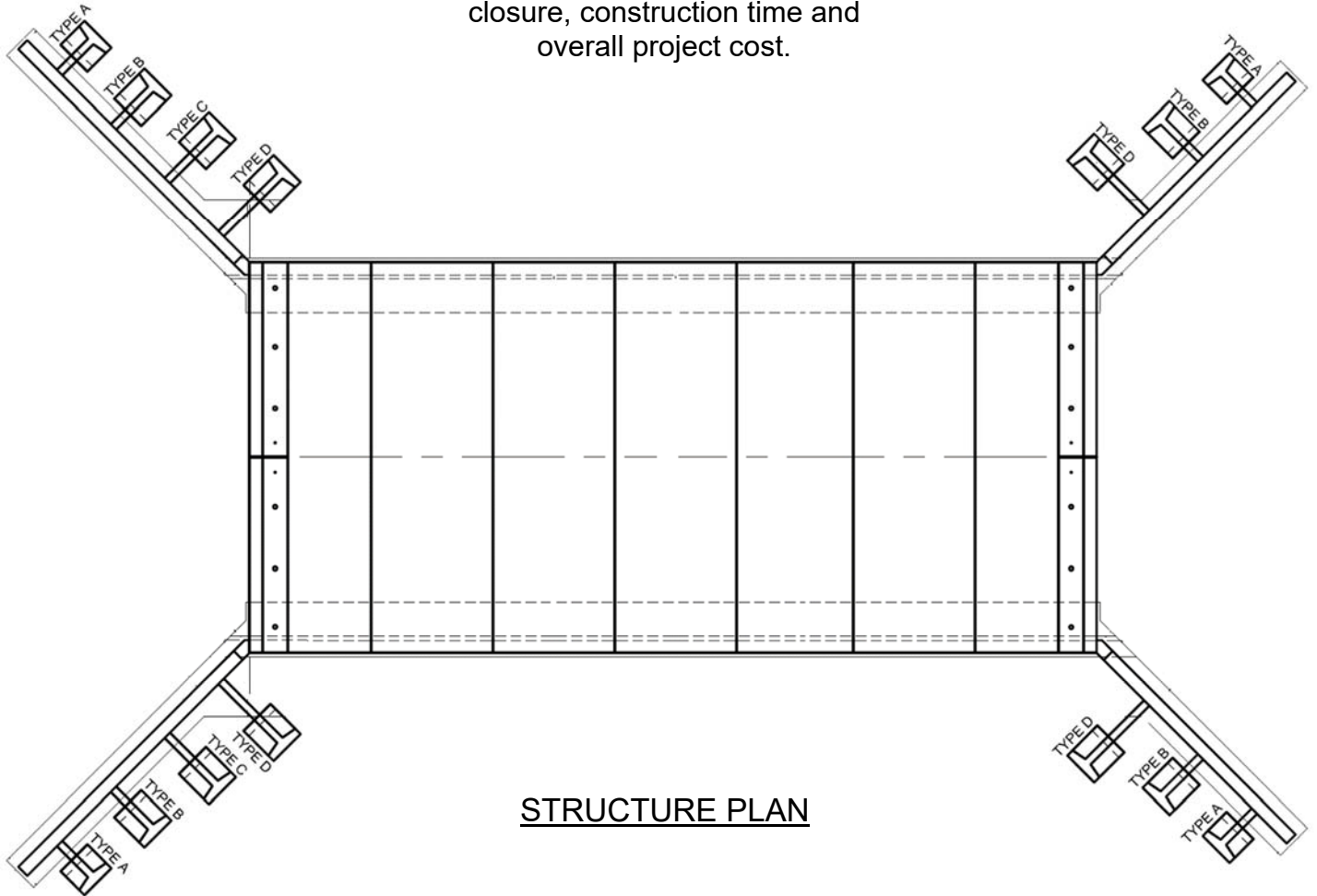


## DESIGN DETAILS

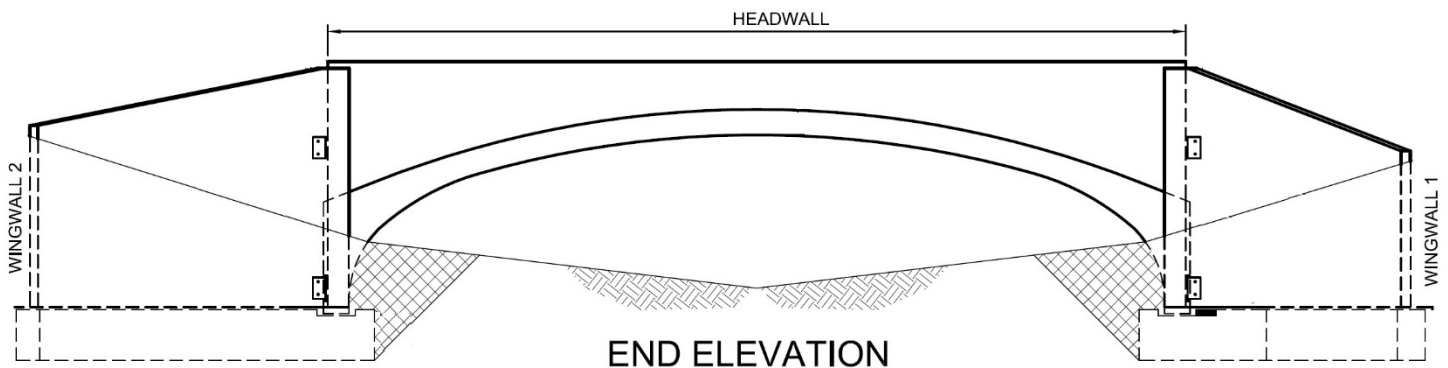
The structure can be set on **strip footings, pedestal wall foundations, slab foundations or piles.**

Precast Arch Units are cast in a plant in controlled conditions while the site is prepared concurrently. The units are **typically installed in a single day.** This minimizes road closure, construction time and overall project cost.

**Precast Headwalls and Wingwalls** are set with the same crane to complete the installation. **Backfill can be placed the very next day.**



STRUCTURE PLAN



END ELEVATION



### WATERWAY AREA CHART

Span	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	
Rise																						
3	30	36																				
4	42	50	55	60																		
5	54	64	71	78	85	90	95															
6	66	78	87	96	105	112	119	124	139													
7	78	92	103	114	125	134	143	150	167	175	184	190										
8	90	106	119	132	145	156	167	176	195	205	216	224	232	239								
9	102	120	135	150	165	178	191	202	223	235	248	258	268	277	285	292	324	332	339			
10	114	134	151	168	185	200	215	228	251	265	280	292	304	315	325	334	368	378	387	395	403	
11	126	148	167	186	205	222	239	254	279	295	312	326	340	353	365	376	412	424	435	445	455	
12	138	162	183	204	225	244	263	280	307	325	344	360	376	391	405	418	456	470	483	495	507	
13	150	176	199	222	245	266	287	306	335	355	376	394	412	429	445	460	500	516	531	545	559	
14	162	190	215	240	265	288	311	332	363	385	408	428	448	467	485	501	544	562	579	595	611	
15																	588	608	627	645	663	

### PRECAST WINGWALL BENEFITS

- Thinner Wall Cross Sections
- Reduced Foundation Widths
- Reduced Excavation Width
- Faster Installation

