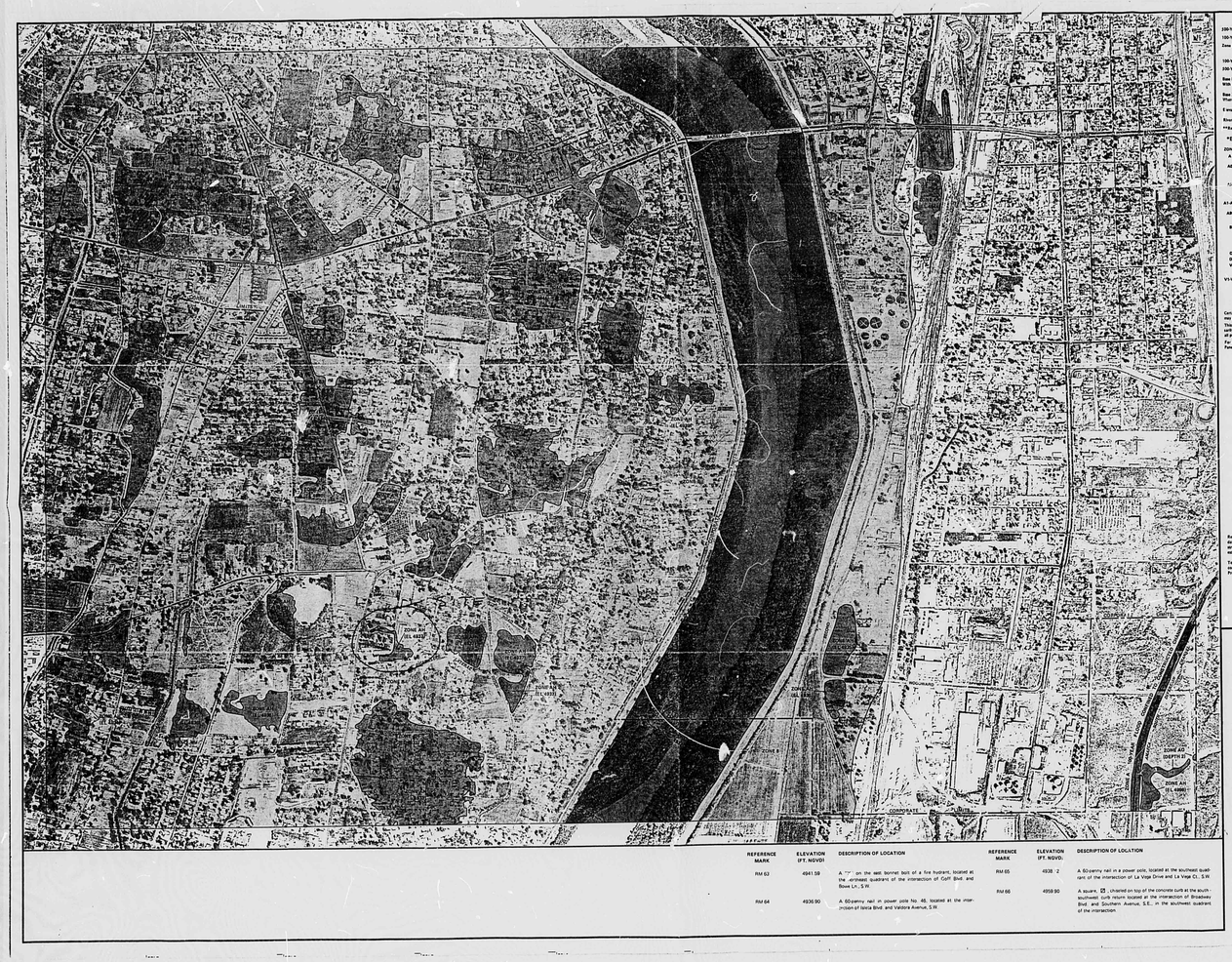
PUBLIC WORKS/HYDROLOGY 1 OF 2

M12/D5



REFERENCE MARK	ELEVATION (FT. NGVD)	DESCRIPTION OF LOCATION
RM 63	4941.59	A "+" on the east bonnet bolt of a fire hydrant, located at the extended quadrant of the intersection of Cliff Blvd. and Bowe Ln., S.W.
RM 64	4936.90	A 60-penny nail in power pole No. 46, located at the intersection of Isleta Blvd. and Valdora Avenue, S.W.
RM 65	4938.2	A 60-penny nail in a power pole, located at the southeast quadrant of the intersection of La Vega Drive and La Vega Ct., S.W.
RM 66	4959.90	A square, ☒, chiseled on top of the concrete curb at the southwest curb return located at the intersection of Broadway Blvd. and Southern Avenue, S.E., in the southwest quadrant of the intersection.

KEY TO MAP

500-Year Flood Boundary
100-Year Flood Boundary
Zone Designations*
ZONE B
ZONE B
150-Year Flood Boundary
200-Year Flood Boundary
Base Flood Elevation Line
Base Elevation In Ft.**
Flume Upstream Widow Zone**
EL 6971
Elevation Reference Mark
RM7 ×
River Mile
×M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
AR	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flood with average depths of less than one foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily identify all areas subject to flooding, or the entire extent of all areas of flooding outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
AUGUST 20, 1976
FLOOD HAZARD BOUNDARY MAP REVISIONS:
DECEMBER 4, 1979

FLOOD INSURANCE RATE MAP EFFECTIVE:

SHEET INDEX

MATCH LINE TO ADJOINING MAPS

Refer to the FLOOD INSURANCE RATE MAP (FIRM) INDEX for effective date shown on this map to determine when actuarial rate zones and elevations in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at (800) 638-6620.

SCALE 1"=500'
500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
ALBUQUERQUE, NEW MEXICO
BERNALILLO COUNTY

PANEL 34 OF 50

COMMUNITY-PANEL NUMBER
350002 0034 C
EFFECTIVE DATE

Federal Emergency Management Agency

PLANS/PLATS ON FILE

FILE DESC: _____

M12/05

PLANS/PLATS 4

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

IM# 28 DATE 3-29-02 OPER EJP

CITY OF ALBUQUERQUE

This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the **Public Works Department** and was created in the normal course of business.

The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS1B5-1977)

4/5/02
DIRECTOR

Roberta Duran
NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
07/03/02

D 24 C 20 B 16 A 12

CITY OF ALBUQERQUE C D

KEY TO MAP

100-Year Flood Boundary — ZONE B
100-Year Flood Boundary — Zone Designations*
100-Year Flood Boundary — ZONE B
Base Flood Elevation Line With Elevation in Feet** — 513
Base Flood Elevation in Ft. ml. Where Uniform Within Zone** — (EL 987)
Elevation Reference Mark — RM7 ×
River Mile — •1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

EXPLANATION

ZONE
A — Areas of 100-year flood; base flood elevations and flood hazard factors...not determined.
AO — Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH — Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30 — Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99 — Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B — Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C — Areas of minimal flooding. (No shading)
D — Areas of undetermined, but possible, flood hazards.
V — Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30 — Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION: AUGUST 20, 1976
FLOOD HAZARD BOUNDARY MAP REVISIONS: DECEMBER 4, 1979

FLOOD INSURANCE RATE MAP EFFECTIVE:

SHEET INDEX

	1	2	3	
4	5	6	7	8
9	10	11	12	13
14	15	16	17	18
19	20	21	22	23
24	25	26	27	28
29	30	31	32	33
34	35	36	37	38
39	40	41	42	43
44	45	46	47	48
49	50			

MATCH LINE TO ADJOINING MAPS

Refer to the FLOOD INSURANCE RATE ... EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at (800) 638-6620.

SCALE 1"=500'

500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
ALBUQUERQUE, NEW MEXICO
BERNALILLO COUNTY

PANEL 34 OF 50

COMMUNITY-PANEL NUMBER: 350002 0034 C
EFFECTIVE DATE:

Federal Emergency Management Agency

REFERENCE MARK	ELEVATION (FT. NGVD)	DESCRIPTION OF LOCATION
RM 62	4941.59	A "X" on the east bonnet bolt of a fire hydrant, located at the northeast quadrant of the intersection of Golf Blvd. and Rose Ln., S.W.
RM 64	4936.90	A 60-penny nail in power pole No. 46, located at the intersection of Isleta Blvd. and Victoria Avenue, S.W.
RM 65	4928.12	A 60-penny nail in a power pole, located at the southeast quadrant of the intersection of La Vista Drive and La Vista Ct., S.W.
RM 66	4956.90	A square ☐ inspection top of the concrete curb at the southeast corner of curb returns located at the intersection of Riverside Blvd. and Southern Avenue, S.E., on the southwest quadrant of the intersection.

