

Con Cast Pipe

»» *Precast Culverts*



We have you covered



CON CAST PIPE

DYNAMIC SOLUTIONS: Design to Destination

Con Cast Pipe's precast concrete culvert products include: box culverts, the CON/SPAN System, and the new Tri-Span culvert. They all provide the quality and durability that precast concrete is known for. Design flexibility, ease of installation and long-term cost savings make precast concrete the material of choice for engineers, designers and contractors who value quality. All of Con Cast Pipe's culverts are designed and manufactured to the Ontario Provincial Standard Specifications (OPSS) and/or the Canadian Highway Bridge Design Code (CHBDC CAN/CSA-S6-06); The Ontario Concrete Pipe Association's Plant Prequalification Programs (PPP) provides the quality assurance for testing and performance. Whatever the application—from wildlife crossings to railway bridges—there is a Con Cast Pipe culvert to suit the job.



» Tri-Span

Tri-Span is the latest addition to Con Cast Pipe's extensive line of precast concrete products. These three-sided culverts are the ideal solution for applications that involve streams, creeks or other narrow waterways. Tri-Span geometry incorporates two attractive features for culvert design. First, Tri-span has no bottom slab – It is specifically designed not to disturb the streambed, thus protecting the aquatic habitat. Secondly, Tri-Span's flat top design is ideal for low cover applications where the depth of the road structure is limited. These environmentally friendly culverts are a cost effective alternative to full bridge construction. Speedy installation and durability over the long run make Tri-Span the ideal option for many projects.

Ideal applications:

- > Small bridge construction and replacement
- > Roadway, railway, and airport underpasses/overpasses
- > Stream enclosures
- > Pedestrian walkways

Installation Options:

- > Precast wingwalls
- > Precast headwalls
- > Precast footings



» CON/SPAN

This pre-engineered precast arch system provides efficient set-in-place construction of small bridges, culverts, underground containment and a wide range of other applications. This versatile, precast modular system has a unique arch geometry that is aesthetically attractive. CON/SPAN offers a product span ranging from 3.66 metres to 14.63 metres, with various vertical rises. The precast arch units can be adapted for curved alignments to compliment the natural waterway, or designed in multi-span configurations for the larger crossings.

To add to CON/SPAN's versatility, optional components such as precast footings, headwalls or wingwalls can all be used to complete the entire CON/SPAN System. Visit www.con-span-canada.ca to learn more and to request the complete CON/SPAN Engineering Guide.

Ideal applications:

- > Small bridge construction and replacement
- > Roadway, railway, and airport underpasses/overpasses
- > Stream enclosures
- > Golf course and pedestrian walkways
- > Stormwater retention systems
- > Underground vaults
- > Protective storage tanks
- > Wine cellars
- > Utility tunnels and portals
- > Boat passages

Installation Options:

- > Precast wingwalls
- > Precast headwalls
- > Precast footings



» OPSS 1821 Box Units

Available in (9) nine standard sizes, the OPSS 1821 Box Units can be designed to many applications of varying loading conditions. Con Cast Pipe was the first to use a pre-lubricated gasket for the installation of box units, increasing water tightness and reducing installation time.

Custom features available with the OPSS 1821 Box Units include:

- > Flush end units
- > Beveled end units
- > Radius units
- > Bends manufactured to various degrees of deflection
- > Maintenance hole tees
- > Plugs and caps
- > Units complete with holes to accommodate branch connections
- > Shorter lay lengths
- > Reducers and Increases
- > Cast-in dowels and inserts

Ideal applications:

- > Culverts
- > Pedestrian walkways
- > Sewers including trunk sewers
- > Retention tanks
- > Conveyor tunnels
- > Storage bins and more...



BOX CULVERT GEOMETRY							DESIGN EARTH COVER (m)	
SPAN	RISE	WALL	TOP/BTM SLAB	HAUNCH	LAY LENGTH	APPROX. MASS(kg)	OPSS 1821	CAN/CSA-S6-06*
1800	900	200	200	200	2438	8,240 kg	0.6 - 5.5	Less than 0.6
1829	1219	203	203	203	2438	8,996 kg	0.6 - 5.5	Less than 0.6
2438	1219	203	203	203	2438	11,118 kg	0.6 - 3.6	Less than 0.6
2438	1524	203	203	203	2438	11,873 kg	0.6 - 3.6	Less than 0.6
2438	1829	203	203	203	2438	12,604 kg	0.6 - 3.6	Less than 0.6
3048	1524	254	254	254	2438	16,724 kg	0.6 - 3.6	Less than 0.6
3048	1829	254	254	254	2438	17,675 kg	0.6 - 3.6	Less than 0.6
3048	2134	254	254	254	2438	18,602 kg	0.6 - 3.6	Less than 0.6
3048	2438	254	254	254	2438	19,553 kg	0.6 - 3.6	Less than 0.6

* Canada Highway Bridge Design Code



» Wetcast (non-standard sizes)

Does your job require specifications other than our standard OPSS 1821 sizes? If so, custom solutions for box units are available. Contact one of our Sales Representatives or Project Engineers to discover the possibilities.

Wetcast concrete box units are available in various combinations of span, rise & wall thickness to suit any application. Modular formwork permits infinite combinations of size. The standard lay length for all box sizes is 2.44m, but shorter lengths are available to meet the project requirements, or weight restrictions.

Each precast section can be supplied with a shiplap joint to be filled with a mastic or mortar

Ideal Applications:

- > Single or multi-cell culverts
- > Storm and sanitary gravity sewer systems
- > Underground storage tanks
- > Utility corridors
- > Conveyor tunnels
- > Pedestrian or wildlife crossings.

To find out which culvert solution is best suited for your job, please contact Con Cast Pipe's Sales and Engineering Department at [1.800.668.PIPE \(7473\)](tel:18006687473) or visit www.concastpipe.com.

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