CSI Specifications for EnviroTech Amendments

EnviroTech Soil Solutions, Inc.

AxisDE -	Calcined Diatomaceous Earth Amendment
AxisCERAMIC -	Calcined Clay Amendment
PLAY BALL! -	Calcined Clay Infield Conditioner & Drying Agent
PLAY BALL! -	Mound Clay
BallGameChanger -	Calcined Clay with Surfactant

Specs Available at www.axisplayball.com/design. For Greenbook contact EnviroTech. Also CADdetails: http://www.caddetails.com/Main/Home/Search?searchSort=Matches&searchResult=Company&q=4817

SECTION 1: AMENDING with AxisDE Calcined Diatomaceous Earth

SECTION 2: AMENDING with AxisCERAMIC Calcined Clay

SECTION III. AMEND with PLAY BALL! Infield Conditioner

SECTION IV. INSTALL PLAY BALL! Mound Clay

General Application Rates

All application rates are by volume. Pounds are in Dry Bulk Density. AxisDE Regular should be used for the majority of all applications & AxisDE Fine for green rootzones or topdressing.

Incorporation into Existing Soil for Turf, Groundcover, or Garden Area: AxisDE is safe and effective for all edible plants and turf! In order to achieve our standard rate of 10% by volume, spread AxisDE at the rates below and incorporate thoroughly to the desired depth.

2" deep - use 450 lbs. per 1,000 sq. ft.
4" deep - use 900 lbs. per 1,000 sq. ft.
6" deep - use 1,250 lbs. per 1,000 sq. ft.
8" deep - use 1,700 lbs. per 1,000 sq. ft.

Offsite Mixing or Blending: To blend a mixture with 10% AxisDE by volume for sand based systems, planting media, or other blended mixes, blend 1 part AxisDE with 9 parts other.

For a 10% blend, 1 part of one cubic yard = 70 lbs. of AxisDE Regular
For a 15% blend, 1.5 parts of one cubic yard = 105 lbs. of AxisDE Regular
For a 20% blend, 2 parts of one cubic yard = 140 lbs. of AxisDE Regular

Turf Aeration: Topdressing AxisDE after Aerating with 5/8" tines on a 3" x 4" pattern will require 125 to 150 lbs. of AxisDE per 1,000 square feet. Adding equal volume of sand for a 50/50 mix is recommended. Apply AxisDE with a topdresser, broadcast spreader or drop spreader. Use rake, drag mat or blower to assist AxisDE into the holes. Water in thoroughly.

DryJect Injection: Aeration patterns are either 3" x 2" or 3" x 4".
3 x 2 spacing, figure 4 to 6 cubic feet (4 to 6 Bags of AxisDE Fine) per 1,000 square feet.
3 x 4 spacing, figure 2 to 3 cubic feet (2 to 3 Bags of AxisDE Fine) per 1,000 square feet.

Bioswales & Rooftop Gardens Use AxisDE Regular at 10% by volume by blending 70 lbs. with 0.9 cubic yards of other mix components.

Roadside Plantings & Hanging Baskets: Use AxisDE Regular at for 15% by volume by blending 105 lbs. with 0.85 cubic yards of other mix components.

Quantities for Individual Plantings

Application Rates and Worksheet to Apply AxisDE Regular at 15% by Volume in the backfill.

# of Plants	Container or Plant Size	Pounds of AxisDE / plant	Volume of AxisDE / plant	Total	Added Available Water per Plant*
_____	4" pot	.37 lbs.	2 cups	_____	39 lb. / 6 oz.
_____	1 gal.	1.5 lbs.	1.5 quarts	_____	1.5 lb. / 24 oz.
_____	2 gal.	3 lbs.	3 quarts	_____	3.0 lb. / 1.5 qrts.
_____	5 gal.	7.5 lbs.	1.25 gal.	_____	7.5 lb. / .9 gal.
_____	24"	3 lbs.	3 quart	_____	3.0 lb. / 1.5 qrts.
_____	48"	15 lbs.	2.5 gal.	_____	15 lb. / 1.8 gal.
_____	6'	15 lbs.	2.5 gal.	_____	15 lb. / 1.8 gal.
_____	8'	25 lbs.	1.0 bag	_____	25 lb. / 3.0 gal.
_____	24" box	30 lbs.	1.2 bags	_____	30 lb. / 3.6 gal.
_____	36" box	100 lbs.	4.0 bags	_____	100 lb. / 12.0 gal.
_____	3" cal.	75 lbs.	3.0 bags	_____	75 lb. / 9.0 gal.

* 93% of AxisDE Regular's absorption rate of 114% it's weight in water, is plant available water according to Labosport.

For further assistance please call EnviroTech Soil tollfree: 866-546-3722, or visit www.axisplayball.com

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Regular" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	114%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 BIOSWALE PREPARATION (Existing Soil) *(Choose appropriate 3.10)*

A. AxisDE "Regular" shall be spread evenly over the existing (or imported) soil at the rate of 1,250 pounds Dry AxisDE per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 10% by volume. This amount is equivalent to 0.6'' and will raise the grade by the same amount.

