NCEER
North Carolina Engineers for Emergency Response
a new service organization
NCEER
North Carolina Engineers for Emergency Response

- 15 civilian engineers on-call
- Specialized training & equipment
- State resource, funded & activated by NCEM
- Deployed as temporary employees of the State
  - Insurance
  - Liability protection
  - Pay
NCEER
North Carolina Engineers for Emergency Response

- Trained first responders – FEMA StS certified
- Serving North Carolina public agencies for –
  - Infrastructure disasters
  - Urban Search & Rescue

Available to serve -
All public EM agencies in North Carolina
Infrastructure Emergencies -

- Building collapse
- Structural damage
- Industrial explosion
- Wind & flood
- Landslide
- Dam failure
NCEER - History

• 2002: North Carolina establishes Urban Search and Rescue teams.
  - NC teams are modeled on FEMA, and including on-call engineers ("Structural Specialists")

NC USAR Team Locations

NC-USAR-TF2: Buncombe County
NC-USAR-TF3: Charlotte Fire Department
NC-USAR-TF6: Greensboro Fire Department
NC-USAR-TF8: Raleigh Fire Department
(Durham, Chapel Hill Fire Departments)
NC-USAR-TF9: Lumberton Emergency Rescue Unit
(Fayetteville Fire Department)
NC-USAR-TF10: Greenville Fire Rescue Department
(New Bern Fire Department)
NC-USAR-TF11: New Hanover County
(Wilmington Fire Department)
<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>2004</td>
<td>Peeks Creek</td>
<td>Structural collapse, loss of life</td>
</tr>
<tr>
<td>2008</td>
<td>Salisbury</td>
<td>Structural collapse, loss of life (firefighters)</td>
</tr>
<tr>
<td>2010</td>
<td>Garner</td>
<td>Structural collapse, loss of life</td>
</tr>
<tr>
<td>2011</td>
<td>Raleigh</td>
<td>Structural collapse, loss of life</td>
</tr>
<tr>
<td>2011</td>
<td>Down East</td>
<td>Structural damage</td>
</tr>
<tr>
<td>2012</td>
<td>Charlotte</td>
<td>Structural collapse</td>
</tr>
<tr>
<td>2013</td>
<td>Stanley County</td>
<td>Excavation cave-in, loss of life (children)</td>
</tr>
</tbody>
</table>
Engineer Emergency Response in North Carolina

2014 – Rolesville - Wake Tech
Bridge collapse
loss of life

2015 – Farmville - silo fire
Structural damage

2015 – Raleigh - scaffold collapse
Equipment failure,
loss of life

2016 – Winston Salem - Brown School
Fire/collapse

2018 – Martin County – factory building
Structural damage

2018 – Boone – landslide
House collapse,
loss of life

2018 – Down East – Hurricane Florence
Dams, bridges,
roadways
Emergency Engineer Missions in North Carolina
Engineer Emergency Response in North Carolina
Engineer Emergency Response in North Carolina
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Engineer Emergency Response in North Carolina
From 2004 – 2015, NC USAR Engineers deployed with State teams use engineers at disaster sites –

but individual teams struggled to recruit, train, insure, pay or retain qualified USAR engineers

In 2016, North Carolina Emergency Management Division (NCEM) revamped emergency engineer program -
NCEER - History

- 2016: Recruit 15 NC Professional Engineers to serve as emergency responders.

- 2017-18: Train, test, & certify per USACE/FEMA standards for disaster site engineering and USAR Structural Specialist rating.

