

PLAN OF BULLNOSE STEP

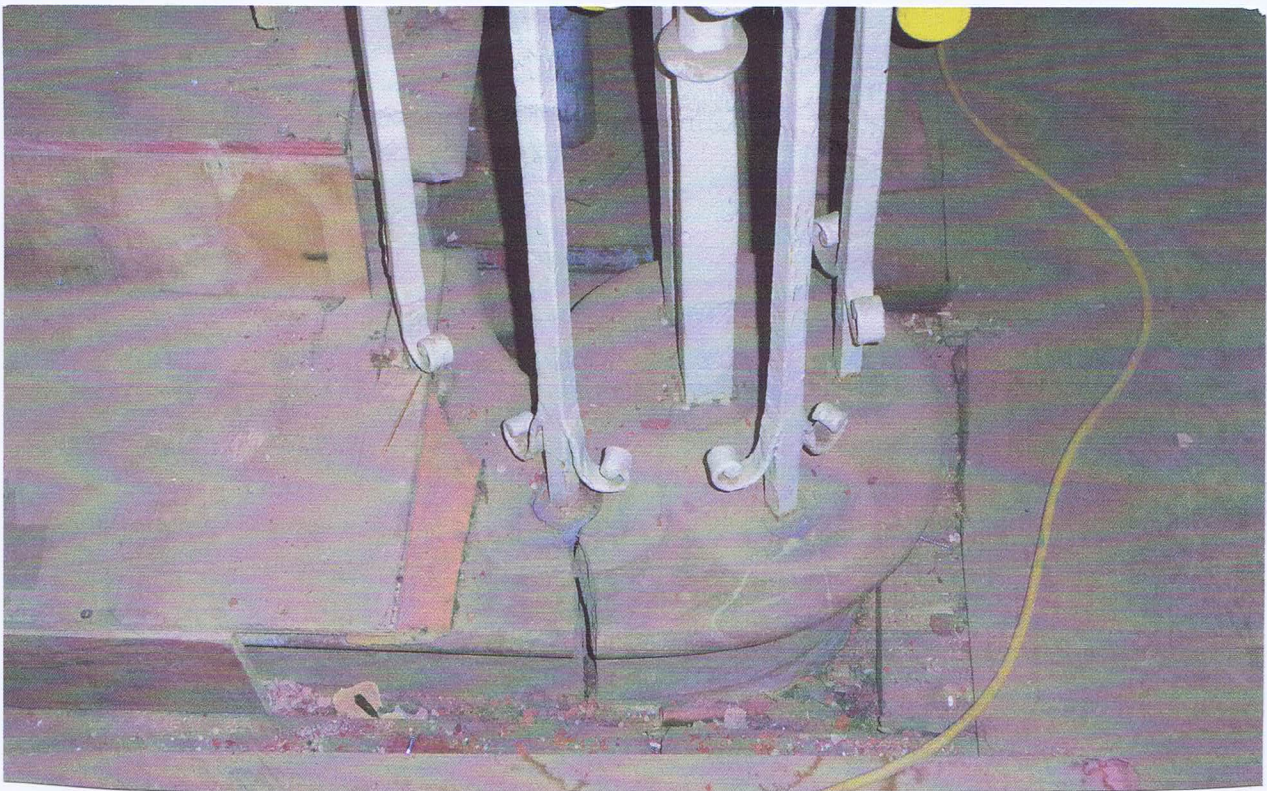



PHOTO DETAIL OF BULLNOSE STEP

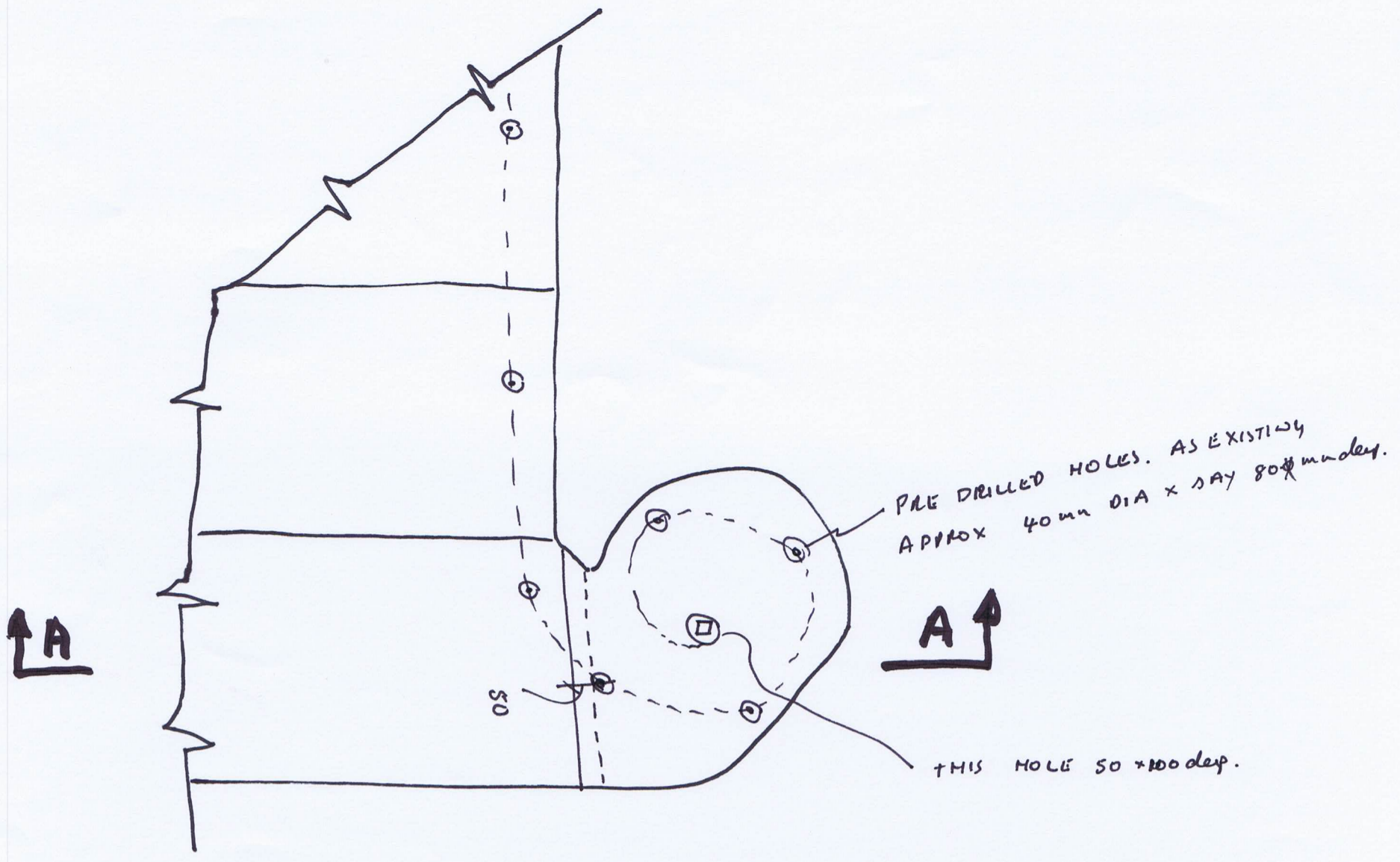
42 BEDFORD ST 1073

Rev.	Date	By	Details Of Revision	Drawn	Scale	App'd.
				SD	1:5	
				Date: 13/03/20	Eng. SD	Chk.
				WA Ref.		Suitblty.
				Drawing No.		Rev.
				3306/230320/23		

