Printz Engineering Services, LLC



February 24, 2023

Mr. Jonny Macfarlane Mays Construction Specialties 2399 Riverside Parkway Grand Junction, Colorado 81505 970-245-0834 ph

RE: 183 River Ridge Court, Grand Junction, CO – Micropile Verification and Proof Testing Review and acceptance criteria

Dear Mr. Macfarlane,

Attached, please find the results of micropile verification test performed on 2/17/23 and proof test performed on 2/21/23.

The pile installation for the micropile verification test #2 was accomplished using simultaneous drilling and grouting operations to an overall installation depth of 45' through a T30/11 hollow reinforcing bar using a 4" diameter sacrificial steel drill bit. The verification test micropile has a 10'-0" bond length, a 35' PVC sleeved length and 3'-0" above ground free length. The pile installation for all production micropiles are identical to the verification test installation. Proof tested micropiles are production piles installed after verifying the design bond adhesion through verification testing. I have reviewed all proof test results and am using test #3 as an reference.

Verification Test Pile #2 – Tension Test – The pile was installed to a 45' total length below grade with 10' bond length and 35' below ground free length and 3'-0" above grade using the drilling method described above. At 200% of the design load, the micropile experienced permanent and elastic movement of 0.113" and 0..383"; respectively. At the end of the test, the micropile debonded (-12.55') and has an apparent bond length of 22.55. Since the micropile head movement at 200% design load (0.495") is less than (0.025 in/kip * 40 kip = 1.00") load versus micropile head settlement and the creep criteria was satisfied, the test passes the micropile verification test per NHI-05-039 "Micropile Design and Construction Manual". The creep test was held for 10 minutes in accordance with NHI-05-039, as movement in the first 10 minutes was less than 0.040".

Proof Test Pile #3 – Tension Test – The production micropile was installed to a 45' total length below grade with 10' bond length, 35' below ground free length and 5'-0" above grade. At 160% of the design load, the micropile experienced permanent and elastic movement of 0.0370" and 0.176"; respectively. At the end of the test, the micropile debonded (-24.44') and has an apparent bond length of 34.44'. Since the micropile head movement at 160% design load (0.213") is less than (0.025 in/kip * 40 kip = 1.00") load versus micropile head settlement and the creep criteria was satisfied, the test passes the micropile verification test per NHI-05-039

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"Micropile Design and Construction Manual". The creep test was held for 10 minutes in accordance with NHI-05-039, as movement in the first 10 minutes was less than 0.040".

The micropiles did not debond the entire sleeved length; therefore, debonding is showing as a negative number. There is residual bonding occurring in the sleeved (cased) length of the micropile, as indicated by the elastic movement of the micropile at maximum test load. The micropiles have additional geotechnical capacity due to the residual bonding in the sleeved length. Swelling soils that may act on this length of micropile in the form of uplift is not a concern due to the combination of dead load pressure on the micropile and sufficient bond length below the expansive soils that should prevent foundation uplift. Movement will occur; however, they will be small movements, corresponding with the elastic movement of the micropile reinforcing. Very small permanent movement was realized during testing. This movement can be attributed to mechanical movement and movement along the grout to ground interface to mobilize the shear strength of the soil.

Please do not hesitate to contact me with any questions or concerns that you may have.

Kind Regards,

Thomas A. Printz, P.E.
President
Printz Engineering Services, LLC

Attachments: Verification Test #2 (5 pages) Proof Test #3 (5 pages) Hydraulic Testing Equipment Calibration (1 page)