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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R# 18 DATE 3.21.02 OP EP

CITY OF ALBUQUERQUE

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The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS115-1977)

Thos. J. Adley 4/5/02
DIRECTOR

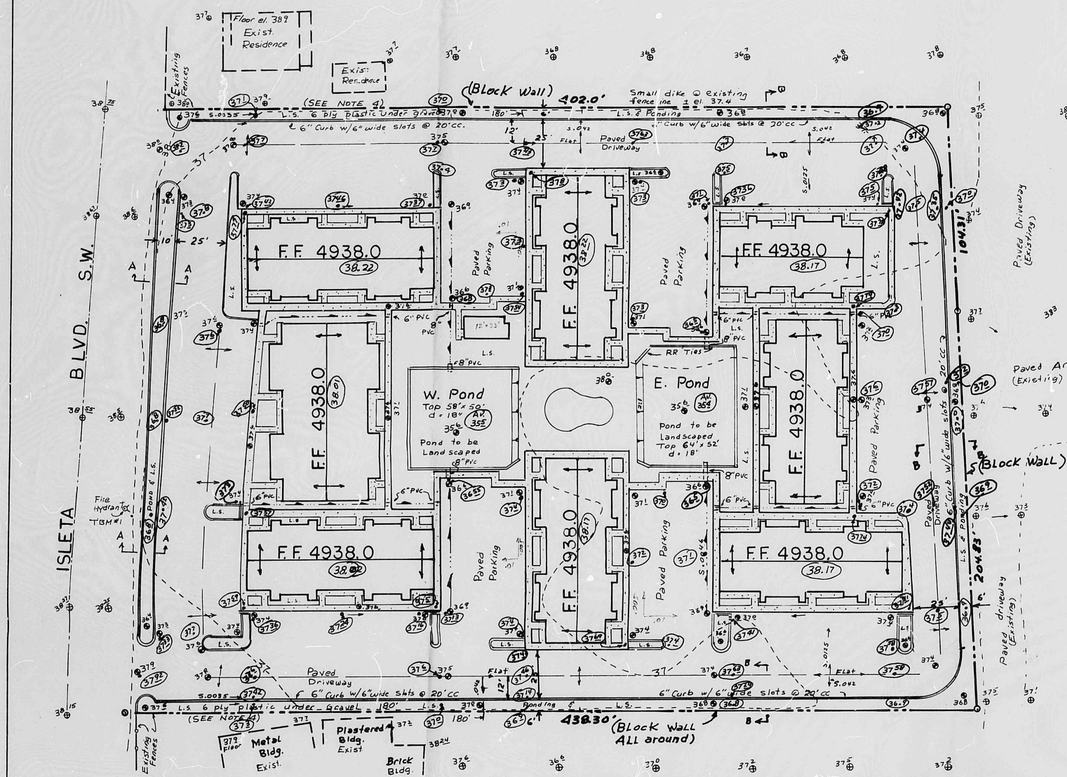
Roberta Duran
NOTARY PUBLIC

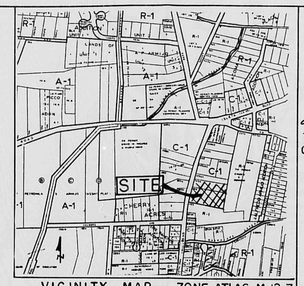
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
07/08/02

C B A

C20 B16 A12

CITY OF ALBUQERQUE C





VICINITY MAP ZONE ATLAS M-12-Z

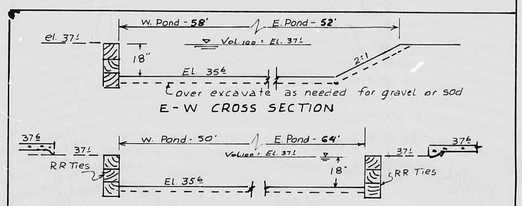
Address:
1712 - 1720 Isleta S.W.

Legal:
Tracts 224 & 225b as shown on MRGCD Map 43, in Section 36, T10N, R2E, N.M.P.M. in Bernalillo County, New Mexico

LEGEND

- Existing Contours ---37---
- Existing Spot Elevs.
- Proposed Spot Elevs.
- Proposed Sidewalks
- Proposed Swales
- Proposed Finished Floor Elev. - F.F. 4938.0
- Proposed Landscaping L.s.
- AS-BUILT SPOT ELEVS (372) or 376

NOTE:
1. All finished floor elevations to be 4938.0.
2. All sidewalks around bldgs. are at elev. 4937.6
3. At all islands where L.S. is shown, depress so that surface is 3" - 4" below adjact paving.
4. 6 ply plastic sheeting to be installed along the western 180' of the N. & S. landscape areas next to the bdry. Cut holes, on plastic, for plantings. ± 4' dia. for trees and ± 2' dia. for shrubs.



TYPICAL SWALE (Between Buildings)

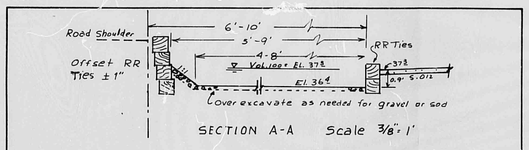
CALCULATIONS

HYDROLOGY:
Total Tract Area = 128,815 SF 2.957 Acs.
Isleta Blvd. Area = 9,350 SF 5.1% Paved
Soils: From SCS Std. Soil Survey - Sheet 40
Ge - Gila Clay Loam - 25% along East Side - Hydro. Soil Grp = B
Ag - Agua Silty Clay Loam - 75% " " " = B
100-yr - 6 hr. Rainfall = 2.25" Plate 22.2 D-1
I = 2.18 (Tc = 10 min.) " 22.2 D-2
I (intensity) = 2.18 x 2.25 = 4.90

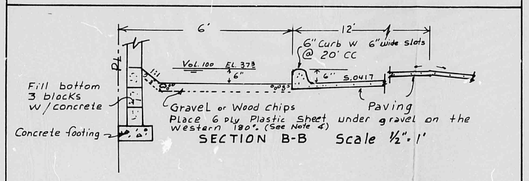
Unimproved Condition: C = 0.4
CN = 81 Plate 22.2 C-2 Ro = 0.8" Plate 22.2 C-3
Q100 = C.i.A = 0.4 x 4.90 x 2.957 = 5.8 c.f.s.
Vol100 = (Ro ÷ 12) A = 0.8" ÷ 12" x 128,815 SF = 8,590 C.F.

Displaced Flood Volume:
Est. Area = 350' x 50' = 17,500 SF Overlay from Floodplain Map
Av. depth = 0.4' Volume = 0.4' x 17,500 SF = 7,000 C.F.
NOTE Existing Condition Vol. exceeds Displaced Vol. -

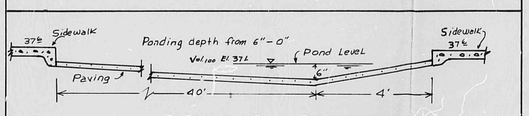
Improved Condition: Roofs = 31,900 SF = 27.2%
Sidewalks = 13,200 SF = 5.6 %
Paved = 60,200 SF = 47.5 %
Impermeable = 105,300 SF = 81.1 %
Permeable = 23,600 SF = 18.3 %
Composite CN = (18.3% x 61) + (81.7% x 98) = 91.2 Ro = 1.4" Plate 22.2 C-4
Vol100 = 1.4" ÷ 12" x 128,815 = 15,030 C.F.
From Isleta: Composite CN = (50% x 98) + (50% x 85) = 93 Ro = 1.5" Plate 22.2 C-4
Vol100 = 1.5" ÷ 12" x 9,350 SF = 1,170 C.F.
Ponding Needed = 15,030 C.F. + 1,170 C.F. = 16,200 C.F.
Planned Ponding: Along Bdy. = 2,395 C.F. + Isleta Pond = 1,177 C.F. + driveway = 2,328 C.F.
+ Parking Area = 1,960 C.F. + W.Pond = 4,465 + E.Pond = 4,646 = 16,971 C.F.



