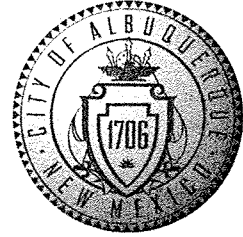


CITY OF ALBUQUERQUE



September 11, 2009

Philip W Clark, PE
Clark Consulting Engineers
19 Ryan Rd.
Edgewood, NM 87015

**Re: Glendale Development Lot 30-B Grading and Drainage Plan
Engineer's Stamp dated 8-8-09 (B20/D20)**

Dear Mr. Clark,

Based upon the information provided in your submittal dated 8-8-09, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification of the grading plan per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

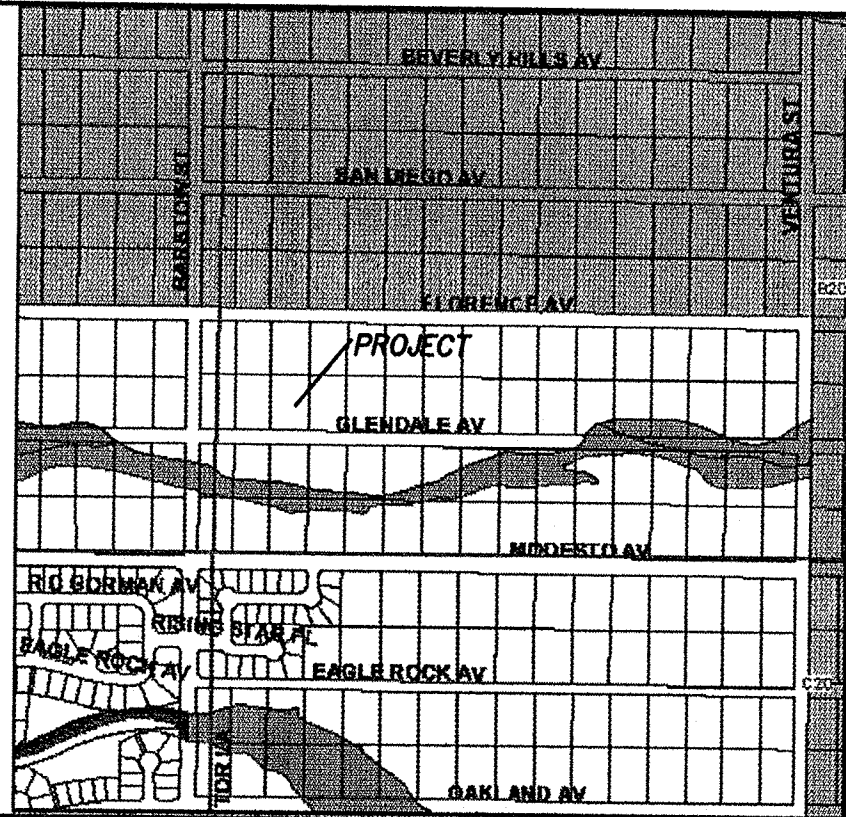
C: file

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



FIRM MAP PANEL # 133 G

GRADING & DRAINAGE PLAN

THE PROPOSED RESIDENTIAL PROJECT IS LOCATED IN THE NORTH ALBUQUERQUE ACRES AREA OF THE FAR NORTHEAST HEIGHTS OF ALBUQUERQUE. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND EXISTING STRUCTURES
2. PROPOSED IMPROVEMENTS: A 4200 SF ASSISTED LIVING RESIDENCE, PRIVATE ASPHALT DRIVEWAY AND PARKING, NEW GRADE ELEVATIONS, WALL, AND LANDSCAPING IMPROVEMENTS.
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
4. QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE EXISTING FLOWS.

PRESENTLY, THE SITE IS UNDEVELOPED. THE SITE IS BOUNDED BY DEVELOPED PROPERTY TO THE EAST, KINLEY AVE. ON THE ADJACENT PROPERTY TO THE NORTH IS UNDEVELOPED AND VACANT, GLENDALE AVE. ON THE SOUTH IS A 24 FEET WIDE TEMPORARY ASPHALT SURFACE, CITY MAINTAINED MINOR STREET WITHOUT SIDEWALK OR CURB AND GUTTER. THE SITE TERRAIN SLOPES FROM EAST TO WEST AT ABOUT 3 TO 4% SLOPES.

