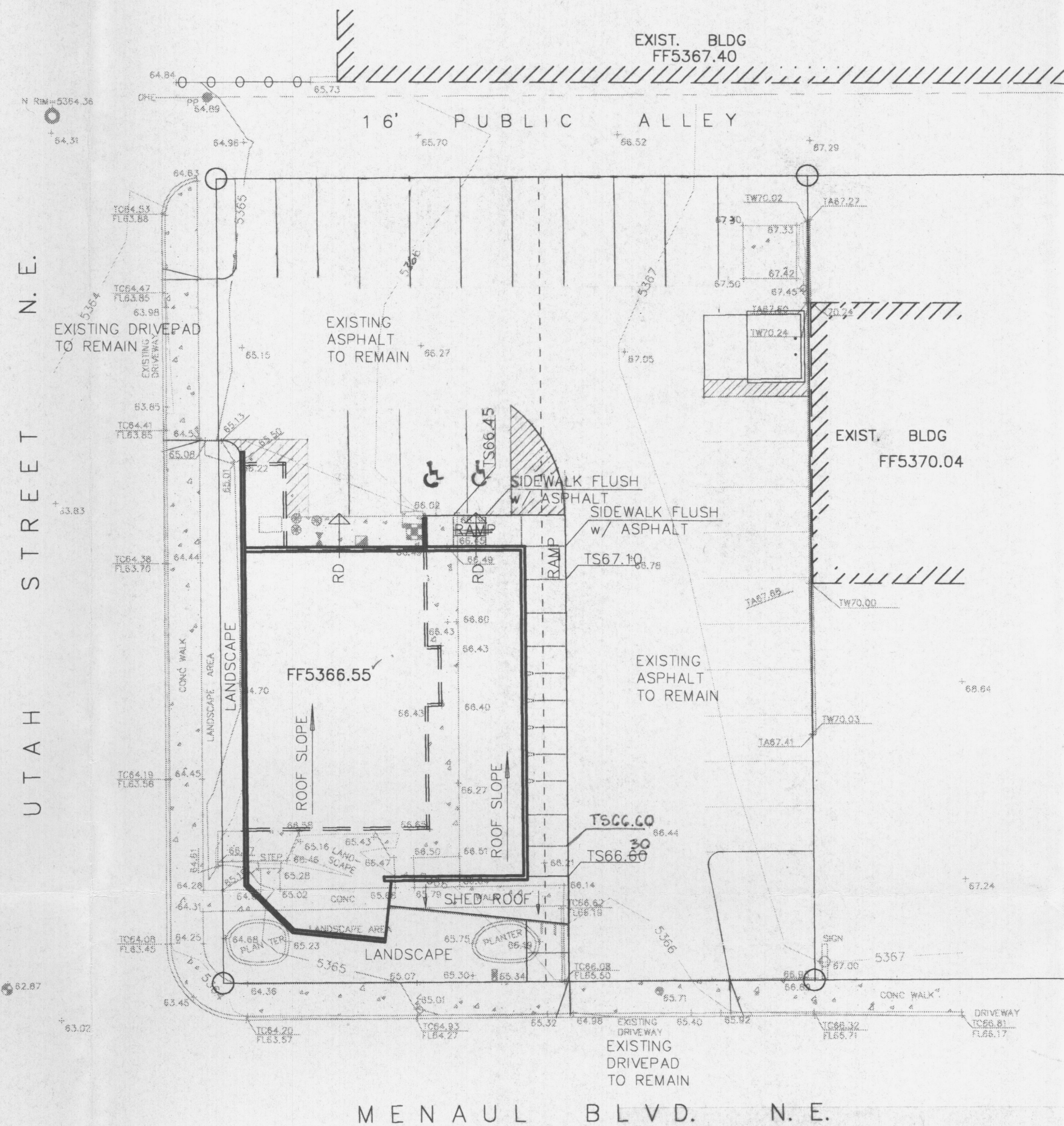


HYDROLOGY SECTION  
MAR 07 2000  
RECEIVED



NOTES:  
1. ROOF DRAINS AT THE NORTH SIDE OF THE BUILDING SHALL DRAIN TO THE PARKING LOT IN A 6" WIDE CONCRETE CHANNEL. THE CHANNEL SHALL HAVE AN OPEN GRATED COVER FLUSH WITH THE SIDEWALK SURFACE. GRATE TO HAVE A MAXIMUM OPENING WIDTH OF 1/2".  
2. SIDEWALK TO HAVE CROSS SLOPE OF 1/4" FT. DRAIN AWAY FROM BUILDING.