SECTION A-A Scale 3/8" = 1'



SECTION B-B Scale ½" = 1'



PARKING AREAS BETWEEN BUILDINGS
SECTION @ D.S. END
Scale ½" = 1'

DRAINAGE AND PONDING PLAN

The following items concerning the Pueblito Del Paiz Apartments drainage plan are contained hereon: 1. Vicinity Map, 2. Drainage Plan, 3. Grading Plan, and 4. Calculations.

This site is located on the east side of Isleta Blvd. S.W. about 0.17 of a mile south of the intersection of Isleta Blvd. and Arenal Road S.W. and slightly north of the point where Valdora Av. meets Isleta Blvd.

The proposed apartment complex will include paved parking and driveway areas, sidewalks, and roofs which will be impervious. Pervious areas will include an open area in the center of the complex, planting areas around the buildings and all along the property boundary.

The surface of the land at this site is at a lower elevation than Isleta Blvd. Existing topography is basicly flat, with slightly higher ground at the southeast corner of the property. It appears that there is no off-site runoff into the site except from half of Isleta Blvd. from the west.

The Flood Plain Maps show a narrow strip of land as being subject to flooding. The minimum finished floor elevation due to the flood potential is 4937.00. Planned floor elevations for these buildings is at or above the minimum elevation. The planned improvements will encroach on the flood prone area and displaced flood volume was computed. This volume was considered in providing the ponding volume from the total site.

The grading planned is for the driveway areas along the outside of the apartment complex sloped toward the adjacent planting areas. This runoff will provide some additional irrigation to the planned plantings. The parking areas, and the other surface areas around the buildings will be graded so that runoff will flow toward the ponds in the center of the complex. Runoff from the eastern half of Isleta Blvd. will be intercepted in the planting area next to the street, where some ponding is planned.

The majority of the ponding planned will be in the ponds in the center of the complex. However some ponding is also planned in the planting areas all along the property boundary and temporary ponding in the driveway areas between the buildings and along the eastern portion of the north and south driveway areas and along the east driveway area.

The unpaved ponding areas will be landscaped with grass, trees, shurbs, gravel and rock. It is anticipated that pond waters will percolate into the ground rather fast because of the porous nature of the soil. Both soils, at this site, as shown by the SCS Standard Survey Maps, Gila clay loam and Agua silty clay loam have relatively high permeability rates.

AS BUILT INFORMATION
CONTRACTOR
WORK DONE BY — DATE
INSPECTORS
FIELD LOCATION BY — DATE
FIELD DRAWINGS BY — DATE
LEGAL DESCRIPTION BY
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO

BENCH MARKS
City of Albuquerque BM # G-M12 - EL. 4942.22
Standard ASC brass tablet flush w/conc. curbs
Isle of Arenal Rd at intersection w/Isleta S.W.
Silt B.M.'s / Top of NE bolt at base of fire
Hydrant along E side of Isleta EL 4932.54
2. Top of Concrete Sidewalk at SW corner of red brick Bldg. east of Sidewalk EL 4938.97

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
RAUL A. RIVERA — NEW MEXICO — 1693 — REGISTERED PROFESSIONAL ENGINEER — LAND SURVEYOR
Raul A. Rivera 11-19-87

R.A.R.
R.A.R.

NO.	DATE	REMARKS
1	12/3	Added Work & Bldg. FF Elevs. & Curb notes
2	12/22	Added longer M.H. Conc. Pads and Elevs. &

REVISIONS
DESIGN
DESIGNED BY R.A.R. DATE 11/87
DRAWN BY R.A.R. DATE 11/87
CHECKED BY DATE

CERTIFICATION
I hereby certify that the "As-built" elevations as shown hereon are from a field survey performed by me and that the same are true and correct to the best of my knowledge and belief.
Raul A. Rivera
PE & LS 1693
New Mexico
July 25, 1988

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: DRAINAGE PLAN

PUEBLITO DEL PAIZ APARTMENTS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair					
Trans. Dev.					
Utility Dev.					

DRAWING NO. | MAP NO. | SHEET OF

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R# 28 DATE 3-22-02 OP EJP

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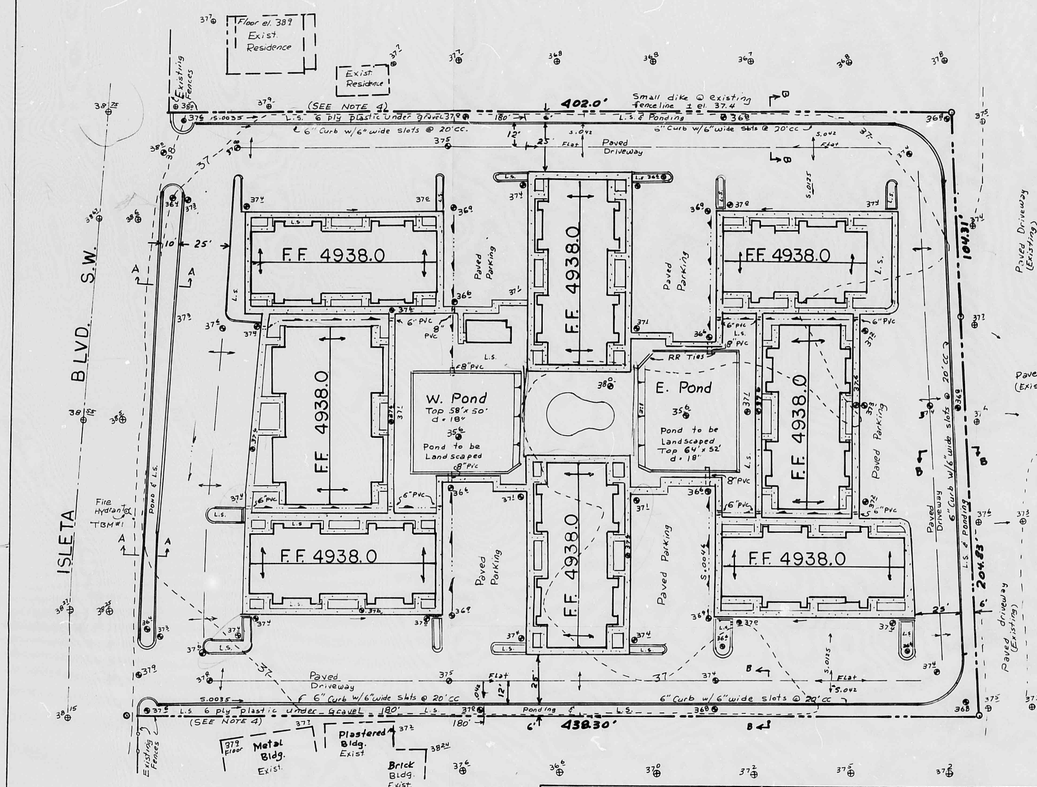
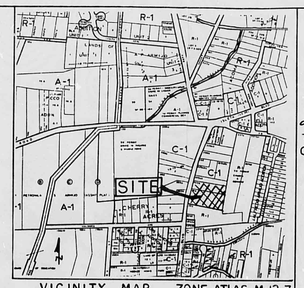
The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (NBS TN 1037-1977)
Jaime T. Hall 4/5/02
DIRECTOR

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

24 20 16 12 CITY OF ALBUQUERQUE C D





VICINITY MAP ZONE ATLAS M-12-Z

Address:
1712 - 1720 Isleta S.W.

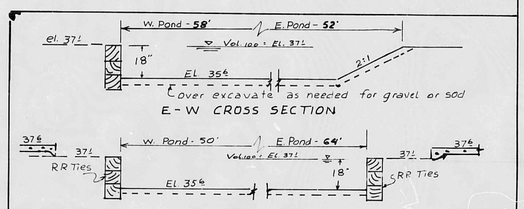
Legal:
Tracts 224 & 225b as shown on M.R.G.C.D. Map 43, in Section 36, T10N, R2E, N.M.P.M. in Bernalillo County, New Mexico

LEGEND

- Existing Contours ---37---
- Existing Spot Elevs.
- Proposed Spot Elevs.
- Proposed Sidewalks
- Proposed Swales
- Proposed Finished Floor Elev. - F.F. 4938.0
- Proposed Landscaping L.S.

