



U.S. Department
of Transportation
Federal Highway
Administration

February 25, 2008

1200 New Jersey Avenue, SE.
Washington, DC 20590

In Reply Refer To: HSSD/B-69C

Mr. Owen S. Denman, PE
President and CEO
Barrier Systems, Inc.
180 River Road
Rio Vista, CA 94571

Dear Mr. Denman:

Thank you for your October 25, 2007, e-mail requesting Federal Highway Administration (FHWA) acceptance of a minor modification to your company's Variable Length Barrier (VLB) elements of the Reactive Tension Quickchange Moveable Barrier System as a Test Level 3 device for use on the National Highway System (NHS). You requested that we find this device acceptable for use on the NHS under the provisions of National Cooperative Highway Research Program (NCHRP) Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

Our letter B-69 dated June 27, 2000, found the Steel Reactive Tension System (SRTS)/Concrete Reactive Tension System (CRTS) acceptable for use. You propose to remove the spring from the VLB segments as they have been found to be unnecessary for the proper operation of the Reactive Tension Barrier. We concur with your conclusion that the removal of the springs in the VLB units will not affect the impact performance of the system and the Reactive Tension Quickchange Moveable Barrier would be expected to perform in a similar manner to that indicated in the FHWA acceptance letter for this product.

Therefore, the system described above and detailed in the enclosed drawing is acceptable for use on the NHS under the range of conditions the RTS was tested, when proposed by a State agency.

Please note the following standard provisions that apply to FHWA letters of acceptance:

- This acceptance is limited to the crashworthiness characteristics of the device(s).
- Any changes that may adversely influence the crashworthiness of the device will require a new acceptance letter.

**MOVING THE
AMERICAN
ECONOMY**

Only

- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the device being marketed is significantly different from the version that was crash tested, it reserves the right to modify or revoke its acceptance.
- You will be expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You will be expected to certify to potential users that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that they will meet the crashworthiness requirements of the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number B-69C, shall not be reproduced except in full. This letter and the test documentation upon which this letter is based are public information. All such letters and documentation may be reviewed at our office upon request.
- The Reactive Tension System Variable Length Barrier is a patented product and considered a proprietary element of the Quickchange Moveable Barrier System (QMB). Use of the QMB is allowed under the FHWA Public Interest Finding dated March 25, 1994, as no equally suitable alternate product exists for its use under certain highway and traffic conditions.
- This acceptance letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented device for which the applicant is not the patent holder. The acceptance letter is limited to the crashworthiness characteristics of the candidate device, and the FHWA is neither prepared nor required to become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.

