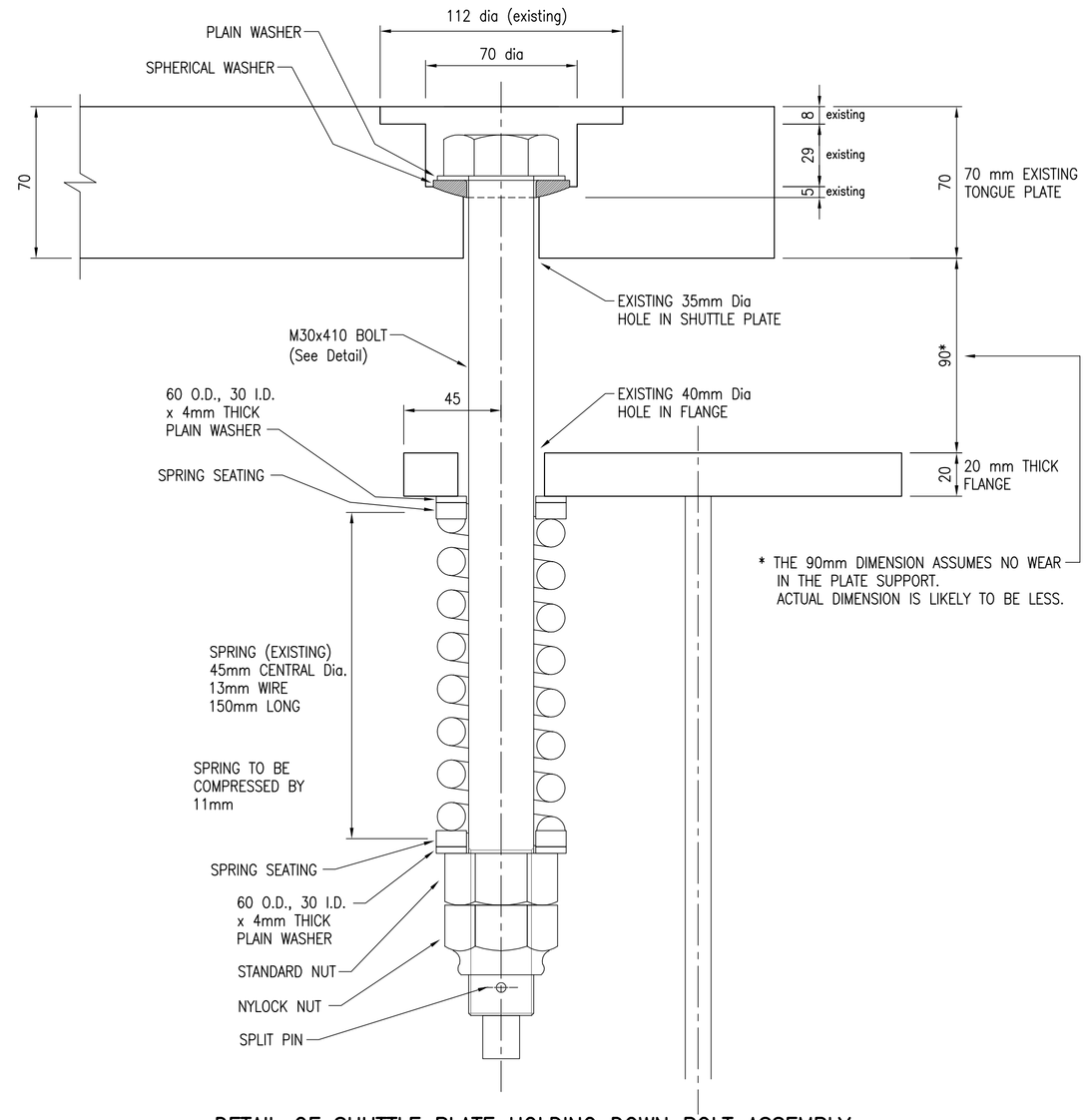
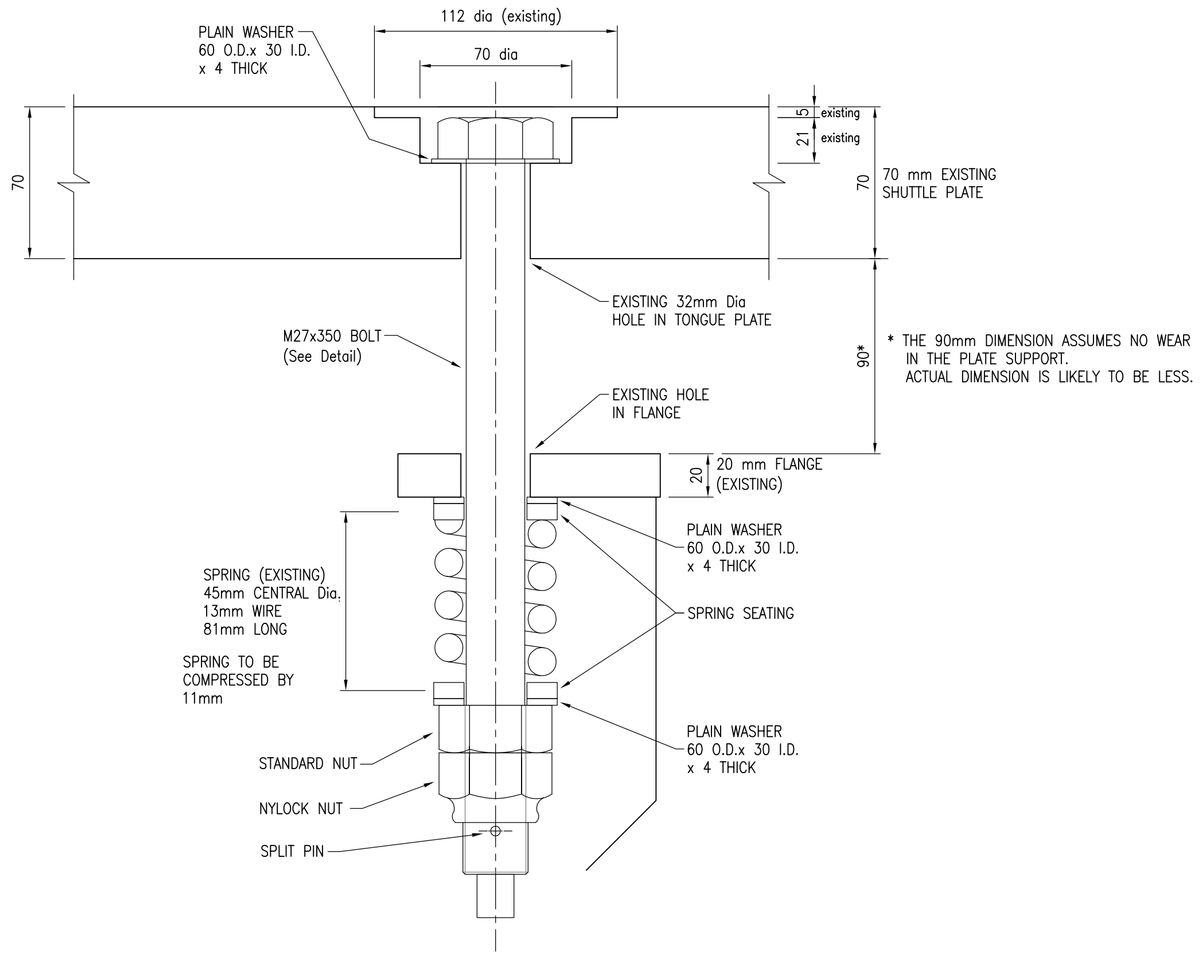
