

Project Name File No. Contractor Completed By Contractor Reviewed By SCDOT	DS Foreman - Inspector -	Date / / Date / /	Page 1 of 6 Bent No.
Reviewed By SCDOT Date Cased Date Opened Date Poured Elevation (ft)		Date / / /	Offset Construction Temporary
		Completed by Contractor DS Foreman Reviewed by SCDOT Inspector/En Notes: Shaft location variance at top:	n/Engineer ngineer

HOW TO COMPLETE THE DRILLED SHAFT LOG



Piqued Name Piqued No. Contract o Ingracted By Approved By	Page Pige o' Pie No Stati No Date Station Date Other
Dais Caused Dais Openant Dais Poused Elevation : to	Comp Fype

Fill in every blank on the form. If it does not apply put an "N/A" or a long dash.

Use pencil – but never erase. If you need to change something, strike a single line through the item and insert the correct information above it. If there is insufficient room to make a note, footnote the item and go to the bottom of the page, or use a separate page.

- 1. Heading: Fill in <u>before</u> drilling starts.
 - Be sure to print your name and the start date of drilling.The Geotechnical Engineer will sign approval line.
- 2. Shaft Data: Fill in appropriate dates, elevations, and diameters.
- 3. Concrete Data: Record data from the Concrete Volumes form.
- 4. Construct Shaft Illustration using the symbols provided.
- 5. Fill in "Inspected by" and "Distribution".











Project Nam File No. Contractor Completed E Reviewed B	e 3y Contracto y SCDOT	r DS Forem Inspector	1an -		_ Date _ Date		Page 2 Bent No. Shaft No. Station Offset	of <u>6</u>
Note: Preau	i gering not מ כב	allowed whe	en using cc	onstruction casing	•	Soil A	uger Diam	
ID 	OD	Top Elev.	Length	Bot. Elev.		Rock Grour Water Refere	Core Diam Id Surface Elev Table Elev ence Elev g Mud	
Notes								
Depth	Elev.	Tim	ie		Soil De	escription a	nd Notes	
·			In					
			Out					
			In					
			Out					
	-		In					
			Out					
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HOW TO COMPLETE THE DRILLED SHAFT EXCAVATION LOG



Piqued Nam Piqued No. Conflated Ex Inspected Ex Approved Ex ID Notes	Coorg Hamalen OD fap Elev. Langih Rel.	Page d' Stati No. Stati No. Stati No. State Inc. State Inc. S	Fill in every blank on the form. If it does not apply put an "N/A" or a long dash. Use pencil – but never erase. If you need to change something, strike a			
	Clav. rmm n au au n au au au au au au au au au au	Sol Descrition and Palas	the correct information above it. If there is insufficient room to make a note, footnote the item and go to the bottom of the page, or use a separate page.			
	Image: Normal System Image: Normal System Image: Normal System					
1.	Heading:	-Fill in <u>before</u> drilling starts. -Be sure to print your name -The Geotechnical Engineer	and the start date for drilling. r will sign approval line.			
2.	Casing:	-Measure Length (L) in the f -Surveyor provides Top of C -Compute bottom elevation(field. Casing elevation (TE). (<i>BE): TE-L=BE</i>			
3.	Site Data	 -Soil Auger diameter – measure and record in inches. -Ground surface elev. – provided by surveyor. -Water table elev. – measure w/tape in hole before slurry is introduced (if applicable). -Water table may need to be estimated from seepage in dry hole method. -Reference Elevation – provided by surveyor. -Drill mud – If used, complete the "Slurry Inspection Log"; compare to Installation Plan 				
4.	Depth/Elevation:	Depth (D) can be measured by: 1) Contractor has kelly bar marked (spot checking only) 2) Weighted tape (for accurate measurements) Reference elevation is always known; i.e., template, top of casing, or top of ground.				
		Elevation (E) – compute <i>TE</i> Enter Depth/Elev. For EVEF	<i>-D=E</i> RY change in the soil/rock condition.			
5.	Time:	May use military or 24 hour drilling can occur over sever	clock. Be consistent and correct! Remember that shaft ral days, so be sure to mark date changes.			
6.	Material:	Use this form to record all a	ctivity during shaft excavation. Label all major soil strata.			



