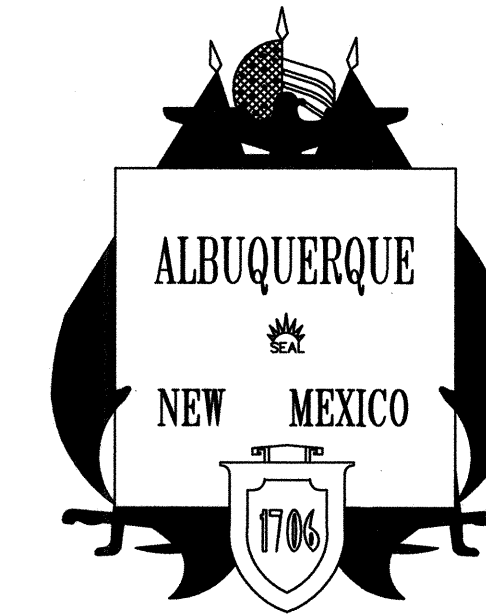


ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY



REFERENCES:		
BOCA NEGRA MARIPOSA DMP	RTI	APRIL 2005
DESIGN REPORT	WCI	DECEMBER 2011
GEOTECH REPORT	GEOTEST	OCTOBER 2011
DOUBLE EAGLE II AIRPORT DRAINAGE MANAGEMENT	MCI	APRIL 2005
HYDROLOGIC & HYDRAULIC ANALYSIS REPORT	WCI	SEPTEMBER 2011

