HYDROLOGY H16/D39 2 PLANS

H16/D39

2 Plans

June 17, 1981

City of Albuquerque
Engineering Division
505 Marquette N.W.

ATTN: Chuck Easterly

SUBJECT: 2729 Girard N.E.

Dear Sir:

This is to confirm our telephone conversation, this date, in regard to the handling of on-site and off-site dranage flows at the subject property.

The substance of what we discussed is as follows:

1. That the "Valley requirements" of on-site detention Ponds would not apply to this property.

2. That on-site flows could, if feasible, be directed to the street. GIRARD N.E. CME 6/18/81 KRH

3. That off-site flows from the North and on-site flows generated by pervious surfaces be allowed to follow their Historic direction of flow.

4. That I should calculate the volume off-site flows from the East and verify that said flow will not continue across the subject site in the developed condition but will flow in Girard to the South.

Signed Charles M Easterly
Title PRIN ASSIST. CITY ENGINEER
Date 6/18/81

Signed KEN HOVEY
Title ARCHITECT
Date 6/18/81

THE KEN HOVEY DESIGN GROUP
3700 SIMMS AVE. S.E., ALBUQUERQUE, NEW MEXICO, 87108 • (505) 255-4756

DRAINAGE REPORT CHECKLIST

DATE JUNE 1981 ZONE ATLAS PAGE NO. K-16

PROJECT TITLE (ADDRESS) 7719 GIRARD NE

SUBDIVISION COORS INDUSTRIAL #3 LOT BLOCK TRACT "C"

ENGINEER JOAN V. BARBANES CONTACT

ADDRESS 4055-A MONTGOMERY NE PHONE 883-3093

OWNER NEIL HATCHELL CONTACT

ADDRESS 2624 WISCONSIN NE PHONE 299-3890

ARCHITECT/SURVEYOR KEN HOBT CONTACT

ADDRESS 3700 SIMMS SE PHONE 255-4156

GENERAL:

YES	NO	NA	
✓			Professional Engineer's stamp signature and dated.
✓			North arrow and standard engineering scales used.
	✓		Planning and zoning action history.

OFF-SITE FLOWS:

YES	NO	NA	
	✓		Delineation of off-site contributing watersheds on SCS Bernalillo County Soil Survey Maps.
✓			Delineation of off-site contributing watersheds on City of Albuquerque Ortho-Topo Area Maps (Scale 1"=500' or 1"=200').
✓			Quantification of off-site rates of flow caused by contributing watersheds for the 10 and 100 year storm frequency.
✓			Off-site flow velocities and depths determined and locations indicated.
✓			Discussion of any other local conditions that affect site drainage.
			Delineation of site and contributing off-site watersheds on pertinent Flood Hazard Boundary Map.
✓			Adequate treatment of offsite flows.

ON-SITE FLOWS:

YES	NO	NA	
✓			Calculations showing on-site developed and undeveloped flow volumes and rates.
			On-site flow velocities and depths determined and locations indicated.
		✓	Pond volume calculations.
		✓	Positive discharge of ponds with required rate and outlet calculations.
		✓	Pond emergency spillway calculations.
		✓	Pond safety protection (fencing for pond depths greater than 18".)
		✓	Pond landscaping provisions and commitments.
		✓	Pond maintenance provisions and commitments.
		✓	Soils investigation report for ponding within 15' of any structure.

PLAN DRAWINGS:

YES	NO	NA	
✓			Adequate grading plan provided (See Grading Plan Checklist).
✓			Vicinity map with Zone Atlas designation.
✓			Indication of all easements and right-of-ways on, or adjacent to, the site with dimensions and purpose shown.

YES	NO	N/A	
✓			Internal contributory drainage areas, including roof areas, outlined on the plan.
✓			Direction and location of roof drainage including canales, gutters, and downspouts.
✓			Flow lines defined by arrows and spot elevations.
		✓	Details of ponds, swales, rundowns, curb cuts, water blocks, and all other significant drainage structures with contours, cross-sections and spot elevations when appropriate. ALL CROSS-SECTIONS MUST BE DRAWN TO STANDARD ENGINEERING SCALE. (Note: All proposed construction within the public way must be approved by the Assistant City Engineer/Design).
✓			Standard City drivepad with elevation shown.
✓			Standard City curb cut.

