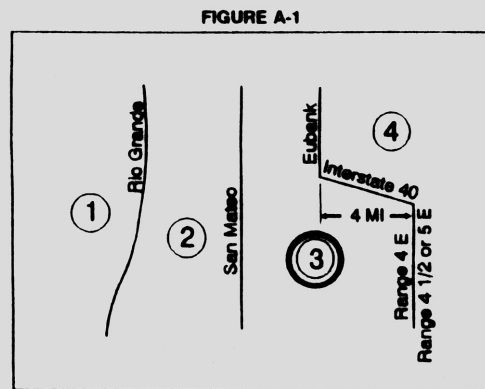


A.1 PRECIPITATION ZONES

Bernalillo County's four precipitation zones are indicated in TABLE A-1 and on FIGURE A-1.

Zone	Location
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank, North of Interstate 40, and between San Mateo and the East boundary of Range 4 East, South of Interstate 40
4	East of Eubank, North of Interstate 40, and East of the East boundary of Range 4 East, South of Interstate 40



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TABLE A-4. LAND TREATMENTS

Treatment	Land Conditions
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, groundwater and infiltration capacity. Crops/soil. Unflooded areas.
B	Irrigated lands, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unirrigated parking, roads, trails. Most recent soils. Gravel or rock on plastic (desert landscaping). Irrigated lands and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.

Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lack of specific measurement for treatment D, the area percentages in TABLE A-5 may be employed.

TABLE A-5. PEAK DISCHARGE (cfs/acre)

Zone	Treatment			100-YR [2-YR, 10-YR]
	A	B	C	
1	1.29 [0.00, 0.24]	2.00 [0.00, 0.76]	2.87 [0.47, 1.49]	4.37 [1.89, 2.89]
2	1.56 [0.00, 0.38]	2.28 [0.00, 0.95]	3.14 [0.80, 1.71]	4.70 [1.86, 3.14]
3	1.87 [0.00, 0.58]	2.80 [0.21, 1.19]	3.45 [0.78, 2.00]	5.02 [2.04, 3.39]
4	2.50 [0.05, 0.87]	2.82 [0.36, 1.45]	3.79 [1.00, 2.28]	5.25 [2.17, 3.57]

TABLE A-10. PEAK INTENSITY (MMHR at $t_c = 0.2$ hour)

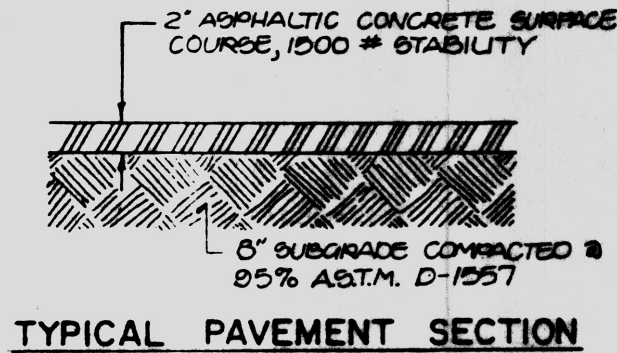
Zone	Intensity	100-YR [2-YR, 10-YR]
1	4.70 [1.84, 3.14]	
2	5.05 [2.04, 3.41]	
3	5.38 [2.21, 3.65]	
4	5.61 [2.34, 3.83]	

BENCH MARK REFERENCE:

ACS STATION "8-L20", LOCATED AT THE INTERSECTION OF WYOMING BLVD. S.E. AND SUSAN AVENUE S.E.; M.S.L.D. ELEVATION = 5402.03, (PROJECT T.B.M. AS SHOWN ON THE PLAN HEREON).

LEGEND:

EXISTING CONTOUR = --- 92 ---
EXISTING SPOT ELEVATION = 88.21
PROPOSED CONTOUR = --- 91.0 ---
PROPOSED SPOT ELEVATION = 92.20
TOP OF CURB ELEVATION = 70'-88.45
CURB FLOWLINE ELEVATION = 16'-87.80



LEGAL DESCRIPTION:

TRACT "A", LANDS OF HIGHFILL, IN SEC. 30, T 10 N, R 4 E, N.M.P.M., LOT THREE (3), BOWDEN ADDITION, AND LOT ONE (1), BOWDEN ADDITION, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

GENERAL NOTES:

- NO PERIMETER BOUNDARY CORNERS HAVE BEEN FIELD ESTABLISHED PER THIS SURVEY OF THE SUBJECT PROPERTY.
- NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD WITHIN THE SUBJECT SITE OTHER THAN MAY BE SHOWN ON THE PLAT OF RECORD OR PLAN HEREON.
- REFER TO "ARCHITECTURAL SITE PLAN" FOR FIELD LAYOUT OF THE PROPOSED IMPROVEMENTS.
- TOPOGRAPHY SURVEY INFORMATION PROVIDED BY TORRES SURVEYING COMPANY, ALBUQUERQUE, NEW MEXICO.

