Appendix B
Alternative Development Figures

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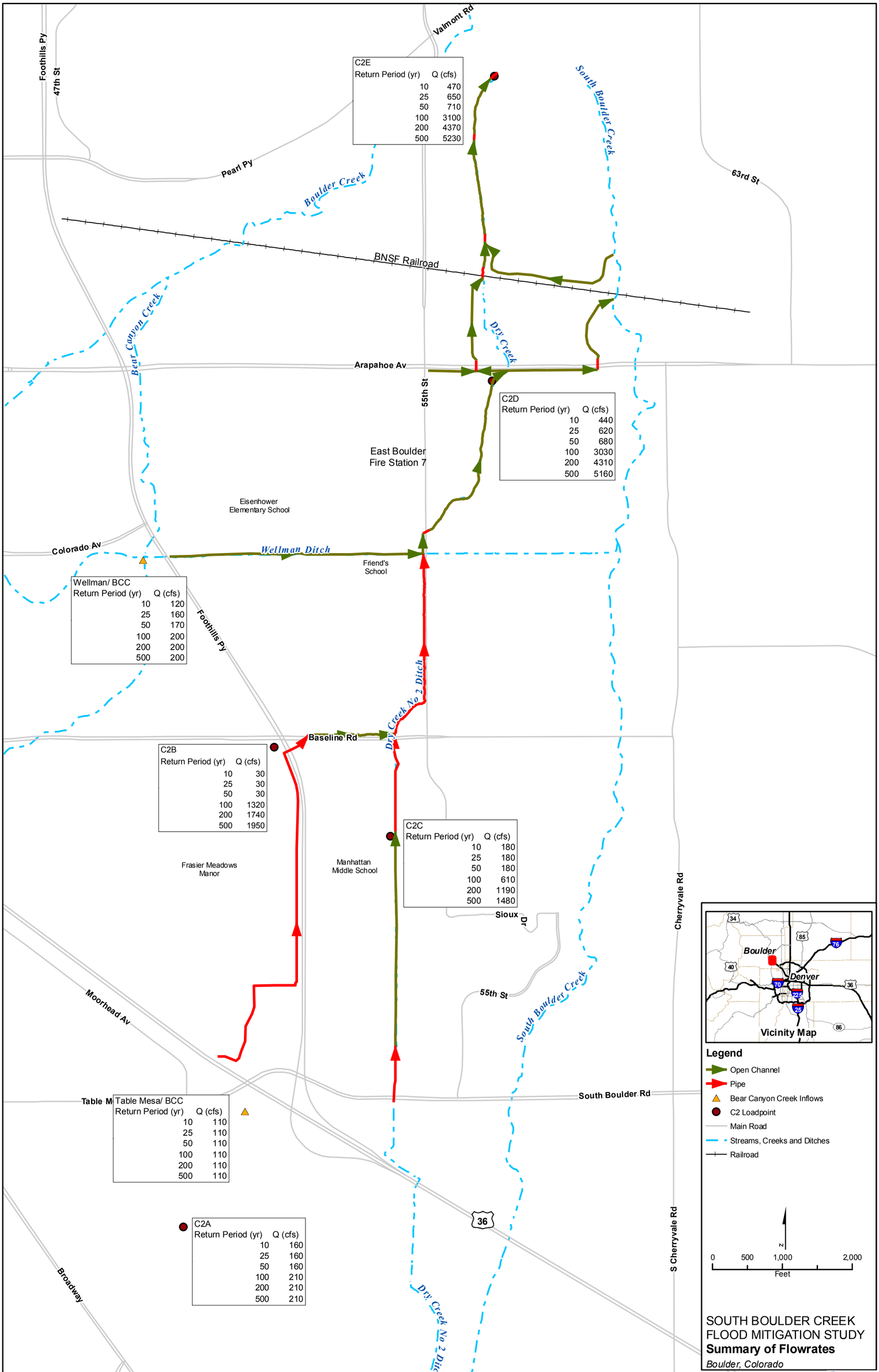
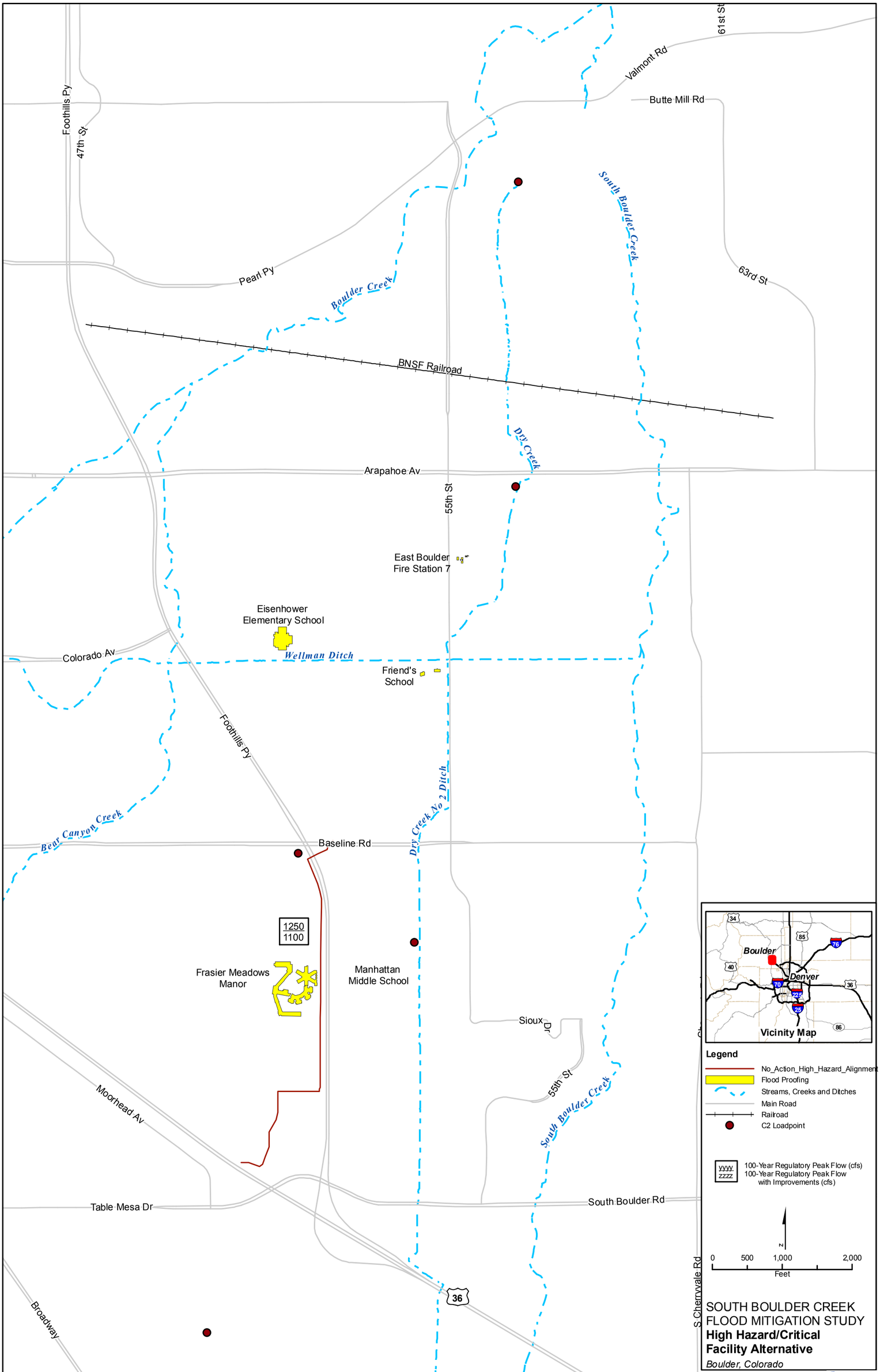
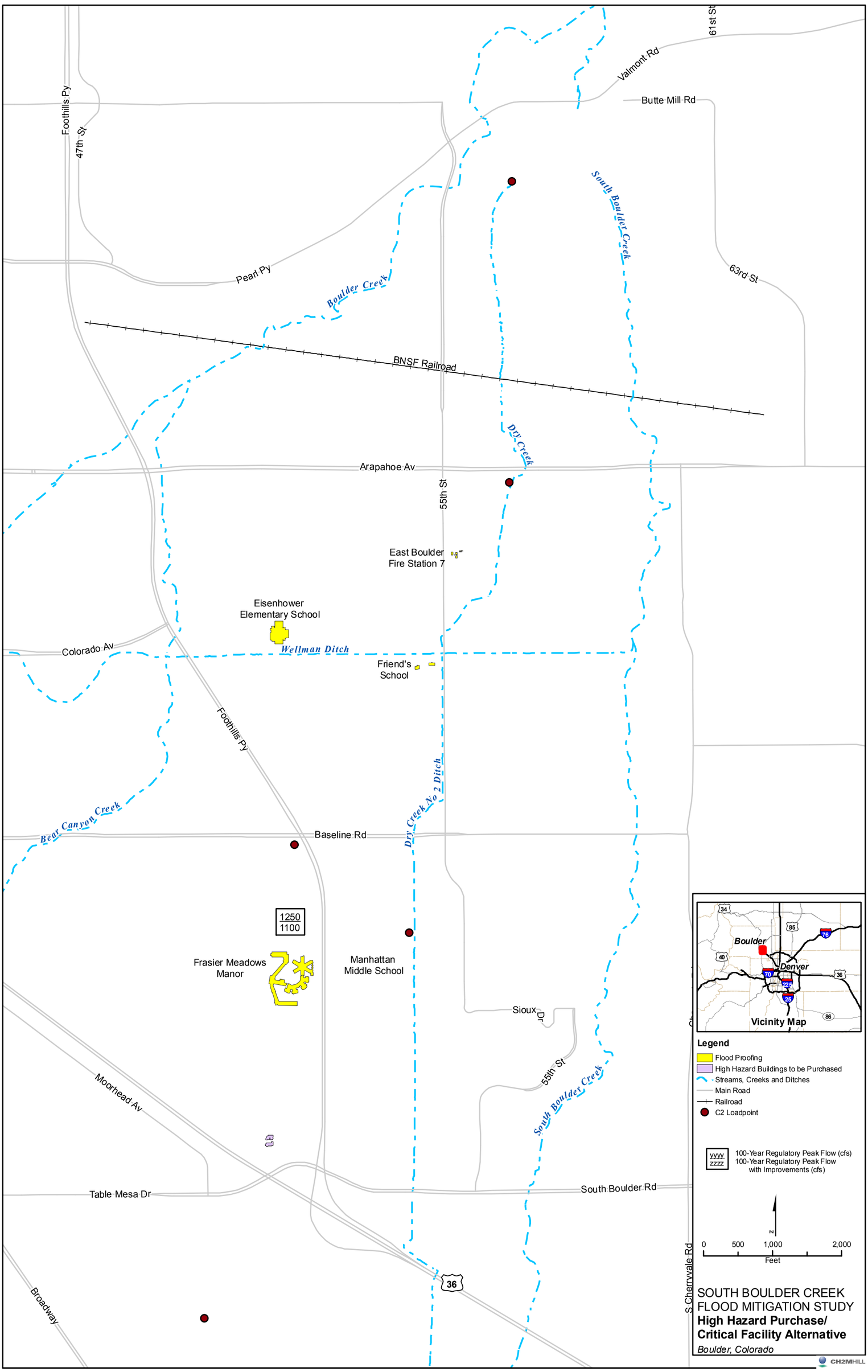
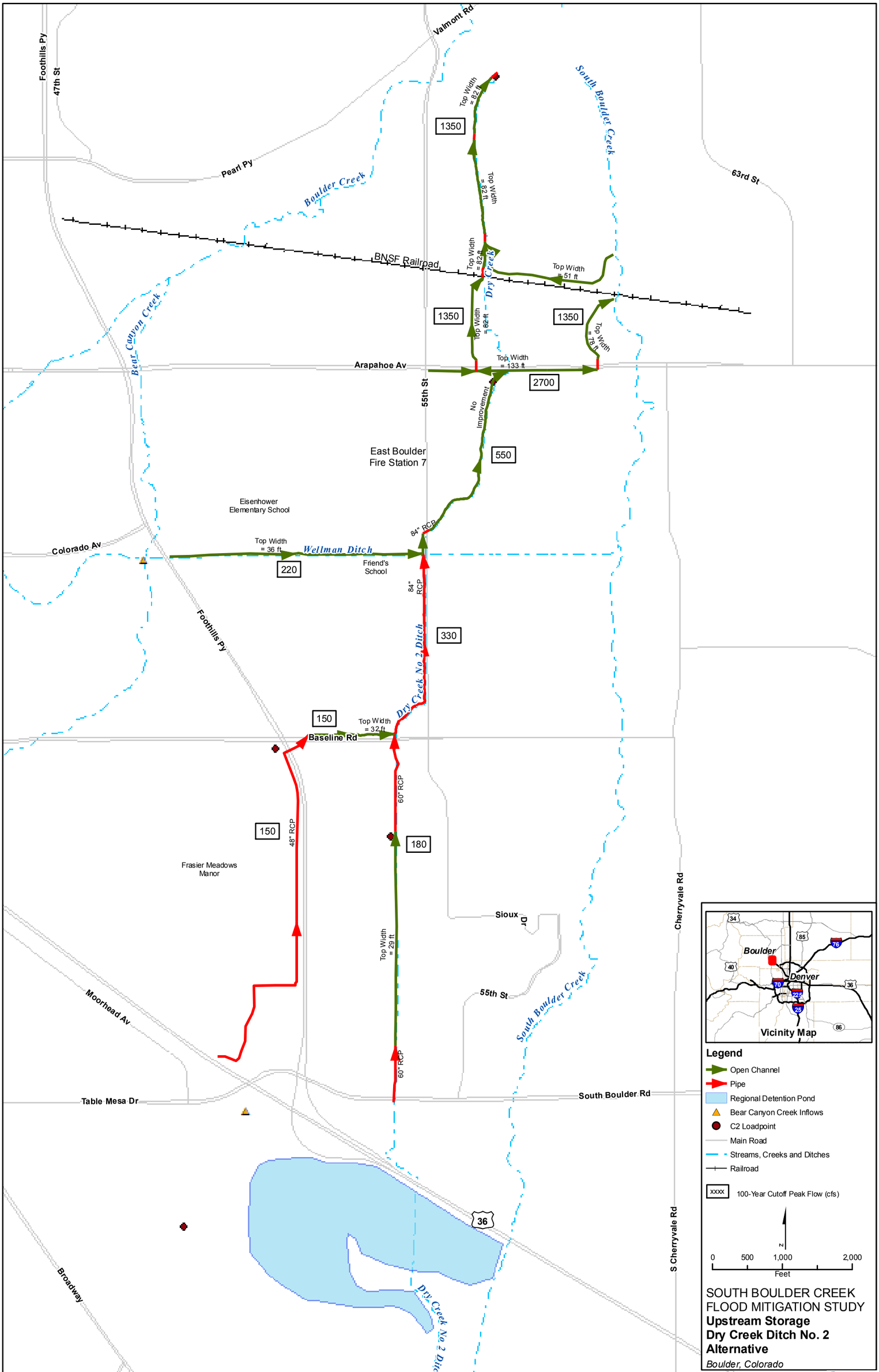

C2E
Return Period (yr) Q (cfs)
10 470
25 650
50 710
100 3100
200 4370
500 5230
C2D
Return Period (yr) Q (cfs)
10 440
25 620
50 680
100 3030
200 4310
500 5160
Wellman/ BCC
Return Period (yr) Q (cfs)
10 120
25 160
50 170
100 200
200 200
500 200
C2B
Return Period (yr) Q (cfs)
10 30
25 30
50 30
100 1320
200 1740
500 1950
C2C
Return Period (yr) Q (cfs)
10 180
25 180
50 180
100 610
200 1190
500 1480
Table Mesa/ BCC
Return Period (yr) Q (cfs)
10 110
25 110
50 110
100 110
200 110
500 110
C2A
Return Period (yr) Q (cfs)
10 160
25 160
50 160
100 210
200 210
500 210
Valmont Rd
Foothills Py
47th St
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Bear Canyon Creek
Dry Creek
Arapahoe Av
55th St
East Boulder
Fire Station 7
Eisenhower
Elementary School
Colorado Av
Wellman Ditch
Friend's
School
Foothills Py
Dry Creek No 2 Ditch
Baseline Rd
Frasier Meadows
Manor
Manhattan
Middle School
Sioux Dr
Cherryvale Rd
55th St
South Boulder Creek
Moorhead Av
South Boulder Rd
36
S Cherryvale Rd
Broadway
Dry Creek No 2 Ditch
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
N
0 500 1,000 2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
Summary of Flowrates
Boulder, Colorado
CH2MHILL


61st St
Valmont Rd
Butte Mill Rd
Foothills Py
47th St
South Boulder Creek
Pearl Py
Boulder Creek
63rd St
BNSF Railroad
Dry Creek
Arapahoe Av
55th St