I, JEAN J. BORDENAVE, HEREBY CERTIFY THAT ON FEBRUARY 26, 2000 THE AS-BUILT INFORMATION SHOWN ON THIS SHEET WAS OBTAINED UNDER MY SUPERVISION AND THAT THE AS-BUILT DRAINAGE CONDITIONS ARE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN.  
JEAN J. BORDENAVE, PE & PS # 5110

### LEGAL DESCRIPTION

LOTS 1 AND 2, BLOCK 5, SOMBRA DEL MONTE SUBDIVISION

### PERMANENT BENCHMARK

ACS 11-H19 ELEVATION 5361.661

### GRADING CERTIFICATION

I, Jean J. Bordenave, New Mexico Professional Engineer and Land Surveyor No. 5110, hereby certify that I have personally inspected the property shown hereon and that it appears that no grading, filling or excavation has occurred thereon since the contour map shown hereon was prepared.  
Jean J. Bordenave, NM PE & PS No. 5110

### GENERAL NOTES

- There is a flow increase of 0.09 and 0.09 cfs for the 10 year and 100 year storms respectively. The 6 hour runoff volumes for the two storms increase by 158 and 200 cubic feet. The changes in runoff flows and volumes between existing and proposed conditions are smaller than the probable error in the computational method. Due to the small absolute value of change it is being reported that there is no change between the existing and proposed conditions.
- The site is located on a tract that is presently developed. Proposed construction is limited to expansion of the existing building and construction of a sidewalk. Off site flows are presently diverted north to an existing alley and south to Menaul Blvd. Onsite flows will be routed in the same manner as the existing condition as there is no parking lot reconstruction proposed.
- The site is not located in a designated flood hazard area per FEMA FIRM Panel No. 356, dated September 20, 1996.
- Topography shown on this sheet was obtained by Harris Surveying, Inc. dated September, 1999.
- Landscape surfaces disturbed in the construction process shall be treated with formal landscaping (lawn, flower beds, etc.) or with native plant seeding.

### VICINITY MAP NO. H-19



### FEMA FIRM PANEL NO. 356



### LEGEND

TBM	TEMPORARY BENCHMARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOWLINE
TA	TOP OF ASPHALT
TCP	TOP OF CONCRETE
TC	TOP OF CURB
TP	TOP OF EARTH PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
WM	WATER METER
WV	WATER VALVE
MH	MANHOLE
CB	CATCH BASIN GRATE
GM	GAS METER
GV	GAS VALVE
LP	LIGHT POLE
PP	POWER POLE
GW	GUY WIRE
PED	ELEC. OR TEL. PEDESTAL
RD	ROOF DRAINAGE POINT

### GRADING NOTES

- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE NEW MEXICO ONE CALL SYSTEM AT 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

### EROSION CONTROL NOTES

- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERMS OR SILT FENCES AT PROPERTY LINES AND BY SOIL TO PREVENT IT FROM BLOWING.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- THE CONTRACTOR SHALL SECURE A 'TOPSOIL DISTURBANCE PERMIT' PRIOR TO BEGINNING CONSTRUCTION.