B. AxisDE "Regular" shall be spread evenly over the existing (or imported) soil at the rate of 2,500 pounds Dry AxisDE per 1,000 square feet, and rototilled thoroughly to a minimum depth of 12 inches to equal 10% by volume. This amount is equivalent to 1.2'' and will raise the grade by the same amount.

3.10 BIOSWALE PREPARATION (Offsite or Imported Soil)

A. AxisDE "Regular" shall be blended homogenously with desired soil by front end loader blending on a flat, hard surface; or by conveyor blender at the rate of 7 parts sand, or loamy sand, 2 parts compost, and 1 part AxisDE to equal 10% by volume. This amount is equivalent to blending 70 pounds of Dry AxisDE with 0.9 cubic yards of other soil.

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Regular" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 15% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	114%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 PLANTING HOLE PREPARATION (Using Existing Soil)

A. Dig planting hole at least twice the diameter of plant material size. Apply AxisDE "Regular" over the excavated dirt at the rates per plant below. Mix thoroughly with excavated dirt and other fertilizer, organic material, or biological components before backfilling and during backfilling for a homogenous backfill blend.

1.

Container/Plant Size	Lbs. of Dry AxisDE	Equivalent Measure
4"	.37 lbs.	2 cups
1 gal.	1.5 lbs.	1.5 quarts
2 gal.	3 lbs.	3.0 quarts
5 gal.	7.5 lbs.	1.25 gallons
24" shrub	3 lbs.	3.0 quarts
48" shrub	15 lbs.	2.5 gallons
6' tree	15 lbs.	2.5 gallons
8' tree	25 lbs.	1.0 bag
12' tree	60 lbs.	2.4 bags
2" caliper	50 lbs.	2.0 bags
3" caliper	75 lbs.	3.0 bags

For sizes not listed, alternate applications or further information please contact EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Regular" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 15% by Volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	114%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

2.40 PLANTING BACKFILL MIX

A. Planting Backfill Mix for trees and shrubs shall be accurately measured and thoroughly mixed and shall consist of the following ingredients (per cubic yard):

7 parts by volume soil
1.5 parts AxisDE "Regular" Calcined Diatomaceous Earth (.15 cubic yards (105 lbs. dry weight))
1.5 parts organic compost or mulch

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Regular" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	114%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 ROOFTOP PREPARATION (Soil Blended Offsite with AXIS)

A. AxisDE "Regular" shall be blended homogenously with the Rooftop blend by either loader blending on a flat, hard surface; or by conveyor blender at the rate of 9 parts soil and 1 part AXIS to equal 10% by volume. This amount is equivalent to blending 70 pounds of Dry AxisDE with 0.9 cubic yards of other soil components.

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Regular" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	114%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 ROOFTOP SOIL PREPARATION (Soil Blended Offsite with AXIS)

A. AxisDE "Regular" shall be blended homogenously with the Rooftop blend by either a bucket loader blending on a flat, hard surface; or by conveyor blender at the rate of 9 parts soil and 1 part AxisDE to equal 10% by volume. This amount is equivalent to blending 70 pounds of Dry AxisDE with 0.9 cubic yards of soil.

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Regular" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	114%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 GRASS PAVER SOIL PREPARATION (Offsite or Imported Soil)

A. AxisDE "Regular" shall be blended homogenously with desired soil by front end loader blending on a flat, hard surface, or by conveyor blender; at the rate of 9 parts soil and 1 part AxisDE, to equal 10% by volume. This amount is equivalent to blending 70 pounds of Dry AxisDE with 0.9 cubic yards of soil.

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Regular" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	114%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 LAWN PLANTING PREPARATION (Existing Soil 6" Deep) (Choose appropriate 3.10)

A. AxisDE "Regular" shall be spread evenly over the existing soil at the rate of 1,250 pounds Dry AXIS per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 10% by volume. This amount is equivalent to .6'' and will raise the grade by the same amount.

3.10 LAWN PLANTING PREPARATION (Existing Soil 4" Deep) (Choose appropriate 3.10)

A. AxisDE "Regular" shall be spread evenly over the existing soil at the rate of 900 pounds Dry AxisDE per 1,000 square feet, and rototilled thoroughly to a minimum depth of 4 inches to equal 10% by volume. This amount is equivalent to .4'' and will raise the grade by the same amount.

TOPDRESSING

3.10 TOPDRESSING AFTER AERATION (Choose appropriate 3.10)

A. AxisDE "Regular" shall be spread evenly over the existing soil at the rate of 150-200 pounds Dry AxisDE per 1,000 square feet. 150 lbs. = 6 cubic feet and 200 lbs. = 8 cubic feet. Apply equal amounts of sand and drag together with a mat to encourage incorporation into the aeration holes. Repeat this process a minimum of three times, with subsequent aeration and topdressings spaced apart between 30 to 180 days. Use 150 lbs. per 1,000 square feet for the first application, and 200 lbs. for second and third applications as tine penetration generally increases after first application.

