

Ref	References for FHWA Bridge Rail Memorandums
1	Hirsch, T.J., Panak, J.J., and Buth, C.E., "Tubular W-Beam Bridge Rail," Report No. FHWA/TX78-230-1 or TTI-2-5-78-230-1, Submitted to Texas State Department of Highways and Public Transportation, Performed by Texas Transportation Institute, Texas A&M University, October 1978.
2	Bronstad, M.E., and Michie, J.D., "Multiple-Service-Level Highway Bridge Railing Selection Procedures," National Cooperative Highway Research Program (NCHRP) Report No. 239, Transportation Research Board, National Research Council, Washington, D.C., November 1981.
3	Buth, C.E., Bligh, R.P., Campise, W.L., "NCHRP Report 350 Test 3-11 of the Texas Type T6 Bridge Rail," Report No. FHWA/TX-98/1804-4, Letter Report 1804-4, Texas Transportation Institute, Texas A&M University System, July 1998.
4	Buth, C.E., Menges, W.L., "Crash Testing and Evaluation of Retrofit Bridge Railings and Transition," Report No. FHWA-RD-96-032, Research Foundation 72070, Texas Transportation Institute, Texas A&M University, College Station, Texas, January 1997
5	Bronstad, M.E., Michie, J.D., and Mayer, J.B., Jr., "Performance of Longitudinal Traffic Barriers," National Cooperative Highway Research Program (NCHRP) Report No. 289, Transportation Research Board, National Research Council, Washington, D.C., June 1987.
6	Bronstad, M.E., Michie, J.D., Calcote, L.R., Hancock, K.L., and Mayer, J.B., Jr., "Bridge Rail Designs and Performance Standards, Volume I: Research Report," Report No. FHWA/RD-87/049, Submitted to the Safety Design Division, Federal Highway Administration, Performed by Southwest Research Institute, February 1987.
7	Hancock, K.L., Bronstad, M.E., McDevitt, C.F., "Crash Test Evaluation of Selected Bridge Rails," Submitted for Presentation at The 66th Annual Meeting of The Transportation Research Board, Washington, D.C., January 1987.
8	Buth, C. E., T. J. Hirsch, and Wanda L. Menges, "Testing of New Bridge Rail and Transition Designs, Volume I: Technical Report," FHWA-RD-93-058, Final Report on Contract DTFH61-86-C-00071, Texas Transportation Institute, June 1997.
9	Buth, C.E., Hirsch, T.J., and Menges, W.L., "Testing of New Bridge Rail and Transition Designs - Appendix A. Oregon Side Mounted Bridge Railing," Draft Report Submitted to the Office of Research, Federal Highway Administration, Performed by Texas Transportation Institute, Texas A&M University, September 1992.
10	Alberson, D.C., Menges, W.L., Buth, C.E., "Performance Level 1 Bridge Railings," TRB Preprint Paper 950926, Presented at the 74th Annual Meeting of the Transportation Research Board, Washington, D.C., January 1995.
11	Gripne, D., "Washington State Department of Transportation Development of a Bridgerail Retrofit Program," Transportation Research Record No. 1198, Transportation Research Board, National Research Council, Washington, D.C., 1988.
12	Glauz, D.L., Stoughton, R.L., and Folsom, J.J., "Crash Tests of a Retrofit Thrie Beam Bridge Rail and Transition," Transportation Research Record No. 1302, Transportation Research Board, National Research Council, Washington, D.C., 1991.
13	Jewell, J., Glauz, D., Stoughton, R., Crozier, W., Folsom, J.J., "Vehicle Crash Tests of Steel Bridge Barrier Rail Systems For Use On Secondary Highways," Report No. FHWA/CA/TL-93/01, Division of New Technology, Materials & Research, California Department of Transportation, March 1993.
14	Mak, K.K., and Campise, W.L., "Testing and Evaluation of Missouri Thrie-Beam Bridge Rail System and Transition," Report No. 87-4, Prepared for the Missouri Highway and Transportation Department, Submitted by the Texas Transportation Institute, Texas A&M University, May 1988.
15	Buth, C.E., McDevitt, C.F., "Bridge Rails - Recent Crash Tests and Developments," Roads and Transportation Association of Canada, Volume 5, 1989.