### OFFSITE DRAINAGE MAP



### DRAINAGE DATA

CONDITION	STORM RETURN PERIOD	TREATMENT TYPE	TREATMENT AREA	EXCESS PRECIPITATION	PEAK RUNOFF	RUNOFF VOLUME	RUNOFF RATE
	year	(table 4)	sq. ft.	in.	(table 5)	cu. ft.	cfs
EXISTING SITE	10	A	0	0.19	0.58	0	0.00
		B	2368	0.36	1.19	71	0.06
		C	0	0.62	2	0	0.00
		D	15132	1.5	3.39	1892	1.18
		TOTAL	17500			1963	1.24
DEVELOPED SITE	10	A	0	0.66	1.87	0	0.00
		B	2368	0.92	2.6	182	0.14
		C	0	1.29	3.45	0	0.00
		D	15132	2.36	5.02	2976	1.74
		TOTAL	17500			3158	1.89
EXISTING SITE	100	A	0	0.19	0.58	0	0.00
		B	2368	0.36	1.19	21	0.02
		C	0	0.62	2	0	0.00
		D	15132	1.5	3.39	2100	1.31
		TOTAL	17500			2121	1.33
DEVELOPED SITE	100	A	0	0.66	1.87	0	0.00
		B	2368	0.92	2.6	54	0.04
		C	0	1.29	3.45	0	0.00
		D	15132	2.36	5.02	3304	1.94
		TOTAL	17500			3358	1.98

