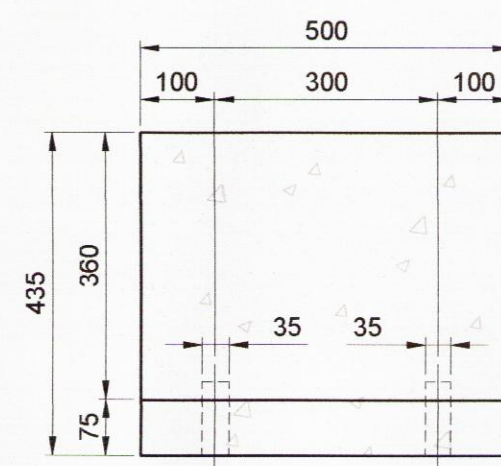
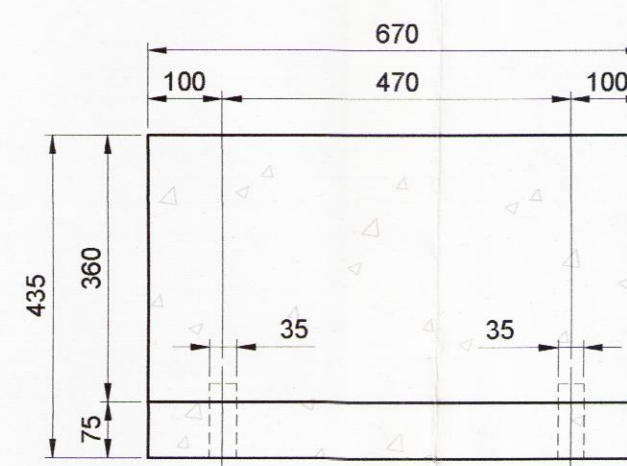


