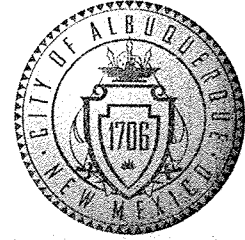


CITY OF ALBUQUERQUE



August 14, 2008

Hugh W. Floyd, P.E.
Easterling Consultants, LLC.
3613 NM 528 NW Ste E-2
Albuquerque, NM 87114

**Re: Aquatics Consultants Office Building / Complex, 4421 Irving Blvd. NW,
(B-13/D024)**

Approval of Permanent Certificate of Occupancy,

Engineer's Stamp Date 11/19/2007

Certification dated: 8-13-08

Mr. Floyd,

PO Box 1293

Based upon the information provided in your submittal received 8/13/08, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3982.

NM 87103

Sincerely,

Timothy E. Sims

www.cabq.gov

Plan Checker-Hydrology, Planning Dept
Development and Building Services

C: CO Clerk—Katrina Sigala
file

HYDROLOGY SUMMARY											
PROJECT NAME:	Aquatics Office Building										
JOB NUMBER:	0	AREA	LAND TREATMENTS				10 YEAR		100 YEAR		
BASIN	COND.	(acres)	A	B	C	D	Q	VOLUME (ac.ft.)	Q	VOLUME (ac.ft.)	
EXIST to CU	UNDEV	1.54	85.0%	0.0%	15.0%	0.0%	0.7	0.017	0.017	2.35	0.067
EXIST to ER	UNDEV	3.47	85.0%	0.0%	15.0%	0.0%	1.5	0.039	0.039	5.30	0.151
Sub 1	DEV	0.54	0.0%	0.0%	45.0%	55.0%	1.2	0.040	0.047	2.01	0.069
Sub 2	DEV	1.13	0.0%	0.0%	86.0%	14.0%	1.9	0.052	0.056	3.48	0.106
Sub 3	DEV	0.15	0.0%	0.0%	5.0%	95.0%	0.8	0.027	0.034	1.16	0.043
Sub 4	DEV	0.95	0.0%	0.0%	30.0%	70.0%	2.3	0.079	0.096	3.72	0.133
Sub 5	DEV	0.80	0.0%	0.0%	42.0%	58.0%	1.8	0.060	0.072	2.98	0.103
OFF-1	UNDEV	0.93	100.0%	0.0%	0.0%	0.0%	0.2	0.006	0.006	1.20	0.034
OFF-2	UNDEV	0.44	100.0%	0.0%	0.0%	0.0%	0.1	0.003	0.003	0.57	0.016
		0.00	0.0%	0.0%	0.0%	0.0%	0.0	0.000	0.000	0.00	0.000
INPUT DATA:											
RAINFALL DEPTHS (INCHES) AT 100-YEAR STORM											
			1 HOUR	6 HOUR	24 HOUR	4 DAY					
			1.87	2.20	2.66	3.12					

The project area is designated as Tract D-1-B-1, and with future consideration for Tract D-1-B-2 of Adobe Wells. It is covered by SAD 224 which called for the new 84" storm drain in Eagle Ranch Road and allows free discharge from Adobe Wells. A 30" RCP stub connected to the Eagle Ranch storm drain system extends to a manhole near the southern edge of this property. This manhole is located in Tract D-1-A, in the Eagle Ranch entrance. A cross drainage easement is granted by Tract D-1-A to Tract D-1-B by plat dated 07-07-95 with a DRB Case No. of 95-333. The original Tract D-1-B was 3.4473 acres and has been split into two lots with the lower granting a cross drainage easement to the upper (western lot).

Hydrology calculations were performed based on the Albuquerque DPM Chapter 22.2. Tract D-1-B is in Zone 1 (Figure A-1 of DPM). A rainfall of 2.66" is used for the 100-yr 24-hr storm. The site is broken into seven sub-basins for analysis. The areas and calculated runoff volumes and peak flow rates are shown in the adjacent table along with two existing sub-basins.

