PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5934633

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ALLAN P. HENDERSON	03/11/2019

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16775369

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SIGNATURE:	/Harvey B. Jacobson, Jr./
DATE SIGNED:	01/29/2020

Total Attachments: 13
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Intellectual Property Assignment

March 11, 2019

This Assignment (this "**Assignment**"), is being entered into effective as of January 31, 2019, by and between Allan P. Henderson ("**Assignor**"), and Terracon Consultants, Inc. (the "**Assignee**").

Assignor as Seller and Assignee as Buyer, have entered into that certain Asset Purchase Agreement, dated as of the date hereof (the "**Purchase Agreement**"), pursuant to which, among other things, Assignor has agreed to assign all of its right, title, and interest in, certain Intellectual Property identified on **Schedule 1.01(B) of the Purchase Agreement** (the "**Intellectual Property**"), and Assignee has agreed to pay Assignor certain amounts for such Intellectual Property.

Assignor owns certain patents and all other Intellectual Property identified on **Schedule 1.01(B) of the Purchase Agreement**. Assignee is desirous of acquiring all right, title and interest in and to the Intellectual Property.

NOW, THEREFORE, subject to Seller's rights under the Purchase Agreement, and Buyer's obligations under the Purchase Agreement, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged,

Assignor has assigned, transferred and set over, and does hereby assign, transfer and set over to Assignee, free and clear of all liens, encumbrances and claims of third parties, the Intellectual Property identified in **Exhibit A** and all intellectual property rights associated therewith. The Intellectual Property shall be held and enjoyed by Assignee for its own use and enjoyment, and for the use and enjoyment of its successors, assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor if this Assignment had not been made, together with all claims by Assignor for damages by reason of past infringement of the Intellectual Property, with the right to sue for, and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns or other legal representatives.

Assignor agrees that it has communicated to Assignee all facts known to it respecting said Intellectual Property set forth in **Exhibit A** and will, upon the request of Assignee sign all lawful papers, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by Assignee or by counsel for Assignee, to assist or enable Assignee to obtain and enforce full benefits from the rights and interests herein assigned. Notwithstanding the foregoing, Assignor shall execute and deliver all such other instruments and take all such other action as Assignee may reasonably request from time to time, after the date hereof and without payment of further consideration or reimbursement of ordinary out-of-pocket expenses by Assignee, in order to effectuate the assignment provided for herein. This Assignment shall be binding upon Assignor's successors and assigns and shall inure to the benefit of the successors and/or assigns of Assignee.

Assignor agrees to waive all rights and privileges to attack the validity of any or all of any trademark or copyright registrations included in or which issue from said Intellectual Property, or any other intellectual property rights associated with the Intellectual Property which Assignor has assigned as against anyone claiming a right under any or all of the aforementioned rights under Assignor's assignment or grant.

This Assignment may be executed in one or more counterparts, each of which shall constitute an original agreement but all of which together shall constitute one and the same instrument. PDF versions of signatures shall be acceptable as originals.

[signature page follows]

IN TESTIMONY WHEREOF, the parties hereto have caused these presents to be executed as of the date first written above by their duly appointed officers.

ASSIGNOR:

By: _____
Name: Allan C Henderson
Title: Owner

ASSIGNEE:

By: _____
Name: M Chris Packer
Title: President, Treasurer

DocID: 4841-9384-6656.2

Schedule 1.01(b)

Acquired IP

I. **Newer U.S. Patents**

1a Patent Number: **9,783,950 and all divisional, continuation, and continuation-in-part applications, including 15/585,775**

Description: Retrofit reinforcing structure addition and method for wind turbine concrete gravity spread foundations and the like.

Application Date: September 30, 2015

Issue Date: October 10, 2017

Expiration Date: September 29, 2035 (approximately 17 years of remaining protection)

Abstract from Patent: A retrofit reinforcing structure addition and method for an existing gravity spread foundation for a wind turbine or the like having a central pedestal and a spread section is provided. The retrofit structure addition includes a collar formed around the pedestal of the spread foundation. The collar is formed by a shape sustaining member, such as a CMP, placed around the pedestal to define an annular ring between the CMP and the pedestal that is filled with cementitious material. Radial bolts extend horizontally through the collar and into the side of the pedestal. Soil and/or rock anchor bolts extend vertically through the collar, the spread portion of the foundation and into the underlying soil and/or rock substrate. The radial and anchor bolts are post-tensioned to ensure that the cementitious material of the collar remains in compression and the bolts are always in static tension, strengthening the original gravity spread foundation and extending the fatigue life thereof.

