IntegraSpec.com
The User Friendly ICF
Insulating Concrete Forms
By Phil-Insul Corporation

Order Desk: 1-800-382-9102 Ext. "0"
Fax Order: 1-613-634-2291

MATERIAL ESTIMATE

(Manual Worksheet)

Date: mm/dd/yyyy

Name:	Sample		
Location:			
Start Date:	mm/dd/yyyy		

Project Specifications (Complete separate worksheets for walls with different heights and/or wall thicknesses)

Wall Length:	148 ft	♯ Outside 90° Corners:	7	# Concrete Pours:	1		
Wall Height:	9 ft	# Inside 90° Corners:	3		Size	Spacing	
Web Size:	6 in	♯ Outside 45° Corners:	2	Vertical Rebar:	10M/#4	1.333333 (feet)	
Length of Brick:	133 ft	# Inside 45° Corners:	2	Horizontal Rebar:	10M/#4	2 (feet)	

1.) Calculate the number of courses

Total Height		Course Height		
9 (feet)	/ (divide by)	**1.02** (feet)	=	8.82
	(Round up to closest .5)		=	9 Courses

2.) Calculate number of 90° Corners Sets

# 90° corners		# Courses			
10	x	9	=	90	90° Corners Sets

Total Sets: **90**

3.) Number of 45° Panels

# 45° corners		# Courses			
4	x	9	=	36	45° Corners Panels

Simple Method:

Order the same amount of 45° Inside panels as 45° Outside panels

Total Inside Panels: **36**
Total Outside Panels: **36**

OR OR

Adjusted for Brickledge Panels:

45° Corners Panels:	36	
# of 45° Inside Corners with Brick:	2	(Deduct)
	34	

Total Inside Panels: **34**

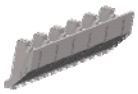
45° Corners Panels:	36	
# of 45° Outside Corners with Brick:	2	
	34	

Total Outside Panels: **34**

IntegraSpec Material Estimate Sheet

(Continued)

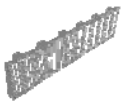
4.) Calculate the number of Brickledge or Taper Panels



i.) Brickledge Panels

* Note: Brickledge was chosen to lower the brick height to grade

Length of Brick (feet)		Door Widths (feet)						
133	-	3	=	130	/	4'	=	32.5 Brickledge Panels



ii.) Taper Panels

* Choose the Taper panel if brick is to start at the top of the foundation

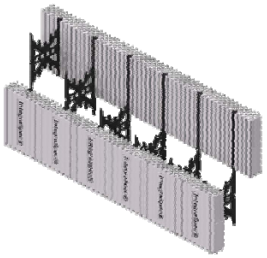
Length of Brick (feet)				
	/	4'	=	Taper Panels

5.) Calculate the number of Standard Panels

a) Calculate the adjusted length of wall of standards. (Use information from page 1 Project Specification)

Wall Length: 148

# Outside 90° Corners:	7 x 4' =	28
# Inside 90° Corners:	3 x 2' =	6
# Inside 45° Corners:	2 x 2' =	4
# Outside 45° Corners:	2 x 3' =	6
		44 → 44
Total Factored Length: (Deduct corners from Wall Length)		60



b) Calculate # of Standard Units per Row

Factored Length (5a) divided by Length of Standard Panel

60 / 4'	=	15

c) Calculate the # Standard Panels to be removed for all openings

Total sq.ft. of openings divided by square footage of Standard Panel

sq.ft. Openings: 33 / 4.08	=	8.09

d) Calculate the total # of Standard Units

of Standard Units per Row (5b) multiplied by the # of Courses (1) less Opening Standards

15 (5b)	x	9 (1)	=	135	-	8.00 (5c)	=	127.00 **Standard Units**

e) Calculate the total # of Standard Panels

Total # Standard Units (5d) times 2 less number of Brickledge or Taper Units

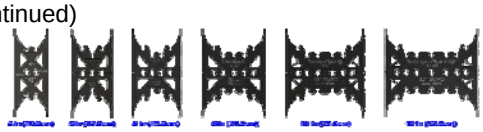
127.00 (5d)	x	2	=	254	- (less)	32.5 (4)	=	222 **Standard Panels**

Note: Increase panels to allow for waste. 3.5% is a typical waste factor, however increase waste factor for more difficult projects

221.5 (5e)	x	1.035 3.50%	=	229 **Total Standard Panels**

IntegraSpec Material Estimate Sheet

(Continued)



