

FIRM MAP

PANEL # 336 E

NOTE: REF: 2003 FIRM MAPS, USING  
NAVD 1988 DATUM

## 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:  $VOLUME = E_{Weighted} \times AREA$   
 $P100 = 2.2$  inches, Zone 1  
Time of Concentration,  $TC = 10$  Minutes  
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR Where [ ] = 10 YEAR VALUES

### EXISTING CONDITIONS

LOT AREA = 0.99 ACRES, WHERE EXCESS PRECIP. "Weight" = 0.49 in. [0.08]  
PEAK DISCHARGE,  $Q100 = 1.3$  CFS [0.3], WHERE UNIT PEAK DISCHARGE = 1.29 CFS/AC. [0.24]  
THEREFORE:  $VOLUME 100 = 1761$  CF [287]

### 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	1.29[0.24]	0.49[0.08]
LANDSCAPING/POND	0.13 Ac.(14%)	B	2.03[0.76]	0.67[0.22]
GRAVEL & COMPACTED SOIL	0.14 Ac.(14%)	C	2.87[1.49]	0.99[0.44]
ROOF - PAVEMENT	0.72 Ac.(72%)	D	4.40[2.90]	1.97[1.24]
	0.99 Ac.			

THEREFORE:  $E_{Weighted} = 1.65$  in.[0.99] &  
 $Q100 = 3.8$  CFS  
 $Q10 = 2.4$  CFS

QUANTIFY UPSTREAM RUNOFF IMPACTING THE PROPERTY  
NONE

## GRADING & DRAINAGE PLAN

THE PROPOSED COMMERCIAL PROJECT IS LOCATED IN THE SOUTHWEST MESA AREA OF BERNALILLO COUNTY APPROXIMATELY 5 MILES FROM THE DOWNTOWN CORE OF THE CITY OF ALBUQUERQUE, NM. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE CITY OF ALBUQUERQUE STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

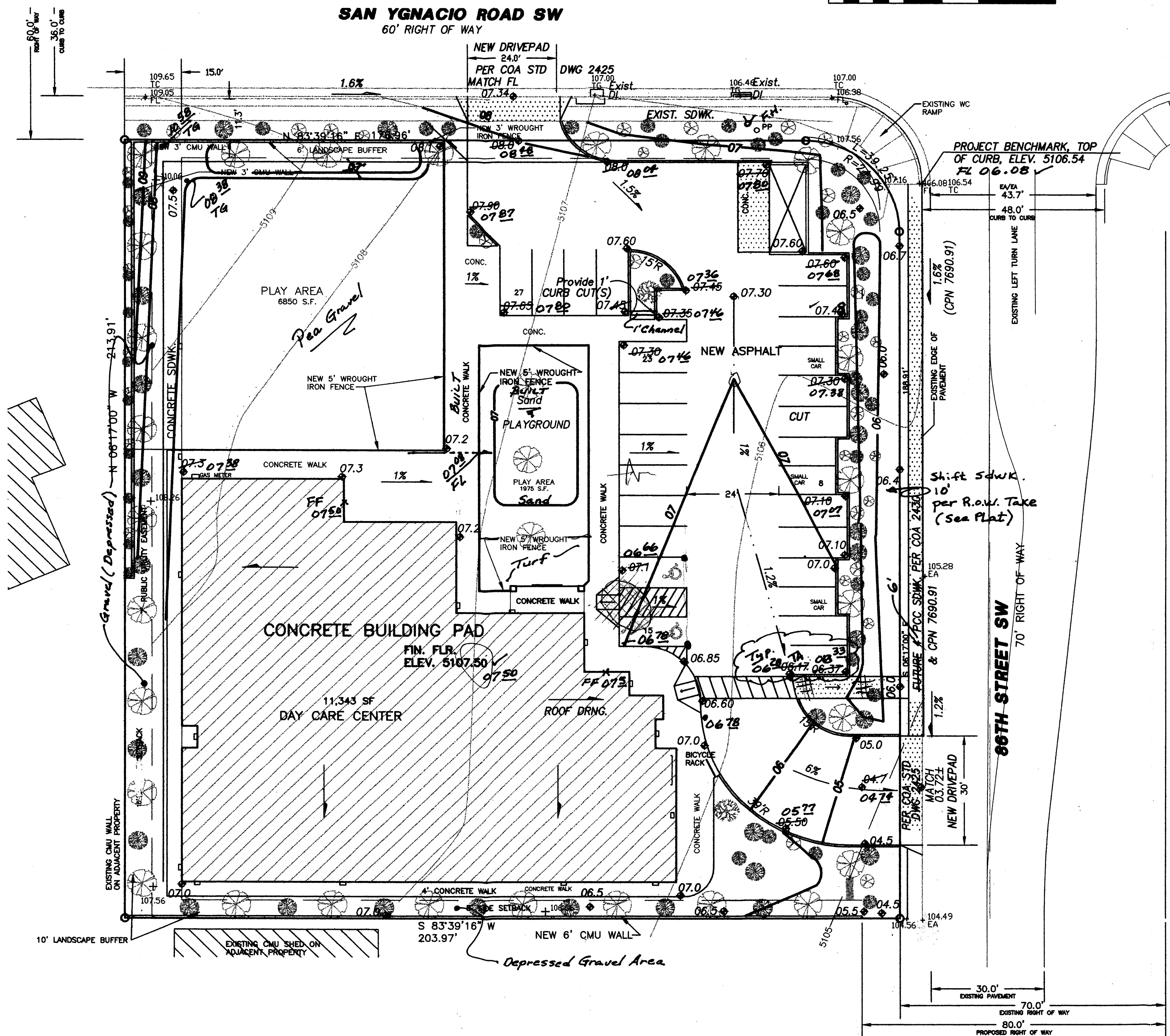
1. EXISTING CONTOURS, SPOT ELEVATIONS, EXISTING DRAINAGE PATTERNS AND IMPROVEMENTS
2. PROPOSED IMPROVEMENTS: 11300 SQUARE FOOT STRUCTURE, REQUIRED PARKING, CONCRETE FLATWORK, REFUSE PAD, AND NEW GRADE ELEVATIONS
3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS
4. ON-SITE ANALYSIS AS TO STORM WATER MANAGEMENT AND EROSION CONTROL

