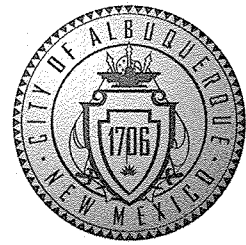


# CITY OF ALBUQUERQUE



February 12, 2014

Fred C. Arfman, P.E.  
Isaacson & Arfman, PA  
128 Monroe St NE  
Albuquerque, New Mexico 87108

**RE: Country Meadows Dog Park  
Grading and Drainage Plan  
Engineers Stamp Date 2/03/14 (B09D003H)**

Dear Mr. Arfman,

Based upon the information provided in your submittal received 2/03/14, the above referenced Grading and Drainage Plan is approved for Grading Permit and Paving Permit.

PO Box 1293

Upon completion of the project, please provide an Engineer Certification for our files. This certification can be emailed to [rael@cabq.gov](mailto:rael@cabq.gov) as a PDF file.

Albuquerque

If you have any questions, please contact me at 924-3986 or Rudy Rael at 924-3977.

New Mexico 87103

Sincerely,

[www.cabq.gov](http://www.cabq.gov)

Curtis Cherne, P.E.  
Principal Engineer, Hydrology  
Planning Department

RR/CC  
C: File



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Country Meadows Dog Park Building Permit #: \_\_\_\_\_ City Drainage #: 309D003H

DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: Lot 26B1A, Country Meadows Park, Ventana Ranch Subdivision, Albuquerque, NM

City Address: 10001 Universe Blvd. NW, Albuquerque, NM 87114

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred Arfman, PE

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: \_\_\_\_\_ E-mail: FredA@iacivil.com

Owner: City of Albuquerque Contact: Parks Dept.

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: Consensus Planning Contact: Chris Green

Address: 302 Eighth Street NW, Albuquerque, NM 87102

Phone#: 764-9801 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Surveyor: Surveying Control, Inc. Contact: Stephen Toler

Address: 131 Madison St. NE, Albuquerque, NM 87108

Phone#: 266-0935 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

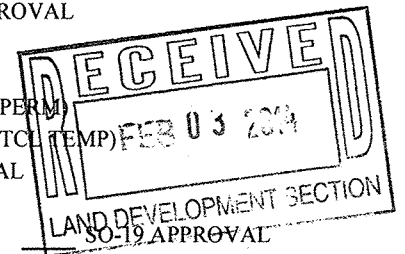
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

### TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☒ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ ENGINEER'S CERT (ESC)
- ☐ SO-19
- ☐ OTHER (SPECIFY) \_\_\_\_\_

### CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D APPROVAL
- ☐ S. DEV. FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (PERM)
- ☐ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ GRADING CERTIFICATION
- ☐ ESC PERMIT APPROVAL
- ☐ ESC CERT. ACCEPTANCE
- ☐ OTHER (SPECIFY) \_\_\_\_\_



WAS A PRE-DESIGN CONFERENCE ATTENDED: \_\_\_\_\_ Yes ☒ No \_\_\_\_\_ Copy Provided

