

Criteria	Alternative 2a: Single Steel Tied Arch	Alternative 2b: Double Steel Tied Arch	Alternative 3: Cast-in-place Segmental Concrete Box Girder	Alternative 4a: Segmental Precast Concrete Box	Alternative 4b: Steel Girder
Example photo					
Span lengths (feet) and descriptions	<ul style="list-style-type: none"> 520' arch span over west channel 175'-300' steel approach spans Single bridge 	<ul style="list-style-type: none"> 620' arch spans over both channels 210' steel approach spans Single bridge 	<ul style="list-style-type: none"> 450' west channel span 250' concrete box approach spans Preferably side-by-side bridges 	<ul style="list-style-type: none"> 300' spans over water 170' precast concrete box approach spans Preferably side-by-side bridges 	<ul style="list-style-type: none"> 300' spans over water 170' steel approach spans Single or side-by-side bridges
Aesthetic elements	<ul style="list-style-type: none"> <i>Main span:</i> above-deck steel tied arch <i>East approach span:</i> steel girders <i>West approach span:</i> precast concrete girders 	<ul style="list-style-type: none"> <i>Main spans:</i> above-deck steel tied arch <i>East approach span:</i> steel girders <i>West approach span:</i> precast concrete girders 	<ul style="list-style-type: none"> <i>Main span:</i> box depth (26') at piers <i>East approach span:</i> box depth 10' <i>West approach span:</i> precast concrete girders 	<ul style="list-style-type: none"> <i>Main span:</i> box depth (14') at piers <i>Approach spans:</i> box depth 8' precast segmental girders 	<ul style="list-style-type: none"> <i>Main and east approach spans:</i> steel girders <i>West approach span:</i> precast concrete girders or steel girders
Estimated bridge construction cost	<ul style="list-style-type: none"> \$125 - \$165 million (from Marine Drive to Commercial Street; 4,000' long) 	<ul style="list-style-type: none"> \$165 - \$210 million (from Marine Drive to Commercial Street; 4,000' long) 	<ul style="list-style-type: none"> \$110 - \$160 million (from Marine Drive to Commercial Street; 4,000' long) 	<ul style="list-style-type: none"> \$100 - \$140 million (from Marine Drive to Commercial Street; 4,000' long) 	<ul style="list-style-type: none"> \$95 - \$135 million (from Marine Drive to Commercial Street; 4,000' long)
Number (area) of in-river piers	<ul style="list-style-type: none"> 4 piers (total 1,300 sf) 	<ul style="list-style-type: none"> 2 piers (total 900 sf) 	<ul style="list-style-type: none"> 8 piers (total 1,600 sf) 	<ul style="list-style-type: none"> 8 piers (total 1,300 sf) 	<ul style="list-style-type: none"> 8 skewed piers (total 1,000 sf)
Accommodates future widening	<ul style="list-style-type: none"> Not feasible 	<ul style="list-style-type: none"> Not feasible 	<ul style="list-style-type: none"> Difficult: requires separate structure 	<ul style="list-style-type: none"> Difficult: requires separate structure 	<ul style="list-style-type: none"> Easily widened
Constructability and temporary work	<ul style="list-style-type: none"> <i>Work bridge:</i> east bank to island <i>Sheetpile cofferdams around island pier:</i> yes <i>Falsework required in river:</i> temporary piers for arch and at each girder splice 	<ul style="list-style-type: none"> <i>Work bridge:</i> east bank to island <i>Sheetpile cofferdams around island pier:</i> yes <i>Falsework required in river:</i> temporary piers for arch and at each girder splice 	<ul style="list-style-type: none"> <i>Work bridge:</i> east bank to island <i>Sheetpile cofferdams around piers:</i> yes 	<ul style="list-style-type: none"> <i>Work bridge:</i> east bank to west channel <i>Sheetpile cofferdams around piers:</i> yes 	<ul style="list-style-type: none"> <i>Work bridge:</i> east bank to west channel <i>Sheetpile cofferdams around piers:</i> yes <i>Falsework required in river:</i> temporary piers at each girder splice
Maintenance	<ul style="list-style-type: none"> Medium: requires more detailed inspections Painting costs (unless weathering steel used) 	<ul style="list-style-type: none"> Medium: requires more detailed inspections Painting costs (unless weathering steel used) 	<ul style="list-style-type: none"> Low: little maintenance 	<ul style="list-style-type: none"> Low: little maintenance 	<ul style="list-style-type: none"> Medium: steel painting costs (unless weathering steel used)