RECEIVED  
MAR 07 2000  
HYDROLOGY SECTION

no. 17/99 REVISE PARKING LOT  
date 09/06/99 remarks

REVISIONS

project title  
DOUBLE RAINBOW  
8001 MENAUL NE  
ALBUQUERQUE, NM

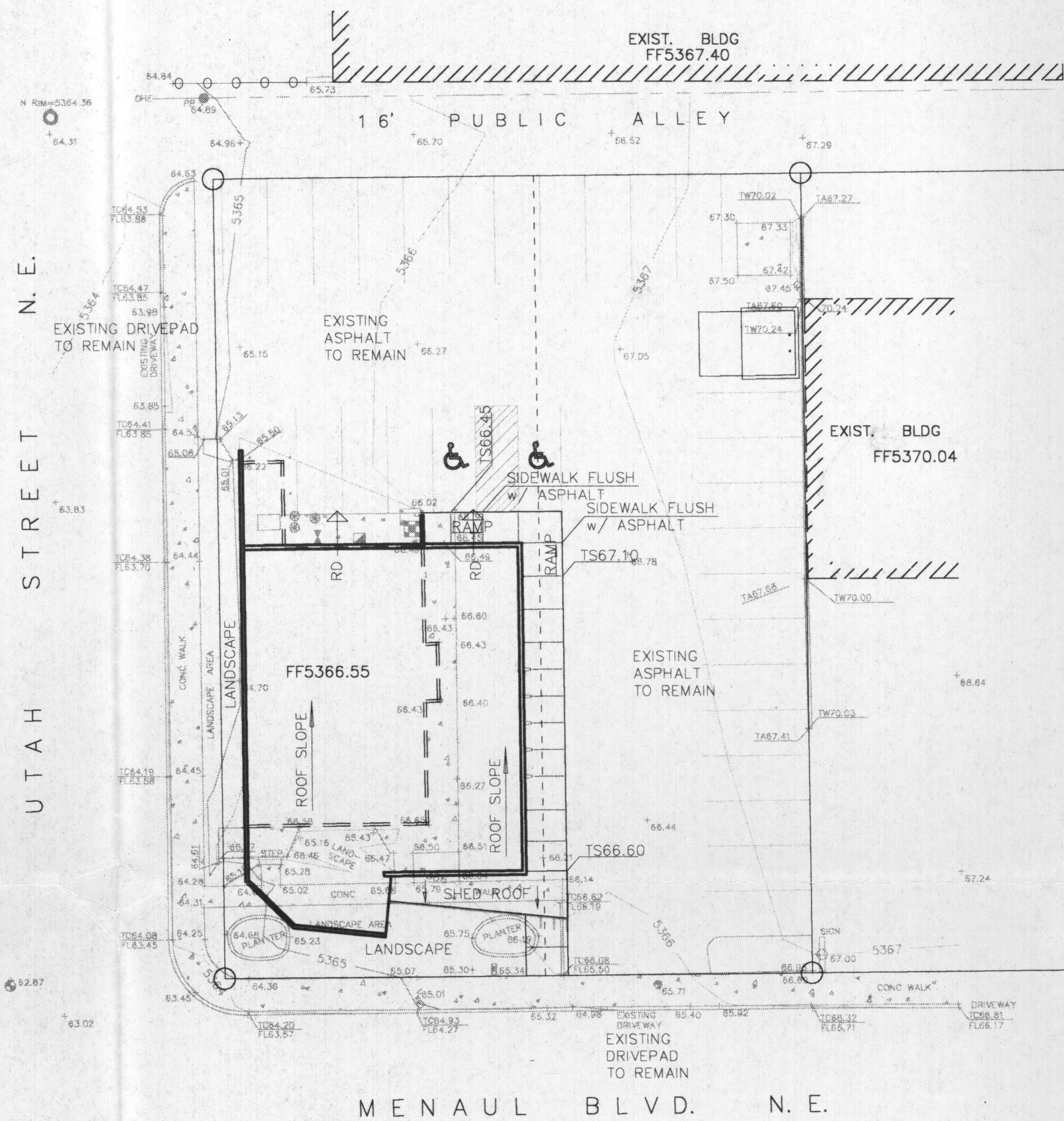
sheet title  
GRADING & DRAINAGE PLAN

sheet date 09/06/99 design by JJB project no. 9911

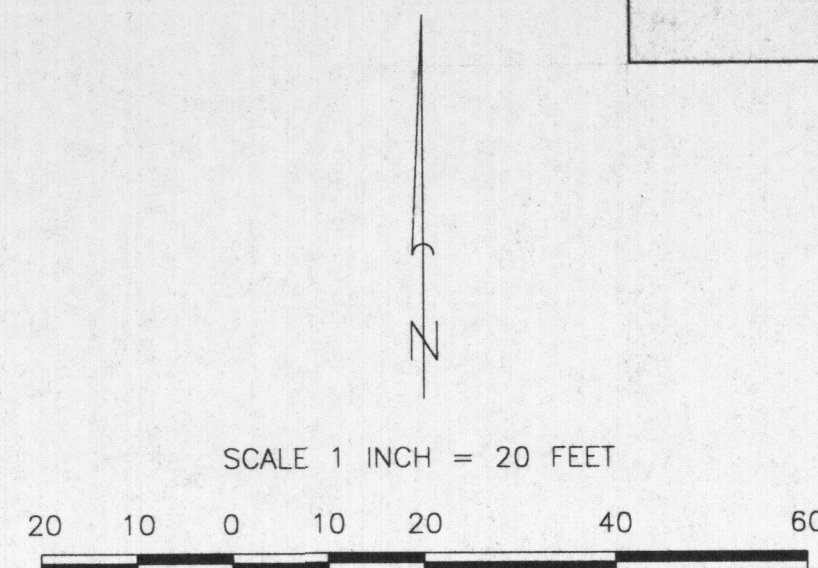
sheet of

BORDENAVE DESIGNS  
P.O. BOX 91194, ALBUQUERQUE, NM 87199  
(505)823-1344 FAX (505)821-9105





NOTES:  
1. ROOF DRAINS AT THE NORTH SIDE OF THE BUILDING SHALL DRAIN TO THE PARKING LOT IN A 6" WIDE CONCRETE CHANNEL. THE CHANNEL SHALL HAVE A OPEN GRATED COVER FLUSH WITH THE SIDEWALK SURFACE. GRATE TO HAVE A MAXIMUM OPENING WIDTH OF 1/2".  
2. SIDEWALK TO HAVE CROSS SLOPE OF 1/4" FT. DRAIN AWAY FROM BUILDING.



