

In the traditional form, a steel arch has a similar structural action to old masonry arch bridges. The arch springs from the foundations and exerts horizontal thrusts on them.

Master the essentials of modern construction--from bolted column splices in steel high-rises to the nerve-shredding float-in of a 1,000-ton bridge arch in Edmonton.

It begins by describing the three main types of steel arch bridges: deck arches, through arches, and tied arches. For each type, it outlines the general design characteristics, primary and secondary ...

Explore the fundamental physics and complex construction methods that transform steel into monumental arch bridges.

The methods, formulations, and parametric studies described in this paper, as well as their conclusions and design recommendations, were developed to assist designers in the ...

In the following paragraphs, basic erection equipment is discussed with specific examples shown for different bridge types including considerations regarding the access to and topography of the ...

In order to complete the construction of large-span steel arch bridges using the incremental launching method (ILM), this article proposes a two-stage construction method of lifting ...

AttributesForms of ConstructionMaterialsDesignConstructionDurabilityCase StudiesResourcesSee AlsoExternal LinksMain article: Design for steel bridge construction Offsite prefabrication of steel components means that construction time on site, often in hostile environments, is minimised. The speed of bridge construction made possible by steel allows disruption to road and rail users to be kept to a minimum, if not eliminated, with significant positive knock-...See more on steelconstruction ol#b\_results li.b\_ad,ol#b\_topw.b\_results\_eml li.b\_ad,ol#b\_topw li.b\_ad{background-color:transparent;border-right:0;border-bottom:1px solid #ebeb; margin-bottom:1px;padding-right:0;padding-bottom:5px}ol#b\_results li.b\_adBottom,ol#b\_topw.b\_results\_eml li.b\_adBottom{border-top:1px solid #ebeb;border-bottom:0;padding-bottom:0}ol#b\_context li.b\_ad,ol#b\_rrat\_cont li.b\_ad{background-color:transparent}.sb\_add cite{text-transform:lowercase}#b\_results .b\_ad .sb\_adTA .b\_caption,#b\_topw.b\_results\_eml .b\_ad .sb\_adTA .b\_caption,#b\_results .b\_ad .sb\_adTA .b\_vlist2col li,#b\_topw.b\_results\_eml .b\_ad .sb\_adTA .b\_vlist2col li,#b\_results .b\_ad .sb\_adTA .b\_factrow,#b\_topw.b\_results\_eml .b\_ad .sb\_adTA .b\_factrow,#b\_results .b\_ad .sb\_adTA .b\_bcfactrow,#b\_topw.b\_results\_eml .b\_ad .sb\_adTA .b\_bcfactrow,#b\_topw .b\_ad .sb\_adTA .b\_vlist2col li,#b\_topw .b\_ad .sb\_adTA .b\_factrow,#b\_topw .b\_ad