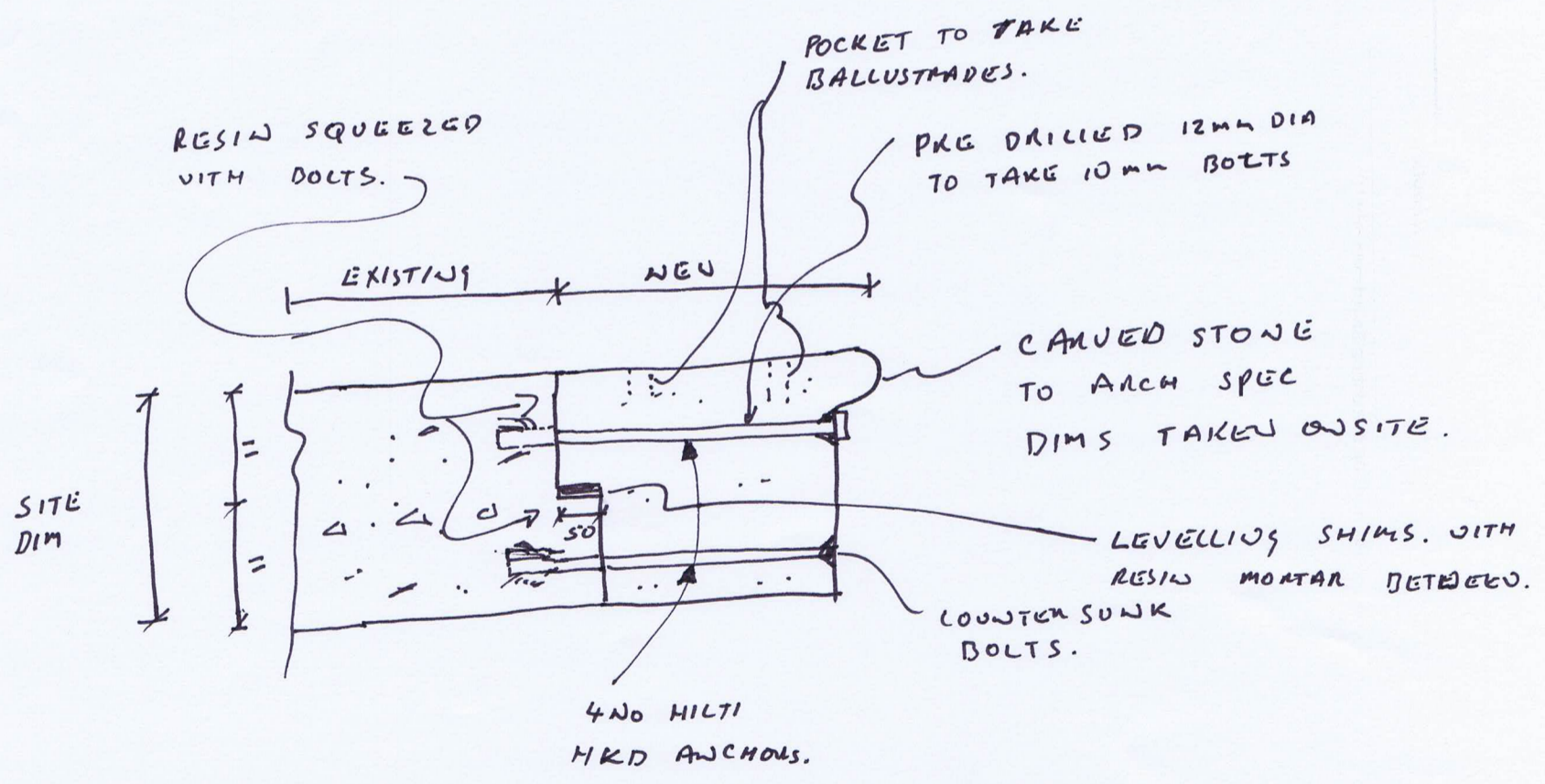

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**BULLNOSE STEP REPAIR.**

**EXISTING ARRANGEMENT**



**PLAN OF BULL NOSE STEP**



**SECTION A-A**

2 A 3

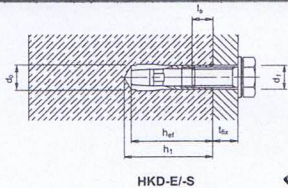
Rev.	Date	By	Details Of Revision	Drawn	Scale	App'd.
				SW	UTS	
				Date 23/03/20	Eng. SW	Chk.
				WA Ref.		Suitblty.
<div data-bbox="84 2686 567 2834" data-label="Image"> </div>				<b>Title</b> 42 BEDFORD SQ PROPOSE RETAIN FOR BULLNOSE STEP		<b>Drawing No.</b> 3306/23032/22
						<b>Rev.</b>

### Proposed method statement

- 1 Contractor and stone specialist to take all dimensions prior to any removal work
- 2 Agree with Architect the partial removal or lifting of existing Balustrade and Handrail assembly
- 3 Agree all new balustrade pocket depth and diameter with the Architect and Engineer, assumed to be balustrade diagonal plus 5mm and depth to be twice the diagonal minimum.
- 4 Provide details of mortars and adhesives to be used and samples of bolts and anchors.
- 5 Remove preferably by unbolting the hand rail, if this is not possible by cutting and prepare cut for full strength butt weld ground flush. Weld details to be agreed with Engineer. Assume double V butt weld
- 6 Saw cut approx. 25 mm from existing crack the full depth of the first step. This must be a true vertical cut
- 7 Cut horizontally at mid depth plus 10mm to allow for levelling shims a 50mm deep cut
- 8 Cut vertically inboard 50mm to the mid depth horizontal cut to create a "halving joint"
- 9 Carve the new stone section to fit tight allowing for levelling shims
- 10 Place shims at halving joint and all base to perfect fit