COMMENTS _____

_____

_____

_____

_____

BY: _____

APPROVED BY: _____ DATE _____

GRADING PLAN CHECKLIST

DATE 22 JUNE 1981 ZONE ATLAS PAGE NO. H-16

PROJECT TITLE (ADDRESS) 2729 GIRARD NE, ALBQ. NM.

SUBDIVISION COORS INDUSTRIAL #3 LOT ____ BLOCK TRACT "C"

ENGINEER JEAN J. LORENZANO CONTACT ____

ADDRESS 4005A MONTGOMERY NE PHONE 883-3093

ARCHITECT/SURVEYOR KEN HOVEY CONTACT ____

ADDRESS 3700 SIMMS SE PHONE 256-4756

YES	NO	NA	ITEM
✓			Vicinity map with zone atlas page and legal description (or plat).
			Reference bench mark description.
	✓		Drawn to standard engineering scale (1"=10' for sites less than one acre; 1" = 20 for sites less than five acres; 1" = 50' for sites greater than 5 acres).
✓			Ground elevation on the site based on mean sea level datum as established by the U.S. Coast and Geocetic Survey (North American Datum 1929).
✓			Existing contours extending a minimum of 10 feet beyond the property line.
✓			Proposed contours at one foot intervals and proposed spot elevations at key points.
✓			Finish building floor elevation(s) with mean sea level designation.
✓			Notes defining property line, asphalt sidewalks, planting areas, ponding areas, and all other areas whose definition would increase clarity.
✓			Slopes (cut or fill) with height of less than 18", 2:1 minimum. Slopes with height greater than 18", 3:1 minimum.
✓			Elevation of property line at least 0.33 ft. above top of curb.
✓			Retaining wall required when a vertical grade change greater than 18" is anticipated.
✓ *			Proposed street and alley grades if property abuts a dedicated unpaved street or alley. These grades are available, at no charge, from the City Engineer s Office. An advance request will expedite your project. (Note: At present there is a 3 month wait to have the City Engineer supply grades. However, to expedite the plans, the City Engineer may accept grades provided by an engineer).

COMMENTS * PROPOSED CURB & GUTTER GRADES WERE OBTAINED THRU PHONE CONTACT WITH MARK MASSOC. WHO IS DESIGNING PD-195 -

BY KEN HOVEY

IN HOUSE STATUS OF
DRAINAGE REPORTS

ZONE ATLAS PAGE NO. H-16

PROJECT TITLE (ADDRESS) 7729 GIRARD NE

SUBDIVISION COORS INDUSTRIAL #3 LOT _____ BLOCK TRACT "C"

ENGINEER JEFF J. [illegible] CONTACT _____

ADDRESS 4055A MONTGOMERY NE PHONE 883-3095

OWNER NEIL MITCHELL CONTACT _____

ADDRESS NOVA WISCONSIN NE PHONE 299-3890

ARCHITECT/SURVEYOR JEFF HOUSE CONTACT _____

ADDRESS 3700 SIMMS PHONE 255-4756

ITEM	YES	NO	NA	BY	DATE	REMARKS
Zone Atlas page logged and map colored						
Pre-Design Conference						
Drainage Report:						
Review initiated						
Review completed						
Correspondence:						
Approval letter sent						

COMMENTS _____

BY _____

ADAM, HAMILYN, ANDERSON CONSULTING ENGINEERS, INC.	OFFSITE FLOWS	JOB NO. DATE: BY:	SHT. NO. OF

Contributary Area

from 1972 topo maps

Area = 5.3 Acres use C = 0.8 (commercial)

Time of Concentration (assuming developed cond)

Overland	400' @ <1%	V = 2fps	t = 400/2 = 200S	= 3.3 M
Channel	200' @ 1%	V < 2fps	t = 200/2	= 1.7 M
	150' @ 5%	V ≈ 8fps	t = 150/8	= 0.3 M
				5.3M

Use t_c = 5 min. flow time
5 min. initial
10 min.