East Boulder
Fire Station 7
Eisenhower
Elementary School
Colorado Av
Wellman Ditch
Friend's
School
Foothills Py
Dry Creek No 2 Ditch
Bear Canyon Creek
Baseline Rd
1250
1100
Frasier Meadows
Manor
Manhattan
Middle School
Sioux Dr
55th St
South Boulder Creek
Moorhead Av
Table Mesa Dr
South Boulder Rd
36
Broadway
S Cherryvale Rd
Boulder
Denver
Vicinity Map
Legend
No_Action_High_Hazard_Alignment
Flood Proofing
Streams, Creeks and Ditches
Main Road
Railroad
C2 Loadpoint
YYY
ZZZZ
100-Year Regulatory Peak Flow (cfs)
100-Year Regulatory Peak Flow
with Improvements (cfs)
N
0
500
1,000
2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
High Hazard/Critical
Facility Alternative
Boulder, Colorado
CH2MHILL


61st St
Valmont Rd
Butte Mill Rd
Foothills Py
47th St
South Boulder Creek
Pearl Py
Boulder Creek
63rd St
BNSF Railroad
Dry Creek
Arapahoe Av
55th St
East Boulder
Fire Station 7
Eisenhower
Elementary School
Colorado Av
Wellman Ditch
Friend's
School
Foothills Py
Dry Creek No 2 Ditch
Bear Canyon Creek
Baseline Rd
1250
1100
Frasier Meadows
Manor
Manhattan
Middle School
Sioux Dr
55th St
South Boulder Creek
Moorhead Av
Table Mesa Dr
South Boulder Rd
36
Broadway
S Cherryvale Rd
Boulder
Denver
Vicinity Map
Legend
Flood Proofing
High Hazard Buildings to be Purchased
Streams, Creeks and Ditches
Main Road
Railroad
C2 Loadpoint
YYY
ZZZZ
100-Year Regulatory Peak Flow (cfs)
100-Year Regulatory Peak Flow
with Improvements (cfs)
N
0
500
1,000
2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
High Hazard Purchase/
Critical Facility Alternative
Boulder, Colorado