16	Crash Tests of R4 Retrofit and Open Parapet Bridge Rails," Report No. FHWA-MI-RD-92-01, Submitted to Michigan Department of Transportation, Performed by ENSCO, Inc., Springfield, Virginia, February 1992.
17	Crashworthiness Of Aluminum Tru-Beam Bridge Railing," Final Report on Contract DTFH-61-80-R-00367, Texas Transportation Institute, Texas A&M University, June, 1982.

18	Buth, E., Arnold, A., Campise, W.L., Hirsch, T.J., Ivey, D.L., and Noel, J.S., "Safer Bridge Railings - Volume 1 Summary Report," Report No. FHWA/RD-82/072, Submitted to the Office of Research, Federal Highway Administration, Texas Transportation Institute, Texas A&M University, June 1984.
19	Pfeifer, B.P., and Faller, R.K., "Safety Performance Evaluation of the Foothills Parkway Bridge Rail," Draft Report submitted to the Federal Highway Administration - Eastern Federal Lands Highway Division, FHWA Contract No. DTFH71-90-C-00035, Report No. TRP-03-41-94, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, January 1994.
20	Hancock, K.L., Hansen, A.G., and Mayer, J.B., "Aesthetic Bridge Rails, Transitions, and Terminals for Park Roads and Parkways," Report No. FHWA-RD-90-052, Submitted to the Office of Safety and Traffic Operations R&D, Federal Highway Administration, Performed by The Scientex Corporation, May 1990.
21	Beason, W.L., Hirsch, T.J., and Cain, J.C., "A Low-Maintenance, Energy-Absorbing Bridge Rail," Transportation Research Record No. 1065, Transportation Research Board, National Research Council, Washington, D.C., 1986.
22	Beason, W.L., Cain, J.C., and Hirsch, T.J., "A Low-Maintenance, Energy-Absorbing Bridge Rail," Report No. FHWA/TX-86/14+417-1F or TTI-2-5-83-417-1F, Submitted to Texas State Department of Highways and Public Transportation, Performed by Texas Transportation Institute, Texas A&M University, October 1986.
23	Morgan, R.D., "Bridge Rails," Memorandum to Regional FHWA Administrators, Federal Highway Administration, Washington, D.C., August 28, 1990.
24	Stoughton, R.L., Stoker, J.R., Nagai, I., Hale, P., Jr., and Bishop, R.W., "Vehicle Impact Tests of a See-Through, Collapsing Ring, Structural Steel Tube, Bridge Barrier Railing," Report No. FHWA/CA/TL-83/05, Office of Transportation Laboratory, California Department of Transportation, June 1983.
25	Kimball, C.E., Bronstad, M.E., Michie, J.D., Wentworth, J.A., and Viner, J.G., "Development of a New Collapsing Ring Bridge Rail System," Report No. FHWA-RD-75-510, Submitted to the Department of Transportation, Federal Highway Administration, Office of Research and Development, Performed by Southwest Research Institute, January 1975.
26	Kimball, C.E., Bronstad, M.E., Michie, J.D., Wentworth, J.A., and Viner, J.G., "Development of a Collapsing Ring Bridge Railing," Report No. FHWA-RD-76-39, Submitted to the Department of Transportation, Federal Highway Administration, Office of Research and Development, Performed by Southwest Research Institute, January 1976.
27	Kimball, C.E., Bronstad, M.E., Michie, J.D., Wentworth, J.A., and Viner, J.G., "Full-Scale Tests of a Modified Collapsing-Ring Bridge Rail System," Transportation Research Record No. 594, Transportation Research Board, National Research Council, Washington, D.C., 1976.
28	Kimball, C.E., Bronstad, M.E., Michie, J.D., Wentworth, J.A., and Viner, J.G., "Development of a New Collapsing-Ring Bridge Rail System," Transportation Research Record No. 566, Transportation Research Board, National Research Council, Washington, D.C., 1976.
29	Jewell, J., Stoughton, R.L., and Glauz, D., "Vehicle Crash Tests of Type 115 Barrier Rail Systems for Use on Secondary Highways," Transportation Research Record No. 1419, Transportation Research Board, National Research Council, Washington, D.C., 1993.
30	Buth, C.E., T.J. Hirsch, and Wanda L. Menges, "Illinois Side-Mounted Bridge Railing," Vol. IX, Appendix H, Final Report on Contract DTFH61-86-C-0007 1, Texas Transportation Institute, Sept. 1993.