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Kelly Residence	•															\top
cony residence	•						Test Performed	by Mays Constr	uction Specialties			Observed by				
Pile:			Sacrificial Tes	t Pile installed			Test Date:		1	02	/17/23	No. of Elements:			1	
Starting Free Le	ength:		35.00	ft	420	in	Design Load:			20.000	kip	Modulus of Elasticit	y:		29000	kip/in2
Starting Bond L	Length:		10.00	ft	120	in						Bar Diameter:		T30/11	1.180	in
Below Ground I	Free Length:		35	ft	420	in	Max Test Load	(200% DL):		40.000	kip	Bar Area:			0.940	in2
Above Ground	Free Length:		3.00	ft	36	in						Casing OD:			0.00	in
Γotal Length:			45.00	ft	540	in						Casing TW:			0.00	in
												Casing ID:			0.00	in
Theoretical Eloi	ngation (calcula	ite at max test	load):		0.616	inches		***Casing is no	t considered for a	Tension Test		Jack-Gauge Factor:			0.01202527	7 kip/psi
												Load Cell Serial Nur	nber:		-	
												Load Cell Zero readi	ing (avg.):		-	
					***************************************							Load Cell Scale Fac	tor:		-	
												Load Cell Offset:			-	
												Casing Area:			0	in^2
est started at a	pproximately 10	30 AM														
% Design	Holding	Spec.	Calc.	Time of	Observed	Dial Gauge	Dial Gauge	Correct.	Elastic		Commen	ts				
Load	Time	Load	Jack Press.		Jack Press.	G1	G2	Avg.	Movement				***************************************			
(%)	(min)	(kips)	(psi)	(24h)	(psi)	(in)	(in)	(in)	(theoretical)							
5%	2.5	1.0	89	3:15	100	0.000	0.000	0.000	0.015	ļ						
15%	2.5	3.0	255	3:17	260	0.028	-0.008	0.010	0.046							
30%	2.5	6.0	504	3:19	507	0.055	-0.002	0.027	0.092							
45%	2.5	9.0	753	3:24	755	0.075	0.017	0.046	0.139							
5%	1	1.0	89	3:25	95	0.012	0.001	0.007	0.015							
				+			1		1		-					
15%	1	3.0	255	3:26	265	0.036	-0.002	0.017	0.046							
45%	1	9.0	753	3:27	768	0.077	0.020	0.049	0.139							
60%	2.5	12.0	1002	3:30	1005	0.098	0.040	0.069	0.185							
75%	2.5	15.0	1251	3:33	1245	0.117	0.061	0.089	0.231							-
90% 100%	2.5 2.5	18.0 20.0	1500 1666	3:35 3:38	1495 1660	0.142 0.156	0.084	0.113 0.127	0.277 0.308							
5%	1	1.0	89	3:39	100	0.136	0.098	0.127	0.006							
370		1.0	09	3.39	100	0.023	0.013	0.019	0.013							
15%	1	3.0	255	3:40	280	0.063	0.012	0.038	0.046							
100%	1	20.0	1666	3:41	1678	0.160	0.103	0.132	0.308							
115%	2.5	23.0	1915	3:44	1911	0.181	0.123	0.152	0.354							
130%	1	26.0	2164	3:46	2164	0.203	0.145	0.174	0.401							
130%	1	26.0	2164	3:47	2160	0.205	0.146	0.176	0.401							
130%	1	26.0	2164	3:48	2164	0.205	0.147	0.176	0.401							
130%	1	26.0	2164	3:49	2164	0.206	0.148	0.177	0.401							
130%	1	26.0	2164	3:50	2161	0.207	0.149	0.178	0.401							
130%	1	26.0	2164	3:50	2170	0.208	0.150	0.179	0.401							
130%	4	26.0	2164	3:54	2164	0.208	0.150	0.179	0.401	0.005		40" in 10 minutes	***************************************			
130%	10	26.0	2164	1			-	0.000	0.401		end creep test					
130%	10	26.0	2164	+			+		0.401							
130%	20	26.0	2164	-			+		0.401		+	+	***************************************			
130%	10	26.0	2164	-	0440	0.000	0.400	0.000	0.401							
145% 5%	2.5	29.0 1.0	2413 89	3:56 3:57	2413 100	0.238 0.044	0.180 0.031	0.209 0.038	0.447 0.015	PES m	nust have these re	eadings, as well				
5%		1.0	69	3.57	100	0.044	0.031	0.036	0.015							
15%	1	3.0	255	3:59	269	0.071	0.030	0.051	0.046							
145%	1	29.0	2413	4:00	2415	0.248	0.192	0.220	0.447		+					
160%	1	32.0	2662	4:02	2660	0.342	0.281	0.312	0.493							
175%	2.5	35.0	2911	4:05	2910	0.414	0.354	0.384	0.539				***************************************			
200%	10	40.0	3326	4:17	3326	0.525	0.465	0.495	0.616							
150%	5	30.0	2496	4:22	2490	0.467	0.406	0.437	0.462							
100%	5	20.0	1666	4:27	1663	0.409	0.349	0.379	0.308							
	-	10.0	836	4:32	850	0.294	0.238	0.266	0.154							
50% 5%	5 5	1.0	89	4:37	87	0.122			0.015							

