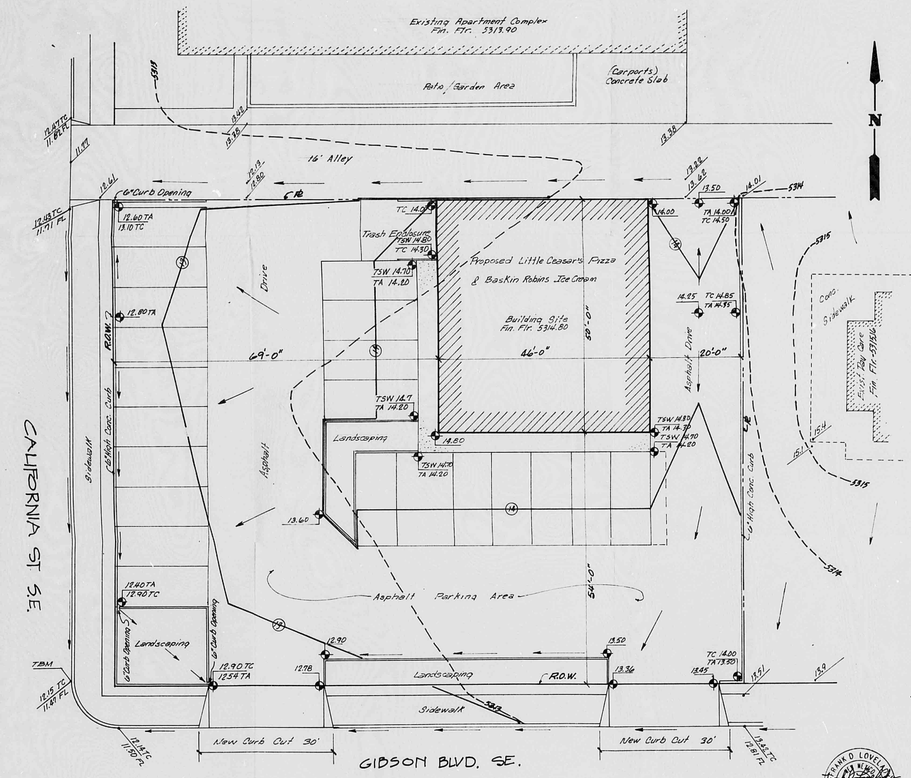
PUBLIC WORKS/HYDROLOGY

L18/D24



GRADING AND DRAINAGE PLAN

SCALE: 1"=10'-0"

LEGEND	Existing	New
Contour	68/5	
Spot Elevation		
Property Line		
Roof Drain		
Flow Direction		
Elevation Symbols		

TC = Top of curb
TSW = Top of sidewalk
TA = Top of Asphalt
FL = Flow line (Face of curb)

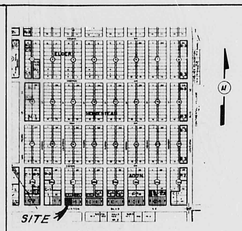
BENCH MARK:

Elevations shown on this plan are based on Bench Mark No. G-3, a Standard NMSHC brass tablet, stamped STATION G-3 set in the top of a concrete Post flush with the median at the intersection of Gibson Blvd and San Pedro Blvd. S.E., Elevation 5307.749

Temporary Bench Mark (TBM) is a cross chiseled in top of curb at the NNE Curb return at the intersection of Gibson Blvd. and California Street SE Elevation 5312.15

LEGAL DESCRIPTION:

Lots 10 through 13, Block 27a, Elder Homestead Addition, located within Section 25, Township 10 North, Range 3 East, NMPM, Bernalillo County, New Mexico.



Vicinity Map

Zone Atlas L-18

I. REFERENCE:

A. City of Albuquerque Development Process Manual (DPM) Volume 2, Design Criteria, Chapter 22, Drainage, Flood Control and Erosion Control.

B. Soil Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico, USDA, SCS.

C. Kirtland Dikeston Facilities Plan.

II. GENERAL INFORMATION:

A. Soil Type (See Ref.B. Page 31) Soil is WeB, Wink-Embudo complex, Hydrologic Soil Group B.

B. Impervionsness

1. Existing condition - The entire site is covered by an existing Service station, concrete slabs and asphalt paving. 100% impervious.

