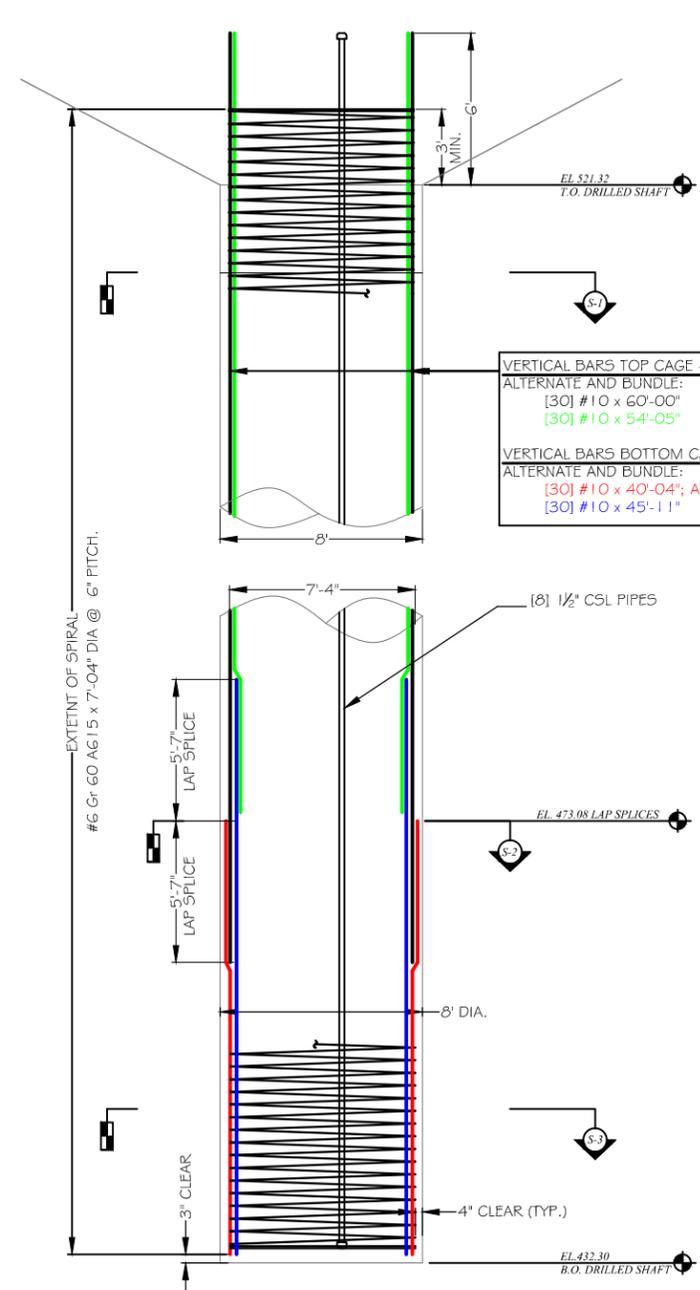


Release Number:				BAR LIST												
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'R'
	30	#10	60'-0"			60'-0"										
	30	#10	54'-5"			54'-5"										
	32	#10	40'-4"			40'-4"										
	30	#10	45'-11"			45'-11"										
GDO1	5	#6	898'-5 3/4"	SPI	18'-0"	7'-4"	0'-6"	1.5	1.5				39.0			

