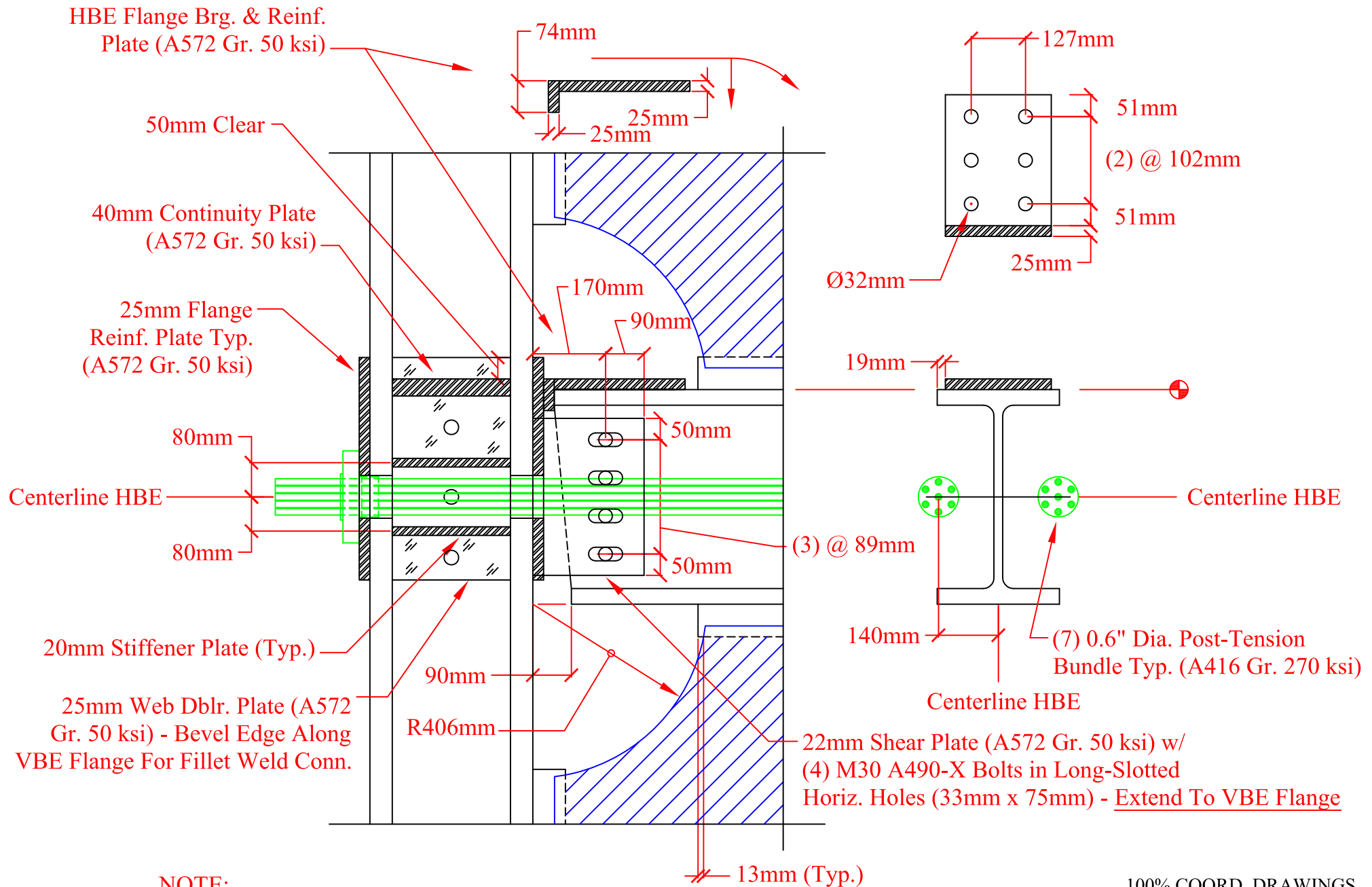


**NOTE:**  
 For PT Stressing of the HBES  
 For The NewZ-BREAKSS  
 Frame, A PT Stressing Aid  
 Plate Is Necessary. See  
 Detail 2cAlt/NZ.

100% COORD. DRAWINGS

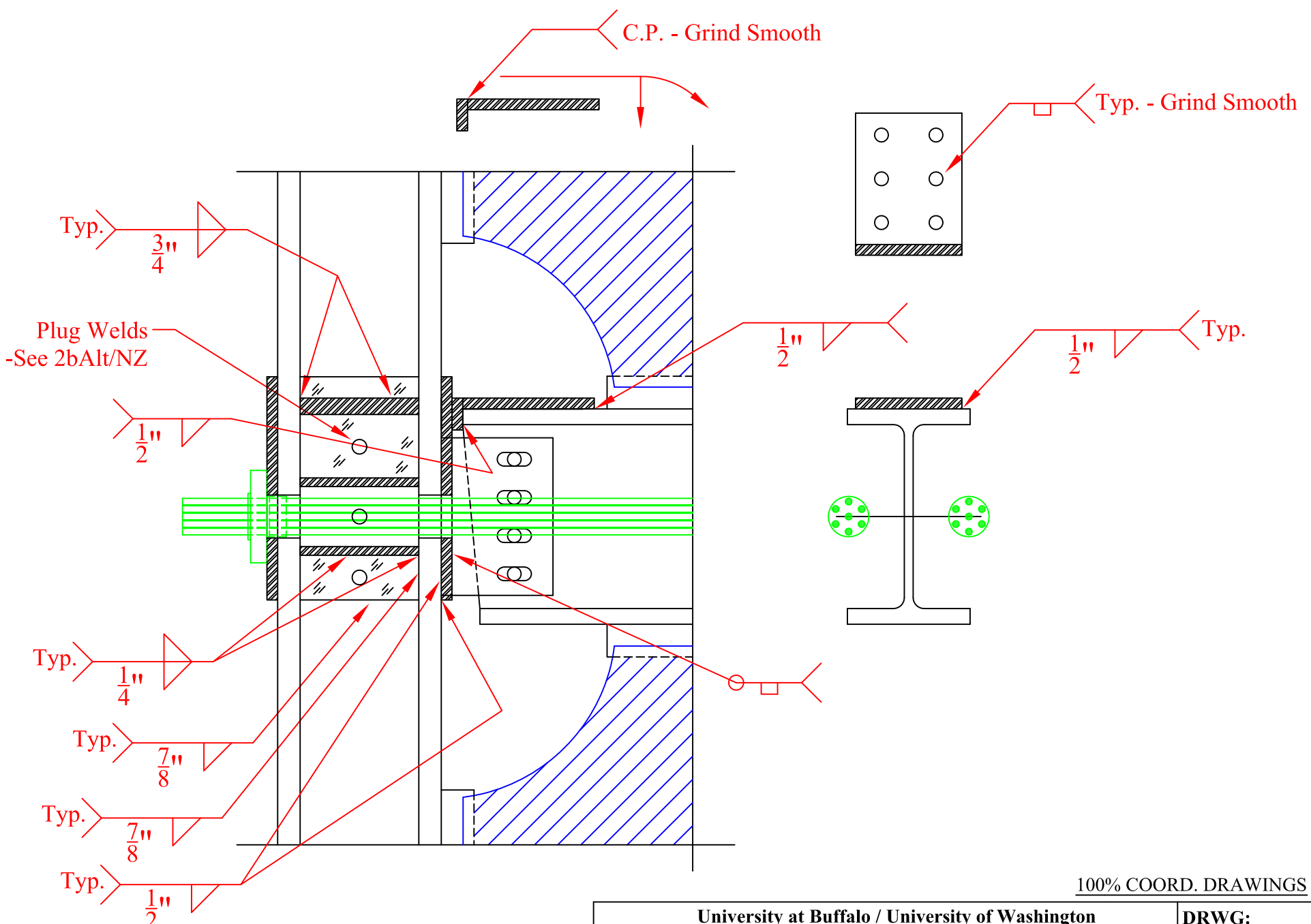
<b>University at Buffalo / University of Washington</b>			<b>DRWG:</b>
<b>PROJECT:</b> NCREE Testing SC-SPSW		<b>CONTENT:</b> NewZ-BREAKSS Frame	1/NZ
<b>BY:</b> Daniel M. Dowden	<b>REVISION:</b>	<b>DATE:</b> 5/11/2012	<b>SCALE:</b> 1/4" = 1'-0"



