DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: THE TRAILS DMP ZONE MAP PAGE: C-9/D001
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: _____
CITY ADDRESS: Southwest Corner of Paseo del Norte NW and Universe Blvd. NW

ENGINEERING FIRM: Thompson Engineering Consultants, Inc. CONTACT: David Thompson
ADDRESS: P.O. Box 65760 PHONE: 271-2199
CITY, STATE: Albuquerque, NM ZIP CODE: 87193

OWNER: The Trails, LLC CONTACT: Rick Beltramo
ADDRESS: 6330 Riverside Plaza Lane #160 PHONE: (505) 761-9911
CITY, STATE: Albuquerque, NM ZIP CODE: 87120

ARCHITECT: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:
_____ DRAINAGE REPORT
_____ DRAINAGE PLAN 1st SUBMITTAL
XX DRAINAGE PLAN RESUBMITTAL
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ EROSION CONTROL PLAN
_____ ENGINEER'S CERT (HYDROLOGY)
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT
_____ ENGINEER/ARCHITECT CERT (TCL)
_____ ENGINEER/ARCHITECT CERT (DRB S.P.)
_____ ENGINEER/ARCHITECT CERT (AA)
_____ OTHER (SPECIFY) RESPONSE LETTER

CHECK TYPE OF APPROVAL 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
_____ FOUNDATION PERMIT APPROVAL
_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY (PERM)
_____ CERTIFICATE OF OCCUPANCY (TEMP)
_____ GRADING PERMIT APPROVAL
_____ PAVING PERMIT APPROVAL
_____ WORK ORDER APPROVAL
XX OTHER (SPECIFY) DMP APPROVAL

WAS A PRE-DESIGN CONFERENCE ATTENDED:
_____ YES
_____ NO
_____ COPY PROVIDED

SUBMITTED BY: David Thompson _____ DATE: 2-26-15

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 define 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.

THOMPSON Engineering Consultants, Inc.

February 26, 2015

Mr. Curtis Cherne, P.E.
Principal Engineer, Planning Department
Development and Building Services
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: UPDATE TO THE AMENDMENT TO THE DRAINAGE MASTER PLAN FOR THE TRAILS UNITS 1, 2, AND 3 (C09-D001)

Dear Mr. Cherne:

This letter will serve as an Update to the Amendment to the Drainage Master Plan for the Trails Units 1, 2, and 3, dated April, 2014. This update incorporates all modifications to the drainage basins included in Unit 3, Tracts 2, 6, 7, 8, 9, 10, and 11 following the Drainage Reports for Valle Vista, Valle Prado, and Durango subdivisions as prepared by Bohannan-Huston. The drainage basins included in the drainage reports for the subdivisions were combined to more closely match the drainage basins in the April 2014 DMP. The AHYMO model as well as Plates 1 and 2 have been revised to reflect the modifications completed for this update. Also, the Developed Drainage Basin Characteristics Table, the Detention Pond Characteristics Table, and the Analysis Point Peak Flows Table have been revised showing the modifications.

The outfall for Pond B, located in Basin B within Tract 2, has been revised to drain directly to Pond A5 and continue downstream to Pond A6, Pond D1, and Pond D instead of draining to a future storm drain extension in Woodmont Avenue. This eliminates the extension of the Woodmont storm drain past the storm drain connection for Basin E1.1.

The Drainage Report for the Durango subdivision included revisions to Basins E1.1, E1.2, and E2. First, the future Offsite Pond 2 has been eliminated so that runoff from Offsite Basin 2 drains directly to Basin E1.2. Sub-Basins were combined and Land Treatments were calculated for the basins (See the Land Treatment Table for the basins). The AHYMO model (refer to the AHYMO input file and summary file) was revised imputing the new basin characteristics and storm drains.

The Drainage Report for the Valle Prado subdivision included revisions to Basins E3 and E5. Sub-Basins were combined and Land Treatments were calculated for the basins. The AHYMO model was revised imputing the new basin characteristics and storm drains. Basin E7 is a new basin in the DMP that correlates to Basin 4 and Offsite Basin 2 in the Valle Prado Drainage Report. Runoff from Basin E7 drains to a retention pond located within the basin. Therefore, the runoff volume is not included in the total volume of Pond E. Pond E has been modified to be a detention pond instead of a surge pond.

The Drainage Report for the Valle Prado Unit 3 subdivision included revisions to Basin C. Sub-Basins were combined and Land Treatments were calculated for the basins. The AHYMO model

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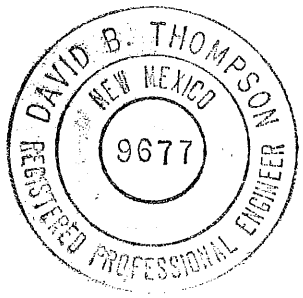
was revised imputing the new basin characteristics and storm drains. Basin C drains directly to a storm drain located in Tree Line Avenue. This storm drain eventually drains to Pond F.

The AHYMO model with the revised basin characteristics and routing shows that there is no negative impact to the downstream ponds. The volume in Pond D remains the same, whereas the volumes in Ponds F, G, H, and K are all reduced. The discharge from Pond K is reduced from 60.72 CFS to 60.66 CFS. In fact, with these modifications the impacts to the downstream ponds is positive.

If you should have any questions about this update, please call me at 271-2199.

Sincerely,

David B. Thompson, P.E.



TRAILS UNIT 3 TRACTS 6, 7, 9, AND 10 BASINS

BASIN	AREA	%A	%B	%C	%D	AVG %A	AVG %B	AVG %C	AVG %D
DURANGO									
E1.1A	0.009772	0	29	29	42				
E1.1B	0.008835	0	27	27	46				
E1.1	0.018607					0	28.1	28.1	43.8
E1.2A	0.009110	0	33	33	34				
E1.2B	0.010826	0	24	24	52				
E1.2	0.019936					0	28.1	28.1	43.8
VALLE PRADO									
BASIN 1	0.005000	0	24	24	52				
BASIN 2	0.004513	0	26	26	48				
BASIN 3	0.006875	0	31	31	38				
BASIN 5	0.001875	0	31.5	31.5	37				
OFFSITE WELL	0.001563	0	40	40	20				
OFFSITE 3	0.001094	76	24	0	0				
OFFSITE 4	0.001406	80	20	0	0				
OFFSITE 5	0.003281	95	5	0	0				
OFFSITE 6	0.001400	0	0	100	0				
BASIN E5	0.027007					18.8	23.8	26.4	31.0
FUTURE 1	0.010781	0	21	21	58				
FUTURE 2	0.007500	0	23	23	54				
FUTURE 3	0.005938	0	22.5	22.5	55				
BASIN E3	0.024219					0	22.0	22.0	56.0
BASIN 4	0.003594	0	26	26	48				
OFFSITE 2	0.000938	80	20	0	0				
BASIN E7	0.004532					16.5	24.8	20.6	38.1
VALLE PRADO UNIT 3									
BASIN 1	0.004571	40	25	25	10				
BASIN 2	0.007088	0	31	31	38				
BASIN 3	0.002524	0	27	27	46				
BASIN C	0.014183					12.8	28.4	28.4	30.4
VALLE VISTA									
BASIN H1	0.017190	0	26.6	26.6	46.8	0	26.6	26.6	46.8

BASIN	AREA	LAND TREATMENT				Q	VOL
	ACRES	A	B	C	D	CFS	AC-FT
OFFSITE 1	127.87	100	0	0	0	37.00	4.426
A1	15.50	0	12.5	12.5	75	51.68	2.610
A2	8.52	0	33	33	34	23.43	0.960
A3	3.21	0	5	5	90	11.41	0.606
A4	7.59	0	7.5	7.5	85	26.39	1.381
A5	11.71	0	17	17	66	37.55	1.829
A6	16.97	0	19	19	62	53.44	2.558
A7	6.75	0	12.5	12.5	75	22.52	1.137
C	9.08	12.8	28.4	28.4	30.4	23.20	0.935
D1	11.62	0	19	19	62	36.60	1.752
D2	22.12	0	28.5	28.5	43	63.65	2.763
D3	3.71	0	5	5	90	13.18	0.701
D4	12.55	0	28.5	28.5	43	36.12	1.568
D5	8.75	0	23	23	54	26.55	1.224
D6	5.00	0	18	18	64	15.89	0.764
F1	14.13	0	21.7	21.8	56.5	43.39	2.025
F2	3.67	0	5	5	90	13.02	0.692
F3	22.80	0	21.7	21.8	56.5	70.02	3.267
F4	24.91	0	25	25	50	74.16	3.349
F5	11.85	0	12.5	12.5	75	39.52	1.996
F7	7.02	0	7.5	7.5	85	24.42	1.278
F8	5.00	0	18	18	64	15.89	0.764
G1	16.20	0	25	25	50	48.23	2.178
G2	16.19	0	25	25	50	48.22	2.177
OFFSITE 2	51.52	100	0	0	0	13.87	1.783
B	12.79	0	34	34	32	34.80	1.407
E1.1	11.91	0	28.1	28.1	43.8	34.41	1.501
E1.2	12.76	0	28.1	28.1	43.8	36.78	1.608
E2	5.55	0	30.7	30.7	38.6	15.63	0.660
E3	15.50	0	22	22	56	47.48	2.210
E4	3.69	0	5	5	90	13.11	0.697
E5	17.28	18.8	23.8	26.4	31	43.19	1.762
E6	3.12	0	5	5	90	11.09	0.590
E7	2.90	16.5	24.8	20.6	38.1	7.55	0.324
P	4.51	43	25	25	7	8.41	0.273
H1	11.00	0	26.6	26.6	46.8	32.26	1.431
H2	5.35	0	5	5	90	19.16	1.018
H3	7.62	0	20	20	60	23.79	1.128
J1	3.31	0	12.5	12.5	75	11.04	0.557
J2	10.92	0	12.5	12.5	75	36.40	1.839
J3	3.71	0	19	19	62	11.70	0.560
J4	6.44	0	12.5	12.5	75	21.47	1.084
J5	0.86	0	5	5	90	3.05	0.162
J6	2.70	0	5	5	90	9.59	0.510
J7	2.84	0	5	5	90	10.09	0.536
J8	5.78	0	70	30	0	12.31	0.355
J9	3.51	0	7.5	7.5	85	12.20	0.638
J10	4.02	0	5	5	90	14.27	0.759
J11	4.79	0	5	5	90	16.65	0.886
J12	9.08	100	0	0	0	10.65	0.314
K1	17.11	0	19	19	62	50.54	2.579
K2	9.51	0	15	15	70	29.39	1.537
K3	5.85	0	5	5	90	20.76	1.104
K4	8.58	0	70	30	0	18.28	0.527
K5	15.13	0	19	19	62	47.63	2.281
K6	1.41	0	5	5	90	5.01	0.266

Detention Pond Characersitics

POND	DRAIN AREA (AC)	Q100 IN (CFS)	Q100 OUT (CFS)	BYPASS Q (CFS)	MAX VOL (ac-ft)	V100 (ac-ft)	TOP ELEV	BOTTOM ELEV	WSEL
OFF 1	127.9	37.00	9.25		2.44	2.302	6	0	5.80
A5	179.6	121.19	16.29		4.61	4.256	5516	5511	5515.76
A6	204.2	84.21	16.19		4.72	3.241	5506	5500	5504.73
B	12.8	34.80	3.36		0.99	0.930	5519	5515	5518.86
D1	222.5	65.02	14.46		6.06	5.360	5475	5471	5474.48
D	274.7	146.48	5.93	13.77	6.24	4.035	5436.9	5429.5	5435.03
E	118.2	194.46	20.22		7.17	6.412	5452	5440	5451.44
F5	18.9	62.89	19.84		1.40	1.386	5426	5421	5425.97
F	373.1	259.49	17.58	6.20	11.76	10.293	5424.3	5415.08	5423.51
G	405.5	111.28	7.00	17.61	7.21	2.948	5422.5	5415.67	5419.83
H	149.8	97.80	4.50	21.60	3.02	2.205	5422	5418.65	5421.42
J	57.9	141.18	6.05	26.34	7.94	3.771	5417	5414	5415.66
K	670.8	239.15	15.75	44.91	14.84	8.346	5409	5404.85	5407.77