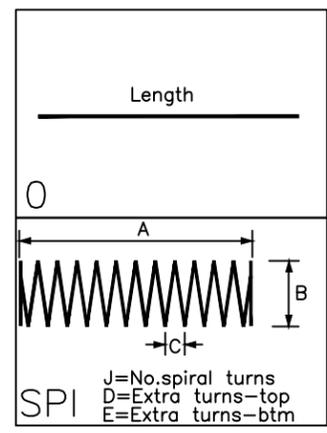
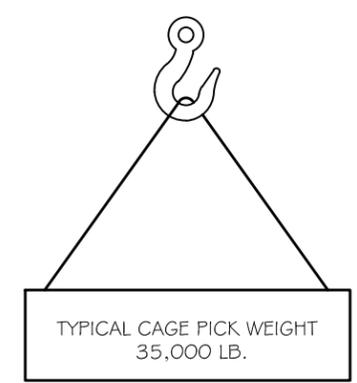
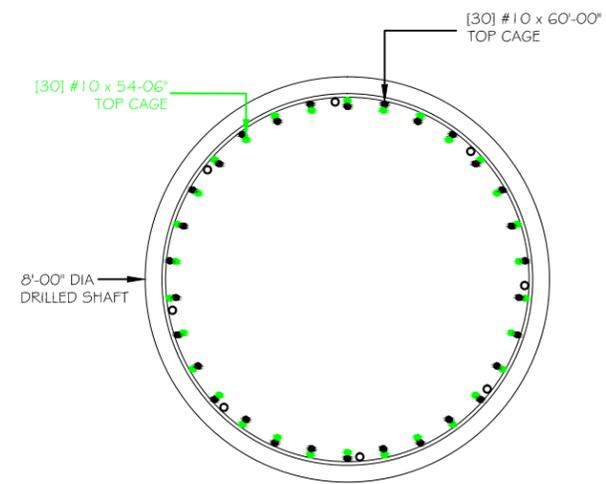
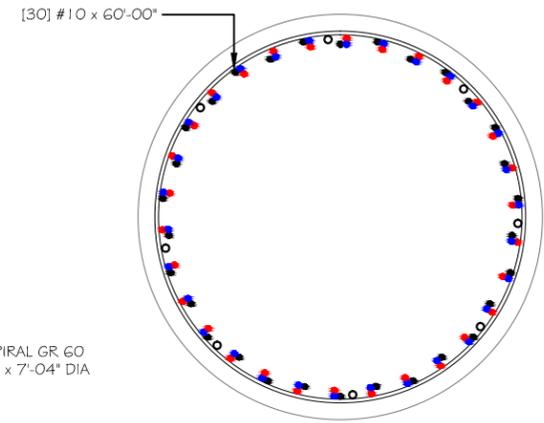
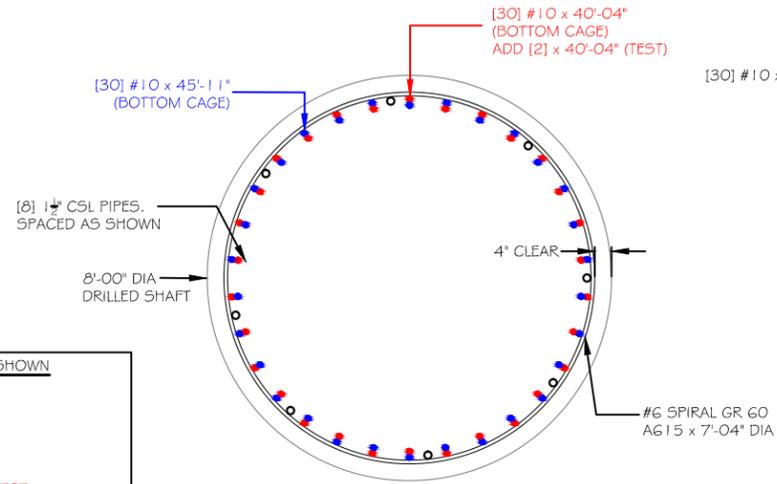
**General Notes**

- ALL REBAR INCLUDED ON THIS DRAWING SHALL BE OF ASTM A615 GRADE 60 REBAR.
- COVER OF REINFORCEMENT TO BE 4" UNLESS OTHERWISE NOTED.
- DRAWING NOT TO SCALE
- ELEVATIONS ARE FOR INFORMATIONAL PURPOSES ONLY.
- DRAWING NOT TO SCALE



VERTICAL BARS TOP CAGE - SPACE AS SHOWN  
ALTERNATE AND BUNDLE:  
[30] #10 x 60'-00"  
[30] #10 x 54'-05"

VERTICAL BARS BOTTOM CAGE:  
ALTERNATE AND BUNDLE:  
[30] #10 x 40'-04"; ADD [2] FOR TEST  
[30] #10 x 45'-11"



