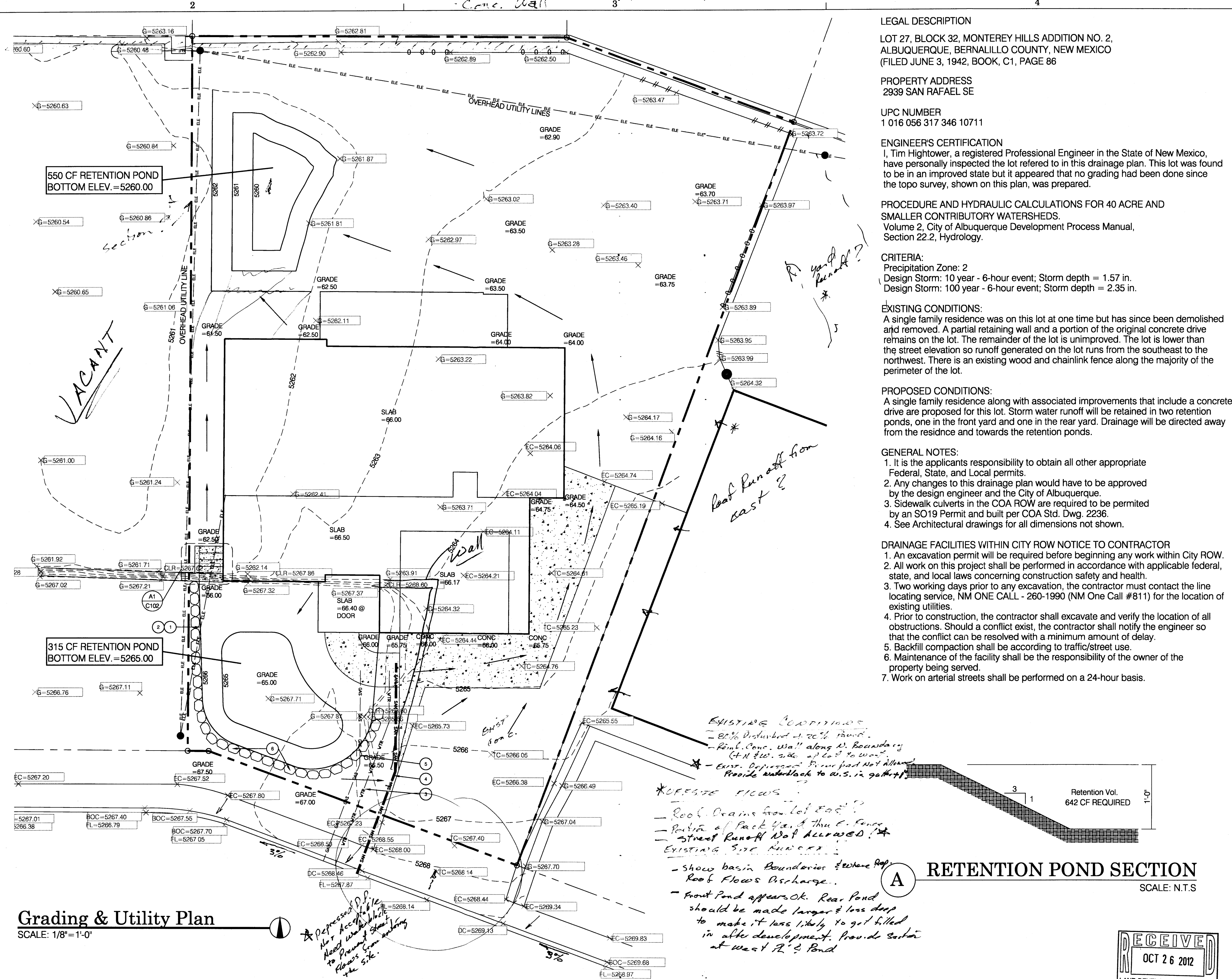


A1 Concrete Yard Step Plan

B1 Concrete Yard Step Section
SCALE: 1/2" = 1'-0"

