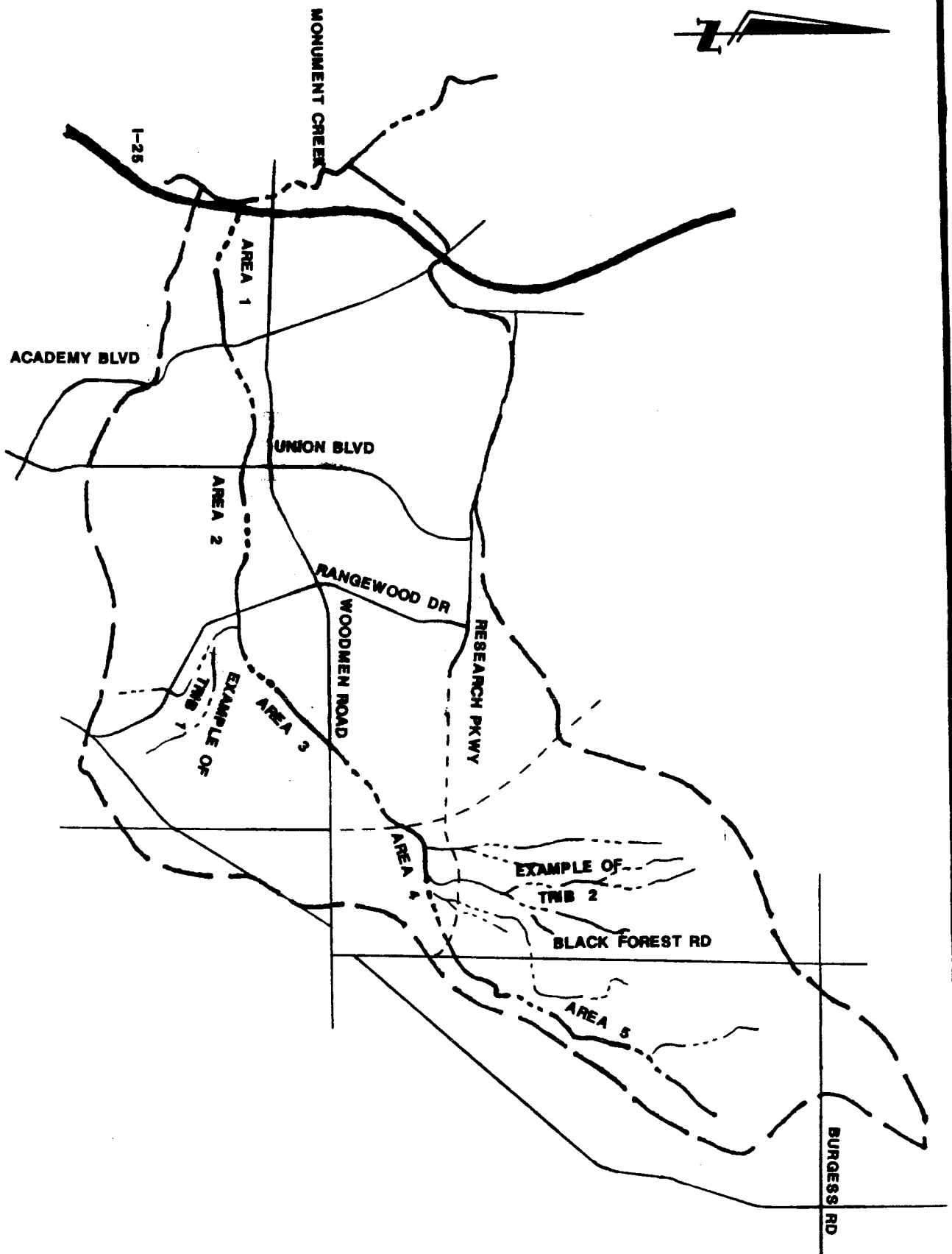


**COTTONWOOD CREEK  
DRAINAGE BASIN PLANNING STUDY  
APPENDIX B  
AUGUST 24, 1992  
TABLE 13  
SUMMARY OF ALTERNATIVE CONSTRAINTS**



COTTONWOOD CREEK DRAINAGE BASIN PLANNING STUDY  
FIGURE 41

=====

COTTONWOOD CREEK DBPS - TABLE 13  
 URS PROJECT NUMBER 49209  
 SUMMARY OF ALTERNATIVE CONSTRAINTS

=====

AREA 1

COTTONWOOD CREEK MAIN CHANNEL  
 MONUMENT CREEK TO ACADEMY BLVD  
 PINE CREEK MAIN CHANNEL  
 MONUMENT CREEK TO I-25

100-YEAR FLOW RANGES FROM 16,000 TO 17,000 CFS  
 -----  
 100-YEAR VELOCITY RANGES FROM 10 TO 20 FPS

DESCRIPTION

The majority of the existing channel consists of a natural channel with bridge structures for roadway crossings. The channel is fairly narrow (40'-80') and deep (10'-15' depth for the 100-year flow). The channel currently has the capacity to carry the 100-year storm except that the streambed is currently eroding and the stability of the banks is in question due to the steepness of the side slopes. These are concerns in regard to the future stability of the bridges in this area. The primary type of environment is riparian forest which is a high value wildlife habitat due to the semi-isolated nature of this area. There are some wetlands in the bottom of the channel but the primary environmental concern is the wildlife habitat. The land uses planned for this area are fairly high density (residential and other) next to the channel. The majority of the land is platted next to the channel with a mix of setbacks from the buildings to the channels. The present development occurred without any improvements to the main channel of Cottonwood Creek. There is a trail and utility main proposed along this corridor but there may be some problems in actually building either of these. The maintenance of this area is a problem due the difficulty in getting maintenance access to the channel banks and bottom.

ALTERNATIVE ADVANTAGES OF ALTERNATIVE

ALTERNATIVE A Conserves wildlife habitat  
 Limited permitting involved - only for bridges, grade control where needed,  
 isolated bank protection and maintenance considerations  
 Limited mitigation required only for any new bridges planned

DISADVANTAGES OF ALTERNATIVE

Significant safety risk due to potential bank failure  
 May require some additional right-of-way in existing development or  
 comprehensive inspection program  
 Requires significant maintenance program to protect existing development and  
 bridges from hazards of erosion  
 May require additional setbacks in areas that have been platted but not  
 developed yet  
 Does not address additional improvements needed to protect existing bridges

ALTERNATIVE B Maintain existing right-of-way requirements  
 Protect existing and property from flood damage

May require selective removal of existing trees  
 Construction of this type of improvement would be very difficult to accomplish  
 with the nature of the existing banks  
 The type of habitat may be difficult or impossible to replace due the maturity  
 of the vegetation  
 Maintenance of this type of channel will be difficult to accomplish

ALTERNATIVE C/D

This alternative was eliminated due the the difficulties with construction and  
 mitigation

RECOMMENDATIONS

The recommendation for this area is to select alternative A and implement a comprehensive inspection/maintenance program by the City and County to protect public safety. Setbacks for any new buildings would need to be closely monitored. Critical erosion areas will use alternative B.

=====

COTTONWOOD CREEK DBPS - TABLE 13  
 URS PROJECT NUMBER 49209  
 SUMMARY OF ALTERNATIVE CONSTRAINTS

=====

AREA 2

-----  
 COTTONWOOD CREEK MAIN CHANNEL  
 ACADEMY BLVD TO RANGEWOOD DRIVE

-----  
 100-YEAR FLOW RANGES FROM 14,000 TO 16,000 CFS  
 -----  
 100-YEAR VELOCITY RANGES FROM 10 TO 15 FPS

DESCRIPTION

-----  
 The existing channel is a mix of natural channel and channel similar to alternative B (partially lined). The channel is moderate in width (115'-200') and moderate in depth (4'-9' depth for the 100-year flow). The channel does not have the capacity to carry the full 100-year flow in most cases. However, additional capacity is available by increasing the depth with the exception of the north bank of the channel upstream of Union Blvd. The channel is currently having erosion problems at the existing bridge crossings. The lower reaches of this area also have some bank stability problems due to the steepness of the side slopes. The existing environment consists of a combination of shrub wetland and riparian forest, with the former predominant. This type of environment has the highest degree of beta diversity for the basin and both the wetlands and wildlife habitats are of fairly high value. The land uses in this area consist of a mixture of low to moderate density residential and parks. The majority of the land next to the channel is already developed. This area has both a proposed trail and an existing utility corridor. There are also existing recreational facilities both along and adjacent to this corridor. The maintenance of this area is moderate in difficulty with some maintenance roads already in place.

ALTERNATIVE ADVANTAGES OF ALTERNATIVE

DISADVANTAGES OF ALTERNATIVE

-----  
 ALTERNATIVE A Conserves wildlife habitat and diversity  
 Limited permitting involved - only for bridges, grade control where needed,  
 isolated bank protection and maintenance considerations  
 Limited mitigation required only for any new bridges planned

-----  
 Requires additional right-of-way in existing development which is not readily  
 available  
 Downcutting of the streambed and bank erosion will continue to be a problem  
 The existing bridge structures, especially at Union Blvd., are still at risk  
 The existing recreational uses are urban in character instead of natural

ALTERNATIVE B Least costly alternative when construction, land, , mitigation and maintenance  
 costs are considered  
 Maintain existing right-of-way requirements  
 Protect existing improvements and property from flood damage  
 Most of the existing improvements are already built this way  
 Use of drop structures could actually enhance the diversity of the wetland  
 types

May require selective removal of existing vegetation  
 Some onsite mitigation may be required  
 Some disturbance of habitats will occur during construction

ALTERNATIVE C/D

This alternative was eliminated since it does not fit into the existing  
 channel types and recreational uses

RECOMMENDATIONS

-----  
 The recommendation for this area is to use alternative B since it best fits the nature of the existing channel and recreational uses and still safeguards both public safety and the environment. This area also has the potential to be used for mitigation measures.

=====

COTTONWOOD CREEK DBPS - TABLE 13  
 URS PROJECT NUMBER 49209  
 SUMMARY OF ALTERNATIVE CONSTRAINTS

=====

AREA 3

COTTONWOOD CREEK MAIN CHANNEL  
 RANGEWOOD DRIVE TO WOODMEN ROAD

100-YEAR FLOW RANGES FROM 6,000 TO 14,000 CFS  
 -----  
 100-YEAR VELOCITY RANGES FROM 10 TO 15 FPS

DESCRIPTION

-----

The existing channel consists of a low flow channel with an overbank area that is from 100' to 250 feet wide. The depth of flow for the 100-year storm is moderate. The capacity of the channel is adequate if you consider the overbank area as part of the full system. There is evidence of considerable bed degradation especially at the Woodmen Bridge. The bank slopes are moderate with exceptions in isolated cases. The primary environmental value for this area is in the wetlands and wildlife habitat that exist in the channel bottom. The land uses for this area consist of undeveloped industrial and commercial types. This area is also both a planned trail and utility corridor.

ALTERNATIVE ADVANTAGES OF ALTERNATIVE

ALTERNATIVE A There is an opportunity to enhance wildlife habitat and diversity  
 Limited permitting involved - only for bridges, grade control where needed,  
 isolated bank protection and maintenance considerations  
 Limited mitigation required only for any new bridges planned

ALTERNATIVE B Least costly alternative when construction, land, , mitigation and maintenance  
 costs are considered  
 Minimal right-of-way requirements beyond the existing channel width  
 Use of drop structures could actually enhance the diversity of the wetland  
 types and wildlife habitat  
 Minimize maintenance requirements compared to the other alternatives  
 High potential for multi-use in a more urban setting

ALTERNATIVE C/D

DISADVANTAGES OF ALTERNATIVE

-----

Existing channel is in Piney Creek alluvium which is susceptible to erosion  
 Downcutting of the streambed and bank erosion will continue to be a problem  
 The rural character of this alternative may not be compatible with planned  
 land uses  
 Cost of land required is significant compared to other alternatives  
 High maintenance costs may be involved due to the erodable nature of the soils

May require some removal and replacement of existing vegetation  
 Some onsite mitigation may be required  
 Some disturbance of wetlands will occur during construction

This alternative was eliminated since it was the highest cost due to  
 mitigation required

RECOMMENDATIONS

-----

The recommendation for this area is to use alternative B since it best fits the nature of the existing channel and recreational uses and still safeguards both public safety and the environment. This area also has the potential to be used for mitigation measures.

=====

COTTONWOOD CREEK DBPS - TABLE 13  
 URS PROJECT NUMBER 49209  
 SUMMARY OF ALTERNATIVE CONSTRAINTS

=====

AREA 4

COTTONWOOD CREEK MAIN CHANNEL  
 WOODMEN ROAD TO BLACK FOREST ROAD

100-YEAR FLOW RANGES FROM 1,300 TO 6,000 CFS

100-YEAR VELOCITY RANGES FROM 9 TO 12 FPS

DESCRIPTION

The majority of the existing channel in this area is deeply incised and fairly narrow (80' +/-). This is evidence of the significant amount of bed erosion that is occurring in this area. The channel does have the capacity to carry the flow but the stability of some of the banks is in question due to both the steep slopes and the ample evidence of erosion caused by gullying at points of concentrated flow. This area has a relatively low value for the environmental aspects since the vegetation is patchy or sparse. This may be due to both the instability of the channel and some overgrazing by livestock. The land uses in this area call for a linear park along the channel and residential or commercial uses outside that. The westerly part of this area is where some of the major transportation links cross Cottonwood Creek. Woodmen Road, Austin Bluffs Parkway, and Powers Blvd. all cross Cottonwood Creek in this area. The majority of the land is unplatted in this area. This is also a planned utility corridor and trail link. Access to the bottom of the existing channel would be very difficult for maintenance activities to take place.

ALTERNATIVE ADVANTAGES OF ALTERNATIVE

DISADVANTAGES OF ALTERNATIVE

ALTERNATIVE A There is an opportunity to enhance wildlife habitat and diversity  
 Limited permitting involved - only for bridges, grade control where needed,  
 isolated bank protection and maintenance considerations  
 Limited mitigation required only for any new bridges planned

Existing channel has significant erosion occurring  
 Downcutting of the streambed and bank erosion will continue to be a problem  
 High maintenance costs may be involved due to the erodable nature of the soils  
 and the access difficulties  
 It is questionable whether the width of the park is adequate for required  
 buffer areas

ALTERNATIVE B Minimal right-of-way requirements beyond the existing channel width  
 Use of drop structures could actually enhance the diversity of the wetland  
 types and wildlife habitat  
 High potential for multi-use in a more urban setting  
 Able to control erosion problems that are occurring  
 Public safety is protected with lowest cost for channels  
 May be able to improve aesthetics with this treatment

May require some removal and replacement of existing vegetation  
 Some onsite mitigation may be required  
 Some disturbance of wetlands will occur during construction  
 May have some problems with actually constructing this type of facility

ALTERNATIVE C/D Minimum right-of-way required for channels  
 Minimum bridge costs for the many crossings in the westerly portion of this  
 area  
 Able to control erosion problems that are occurring  
 Allows additional area for parks outside the channel itself  
 Reduces maintenance requirements and costs

Requires removal of existing vegetation  
 Some offsite mitigation may be required  
 Eliminates wetlands totally in this area where they occur  
 May be more difficult to fit into park setting  
 Mitigation costs should be moderate

RECOMMENDATIONS

For this area the recommended solution is to use alternative B.

=====

COTTONWOOD CREEK DBPS - TABLE 13  
 URS PROJECT NUMBER 49209  
 SUMMARY OF ALTERNATIVE CONSTRAINTS

=====

AREA 5

-----  
 COTTONWOOD CREEK MAIN CHANNEL  
 BLACK FOREST ROAD TO EAST SIDE OF THE BASIN

100-YEAR FLOW RANGES FROM LOW TO 1,500 CFS  
 -----  
 100-YEAR VELOCITY RANGES FROM 5 TO 8 FPS

DESCRIPTION

-----  
 The existing channel in this area transitions from the deeply incised channel characteristic of area 4 to numerous small tributaries in the Black Forest area. The channel varies in width from 20 to 80 feet. The capacity is available to handle the 100-year storm. This area predominantly has herbaceous wetlands where they are present with some shrub wetlands. The potential for wetlands is high with a significant amount of open water but it has been grazed and disturbed. The wildlife habitat has relatively high beta diversity along the channel but is not very significant away from the channel. The land uses planned for this area transition from urban residential densities by Black Forest Road to rural five acre lot densities in the Colorado Black Forest. The soils in this area include some sandstone and claystone outcrops with the majority being glacial deposits. The area in the forest will be difficult to maintain with heavy construction equipment since there is limited access available.

