

REV	DATE	DRAWN	CHECKED	DESCRIPTION
0	28 AUGUST 2024	C.C	S.N	ISSUED FOR INFORMATION

CONSULTANT:
MAC ENGINEERING CONSULTANTS
 TEL : 011 886 3373
 FAX : 011 886 3949
 16 BOND STREET OFFICE
 PARK CORNER BOND & KENT STREET, FERNDALE e-mail: mzaans@maczambia.co.za



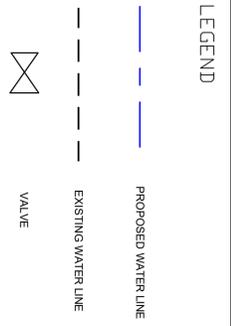
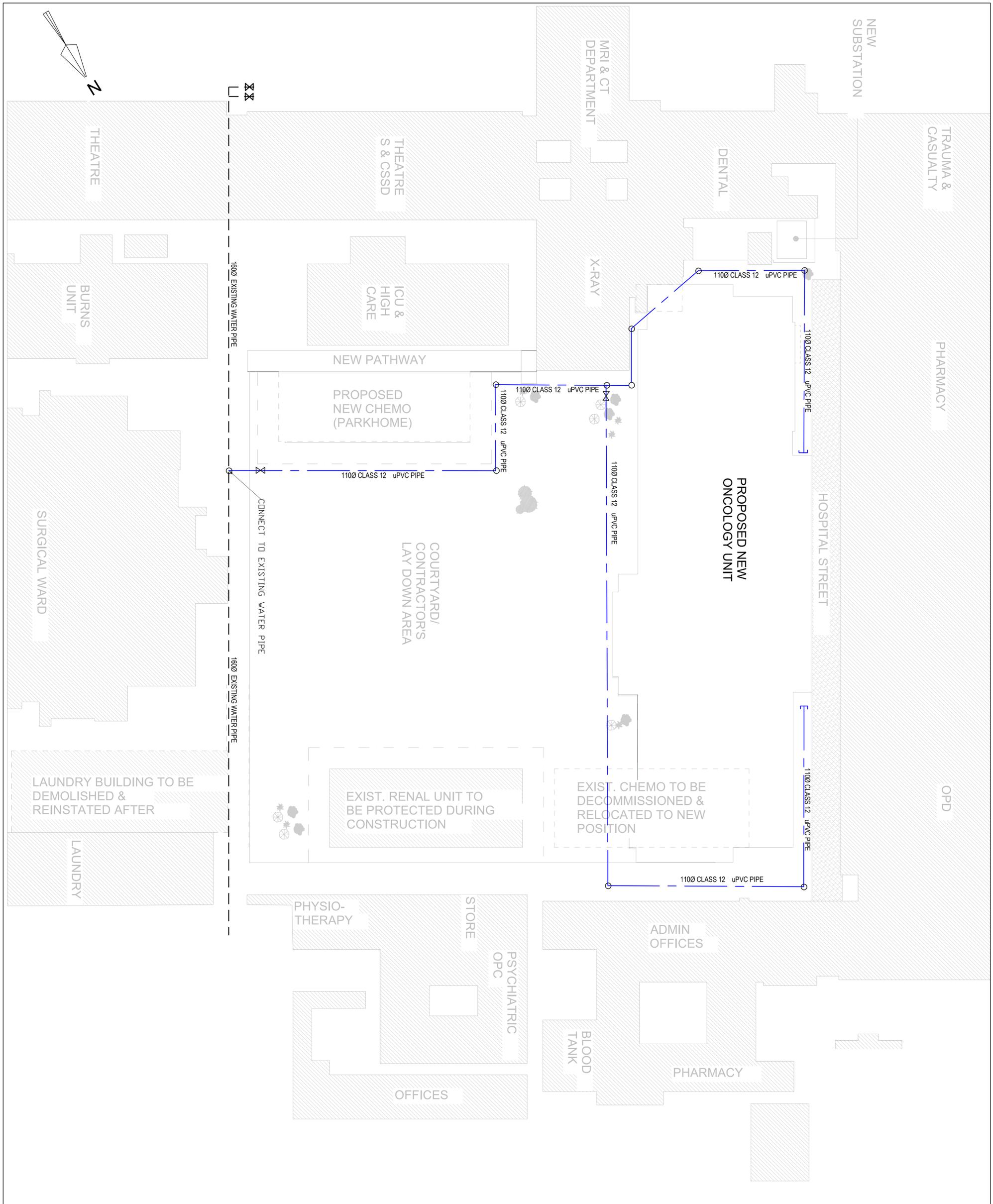
PROJECT NAME:
NGWELEZANA NEW ONCOLOGY UNIT

DRAWING TITLE:
WATER LAYOUT

FOR INFORMATION

DESIGNED	S.N	SIGNATURE	DATE
DRAWN	C.C		28/08/2024
CHECKED	J.B		28/08/2024
APPROVED	S.N		28/08/2024

PROJECT No.	DISPL. DWG. NUMBER	STG SHEET SIZE	REVISION
	CIV	MAC-001	T A1 1



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NGWELEZANA NEW ONCOLOGY UNIT

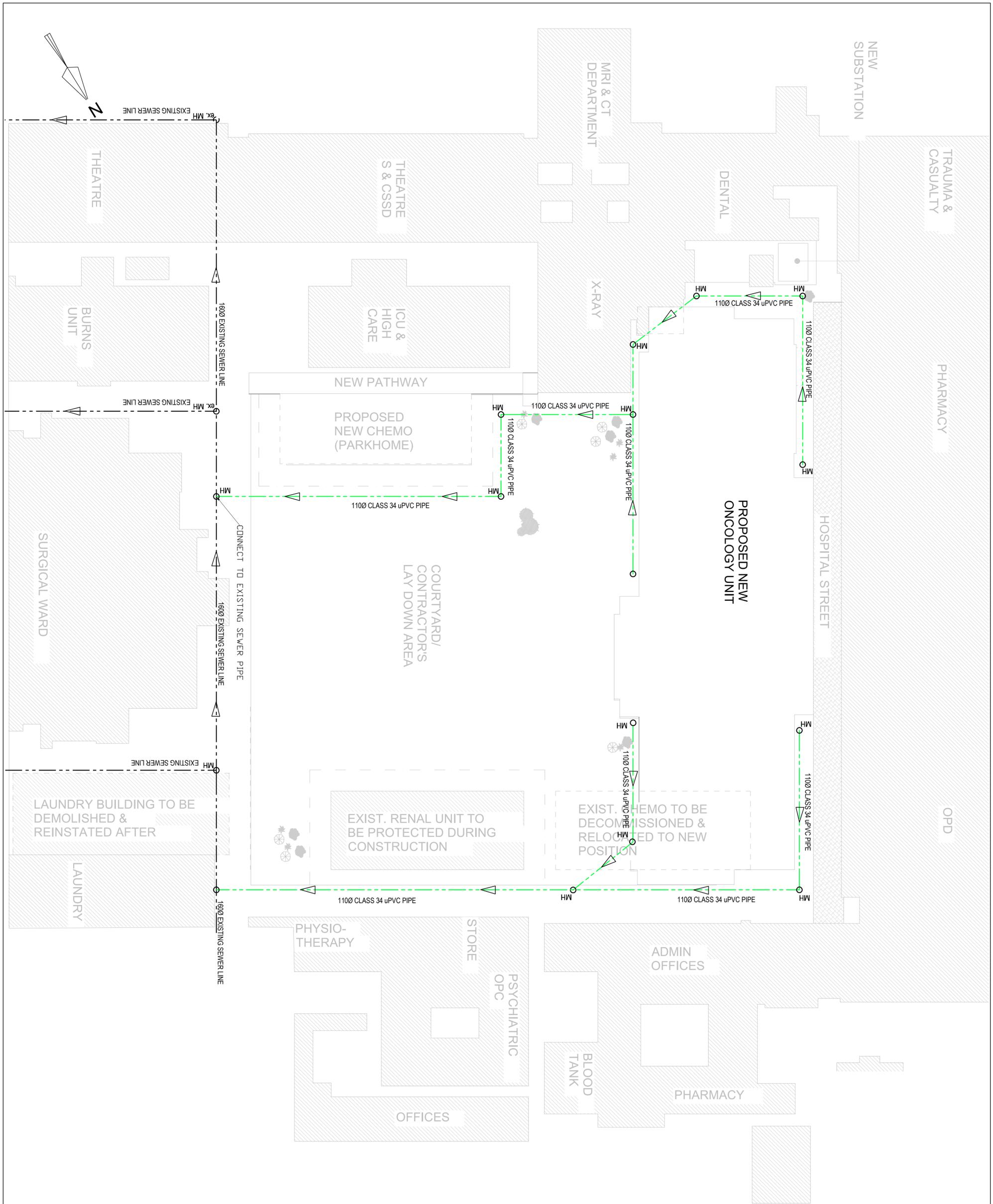
DRAWING TITLE:
WATER LAYOUT

FOR INFORMATION

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PROJECT No.	DRG. NUMBER	STG SHEET SIZE	REVISION

CLIENT DRAWING No.	CLIENT NAME AND LOCATION No.



LEGEND

	EXISTING SEWER LINE
	PROPOSED SEWER LINE

REV	DATE	DRAWN	CHECKED	DESCRIPTION

CLIENT: _____



PROJECT NAME:
NGWELEZANA NEW ONCOLOGY UNIT

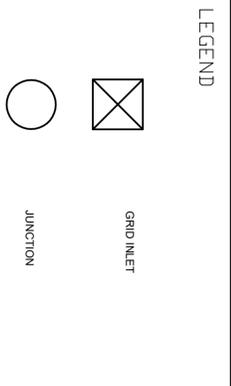
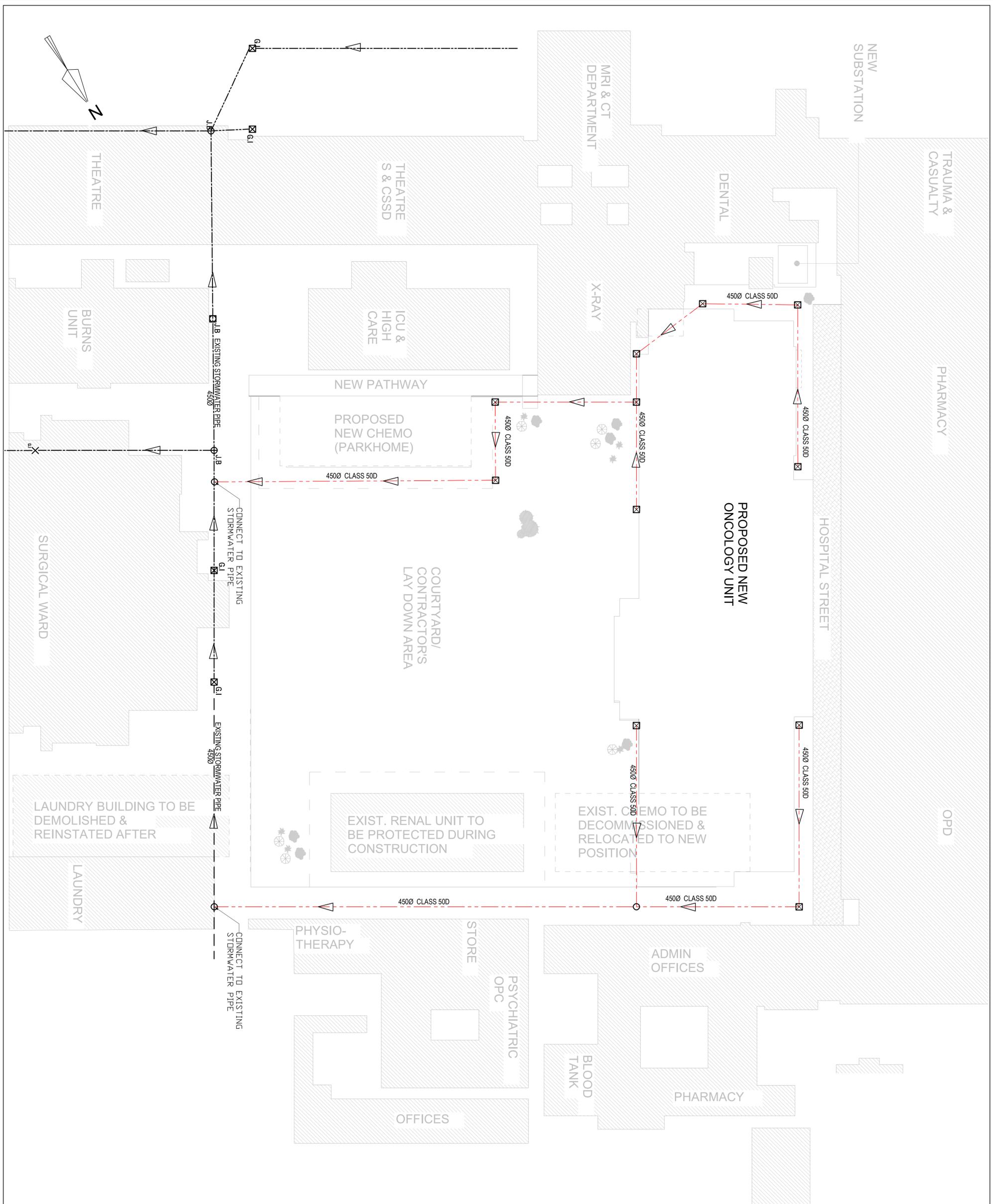
DRAWING TITLE:
SEWER LAYOUT

FOR INFORMATION

DESIGNED	DRAWN	CHECKED	APPROVED	SCALE

PROJECT No.	DRG. NUMBER	STG SHEET SIZE	REVISION

CLIENT DRAWING No. _____



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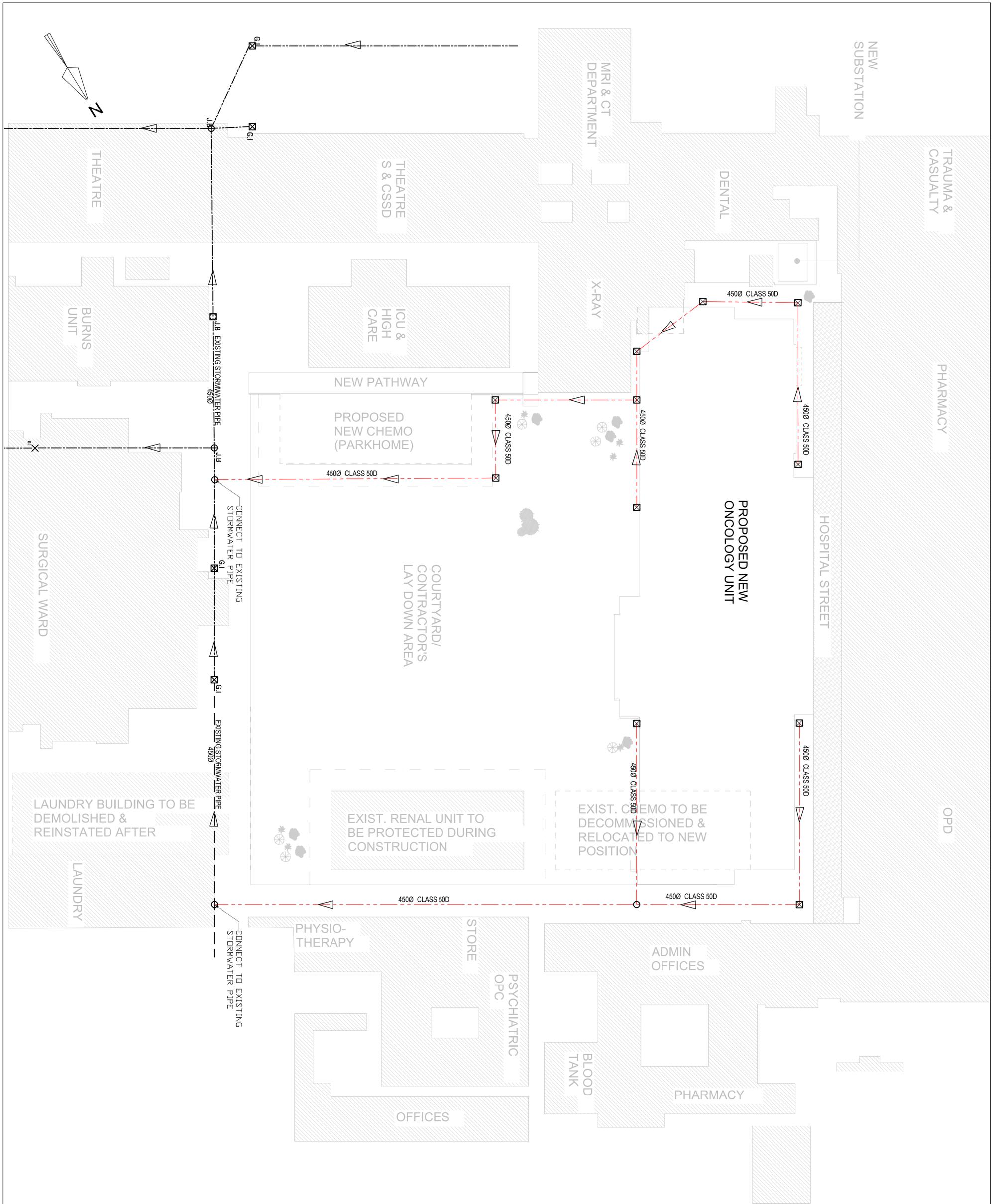


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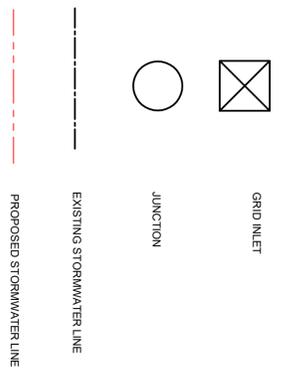
DRAWING TITLE:
STORMWATER LAYOUT

FOR INFORMATION

DESIGNED S.N	SIGNATURE	DATE	
C.C		28/08/2024	
J.B		28/08/2024	
APPROVED S.N			
28/08/2024			
SCALE AS SHOWN			
PROJECT No.	DISPL. Dwg NUMBER	STGSHEET SIZE	REVISION
	CIV MAC-003 T	A1	1
CLIENT DRAWING No.	FILE NAME AND LOCATION No.		



LEGEND



REV	DATE	DRAWN	CHECKED	DESCRIPTION



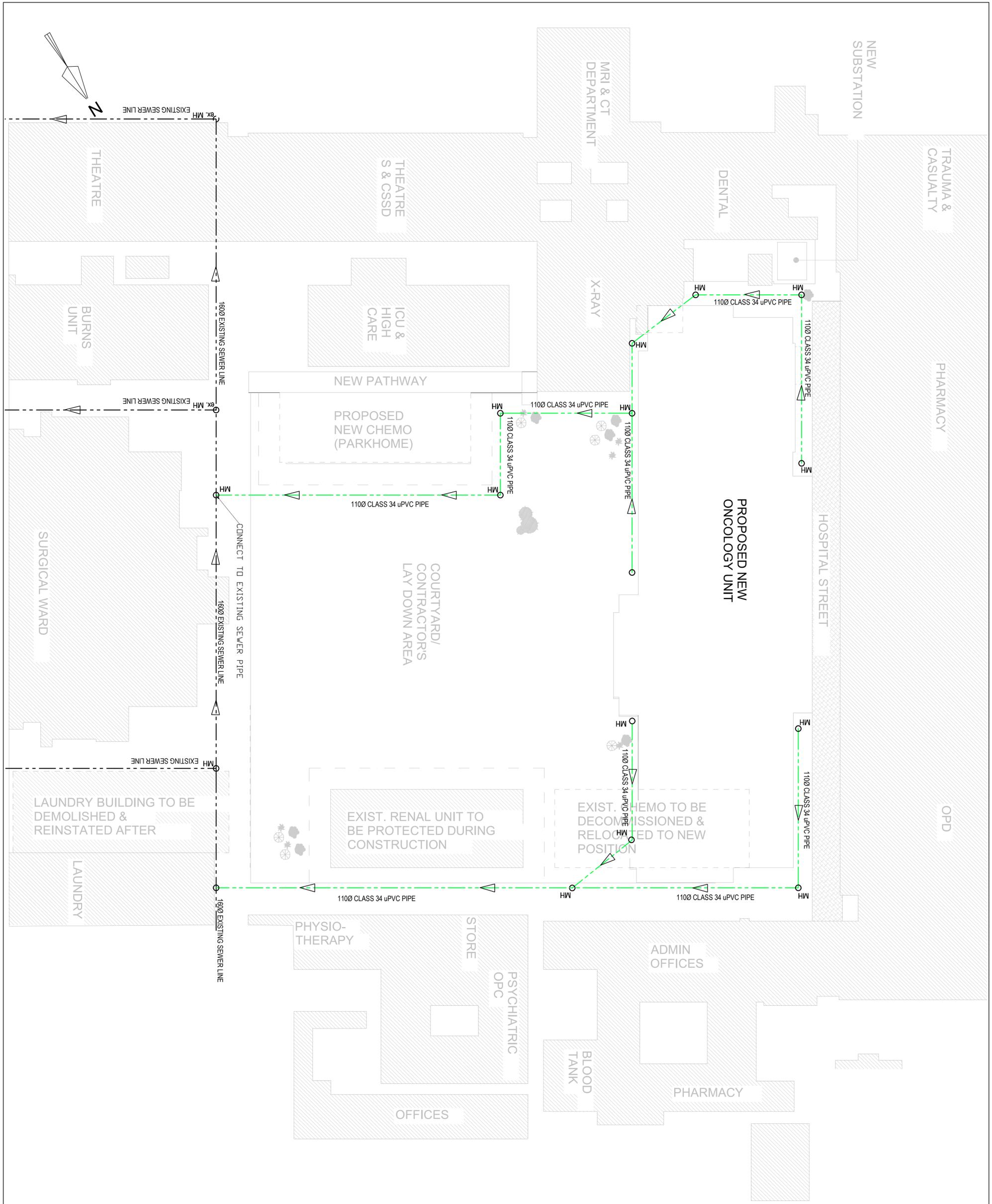
PROJECT NAME:
NGWELEZANA NEW ONCOLOGY UNIT

DRAWING TITLE:
STORMWATER LAYOUT

FOR INFORMATION

DESIGNED	SIGNATURE	DATE
DRAWN		
CHECKED		
APPROVED		

SCALE	AS SHOWN
PROJECT No.	DBPL DRG. NUMBER STD SHEET SIZE REVISION
CLIENT DRAWING No.	CIV MMC - 003 T A1 1
FILE NAME AND LOCATION No.	



