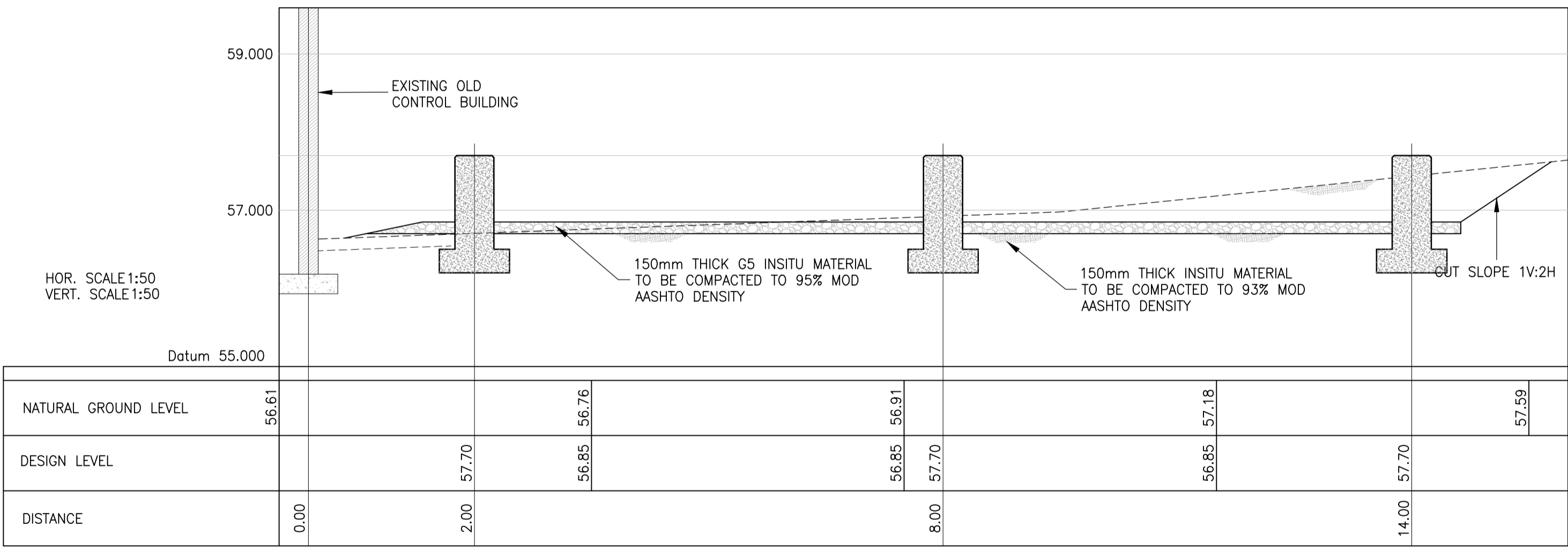