SPECIALTY AERATORS

3.10 AERATION AND AMENDING SIMULTANEOUSLY (Choose appropriate 3.10)

A. Specialty Aerators such as the "Drill and Fill" aerator, or the "DryJect" aerator can aerate and amend simultaneously. AxisDE "Fine" is recommended for both aerators. Drill and Fill aerators can install approximately 333 lbs. of AxisDE "Fine" per 1,000 square feet. DryJect aerators can install approximately 150 to 200 pounds AxisDE per 1,000 square feet. Consult EnviroTech (866-546-3722) for local contractors who can provide these services.

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Fine" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	142%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 GOLF GREEN ROOTZONE PREPARATION (Existing Soil) (Choose appropriate 3.10)

A. AxisDE "Fine" shall be spread evenly over the existing soil at the rate of 1,250 pounds of Dry AxisDE per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 10% by volume. This amount is equivalent to .6'' and will raise the grade by the same amount.

3.10 GOLF GREEN ROOTZONE PREPARATION (Offsite or Imported Soil)

A. AxisDE "Fine" shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably by conveyor blender; at the rate of 9 parts sand, 1 part AxisDE, and 0.5 parts peat moss to equal 10% by volume. This amount is equivalent to blending 70 pounds of Dry AxisDE with .9 cubic yards of soil.

TOPDRESSING

3.10 TOPDRESSING AFTER AERATION (Choose appropriate 3.10)

A. AxisDE "Fine" shall be spread evenly over the existing soil at the rate of 150-200 pounds Dry AxisDE per 1,000 square feet. 150 lbs. = 6 cubic feet and 200 lbs. = 8 cubic feet. Apply equal amounts of sand and drag together with a mat to encourage incorporation into the aeration holes. Repeat this process a minimum of three times, with subsequent aeration and topdressings spaced apart between 30 to 180 days. Use 150 lbs. per 1,000 square feet for the first application, and 200 lbs. for second and third applications as tine penetration generally increases after first application.

SPECIALTY AERATORS

3.10 AERATION AND AMENDING SIMULTANEOUSLY (Choose appropriate 3.10)

A. Specialty Aerators such as the "Drill and Fill" aerator, or the "DryJect" aerator can aerate and amend simultaneously. AxisDE "Fine" is recommended for both aerators. Drill and Fill aerators can install approximately 333 lbs. of AxisDE "Fine" per 1,000 square feet. DryJect aerators can install approximately 150 to 200 pounds AxisDE per 1,000 square feet. Consult EnviroTech (866-546-3722) for local contractors who can provide these services.

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Regular" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 25 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	25 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	114%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 SAND BASE ROOTZONE PREPARATION (Existing Soil) (Choose appropriate 3.10)

A. AxisDE "Regular" shall be spread evenly over the existing soil at the rate of 1,250 pounds Dry AxisDE per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 10% by volume. This amount is equivalent to .6'' and will raise the grade by the same amount.

3.10 GOLF GREEN ROOTZONE PREPARATION (Offsite or Imported Soil)

A. AxisDE "Regular" shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably, by conveyor blender; at the rate of 9 parts sand, 1 part AxisDE, and 0.5 parts peat moss to equal 10% by volume. This amount is equivalent to blending 70 pounds of Dry AxisDE with .9 cubic yards of soil.

TOPDRESSING

3.10 TOPDRESSING AFTER AERATION (Choose appropriate 3.10)

A. AxisDE "Regular" shall be spread evenly over the existing soil at the rate of 150-200 pounds Dry AxisDE per 1,000 square feet. 150 lbs. = 6 cubic feet and 200 lbs. = 8 cubic feet. Apply equal amounts of sand and drag together with a mat to encourage incorporation into the aeration holes. Repeat this process a minimum of three times, with subsequent aeration and topdressings spaced apart between 30 to 180 days. Use 150 lbs. per 1,000 square feet for the first application, and 200 lbs. for second and third applications as tine penetration generally increases after first application.

SPECIALTY AERATORS

3.10 AERATION AND AMENDING SIMULTANEOUSLY (Choose appropriate 3.10)

A. Specialty Aerators such as the "Drill and Fill" aerator, or the "DryJect" aerator can aerate and amend simultaneously. AxisDE "Fine" is recommended for both aerators. Drill and Fill aerators can install approximately 333 lbs. of AxisDE "Fine" per 1,000 square feet. DryJect aerators can install approximately 150 to 200 pounds AxisDE per 1,000 square feet. Consult EnviroTech (866-546-3722) for local contractors who can provide these services.

2.2 SOIL AMENDMENT

A. Soil Conditioner shall be AxisDE "Fine" Calcined Diatomaceous Earth, available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in Technical Data Sheet, and typical at the time of packaging where 1 cubic foot equals 26 lbs. Soil Conditioner shall contain the following properties:

Dry Bulk Density	26 lbs. per cubic foot
Opaline Silica (SiO2)	90%
Porosity	82%
Absorption (ASTM F-726)	142%
Pore Size	0.1-1.0 micron
pH	7
CEC	27

3.10 SAND CAP PREPARATION

A. AxisDE "Fine" shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably by conveyor blender; at the rate of 9 parts sand, 1 part AxisDE, and 0.5 parts peat moss to equal 10% by volume. This amount is equivalent to blending 70 pounds of Dry AxisDE with .9 cubic yards of sand.

