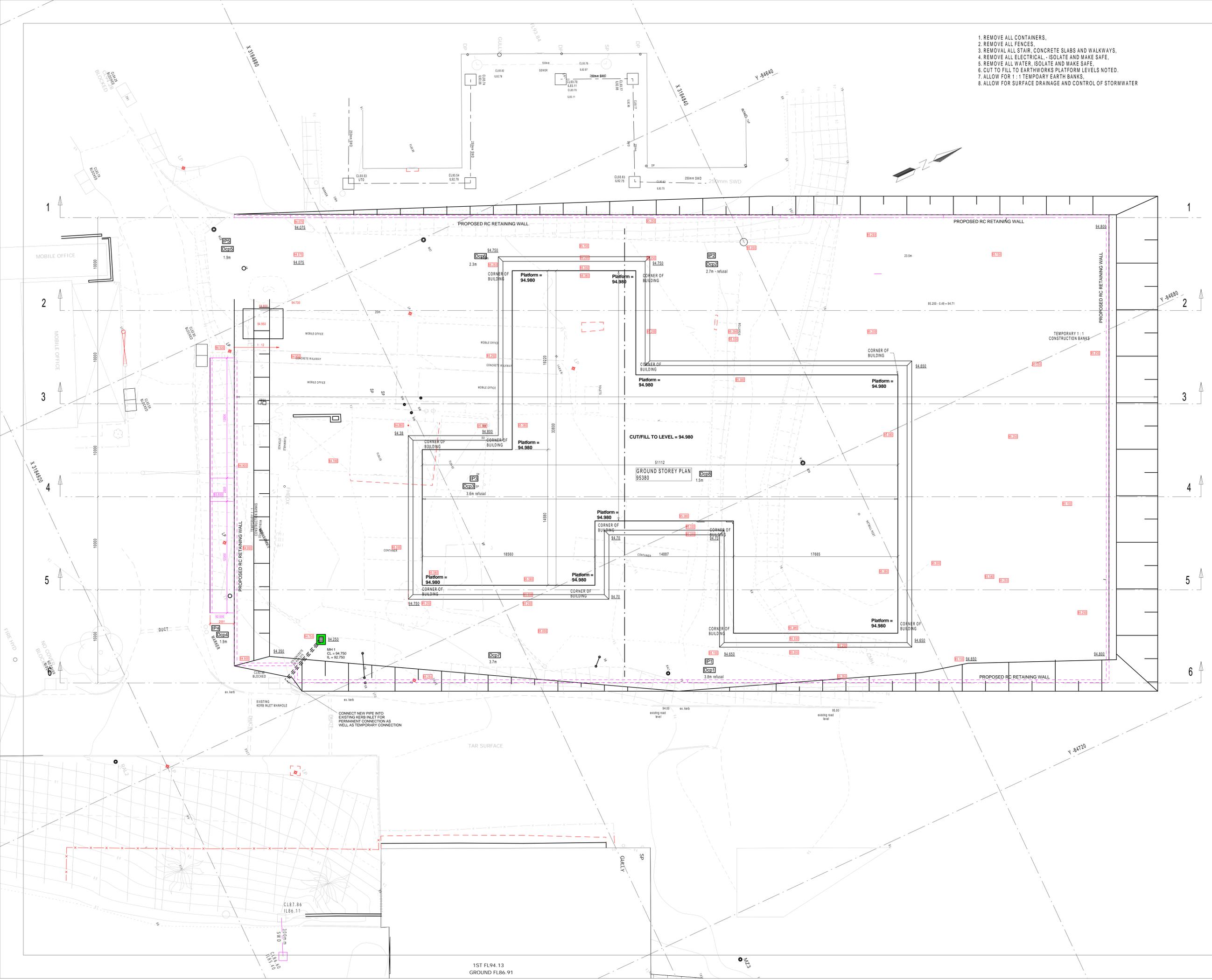


1. REMOVE ALL CONTAINERS.
2. REMOVE ALL FENCES.
3. REMOVE ALL STAIR, CONCRETE SLABS AND WALKWAYS.
4. REMOVE ALL ELECTRICAL, - ISOLATE AND MAKE SAFE.
5. REMOVE ALL WATER, ISOLATE AND MAKE SAFE.
6. CUT TO FILL TO EARTHWORKS PLATFORM LEVELS NOTED.
7. ALLOW FOR 1:1 TEMPORARY EARTH BANKS.
8. ALLOW FOR SURFACE DRAINAGE AND CONTROL OF STORMWATER



Revisions	Rev no	Date	Description	Rev by
	A			
	B			
	C			
	D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
 Name: S. Naidu (Pr. Eng 20010315)

Signature: _____ Date: _____

L S C BRUNETTE CONSULTING ENGINEERS
 4 DEBBY PLACE DEBBY CROSSING OFFICE PARK WESTVILLE
 PHONE: 268118 FAX: 268883 P.O. BOX 33975 OVERPORT 4007

PROJECT STATUS **DESIGN**

public works
 Department: Public Works
 PROVINCE OF KWAZULU-NATAL

health
 Department: Health
 PROVINCE OF KWAZULU-NATAL

Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

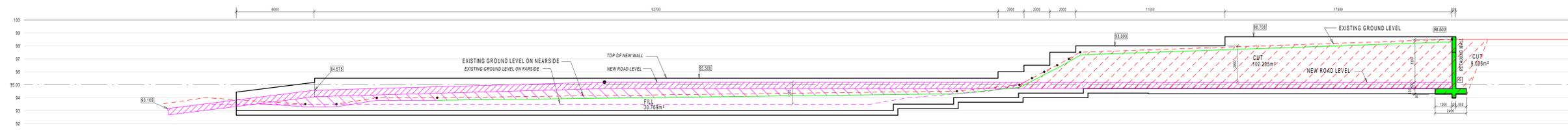
Drawing Description
EARTHWORKS LAYOUT

Drawn: S. NAIDU Date: MAY 2021
 Scale: 1:125

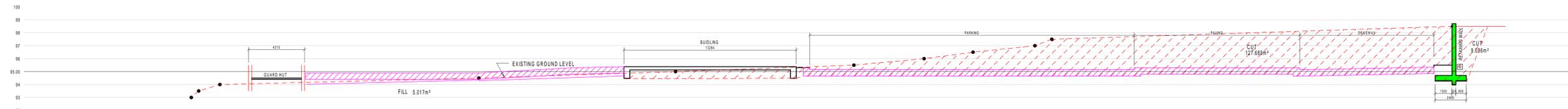
Consultants Drawing Number: **D3806/20-EW01** Revision: -
 DDPW Drawing Number: Revision: -

WIMS NO/ 070638/EW01

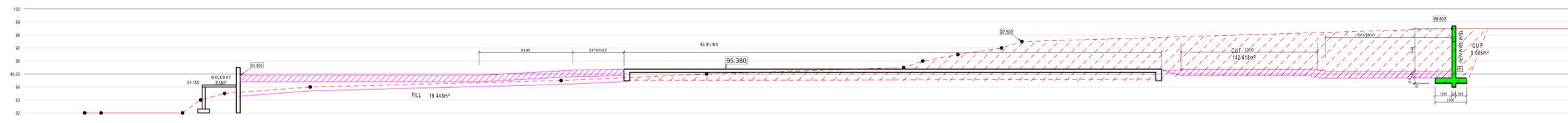
Stamped by Health Plans Approval Committee



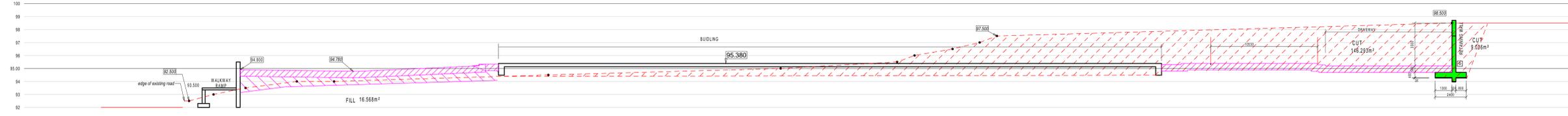
SECTION 1-1



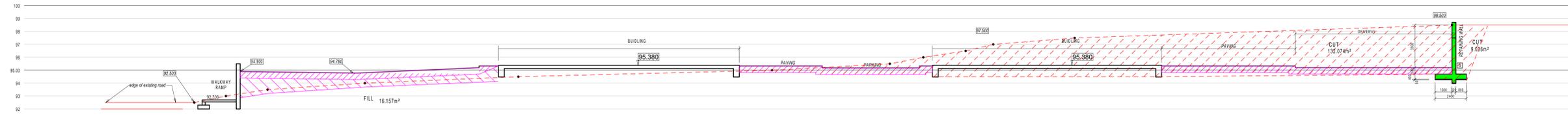
SECTION 2-2



SECTION 3-3



SECTION 4-4



SECTION 5-5



SECTION 6-6

Revisions	Rev no	Date	Description	Rev by
	A			
	B			
	C			
	D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
 Name: S. Naidu (Pr. Eng 20010315)
 Signature: *S. Naidu* Date: 22-05-2022

L S C BRUNETTE CONSULTING ENGINEERS
 4 DERBY PLACE
 DEWBURY OFFICE PARK
 WESTVILLE
 PHONE: 268118
 FAX: 268863
 P.O. BOX 33925
 OVERPORT 4007

PROJECT STATUS

DESIGN

public works
 Department: Public Works
 PROVINCE OF KWAZULU-NATAL

health
 Department: Health
 PROVINCE OF KWAZULU-NATAL

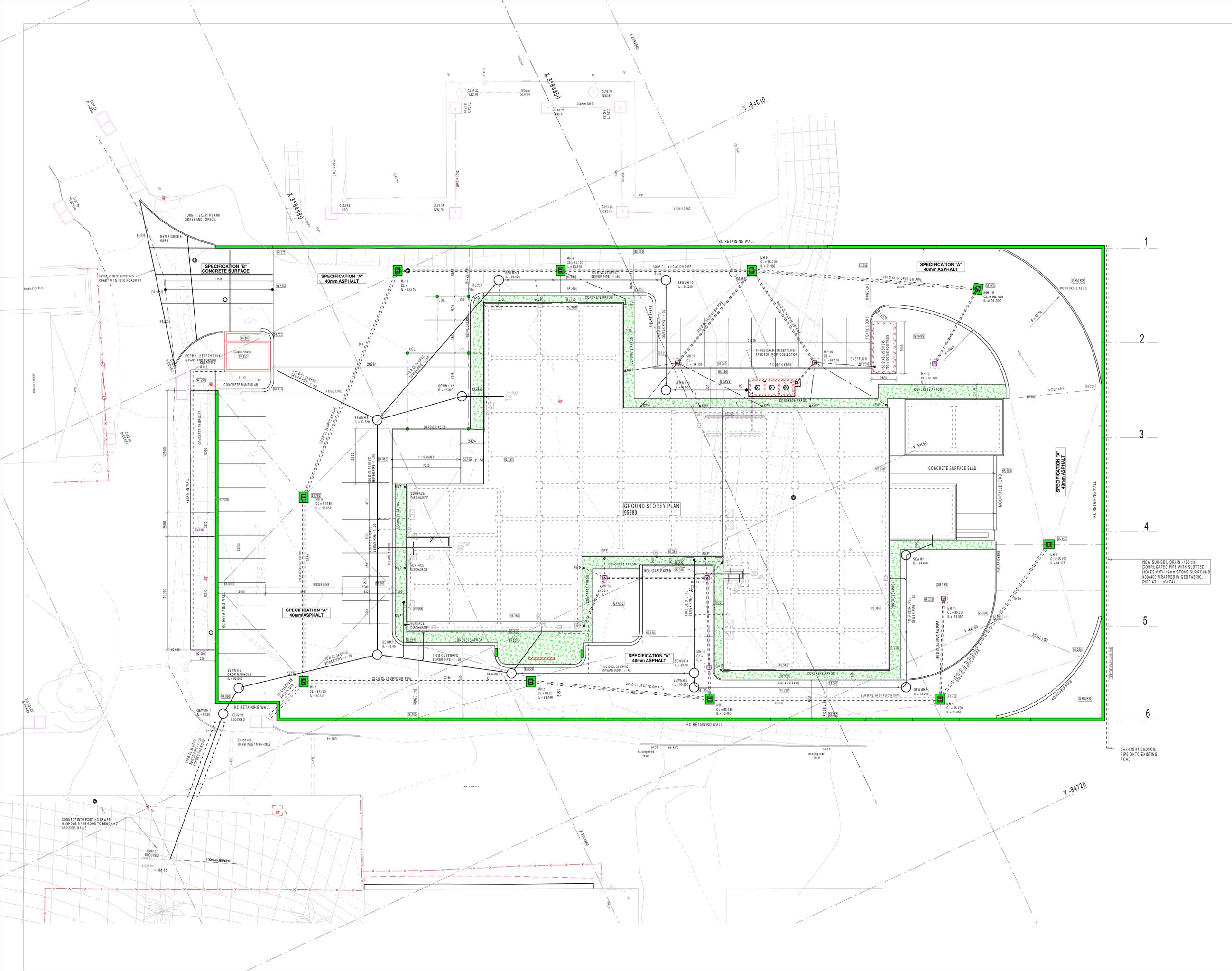
Project Title
 CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description
 EARTHWORKS - LONG SECTIONS

Drawn: S. NAIDU Date: MAY 2021
 Scale: 1:125

Consultant Drawing Number	Revision
D3806/20-EW02	-
DOPW Drawing Number	Revision
WIMS NO/ 070638/EW02	-

Stamped by Health Plans Approval Committee



Revisions	Rev no	Date	Description	Rev by
A	1802022	18/02/2022	UPDATED TO SUIT ARCHITECTS ISSUE OF 14 JUNE 2021 AND 21 FEB. 2022	S.N.
B	1802022	18/02/2022	UPDATED TO SUIT ARCHITECTS ISSUE OF 28 APRIL 2022	S.N.
C				
D				

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
 Name: S. Naidu (Pr. Eng 20010315)
 Signature: *S. Naidu* Date: 22-05-2022

L S C BRUNETTE CONSULTING ENGINEERS
 4 DERBY PLACE
 DERBY DOWNS OFFICE PARK
 WESTVILLE
 PHONE: 2688118
 FAX: 2688863
 P.O. BOX 33975
 OVERPORT 4007