Analysis Point Peak Flows

ANALYSIS POINT	PEAK FLOW
AP-A5	16.29 CFS
AP-A6	16.19 CFS
AP-D1	14.46 CFS
AP-D	19.42 CFS
AP-E	20.22 CFS
AP-F5	27.40 CFS
AP-F	23.78 CFS
AP-G	24.61 CFS
AP-H	26.10 CFS
AP-J	32.39 CFS
AP-K	60.66 CFS

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02c RUN DATE (MON/DAY/YR) =02/24/2015
INPUT FILE = C:\Projects\GALWAY~1\TRAILS~2.TXT USER NO.= AHYMO-I-9702a01000K21-AH

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
START										TIME= .00
RAINFALL TYPE= 2										RAIN24= 2.660
SEDIMENT BULK										PK BF = 1.00
*S**********										
*S**********	COMPUTE ONSITE BASINS FROM THE TRAILS									
*S**********										
COMPUTE NM HYD	OFFSITE1	-	50	.19980	37.00	4.426	.41534	2.000	.289	PER IMP= .00
ROUTE RESERVOIR	OFF.POND.1	50	53	.19980	9.25	4.426	.41533	3.200	.072	AC-FT= 2.302
ROUTE MCUNGE	RTE.OFF.POND	53	54	.19980	9.26	4.426	.41537	3.200	.072	CCODE = .2
COMPUTE NM HYD	BASIN.A1	-	21	.02422	51.68	2.610	2.02069	1.500	3.334	PER IMP= 75.00
COMPUTE NM HYD	BASIN.A2	-	22	.01331	23.43	.960	1.35259	1.500	2.750	PER IMP= 34.00
COMPUTE NM HYD	BASIN.A3	-	23	.00502	11.41	.606	2.26512	1.500	3.550	PER IMP= 90.00
COMPUTE NM HYD	BASIN.A4	-	24	.01186	26.39	1.381	2.18365	1.500	3.477	PER IMP= 85.00
COMPUTE NM HYD	BASIN.A5	-	25	.01830	37.55	1.829	1.87404	1.500	3.206	PER IMP= 66.00
COMPUTE NM HYD	BASIN.A6	-	26	.02652	53.44	2.558	1.80886	1.500	3.149	PER IMP= 62.00
COMPUTE NM HYD	BASIN.A7	-	27	.01055	22.52	1.137	2.02070	1.500	3.335	PER IMP= 75.00
ADD HYD	O1.A2	54&22	55	.21311	25.89	5.386	.47390	1.500	.190	
ADD HYD	O1A2.A1	55&21	56	.23733	77.57	7.996	.63175	1.500	.511	
ADD HYD	O1A2A1.A3	56&23	57	.24235	88.97	8.603	.66558	1.500	.574	
ROUTE MCUNGE	RTE.O1A2A1.A	57	58	.24235	80.93	8.569	.66299	1.500	.522	CCODE = .1
ADD HYD	A1TOA5	58&25	59	.26065	118.48	10.398	.74801	1.500	.710	
COMPUTE NM HYD	BASIN.B	-	30	.01998	34.80	1.407	1.32000	1.500	2.721	PER IMP= 32.00
ROUTE RESERVOIR	POND.B	30	51	.01998	3.36	1.407	1.31999	2.100	.263	AC-FT= .930
ADD HYD	A1TOA5.B	59&51	58	.28063	121.19	11.805	.78873	1.500	.675	
ROUTE RESERVOIR	POND.A5	58	60	.28063	16.29	11.805	.78873	2.500	.091	AC-FT= 4.256
ROUTE MCUNGE	RTE.A4	24	61	.01186	24.62	1.372	2.16943	1.500	3.243	CCODE = .1
ADD HYD	RTE.A4.A6	61&26	62	.03838	78.06	3.931	1.92024	1.500	3.178	
ADD HYD	RTEA4A6.POND	62&60	63	.31901	84.21	15.735	.92485	1.500	.412	
ROUTE RESERVOIR	POND.A6	63	64	.31901	16.19	15.735	.92485	3.800	.079	AC-FT= 3.241
ADD HYD	PONDA6.A7	64&27	65	.32956	28.43	16.872	.95993	1.500	.135	
ROUTE MCUNGE	RTE.A6.A7	65	66	.32956	28.43	16.872	.95993	1.500	.135	CCODE = .0
COMPUTE NM HYD	BASIN.D1	-	25	.01816	36.60	1.752	1.80886	1.500	3.149	PER IMP= 62.00
ADD HYD	A6.A7.D1	66&25	67	.34772	65.02	18.624	1.00426	1.500	.292	
ROUTE RESERVOIR	POND.D1	67	68	.34772	14.46	18.626	1.00438	8.700	.065	AC-FT= 5.360
ROUTE MCUNGE	RTE.D1	68	69	.34772	14.46	18.625	1.00434	8.700	.065	CCODE = .0
COMPUTE NM HYD	BASIN.D2	-	25	.03456	63.65	2.763	1.49925	1.500	2.878	PER IMP= 43.00
ADD HYD	PONDD1.D2	69&25	70	.38228	64.70	21.304	1.04493	1.500	.264	
COMPUTE NM HYD	BASIN.D3	-	26	.00580	13.18	.701	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	D1.D2.D3	70&26	71	.38808	77.88	22.005	1.06317	1.500	.314	
ROUTE MCUNGE	RTE.D1	71	72	.38808	74.07	21.985	1.06219	1.600	.298	CCODE = .1
COMPUTE NM HYD	BASIN.D4	-	27	.01961	36.12	1.568	1.49925	1.500	2.878	PER IMP= 43.00
ADD HYD	D1D2D3.D4	72&27	73	.40769	104.03	23.553	1.08321	1.500	.399	
COMPUTE NM HYD	BASIN.D5	-	28	.01367	26.55	1.224	1.67850	1.500	3.035	PER IMP= 54.00
ADD HYD	D1234.D5	73&28	74	.42136	130.59	24.776	1.10252	1.500	.484	
COMPUTE NM HYD	BASIN.D6	-	25	.00781	15.89	.767	1.84145	1.500	3.178	PER IMP= 64.00
ADD HYD	D12345.D6	74&25	75	.42917	146.48	25.543	1.11597	1.500	.533	
*S****** POND D INFLOW HYDROGRAPH										
DIVIDE HYD	BYPASS.D	75	31	.34657	13.77	20.627	1.11597	1.300	.062	
	SURGE.D	and	32	.08260	132.71	4.916	1.11597	1.500	2.510	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE RESERVOIR	POND.D	32	50	.08260	5.93	4.916	1.11601	2.100	.112	AC-FT= 4.035
ROUTE MCUNGE	RTE.D	50	51	.08260	5.92	4.913	1.11519	2.400	.112	CCODE = .1
ADD HYD	BYPASS.RTE.D	51&31	75	.42917	19.42	25.540	1.11581	2.200	.071	
COMPUTE NM HYD	BASIN.C	-	20	.01418	23.20	.935	1.23554	1.500	2.556	PER IMP= 30.40
ROUTE MCUNGE	RTE.C	20	76	.01418	22.64	.931	1.23117	1.600	2.495	CCODE = .1
COMPUTE NM HYD	BASIN.F1	-	20	.02208	43.39	2.025	1.71939	1.500	3.071	PER IMP= 56.50
ADD HYD	C.F1	76&20	77	.03626	62.26	2.956	1.52839	1.500	2.683	
COMPUTE NM HYD	BASIN.F2	-	21	.00573	13.02	.692	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	CF1.F2	77&21	78	.04199	75.28	3.648	1.62891	1.500	2.801	
ROUTE MCUNGE	RTE.CF1F2	78	79	.04199	74.48	3.651	1.63022	1.500	2.771	CCODE = .2
COMPUTE NM HYD	BASIN.F3	-	22	.03563	70.02	3.267	1.71938	1.500	3.070	PER IMP= 56.50
ADD HYD	CF1F2.F3	79&22	70	.07762	144.50	6.918	1.67112	1.500	2.909	
COMPUTE NM HYD	BASIN.F4	-	23	.03892	74.16	3.349	1.61331	1.500	2.977	PER IMP= 50.00
ADD HYD	CF1F2F3.F4	70&23	71	.11654	218.66	10.267	1.65181	1.500	2.932	
ADD HYD	CF1F2F3F4.D	71&75	70	.54571	232.57	35.807	1.23028	1.500	.666	
COMPUTE NM HYD	BASIN.F5	-	24	.01852	39.52	1.996	2.02070	1.500	3.334	PER IMP= 75.00
COMPUTE NM HYD	BASIN.J10	-	25	.00628	14.27	.759	2.26512	1.500	3.550	PER IMP= 90.00
COMPUTE NM HYD	BASIN.J11	-	26	.00733	16.65	.886	2.26512	1.500	3.549	PER IMP= 90.00
ADD HYD	J10.J11	25&26	23	.01361	30.92	1.644	2.26508	1.500	3.550	
ROUTE MCUNGE	RTE.J10J11	23	10	.01361	29.01	1.634	2.25104	1.500	3.330	CCODE = .1
COMPUTE NM HYD	BASIN.F7	-	26	.01097	24.42	1.278	2.18365	1.500	3.478	PER IMP= 85.00
ROUTE MCUNGE	RTE.F7	26	74	.01097	23.37	1.269	2.16910	1.500	3.328	CCODE = .1
ADD HYD	F7.F5	74&24	75	.02949	62.89	3.265	2.07585	1.500	3.332	
ROUTE RESERVOIR	POND.F5	75	51	.02949	19.84	3.265	2.07584	1.900	1.051	AC-FT= 1.386
COMPUTE NM HYD	BASIN.F8	-	27	.00781	15.89	.767	1.84145	1.500	3.178	PER IMP= 64.00
ADD HYD	PONDF5.F8	51&27	78	.03730	27.40	4.032	2.02672	1.500	1.148	
ROUTE MCUNGE	RTE.PONDF5	78	77	.03730	27.34	4.033	2.02709	1.600	1.145	CCODE = .2
ADD HYD	F1TOF8	77&70	78	.58301	259.49	39.839	1.28125	1.500	.695	
DIVIDE HYD	BYPASS.F	78	31	.20070	6.20	13.714	1.28125	1.200	.048	
	SURGE.F	and	32	.38231	253.29	26.125	1.28125	1.500	1.035	
ROUTE RESERVOIR	POND.F	32	52	.38231	17.58	26.106	1.28035	3.300	.072	AC-FT= 10.293
ADD HYD	BYPASSF.POND	31&52	53	.58301	23.78	39.821	1.28065	3.300	.064	
ROUTE MCUNGE	RTE.PONDF	53	77	.58301	23.74	39.792	1.27972	3.600	.064	CCODE = .2
COMPUTE NM HYD	BASIN.G1	-	20	.02531	48.23	2.178	1.61331	1.500	2.978	PER IMP= 50.00
ROUTE MCUNGE	RTE.G1	20	78	.02531	48.23	2.178	1.61330	1.500	2.978	CCODE = .0
COMPUTE NM HYD	BASIN.G2	-	21	.02530	48.22	2.177	1.61331	1.500	2.978	PER IMP= 50.00
ADD HYD	G1.G2	78&21	30	.05061	96.45	4.355	1.61330	1.500	2.978	
ADD HYD	G1G2.PONDF	30&77	31	.63362	111.28	44.146	1.30636	1.500	.274	
DIVIDE HYD	BYPASS.G	31	32	.49082	17.61	34.197	1.30636	1.300	.056	
	SURGE.G	and	33	.14281	93.67	9.950	1.30636	1.500	1.025	
ROUTE RESERVOIR	POND.G	33	34	.14281	7.00	9.950	1.30639	3.000	.077	AC-FT= 2.948
ROUTE MCUNGE	RTE.PONDG	34	78	.14281	7.00	9.946	1.30583	3.300	.077	CCODE = .1
ADD HYD	BYPASS.RTE.G	78&32	79	.63362	24.61	44.142	1.30623	3.300	.061	
COMPUTE NM HYD	OFFSITE2	-	55	.08050	13.87	1.783	.41534	2.000	.269	PER IMP= .00
COMPUTE NM HYD	BASINE1.1	-	30	.01861	34.41	1.501	1.51229	1.500	2.890	PER IMP= 43.80
COMPUTE NM HYD	BASINE1.2	-	31	.01994	36.87	1.608	1.51228	1.500	2.890	PER IMP= 43.80
ADD HYD	OFF.E12	55&31	73	.10044	40.64	3.391	.63307	1.500	.632	
COMPUTE NM HYD	BASIN.E2	-	32	.00867	15.63	.660	1.42755	1.500	2.817	PER IMP= 38.60
ADD HYD	OFFE2.E12	73&32	72	.10911	56.26	4.051	.69619	1.500	.806	
ROUTE MCUNGE	RTE.E12	72	76	.10911	56.26	4.051	.69619	1.500	.806	CCODE = .0
COMPUTE NM HYD	BASIN.E4	-	34	.00577	13.11	.697	2.26513	1.500	3.550	PER IMP= 90.00
ADD HYD	E11.E4	30&34	75	.02438	47.52	2.198	1.69046	1.500	3.046	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ROUTE MCUNGE	RTE.E1E4	75	77	.02438	47.52	2.198	1.69046	1.500	3.046	CCODE = .0
ADD HYD	E1E4.E12	77&76	78	.13348	103.78	6.249	.87777	1.500	1.215	
ROUTE MCUNGE	RTE.E1E4E12	78	77	.13348	103.78	6.249	.87777	1.500	1.215	CCODE = .0
COMPUTE NM HYD	BASIN.E3	-	33	.02422	47.48	2.210	1.71109	1.500	3.063	PER IMP= 56.00
COMPUTE NM HYD	BASIN.E5	-	35	.02701	43.19	1.762	1.22359	1.500	2.499	PER IMP= 31.00
COMPUTE NM HYD	BASIN.E7	-	34	.00453	7.55	.324	1.33990	1.500	2.603	PER IMP= 38.10
ADD HYD	E3.E5	33&35	80	.05123	90.67	3.973	1.45406	1.500	2.766	
ADD HYD	PONDE.INFLOW	80&77	40	.18471	194.46	10.221	1.03760	1.500	1.645	
ROUTE RESERVOIR	POND.E	40	37	.18471	20.22	9.680	.98261	2.400	.171	AC-FT= 6.412
COMPUTE NM HYD	BASIN.E6	-	36	.00488	11.09	.590	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	TOTALE	36&37	40	.18959	21.51	10.054	.99432	2.000	.177	
ROUTE MCUNGE	RTE.PONDE	40	38	.18959	21.51	10.052	.99416	2.100	.177	CCODE = .1
COMPUTE NM HYD	BASIN.P	-	32	.00705	8.41	.273	.72623	1.500	1.865	PER IMP= 7.00
COMPUTE NM HYD	BASIN.H1	-	33	.01719	32.26	1.431	1.56117	1.500	2.932	PER IMP= 46.80
ADD HYD	PONDE.H1	38&33	43	.20678	46.44	11.484	1.04129	1.500	.351	
COMPUTE NM HYD	BASIN.H2	-	34	.00836	19.16	1.018	2.28220	1.500	3.582	PER IMP= 90.00
ADD HYD	P.H2	32&34	44	.01541	27.58	1.291	1.57031	1.500	2.796	
ADD HYD	PH2.H1	44&43	45	.22219	74.01	12.774	1.07798	1.500	.520	
COMPUTE NM HYD	BASIN.H3	-	35	.01191	23.79	1.128	1.77627	1.500	3.121	PER IMP= 60.00
ADD HYD	PH1H3	45&35	46	.23410	97.80	13.902	1.11351	1.500	.653	
DIVIDE HYD	BYPASS.H	46	47	.19116	21.60	11.352	1.11351	1.300	.177	
	SURGE.H	and	48	.04294	76.20	2.550	1.11351	1.500	2.773	
ROUTE RESERVOIR	POND.H	48	30	.04294	4.50	2.550	1.11351	2.300	.164	AC-FT= 2.205
ROUTE MCUNGE	RTE.PONDH	30	49	.04294	4.50	2.550	1.11350	2.300	.164	CCODE = .2
ADD HYD	BYPASS.RTE.H	49&47	31	.23410	26.10	13.902	1.11350	2.300	.174	
COMPUTE NM HYD	BASIN.K1	-	20	.02673	50.54	2.579	1.80886	1.500	2.954	PER IMP= 62.00
ADD HYD	PONDH.K1	31&20	32	.26083	72.37	16.481	1.18476	1.500	.434	
ROUTE MCUNGE	RTE.K1	32	33	.26083	72.37	16.481	1.18476	1.500	.434	CCODE = .0
COMPUTE NM HYD	BASIN.K2	-	21	.01486	29.39	1.537	1.93922	1.500	3.090	PER IMP= 70.00
ADD HYD	K1.K2	33&21	34	.27569	101.76	18.018	1.22543	1.500	.577	
COMPUTE NM HYD	BASIN.K3	-	22	.00914	20.76	1.104	2.26513	1.500	3.549	PER IMP= 90.00
ADD HYD	PONDG.K3	79&22	24	.64276	38.61	45.246	1.31987	1.500	.094	
COMPUTE NM HYD	BASIN.K4	-	23	.01340	18.28	.527	.73726	1.500	2.132	PER IMP= .00
ADD HYD	K3.K4	24&23	25	.65616	56.89	45.773	1.30797	1.500	.135	
COMPUTE NM HYD	BASIN.J1	-	81	.00517	11.04	.557	2.02069	1.500	3.336	PER IMP= 75.00
COMPUTE NM HYD	BASIN.J2	-	82	.01706	36.40	1.839	2.02069	1.500	3.334	PER IMP= 75.00
COMPUTE NM HYD	BASIN.J3	-	83	.00580	11.70	.560	1.80886	1.500	3.151	PER IMP= 62.00
COMPUTE NM HYD	BASIN.J4	-	84	.01006	21.47	1.084	2.02069	1.500	3.335	PER IMP= 75.00
COMPUTE NM HYD	BASIN.J5	-	85	.00134	3.05	.162	2.26513	1.500	3.561	PER IMP= 90.00
COMPUTE NM HYD	BASIN.J6	-	86	.00422	9.59	.510	2.26512	1.500	3.551	PER IMP= 90.00
COMPUTE NM HYD	BASIN.J7	-	87	.00444	10.09	.536	2.26512	1.500	3.551	PER IMP= 90.00
COMPUTE NM HYD	BASIN.J8	-	88	.00903	12.31	.355	.73726	1.500	2.130	PER IMP= .00
COMPUTE NM HYD	BASIN.J9	-	89	.00548	12.20	.638	2.18365	1.500	3.479	PER IMP= 85.00
COMPUTE NM HYD	BASIN.J12	-	12	.01419	10.65	.314	.41534	1.500	1.173	PER IMP= .00
ADD HYD	J10J11.J6	86&10	11	.01783	38.60	2.144	2.25428	1.500	3.383	
ADD HYD	J10J11J6.J9	11&89	95	.02331	50.80	2.782	2.23766	1.500	3.405	
ADD HYD	J10J11J6J9.J	85&95	90	.02465	53.86	2.944	2.23914	1.500	3.414	
ROUTE MCUNGE	RTE.J5J6	90	91	.02465	53.86	2.944	2.23914	1.500	3.414	CCODE = .0
ADD HYD	J1.J4	81&84	93	.01523	32.51	1.641	2.02065	1.500	3.335	
ADD HYD	J1J4.J5J6J9	91&93	94	.03988	86.37	4.585	2.15570	1.500	3.384	
ROUTE MCUNGE	RTE.J14569	94	92	.03988	86.37	4.585	2.15570	1.500	3.384	CCODE = .0
ADD HYD	J2.J3	82&83	95	.02286	48.10	2.398	1.96692	1.500	3.288	