Project Nan File No. Contractor Completed I Reviewed B Note: Preat Casing Inform ID 47"	By Contractor by SCDOT ugering not a nation: Constru OD 48" 1	Replace B 4.995 Drilled Sha DS Forema Inspector - Illowed whe actionX Top Elev. 101.0 MSL	ridge ov aft, Inc. an - John John Si m using Temp Length 15'	er Cooper Creek along U n Q. Doe mith construction casing. orary Bot. Elev86.0 MSL 48.0 ' MSL) at 1.50 pm	S-322 Date Date	06/03/02 06/03/02 Soil At Rock (Groun Water Refere Drilling	Page 2 Bent No. Shaft No. Station Offset uger Diam. Core Diam. d Surface Elev. Table Elev. ence Elev.	of <u>6</u> <u>3</u> <u>508 + 36</u> <u>24 Ft. Right</u> <u>46"</u> <u>46"</u> <u>42"</u> <u>100.0 MSL</u> <u>97.0 MSL</u> <u>101.0 MSL</u> <u>Slurry</u>
Notes	ownioned to 42		w 02.0 (Hold molly at 1.00 pm.				
Depth (Feet)	Elev. (Ft. MSL)	Time	•		Soil De	escription and	Notes	
1.0	100.0	7:30 am	In	Tan Silty Sand				
15.0	86.0	9:00 am	Out	Tan Silty Sand				
15.0	86.0	9:10 am	In	Dark Tan Sand				
36.0	65.0	11:30 am	Out	Dark Tan Sand				
36.0	65.0	11:40 am	In	Dense Silty Sand (PWR) w	/Mica			
52.0	49.0	1:30 pm	Out	Dense Silty Sand (PWR) w	/Mica			
52.0	49.0	1:50 pm	In	Very Dense Rock (Granite)				
61.0	40.0	4:50 pm	Out	Very Dense Rock (Granite)				
61.0	40.0	7:15 am	In	Very Dense Rock (Granite)	Contin	ued drilling fr	om previous day	/
62.0	39.0	7:30 am	Out	Very Dense Rock (Granite)	Contin	ued drilling fr	om previous day	/
			In					
			Out					
			In					
			Out					
			In					
			Out					
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Project Nam File No. Contractor Completed I Reviewed B Note: Preat Casing Inform ID 47"	By Contractor y SCDOT Igering not a nation: Constru OD 48" 1 	Replace Br 4.995 Drilled Sha DS Forema Inspector - Ilowed whe action Top Elev. 101.0 MSL 2" Rock Core	fit, Inc. an - John Jane Si n using Temp Length 15'	er Cooper Creek along US- n Q. Doe Da nith Da construction casing. boraryX Bot. Elev. Bot. Elev. Bot. Elev. A0.0 MSL 49.0 ' MSL) at 1:50 pm.	322 ate 06/03/02 06/03/02 Soil Aug Rock C Ground Water T Referen Drilling	Page 2 Bent No. Shaft No. Station Offset ger Diam. ore Diam. Surface Elev. able Elev. fable Elev. Mud	of <u>6</u> <u>3</u> <u>508 + 36</u> <u>24 Ft. Right</u> <u>46"</u> <u>42"</u> <u>100.0 MSL</u> <u>97.0 MSL</u> <u>101.0 MSL</u> <u>Slurry</u>
Depth (Feet)	Elev. (Ft. MSL)	Time		Sc	oil Description and	Notes	
1	100.0	7:30 am	In	Tan Silty Sand			
15.0	86.0	9:00 am	Out	Tan Silty Sand			
15.0	86.0	9:10 am	In	Dark Tan Sand			
36.0	65.0	11:30 am	Out	Dark Tan Sand			
36.0	65.0	11:40 am	In	Dense Silty Sand (PWR) w/Mi	ica		
52.0	49.0	1:30 pm	Out	Dense Silty Sand (PWR) w/Mi	ica		
52.0	49.0	1:50 pm	In	Very Dense Rock (Granite)			
61.0	40.0	4:50 pm	Out	Very Dense Rock (Granite)			
61.0	40.0	7:15 am	In	Very Dense Rock (Granite) Co	ontinued drilling fr	om previous day	/
62.0	39.0	7:30 am	Out	Very Dense Rock (Granite) Co	ontinued drilling fr	om previous day	/
			In				
			Out				
			In				
			Out				
			In				
			Out				
			In				
			Out				
			In				
			Out				

