

NOTES

GENERAL NOTES:

1. THESE NOTES MUST BE READ IN CONJUNCTION WITH THE SANBI STANDARD SPECIFICATIONS INCLUDING THE SANBI STANDARD SPECIFICATIONS FOR CONSTRUCTION.
  2. THE CONTRACTOR MUST ENSURE A QUALITY ASSURANCE SYSTEM FOR THE EXECUTION OF THE WORK. THE QUALITY ASSURANCE SYSTEM MUST BE SUBMITTED TO THE ENGINEER PRIOR TO THE START OF THE WORK. THE CONTRACTOR MUST ENSURE A QUALITY ASSURANCE SYSTEM BEFORE THE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY DEFICIENCIES OR NON-COMPLIANCE WITH THE WORK TO BE DONE TO THE ENGINEER'S SATISFACTION.
  3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK.
  4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK.
  5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK.
- FOUNDATION NOTES:**
1. EXCAVATIONS FOR FOUNDATIONS TO BE APPROVED BY THE ENGINEER BEFORE CONCRETE IS CAST.
  2. FOUNDATIONS TO BE BUILT ON FIRM, WELL COMPACTED SOIL.
  3. THE ENGINEER MAY ORDER PLATE LOAD TESTS TO BE DONE TO DETERMINE THE BEARING CAPACITY OF THE FOUNDATION.
  4. ASSUMED SAFE BEARING CAPACITY OF FOUNDATION MATERIAL 75 kPa.
- CONCRETE NOTES:**
1. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH SABS 12000.
  2. CONCRETE CLASS TO BE AS FOLLOWS:  
BUILDING 15 MPa/18mm  
STANDARD REINFORCED CONCRETE 30 MPa/18mm
  3. THE CONTRACTOR MUST CO-ORDINATE ALL SERVICE DRAWINGS FOR DETAILS AND POSITIONING OF OPENINGS AND SIZES OF ELECTRICAL, MECHANICAL AND OTHER SERVICES.
  4. THE CONCRETE COVER TO REINFORCEMENT IS AS FOLLOWS:  
FOUNDATIONS 40mm  
SUPERACEDES (FROM TOP) 30mm
  5. THE STRENGTH OF THE CONCRETE COVER BLOCKS SHALL EXCEED THE STRENGTH OF THE CONCRETE OF THE STRUCTURAL ELEMENTS TO WHICH THEY ARE APPLIED.
  6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREPARE THE FORMATION OF PLASTIC SHRINKAGE CRACKS IN NEWLY CAST CONCRETE.
  7. CONCRETE SHALL BE CURED TO AN APPROVED SPECIFICATION DOES NOT AFFECT ADHESION OR FINISHES.
  8. NO BRICK WALLS MAY BE BUILT ON FLOOR SLABS, BEAMS, OR TRACER STRENGTH UNLESS APPROVED IN WRITING BY THE ENGINEER.
  9. 25% JOINTS ARE TO BE FORMED AT ALL EXPOSED CONCRETE CORNERS.
  10. 250 MICRON OPC TO BE PLACED UNDER ALL SURFACE BEERS.

CLIENT

SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE  
**SANBI**  
Biodiversity for Life  
South African National Biodiversity Institute

REV/NO	DATE	DESCRIPTION
R00	2022-09-18	ISSUED FOR TENDER
REVISIONS		

PROJECT CONSULTANT

PROJECTNEERS

PROJECTNEERS CONSULTING ENGINEERS  
& PROJECT MANAGERS  
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L. NGQASHI S. ZIMU M. NTSHOU N. MOKALOSE  
**PERSONAL CONSULTANT**  
B. TSHUMA

2022-09-18 THE MASTER FILED IN THE PROJECTNEERS ORIGINAL SIGNATURE OF APPROVAL

**PROJECT NAME**  
PROPOSED NEW VISITORS' CENTRE, PARKING UPGRADES, LANDSCAPING, SECURITY UPGRADES AND ASSOCIATED CIVIL, ELECTRICAL AND MECHANICAL WORKS FOR THE THOHYVANDOU BOTANICAL GARDEN, THOHYVANDOU

**PROJECT SITE**  
THOHYVANDOU BOTANICAL GARDEN (TBG) IN THOHYVANDOU

**PROJECT TITLE**  
ENTRANCE INTERSECTION & CULVERTS LAYOUT & DETAILS

**DISCIPLINE**  
CIVIL ENGINEERING

**CONTRACT NUMBER**  
G580/2020-10

**FILE NUMBER**  
ZA2022\_2002

**DRAWING NUMBER**  
PUN\_ZA\_2022\_2002\_SANBI\_TBG\_CE\_3000\_R00



ENTRANCE / INTERSECTION UPGRADE LAYOUT PLAN  
N15

ISSUED FOR  
TENDER











NOTES

GENERAL NOTES:

- THESE NOTES MUST BE READ IN CONJUNCTION WITH THE DRAWINGS AND PROJECT SPECIFICATIONS INCLUDING THE SANBI DIVERSITY FOR LIFE POLICY.
- THE CONTRACTOR MUST HAVE A QUALITY ASSURANCE SYSTEM FOR THE EXECUTION OF THE WORK. THE QUALITY ASSURANCE SYSTEM MUST BE APPROVED BY THE ENGINEER PRIOR TO THE START OF THE WORK. THE CONTRACTOR MUST PERFORM A QUALITY CONTROL INSPECTION BEFORE THE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK.
- THE CONTRACTOR SHALL CHECK ALL DIMENSIONS BEFORE THE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK. THE ENGINEER'S APPROVAL SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER.
- WORK TO BE DONE TO FULFIL DIMENSIONS ONLY.
- PRODUCTS DIFFERENT TO THOSE SPECIFIED MAY ONLY BE USED WITH THE ENGINEER'S PRIOR WRITTEN APPROVAL.

FOUNDATION NOTES:

- EXCAVATIONS FOR FOUNDATIONS TO BE APPROVED BY THE ENGINEER BEFORE CONCRETE IS CAST.
- FOUNDATIONS TO BE BUILT ON FIRM, WELL COMPACTED SOIL.
- THE ENGINEER MAY ORDER PLATE LOAD TESTS TO BE DONE TO DETERMINE THE BEARING CAPACITY OF THE FOUNDATION.
- ASSIGNED SAFE BEARING CAPACITY OF FOUNDATION MATERIAL: 75 kPa.

CONCRETE NOTES:

- ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH SABS 12003.
- CONCRETE CLASS TO BE AS FOLLOWS:  
BLINDING: 15 MPa/18mm  
STANDARD: REINFORCED CONCRETE: 30 MPa/18mm
- THE CONTRACTOR MUST CO-ORDINATE ALL SERVICE DRAWINGS FOR DETAILS AND POSITIONS OF OPENINGS AND STEVES ELECTRICAL, MECHANICAL AND OTHER SERVICES.
- THE CONCRETE COVER TO REINFORCING IS AS FOLLOWS:  
FOUNDATIONS: 50mm  
SUPERSTRUCTURES (FROM TOP): 30mm
- THE STRENGTH OF THE CONCRETE COVER ALONGS SHALL EXCEED THE STRENGTH OF THE CONCRETE OF THE STRUCTURAL ELEMENT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT THE FORMATION OF PLASTIC SHRINKAGE CRACKS IN NEWLY Laid CONCRETE.
- CONCRETE SHALL BE CURED TO AN APPROVED SPECIFICATION.
- NO BRICK WALLS MAY BE BUILT ON FLOOR SLABS, BEAMS, WALLS, STEPS, OR OTHER STRUCTURAL ELEMENTS.
- ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH THE ENGINEER'S APPROVAL.
- 25-35% CEMENTERS TO BE FORMED AT ALL EXPOSED CONCRETE CORNERS.
- 250 MICRON DPC TO BE PLACED UNDER ALL SURFACE DECKS.