31	Buth, E., Arnold, A., Campise, W.L., Hirsch, T.J., Ivey, D.L., and Noel, J.S., "Safer Bridge Railings - Volume 2 Appendices A,B,D, & E," Report No. FHWA/RD-82/073, Submitted to the Office of Research, Federal Highway Administration, Texas Transportation Institute, Texas A&M University, June 1984.
32	Buth, E., Arnold, A., Campise, W.L., Hirsch, T.J., Ivey, D.L., and Noel, J.S., "Safer Bridge Railings - Volume 3 Appendix C, Part 1," Report No. FHWA/RD-82/074.1, Submitted to the Office of Research, Federal Highway Administration, Texas Transportation Institute, Texas A&M University, June 1984.
33	Buth, E., Arnold, A., Campise, W.L., Hirsch, T.J., Ivey, D.L., and Noel, J.S., "Safer Bridge Railings - Volume 4 Appendix C, Part 2," Report No. FHWA/RD-82/074.2, Submitted to the Office of Research, Federal Highway Administration, Texas Transportation Institute, Texas A&M University, June 1984.

34	Hirsch, T.J., Buth, C.E., and Kaderka, D., "Aesthetically Pleasing Steel Pipe Bridge Rail," Transportation Research Record No. 1319, Transportation Research Board, National Research Council, Washington, D.C., 1991.
35	Hirsch, T.J., Buth, C.E., Campise, W.L., and Kaderka, D.L., "Aesthetically Pleasing Steel Pipe Bridge Rail - Texas Type T421," Report No. FHWA/TX-90/1185-2 or TTI:2-5-88/89-1185-2, Submitted to Texas State Department of Highways and Public Transportation, Performed by Texas Transportation Institute, Texas A&M University, May 1990.
36	Mak, K.K., Bligh, R.P., Menges, W.L., "Volume I: Technical Report Testing of State Roadside Safety Systems," Draft Report, Research Study No. RF471470, Contract No. DTFH61-89-C-00089, Texas Transportation Institute, College Station, Texas, September 1996.
37	Nordlin, E.F., Hackett, R.P., and Folsom, J.J., "Dynamic Tests of California Type 9 Bridge Barrier Rail and Type 8 Bridge Approach Guardrail," Highway Research Record No. 302, Highway Research Board, National Research Council, Washington, D.C., 1970.
38	Hirsch, T.J., and Romere, P., "Crash Test of Modified Texas C202 Bridge Rail," Transportation Research Record No. 1258, Transportation Research Board, National Research Council, Washington, D.C., 1990.
39	Hirsch, T.J., and Arnold, A., "Bridge Rail to Restrain and Redirect 80,000-lb Trucks", Transportation Research Record No. 942, Transportation Research Board, National Research Council, Washington, D.C., 1983.
40	Bullard, D.L., Jr., Menges, W.L., and Buth, C.E., "Development of Combination Pedestrian-Traffic Bridge Railings," Paper No. 940617, Presented at the 73rd Annual Meeting of the Transportation Research Board, Washington, D.C., January 1994.
41	Buth, C.E., T.J. Hirsch, and Wanda L. Menges, "BR27D Bridge Railing," Vol. III, Appendix B, Final Report on Contract DTFH61-86-C-00071, Texas Transportation Institute, Sept. 1993.
42	Buth, C. E., T. J. Hirsch, and Wanda L. Menges, "BR27C Bridge Railing," Vol. VIII, Appendix G, Final Report on Contract DTFH61-86-C-00071, Texas Transportation Institute, Sept. 1993
43	Pfeifer, B.G., Holloway J.C., Faller, R.K., and Rosson, B.T., "Test Level 4 Evaluation of the Minnesota Combination Bridge Rail," Report No. MN/RC - 96/08, Final Report to the Minnesota Department of Transportation, Project SPR-3(017), Transportation Report No. TRP-03-53-96, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, March 1996.
44	Mak, K.K., Bligh, R.P., and Pope, D.H., "Wyoming Tube-Type Bridge Rail and Box-Beam Guardrail Transition," Transportation Research Record No. 1258, Transportation Research Board, National Research Council, Washington, D.C., 1990.