Existing condition

The existing site slopes steeply (approx. 8%) to the east and south. Per Sheet 12 of the Soil Survey of Bernalillo County (USDA, 1977) the soil on site is Bluepoint-Kokan (BKD) which is a gravelly sand mix. Per FIRM Map Number 35001C0108E there is no flood zone on this property. Currently runoff discharges over the curb into Eagle Ranch Road (EXIST 2) and to the existing entrance to Irving Boulevard (EXIST 1) which drains through Tract D-1-A to a Double D inlet at the downstream edge of the site. The 100-yr, 24-hr flowrates are 5.30 and 2.35 cfs respectively.

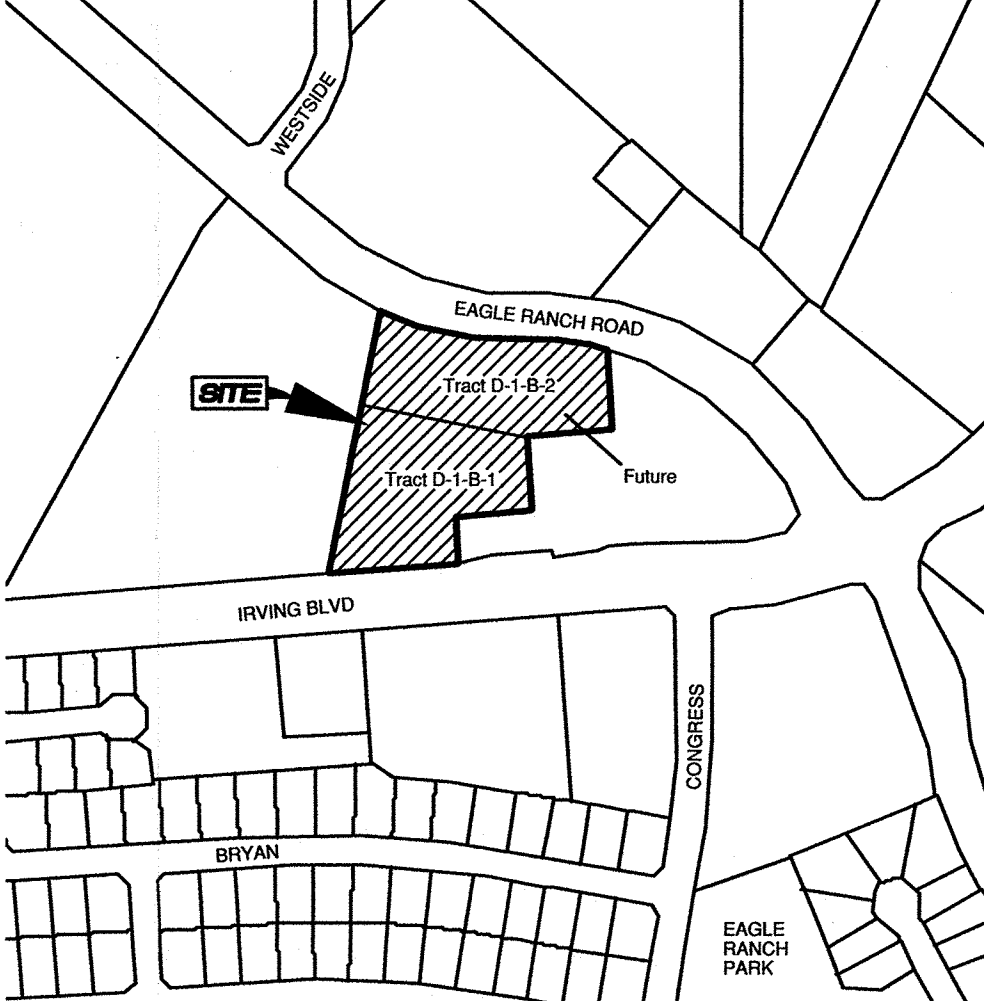
Proposed Conditions

Sub-basins 2, 3, 4, OFF-1, and OFF-2 ultimately drain to the manhole in the existing entrance to Eagle Ranch. This manhole has a 30" RCP connection to the storm drain system in Eagle Ranch Road and was constructed as a part of City Project No. 4296.90 which was completed in 1991. The total discharge to this point is 11 cfs. The existing 30" SD has a slope of 4% and thus a pipe full capacity of 88 cfs.

