

**SPECIFICATIONS AND NOTES APPLICABLE TO ALL OVERHEAD SIGN DRAWINGS:**

FROM JUNE 30, 1999, ONLY OVERHEAD SIGN STRUCTURES INCLUDED IN THE AUTHORITY'S APPROVED LIST WILL BE ACCEPTED. AFTER THIS DATE, IF AN OVERHEAD SIGN STRUCTURE HAS NOT BEEN INCLUDED IN THE AUTHORITY'S APPROVED LIST, IT WILL BE SUBMITTED FOR EVALUATION AND INCLUSION IN THE APPROVED LIST BEFORE USING IT IN ANY OF OUR CONSTRUCTION PROJECTS. THE CONTRACTOR SHALL NOT BEGIN THE CONSTRUCTION OF ANY OVERHEAD SIGN STRUCTURE IF THE AUTHORITY HAS NOT APPROVED THE STRUCTURE.

OVERHEAD SIGN STRUCTURES THAT INCLUDE VARIABLE MESSAGE SIGNS ARE NOT INCLUDED IN THIS PROCEDURE AND PROJECT BY PROJECT SHOP DRAWINGS WILL CONTINUE TO BE SUBMITTED.

SIGN STRUCTURES WITH CANTILEVER ARMS, SPANS AND/OR SIGN AREAS WHICH EXCEED THE MAXIMUM VALUES INCLUDED IN THE STANDARD DRAWINGS WILL BE APPROVED ON A CASE BY CASE BY SUBMISSION OF SHOP DRAWINGS BY THE CONTRACTOR AS A SUBSIDIARY OBLIGATION.

**SHOP DRAWING REQUIREMENTS:**

SHOP DRAWINGS SHALL BE ACCOMPANIED BY A CERTIFICATE FROM THE MANUFACTURER INDICATING THAT THE MATERIALS MEET ALL THE REQUIREMENTS OF THE SPECIFICATIONS. IN THE EVENT THAT ANY ITEM IS NOT EXACTLY IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS, THE CERTIFICATE SHALL IDENTIFY AND EXPLAIN EACH SUCH DIFFERENCE.

THE CERTIFICATE WILL INCLUDE A STATEMENT THAT THE STRUCTURE HAS BEEN DESIGNED IN CONFORMANCE WITH THE ASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", SECOND DRAFT MAY 1998, OR LATER DRAFTS OF SAID MANUAL; AND THAT DESIGN MEETS THE DESIGN REQUIREMENTS LISTED ABOVE.

THE SHOP DRAWINGS SHALL INCLUDE DETAILED COMPUTATIONS OF THE LOADS AND STRESSES ON ALL MEMBERS. THE SHOP DRAWINGS SHALL INCLUDE COMPLETE DESIGN COMPUTATIONS AND DETAILING OF THE ANCHOR BOLTS, INCLUDING, BUT NOT LIMITED TO, ANCHOR BOLT SIZE, MATERIALS AND GALVANIZING, NUMBER OF ANCHOR BOLTS AND LENGTH OF EMBEDMENT.

THE CONTRACTOR AND MANUFACTURER WILL SELECT A CANTILEVER STRUCTURE TYPE WHICH HAS A CANTILEVER ARM EQUAL OR GREATER THAN THE ACTUAL CANTILEVER ARM AND TOTAL SIGN AREA EQUAL OR GREATER THAN THE ACTUAL SIGN AREA. THE CONTRACTOR AND MANUFACTURER WILL SELECT A BALANCED CANTILEVER STRUCTURE TYPE WHICH HAS BOTH CANTILEVER ARMS EQUAL OR GREATER THAN THE ACTUAL CANTILEVER ARMS AND TOTAL SIGN AREAS EQUAL OR GREATER THAN THE ACTUAL SIGN AREAS. THE CONTRACTOR AND MANUFACTURER WILL SELECT AN OVERHEAD BRIDGE STRUCTURE TYPE WHICH HAS A SPAN EQUAL OR GREATER THAN THE ACTUAL SPAN AND TOTAL SIGN AREAS EQUAL OR GREATER THAN THE ACTUAL SIGN AREAS. THE CONTRACTOR AND MANUFACTURER WILL SELECT AN OVERHEAD BRIDGE WITH CANTILEVER STRUCTURE TYPE WHICH HAS BOTH SPAN AND CANTILEVER ARM EQUAL OR GREATER THAN THE ACTUAL SPAN AND CANTILEVER ARM SIGN AND TOTAL SIGN AREAS EQUAL OR GREATER THAN THE ACTUAL SIGN AREAS.

USING THE SELECTED OVERHEAD STRUCTURE TYPE, THE CONTRACTOR MAY SELECT A SPREAD FOOTING OR DRILL SHAFT FOUNDATION PROVIDED THERE ARE NO UNDERGROUND OBSTRUCTION LIMITATIONS. THE FOUNDATION SHALL CONFORM TO THE DETAILS INCLUDED IN THE STANDARD DRAWING FOR THE SELECTED OVERHEAD STRUCTURE TYPE. IF THE METAL OVERHEAD STRUCTURE DOES NOT FIT THE CONCRETE FOUNDATION PEDESTAL, THE CONTRACTOR IS RESPONSIBLE FOR THE SUBMISSION OF SHOP DRAWINGS FOR THE NECESSARY FOUNDATION MODIFICATION AS A SUBSIDIARY OBLIGATION.

ALL WELDING SHALL BE DETAILED IN ACCORDANCE WITH THE DETAILING PRACTICES OF THE AMERICAN WELDING SOCIETY.

ALL METAL MEMBERS SHALL BE FULLY DETAILED INCLUDING FULL DETAILING OF THE CONNECTIONS.

ALL BOLTS, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE FULLY DETAILED AS TO SIZES, TYPES, MATERIALS AND COATINGS.

IF THE ACTUAL OVERHEAD SIGN STRUCTURE EXCEEDS THE STRUCTURAL LIMITS CONTAINED IN THE STANDARD DRAWINGS OR APPROVED LIST, THE CONTRACTOR AND MANUFACTURER SHALL SUBMIT COMPLETE SHOP DRAWINGS, INCLUDING FOUNDATIONS. THE SHOP DRAWINGS SHALL BE CERTIFIED BY THE MANUFACTURER AS MEETING ALL DESIGN AND CONTRACT REQUIREMENTS.

THE OVERHEAD SIGN STRUCTURE INCLUDES SIGN PANELS, INCLUDING DIMENSION AND HEIGHT ABOVE EXISTING GROUND, STRUCTURAL SUPPORTS INCLUDING VERTICAL AND HORIZONTAL SUPPORTS, CANTILEVER ARM, SPAN AND FOUNDATION, AND METHOD OF ATTACHMENT OF THE SIGN ASSEMBLY.

EFFECTIVE DATE: OCTOBER 2000

COMMONWEALTH OF PUERTO RICO  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC WORKS  
HIGHWAY AND TRANSPORTATION AUTHORITY

RECOMMENDED BY:  
DEPUTY EXEC. DIR. FOR  
TRAFFIC AND TOLL ROADS  
DATE: 2-1-2000

APPROVED BY:  
EXECUTIVE DIRECTOR  
DATE: 2-6-11-00

**OVERHEAD SIGNS  
SPECIFICATIONS  
AND NOTES**

DATE	REVISION	BY

STD. OHTS  
DWG. 1A OF 20