



Quality Checklists

Sara Stone, PE

Geotechnical Design Support Engineer



SCDOT Commitment

Reliable

Efficient

Safe

SCDOT
South Carolina Department of Transportation

PROPOSED PLANS
FOR
NEWBERRY COUNTY
PROJECT I.D. 0038122
ROUTE S-642 (COLLEGE STREET)
REPLACE BRIDGE OVER NORTH BRANCH SCOTTS CREEK

INDEX OF SHEETS
1. TITLE SHEET
2. SUMMARY OF ESTIMATED QUANTITIES
3. GENERAL NOTES & DETAILS FOR FLAT SLABS
4. REINFORCING BENDING DETAILS
5. ROADWAY TYPICAL SECTION
6. ROAD PLAN AND PROFILE
7. BRIDGE PLAN AND PROFILE
8. SPREADING LOGS
9. FOUNDATION LAYOUT
10. END BENT 1 LAYOUT & QUANTITIES
11. END BENT 1 ABUTMENT WALL DETAILS
12. WING WALL 1 DETAILS
13. WING WALL 2 DETAILS
14. END BENT 2 LAYOUT & QUANTITIES
15. END BENT 2 ABUTMENT WALL DETAILS
16. WING WALL 3 DETAILS
17. WING WALL 4 DETAILS
18. GEOTECHNICAL NOTES
19. 33' SINGLE SPAN SUPERSTRUCTURE
20. 33' SINGLE SPAN SUPERSTRUCTURE DETAILS
21. CONCRETE BRIDGE RAILING WALL WITH WINDOWS
22. APPROACH SLAB AT BEGINNING OF BRIDGE
23. APPROACH SLAB AT END OF BRIDGE
24. SECTION 17000 APPROACH SLABS
25. APPROACH SLAB DETAILS

SCDOT
Transportation Support Engineer
Also: Logistics Coordinator, Shop Plans
500 East Street, Room 400
Columbia, SC 29201

Approximate Location of Bridge is
Latitude: 34° 18' 42" N
Longitude: 81° 37' 12" W

DATE: 12-28-14
BY: [Signature]
CHECKED: [Signature]
APPROVED: [Signature]
PROJECT MANAGER: [Signature]

