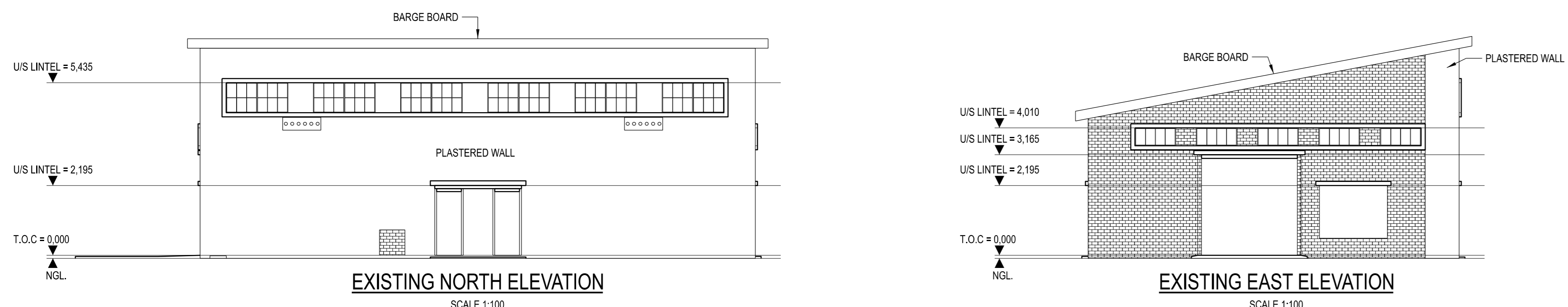
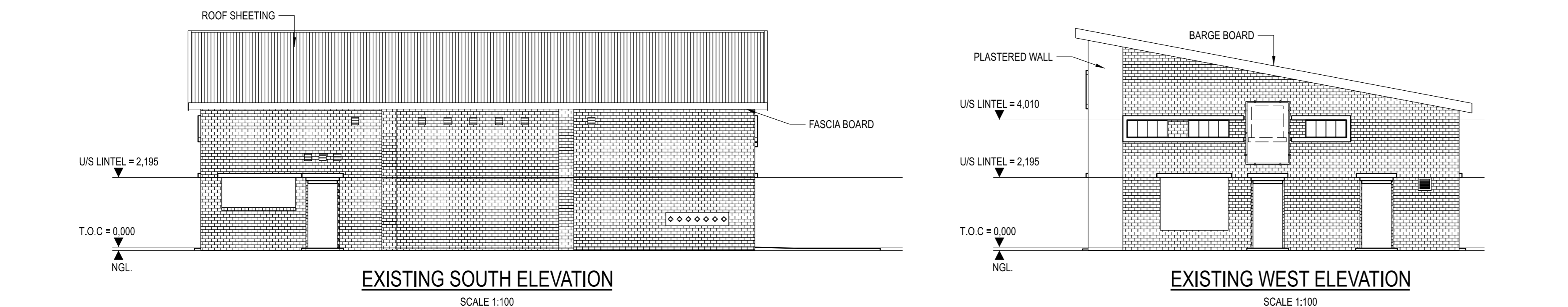


