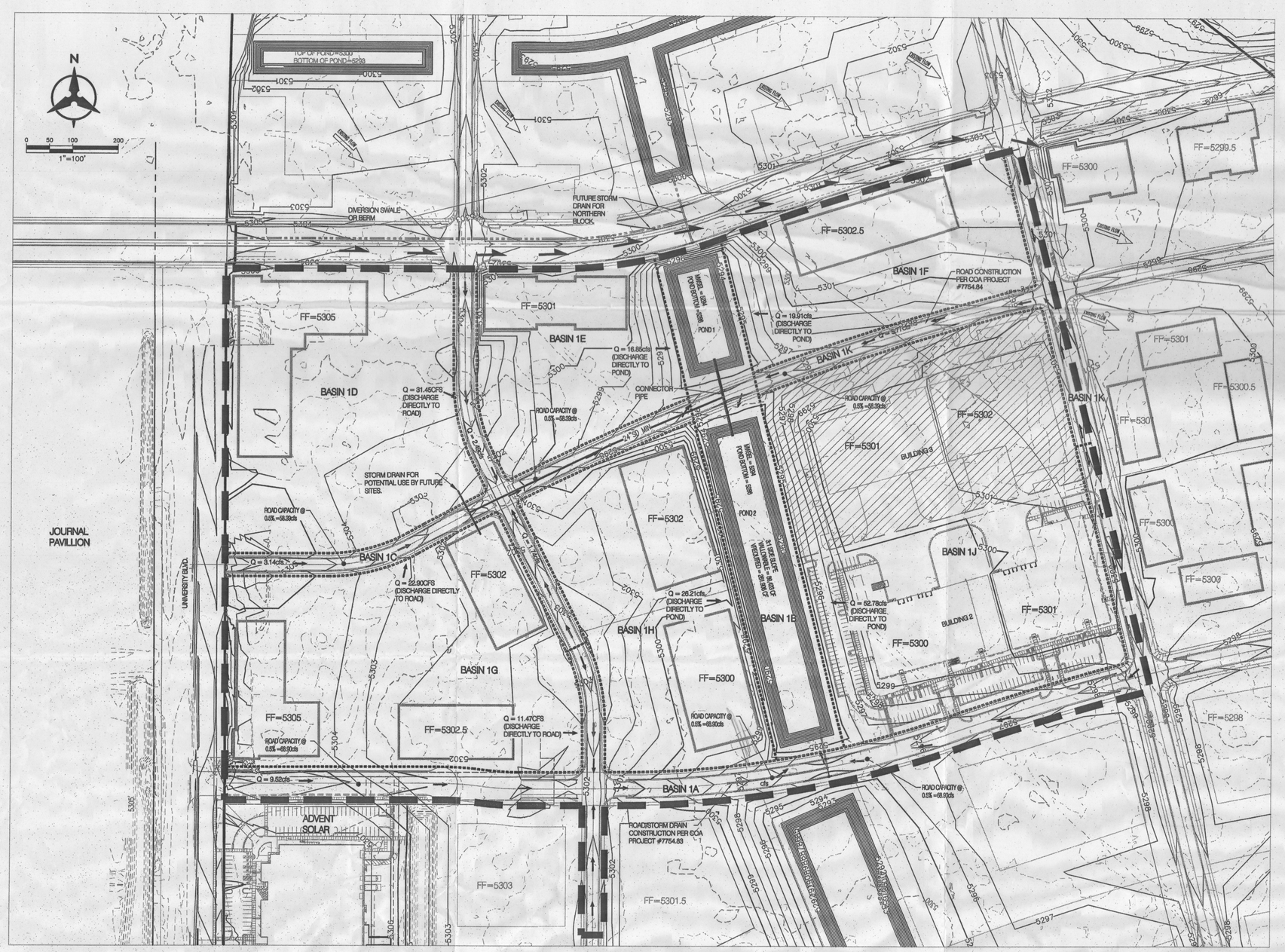
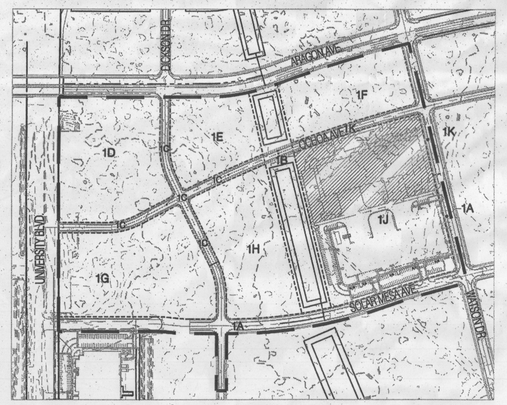


