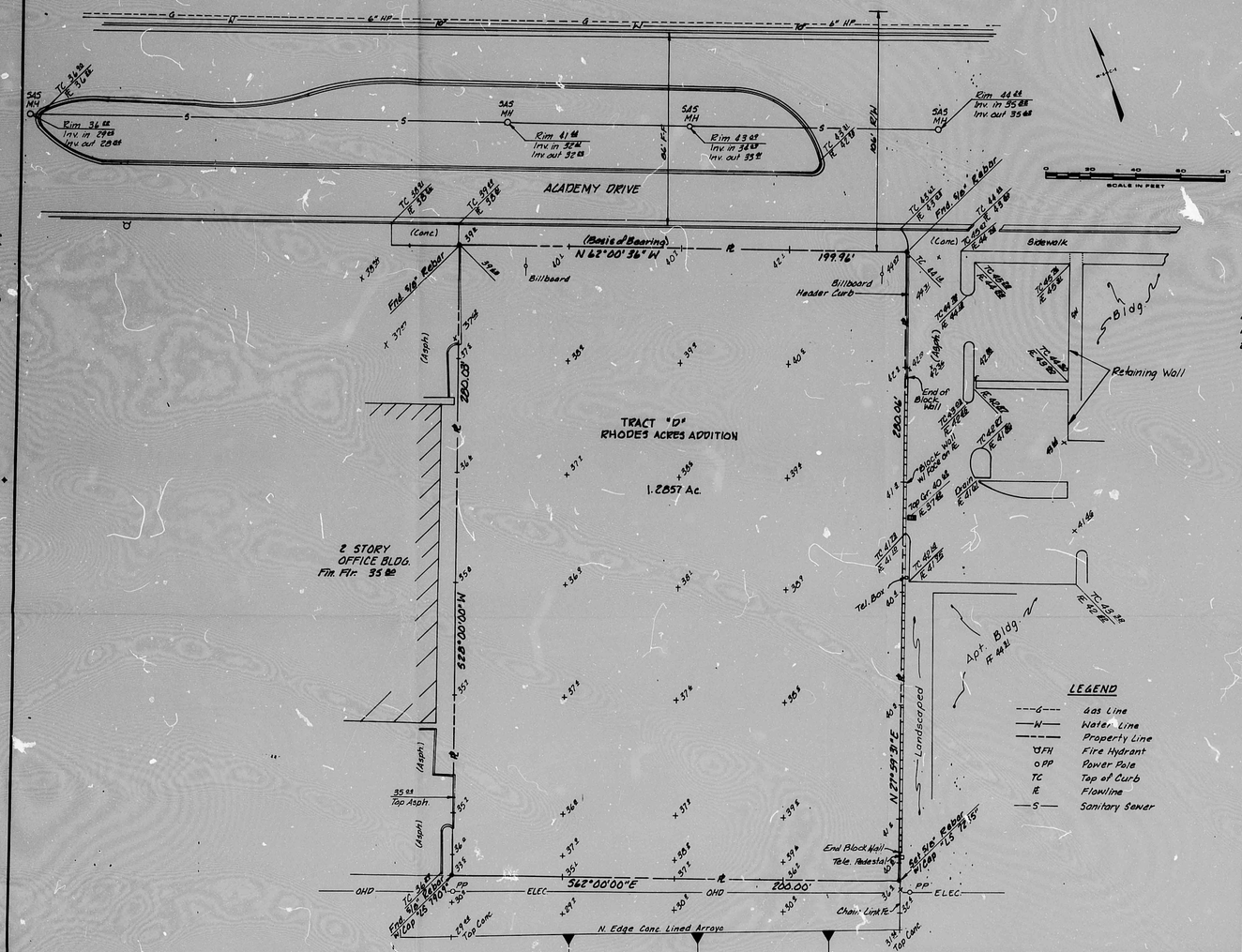
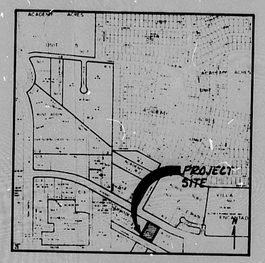
PUBLIC WORKS/HYDROLOGY

E18/D24A





LOCATION MAP
N.T.S.

NOTES:

1. BENCHMARK: Alb. Control Station "1-F18A".
2. Basis of Bearing per Tract "D" of a portion of Tract-A and Tract-D of Rhodes Acres Addition filed on Feb. 24, 1976 in Vol. CII, Folio 25.

LEGAL DESCRIPTION

Tract "D" of summary plat of a portion of Tract-A and Tract-D of Rhodes Acres Addition, Albuquerque, Bernalillo County, New Mexico, the same as shown on the plat filed with the Bernalillo County Clerk on February 24, 1976 in Volume CII, Folio 25.

SURVEYOR'S CERTIFICATION

I, Steven J. Metro, New Mexico Registered Professional Surveyor No. 10025, do hereby certify that this survey was prepared under my supervision and direction, and is true and accurate to the best of my knowledge and belief.

Steven J. Metro, NMRS No. 10025 — Date: 7-20-89

STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) SS.

