

Table E.3

Project	Verde River FHA	Computed	FOUNTAIN	Date	1/7/2011
Subject	Expansion and Contraction Coefficients	Checked	FOREST	Date	1/25/2011
Task	Table E.3 Supporting Information	Sheet	1	of	10

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected	
1	215733.70	0.1	0.3	Default Values	
2	215402.30	0.1	0.3	Default Values	
3	215200.50	0.1	0.3	Default Values	
4	214932.70	0.1	0.3	Default Values	
5	214756.60	0.1	0.3	Default Values	
6	214555.90	0.2	0.4	Transition region	
7	214282.20	0.2	0.4	Transition region	
8	213816.50	0.3	0.5	Reduction in cross sectional flow area	
9	213550.30	0.2	0.4	Transition region	
10	213311.60	0.2	0.4	Transition region	
11	213216.90	0.2	0.4	Transition region	
12	213018.70	0.2	0.4	Transition region	
13	212907.70	0.3	0.5	Increase in cross sectional flow area	
14	212693.10	0.1	0.3	Default Values	
15	212373.00	0.1	0.3	Default Values	
16	212059.60	0.2	0.4	Transition region	
17	211625.40	0.2	0.4	Transition region	
18	211260.90	0.1	0.3	Default Values	
19	210937.60	0.1	0.3	Default Values	
20	210682.20	0.1	0.3	Default Values	
21	210461.10	0.1	0.3	Default Values	
22	210220.70	0.1	0.3	Default Values	
23	209708.90	0.1	0.3	Default Values	
24	209381.00	0.3	0.5	Increase in cross sectional flow area	
25	209280.20	0.3	0.5	Increase in cross sectional flow area	
26	209160.30	0.2	0.4	Reduction in cross sectional flow area	
27	208988.00	0.2	0.4	Reduction in cross sectional flow area	
28	208688.60	0.5	0.7	Increase in cross sectional flow area	
29	208309.50	0.5	0.7	Increase in cross sectional flow area	
30	207958.10	0.3	0.8	Increase in cross sectional flow area	
31	207669.90	0.2	0.6	Reduction in cross sectional flow area	
32	207146.10	0.1	0.3	Default Values	
33	206771.90	0.1	0.3	Default Values	
34	206302.00	0.5	0.7	Increase in cross sectional flow area	
35	205955.00	0.6	0.8	Increase in cross sectional flow area	
36	205669.80	0.2	0.4	Increase in cross sectional flow area	
37	205417.70	0.3	0.5	Increase in cross sectional flow area	
38	205293.10	0.3	0.5	Increase in cross sectional flow area	
39	205271.60	0.6	0.8	Increase in cross sectional flow area	
40	205260.00	0.7	0.9	Reduction in cross sectional flow area	
41	205196.20	0.1	0.3	Default Values	
42	204992.70	0.1	0.3	Default Values	
43	204907.80	0.1	0.3	Default Values	
44	204737.10	0.1	0.3	Default Values	
45	204470.30	0.1	0.3	Default Values	
46	204145.50	0.1	0.3	Default Values	
47	203977.90	0.2	0.4	Reduction in cross sectional flow area	
48	203286.40	0.6	0.8	Increase in cross sectional flow area	
49	202962.70	0.3	0.5	Increase in cross sectional flow area	
50	202662.90	0.6	0.8	Increase in cross sectional flow area	
51	202217.80	0.3	0.5	Reduction in cross sectional flow area	
52	201702.80	0.5	0.7	Reduction in cross sectional flow area	
53	201256.80	0.6	0.8	Reduction in cross sectional flow area	
54	200951.40	0.7	0.9	Increase in cross sectional flow area	
55	200688.90	0.3	0.5	Increase in cross sectional flow area	

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected	
56	200496.20	0.4	0.6	Reduction in cross sectional flow area	
57	200440.00	0.1	0.7	Reduction in cross sectional flow area	
58	200335.90	0.2	0.4	Transition region	
59	200285.60	0.2	0.4	Transition region	
60	200259.20	0.1	0.3	Default Values	
61	200194.50	0.5	0.7	Increase in cross sectional flow area	
62	200026.40	0.6	0.8	Increase in cross sectional flow area	
63	199812.50	0.5	0.7	Increase in cross sectional flow area	
64	199737.40	0.3	0.5	Increase in cross sectional flow area	
65	199492.70	0.2	0.4	Increase in cross sectional flow area	
66	199347.50	0.1	0.3	Default Values	
67	199262.40	0.3	0.5	Reduction in cross sectional flow area	
68	199209.10	0.7	0.9	Reduction in cross sectional flow area	
69	199191.9 Tuzigoot Bridge	Bridge			
70	199171.00	0.3	0.5	Increase in cross sectional flow area	
71	199132.70	0.7	0.9	Reduction in cross sectional flow area	
72	198827.70	0.7	0.9	Increase in cross sectional flow area	
73	198344.90	0.2	0.4	Transition region	
74	198157.90	0.5	0.7	Increase in cross sectional flow area	
75	198007.60	0.6	0.8	Increase in cross sectional flow area	