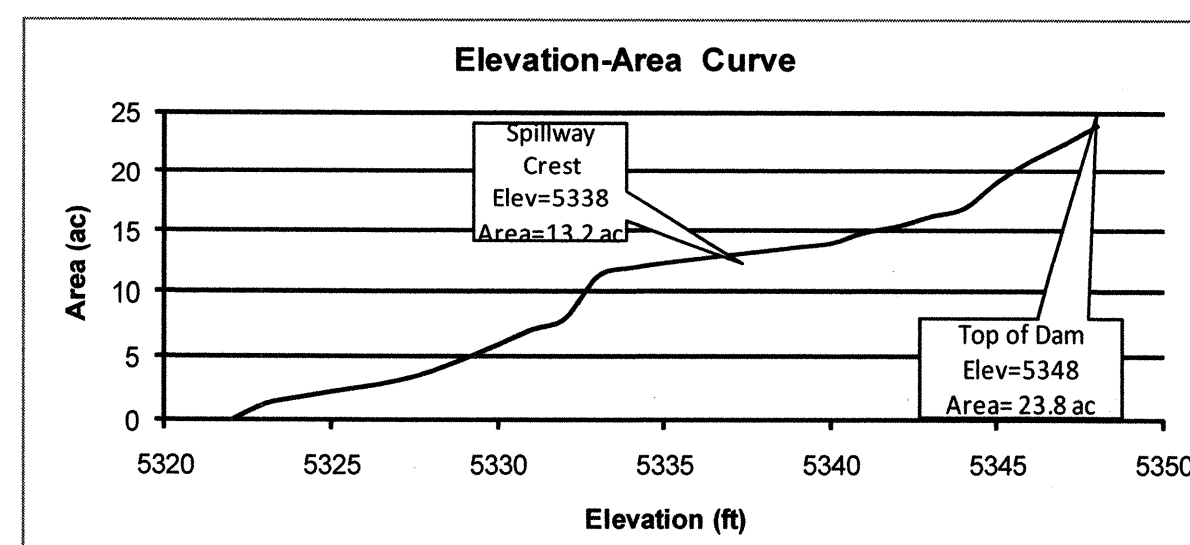
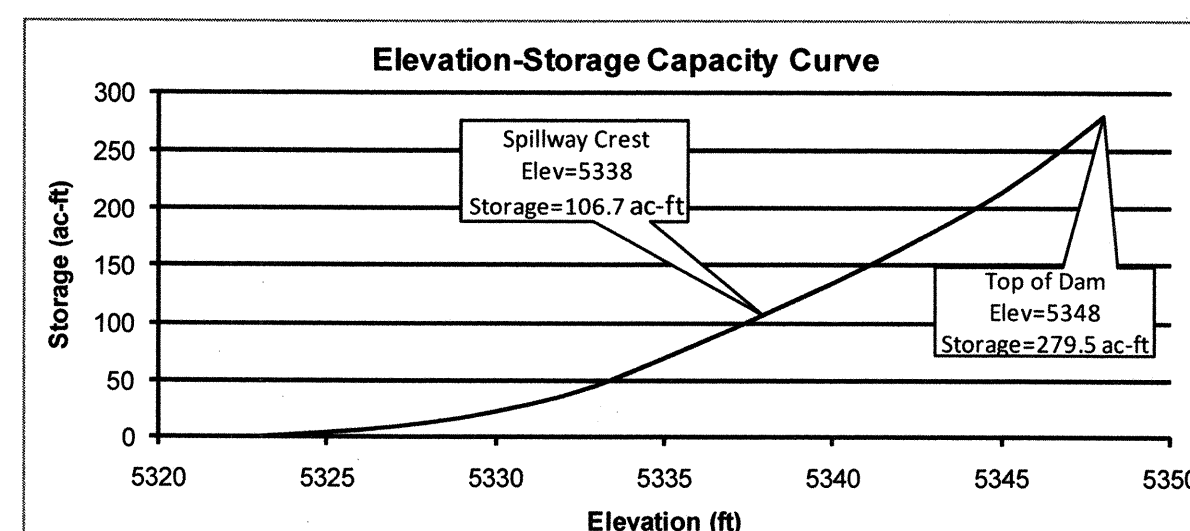
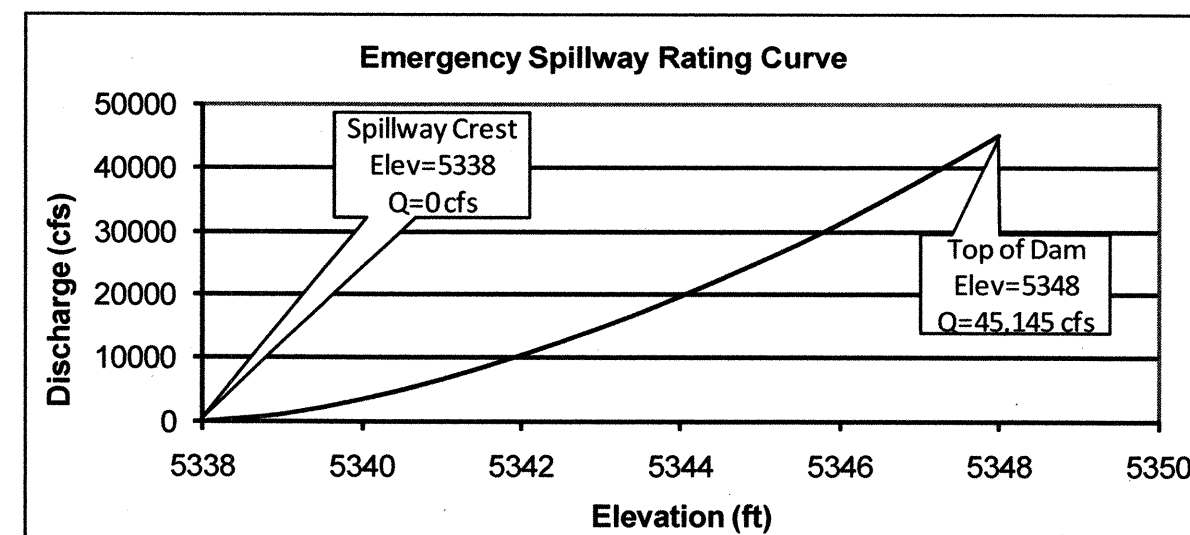
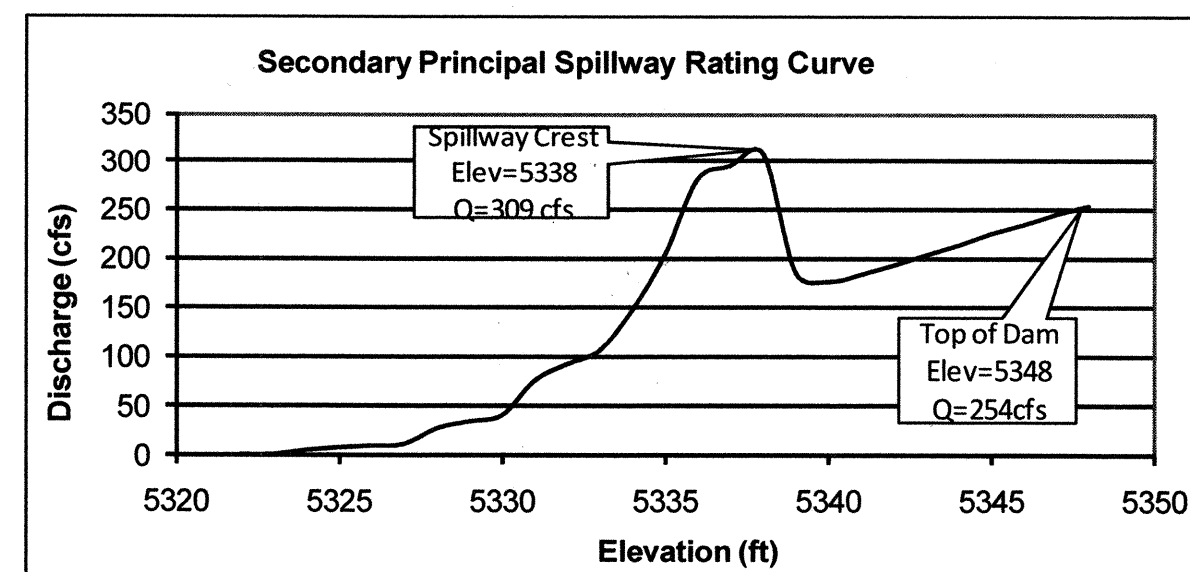
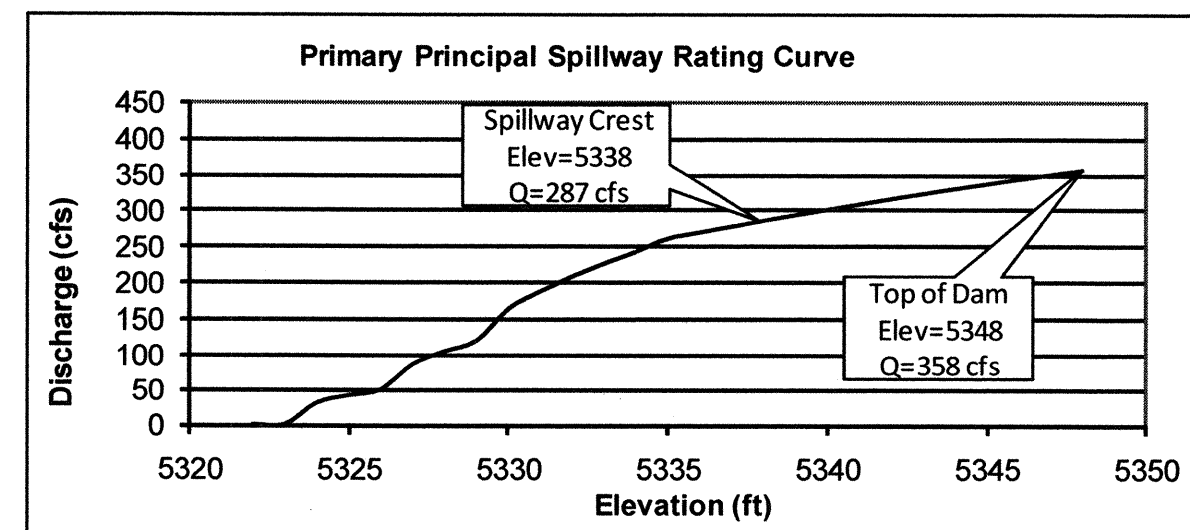
CONSTRUCTION PLANS FOR