# Bridge construction with steel arch frame

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.b_factrow,#b_topw.b_results_eml .b_ad .sb_adTA .b_factrow,#b_results .b_ad .sb_adTA
.b_bcfactrow,#b_topw.b_results_eml .b_ad .sb_adTA .b_bcfactrow,#b_results .b_ad
.sb_adig,#b_topw.b_results_eml .b_ad .sb_adig,#b_topw .b_ad .sb_adTA .b_vlist2col,#b_topw .b_ad
.sb_adTA .b_factrow,#b_topw .b_ad .sb_adTA .b_bcfactrow,#b_topw .b_ad
.sb_adig{margin-top:0}#b_results .b_ad h3.b_adlabel,#b_topw.b_results_eml .b_ad h3.b_adlabel,#b_topw
.b_ad h3.b_adlabel{margin-bottom:var(--smtc-gap-between-content-xx-small)}.b_ad
.pa_mlo~.sb_adt{margin-bottom:-6px}.b_ad_description{font:var(--bing-smtc-text-global-body3);color:var(--
bing-ads-smtc-desktop-foreground-snippet-default)}#b_content #b_results
li.b_ad.b_adMiddle{margin-top:0;margin-bottom:16px}.b_ad
.b_floatR_img{padding-left:var(--mai-smtc-padding-card-nested-default)}#b_results .sb_add h2:~
a,#b_topw.b_results_eml .sb_add h2:~ a{text-decoration:underline}#b_results .sb_add
h2:~ a,#b_topw.b_results_eml .sb_add h2:~ a{cursor:pointer}.b_ad
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#b_topw.b_results_eml>li.b_ad{background-color:#fcfaf9} #b_context>li.b_ad{background-color:#fcfaf9}
.b_dark #b_results>li.b_ad{background-color:inherit} .b_dark
#b_topw.b_results_eml>li.b_ad{background-color:inherit}.pa_item .pa_img.white_bg,.pa_hover
.pa_hover_img.white_bg{background-color:#f5f5f5}@media(forced-colors:none){.pa_item .pa_img.white_bg
img,.pa_hover .pa_hover_img.white_bg img{mix-blend-mode:multiply}}.pa_carousel
.b_slideexp{margin-bottom:0}.pa_carousel .b_slideexp
.btn{z-index:8}.pa_carousel_mlo{padding-bottom:var(--smtc-gap-between-content-xx-small)}.b_adBottom
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.pa_carousel_ml{padding-right:20px}.pa_carousel_mlo.expanded
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cubic-bezier(.3,.5,.1,1) .3s 1 normal forwards}@-webkit-keyframes
slideInFromLeft{0%{visibility:visible;transform:translateX(100%)}100%{visibility:visible;transform:translat
eX(0)}}@keyframes
slideInFromLeft{0%{visibility:visible;transform:translateX(100%)}100%{visibility:visible;transform:translat
eX(0)}}.pa_carousel_ml .slide:focus-visible{text-decoration:underline}#b_content .pa_carousel_mlo
.b_slidesContainer{width:100%}.b_poleContent:has(.pa_carousel_mlo){width:auto}li
.pa_mlo{padding-bottom:0}#b_content ol#b_results li.b_ad,#b_content ol#b_topw.b_results_eml
li.b_ad{border-bottom:0}.b_ad
.b_adPATitleBlock{padding-left:0}.b_adPATitle{text-overflow:ellipsis;overflow:hidden;white-space:nowrap;
padding-right:var(--smtc-gap-between-content-medium);height:26px;font:var(--bing-smtc-text-global-subtitle
1-strong);color:var(--smtc-foreground-content-neutral-primary)!important;padding-bottom:var(--smtc-padding
-ctrl-sm-text-bottom)}.b_adPATitleBlock{padding-bottom:var(--smtc-gap-between-content-small)}.b_adPAT
itleBlock .b_floatR{margin-left:var(--mai-smtc-padding-card-default)}.b_adPATitle
a:focus-visible{margin-left:var(--smtc-padding-ctrl-text-side);text-decoration:underline}.b_adPATitle
a{font:var(--bing-smtc-text-global-subtitle1-strong)!important;color:var(--smtc-foreground-content-neutral-pri
```

# Bridge construction with steel arch frame

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mary)!important;vertical-align:text-bottom}.pa_carousel_ml
.b_adPATitleBlock{padding-left:var(--mai-smtc-padding-card-default)}.b_adPATitle_chevron{display:inline-
flex;padding:var(--smtc-gap-inside-ctrl-to-secondary-icon)}.b_adPATitleBlock
acf-badge{display:inline-flex!important}acf-badge{display:flex;align-items:center;inline-size:fit-content;max-
inline-size:100%;gap:var(--smtc-ctrl-badge-gap);padding-block-start:var(--smtc-ctrl-badge-sm-text-padding-to
p);padding-block-end:var(--smtc-ctrl-badge-sm-text-padding-bottom)}acf-badge,acf-badge::before,acf-badge::
after,acf-badge
*,acf-badge
*::before,acf-badge
*::after{box-sizing:border-box;margin:0;padding:0}acf-badge,acf-badge
*{display:none}acf-badge[data-visually-hidden],acf-badge
*[data-visually-hidden]{block-size:1px;inline-size:1px;margin:unset;padding:unset;border:0;clip:rect(0 0 0
0);clip-path:inset(50%);overflow:clip;position:absolute;white-space:nowrap}acf-badge>*{min-inline-size:0;fl
ex-shrink:0;flex-grow:0}acf-badge
span{flex-shrink:1;white-space:nowrap;text-overflow:ellipsis;overflow:clip;max-block-size:calc(1*1lh)}acf-b
adge[data-fill="Tint"]{background-color:var(--smtc-status-informative-tint-background)}.acf-badge__favicon
{border-radius:var(--mai-smtc-corner-favicon)}@media(forced-colors:active){acf-badge{border:1px
solid}}acf-badge[data-size="AdSlugSize"]{border:1px
solid
var(--bing-ads-smtc-ad-slug-stroke);border-radius:var(--bing-ads-smtc-ad-slug-corner);margin-inline-end:var(
--smtc-gap-between-content-xxx-small);padding-inline:var(--smtc-padding-ctrl-text-side)}acf-badge[data-size
="AdSlugSize"][data-weight="Default"]{font:var(--bing-smtc-text-global-caption2);line-height:var(--bing-ads
-smtc-ad-slug-line-height)}acf-badge[data-size="AdSlugSize"][data-weight="Heavy"]{font:var(--bing-smtc-te
xt-global-caption2-strong);line-height:var(--bing-ads-smtc-ad-slug-line-height)}acf-badge[data-style="AdSlug
"]{color:var(--bing-ads-smtc-desktop-foreground-ad-slug-default)}acf-badge[data-style="AdSlug"][data-fill="
AdSlugWhite"]{background-color:var(--smtc-background-web-page-primary)}acf-badge[data-style="AdSlug
"][data-fill="AdSlugTransparent"]{background-color:transparent}.b_adChoice{position:relative;width:12px;h
eight:12px;text-indent:0;overflow:hidden;direction:ltr;transform:none;float:right}.b_adChoiceInline{display:i
nline-block}.b_adChoice::after{transform-origin:-320px
0;transform:scale(.5);position:relative;display:inline-block}.b_adSlugRow
.b_adChoice{float:none;vertical-align:-1px;display:inline-block}.pa_sbo+a
.b_adChoice{margin-top:8px}.b_adPATitleBlock
bubble_lite
bubble_item,.b_adSlugRow
bubble_lite
bubble_item,.b_spa_adblock
bubble_lite
bubble_item,.b_magazine
bubble_lite
bubble_item,.ra_car_container
bubble_lite
bubble_item,.b_adinfo{display:inline-block!important}.b_adinfo{cursor:pointer;vertical-align:middle;line-hei
ght:0}@media(forced-colors:active){.b_adChoice{filter:invert(1)}}.b_adChoice::after{content:url(/rp/EX_mg
ILPdYtFnI-37m1pZn5YKII.png)}.emb_ppa
.listad{position:relative}.emb_ppa
.b_adinfo
bubble_item{height:12px}.emb_ppa
lcard
.lc_content
.b_factrow
.b_slgw{position:absolute;top:6px;left:8px;display:flex;align-items:center;border:1px