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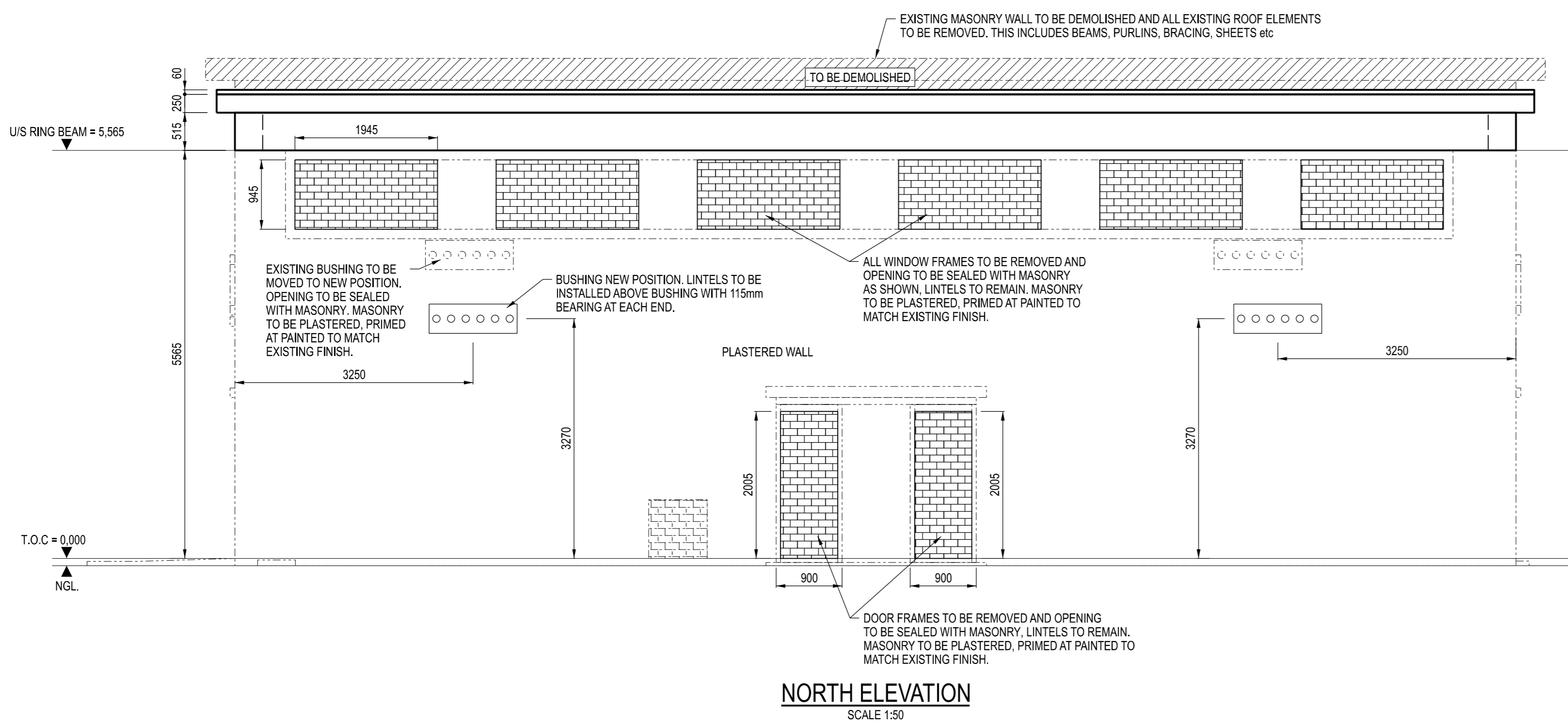


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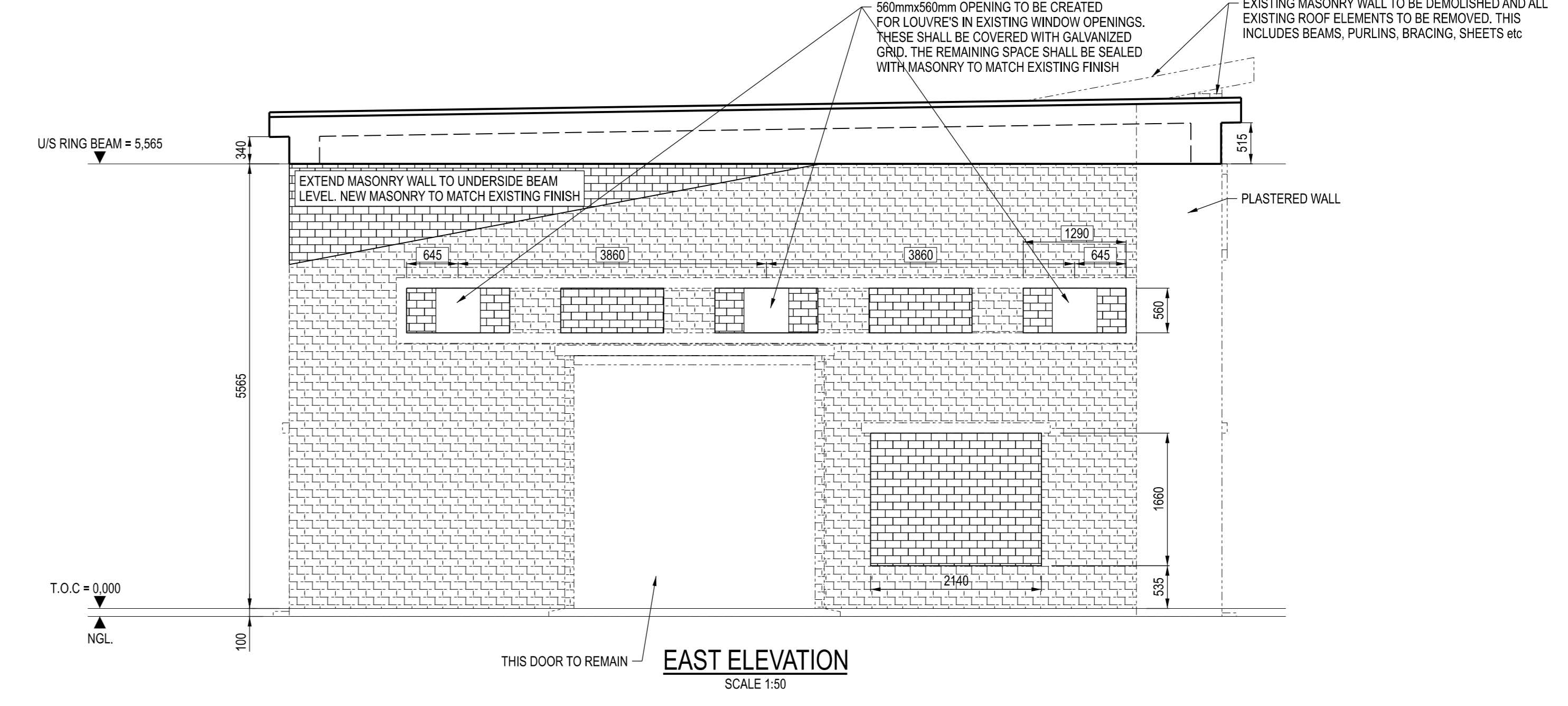