LEGEND

	EXISTING SEWER LINE
	PROPOSED SEWER LINE

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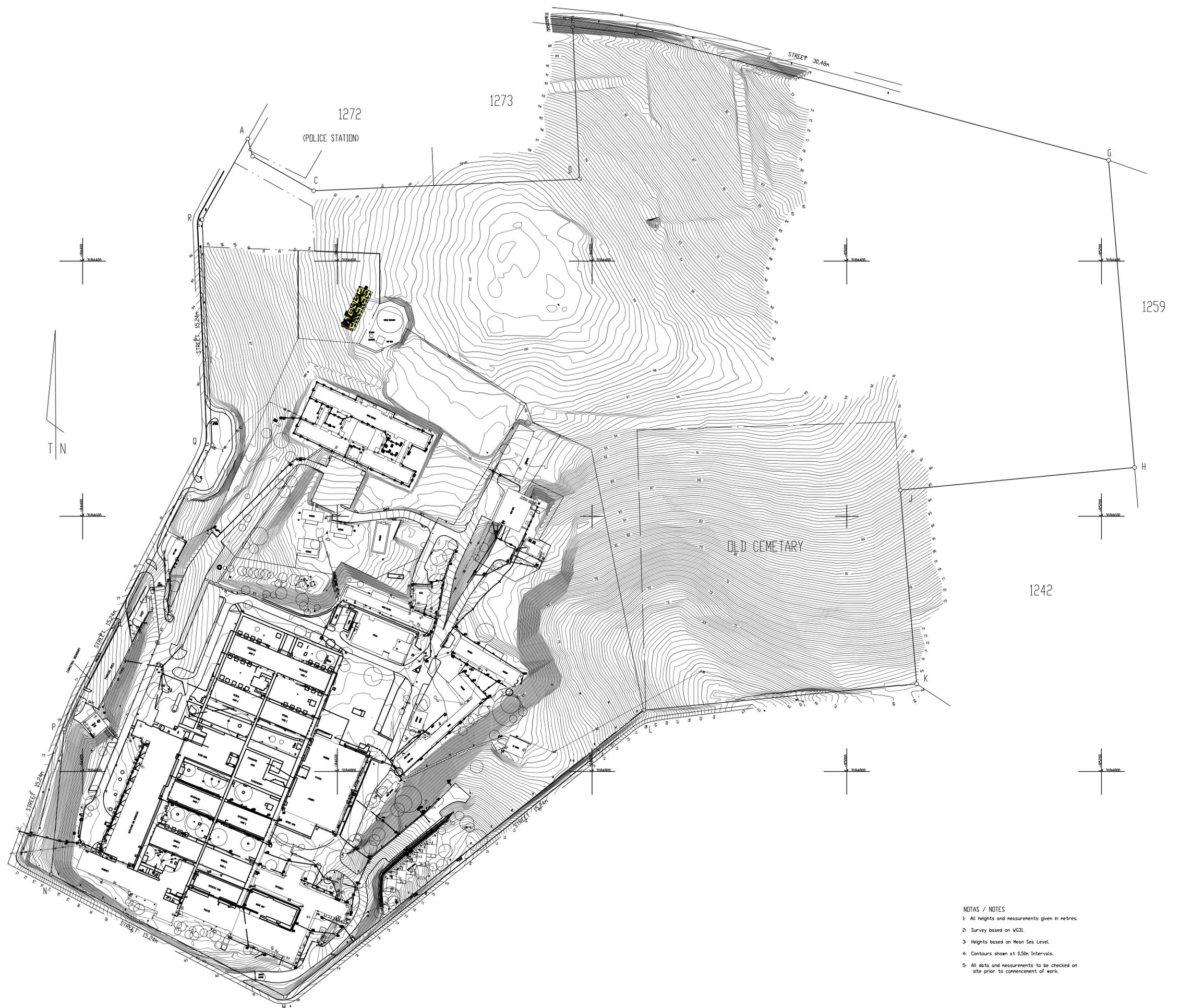
PROJECT NAME:
 NGWELEZANA NEW ONCOLOGY UNIT

DRAWING TITLE:
 SEWER LAYOUT

FOR INFORMATION

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DESIGNED	S.N		28/08/2024
DRAWN	C.C		28/08/2024
CHECKED	J.B		28/08/2024
APPROVED	S.N		28/08/2024

PROJECT NO.	DSP/1	DWG NUMBER	STG/SHEET SIZE	REVISION
	CIV	MAC-002	T A1	1



SIDES (metres)	DIRECTIONS	CONSTANTS	CO-ORDINATES (metres)		MSL
			Y SYSTEM Lo.31	X	
AB	14,14 344 27 20	A - 84 539,71	+ 84 304,16		
BC	35,00 299 27 20	B - 84 538,58	+ 84 317,78		
CD	28,87 267 34 00	C - 84 581,29	+ 84 344,83		
DE	19,49 177 30 00	D - 84 798,47	+ 84 335,71		
EF	50,37 276 14 10	E - 84 784,85	+ 84 216,34		
FG	383,82 284 58 30	F - 84 834,83	+ 84 221,75		
GH	241,67 355 09 50	G - 85 205,62	+ 84 320,93		
HJ	184,78 84 25 40	H - 85 225,99	+ 84 561,74		
JK	152,40 355 25 50	J - 85 042,05	+ 84 579,45		
KL	215,17 84 30 00	K - 85 054,80	+ 84 731,31		
LM	360,11 51 27 00	L - 84 840,72	+ 84 751,92		
MN	207,28 117 30 00	M - 84 559,88	+ 84 976,34		
NP	142,26 185 10 00	N - 84 375,23	+ 84 880,63		
PQ	251,31 207 30 00	P - 84 385,82	+ 84 766,83		
QR	176,63 177 29 30	Q - 84 501,86	+ 84 543,92		
RA	172,77 209 27 20	R - 84 493,83	+ 84 367,46		

BENCH MARK DATA			
BM1	- 84 935,50	+ 84 752,62	63,20
BM2	- 84 842,93	+ 84 764,76	69,98
BM3	- 84 783,14	+ 84 803,81	75,50
BM4	- 84 563,33	+ 84 884,20	80,313
BM5	- 84 426,06	+ 84 899,82	85,54
BM6	- 84 407,42	+ 84 783,92	85,69
BM7	- 84 482,44	+ 84 745,94	87,26
BM8	- 84 498,54	+ 84 715,65	85,91
BM9	- 84 517,26	+ 84 659,63	88,54
BM10	- 84 616,29	+ 84 597,40	94,71
BM11	- 84 717,94	+ 84 558,28	97,52
BM12	- 84 577,07	+ 84 487,21	91,46
BM13	- 84 556,47	+ 84 564,83	89,65
BM14	- 84 773,81	+ 84 434,46	101,45
BM15	- 84 454,63	+ 84 708,86	85,68
BM16	- 84 397,92	+ 84 854,11	85,82

All bench marks are coach screws and washers in kerb
 BMS BM6 BM11 BM12 BM14 - - 12mm Iron peg in concrete

Extent = 36,9273 hectare

A / GPS = S : F

BEACON DESCRIPTION

A B C D E - - - - - 16mm Iron Peg
 F G H J K L M N P Q R - - - - - Iron Pipe

REVISION	DESCRIPTION / BESKRYWING	DEUR	DATE DATUM
HERSIEN			

SURVEYED	J. C. L. VISSER & C. HORWOOD	OPGEMEET
DRAWN	J.C.L. VISSER & C. HORWOOD	GETEKEN
CHECKED	J.C.L. VISSER	NAGESEEN

PREPARED BY: VOORBEREID DEUR

INNES VISSER & DU PREEZ
 LAND SURVEYORS / LANDMETERS
 P.O.BOX 369
 EMPANGENI, 3880
 E-MAIL: jcvissers@intekon.co.za
 TEL: (035) 772-4232 FAX: (035) 772-7277

CLIENT: KLIeNT

WORKS
 NORTH COAST REGION
 EMPANGENI
 KWAZULU-NATAL

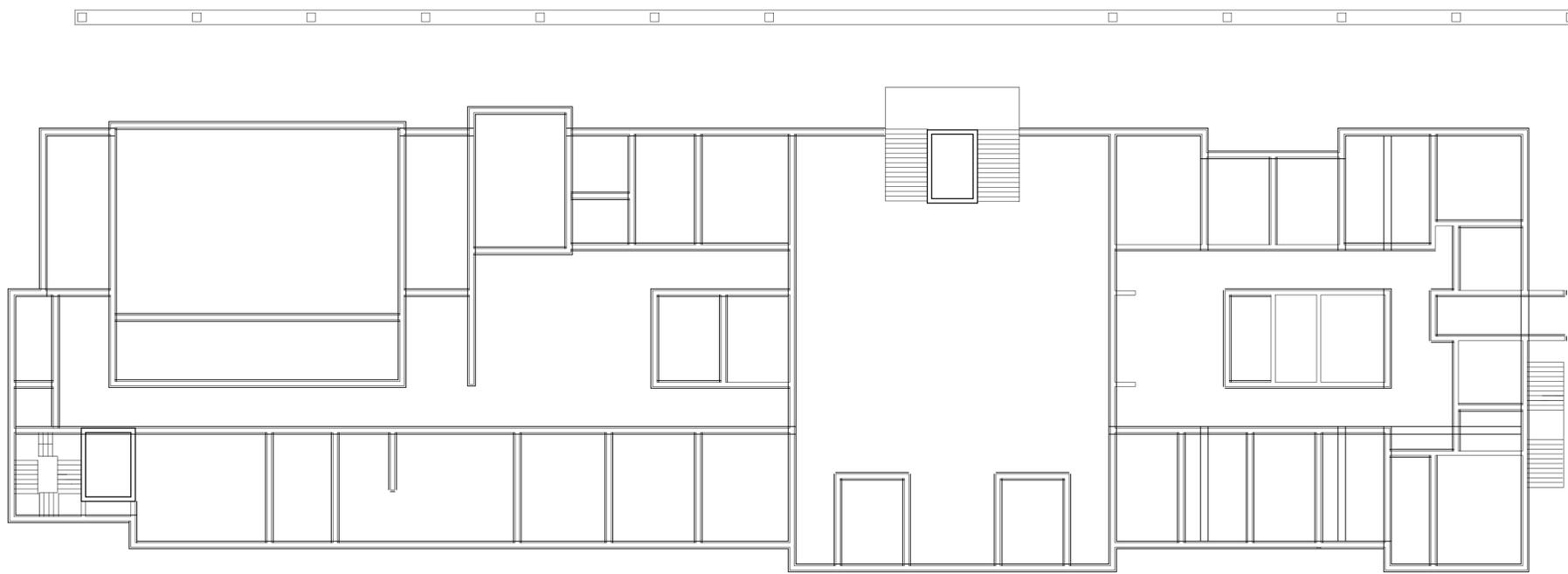
PROJECT: PROJek

NGWELEZANE HOSPITAL
 CONTOUR SURVEY
 OF
 THE REMAINDER OF ERF 1241 NGWELEZANA - A
 EMPANGENI
 SITUATE IN THE UMHLATUZI MUNICIPALITY

SCALE	1/1 000	SKAAL
SURVEY SYSTEM	Lo. 31	OPMEET STELSEL
ELEVATION	M.S.L.	HOOGTE
CONTOUR INTERVAL	0,25m	KONTOER INTERVAL
DATE	2/09/2005	DATUM
FILE REFERENCE:	2353	
PLAN No:	2353Lo	

- NOTAS / NOTES
- 1: All heights and measurements given in metres.
 - 2: Survey based on WGS84.
 - 3: Heights based on Mean Sea Level.
 - 4: Contours shown at 0,50m Intervals.
 - 5: All data and measurements to be checked on site prior to commencement of work.

LEGEND



PILING LAYOUT
SCALE 1: 100

REV	DATE	DRAWN	CHECKED	DESCRIPTION
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 mzansi@mzansiAfrica.co.za

CLIENT:

PROJECT NAME:
**NGWELEZANA NEW
 ONCOLOGY UNIT**

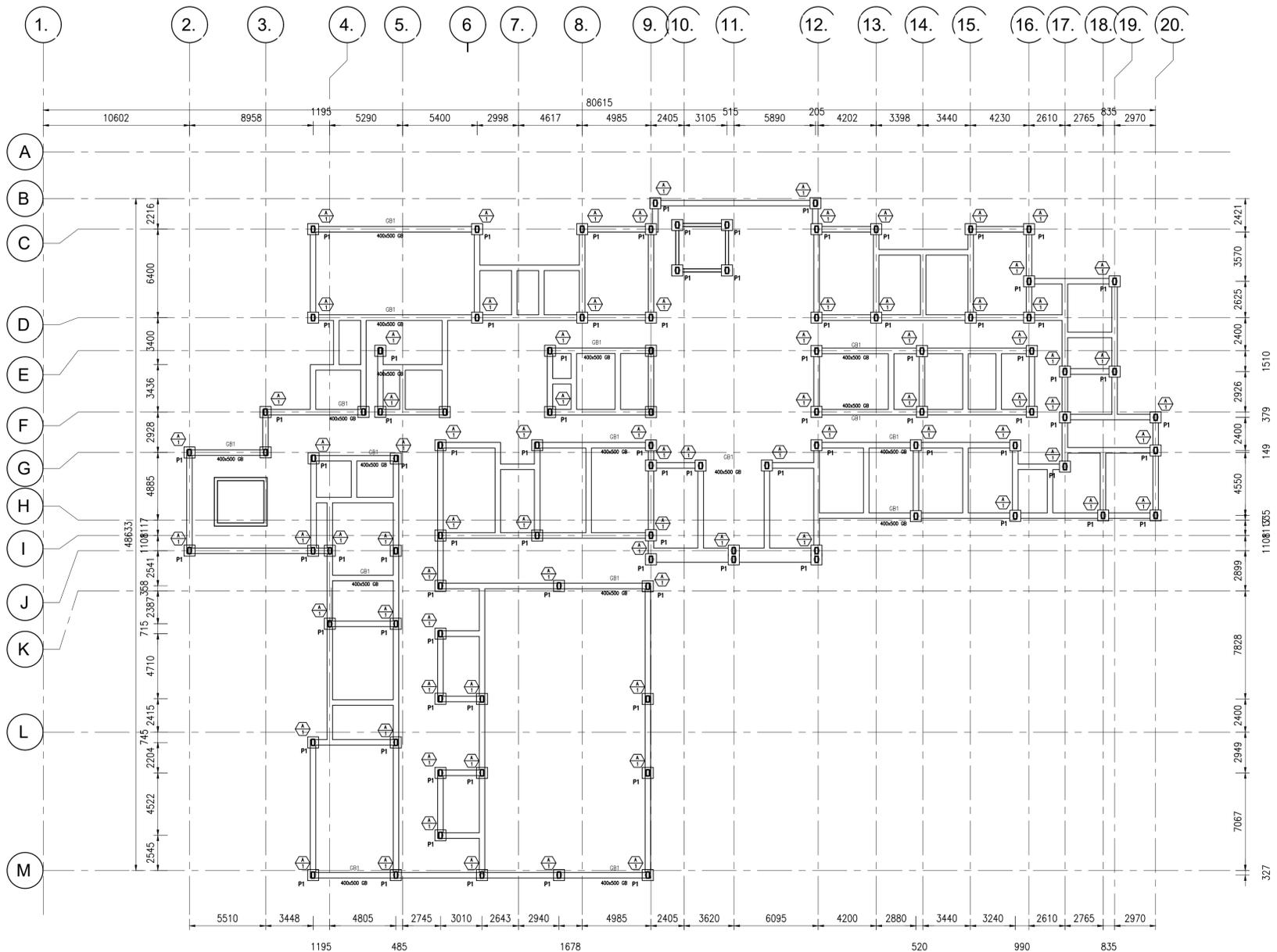
DRAWING TITLE:
WATER LAYOUT

FOR INFORMATION

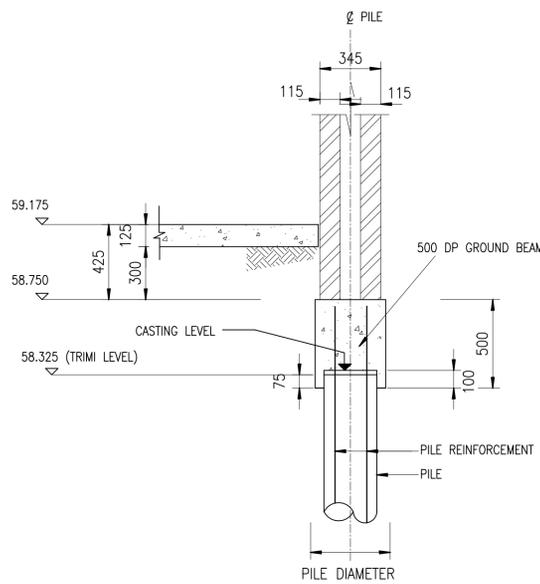
	SIGNATURE	DATE
DESIGNED	S. N	28/08/2024
DRAWN	C.C	28/08/2024
CHECKED	J. B	28/08/2024
APPROVED	S. N	28/08/2024
SCALE	AS SHOWN	

PROJECT No.	DSPL	DRG. NUMBER	STG SHEET SIZE	REVISION
	CIV	MAC - 001	T A1	1

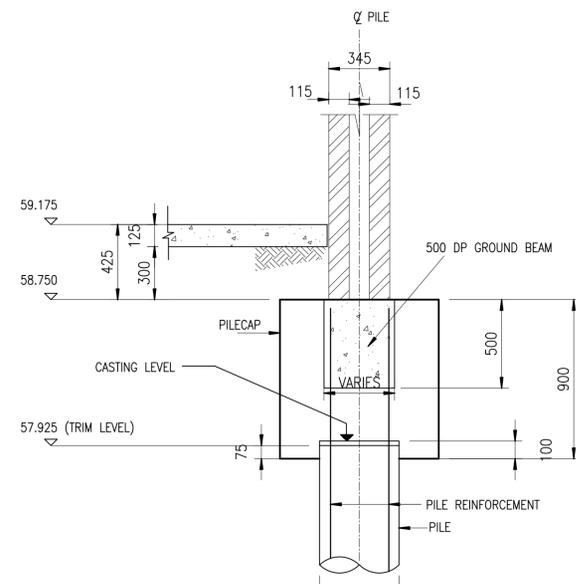
CLIENT DRAWING No. FILE NAME AND LOCATION No.



