

APPLICANT: Robert Dawkins
PHONE: 770-578-4999
REPRESENTATIVE: Robert Dawkins
PHONE: 770-578-4999
TITLEHOLDER: Robert D. Dawkins, Jr. and Roseanne E. Dawkins
PROPERTY LOCATION: On the south side of Bunker Hill Road, east of Bunker Hill Circle (3096 Bunker Hill Road).
PETITION No.: V-111
DATE OF HEARING: 11-12-2014
PRESENT ZONING: R-20
LAND LOT(S): 747
DISTRICT: 16
SIZE OF TRACT: 0.46 acre
COMMISSION DISTRICT: 3

TYPE OF VARIANCE: 1) Waive the rear setback for an accessory structure over 144 square feet (approximately 160 square foot existing shed) from the required 35 feet to 10 feet adjacent to the south property line; 2) waive the requirement of parking on a treated and hardened surface to allow a commercially available reinforced concrete pervious pavement alternative "Grasscrete" in order to achieve effective impervious coverage of 34.8%; and 3) allow an accessory structure (proposed one car garage) to the side of the primary structure.

OPPOSITION: No. **OPPOSED** _____ **PETITION No.** _____ **SPOKESMAN** _____

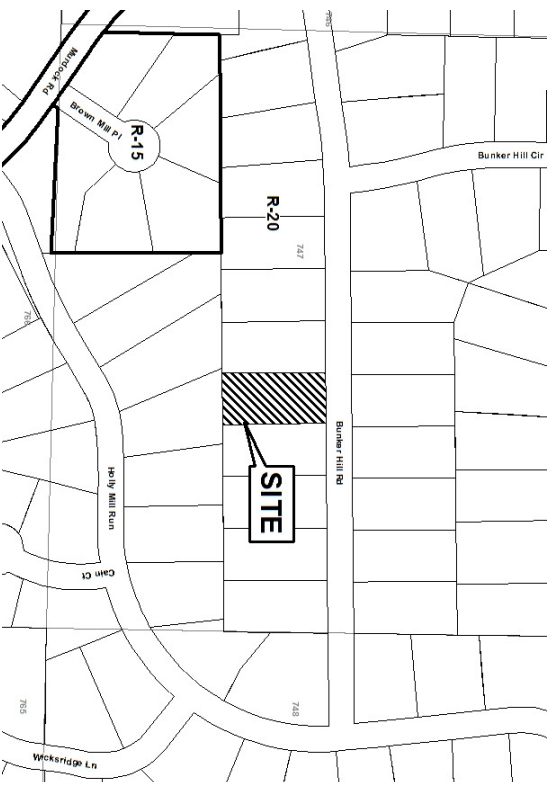
BOARD OF APPEALS DECISION

APPROVED _____ **MOTION BY** _____

REJECTED _____ **SECONDED** _____

HELD _____ **CARRIED** _____

STIPULATIONS: _____



APPLICANT: Robert Dawkins

PETITION No.:

V-111

COMMENTS

TRAFFIC: This request will not have an adverse impact on the transportation network.

DEVELOPMENT & INSPECTIONS: No comment.

SITE PLAN REVIEW: If this variance request is approved, a subdivision plat revision must be recorded prior to the issuance of the certificate of occupancy showing all improvements on the lot and referencing the variance case in the standard plat revision note. The surveyor must submit the plat to the Site Plan Review Section, Community Development Agency for review and approval prior to recording. Call 770-528-2147.

STORMWATER MANAGEMENT: Grasscrete is an acceptable pervious pavement alternative. The product must be installed per the manufacturer's specifications. It is recommended that the grasscrete parking pad at the front of the house be extended across the driveway to protect the stability of the grass strips being utilized for the driveway. The final layout must be approved by the Stormwater Management Division.

HISTORIC PRESERVATION: After examining Civil War trench maps, Cobb County historic property surveys, county maps, and various other resources, staff has no comments regarding the impact or treatment of historic and/or archaeological resources.