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	J2J3.J7	95&87	94	.02730	58.19	2.934	2.01541	1.500	3.330	
ADD HYD	J145679.J237	94&92	96	.06718	144.56	7.519	2.09869	1.500	3.362	
ADD HYD	J1J7.J8	96&88	97	.07621	156.87	7.875	1.93737	1.500	3.216	
ADD HYD	J1J8.J12	97&12	98	.09040	167.52	8.189	1.69846	1.500	2.895	
DIVIDE HYD	BYPASSJ	98	83	.04558	26.34	4.129	1.69846	1.300	.903	
	SURGEJ	and	84	.04482	141.18	4.060	1.69846	1.500	4.922	
ROUTE RESERVOIR	POND.J	84	90	.04482	6.05	4.059	1.69831	2.100	.211	AC-FT= 3.771
ADD HYD	BYPASS.SURGE	90&83	97	.09040	32.39	8.188	1.69835	2.000	.560	
ROUTE MCUNGE	RTE.J5J6	97	91	.09040	32.34	8.180	1.69667	2.100	.559	CCODE = .1
COMPUTE NM HYD	BASIN.K5	-	30	.02364	47.63	2.281	1.80886	1.500	3.148	PER IMP= 62.00
COMPUTE NM HYD	BASIN.K6	-	31	.00220	5.01	.266	2.26512	1.500	3.555	PER IMP= 90.00
ADD HYD	K5.K6	30&31	41	.02584	52.64	2.546	1.84768	1.500	3.183	
ADD HYD	K5K6.PONDJ	41&91	43	.11624	80.50	10.726	1.73022	1.500	1.082	
ADD HYD	K5K6PONDJ.K3	43&25	44	.77240	137.38	56.499	1.37152	1.500	.278	
ADD HYD	PONDJK13.K1K	34&44	96	1.04809	239.15	74.517	1.33309	1.500	.357	
DIVIDE HYD	BYPASS.K	96	97	.88822	44.91	63.151	1.33309	1.300	.079	
	SURGE.K	and	98	.15987	194.24	11.366	1.33309	1.500	1.898	
ROUTE RESERVOIR	POND.K	98	70	.15987	15.75	11.366	1.33308	2.900	.154	AC-FT= 8.346
ADD HYD	BYPASS.ROUTE	70&97	99	1.04809	60.66	74.517	1.33308	2.900	.090	
ROUTE MCUNGE	RTE.PONDK	99	1	1.04809	60.51	74.272	1.32870	3.500	.090	CCODE = .2
COMPUTE NM HYD	UNIVROWNORTH	-	2	.00727	16.51	.878	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	UNIVN.PONDK	1& 2	3	1.05536	60.66	75.150	1.33515	3.500	.090	
ROUTE MCUNGE	RTE.UNIVN	3	4	1.05536	60.52	74.973	1.33201	4.000	.090	CCODE = .2
COMPUTE NM HYD	UNIVROWSOUTH	-	5	.00727	16.51	.878	2.26512	1.500	3.550	PER IMP= 90.00
ADD HYD	UNIVNS.PONDK	4& 5	6	1.06262	60.65	75.851	1.33839	4.000	.089	

