

LEGEND

— 5200 —	EXISTING CONTOUR
— 52 —	PROPOSED CONTOUR
◆ 78.3	PROPOSED SPOT ELEVATION
→	FLOW ARROW
PG=6881.0	PAD GRADE ELEVATION
—	SIDEWALK CULVERT
TC=81.95 FL=81.45	TOP OF CURB FLOWLINE ELEVATION
INV=72.5	INVERT ELEVATION
~~~~~	WATER BAR
RD	ROOF DRAIN

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	900.00	56.33	28.17	56.32	S 09°42'25" W	03°35'10"

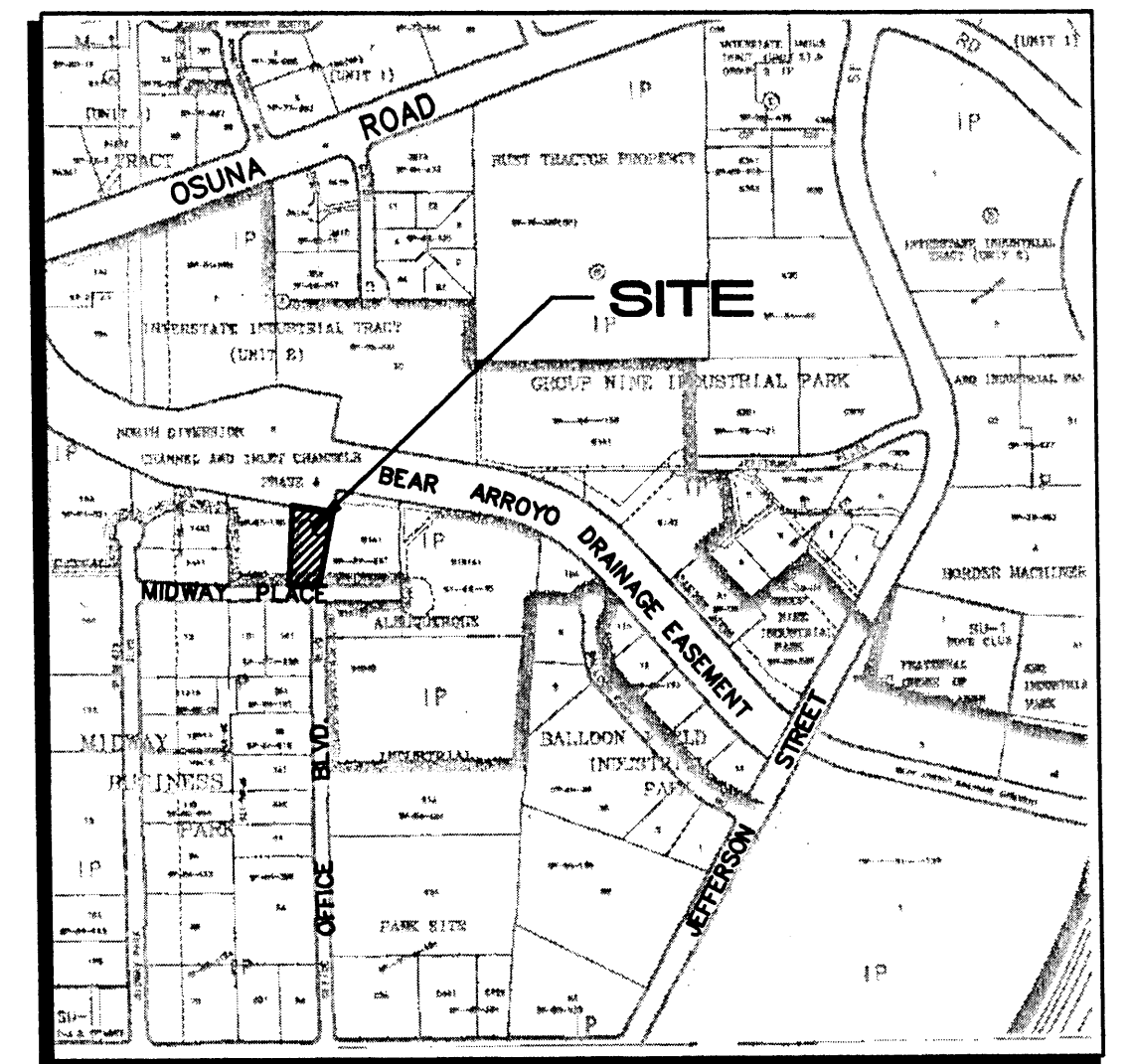
#### EASEMENT NOTES

- (A) 25' DRAINAGE EASEMENT
- (B) 20' UTILITY EASEMENT
- (C) 10' PUBLIC UTILITY EASEMENT

#### ENGINEER'S CERTIFICATION

I, FRED C. ARFMAN, LICENSED UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THOSE GRADES AND IMPROVEMENTS SHOWN HEREON FOR THE OFFICE ADDITION FOR THE NEW MEXICO DEPARTMENT OF GAME & FISH, DATED 02/20/01 AND ON FILE AT THE HYDROLOGY DIVISION, P.W.D., CITY OF ALBUQUERQUE IN FILE (E17/D41C) AND FIELD VERIFIED BY ALDRICH LAND SURVEYING, NMLS NO. 7719 ON MAY 02, 2001, IN ACCORDANCE WITH THE "NEW MEXICO ENGINEERING AND SURVEYING ACT" SECTION 61-23-1 THROUGH 61-23-32 NMSD (1978).

FRED C. ARFMAN, NMPE NO. 7322  
DATE 05.03.01



