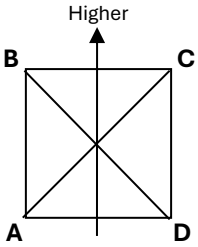
LINE NAME:	TRANSPOWER	SHEET 1 of 5
STRUCTURE NUMBER	ANCHOR BOLT BASE PLATE REFURBISHMENT QUALITY ASSURANCE SHEET	SERVICE PROVIDER:

GENERAL INFORMATION

WORK ORDER NUMBER		DATE		
SITE SUPERVISOR				
REFURBISHMENT SCOPE (CIRCLE)	LEG A	LEG B	LEG C	LEG D
RUST MAP COMPLETED*				
PRESENT CA SCORE **				
DRAWINGS TE37252 – SHEETS 1 TO 4 PRESENT ON SITE	Y		N	



* RUST MAP ON PAGE 4

** REFER TO SHEET 5 FOR CA SCORING GUIDELINES

ABRASIVE BLASTING	LEG A	LEG B	LEG C	LEG D
PILE CAP CONCRETE (✓)				
BASEPLATE (✓)				
LEG (✓)				
ANCHOR BOLTS/ NUTS (✓)				
NUMBER OF ABRASIVE BAGS USED				

PILE CAP CONDITION

FEATURES:	(TICK IF PRESENT ON ASSOCIATED LEG)			
CRACK SIZE	LEG A	LEG B	LEG C	LEG D
HAIRLINE (<1MM)				
FINE (1MM-1.5MM)				
MEDIUM (1.5MM-3MM)				

IF ANY ITEMS WITHIN THIS BOX ARE PRESENT, CONTACT TRANSPOWER ENGINEER BY EMAIL AND PROVIDE SUPPORTING DOCUMENTATION (PHOTOS AND THIS DOCUMENT), TRANSPOWER ENGINEER TO DETERMINE IF TYPE 5 REPAIR REQUIRED				
WIDE (>3MM)				
RUST STAINS FROM CRACKS				
SCALING/SPALLING (EXPOSED REO)				
HONEYCOMBING OR WEAK 'BONEY' SOFT PATCHES				
DAMAGED / SOFT CONCRETE*				
CONCRETE DISCOLOURATION AFTER BLASTING				
SIGNS OF WATER PENETRATION OR DELAMINATION				

* STRIKE WITH HAMMER AND NOTE SOUND

PILE CAP FEATURE DETAILS

E.G. CRACKING PATTERN, APPEARANCE, AND LOCATION/DIRECTION ON PILE (VERTICAL/ HORIZONTAL, UNIFORMITY OF PATTERN, & DEPTHS)

LINE NAME:	TRANSPOWER	SHEET 2 of 5
STRUCTURE NUMBER	ANCHOR BOLT BASE PLATE REFURBISHMENT QUALITY ASSURANCE SHEET	SERVICE PROVIDER:

REFURBISHMENT TYPE	LEG A	LEG B	LEG C	LEG D
TYPE 1				
EXISTING GROUT IN GOOD CONDITION? **Y** - TYPE 1 **/ N** SEE TYPE 2/2A				
BREAK OUT ENOUGH GROUT TO ASSESS ANCHOR BOLTS				
LEVELLING NUTS PRESENT? (IF NO, INSTALL STEEL PACKING SHIMS) **Y / N**				
TYPE 2/2A – GROUT REPLACEMENT				
GROUT HARD & NO CORROSION FOUND UNDER BASE PLATE OR ON EXPOSED ANCHOR BOLTS* **Y** - TYPE 2 **/ N** - SEE NEXT ROW				
SECTION LOSS OF ANCHOR BOLTS GREATER THAN REPLACEMENT CRITERIA (SEE SHEET 5) **Y** – TYPE 3/3A **/ N** - TYPE 2A				
SUFFICIENT SPACE BENEATH BASEPLATE FOR ABRASIVE BLASTING **Y** TYPE 2/2A/3/3A **/ N** – TYPE 5				
TYPE 3/3A – REPAIR/REPLACEMENT OF ANCHOR BOLTS				
TYPE 3 /3A DOCUMENTATION TO BE SENT TO TP PRIOR TO REPAIR.				
PHOTOS TAKEN OF FULL 360° VIEWS OF FOUNDATION, BASE PLATE, AND ANCHOR BOLTS **Y / NA**				
DIMENSIONED SKETCH CREATED, INCLUDING BOLT SECTION LOSS DATA **Y / NA**				
TYPE 5 – BREAKOUT + REPAIR OF PILE CAP				

HOLD POINT, REPAIR TYPE

				TRANSPOWER APPROVAL REQUIRED FOR THESE TYPES		
REPAIR	TYPE 1	TYPE 2	TYPE 2A	TYPE 3	TYPE 3A	TYPE 5
LEG/S:						