CLIENT

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**SANBI**  
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South African National Biodiversity Institute

REV. NO.	DATE	DESCRIPTION
R00	2022-09-16	ISSUED FOR REVIEW & COMMENTS BY MUNICIPALITY
REVISIONS		
PROJECT CONSULTANT		

PROJECT MANAGERS & PROJECT MANAGERS

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APPROVAL CONSULTANT B. TSHUJWA

2022-09-16

THE MASTER PLAN AT THE PROPOSED SITE

LANDSCAPING SECURITY UPGRADES AND ASSOCIATED CIVIL

INSTITUTE AT THE THOHYANDOU BOTANICAL GARDEN

THOHYANDOU

THOHYANDOU BOTANICAL GARDEN (TBG) IN THOHYANDOU

PROJECT SITE

SHEET TITLE

TRAFFIC ACCOMMODATION

DESIGN NAME

CIVIL ENGINEERING

CONTRACT NUMBER

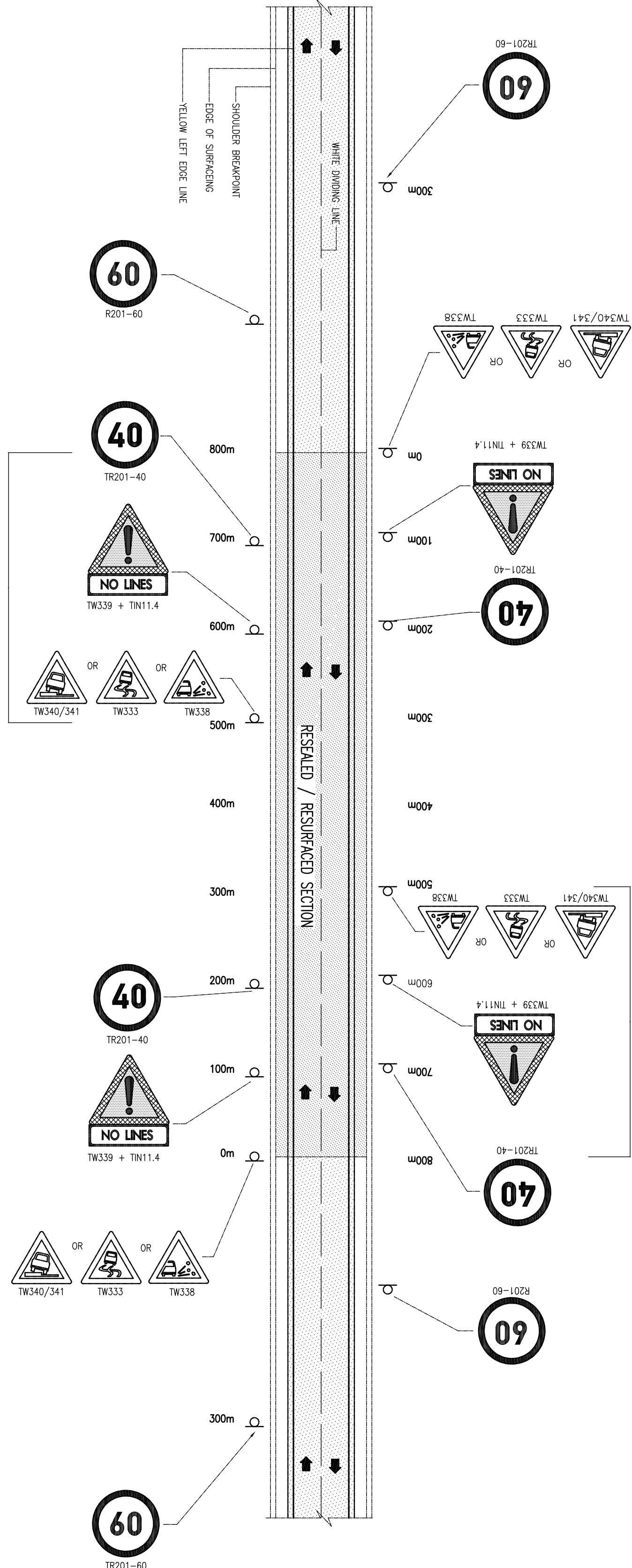
GS00/2020-10

FILE NUMBER

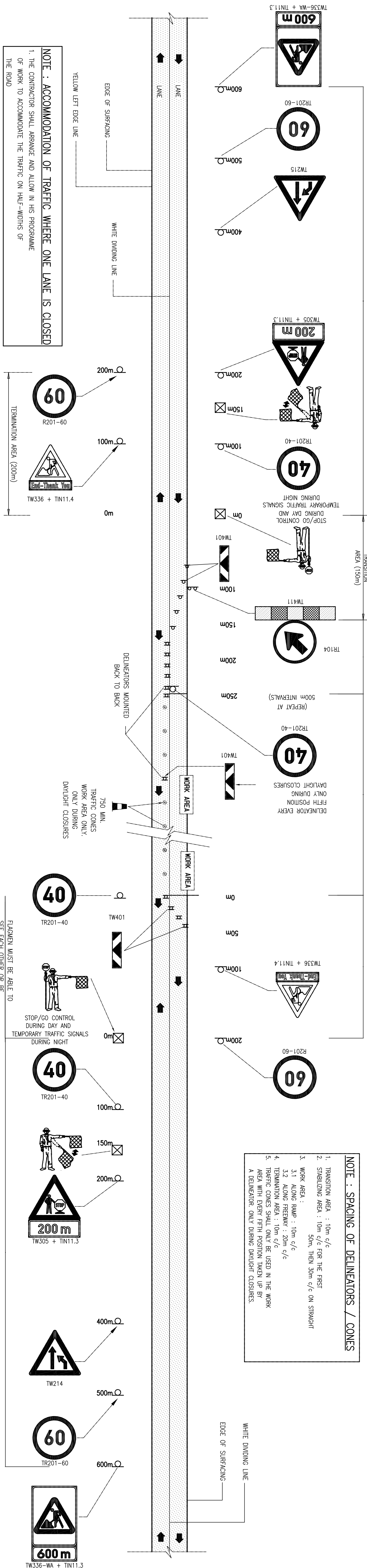
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DRAWING NUMBER

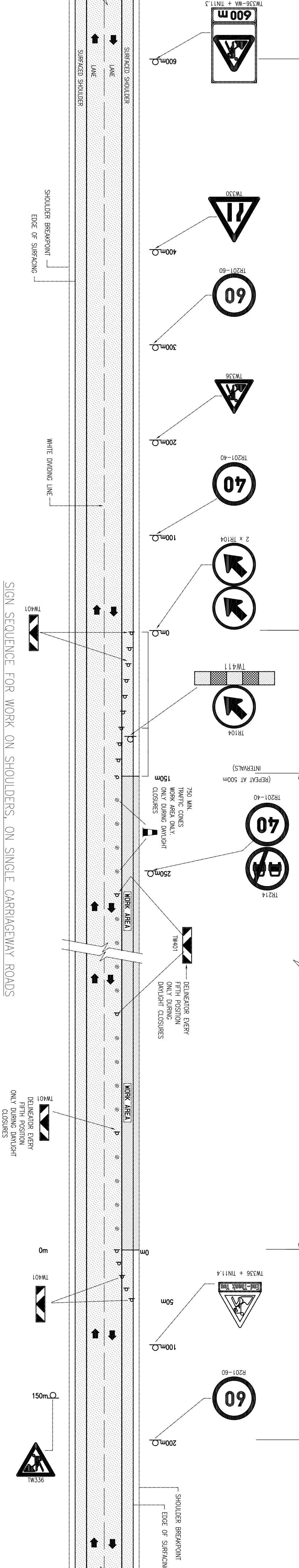
PJN\_ZA\_2022\_2002\_SANBI\_TB6\_CE\_2003\_R00



TYPICAL SIGN SEQUENCE AT NEWLY COMPLETED RESURF. WORK



SIGN SEQUENCE FOR STOP / GO OPERATION FOR LANE AND SHOULDER CLOSURE ON SINGLE CARRIAGEWAY ROADS



SIGN SEQUENCE FOR WORK ON SHOULDERS, ON SINGLE CARRIAGEWAY ROADS

ISSUED FOR REVIEW







**GENERAL NOTES:**

1. THESE NOTES MUST BE READ IN CONJUNCTION WITH THE DRAWINGS AND PROJECT SPECIFICATIONS INCLUDING THE SANS 1201 SCHEDULE SPECIFICATIONS.
2. THE CONTRACTOR MUST MAINTAIN A QUALITY ASSURANCE MANAGEMENT SYSTEM THAT IS APPROVED BY THE ENGINEER PRIOR TO THE START OF THE WORK. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE THE ENGINEER WILL DO ANY INSPECTIONS.
3. THE CONTRACTOR SHALL CARRY ALL DIMENSIONS REFERRED TO IN THE DRAWINGS AND PROJECT SPECIFICATIONS. IN THE EVENT OF A DISCREPANCY OF CONSTRUCTION OR ANY PORTION OF THE WORK, ANY DISCREPANCIES SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER.
4. WORK IS TO BE DONE TO FINISHED DIMENSIONS UNLESS OTHERWISE SPECIFIED.
5. PRODUCTS DIFFERENT TO THOSE SPECIFIED MAY ONLY BE USED WITH THE ENGINEER'S PRIOR WRITTEN APPROVAL.

**FOUNDATION NOTES:**

1. EXCAVATIONS FOR FOUNDATIONS TO BE APPROVED BY THE ENGINEER BEFORE CONCRETE IS CAST.
2. FOUNDATIONS TO BE BUILT ON FIRM, WELL COMPACTED SOIL.
3. THE ENGINEER MAY ORDER PLATE LOAD TESTS TO BE DONE TO ASCERTAIN THE BEARING CAPACITY OF THE FOUNDATION FOUNDING SURFACE.
4. ASSUMED SAFE BEARING CAPACITY OF FOUNDING MATERIAL 75 kPa.

