City of Albuquerque

7 April 1999

Mr. billy McCarty
Chavez Grieves Engineers, Inc.
5639 Jefferson St. NE
Albuquerque, NM 87109

RE: JONES INTERCABLE (H19/D15) 3/10/99 DRAINAGE SUBMITTAL FOR BUILDING
       PERMIT APPROVAL. ENGINEER'S STAMP DATED 3-9-99,

Dear Mr. McCarty:

Based upon the information provided in your 3-10-99 drainage submittal, the subject project is
approved for Building Permit. Please keep in mind that prior to commencing with any work
activity within City right-of-way you are required to obtain the proper permitting.

If I can be of further assistance, feel free to call me at 768-3986.

Sincerely,

Scott Davis
PWD, Hydrology Div.

c: Andrew Garcia
      file

DRAINAGE INFORMATION

PROJECT TITLE: JONES INTERCABLE   ZONE ATLAS/DRNG. FILE #:___H-19-/D15

DRB#: _____ EPC #: _____   WORK ORDER #: _____

LEGAL DESCRIPTION: _____

CITY ADDRESS:_____

ENGINEERING FIRM: Chavez-Grieves _____   CONTACT: James Kelley _____

ADDRESS: 5639 Jefferson NE _____   PHONE: 344-4080 _____

OWNER: _____   CONTACT: _____

ADDRESS: _____   PHONE: _____

ARCHITECT:_____   CONTACT:_____

ADDRESS: _____   PHONE:_____

SURVEYOR:_____   CONTACT: _____

ADDRESS: _____   PHONE: _____

CONTRACTOR: _____   CONTACT:_____

ADDRESS: _____   PHONE: _____

TYPE OF SUBMITTAL: CHECK TYPE OF APPROVAL SOUGHT:

____ DRAINAGE REPORT   ____ SKETCH PLAT APPROVAL

_X_ DRAINAGE PLAN   ____ PRELIMINARY PLAT APPROVAL

____ CONCEPTUAL GRADING & DRAINAGE PLAN   ____ S. DEV. PLAN FOR SUB'D. APPROVAL

____ GRADING PLAN   ____ S. DEV. PLAN FOR BLDG. PRMT. APPROVAL

____ EROSION CONTROL PLAN   ____ SECTOR PLAN APPROVAL

____ ENGINEER'S CERTIFICATION   ____ FINAL PLAT APPROVAL

____ OTHER   ____ FOUNDATION PERMIT APPROVAL

                                          _X_ BUILDING PERMIT APPROVAL

PRE-DESIGN MEETING: ____ CERTIFICATE OF OCCUPANCY APPROVAL

_X_ YES   ____ GRADING PERMIT APPROVAL

____ NO   ____ PAVING PERMIT APPROVAL

____ COPY PROVIDED   ____ S.A.D. DRAINAGE REPORT

                                          ____ DRAINAGE REQUIREMENTS

                                          ____ OTHER

DATE SUBMITTED: March 09, 1999

BY: James Kelley

VICINITY MAP

FEMA MAP PANEL 35001C0356
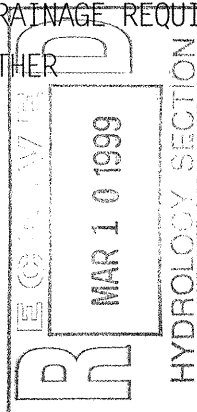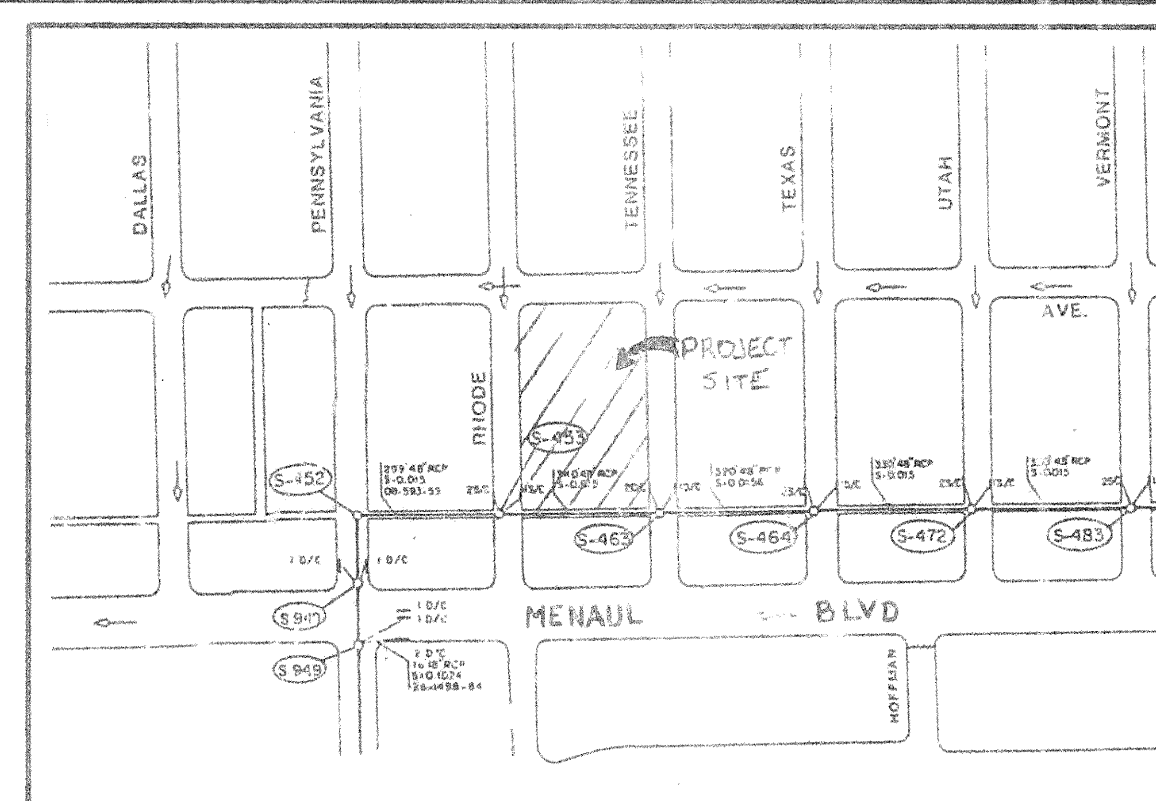
DRAINAGE FACILITIES MAP, GRID H-19N

DRY WELL DETAIL

ROUND MANHOLE FRAME AND COVER, NEENAH MODEL NO. R-1910-A OR APPROVED EQUAL

FINISHED GRADE

4000 PSI CONCRETE COLLAR

INV 53.72

4" STORM DRAIN

60"DIA. CORRUGATED GALVANIZED CULVERT PIPE, 14 GA.

COMPACTED EARTH PER COA STANDARDS

2" MINUS CRUSHED GRAVEL 12" AROUND PIPE

4 ROWS 1" DIA. HOLES @ 12" O.C. EACH WAY, STAGGERED AS SHOWN.

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

NORTH

LEGEND

EXISTING BUILDING	
NEW BUILDING	
PROPERTY BOUNDARY	
ASPHALT	
EXISTING SIDEWALK	S/W
NEW SIDEWALK	
EXISTING CURB AND GUTTER	
NEW CURB AND GUTTER	
OVERHEAD ELECTRIC	OHE
EXISTING CHAINLINK FENCE	
LIGHT POLE	LP
EXISTING CONTOURS	5182
NEW CONTOURS	5182
EXISTING STORM DRAIN	48" SD
NEW STORM DRAIN	
BASIN BOUNDARY	
POWER POLE	
MANHOLE	MH
GAS METER	GM
EXISTING ROOF DRAIN	
NEW ROOF DRAIN	
WATER METER	WM
DOUBLE CLEAN-OUT	
FLOW ARROW	
EXISTING SPOT ELEVATION	56.86
NEW SPOT ELEVATION	FG57.34
1" OVERLAY	
DRYWELL PER DETAIL THIS SHEET	

LOCATION

As shown on the vicinity map, the site is located between Rhode Island Street and Tennessee Street just north of Menaul Boulevard.

EXISTING SITE CONDITIONS AND DRAINAGE PATTERN

The 2.05 acre site is divided into three sub-basins. Basin "A" collects runoff from the northwest corner of the site and discharges to Phoenix Avenue and flows west along the street. At Rhode Island Street the runoff turns south along the street and flows into a curb inlet at the southwest corner of the site. The runoff going into the inlet flows to a 48" storm drain as shown on the Drainage Facilities Map, Grid H-19N. Additional runoff to that inlet is produced from Basin "B". The runoff from this basin sheet flows across the parking lot onto Rhode Island Street and into the curb inlet. Basin "C" collects runoff from the northeast corner of the site and flows through a swale in the parking lot to the south of the building and then turns east and discharges onto Tennessee Street. The runoff flows into a curb inlet at the southeast corner of the site, which connects to the previously mentioned 48" storm drain inlet. The entire site is developed with buildings and parking lots and is impervious. Through visual observation of the site there does not appear to be any existing drainage problems. The drive pads on the north side of the site are set to match grade with the back of the sidewalk which is set at a uniform grade 9" above the flowline. The watershed above this site does not run through the site due to the curb and gutter and therefore does not contribute to the discharge of the site.