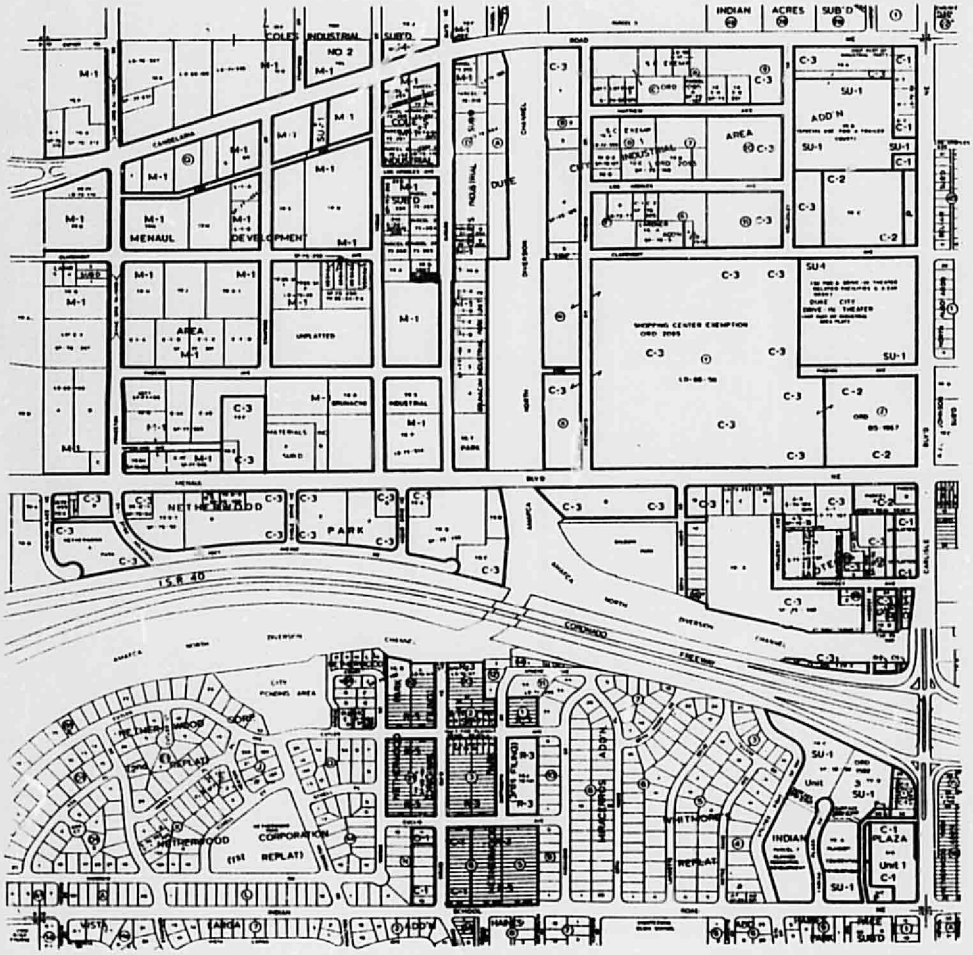
Peak flow in Girard @ Site

$Q = CiA = (0.8)(5.52)(5.3)$

$= 23.4$ cfs

Prior to site grading the flow will tend to flow to the west immidiately south of the PNM Substation as that is the direction of steepest slope. Upon grading of the site and placement of the curb the flows will be directed south along Girard. The street capacity at a grade in excess of 1% is capable of transporting the water at a depth of approx 0.5ft.