76	197896.70	0.3	0.5	Increase in cross sectional flow area	
77	197762.10	0.2	0.4	Increase in cross sectional flow area	
78	197600.70	0.1	0.3	Default Values	
79	197124.20	0.2	0.4	Increase in cross sectional flow area	
80	196627.70	0.3	0.5	Increase in cross sectional flow area	
81	196449.80	0.2	0.4	Transition region	
82	196359.50	0.2	0.4	Transition region	
83	196207.60	0.3	0.5	Reduction in cross sectional flow area	
84	195784.90	0.1	0.3	Default Values	
85	195713.10	0.3	0.5	Reduction in cross sectional flow area	
86	195577.40	0.7	0.9	Reduction in cross sectional flow area	
87	195394.10	0.3	0.5	Reduction in cross sectional flow area	
88	195329.00	0.2	0.4	Reduction in cross sectional flow area	
89	195216.90	0.4	0.6	Reduction in cross sectional flow area	
90	194895.30	0.3	0.5	Reduction in cross sectional flow area	
91	194743.30	0.1	0.3	Default Values	
92	194591.10	0.7	0.9	Increase in cross sectional flow area	
93	194482.10	0.4	0.6	Increase in cross sectional flow area	
94	194310.20	0.3	0.5	Increase in cross sectional flow area	
95	194146.50	0.3	0.5	Increase in cross sectional flow area	
96	193829.00	0.3	0.5	Increase in cross sectional flow area	
97	193519.90	0.1	0.3	Increase in cross sectional flow area	
98	193320.80	0.1	0.3	Increase in cross sectional flow area	
99	193204.90	0.1	0.3	Increase in cross sectional flow area	
100	193044.70	0.3	0.5	Reduction in cross sectional flow area	
101	192841.20	0.2	0.4	Transition region	
102	192638.50	0.1	0.3	Default Values	
103	192228.10	0.1	0.3	Default Values	
104	191712.20	0.1	0.3	Increase in cross sectional flow area	
105	191221.50	0.1	0.3	Increase in cross sectional flow area	
106	190854.00	0.2	0.4	Increase in cross sectional flow area	
107	190456.80	0.1	0.3	Reduction in cross sectional flow area	
108	190196.00	0.2	0.4	Transition region	
109	190026.70	0.2	0.4	Transition region	
110	189713.10	0.3	0.5	Reduction in cross sectional flow area	
111	189400.60	0.4	0.6	Increase in cross sectional flow area	
112	188898.00	0.7	0.9	Increase in cross sectional flow area	
113	188716.10	0.3	0.5	Increase in cross sectional flow area	
114	188425.90	0.2	0.4	Increase in cross sectional flow area	
115	188220.20	0.2	0.4	Increase in cross sectional flow area	
116	187819.60	0.2	0.4	Increase in cross sectional flow area	
117	187395.50	0.2	0.4	Increase in cross sectional flow area	
118	187237.80	0.1	0.3	Increase in cross sectional flow area	
119	186861.10	0.1	0.3	Reduction in cross sectional flow area	
120	186227.30	0.1	0.3	Reduction in cross sectional flow area	
121	185714.80	0.2	0.4	Increase in cross sectional flow area	
122	185496.60	0.3	0.5	Reduction in cross sectional flow area	
123	185207.20	0.3	0.5	Reduction in cross sectional flow area	
124	184998.10	0.4	0.6	Reduction in cross sectional flow area	

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected	
125	184780.80	0.7	0.9	Reduction in cross sectional flow area	
126	184726.00	0.3	0.5	Reduction in cross sectional flow area	
127	184698.9 10th Street Brid	Bridge			
128	184665.60	0.3	0.5	Increase in cross sectional flow area	
129	184587.60	0.7	0.9	Reduction in cross sectional flow area	
130	184392.10	0.1	0.3	Increase in cross sectional flow area	
131	183971.00	0.2	0.4	Increase in cross sectional flow area	
132	183580.70	0.3	0.5	Reduction in cross sectional flow area	
133	183075.70	0.3	0.5	Increase in cross sectional flow area	
134	182895.60	0.3	0.5	Reduction in cross sectional flow area	
135	182680.60	0.1	0.3	Increase in cross sectional flow area	
136	182334.80	0.1	0.3	Default Values	
137	182045.00	0.1	0.3	Default Values	
138	181636.10	0.2	0.4	Transition region	
139	181306.30	0.2	0.4	Transition region	
140	180948.10	0.2	0.4	Transition region	
141	180398.10	0.2	0.4	Transition region	
142	180027.50	0.3	0.5	Increase in cross sectional flow area	
143	179752.40	0.3	0.5	Increase in cross sectional flow area	
144	179573.90	0.2	0.4	Increase in cross sectional flow area	
145	179214.80	0.3	0.5	Increase in cross sectional flow area	
146	178723.60	0.5	0.7	Increase in cross sectional flow area	
147	178301.10	0.2	0.4	Increase in cross sectional flow area	