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF AND EROSION, AND ESSENTIALLY ALLOWING HISTORIC FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON WEST, SOUTH AND EAST BY DEVELOPED PROPERTY. SAN YGNACIO ROAD ON THE NORTH IS AN IMPROVED PAVED, MINOR LOCAL ROADWAY WITH CURB/GUTTER AND ATTACHED SIDEWALK.

THE SITE SLOPES AT APPROXIMATELY 4% TO THE SOUTHEAST. ALL OFFSITE FLOWS ARE QUANTIFIED ON THE PLAN, AND ADDRESSED IN THE CALCULATIONS.

THE SITE IS NOT ENCUMBERED BY A DESIGNATED FEMA FLOODPLAIN ZONE.

HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED IN DEVELOPMENT. MINIMAL GRADING IS PROPOSED WITHIN THE CITY R.O.W. FREE DISCHARGE OF DEVELOPED FLOW IS ACCEPTABLE SINCE CPM 7690.91 ALLOWS CONVEYANCE TO ADEQUATE FACILITIES DOWNSTREAM.



Scale: 1" = 20'

VICINITY MAP

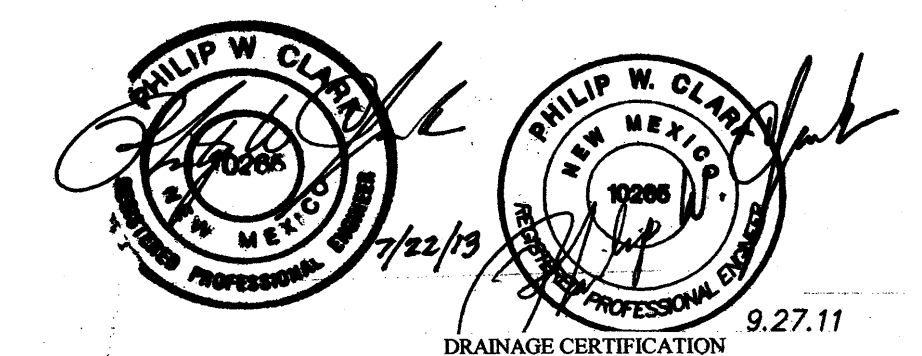
ZONE L-9

## 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. ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO EXISTING CURB CUT.
5. LANDSCAPING IRRIGATION SYSTEM SHALL BE DRIP-TYPE.
6. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
7. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
8. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.