2. Proposed condition.

	Sq. Ft.	Acre
Area of Building	2,300	0.0528
Area of Concrete	392	0.0090
Area of Asphalt	10,448	0.2403
Area of Landscaping	880	0.0202
Area of Site (total)	14,040	0.3223

Percent impervious = (14,040 - 880)/14,040 = 0.94 or 94%

C. "C" Factor (See Ref. A., Plate 22.2 C-1)

1. Undeveloped C = 1.0
2. Developed C = 0.90

D. Rainfall, 100-year, 6-hour (P_6) (See Ref. A., Plate 22.2 D-1)

P_6 = 2.35 inches

E. Time of Concentration - For a site this small, use T_c = 10 min.

F. Rainfall Intensity. (See Ref. A., Plate 22.2 D-2)

$I = P_6 \times 6.84 \times T_c^{-0.51} = 2.35 \times 6.84 \times (10)^{-0.51} = 4.97$ in./hr.

III. PEAK DISCHARGE:

A. Existing Conditions. (By Rational Equation, Q = CIA)

$Q_{100} = 1.0 \times 4.97 \times 0.3223 = 1.6$ cfs

$Q_{10} = 0.657 \times 1.6 = 1.05$ cfs

B. Proposed Conditions.

$Q_{100} = 0.90 \times 4.97 \times 0.3223 = 1.44$ cfs

$Q_{10} = 0.657 \times 1.44 = 0.95$ cfs

C. Flow division.

1. North 25 feet of lot flows to alley.

$Q_{100} = 1.44\ (25/104) = 0.33$ cfs

$Q_{10} = 0.95\ (25/104) = 0.23$ cfs

2. South 79 feet of lot flows to Gibson Blvd. through drive pads.

$Q_{100} = 1.11$ cfs

$Q_{10} = 0.72$ cfs

IV. DRAINAGE COMMENTS:

A. Building finish floor is set 2.0 feet above flow line at the southeast corner of property for the purpose of flood proofing.

B. Per the pre-design conference, discharge from the proposed site is unrestricted for the following reasons:

1. The site is an infill site.
2. Kirtland detention facilities will prevent future flooding.
3. Proposed development will result in a decrease in % impervionsness.

C. Landscaped area in SW corner of site is slightly depressed to retain nuisance flows.

D. Lot lines to be removed by replatting

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HYDROLOGY SECTION

R# 28 DATE 3-9-02 OP EPP

CITY OF ALBUQUERQUE

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The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (NMA-1977)

DIRECTOR

Roberta Duran
NOTARY PUBLIC
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STATE OF NEW MEXICO
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PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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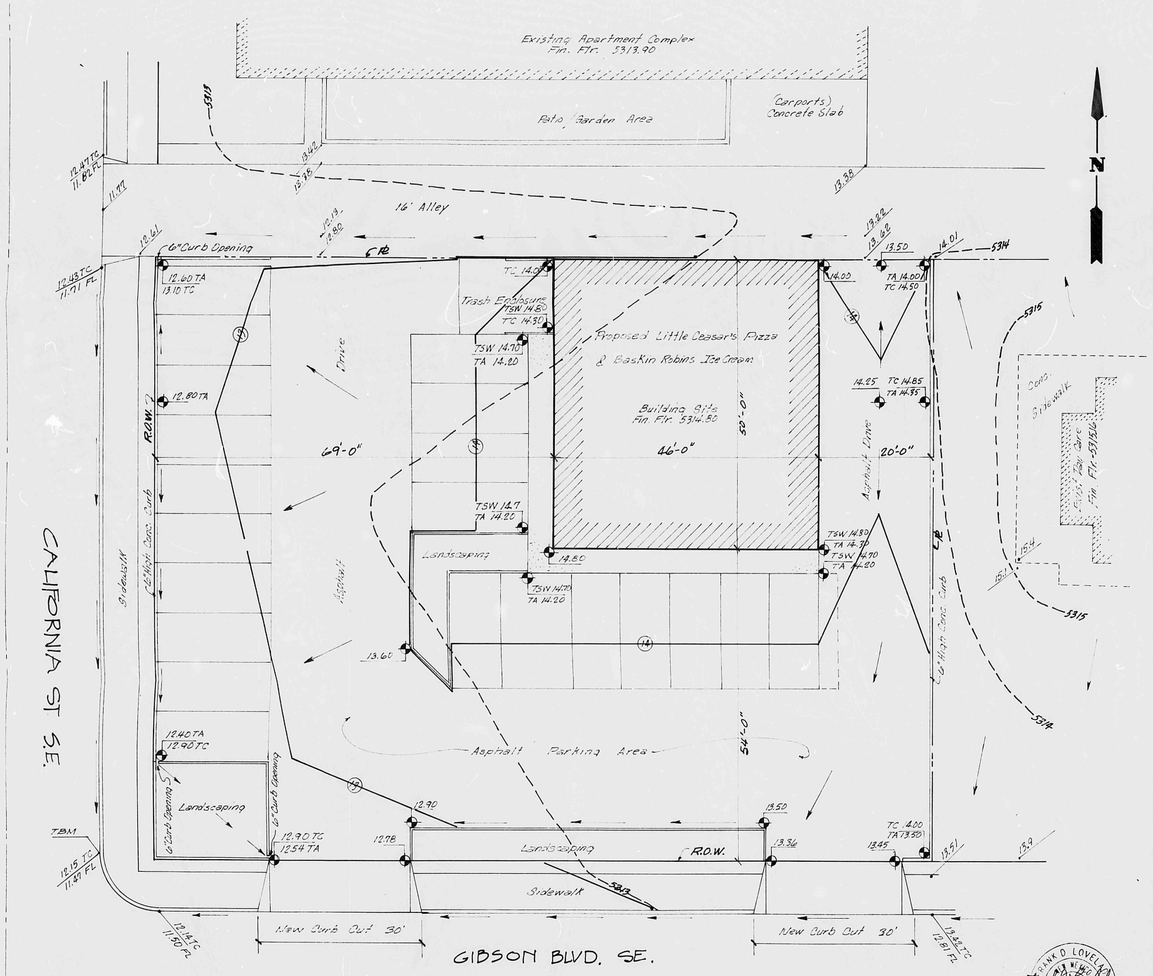
PLANS/PLATS ON FILE

