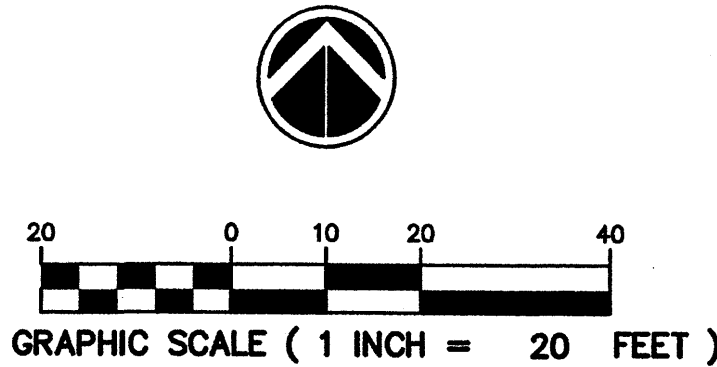


LOT 9-P1, BLOCK 2, UNIT 4, EAGLE ROCK ESTATES

LEGAL DESCRIPTION



DRAINAGE CERTIFICATION

I, Larry D. Read, NMPE 10998, of the firm Larry Read & Associates, Inc., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 3/5/2007. The record information edited onto the original design document has been obtained by Larry D. Read, NMPE 10998, of the firm Larry Read & Associates, Inc. I further certify that I have personally visited the project site on 3/27/2007 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Certificate of Occupancy.

Exceptions: Construction changes to the site have been clouded on the plan. Specifically, the entire frontage of the site on Modesto Ave. is rocked so the erosion pad was not constructed. Three 4" diameter weep holes have been installed in the block wall to allow drainage to exit the site to the Modesto Right-of-Way. Finally, the contractor has left a pile of waste soil on the west side of the site that need to be removed and the swales cleaned to allow drainage when the building is completed.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the Grading and Drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.



DRAINAGE INFORMATION

LOCATION & DESCRIPTION

THE PROPOSED SITE IS A 0.1640 ACRE RESIDENTIAL LOT LOCATED IN THE NORTHWEST CORNER OF EAGLE ROCK ESTATES UNIT IV AT THE INTERSECTION OF OBSIDIAN STREET AND SCHIST STREET. THE LOT IS CURRENTLY SERVING AS A RETENTION POND TO HOLD THE RUNOFF FROM THE SOUTHERN HALF OF MODESTO AVENUE ON THE NORTH.

THE OWNER DESIRES TO RECOVER THE LOT TO BE USED AS IT'S INDENTED SINGLE FAMILY LOT.

FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0129 E, DATED NOVEMBER 19, 2003 IS NOT WITHIN A DESIGNATED 100-YEAR FLOODPLAIN. AN EXHIBIT WITH THE SITE SHOWN ON THE FIRM PANEL IS INCLUDED ON THIS SHEET.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING THE QUICK CALCULATIONS OF THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

PRECIPITATION

THE 100-YR 6-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS SINCE THE SITE WILL FREE DISCHARGE AND THE RETENTION PONDING WILL BE ELIMINATED. THIS SITE IS WITHIN ZONE 3 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2. TABLES WITHIN THIS SECTION WAS USED TO ESTABLISH THE 6-HOUR PRECIPITATION, EXCESS PRECIPITATION, AND PEAK DISCHARGE.

EXISTING DRAINAGE

THIS LOT IS WITHIN A DEVELOPED SUBDIVISION WITH CURB AND GUTTER AND SITE WALLS BETWEEN THE LOTS. AS SUCH, THERE IS NO CROSS LOT DRAINAGE OR OFFSITE DRAINAGE AFFECTING THIS SITE EXCEPT THE RUNOFF FROM THE SOUTHERN HALF OF MODESTO AVE. WHICH IS CURRENTLY BEING INTERCEPTED IN THE POND. MODESTO AVE. IS FULLY DEVELOPED AS A HALF STREET SECTION WITH CURB AND GUTTER AND SIDEWALK AS ARE THE STREET TO THE SOUTH WITHIN THE SUBDIVISION.

DEVELOPED CONDITION

THE BASIS OF THIS PLAN IS TO ELIMINATE THE RUNOFF BEING PONDED ON IN THIS LOT AND RECOVER THE LOT FOR A SINGLE FAMILY RESIDENCE. THE POND WILL BE FILLED AND GRADED AS SHOWN ON THE GRADING PLAN. THE SIDEWALK CULVERT THAT INTERCEPTS TO FLOW FROM MODESTO AVE. WILL BE ELIMINATED AND THE OPENING IN THE SITE WALL BLOCKED TO ELIMINATE THE FLOWS INTO THE POND. THE RUNOFF THAT CURRENTLY ENTERS THE POND WILL BE ALLOWED TO PROCEED WEST IN IT'S HISTORICAL ROUTE.

THE RUNOFF GENERATED ON THE SITE WILL BE ROUTED TO THE EXISTING CUL-DE-SAC AT THE SOUTH END OF THE SITE VIA SWALES ALONG THE SITE BOUNDARY AS WAS INTENDED IN THE GRADING AND DRAINAGE PLAN FOR THE SUBDIVISION DEVELOPMENT. ELIMINATION OF THIS POND WILL INCREASE THE RUNOFF TO THE WEST FROM THE SOUTHERN HALF OF MODESTO AVE. UNTIL SUCH TIME AS THE BALANCE OF MODESTO AVE. IS IMPROVED.