DOOR TYPE: D01	TOTAL 1	DOOR TYPE: D02	TOTAL 2	LOUVER SCHEDULE	SCALE 1:50
DIMENSIONS TO CONFORM TO MECHANICAL ENGINEERS SPECIFICATION					
FRAME	DESIGN, SUPPLY AND INSTALL MUTUAL STRONGROOM OR SIMILAR APPROVED DOOR CONSISTING OF SABS APPROVED CATEGORY 2, 2 HEAVY DUTY AND CATEGORY 2 SPECIAL CUSTOM-MADE SIZES 1700x 2120w WITH COMPLETE VESTIBULE BEARING SUPPORTED HINGES - TOP AND BOTTOM.	DESIGN, SUPPLY AND INSTALL MUTUAL STRONGROOM OR SIMILAR APPROVED DOOR CONSISTING OF SABS APPROVED CATEGORY 2, 2 HEAVY DUTY AND CATEGORY 2 SPECIAL CUSTOM-MADE SIZES 1010x 2120w WITH COMPLETE VESTIBULE BEARING SUPPORTED HINGES - TOP AND BOTTOM.	TYPE	L1	
DOOR	DESIGN, SUPPLY AND INSTALL SABS APPROVED GALVANIZED STRONGROOM DOOR IS SPECIFICALLY DESIGNED WITH FULL DEPTH TO GIVE PROTECTION.	DESIGN, SUPPLY AND INSTALL SABS APPROVED GALVANIZED STRONGROOM DOOR IS SPECIFICALLY DESIGNED WITH FULL DEPTH TO GIVE PROTECTION.	TOTAL REQUIRED	6	
LOCKSET	THE DOOR IS MANUFACTURED WITH A HEAVY DUTY AS STANDARD CONCEAL LOCKER. ELECTRONIC RIM LOCKS CAN BE ADDED AS AN ALTERNATE LOCKING OPTION.	THE DOOR IS MANUFACTURED WITH A HEAVY DUTY AS STANDARD CONCEAL LOCKER. ELECTRONIC RIM LOCKS CAN BE ADDED AS AN ALTERNATE LOCKING OPTION.	REMARKS	TROX WEATHER-RESISTANT LOUVER TO FIT OPENING. FRAME AND BLADES OF FORMED GALVANIZED SHEET STEEL. WIRE MESH SCREEN FROM GALVANIZED SHEET STEEL. MESH SIZE 25x25mm. LOUVER TO BE INSTALLED AS PER SUPPLIERS RECOMMENDATIONS.	
GENERAL	CONTRACTORS SHOP DRAWINGS MUST BE APPROVED BY ENGINEER. ALL INSTALLATIONS SHALL BE DONE BY SPECIALIST OR SIMILAR APPROVED CONTRACTOR.	CONTRACTORS SHOPDRAWINGS MUST BE APPROVED BY ENGINEER. ALL INSTALLATIONS SHALL BE DONE BY SPECIALIST OR SIMILAR APPROVED CONTRACTOR.			

