

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11

Watershed Area (A): 908 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.047
5600	3800	1800	4000	0.450	0.047
3800	3400	400	2200	0.182	0.047
3400	3200	200	1900	0.105	0.047
3200	2740	460	12500	0.037	0.047
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 21700 ft
 Length to Center of Gravity (Lca): 10850 ft

Mean Slope (Sc): 0.0670 ft/ft
 Weighted Basin Factor (nb): 0.047

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%

Impervious Surfaces: Percent 9% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	38	83	87.63	0.60
C	13	82	86.87	0.58
D	49	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.695

100-year Peak Discharge (Q100): 2802 cfs

Time of Concentration (Tc): 35 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 4.40 in/hr

Runoff Supply Rate (q) at Tc: 3.06 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.1

Watershed Area (A): 927 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.047
5600	3800	1800	4000	0.450	0.047
3800	3400	400	2200	0.182	0.047
3400	3200	200	1900	0.105	0.047
3200	2740	460	12500	0.037	0.047
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 21700 ft
 Length to Center of Gravity (Lca): 10850 ft

Mean Slope (Sc): 0.0670 ft/ft
 Weighted Basin Factor (nb): 0.047

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 9% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	38	83	87.63	0.60
C	13	82	86.87	0.58
D	49	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.695

100-year Peak Discharge (Q100): 2861 cfs

Time of Concentration (Tc): 35 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 4.40 in/hr

Runoff Supply Rate (q) at Tc: 3.06 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.3

Watershed Area (A): 1034 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 24600 ft
 Length to Center of Gravity (Lca): 12300 ft

Mean Slope (Sc): 0.0590 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	44	83	87.63	0.60
C	12	82	86.87	0.58
D	44	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.697

100-year Peak Discharge (Q100): 2916 cfs

Time of Concentration (Tc): 40 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 4.01 in/hr

Runoff Supply Rate (q) at Tc: 2.80 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.3a

Watershed Area (A): 1045 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
2660	2640	20	770	0.026	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 25370 ft
 Length to Center of Gravity (Lca): 12685 ft

Mean Slope (Sc): 0.0572 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	45	83	87.63	0.60
C	12	82	86.87	0.58
D	43	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.696

100-year Peak Discharge (Q100): 2855 cfs

Time of Concentration (Tc): 42 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 3.89 in/hr

Runoff Supply Rate (q) at Tc: 2.71 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.3b

Watershed Area (A): 1055 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
2660	2640	20	770	0.026	0.046
2640	2620	20	770	0.026	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 26140 ft
 Length to Center of Gravity (Lca): 13070 ft

Mean Slope (Sc): 0.0556 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	46	83	87.63	0.60
C	11	82	86.87	0.58
D	43	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.696

100-year Peak Discharge (Q100): 2804 cfs

Time of Concentration (Tc): 43 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 3.79 in/hr

Runoff Supply Rate (q) at Tc: 2.64 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.4

Watershed Area (A): 1073 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
2660	2640	20	770	0.026	0.046
2640	2620	20	770	0.026	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 26140 ft
 Length to Center of Gravity (Lca): 13070 ft

Mean Slope (Sc): 0.0556 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	47	83	87.63	0.60
C	11	82	86.87	0.58
D	42	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.695

100-year Peak Discharge (Q100): 2844 cfs

Time of Concentration (Tc): 43 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 3.78 in/hr

Runoff Supply Rate (q) at Tc: 2.63 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.4a

Watershed Area (A): 1189 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
2660	2640	20	770	0.026	0.046
2640	2620	20	770	0.026	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 26140 ft
 Length to Center of Gravity (Lca): 13070 ft

Mean Slope (Sc): 0.0556 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	52	83	87.63	0.60
C	10	82	86.87	0.58
D	38	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.690

100-year Peak Discharge (Q100): 3119 cfs

Time of Concentration (Tc): 44 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 3.77 in/hr

Runoff Supply Rate (q) at Tc: 2.60 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 13

