



DIGITAL TRANSFORMATION


AGC Survey – Digital Readiness

Link to Survey sent out on Nov 2 to AGC:

<https://app.smartsheet.com/b/form/11a995109d5442b69b527b6621f1812b>

Contractor responses: 17

Responses summarized as a percent of total responses



Digital Transformation Contractor Survey

NCDOT is taking efforts to become a more digital and data centric organization that enhances lifecycle delivery and transportation asset management activities. Impacts to the construction industry could include building from an NCDOT-provided 3D Design model, providing Digital As-Builts, and more.

This survey hopes to capture the digital readiness and/or capabilities of our contracting industry and to continue collaborative engagement as we move to a more digital future.

Name of Submitter (optional)

What size do you consider your company (select one option)

Small (less than 50 employees) Medium (50-100 employees)
 Large (over 100 employees)

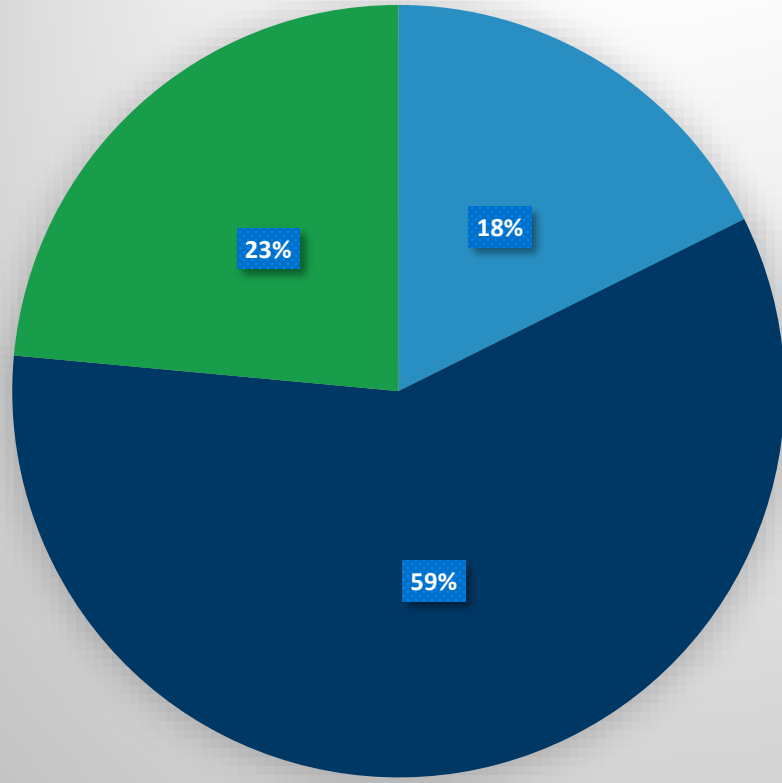
How familiar are you with the NCDOT Digital Delivery Transformation? (select one)

Use dropdown

Select or enter value

- Never heard of it, but would like to learn more
- I saw a presentation about it
- I'm very familiar with it, and keeping track of progress

Familiarity with NCDOT Digital Transformation Effort



- I'm very familiar with it, and keeping track of progress
- I saw a presentation about it
- Never heard of it, but would like to learn more

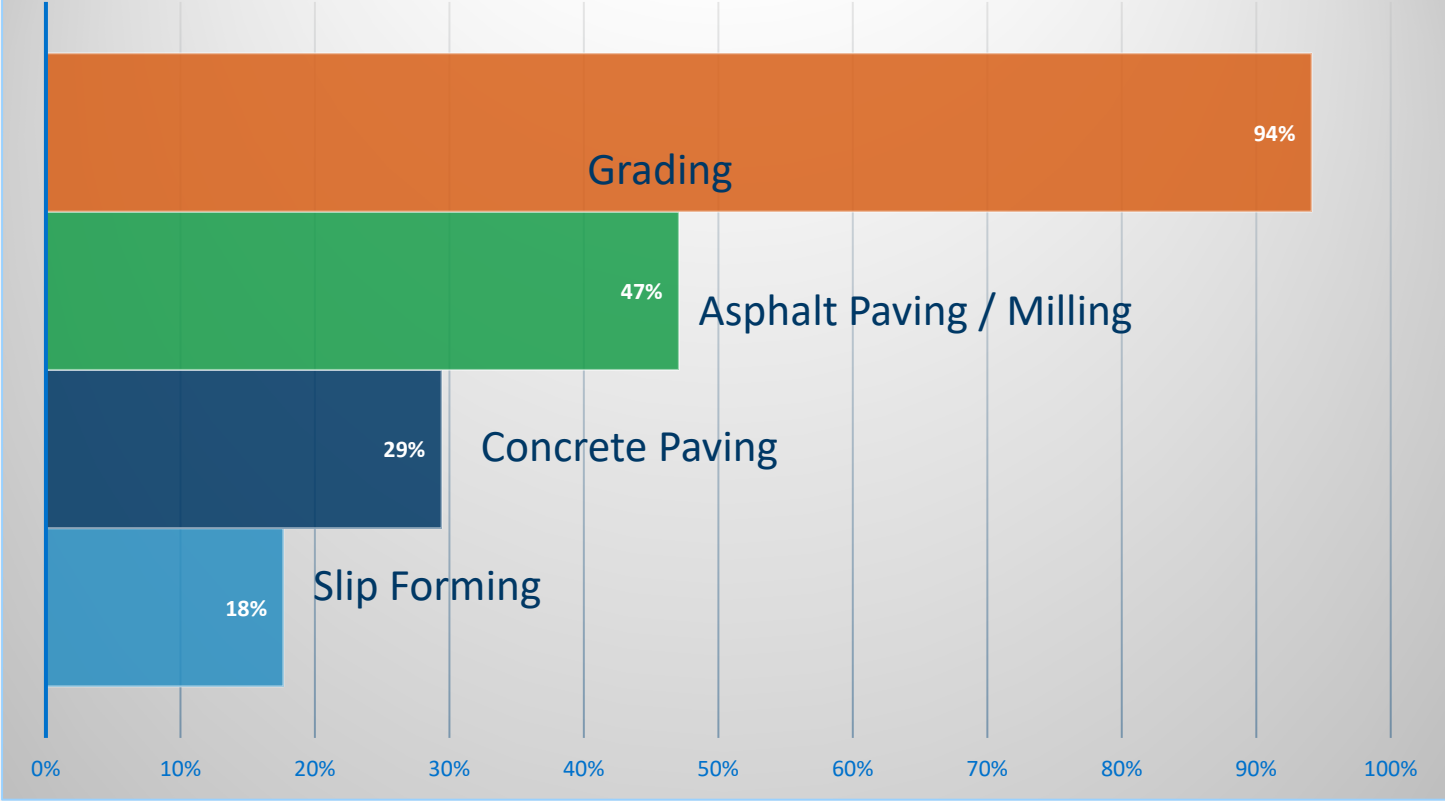
For what activities do you use automated machine guidance (AMG) technology?
(select all that apply)

