

# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 28, 1999

Daniel S. Aguirre, P.E. Wilson & Company 4775 Indian School Road, NE - Suite 200 Albuquerque, NM 87110

Attn: Mario Juarez-Infante

RE: SOMBRA DEL MONTE ELEMENTARY SCHOOL - MULTIPURPOSE BUILDING AND SITE IMPROVEMENTS (G20-D35). GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT AND SO#19 PERMIT APPROVALS. ENGINEER'S STAMP DATED DECEMBER 22, 1998.

Dear Mr. Aguirre:

Based on the information provided on your December 23, 1998 submittal, the above referenced project is approved for Building Permit and SO#19 Permit.

Please furnish a second set for the SO#19 process.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

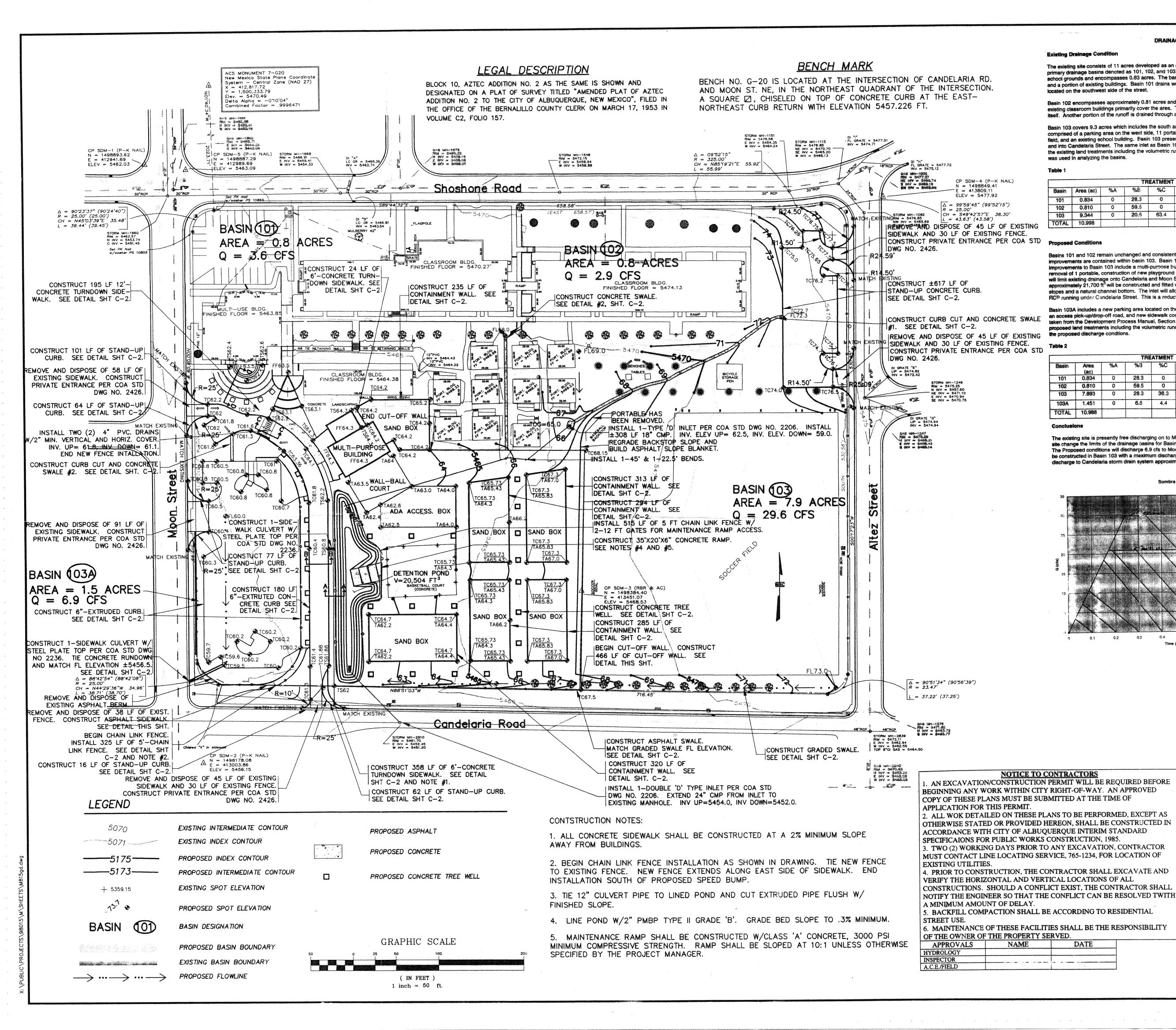
Sincerely,

John P. Murray, P.E.

Hydrology

c:

Andrew Garcia
Arlene Portillo
D. Salas, St. Maint.



## DRAINAGE REPORT

The existing site consists of 11 acres developed as an elementary school site. The area is divided into three primary drainage basins denoted as 101, 102, and 103. Basin 101 is located in the northwest corner of the school grounds and encompasses 0.83 acres. The basin is comprised of a grass section, an asphalt parking lot, and a portion of existing buildings. Basin 101 drains west onto Moon Street and is collected in an existing inlet located on the southwest side of the street.

Basin 102 encompasses approximately 0.81 acres and covers the north section of the site. Grass lawns and existing classroom buildings primarily cover the area. The lawns drain toward the center of the basin and pond o another portion of the runoff is drained through an existing channel onto Basin 103.