PROPOSED SITE CONDITIONS AND DRAINAGE PATTERN

The proposed conditions will remain developed with a building and parking lots and 15% of the site will be landscaped. Basin "A" and "C" will sheet flow through the new parking area, through 5 - 12' curb openings at the west fence, down the existing drive pad, and discharge to Rhode Island Street. The runoff will flow down the street and still be collected by the curb inlet at the southwest corner of the site. The drainage pattern of Basin "B" will remain the same as existing conditions. The sites proposed conditions will have a lower flow rate and volume than the existing conditions due to less impervious area generated from the landscaping. The proposed conditions will reduce the flow on the downstream system and the downstream floodplain by 0.47 cfs. Because no water is entering the site and the discharge from the site is reduced, the size of the development compared to the overall basin is not going to impact the downstream floodplain adversely.

HYDROLOGY CALCULATIONS

RAINFALL ZONE 3
$P_{60} = 2.5$" $P_{100day} = 4.9$"

AREA "A"	AREA "B"	AREA "C"
0.37 ACRES	1.13 ACRES	0.55 ACRES

	A=	B=	C=	D=2.05
EXISTING LAND TREATMENT (ACRES)	A=	B=	C=.31	D=1.74
PROPOSED LAND TREATMENT (ACRES)	A=.68	B=.92	C=1.29	D=2.36
EXCESS PRECIPITATION FACTOR	A=.87	B=..60	C=3.45	D=5.02
PEAK DISCHARGE, Q_p				

EXCESS PRECIPITATION, $E = (2.36 \times 2.05) / 2.05 = 2.36$ (EXISTING)
EXCESS PRECIPITATION, $E = (1.29 \times 0.31 + 2.36 \times 1.74) / 2.05 = 2.24$ (PROPOSED)

100-YEAR, 6-HOUR VOLUME CALCULATIONS (PROPOSED)
$V_{360} = E \times A = 2.24 \times 0.37 / 12 = 0.07$ ACRE-FT (BASIN "A")
$V_{360} = E \times A = 2.24 \times 1.13 / 12 = 0.21$ ACRE-FT (BASIN "B")
$V_{360} = E \times A = 2.24 \times 0.55 / 12 = 0.10$ ACRE-FT (BASIN "C")

100-YEAR, 10-DAY VOLUME (PROPOSED)
$V_{100day} = V_{360} + A_D * (P_{100day} - P_{360}) / 12$ in/ft
$V_{100day} = 0.07 + 0.31 \times (4.9 - 2.5) / 12 = 0.78$ ACRE-FT (BASIN "A")
$V_{100day} = 0.21 + 0.56 \times (4.9 - 2.5) / 12 = 2.42$ ACRE-FT (BASIN "B")
$V_{100day} = 0.10 + 0.47 \times (4.9 - 2.5) / 12 = 1.18$ ACRE-FT (BASIN "C")

100 YEAR, 6-HOUR PEAK FLOW RATE CALCULATIONS
$Q_{100} = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$
$Q_{100} = 5.02 \times 0.37 = 1.86$ CFS (EXISTING BASIN "A")
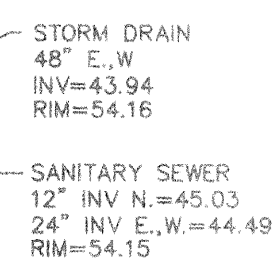$Q_{100} = 5.02 \times 0.31 + 3.45 \times 0.06 = 1.77$ CFS (PROPOSED BASIN "A")
$Q_{100} = 5.02 \times 1.13 = 5.67$ CFS (EXISTING BASIN "B")
$Q_{100} = 5.02 \times 0.96 + 3.45 \times 0.17 = 5.41$ CFS (PROPOSED BASIN "B")
$Q_{100} = 5.02 \times 0.55 = 2.76$ CFS (EXISTING BASIN "C")
$Q_{100} = 5.02 \times 0.47 + 0.09 \times 3.45 = 2.64$ CFS (PROPOSED BASIN "C")

