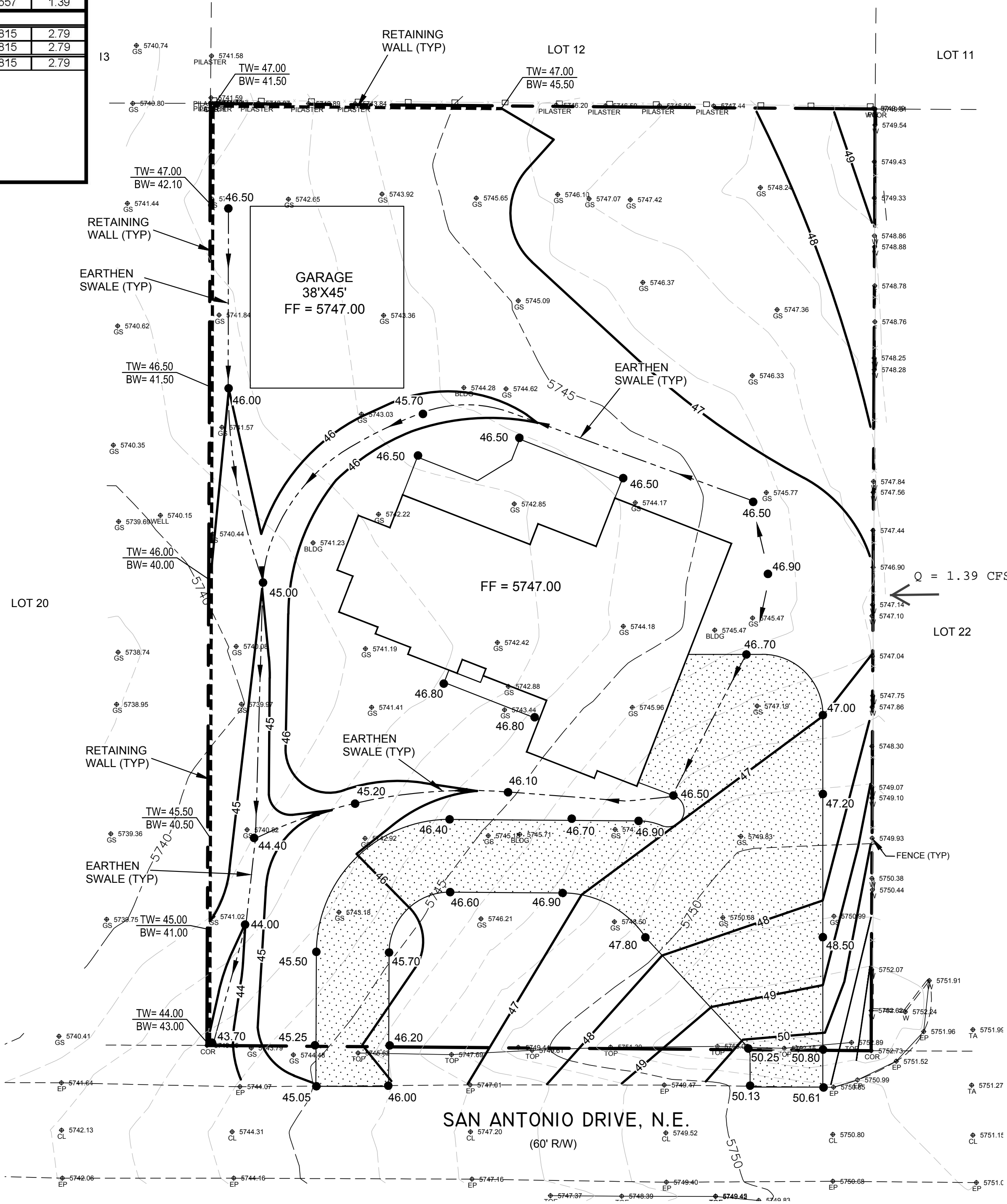
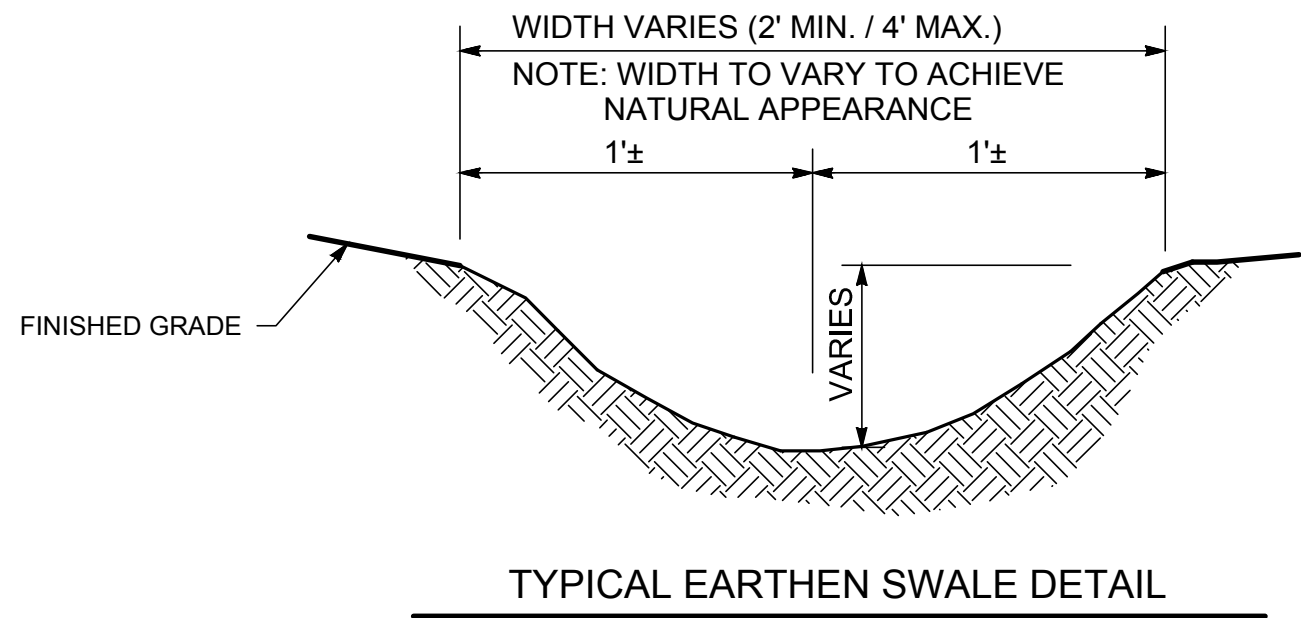


