Innovative Ultra•Cor® creates the world's largest metal buried bridge span: 106.3', Dubai, UAE.

Highway grade separation

AIL has been adding value to some of the world's most successful infrastructure projects since 1965.

Ultra•Cor's nestable components are easy to ship, store on site and install

We're all about support.





Ultra•Cor® structures from Atlantic Industries Limited USA (AIL USA) can support multiple lanes of highway traffic, the heaviest freight trains or the largest mining vehicles. However, those structures are only as strong as the people supporting them with full design and engineering services, on-time manufacturing and delivery and dependable field supervision. Our people have been supporting some of the world's largest infrastructure projects since 1965.

An extensive network and international scope

With experienced sales, engineering and manufacturing teams, AIL USA is a proven project partner ready to help you through every stage of your next infrastructure project. Plus, as a member of The AIL Group of Companies, we bring a world of resources and expertise to our projects in the transportation, public works, mining, energy, forestry and development sectors.

AIL USA offers a wide range of efficient Buried Metal Bridges engineered to deliver optimum performance and value for applications. By design, our complete line of resilient and sustainable solutions are easy to ship and install with minimal equipment and labor requirements, making them ideal even in remote locations.

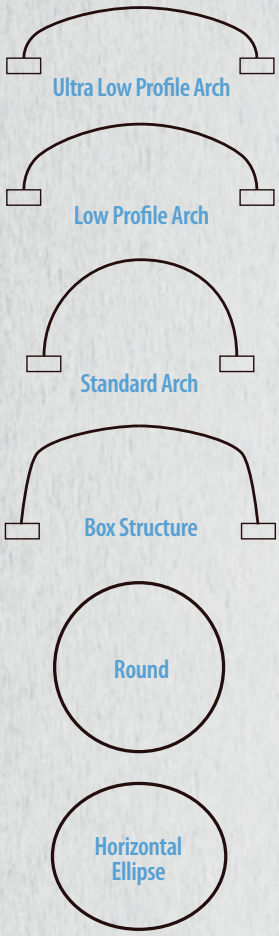
Atlantic Industries Limited USA

Ultra•Cor® is recommended for applications in the transportation, public works, mining, energy, forestry and development sectors.

Wildlife overpass

MADE IN USA

Manufactured in Northern Mississippi



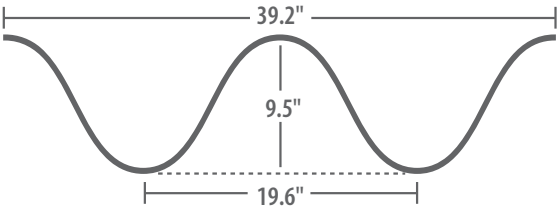
RECOMMENDED FOR

- Bridges and Tunnels
- Bridge Rehabs
- Conveyor Covers and Overcasts
- Fish Passages
- Grade Separations
- Heavy Haul Road Crossings
- Portals and Canopies
- Road or Rail Underpasses
- Stockpile and Escape Tunnels
- Storage Structures
- Stream Crossings
- Underground Structures
- Vertical Shafts and Vent Raises
- Wildlife Crossings

ULTRA•COR®
Structural Steel Plate

Building America's largest Buried Metal Bridges

With the introduction of Ultra•Cor,® AIL has taken engineered Buried Metal Bridges to new dimensions in capability and performance. As the world's deepest corrugation profile, Ultra•Cor®combines all the advantages of lightweight construction with previously unheard-of strength and durability to create the largest Buried Metal Bridges in the world today.