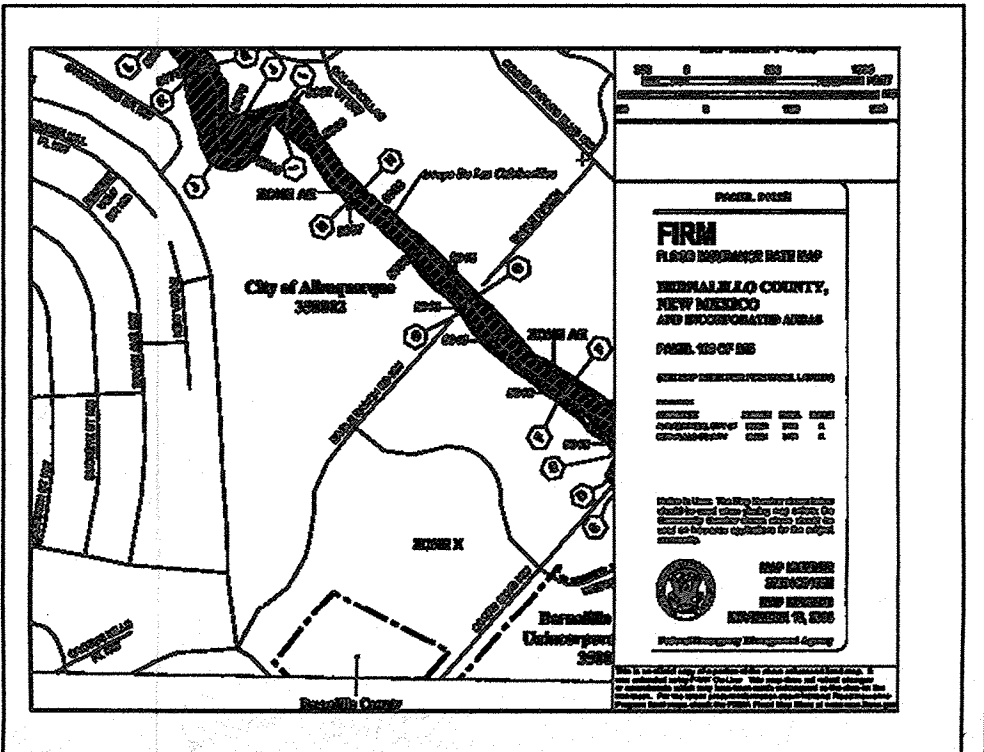
Sub-basin 1 drains to the existing entrance off of Irving Boulevard. This is the current discharge point of the EXIST 1 sub-basin as mentioned above. This sub-basin includes part of this site and the adjacent site to the north. The existing discharge to this point is 2.35 cfs, and is reduced to 2.01 cfs in the proposed condition.

Sub-basin 5 drains to Eagle Ranch Road. Future submittals for Tract D-1-B-2 will deal more specifically with how this drainage is controlled. The existing flow rate to Eagle Ranch Road is 5.31 cfs, whereas the discharge from Sub-basin 5 is 2.98 cfs in the 100-yr, 24-hr storm.

Site grading incorporates 3:1 slopes, retaining walls and stem walls, but generally tends to slope in the same direction as the existing site. There is a retaining wall between the upper and lower lots. There is also a stem wall associated with Building A along the south and east sides that varies between 2' and 4' of depth. There is also a retaining wall along the northern edge of the lower lot. The grading plan shows a cut slope into the adjacent property to the north. This cut has been coordinated with the owner of this lot and the plan aims to match the planned grades on the adjacent lot. There is also a fill slope on the adjacent lot to the south (TRACT D-1-A). This grading has been allowed by the adjacent property owner. Signature blocks are shown for each of these sites to show concurrence by the respective owners, on the previous Rough-Grading submittal dated June 20, 2006.