Kelly Residence Pile:

Starting Free Length: Starting Bond Length: Below Ground Free Length:

Above Ground Free Length: Total Length:

Theoretical Elongation (calculate at max test load):

Apparent Free Length: Debonding: Apparent Bond Length: Sacrificial Test Pile installed

35.00 ft 420

35.00 ft 420 in 10.00 ft 120 in 35.00 ft 420 in 3.00 ft 36 in 45.00 ft 540 in

0.616 inches

At 200% des	ign load			
269.3	inches	22.45	ft	
-150.7	inches	-12.55	ft	
270.7	inches	22.55	ft	

 Test Date:
 02/17/23

 Design Load (100%):
 20 kip

 Max Test Load (200% DL):
 40 kip

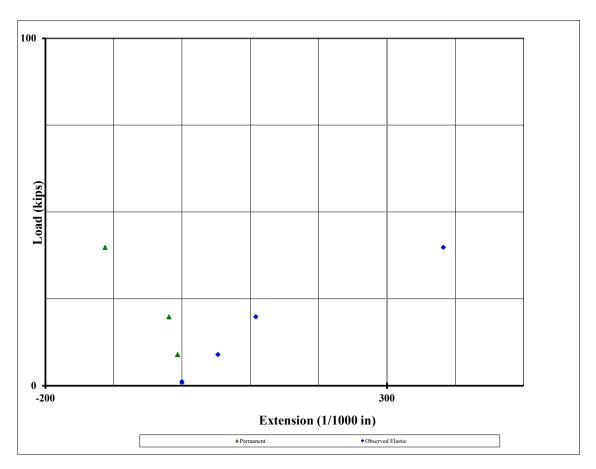
No. of Elements:
Modulus of Elasticity:
Element Area:
Casing OD:
Casing TW:
Casing ID:
Jack-Gauge Factor:
Load Cell Serial Number:
Load Cell Serial Number:
Load Cell Serial Number:
Load Cell Getor:
Load Cell Offset:
Casing Area:

1
29000 kip/in2
0.94 in2
in
in
in
0.012025265 kip/psi
0 in^2

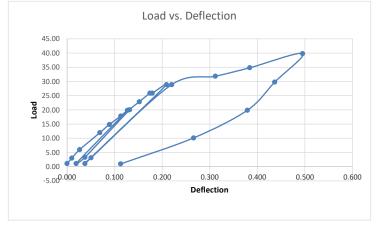
1	Holding	Spec.	Time of	Calc.	Observed	Observed		Dial Gauge		Total	Perm.	Elastic	Elastic
Load	Time	Load	Reading	Jack Press.	Jack Press.	Jack Load	G1	G2	Corrected	Movement	Movement	Movement	Movement
(%)	(min)	(kips)	(24h)	(psi)	(psi)	(kips)	(in)	(in)	(in)	(in)	(in)	(in)	(theory)
5%	2.5	1.0		89	100	1.1			0.000	0.000			0.015
15%	2.5	3.0		255	260	3.0			0.010	0.010			0.046
30%	2.5	6.0		504	507	6.0			0.027	0.027			0.092
45%	2.5	9.0		753	755	9.0			0.046	0.046	0.007	0.053	0.139
5%	1	1.0		89	95	1.1			0.007	0.007			0.015
													0.000
15%	1	3.0		255	265	3.1			0.017	0.017			0.046
45%	1	9.0		753	768	9.1			0.049	0.049			0.139
60%	2.5	12.0		1002	1005	12.0			0.069	0.069			0.185
75%	2.5	15.0		1251	1245	14.9			0.089	0.089			0.231
90%	2.5	18.0		1500	1495	17.9			0.113	0.113			0.277
100%	2.5	20.0		1666	1660	19.8			0.127	0.127	0.019	0.108	0.308
5%	1	1.0		89	100	1.1			0.019	0.019			0.015
													0.000
15%	1	3.0		255	280	3.3			0.038	0.038			0.046
100%	1	20.0		1666	1678	20.1			0.132	0.132			0.308
115%	2.5	23.0		1915	1911	22.9			0.152	0.152			0.354
130%	1	26.0		2164	2164	25.9			0.174	0.174			0.401
130%	1	26.0		2164	2160	25.8			0.176	0.176			0.401
130%	1	26.0		2164	2164	25.9			0.176	0.176			0.401
130%	1	26.0		2164	2164	25.9			0.177	0.177			0.401
130%	1	26.0		2164	2161	25.9			0.178	0.178			0.401
130%	1	26.0		2164	2170	26.0			0.179	0.179			0.401
130%	4	26.0		2164	2164	25.9			0.179	0.179	0.005	creep	0.401
130%	10	26.0		2164		-0.1			0.000	0.000			0.401
130%	10	26.0		2164		-0.1			0.000	0.000			0.401
130%	20	26.0		2164		-0.1			0.000	0.000			0.401
130%	10	26.0		2164		-0.1			0.000	0.000			0.401
145%	2.5	29.0		2413	2413	28.9			0.209	0.209	0.038	0.172	0.447
5%	1	1.0		89	100	1.1			0.038	0.038			0.015
													0.000
15%	1	3.0		255	269	3.2			0.051	0.051			0.046
145%	1	29.0		2413	2415	28.9			0.220	0.220			0.447
160%	1	32.0		2662	2660	31.8			0.312	0.312			0.493
175%	2.5	35.0		2911	2910	34.8			0.384	0.384			0.539
200%	10	40.0	-	3326	3326	39.8			0.495	0.495	0.113	0.383	0.616
150%	5	30.0		2496	2490	29.8			0.437	0.437			0.462
100%	5	20.0		1666	1663	19.9			0.379	0.379			0.308
50%	5	10.0		836	850	10.1			0.266	0.266			0.154
5%	5	1.0		89	87	1.0			0.113	0.113			0.015