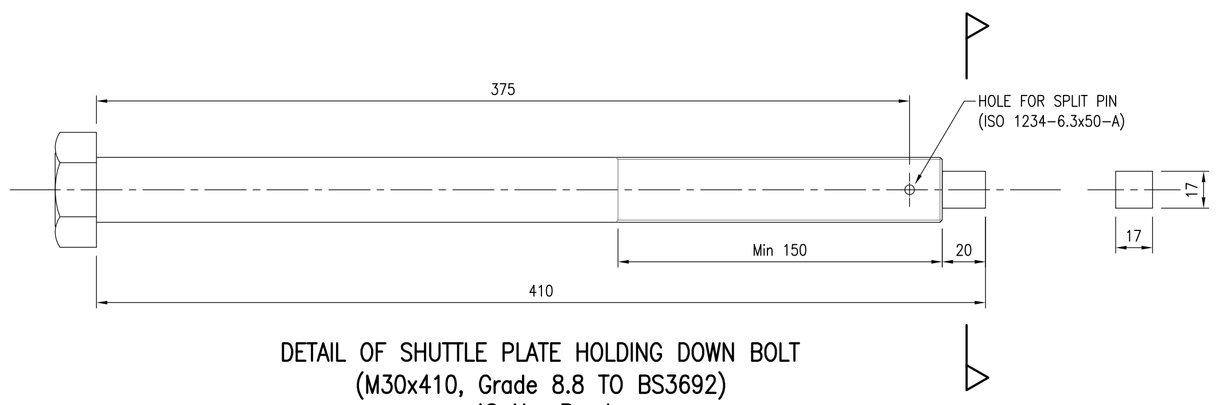