Use dropdown

Select or enter value

- Grading
- Asphalt Paving / Milling
- Concrete Paving
- Slip Forming
- Other

Use of AMG for Below Activities

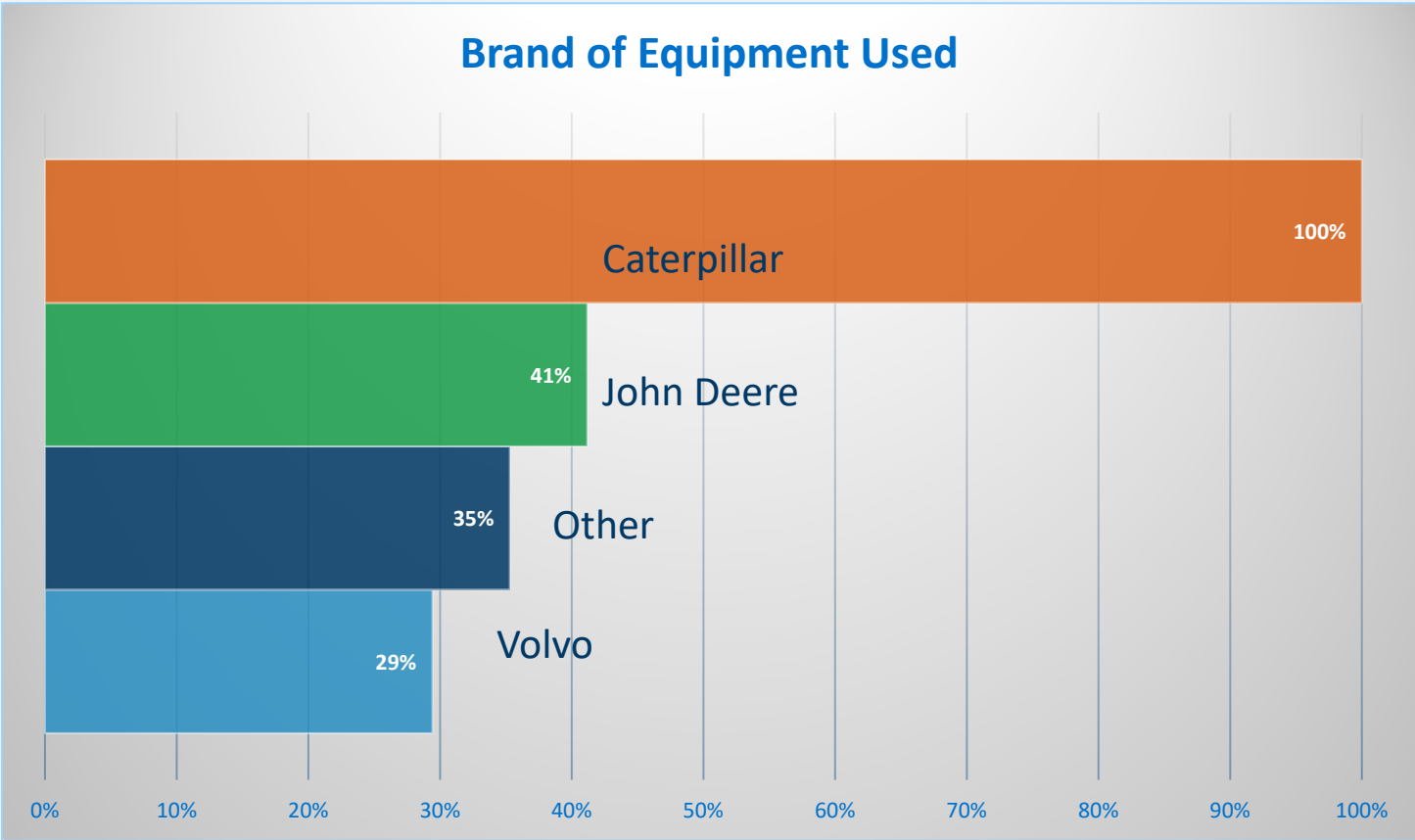


What brand of equipment does your company predominantly use? (select all that apply)