$Q_{100} = 10.29$ CFS (EXISTING)
$Q_{100} = 9.82$ CFS (PROPOSED)
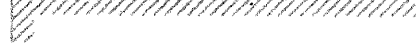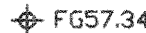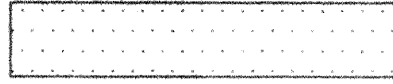
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

TITLE	
PERMIT NO.	MAP NO.
DESIGN APPROVAL:	
	Hydrology Section Date
INSPECTION APPROVAL:	
	Construction Section Date
ACCEPTANCE:	
	Construction Section/Permits Date

NOTICE TO CONTRACTOR

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.

2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.

3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.

4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

5. BACKFILL COMPACTION SHALL BE ACCORDING TO RESIDENTIAL STREET USE.

6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

KEYNOTES

1. INSTALL TYPE "D" INLET PER COA STD DWG 2206.
2. INSTALL 72 LF 4" SD35 PVC SD @ 1% SLOPE.
3. INSTALL DRYWELL PER DETAIL THIS SHEET.
4. INSTALL 4" DRAIN LINE THROUGH CURB PER COA STD DWG 2235.
5. LAY 1 CMU BLOCK ON SIDE FOR DRAINAGE.
6. 5 - 12' CURB CUTS @ 18' O.C.
7. 3 - 12' CURB CUTS @ 18' O.C.

LEGAL DESCRIPTION

LOTS 6,7&11 THRU 19, IN BLOCK 2, SOMBRA DEL MONTE. T.10 N., R.4 E., SECTION 7, NMPM

PROJECT BENCHMARK

A STANDARD ACS ALUMINUM CAP STAMPED "12-H19 1989" SET FLUSH WITH THE CURB. THE STATION IS LOCATED IN THE S.W. QUADRANT OF THE INTERSECTION OF PENNSYLVANIA ST. AND MENAUL BLVD. ELEV.=5341.51'

TBM

S.E. CORNER OF TRACT WHICH IS A NO. 5 REBAR WITH ILLEGIBLE CAP AND LOCATED AS SHOWN ON PLANS. ELEV.=5354.33'

CHAVEZ · GRIEVES CONSULTING ENGINEERS, INC.

5639 JEFFERSON STREET N.E. • ALBUQUERQUE, NEW MEXICO 87109
PHONE (505) 344-4080 • FAX (505) 343-8759

JONES INTERCABLE SOMBRA DEL MONTE
ALBUQUERQUE, NEW MEXICO

GRADING AND DRAINAGE PLAN

REV	DATE	DESCRIPTION	DRAWN	APPR'D	

DESIGNED BY	JK	SCALE	1"=30'
DRAWN BY	JK	JOB NO.	P39-100-5098
REVIEWED BY	BP	DATE	03-08-99	of

Site plan labels

PHOENIX AVENUE

8' WALL

JONES INTERCABLE WAREHOUSE

BASIN "A"

6' PICKET FENCE AND FOUNDATION

JONES INTERCABLE PRODUCTION

BASIN "C"

6' WALL

NEW BUILDING
FF=5355.40

KELLY LIQUORS

BASIN "B"

RHODE ISLAND STREET

TENNESSEE STREET

NOT PART OF SURVEY

REMOVE DRIVEWAY AND REPLACE WITH 50 LF STANDARD CURB AND GUTTER AND SIDEWALK

REMOVE DRIVEWAY AND REPLACE WITH 50 LF STANDARD CURB AND GUTTER AND SIDEWALK

REMOVE EXISTING DRIVEWAYS AND REPLACE WITH 141 LF STANDARD CURB AND GUTTER AND SIDEWALK

CURB INLET
24" INV. N.=46.06

STORM DRAIN
48" E,W
INV.=39.07
INV.N.=39.43

SANITARY SEWER
24" INV N.=40.22
24" INV E.,W.=39.78
RIM=49.43

FROM THIS SITE ONLY
EXISTING 10.29 CFS
PROPOSED 9.82 CFS

CURB INLET
18" INV N.W.=50.92

STORM DRAIN
48" E.W.
INV=43.94
RIM=54.16

SANITARY SEWER
24" INV. E.,W.=45.03
24" INV E,W=44.49
RIM=54.15

CURB INLET
24" INV N.=45.62

CURB INLET
18" INV N.W.=50.92

TBM