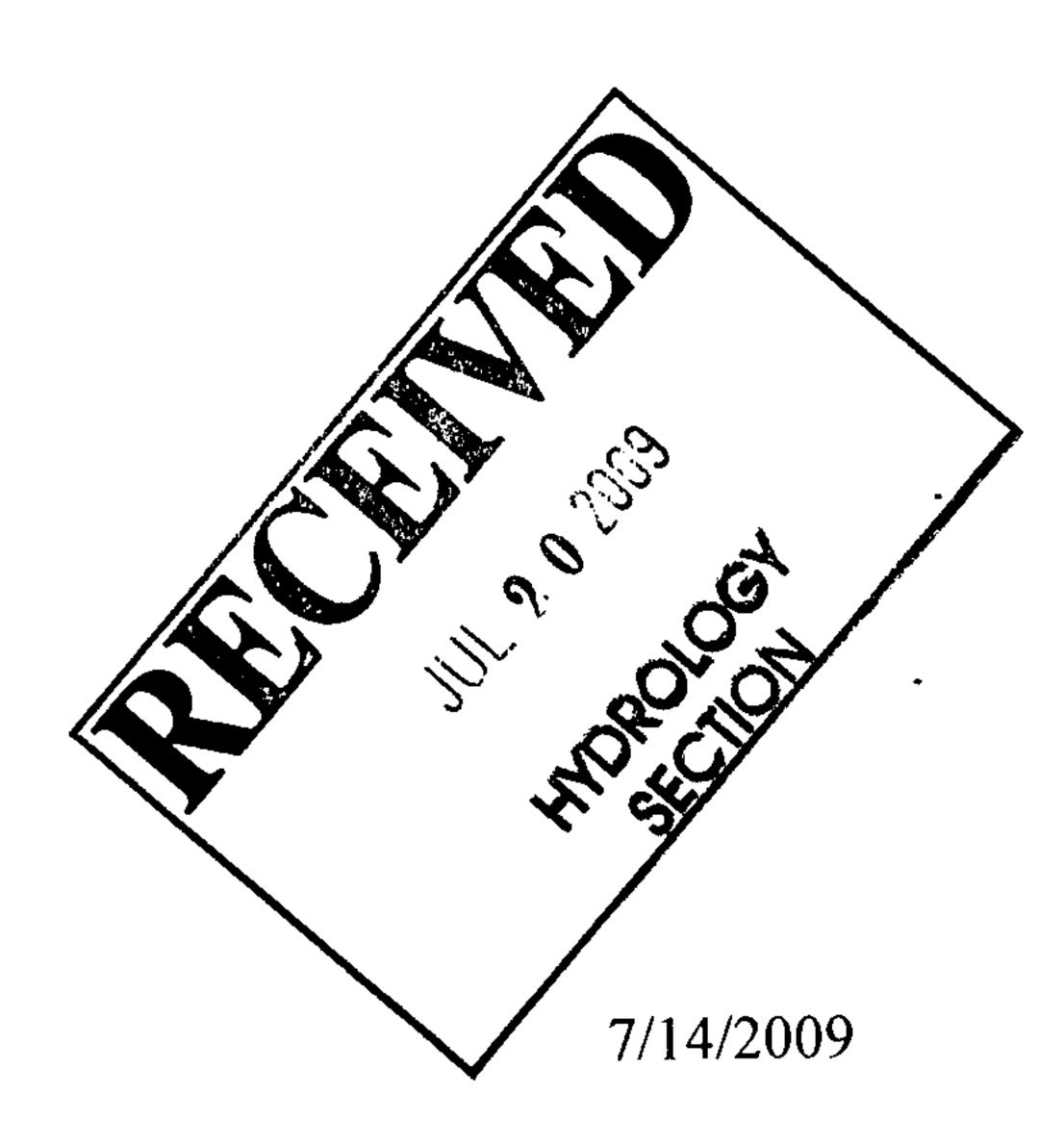
Model Comparison Charts

Dimensional Data Drawings

Performance Curves

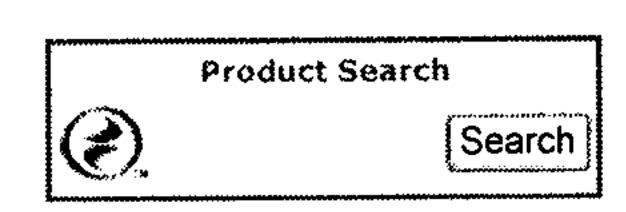
Related Documents

Copyright © 2009 Zoeller Company site map





Your Peace of Mind is Our Top Priority



About Us Log-In Where to Buy Support Pump Sizing **Our Products**

Sewage & Dewatering Waste-Mate 264

Features & Benefits

Product Specifications

Technical Data

Model Comparison Charts **Performance Curves** Dimensional Data Drawings **Related Documents**



Features & Benefits

Submersible sewage/effluent or dewatering pump

- Float operated, submersible (NEMA 6) 2 pole switch
- Durable cast iron construction switch cap, motor and pump housing
- Engineered plastic base
- Stainless steel screws, bolts, handle, guard, arm and seal assembly
- Corrosion resistant powder coated epoxy finish
- Hermetically sealed, automatic reset thermal overload protection
- Upper and lower sleeve bearings running in bath of oil
- Carbon and ceramic shaft seal
- Passes 2" spherical solids
- 2" NPT discharge
- On point: 12 ½"
- Off point: 4 ½"
