PROPERTY DOES NOT LIE WITHIN OR ADJACENT TO FLOOD HAZARD AREA

FIRM MAP PANEL # 138H

GRADING & DRAINAGE PLAN

THE PROPOSED COMMERCIAL PROJECT IS LOCATED IN THE NORTH VALLEY AREA OF METRO ALBUQUERQUE WITHIN BERNALILLO COUNTY. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.86-46, AND THE COUNTY 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 4800 SF OFFICE / EQUIP SALES, WAREHOUSE BLDG, PRIVATE ASPHALT DRIVEWAY AND PARKING, NEW GRADE ELEVATIONS, 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.

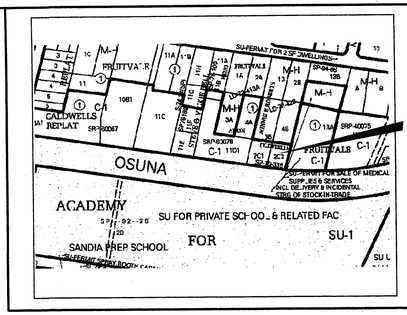
PRESENTLY, THE SITE IS VACANT, AND IS BOUNDED BY DEVELOPED COMMERCIAL PROPERTY. OSUNA ROAD ON THE SOUTH IS A 4-LANE DIVIDED CITY MAINTAINED MINOR ARTERIAL WITH CURB/GUTTER AND SIDEWALK. THE SITE TERRAIN SLOPES FROM NORTH TO SOUTH AT AVERAGE SLOPES UP TO 2-3%

THE SITE IS NOT WITHIN OR ADJACENT TO A DESIGNATED FEMA FLOOD HAZARD ZONE. DEVELOPED LOT RUNOFF WILL BE PERMITTED TO DRAIN TO THE EXISTING DRIVEPADS. HISTORICAL OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF PROJECT RUNOFF IS ACCEPTABLE SINCE DOWNSTREAM DRAINAGE FACILITIES EXIST IN OSUNA (SEE SAD 1986). A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING TO PROMOTE WATER HARVESTING.

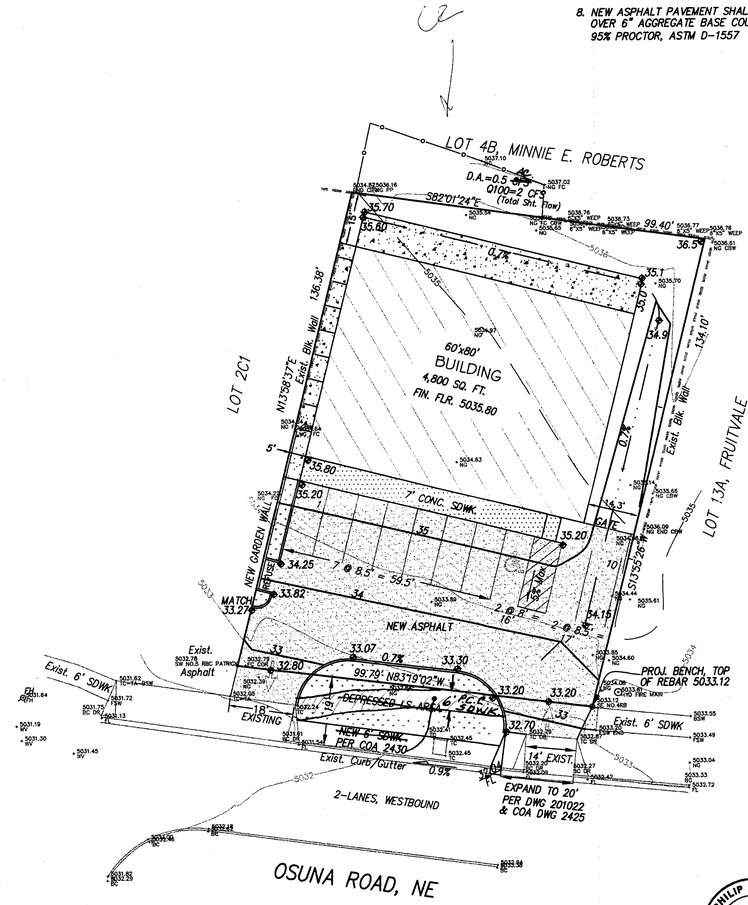
NO DEVELOPED FLOWS ENTER SITE. OFF SITE UNDEVELOPED FLOWS ENTER FROM THE NORTH AND ARE QUANTIFIED ON THE PLAN; ARE ACCEPTED AND ALLOWED TO DRAIN THROUGH THE SITE.