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 5110 NEW MEXICO JEAN J. BORDENAVE


COLES INDUSTRIAL NO 2 SUB'D
INDIAN ACRES SUB'D
MENAUL DEVELOPMENT
AREA
UNPLATTED
SHOPPING CENTER EXEMPTION ORD 2005
DRIVE-IN THEATER
NETHERWOOD PARK
I.S.R. 40
CORRIDOR FREEWAY
NETHERWOOD CORPORATION (1ST REPLAT)
HERCULES ADDN
WYTHORNE REPLAT
INDIAN PLAZA UNIT 1
C-1
C-2
C-3
M-1
SU-1
R-3

H-16-Z

December 3, 1981

City of Albuquerque,
Department of Flood Control
123 Central Avenue, N.W.
Albuquerque, New Mexico

Att: Mr. Bernie Montoya

Dear Mr. Montoya:

We are aware of a small amount of water drainage from the paved parking lot adjoining our landscaped area on the south. This paved parking lot is owned by Hatchell Bros. Construction Co. located at 2729 Girard N.E. We have an assortment of evergreens and plants in the landscaped area that benefit from the small amount of water that seeps into this area.

This is to inform you that we have no objection to the drainage and cannot forsee any problems in the future.

Very Truly Yours,

Owner

New Mexico Imprinting
2923 Girard N.E.
Albuquerque, New Mexico 87107

June 17, 1981

City of Albuquerque
Engineering Division
505 Marquette N.W.

ATTN: Chuck Easterly

SUBJECT: 2729 Girard N.E.

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Signed Chuck Easterly
Title PRIN ASSIST. CITY ENGINEER
Date 6/18/81

Signed ken hovey
Title ARCHITECT
Date 6/18/81

THE KEN HOVEY DESIGN GROUP
1700 LOMAS AVE. N.E., ALBUQUERQUE, NEW MEXICO 87101 • (505) 255-4756

DRAINAGE CALCULATIONS

LEGAL DESCRIPTION: TRACT "C" OF COLES INDUSTRIAL SUBDIVISION N23, T10N, R1W, N.M.

METHOD: THE AMOUNT OF STORM WATER IS CALCULATED BY USING A 100 YEAR SIX-HOUR PRECIPITATION FACTOR OF 2.4 INCHES.

OFFSITE DRAINAGE: ABOVE THE NORTHWEST CORNER OF THE CONTRACT SITE IS A 88' x 80' CONTRIBUTARY AREA (PERVIOUS SURFACE). FLOW IS $\frac{2.4}{12} \times 4400 \times 0.4 = 352$ CU.FT.

OFFSITE FLOW SHALL BE ACCEPTED AND ALLOWED TO FOLLOW HISTORIC DIRECTION OF FLOW.

ON SITE DRAINAGE: CONTRACT SITE IS 8927 SQ.FT.

RUNOFF BEFORE DEVELOPMENT:

$\frac{2.4}{12} \times 8927 \times 0.4 = 714$ CU.FT.

AREA "A" 3962 SQ.FT.

RUNOFF BEFORE DEVELOPMENT: $\frac{2.4}{12} \times 3962 \times 0.4 = 317$ CU.FT.

RUNOFF AFTER DEVELOPMENT: $\frac{2.4}{12} \times 3780$ (IMPERV.) $\times 0.9 = 680$ CU.FT.

$\frac{2.4}{12} \times 180$ (PERVIOUS) $\times 0.4 = 14$ CU.FT.

694 CU.FT.

RUNOFF DIRECTED TO STREET: 694 CU.FT.

