



U.S. Department
of Transportation
**Federal Highway
Administration**

July 13, 1995

400 Seventh St., S.W.
Washington, D.C. 20590

Refer to: HNG-14

Charles E. Dougan, Ph.D., P.E.
Manager of Research and Materials
Bureau of Engineering and Highway Operations
Connecticut Department of Transportation
P.O. Box 317546
Newington, Connecticut 06131-7546

Dear Dr. Dougan:

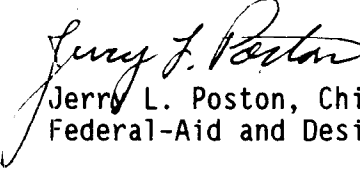
Your June 9 letter requested Federal Highway Administration's (FHWA) acceptance of Connecticut's truck-mounted attenuator (CTMA). The CTMA consists of four 610-mm diameter steel cylinders supported between a steel guide frame which attaches to a shadow truck, and an aluminum impact plate assembly with aluminum channels that slide into steel tubes in the guide frame during impact. These components are shown in Enclosure 1.

To demonstrate satisfactory performance to the National Cooperative Highway Research Program Report 350 test level 2 (TL-2) criteria, the four crash-tests specified in the report were conducted. The results of these tests are summarized in Enclosure 2.

Our review of the test reports and the crash-test videos which accompanied your request confirmed that all appropriate evaluation criteria were fully satisfied for each of the tests. Therefore, we consider the CTMA to be acceptable for use as a TL-2 truck-mounted attenuator on the National Highway System when such use is requested by a highway agency. We understand that the CTMA is not a proprietary product and that interested highway agencies may obtain complete sets of fabrication drawings and specifications from your office upon request.

A copy of this letter and its enclosures will be sent to our FHWA field offices for their information. As discussed by telephone, our review of the drawings which you sent us revealed several drafting errors and some detail omissions that are being corrected. Please forward a set of the corrected drawings for our files as soon as they become available. It would be helpful to us if you could provide reproducible, letter-sized drawings so we can better respond to any inquiries that we may receive.

Sincerely yours,


Jerry L. Poston, Chief
Federal-Aid and Design Division

2 Enclosures

Geometric and Roadside Design Acceptance Letter Number CC-30

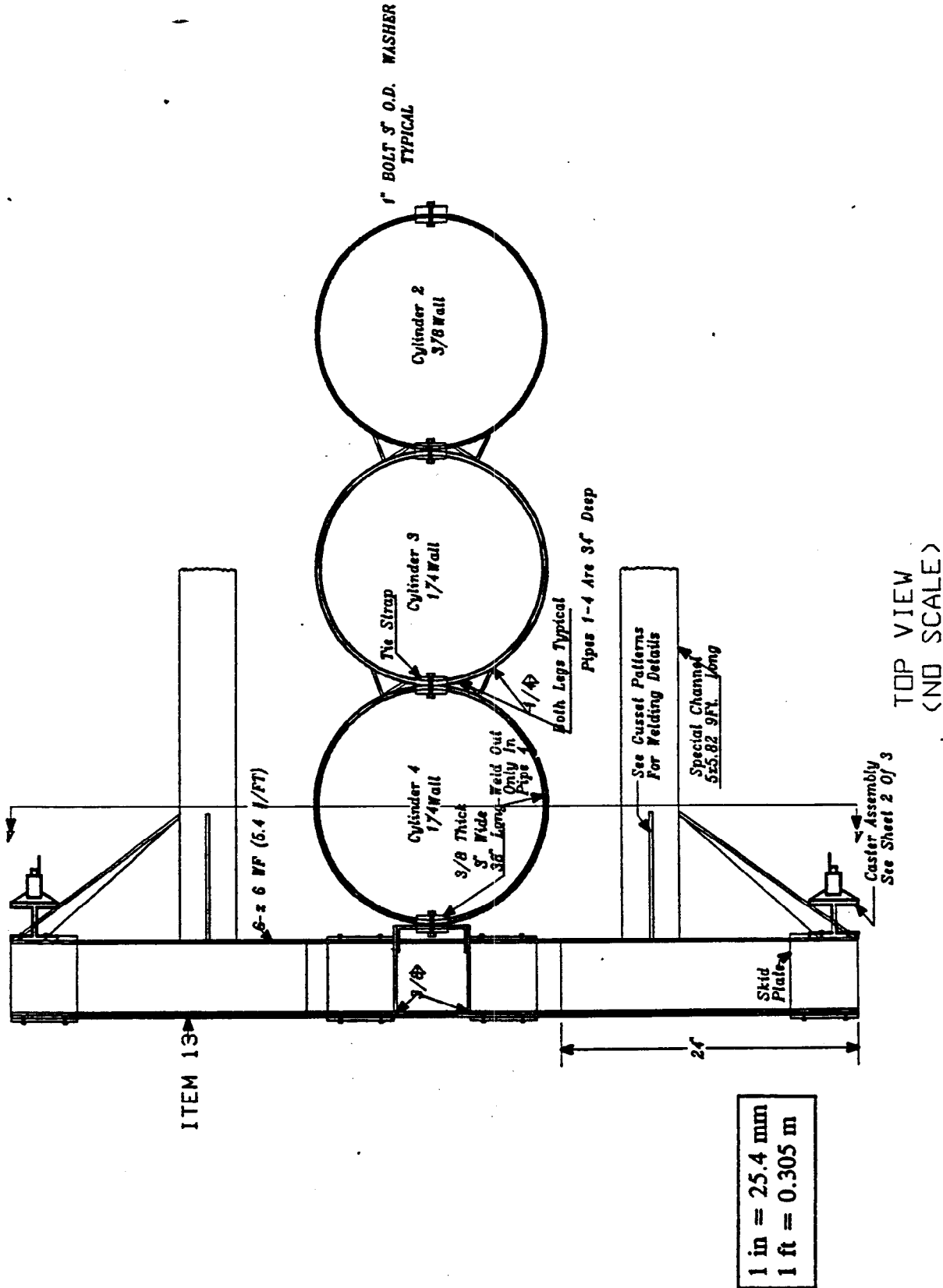


Figure 2. Detail drawings of Connecticut TMA.