## LEGEND

- As Bld. Elev. Top of Gravel
- EXIST. SPOT ELEVATION
- EXIST. CONTOUR
- NEW SPOT ELEVATION (Finish)
- NEW CONTOUR
- EXIST. EDGE OF ROAD
- NEW SWALE
- DRAINAGE DIRECTION
- TOP OF ASPHALT
- EXISTING POWER POLE
- NEW RIP RAP EROSION PROTECTION, 6" AVG. DIA. ROCK
- NEW CONCRETE



1. Philip W. Clark, NMPE 10265, OF THE FIRM Clark Consulting Engineers, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 7/22/13. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION (AS SUPPLEMENTAL DATA TO THE ORIGINAL TOPOGRAPHIC SURVEY PREPARED BY TERRAMETRICS NMPE 10200 OF THE FIRM P.W. Turner, Inc.) AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR Certificate of Occupancy.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

## PROJECT DATA

### LEGAL DESCRIPTION

LOT 1, LANDS OF L.W. BARRETT, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

### PROJECT BENCHMARK

SSW CURB RETURN OF 86TH/IGNACIO, TOP OF CURB  
MSL ELEVATION = 5106.54 (NAVD 88) AS TIED TO VERTICAL CONTROL ACS MONUMENT, 24-IN. ALUMINUM DISK LOCATED AT THE NW CORNER OF THE SAGE/86TH ST INTERSECTION (5096.67)

