

May 19, 2003

Refer to: HSA-10/B-120

Mr. Jeffrey R. Bleile
President, Midwestern Wholesalers, Inc.
4832 Plank Road – P.O. Box809
Norwalk, Ohio 44857

Dear Mr. Bleile:

In your May 13 letter to Mr. Richard Powers of my staff, you requested the Federal Highway Administration's acceptance of a narrow, wood offset block for use with strong post, metal beam guardrail installations on the National Highway System (NHS).

Your block was made from Grade 1 Southern Yellow Pine with external dimensions of 4.0-inches wide x 7.375-inches deep x 14.0-inches high (102 mm x 187 mm x 356 mm). The post face of the block was routed such that one edge extends 0.375 inches beyond the post flange. This one-sided routing (or "tab") is 0.625-inches wide. A hole 0.875 inches in diameter is drilled through the block at its vertical midpoint and 1.625 inches in from the edge of the block with the extended routing. These details are shown on the enclosed drawing.

Since no narrow timber blocks or any blocks with routing along one edge only had been previously tested, my staff recommended a full scale crash test to confirm satisfactory impact performance when this block is used with strong steel post w-beam guardrail. The results of your subsequent test were documented in E-TECH Testing Services, Inc. May 2003 test report, prepared by Mr. John F. LaTurner and entitled "National Cooperative Research Program Report 350 Crash Test Results for the Midwestern Wholesalers Routed Offset Blockout." Test 3-11 showed that a 2000-kg pickup truck impacting at 99.8 km/h (62mph) and 25 degrees was contained and redirected with very low roll and pitch angles. Maximum occupant impact velocity and ridedown accelerations were 4.6 m/s (15.1 fps) and 6.7 g's, respectively. Maximum dynamic deflection of the barrier was reported to be only 1.0 m (3.3 feet).

Based on our review of the information you provided, your Midwestern Wholesalers, Inc. block is considered acceptable for use on the NHS with a strong steel post guardrail when cut to the same dimensions and composed of the same grade and species of timber as the tested blocks.

Please note that this acceptance is based solely on the reported impact behavior of your block and

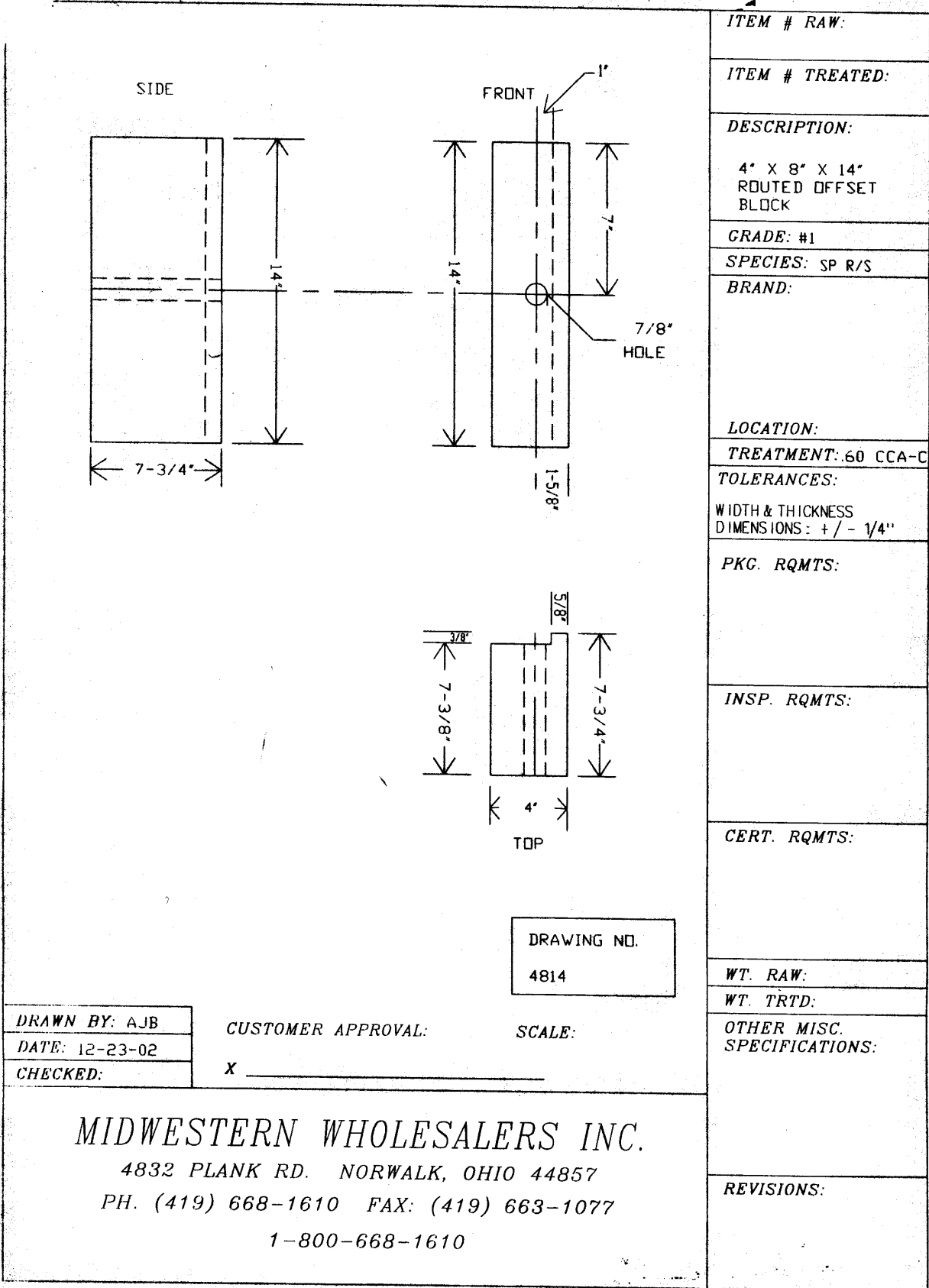
does not address the long-term performance or durability of this product. I understand that this block is not a patented item, so the use restrictions listed in Title 23, Code of Federal Regulations, Section 635.411 for proprietary devices are not applicable.

Sincerely yours,

(original signed by Michael S. Griffith)

Michael S. Griffith
Acting Director, Office of Safety Design
Office of Safety

Enclosure



ITEM # RAW:
ITEM # TREATED:
DESCRIPTION: 4" X 8" X 14" ROUTED OFFSET BLOCK
GRADE: #1
SPECIES: SP R/S
BRAND:
LOCATION:
TREATMENT: 60 CCA-C
TOLERANCES: WIDTH & THICKNESS DIMENSIONS: +/- 1/4"
PKG. RQMTS:
INSP. RQMTS:
CERT. RQMTS:
WT. RAW:
WT. TRTD:
OTHER MISC. SPECIFICATIONS:
REVISIONS:

DRAWING NO.
4814

DRAWN BY: AJB
DATE: 12-23-02
CHECKED:

CUSTOMER APPROVAL: _____
SCALE: X _____

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Illustration D-4. Midwestern Routed Offset Blockout (1 of 1)