	TEAM DESIGN- 2nd floor Regal Court, 42-44 High Street, Slough, SL1 1EL Email : info@beamdezign.co.uk Office: 0800 130 3312			
	Project No	Example	Sht. No.	16of 16
	Site Address	Example		
	Subject	Extension and alteration works – Supporting Calculations		
	Engineer	Peter V	Date:	

; Cleat thickness; t_{cleats} = 10 mm; PASS

; Bolt gauge; g_{bolts} = 105 mm; PASS

; Cleat Length; l_{cleats} = 140 mm

;   **Cleat length for torsional requirements : PASS;**
;   **Cleats fit between beam fillets : PASS**

SUMMARY OF RESULTS

Check 2 - Capacity of bolt group connecting cleats to web of supported beam (taking account of eccentricity 'a')

Shear utilisation factor; $U_{check2shear}$ = 0.198;   PASS

Check 3 - Capacity of cleat connected to supported beam

Shear utilisation factor; $U_{check3...}$ = 0.058;   PASS

Bearing utilisation factor; $U_{check3bearing}$ = 0.1.9;   PASS

Check 4a - Capacity of the supported beam

Shear utilisation factor; $U_{check4shear}$ = 0.197;   PASS

Bearing utilisation factor; $U_{check4bearing}$ = 0.660;   PASS

Check 5 - Capacity of bolt group connecting cleats to supporting beam

Shear utilisation factor; U_{check5} = 0.102;   PASS

Check 6 - Capacity of cleats connected to supporting beam

Shear utilisation factor; $U_{check6shear}$ = 0.058;   PASS

Bearing utilisation factor; $U_{check6bearing}$ = 0.082;   PASS

Check 7 - Local capacity of column web

Shear utilisation factor; $U_{check7shear}$ = 0.053;   PASS

Bearing utilisation factor; $U_{check7bearing}$ = 0.113;   PASS

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Supporting Beam G- UC 203x203x46;; $Grade_{supporting}$ = "S275"

Supported Beam A- 2no UB 178x102x19;; $Grade_{supported}$ = "S275"

Cleats 2 x RSA 90x90x10;; (140mm cleat length) $Grade_{cleats}$ = "S275"

6no Bolts M16 (Grade 8.8)

IF IN DOUBT - ASK!