

### 2007 LIGHT COMMERCIAL 2ND RUNNER UP *Pine Grove Church*

#### Project Statistics

**Project Name:** Pinegrove Church  
**Location:** Kingston, Ontario  
**Wall Area:** 10,000 sq.ft.  
**Completion Date:** 2006  
**Form used:** 8" IntegraSpec  
**Cost:** \$85 per sq. ft.

#### Construction Team

**Owner/GC:** Pinegrove Church  
**ICF Installer:** Nikiforuk Construction  
**Architect:** Al Cromarty  
**Engineer:** Tam Engineering  
**Form Distributor:** ICF Kingston

#### Fast Facts

- Used Volunteer Labor to Minimize Costs
- Custom cut angles on walls topping 30 feet
- Unusual Window Openings
- Stepped Sill Plates
- ICF Baptismal Font
- Completed for around \$85 a sq. ft.



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Faced with a growing congregation and an aging chapel, Pinegrove Church in Kingston, Ontario, decided to build a new facility. After touring a nearby church that had recently been constructed with ICFs, the building committee was sold on the concept.

To keep costs down, the ICF installer agreed to allow church members to help out as unpaid volunteers. The most difficult part of the build was the unusual angles in the front wall under the steeple. With poured gable ends reaching to 32', the non-standard angles had to be hand-



cut and carefully braced. Likewise, the unusual window openings and stepped sill plates required extra attention as well. According to the distributor who provided the ICFs, the church is extremely pleased with their new facility—including the ICF baptismal font. With 10,000 sq. ft of ICF walls, and only two trained installers on site, the church's walls are reportedly within an 1/8" of plumb, and the entire project was completed for around \$85 a sq. ft.



**2007 HEAVY COMMERCIAL  
2ND RUNNER UP**  
*Tifton Comfort Inn*

**Project Statistics**

**Project Name:** Comfort Inn  
**Location:** Tifton, Ga.  
**Footprint:** 65,000 sq. ft.  
**Wall Area:** 116,000 sq.ft. of ICF walls  
**Completion Date:** 2006  
**Form used:** 5" IntegraSpec  
**Project start to finish:** 105 days



**Construction Team**

**Owner/GC:** Williams Investments  
**ICF Installer:** Mark Ross/PowerSmart Building  
**Engineer:** Truman P. Young & Associates  
**Additional Team Member:** Category Five Structures  
**Additional Team Member:** Howe Construction

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**Fast Facts**

- ICF Chosen for Sound Attenuation (next to busy highway), speed of construction, and price.
- One of the most ICF-intensive projects on record.
- Competitive with stick frame at \$78 sq. ft.
- Brought together contractors from 5 states to team up on install
- Waste from 116,000 sq. ft. of ICF walls could fit in a utility trailer.



According to the owner, the Comfort Inn in Tifton, Georgia, is the "best built hotel in our company." The hotel walls, constructed with IntegraSpec ICF, keep out the traffic noise on the nearby interstate, minimize energy bills, and can withstand the very worst of Mother Nature. But the hotel also set a new benchmark for ICF construction. Faced with an incredibly tight construction timeline—under four months—and a budget that even stick frame builders would find challenging, a team of five ICF installation companies worked together to bring the project in on time and on budget.

The project faced several difficult hurdles while it was still in the design phases. Weak soil on the building site worried engineers; it appeared the hotel would require an additional \$250,000 for the foundation.

However, when Williams Investments, the owner and general contractor, learned about ICFs, many of the concerns were resolved. IntegraSpec set a new standard for service, arranging for a next-day, in-person meeting with the developer and provided



extensive technical support.

To reduce the weight, IntegraSpec manufactured a new 5" tie width specifically for this project, and with careful engineering, the design team was able to use interior ICF demising walls to spread the weight of the structure more evenly over its footprint, eliminating the quarter-million-dollar foundation costs. It also tripled the number of forms needed. The 65,000 sq. ft. structure used 116,000 sq. ft. of insulated concrete forms.

The size of the project, coupled with the tight time frame meant that the ICF installation would be a major undertaking. Five experienced contractors from five states—Mark Ross (Ohio); Tom Boardman (Ga.); Eldon Howe (Mich); Bob Duren (Fla.); and Scott Woulf (Wis.)—teamed up to make it happen.

Jim Buttrey, director of marketing at IntegraSpec, comments, "All the people worked together seamlessly, and created lasting friendships, proving that the ICF industry can achieve great things by uniting, rather than working independently, or competitively."



Work began in mid-March, and the walls went up fast. Workers were stacking walls on the fourth floor before the first floor foundation was completed. Trades (steel studding, mechanical, electrical, and plumbing) was "initiated or completed on the first three floors prior to placement of concrete on fourth floor," according to Buttrey.

Using Plumwall bracing and the specialized ties, workers cast the floors and walls simultaneously. On the biggest pour, 14 people installed 350 cu. yds. of concrete in a single 12 hr day.

The team, which consisted of "four true ICF pros, three professionals-in-training, and six to eight common laborers," had all of the walls up within a few short weeks. The project was used as advanced, paid ICF training for several members. Even workers who were new to ICFs were soon installing 400 sq. ft. of wall per day, with no blowouts or bulges and within a ¼" of plumb, level and square over four stories.

Because of the forms' unique panel system, was for the entire project "could have fit

in a utility trailer," says Buttrey.

The entire project was completed by the end of June, 2006, at a price competitive with stick frame construction. Buttrey estimates the project cost about \$78 sq. ft., compared to \$165 sq. ft. for an equivalent concrete structure made with removable forms.

For efficiency of construction, new levels of service, and innovative use of ICFs, the judges are pleased to name Tifton Comfort Inn as one of the winning heavy commercial projects in the 2007 ICF Builder Awards.