BOCA NEGRA DETENTION DAM

DECEMBER 2011

BOCA NEGRA DETENTION DAM PROPERTIES

NAME OF DAM	BOCA NEGRA DETENTION DAM
TYPE OF DAM (MATERIAL)	HOMOGENEOUS EARTH EMBANKMENT
HAZARD POTENTIAL CLASSIFICATION	HIGH
MAX. HEIGHT ABOVE DOWNSTREAM TOE (FT)	26
MAX. LENGTH (FT)	3560
CREST WIDTH (FT)	17
SLOPE OF UPSTREAM FACE xH:1V	3:1
SLOPE OF DOWNSTREAM FACE xH:1V	2.5:1 TO 3:1
ELEVATION OF DAM CREST (FT)	5348
ELEVATION OF EMERGENCY SPILLWAY CREST (FT)	5338
1. PRIMARY PRINCIPAL SPILLWAY CONDUIT LENGTH (FT)	143
2. SECONDARY PRINCIPAL SPILLWAY CONDUIT LENGTH (FT)	145
1. UPSTREAM INVERT PRIMARY PRINCIPAL SPILLWAY (FT)	5318
2. UPSTREAM INVERT SECONDARY PRINCIPAL SPILLWAY (FT)	5323
1. DOWNSTREAM INVERT PRIMARY PRINCIPAL SPILLWAY (FT)	5311.9
2. DOWNSTREAM INVERT SECONDARY PRINCIPAL SPILLWAY (FT)	5321.8
FREEBOARD (FT)	10
RESIDUAL FREEBOARD (FT)	0
MAX EMERGENCY SPILLWAY DISCHARGE AT TOP OF DAM (CFS)	45145
1. PRIMARY PRINCIPAL SPILLWAY MATERIAL AND SIZE	48" x 48" CBC, WITH 48" DIA. ORIFICE
2. SECONDARY PRINCIPAL SPILLWAY MATERIAL AND SIZE	48" x 48" CBC
1. MAX PRIMARY PRINCIPAL SPILLWAY DISCHARGE AT TOP OF DAM (CFS)	358
2. MAX SECONDARY PRINCIPAL SPILLWAY DISCHARGE AT TOP OF DAM (CFS)	254
1. LOCATION OF PRIMARY PRINCIPAL SPILLWAY	31.03722°N 107.66167°W
2. LOCATION OF SECONDARY PRINCIPAL SPILLWAY	31.03778°N 107.66167°W



