

# INSTA-SPAN BRIDGE SYSTEM

Insta-Span Bridge System utilizes standardized details including modular precast concrete deck panels supported on a multiple steel rolled beam framing system. The transverse deck panel joints are connected in the field using a simple double female “shear key” filled with an epoxy, non-shrink grout. This system provides an economical alternative for most bridge replacement projects and can be installed in a fraction of the time compared to conventional on-site construction methods. Each project is custom designed to meet a customer’s specific site constraints including the use of existing abutments and available construction depths.



A set of erection/shop drawings and stamped design calculations are provided for review and approval prior to fabrication and delivery of each order. Insta-Span can accommodate spans up to 100 feet and skew angles up to 30 degrees. To minimize future maintenance and protect the owner’s investment, we recommend the installation of a waterproofing membrane and an asphalt-wearing surface over the precast deck panels. Insta-Span can incorporate standard DOT railing systems or a custom designed system to meet a customer’s specific requirements.

## SYSTEM ADVANTAGES

- Cost effective – standardized details
- High quality factory built components
- Ease and speed of installation
- Minimizes construction duration
- Custom design – provides flexibility
- Low maintenance costs
- Engineering costs included in product cost

## DESIGN CRITERIA

- AASHTO Live Load: HL-93
- Minimum Concrete Ultimate Strength: 4500 psi
- Minimum Steel Yield Strength: 50,000 psi
- Concrete Cover for Deck: 2.5 inches (top), 1.5 inches (bottom)
- Future Wearing Surface Allowance: 35 psf

**For More Information Contact: Jim Bumen at 740-663-2659  
Scioto Valley Precast Co., 3218 S. Bridge Street, Chillicothe, Ohio 45601**



# BRIDGE SYSTEMS



## SCIOTO VALLEY PRECAST

American Made Products From A Family Owned Company

Phone: 740-663-2659 Fax: 740-663-2017

Web: [www.sciotovalleyprecast.com](http://www.sciotovalleyprecast.com)



# BRIDGE SYSTEMS

## INSTA - SPAN BRIDGE SYSTEM



- Cost effective - standardized details - patented system
- Minimizes time on construction site
- High quality factory-built components
- Low maintenance cost
- Custom design provides flexibility
- Ease and speed of installation



**PICK A SYSTEM**



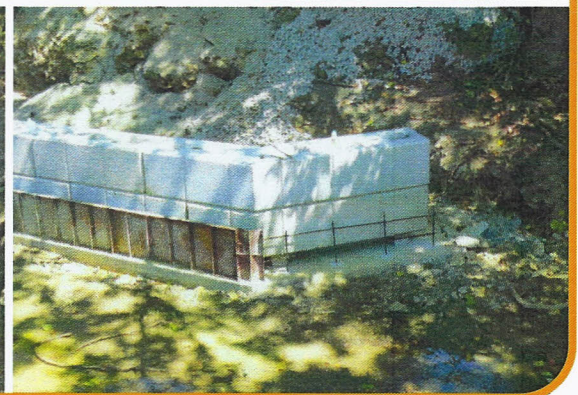
## INSTANT PRE-CAST BRIDGE



- Pre-cast deck beams up to 30' long in 4' wide increments
- Ready to drive on that day
- Reuse existing abutments
- Use pre-cast abutment blocks
- Guardrail options



# BRIDGE SYSTEMS



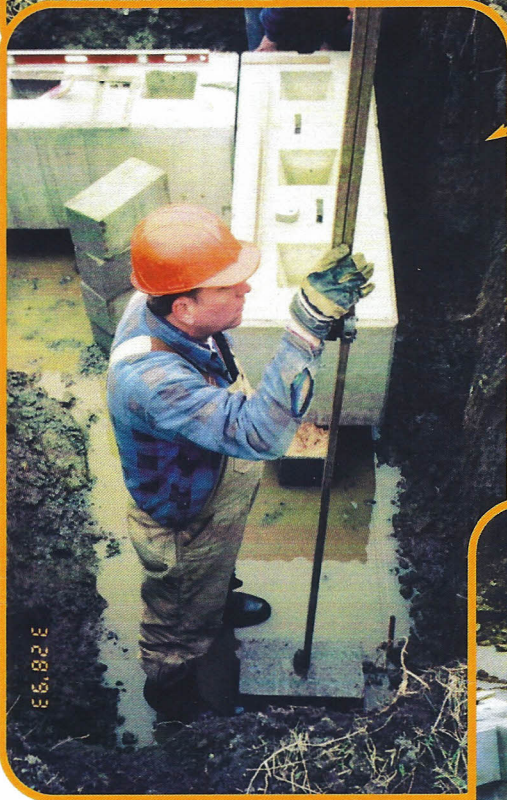
*Preparing foundations and setting first row of blocks*