DESIGN GUIDELINES: No comment.

CEMETERY PRESERVATION: No comment.

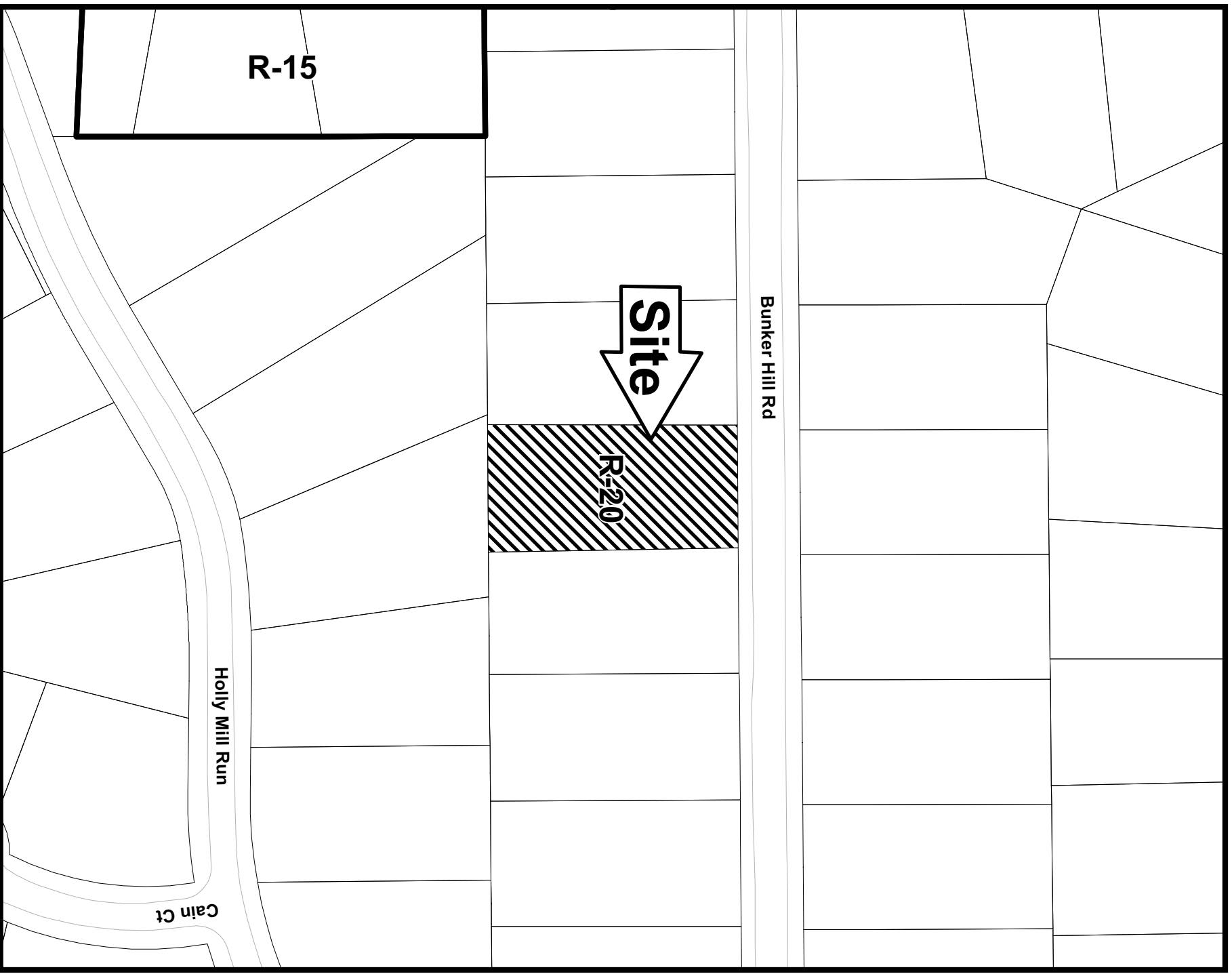
WATER: No conflict.