Sincerely yours,



David A. Nicol, P.E.
Director, Office of Safety Design
Office of Safety

Enclosure

Historical
Purposes
Only

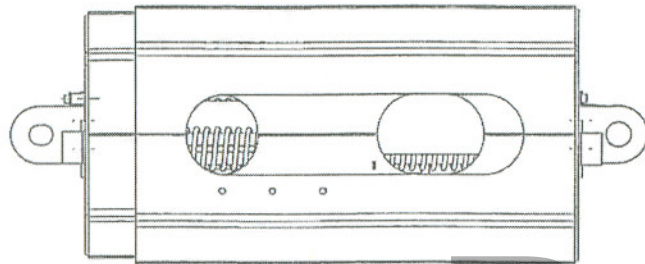
Archived -

For

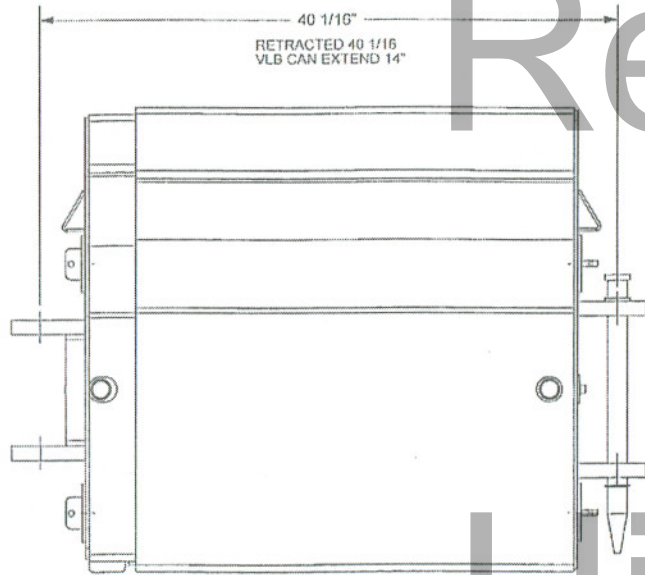
Research

and

Historical



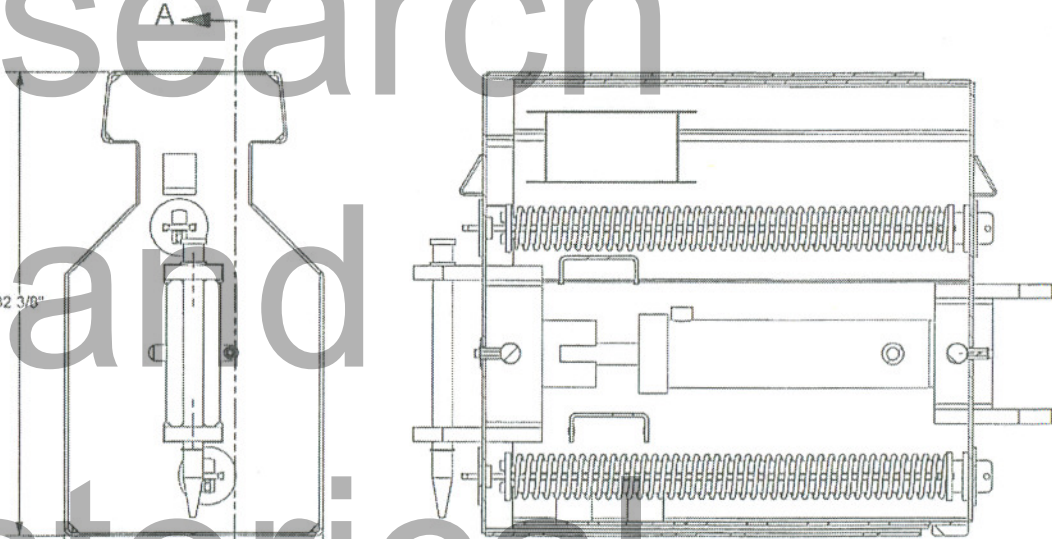
40 1/16"
RETRACTED 40 1/16"
VLB CAN EXTEND 14"



32 3/8"

A

18"



SECTION A-A

NOTE:
THICKNESS OF WELD TO BE EQUAL
TO THE THINNER OF 2 PIECES
BEING JOINED. WELD TO BE ALL
AROUND UNLESS OTHERWISE SPECIFIED

© 2007 Barrier Systems Inc.

The information here on is
proprietary to Barrier Systems
Inc. shall not be disclosed,
copied or used otherwise
without the express written
approval of Barrier Systems Inc.

REV.	CHANGES	DATE	BY	REQD	NEXT ASSY	ITEM

SCALE: 1:8

DRAWN BY
APPRD BY
TITLE:

16" RTS VLB-WITH SPRINGS
1/4" SHELL

Standard Tolerance
Angular ± 1/2°
Fractional ± 1/16"
Dec XXX ± .010
Dec XX ± .030