BASIN MAP

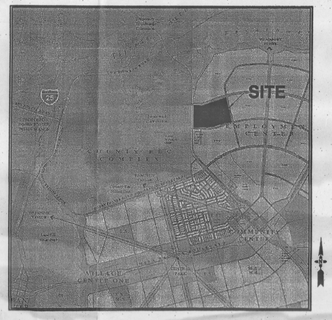


MESA DEL SOL BLOCK 1 - DEVELOPED HYDRAULIC CALCULATIONS

Ultimate Development Conditions Basin Data Table

		This table is based on the DPM Section 22.2, Zone: 2									
BASIN	Area	Area	Land Treatment Percentages				Q(100)	Q(100)	WT E	$V(100)_{bsn}$	$V(100)_{10day}$
ID	(SQ. FT)	(AC.)	A	B	C	D	(cfs/ac.)	(cfs)	(inches)	(CF)	(CF)
Basin 1A (Surrounding Roads)	193248	4.44	0.0%	10.0%	0.0%	90.0%	4.46	19.78	*1.99*	*31982*	*55172*
Basin 1B (Open Space/Regional Retention Ponds)	169503	3.89	0.0%	50.0%	50.0%	0.0%	2.71	10.55	*0.96*	*13490*	*13490*
Basin 1C (Interior Roads)	96013	2.20	0.0%	10.0%	0.0%	90.0%	4.46	9.83	*1.99*	*15890*	*27412*
Basin 1D	307303	7.05	0.0%	10.0%	0.0%	90.0%	4.46	31.45	*1.99*	*50859*	*87735*
Basin 1E	164688	3.78	0.0%	10.0%	0.0%	90.0%	4.46	16.85	*1.99*	*27256*	*47019*
Basin 1F	194538	4.47	0.0%	10.0%	0.0%	90.0%	4.46	19.91	*1.99*	*32196*	*55541*
Basin 1G	336384	7.72	0.0%	10.0%	0.0%	90.0%	4.46	34.42	*1.99*	*55668*	*96032*
Basin 1H	256057	5.88	0.0%	10.0%	0.0%	90.0%	4.46	26.21	*1.99*	*42377*	*73104*
Basin 1J (Bldg 2&3)	515711	11.84	0.0%	10.0%	0.0%	90.0%	4.46	52.78	*1.99*	*85350*	*147236*
Basin 1K (Surrounding Roads)	56364	1.29	0.0%	10.0%	0.0%	90.0%	4.46	5.77	*1.99*	*9328*	*16092*
Total	*2289789.65*	*52.57*	*0.0%*	*7.9%*	*3.7%*	*37.6%*				*364397.05*	*618831.45*

REGIONAL RETENTION POND CALCULATIONS		
Pond 1		
Top Area:	30000	SF
Bottom Area:	14544	SF
Depth:	8	FT
Volume*:	174,486	CF
Pond 2		
Top Area:	85200	SF
Bottom Area:	47664	SF
Depth:	8	FT
Volume*:	524,239	CF
Total Volume		
Provided (Vp)=	***698,725***	***CF***
Volume Required (Vr)=	***618,831***	***CF***
*Conic Method - V=h/3(A1 +A2+sqrt(A1*A2))		



LOCATION MAP
ZONE ATLAS INDEX MAP R-16

BLOCK 1 DRAINAGE MANAGEMENT PLAN

Introduction/Purpose
This submittal describes the drainage scheme for Block 1 within the Mesa del Sol Employment Center. This drainage management plan will serve as guidelines for ultimate pond sizing and drainage calculations for the block. Specifically this DMP is submitted in support of COA hydrology approval for Building 2 building permit approval, as well as project # 7754.83 and 7754.84 COA work order approval. In addition this plan will also provide a framework diagram for future submittals including but not limited to sites and work order approvals.