SEWER: No conflict.

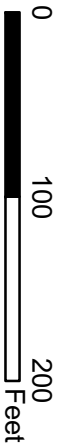
APPLICANT: Robert Dawkins

PETITION No.: V-111

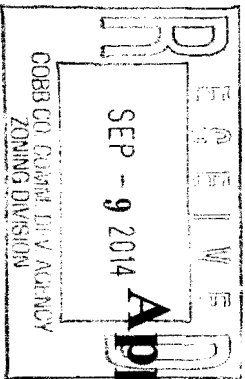
FIRE DEPARTMENT: After analyzing the information presented for a Preliminary Review, the Cobb County Fire Marshal's Office is confident that all other items can be addressed during the Plan Review Stage. (Music Studio not for commercial use)



This map is provided for display and planning purposes only. It is not meant to be a legal description.



City Boundary
Zoning Boundary



Application for Variance Cobb County

(type or print clearly)

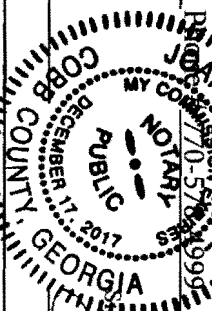
Application No. V-111
Hearing Date: 11-12-14

Applicant Robert Dawkins Phone # 770-578-4999 E-mail rdawkins62@comcast.net

Robert Dawkins Address 3096 Bunker Hill Road, Marietta, GA 30062
(representative's name, printed) (street, city, state and zip code)

R D Dawkins E-mail rdawkins62@comcast.net
(representative's signature)

My commission expires: Dec 17, 2014 Signed, sealed and delivered in presence of:
Notary Public



Robert D. Dawkins Titleholder
Roseanne F. Dawkins Phone 770-578-4999 E-mail rdawkins62@comcast.net

Signature Roseanne F. Dawkins Address 3096 Bunker Hill Road, Marietta, GA 30062
(attach additional signatures, if needed) (street, city, state and zip code)

My commission expires Dec 17, 2017 Signed, sealed and delivered in presence of:
Notary Public

Present Zoning of Property R-20

Location 3096 Bunker Hill Road, Marietta, GA 30062
(street address, if applicable; nearest intersection, etc.)

Land Lot(s) 747 District 16th Size of Tract 0.458 Acre(s)

Please select the extraordinary and exceptional condition(s) to the piece of property in question. The condition(s) must be peculiar to the piece of property involved.

Size of Property _____ Shape of Property _____ Topography of Property _____ Other X

The Cobb County Zoning Ordinance Section 134-94 states that the Cobb County Board of Zoning Appeals must determine that applying the terms of the Zoning Ordinance without the variance would create an unnecessary hardship. Please state what hardship would be created by following the normal terms of the ordinance (if applying for Backyard Chickens pursuant to Sec.134-94(4), then leave this part blank).

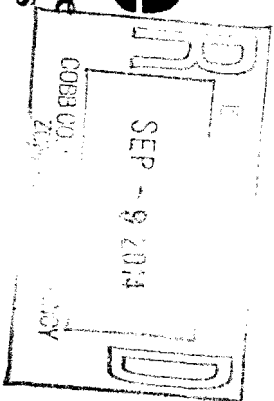
We are remodeling our home to accommodate our daughter and other family members who are disabled. This includes enclosing the current garage to provide a first floor bath and bedroom as well as handicapped accessible living space. The plan requires relocation of the garage to the rear of the home to permit handicapped accessibility to the first floor. The new handicapped accessible entrance requires use of pervious materials to meet the allowable impervious limits.

List type of variance requested: We're asking for permission to use a product called "Grasscrete" in lieu of standard hard surface for the parking areas in the front and rear of the residence. This is a material that is rated as 37.5% pervious and permits water to reach the soil beneath the parking area (diagram and information attached). This will provide a more environmentally friendly solution and stay within the limit of impervious material. We are also asking that an existing garden shed be allowed to remain in it's current location on the rear of the property.