BOCA NEGRA DETENTION DAM CHARACTERISTICS

ELEVATION (ft)	DISCHARGE (CFS)	STORAGE (AC-FT)	SURFACE AREA (ACRES)
5318=4' X 4' CBC W/ 48" DIA. ORIFICE PLT (PRIMARY) SPILLWAY INV			
5319	0	0	0
5320	0	0	0
5321	0	0	0
5322	0	0	0
5323=4' X 4' CBC (SECONDARY) SPILLWAY INV			
5324	35	1.5	1.7
5325	48	3.5	2.1
5326	59	5.9	2.5
5327	97	8.8	2.9
5328	132	12.3	3.5
5329	155	16.4	4.8
5330	204	21.8	5.9
5331	263	28.3	7.1
5332	301	35.8	7.9
5333	333	45.3	11.2
5334	391	56.8	11.8
5334.47 = 100 YR FUTURE CONDITION			
5335	424	62.1	11.9
5336	465	68.7	12.1
5337	552	81.0	12.5
5338	574	93.7	12.8
5337.95 = 100 YR INTERIM CONDITION			
5339	595	106.1	13.2
5338=EMERGENCY SPILLWAY CREST ELEVATION			
5339	1,651	120.1	13.6
5340	3,975	133.9	13.9
5341	7,073	148.4	15.1
5342	10,838	163.7	15.6
5343	15,251	179.6	16.3
5344	20,221	196.3	17.0
5345	25,756	214.4	19.3
5346	31,894	234.6	21.0
5347	38,546	256.3	22.4
5348=TOP OF DAM			
5348	45,757	279.5	23.8

State of New Mexico)
 County of Santa Fe) ss.
 I hereby certify that the accompanying Construction Drawings for Boca Negra Detention Dam and appurtenant structures has been duly examined by me and were duly accepted for filing on the 20 day of February, 2012.

State Engineer _____ Date _____

State of New Mexico)
 County of Bernalillo) ss.

I, Jerry M. Lovato, P.E., being first duly sworn, upon my oath, state that I am the Executive Engineer of the Albuquerque Metropolitan Arroyo Flood Control Authority, a governmental entity duly organized under the laws of the state of New Mexico, that the accompanying Construction Drawings consisting of 55 sheets, for Boca Negra Detention Dam were made under authority of the Board of Directors of said governmental entity and that, in their behalf, I have read and examined the statements and representations and all that is shown herein is done with their free consent and in accordance with their wishes and state that the same are true and correct to the best of my knowledge and belief.

Jerry M. Lovato 2/9/2012
 Jerry M. Lovato, P.E., Executive Engineer Date

Subscribed and sworn to before me this 9th day of February, 2012.
Sandra C. Evans
 Notary public
 My commission expires 10-07-2012

State of New Mexico)
 County of Bernalillo) ss.

I, Daniel S. Aguirre, P.E., CFM, state that I am a qualified professional engineer licensed in the state of New Mexico, qualified in Civil engineering; that the accompanying Construction Drawings consisting of 55 sheets, was prepared by me or under my supervision; that the accompanying Construction Drawings consisting of 55 sheets, is in compliance with the Dam Design, Construction and Dam Safety Regulations (19.25.12 NMAC) and that the same are true and correct to the best of my knowledge and belief.

Daniel S. Aguirre License No. 11955
 Daniel S. Aguirre, P.E., CFM

Date submitted 2/9/12

Subscribed and sworn to before me this 9th day of February, 2012.
Sandra C. Evans
 Notary public
 My commission expires 10-07-12

DRB# 1002962

WILSON & COMPANY
 4900 LANG AVENUE, NE
 SUITE 100
 ALBUQUERQUE, NEW MEXICO
 87109
 (505) 348-4000

REV	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE APPROVALS ENGINEER DATE ***** DRC Chairman: <u>[Signature]</u> 2/9/12 APPROVED FOR CONSTRUCTION Transportation: <u>[Signature]</u> 02/09/12 Water/Wastewater: <u>[Signature]</u> 2-9-12 Hydrology: <u>[Signature]</u> 2-2-12 AMAFCA: <u>[Signature]</u> 2/9/12 City Engineer: _____ Date _____							
AMAFCA Project No. _____						Sheet _____	
City Project No. 781181						1 OF 55	