- Simplex and duplex systems available
- Automatic and nonautomatic models available
- Nonautomatic for variable level systems
- BE and BN264 available packaged with piggyback variable level float switch

Consult factory for special applications:

- Electrical alternators for duplex systems available with variable level float switches
- Minimum recommended basin size simplex: 18" x 30", duplex: 30" x 36"
- Standard automatic .4 HP, 34.5 lbs.
- High water alarms available
- Mechanical alternators available for duplex systems
- For "M" and "D" models, the approximate gallons pumped out per cycle are:

Tank Diameter	Gallons Pumped		
18" simplex	S gallons		
24" simplex	15 gallons		
30" duplex	22 gallons		
36" duplex	33 gations		
48" duplex	60 gallons		

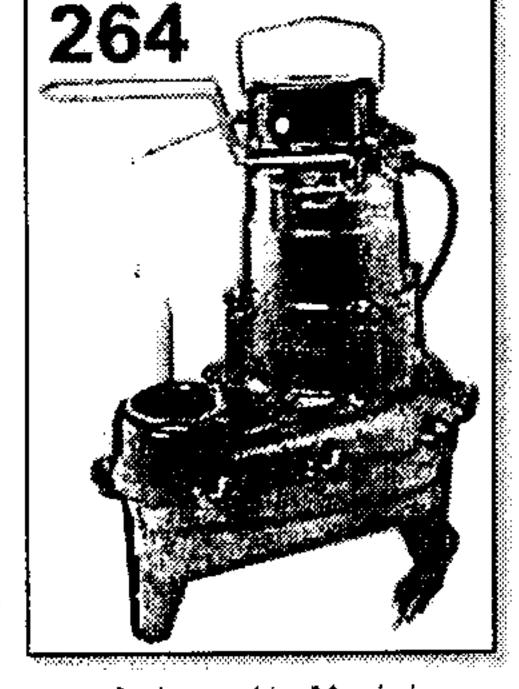
Note: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing timers with non-automatic pumps.

Reserve powered design. For unusual conditions a reserve safety factor is engineered into the design of every Zoeller pump.

*May be used in those states where codes do not restrict solids size in effluent systems.

