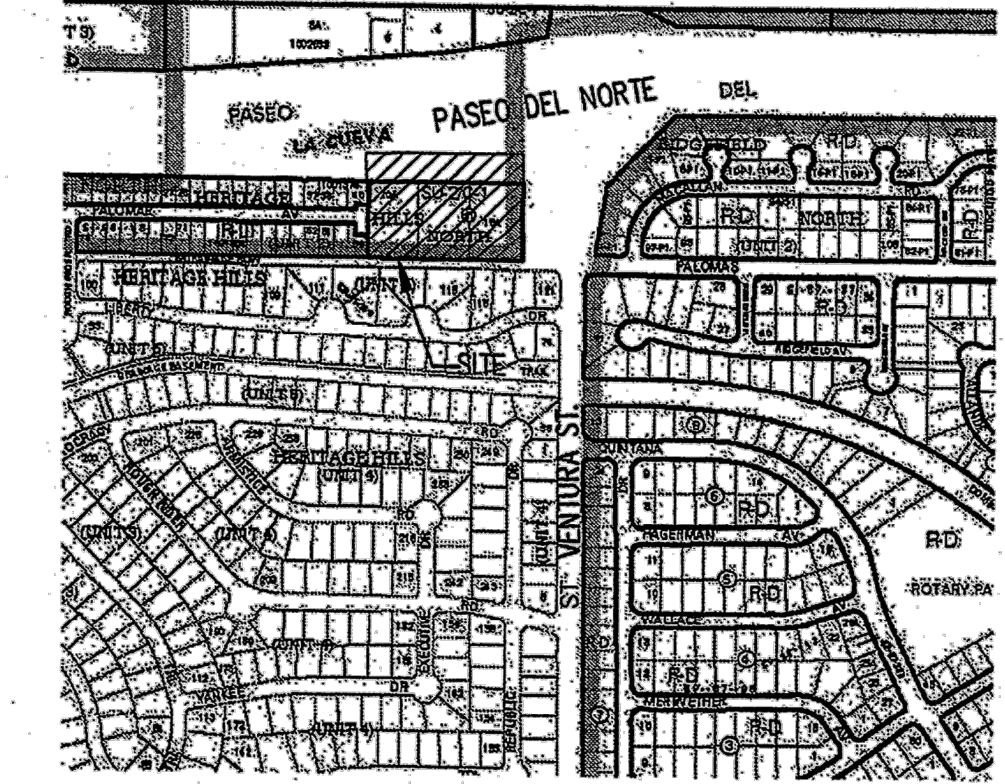


- 1 4/25/2017; REVISE GRADING PLAN FOR PARCEL A-1. REF. SHEET C1.1.
- 2 8/31/2017; REVISE GRADING PLAN FOR PARCEL A-2-B. REF. SHEET C1.2.



VICINITY MAP, ZONE ATLAS MAP PG. D-20-Z

**LEGAL DESCRIPTION**

Block 31, Tract A, Unit A, North Albuquerque Acres, Lots 13, 14, 15, 16, 20A, 19A, 18A, and 17, and Tract B, Heritage Hills North