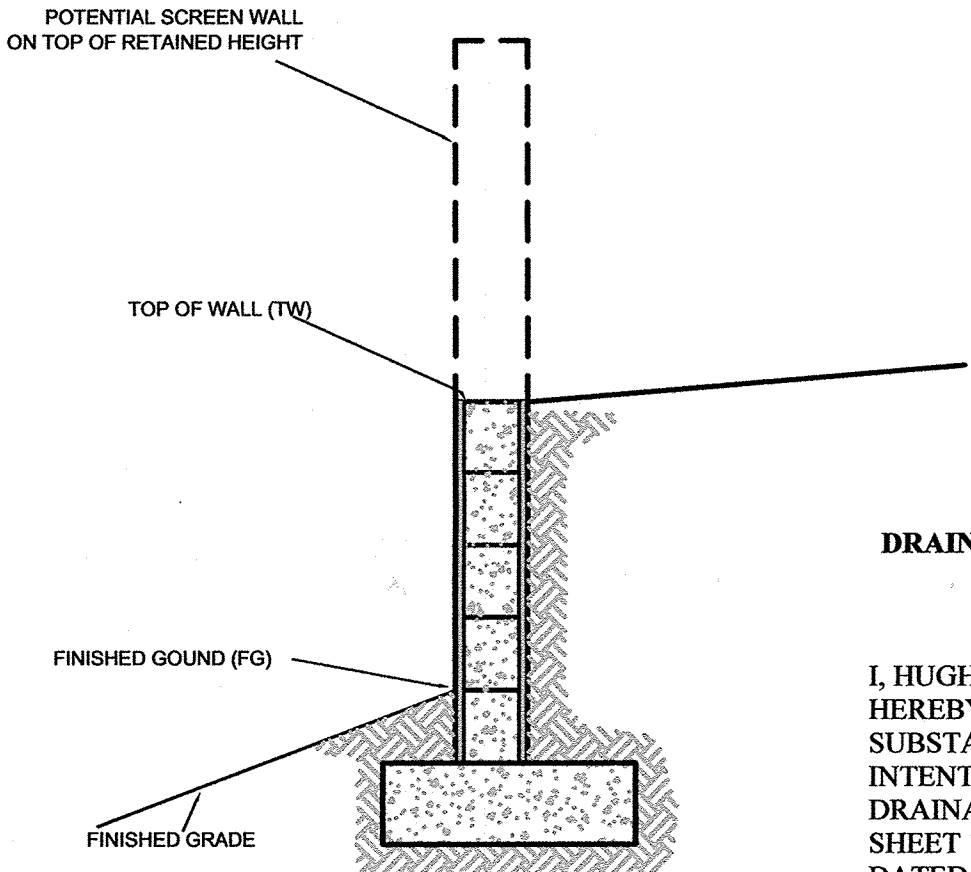
VICINITY MAP
NOT TO SCALE



LEGEND

- 40.35 SPOT ELEVATION - Flow Line/Top of Asphalt, unless otherwise specified.
- TC TOP OF CURB/CONCRETE
- FG FINISHED GROUND
- FL FLOWLINE
- SLOPE DIRECTION
- FLOW ARROW
- EXISTING BASIN BOUNDARY
- BASIN BOUNDARY
- 2" Pavement Over Scarified Native Soil, Compacted to 95% ASTM D1557.
- 3" Pavement Over Scarified Native Soil, Compacted to 95% ASTM D1557.

NOTE:
ALL SPOT ELEVATIONS ARE
FLOWLINE UNLESS OTHERWISE
DESIGNATED.