THE ABOVE SURVEYOR'S CERTIFICATION WAS ACKNOWLEDGED BEFORE ME THIS 20th DAY OF July, 1989, BY STEVEN J. METRO, NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR NO. 10025.

OFFICIAL SEAL
PATRICIA P. ROYBAL
NOTARY PUBLIC - STATE OF NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires 11-12-92

NOTARY PUBLIC

SEP 2 4 1989
PLANNING SECTION

My Commission Expires 11-12-92

LEGEND

---G---	Gas Line
—W—	Water Line
----	Property Line
FH	Fire Hydrant
PP	Power Pole
TC	Top of Curb
FL	Flowline
—S—	Sanitary Sewer

TOPOGRAPHIC SITE SURVEY FOR
GIANT SERVICE STATION NO. 627
6104 ACADEMY ROAD N.E
ALBUQUERQUE, N.M

DESIGN	DRAWN		DATE:
WEB	BLM	WILSON & COMPANY ENGINEERS ARCHITECTS ALBUQUERQUE, NEW MEXICO	JULY 1989
			FILE NO. 89-517
			SHEET NO. 1 OF 1

REVISED 7 AUG. 1989

R1 25 DATE 3-15-92 OR ESP

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 (NB115-1977)

DIRECTOR

NOTARY PUBLIC
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
My Commission Expires

CITY OF ALBUQUERQUE
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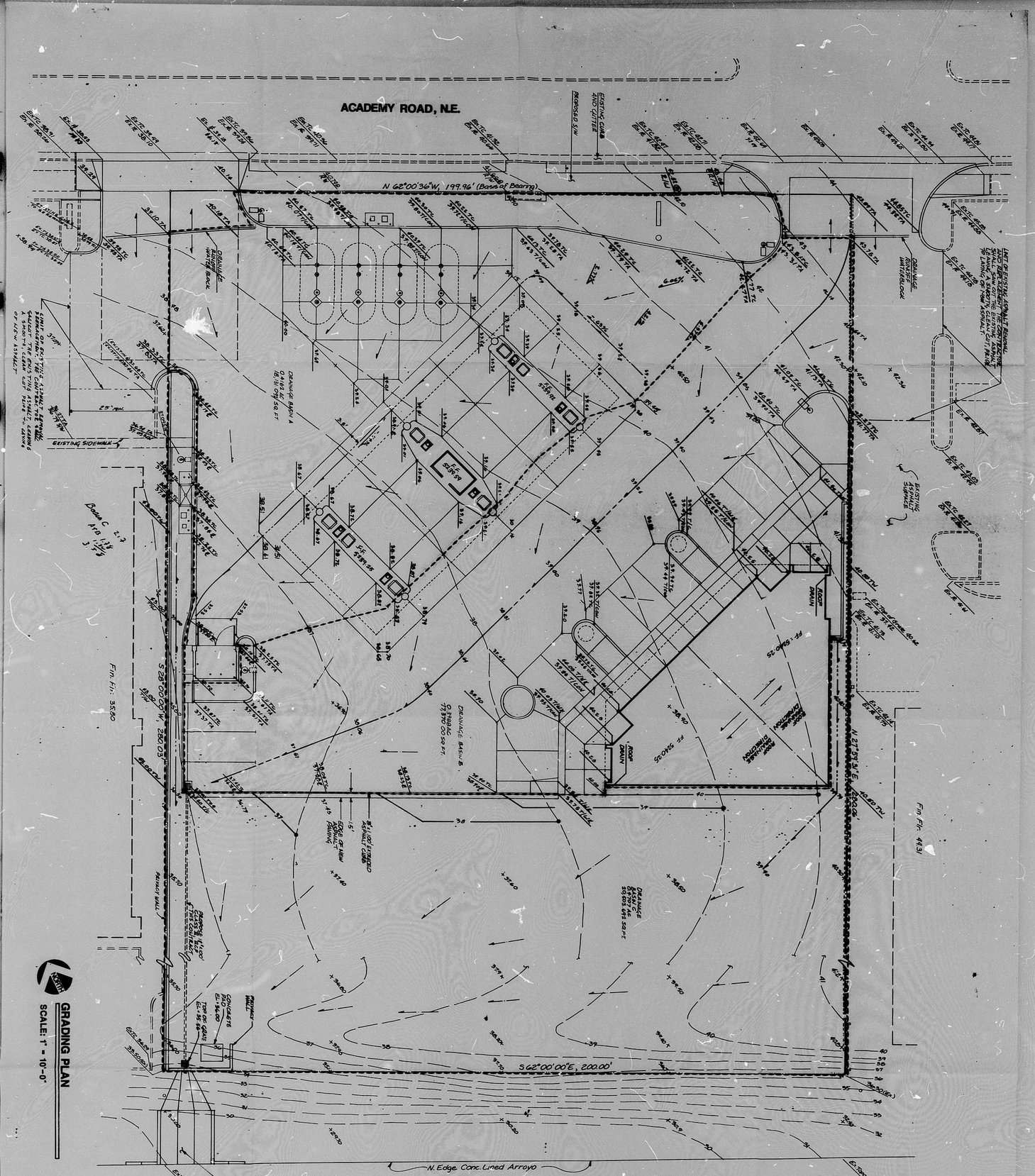
PLANS/PLATS ON FILE