- CONCRETE NOTES:**
1. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH

2. CONCRETE CLASS TO BE AS FOLLOWS:  

BLINDING	15 MPa (118mm)
STANDARD	30 MPa (118mm)
3. THE CONTRACTOR MUST CO-ORDINATE ALL SERVICE DRAWINGS FOR DETAILS AND POSITIONS OF OPENINGS AND SLEEVES FOR ELECTRICAL, MECHANICAL AND PLUMBING, AND FOR ELECTRICAL, MECHANICAL AND OTHER SERVICES.
4. THE CONCRETE COVER TO REINFORCING IS AS FOLLOWS:

5. THE STRENGTH OF THE CONCRETE CORE BLOCKS SHALL EXCEED THE STRENGTH OF CONCRETE OF THE STRUCTURAL TYPE IN WHICH THEY ARE USED.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE THE FORMATION OF PLASTIC SHIMMING GROOVES IN NEWLY Laid CONCRETE.
7. CONCRETE SHALL BE CURED TO AN APPROVED SPECIFICATION AND SHALL BE PROTECTED AGAINST CRACKING AND DISINTEGRATION DUE TO EFFECT OF HUMIDITY OR FISHBURN.
8. NO FORCE SHALL BE APPLIED TO THE LOCK SLABS BECAUSE THEY WILL BE STRENGTHENED BY THE CONCRETE. THE STRENGTHENING SHALL BE SHOWN IN WRITING BY THE CONTRACTOR.
9. 25 TO 25 CEMENTS TO BE FORMED AT ALL EXPOSED CONCRETE JOINTS.
10. CEMENTS.
20. WICKER PDC TO BE PLACED UNDER ALL PLURAL BESS.

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YOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE

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## REVISIONS

PROJECT CONSULTANT

PROJECT CONSULTANT
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# PROJECTINEERS

**PROJECTNEERS CONSULTING ENGINEERS  
& PROJECT MANAGERS**  
BUILDING 2, 1ST FLOOR, THORNHILL OFFICE PARK  
94 BEKKER ROAD, MIDRAND, 1685

technical@projectneers.com

TRAINING LIFEBOATS					
	DESIGNED BY		DESIGNED BY		DESIGNED BY
ANGQUINSHE	S ZUNGU		DANIMBY		DANIMBY
MINTSADU N. MDALOSE					

TSHUMA

22-03-18  
CONSULTING MIDRAND OFFICE BEARS THE  
ORIGINAL SIGNATURE OF APPROVAL

PROPOSED NEW VISITORS' CENTRE, PARKING UPGRADES, LANDSCAPING, SECURITY UPGRADES AND ASSOCIATED CIVIL SERVICES FOR THE SOUTH AFRICAN NATIONAL BIODIVERSITY STITUTE AT THE THHOYANDOU BOTANICAL GARDEN, THHOYANDOU

PROJECT SITE

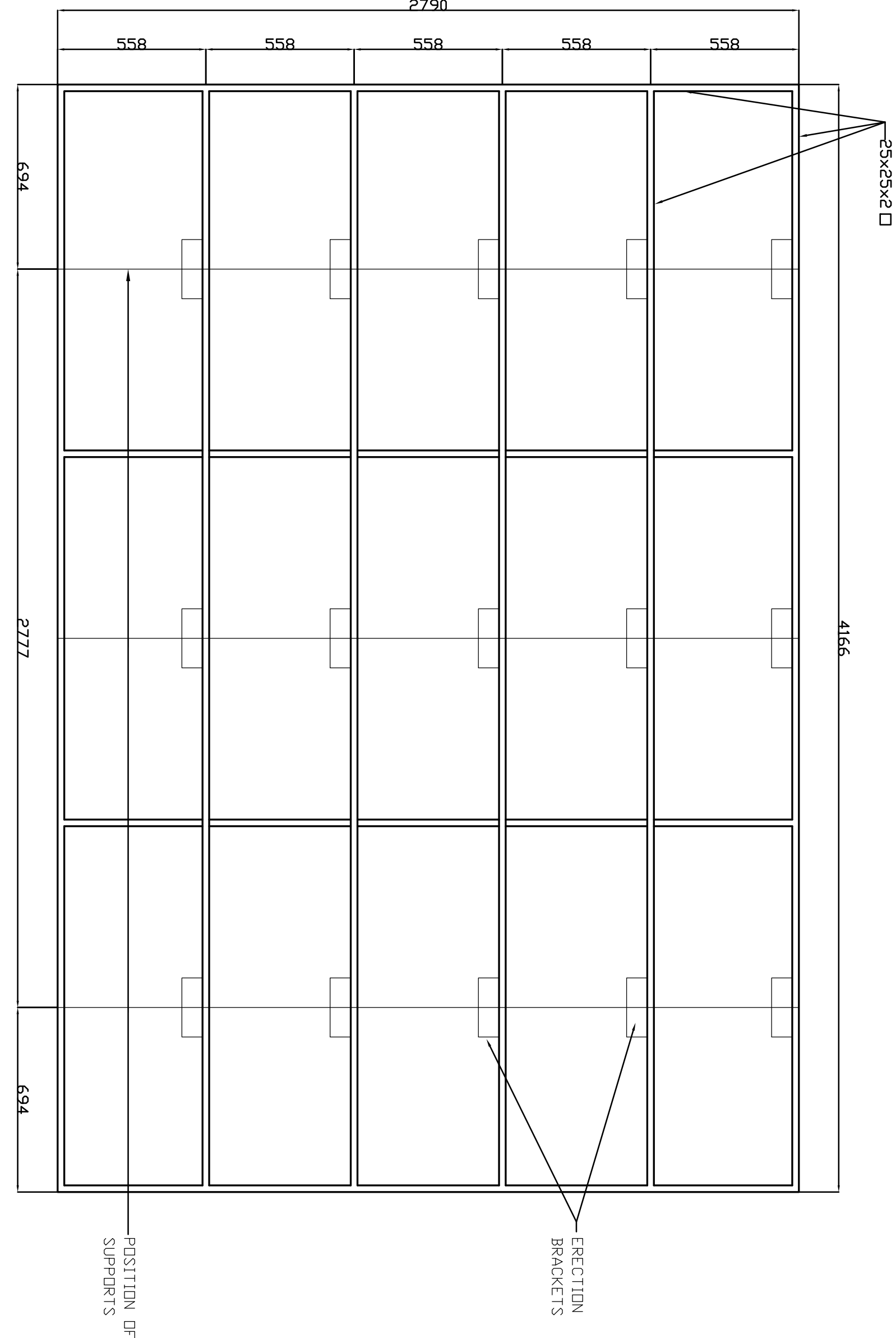
THOHAYANDOU BOTANICAL GARDEN (TBG) IN THOHAYANDOU