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*S**************************************************************
*S******END OF TRAILS DRAINAGE ANALYSIS
FINISH
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*
*                    TRAILS UNIT III DRAINAGE MASTER PLAN
*                  HYDROLOGIC MODEL--FULLY DEVELOPED CONDITIONS
*                              24 FEBRUARY 2015
*
*
**********************************************************************
*
*       HYDROLOGIC MODEL FOR OFFSITE AND ONSITE BASINS
*       100-YEAR, 24-HOUR STORM:
*
*
*
*            PRECIPITATION:
*                  P60 =   1.84"
*                  P360 =  2.20"
*                  P1440 = 2.66"
*
*
*
**********************************************************************
*
START                TIME=0.0 HR  PUNCH CODE=0
*
*
*
RAINFALL             TYPE=2   RAIN QUARTER=0.0 IN
                     RAIN ONE=1.84 IN  RAIN SIX=2.20 IN
                     RAIN DAY=2.66 IN  DT=0.10  HRS
SEDIMENT BULK        CODE=1  FACTOR=1.0
*
*
*S*********************************************************************
*S**********  COMPUTE ONSITE BASINS FROM THE TRAILS
*S**********
*
COMPUTE NM HYD       ID=50  HYD NO=OFFSITE1  DA=.1998 SQ MI
                     %A=100  %B=0  %C=0 %D=0
                     TP=-.66 HR  RAIN=-1
PRINT HYD            ID=50 CODE=10
*
ROUTE RESERVOIR      ID=53 HYD=OFF.POND.1  INFLOW ID=50 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0         0           0
                     3.85      0.037       1
                     5.44      0.218       2
                     6.66      0.610       3
                     7.69      1.150       4
                     8.60      1.759       5
                     9.42      2.439       6


PRINT HYD            ID=53 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.0176
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=54 HYD=RTE.OFF.POND INFLOW ID=53
                     DT=0.0  L=740 NS=0  SLOPE=0.0176
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=54 CODE=0
*
COMPUTE NM HYD       ID=21  HYD NO=BASIN.A1  DA=.02422 SQ MI
```

```
                    %A=0  %B=12.5  %C=12.5 %D=75.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=21 CODE=10
*
COMPUTE NM HYD      ID=22  HYD NO=BASIN.A2  DA=.01331 SQ MI
                    %A=0  %B=33.0  %C=33.0 %D=34.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=22 CODE=10
*
*
COMPUTE NM HYD      ID=23  HYD NO=BASIN.A3  DA=.00502 SQ MI
                    %A=0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=23 CODE=10
*
*
COMPUTE NM HYD      ID=24  HYD NO=BASIN.A4  DA=.01186 SQ MI
                    %A=0  %B=7.5  %C=7.5 %D=85.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=24 CODE=10
*
*
COMPUTE NM HYD      ID=25  HYD NO=BASIN.A5  DA=.01830 SQ MI
                    %A=0  %B=17.0  %C=17.0 %D=66.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=25 CODE=10
*
*
COMPUTE NM HYD      ID=26  HYD NO=BASIN.A6  DA=.02652 SQ MI
                    %A=0  %B=19.0  %C=19.0 %D=62.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=26 CODE=10
*
*
COMPUTE NM HYD      ID=27  HYD NO=BASIN.A7  DA=.01055 SQ MI
                    %A=0  %B=12.5  %C=12.5 %D=75.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=26 CODE=10
*
ADD HYD             ID=55 HYD=O1.A2 ID I=54 II=22
PRINT HYD           ID=55 CODE=10
*
ADD HYD             ID=56 HYD=O1A2.A1 ID I=55 II=21
PRINT HYD           ID=56 CODE=10
*
*
ADD HYD             ID=57 HYD=O1A2A1.A3 ID I=56 II=23
PRINT HYD           ID=57 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1  SLP=0.007
                    DIA=4.0  N=0.013
ROUTE MCUNGE        ID=58 HYD=RTE.O1A2A1.A3 INFLOW ID=57
                    DT=0.0  L=1000 NS=0  SLOPE=0.007
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=58 CODE=0
*
*
ADD HYD             ID=59 HYD=A1TOA5 ID I=58 II=25
PRINT HYD           ID=59 CODE=10
*
*
COMPUTE NM HYD      ID=30  HYD NO=BASIN.B  DA=.01998 SQ MI
```

```
                    %A=0  %B=34.0  %C=34.0 %D=32.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=30 CODE=10
*
*
ROUTE RESERVOIR     ID=51 HYD=POND.B  INFLOW ID=30 CODE=5
                    OUTFLOW   STORAGE     DEPTH
                    0         0           5515
                    1.71      0.06        5516
                    2.42      0.24        5517
                    2.96      0.55        5518
                    3.42      0.99        5519
                    3.82      1.67        5520
*
*
PRINT HYD           ID=51 CODE=10
*
*
ADD HYD             ID=58 HYD=A1TOA5.B ID I=59 II=51
PRINT HYD           ID=58 CODE=10
*
*
************************************************************
*DIVIDE HYD         ID=59 Q=8.26 ID I=61  HYD NO=BYPASS.A5
                                 ID II=62 HYD NO=SURGE.A5
*PRINT HYD          ID=61 CODE=10
*PRINT HYD          ID=62 CODE=10
************************************************************
*
*
ROUTE RESERVOIR     ID=60 HYD=POND.A5  INFLOW ID=58 CODE=5
                    OUTFLOW   STORAGE     DEPTH
                    0.0       0.0         5511
                    2.13      0.35        5512
                    5.13      1.03        5513
                    8.82      1.94        5514
                    13.07     3.15        5515
                    17.32     4.61        5516