solid
#ecec;border-radius:6px;background-color:#fff;justify-content:center;height:20px;width:71px}div.b_adSlug
,lcard
.lc_content
.b_factrow
div.b_embPPASlug
.b_adSlug,#lMapContainer
.b_aswta
.vertcard
.lc_content
div.b_factrow
div.b_adSlug,div.gs_VA_slgw
.b_adSlug.b_opttxt
.b_divdef,
.genserp_PA_container
.genserp_PA_title
div.genserp_PA_adslug
span.genserp_adSlug,.gs_embedded_label_container,.embedded_msan_ad_slug{border:0;margin-right:0}.b_a

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# Bridge construction with steel arch frame

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.b_wpt_container:has(.b_acf_crsl)      .b_viewport{padding:unset}#b_topw      .b_wpt_container
.b_wpt_bl:has(.b_acf_crsl){overflow:visible}.b_acf_crsl      .b_slidesContainer
.slide.b_crslitm{overflow:unset}.b_acf_crsl      .btn.next      .bg,.b_acf_crsl      .btn.prev
.bg{background:unset}.b_acf_crsl.hovexp .b_viewport,.b_acf_crsl.hovexp .b_slidebar,#b_pole #tob_container
.b_acf_crsl.hovexp      .b_viewport{height:unset!important}#b_topw      .b_wpt_container      .b_acf_crsl
.btn.bld.next,#b_topw      .b_wpt_container      .b_acf_crsl      .btn.bld.prev,.b_acf_crsl      .btn.next,.b_acf_crsl
.btn.prev{z-index:5}.b_acf_crsl.b_fadebg      .btn.next
.bg{background:linear-gradient(90deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
0%,var(--smtc-background-card-on-primary-default-rest)      60%)} .b_acf_crsl.b_fadebg      .btn.prev
.bg{background:linear-gradient(270deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
0%,var(--smtc-background-card-on-primary-default-rest)      60%)} .b_acf_crsl.b_fadebg.b_fadebg_theme
.btn.next      .bg{background:linear-gradient(90deg,var(--bing-smtc-ctrl-background-fade-stop-0)
0,var(--bing-smtc-background-card-on-primary-alt-rest)      20px)} .b_acf_crsl.b_fadebg.b_fadebg_theme
.btn.prev      .bg{background:linear-gradient(270deg,var(--bing-smtc-ctrl-background-fade-stop-0)
0,var(--bing-smtc-background-card-on-primary-alt-rest)      20px)} .b_dark      .b_acf_crsl      .b_slidebar
.slide{background-color:unset}[dir="rtl"]      .b_acf_crsl.b_fadebg      .btn.next
.bg{background:linear-gradient(270deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
0%,var(--smtc-background-card-on-primary-default-rest)      60%)}[dir="rtl"] .b_acf_crsl.b_fadebg      .btn.prev
.bg{background:linear-gradient(90deg,var(--bing-smtc-background-ctrl-fade-on-primary-stop-0)
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.b_acf_crsl.b_fadebg.b_fadebg_theme      .btn.next
.bg{background:linear-gradient(270deg,var(--bing-smtc-ctrl-background-fade-stop-0)
0,var(--bing-smtc-background-card-on-primary-alt-rest)      20px)}[dir="rtl"]
.b_acf_crsl.b_fadebg.b_fadebg_theme      .btn.prev
.bg{background:linear-gradient(90deg,var(--bing-smtc-ctrl-background-fade-stop-0)
0,var(--bing-smtc-background-card-on-primary-alt-rest)      20px)} .b_acf_crsl.hovexp .leftmost .b_overlay
.b_viewport,.b_acf_crsl.hovexp .leftrightmost .b_overlay .b_viewport,.b_acf_crsl.hovexp .b_overlay
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between-content-x-large)*-1)!important}.b_acf_crsl.hovexp      .middle      .b_overlay
.b_viewport,.b_acf_crsl.hovexp      .rightmost      .b_overlay
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.slide{margin-inline-end:var(--smtc-padding-ctrl-sm-text-top)!important}.b_rowg_3xs
.slide>{*margin-bottom:var(--smtc-padding-ctrl-sm-text-top)!important}.b_colg_2xs
.slide{margin-inline-end:var(--smtc-gap-between-content-xx-small)!important}.b_rowg_2xs
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.slide>{*margin-bottom:var(--smtc-gap-between-content-x-small)!important}.b_colg_s

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.slide{margin-inline-end:var(--smtc-padding-content-xx-large)!important}.b_rowg_3xl
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.b_acf_card:focus-visible,.b_acf_crsl .b_acf_card.b_acf_kbd_focus{outline:2px solid
var(--smtc-ctrl-focus-outer-stroke);outline-offset:-3px;border-radius:var(--mai-smtc-corner-card-default);z-ind
ex:1}.b_acf_card{box-sizing:border-box;border-radius:var(--mai-smtc-corner-card-default);-webkit-user-selec
t:none;user-select:none;position:relative;width:100%;height:100%;position:relative}.b_acf_card.b_acf_bckgn
d{background:var(--bing-smtc-background-card-on-primary-alt-rest)}.b_acf_card_link{border-radius:var(--m
ai-smtc-corner-card-default);outline-offset:-1px;position:absolute;width:100%;height:100%}.b_acf_card_link:
hover{text-decoration:unset}.acf_col1_4{width:140px}.acf_col1_6{width:160px}@media(forced-colors:activ
e){.b_acf_card_link{background-color:unset}.b_acf_card
.acf_t_c_title{color:LinkText!important}}.acf_col1{width:88px}.acf_col2{width:200px}.acf_col3{width:312
px}.acf_col4{width:424px}.acf_col5{width:536px}.acf_col6{width:648px}.acf_col7{width:760px}.acf_col8
{width:872px}.acf_col9{width:984px}.acf_col10{width:1096px}.acf_col11{width:1208px}.acf_col12{width:
1320px}.acf_row1{height:88px}.acf_row2{height:200px}.acf_row3{height:312px}.acf_row4{height:424px}.
acf_row5{height:536px}.acf_row6{height:648px}.acf_row7{height:760px}.acf_row8{height:872px}.acf_row
9{height:984px}.acf_row10{height:1096px}.acf_row11{height:1208px}.acf_row12{height:1320px}.b_overla
y .acfdefaultchev.btn.next{right:0!important}.b_overlay .acfdefaultchev.btn.prev{left:0!important}.b_overlay
.acfdefaultchev.btn:hover .bg{opacity:unset;filter:unset}.b_overlay .acfdefaultchev.btn.disabled,.b_overlay
.acfdefaultchev.btn.hidden{display:none}.b_overlay .acfdefaultchev.btn{width:48px}.b_overlay
.acfdefaultchev.btn .bg{opacity:unset}.b_overlay .acfdefaultchev.btn.prev .cr{left:0}.b_overlay
.acfdefaultchev.btn.next .cr{right:0}.acfdefaultchev
.cr{display:flex;justify-content:center;align-items:center;flex:1 0
0;align-self:stretch;width:36px;height:48px;position:absolute;margin:unset;opacity:unset;transition:unset;bord
er-radius:var(--smtc-corner-ctrl-lg-rest);background:var(--bing-smtc-background-container);box-shadow:var(-
-smtc-shadows-floating-action-button-rest);fill:var(--smtc-foreground-content-neutral-secondary)}.acfdefaultc
hev .cr:hover{background:var(--smtc-ctrl-fab-background-hover)}.acfdefaultchev
.cr:active{background:var(--smtc-ctrl-fab-background-pressed)}.b_ofchev .acfdefaultchev.btn.prev
.cr{left:-18px}.b_ofchev .acfdefaultchev.btn.next
.cr{right:-18px}@media(forced-colors:active){.acfdefaultchev .cr{background:ButtonFace}.acfdefaultchev
```