C1 Site Stair Retaining Wall Section

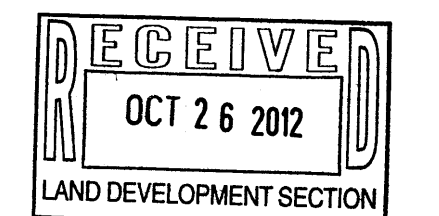


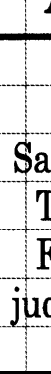
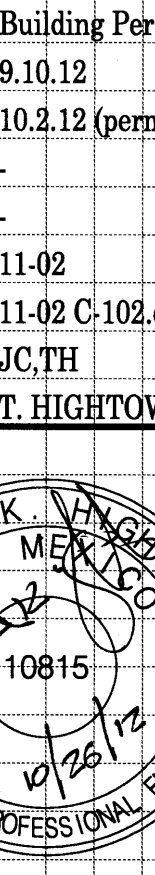
DRAINAGE CALCULATIONS AND SUMMARY		LAND TREATMENTS			
		A	B	C	D
EXISTING CONDITIONS		7,928 SF	0 SF 20% 6600	0 SF	7.20% 0 SF 1450
PROPOSED CONDITIONS		0 SF	500 SF	4,265 SF	3,163 SF

		RUNOFF		PEAK DISCHARGE	
	E*	OFFSITE	ONSITE	OFFSITE	ONSITE
10 yr.	0.13	0	86 CF	0	0.07 CFS
100 yr.	0.53	0	350 CF	0	0.28 CFS
	E*				
10 yr.	0.83	0	550 CF	0	0.41 CFS
100 yr.	1.50	0	993 CF	0	0.67 CFS

ADDITIONAL RUNOFF: 642 CF	ADDITIONAL DISCHARGE: 0.39 CFS
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DRAINAGE CALCULATIONS AND SUMMARY



 <p style="margin: 0;">Judson Cervenak Architects</p>	<p>P.O. Box 23084 Santa Fe, NM 87502 Tel 505.983.3400 Fax 505.983.3402 jud@jwcervenak.com</p>
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<p style="font-size: 2em; transform: rotate(-90deg);">Mitchell Residence</p>	<p style="font-size: 1.2em;">2939 San Rafael Ave. SE Albuquerque, NM 87106</p>
Title: Grading & Utility Plan	
Edition: Building Permit	
Issue Date: 9.10.12	
Revision 1: 10.2.12 (permit review)	
Revision 2: -	
Revision 3: -	
Project ID: 11-02	
File Name: 11-02 C-102.dwg	
Drawing By: JC,TH	
Consultant: T. HIGHTOWER	
	
<p style="font-size: 3em; font-weight: bold;">C-102</p>	

A1 Side Yard Retaining Wall
SCALE: 1/2"=1'-0"

B1 Site Stair Retaining Wall Section
SCALE: 1/2"=1'-0"

C1 Overflow Section
SCALE: 1/2"=1'-0"

D1 Segmental Retaining Wall
SCALE: 1/2" = 1'-0"

Grading & Utility Plan

LEGAL DESCRIPTION

LOT 27, BLOCK 32, MONTEREY HILLS ADDITION NO. 2
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
(FILED JUNE 3, 1942, BOOK, C1, PAGE 86

PROPERTY ADDRESS
2939 SAN RAFAEL SE

UPC NUMBER
1 016 056 317 346 10711

ENGINEER'S CERTIFICATION

I, Tim Hightower, a registered Professional Engineer in the State of New Mexico, have personally inspected the lot referred to in this drainage plan. This lot was found to be in an improved state but it appeared that no grading had been done since the topo survey, shown on this plan, was prepared.

PROCEDURE AND HYDRAULIC CALCULATIONS FOR 40 ACRE AND
SMALLER CONTRIBUTORY WATERSHEDS.
Volume 2, City of Albuquerque Development Process Manual,
Section 22.2, Hydrology.

CRITERIA:

Precipitation Zone: 2
Design Storm: 10 year - 6-hour event; Storm depth = 1.57 in.
Design Storm: 100 year - 6-hour event; Storm depth = 2.35 in.
Design Storm: 100 year - 10 day event; Storm depth = 3.95 in.