General Application Rates

AxisCERAMIC is applied between 10% and 20% by volume. AxisCERAMIC "Regular" is preferred except for golf greens and special aerators where AxisCERAMIC "Fine" is required.

Incorporation into Existing Soil for Turf, Groundcover, or Garden Area: AxisCERAMIC is safe and effective for all plants and turf! AxisCERAMIC is applied at 10% to 20% by volume. Spread AxisCERAMIC at the rates below and incorporate thoroughly to the desired depth.

10% by Volume	20% by Volume
2" deep - use 660 lbs. per 1,000 sq. ft.	2" deep - use 1,320 lbs. per 1,000 sq. ft.
4" deep - use 1,320 lbs. per 1,000 sq. ft.	4" deep - use 2,640 lbs. per 1,000 sq. ft.
6" deep - use 2,000 lbs. per 1,000 sq. ft.	6" deep - use 4,000 lbs. per 1,000 sq. ft.

Offsite Mixing or Blending: For 10% AxisCERAMIC by volume, blend 1 part AxisCERAMIC with 9 parts other. For 20% by volume, blend 2 parts AxisCERAMIC with 8 parts other.

For a 10% blend, 1 part of one cubic yard = 108 lbs. of AxisCERAMIC
For a 15% blend, 1.5 parts of one cubic yard = 162 lbs. of AxisCERAMIC
For a 20% blend, 2 parts of one cubic yard = 216 lbs. of AxisCERAMIC

Turf Aeration: Topdressing AxisCERAMIC after Aerating with 5/8" tines on a 3" x 4" pattern will require 200 to 250 lbs. of AxisCERAMIC per 1,000 square feet. Adding equal volume of sand for a 50/50 mix is recommended. Apply AxisCERAMIC with a topdresser, broadcast spreader or drop spreader. Use rake, drag mat or blower to assist AxisCERAMIC into the holes. Always make sure to water in thoroughly after application.

DryJect Injection: Aeration patterns are either 3" x 2" or 3" x 4".
3" x 2" spacing, allow 4 to 6 cubic feet = 160 to 240 lbs. AxisCERAMIC "Fine" per 1,000 sq. ft.
3" x 4" spacing, allow 2 to 3 cubic feet = 80 to 120 lbs. AxisCERAMIC "Fine" per 1,000 sq. ft.

Bioswales & Rooftop Gardens: Use AxisCERAMIC at 10% by volume by blending 108 lbs. (108 lbs. = 0.1 cubic yard) with 0.9 cubic yards of other components. For 20% by volume, blend 216 lbs. (216 lbs. = 0.2 cubic yard) of AxisCERAMIC with 0.8 cubic yards of other.

Roadside Plantings & Hanging Baskets: Use AxisCERAMIC at 15% by volume by blending 162 lbs. (162 lbs. = 0.15 cubic yards) with 0.85 cubic yards of other mix components, and by blending 216 lbs. with 0.8 cubic yards of other components for 20% by volume.

Quantities for Individual Plantings

Application Rates and Worksheet to Apply AxisCERAMIC at 15% by Volume in the backfill.

# of Plants	Container or Plant Size	Lbs. / Plant AxisCERAMIC	Vol. / Plant AxisCERAMIC	Total
_____	4" pot	.5 lbs.	2 cups	_____
_____	1 gal.	2.5 lbs.	1.5 quarts	_____
_____	2 gal.	5 lbs.	3 quarts	_____
_____	5 gal.	12 lbs.	1.25 gal.	_____
_____	24" tall	5 lbs.	3 quarts	_____
_____	48" tall	25 lbs.	2.5 gal.	_____
_____	6'	20 lbs.	2.5 gal.	_____
_____	8'	40 lbs.	0.8 bag	_____
_____	24" box	60 lbs.	1.2 bags	_____
_____	36" box	160 lbs.	3.2 bags	_____
_____	3" cal.	120 lbs.	2.4 bags	_____

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 10% to 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs. / cu. ft.
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.10 BIOSWALE PREPARATION (Existing Soil) *(Choose appropriate 3.10, 10% or 20%)*

A. AxisCERAMIC shall be spread evenly over the existing (or imported) soil at the rate of 2,000 pounds Dry AxisDE per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 10% by volume. This amount is equivalent to 0.6'' and will raise the grade by the same amount.

B. AxisCERAMIC shall be spread evenly over the existing (or imported) soil at the rate of 4,000 pounds Dry AxisDE per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 20% by volume. This amount is equivalent to 1.2'' and will raise the grade by the same amount.

3.10 BIOSWALE PREPARATION (Offsite or Imported Soil) *(Choose appropriate 3.10, 10% or 20%)*

A. AxisCERAMIC shall be blended homogenously with desired soil by front end loader blending on a flat, hard surface; or by conveyor blender at the rate of 7 parts sand, or loamy sand, 2 parts compost, and 1 part AxisCERAMIC to equal 10% by volume. This amount is equivalent to blending 108 pounds of dry AxisCERAMIC with 0.9 cubic yards of other soil.