**NOTE:**  
For Weld Details See 2a Alt/NZ

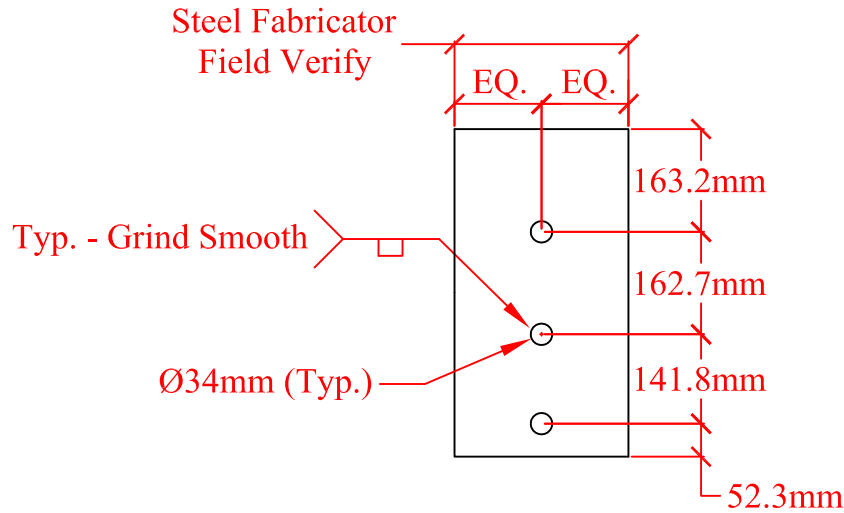
100% COORD. DRAWINGS

<b>University at Buffalo / University at Washington</b>			<b>DRWG:</b>
<b>PROJECT:</b> NCREE Testing SC-SPSW		<b>CONTENT:</b> NewZ-BREAKSS Joint Detail	2Alt/NZ
<b>BY:</b> Daniel M. Dowden	<b>REVISION:</b>	<b>DATE:</b> 5/11/2012	<b>SCALE:</b> 1" = 1'-0"

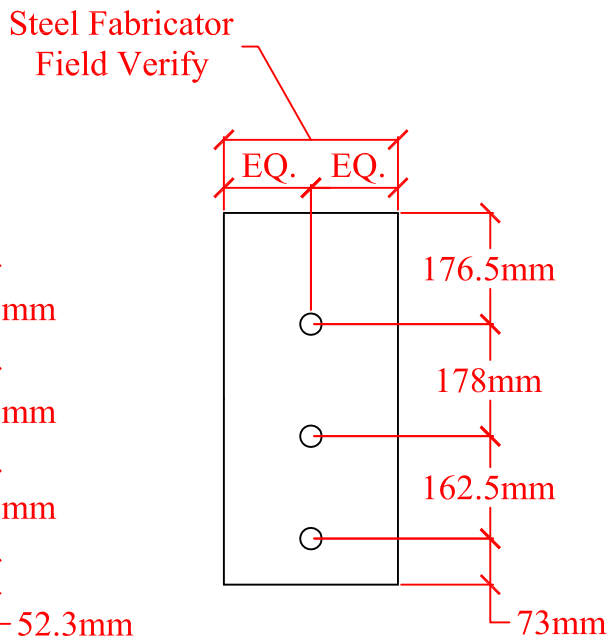


100% COORD. DRAWINGS

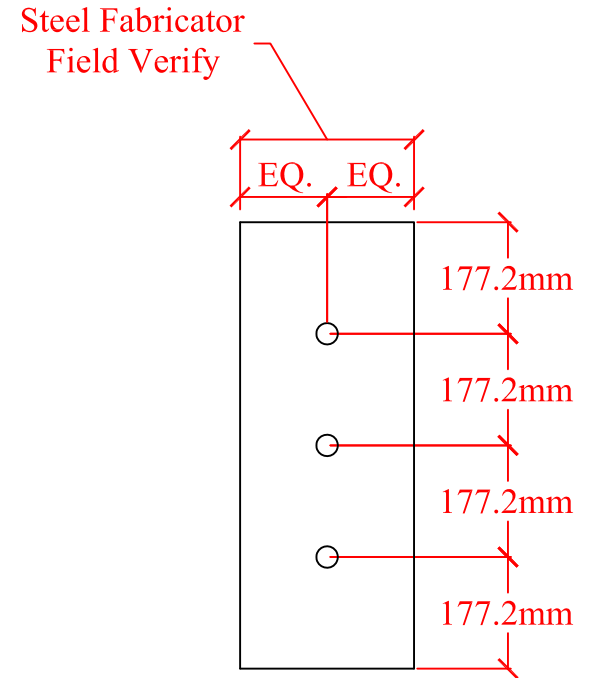
<b>University at Buffalo / University of Washington</b>			<b>DRWG:</b>
<b>PROJECT:</b> NCREE Testing SC-SPSW		<b>CONTENT:</b> NewZ-BREAKSS Joint Detail	2a Alt/NZ
<b>BY:</b> Daniel M. Dowden	<b>REVISION:</b>	<b>DATE:</b> 5/11/2012	<b>SCALE:</b> 1" = 1'-0"



VBE Web Dblr at W18x158



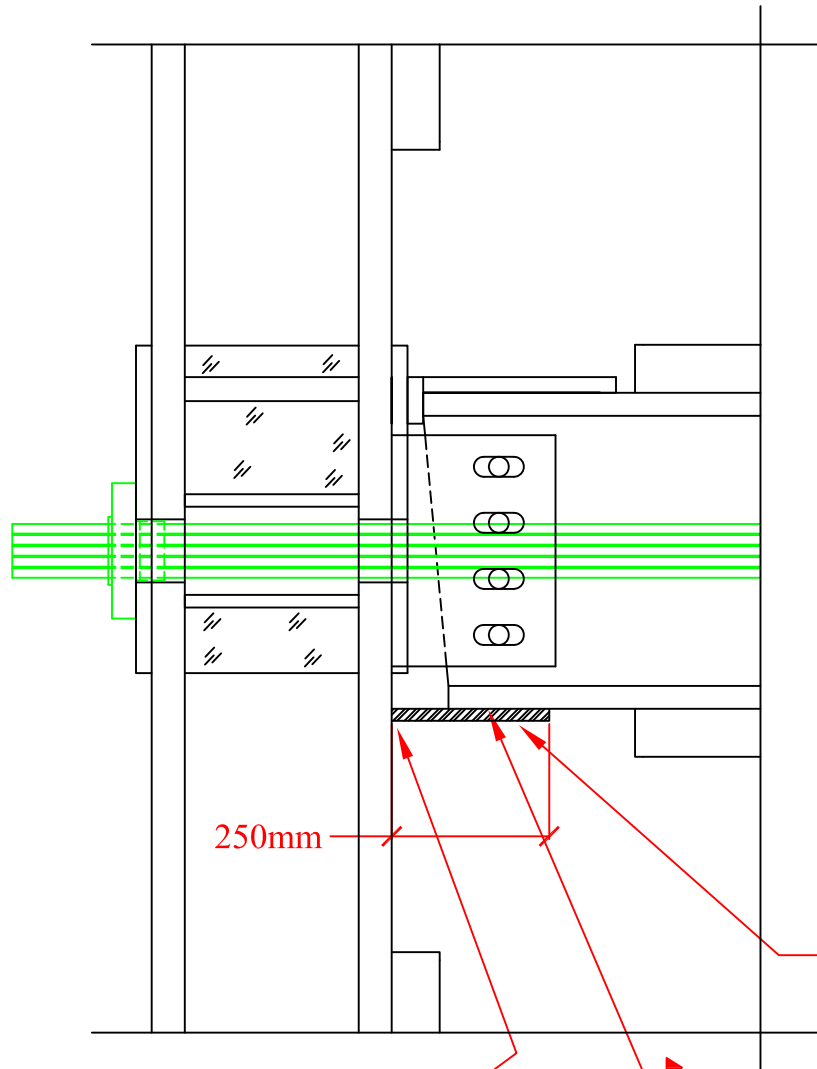
VBE Web Dblr at W21x147



VBE Web Dblr at W21x147 (Actuator End)

100% COORD. DRAWINGS

<b>University at Buffalo / University of Washington</b>			<b>DRWG:</b>
<b>PROJECT:</b> NCREE Testing SC-SPSW		<b>CONTENT:</b> NewZ-BREAKSS Joint Detail	2b Alt/NZ
<b>BY:</b> Daniel M. Dowden	<b>REVISION:</b>	<b>DATE:</b> 5/11/2012	<b>SCALE:</b> 1" = 1'-0"



250mm

19mm x 250mm x 160 mm  
PT Stressing Aid - (4) Total

Typ.