# Bridge construction with steel arch frame

```
.cr>svg{fill:ButtonText}.acfdefaultchev .cr: hover,.acfdefaultchev
.cr:has(:focus-visible){background:Highlight}}.b_nochevshadow .acfdefaultchev .cr,.b_nochevshadow
.acfdefaultchev .cr: hover,.b_nochevshadow .acfdefaultchev .cr:active,.b_nochevshadow .acfdefaultchev
.cr:focus{background:none!important;box-shadow:none!important}.slide.b_crslitm.b_sldfitcont{width:fit-cont
ent}#b_content .pa_carousel_mlo .pa_item.pa_vCard .pa_title,#b_content .pa_carousel_mlo
.pa_item.pa_vCard .pa_caption,#b_content .pa_carousel_mlo .pa_item.pa_vCard .b_finalText,#b_content
.pa_carousel .pa_item.pa_vCard .pa_title,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption,#b_content
.pa_carousel .pa_item.pa_vCard .b_finalText,#b_content .pa_grid .pa_item.pa_vCard .pa_title,#b_content
.pa_grid .pa_item.pa_vCard .pa_caption,#b_content .pa_grid .pa_item.pa_vCard .b_finalText{padding:0
var(--smtc-padding-ctrl-horizontal-default)}#b_content .pa_carousel_mlo .pa_item.pa_vCard .cico,#b_content
.pa_carousel .pa_item.pa_vCard .cico,#b_content .pa_grid .pa_item.pa_vCard
.cico{margin-bottom:var(--smtc-gap-between-content-small)}#b_content .pa_carousel_mlo
.pa_item.pa_vCard .pa_title,#b_content .pa_carousel .pa_item.pa_vCard .pa_title,#b_content .pa_grid
.pa_item.pa_vCard
.pa_title{font:var(--bing-smtc-text-global-body3);color:var(--smtc-ctrl-link-foreground-brand-rest)}#b_content
.pa_carousel_mlo .pa_item.pa_vCard .pa_caption,#b_content .pa_carousel .pa_item.pa_vCard
.pa_caption,#b_content .pa_grid .pa_item.pa_vCard
.pa_caption{margin-top:var(--smtc-gap-between-content-x-small);padding-bottom:var(--smtc-gap-between-co
ntent-x-small);font:var(--bing-smtc-text-global-caption1)!important}#b_content .pa_carousel_mlo
.pa_item.pa_vCard .pa_caption .pa_price,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption
.pa_price,#b_content .pa_grid .pa_item.pa_vCard .pa_caption
.pa_price{margin-bottom:var(--smtc-gap-between-content-xx-small)}#b_content .pa_carousel_mlo
.pa_item.pa_vCard .pa_caption .pa_price .prc_clr_grn,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption
.pa_price .prc_clr_grn,#b_content .pa_grid .pa_item.pa_vCard .pa_caption .pa_price
.prc_clr_grn{color:var(--smtc-status-success-tint-foreground)}#b_content .pa_carousel_mlo
.pa_item.pa_vCard .pa_caption .pa_price strong,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption
.pa_price strong,#b_content .pa_grid .pa_item.pa_vCard .pa_caption .pa_price
strong{color:var(--smtc-foreground-content-neutral-primary)}#b_content .pa_carousel_mlo
.pa_item.pa_vCard .pa_caption .pa_price .original_price,#b_content .pa_carousel .pa_item.pa_vCard
.pa_caption .pa_price .original_price,#b_content .pa_grid .pa_item.pa_vCard .pa_caption .pa_price
.original_price{font:var(--bing-smtc-text-global-caption1);padding-left:var(--smtc-gap-between-content-x-sma
ll)}#b_content .pa_carousel_mlo .pa_item.pa_vCard .pa_caption .pa_installmentDesc,#b_content
.pa_carousel_mlo .pa_item.pa_vCard .pa_caption .pa_unitprice,#b_content .pa_carousel_mlo
.pa_item.pa_vCard .pa_caption .vertical_converted_price,#b_content .pa_carousel_mlo .pa_item.pa_vCard
.pa_caption .pa_shippingcost,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption
.pa_installmentDesc,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption .pa_unitprice,#b_content
.pa_carousel .pa_item.pa_vCard .pa_caption .vertical_converted_price,#b_content .pa_carousel
.pa_item.pa_vCard .pa_caption .pa_shippingcost,#b_content .pa_grid .pa_item.pa_vCard .pa_caption
.pa_installmentDesc,#b_content .pa_grid .pa_item.pa_vCard .pa_caption .pa_unitprice,#b_content .pa_grid
.pa_item.pa_vCard .pa_caption .vertical_converted_price,#b_content .pa_grid .pa_item.pa_vCard .pa_caption
.pa_shippingcost{font:var(--bing-smtc-text-global-caption1);margin-bottom:var(--smtc-gap-between-content-
```