### LEGAL DESCRIPTION

LOTS 1 AND 2, BLOCK 5, SOMBRA DEL MONTE SUBDIVISION

### PERMANENT BENCHMARK

ACS 11-H19 ELEVATION 5361.661

### GRADING CERTIFICATION

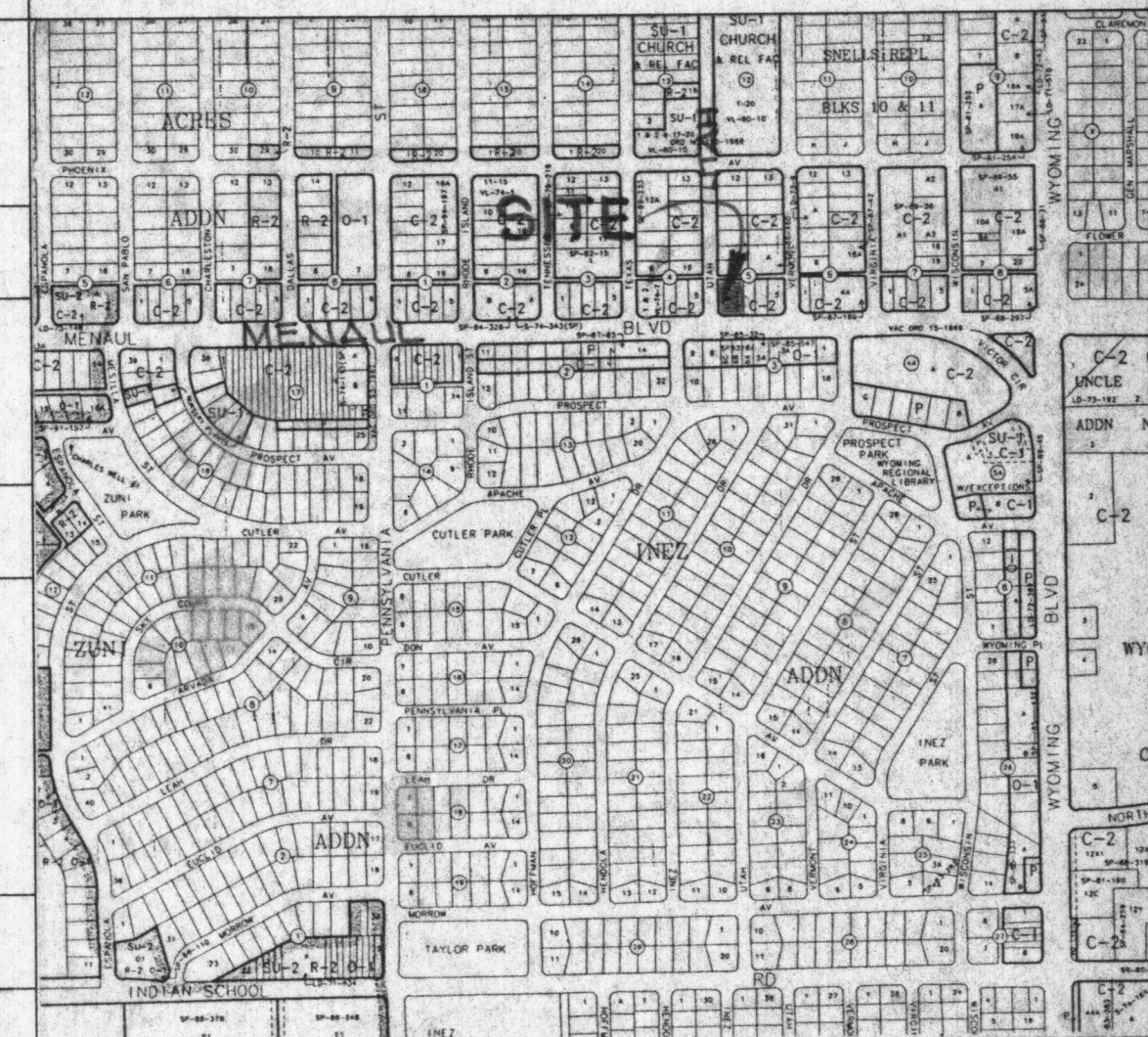
I, Jean J. Bordenave, New Mexico Professional Engineer and Land Surveyor No. 5110, hereby certify that I have personally inspected the property shown hereon and that it appears that no grading, filling or excavation has occurred thereon since the contour map shown hereon was prepared.