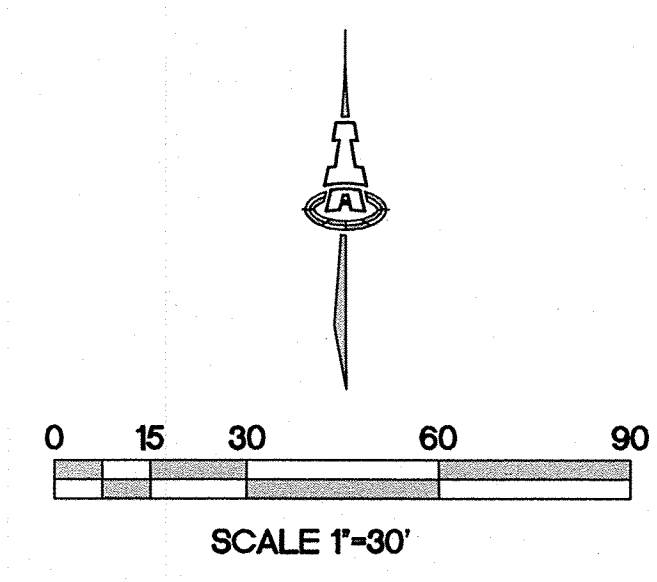
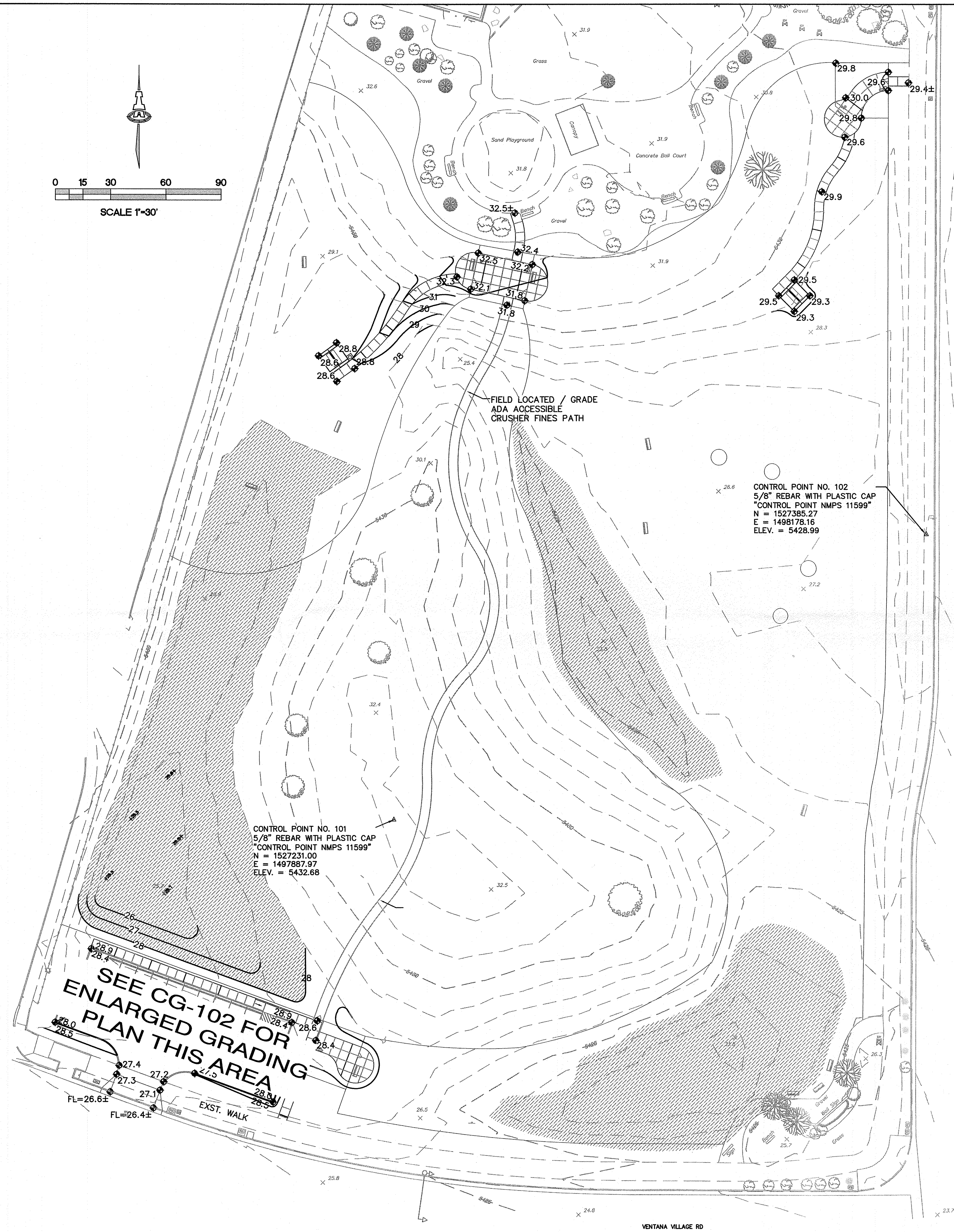
DATE SUBMITTED: February 3, 2014 By: Fred C. Arfman, PE

Isaacson & Arfman, P.A.

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development





### GENERAL NOTES

A. COORDINATE WORK WITH LANDSCAPE PLANS.

B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT ALL DISCREPANCIES TO THE ARCHITECT AND VERIFY THE ARCHITECT INTENT BEFORE PROCEEDING.

C. TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.

D. FINAL GRADES SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.

E. EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. CONTRACTOR SHALL CONTACT NM-811 FOR UTILITY LINE SPOTS TWO WORKING DAYS PRIOR TO CONDUCTING SITE FIELD WORK. CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES.

F. THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE CITY OF ALBUQUERQUE REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AN NPDES PERMIT, AND AN EROSION AND SEDIMENT CONTROL (ESC) PERMIT FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES MEET THE EPA THRESHOLD. (SWPPP, NPDES PERMIT, AND ESC PLAN BY OTHERS.) A CITY-APPROVED ESC PERMIT MUST BE INCLUDED WITH THE CONTRACTOR'S SUBMITTAL FOR A ROUGH GRADING, GRADING, PAVING, BUILDING, OR WORK ORDER PERMIT.

G. ADJUST RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES, TYPICAL.

H. WHERE NEW GRADES ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS BETWEEN NEW AND EXISTING SHALL BE SMOOTH.

I. GRADED SIDESLOPES STEEPER THAN 4:1 MUST HAVE PERMANENT EROSION CONTROL (F.F. ROCK OR LANDLOK TRM 450 O.E.) INSTALLED, TYPICAL. NO SLOPE SHALL BE STEEPER THAN 3:1.

J. ALL AREAS DISTURBED BY CONSTRUCTION (OUTSIDE PROPOSED TURF AREA) SHALL BE RESEED WITH NATIVE GRASS PER C.O.A. SPECIFICATIONS SECTION 1012 (FOR SANDY SOILS) OR AS SPECIFIED ON THE LANDSCAPE PLAN.

K. DUE TO THE EXISTING SUBSURFACE BASALT ROCK THROUGHOUT THE SITE, ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY AREAS OF EROSION AND INSTALL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.

### LEGEND

x 29.1	EXISTING SPOT ELEVATION
◆ 32.1	PROPOSED SPOT ELEVATION
- - - - -	EXISTING CONTOUR ELEVATION
— 32 —	PROPOSED CONTOUR ELEVATION
- - - - -	PROPOSED FENCE
- - - - -	DRAINAGE BASIN DELINEATION
TC	TOP OF CURB ELEVATION
TW	TOP OF WALK ELEVATION
FL	FLOWLINE ELEVATION
[Hatched Box]	NATURAL STORMWATER RETENTION

### VICINITY MAP

### PROJECT DATA

PROPERTY: THE SITE IS AN UNDEVELOPED PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP B-09. THE SITE IS BOUND TO THE EAST BY UNIVERSE BLVD., TO THE WEST BY VENTANA RANCH ELEMENTARY, TO THE SOUTH BY EXISTING PARK PLAY AREA AND TO THE NORTH BY VENTANA VILLAGE ROAD.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE MULTIPLE GATED DOG PARK AREAS WITH ASSOCIATED WALKING PATHS (CONCRETE AND LANDSCAPE ARCHITECT FIELD LOCATED CRUSHER FINES) AND PARK AMENITIES. AN ASPHALT PAVED PARKING LOT WILL BE PROVIDED FOR USERS.

LEGAL: LOT 26B1A, COUNTRY MEADOWS PARK, VENTANA RANCH SUBDIVISION, ALBUQUERQUE, NM

ADDRESS: 10001 UNIVERSE BLVD NW, ALBUQUERQUE, NM 87114

OFF-SITE: NO OFF-SITE DRAINAGE AFFECTS THIS PROPERTY.

FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP #35001C0103H, DATED AUGUST 16, 2012, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

SOILS: BASED ON THE BERNALILLO COUNTY SOIL MAPS, THE PROPERTY CONSISTS OF AmB: "ALAMEDA SANDY LOAM, 0 TO 5 PERCENT SLOPES" WITH A TYPICAL PROFILE OF GRAVELLY, SANDY LOAM OVER BEDROCK. THE NATURAL SOILS AND BASALT ARE WELL DRAINED.

DRAINAGE PLAN CONCEPT:

THE SITE IS NATURALLY DIVIDED INTO THREE DRAINAGE SUB-BASINS SEPARATED BY SHALLOW BURY OR EXPOSED BASALT TYPICAL OF THE AREA. BASED ON CALCULATIONS, EACH SUB-BASIN WILL CONTINUE TO RETAIN ALL STORMWATER BOTH IN THE HISTORIC AND DEVELOPED CONDITIONS WITH THE EXCEPTION OF THE PROPOSED ASPHALT PARKING AREA WHICH WILL FREE DISCHARGE TO VENTANA VILLAGE ROAD. EARTHWORK WILL BE LIMITED TO COMPACTED FILL AS NECESSARY TO ACHIEVE GRADES SHOWN AND TO FIELD CONSTRUCT THE CRUSHER FINES CONNECTOR PATH. THE EXISTING BASALT, BOTH EXPOSED AND BURIED, WILL REMAIN. MINOR FIELD ADJUSTMENTS WILL BE MADE, DURING CONSTRUCTION, IF NECESSARY.