EXISTING CONDITIONS:

A single family residence was on this lot at one time but has since been demolished and removed. A partial retaining wall and a portion of the original concrete drive remains on the lot. The remainder of the lot is unimproved. Runoff from a portion of the lot to the east as well as runoff generated on the lot runs from the east to the west. There is an existing concrete retaining wall along the rear property line and a wood fence along a portion of the east property line.

PROPOSED CONDITIONS:

A single family residence along with associated improvements that include a concrete drive are proposed for this lot. Storm water runoff will be directed away from the residence and into two retention ponds, one in the front yard and one in the rear yard. The ponds will be able to hold the runoff volume produced by the 100 yr., 6-hour event, along with the volume for the 100 yr., 10 day event.

GENERAL NOTES:

1. It is the applicants responsibility to obtain all other appropriate Federal, State, and Local permits.
2. Any changes to this drainage plan would have to be approved by the design engineer and the City of Albuquerque.
3. Sidewalk culverts in the COA ROW are required to be permitted by an SO19 Permit and built per COA Std. Dwg. 2236.
4. See Architectural drawings for all dimensions not shown.

DRAINAGE FACILITIES WITHIN CITY ROW NOTICE TO CONTRACTOR

1. DRAINAGE FACILITIES WILL BE IN CHARGE OF HOW TO DEEPEN OR REPAIR DRAINAGE.
2. All work on this project shall be performed in accordance with applicable federal, state, and local laws concerning construction safety and health.
3. Two working days prior to any excavation, the contractor must contact the line locating service, NM ONE CALL - 260-1990 (NM One Call #811) for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the location of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Bulkfill construction shall be according to the specifications set forth in the contract.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets shall be performed on a 24-hour basis.

C4 Retention Pond Section
SCALE: N.T.S.

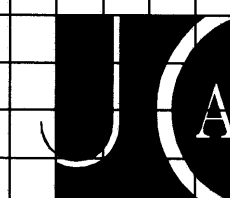
GENERAL NOTES - GRADING & UTILITY PLAN

G1.0] CONTRACTOR SHALL COORDINATE INSTALLATION OF WATER, SEWER, ELECTRIC, GAS AND TELEPHONE SERVICE WITH THE APPROPRIATE UTILITY SERVICE PROVIDERS.

- [G.1.1] EXISTING SPOT ELEVATIONS ARE INDICATED IN BOX
- [G.1.2] PROVIDE POSITIVE DRAINAGE AWAY FROM HOUSE IN ALL LOCATIONS
- [G.1.3] NEW GRADES AS INDICATED ON DRAWING
- [G.1.4] NEW DRAINAGE PATTERN INDICATED BY FLOW ARROWS

KEYED NOTES - GRADING & UTILITY PLAN

- [1] NEW OVERHEAD ELECTRICAL SERVICE FROM EXISTING POLE - COORDINATE WITH PNM
- [2] NEW OVERHEAD TELEPHONE SERVICE FROM EXISTING POLE TO DEMARK LOCATED AT ELECTRICAL PANEL LOCATION IN GARAGE - COORDINATE WITH CENTURYLINK
- [3] NEW WATER SERVICE - VERIFY SERVICE SIZE AND METER AND YARD LINE LOCATION WITH A.B.C.W.U.A.
- [4] NEW SCHEDULE 40 PVC SANITARY SEWER LINE - COORDINATE TAP INTO CITY SEWER WITH CABO
- [5] NEW NATURAL GAS SERVICE - COORDINATE METER, YARD LINE AND SERVICE ENTRANCE LOCATION WITH GAS COMPANY OF NEW MEXICO
- [6] NEW LANDSCAPE BOLDER RETAINING - NOT IN CONTRACT. CONTRACTOR SHALL PROVIDE FINAL GRADING WITH 1:3 SLOPE @ RETAINING LOCATION - REFER TO DETAIL A, THIS SHEET