PRINT HYD           ID=60 CODE=10
*
*
*ADD HYD            ID=59 HYD=TOTALA5 ID I=61 II=60
*PRINT HYD          ID=59 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.013
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=61 HYD=RTE.A4 INFLOW ID=24
                     DT=0.0  L=900 NS=0  SLOPE=0.013
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=61 CODE=0
*
*
ADD HYD              ID=62 HYD=RTE.A4.A6 ID I=61 II=26
PRINT HYD            ID=62 CODE=10
*
*
ADD HYD              ID=63 HYD=RTEA4A6.PONDA5 ID I=62 II=60
PRINT HYD            ID=63 CODE=10
*
*
```

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**********************************************************
*DIVIDE HYD          ID=63 Q=8.26 ID I=61  HYD NO=BYPASS.A6
                                 ID II=62 HYD NO=SURGE.A6
*PRINT HYD          ID=61 CODE=10
*PRINT HYD          ID=62 CODE=10
**********************************************************
*
*
ROUTE RESERVOIR     ID=64 HYD=POND.A6  INFLOW ID=63 CODE=5
                    OUTFLOW   STORAGE     DEPTH
                    0         0           5500
                    2.13      0.30        5501
                    5.13      0.85        5502
                    8.82      1.57        5503
                    13.07     2.47        5504
                    17.32     3.52        5505
                    21.57     4.72        5506
                    100.00    6.06        5507
*
PRINT HYD           ID=64 CODE=10
*
*
*ADD HYD            ID=66 HYD=TOTALA6 ID I=61 II=64
*PRINT HYD          ID=66 CODE=10
*
*
ADD HYD             ID=65 HYD=PONDA6.A7 ID I=64 II=27
PRINT HYD           ID=65 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.021
                    DIA=2.0  N=0.013
ROUTE MCUNGE        ID=66 HYD=RTE.A6.A7 INFLOW ID=65
                    DT=0.0  L=520 NS=0  SLOPE=0.021
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=66 CODE=0
*
*
COMPUTE NM HYD      ID=25  HYD NO=BASIN.D1  DA=.01816 SQ MI
                    %A=0  %B=19.0  %C=19.0 %D=62.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=25 CODE=10
*
ADD HYD             ID=67 HYD=A6.A7.D1 ID I=66 II=25
PRINT HYD           ID=67 CODE=10
*
*
**********************************************************
*DIVIDE HYD          ID=67 Q=11.07 ID I=61  HYD NO=BYPASS.AD1
                                 ID II=62 HYD NO=SURGE.D1
*PRINT HYD          ID=61 CODE=10
*PRINT HYD          ID=62 CODE=10
**********************************************************
*
*
ROUTE RESERVOIR     ID=68 HYD=POND.D1  INFLOW ID=67 CODE=6.3
                    OUTFLOW   STORAGE     DEPTH
                    0         0           5471
                    2.83      2.47        5472
                    6.84      3.52        5473
                    11.75     4.72        5474
                    17.42     6.06        5475
```

```
PRINT HYD            ID=68 CODE=10
*
*
*ADD HYD             ID=67 HYD=TOTALD1 ID I=61 II=68
*PRINT HYD           ID=67 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.018
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=69 HYD=RTE.D1 INFLOW ID=68
                     DT=0.0  L=1470 NS=0  SLOPE=0.018
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=69 CODE=0
*
*
****HERITAGE UNIT 1****
*
COMPUTE NM HYD       ID=25  HYD NO=BASIN.D2  DA=.03456 SQ MI
                     %A=0  %B=28.5  %C=28.5 %D=43.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=25 CODE=10
*
ADD HYD              ID=70 HYD=PONDD1.D2 ID I=69 II=25
PRINT HYD            ID=70 CODE=10
*
*
*****UNIVERSE BLVD*****
*
COMPUTE NM HYD       ID=26  HYD NO=BASIN.D3  DA=.00580 SQ MI
                     %A=0  %B=5.0  %C=5.0 %D=90.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=26 CODE=10
*
ADD HYD              ID=71 HYD=D1.D2.D3 ID I=70 II=26
PRINT HYD            ID=71 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.02
                     DIA=4.0  N=0.013
ROUTE MCUNGE         ID=72 HYD=RTE.D1 INFLOW ID=71
                     DT=0.0  L=1150 NS=0  SLOPE=0.02
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=72 CODE=0
*
*
****HERITAGE UNIT 2*****
*
COMPUTE NM HYD       ID=27  HYD NO=BASIN.D4  DA=.01961 SQ MI
                     %A=0  %B=28.5  %C=28.5 %D=43.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=27 CODE=10
*
*
ADD HYD              ID=73 HYD=D1D2D3.D4 ID I=72 II=27
PRINT HYD            ID=73 CODE=10
*
*
COMPUTE NM HYD       ID=28  HYD NO=BASIN.D5  DA=.01367 SQ MI
                     %A=0  %B=23.0  %C=23.0 %D=54.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=28 CODE=10
*
```

```
ADD HYD             ID=74 HYD=D1234.D5 ID I=73 II=28
PRINT HYD           ID=74 CODE=10
*
*
COMPUTE NM HYD      ID=25  HYD NO=BASIN.D6  DA=.00781 SQ MI
                    %A=0.0  %B=18.0  %C=18.0 %D=64.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=25 CODE=10
*
ADD HYD             ID=75 HYD=D12345.D6 ID I=74 II=25
PRINT HYD           ID=75 CODE=10
*
*S****** POND D INFLOW HYDROGRAPH
*PUNCH HYD           ID=75
*
************************************************************
DIVIDE HYD          ID=75 Q=13.77 ID I=31  HYD NO=BYPASS.D
                                  ID II=32 HYD NO=SURGE.D
PRINT HYD           ID=31 CODE=10
PRINT HYD           ID=32 CODE=10
************************************************************
*
*
ROUTE RESERVOIR     ID=50 HYD=POND.D  INFLOW ID=32 CODE=6.3
                    OUTFLOW   STORAGE     DEPTH
                    0         0           5429.46
                    1.87      0.30        5431
                    2.97      1.01        5432
                    4.00      1.91        5433
                    4.98      2.91        5434
                    5.90      4.00        5435
                    6.79      5.17        5436
                    7.51      6.24        5436.85
                    130.0     7.80        5438
*
*
PRINT HYD           ID=50 CODE=10
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.0057
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=51 HYD=RTE.D INFLOW ID=50
                     DT=0.0  L=1530 NS=0  SLOPE=0.0057
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=51 CODE=0
*
*
ADD HYD             ID=75 HYD=BYPASS.RTE.D ID I=51 II=31
PRINT HYD           ID=75 CODE=10
*
*
COMPUTE NM HYD      ID=20  HYD NO=BASIN.C  DA=.014183 SQ MI
                    %A=12.8  %B=28.4  %C=28.4 %D=30.4
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=20 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.027
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=76 HYD=RTE.C INFLOW ID=20
                     DT=0.0  L=1020 NS=0  SLOPE=0.027
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=76 CODE=0
```

```
*
*
******SANTA FE UNIT 1*******
*
COMPUTE NM HYD      ID=20  HYD NO=BASIN.F1  DA=.02208 SQ MI
                    %A=0  %B=21.7  %C=21.8 %D=56.5
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=20 CODE=10
*
ADD HYD             ID=77 HYD=C.F1 ID I=76 II=20
PRINT HYD           ID=77 CODE=10
*
*
*****UNIVERSE BLVD******
*
COMPUTE NM HYD      ID=21  HYD NO=BASIN.F2  DA=.00573 SQ MI
                    %A=0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=21 CODE=10
*
ADD HYD             ID=78 HYD=CF1.F2 ID I=77 II=21
PRINT HYD           ID=78 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.023
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=79 HYD=RTE.CF1F2 INFLOW ID=78
                     DT=0.0  L=1560 NS=0  SLOPE=0.023
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=79 CODE=0
*
*
*****TAOS AT THE TRAILS****
*
COMPUTE NM HYD      ID=22  HYD NO=BASIN.F3  DA=.03563 SQ MI
                    %A=0  %B=21.7  %C=21.8 %D=56.5
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=22 CODE=10
*
ADD HYD             ID=70 HYD=CF1F2.F3 ID I=79 II=22
PRINT HYD           ID=70 CODE=10
*
*
******SANTA FE III********
*
COMPUTE NM HYD      ID=23  HYD NO=BASIN.F4  DA=.03892 SQ MI
                    %A=0  %B=25.0  %C=25.0 %D=50.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=23 CODE=10
*
*
ADD HYD             ID=71 HYD=CF1F2F3.F4 ID I=70 II=23
PRINT HYD           ID=71 CODE=10
*
ADD HYD             ID=70 HYD=CF1F2F3F4.D ID I=71 II=75
PRINT HYD           ID=70 CODE=10
*
*
*
COMPUTE NM HYD      ID=24  HYD NO=BASIN.F5  DA=.01852  SQ MI
                    %A=0  %B=12.5  %C=12.5 %D=75.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=24 CODE=10
```

```
*
*
COMPUTE NM HYD      ID=25  HYD NO=BASIN.J10  DA=.00628 SQ MI
                    %A=0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=25 CODE=10
*
*
COMPUTE NM HYD      ID=26  HYD NO=BASIN.J11  DA=.00733 SQ MI
                    %A=0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=26 CODE=10
*
ADD HYD             ID=23 HYD=J10.J11 ID I=25 II=26
PRINT HYD           ID=23 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.004
                    DIA=3.0  N=0.013
ROUTE MCUNGE        ID=10 HYD=RTE.J10J11 INFLOW ID=23
                    DT=0.0  L=1450 NS=0  SLOPE=0.004
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=10 CODE=0
*
*
*
COMPUTE NM HYD      ID=26  HYD NO=BASIN.F7  DA=.01097 SQ MI
                    %A=0.0  %B=7.5  %C=7.5 %D=85.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=26 CODE=10
*
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.004
                    DIA=3.5  N=0.013
ROUTE MCUNGE        ID=74 HYD=RTE.F7 INFLOW ID=26
                    DT=0.0  L=500 NS=0  SLOPE=0.004
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=74 CODE=0
*
*
ADD HYD             ID=75 HYD=F7.F5 ID I=74 II=24
PRINT HYD           ID=75 CODE=10
*
*
ROUTE RESERVOIR     ID=51 HYD=POND.F5  INFLOW ID=75 CODE=5
                    OUTFLOW   STORAGE     DEPTH
                    0         0           5421
                    3.00      0.1993      5422
                    7.00      0.4325      5423
                    11.00     0.7053      5424
                    15.00     1.0245      5425
                    20.00     1.3979      5426
                    50.00     1.8334      5427
*
*
PRINT HYD           ID=51 CODE=10
*
*
COMPUTE NM HYD      ID=27  HYD NO=BASIN.F8  DA=.00781 SQ MI
                    %A=0.0  %B=18.0  %C=18.0 %D=64.0
                    TP=-.1333 HR  RAIN=-1
```

```
PRINT HYD            ID=27 CODE=10
*
*
*
ADD HYD              ID=78 HYD=PONDF5.F8 ID I=51 II=27
PRINT HYD            ID=78 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.003
                     DIA=3.5  N=0.013
ROUTE MCUNGE         ID=77 HYD=RTE.PONDF5 INFLOW ID=78
                     DT=0.0  L=590 NS=0  SLOPE=0.004
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=77 CODE=0
*
*
ADD HYD              ID=78 HYD=F1TOF8 ID I=77 II=70
PRINT HYD            ID=78 CODE=10
*
************************************************************
DIVIDE HYD           ID=78 Q=6.20 ID I=31  HYD NO=BYPASS.F
                                  ID II=32 HYD NO=SURGE.F
PRINT HYD            ID=31 CODE=10
PRINT HYD            ID=32 CODE=10
************************************************************
*
*
ROUTE RESERVOIR      ID=52 HYD=POND.F  INFLOW ID=32 CODE=6.3
                     OUTFLOW   STORAGE     DEPTH
                     0         0           5415.08
                     3.80      0.25        5416.0
                     6.52      0.55        5417.0
                     8.74      1.69        5418.0
                     10.68     3.08        5419.0
                     12.41     4.54        5420.0
                     14.00     6.08        5421.0
                     15.47     7.70        5422.0
                     16.85     9.39        5423.0
                     18.29     11.16       5424.0
                     18.60     11.76       5424.33
                     100.00    13.02       5425.0
*
*
PRINT HYD            ID=52 CODE=10
*
*
ADD HYD              ID=53 HYD=BYPASSF.PONDF ID I=31 II=52
PRINT HYD            ID=53 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.004
                     DIA=2.0  N=0.013
ROUTE MCUNGE         ID=77 HYD=RTE.PONDF INFLOW ID=53