			U	Ų						
			SLL	JRRY INSPE	ECTION LOG	(REV 06-03	3-02)			
Project Nam	a)									
File Number					Compositi	ion:	Brand	Type	Ľ	roportions
Bent No.			Shaft No.		Mineral Ty	/pe				
Water Source	e: *				Additive					
Date of Initia	l Hydration	1 1	Time		Additive	0				
				ΤE	ST PROPERT	IES				
:	Before	Firs	t 8 Hours Duri	ing Constructi	on **	Addition	al Testing	At End of	Before	Before
Sampling	Introduction of Slurry	Test 1	Test 2	Test 3	Test 4	Test 1	Test 2	Excavation	Concreting Test 1	Concreting Test 2
Date:										
Time:										
Test Depth at Levels:	Holding Tank							At Bottom	At Bottom	At Bottom
Density										
Viscosity										
% Sand										
Ηd										
Cake / Filtrate	N/A									
Notes: * Sal	lt water shall n	ot be used to	hydrate the sli	urry or stabiliz	ze the excavation	on.				
** A	minimum of 4	sets of tests s	shall be made	during the firs	t 8 hours of slu	ırry use. Slur	ry sampling ar	nd testing shal	I be observed	1 by the
Engi	ineer. When th	ne results sho	w consistent t	behavior, the te	esting frequend	cy may be det	creased to 1 se	t every 4 hour	s of slurry us	e.
Contractor D	S Foreman:						Date: /	1		
SCDOT Insp	ector:						Date: /	_	Page 3	of 6

HOW TO COMPLETE THE SLURRY INSPECTION LOG

				SLURI	RY INSPECTI	ONLOG				
Project No.		\frown								
Drilled Shart	No.	(1))		Composit	tos :	Brand		2 P	roportions
Shaft Locatio	»	$\overline{}$	/		Miheral T	γpe		<u>2</u>)		
Water Source	e: **				Additiue	:s —				
				L					I	
	Before	Firs	t 8 Hours Dur	ina Constar	tion *	Addition	al Testina		Before	Before
Sampling	Introduction of Slurry	Test 1	Test 2	Test 3	Test 4	Test 1	Test 2	Excavation	Concreting Test 1	Concreting Test 2
Dante:										
Time:										
Properties	Test Deptinat Leuels :			3)				At Bottom	At Bottom	At Bottom
Denshy										
Viscosity										
% Sand										
рн										
Cake / Filtrate										
Notes: " A mi consta "" Sat	h im um of 4 sets c stent be havior, the twater shall not b	of tests shall be n : testing frequen e used to hydrat	nade during the c cymarybe decre; e the slurny	first8 iours of ased to 1 sete 4	slarny ase. Slarny uery 4 koars ofsla uerdon.	sampling and le riv use.	sting s hall be obt	senued by the Eng	ineer. When the	results show
Contractor Re State Inspecto	presentative: r:			5			Dane: Dane:	1 1	-	

- Heading: Fill in <u>before</u> drilling starts.
 The Project Resident Engineer will sign approval line.
- 2. Slurry Data: Fill in appropriate brands, types, and proportion.
- 3. Test Data: Record test data as the testing Inspector performs the tests.
 - Note the depth at which the samples were obtained.
 - Make sure that a minimum of 4 tests are performed within the first 8 hours of slurry use.
- 4. Notes: Record any unusual events or results.
- 5. Fill in "Contractor Representative" and "State Inspector".

Fill in every blank on the form. If it does not apply put an "N/A" or a long dash.

Use pencil – but never erase. If you need to change something, strike a single line through the item and insert the correct information above it. If there is insufficient room to make a note, footnote the item and go to the bottom of the page, or use a separate page.