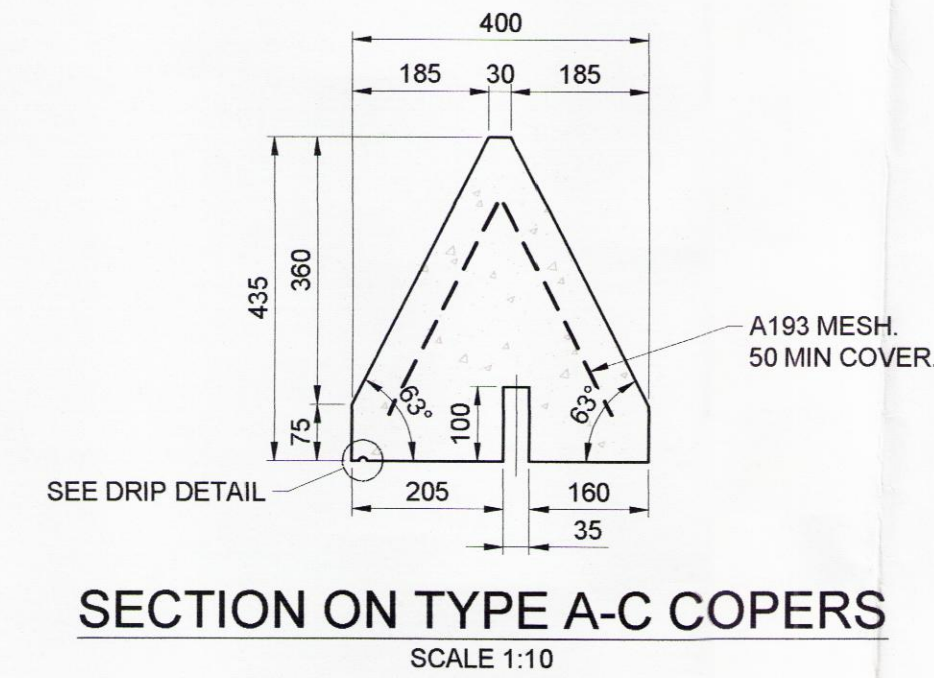
ELEVATION ON TYPE A COPER  
SCALE 1:10




ELEVATION ON TYPE B COPER  
SCALE 1:10

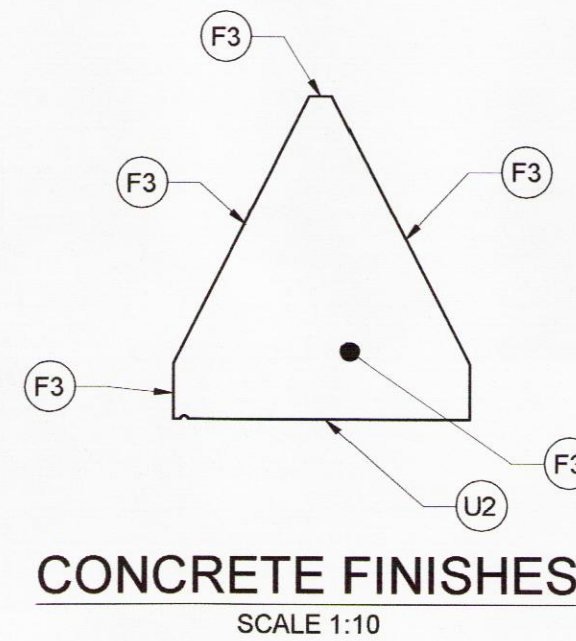


ELEVATION ON TYPE C COPER  
SCALE 1:10



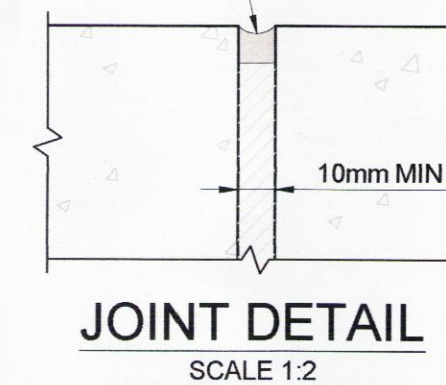
SECTION ON TYPE A-C COPERS  
SCALE 1:10

CONCRETE COPER REQUIREMENTS 				
COPER TYPES	No. REQ'D (WEST)	No. REQ'D (EAST)	WEIGHT (kg)	A193 MESH REQ'D (m²)
A	3	3	74.9	0.19
B	44	43	93.6	0.26
C	1	1	125.4	0.37