TRAFFIC DATA
2015 ADT: 2700 V.P.D.
2035 ADT: 3000 V.P.D.
TRUCKS: 5%

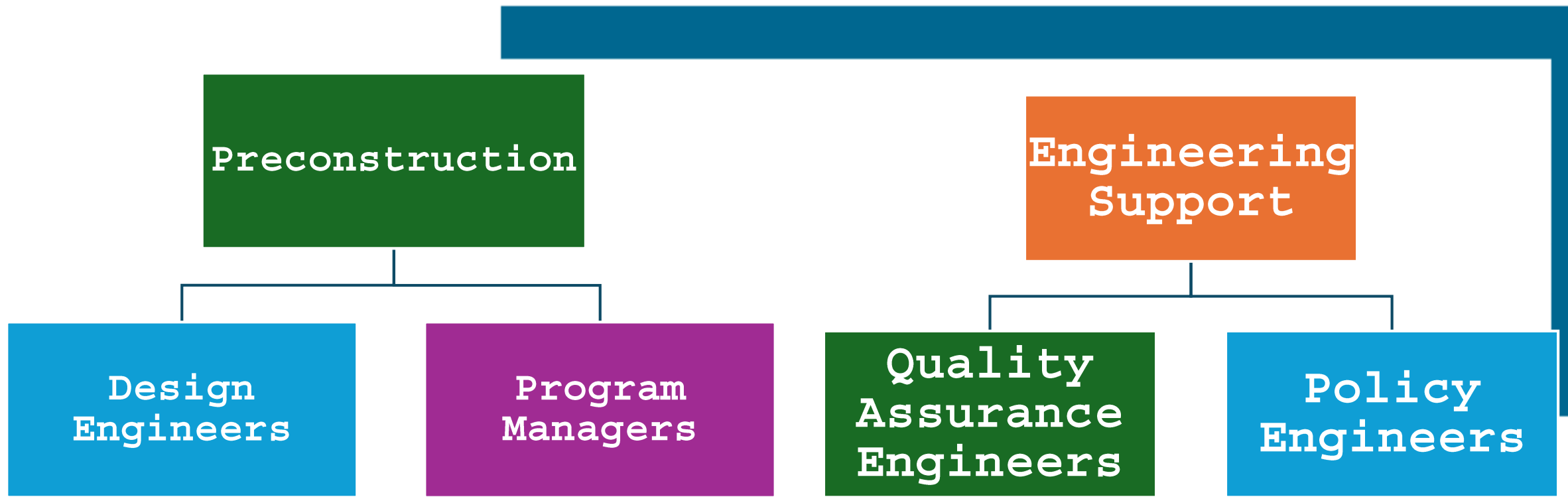
ASSET ID: 440

REVIEWED: [Signature]
DATE: 12-28-14
BY: [Signature]
SCALE: 1" = 40'