PROJECT STATUS

DESIGN

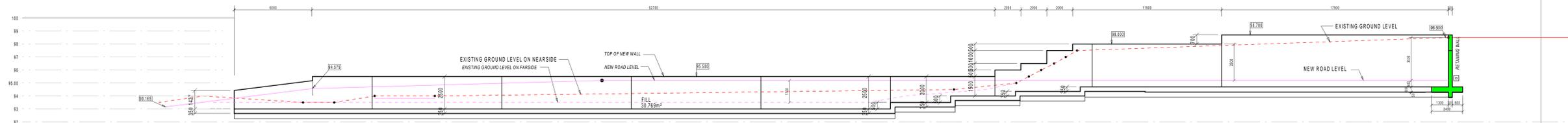
public works
 Department: Public Works
 PROVINCE OF KWAZULU-NATAL

health
 Department: Health
 PROVINCE OF KWAZULU-NATAL

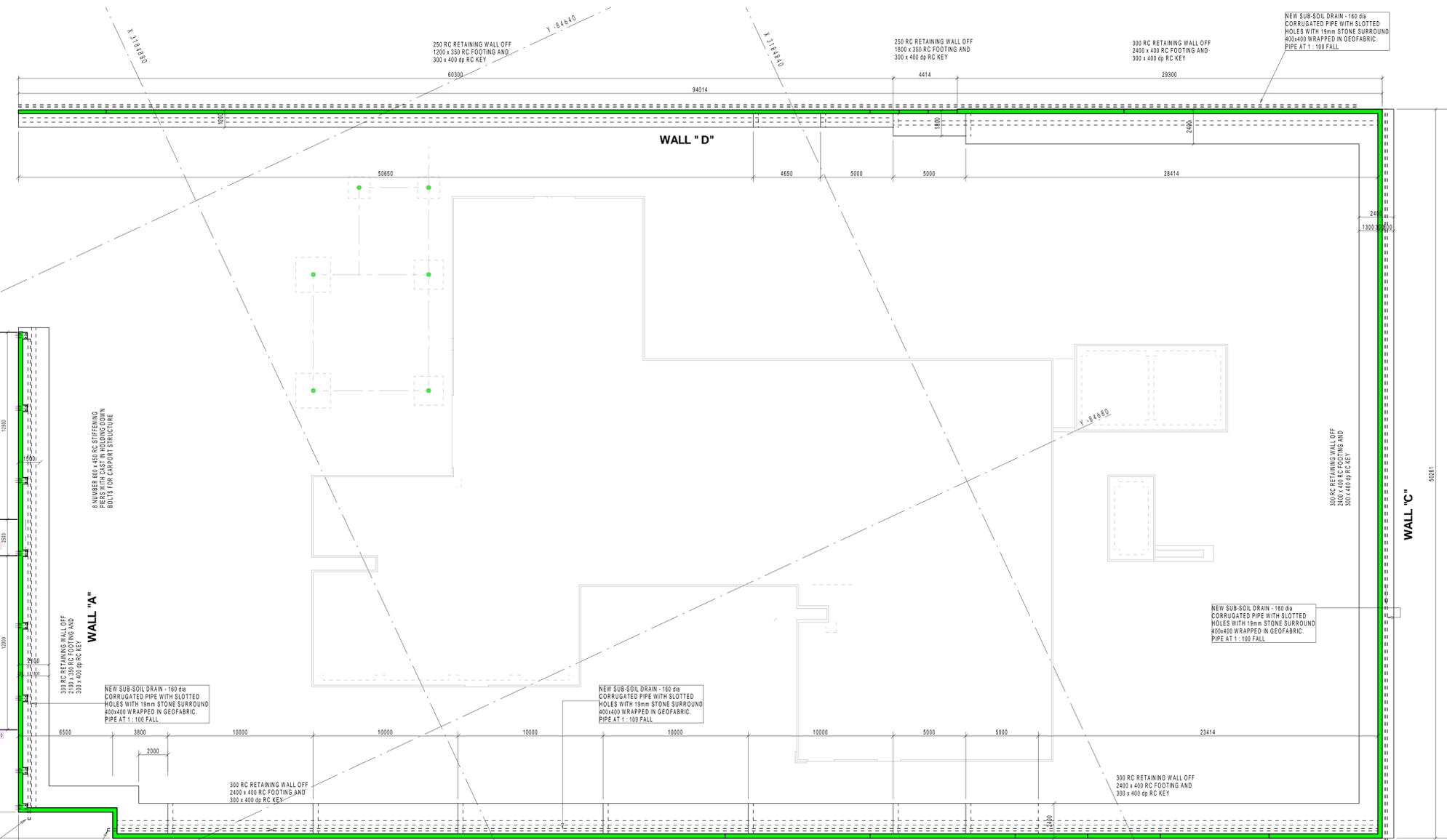
Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description
SITWORKS - LAYOUT

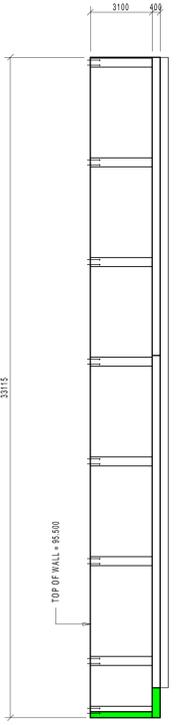
Drawn: S. NAIDU	Date: MAY 2021
Scale: 1:125	
Consultants Drawing Number: D3806/20-SW01	Revision: B
DOPW Drawing Number:	Revision:
WIMS NO/ 070638/SW01	B
Stamped by Health Plans Approval Committee	



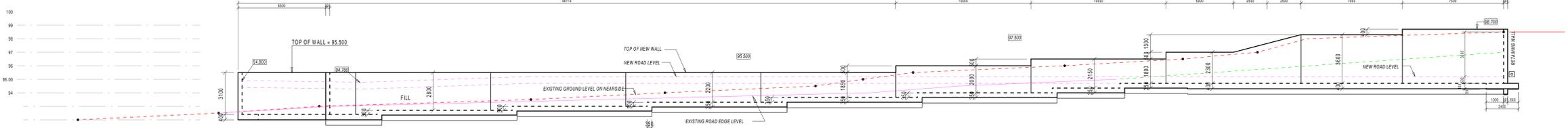
ELEVATION - WALL "D"
SCALE 1:125



ELEVATION - WALL "A"
SCALE 1:125



ELEVATION - WALL "B"
SCALE 1:125



ELEVATION - WALL "B"
SCALE 1:125

Revisions	Rev no	Date	Description	Rev by
	A			
	B			
	C			
	D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
Name: S. Naidu (Pr. Eng 20010315)
Signature: *S. Naidu* Date: 22-05-2022

L S C BRUNETTE CONSULTING ENGINEERS
4 DERBY PLACE
DERBY DOWNS OFFICE PARK
WESTVILLE
PHONE: 2688118
FAX: 2688863
P.O. BOX 33975
OVERPORT 4007

PROJECT STATUS

DESIGN

public works
Department: Public Works
PROVINCE OF KWAZULU-NATAL

health
Department: Health
PROVINCE OF KWAZULU-NATAL

Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

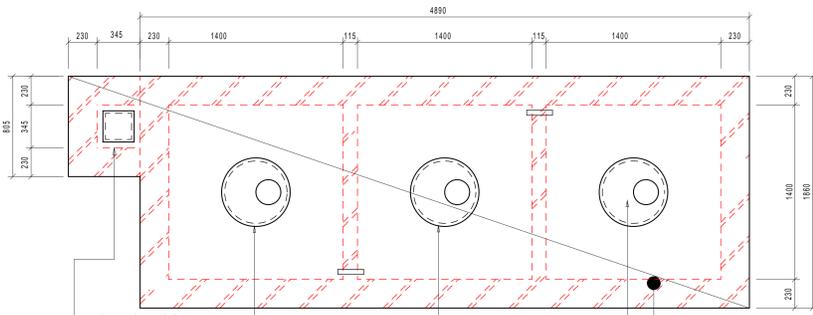
Drawing Description
SITE WORKS - RETAINING WALLS

Drawn: S. NAIDU Date: MAY 2021
Scale: 1:125
Consultants Drawing Number: **D3806/20-SW02** Revision: -
DOPW Drawing Number: Revision: -
WIMS NO/ 070638/SW02

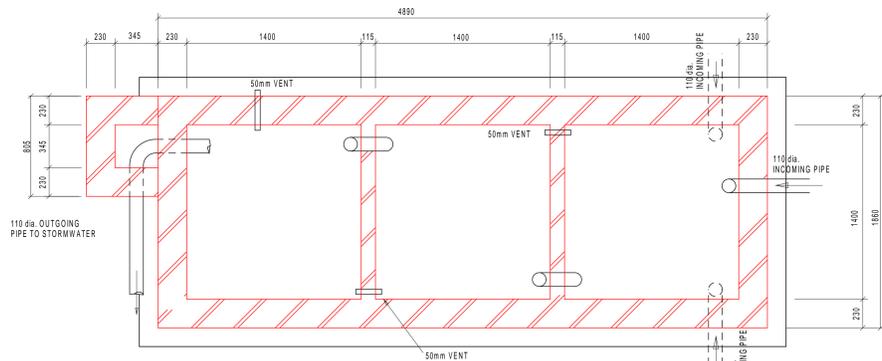
Stamped by Health Plans Approval Committee

NOTES (PLASTER OF PARIS SETTLEMENT TANK) :

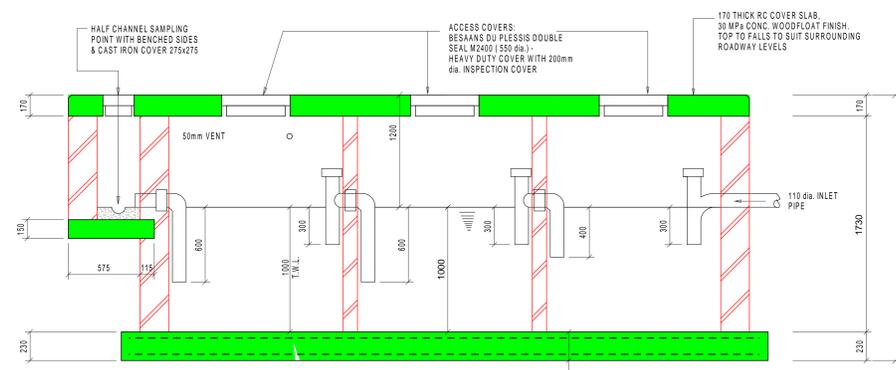
- EXTERNAL WALLS 230 BRICK CEMENT PLASTERED - INSIDE AND OUTSIDE. CONSTRUCT WITH NFX BRICKS IN CLASS II MORTAR.
- INTERNAL WALLS 115 BRICK CEMENT PLASTERED. NFX BRICKS
- ALL BENDS & JUNCTIONS IN TANK TO BE 110 dia uPVC - SABS 967 PVC.
- LONG TAIL BENDS TO BE USED TO THE LENGTHS SHOWN.
- CAST IRON MANHOLE COVERS AS CALLED UP.
- WORK NOT TO BE COMMENCED WITHOUT THE APPROVAL OF A BUILDING INSPECTOR.
- ALL COMPARTMENTS TO BE FILLED WITH WATER BEFORE TRAP IS PLACED IN SERVICE.
- CLASS II MORTAR. GALVANISED BRICKFORCE EVERY 255mm.
- HALF CHANNEL SAMPLING POINT WITH BENCHED SIDES AND CAST IRON COVER.