### TOPOGRAPHIC INFORMATION

COMPILED BY CLARK CONSULTING ENGINEERS, DATE 10/27/2007 FROM FIELD SUPPLEMENTAL SURVEY, TERRAMETRICS OF NM.

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

Clark Consulting Engineers	
19 Ryan Road Edgewood, New Mexico 87015	
Tel: (505) 281-2444 Fax: (505) 281-2444	
DATE	REVISION
7/22/13	As-Built
LOT 1 OF THE LANDS OF L.W. BARRETT ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO PARKSIDE CHILD DEVELOPMENT CTR.	
Grading & Drainage Plan	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 10/15/07
JOB #: BAKER_86TH	FILE #: G/D
1 OF 1	



$$1'' = 20' - 0''$$



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2. PROPOSED IMPROVEMENTS: 16000 SQUARE FOOT STRUCTURE, REQUIRED PARKING, CONCRETE FLATWORK, REFUSE PAD, AND NEW GRADE ELEVATIONS
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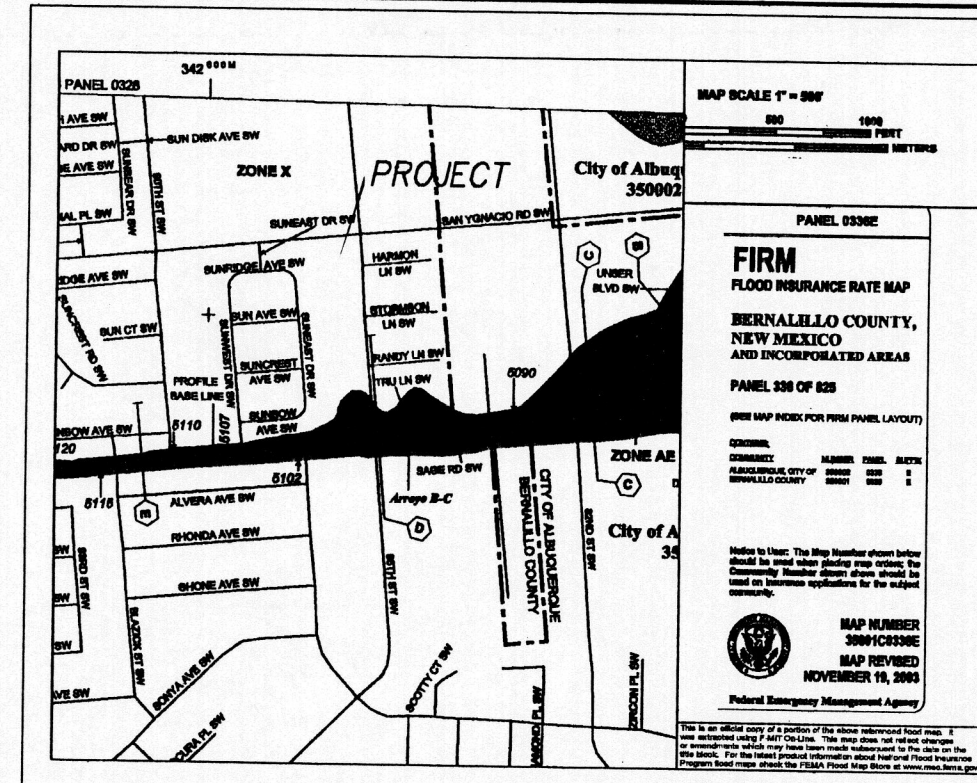
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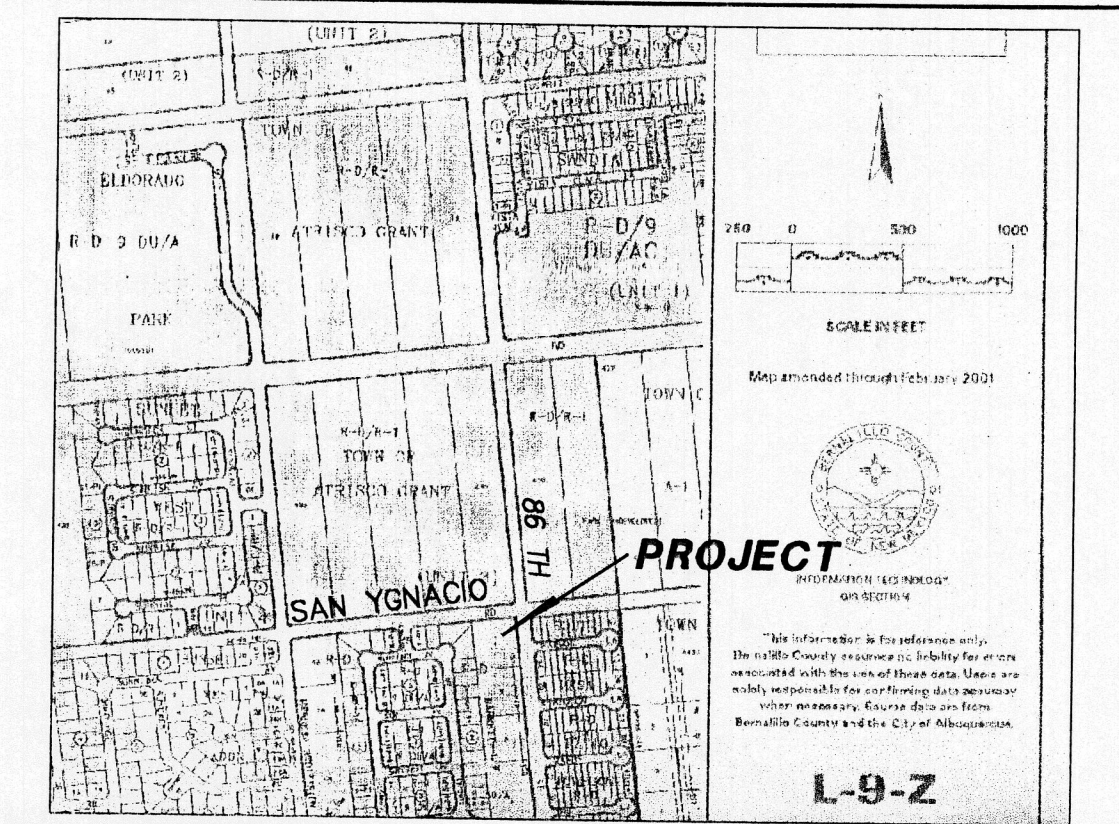
Statements not applicable to site w/ COA jurisdiction