*Jean J. Bordenave* 09/06/99  
Jean J. Bordenave, NM PE & PS No. 5110

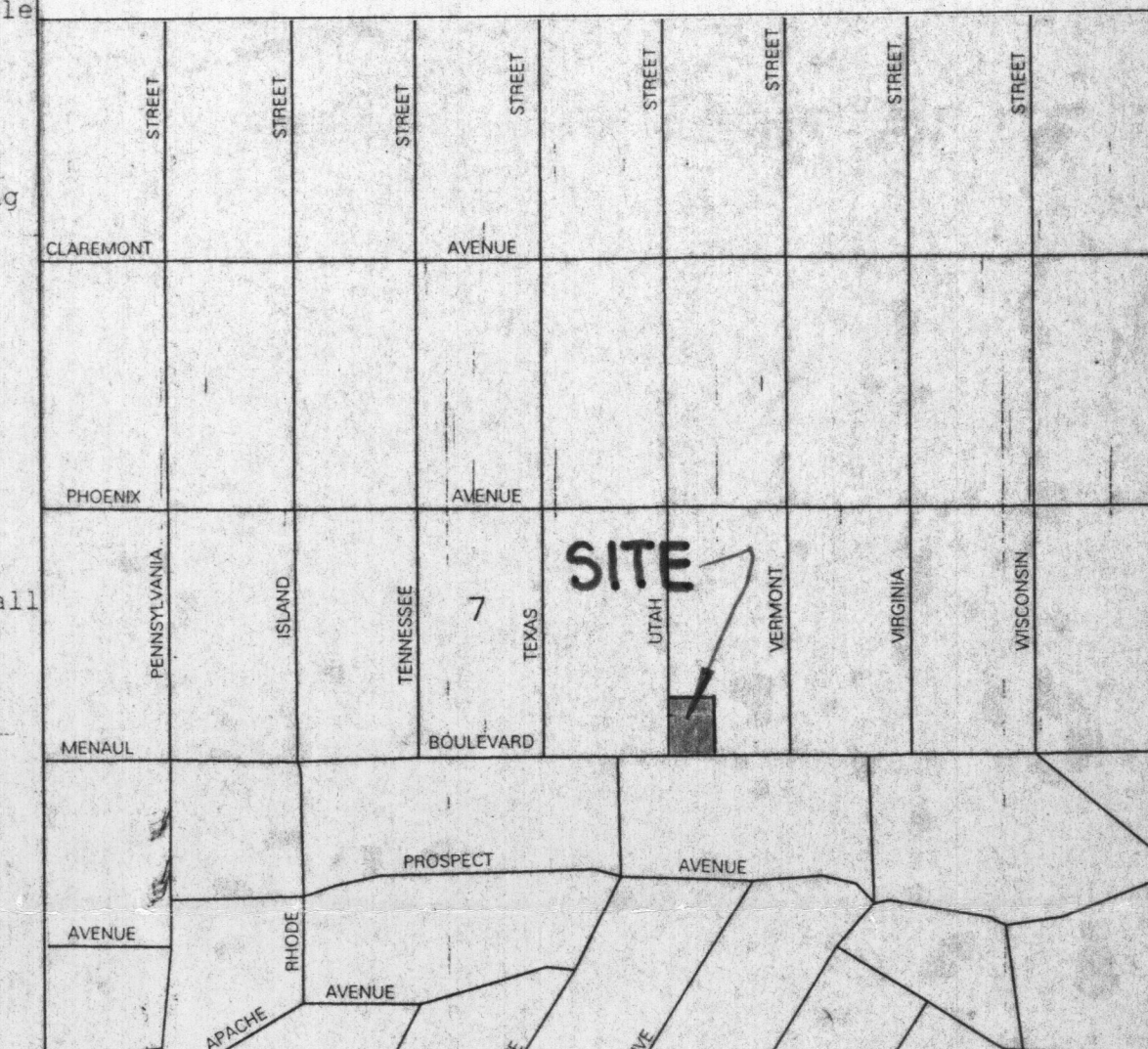
### GENERAL NOTES

- There is a flow increase of 0.09 and 0.09 cfs for the 10 year and 100 year storms respectively. The 6 hour runoff volumes for the two storms increase by 158 and 200 cubic feet. The changes in runoff flows and volumes between existing and proposed conditions are smaller than the probable error in the computational method. Due to the small absolute value of change it is being reported that there is no change between the existing and proposed conditions.
- The site is located on a tract that is presently developed. Proposed construction is limited to expansion of the existing building and construction of a sidewalk. Off site flows are presently diverted north to an existing alley and south to Menaul Blvd. Onsite flows will be routed in the same manner as the existing condition as there is no parking lot reconstruction proposed.