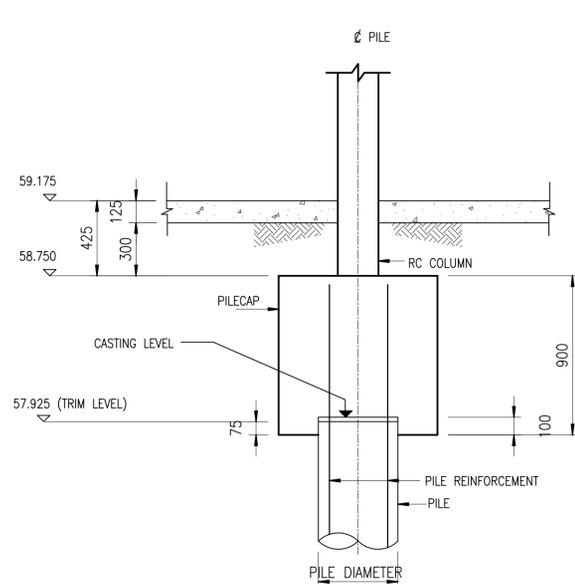
FOUNDATION LAYOUT
SCALE 1: 100



TYPICAL SECTION THROUGH PILE WITHOUT PILE CAPS
(TYPICAL FOR PILES 82A TO 82E AND 83A TO 83E)
SCALE 1:20



TYPICAL SECTION THROUGH GND BEAMS AND BWK
SCALE 1:20



TYPICAL SECTION THROUGH PILE WITH PILE CAPS
SCALE 1:20

BASE/PILE SCHEDULE			
BASE/PILE CAP TYPE	BASE/PILE CAP SIZE	PILE DIAMETER	PILE LOADS (KN)
1	800 x 800 x 900 DP		

KEY:--
 = COLUMN TYPE
 = BASE/PILE CAP TYPE.

SEE NOTES FOR CHAMFERS

COLUMN SCHEDULE		
TYPE	COLUMN SIZE	No. OFF
A	230 X 650	32

KEY:--
 = COLUMN TYPE
 = BASE/PILE CAP TYPE.

SEE NOTES FOR CHAMFERS

DISCLAIMER:
Should these drawings and project specifications be used for or relied upon for any other purpose other than what they are intended for on this specific site without MAC ENGINEERING CONSULTANTS' prior knowledge and written consent, then the user shall indemnify the copyright holder against all liabilities, claims, damages, losses, fines and/or penalties (either in contract or delict) instituted by the user or any other party as a result of their re-use or reliance on these drawings and project specifications.

- CONCRETE NOTES:**
- Dimensions must not be scaled or assumed. After notification, discrepancies or missing dimensions will be corrected in writing by the engineer.
 - Except where otherwise stated, the concrete work shall comply with SABS 1200 G (Structural use of concrete) latest revision.
 - Re-vibrate to 300mm of columns approximately one after casting (or before initial setting takes place).
 - All finishes to comply with concrete specifications. For concrete finishing details, refer to finishing schedule.
 - Chamfers are required as follows:
 - 5.1. Corners of all columns and walls - 25x25
 - 5.2. Corners of all downstand beams - 25x25
 - 5.3. Corners of all upstand beams - 25x25
- Concrete strengths Class(MPa)/Slab(mm)
- Columns 40 / 19
 - Slabs/Beams/Parapets 25 / 19
 - Surface beds 30 / 19
 - Walls 25 / 19
 - Stairs 30 / 19
 - Foundations 25 / 19
 - Stub columns 25 / 19
 - Slabbing 10 / 19
 - Load bearing brickwork mortar 7MPa
7. All columns are dimensioned to center lines unless noted otherwise.
8. All columns are to be positioned symmetrically about gridlines.

- REINFORCEMENT NOTES:**
- Cover to reinforcement shall be as follows:
 - 9.1. To slabs 25mm
 - 9.2. To columns 30mm
 - 9.3. To foundations 50mm
 - Minimum lap of all reinforcement to be 50mm x bar diameter
 - Minimum lap of mesh reinforcement to be 300mm
 - All steel fixing to be inspected and approved by engineer prior to concrete casting
13. Abbreviations
- | | |
|-----------|--------------------------|
| Alternate | |
| 13.1. ALT | Alternate |
| 13.2. STG | Staggered |
| 13.3. ABR | Alternate bar reversed |
| 13.4. EF | Each face |
| 13.5. N1 | Near face - Outer layer |
| 13.6. N2 | Near face - Second layer |
| 13.7. F1 | Far face - Outer layer |
| 13.8. F2 | Far face - Second layer |
| 13.9. OW | Each way - Second layer |
| 13.10. T1 | Top - Outer layer |
| 13.11. T2 | Top - Second layer |
| 13.12. B1 | Bottom - Outer layer |
| 13.13. B2 | Bottom - Second layer |

- STRUCTURAL STEEL NOTES:**
- Workshop drawings must be submitted to the engineer for approval before fabrication commences
15. **ALL STEELWORK**
- Must be in accordance with SABS 1200H
 - Be SABS 1413 Grade 300W except for cold rolled sections where commercial grade is verified shall be submitted to the engineer
 - Be thoroughly clipped and scraped of all loose mill scale and wire brushed to remove all grease, dirt, rust and other deleterious materials
 - Must be checked and approved by the engineer before leaving the workshop.
 - Must have steel plates 8mm thick unless stated otherwise.
 - Must have grout under the base plates with minimum permissible bearing pressure of 10MPa
16. **ALL PAINT**
- Will be one coat of zinc chromate (Plascon VC53 or similar).
 - Will be allowed to dry overnight and apply one coat of universal undercoat (Plascon CV1 or similar) prior to delivery.
 - All damaged paintwork to be made good on site after erection
 - Be done in accordance with SABS 0120-3-1980.
17. **ALL WELDING** to be
- Restricted to the factory except where otherwise noted.
 - Done strictly according to SABS 0167-1984 and SABS 044.
 - Minimum 6mm C.F.W. or Butt weld to the full length of the materials joined.
 - By electrode of:
 - (i) E70 XX (E 480 XX) for butt welds
 - (ii) E80 XX (E 550 XX) for fillet welds
18. **ALL BOLTS** must:
- Be 16mm diameter black bearing bolts grade 4.6 unless otherwise specified.
 - Comply with SABS 136-1972.
 - Have holes drilled 2mm larger than the bolt diameter



REV	DATE	DRAWN	CHECKED	DESCRIPTION
A	11 June 2024	M.K	J.B	ISSUED FOR INFORMATION

CONSULTANT:

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 Fax : 011 886 3949
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 PARK CORNER BOND & KENT
 STREET, FERNDALE e-mail:
 mzansi@mzansiafrica.co.za

CLIENT:
 NGWELEZANA ONCOLOGY UNIT

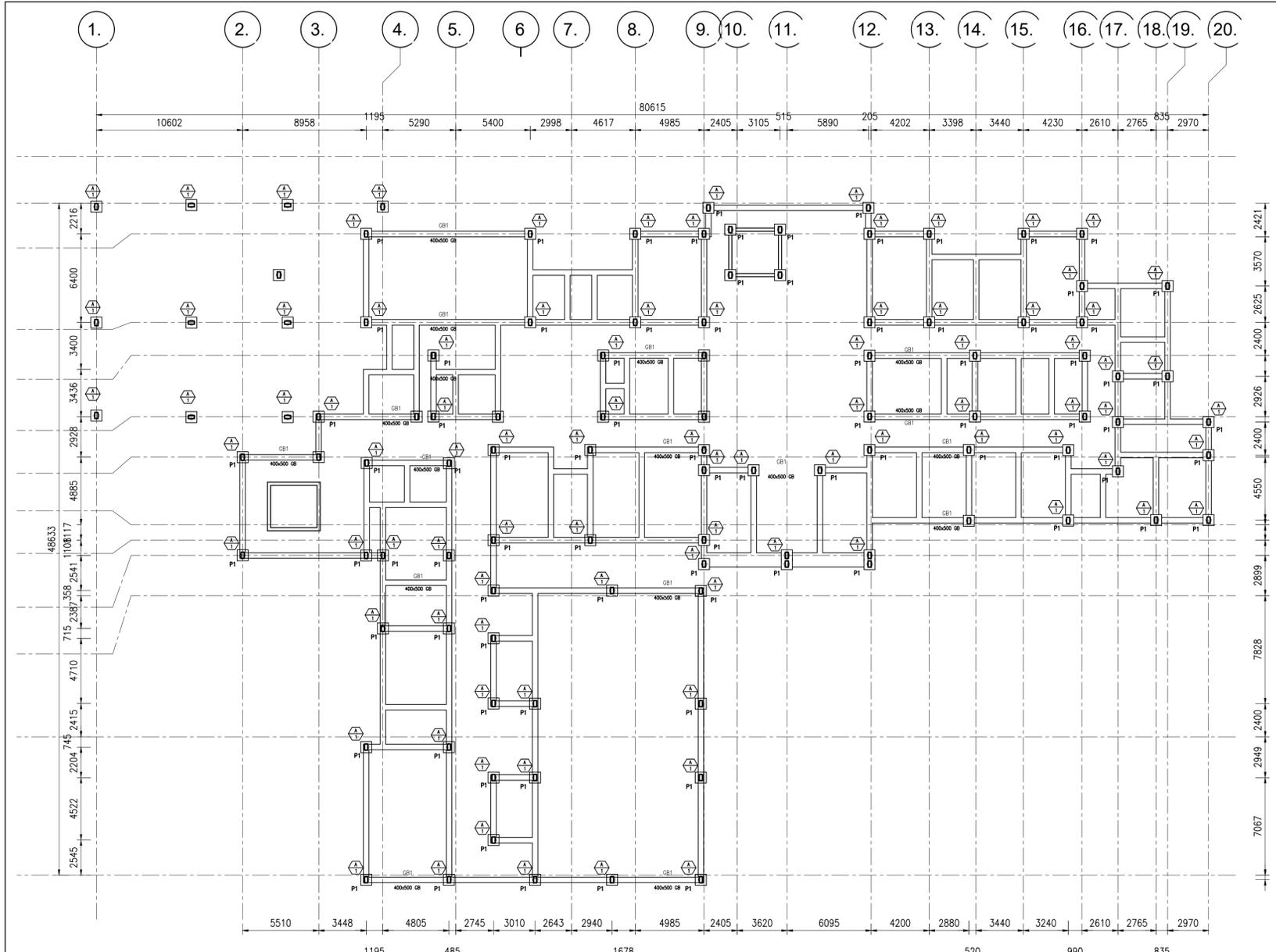
PROJECT NAME:
 NGWELEZANA ONCOLOGY UNIT

DRAWING TITLE:
 FOUNDATION LAYOUT

FOR INFORMATION		SIGNATURE	DATE
DESIGNED	J. BALOYI		10/01/2024
DRAWN	M. KUTA		10/01/2024
CHECKED	J. BALOYI		10/01/2024
APPROVED	S. NCUBE		10/01/2024

PROJECT No.	DRG. NUMBER	STAGE	SHEET SIZE	REVISION
6101ST24	ST 001	C	A1	0

CLIENT DRAWING No. FILE NAME AND LOCATION No.
 COPYRIGHT RESERVED



BASE/PILE SCHEDULE			
BASE/PILE CAP TYPE	BASE/PILE CAP SIZE	PILE DIAMETER	PILE LOADS (KN)
1	800 x 800 x 900 DP		

KEY:--
 = COLUMN TYPE
 = BASE/PILE CAP TYPE.

SEE NOTES FOR CHAMFERS

COLUMN SCHEDULE		
TYPE	COLUMN SIZE	No. OFF
A	230 X 650	32

KEY:--
 = COLUMN TYPE
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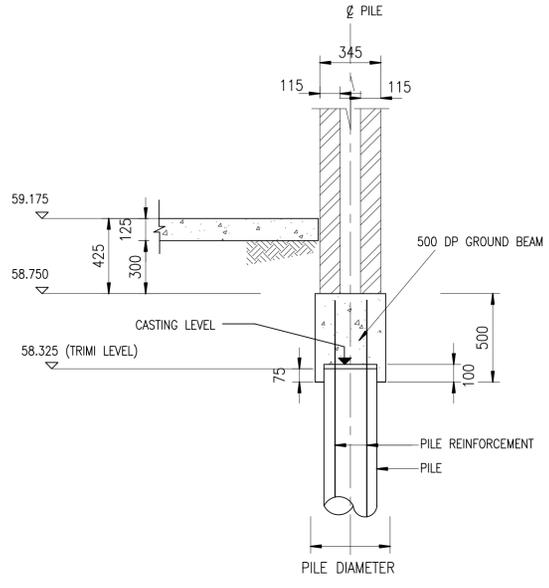
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 - 5.3. Corners of all upstand beams - 25x25
 - Concrete strengths:
 - 6.1. Columns - Class(MPa)/Stress(mm) 40 / 19
 - 6.2. Slabs/Beams/Parapets 25 / 19
 - 6.3. Surface beds 30 / 19
 - 6.4. Walls 25 / 19
 - 6.5. Stairs 30 / 19
 - 6.6. Foundations 25 / 19
 - 6.7. Slab columns 25 / 19
 - 6.8. Slinding 10 / 19
 - 6.9. Load bearing brickwork mortar 7MPa
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 - Minimum lap of all reinforcement to be 50mm x bar diameter
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- 13. Abbreviations:**
- 13.1. ALT Alternate
 - 13.2. SIG Staggered
 - 13.3. ABR Alternating bar reversed
 - 13.4. EF Each face
 - 13.5. N1 Near face - Outer layer
 - 13.6. N2 Near face - Second layer
 - 13.7. F1 Far face - Outer layer
 - 13.8. F2 Far face - Second layer
 - 13.9. OW Each way - Second layer
 - 13.10. T1 Top - Outer layer
 - 13.11. T2 Top - Second layer
 - 13.12. B1 Bottom - Outer layer
 - 13.13. B2 Bottom - Second layer

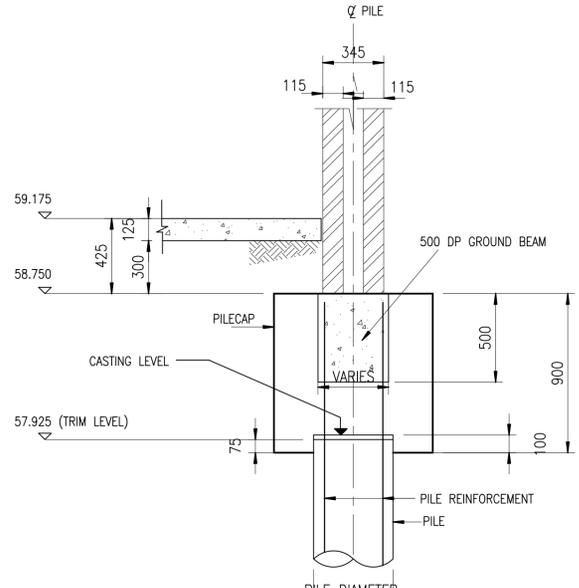
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 - 15.1. STEELWORK**
 - 15.1. Must be in accordance with SABS 1200H
 - 15.2. Be SABS 1413 Grade 300W except for cold rolled sections where commercial quality steel can be used. A certificate from the manufacturer in which the grade is verified shall be submitted to the engineer
 - 15.3. Be thoroughly clipped and scraped of all loose mill scale and wire brushed to remove all grease, dirt, rust and other deleterious materials
 - 15.4. Must be checked and approved by the engineer before leaving the workshop.
 - 15.5. Must have steel plates 8mm thick unless stated otherwise.
 - 15.6. Must have grout under the base plates with minimum permissible bearing pressure of 10MPa
 - 16.1. PAINT**
 - 16.1. Will be one coat of zinc chromate (Plascon VC53 or similar).
 - 16.2. Will be allowed to dry overnight and apply one coat of universal undercoat (Plascon CV1 or similar) prior to delivery.
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 - (i) E70 XX (E 480 XX) for butt welds
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 - 18.1. BOLTS** must:
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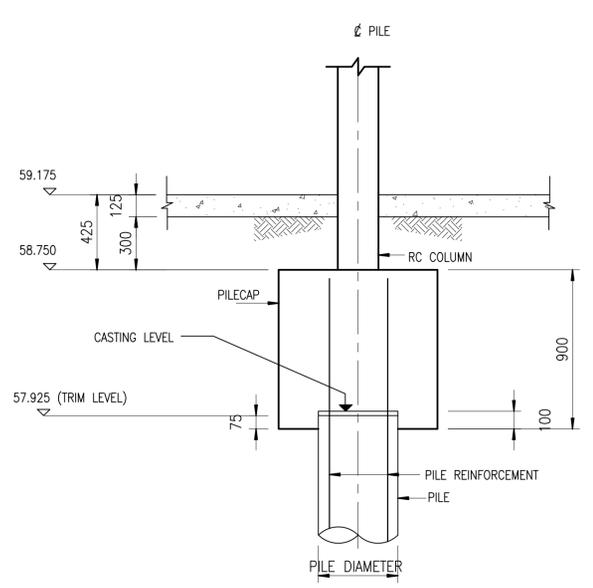
FOUNDATION LAYOUT
 SCALE 1: 100



TYPICAL SECTION THROUGH PILE WITHOUT PILE CAPS
 (TYPICAL FOR PILES 82A TO 82E AND 83A TO 83E)
 SCALE 1:20



TYPICAL SECTION THROUGH GND BEAMS AND BWK
 SCALE 1:20



TYPICAL SECTION THROUGH PILE WITH PILE CAPS
 SCALE 1:20

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 FOUNDATION LAYOUT

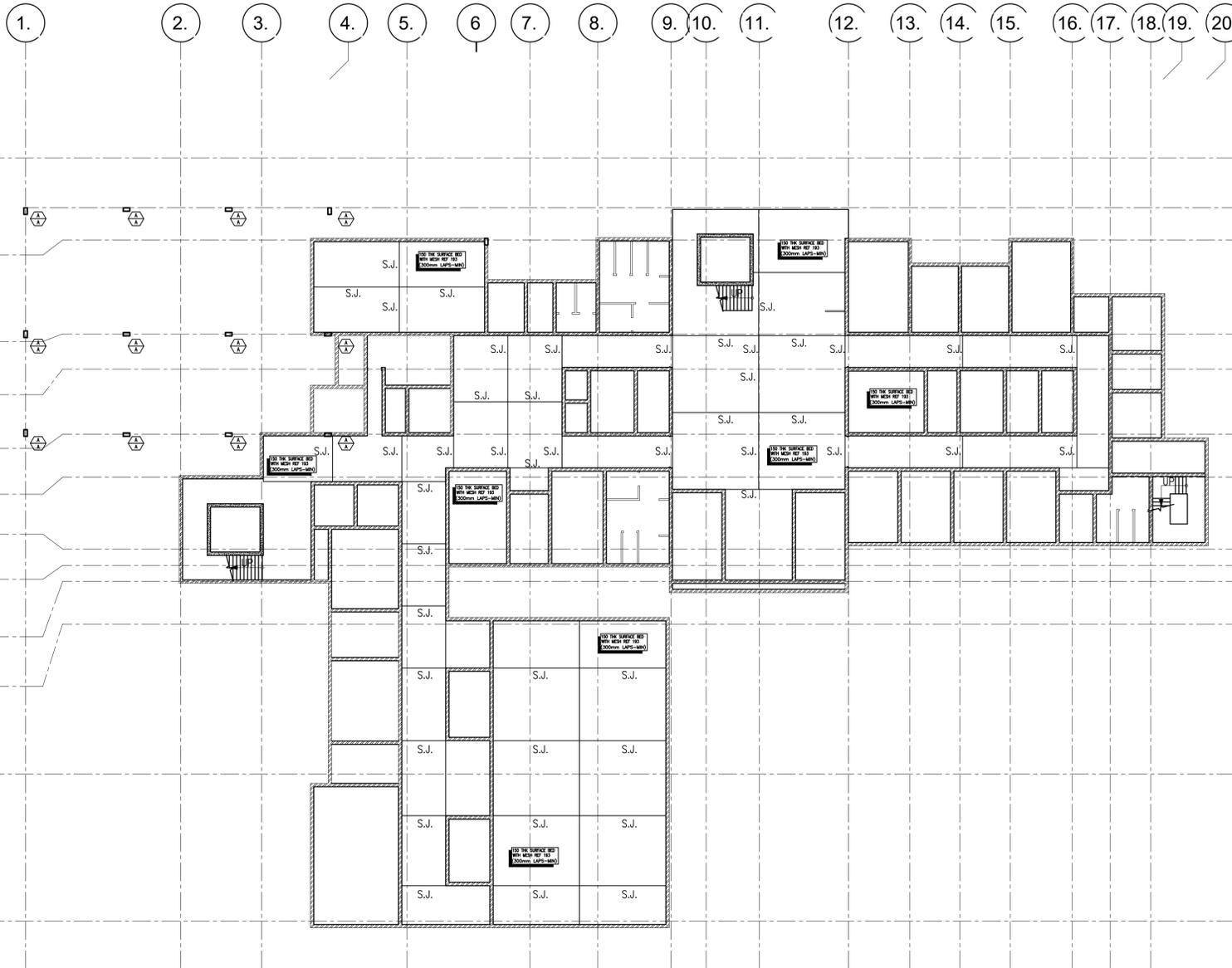
FOR INFORMATION

DESIGNED	J. BALOYI	SIGNATURE	DATE
DRAWN	M. KUTA		10/01/2024
CHECKED	J. BALOYI		10/01/2024
APPROVED	S. NCUBE		10/01/2024

PROJECT No.	DRG. NUMBER	STAGE	SHEET SIZE	REVISION
6101ST24	101	C	A1	0

CLIENT DRAWING No. FILE NAME AND LOCATION No.