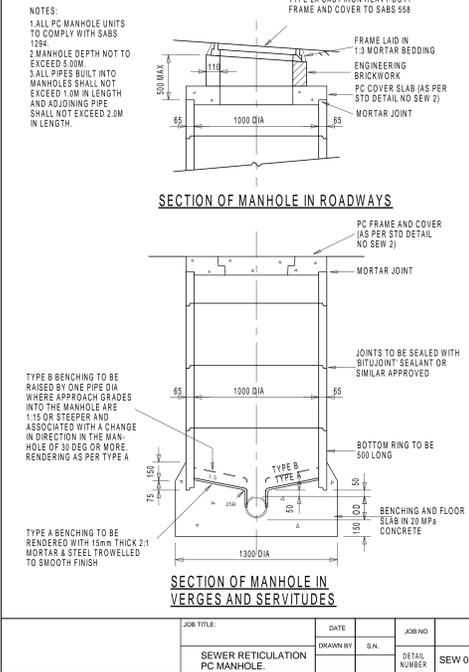
PLAN ON COVER



PLAN ON SAND, OIL AND GREASE TRAP

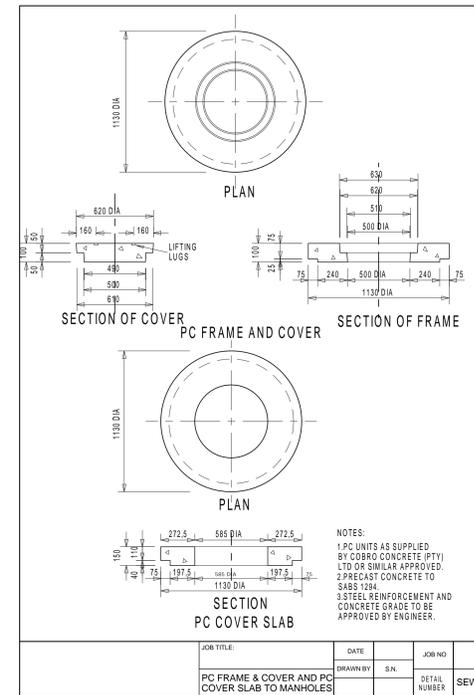


**SECTION (S.O.G.T.)
DETAIL SEW 01
(SAND OIL & GREASE TRAP)**
SCALE 1 : 20



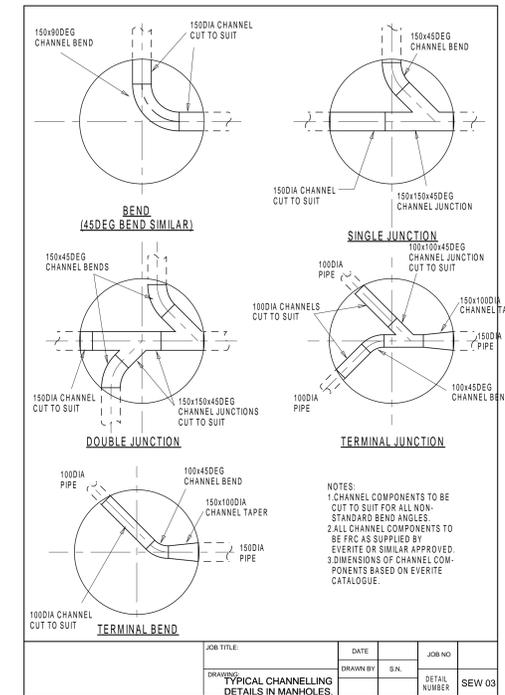
SECTION OF MANHOLE IN ROADWAYS

JOB TITLE:	DATE:	JOB NO.:	
SEWER RETICULATION PC MANHOLE.	DRAWN BY: S.N.	DETAIL NUMBER:	SEW 01

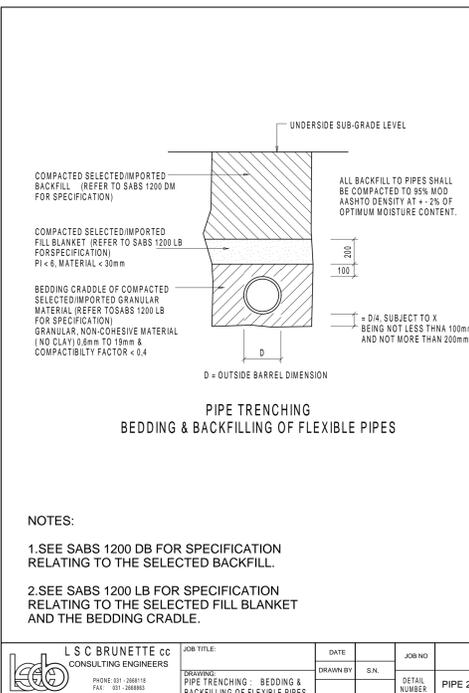


SECTION OF COVER PC FRAME AND COVER

JOB TITLE:	DATE:	JOB NO.:	
PC FRAME & COVER AND PC COVER SLAB TO MANHOLES	DRAWN BY: S.N.	DETAIL NUMBER:	SEW 02



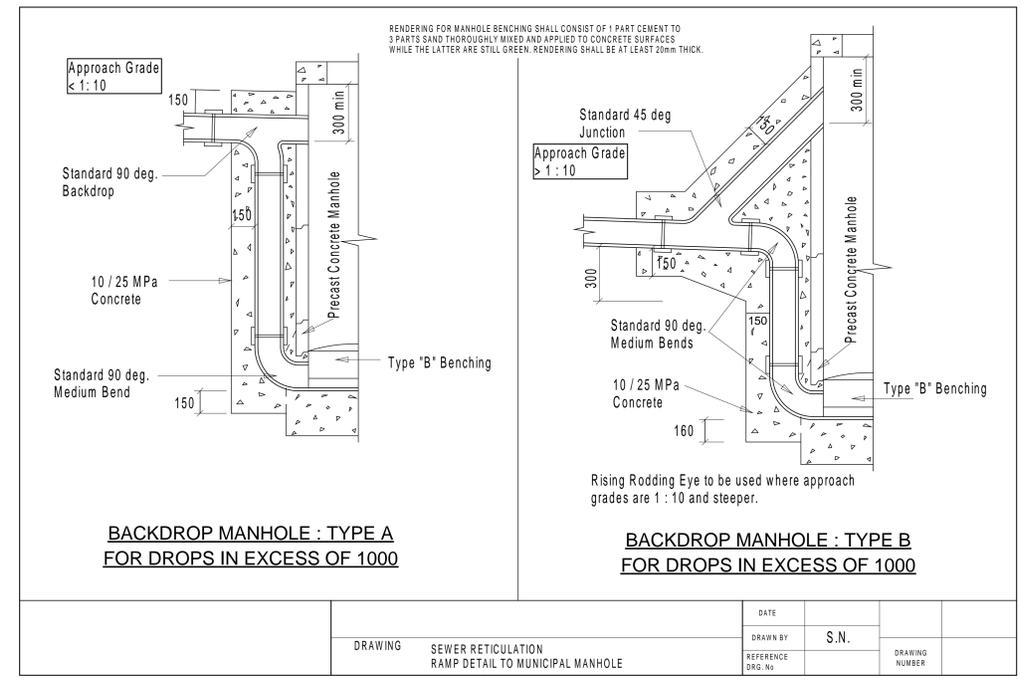
JOB TITLE:	DATE:	JOB NO.:	
TYPICAL CHANNELLING DETAILS IN MANHOLES	DRAWN BY: S.N.	DETAIL NUMBER:	SEW 03



PIPE TRENCHING BEDDING & BACKFILLING OF FLEXIBLE PIPES

- NOTES:**
- SEE SABS 1200 DB FOR SPECIFICATION RELATING TO THE SELECTED BACKFILL.
 - SEE SABS 1200 LB FOR SPECIFICATION RELATING TO THE SELECTED FILL BLANKET AND THE BEDDING CRADLE.

JOB TITLE:	DATE:	JOB NO.:	
PIPE TRENCHING: BEDDING & BACKFILLING OF FLEXIBLE PIPES	DRAWN BY: S.N.	DETAIL NUMBER:	PIPE 2



BACKDROP MANHOLE : TYPE A FOR DROPS IN EXCESS OF 1000

BACKDROP MANHOLE : TYPE B FOR DROPS IN EXCESS OF 1000

DRAWING	SEWER RETICULATION RAMP DETAIL TO MUNICIPAL MANHOLE	DATE:	
DRAWN BY:	S.N.	REFERENCE ORG. NO.:	

Rev no	Date	Description	Rev by
A			
B			
C			
D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
Name: S. Naidu (Pr. Eng 20010315)
Signature: [Signature] Date: 23/5/2022

L S C BRUNETTE CONSULTING ENGINEERS
4 DERBY PLACE, DEWBURY DRIVING OFFICE PARK, WESTVILLE
PHONE: 2688118 FAX: 2688853 P.O. BOX 3915 OVERPORT 4007

PROJECT STATUS

DESIGN

public works
Department: Public Works
PROVINCE OF KWAZULU-NATAL

health
Department: Health
PROVINCE OF KWAZULU-NATAL

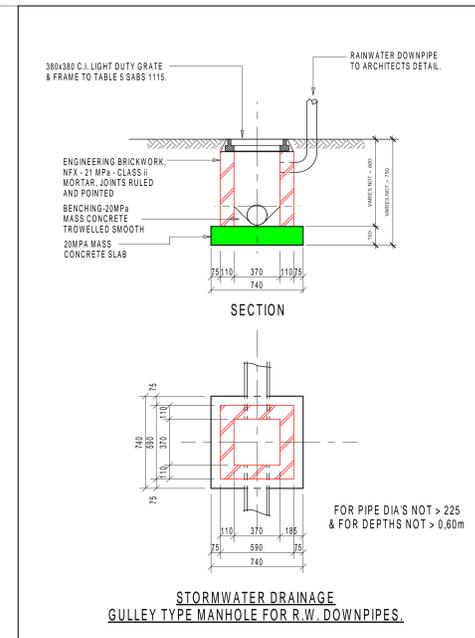
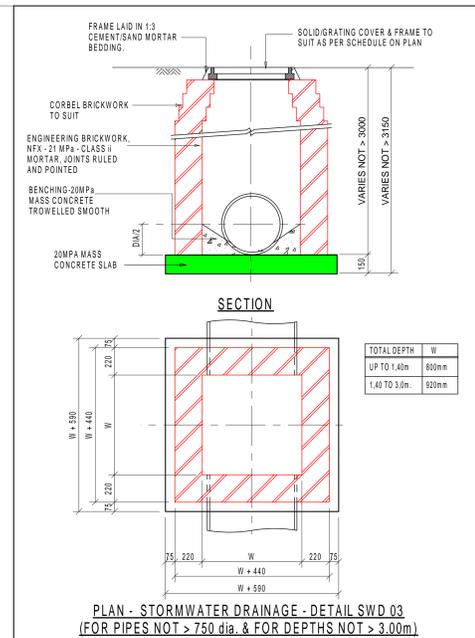
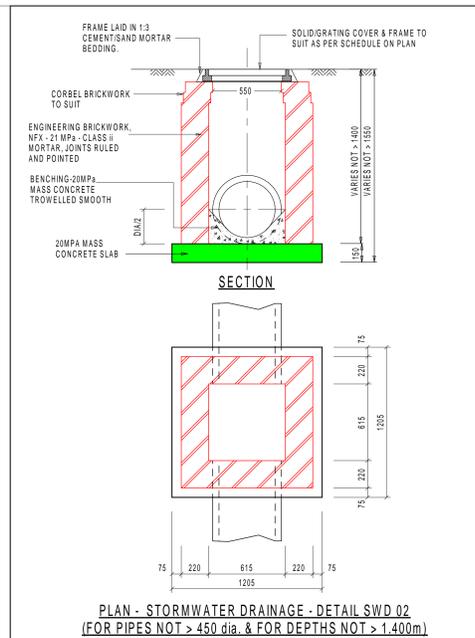
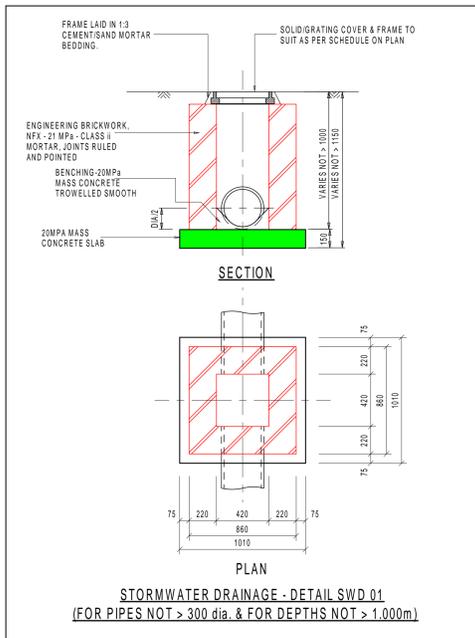
Project Title: CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description: SITWORKS - PLASTER OF PARIS SEPERATION TANK SEWER MANHOLE DETAILS

Drawn: S. NAIDU Date: MAY 2021
Scale: 1 : 20

Consultants Drawing Number	Revision
D3806/20-SW03	-
DOPW Drawing Number	Revision
WIMS NO/ 070638/SW03	-

Stamped by Health Plans Approval Committee

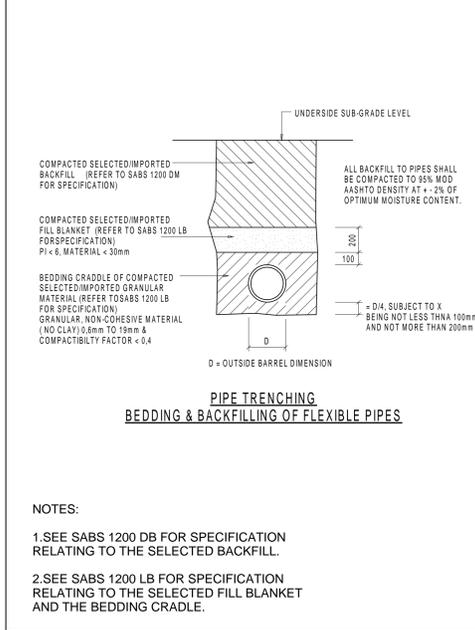


JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY:	S.N.
MANHOLE TYPE A	DETAIL NUMBER	SWD 01

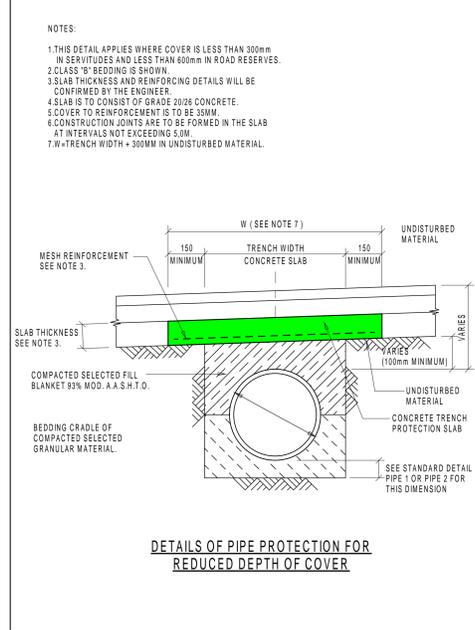
JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY:	S.N.
MANHOLE TYPE B	DETAIL NUMBER	SWD 02

JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY:	S.N.
MANHOLE TYPE C	DETAIL NUMBER	SWD 03

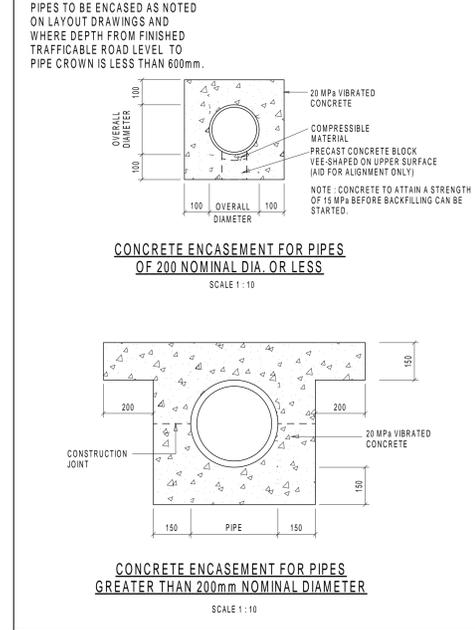
JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY:	S.N.
GULLEY TYPE MANHOLE	DETAIL NUMBER	SWD 04



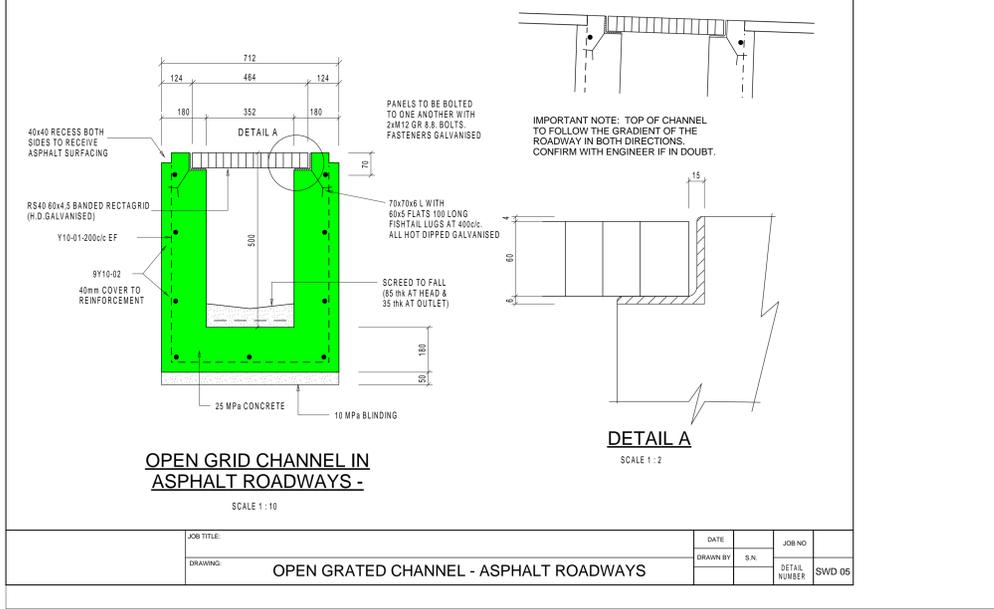
JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY:	S.N.
PIPE TRENCHING - BEDDING & BACKFILLING OF FLEXIBLE PIPES	DETAIL NUMBER	PIPE 2



JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY:	S.N.
PIPE TRENCHING - COVER SLABS FOR PIPES WITH INSUFFICIENT COVER	DETAIL NUMBER	PIPE 3



JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY:	S.N.
PIPE TRENCHING - CONCRETE ENCASEMENT OF PIPES	DETAIL NUMBER	PIPE 5



JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY:	S.N.
OPEN GRATED CHANNEL - ASPHALT ROADWAYS	DETAIL NUMBER	SWD 05