			Ŋ	Ų	ľ	6				
			SLURF S,	RY INSPEC	Construct	G (REV 06- ion Casing	03-02)			
Project Nam	Je	Replace Brid	ge over Coope	er Creek along	g US-322			-	-	
File Number	Ľ	4.995				Composition:	Brand	Type	Prop	ortions
Bent No.		З	Shaft No. 3			Mineral Type	Augua Gel	Bentonite	1400 LBS	/ 5000 GAL
Water Sourc	к. СӨ: *	Hydrant (City	water)			Additives				
Date of Initis	al Hydration	06/03/0	2 Time 9:0	0 am						
				TES	ST PROPERI	TIES				
- il and	Before	Firs	t 8 Hours Duri	ng Constructic	on **	Additiona	I Testing	At End of	Before	Before
sampling	Introduction of Slurry	Test 1	Test 2	Test 3	Test 4	Test 1	Test 2	Excavation	Concreting Test 1	Concreting Test 2
Date:	06/04/02	06/04/02	06/04/02	06/04/02	06/04/02			06/05/02	06/05/02	06/05/02
Time:	11:00 am	1:30 pm	2:30 pm	4:00 pm	5:00 pm			7:30 am	8:15 am	9:20 am
Test Depth at Levels:	Holding Tank	50 FT	53 FT	58 FT	60 FT			At Bottom	At Bottom	At Bottom
Density	65	67.1	67.3	65.8	66.3			69.1	66.1	66.3
Viscosity	33	37	38	36	22			42	38	37
% Sand	%0	3%	4%	2%	2.5%			10%	2%	2%
Hd	10	6	6	6	6			6	10	10
Notes: * Sal	t water shall n	not be used to	hydrate the slu	urry or stabilize	e the excavat	ion.				
A **	minimum of 4	sets of tests s	shall be made c	Juring the first	t 8 hours of sl	urry use. Slurr	y sampling and	l testing shal	l be observed	I by the
Engi	neer. When th	he results sho	w consistent b	ehavior, the te	sting frequer	icy may be deci	reased to 1 set	every 4 hour	s of slurry us	e.
Note	: Side of shaft (caked. Cleane	d shaft sides.							
Contractor [DS Foreman:	John Q. D	oe				ate: 06/05	5/02		
SCDOT Ins	pector: John	Smith					ate: 06/0	5/02 P.	age 3	of 6

			Ŋ	Ų		6				
			SLURF	RY INSPEC	CTION LC	G (REV 06- ary Casing	03-02)			
Project Nam	e	Replace Brid	ge over Coope	er Creek along	g US-322				-	
File Number		4.995				Composition:	Brand	Type	Prop	ortions
Bent No.		6	Shaft No. 3			Mineral Type	Augua Gel	Bentonite	1400 LBS	/ 5000 GAL
Water Sourc	**	Hydrant (City	water)			Additives				
Date of Initis	I Hydration	06/03/02	2 Time 9:0	0 am						
				TES	ST PROPER	TIES				
Company	Before	Firs	t 8 Hours Durir	ng Constructio	** uo	Additiona	I Testing	At End of	Before	Before
guidupe	of Slurry	Test 1	Test 2	Test 3	Test 4	Test 1	Test 2	Excavation	Concreting Test 1	Concreting Test 2
Date:	06/04/02	06/04/02	06/04/02	06/04/02	06/04/02			06/05/02	06/05/02	06/05/02
Time:	11:00 am	1:30 pm	2:30 pm	4:00 pm	5:00 pm			7:30 am	8:15 am	9:20 am
Test Depth at Levels:	Holding Tank	50 FT	53 FT	58 FT	60 FT			At Bottom	At Bottom	At Bottom
Density	65	67.1	67.3	65.8	66.3			69.1	66.1	66.3
Viscosity	33	37	38	36	37			42	38	37
% Sand	%0	3%	4%	2%	2.5%			10%	2%	2%
Ηd	10	6	6	6	6			6	10	10
Notes: * Salt	t water shall n	ot be used to	hydrate the slu	ırry or stabiliz	e the excava	tion.				
** A I	minimum of 4	sets of tests s	shall be made d	luring the first	t8 hours of s	lurry use. Slurr	y sampling and	d testing shall	be observed	I by the
Engi	neer. When th	he results sho	w consistent b	ehavior, the te	sting freque	ncy may be dec	reased to 1 set	every 4 hours	s of slurry us	e.
Note	: Side of shaft c	caked. Cleane	d shaft sides.							
Contractor L	DS Foreman:	John Q. D.	oe				ate: 06/0	5/02		
SCDOT Insp	pector: Jane	Smith					ate: 06/(05/02 Pa	age 3	of 6



Project Name File No. Contractor Completed By Contractor Reviewed By SCDOT	DS Foreman - Inspector -		_Date Date	Page 4 Bent No. Shaft No. Station Offset	_ of <u>6</u>
Type of Drilling Fluid		Shaft I	Plumbness Chec	:k/4'	
DS Location Variance at To	α	Rebar	Cage: Proper #	#Vert_Bars	
Bottom Cleanout Method	· · · · · · · · · · · · · · · · · · ·		Proper #	# Horiz, Bars	
Time/Date Final Cleanout			Side Sp	acers	
Shaft Bottom Elev.			Bottom	Spacers	
Est. Shaft Bottom Dia.			Ties & C	Connections	
Inspected By:	Visual Soup	ding N*		* Based on	Compass Direction
Time Test Started			Test just pric	or to placing Rebar ca	ge 🔲 (inches)
Time Test Finished			Test just pr	ior to placing concre	ete (inches)
Time Test Started			/ * Direction	I	U
W *)		E *
Note: 50% of base shall h No area of shaft bottom s Notes	ave < 1/2 Inch of sedime hall be more than 1 1/2 I	nt. nches.)	Comments/Recomm	endations
Results: Satis	factory DS Foreman	l			

HOW TO COMPLETE THE DRILLED SHAFT INSPECTION LOG



Fill in every blank on the form. If it does not apply put an "N/A" or a long dash.