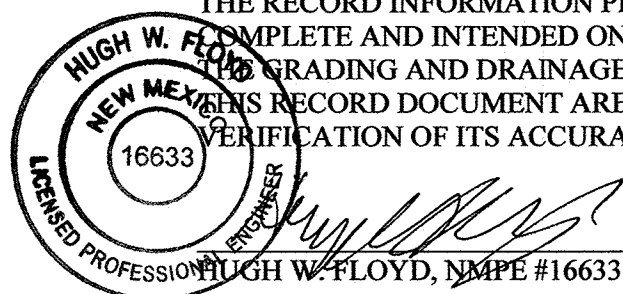


RETAINING WALL TYPICAL DESIGNATIONS
SEE STRUCTURAL SHEET FOR WALL DESIGN

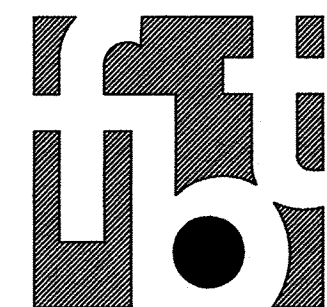
DRAINAGE CERTIFICATION WITH VERIFICATION BY ENGINEER OF RECORD DRAINAGE CERTIFICATION

I, HUGH W. FLOYD, NMPE #16633, OF THE FIRM EASTERLING CONSULTANTS LLC, 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. THE APPROVED PLAN CONSISTS OF THE DRAINAGE SHEET, C-101 (DATED 6-20-06, FINAL REVISION 11-19-07), GRADING SHEET 1, (C-102, DATED 6-20-06, FINAL REVISION 5-12-08), GRADING SHEET 2 (C-103, DATED 6-20-06, FINAL REVISION 4-17-08), AND RETAINING WALL DETAILS (C-105, DATED 3-27-08, FINAL REVISION 4-17-08). THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN PROVIDED TO ME BY THE CONTRACTOR'S SURVEYOR. IT HAS BEEN FIELD VERIFIED BY ME 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 THE PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.



AUGUST 13, 2008



ARCHITECTS

Fanning Bard Tatum Architects AIA, Ltd.

6100 Indian School Rd. NE Ste 210
Albuquerque NM 87110

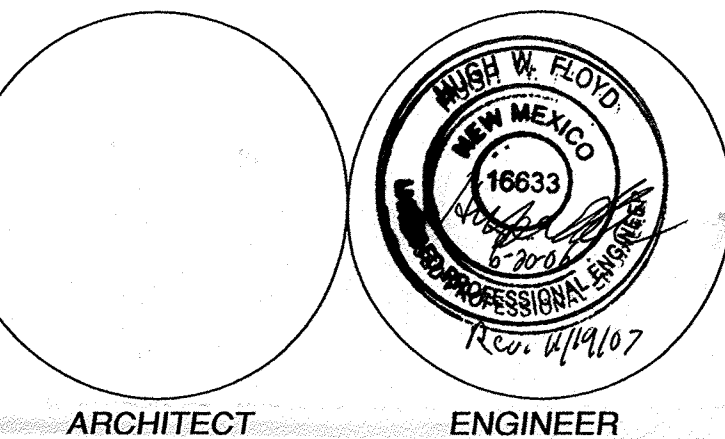
Phone 505/883.5200
Facsimile 505/884.5390
Web www.fbtarch.com

CONSULTANT

CIVIL:
EASTERLING CONSULTANTS LLC
3613 NM 528 NW, SUITE E-2
ALBUQUERQUE, NM 87114

LANDSCAPE:

SUNRISE LANDSCAPE MAINTENANCE
620 COSO AVENUE SE, SUITE D
ALBUQUERQUE, NM 87105



ARCHITECT

ENGINEER

MARK DATE DESCRIPTION

AQUATIC
CONSULTANTS, INC

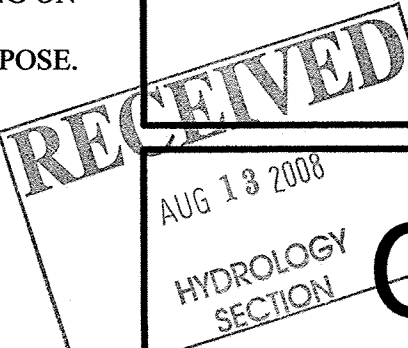
OFFICE BUILDING/ COMPLEX
4411 IRVING BLVD. NW
ALBUQUERQUE, NEW MEXICO 87114