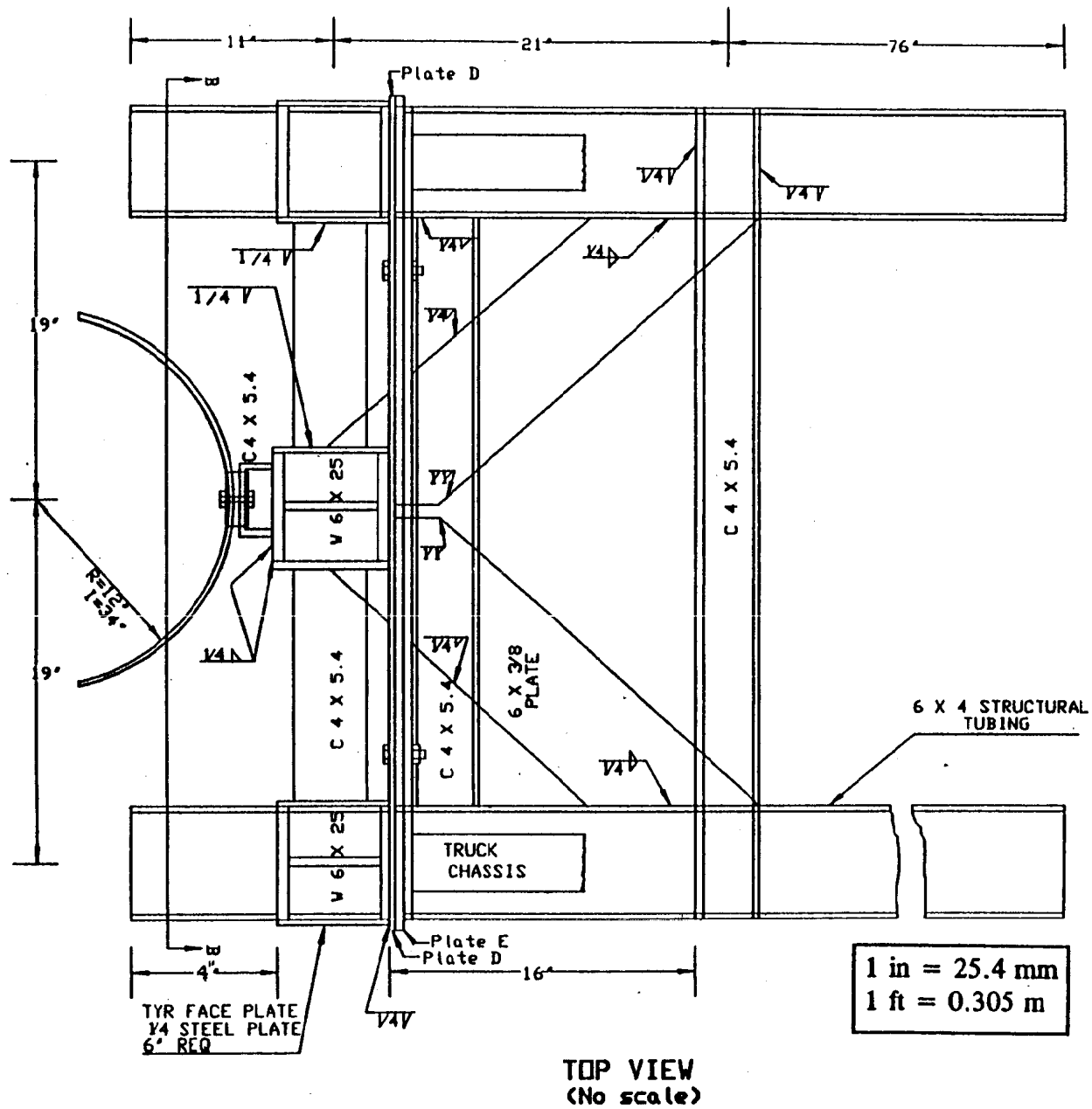


Figure 2. Detail drawings of Connecticut TMA (continued).

CONNECTICUT DEPARTMENT OF TRANSPORTATION
 Division of Research
 June 1995

Connecticut Truck-Mounted Attenuator (CTMA)
 NCHRP Report 350 Test Level 2 Crash Tests

Summary of Results

Test Designation	2-50	2-51	2-52	2-53
Vehicle mass (kg)	817	2000	2000	2000
Impact speed (km/h)	72.9	70.9	70.3	69.6
Impact Angle (degrees)	0	0	0	10.3
Vehicle impact location	Nose	Nose	Veh. width/3 offset	Veh. width/4 offset
Occupant impact velocity (m/s)				
Longitudinal (12 max. allowable)	11.50	8.38	8.63	8.81
Lateral (12 max. allowable)	1.50	0.71	1.47	1.46
Occupant ridedown acceleration (peak 10-ms avg. g's)				
Longitudinal (20 max. allowable)	14.00	15.65	15.08	10.68
Lateral (20 max. allowable)	0.90	1.56	4.03	4.81
Assessment	Passed all requirements	Passed all requirements	Passed all requirements	Passed all requirements