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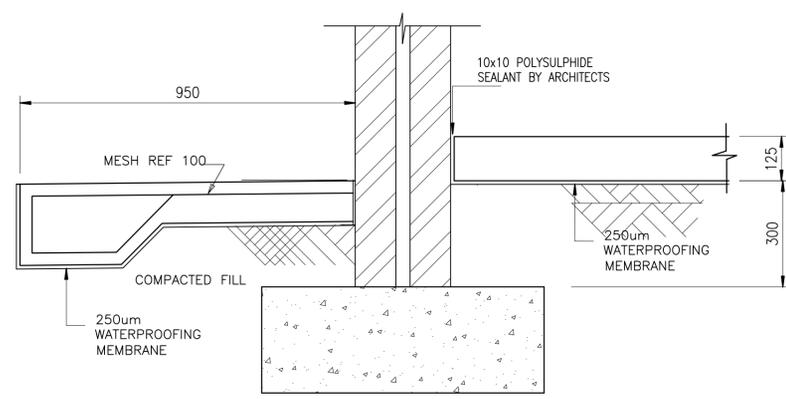


GROUND FLOOR LAYOUT
SCALE 1: 100

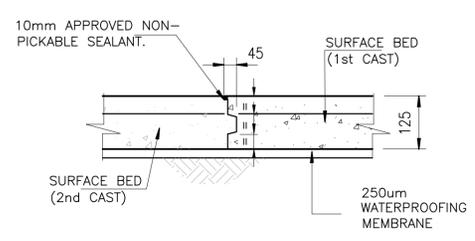
COLUMN SCHEDULE		
TYPE	COLUMN SIZE	No. OFF
A	230 X 650	32

KEY:-
 = COLUMN TYPE
 = BASE/PILE CAP TYPE.

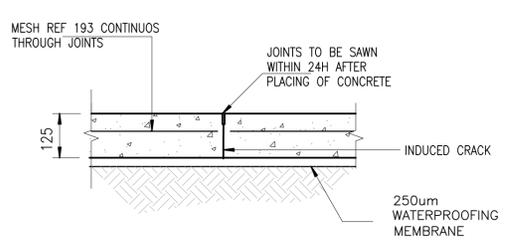
SEE NOTES FOR CHAMFERS



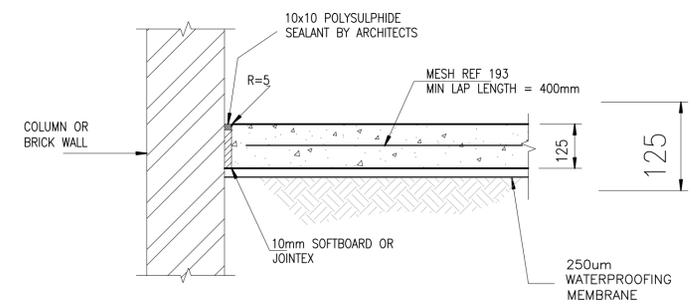
TYPICAL SECTION DETAIL THROUGH APRON AND SURFACE BED
SCALE 1:10



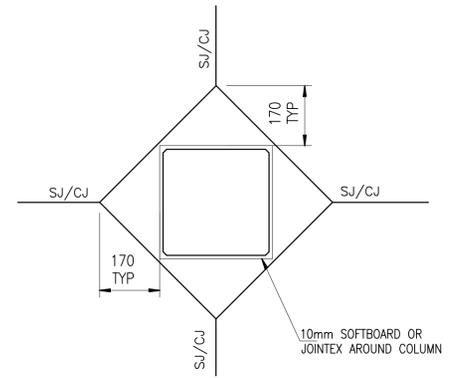
TYPICAL CONSTRUCTION JOINT DETAIL
SCALE 1:10



TYPICAL SAW-CUT JOINT DETAIL (S.J.)
SCALE 1:10



TYPICAL ISOLATION JOINT DETAIL (I.J.)
SCALE 1:10



TYPICAL JOINT DETAIL AROUND COLUMN
SCALE 1:10

DISCLAIMER:
Should these drawings and project specifications be used for or relied upon for any other purpose other than that they were intended for on this specific site without MAC ENGINEERING CONSULTANTS' prior knowledge and written consent, then the user shall indemnify the copyright holder against all liabilities, claims, damages, losses, fines and/or penalties (either in contract or delict) instituted by the user or any other party as a result of their re-use or reliance on these drawings and project specifications.

- CONCRETE NOTES:
- Dimensions must not be scaled or assumed. After notification, discrepancies or missing dimensions will be corrected in writing by the engineer.
 - Except where otherwise stated, the concrete work shall comply with SABS 1200 G (Structural use of concrete) latest revision.
 - Re-vibrate to 300mm of columns approximately one after casting (or before initial setting takes place).
 - All finishes to comply with concrete specifications. For concrete finishing details, refer to finishing schedule.
 - Chamfers are required as follows:
 - 5.1. Corners of all columns and walls - 25x25
 - 5.2. Corners of all downstand beams - 25x25
 - 5.3. Corners of all upstand beams - 25x25
 - Concrete strengths:

Class(MPa)/Stone(mm)	Concrete strength
40 / 19	6.1. Columns
25 / 19	6.2. Slabs/Beams/Parapets
30 / 19	6.3. Surface beds
25 / 19	6.4. Walls
30 / 19	6.5. Stairs
25 / 19	6.6. Foundations
25 / 19	6.7. Slab columns
10 / 19	6.8. Blinding
7MPa	6.9. Load bearing brickwork mortar
 - All columns are dimensioned to center lines unless noted otherwise.
 - All columns are to be positioned symmetrically about gridlines.

- REINFORCEMENT NOTES:
- Cover to reinforcement shall be as follows:
 - 9.1. To slabs - 25mm
 - 9.2. To columns - 30mm
 - 9.3. To foundations - 50mm
 - Minimum lap of all reinforcement to be 50mm x bar diameter.
 - Minimum lap of mesh reinforcement to be 300mm.
 12. All steel fixing to be inspected and approved by engineer prior to concrete casting.
 - Abbreviations:

Abbreviation	Alternate
13.1. ALT	Staggered
13.2. STG	Staggered
13.3. ABR	Alternate bar reversed
13.4. EF	Each face
13.5. N1	Near face - Outer layer
13.6. N2	Near face - Second layer
13.7. F1	Far face - Outer layer
13.8. F2	Far face - Second layer
13.9. EW	Each way - Second layer
13.10. T1	Top - Outer layer
13.11. T2	Top - Second layer
13.12. B1	Bottom - Outer layer
13.13. B2	Bottom - Second layer

- STRUCTURAL STEEL NOTES:
- Workshop drawings must be submitted to the engineer for approval before fabrication commences.
 - Steelwork:
 - 15.1. Must be in accordance with SABS 1200H.
 - 15.2. Be SABS 1413 Grade 300W except for cold rolled sections where commercial quality steel can be used. A certificate from the manufacturer in which the grade is verified shall be submitted to the engineer.
 - 15.3. Be thoroughly chipped and scrapped of all loose mill scale and wire brushed to remove all grease, dirt, rust and other deleterious materials.
 - 15.4. Must be checked and approved by the engineer before leaving the workshop.
 - 15.5. Must have steel plates 8mm thick unless stated otherwise.
 - 15.6. Must have grout under the base plates with minimum permissible bearing pressure of 10MPa.
 - Paint:
 - 16.1. Will be one coat of zinc chromate (Plascon VC53 or similar).
 - 16.2. Will be allowed to dry overnight and apply one coat of universal undercoat (Plascon CV1 or similar) prior to delivery.
 - 16.3. All damaged paintwork to be made good on site after erection.
 - 16.4. Be done in accordance with SABS 0120-3-1980.
 - Welding:
 - 17.1. Restricted to the factory except where otherwise noted.
 - 17.2. Done strictly according to SABS 0167-1984 and SABS 044.
 - 17.3. Minimum 5mm C.F.W. or Butt weld to the full length of the materials joined.
 - 17.4. By electrode of:
 - (i) E70 XX (E 480 XX) for butt welds
 - (ii) E80 XX (E 550 XX) for fillet welds
 - Bolts:
 - 18.1. Be 16mm diameter black bearing bolts grade 4.6 unless otherwise specified.
 - 18.2. Comply with SABS 138-1972.
 - 18.3. How holes drilled 2mm larger than the bolt diameter.



REV	DATE	DRAWN	CHECKED	DESCRIPTION
A	11 June 2024	M.K	J.B	ISSUED FOR INFORMATION

CONSULTANT:

 Tel : 011 886 3373
 Fax : 011 886 3949
 16 BOND STREET OFFICE
 PARK CORNER BOND & KENT
 STREET, FERNDAL E-mail:
 mzansi@mzansiAfrica.co.za

CLIENT:

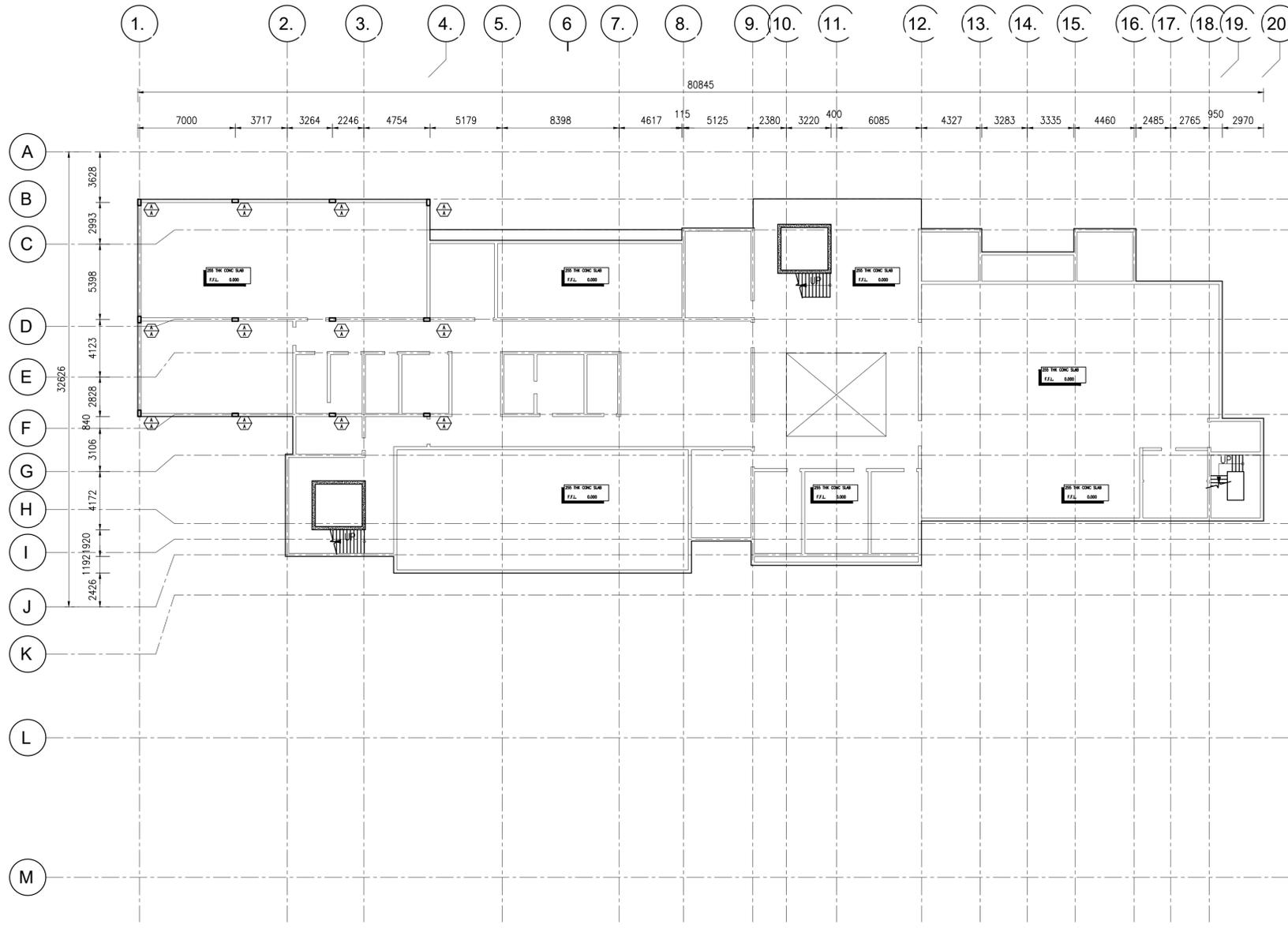
PROJECT NAME:
 NGWELEZANA HOSPITAL ONCOLOGY UNIT

DRAWING TITLE:
 GROUND FLOOR LAYOUT

FOR INFORMATION	
DESIGNED	SIGNATURE DATE
J. BALOYI	10/01/2024
J. BALOYI	10/01/2024
S. NCUBE	10/01/2024
S. ZIMU	10/01/2024

PROJECT No.	DSPL	DRG. NUMBER	STAGE	SHEET SIZE	REVISION
6101ST24	ST	102	C	A1	0

CLIENT DRAWING No. FILE NAME AND LOCATION No.



FIRST FLOOR LAYOUT
SCALE 1: 100

COLUMN SCHEDULE		
TYPE	COLUMN SIZE	No. OFF
A	230 X 650	32

KEY:-
 = COLUMN TYPE
 = BASE/PILE CAP TYPE.

SEE NOTES FOR CHAMFERS

DISCLAIMER:
 Should these drawings and project specifications be used for or relied upon for any other purpose other than what they were intended for on this specific site without MAC ENGINEERING CONSULTANTS' prior knowledge and written consent, then the user shall indemnify the copyright holder against all liabilities, claims, damages, losses, fines and/or penalties (either in contract or delict) instituted by the user or any other party as a result of their re-use of or reliance on these drawings and project specifications.

- CONCRETE NOTES:**
- Dimensions must not be scaled or assumed. After notification, discrepancies or missing dimensions will be corrected in writing by the engineer.
 - Except where otherwise stated, the concrete work shall comply with SABS 1200 G (Structural use of concrete) latest revision
 - Re-vibrate to 300mm of columns approximately one after casting (or before initial setting takes place)
 - All finishes to comply with concrete specifications. For concrete finishing details, refer to finishing schedule.
 - Chamfers are required as follows:
 - 5.1. Corners of all columns and walls - 25x25
 - 5.2. Corners of all downstand beams - 25x25
 - 5.3. Corners of all upstand beams - 25x25
 - Concrete strengths Class(MPa)/Stone(mm)
 - 6.1. Columns 40 / 19
 - 6.2. Slabs/Beams/Parapets 25 / 19
 - 6.3. Surface beds 30 / 19
 - 6.4. Walls 25 / 19
 - 6.5. Stairs 30 / 19
 - 6.6. Foundations 25 / 19
 - 6.7. Slab columns 25 / 19
 - 6.8. Blinding 10 / 19
 - 6.9. Load bearing brickwork mortar 7MPa
 - All columns are dimensioned to center lines unless noted otherwise.
 - All columns are to be positioned symmetrically about gridlines

- REINFORCEMENT NOTES:**
- Cover to reinforcement shall be as follows:
 - 9.1. To slabs 25mm
 - 9.2. To columns 30mm
 - 9.3. To foundations 50mm
 - Minimum lap of all reinforcement to be 50mm x bar diameter
 - Minimum lap of mesh reinforcement to be 300mm
 12. All steel fixing to be inspected and approved by engineer prior to concrete casting
 - Abbreviations:

13.1. ALT	Alternate
13.2. STG	Staggered
13.3. ABR	Alternate bar reversed
13.4. EF	Each face
13.5. N1	Near face - Outer layer
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13.8. F2	Far face - Second layer
13.9. EW	Each way - Second layer
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13.11. T2	Top - Second layer
13.12. B1	Bottom - Outer layer
13.13. B2	Bottom - Second layer

- STRUCTURAL STEEL NOTES:**
- Workshop drawings must be submitted to the engineer for approval before fabrication commences
 - All STEELWORK:
 - 15.1. Must be in accordance with SABS 1200H
 - 15.2. Be SABS 1413 Grade 300W except for cold rolled sections where commercial quality steel can be used. A certificate from the manufacturer in which the grade is verified shall be submitted to the engineer
 - 15.3. Be thoroughly chipped and scrapped of all loose mill scale and wire brushed to remove all grease, dirt, rust and other deleterious materials
 - 15.4. Must be checked and approved by the engineer before leaving the workshop.
 - 15.5. Must have steel plates 8mm thick unless stated otherwise.
 - 15.6. Must have grout under the base plates with minimum permissible bearing pressure of 10MPa
 - All PAINT:
 - 16.1. Will be one coat of zinc chromate (Plascon VC53 or similar).
 - 16.2. Will be allowed to dry overnight and apply one coat of universal undercoat (Plascon UV1 or similar) prior to delivery.
 - 16.3. All damaged paintwork to be made good on site after erection
 - 16.4. Be done in accordance with SABS 0120-3-1980.
 - All WELDING to be:
 - 17.1. Restricted to the factory except where otherwise noted.
 - 17.2. Done strictly according to SABS 0167-1984 and SABS 044.
 - 17.3. Minimum 5mm C.F.W. or Butt weld to the full length of the materials joined.
 - 17.4. By electrode of:
 - (i) E70 XX (E 480 XX) for butt welds
 - (ii) E80 XX (E 550 XX) for fillet welds
 - All BOLTS must:
 - 18.1. Be 16mm diameter black bearing bolts grade 4.6 unless otherwise specified.
 - 18.2. Comply with SABS 136-1972.
 - 18.3. How holes drilled 2mm larger than the bolt diameter



REV	DATE	DRAWN	CHECKED	DESCRIPTION
A	11 June 2024	M.K	J.B	ISSUED FOR INFORMATION

CONSULTANT:

 Tel : 011 886 3373
 Fax : 011 886 3949
 16 BOND STREET OFFICE
 PARK CORNER BOND & KENT
 STREET, FERDALE e-mail:
 mzansi@mzansiafrica.co.za

CLIENT:

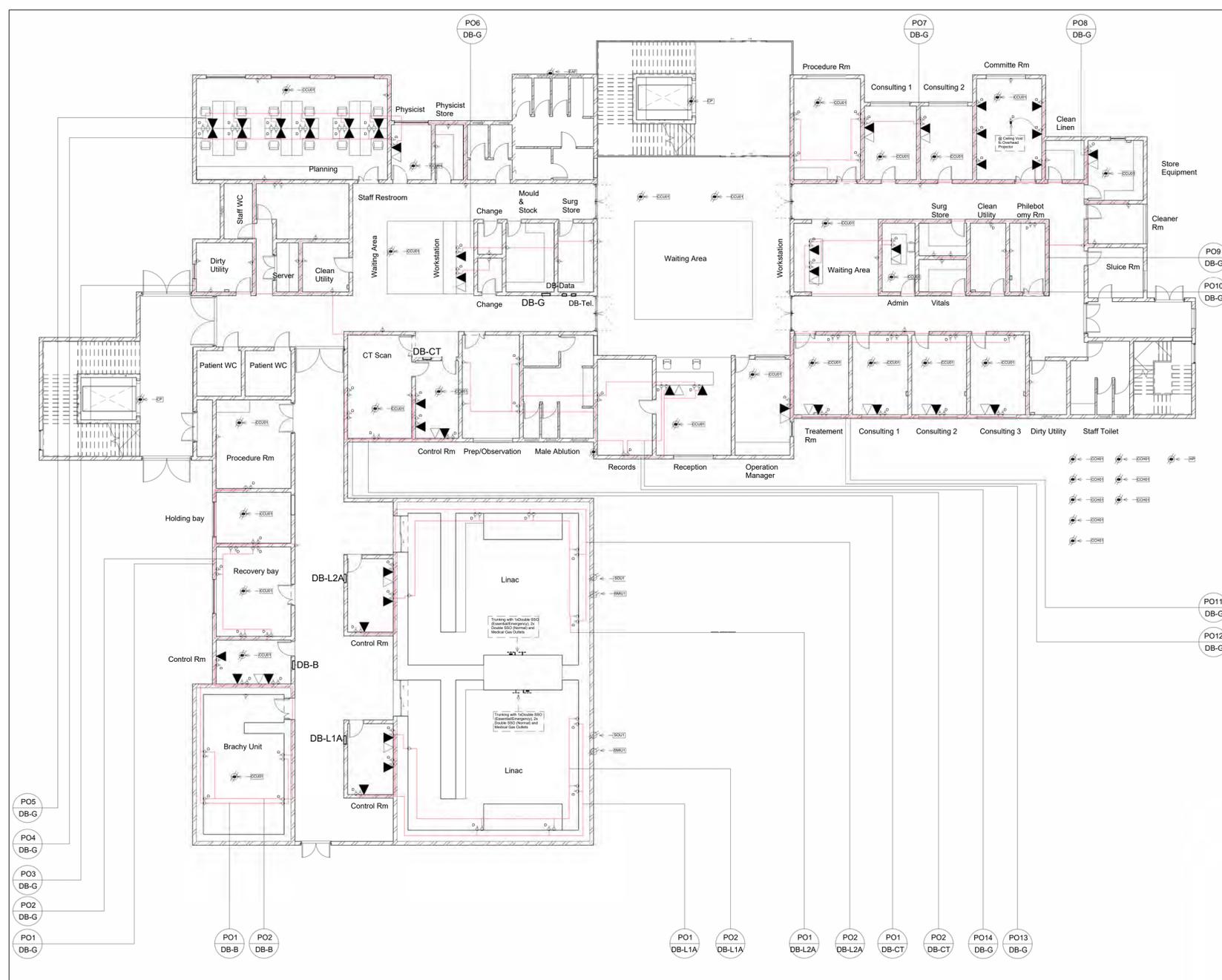
PROJECT NAME:
 NGWELEZANA ONCOLOGY UNIT

DRAWING TITLE:
 FIRST FLOOR LAYOUT

FOR INFORMATION			
	SIGNATURE	DATE	
DESIGNED	J. BALOYI	10/01/2024	
DRAWN	M. KUTA	10/01/2024	
CHECKED	J. BALOYI	10/01/2024	
APPROVED	S. NCUBE	10/01/2024	
SCALE	AS SHOWN		

PROJECT No.	DSPL	DRG. NUMBER	STAGE	SHEET SIZE	REVISION
6101ST24	ST	103	C	A1	0

CLIENT DRAWING No. FILE NAME AND LOCATION No.