CH2MHILL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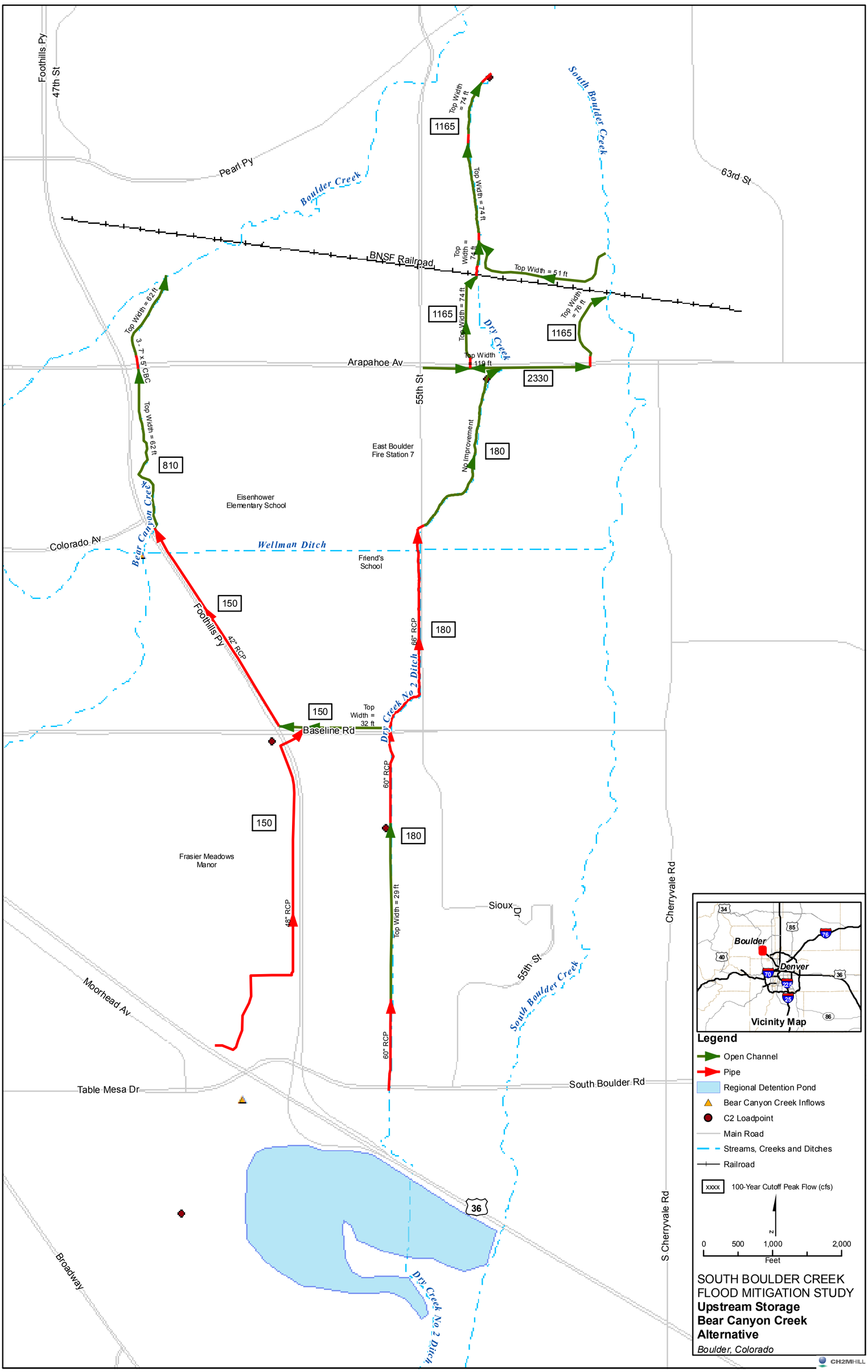
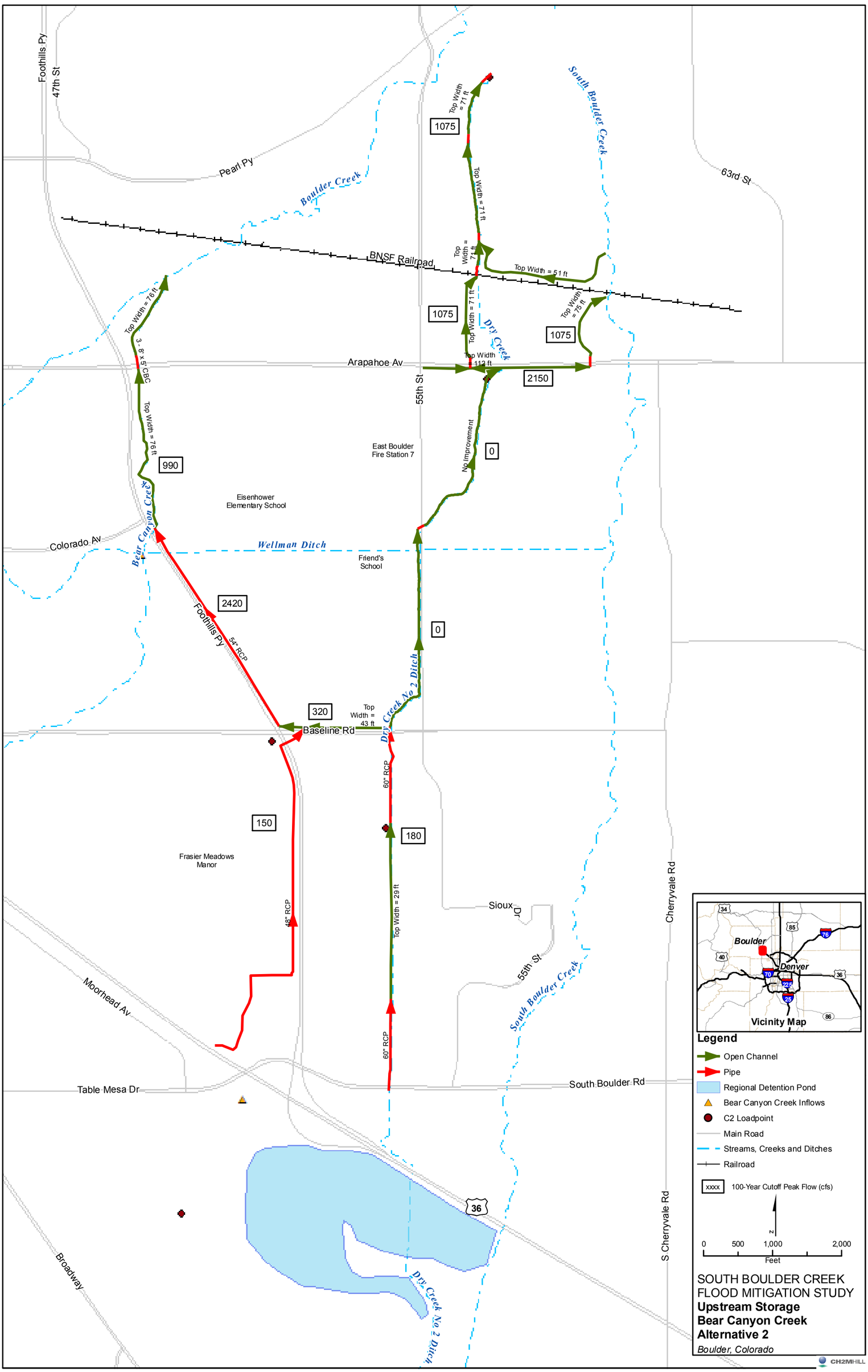
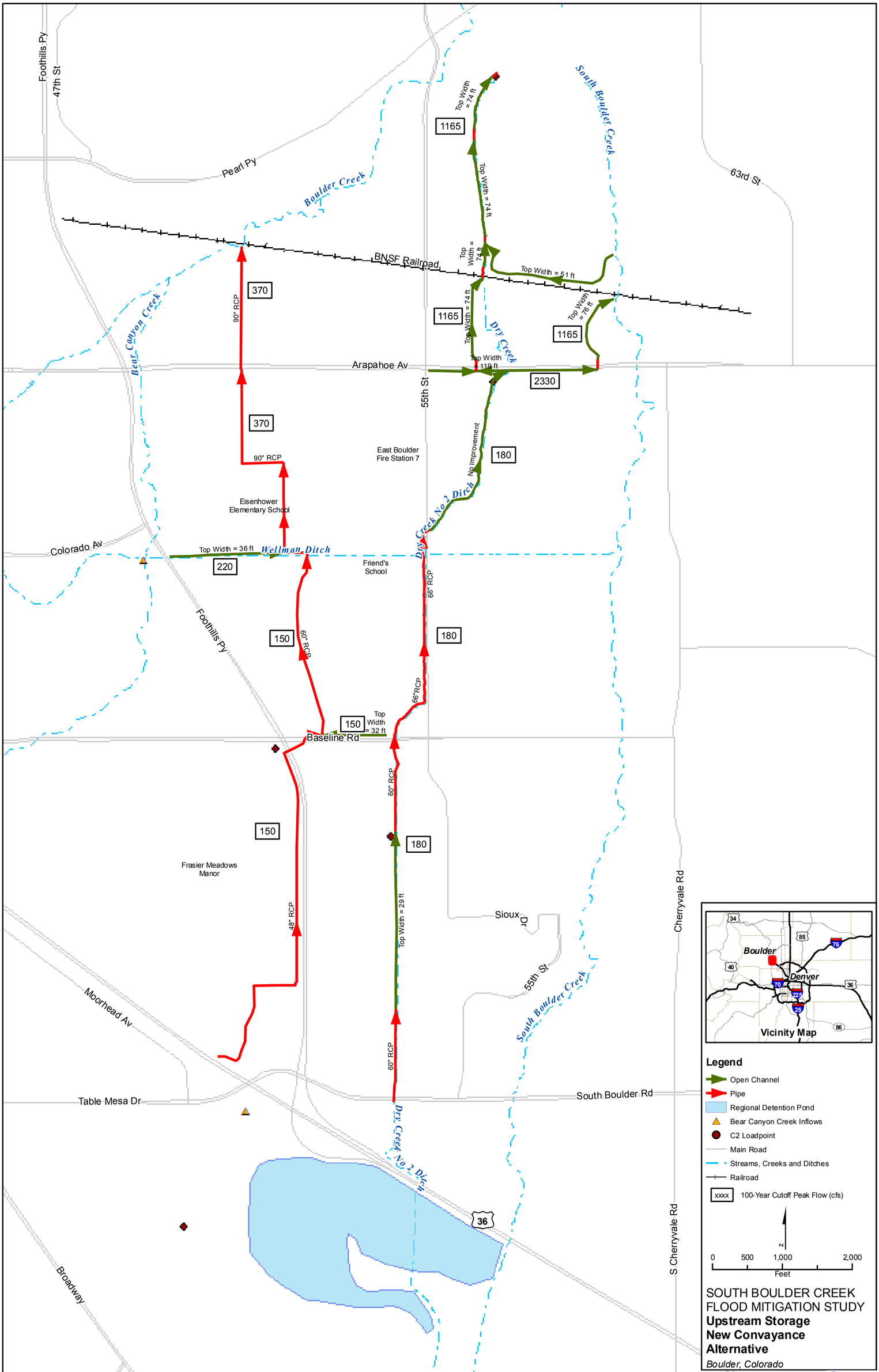
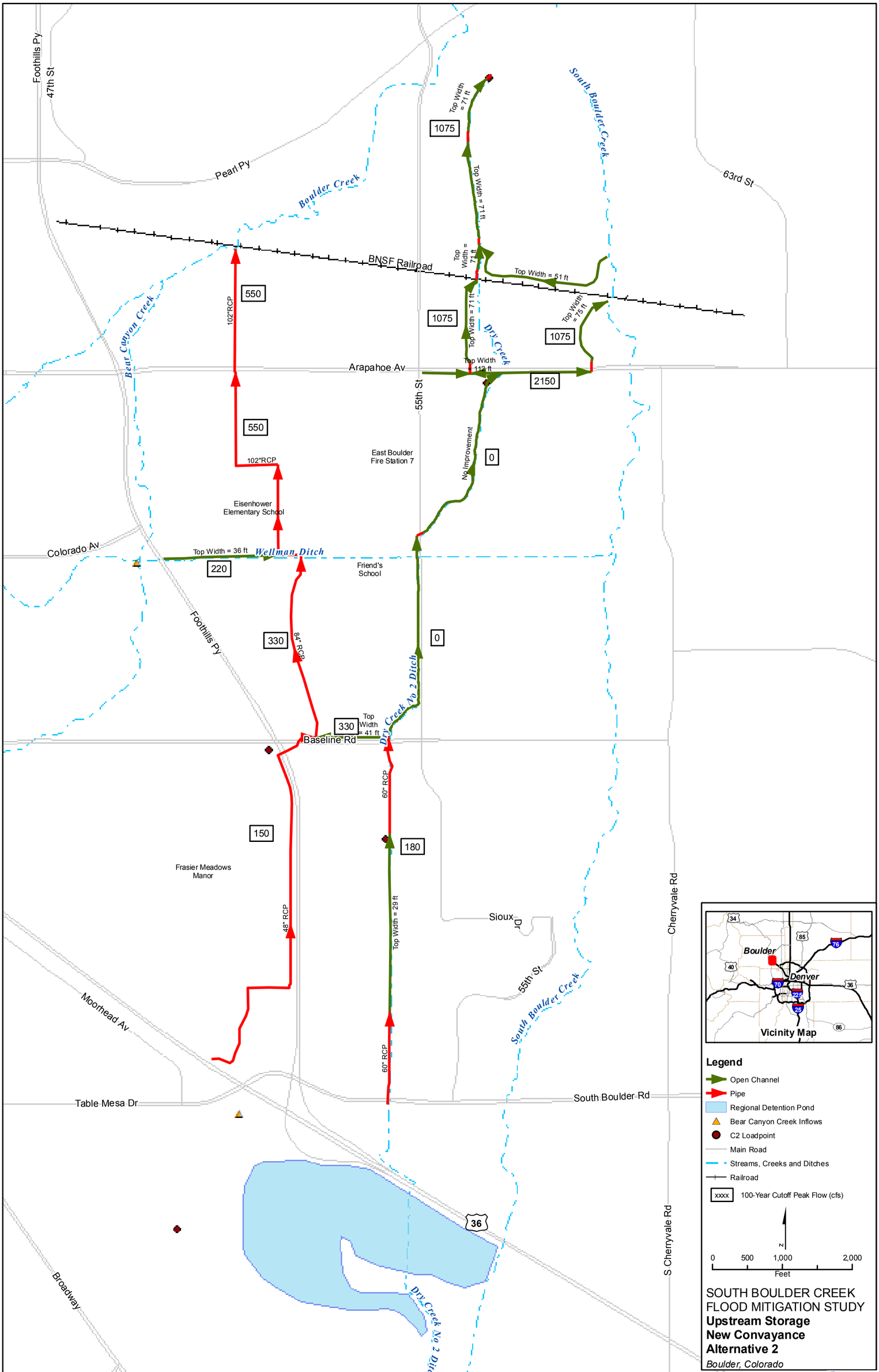
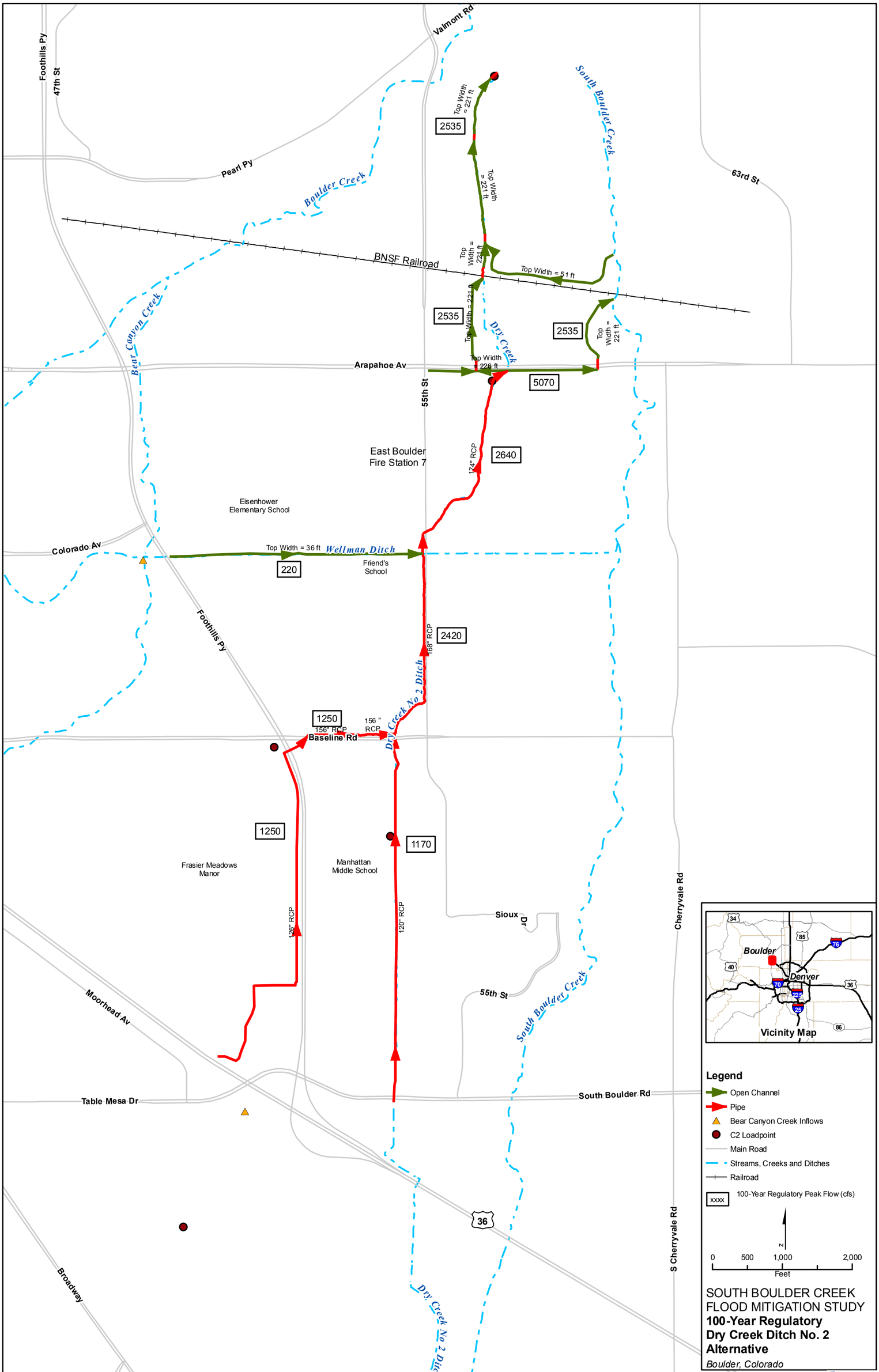
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Bear Canyon Creek
Dry Creek
Arapahoe Av
55th St
East Boulder
Fire Station 7
Eisenhower
Elementary School
Colorado Av
Wellman Ditch
Friend's
School
Dry Creek No 2 Ditch
Baseline Rd
Frasier Meadows
Manor
Sioux Dr
Cherryvale Rd
Moorhead Av
55th St
South Boulder Rd
Table Mesa Dr
Broadway
S Cherryvale Rd
Top Width = 82 ft
Top Width = 82 ft
Top Width = 82 ft
Top Width = 51 ft
Top Width = 82 ft
Top Width = 73 ft
Top Width = 133 ft
No Improvement
84" RCP
84" RCP
Top Width = 36 ft
Top Width = 32 ft
60" RCP
48" RCP
60" RCP
Top Width = 29 ft
1350
1350
1350
2700
550
220
330
150
150
180
36
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Regional Detention Pond
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
XXXX
100-Year Cutoff Peak Flow (cfs)
N
0
500
1,000
2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
Upstream Storage
Dry Creek Ditch No. 2
Alternative
Boulder, Colorado
CH2MHILL


Foothills Py
47th St
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Top Width = 74 ft
1165
Top Width = 74 ft
Top Width = 74 ft
Top Width = 51 ft
Top Width = 74 ft
1165
Top Width = 76 ft
1165
Dry Creek
Top Width = 62 ft
3 - 7' x 5' CBC
Top Width = 62 ft
810
Arapahoe Av
Top Width = 119 ft
2330
55th St
East Boulder Fire Station 7
No Improvement
180
Eisenhower Elementary School
Bear Canyon Creek
Colorado Av