ALTERNATIVE	ADVANTAGES OF ALTERNATIVE	DISADVANTAGES OF ALTERNATIVE
ALTERNATIVE A	The right-of-way is available for this type of channel since the planned densities are low Limited permitting involved - only for bridges, grade control where needed, isolated bank protection and maintenance considerations Limited mitigation required only for any new bridges planned	Downtcutting of the streambed and bank erosion may be a problem High maintenance costs may be involved due to the erodable nature of the soils and the access difficulties
ALTERNATIVE B	Minimal right-of-way requirements beyond the existing channel width Use of drop structures could actually enhance the diversity of the wetland types and wildlife habitat Able to control erosion problems that are occurring May be able to improve aesthetics with this treatment	May require some removal and replacement of existing vegetation Some onsite mitigation may be required Some disturbance of wetlands will occur during construction May have some problems with actually constructing this type of facility in the forest area
ALTERNATIVE C/D		This alternative was eliminated due the the difficulties with construction and mitigation

RECOMMENDATIONS

-----  
 For this area the recommended solution is a combination of alternatives A and B. Alternative B would be used mostly in the westerly portion of the basin in order to transition from the reach downstream and alternative A would be used for the remainder of the area.

=====

COTTONWOOD CREEK DBPS - TABLE 13  
 URS PROJECT NUMBER 49209  
 SUMMARY OF ALTERNATIVE CONSTRAINTS

=====

-----

TRIBUTARY TYPE 1

-----

TRIBUTARIES WITH JURISDICTIONAL WETLANDS PRESENT

-----

DESCRIPTION

-----

There are several of the tributaries to Cottonwood Creek that are very similar to area 3 of the main channel. The flows are less but the environmental characteristics are similar. The velocities for these areas are fairly high due to the slopes of the existing channels. The primary environmental value for this area is in the wetlands and wildlife habitats that exist in the channel bottom. The land uses for this area vary depending on where you are, with urban type densities planned. Some of these channels are already improved.

-----

ALTERNATIVE      ADVANTAGES OF ALTERNATIVE

-----

ALTERNATIVE A      There is an opportunity to enhance wildlife habitat and diversity  
                          Limited permitting involved - only for bridges, grade control where needed,  
                          isolated bank protection and maintenance considerations  
                          Limited mitigation required only for any new bridges planned

-----

DISADVANTAGES OF ALTERNATIVE

-----

Existing channels are susceptible to erosion  
 Downcutting of the streambed and bank erosion will continue to be a problem  
 The rural character of this alternative may not be compatible with planned  
                          land uses  
 Cost of land required is significant compared to other alternatives  
 High maintenance costs may be involved due to the erodable nature of the soils

ALTERNATIVE B      Least costly alternative when construction, land, , mitigation and maintenance  
                          costs are considered  
                          Minimal right-of-way requirements beyond the existing channel width  
                          Use of drop structures could actually enhance the diversity of the wetland  
                          types and wildlife habitat  
                          Minimize maintenance requirements compared to the other alternatives  
                          High potential for multi-use in a more urban setting

May require some removal and replacement of existing vegetation  
 Some onsite or offsite mitigation may be required  
 Some disturbance of wetlands will occur during construction

ALTERNATIVE C/D

This alternative was eliminated since it was the highest cost due to  
 mitigation required

-----

RECOMMENDATIONS

-----

The recommendation for this area is to use alternative B since it best fits the nature of the existing channel and recreational uses and still safeguards both public safety and the environment. This area also has the potential to be used for mitigation measures.



=====

COTTONWOOD CREEK DBPS - TABLE 13  
URS PROJECT NUMBER 49209  
SUMMARY OF ALTERNATIVE CONSTRAINTS

=====

TRIBUTARY TYPE 2

-----

TRIBUTARIES WITHOUT JURISDICTIONAL WETLANDS PRESENT

DESCRIPTION

-----

The remainder of the tributaries for the basin consist of either areas not classified as environmentally sensitive or open rangeland. These areas are primarily agricultural with little or no defined channel. While there may be some potential for wildlife corridors, fully developed conditions will not be compatible with these. These areas will most likely develop in the urban densities typical of the rest of the developed area in the basin.

RECOMMENDATIONS

-----

The improvements for this area will include a full range of the three channel alternatives in addition to street/storm sewer combinations. These area will be looked at on a reach by reach basis based on the land use plans for the particular reach.

**COTTONWOOD CREEK  
DRAINAGE BASIN PLANNING STUDY  
APPENDIX B  
AUGUST 24, 1992  
TABLE 14  
INITIAL SYSTEM EXAMPLE LOCATION NO. 1**

**COTTONWOOD CREEK DBPS - TABLE 14**  
**INITIAL SYSTEM - EXAMPLE LOCATION NO. 1**

**UPGRADE TO EXISTING SYSTEM COST ESTIMATE**

ITEM	QUANTITY	UNIT	UNIT COST	ITEM COST
18" RCP	3170	L.F.	\$25.00	\$79,250.00
24" RCP	3075	L.F.	\$34.00	\$104,550.00
30" RCP	250	L.F.	\$40.00	\$10,000.00
36" RCP	2100	L.F.	\$45.00	\$94,500.00
6' CURB INLET	1	EA.	\$2,500.00	\$2,500.00
10' CURB INLET	1	EA.	\$3,000.00	\$3,000.00
14' CURB INLET	24	EA.	\$3,500.00	\$84,000.00
16' CURB INLET	4	EA.	\$4,000.00	\$16,000.00
18' CURB INLET	12	EA.	\$4,500.00	\$54,000.00
SUBTOTAL				\$447,800.00
ENGINEERING & CONTINGENCY 15%				\$69,409.00
TOTAL				\$517,209.00
COST PER ACRE (188.5 ACRES)				\$2,743.81

**NEW FACILITY COST ESTIMATE**

**(ASSUMES NEW DEVELOPMENT W/ NO EXISTING FACILITIES)**

ITEM	QUANTITY	UNIT	UNIT COST	ITEM COST
18" RCP	3755	L.F.	\$25.00	\$93,875.00
24" RCP	3800	L.F.	\$34.00	\$129,200.00
30" RCP	250	L.F.	\$40.00	\$10,000.00
42" RCP	2025	L.F.	\$60.00	\$121,500.00
48" RCP	1650	L.F.	\$80.70	\$133,155.00
4' CURB INLET	1	EA.	\$2,000.00	\$2,000.00
6' CURB INLET	11	EA.	\$2,500.00	\$27,500.00
8' CURB INLET	3	EA.	\$2,750.00	\$8,250.00
10' CURB INLET	2	EA.	\$3,000.00	\$6,000.00
12' CURB INLET	3	EA.	\$3,250.00	\$9,750.00
14' CURB INLET	28	EA.	\$3,500.00	\$98,000.00
16' CURB INLET	1	EA.	\$4,000.00	\$4,000.00
18' CURB INLET	10	EA.	\$4,500.00	\$45,000.00
SUBTOTAL				\$688,230.00
ENGINEERING & CONTINGENCY 15%				\$106,675.65
TOTAL				\$794,905.65
COST PER ACRE (188.5 ACRES)				\$4,217.01

**COTTONWOOD CREEK  
DRAINAGE BASIN PLANNING STUDY  
APPENDIX B  
AUGUST 24, 1992  
TABLE 15  
INITIAL SYSTEM EXAMPLE LOCATION NO. 2**

**COTTONWOOD CREEK DBPS - TABLE 15**  
**INITIAL SYSTEM - EXAMPLE LOCATION NO. 2**

**UPGRADE TO EXISTING SYSTEM COST ESTIMATE**

ITEM	QUANTITY	UNIT	UNIT COST	ITEM COST
18" RCP	350	L.F.	\$25.00	\$8,750.00
24" RCP	2400	L.F.	\$34.00	\$81,600.00
36" RCP	1500	L.F.	\$45.00	\$67,500.00
42" RCP	100	L.F.	\$60.00	\$6,000.00
16' CURB INLET	17	EA.	\$4,000.00	\$68,000.00
SUBTOTAL				\$231,850.00
ENGINEERING & CONTINGENCY 15%				\$35,936.75
TOTAL				\$267,786.75
COST PER ACRE (98.5 ACRES)				\$2,718.65

**NEW FACILITY COST ESTIMATE**  
**(ASSUMES NEW DEVELOPMENT W/ NO EXISTING FACILITIES)**

ITEM	QUANTITY	UNIT	UNIT COST	ITEM COST
18" RCP	350	L.F.	\$25.00	\$8,750.00
24" RCP	2300	L.F.	\$34.00	\$78,200.00
36" RCP	1500	L.F.	\$45.00	\$67,500.00
42" RCP	200	L.F.	\$60.00	\$12,000.00
8' CURB INLET	4	EA.	\$2,750.00	\$11,000.00
10' CURB INLET	1	EA.	\$3,000.00	\$3,000.00
12' CURB INLET	1	EA.	\$3,250.00	\$3,250.00
16' CURB INLET	18	EA.	\$4,000.00	\$72,000.00
SUBTOTAL				\$255,700.00
ENGINEERING & CONTINGENCY 15%				\$39,633.50
TOTAL				\$295,333.50
COST PER ACRE (98.5 ACRES)				\$2,998.31

**COTTONWOOD CREEK  
DRAINAGE BASIN PLANNING STUDY  
APPENDIX B  
AUGUST 24, 1992  
TABLE 16  
SUBBASIN HYDROLOGIC DATA  
PLATTED AREAS**

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 1 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
A1	B C D										3.0		3.0 0.005	0.20
A2	B C D										23.0		23.0 0.036	0.20
A3	B C D										9.6		9.6 0.015	0.20
A4	B C D										124.5		124.5 0.195	0.20
A5	B C D										94.0		94.0 0.147	0.20
A6	B C D										67.7		67.7 0.106	0.20
A7	B C D										29.4		29.4 0.046	0.20
A8	B C D										122.1		122.1 0.191	0.20
A9	B C D										124.6		124.6 0.195	0.20

**SHEET 2 OF 19**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES											OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C	
A10	B C D										92.4		92.4 0.144	0.20	
A11	B C D										26.4		26.4 0.041	0.20	
A12	B C D									31.0			31.0 0.048	0.40	
A13	B C D										99.2		99.2 0.155	0.20	
B1	B C D									15.4	29.4		44.8 0.070	0.27	
B2	B C D		0.0		0.0					1.0			1.0 0.002	0.40	
B3	B C D				0.0		4.4			0.0			4.4 0.007	0.58	
B4	B C D						9.6 0.0			0.0			9.6 0.015	0.58	
B5	B C D		0.0		0.0	0.0							0.0 0.000	N/A	



**SHEET 3 OF 19**

**DATE:** 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
B6	B C D		0.0		0.0	0.0	9.9						9.9 0.015	0.58
B7	B C D				0.0 0.0	0.0 0.0	0.0 0.0					0.0 0.0	0.0 0.000	N/A
B8	B C D		0.0			0.0							0.0 0.000	N/A
B9	B C D					0.0	21.6						21.6 0.034	0.65
C1	B C D						0.0				38.1	0	38.1 0.060	0.40
C2	B C D										0.0	0.0	0.0 0.000	N/A
C3	B C D						0.0				0.0	2.0	2.0 0.003	0.20
C4	B C D						0.0				0.0	2.0 0.0	2.0 0.003	0.20
C5	B C D						0.0				0.0	37.2	37.2 0.058	0.20

**SHEET 4 OF 19**

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
C6	B C D				0.0		0.0					0.0	0.0 0.000	N/A
C7	B C D				0.0	0.0	0.0				0.0	0.0	0.0 0.000	N/A
C8	B C D		0.0		0.0	0.0	0.0 0.0				1.0		1.0 0.002	0.40
C9	B C D				0.0 0.0	0.0	0.0					0.0	0.0 0.000	N/A
C10	B C D					0.0 0.0	0.0					0.0	0.0 0.000	N/A
C11	B C D				0.0 0.0	0.0 0.0	0.0 0.0						0.0 0.000	N/A
C12	B C D					0.0 0.0	0.0						0.0 0.000	N/A
C13	B C D					0.0	0.0				0.0		0.0 0.000	N/A
C14	B C D					0.0	0.0						0.0 0.000	N/A

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 5 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
C15	B C D	0.0				0.0	0.0					0.0	0.0 0.000	N/A
C16	B C D				0.0	0.0	0.0						0.0 0.000	N/A
C17	B C D				0.0	0.0	0.0						0.0 0.000	N/A
C18	B C D				0.0	0.0	0.0						0.0 0.000	N/A
C19	B C D				0.0	0.0	0.0						0.0 0.000	N/A
C20	B C D				0.0 0.0	0.0 0.0	0.0 0.0						0.0 0.000	N/A
D1	B C D					0.0	0.0						0.0 0.000	N/A
D2	B C D		1.3				0.0 7.5						8.8 0.014	0.69
D3	B C D		6.8 20.3										27.1 0.042	0.90

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES		
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C	
D4	B		0.0	0.0			0.0							0.0	N/A
	C			0.0			0.0							0.000	
	D														
D5	B		21.8	1.2										23.0	0.90
	C													0.036	
	D														
E1	B					0.0	0.0				0.0			0.0	N/A
	C													0.000	
	D														
E2	B		0.0		0.0		0.0							0.0	N/A
	C													0.000	
	D														
E3	B		0.0		0.0	0.0	0.0							0.0	N/A
	C													0.000	
	D														
E4	B	0.0	0.0		0.0									0.0	N/A
	C	0.0												0.000	
	D														
E5	B		0.0		0.0	0.0	0.0							0.0	N/A
	C													0.000	
	D														
E6	B	0.0				0.0	0.0							0.0	N/A
	C													0.000	
	D														
E7	B	0.0	0.0		10.3									23.9	0.65
	C		0.0		0.5							13.1		0.037	
	D														

### RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
E8	B C D		0.0		0.0	0.0	0.0						0.0 0.000	N/A
E9	B C D				0.0	0.0	0.0						0.0 0.000	N/A
E10	B C D					16.6	0.0					0.0	16.6 0.026	0.63
E11	B C D		0.0			0.0	4.7						4.7 0.007	0.58
F1	B C D		0.0		0.0	10.3							10.3 0.016	0.63
G1	B C D	0.0		0.8 0.2			17.2 9.3					8.4 3.1	39.0 0.061	0.63
G2	B C D	0.0										53.5	53.5 0.084	0.65
G3	B C D	3.0					34.9 57.2					5.0	100.1 0.156	0.63
G4	B C D		15.4 0.0		3.8 0.0	3.8	8.5 11.9						43.4 0.068	0.72

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 8 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
G5	B C D				3.8	0.0	15.0						18.8 0.029	0.59
G6	B C D				6.5	78.5							85.0 0.133	0.63
G7	B C D		2.3		0.0	2.3							4.6 0.007	0.76
G8	B C D		1.1		0.0	10.1							11.2 0.017	0.65
H1	B C D			72.9	35.0								107.9 0.169	0.82
H2	B C D			0.0									0.0 0.000	N/A
H3	B C D				2.3	86.1							88.4 0.138	0.63
H4	B C D				0.4	62.6							63.0 0.098	0.63
H5	B C D		0.0	0.0									0.0 0.000	N/A

COTTONWOOD CREEK DBPS - TABLE 16

SHEET 9 OF 19

RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
H6	B C D			47.8									47.8 0.075	0.90
H7	B C D		29.9			49.9							79.8 0.125	0.73
H8	B C D		5.8			68.5							74.3 0.116	0.65
H9	B C D					23.0						0.0	23.0 0.036	0.63
H10	B C D		0.0			0.0						0.0	0.0 0.000	N/A
H11	B C D		3.5										3.5 0.005	0.90
H12	B C D		15.0			28.0							43.0 0.067	0.72
H13	B C D		0.0			0.0							0.0 0.000	N/A
H14	B C D		3.6			0.0							3.6 0.006	0.90