Exhibit
V-111 (2014)

Bomanite®

Your Single Source For Innovative
Architectural Concrete Solutions



BOMANITE GRASSCRETE SYSTEMS

Frequently Asked Questions

BOMANITE GRASSCRETE GENERAL APPLICATION QUESTIONS:

1) What is Bomanite Grasscrete?

Grasscrete is a pervious reinforced concrete structure for all types of trafficked areas that is either covered with grass, has grass growing in the voids of the structure or has stone in the voids of the structure.

2) How is Bomanite Grasscrete made?

Grasscrete is made by pouring concrete over "Formers", a tool or mold that leaves voids in the concrete, that once opened can be filled with a variety of porous materials such as grass or gravel.

3) What are the Formers made of?

Grasscrete Formers come in two types. A re-usable plastic tool that is used only for fully grassed or concealed installations and the more common single-use Molded Pulp Former used for all Grasscrete types.

4) What is Molded Pulp?

The Molded Pulp is made from 100% recycled paper pulled from both post industrial and post consumer waste streams. It is suspended in a water slurry, vacuum formed to a mold and then air dried to a solid product. It is based on the same biodegradable material commonly found at landscape supply stores or nurseries that plant pots are made from.

5) What is the difference between Bomanite Grasscrete Systems and the competitors?

Grasscrete is the only product on the market that is made from continuously reinforced cast-in-place concrete. It is by far the most robust pervious grassed structure as it is not made from cheap plastic rings or supplied in segments. It has the load bearing capacity and durability comparable to concrete freeways or parking lots.

6) What are the products dimensions?

The individual Grasscrete Formers are 24" x 48" in outside dimension and are 5 ½" deep. The final installed product size is determined by the size of the project – every square foot of properly installed Grasscrete is connected with steel reinforcement.

7) What is Bomanite Grasscrete installed over?

Grasscrete is installed over a sub-base of gravel at a depth determined by the load bearing capacity required for the project. In many situations the Grasscrete is installed over the native soils saving money on excavation and gravel. In some cases it is installed over a deep bed of crushed stone or even storm water chambers so as to provide capacity for water which can be highly desired when controlling storm water runoff.

8) How well does grass grow over Bomanite Grasscrete?

Grasscrete has been installed extensively throughout the world in all climate types. In some environments such as the Pacific Northwest it will grow the same as any lawn requiring no irrigation. In environments that are dry and hot, it is recommended that the Grasscrete be irrigated much like any other grassed area. Hardy, drought tolerant grass or groundcover can be selected for applications such as retaining pond bottoms or slope protection.

8789 Auburn Folsom Rd. #108, Granite Bay, CA 95746 • (303) 369-1115 • FAX: (303) 291-0282

Web site: www.bomanite.com • E-mail: info@bomanite.com • June 2009

9) How long do we have to wait before driving on Bomanite Grasscrete?

Unlike other competitive systems that may require the grass to grow prior to use, Grasscrete can be driven on immediately after the concrete hardens in the extent of an emergency situation. Typically it is recommended that you wait two to four weeks before you drive on it for best results.

10) What types of grass should I use in the product?

Use a species that is both deep rooting and robust. Generally a Blue/Rye/Fescue mix in northern climates and Zoysia, Fescue, or Bermuda types in southern climates.

11) What material is Bomanite Grasscrete filled with for grassed installations?

Grasscrete functions best in fully concealed installations when a sandy soil is used to fill the voids and to cover the concrete. This will allow the grass to grow well and will support occasional non-emergency vehicle access. The same mixture is used for void grassed only installations which will allow for any type of vehicle access as often as required.

12) Can I seed or sod over the product?

Seed or sod can both be used dependant upon the application.

13) Is soil amending recommended?

Yes, a water retaining soil additive such as PAM or equal is recommended for grassed applications. It will retain moisture between watering or rainfall and will help aerate the root zone as it expands and contracts.