Watershed Area (A): 1239 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.045
5600	3800	1800	4000	0.450	0.045
3800	3400	400	2200	0.182	0.045
3400	3200	200	1900	0.105	0.045
3200	2740	460	12500	0.037	0.045
2740	2580	160	5600	0.029	0.045
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 27300 ft
 Length to Center of Gravity (Lca): 13650 ft

Mean Slope (Sc): 0.0545 ft/ft
 Weighted Basin Factor (nb): 0.045

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%

Impervious Surfaces: Percent 12.8% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	53	83	87.63	0.60
C	10	82	86.87	0.58
D	37	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.691

100-year Peak Discharge (Q100): 3219 cfs

Time of Concentration (Tc): 44 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 3.73 in/hr

Runoff Supply Rate (q) at Tc: 2.58 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 18

Watershed Area (A): 610 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.055
5600	3800	1800	4000	0.450	0.055
3800	3400	400	2200	0.182	0.055
3400	3200	200	1900	0.105	0.055
3200	2980	220	4100	0.054	0.055
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 13300 ft
 Length to Center of Gravity (Lca): 7000 ft

Mean Slope (Sc): 0.1339 ft/ft
 Weighted Basin Factor (nb): 0.055

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.70	0%	3.70
2-hour	n/a	3.50	0%	3.50
1-hour	n/a	3.11	0%	3.11

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 4.5% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	8	83	87.81	0.61
C	19	82	87.06	0.59
D	73	90	93.10	0.76

Weighted Runoff Coefficient (Cw): 0.728

100-year Peak Discharge (Q100): 2823 cfs

Time of Concentration (Tc): 19 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 6.30 in/hr

Runoff Supply Rate (q) at Tc: 4.59 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.3 (2-year)

Watershed Area (A): 1034 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 24600 ft
 Length to Center of Gravity (Lca): 12300 ft

Mean Slope (Sc): 0.0590 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	1.53	0%	1.53
2-hour	n/a	1.46	0%	1.46
1-hour	n/a	1.28	0%	1.28

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.91 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	44	83	80.93	0.16
C	12	82	79.95	0.14
D	44	90	87.82	0.33

Weighted Runoff Coefficient (Cw): 0.314

2-year Peak Discharge (Q2): 268 cfs

Time of Concentration (Tc): 104 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 0.82 in/hr

Runoff Supply Rate (q) at Tc: 0.26 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.3 (5-year)

Watershed Area (A): 1034 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 24600 ft
 Length to Center of Gravity (Lca): 12300 ft

Mean Slope (Sc): 0.0590 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values	Computed Values	Areal Reduction	Reduced Values
	(in)	(in)	%	(in)
3-hour	n/a	1.97	0%	1.97
2-hour	n/a	1.89	0%	1.89
1-hour	n/a	1.68	0%	1.68

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.93 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	44	83	83.71	0.31
C	12	82	82.82	0.29
D	44	90	89.95	0.49

Weighted Runoff Coefficient (Cw): 0.451

5-year Peak Discharge (Q5): 680 cfs

Time of Concentration (Tc): 71 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 1.45 in/hr

Runoff Supply Rate (q) at Tc: 0.65 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.3 (10-year)

Watershed Area (A): 1034 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 24600 ft
 Length to Center of Gravity (Lca): 12300 ft

Mean Slope (Sc): 0.0590 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	2.31	0%	2.31
2-hour	n/a	2.22	0%	2.22
1-hour	n/a	1.97	0%	1.97

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.94 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	44	83	85.02	0.39
C	12	82	84.18	0.37
D	44	90	90.96	0.58

Weighted Runoff Coefficient (Cw): 0.527

10-year Peak Discharge (Q10): 1092 cfs

Time of Concentration (Tc): 59 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 1.99 in/hr

Runoff Supply Rate (q) at Tc: 1.05 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 11.3 (25-year)