$\frac{1}{2}$ "

$\frac{1}{2}$ "

**NOTES:**

- step 1) PT Stressing To Be Performed Prior To Installation of Infill Web Plate.
- step 2) Ensure boundary frame Is Square and HBE Top Flanges Are In Full Contact With VBE Flanges.
- step 3) Install PT Stressing Aid Plate At All PT Connection Locations.
- step 4) Apply Initial PT Forces on Boundary Frame.
- step 5) Remove Erection Plate At All PT Connection Locations By Using Cut-Off Wheel (or equivalent method) To Cut Welds.
- step 6) Grind Smooth Residual Welds On Boundary Frame as Needed For Placement of Instrumentation.
- step 7) Install Infill Web Plates

100% COORD. DRAWINGS

<b>University at Buffalo / University of Washington</b>			<b>DRWG:</b>
<b>PROJECT:</b> NCREE Testing SC-SPSW		<b>CONTENT:</b> NewZ-BREAKSS Joint Detail	2c Alt/NZ
<b>BY:</b> Daniel M. Dowden	<b>REVISION:</b>	<b>DATE:</b> 5/11/2012	<b>SCALE:</b> 1" = 1'-0"



Cont. 6mm x 75mm Fish Plate (Typ.)  
(Centerline To Match HBE Centerline)

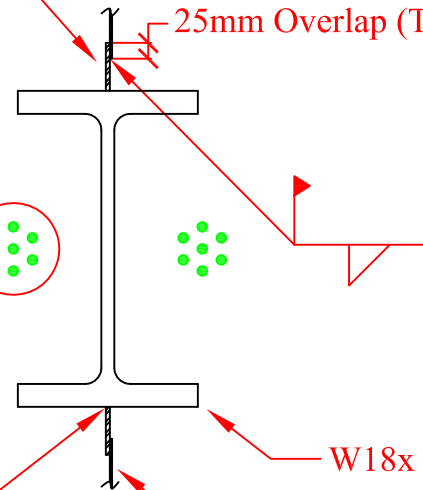
25mm Overlap (Typ.)

Post-Tension (Typ.)

W18x HBE

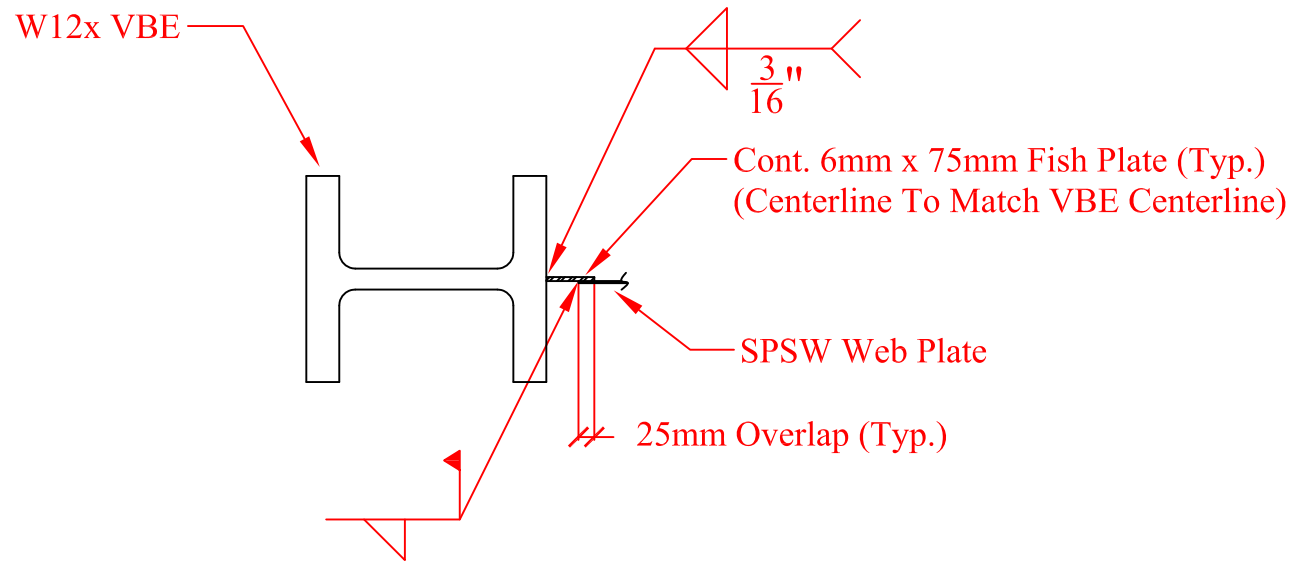
SPSW Web Plate (Typ.)

Typ.  $\frac{3''}{16}$



100% COORD. DRAWINGS

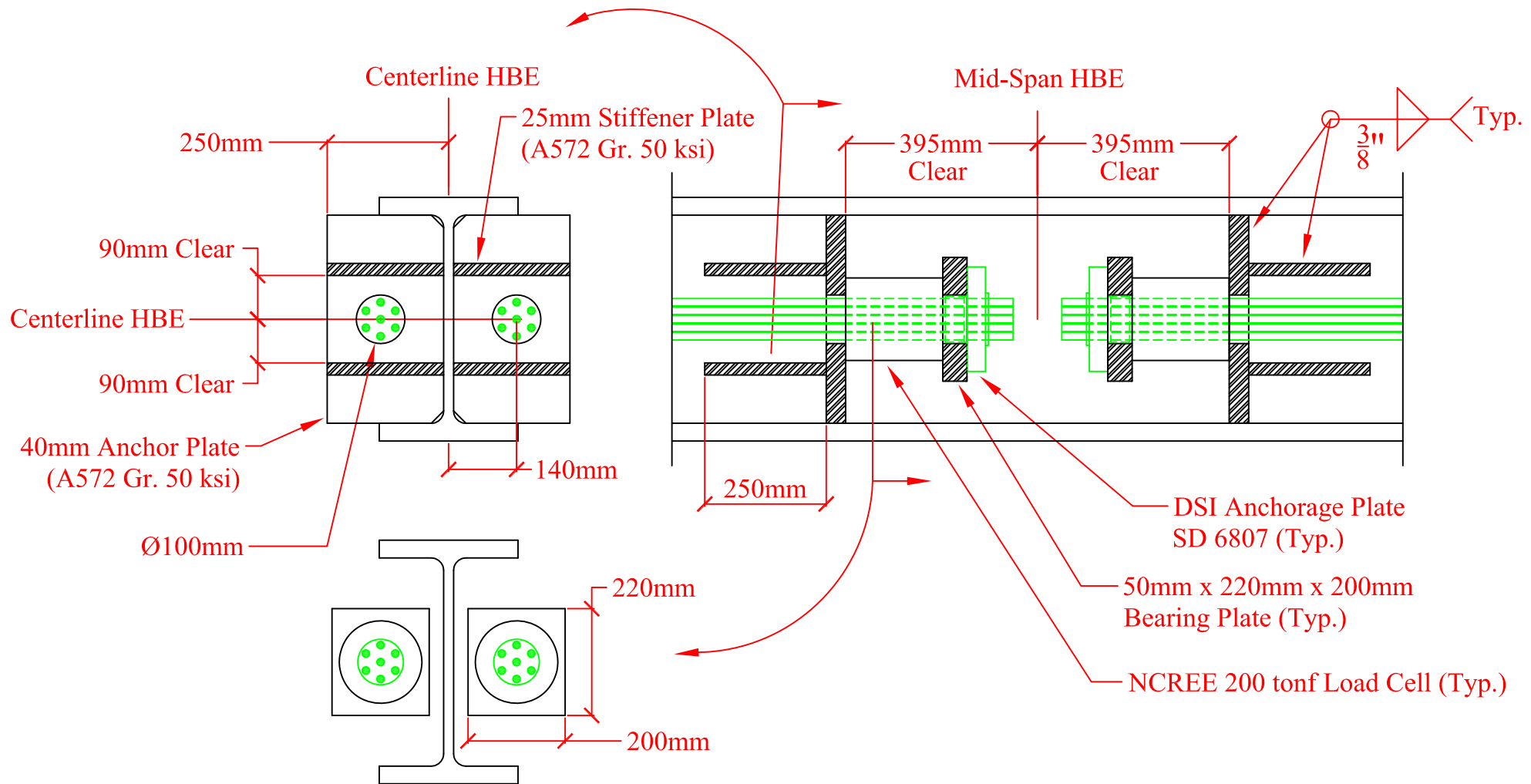
University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: HBE Section Detail	4/NZ
BY: Daniel M. Dowden	REVISION:	DATE: 5/11/2012	SCALE: 1" = 1'-0"