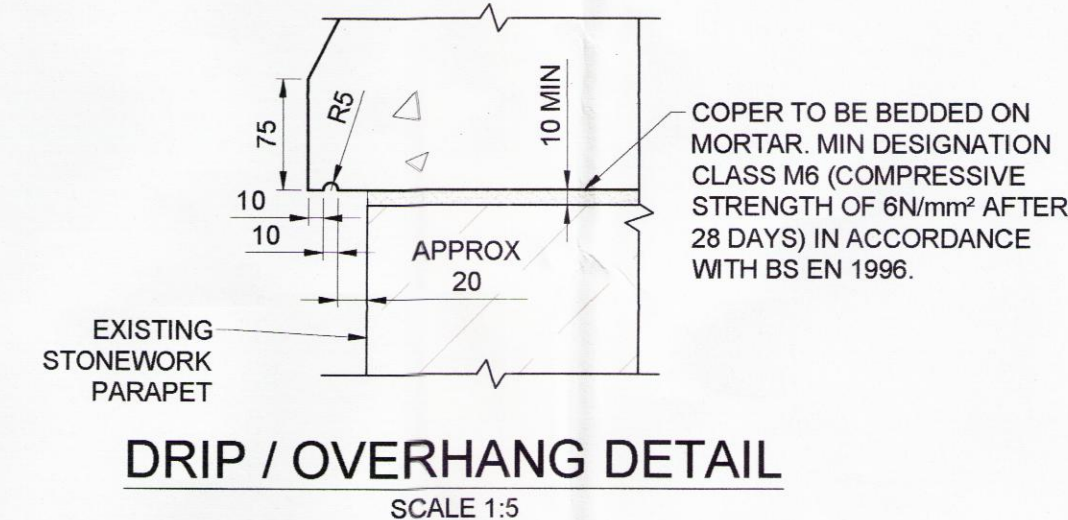


CONCRETE FINISHES  
SCALE 1:10

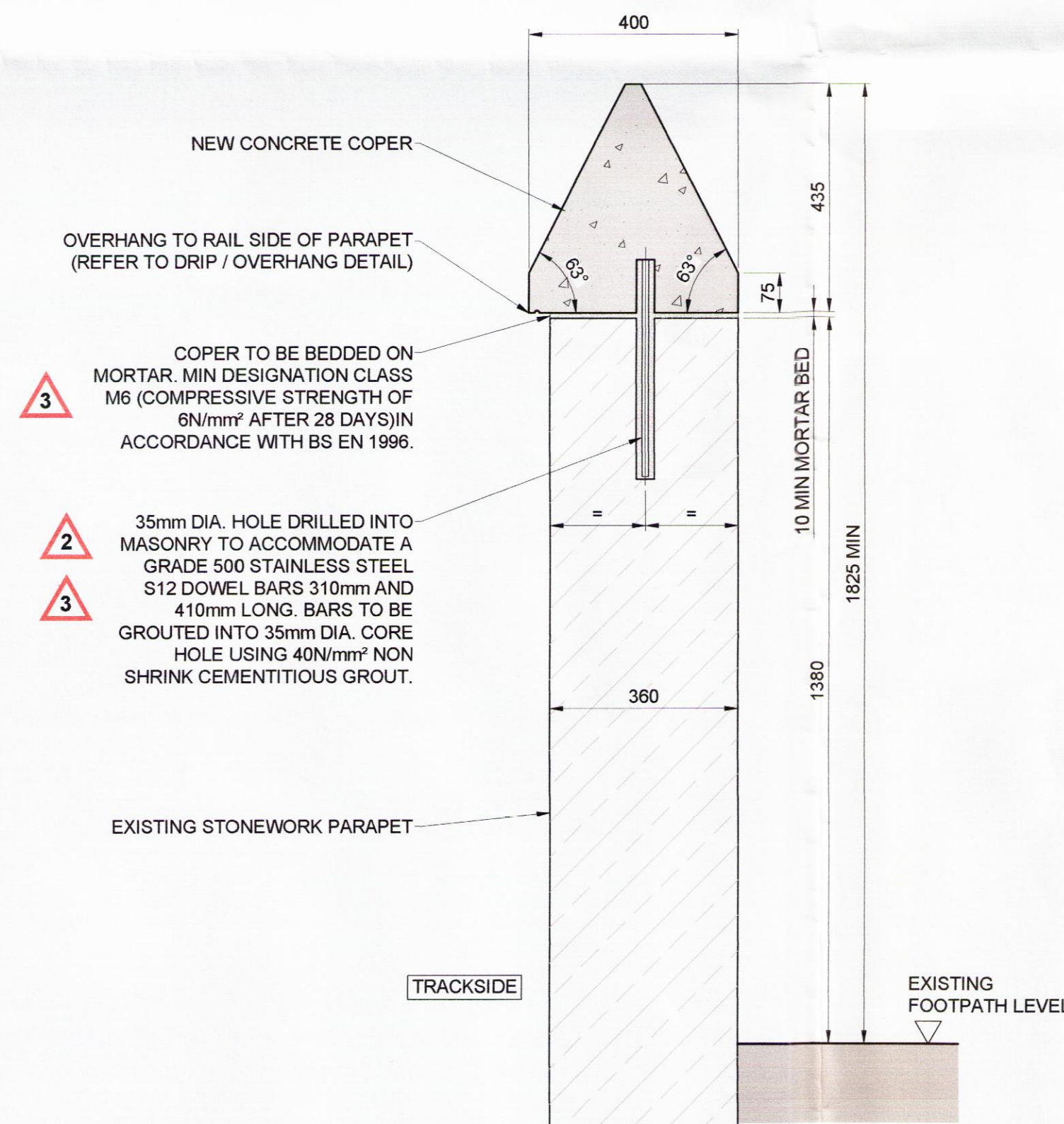
PROPOSED JOINT TO BE MORTAR OR 2 PART POLYSULPHIDE SEALANT WITH AEROFIL FILLER BOARD OR SIMILAR APPROVED.