Scale 1: 160

Figure 2: Ground Floor Power, Data & Telephone Layout

Indicates Switching ————

Indicates Circuiting ————

Circuit Naming PO1 DB-K

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters and numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATEGORIES AND MOUNTING HEIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPECIFIED**
 All mounting heights shall be finished floor to bottom. Switches: 1400mm generally, Socket outlets: 300mm generally (1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards: generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet (unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Tripole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

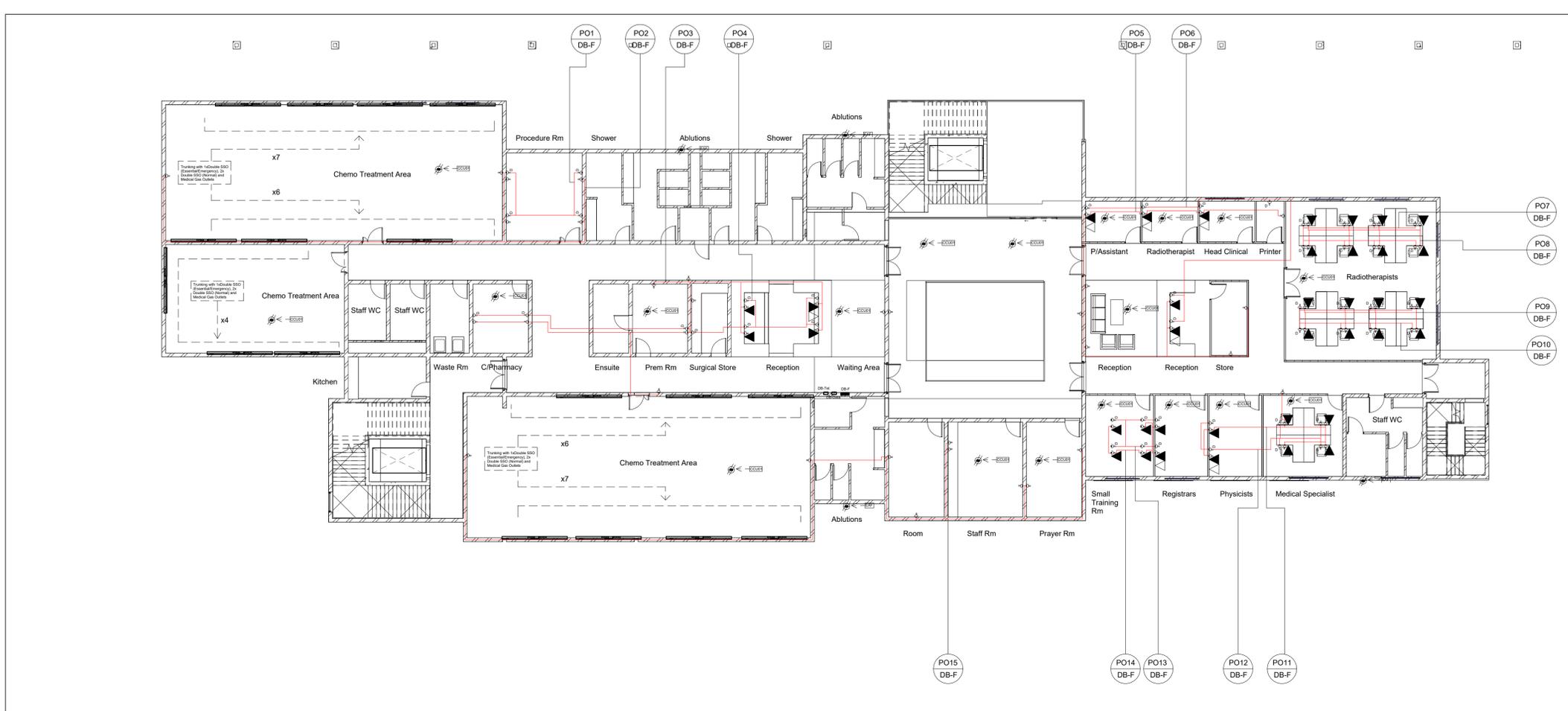
Proposed DoH Power Legend No.2			Proposed DoH Power Legend No.1		
Image	Circuit Symbol	Description	Image	Circuit Symbol	Description
1.		1. Double Compartment Power Skirting C/W Cover 3M - Hosp. Dimension : 165x55mm with no Sharp Edges, Type P801.			16A Plus 1 Euro Plus USB Socket Outlet 4x4 with White Cover, on Earth Leakage used in offices only.
2.		2. Bed head units (BHU) with no Sharp Edges, with 2x Normal & 3x Essential SSO & (For High care only 8xUPS, 8xDedicated, 3xOxygen & 2xVacuum & 3xLP).	1.		1. 16A Normal Double SSO c/w Coverplate Standard, on Earth Leakage.
		Flush Mounted Electricity Distribution Board	2.		2. 16A Dedicated Double SSO c/w Essential Supply Only) Not in Earth Leakage.
		Telephone Socket Outlet for Standard CAT5 RJ11 Type Connection	1.		1. 60A Three Phase Isolator Switch (ACCHO1), 20A Single Phase Isolator Switch (CCU01-CCU05), (SMIU01), (SOU01), (HIU01) for HVAC & (EAF) Fans
		Data Socket Outlet VET13 2 x 4 RJ45-CAT6 Cable From the VET12 Product range	2.		2. 30A Three Phase Isolator Switch for Hot Water (HP)
			3.		3. 32A Double Pole Used for Handdreyer (Iso2)
			4.		4. 20A Double Pole Isolator Switch Used for Lift Shaft (CP)

Figure 1: Power Legend

NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-01-GROUND FLOOR POWER, DATA & TELEPHONE LAYOUT





Scale 1: 160 Figure 2: First Floor Power, Data & Telephone Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4.Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

- Indicates Switching —
- Indicates Circuiting —
- Circuit Naming PO1
DB-K

Image	Circuit Symbol	Description
1.		1. Double Compartment Power Skirting C/W Cover 3M - Hosp. Dimension : 165x55mm with no Sharp Edges, Type P801.
2.		2. Bed head units (BHU) with no Sharp Edges, with 2x Normal & 3x Essential SSO & (For High care only 8xUPS, 8xDedicated, 3xOxygen & 2xVacuum & 3xLP).
		Flush Mounted Electricity Distribution Board
		Telephone Socket Outlet for Standard CAT5 RJ11 Type Connection
		Data Socket Outlet VET13 2 x 4 RJ45-CAT6 Cable From the VET2 Product range

Image	Circuit Symbol	Description
		16A Plus 1 Euro Plus USB Socket Outlet 4x4 with White Cover, on Earth Leakage used in offices only.
1.		1. 16A Normal Double SSO c/w Coverplate Standard, on Earth Leakage.
2.		2. 16A Dedicated Double SSO c/w Essential Supply Only) Not in Earth Leakage.
1.		1. 60A Three Phase Isolator Switch (ACCHO1), 20A Single Phase Isolator Switch (CCU01-CCU05), (SMIU01), (SOU01), (HIU01) for HVAC & (EAF) Fans
2.		2. 30A Three Phase Isolator Switch for Hot Water (HP)
3.		3. 32A Double Pole Used for Handdreyer (Iso2)
4.		4. 20A Double Pole Isolator Switch Used for Lift Shaft (CP)

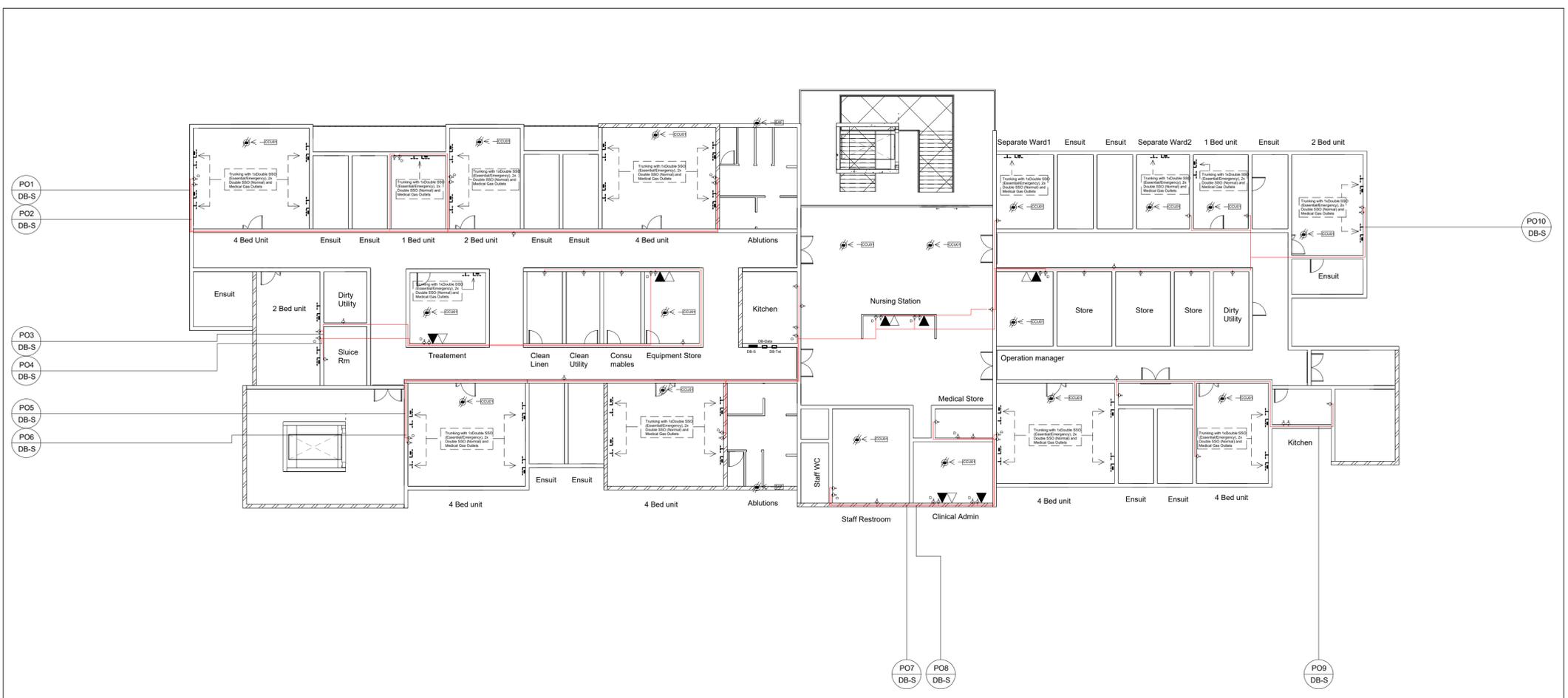
Figure 1: Power Legend



NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-02-FIRST FLOOR POWER, DATA & TELEPHONE LAYOUT





Scale 1: 160

Figure 2: Second Floor Power, Data & Telephone Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

1. OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=Outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

3. MOUNTING HEIGHTS-UNLESS SPEIFIED
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

4.Abbreviations
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Tripplle pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Indicates Switching ————

Indicates Circuiting ————

Circuit Naming PO1 DB-K

Proposed DoH Power Legend No.2		
Image	Circuit Symbol	Description
1.		1. Double Compartment Power Skirting C/W Cover 3M - Hosp. Dimension : 165x55mm with no Sharp Edges, Type P801.
2.		2. Bed head units (BHU) with no Sharp Edges, with 2x Normal & 3x Essential SSO & (For High care only 8xUPS, 8xDedicated, 3xOxygen & 2xVacuum & 3xLP).
		Flush Mounted Electricity Distribution Board
		Telephone Socket Outlet for Standard CAT5 RJ11 Type Connection
		Data Socket Outlet VET13 2 x 4 RJ45-CAT6 Cable From the VET2 Product range

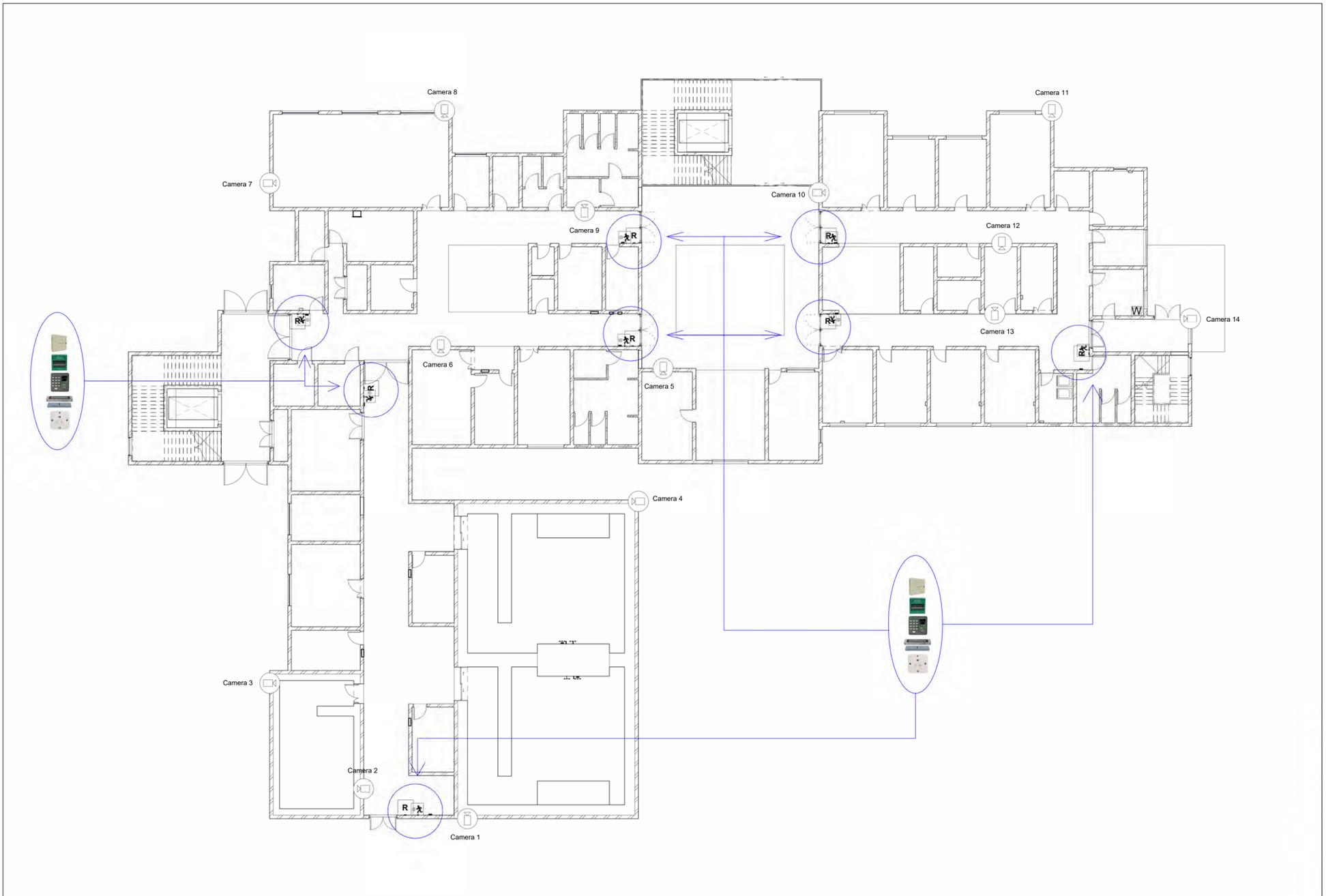
Proposed DoH Power Legend No.1		
Image	Circuit Symbol	Description
		16A Plus 1 Euro Plus USB Socket Outlet 4x4 with White Cover, on Earth Leakage used in offices only.
1.		1. 16A Normal Double SSO c/w Coverplate Standard, on Earth Leakage.
2.		2. 16A Dedicated Double SSO c/w Essential Supply Only) Not in Earth Leakage.
1.		1. 60A Three Phase Isolator Switch (ACCHO1),20A Single Phase Isolator Switch(CCU01-CCU05),(SMIU01),(SOU01), (HIU01) for HVAC & (EAF) Fans
2.		2. 30A Three Phase Isolator Switch for Hot Water (HP)
3.		3. 32A Double Pole Used for Handdreyer (Iso2)
4.		4. 20A Double Pole Isolator Switch Used for Lift Shaft (CP)

Figure 1: Power Legend

NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-03-SECOND FLOOR POWER, DATA & TELEPHONE LAYOUT





Scale 1: 160

Figure 2: Ground Floor Access Control & Security System Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4.Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Proposed DoH Medium Duty Cable Trays Legend			Proposed DoH - Access Control System Legend		
Image	Circuit Symbol	Description	Image	Circuit Symbol	Description
		Straight Cable Tray			6A, 240v Unswitched Socket Mounted On The Ceiling Void
		Horizontal Bend 90°			Single/Double Door Access Controller panel
		Internal Riser 90°			Fingerprint Keypad Reader - Standalone
		External Dropper 90°			Magnetic Lock 544 KG Holding Force
		Equal 4 Way Crossover			1. Outdoor 20 x AutoDome 800 Series HD Camera (C)
		Equal Tee			2. Indoor 5000 HD IR PoE IP Dome Camera with 3 to 10mm Lens (C)
		SA Plug Point/Socket Outlet used in F8000 Trunking			Emergency Door Release Call Point (Breaker Glass).PNG
					TV Monitor 23" LED Wide 1920 x 1080 VGA and HDMI Incl VESA Mount

Figure 1: Access Control, Security System & Cable Trays Legend



NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-05-GROUND FLOOR SECURITY SYSTEM LAYOUT





Scale 1: 160

Figure 2: First Floor Access Control & Security System Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. OULET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches: 1400mm generally, Socket outlets: 300mm generally (1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards: generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Proposed DoH Medium Duty Cable Trays Legend			Proposed DoH - Access Control System Legend		
Image	Circuit Symbol	Description	Image	Circuit Symbol	Description
		Straight Cable Tray			240v Unswitched Socket Mounted On The Ceiling Void
		Horizontal Bend 90°			Single/Double Door Access Controller panel
		Internal Riser 90°			Fingerprint Keypad Reader - Standalone
		External Dropper 90°			Magnetic Lock 544 KG Holding Force
		Equal 4 Way Crossover			1. Outdoor 20 x AutoDome 800 Series HD Camera (C)
		Equal Tee			2. Indoor 5000 HD IR PoE IP Dome Camera with 3 to 10mm Lens (C)
		5A Plug Point/Socket Outlet used in P8000 Trunking			Emergency Door Release Call Point (Breaker Glass).PNG
					TV Monitor 23" LED Wide 1920 x 1080 VGA and HDMI Incl VESA Mount