Pile:	Sacrificial	Test Pile	installed

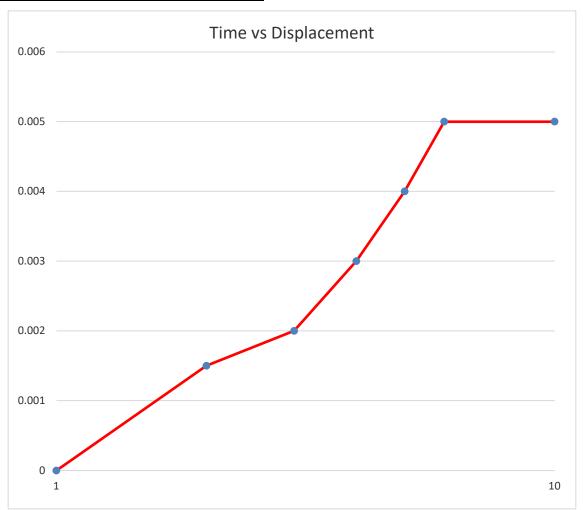
Target %	Target %	Calculated	Total	Perm.	Elastic
Des. Load	Des. Load	Load	Movement	Movement	Movement
(%)	(KIPS)	(kips)	(0.001 in)	(0.001 in)	(0.001 in)
5%	1	1.124	0	0	0
45%	9	9	46.0	-6.5	52.5
100%	20	20	127.0	-19.0	108.0
200%	40	40	495.0	-112.5	382.5



Target %	Spec.	Observed	Observed	Total	Total
Des. Load	Load	Load	Load	Movement	Movement
		Jack	Jack		
(%)	(kips)	(psi)	(kips)	(in)	(1/1000in)
5.0%	1	100.00	1.12	0.000	0
15.0%	3	260.00	3.04	0.010	10
30.0%	6	507.00	6.01	0.027	27
60.0%	12	1005.00	11.98	0.069	69
75.0%	15	1245.00	14.86	0.089	89
90.0%	18	1495.00	17.86	0.113	113
100.0%	20	1660.00	19.84	0.127	127
5.0%	1	100.00	1.12	0.019	19
15.0%	3	280.00	3.28	0.038	38
100.0%	20	1678.00	20.06	0.132	132
115.0%	23	1911.00	22.86	0.152	152
130.0%	26	2164.00	25.89	0.174	174
130.0%	26	2164.00	25.89	0.179	179
145.0%	29	2413.00	28.88	0.209	209
5.0%	1	100.00	1.12	0.038	38
15.0%	3	269.00	3.15	0.051	51
145.0%	29	2415.00	28.90	0.220	220
160.0%	32	2660.00	31.84	0.312	312
175.0%	35	2910.00	34.84	0.384	384
200.0%	40	3326.00	39.84	0.495	495
150.0%	30	2490.00	29.80	0.437	437
100.0%	20	1663.00	19.88	0.379	379
50.0%	10	850.00	10.12	0.266	266
5.0%	1	87.00	0.97	0.113	113