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QUALITY

SCDOT



Geotechnical – Roadway – Hydraulics - Structures

Geotechnical Design Support

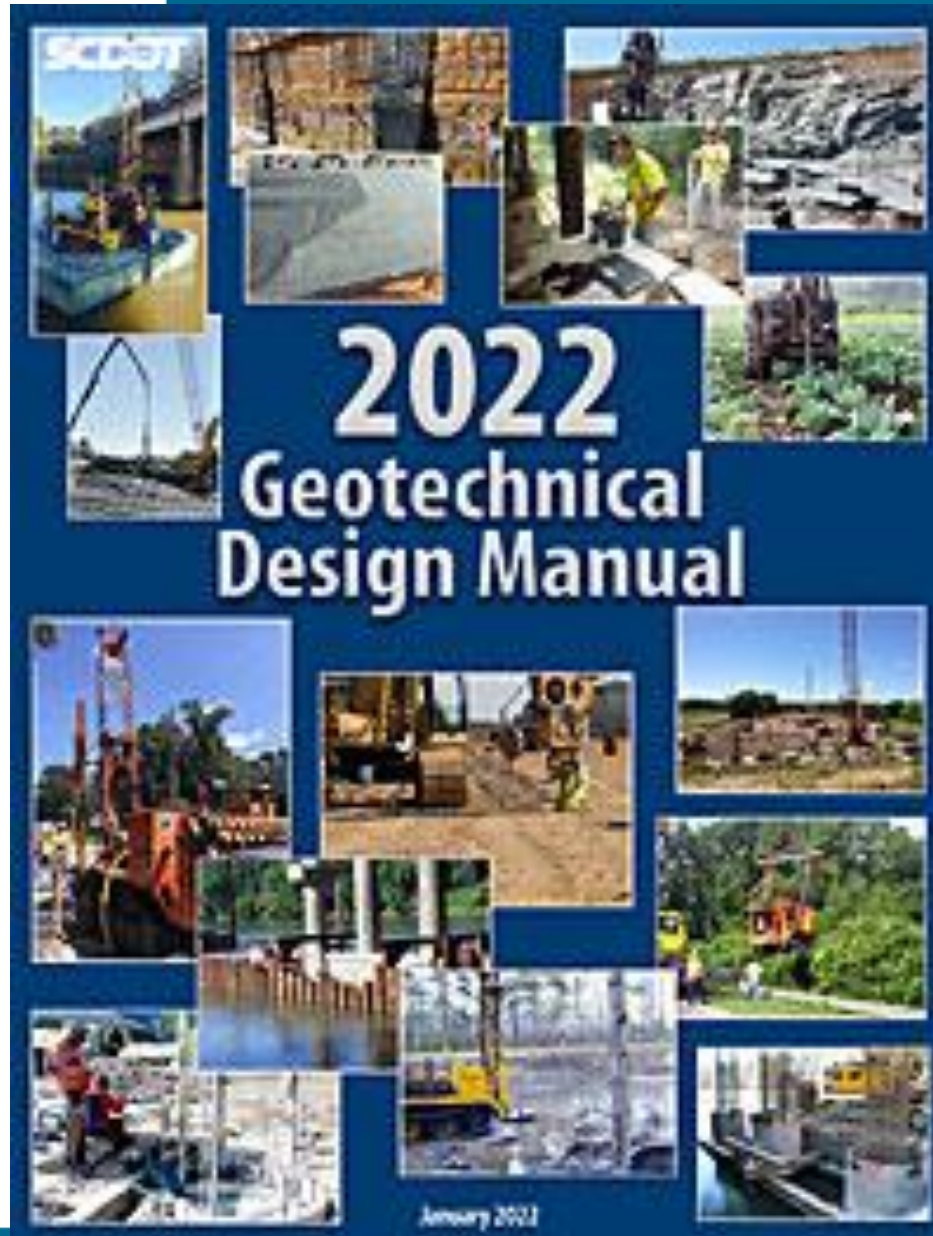


QC & QA Checklists

- Keep a consistent design practice
- Enhance our review process

Keep it simple!!



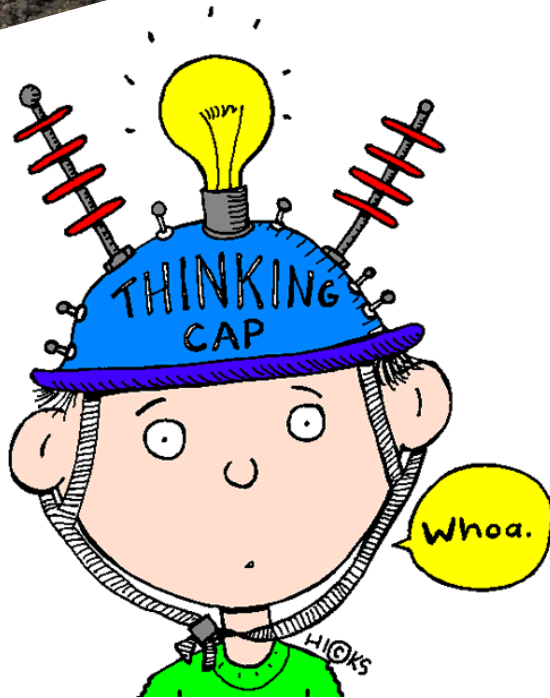


	<u>Final Design Overview</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>References</u>	<u>Variance</u>	<u>Explanation</u>
A	<u>General</u>						
	Any deviations anticipated from the GDM throughout the project design?				GDM 1.1		
	Specified GDM version used in report?				GDM 1.1		
	Latest Edition of AASHTO used?				AASHTO		
	Scour information provided for all limit states?				GDM 4.2.1 & 4.3.1.1		
	All design in accordance with LRFD? (Check structure scope requirements)				GDM/AASHTO		