**LEGEND**

- PROPERTY LINE
- - - - - EXISTING CONTOURS
- BASIN BOUNDARY
- PROPOSED DIRECTION OF FLOW
- ~~~~~ WATER BLOCK
- PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED STORM DRAIN INLET
- PROPOSED RETAINING WALL

**GRADING AND DRAINAGE NARRATIVE**

**Site Location and Background Information**

The purpose of this submittal is to present a drainage and grading plan for the proposed Paseo del Norte & Ventura development. The design site proposes commercial use development. The site is in rainfall zone 3 as defined by figure A-1 of the DPM section 22.2. The existing legal description of the site is Block 31, Tract A, Unit A, North Albuquerque Acres (Lots 13, 14, 15, 16, 20A, 19A, 18A, and 17), and Tract B, Heritage Hills North. Please see the vicinity map on this sheet for a graphic depiction of the site location. This conceptual grading and drainage plan is submitted in support of site plan approval.

The North Heritage Hills Subdivision Phase III drainage report, prepared by Tierra West, LLC addresses drainage to Palomar St. and the existing channel that runs behind the housing on the south side of Palomar St. This submittal specifies discharge rates into Palomar St. and the existing channel that are less than the allowable discharge rates specified in the North Hills Subdivision drainage report. This submittal also specifies storm run off into the existing storm drain that parallels Paseo del Norte.

**Existing Conditions**

This entire site (Tract A and Tract B) is approximately 6 acres and is a vacant lot. The natural slope of the site is a consistent 3% to 4% from east to west. The northern portion of the site drains to inlets along the large storm drain parallel to Paseo del Norte, the center of Tract A flows to a large sidewalk culvert that drains into Palomar, and the south portion of Tract A and Tract B flow into the channel that runs behind the housing on the south side of Palomar which is a drainage right of way retained by the City of Albuquerque.

**Proposed Conditions**

Under proposed conditions the site will slope from east to west with slopes varying from 1% to 7% to make up grade difference across the whole site and allow for functional and required slopes within the development. The site will be commercial development and is 90% treatment D. The site will continue to drain to the north storm drain, Palomar St. and the existing channel. The north portion of the site will collect drainage in a storm drain system and convey drainage to the large storm drain parallel to Paseo del Norte. The central portion of the development will drain to the sidewalk culvert and into Palomar St. The allowable discharge to Palomar St. is 11.13 cfs and under proposed conditions the unmitigated discharge will be 11 cfs. The south portion of the site will drain to a detention pond in the southwest corner of the site. The detention pond and outlet pipe will be designed to outfall less than the allowable discharge of 2.08 CFS into the existing channel.

**Flood plain**

In accordance with FEMA community map panel #???????, the site is not located within a flood plain.

**Offsite Flows**

There are no significant upstream offsite flows which will impact this site.