FILE DESC: E18/D244

PLANS/PLATS 3

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



GRADING PLAN

SCALE: 1" = 10'-0"

LEGEND

- FF= 6940.25 FINISH FLOOR ELEVATION
- EX. FL 38.10 EXISTING FLOWLINE ELEVATION
- EX. TC 37.96 EXISTING TOP OF CURB ELEVATION
- 40.89 TC PROPOSED TOP OF CURB ELEVATION
- 39.89 TFGR PROPOSED TOP OF FINGERTIP ELEVATION
- 40.07 TA PROPOSED TOP OF ASPHALT ELEVATION
- 40.07 TSW PROPOSED TOP OF SIDEWALK ELEVATION
- 37.76 FL PROPOSED FLOWLINE AT CURB ELEVATION
- 39.85 PROPOSED FINISH ELEVATION
- 39.00 PROPOSED FINISH ELEVATION
- 38.90 EXISTING GROUND ELEVATION
- EXISTING CONTOUR
- PROPOSED FINISH CONTOUR
- PROPOSED DRAINAGE SWALE
- DRAINAGE FLOW DIRECTION

NOTE:
ALL WORK SHALL BE PER THE CITY OF ALBUQUERQUE STANDARDS FOR PUBLIC WORK CONSTRUCTION, 1986 EDITION.

WILSON & COMPANY
ENGINEERS & ARCHITECTS
6611 GULTON CT. NE ALBUQUERQUE N.M.
505-345-5345 87109

PROJECT: GIANT SERVICE STATION # 627
ACADEMY
ALBUQUERQUE, N.M.

DRAWING TITLE: GRADING PLAN

NO	DATE	REVISION

DATE: AUGUST 1989
JOB NO: 89.617A
DRAWN:

WILSON & COMPANY ENGINEERS & ARCHITECTS

DRAWING NO. C 1/2

RECEIVED SEP 2 1989 INTERCITY INTERCOLOR SECTION

CITY OF ALBUQUERQUE
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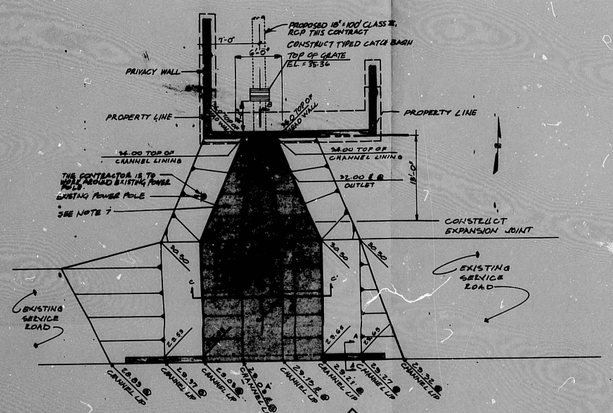
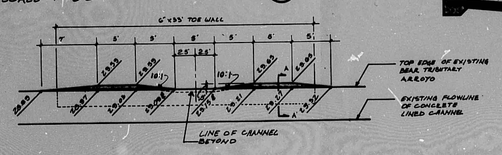
The process used meets the quality standards for microfilm as defined by the National Micrographics Association (AIIM).
DIRECTOR

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST AVAILABLE REPRODUCTION DUE TO THE PHYSICAL QUALITY OF THE ORIGINAL DOCUMENT.

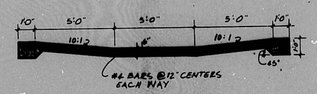
CITY OF ALBUQUERQUE



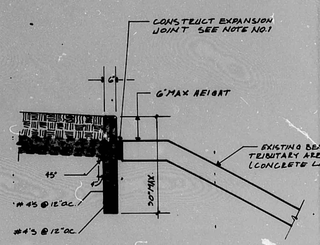
A PLAN
SCALE: 1" = 6'-0"



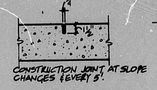
D ELEVATION
SCALE: 1" = 6'-0"



SECTION C-C
SCALE: 1" = 3'-0"



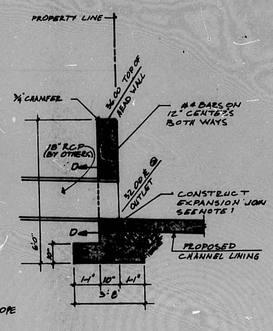
SECTION A-A'
SCALE: NONE



CONSTRUCTION JOINT AT SLOPE CHANGES (EVERY 8')

CONSTRUCTION JOINT DETAIL (SAWN OR TOOLED)