DETAIL OF SHUTTLE PLATE HOLDING DOWN BOLT ASSEMBLY
(1 No PER PLATE)
(Scale 1:2)

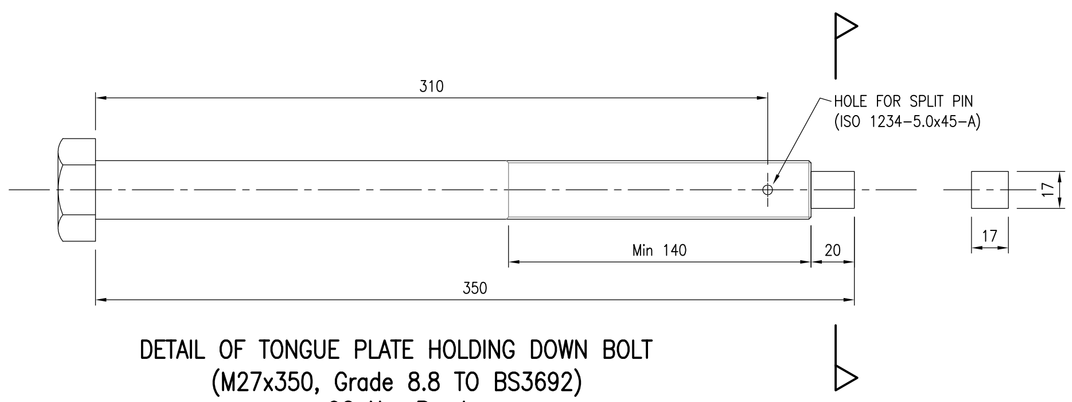


DETAIL OF TONGUE PLATE HOLDING DOWN BOLT ASSEMBLY
(2 No PER PLATE)
(Scale 1:2)



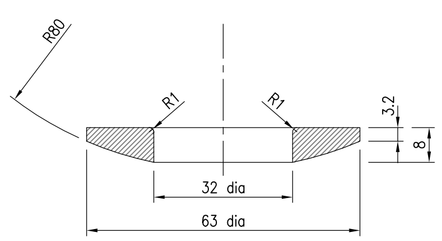
DETAIL OF SHUTTLE PLATE HOLDING DOWN BOLT
(M30x410, Grade 8.8 TO BS3692)
48 No. Reqd
(Scale 1:2)

EACH BOLT TO HAVE 3 STANDARD PLAIN WASHERS HARDNESS CLASS 200HV,
1 SPHERICAL WASHER, 2 SPRING CUPS, 1 SPRING, 1 STANDARD NUT
GRADE B, 1 SLOTTED NUT GRADE B, AND 1 SPLIT PIN.