THE SITE IS NOT WITHIN OR ADJACENT TO A DESIGNATED FEMA FLOOD HAZARD ZONE. DEVELOPED LOT RUNOFF WILL BE PERMITTED TO DRAIN DIRECTLY TO GLENDALE AVENUE ON THE SOUTH. HISTORICAL OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF PROJECT RUNOFF IS ACCEPTABLE SINCE IMMEDIATE DOWNSTREAM DRAINAGE FACILITIES DO EXIST. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING AS POINT RAINFALL.

CALCULATIONS

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: $Q = Q_{PEAK} \times AREA$, "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: $VOLUME = E_{WEIGHTED} \times AREA$
 $P_{100} = 2.60$ inches, Zone 3
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS - TWO LOTS

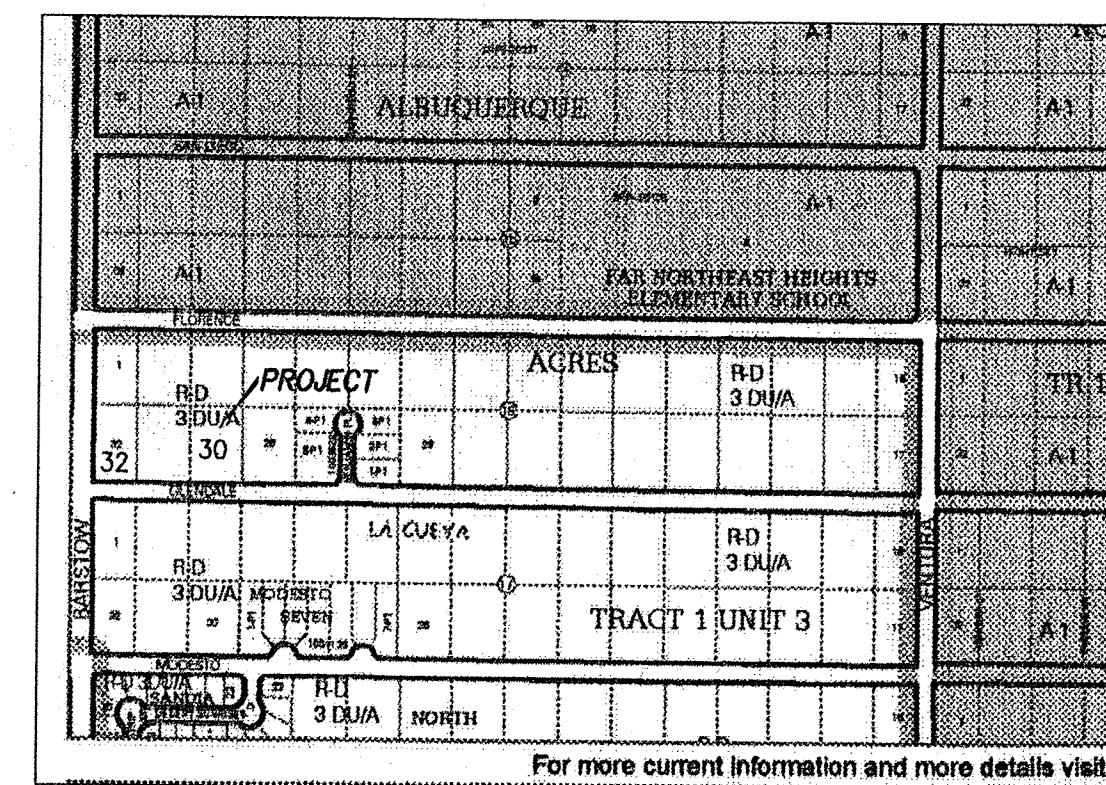
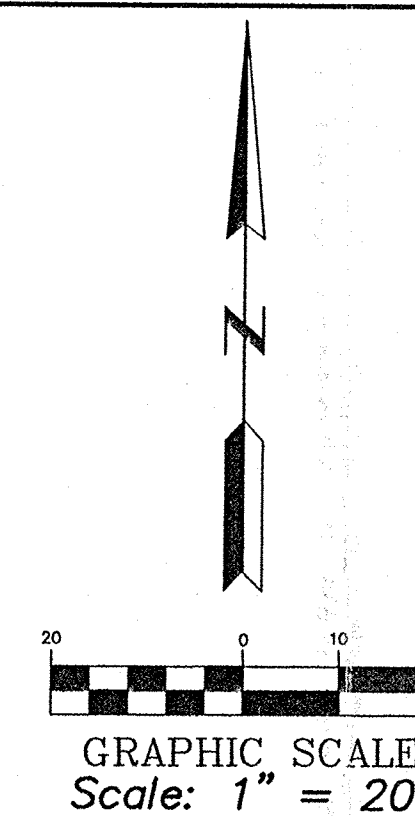
LOT AREA = 0.89 ACRES, WHERE EXCESS PRECIP. "W" = 0.66 in. [0.19]
PEAK DISCHARGE, $Q_{100} = 1.6$ CFS [0.5] WHERE UNIT PEAK DISCHARGE = 1.9 CFS/AC. [0.6]
THEREFORE: $VOLUME_{100} = 2132$ CF [614]