3.10 BIOSWALE PREPARATION (Offsite or Imported Soil)

B. AxisCERAMIC shall be blended homogenously with desired soil by front end loader blending on a flat, hard surface; or by conveyor blender at the rate of 7 parts sand, or loamy sand, 2 parts compost, and 1 part AxisCERAMIC to equal 10% by volume. This amount is equivalent to blending 108 pounds of dry AxisCERAMIC with 0.9 cubic yards of other soil.

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 15% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs. / cu. ft.
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.11 PLANTING HOLE PREPARATION (Using Existing Soil)

B. Dig planting hole at least twice the diameter of plant material size. Apply AxisCERAMIC Calcined Clay Conditioner over the excavated dirt at the rates per plant below. Mix thoroughly with excavated dirt and other fertilizer, organic material, or biological components prior to, and during backfilling for a homogenous backfill blend.

1.

Container/Plant Size	Lbs. of Dry AxisDE	Equivalent Measure
4”	.5 lbs.	2 cups
1 gal.	2.5 lbs.	1.5 quarts
2 gal.	5 lbs.	3.0 quarts
5 gal.	12 lbs.	1.25 gallons
24” shrub	5 lbs.	3.0 quarts
48” shrub	25 lbs.	2.5 gallons
6' tree	20 lbs.	2.0 gallons
8' tree	40 lbs.	0.8 bag
24” box	60 lbs.	1.2 bags
36” box	160 lbs.	3.2 bags
3" caliper	120 lbs.	2.4 bags

For additional sizes and information contact EnviroTech Soil Solutions, Inc., 866-546-3722, or axisplayball.com

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 15% to 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs. / cu. ft.
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.10 PLANTING BACKFILL MIX *(Choose appropriate 3.10, 15% or 20%)*

A. Planting Backfill Mix for trees and shrubs shall be accurately measured and thoroughly mixed and shall consist of the following ingredients (per cubic yard):

7 parts by volume soil
1.5 parts AxisCERAMIC Calcined Clay (0.15 cubic yards = 162 lbs. dry weight)
1.5 parts organic compost or mulch

3.10 PLANTING BACKFILL MIX

A. Planting Backfill Mix for trees and shrubs shall be accurately measured and thoroughly mixed and shall consist of the following ingredients (per cubic yard):

6.5 parts by volume soil
2.0 parts AxisCERAMIC Calcined Clay (0.2 cubic yards = 216 lbs. dry weight)
1.5 parts organic compost or mulch

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 15% to 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.10 ROOFTOP PREPARATION *(Choose appropriate 3.10, 15% or 20% by volume)*

A. AxisCERAMIC shall be blended homogenously with the Rooftop blend by either loader blending on a flat, hard surface; or by conveyor blender at the rate of 8.5 parts soil and 1.5 parts AxisCERAMIC to equal 15% by volume. This amount is equivalent to blending 162 pounds of Dry AxisDE with 0.85 cubic yards of other soil components.

3.10 ROOFTOP PREPARATION *(Choose appropriate 3.10, 15% or 20% by volume)*

A. AxisCERAMIC shall be blended homogenously with the Rooftop blend by either loader blending on a flat, hard surface; or by conveyor blender at the rate of 8.0 parts soil and 2.0 parts AxisCERAMIC to equal 20% by volume. This amount is equivalent to blending 216 pounds of Dry AxisCERAMIC with 0.80 cubic yards of other soil components.

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 15% to 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh …… 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.10 ROOFTOP SOIL PREPARATION *(Choose appropriate 3.10, 10% or 20% by volume)*

A. AxisCERAMIC shall be blended homogenously with the Rooftop blend by either a bucket loader blending on a flat, hard surface; or by conveyor blender at the rate of 9 parts soil and 1 part AxisCERAMIC to equal 10% by volume. This amount is equivalent to blending 108 pounds of Dry AxisCERAMIC with 0.9 cubic yards of soil.

3.10 ROOFTOP SOIL PREPARATION

A. AxisCERAMIC shall be blended homogenously with the Rooftop blend by either a bucket loader blending on a flat, hard surface; or by conveyor blender at the rate of 8 parts soil and 2 parts AxisCERAMIC to equal 20% by volume. This amount is equivalent to blending 216 pounds of Dry AxisCERAMIC with 0.8 cubic yards of soil.

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.11 GRASS REINFORCEMENT SOIL PREPARATION (Offsite or Imported Soil)

A. AxisCERAMIC shall be blended homogenously with desired soil by front end loader blending on a flat, hard surface, or by conveyor blender; at the rate of 8 parts soil and 2 parts AxisCERAMIC, to equal 20% by volume. This amount is equivalent to blending 216 pounds of Dry AxisCERAMIC with 0.8 cubic yards of soil.

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 10% to 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.10 LAWN PLANTING PREPARATION *(Choose appropriate 3.10, 10% or 20%)*

A. AxisCERAMIC shall be spread evenly over the existing soil at the rate of 2,000 pounds Dry AxisCERAMIC per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 10% by volume. This amount is equivalent to .6'' and will raise the grade by the same amount.