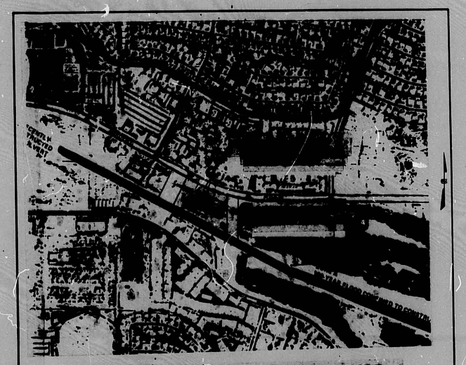
SCALE: NONE



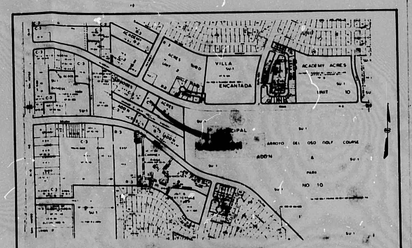
SECTION B-B'
SCALE: 1" = 2'-0"

GENERAL NOTES

1. APPLY BONDER TO EXPANSION JOINT. IMMEDIATELY INSTALL EVAFLEX VINYL ACETATE FOAM SEALANT, EVASEAL, OVER POLYETHYLENE FOAM FILLER TO DEPTH OF SLAB. SAND SURFACE OF SEALANT FLUSH TO TOP OF CONCRETE. APPLY TWO COATS OF ULTRAVIOLET PROOFING FLEXCOAT 19 OR APPROVED EQUAL. APPLY A BONDER BEAD IN GROOVE BETWEEN TOOLED RADIUS AND SEALANT.
2. THE CONTRACTOR SHALL TOOL ALL CONCRETE EDGES.
3. THE CONTRACTOR SHALL CONSTRUCT THE EXPANSION JOINTS IN LOCATION AS SHOWN AND CONSTRUCTION JOINTS EVERY 5'.
4. THE CONTRACTOR SHALL COMPACT 6" OF EXISTING SOIL TO 95% PER ASTM D 1557, UNDER ALL STRUCTURES.
5. CONCRETE SHALL BE 3,500 POUNDS PER SQUARE INCH AT 28 DAYS.
6. REINFORCING STEEL TO BE DEFORMED BARS, BILLET-STEEL BARS, CONFORMING TO ASTM SPECS. A615, GRADE 60.
7. THE PROPOSED 6'± CONCRETE CHANNEL SIDE SLOPES SHALL TRANSITION FROM 1:1 SLOPE AT THE OUTLET OF THE CONCRETE HEADWALL TO A 10:1 SLOPE AT ELEVATIONS 29.59 and 29.65.



F.E.M.A. 100 YEAR FLOOD HAZARD MAP



VICINITY MAP E-18

(1) SCOPE

The present site is undeveloped.

The proposed improvement is for the north 180 feet of the tract w/ 35,501.092 sq. ft. (0.815 Ac.). Giant plans on developing the remaining 100 feet or 20,503.692 sq. ft. (0.4707 Ac.) in the future. The proposed storm drainage system has been designed to carry the 100 year storm for the entire site (1.2857 Ac.). The anticipated drainage runoff is designed to drain to the Bear Tributary Arroyo, locatr immediately south of the tract.

The intent of this plan is to show the following:

A. Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate positive drainage to designated discharge points.

B. The flow rate volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City requirements for drainage management.

C. The relationship of on-site improvements with existing neighboring properties to insure an orderly transition between proposed and surrounding grades.

(2) GENERAL NOTES

LEGAL: Tract "D" of summary plat of a portion of Tract "A" and Tract "D" of Shades Acres Addition, Albuquerque, Bernalillo County, New Mexico, the same as shown on the plat filed with the Bernalillo County Clerk on February 24, 1976 in Volume C11, Folio 25.

SURVEYOR: Steven J. Marks, Land Surveyor #10025. (Topographic only)

BENCHMARK: ACS Brass-Tablet stamped "1-M16 1978", set in top of a concrete post flush with ground in the middle of existing median located 275' west from Marchetta Ave. on Academy Rd. Elevation = 5251.227.

(3) SITE AREA

Acreage = 1.2857 Ac. = 56,004.784 sq. ft.

(4) SOILS

As per SCS Map Number 21, soil is type EmB, Hydrologic Soils Group B.

(5) FLOOD HAZARD

As per F.E.M.A. Hazard Map Number 350002 0017C the site is not in the 100 year flood plan.

(6) OFF-SITE DRAINAGE

There are no off-site flows that will have any impact on this developed site. Likewise, the improvements for this project will not have any drainage impact to the properties located east and west. The developed drainage runoff from this site will drain through two type "D" catch basins. The anticipated drainage runoff is to discharge into the Bear Tributary Arroyo.

(7) CALCULATIONS

The calculations are based on the City of Albuquerque D.P.M. Manual, Volume II for the 100 year, 6 hour storm using the rational formula to compute the existing and proposed runoff rates.

(8) RATIONAL METHOD

Q = CIA

(9) RUNOFF COEFFICIENT

Existing Condition
Undeveloped Area - 1.2857 Acres = 56,005.092 SF Total site area.