NOTE:

1. All finished floor elevations to be 4938.0.
2. All Sidewalks around bldgs. are at elev. 49376
3. At all islands where L.S. is shown, depress so that surface is 3"- 4" below adjact paving.
4. 6 ply plastic sheeting to be installed along the western 180' of the N. & S. landscape areas next to the bdry. Cut holes, on plastic, for plantings. ± 4' dia. for trees and ± 2' dia. for shrubs.



DRAINAGE AND PONDING PLAN

The following items concerning the Pueblito Del Paiz Apartments drainage plan are contained hereon: 1. Vicinity Map, 2. Drainage Plan, 3. Grading Plan, and 4. Calculations.

This site is located on the east side of Isleta Blvd. S.W. about 0.17 of a mile south of the intersection of Isleta Blvd. and Arenal Road S.W. and slightly north of the point where Valdora Av. meets Isleta Blvd.

The proposed apartment complex will include paved parking and driveway areas, sidewalks, and roofs which will be impervious. Pervious areas will include an open area in the center of the complex, planting areas around the buildings and all along the property boundary.

The surface of the land at this site is at a lower elevation than Isleta Blvd.. Existing topography is basicly flat, with slightly higher ground at the southeast corner of the property. It appears that there is no off-site runoff into the site except from half of Isleta Blvd. from the west.

The Flood Plain Maps show a narrow strip of land as being subject to flooding. The minimum finished floor elevation due to the flood potential is 4937.00. Planned floor elevations for these buildings is at or above the minimum elevation. The planned improvements will encroach on the flood prone area and displaced flood volume was computed. This volume was considered in providing the ponding volume from the total site..

The grading planned is for the driveway areas along the outside of the apartment complex sloped toward the adjacent planting areas. This runoff will provide some additional irrigation to the planned plantings. The parking areas, and the other surface areas around the buildings will be graded so that runoff will flow toward the ponds in the center of the complex. Runoff from the eastern half of Isleta Blvd. will be intercepted in the planting area next to the street, where some ponding is planned.

The majority of the ponding planned will be in the ponds in the center of the complex. However some ponding is also planned in the planting areas all along the property boundary and temporary pond'ng in the driveway areas between the buildings and along the eastern portion of the north and south driveway areas and along the east driveway area.

The unpaved ponding areas will be landscaped with grass, trees, shurbs, gravel and rock. It is anticipated that pond waters will percolate into the ground rather fast because of the porous nature of the soil. Both soils, at this site, as shown by the SCS Standard Survey Maps, Gila clay loam and Agua silty clay loam have relatively high permeability rates.

TYPICAL SWALE
(Between Buildings)

CALCULATIONS

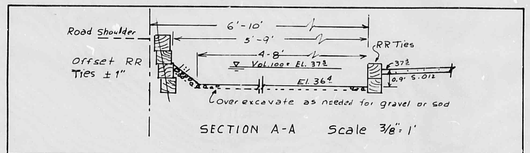
HYDROLOGY:

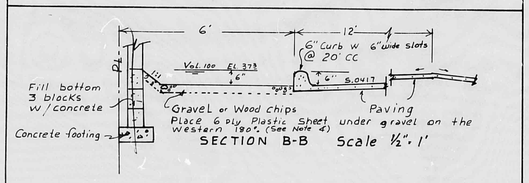
Total Tract Area = 128,815 SF = 2.957 Acs.
Isleta Blvd. Area = 9,350 SF 50% Paved
Soils: From SCS Std. Soil Survey - Sheet 40
Ge- Gila Clay Loam - 25% along East side - Hydro. Soil Grp: B
Ag - Agua Silty Clay Loam - 75% " " " = B
100-yr - 6 hr. rainfall = 2.25" Plate 22.2 D-1
I = 2.18 (T_c > 10 min.) " 22.2 D-2
i (intensity) = 2.18 x 2.25 = 4.90

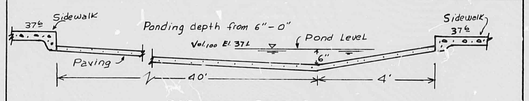
Unimproved Condition: C = 0.4
CN = 81 Plate 22.2 C-2 R_o = 0.8" Plate 22.2 C-4
Q_{100} = C i A = 0.4 x 4.90 x 2.957 = 5.8 c.f.s.
Vol_{100} = (R_o ÷ 12) A = 0.8" ÷ 12" x 128,815 SF = 8,590 C.F.

Displaced Flood Volume:
Est. Area = 350' x 50' = 17,500 SF Overlay from Floodplain Map
Av. depth = 0.4' Volume = 0.4' x 17,500 SF = 7,000 C.F.
NOTE Existing Condition Vol. exceeds Displaced Vol. -

Improved Condition: Roofs = 31,900 SF = 27.7%
Sidewalks = 13,200 SF = 5.6 %
Paved = 60,200 SF = 47.5 %
Impermeable = 105,300 SF = 81.7 %
Permeable = 23,600 SF = 18.3 %
Composite CN = (18.3% x 61) + (81.7% x 98) = 91.2 R_o = 1.4" Plate 22.2 C-4
Vol_{100} = 1.4" ÷ 12" x 128,315 = 15,030 C.F.
From Isleta: Composite CN = (50% x 98) + (50% x 85) = 92 R_o = 1.5" Plate 22.2 C-4
Vol_{100} = 1.5" ÷ 12" x 9,350 SF = 1,170 C.F.
Ponding Needed = 15,030 C.F. + 1,170 C.F. = 16,200 C.F.
Planned Ponding: Along Bdry. = 2,395 C.F. + Isleta Pond = 1,177 C.F. + driveway = 2,328 C.F.
+ Parking Area = 1,960 C.F. + W.Pond = 4,493 + E. Pond = 4,616 = 16,971 C.F.







NO.	DATE	REVISIONS	BY
1	10/3	Added Note 4, Bldg. FF Elevs & Curb notes	R.A.R
2	11/22	Added 100yr-24hr. vol. Reference & Lines	R.A.R

DESIGNED BY R.A.R DATE 11/87
DRAWN BY R.A.R DATE 11/87
CHECKED BY DATE

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

BENCH MARKS
City of Albuquerque, BM # 6-M12-EL. 4948.32
Standard Alc. Brass Tablet Flush, Mtnc. Center Isle of Arenal Rd. at intersection w/Isleta S.W.
Site BMs. 1. Top of N.E. bolt at base of fire Hydrant along E. side of Isleta. EL. 4937.54
2. Top of Concrete Sidewalk at SW corner of red brick Bldg. East of Sik. EL. 4938.77

AS BUILT INFORMATION
CONTRACTOR:
WORK STARTED ON: DATE
WORK COMPLETED ON:
ACCEPTANCE BY DATE
LETTER DATED
VERIFICATION BY
SURVEY FILED DATE
CORRECTED BY:
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
Raul A. Lovato
11-19-87

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: DRAINAGE PLAN
PUEBLITO DEL PAIZ APARTMENTS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair					
Trans. Dev.					
Utility Dev.					

DRAWING NO. | MAP NO. | SHEET OF

RECEIVED
DEC 23 1987
HYDROLOGY SECTION

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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R# 88 DATE 3.9.92 OR E.P.