100% COORD. DRAWINGS

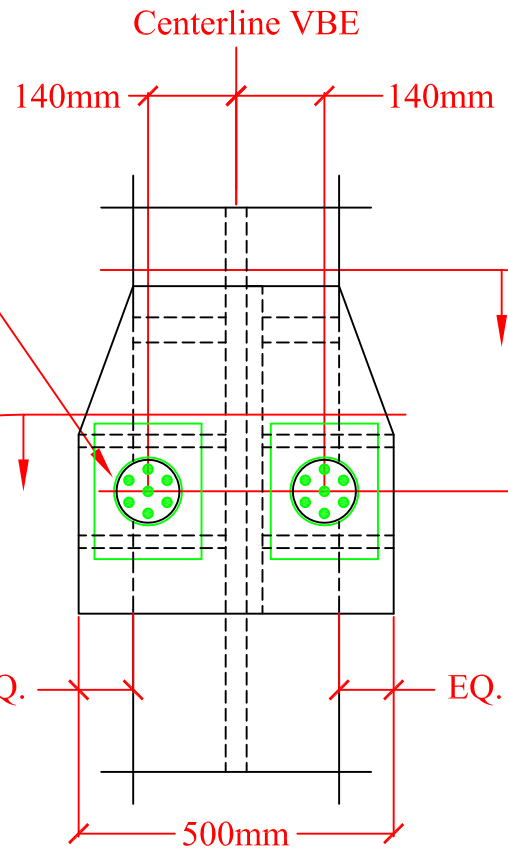
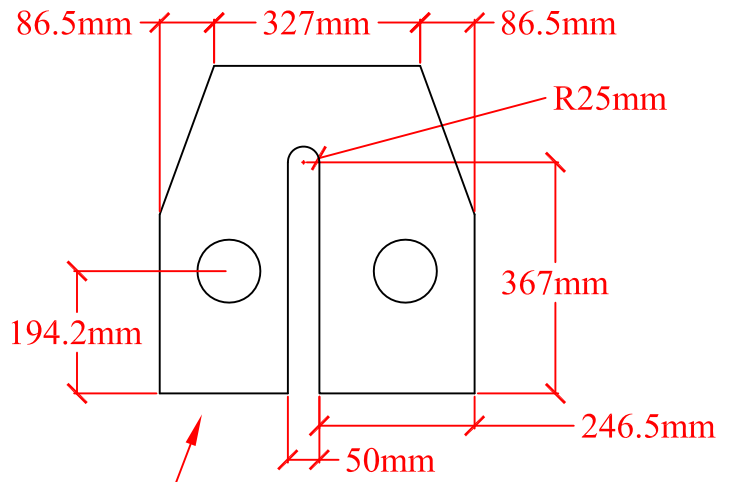
University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW	CONTENT: VBE Plan Section		5/NZ
BY: Daniel M. Dowden	REVISION:	DATE: 5/11/2012	SCALE: $1\frac{1}{2}'' = 1'-0''$





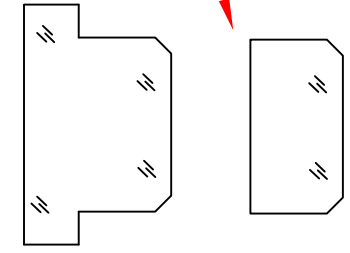
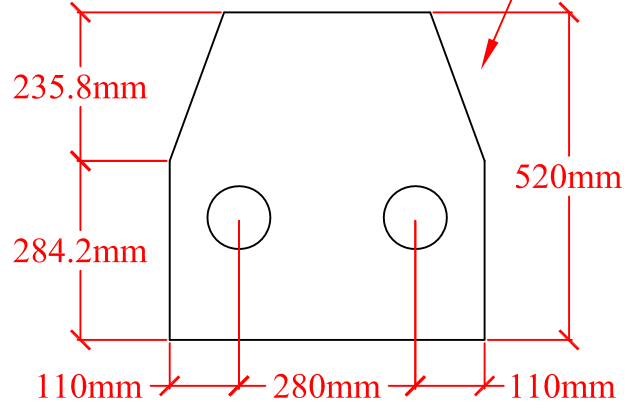
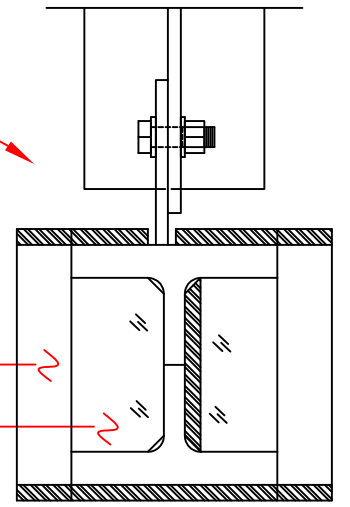
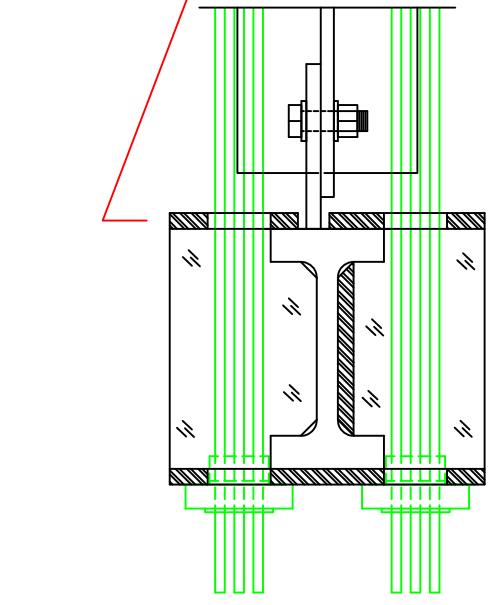
100% COORD. DRAWINGS

University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: Typ. PT Anchorage Detail	6/NZ
BY: Daniel M. Dowden	REVISION:	DATE: 5/11/2012	SCALE: 1" = 1'-0"



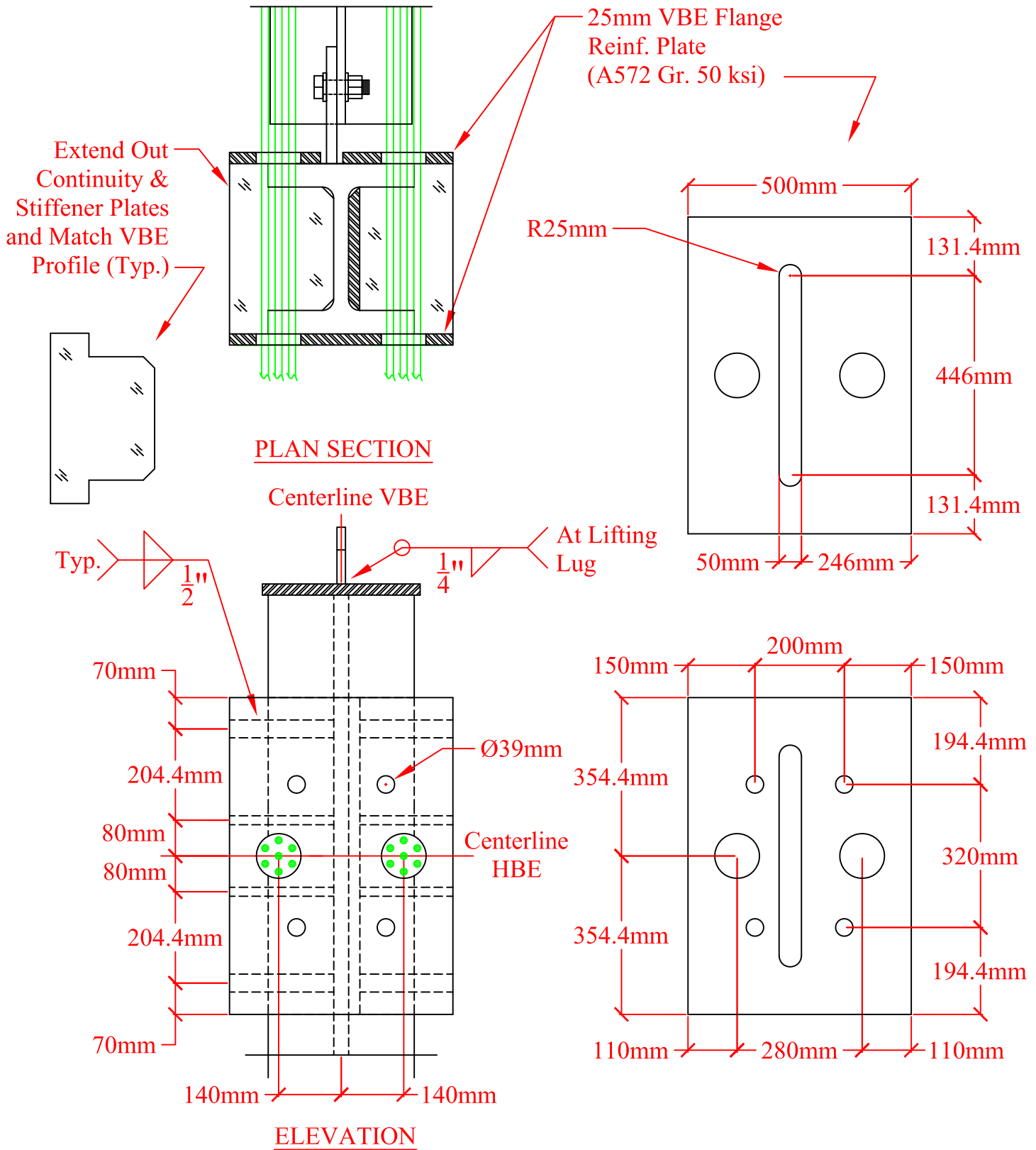
Ø100mm Hole (Typ.)

