

Proposed Revision To: <input type="checkbox"/> Standard Specifications For Public Works Construction <input type="checkbox"/> Standard Plans For Public Works Construction		Change No. 18745 (ASSIGNED BY GREENBOOK COMMITTEE)
Public Works Standards, Inc. AGC Southern California Regional Office 1255 Corporate Center Dr., Suite #100 Monterey Park, California 91754		Date Proposal Received 7-19-07 (ASSIGNED BY GREENBOOK COMMITTEE)
Subsection or plan to be revised: 206-3		On page(s): 118-119
Revision: We suggest that Section 206-3 Gray Iron Castings be rearranged as laid out on the attached pages.		
Reason For Revision: The purpose of this change is to incorporate the performance requirements of AASHTO M306 and the material requirements of AASHTO M105 into the Greenbook specifications for gray iron castings. AASHTO M306 is a newly-revised, all-encompassing specification for drainage, sewer, utility, and related castings. This is a performance specification, but it references necessary material specifications and requirements. AASHTO M105 is a newly-revised material specification for gray iron castings.		
Submitted By: John H. Snyder, P.E.		Phone No: (231) 536-4550
Agency: East Jordan Iron Works, Inc.		
Address: P.O. Box 439, East Jordan, MI 49727		
Instructions: Use a separate form for each revision. Use plain paper attached to this form if more space is needed. For minor changes, copy present wording using <u>strike over</u> with dashes for words to be deleted and <u>underline new</u> text. For major changes, rewrite or add paragraph or section. Reason MUST be given.		
Subcommittee Action: On _____ (Date) <input type="checkbox"/> Recommended For _____ Supplement/Edition <input type="checkbox"/> Rejected <input type="checkbox"/> As Modified		Editorial Standards Subcommittee Review: On _____ (Date) <input type="checkbox"/> Reviewed For Surf/Und/Spec/Plans Subcommittee <input type="checkbox"/> NO Modifications <input type="checkbox"/> As Modified
Greenbook Committee Action: On _____ (Date) <input type="checkbox"/> Approved For _____ Supplement/Edition <input type="checkbox"/> As Modified <input type="checkbox"/> Rejected		

206-3 GRAY IRON CASTINGS.

206-3.1 General. ~~Gray iron castings shall be true to pattern in form and dimension and free from defects that would affect the service value of the casting. Minor defects may be repaired with Engineer approval.~~ conform to American Association of State Highway and Transportation Officials (AASHTO) M306 and M105 (Class 35B). Castings that are intended for traffic service shall meet the requirements of AASHTO M306 and AASHTO M105. Castings used in non-traffic areas shall meet the requirements of AASHTO M105 (Class 35B).

~~The~~ All castings shall be filleted boldly at angles, and the arrises shall be sharp and true. All castings ~~Before the castings are removed from the foundry, they shall be thoroughly cleaned and the parting lines, grates, and risers ground flush. Castings which have been repaired without the permission of the Engineer may be rejected. Castings that show injurious defects revealed by X-ray or machining operations will be rejected.~~

All castings not specifically classified shall conform to ASTM A 48, Class 305B. ~~Gratings (inlet, manhole, trench and tree) and manhole frames and covers shall conform to ASTM A 48, Class 35B. This includes~~ such items as tree grates, various inlet grates, trench grates, etc.

206-3.2 Testing Requirements. ~~Testing shall be performed in accordance with Method A or Method B~~ the inspection criteria of AASHTO M306 and AASHTO M105.

~~Method A shall consist of testing tensile specimens in accordance with ASTM A 48. The Engineer shall be notified so that he may be present at the time of the melt to permit identification of both coupons and castings. The test specimens shall be provided and machines by the manufacturer to the dimensions specified for Specimen B of ASTM A 48 and Agency requirements. The specimens shall be tested at the location designated by the Agency. Machining and testing of specimens shall be at the Contractor's expense.~~ testing shall be conducted in accordance with Sections 7.1, 7.1.1, and 7.1.2 of AASHTO M306 for castings intended for traffic service and Sections 15.1 and 15.1.1 of AASHTO M105 for castings used in non-traffic areas.

~~Method B shall consist of a proof load test. The Engineer shall be notified and may be present during the proof load test. Frames and covers and grating selected by the Engineer shall be loaded to the proof load specified on the Standard Plan. The loads shall be concentrated on a 230 mm by 230 mm by 25 mm (9 inch by 9 inch by 1 inch) minimum thickness steel plate placed on a 6 mm (1/4 inch) rubber pad centered on the assembled cover or grate. The specified load shall be applied by a calibrated testing machine and held for a period of 1 minute. Upon removal of the load, the test specimens shall be examined for cracks and permanent deformation, either of which are cause for rejection. The testing of the specimens shall be at the Contractor's expense.~~ testing shall be conducted in accordance with Sections 7.1, 7.1.1, and 7.1.3 of AASHTO M306 for castings intended for traffic service and Sections 15.1 and 15.1.2 of AASHTO M105 for castings used in non-traffic areas.

Test specimens shall be selected as follows:

- 1) ~~Two assembled test specimens shall be proof load tested for each lot. A lot shall be defined as consisting of no more than 25 complete units from the same foundry facility.~~

~~2) If the tested specimens of a designated lot pass the test, all of the units of that lot shall be considered as complying with the load requirements.~~

~~3) If either of the tested specimens of a designated lot fails to pass the test, then five additional specimens from the same lot shall be selected for testing.~~

~~4) If the five additional specimens pass, the total number of the lot will be considered as complying with the requirements, except previously failed specimens.~~

~~5) If any of the five additional specimens fails to meet the load tests requirements, the entire lot shall be rejected, except those specimens that passed.~~

206-3.3 Manhole Frame and Cover Sets. The castings shall be manufactured in accordance with Section 4 of AASHTO M306. ~~The bearing surface of the frames and covers shall be machined and the cover shall seat firmly into the frame without rocking. The frames and covers shall be coated as specified in 206-3.6.~~

206-3.4 Railings, Railing Posts, and Wheel Guards. Castings shall conform to ASTM A 48, Class 40 or AASHTO M105, Class 40.

206-3.5 Rockers, Rocker Plate Bearings, and Bearing Plates for Bridges. Castings shall conform to ASTM A 48, Class 50 or AASHTO M105, Class 50. ~~Castings shall be machines and finished as required by the Engineer.~~

206-3.6 Asphalt Coatings. Unless otherwise specified, castings shall be provided uncoated, in accordance with Section 4.3.4 of AASHTO M306. ~~exposed surfaces with the castings assembled and disassembled shall be painted with commercial quality asphalt paint after testing and inspection.~~