- 2018: Provide on-call emergency engineers for NCEM, 24/7.
NCEER - Qualifications

- NC Licensed Professional Engineer
- Minimum 10 years experience
- 40-hour USACE/FEMA Structural Specialist course (StS1)
NCEER - Qualifications

• 40-hour USACE/FEMA Advanced Structural Specialist course (StS2)

• Classes: *Many*. ICS, NIMS, National Response Framework, Post-Disaster Safety Assessment, HAZMAT Awareness, & others

• Good physical conditioning & stamina
# NCEER – Training Requirements

<table>
<thead>
<tr>
<th>Training or Certification</th>
<th>Provided by -</th>
<th>Type of training</th>
<th>Estimated time req’d</th>
<th>For certification as Deployable</th>
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</thead>
<tbody>
<tr>
<td>NC Professional Engineering License (NCPE)</td>
<td>NC Engineering Board</td>
<td>Internship, exam</td>
<td>5 years</td>
<td>Required</td>
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<tr>
<td>Structural engineering experience, including fieldwork</td>
<td>Work</td>
<td>Experience as PE</td>
<td>5 years</td>
<td>Required</td>
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<tr>
<td>Structural Specialist 1 (StS1)</td>
<td>FEMA/USACE</td>
<td>Class/hands-on</td>
<td>5 days</td>
<td>Required</td>
</tr>
<tr>
<td>Structural Collapse Awareness</td>
<td>Community college</td>
<td>Class</td>
<td>1 day</td>
<td>Required</td>
</tr>
<tr>
<td>Post-Disaster Safety Assessment (SAP)</td>
<td>SEANC</td>
<td>Class</td>
<td>1 day</td>
<td>Required</td>
</tr>
<tr>
<td>HAZMAT Awareness (NFPA 472)</td>
<td>Community college</td>
<td>Class</td>
<td>1 day</td>
<td>Required</td>
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<tr>
<td>Intro to Incident Command System (FEMA IS-100)</td>
<td>FEMA</td>
<td>On-line</td>
<td>4 hours</td>
<td>Required</td>
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<tr>
<td>Incident Command System Basic (FEMA IS-200)</td>
<td>FEMA</td>
<td>On-line</td>
<td>4 hours</td>
<td>Required</td>
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<tr>
<td>National Incident Management System (FEMA IS-700)</td>
<td>FEMA</td>
<td>On-line</td>
<td>4 hours</td>
<td>Required</td>
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<tr>
<td>National Response Framework (FEMA IS-800B)</td>
<td>FEMA</td>
<td>On-line</td>
<td>4 hours</td>
<td>Required</td>
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<tr>
<td>Structural Specialist 2 (StS2)</td>
<td>FEMA/USACE</td>
<td>Class/hands-on</td>
<td>5 days</td>
<td>Req'd within 3 years</td>
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<tr>
<td>Structural Collapse Technician</td>
<td>NCTF3</td>
<td>Hands-on</td>
<td>8 days</td>
<td>Recommended</td>
</tr>
<tr>
<td>Water Rescue Awareness</td>
<td>Community college</td>
<td>Class</td>
<td>1 day</td>
<td>Recommended</td>
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<tr>
<td>Trench Rescue Awareness</td>
<td>Community college</td>
<td>Class</td>
<td>1 day</td>
<td>Recommended</td>
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<tr>
<td>Confined Space Awareness</td>
<td>Community college</td>
<td>Class</td>
<td>6 hours</td>
<td>Recommended</td>
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<tr>
<td>GPS Awareness</td>
<td>Community college</td>
<td>Class</td>
<td>4 hours</td>
<td>Recommended</td>
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</table>
**NCEER Mission**

- Provide training, identify safe havens, and help agencies prepare for the unexpected.

- Serve with fire/rescue squads in damaged and unstable structures.