CITY OF ALBUQUERQUE

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The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS 116-1977)

Mgs. T. Lady 11/5/92
DIRECTOR

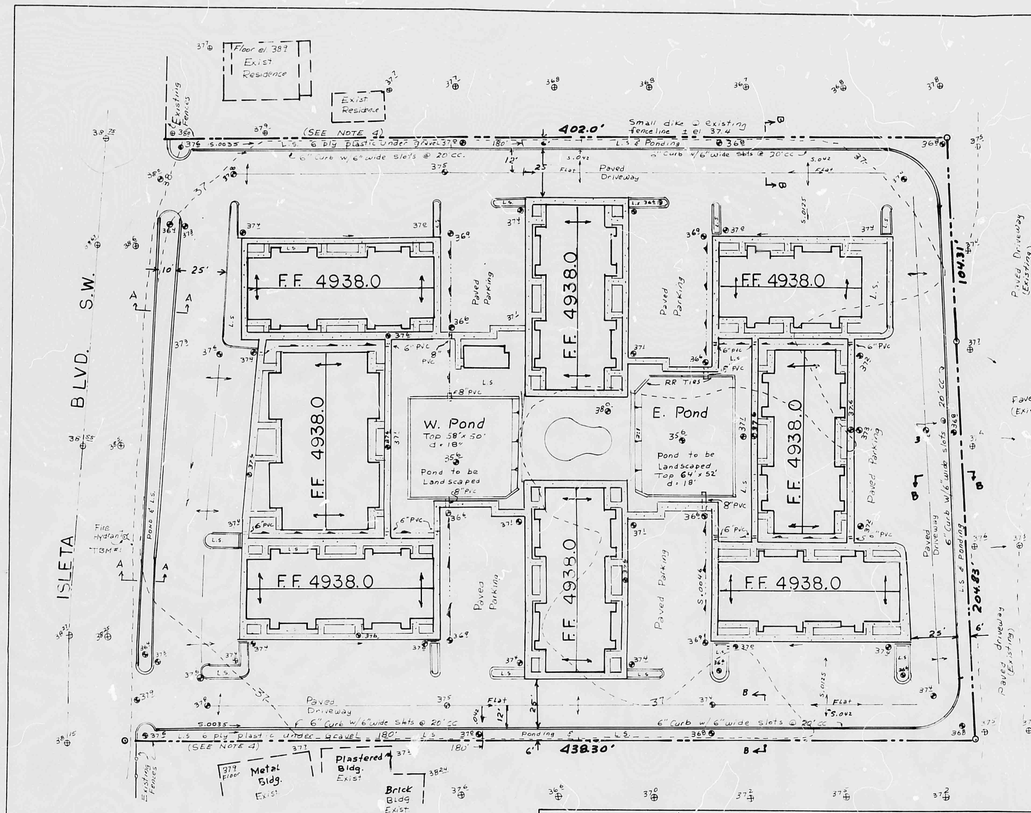
Roberta Duran
NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
07/02/95

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

PUBLIC WORKS/HYDROLOGY 2 OF 2

M12/D5



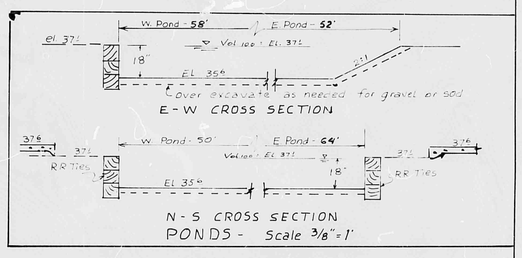
Address:
1712 - 1720 Isleta S.W.

Legal:
Tracts 224 & 225b as shown on M.P.G.C.D. Map 43, in Section 36, T10N, R2E, N.M.P.M. in Bernalillo County, New Mexico

LEGEND

- Existing Contours ---37---
- Existing Spot Elevs. 37
- Proposed Spot Elevs. 4
- Proposed Sidewalks
- Proposed Swales
- Proposed Finished Floor Elev. - F.F. 4938.0
- Proposed Landscaping L.S.

NOTE:
1. All finished floor elevations to be 4938.0.
2. All Sidewalks around bldgs. are at elev. 4937.6
3. At all islands where L.S. is shown, depress so that surface is 3" - 4" below adjact paving.
4. 6 ply plastic sheeting to be installed along the western 180' of the N. & S. landscape areas next to the bldg. Cut holes, on plastic, for plantings. ± 4' dia. for trees and ± 2' dia. for shrubs.



DRAINAGE AND PONDING PLAN

The following items concerning the Pueblito Del Paiz Apartments drainage plan are contained hereon: 1. Vicinity Map. 2. Drainage Plan. 3. Grading Plan, and 4. Calculations.

This site is located on the east side of Isleta Blvd. S.W. about 0.17 of a mile south of the intersection of Isleta Blvd. and Arenal Road S.W. and slightly north of the point where Valdora Av. meets Isleta Blvd.

The proposed apartment complex will include paved parking and driveway areas, sidewalks, and roofs which will be impervious. Pervious areas will include an open area in the center of the complex, planting areas around the buildings and all along the property boundary.

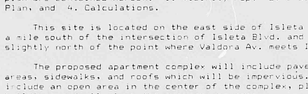
The surface of the land at this site is at a lower elevation than Isleta Blvd.. Existing topography is basically flat, with slightly higher ground at the southeast corner of the property. It appears that there is no off-site runoff into the site except from half of Isleta Blvd. from the west.

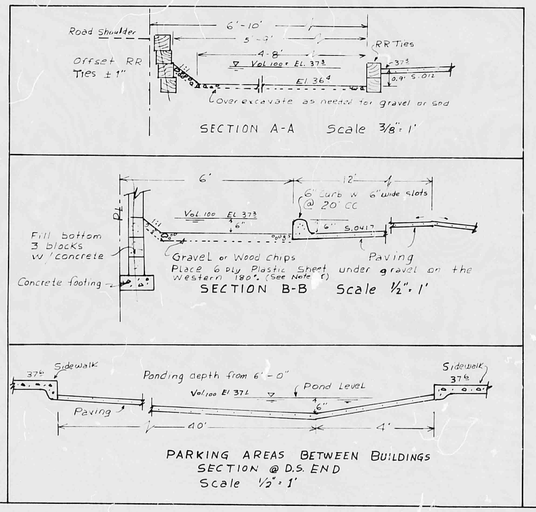
The Flood Plain Maps show a narrow strip of land as being subject to flooding. The minimum finished floor elevation due to the flood potential is 4937.00. Planned floor elevations for these buildings is at or above the minimum elevation. The planned improvements will encroach on the flood prone area and displaced flood volume was computed. This volume was considered in providing the ponding volume from the total site..

The grading planned is for the driveway areas along the outside of the apartment complex sloped toward the adjacent planting areas. This runoff will provide some additional irrigation to the planned plantings. The parking areas, and the other surface areas around the buildings will be graded so that runoff will flow toward the ponds in the center of the complex. Runoff from the eastern half of Isleta Blvd. will be intercepted in the planting area next to the street, where some ponding is planned.

The majority of the ponding planned will be in the ponds in the center of the complex. However some ponding is also planned in the planting areas all along the property boundary and temporary ponding in the driveway areas between the buildings and along the eastern portion of the north and south driveway areas and along the east driveway area.

The unpaved ponding areas will be landscaped with grass, trees, shurbs, gravel and rock. It is anticipated that pond waters will percolate into the ground rather fast because of the porous nature of the soil. Both soils at this site, as shown by the SCS Standard Survey Maps, Gila clay loam and Agua silty clay loam have relatively high permeability rates.





CALCULATIONS

HYDROLOGY:
Total Tract Area = 128,815 SF 2.957 Acs.
Isleta Blvd. Area = 9,350 SF 50% Paved
Soils: From SCS Std. Soil Survey - Sheet 40
Ge - Gila Clay Loam - 25% along East Side - Hydro. Soil Grp = B
Ag - Agua Silty Clay Loam - 75% " " " = B
100-yr - 6 hr rainfall = 2.25" Plate 22.2 D-1
I = 2.18 (T_c = >10 min.) " 22.2 D-2
C (intensity) = 2.18 x 2.25 = 4.90

Unimproved Condition: C = 0.4
CN = 81 Plate 22.2 C-2 R_o = 0.9" Plate 22.2 C-4
Q_{100} = C.C.A = 0.4 x 4.90 x 2.957 = 5.8 c.f.s.
Vol_{100} = (R_o ÷ 12) A = 0.8" ÷ 12" x 128,815 SF = 8,590 C.F.