ORIGINAL EPC CASE NO. Z-91-6
TRACT D-1-B-1 ADOBE WELLS SUBDIVISION

MAY 2006

SHEET TITLE

DRAINAGE PLAN



HYDROLOGY
SECTION C-101



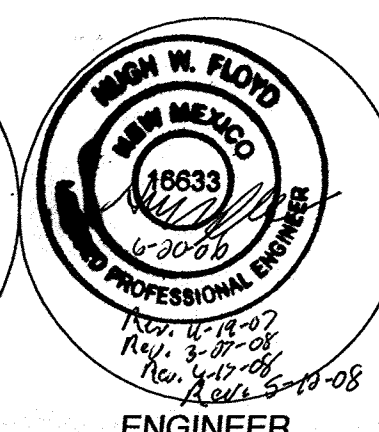
6100 Indian School Rd. NE Ste 210
Albuquerque NM 87110







Phone 505/883.5200
Facsimile 505/884.5390
Web www.fbtarch.com

CONSULTANT

CIVIL :
EASTERLING CONSULTANTS LLC
3613 NM 528 NW, SUITE E-2
ALBUQUERQUE, NM 87114

LANDSCAPE :
SUNRISE LANDSCAPE MAINTENANCE
620 COSO AVENUE SE, SUITE D
ALBUQUERQUE NM 87105



	2-05-08	Paving Amendments
	2-05-08	Removal of F.H. Wall
	2-05-08	Wall Amendments
	2-11-08	Grade/Adjusted At Wash Pa
	5-12-08	Front of office building amen
	6-17-08	Grading Amends
MARK	DATE	DESCRIPTION

AQUATIC
CONSULTANTS, INC

OFFICE BUILDING/ COMPLEX

4411 IRVING BLVD. NW
ALBUQUERQUE, NEW MEXICO 87114

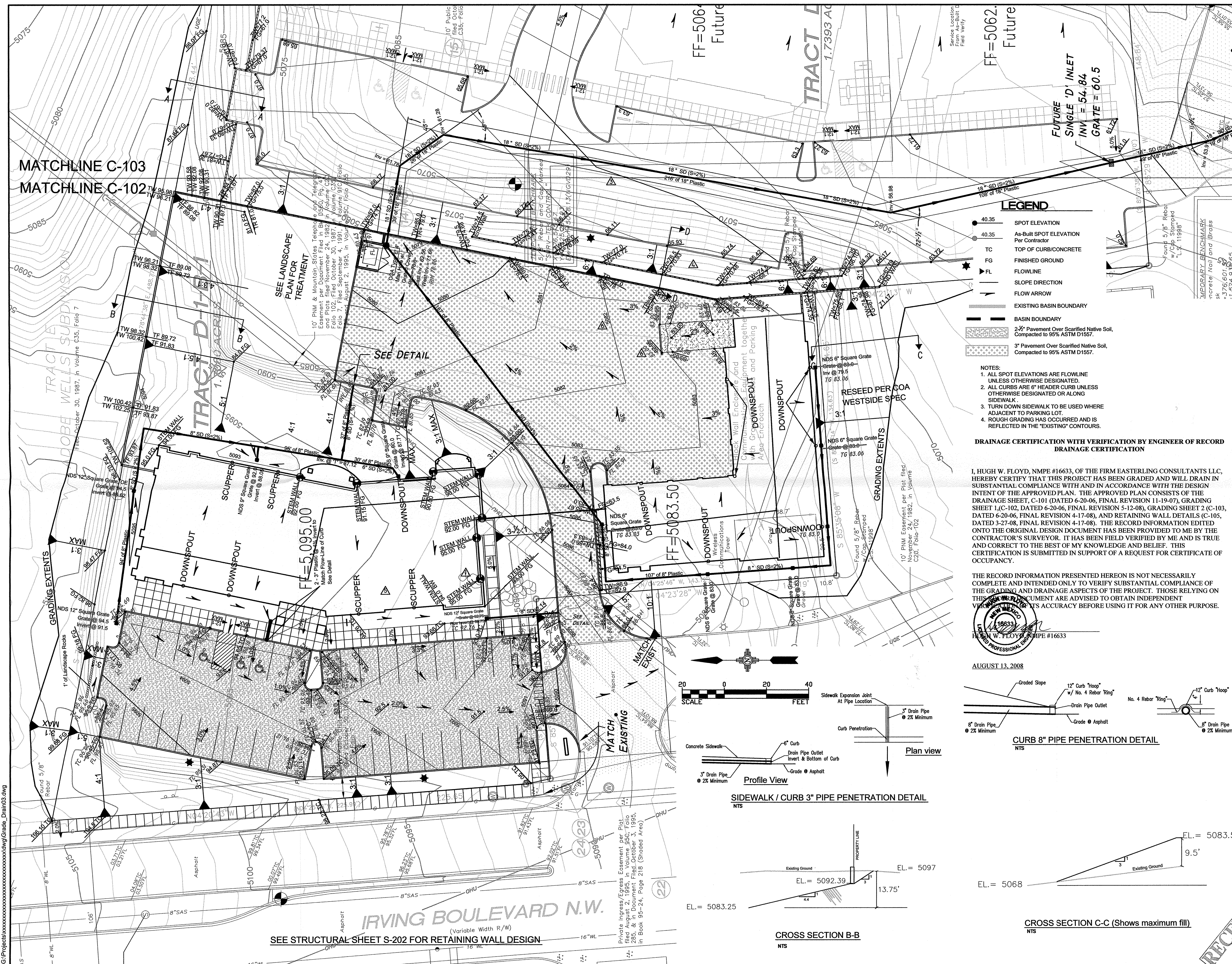
ORIGINAL EPC CASE NO. Z-91-6
TRACT D-1-B-1 ADOBE WELLS SUBDIVISION