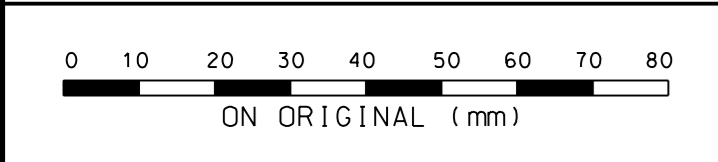
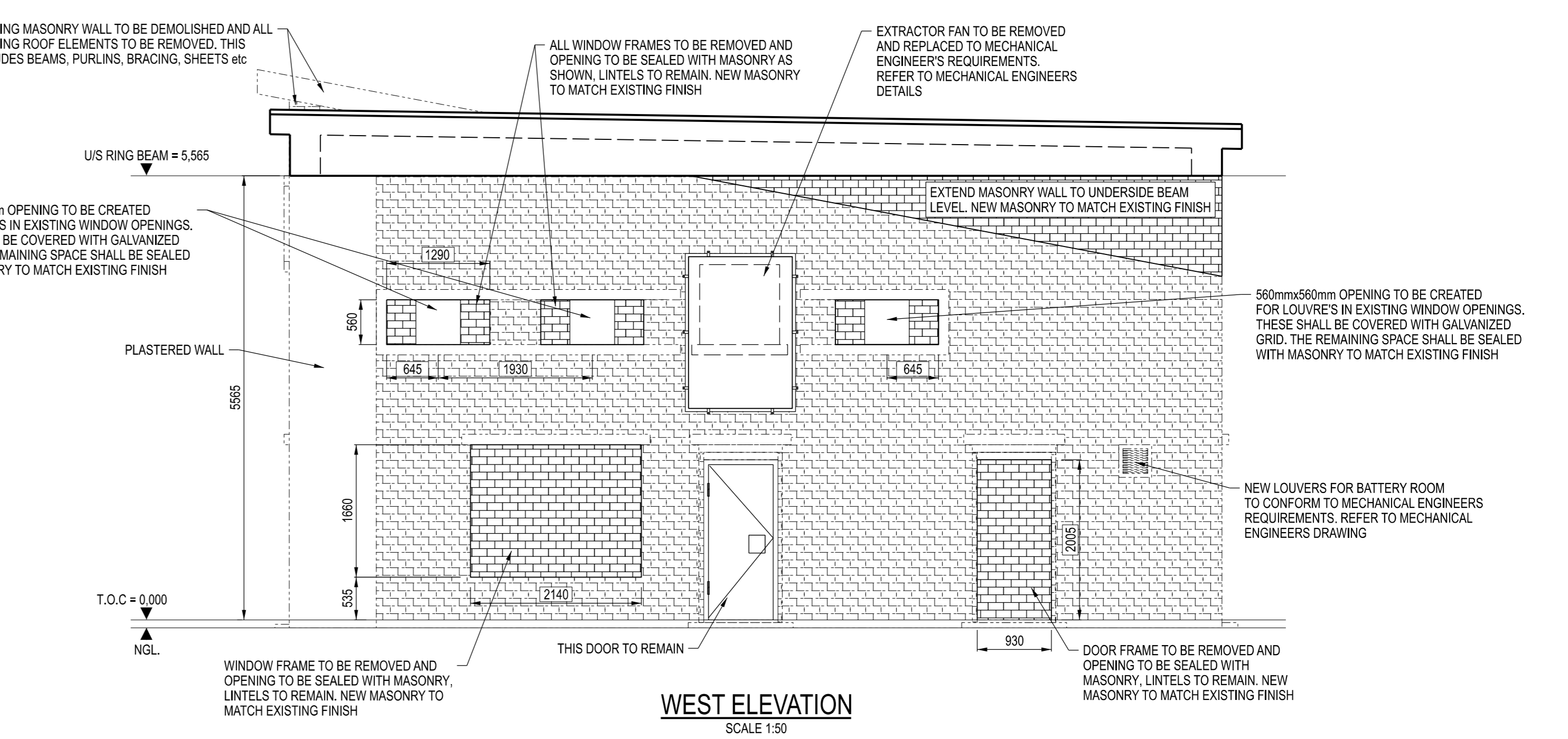
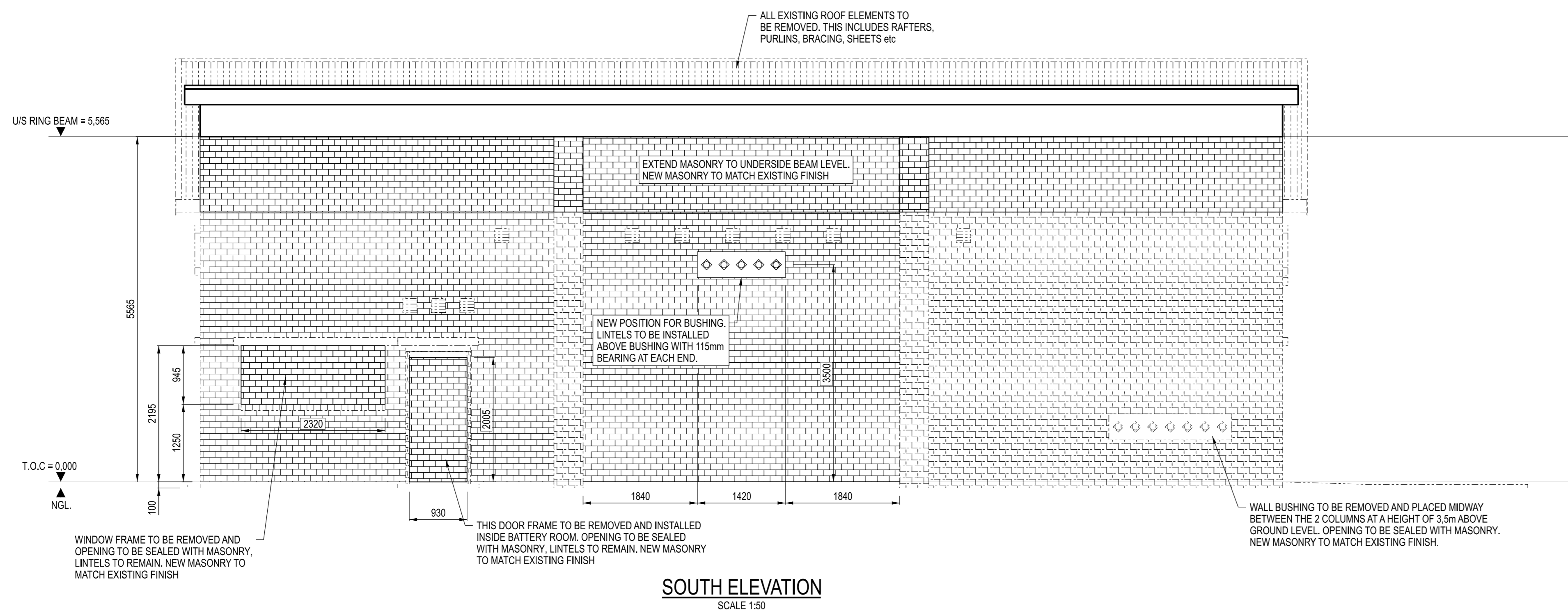
C