# BRIDGE SYSTEMS



*Shim to level then pour  
concrete to lock in first row*



*Use tie backs if required*



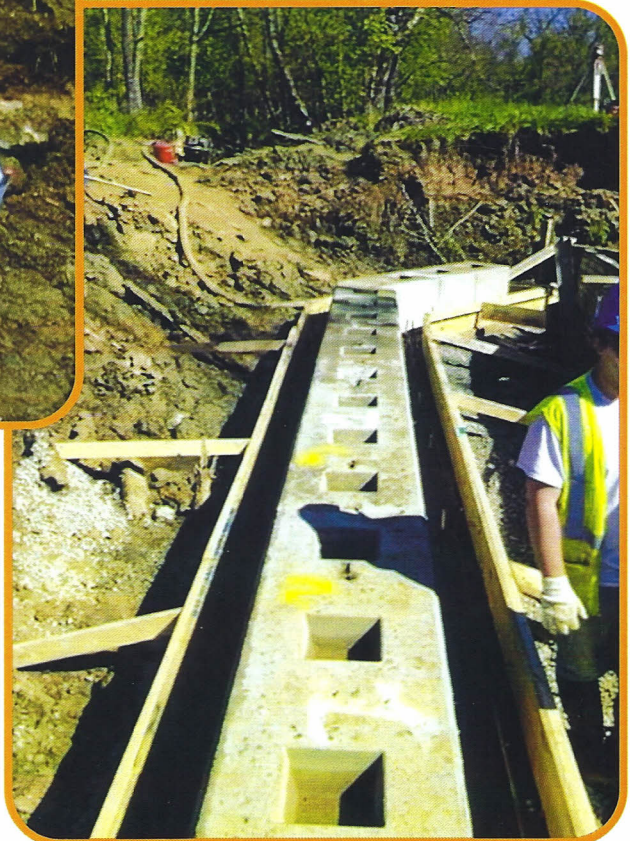


# BRIDGE SYSTEMS

*Set blocks on concrete pad and pour concrete around to lock them in*



*After first row is installed, the remaining blocks can be set*

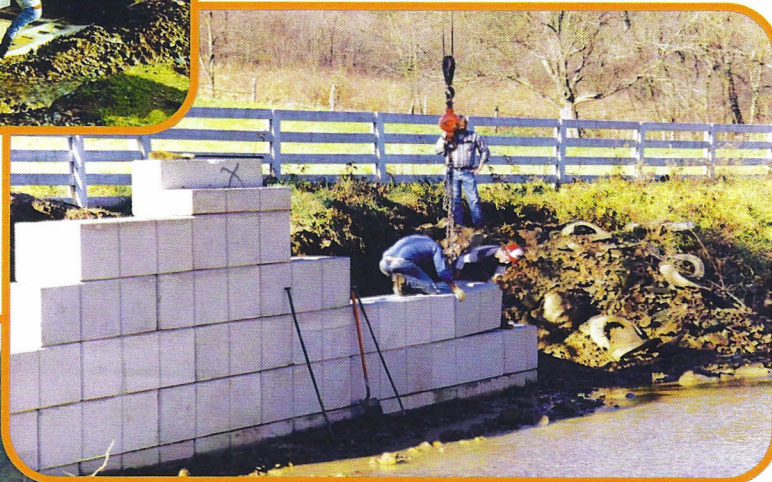




# BRIDGE SYSTEMS



*Blocks can be set as fast as you can swing and set them into place*





# BRIDGE SYSTEMS



*Precast concrete beams being set*



*Available in 16' to 30' lengths*



*Beams being set on 120' & 60' span in 30' increments*





# BRIDGE SYSTEMS



*Beams being set on reconditioned existing abutments*





# BRIDGE SYSTEMS



*Most decks  
can be placed  
in a matter of  
hours not days*

*Precast Panels poured  
under controlled  
conditions being set  
on galvanized steel  
beams, saving the cost  
of forming, expensive  
delays and  
curing time.*