6.) Calculate the number of Webs/Spacers required

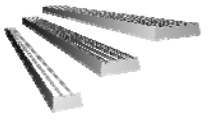
Total # of Standard Panels (5e):	222	x	**3**	=	666	
Total # of Brickledge Panels (4i):	33	x	**3**	=	99	
Total # of Taper Panels (4ii):	0	x	**3**	=	0	
Total # of 90° Corner Sets (2):	90	x	**4**	=	360	
Total # of 45° Inside Corner Panels (3):	34	x	**2**	=	68	
Total # of 45° Outside Corner Panels (3):	34	x	**2**	=	68	
				(Add above)	1261	**Total Webs/Spacers** (Pieces)

7.) Calculate the number of IntegraBucks required for all openings

Total # of IntegraBucks = Total Height of All Openings times 2

Total Height of All Openings: (See Openings Worksheet)	11 (Feet)	x	**2**	=	22	**IntegraBucks** (Pieces)

8.) Calculate the # of IntegraHeaders



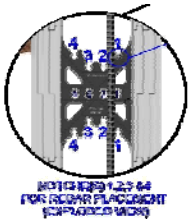
Total # of IntegraHeaders = Total Width of All Openings divided by IntegraHeader Length

Total Width of All Openings: (See Openings Worksheet)	9 (Feet)	/ (divided)	**8'**	=	9	**IntegraHeaders** (Pieces)

9.) Calculate the amount of Steel Rebar

a.) Horizontal Rebar: Wall Height (feet) divided by the Horizontal Spacing (feet) times Wall Length (feet)

Note: (Adjust rebar spacing to accommodate panel heights or half heights) (Round up to nearest full row)



(Total Height	9 (Feet)	/ (divided)	Horizontal Spacing	2 (Feet)	)	x	Total Length 148 (Feet)	= 740 **Horizontal Rebar**

Note: Add extra material for overlaps and waste. Typical percentage is 12%, adjust for more difficult projects

Horizontal Rebar:	740	x	**12%**	=	89 **Extra Horizontal Rebar**

b.) Vertical Rebar: Total Length divided by the Vertical Spacing (feet) times Total Height

(Total Length	148 (Feet)	/ (divided)	Vertival Spacing	1.33 (Feet)	)	x	Total Height 9 (Feet)	= 999 **Vertical Rebar**

Note: Add extra material for overlaps and waste. Typical percentage is 3%, adjust for multi level projects

Vertical Rebar:	999	x	**3%**	=	30 **Extra Vertical Rebar**

Note: **Horizontal Rebars and Vertical Rebars can be added together only of the size of bar is the same**

10.) Calculate the amount of Concrete

a.) Wall Length times Actual Wall Height [1] less Total Square footage of Openings times Web/Spacer Size divided by 12

Wall Length		Actual Wall Height[1]		sq.ft. Openings		Web/Spacer		Adjustment to Feet		
148 (Feet)	x	9.18 (Feet)	-	33 (Square Feet)	x	6 (inches)	/	**12**	=	662.82 (Cubic Feet)

Note[1]: Actual Wall Height is the height to be built on site. This will depend on whether the top panel will be cut to match a specific height or left as a full panel. (eg. 9 Courses = 9 x 1.02 = 9.18)

Note[2]: Change Cubic Feet to Cubic Yards, Divide by 27

Cubic Feet Concrete: 662.82 (Cubic Feet) / **27** = 24.54889 (Cubic Yards)

Concrete

b.) Add extra concrete material for brickledge, tapers & pumptruck

# Brickledge (4i) 32.5	x	Multiplier **0.0286**	=	0.9295		
# Taper (4ii) 0	x	Multiplier **0.0083**	=	0	=	1.6795 (Cubic Yards)
# of pours 1	x	**0.75**	=	0.75		**Concrete**

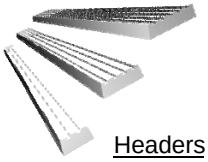
Total Concrete: **26.23** (Cubic Yards)

Note[3]: Multiply Total Concrete by .765 to convert Cubic Yards to Cubic Metres **20.06** (Cubic Metres)

11.) Additional Work Space

Use this area to calculate other material such as waterproofing, parging, # of braces/scaffolding, labour, etc.