Use pencil – but never erase. If you need to change something, strike a single line through the item and insert the correct information above it. If there is insufficient room to make a note, footnote the item and go to the bottom of the page, or use a separate page.

- 1. Heading:
- -Fill in before drilling starts.
 - -Be sure to print your name and the start date of drilling. -The Project Resident Engineer or designated representative will sign approval line.

2. Shaft Status: Drill Fluid Check – Responsibility of Contractor. Record density check performed by Contractor or Inspector.

Туре с	of Drill Fluid – record
a)	Natural
b)	Mineral (commercial)
c)	Plain water
Reme	mber: Polymer slurry not allowed

-Bottom Cleanout Method: Observe and record equipment type (i.e., cleanout bucket, air lift, submersible pump, etc.). Must match Installation Plan.

-Time/Date Final Cleanout: Record when last cleanout performed prior to rebar cage placement.

-Shaft Bottom Elevation – Use weighted tape to measure; record. -Estimate Shaft Bottom Diameter – record auger diameter.

- Cage Check: -Reinforcing cage usually checked by others.
 -Proper number of Vertical bars count and record # of vertical bars in hole; compare to plan.
 -Epoxy you should never see coated rebar
- 4. Shaft Cleaniness: check procedure being used, record
 - 1) Using S.I.D., visually inspect the shaft bottom in each of a minimum of 5 locations as shown on form.
 - Using a weighted tape, sound the shaft in each of a minimum of 5 locations as shown on form. "Feel" for hard bottom – it translates to clean hole. Remember specifications.

5. Record Results:



Project Name File No. Contractor Completed By Contractor Reviewed By SCDOT	Replace Bridge over Cooper 4.995 Drilled Shaft, Inc. DS Foreman - John Q. Doe Inspector - John Smith	Creek along US- Dat	322 Pa Be Sh te 06/05/02 St te 06/05/02 Of	age <u>4</u> o ent No naft No ation ffset2	f <u>6</u> <u>3</u> 508 + 36 24 FT. Right
Type of Drilling Fluid DS Location Variance at Top Bottom Cleanout Method Time/Date Final Cleanout Shaft Bottom Elev. Est. Shaft Bottom Dia.	Bentonite 2" After Sta. & 1" Right Airlift 7:45 am on 06/05/02 39.0 msl 42 Inches	Shaft Plumi Rebar Cage	bness Check/4' <u>1/2</u> e: Proper # Vert. Bar Proper # Horiz. Ba Side Spacers Bottom Spacers Ties & Connectior	In. per 4 Ft. s <u>16 EA # 36 E</u> ars <u># 19 Bar @ 4</u> <u>4 EA eve</u> <u>16 EA @</u> ns <u>Checked</u>	Bars 4 3/8 " Spiral ery 10 Ft. 6" Length and okay.
Inspected By: JC Time Test Started 7:45 Time Test Finished 8:00 Time Test Started 9:10 Time Test Finished 9:25 W * 1/4" 3/8"	D VisualSounding am	X N*	Test just prior to placir Test just prior to pla * Direction	* Based on Cor	0" E *
Note: 50% of base shall ha No area of shaft bottom sh Notes 80% area < 1/2", first test ok 60% area < 1/2", second te	ve < 1/2 Inch of sediment. all be more than 1 1/2 Inches. ay. st okay.		Comments Rebar cage placed & c Concrete placed after :	/Recommendatio concrete ordered second test was	ons after first test. okay.
Results: X Satisfa Unsat	actory DS Foreman isfactory SCDOT Inspector	John Q Doe John Smith p = 3 inches Max.	Time Vertical (Plumbnes	9:25 am Date ss) = 1 inch per	06/05/02 4 Ft. Max.