Geotech Identification	Subsurface Investigation	Prelim Design	Final Design	Notes&Sheets	Specifications
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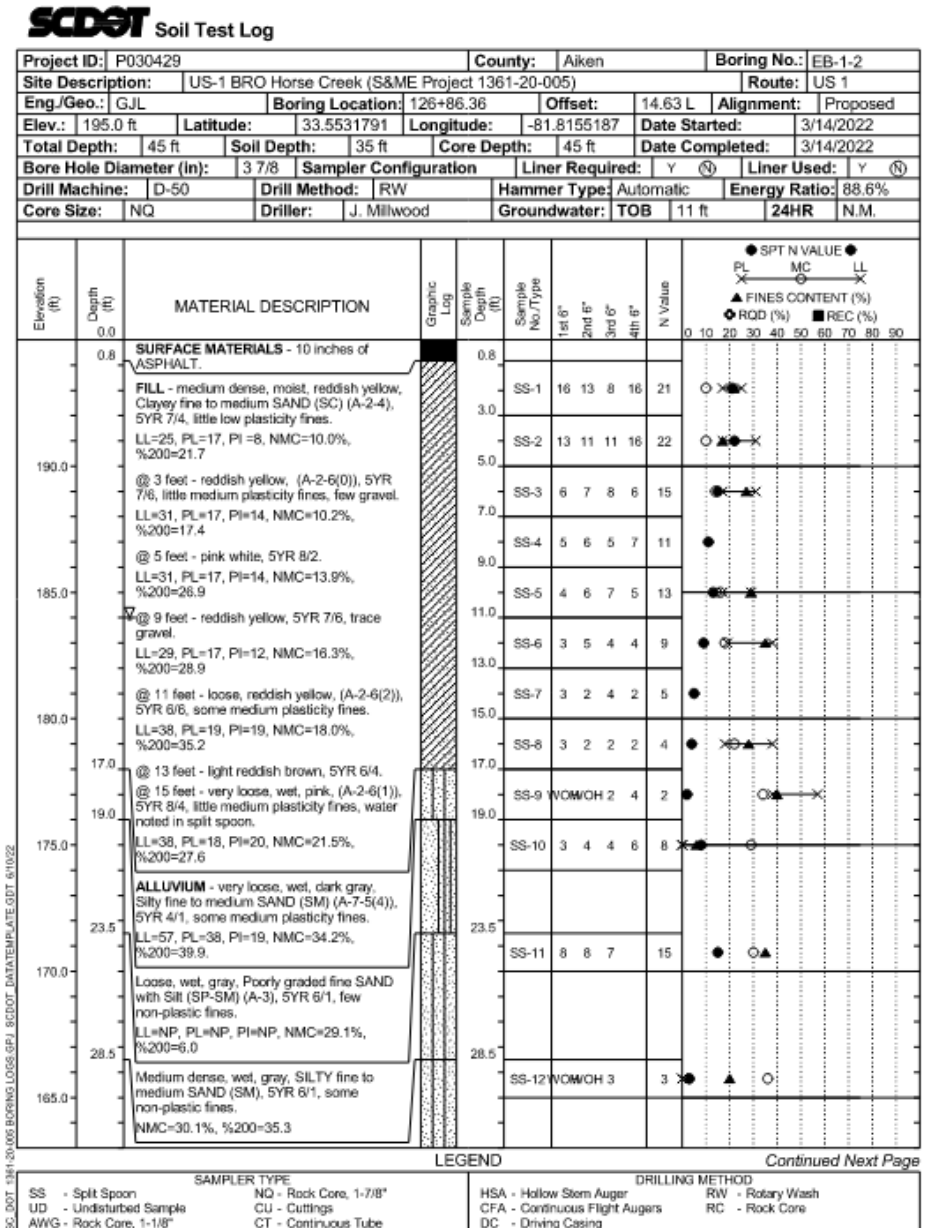
Geotechnical Identification



Subsurface Investigation

- Investigation guidelines
- Field & Laboratory Testing

GDM Chapter 4





South Carolina
Department of Transportation

FINAL ROADWAY GEOTECHNICAL
ENGINEERING REPORT
SC 126 ROADWAY WIDENING



PREPARED BY
SARA STONE, P.E.



Preliminary & Final Design

30% Plan Stage
95% Plan Stage



Geotechnical Plan Notes



- Foundation plan notes
- Geotechnical Quantity Items

**STANDARD
SPECIFICATIONS
FOR
HIGHWAY
CONSTRUCTION**



Variance & Explanations



Short Long

Geotechnical QC Checklist can be a great tool for young engineers



How do we help improve our policies?

Communication!

Quality
Assurance
Engineer

Policy
Engineer



Consider a tracking system of most common comments



What does it mean to have a successful QC/QA process?

- Keep it simple
- Follow the design process
- Communicate with the Policy Engineer
- Update the checklists and manuals periodically

Available in [SCDOT.org \ business \ design-quality](https://www.scdot.org/business/design-quality)





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