

Panelex™ Wall Panel  
Industrial Building System®  
*The New Construction Solution*

**Panelex™ Wall Panel Industrial Building System®**

*versus*

**Conventional Brick laying Methods**

## ISSUES BEHIND CONVENTIONAL BRICK LAYING METHODS

- Increase in labor rates for skilled brick layers
- Shortage of skilled brick layers
- Increasing cost of cement and aggregates
- Slow speed of work output
- Labor intensive work

## WHY USE Panelex™ Wall Panel Industrial Building System®?

- Does not require skilled brick laying workers.
- An address to shortage of foreign workers issues.
- Speed – easy to install .
- Shorter construction period.
- Requires no surface mortar plastering .
- An overall reduction in building construction cost.
- Maximized profits.

## The Differences



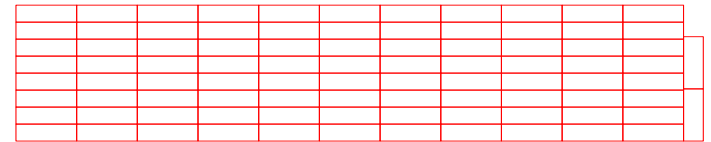
**THE PANELEX™  
WALL PANEL**

versus



**THE CONVENTIONAL BRICKS.....**

## Differences between Panelex™ Wall Panel versus conventional bricks



1-unit wall panel  
= 1.49 sq. m.