DESIGNER CERTIFICATION	CONTRACTOR APPROVAL

6			
5			
4			
3			
2			
1			
DATE	REV.#	SENT FOR	
STRUCTURE	BRIDGE 16 DS CAGE		
LOCATION	VTAOT RUTLAND BRF 3000 (1G) RUTLAND, VT		
ARCHITECT			
ENGINEER			
CUSTOMER	KUBRICKY CONST. CORP.		
DRAWN BY	DATE	DPI #	
DES	11/3/14		
DRAWING COVERS		DRAWING #	
		A-01	

# SHAFTSPACER<sup>®</sup>

## SYSTEMS

ANOTHER PRACTICAL ENGINEERED CONCEPT FROM  
**LOWTECH** CORPORATION

PATENTED

# SHAFTSPACER<sup>®</sup>

**A GUIDE AND ALIGNMENT SYSTEM FOR BAR REINFORCEMENT POSITIONING WITHIN CAISSONS, DRILLED SHAFTS, AND OTHER GEOTECHNICAL CONSTRUCTION APPLICATIONS.**

## APPLICATIONS

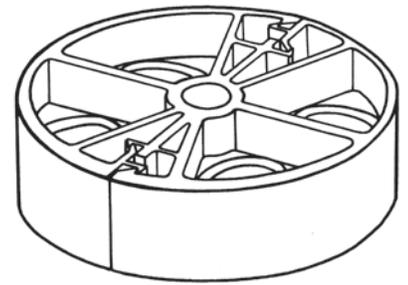
- Bridge Foundations
- Building Foundations
- Retaining Wall Foundations
- Street Light Foundations
- High Mast Foundations
- Transmission Line Foundations
- Sub-station Foundations
- Tower Foundations
- Machine Foundations
- Slurry Walls
- Sea Walls

## ADVANTAGES

- Saves time & money. SHAFTSPACER<sup>®</sup> is a "snap" to install, with minimal installation costs.
- Indefinite shelflife and easily stored.
- Lightweight, yet strong & durable and engineered with the contractor in mind.
- Made of high density plastic resistant to corrosion and chemicals common to construction.
- Provides an excellent guide system for placement of fabricated rebar cages into drilled or excavated shafts.
- Economical to use.
- Fabricated rebar cages are properly positioned for concrete placement, aligned and centralized within the drilled or excavated shaft simultaneously providing proper clearance between the bar reinforcement and the earthen walls of the excavation.

## CONSTRUCTION BENEFITS

- Insures that the bar reinforcement is properly spaced and aligned within the confines of the drilled shaft or excavation.
- Provides quality assurance for the contractor of the sub-contractors performance and at the same time providing quality assurance for the engineer and owner of the contractors performance.
- Increased job profitability because installation is easy and quick requiring only unskilled labor. Skilled labor is released for other more demanding tasks.
- Rapid assembly combined with low labor requirements result in project cost savings.



SHAFTSPACER<sup>®</sup> is a "snap" to install.



Fabricated rebar cage with Shaftspacers ready for insertion into excavated shaft.



SHAFTSPACER<sup>®</sup> installed. Drilled shaft ready for concreting operations.

Since positioning is critical, spacing and support devices are essential. Bar reinforcement must be supported with devices spaced as to maintain the steel at the correct position during the construction process and during concrete placement.

### SAMPLE SPECIFICATION

The bar reinforcement shall be concentrically spaced and supported inside the drilled shaft.

The reinforcing steel shall be held securely in position prior to and during concrete placement operations.

Spacers shall be non-corrosive support and positioning devices such as the **SHAFTSPACER® Systems** or an approved equal.

**OR**

An approved method of spacing and supporting bar reinforcement concentrically within drilled shafts is the **SHAFTSPACER® System** manufactured and distributed by Foundation Technologies, Inc., Lawrenceville, Georgia, Phone 1-800-773-2368.

### MINIMUM SHAFTSPACER® PLACEMENT RECOMMENDATIONS

Use one spacer per foot (or 304.8mm) of shaft diameter (minimum of four per tier).