Wellman Ditch
Friend's School
150
Foothills Py
42" RCP
66" RCP
180
Dry Creek No 2 Ditch
150
Top Width = 32 ft
Baseline Rd
60" RCP
150
180
Frasier Meadows Manor
48" RCP
Top Width = 29 ft
Sioux Dr
Cherryvale Rd
55th St
South Boulder Creek
Moorhead Av
Table Mesa Dr
South Boulder Rd
36
Broadway
S Cherryvale Rd
Dry Creek No 2 Ditch
Vicinity Map
Boulder
Denver
Legend
Open Channel
Pipe
Regional Detention Pond
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
xxxx
100-Year Cutoff Peak Flow (cfs)
N
0
500
1,000
2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
Upstream Storage
Bear Canyon Creek
Alternative
Boulder, Colorado
CH2MHILL


Foothills Py
47th St
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Top Width = 71 ft
1075
Top Width = 71 ft
Top Width = 71 ft
Top Width = 51 ft
Top Width = 76 ft
1075
Top Width = 71 ft
Dry Creek
Top Width = 76 ft
1075
3 - 8' x 5' CBC
Arapahoe Av
Top Width 112 ft
2150
55th St
Top Width = 76 ft
990
East Boulder Fire Station 7
No Improvement
0
Eisenhower Elementary School
Bear Canyon Creek
Colorado Av
Wellman Ditch
Friend's School
2420
Foothills Py
54" RCP
0
Dry Creek No 2 Ditch
320
Top Width = 43 ft
Baseline Rd
60" RCP
150
180
Frasier Meadows Manor
48" RCP
Top Width = 29 ft
Sioux Dr
Cherryvale Rd
55th St
South Boulder Creek
Moorhead Av
Table Mesa Dr
South Boulder Rd
36
Broadway
Dry Creek No 2 Ditch
S Cherryvale Rd
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Regional Detention Pond
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
xxxx
100-Year Cutoff Peak Flow (cfs)
N
0
500
1,000
2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