- Provide NC Urban Search and Rescue teams with Structural Specialists (StS) per FEMA standards.
NCEER Mission

NCEER’s mission is to help North Carolina public agencies cope with infrastructure emergencies.
## Our North Carolina Engineer Responders

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>Location</th>
<th>Phone</th>
<th>Employer</th>
<th>USAR Team Affiliation</th>
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<tbody>
<tr>
<td>Baker</td>
<td>Colby</td>
<td>Charlotte</td>
<td>765-409-3177</td>
<td>SEA, Ltd</td>
<td>NC-TF3</td>
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<tr>
<td>Barrier</td>
<td>Donnie</td>
<td>Charlotte</td>
<td>704-201-1487</td>
<td>Barrier Fnd Engineering Services</td>
<td>NC-TF3</td>
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<tr>
<td>Bathgate</td>
<td>Chris</td>
<td>Greensboro</td>
<td>336-339-1202</td>
<td>Sutton Kennerly Associates</td>
<td>NC-TF6</td>
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<tr>
<td>Caldwell</td>
<td>Tom</td>
<td>Raleigh</td>
<td>919-618-2233</td>
<td>Atlas Engineering</td>
<td>NC-TF8, FEMA/DHS VA-TF2</td>
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<tr>
<td>Collins</td>
<td>Scott</td>
<td>Raleigh</td>
<td>919-724-9045</td>
<td>Collins Structural Consulting</td>
<td>NC-TF8</td>
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<tr>
<td>Dingle</td>
<td>Lee</td>
<td>Raleigh</td>
<td>919-395-1172</td>
<td>Atlas Engineering</td>
<td>NC-TF8</td>
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<tr>
<td>Gergely</td>
<td>Janos</td>
<td>Charlotte</td>
<td>704-578-1509</td>
<td>UNC Charlotte</td>
<td>NC-TF3</td>
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<tr>
<td>Goodman</td>
<td>David</td>
<td>Charlotte</td>
<td>919-801-3468</td>
<td>Fitzpatrick Engineering</td>
<td>NC-TF3</td>
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<tr>
<td>Henry</td>
<td>Cheryllyn</td>
<td>Charlotte</td>
<td>602-670-3339</td>
<td>Zapata</td>
<td>NC-TF3</td>
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<tr>
<td>Lutzweiler</td>
<td>Nicholas</td>
<td>Kernersville</td>
<td>336-317-3051</td>
<td>Lutzweiler Engineering PLLC</td>
<td>NC-TF6</td>
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<tr>
<td>Miller</td>
<td>Tony</td>
<td>Charlotte</td>
<td>570-660-6365</td>
<td>Dewberry</td>
<td>NC-TF3</td>
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<tr>
<td>Perkins</td>
<td>Klaus</td>
<td>Raleigh</td>
<td>919-622-3157</td>
<td>Clark Nexsen</td>
<td>NC-TF8</td>
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<tr>
<td>Poisel</td>
<td>Matt</td>
<td>Raleigh</td>
<td>919-961-0417</td>
<td>Atlas Engineering</td>
<td>NC-TF8, FEMA/DHS VA-TF2</td>
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<tr>
<td>Ricciutello</td>
<td>Mike</td>
<td>Raleigh</td>
<td>919-599-5479</td>
<td>AMEC Foster Wheeler</td>
<td>NC-TF8, US Army</td>
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<tr>
<td>Rice</td>
<td>Michael</td>
<td>New Bern</td>
<td>252-658-1398</td>
<td>US Navy - MCAS</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Our North Carolina Engineer Responders -

Colby Baker
Charlotte

Donnie Barrier
Charlotte

Chris Bathgate
Greensboro

David Goodman
Charlotte

Cherylyn Henry
Charlotte

Mike Rice
New Bern

Lee Dingle
Raleigh
Our North Carolina Engineer Responders -

Nick Lutzweiler  
Greensboro

Klaus Perkins  
Raleigh

Janos Gergely  
Charlotte

Mike Riccitiello  
Raleigh

Matt Poisel  
Raleigh

Tony Miller  
Charlotte

Tom Caldwell  
Raleigh
If your agency needs an engineer to assist with an emergency

Who do you call?

Call NCEM at 919-825-2500
Contacts: Chris Bailey
          Charles Laird

NCEER Engineers are under the authority of the Department of Public Safety Division of Emergency Management
Questions?

Thank you!