SURVEYOR: SURVEYING CONTROL INC.  
131 MADISON ST. NE, ALBUQUERQUE, NM 87108  
266-0935

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEERS SEAL		REVISIONS		DESIGN	
CONTRACTOR	DATE	THE ELEVATIONS SHOWN HEREON ARE REFERRED TO NAVD 88, AND HAVE BEEN ADJUSTED TO THE ACS BENCHMARK "2-B10" (PUBLISHED ELEVATION = 5432.168').	NO.	DATE	NO.	DATE	BY	NO.	DATE	DESIGNED BY	DATE
										BRYAN BOBRICK	02/03/14
										BRYAN BOBRICK	02/03/14
										FRED ARMAN, PE	02/03/14

#### ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates  
128 Monroe Street N.E.  
Albuquerque, New Mexico 87108  
Ph. 505-268-8828 www.iacivil.com  
2022 CG-101.dwg Feb 03, 2014

#### CONSENSUS PLANNING, INC.

Planning / Landscape Architecture  
302 Eighth Street NW  
Albuquerque, NM 87102  
(505) 764-9801 Fax 842-5495  
e-mail: cp@consensusplanning.com

#### CITY OF ALBUQUERQUE

PARKS & RECREATION DEPARTMENT  
STRATEGIC PLANNING AND DESIGN DIVISION

TITLE: COUNTRY MEADOWS PARK  
OFF LEASH DOG EXERCISE AREA  
GRADING AND DRAINAGE PLAN

Design Review Committee	City Engineer Approval	Mo. / Day / Yr.	Mo. / Day / Yr.

City Project No.	661391	Zone Map No.	B-09	Sheet	4	Of	10
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RECEIVED  
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LAND DEVELOPMENT SECTION

