

**CORRELATION OF MANUFACTURED THREE-SIDED SHAPES  
WITH PREDEFINED and USER DEFINED SHAPES IN HY8**

SPAN (ft)	RISE (ft)	NOMINAL <sup>1</sup> AREA (sf)	MANUFACTURER <sup>2</sup>				Predefined <sup>3</sup> Shape No. (HY8 v7.3)
			Aqua- Arch	Conspan	Ecospan (AB)	Hy- Span	
12	4	42	-	X (42)	-	-	1 (41)
	5	54	-	X (54)	-	-	5 (53)
	6	66	-	X (66)	-	-	9 (65)
	7	78	-	X (78)	-	-	13 (77)
	8	90	-	X (90)	-	-	17 (89)
	9	102	-	X (102)	-	-	21 (101)
	10	114	-	X (114)	-	-	25 (113)
14	4	50	-	X (50)	-	X (53)	1 (48)
	5	64	-	X (64)	-	-	5 (62)
	6	78	-	X (78)	-	X (81)	9 (76)
	7	92	-	X (92)	-	-	13 (90)
	8	106	-	X (106)	-	X (109)	17 (104)
	9	120	-	X (120)	-	-	21 (118)
	10	134	-	X (134)	-	X (137)	25 (132)
	11	148	-	X (148)	-	-	U (148)
16	4	55	-	-	X (55)	X (61)	1 (54)
	5	71	X (71)	X (71)	X (71)	-	5 (70)
	6	87	X (87)	X (87)	X (87)	X (93)	9 (86)
	7	103	X (103)	X (103)	X (103)	-	13 (102)
	8	119	X (119)	X (119)	X (119)	X (125)	17 (118)
	9	135	X (135)	X (135)	X (135)	-	21 (134)
	10	151	X (151)	X (151)	X (151)	X (157)	25 (150)
	11	167	-	-	X (167)	-	U (167)
	12	183	-	-	X (183)	-	U (183)
	13	199	-	-	X (199)	-	U (199)
	14	215	-	-	X (215)	-	U (215)
15	231	-	-	X (231)	-	U (231)	
18*	4	60	-	-	-	X (69)	-
	6	96	-	-	-	X (105)	-
	8	132	-	-	-	X (141)	-
	10	168	-	-	-	X (177)	-
20	4*	65	-	-	X (65)	X (77)	U (65)
	5	85	X (85)	X (85)	X (85)	-	1 (83)
	6	105	X (105)	X (105)	X (105)	X (117)	5 (103)
	7	125	X (125)	X (125)	X (125)	-	9 (123)
	8	145	X (145)	X (145)	X (145)	X (157)	13 (143)
	9	165	X (165)	X (165)	X (165)	-	17 (163)
	10	185	X (185)	X (185)	X (185)	X (197)	21 (183)
	11	205	X (205)	-	X (205)	-	25 (203)
	12	225	-	-	X (225)	-	U (224)
	13	245	-	-	X (245)	-	U (244)
	14	265	-	-	X (265)	-	U (264)
15	285	-	-	X (285)	-	U (284)	

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			Aqua- Arch	Conspan	Ecospan (AB)	Hy- Span	
22*	4	70	-	-	-	X (85)	-
	6	112	-	-	-	X (129)	-
	8	156	-	-	-	X (173)	-
	10	200	-	-	-	X (217)	-
24	4*	76	-	-	X (72)	X (89)	U (75)
	5	95	X (95)	-	X (95)	-	1 (92)
	6	119	X (119)	X (119)	X (119)	X (137)	5 (116)
	7	143	X (143)	X (143)	X (143)	-	9 (140)
	8	167	X (167)	X (167)	X (167)	X (185)	13 (164)
	9	191	X (191)	X (191)	X (191)	-	17 (188)
	10	215	X (215)	X (215)	X (215)	X (233)	21 (212)
	11	239	X (239)	-	X (239)	-	25 (236)
	12	263	-	-	X (263)	-	U (262)
	13	287	-	-	X (287)	-	U (286)
	14	311	-	-	X (311)	-	U (310)
15	335	-	-	X (335)	-	U (334)	
26*	4	84	-	-	-	X (97)	-
	6	129	-	-	-	X (149)	-
	8	181	-	-	-	X (201)	-
	10	233	-	-	-	X (253)	-
28	4	92	-	-	-	X (105)	-
	5	115	-	-	X (111)	-	U (114)
	6	139	-	-	X (138)	X (161)	1 (136)
	7	167	-	-	X (167)	-	5 (164)
	8	195	-	X (195)	X (195)	X (217)	9 (192)
	9	223	-	X (223)	X (223)	-	13 (220)
	10	251	-	X (251)	X (251)	X (273)	17 (248)
	11	279	-	X (279)	X (279)	-	21 (276)
	12	307	-	-	X (307)	-	25 (304)
	13	335	-	-	X (335)	-	U (334)
	14	363	-	-	X (363)	-	U (362)
15	391	-	-	X (391)	-	U (391)	
30*	4	98	-	-	-	X (113)	-
	6	146	-	-	-	X (173)	-
	8	206	-	-	-	X (233)	-
	10	266	-	-	-	X (293)	-