DEVELOPED CONDITIONS (Includes Paved Parking, LOT 30-B)

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

AREA	LAND TREATMENT	Q Peak	E
UNDEVELOPED	0.00 AC (0%)	A 1.87[0.58]	0.66[0.19]
LANDSCAPING/POND	0.13 AC (30%)	B 2.60[1.19]	0.92[0.36]
GRAVEL & COMPACTED SOIL	0.12 AC (27%)	C 3.45[2.00]	1.29[0.62]
ROOF - PAVEMENT	0.19 AC (43%)	D 5.02[3.39]	2.36[1.50]

THEREFORE: $E_{WEIGHTED} = 1.64$ in. [0.92] &
 $Q_{100} = 1.7$ CFS
 $Q_{10} = 1.03$ CFS
 $VOLUME_{100} = 2619$ CF
 $VOLUME_{10} = 1469$ CF



VICINITY MAP ZONE MAP: B - 20
Scale: 1" = 625'

NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 7TH EDITION W/ UPDATES.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL.
5. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
6. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
7. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1.
8. NEW ASPHALT PAVEMENT SHALL CONSIST OF 2" ASPHALT CONCRETE OVER 8" COMPACTED WELL-GRADED, SUBGRADE, R-VALUE 40 OR > MATERIAL 95% PROCTOR, ASTM D-1557

LEGEND

- CENTERLINE OF STREET
- EXIST. EDGE OF ROAD
- EXISTING POWER POLE
- 5770 EXISTING CONTOUR
- EA EXISTING EDGE OF ASPHALT
- NEW CONCRETE
- F-F FACE TO FACE OF CURB
- NEW CURB & GUTTER
- NEW CONTOUR
- NEW LOT DESIGNATION
- FOUND SURVEY MONUMENT
- NEW SPOT ELEVATION

LEGAL DESCRIPTION:
LOTS 30, 31 & 32, BLOCK 16, TRACT 1, UNIT 3, NORTH ALBUQUERQUE ACRES, FILED 9/10/31, BK. D-121.

PROJECT BENCHMARK
ACS STATION 1-B20, AN ACS 1 3/4" ALUMINUM DISK STAMPED "ACS BM 1-B20", EPOXYED TO THE TOP OF CONCRETE POST. LOCATED AT THE NE QUADRANT INTERSECTION OF MODESTO AND BARSTOW AVENUES NE, ELEVATION 5477.21 (NAVD 88)

TOPOGRAPHIC SURVEY
COMPILED BY CLARK CONSULTING ENGINEERS, INC. FIELD SURVEYS PERFORMED BY TERRAMETRICS OF NEW MEXICO, JUNE 2009

Clark Consulting Engineers		HYDROLOGY	
19 Ryan Road Edgewood, New Mexico 87015		19 Ryan Road Edgewood, New Mexico 87015	
Tele: (505) 281-2444	Fax: (505) 281-2444		
DATE	REVISION	LOTS 30, 31, AND 32, BLOCK 16, TRACT 1, UNIT 3, NORTH ALBUQUERQUE ACRES	
		A GLENDALE DEVELOPMENT SITE DEVELOPMENT PLAN W/ Grading LOT 30 FOR MASTER HOMECRAFTERS, INC.	
DESIGNED BY: PWC	DRAWN BY: CCE	JOB #Schiff_Glendale	C1.0
CHECKED BY: PWC	DATE: 6JUNE09	FILE #:	sdp