3.10 LAWN PLANTING PREPARATION

A. AxisCERAMIC shall be spread evenly over the existing soil at the rate of 4,000 pounds Dry AxisCERAMIC per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 20% by volume. This amount is equivalent to 1.2'' and will raise the grade by the same amount.

TOPDRESSING

3.10 TOPDRESSING AFTER AERATION

A. AxisCERAMIC shall be spread evenly over the existing soil at the rate of 200-250 pounds Dry AxisCERAMIC per 1,000 square feet. 200 lbs. = 5 cubic feet and 250 lbs. = 6.2 cubic feet. Apply equal amounts of sand and drag together with a mat to encourage incorporation into the aeration holes. Repeat this process a minimum of three times, with subsequent aeration and topdressings spaced apart between 30 to 180 days. Use 200 lbs. per 1,000 square feet for the first application, and 250 lbs. for second and third applications as tine penetration generally increases after first application.

SPECIALTY AERATORS

3.10 AERATION AND AMENDING SIMULTANEOUSLY (Choose appropriate 3.10)

B. Specialty Aerators such as the "Drill and Fill" aerator, or the "DryJect" aerator can aerate and amend simultaneously. AxisCERAMIC is recommended for both aerators. Drill and Fill aerators can install approximately 530 lbs. of AxisCERAMIC per 1,000 square feet. DryJect aerators can install approximately 200 to 250 pounds AxisCERAMIC per 1,000 square feet. Consult EnviroTech (866-546-3722) for local contractors who can provide these services.

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 10% to 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.10 GOLF GREEN ROOTZONE PREPARATION *(Choose appropriate 3.10, 10% to 20% by vol.)*

A. AxisCERAMIC shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably by conveyor blender; at the rate of 9 parts sand, 1 part AxisCERAMIC, and 0.5 parts peat moss to equal 10% by volume. This amount is equivalent to blending 108 pounds of Dry AxisCERAMIC with .9 cubic yards of soil.

3.10 GOLF GREEN ROOTZONE PREPARATION

A. AxisCERAMIC shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably by conveyor blender; at the rate of 8 parts sand, 2 parts AxisCERAMIC, and 0.5 parts peat moss to equal 20% by volume. This amount is equivalent to blending 216 pounds of Dry AxisCERAMIC with .8 cubic yards of soil.

TOPDRESSING

3.10 TOPDRESSING AFTER AERATION

A. AxisCERAMIC shall be spread evenly over the existing soil at the rate of 200-250 pounds Dry AxisCERAMIC per 1,000 square feet. 200 lbs. = 5 cubic feet and 250 lbs. = 6.2 cubic feet. Apply equal amounts of sand and drag together with a mat to encourage incorporation into the aeration holes. Repeat this process a minimum of three times, with subsequent aeration and topdressings spaced apart between 30 to 180 days. Use 200 lbs. per 1,000 square feet for the first application, and 250 lbs. for second and third applications as tine penetration generally increases after first application.

SPECIALTY AERATORS

3.10 AERATION AND AMENDING SIMULTANEOUSLY

A. Specialty Aerators such as the “Drill and Fill” aerator, or the “DryJect” aerator can aerate and amend simultaneously. AxisCERAMIC is recommended for both aerators. Drill and Fill aerators can install approximately 530 lbs. of AxisCERAMIC per 1,000 square feet. DryJect aerators can install approximately 200 to 250 pounds AxisCERAMIC per 1,000 square feet. Consult EnviroTech (866-546-3722) for local contractors who can provide these services.

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 10% to 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.10 SAND BASE ROOTZONE PREPARATION *(Choose appropriate 3.10, 10% or 20% by vol.)*

A. AxisCERAMIC shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably, by conveyor blender; at the rate of 9 parts sand, 1 part AxisCERAMIC, and 0.5 parts peat moss to equal 10% by volume. This amount is equivalent to blending 108 pounds of Dry AxisCERAMIC with .9 cubic yards of soil.

3.10 SAND BASE ROOTZONE PREPARATION

A. AxisCERAMIC shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably, by conveyor blender; at the rate of 8 parts sand, 2 parts AxisCERAMIC, and 0.5 parts peat moss to equal 20% by volume. This amount is equivalent to blending 216 pounds of Dry AxisCERAMIC with .8 cubic yards of soil.

TOPDRESSING

3.10 TOPDRESSING AFTER AERATION (Choose appropriate 3.10)

A. AxisCERAMIC shall be spread evenly over the existing soil at the rate of 200-250 pounds Dry AxisCERAMIC per 1,000 square feet. 200 lbs. = 5 cubic feet and 250 lbs. = 6.2 cubic feet. Apply equal amounts of sand and drag together with a mat to encourage incorporation into the aeration holes. Repeat this process a minimum of three times, with subsequent aeration and topdressings spaced apart between 30 to 180 days. Use 200 lbs. per 1,000 square feet for the first application, and 250 lbs. for second and third applications as tine penetration generally increases after first application.