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 10 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
H15	B C D		2.4	1.6									4.0 0.006	0.90
H16	B C D		10.3		0.0	37.0							47.3 0.074	0.68
H17	B C D		2.8		5.6	10.4							18.8 0.029	0.67
H18	B C D				0.0	6.3						0.0	6.3 0.010	0.63
H19	B C D	2.7	0.0		0.0	0.0						1.2	3.9 0.006	0.58
H20	B C D	0.0				0.0							0.0 0.000	N/A
H21	B C D		0.0										0.0 0.000	N/A
H22	B C D		3.3 0.0	0.0 0.0									3.3 0.005	0.90
H23	B C D	0.0			2.0	0.0							2.0 0.003	0.65



COTTONWOOD CREEK DBPS - TABLE 16

SHEET 11 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
I1	B C D	2.1		0.0		35.2	66.0 0.0					9.4	112.7 0.176	0.60
I2	B C D					37.0	23.1						60.1 0.094	0.61
I3	B C D						85.4						85.4 0.133	0.58
I4	B C D				2.8	2.0	106.4						111.2 0.174	0.58
I5	B C D	3.9	7.7	5.4	16.7	73.7	42.7					7.1	157.2 0.246	0.64
I6	B C D			175.1									175.1 0.274	0.90
I7	B C D			27.5	7.3	4.3	56.6						95.7 0.150	0.68
I8	B C D			18.5	11.5		38.2						68.2 0.107	0.68
I9	B C D						29.4						29.4 0.046	0.58

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 12 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
I10	B	31.4			21.4		10.3					31.7	109.7	0.61
	C	14.9											0.171	
	D													
J1	B		1.8		52.2		43.8						97.8	0.62
	C												0.153	
	D													
J2	B			47.8									51.7	0.90
	C			3.9									0.081	
	D													
J3	B			45.9									58.9	0.90
	C			13									0.092	
	D													
K1	B				20.7								23.0	0.66
	C				2.3								0.036	
	D													
K2	B				0.0	27.0							30.0	0.64
	C				0.0	3.0							0.047	
	D													
K3	B		2.0		0.0	23.4						11.9	41.7	0.66
	C											4.4	0.065	
	D													
K4	B	0.0	2.0			0.6							9.8	0.79
	C					2.4							0.015	
	D	0.0	1.9			2.9								
L1	B		0.0			59.1							85.8	0.66
	C												0.134	
	D					26.7								

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
L2	B C D	32.2  0.0		-	3.0	17.5							52.7 0.082	0.58
M1	B C D		45.1			9.9	2.6						57.6 0.090	0.84
M2	B C D		4.6		4.9 0.0	8.3	62.2					15.8	95.8 0.150	0.61
M3	B C D		18.4		29.4	26.5	17.9			9.9			102.1 0.160	0.65
M4	B C D		3.9			49.5	27.7			65.4			146.5 0.229	0.52
M5	B C D				11.3	11.4	22.6			7.6			52.9 0.083	0.58
M6	B C D				36.0		23.6			5.0			64.6 0.101	0.60
N1	B C D		56.2			25.4							81.6 0.128	0.81
N2	B C D				5.0		50.0					3.4	58.4 0.091	0.59

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES		
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C	
N3	B C D	24.9 15.4			38.3	15.6	62.5						5.7	162.4 0.254	0.60
O1	B C D				0.0 0.0	6.0 36.2							4.8	47.0 0.073	0.70
O2	B C D					18.3 36.5 3.0								70.0 0.109	0.70
P1	B C D	2.8			2.0 3.8 1.0	26.1 15.0 27.1								77.8 0.122	0.68
P2	B C D						53.7							53.7 0.084	0.58
P3	B C D		6.1		6.1	78.9 8.4 1.1	27.1							127.7 0.200	0.64
Q1	B C D		1.2		22.5		32.6						1.9	58.2 0.091	0.61
Q2	B C D		11.8		2.3	6.7	100.7						3.1	124.6 0.195	0.61
Q3	B C D		9.0				31.3						6.7	47.0 0.073	0.65

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 15 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
Q4	B C D		22.0		42.5		4.6						69.1 0.108	0.72
Q5	B C D						98.2						98.2 0.153	0.58
Q6	B C D		91.8 3.9		6.6 2.8		29.3						134.4 0.210	0.81
Q7	B C D	0.0	2.4		27.1 6.0		33.4 37.6						106.5 0.166	0.64
Q8	B C D		13.8		10.3		29.7						53.8 0.084	0.67
R1	B C D		34.4	54.5			25.7						114.6 0.179	0.83
R2	B C D	4.1				37.0	22.0					16.5	79.6 0.124	0.61
R3	B C D		14.0	20.8	12.6								47.4 0.074	0.83
R4	B C D	10.3	58.5	34.4									103.2 0.161	0.87

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 16 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
R5	B C D		117.5										117.5 0.184	0.90
R6	B C D	4.8 15.7	6.6		38.3 16.2	28.0						2.3	111.9 0.175	0.66
R7	B C D		61.3			5.0	35.6					0.6	102.5 0.160	0.77
S1	B C D		0.0		0.0	20.3	37.4						57.7 0.090	0.59
S2	B C D		18.8		35.8		31.2						85.8 0.134	0.68
S3	B C D		11.7		37.6		67.5						116.8 0.183	0.63
T1A	B C D		16.3		17.2		23.4						56.9 0.089	0.69
T1B	B C D		11.5				69.9						81.4 0.127	0.62
T2	B C D		5.7		1.4	13.7				74.5		6.4	101.7 0.159	0.48

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 17 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
T3	B C D					54.1				20.5			74.6 0.117	0.56
T4A	B C D		8.1			25.0 14.0				10.5 3.1			60.7 0.095	0.64
T4B	B C D		26.2			5.2				1.4 15.2			48.0 0.075	0.73
U4A	B C D		12.4			8.1	16.9			16.0			53.4 0.083	0.61
U4B	B C D		18.7			10.0				64.4 6.9			100.0 0.156	0.52
U1	B C D		11.5		5.3 3.2		62.7					4.2	86.9 0.136	0.63
U2	B C D		13.5		2.5		68.2						84.2 0.132	0.63
U3	B C D		43.7			17.6	4.8						66.1 0.103	0.80
V1	B C D		0.0 7.6		16.5 2.4		51.6 57.5						135.6 0.212	0.64

## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 18 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
V2	B		0.0		0.0		0.0						13.1	0.90
	C		13.1										0.020	
	D													
W1	B		43.9	12.7			68.9						134.0	0.73
	C												0.209	
	D			8.5										
W2	B			74.8									79.7	0.90
	C												0.125	
	D			4.9										
W3	B		25.5	6.2									67.3	0.90
	C		34.7	0.5									0.105	
	D			0.4										
X1A	B	29.5	1.1										30.6	0.56
	C												0.048	
	D													
X1B	B	69.7	0.6										79.7	0.57
	C												0.125	
	D	4.8	2.3						2.3					
X2	B	2.2	45.8	43.3									91.3	0.89
	C												0.143	
	D													
X3	B	2	27.2	48.3			16.2						118.8	0.82
	C												0.186	
	D	0.8		15.1			0.6	4.2	4.4					
X4	B		20.9				16.1	24.7	3.4				117.3	0.64
	C												0.183	
	D	0.4	0.2				38.2	11.8	1.6					



## COTTONWOOD CREEK DBPS - TABLE 16

SHEET 19 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - PLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
X5	B		18.6				11.7	3.2					78.9	0.68
	C												0.123	
	D		0.6				35.2	9.6						
Y1	B	5.0		1.1			57.4						63.5	0.58
	C												0.099	
	D													
Y2	B		67.3				0.8						81.7	0.89
	C		0.3										0.128	
	D		6.7	3.4			3.2							
TOTAL		282.6	1258	790.5	658	1465.3	2283.6	53.5	11.7	386.9	886.5	220.2	8,297	0.63

**COTTONWOOD CREEK  
DRAINAGE BASIN PLANNING STUDY  
APPENDIX B  
AUGUST 24, 1992  
TABLE 17  
SUBBASIN HYDROLOGIC DATA  
UNPLATTED AREAS**

**SHEET 1 OF 19**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
A1	B C D										117.6		117.6 0.184	0.20
A2	B C D										111.2		111.2 0.174	0.20
A3	B C D										94.3		94.3 0.147	0.20
A4	B C D										37.9		37.9 0.059	0.20
A5	B C D										40.2		40.2 0.063	0.20
A6	B C D										22.3		22.3 0.035	0.20
A7	B C D										58.0		58.0 0.091	0.20
A8	B C D										31.2		31.2 0.049	0.20
A9	B C D										1.4		1.4 0.002	0.20

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
A10	B C D										15.8		15.8 0.025	0.20
A11	B C D										49.7		49.7 0.078	0.20
A12	B C D									45.2			45.2 0.071	0.40
A13	B C D										3.7		3.7 0.006	0.20
B1	B C D									77.8	0		77.8 0.122	0.40
B2	B C D		22.5		8					37.1			67.6 0.106	0.60
B3	B C D				13.5		55.3			20.0			88.8 0.139	0.55
B4	B C D						35.6 6.6			14.8			57.0 0.089	0.54
B5	B C D		21.8		12.7	33.7							68.2 0.107	0.72

## COTTONWOOD CREEK DBPS - TABLE 17

SHEET 3 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
B6	B C D		11.5		24.5	46.3	25.0						107.3 0.168	0.65
B7	B C D				13.5 5.6	104.3 28.6	21.6 3.7				6.4	6.4	190.1 0.297	0.63
B8	B C D		39.4			62.4							101.8 0.159	0.73
B9	B C D					64.8	21.6						86.4 0.135	0.71
C1	B C D						15.6			33.7	17.9		67.2 0.105	0.39
C2	B C D									12.1	86.2		98.3 0.154	0.22
C3	B C D						27.1			49.0	25.5		101.6 0.159	0.40
C4	B C D						53.2			68.8	13.2	5.9	141.1 0.220	0.46
C5	B C D						54.9			45.7	7.8		108.4 0.169	0.47

**SHEET 4 OF 19**

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
C6	B C D				38.3		27.2					2.8	68.3 0.107	0.62
C7	B C D				15.6	5.5	22.0			0.5		56.0	99.6 0.156	0.63
C8	B C D		21.3		21.8	9.0	39.0 4.6			12.5			108.2 0.169	0.64
C9	B C D				25.5 4.0	11.4	70.0					21.1	132.0 0.206	0.61
C10	B C D					18.6 5.7	37.0					6.4	67.7 0.106	0.61
C11	B C D				2.9 7.3	11.3 27.2	20.7 10.3						79.7 0.125	0.66
C12	B C D					50.7 17.2	3.7						71.6 0.112	0.65
C13	B C D					5.3	15.2			59.4			79.9 0.125	0.45
C14	B C D					28.5	38.2						66.7 0.104	0.60

## COTTONWOOD CREEK DBPS - TABLE 17

SHEET 5 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
C15	B C D	4.7				29.9	7.4					12.6	54.6 0.085	0.62
C16	B C D				10.6	28.1	51.8						90.5 0.141	0.60
C17	B C D				12.1	24.8	19.5						56.4 0.088	0.61
C18	B C D				1.6	106.5	20.4						128.5 0.201	0.62
C19	B C D				6.2	58.7	7.0						71.9 0.112	0.62
C20	B C D				16.6 2.9	14.8 4.2	23.0 11.0						72.5 0.113	0.63
D1	B C D					44.2	61.5						105.7 0.165	0.68
D2	B C D		23.5				6.9 87.9						118.3 0.185	0.70
D3	B C D		33.4 20.6										54.0 0.084	0.90

**DATE: 18-May-92**

ENTERED 10 May 92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES											OVERALL VALUES									
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C									
D4	B		28.5	19.3			15.5							75.2	0.81								
	C															5	6.9						
	D																						
D5	B		55.2	3.5										58.7	0.90								
	C																						
	D																						
E1	B				18.6	24.1			16.8					59.5	0.54								
	C																						
	D																						
E2	B		43.6		9.5		4.6							57.7	0.83								
	C																						
	D																						
E3	B		43.8		16.5	27.7	5.7							93.7	0.75								
	C																						
	D																						
E4	B	33.4	34.7		18.8									98.6	0.70								
	C	11.7																					
	D																						
E5	B		27.0		34.4	3.7	16.3							81.4	0.72								
	C																						
	D																						
E6	B	3.0				13.9	11.9							28.8	0.60								
	C																						
	D																						
E7	B	10.6	6.7		6.4							5.7	51.3	0.71									
	C	3.4	18.5		0.080																		
	D																						



**SHEET 7 OF 19**

**DATE: 18-May-92**

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
E8	B C D		32.6		20.1	4.1	22.8						79.6 0.124	0.73
E9	B C D				13.7	10.0	43.5						67.2 0.105	0.60
E10	B C D					12.2	14.8					16.3	43.3 0.068	0.62
E11	B C D		2.5			7.7	48.9						59.1 0.092	0.60
F1	B C D		18.4		9.8	49.2							77.4 0.121	0.69
G1	B C D	15.0		21.6 32.7			4.4 2.4					0 0	76.1 0.119	0.80
G2	B C D	14.1										1.1	15.2 0.024	0.56
G3	B C D	0.0					11.8 5					0.0	16.8 0.026	0.60
G4	B C D		5.3 17.4		15.2 3.4	0	0 0						41.3 0.065	0.80

## COTTONWOOD CREEK DBPS - TABLE 17

SHEET 8 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
G5	B C D				6.3	17.1	33.3						56.7 0.089	0.60
G6	B C D				1.2	2.8							4.0 0.006	0.63
G7	B C D		11.5		2.6	90.9							105.0 0.164	0.66
G8	B C D		5.8		14.9	20.2							40.9 0.064	0.67
H1	B C D			0.0	0.0								0.0 0.000	N/A
H2	B C D			67.7									67.7 0.106	0.90
H3	B C D				0.9	0.9							1.8 0.003	0.64
H4	B C D				0.0	19.1							19.1 0.030	0.63
H5	B C D		86.3	145.6									231.9 0.362	0.90

## COTTONWOOD CREEK DBPS - TABLE 17

SHEET 9 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
H6	B C D			89.0									89.0 0.139	0.90
H7	B C D		10.1			0.0							10.1 0.016	0.90
H8	B C D		0.0			5.7							5.7 0.009	0.63
H9	B C D					81.7						5.7	87.4 0.137	0.63
H10	B C D		9.4			14.7						16.7	40.8 0.064	0.70
H11	B C D		88.7										88.7 0.139	0.90
H12	B C D		32.6			28.4							61.0 0.095	0.77
H13	B C D		46.5			35.2							81.7 0.128	0.78
H14	B C D		62.3			7.7							70.0 0.109	0.87

## COTTONWOOD CREEK DBPS - TABLE 17

SHEET 10 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
H15	B C D		29.4	20.0									49.4 0.077	0.90
H16	B C D		7.2		10.3	3.2							20.7 0.032	0.73
H17	B C D		0.0		3.7	42.5							46.2 0.072	0.63
H18	B C D				4.0	92.9						7.8	104.7 0.164	0.63
H19	B C D	16.7	2.8		37.3	9.9						4.6	71.3 0.111	0.63
H20	B C D	32.4				13.0							45.4 0.071	0.57
H21	B C D		51.7										51.7 0.081	0.90
H22	B C D		0.4	98.9									110.4 0.173	0.90
H23	B C D	21.0			34.0	10.0							65.0 0.102	0.61

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
I1	B C D	0.0		8.4		0.0	7.3 1.3					0.0	17.0 0.027	0.74
I2	B C D					0.0	4.6						4.6 0.007	0.58
I3	B C D						0.0						0.0 0.000	N/A
I4	B C D				0.0	0.0	0.0						0.0 0.000	N/A
I5	B C D	0.0	0.0	0.0	0.0	0.0	0.0					0.0	0.0 0.000	N/A
I6	B C D			0.0									0.0 0.000	N/A
I7	B C D			0.0	0.0	0.0	0.0						0.0 0.000	N/A
I8	B C D			0.0	0.0		0.0						0.0 0.000	N/A
I9	B C D						0.0						0.0 0.000	N/A

COTTONWOOD CREEK DBPS - TABLE 17

SHEET 12 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
I10	B	0.0			0.0		0.0					0.0	0.0	N/A
	C	0.0											0.000	
	D													
J1	B		3.8		7.7		26.8						38.3	0.62
	C												0.060	
	D													
J2	B			2.5									2.5	0.90
	C			0.0									0.004	
	D													
J3	B			25.7									25.7	0.90
	C												0.040	
	D			0.0										
K1	B				70.3								85.0	0.67
	C				14.7								0.133	
	D													
K2	B				9.2	2.4							89.9	0.72
	C				3.2	75.1							0.140	
	D													
K3	B		8.4		10.6	0.0						2.1	21.1	0.75
	C											0.0	0.033	
	D													
K4	B	7.3	9.9			22.6							84.0	0.72
	C					7.2							0.131	
	D	9.4	14.2			13.4								
L1	B		1.1			2.9							6.9	0.71
	C												0.011	
	D					2.9								

