



Powerful Solutions for Data Management and Reporting

The Use of gINT Software at VDOT

by
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The Virginia Department of Transportation (VDOT) has an approximately \$3.4 billion operating budget. It is the third largest state DOT in the country. The department is subdivided into 9 districts and Central Office.


In the past, geotechnical borehole logs were prepared using customized macros running inside the MicroStation program. The output was fairly rudimentary and there was no provision for storing and retrieving data for future use. In addition, various consultant-based projects included geotechnical logs prepared in different formats. Clearly, there was a need for standardization.

VDOT began experimenting with gINT approximately 6 years ago. It quickly became software of choice for geotechnical applications. A lot of work was devoted initially to involve all potential VDOT users in developing various report templates. This collective effort was done to assure widespread acceptance of the customized library. Currently VDOT has 12 offices operating gINT. The library file is maintained by Central Office personnel and disseminated to all districts and outside consultants through a website. All VDOT consultants are required to submit geotechnical data in gINT format.

VDOT has been using gINT on construction projects ranging from a small bridge on a secondary road to a multi-million dollar Woodrow Wilson Bridge project in Washington, D.C. One of the main attractions of gINT has been its tremendous flexibility to integrate with other software through various import/export functions and the use of correspondence files. VDOT has managed to effectively mesh gINT with MicroStation and GEOPAK in order to include geotechnical logs with a set of project plans. These efforts have been facilitated by a superb technical assistance provided by gINT Software.

On the following page is a Cone Penetrometer Test Log created for VDOT using gINT Software. For more information on VDOT, visit <http://www.virginiadot.org>.

CONE PENETROMETER TEST LOG

		PROJECT #: U000-134-132-C501		282
		LOCATION: Lynnhaven Pkwy		PAGE 1 OF 1
DRILLER: A. Monds		DATE(S) DRILLED: 03/25/04		SOIL BEHAVIOR TYPE* SENSITIVE FINE GRAINED ORGANIC MATERIAL CLAY SILTY CLAY TO CLAY CLAYEY SILT TO SILTY CLAY SANDY SILT TO CLAYEY SILT SILTY SAND TO SANDY SILT SAND TO SILTY SAND SAND GRAVELLY SAND TO SAND VERY STIFF FINE GRAINED SAND TO CLAYEY SAND
CONE TYPE: 776tc		GROUNDWATER: 9.6 ft depth		
CONE SIZE:		LOGGER: DHW		
CONE ID No.: 776				

DEPTH (ft)	ELEVATION (ft)	FRICITION fs (tsf)	CONE RESISTANCE qt (tsf)	PORE PRESSURE U2 (tsf)	SOIL BEHAVIOR TYPE*
2	5				
4	3				
6	1				
8	-1				
10	-3				
12	-5				
14	-7				
16	-9				
18	-11				
20	-13				
22	-15				
24	-17				
26	-19				
28	-21				
30	-23				
32	-25				
34	-27				
36	-29				
38	-31				
40	-33				
42	-35				
44	-37				
46	-39				
48	-41				
50	-43				
52	-45				
54	-47				
56	-49				
58	-51				
60	-53				
62	-55				
64	-57				
66	-59				
68	-61				
70	-63				
72	-65				
74	-67				
76	-69				
78	-71				
80	-73				
82	-75				
84	-77				
86	-79				
88	-81				
90	-83				
92	-85				
94	-87				
96	-89				
98	-91				

* Campanella and Robertson (1983) Friction Ratio correlation

REMARKS:
At Sta 111 + 62 Rt 12.5 m

CPT LOG CPT282B.GRUS.1.072020904511/04