

RESOLUTION ADOPTED BY UNANIMOUS CONSENT
OF THE DIRECTORS OF
A. P. GREEN SERVICES, INC.

The undersigned, being all the Directors of A. P. Green Services, Inc., a Michigan corporation, hereby adopt the following resolution, by unanimous consent, as the action of the Board of Directors of said Company:

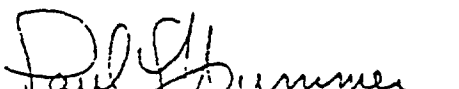
WHEREAS, this corporation's parent, A. P. Green Industries, Inc., is entering into a Loan Agreement under the terms of which it may borrow from time to time US\$30,000,000; and

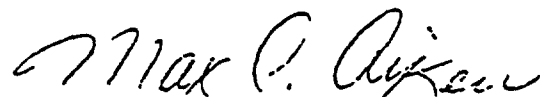
WHEREAS, the Guaranty of this corporation of the borrowings by A. P. Green Industries, Inc. under that Loan Agreement is a condition to such loans; and

WHEREAS, the ability of A. P. Green Industries, Inc. to borrow under the Loan Agreement is a benefit to and in the best interests of this corporation;

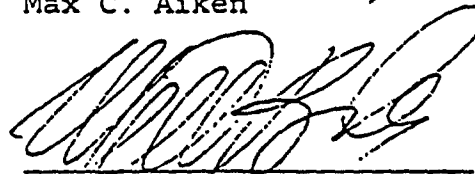
NOW, THEREFORE, BE IT RESOLVED, that Gary L. Roberts, be and he is hereby authorized to execute and deliver on behalf of this corporation a Guaranty pursuant to that certain Loan Agreement among A. P. Green Industries, Inc. and Commerce Bank, National Association and Comerica Bank as Lenders and Commerce Bank, National Association as Agent in the form attached hereto.

Executed as of this 31st day of December, 1995


Paul F. Hummer


Max C. Aiken


Gary L. Roberts


Michael B. Cooney