BARRIER SYSTEMS INC

180 RIVER RD. RIO VISTA, CA 94574
TEL: 707-374-0800 FAX: 707-374-0801

DRAWING NUMBER REV

1 OF 1 B071046

Purposes

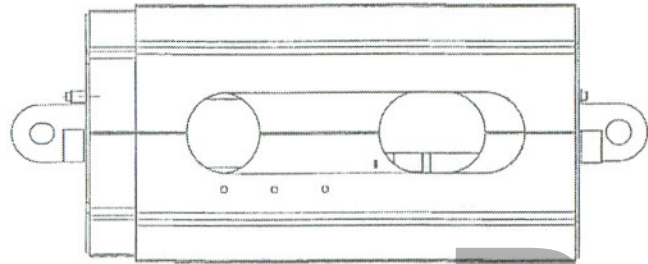
Archived -

For

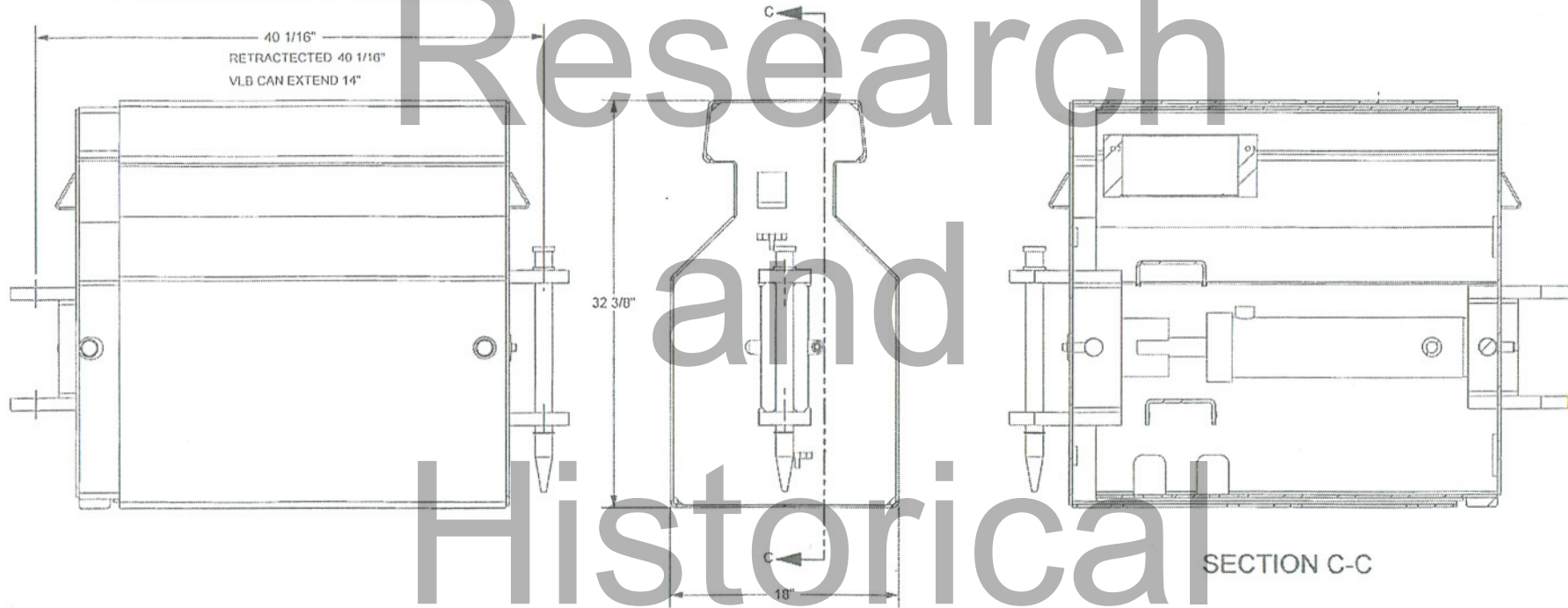
Research

and

Historical



40 1/16"
RETRACTED 40 1/16"
VLB CAN EXTEND 14"



SECTION C-C

NOTE:

THICKNESS OF WELD TO BE EQUAL TO THE THINNER OF 2 PIECES BEING JOINED. WELD TO BE ALL AROUND UNLESS OTHERWISE SPECIFIED

© 2007 Barrier Systems Inc.

The information here on is proprietary to Barrier Systems Inc. shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc.

REV.	CHANGES	DATE	BY	REQD	NEXT ASSY.	ITEM

SCALE: 1:8

Standard Tolerance	± 1/2"
Angular	± 1/16°
Fractional	± .010
Dec. XXX	± .010
Dec. XXX	± .030

DRAWN BY: 10/25/07 UGR
APPROVED BY: JSM

TITLE: 18" RTS VLB-NO SPRING
1/4" SHELL

BARRIER SYSTEMS INC

180 RIVER RD. RIO VISTA, CA 94671
TEL: 707-374-6629 FAX: 707-374-6001

SHEET	DRAWING NUMBER	REV
1 OF 1	B071044	

Purposes