45	King K. Mak and L. Bullard, "Testing and Evaluation of Wyoming Tube-Type Bridge Rail," Final report, prepared for Wyoming State Highway Department, Cheyenne, Wyoming, March 1988.
46	King K. Mak, "Testing and Evaluation of the Wyoming 740 WYBRAIL Bridge Railing System," TTI Project No. 472610-4, Texas Transportation Institute, Texas A&M University, College Station, Texas, May 1996.
47	Mak K.K, et al., "Wyoming Test Level 4 Bridge Railing," Texas Transportation Institute, College Station, Texas, January 1996.
48	Buth, C.E., Hirsch, T.J., and McDevitt, C.F., "Performance Level 2 Bridge Railings," Transportation Research Record No. 1258, Transportation Research Board, National Research Council, Washington, D.C., 1990.
49	Romere, P., Campise, W.L., "Illinois 2399 Bridge Rail," Test Report 7069-2, Draft Report, Texas Transportation Institute, Texas A&M University System, August 1987.
50	Pfeifer, B.P., Faller, R.K., and Holloway, J.C., "Guardrail Testing Program II - Final Report," Report No. FHWA-RD-96-119, Final Report to the Federal Highway Administration, Eastern Federal Lands Highway Division, Transportation Research Report No. TRP-03-52-95, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, June 1996.
51	Hancock, K.L., Hansen, A.G., and Mayer, J.B., "Aesthetic Bridge Rails, Transitions, and Terminals for Park Roads and Parkways," Report No. FHWA-RD-90-052, Submitted to the Office of Safety and Traffic Operations R&D, Federal Highway Administration, Performed by The Scientex Corporation, May 1990.
52	Holloway, J.C., Faller, R.K., Pfeifer, B.G., and Post, E.R., "Full-Scale 18,000-lb Vehicle Crash Test on the Kansas 32 Inch Corral Rail," Final Report to the Kansas Department of Transportation, Report No. TRP-03-26-91, Project RES1 (0099) P450, Midwest Roadside Safety Facility, Civil Engineering Department, University of Nebraska-Lincoln, June 1991.

53	Hirsch, T.J., Buth, C.E., Campise, W.L., and Kaderka, D., "Crash Test of Texas T202 Bridge Rail," Report No. FHWA/TX-88/89/1179-2F or TTI-2-5-88/89-1179-2F, Submitted to Texas State Department of Highways and Public Transportation, Performed by Texas Transportation Institute, Texas A&M University, May 1989.
54	Stout, D., and Hinch, J., "Test and Evaluation of Traffic Barriers: Final Report - Technical," Report No. FHWA-RD-89-119, Submitted to the Office of Safety and Traffic Operations R&D, Federal Highway Administration, Performed by ENSCO, Inc., April 1989.
55	Faller, R.K., Holloway, J.C., Pfeifer, B.G., and Rosson, B.T., "Performance Level 1 Tests on the Nebraska Open Concrete Bridge Rail," Final Report to the Nebraska Department of Roads, Transportation Research Report No. TRP-03-28-91, Civil Engineering Department, University of Nebraska-Lincoln, Lincoln, February 1992.
56	Holloway, J.C., Faller, R.K., Wolford, D.L., and Sicking, D.L., "Performance Level 2 Tests on a 29-in. Open Concrete Bridge Rail," Final Report to the Nebraska Department of Roads, Project SPR-3(017), Transportation Report No. TRP-03-51-95, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, June 1996.
57	Hirsch, T.J., Buth, C.E., and Kaderka, D.L., "Aesthetically Pleasing Concrete Beam-and-Post Bridge Rail," Transportation Research Record No. 1258, Transportation Research Board, National Research Council, Washington, D.C., 1990.
58	Hirsch, T.J., Buth, C.E., and Campise, W., "Aesthetically Pleasing Concrete Combination Pedestrian-Traffic Bridge Rail - Texas Type C411," Report No. FHWA/TX-91/1185-3F or TTI-2-5-89/90-1185-3F, Submitted to the Texas State Department of Highways and Public Transportation, Performed by Texas Transportation Institute, Texas A&M University, February 1991/Revised.
59	Buth, C.E., Bligh, R.P., Campise, W.L., "NCHRP Report 350 Test 3-11 of the Texas Type T411 Bridge Rail," Report No. FHWA/TX-98/1804-3, Letter Report 1804-3, Texas Transportation Institute, Texas A&M University System, May 1998.