Maximum six (6) foot (or 1.83m) spacing from the top of the shaft.

Maximum two (2) foot (or .61m) spacing from the bottom of the shaft.

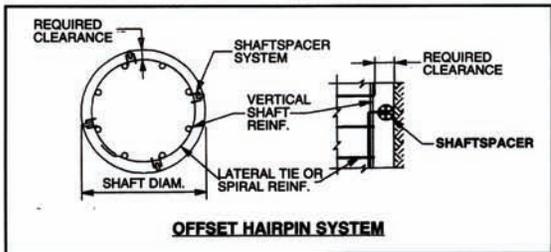
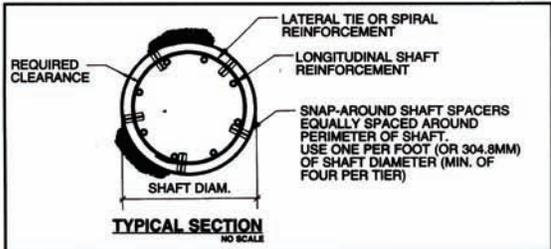
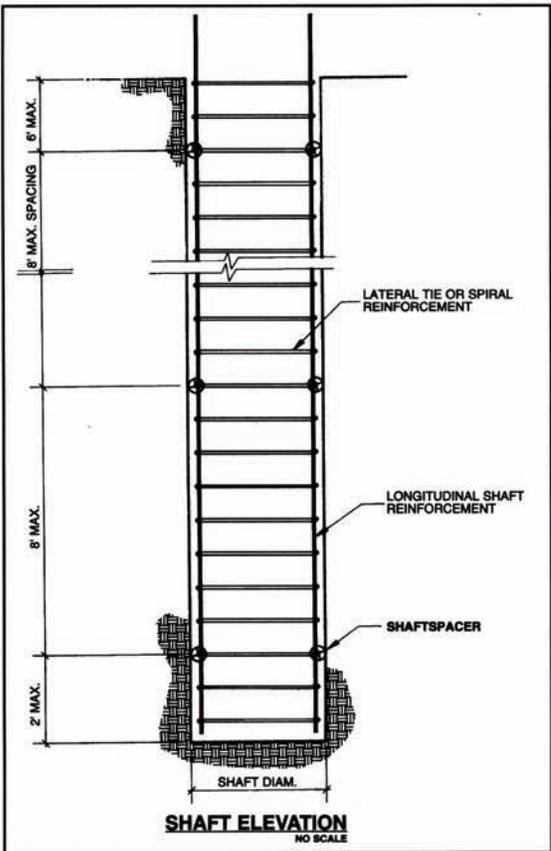
Maximum eight (8) foot (or 2.44m) interval spacing along the longitudinal axis of the shaft.

**SHAFTSPACER®** is currently available in four models:

- **Model SS505** for 2.5-inch (or 62.5mm) Clearance Requirements
- **Model SS406** for 3-inch (or 75mm) Clearance Requirements
- **Model SS808** for 4-inch (or 100mm) Clearance Requirements
- **Model SS612** for 6-inch (or 150mm) Clearance Requirements

Models SS406 and SS505 are adaptable to #3 through #6 standard reinforcement steel bars and #10m through #19m metric reinforcement bars. Models SS612 and SS808 are adaptable to #3 through #7 standard reinforcement steel bars and #10m through #22m metric reinforcement bars.

- **Offset Hairpins** are available in tandem with the SS series to comply with eccentric spacing requirements and/or seismic design considerations.