**Conclusions**

This drainage submittal has been prepared in accordance with City of Albuquerque requirements. This plan clearly demonstrates the proposed, general surface grading and drainage. The implementation of this design will result in the safe passage of the 100 year storm event. With this submittal we request hydrology department approval of this Grading and Drainage Plan for the DRB.

EXISTING SIDEWALK CULVERT  
Q(ALLOWABLE): 11.13 CFS  
Q(PROPOSED): 10.99 CFS

DETENTION POND  
HWL5534.00  
POND BOT5528.50  
VOLUME (PROPOSED): 9417  
VOLUME (EXISTING): 8382  
MAX DESIGN Q (100): 7.67 CFS  
MAX DESIGN Q (200): 2.08 CFS

**STORM DRAIN PIPE TABLE**

PIPE #	Contributing Basins and Storm Drains	Size in.	Slope	Capacity cfs	ACTUAL FLOW cfs
<b>NORTH</b>					
SD1	BSNF	12	1.00%	3.66	1.88
SD2	BSN E	12	1.00%	3.66	2.67
SD3	SD1+SD2	18	1.00%	10.50	4.55
SD4	SD3+BSND	18	1.00%	10.50	7.74
SD5	BSN B	10	1.00%	2.19	0.76
SD6	SD4+SD5+BSN B+BSN A	24	1.00%	22.62	10.26
SD7	BSN H	12	1.00%	3.66	0.72

**INLET TABLE**

Inlet #	Inlet Type	Top of Grate	Actual Flow	Avail Head ft	Capacity
IN1	12" Nyloplast Pedestrian	41.78 (approx)	0.18	0.1	0.60
IN2	2'X2' Nyloplast Road & Highway	49.50	1.88	0.2	4.25
IN3	2'X2' Nyloplast Road & Highway	44.00	2.67	0.5	6.00
IN4	2'X2' Nyloplast Road & Highway	40.65	3.19	0.2	4.25
IN5	2'X2' Nyloplast Road & Highway	38.60	0.38	0.2	4.25
IN6	2'X2' Nyloplast Road & Highway	38.60	0.38	0.2	4.25

**PASEO DEL NORTE & VENTURA SITE BASIN PROPERTIES**  
Proposed Ultimate Development Conditions Basin Data Table  
This table is based on the DPM Section 22.2, Zone: 3

Basin ID	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	V(100) (Inches)	V(100) (CF)	V(100) (24hr) (CF)
			A	B	C	D					
BASIN A	9018	0.21	0.0%	0.0%	10.0%	90.0%	4.86	1.01	2.26	1693	2031
BASIN B	6779	0.16	0.0%	0.0%	10.0%	90.0%	4.86	0.76	2.25	1273	1527
BASIN C	16477	0.38	0.0%	5.0%	5.0%	90.0%	4.82	1.82	2.23	3068	3686
BASIN D	28130	0.65	0.0%	0.0%	5.0%	95.0%	4.94	3.19	2.31	5407	6520
BASIN E	23556	0.54	0.0%	0.0%	5.0%	95.0%	4.94	2.67	2.31	4528	5460
BASIN F	17709	0.41	0.0%	10.0%	10.0%	80.0%	4.62	1.88	2.11	3112	3703
BASIN G	82790	1.90	0.0%	5.0%	5.0%	90.0%	4.82	9.16	2.23	15416	18521
BASIN H	6222	0.14	0.0%	0.0%	100.0%	5.02	0.72	2.36	1224	1483	
BASIN I	62835	1.44	0.0%	5.0%	5.0%	90.0%	4.82	6.95	2.23	11700	14057
BASIN J	10280	0.24	0.0%	0.0%	95.0%	5.0%	3.53	0.83	1.34	1151	1172
BASIN K	1480	0.03	0.0%	25.0%	0.0%	75.0%	4.42	0.15	2.00	247	293

TO DET POND (sum BSNS H and I)  
69057 1.59  
Allowable Flow: 11.13 cfs to Palomar ave.  
2.08 cfs to South discharge channel

Proposed Q to Palomar:  
10.99 7.67

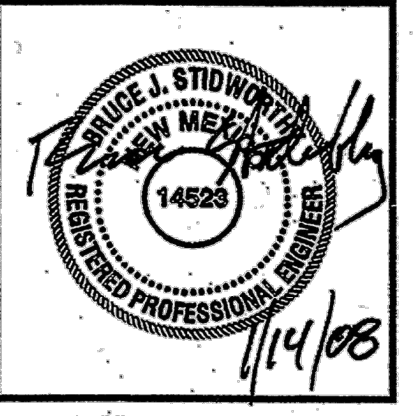
**Bohannon & Huston**  
Court yard | 7600 Jefferson St. NE Albuquerque, NM 87109-4335  
ENGINEERING & SPATIAL DATA & ADVANCED TECHNOLOGIES

**CONCEPTUAL DRAINAGE MANAGEMENT PLAN**  
SCALE: 1" = 50'-0"  
0' 25' 50' 150'

REV	DATE	BY	REVISION

**DRB SUBMITTAL**

GEORGE RAINHART, ARCHITECT AND ASSOCIATES P.C.  
2325 SAN PEDRO NE., SUITE 2-B  
ALBUQUERQUE, NEW MEXICO 87110  
PHONE (505) 884-9110 FAX (505) 837-9877



PROJECT TITLE: PASEO DEL NORTE & VENTURA  
PROJECT LOCATION: PASEO DEL NORTE AND VENTURA ALBUQUERQUE, NM  
DRAWN BY: JCS  
JOB NO.:  
PROJECT MANAGER:  
SHEET TITLE: DRAINAGE MANAGEMENT PLAN

DATE: 01.15.08	sheet-
SCALE: AS NOTED	<b>C2A</b>