100-YEAR HYDROLOGIC CALCULATIONS											
BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	100-YEAR PRECIPITATION				
		A (%)	B (%)	C (%)	D (%)		V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V (10-day) (acre-ft)	V (10-day) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
SITE	0.8805	100.00	0.00	0.00	0.00	0.80	0.06	2,557	0.06	2,557	1.94
OFFSITE	0.4400	43.00	20.00	20.00	17.00	1.30	0.05	2,078	0.07	2,906	1.39
TOTAL RUNOFF	0.4400						0.06	2,557	0.06	2,557	1.39
PROPOSED CONDITIONS											
SITE	0.8805	43.00	20.00	20.00	17.00	1.30	0.10	4,158	0.13	5,815	2.79
ALLOWABLE	0.8805	43.00	20.00	20.00	17.00	1.30	0.10	4,158	0.13	5,815	2.79
TOTAL RUNOFF	0.8805						0.10	4,158	0.13	5,815	2.79
EXCESS PRECIP		0.8	1.08	1.46	2.64	E (in)					
PEAK DISCHARGE		2.2	2.92	3.73	5.25	Q ₂ (cfs)					
WEIGHTED E (in) = (E _A)(%A) + (E _B)(%B) + (E _C)(%C) + (E _D)(%D)							ZONE = 4				
V _{6hr} (acre-ft) = (WEIGHTED E)(AREA)/12							P _{6hr} (in) = 2.90				
V _{10day} (acre-ft) = V _{6hr} + (A _C)(P _{10day} - P _{6hr})/12							P _{24hr} (in) = 3.65				
Q (cfs) = (Q ₂)(A _S) + (Q ₂ g)(A _g) + (Q ₂ o)(A _C) + (Q ₂ o)(A _C)							P _{10day} (in) = 5.95				