                     DT=0.0  L=850 NS=0  SLOPE=0.004
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=77 CODE=0
*
*
*****RESERVE*****
*
COMPUTE NM HYD       ID=20  HYD NO=BASIN.G1  DA=.02531 SQ MI
                     %A=0  %B=25.0  %C=25.0 %D=50.0
```

```
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=20 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                    DIA=3.0  N=0.013
ROUTE MCUNGE        ID=78 HYD=RTE.G1 INFLOW ID=20
                    DT=0.0  L=580 NS=0  SLOPE=0.007
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=78 CODE=0
*
*
*****SANTA FE 2*****
*
COMPUTE NM HYD      ID=21  HYD NO=BASIN.G2  DA=.02530 SQ MI
                    %A=0  %B=25.0  %C=25.0 %D=50.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=21 CODE=10
*
*
ADD HYD             ID=30 HYD=G1.G2 ID I=78 II=21
PRINT HYD           ID=30 CODE=10
*
*
ADD HYD             ID=31 HYD=G1G2.PONDF ID I=30 II=77
PRINT HYD           ID=31 CODE=10
*
*
************************************************************
DIVIDE HYD          ID=31 Q=17.61 ID I=32  HYD NO=BYPASS.G
                                  ID II=33 HYD NO=SURGE.G
PRINT HYD           ID=32 CODE=10
PRINT HYD           ID=33 CODE=10
************************************************************
*
*
ROUTE RESERVOIR     ID=34 HYD=POND.G  INFLOW ID=33 CODE=6.3
                    OUTFLOW   STORAGE     DEPTH
                    0         0           5415.67
                    2.50      0.23        5417.0
                    4.20      0.84        5418.0
                    5.77      1.83        5419.0
                    7.24      3.17        5420.0
                    8.63      4.70        5421.0
                    9.95      6.34        5422.0
                    10.45     7.21        5422.5
                    100.00    8.10        5423.0
*
*
PRINT HYD           ID=24 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.006
                    DIA=3.0  N=0.013
ROUTE MCUNGE        ID=78 HYD=RTE.PONDG INFLOW ID=34
                    DT=0.0  L=1440 NS=0  SLOPE=0.006
                    MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD           ID=78 CODE=0
*
*
ADD HYD             ID=79 HYD=BYPASS.RTE.G ID I=78 II=32
PRINT HYD           ID=79 CODE=10
```

```
*
*
**********************************************************************
*
*************POND G DISCHARGES INTO POND K**************************
*
COMPUTE NM HYD       ID=55  HYD NO=OFFSITE2  DA=.0805 SQ MI
                     %A=100  %B=0.0  %C=0.0 %D=0.0
                     TP=-.66 HR  RAIN=-1
PRINT HYD            ID=55 CODE=10
*
*
*ROUTE RESERVOIR      ID=50 HYD=OFFPOND2  INFLOW ID=55 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0         0           0
                     2.16      0.047       1
                     3.06      0.222       2
                     3.75      0.466       3
                     4.33      0.751       4
                     4.84      1.081       5
*
*
*PRINT HYD            ID=50 CODE=10
*
*
*COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.011
                     DIA=2.0  N=0.013
*ROUTE MCUNGE          ID=70 HYD=RTE.OFFPOND2 INFLOW ID=50
                     DT=0.0  L=900 NS=0  SLOPE=0.011
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
*PRINT HYD             ID=70 CODE=0
*
*
*COMPUTE NM HYD        ID=30  HYD NO=BASIN.B  DA=.01998 SQ MI
                     %A=0  %B=34.0  %C=34.0 %D=32.0
                     TP=-.133 HR  RAIN=-1
*PRINT HYD             ID=30 CODE=10
*
*
*ROUTE RESERVOIR      ID=51 HYD=POND.B  INFLOW ID=30 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0         0           5515
                     1.71      0.06        5516
                     2.42      0.24        5517
                     2.96      0.55        5518
                     3.42      0.99        5519
                     3.82      1.67        5520
*
*
*PRINT HYD            ID=51 CODE=10
*
*
*COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.03
                     DIA=2.0  N=0.013
*ROUTE MCUNGE          ID=71 HYD=RTE.PONDB INFLOW ID=51
                     DT=0.0  L=1180 NS=0  SLOPE=0.03
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
*PRINT HYD             ID=71 CODE=0
*
*
*ADD HYD              ID=72 HYD=OFF.B ID I=71 II=70
*PRINT HYD            ID=72 CODE=10
```

```
*
* BEGIN DURANGO ANALYSIS
*
COMPUTE NM HYD       ID=30  HYD NO=BASINE1.1  DA=.018607 SQ MI
                     %A=0.0  %B=28.1  %C=28.1 %D=43.8
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=30 CODE=10
*
*
COMPUTE NM HYD       ID=31  HYD NO=BASINE1.2  DA=.019936 SQ MI
                     %A=0.0  %B=28.1  %C=28.1 %D=43.8
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=31 CODE=10
*
*
ADD HYD              ID=73 HYD=OFF.E12 ID I=55 II=31
PRINT HYD            ID=73 CODE=10
*
*
COMPUTE NM HYD       ID=32  HYD NO=BASIN.E2  DA=.008669 SQ MI
                     %A=0.0  %B=30.7  %C=30.7 %D=38.6
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=32 CODE=10
*
*
ADD HYD              ID=72 HYD=OFFE2.E12 ID I=73 II=32
PRINT HYD            ID=72 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.003
                     DIA=4.0  N=0.013
ROUTE MCUNGE         ID=76 HYD=RTE.E12 INFLOW ID=72
                     DT=0.0  L=400 NS=0  SLOPE=0.003
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=76 CODE=0
*
* BEGIN WOODMONT ANALYSIS
*
COMPUTE NM HYD       ID=34  HYD NO=BASIN.E4  DA=.00577 SQ MI
                     %A=0.0  %B=5.0  %C=5.0 %D=90.0
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=34 CODE=10
*
*
ADD HYD              ID=75 HYD=E11.E4 ID I=30 II=34
PRINT HYD            ID=75 CODE=10
*
*
*ADD HYD             ID=75 HYD=E3E4.PONDB ID I=74 II=71
*PRINT HYD           ID=75 CODE=10
*
*
*ADD HYD             ID=74 HYD=E3E4.OFFE11 ID I=75 II=73
*PRINT HYD           ID=74 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.05
                     DIA=4.0  N=0.013
ROUTE MCUNGE         ID=77 HYD=RTE.E1E4 INFLOW ID=75
                     DT=0.0  L=450 NS=0  SLOPE=0.05
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=77 CODE=0
```

```
*
*
ADD HYD              ID=78 HYD=E1E4.E12 ID I=77 II=76
PRINT HYD            ID=78 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.026
                     DIA=4.0  N=0.013
ROUTE MCUNGE         ID=77 HYD=RTE.E1E4E12 INFLOW ID=78
                     DT=0.0  L=450 NS=0  SLOPE=0.026
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=77 CODE=0
*
*
* BEGIN VALLE PRADO ANALYSIS
*
COMPUTE NM HYD       ID=33  HYD NO=BASIN.E3  DA=.024219 SQ MI
                     %A=0.0  %B=22.0  %C=22.0 %D=56.0
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=33 CODE=10
*
*
COMPUTE NM HYD       ID=35  HYD NO=BASIN.E5  DA=.027007 SQ MI
                     %A=18.8  %B=23.8  %C=26.4 %D=31.0
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=35 CODE=10
*
*
COMPUTE NM HYD       ID=34  HYD NO=BASIN.E7  DA=.004532 SQ MI
                     %A=16.5  %B=24.8  %C=20.6 %D=38.1
                     TP=-0.133 HR  RAIN=-1
PRINT HYD            ID=34 CODE=10
*
*
ADD HYD              ID=80 HYD=E3.E5 ID I=33 II=35
PRINT HYD            ID=80 CODE=10
*
*
ADD HYD              ID=40 HYD=PONDE.INFLOW ID I=80 II=77
PRINT HYD            ID=40 CODE=10
*
*
*************************************************************
*DIVIDE HYD          ID=40 Q=15.5 ID I=61  HYD NO=BYPASS.E
                                  ID II=62 HYD NO=SURGE.E
*PRINT HYD           ID=61 CODE=10
*PRINT HYD           ID=62 CODE=10
*************************************************************
*
*
ROUTE RESERVOIR      ID=37 HYD=POND.E  INFLOW ID=40 CODE=6.3
                     OUTFLOW   STORAGE     DEPTH
                     0.0       0.02        5440
                     0.011     0.05        5440.5
                     0.012     0.09        5441
                     0.013     0.13        5441.5
                     0.014     0.18        5442
                     0.015     0.24        5442.5
                     0.016     0.31        5443
                     0.017     0.39        5443.5
                     0.018     0.50        5444
                     0.02      0.65        5444.5
                     0.03      0.83        5445
```

```
                    0.50      1.03        5445.5
                    1.30      1.28        5446
                    2.20      1.56        5446.5
                    3.30      1.89        5447
                    4.50      2.25        5447.5
                    5.80      2.64        5448
                    7.60      3.08        5448.5
                    9.50      3.56        5449
                    11.5      4.08        5449.5
                    13.6      4.63        5450
                    15.8      5.21        5450.5
                    18.1      5.83        5451
                    20.5      6.49        5451.5
                    23.0      7.17        5452
*
PRINT HYD           ID=37 CODE=10
*
*
COMPUTE NM HYD      ID=36  HYD NO=BASIN.E6  DA=.00488 SQ MI
                    %A=0.0  %B=5.0  %C=5.0 %D=90.0
                    TP=-0.133 HR  RAIN=-1
PRINT HYD           ID=36 CODE=10
*
*
ADD HYD             ID=40 HYD=TOTALE ID I=36 II=37
PRINT HYD           ID=40 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.022
                     DIA=2.5  N=0.013
ROUTE MCUNGE         ID=38 HYD=RTE.PONDE INFLOW ID=40
                     DT=0.0  L=1200 NS=0  SLOPE=0.022
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=38 CODE=0
*
*
*
***PARK***
*
COMPUTE NM HYD      ID=32  HYD NO=BASIN.P  DA=.00705 SQ MI
                    %A=43  %B=25  %C=25 %D=7
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=32 CODE=10
*
*
***VALLE VISTA***
*
COMPUTE NM HYD      ID=33  HYD NO=BASIN.H1  DA=.01719 SQ MI
                    %A=0.0  %B=26.6  %C=26.6 %D=46.8
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=33 CODE=10
*
*
ADD HYD             ID=43 HYD=PONDE.H1 ID I=38 II=33
PRINT HYD           ID=43 CODE=10
*
*
***RAINBOW BLVD PORTION***
*
COMPUTE NM HYD      ID=34  HYD NO=BASIN.H2  DA=.00836 SQ MI
                    %A=0.0  %B=0.0  %C=10.0 %D=90.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=34 CODE=10
```

```
*
*
ADD HYD             ID=44 HYD=P.H2 ID I=32 II=34
PRINT HYD           ID=44 CODE=10
*
*
ADD HYD             ID=45 HYD=PH2.H1 ID I=44 II=43
PRINT HYD           ID=45 CODE=10
*
*
*
COMPUTE NM HYD      ID=35  HYD NO=BASIN.H3  DA=.01191 SQ MI
                    %A=0.0  %B=20.0  %C=20.0 %D=60.0
                    TP=-.133 HR  RAIN=-1
PRINT HYD           ID=35 CODE=10
*
*
ADD HYD             ID=46 HYD=PH1H3 ID I=45 II=35
PRINT HYD           ID=46 CODE=10
*
*
*
************************************************************
DIVIDE HYD          ID=46 Q=21.6 ID I=47  HYD NO=BYPASS.H
                                 ID II=48 HYD NO=SURGE.H
PRINT HYD           ID=47 CODE=10
PRINT HYD           ID=48 CODE=10
************************************************************
*
*
******
ROUTE RESERVOIR     ID=30 HYD=POND.H  INFLOW ID=48 CODE=5
                    OUTFLOW   STORAGE     DEPTH
                    0.0       0.0         5418.65
                    2.31      0.57        5420
                    3.88      1.62        5421
                    5.36      3.02        5422
                    100.0     4.60        5423
*
PRINT HYD           ID=30 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.003
                     DIA=2.5  N=0.013
ROUTE MCUNGE         ID=49 HYD=RTE.PONDH INFLOW ID=30
                     DT=0.0  L=1600 NS=0  SLOPE=0.003
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=49 CODE=0
*
*
ADD HYD              ID=31 HYD=BYPASS.RTE.H ID I=49 II=47
PRINT HYD            ID=31 CODE=10
*
*
*****TIERRA VISTA******
*
COMPUTE NM HYD       ID=20  HYD NO=BASIN.K1  DA=.02673 SQ MI
                     %A=0.0  %B=19.0  %C=19.0 %D=62.0
                     TP=-.1715 HR  RAIN=-1
PRINT HYD            ID=20 CODE=10
*
*
ADD HYD              ID=32 HYD=PONDH.K1 ID I=31 II=20
```