Upstream Storage
Bear Canyon Creek
Alternative 2
Boulder, Colorado
CH2MHILL


Foothills Py
47th St
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Bear Canyon Creek
Dry Creek
Arapahoe Av
55th St
East Boulder Fire Station 7
Dry Creek No 2 Ditch
Eisenhower Elementary School
Colorado Av
Wellman Ditch
Friend's School
Foothills Py
Baseline Rd
Frasier Meadows Manor
Sioux Dr
55th St
Cherryvale Rd
Moorhead Av
Table Mesa Dr
South Boulder Rd
S Cherryvale Rd
Broadway
Top Width = 74 ft
Top Width = 51 ft
Top Width = 76 ft
Top Width = 119 ft
Top Width = 36 ft
Top Width = 32 ft
Top Width = 29 ft
No Improvement
90" RCP
66" RCP
60" RCP
48" RCP
1165
370
2330
180
220
150
36
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Regional Detention Pond
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
xxxx 100-Year Cutoff Peak Flow (cfs)
0 500 1,000 2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
Upstream Storage
New Convayance
Alternative
Boulder, Colorado
CH2MHILL


Foothills Py
47th St
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Bear Canyon Creek
Dry Creek
Arapahoe Av
55th St
East Boulder Fire Station 7
Eisenhower Elementary School
Colorado Av
Wellman Ditch
Friend's School
Foothills Py
Dry Creek No 2 Ditch
Baseline Rd
Frasier Meadows Manor
Sioux Dr
55th St
Cherryvale Rd
Moorhead Av
Table Mesa Dr
South Boulder Rd
S Cherryvale Rd
Broadway
Dry Creek No 2 Ditch
1075
550
102"RCP
220
Top Width = 36 ft
330
84" RCP
150
48" RCP
180
60" RCP
Top Width = 29 ft
0
No Improvement
2150
Top Width = 112 ft
Top Width = 71 ft
Top Width = 51 ft
Top Width = 75 ft
Top Width = 41 ft