- The site is not located in a designated flood hazard area per FEMA FIRM Panel No. 356, dated September 20, 1996.
- Topography shown on this sheet was obtained by Harris Surveying, Inc. dated September, 1999.
- Landscape surfaces disturbed in the construction process shall be treated with formal landscaping (lawn, flower beds, etc.) or with native plant seeding.

### VICINITY MAP NO. H-19



### FEMA FIRM PANEL NO. 356



### LEGEND

TBM	TEMPORARY BENCHMARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOWLINE
TA	TOP OF ASPHALT
TCP	TOP OF CONCRETE
TC	TOP OF CURB
TP	TOP OF EARTH PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
WM	WATER METER
WV	WATER VALVE
MH	MANHOLE
CB	CATCH BASIN GRATE
GM	GAS MATER
GV	GAS VALVE
LP	LIGHT POLE
PP	POWER POLE
GW	GUY WIRE
PED	ELEC. OR TEL. PEDESTAL
RD	ROOF DRAINAGE POINT

### GRADING NOTES

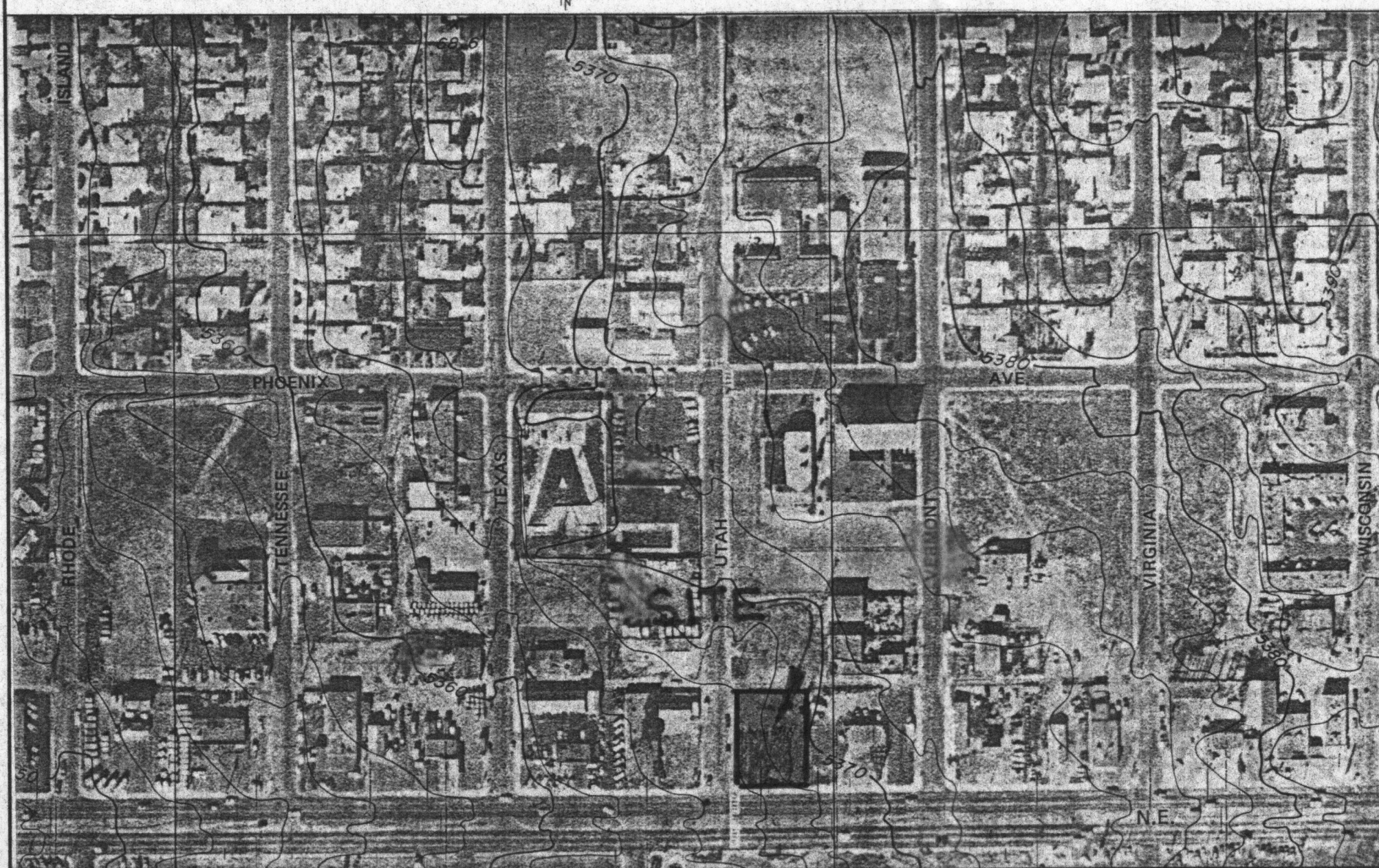
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE NEW MEXICO ONE CALL SYSTEM AT 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