DRAINAGE PLAN:

LEGAL DESCRIPTION: LOT 21, BLOCK 19, TRACT 3, UNIT 2, NORTH ALBUQUERQUE ACRES

SITE AREA: 0.8805 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35043C0142H) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA PROTECTED BY LEVEES FROM THE 1% ANNUAL CHANCE FLOOD.

EXISTING DRAINAGE CONDITIONS:

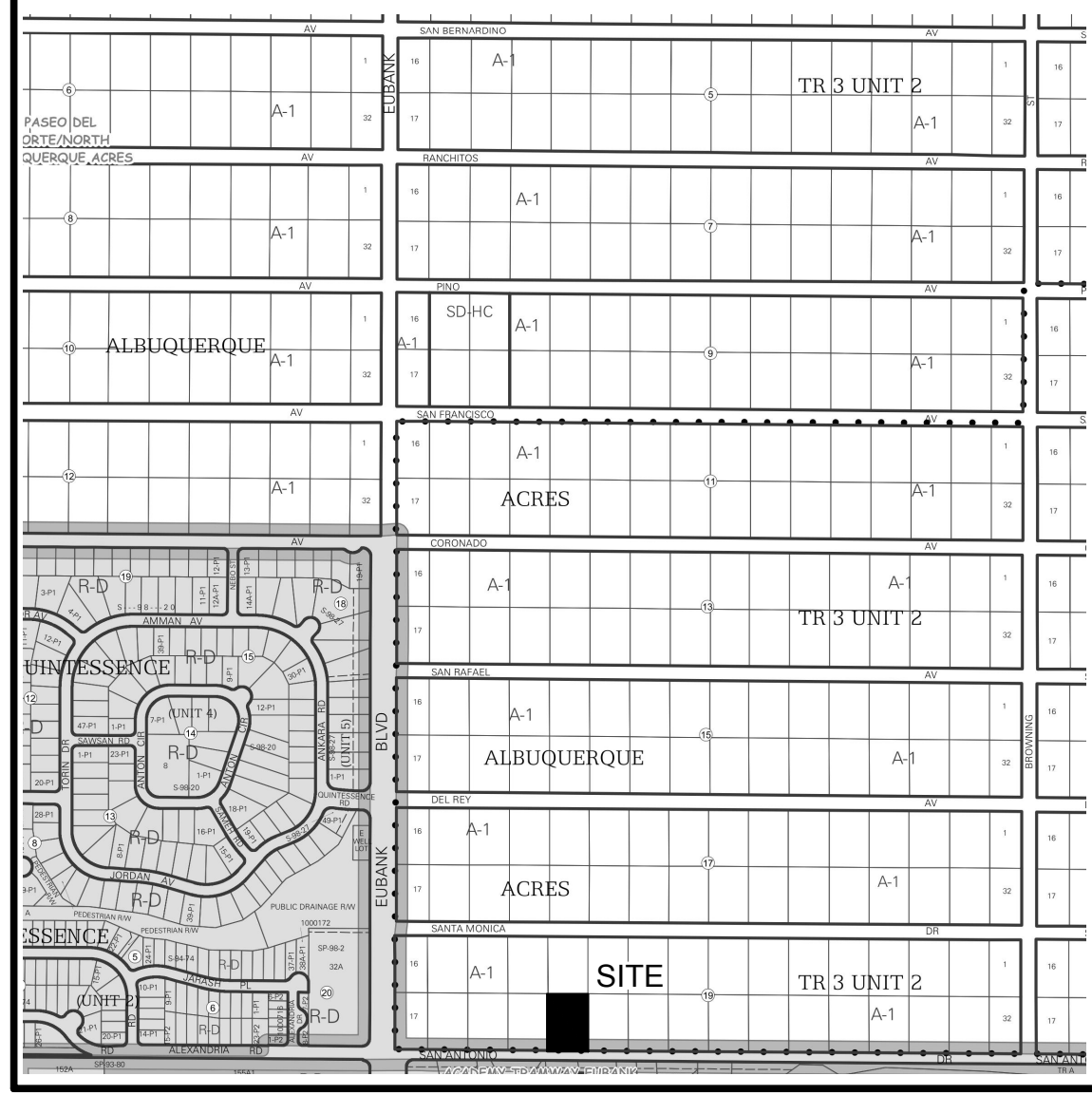
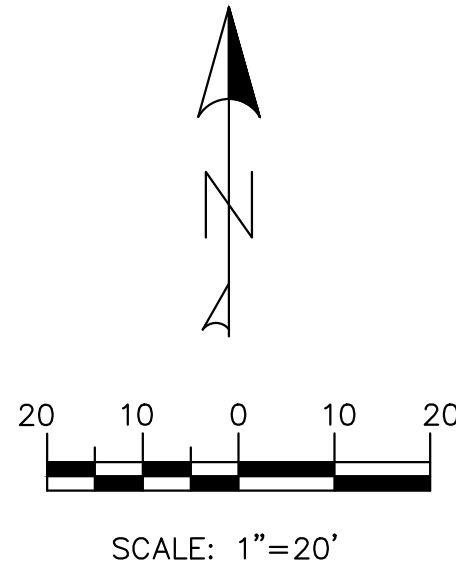
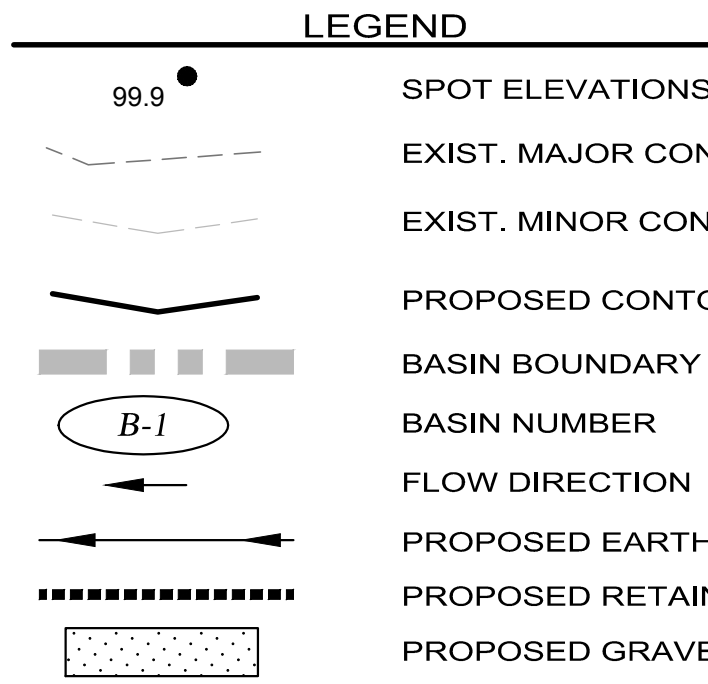
THIS PROJECT INVOLVES THE CONSTRUCTION OF A SINGLE-FAMILY RESIDENTIAL HOME AND A SEPARATE GARAGE. THE LOT CURRENTLY GENERALLY DRAINS FROM EAST TO WEST TO THE LOT TO THE WEST. AN OFFSITE BASIN FROM THE EAST DRAINS TO THE LOW POINT ALONG THE EAST PROPERTY LINE. USING THE COUNTY'S 2-FOOT CONTOURS ABOUT HALF OF THE RESIDENTIAL LOT TO THE EAST DRAINS ONTO THE PROPERTY. A TOTAL OF 1.39 CFS DRAINS TO THE LOW POINT ALONG THE EAST PROPERTY LINE AS SHOWN ON THE GRADING PLAN.