14) How are parking spaces delineated on a Grasscrete parking lot?

The use of traditional line paints is the most effective way to delineate stalls on a Grasscrete parking lot. Other methods, such as pouring the concrete in multiple pours, leaving a wider band of concrete between the stalls and planting brushes or shrubs in a predetermined pattern are all ways to distinguish between stalls and to control traffic patterns.

BOMANITE GRASSCRETE PERFORMANCE QUESTIONS:

1) How heavy of a load can Bomanite Grasscrete support?

Grasscrete can be designed and installed to support any vehicle. The standard minimum installation supports vehicles weighing 75,000 pounds with more customized installations capable of supporting vehicles exceeding 150,000 pounds -- including tracked vehicles.

2) How much traffic can the product withstand?

Fully grassed installations can handle periodic traffic such as maintenance access or overflow parking. This is dictated by the robustness of the grass itself. Void grassed only installations can be driven on continuously with no issues associated with plowing, high speed travel or tires turning at particular places in the installation.

3) Can Bomanite Grasscrete be used for emergency access such as fire lanes?

Yes, this is one of the more common uses for Grasscrete. As an example, the City of Los Angeles Fire Department has been using Grasscrete exclusively since 1982.

4) What is the installed cost for Bomanite Grasscrete vs. Concrete?

Grasscrete is generally 30% higher than traditional concrete pavement. Using Grasscrete can eliminate or minimize the need for storm water collection systems which may be a substantial savings.

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5) What is the installed cost for Bomanite Grasscrete vs. other pervious grass systems?

Grasscrete is generally slightly more than other pervious grassed systems such as plastic rings, plastic unit pavers and pre-cast unit pavers. However, using Grasscrete means you are using the most robust system with the lowest lifecycle costs of any pervious system with comparable capacity, durability and performance.

6) Can we plow Bomanite Grasscrete?

Applications requiring plowing are typically applications requiring continuous vehicle use and therefore are void grassed only installations. Grasscrete installed in this manner can be plowed with conventional equipment requiring no specialized attachments or care compared to other less robust systems.

7) Can we use Bomanite Grasscrete in lieu of a pervious concrete parking lot?

Grasscrete is commonly used as a pervious concrete parking lot where as the voids are simply filled with stone rather than grass. Unlike no-fines pervious concrete Grasscrete is easily reinforced, the reinforcing steel is not subject to corrosion due to the no fines mix of traditional pervious concrete, the mix designs are established freeze-thaw resistant, the final surface is exceedingly more abrasion resistant that pervious concrete mixes, and there is no issue with rock pop outs.

Additionally Grasscrete is not subject to clogging issues and in the event that too much silt has entered the voids, they can be mechanically cleaned in an efficient manner unlike traditional pervious concrete.

BOMANITE GRASSCRETE BENEFITS QUESTIONS:

1) Does Bomanite Grasscrete lessen heat island effect?

Yes. Concrete is much lighter in color than blacktop so even for void grassed only installations there is improved reflectance.

2) Can Bomanite Grasscrete have a recycled content?

Yes. Both due to the 100% recycled Mold Pulp Formers and to the fact that Grasscrete does not require the same set times and finishing as traditional concrete. This means that a high fly ash or blast slag content is possible along with reclaimed aggregates such as crushed concrete.

3) Does Bomanite Grasscrete help control storm water runoff?

Yes. Fully grassed and void grassed only Grasscrete drains comparatively to local grassed areas with similar soils. Stone filled void installations have virtually zero runoff even in a exceptional rain event provided that there is adequate capacity to contain the water beneath the Grasscrete.

4) Can Bomanite Grasscrete channel storm water runoff?

Yes. Some of the most common installations for Grasscrete is river training, slope protection and channels. As it supports grass or other plants in its voids the Grasscrete system can perform as an armored layer resisting washout yet remain predominantly concealed unlike traditional concrete channels.