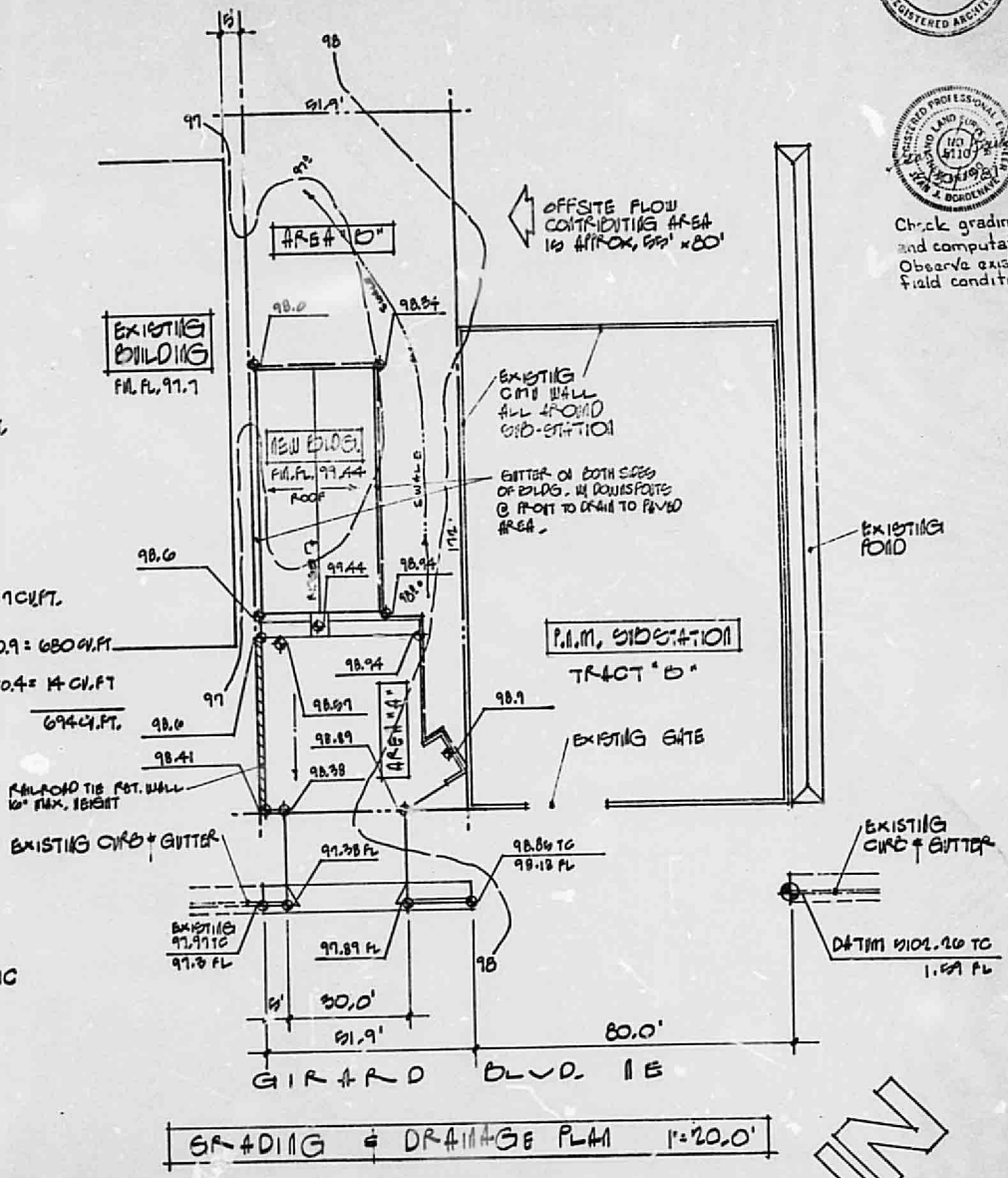
AREA "B" 4965 SQ.FT.

RUNOFF BEFORE DEVELOPMENT:

$\frac{2.4}{12} \times 4965 \times 0.4 = 397$ CU.FT.

RUNOFF AFTER DEVELOPMENT: 397 CU.FT.

RUNOFF FROM AREA "B" SHALL FOLLOW ITS HISTORIC DIRECTION OF FLOW.