VICINITY MAP

LEGAL DESCRIPTION: LOT 13-C, MIDWAY BUSINESS PARK

AREA: 1.0053 ACRES

BENCHMARK: USBLM BRASS CAP  
LOCATED 253' EAST OF THE NORTH DIVERSION CHANNEL AND  
0.55 MILES SOUTH OF OSUNA RD NE.  
ELEV = 5110.41

FLOOD ZONE DESIGNATION: NO PORTION OF THIS SITE LIES  
WITHIN A FLOOD PLAIN AS DESIGNATED ON PANEL 138 OF 825  
OF THE FEMA FLOOD INSURANCE RATE MAPS DATE SEPTEMBER  
20, 1996.

EXISTING CONDITIONS: THIS SITE HAS AN EXISTING OFFICE  
BUILDING WITH 50 PARKING SPACES. THE BEAR ARROYO IS  
NORTH OF THE LOT, AND MIDWAY PLACE IS TO THE SOUTH.  
3.09 CFS OF EXISTING FLOWS DRAIN TO THE NORTHWEST  
CORNER OF THE PROPERTY, AND ARE DISCHARGED TO THE  
BEAR ARROYO. THE FRONT PARKING AREA DISCHARGES TO  
MIDWAY PLACE. THESE FLOWS WILL NOT BE CHANGED BY THIS  
PLAN.

#### EXISTING HYDROLOGY:

PRECIPITATION ZONE: 2  
LAND TREATMENTS: 0.18 AC. TYPE B  
0.57 AC. TYPE D

$$Q_p = 0.18 (2.28) + 0.57 (4.70) = 3.09 \text{ CFS}$$

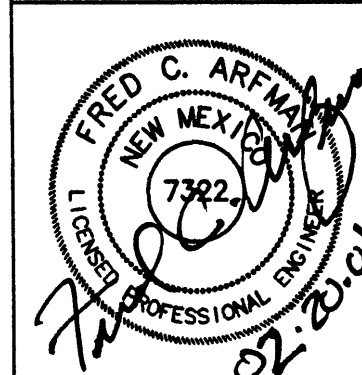
PROPOSED CONDITIONS: A 12' X 110' EXPANSION IS  
PROPOSED FOR THE EAST SIDE OF THE EXISTING BUILDING.  