Centerline W18x HBE



100% COORD. DRAWINGS

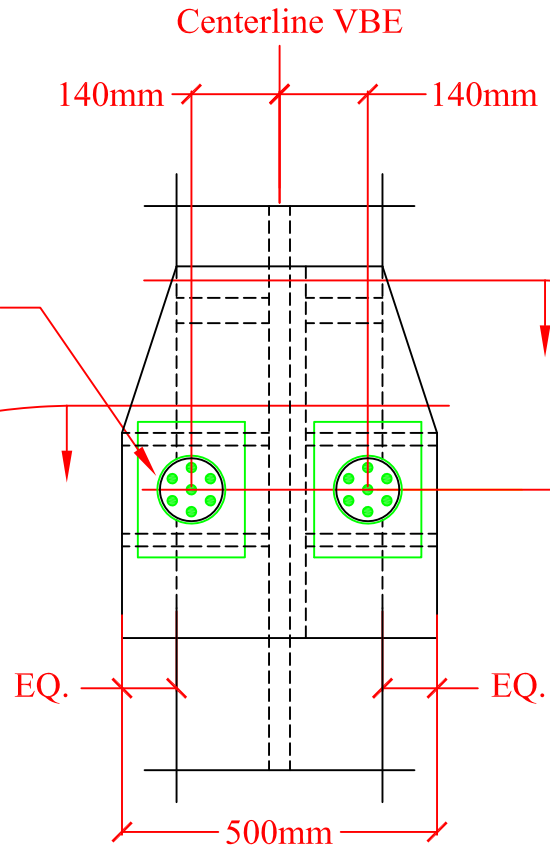
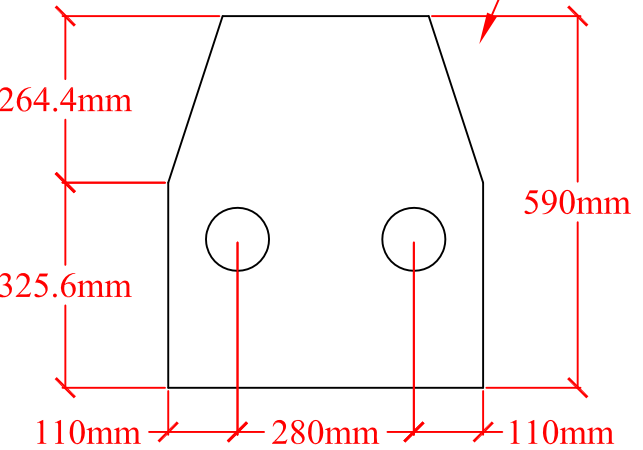
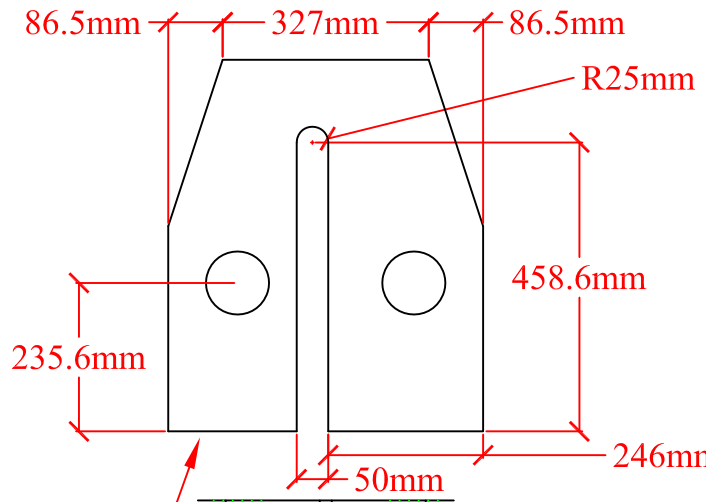
University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: W18x PT Anchorage Detail	7Alt/NZ
BY: Daniel M. Dowden	REVISION:	DATE: 5/11/2012	SCALE: 1" = 1'-0"



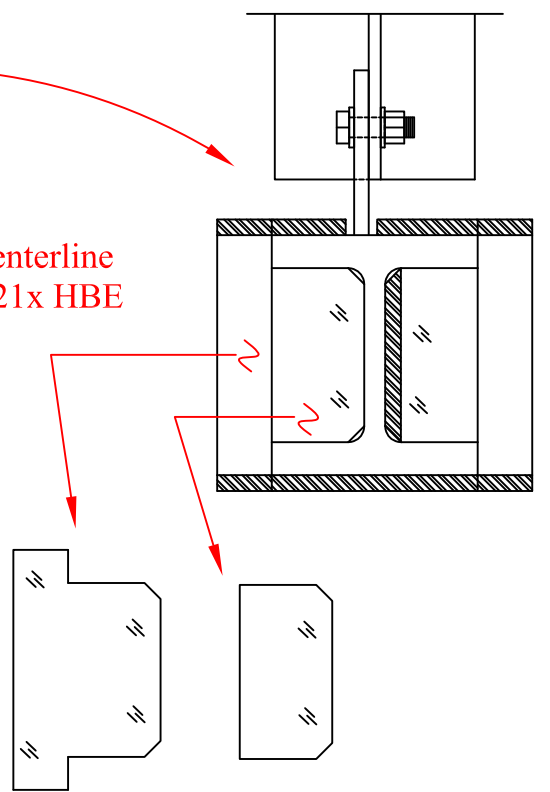
100% COORD. DRAWINGS

**NOTE:**  
For VBE Panel Zone  
Welds See 2a Alt/NZ

<b>University at Buffalo / University of Washington</b>			<b>DRWG:</b>
<b>PROJECT:</b> NCREE Testing SC-SPSW		<b>CONTENT:</b> Actuator Conn. To VBE	8/NZ
<b>BY:</b> Daniel M. Dowden	<b>REVISION:</b>	<b>DATE:</b> 5/11/2012	<b>SCALE:</b> 1" = 1'-0"