Drainage Basin

A = 0.4162 Ac. = 18,131.092 SF
B = 0.3988 Ac. = 17,370.000 SF
C = 0.4707 Ac. = 20,503.692 SF

(10) UNDEVELOPED AND DEVELOPED BASIN COMPOSITE "C"

Drainage Basin A — Areas

Roof Area = -0- SF
Landscaping Area = 1,870.000 SF
Pavement Area = 16,261.092 SF
TOTAL 18,131.092 SF

EXISTING

$C_u = \frac{18,131.092 \times 0.40}{18,131.092} = 0.40$

DEVELOPED

$R_f = \frac{1,870 \times 0.25}{18,131.092} = 0.025$

$C_p = \frac{16,261.092 \times 0.95}{18,131.092} = 0.852$

Undeveloped Composite C = 0.40
Developed Composite C = 0.88

Drainage Basin B — Areas

Roof Area = 7,131.00 SF
Landscaping Area = -0- SF
Pavement Area = 10,239.00 SF
TOTAL 17,370.00 SF

EXISTING

$C_u = \frac{18,370.00 \times 0.40}{17,370.00} = 0.40$

DEVELOPED

$C_r = \frac{7,131.00 \times 0.90}{17,370.00} = 0.370$

$C_p = \frac{10,239.00 \times 0.95}{17,370.00} = 0.560$

Undeveloped Composite C = 0.40
Developed Composite C = 0.93

Drainage Basin C

The roof, landscaping and pavement areas have not been determined at this time. The total area of Drainage Basin C is 20,503.692 sq. ft. Use a Composite "C" factor of 0.95 to calculate anticipated drainage runoff within this drainage basin.

(11) RAINFALL INTENSITY

6 hour rainfall for 100 year frequency = 2.3" (D.P.M. 22.2 D-1)

T_c = 10 minutes

$I = (6 \text{ hr. rain}) 6.84 \cdot 10^{-0.51} = 2.114 \cdot 2.3" = 4.86"/hr.$

(12) EXISTING CONDITIONS DRAINAGE BASIN A

$Q_{100} = (0.40)\ (4.86)\ (0.4162) = 0.81$ cfs

CN = 69 from Chart 22.2 C-2

RO = 0.5" from Chart 22.2 C-4

Volume = $18,131.092 \text{ SF} \cdot \frac{0.5"}{12"/ft} = 755.46$ CF

(13) DEVELOPED CONDITIONS DRAINAGE BASIN A

$Q_{100} = (0.88)\ (4.86)\ (0.4162) = 1.78$ cfs

CN = 92 from Chart 22.2 C-2

RO = 1.45" from Chart 22.2 C-4

Volume = $18,131.092 \text{ SF} \cdot \frac{1.45"}{12"/ft} = 2,190.84$ CF

(14) EXISTING CONDITIONS DRAINAGE BASIN B

$Q_{100} = (0.40)\ (4.86)\ (0.3988) = 0.78$ cfs

Volume = $17,370.000 \cdot \frac{0.5"}{12"/ft} = 723.75$ CF

(15) DEVELOPED CONDITIONS DRAINAGE BASIN B

$Q_{100} = (0.93)\ (4.86)\ (0.3988) = 1.80$ cfs

Volume = $17,370.000 \cdot \frac{1.45"}{12"/ft} = 2,098.86$ CF

(16) EXISTING CONDITIONS DRAINAGE BASIN C

$Q_{100} = (0.40)\ (4.86)\ (0.4707) = 0.92$ cfs

Volume = $20,503.692 \cdot \frac{0.5"}{12"/ft} = 854.32$ CF

(17) DEVELOPED CONDITIONS DRAINAGE BASIN C

$Q_{100} = (0.95)\ (4.86)\ (0.4707) = 2.17$ cfs

Volume = $20,503.692 \cdot \frac{1.45"}{12"/ft} = 2,477.53$ CF

(18) SINGLE "D" STORM DRAIN INLET CAPACITY

Grate Opening
25.5" x 40.38" x 50% = 515 sq. in.

Q = Ca $\sqrt{2gh}$

Q = .6 · 3.58 $\sqrt{2 \cdot 32.2 \cdot 0.5}$

Q = 12 cfs Grate Intake Capacity with 0.5' head

Q = .6 · 3.58 $\sqrt{2 \cdot 32.2 \cdot 0.25}$

Q = 8.6 cfs Grate Intake Capacity with 0.25' head

(19) PROPOSED 5' WIDE CHANNEL BOTTOM DESIGN

n = 0.013
Side Slopes = 10:1
Q100 = 5.75 cfs
Normal Depth = 0.14
(Mannings Eq.)

Area = 0.92
Wet. Per. = 7.88
Hyd. Radius = 0.12
Avg. Velocity = 6.23
Slope = 0.0015 ft/ft
Chan. Width = 5.00'

Top Width = 7.87'

(20) SUMMARY OF EXISTING TO DEVELOPED SITE DRAINAGE RUNOFF CONDITIONS

The existing drainage runoff for this property flows to the southwest corner of the site and discharges into the Bear Tributary Arroyo. The proposed development will utilize two type "D" catch basins to convey drainage runoff through an 18" RCP into the Bear Tributary Arroyo. This new development will not drain any developed storm drainage runoff to the properties located to the east or west.

The east driveway drainage waterblock has been designed .67' higher than the flowline of existing gutter on Academy Road. Academy Road has an existing waterblock located 100' east from the proposed Giant Service Station's east driveway entrance (see F.E.M.A. map this sheet). Public storm drainage runoff from Academy Road during a 100 year storm will not enter the Giant Service Station's property since runoff will begin 100' east from the Giant Service Station's property. Only 2 asphalt driving lanes and half of a pervious median are involved in this drainage basin and will not accumulate enough drainage runoff depth to run over the east driveway entrance into Giant Service Station's property.