Use dropdown

Select or enter value

- Caterpillar
- John Deere
- Volvo
- Other

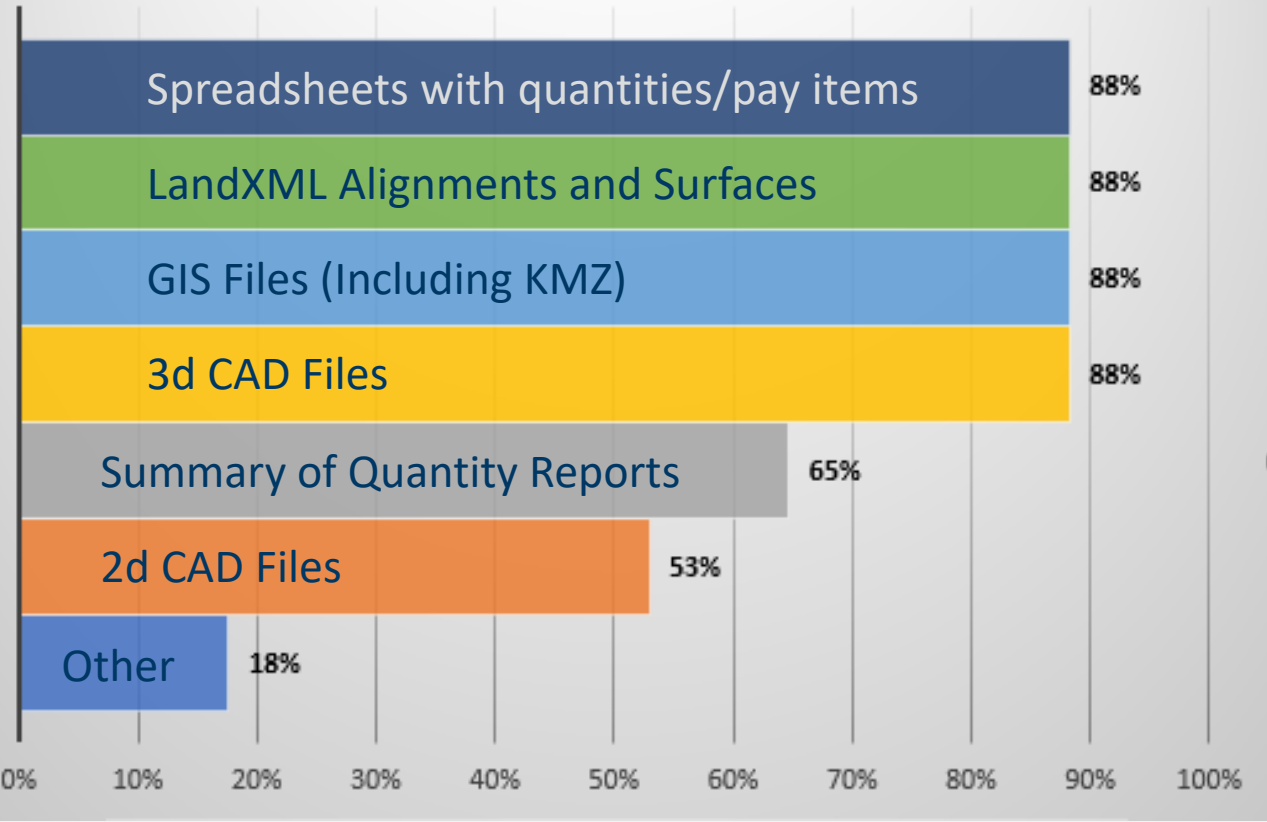


What types of digital files would you find useful in the preparation of bids? (select all that apply)

Use dropdown

- Select or enter value
- 2D CAD files
- 3D CAD files
- LandXML alignments and surfaces
- Spreadsheets with summary of quantities and pay items
- GIS files (including KMZ)
- Summary of quantity reports
- I don't know
- Other

Digital Files most useful for Bid Prep



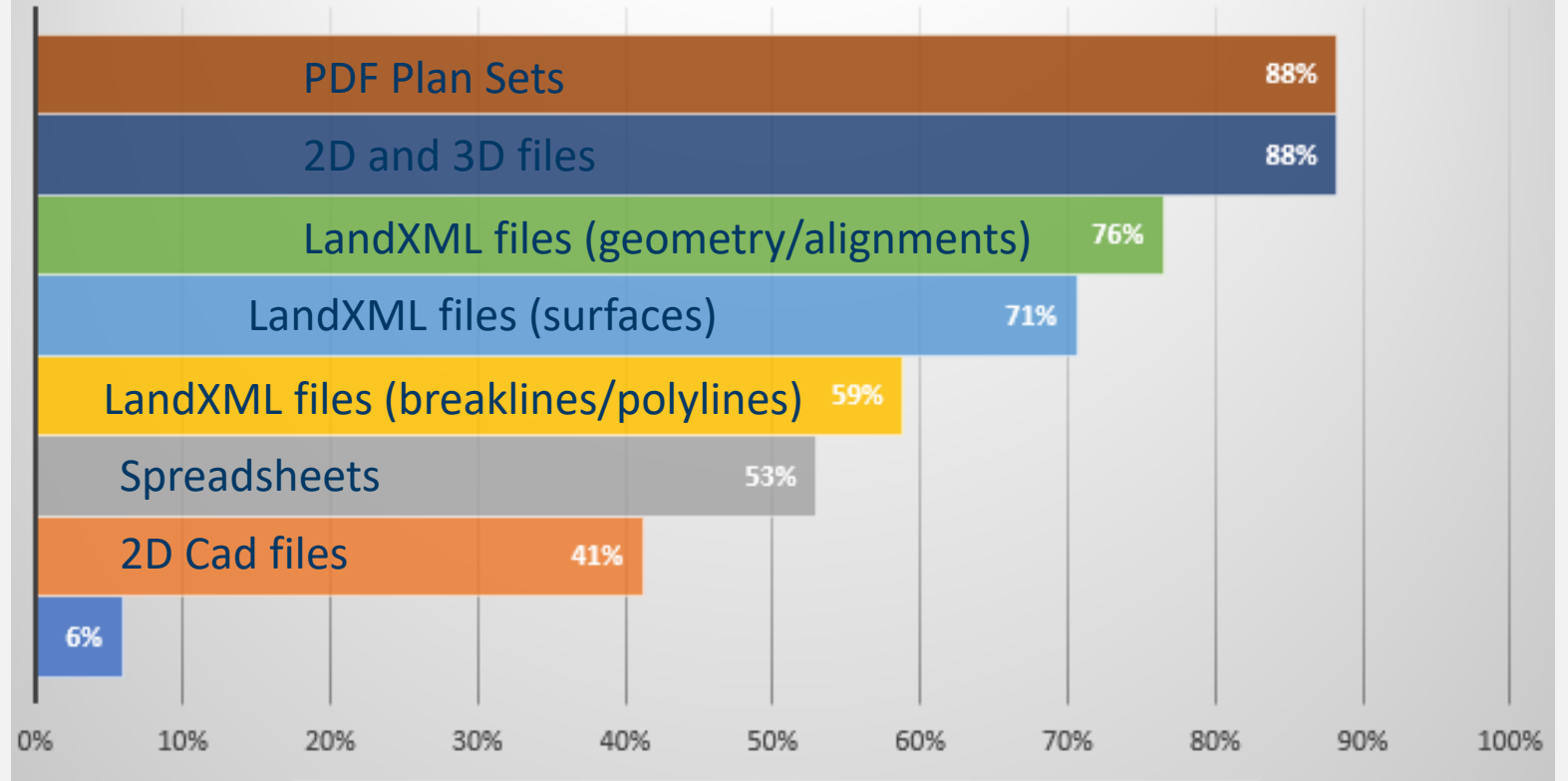
What types of digital files are helpful for field activities (select all that apply)