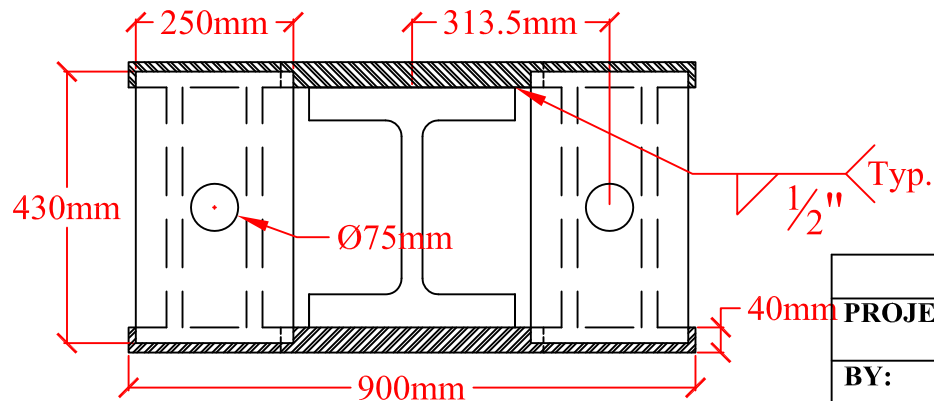
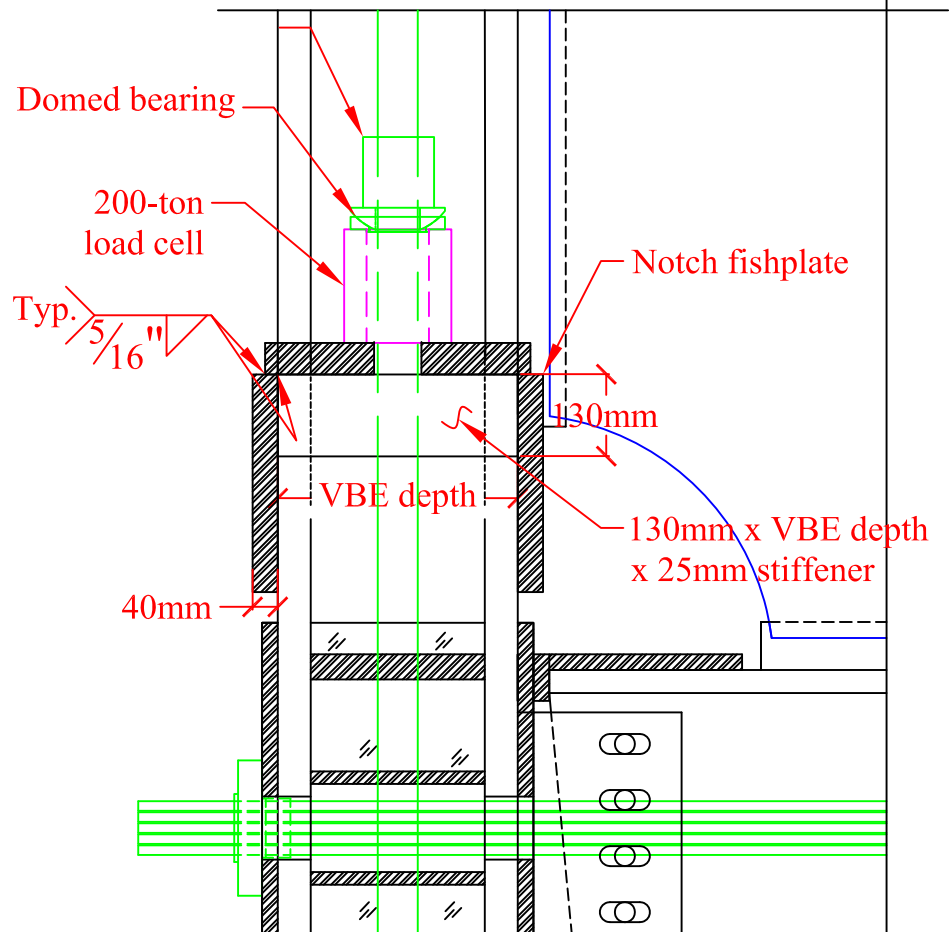
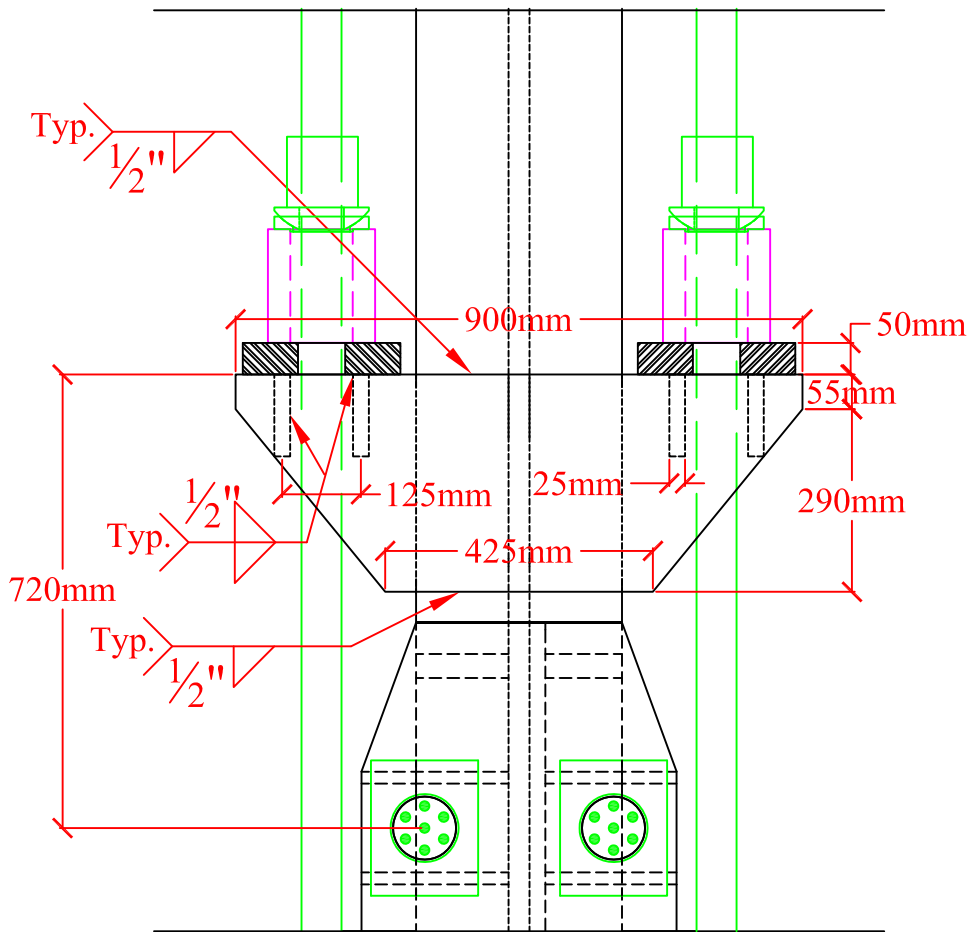


