Table 3-3 Prequalification Data WUF-W Connections

General:	
Applicable systems	OMF, SMF
Hinge location distance s_h	$d_c/2 + d_b/2$
Critical Beam Parameters:	
Maximum depth	W36 and shallower
Minimum span-to-depth ratio	OMF: 5 SMF: 7
Flange thickness	OMF: 1-1/2"or less SMF: 1" or less
Permissible material specifications	A572 Grade 50, A992, A913 Grade 50/S75
Critical Column Parameters:	
Depth	OMF: Not Limited SMF: W12, W14
Permissible material specifications	A572 Grade 50; A913 Grade 50 and 65; A992
Beam/Column Relations:	
Panel Zone strength	SMF: Section 3.3.3.2
Column/beam bending strength	SMF: Section 2.9.1
Connection Details	
Web connection	Special Connection – See Fig. 3-8
Continuity plate thickness	Section 3.3.3.1
Flange welds	Section 3.3.2.5
Welding parameters	Section 3.3.2.4, 3.3.2.5, 3.3.2.6
Weld access holes	Section. 3.3.2.7

Commentary: Development of connections with unreinforced flanges, suitable for use in Special Moment Frames, has required significant research, resulting in major modifications to the connection commonly in use prior to the 1994 Northridge earthquake. A summary list of revisions to the original prescriptive connection incorporated in this detail is as follows:

1. *limitations on permitted beam sizes,*
2. *filler metal with appropriate toughness,*
3. *removal of weld backing, back-gouging and addition of a reinforcing fillet weld,*
4. *use of improved weld-access hole shape and finish,*