Use dropdown

Select or enter value

- PDF plan sets
- 2D CAD files
- 2D and 3D files
- LandXML files (geometry/alignments)
- LandXML files (breaklines/polylines)
- LandXML files (surfaces)
- Spreadsheets
- I don't know
- Other

Digital Files most useful for Field Activities



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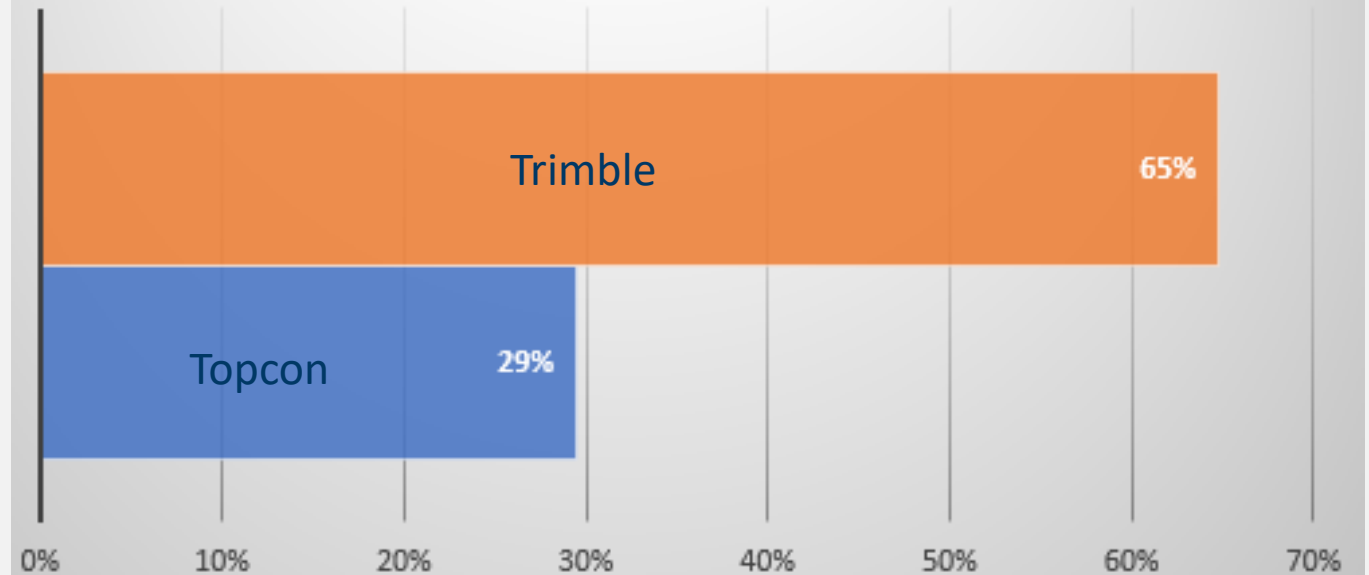
What AMG hardware / software does your company currently use? (select one)

Use dropdown

Select or enter value

- Trimble
- Leica
- Topcon
- Other

What AMG hardware / software does your company currently use?