Test Load	Time	Dial Gauge	Creep
(kips)	(min)	(in)	(in)
26	1	0.174	0
26	2	0.1755	0.0015
26	3	0.176	0.002
26	4	0.177	0.003
26	5	0.178	0.004
26	6	0.179	0.005
26	10	0.179	0.005



			T	T	T	T	1		T		T				
Kelly - 20 kip micr	ropile proof test														
											 	N. 6			
Micropile:	41		PT #3	6	00		Test Date:				2/21/23	No. of Piles		1	1: /: 0
Starting Free Le	-		40.00	ft	33	in	Design Load:			20		Modulus of			kip/in2
Starting Bond L			10.00	ft	120	in	May Took Look	(4000/ DL)		20		Bar Diamet	er: T40/20	1.570	in
Below Ground I			35 5.00	ft	420	in	Max Test Load	(160% DL):		32		Bar Area:	Berr	1.13	in2 kip
Above Ground	Free Length:		50.00	ft	60 600	in						G.U.T.S per	Bar:		кір
Total Length:			50.00	IL	600	in									
Theoretical Eloi	ngation (calcul	ate at max t	est load):		0.032	inches						Jack-Gauge	Factor:	0.01096722	kip/psi
													erial Number:	-	
							Ram ID					Load Cell Z	ero reading (avg.):	-	
							Pump ID					Load Cell S	cale Factor:	-	
							Gauge ID					Load Cell C	offset:	-	
							Ref. Gauge								
									_		_				
% Design	Holding	Spec.	Calc.	Time of	Observed	Dial Gauge	Dial Gauge	Correct.	Elastic		Comments	3			
Load	Time	Load	Jack Press.	Reading	Jack Press.	G1	G2	Avg.	Movement						
(%)	(min)	(kips)	(psi)	(24h)	(psi)	(in)	(in)	(in)	(theoretical)	aliana marana	lood				
5%	2.5	1.0	214	10:56	224	0.0000	0.0000	0.0000	0.001	alignment	load				
15% 30%	2.5 2.5	3.0 6.0	374 614	10:59 11:02	373 622	0.0090 0.0310	0.0080 0.0280	0.0085 0.0295	0.003 0.006						
	2.5	9.0	854	1		+	1								
45% 60%	2.5	12.0	1094	11:05 11:08	844 1090	0.0490 0.0650	0.0450 0.0610	0.0470 0.0630	0.009 0.012						
75%	2.5	15.0	1334	11:11	1323	0.0870	0.0810	0.0845	0.012						
90%	2.5	18.0	1574	11:15	1570	0.1090	0.0820	0.1040	0.013						
100%	2.5	20.0	1734	11:17	1730	0.1190	0.1090	0.1040	0.020						
115%	2.5	23.0	1974	11:20	1970	0.1430	0.1300	0.1365	0.023						
130%	0	26.0	2214	11:22	2210	0.1640	0.1460	0.1550	0.026						
130%	1	26.0	2214	11:23	2200	0.1660	0.1460	0.1560	0.026						
130%	2	26.0	2214	11:24	2214	0.1660	0.1460	0.1560	0.026						
130%	3	26.0	2214	11:25	2220	0.1700	0.1490	0.1595	0.026						
130%	4	26.0	2214	11:26	2214	0.1700	0.1490	0.1595	0.026						
130%	5	26.0	2214	11:27	2210	0.1710	0.1490	0.1600	0.026						
130%	6	26.0	2214	11:28	2210	0.1730	0.1490	0.1610	0.026						
130%	10	26.0	2214	11:32	2210	0.1790	0.1540	0.1665	0.026	0.012	Creep				
145%	2.5	29.0	2454	11:35	2450	0.2040	0.1740	0.1890	0.029						
160%	2.5	32.0	2694	11:38	2690	0.2300	0.1950	0.2125	0.032						
130%	4	26.0	2214	11:42	2217	0.2010	0.1660	0.1835	0.026						
100%	4	20.0	1734	11:46	1730	0.1700	0.1350	0.1525	0.020				4		
75%	4	15.0	1334	11:50	1350	0.1370	0.1010	0.1190	0.015						
50%	4	10.0	934	11:54	930	0.1120	0.0750	0.0935	0.010						
25%	4	5.0	534	11:58	540	0.0820	0.0470	0.0645	0.005	0 :==					
5%	4	1.0	214	12:02	210	0.0480	0.0260	0.0370	0.001	0.176	Elastic Moven	nent			
												-			