# Bridge construction with steel arch frame

```

xx-small);color:var(--bing-smtc-foreground-content-neutral-secondary-alt)}#b_content .pa_carousel_mlo
.pa_item.pa_vCard .pa_caption .b_attribution,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption
.b_attribution,#b_content .pa_grid .pa_item.pa_vCard .pa_caption
.b_attribution{margin-bottom:var(--smtc-gap-between-content-xx-small);color:var(--bing-smtc-foreground-co
ntent-neutral-secondary-alt);border-bottom:0;font:var(--bing-smtc-text-global-caption1)}#b_content
.pa_carousel_mlo .pa_item.pa_vCard .pa_caption .b_attribution cite,#b_content .pa_carousel
.pa_item.pa_vCard .pa_caption .b_attribution cite,#b_content .pa_grid .pa_item.pa_vCard .pa_caption
.b_attribution
cite{font:var(--bing-smtc-text-global-caption1);color:var(--bing-smtc-foreground-content-neutral-secondary-al
t);opacity:unset}#b_content .pa_carousel_mlo .pa_item.pa_vCard .pa_caption .b_secondaryText,#b_content
.pa_carousel .pa_item.pa_vCard .pa_caption .b_secondaryText,#b_content .pa_grid .pa_item.pa_vCard
.pa_caption
.b_secondaryText{font:var(--bing-smtc-text-global-caption1);color:var(--bing-smtc-foreground-content-neutra
l-secondary-alt)}#b_content .pa_carousel_mlo .pa_item.pa_vCard .pa_caption .b_secondaryText
.pa_rebateText,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption .b_secondaryText
.pa_rebateText,#b_content .pa_grid .pa_item.pa_vCard .pa_caption .b_secondaryText
.pa_rebateText{font:var(--bing-smtc-text-global-caption1);color:var(--bing-smtc-foreground-content-neutral-s
econdary-alt)}#b_content .pa_carousel_mlo .pa_item.pa_vCard .pa_caption .b_secondaryText .pa_promo
a,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption .b_secondaryText .pa_promo a,#b_content .pa_grid
.pa_item.pa_vCard .pa_caption .b_secondaryText .pa_promo
a{color:var(--smtc-ctrl-link-foreground-brand-rest)}#b_content .pa_carousel_mlo .pa_item.pa_vCard
.pa_caption .b_secondaryText .pa_rating a,#b_content .pa_carousel .pa_item.pa_vCard .pa_caption
.b_secondaryText .pa_rating a,#b_content .pa_grid .pa_item.pa_vCard .pa_caption .b_secondaryText
.pa_rating a{color:var(--bing-smtc-foreground-content-neutral-secondary-alt)}#b_content .pa_carousel_mlo
.slide,#b_content .pa_carousel .slide,#b_content .pa_grid
.pa_item{border-radius:var(--mai-smtc-corner-card-default)!important;overflow:hidden}#b_pole
.pa_carousel_mlo{margin-right:0}#b_content .pa_carousel_mlo .pa_item.pa_vCard,#b_content .pa_carousel
.pa_item.pa_vCard{margin-bottom:0!important}#b_content .pa_carousel_mlo .pa_carousel
.slide{margin:var(--smtc-gap-between-content-xx-small) 0}#b_content .pa_carousel_mlo
.pa_carousel{margin:calc(-1*var(--smtc-gap-between-content-xx-small)) 0}#b_content .pa_carousel
.slide{margin:calc(var(--smtc-gap-between-content-xx-small) - var(--smtc-gap-between-content-xxx-small))
0}#b_results .pa_carousel_mlo .pa_carousel .b_slidebar .slide:first-child,#b_topw .pa_carousel_mlo
.pa_carousel .b_slidebar
.slide:first-child{margin-left:var(--smtc-gap-between-content-xxx-small)}.pa_item.pa_vCard{word-wrap:brea
k-word;line-height:20px;overflow:hidden}.pa_item.pa_vCard p strong,.pa_item.pa_vCard .pa_price
strong{color:#111}.pa_item.pa_vCard .pa_deal{text-decoration:line-through}#b_content .pa_item.pa_vCard
.b_attribution{font-size:14px;padding-bottom:0;line-height:20px}#b_content .pa_item.pa_vCard
p,#b_rrat_cont .pa_item.pa_vCard p{line-height:20px}#b_content .pa_item.pa_vCard
.pa_title{line-height:20px;overflow:hidden}.pa_item.pa_vCard
.b_footnote{line-height:17px;padding-bottom:0}.pa_item.pa_vCard
.pa_caption{padding-bottom:8px}.pa_item.pa_vCard .pa_caption,.pa_item.pa_vCard

