Project Ideas

- Structural Engineering
  - Bridge shapes – which hold the most weight
- Transportation Engineering
  - Map out which local roads have higher volumes of traffic, have these changed over time?
- Geotechnical Engineering
  - What type of soils are in your region? Are these good or bad soils?
    - Compare your region to California, Dubai, etc.
  - Where are the tallest buildings going up – how and why?
- Environmental Engineering
  - When it rains and floods where does the water go? Map it out
    - The Virginia Roads map for bridges lists large culverts also reach out to firms working in the area.

Organizations

*Provide Grade School outreach opportunities and resources for educators.*

- ASCE – American Society of Civil Engineers
- EWB – Engineers Without Borders
- SHPE – Society of Hispanic Professional Engineers
- NSBE – National Society of Black Engineers
- SWE – Society of Women Engineers
- VSPE – Virginia Society of Professional Engineers

Virginian Peninsula Engineers Council (http://va-pec.org/) is a great resource for connecting with local organizations.

What’s in Engineering News?

SmartBriefs – A collection of news stories relating to engineering fields.

- ASCE - [http://www2.smartbrief.com/getLast.action?mode=sample&b=asce](http://www2.smartbrief.com/getLast.action?mode=sample&b=asce)
- ACI - [http://www2.smartbrief.com/getLast.action?mode=sample&b=cleaning](http://www2.smartbrief.com/getLast.action?mode=sample&b=cleaning)

Service-Learning in STEM

*Pre-College Interactions, Early Expectations, and Perceived Barriers of First Year Black and Latino Engineering Students.* Dika, Sandra L., Miguel A Pando, Brett Q. Tempest & Krystal A. Foxx.

*International Service as a Means of Improving Retention of Engineering Students.* Tempest, Brett Q., Sandra L. Dika, Miguel A. Pando, & Samuel T. Lopez.