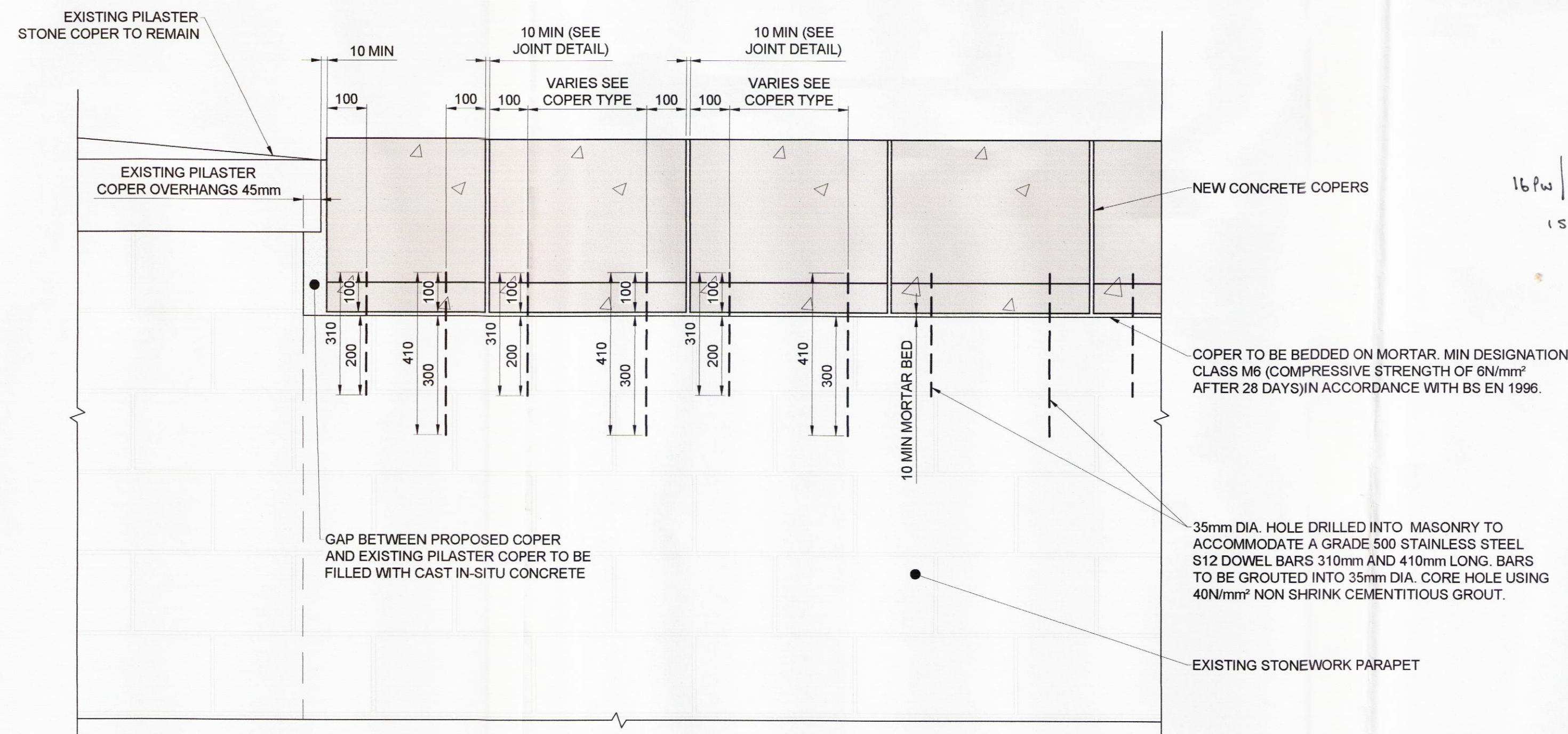
JOINT DETAIL  
SCALE 1:2



DRIP / OVERHANG DETAIL  
SCALE 1:5



SECTION A-A  
(REFER TO DRAWING 02 FOR LOCATIONS)  
SCALE 1:10



TYPICAL DOWEL ARRANGEMENT  
SCALE 1:10

- Legend/Notes
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
  - DO NOT SCALE FROM THIS DRAWING.
  - THIS DRAWING IS BASED ON AVAILABLE NETWORK RAIL RECORD INFORMATION AND A BASIC DIMENSIONAL SITE SURVEY.
  - THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS PRIOR TO FABRICATION AND CONSTRUCTION.
  - A 40N/mm² NON-SHRINK CEMENTITIOUS GROUT IS TO BE USED FOR THE DOWEL BARS IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
  - STRUCTURAL CONCRETE REQUIREMENTS ARE AS FOLLOWS:  
BS EN206-1-2000  
BS EN8500-1-2006  
BS EN8500-2-2006  
  
MAX STRENGTH CLASS - LC40/44.  
AGGREGATE SIZE - 20mm.  
CEMENT - 360kg/m³.  
MAX W/C RATIO - 0.45.  
DENSITY CLASS 1.6  
TARGET DENSITY - 1550kg/m³
  - NEW MATERIAL TO MATCH EXISTING IN COLOUR AND FEATURE AS MUCH AS PRACTICALLY POSSIBLE.

## RESIDUAL RISKS

- INJURY DUE TO WORKING AT HEIGHT.
- INJURY DUE TO WORKING WITH POWER TOOLS
- WORKING WITH CEMENTITIOUS PRODUCTS CAUSING BURNS.
- OLE BELOW STRUCTURE.
- LIFTING AND PLACING HEAVY COPERS.

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
B01	05/11/15	FIRST ISSUE	RD	RB	TC

Status

F-003 DETAILED DESIGN

Designers  
Infrastructure Projects  
Buildings & Civils  
Civils Design Group  
Manchester  
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Tel: 0161 880 3936

Project

LIVERPOOL TO MANCHESTER DSE LINE  
ELECTRIFICATION WORKS

Drawing Title

OVERBRIDGE 37 STURDEE ROAD  
PROPOSED DETAILS

Designer	Drawn	Checked	Approved	Scale(s) at A1	Sheet Size A1 594 x 841	ELR & Mileage	AS SHOWN	Revision
R. DIVILLY	R. DIVILLY	R. BRINDLEY	T. CHEETHAM	1:10	1:10	1:10	1:10	1:10
Signed	Signed	Signed	Signed					
Date	Date	Date	Date					
05/11/2015	05/11/2015	05/11/2015	05/11/2015					
ELR : DSE	2m 1687yds							
LNW-124384-ECV-DRG-IAB-DSE-37-03								