Members:



manufactured and marketed by:



PO Box 491718 Lawrenceville, GA 30049  
 Phone 678.407.4640 1.800.773.2368  
 Fax 678.407.4645  
 www.foundationtechnologies.com  
 info@foundationtechnologies.com

# SHAFTSPACER<sup>®</sup>

## SYSTEMS

ANOTHER PRACTICAL ENGINEERED CONCEPT FROM  
**LOWTECH** CORPORATION

PATENTED



## BARBOOT<sup>®</sup>

**A SIMPLE AND ECONOMICAL METHOD OF SUPPORTING AND SPACING BAR REINFORCEMENT WITHIN DRILLED SHAFTS AND OTHER GEOTECHNICAL CONSTRUCTION APPLICATIONS.**

### APPLICATIONS

- Bridge Foundations
- Building Foundations
- Retaining Wall Foundations
- Street Light Foundations
- High Mast Foundations
- Transmission Line Foundations
- Sub-station Foundations
- Tower Foundations
- Machine Foundations
- Slurry Walls
- Sea Walls

### ADVANTAGES

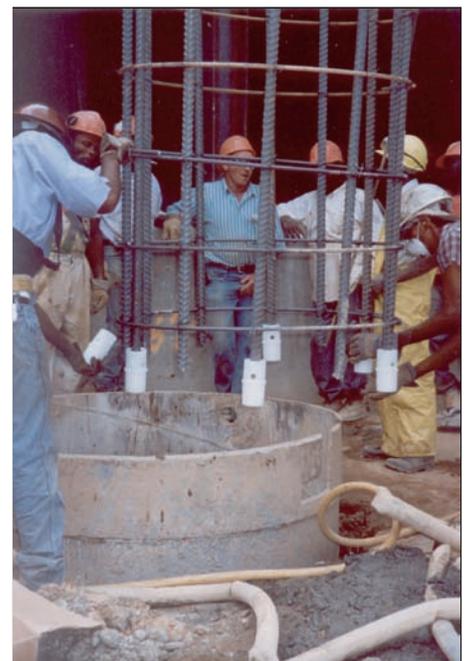
- Saves time & money. BARBOOT<sup>®</sup> is easily installed.
- Indefinite shelflife and easily stored.
- Lightweight, yet strong & durable and engineered with the contractor in mind.
- Made of high density plastic resistant to corrosion and chemicals common to construction.
- Provides an excellent system of support for placement of fabricated rebar cages into drilled or excavated shafts.
- Economical to use.
- Fabricated rebar cages are properly positioned for concrete placement, supported within the drilled or excavated shaft simultaneously providing proper clearance between the bar reinforcement and the earthen surfaces.
- Universally adaptable to variable size bar diameters (one size fits all).
- Encapsulation of bar ends provides added corrosion protection.
- Self-locking.

