BEFORE THE
ZONING COMMISSION OF THE DISTRICT OF COLUMBIA
ZC Case No. 04-34 (Text Amendment to allow the use of
pervious paving for certain parking and related facilities)
STATEMENT OF THE ZONING ADVISORY COMMITTEE
PRESENTED BY DAVID J. BARDIN, CHAIR, GREEN SUBCOMMITTEE
16 June 2005

Chair Mitten and Members of the Zoning Commission·

The Zoning Advisory Committee (ZAC) appreciates the opportunity to appear before you and amplify our May 12, 2005, Memorandum [copy attached]

We applaud your decision to hold this public hearing and your proposal to eliminate a requirement for *impervious* paving of all outdoor parking spaces, parking lots, and related driving lanes in those portions of the District that are subject to the Zoning Regulations.

The ZAC recommends that you go further, to eliminate prescriptions of acceptable paving materials – such as asphalt, concrete, or brick. Instead, the ZAC recommends withdrawal of paving issues from the Zoning Regulations in favor of greater freedom of private initiative If regulation of paving be needed, leave that job to other agencies (preferably agencies with City-wide jurisdiction, such as building code or stormwater regulators)

Impervious paving requirement.

A universal requirement for impervious paving has outlived its usefulness It stands in the way of environmentally desirable options It contradicts the goal of a "Green" city

We do suggest informing the development community – in the Zoning Regulations themselves – that a half-century prohibition is over Otherwise, we fear that old-timers among architects and engineers who have been abiding by zoning rules will assume that your rules still require impervious paving (whether they find that word "impervious" or not). We hope you will ask the Office of the Attorney General for advice and suggestions on that score

Evolving technologies, evolving markets

The marketplace offers a growing number of pervious, all-weather, paving techniques for parking various kinds of vehicles outdoors in various kinds of settings

Appendix A illustrates web site resources.

- Some paving products combine vehicle-supporting grids of recycled plastics, concrete, metal, or other materials with earth-and-grass cores.

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- Other paving products combine concrete paving stones with sand and other permeable materials underneath and between the pavers
- Pervious paving products are being linked to other features, such as rain gardens.
- Some paving products are most attractive for parking fleets of vehicles that are on the road all day and parked at night.
- Other paving products serve in-and-out vehicle parking uses.

The Zoning Commission need not dictate acceptable paving materials

It no longer makes sense for the Zoning Regulations to dictate that "bituminous, concrete, or brick" materials are acceptable for paving and others not

The proposed new regulations (52 DC Register 2020, Apr 22, 2005) attempt to add flexibility – but they fall short

- One proposal would have the ZC bless materials approved by DDOT for public streets But why should one expect new pervious materials that are quite good enough for parked vehicles (or for vehicle movements while parking) to match materials designed to take the more demanding pounding of constant traffic?
- Another proposal would require property owners and developers to submit certifications from Licensed Professional Engineers to DCRA's Zoning Administrator before innovating with new materials

A better approach would emulate jurisdictions such as Montgomery County which leave the choice to private decisions, rather than zoning regulations

As in Montgomery County, of course, storm water management regulations would remain in place if the Zoning Commission drops selection of paving materials from its mission Moreover, stormwater regulations or building code regulations, if needed, would govern all land in the District of Columbia, including federal reservations. In contrast, Zoning Commission paving rules do not Consequently, agencies such as the U S. Navy Yard and the National Park Service are free to innovate today; but landowners subject to DC zoning regulations are not.

Professionally-incomplete provisions

Today's zoning regulations (and those being proposed) address only some of the professional issues for paving a parking lot or open parking space For example, they address paving *materials* but not *compaction of soils* under those very materials.

Gravel?

Although the word "gravel" does not appear in these paving regulations, could their hidden objective be to forbid use of gravel in D C ? If so, we recommend dropping that goal from the Zoning Code. Better to let other agencies manage that campaign

Poor use of DCRA / ZA resources

DCRA and its Zoning Administrator are hard pressed to accomplish many other zoning regulation goals An invigorated anti-gravel program would unwisely divert scarce resources.

DCRA has not enforced existing parking pavement rules so far as we can discern One hears of examples of gravel driveways and parking places in the finest church and home construction in Georgetown and elsewhere.

Enforcement, in fact, is by conscientious architects and engineers who instruct their clients that D.C will not allow what they wish to try. That kind of enforcement chokes off desirable initiatives The ZC should, instead, encourage innovation that could make DC a "greener" city by reducing "heat island" effect and improving management of storm water.

Tightening up PUD amenities proposal

We also recommend tightening up the proposed recognition of PUD amenities, as stated in our attached May 12 Memorandum (¶ 3), to apply only to stormwater management benefits that DOH certifies to be in excess of what its regulations would require in any event

Conclusion

The ZAC therefore recommends that the Zoning Commission eliminate both the impervious surface and the parking materials requirements.