**90 pieces bricks equivalent**

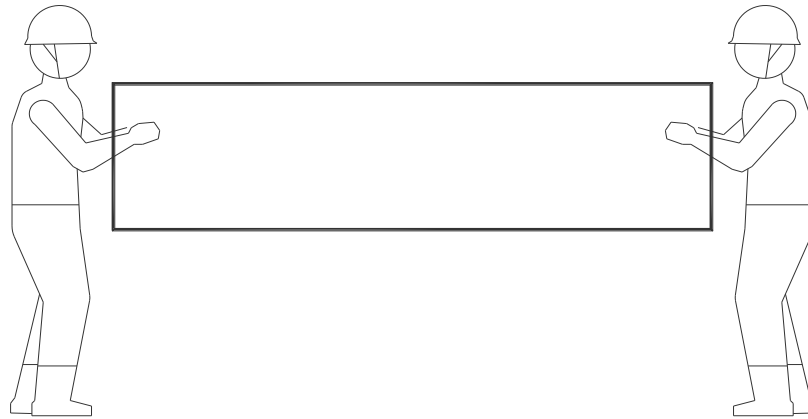
**CONVENIENTLY LIGHTWEIGHT!**

weight = 85 kg



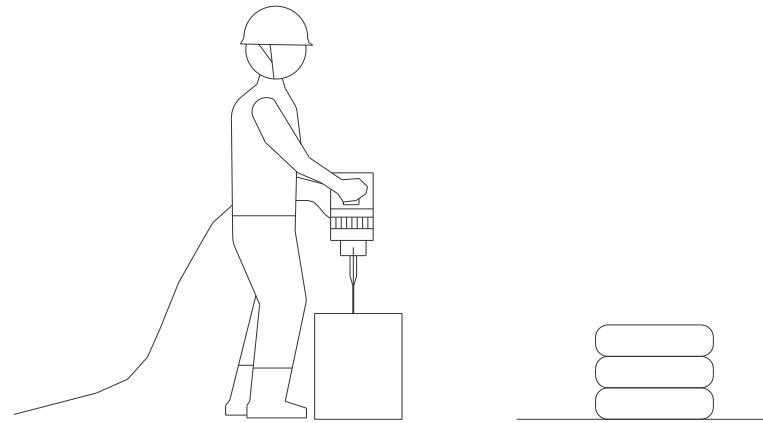
**weight = 252 kg**

## Differences between Panelex™ Wall Panel versus conventional bricks



**Panelex Wall Panel is light weight  
and can be carried by 2 persons at  
one time**

## Differences between Panelex™ Wall Panel versus conventional bricks



**Panel adhesive is easy and quick to prepare**



Differences between Panelex™ Wall Panel versus conventional bricks

## INSTALLATION PROCESS

*Panelex™ Wall Panel Industrial Building System ...*

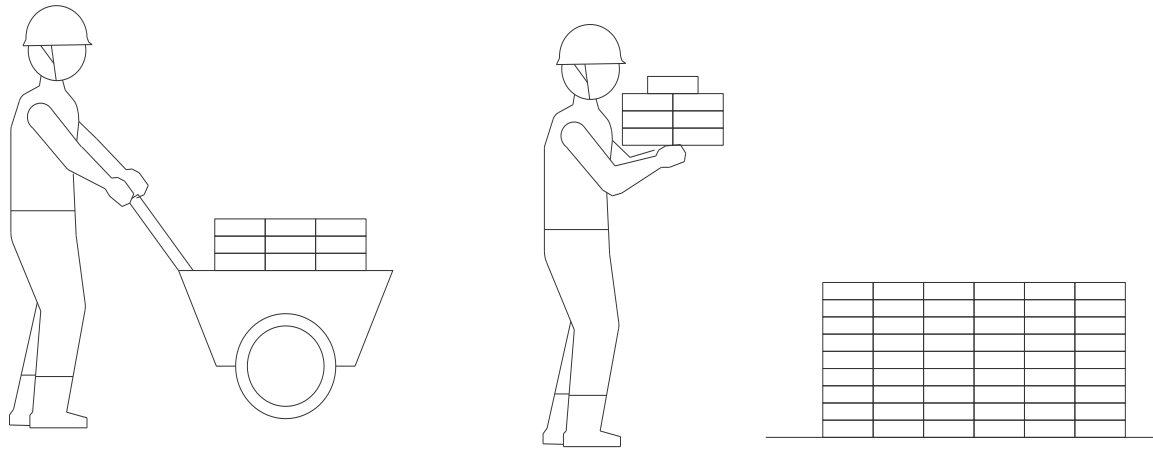
- ✓ Lesser methods of work!
- ✓ Ensures speed advantage without labor intensive work.
- ✓ SAFER WORKING ENVIRONMENT!

## Differences between Panelex™ Wall Panel versus conventional bricks



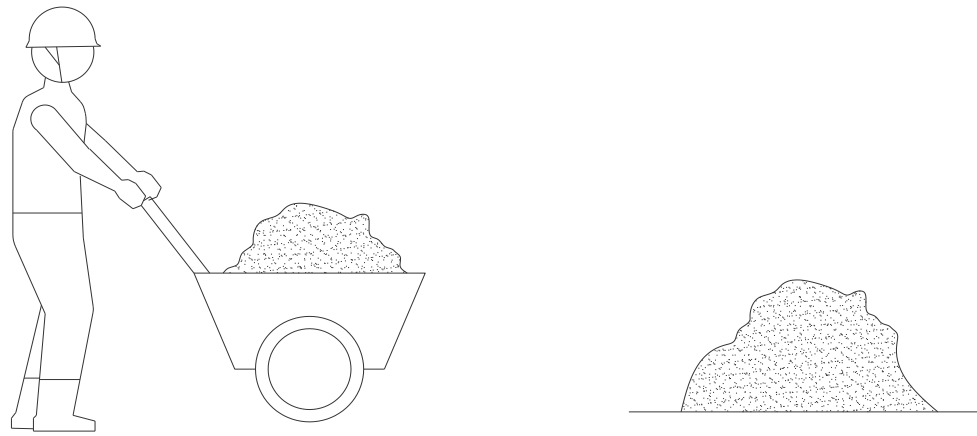
**THE CONVENTIONAL BRICKS.....**

## Differences between Panelex™ Wall Panel versus conventional bricks



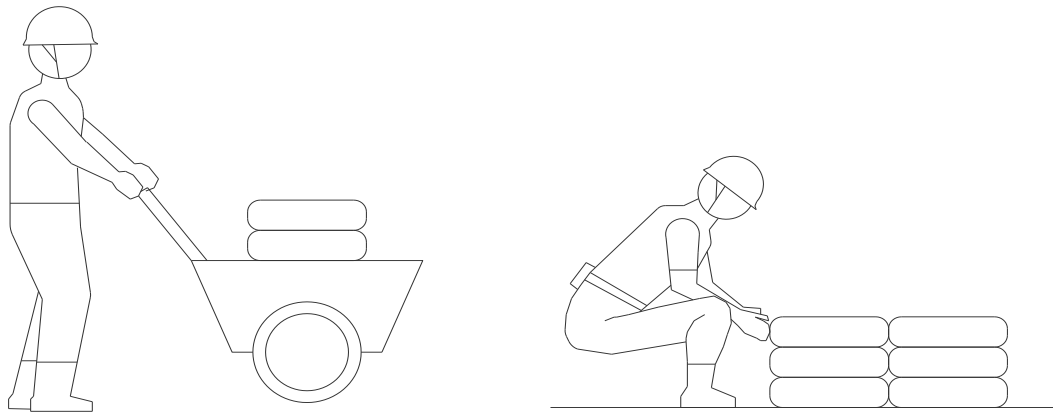
**Heavy masonry bricks require  
extensive handling!**