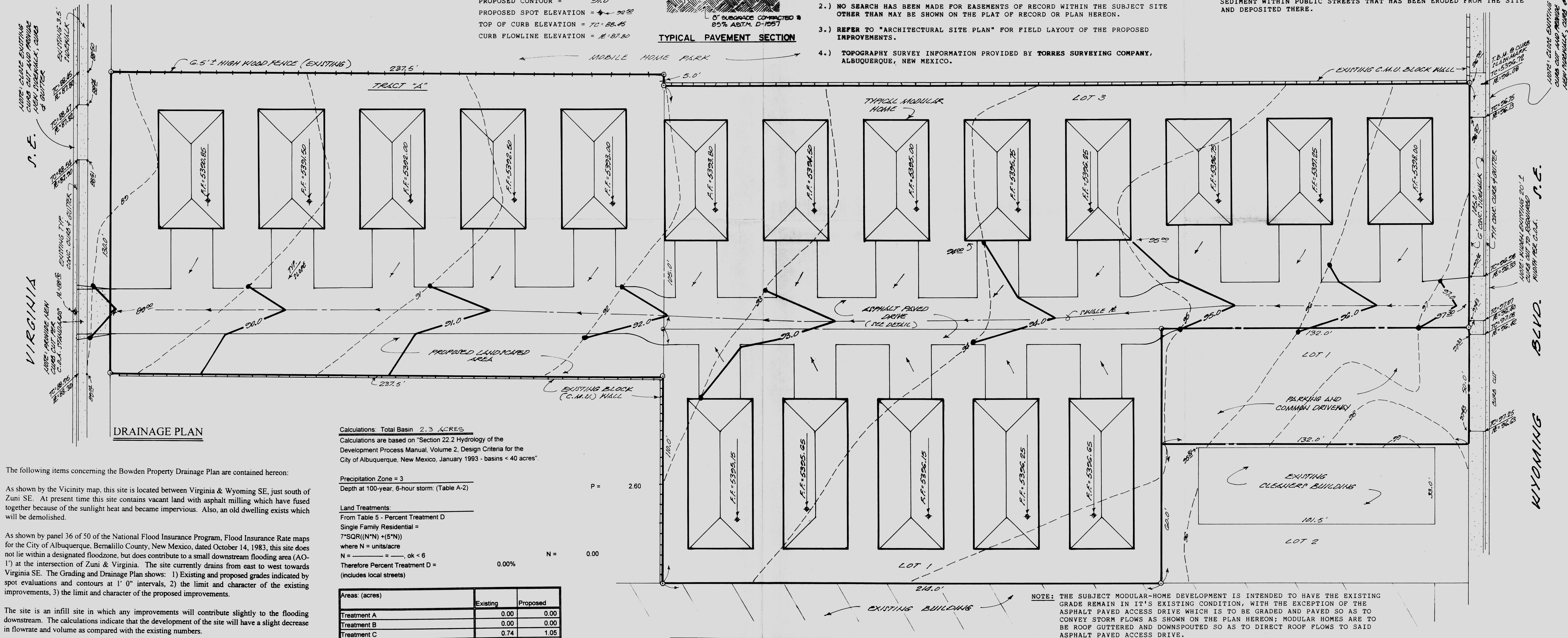
CONSTRUCTION NOTES:

- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS; SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR STORM RUN-OFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

- ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SITE AND ENTERING ADJACENT PROPERTIES.
- ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREETS.
- THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE AND DEPOSITED THERE.



The following items concerning the Bowden Property Drainage Plan are contained hereon:

As shown by the Vicinity map, this site is located between Virginia & Wyoming SE, just south of Zuni SE. At present time this site contains vacant land with asphalt milling which have fused together because of the sunlight heat and became impervious. Also, an old dwelling exists which will be demolished.

As shown by panel 36 of 50 of the National Flood Insurance Program, Flood Insurance Rate maps for the City of Albuquerque, Bernalillo County, New Mexico, dated October 14, 1983, this site does not lie within a designated floodzone, but does contribute to a small downstream flooding area (AO-1') at the intersection of Zuni & Virginia. The site currently drains from east to west towards Virginia SE. The Grading and Drainage Plan shows: 1) Existing and proposed grades indicated by spot evaluations and contours at 1' 0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements.

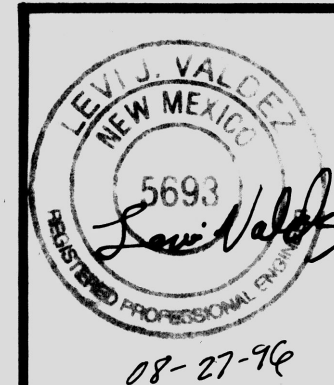
The site is an infill site in which any improvements will contribute slightly to the flooding downstream. The calculations indicate that the development of the site will have a slight decrease in flowrate and volume as compared with the existing numbers.

As shown by this plan, the proposed improvements consist of 18 modular homes with driveway, parking and landscaping. The site will incorporate a driveway which will be utilized to convey the runoff from east to west and into Virginia, where it will exit and travel North towards a double-C inlet located at the intersection of Virginia & Zuni SE at the Southeast quadrant of the intersection.

The calculations which appear hereon analyze both the existing and developed conditions for the 100-year 6-hour rainfall event. The procedure for 40-acre and smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria dated January, 1993, has been used to quantify the peak rate of discharge and volume of rainfall generated.

Total Q(p), cfs:

	100 year Existing Q(p)*A	100 year Proposed Q(p)*A	10 year Existing Q(p)*A	10 year Proposed Q(p)*A
Treatment A	0.00	0.00	0.00	0.00
Treatment B	0.00	0.00	0.00	0.00
Treatment C	2.56	3.62	1.48	2.10
Treatment D	7.83	6.28	5.29	4.24
Total Q (cfs) =	10.39	9.90	6.77	6.34



A PROPOSED DRAINAGE PLAN
FOR
BOWDEN PROPERTY
(A MODULAR HOME DEVELOPMENT)
ALBUQUERQUE, NEW MEXICO
AUGUST, 1996

AUG 3 0 1996