60	Stout, D., Hinch, J., and Sawyer, D., "Guardrail Testing Program: Final Report," Report No. FHWA-RD-90-087, Submitted to the Eastern Federal Lands Highway Division, Federal Highway Administration, Performed by ENSCO, Inc., June 1990.
61	Faller, R.K., Magdaleno, J.A., and Post, E.R., "Full-Scale Vehicle Crash Tests on the Iowa Retrofit Concrete Barrier Rail," Final Report to Iowa Department of Transportation, Transportation Research Report No. TRP-03-15-88, Civil Engineering Department, University of Nebraska-Lincoln, January 1989.
62	Romere, P., Campise, W.L., "32 in Vertical Wall," Test Report 7069-5, Draft Report, Texas Transportation Institute, Texas A&M University System, October 1987.
63	Romere, P., Campise, W.L., "32 in Vertical Wall Bridge Rail," Test Report 7069-6, Draft Report, Texas Transportation Institute, Texas A&M University System, October 1987.
64	Menges, W.L., Buth, C.E., Bullard, D.L., McDevitt, C.F., "Performance Level 3 Bridge Railings," TRB Preprint Paper 950924, Presented at the 74th Annual Meeting of the Transportation Research Board, Washington, D.C., January 1995.
65	Alberson, D.C., Zimmer, R.A., Menges, W.L., "NCHRP Report 350 Compliance Test 5-12 of the 1.07 m Vertical Wall Bridge Railing," Research Study No. RF405511-2, Contract No. DTFH61-95-C-000136, FHWA-RD-96-199, Texas Transportation Institute, College Station, Texas, February 1996.
66	Hirsch, T.J., and Buth, C.E., "Aesthetically Pleasing Combination Pedestrian-Traffic Bridge Rail," Transportation Research Record No. 1367, Transportation Research Board, National Research Council, Washington, D.C., 1992.
67	Bronstad, M.E., Calcote, L.R., and Kimball, C.E., Jr., "Concrete Median Barrier Research - Vol. 2 Research Report," Report No. FHWA-RD-77-4, Submitted to the Offices of Research and Development, Federal Highway Administration, Performed by Southwest Research Institute, March 1976.
68	Michie, J.D., Calcote, L.R., and Bronstad, M.E., "Guardrail Performance and Design," National Cooperative Highway Research Program (NCHRP) Report No. 115, Highway Research Board, National Research Council, Washington, D.C., 1971.
69	Michie, J.D., and Bronstad, M.E., "Location, Selection, and Maintenance of Highway Traffic Barriers," National Cooperative Highway Research Program (NCHRP) Report No. 118, Highway Research Board, National Research Council, Washington, D.C., 1971.

70	Task Force 13, "A Guide To Standardized Highway Barrier Hardware," AASHTO-AGC-ARTBA Joint Cooperative Committee Subcommittee on New Highway Materials, Task Force 13 Report, 1996?
71	Davis, S., Baczynski, R., Garn, R., Bjork, T., "Test and Evaluation of Heavy Vehicle Barrier Concepts - Technical Report," Draft FHWA Report, Report No. 3115-81-024A/1839, Dynamic Science, Inc., Phoenix, Arizona, July 1981.
72	Holloway, J.C., Faller, R.K., Pfeifer, B.G., Post, E.R., and Davidson, D.E., "Performance Level 2 Tests on the Missouri 30 in. New Jersey Safety-Shape Bridge Rail," Transportation Research Record No. 1367, Transportation Research Board, National Research Council, Washington, D.C., 1992.
73	Bronstad, M.E., Calcote, L.R., Kimball, C.E., Jr., "Concrete Median Barrier Research Volume 1 Executive Summary", FHWA-RD-77-3, Contract DOT-FH-11-8130, Southwest Research Institute, San Antonio, Texas, June 1976.
74	Wiles, E.O., Bronstad, M.E., and Kimball, C.E., "Evaluation of Concrete Safety Shapes by Crash Tests with Heavy Vehicles," Transportation Research Record 631, National Academy of Sciences, Washington, D.C., 1977.
75	Buth, C.E., Kaderka, D., Campise, W.L., "32-in N.J. Safety Shape Bridge Rail," Test Report 7069-14, Draft Report, Texas Transportation Institute, Texas A&M University System, September 1988.