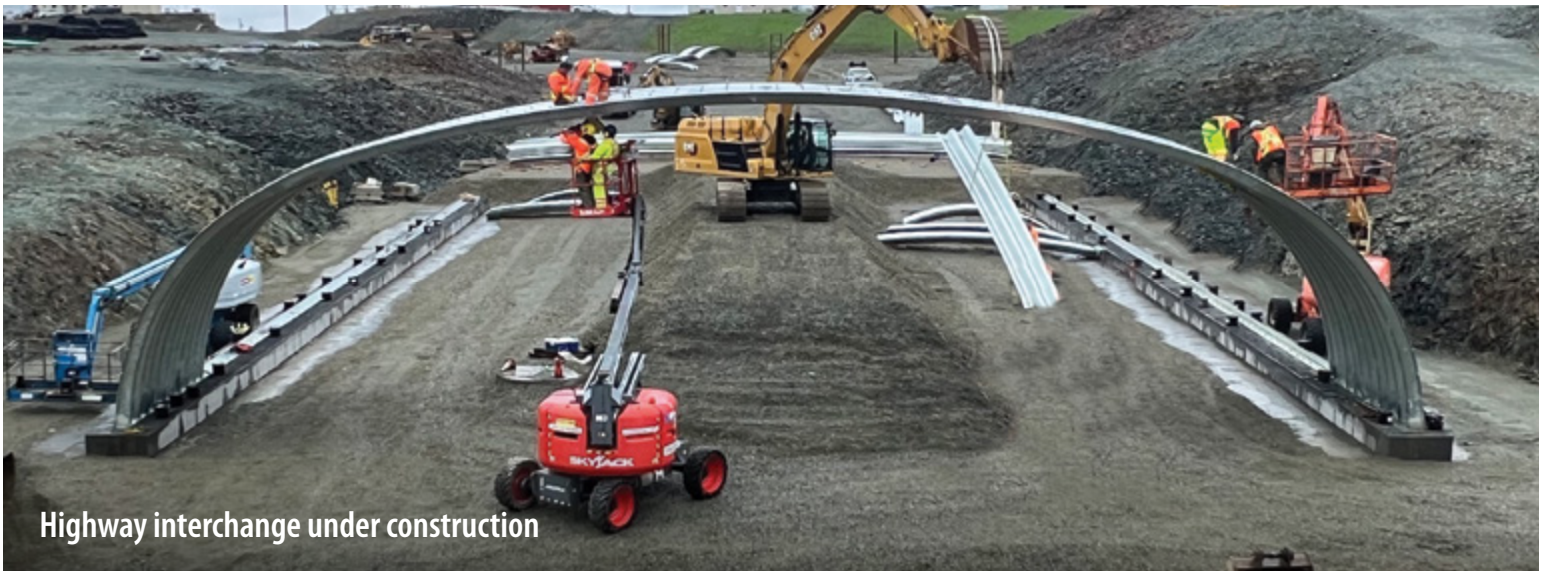
With an impressive 19.6" pitch and 9.5" depth, its ultra-large corrugations allow it to reach greater spans and withstand the heaviest of loads. And, just like all AIL engineered solutions, Ultra•Cor® ships and installs easily with minimal equipment and labor requirements.

- The world's strongest corrugated steel plate
- Handles extreme loadings
- Spans can exceed 115'
- Stockpile heights can reach greater than 100'
- Corrugation profile of 19.6" pitch × 9.5" depth
- Bottomless designs are environmentally friendly
- Available with tested and approved protective coating systems that can add over 75 years to the design service life of the structure
- Designed and manufactured to National Standards at our third-party quality-certified facility ISO 9001-2015

Wildlife overpass near national park expected to dramatically reduce animal-vehicle collisions

Corrugated metal structures ship and assemble easily in all seasons and in remote locations, often without the need for concrete.

Ultra-deep corrugation profile



Highway interchange under construction

AIL's Buried Metal Bridges are ideal for Accelerated Bridge Construction.

- Can be built in significantly less time, reducing disruption time and detours and expediting construction schedules
- Lightweight, easy to ship and install with local crews
- Lighter weight equipment can be used to assemble most structures
- Various construction/staging options available such as building over live traffic or two-stage construction with temporary retaining walls
- Small laydown area required for construction
- Limited on-site concrete work

Virtually no maintenance; minimized life cycle costs.

- Ultra•Cor® bridges have a lower life cycle cost compared to a functionally equivalent concrete beam bridge[1]
- Eliminates recurring life cycle costs to maintain and repair bridge decks, expansion joints, bearings, girder fatigue, de-icing agent corrosion issues, concrete durability, fracture issues, approach slabs and freeze/thaw or wet/dry cycles
- No differential settlement "bridge bump" to maintain between decks and approach slabs
- Wider spans eliminate need for bridge piers that restrict hydraulic flow and trap debris
- Open-bottom shapes can offer longer design service life
- Optional protective coatings can extend design service life by over 75 years
- Structure length can be extended to accommodate future road widening; increased functional service life

1. Third-Party Consultant (2022). AIL Life Cycle Cost Comparison Between a Sample Bridge and Buried Structure.

Safer driving experience than beam bridges.