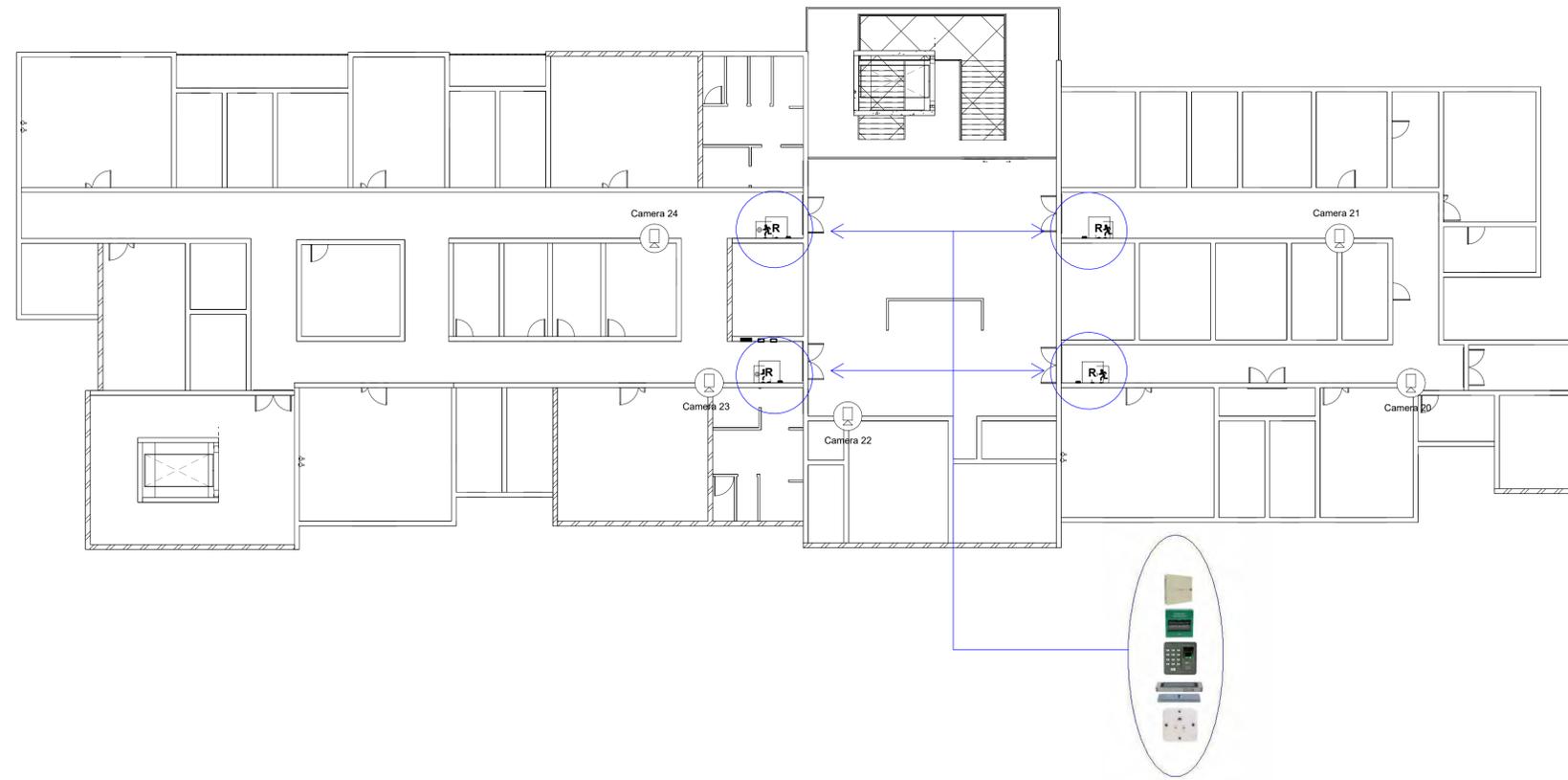
Figure 1: Access Control, Security System & Cable Trays Legend



NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-06-FIRST FLOOR SECURITY SYSTEM LAYOUT





Scale 1: 160

Figure 2: Second Floor Access Control & Security System Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.

CATAGORIES AND MOUNTING HIGHTS

2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

3. **MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Proposed DoH Medium Duty Cable Trays Legend			Proposed DoH - Access Control System Legend		
Image	Circuit Symbol	Description	Image	Circuit Symbol	Description
		Straight Cable Tray			240v Unswitched Socket Mounted On The Ceiling Void
		Horizontal Bend 90°			Single/Double Door Access Controller panel
		Internal Riser 90°			Fingerprint Keypad Reader - Standalone
		External Dropper 90°			Magnetic Lock 544 KG Holding Force
		Equal 4 Way Crossover			1. Outdoor 20 x AutoDome 800 Series HD Camera (C)
		Equal Tee			2. Indoor 5000 HD IR PoE IP Dome Camera with 3 to 10mm Lens (C)
		5A Plug Point/Socket Outlet used in P8000 Trunking			Emergency Door Release Call Point (Breaker Glass).PNG
					TV Monitor 23" LED Wide 1920 x 1080 VGA and HDMI Incl VESA Mount

Figure 1: Access Control, Security System & Cable Trays Legend



NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-07-SECOND FLOOR SECURITY SYSTEM LAYOUT



GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. OULET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=Outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches: 1400mm generally, Socket outlets: 300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards: generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Tripplle pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

SANS 10400-XA:2021 Edition 2. Table 12

Type of Circuit	Conductor Size	Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
Lighting	2.5mm ²	E2	Hospital	8
Socket outlet -16A	4mm ²			
Heater/geyser to 4kW	4mm ²	E3	Institutional Residences	8
Stoves up to 12kW	6mm ²			
Isolators up to 40A	4mm ²	E4	Health Care	8



Scale 1: 160

Figure 2: Ground Floor Fire Detection Layout

- Zone - - - - -
- Zone - - - - -
- Zone - - - - -

Image	Circuit Symbol	Description
		Fire Protection Panel
		Optical Type Smoke Detector
		Surface Mounted Audible @2200AFFL
		Door Glass Breaker

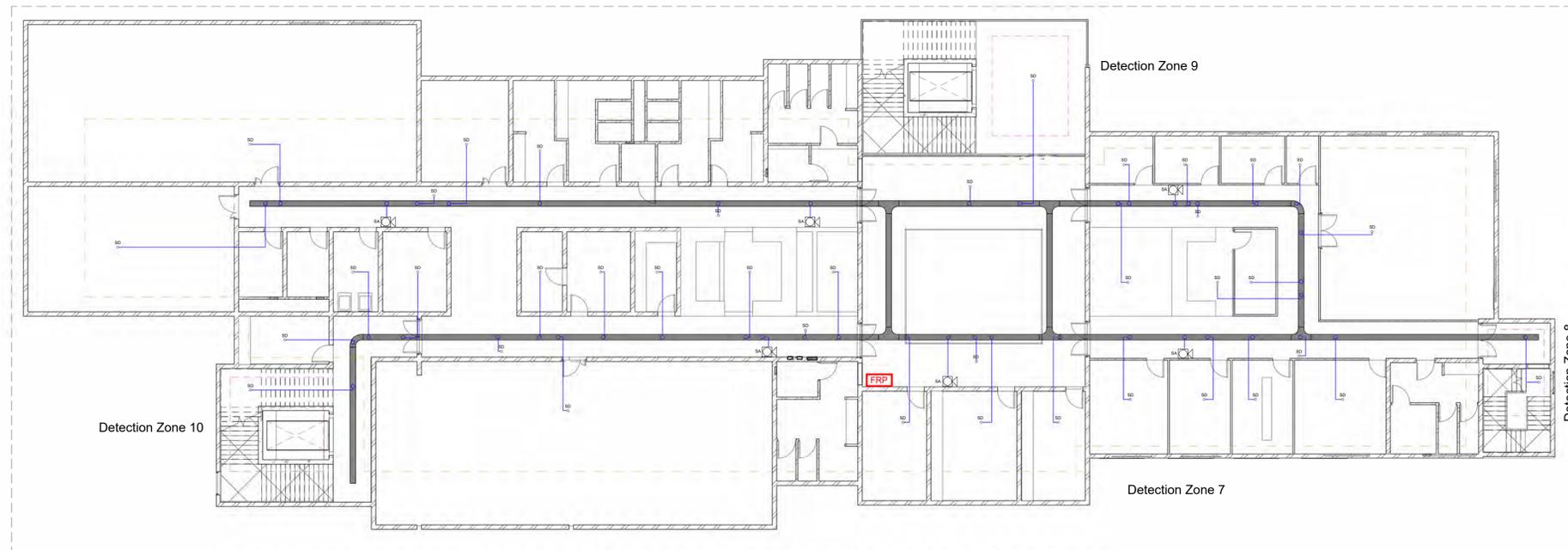
Figure 1: Fire Detection Legend



NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-08-GROUND FLOOR FIRE DETECTION LAYOUT





Alarm Zone 2

Scale 1: 160 Figure 2: First Floor Fire Detection Layout

GENERAL NOTES:

IMPORTANT INFORMATION

A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
 B. The electrical contractor shall be responsible for co-ordination of this installation.
 C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
 D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

1. OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.

CATEGORIES AND MOUNTING HEIGHTS

2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

3. MOUNTING HEIGHTS-UNLESS SPECIFIED
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

4. Abbreviations
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trip pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES		SANS 10400-XA:2021 Edition 2. Table 12		
Type of Circuit	Conductor Size	Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
Lighting	2.5mm ²	E2	Hospital	8
Socket outlet -16A	4mm ²			
Heater/geyser to 4kW	4mm ²	E3	Institutional Residences	8
Stoves up to 12kW	6mm ²			
Isolators up to 40A	4mm ²	E4	Health Care	8

Proposed DoH Fire Detection Legend

Image	Circuit Symbol	Description
		Fire Protection Panel
		Optical Type Smoke Detector
		Surface Mounted Audible @2200AFFL
		Door Glass Breaker

Zone --- (dashed line)

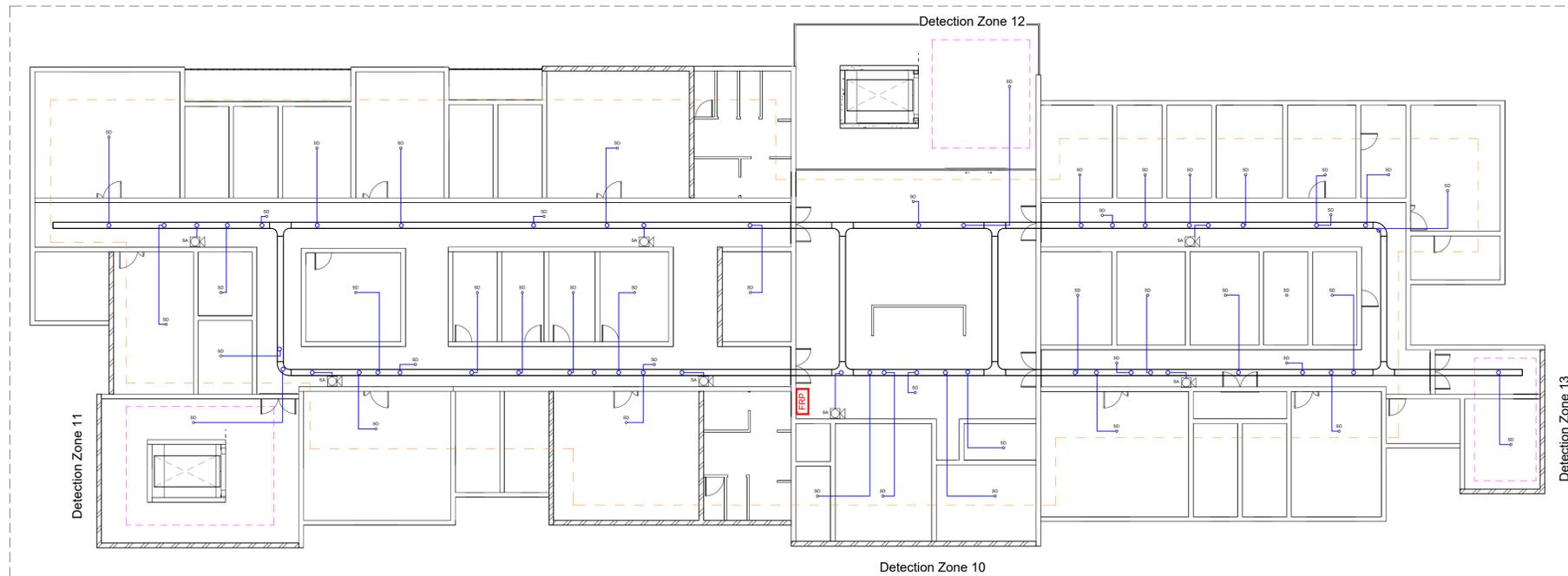
Figure 1: Fire Detection Legend



NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-09-FIRST FLOOR FIRE DETECTION LAYOUT





Alarm Zone 3

Scale 1: 160

Figure 2: Second Floor Fire Detection Layout

GENERAL NOTES:

IMPORTANT INFORMATION

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OUTLETS AND LUMINAIRE

- 1. OULET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches: 1400mm generally, Socket outlets: 300mm generally (1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards: generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet (unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

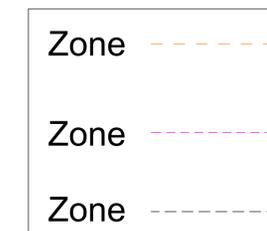


Image	Circuit Symbol	Description
		Fire Protection Panel
		Optical Type Smoke Detector
		Surface Mounted Audible @2200AFFL
		Door Glass Breaker

Figure 1: Fire Detection Legend



NGWELEZANA NEW ONCOLOGY UNIT
NWS-ONCO-10-SECOND FLOOR FIRE DETECTION LAYOUT





Scale 1: 160 Figure 2: Ground Floor Nurse Call & Public Address System Layout

GENERAL NOTES:

IMPORTANT INFORMATION

A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
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 C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
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OUTLETS AND LUMINAIRE

1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.

CATEGORIES AND MOUNTING HEIGHTS

2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

3. **MOUNTING HEIGHTS-UNLESS SPECIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trip pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES		SANS 10400-XA:2021 Edition 2. Table 12		
Type of Circuit	Conductor Size	Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
Lighting	2.5mm ²	E2	Hospital	8
Socket outlet -16A	4mm ²			
Heater/geyser to 4kW	4mm ²	E3	Institutional Residences	8
Stoves up to 12kW	6mm ²			
Isolators up to 40A	4mm ²	E4	Health Care	8

Proposed DoH - Nurse Call Legend No.2

Image	Circuit Symbol	Description
	PC	Nurse Call Pull Cord
	PA	PA System Amplifier
	MP	Microphone for PA System
	SP	DPSPPA DSP124 Round 6.5 Inch Ceiling Speaker Loud Speaker for PA System

Proposed DoH - Nurse Call Legend No.1

Image	Circuit Symbol	Description
	PN	Nurse Call Panel
	NC	Nurse Call Call Push Button
	E	Emergency Call Push Button
	NL	Nurse call Light
	TL	Nurse call Station Telephone

Nurse Call System ————

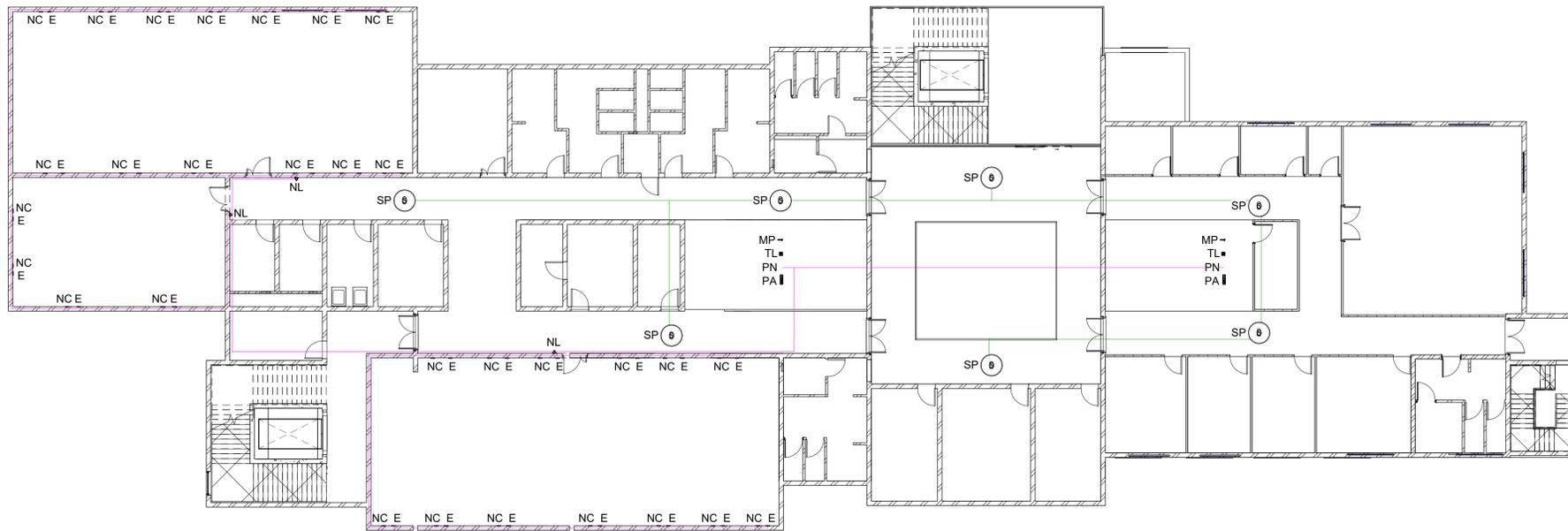
PA System ————

Figure 1: Nurse Call Legend

NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-11-GROUND FLOOR NURSE CALL & PUBLIC ADDRESS LAYOUT





Scale 1: 160

Figure 2: First Floor Nurse Call & Public Address System Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Image	Circuit Symbol	Description
		Nurse Call Pull Cord
		PA System Amplifier
		Microphone for PA System
		DPSPPA DSP124 Round 6.5 Inch Ceiling Speaker Loud Speaker for PA System

Nurse Call System ————

PA System ————

Image	Circuit Symbol	Description
		Nurse Call Panel
		Nurse Call Call Push Button
		Emergency Call Push Button
		Nurse call Light
		Nurse call Station Telephone

Figure 1: Nurse Call Legend



NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-12-FIRST FLOOR NURSE CALL & PUBLIC ADDRESS LAYOUT



GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
 B. The electrical contractor shall be responsible for co-ordination of this installation.
 C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
 D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATEGORIES AND MOUNTING HEIGHTS

2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

3. **MOUNTING HEIGHTS-UNLESS SPECIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

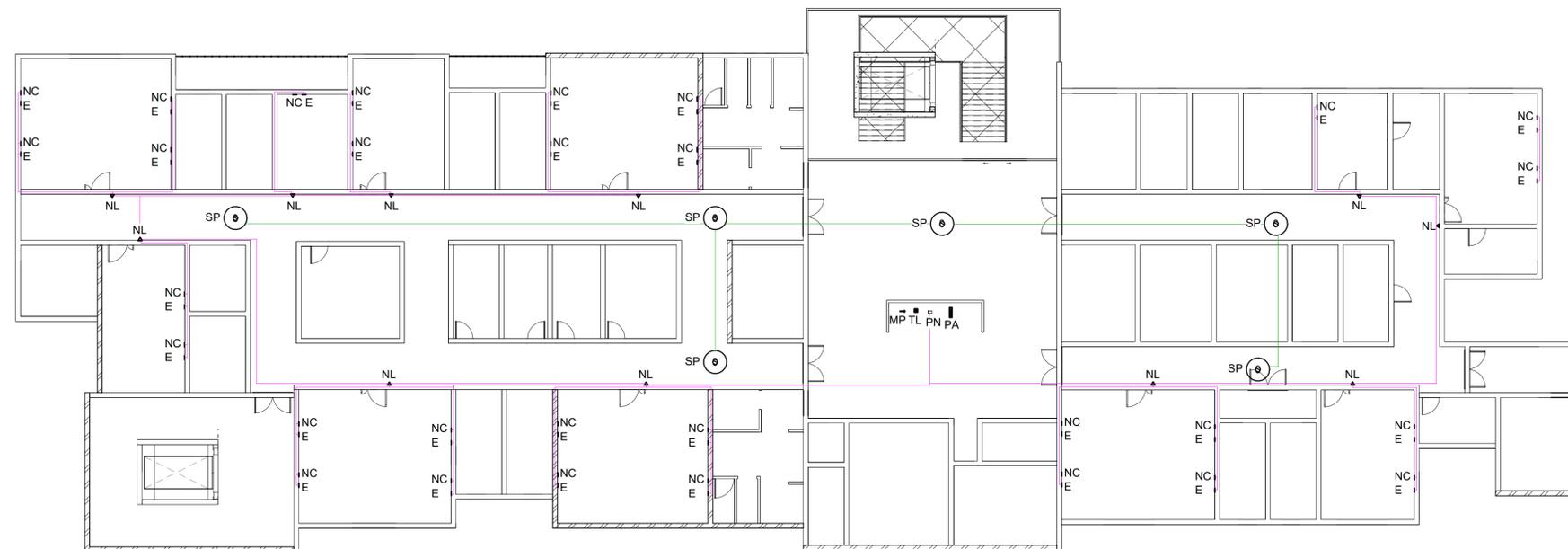
4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Tripole pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8