Revisions	Rev no	Date	Description	Rev by
	A			
	B			
	C			
	D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
Name: S. Naidu (Pr. Eng 20010315)
Signature: *S. Naidu* Date: 23/05/2022

L S C BRUNETTE CONSULTING ENGINEERS
4 DERBY PLACE
DERBY DOORING OFFICE PARK
WESTVILLE
PHONE: 268118
FAX: 268083
P.O. BOX 33975
OVERPORT 4007

PROJECT STATUS
DESIGN

public works
Department: Public Works
PROVINCE OF KWAZULU-NATAL

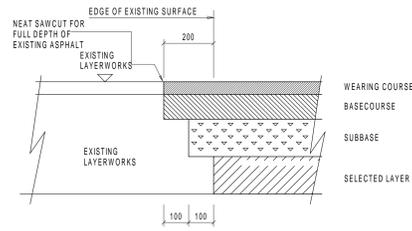
health
Department: Health
PROVINCE OF KWAZULU-NATAL

Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description
SITWORKS - STORMWATER CONSTRUCTION DETAILS

Drawn: S. NAIDU	Date: MAY 2021
Scale: 1:20	
Consultant Drawing Number: D3806/20-SW04	Revision: -
DOPW Drawing Number:	Revision: -
WIMS NO/ 070638/SW04	

Stamped by Health Plans Approval Committee

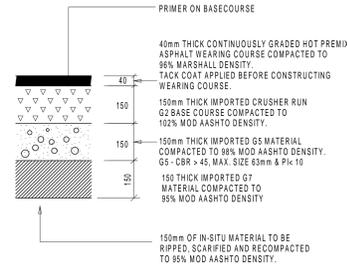


ROADWORKS - JOINT BETWEEN EXISTING AND NEW PAVEMENT LAYERS - RWS 3

SCALE 1 : 10

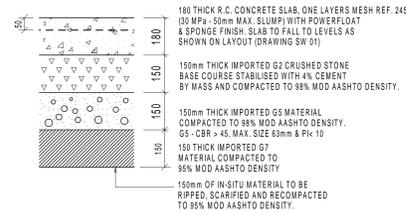
- NOTES:
1. ALL PAVEMENT LAYER TERMINOLOGY TO TRH 14 (CSIR GUIDELINES FOR ROAD CONSTRUCTION MATERIALS)
 2. ABOVE PAVEMENT DESIGNS TO BE READ IN CONJUNCTION WITH CIVIL ENGINEERS SPECIFICATION (SABS 1200) AND VARIATIONS (ATTACHED TO DOCUMENT)

JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY: S.N.	DETAIL NUMBER:
NEW / OLD TIE IN		RW 03



ROADWAYS SPECIFICATION "A"

SCALE 1 : 10

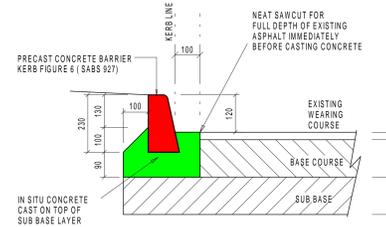


ROADWAYS SPECIFICATION "B"

(ENTRANCE - TIGHT TURNING) SCALE 1 : 10

- NOTES:
1. ALL PAVEMENT LAYER TERMINOLOGY TO TRH 14 (CSIR GUIDELINES FOR ROAD CONSTRUCTION MATERIALS)
 2. ABOVE PAVEMENT DESIGNS TO BE READ IN CONJUNCTION WITH CIVIL ENGINEERS SPECIFICATION (SABS 1200) AND VARIATIONS (ATTACHED TO DOCUMENT)

JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY: S.N.	DETAIL NUMBER:

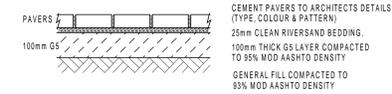


BARRIER KERB AND FILLET - RWS 4

SCALE 1 : 10

- NOTES:
1. ALL CAST IN-SITU CONCRETE TO BE GRADE 20 MPa.
 2. FOR KERB RADIUS LESS THAN 20m THE KERB LENGTH SHALL BE 300mm. AND FOR KERB RADIUS LESS THAN 2m THE KERBING SHALL BE CAST IN-SITU.
 3. PRECAST KERBS ARE TO BE LAID WITH 10mm GAP BETWEEN KERBS FILLED WITH CEMENT MORTAR.
 4. CONTRACTION JOINTS TO BE FORMED THROUGH THE KERBING AND FOUNDATION AT INTERVALS NOT GREATER THAN 20m.
 5. THE SURFACE OF THE CAST IN-SITU CHANNEL IS TO HAVE A STEEL FLOAT FINISH.
 6. CONTRACTION JOINTS TO BE FORMED THROUGH THE CHANNEL AT 2m INTERVALS.

JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY: S.N.	DETAIL NUMBER:

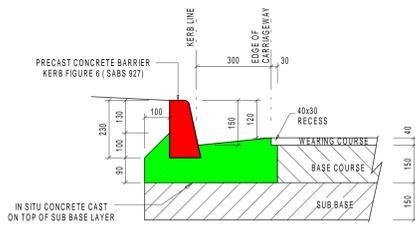


ROADWAYS SPECIFICATION "C"

(WALKWAY PAVERS) SCALE 1 : 10

- NOTES:
1. ALL PAVEMENT LAYER TERMINOLOGY TO TRH 14 (CSIR GUIDELINES FOR ROAD CONSTRUCTION MATERIALS)
 2. ABOVE PAVEMENT DESIGNS TO BE READ IN CONJUNCTION WITH CIVIL ENGINEERS SPECIFICATION (SABS 1200) AND VARIATIONS (ATTACHED TO DOCUMENT)

JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY: S.N.	DETAIL NUMBER:



BARRIER KERB AND CHANNEL - RWS 2

SCALE 1 : 10

- NOTES:
1. ALL CAST IN-SITU CONCRETE TO BE GRADE 20 MPa.
 2. FOR KERB RADIUS LESS THAN 20m THE KERB LENGTH SHALL BE 300mm. AND FOR KERB RADIUS LESS THAN 2m THE KERBING SHALL BE CAST IN-SITU.
 3. PRECAST KERBS ARE TO BE LAID WITH 10mm GAP BETWEEN KERBS FILLED WITH CEMENT MORTAR.
 4. CONTRACTION JOINTS TO BE FORMED THROUGH THE KERBING AND FOUNDATION AT INTERVALS NOT GREATER THAN 20m.
 5. THE SURFACE OF THE CAST IN-SITU CHANNEL IS TO HAVE A STEEL FLOAT FINISH.
 6. CONTRACTION JOINTS TO BE FORMED THROUGH THE CHANNEL AT 2m INTERVALS.

JOB TITLE:	DATE:	JOB NO:
DRAWING:	DRAWN BY: S.N.	DETAIL NUMBER:

Rev no	Date	Description	Rev by
A			
B			
C			
D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant

Name: S. Naidu (Pr. Eng 20010215)

Signature: *S. Naidu* Date: 23/05/2022

L S C BRUNETTE CONSULTING ENGINEERS

4 DERBY PLACE
DERBY BUSINESS OFFICE PARK
WESTVILLE

PHONE: 2068118
FAX: 2068865
P.O. BOX 37015
CHERRYBROOK

PROJECT STATUS

DESIGN

public works

Department: Public Works
PROVINCE OF KWAZULU-NATAL

health

Department: Health
PROVINCE OF KWAZULU-NATAL

Project Title

CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description

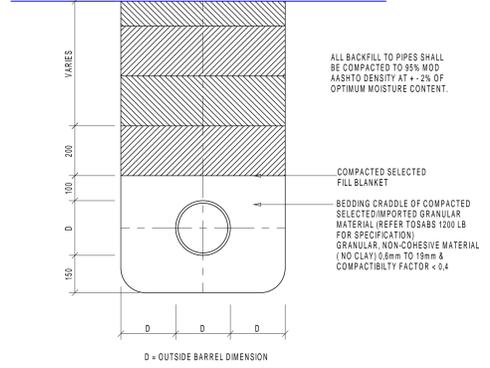
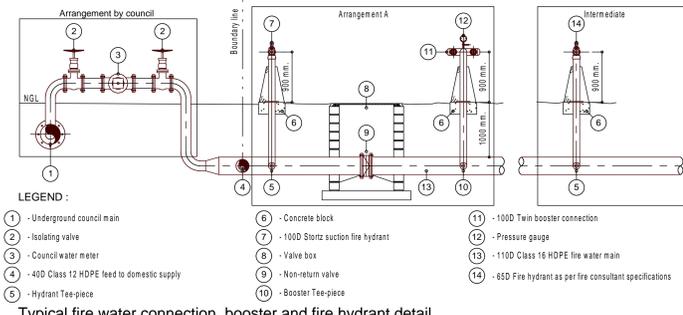
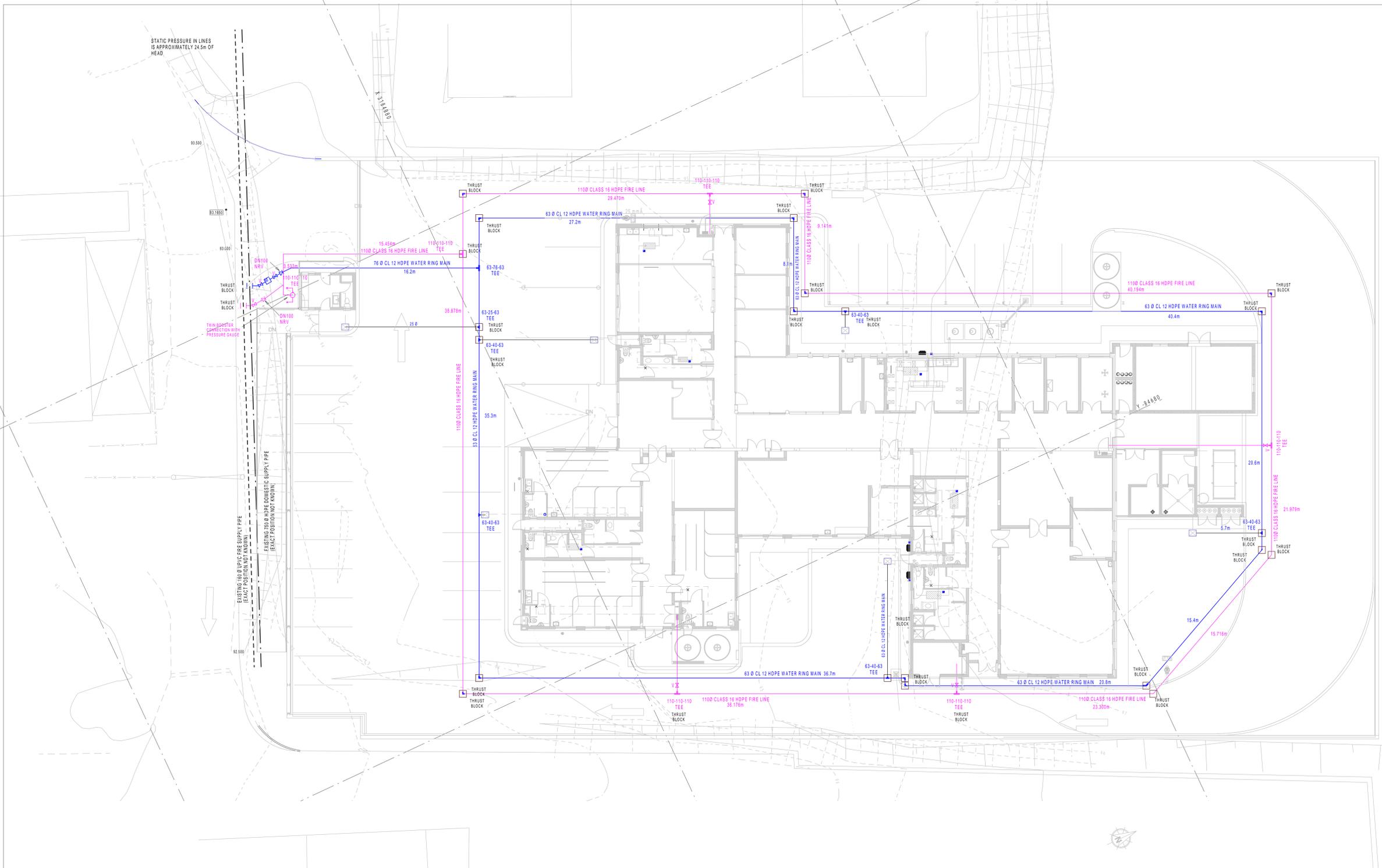
SITE WORKS
ROAD WORKS DETAILS

Drawn: S. NAIDU Date: MAY 2021

Consultant Drawing Number: D3806/20-SW05 Revision: -

DOPW Drawing Number: WIMS NO/ 070638/SW05 Revision: -

Stamped by Health Plans Approval Committee



1. All levels and dimensions to be checked on site prior to commencement of any work. Any discrepancies are to be verified with the Architect immediately prior to commencement of work.
2. This drawing is to be read in conjunction with all other drawings, schedules, and specifications related to this project including engineers drawings.
3. The works described and specified on this drawing and associated drawings shall be undertaken in accordance with all current health and safety regulations.
4. Where notes on this drawing differ from the specification, clarification should be sought from the Engineer.
5. Quality of materials and workmanship to comply with relevant SABS and BSS specifications. All work to conform to the minimum standards as specified in the preambles in the SOQ.
6. All works to be compliant with Local Authority Guidelines and By-laws.
7. Contractor to locate and identify existing services and to protect these from damage for the duration of the work.
8. All queries/discrepancies must be reported to the Architect/Engineer for clarification before the work is put to hand.
9. Water supply: Fire water supply to be connected to existing dedicated fire mains. Domestic water supply to be connected to existing water mains.
10. All necessary fittings, seals and fixtures to be provided to ensure quality operation.
11. Unless otherwise stated any products specified by trade name are to be installed strictly in accordance to the manufacturers specification and instructions.
12. All pipes, valves, fittings etc. are to have SABS certification.
13. All plumbing to conform to SANS 10252-1.
14. All valves to be fully accessible for maintenance purposes.