Judson
Cervenk
Architects

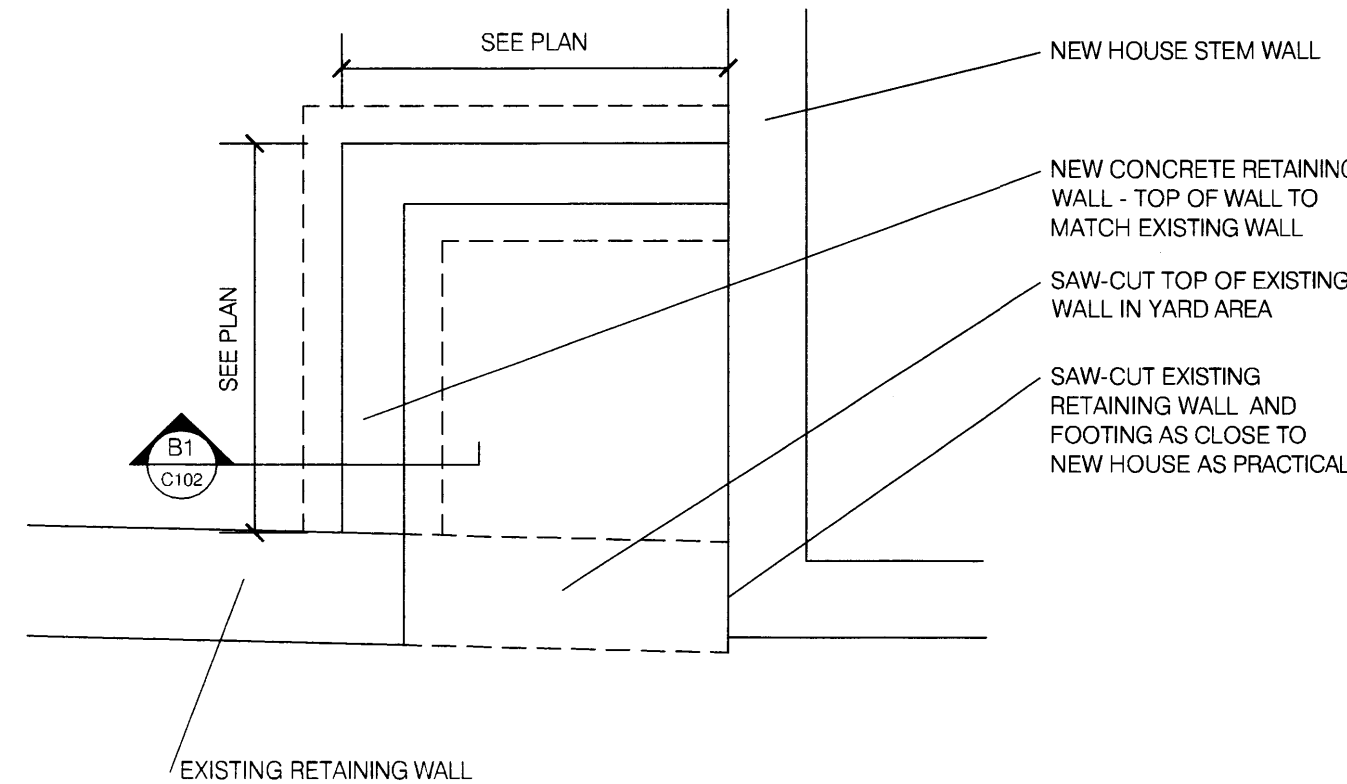
	P.O. Box 23084
	Santa Fe, NM 87502
	Tel 505.983.3400
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	jud@iwcervendk.com