Copyright © 2009 Zoeller Company

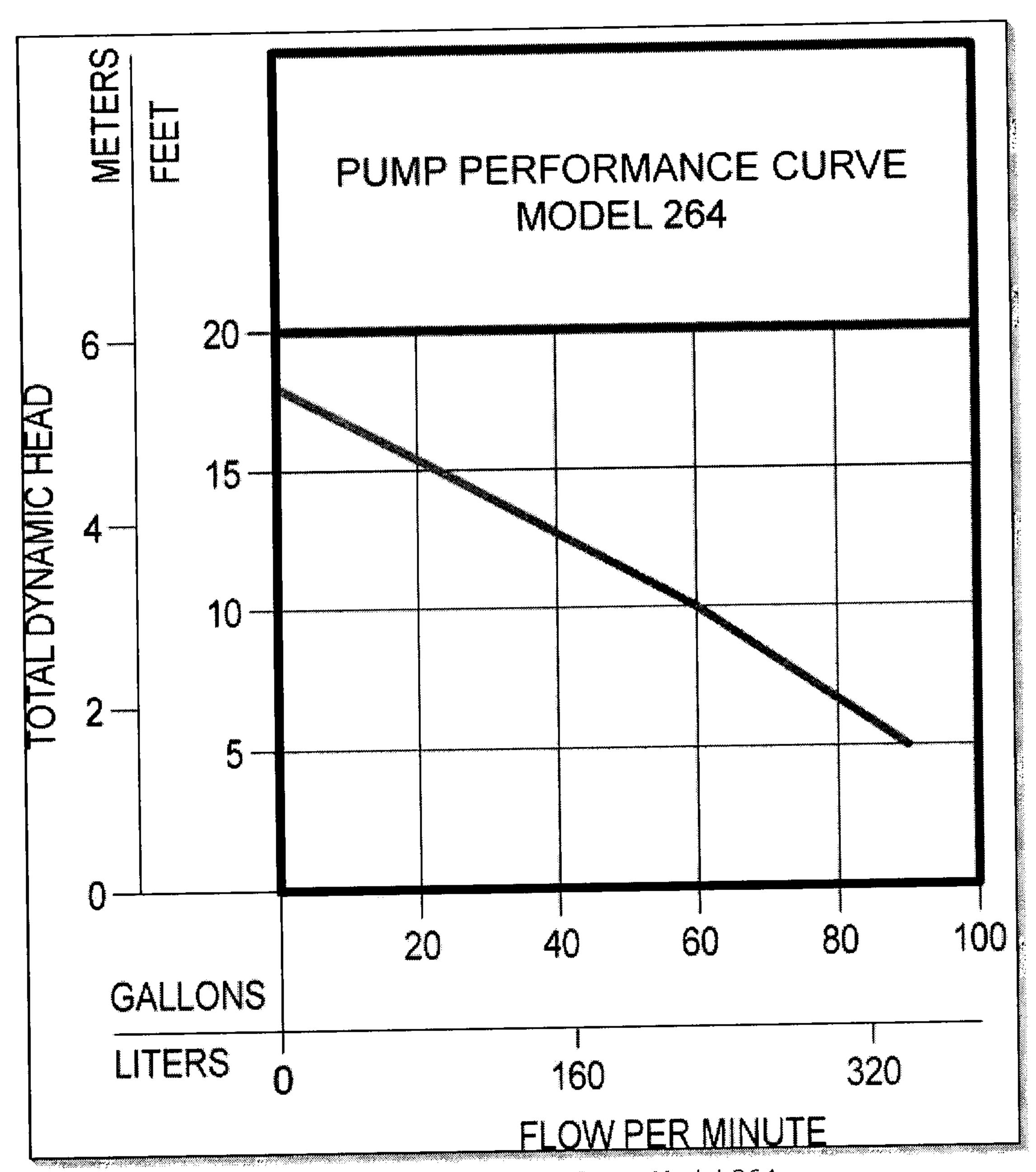
site map



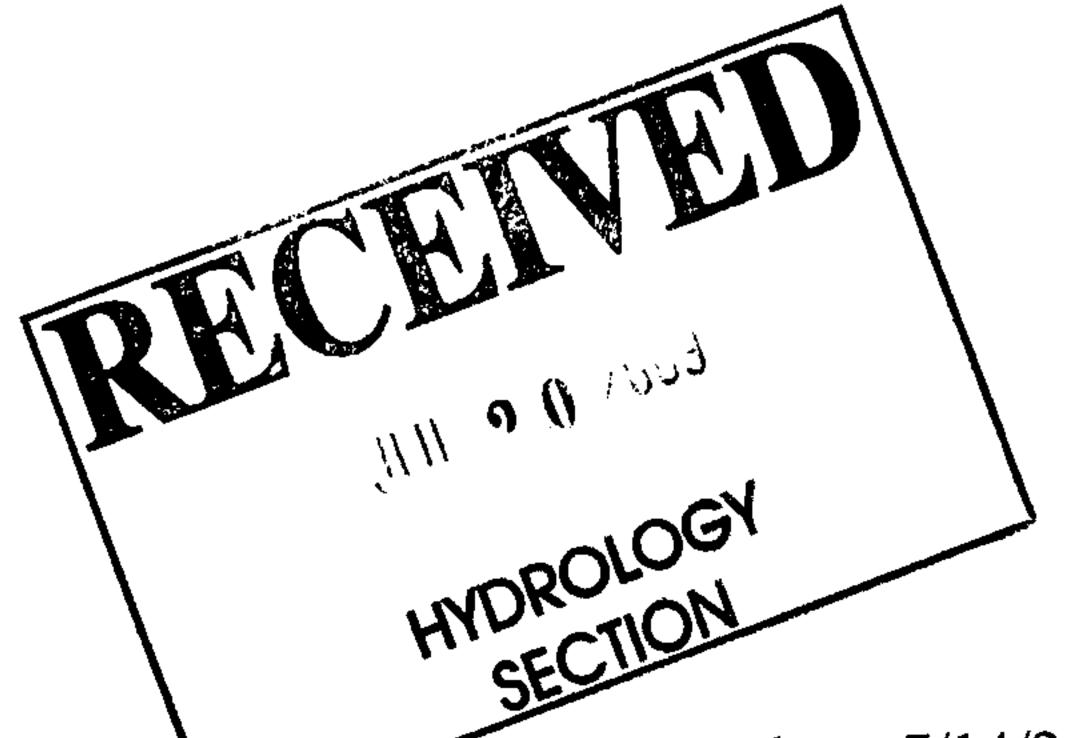
Automatic Model

7/14/2009