NOTES

1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NEW MEXICO STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, INCLUDING BERNALILLO COUNTY STREET STANDARDS.
2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN COUNTY 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 3" ASPHALT CONCRETE OVER 6" AGGREGATE BASE COURSE ON 8" COMPACTED SUBGRADE, 95% PROCTOR, ASTM D-1557



VICINITY MAP ZONE E-16



LEGEND

+24.0	EXIST. SPOT ELEVATION
10	EXIST. CONTOUR
◆ 24.0	NEW SPOT ELEVATION
54	NEW CONTOUR
	NEW SWALE
	DRAINAGE DIRECTION, EXISTING
FL	FLOWLINE
O PP	EXISTING POWER POLE
NG OR G	NATURAL GROUND, EXISTING
R/C	REBAR AND CAP, EXISTING
CLF	CHAIN LINK FENCE, EXISTING
	NEW P.C.C., CONCRETE
	NEW RIPRAP, 6" DEPTH, TYPE VVL, D = 4" DIA. 50

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=QPEAK x AREA.."Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: VOLUME = EWeighted x AREA
P100 = 2.35 Inches, Zone 2 Time of Concentration, TC = 10 Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [ ] = 10 YEAR VALUES

UNDEVELOPED CONDITIONS

HISTORIC
LOT AREA = 0.31 ACRES, WHERE EXCESS PRECIP. "W" =0.53 In. [0.13]
PEAK DISCHARGE, Q100 = 0.5 CFS [0.12], WHERE UNIT PEAK DISCHARGE = 1.6 CFS/AC. [0.4]
THEREFORE: VOLUME 100 = 596 CF [146]

DEVELOPED CONDITIONS

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

	AREA	LAND TREATM'T	Q Peak	E
UNDEVELOPED	0.00 Ac.(0%)	A	1.56[0.38]	0.53[0.13]
LANDSCAPING/POND	0.03 Ac.(10%)	B	2.28[0.95]	0.78[0.28]
GRAVEL & COMPACTED SOIL	0.03 Ac.(10%)	C	3.14[1.71]	1.13[0.52]
ROOF - PAVEMENT	0.25 Ac.(81%)	D	4.70[3.14]	2.12[1.34]
	0.31 Ac.			

THEREFORE: $E_{Weighted}$ = 1.91 In.[1.19] &

Q100 =1.34 CFS VOLUME 100 = 2149 CF
Q10 =0.87 CFS VOLUME 10 = 1339 CF

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK NMPE #10265

PHILIP W. CLARK NEW MEXICO 10265 REGISTERED PROFESSIONAL ENGINEER 10.11.12

PROJECT DATA

LEGAL DESCRIPTION

LOT 2C2, LANDS OF OLDFIELD
BERNALILLO COUNTY, NEW MEXICO

PROJECT BENCHMARK

TOP OF REBAR @ SE PROPERTY CORNER
SEE PLAN, ELEVATION = 5033.12, AS TIED FROM ACS CONTROL 12_E16 (ELEV. 5026.10), NAVD 88.

TOPOGRAPHIC DESIGN SURVEY

PERFORMED BY GEOMETRIC SERVICES, SEPT. 2012, COMPILED AND SUPPLEMENTED BY CLARK CONSULTING ENGINEERS

RECEIVED
OCT 26 2012
LAND DEVELOPMENT SECTION

Clark Consulting Engineers
19 Ryan Road
Edgewood, New Mexico 87015
Tele: (505) 281-2444 Fax: (505) 281-2444

DATE	REVISION
10.10.12	ADDR. CNTY CMMTS

LOT 2C2, LANDS OF OLDFIELD
BERNALILLO COUNTY, NEW MEXICO

609 OSUNA RD NE - SW POSITIONING, INC.

Grading & Drainage Plan

DESIGNED BY: PWC	DRAWN BY: CCE	JOB #: OSUNA_SWPI	1 OF 1
CHECKED BY: PWC	DATE: 5/17/12	FILE #: G/D	