DETAIL OF TONGUE PLATE HOLDING DOWN BOLT
(M27x350, Grade 8.8 TO BS3692)
96 No. Reqd
(Scale 1:2)

EACH BOLT TO HAVE 3 STANDARD PLAIN WASHERS HARDNESS CLASS 200HV,
2 SPRING CUPS, 1 SPRING, 1 STANDARD NUT GRADE B, 1 SLOTTED NUT
GRADE B, AND 1 SPLIT PIN.



DETAIL OF SPHERICAL WASHER
(Scale 1:1)

(1 No PER BOLT, GRADE EQUIVALENT TO
HARDNESS CLASS 200HV [EN ISO 7089])

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS ARE BASED ON ORIGINAL CONSTRUCTION DRAWINGS AND MAY DIFFER FROM ACTUAL DIMENSIONS ON SITE.
3. SPHERICAL WASHER IS NON-STANDARD IN DIMENSIONS AND WILL NEED TO BE SPECIALLY MADE.
4. ALL COMPONENTS TO BE HOT DIP GALVANISED IN ACCORDANCE WITH BS EN ISO 1461.
5. COMPONENTS TO BE PRE-ASSEMBLED TO CHECK FOR FIT.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING SIGNIFICANT RESIDUAL RISKS

CONSTRUCTION	WORK AT HEIGHT, HIGH WINDS AND LIMITED WORKING SPACE
MAINTENANCE/CLEANING	WORK AT HEIGHT, HIGH WINDS AND LIMITED WORKING SPACE
USE	NONE
DECOMMISSIONING/DEMOLITION	WORK AT HEIGHT, HIGH WINDS AND LIMITED WORKING SPACE

Stat	Rev	Purpose of Issue	Date	Auth
C		FOR CONSTRUCTION	08/09	
P		FOR CHECK	06/09	

Rev	Description	By	Date	Chk'd	Auth
	WASHERS CLARIFIED				
C	TONGUE PLATE HD BOLT LENGTH AMENDED	GV	16/09/09	DRT	SHJ
	SLOTTED NUTS REPLACED BY NYLOCK				
	THREAD LENGTHS OF BOLTS INCREASED				
B	NOTES ADDED	GV	02/07/09		
A	FIRST ISSUE	GV	06/09	DRT	SHJ

Atkins Limited ©
The Hub, Aztec West
500, Park Avenue
Almondsbury
Bristol
BS32 4RZ
Tel: (01454) 662000
Fax: (01454) 663333
www.atkinsglobal.com

Client
FORTH ESTUARY TRANSPORT AUTHORITY

Project
FORTH ROAD BRIDGE
JOINT REPLACEMENT

Title
FAILSAFE MEASURES
DETAILS OF SHUTTLE AND TONGUE PLATE
HOLDING DOWN ASSEMBLIES

Sheet Size	Original Scale	Designed/Drawn	Checked	Authorised
A1	As Shown	GV Date 06/09	DRT Date 06/09	SHJ Date 06/09

Status	Drawing Number	Rev
C	5057541/314/103	C

Rev C
Drawing Number 5057541/314/103
Status C
DO NOT SCALE
A1
File: 5057541_314_103_RevC.dwg
Date: Sep 25, 2009 - 11:15am
Plotted by: voyc4793

P:\GBBSB\HandT\TSol\CN\5057541_301 Forth Bridge_JONE1651\70 Drawings\5057541_314_103_RevC.dwg