APPENDIX G

DATA SHEETS AND CHECKLISTS FOR FABRICATION AND INSPECTION
AND
TEST DOCUMENTATION AND DATA PROCESSING
Specimen Identification: __________________________

ROLLED SHAPES

**Beam Size:** __________________________
Grade: __________________________
Manufacturer: __________________________
Heat No.: __________________________
Other Control Information: __________________________

- mill certificate yield stress __________________________ ksi
- ultimate stress __________________________ ksi
- coupon tests yield stress __________________________ ksi
- ultimate stress __________________________ ksi

*Notes:*

**Column Size:** __________________________
Grade: __________________________
Manufacturer: __________________________
Heat No.: __________________________
Other Control Information: __________________________

- mill certificate yield stress __________________________ ksi
- ultimate stress __________________________ ksi
- coupon tests yield stress __________________________ ksi
- ultimate stress __________________________ ksi

*Notes:*

Name: __________________________
Date: __________________________
Specimen Identification: ________________________________

### PLATE MATERIALS

<table>
<thead>
<tr>
<th>Shear Tab Dimensions:</th>
<th>________________________________</th>
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<tbody>
<tr>
<td>Grade:</td>
<td>________________________________</td>
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</tbody>
</table>

**mill certificate**

| yield stress     | ________________________________ ksi |
| ultimate stress  | ________________________________ ksi |

**coupon tests**

| yield stress     | ________________________________ ksi |
| ultimate stress  | ________________________________ ksi |

**Notes:**

### Continuity Plate Dimensions:

| ________________________________ |
| ________________________________ |
| ________________________________ |
| ________________________________ |

**mill certificate**

| yield stress     | ________________________________ ksi |
| ultimate stress  | ________________________________ ksi |

**coupon tests**

| yield stress     | ________________________________ ksi |
| ultimate stress  | ________________________________ ksi |

**Notes:**

Name: ________________________________  Date: ________________
Checklist for Fabrication and Inspection

Specimen Identification: ________________________________

OTHER MATERIALS

**Angle, T-Stub, Coverplate, Haunch, Bracket, Other** (circle one)

- **Dimensions**: ________________________________
- **Grade**: ________________________________
- **Manufacturer**: ________________________________
- **Heat No.**: ________________________________
- **Other Control Information**: ________________________________

**Mill certificate**
- yield stress: ________________________________ ksi
- ultimate stress: ________________________________ ksi

**Coupon tests**
- yield stress: ________________________________ ksi
- ultimate stress: ________________________________ ksi

**Notes**: ________________________________

**Angle, T-Stub, Coverplate, Haunch, Bracket, Other** (circle one)

- **Dimensions**: ________________________________
- **Grade**: ________________________________
- **Manufacturer**: ________________________________
- **Heat No.**: ________________________________
- **Other Control Information**: ________________________________

**Mill certificate**
- yield stress: ________________________________ ksi
- ultimate stress: ________________________________ ksi

**Coupon tests**
- yield stress: ________________________________ ksi
- ultimate stress: ________________________________ ksi

**Notes**: ________________________________

Name: ________________________________ Date: ________________
Checklist for Fabrication and Inspection

Specimen Identification: ____________________________________________

SHOP FABRICATION

Quality Control

Weld Procedure Specifications submitted and approved  □
Material controls and documentation in place  □
Cutting method: □ shearing  □ burning
Holes made by: □ punching  □ drilling

Finishing/edge conditions: ____________________________  __________  __________
Weld access holes detailed per J.8 and commentary section J.1.7 of the ASD  □

Notes:

Welding

Electrodes conform to specifications  □
Manufacturer’s product data followed  □
WPS’s applicable to joint(s) being welded (material grades and thickness, configuration)  □
WPS’s in conformance with AWS D1.1-96  □
Welder qualified for joint(s) being welded (configuration, position)  □
Preheat per AWS and approved WPS through the thickness of the joint and 3” from the joint  □

Notes:

Name: ____________________________  Date: _________________
Checklist for Fabrication and Inspection

Specimen Identification: ________________________________

SHOP INSPECTION

**General**

- Bolts conform to design □
- Electrodes conform to specification □
- Steel materials conform to design □
- Cutting and drilling conform to design □
- Finishing conforms to design □

**Pre-Weld Inspection**

**Visual**

- Fit-up per AWS allowable tolerances □
- Weld access holes detailed per J.8 and commentary section J.1.7 of the ASD □
- Joint is free of □ oil, grease □ dirt □ excessive rust

**Preheat**

- Preheat per AWS and approved WPS through the thickness of the joint and 3” from the joint □
- Temperature sticks 3” from the weld joint, through the entire thickness □

Notes:

Name: ________________________________ Date: ____________________
Specimen Identification: ____________________________

**SHOP INSPECTION**

**Welding**

Verify conformance with WPS and document parameters used

Type of joint to be fabricated ____________________________

Meters on welding equipment operational ☐

Welding process ____________________________

Voltage — measured at the arc ____________________________ Volts

Current ____________________________

Amperage — measured at the arc ____________________________

Polarity setting of welding machine ____________________________

Weld size ____________________________ in.