**SHEET 13 OF 19**

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
L2	B C D	13.5  27.8			0.0  	0.0  							41.3 0.065	0.58
M1	B C D		0.0			0.0	0.0						0.0 0.000	N/A
M2	B C D		13.6		3.0 9.4	0.0	9.1					0.0	35.1 0.055	0.75
M3	B C D		0.0		0.0	0.0	0.0			0.0			0.0 0.000	N/A
M4	B C D		0.0			0.0	0.0			0.0			0.0 0.000	N/A
M5	B C D				0.0	0.0	12.2			0.0			12.2 0.019	0.58
M6	B C D				0.0		0.0			0.0			0.0 0.000	N/A
N1	B C D		14.9			1.6							16.5 0.026	0.87
N2	B C D				0.0		0.0					0.0	0.0 0.000	N/A

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
N3	B C D	0.0 0.0			0.0 0.0	0.0 0.0	0.0					0.0	0.0 0.000	N/A
O1	B C D				8.5 9.2	7.3 0.0						0.0	25.0 0.039	0.68
O2	B C D					0.0 0.0 7.8							7.8 0.012	0.75
P1	B C D	0.0			0.0 0.0 0.0	0.0 0.0 0.0							0.0 0.000	N/A
P2	B C D						0.0						0.0 0.000	N/A
P3	B C D		0.0		0.0	0.0 0.0 0.0	0.0						0.0 0.000	N/A
Q1	B C D		4.1		2.8		0.0					0.0	6.9 0.011	0.80
Q2	B C D		0.0		0.0	0.0	2.0					2.0	4.0 0.006	0.61
Q3	B C D		0.0				0.3					2.7	3.0 0.005	0.64



COTTONWOOD CREEK DBPS - TABLE 17 SHEET 15 OF 19

**SHEET 15 OF 19**

### RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
Q4	B		0.0		13.1		0.0						13.1	0.65
	C				0.020									
	D													
Q5	B					0.0						0.0	N/A	
	C					0.000								
	D													
Q6	B		0.0		0.0		0.0					0.0	N/A	
	C		0.0											
	D		-		0.0									
Q7	B	1.9	0.0		3.1		2.2					9.9	0.63	
	C				0.015									
	D				1.3		1.4							
Q8	B		0.0		0.0		0.0					0.0	N/A	
	C				0.000									
	D													
R1	B		0.0	0.0			0.0					0.0	N/A	
	C						0.000							
	D													
R2	B	0.0				0.0	0.0					0.0	N/A	
	C					0.000								
	D													
R3	B		0.0	0.0	0.0							0.0	N/A	
	C		0.000											
	D													
R4	B	0.0	20.9	0.0								20.9	0.90	
	C		0.033											
	D													

**DATE: 18-May-92**

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
R5	B C D		6.9	-									6.9 0.011	0.90
R6	B C D	0.0 0.0	5.6		10.3 0.0	0.0						0.0	15.9 0.025	0.74
R7	B C D		3.2			0.0	0.0					0.0	3.2 0.005	0.90
S1	B C D		8.6		11.6	0.0	6.2						26.4 0.041	0.71
S2	B C D		0.0		0.0		0.0						0.0 0.000	N/A
S3	B C D		0.0		0.0		0.0						0.0 0.000	N/A
T1A	B C D		0.0		0.0		0.0						0.0 0.000	N/A
T1B	B C D		0.0				0.0						0.0 0.000	N/A
T2	B C D		0.0		0.0	0.0				0.0		0.0	0.0 0.000	N/A

## COTTONWOOD CREEK DBPS - TABLE 17

SHEET 17 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
T3	B					0.0				0.0			0.0	N/A
	C												0.0	
	D												0.000	
T4A	B		0.0			0.0				0.0			0.0	N/A
	C					0.0				0.0			0.0	
	D												0.000	
T4B	B		0.0			0.0				0.0			0.0	N/A
	C									0.0			0.0	
	D												0.000	
U4A	B		0.0			0.0	0.0			0.0			0.0	N/A
	C												0.0	
	D												0.000	
U4B	B		0.0			0.0				0.0			0.0	N/A
	C									0.0			0.0	
	D									0.0			0.000	
U1	B		0.0		0.0		0.0					0.0	0.0	N/A
	C				0.0								0.0	
	D												0.000	
U2	B		5.1		0.0		3.4						8.5	0.77
	C												0.013	
	D													
U3	B		0.0			0.0	0.0						0.0	N/A
	C												0.0	
	D												0.000	
V1	B		2.5		0.0		0.0						11.0	0.90
	C		8.5										0.0	
	D				0.0		0.0						0.017	

## COTTONWOOD CREEK DBPS - TABLE 17

SHEET 18 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
V2	B		4.1		9.9		0.6						77.5	0.87
	C		62.9										0.121	
	D													
W1	B		0.0	0.0			0.0						0.0	N/A
	C												0.000	
	D			0.0										
W2	B			0.0									0.0	N/A
	C												0.000	
	D			0.0										
W3	B		0.0	0.0									0.0	N/A
	C		0.0	0.0									0.000	
	D			0.0										
X1A	B	0.0	0.0										0.0	N/A
	C												0.000	
	D													
X1B	B	0.0	0.0										0.0	N/A
	C												0.000	
	D	0.0	0.0						0.0					
X2	B	3.0	0.0	0.0									3.0	0.55
	C												0.005	
	D													
X3	B	0.0	0.0	0.0			0.0						0.0	N/A
	C												0.000	
	D	0.0		0.0			0.0	0.0	0.0					
X4	B		0.0				0.0	0.0	0.0				0.0	N/A
	C												0.000	
	D	0.0	0.0				0.0	0.0	0.0					

## COTTONWOOD CREEK DBPS - TABLE 17

SHEET 19 OF 19

## RATIONAL METHOD - SUBBASIN HYDROLOGIC DATA - UNPLATTED AREAS

DATE: 18-May-92

BASIN	HYDROLOGIC SOIL TYPE	PARKS	AVERAGE LAND USE TYPE AND AREA IN ACRES										OVERALL VALUES	
			COMMER OR BUSIN	INDUST	RESID 1/8 AC	RESID 1/6 AC	RESID 1/4 AC	RESID 1/3 AC	RESID 1/2 AC	RESID 1 AC	RESID 5 AC	SCHOOL /CHUR	AREA AC/SM	C
X5	B		0.0				0.0	0.0					0.0	N/A
	C												0.000	
	D		0.0				0.0	0.0						
Y1	B	16.1		0.0			0.0						16.1	0.55
	C												0.025	
	D													
Y2	B		15.6				0.0						15.6	0.90
	C		0.0										0.024	
	D		0.0	0.0			0.0							
TOTAL		241.6	1175.7	547	730.4	1620.1	1253.8	0	0	493.4	740.3	175.9	6,978	0.63

**COTTONWOOD CREEK  
DRAINAGE BASIN PLANNING STUDY  
APPENDIX B  
AUGUST 24, 1992  
TABLE 18  
PLATTED VS. UNPLATTED AREAS  
CA VALUES**

**COTTONWOOD CREEK DBPS - TABLE 18**  
**PLATTED VS. UNPLATTED AREAS - CA VALUES**

**SHEET 1 OF 5**  
**DATE: 18-May-92**

BASIN	BASIN AREA ACRES	PLATTED AREA ACRES	UNPLATTED AREA ACRES	PLATTED AREA C VALUE	UNPLATTED AREA C VALUE	PLATTED AREA CA VALUE	UNPLATTED AREA CA VALUE
A1	120.6	3.0	117.6	0.20	0.20	0.6	23.5
A2	134.2	23.0	111.2	0.20	0.20	4.6	22.2
A3	103.9	9.6	94.3	0.20	0.20	1.9	18.9
A4	162.4	124.5	37.9	0.20	0.20	24.9	7.6
A5	134.2	94.0	40.2	0.20	0.20	18.8	8.0
A6	90.0	67.7	22.3	0.20	0.20	13.5	4.5
A7	87.4	29.4	58.0	0.20	0.20	5.9	11.6
A8	153.3	122.1	31.2	0.20	0.20	24.4	6.2
A9	126.0	124.6	1.4	0.20	0.20	24.9	0.3
A10	108.2	92.4	15.8	0.20	0.20	18.5	3.2
A11	76.1	26.4	49.7	0.20	0.20	5.3	9.9
A12	76.2	31.0	45.2	0.40	0.40	12.4	18.1
A13	102.9	99.2	3.7	0.20	0.20	19.8	0.7
B1	122.6	44.8	77.8	0.27	0.40	12.1	31.1
B2	68.6	1.0	67.6	0.40	0.60	0.4	40.6
B3	93.2	4.4	88.8	0.58	0.55	2.6	48.8
B4	66.6	9.6	57.0	0.58	0.54	5.6	30.8
B5	68.2	0.0	68.2	1.00	0.72	0.0	49.1
B6	117.2	9.9	107.3	0.58	0.65	5.7	69.7
B7	190.1	0.0	190.1	1.00	0.63	0.0	119.8
B8	101.8	0.0	101.8	1.00	0.73	0.0	74.3
B9	108.0	21.6	86.4	0.65	0.71	14.0	61.3
C1	105.3	38.1	67.2	0.40	0.39	15.2	26.2
C2	98.3	0.0	98.3	1.00	0.22	0.0	21.6
C3	103.6	2.0	101.6	0.20	0.40	0.4	40.6
C4	143.1	2.0	141.1	0.20	0.46	0.4	64.9
C5	145.6	37.2	108.4	0.20	0.47	7.4	50.9
C6	68.3	0.0	68.3	1.00	0.62	0.0	42.3
C7	99.6	0.0	99.6	1.00	0.63	0.0	62.7
C8	109.2	1.0	108.2	0.40	0.64	0.4	69.2
C9	132.0	0.0	132.0	1.00	0.61	0.0	80.5
C10	67.7	0.0	67.7	1.00	0.61	0.0	41.3
C11	79.7	0.0	79.7	1.00	0.66	0.0	52.6
C12	71.6	0.0	71.6	1.00	0.65	0.0	46.5
C13	79.9	0.0	79.9	1.00	0.45	0.0	36.0
C14	66.7	0.0	66.7	1.00	0.60	0.0	40.0
C15	54.6	0.0	54.6	1.00	0.62	0.0	33.9
C16	90.5	0.0	90.5	1.00	0.60	0.0	54.3
C17	56.4	0.0	56.4	1.00	0.61	0.0	34.4
C18	128.5	0.0	128.5	1.00	0.62	0.0	79.7
C19	71.9	0.0	71.9	1.00	0.62	0.0	44.6
C20	72.5	0.0	72.5	1.00	0.63	0.0	45.7
D1	105.7	0.0	105.7	1.00	0.68	0.0	71.9

COTTONWOOD CREEK DBPS - TABLE 18  
 PLATTED VS. UNPLATTED AREAS - CA VALUES

SHEET 2 OF 5  
 DATE: 18-May-92

BASIN	BASIN AREA ACRES	PLATTED AREA ACRES	UNPLATTED AREA ACRES	PLATTED AREA C VALUE	UNPLATTED AREA C VALUE	PLATTED AREA CA VALUE	UNPLATTED AREA CA VALUE
D2	127.1	8.8	118.3	0.69	0.70	6.1	82.8
D3	81.1	27.1	54.0	0.90	0.90	24.4	48.6
D4	75.2	0.0	75.2	1.00	0.81	0.0	60.9
D5	81.7	23.0	58.7	0.90	0.90	20.7	52.8
E1	59.5	0.0	59.5	1.00	0.54	0.0	32.1
E2	57.7	0.0	57.7	1.00	0.83	0.0	47.9
E3	93.7	0.0	93.7	1.00	0.75	0.0	70.3
E4	98.6	0.0	98.6	1.00	0.70	0.0	69.0
E5	81.4	0.0	81.4	1.00	0.72	0.0	58.6
E6	28.8	0.0	28.8	1.00	0.60	0.0	17.3
E7	75.2	23.9	51.3	0.65	0.71	15.5	36.4
E8	79.6	0.0	79.6	1.00	0.73	0.0	58.1
E9	67.2	0.0	67.2	1.00	0.60	0.0	40.3
E10	59.9	16.6	43.3	0.63	0.62	10.5	26.8
E11	63.8	4.7	59.1	0.58	0.60	2.7	35.5
F1	87.7	10.3	77.4	0.63	0.69	6.5	53.4
G1	115.1	39.0	76.1	0.63	0.80	24.6	60.9
G2	68.7	53.5	15.2	0.65	0.56	34.8	8.5
G3	116.9	100.1	16.8	0.63	0.60	63.1	10.1
G4	84.7	43.4	41.3	0.72	0.80	31.2	33.0
G5	75.5	18.8	56.7	0.59	0.60	11.1	34.0
G6	89.0	85.0	4.0	0.63	0.63	53.6	2.5
G7	109.6	4.6	105.0	0.76	0.66	3.5	69.3
G8	52.1	11.2	40.9	0.65	0.67	7.3	27.4
H1	107.9	107.9	0.0	0.82	1.00	88.5	0.0
H2	67.7	0.0	67.7	1.00	0.90	0.0	60.9
H3	90.2	88.4	1.8	0.63	0.64	55.7	1.2
H4	82.1	63.0	19.1	0.63	0.63	39.7	12.0
H5	231.9	0.0	231.9	1.00	0.90	0.0	208.7
H6	136.8	47.8	89.0	0.90	0.90	43.0	80.1
H7	89.9	79.8	10.1	0.73	0.90	58.3	9.1
H8	80.0	74.3	5.7	0.65	0.63	48.3	3.6
H9	110.4	23.0	87.4	0.63	0.63	14.5	55.1
H10	40.8	0.0	40.8	1.00	0.70	0.0	28.6
H11	92.2	3.5	88.7	0.90	0.90	3.2	79.8
H12	104.0	43.0	61.0	0.72	0.77	31.0	47.0
H13	81.7	0.0	81.7	1.00	0.78	0.0	63.7
H14	73.6	3.6	70.0	0.90	0.87	3.2	60.9
H15	53.4	4.0	49.4	0.90	0.90	3.6	44.5
H16	68.0	47.3	20.7	0.68	0.73	32.2	15.1
H17	65.0	18.8	46.2	0.67	0.63	12.6	29.1
H18	111.0	6.3	104.7	0.63	0.63	4.0	66.0
H19	75.2	3.9	71.3	0.58	0.63	2.3	44.9