D



E



DRAWING No	TITLE
3428776-4	REFERENCE DRAWINGS

- NOTES**
- DO NOT SCALE DRAWING. ONLY DIMENSIONS SHOWN TO BE USED.
  - THE CONTRACTOR SHALL ALLOW FOR ALL STANDARDS/SPECIFICATIONS WHICH ARE REFERRED TO IN THESE NOTES AND WHICH ARE APPLICABLE ON SITE.
  - ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE AND ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE WORK IS COMMENCED.
  - ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS.
  - CONCRETE WORK TO BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATION:
    - a) CONCRETE WORK TO TRANSNET'S SPECIFICATION S420 AND SANS 10002
    - b) CONCRETE PLACING DONE TO BE DONE IN ACCORDANCE WITH SANS 10100 PART 2, CLAUSE 10.2
    - c) CONCRETE CUBE STRENGTHS ARE CHARACTERISTIC STRENGTHS TO SANS 10100 PARTS 1 AND 2
  - CONCRETE STRENGTHS AT 28 DAYS:
    - BASE SPLINTH : 30MPa/19mm
    - ROOF SLAB : 30MPa/19mm
    - RING BEAM : 30MPa/19mm
    - APRON SLAB : 30MPa/19mm
    - BLINDING LAYER/CONCRETE INFILL : 10MPa/19mm
  - COVER TO REINFORCEMENT:
    - BASE SPLINTH : 50mm UNLESS OTHERWISE SHOWN
    - ROOF SLAB : 50mm UNLESS OTHERWISE SHOWN
    - RING BEAM : 50mm UNLESS OTHERWISE SHOWN