- No need to narrow roadway at crossing
- Pavement structure is continuous and seamless
- No bridge deck freezing issues
- No freeze/thaw differential with roadway approaches
- Easily adaptable to roads with vertical and/or horizontal curves

More flexible and resilient than concrete structures or beam bridges.

- Unmatched performance, especially in less-than-ideal foundation conditions
- Settlement tolerance is much higher than concrete structures or beam bridges
- Little differential movement, settlement or frost heave between buried bridge and adjacent approach fills
- Works with shallow or deep foundation systems
- Headwalls and wingwalls offer more resiliency in flood events
- Geotextile Reinforced Soil (GRS) backfill technology also increases flood and settlement resiliency

Buried Steel Bridges have a substantially lower life cycle carbon footprint than concrete beam bridges[2].

- Steel is the world's most recycled material[3]
- Less energy is used in the production and shipping of Buried Steel Bridges than concrete bridges
- Can accept a range of local backfill materials, potentially reducing trucking costs
- Zinc used in galvanizing is a naturally occurring material and is 100% recyclable[4]
- Biodiversity-friendlier green headwall options available

2. Third-Party Consultant (2022). AIL Life Cycle Cost Comparison Between a Sample Bridge and Buried Structure.
3. Reference: www.aisc.org
4. Reference: https://galvanizeit.org/hot-dip-galvanizing/is-galvanizing-sustainable/hdg-environmental-advantages

A tale of two bridges

Choosing an AIL Ultra•Cor® Buried Metal Bridge solution on the highway grade separation (below) could have provided significant savings on the overall construction and life cycle maintenance costs, while still providing the same functionality — even with a custom precast mural treatment on the headwalls.

BENEFITS AND APPLICATIONS VIDEO

Mining haul road crossing under construction

Stream crossing for military base designed to support heavy-duty tanks and equipment

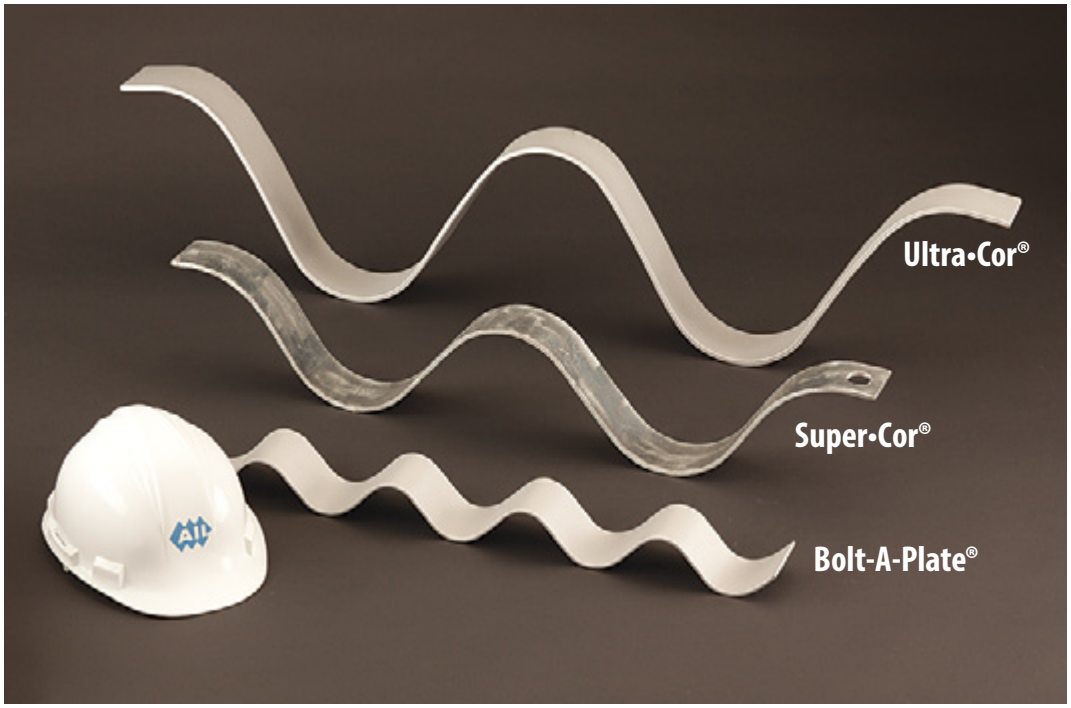
Stream crossing for a private development