36
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Regional Detention Pond
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
xxxx 100-Year Cutoff Peak Flow (cfs)
0 500 1,000 2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
Upstream Storage
New Convayance
Alternative 2
Boulder, Colorado
CH2MHILL


Valmont Rd
Foothills Py
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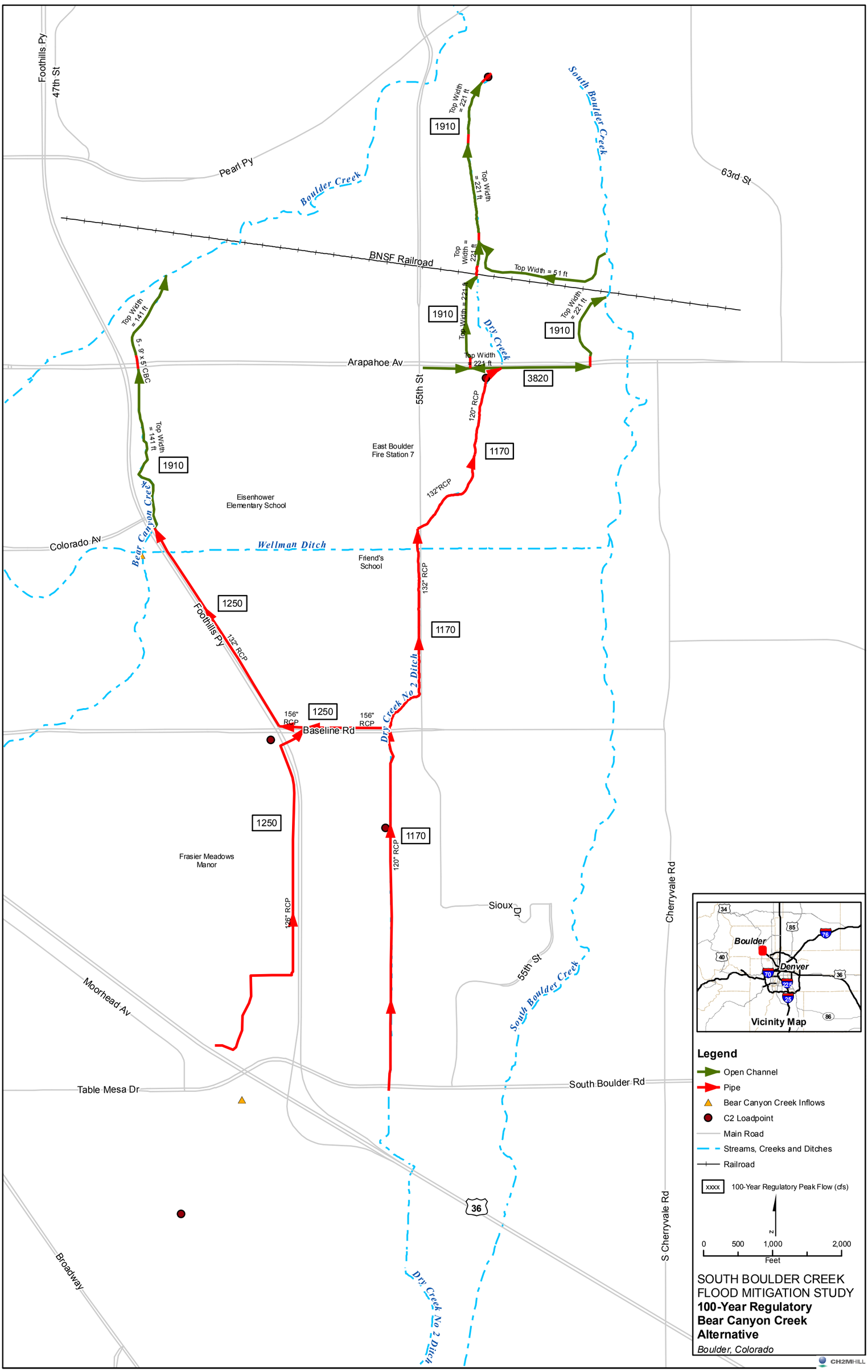
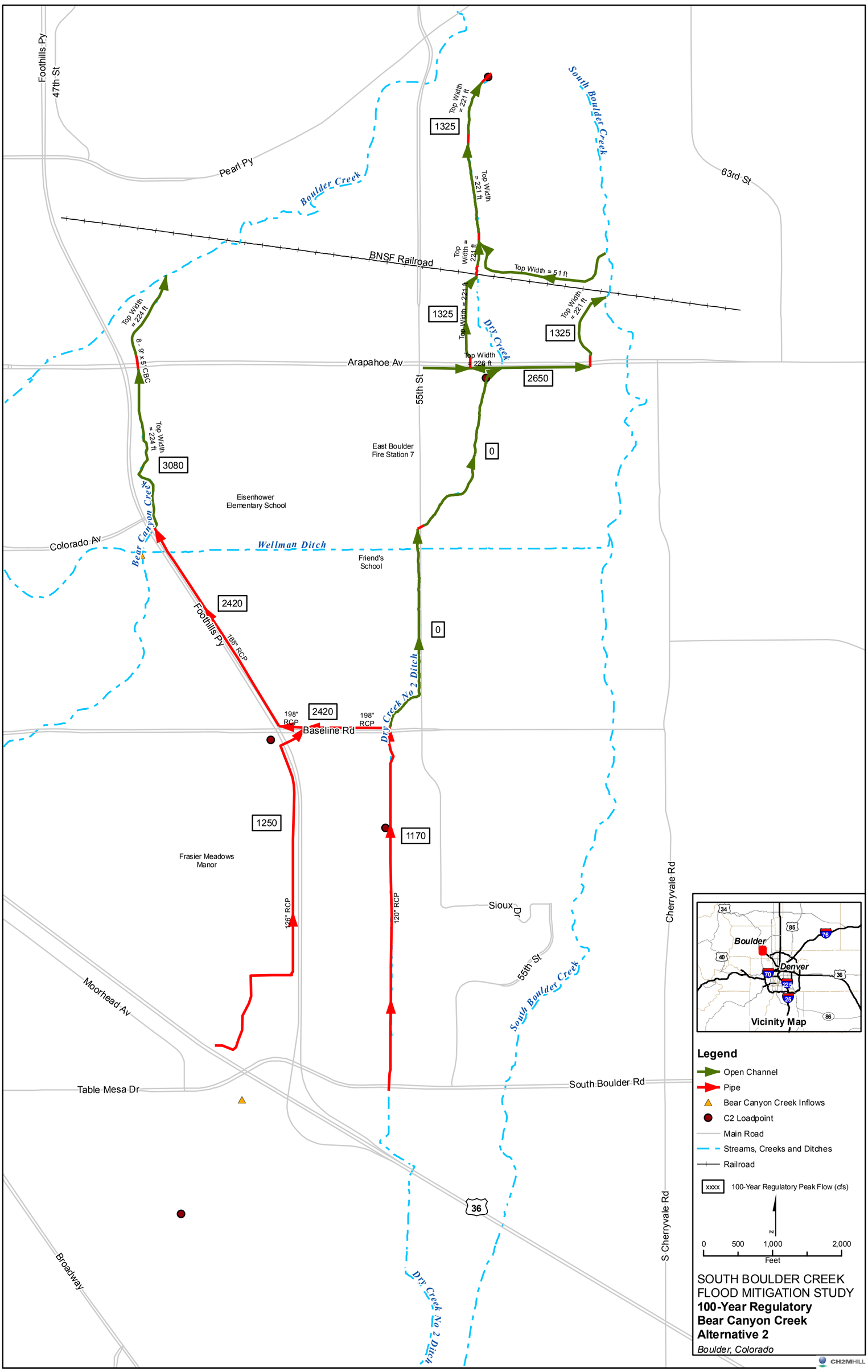
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Bear Canyon Creek
Dry Creek
Arapahoe Av
55th St
East Boulder
Fire Station 7
Eisenhower
Elementary School
Colorado Av
Wellman Ditch
Friend's
School
Foothills Py
Dry Creek No 2 Ditch
Baseline Rd
Frasier Meadows
Manor
Manhattan
Middle School
Sioux Dr
55th St
Cherryvale Rd
Moorhead Av
Table Mesa Dr
South Boulder Rd
S Cherryvale Rd
Broadway
Dry Creek No 2 Ditch
Top Width = 221 ft
Top Width = 51 ft
Top Width 226 ft
Top Width = 36 ft
2535
2535
2535
5070
2640
2420
220
1250
1250
1170
174" RCP
168" RCP
156" RCP
156 " RCP
126" RCP
120" RCP
36
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
XXXX
100-Year Regulatory Peak Flow (cfs)
N
0
500
1,000
2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
100-Year Regulatory
Dry Creek Ditch No. 2
Alternative
Boulder, Colorado
CH2MHILL


Foothills Py
47th St
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Top Width = 221 ft
1910
Top Width = 51 ft
Top Width = 141 ft
5 - 9' x 5' CBC
Dry Creek
Arapahee Av
55th St
3820
120" RCP
East Boulder Fire Station 7
1170
132"RCP
Eisenhower Elementary School
Bear Canyon Creek
