

# STRUCTURAL ENGINEERING

## High School - It's an Identity

March 2019

"Once a Rocket, always a Rocket". As a Lincoln Northeast High School alum, this is a familiar phrase. Talking with people through the years, when the topic of where they attended high school comes up it seems you are more likely to hear, "I'm a Knight.", rather than, "I went to Southeast." Now with a high school student of my own, I have noticed that they emphatically identify as a (Navi)Gator. Whether it be a Link, Rocket, Knight, Spartan, Silver Hawk, or Gator, **RO Youker** has provided structural design for additions to four of the six existing high schools and is the Engineer of Record for the other two existing high schools.



Adding Links to the Chain

In the early and mid-1990s, **RO Youker** was the structural engineer on additions to Lincoln High School. The most significant of these was an approximately 50,000 square foot gymnasium and classroom addition to the south end of the building. This provided much needed space for an increasing school population which expanded the Links tradition. This addition linked the Lincoln High building to the stand-alone building located to the south.

#### **Rocket Fueled Swimmers**

Lincoln Northeast High school's pool and natatorium was a project of ours from the mid-1970s. The addition of approximately 20,000 square feet creates a space for the Rockets to practice and compete in the swimming and diving world of high school athletics. Located on the northeast corner, the pool was much needed and welcome addition to the building.

#### **Knights of the Well Air-conditioned Table**

Spanning four blocks or over 1,000 feet long, Southeast High School has had several additions through its life. In the mid-2000s, **RO Youker** was the structural engineer of record for an addition, auditorium renovation, and the complete renovation of the HVAC equipment as part of the Indoor Air Quality (IAQ) project. The additions to Southeast included two-story classroom space at the south end of the building and a cafeteria/commons addition. Due to the lack of significant available addition space and allowing that space to be used for programming, the existing crawl space under approximately one-third of the building was excavated to create the mechanical space needed for the new HVAC equipment. This involved temporary shoring much of the existing two-story classroom space in order to be able to perform the necessary excavations and lower existing building foundations and extend columns to the new bearing.





SOUTHEAST HIGH SCHOOL CONVERSION FROM CRAWL SPACE TO BASEMENT, BEFORE AND AFTER TRANSITION

#### This is Sparta(n)!

Classrooms, commons, and a gym. These additions as a single project in the mid-1990s totaled approximately 30,000 square feet in plan area. Like other facilities, this addition addressed the needs of an expanding student population. The gym and classroom space was added to the east end of the building to expand critical facilities. The commons area was added near the west end of the building, in filling an existing courtyard. The space is generally where the main entrance is currently located.

#### Hatching a Hawk...and a Gator for that matter

Lincoln's newest high schools are Lincoln Southwest and Lincoln North Star. Opened one year apart in the early 2000s, these twin facilities were designed to serve approximately 2,000 students each. As the structural engineer of record, **RO Youker** provided the design for all components of the building: classrooms, commons, kitchen, a full-fly theatre, competition swimming pool, the competition and practice gymnasiums, and all support spaces associated with these functions. These buildings created a new chapter in Lincoln Public School's history and the identity of two new groups of students: The Silver Hawks and the Navigators.



### **Summing Up**

Returning to the opening theme of identity, in a recent discussion with two high school principals they both commented on the fact that one of the interesting parts of their responsibilities is giving tours for alumni. In both cases, they noted that former students associated seemingly as much with portions and areas of the buildings as they did with friends and other students as if the buildings had an identity. **RO Youker** has been privileged to work with Lincoln Public Schools on all the high schools in the city. In return, we have helped provide the space for generations of Links, Rockets, Knights, Spartans, Silver Hawks, and Navigators.