



**Table 1**  
**Construction Cost Estimates Summary**

Major Basin		Basin 7		
Alternative	Conveyance	Detention	Local	
Item	Total Cost (\$)	Total Cost (\$)	Total Cost (\$)	
Channels	772,006	0	0	
Culverts	4,627,700	1,145,500	117,000	
Drop Structures	92,700	0	-	
Detention Facilities	-	2,499,348	0	
Bridges	-	0	0	
Leeves	-			
<b>Sub-Total (Rounded)</b>	<b>\$5,492,000</b>	<b>\$3,645,000</b>	<b>\$117,000</b>	
<b>30% Construction Contingency</b>	<b>\$1,647,600</b>	<b>\$1,093,500</b>	<b>\$35,100</b>	
<b>15% Engineering Contingency</b>	<b>\$823,800</b>	<b>\$546,750</b>	<b>\$17,550</b>	
<b>Total (Rounded)</b>	<b>\$7,963,000</b>	<b>\$5,285,000</b>	<b>\$170,000</b>	



**Table 7-1-CH**  
**Channel Cost Estimates**  
**Major Basin 7 Alternative - Conveyance**

Channel and Reach	Existing 100-yr Flow (cfs)	Proposed 100-yr Flow (cfs)	Design Flow (cfs)	Channel Length	Channel Type	Material	Excavation (CY)	Unit Cost (\$)	Total Cost (\$)
DCTS Channel Reach Southern Dr. to W. Shoshone Ave.	1,703	1,845	2,000	950	Flat Channel Design	Grass	16,256	170	161,883
DCTS Channel Reach W. Shoshone Ave. to College Park Cir.	1,764	1,956	2,000	3,300	Steep Channel Design	Grass	46,842	145	477,111
DCTS Channel Reach W. Sinclair St. to College Park Cir.	1,766	1,953	2,000	920	Steep Channel Design	Grass	13,059	145	133,013

**Sub-Total**      **\$772,006**

**Table 7-2-CH**  
**Channel Cost Estimates**  
**Major Basin 7 Alternative - Detention I (Community Park Pond)**

Channel and Reach	Existing 100-yr Flow (cfs)	Proposed 100-yr Flow (cfs)	Design Flow (cfs)	Channel Length	Channel Type	Material	Excavation (CY)	Unit Cost (\$)	Total Cost (\$)

**Sub-Total**      **\$0**



**Table 7-1-CU  
Culvert Cost Estimate  
Major Basin 7 Alternative - Conveyance**

Design Point	Road Crossing	Channel and Reach	Existing Size	Future 100-yr Flow (cfs)	Necessary Facility for Future 100-year Flow	Number of Culverts	Culvert Length (ft) <sup>1</sup>	Unit Cost (\$)	End Section Unit Cost (\$)	Total Cost (\$)
7-214	Sinclair St.	Sunburst Drainage Way	CBC 12'x 5'	739	CBC 2-10'x 5'	2	1915	850	40,000	3,295,500
7-222	Arapahoe Ave.	Sunburst Drainage Way	CBC 10'x 2.5'	355	CBC 2-10'x 2.5'	2	60	850	40,000	142,000
7-209	Southern Dr.	Donkey Creek S. Trib.	4'X6.3' Ellipse RCP, 2-54" RCP, 96" RCP & 114" RCP	1889	CBC 3-10'x 8'	3	50	850	40,000	167,500
7-206	Shoshone Ave.	Donkey Creek S. Trib.	CBC 2-14' x 5'	1879	CBC 3-14'x 7'	3	141	1,400	40,000	632,200
7-203	College Park	Donkey Creek S. Trib.	CBC 14' x 9'	1956	CBC 2- 14' x 9'	2	75	1,550	40,000	272,500
7-261	Chrisinick	Saunders Drainage Way	RCP 42"	277	CBC 12' x 4'	1	60	1,300	40,000	118,000

<sup>1</sup> Length is based on Future Land Use Road widths

**Sub-Total \$4,627,700**

**Table 7-2-CU  
Culvert Cost Estimate  
Major Basin 7 Alternative - Detention**

Facility Number	Road Crossing	Channel and Reach	Existing Size	Future 100-yr Flow (cfs)	Necessary Facility for Future 100-year Flow	Number of Culverts	Culvert Length (ft) <sup>1</sup>	Unit Cost (\$)	End Section Unit Cost (\$)	Total Cost (\$)
7-206	Shoshone Ave.	Donkey Creek S. Trib.	CBC 2-14' x 5'	1,094	CBC 2- 14' x 6'	2	140	1,400	40,000	432,000
7-209	Southern Dr.	Donkey Creek S. Trib.	4'X6.3' Ellipse RCP, 2-54" RCP, 96" RCP & 114" RCP	1,801	CBC 3- 10' x 7'	3	140	850	40,000	397,000
7-261	Chrisinick	Saunders Drainage Way	RCP 42"	61	CBC 5' x 4'	1	395	700	40,000	316,500