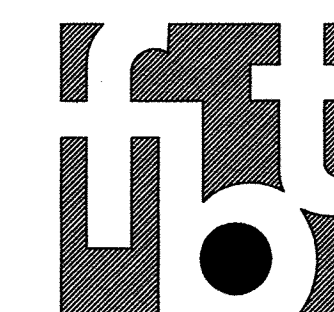
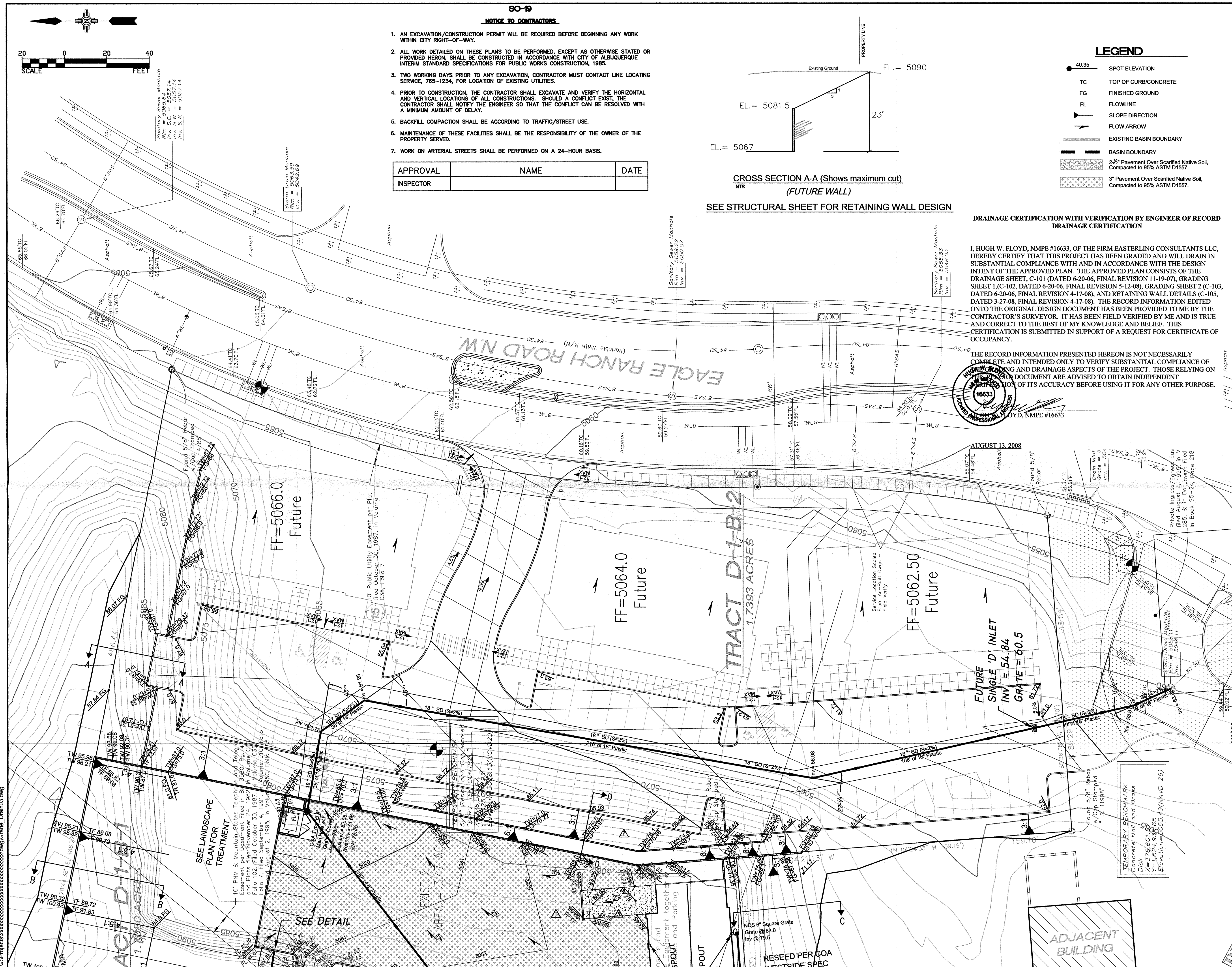
MAY 2006

