CONSULTANT PREQUALIFICATION REQUIREMENTS AND PROCEDURES

- The consultant shall have a qualified staff capable of performing the work described in the latest edition of the SGE, Sections 300, 700 and 800, including creating a Soil Profile as described in Section 702.
JANUARY 2019 SGE UPDATES

Steve Taliaferro
o Already a requirement in SGE

o SGE 105- increases language describing review of plan by geotechnical engineer of record

o Consultant Proposal/Invoice Form - line items for Stage 2 and Filed plan reviews

o Appendix - letter template for certifying that plans were reviewed
MISC. SGE UPDATES

- 403.1 - restricts 24-inch SPT
- 405.5 - removes requirement of wooden dividers in core box and emphasizes positioning samples securely in box when encountering loss or voids
MISC. SGE UPDATES

- 702.6.3 & 703.3.2 - removes the term “static water level” and replaces with end of drilling water level and water level measured at a time period after drilling operations

- 703.3.2 - clarifies how to display elevations on a boring log when drilling through a bridge deck
JULY 2019
SGE UPDATES

Steve Taliaferro
28 subsections receiving corrections, clarifications, etc.

- 303.7.2 - For any “culverts” with a planned span greater than 20 feet, obtain borings as if it were a bridge

- 303.7.5 - Exploration for a CCTV tower should be similar to that for a high mast light tower
MISC. SGE UPDATES

- Section 403.3 - prohibited use of core barrel sizes smaller than N series for rock coring
- Section 404.2 - added requirement to send hammer system calibration records to OGE (Paul Painter)
MISC. SGE UPDATES

- Section 701 - added requirement that boring data be submitted in a format that is DIGGS compatible.
- gINT files that are capable of being converted to DIGGS format are acceptable (files need to be complete in terms of data entry)
- Submit boring data with final geotechnical sheets
GEOTECHNICAL BULLETIN CHANGES

Steve Taliaferro
GB/OTHER GUIDANCE CHANGES

- GB1 (Subgrades) - Jan 2019
  - Discourages spot chemical stabilization/test rolling
  - Eliminates 16” deep chemical stabilization as an option
  - Adds the proprietary geogrid guidance that was in SS 861

- Design Checklists - Jan 2019
  - Abandoned Underground Mines
GB CHANGES

- Potential Jan 2020 Updates
  - GB7
  - Design Checklists (complete revision)
EMERGENCY RELIEF

- 2018 - Columbus’ wettest year on record
- Dec, 2018-Feb 2019, Parkersburg, WV, wettest winter on record
- Last 12 months - wettest in US recorded history
EMERGENCY RELIEF

- **ER Program** - provide funds from the Highway Trust Fund for the repair or reconstruction of Federal-aid highways and of roads on Federal lands that suffered serious damage from natural disasters or catastrophic failures from external causes.
EMERGENCY RELIEF

- Not FEMA
- Disaster-related debris removal that is eligible for FEMA funding is not eligible for ER funds
- Recent tornadoes in Dayton area did not cause infrastructure damage - NOT AN ER EVENT
EMERGENCY RELIEF

23 CFR 668 - Emergency Relief Program

- Serious damage by natural disasters over a wide area
- Serious damage from catastrophic failures
- >$5,000/site, >$700,000/event
- 100% reimbursement for work performed in first 180 days
- 80% reimbursement after 180 days

Approval based on

- Extraordinary character of the natural disturbance (sudden, unusual)
- Wide area of impact
- Seriousness of the damage
EMERGENCY RELIEF

- 5 approved ER events since 2015; all but 4 sites in Districts 5, 8, 9, 10, 11
  - 2015 - 124 sites, $71M
  - 2016 - 62 sites, $32.4M
  - 2017 - 42 sites, 14.6M
  - 2018* - 174 sites, $125.9M
  - 2019 - 21 sites, $27.8M ($16.7M on one site)

- Total - 423 sites, $271.7M
EMERGENCY RELIEF

*2018-02 was rejected:
  - Not a single qualifying event; over a period of 3-4 months
  - Not serious in nature or of major severity; no road closures
  - Isolated, not widespread
  - Expected and normal in Ohio
RESILIENCE - Per FHWA Order 5520 (2014), “the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.”
GEOTECHNICAL RESILIENCE

- 23 CFR 667 - Periodic Evaluation of Facilities Repeatedly Requiring Repair and Reconstruction due to Emergency Events

- State agencies should be addressing resiliency and restoration to repeatedly damaged facilities
GEOTECHNICAL RESILIENCE

- Repeatedly Damaged Facilities
  - Since January 1, 1997; ODOT ER events back to 1989
  - Within close proximity of previous repair/reconstruction

- ER funds are used to repair the facility directly related to the damage from the ER event

- Resiliency built into asset management, maintenance, and project planning
GEOTECHNICAL RESILIENCE

- Statewide Evaluation of Repeat Sites
  - Reasonable alternative (new road alignment)
  - Reduce ER funding needs
  - Better protect public safety
  - Meet transportation needs

- Risk based TAMP, fully compliant by June 30, 2019
  - Formalized process in place
Resiliency Plan - Adding protective features is justified if

- Cost of protective feature < probability of damage within facility lifetime * cost of damage that would be incurred

- Lifetime of embankment and slopes = ?
GEOTECHNICAL RESILIENCE
GAM

- Geotechnical Asset Management (GAM) for Transportation Agencies - NCHRP
  - Embankments/Cut Slopes ≥ 10’
  - Walls ≥ 4’ and >70°
  - Subgrades - Improved subgrade, ground improvements

- Challenge - A lot of the unstable ground isn’t ours
OpenRoads and ProjectWise, and Other CADD Issues

Brian Logston
QUESTIONS