Appendix A: Examples of Pervious Paving Materials in the Marketplace
[Illustrative and descriptive, not ZAC endorsements]

www.GrassTrac.com
GrassTrac™
Load Supported Parking on Grass
"GrassTrac is a heavy duty wire mesh with torsioned flat wire reinforcement used for load distribution in applications where driving or parking on turf is desirable "
"GrassTrac has provided effective turf reinforcement solutions for over 10 years "
"Guide for estimating subgrade soil strengths" addresses Shear Strength, SPT (blows/ft), Cone Penetrometer, CBR, and Estimated Consistency

www.acfenvironmental.com
GeoSynthetic Solutions to Traditional Problems
"Best Management Practices" – "Porous Paving"
"GrassPave2®" - "GravelPave2®" - "GeoBlock" – "GeoWeb® Cellular Confinement System"

www.prestogeo.com
"Earn LEED™ Green Building Credits with the Geoweb® and Geoblock® Systems."
Geoweb®
Cellular Confinement System
"Extensive research and testing by academic and independent laboratories, ISO 9002 certification, and over fifteen years of in-ground performance tells the story The Geoweb system provides proven quality and reliability "
"The Geoweb system infilled with aggregate provides a porous pavement system for access roads, parking areas and emergency lanes With over 98% open area, the Geoweb system maximizes groundwater replenishment and minimizes surface runoff. Utilizing native granular soils provides alternative to hard surface paving
Geoblock®
Vegetated Porous Pavement System
"The Presto **Geoblock®** *Porous Pavement System* is a result of innovation designed to provide the right solution for a wide range of turf and load support applications "
"The **Geoblock** system is a series of interlocking, high-strength blocks made from recycled plastic materials "
"Fully Engineered System – designed to provide long term success, successful installations since early 1980s "
The "System Usage Guideline" provides information on "Load Description" (Maximum Tire Pressure, Single Axle Loading, Tandem Axle Loading, Gross Vehicle Loading) and "California Bearing Ratios" for five categories of truck, car, or pedestrian uses.
"The Geoblock system is designed for easy installation, requiring less site improvement, less subgrade improvement, less excavation and less granular backfill than other porous pavement systems "

www atlantiscorp com.au
Atlantis® **Turf Cell®**
Grass Reinforcement Structure
"Most parking lots are constructed from impermeable concrete and bitumen materials These materials retain a vast amount of heat, raising the temperature around buildings "
"Reinforced Grass Parking Lot & Driveways "
"Atlantis® **Turf Cell®** grass reinforcement structure is designed to house and protect grass It . allows both horizontal and vertical root growth "
"Atlantis® **Turf Cell®** grass reinforcement structure can also be used to house aggregate, creating an attractive, durable hard surface suitable for light to medium loaded parking areas."

www concretenetwork.com
"Green Building with Concrete" – "Grasscrete Permeable Paving" – "Pervious Concrete"

www grasscrete com

ZAC

Zoning Advisory Committee

May 12, 2005

MEMORANDUM

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D.C. OFFICE OF ZONING
2005 MAY 12 PM 4:10

To: Zoning Commission

From: Zoning Advisory Committee

Thru: Office of Zoning

Re: Z.C Case No. 04-34

The Zoning Advisory Committee (ZAC) applauds the Zoning Commission (ZC) decision to schedule a public hearing on 16 June 2005 to consider the ZC's proposed amendment of the half-century-old requirement that outdoor parking spaces and parking lots be paved with impervious cover. The ZAC plans to present testimony at that hearing. In order to facilitate consideration, an outline of the ZAC's position follows

1 The ZC proposal, approved March 14 and published in the April 15 DC Register, would represent a significant step forward.

2. The ZAC recommends that the ZC go further, to eliminate all zoning restrictions on selection of paving materials for open parking spaces and parking lots.

- That would bring DC into line with jurisdictions such as Montgomery County, MD.
- That also would avoid repeated proposals for amending ZC parking regulations in order to catch up with evolving pervious paving technologies.
- That still would allow other regulatory authorities to impose greater restrictions than does the ZC (e.g., in the DC Building Codes, administered by DCRA, or Stormwater Management Regulations, administered by DOH)

If the ZC is concerned about selection of gravel as a form of pervious paving material, the ZAC recommends that zoning regulations address gravel explicitly (e.g., to require that migration of gravel paving beyond lot boundaries be checked, either by physical containment or by location at a distance from the lot line)

3 The ZAC recommends that the ZC revise its proposed amendment of the Planned Unit Development (PUD) Evaluation Standards to provide that stormwater runoff controls would not be countable as "environmental amenities" unless the Department of Health certifies (a) that applicant has proffered runoff controls significantly *in excess of* those that the Stormwater Management Regulations would require in any event and (b) indicates how significant that excess runoff control may be (quantitatively and/or qualitatively).

Faithfully,

David J. Bardin, Chair
Green Subcommittee
Zoning Advisory Committee