**COTTONWOOD CREEK DBPS - TABLE 18**  
**PLATTED VS. UNPLATTED AREAS - CA VALUES**

**SHEET 3 OF 5**  
**DATE: 18-May-92**

BASIN	BASIN AREA ACRES	PLATTED AREA ACRES	UNPLATTED AREA ACRES	PLATTED AREA C VALUE	UNPLATTED AREA C VALUE	PLATTED AREA CA VALUE	UNPLATTED AREA CA VALUE
H20	45.4	0.0	45.4	1.00	0.57	0.0	25.9
H21	51.7	0.0	51.7	1.00	0.90	0.0	46.5
H22	113.7	3.3	110.4	0.90	0.90	3.0	99.4
H23	67.0	2.0	65.0	0.65	0.61	1.3	39.7
J1	136.1	97.8	38.3	0.62	0.62	60.6	23.7
J2	54.2	51.7	2.5	0.90	0.90	46.5	2.3
J3	84.6	58.9	25.7	0.90	0.90	53.0	23.1
K1	108.0	23.0	85.0	0.66	0.67	15.2	57.0
K2	119.9	30.0	89.9	0.64	0.72	19.2	64.7
K3	62.8	41.7	21.1	0.66	0.75	27.5	15.8
K4	93.8	9.8	84.0	0.79	0.72	7.7	60.5
L1	92.7	85.8	6.9	0.66	0.71	56.6	4.9
L2	94.0	52.7	41.3	0.58	0.58	30.6	24.0
M1	57.6	57.6	0.0	0.84	1.00	48.4	0.0
M2	130.9	95.8	35.1	0.61	0.75	58.4	26.3
M3	102.1	102.1	0.0	0.65	1.00	66.4	0.0
M4	146.5	146.5	0.0	0.52	1.00	76.2	0.0
M5	65.1	52.9	12.2	0.58	0.58	30.7	7.1
M6	64.6	64.6	0.0	0.60	1.00	38.8	0.0
O1	72.0	47.0	25.0	0.70	0.68	32.9	17.0
O2	77.8	70.0	7.8	0.70	0.75	49.0	5.9
P1	77.8	77.8	0.0	0.68	1.00	52.9	0.0
P2	53.7	53.7	0.0	0.58	1.00	31.1	0.0
P3	127.7	127.7	0.0	0.64	1.00	81.7	0.0
Q1	65.1	58.2	6.9	0.61	0.80	35.5	5.5
Q2	128.6	124.6	4.0	0.61	0.61	76.0	2.4
Q3	50.0	47.0	3.0	0.65	0.64	30.6	1.9
Q4	82.2	69.1	13.1	0.72	0.65	49.8	8.5
Q5	98.2	98.2	0.0	0.58	1.00	57.0	0.0
Q6	134.4	134.4	0.0	0.81	1.00	108.9	0.0
Q7	116.4	106.5	9.9	0.64	0.63	68.2	6.2
Q8	53.8	53.8	0.0	0.67	1.00	36.0	0.0
S1	84.1	57.7	26.4	0.59	0.71	34.0	18.7
S2	85.8	85.8	0.0	0.68	1.00	58.3	0.0
S3	116.8	116.8	0.0	0.63	1.00	73.6	0.0
T1A	56.9	56.9	0.0	0.69	1.00	39.3	0.0
T1B	81.4	81.4	0.0	0.62	1.00	50.5	0.0
T2	101.7	101.7	0.0	0.48	1.00	48.8	0.0
T3	74.6	74.6	0.0	0.56	1.00	41.8	0.0
T4A	60.7	60.7	0.0	0.64	1.00	38.8	0.0
T4B	48.0	48.0	0.0	0.73	1.00	35.0	0.0
V1	146.6	135.6	11.0	0.64	0.90	86.8	9.9
V2	90.6	13.1	77.5	0.90	0.87	11.8	67.4

**COTTONWOOD CREEK DBPS - TABLE 18**  
**PLATTED VS. UNPLATTED AREAS - CA VALUES**

**SHEET 4 OF 5**  
**DATE: 18-May-92**

BASIN	BASIN AREA ACRES	PLATTED AREA ACRES	UNPLATTED AREA ACRES	PLATTED AREA C VALUE	UNPLATTED AREA C VALUE	PLATTED AREA CA VALUE	UNPLATTED AREA CA VALUE
W1	134.0	134.0	0.0	0.73	1.00	97.8	0.0
W2	79.7	79.7	0.0	0.90	1.00	71.7	0.0
W3	67.3	67.3	0.0	0.90	1.00	60.6	0.0
TOTAL	12,110.6	5,260.6	6,850.0			3,093.6	4,311.5

**COTTONWOOD CREEK DBPS - TABLE 18**  
**PLATTED VS. UNPLATTED AREAS - CA VALUES**

**SHEET 5 OF 5**  
**DATE: 18-May-92**

BASIN	BASIN AREA ACRES	PLATTED AREA ACRES	UNPLATTED AREA ACRES	PLATTED AREA C VALUE	UNPLATTED AREA C VALUE	PLATTED AREA CA VALUE	UNPLATTED AREA CA VALUE
I1	129.7	112.7	17.0	0.60	0.74	67.6	12.6
I2	64.7	60.1	4.6	0.61	0.58	36.7	2.7
I3	85.4	85.4	0.0	0.58	1.00	49.5	0.0
I4	111.2	111.2	0.0	0.58	1.00	64.5	0.0
I5	157.2	157.2	0.0	0.64	1.00	100.6	0.0
I6	175.1	175.1	0.0	0.90	1.00	157.6	0.0
I7	95.7	95.7	0.0	0.68	1.00	65.1	0.0
I8	68.2	68.2	0.0	0.68	1.00	46.4	0.0
I9	29.4	29.4	0.0	0.58	1.00	17.1	0.0
I10	109.7	109.7	0.0	0.61	1.00	66.9	0.0
N1	98.1	81.6	16.5	0.81	0.87	66.1	14.4
N2	58.4	58.4	0.0	0.59	1.00	34.5	0.0
N3	162.4	162.4	0.0	0.60	1.00	97.4	0.0
R1	114.6	114.6	0.0	0.83	1.00	95.1	0.0
R2	79.6	79.6	0.0	0.61	1.00	48.6	0.0
R3	47.4	47.4	0.0	0.83	1.00	39.3	0.0
R4	124.1	103.2	20.9	0.87	0.90	89.8	18.8
R5	124.4	117.5	6.9	0.90	0.90	105.8	6.2
R6	127.8	111.9	15.9	0.66	0.74	73.9	11.8
R7	105.7	102.5	3.2	0.77	0.90	78.9	2.9
U1	86.9	86.9	0.0	0.63	1.00	54.7	0.0
U2	92.7	84.2	8.5	0.63	0.77	53.0	6.5
U3	66.1	66.1	0.0	0.80	1.00	52.9	0.0
U4A	53.4	53.4	0.0	0.61	1.00	32.6	0.0
U4B	100.0	100.0	0.0	0.52	1.00	52.0	0.0
X1A	30.6	30.6	0.0	0.56	1.00	17.1	0.0
X1B	79.7	79.7	0.0	0.57	1.00	45.4	0.0
X2	94.3	91.3	3.0	0.89	0.55	81.3	1.7
X3	118.8	118.8	0.0	0.82	1.00	97.4	0.0
X4	117.3	117.3	0.0	0.64	1.00	75.1	0.0
X5	78.9	78.9	0.0	0.68	1.00	53.7	0.0
Y1	79.6	63.5	16.1	0.58	0.55	36.8	8.9
Y2	97.3	81.7	15.6	0.89	0.90	72.7	14.0
TOTAL	3,164.4	3,036.2	128.2			2,126.0	100.4

**COTTONWOOD CREEK  
DRAINAGE BASIN PLANNING STUDY  
AUGUST 24, 1992  
HEC-1 COMPUTER PRINTOUTS  
COTTONWOOD CREEK BASIN**

1

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 FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1,1985  
 U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616  
 \*\*\*\*\*

THIS HEC-1 VERSION CONTAINS ALL OPTIONS EXCEPT ECONOMICS, AND THE NUMBER OF PLANS ARE REDUCED TO 3

1

## HEC-1 INPUT

PAGE 1

LINE	ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1	ID COTTONWOOD CREEK DBPS URS PROJECT NO. 49209
2	ID RECOMMENDED PLAN FOR THE BASIN - INPUT FILE CDT9.INP
3	ID USING THE 100 YEAR 24 HOUR STORM IN NEW CRITERIA
4	ID RUN DATE 7-31-92 - REVISED TO MOVE POND @ 12CP
	*DIAGRAM
5	IT 5 01SEP89 800 300
6	IO 5
7	KK A1
8	KM RUNOFF FROM A1
9	BA 0.188
10	LS 0 60.0
11	UD 0.410
12	KM DESIGN POINT 1
13	IN 15
14	PB 0
15	PC 0.000 0.002 0.006 0.012 0.019 0.025 0.033 0.041 0.050 0.059
16	PC 0.068 0.078 0.087 0.096 0.105 0.115 0.132 0.161 0.190 0.219
17	PC 0.248 0.310 0.414 1.654 2.895 2.999 3.102 3.164 3.226 3.267
18	PC 3.309 3.350 3.392 3.412 3.433 3.454 3.474 3.495 3.516 3.536
19	PC 3.557 3.573 3.588 3.604 3.619 3.635 3.650 3.666 3.681 3.697
20	PC 3.712 3.728 3.743 3.757 3.770 3.784 3.797 3.809 3.822 3.834
21	PC 3.846 3.857 3.867 3.878 3.888 3.898 3.909 3.919 3.929 3.940
22	PC 3.950 3.960 3.971 3.981 3.991 4.002 4.012 4.022 4.033 4.043
23	PC 4.053 4.059 4.064 4.069 4.074 4.079 4.084 4.090 4.095 4.100
24	PC 4.105 4.110 4.115 4.121 4.126 4.131 4.136
25	KK 1-2
26	KM ROUTE TO DESIGN POINT 2
27	RK 2300 .025 .035 0 TRAP 20 2
28	KK A3
29	KM RUNOFF FROM A3
30	BA 0.162
31	LS 0 60.0
32	UD 0.370

33 KK 2  
 34 KM COMBINE 1-2 AND A3  
 35 HC 2  
  
 36 KK 2-3  
 37 KM ROUTE TO DESIGN POINT 3  
 38 RK 3500 .025 .035 0 TRAP 20 2  
  
 39 KK A2  
 40 KM RUNOFF FROM A2  
 41 BA 0.210  
 42 LS 0 60.0  
 43 UD 0.360

HEC-1 INPUT

PAGE 2

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

44 KK A4  
 45 KM RUNOFF FROM A4  
 46 BA 0.254  
 47 LS 0 60.0  
 48 UD 0.320  
  
 49 KK A5  
 50 KM RUNOFF FROM A5  
 51 BA 0.210  
 52 LS 0 60.0  
 53 UD 0.350  
  
 54 KK 3  
 55 KM COMBINE 2-3,A2,A4,A5  
 56 HC 4  
  
 57 KK 3-4  
 58 KM ROUTE TO DESIGN POINT 4  
 59 RK 3500 .030 .035 0 TRAP 20 2  
  
 60 KK A8  
 61 KM RUNOFF FROM A8  
 62 BA 0.240  
 63 LS 0 60.0  
 64 UD 0.390  
  
 65 KK A9  
 66 KM RUNOFF FROM A9  
 67 BA 0.197  
 68 LS 0 60.0  
 69 UD 0.330  
  
 70 KK 4  
 71 KM COMBINE 3-4,A8,A9  
 72 HC 3  
  
 73 KK 4-5  
 74 KM ROUTE TO DESIGN POINT 5

75	RK	2000	.030	.035	0	TRAP	50	2
76	KK	A6						
77	KM	RUNOFF FROM	A6					
78	BA	0.141						
79	LS	0	60.0					
80	UD	0.340						
81	KK	A7						
82	KM	RUNOFF FROM	A7					
83	BA	0.137						
84	LS	0	60.0					
85	UD	0.360						

HEC-1 INPUT

PAGE 3

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

86	KK	5A						
87	KM	COMBINE A6,A7						
88	HC	2						
89	KK	5A-5						
90	KM	ROUTE TO DESIGN POINT 5						
91	RK	3900	.025	.035	0	TRAP	20	2
92	KK	A10						
93	KM	RUNOFF FROM	A10					
94	BA	0.169						
95	LS	0	60.0					
96	UD	0.370						
97	KK	A11						
98	KM	RUNOFF FROM	A11					
99	BA	0.119						
100	LS	0	60.0					
101	UD	0.290						
102	KK	A12						
103	KM	RUNOFF FROM	A12					
104	BA	0.119						
105	LS	0	68.0					
106	UD	0.290						
107	KK	A13						
108	KM	RUNOFF FROM	A13					
109	BA	0.161						
110	LS	0	60.0					
111	UD	0.360						
112	KK	B1						
113	KM	RUNOFF FROM	B1					
114	BA	0.192						
115	LS	0	66.1					
116	UD	0.310						

117	KK	5									
118	KM	COMBINE 4-5,5A-5,A10,A11,A12,A13,B1									
119	HC	7									
120	KK	5P									
121	KM	CHAPEL HILLS EAST DETENTION POND NO 2									
122	SV	0	2.8	6.4	10.8	15.0	21.3	27.5	33.8	41.0	49.0
123	SV	57.0	65.4	74.7	85.5	95.8	109.0	123.9	144.8	163.5	
124	SE	6602	6604.5	6607	6609.5	6612	6614.5	6617	6619.5	6622	6624.5
125	SE	6627	6629.5	6632	6634.5	6637	6639.5	6642	6644.5	6647	
126	SQ	0	24	37	46	56	63	70	76	82	88
127	SQ	92	97	102	107	111	115	119	596	1802	
128	RS	1	ELEV	6602							

HEC-1 INPUT

PAGE 4

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

129	KK	5-6								
130	KM	ROUTE TO DESIGN POINT 5								
131	RK	6000	.015	.035	0	TRAP	80	2		
132	KK	B2								
133	KM	RUNOFF FROM B2								
134	BA	0.107								
135	LS	0	77.9							
136	UD	0.270								
137	KK	B2-6A								
138	KM	ROUTE TO DESIGN POINT 6A								
139	RK	3000	.025	.035	0	TRAP	20	2		
140	KK	B6								
141	KM	RUNOFF FROM B6								
142	BA	0.183								
143	LS	0	80.3							
144	UD	0.210								
145	KK	6A								
146	KM	COMBINE B2-6A,B6								
147	HC	2								
148	KK	B3								
149	KM	RUNOFF FROM B3								
150	BA	0.146								
151	LS	0	74.0							
152	UD	0.260								
153	KK	B4								
154	KM	RUNOFF FROM B4								
155	BA	0.104								
156	LS	0	73.1							
157	UD	0.280								
158	KK	6								
159	KM	COMBINE 5-6,6A,B3,B4								



160 HC 4  
 161 KK 6-7  
 162 KM ROUTE TO DESIGN POINT 7  
 163 RK 5500 .018 .035 0 TRAP 80 2  
 164 KK B8  
 165 KM RUNOFF FROM B8  
 166 BA 0.159  
 167 LS 0 84.6  
 168 UD 0.280

HEC-1 INPUT

PAGE 5

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

169 KK 7  
 170 KM COMBINE 6-7,B8  
 171 HC 2  
 172 KK 7-8  
 173 KM ROUTE TO DESIGN POINT 8  
 174 RK 3500 .018 .035 0 TRAP 80 2  
 175 KK C2  
 176 KM RUNOFF FROM C2  
 177 BA 0.154  
 178 LS 0 61.0  
 179 UD 0.260  
 180 KK C2-8A  
 181 KM ROUTE TO DESIGN POINT 8A  
 182 RK 3000 .035 .035 0 TRAP 20 2  
 183 KK C3  
 184 KM RUNOFF FROM C3  
 185 BA 0.162  
 186 LS 0 67.3  
 187 UD 0.300  
 188 KK 8A  
 189 KM COMBINE C2-8A,C3  
 190 HC 2  
 191 KK 8A-88  
 192 KM ROUTE 8A TO DESIGN POINT 88  
 193 RK 4000 .030 .035 0 TRAP 40 2  
 194 KK C4  
 195 KM RUNOFF FROM C4  
 196 BA 0.224  
 197 LS 0 69.9  
 198 UD 0.310  
 199 KK C4-88  
 200 KM ROUTE C4 TO DESIGN POINT 88