148	178027.00	0.3	0.5	Increase in cross sectional flow area	
149	177719.30	0.2	0.4	Increase in cross sectional flow area	
150	177479.60	0.1	0.3	Default Values	
151	177251.70	0.1	0.3	Default Values	
152	177033.70	0.1	0.3	Default Values	
153	176656.40	0.1	0.3	Default Values	
154	176188.50	0.1	0.3	Default Values	
155	175819.80	0.1	0.3	Default Values	
156	175431.50	0.1	0.3	Default Values	
157	175114.70	0.1	0.3	Default Values	
158	174875.00	0.1	0.3	Default Values	
159	174637.40	0.1	0.3	Default Values	
160	174339.10	0.1	0.3	Default Values	
161	173999.70	0.1	0.3	Default Values	
162	173767.80	0.1	0.3	Default Values	
163	173617.90	0.1	0.3	Default Values	
164	173222.40	0.3	0.5	Increase in cross sectional flow area	
165	172845.80	0.3	0.5	Increase in cross sectional flow area	
166	172704.30	0.2	0.4	Transition region	
167	172590.20	0.1	0.3	Default Values	
168	172457.00	0.1	0.3	Default Values	
169	172314.10	0.1	0.3	Default Values	
170	172083.60	0.1	0.3	Default Values	
171	171976.10	0.3	0.5	Reduction in cross sectional flow area	
172	171926.90	0.5	0.7	Reduction in cross sectional flow area	
173	171891.8 Mingus Avenue Br	Bridge			
174	171861.30	0.3	0.5	Increase in cross sectional flow area	
175	171809.20	0.5	0.7	Increase in cross sectional flow area	
176	171477.80	0.3	0.5	Increase in cross sectional flow area	
177	171139.90	0.1	0.3	Increase in cross sectional flow area	
178	170700.40	0.1	0.3	Default Values	
179	170282.70	0.1	0.3	Default Values	
180	170025.80	0.1	0.3	Default Values	
181	169724.40	0.1	0.3	Default Values	
182	169497.80	0.2	0.4	Transition region	
183	169364.70	0.2	0.4	Transition region	
184	169012.70	0.1	0.3	Default Values	
185	168514.20	0.1	0.3	Default Values	
186	167965.50	0.1	0.3	Default Values	
187	167586.10	0.2	0.4	Transition region	
188	167135.40	0.1	0.3	Default Values	
189	166993.90	0.1	0.3	Default Values	
190	166910.00	0.1	0.3	Default Values	
191	166769.30	0.1	0.3	Default Values	
192	166551.40	0.1	0.3	Default Values	
193	166254.00	0.1	0.3	Default Values	

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected	
194	166090.30	0.1	0.3	Default Values	
195	165688.10	0.1	0.3	Default Values	
196	165304.90	0.1	0.3	Default Values	
197	165072.90	0.2	0.4	Transition region	
198	164876.10	0.3	0.5	Increase in cross sectional flow area	
199	164596.60	0.2	0.4	Transition region	
200	164284.50	0.1	0.3	Default Values	
201	164104.80	0.1	0.3	Default Values	
202	164013.50	0.3	0.5	Reduction in cross sectional flow area	
203	163963.80	0.3	0.5	Reduction in cross sectional flow area	
204	163913.8 SR-89A Bridge	Bridge			
205	163863.10	0.3	0.5	Increase in cross sectional flow area	
206	163761.90	0.2	0.4	Increase in cross sectional flow area	
207	163517.70	0.1	0.3	Default Values	
208	163153.70	0.2	0.4	Increase in cross sectional flow area	
209	162862.30	0.3	0.5	Increase in cross sectional flow area	
210	162612.40	0.7	0.9	Reduction in cross sectional flow area	
211	162461.40	0.2	0.4	Increase in cross sectional flow area	
212	162127.60	0.2	0.4	Reduction in cross sectional flow area	
213	161836.40	0.3	0.5	Reduction in cross sectional flow area	
214	161522.10	0.5	0.7	Increase in cross sectional flow area	
215	161224.50	0.2	0.4	Increase in cross sectional flow area	
216	160908.30	0.3	0.35	Increase in cross sectional flow area	
217	160459.30	0.4	0.6	Increase in cross sectional flow area	
218	159973.60	0.2	0.4	Increase in cross sectional flow area	
219	159397.70	0.2	0.4	Increase in cross sectional flow area	
220	158907.70	0.1	0.3	Default Values	
221	158626.40	0.1	0.3	Default Values	
222	158282.90	0.1	0.3	Default Values	
223	158099.40	0.2	0.4	Increase in cross sectional flow area	
224	157813.60	0.1	0.3	Default Values	
225	157544.10	0.2	0.4	Increase in cross sectional flow area	
226	157273.60	0.1	0.3	Default Values	
227	156869.90	0.2	0.4	Transition region	
228	156552.20	0.2	0.4	Transition region	
229	156163.30	0.3	0.5	Increase in cross sectional flow area	
230	155788.90	0.2	0.4	Transition region	
231	155408.30	0.2	0.4	Transition region	
232	155086.40	0.3	0.5	Reduction in cross sectional flow area	
233	154699.90	0.2	0.4	Reduction in cross sectional flow area	