SERVICE PROVIDER		TRANSPOWER	
NAME:		NAME:	
DATE:		DATE:	
SIGN:		SIGN :	

REFURBISHMENT PROCESS

BASEPLATE HOLES (AROUND BOLTS) FILLED WITH SIKAFLEX-MS SEALANT **(✓)**				
ALL BOLTS TORQUED TO TARGET SET OUT IN TP.SS 02.11 APPENDIX B2.4 TABLE B1 **(✓)**				
TYPE 3/3A ANCHOR BOLT REPAIRS / REPLACEMENT COMPLETED TO TE37252_3 **Y / N / NA**				
TYPE 3 THREADED RODS PASS 100KN PULL TEST **Y / N / NA**				
TYPE 5 PILE CAP REPAIRS COMPLETED TO TE37252_4 **Y / N / NA**				

LINE NAME:	TRANSPOWER	SHEET 3 of 5
STRUCTURE NUMBER	ANCHOR BOLT BASE PLATE REFURBISHMENT QUALITY ASSURANCE SHEET	SERVICE PROVIDER:

TOWER LEG STEEL BLASTED 300MM ABOVE BASEPLATE **Y / N / NA**				
ALL EXPOSED STEEL SURFACES ON ANCHOR BOLTS AND BASEPLATES (INCLUDES UNDERSIDE) BLASTED AND CLEANED **(✓)**				
SURFACE OF GROUT / CONCRETE ROUGHENED, CLEANED, AND ALL LOOSE PIECES REMOVED **Y / N / NA**				
APPLY PAINT TO PREPARED STEEL (THE UNDERSIDE OF THE BASEPLATE AND ANCHOR BOLTS/NUTS UNDERNEATH THE BASEPLATE ARE TO BE PAINTED ONLY WITH PRIMER AND UNDERCOAT) SEE TP.SS 02.12 APPENDIX C3.6 FOR LIST OF APPROVED PAINT COATING PRODUCTS **Y / N / NA**				
MINIMUM OF 50MM GAP FROM FORMWORK TO EDGE OF BASEPLATE **Y / N / NA**				
SIKA-215 GROUT PREPARED AS PER MANUFACTURERS INSTRUCTION **Y / N / NA**				
CONFIRM NO AIR VOIDS BENEATH BASE PLATE **Y / N / NA**				
FORMWORK REMOVED AFTER 24 HOURS & SHARP EDGES GROUND DOWN **Y / N / NA**				
SIKA AKTIVATOR-205 APPLIED TO STEEL **(✓)**				
SIKA PRIMER 3-N APPLIED TO GROUT **(✓)**				
SIKAFLEX-MS SEALANT APPLIED AROUND PERIMETER OF BASE PLATE **Y / N / NA**				
2X COATS OF SIKATOP-107 APPLIED OVER SEALANT SURFACE, EXPOSED GROUT, AND 50MM DOWN THE SIDE OF PILE CAP** **(✓)**				
COMMENTS:				
PHOTOS REFERENCES WITH DESCRIPTIONS:				

**CAN BE APPLIED FURTHER DOWN PILE CAP TO COVER CONCRETE CRACKS.

REFURBISHMENT SIGN-OFF						
REPAIR	TYPE 1	TYPE 2	TYPE 2A	TYPE 3	TYPE 3A	TYPE 5
LEG/S:						

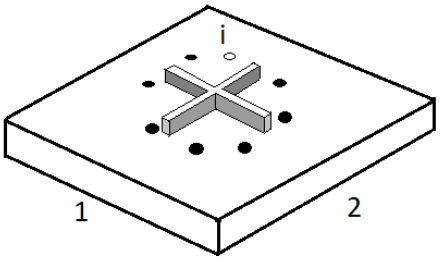
SERVICE PROVIDER	
NAME:	
DATE:	
SIGN:	

LINE NAME:	TRANSPOWER	SHEET 4 of 5
STRUCTURE NUMBER	ANCHOR BOLT BASE PLATE REFURBISHMENT QUALITY ASSURANCE SHEET	SERVICE PROVIDER:

SHADE AREAS ON BASE PLATE THAT RUST WAS EVIDENT

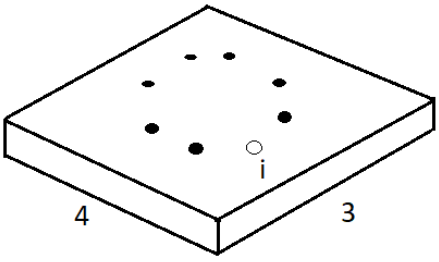
RUST MAP

A LEG
TO CENTRE PEG
SIDE FACES 1 & 2



TOPSIDE

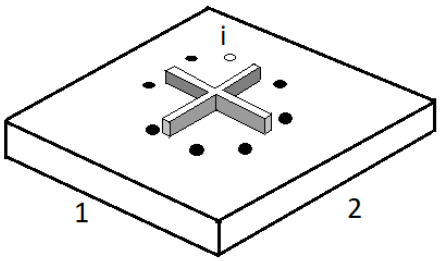
BOLT i SHOWN – NUMBER BOLTS IN CLOCKWISE DIRECTION