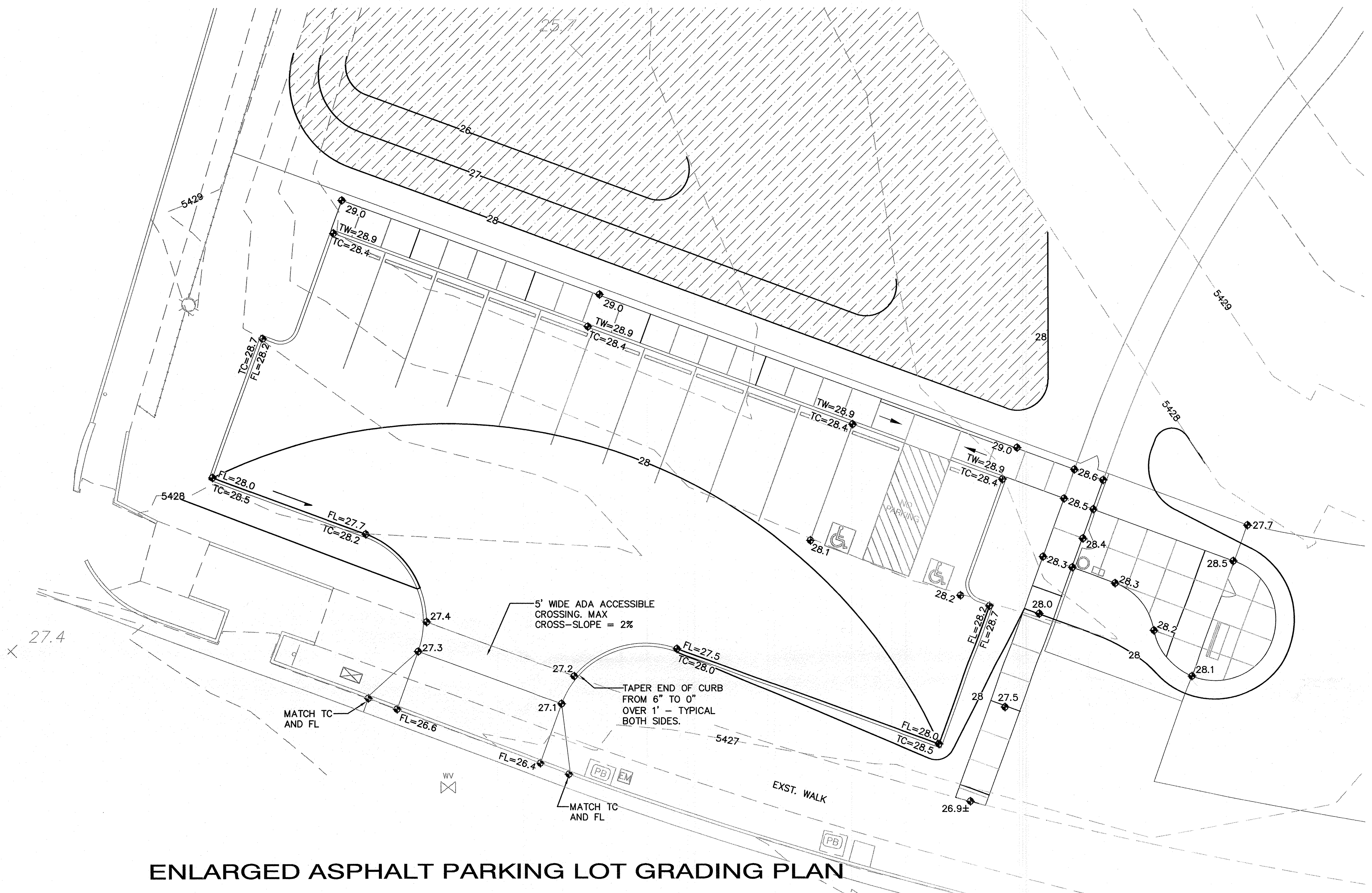
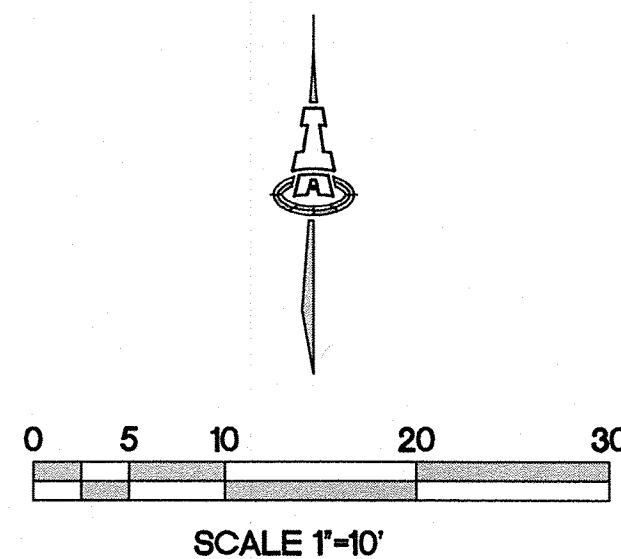
PROJECT #661391  
FEBRUARY, 2014