Position for welding ____________________________

Electrode diameter ____________________________ in.

FCAW and GMAW: electrical stick out ____________________________ in.

Gas-shielded: type of gas and mix ____________________________

Gas shielded: shielding gas flow rate ____________________________

Travel speed ____________________________ in/sec

Bead width and thickness ____________________________ in.

Technique (stringer, weave beads) ____________________________

Minimum and maximum preheat temperature ____________________________ deg F

Minimum and maximum interpass temperature ____________________________ deg F

Number and location of passes (range of passes for groove welds) ____________________________

Any in-process nondestructive testing ____________________________

Peening requirements ____________________________

Layer thickness and width ____________________________ in.

**Name:** ____________________________  **Date:** ____________________________
Checklist for Fabrication and Inspection

Specimen Identification: ________________________________

SHOP INSPECTION

Welding (continued)
Verify conformance with WPS and document parameters used

Difference between root pass and subsequent passes, if any __________________________

Post-weld heat treatment requirements ________________________________

Type and material of backing bar, if used ________________________________

Provisions for removal of backing bar, backgouging, and re-welding, if required ________________________________

Tolerances for dimensional values (plate thicknesses, fit-up, etc.) ________________________________ in.

Tolerances for procedural values (voltage, current, travel speed, etc.) ________________________________

Notes:

Name: ________________________________ Date: ________________
Specimen Identification: ________________________________

SIMULATED FIELD ERECTION AND WELDING

**Quality Control**

- Weld Procedure Specifications submitted and approved
  - Joint erection sequence submitted
    - (bolt tightening, welding top and bottom flange by layer, web welding, etc.)
- Specified bolt torquing/tensioning conforms with design

*Notes:*

**Welding**

- Electrodes conform to specifications
- Manufacturer’s product data followed
- WPS’s applicable to joint(s) being welded
  - (material grades and thickness, configuration)
- WPS’s in conformance with AWS D1.1-96
- Welder qualified for joint(s) being welded
  - (configuration, position)
- Preheat per AWS and approved WPS through the thickness of the joint and 3” from the joint

*Notes:*

Name: ____________________________ Date: _______________
Checklist for Fabrication and Inspection

Specimen Identification: ________________________________

FIELD INSPECTION

General
Verify approved joint erection sequence is followed ☐
Verify bolting to specification ☐
  turn-of-the-nut method ☐
  load-indicating washers ☐
  twist-off bolts ☐
Run-off tab and back-up bar removal per design ☐
Electrodes conform to specification ☐

Pre-Weld Inspection
Visual
Fit-up per AWS allowable tolerances (root gap, back-up fit flush) ☐
Weld access holes detailed per J.8 and commentary section J.1.7 of the ASD ☐
Joint is free of ☐
  oil, grease ☐
  dirt ☐
  excessive rust ☐

Preheat
Preheat per AWS and approved WPS through the thickness of the joint and 3” from the joint ☐
Temperature sticks 3” from the weld joint, through the entire thickness ☐

Notes:

Name: ________________________________  Date: _________________
Specimen Identification: ________________________________

**FIELD INSPECTION**

**Welding**

Verify conformance with WPS and document parameters used

- Type of joint to be fabricated ______________________
- Meters on welding equipment operational □
- Welding process ______________________
- Voltage — measured at the arc ______________________ Volts
- Current ______________________
- Amperage — measured at the arc ______________________
- Polarity setting of welding machine ______________________
- Weld size ______________________ in.
- Position for welding ______________________
- Electrode diameter ______________________ in.
- FCAW and GMAW: electrical stick out ______________________ in.
- Gas-shielded: type of gas and mix ______________________
- Gas shielded: shielding gas flow rate ______________________
- Travel speed ______________________ in/sec
- Bead width and thickness ______________________ in.
- Technique (stringer, weave beads) ______________________
- Minimum and maximum preheat temperature ______________________ deg F
- Minimum and maximum interpass temperature ______________________ deg F
- Number and location of passes (range of passes for groove welds) ______________________
- Any in-process nondestructive testing ______________________
- Peening requirements ______________________
- Layer thickness and width ______________________ in.

Name: ________________________________ Date: _________________
**Checklist for Fabrication and Inspection**

Specimen Identification: 

**FIELD INSPECTION**

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