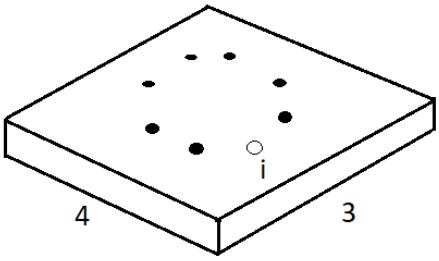


UNDERSIDE

TO CENTRE PEG
SIDE FACES 3 & 4

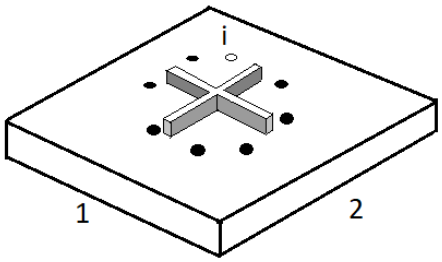
B LEG
TO CENTRE PEG
SIDE FACES 1 & 2





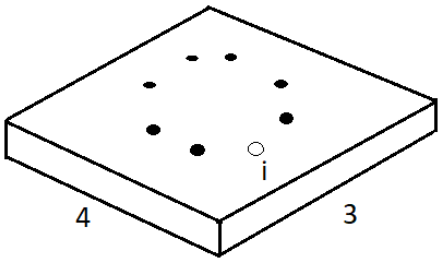
TO CENTRE PEG
SIDE FACES 3 & 4

C LEG
TO CENTRE PEG
SIDE FACES 1 & 2



TOPSIDE

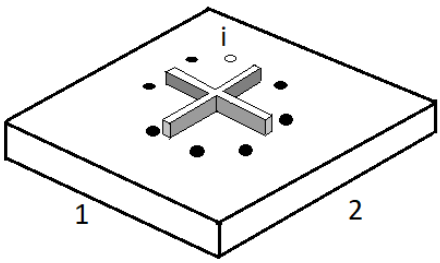
BOLT i SHOWN – NUMBER BOLTS IN CLOCKWISE DIRECTION

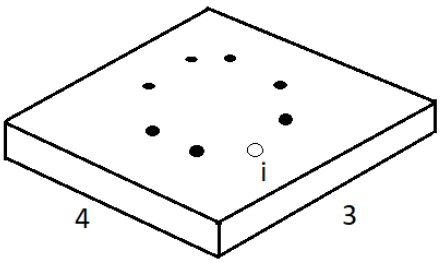


UNDERSIDE

TO CENTRE PEG
SIDE FACES 3 & 4

D LEG
TO CENTRE PEG
SIDE FACES 1 & 2





TO CENTRE PEG
SIDE FACES 3 & 4

LINE NAME:	TRANSPOWER	SHEET 5 of 5
STRUCTURE NUMBER	ANCHOR BOLT BASE PLATE REFURBISHMENT QUALITY ASSURANCE SHEET	SERVICE PROVIDER:

CA Score	Guidelines
100	New or refurbished galvanized steel base plate onto concrete held anchor bolts. Waterproof mortar packed tightly between base plate and concrete foundation. New surface protective coating to seal out water.
90	Surface coating deteriorating, but still effective.
80	Protective coating ineffective, mortar in good condition.
70	Base plate and anchor bolt galvanizing rough, and critical areas discoloured.
60	First sign of corrosion staining at edge of base plate.
50	Corrosion staining appearing as a brown/red rim on bottom of base plate. First speckled corrosion appearing on anchor bolt threads.
40	Mortar crumbling, bolts corroding, base plate surface corrosion
30	Significant corrosion to bottom of base plate, no loss of steel. Corrosion of bolt threads and nuts below the base plate
20 (R/C)	Flaking corrosion to bottom of base plate. Chunks of mortar gone, exposing significant corrosion of inner bolts and base plate/levelling nuts. 20 % metal loss on any one bolt and 10 % metal loss over all anchor bolts.
10	Metal loss on anchor bolts, which prevents ultimate site-specific design loads from being withstood.
1	50 % or more loss of cross-section on anchor bolts overall, or serious risk to tower at a less loss level where structure heavily loaded.

From table 51 of TP.SS 02.98 issue 2 Nov 2023 - Foundation connection condition assessment guidelines – anchor bolts and base plate/mortar and concrete interface.