## Differences between Panelex™ Wall Panel versus conventional bricks



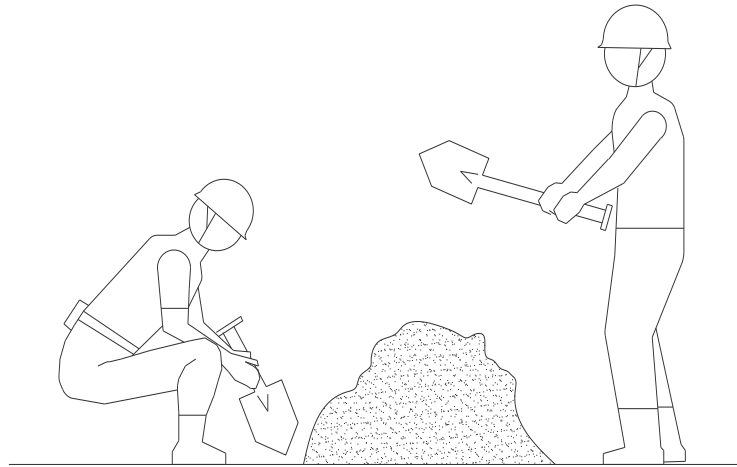
**Requires separate handling of aggregates on site!**

## Differences between Panelex™ Wall Panel versus conventional bricks



**Requires separate handling for cement bags!**

## Differences between Panelex™ Wall Panel versus conventional bricks



**Preparation of cement mortar is laborious and messy!**

Differences between Panelex™ Wall Panel versus conventional bricks



**INSTALLATION PROCESS**

**Conventional brick laying method**

**SLOW!**

**LABOR INTENSIVE!**

**WORKERS ARE MORE EXPOSED TO SAFETY HAZARDS!**





# ***COMPARATIVE ANALYSIS***

**FIVE (5) STOREY BUILDING MODEL**  
**1,962 SQUARE METERS OF FLOOR AREA**

**Panelex™ Wall Panel Industrial Building System®**

*versus*

**Conventional Brick laying Methods**

Utilization of Panelex™ Wall Panel reflects savings in quantities and cost of structural elements

**GUARANTEED!**

**ON STRUCTURAL BEAMS**

\* Reinforcing Steel Bars

**ON STRUCTURAL COLUMNS**

\* Concrete Grade Requirements

**ON STRUCTURAL CONCRETE VOLUME**

\* For Columns

**ON FOUNDATION**

\* Concrete Pile Caps

\* Concrete Piles

Utilization of Panelex™ Wall Panel reflects savings in quantities and cost of structural elements

**GUARANTEED!**

**WALL PARTITIONS**

\* Exterior Walls

\* Interior Walls

**FLOOR SPACE**

\* Utilization of Floor Space

Utilization of Panelex™ Wall Panel reflects savings in quantities and cost of structural elements.

FIVE (5) STOREY BUILDING MODEL  
1,962 SQUARE METERS OF FLOOR AREA

### REINFORCING STEEL REQUIREMENTS ON STRUCTURAL BEAMS

Using Panelex™ Wall Panel

21.86 Tons

RM 59,234 .00

Using Conventional Bricks

26.94 Tons

RM 73,012.86.00

**SAVE 19%**

**OR RM 13,778.00**

**ON REINFORCING**

**STEEL BARS**

**REQUIREMENTS!**

Utilization of Panelex™ Wall Panel reflects savings in quantities and cost of structural elements

## CONCRETE CASTING COST ON STRUCTURAL COLUMNS

Using Panelex™ Wall Panel

RM 19,210.68

Using Conventional Bricks

RM 20,152.00

**SAVE 5%**

**OR RM 942.00**

**ON COLUMN CONCRETE CASTING COST!**

Utilization of Panelex™ Wall Panel reflects savings in quantities and cost of structural elements

**ON FOUNDATION COST**

Using Panelex™ Wall Panel

Reduced quantity and dimensions

RM 11,085.64

Using Conventional Bricks

Reflects

RM 14,206.00

**SAVE 22%**

**OR RM 3,120.36**

**ON FOUNDATION COST COST!**

Utilization of Panelex™ Wall Panel reflects savings in quantities and cost of structural elements