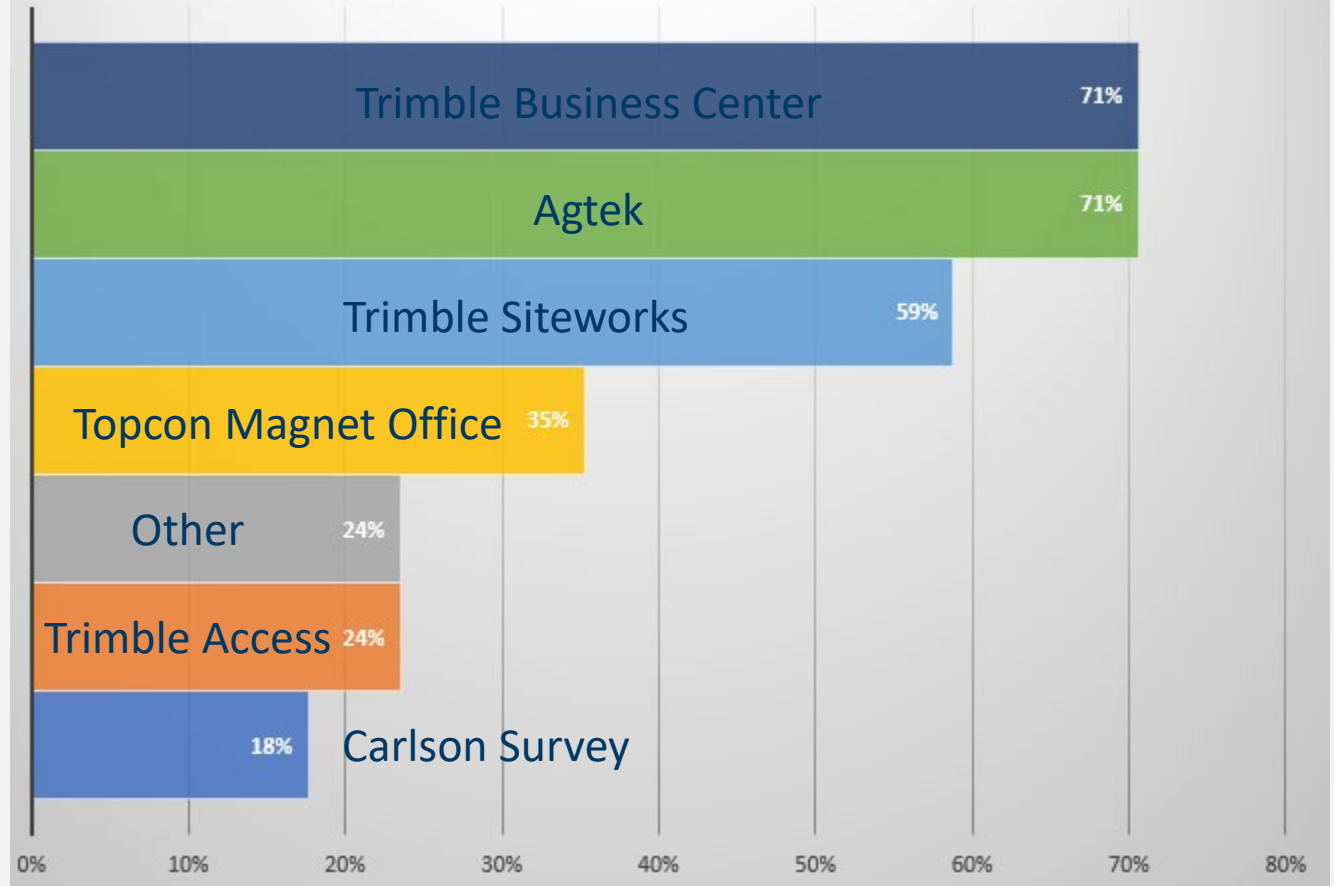
What survey software does your company use? (select all that apply)

Use dropdown

Select or enter value

- Agtek
- Trimble Business Center
- Trimble Siteworks
- Trimble Access
- Carlson Survey / Civil Suite
- Leica Captivate / Infinity
- Topcon Magnet Office / Field
- Other

What survey software does your company use?



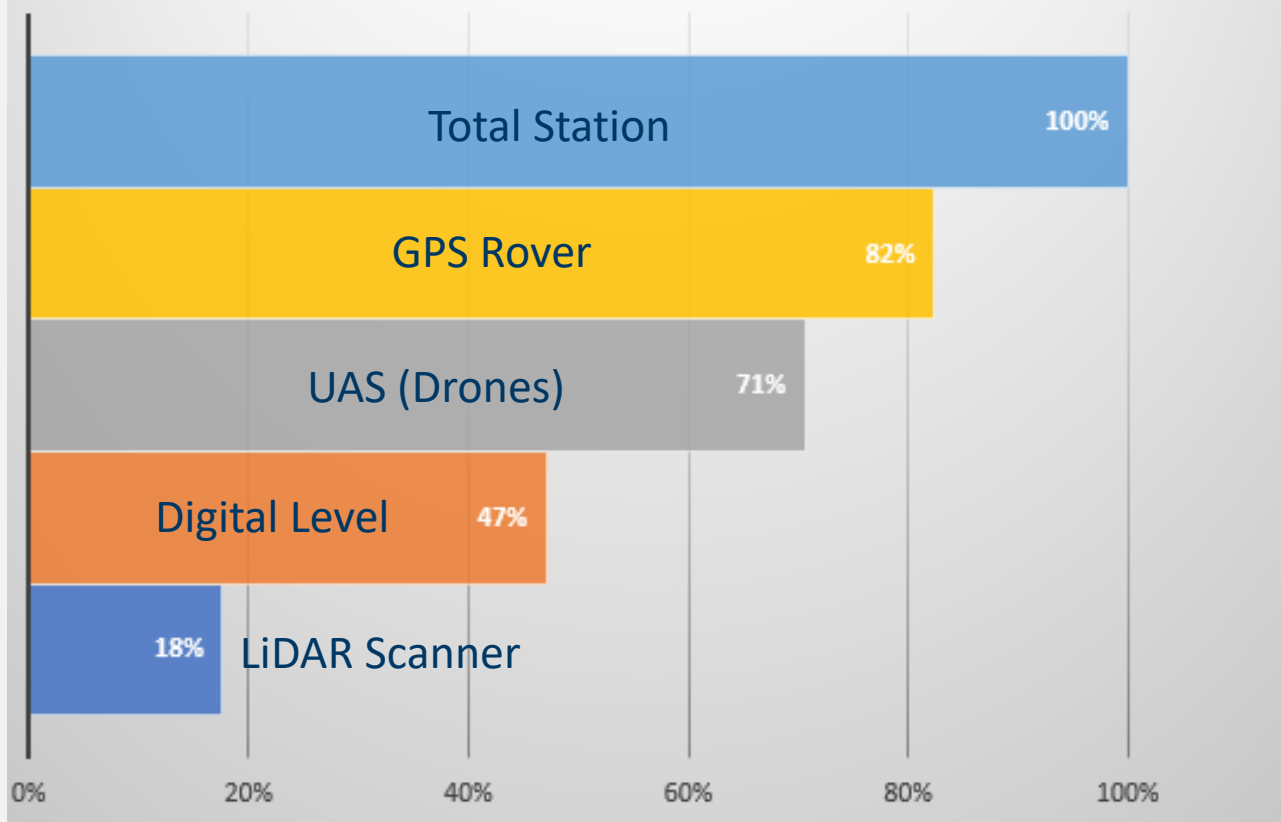
What survey equipment does your company use on a typical project (select all that apply)

Use dropdown

Select or enter value

- GPS rover
- Total Station
- Digital level
- UAS (Drones)
- LiDAR Scanner
- Other

What survey equipment does your company use on a typical project?