Scale 1: 160

Figure 2: Second Floor Nurse Call & Public Address System Layout

Image	Circuit Symbol	Description
	PC	Nurse Call Pull Cord
	PA	PA System Amplifier
	MP	Microphone for PA System
	SP	DPSPPA DSP124 Round 6.5 Inch Ceiling Speaker Loud Speaker for PA System

Nurse Call System

PA System

Image	Circuit Symbol	Description
	PN	Nurse Call Panel
	NC	Nurse Call Call Push Button
	E	Emergency Call Push Button
	NL	Nurse call Light
	TL	Nurse call Station Telephone

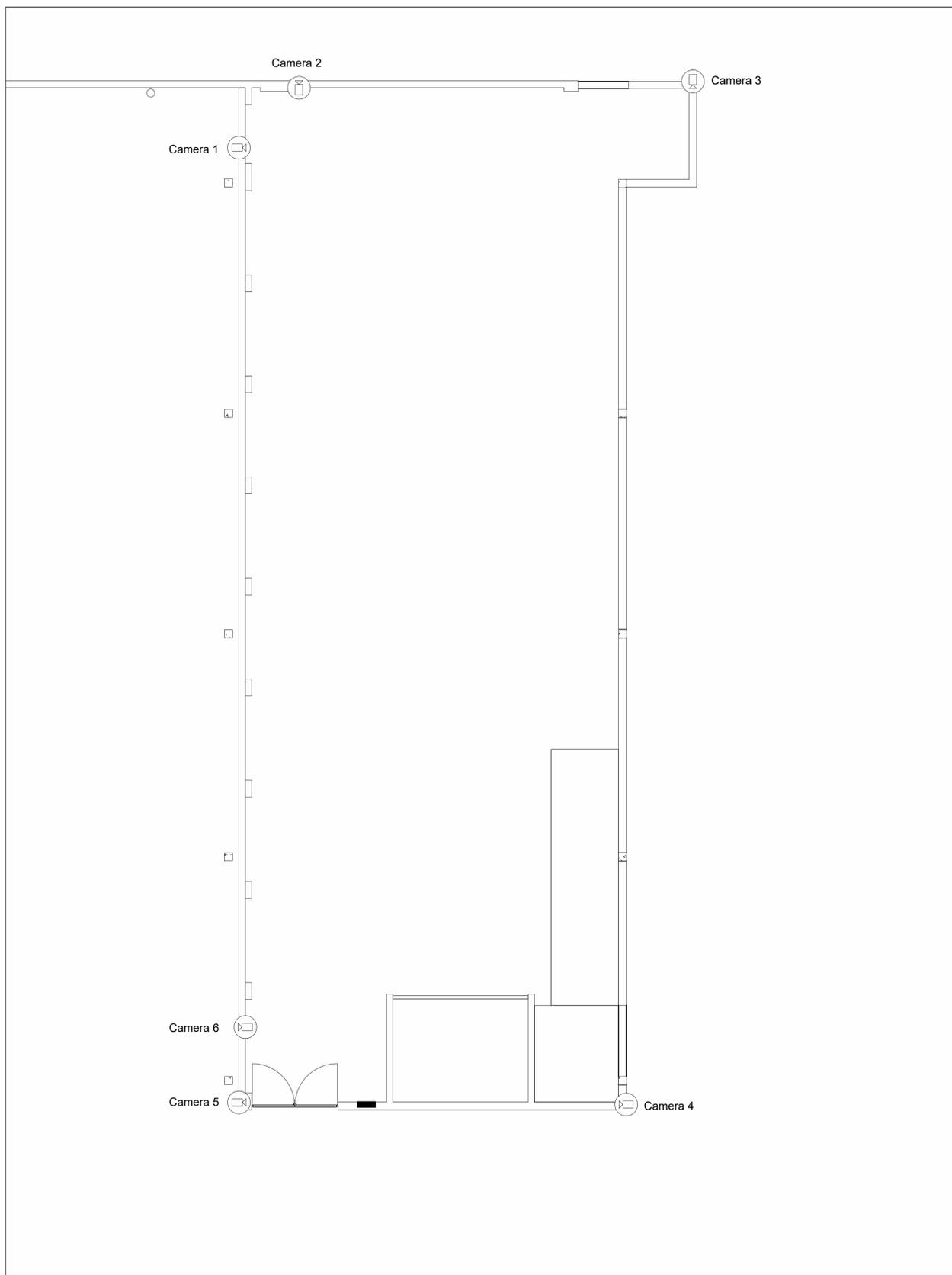
Figure 1: Nurse Call Legend



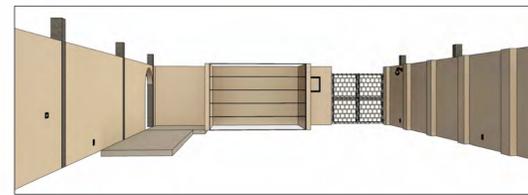
NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-13-SECOND FLOOR NURSE CALL & PUBLIC ADDRESS LAYOUT





Scale 1: 160 Figure 2: Laundry Access Control & Security System Layout



Scale 1: 70 Figure 3: Laundry Access Control & Security System 3D Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Proposed DoH Medium Duty Cable Trays Legend			Proposed DoH - Access Control System Legend		
Image	Circuit Symbol	Description	Image	Circuit Symbol	Description
		Straight Cable Tray			8A, 240v Unswitched Socket Mounted On The Ceiling Void
		Horizontal Bend 90°			Single/Double Door Access Controller panel
		Internal Riser 90°			Fingerprint Keypad Reader - Standalone
		External Dropper 90°			Magnetic Lock 544 KG Holding Force
		Equal 4 Way Crossover			1. Outdoor 20 x AutoDome 800 Series HD Camera (C)
		Equal Tee			2. Indoor 5000 HD IR PoE IP Dome Camera with 3 to 10mm Lens (C)
		5A Plug Point/Socket Outlet used in F8000 Trunking			Emergency Door Release Call Point (Breaker Glass).PNG
					TV Monitor 23" LED Wide 1920 x 1080 VGA and HDMI Incl VESA Mount

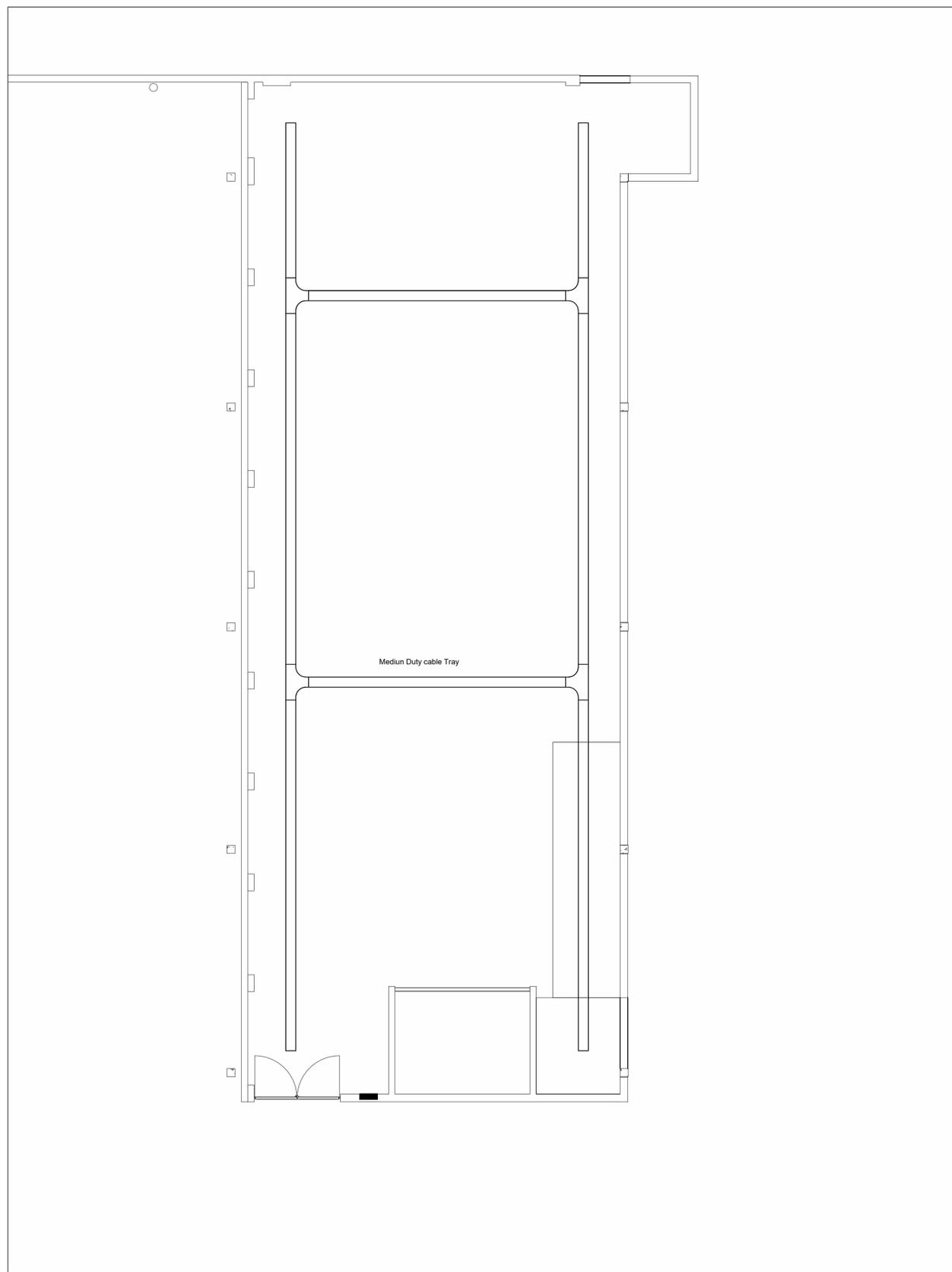
Figure 1: Access Control, Security System & Cable Trays Legend



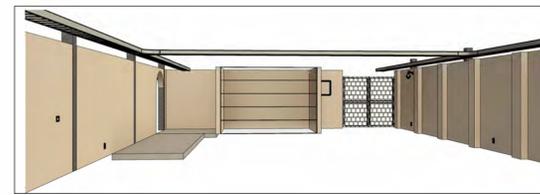
NGWELEZANA NEW ONCOLOGY UNIT

KZN-ONCO-21-LAUNDRY SECURITY SYSTEM LAYOUT





Scale 1: 160 Figure 2: Laundry Cable Tray Layout



Scale 1: 70 Figure 3: Laundry Cable Tray Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. OULET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4.Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Proposed DoH Medium Duty Cable Trays Legend			Proposed DoH - Access Control System Legend		
Image	Circuit Symbol	Description	Image	Circuit Symbol	Description
		Straight Cable Tray			8A, 240v Unswitched Socket Mounted On The Ceiling Void
		Horizontal Bend 90°			Single/Double Door Access Controller panel
		Internal Riser 90°			Fingerprint Keypad Reader - Standalone
		External Dropper 90°			Magnetic Lock 544 KG Holding Force
		Equal 4 Way Crossover			1. Outdoor 20 x AutoDome 800 Series HD Camera (C)
		Equal Tee			2. Indoor 5000 HD IR PoE IP Dome Camera with 3 to 10mm Lens (C)
		5A Plug Point/Socket Outlet used in F8000 Trunking			Emergency Door Release Call Point (Breaker Glass).PNG
					TV Monitor 23" LED Wide 1920 x 1080 VGA and HDMI Incl VESA Mount

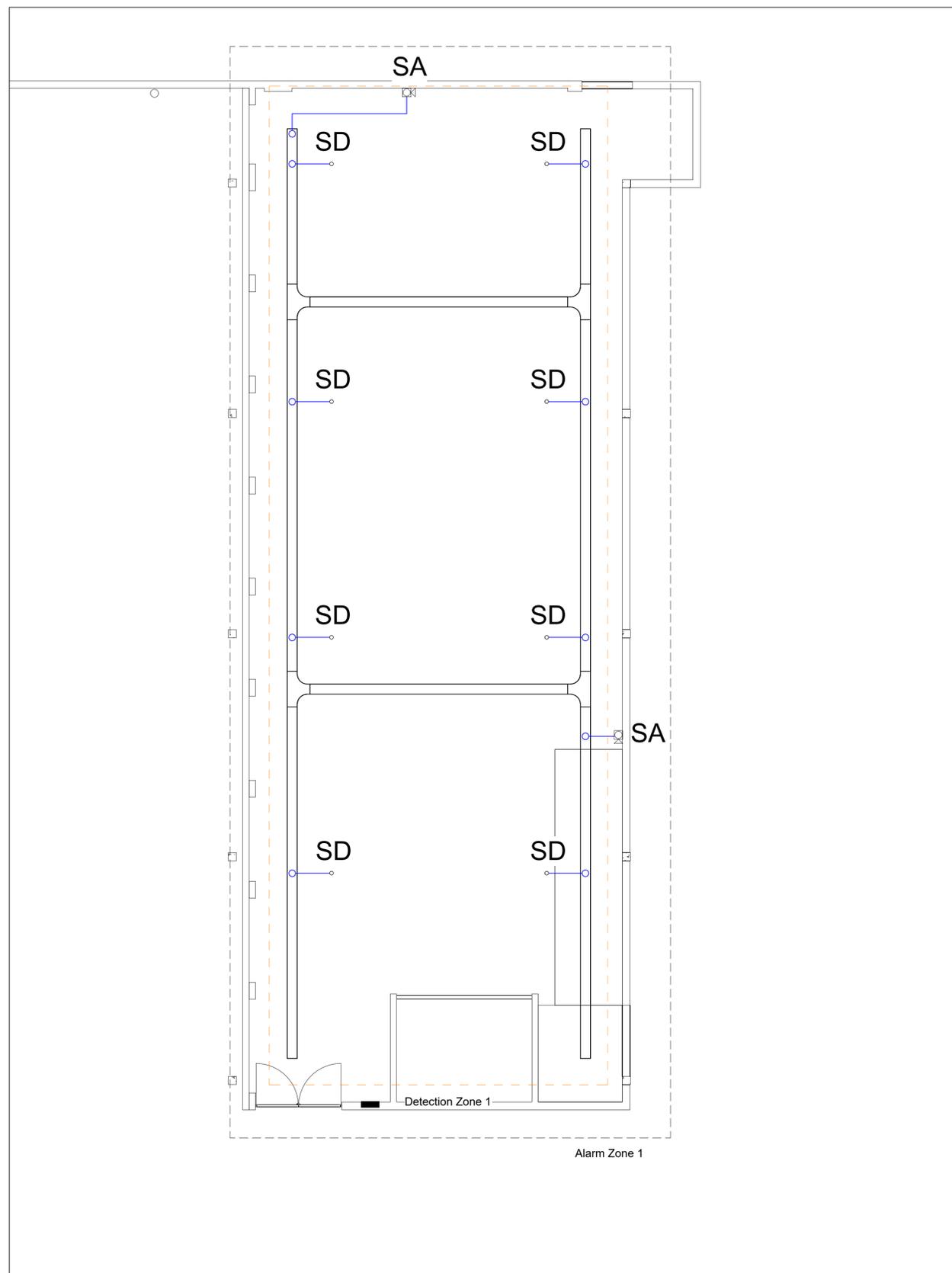
Figure 1: Access Control, Security System & Cable Trays Legend



NGWELEZANA NEW ONCOLOGY UNIT

KZN-ONCO-22-LAUNDRY CABLE TRAY LAYOUT





Scale 1: 160

Figure 2: Laundry Fire Detection Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Tripplle pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

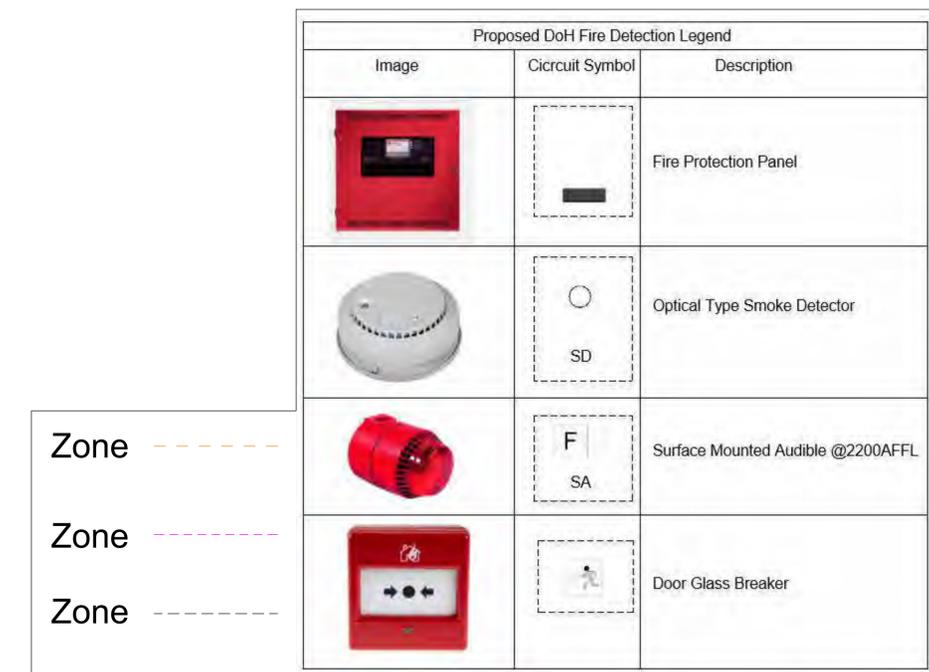


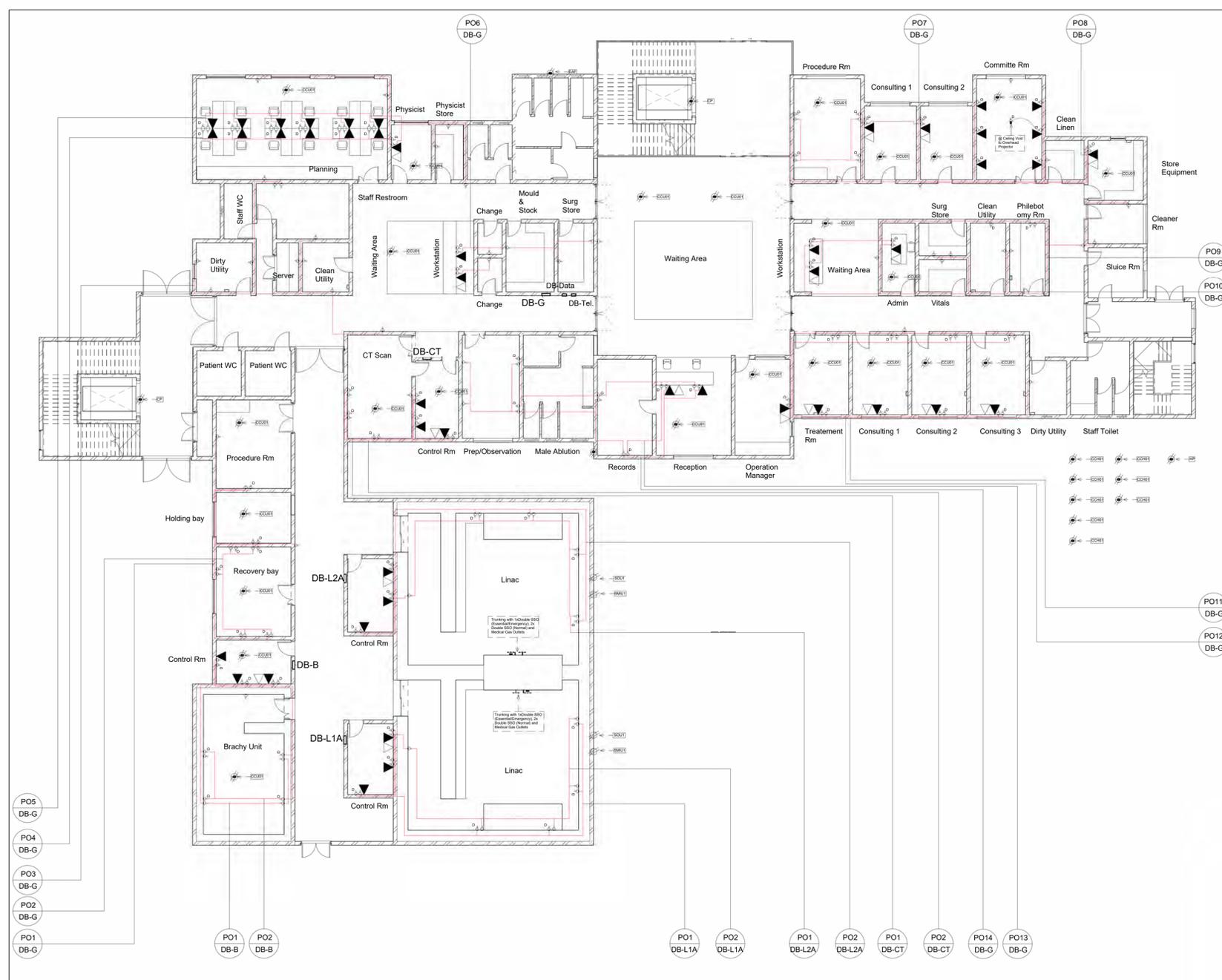
Figure 1: Fire Detection Legend



NGWELEZANA NEW ONCOLOGY UNIT

KZN-ONCO-23-LAUNDRY FIRE DETECTION LAYOUT





Scale 1: 160 Figure 2: Ground Floor Power, Data & Telephone Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATEGORIES AND MOUNTING HEIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPECIFIED**
 All mounting heights shall be finished floor to bottom. Switches: 1400mm generally, Socket outlets: 300mm generally (1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards: generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Tripole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