SPECIALTY AERATORS

3.10 AERATION AND AMENDING SIMULTANEOUSLY (Choose appropriate 3.10)

B. Specialty Aerators such as the “Drill and Fill” aerator, or the “DryJect” aerator can aerate and amend simultaneously. AxisCERAMIC is recommended for both aerators. Drill and Fill aerators can install approximately 530 lbs. of AxisCERAMIC per 1,000 square feet. DryJect aerators can install approximately 200 to 250 pounds AxisCERAMIC per 1,000 square feet. Consult EnviroTech (866-546-3722) for local contractors who can provide these services.

2.2 SOIL AMENDMENT

A. Soil Amendment shall be AxisCERAMIC Calcined Clay Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 10% to 20% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Soil Amendment shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh ..... 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 95 %
Product Porosity..... 78 %

3.10 SAND PREPARATION 10% by Volume *(Choose appropriate 3.10, 10%, 15% or 20% by volume)*

A. AxisCERAMIC shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably by conveyor blender; at the rate of 9 parts sand, 1 part AxisCERAMIC, and 0.5 parts peat moss to equal 10% by volume. This amount is equivalent to blending 108 pounds of Dry AxisCERAMIC with .9 cubic yards of sand.

3.10 SAND PREPARATION 15% by Volume

A. AxisCERAMIC shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably by conveyor blender; at the rate of 8.5 parts sand, 1.5 parts AxisCERAMIC, and 0.5 parts peat moss to equal 15% by volume. This amount is equivalent to blending 162 pounds of Dry AxisCERAMIC with 0.85 cubic yards of sand.

3.10 SAND PREPARATION 20% by Volume

A. AxisCERAMIC shall be blended homogenously with USGA sand by front end loader blending on a flat, hard surface, or preferably by conveyor blender; at the rate of 8.0 parts sand, 2.0 parts AxisCERAMIC, and 0.5 parts peat moss to equal 20% by volume. This amount is equivalent to blending 216 pounds of Dry AxisCERAMIC with 0.80 cubic yards of sand.

Application Rates Play Ball! Infield Conditioner is applied at 10% by volume for great results, and 15% to 20% for exceptional results. Drying Agent is used as needed for puddle control, but can be substituted for Conditioner if preferred. BallGameChanger is used as a topdressing at 50% Coverage to control infield moisture. See our Mound Clay Installation & Rate Guide for Rates for more information on chronic wear areas. Rates may vary according to field conditions and desired results.

Topdressing

1/8" Layer = 400 lbs. / 1,000 s.f.	50% Cover = 200 lbs. / 1,000 s.f.
Regulation Baseball = 2.3 Tons	Regulation Baseball = 1.1 Ton
Regulation Softball = 1.8 Tons	Regulation Softball = 0.9 Ton

Infield Mixes - Blended Offsite

10% by volume - blend 108 lbs. (0.1 cu. yds.) conditioner with 0.9 cubic yards of mix.
15% by volume - blend 162 lbs. (0.15 cu. yds.) conditioner with 0.85 cubic yards of mix.
20% by volume - blend 216 lbs. (0.2 cu. yds.) conditioner with 0.8 cubic yards of mix.

Existing Infield Soil Incorporation Rate – 10% by volume

1" Deep - Apply 330 lbs. of Play Ball! per 1,000 square feet (Nail Drag)
2" Deep - Apply 660 lbs. of Play Ball! per 1,000 square feet
3" Deep - Apply 990 lbs. of Play Ball! per 1,000 square feet
4" Deep - Apply 1,320 lbs. of Play Ball! per 1,000 square feet
6" Deep - Apply 2,000 lbs. of Play Ball! per 1,000 square feet

Baseball Fields – 10% by vol.	Infield Sq. Ft.	Tons Needed 2" depth	Tons Needed 4" depth	Tons Needed 6" depth
90' Bases				
Grass Infield	11,550	3.8	7.6	11.5
Skinned Infield	18,300	6.0	12.0	18.3
80' Bases				
Grass Infield	8,400	2.7	5.5	8.4
Skinned Infield	13,650	4.5	9.0	13.6

Softball Fields – 10% by vol.	Infield Sq. Ft.	Tons Needed 2" depth	Tons Needed 4" depth	Tons Needed 6" depth
60' Bases				
Grass Foul Areas	8,350	2.7	5.5	8.3
65' Bases				
Grass Foul Areas	9,300	3.0	6.1	9.3

Mound Clay

Pitcher's Mound	New Construction Regulation Baseball	8 Tons Needed
Home Plate & Wear Areas	One 50 lb. bag covers 1 sq. ft., 3" deep.	

2.923 INFIELD CONDITIONER

A. Infield Conditioner shall be Play Ball! Calcined Clay Infield Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Infield Conditioner shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh ……. 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 71 %
Product Porosity..... 78 %

3.20 INFIELD PREPARATION (Existing Soil 4” Deep)

A. Play Ball! Calcined Clay Infield Conditioner shall be spread evenly over the existing (or imported) infield soil at the rate of 1,320 pounds (Dry Bulk Density) per 1,000 square feet, and rototilled thoroughly to a minimum depth of 4 inches to equal 10% by volume. This amount is equivalent to .4’’ and will raise the finished grade by the same amount.