Rev no	Date	Description	Rev by
A	10/09/2022	UPDATED TO BMT ARCHITECT'S ISSUE OF 26 APRIL 2022	S.K
B			
C			
D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
Name: S. Naidu (Pr. Eng 20010315)

Signature: _____ Date: _____
L S C BRUNETTE CONSULTING ENGINEERS
4 DERBY PLACE, WESTVILLE, JOHANNESBURG
PHONE: 268118 FAX: 268883 P.O. BOX 33975 OVERPORT 4007

PROJECT STATUS
DESIGN
public works
Department: Public Works
PROVINCE OF KWAZULU-NATAL

health
Department: Health
PROVINCE OF KWAZULU-NATAL

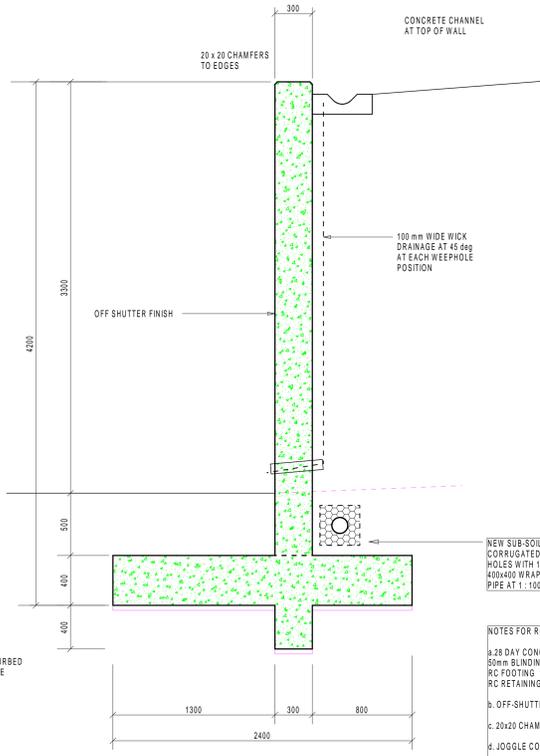
Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description
SITWORKS - WATER RETICULATION

Drawn: S. NAIDU Date: MAY 2021
Scale: 1:125

Consultant Drawing Number	Revision
D3806/20-SW06	A
DOPW Drawing Number	Revision
WIMS NO/ 070638/SW06	A

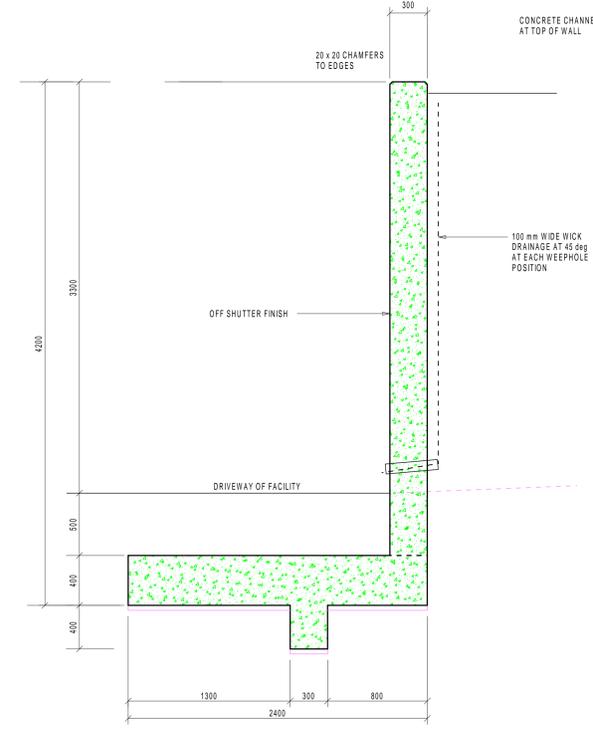
Stamped by Health Plans Approval Committee



CROSS SECTION - WALL "C"
SCALE 1:20

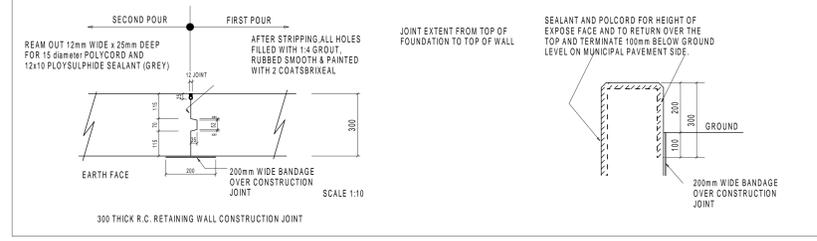
NEW SUB-SOIL DRAIN - 160 dia CORRUGATED PIPE WITH SLOTTED HOLES WITH 19mm STONE SURROUND 400WID WRAPPED IN GEOTEXTILE. PIPE AT 1:100 FALL.

NOTES FOR RC RETAINING WALL
 a. 28 DAY CONCRETE STRENGTH FOR 50mm BLINDING = 10 MPa
 RC FOOTING = 20 MPa
 RC RETAINING WALL = 30 MPa
 b. OFF-SHUTTER FINISH FOR VISIBLE FACE.
 c. 20x20 CHAMFERS FOR EDGES
 d. JOGGLE CONSTRUCTION JOINTS AT 6m CENTRES.
 e. REINFORCEMENT = 180 KILOGRAMS PER LINEAR METRE.



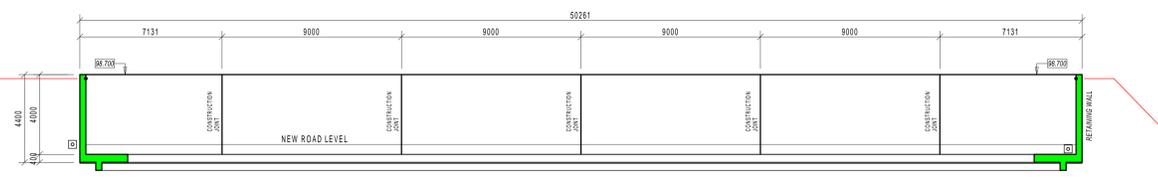
CROSS SECTION - WALL "D"
SCALE 1:20

NOTES FOR RC RETAINING WALL
 a. 28 DAY CONCRETE STRENGTH FOR 50mm BLINDING = 10 MPa
 RC FOOTING = 20 MPa
 RC RETAINING WALL = 30 MPa
 b. OFF-SHUTTER FINISH FOR VISIBLE FACE.
 c. 20x20 CHAMFERS FOR EDGES
 d. JOGGLE CONSTRUCTION JOINTS AT 6m CENTRES.
 e. REINFORCEMENT = 180 KILOGRAMS PER LINEAR METRE.



300 THICK R.C. RETAINING WALL CONSTRUCTION JOINT SCALE 1:10

RC FOOTING TO BEAR ON UNDISTURBED NATURAL GROUND WITH A SERVICE BEARING CAPACITY OF 100 kPa



ELEVATION - WALL "C"
SCALE 1:125

Revisions	Rev no	Date	Description	Rev by
A				
B				
C				
D				

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
 Name: S. Naidu (Pr. Eng 20010315)

Signature: _____ Date: _____

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PROJECT STATUS

DESIGN

public works
 Department: Public Works
 PROVINCE OF KWAZULU-NATAL

health
 Department: Health
 PROVINCE OF KWAZULU-NATAL

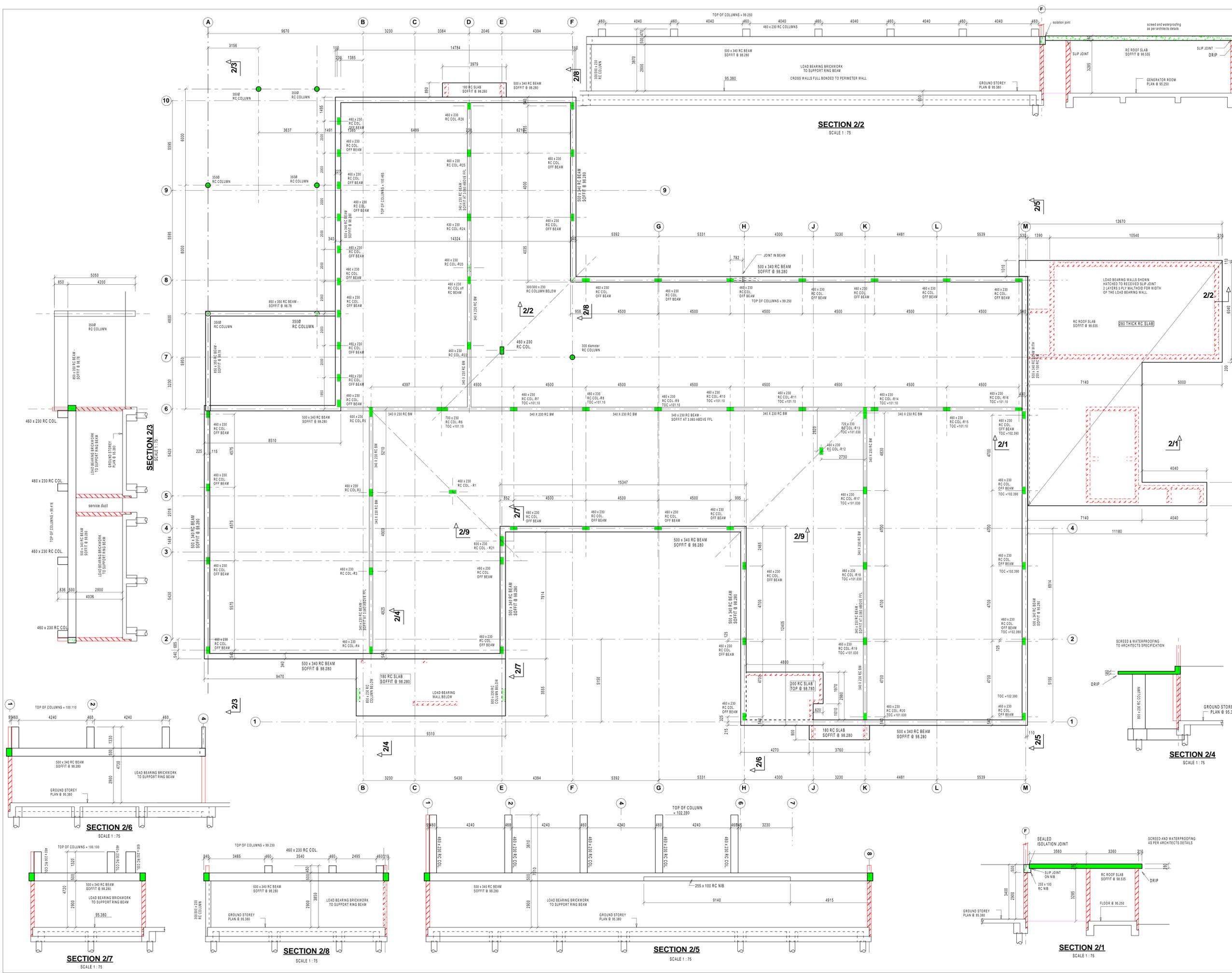
Project Title
 CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description
 SITEWORKS - RETAINING WALLS SECTIONS AND ELEVATION FOR WALL

Drawn: S. NAIDU Date: MAY 2021
 Scale: 1:125, 20, 10

Consultants Drawing Number	Revision
D3806/20-SW03	-
DOPW Drawing Number	Revision
WIMS NO/ 070638/SW08	-

Stamped by Health Plans Approval Committee



- GENERAL NOTES:**
1. ALL CONCRETE WORK SHALL BE DONE ACCORDING TO SABS 10100.
 2. ALL CASTING PROCEDURES, CONSTRUCTION METHODS AND POSITIONS OF CONSTRUCTION JOINTS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE PROJECT.
 3. THE CONTRACTOR MUST OBTAIN ALL SERVICES DRAWINGS FOR DETAILS AND POSITIONS OF OPENINGS AND SLEEVES REQUIRED FOR STRUCTURAL, MECHANICAL, ELECTRICAL, MECHANICAL AND OTHER SERVICES. ONLY OPENINGS LARGER THAN 100 mm DIA OR 100 x 100 mm ARE SHOWN ON STRUCTURAL DRAWINGS.
 4. THE CONTRACTOR MUST OBTAIN PERMISSION FROM THE ENGINEER BEFORE ANY OPENINGS OR SERVICES WHICH ARE NOT INDICATED ON THE DRAWINGS MAY BE INTRODUCED THROUGH-OUT STRUCTURAL ELEMENTS.
 5. THE CONCRETE COVER TO REINFORCEMENT IS AS FOLLOWS (EXCEPT WHERE OTHERWISE NOTED OR BENDING SCHEDULES):
 FOUNDATIONS: +30 mm
 STRUTS IN BEAMS: +30 mm
 SLABS: +25 mm
 6. NO BRICK WALLS ARE TO BE BUILT ON FLOOR SLABS BEFORE THE SLABS HAVE REACHED THEIR 28 DAY STRENGTH. PROVISIONS UNDER THE SLABS AND BEAMS SHALL BE COMPLETELY REMOVED BEFORE BRICKWORK IS BUILT. ALL BRICKS REQUIRED FOR BRICK WALLS ON A SPECIFIC SLAB PANEL SHOULD BE STACKED EVENLY ONTO THAT SPECIFIC SLAB PANEL BEFORE BEING BUILT.
 7. BEAM DIMENSIONS ARE GIVEN AS A x B WHERE:
 A = DEPTH OF BEAM (SLAB INCLUDED)
 B = WIDTH OF BEAM
 8. THE STRENGTH OF CONCRETE COVER BLOCKS SHALL AT LEAST BE EQUAL TO THE CONCRETE STRENGTH OF THE STRUCTURAL ELEMENT IN WHICH THEY ARE USED. THE SIZE AND FIXING METHOD OF COVER BLOCKS SHALL BE DISCUSSED IN ADVANCE WITH THE ENGINEER.
 9. CEMENT OR CLAY HOLLOW BLOCKS SHALL BE WETTED AS THE CASTING OF CONCRETE PROGRESSES.
 10. A 20 mm x 25 mm CHAMFER SHALL BE PROVIDED ON ALL VISIBLE CORNERS OF OFF-GRADE CONCRETE IN COLLaboration WITH THE ARCHITECT.
 11. SEE ARCHITECT'S DRAWINGS FOR DETAIL AND POSITIONS OF J-OINTS AND DRIP JOINTS IN CONCRETE.
 12. SEE ARCHITECT'S DRAWINGS FOR DETAIL AND POSITIONS OF RWPS IN CONCRETE.
 13. SEE ARCHITECT'S DRAWINGS FOR THE CASTING IN OF FORMS FOR BRICKWORK WITH CONCRETE.
 14. THE FOLLOWING CARRIERS ARE TO BE PROVIDED UNLESS OTHERWISE SHOWN:
 CANTILEVER BEAMS AND SLABS: SPAN / 150
 OTHER BEAMS AND SLABS: SPAN / 400
 15. REINFORCEMENT:
 a. ALL REINFORCEMENT SHALL COMPLY WITH THE REQUIREMENTS OF SABS 10100.
 b. THE CONTRACTOR SHALL GIVE AT LEAST 48 HOURS NOTICE TO THE ENGINEER FOR STEEL INSPECTIONS THAT ARE REQUIRED.
 c. NO REINFORCEMENT SHALL BE CUTTING OR BENDING OF REINFORCEMENT SHALL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
 16. THE MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE:
 a. 40 MPa FOR ALL CONCRETE.
 b. 40 MPa FOR ALL CONCRETE.
 c. 40 MPa FOR ALL CONCRETE.
 d. 40 MPa FOR ALL CONCRETE.
 e. 40 MPa FOR ALL CONCRETE.
 f. 40 MPa FOR ALL CONCRETE.
 g. 40 MPa FOR ALL CONCRETE.
 h. 40 MPa FOR ALL CONCRETE.
 i. 40 MPa FOR ALL CONCRETE.
 j. 40 MPa FOR ALL CONCRETE.
 k. 40 MPa FOR ALL CONCRETE.
 l. 40 MPa FOR ALL CONCRETE.
 m. 40 MPa FOR ALL CONCRETE.
 n. 40 MPa FOR ALL CONCRETE.
 o. 40 MPa FOR ALL CONCRETE.
 p. 40 MPa FOR ALL CONCRETE.
 q. 40 MPa FOR ALL CONCRETE.
 r. 40 MPa FOR ALL CONCRETE.
 s. 40 MPa FOR ALL CONCRETE.
 t. 40 MPa FOR ALL CONCRETE.
 u. 40 MPa FOR ALL CONCRETE.
 v. 40 MPa FOR ALL CONCRETE.
 w. 40 MPa FOR ALL CONCRETE.
 x. 40 MPa FOR ALL CONCRETE.
 y. 40 MPa FOR ALL CONCRETE.
 z. 40 MPa FOR ALL CONCRETE.
 17. ALL CONCRETE TO BE REINFORCED IN POSITION. PUMPING OF CONCRETE IS NOT ALLOWED UNLESS APPROVED BY THE ENGINEER AFTER REVIEW OF THE CONCRETE MIX DESIGN.
 18. 80% MINIMUM CONCRETE TEST CUBES TO BE TAKEN FOR EVERY 30 CUBES OF CONCRETE FOR SPECIFIC REINFORCED CONCRETE ELEMENT. THESE TESTS AT 7 DAYS AND THESE 10 TESTS AT 28 DAYS. THOSE CUBES TESTED AT OTHER PERIODS WILL NOT BE CONSIDERED.
 19. THE CONCRETE MIX DESIGN OF ALL CONCRETE FOR R.C. ELEMENTS TO BE SUPPLIED TO THE ENGINEER FOR APPROVAL AT LEAST 4 WEEKS BEFORE CONCRETE IS REQUIRED ON SITE.
 20. THE BONDING LAYER IS TO BE MECHANICALLY VIBRATED AND TROWELLED TO A LEVEL SURFACE.
 21. FULL SURFACES OF ALL CONCRETE TO BE CURED FOR SEVEN DAYS BY COVERING WITH PLASTIC SHEETS.
 COMMERCIAL CURING COMPOUNDS ARE NOT ALLOWED ON SURFACES TO RECEIVE FINISHES.