5) Can Bomanite Grasscrete be used for retaining pond bottoms?

Yes. Grasscrete is ideal for use as a retaining pond bottom as it is pervious which helps avoid liability issues associated with using non-pervious concrete for retaining pond bottoms. It can also be mechanically scraped which allows for sediment to be excavated periodically using large pieces of equipment while maintaining the root structure of the grass which repopulates to conceal the system to provide a food source and cover for local animal species.

6) Does Bomanite Grasscrete contribute to LEED?

Yes. For all the reasons listed above.

Exhibit
V-111 (2014)

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PerVIOUS Systems | Coloration Guide | Contractor Login



Pervious Concrete Systems

Grasscrete, a Bomanite Pervious Concrete System, is a cast-in-place, monolithic, pervious concrete pavement that is continuously reinforced to provide superior structural integrity.



- [Pervious Concrete Systems](#)
- [Grasscrete](#)
- [Technical Info](#)
- [Specifications](#)
- [Color Charts](#)
- [Photo Gallery](#)
- [Project Profiles](#)
- [Resources](#)
- [Molded Pulp Former](#)
- [Reusable Former](#)

- [LEED® Guide](#)
- [Continuing Education](#)
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- [Locate Licensed Contractor](#)

The first application technique incorporates a reusable tool that creates the voids by having concrete placed in and around the tool formers prior to being pulled from the concrete slab. The second technique is using a single-use former that is placed on the sub grade with the concrete placed over the formers and the voids opened after the concrete hardens. The single-use formers are available in an ABS plastic former and the newly developed bio-degradable former, know as the Molded Pulp Former, that is made with post consumer recycled components.

Grasscrete offers the ability to provide year-round access for a variety of applications requiring structural paving surfaces without compromising the aesthetics of the exterior landscaping. Grasscrete is a very sustainable product that can employ a large recycled material content both in the form of aggregate and binder such as fly ash or slag—its lifespan is indefinite and can be recycled itself to form the aggregates for future Grasscrete applications; providing Specifiers with a truly sustainable, eco-friendly system to accommodate a variety of needs.

GREEN BENEFITS

- The benefit to Grasscrete for businesses and developers is that it drains at about the same rate as would an ordinary lawn in the same location. The presence of concrete has little effect on the drainage; the soil and the slope are the controlling factors which makes it beneficial for erosion control as well.
- Grasscrete is installed over a sub-base of gravel at a depth determined by the load bearing capacity required for the project. On site re-cycled fill materials are used in the sub-bases together with the use of topsoil in paving and retaining wall systems; as this is often available surplus from the excavation work it helps to avoid the unnecessary off-site disposal of waste materials.
- Grasscrete can also be installed over native soils saving money on excavation and gravel. The subsurface all depends on the needs and the water runoff requirements, from thick beds of stone to water piping systems. Grasscrete, as with many other "green" products generally costs 30% higher than traditional concrete pavement. At times however, using Grasscrete can eliminate or minimize the need for storm water collection systems which may in turn lead to substantial savings.
- Contrary to convention, the structural advantages that Grasscrete offers over pre-cast can make significant savings in both the "construction" and "lifetime" costs of a project. Sub-base depths are reduced and curb edge restraints can often be eliminated. The construction process is much faster than for precast and the forms can be delivered by the truckload to cover 7200 sq. m which is the equivalent to fifty truckloads of pre-cast. This is a serious statistic that saves both money and polluted transportation waste.
- SUDS, better known as "Sustainable Urban Drainage" is becoming an increasingly used term with planners and developers seeking to mitigate the implications of handling surface water run-off on the local storm water network. Pre-formed tank water management often involves the use of self-draining paving layers together with the installation of pre-formed sub-ground retention tanks, to store surface water for a controlled release into the drainage network. Grasscrete provides a more uniform percolation process that creates a more natural balance thereby reducing the risk of shrinkage in clay soils due to the urbanized modification of water tables.
- Some other benefits of the Bomanite Grasscrete System, include the improved reflectance of the crete as compared to blacktop, reducing the heat island effect. Grasscrete handles runoff and storm drainage via river training, slope protection and channels. It is also a sound product for retaining pond bottoms thanks to its pervious nature and helps provide a food source and cover for pond inhabitants.