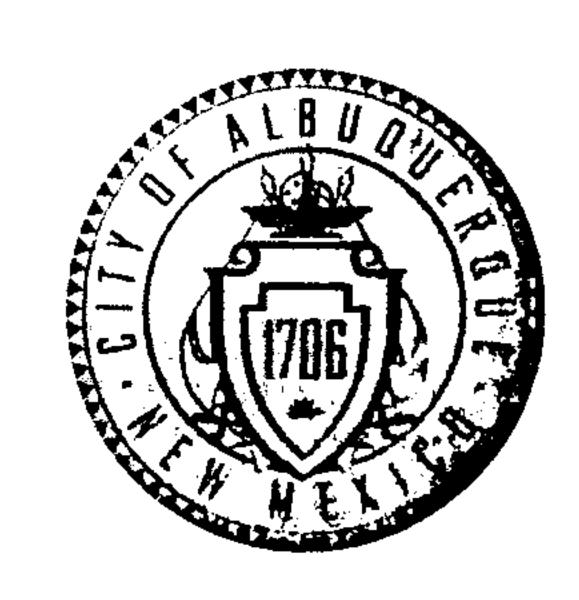




Pump Performance Curve Model 264



CITY OF ALBUQUERQUE



July 10, 2009

Shahab Biazar, P.E.

Advanced Engineering and Consulting, Inc.