RECORD DRAWINGS

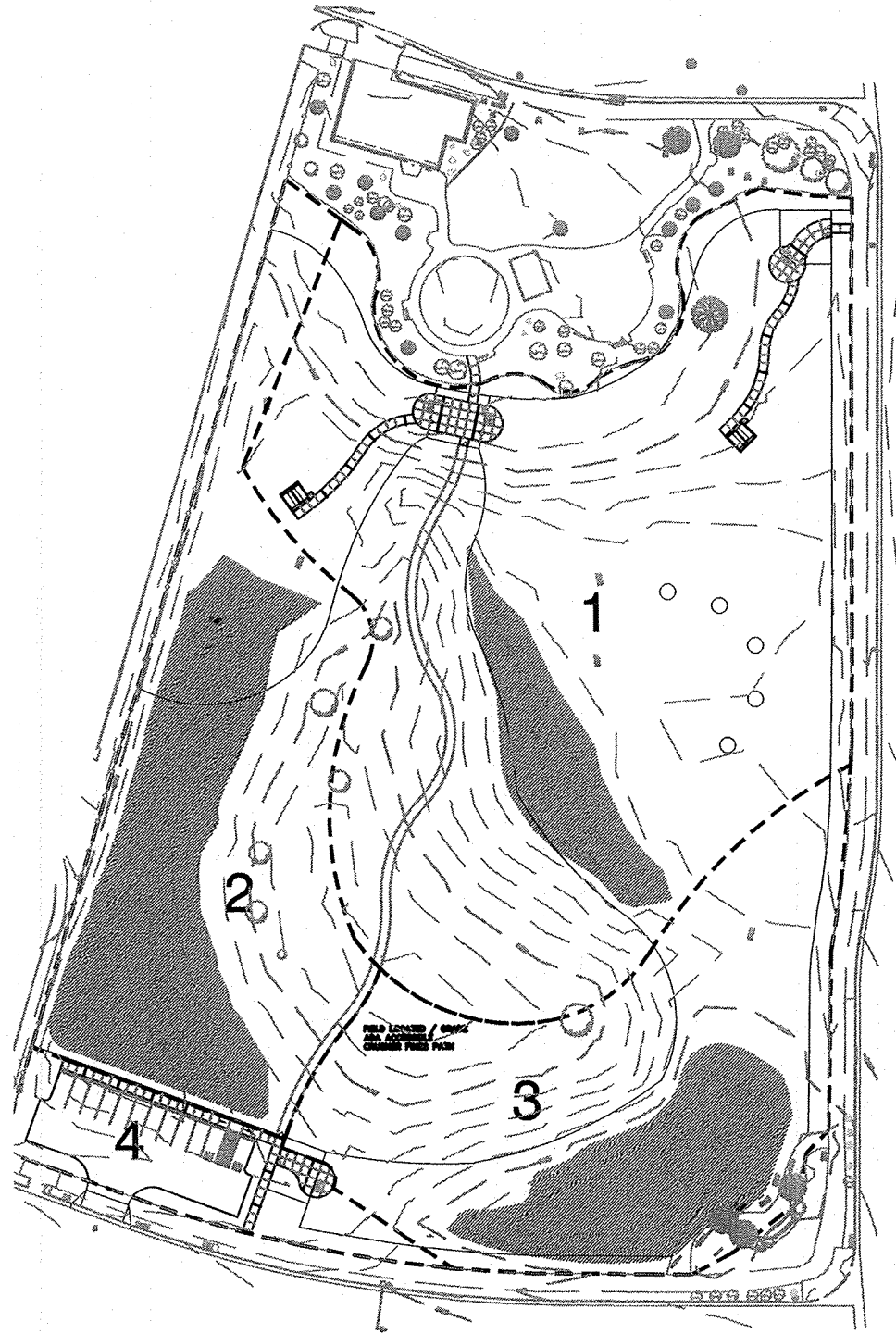
FINAL FOR CONSTRUCTION

COUNTRY MEADOWS PARK  
OFF LEASH DOG EXERCISE AREA





ENLARGED ASPHALT PARKING LOT GRADING PLAN



THE NATURAL RETENTION BASINS WITHIN THE THREE DRAINAGE SUB-BASINS PROVIDE SUFFICIENT CAPACITY TO RETAIN THE 100-YEAR 6-HOUR STORM. IF FILLED, DRAINAGE BASIN 1 WILL OVERFLOW TO THE MUCH LARGER BASIN 2.

BASIN NO.	1	DESCRIPTION
Area of basin flows =	106493 SF	2.4 Ac.
The following calculations are based on Treatment areas as shown in table to the right		
Sub-basin Weighted Excess Precipitation (see formula above)	Weighted E = 0.93 in.	LAND TREATMENT
Sub-basin Volume of Runoff (see formula above)	V <sub>500</sub> = 8235 CF	A = 0%
Sub-basin Peak Discharge Rate: (see formula above)	Q <sub>p</sub> = 6.4 cfs	B = 50%
		C = 40%
		D = 10%
BASIN NO.	2	DESCRIPTION
Area of basin flows =	48883 SF	1.1 Ac.
The following calculations are based on Treatment areas as shown in table to the right		
Sub-basin Weighted Excess Precipitation (see formula above)	Weighted E = 0.93 in.	LAND TREATMENT
Sub-basin Volume of Runoff (see formula above)	V <sub>500</sub> = 3780 CF	A = 0%
Sub-basin Peak Discharge Rate: (see formula above)	Q <sub>p</sub> = 2.9 cfs	B = 50%
		C = 40%
		D = 10%
BASIN NO.	3	DESCRIPTION
Area of basin flows =	48426 SF	1.1 Ac.
The following calculations are based on Treatment areas as shown in table to the right		
Sub-basin Weighted Excess Precipitation (see formula above)	Weighted E = 0.93 in.	LAND TREATMENT
Sub-basin Volume of Runoff (see formula above)	V <sub>500</sub> = 3745 CF	A = 0%
Sub-basin Peak Discharge Rate: (see formula above)	Q <sub>p</sub> = 2.9 cfs	B = 50%
		C = 40%
		D = 10%
BASIN NO.	4	DESCRIPTION
Area of basin flows =	11982 SF	0.3 Ac.
The following calculations are based on Treatment areas as shown in table to the right		
Sub-basin Weighted Excess Precipitation (see formula above)	Weighted E = 1.73 in.	LAND TREATMENT
Sub-basin Volume of Runoff (see formula above)	V <sub>500</sub> = 1722 CF	A = 0%
Sub-basin Peak Discharge Rate: (see formula above)	Q <sub>p</sub> = 1.1 cfs	B = 0%
		C = 25%
		D = 75%