Displaced Flood Volume:
Est. Area = 350' x 50' = 17,500 SF Overlay from Floodplain Map
Av. depth = 0.4' Volume = 0.4' x 17,500 SF = 7,000 C.F.
NOTE Existing Condition Vol. exceeds Displaced Vol. -

Improved Condition: Roofs = 31,900 SF = 27.7%
Sidewalks = 13,200 SF = 5.6 %
Paved = 60,200 SF = 47.5 %
Impermeable = 105,300 SF = 81.7 %
Permeable = 23,600 SF = 18.3 %
Composite CN = (18.3% x 61) + (81.7% x 98) = 91.2 R_o = 1.4" Plate 22.2 C-4
Vol_{100} = 1.4" ÷ 12" x 128,815 = 15,030 C.F.
From Isleta: Composite CN = (50% x 98) + (50% x 85) = 92 R_o = 1.5" Plate 22.2 C-4
Vol_{100} = 1.5" ÷ 12" x 9,350 SF = 1,170 C.F.
Ponding Needed = 15,030 C.F. + 1,170 C.F. = 16,200 C.F.
Planned Ponding: Along Bdry. = 2,395 C.F. + Isleta Pond = 1,177 C.F. + driveway = 2,328 C.F. + Parking Area = 1,960 C.F. + W. Pond = 4,455 + E. Pond = 4,616 = 16,971 C.F.

BENCH MARKS	AS BUILT INFORMATION
City of Albuquerque BM # 6-M12-EL 4940.22'	CONSTRUCTION
Standard ASC brass tablet flush w/conc. center	AS BUILT BY
Isle of Arenal Rd at intersection w/Isleta S.W.	INSPECTORS DATE
Silt B.M.'s 1. Top of N.E. bolt at base of fire hydrant along E side of Isleta EL 4938.5	FIELD CHANGES BY DATE
2. Top of Concrete Sidewalk at S.W. corner of red brick Bldg. East of Site. EL 4938.97	CERTIFICATION BY DATE
	CONFORMED TO FILM INFORMATION
	RECORDED BY DATE
	NO.

SURVEY INFORMATION	
FIELD NOTES	
NO.	BY DATE

ENGINEER'S SEAL

REVISIONS			
NO.	DATE	REMARKS	BY
1	12/3	Finish Floor of Bldg. at S.W. corner of Bldg.	R.A.R.
2	12/20	Added Swale w/Slopes & Direction of Flows	R.A.R.

DESIGN
DESIGNED BY R.A.R. DATE 11/87
DRAWN BY R.A.R. DATE 11/87
CHECKED BY DATE

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: DRAINAGE PLAN

PUEBLITO DEL PAIZ APARTMENTS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair					
Trans. Dev.					
Utility Dev.					

DRAWING NO. | MAP NO. | SHEET OF

RECEIVED
DEC 23 1987
HYDROLOGY SECTION

11-19-87

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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R# 78 DATE 3-2702 OF E&P

CITY OF ALBUQUERQUE

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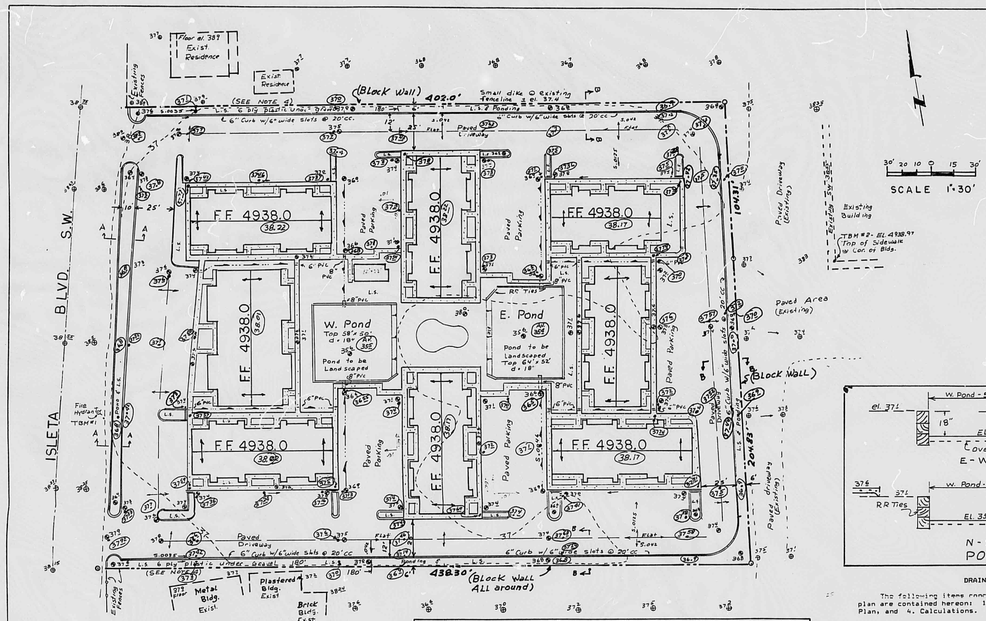
The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS115-1977)

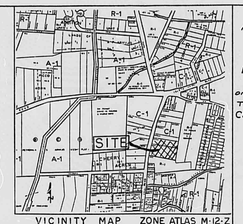
11/5/02
DIRECTOR

NOTARY PUBLIC

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

D 24 C 20 B 16 A 12 | CITY OF ALBUQERQUE C D





VICINITY MAP ZONE ATLAS M-12-Z

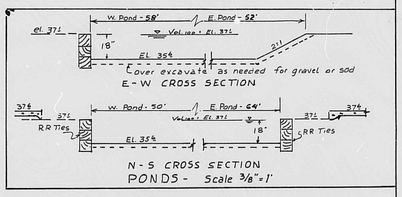
LEGEND

Existing Contours	---37---
Existing Spot Elevs.	⊕
Proposed Spot Elevs.	✱
Proposed Sidewalks	
Proposed Swales	
Proposed Finished Floor Elev. - F.F.4938.0	
Proposed Landscaping	
As-Built Spot Elevs	L.S. 372 or 374

Address:
1712-1720 Isleta S.W.

Legal:
Tracts 224 & 225b as shown on MR.G.C.D. Map 43, in Section 36, T10N, R2E, N.M.P.M. in Bernalillo County, New Mexico

NOTE:
1. All finished floor elevations to be 4938.0.
2. All sidewalks around bldgs. are of elev. 4937.6.
3. At all islands where L.S. is shown, depress 56 that surface is 3"-4" below adjact paving.
4. 6 ply plastic sheeting to be installed along the western 180' of the N.& S. landscape areas next to the bldg. Cut holes in plastic, for plantings. 2 4' dia. for trees and 2 2'dia. for shrubs.



DRAINAGE AND PONDING PLAN

The following items concerning the Pueblito Del Paiz Apartments drainage plan are contained hereon: 1. Vicinity Map. 2. Drainage Plan. 3. Grading Plan, and 4. Calculations.

This site is located on the east side of Isleta Blvd. S.W. about 0.17 of a mile south of the intersection of Isleta Blvd. and Arenal Road S.W. and slightly north of the point where Valdora Av. meets Isleta Blvd.

The proposed apartment complex will include paved parking and driveway areas, sidewalks, and roofs which will be impervious. Pervious areas will include an open area in the center of the complex, planting areas around the buildings and all along the property boundary.

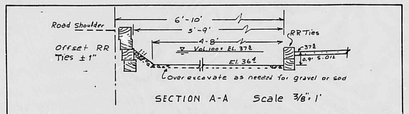
The surface of the land at this site is at a lower elevation than Isleta Blvd., Existing topography is basicly flat, with slightly higher ground at the southeast corner of the property. It appears that there is no off-site runoff into the site except from half of Isleta Blvd. from the west.

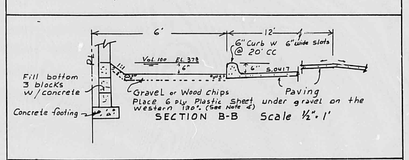
The Flood Plain Maps show a narrow strip of land as being subject to flooding. The minimum finished floor elevation due to the flood potential is 4937.60. Planned floor elevations for these buildings is at or above the minimum elevation. The planned improvements will encroach on the flood prone area and displaced flood volume was computed. This volume was considered in providing the ponding volume from the total site.

