An innovation in concrete masonry

26 Million Blocks Built into Foundation Walls and High Rises
The Ivany Structural System

an engineered, reinforced concrete masonry system utilizing the Ivany Block, a revolutionary and proven concrete masonry unit.

The Ivany System adds a new dimension to the performance of concrete masonry as an alternate to cast-in-place steel reinforced concrete walls.

Use of the Ivany System provides all the necessary high demands for structural performance at costs significantly below that of reinforced concrete.

The Ivany Block System

Ivany Open End Block

- Single core — lighter than conventional block
- Standard modular dimensions
- Special webs to accommodate horizontal reinforcing steel
- Inner cell lip assures proper vertical reinforcing steel placement
The Ivany System Eliminates

- Forming and stripping. Costs you can forget about.
- Skeletal framework. Unnecessary.
- Tying of horizontal to vertical steel. The Ivany Block configuration ensures proper placement. Lapping per ACI Code is all that is required.
- Coordination of trades. Bricklayers lay the block, place the steel, pour the concrete in one continuous process. No jurisdictional disputes.
- Formed bond beams, columns, and lintels. The Ivany System does it all.
- Filling snap tie holes and grout rubdowns. A finished masonry wall is a key feature.

The Ivany System Means Performance

The performance of cast-in-place reinforced concrete at a significantly lower cost.

Design parameters of the block, the concrete, and the reinforcing steel can be specified to meet exact performance demands.

The Ivany System is an ideal system for nearly every kind of structure.

- Public (Government Buildings)
- Industrial (Manufacturing Plants, Nuclear Power Plants, Warehouses, etc.)
- Non-Housekeeping (Hotels, Motels, other Shelter)
- Commercial (Office buildings, Stores, Banks, etc.)
- Hospital and Health
- Schools and Colleges
- Multi-Family Housing

The Ivany System Means Economy

Thousands of projects across the country from mini-warehouses to towering hi-rises attest to the performance and economy of the Ivany System.

The Ivany System Means Economy

+ Lower initial costs
+ Faster completion
+ Earlier occupancy
+ Less loan interest to pay

= Ivany provides The Very Best Rate of Return on Your Investment
Use of the IVANY SYSTEM is not a pre-engineered method of construction. The size and spacing of steel must be determined by calculations for the particular application. (See Tables I and II.)

### Table I

<table>
<thead>
<tr>
<th>HEIGHT (H')</th>
<th>VERTICAL REINF.*</th>
<th>HORIZONTAL REINF.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'8</td>
<td>4@16</td>
<td>3@8</td>
</tr>
<tr>
<td>8'0</td>
<td>5@16</td>
<td>3@8</td>
</tr>
<tr>
<td>10'0</td>
<td>5@16</td>
<td>3@8</td>
</tr>
<tr>
<td>10'0</td>
<td>4@8</td>
<td>3@8</td>
</tr>
<tr>
<td>12'0</td>
<td>5@8</td>
<td>3@8</td>
</tr>
<tr>
<td>14'0</td>
<td>6@8</td>
<td>3@8</td>
</tr>
<tr>
<td>15'4</td>
<td>7@8</td>
<td>3@8</td>
</tr>
<tr>
<td>16'0</td>
<td>8@8</td>
<td>3@8</td>
</tr>
</tbody>
</table>

*Example: 3@8 = #3 Bar at 8" O.C.

### Table II

A 28 DAY COMpressive Strength/ft³ of 2,800 PSI was assumed. This strength represents an expected value when using 3,000 PSI units, 3,000 PSI Grout and Type M Mortar. However, actual values should be verified by Prism Tests for the particular application.

**Typical 16” Open End IVANY Block Retaining Wall**

<table>
<thead>
<tr>
<th>Footing Dimensions</th>
<th>Reinforcement</th>
<th>Max. Toe Pressure (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>B a b c d P Q X Y Z L</td>
<td></td>
</tr>
<tr>
<td>9'-0</td>
<td>5'-0</td>
<td>1'-0</td>
</tr>
<tr>
<td>11'-0</td>
<td>6'-2</td>
<td>1'-4</td>
</tr>
<tr>
<td>12'-6</td>
<td>7'-0</td>
<td>1'-6</td>
</tr>
<tr>
<td>13'-2</td>
<td>7'-4</td>
<td>1'-6</td>
</tr>
<tr>
<td>14'-6</td>
<td>8'-2</td>
<td>1'-8</td>
</tr>
<tr>
<td>15'-10</td>
<td>8'-10</td>
<td>1'-10</td>
</tr>
</tbody>
</table>

*Example: 3@8 = #3 Bar at 8" O.C.

### Suggested Specification

All block filled with concrete to be IVANY Block manufactured by one of the IVANY Block franchise holders.
Block to be 3000 psi on the net area of block unless noted.
Concrete fill to have 3000 psi U.N. with 1/2" maximum size aggregate.
High lift grouting accepted on all sizes of the IVANY units.
Follow: building code requirements for masonry structures (ACI 530-88/ASCE 5-88) and "CRS" 1984 recommendations 14-3. Also ASTM C90. Use type M mortar conforming to ASTM C270.

Approximate quantities of concrete required for filling an IVANY Block wall are as follows:

- 8" 11 cubic yards/1,000 block — approximately 58% void
- 12" 20 cubic yards/1,000 block — approximately 66% void
- 16" 27 cubic yards/1,000 block — approximately 64% void

**NOTE:** For low lift grouting (5'-0" or less) provide a lap at the splice of 30 bar diameters. For high lift grouting, provide "cleanout" at bottom of all block cores.

For more information on structural details and a list of manufacturers contact:

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