DRAINAGE CALCULATIONS AND GRADING DETAILS

RECEIVED SEP 24 1980 HYDROLOGY SECTION

WILSON & COMPANY
ENGINEERS ARCHITECTS
6611 GULTON CT. NE ALBUQUERQUE N.M. 87109
505-345-5345

PROJECT: GIANT SERVICE STATION #627
ACADEMY DRIVE
ALBUQUERQUE, N.M.

DRAWING TITLE

NO.	DATE	REVISION

DATE AUGUST 1980
JOB NO. 80-917A
DRAWN RM & MBR

WILSON COMPANY ENGINEERS ARCHITECTS

DRAWING NO. C1.3

PLAN SHOT TWICE ONCE IN LARGE ONCE ON BASE

CITY OF ALBUQUERQUE
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R1 65 DATE 3-15-82 OR ESP.

CITY OF ALBUQUERQUE
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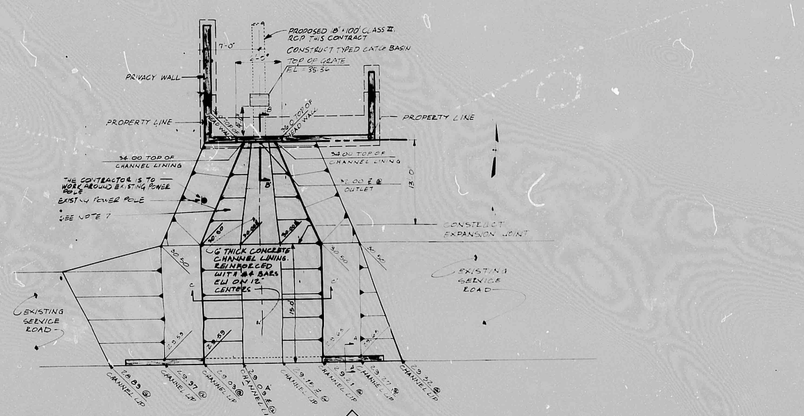
The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (NB115-1977)

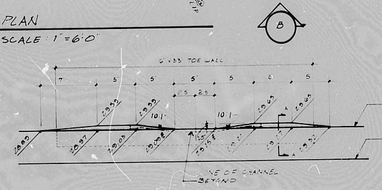
DIRECTOR

NOTARY PUBLIC
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires

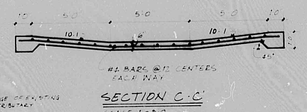
E 30 D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D F



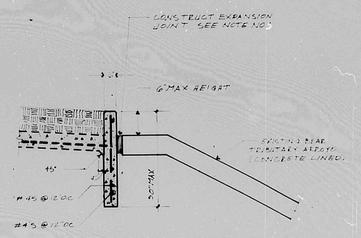
A PLAN
SCALE 1"=6'0"



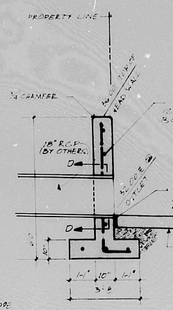
B ELEVATION
SCALE 1"=6'0"

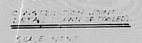


SECTION C-C
SCALE 1"=2'0"



SECTION A-A'
SCALE: NONE

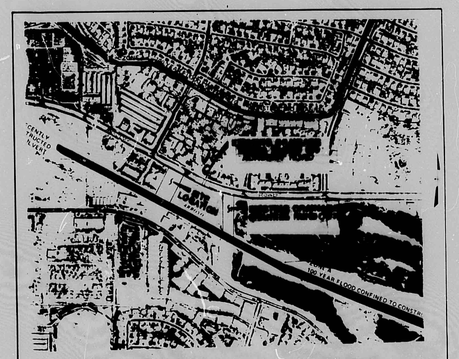




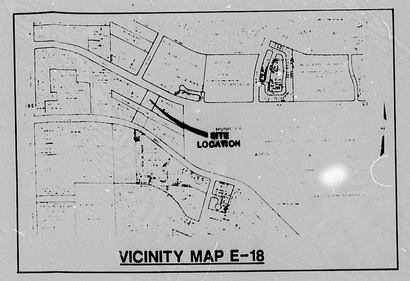
SECTION B-B
SCALE 1"=2'-0"