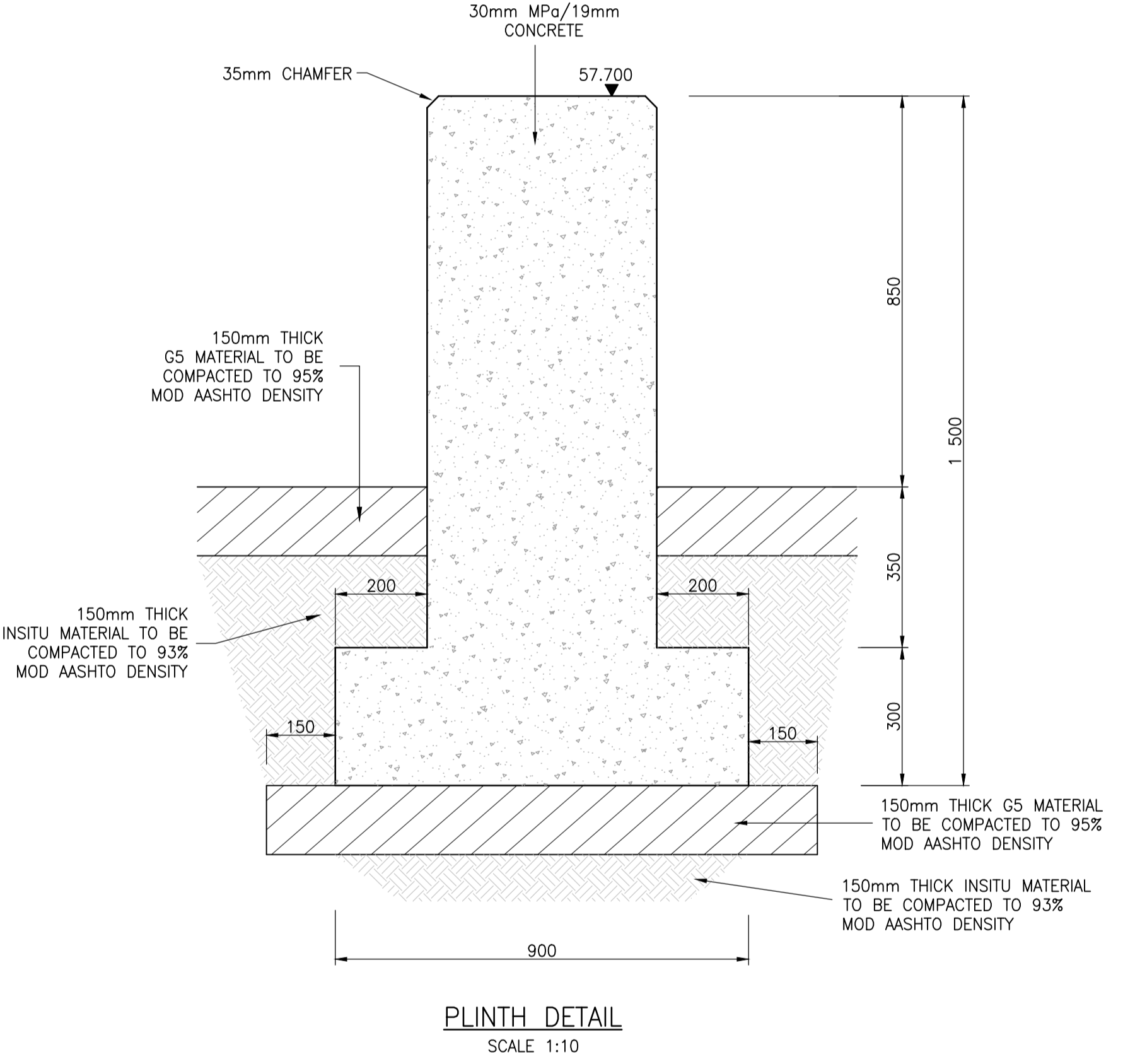