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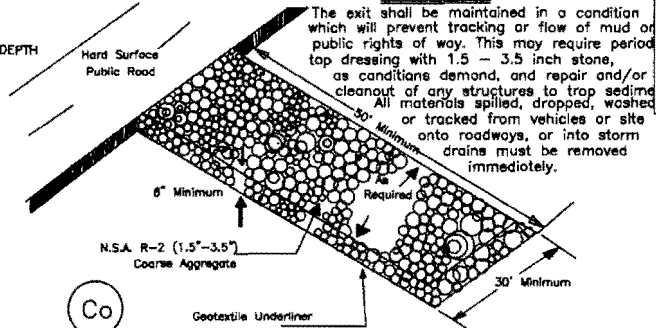
SPECIES	Broadcast Rate 1/2 - 1 1/2 Per Acre 1000 sq. ft.	Resource Area 3/	Planting Dates by Resource Area												Remarks
			J	F	M	A	M	J	J	A	S	N	D		
Ds3 BAHA, PENNACOLA (Prostratum robustum) alone or with temporary cover with other perennials	80 lbs. 1.4 P 30 lbs. 0.7 B.	P C													188,000 seed per pound. Use alone only on better soils. Not for roughy soils. Not recommended for wetlands. Plant with 1/2" mulch. Full spread 1/2" mulch. Good for electric fields.
BERNARDIA COMMON (Cynodon dactylon) with other perennials	10 lbs. 0.2 P 8 lbs. 0.1 B.	P C													1,787,000 seed per pound. Quick cover. Low growing and nod forming. Full seed. Good for electric fields.
BERNARDIA COMMON (Cynodon dactylon) with temporary cover with other perennials	10 lbs. 0.2 P 8 lbs. 0.1 B.	P C													Plant with winter annuals. Plant with fall fescue.
BERNARDIA SPINOSA (Cynodon dactylon) Coastal Common, Midland, or Tall Coastal, Common, or Tall	40 cu. ft. 0.8 cu. ft. per plug 3" x 3"	P C C													A cubic foot contains approximately 800 plugs. A basket contains 120 cubic feet or approximately 800 plugs. Some as above.
PERDUE, TALL (Festuca arundinacea) alone with other perennials	50 lbs. 1.1 P 30 lbs. 0.7 B.	P C													227,000 seed per pound. Use alone only on better soils. Not for roughy soils. Not recommended for wetlands. In spring following for pasture. Not for heavy use areas of electric fields.

Species	Broadcast Rate 2/ - 1 1/2 Per Acre 1000 sq. ft.	Resource Area 4/	Planting Dates by Resource Area												Remarks
			J	F	M	A	M	J	J	A	S	N	D		
Ds2 MILLET, PEARL (Pennisetum glaucum) alone	50 lbs. 1.1 P C	P C													88,000 seed per pound. Quick cover. May reach 3 feet in height. Not recommended for wetlands.
OATS (Avena sativa) alone in mixture	4 bu. 2.8 P (128 lbs.) 1 bu. 0.7 B. (32 lbs.)	P C													13,000 seed per pound. Use on productive soils. Not as winterhardy as rye or barley.
RYE (Secale cereale) alone in mixture	3 bu. 3.8 P (118 lbs.) 1 1/2 bu. 0.8 B. (28 lbs.)	P C													18,000 seed per pound. Quick cover. Drought tolerant and winterhardy.
RYE alone	40 lbs. 0.8 P C	P C													227,000 seed per pound. Quick cover. Very competitive and is not to be used in mixture.
RYE alone	80 lbs. 1.4 P C	P C													35,000 seed per pound. Good on roughy soils. Not recommended for mixture.

