HYDROLOGY L21/D14 WAREHOUSE & OFFICES FOR ULIBARRI

L21/D14

WAREHOUSE &
OFFICES FOR
ULIBARRI

1 PLAN

CALCULATIONS

EXISTING CONDITIONS
C/A = 0
Q = 0.34 x 5.8 x 5350 / 43,560
= 0.28 cfs

SOIL SERIES: Ca B
Hydrologic SOIL GROUP "B"

DEVELOPED CONDITIONS
Q = CIA
= 1.0 x 5.4 x 5350 / 43560
= 0.66

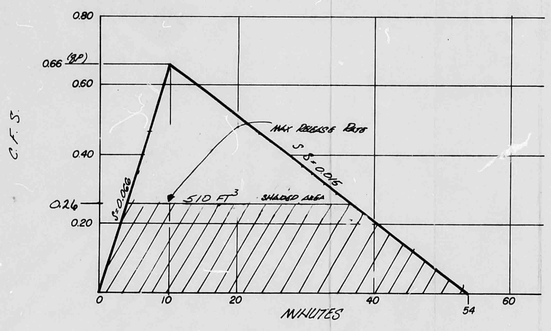
MAX. RELEASE RATE FROM 4" DRAIN
HEAD = 1.8'
Q = CdA √2gH
= 0.6 π/4 (.33)² √2(32.2)(1.8)
= 0.26 cfs

TOTAL AMOUNT OF RUNOFF (VOLUME)
AREA DEVELOPED
5350 ft²
GAL. BLDG. FOOT. VOLUME 8.4" PER CODE PLATE 222 D-1
8.4"/12" x 5350 = 1070 ft³
REQUIRED POND (VOLUME)
1070
510
560 ft³

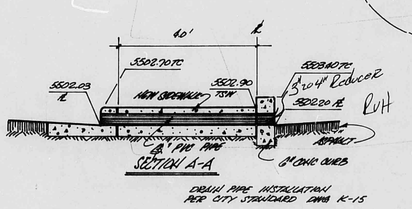
TIME (T) (TOTAL DURATION OF RUNOFF)
T = 2V/Qp
= 2(1070)/0.66 = 3242 secs.
= 54 min

NEW POND CREATED
2,600 ft² (SURFACE AREA)
DEPTH OF POND 1.8'
THUS POND VOLUME = 1/3 (2600) 1.8'
= 1560 ft³ > 560 ft³

emergency spillway THRU DRIVE WAY 5503.4

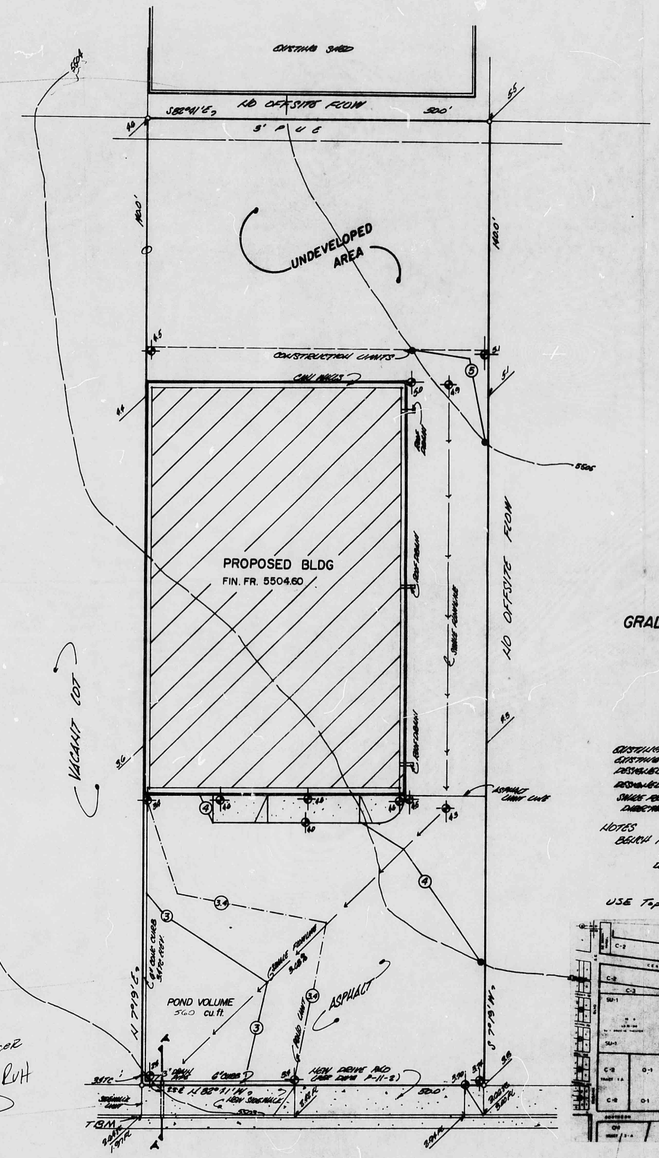


RUNOFF HYDROGRAPH



SECTION A-A

DRAIN PIPE INSTALLATION PER CITY STANDARD DWG K-15



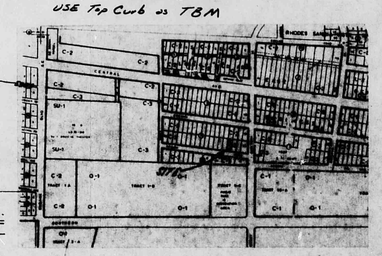
10909 ACOMA ROAD S.E.

GRADING & DRAINAGE PLAN

NORTH
SCALE 1"=10'

EXISTING CONTOUR LINE
EXISTING SPOT ELEVATION
PROPOSED CONTOUR LINE
PROPOSED SPOT ELEVATION
SINGLE-FLOW LINE & FLOW DIRECTION

NOTES
BENCH MARK STATION NUMBER 3-C21, ELEVATION 5503.00
DESCRIPTION
STAMPED ACS BRASS TARGET STAMPED "3-C21"
USE Top Curb as TBM



RICHARD V. [illegible]
NEW MEXICO
7913
REGISTERED PROFESSIONAL ENGINEER

Jan 6, 84
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L21-D14

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JAN 25 1984
HYDROLOGY SECTION

RESUBMITTAL

L21/D14