Kelly - 20 kip micropile proof test

Anchor:
Starting Free Length:
Starting Bond Length:
Below Ground Free Length:
Above Ground Free Length:

PT #3				
2.75	ft	33	in	
10.00	ft	120	in	
35.00	ft	420	in	
5.00	ft	60	in	
50.00	ft	600	in	

0.032 inches

 Test Date:
 02/21/23

 Design Load:
 20 kip

 Est. Lock-off Load:
 0 kip

 Max Test Load (160%):
 32 kip

 No. of Strands:
 1

 Modulus of Elasticity:
 29000
 kip/in2

 Strand Area:
 1.13
 in2

 G.U.T.S per strand:
 0
 kip

 G.U.T.S. per anchor:
 0
 kip

Theoretical Elongation (calculate at max test load):

Apparent Free Length:

Total Length:

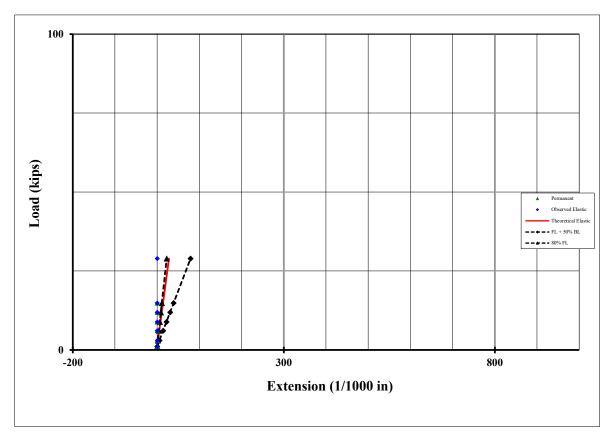
Debonding:
Apparent Bond Length:

186.7	inches	15.56	ft	
-293.3	inches	-24.44	ft	
413.3	inches	34.44	ft	

% Design	Holding	Spec.	Time of	Calc.	Observed	Observed		Dial Gauge		Total	Perm.	Elastic	Elastic
Load	Time	Load	Reading	Jack Press.	Jack Press.	Jack Press.	G1	G2	Corrected	Movement	Movement	Movement	Movement
(%)	(min)	(kips)	(24h)	(psi)	(psi)	(kips)	(in)	(in)	(in)	(in)	(in)	(in)	(theory)
5%	2.5	1.0	10:56	214	224	1.1	0.0000	0.0000	0.0000	0.0000			0.0010
15%	2.5	3.0	10:59	374	373	3.0	0.0090	0.0080	0.0085	0.0085			0.0030
30%	2.5	6.0	11:02	614	622	6.1	0.0310	0.0280	0.0295	0.0295			0.0060
45%	2.5	9.0	11:05	854	844	8.9	0.0490	0.0450	0.0470	0.0470			0.0091
60%	2.5	12.0	11:08	1094	1090	11.9	0.0650	0.0610	0.0630	0.0630			0.0121
75%	2.5	15.0	11:11	1334	1323	14.9	0.0870	0.0820	0.0845	0.0845			0.0151
90%	2.5	18.0	11:15	1574	1570	17.9	0.1090	0.0990	0.1040	0.1040			0.0181
100%	2.5	20.0	11:17	1734	1730	19.9	0.1190	0.1090	0.1140	0.1140			0.0201
115%	2.5	23.0	11:20	1974	1970	22.9	0.1430	0.1300	0.1365	0.1365			0.0232
130%	0	26.0	11:22	2214	2210	25.9	0.1640	0.1460	0.1550	0.1550			
130%	1	26.0	11:23	2214	2200	25.8	0.1660	0.1460	0.1560	0.1560			0.0262
130%	2	26.0	11:24	2214	2214	26.0	0.1660	0.1460	0.1560	0.1560			0.0262
130%	3	26.0	11:25	2214	2220	26.1	0.1700	0.1490	0.1595	0.1595			0.0262
130%	4	26.0	11:26	2214	2214	26.0	0.1700	0.1490	0.1595	0.1595			0.0262
130%	5	26.0	11:27	2214	2210	25.9	0.1710	0.1490	0.1600	0.1600			0.0262
130%	6	26.0	11:28	2214	2210	25.9	0.1730	0.1490	0.1610	0.1610			
130%	10	26.0	11:32	2214	2210	25.9	0.1790	0.1540	0.1665	0.1665			
145%	2.5	29.0	11:35	2454	2450	28.9	0.2040	0.1740	0.1890	0.1890			0.0292
160%	2.5	32.0	11:38	2694	2690	31.9	0.2300	0.1950	0.2125	0.2125	0.0370	0.1755	0.0322
130%	4	26.0	11:42	2214	2217	26.0	0.2010	0.1660	0.1835	0.1835			0.0262
100%	4	20.0	11:46	1734	1730	19.9	0.1700	0.1350	0.1525	0.1525			0.0201
75%	4	15.0	11:50	1334	1350	15.2	0.1370	0.1010	0.1190	0.1190			0.0151
50%	4	10.0	11:54	934	930	9.9	0.1120	0.0750	0.0935	0.0935			0.0101
25%	4	5.0	11:58	534	540	5.1	0.0820	0.0470	0.0645	0.0645			0.0050
5%	4	1.0	12:02	214	210	0.9	0.0480	0.0260	0.0370	0.0370			0.0010