201 RK 3000 .030 .035 0 TRAP 20 2

202 KK C7  
203 KM RUNOFF FROM C7  
204 BA 0.156  
205 LS 0 82.1  
206 UD 0.290

207 KK 88  
208 KM COMBINE 8A-88,C4-88,C7  
209 HC 3

HEC-1 INPUT

PAGE 6

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

210 KK C1  
211 KM RUNOFF FROM C1  
212 BA 0.165  
213 LS 0 67.5  
214 UD 0.280

215 KK C13  
216 KM RUNOFF FROM C13  
217 BA 0.125  
218 LS 0 69.8  
219 UD 0.260

220 KK 8C  
221 KM COMBINE C1,C13  
222 HC 2

223 KK 8C-8D  
224 KM ROUTE 8C TO DESIGN POINT 8D  
225 RK 4500 .027 .035 0 TRAP 40 2

226 KK C6  
227 KM RUNOFF FROM C6  
228 BA 0.107  
229 LS 0 80.4  
230 UD 0.510

231 KK 8D  
232 KM COMBINE 8C-8D,C6  
233 HC 2

234 KK 8E  
235 KM COMBINE 8B,8D  
236 HC 2

237 KK 8E-8G  
238 KM ROUTE 8E TO DESIGN POINT 8G  
239 RK 3000 .018 .035 0 TRAP 50 2

240 KK C5  
241 KM RUNOFF FROM C5

242 BA 0.227  
 243 LS 0 67.6  
 244 UD 0.430  
  
 245 KK C5-8F  
 246 KM ROUTE C5 TO DESIGN POINT 8F  
 247 RK 6300 .030 .035 0 TRAP 50 2  
  
 248 KK C8  
 249 KM RUNOFF FROM C8  
 250 BA 0.171  
 251 LS 0 79.6  
 252 UD 0.300

# HEC-1 INPUT

PAGE 7

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

253 KK 8F  
 254 KM COMBINE C5-8F,C8  
 255 HC 2  
  
 256 KK C9  
 257 KM RUNOFF FROM C9  
 258 BA 0.206  
 259 LS 0 78.6  
 260 UD 0.330  
  
 261 KK C10  
 262 KM RUNOFF FROM C10  
 263 BA 0.106  
 264 LS 0 77.5  
 265 UD 0.360  
  
 266 KK C11  
 267 KM RUNOFF FROM C11  
 268 BA 0.125  
 269 LS 0 81.9  
 270 UD 0.320  
  
 271 KK 8G  
 272 KM COMBINE 8E-8G,8F,C9,C10,C11  
 273 HC 5  
  
 274 KK 8G-8  
 275 KM ROUTE 8G TO DESIGN POINT 8  
 276 RK 4000 .028 .035 0 TRAP 50 2  
  
 277 KK 8G-8P  
 278 KM CHAPEL HILLS EAST DETENTION POND NO 2  
 279 SV 0 2.8 6.4 10.8 15.0 21.3 27.5 33.8 41.0 49.0  
 280 SV 57.0 65.4 74.7 85.5 95.8 109.0 123.9  
 281 SE 6602 6604.5 6607 6609.5 6612 6614.5 6617 6619.5 6622 6624.5  
 282 SE 6627 6629.5 6632 6634.5 6637 6639.5 6642  
 283 SQ 0 24 37 46 56 63 70 76 82 88  
 284 SQ 92 97 596 1802 3000 4000 4500

285 RS 1 ELEV 6602

286 KK B5  
287 KM RUNOFF FROM B5  
288 BA 0.107  
289 LS 0 84.8  
290 UD 0.190

291 KK B5-8H  
292 KM ROUTE B5 TO DESIGN POINT 8H  
293 RK 4800 .035 .035 0 TRAP 15 2  
HEC-1 INPUT

PAGE 8

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

294 KK B7  
295 KM RUNOFF FROM B7  
296 BA 0.297  
297 LS 0 80.4  
298 UD 0.340

299 KK 8H  
300 KM COMBINE B5-8H,B7  
301 HC 2

302 KK B9  
303 KM RUNOFF FROM B9  
304 BA 0.169  
305 LS 0 84.7  
306 UD 0.320

307 KK 8  
308 KM COMBINE 7-8,8G-8,8H,B9  
309 HC 4

310 KK 8-9  
311 KM ROUTE 8 TO DESIGN POINT 9  
312 RK 3000 .015 .035 0 TRAP 80 3

313 KK C14  
314 KM RUNOFF FROM C14  
315 BA 0.104  
316 LS 0 76.3  
317 UD 0.230

318 KK C14-9A  
319 KM ROUTE C14 TO DESIGN POINT 9A  
320 RK 2500 .032 .035 0 TRAP 10 2

321 KK C15  
322 KM RUNOFF FROM C15  
323 BA 0.085  
324 LS 0 79.0  
325 UD 0.240

326 KK 9A  
 327 KM COMBINE C14-9A,C15  
 328 HC 2  
  
 329 KK 9A-9B  
 330 KM ROUTE 9A TO DESIGN POINT 9B  
 331 RK 6800 .030 .035 0 TRAP 50 2  
  
 332 KK C17  
 333 KM RUNOFF FROM C17  
 334 BA 0.088  
 335 LS 0 78.8  
 336 UD 0.310

# HEC-1 INPUT

PAGE 9

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

337 KK C18  
 338 KM RUNOFF FROM C18  
 339 BA 0.201  
 340 LS 0 79.0  
 341 UD 0.320  
  
 342 KK 9B  
 343 KM COMBINE 9A-9B,C17,C18  
 344 HC 3  
  
 345 KK 9BP  
 346 KM VOLUMES FROM CONTOURS DOWNSTREAM OF 11F  
 347 SV 0 0.3 3.3 14.8 60.8 97.6 149.2  
 348 SE 6814 6820 6830 6840 6850 6854 6858  
 349 SQ 0 50 90 100 110 114 118  
 350 RS 1 ELEV 6814  
  
 351 KK C12  
 352 KM RUNOFF FROM C12  
 353 BA 0.112  
 354 LS 0 81.2  
 355 UD 0.240  
  
 356 KK D1  
 357 KM RUNOFF FROM D1  
 358 BA 0.165  
 359 LS 0 83.9  
 360 UD 0.250  
  
 361 KK D2  
 362 KM RUNOFF FROM D2  
 363 BA 0.199  
 364 LS 0 83.9  
 365 UD 0.240  
  
 366 KK 9  
 367 KM COMBINE 8-9,9B,C12,D1,D2  
 368 HC 5

369 KK 9-10  
 370 KM ROUTE 9 TO DESIGN POINT 10  
 371 RK 1800 .017 .035 0 TRAP 80 1  
  
 372 KK C19  
 373 KM RUNOFF FROM C19  
 374 BA 0.112  
 375 LS 0 79.8  
 376 UD 0.370

HEC-1 INPUT

PAGE 10

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

377 KK D4  
 378 KM RUNOFF FROM D4  
 379 BA 0.118  
 380 LS 0 86.2  
 381 UD 0.200  
  
 382 KK 10  
 383 KM COMBINE 9-10,C19,D4  
 384 HC 3  
  
 385 KK 10-11  
 386 KM ROUTE 10 TO DESIGN POINT 11  
 387 RK 1100 .018 .035 0 TRAP 80 2  
  
 388 KK E1  
 389 KM RUNOFF FROM E1  
 390 BA 0.093  
 391 LS 0 74.0  
 392 UD 0.330  
  
 393 KK E1-11A  
 394 KM ROUTE E1 TO DESIGN POINT 11A  
 395 RK 3000 .030 .035 0 TRAP 20 2  
  
 396 KK E3  
 397 KM RUNOFF FROM E3  
 398 BA 0.146  
 399 LS 0 86.1  
 400 UD 0.260  
  
 401 KK 11A  
 402 KM COMBINE E1-11A,E3  
 403 HC 2  
  
 404 KK 11A11B  
 405 KM ROUTE 11A TO DESIGN POINT 11B  
 406 RK 3300 .030 .035 0 TRAP 10 2  
  
 407 KK E5  
 408 KM RUNOFF FROM E5  
 409 BA 0.127

410 LS 0 84.8  
 411 UD 0.280  
  
 412 KK 11B  
 413 KM COMBINE 11A11B,E5  
 414 HC 2  
  
 415 KK E2  
 416 KM RUNOFF FROM E2  
 417 BA 0.090  
 418 LS 0 89.4  
 419 UD 0.240

# HEC-1 INPUT

PAGE 11

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

420 KK E2-11C  
 421 KM ROUTE E2 TO DESIGN POINT 11C  
 422 RK 3300 .030 .035 0 TRAP 10 2  
  
 423 KK E4  
 424 KM RUNOFF FROM E4  
 425 BA 0.154  
 426 LS 0 79.7  
 427 UD 0.400  
  
 428 KK 11C  
 429 KM COMBINE E2-11C,E4  
 430 HC 2  
  
 431 KK 11D  
 432 KM COMBINE 11B,11C  
 433 HC 2  
  
 434 KK 11D11F  
 435 KM ROUTE 11D TO DESIGN POINT 11F  
 436 RK 2000 .036 .035 0 TRAP 10 2  
  
 437 KK E6  
 438 KM RUNOFF FROM E6  
 439 BA 0.045  
 440 LS 0 75.8  
 441 UD 0.210  
  
 442 KK E6-11E  
 443 KM ROUTE E6 TO DESIGN POINT 11E  
 444 RK 4000 .030 .035 0 TRAP 5 2  
  
 445 KK E8  
 446 KM RUNOFF FROM E8  
 447 BA 0.124  
 448 LS 0 84.3  
 449 UD 0.280  
  
 450 KK 11E

451 KM COMBINE E6-11E,E8  
 452 HC 2

453 KK E7  
 454 KM RUNOFF FROM E7  
 455 BA 0.118  
 456 LS 0 84.5  
 457 UD 0.240

458 KK 11F  
 459 KM COMBINE 11D11F,11E,E7  
 460 HC 3

# HEC-1 INPUT

PAGE 12

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

461 KK E9  
 462 KM RUNOFF FROM E9  
 463 BA 0.105  
 464 LS 0 76.8  
 465 UD 0.260

466 KK E10  
 467 KM RUNOFF FROM E10  
 468 BA 0.094  
 469 LS 0 79.8  
 470 UD 0.270

471 KK 11F11P  
 472 KM COMBINE 11F,E9,E10  
 473 HC 3

474 KK 11P  
 475 KM VOLUMES FROM CONTOURS DOWNSTREAM OF 11F  
 476 SV 0 0.3 3.3 14.8 60.8 97.6 149.2  
 477 SE 6814 6820 6830 6840 6850 6854 6858  
 478 SQ 0 50 90 100 110 114 118  
 479 RS 1 ELEV 6814

480 KK 11P-11  
 481 KM ROUTE 11P TO DESIGN POINT 11  
 482 RK 3500 .028 .035 0 TRAP 10 2

483 KK E11  
 484 KM RUNOFF FROM E11  
 485 BA 0.100  
 486 LS 0 75.0  
 487 UD 0.260

488 KK 11P11  
 489 KM COMBINE 11P-11,E11  
 490 HC 2

491 KK C16  
 492 KM RUNOFF FROM C16



493 BA 0.141  
 494 LS 0 76.9  
 495 UD 0.280  
  
 496 KK C1611G  
 497 KM ROUTE C16 TO DESIGN POINT 11G  
 498 RK 4800 .030 .035 0 TRAP 5 2  
  
 499 KK C20  
 500 KM RUNOFF FROM C20  
 501 BA 0.113  
 502 LS 0 80.2  
 503 UD 0.330

# HEC-1 INPUT

PAGE 13

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

504 KK 11G  
 505 KM COMBINE C16-11G,C20  
 506 HC 2  
  
 507 KK 11  
 508 KM COMBINE 10-11,11F11P,11G  
 509 HC 3  
  
 510 KK 11-12  
 511 KM ROUTE 11 TO DESIGN POINT 12  
 512 RK 5500 .018 .035 0 TRAP 50 2  
  
 513 KK G1  
 514 KM RUNOFF FROM G1  
 515 BA 0.180  
 516 LS 0 82.4  
 517 UD 0.260  
  
 518 KK G1-12A  
 519 KM ROUTE G1 TO DESIGN POINT 12A  
 520 RK 2400 .023 .035 0 TRAP 10 2  
  
 521 KK G3  
 522 KM RUNOFF FROM G3  
 523 BA 0.183  
 524 LS 0 78.5  
 525 UD 0.230  
  
 526 KK 12A  
 527 KM COMBINE G1-12A,G3  
 528 HC 2  
  
 529 KK G2  
 530 KM RUNOFF FROM G2  
 531 BA 0.107  
 532 LS 0 80.9  
 533 UD 0.270

534 KK G2-12B  
 535 KM ROUTE G2 TO DESIGN POINT 12B  
 536 RK 2800 .042 .013 0 CIRC 4 0  
  
 537 KK G4  
 538 KM RUNOFF FROM G4  
 539 BA 0.132  
 540 LS 0 87.0  
 541 UD 0.230  
  
 542 KK 12B  
 543 KM COMBINE 12A,G2-12B,G4  
 544 HC 3

# HEC-1 INPUT

PAGE 14

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

545 KK 12B12C  
 546 KM ROUTE 12B TO DESIGN POINT 12C  
 547 RK 2500 .025 .015 0 TRAP 10 2  
  
 548 KK G5  
 549 KM RUNOFF FROM G5  
 550 BA 0.118  
 551 LS 0 76.5  
 552 UD 0.200  
  
 553 KK G6  
 554 KM RUNOFF FROM G6  
 555 BA 0.139  
 556 LS 0 80.4  
 557 UD 0.300  
  
 558 KK 12C  
 559 KM COMBINE 12B-12C,G5,G6  
 560 HC 3  
  
 561 KK 12CP  
 562 KM REVISED DETENTION POND AT 12CP  
 563 SV 0 1.0 4.2 11.5 24.5 46.1 65.7  
 564 SE 6710 6715 6720 6725 6730 6736 6740  
 565 SQ 0 37 56 70 82 92 720  
 566 RS 1 ELEV 6710  
  
 567 KK 12CP12  
 568 KM ROUTE 12CP TO DESIGN POINT 12  
 569 RK 2050 .038 .035 0 TRAP 15 2  
  
 570 KK D3  
 571 KM RUNOFF FROM D3  
 572 BA 0.127  
 573 LS 0 93.0  
 574 UD 0.220  
  
 575 KK D3-12D

576 KM ROUTE D3 TO DESIGN POINT 12D  
 577 RK 2300 .037 .035 0 TRAP 5 2  
  
 578 KK D5  
 579 KM RUNOFF FROM D5  
 580 BA 0.128  
 581 LS 0 91.8  
 582 UD 0.280  
  
 583 KK 12D  
 584 KM COMBINE D3-12D,D5  
 585 HC 2

# HEC-1 INPUT

PAGE 15

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

586 KK F1  
 587 KM RUNOFF FROM F1  
 588 BA 0.137  
 589 LS 0 83.1  
 590 UD 0.280

591 KK G7  
 592 KM RUNOFF FROM G7  
 593 BA 0.171  
 594 LS 0 81.6  
 595 UD 0.250

596 KK G8  
 597 KM RUNOFF FROM G8  
 598 BA 0.081  
 599 LS 0 83.0  
 600 UD 0.190

601 KK H21  
 602 KM RUNOFF FROM H21  
 603 BA 0.081  
 604 LS 0 92.0  
 605 UD 0.240

606 KK 12  
 607 KM COMBINE 11-12,12C-12,12D,F1,G7,G8,H21  
 608 HC 7

609 KK 12-13  
 610 KM ROUTE 12 TO DESIGN POINT 13  
 611 RK 5400 .015 .035 0 TRAP 60 2

612 KK H5  
 613 KM RUNOFF FROM H5  
 614 BA 0.362  
 615 LS 0 89.5  
 616 UD 0.230

617 KK H5-138

618 KM ROUTE H5 TO DESIGN POINT 13B  
 619 RK 1800 .025 .035 0 TRAP 10 2

620 KK H6  
 621 KM RUNOFF FROM H6  
 622 BA 0.214  
 623 LS 0 88.0  
 624 UD 0.280

625 KK H6-13B  
 626 KM ROUTE H6 TO DESIGN POINT 13B  
 627 RK 1800 .025 .035 0 TRAP 10 2

HEC-1 INPUT

PAGE 16

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

628 KK H7  
 629 KM RUNOFF FROM H7  
 630 BA 0.140  
 631 LS 0 85.3  
 632 UD 0.230

633 KK 13B  
 634 KM COMBINE H5-13B,H6-13B,H7  
 635 HC 3

636 KK 13B13C  
 637 KM ROUTE 13B TO DESIGN POINT 13C  
 638 RK 2400 .020 .035 0 TRAP 10 2

639 KK H8  
 640 KM RUNOFF FROM H8  
 641 BA 0.125  
 642 LS 0 80.9  
 643 UD 0.230

644 KK 13C  
 645 KM COMBINE 13B13C,H8  
 646 HC 2

647 KK H2  
 648 KM RUNOFF FROM H2  
 649 BA 0.106  
 650 LS 0 88.0  
 651 UD 0.230

652 KK H2-13D  
 653 KM ROUTE H2 TO DESIGN POINT 13D  
 654 RK 1800 .013 .035 0 TRAP 10 2

655 KK H1  
 656 KM RUNOFF FROM H1  
 657 BA 0.169  
 658 LS 0 87.0  
 659 UD 0.200

1

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698	KK	H3	
699	KM	RUNOFF FROM	H3
700	BA	0.141	