Existing Conditions
The block at the north end of the Employment Center (referred to here after as Block 1) within Mesa del Sol is currently undeveloped and slopes 0.5% to 1.0% from the west to east. The final outfall for this current drainage is a series of playas that extend down the middle of the proposed Employment Center to the south. The block being analyzed will be bound by University Blvd. to the west, Crick Avenue to the north, Watson Drive to the east and Solar Mesa Avenue to the south.

Offsite Drainage
Current drainage from the Journal Pavilion parking area, west of the site, drains into ponds located at the western portion of the proposed site. These ponds will be relocated to the west side of the road, out of the new development. Currently, a storm drain system, draining north in University to the Tijeras is being installed to allow the County Recreation Complex to manage all storm drainage generated on their site. Drainage from the north and south of the block will be mitigated and rerouted around the block to the east toward the current playa system. All drainage generated onsite will be retained under the 100yr 10day storm event and not effect surrounding areas.

Proposed Site Grading
The slope of the Block 1 basin under proposed conditions is similar to existing conditions. The block will have two centrally located, permanent, retention ponds within open space/drainage tracts. These ponds are designed to retain the 100 year, 10 day storm generated by the site.

Drainage generated by the roads within the Block 1 basin will be will be conveyed to the regional retention pond via surface flow and storm drainage. Each site will be analyzed on a site by site basis. The drainage for sites furthest from the pond will be conveyed to the pond by either direct storm drain or surface flow within the streets. The flow generated by each sub-basin is shown within the table labeled MESA DEL SOL BLOCK 1 – DEVELOPED HYDRAULIC CALCULATIONS. In addition the capacity of each road based on Manning's equation is shown on the overall drainage map.

The regional retention ponds will be subject to future site planning considerations which will incorporate water quality facilities, along with aesthetically pleasing features such as a trail system and pedestrian amenities. In addition, infiltration basins will be installed in the retention ponds to manage nuisance flows and provide a positive discharge of ponded water over time; however, the infiltration does not reduce the 100 year, 10 day stored ponding volume requirements.

The ponds are sized in accordance with the methodology outlined in the DPM section 22.2. Developed land treatments for the majority of this block were assumed to be 90% treatment D and 10% treatment B (See MESA DEL SOL BLOCK 1 – DEVELOPED HYDRAULIC CALCULATIONS for basin calculations and land treatments). For block 1, the volume of retention required (Vr) is 618,831 CF and the volume of retention provided (Vp) is 698,725 CF.

Floodplain

In accordance with FEMA Community Map Panel #35001C0555 E, the site is not located within a floodplain.

Conclusion

This drainage submittal has been prepared in accordance with City of Albuquerque requirements. This plan demonstrates the proposed grading and drainage concepts. The implementation of these concepts would result in the safe retention of the 100 yr, 10 day storm event. Individual sites will be subject to separate hydrology approval in conjunction with the guidelines set forth in this drainage management plan. This drainage management plan is submitted is support of future development within the block, including building sites and roads. With this submittal we request Hydrology Department approval for Building Permit (Building 2), work order approval (7754.83, & 7754.84).

LEGEND

- BASIN LINE
- SUB-BASIN LINE
- BASIN 1J — SUB-BASIN ID
- DEVELOPED FLOW ARROW
- EXISTING FLOW — EXISTING FLOW ARROW
- DIVERSION (SWALE/BERM)
- Q = 52.6cfs — DEVELOPED CONDITION FLOW
- PROPOSED STORM DRAIN

NOTE:
FINISHED FLOORS AND PROPOSED GRADING SHOWN ARE CONCEPTUAL.

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HYDROLOGY SECTION

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

architecture
interiors
planning
engineering
Dekker
Perich
Sabatini
7601 Jefferson NE
Suite 100
Albuquerque, NM 87109
505 761-9700
fax 761-4222
dps@dpsdesign.org
ARCHITECT

ENGINEER

JEFFREY L. MULBURY
NEW MEXICO
16858
REGISTERED PROFESSIONAL ENGINEER
3-21-07

PROJECT

Mesa Del Sol
Employment Center - Block 1
Albuquerque, New Mexico

REVISIONS

DRAWN BY:
REVIEWED BY:
DATE 1.29.07
PROJECT NO.
DRAWING NAME
BLOCK 1 DRAINAGE MANAGEMENT PLAN
SHEET NO.
C001
OF

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