Basin 103 covers 9.3 acres which includes the south and east portion of the school grounds. The area is comprised of a parking area on the west side, 11 portables on the north end, play ground equipment, a soccer field, and an existing school building. Elasin 103 presently drains to the west side onto the existing parking area and into Candelaria Street. The same inlet as Basin 101 collects discharge. Table 1 shows a detail breakdown of the existing land treatments including the volumetric runoff and peak flow. A 100-year and 10-day storm criterion was used in analyzing the basins.

TREATMENT											
Basin	Area (ac)	%Å	%B	%C	%D	V <sub>1440 (acre-ft)</sub>	Q <sub>p (cfs)</sub>				
101	0.834	0	28.3	0	71.7	0.161	3.6				
102	0.810	0	<b>59</b> .5	0	40.5	0.115	2.9				
103	9.344	0	20.6	63.4	16.0	1.141	32.8				
TOTAL	10.998			**************************************		1.417	39.3				

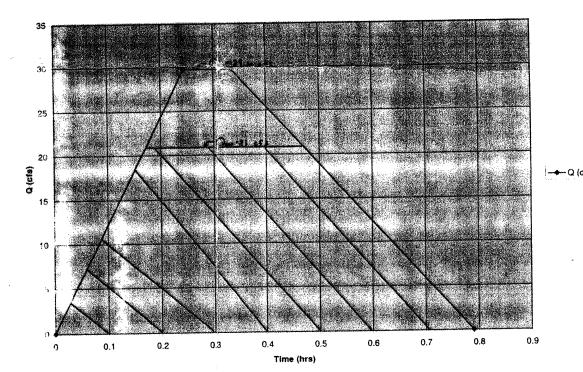
Basins 101 and 102 remain unchanged and consistent with existing drainage conditions. The proposed site improvements are contained within basin 103. Basin 103 has been subdivided into two basins, 103 and 103A. Improvements to Basin 103 include a multi-purpose building, new classrooms to replace existing portables, removal of 1 portable, construction of new playground area, and a detention pond. The proposed detention pol will limit existing drainage onto Candelaria and Moon Street storm sewer system. A pond capacity of approximately 21,700 ft3 will be constructed and fitted with a double 'D' inlet. The pond will have lined asphalt slopes and a natural channel bottom. The inlet will allow for approximately 20 cfs discharge into the existing 48" RCP running under Candelaria Street. This is a reduction of 54% from existing conditions.

