

AWS D1.1 - FIELD WELDING PLAN

To be completed by the Contractor
and submitted to the Engineer for approval.

Naming Convention: 0394 MDOT ID-JN YYYY-MM-DD Field Welding Plan.pdf

| | | |
|--------------------|------------|---|
| LOCATION | | Bridge Field Services Approval Block |
| CONTRACTOR | JOB NUMBER | |
| WELDING CONTRACTOR | MDOT ID | |
| PREPARED BY | DATE | |

SPECIFICATIONS

The Contractor must comply with the *AWS D1.1 - Structural Welding Code*, specified in and modified by 20SP-707A - *Structural Steel and Aluminum Construction*, subsection 707.03.E.7 of the *MDOT Standard Specifications for Construction*, and all other contract requirements.

WELD INSPECTION AND TESTING

Test 100% of all welds in accordance with subsection 707.03.E.7.f of the MDOT Standard Specifications for Construction and AWS D1.1. The testing must be performed by a Certified Welding Inspector (CWI) qualified as American Society for Nondestructive Testing (ASNT) Level II or Level III on Recommended Practice Number SNT-TC-1A. **The Contractor must provide CWI and ASNT certifications to the Engineer prior to beginning the work. Upon completion of testing submit all nondestructive test reports, CWI and ASNT certifications to the Engineer.**

SCOPE OF WORK

WELDER CREDENTIALS

All welders performing AWS D1.1 field welding on MDOT construction projects must be qualified through [MDOT's Welder Qualification Program](#). Welders qualified through this program will have Form 0396 - *Welder Qualification Test Report* for each welding process and position they are qualified. **The Contractor must submit all welder credentials with this form to the Engineer prior to beginning the work.**

WELD PROCEDURE SPECIFICATIONS (WPS)

Weld Procedure Specifications (WPS) must be completed by the contractor and submitted to the Engineer for approval. **The Contractor must submit all WPS's with this form to the Engineer for approval prior to beginning the work. The Contractor may complete the WPS's included as additional pages of this form or may delete the additional pages and attach their own WPS's to page 1 of this form.**

FORM INSTRUCTIONS

- 1) Complete page 1 of Form 0394 and all required WPS's for the project and save as an Adobe PDF file;
- 2) Attach Form 5620 – *Welder Certification Test Report* or Form 0396 – *Welder Qualification Test Report* for all welders performing the welding;
- 3) Save Form 0394 with all attachments as follows: **0394 MDOT ID-JN YYYY-MM-DD Field Welding Plan.pdf**;
- 4) Submit to the Engineer for approval.

WELDING PROCEDURE SPECIFICATION (WPS)

To be completed by the Contractor
and submitted to the Engineer for approval.

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| LOCATION | | | | Bridge Field Services Approval Block |
|--|-----------------------|---------------------|-------|--|
| WELDING CONTRACTOR | | JOB NUMBER | | |
| PROCEDURE NUMBER/REVISION NUMBER | | MDOT ID | | |
| PREPARED BY | | DATE | | |
| WELDING INFORMATION | | | | JOINT DETAIL |
| MATERIAL SPECIFICATION | | | | |
| WELDING PROCESS | | | | |
| WELDING METHOD | | | | |
| WELDING POSITION | | | | |
| FILLER METAL SPECIFICATION | | | | |
| FILLER METAL CLASSIFICATION | | | | |
| CURRENT/POLARITY | | | | |
| WELDING PROGRESSION | | | | |
| ROOT TREATMENT | | | | |
| PREHEAT SURFACES 3" IN EVERY DIRECTION FROM WELD | | | | |
| BASE METAL THICKNESS | | PREHEAT TEMPERATURE | | |
| < 1½" | | 250 °F MINIMUM | | |
| 1½" TO 2½" | | 300 °F MINIMUM | | |
| > 2½" | | 400 °F MINIMUM | | |
| INTERPASS TEMPERATURE 650 °F MAXIMUM | | | | |
| WELDING PROCEDURE | | | | WELD INSPECTION AND TESTING |
| PASS NUMBER | ELECTRODE DIAMETER | WELDING CURRENT | | TRAVEL SPEED |
| | | AMPERES | VOLTS | |
| | | | | |
| | | | | <input type="checkbox"/> VISUAL TESTING - 100% <input type="checkbox"/> PENETRANT TESTING - 100% <input type="checkbox"/> MAGNETIC PARTICLE TESTING - 100% <input type="checkbox"/> ULTRASONIC TESTING - 100% <input type="checkbox"/> RADIOGRAPHIC TESTING - 100% <input type="checkbox"/> OTHER _____ |

- Approved Form 0394 must be in the possession of the welder performing the work at the jobsite.
- Welding is not allowed when the ambient air temperature is below 40 °F or during periods of precipitation unless heating and housing the area has been approved by the Engineer.