

## Structure Options

Shape		Rise (1)	Minimum Cover (in)		Maximum Cover (ft)		Cost/Foot assembled (2)	
			Steel	Aluminum	Steel	Aluminum	Steel	Aluminum
<b>16 foot span</b>								
round	multi-plate	16'	24"	18"	21'+	14'+	378	454
pipe arch	multi-plate	10'-4"	30"	18"	10'	10'	341	275
ellipse	super-span	11'-2"	30"					
low arch	multi-plate	5'-8"	24"	18"	14'+	14'+	229	268
med arch	multi-plate	7'-1"	24"	18"	14'+	14'+	266	280
1/2 arch	multi-plate	8'-3"	24"	18"	14'+	14'+	294	303
low box	multi-plate	3'-5"	17"	17"		5'		452
high box	multi-plate	7'-10"	17"	17"		5'		484
box	rcc	up to 12'	0				323	
<b>20 foot span</b>								
round	multi-plate	20'	30"	24"	25'+	20'	766	515
pipe arch	multi-plate	13'-4"	30"	24"	9'	13'	530	349
ellipse	super-span	14'	30"	24"	15'+		552	374
low arch	multi-plate	7'	30"	24"	17'+	17'+	359	303
med arch	multi-plate	8'-10"	30"	24"	17'+	17'+	404	323
1/2 arch	multi-plate	10'-4"	30"	24"	17'+	17'+	450	353
low box	multi-plate	5'-4"	18	20"		5'		575
high box	multi-plate	9'-8"	18	20"		5'		676
box	rcc	up to 12'	0				495	
<b>25 foot span</b>								
round	multi-plate	25'	42"		32'+		1397	
ellipse	multi-plate	17'-6"	36"	36"	14'		1280	
low arch	multi-plate	8'-9"	42"	36"	20'+		621	
med arch	multi-plate	11'	42"	36"	20'+		700	
1/2 arch	multi-plate	12'11"	42"	36"	20'+		880	
low box	multi-plate	6'-8"	18	36"	5'	5		767
high box	multi-plate	12'-1"	18	36"	5'	4.8		884
box	rcc	up to 12'	0				~ 900	
<b>30 foot span</b>								
ellipse	super span	21'	18'	36"	36"	20'	2044	2657
super low	super span	6'-4"	8' 5"	36"			1405	1826
low	super span	9'-1"	10'	36"	36"	10'	992	1289
med	super span	9'-11"	12'	36"			1117	1452
high box	super span	15'-5"	18'	36"	36"	18'	884	1149
box	rcc	up to 12'		0			~ 1400	

**Note: Information for class exercise only; do not use for design.**

1. Dimensions are not necessarily accurate and correct. Some are estimates.
2. Costs are for structure only and do not include any site prep, backfill, etc.