- 11 fill between shims with resin mortar
- 12 Place new step piece in place and clamp into position
- 13 Drill 12mm holes in existing stair and blow out all dust as Hilti instruction manual
- 14 Insert HKD anchors and plug with bolts so they cannot be filled with resin
- 15 Apply resin to cut faces type to be agreed with resin expert SIKA or other approved
- 16 Inset countersunk 10mm bolts and tighten to squeeze out all excess resin
- 17 leave for 48 hours or as advised by resin expert (the greater)
- 18 Insert balustrades and hand rail
- 19 Weld with FULL strength butt weld the steel hand rail
- 20 check all alignments and once approved by Architect fill balustrades with lead or other approved filler
- 21 Polish joint.



**Setting details**



HKD-E-S

Anchor size	M6x25	M6x30	M8x30	M8x40	M10x30	M10x40	M12x50	M16x65	M20x80
<b>Setting details</b>									
$d_b$ [mm] Drill bit diameter	8	8	10	10	12	12	15	20	25
$h_1$ [mm] Hole depth	27	32	33	43	33	43	54	70	85
$h_{eff}$ [mm] effect. anchorage depth	25	30	30	40	30	40	50	65	80
$l_s$ [mm] Screwing depth	11	8/11	10/13	10/13	12/12	12/16	14/22	18/28	23/34
$T_{tight}$ [Nm] Tightening torque	5	4	8	8	15	15	35	60	120
$d_i$ [mm] Clearance hole	7.5	7	9	9	12	12	14	18	22
$h$ [mm] Min. base material thickness	100	100	100	100	100	100	100	130	160
Drill bit	TE-CX-8/17		TE-CX-10/17		TE-CX-12/17 TE-TX-12/22		TE-CX-15/17 TE-TX-15/22	TE-C-20/22S TE-Y-20/32S	TE-C-25/27S TE-Y-25/32S

PINS NEEDED

3 of 3

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42 BEDFORD SQ

PROPOSED REPAIR FOR  
BULLWOGS STEP.

Drawn <i>SW</i>	Scale 1/75	App'd.
Date	Eng. <i>SN</i>	Chk.
WA Ref.		Suitblty.
Drawing No. <b>3306/230320/23</b>		Rev.