- ALL SHARP CORNERS ON CONCRETE WORK ARE TO BE CHAMFERED 25mm x 25mm UNLESS OTHERWISE SHOWN.
- COMPACTION OF THE BOTTOM OF FOUNDATIONS SHALL BE DONE TO 95% MOD AASH TO IN LAYERS NOT EXCEEDING 150mm.
- REINFORCEMENT SHALL COMPLY WITH SANS 501 AND BENT TO SANS 292.
- SYMBOLS: R - MILD STEEL WITH CHARACTERISTIC STRENGTH OF 250MPa  
Y - HOT ROLLED OR COLD WORKED HIGH STRENGTH BARS WITH CHARACTERISTIC STRENGTH OF 450MPa  
(ONLY REINFORCEMENT FABRICATED UNDER THE SABS MARK SCHEME SHALL BE DEEMED TO COMPLY WITH SABS REQUIREMENTS)
- INTERNAL WALLS AND FLOOR TO BE SEALED WITH PROTECTAKOTE LIVR FROM OPTIMA COATINGS OR SIMILAR
- THE MINIMUM CRUSHING STRENGTH OF MORTAR IN ACCORDANCE WITH TABLE 1 OF SANS 10164 PART 1.
- MORTAR AND PLASTER SAND TO BE FREE OF ORGANIC CONTENT. SEIVING OF SAND ON SITE NOT PERMITTED.
- ALL MASONRY MATERIAL COMPONENTS WORKMANSHIP AND TESTING SHALL COMPLY WITH SANS 10164 'THE STRUCTURAL USE OF MASONRY' AND SANS 10400.
- GENERAL LOAD BEARING BRICKWORK ABOVE DAMP-PROOF COURSE AND INNER GAINS OF EXTERNAL WALLS TO BE 140Pa NPKX BRICKS WITH A WATER ABSORPTION OF NO MORE THAN 12% OR BETTER.
- STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SPECIFICATIONS SANS 2091-C81 AND SANS 1921-3
- ALL HOT ROLLED STEEL SECTIONS AND PLATES TO BE GRADE S355JR TO EN10025.

REVISIONS			
NO.	DESCRIPTION	BY	CHKD/APPD
0	ISSUED FOR CONSTRUCTION	SP	AA DR
			2025-10-07

CONTRACTOR / CONSULTANT				TRANSNET FREIGHT RAIL NETWORK & CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE	TITLE	NAME	SIGN	DATE
				DRAWN	SP		25 10 07
				CHECKED	AA		25 10 07
				DESIGNED	AA		25 10 07
				CHECKED	DR		25 10 07

Transnet Freight Rail, Rail Network & Capital Projects

**WOLSELEY**

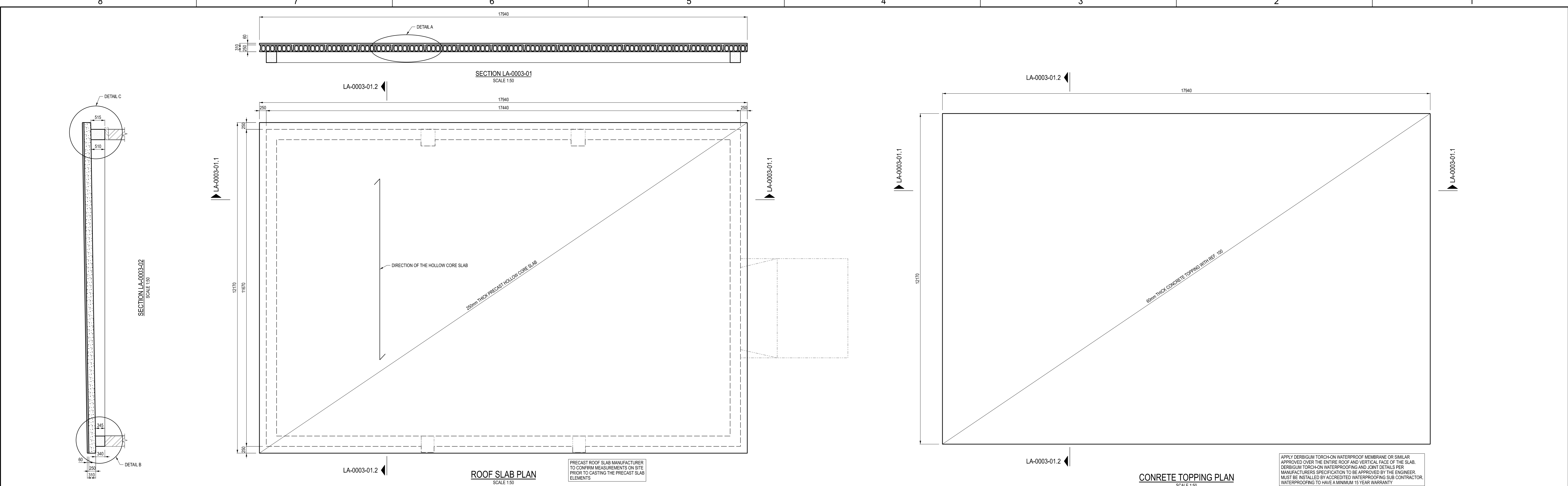
**SUBSTATION PROPOSED RENOVATIONS ELEVATIONS**