FILE DESC: L18/D24

PLANS/PLATS 3

E 30 D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D F



GRADING AND DRAINAGE PLAN

SCALE: 1"=10'-0"

LEGEND

	Existing	New
Contour	5313	13
Spot Elevation		
Property Line		
Roof Drain		
Flow Direction		
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LEGAL DESCRIPTION:

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B. Soil Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico, USDA, SCS.

C. Kirtland Detention Facilities Plan.

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D. Rainfall, 100-year, 6-hour (P_6) (See Ref A., Plate 22.2 D-1)

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E. Time of Concentration - For a site this small, use T_c = 10 min.

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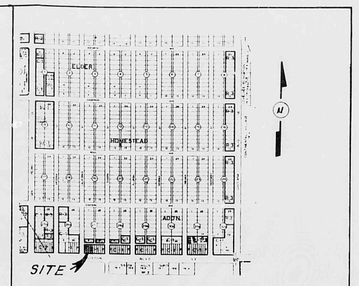

Vicinity Map

Zone Atlas L-18

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JAN 03 1985
HYDROLOGY SECTION

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

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R# 28 DATE 3-25-02 OP EP

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11/5/02
DIRECTOR

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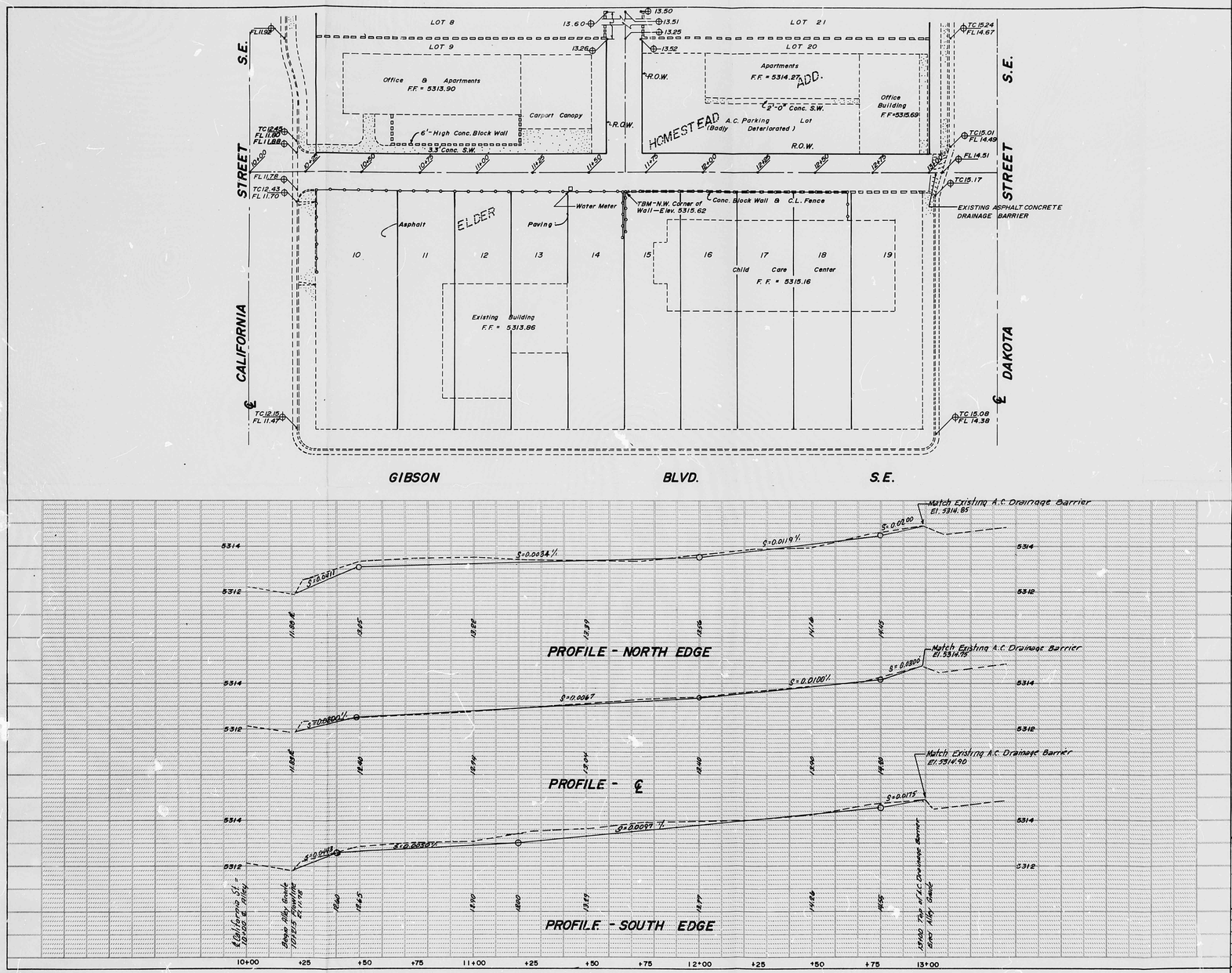
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
07/07/02

D24 C20 B16 A12 CITY OF ALBUQERQUE C D



SURVEY INFORMATION			BENCH MARKS	AS BUILT INFORMATION
FIELD NOTES			NO. 6-3 A STANDARD NMSHC BRASS TABLET SET IN TOP OF CONCRETE POST FLUSH WITH THE MEDIAN AT THE INTERSECTION OF GIBSON BLVD. AND SAN PEDRO BLVD. S.E. ELEV. 5312.15.	CONTRACTOR
NO.	BY	DATE		STAKED BY
85-01	F.D.L.	1-8-85		INSPECTOR'S ACCEPTANCE BY DATE
				VERIFICATION BY DATE
				CORRECTED BY DATE
				MICRO-FILM INFORMATION
				RECORDED BY DATE
				NO.

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY
		REVISIONS	

DESIGN		
DESIGNED BY	F.D.L.	DATE 1-18-85
DRAWN BY	F.D.L.	DATE 9-10-85
CHECKED BY	F.D.L.	DATE 9-10-85

RECEIVED SEP 12 1985 HYDROLOGY SECTION

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
GRADES FOR ALLEY NORTH OF GIBSON BOULEVARD, S.E. BETWEEN CALIFORNIA & DAKOTA STREETS, S.E.

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		

DRAWING NO.	MAP NO.	SHEET	OF
	L-18	2	3

CITY OF ALBUQUERQUE
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R# 28 DATE 3-27-02 OP EJP