4416 Anaheim Ave. NE

Albuquerque, NM 87113

Re: Doc Savage Supply, 600 Candelaria Rd NE
90 Day Temporary Certificate of Occupancy - Approved
Approved Engineer's Stamp Date 7-25-08 revised 3-6-09
Certification dated 7-9-09 (H15-D064)

Based upon the information provided in the Certification received 7-10-09, the above referenced Certification is approved for release of a 90-day Temporary Certificate of Occupancy by Hydrology.

PO Box 1293

To obtain a Permanent Certificate of Occupancy:

Albuquerque

NM 87103

- The grate is required to be installed on the upstream end of the 12 inch pipe as stated on the approved plan.
- Provide the Spec sheet for the sump pump.
- Ensure the sump pump meets the plan requirements and has power (it did not appear to be wired).

If you have any questions, you can contact me at 924-3695.

www.cabq.gov

Curtis A. Cherne, P.E.

Sincerely,

Cut. a. Chew

Senior Engineer

Development and Building Services

C: CO Clerk File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (Rev. 12/05)

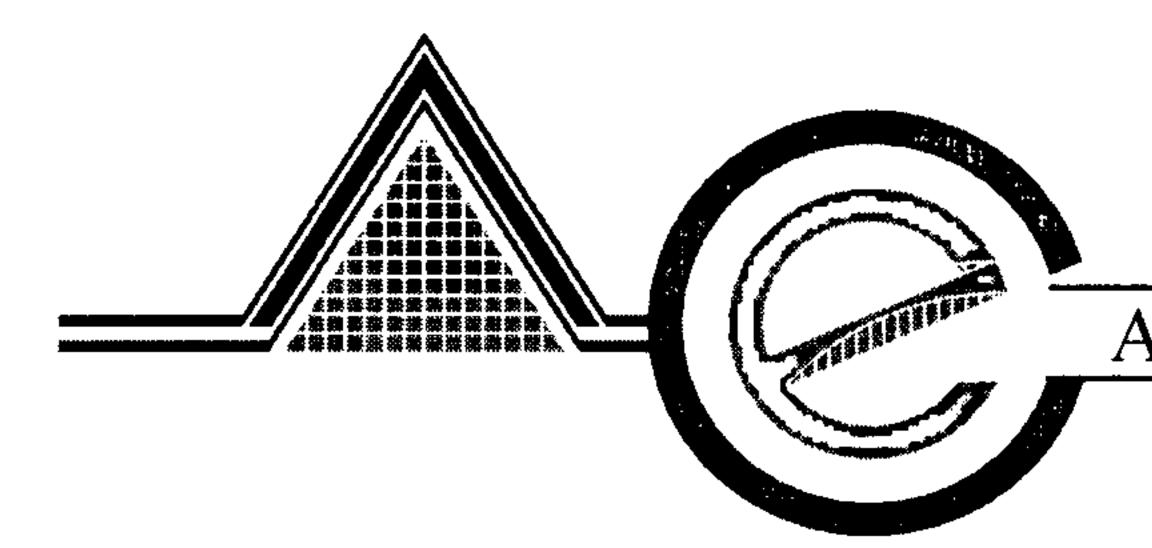
PROJECT TITLE:	DOC SAVAGE SUPPLY	Z (ONE ATLAS/DRG. FILE #:	H15 / D064
DRB #:	EPC #:	W	ORK ORDER #:	
T DECORIDEION.	TRACT 2-A OF MUELLER INDU	STRIAL SURDIVISION		
LEGAL DESCRIPTION:	600 CANDELARIA RD. NE	OTHER DEDDITION		
CITY ADDRESS:	OUU CANDELAKIA KD. IVE	<u>. </u>		
ENGINEERING FIRM:	Advanced Engineering and Consulting, LLC	CONTACT:	Shahab Biazar	
ADDRESS		PHONE: ZIP CODE:	(505) 899-5570 87113	
CITY, STATE	: Albuquerque, New Mexico	ZIF CODE:	0/113	
OWNER:		CONTACT:	· · · · · · · · · · · · · · · · · · ·	
ADDRESS	•	PHONE:		
CITY, STATE	• •	ZIP CODE:		
ARCHITECT:		CONTACT:		
ADDRESS		PHONE:	<u>.</u>	
CITY, STATE	•	_ ZIP CODE:		
SURVEYOR:		CONTACT:		
ADDRESS		PHONE:		
CITY, STATE	•	ZIP CODE:	<u>,</u>	
CONTRACTOR:		CONTACT:		
ADDRESS	· · · · · · · · · · · · · · · · · · ·	PHONE:		
CITY, STATE		ZIP CODE:	<u> </u>	<u> </u>
OUDOX TUDE OF CUDIA	TOTO A T .	CHECK TYPE OF APPR	OVAL SOUGHT:	
CHECK TYPE OF SUBM			IAL GUARANTEE RELEASE	
DRAINAGE RE				
DRAINAGE PL	AN 1ST SUBMITTAL		Y PLAT APPROVAL	
DRAINAGE PL	AN RESUBMITTAL		FOR SUB'D. APPROVAL	-
CONCEPTUAL	GRADING & DRAINAGE PLAN	S. DEV. PLAN	FOR BLDG. PERMIT APPRO)VAL
GRADING PLA	N	SECTOR PLA	N APPROVAL	
EROSION CON	TROL PLAN	FINAL PLAT	APPROVAL	
X ENGINEER'S C	CERTIFICATION (HYDROLOGY)	FOUNDATION FOUNDATION	N PERMIT APPROVAL	
CLOMR / LOM	\mathbf{R}	BUILDING PE	RMIT APPROVAL	
TRAFFIC CIRC	CULATION LAYOUT (TCL)	X CERTIFICAT	E OF OCCUPANCY (PERM.)	
ENGINEER/AR	CHITECT CERT (TCL)	CERTIFICAT	E OF OCCUPANCY (TEMP.)	
ENGINEER/AR	CHITECT CERT (DRB S.P.)	GRADING PE	RMIT APPROVAL	
ENGINEER/AR	CHITECT CERT TAX	PAVING PER	MIT APPROVAL	
OTHER (SPEC			R APPROVAL	
		SO-19		
	11 1 A '2000			
WAS A PRE-DESIGN CO	NFERENCE ATTENDED: JUL 1 0 2009	÷		
YES				
X NO	HYDROLOGY			
COPY PROVID				
		ימו	Y: Shahab Biazar, P.E.	
DATE SUBMITTED:	07 / 09 / 2009	В	Y: Shahab Biazar, P.E.	