## **BRIDGE DESIGN NOTES**

*AASHTO HS-25 [LFD Design] or*

*AASHTO HL-93 [LRFD Design]*



# BRIDGE SYSTEMS



*Guard rail systems are easily installed*

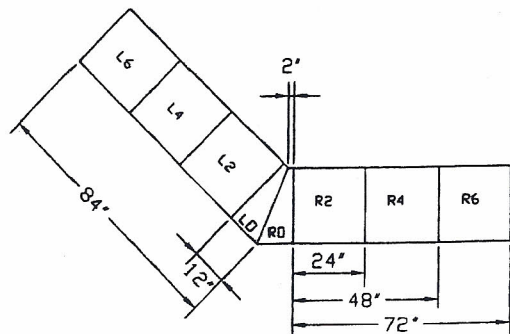
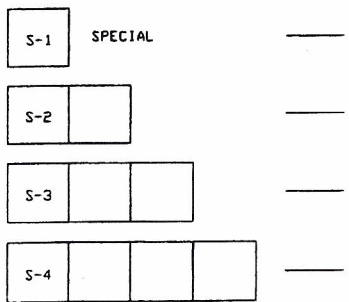
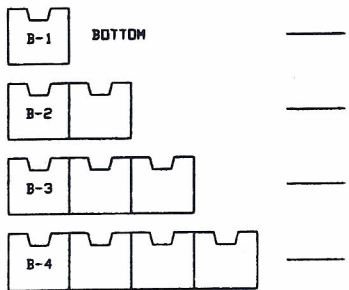
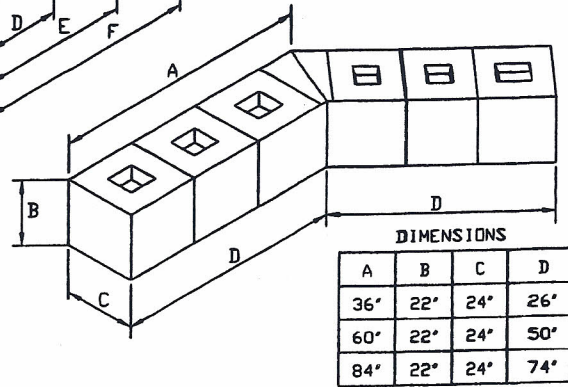
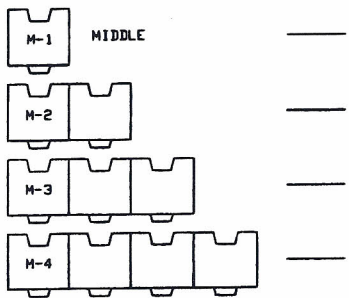
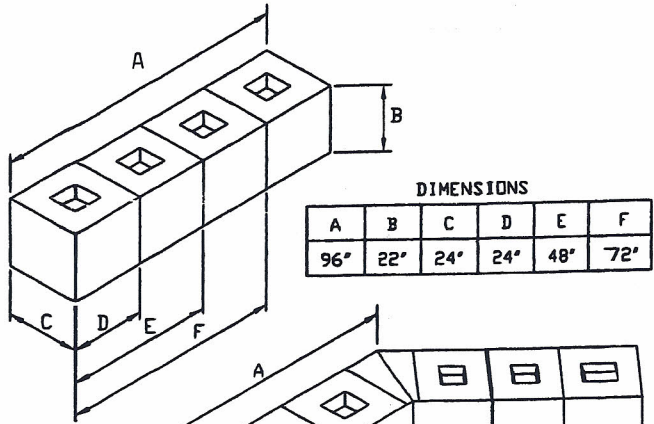
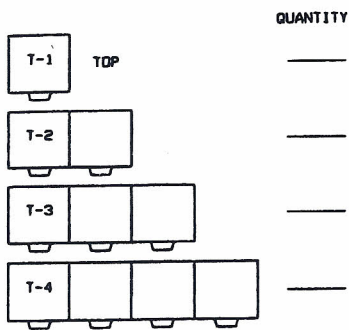


*Completed in a fraction of the time, months of onsite work, travel time and weather delays are a thing of the past*





