HYDROLOGY C22/D5 1 PLAN

C22/D5

1 Plan

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County of Bernalillo

State of New Mexico

620 LOMAS, N.W.
ALBUQUERQUE, NEW MEXICO 87102

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JAMES B. LEWIS, TREASURER
DOLORES C. WALLER, COUNTY CLERK
EDWARD M. MURPHY, ASSESSOR
GERARD W. THOMSON,
PROBATE JUDGE

August 6, 1984

Mr. Richard Skillington
2121 Martha NE
Albuquerque, NM 87112

REF: LOTS 31 & 32, Block 12, Tract 2, Unit 1 N.A.A. C-22D5

Dear Mr. Skillington:

As previously determined, the above subject site is located in a flood hazard zone and defined on the current Flood Insurance Rate Map (FIRM), Panel Number 11, as lying in an AO zone with depth of two (2) feet.

An attempt has been made, by engineering hydraulic analysis, to remove portions of these lots from the floodplain. The analysis was limited to the extremities of the subject lots and did not address the entire reach of the arroyo in question. Consequently, the floodplain limits as defined on the current topography map supplied by the Engineer will be termed as the floodway for the arroyo. The construction of any structures outside the defined floodway may be allowed. However, floodproofing will be a requirement.

The floodproofing shall consist of elevating the finished floor of the structures a minimum of one (1) foot above the floodway elevation as shown on the map at Sections A1 and A3. Any other acceptable means of floodproofing may be appropriate, i.e., channel construction, a compacted and ripraped diversion dike upstream of structures, etc.

This analysis approval will be limited to one year from this date due to the fact that the arroyo is located on alluvial fill and can change with any major storm runoff unless confined upstream.

Should there be any questions or comments regarding this matter, please feel free to contact me at 766-7644.

Yours truly,

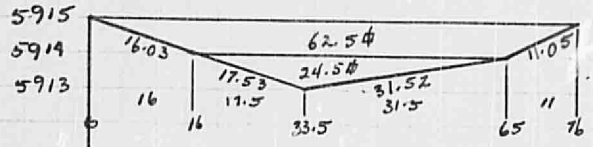
Billy J. Goolsby

Billy J. Goolsby, PE
City/County Flood Plain Admin.

BJG:mrk

N. Abq. Acres Lots 31 & 31, Blk 12, Tr2 Unit 1

SECTION 1

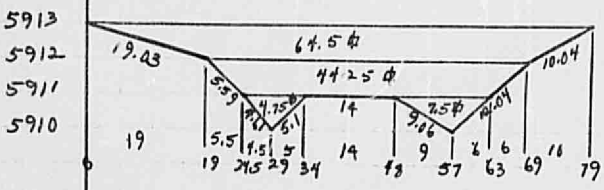


EL.	N → S	
5915	0	76
5914	16	65
5913	33.5	

$A_1 = 87\ \phi$; $WP_1 = 76.13\ F$; $R_1 = 1.143\ F$; $S = 5\%$ Assume $n = 0.025$

$Q_1 = \left(\frac{1.49}{0.025}\right)(87)(1.143)^{2/3}(0.05)^{1/2} =$ <u>1268 CFS</u>; <u>5913.0' EL</u>

SECTION 2



EL	N → S	
5913	0	79
5912	19	69
5911	24.5 34	48 63
5910	29	57

5912: $A_{2,12} = 56.5\ SF$; $WP_{2,12}$ 50.4 F; $R_{2,12} = 1.121\ F$; $S = 3\%$; $n = 0.025$

$Q_{2,12} = (59.60)(56.5)(1.121)^{2/3}(0.03)^{1/2} = 630\ CFS$

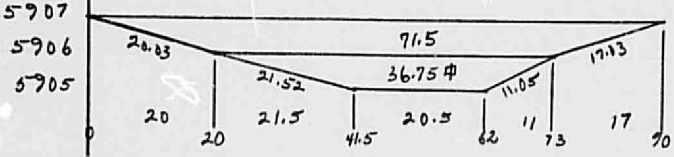
5913: $A_{2,13} = 121\ SF$; $WP_{2,13} = 79.47\ F$; $R_{2,13} = 1.523$; $S = 3\%$; $n = 0.025$

$Q_{2,13} = (59.60)(121)(1.523)^{2/3}(0.03)^{1/2} = 1656\ CFS$

Try 5912.7; $A_{2,12.7} = 98.61$; $WP_{2,12.7} = 70.81$; $R = 1.393$; $S = 3\%$; $n = 0.025$

$Q_{2,12.7} = (59.60)(98.61)(1.393)^{2/3}(0.03)^{1/2} =$ <u>1271 CFS</u>, <u>5912.7' EL</u>

SECTION 3



EL	N → S	
5906	0	90
5906	20	73
5905	41.5	62

5907; $A_3 = 108.25$; $WP_3 = 90.13$; $R = 1.201$; $S = 4\%$; $n = 0.025$

$Q_3 = (59.6)(108.25)(1.201)^{2/3}(0.04)^{1/2} = 1459$

5906.88 $A_{3,6.88} = 97.72\ SF$; $WP_{3,6.88} = 85.69\ F$; $R_{3,6.88} = 1.140$

$Q_{3,6.88} = (59.6)(97.72)(1.140)^{2/3}(0.04)^{1/2} =$ <u>1272 CFS</u>, <u>5906.88' EL</u>

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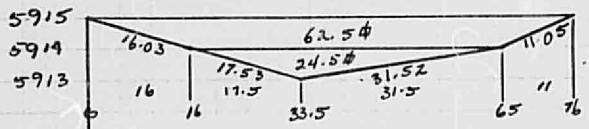

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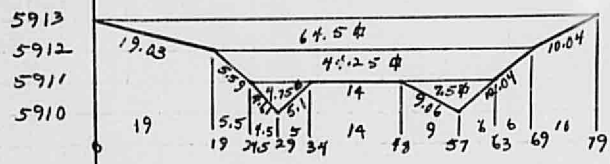

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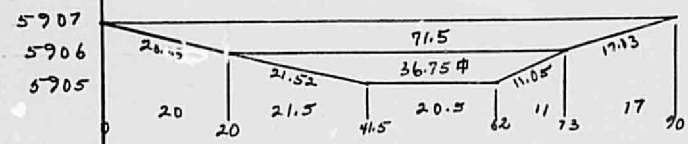

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