234	154379.40	0.1	0.3	Default Values	
235	154042.90	0.1	0.3	Default Values	
236	153751.30	0.1	0.3	Default Values	
237	153501.20	0.1	0.3	Default Values	
238	153121.40	0.1	0.3	Default Values	
239	153008.00	0.1	0.3	Default Values	
240	152780.70	0.1	0.3	Default Values	
241	152401.70	0.1	0.3	Default Values	
242	152083.80	0.1	0.3	Default Values	
243	151853.00	0.1	0.3	Default Values	
244	151621.70	0.2	0.4	Transition region	
245	151537.50	0.2	0.4	Transition region	
246	151375.50	0.3	0.5	Reduction in cross sectional flow area	
247	151189.10	0.2	0.4	Transition region	
248	151046.80	0.2	0.4	Transition region	
249	150952.80	0.1	0.3	Reduction in cross sectional flow area	
250	150789.70	0.1	0.3	Default Values	
251	150684.30	0.1	0.3	Default Values	
252	150516.10	0.1	0.3	Default Values	
253	150373.60	0.1	0.3	Default Values	
254	150191.00	0.2	0.4	Reduction in cross sectional flow area	
255	150047.30	0.2	0.4	Reduction in cross sectional flow area	
256	149842.60	0.2	0.4	Reduction in cross sectional flow area	
257	149579.90	0.3	0.5	Increase in cross sectional flow area	
258	149271.00	0.2	0.4	Increase in cross sectional flow area	
259	149076.30	0.2	0.34	Increase in cross sectional flow area	
260	148850.50	0.2	0.4	Increase in cross sectional flow area	
261	148688.00	0.2	0.4	Transition region	
262	148497.80	0.1	0.3	Default Values	

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected
263	148348.40	0.1	0.3	Default Values
264	148164.90	0.1	0.3	Default Values
265	147992.80	0.1	0.3	Default Values
266	147687.00	0.1	0.3	Default Values
267	147355.20	0.2	0.4	Transition region
268	147176.80	0.2	0.4	Increase in cross sectional flow area
269	146910.00	0.2	0.4	Increase in cross sectional flow area
270	146620.80	0.2	0.4	Increase in cross sectional flow area
271	146224.00	0.2	0.4	Increase in cross sectional flow area
272	145805.50	0.2	0.4	Increase in cross sectional flow area
273	145366.80	0.2	0.4	Transition region
274	144879.70	0.2	0.4	Reduction in cross sectional flow area
275	144451.10	0.2	0.4	Reduction in cross sectional flow area
276	143838.80	0.2	0.4	Reduction in cross sectional flow area
277	143308.60	0.3	0.5	Reduction in cross sectional flow area
278	142829.70	0.2	0.4	Transition region
279	142580.50	0.3	0.5	Increase in cross sectional flow area
280	142084.30	0.5	0.7	Increase in cross sectional flow area
281	141806.50	0.3	0.5	Reduction in cross sectional flow area
282	141334.70	0.1	0.3	Reduction in cross sectional flow area
283	140949.40	0.1	0.3	Default Values
284	140677.00	0.1	0.3	Default Values
285	140351.60	0.2	0.4	Increase in cross sectional flow area
286	139944.80	0.3	0.5	Reduction in cross sectional flow area
287	139687.90	0.2	0.4	Increase in cross sectional flow area
288	139462.10	0.2	0.4	Reduction in cross sectional flow area
289	139147.20	0.2	0.4	Reduction in cross sectional flow area
290	138761.70	0.2	0.4	Transition region
291	138308.60	0.3	0.5	Increase in cross sectional flow area
292	137790.10	0.7	0.9	Reduction in cross sectional flow area
293	137444.70	0.2	0.4	Increase in cross sectional flow area
294	137074.50	0.2	0.4	Increase in cross sectional flow area
295	136726.70	0.3	0.5	Reduction in cross sectional flow area
296	136266.00	0.1	0.3	Default Values
297	136128.80	0.2	0.4	Transition region
298	135723.30	0.3	0.5	Reduction in cross sectional flow area
299	135392.10	0.3	0.5	Reduction in cross sectional flow area
300	134908.80	0.1	0.3	Reduction in cross sectional flow area
301	134589.80	0.1	0.3	Reduction in cross sectional flow area
302	134154.70	0.1	0.3	Default Values
303	133830.90	0.1	0.3	Default Values
304	133488.00	0.1	0.3	Default Values
305	132939.50	0.2	0.4	Increase in cross sectional flow area
306	132395.70	0.2	0.4	Increase in cross sectional flow area
307	131998.10	0.2	0.4	Increase in cross sectional flow area
308	131574.60	0.1	0.3	Default Values
309	131246.90	0.1	0.3	Default Values
310	130968.30	0.1	0.3	Default Values
311	130605.60	0.1	0.3	Default Values
312	130095.00	0.1	0.3	Default Values
313	129896.30	0.1	0.3	Default Values
314	129604.00	0.1	0.3	Default Values