Colorado Av
Wellman Ditch
Friend's School
132" RCP
1250
Foothills Py
156" RCP
Baseline Rd
Dry Creek No 2 Ditch
126" RCP
Frasier Meadows Manor
Sioux Dr
Cherryvale Rd
Moorhead Av
Table Mesa Dr
South Boulder Rd
36
Broadway
S Cherryvale Rd
Dry Creek No 2 Ditch
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
xxxx 100-Year Regulatory Peak Flow (cfs)
N
0 500 1,000 2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
100-Year Regulatory
Bear Canyon Creek
Alternative
Boulder, Colorado
CH2MHILL


Foothills Py
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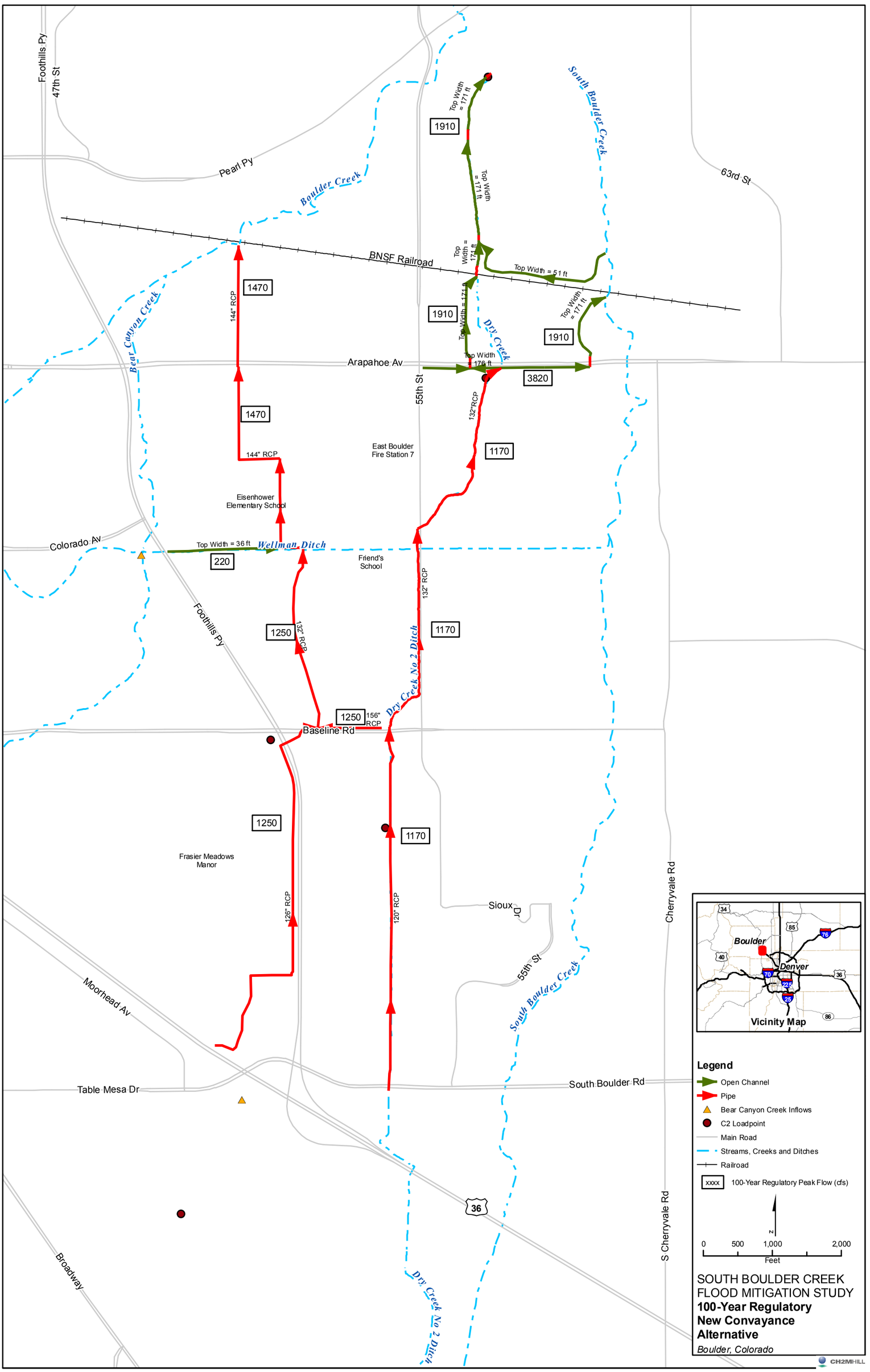
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Top Width = 221 ft
1325
Top Width = 51 ft
Top Width = 224 ft
8 - 9' x 5' CBC
Arapahoe Av
Top Width 226 ft
2650
55th St
Dry Creek
East Boulder Fire Station 7
0
3080
Eisenhower Elementary School
Colorado Av
Bear Canyon Creek
Wellman Ditch
Friend's School
2420
Foothills Py
168" RCP
198" RCP
Baseline Rd
Dry Creek No 2 Ditch
1250
1170
Frasier Meadows Manor
126" RCP
120" RCP
Sioux Dr
Cherryvale Rd
Moorhead Av
Table Mesa Dr
South Boulder Rd
36
Broadway
S Cherryvale Rd
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
xxxx 100-Year Regulatory Peak Flow (cfs)
N
0 500 1,000 2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
100-Year Regulatory
Bear Canyon Creek
Alternative 2
Boulder, Colorado
CH2MHILL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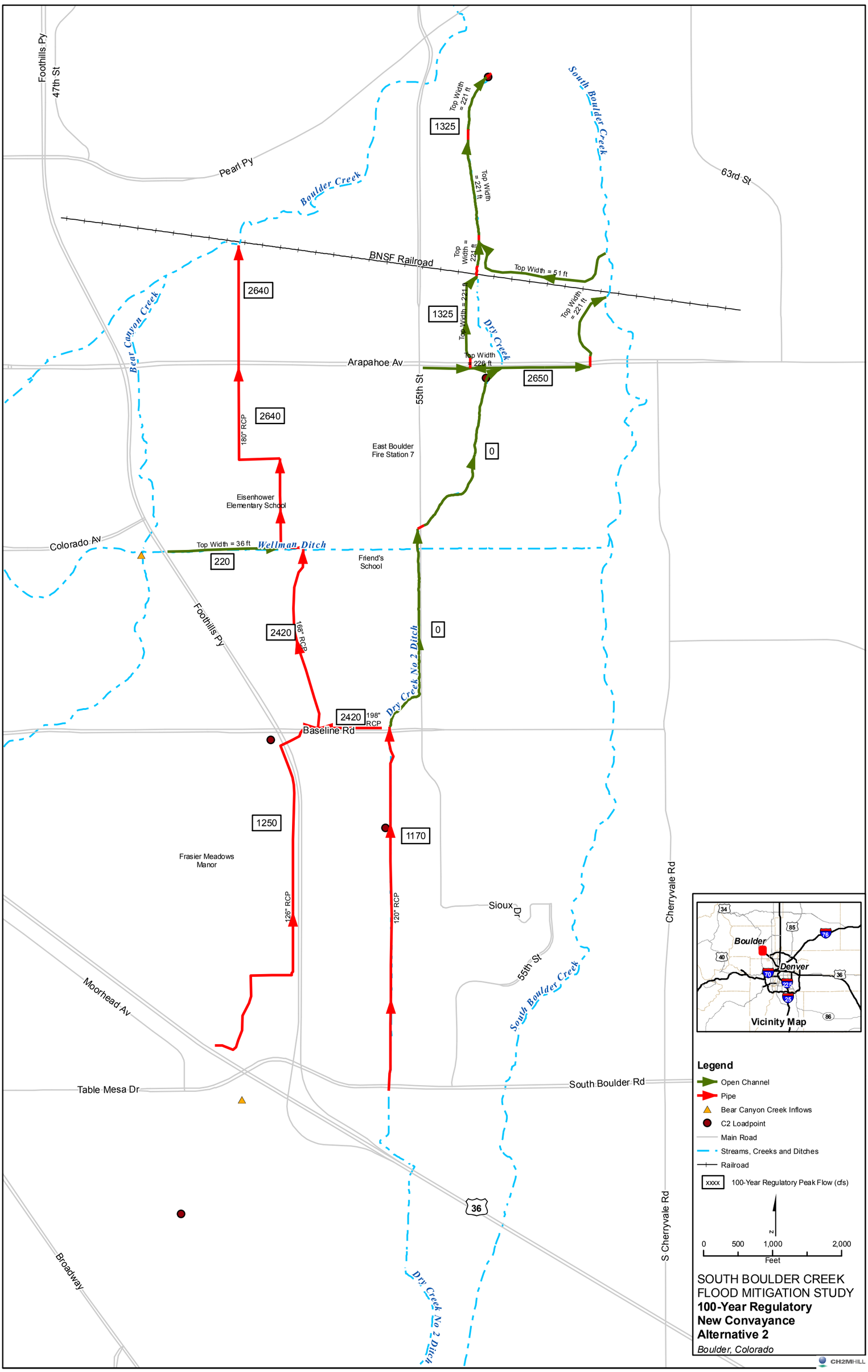
47th St
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Bear Canyon Creek
Dry Creek
Arapahoe Av
55th St
East Boulder
Fire Station 7