TEST TITLE
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CIPLINE

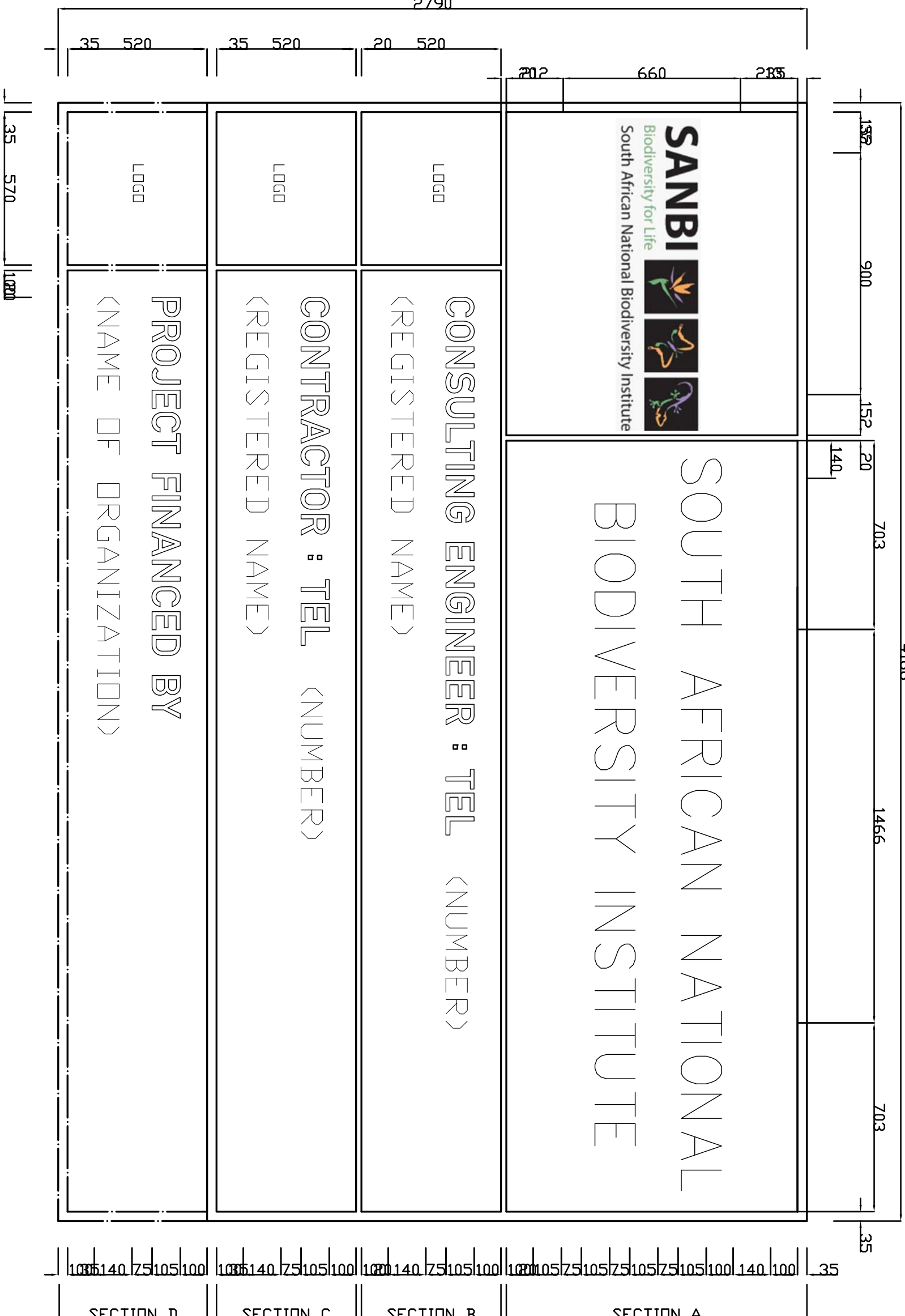
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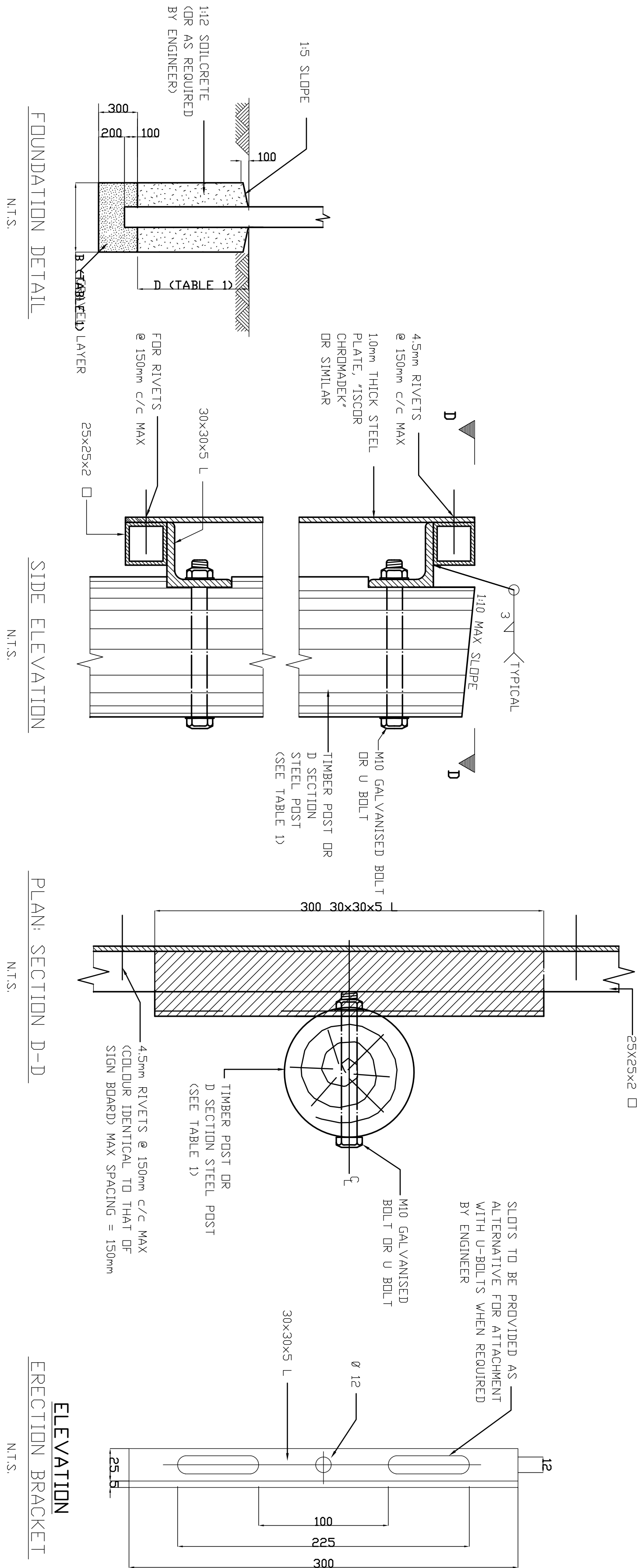
## REAR SIDE BRACING

SCALE 1:15



FRONT ELEVATION

SCALE 1:15



## FIXING DETAIL

Nils

$$\frac{N}{\sqrt{2}}$$
 $\frac{Z}{\sqrt{2}}$ 

ERECTION DETAILS				
TYPE POST	UPRIGHT	STAY	D	B
TIMBER POST AND STAY	100mm	80mm	600mm	950mm
TIMBER POST	180mm	-	1000mm	1450mm
SECTION STEEL POST	100mm x 4mm	-	1000mm	1450mm

NOTES:

1. ALL EMBLEMS BE DISPLAYED IN FULL COLOUR ON A SEMI-MATT WHITE BACKGROUND.
2. DESCRIPTION: MATT-BLACK, SERIES DIN B LETTERS AND NUMBERS ON A SEMI-MATT SMOKE- GREY BACKGROUND.
3. BORDER : GREEN NON-REFLECTORIZED.
4. ONE SIGN BOARD IN ENGLISH SHALL BE ERECTED AS DETERMINED BY THE ENGINEER.



**GENERAL NOTES:**

1. THESE NOTES MUST BE READ IN CONNECTION WITH THE DRAWINGS AND PROJECT SPECIFICATIONS INCLUDING THE NOTES (2-D) AND REVISIONS.
2. THE CONTRACTOR MUST MAINTAIN A QUALITY ASSURANCE PROGRAM AND A QUALITY CONTROL PROGRAM. THE QUALITY MANAGEMENT SYSTEMS MUST BE APPROVED BY THE ENGINEER TO THE START OF THE WORK. THE CONTRACTOR MUST MAINTAIN RECORDS OF THE QUALITY MANAGEMENT PROGRAM. THE ENGINEER WILL DO ANY INSPECTIONS.
3. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK. ANY DISCREPANCIES SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER.
4. WORK TO BE DONE TO FIGURED DIMENSIONS ONLY.
5. PRODUCTS DIFFERENT TO THOSE SPECIFIED MAY ONLY BE USED WITH THE ENGINEER'S PRIOR WRITTEN APPROVAL.

1. EXCAVATIONS FOR FOUNDATIONS TO BE APPROVED BY THE ENGINEER BEFORE CONCRETE IS CAST.

3. THE ENGINEER MAY ORDER PLATE LOAD TESTS TO BE DONE TO ASCERTAIN THE BEARING CAPACITY OF THE FOUNDATION FOUNDING SURFACE.

**CONCRETE NOTES:**

2. CONCRETE CLASS TO BE AS FOLLOWS:
- |                                       |             |
|---------------------------------------|-------------|
| BLINDING STANDARD REINFORCED CONCRETE | 15 MPa/19mm |
|                                       | 30 MPa/19mm |

REQUIRED FOR STORMWATER, SEWERAGE, DRAINAGE,  
ELECTRICAL, MECHANICAL AND OTHER SERVICES.

4. THE CONCRETE COVER TO REINFORCING IS AS FOLLOWS:  

FOUNDATIONS	40mm
SURFACE BEDS (FROM TOC)	30mm
5. THE STRENGTH OF THE CONCRETE COVER BLOCKS SHALL EXCEED THE STRENGTH OF CONCRETE OF THE STRUCTURAL ELEMENT IN WHICH THEY ARE USED.

7. CONCRETE SHALL BE CURED TO AN APPROVED SPECIFICATION USING MEMBRANES, WET SHIRTS OR CURING COMPOUND THAT DOES NOT AFFECT ADHESION OF FIBERS.
8. NO BARGE WALLS MAY BE BUILT ON FLOOR SLAB BEAMS. DAY TARGET STRENGTH, UNLESS APPROVED IN WRITING BY THE ENGINEER.
9. 25 x 25 CHAIRFERS TO BE FORNED AT ALL EXPOSED CONCRETE JOINTS.
10. 260 MM (10") DEEP TO BE PLACED UNDER ALL SURFACE DEFS.

**SANBI**  
Biodiversity for Life



South African National Biodiversity Institute

## PROJECTINERS

technical@projectneers

DATE \_\_\_\_\_ PROJ. REG. NO. \_\_\_\_\_

22-09-18

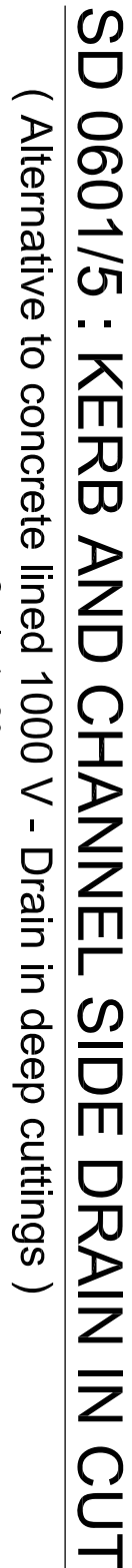
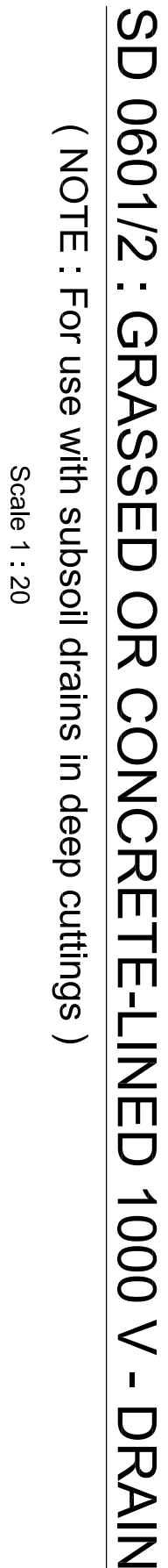
THE MASTER HELD AT THE PROJECTEERS  
CONSULTING MIDRAND OFFICE BEARS THE  
ORIGINAL SIGNATURE OF APPROVAL.