Revision	Rev no.	Date	Description	Rev by
A	1	15/05/2022	UPDATED TO SUIT ARCHITECTS ISSUE OF 14 JUNE 2021 AND 21 FEB. 2022	S.N.
B	2	15/05/2022	UPDATED TO SUIT ARCHITECTS ISSUE OF 28 APRIL 2022	S.N.
C				
D				

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
 Name: S. Naidu (Pr. Eng 20010315)
 Signature: _____ Date: _____

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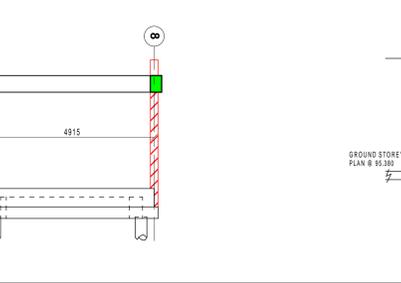
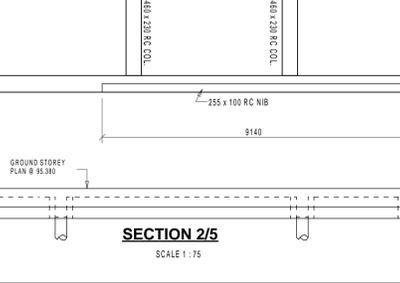
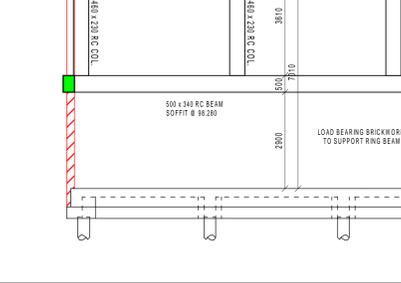
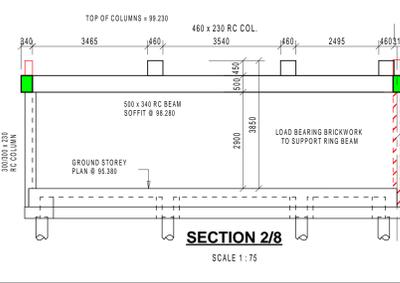
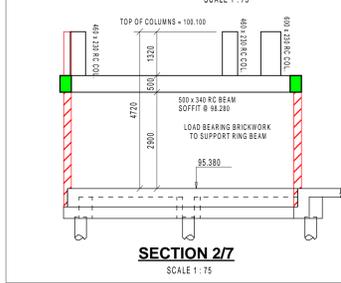
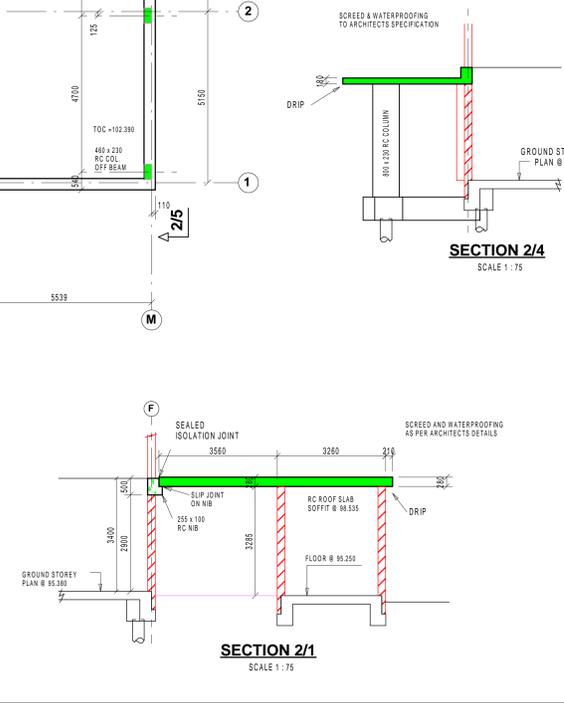
PROJECT STATUS
DESIGN
 public works
 Department: Public Works
 PROVINCE OF KWAZULU-NATAL

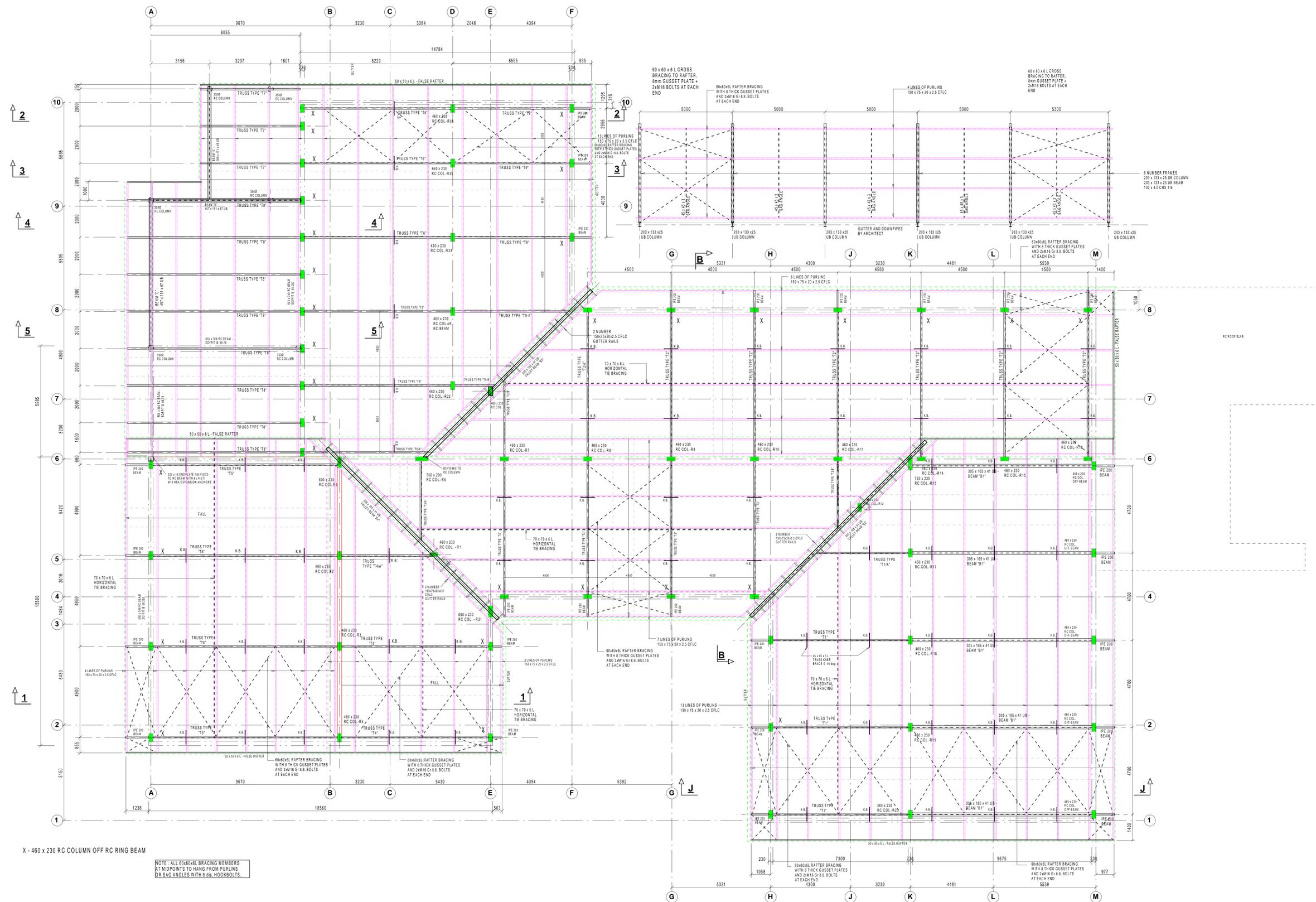
health
 Department: Health
 PROVINCE OF KWAZULU-NATAL

Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELAZANE HOSPITAL

Drawing Description
RC RING BEAM AND RC ROOF SLABS RC LAYOUT, AND SECTIONS

Drawn: S. NAIDU Date: MAY 2021
 Scale: 1:75
 Consultants Drawing Number: **D3806/20-SC002** Revision: **B**
 DOPW Drawing Number: Revision: **B**
WIMS NO/ 070638/SC002
 Stamped by Health Plans Approval Committee





GENERAL NOTES:

1. ALL STRUCTURAL STEELWORK MUST BE DONE ACCORDING TO SABS 1200H - ACCURACY - CLASS B.
2. ALL STRUCTURAL STEEL MUST BE GRADE S355 W ACCORDING TO SABS 1401 - EXCEPT COLD ROLLED LIPPED CHANNELS WHICH CAN BE S300.
3. WELD ELECTRODE CLASSIFICATION - GRADE E70X8, EXCEPT WHERE SPECIFIED OTHERWISE.
4. CONTRACTOR MUST SUBMIT WORKSHOP DETAILS TO THE ENGINEER FOR WRITTEN APPROVAL BEFORE COMMENCEMENT OF FABRICATION OF STRUCTURAL STEELWORK. ENGINEER REQUIRES 10 WORKING DAYS TO CHECK AND RETURN THE WORKSHOP DETAIL DRAWINGS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL THE STRUCTURE IS COMPLETED.
6. ALL STEELWORK DIMENSIONS TO BE CHECKED DURING PREPARATION OF WORKSHOP DRAWINGS. DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY AND APPROVED BY THE ENGINEER.
7. WORKSHOP DRAWINGS MUST BE APPROVED BY ENGINEERS BEFORE MANUFACTURING OF THE STRUCTURAL STEEL ELEMENTS. ANY CHANGES TO ENGINEER DRAWINGS MUST BE INDICATED TO AND APPROVED BY THE ENGINEER.
8. ALL CONNECTIONS MUST BE WELDED ALL ROUND WITH A 6mm FLET WELD EXCEPT WHERE SHOWN OTHERWISE. WELDS SHALL COMPLY WITH THE REQUIREMENTS OF SABS 455.
9. WELDING MUST BE ACCORDING TO SABS STANDARDS AND MUST BE APPROVED BY AN APPROVED AUTHORITY IN CONJUNCTION WITH THE ENGINEER.
10. ALL BOLTS TO BE GRADE 8.8 EXCEPT WHERE SHOWN OTHERWISE.
11. ALL STEELWORK INCLUDING FASTENERS, UNLESS OTHERWISE NOTED, MUST BE HOT DIPPED GALVANISED IN ACCORDANCE WITH SABS ISO 1461. GALVANISERS MUST BE NOTIFIED THAT THE GALVANISED FINISH IS REQUIRED ON ALL ARCHITECTURAL FINISHES AND THAT ALL ZINC LUMPS, ETC MUST BE REMOVED.
- NOTE THAT THE PURLINS ARE TO BE HOT DIPPED GALVANISED, IF PURLINS ARE MADE FROM SPECIAL MATERIAL, THEN THESE ARE TO BE HOT DIPPED GALVANISED AS WELL.
12. ANY SITE WELDING APPROVED BY THE ENGINEER SHALL BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH SABS 044 PART IV.
13. ALL CUT STEELWORK IS TO BE CUT AT 90 DEGREES TO ALL EDGES UNLESS OTHERWISE SHOWN.
14. MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE ARCHITECTURAL DEPARTMENT'S GENERAL PREAMBLE TO ALL TRADES.
15. PAINTING OF THE GALVANISED STEELWORK AS PER SPECIFICATION IN THE BILL OF QUANTITIES.