GENERAL NOTES

1. APPLY BONDER TO EXPANSION JOINT. IMMEDIATELY INSTALL EVERLINE VINYL ACETATE FOAM SEALANT, EVASEAL, OVER EVERSPUNLINE FOAM FILLED TO DEPTH OF SEAL. SAND SURFACE IN SEALANT TO BE ON TOP OF CONCRETE. APPLY TWO COATS OF VERSIWEIGHT PROOFING PL MOIST 19 OR APPROVED EQUAL. APPLY A RUBBER BEAD IN GROOVE BETWEEN TOWELED EDGES AND FOAM.
2. THE CONTRACTOR SHALL TOOL ALL CONCRETE EDGES.
3. THE CONTRACTOR SHALL CONSTRUCT THE EXPANSION JOINTS IN LOCATIONS AS SHOWN AND CONSTRUCTION JOINTS EVERY 30'.
4. THE CONTRACTOR SHALL COMPACT 4" OF EXISTING SOIL TO 95 PER ASTM D 1557, UNDER ALL STRUCTURES.
5. CONCRETE SHALL BE 3,500 PSI/28 PER 1000 ARE 1500 AT 14 DAYS.
6. REINFORCING STEEL TO BE DEFORMED BARS, BOTH CROSS BARS, CONFORMING TO ASTM SPECS. A615, GRADE 60.
7. THE PROPOSED 6" CONCRETE CHANNEL SIDE SLOPES SHALL TRANSITION FROM 1:1 SLOPE AT THE OUTLET OF THE CONCRETE HEADWALL TO A 1:0.5 SLOPE AT ELEVATIONS 29.39 and 29.63.



F.E.M.A. 100 YEAR FLOOD HAZARD MAP



VICINITY MAP E-18

(1) SCOPE

The present site is undeveloped.

The proposed improvement is for the north 180 feet of the tract of 19,301.042 sq. ft. (0.443 Ac.). Giant plans on developing the remaining 100 feet of 20,301.042 sq. ft. (0.470 Ac.) in the future. The proposed storm drainage system has been designed to carry the 100-year storm for the entire site (1.2857 Ac.). The anticipated drainage runoff is designed to drain to the Bear Tributary Arroyo, located immediately south of the tracts.

The intent of this plan is to show the following:

A. Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate the flow of drainage to designated drainage points.

B. The flow rate volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City requirements for drainage management.

C. The relationship of onsite improvements with existing neighboring properties to insure an orderly transition between proposed and surrounding grades.

(2) GENERAL NOTES

LEGAL: Tract "D" Of summary plat of a portion of Tract "A" and Tract "D" of Rancho Alres Addition, Albuquerque, Bernalillo County, New Mexico, the same as shown on the plat filed with the Bernalillo County Clerk on February 24, 1976 in Volume C22, Folio 29.

SURVEYOR: Steven J. Metro, Land Surveyor #10025. (Topographic only)

BENCHMARK: ACS Brass/Tablet stamped "1-FIRA 1974", set in top of a concrete post flush with ground in the middle of existing median located 250' west from Marbella Ave. in Academy Rd. Elevation = 5251.227.

(3) SITE AREA

Acreage = 1.2857 Ac. = 56,000.042 sq. ft.

(4) SOILS

As per SCS Map Number 21, soil is type EmB, Hydrologic Soils Group B.

(5) FLOOD HAZARD

As per F.E.M.A. Hazard Map Number 350002 0017C the site is not in the 100 year flood plain.

(6) OFF-SITE DRAINAGE

There are no off-site flows that will have any impact on this developed site. Likewise, the improvements for this project will not have an adverse impact to the properties located east and west. The developed drainage runoff from this site will drain through Lowes "D" catch basins. The anticipated drainage runoff is to the Bear Tributary Arroyo.

(7) CALCULATIONS

The calculations are based on the City of Albuquerque D.P.M. Manual, Volume II for the 100 year, 6 hour storm using the rational formula to compare the existing and proposed runoff rates.

(8) RATIONAL METHOD

Q = CIA

(9) RUNOFF COEFFICIENT

Existing Condition
Undeveloped Area = 1.2857 Acres = 56,000.042 SF Total site area.

Drainage Basin

A = 0.4162 Ac. = 18,131.092 SF
B = 0.3988 Ac. = 17,370.000 SF
C = 0.4707 Ac. = 20,501.592 SF

(10) UNDEVELOPED AND DEVELOPED RATIO - COMPOSITE "C"

Drainage Basin A — Areas

Roof Area = -0- SF
Landscaping Area = 18,131.092 SF
Pavement Area = -0- SF
TOTAL 18,131.092 SF

EXISTING A

$C_A = \frac{(18,131.092 \times 0.40) + (0 \times 0.90)}{18,131.092} = 0.40$

DEVELOPED A

$C_A = \frac{(0 \times 0.20) + (0 \times 0.90) + (18,131.092 \times 0.40)}{18,131.092} = 0.40$

$C_P = \frac{(18,131.092 \times 0.40)}{18,131.092} = 0.40$

Undeveloped Composite C = 0.40
Developed Composite C = 0.40

Drainage Basin B — Areas

Roof Area = 7,113.000 SF
Landscaping Area = 10,257.000 SF
Pavement Area = -0- SF
TOTAL 17,370.000 SF

EXISTING B

$C_B = \frac{(17,370.00 \times 0.40) + (0 \times 0.90)}{17,370.00} = 0.40$

DEVELOPED B

$C_P = \frac{(7,113.00 \times 0.20) + (0 \times 0.90) + (10,257.00 \times 0.40)}{17,370.00} = 0.30$

$C_P = \frac{(10,257.00 \times 0.40)}{17,370.00} = 0.40$

Undeveloped Composite C = 0.40
Developed Composite C = 0.40

Drainage Basin C

The roof, landscaping and pavement areas have not been determined at this time. The total area of Drainage Basin C is 20,501.592 sq. ft. Use a composite factor of 0.40 to calculate anticipated drainage runoff within this drainage basin.