PROPOSED NEW VISITORS' CENTRE, PARKING UPGRADES, LANDSCAPING, SECURITY UPGRADES AND ASSOCIATED CIVIL SERVICES FOR THE SOUTH AFRICAN NATIONAL BIODIVERSITY STITUTE AT THE THOHoyANDOU BOTANICAL GARDEN, THOHoyANDOU

THOHAYANDOU BOTANICAL GARDEN (TBG) IN THOHAYANDOU

VIL ENGINEERING

2022 2002

[illegible]

(NOTE: 1. Subsoil drains are not required with this drain detail)  
(NOTE: 2. Concrete dimensions may be increased as required)

Scale 1 : 20















NOTES

GENERAL NOTES:

- THESE NOTES MUST BE READ IN CONJUNCTION WITH THE DRAWINGS AND PROJECT SPECIFICATIONS INCLUDING THE SANBI DIVERSITY FOR LIFE POLICY AND THE SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE'S DIVERSITY FOR LIFE POLICY.
- THE CONTRACTOR MUST HAVE A QUALITY ASSURANCE SYSTEM FOR THE EXECUTION OF THE WORK. THE QUALITY OF THE WORK SHALL BE MONITORED BY THE ENGINEER PRIOR TO THE START OF THE WORK. THE CONTRACTOR MUST PERFORM A QUALITY CONTROL INSPECTION BEFORE THE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK.
- THE CONTRACTOR SHALL CHECK ALL DIMENSIONS BEFORE THE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK. THE ENGINEER'S SUPERVISOR SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER'S SUPERVISOR.
- WORK TO BE DONE TO FULFIL DIMENSIONS ONLY.
- PRODUCTS DIFFERENT TO THOSE SPECIFIED MAY ONLY BE USED WITH THE ENGINEER'S PRIOR WRITTEN APPROVAL.

FOUNDATION NOTES:

- EXCAVATIONS FOR FOUNDATIONS TO BE APPROVED BY THE ENGINEER BEFORE CONCRETE IS CAST.
- FOUNDATIONS TO BE BUILT ON FIRM, WELL COMPACTED SOIL.
- THE ENGINEER MAY ORDER PLATE LOAD TESTS TO BE DONE TO ASSESS THE BEARING CAPACITY OF THE FOUNDATION.
- ASSIGNED SAFE BEARING CAPACITY OF FOUNDING MATERIAL: 75 kPa.

CONCRETE NOTES:

- ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH SABS 12000.
- CONCRETE CLASS TO BE AS FOLLOWS:  

BLINDING	15 MPa/18mm
STANDARD	30 MPa/19mm
- THE CONTRACTOR MUST COORDINATE ALL SERVICE RINGS FOR DETAILS AND POSITIONS OF OPENINGS AND STEVES ELECTRICAL MECHANICAL AND OTHER SERVICES.
- THE CONCRETE COVER TO REINFORCING IS AS FOLLOWS:  

FOUNDATIONS	30mm
SUPERSLABS (FROM TOP)	30mm
- THE STRENGTH OF THE CONCRETE COVER ALONGS SHALL EXCEED THE STRENGTH OF CONCRETE OF THE STRUCTURAL ELEMENT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT THE FORMATION OF PLASTIC SHRINKAGE CRACKS IN NEWLY Laid CONCRETE.
- CONCRETE SHALL BE CURED TO AN APPROVED SPECIFICATION DOES NOT AFFECT ADHESION OR FINISHES.
- NO BRICK WALLS MAY BE BUILT ON FLOOR SLABS, BEAMS, WALLS OR CEILING. THE EXISTING HAS NOTIFIED THE RELEVANT ENGINEER.
- 25-35% CONCRETE TO BE FORMED AT ALL EXPOSED CONCRETE CORNERS.
- 250 MICRON DPC TO BE PLACED UNDER ALL SURFACE DECKS.

CLIENT

SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE



South African National Biodiversity Institute

REV. NO.	DATE	DESCRIPTION
R00	2022-09-18	ISSUED FOR TENDER
REVISIONS		

PROJECT CONSULTANT

PROJECT MANAGERS & PROJECT MANAGERS

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& PROJECT MANAGERS  
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APPROVAL CONSULTANT

B. TSHUJWA

2022-09-18

THE MASTER SEAL AT THE PROJECTING

ORIGINAL SIGNATURE OF APPROVAL

PROJECT NAME  
PROPOSED NEW VISITORS CENTRE, PARKING UPGRADES, LANDSCAPING, SECURITY UPGRADES AND ASSOCIATED CIVIL INFRASTRUCTURE AT THE THOHoyANDOU BOTANICAL GARDEN, THOHoyANDOU

PROJECT SITE  
THOHoyANDOU BOTANICAL GARDEN (TBG) IN THOHoyANDOU

SHEET TITLE  
ROAD MARKINGS DETAILS

DRAWING NAME  
CIVIL ENGINEERING

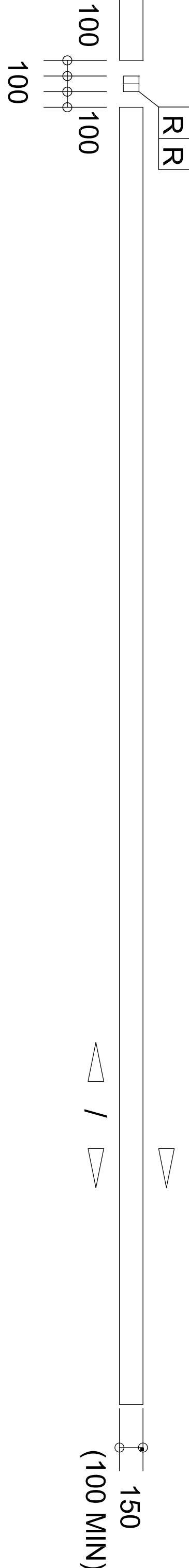
CONTRACT NUMBER  
G560/2020-10

FILE NUMBER  
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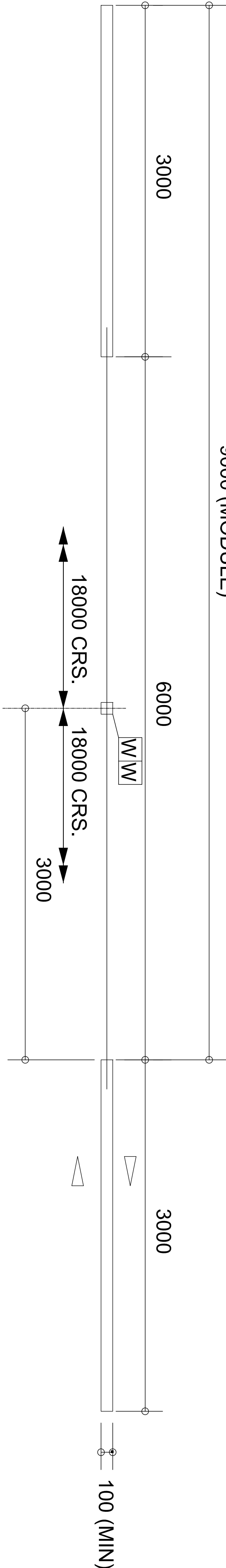
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ISSUED FOR TENDER

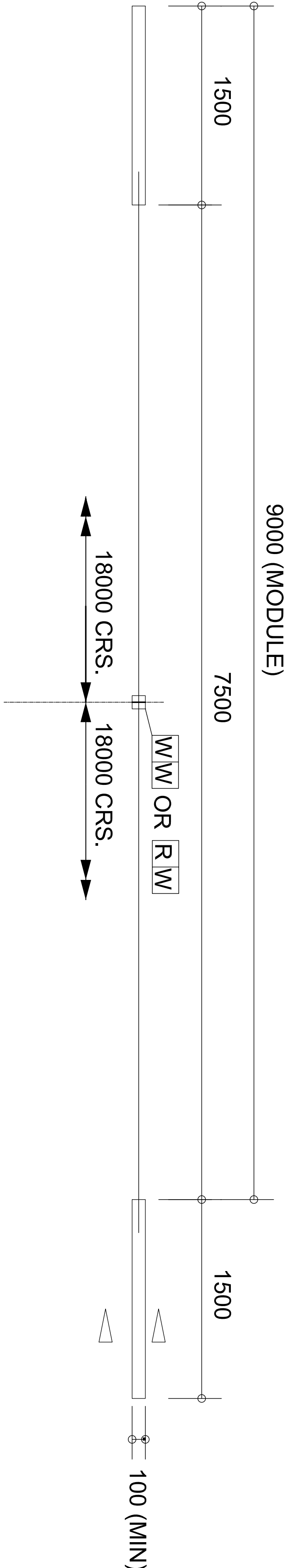
NO OVERTAKING LINE (WHITE)