### EROSION CONTROL NOTES

- THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERMS OR SILT FENCES AT PROPERTY LINES AND BY SOIL TO PREVENT IT FROM BLOWING.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- THE CONTRACTOR SHALL SECURE A 'TOPSOIL DISTURBANCE PERMIT' PRIOR TO BEGINNING CONSTRUCTION.

### OFFSITE DRAINAGE MAP

SCALE 1" = 200'



### DRAINAGE DATA

CONDITION	STORM RETURN PERIOD	TREATMENT TYPE	TREATMENT AREA	EXCESS PRECIPITATION	PEAK RUNOFF	RUNOFF VOLUME	RUNOFF RATE
	year	(table 4)	sq. ft.	(table 8)	(table 9)	cu. ft.	cfs
EXISTING	10	A	0	0.19	0.58	0	0.00
		B	2368	0.36	1.19	71	0.08
		C	0	0.62	2	0	0.00
		D	15132	1.5	3.39	1892	1.18
		TOTAL	17500			1963	1.24
	100	A	0	0.66	1.87	0	0.00
		B	2368	0.92	2.6	183	0.14
		C	0	1.29	3.45	0	0.00
		D	15132	2.36	5.02	2976	1.74
		TOTAL	17500			3158	1.89
DEVELOPED	10	A	0	0.19	0.58	0	0.00
		B	700	0.36	1.19	21	0.02
		C	0	0.62	2	0	0.00
		D	16800	1.5	3.39	2100	1.31
		TOTAL	17500			2121	1.33
	100	A	0	0.66	1.87	0	0.00
		B	700	0.92	2.6	54	0.04
		C	0	1.29	3.45	0	0.00
		D	16800	2.36	5.02	3304	1.94
		TOTAL	17500			3358	1.98

- FEMA FLOODPLAIN BOUNDARY
- DRAINAGE BASIN BOUNDARY
- EROSION SETBACK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- XX.XX EXISTING SPOT ELEVATION
- XX.XX PROPOSED SPOT ELEVATION
- XX.XX- RECORD SPOT ELEVATION

no.	date	remarks	by
REVISIONS			
project title			
project title			
sheet title			
sheet date			
design by			
project no.			
sheet			
BORDENAVE DESIGNS			
P.O. BOX 91194, ALBUQUERQUE, NM 87199			
(505)823-1344 FAX (505)821-9105			