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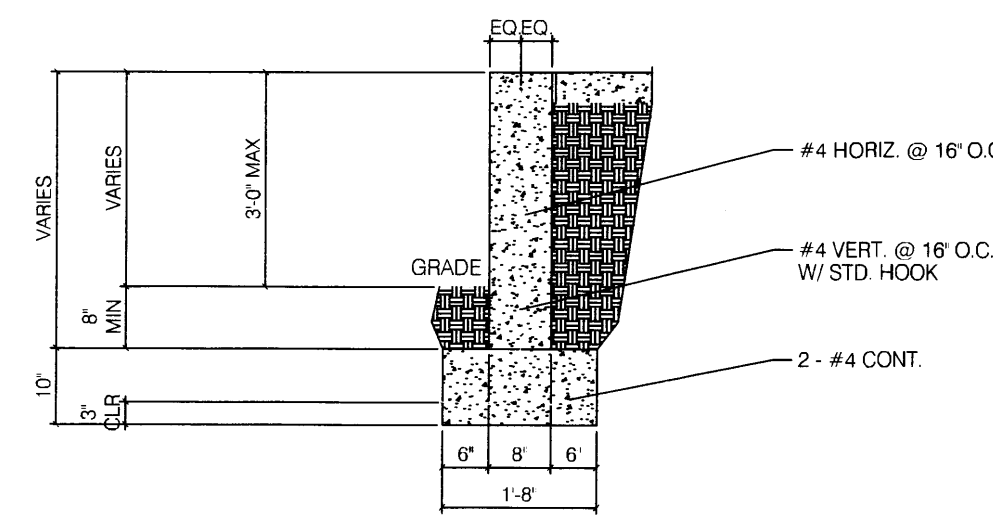
Witness Residences