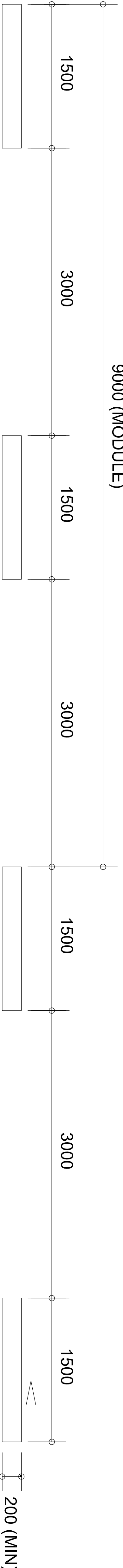
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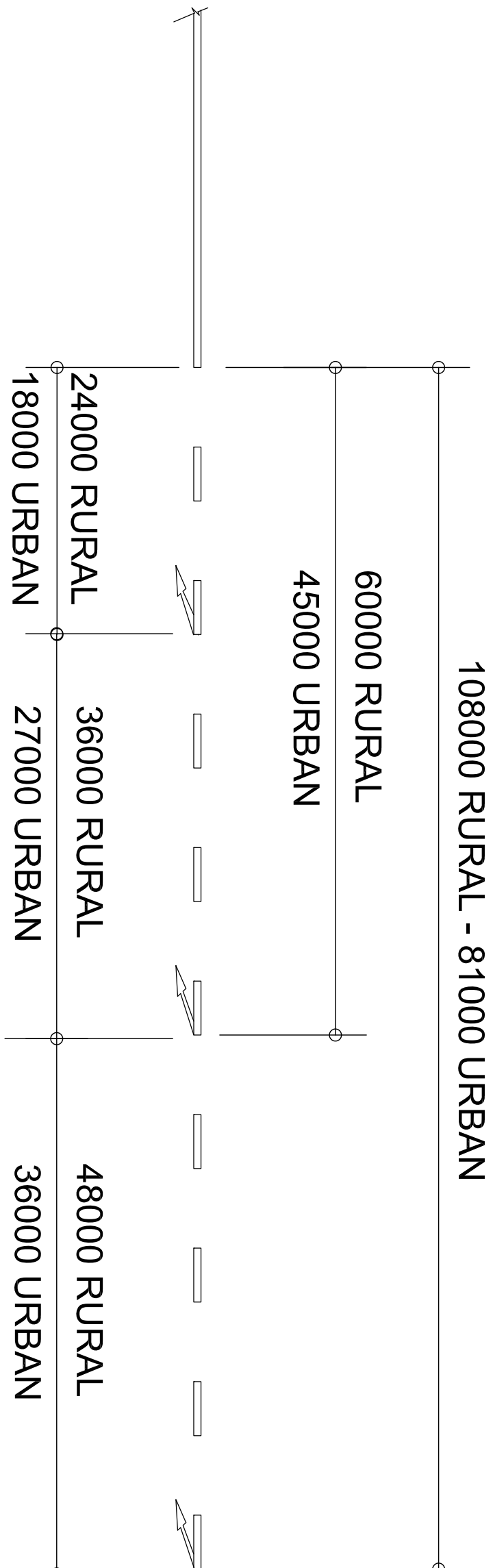
LANE LINE (WHITE)



CONTINUITY LINE (WHITE) STANDARD



ROAD MARKING DETAILS





## NOTES

**GENERAL NOTES:**

1. THESE NOTES MUST BE EVAL IN CONSULTATION WITH THE DRAWINGS AND PROJECT SPECIFICATIONS INCLUDING THE SANS 1208 SPECIFICATION NOTES.
2. THE CONTRACTOR MUST HAVE ENOUGH QUALITY ASSURANCE MANAGEMENT SYSTEMS IN PLACE TO BE APPROVED BY THE ENGINEER PRIOR TO THE START OF THE WORK. THE CONTRACTOR MUST SUBMIT A QUALITY ASSURANCE PLAN TO THE ENGINEER WELL IN ADVANCE OF THE WORK. THE ENGINEER WILL DO SOME INSPECTIONS.
3. THE CONTRACTOR SHALL CARRY OUT ALL DISBURSES BEFORE COMMENCEMENT OF CONSTRUCTION IN ANY PORTION OF THE WORK. ANY DISCREPANCIES SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER.
4. WORK TO BE DONE TO RIGHED DIMENSIONS ONLY.
5. PRODUCTS IDENTIFIED TO THOSE SPECIFIED MAY ONLY BE USED WITH THE ENGINEER'S PRIOR WRITTEN APPROVAL.

## FOUNDATION NOTES

1. EXCAVATIONS FOR FOUNDATIONS TO BE APPROVED BY THE ENGINEER BEFORE CONCRETE IS CAST.
2. FOUNDATIONS TO BE BUILT ON FIRM, WELL COMPACTED SOIL.
3. THE ENGINEER MAY ORDER PLATE LOAD TESTS TO BE DONE TO ASCERTAIN THE BEARING CAPACITY OF THE FOUNDATION FOUNDING SURFACE.
4. ASSUMED SAFE BEARING CAPACITY OF FOUNDING MATERIAL, 75 KPCF.

**CONCRETE NOTES:**

1. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH 9408 12006.
2. CONCRETE CLASS TO BE AS FOLLOWS:

BUILDING STANDARD REINFORCED CONCRETE	15 MPa (Brim 30 MPa (Brim
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3. THE CONTRACTOR MUST CO-ORDINATE ALL SERVICE DRAWINGS FOR DETAILS AND POSITIONS OF OPENINGS AND SLEEVES FOR MECHANICAL, ELECTRICAL, MECHANICAL, AND OTHER SERVICES.
4. THE CONCRETE COVER TO REINFORCING IS AS FOLLOWS:

5. THE STRENGTH OF THE CONCRETE COVER LAYS SHALL EXCEED THE STRENGTH OF CONCRETE OF THE STRUCTURAL MEMBER IN WHICH IT IS PLACED.
6. FORMATION OF PLASTIC SHRINKAGE CRACKS IN NEWLY Laid CONCRETE.
7. CONCRETE SHALL BE CURED TO AN APPROVED SPECIFICATION AND SHALL BE PROTECTED AGAINST DRYING SHRINKAGE. NO BRICK WALLS MAY BE BUILT ON TO LOOR SLABS. SLABS, WHICH ARE NOT TO BE STRENGTHENED BY REINFORCING STEEL, SHALL BE STRENGTHENED UNLESS APPROVED IN WRITING BY THE ENGINEER.
8. 2.2.2 CHAPTERS TO BE FORMED AT ALL EXPOSED CONCRETE CORNERS.
9. 2.2.3 WEDGON BEG TO BE PLACED UNDER ALL SURFACE BEHS.

AGENT

SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE



South African National Biodiversity Institute

[illegible]

## REVISIONS

PROJECT CONSULTANT

## PROJECTINERS

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8. TSHUMA

01-00-370

ORIGINAL SIGNATURE OF APPROVAL

PROPOSED NEW VISITORS' CENTRE, PARKING UPGRADES, LANDSCAPING, SECURITY UPGRADES AND ASSOCIATED CIVIL SERVICES FOR THE SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE AT THE THOHOYANDOU BOTANICAL GARDEN, THOHOYANDOU