Basin 103A includes a new parking area located on the south west corner of the school grounds, a wall-ball cour an access pick-up/drop-off road, and new sidewalk construction. The 100-year and 24-hour storm criteria was taken from the Development Process Manual, Section 22.2 'Hydrology.' Table 2 shows a detail breakdown of the proposed land treatments including the volumetric runoff and peak flow. Fig. 1 shows Basin 103 Hydrograph and

THEATMENT											
Area (ac)	%A	<b>%</b> 3	%C	%D	V <sub>1440</sub> (acre-ft)	Q <sub>p (cfs)</sub>					
0.834	0	28.3	0	71.7	0.161	3.6					
0.810	0	59.5	0	40.5	0.115	2.9					
7. <b>89</b> 3	0	28.3	<b>36</b> .3	35.4	1.145	29.6					
1.451	0	6.6	4.4	89.0	0.322	6.9					
10.988	······	<u> </u>	1		1.743	43.0					
	(ac) 0.834 0.810 7.893	(ac)       0.834     0       0.810     0       7.893     0       1.451     0	Area (ac)         %A (ac)         %B (ac)           0.834         0         28.3           0.810         0         59.5           7.893         0         28.3           1.451         0         6.6	(ac)     28.3     0       0.834     0     28.3     0       0.810     0     59.5     0       7.893     0     28.3     36.3       1.451     0     6.6     4.4	Area (ac)         %A         %B         %C         %D           0.834         0         28.3         0         71.7           0.810         0         59.5         0         40.5           7.893         0         28.3         36.3         35.4           1.451         0         6.6         4.4         89.0	Afea (ac)         %A         %B         %C         %D         V <sub>1440 (acre-ft)</sub> 0.834         0         28.3         0         71.7         0.161           0.810         0         59.5         0         40.5         0.115           7.893         0         28.3         36.3         35.4         1.145           1.451         0         6.6         4.4         89.0         0.322					

DATE

The existing site is presently free discharging on to Moon and Candelaria. The proposed improvements to the site change the limits of the drainage basins for Basin 103 into "103 and 103A." The present discharge35.7 cfs. The Proposed conditions will discharge 6.9 cfs to Moon Street through a new sidewalk culvert. A new pond will be constructed in Basin 103 with a maximum discharge of 20 cfs. The proposed condtions will reduce the total discharge to Candelaria storm drain system approximately 54%.





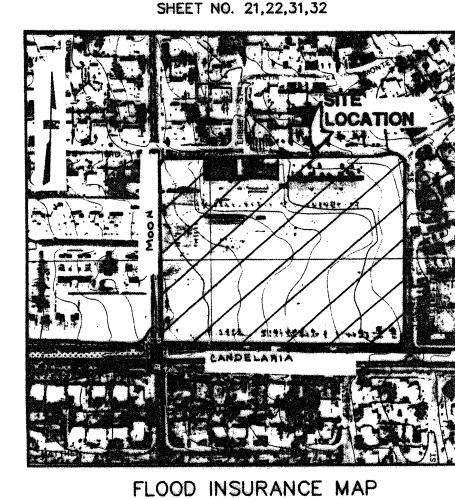
LOCATION MAP

ZONE ATLAS MAP NO. G-20-Z & H-20-Z

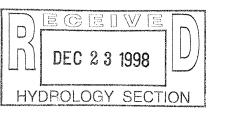


SOILS MAP

REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY



REFERENCE: FLOOD INSURANCE STUDY PANEL G-20 & H20



SOMBRA DEL MONTE ELEMENTARY 9110 SHOSHONE RD. NE MULTIPURPOSE BUILDING, SITE IMPROVEMENTS & REROOFING

GRADING & DRAINAGE PLAN

DRAWN

DESIGN

WILSON

4775 INDIAN SCHOOL ROAD N.E. SUITE 200 ALBUQUERQUE, NEW MEXICO 87110 (505) 254-4000

FILE NO. 98015 SHEET NO. 1 OF 2

C-1

DEC., 1998