Project Name File No. Contractor Completed By Contractor Reviewed By SCDOT	Replace Bridge over Cooper 4.995 Drilled Shaft, Inc. DS Foreman - John Q. Doe Inspector - Jane Smith	Creek along US	ate 06/05/02 ate 06/05/02	Page <u>4</u> Bent No. Shaft No. Station Offset	of <u>6</u> <u>3</u> 508 + 36 24 FT. Right
Type of Drilling Fluid DS Location Variance at To Bottom Cleanout Method Time/Date Final Cleanout Shaft Bottom Elev. Est. Shaft Bottom Dia.	Bentonite 1" Before Sta. & 4" Left** Airlift 7:45 am on 06/05/02 39.0 msl 42 Inches	Shaft Plur Rebar Ca	mbness Check/4' ge: Proper # Vert. I Proper # Horiz. Side Spacers Bottom Spacer Ties & Connect	1/2 In. per 4 Ft. Bars <u>16 EA # 36</u> Bars <u># 19 W Hot</u> <u>4 EA e</u> s <u>16 EA (</u> tions <u>Checke</u>	Bars Ops @ 7 IN. Wery 10 Ft. @ 6" Length d and okay.
Inspected By: J Time Test Started 7:4 Time Test Finished 8:0 Time Test Started 9:1 Time Test Finished 9:2 W * 1/4" 3/8"	QD VisualSounding 5 am 1/2" 0 am 1/2" 5 am 0"	X N*	Test just prior to pla Test just prior to p * Direction	* Based on C acing Rebar cage blacing concrete	O" E*
Note: 50% of base shall h No area of shaft bottom s Notes 60% area < 1/2", first test o 60% area < 1/2", second t	ave < 1/2 Inch of sediment. hall be more than 1 1/2 Inches. kay. est okay. 1/2"		Comme Rebar cage placed Concrete placed aft ** - See note on Pag	nts/Recommenda & concrete ordere er second test wa ge 1.	tions ed after first test. is okay.
Results: X Satis Unsa NOTE: Specification Tolera	factory DS Foreman tisfactory SCDOT Inspector nces - Location Variance at To	John Q Doe Jane Smith p = 3 inches Max	Time K. Vertical (Plumb	9:25 am Date ness) = 1 inch pe	e 06/05/02 er 4 Ft. Max.



Project N File No. Contracto Complete Reviewe	Jame or ed By Contracto d By SCDOT	ctor DS Foreman - Inspector -			Dat	te	Page Bent Shaft Static	5 of No t No on et	6
Placement Method F F De-airing MethodF F		Tremie Pumped Relief Valve Plug Cap	_Tremie Volume in Pur Pumped <u>Pump Truck Lines</u> Relief Valve <u>Pump Truck</u> Plug Cap		mp Truck	#	ID	Length	Volume
Reference Shaft Top Top of Ro Shaft Bott	e Elev. □ Elev □ck Elev tom Elev.		Total Vo Time Fi Depth o Rebar (Jume in Line Irst Truck Bat of Water Per Cage Top El€	s + Pump Truc ched: Hr. Inside Sha ev. At Start -	ft (Dry Hole Ch	neck) At Finis	$\Sigma =$	
Truck No.	Concrete Volume	Arrival S Time T	Start ïme	Finish Time	Tremie Depth	Depth To Concrete		Notes	
Concrete Volume Delivered Total Placement Time (Temp. Casing Removed)									
OD Top Elev. Bot. Elev. Start Finish Rebar Cage Centered* T Casing Removal** Rebar Cage Re-centered				/ES NO					
Notes <u>* If</u>	no, then re-cen	iter rebar cage. '	** If unab	le to remove	etemporary ca	asing, then ca	II Bridge	Construction	Office.

HOW TO COMPLETE THE DRILLED SHAFT CONCRETE PLACEMENT LOG

	DRILLE			CEMENTL	OG		
Projeci Name Projeci No. Contactor Inspecied By Approved By			Da Da	sie / / sie / /	Page Pier Shari Stalk Office	01 No. 1 No. 2n 1	
Name i Kielhad	Frame Punged Palar Valva Frame Plug Frame Cap	Volume n 		۴ 3	•	Langh	Volume
Meence Clev. haft Fop Elev. op of Rock Elev. haft Soltom Elev. Fruck. Como ele No. I Volume	4	Depihic Water Ins Rebar Cage Fop Els I Stati I Fronh Form I Form	rda w.JU Sist Franca Depin	00 Casing Depth fo	al Stat Al Finah	Naisa	
5		6	7			8)
					(hereit)		
Sang Sang Amoval	rop Ellev. Bel	Slari	Frank	Raba Conc	Cage Ce	nimed ad	

Fill in every blank on the form. If it does not apply put an "N/A" or a long dash.