PROJECT SITE

HOHOYANDOU BOTANICAL GARDEN (TBG) IN THOHAYANDOU

**SHEET TITLE**

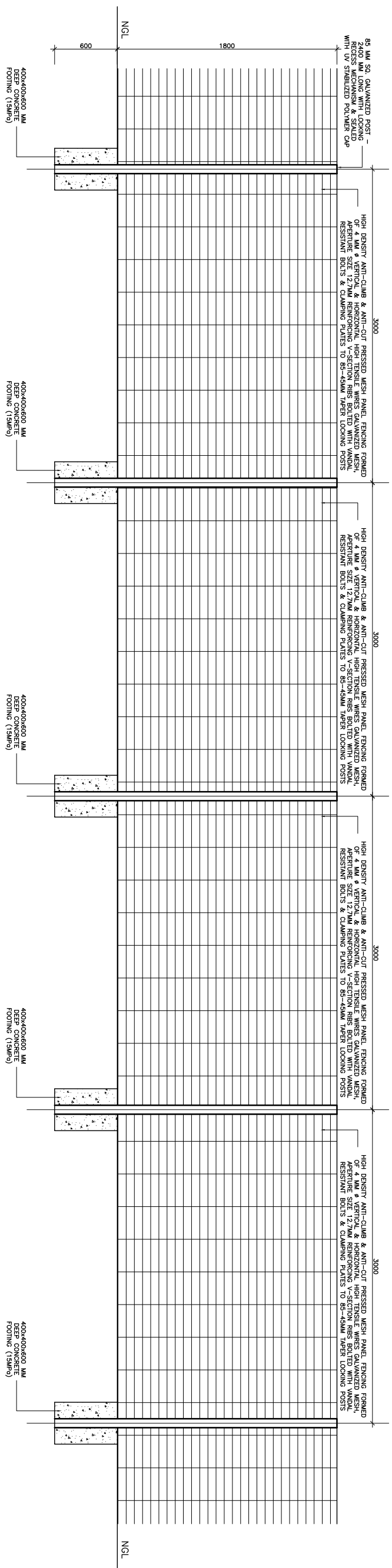
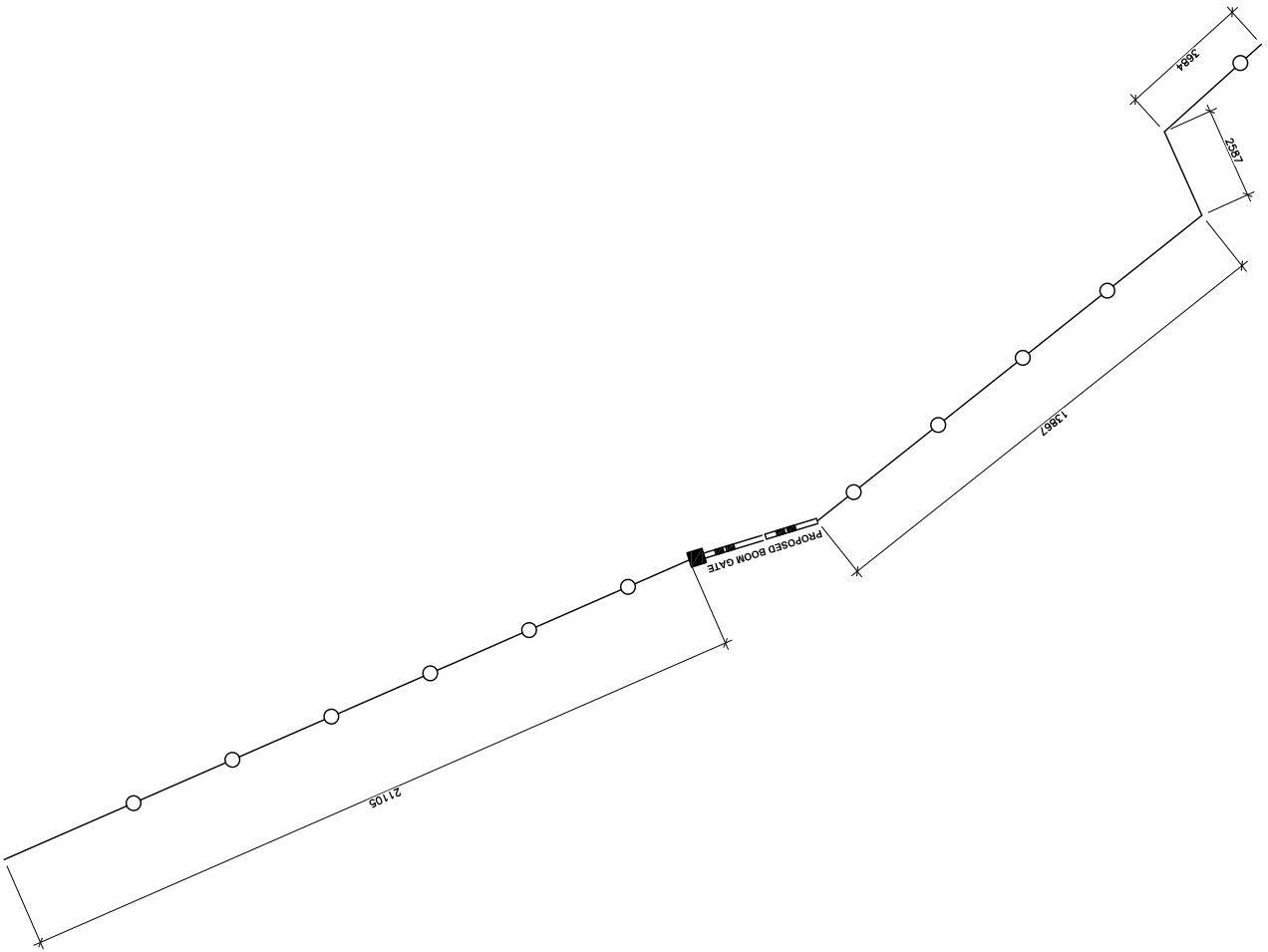
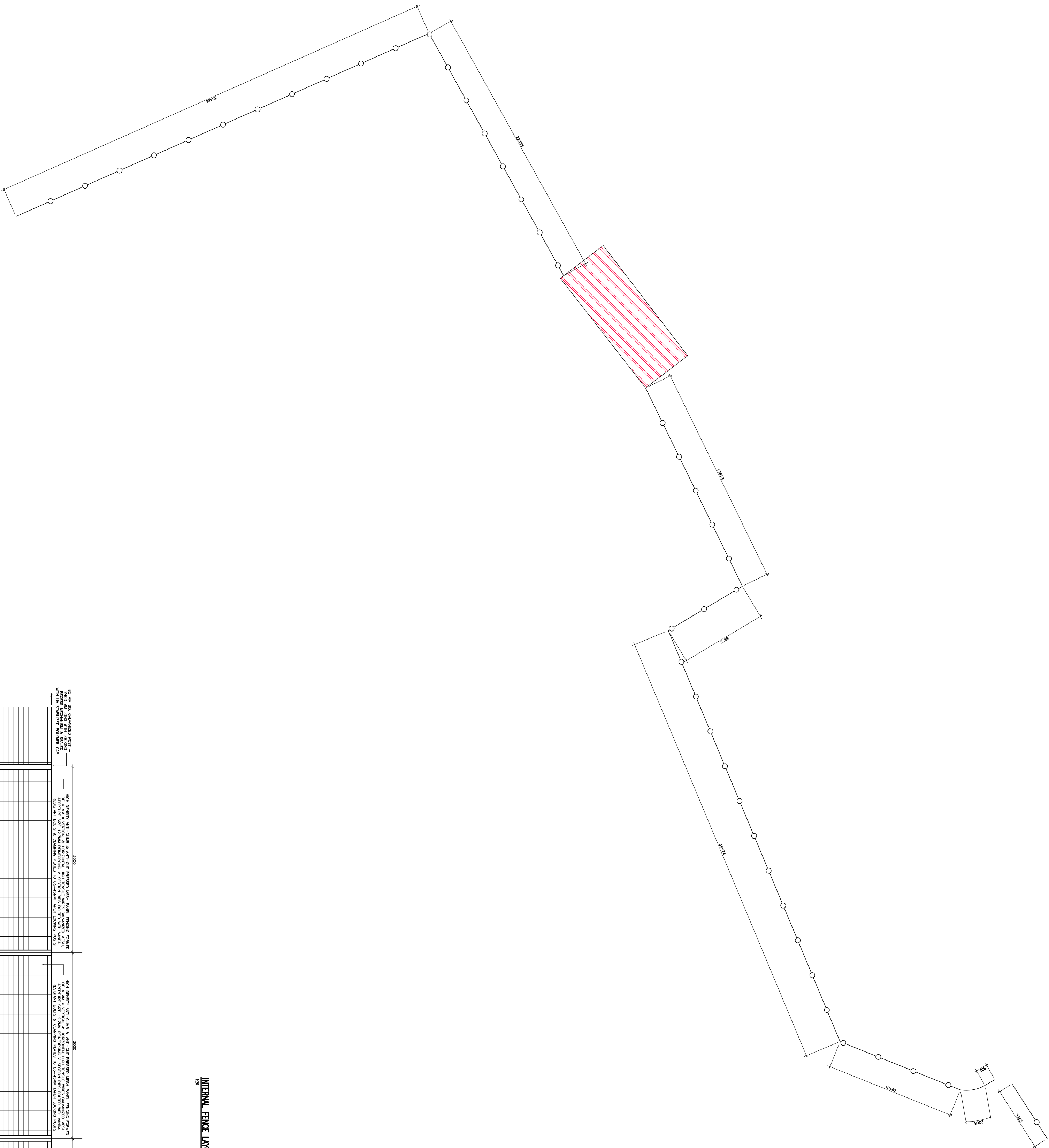
SCIENCE

CONTRACT NUMBER	360/2020-10
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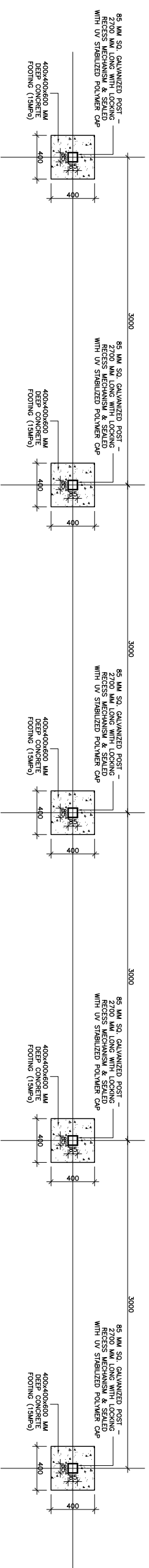
A2022\_2002