Eisenhower
Elementary School
Colorado Av
Wellman Ditch
Friend's
School
Foothills Py
Dry Creek No 2 Ditch
Baseline Rd
Frasier Meadows
Manor
Sioux Dr
55th St
Cherryvale Rd
Moorhead Av
Table Mesa Dr
South Boulder Rd
S Cherryvale Rd
Broadway
Dry Creek No 2 Ditch
Top Width = 171 ft
Top Width = 51 ft
Top Width = 176 ft
Top Width = 36 ft
144" RCP
132" RCP
156" RCP
126" RCP
120" RCP
1910
1470
3820
1170
1250
220
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
xxxx 100-Year Regulatory Peak Flow (cfs)
0 500 1,000 2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
100-Year Regulatory
New Convayance
Alternative
Boulder, Colorado
CH2MHILL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47th St
Pearl Py
Boulder Creek
South Boulder Creek
63rd St
BNSF Railroad
Bear Canyon Creek
Dry Creek
Arapahoe Av
55th St
East Boulder Fire Station 7
Eisenhower Elementary School
Colorado Av
Wellman Ditch
Friend's School
Foothills Py
Dry Creek No 2 Ditch
Baseline Rd
Frasier Meadows Manor
Sioux Dr
Cherryvale Rd
Moorhead Av
Table Mesa Dr
South Boulder Rd
Broadway
S Cherryvale Rd
Top Width = 221 ft
Top Width = 51 ft
Top Width = 226 ft
Top Width = 36 ft
1325
2640
2650
0
220
2420
1250
1170
180" RCP
168" RCP
198" RCP
126" RCP
120" RCP
Boulder
Denver
Vicinity Map
Legend
Open Channel
Pipe
Bear Canyon Creek Inflows
C2 Loadpoint
Main Road
Streams, Creeks and Ditches
Railroad
xxxx 100-Year Regulatory Peak Flow (cfs)
0 500 1,000 2,000
Feet
SOUTH BOULDER CREEK
FLOOD MITIGATION STUDY
100-Year Regulatory
New Convayance
Alternative 2
Boulder, Colorado
CH2MHILL

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