<sup>1</sup> Length is based on Future Land Use Road widths

**Sub-Total \$1,145,500**

**Table 7-2-CU  
Culvert Cost Estimate  
Major Basin 7 Alternative - Local**

Facility Number	Road Crossing	Channel and Reach	Existing Size	Future 100-yr Flow (cfs)	Necessary Facility for Future 100-year Flow	Number of Culverts	Culvert Length (ft) <sup>1</sup>	Unit Cost (\$)	End Section Unit Cost (\$)	Total Cost (\$)
7-240	Enzi dr	Remington Trib	RCP 2-48"	124	Add 48"	1	118	142	10,000	26,756
7-252	Shoshone Ave	Enzi Trib	CMP 18"	61	Replace with 7'x2.5'	1	110	700	40,000	117,000

<sup>1</sup> Length is based on Future Land Use Road widths

**Sub-Total \$117,000**



Table 7-2-D  
Detention Facility Construction Cost Estimates  
Major Basin 7 Alternative Detention I

Detention Name	Storage Volume (ac-ft)	Excavation (CY)	Excavation Cost (\$)	Embankment (CY)	Embankment Cost (\$)	Reveg. Area (SF)	Topsoil (CY)	Topsoil Cost at 4" Thick (\$)	Seeding Cost (\$)	Low Level Outlet Intake Structure/EA (\$)	Low Level Outlet Conveyance Structure Type	Length of Low Level Outlet Conveyance Structure (ft)	Cost Low Level Outlet Conveyance Structure (\$)	Low Level Outlet Conveyance End Treatment Type	Low Level Outlet Conveyance End Treatment Cost (\$)	Spillway Flow Rate (cfs)	Spillway Cost (\$)	Total Cost (\$)
Unit costs		<10,000CY : >10,000CY :	8.00 5.00		22.00			20.00	2400	3500								
Sub-Total																		\$0

Table 7-3-D  
Detention Facility Construction Cost Estimates  
Major Basin 7 Alternative Detention II

Detention Name	Storage Volume (ac-ft)	Excavation (CY)	Excavation Cost (\$)	Embankment (CY)	Embankment Cost (\$)	Reveg. Area (SF)	Topsoil (CY)	Topsoil Cost at 4" Thick (\$)	Seeding Cost (\$)	Low Level Outlet Intake Structure/EA (\$)	Low Level Outlet Conveyance Structure Type	Length of Low Level Outlet Conveyance Structure (ft)	Cost Low Level Outlet Conveyance Structure (\$)	Low Level Outlet Conveyance End Treatment Type	Low Level Outlet Conveyance End Treatment Cost (\$)	Spillway Flow Rate (cfs)	Spillway Cost (\$)	Total Cost (\$)
Unit costs		<10,000CY : >10,000CY :	8.00 5.00		22.00			20.00	2400	3500								
City Land Detention	179	124,011	620,055	37,837	832,422	975,135	12,027	240,533	53,726	3,500	20'X4' CBC	60	102,000	HW & WW	20,000	2016	0	1,872,237
Saunders Detention	15	34,605	173,025	268.00	5,896	234,968	2,898	57,959	12,946	3,500	4'X2' CBC	30	10,500	HW & WW	20,000	277	0	283,826
Sunburst Detention	9	33,916	169,580	200.00	4,400	84,458	1,042	20,833	4,653	3,500	5.5'X2.5' CBC	42	14,700	HW & WW	20,000	355	0	237,666
Hitt Estates Detention	8	500	4,000	500.00	11,000	166,750	2,057	41,132	9,187	3,500	1.5'X1.5' CBC	48	16,800	HW & WW	20,000	183	0	105,619
Sub-Total																		\$2,499,348

Table 7-4-D  
Detention Facility Construction Cost Estimates  
Major Basin 7 Alternative Detention III

Detention Name	Storage Volume (ac-ft)	Excavation (CY)	Excavation Cost (\$)	Embankment (CY)	Embankment Cost (\$)	Reveg. Area (SF)	Topsoil (CY)	Topsoil Cost at 4" Thick (\$)	Seeding Cost (\$)	Low Level Outlet Intake Structure/EA (\$)	Low Level Outlet Conveyance Structure Type	Length of Low Level Outlet Conveyance Structure (ft)	Cost Low Level Outlet Conveyance Structure (\$)	Low Level Outlet Conveyance End Treatment Type	Low Level Outlet Conveyance End Treatment Cost (\$)	Spillway Flow Rate (cfs)	Spillway Cost (\$)	Total Cost (\$)
Unit costs		<10,000CY : >10,000CY :	8.00 5.00		22.00			20.00	2400	3500								
City Land Detention																		
Community Park Detention																		
Saunders Detention																		
Sunburst Detention																		
Hitt Estates Detention																		
Sub-Total																		\$0

**Table X**  
**Drop Structure Cost Estimate**  
**Major Basin 7 Alternative - Conveyance**

Channel	Existing 100-yr Flow (cfs)	Proposed 100-yr Flow (cfs)	Design Flow (cfs)	Channel Length (ft)	Existing Slope	Proposed Slope	Elevation Change (ft)	No. of Drops	Unit Cost (\$)	Total Cost (\$)
DCTS Channel Reach W. Sinclair St. to College Park Cir.	1,766	1,953	2,000	920	0.40%	0.20%	1.84	1	30,900	30,900
DCTS Channel Reach W. Shoshone Ave. to College Park Cir.	1,766	1,956	2,000	3,300	0.40%	0.20%	6.6	2	30,900	61,800

**Sub-Total    \$92,700**