BENDING SCHEDULE												
LOCATION/MEMBER	NO. OFF	TYPE & SIZE	BAR MARK	NO. IN EACH	TOTAL NO.	CUTTING LENGTH	SHAPE CODE	BENDING DIMENSIONS TO SABS 82				
								A	B	C	D	E/R
COLUMN BASES	10	R8	01	6	50	1000	60	400	400			
	10	Y12	02	4	40	1650	37	1150				
	10	Y12	03	8	80	1200	35	800				
	10	Y12	04	8	80	1200	35	800				



SECTION A-A

- ### NOTES
- GENERAL
 - All building work must comply with Local and National building Regulations.
 - This drawing must be read in conjunction with the architect's drawings and verified against the same. Any discrepancies must be reported to the Engineer.
 - All work to be performed in accordance with the latest version of SANS 1200G, SABS 1200GE and SABS 1200GF as applicable.
 - All notes are general unless otherwise shown on the drawing.
 - No structural alterations may be done without the approval of the engineer.
 - No scaling of dimensions are permitted.
 - All dimensions to be checked on site.
 - Contractor to keep a full set of drawings on site.
 - Contractor is responsible for correct setting out of building on site with particular reference to boundary and building lines.
 - CONCRETE (at 28 days)
 - Foundations, bases : 30 MPa/19mm
 - Water/OPC Cement ratio = 0.56
 - All exposed concrete to have smooth off shutter finish
 - COVER TO REINFORCEMENT
 - 50mm Cover to all reinforcement unless otherwise noted.
 - CONSTRUCTION
 - No concrete may be cast until the reinforcement has been completed and approved by the Engineer.
 - Stripping times of formwork and props:
 - sides of columns, beams and walls- 3 days
 - undersides of slabs- 10 days
 - undersides of beams, arches- 21 days
 - column strips in flat slabs- 21 days
 - Concrete to be adequately compacted by means of a vibrator. The contractor must use approved cover blocks of adequate strength in order to withstand working conditions, min strength equal to concrete strength specified.
 - Construction joints to be approved by engineer.
 - Exposed concrete surfaces to be continually cured for a minimum of 14 days.
 - No "Honey-combing" in concrete must be rectified without inspection and consent of the Engineer.
 - All exposed concrete edges to have 20 x 20mm chamfers.
 - FOUNDATIONS
 - Founding conditions to be inspected and approved by the engineer prior to casting.
 - Design bearing pressure = 150KPa.
 - Foundation levels indicated are approximate and will be confirmed on site by the Engineer.
 - Reinforced foundations to have minimum of 50mm blinding.
 - BRICKWORK
 - Bricks to be in accordance with SABS 0146
 - All loadbearing brickwork must be in accordance with SANS 0164
 - Crushing strength to be 15 MPa
 - Unless otherwise shown, all openings in loadbearing walls that does not exceed 1000mm to have brickforce every course.
 - All openings exceeding 1000mm to have precast lintel over opening with brickforce every course.
 - Class II mortar to be used.
 - CONCRETE CUBE TEST
 - The result of six concrete cube crushing tests done at an approved laboratory are to be submitted to the Engineer for approval. At least one set of six cubes shall be taken for each day of casting and from at least every 50 cubic meters of concrete placed.
 - Three cubes must be crushed at 7 days and 3 at 28 days.
 - The results submitted to the Engineer must contain the date at which the sample were taken and identification by which the results may be correlated with the section of work to which it pertains.
 - WATERPROOFING
 - All waterproofing to be specified by others.
- Design limits:
Wind load 45 m/s
Ground bearing capacity 150 KPa

- ### NOTES
- Contractor to check all levels and dimensions on site prior to commencement of work
 - Contractor to liaise with the responsible service provider w.r.t affected services and the protection thereof
 - The contractor shall carefully identify and expose all existing services by hand prior to the commencement of the works
 - When works are to be done near existing structures precautions are to be taken regarding lateral support
 - Contractor to keep a full set of drawings on site
 - Contractor is responsible for correct setting out of structures with particular reference to boundaries and building lines
 - Contractor to verify all levels and dimensions on site
 - Do not scale - used figured dimensions only
 - Large scale details to be used where available
 - Any errors, discrepancies are to be reported immediately to the engineer for clarification before work is undertaken
 - The proposed services may intersect existing services such as electrical cables and other possible services. Relocation of such services, where necessary, shall be coordinated timeously by the contractor with the relevant authorities

DO NOT SCALE

REV	DR	CH	DATE	REVISIONS	REFERENCE DRAWINGS	NOTES
A	BENA	UDER	14-03-2014	ISSUED FOR APPROVAL	001 GENERAL ARRANGEMENT PLAN	

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CESA
Consulting Engineers South Africa

TITLE		DATE	CHECKED
BRICKMAKERSKLOOF ELECTRICAL SUBSTATION CONTRACT NO.473791 - PHASE 1 SITE CLEARANCE AND CONCRETE WORKS		13-03-2014	UDER
CLIENT		SCALE: 1:200	
NELSON MANDELA BAY MUNICIPALITY		PROJECT No.	DRG No.
		473791	14401002