315	129448.50	0.3	0.5	Increase in cross sectional flow area
316	129030.60	0.3	0.5	Reduction in cross sectional flow area
317	128835.70	0.2	0.4	Reduction in cross sectional flow area
318	128432.70	0.1	0.3	Default Values
319	128053.00	0.1	0.3	Default Values
320	127728.30	0.1	0.3	Default Values
321	127289.70	0.1	0.3	Default Values
322	126997.50	0.1	0.3	Default Values
323	126797.80	0.5	0.7	Increase in cross sectional flow area
324	126186.90	0.5	0.7	Increase in cross sectional flow area
325	125844.50	0.3	0.5	Increase in cross sectional flow area
326	125673.90	0.2	0.4	Transition region
327	125491.70	0.1	0.3	Default Values
328	125272.90	0.2	0.4	Reduction in cross sectional flow area
329	125050.20	0.1	0.3	Reduction in cross sectional flow area
330	124817.50	0.1	0.3	Reduction in cross sectional flow area
331	124451.40	0.1	0.3	Reduction in cross sectional flow area

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected
332	123955.60	0.1	0.3	Default Values
333	123458.20	0.1	0.3	Default Values
334	122970.90	0.2	0.4	Increase in cross sectional flow area
335	122469.20	0.1	0.3	Increase in cross sectional flow area
336	122023.10	0.1	0.3	Default Values
337	121420.10	0.1	0.3	Default Values
338	120975.90	0.1	0.3	Default Values
339	120683.50	0.1	0.3	Default Values
340	120492.40	0.1	0.3	Default Values
341	120129.70	0.1	0.3	Default Values
342	119644.50	0.1	0.3	Default Values
343	119433.10	0.1	0.3	Default Values
344	119182.90	0.1	0.3	Default Values
345	118746.10	0.1	0.3	Default Values
346	118663.00	0.1	0.3	Default Values
347	118530.10	0.2	0.4	Reduction in cross sectional flow area
348	118122.80	0.1	0.3	Default Values
349	117662.90	0.1	0.3	Default Values
350	117305.50	0.1	0.3	Default Values
351	116637.40	0.1	0.3	Default Values
352	116451.90	0.1	0.3	Default Values
353	116237.10	0.1	0.3	Default Values
354	116039.10	0.1	0.3	Default Values
355	115878.10	0.1	0.3	Default Values
356	115739.40	0.1	0.3	Default Values
357	115512.70	0.1	0.3	Default Values
358	115155.80	0.1	0.3	Default Values
359	114664.00	0.1	0.3	Default Values
360	114154.40	0.1	0.3	Default Values
361	113665.70	0.2	0.4	Reduction in cross sectional flow area
362	113289.00	0.1	0.3	Default Values
363	112995.30	0.3	0.5	Reduction in cross sectional flow area
364	112657.80	0.2	0.4	Increase in cross sectional flow area
365	112227.40	0.1	0.3	Default Values
366	111773.50	0.1	0.3	Default Values
367	111488.90	0.1	0.3	Default Values
368	110804.60	0.2	0.4	Increase in cross sectional flow area
369	110292.70	0.1	0.3	Default Values
370	109943.00	0.1	0.3	Default Values
371	109434.60	0.2	0.4	Reduction in cross sectional flow area
372	109045.90	0.1	0.3	Default Values
373	108804.40	0.1	0.3	Default Values
374	108481.10	0.2	0.4	Increase in cross sectional flow area
375	108023.10	0.2	0.4	Increase in cross sectional flow area
376	107570.80	0.2	0.4	Increase in cross sectional flow area
377	107126.10	0.2	0.4	Transition region
378	106734.80	0.3	0.5	Increase in cross sectional flow area
379	106408.70	0.3	0.5	Reduction in cross sectional flow area
380	106165.10	0.1	0.3	Default Values
381	105745.90	0.1	0.3	Default Values
382	105259.50	0.1	0.3	Default Values
383	104770.00	0.1	0.3	Default Values
384	104541.80	0.1	0.3	Default Values
385	104265.50	0.1	0.3	Default Values
386	103882.00	0.1	0.3	Default Values
387	103230.20	0.1	0.3	Default Values
388	102919.30	0.1	0.3	Default Values
389	102691.70	0.1	0.3	Default Values
390	102339.40	0.3	0.5	Increase in cross sectional flow area
391	101861.00	0.7	0.9	Reduction in cross sectional flow area
392	101583.70	0.5	0.7	Reduction in cross sectional flow area
393	101094.70	0.4	0.6	Increase in cross sectional flow area
394	100867.90	0.2	0.4	Increase in cross sectional flow area
395	100701.40	0.1	0.3	Default Values
396	100374.50	0.3	0.5	Reduction in cross sectional flow area
397	100062.30	0.2	0.4	Increase in cross sectional flow area
398	99816.95	0.2	0.4	Transition region
399	99535.32	0.1	0.3	Default Values
400	99120.59	0.1	0.3	Default Values

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected	
401	98803.39	0.2	0.4	Increase in cross sectional flow area	