1b Patent Number: **9,481,973**

Description: Continuous strand hoop reinforcement for concrete foundations.

Application Date: April 21, 2015. Continuation of a prior application filed on February 24, 2014.

Issue Date: November 1, 2016

Expiration Date: February 23, 2034 (approximately 15.5 years of remaining protection)

Abstract from Patent: A post-tensioned continuous strand hoop reinforcement for concrete foundations is provided. The post-tensioned continuous strand hoop reinforcement compresses the concrete to prevent cracking and significantly reduces foundation deflection and distortion

which increases rotational stiffness in anchor caps, spread foundations, and like foundation configurations.

2b Patent Number: 9,340,947

Description: Perimeter pile anchor foundation.

Application Date: March 7, 2013

Issue Date: May 17, 2016

Expiration Date: May 5, 2034 (approximately 15.5 years of remaining protection). This length of protection was extended by 424 days per the terms of the patent.

Abstract from Patent: A perimeter pile anchor foundation is built by forming a plurality of individual perimeter pile anchors in a large generally circular pattern to form a perimeter wall. The individual pile anchors are contiguous, each pile overlapping the adjacent piles on either side. The overlapping pile anchors form an arch such that compression and friction between the pile anchors resist soil caving and sloughing pressure when soil inside the perimeter wall is excavated, enabling the perimeter pile foundation to be effectively constructed in weak saturated soils and/or cohesionless sands that will not allow conventional concrete foundation excavations. A concrete foundation ring is formed inside the pile perimeter wall to support a tall and/or heavy tower or other structure subject to high upset forces.

3b Patent Number: 9,096,986

Description: Cementitious foundation cap with post-tensioned helical anchors and method of making the same.

Application Date: May 1, 2014

Issue Date: August 4, 2015

Expiration Date: April 30, 2034 (approximately 15.5 years of remaining protection)

Abstract from Patent: A post-tensioned concrete cap foundation has helical anchors with pipes having several helical discs welded around the pipe perimeter to spin drill deep into subsurface soils or other soft materials with holes in the pipe for high pressure-grouting in place. The helical anchor pipes include a tensioning element for pulling and post-tensioning the helical anchor. The helical anchors are tension anchors which can be converted to compression anchors. The helical anchors in tension serve to pull the foundation cap down to compress the underlying soil while

the compression anchors limit the maximum settlement of the concrete foundation cap. The foundation also includes perimeter-forming and interior corrugated metal pipes with upper and lower sleeved horizontally extending radial bolts that are secured to the pipes and post-tensioned to provide lateral foundation compression.

II. Mid-Aged U.S. Patents

The patents below have a remaining lifespan of between 7 and 15 years.

2a Patent Number: 9,739,027

Description: Perimeter pile anchor foundation.

Application Date: May 16, 2016. Continuation of application from March 7, 2013.

Issue Date: August 22, 2017.

Expiration Date: March 6, 2033 (approximately 14.5 years of remaining protection).

Abstract from Patent: A perimeter pile anchor foundation is built by forming a plurality of individual perimeter pile anchors in a large generally circular pattern to form a perimeter wall. The individual pile anchors are contiguous, each pile overlapping the adjacent piles on either side. The overlapping pile anchors form an arch such that compression and friction between the pile anchors resist soil caving and sloughing pressure when soil inside the perimeter wall is excavated, enabling the perimeter pile foundation to be effectively constructed in weak saturated soils and/or cohesionless sands that will not allow conventional concrete foundation excavations. A concrete foundation ring is formed inside the pile perimeter wall to support a tall and/or heavy tower or other structure subject to high upset forces.

3a Patent Number: 9,745,712

Description: Cementitious foundation cap with post-tensioned helical anchors and method of making the same.