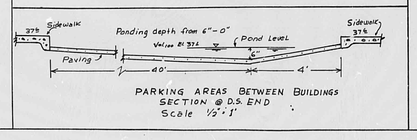
The grading planned is for the driveway areas along the outside of the apartment complex sloped toward the adjacent planting areas. This runoff will provide some additional irrigation to the planned plantings. The parking areas, and the other surface areas around the buildings will be graued so that runoff will flow toward the ponds in the center of the complex. Runoff from the eastern half of Isleta Blvd. will be intercepted in the planting area next to the street, where some ponding is planned.

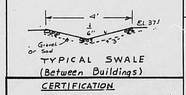
The majority of the ponding planned will be in the ponds in the center of the complex. However some ponding is also planned in the planting areas all along the property boundary and temporary ponding in the driveway areas between the buildings and along the eastern portion of the north and south driveway areas and along the east driveway area.

The unpaved ponding areas will be landscaped with grass, trees, shurbs, gravel and rock. It is anticipated that pond waters will percolate into the ground rather fast because of the porous nature of the soil. Both soils, at this site, as shown by the SCS Standard Survey Maps, Gila clay loam and Agua silty clay loam have relatively high permeability rates.









CALCULATIONS

HYDROLOGY:
Total Tract Area: 128,815 SF = 2.957 Acs.
Isleta Blvd. Area: 9,350 SF = 50% Paved
Soils: From SCS Std. Soil Survey - Sheet 40
Ge-Gila Clay Loam - 25% along East Side - Hydro. Soil Grp = B
Ag-Agua Silty Clay Loam - 75% " " " = B
100-yr - 6 hr. Rainfall = 2.25" Plate 22.2 D-1
I = 2.18 (Tc > 10 min.) " 22.2 D-2
λ (intensity) = 2.18 x 2.25 = 4.90

Unimproved Condition: C = 0.4
CN = 81 Plate 22.2 C-2 Ro = 0.0" Plate 22.2 C-4
Qin = C.I.A = 0.4 x 4.90 x 2.957 = 5.8 c.f.s.
Volin = (Ro÷12) A = 0.8"÷12" x 128,815 SF = 8,590 C.F.

Displaced Flood Volume:
Est. Area: 350' x 50' = 17,500 SF Overlay from Floodplain Map
Av. depth = 0.4' Volume = 0.4'x17,500 SF = 7,000 C.F.
NOTE Existing Condition Vol. exceeds Displaced Vol. -

Improved Condition: Roofs = 31,900 SF = 24.7%
Sidewalks = 18,300 SF = 14.2%
Paved = 60,200 SF = 47.5%
Impermeable = 110,300 SF = 86.4%
Permeable = 18,400 SF = 13.6%
Composite C.N = (86.4% x 81) + (13.6% x 98) = 92 Ro = 1.4" Plate 22.2 C-4
Volin = 1.4"÷12" x 128,815 = 15,030 C.F.
From Isleta: Composite C.N = (50% x 98) + (50% x 85) = 92 Ro = 1.5" Plate 22.2 C-4
Volin = 1.5"÷12" x 9,350 SF = 1,170 C.F.
Ponding Needed = 15,030 C.F. + 1,170 C.F. = 16,200 C.F.
Planned Ponding: Alley Bldg. = 2,395 C.F. + Isleta Pond = 1,171 C.F. + driveway = 2,328 C.F.
+ Parking Area = 1,960 C.F. + W.Pond = 4,455 + E.Pond = 4,614 = 16,971 C.F.

BENCH MARKS
City of Albuquerque Bnt 6-M12-EL.4946.32
Slotted Asc brass tablet flush, in conc. curb at SE corner of Arenal Rd. at intersection w/Isleta Blvd.
Elev. Assumed. Top of fire hydrant at N.E. corner of Isleta Blvd. & Arenal Rd. Elev. = 4938.0
Also, Top of concrete sidewalk at SW corner of Isleta & Arenal. Elev. = 4938.07

AS BUILT INFORMATION
CONTRACTOR
WORKS BY
INSPECTED BY DATE
ACCEPTANCE BY
CERTIFICATION BY DATE
MICRO-FILM INFORMATION
RECORDED BY
NO. DATE

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL
Raul A. Rivera
NEW MEXICO
14729
REGISTERED PROFESSIONAL ENGINEER
11-19-87

NO.	DATE	REMARKS	BY
1	11/87	Added Min. Fl. Elev. Curb slots & Ponding Notes	R.A.R.
2	12/87	Revised Min. Fl. Elev. & Ponding Notes	R.A.R.

REVISIONS
DESIGNED BY R.A.R. DATE 11/87
DRAWN BY R.A.R. DATE 11/87
CHECKED BY DATE

CERTIFICATION

I hereby certify that the "As-built" elevations as shown hereon are from a field survey performed by me and that the same are true and correct to the best of my knowledge and belief.

Raul A. Rivera
PE & LS 1693
New Mexico
July 25, 1988

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP
APPROVED

TITLE: DRAINAGE PLAN

PUEBLITO DEL PAIZ APARTMENTS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair					
Trans. Dev.					
Utility Dev.					

DRAWING NO. | MAP NO. | SHEET OF

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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R# 28 DATE 3-27-02 OP 5-7

CITY OF ALBUQUERQUE
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The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS14.5-1977)

DIRECTOR

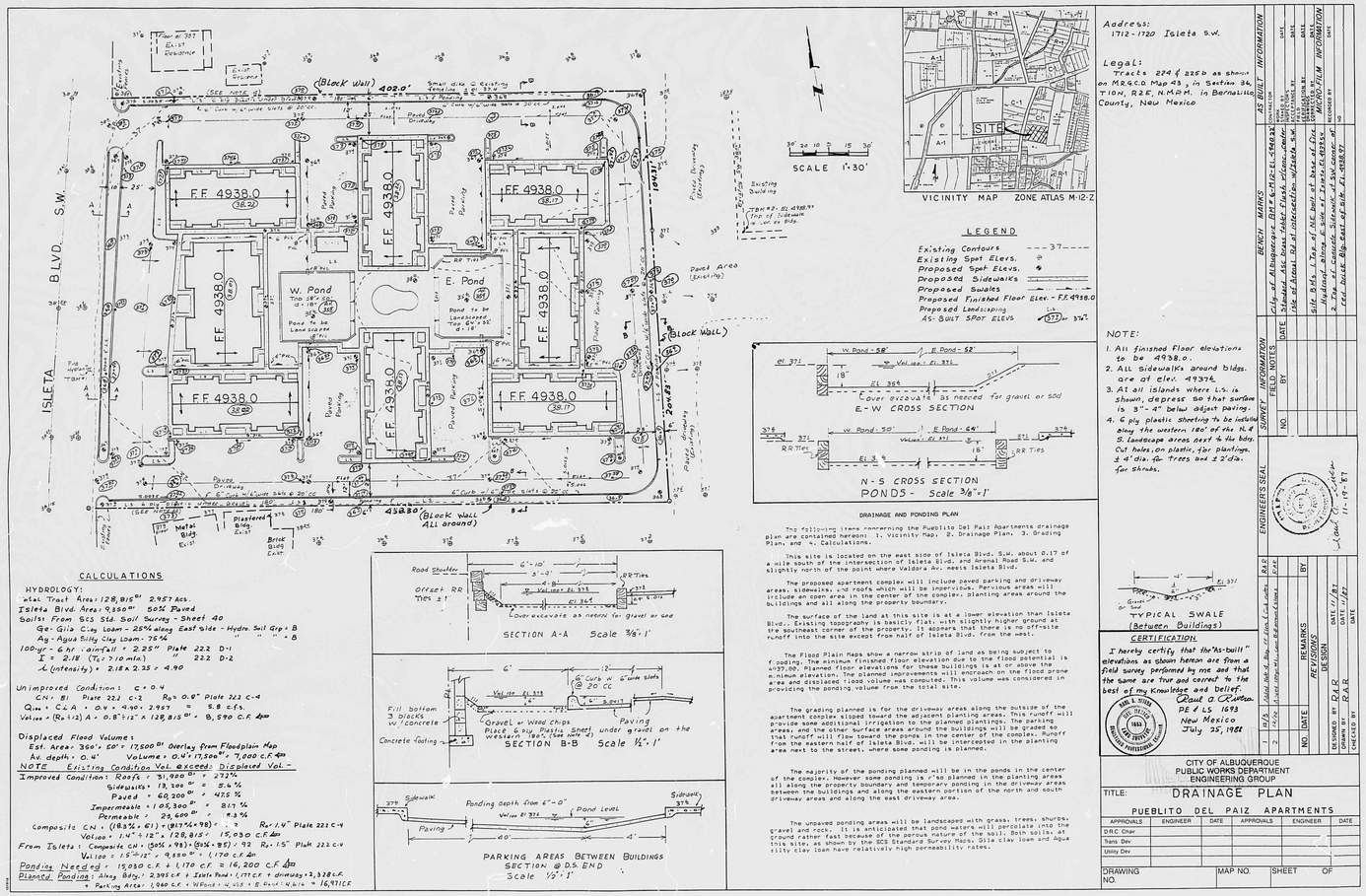
Roberta Duran
NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 07/01/02

C B A

C 20 B 16 A 12

CITY OF ALBUQUERQUE C



Address:
1712 - 1720 Isleta S.W.