PROJECT NUMBER: 4.4-T-LA-0002.01

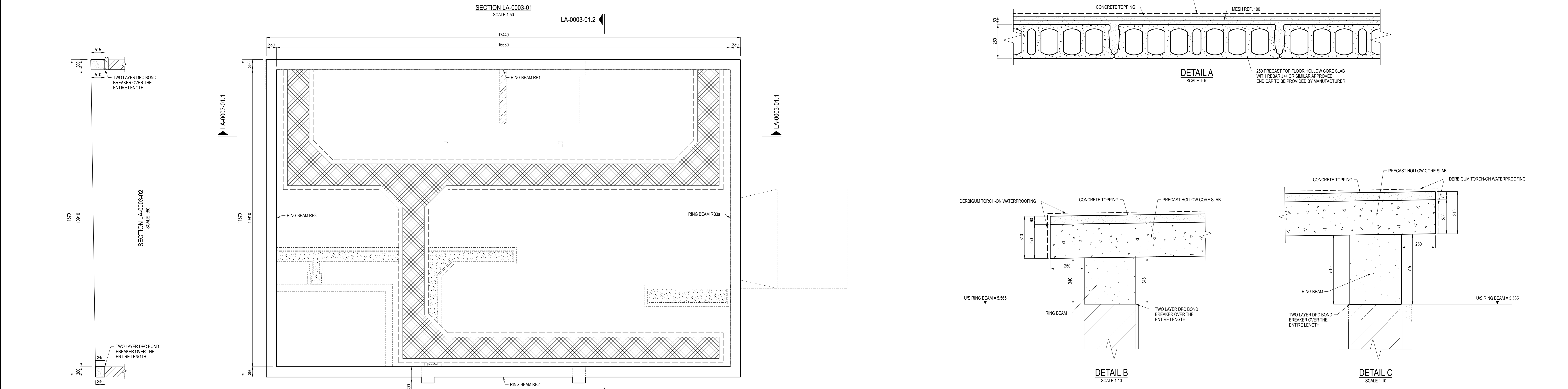
SCALE: AS SHOWN







APPLY DERBIGUM TORCH-ON WATERPROOF MEMBRANE OR SIMILAR APPROVED OVER THE ENTIRE ROOF AND VERTICAL FACE OF THE SLAB. DERBIGUM TORCH-ON WATERPROOFING AND JOINT DETAILS PER MANUFACTURERS SPECIFICATION TO BE APPROVED BY THE ENGINEER. MUST BE INSTALLED BY ACCREDITED WATERPROOFING SUB CONTRACTOR. WATERPROOFING TO HAVE A MINIMUM 15 YEAR WARRANTY.