PERM. & TEMP. GROUND COVER

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

MULCHING APPLICATION REQUIREMENTS		
MATERIAL	RATE	DEPTH
STRAW OR HAY	2-1/2 TONS/ACRE	6" TO 10"
WOOD WASTE, CHIPS, SAWDUST, BARK	6 TO 8 TONS/ACRE	2" TO 3"
CUTBACK ASPHALT	1200 GAL/AC OR 1/4 GAL/SQ.YD.	---
POLYETHYLENE FILM	SECURE WITH SOIL ANCHORS, WEIGHTS	---
CUTBACK ASPHALT	SEE MANUFACTURER'S RECOMMENDATIONS	---
GEOTEXTILES, JUTE MATTING, NETTING, ETC.	SEE MANUFACTURER'S RECOMMENDATIONS	---



CRUSHED STONE CONSTRUCTION EXIT

SILT FENCE TYPES

TABLE 4-13.2 USE

WIDTH OF FABRIC

TYPE A (36") 1) ON DEVELOPMENTS WHERE THE LIFE OF THE PROJECT IS GREATER THAN OR EQUAL TO 8 MONTHS.
2) WHERE THE SLOPE GRADIENT IS STEEPER THAN 3:1.

TYPE B (22") 1) ON PROJECTS, SUCH AS RESIDENTIAL HOME SITES OR SMALL COMMERCIAL DEVELOPMENTS, WHERE THE LIFE OF THE PROJECT IS LESS THAN 8 MONTHS.
2) WHERE THE SLOPE GRADIENT IS LESS THAN OR EQUAL TO 3:1.

TYPE C (36") 1) WHERE SLOPE GRADIENTS EXCEED A VERTICAL HEIGHT OF 20 FEET AND THE SLOPE GRADIENT IS STEEPER THAN 3:1.

POST SIZE

TABLE 4-13.3

TYPE	MINIMUM LENGTH	TYPE OF POST	SIZE OF POST
TYPE A	4'	SOFT WOOD	3" DIA. OR 2" 1.5" x 1.5"
TYPE B	3'	OAK STEEL	1.3LB./FT. MIN. 2" DIA. OR 2" 1.3LB./FT. MIN.
TYPE C	4'	STEEL	STEEL

FASTENERS FOR WOOD POSTS

TABLE 4-13.4

WIRE STAPLES	GAUGE	CROWN	LEGS
	17 GA.	3/4" WIDE	1/2" LONG
NAILS	14 GA.	LENGTH	BUTTON HEADS 3/4"

NOTE: FILTER FABRIC MAY ALSO BE ATTACHED TO THE POST BY WIRE, CORD, AND POCKETS

DETAIL: SILT FENCE

SCALE: NONE

FLOW

SIDE VIEW

4" MAX. O.C. FABRIC 18" MIN. TRENCH 18" MIN. TRENCH

FRONT VIEW

NOTE: USE 36" D.O.T. APPROVED FABRIC USE STEEL POSTS

GRASSCRETE

Material	Rate	Depth
Grasscrete	1.0	1.0

Layout to curve

Layout to straight

GRASSCRETE

Material	Rate	Depth
Grasscrete	1.0	1.0

Exhibit V-111 (2014)



ALPHA LAND SERVICES
1005 ECHO VALLEY COURT
LOGANVILLE, GA. 30052
ENGINEERING * LAND SURVEYING
OFF: 770.898.4054 FAX: 770.898.4054

REVISION: _____

REF. PLAT: PB. 58 P. 20

DETAILS FOR: **3096 BUNKER HILL ROAD**

PAGE 3 OF 3

LAND LOT: 747	LOT: 8 BLOCK: A
DISTRICT: 16TH	SUB: BUNKER HILLS
COBE	COUNTY
GEORGIA	AREA = 0.458 ACRES
FIELD DATE: 01/11/14	JOB No. 1403SP2
PLAT DATE: 09/10/14	