Application Date: July 29, 2015. Continuation of two prior applications initially filed on March 30, 2012.

Issue Date: August 29, 2017

Expiration Date: March 29, 2032 (approximately 13.5 years of remaining protection)

Abstract from Patent: A post-tensioned concrete cap foundation has helical anchors with pipes having several helical discs welded around the pipe perimeter to spin drill deep into subsurface soils or other soft materials with holes in the pipe for high pressure-grouting in place. The helical anchor pipes include a tensioning element for pulling and post-tensioning the helical anchor. The helical anchors are tension anchors which can be converted to compression anchors. The helical anchors in tension serve to pull the foundation cap down to compress the underlying soil while the compression anchors limit the maximum settlement of the concrete foundation cap. The foundation also includes perimeter-forming and interior corrugated metal pipes with upper and lower sleeved horizontally extending radial bolts that are secured to the pipes and post-tensioned to provide lateral foundation compression.

3c Patent Number: 9,045,878

Description: Cementitious foundation cap with post-tensioned helical anchors.

Application Date: April 21, 2014. Original application filed March 30, 2012.

Issue Date: June 2, 2015

Expiration Date: March 29, 2032 (approximately 13.5 years of remaining protection)

Abstract from Patent: A post-tensioned concrete cap foundation has helical anchors with pipes having several helical discs welded around the pipe perimeter to spin drill deep into subsurface soils or other soft materials with holes in the pipe for high pressure-grouting in place. The helical anchor pipes are coupled to a tensioning element for pulling and post-tensioning the helical anchor. The helical anchors are tension anchors which can be converted to compression anchors. The helical anchors in tension serve to pull the foundation cap down to compress the underlying soil while the compression anchors limit the maximum settlement of the concrete foundation cap. The foundation also includes perimeter-forming and interior corrugated metal pipes with upper and lower sleeved horizontally extending radial bolts that are secured to the pipes and post-tensioned to provide lateral foundation compression.

3d Patent Number: 8,720,139

Description: Cementitious foundation cap with post-tensioned helical anchors.

Application Date: March 30, 2012

Issue Date: May 13, 2014

Expiration Date: March 29, 2032 (approximately 13.5 years of remaining protection)

Abstract from Patent: A post-tensioned concrete cap foundation has helical anchors with pipes having several helical discs welded around the pipe perimeter to spin drill deep into subsurface soils or other soft materials with holes in the pipe for high pressure-grouting in place. The helical anchor pipes are coupled to a tensioning element for pulling and post-tensioning the helical anchor. The helical anchors are tension anchors which can be converted to compression anchors. The helical anchors in tension serve to pull the foundation cap down to compress the underlying soil while the compression anchors limit the maximum settlement of the concrete foundation cap. The foundation also includes perimeter-forming and interior corrugated metal pipes with upper and lower sleeved horizontally extending radial bolts that are secured to the pipes and post-tensioned to provide lateral foundation compression.

3e Patent Number: 7,707,797

Description: Pile anchor foundation.

Application Date: March 25, 2008. A division of an application filed on December 15, 2003.

Issue Date: May 4, 2010

Expiration Date: March 24, 2028 (approximately 9.5 years of remaining protection)

Abstract from Patent: A circular concrete cap foundation poured in-situ within a perimeter forming corrugated metal pipe set atop or within an excavated pit and enclosing a series of circumferentially spaced pile anchors. The circular concrete cap foundation supports sets of inner and outer circumferentially spaced tower anchor bolts having their lower ends anchored to an embedded anchor ring and their upper ends projecting vertically and upwardly out the top of the circular foundation to engage the base flange of a supported tower. The pile anchors are formed with perimeter corrugated metal pipes set deep in subsurface soils with cementitious material surrounding and partially bonding to a centralized steel bolt or tendon which extends through the cap foundation. The tower anchor bolts and the pile anchor bolts are both partially encased in a PVC sleeve so that the bolts can be post-tensioned. The pile anchors are in tension only and serve to pull the cap foundation down to compress the underlying ground soils.

III. Older U.S. Patents

The following patents have a remaining lifespan of less than seven years.

3g Patent Number: 7,533,506

Description: Pile anchor foundation.