3.20 INFIELD PREPARATION (Existing Soil 6” Deep)

A. Play Ball! Calcined Clay Infield Conditioner shall be spread evenly over the existing infield soil at the rate of 2,000 pounds per 1,000 square feet, and rototilled thoroughly to a minimum depth of 6 inches to equal 10% by volume. This amount is equivalent to .6’’ and will raise the finished grade by the same amount.

2.923 INFIELD CONDITIONER

A. Infield Conditioner shall be Play Ball! Calcined Clay Infield Conditioner available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at 10% by volume. Volumes of product must be calculated from Dry Bulk Density published in General Health Sheet, and typical at the time of packaging where 1 cubic foot equals 38-42 lbs. Infield Conditioner shall contain the following properties:

Loose Bulk Density ..... 38 - 42 lbs/cu.ft
Mesh …… 6 – 20
Moisture Content ..... < 0.2 %
Hardness*..... > 95 %
pH ..... 6.0 - 6.5
CEC..... 33.6
Water Absorption..... 71 %
Product Porosity..... 78 %

3.20 INFIELD PREPARATION (Offsite or Imported Soil)

A. Play Ball! Calcined Clay Infield Conditioner shall be blended homogenously with desired infield soil by front end loader blending on a flat, hard surface; or by conveyor blender; at the rate of 9 parts infield soil and 1 part Play Ball!, to equal 10% by volume. One tenth (0.1) of a cubic yard of Play Ball Infield Conditioner equals 108 pounds of Play Ball!

2.923 MOUND CLAY

A. Mound Clay shall be Play Ball! Mound Clay available from EnviroTech Soil Solutions, Inc., 866-546-3722, www.axisplayball.com, and applied at a uniform depth of 3", with a minimum of 1" of infield soil mix to finish grade. Mound Clay shall contain the following properties:

Clay	37 - 47%	Silt	5 - 12%
Sand	45 - 55 %	Fine Gravel	1 - 3%
pH	>2	Color.....	Reddish-Brown

3.10 MOUND AREA PREPARATION (New Construction Regulation Baseball)

A. Start with a smooth, flat area. Confirm the distance from the front apex (white portion) of home plate to the front edge of the pitching rubber is 60' 6". The pitching mound radius is 9', measured from 18" in front of the pitching rubber. Center the pitching rubber with home plate and second base by pulling a string through the apex of home plate, and through the middle of second base. Align the pitching rubber parallel to the front of home plate, by measuring from each outside corner of home plate to 31/2" inches inside the pitching rubber. This distance should be 59' 1" on each side. To achieve the proper height of 10", use treated wood blocks, screwed together, and placed under the pitching rubber. Apply Play Ball! Mound Clay in 6" lifts and compact into place to form a table top platform 5' wide by 3', with the 3' dimension extending from the front of the rubber toward second base and the 5' dimension centered on the pitching rubber. Applying small amounts of water prior to compacting with compacting plate or tamp may help achieve highest compaction. Once the top of the mound is established, add Play Ball Mound Clay in 6" lifts, compacting into place, and creating a consistent slope from the table top to the edge of the grass. Cover with infield soil or conditioner, rake smooth to finish grade and recompact. This will require about 8 Tons of Play Ball Mound Clay.

3.20 BATTER'S AND CATCHER'S BOX PREPARATION (New Construction Regulation Baseball)

A. Excavate between 3" and 4" of dirt from the batter's boxes and catchers boxes. Apply Play Ball! Mound Clay at the rate of one 50 lb. bag of Play Ball! Mound Clay per square foot. Applying small amounts of water before compacting with compacting plate or tamp may help achieve highest compaction. Each bag should provide 3" of mound clay per square foot. Each regulation baseball batter's boxes are 6' x 4' and will require 24bags of Play Ball Mound Clay. The catcher's box is 43" wide and 8' long measuring and will require 28 bags of Play Ball Mound Clay. Cover with infield soil or conditioner, rake smooth to finish grade and recompact.

3.20 ENTIRE HOME PLATE AREA PREPARATION (New Construction Regulation Baseball)

A. Excavate between 3" and 4" of dirt from the entire home plate area. This area is established by a 13' radius from home plate, equal to 530 square feet. Apply Play Ball! Mound Clay at the rate of one 50 lb. bag per square foot. Applying small amounts of water before compacting with compacting plate or tamp will achieve highest compaction. Each bag should provide 3" of mound clay per square foot. Cover with infield soil or conditioner, rake smooth to finish grade and recompact.

3.30 COACHES BOXES and ON-DECK CIRCLES (New Construction Regulation Baseball)

A. Excavate between 3" and 4" of dirt from the coaches box area. This area is 20' x 5' and equals 100 square feet. Apply Play Ball! Mound Clay at the rate of one 50 lb. bag per square foot. Applying small amounts of water before compacting with compacting plate or tamp may help achieve highest compaction. Compacted into place, each bag should provide 3" of mound clay per square foot. Cover with infield soil or conditioner, rake smooth to finish grade and recompact. On-deck circles are 5' in diameter and equal 17 square feet. Apply Play Ball! Mound Clay at the rate of one 50 lb. bag per square foot, and repeat installation instructions for Coaches Boxes, or Home Plate area.