76	Buth, C.E., Kaderka, D., Campise, W.L., "32 in N.J. Safety Shape Bridge Rail," Test Report 7069-12, Draft Report, Texas Transportation Institute, Texas A&M University System, July 1988.
77	Buth, Kaderka, "Evaluation of L.B. Foster Precast Concrete Bolt-Down Barrier System," Texas Transportation Institute, 1989.
78	Holloway, J.C., Faller, R.K., Pfeifer, B.G., and Post, E.R., "Performance Level 2 Tests on the Missouri 30-in. New Jersey Safety Shape Bridge Rail," Final Report to the Missouri Highway and Transportation Department, Transportation Research Report No. TRP-03-27-91, Civil Engineering Department, University of Nebraska-Lincoln, November 1991.
79	Nordlin, E.F., Woodstrom, J.H., Hackett, R.P., Folsom, J.J., Halterman, J.A., and Doty, R.N., "Dynamic Tests of the California Type 20 Bridge Barrier Rail, Series XXIII" Report No. 636459, State of California Transportation Agency, Division of Highways, Materials and Research Department, Sacramento, CA., September 1970.
80	Nordlin, E.F., Woodstrom, J.H., Hackett, R.P., and Folsom, J.J., "Dynamic Tests of the California Type 20 Bridge Barrier Rail," Highway Research Record No. 343, Highway Research Board, National Research Council, Washington, D.C., 1971.
81	Nordlin, E.F., Stoker, J.R., Hackett, R.P., Doty, R.N., and Pelkey, R.A., "Dynamic Tests of the Modified California Type 20 Bridge Barrier Rail," Report No. CA-HY-MR-6589-1-72-30, Materials and Research Department, California Division of Highways, December 1972.
82	Buth, C.E., Campise, W.L., Griffin, L.I., Love, M.L., and Sicking, D.L., "Performance Limits of Longitudinal Barrier Systems: Volume I - Summary Report," Report No. FHWA/RD-86/153, Contract No. DTFH61-8-C-00051, Submitted to the Office of Safety and Traffic Operations R&D, Federal Highway Administration, Performed by the Texas Transportation Institute, Texas A&M University, May 1986.
83	Love, M.L., and C.E. Buth, "Performance Limits of Longitudinal Barrier Systems, Volume II - Appendix A: Vehicle/Barrier Geometrics," Final Report on Contract DTFH61-82-C-00051, Texas Transportation Institute, Texas A&M University, May 1985.
84	Campise, Wanda L., and C.E. Buth, "Performance Limits of Longitudinal Barrier Systems, Volume III - Appendix B: Details of Full-Scale Crash Tests on Longitudinal Barriers," Final Report on Contract DTFH61-82-C-00051, Texas Transportation Institute, Texas A&M University, May 1985.
85	Hirsch, T.J., and Fairbanks, W.L., "Bridge Rail to Contain and Redirect 80,000-lb Tank Trucks," Transportation Research Record No. 1024, Transportation Research Board, National Research Council, Washington, D.C., 1985.
86	Hirsch, T.J., Fairbanks, W.L., and Buth, C.E., "Concrete Safety Shape with Metal Rail on Top to Redirect 80,000-lb Trucks," Transportation Research Record No. 1065, Transportation Research Board, National Research Council, Washington, D.C., 1986.
87	Romere, P., Campise, W.L., "32 in F-Shape Bridge Rail," Test Report 7069-3, Draft Report, Texas Transportation Institute, Texas A&M University System, August 1987.
88	Romere, P., Campise, W.L., "32 in F-Shape Bridge Rail," Test Report 7069-4, Draft Report, Texas Transportation Institute, Texas A&M University System, August 1987.
89	Romere, P., Campise, W.L., "32 in F-shape Bridge Rail," Test Report 7069-8, Draft Report, Texas Transportation Institute, Texas A&M University System, February 1988.
90	Romere, P., Campise, W.L., "32 in F-shape Bridge Rail," Test Report 7069-9, Draft Report, Texas Transportation Institute, Texas A&M University System, March 1988.

91	Campise, W.L., Romere, P., "32 in F-shape Bridge Rail," Test Report 7069-11, Draft Report, Texas Transportation Institute, Texas A&M University System, April 1988.