Legal:
Tracts 224 & 225b as shown on M.R.G.C.D. Map 43, in Section 34, T10N, R2E, N.M.P.M. in Bernalillo County, New Mexico

LEGEND

Existing Contours	---37---
Existing Spot Elevs.	+
Proposed Spot Elevs.	+
Proposed Sidewalks	
Proposed Swales	
Proposed Finished Floor Elev.	F.F. 4938.0
Proposed Landscaping	L.A.
As-Built Spot Elevs	(377) or 377

NOTE:
1. All finished floor elevations to be 4938.0.
2. All Sidewalks around bldgs. are at elev. 4937.6
3. At all islands where L.S. is shown, depress so that surface is 3"-4" below adjact paving.
4. 6 ply plastic sheeting to be installed along the western 180' of the N.P.
5. Landscape areas next to the bldg. Cut holes in plastic for plantings. ± 4' dia. for trees and ± 3' dia. for shrubs.

TYPICAL SWALE
(Between Buildings)

DRAINAGE AND PONDING PLAN

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The surface of the land at this site is at a lower elevation than Isleta Blvd. Existing topography is basically flat, with slightly higher ground at the southeast corner of the property. It appears that there is no off-site runoff into the site except from half of Isleta Blvd. from the west.

The Flood Plain Maps show a narrow strip of land as being subject to flooding. The minimum finished floor elevation due to the flood potential is 4937.00. Planned floor elevations for these buildings is at or above the minimum elevation. The planned improvements will encroach on the flood prone area and displaced flood volume was computed. This volume was considered in providing the ponding volume from the total site.

The grading planned is for the driveway areas along the outside of the apartment complex sloped toward the adjacent planting areas. This runoff will provide some additional irrigation to the planned plantings. The parking areas, and the other surface areas around the buildings will be graded so that runoff will flow toward the ponds in the center of the complex. Runoff from the eastern half of Isleta Blvd. will be intercepted in the planting area next to the street, where some ponding is planned.

The majority of the ponding planned will be in the ponds in the center of the complex. However some ponding is also planned in the planting areas all along the property boundary and temporary ponding in the driveway areas between the buildings and along the eastern portion of the north and south driveway areas and along the east driveway area.

The unpaved ponding areas will be landscaped with grass, trees, shurbs, gravel and rock. It is anticipated that pond waters will percolate into the ground rather fast because of the porous nature of the soil. Both soils at this site, as shown by the SCS Standard Survey Maps, Gila clay loam and Agua silty clay loam have relatively high permeability rates.

CALCULATIONS

HYDROLOGY:
total Tract Area: 128,815 SF = 2.957 Acs.
Isleta Blvd. Area: 9,350 SF 50% Paved
Soils: From SCS Std. Soil Survey - Sheet 40
Gr: Gila Silty Loam - 25% along East Side - Hydro. Soil Grp = B
Ag - Agua Silty Clay Loam - 75% " " " = B
100-yr - 6 hr. rainfall = 2.25" Plate 22.2 D-1
I = 2.18 (Tc = >10 min) " 22.2 D-2
Ic (intensity) = 2.18 x 2.25 = 4.90

Unimproved Condition: C = 0.4
CN = 81 Plate 22.2 C-2 R_6 = 0.8" Plate 22.2 C-4
Q_{100} = C.A. = 0.4 x 4.90 x 2.957 = 5.8 c.f.s.
Volume (R_6 x 1/2) A = 0.8" x 1/2" x 128,815 SF = 8,590 C.F. 4pm

Displaced Flood Volume:
Est. Area: 350' x 50' = 17,500 SF Overlay from Floodplain Map
Av. depth = 0.4' Volume = 0.4' x 17,500 SF = 7,000 C.F. 4pm
NOTE: Existing Condition Vol. exceeds Displaced Vol.

Improved Condition: Roofs = 31,900 SF = 24.7%
Sidewalks = 13,300 SF = 10.4%
Paved = 60,200 SF = 47.0%
Impermeable = 105,300 SF = 81.7%
Permeable = 23,600 SF = 18.3%
Composite CN = (18.3% x 61) + (81.7% x 98) = 91 R_{24} = 1.9" Plate 22.2 C-4
Volume = 1.9" x 1/2" x 128,815 = 15,030 C.F. 4pm
From Isleta: Composite CN = (50% x 98) + (50% x 85) = 92 R_{24} = 1.5" Plate 22.2 C-4
Vol. 100 = 1.5" x 1/2" x 9,350 SF = 1,170 C.F. 4pm

Ponding Needed = 15,030 C.F. + 1,170 C.F. = 16,200 C.F. 4pm
Planned Ponding: Bldg. Bldg. 2,395 SF + Isleta Pond = 1,177 SF + driveway = 2,328 S.F.
+ Parking Area: 1,960 C.F. + W.Pond = 4,165 + E. Pond = 4,416 = 16,971 C.F.

CERTIFICATION

I hereby certify that the "As-built" elevations as shown hereon are from a field survey performed by me and that the same are true and correct to the best of my knowledge and belief.

Raul A. Chavez
NEW MEXICO 10464 REGISTERED PROFESSIONAL ENGINEER
RAUL A. SISNEROS
NEW MEXICO 10464 REGISTERED PROFESSIONAL ENGINEER
NEW MEXICO
PE & LS 10464
New Mexico
July 25, 1988

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: DRAINAGE PLAN

PUEBLITO DEL PAIZ APARTMENTS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair.					
Trans. Dev.					
Utility Dev.					

DRAWING NO. | MAP NO. | SHEET OF

AS BUILT INFORMATION
CONTRACTOR
DATE
SUPERVISION
FIELD WORK BY
DATE
COMPLETED WORK INSPECTION
DATE
RECOMMEND BY
DATE
VP

BENCH MARKS
City of Albuquerque Bm # 6.712 EL. 4948.32 Standard Alc. Brass tablet Flush w/Conc. marker 100' W. of Isleta, SW of intersection of Isleta & Arenal SW.
Silt Drill. Top of NE bolt of base of Fire Hydrant along E. side of Isleta Blvd. SW. Approx. 0.17 of a mile south of the intersection of Isleta & Arenal SW. Set 1/2" rebar. Big Reel. Elev. = 4938.87

NO.	DATE	REMARKS	BY
1	10/24	Added Note 4 - Plastic Sheeting	D.R.C.
2	12/24	Added Note 5 - Landscaping	D.R.C.

REVISIONS
DESIGNED BY: D.R.C. DATE: 11/87
DRAWN BY: D.R.C. DATE: 11/87
CHECKED BY: DATE:

SURVEY INFORMATION
NO. | FIELD NOTES | DATE | BY

ENGINEER'S SEAL
Raul A. Chavez
NEW MEXICO 10464 REGISTERED PROFESSIONAL ENGINEER
Const. Eng. 12-19-87

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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CITY OF ALBUQUERQUE

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Thomas J. Mulhern 11/5/02
DIRECTOR

Roberta Duran
NOTARY PUBLIC

OFFICIAL SEAL
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STATE OF NEW MEXICO
07/02/04

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