FIRM MAP

PANEL # 336 E

NOTE: REF: 2003 FIRM MAPS, USING NAVD 1988 DATUM



VICINITY MAP

ZONE L-9

## NOTES

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## LEGEND

- +24.0 EXIST. SPOT ELEVATION
- 10 EXIST. CONTOUR
- 24.0 NEW SPOT ELEVATION
- 12 NEW CONTOUR
- EXIST. EDGE OF ROAD
- NEW SWALE
- DRAINAGE DIRECTION
- TA TOP OF ASPHALT
- PP EXISTING POWER POLE
- NEW RIP RAP EROSION PROTECTION, 6" AVG. DIA. ROCK
- NEW CONCRETE

## CALCULATIONS

### DESIGN CRITERIA

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### EXISTING CONDITIONS

100% A  
LOT AREA = 0.99 ACRES, WHERE EXCESS PRECIP. "Weight" = 0.49 in. [0.08]  
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THEREFORE:  $VOLUME 100 = 1761$  CF [287]

### DEVELOPED CONDITIONS

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

	AREA	LAND TREATMENT	Q Peak	E
UNDEVELOPED/	0.00 Ac.(0%)	A	1.29[0.24]	0.49[0.08]
LANDSCAPING/POND	0.13 Ac.(14%)	B	2.03[0.76]	0.67[0.22]
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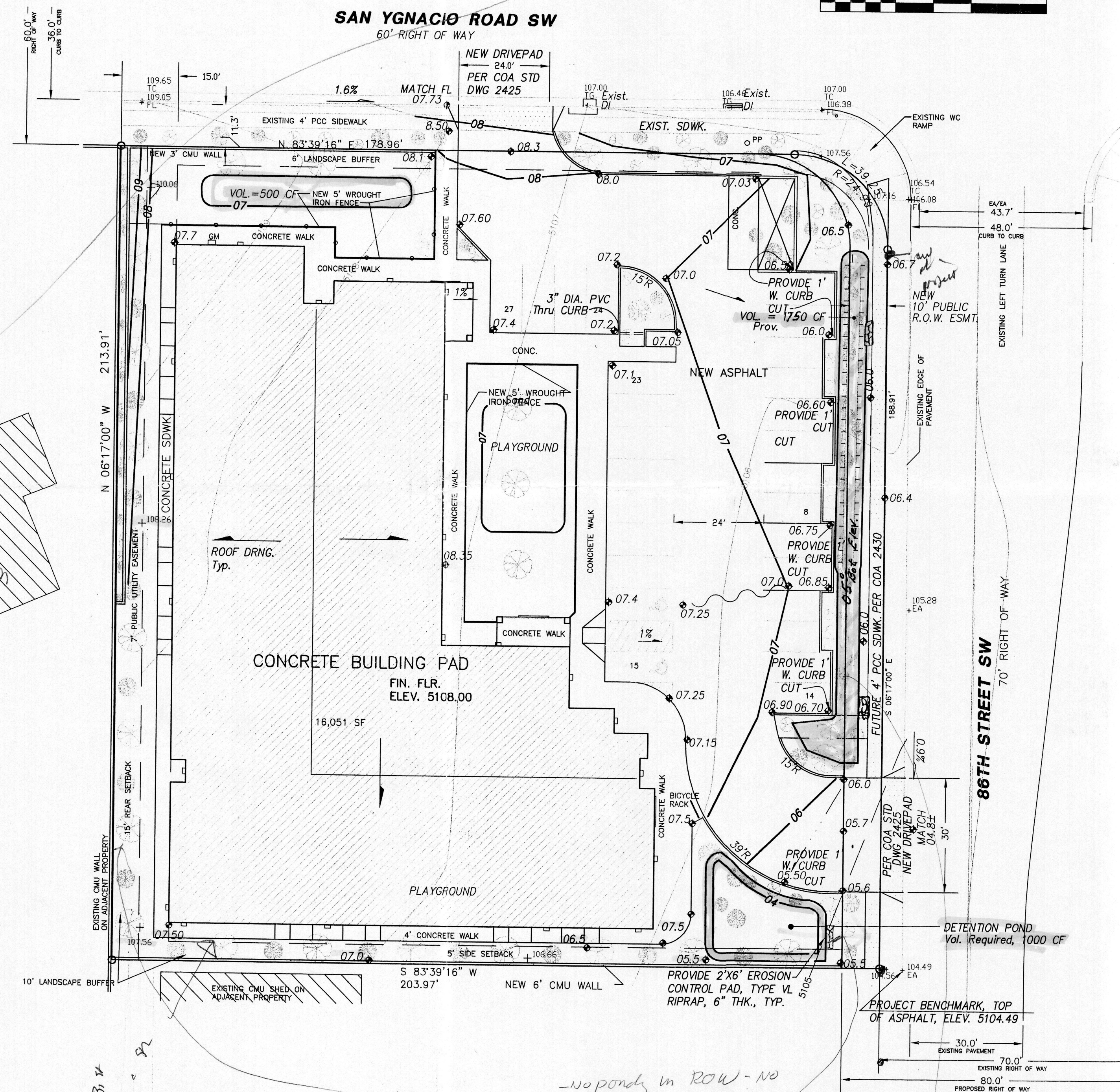
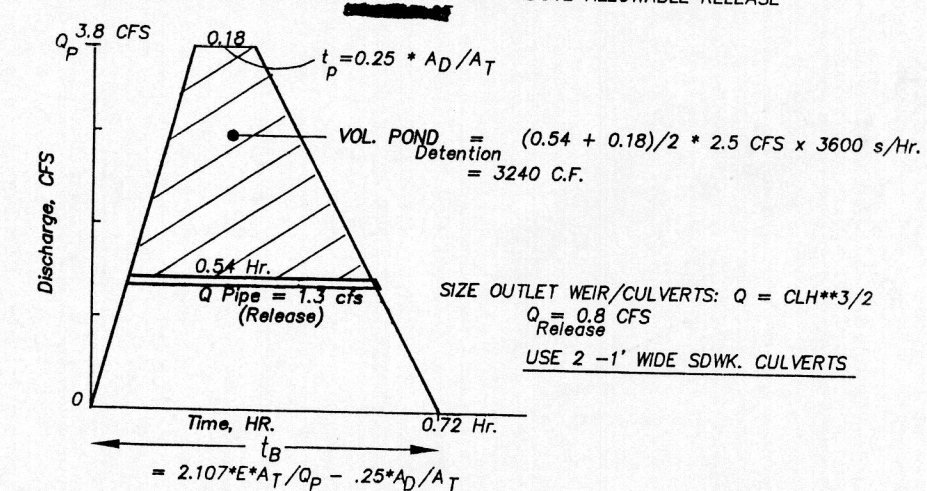
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 $Q100 = 3.8$  CFS  
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 $VOLUME 100 = 5930$  CF  
 $VOLUME 10 = 3558$  CF