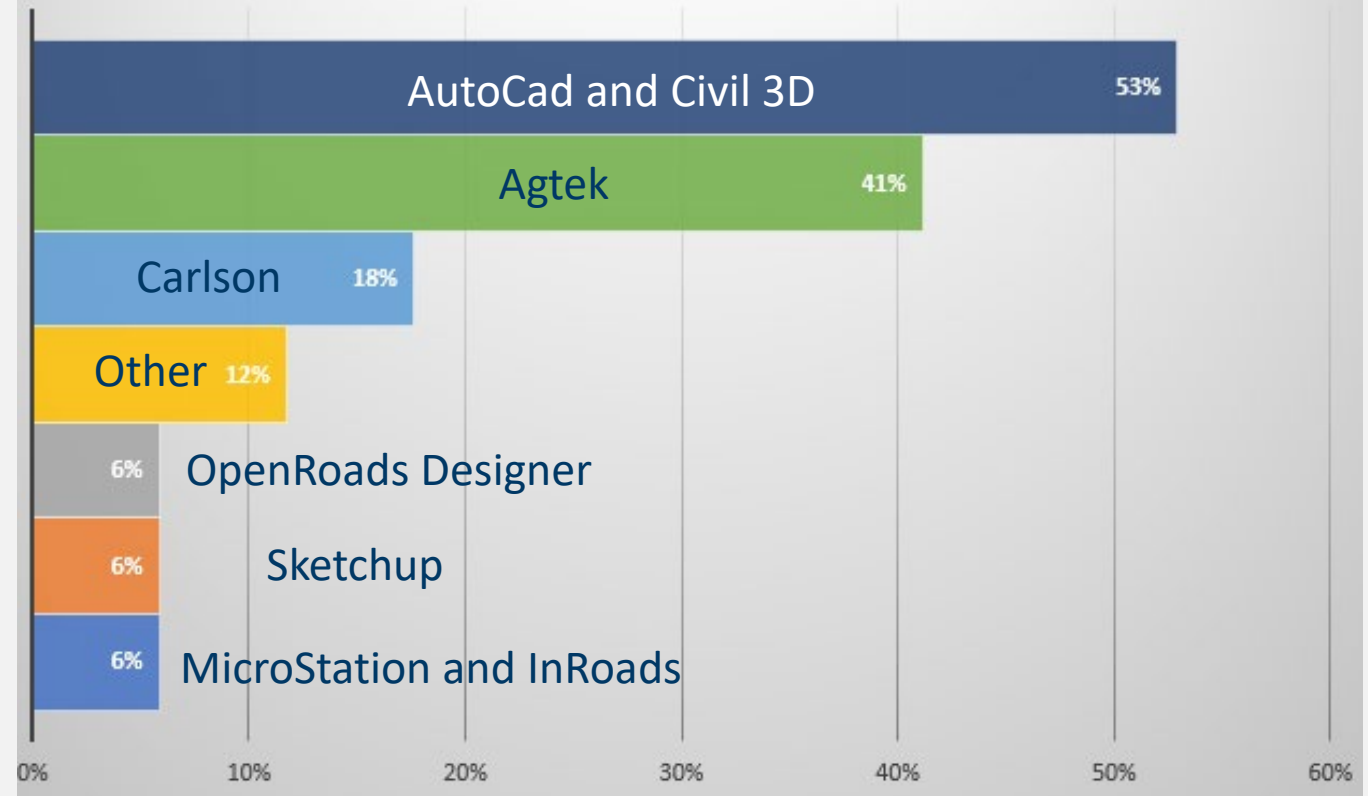
What software does your company use for preparing 3D models? (select all that apply)

Use dropdown

Select or enter value

- AutoCAD only
- AutoCAD and Civil 3D
- Agtek
- Carlson
- Microstation and InRoads
- OpenRoads Designer
- OpenBridge Modeler / Designer
- Sketchup
- Other

What software does your company use for preparing 3D models?



