



## Summary



In August 1991, Trinity Presbyterian Church began meeting as a “Living Room” Bible study with a core group of six adults. From 1992 through 2005, the church, with a growing congregation, moved through various rental spaces. Finally, in 2005, Trinity purchased 11 acres along Rice Mine Road that would become the “permanent” home of this rapidly growing parish, now serving over 300 people.

The deacons of Trinity hired WAR Construction, Inc. and the architectural firm of CDH Partners in Atlanta, GA to design and build their new church. “The team” began to design a “master **site** plan” that would include a Fellowship Hall, Sanctuary, multi-purpose building, administrative office building, and sports playing fields. With limited funds available, the master plan would have to be built in phases. The first phase would be the Fellowship Hall which would serve as their “temporary” sanctuary, kitchen, and classrooms until other phases could be completed and then this building would still remain a useful component of the campus as more phases were completed in the future.

The site is situated along the entrance road of a prominent new neighborhood. The entrance area is planned to be a buffer of mixed use shops, the church and open park-like areas, leading into the neighborhood. With this in mind, we worked closely with the neighborhood developer’s architect to ensure that the new Fellowship Hall and all future buildings would complement the scale and architecture of the adjacent neighborhood. This was achieved on our project by recessing the first floor, as a partial basement, to reduce the height of the structures and using craftsman style elements on a slightly larger scale. The result is a structure that establishes the format for all future church related structures and compliments the look and feel of the residential and retail community surrounding this project.

This project merits a Build Alabama Award because it contains the following elements:

1. A teamwork approach with true partnering trust between the Owner, Architect and Contractor and adjacent landowners.
2. An open-minded attitude within each party to allow creative and effective planning necessary to match the program and the funds available.
3. A non-traditional contracting method that combined Construction Management, Design/Build, and General Contracting techniques to accomplish preconstruction and design services, competitive bidding among the trade contractors, and total transparency in the project costs.
4. Implementation of multiple structural systems that would accommodate the unique building design while enabling the most cost effective solution.



## Meeting the Challenge of a Difficult Job



Since the first order of business was to excavate the partial basement during the rainy season, dewatering quickly became a critical function. We were able to overcome this challenge by implementing an “out of level” subgrade for the basement floor that self drained the water to be removed from the excavation area. This allowed us to continue working within 24 hours of a rain event.



As if this wasn't enough of a challenge, we were also dealing with poor soils and a high water table. We undercut and backfilled the unsuitable soil areas and our under drain and pump system kept the high water table in check. With this homemade site sump pump, we were able to fight through the rains and prepare the area for foundation walls.

Next, we utilized a custom perimeter foundation wall system, which was cast in Tennessee and assembled on-site in only 2 days. Once assembled, the 7000 psi concrete did not require waterproofing. The basement floor was poured **after** the completion of the perimeter walls thereby providing a stable work surface in minimum time.



We installed a pre-engineered building system with bearing in the basement that extended through the first floor, all the way to the roof. After the roof was installed, we placed a versa deck system on top of the classrooms to create the first floor platform. Smaller portions of the building were constructed with steel studs and steel trusses. In the end, we used each system where it made economic sense and allowed a rapid schedule to get the building in the dry.

By utilizing numerous different economical structural systems and blending them into the building, we were able to maximize the budget.



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## **Excellence in Project Management**

WAR Construction assisted the church in establishing their tax exempt status. This tax exempt status ultimately saved them over \$100,000 on construction material purchases during the project. After completion they continued the system we established for purchasing their day to day items without paying sales tax.



We also set up a separate account within our accounting software and a stand alone checking account to more effectively manage the procurement and payments of all materials purchased on the project. The designated Trinity representative received a detailed ledger of material purchases and subcontract bills via email once a month to review and verify before coming to our office to sign checks. This allowed Trinity's administrative personnel to remain focused on their normal day to day activities and not get bogged down with dealing with the construction accounting and administration.

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## **State of the Art Advancement**

This was truly an "e-project" from the beginning to the end. Ninety percent of the design coordination was done through email correspondence. Once the design was complete, we distributed all drawings and specs electronically and on CD's to the trade contractors. This saved great deal of wasted paper printing as each contractor was able to print only the drawings necessary for their portion of the work, while also providing a reference for any other areas. Aside from the regular progress meetings and architect visits, almost all of the construction administration including pay requests, change orders, RFI's, and general correspondence was handled electronically as well.