Watershed Area (A): 1034 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.046
5600	3800	1800	4000	0.450	0.046
3800	3400	400	2200	0.182	0.046
3400	3200	200	1900	0.105	0.046
3200	2740	460	12500	0.037	0.046
2740	2660	80	2900	0.028	0.046
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 24600 ft
 Length to Center of Gravity (Lca): 12300 ft

Mean Slope (Sc): 0.0590 ft/ft
 Weighted Basin Factor (nb): 0.046

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	2.78	0%	2.78
2-hour	n/a	2.67	0%	2.67
1-hour	n/a	2.37	0%	2.37

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%/20%

Impervious Surfaces: Percent 12% Runoff Coefficient: 0.95 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	44	83	86.31	0.49
C	12	82	85.50	0.47
D	44	90	91.94	0.66

Weighted Runoff Coefficient (Cw): 0.609

25-year Peak Discharge (Q25): 1740 cfs

Time of Concentration (Tc): 49 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 2.74 in/hr

Runoff Supply Rate (q) at Tc: 1.67 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 13.1

Watershed Area (A): 1608 acres Watershed Type: Mtn (dev)/Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
6080	5600	480	1100	0.436	0.045
5600	3800	1800	4000	0.450	0.045
3800	3400	400	2200	0.182	0.045
3400	3200	200	1900	0.105	0.045
3200	2740	460	12500	0.037	0.045
2740	2580	160	5600	0.029	0.045
2580	2540	40	2150	0.019	0.045
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 29450 ft
 Length to Center of Gravity (Lca): 14725 ft

Mean Slope (Sc): 0.0493 ft/ft
 Weighted Basin Factor (nb): 0.045

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 30%

Impervious Surfaces: Percent 12.9% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	64	83	87.63	0.60
C	8	82	86.87	0.58
D	29	90	92.96	0.75

Weighted Runoff Coefficient (Cw): 0.686

100-year Peak Discharge (Q100): 3797 cfs

Time of Concentration (Tc): 50 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 3.41 in/hr

Runoff Supply Rate (q) at Tc: 2.34 in/hr

HYDROLOGIC DATA SHEET

Watercourse or Project Name: Flecha Caida Flood Improvement Study

Drainage Concentration Point: 14 (NOAA14)

Watershed Area (A): 239 acres Watershed Type: Foothills(dev)

Incremental Changes along Primary Watercourse by Reach					
Reach Elevations		Height	Length	Slope	Basin
u/s	d/s	Hi	Li	Si	Factor
limit	limit	(ft)	(ft)	(ft/ft)	nb
3000	2800	200	4200	0.048	0.035
2800	2610	190	6600	0.029	0.035
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000
0	0	0	0	0.000	0.000

Length of Watercourse (Lc): 10800 ft
 Length to Center of Gravity (Lca): 5000 ft

Mean Slope (Sc): 0.0345 ft/ft
 Weighted Basin Factor (nb): 0.035

Rainfall Data				
Storm Event	Mapped Values (in)	Computed Values (in)	Areal Reduction %	Reduced Values (in)
3-hour	n/a	3.57	0%	3.57
2-hour	n/a	3.39	0%	3.39
1-hour	n/a	3.00	0%	3.00

Cover Type(s): Mtn./Desert Brush Mix Cover Density (pervious areas): 20%

Impervious Surfaces: Percent 15.0% Runoff Coefficient: 0.96 (CN constant at 99)

Soils Data				
Hydrologic Group	Group %	Curve Number		Runoff Coefficient
		Normal	Adjusted	
A				
B	100	83	87.63	0.60
C		82		
D		90		

Weighted Runoff Coefficient (Cw): 0.651

100-year Peak Discharge (Q100): 962 cfs

Time of Concentration (Tc): 19 min.

For Return Intervals Other Than Q100		
25-year =	n/c	cfs
10-year =	n/c	cfs
5-year =	n/c	cfs
2-year =	n/c	cfs

Rainfall Intensity (i) at Tc: 6.13 in/hr

Runoff Supply Rate (q) at Tc: 3.99 in/hr