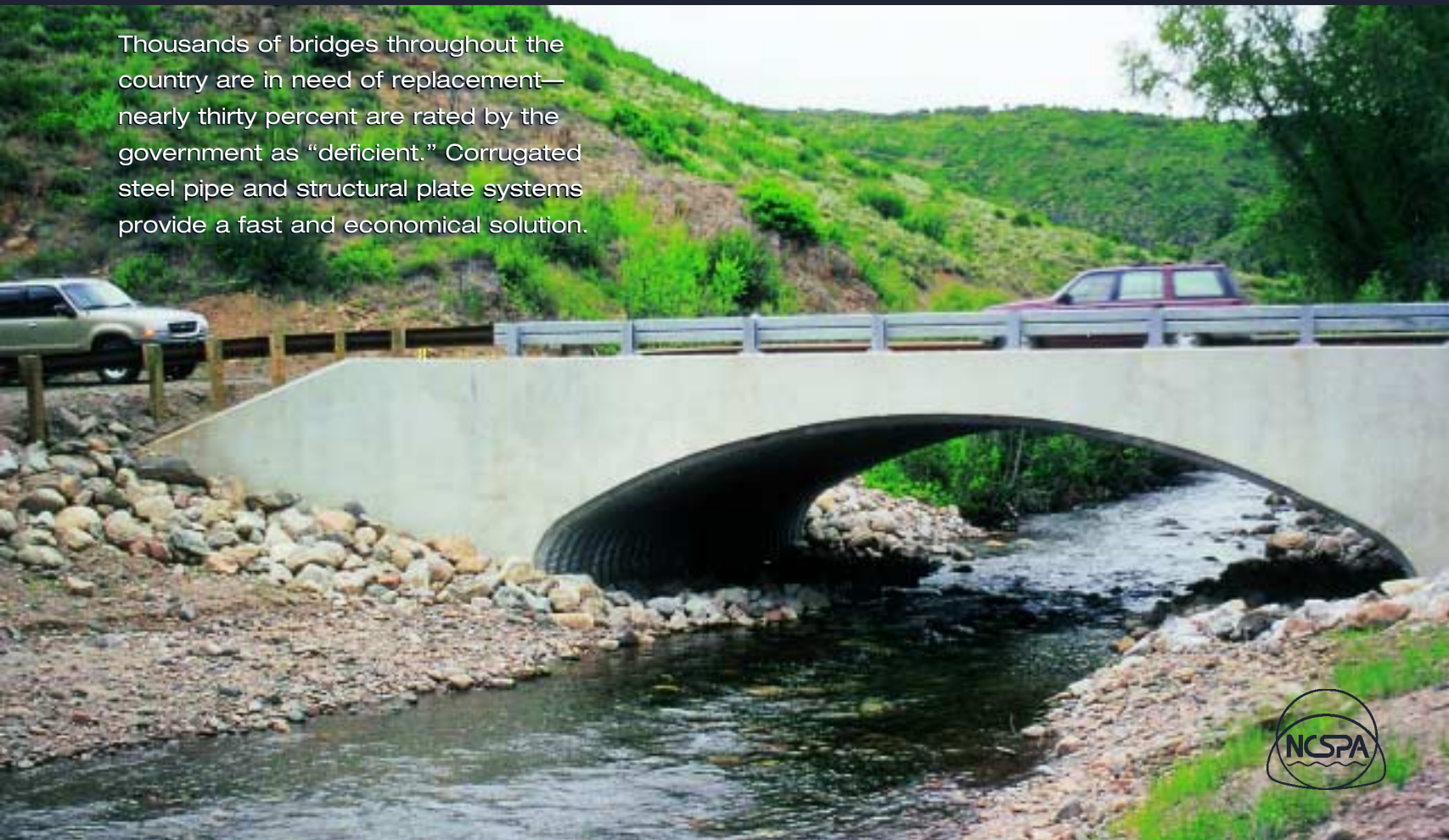
Bridge Management Solutions: Consider the CSP Advantages



Thousands of bridges throughout the country are in need of replacement—nearly thirty percent are rated by the government as “deficient.” Corrugated steel pipe and structural plate systems provide a fast and economical solution.

BRIDGE MANAGEMENT SOLUTIONS

Bridge engineers and managers are faced with the task of replacing or rehabilitating hundreds of thousands of bridges across the country. FHWA reports nearly 170,000 functionally or structurally deficient bridges of which more than half are the responsibility of local jurisdictions. One of the most economical choices of bridge replacement is with Corrugated Steel Pipe (CSP) and Structural Plate Pipe systems. CSP systems have many advantages over conventional bridges: strength of steel, low cost and speed of installation, minimal maintenance, durability of coatings, and environmental benefits.

STRENGTH OF STEEL.

CSP and structural plate pipe systems have the advantage of the strength of steel and the durability of coatings to provide the most efficient product. A variety of corrugation profiles can provide extreme fill heights, low minimum cover and spans over 50 feet.

MINIMAL MAINTENANCE.