402	98497.57	0.1	0.3	Default Values	
403	98236.61	0.1	0.3	Default Values	
404	97936.94	0.1	0.3	Default Values	
405	97495.43	0.1	0.3	Default Values	
406	97290.14	0.3	0.5	Increase in cross sectional flow area	
407	97097.54	0.3	0.5	Increase in cross sectional flow area	
408	96632.78	0.1	0.3	Default Values	
409	96285.73	0.1	0.3	Default Values	
410	96021.03	0.1	0.3	Default Values	
411	95717.03	0.1	0.3	Default Values	
412	95237.35	0.1	0.3	Default Values	
413	94807.49	0.5	0.7	Reduction in cross sectional flow area	
414	94387.85	0.5	0.7	Reduction in cross sectional flow area	
415	93760.39	0.2	0.4	Transition region	
416	93334.21	0.2	0.4	Transition region	
417	92800.42	0.3	0.5	Increase in cross sectional flow area	
418	92178.41	0.3	0.5	Reduction in cross sectional flow area	
419	91688.68	0.2	0.4	Reduction in cross sectional flow area	
420	91018.15	0.2	0.4	Reduction in cross sectional flow area	
421	90216.51	0.2	0.4	Reduction in cross sectional flow area	
422	89638.64	0.3	0.5	Reduction in cross sectional flow area	
423	89049.18	0.5	0.7	Increase in cross sectional flow area	
424	88665.22	0.3	0.5	Reduction in cross sectional flow area	
425	88480.68	0.3	0.5	Reduction in cross sectional flow area	
426	87968.87	0.3	0.5	Increase in cross sectional flow area	
427	87650.89	0.3	0.5	Reduction in cross sectional flow area	
428	87424.81	0.3	0.5	Increase in cross sectional flow area	
429	87171.39	0.2	0.4	Increase in cross sectional flow area	
430	86692.29	0.2	0.4	Increase in cross sectional flow area	
431	86307.67	0.1	0.3	Default Values	
432	85944.17	0.1	0.3	Default Values	
433	85477.47	0.1	0.3	Default Values	
434	84927.79	0.1	0.3	Default Values	
435	84524.18	0.1	0.3	Default Values	
436	84053.85	0.1	0.3	Default Values	
437	83513.39	0.1	0.3	Default Values	
438	83090.53	0.1	0.3	Default Values	
439	82836.90	0.1	0.3	Default Values	
440	82230.19	0.1	0.3	Default Values	
441	81903.41	0.1	0.3	Default Values	
442	81483.22	0.2	0.4	Increase in cross sectional flow area	
443	80989.89	0.1	0.3	Default Values	
444	80572.25	0.2	0.4	Increase in cross sectional flow area	
445	80312.63	0.1	0.3	Default Values	
446	80077.81	0.1	0.3	Default Values	
447	79725.40	0.1	0.3	Default Values	
448	79630.17	0.5	0.7	Increase in cross sectional flow area	
449	79080.61	0.3	0.5	Increase in cross sectional flow area	
450	78813.14	0.3	0.5	Increase in cross sectional flow area	
451	78431.57	0.1	0.3	Default Values	
452	78126.85	0.1	0.3	Default Values	
453	77692.00	0.1	0.3	Default Values	
454	77691.89 17A	Lat Struct			
455	77324.42	0.1	0.3	Default Values	
456	77324.29 17B	Lat Struct			
457	76863.45	0.2	0.4	Default Values	
458	76863.29 17C	Lat Struct			
459	76405.17	0.2	0.3	Default Values	
460	76405.00 17D	Lat Struct			
461	75904.10	0.2	0.4	Reduction in cross sectional flow area	
462	75904.00 17E	Lat Struct			
463	75464.65	0.2	0.4	Default Values	
464	75464.54 17F	Lat Struct			
465	75058.61	0.2	0.4	Reduction in cross sectional flow area	
466	75058.50 17G	Lat Struct			
467	74724.05	0.2	0.4	Reduction in cross sectional flow area	
468	74723.95 17H	Lat Struct			
469	74321.89	0.2	0.4	Reduction in cross sectional flow area	

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected	
470	74321.78 17I	Lat Struct			
471	74037.09	0.2	0.4	Reduction in cross sectional flow area	
472	74036.99 17J	Lat Struct			
473	73895.66	0.3	0.5	Default Values	
474	73807.95	0.3	0.5	Default Values	
475	73767.00 I-17 SB Bridge	Bridge			
476	73734.02	0.1	0.3	Default Values	
477	73713.32	0.1	0.3	Default Values	
478	73687.03	0.1	0.3	Default Values	
479	73666.80	0.1	0.3	Default Values	
480	73629.60 I-17 NB Bridge	Bridge			
481	73612.59	0.4	0.6	Default Values	
482	73607.03	0.4	0.6	Default Values	
483	73506.46	0.4	0.6	Increase in cross sectional flow area	
484	73469.10	0.4	0.6	Increase in cross sectional flow area	
485	73403.62	0.3	0.5	Increase in cross sectional flow area	
486	73020.80	0.1	0.3	Increase in cross sectional flow area	
487	72672.32	0.1	0.3	Increase in cross sectional flow area	
488	72233.34	0.1	0.3	Default Values	
489	71764.40	0.1	0.3	Increase in cross sectional flow area	
490	71258.49	0.1	0.3	Default Values	