```

```
.pa_title{padding-left:4px;padding-right:4px}.pa_item.pa_vCard
.b_finalText{position:absolute;width:100%;box-sizing:border-box;left:0;padding:0 4px 0
4px;bottom:8px}.pa_item.pa_vCard
.cico{display:block;padding-bottom:0;margin-bottom:8px;margin-left:auto;margin-right:auto;border-radius:0}
.pa_item.pa_vCard .pa_img{position:relative}.pa_item.pa_vCard .pa_price:hover,.pa_item.pa_vCard
.b_attribution:hover,.pa_item.pa_vCard .b_footnote:hover{cursor:pointer}.pa_carousel .slide{box-shadow:0 0
0 1px rgba(0,0,0,.1)!important}.pa_carousel .slide.see_more{box-shadow:0 0 0 0
rgba(0,0,0,0)!important}.pa_caption .pa_price:hover strong,.pa_hover .pa_hover_content .pa_price:hover
strong{text-decoration:underline;text-decoration-color:#111}.pa_caption .b_attribution:hover,.pa_hover
.pa_hover_content
.b_attribution:hover{text-decoration:underline}.pa_caption>.b_secondaryText:hover,.pa_hover
.pa_hover_content>.b_secondaryText:hover{color:#444}.b_ads1line{white-space:nowrap;overflow:hidden;te
xt-overflow:ellipsis;display:block}.pa_item .b_attribution cite,#b_context .pa_item .b_attribution
cite,.pa_hover .b_attribution cite,.pa_item .b_footnote .pa_url cite,.pa_item .b_attribution cite,#b_rrat_cont
.pa_item .b_attribution cite,.pa_hover .b_attribution cite,.pa_item .b_footnote .pa_url
cite{color:#111;opacity:.8}#bpage.b_drk .pa_item .b_footnote .pa_url
cite{color:#d2d0ce}.pa_item.pa_vCard{cursor:pointer}@supports(-webkit-line-clamp:2){.b_adsTrunTx{displ
ay:-webkit-box;overflow:hidden;-webkit-box-orient:vertical;white-space:normal;visibility:visible}.b_ellipsis{
display:none}.b_adsTrunTx
.b_hiddenTx{display:inline}}.b_hiddenTx{display:none}.pa_hover{background-color:var(--smtc-background
-web-page-primary);box-shadow:none;position:absolute;opacity:0;visibility:hidden;word-wrap:break-word;cu
rsor:pointer;overflow:hidden;z-index:4;pointer-events:none}.pa_hover
.pa_hover_content{padding-bottom:var(--smtc-gap-between-content-x-small)}.pa_hover
.pa_hover_title,.pa_hover .pa_price,.pa_hover .b_attribution,.pa_hover .b_secondaryText,.pa_hover
.pa_additionTx,.pa_hover>div>.b_ads1line,.pa_hover .b_footnote,.pa_hover
.pa_hover_content>.pa_locInv{padding-left:var(--smtc-padding-ctrl-horizontal-default);padding-right:var(--s
mtc-padding-ctrl-horizontal-default)}.pa_hover .pa_hover_img{position:relative}.pa_hover .pa_hover_img
img{display:block;margin-left:auto;margin-right:auto}.pa_hover
.pa_hover_title{font:var(--bing-smtc-text-global-body3)!important;color:var(--smtc-ctrl-link-foreground-bran
d-rest);margin-bottom:var(--smtc-gap-between-content-x-small)}.pa_hover
.pa_hover_title:hover{text-decoration:underline}.pa_hover
.pa_price{margin-bottom:var(--smtc-gap-between-content-xx-small)}.pa_hover .pa_price
.prc_clr_grn{color:var(--smtc-status-success-tint-foreground)}.pa_hover .pa_price
strong{color:var(--smtc-foreground-content-neutral-primary);font:var(--bing-smtc-text-global-caption1-strong
)}.pa_hover .pa_price
.original_price{font:var(--bing-smtc-text-global-caption1);padding-left:var(--smtc-gap-between-content-x-sma
ll)}.pa_hover .pa_installmentDesc,.pa_hover .pa_unitprice,.pa_hover .vertical_converted_price,.pa_hover
.pa_shippingcost{font:var(--bing-smtc-text-global-caption1);margin-bottom:var(--smtc-gap-between-content-
xx-small);color:var(--bing-smtc-foreground-content-neutral-secondary-alt);padding-bottom:0}.pa_hover
.b_attribution{margin-bottom:var(--smtc-gap-between-content-xx-small);color:var(--bing-smtc-foreground-co
ntent-neutral-secondary-alt);border-bottom:0;font:var(--bing-smtc-text-global-caption1)}.pa_hover
```

