

# TrussWall vs. Precast Concrete Modules

TrussWall, Trussbilt's steel panel wall system, is the lightest and most secure detention cell system available. It offers owners, architects and general contractors significant advantages over precast concrete cell modules, meeting your needs for superior security, design flexibility, cost savings, a faster construction schedule and LEED credits.

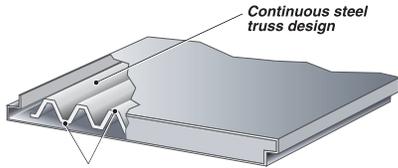
Requirement	Precast Concrete Modules	 TrussWall	TrussWall's Advantage	Who Benefits?
<b>Security</b>	Concrete construction	Steel construction	Enhances strength, assuring owners of the strength of steel in every cell	Owner, Architect
	4" - 6" interior concrete cell walls	2" interior steel panels filled with concrete	Enhances strength and acoustics (STC 45-49) to minimize noise (precast requires 8" to achieve this rating)	Owner
	Unknown if tested to ASTM F2322	ASTM F2322 compliant	Exceeds industry standard for attack prevention	Owner, Architect
<b>Design Flexibility</b>	Pre-determined sizes	Customizable/flexible	Lets owners choose cell sizes based on inmate criteria, not precaster's form sizes	Owner, Architect
	Furniture locations cast in concrete and unmovable	Customizable/flexible	Lets owners choose furniture type and location, paint finish and cell height	Owner, Architect
	Heavy modules (120 lb/sq ft)	Lightweight panels (32 lb/sq ft)	Gives more site selection flexibility -- high rise facilities and project sites with poor soil conditions are more viable	Owner, Architect
	4-sided modules predetermine a concrete exterior	Panels allow separate architectural exterior façade	Lets owner/architect choose the façade that most accommodates the surrounding environment	Owner, Architect
	Fixed design for showers	Flexible stainless steel options available for showers	Lets owners/architects determine shower sizes	Owner, Architect
<b>Cost Savings</b>	4" - 9" thick walls	2" thick panels	Reduces space requirements or allows more cells per module (see reverse)	Owner
	4" - 9" thick walls	2" thick panels	Reduces long-term operational costs for staffing, energy, etc.	Owner
	Heavy modules (120 lb/sq ft)	Lightweight panels (32 lb/sq ft)	Reduces foundation requirements	Owner
	Heavy modules (120 lb/sq ft)	Lightweight panels (32 lb/sq ft)	Eliminates expensive crane time	Owner
	Heavy modules (120 lb/sq ft)	Lightweight panels (32 lb/sq ft)	Eliminates need for heavily reinforced access roads	Owner, General Contractor
<b>Faster Construction Schedule</b>	Lead time 6-8 <b>months</b> after approvals	Lead time 6-8 <b>weeks</b> after approvals	Allows greater scheduling flexibility to get cells off critical path in construction schedule sooner	General Contractor
	Installation schedule dependent on precaster's schedule	Installation can begin any time after floor slab is ready; panels can be installed before, during or after building shell erected.	Allows difficult schedules to be met more easily	General Contractor
	Modules installed by crane before building enclosed	Panels can fit through front door after building shell is complete.	Lets CM dry-in facility as early as possible; allows all trades to start earlier, even in inclement weather, minimizing lost work days	General Contractor
	Other trades must adapt to precaster's MEP preparations	Trussbilt's MEP preparations are completely flexible from cell to cell.	Simplifies MEP installation	General Contractor
	Precaster supplies installers	Local laborers used in installation	Lets taxes stay within the local community	Owner
<b>LEED</b>	Limited recycling possibilities	Steel can be 100% post-consumer recycled	Meets LEED credits for recycled material	Owner, Architect
	High weight and space requirements	Thin and lightweight panels	Reduces material use, allows synergistic gains from LEED integrated design	Owner, Architect



**Trussbilt**

*Leading Innovator of Security Products for Over 80 Years*

# Designing with TrussWall vs. Precast Concrete Modules



Internally spot welded to both face sheets 3" on center

TrussCore is a truncated, triangular-shaped, roll-formed steel truss that spans the full width and height of TrussWall panels.