Centerline  
W21x HBE



100% COORD. DRAWINGS

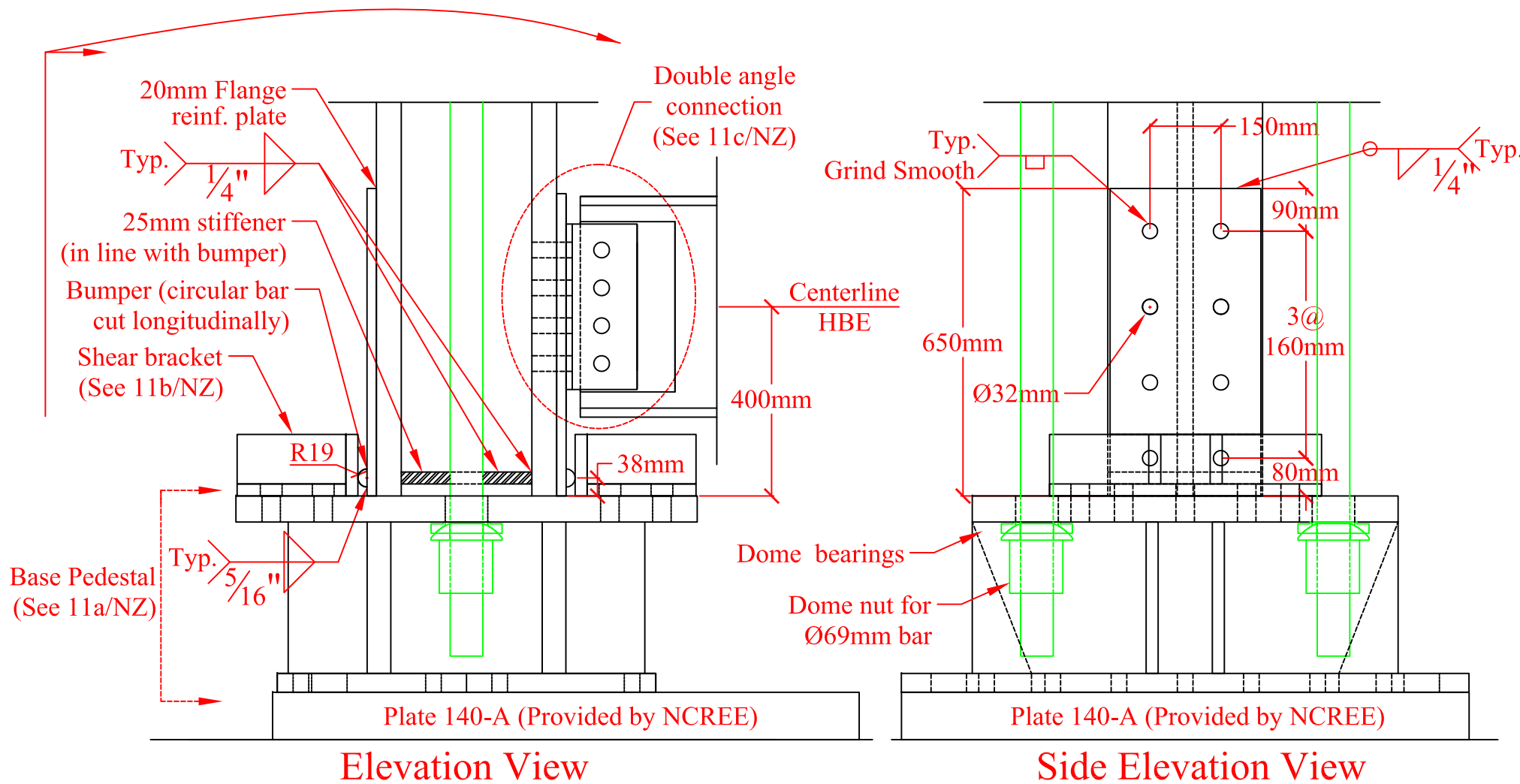
University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: W21x PT Anchorage Detail	9Alt/NZ
BY: Daniel M. Dowden	REVISION:	DATE: 5/11/2012	SCALE: 1" = 1'-0"



NOTE: All plates are Gr. 50 unless noted otherwise.

100% COORD. DRAWINGS

University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: VBE PT Anchorage Detail (alt.)	10Alt/NZ
BY: Tricia Clayton	REVISION:	DATE: 5/11/2012	SCALE: 1" = 1'-0"

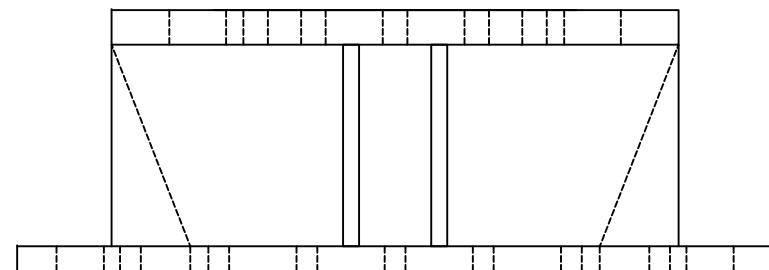
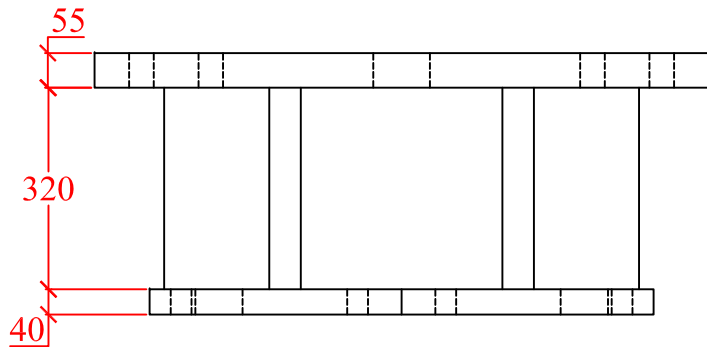
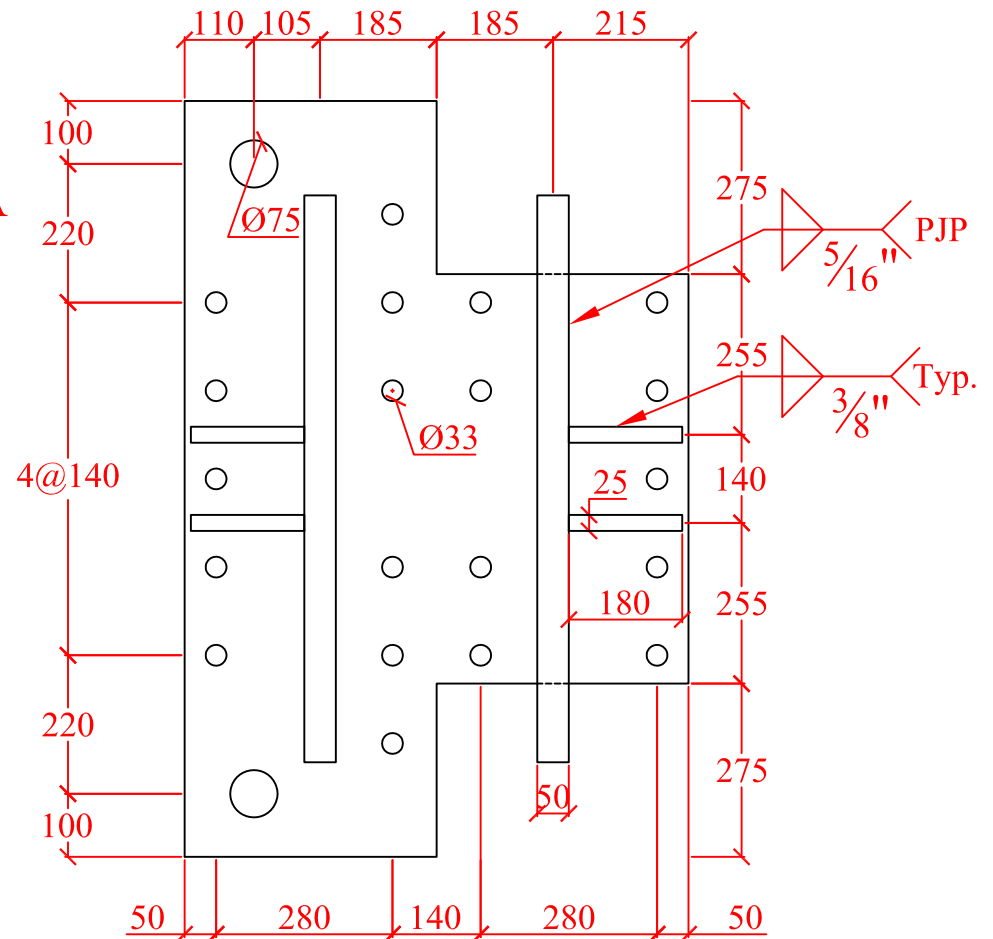
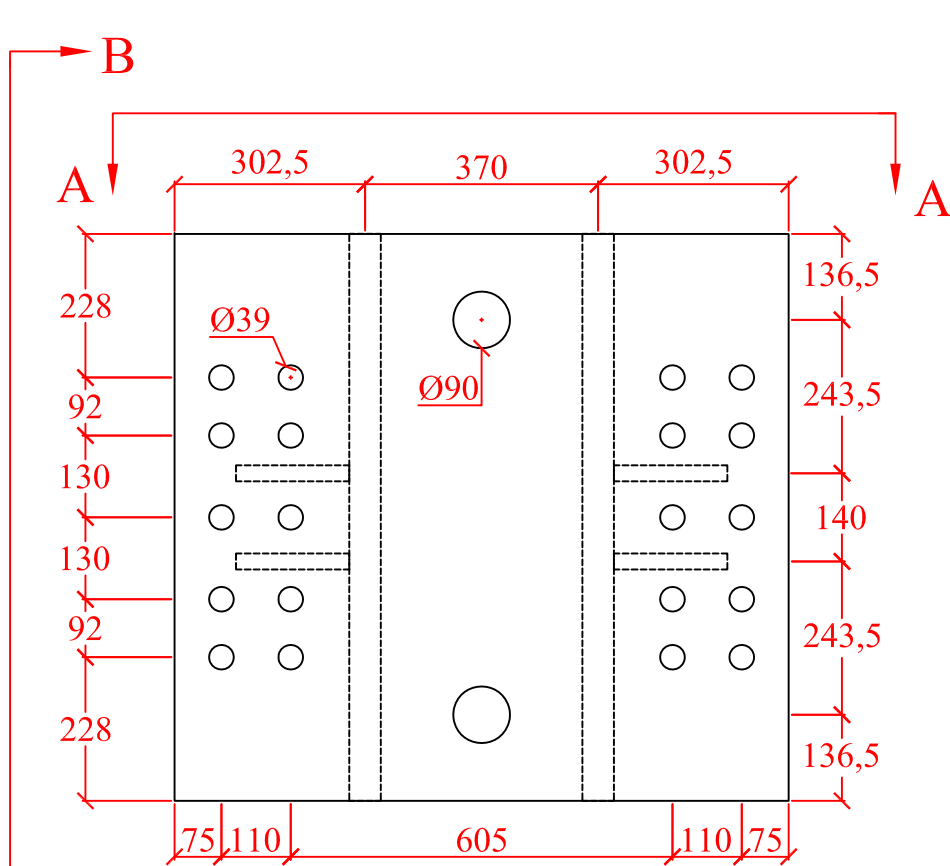