Application Date: December 15, 2003

Issue Date: March 19, 2009

Expiration Date: August 17, 2025 (approximately 7 years of remaining protection). Date was extended 611 days at issuance of the patent.

Abstract from Patent: A circular concrete cap foundation poured in-situ within a perimeter forming corrugated metal pipe set atop or within an excavated pit and enclosing a series of circumferentially spaced pile anchors. The circular concrete cap foundation supports sets of inner and outer circumferentially spaced tower anchor bolts having their lower ends anchored to an embedded anchor ring and their upper ends projecting vertically and upwardly out the top of the circular foundation to engage the base flange of a supported tower. The pile anchors are formed with perimeter corrugated metal pipes set deep in subsurface soils with cementitious material surrounding and partially bonding to a centralized steel bolt or tendon which extends through the cap foundation. The tower anchor bolts and the pile anchor bolts are both partially encased in a PVC sleeve so that the bolts can be post-tensioned. The pile anchors are in tension only and serve to pull the cap foundation down to compress the underlying ground soils.

3f Patent Number: 7,618,217

Description: Post-tension pile anchor foundation and method therefor.

Application Date: May 7, 2007. Continuation of application filed December 15, 2003.

Issue Date: November 17, 2009

Expiration Date: December 14, 2023 (approximately 5 years or remaining protection)

Abstract from Patent: A post-tensioned pile anchor foundation and method therefor creates a void or highly compressible region between a drilled or driven pile anchor surrounding a post-tensioned anchor bolt or tendon and the bottom of a foundation cap. The void or compressible region can be formed by compressible spacers or void forming elements placed between the top of the pile anchor and the concrete cap. As the anchor bolt or tendon is post-tensioned against the cap, the void forming element is compressed or crushed, allowing the cap to be pulled downwardly and the pile anchor to be pulled upwardly toward the cap against the resistance of the surrounding soil.

IV. Expired U.S. Patents

The patents below have expired.

2c Patent Number: 5,826,387

Description: Pier foundation under high unit compression.

Application Date: December 24, 1996. Continuation of application filed November 23, 1994.

Issue Date: October 27, 1998

Expiration Date: November 22, 2014 (EXPIRED).

Abstract from Patent: An upright cylindrical pier foundation is constructed of cementitious material. The lower end of the foundation has a plate or circumferential ring fully embedded therein and long circumferentially spaced rods or bolts have their lower ends anchored relative to the ring. The upper ends of the long rods project up outwardly of the top of the foundation. The rods are shielded over substantially their entire length against bonding with the cementitious material to allow the rods, when heavily tensioned, to stretch within the cementitious material. A heavy flange, which may comprise the base flange of a tubular tower, is positioned downwardly upon the upper end of the foundation with the upper ends of the bolts projecting through holes provided therefor in the base flange. Nuts are threaded downwardly upon the upper ends of the bolts and against the base flange under high torque in order to place the bolts in heavy tension and substantially the entire length of the cylindrical foundation under high unit compressive loading. The pier foundation may include a diametrically enlarged upper end shoulder portion whose outer peripheral portion includes additional circumferentially spaced heavily tensioned short rods anchored between a second anchor plate or ring embedded in the shoulder portion and a second flange or ring seated downwardly on the shoulder portion upper end. Also, the long rods may include shorter rod sections suitably coupled together and sections of the foundation may be precast with the sheathed rods in place.

2d Patent Number: 5,586,417

Description: Tensionless pier foundation.

Application Date: November 23, 1994

Issue Date: December 24, 1996

Expiration Date: November 22, 2014 (EXPIRED)

Abstract from Patent: A hollow, cylindrical pier foundation is constructed of cementitious material poured in situ between inner and outer cylindrical corrugated metal pipe shells. The foundation is formed within a ground pit and externally and internally back filled. The lower end of the foundation has a circumferential ring fully embedded therein and sets of inner and outer circumferentially spaced bolts have their lower ends anchored to the anchor ring, their upper ends projecting up outwardly of the top of the foundation and a majority of the midportions thereof free of connection with the cementitious material of which the foundation is constructed. The base flange of a tubular tower is positioned downwardly upon the upper end of the foundation with the upper ends of the inner and outer sets of bolts projecting upwardly through holes provided therefor in the base flange and nuts are threaded downwardly upon the upper ends of the bolts and against the base flange. The nuts are highly torqued in order to place the bolts in heavy tension and to thus place substantially the entire length of the cylindrical foundation in heavy axial compression.