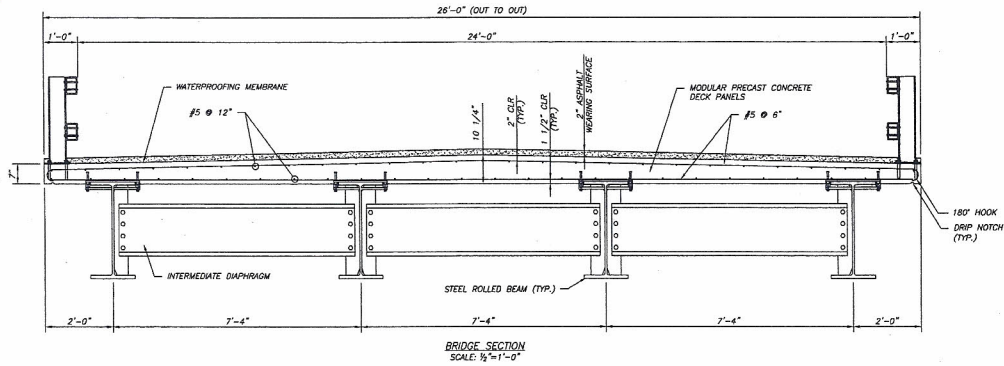
# BRIDGE SYSTEMS



*Our pre-cast blocks are designed for easy layout and quick installation. Bridge abutments, wing walls, retaining walls, and aggregate storage are some of your options*



# BRIDGE SYSTEMS

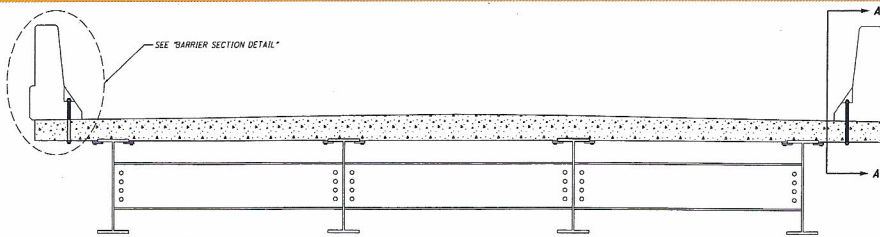


BRIDGE SECTION  
SCALE: 1/2"=1'-0"

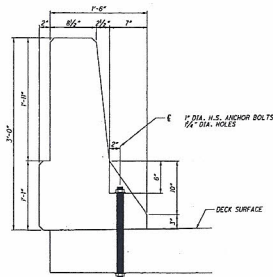
**GENERAL NOTES:**

1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A708--GRADE 50 UNPAINTED WEATHERING STEEL.
2. ALL REINFORCING STEEL SHALL BE ASTM A615--GRADE 60.
3. ALL CONCRETE SHALL HAVE A MIN. 28-DAY STRENGTH OF 4.5 KSI.
4. LIVE LOAD: HL-93

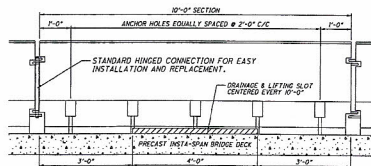
|                          |              |
|--------------------------|--------------|
| INSTA-SPAN BRIDGE SYSTEM |              |
| BRIDGE SECTION           |              |
| SCIOTO VALLEY PRECAST    |              |
|                          | PROJECT NO.  |
|                          | 2008.071.001 |
|                          | SCALE        |
|                          | AS SHOWN     |
| DATE                     | 04/01/08     |
| BY                       | ASU          |
| CHECKED                  | 1 OF 1       |



TRANSVERSE VIEW  
SCALE: N.T.S.



BARRIER SECTION DETAIL  
SCALE: N.T.S.



LONGITUDINAL VIEW, SECTION "A-A"  
SCALE: N.T.S.

|               |              |         |   |  |
|---------------|--------------|---------|---|--|
| <b>S-D.01</b> | Design       | AW      | <b>INSTA-SPAN BRIDGE SYSTEM WITH 36" BARRIER</b><br><br>(PLAN VIEW, ELEVATIONS & DETAILS) | SCIOTO VALLEY PRECAST<br>3218 S. BRIDGE STREET<br>CHILlicoTHE, OH 45601<br>(740)663-2659 |
|               | Checked      |         |   |  |
| Scale         | As Noted     | Project |   |  |
| Date          | APR 14, 2008 | Drawn   |   |  |
| Drawn         |              | Checked |   |  |

# SCIOTO VALLEY PRECAST YOUR ONE STOP PRECAST CENTER

Scioto Valley Precast  
 American Made Products from a Family Owned Company  
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[www.sciotovalleyprecast.com](http://www.sciotovalleyprecast.com)

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