701 LS 0 80.2  
 702 UD 0.290  
  
 703 KK 13H  
 704 KM COMBINE 13C,13E,13G,H3  
 705 HC 4  
  
 706 KK 13H13I  
 707 KM ROUTE 13H TO DESIGN POINT 13I  
 708 RK 1250 .018 .035 0 TRAP 20 2  
  
 709 KK H9  
 710 KM RUNOFF FROM H9  
 711 BA 0.173  
 712 LS 0 80.3  
 713 UD 0.240

# HEC-1 INPUT

PAGE 18

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

714 KK 13I  
 715 KM COMBINE 13H13I,H9  
 716 HC 2  
  
 717 KK 13I13J  
 718 KM ROUTE 13I TO DESIGN POINT 13J  
 719 RK 1800 .015 .035 0 TRAP 20 2  
  
 720 KK H10  
 721 KM RUNOFF FROM H10  
 722 BA 0.064  
 723 LS 0 84.8  
 724 UD 0.190  
  
 725 KK H19  
 726 KM RUNOFF FROM H19  
 727 BA 0.118  
 728 LS 0 79.4  
 729 UD 0.240  
  
 730 KK 13J  
 731 KM COMBINE 13I13J,H10,H19  
 732 HC 3  
  
 733 KK H11  
 734 KM RUNOFF FROM H11  
 735 BA 0.144  
 736 LS 0 92.0  
 737 UD 0.240  
  
 738 KK H12  
 739 KM RUNOFF FROM H12  
 740 BA 0.163  
 741 LS 0 85.5  
 742 UD 0.240

743 KK 13K  
 744 KM COMBINE H11,H12  
 745 HC 2

746 KK 13K13L  
 747 KM ROUTE 13K TO DESIGN POINT 13L  
 748 RK 1500 .027 .035 0 TRAP 10 2

749 KK H13  
 750 KM RUNOFF FROM H13  
 751 BA 0.128  
 752 LS 0 86.8  
 753 UD 0.250

# HEC-1 INPUT

PAGE 19

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

754 KK 13L  
 755 KM COMBINE 13K13L,H13  
 756 HC 2

757 KK 13L13M  
 758 KM ROUTE 13L TO DESIGN POINT 13M  
 759 RK 2400 .023 .035 0 TRAP 10 2

760 KK H14  
 761 KM RUNOFF FROM H14  
 762 BA 0.115  
 763 LS 0 90.7  
 764 UD 0.220

765 KK 13M  
 766 KM COMBINE 13L13M,H14  
 767 HC 2

768 KK H23  
 769 KM RUNOFF FROM H23  
 770 BA 0.105  
 771 LS 0 78.0  
 772 UD 0.180

773 KK 13N  
 774 KM COMBINE 13J,13M,H23  
 775 HC 3

776 KK 13NP  
 777 KM EXISTING CONTOURS AT 13N - ROUGHLY  
 778 SV 0 3.6 26.6 32 103.1 270.6  
 779 SE 6622 6630 6640 6641 6650 6660  
 780 SQ 0 84 135 136 1765 5124  
 781 RS 1 ELEV 6622

782 KK 13N13O  
 783 KM ROUTE 13N TO DESIGN POINT 13O

784 RK 2800 .020 .035 0 TRAP 20 2  
 785 KK H15  
 786 KM RUNOFF FROM H15  
 787 BA 0.083  
 788 LS 0 90.4  
 789 UD 0.280  
 790 KK H20  
 791 KM RUNOFF FROM H20  
 792 BA 0.071  
 793 LS 0 69.3  
 794 UD 0.180

# HEC-1 INPUT

PAGE 20

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

795 KK 130  
 796 KM COMBINE 13N130,H15,H20  
 797 HC 3

798 KK K1  
 799 KM RUNOFF FROM K1  
 800 BA 0.169  
 801 LS 0 85.8  
 802 UD 0.290

803 KK K2  
 804 KM RUNOFF FROM K2  
 805 BA 0.187  
 806 LS 0 84.9  
 807 UD 0.220

808 KK 13P  
 809 KM COMBINE K1,K2  
 810 HC 2

811 KK 13P13Q  
 812 KM ROUTE 13P TO DESIGN POINT 13Q  
 813 RK 2300 .012 .035 0 TRAP 20 2

814 KK K3  
 815 KM RUNOFF FROM K3  
 816 BA 0.098  
 817 LS 0 84.6  
 818 UD 0.210

819 KK K4  
 820 KM RUNOFF FROM K4  
 821 BA 0.147  
 822 LS 0 84.9  
 823 UD 0.270

824 KK 13Q  
 825 KM COMBINE 13P13Q,K3,K4



826 HC 3  
 827 KK 13Q13R  
 828 KM ROUTE 13Q TO DESIGN POINT 13R  
 829 RK 2000 .015 .035 0 TRAP 20 2  
 830 KK J1  
 831 KM RUNOFF FROM J1  
 832 BA 0.213  
 833 LS 0 79.3  
 834 UD 0.320

# HEC-1 INPUT

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LINE 1D.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

835 KK J1-13S  
 836 KM ROUTE J1 TO DESIGN POINT 13S  
 837 RK 3100 .030 .012 0 CIRC 3.5 0

838 KK J2  
 839 KM RUNOFF FROM J2  
 840 BA 0.085  
 841 LS 0 88.4  
 842 UD 0.310

843 KK 13S  
 844 KM COMBINE J1-13S,J2  
 845 HC 2

846 KK H22  
 847 KM RUNOFF FROM H22  
 848 BA 0.178  
 849 LS 0 88.7  
 850 UD 0.230

851 KK J3  
 852 KM RUNOFF FROM J3  
 853 BA 0.132  
 854 LS 0 88.8  
 855 UD 0.220

856 KK 13  
 857 KM COMBINE 12-13,13Q,13Q13R,13S,H22,J3  
 858 HC 6

859 KK 13-14  
 860 KM ROUTE 13 TO DESIGN POINT 14  
 861 RK 2500 .015 .035 0 TRAP 100 2

862 KK L1  
 863 KM RUNOFF FROM L1  
 864 BA 0.145  
 865 LS 0 82.2  
 866 UD 0.230

867 KK L1-14A  
 868 KM ROUTE L1 TO DESIGN POINT 14A  
 869 RK 1700 .030 .012 0 CIRC 3.5 0  
  
 870 KK L2  
 871 KM RUNOFF FROM L2  
 872 BA 0.147  
 873 LS 0 73.5  
 874 UD 0.330

# HEC-1 INPUT

PAGE 22

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

875 KK 14A  
 876 KM COMBINE L1-14A,L2  
 877 HC 2

878 KK 01  
 879 KM RUNOFF FROM 01  
 880 BA 0.113  
 881 LS 0 85.5  
 882 UD 0.250

883 KK 01-14B  
 884 KM ROUTE 01 TO DESIGN POINT 14B  
 885 RK 3700 .021 .012 0 CIRC 4.0 0

886 KK 02  
 887 KM RUNOFF FROM 02  
 888 BA 0.122  
 889 LS 0 85.7  
 890 UD 0.260

891 KK 14B  
 892 KM COMBINE 01-14B,02  
 893 HC 2

894 KK 14AB  
 895 KM COMBINE 14A,14B  
 896 HC 2

897 KK M1  
 898 KM RUNOFF FROM M1  
 899 BA 0.090  
 900 LS 0 89.1  
 901 UD 0.210

902 KK M1-14C  
 903 KM ROUTE M1 TO DESIGN POINT 14C  
 904 RK 3000 .045 .012 0 CIRC 4.0 0

905 KK M2  
 906 KM RUNOFF FROM M2  
 907 BA 0.205  
 908 LS 0 79.9

909 UD 0.240  
 910 KK 14C  
 911 KM COMBINE M1-14C,M2  
 912 HC 2  
 913 KK 14  
 914 KM COMBINE 13-14,14AB,14C  
 915 HC 3

# HEC-1 INPUT

PAGE 23

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

916 KK 14-15  
 917 KM ROUTE 14 TO DESIGN POINT 15  
 918 RK 1600 .015 .035 0 TRAP 150 2  
 919 KK M5  
 920 KM RUNOFF FROM M5  
 921 BA 0.102  
 922 LS 0 76.0  
 923 UD 0.220  
 924 KK P1  
 925 KM RUNOFF FROM P1  
 926 BA 0.122  
 927 LS 0 83.7  
 928 UD 0.260  
 929 KK 15  
 930 KM COMBINE 14-15,M5,P1  
 931 HC 3  
 932 KK 15-16  
 933 KM ROUTE 15 TO DESIGN POINT 16  
 934 RK 2300 .015 .035 0 TRAP 150 2  
 935 KK M3  
 936 KM RUNOFF FROM M3  
 937 BA 0.160  
 938 LS 0 81.3  
 939 UD 0.270  
 940 KK M3-16  
 941 KM ROUTE M3 TO DESIGN POINT 16  
 942 RK 1200 .057 .012 0 CIRC 3.0 0  
 943 KK M4  
 944 KM RUNOFF FROM M4  
 945 BA 0.229  
 946 LS 0 73.7  
 947 UD 0.250  
 948 KK M4-16B  
 949 KM ROUTE M4 TO DESIGN POINT 16B

950 RK 2400 .020 .015 0 TRAP 10 2

951 KK M6  
952 KM RUNOFF FROM M6  
953 BA 0.101  
954 LS 0 79.5  
955 UD 0.220

HEC-1 INPUT

PAGE 24

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

956 KK 168  
957 KM COMBINE M4-168,M6  
958 HC 2

959 KK P2  
960 KM RUNOFF FROM P2  
961 BA 0.084  
962 LS 0 73.5  
963 UD 0.280

964 KK P2-16C  
965 KM ROUTE P2 TO DESIGN POINT 16C  
966 RK 2300 .050 .012 0 CIRC 4.0 0

967 KK P3  
968 KM RUNOFF FROM P3  
969 BA 0.200  
970 LS 0 79.9  
971 UD 0.280

972 KK 16C  
973 KM COMBINE P2-16C,P3  
974 HC 2

975 KK 16  
976 KM COMBINE 15-16,168,16C,M3-16  
977 HC 4

978 KK 16-17  
979 KM ROUTE 16 TO DESIGN POINT 17  
980 RK 3100 .014 .035 0 TRAP 100 2

981 KK T2  
982 KM RUNOFF FROM T2  
983 BA 0.159  
984 LS 0 72.3  
985 UD 0.200

986 KK T2-17A  
987 KM ROUTE T2 TO DESIGN POINT 17A  
988 RK 1000 .048 .035 0 TRAP 5 2

989 KK T3  
990 KM RUNOFF FROM T3

991 BA 0.117  
 992 LS 0 76.7  
 993 UD 0.220

994 KK 17A  
 995 KM COMBINE T2-17A,T3  
 996 HC 2

HEC-1 INPUT

PAGE 25

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

997 KK 17A-17  
 998 KM ROUTE 17A TO DESIGN POINT 17  
 999 RK 1000 .030 .012 0 CIRC 5.0 0

1000 KK T1A  
 1001 KM RUNOFF FROM T1A  
 1002 BA 0.089  
 1003 LS 0 82.3  
 1004 UD 0.200

1005 KK S1  
 1006 KM RUNOFF FROM S1  
 1007 BA 0.131  
 1008 LS 0 78.5  
 1009 UD 0.200

1010 KK S2  
 1011 KM RUNOFF FROM S2  
 1012 BA 0.134  
 1013 LS 0 82.4  
 1014 UD 0.250

1015 KK 17  
 1016 KM COMBINE 16-17,17A-17,T1A,S1,S2  
 1017 HC 5

1018 KK 17-18  
 1019 KM ROUTE 17 TO DESIGN POINT 18  
 1020 RK 2400 .018 .035 0 TRAP 70 2

1021 KK T4A  
 1022 KM RUNOFF FROM T4A  
 1023 BA 0.095  
 1024 LS 0 81.0  
 1025 UD 0.230

1026 KK T4A18A  
 1027 KM ROUTE T4A TO DESIGN POINT 18A  
 1028 RK 1200 .033 .012 0 CIRC 3.5 0

1029 KK T1B  
 1030 KM RUNOFF FROM T1B  
 1031 BA 0.127  
 1032 LS 0 76.1

1033 UD 0.230  
 1034 KK 18A  
 1035 KM COMBINE T4A18A,T1B  
 1036 HC 2

# NEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1037 KK S3  
 1038 KM RUNOFF FROM S3  
 1039 BA 0.183  
 1040 LS 0 79.1  
 1041 UD 0.250

1042 KK 18  
 1043 KM COMBINE 17-18,18A,S3  
 1044 HC 3

1045 KK 18-19  
 1046 KM ROUTE 18 TO DESIGN POINT 19  
 1047 RK 3700 .020 .035 0 TRAP 40 2

1048 KK Q1  
 1049 KM RUNOFF FROM Q1  
 1050 BA 0.102  
 1051 LS 0 79.8  
 1052 UD 0.210

1053 KK Q1-19A  
 1054 KM ROUTE Q1 TO DESIGN POINT 19A  
 1055 RK 2200 .048 .012 0 CIRC 3.5 0

1056 KK Q2  
 1057 KM RUNOFF FROM Q2  
 1058 BA 0.201  
 1059 LS 0 76.2  
 1060 UD 0.280

1061 KK 19A  
 1062 KM COMBINE Q1-19A,Q2  
 1063 HC 2

1064 KK Q3  
 1065 KM RUNOFF FROM Q3  
 1066 BA 0.078  
 1067 LS 0 79.0  
 1068 UD 0.290

1069 KK 19B  
 1070 KM COMBINE 19A,Q3  
 1071 HC 2

1072 KK 19B19C  
 1073 KM ROUTE 19B TO DESIGN POINT 19C

1074 RK 2800 .029 .015 0 TRAP 10 2  
 1075 KK Q4  
 1076 KM RUNOFF FROM Q4  
 1077 BA 0.128  
 1078 LS 0 86.2  
 1079 UD 0.250

HEC-1 INPUT

PAGE 27

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1080 KK 19C  
 1081 KM COMBINE 19B19C,Q4  
 1082 HC 2

1083 KK Q5  
 1084 KM RUNOFF FROM Q5  
 1085 BA 0.153  
 1086 LS 0 73.5  
 1087 UD 0.250

1088 KK 19D  
 1089 KM COMBINE 19C,Q5  
 1090 HC 2

1091 KK 19D19E  
 1092 KM ROUTE 19D TO DESIGN POINT 19E  
 1093 RK 3400 .017 .015 0 TRAP 10 2

1094 KK Q6  
 1095 KM RUNOFF FROM Q6  
 1096 BA 0.210  
 1097 LS 0 87.7  
 1098 UD 0.240

1099 KK 19E  
 1100 KM COMBINE 19D19E,Q6  
 1101 HC 2

1102 KK 19E19F  
 1103 KM ROUTE 19E TO DESIGN POINT 19F  
 1104 RK 2400 .020 .015 0 TRAP 15 2

1105 KK Q7  
 1106 KM RUNOFF FROM Q7  
 1107 BA 0.182  
 1108 LS 0 82.2  
 1109 UD 0.230

1110 KK 19F  
 1111 KM COMBINE 19E19F,Q7  
 1112 HC 2

1113 KK T4B  
 1114 KM RUNOFF FROM T4B

1115 BA 0.075  
 1116 LS 0 85.9  
 1117 UD 0.230

1118 KK T4B19G  
 1119 KM ROUTE T4B TO DESIGN POINT 19G  
 1120 RK 2400 .015 .012 0 CIRC 4.0 0  
 HEC-1 INPUT

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LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