### QUANTIFY UPSTREAM RUNOFF IMPACTING THE PROPERTY

NONE

### DETERMINE POND SIZE

DETENTION POND PER HYDROGRAPH & DPM, Section A.8  
STORAGE VOLUME (Required) = VOLUME AREA ABOVE ALLOWABLE RELEASE



## PROJECT DATA

### LEGAL DESCRIPTION

LOT 1/ LANDS OF L.W. BARRETT, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

### PROJECT BENCHMARK

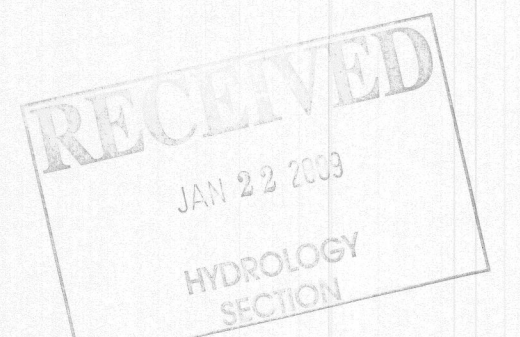
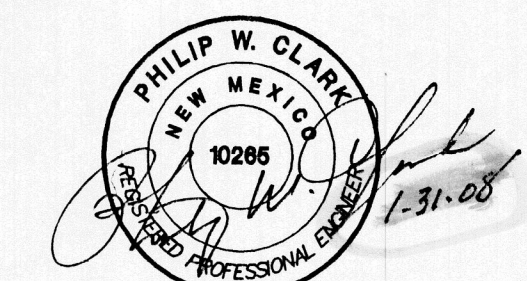
PROJECTION OF SE PROPERTY CORNER, TOP OF ASPHALT MSL ELEVATION = 5104.49 (NAVD 88) AS TIED TO VERTICAL CONTROL ACS MONUMENT, 24-L9, ALUMINUM DISK LOCATED AT THE NW CORNER OF THE SAGE/86TH ST INTERSECTION (5096.67)

### TOPOGRAPHIC INFORMATION

COMPILED BY: CLARK CONSULTING ENGINEERS, DATE 10/10/2007 FROM ACTUAL SUPPLEMENTAL SURVEY, TERRAMETRICS OF NM.

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PHILIP W. CLARK NMPE #10285



<b>Clark Consulting Engineers</b> 19 Ryan Road Edgewood, New Mexico 87015 Tele: (505) 281-2444 Fax: (505) 281-2444	
DATE	REVISION
LOT 1 OF THE LANDS OF L.W. BARRETT ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO <b>Grading &amp; Drainage Plan</b>	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 10/15/07
JOB #: BAKER_86TH	FILE #: G/D
1 OF 1	