# Bridge construction with steel arch frame

```
.b_attribution
cite{font:var(--bing-smtc-text-global-caption1);color:var(--bing-smtc-foreground-content-neutral-secondary-alt);opacity:unset}.pa_hover.pa_bcSeparator{margin:var(--smtc-gap-between-content-xx-small)0;border-top:1pxsolid#ecec}.pa_hover
.b_secondaryText{font:var(--bing-smtc-text-global-caption1);color:var(--bing-smtc-foreground-content-neutral-secondary-alt)}.pa_hover.b_secondaryText
.pa_rebateText{font:var(--bing-smtc-text-global-caption1);color:var(--bing-smtc-foreground-content-neutral-secondary-alt)}.pa_hover.b_secondaryText.pa_promo
a{color:var(--smtc-ctrl-link-foreground-brand-rest)}.pa_hover.b_secondaryText.pa_rating
a{color:var(--bing-smtc-foreground-content-neutral-secondary-alt)}.pa_hover.b_secondaryText
.b_colorBlend{color:var(--bing-smtc-foreground-content-neutral-secondary-alt)!important}.pa_hover
.pa_additionTx,.pa_hover
.pa_locInv{font:var(--bing-smtc-text-global-caption1);color:var(--bing-smtc-foreground-content-neutral-secondary-alt)}a.pa_hover_adLink:hover{text-decoration:none}.pa_hover:has(.pa_hover_content.pa_hcgp){border-radius:var(--mai-smtc-corner-card-default)}.pa_hover.ad_scpah.pa_animation{background-color:var(--smtc-background-card-on-primary-default-hover);box-shadow:var(--bing-smtc-shadows-card-hover-3);pointer-events:auto}.pa_item.pa_vCard>a:hover{text-decoration:none}.pa_hover:not(:has(.b_pa_hov_indicator_c))
.pa_hover_img
img{margin-bottom:var(--smtc-gap-between-content-small)}.pa_hover.ad_scpah.pa_animation{transition:heightvar(--smtc-duration-medium-01)var(--bing-smtc-animation-ease-default),background-colorvar(--smtc-duration-medium-01)var(--bing-smtc-animation-ease-default),box-shadowvar(--smtc-duration-medium-01)var(--bing-smtc-animation-ease-default)}.b_pa_indicator_c{position:absolute;bottom:calc(-1*var(--smtc-gap-between-content-x-small));width:100%;display:flex;gap:var(--smtc-gap-between-content-xx-small);justify-content:center;forced-color-adjust:none}.b_pa_hov_indicator_c{position:relative;height:12px;display:flex;gap:var(--smtc-gap-between-content-xx-small);justify-content:center;align-items:center}.b_pa_ind_chev{position:absolute;height:36px;width:36px;background-size:cover;background-repeat:no-repeat;background-position:center}.b_tabhovcard
.b_pa_ind_chev{display:none}.b_pa_ind_chev.left{left:0}.b_pa_ind_chev.right{right:0}.b_pa_indicator{transition:widthvar(--smtc-duration-medium-01)var(--bing-smtc-animation-ease-default)}.b_pa_indicator.sel{width:8px;height:4px;border-radius:var(--smtc-ctrl-badge-sm-corner);background-color:var(--smtc-foreground-content-brand-primary)}.b_pa_indicator:not(.sel){width:4px;height:4px;border-radius:var(--smtc-ctrl-badge-sm-corner);background-color:var(--bing-smtc-stroke-ctrl-strong)}.b_pa_ind_chev.left{background-image:url(/rp/agxFsUMkC673WmoTmnIMPxEe6ws.svg)}.b_pa_ind_chev.left:hover{background-image:url(/rp/xMN0EpA0PIBdEcQcjFfqG_vpETU.svg)}.b_pa_ind_chev.right{background-image:url(/rp/aEIX3ul9gwY0f2HW1RKDZD2xqCE.svg)}.b_pa_ind_chev.right:hover{background-image:url(/rp/E-Z-5a58Tr01Gv0dz1-0Mc32imE.svg)}.pa_img_slidec{max-width:100%}.pa_img_slides{display:flex;position:relative;transition:left3s;left:0}.pa_img_slide{display:flex;justify-content:center;flex-shrink:0;flex-grow:0}.pa_img_slidec
.pa_img_slides.pa_img_slideimg{margin-left:0;margin-right:0;transform:none}.b_acf_crsl
.carousel_seemore.rtl.b_seemore_chevsvg{transform:scaleX(-1)}.b_acf_crsl
```