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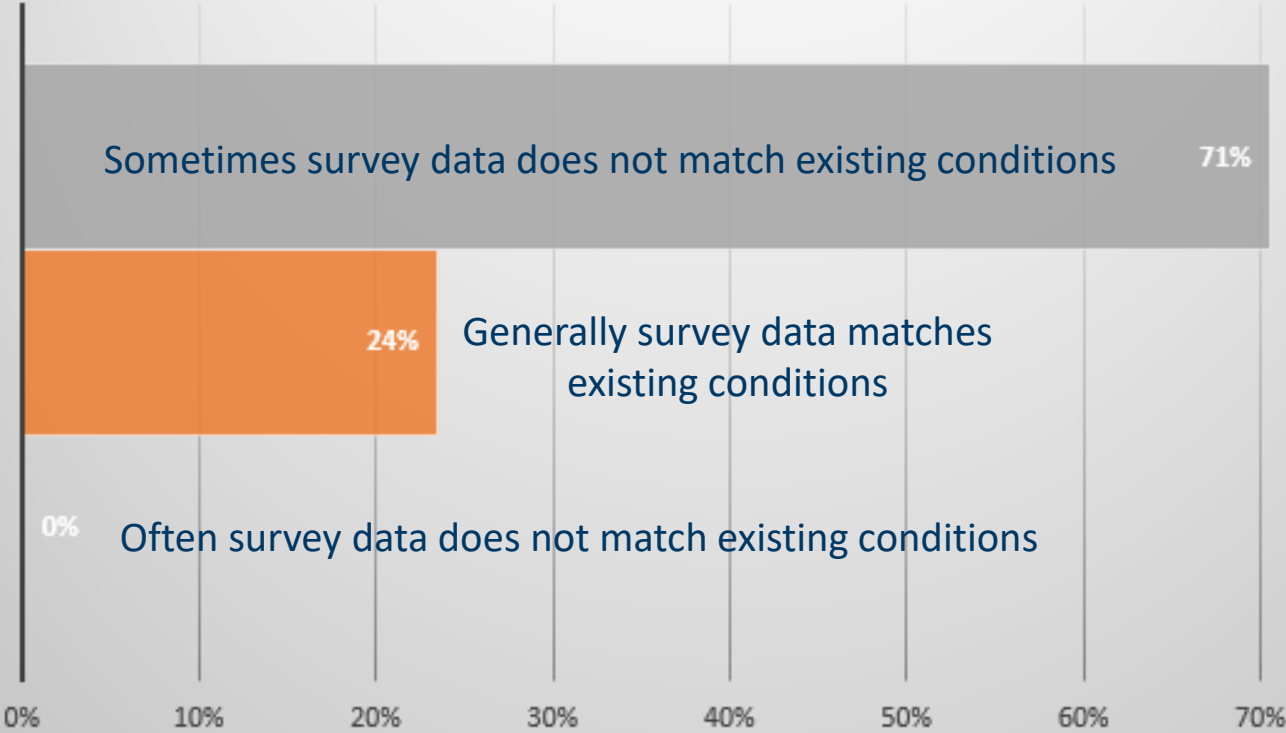
What challenges does your company have today with existing ground survey data provided for NCDOT projects (select one)

Use dropdown

Select or enter value

- Generally survey data matches existing conditions
- Sometimes survey data does not match existing conditions
- Often survey data does not match existing conditions

What challenges does your company have today with existing ground survey data provided for NCDOT projects



If NCDOT contractually required the use of digital design data for construction activities, what concerns or questions do you have (select all that apply).

Digital design information includes, but is not limited to, CAD files/models, open source exports such as LandXML, and/or tabular data in a spreadsheet. (Use dropdown)

Select or enter value

What are the new deliverables?

How do I access the right files? How do I know I have the right files?

Will I be able to use the files with my current systems and equipment?

Will I need to procure or learn new software?

What is the quality of the 3D design models?

What is included and not included in the 3D design models?

How will summary of quantities be provided?

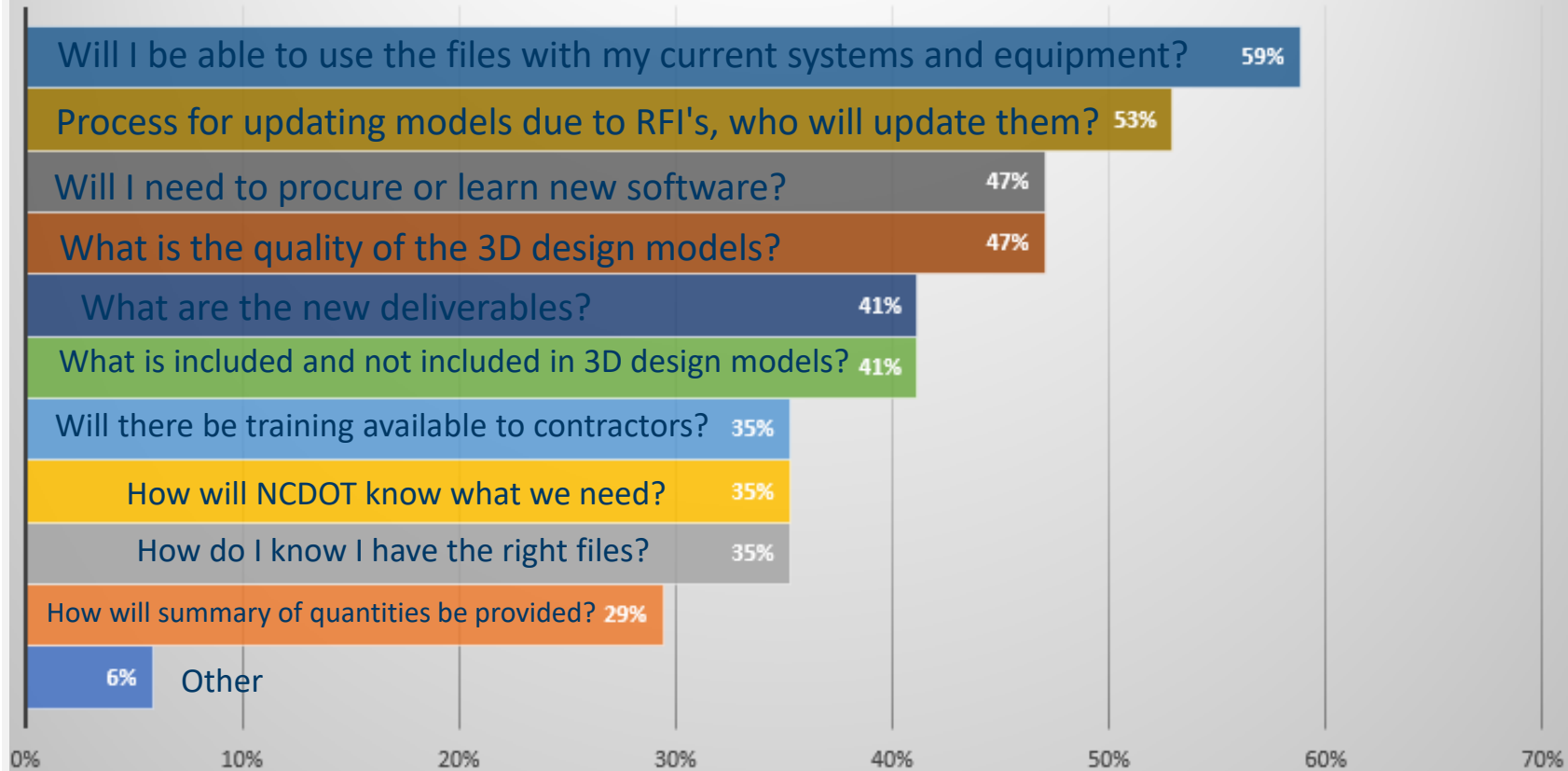
How will NCDOT know what we need?