AN EXISTING COVERED PATIO IS TO BE DEMOLISHED TO CREATE  
ROOM FOR THE IMPROVEMENTS. THREE NEW ROOF DRAINS  
WILL DIRECT THE WATER TO THE EAST SIDE OF THE SITE,  
WHERE IT WILL THEN FOLLOW THE ESTABLISHED WATER PATH  
TO THE NORTHWEST CORNER OF THE PROPERTY. 3.14 CFS  
WILL BE DISCHARGED, WHICH IS 0.05 CFS IN EXCESS OF THE  
EXISTING FLOWS.

#### PROPOSED HYDROLOGY:

PRECIPITATION ZONE: 2  
LAND TREATMENTS: 0.16 AC. TYPE B  
0.59 AC. TYPE D

$$Q_p = 0.16 (2.28) + 0.59 (4.70) = 3.14 \text{ CFS}$$

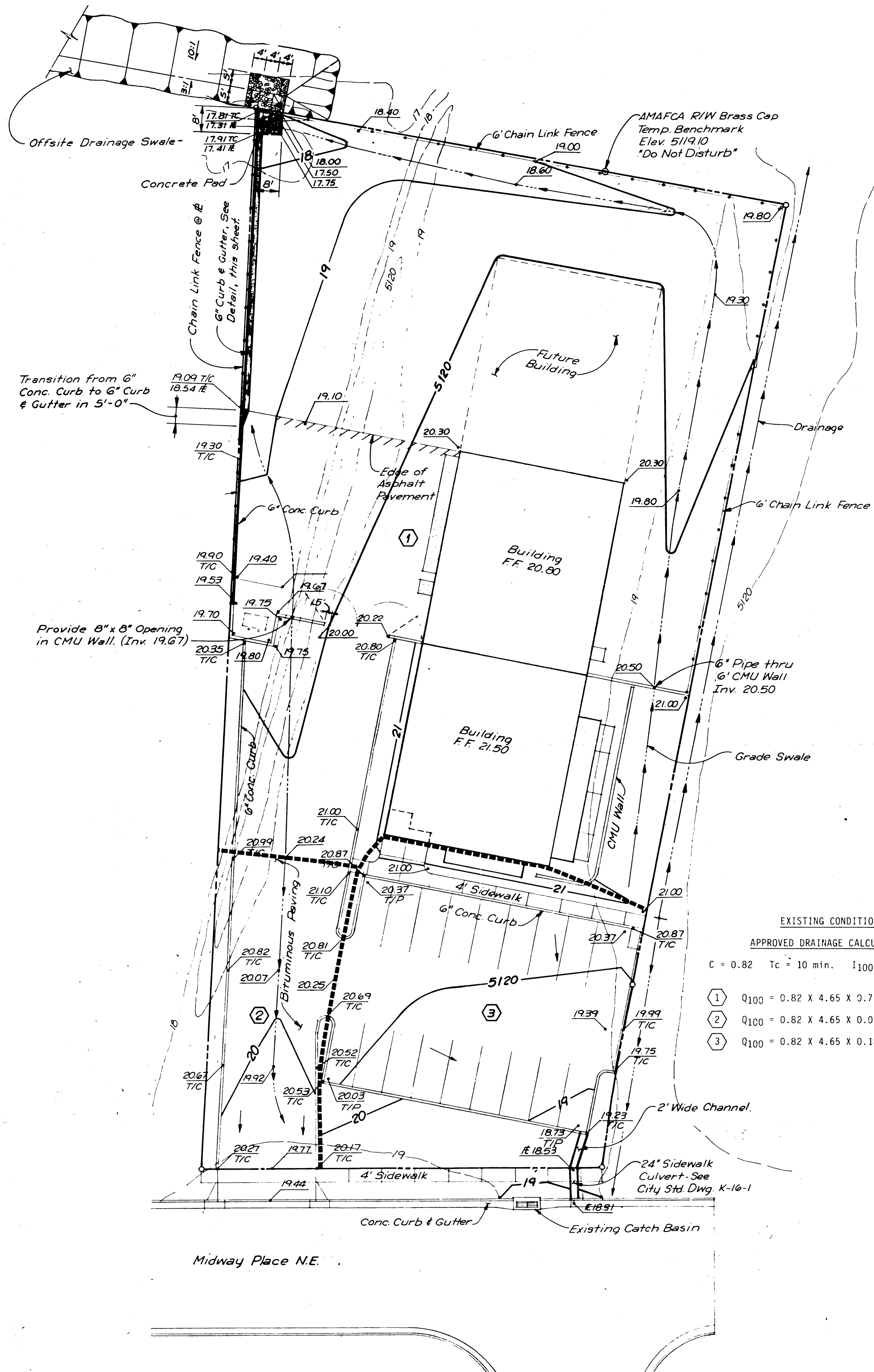
NEW MEXICO  
DEPARTMENT of GAME & FISH  
GRADING & DRAINAGE PLAN



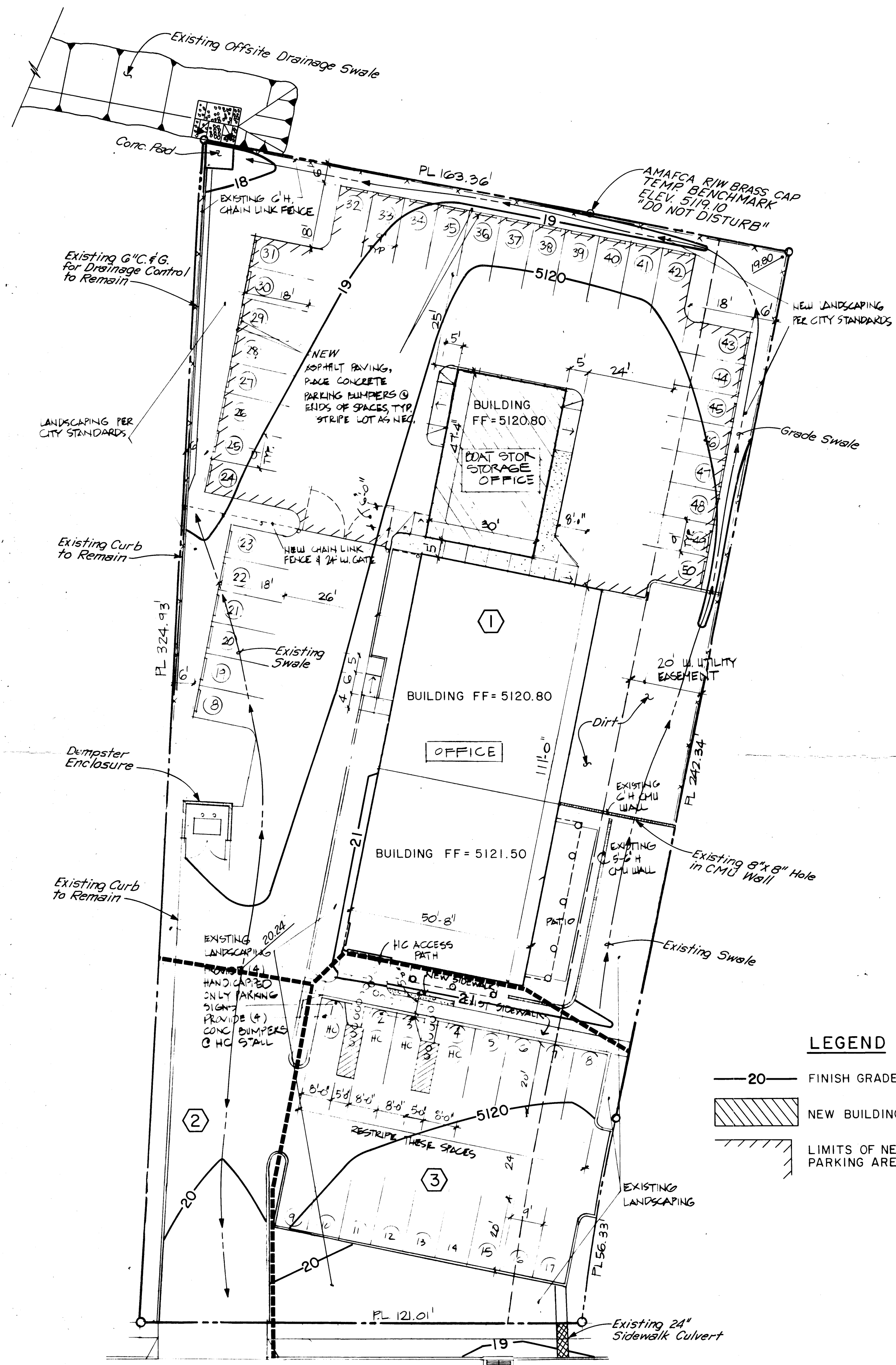