I, DAVID B. THOMPSON, CERTIFY THAT I HAVE PERSONALLY INSPECTED LOT 21, BLOCK 19, TRACT 3, UNIT 2, NORTH ALBUQUERQUE ACRES SITE AND SURROUNDING AREA. THERE HAS BEEN NO GRADING ON THE SITE AND THE TERRAIN CONFORMS TO THE EXISTING TOPOGRAPHY SHOWN ON THE GRADING AND DRAINAGE PLAN.

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH CHAPTER 38, FLOODS. THE REQUIREMENTS FOR BERNALILLO COUNTY FOLLOW THE HYDROLOGIC AND HYDRAULIC CRITERIA IN SECTION 22 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), ENTITLED "DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL." THE DESIGN STORM USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR PEAK FLOW COMPUTATIONS AND THE 2 TIMES THE 100-YEAR, 6-HOUR STORM FOR PEAK VOLUME COMPUTATIONS. THE SITE IS LOCATED IN ZONE 4 SO THE 100-YEAR, 6-HOUR STORM EVENT IS 2.90 INCHES. UNDER EXISTING CONDITIONS, THE SITE INCLUDES LAND TREATMENT A.

DEVELOPED DRAINAGE CONDITIONS:

IMPERVIOUS AREA OF THE PROPOSED RESIDENCE IS EQUAL TO THE 17% ALLOWABLE FOR NORTH ALBUQUERQUE ACRES, THEREFORE A RETENTION POND IS NOT REQUIRED FOR THIS LOT. RUNOFF FROM THE HOUSE, SEPARATE GARAGE AND DRIVEWAY WILL BE COLLECTED IN SWALES ON THE NORTH AND SOUTH SIDE OF THE HOUSE AND THE WEST SIDE OF THE GARAGE. THESE SWALES WILL BE COMBINED AND DISCHARGE TO SAN ANTONIO DRIVE WEST OF THE WESTERN DRIVEWAY. THE OFFSITE FLOWS FROM THE EAST WILL ALSO BE COLLECTED IN THE SWALES AND CARRIED THROUGH THE PROPERTY TO SAN ANTONIO DRIVE. THEREFORE, A TOTAL OF 3.33 CFS WILL BE DISCHARGED TO SAN ANTONIO DRIVE WEST OF THE WEST DRIVEWAY. A RETAINING WALL UP TO 6-FEET IN HEIGHT WILL BE LOCATED ALONG THE WEST PROPERTY LINE AND A PORTION OF THE NORTH PROPERTY LINE.



Tompson Engineering Consultants, Inc.

120001@ yahoo.com

4800 JUAN TABO NE, SUITE C ALBUQUERQUE, NEW MEXICO 87111 TEL: (505) 237-0442

DATE: _____

BY: _____

REVISION: _____

NO.: _____

PROJECT: _____

DRAWN BY: BLN

CHECKED BY: _____

DATE: _____

HORIZ. SCALE: _____

APPROVED BY: _____

VERT. SCALE: _____

LOT 21 BLOCK 19 UNIT 2

NORTH ABLUQUERQUE ACRES

BERNALILLO COUNTY, NEW MEXICO

OTERO SITE

GRADING AND DRAINAGE PLAN

CITY/COUNTY REVIEW

DEPARTMENT	DATE
WASTEWATER MGMT. DIV.	
WATER SERVICES	
SUBDIVISION ENG.	
STREETS	
TRAFFIC	

FOR CITY/COUNTY USE ONLY

SHEET No.

C1