Revisions	Rev no	Date	Description	Rev by
A	1	2022/02/02	UPDATED TO SUIT ARCHITECTS ISSUE OF 14 JUNE 2021 AND 21 FEB. 2022	S.N
B	1	15/03/22	UPDATED TO SUIT ARCHITECTS ISSUE OF 29 APRIL 2022	S.N
C				
D				

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
 Name: S. Naidu (Pr. Eng 20010315)
 Signature: [Signature]
 Date: 22-05-2022

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 OVERPORT 4007

PROJECT STATUS

DESIGN

public works
 Department: Public Works
 PROVINCE OF KWAZULU-NATAL

health
 Department: Health
 PROVINCE OF KWAZULU-NATAL

Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

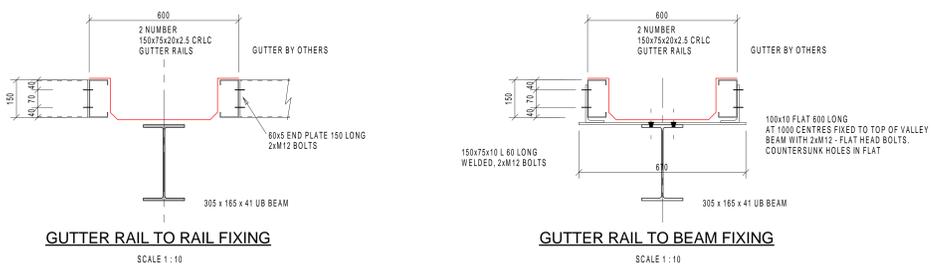
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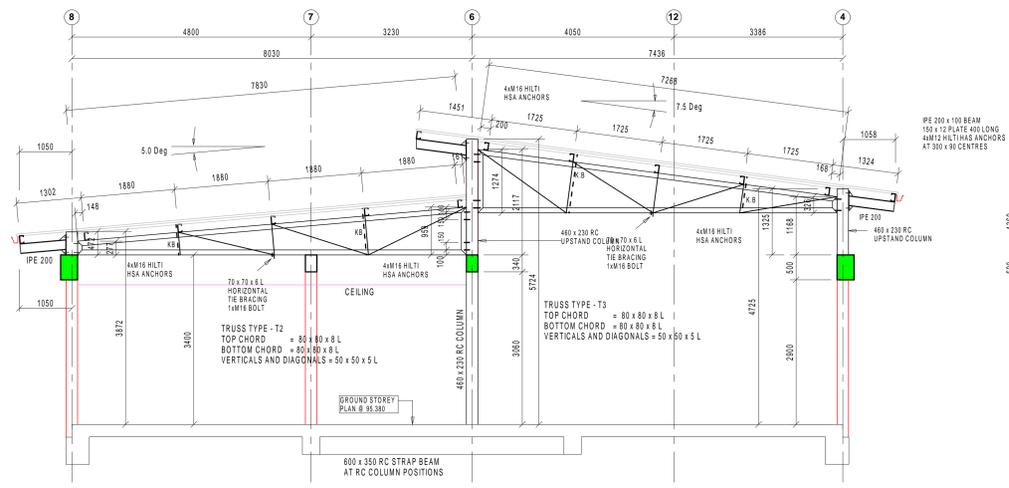
Drawn: S. NAIDU
 Scale: 1:75
 Date: MAY 2021

Consultants Drawing Number: **D3806/20-SS 001**
 Revision: **B**

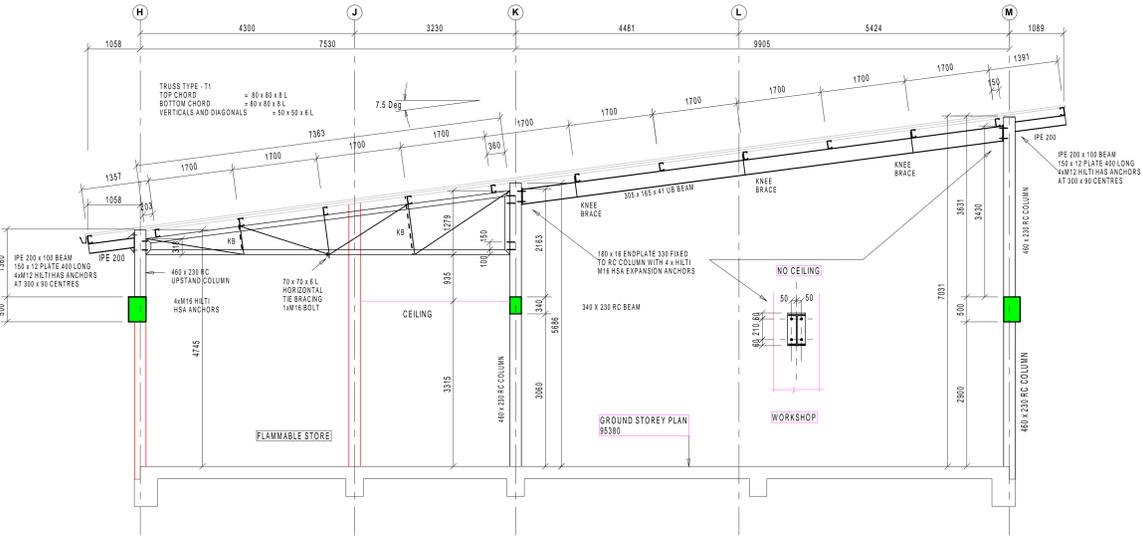
DOPW Drawing Number:
 Revision: **B**

WIMS NO/ 070638/SS001
 Stamped by Health Plans Approval Committee

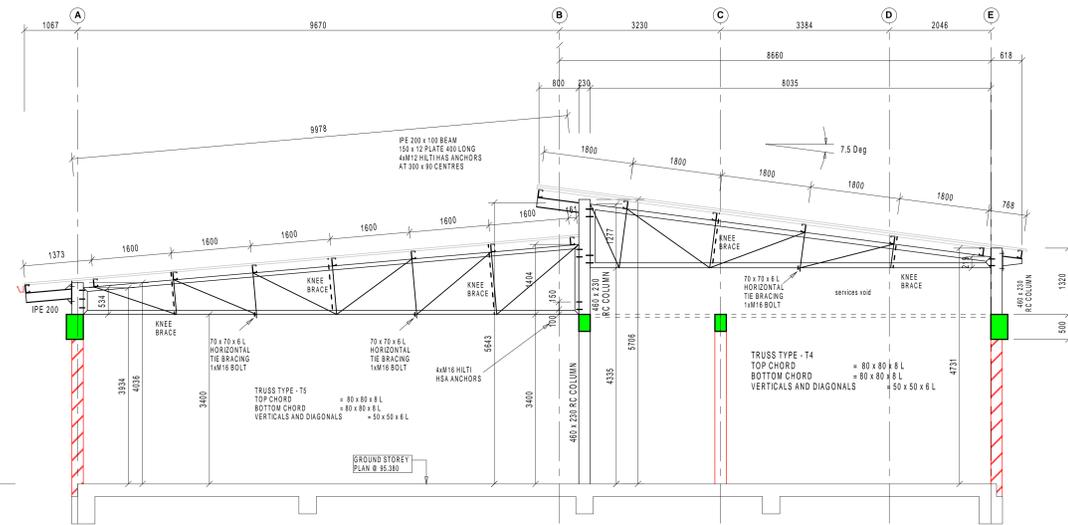




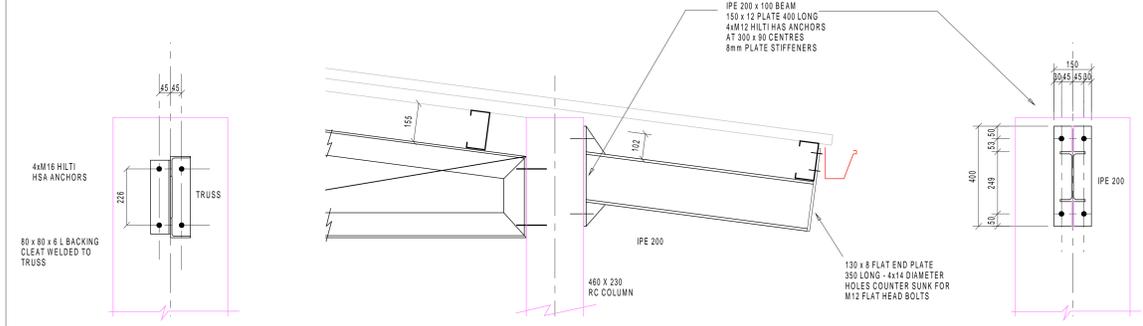
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SCALE 1:50



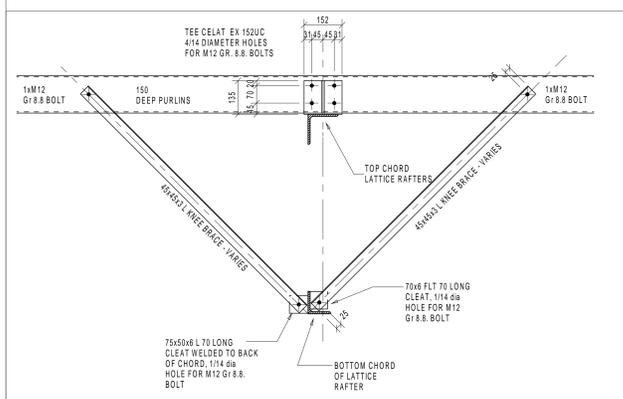
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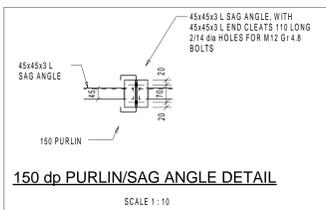
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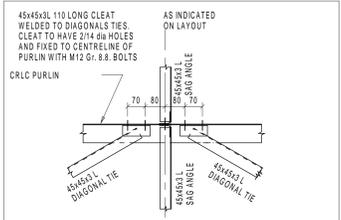
DETAIL "1"
SCALE 1:10



TYPICAL KNEE BRACE TO LATTICE RAFTER DETAIL
SCALE 1:10



150 dp PURLIN/SAG ANGLE DETAIL
SCALE 1:10



PURLIN/SAG ANGLE/DIAGONAL TIE DETAIL
SCALE 1:10

Rev no	Date	Description	Rev by
A	2020/02/02	UPDATED TO SUIT ARCHITECTS ISSUE OF 14 JUNE 2021 AND 21 FEB 2022	S.N
B	15/03/22	UPDATED TO SUIT ARCHITECTS ISSUE OF 29 APRIL 2022	S.N
C			
D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
Name: S. Naidu (Pr. Eng 20010315)
Signature: [Signature] Date: 22-05-2022

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OVERPOST 4007

PROJECT STATUS

DESIGN

public works
Department: Public Works
PROVINCE OF KWAZULU-NATAL

health
Department: Health
PROVINCE OF KWAZULU-NATAL

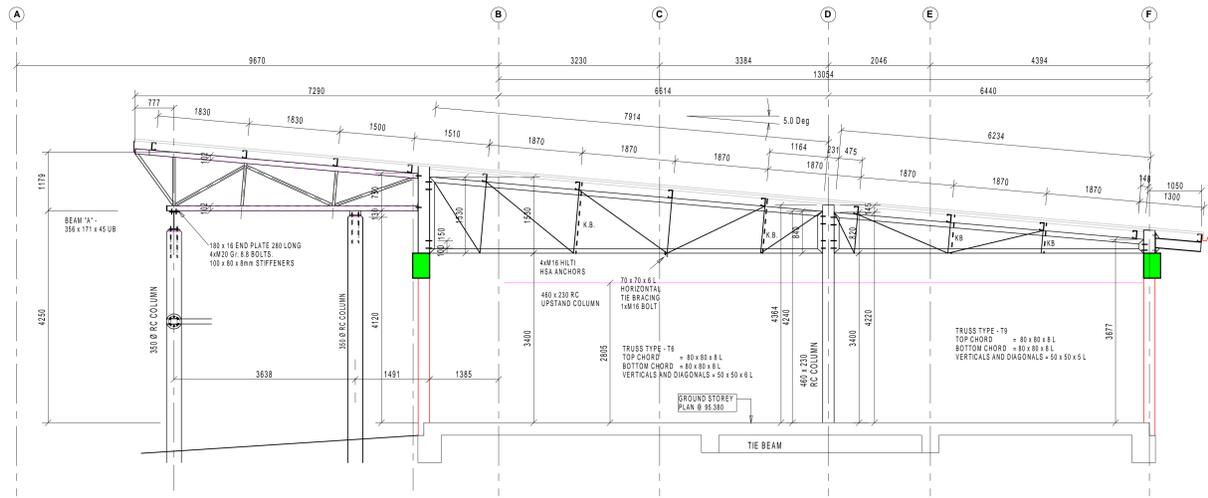
Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description
ROOF SECTIONS
1-1, B-B, J-J

Drawn: S. NAIDU Date: MAY 2021
Scale: 1:50

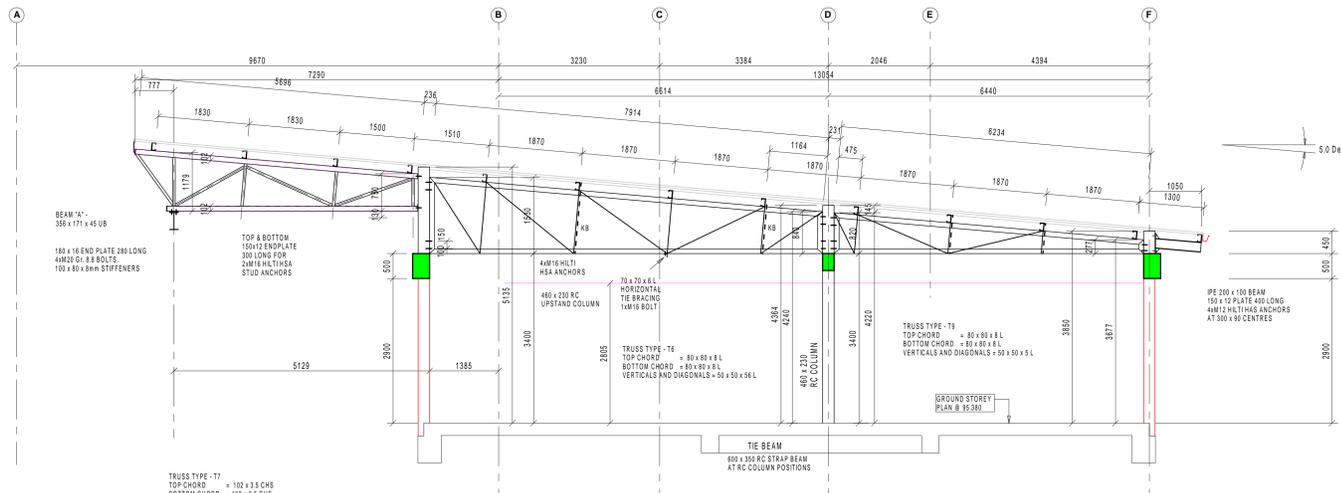
Consultant Drawing Number: D3806/20-SS 002 Revision: B
DOPW Drawing Number: Revision: B
WIMS NO/ 070638/SS002 Revision: B

Stamped by Health Plans Approval Committee



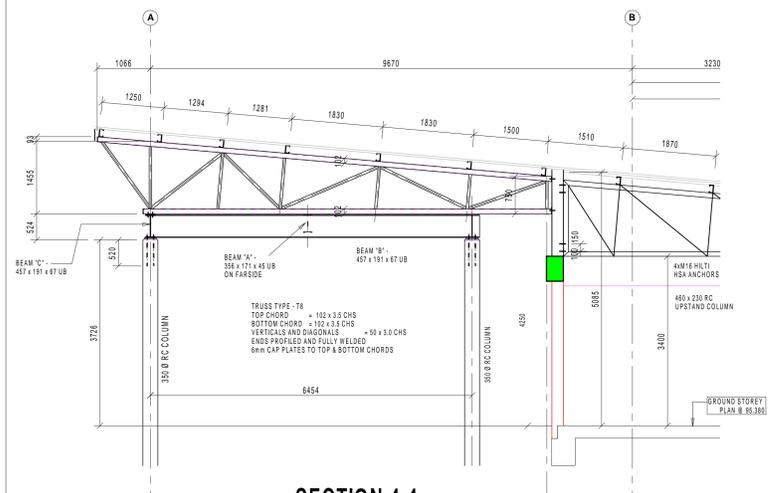
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SCALE 1 : 50