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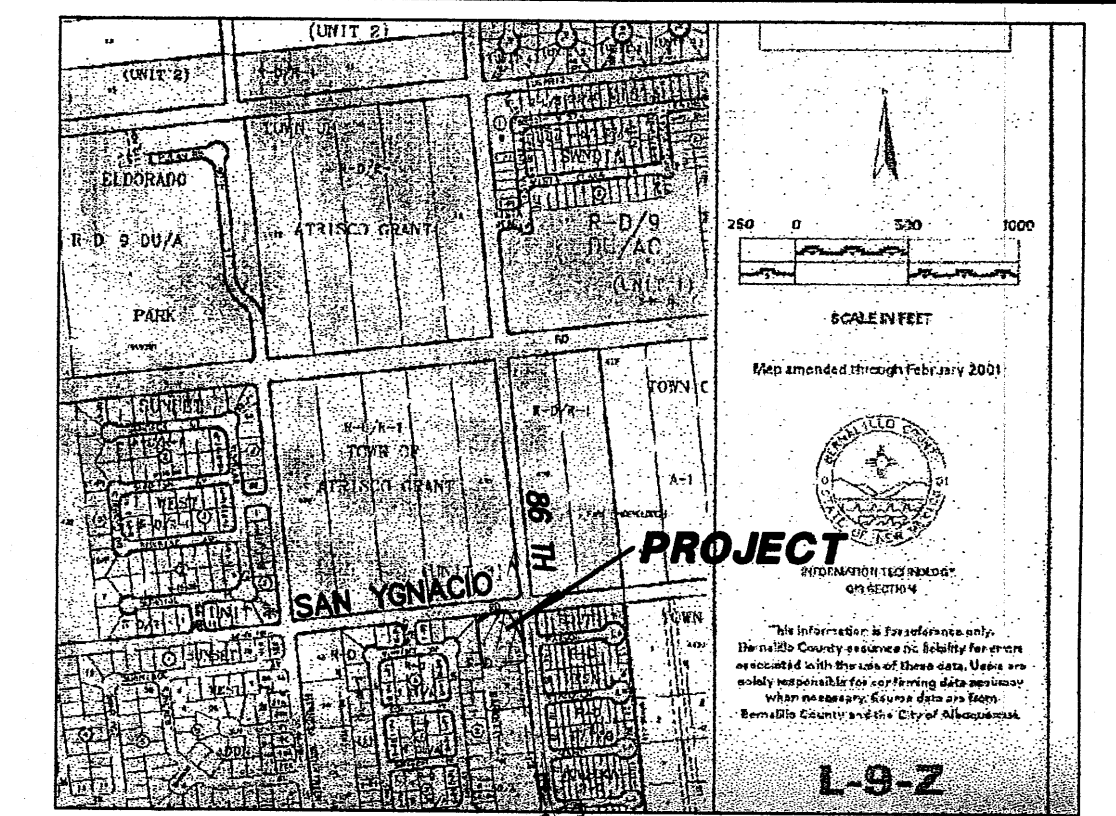
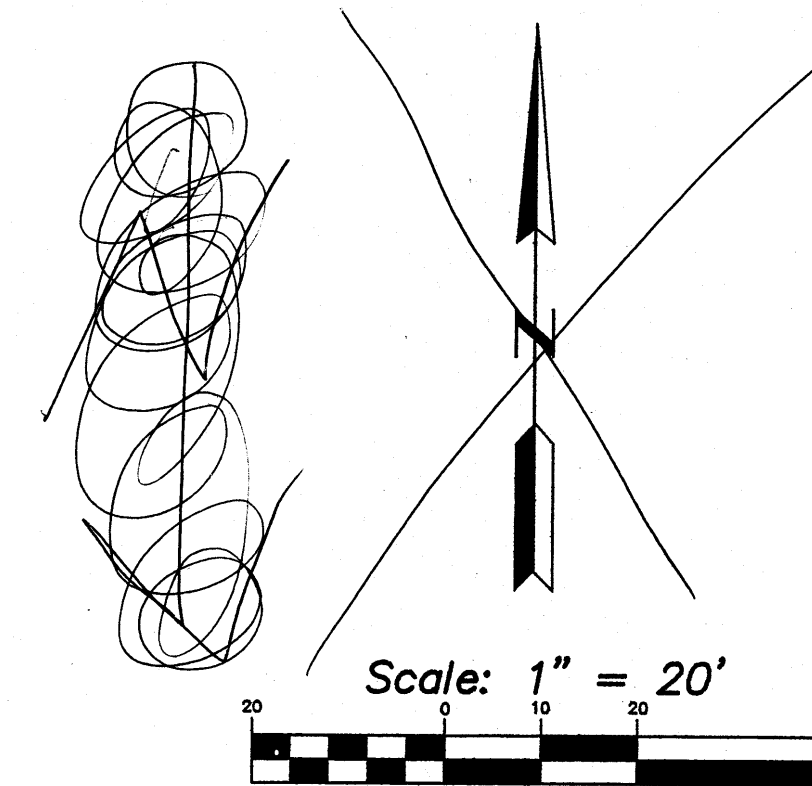
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VICINITY MAP ZONE L-9