92	Romere, P., Campise, W.L., "42 in F-shape Bridge Rail," Test Report 7069-7, Draft Report, Texas Transportation Institute, Texas A&M University System, December 1987.
93	Romere, P., Campise, W.L., "42 in F-shape Bridge Rail," Test Report 7069-10, Draft Report, Texas Transportation Institute, Texas A&M University System, March 1988.
94	Mak, K.K., Gripne, D.J., McDevitt, C.F., "Single-Slope Concrete Bridge Rail," Transportation Research Record 1468, Transportation Research Board, 1994.
95	Jewell, J., Rowhani, P., Stoughton, R., Crozier, W., "Vehicular Crash Tests of a Slip-Formed, Single Slope, Concrete Median Barrier with Integral Concrete Glare Screen," FHWA/CA/ESC-98/02, Report No. 636057, Materials Engineering and Testing Services, California Department of Transportation, Sacramento, Ca., December 1997.
96	H.E. Ross, Jr., W. Lynn Beason and H.S. Perera, "Single-Slope Concrete Median Barrier," Transportation Research Record 1302, Transportation Research Board, 1991.
97	Ritter, M.A., Faller, R.K., Holloway, J.C., and Pfeifer, B.G., "Development of the Longitudinal Glulam Timber Railing and Timber Curb System", Draft Report to the U.S. Department of Agriculture, Forest Service, Forest Products Laboratory, Report No. TRP-03-029-91, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, November 1995.
98	Mak, K.K., Alberson, D.C., Raju, P.R., GangaRao, H.V.S., "Timber Bridge Rail and Transition Rail Testing and Evaluation - Timber Bridge Rail, Posts, and Deck on Steel Stringers, Volume 1," Draft Final Report, Contract No. DTFH61-90-C0067, Constructed Facilities Center, West Virginia University, Morgantown, WV, October 1993.
99	Rahu, P.R., GangaRao, H.V.S., Duwadi, S.R., Thippeswamy, H.K., "Development and Testing of Timber Bridge and Transition Rails for Transverse Glued-Laminated Bridge Decks," Transportation Research Record 1460, Transportation Research Board, 1994.
100	Mak, K.K., Alberson, D.C., Raju, P.R., GangaRao, H.V.S., "Timber Bridge Rail and Transition Rail Testing and Evaluation - Glulam Bridge Rail and Deck on Glulam Stringers, Volume 2," Draft Report No. CFC-WVU, Contract No. DTFH61-90-C0067, Constructed Facilities Center, West Virginia University, Morgantown, WV, October 1993.
101	Mak, K.K., Alberson, D.C., Raju, P.R., GangaRao, H.V.S., "Timber Bridge Rail and Transition Rail Testing and Evaluation - W-Beam Steel Rail, Timber Posts and Glulam Deck on Steel Stringers, Volume 3," Draft Final Report, Contract No. DTFH61-90-C0067, Constructed Facilities Center, West Virginia University, Morgantown, WV, October 1993.
102	Ritter, M.A., Faller, R.K., Holloway, J.C., Pfeifer, B.G., and Rosson, B.T., "Development and Testing of Bridge Railings for Longitudinal Timber Decks by Full-Scale Crash Testing," Draft Report to the U.S. Department of Agriculture, Forest Service, Forest Products Laboratory, Transportation Research Report No. TRP-03-29-94, Civil Engineering Department, University of Nebraska-Lincoln, August 1992.
103	Faller, R.K., Ritter, M.A., Holloway, J.C., Pfeifer, B.G., and Rosson, B.T., "Performance Level 1 Bridge Railings for Timber Decks," Transportation Research Record No. 1419, Transportation Research Board, National Research Council, Washington, D.C., 1993.
104	Rosson, B.T., Faller, R.K., Ritter, M.A., "Performance Level 2 and Test Level 4 Bridge Railings for Timber Decks," Transportation Research Record No. 1500, Transportation Research Board, National Research Council, Washington, D.C., 1995.
105	Ritter, M.A., and Faller, R.K., "Development of the TBC-8000 Bridge Railing," Draft Report to the U.S. Department of Agriculture, Forest Service, Forest Products Laboratory, Report No. TRP-03-30-93, Midwest Roadside Safety Facility, Civil Engineering Department, University of Nebraska-Lincoln, May 1993.