491	70768.67	0.1	0.3	Default Values	
492	70302.70	0.1	0.3	Default Values	
493	70004.64	0.1	0.3	Default Values	
494	69698.53	0.1	0.3	Default Values	
495	68860.00	0.3	0.5	Reduction in cross sectional flow area	
496	68577.15	0.2	0.4	Increase in cross sectional flow area	
497	68269.69	0.2	0.4	Increase in cross sectional flow area	
498	67663.42	0.2	0.4	Increase in cross sectional flow area	
499	67221.95	0.1	0.3	Default Values	
500	66955.95	0.1	0.3	Default Values	
501	66297.05	0.1	0.3	Default Values	
502	65938.19	0.1	0.3	Default Values	
503	65486.80	0.1	0.3	Default Values	
504	64841.44	0.1	0.3	Default Values	
505	64228.18	0.1	0.3	Default Values	
506	63741.35	0.1	0.3	Default Values	
507	63674.71	0.3	0.5	Increase in cross sectional flow area	
508	63569.02	0.2	0.4	Increase in cross sectional flow area	
509	63409.23	0.1	0.3	Reduction in cross sectional flow area	
510	63336.84	0.3	0.5	Reduction in cross sectional flow area	
511	63308.31 Black Bridge	Bridge			
512	63277.32	0.3	0.5	Increase in cross sectional flow area	
513	63202.94	0.3	0.5	Increase in cross sectional flow area	
514	62213.77	0.2	0.4	Increase in cross sectional flow area	
515	61511.35	0.2	0.4	Increase in cross sectional flow area	
516	61017.64	0.1	0.3	Default Values	
517	60487.82	0.1	0.3	Default Values	
518	59949.97	0.1	0.3	Default Values	
519	59695.28	0.1	0.3	Default Values	
520	59473.20	0.1	0.3	Default Values	
521	59160.50	0.1	0.3	Default Values	
522	58859.59	0.1	0.3	Default Values	
523	58499.82	0.1	0.3	Default Values	
524	58279.70	0.1	0.3	Default Values	
525	57785.39	0.1	0.3	Default Values	
526	57353.37	0.1	0.3	Default Values	
527	56860.00	0.1	0.3	Default Values	
528	56388.94	0.3	0.5	Increase in cross sectional flow area	
529	55891.60	0.1	0.3	Default Values	
530	55402.60	0.1	0.3	Default Values	
531	55033.88	0.1	0.3	Default Values	
532	54842.93	0.2	0.4	Increase in cross sectional flow area	
533	54432.96	0.1	0.3	Default Values	
534	54076.29	0.2	0.4	Transition region	
535	53733.41	0.1	0.3	Default Values	
536	53223.54	0.1	0.3	Default Values	
537	52724.35	0.2	0.4	Transition region	
538	52443.73	0.3	0.5	Increase in cross sectional flow area	

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected	
539	52059.18	0.2	0.4	Increase in cross sectional flow area	
540	51727.17	0.1	0.3	Default Values	
541	51436.45	0.1	0.3	Default Values	
542	51026.23	0.1	0.3	Default Values	
543	50978.61	0.3	0.5	Reduction in cross sectional flow area	
544	50923.46 SR-260 Bridge	Bridge			
545	50866.96	0.3	0.5	Increase in cross sectional flow area	
546	50819.41	0.1	0.3	Default Values	
547	50395.21	0.4	0.6	Increase in cross sectional flow area	
548	50008.70	0.4	0.6	Reduction in cross sectional flow area	
549	49540.32	0.2	0.4	Reduction in cross sectional flow area	
550	49183.14	0.1	0.3	Default Values	
551	48826.27	0.2	0.4	Reduction in cross sectional flow area	
552	48322.08	0.2	0.4	Reduction in cross sectional flow area	
553	47828.98	0.3	0.5	Increase in cross sectional flow area	
554	47444.35	0.1	0.3	Default Values	
555	47085.07	0.2	0.4	Reduction in cross sectional flow area	
556	46480.89	0.3	0.5	Increase in cross sectional flow area	
557	45731.89	0.1	0.3	Increase in cross sectional flow area	
558	45248.06	0.1	0.3	Default Values	
559	44764.16	0.1	0.3	Default Values	
560	44420.16	0.1	0.3	Default Values	
561	44209.12	0.2	0.4	Increase in cross sectional flow area	
562	42547.56	0.1	0.3	Default Values	
563	42013.95	0.1	0.3	Default Values	
564	41583.91	0.1	0.3	Default Values	
565	41226.21	0.1	0.3	Default Values	
566	40741.45	0.1	0.3	Default Values	
567	40235.74	0.3	0.5	Increase in cross sectional flow area	
568	39694.69	0.1	0.3	Default Values	
569	39294.37	0.1	0.3	Default Values	
570	38740.89	0.1	0.3	Default Values	
571	38252.30	0.1	0.3	Default Values	
572	37990.47	0.2	0.4	Reduction in cross sectional flow area	
573	37655.05	0.3	0.5	Reduction in cross sectional flow area	
574	37270.13	0.3	0.5	Reduction in cross sectional flow area	
575	36909.16	0.5	0.7	Reduction in cross sectional flow area	
576	36666.93	0.8	0.8	Increase in cross sectional flow area	