Will there be training available to contractors?

What will be the process for updating models due to RFI's, and who will update them?

Other?

If NCDOT contractually required the use of digital design data for construction activities, what concerns or questions do you have?



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Which of the below best describes your company's perspective on the national trend of a more digitally based (and less plans based) approach to construction activities?



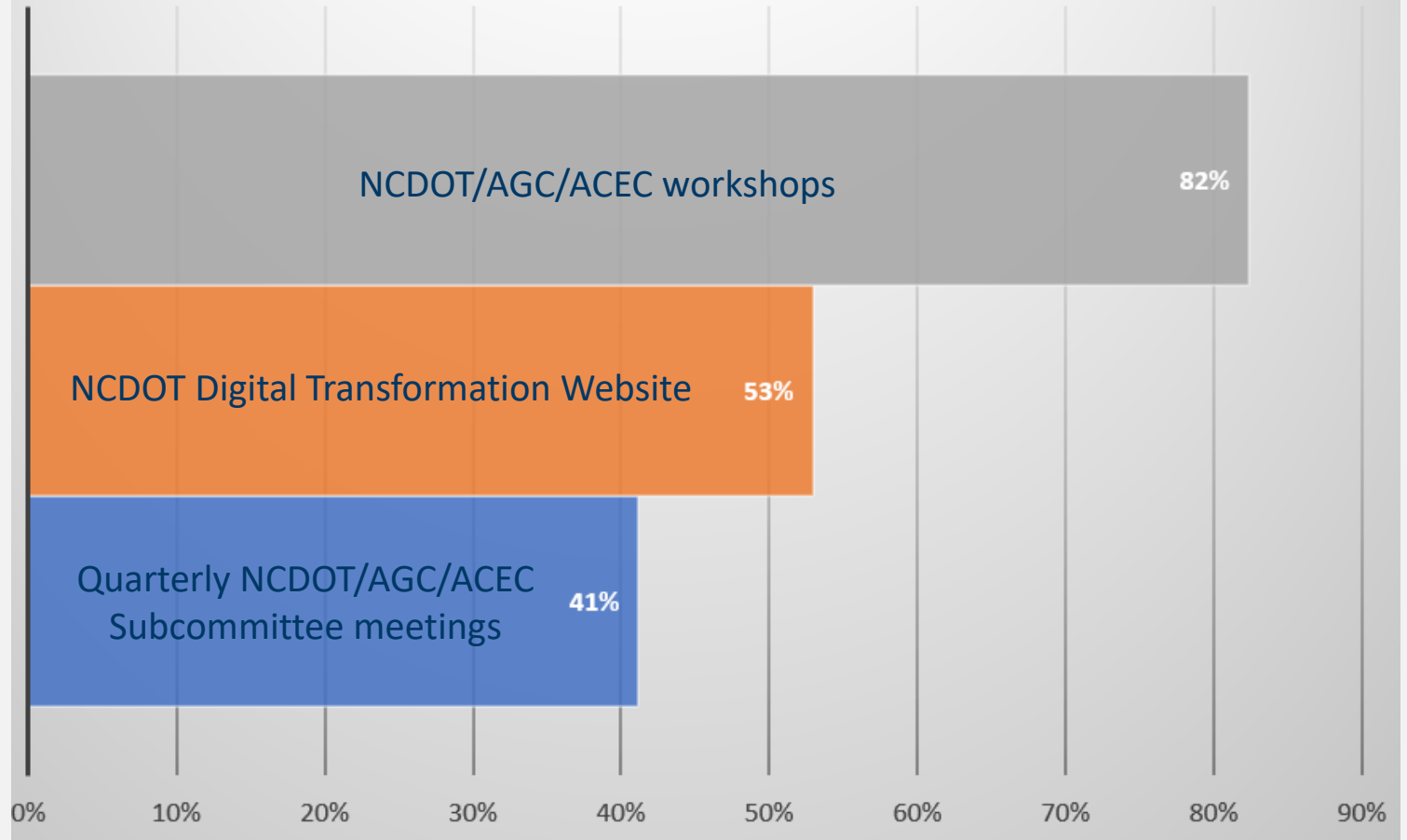
Which of the below best describes your company's perspective on the national trend of a more digitally based (and less plans based) approach to construction activities? (select one)

Use dropdown

Select or enter value

- It's about time...we are ready!
- We understand it is coming but should be done carefully and slowly
- We are not sure our equipment and personnel are ready
- Can't we just keep doing things the way we have always done them

What is the best way to communicate with the contracting industry ?



What is the best way to communicate with the contracting industry (select all that apply)

Use dropdown

Select or enter value

NCDOT/AGC/ACEC workshops

Quarterly NCDOT/AGC/ACEC Subcommittee meetings

NCDOT Digital Transformation Website

Other



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Can you company provide digital as-builts? (explain)

Can you provide Digital As-Builts?