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A1



**INTERNAL FENCE LAYOUT PLAN**



### TYPICAL FENCE ELEVATION

### TYPICAL FENCE FOUNDATION LAYOUT PLAN

**ISSUED FOR  
TENDER**



















**GENERAL NOTES:**

**GENERAL NOTES:**

1. THESE NOTES MUST BE READ IN CONJUNCTION WITH THE DRAWINGS AND PROJECT REQUIREMENTS INCLUDING THE SANS TECHNICAL SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND A QUALITY CONTROL SYSTEM FOR THE EXECUTION OF THE WORK. THE QUALITY MANAGEMENT SYSTEM MUST BE APPROVED BY THE ENGINEER PRIOR TO THE START OF THE WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE WORK. ANY DISCREPANCIES SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER.
4. WORK IS TO BE DONE TO REQUIRED DIMENSIONS ONLY.
5. PRODUCTS REFERRED TO THESE SPECIFICATIONS ONLY BE USED AS SPECIFIED UNLESS OTHERWISE STATED BY THE ENGINEER.
6. FOUNDATION NOTES
1. EXCAVATIONS FOR FOUNDATIONS TO BE APPROVED BY THE ENGINEER PRIOR TO THE START OF THE WORK.
2. FOUNDATIONS TO BE BUILT ON FIRM, WELL COMPACTED SOIL.
3. PROVIDE THE BEARING CAPACITY OF THE FOUNDATION TO BE CONSIDERED.
4. ASSURED SAFE BEARING CAPACITY OF FOUNDATION MINIMUM 15 TPA.

### FOUNDATION NOTES:

1. EXCAVATIONS FOR FOUNDATIONS TO BE APPROVED BY THE FOUNDATION BEFORE CONCRETE IS CAST.
2. FOUNDATIONS TO BE BUILT ON FIRM, WELL COMPACTED SOIL.
3. THE ENGINEER MAY ORDER PLATE LOAD TESTS TO BE DONE TO ASCERTAIN THE BEARING CAPACITY OF THE FOUNDATION FOUNDING SURFACE.
4. ASSUMED SAFE BEARING CAPACITY OF FOUNDING MATERIAL 75 kPa.

**CONCRETE NOTES:**

1. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH SABS 12000.
2. CONCRETE CLASS TO BE AS FOLLOWS:  

BLINDING	15 MPa/18mm
STANDARD REINFORCED CONCRETE	30 MPa/18mm
3. THE CONTRACTOR MUST CO-ORDINATE ALL SERVICE DRAWINGS FOR DETAILS AND POSITIONS OF OPENINGS AND SLEEVES FOR ELECTRICAL, MECHANICAL AND OTHER SERVICES.
4. THE CONCRETE COVER TO REINFORCEMENT IS AS FOLLOWS:

5. THE STRENGTH OF THE CONCRETE COVER LAYS SHALL BE EQUAL TO THE STRENGTH OF THE CONCRETE OF THE STRUCTURAL ELEMENT IN WHICH IT IS USED.
6. TO PREVENT THE FORMATION OF PLASTIC SHRINKAGE CRACKS IN NEWLY Laid CONCRETE.
7. CONCRETE SHALL BE CURIED TO AN APPROPRIATE SPECIFICATION TO PREVENT CRACKING OF CONCRETE DUE TO PLASTIC SHRINKAGE AND ALSO DOES NOT AFFECT ADHESION OF FINISHES.
8. NO BRICK WALLS MAY BE Laid ON TOP OF READY MIXED CONCRETE SLABS. THE WALLS SHALL BE Laid ON TOP OF THREE TIE BARS. TIE BARS SHALL BE WELDED TO THE WALLS.
9. THE 25 mm CHAIRS TO BE PROVIDED AT ALL EXPOSED CONCRETE SURFACES.
10. 25mm MASON DPC TO BE PLACED UNDER ALL SURFACED BEDS.

SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE

**SANBI**  
Biodiversity for Life  
South African National Biodiversity Institute

REV	DATE	DESCRIPTION
R00	2022-06-16	ISSUED FOR TENDER

## REVISIONS

## PROJECTNEERS

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L. NGQUMSHE S.ZUNGU M.NTSAU N. MDLALOSE

**APPROVAL CONSULTANT**

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**B TSHIMA**

2022-09-18  
CONSULTING MIDRAND OFFICE BEARS THE  
ORIGINAL SIGNATURE OF APPROVAL

PROPOSED NEW VISITORS' CENTRE, PARKING UPGRADES, LANDSCAPING, SECURITY UPGRADES AND ASSOCIATED CIVIL SERVICES FOR THE SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE AT THE THOHoyANDOU BOTANICAL GARDEN, THOHoyANDOU

PROJECT SITE  
THOHAYANDOU BOTANICAL GARDEN (TBG) IN THOHAYANDOU

**SHEET TITLE**

**CIVIL ENGINEERING**

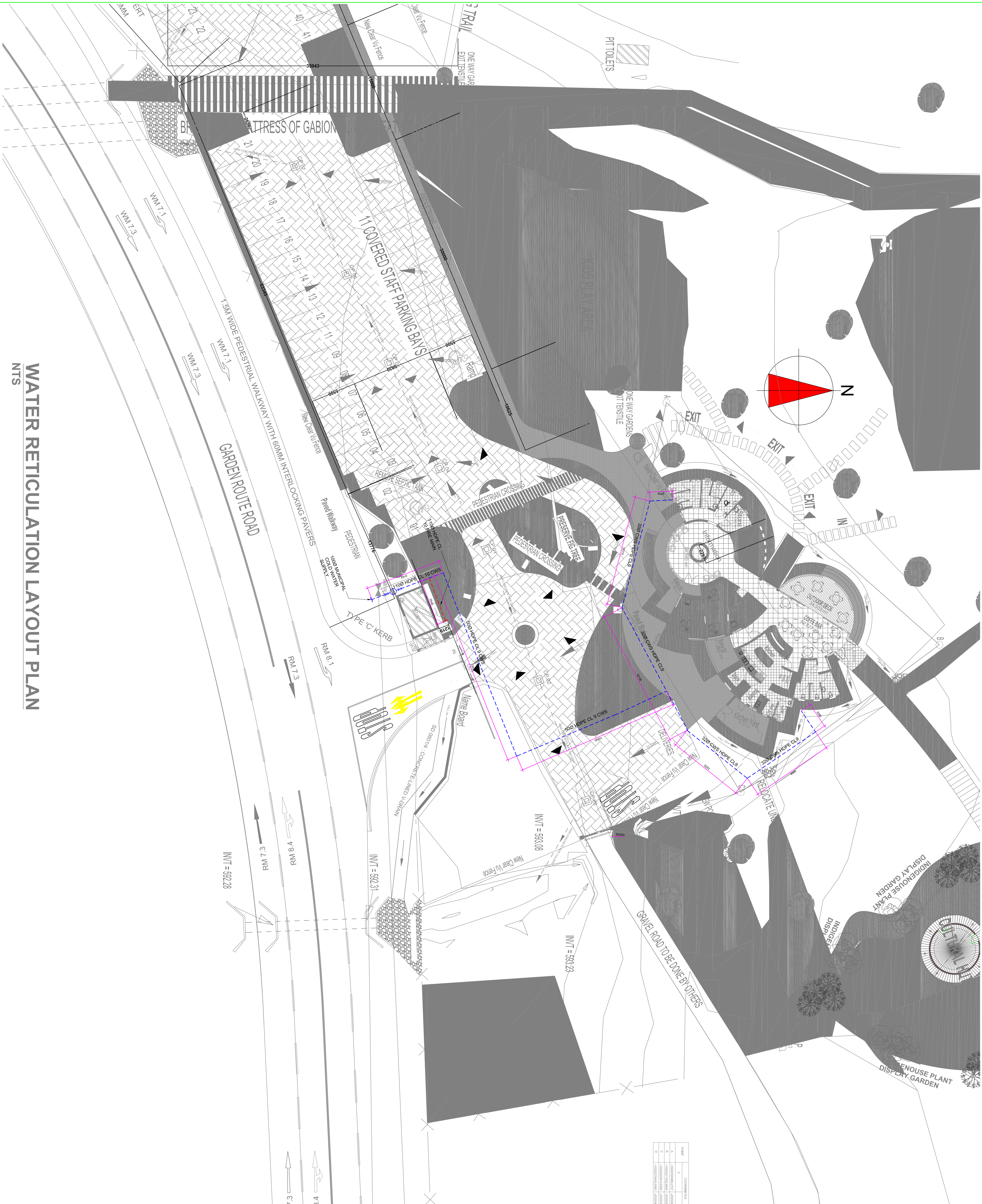
**CONTRACT NUMBER**  
**G360/2020-10**

FILE NUMBER

DRAWING NUMBER

PJN\_ZA\_2022\_2002\_SANBI\_TBG\_CE\_3017\_R000

A1



# WATER RETICULATION LAYOUT PLAN

**ISSUED FOR  
TENDER**

**CONTRACT NUMBER**  
**G360/2020-10**

FILE NUMBER

DRAWING NUMBER

PJN\_ZA\_2022\_2002\_SANBI\_TBG\_CE\_3017\_R000

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