ISAACSON & ARFMAN, P.A.  
Consulting Engineering Associates  
128 Monroe Street N.E.  
Albuquerque New Mexico

169GRD.DWG.rh 02/19/01

SHEET 1 OF 1

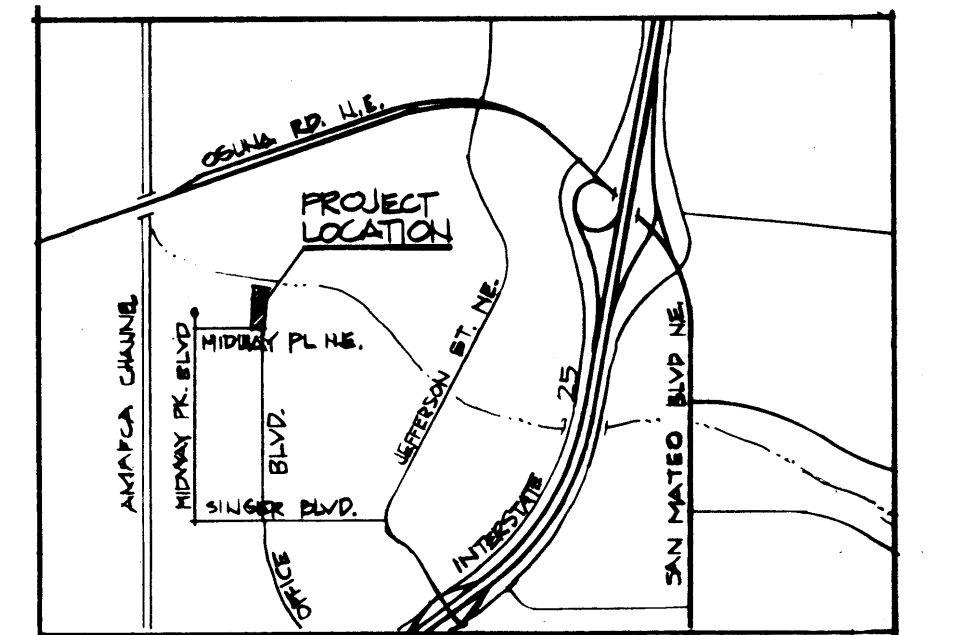


**SITE PLAN - EXISTING CONDITIONS**  
SCALE: 1" = 20'



MIDWAY PLACE NE

**SITE PLAN - NEW CONDITIONS**  
SCALE: 1" = 20'



**ZONE ATLAS MAP No. E-17**  
**LOCATION MAP**

**NEW CONDITIONS - DRAINAGE CALCULATIONS**

**PEAK RUNOFF RATE**

$$Q_{100} = C I_{100} A \quad T_c = 10 \text{ min.} \quad I_{100} = 4.65 \text{ in./hr.}$$

- ①  $Q_{100} = 0.75 \times 4.65 \times 0.739 = 2.58 \text{ cfs}$
- ②  $Q_{100} = 0.84 \times 4.65 \times 0.077 = 0.30 \text{ cfs}$