SHEET TITLE

GRADING PLAN - SHEET 1

C-102





ARCHITECTS

Fanning Bard Tatum Architects AIA, Ltd.

6100 Indian School Rd. NE Ste 210
Albuquerque NM 87110

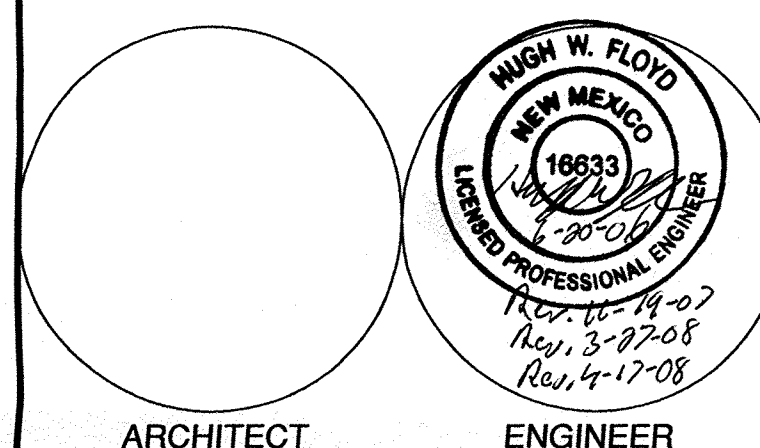
Phone 505/883.5200
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Web www.fbtarch.com




CONSULTANT

CIVIL :
EASTERLING CONSULTANTS LLC
3613 NM 528 NW, SUITE E-2
ALBUQUERQUE, NM 87114

LANDSCAPE :

SUNRISE LANDSCAPE MAINTENANCE
620 COSO AVENUE SE, SUITE D
ALBUQUERQUE, NM 87105



	2-05-08	Paving Amendments
	2-05-08	Wall Amendments
	2-11-08	Grade Adjusted At Wash Pa
MARK	DATE	DESCRIPTION

**AQUATIC
CONSULTANTS, INC**

OFFICE BUILDING/ COMPLEX

4411 IRVING BLVD. NW
ALBUQUERQUE, NEW MEXICO 87114

ORIGINAL EPC CASE NO. Z-91-6
TRACT D-1-B-1 ADOBE WELLS SUBDIVISION

MAY 2006

SHEET TITLE

GRADING PLAN - SHEET 2

C-103

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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