577	36220.29	0.1	0.3	Default Values	
578	35818.15	0.1	0.3	Default Values	
579	35340.37	0.1	0.3	Default Values	
580	35018.50	0.1	0.3	Default Values	
581	34640.28	0.1	0.3	Default Values	
582	34314.01	0.1	0.3	Default Values	
583	34064.00	0.1	0.3	Default Values	
584	33621.80	0.3	0.5	Reduction in cross sectional flow area	
585	33266.89	0.2	0.4	Transition region	
586	32966.35	0.3	0.5	Increase in cross sectional flow area	
587	32647.61	0.1	0.3	Default Values	
588	32287.80	0.1	0.3	Default Values	
589	31895.43	0.2	0.4	Increase in cross sectional flow area	
590	31531.97	0.1	0.3	Default Values	
591	31217.33	0.1	0.3	Default Values	
592	30825.11	0.1	0.3	Default Values	
593	30589.85	0.1	0.3	Default Values	
594	30248.94	0.1	0.3	Default Values	
595	29831.25	0.2	0.4	Reduction in cross sectional flow area	
596	28931.14	0.2	0.4	Reduction in cross sectional flow area	
597	28414.06	0.1	0.3	Default Values	
598	28054.16	0.3	0.5	Reduction in cross sectional flow area	
599	27603.03	0.5	0.7	Reduction in cross sectional flow area	
600	27244.60	0.1	0.3	Default Values	
601	26902.70	0.1	0.3	Default Values	
602	26588.77	0.2	0.4	Increase in cross sectional flow area	
603	26336.00	0.3	0.5	Increase in cross sectional flow area	
604	25933.97	0.3	0.5	Increase in cross sectional flow area	
605	25614.47	0.1	0.3	Default Values	
606	25233.13	0.1	0.3	Default Values	
607	24840.10	0.1	0.3	Default Values	

Numerical Count	River Station	Contraction	Expansion	Supporting Information for Values Selected
608	24557.45	0.1	0.3	Default Values
609	24201.12	0.1	0.3	Default Values
610	23758.81	0.3	0.5	Reduction in cross sectional flow area
611	23338.44	0.3	0.5	Increase in cross sectional flow area
612	22957.25	0.1	0.3	Default Values
613	22671.91	0.1	0.3	Default Values
614	22322.48	0.1	0.3	Default Values
615	22131.87	0.1	0.3	Default Values
616	21941.61	0.1	0.3	Default Values
617	21673.52	0.1	0.3	Default Values
618	21196.46	0.3	0.5	Increase in cross sectional flow area
619	20712.48	0.1	0.3	Default Values
620	20293.12	0.3	0.5	Increase in cross sectional flow area
621	19947.81	0.1	0.3	Default Values
622	19326.83	0.3	0.5	Reduction in cross sectional flow area
623	19010.64	0.1	0.3	Default Values
624	18510.23	0.3	0.5	Reduction in cross sectional flow area
625	17921.08	0.1	0.3	Default Values
626	17404.51	0.1	0.3	Default Values
627	17000.26	0.3	0.5	Increase in cross sectional flow area
628	16626.20	0.1	0.3	Default Values
629	16245.61	0.2	0.4	Increase in cross sectional flow area
630	15768.70	0.2	0.4	Increase in cross sectional flow area
631	15292.91	0.1	0.3	Default Values
632	15003.00	0.1	0.3	Default Values
633	14663.14	0.1	0.3	Default Values
634	14237.27	0.1	0.3	Default Values
635	13749.83	0.1	0.3	Default Values
636	13295.00	0.1	0.3	Default Values
637	12889.37	0.1	0.3	Default Values
638	12561.79	0.1	0.3	Default Values
639	12272.02	0.1	0.3	Default Values
640	11811.99	0.1	0.3	Default Values
641	11489.68	0.1	0.3	Default Values
642	11094.83	0.1	0.3	Default Values
643	10703.42	0.1	0.3	Default Values
644	10155.36	0.1	0.3	Default Values
645	9759.63	0.1	0.3	Default Values
646	9353.37	0.1	0.3	Default Values
647	8918.82	0.1	0.3	Default Values
648	8440.84	0.1	0.3	Default Values
649	7931.42	0.2	0.4	Increase in cross sectional flow area
650	7573.39	0.2	0.4	Transition region
651	7163.09	0.2	0.4	Increase in cross sectional flow area
652	6668.65	0.1	0.3	Default Values
653	6235.18	0.1	0.3	Default Values
654	5779.03	0.1	0.3	Default Values
655	5275.38	0.2	0.4	Reduction in cross sectional flow area
656	4896.46	0.8	0.8	Increase in cross sectional flow area
657	4403.22	0.3	0.5	Increase in cross sectional flow area
658	3908.16	0.1	0.3	Default Values
659	3574.73	0.1	0.3	Default Values
660	3079.99	0.3	0.5	Increase in cross sectional flow area
661	2604.07	0.1	0.3	Default Values
662	2218.25	0.1	0.3	Default Values
663	1692.83	0.1	0.3	Default Values
664	1254.99	0.1	0.3	Default Values
665	906.25	0.1	0.3	Default Values
666	671.51	0.1	0.3	Default Values
667	454.95	0.3	0.5	Increase in cross sectional flow area
668	339.02	0.1	0.3	Default Values
669	125.25	0.1	0.3	Default Values
670	2.86	0.1	0.3	Default Values