### ON WALL PARTITION COST

Using Panelex™ Wall Panel

RM 305,029.64

Using Conventional Bricks

RM 348,046.64

**SAVE 11%**

**OR RM 43,017.36**

**ON WALL PARTITION COST!**

Utilization of Panelex™ Wall Panel reflects savings in quantities and cost of structural elements

**ON FLOOR SPACE**

Using Panelex™ Wall Panel  
available floor space  
reduced by  
1.6%

Using Conventional Bricks  
available floor space  
reduced by  
9%

**INCREASED UTILIZATION OF FLOOR SPACE  
BY 7.4%**



Panelex™ Wall Panel Industrial Building System®

Reduction in cost and quantities

reflects

**INCREASED AND MAXIMIZED PROFITS!**

Projected

***FURTHER BENEFITS ON VARIOUS  
TYPES OF OCCUPANCY***

# LOW COST RESIDENTIAL OCCUPANCY

STRUCTURAL ELEMENTS	PERCENT SAVINGS	PANELEX ADVANTAGES
FOUNDATION/SUBSTRUCTURE COST	13.15 %	Reduced structural loads reflects reduction in substructure design components
SUPERSTRUCTURE COST	9.48 %	Reduced structural loads reflects reduction in superstructure design components
EXTERIOR AND INTERIOR WALLS/PARTITIONS	11.10 %	Speedy work and reduced labor requirements reflects reduction in wall partition construction cost
FLOOR SPACE	7.36 %	Reduced wall panel thickness reflects savings in floor space.

Calculated values based on 1500 Pascal uniform loading

## RESIDENTIAL OCCUPANCY

STRUCTURAL COMPONENTS	PERCENT SAVINGS	PANELEX ADVANTAGES
FOUNDATION/SUBSTRUCTURE COST	17.53 %	Reduced structural loads reflects reduction in substructure design components
SUPERSTRUCTURE COST	12.64 %	Reduced structural loads reflects reduction in superstructure design components
EXTERIOR AND INTERIOR WALLS/PARTITIONS	11.10 %	Speedy work and reduced labor requirements reflects reduction in wall partition construction cost
FLOOR SPACE	7.36 %	Reduced wall panel thickness reflects savings in floor space.

Calculated values based on 2000 Pascal uniform loading

## COMMERCIAL BUILDINGS (2 STOREYS AND ABOVE)

STRUCTURAL COMPONENTS	PERCENT SAVINGS	PANELEX ADVANTAGES
FOUNDATION/SUBSTRUCTURE COST	21.97 %	Reduced structural loads reflects reduction in substructure design components
SUPERSTRUCTURE COST	15.80 %	Reduced structural loads reflects reduction in superstructure design components
EXTERIOR AND INTERIOR WALLS/PARTITIONS	11.10 %	Speedy work and reduced labor requirements reflects reduction in wall partition construction cost
FLOOR SPACE	7.36 %	Reduced wall panel thickness reflects savings in floor space.

Calculated values based on 2500 Pascal uniform loading

# LIGHT INDUSTRIAL OCCUPANCY

STRUCTURAL COMPONENTS	PERCENT SAVINGS	PANELEX ADVANTAGES
FOUNDATION/SUBSTRUCTURE COST	31.67 %	Reduced structural loads reflects reduction in substructure design components
SUPERSTRUCTURE COST	22.75 %	Reduced structural loads reflects reduction in superstructure design components
EXTERIOR AND INTERIOR WALLS/PARTITIONS	16 %	Speedy work and reduced labor requirements reflects reduction in wall partition construction cost
FLOOR SPACE	10.60 %	Reduced wall panel thickness reflects savings in floor space.

Calculated values based on 3600 Pascal uniform loading

# HEAVY INDUSTRIAL OCCUPANCY

STRUCTURAL COMPONENTS	PERCENT SAVINGS	PANELEX ADVANTAGES
FOUNDATION/SUBSTRUCTURE COST	52 %	Reduced structural loads reflects reduction in substructure design components
SUPERSTRUCTURE COST	37.92 %	Reduced structural loads reflects reduction in superstructure design components
EXTERIOR AND INTERIOR WALLS/PARTITIONS	11.10 %	Speedy work and reduced labor requirements reflects reduction in wall partition construction cost
FLOOR SPACE	7.36 %	Reduced wall panel thickness reflects savings in floor space.

Calculated values based on 6000 Pascal uniform loading