BASIN 4 WILL FREE DISCHARGE 1.1 CFS TO VENTANA VILLAGE ROAD.

BASIN 1 GENERATES APPROXIMATELY 8235 CF DURING THE 100-YEAR 6-HOUR STORM. THE EXISTING NATURAL RETENTION BASIN (POND 1) PROVIDES STORAGE FOR 5235 CF. FLOW IN EXCESS (3000 CF) WILL PASS THE EXISTING RETENTION BASIN WITHIN BASIN 3.

POND - BASIN 1		
Contour	Area	Volume
5425.50	7461	2834 CF
5425.00	3875	2230 CF
5424.00	584	171 CF
5423.50	100	
TOTAL VOL.		5235 CF

BASIN 2 GENERATES APPROXIMATELY 3780 CF DURING THE 100-YEAR 6-HOUR STORM. THE EXISTING NATURAL RETENTION BASIN (POND 2) PROVIDES STORAGE FOR 23,722 CF.

POND - BASIN 2		
Contour	Area	Volume
5428.00	20155	15817 CF
5427.00	11479	7394 CF
5426.00	3309	511 CF
5425.70	100	
TOTAL VOL.		23722 CF

BASIN 3 GENERATES APPROXIMATELY 3745 CF DURING THE 100-YEAR 6-HOUR STORM. THE EXISTING NATURAL RETENTION BASIN (POND 3) PROVIDES STORAGE FOR 9122 CF WHICH CAN INCLUDE THE EXCESS 3000 CF FROM BASIN 1.

POND - BASIN 3		
Contour	Area	Volume
5424.00	9187	6737 CF
5423.00	4286	2296 CF
5422.00	306	89 CF
5421.50	50	
TOTAL VOL.		9122 CF

SOILS: BASED ON THE BERNALILLO COUNTY SOIL MAPS, THE PROPERTY CONSISTS OF AmB: "ALAMEDA SANDY LOAM, 0 TO 5 PERCENT SLOPES" WITH A TYPICAL PROFILE OF GRAVELLY, SANDY LOAM OVER BEDROCK. THE NATURAL SOILS AND BASALT ARE WELL DRAINED.

**ISAACSON & ARFMAN, P.A.**  
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128 Monroe Street N.E.  
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Ph. 505-268-8828 www.isaicon.com

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CITY OF ALBUQUERQUE PARKS & RECREATION DEPARTMENT STRATEGIC PLANNING AND DESIGN DIVISION	
TITLE: COUNTRY MEADOWS PARK OFF LEASH DOG EXERCISE AREA GRADING AND DRAINAGE DETAILS	
Design Review Committee	City Engineer Approval
City Project No. 661391	Zone Map No. B-09
Sheet 5	Of 10

AS BUILT INFORMATION		SURVEY INFORMATION		ENGINEERS SEAL		REVISIONS		DESIGN	
CONTRACTOR	DATE	FIELD NOTES	DATE	NO.	BY	NO.	DATE	DESIGNED BY	DATE
WORKED BY	DATE							DRAWN BY	DATE
INSPECTOR'S	DATE							CHECKED BY	DATE
ACCEPTANCE BY	DATE								
VERIFICATION BY	DATE								
DRAWING BY	DATE								
MICRO-FILM INFORMATION									
RECORDED BY	DATE								
NO.									