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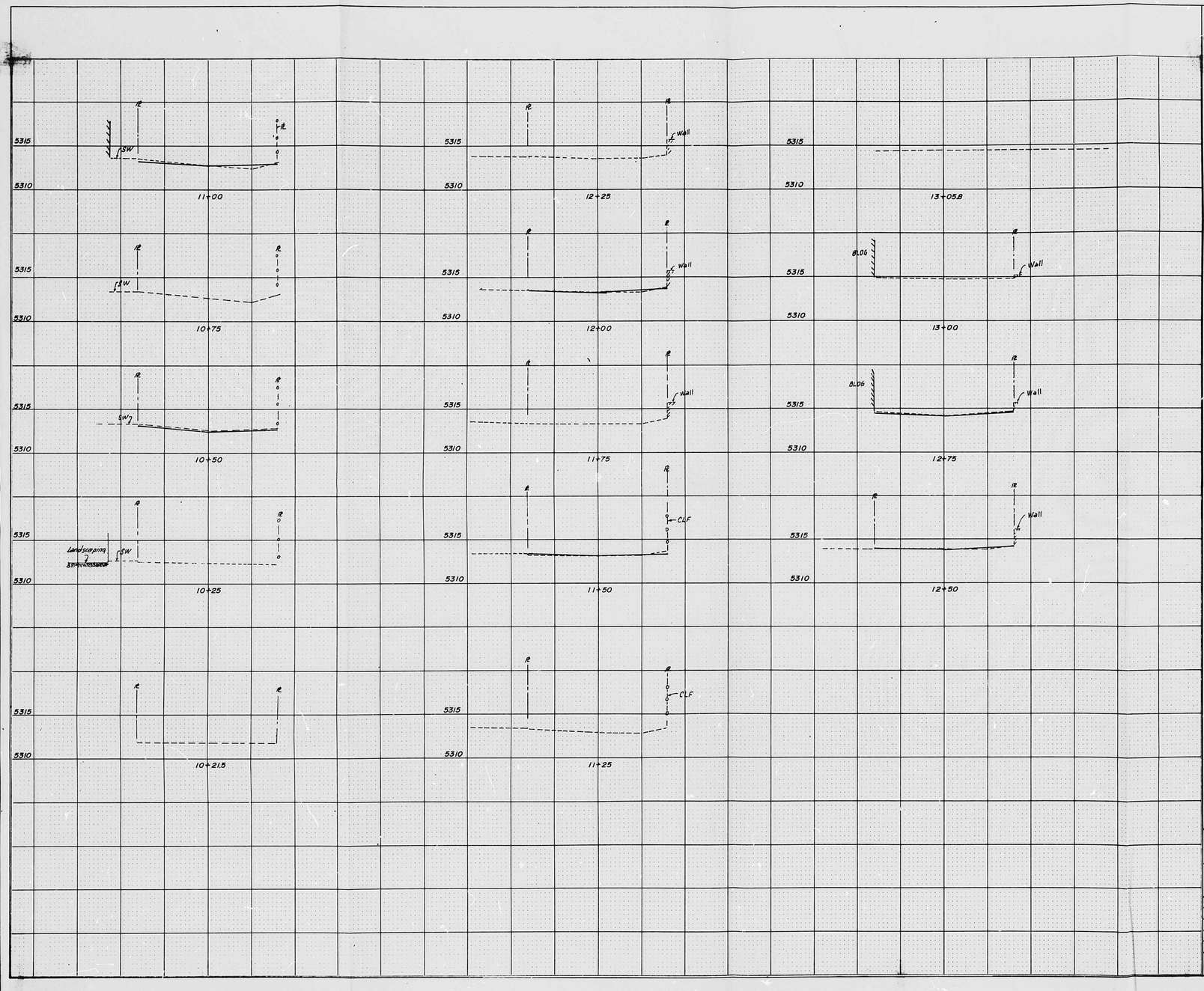
DIRECTOR
NOTARY PUBLIC
OFFICIAL SEAL Roberta Duran NOTARY PUBLIC STATE OF NEW MEXICO My Commission Expires 07/03/02

D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D



SURVEY INFORMATION		
FIELD NOTES		
NO.	BY	DATE
	SEE SHEET 2 OF 3	

BENCH MARKS
SEE SHEET 2 OF 3

AS BUILT INFORMATION	
CONTRACTOR	
WORK STAKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

ENGINEER'S SEAL

RAYMOND L. LOVELADY JR. NEW MEXICO REGISTERED PROFESSIONAL ENGINEER 6842

NO.	DATE	REMARKS	BY
		REVISIONS	

DESIGN		
DESIGNED BY	F.D.L.	DATE 1-15-85
DRAWN BY	F.D.L.	DATE 9-10-85
CHECKED BY	F.D.L.	DATE 9-10-85

RECEIVED
SEP 12 1985
HYDROLOGY SECTION

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: CROSS SECTIONS
GRADES FOR ALLEY NORTH OF GIBSON BOULEVARD, S.E.
BETWEEN CALIFORNIA & DAKOTA STREETS, S.E.

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E.-Design			Traffic		
A.C.E.-Hydrology			Water		

DRAWING NO.	MAP NO.	SHEET	OF
	L-18	3	3

CITY OF ALBUQUERQUE
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R# 58 DATE 3-29-02 OP E.P.

CITY OF ALBUQUERQUE

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4/5/02
DIRECTOR

Roberta Duran
NOTARY PUBLIC

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Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 07/03/02

D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D