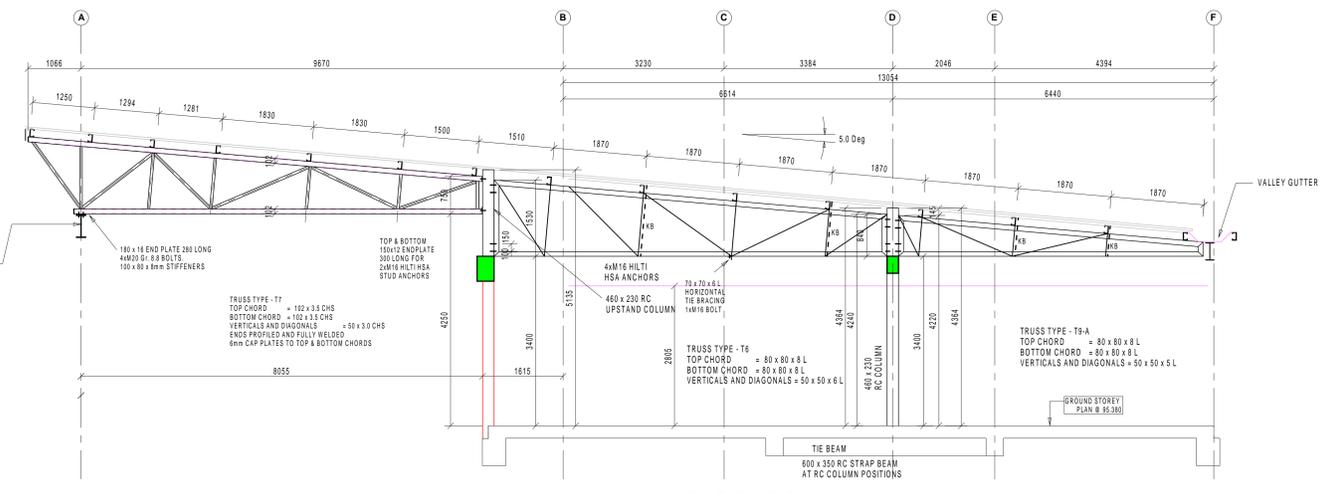
SECTION 3-3

SCALE 1 : 50



SECTION 4-4

SCALE 1 : 50



SECTION 5-5

SCALE 1 : 50

Rev no	Date	Description	Rev by
A	20/02/2022	UPDATED TO SUIT ARCHITECTS ISSUE OF 14 JUNE 2021 AND 21 FEB. 2022	S.N
B	15/03/22	UPDATED TO SUIT ARCHITECTS ISSUE OF 29 APRIL 2022	S.N
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D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
 Name: S. Naidu (Pr. Eng 20010315)
 Signature: [Signature] Date: 22-05-2022

L S C BRUNETTE CONSULTING ENGINEERS
 4 DERBY PLACE DERBY JOHANNESBURG OFFICE PARK WESTVILLE
 PHONE: 2668118 FAX: 2668863 P.O. BOX 33925 OVERPORT 4007

PROJECT STATUS

DESIGN

Department: Public Works
 PROVINCE OF KWAZULU-NATAL

Department: Health
 PROVINCE OF KWAZULU-NATAL

Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description
ROOF SECTIONS
 2-2, 3-3, 4-4, 5-5

Drawn: S. NAIDU Date: MAY 2021

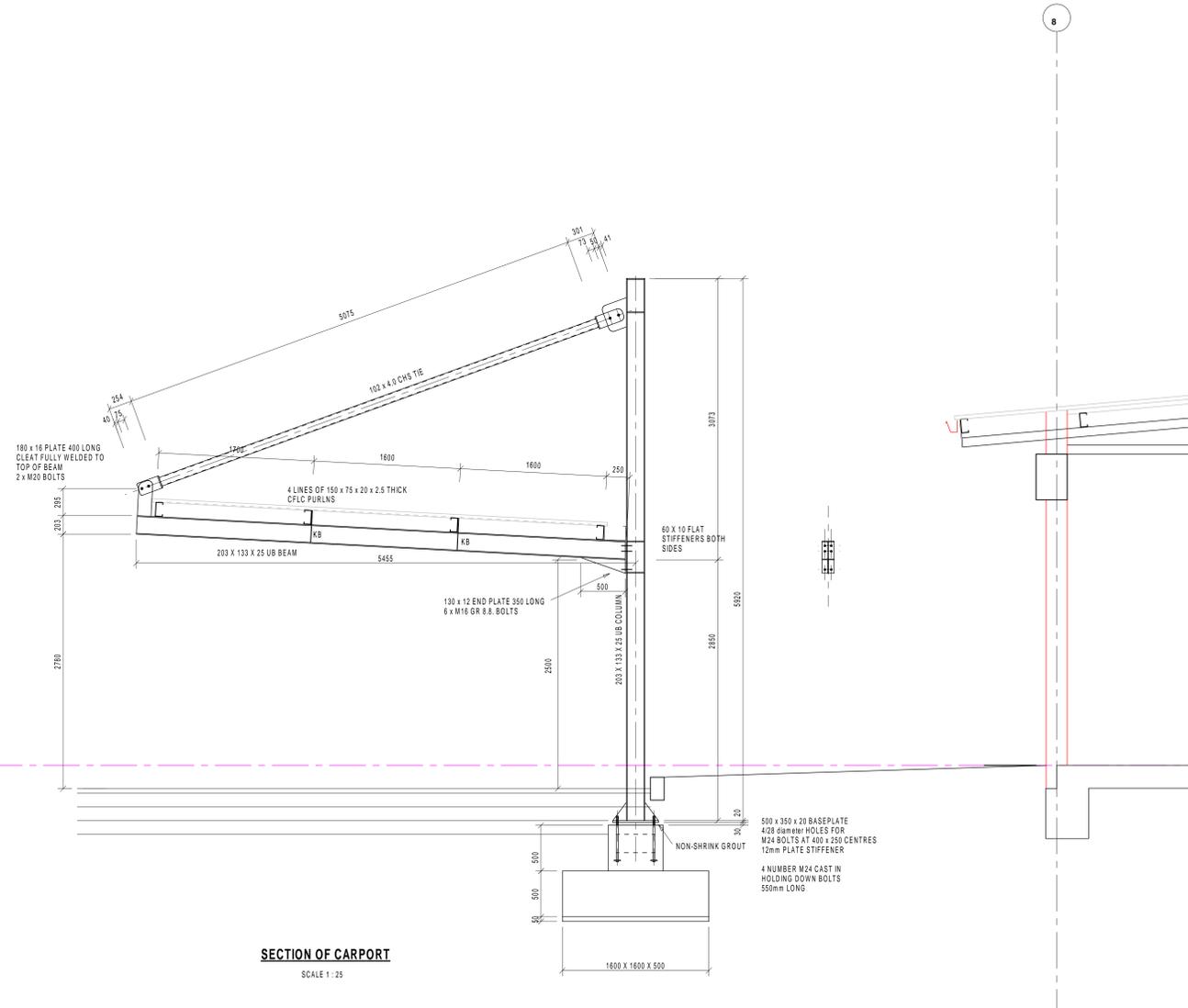
Scale: 1 : 50

Consultants Drawing Number: **D3806/20-SS 003** Revision: **B**

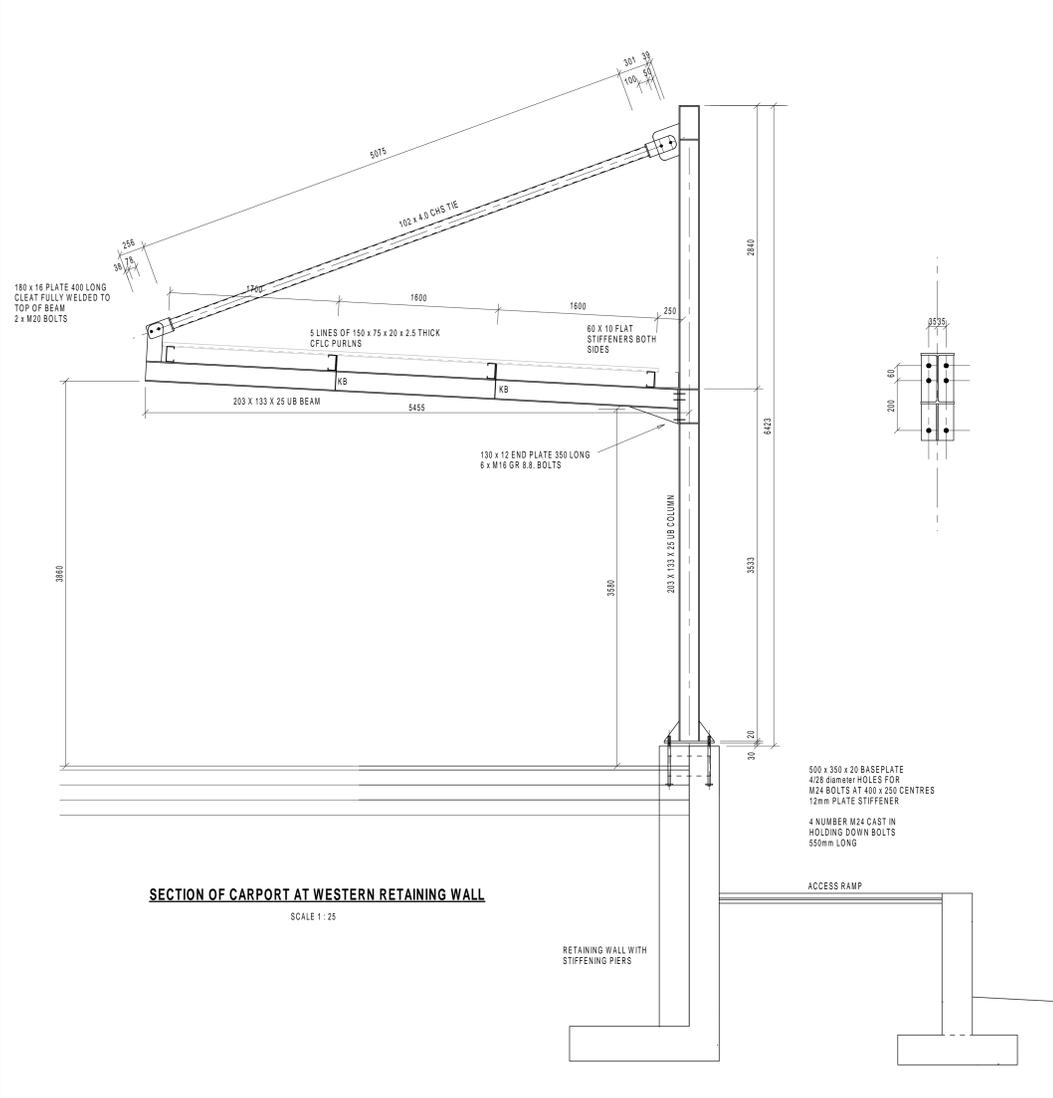
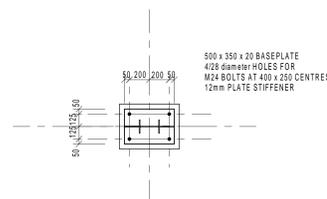
DOPW Drawing Number: Revision: **B**

WIMS NO/ 070638/SS003

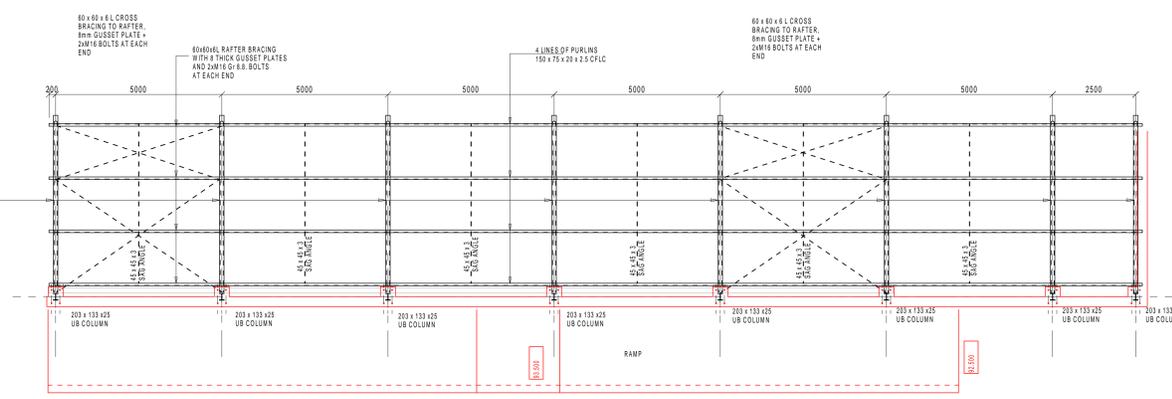
Stamped by Health Plans Approval Committee



SECTION OF CARPORT
SCALE 1:25



SECTION OF CARPORT AT WESTERN RETAINING WALL
SCALE 1:25



GENERAL ARRANGEMENT OF CARPORT AT WESTERN RETAINING WALL
SCALE 1:50

Rev no	Date	Description	Rev by
A	20/02/2022	UPDATED TO SUIT ARCHITECTS ISSUE OF 14 JUNE 2021 AND 21 FEB. 2022	S.N
B	15/03/2022	UPDATED TO SUIT ARCHITECTS ISSUE OF 28 APRIL 2022	S.N
C			
D			

CLIENT DEPARTMENT SIGNATURES

FACILITY STAMP

GENERAL MANAGER

FACILITY MANAGER

INFRASTRUCTURE MANAGER

GENERAL MANAGER

Checked by Professional Consultant
Name: **S. Naidu (Pr. Eng 20010315)**

Signature: _____ Date: _____

L S C BRUNETTE CONSULTING ENGINEERS
4 DERBY PLACE, DERBY DOCKING OFFICE PARK, WESTVILLE. PHONE: 2668118 FAX: 2668063 P.O. BOX 33975 OVERPORT 4007

PROJECT STATUS
DESIGN

public works
Department: Public Works
PROVINCE OF KWAZULU-NATAL

health
Department: Health
PROVINCE OF KWAZULU-NATAL

Project Title
CONSTRUCTION OF NEW ORTHOTICS AND PROSTHETICS CENTRE AT NGWELEZANE HOSPITAL

Drawing Description
CARPORT STRUCTURE

Drawn: **S. NAIDU** Date: **MAY 2022**

Scale: **1:25, 50**

Consultants Drawing Number: **D3806/20-SS05** Revision: **-**

DOPW Drawing Number: **WIMS NO/ 070638/SS005** Revision: **-**

Stamped by Health Plans Approval Committee