Easy to build with local crews and equipment

Two-product solution: Ultra•Cor® will support mining haul road and Super•Cor® will support adjacent service road

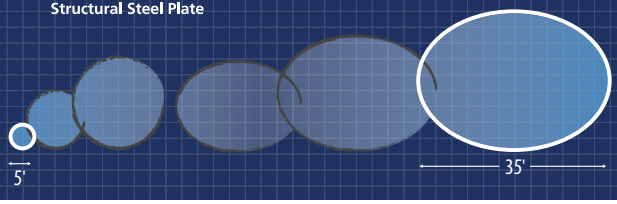
A structural plate for every application.

We specialize in Value Engineering cost-effective solutions for applications of all types. Our high-quality products, engineering excellence and innovative designs are key to delivering the best results for our clients.



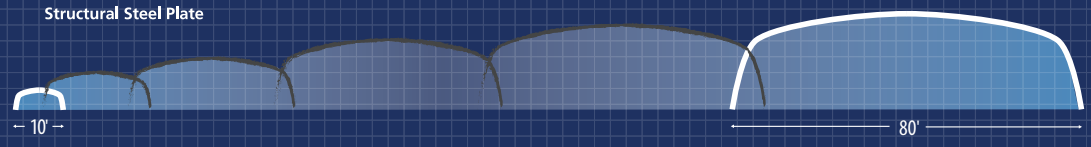
From the smallest structure to the world's largest Buried Metal Bridge — AIL USA has it covered.

BOLT·A·PLATE®
Structural Steel Plate



With spans that can reach 35', Bolt-A-Plate® is recommended for smaller applications. Available in a wide range of shapes.

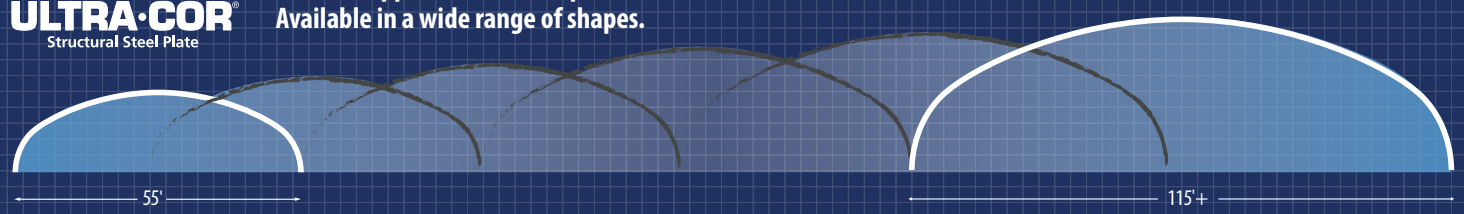
SUPER·COR®
Structural Steel Plate



Deep-corrugated Super•Cor® is ideal for medium-sized applications, with spans able to reach 80'. Available in a wide range of shapes.

ULTRA·COR®
Structural Steel Plate

The ultra-deep corrugations of Ultra•Cor® make it ideal for the largest and most extreme applications, with spans able to exceed 115'. Available in a wide range of shapes.



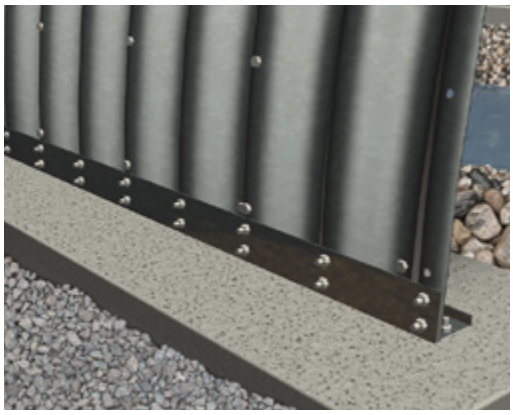
Buried Metal Bridges are easy to install with local crews.

AIL USA's Buried Metal Bridges ship and install quickly and economically, with minimal equipment and labor requirements. Our technical teams will guide you through the complete project.