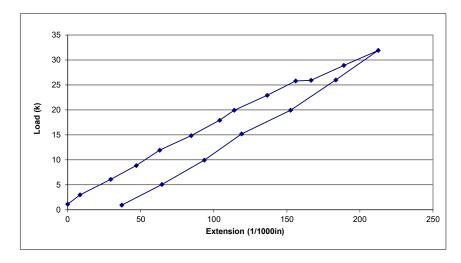
Anchor:	Kelly	' - 20 kip	micropile	proof	tes
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Target % Des. Load	Target % Des. Load	Calculated Load	Total Movement	Perm. Movement	Elastic Movement	Theoretical Elast. Move.	Free + 50% Bond Length	80% Free Length
(%)	(KIPS)	(kips)	(0.001 in)	(0.001 in)	(0.001 in)	(0.001 in)	(0.001 in)	(0.001 in)
5%	1	1	0.0	0.0	0.0	0	0	0
25%	3	3	8.5	0.0	0.0	2	5	1
50%	6	6	29.5	0.0	0.0	5	14	4
75%	9	9	47.0	0.0	0.0	8	22	6
100%	12	12	63.0	0.0	0.0	11	31	9
120%	15	15	84.5	0.0	0.0	14	39	11
167%	29	29	189.0	0.0	0.0	28	79	22



nchor: Kelly - 20 kip micropile proof te	nchor:	Kelly -	20 kip	micropi	ile proof	te
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Target %	Spec.	Observed	Observed	Total	Total
Des. Load	Load	Load	Load	Movement	Movement
		Jack	Jack		
(%)	(kisp)	(psi)	(kips)	(in)	(1/1000in)
5.0%	1	224.00	1.12	0.000	0
15.0%	3	373.00	2.98	0.009	9
30.0%	6	622.00	6.09	0.030	30
45.0%	9	844.00	8.87	0.047	47
60.0%	12	1090.00	11.94	0.063	63
75.0%	15	1323.00	14.85	0.085	85
90.0%	18	1570.00	17.94	0.104	104
100.0%	20	1730.00	19.94	0.114	114
115.0%	23	1970.00	22.93	0.137	137
130.0%	26	2200.00	25.81	0.156	156
130%	26	2210.00	25.93	0.167	167
145%	29	2450.00	28.93	0.189	189
160%	32	2690.00	31.93	0.213	213
130%	26	2217.00	26.02	0.184	184
100%	20	1730.00	19.94	0.153	153
75%	15	1350.00	15.19	0.119	119
50%	10	930.00	9.94	0.094	94
25%	5	540.00	5.07	0.065	65
5%	1	210.00	0.95	0.037	37



Test Load	Time	Dial Gauge	Creep
(kips)	(min)	(in)	(in)
25.93132	0	0.164	0
25.8064	1	0.166	0.002
25.98129	2	0.166	0.002
26.05624	3	0.17	0.006
25.98129	4	0.17	0.006
25.93132	5	0.171	0.007
25.93132	6	0.173	0.009
25.93132	10	0.179	0.015