1121 KK W1  
 1122 KM RUNOFF FROM W1  
 1123 BA 0.209  
 1124 LS 0 82.2  
 1125 UD 0.190

1126 KK 19G  
 1127 KM COMBINE T4B19G,W1  
 1128 HC 2

1129 KK Q8  
 1130 KM RUNOFF FROM Q8  
 1131 BA 0.084  
 1132 LS 0 80.4  
 1133 UD 0.220

1134 KK 19  
 1135 KM COMBINE 18-19,19F,19G,Q8  
 1136 HC 4

1137 KK 19-20  
 1138 KM ROUTE 19 TO DESIGN POINT 20  
 1139 RK 2400 .017 .035 0 TRAP 30 2

1140 KK W2  
 1141 KM RUNOFF FROM W2  
 1142 BA 0.125  
 1143 LS 0 88.3  
 1144 UD 0.240

1145 KK 20  
 1146 KM COMBINE 19-20,W2  
 1147 HC 2

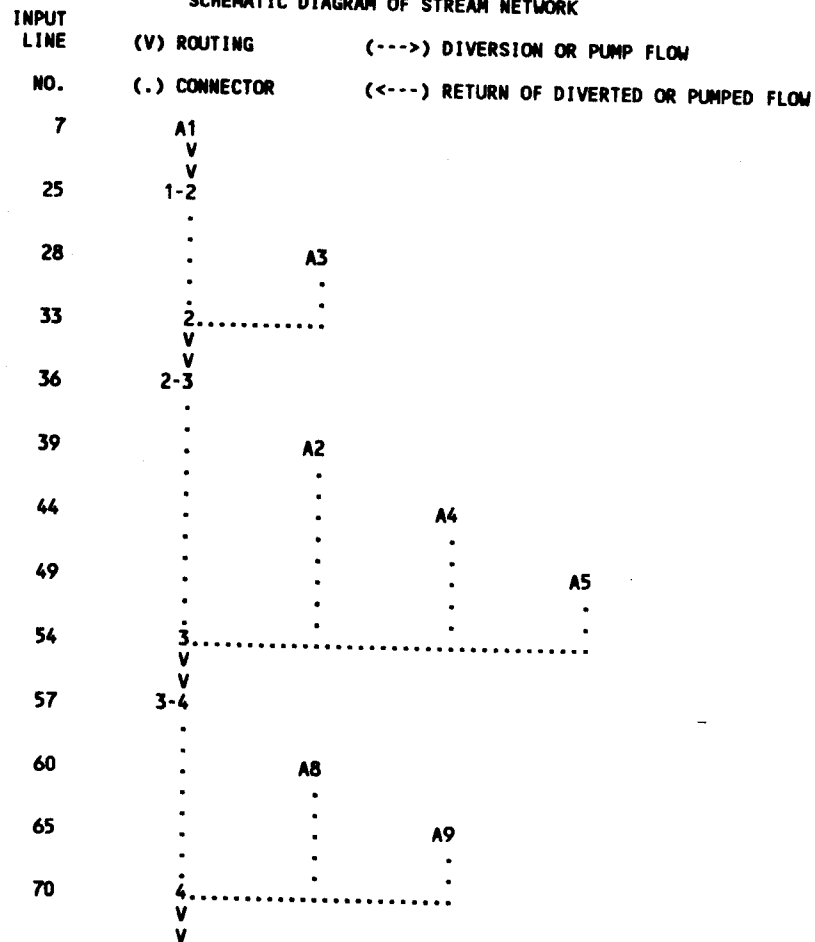
1148 KK 20-21  
 1149 KM ROUTE 20 TO DESIGN POINT 21  
 1150 RK 1800 .016 .035 0 TRAP 50 2

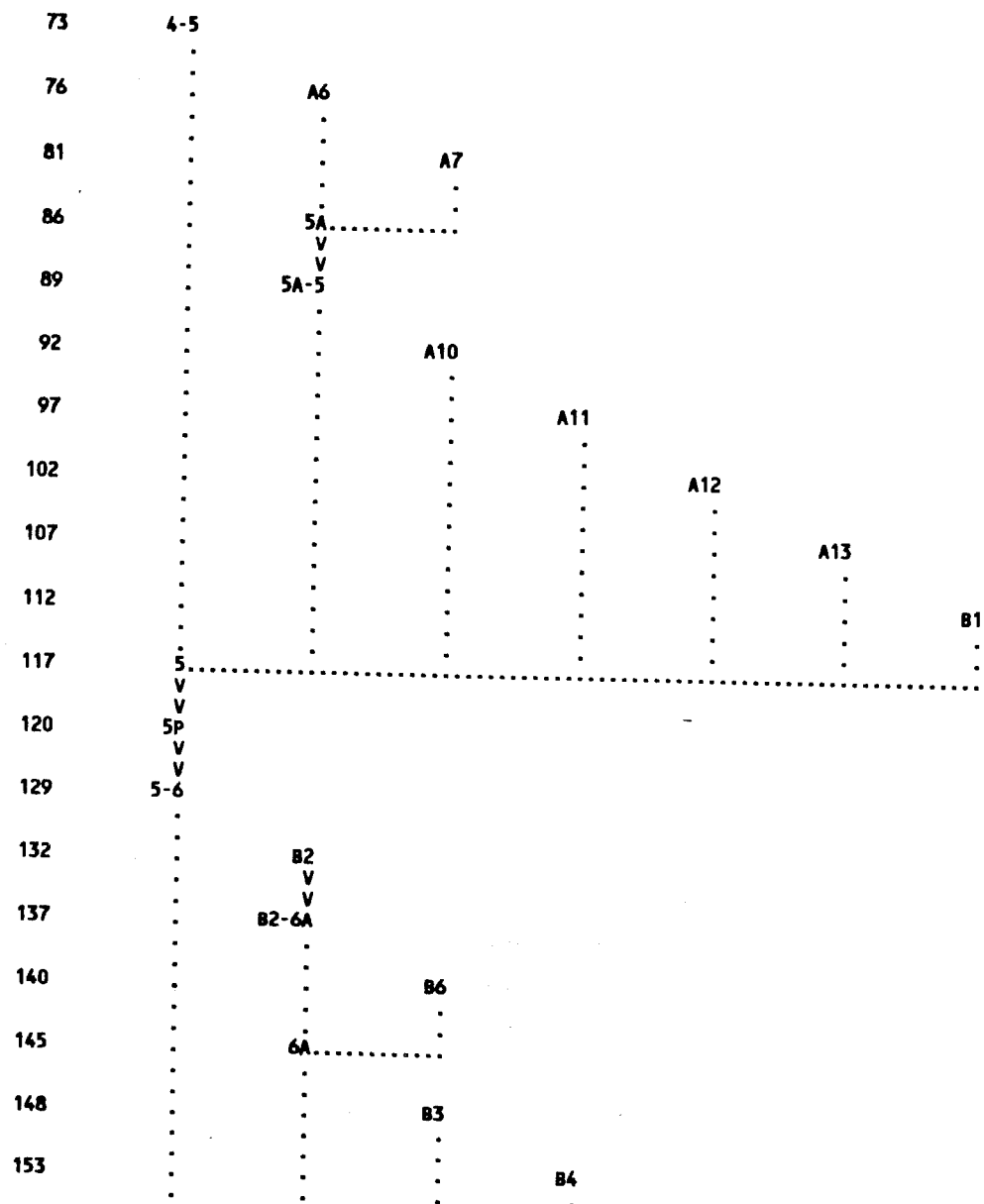
1151 KK W3  
 1152 KM RUNOFF FROM W3  
 1153 BA 0.105  
 1154 LS 0 92.7  
 1155 UD 0.200



1156	KK	21
1157	KM	COMBINE 20-21,V2,W3
1158	HC	2
1159	KK	V2
1160	KM	RUNOFF FROM V2
1161	BA	0.142
1162	LS	0 92.8
1163	UD	0.250
1164	ZZ	

# SCHEMATIC DIAGRAM OF STREAM NETWORK





158	.	.	.	.
	6	.	.	.
	V	.	.	.
161	6-7	.	.	.
	.	.	.	.
164	.	B8	.	.
	.	.	.	.
169	7	.	.	.
	V	.	.	.
172	7-8	.	.	.
	.	.	.	.
175	.	C2	.	.
	.	V	.	.
180	.	V	.	.
	.	C2-8A	.	.
	.	.	.	.
183	.	.	C3	.
	.	.	.	.
188	.	8A	.	.
	.	.	.	.
191	.	V	.	.
	.	V	.	.
	.	8A-88	.	.
	.	.	.	.
194	.	.	C4	.
	.	.	V	.
199	.	.	V	.
	.	.	C4-88	.
	.	.	.	.
202	.	.	.	C7
	.	.	.	.
207	.	88	.	.
	.	.	.	.
210	.	.	C1	.
	.	.	.	.
215	.	.	.	C13
	.	.	.	.
220	.	.	8C	.
	.	.	.	.
223	.	.	V	.
	.	.	V	.
	.	.	8C-8D	.
	.	.	.	.
226	.	.	.	C6

231

234

237

240

245

248

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256

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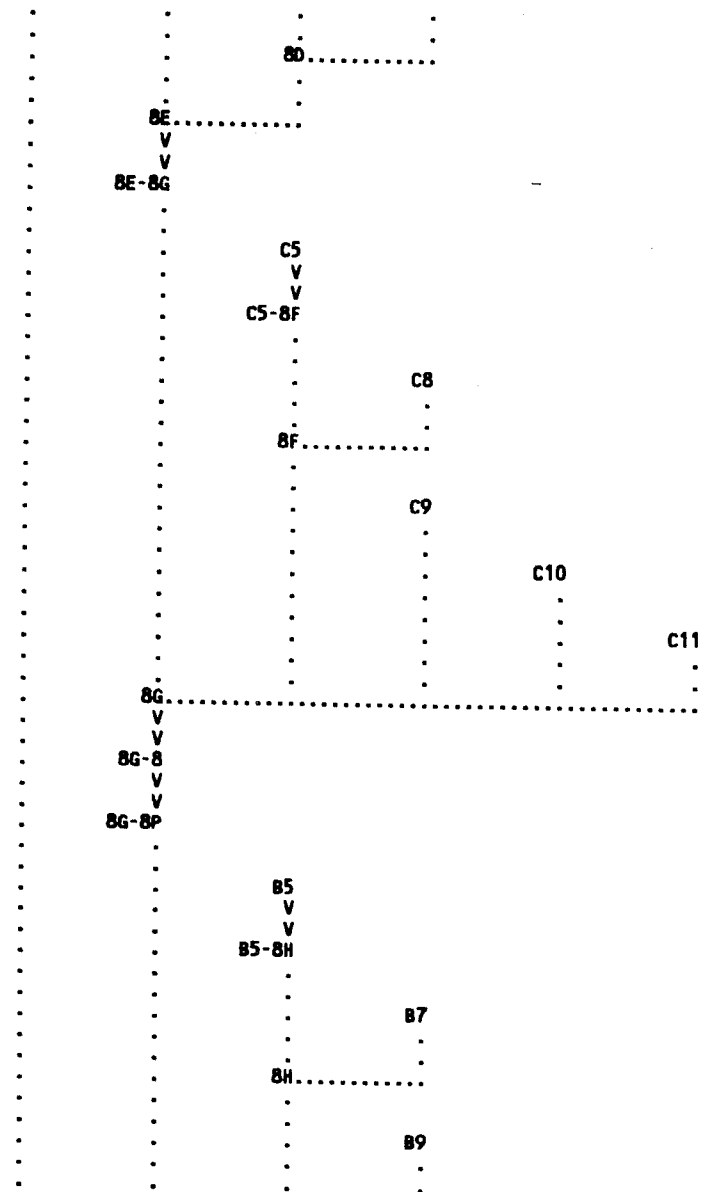
286

291

294

299

302



307 8.  
V  
310 8-9  
V  
313 C14  
V  
318 C14-9A  
V  
321 C15  
V  
326 9A  
V  
329 9A-9B  
V  
332 C17  
V  
337 C18  
V  
342 9B  
V  
345 9BP  
V  
351 C12  
V  
356 D1  
V  
361 D2  
V  
366 9.  
V  
369 9-10  
V  
372 C19  
V  
377 D4  
V  
382 10.  
V

385	V		
	10-11		
388	.	E1	
	.	V	
	.	V	
393	.	E1-11A	
	.	.	
396	.	.	E3
	.	.	.
401	.	11A.....	
	.	V	
	.	V	
404	.	11A11B	
	.	.	
407	.	.	E5
	.	.	.
412	.	11B.....	
	.	.	
415	.	.	E2
	.	.	V
	.	.	V
420	.	E2-11C	
	.	.	
423	.	.	E4
	.	.	.
428	.	11C.....	
	.	.	
431	.	11D.....	
	.	V	
	.	V	
434	.	11D11F	
	.	.	
437	.	E6	
	.	V	
	.	V	
442	.	E6-11E	
	.	.	
445	.	.	E8
	.	.	.
450	.	11E.....	
	.	.	
453	.	.	E7

458	.	.	.	.
	.	11F.....	.	.
461	.	.	E9	.
466	.	.	.	E10
	.	.	.	.
471	.	11F11P.....	.	.
	.	V	.	.
474	.	V	.	.
	.	11P	.	.
	.	V	.	.
480	.	V	.	.
	.	11P-11	.	.
483	.	.	E11	.
	.	.	.	.
488	.	11P11.....	.	.
	.	.	.	.
491	.	.	C16	.
	.	.	V	.
496	.	.	V	.
	.	C1611G	.	.
499	.	.	.	C20
	.	.	.	.
504	.	.	11G.....	.
	.	.	.	.
507	.	11.....	.	.
	.	V	.	.
510	11-12	.	.	.
	.	.	.	.
513	.	G1	.	.
	.	V	.	.
518	.	V	.	.
	.	G1-12A	.	.
521	.	.	G3	.
	.	.	.	.
526	.	12A.....	.	.
	.	.	.	.

529 . . . G2  
534 . . . G2-12B  
537 . . . G4  
542 . . . 12B  
545 . . . 12B12C  
548 . . . G5  
553 . . . G6  
558 . . . 12C  
561 . . . 12CP  
567 . . . 12CP12  
570 . . . D3  
575 . . . D3-12D  
578 . . . D5  
583 . . . 12D  
586 . . . F1  
591 . . . G7  
596 . . . G8  
601 . . . H21  
606 12 . . .  
V



609	V			
	12-13			
612	.	H5		
	.	V		
617	.	V		
	.	H5-13B		
620	.	.	H6	
	.	.	V	
625	.	.	V	
	.	.	H6-13B	
628	.	.	.	H7
	.	.	.	.
633	.	13B	.	.
	.	V	.	.
636	.	V	.	.
	.	13B13C	.	.
639	.	.	H8	
	.	.	.	
644	.	13C	.	
	.	.	.	
647	.	.	H2	
	.	.	V	
652	.	.	V	
	.	.	H2-13D	
655	.	.	.	H1
	.	.	.	.
660	.	.	13D	.
	.	.	V	.
663	.	.	V	.
	.	.	13D13E	.
666	.	.	.	H4
	.	.	.	.
671	.	.	13E	.
	.	.	.	.
674	.	.	.	H16
	.	.	.	.
679	.	.	.	.
	.	.	.	H17

684

687

690

695

698

703

706

709

714

717

720

725

730

733

738

743

746

749

13F

V

13F13G

H18

13G

H3

13H

V

13H13I

H9

13I

V

13I13J

H10

H19

13J

H11

H12

13K

V

13K13L

H13

754	.	.	13L.....
	.	.	V
757	.	.	V
	.	.	13L13M
760	.	.	.
	.	.	H14
765	.	.	.
	.	.	13M.....
768	.	.	.
	.	.	H23
773	.	.	.
	.	.	13N.....
	.	.	V
776	.	.	V
	.	.	13NP
	.	.	V
782	.	.	V
	.	.	13N13O
785	.	.	.
	.	.	H15
790	.	.	.
	.	.	H20
795	.	.	.
	.	.	13O.....
798	.	.	.
	.	.	K1
803	.	.	.
	.	.	K2
808	.	.	.
	.	.	13P.....
	.	.	V
811	.	.	V
	.	.	13P13Q
814	.	.	.
	.	.	K3
819	.	.	.
	.	.	K4
824	.	.	.
	.	.	13Q.....
	.	.	V
827	.	.	V
	.	.	13Q13R

830	.	.	.	
	.	.	.	J1
835	.	.	.	V
	.	.	.	V
	.	.	.	J1-13S
838	.	.	.	.
	.	.	.	J2
843	.	.	.	.
	.	.	.	13S.....
846	.	.	.	.
	.	.	.	H22
851	.	.	.	.
	.	.	.	J3
856	.	.	.	.
	13	.	.	.
	V	.	.	.
859	13-14	.	.	.
	.	.	.	.
862	.	.	.	L1
	.	.	.	V
867	.	.	.	V
	.	.	.	L1-14A
870	.	.	.	.
	.	.	.	L2
875	.	.	.	.
	.	.	.	14A.....
878	.	.	.	.
	.	.	.	O1
883	.	.	.	V
	.	.	.	V
	.	.	.	O1-14B
886	.	.	.	.
	.	.	.	O2
891	.	.	.	.
	.	.	.	14B.....
894	.	.	.	.
	.	.	.	14AB.....
897	.	.	.	.
	.	.	.	M1
	.	.	.	V
902	.	.	.	V
	.	.	.	M1-14C