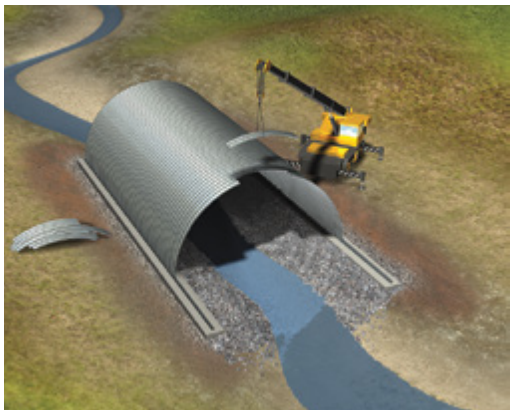
Precast or cast-in-place concrete footings are set over the prepared site.

The first arch segment is completely assembled on the ground.

It is then lifted into place and bolted to the footings on either side. In most cases, a boom truck is sufficient for this.

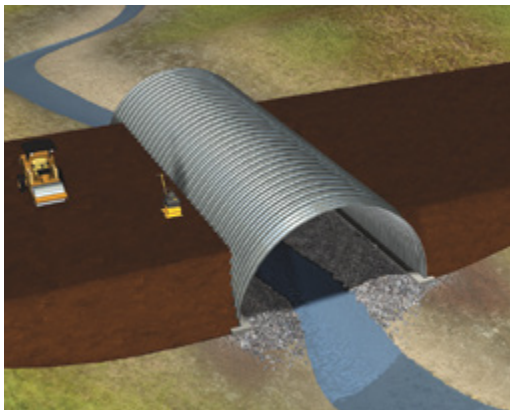


The segments bolt into base channels integrated into the concrete.

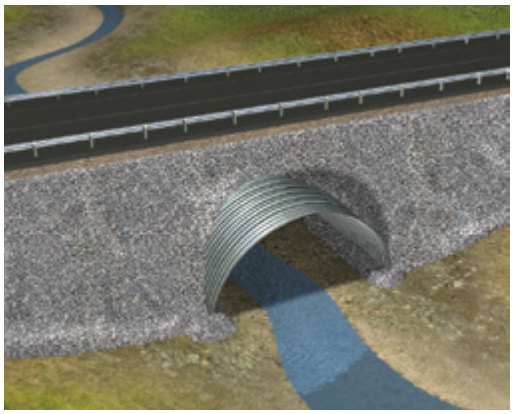


Plates then attach individually to make up other arch segments.

If specified, reinforcement ribs are then added.



Layers of engineered backfill are added in sequential lifts.



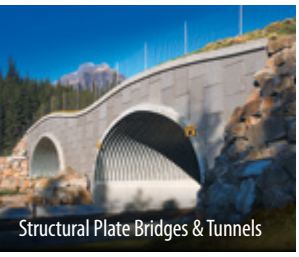
The road surface is then completed with safety barriers.

AIL's MSE Retaining Walls add the finishing touch.

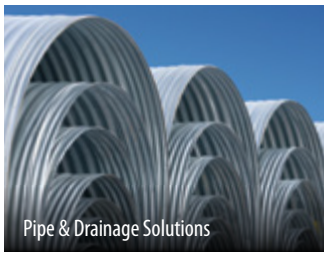
FOR PROJECT ASSISTANCE, CALL 1-865-895-0642

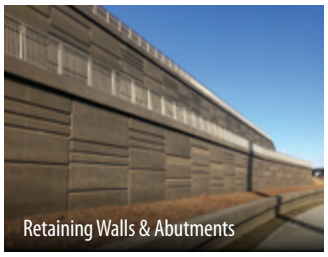
The information and suggested applications in this brochure are accurate and correct to the best of our knowledge, and are intended for general information purposes only. These general guidelines are not intended to be relied upon as final specifications, and we do not guarantee specific results for any particular purpose. We strongly recommend consultation with an Atlantic Industries Limited Technical Sales Representative before making any design and purchasing decisions.

AIL USA steel products contain recycled content and are 100% recyclable.


Structural Plate Bridges & Tunnels


Prefabricated Bridges


Pipe & Drainage Solutions


Retaining Walls & Abutments


Sound Barrier Walls

THE AIL GROUP OFFERS A COMPLETE RANGE OF BRIDGE AND INFRASTRUCTURE SOLUTIONS.

Atlantic Industries Limited USA
A member of The AIL Group of Companies

USA Sales Office
Knoxville, Tennessee
1-865-895-0642

USA Manufacturing
Ultra•Cor® is manufactured
in Northern Mississippi

atlanticindustries.com

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