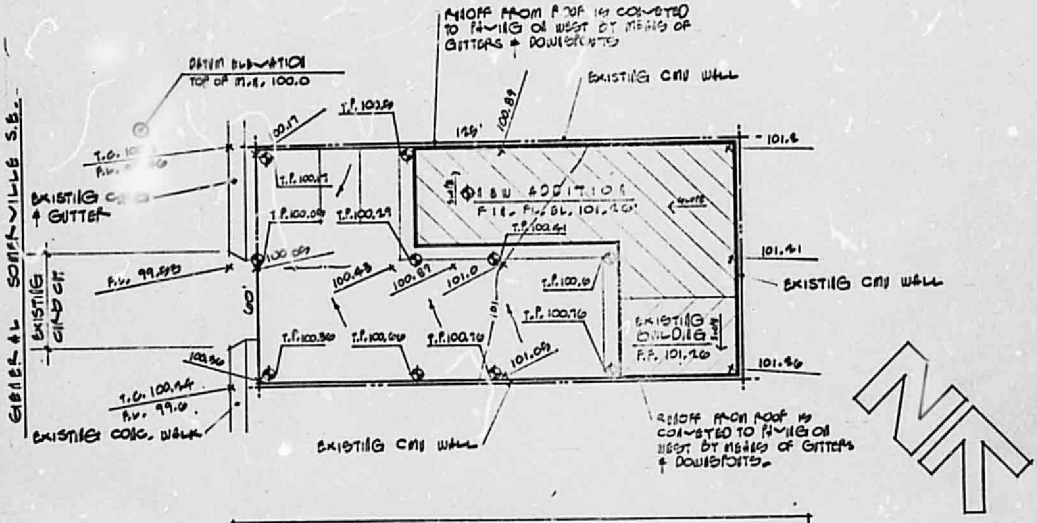


GRADING & DRAINAGE PLAN 1"=20.0'

STATE OF NEW MEXICO
KENNETH R. MOVEY
NO. 1765
REGISTERED ARCHITECT

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
NO. 9110
JAMES X. BORDENAVE

Check grading plan and computations. Observe existing field conditions.



GRADING & DRAINAGE PLAN SCALE: 1" = 20.0'

DRAINAGE CALCULATIONS :

LEGAL DESCRIPTION :

BLOCK #1, LOT #3 OF THE JOSEPH W. VAN CLEAVE HOMESTEAD ADDITION, ALBUQUERQUE, NEW MEXICO.

METHOD :

THE AMOUNT OF STORM WATER IS CALCULATED BY USING A 10 YEAR SIX-HOUR PRECIPITATION FACTOR OF 2.4 INCHES.

OFFSITE DRAINAGE :

THE NORTH, EAST & SOUTH SIDES OF THE PROPERTY HAVE AN EXISTING CONCRETE CMU WALL WHICH WILL REMAIN. THIS WALL DIVERTS ALL OFFSITE FLOWS.

ON SITE DRAINAGE :

THE CONTRACT SITE IS 7900 SQ.FT.

RUNOFF BEFORE DEVELOPMENT :

IMPERVIOUS : $\frac{2.4}{12}$ x 808 SQ.FT. x 0.9 = 145 CU.FT.

PERVIOUS : $\frac{2.4}{12}$ x 6692 SQ.FT. x 0.4 = 535 CU.FT.

TOTAL : 680 CU.FT.

RUNOFF AFTER DEVELOPMENT :

IMPERVIOUS : $\frac{2.4}{12}$ x 7900 SQ.FT. x 0.9 = 1580 CU.FT.

RUNOFF DIRECTED TO STREET = 1580 CU.FT.

LEGEND :

100.00	EXISTING SPOT ELEVATION
100.00	PROPOSED SPOT ELEVATION
←	DIRECTION OF FLOW
—101—	EXISTING CONTOUR

ABBREVIATIONS :

T.C.	TOP OF CURB
F.L.	FLOW LINE
T.P.	TOP OF PAVEMENT
F.F.	FINISH FLOOR

STATE OF NEW MEXICO — KENNETH R. HOVEY — NO. 1053 — REGISTERED ARCHITECT

WAREHOUSE ADDITION
AIR REP. CO.
601 GENERAL GOERSEL SOMERVILLE ALBUQUERQUE, NEW MEXICO
SCALE: NOTED — DATE: 5/4/81 — REVISIONS: — DR. BY: KRH — GRADING & DRAINAGE PLAN — SHEET: A-1.0 OF 4