

# **Consulwal<sup>TM</sup>**

**Insulated Concrete Wall Construction**

**- A Faster Alternative**



**A Product Profile of the Consulwal<sup>TM</sup> Concrete Forming System**



# The Consulwal™ Concrete Forming System:

A PROVEN EFFICIENT METHOD TO COMPLETE INSULATED CONCRETE WALL CONSTRUCTION PROJECTS IN LESS THAN HALF THE TIME OF TRADITIONAL FORMING OR BLOCK CONSTRUCTION METHODS.

## Product Description:

Consulwal™ is a light weight, high strength, permanent in-place concrete form that is less labour intensive than either concrete wall forming or block construction.

Consulwal™ concrete insulated walls require up to **25% less concrete** and produce concrete up to **50% stronger**. Each Consulwal™ unit is 4 ft. long by 16 in. high and either 9¼ in., 11¼ in. or 13¼ in. wide depending upon whether a 4 in., 6 in. or an 8 in. thick wall is being formed. Each Consulwal™ unit **weighs approximately 5 lbs.** instead of up to about 228 lbs. for 6 standard 8 in. concrete blocks.

It is manufactured of a **specially formulated expanded polystyrene** material and each forming unit is specified as...

- ✓ Non-combustible
- ✓ Non-toxic
- ✓ Rot-proof
- ✓ A moisture barrier
- ✓ Providing reduced sound transmission
- ✓ A superior insulating material
- ✓ A Green Product
- ✓ Ozone Friendly



## A home built with Consulwal™:

- ✓ Will use 75% less lumber
- ✓ Will reduce energy costs by a minimum of 66%
- ✓ Is Allergy Free
- ✓ Is a Healthy Building

## Construction Advantages:

The Consulwal™ concrete forming system can be used in any situation where wood framed, masonry or concrete walls are being specified. In addition it will also **accept any of the commonly used external finishing materials**, i.e., brick, siding (aluminum or wood) and stucco. Specifically, the construction advantages of the Consulwal™ concrete forming system are:



- 1. Speed**  
Consulwal™ units are speedily assembled and accelerate the entire construction and delivery schedule;
- 2. Efficiency**  
The Consulwal™ units are installed to the required height, and then the concrete is placed in the forms all in one continuous operation;
- 3. Less Skilled Labour**  
Minimum skilled labour is supported by non-skilled labour for majority of work;
- 4. Less Concrete Required**  
A Consulwal™ wall will use less concrete than a wall formed with other types of forms;
- 5. Strength and Durability**  
of reinforced concrete;
- 6. Eliminates the need for strip-ping and cleaning of forms;**
- 7. Quality**  
Concrete is moisture protected by the permanent form and also able to properly cure for up to a year because of the protection provided by the Consulwal™ system;
- 8. One-step Forming and Insulating capability**  
A Consulwal™ concrete wall provides a minimum R-36 thermal resistance and more when interior and exterior finishes are added;
- 9. Waste is kept to a minimum;**
- 10. Callbacks are reduced**  
Cracked walls are virtually eliminated.



## Placing Consulwal™ units:

While the Consulwal™ concrete wall forming system will provide an excellent structure, good workmanship is still essential to obtain the best results. Of particular importance are the following general guidelines:

1. Design horizontal measurements for walls and openings on even one-foot centers.
2. Make footings level. Secure the first course of Consulwal™ units in a channel which has been fastened to the footing.
3. Provide adequate bracing for corners. Vertical support of walls shall be every 6 - 8 feet.
4. Measure and cut units with normal 'carpenter care'.
5. Prepare wall alignment bracing and bucks for wall cut-outs before starting concrete pour.



6. Place Consulwal™ units with the tongue up and tongue and groove joint fully engaged. Offset vertical joints 12 in. and ensure that the form centers are properly aligned.
7. Pour concrete lifts of 48 in. and ensure that the concrete is placed with care so as to avoid surges or excessive downward force (pumping is the recommended method).
8. Concrete must have a 4½" to 6" slump.

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## Easy Installation:

Depending on the size of the building project, labour is kept to a minimum. The only skilled labour required is a 'rough' carpenter and support labourers (unskilled). All the tools needed to set up the Consulwal™ concrete wall forming system are part of a rough carpenter's tool kit (i.e., saw, plumb line, level, snips). A Consulwal™ concrete wall should typically be completed in at most ¼ the time of concrete block construction and at most ½ the time of traditional forming.



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## Plumbing and Wiring:

Piping and wiring are easily cut into the form, therefore, standard installation methods are recommended.

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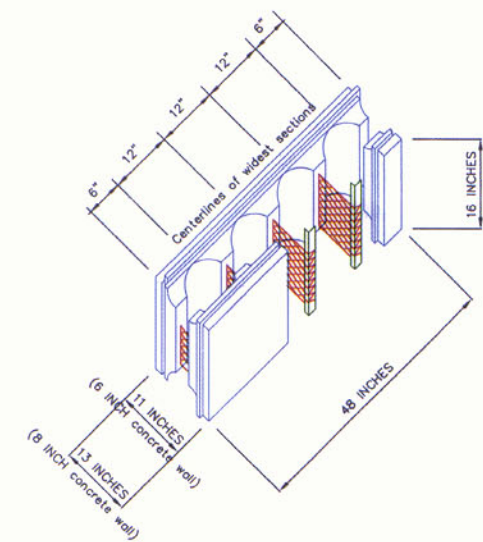
## Finishing Interior and Exterior Walls:

All standard exterior and interior finishes can be applied (i.e., brick, siding, stucco, drywall, etc.)





Isometric Illustration:



Consulwal™ Specifications:

Face Dimension (area).....	5.33ft <sup>2</sup>
Length .....	48"
Height .....	16"
Width - 4" plus form.....	9¼"
- 6" plus form.....	11¼"
- 8" plus form.....	13¼"
Weight Approximate (all sizes).....	5 lbs

Concrete Volumes:

- 4" wall - each Consulwal™ unit will require 0.044m<sup>3</sup> (0.055 cu. yd.) concrete
- 6" wall - each Consulwal™ unit will require 0.0569m<sup>3</sup> (0.077 cu. yd.) concrete
- 8" wall - each Consulwal™ unit will require 0.0759m<sup>3</sup> (0.099 cu. yd.) concrete

Typical Design Values:

- R-Value (without interior or exterior finishing material applied) .....Min. R-36
- U-Factor.....0.045
- K-Factor.....0.242 - 0.243
- Water absorption .....0.03 lbs / sq. ft.
- Vapor transmission.....3 gm / 24 hr / 100 sq.in.
- Concrete Compressive Strength @ 28 days.....3500 psi
- Sound Transmission Class.....53 or better with ½ in. drywall
- Fire Rating ..... 2 hrs. with ⅝ in. Type X Gypsum Board