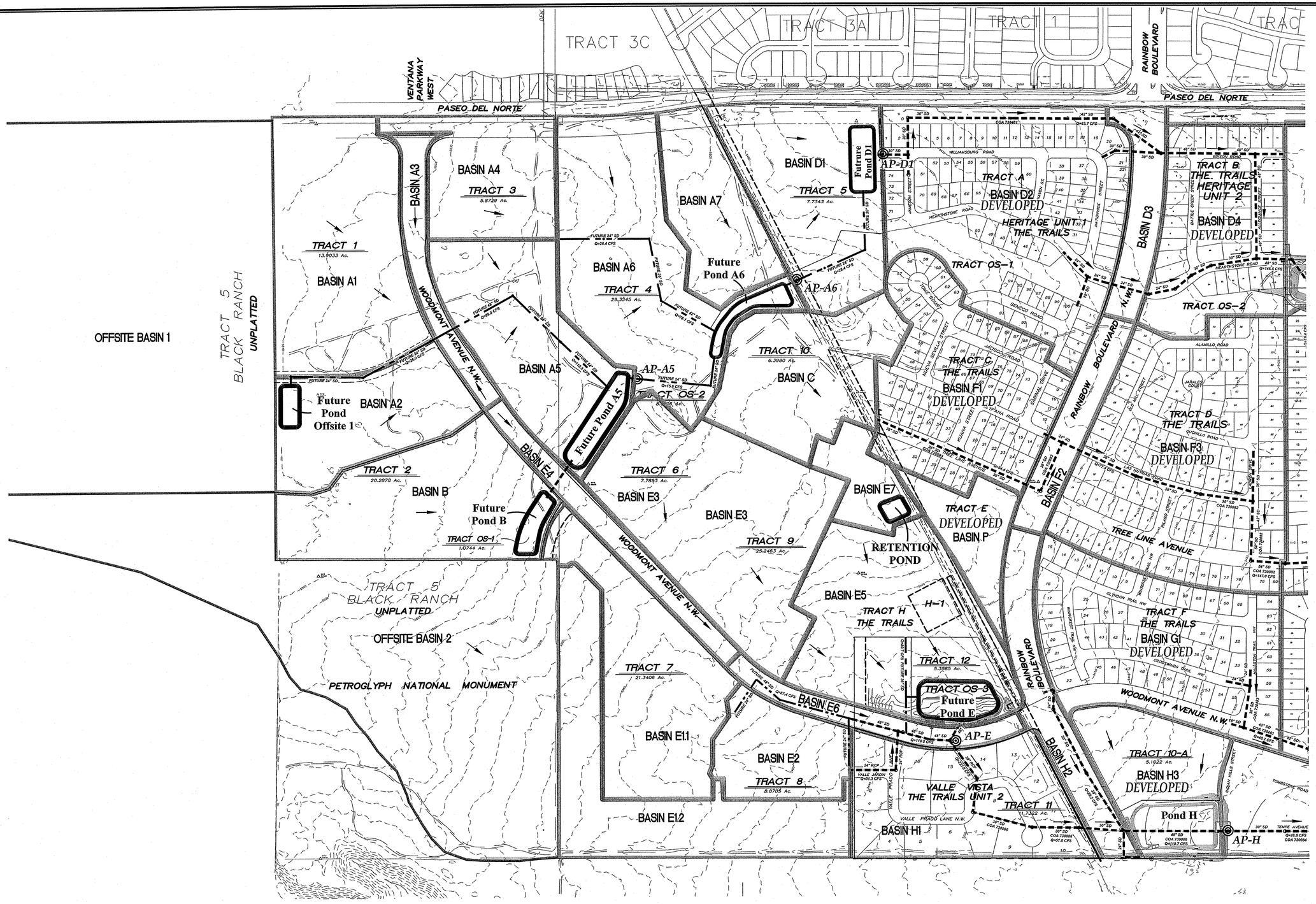
```
PRINT HYD            ID=32 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.0088
                     DIA=4.5  N=0.013
ROUTE MCUNGE         ID=33 HYD=RTE.K1 INFLOW ID=32
                     DT=0.0  L=800 NS=0  SLOPE=0.0088
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=33 CODE=0
*
*
COMPUTE NM HYD       ID=21  HYD NO=BASIN.K2  DA=.01486 SQ MI
                     %A=0.0  %B=15.0  %C=15.0 %D=70.0
                     TP=-.1715 HR  RAIN=-1
PRINT HYD            ID=21 CODE=10
*
ADD HYD              ID=34 HYD=K1.K2 ID I=33 II=21
PRINT HYD            ID=34 CODE=10
*
*
COMPUTE NM HYD       ID=22  HYD NO=BASIN.K3  DA=.00914 SQ MI
                     %A=0  %B=5.0  %C=5.0 %D=90.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=22 CODE=10
*
*
ADD HYD              ID=24 HYD=PONDG.K3 ID I=79 II=22
PRINT HYD            ID=24 CODE=10
*
*
COMPUTE NM HYD       ID=23  HYD NO=BASIN.K4  DA=.0134 SQ MI
                     %A=0.0  %B=70.0  %C=30.0 %D=0.0
                     TP=-.133 HR  RAIN=-1
PRINT HYD            ID=23 CODE=10
*
*
ADD HYD              ID=25 HYD=K3.K4 ID I=24 II=23
PRINT HYD            ID=25 CODE=10
*
*
********BASINS 2, B, E, H, L ARE LATER ROUTED THROUGH POND K***********
*
*
COMPUTE NM HYD       ID=81  HYD NO=BASIN.J1  DA=.00517 SQ MI
                     %A=0.0  %B=12.5  %C=12.5 %D=75.0
                     TP=-.1333 HR  RAIN=-1
PRINT HYD            ID=81 CODE=10
*
*****CANTATA*****
*
COMPUTE NM HYD       ID=82  HYD NO=BASIN.J2  DA=.01706 SQ MI
                     %A=0.0  %B=12.5  %C=12.5 %D=75.0
                     TP=-.1333 HR  RAIN=-1
PRINT HYD            ID=82 CODE=10
*
COMPUTE NM HYD       ID=83  HYD NO=BASIN.J3  DA=.00580 SQ MI
                     %A=0.0  %B=19.0  %C=19.0 %D=62.0
                     TP=-.1333 HR  RAIN=-1
PRINT HYD            ID=83 CODE=10
*
*****CANTATA*****
*
COMPUTE NM HYD       ID=84  HYD NO=BASIN.J4  DA=.01006 SQ MI
```

```
                    %A=0.0  %B=12.5  %C=12.5 %D=75.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=84 CODE=10
*
*
COMPUTE NM HYD      ID=85  HYD NO=BASIN.J5  DA=.00134 SQ MI
                    %A=0.0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=85 CODE=10
*
*
COMPUTE NM HYD      ID=86  HYD NO=BASIN.J6  DA=.00422 SQ MI
                    %A=0.0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=86 CODE=10
*
*
COMPUTE NM HYD      ID=87  HYD NO=BASIN.J7  DA=.00444 SQ MI
                    %A=0.0  %B=5.0  %C=5.0 %D=90.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=87 CODE=10
*
*
COMPUTE NM HYD      ID=88  HYD NO=BASIN.J8  DA=.00903 SQ MI
                    %A=0.0  %B=70.0  %C=30.0 %D=0.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=88 CODE=10
*
*
COMPUTE NM HYD      ID=89  HYD NO=BASIN.J9  DA=.00548 SQ MI
                    %A=0.0  %B=7.5  %C=7.5 %D=85.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=89 CODE=10
*
*
COMPUTE NM HYD      ID=12  HYD NO=BASIN.J12  DA=.01419 SQ MI
                    %A=100.0  %B=0.0  %C=0.0 %D=0.0
                    TP=-.1333 HR  RAIN=-1
PRINT HYD           ID=12 CODE=10
*
*
ADD HYD             ID=11 HYD=J10J11.J6 ID I=86 II=10
PRINT HYD           ID=11 CODE=10
*
*
ADD HYD             ID=95 HYD=J10J11J6.J9 ID I=11 II=89
PRINT HYD           ID=95 CODE=10
*
*
ADD HYD             ID=90 HYD=J10J11J6J9.J5 ID I=85 II=95
PRINT HYD           ID=90 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                     DIA=3.0  N=0.013
ROUTE MCUNGE         ID=91 HYD=RTE.J5J6 INFLOW ID=90
                     DT=0.0  L=350 NS=0  SLOPE=0.007
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=91 CODE=0
*
*
ADD HYD             ID=93 HYD=J1.J4 ID I=81 II=84
PRINT HYD           ID=93 CODE=10
```

```
*
ADD HYD             ID=94 HYD=J1J4.J5J6J9 ID I=91 II=93
PRINT HYD           ID=94 CODE=10
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                     DIA=3.5  N=0.013
ROUTE MCUNGE         ID=92 HYD=RTE.J14569 INFLOW ID=94
                     DT=0.0  L=650 NS=0  SLOPE=0.007
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=92 CODE=0
*
*
ADD HYD             ID=95 HYD=J2.J3 ID I=82 II=83
PRINT HYD           ID=95 CODE=10
*
*
ADD HYD             ID=94 HYD=J2J3.J7 ID I=95 II=87
PRINT HYD           ID=94 CODE=10
*
*
ADD HYD             ID=96 HYD=J145679.J237 ID I=94 II=92
PRINT HYD           ID=96 CODE=10
*
ADD HYD             ID=97 HYD=J1J7.J8 ID I=96 II=88
PRINT HYD           ID=97 CODE=10
*
*
ADD HYD             ID=98 HYD=J1J8.J12 ID I=97 II=12
PRINT HYD           ID=98 CODE=10
*
*
************************************************************
DIVIDE HYD          ID=98 Q=26.34 ID I=83  HYD NO=BYPASSJ
                                  ID II=84 HYD NO=SURGEJ
PRINT HYD           ID=83 CODE=10
PRINT HYD           ID=84 CODE=10
************************************************************
*
*
ROUTE RESERVOIR     ID=90 HYD=POND.J  INFLOW ID=84 CODE=10
                    OUTFLOW   STORAGE     DEPTH
                    0         0           5414
                    3.82      1.96        5415
                    7.20      4.70        5416
                    10.28     7.94        5417
                    100.0     11.56       5418
*
PRINT HYD           ID=90 CODE=0
*
*
ADD HYD             ID=97 HYD=BYPASS.SURGEPONDJ ID I=90 II=83
PRINT HYD           ID=97 CODE=10
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.007
                     DIA=4.0  N=0.013
ROUTE MCUNGE         ID=91 HYD=RTE.J5J6 INFLOW ID=97
                     DT=0.0  L=1100 NS=0  SLOPE=0.007
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD            ID=91 CODE=0
*
****TAOS******
```

```
*
COMPUTE NM HYD       ID=30  HYD NO=BASIN.K5  DA=.02364 SQ MI
                     %A=0.0  %B=19.0  %C=19.0 %D=62.0
                     TP=-.1333 HR  RAIN=-1
PRINT HYD            ID=30 CODE=10
*
*
COMPUTE NM HYD       ID=31  HYD NO=BASIN.K6  DA=.00220 SQ MI
                     %A=0.0  %B=5.0  %C=5.0 %D=90.0
                     TP=-.1333 HR  RAIN=-1
PRINT HYD            ID=31 CODE=10
*
*
ADD HYD              ID=41 HYD=K5.K6 ID I=30 II=31
PRINT HYD            ID=41 CODE=10
*
*
*ADD HYD             ID=83 HYD=1ADCFG.JK6 ID I=27 II=91
*PRINT HYD           ID=83 CODE=10
*
*
ADD HYD              ID=43 HYD=K5K6.PONDJ I=41 II=91
PRINT HYD            ID=43 CODE=10
*
*
ADD HYD              ID=44 HYD=K5K6PONDJ.K3K4 I=43 II=25
PRINT HYD            ID=44 CODE=10
*
*
ADD HYD              ID=96 HYD=PONDJK13.K1K4 ID I=34 II=44
PRINT HYD            ID=96 CODE=10
*
**********************************************************************
DIVIDE HYD           ID=96 Q=44.91 ID I=97  HYD NO=BYPASS.K
                                 ID II=98 HYD NO=SURGE.K
PRINT HYD            ID=97 CODE=10
PRINT HYD            ID=98 CODE=10
**********************************************************************
*
*
*
ROUTE RESERVOIR      ID=70 HYD=POND.K  INFLOW ID=98 CODE=5
                     OUTFLOW   STORAGE     DEPTH
                     0.00      0           5404.85
                     6.79      2.60        5406
                     12.04     5.29        5407
                     16.84     9.24        5408
                     21.30     14.84       5409
                     25.48     21.67       5410
*
PRINT HYD            ID=70 CODE=10
*
ADD HYD              ID=99 HYD=BYPASS.ROUTE.K ID I=70 II=97
PRINT HYD            ID=99 CODE=5
*
PUNCH HYD             ID=99
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.005
                     DIA=2.5  N=0.013
ROUTE MCUNGE         ID=1 HYD=RTE.PONDK INFLOW ID=99
                     DT=0.0  L=2000 NS=0  SLOPE=0.005
                     MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
```

```
PRINT HYD             ID=1 CODE=0
*
*
COMPUTE NM HYD        ID=2  HYD NO=UNIVROWNORTH  DA=.007266 SQ MI
                      %A=0.0  %B=5.0  %C=5.0 %D=90.0
                      TP=-.1333 HR  RAIN=-1
PRINT HYD             ID=2 CODE=5
*
ADD HYD               ID=3 HYD=UNIVN.PONDK ID I=1 II=2
PRINT HYD             ID=3 CODE=5
*
*
COMPUTE RATING CURVE CID=1  VS NO=1  CODE=-1   SLP=0.005
                      DIA=2.5  N=0.013
ROUTE MCUNGE          ID=4 HYD=RTE.UNIVN INFLOW ID=3
                      DT=0.0  L=2000 NS=0  SLOPE=0.005
                      MATCODE=0 REGCODE=0 CCODE=0 MM CODE=0
*
PRINT HYD             ID=4 CODE=0
*
*
COMPUTE NM HYD        ID=5  HYD NO=UNIVROWSOUTH  DA=.007266 SQ MI
                      %A=0.0  %B=5.0  %C=5.0 %D=90.0
                      TP=-.1333 HR  RAIN=-1
PRINT HYD             ID=5 CODE=5
*
ADD HYD               ID=6 HYD=UNIVNS.PONDK ID I=4 II=5
PRINT HYD             ID=6 CODE=5
*
*PUNCH HYD             ID=6
*
*S**************************************************************************
*
*S******END OF TRAILS DRAINAGE ANALYSIS
*
FINISH
```