FIRM MAP

PANEL # 336 E

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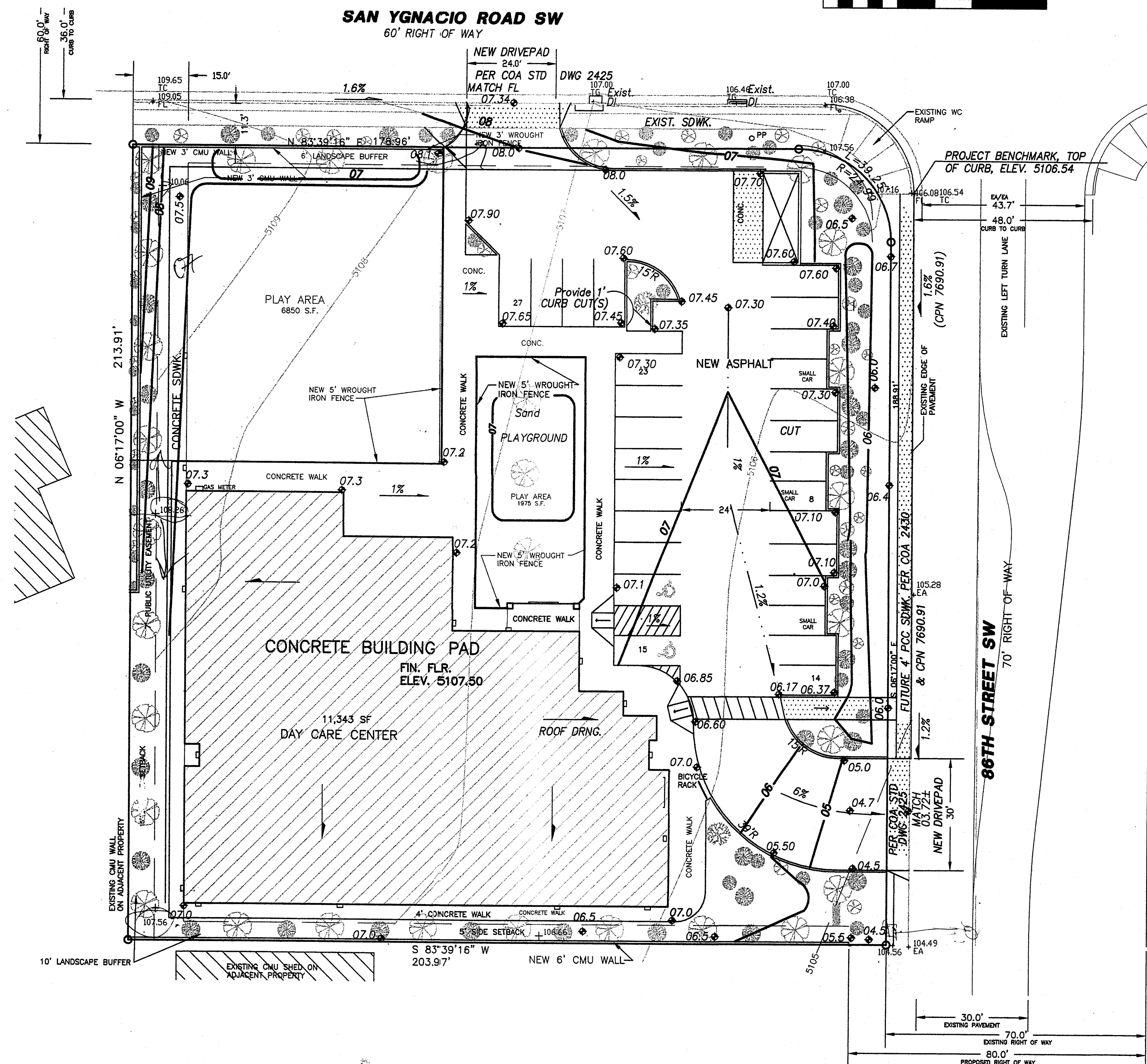
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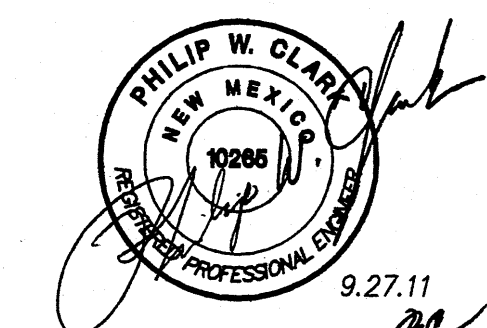


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OP	EXISTING POWER POLE
---	NEW RIP RAP EROSION PROTECTION, 6" AVG. DIA. ROCK
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OCT 6 2011

## PROJECT DATA

### LEGAL DESCRIPTION

LOT 1, LANDS OF L.W. BARRETT, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

### PROJECT BENCHMARK

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<b>Clark Consulting Engineers</b> 19 Ryan Road Edgewood, New Mexico 87015 Tele: (505) 281-2444 Fax: (505) 281-2444	
DATE	REVISION
LOT 1 OF THE LANDS OF L.W. BARRETT ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO PARKSIDE CHILD DEVELOPMENT CTR. <b>Grading &amp; Drainage Plan</b>	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 10/15/07
JOB #: BAKER_86TH	FILE #: G/D
1 OF 1	