### CONSTRUCTION BENEFITS

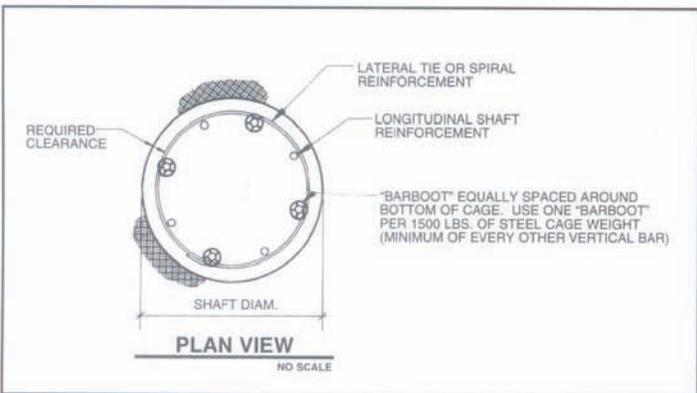
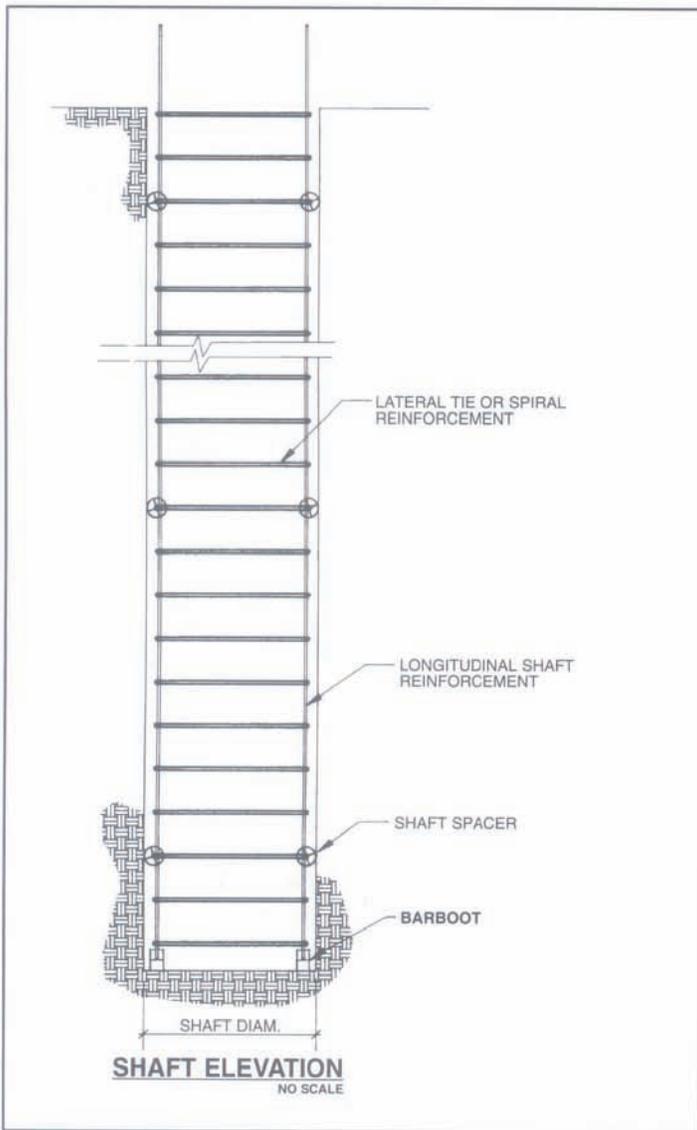
- Insures that the bar reinforcement is properly spaced and supported within the confines of the drilled shaft or excavation.
- Provides quality assurance for the contractor of the sub-contractors performance and at the same time providing quality assurance for the engineer and owner of the contractors performance.



BARBOOT<sup>®</sup> is easily installed.



Fabricated rebar cage with Barboots ready for insertion into excavated shaft.



Increased job profitability because installation is easy and quick requiring only unskilled labor. Skilled labor is released for other more demanding tasks.

Rapid attachment combined with low labor requirements result in project cost savings. Since positioning is critical, spacing and support devices are essential. Bar reinforcement must be supported with devices spaced as to maintain the steel at the correct position during the construction process and during concrete placement.

### SAMPLE SPECIFICATION:

The bar reinforcement shall be properly spaced and supported inside the drilled shaft.

The reinforcing steel shall be supported and held securely in position prior to and during concrete placement operations.

Spacers shall be non-corrosive support and positioning devices such as the **SHAFTSPACER® System** or an approved equal.

#### OR

An approved method of spacing and supporting bar reinforcement concentrically within drilled shafts is the **SHAFTSPACER® System** manufactured and distributed by Foundation Technologies, Inc.,<sup>®</sup> Lawrenceville, Georgia, Phone 1.800.773.2368.

### SUGGESTED BARBOOT® PLACEMENT RECOMMENDATIONS

Equally space boots around bottom of cage. Use one **BARBOOT®** per 1500 lbs. of steel cage weight. (Minimum of every other vertical bar.)

**BARBOOT®** is currently available in **Model BB711** for commercial projects and **Model BB711 FED** for D.O.T. projects. Both provide (3) inches (or 75mm) of clearance support. **BARBOOT®** is universally adaptable to: #6 through #14 standard reinforcing bars and #19m through #43m metric reinforcing bars.

## SHAFTSPACER® SYSTEM

Members:



**SHAFTSPACER®**  
SYSTEMS

manufactured and marketed by:

**Foundation Technologies, Inc.®**

PO Box 491718  
Lawrenceville, GA 30049  
800.773.2368 Fax: 678.407.4645  
www.foundationtechnologies.com  
info@foundationtechnologies.com