Base Pedestal (See 11a/NZ)

NOTE: All plates are Gr. 50 unless noted otherwise.

100% COORD. DRAWINGS

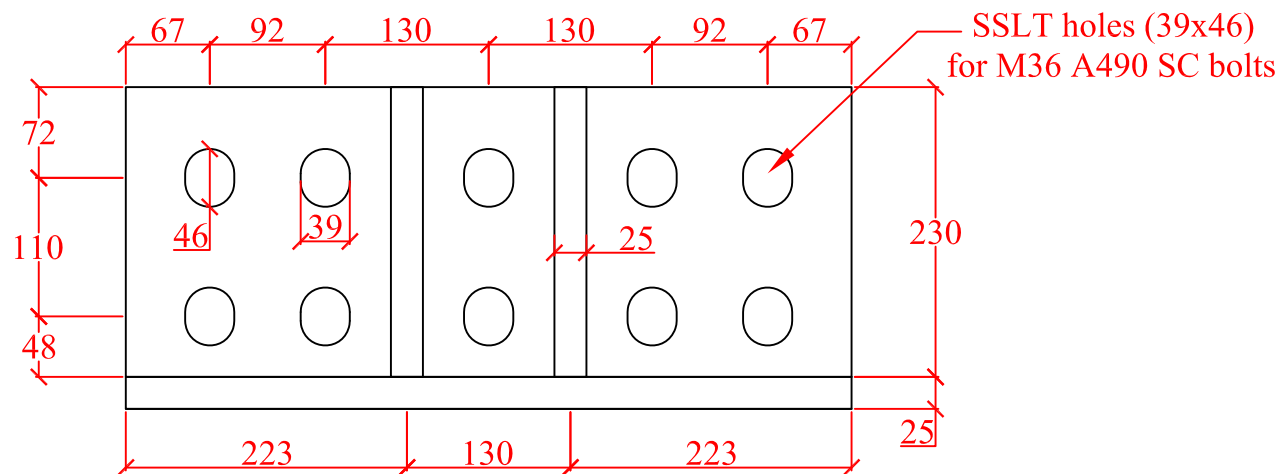
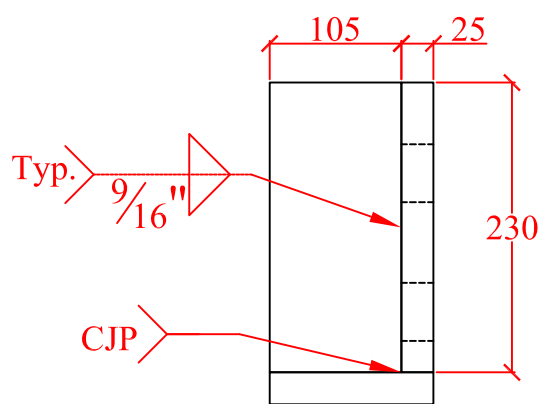
University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: VBE Base Detail	11/NZ
BY: Tricia Clayton	REVISION:	DATE: 5/11/2012	SCALE: 1" = 1'-0"



NOTE: All plates are Gr. 50 unless noted otherwise.

100% COORD. DRAWINGS

University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: VBE Base Detail (cont.)	11a/NZ
BY: Tricia Clayton	REVISION:	DATE: 5/11/2012	SCALE: 1" = 1'-0"



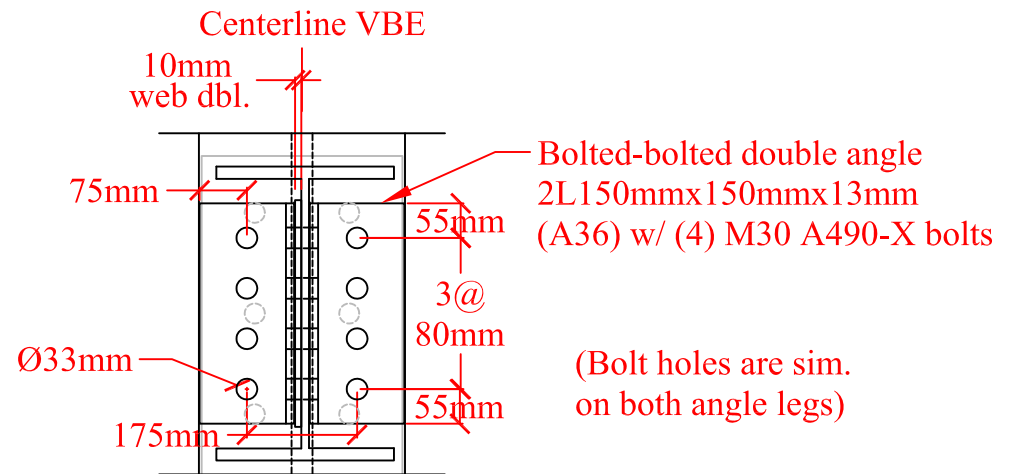
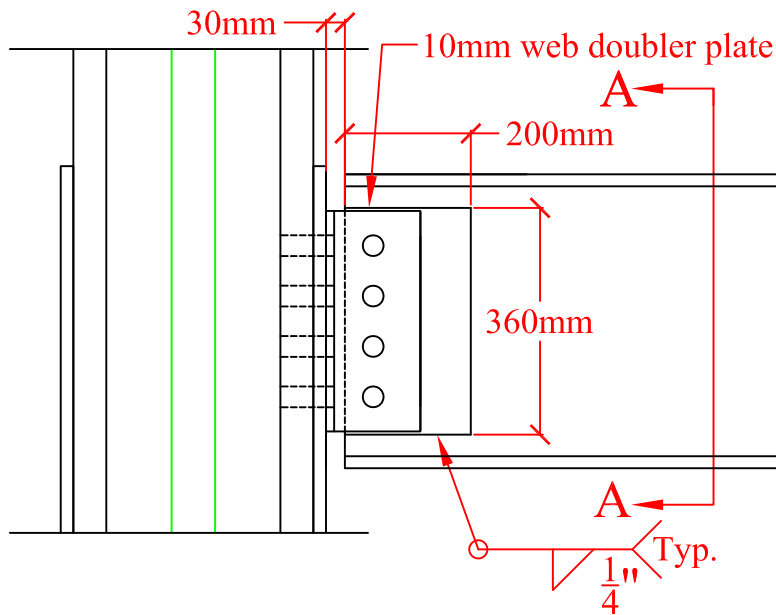
## Shear Bracket

NOTE: All plates are Gr. 50 unless noted otherwise.

100% COORD. DRAWINGS

University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: VBE Base Detail (cont.)	11b/NZ
BY: Tricia Clayton	REVISION:	DATE: 5/11/2012	SCALE: 2" = 1'-0"





### Section A-A

NOTE: 20mm VBE flange reinf. plate and plug welds shown in lighter color (See 11/NZ)

NOTE: All plates are Gr. 50 unless noted otherwise.

100% COORD. DRAWINGS

University at Buffalo / University of Washington			DRWG:
PROJECT: NCREE Testing SC-SPSW		CONTENT: VBE Base Detail (cont.)	11c/NZ
BY: Tricia Clayton	REVISION:	DATE: 5/11/2012	SCALE: 1" = 1'-0"