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 the following levels of submittals may be required based on the following:

- 1. Conceptual Grading and Drainage Plan: Required for approval of Site Development Plans greater than five (5) and Sector Plans.
- 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 containing five (5) acres or more.







ADVANCED ENGINEERING and CONSULTING, LLC

Consulting Design Development Management Inspection Surveying

July 9, 2009

Mr. Curtis A. Cherne, P.E. Sr. Engineer, Planing Dept. Development and Building Services 600 Second Street NW Albuquerque, New Mexico 87102

FINAL CERTIFICATION OF OCCUPANCY FOR DOC SAVAGE SUPPLY (H15 / RE: D064)

Dear Mr. Cherne:

This letter is in request of Final Certification of Occupancy for the above mentioned project. I Shahab Biazar, NMPE, of the Advanced Engineering, LLC hereby certify that project has been graded and will drain in substantial compliance with and design intent of the approved plan dated 07/25/2008 (revised 3-6-9). All the pavement, the storm sewer pipes, and the pond are in place. See enclosed plan for as-built grades.

Please contact me if there are any questions or concerns regarding this submittal.

Sincerely yours,

JUL 1 0 2309

HYDRO!OGY SECTION

Shahab Biazar, P.E.

AEG.

Œ.

EN/O/NE

PROFESSIONA

• ~ ` *