IntegraSpec.com
The User Friendly ICF
Insulating Concrete Forms
By Phil-Insul Corporation



Headers

Openings Worksheet

Bucks

Name:	**Sample**		
Location:			
Start Date:	**mm/dd/yyyy**		

Windows (In feet)

	Width	Height	Sq.Ft.		Width	Height	Sq.Ft.		Width	Height	Sq.Ft.
1.)	3	2	6	11.)				21.)			
2.)	3	2	6	12.)				22.)			
3.)			0	13.)				23.)			
4.)				14.)				24.)			
4.)				15.)				25.)			
6.)				16.)				26.)			
7.)				17.)				27.)			
8.)				18.)				28.)			
9.)				19.)				29.)			
10.)				20.)				30.)			
Totals:	6	4	12								

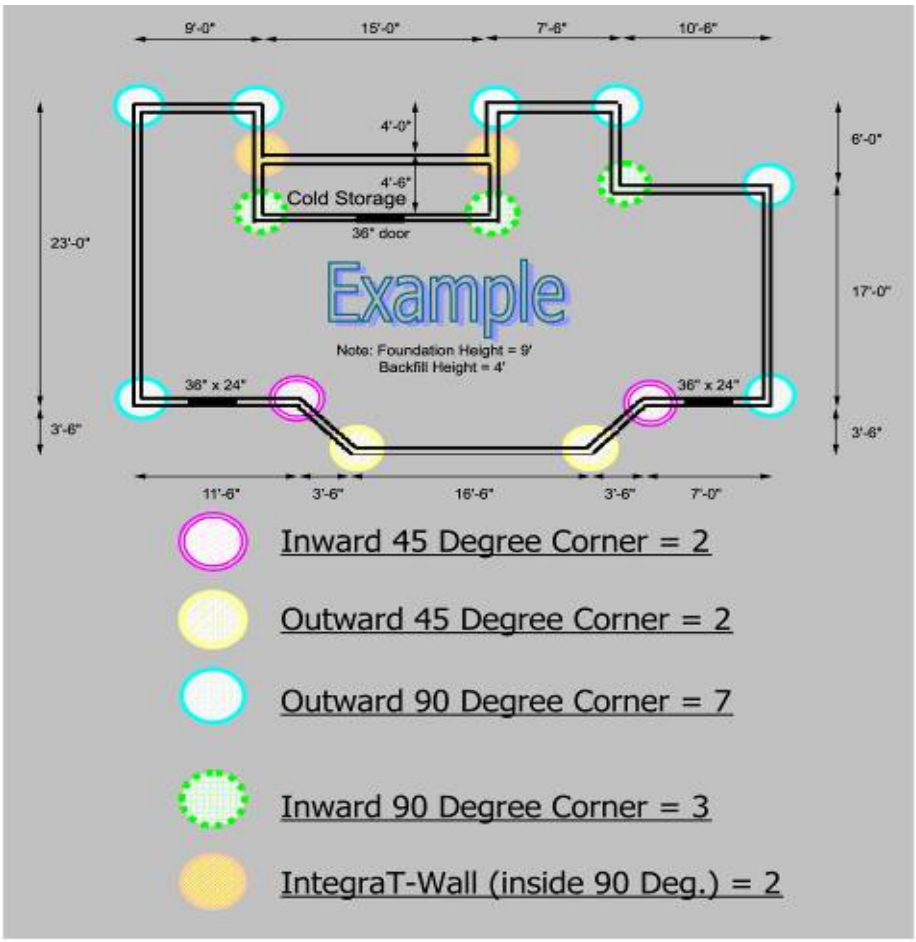
Doors (In feet)

	Width	Height	Sq.Ft.		Width	Height	Sq.Ft.		Width	Height	Sq.Ft.
1.)	3	7	21	6.)				11.)			
2.)				7.)				12.)			
3.)				8.)				13.)			
4.)				9.)				14.)			
5.)				10.)				15.)			
Totals:	3	7	21								

Other (In feet)

	Width	Height	Sq.Ft.		Width	Height	Sq.Ft.		Width	Height	Sq.Ft.
1.)				6.)				11.)			
2.)				7.)				12.)			
3.)				8.)				13.)			
4.)				9.)				14.)			
5.)				10.)				15.)			
Totals:											

Note: This area can be used for fireplaces, interior openings or just walls ends


9'-0"
15'-0"
7'-6"
10'-6"
4'-0"
4'-6"
Cold Storage
36" door
6'-0"
23'-0"
17'-0"
3'-6"
3'-6"
Example
Note: Foundation Height = 9'
Backfill Height = 4'
36" x 24"
36" x 24"
11'-6"
3'-6"
16'-6"
3'-6"
7'-0"
Inward 45 Degree Corner = 2
Outward 45 Degree Corner = 2
Outward 90 Degree Corner = 7
Inward 90 Degree Corner = 3
IntegraT-Wall (inside 90 Deg.) = 2