Use pencil – but never erase. If you need to change something, strike a single line through the item and insert the correct information above it. If there is insufficient room to make a note, footnote the item and go to the bottom of the page, or use a separate page.

1. Heading:

-Fill in <u>before</u> drilling starts. -Be sure to print your name and the start date of drilling.

-The Project Resident Engineer or designated representative will sign approval line.

- 2. Indicate correct "Placement" and "Deairing" method.
- 3. Compute and fill in Concrete Volumes: $V = (\pi d^2 / 4) \times L$
- 4. Fill in as much as possible prior to pour.
- 5. Record Truck number and amount of concrete.
- 6. Time: -May be military or standard clock. Be consistent and correct. Watch for date changes on late night pours.
- 7. Depths: -Tremie embedment may be measured by markings on the tremie. Depth to concrete may be measured by weighted tape.
- 8. Notes: Record any unusual events or items.
- Casing/Rebar Data: -The rebar cage fabrication will normally be performed on-site. Observe the lifting to make sure deformation or damage does not occur (especially to CSL tubes). Check that the correct cage is being used. Check reinforcing steel diagram against the actual cage to be sure cage is correct. When the cage is being placed, observe the spacing to assure the cage is set to the proper elevation.



DRILLED SHAFT CONCRETE PLACEMENT LOG (REV 06-03-02) SAMPLE 1 Construction Casing

Project N File No. Contracte Complete Reviewe	lame or ed By Contra d By SCDO	Replace Bridge over Cooper Creek along US-322 F 4.995 E Drilled Shaft, Inc. S y Contractor DS Foreman - John Q. Doe Date 06/05/02 S SCDOT Inspector - John Smith Date 06/05/02 S						e <u>5</u> It No. Ift No. tion set	of 5	6 3 08 + 36 FT. Right
Placemen De-airing	it Method Method	Tremie X Pumped Relief V	I <u>Pump</u> alve <u>Pump</u>	Volume in P Truck Lines (6 Truck	ump Truck 3" x 10')	#17	ID 6"	Total Lenç 170'	gth	Volume 1.2 CY 0.2 CY
X Plug Total Volume in Lines + Pump Truck							2	Σ =	1.4 CY	
Reference Elev. 101.0 msl Shaft Top Elev. 101.0 msl Top of Rock Elev. 49.0 msl Depth of Water Per Hr. Inside Shaft (Dry Hole Check): Shaft Bottom Elev. 39.0 msl					<u>k): NA</u> At Finis	<u>- Slurry use</u> sh - 108.0 m	:d			
Truck No.	Concrete Volume	Arrival Time	Start Time	Finish Time	Tremie/ Pump Lines Total Length	Depth To Concrete from Casing Top		Note	es	
17	9.0 CY	9:20 am	9:25 am	9:40 am	160 FT	41.0 FT	Removed 10' of pump line.			p line.
8	9.0 CY	9:40 am	10:05 am	10:20 am	130 FT	2.4 FT	Removed 20' of pump line.			p line.
17	4.0 CY	10:30 am	10:35 am	10:50 am	120 FT	0	Waste	e 2.0 CY (R lines and (lemc overi	oving flow.)
							+			
				J						
							<u> </u>			
							<u> </u>			
				j						
<u>31.0 C</u>	Y_Concrete \	Volume Deliver	ed		Total Placemer	nt Time (Temp. (Casing	Removed)	_1	00 Min.
T Casing	Removal**	OD Top NA	p Elev. E	3ot. Elev.	Start Fit	nish Rebar (Rebar (Cage Ce Cage Re	entered* e-centered	YE:	3 NO
Notes * If	no, then re-	center rebar c	age. ** If ur	nable to remo	ve temporary o	casing, then ca	ıll Bridg	je Construc	tion	Office.