# Bridge construction with steel arch frame

```
.carousel_seemore{display:flex;align-items:center;justify-content:center;width:64px}.b_acf_crsl
.carousel_seemore .b_moreLink{display:flex;padding:var(--bing-smtc-padding-ctrl-icon-only-text-top)
var(--bing-smtc-padding-ctrl-text-side-large) var(--bing-smtc-padding-ctrl-icon-only-text-bottom)
var(--bing-smtc-padding-ctrl-text-side-large);flex-direction:column;align-items:center;gap:var(--smtc-gap-insi
de-ctrl-to-secondary-icon);text-decoration:none}.b_acf_crsl .carousel_seemore .b_moreLink
.b_seemore_chev{display:flex;width:40px;height:40px;justify-content:center;align-items:center}.b_acf_crsl
.carousel_seemore .b_moreLink .b_seemore_chev
svg{fill:var(--smtc-foreground-ctrl-on-transparent-rest);font-weight:bold;transition:transform
var(--smtc-duration-medium-01) var(--bing-smtc-animation-ease-default)}.b_acf_crsl .carousel_seemore
.b_moreLink
.b_call_txt{color:var(--smtc-foreground-ctrl-on-transparent-rest);font:var(--bing-smtc-text-global-caption1-str
ong)}.b_acf_crsl .carousel_seemore .b_moreLink:hover
.b_seemore_chev{border-radius:var(--smtc-corner-ctrl-hover);background:var(--bing-smtc-background-ctrl-gh
ost-hover)}.b_acf_crsl .carousel_seemore .b_moreLink:hover .b_seemore_chev
svg{width:20px;height:20px}.b_acf_crsl .carousel_seemore .b_moreLink:active
.b_seemore_chev{border-radius:var(--smtc-corner-ctrl-pressed);background:var(--bing-smtc-background-ctrl-
ghost-pressed)}.b_acf_crsl .carousel_seemore .b_moreLink:active .b_seemore_chev
svg{width:12px;height:12px}#slideexp0_BFED7C .slide:last-child { margin-inline-end: 0; }
#slideexp0_BFED7C .slide>*:last-child { margin-bottom: unset !important; } .b_acf_crsl
#slideexp0_BFED7Cc .b_slidebar .slide { box-shadow: unset; -webkit-box-shadow: unset; }
.b_acf_crsl.hovexp #slideexp0_BFED7Cc.b_slideexp .b_overlay .b_slidesContainer { overflow: visible
!important; } .b_acf_crsl.hovexp #slideexp0_BFED7Cc.b_slideexp .b_overlay .b_viewport,
.b_acf_crsl.hovexp #slideexp0_BFED7Cc.b_slideexp .b_viewport { padding-top: 12px !important;
margin-top: -12px !important; padding-bottom: 12px !important; margin-bottom: -12px !important; }
.b_acf_crsl.hovexp #slideexp0_BFED7Cc.b_slideexp .b_overlay .b_viewport { padding-bottom: 24px
!important; margin-bottom: -24px !important; }SponsoredSee Bridge Construction With Steel Arch
FrameKinpaw 8ft Upgrade Arc Walkway ...With 2 High Guardrails, Extra Large Garden Bridge, Iron Arch
Footbridge With Sturdy Construction, Metal Yard Path$239.99Kinpaw 8ft Upgrade Arc Walkway With 2
High ...Guardrails, Extra Large Garden Bridge, Iron Arch Footbridge With Sturdy Construction, Metal Yard
Path
```

The most suitable variant is a fixed arch road bridge, featuring a steel arch construction consisting of two arches connected to the bridge deck via hangers. The bridge includes two lanes for road traffic, while ...

Discover comprehensive information on Metal Arch Bridges across the USA, including types, states, and engineering details for optimized construction and preservation.

Provides guidance on selecting appropriate steel bridge types based on site conditions, cost, and performance, covering common systems such as rolled-beam, plate-girder, truss, arch, cable-stayed, ...

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