NOTES:

1. STORM DRAIN SIZES BASED ON 100-YR, 24-HR STORM FLOWS. FUTURE PROJECTS MAY BE REQUIRED TO INCREASE STORM DRAIN SIZE BASED ON 100-YR, 6-HR STORM FLOWS.
2. THE INTENDED FUTURE CONTRIBUTION FROM THE TRAILS UNIT 4 IS 20 CFS TO THE MAXIMUM DOWNSTREAM DISCHARGE OF 62 CFS IN UNIVERSE BLVD.

LEGEND

- ANALYSIS POINT
- EXISTING STORM DRAIN
- FLOW DIRECTION
- FUTURE DEVELOPED STORM DRAIN

N

200' 100' 0 200' 400'

SCALE: 200'

DATUM NAVD 1929

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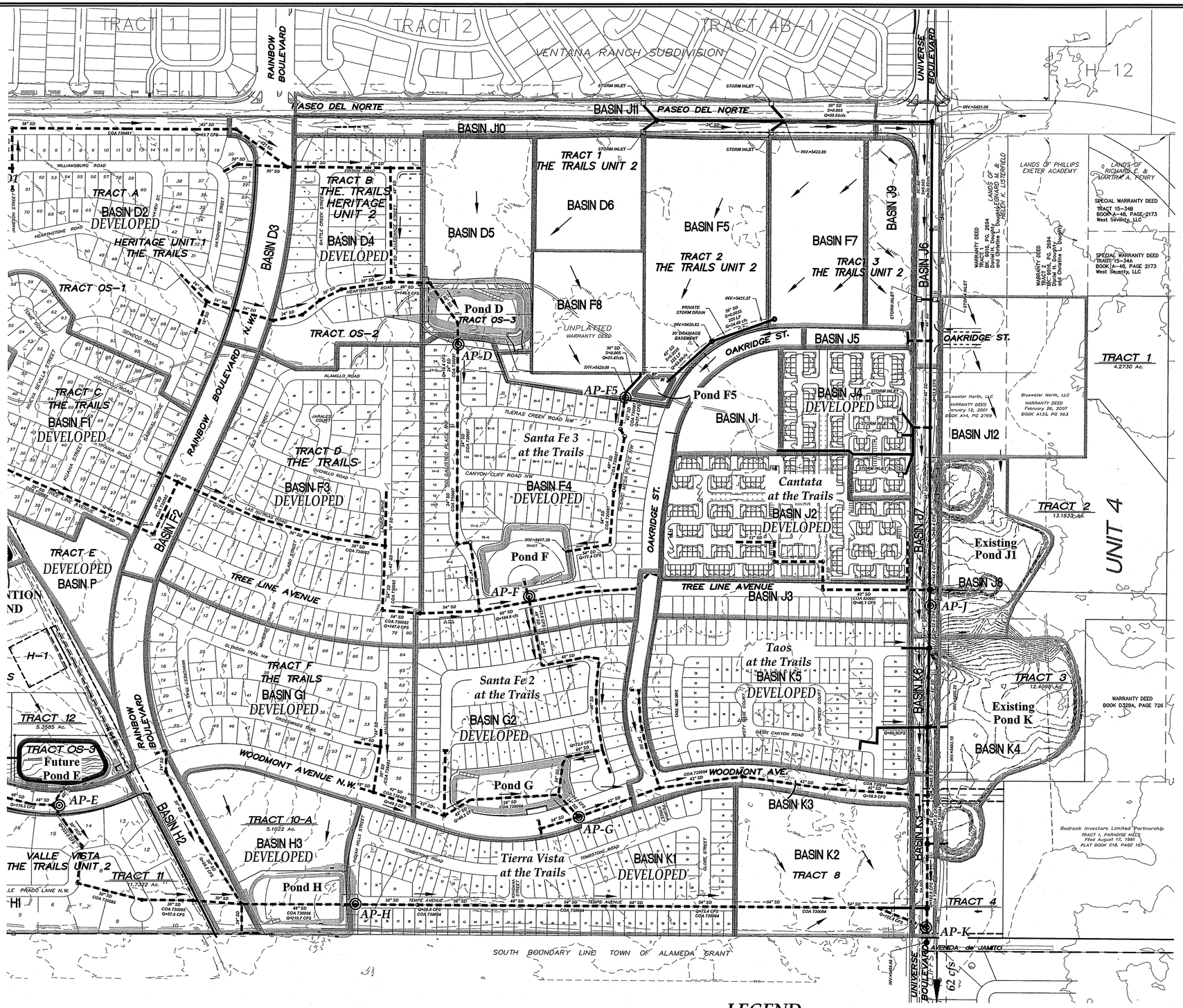
UPDATE TO THE AMENDMENT TO DMP FOR THE TRAILS UNITS, 1, 2 AND 3

PLATE 1

9677 LICENSED PROFESSIONAL ENGINEER



DETENTION POND CHARACTERISTICS

POND	DRAIN AREA (AC)	Q100 IN (CFS)	Q100 OUT (CFS)	BYPASS Q (CFS)	MAX VOL (ac-ft)	V100 (ac-ft)	TOP ELEV	BOTTOM ELEV	WSEL
OFF 1	127.9	37.00	9.25		2.44	2.302	6	0	5.80
A5	179.6	121.19	16.29		4.61	4.256	5516	5511	5515.76
A6	204.2	84.21	16.19		4.72	3.241	5506	5500	5504.73
B	12.8	34.80	3.36		0.99	0.930	5519	5515	5518.86
D1	222.5	65.02	14.46		6.06	5.360	5475	5471	5474.48
D	274.7	146.48	5.93	13.77	6.24	4.035	5436.9	5429.5	5435.03
E	118.2	194.46	20.22		7.17	6.412	5452	5440	5451.44
F5	18.9	62.89	19.84		1.40	1.386	5426	5421	5425.97
F	373.1	259.49	17.58	6.20	11.76	10.293	5424.3	5415.08	5423.51
G	405.5	111.28	7.00	17.61	7.21	2.948	5422.5	5415.67	5419.83
H	149.8	97.80	4.50	21.60	3.02	2.205	5422	5418.65	5421.42
J	57.9	141.18	6.05	26.34	7.94	3.771	5417	5414	5415.66
K	670.8	239.15	15.75	44.91	14.84	8.346	5409	5404.85	5407.77

ANALYSIS POINT PEAK FLOWS

ANALYSIS POINT	PEAK FLOW
AP-A5	16.29 CFS
AP-A6	16.19 CFS
AP-D1	14.46 CFS
AP-D	19.42 CFS
AP-E	20.22 CFS
AP-F5	27.40 CFS
AP-F	23.78 CFS
AP-G	24.61 CFS
AP-H	26.10 CFS
AP-J	32.39 CFS
AP-K	60.66 CFS

DEVELOPED DRAINAGE BASIN CHARACTERISTICS

BASIN	AREA	LAND TREATMENT				Q	VOL
	ACRES	A	B	C	D	CFS	AC-FT
OFFSITE 1	127.87	100	0	0	0	37.00	4.426
A1	13.50	0	12.5	12.5	75	51.68	2.610
A2	8.52	0	33	33	34	23.43	0.960
A3	3.21	0	5	5	90	11.41	0.606
A4	7.59	0	7.5	7.5	85	26.39	1.381
A5	11.71	0	17	17	66	37.55	1.829
A6	16.97	0	19	19	62	53.44	2.558
A7	6.75	0	12.5	12.5	75	22.52	1.137
C	9.08	12.8	28.4	28.4	30.4	23.20	0.935
D1	11.62	0	19	19	62	36.60	1.752
D2	22.12	0	28.5	28.5	43	63.65	2.763
D3	3.71	0	5	5	90	13.18	0.701
D4	12.55	0	28.5	28.5	43	36.13	1.568
D5	8.75	0	23	23	54	26.55	1.224
D6	5.00	0	18	18	64	15.89	0.764
F1	14.13	0	21.7	21.8	56.5	43.39	2.025
F2	3.67	0	5	5	90	13.02	0.692
F3	22.80	0	21.7	21.8	56.5	70.02	3.267
F4	24.91	0	25	25	50	74.16	3.349
F5	11.85	0	12.5	12.5	75	39.52	1.996
F7	7.02	0	7.5	7.5	85	24.42	1.278
F8	5.00	0	18	18	64	15.89	0.764
G1	16.20	0	25	25	50	48.23	2.178
G2	16.19	0	25	25	50	48.22	2.177
OFFSITE 2	51.52	100	0	0	0	13.87	1.783
B	12.79	0	34	34	32	34.80	1.407
E1.1	11.91	0	28.1	28.1	43.8	34.41	1.501
E1.2	12.76	0	28.1	28.1	43.8	36.78	1.608
E2	5.55	0	30.7	30.7	38.6	15.63	0.660
E3	15.50	0	22	22	56	47.48	2.210
E4	3.69	0	5	5	90	13.11	0.697
E5	17.28	18.8	23.8	26.4	31	43.19	1.762
E6	3.12	0	5	5	90	11.09	0.590
E7	2.90	16.5	24.8	20.6	38.1	7.55	0.324
P	4.51	43	25	25	7	8.41	0.273
H1	11.00	0	26.6	26.6	46.8	32.26	1.431
H2	5.35	0	5	5	90	19.16	1.018
H3	7.62	0	20	20	60	23.79	1.128
J1	5.31	0	12.5	12.5	75	11.04	0.557
J2	10.92	0	12.5	12.5	75	36.40	1.839
J3	3.71	0	19	19	62	11.70	0.560
J4	6.44	0	12.5	12.5	75	21.47	1.084
J5	0.86	0	5	5	90	3.05	0.162
J6	2.70	0	5	5	90	9.59	0.510
J7	2.84	0	5	5	90	10.09	0.536
J8	5.78	0	70	30	0	12.31	0.355
J9	3.51	0	7.5	7.5	85	12.20	0.638
J10	4.02	0	5	5	90	14.27	0.759
J11	4.79	0	5	5	90	16.65	0.886
J12	9.08	100	0	0	0	10.65	0.314
K1	17.11	0	19	19	62	50.54	2.579
K2	9.51	0	15	15	70	29.39	1.537
K3	5.85	0	5	5	90	20.76	1.104
K4	8.58	0	70	30	0	18.28	0.527
K5	15.13	0	19	19	62	47.63	2.281
K6	1.41	0	5	5	90	5.01	0.266

LEGEND

- ANALYSIS POINT
- EXISTING STORM DRAIN
- FLOW DIRECTION
- FUTURE DEVELOPED STORM DRAIN

NOTES:

1. STORM DRAIN SIZES BASED ON 100-YR, 24-HR STORM FLOWS. FUTURE PROJECTS MAY BE REQUIRED TO INCREASE STORM DRAIN SIZE BASED ON 100-YR, 6-HR STORM FLOWS.
2. THE INTENDED FUTURE CONTRIBUTION FROM THE TRAILS UNIT 4 IS 20 CFS TO THE MAXIMUM DOWNSTREAM DISCHARGE OF 62 CFS IN UNIVERSE BLVD.

N

200' 100' 0 200' 400'

SCALE: 200'

DATUM NAVD 1929

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UPDATE TO THE AMENDMENT TO DMP FOR THE TRAILS UNITS, 1, 2 AND 3

PLATE 2