DRILLED SHAFT CONCRETE PLACEMENT LOG (REV 06-03-02)

SAMPLE 2 Temporary Casing

Project Name Replace Bridge over Cooper Creek a File No. 4.995 Contractor Drilled Shaft, Inc. Completed By Contractor DS Foreman - John Q. Doe Reviewed By SCDOT Inspector - Jane Smith					Freek along US	3-322 e 06/05/02 e 06/05/02	Page 5 Bent No. Shaft No. Station Offset	of <u>6</u> <u>3</u> 508 + 36 24 FT. Right	
Placemen De-airing	it Method Method	Tremie X Pumpe Relief Valve X Plug	ie Volume in Pump Truck ped <u>Pump Truck Lines (6" x 10')</u> if Pump Truck			# 17	ID Total Ler 6" 170'	ngth Volume <u>1.2 CY</u> 0.2 CY	
Reference Shaft Top Top of Rc Shaft Bott	e Elev e Elev ock Elev tom Elev	101.0 msl 100.0 msl 49.0 msl 39.0 msl	Total V Time F Depth Rebar	olume in Lines irst Truck Bate of Water Per I Cage Top Ele	3 + Pump Truck ched: <u>9:10 am</u> Hr. Inside Shaft av. <u>At Start - 1(</u>	(Dry Hole Checl 08.0 msl	k): NA - Slurry u At Finish - 108.0 i	Σ = <u>1.4 CY</u> sed. msl	
Truck No.	Concrete Volume	Arrival Time	Start Time	Finish Time	Tremie/ Pump Lines Total Length	Depth To Concrete from Casing Top	No	ites	
17	9.0 CY	9:20 am	9:25 am	9:40 am	160 FT	41.0 FT	Removed 10' of pump line.		
22	9.0 CT	9:30 am	9:45 am	10:00 am	100 FT	21.7 FT	Removed 20 or	f pump line.	
17	9.0 CT	9:40 am	10:05 am	10:20 am	130 FT	2.4 FT	Kemoved 20 or	Demoved the	
17	4.0 C T	10:30 am	10:35 am	10:50 am	120 FT	U	VVaste 2.0 CT (Removed the	
;		; •	+		<u> </u> 	+	temporary cash	ig, pump imes	
ļ;					<u> </u>		and concrete o	vertiow.)	
		<u>:</u>	Ļ/						
;			+		<u> </u>	$\frac{1}{1}$			
;	 		+		<u> </u>	+	<u> </u> 		
			+						
1			1		<u> </u>		<u> </u>		
;					1				
				<u> </u>					
31.0 Cr	Y Concrete Vo	olume Delive	red		Total Placeme	nt Time (Temp. (Casing Removed)	100 Min.	
OD T Casing Removal**48" 		OD To 48" 10	Top Elev. Bot. Elev. "101.0 msl 85.0 msl		Start Finish Rebar 0 10:25 am 10:35 am Rebar 0		Cage Centered* X Cage Re-centered X		
Notes * If	ino, then re-c	enter rebar	cage. ** If u	nable to remo	ove temporary	casing, then ca	III Bridge Constru	iction Office.	



Project Name					Page	6	of <u>6</u>	
File No. Contractor					Bent No.	_Bent No.		
Completed By Contracto	DS Foreman - Date			/ /	Station			
Reviewed By SCDOT	Inspector -		Date		Offset			
		Concreting	Curve	1				
Depth								_
(11)								
								_
								\square
					L			
		Concrete Volume	Placed (cy)					
Volume Delivered	ick + Lines	VD	cy					
Volume of CSL Tubes		VCSLT	Cy CV					
Wastage		VW	су					
Volume Placed								
= VD-VPTL-VCSLT-	VW =		су					
Over Pour (VP-V/Th	=/> 1 00)	0P	cy					
Under Pour (VP-VTI	n < 1.00)	UP	cy					

HOW TO COMPLETE THE DRILLED SHAFT CONCRETE VOLUMES LOG



Fill in every blank on the form. If it does not apply put an "N/A" or a long dash.

Use pencil – but never erase. If you need to change something, strike a single line through the item and insert the correct information above it. If there is insufficient room to make a note, footnote the item and go to the bottom of the page, or use a separate page.

1.	Heading:	-Fill in <u>before</u> drilling starts.
		-Be sure to print your name and the start date of drilling.
		-The Project Resident Engineer or designated representative will sign approval line.
2.	Concrete curve:	-compute Theoretical Volume of Concrete based on shaft size:
		$Vth = (\pi d^2 / 4) x L$
		-locate points based on known cubic yards of concrete placed at measured "bottom"
		depth.
		-must be plotted during concrete placement.

Note: Plotted line should closely parallel Theoretical line. There is a problem if:

- a point plots way above or below the Theoretical line and/or
- there is a significant rise or fall in an otherwise straight line (change in slope of line).





DRILLED SHAFT CONCRETE VOLUMES LOG (REV 06-03-02) SAMPLE 2 Temporary Casing