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (10 day) (acre-ft)	V (10 day) (cu-ft)	Q (cfs)
		A (%)	B (%)	C (%)	D (%)						
EXISTING CONDITIONS											
SITE	0.1640	0.00	100.00	0.00	0.00	0.92	0.01	548	0.01	548	0.43
PROPOSED CONDITIONS											
SITE	0.1640	0.00	29.00	29.00	42.00	1.63	0.02	972	0.04	1,547	0.63
EXCESS PRECIP.	0.66	0.92	1.29	2.36	E (in)						
PEAK DISCHARGE	1.87	2.6	3.45	5.02	Q _h (cfs)						
WEIGHTED E (in) = (E _A)(%A) + (E _B)(%B) + (E _C)(%C) + (E _D)(%D)											
V _{6HR} (acre-ft) = (WEIGHTED E)(AREA)/12											
V _{10DAY} (acre-ft) = V _{6HR} + (A _D)(P _{10DAY} - P _{6HR})/12											
Q (cfs) = (Q _{hA})(A _A) + (Q _{hB})(A _B) + (Q _{hC})(A _C) + (Q _{hD})(A _D)											
ZONE = 3											
P _{6HR} (in.) = 2.60											
P _{24HR} (in.) = 3.10											
P _{10DAY} (in.) = 4.90											

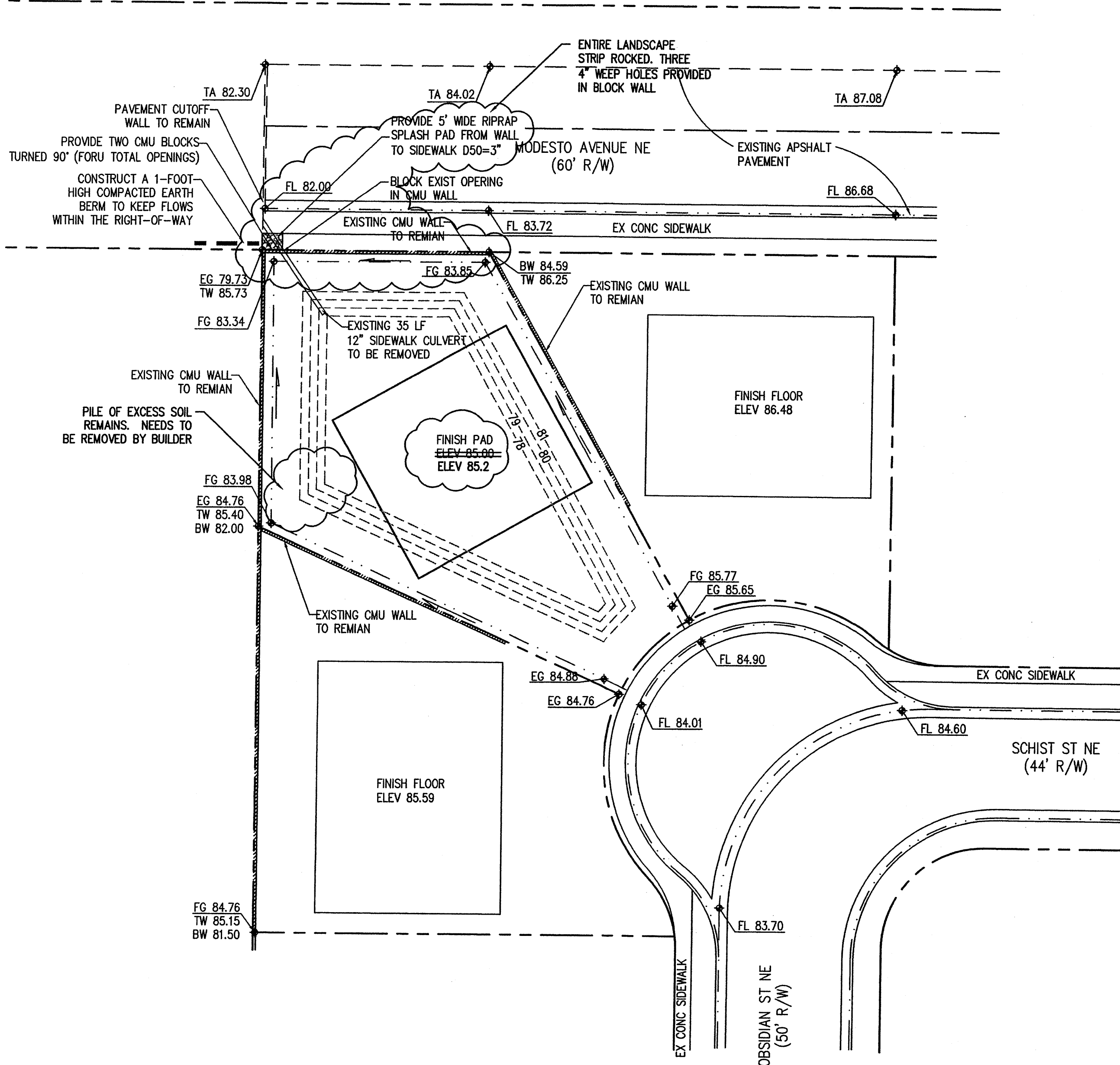
TURN BLOCK CAPACITY

OPENING 4.5" SQUARE
AREA = (4.5")²/144 = .141 SQ-FT
H = 4.5" (0.375)

$$EQN Q = CA \sqrt{2gh}$$

$$Q = 0.64141 \sqrt{2 \times 32.2 \times 0.375}$$
$$Q = 0.45 \text{ cfs}$$

$$Q_{100} = .63 \text{ CFS} - \text{USE TWO TURN BLOCKS}$$



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CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP		MAR 28 2007 HYDROLOGY SECTION	
TITLE: EAGLE ROCK ESTATES UNIT IV LOT 9-P1 POND RECOVERY GRADING PLAN			
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	DATE	MO./DAY/YR.
PROJECT NO.	MAP NO. C-18	SHEET 1	OF 1