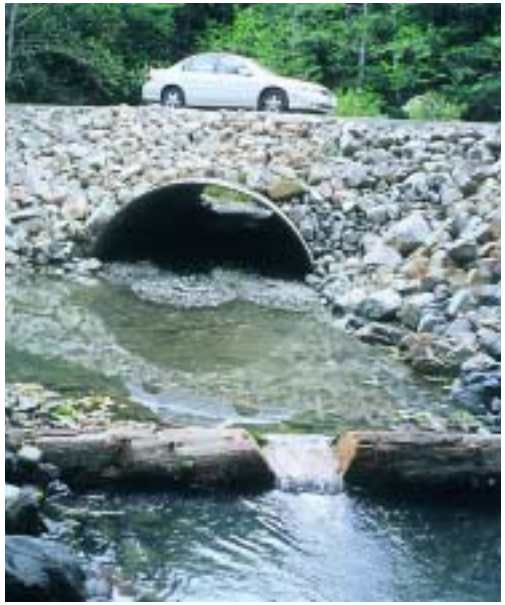
Compared to typical bridge structures, CSP systems require significantly less maintenance. While periodic inspection may be required, there are no expensive bridge decks or bridge approaches to maintain.

LOW COST AND SPEED OF INSTALLATION.

CSP generally provides the lowest installed cost compared to other options, often less than half that of a typical bridge. This benefit is increased when you consider the fast installation times. Structures are installed in days and often without traffic disruption.

STRENGTH DURABILITY INSTALLATION

DURABILITY OF COATINGS. CSP structures are available in a variety of coating systems meeting nearly any service life requirement. Galvanized, aluminized, and polymer-coated CSP are just a few of the coating options. These and other coating options are addressed in the NCSPA Durability Guide. Structural plate systems have a durable 3-ounce zinc coating and are often placed with natural streambeds. They can also be paved for additional abrasion and corrosion protection.



ENVIRONMENTAL BENEFITS. Habitat protection and environmental enhancements are a major benefit of using long span structures. Habitats are preserved by spanning the riparian zones and preserving or creating a natural streambed. Simply burying the invert can also provide an effective and economical biological enhancement. Additionally, fish passage enhancements can be incorporated in the structure.

MAINTENANCE ENVIRONMENTAL COST

SPECIFICATIONS

ASTM/AASHTO

ASTM A760/A760M
AASHTO M-36M
Standard Specification for CSP, Metallic-Coated for Sewers and Drains

ASTM A761/A761M
AASHTO M-167/M 167M
Standard Specification for Corrugated Steel Structural Plate, Zinc-Coated, for Field-Bolted Pipe, Pipe-Arches, and Arches

ASTM A762/A762M
AASHTO M-245M
Standard Specification for CSP, Polymer Precoated for Sewers and Drains

ASTM A796/A796M
Standard Practice for Structural Design of CSP, Pipe-Arches, and Arches for Storm and Sanitary Sewers

ASTM A798/A798M
Standard Practice for Installing Factory-Made CSP for Sewers and Other Applications

ASTM A807/A 807M
Standard Practice for Installing Corrugated Steel Structural Plate Pipe for Sewers and Other Applications

ASTM A849
Standard Specification for Post-Applied Coatings, Pavings, and Linings for Corrugated Steel Sewer and Drainage Pipe

AASHTO M-190M
Standard Specification for Bituminous Coated Corrugated Metal Culvert Pipe and Pipe Arches

AASHTO
Standard Specifications for Highway Bridges Division 1, Section 12: Soil Corrugated Metal Structure Interaction Systems

AASHTO
Standard Specifications for Highway Bridges Division 2, Section 26: Metal Culverts

BRIDGE MANAGEMENT SOLUTIONS

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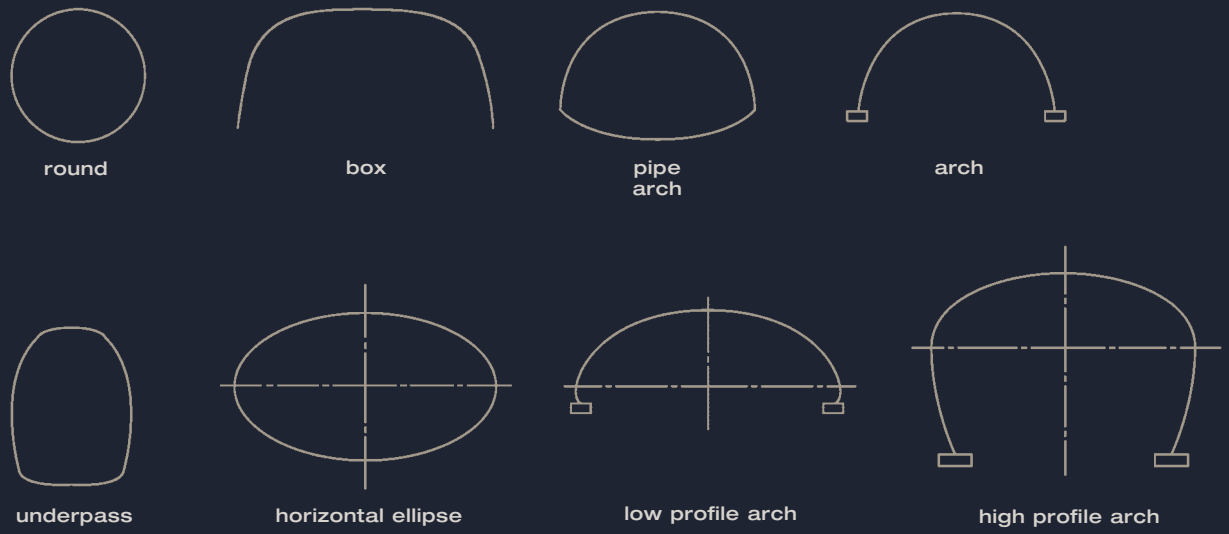
Available Shapes:



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