Montgomery County (AL) Detention Center  
All trades working simultaneously



Oregon Men's Prison, Madras OR  
Unsupported cantilevered mezzanine

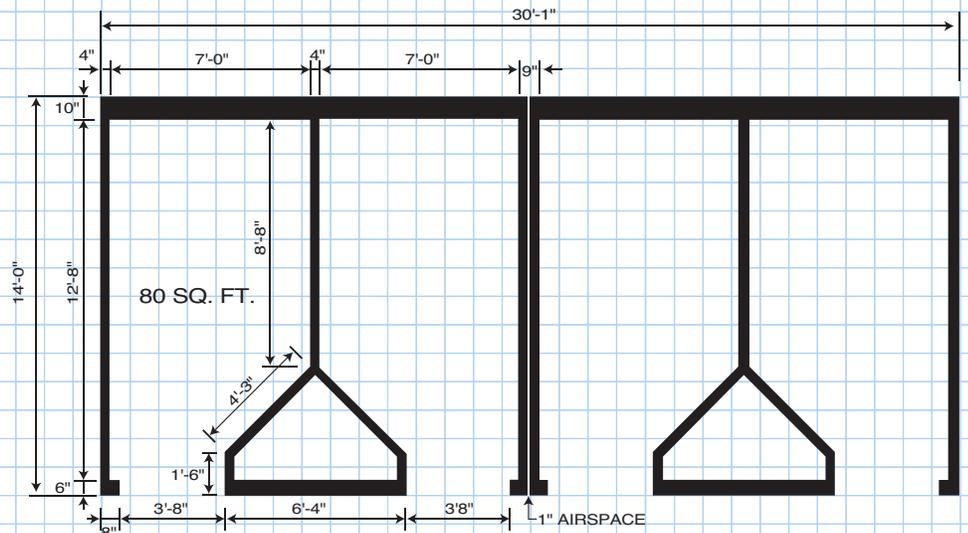


Limestone County (TX) Detention Center  
All panels installed

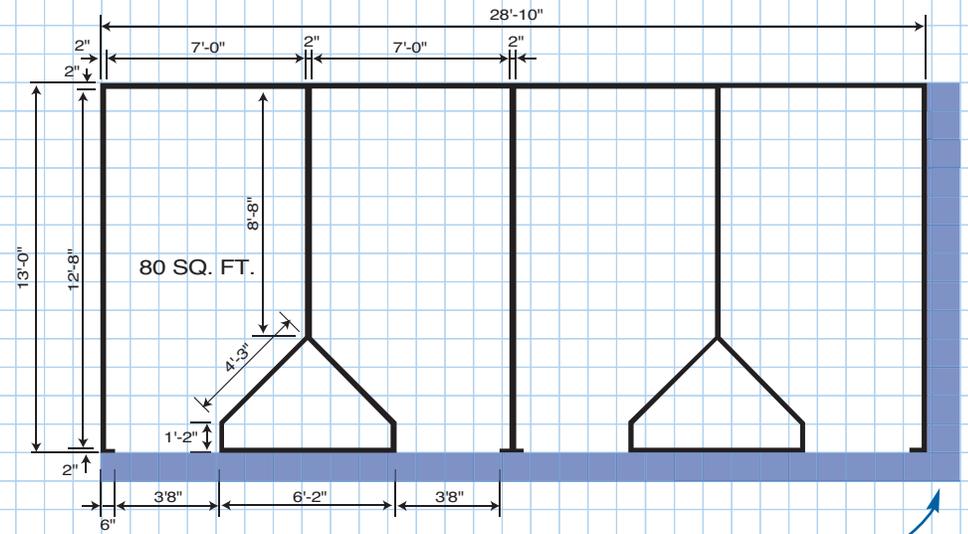


Limestone County (TX) Detention Center  
Closeup of cell fronts

## PRE-CAST CONCRETE MODULE LAYOUT



## TRUSSWALL LAYOUT



**46 sq. ft. saved (11%) per 4 cells**



# Trussbilt

Leading Innovator of  
Security Products for  
Over 80 Years

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