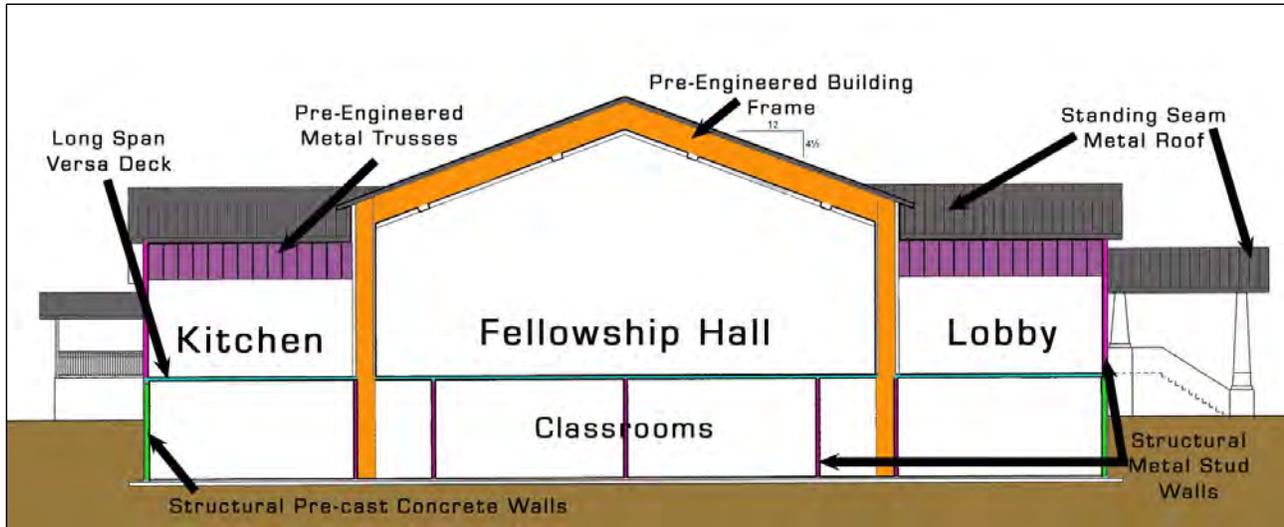
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## **Contractor's Contribution to the Community**

WAR Construction, Inc. is involved at every level in our community. Many of our officers serve on local civic, industry and governmental boards. We are a "sustainer" level supporter for both city and county school systems. We also donated our services to construct the Hospice of West Alabama Facility in Tuscaloosa. We are a corporate sponsor for the American Heart Association, Boy and Girl Scouts, and numerous other agencies. Our employees are active in church, Little League and other community based organizations.



## Innovation in Construction Techniques or Materials



This building consists of several different structural systems that were combined together to create a cost effective and unique building.

For the basement walls, we installed structural pre-cast concrete walls. These panels are unique in the fact that they will support the slab above, support the backfilled soil material and cost only a fraction of cast-in-place walls. Another unique quality of these pre-cast walls is that they come with integral metal studs and insulation on the interior side so they are ready for sheetrock once in place. These walls are primarily used for residential applications but were altered to have a portion above grade for this particular project.

The main level slab is supported by interior structural metal stud walls and a long span Versa Deck. The decking spans are unsupported up to twenty feet in several areas. This system allowed us to minimize the span to depth ratio which allowed more room for MEP items and greater ceiling heights in the basement rooms.

The super structure is a pre-engineered building that bears on footings below the basement slab and rises up to the roof level. The pre-engineered building also supports lean-to structures that are made up of structural load bearing metal studs and pre-engineered metal trusses.

The prominent bell tower is made up of structural framing that bears on footings below the basement and extends to fifty feet above the ground level. All of this framing resides within the outline of the pre-engineered building.

The entire building appears to be seamless even though it has a variety of blended structural systems.



## Sensitivity to Environment and Surroundings



Because of its location at the entrance of the Towne's subdivision, there was a great deal of importance placed on the exterior appearance of the building. The church design had to comply with the covenants of the neighborhood, blend with the adjacent shops, and be approved by the developer's architectural committee. This structure sets the tone for the balance of the development.

Another major concern was how to deal with the storm water runoff as there is a private pond located less than a quarter mile down stream from the site. The storm water detention pond was designed and built to accommodate the entire master plan as well as some future retail development on an adjoining property. This, along with careful monitoring of our storm water runoff during construction, allowed us to complete the job with zero complaints from neighboring landowners.