(11) RAINFALL INTENSITY

6-hour rainfall for 100 year frequency = 2.1" (D.P.M. 22.2 D.3)

$I_B = 10$ minutes

$I = \frac{(6\text{-hr. rainfall})(60)}{(6)(60)} = \frac{(2.1)(60)}{(6)(60)} = 2.1$ in/hr

(12) EXISTING CONDITION DRAINAGE BASIN A

$Q_{100} = (0.40)(2.1)(18,131.092 \times 0.0\ ac.)$

CN = 89 from Chart 22.2 D.3

$V_{100} = (18,131.092\ SF) \times \frac{(0.0\ ac.)}{(43,560\ SF/ac)} = 0.0\ CF$

(13) DEVELOPED CONDITIONS DRAINAGE BASIN A

$Q_{100} = (0.40)(2.1)(18,131.092 \times 0.0\ ac.)$

CN = 89 from Chart 22.2 D.3

$V_{100} = (18,131.092\ SF) \times \frac{(0.0\ ac.)}{(43,560\ SF/ac)} = 0.0\ CF$

(14) EXISTING CONDITIONS DRAINAGE BASIN B

$Q_{100} = (0.40)(2.1)(17,370.000 \times 0.0\ ac.)$

$V_{100} = (17,370.000) \times \frac{(0.0\ ac.)}{(43,560\ SF/ac)} = 0.0\ CF$

(15) DEVELOPED CONDITIONS DRAINAGE BASIN B

$Q_{100} = (0.40)(2.1)(17,370.000 \times 0.0\ ac.)$

$V_{100} = (17,370.000) \times \frac{(0.0\ ac.)}{(43,560\ SF/ac)} = 0.0\ CF$

(16) EXISTING CONDITIONS DRAINAGE BASIN C

$Q_{100} = (0.40)(2.1)(20,501.592 \times 0.0\ ac.)$

$V_{100} = (20,501.592) \times \frac{(0.0\ ac.)}{(43,560\ SF/ac)} = 0.0\ CF$

(17) DEVELOPED CONDITIONS DRAINAGE BASIN C

$Q_{100} = (0.40)(2.1)(20,501.592 \times 0.0\ ac.)$

CN = 89 from Chart 22.2 D.3

$V_{100} = (20,501.592\ SF) \times \frac{(0.0\ ac.)}{(43,560\ SF/ac)} = 0.0\ CF$

(18) DEVELOPED CONDITIONS DRAINAGE BASIN D

$Q_{100} = (0.40)(2.1)(2,000.000 \times 0.0\ ac.)$

$V_{100} = (2,000.000) \times \frac{(0.0\ ac.)}{(43,560\ SF/ac)} = 0.0\ CF$

(19) DEVELOPED CONDITIONS DRAINAGE BASIN E

$Q_{100} = (0.40)(2.1)(2,000.000 \times 0.0\ ac.)$

$V_{100} = (2,000.000) \times \frac{(0.0\ ac.)}{(43,560\ SF/ac)} = 0.0\ CF$

(20) SUMMARY OF EXISTING VS DEVELOPED SITE DRAINAGE RUNOFF CONDITIONS

The existing drainage runoff for this property flows to the north-east corner of the site and discharges into the Bear Tributary Arroyo. The proposed development will include a "D" catch basin to receive Drainage runoff through an 18" RCP into the Bear Tributary Arroyo. The new development will not alter the developed storm drainage runoff to the properties located to the east of ours.

The east driveway drainage water flow has been designed so as not to alter the flow of existing water flow on Academy Road. Academy Road has an existing waterflow located east from the proposed Giant Service Station's east driveway entrance flow F.E.M.A. May 1984 sheets. Public storm drainage runoff from Academy Road during a 100 year storm will not enter the Giant Service Station's property since runoff will begin 100' east from the Giant Service Station's property. Only a asphalt driving lane and half of a pervious median are involved in this drainage basin and will not generate enough drainage runoff depth to run over the east driveway entrance into Giant Service Station's property.

DRAINAGE CALCULATIONS AND GRADING DETAILS

WILSON & COMPANY
ENGINEERS & ARCHITECTS
6611 GULTON CT. NE ALBUQUERQUE N.M. 87109
505-345-5345

PROJECT: GIANT SERVICE STATION #627
ACADEMY DRIVE
ALBUQUERQUE, N.M.

DRAWING TITLE:

NO	DATE	REVISION

DATE: AUGUST 1989
JOB NO: 89-517A
DRAWN: RM & RMR

WILSON & COMPANY ENGINEERS & ARCHITECTS

DRAWING NO: C1.3

PLAN SHOT TWICE ONCE ON LIGHT ONCE ON DARK

CITY OF ALBUQUERQUE
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CITY OF ALBUQUERQUE

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DIRECTOR

NOTARY PUBLIC

E 30 D 24 C 20 B 16 A 12

CITY OF ALBUQERQUE

C D F