Final Exam: After three previous phases of construction, Carden Company had to figure out how to build the final classroom building with hardly any space left for staging. Their solution: **Constructing in segments** from end-to-end.

Extra-credit: Managing a building site with unstable soils very close to the property line.







It was tight quarters for any building site, but especially on the campus of an operating school - with 400 small children.

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Carden Company's on-going relationship with St. Paul's Community Church and their Academy has involved major renovations and new construction for both the church and the school. The final phase in 2011 finished off with a large classroom building, gymnasium and playing fields - and they wanted to be able to start school on a completed campus in the fall.

With all the prior building leaving the campus with little room for staging construction, Carden Company had to get creative with the space. By building end-to-end in segments, instead of the conventional full structure, Carden could use the space normally under construction as staging area.

"Right - the tightness of the fit. Gary and his men had to deal with that. And I never felt it, because they worked around it so well." said Ken Cheeseman, head master at St. Paul Christian Academy. He added, "I think the reason why Carden Company is such a great partner for us is that I have 400 children from age 4 to age 12 that I move on and off this campus every day. Carden Company was very good at working with us around those children - and if I ever had a concern, John Garrison (job superintendent) would immediately attend to that concern and make whatever change we needed to make sure the children were safe and taken care of."

The tight site was an issue they had calculated on from the start. What they didn't know was that the shifting of unstable soils would test their problem-solving and ingenuity even further. "The challenge that came up once we got into the construction was the soil erosion," said Architect Matt Hagler, Earl Swensson & Associates, noting that Carden worked "pretty hand-in-hand" with the civil contractors to shore up and stabilize the retaining walls.

And because they were working very close to the property line, slope failure affected the neighbors as well – requiring some diplomatic negotiations. "Part of the issue was on their side and part of it was on our side . . . I thought Carden navigated that quite deftly," said Head Master Cheeseman.

In addition to the last classroom building, the final phase of construction also included playing fields and a gymnasium, which had some special requirements of its own. "Going into it, one of the special challenges was doing a large double-T concrete construction for the roof of the gym to have the large open span without any columns," noted Architect Hagler, adding, "that was a special challenge and they did a great job coordinating getting that to the site and getting it up."

Despite the difficulties – both expected and unexpected – keeping on-schedule was paramount. "The schedule was probably the most crucial part of the whole job - that was to get the classroom built and finished by the time school started," said Owner's Representative Danny Wamble of Wamble and Associates. "It was a very tough schedule, but Carden Company met it."

He also was pleased with how well Carden managed the budget. "There were some cost over-runs, but it was from a change in scope and it was unexpected conditions that were encountered on site," said Wamble. "And as far as controlling costs, Carden Company did a great job and actually saved money in several areas and those savings were used on other things added into the project."

When your project is challenging, call Carden.

Carden Company delivers innovative solutions, impressive quality and exceptional service.

Call Brian Morgan at 615-376-8363 to put our experience to work.