2939 San Rafael Ave. SE
Albuquerque, NM 87106

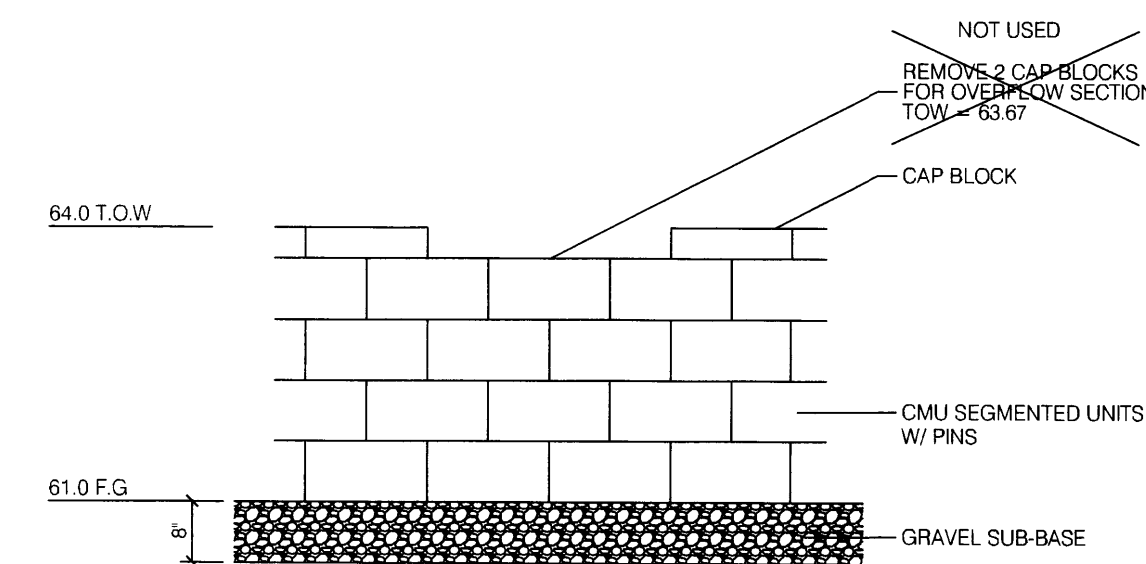
 $C = 10\%$



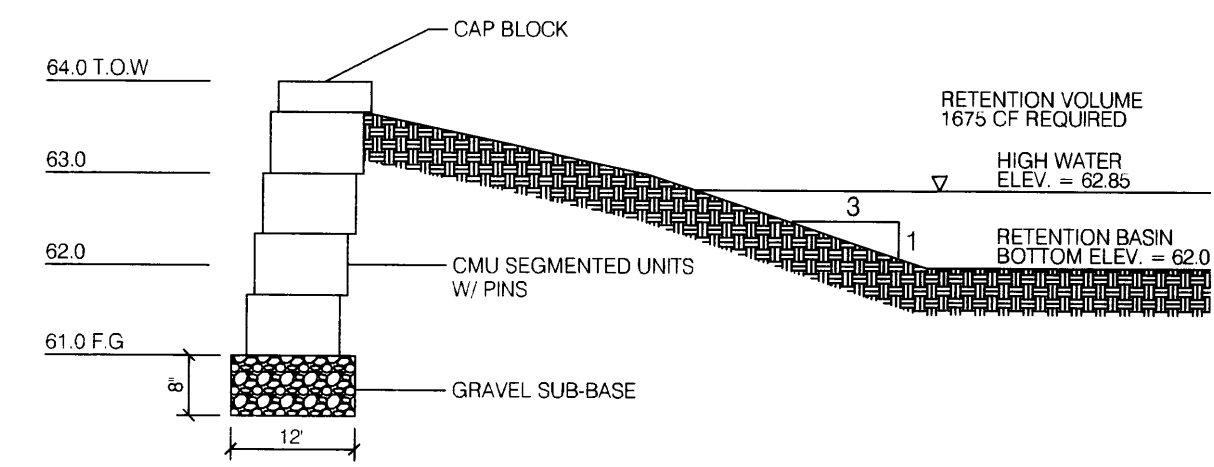
A1 Side Yard Retaining Wall
SCALE: 1/2" = 1'-0"



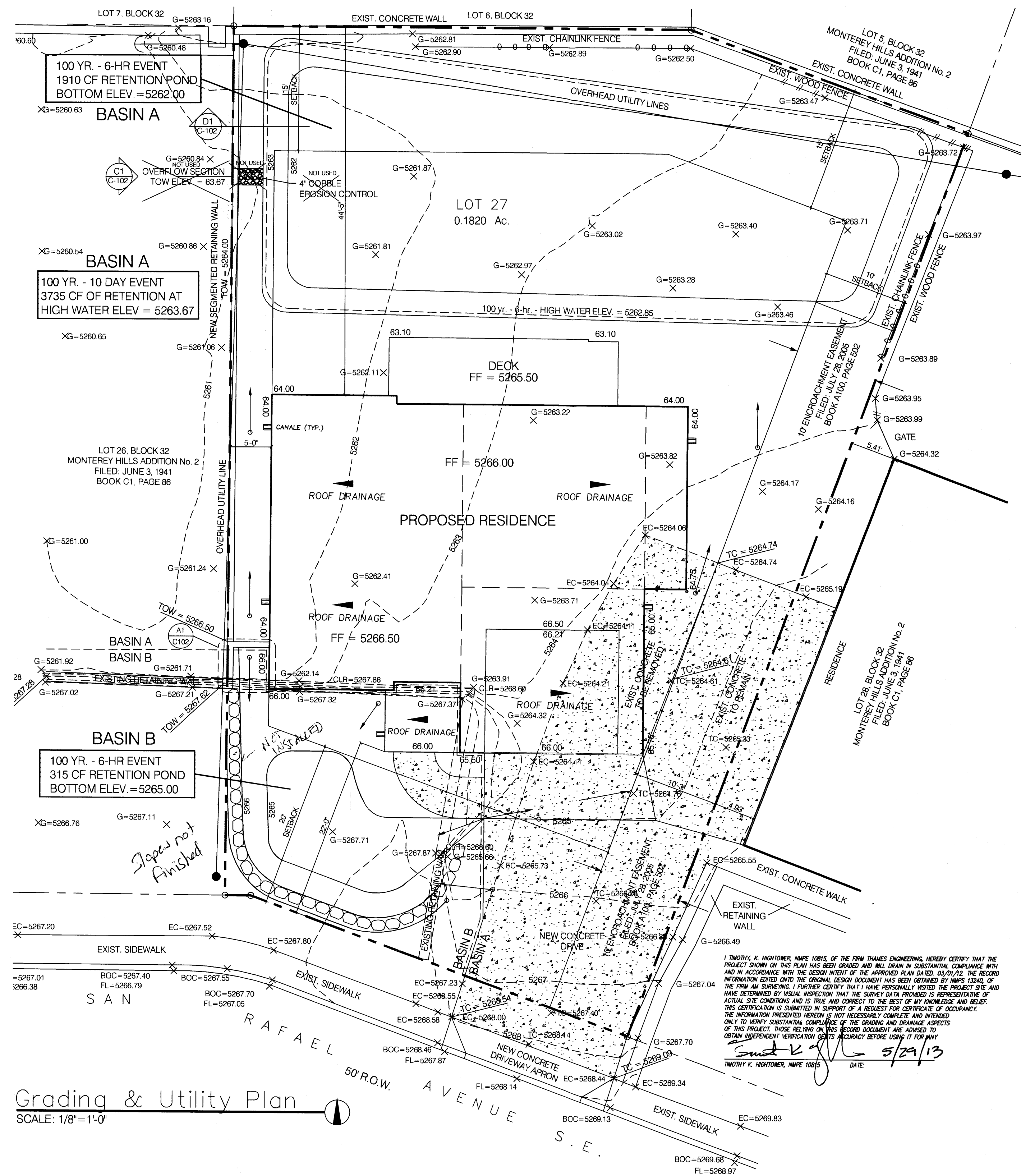
B1 Site Stair Retaining Wall Section
SCALE: 1/2" = 1'-0"