1c Patent Number: 7,155,875

Description: Method of forming a perimeter weighted foundation for wind turbines and the like.

Application Date: November 21, 2003. Continuation of an application filed on September 27, 2000.

Issue Date: January 2, 2007

Expiration Date: March 23, 2021 (approximately 2.5 years or remaining protection). Date was extended 177 days at issuance of the patent.

Abstract from Patent: A perimeter weighted foundation has a central pier pedestal and an enlarged base spaced outwardly and extending below the pedestal. The enlarged base includes an outer concentric perimeter wall section with a radially extending, disk-shaped spread section interconnecting the bottom of the pedestal section and the top of the perimeter wall section. The pedestal section includes vertically extending post-tensioning anchor bolts sleeved through substantially the entire height of the cylindrical pedestal in accordance with earlier U.S. Pat. Nos. 5,586,417 and 5,826,387 and the spread section includes two layers of similarly sleeved post-tensioning bolts which extend through the bottom of the pedestal section and into or through the top of the perimeter wall section, thus tying together the enlarged base to the pier pedestal. After the concrete is poured, hardened and cured, the vertical bolts of the pedestal section and the radially extending horizontal bolts in the spread section are post-tensioned to impart a heavy unit compressive loading on the concrete in the pier pedestal and enlarged base. After back filling soil onto the spread section and to the interior of the pedestal section, the foundation is able to withstand high upset forces imparted to the foundation by any large structure supported thereon.

1d Patent Number: 6,672,023

Description: Perimeter weighted foundation for wind turbines and the like.

Application Date: February 8, 2002. Continuation of application filed on September 27, 2000.

Issue Date: January 6, 2004.

Expiration Date: September 26, 2020 (approximately 2 years of remaining protection)

Abstract from Patent: A perimeter weighted foundation has a central pier pedestal and a base extending outwardly from and below the pier pedestal. The base includes an outer perimeter wall section and a radially extending, disk-shaped spread section interconnecting the bottom of the pier pedestal and the top of the perimeter wall section with the top surface of the spread section being positioned substantially below the top of the pier pedestal. The pier pedestal includes vertical post tensioned anchor bolts in accordance with U.S. Pat. Nos. 5,586,417 and 5,826,387. The spread section includes two layers of sleeved post tensioned bolts which extend through the bottom of the pier pedestal, through the spread section and into the top of the perimeter wall section to post tension the perimeter wall section, the spread section and the pier pedestal. Soil back filled onto the top of the spread section and pier pedestal and into the interior of the pedestal enables the foundation to withstand high upset forces imparted to the foundation.

V. United States Provisional Applications

2e Provisional Patent Application No. 62/703,217

Description: Pier Foundation with Lateral Shear Reinforcing Loops & Methods of Constructing the Same

Application Date: July 25, 2018

2f Provisional Patent Application No. 62/760,433

Description: Methods for Constructing Tensionless Concrete Pier Foundations & Foundations Constructed thereby

Application Date: November 13, 2018

2g Provisional Patent Application No. 62/799,359

Application Date: January 31, 2019

VI. Canadian Patents

a. CA 3019073
b. CA 2908093
c. CA 2810854
d. CA 2845460
e. CA 2844373
f. CA 2851259
g. CA 2424334
h. CA 2205502
i. CA 2436627

VII. Soil Anchor Patents Subject to Independent Engineering Review – all listed patents below and any related divisional, continuation, and continuation-in-part applications claiming priority to the patents listed below

a. U.S. Pat 9,745,712
b. U.S. Pat. 9,096,986
c. U.S. Pat. 9,045,878
d. U.S. Pat. 8,720,139
e. U.S. Pat. 7,707,797
f. U.S. Pat. 7,618,217
g. U.S. Pat. 7,533,505
h. No H
i. U.S. Pat. No I.