DRAWING No		TITLE	
3428776-4	3428776-4	ROOF SLAB AND RING BEAM LAYOUT	ROOF SLAB AND RING BEAM LAYOUT

NOTES			
1. DO NOT SCALE DRAWING. ONLY DIMENSIONS SHOWN TO BE USED.	2. THE CONTRACTOR SHALL ALLOW FOR ALL STANDARDS/SPECIFICATIONS WHICH ARE REFERRED TO IN THESE NOTES AND WHICH ARE APPLICABLE ON SITE.	3. ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE AND ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE WORK IS COMMENCED.	4. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS.
5. CONCRETE WORK TO BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATION:	a) CONCRETE WORK TO TRANSNET'S SPECIFICATION SANS 10002	b) CONCRETE PLACING DONE TO BE DONE IN ACCORDANCE WITH SANS 10100 PART 2, CLAUSE 10.2	c) CONCRETE CUBE STRENGTHS ARE CHARACTERISTIC STRENGTHS TO SANS 10100 PARTS 1 AND 2
6. CONCRETE STRENGTHS AT 28 DAYS:	BASE/PIN/PLINTH : 30MPa/15mm	ROOF SLAB : 30MPa/15mm	RING BEAM : 30MPa/15mm
7. COVER TO REINFORCEMENT:	APRON SLAB : 30MPa/15mm	BLINDING LAYER/CONCRETE INFILL : 10MPa/15mm	BASE/PIN/PLINTH : 50mm UNLESS OTHERWISE SHOWN
8. ALL SHARP CORNERS ON CONCRETE WORK ARE TO BE CHAMFERED 25mm x 25mm UNLESS OTHERWISE SHOWN.	9. COMPACTION OF THE BOTTOM OF FOUNDATIONS SHALL BE DONE TO 95% MOD AASH TO IN LAYERS NOT EXCEEDING 150mm.	10. REINFORCEMENT SHALL COMPLY WITH SANS 5010 AND BENT TO SANS 5020.	11. INTERNAL WALLS TO BE PLASTERED.
12. INTERNAL WALLS AND FLOOR TO BE SEALED WITH PROTECTAKOTE LIVR FROM OPTIMA COATINGS OR SIMILAR.	13. THE MINIMUM CRUSHING STRENGTH OF MORTAR IN ACCORDANCE WITH TABLE 1 OF SANS 10164 PART 1.	14. MORTAR AND PLASTER SAND TO BE FREE OF ORGANIC CONTENT. SIEVING OF SAND ON SITE NOT PERMITTED.	15. ALL MASONRY MATERIAL COMPONENTS WORKMANSHIP AND TESTING SHALL COMPLY WITH SANS 10164 THE STRUCTURAL USE OF MASONRY AND SANS 10400.
16. GENERAL LOAD BEARING BRICKWORK ABOVE DAMP-PROOF COURSE AND INNER SANS OF EXTERNAL WALLS TO BE 14MPa NPX BRICKS WITH A WATER ABSORPTION OF NO MORE THAN 12% OR BETTER.	17. STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SPECIFICATIONS SANS 2001-C81 AND SANS 1921-3.	18. ALL HOT-ROLLED STEEL SECTIONS AND PLATES TO BE GRADE S355JR TO EN10225.	

REVISIONS			
NO.	DESCRIPTION	BY	CHKD/APPD
0	ISSUED FOR CONSTRUCTION	SP	AA
1		DR	2025-10-07

CONTRACTOR / CONSULTANT			
TITLE	NAME	SIGN	DATE
TRANSNET FREIGHT RAIL NETWORK & CAPITAL PROJECTS			
RAIL NETWORK & CAPITAL PROJECTS			
TITLE	NAME	SIGN	DATE
DRAWN	SP		25 10 07
CHECKED	AA		25 10 07
DESIGNED	AA		25 10 07
CHECKED	DR		25 10 07

OPERATING DIVISIONS			
TITLE	NAME	SIGN	DATE
PR. ENG. / PR. TECH. / PR. ARCH			
NAME	D. RAMAKOTIJO		DATE
SIGNATURE			25 10 07
REG. NUMBER	20057040		
SCALE:	AS SHOWN		AD

Transnet Freight Rail, Rail Network & Capital Projects									
PROJECT NO. 100000000					PROJECT NAME: RAIL NETWORK & CAPITAL PROJECTS				
PROJECT LOCATION: 15 OFFICE ROAD, MIDRAND, JOHANNESBURG, SOUTH AFRICA, 2000					PROJECT NO. 100000000				
<b>WOLSELEY</b>									
<b>SUBSTATION PROPOSED RENOVATIONS</b>									
<b>ROOF SLAB AND RING BEAM LAYOUT</b>									
PROJECT NUMBER	001	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID	
- 4 - - - T L A - 0 0 3 0 1   0 SP									