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			Aqua-Arch	Conspan	Ecospan (AB)	Hy-Span	
32	4*	103	-	-	-	X (122)	-
	6*	155	-	-	X (153)	X (185)	-
	7	183	-	-	X (184)	-	1 (179)
	8	215	-	X (216)	X (216)	X (249)	5 (211)
	9	247	-	X (248)	X (248)	-	9 (243)
	10	279	-	X (280)	X (280)	X (313)	13 (275)
	11	311	-	X (312)	X (315)	-	17 (307)
	12	343	-	X (344)	X (344)	-	21 (339)
	13	375	-	-	X (376)	-	25 (371)
	14	407	-	-	X (408)	-	U (406)
	15	439	-	-	X (440)	-	U (438)
34*	4	108	-	-	-	X (122)	-
	6	163	-	-	-	X (190)	-
	8	224	-	-	-	X (258)	-
	10	292	-	-	-	X (326)	-
36	6*	171	-	-	-	X (202)	-
	7*	207	-	-	X (197)	-	U (198)
	8	232	-	-	X (232)	X (274)	1 (277)
	9	268	-	X (268)	X (268)	-	5 (263)
	10	304	-	X (304)	X (304)	X (346)	9 (299)
	11	340	-	X (340)	X (340)	-	13 (335)
	12	376	-	X (376)	X (376)	X (418)	17 (371)
	13	412	-	X (412)	X (412)	-	21 (407)
	14	448	-	-	X (448)	-	25 (443)
	15	484	-	-	X (484)	-	-
38*	8	238	-	-	-	X (290)	-
	10	314	-	-	-	X (366)	-
40*	8	249	-	-	-	X (306)	-
	10	324	-	-	-	X (386)	-
42 EC	8*	260	-	-	X (271)	-	U (259)
	9*	293	-	-	X (313)	-	U (291)
	10	333	-	X (334)	-	-	1 (325)
	11	375	-	X (376)	-	-	5 (367)
	12	417	-	X (418)	-	-	9 (409)
	13	459	-	X (460)	-	-	13 (451)
	14	501	-	X (502)	-	-	17 (493)
42 New (HY8)	10	333	-	-	X (355)	-	1 (353)
	11	375	-	-	X (397)	-	5 (395)
	12	417	-	-	X (439)	-	9 (437)
	13	459	-	-	X (481)	-	13 (479)
	14	501	-	-	X (523)	-	17 (521)
	15	543	-	-	X (565)	-	21 (563)

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			Aqua- Arch	Conspan	Ecospan (AB)	Hy- Span	
48	9*	335	-	-	X (340)	-	U (333)
	10	372	-	X (387)	X (387)	-	3 (404)
	11	414	-	X (435)	X (435)	-	7 (452)
	12	462	-	X (483)	X (483)	-	11 (500)
	13*	510	-	-	X (531)	-	15 (548)
	14*	558	-	-	X (579)	-	19 (596)
	15*	606	-	-	X (627)	-	23 (644)
54	10	418	-	X (437)	X (437)	-	3 (434)
	11	460	-	X (491)	X (491)	-	7 (487)
	12	504	-	X (545)	X (545)	-	11 (540)
	13	558	-	X (599)	X (599)	-	15 (593)
	14	612	-	X (653)	X (653)	-	19 (646)
	15*	666	-	-	X (707)	-	23 (699)
60*	12	558	-	X (575)	X (575)	-	11 (575)
	13	604	-	X (635)	X (635)	-	15 (634)
	14	662	-	X (695)	X (695)	-	19 (693)
	15	722	-	-	X (755)	-	23 (752)
70*	12	650	-	-	X (647)	-	U (647)
	13	705	-	-	X (717)	-	U (701)
	14	759	-	-	X (787)	-	U (755)
	15	813	-	-	X (857)	-	U (809)
80*	12	743	-	-	X (704)	-	U (739)
	13	805	-	-	X (783)	-	U (801)
	14	867	-	-	X (862)	-	U (863)
	15	929	-	-	X (942)	-	U (924)

NOTES:

1. Nominal areas refer to the total opening size for each of the predefined shapes in HECRAS, version 4.1.0. as determined by KYTC. Comparison areas are shown in parentheses.
2. The area of the predefined HY8 shapes and the area values supplied by the manufacturers (Feb-2012) match or exceed the corresponding nominal areas. The use of other structures must be approved by the Drainage Branch prior to use.
3. Entries identify the recommended predefined HY8 shape. "U" denotes that a user defined shape as determined by KYTC is available.

\* - Shape was created in HECRAS by interpolation, stretching or extension of available shapes.