- ③  $Q_{100} = 0.76 \times 4.65 \times 0.189 = 0.67 \text{ cfs}$

**DETERMINATION OF "C"**

DRAINAGE AREA #1	ROOF	(C = 0.90) = 0.169 ACRES
	PAVED	(C = 0.95) = 0.366 ACRES
	DIRT	(C = 0.40) = 0.047 ACRES
	LANDSCAPED	(C = 0.25) = 0.157 ACRES
		<b>TOTAL (C = 0.75) = 0.739 ACRES</b>
DRAINAGE AREA #2	PAVED	(C = 0.95) = 0.065 ACRES
	LANDSCAPED	(C = 0.25) = 0.012 ACRES
		<b>TOTAL (C = 0.84) = 0.077 ACRES</b>
DRAINAGE AREA #3	PAVED	(C = 0.95) = 0.137 ACRES
	LANDSCAPED	(C = 0.25) = 0.052 ACRES
		<b>TOTAL (C = 0.76) = 0.189 ACRES</b>

**LEGAL DESCRIPTION**

LOT 13-C, MIDWAY BUSINESS PARK

**ADDRESS**

3841 MIDWAY PLACE NE  
ALBUQUERQUE, N.M. 87109

**BENCHMARK**

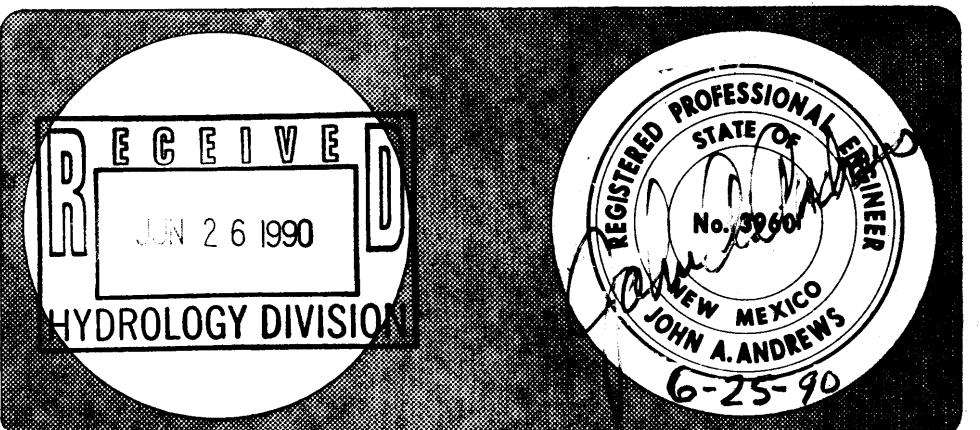
USBLM STA. SC ELEV. 5110.41  
BRASS CAP (SEC. COR.) LOCATED 253'  
EAST OF THE NORTH DIVERSION CHANNEL  
AND 0.55 MILES SOUTH OF OSUNA RD. NE.

**LEGEND**

- 20 — FINISH GRADE CONTOUR
- NEW BUILDING ADDITION
- LIMITS OF NEW PARKING AREA PAVEMENT

**Van H. Gilbert Architect AIA**

Architect  
319 Central NW, Suite 101, Albuquerque, NM 87102



**DEPT. OF GAME & FISH**

3841 MIDWAY PLACE NE ALBUQUERQUE NM

**INTER-WEST LTD**

Date: JUNE 1990 Drawn By: TL Checked by: JA

**DRAINAGE PLAN**

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