C1 Overflow Section
SCALE: 1/2" = 1'-0"



D1 Segmented Retaining Wall
SCALE: 1/2" = 1'-0"



Grading & Utility Plan
SCALE: 1/8" = 1'-0"

DRAINAGE CALCULATIONS AND SUMMARY

		WATERSHED AREA LAND TREATMENTS				E*		RUNOFF			PEAK DISCHARGE	
		A	B	C	D	100 yr.	10 yr.	100 yr.	10 yr.	100 yr. - 10 Day	100 yr.	10 yr.
EXISTING CONDITIONS	OFFSITE - A	0 SF	0 SF	1,810 SF	2,750 SF	1.73	1.01	656 CF	386 CF	1103 CF	0.43 CFS	0.27 CFS
	ONSITE - A	0 SF	0 SF	5,848 SF	1,350 SF	1.32	0.67	789 CF	404 CF	1326 CF	0.57 CFS	0.33 CFS
	ONSITE - B	0 SF	0 SF	730 SF	0 SF	1.13	0.57	69 CF	32 CF	115 CF	0.05 CFS	0.03 CFS
PROPOSED CONDITIONS	OFFSITE - A	0 SF	0 SF	1,810 SF	2,750 SF	1.73	1.01	656 CF	386 CF	1103 CF	0.43 CFS	0.27 CFS
	ONSITE - A	0 SF	0 SF	3,843 SF	3,163 SF	1.58	0.89	921 CF	520 CF	1547 CF	0.62 CFS	0.38 CFS
	ONSITE - B	0 SF	0 SF	792 SF	130 SF	1.27	0.37	98 CF	29 CF	164 CF	0.07 CFS	0.04 CFS
						1675 CF - TOTAL RUNOFF			1.12 CFS - TOTAL DISCHARGE			

LEGAL DESCRIPTION

LOT 27, BLOCK 32, MONTEREY HILLS ADDITION NO. 2, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO (FILED JUNE 3, 1942, BOOK C1, PAGE 86)

PROPERTY ADDRESS
2939 SAN RAFAEL SE

UPC NUMBER
1 016 056 317 346 10711

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I, Tim Hightower, a registered Professional Engineer in the State of New Mexico, have personally inspected the lot referred to in this drainage plan. This lot was found to be in an improved state but it appeared that no grading had been done since the topo survey, shown on this plan, was prepared.

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4. See Architectural drawings for all dimensions not shown.

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5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
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Albuquerque, NM 87106

Received
MAY 30 2013
LAND DEVELOPMENT SECTION

Professional Engineer Seal
TIMOTHY K. HIGHTOWER, N.M.E. 10815
Professional Engineer
State of New Mexico