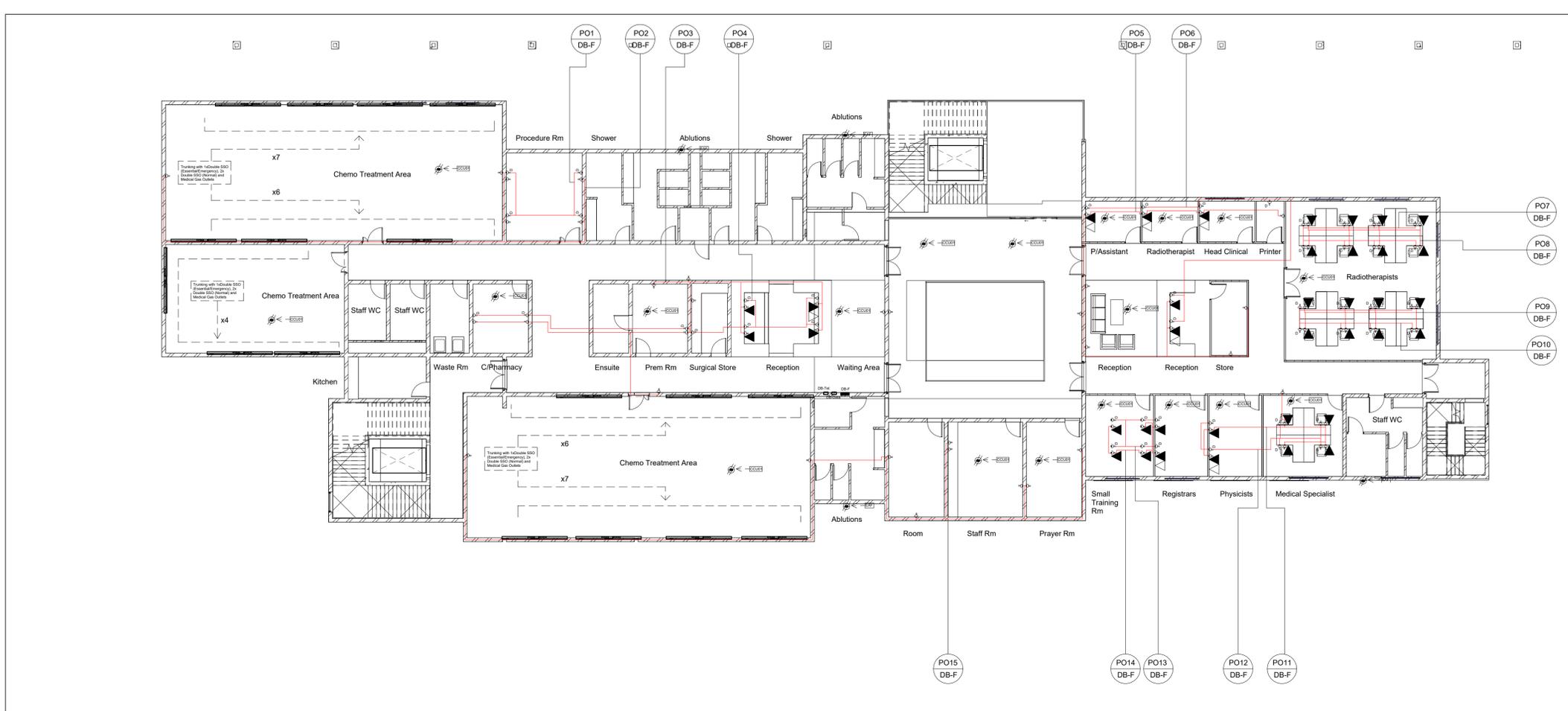
Proposed DoH Power Legend No.2			Proposed DoH Power Legend No.1		
Image	Circuit Symbol	Description	Image	Circuit Symbol	Description
1.		1. Double Compartment Power Skirting C/W Cover 3M - Hosp. Dimension : 165x55mm with no Sharp Edges, Type P801.			16A Plus 1 Euro Plus USB Socket Outlet 4x4 with White Cover, on Earth Leakage used in offices only.
2.		2. Bed head units (BHU) with no Sharp Edges, with 2x Normal & 3x Essential SSO & (For High care only 8xUPS, 8xDedicated, 3xOxygen & 2xVacuum & 3xLP).	1.		1. 16A Normal Double SSO c/w Coverplate Standard, on Earth Leakage.
		Flush Mounted Electricity Distribution Board	2.		2. 16A Dedicated Double SSO c/w Essential Supply Only) Not in Earth Leakage.
		Telephone Socket Outlet for Standard CAT5 RJ11 Type Connection	1.		1. 60A Three Phase Isolator Switch (ACCHO1), 20A Single Phase Isolator Switch (CCU01-CCU05), (SMIU01), (SOU01), (HIU01) for HVAC & (EAF) Fans
		Data Socket Outlet VET13 2 x 4 RJ45-CAT6 Cable From the VET12 Product range	2.		2. 30A Three Phase Isolator Switch for Hot Water (HP)
			3.		3. 32A Double Pole Used for Handdreyer (Iso2)
			4.		4. 20A Double Pole Isolator Switch Used for Lift Shaft (CP)

Figure 1: Power Legend

NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-01-GROUND FLOOR POWER, DATA & TELEPHONE LAYOUT





Scale 1: 160 Figure 2: First Floor Power, Data & Telephone Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

- Indicates Switching ————
- Indicates Circuiting ————
- Circuit Naming PO1 DB-K

Proposed DoH Power Legend No.2		
Image	Circuit Symbol	Description
1.		1. Double Compartment Power Skirting C/W Cover 3M - Hosp. Dimension : 165x55mm with no Sharp Edges, Type P801.
2.		2. Bed head units (BHU) with no Sharp Edges, with 2x Normal & 3x Essential SSO & (For High care only 8xUPS, 8xDedicated, 3xOxygen & 2xVacuum & 3xLP).
		Flush Mounted Electricity Distribution Board
		Telephone Socket Outlet for Standard CAT5 RJ11 Type Connection
		Data Socket Outlet VET13 2 x 4 RJ45-CAT6 Cable From the VET12 Product range

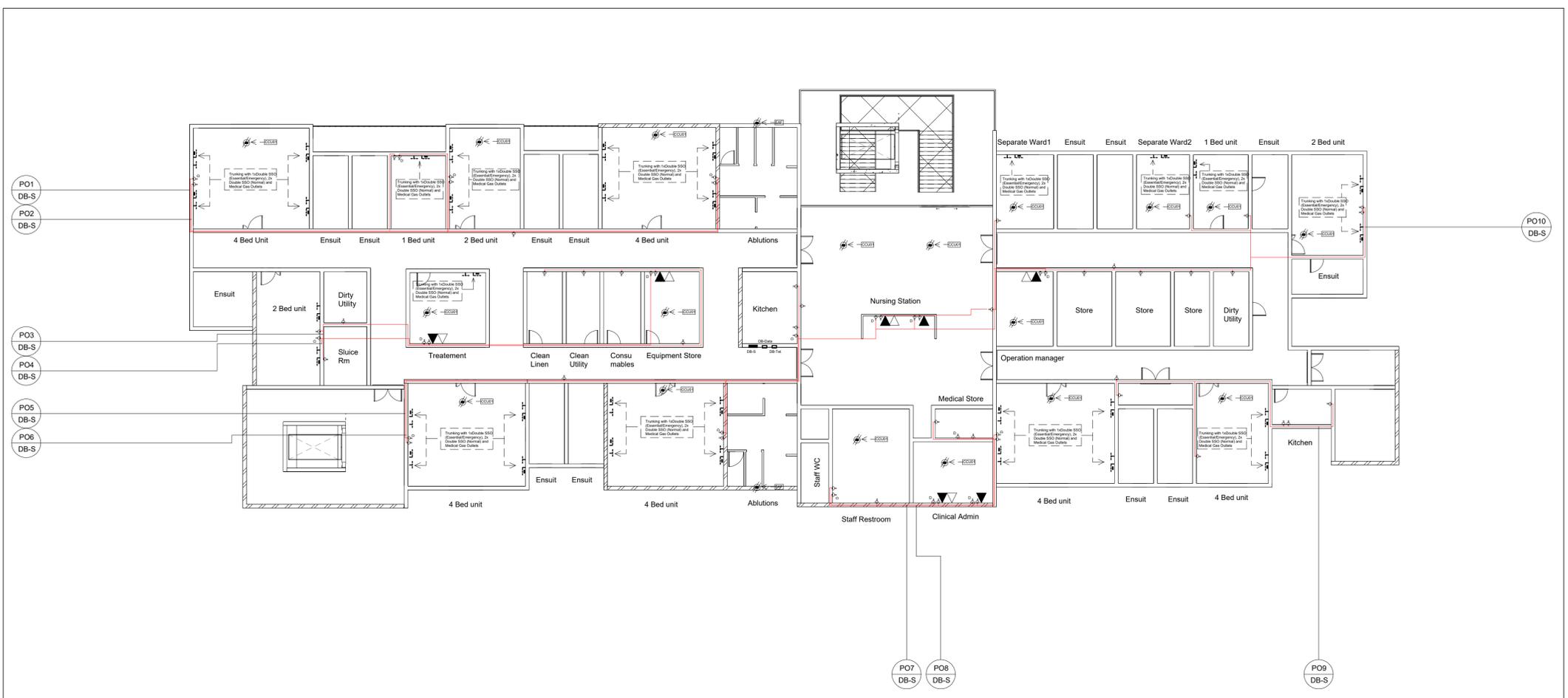
Proposed DoH Power Legend No.1		
Image	Circuit Symbol	Description
		16A Plus 1 Euro Plus USB Socket Outlet 4x4 with White Cover, on Earth Leakage used in offices only.
1.		1. 16A Normal Double SSO c/w Coverplate Standard, on Earth Leakage.
2.		2. 16A Dedicated Double SSO c/w Essential Supply Only) Not in Earth Leakage.
1.		1. 60A Three Phase Isolator Switch (ACCHO1), 20A Single Phase Isolator Switch (CCU01-CCU05), (SMIU01), (SOU01), (HIU01) for HVAC & (EAF) Fans
2.		2. 30A Three Phase Isolator Switch for Hot Water (HP)
3.		3. 32A Double Pole Used for Handdreyer (Iso2)
4.		4. 20A Double Pole Isolator Switch Used for Lift Shaft (CP)

Figure 1: Power Legend

NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-02-FIRST FLOOR POWER, DATA & TELEPHONE LAYOUT





Scale 1: 160

Figure 2: Second Floor Power, Data & Telephone Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
- B. The electrical contractor shall be responsible for co-ordination of this installation.
- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATAGORIES AND MOUNTING HIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

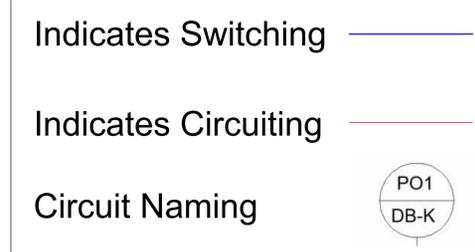
- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Tripplle pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8



Proposed DoH Power Legend No.2

Image	Circuit Symbol	Description
1.		1. Double Compartment Power Skirting C/W Cover 3M - Hosp. Dimension : 165x55mm with no Sharp Edges, Type P801.
2.		2. Bed head units (BHU) with no Sharp Edges, with 2x Normal & 3x Essential SSO & (For High care only 8xUPS, 8xDedicated, 3xOxygen & 2xVacuum & 3xLP).
		Flush Mounted Electricity Distribution Board
		Telephone Socket Outlet for Standard CAT5 RJ11 Type Connection
		Data Socket Outlet VET13 2 x 4 RJ45-CAT6 Cable From the VET2 Product range

Proposed DoH Power Legend No.1

Image	Circuit Symbol	Description
		16A Plus 1 Euro Plus USB Socket Outlet 4x4 with White Cover, on Earth Leakage used in offices only.
1.		1. 16A Normal Double SSO c/w Coverplate Standard, on Earth Leakage.
2.		2. 16A Dedicated Double SSO c/w Essential Supply Only) Not in Earth Leakage.
1.		1. 60A Three Phase Isolator Switch (ACCHO1), 20A Single Phase Isolator Switch (CCU01-CCU05), (SMIU01), (SOU01), (HIU01) for HVAC & (EAF) Fans
2.		2. 30A Three Phase Isolator Switch for Hot Water (HP)
3.		3. 32A Double Pole Used for Handdreyer (Iso2)
4.		4. 20A Double Pole Isolator Switch Used for Lift Shaft (CP)

Figure 1: Power Legend

NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-03-SECOND FLOOR POWER, DATA & TELEPHONE LAYOUT



GENERAL NOTES:



GENERAL NOTES:

1. ROOF SHEETING AND ASSOCIATED STRUCTURES SHALL GENERALLY BE USED AS THE AIR TERMINATION SYSTEM, EXCEPT AS SPECIFICALLY NOTED ON THE DRAWING. DISCRETE AIR TERMINATION CONDUCTORS TO BE SOFT ANNEALED ALUMINIUM (1350 ALLOY) $\geq 70\text{mm}^2$ UNLESS SPECIFICALLY INDICATED OTHERWISE ON DRAWING. ALL DISCRETE AIR TERMINATION CONDUCTORS TO BE INSTALLED $< 100\text{mm}$ FROM ROOF/PARAPET OUTER EDGE.
2. ROOF MOUNTED CABLE TRAYS, METALLIC COMPONENTS AND OTHER INFRASTRUCTURE TO BE BONDED TO THE IMMEDIATELY ADJACENT AIR TERMINATION SYSTEM USING SOFT ANNEALED ALUMINIUM (1350 ALLOY) $\geq 70\text{mm}^2$ UNLESS SPECIFICALLY INDICATED OTHERWISE ON DRAWING.
3. DISCRETE DOWN CONDUCTORS TO BE SOFT ANNEALED ALUMINIUM (1350 ALLOY) $\geq 25\text{mm}^2$ (USE $70\text{mm}^2/8\text{mm} \varnothing$) UNLESS SPECIFICALLY INDICATED OTHERWISE ON DRAWING.
4. ALL MOUNTING SADDLES AND INSTALLATION METHODOLOGY FOR DISCRETE AIR TERMINATION, DOWN CONDUCTOR AND OTHER BONDING CONDUCTORS TO BE APPROVED BY THE ENGINEER.
5. ALL ROD EARTH ELECTRODES TO BE IN ACCORDANCE WITH SANS 1063, LENGTH AS SPECIFIED ON DRAWING (DEFAULT LENGTH 6000mm UNLESS OTHERWISE SPECIFIED). TOP OF EARTH ROD TO BE $\geq 500\text{mm}$ BELOW FINISHED GROUND LEVEL IF INSTALLED IN SOIL.
6. ALL TRENCH EARTH ELECTRODES TO BE 70mm^2 GALVANISED STEEL STRANDED CONDUCTOR INSTALLED $\geq 500\text{mm}$ BELOW FINISHED GROUND LEVEL UNLESS OTHERWISE SPECIFIED.
7. SUITABLE MARKERS TO BE APPROVED BY THE ENGINEER TO BE INSTALLED AT ALL DISCRETE EARTH ELECTRODES.
8. ALL METAL STRUCTURES AND PLANT INFRASTRUCTURE TO BE MADE GALVANICALLY CONTINUOUS AND BONDED TO THE EARTH ELECTRODE SYSTEM. ALL EQUIPMENT TO BE BONDED TO METAL STRUCTURES/EARTHING SYSTEM. NOTE THAT NOT ALL REQUIRED DISCRETE BONDS ARE SHOWN ON THE DRAWING, DUE TO THE DRAWING RESOLUTION/SCALE.
9. APPROVED CONDUCTOR TYPES, MATERIAL AND DIMENSIONS TO BE AS SPECIFIED ON THE DRAWING, OR IF NOT SPECIFIED IN ACCORDANCE WITH THE CONDUCTOR DEFINITIONS IN THE GENERAL NOTES AND SPECIFICATIONS DRAWING. ANY DEVIATION TO BE SPECIFICALLY APPROVED BY THE ENGINEER.
10. LIGHTNING PROTECTION SYSTEM TO BE COMPLIANT WITH THE REQUIREMENTS OF SANS 10313:2008 AND THIS DRAWING/DOCUMENT. IN THE EVENT OF A CONFLICT, SPECIFIC REQUIREMENTS OF THIS DRAWING SHALL BE SUPERCEDING.
11. EQUIPOTENTIALISATION IS A KEY PRINCIPLE BEHIND THE LIGHTNING PROTECTION STRATEGY AND DESIGN FOR THE SITE. EQUIPOTENTIALISATION AT GROUND LEVEL CAN BE ACHIEVED THROUGH THE USE OF NATURAL COMPONENTS SUPPLEMENTED WITH THE USE OF DISCRETE CONDUCTORS AS REQUIRED (E.G. AT GALVANIC DISCONTINUITIES AND BETWEEN STRUCTURES).
12. LIGHTNING PROTECTION ZONES SHALL BE ESTABLISHED AND MANAGED AS PER THE PRINCIPLES SET OUT IN THIS DRAWING/DOCUMENT AND THE GENERAL NOTES AND SPECIFICATIONS DRAWING. IT IS IMPORTANT TO MANAGE THE ZONE BOUNDARIES, FOR EXAMPLE IN RESPECT OF GROUNDING OF GROUNDABLE CONDUCTORS (INCLUDING ARMOURING), INSTALLATION OF SURGE PROTECTIVE DEVICES SPDs, ETC AT OR AS CLOSE AS POSSIBLE TO THE ZONE BOUNDARIES.
13. UNLESS OTHERWISE SPECIFIED, THE FOLLOWING BONDING METHODS ARE ACCEPTABLE (IN ORDER OF DECREASING PREFERENCE):
 - EXOTHERMIC WELDING (OR ARC OR OTHER WELDING WHERE SPECIFICALLY SPECIFIED)
 - CRIMPING
 - BOLTING OR CLAMPING
 EXOTHERMIC WELDING IS GENERALLY PREFERRED DUE TO THE SOUND ELECTRICAL CONNECTION ACHIEVED, AND THE RESISTANCE TO CORROSION. IT SHALL THEREFORE BE USED IN PREFERENCE TO ALL OTHER METHODS, AND MUST BE USED FOR BURIED BONDS. WELDING OF ANY NATURE TO REBAR IS NOT PERMITTED.
14. FIXED EARTHING TERMINAL AS PER SITE WIDE DRAWING. EXACT SIZE AND DETAIL DESIGN OF FIXED EARTHING TERMINAL TO ALLOW FOR PRACTICAL CONNECTION ON SITE AND TO BE APPROVED BY ENGINEER PRIOR TO MANUFACTURE/PROCUREMENT AND INSTALLATION.

Scale 1: 160

Figure 2: Lightning Protection Layout

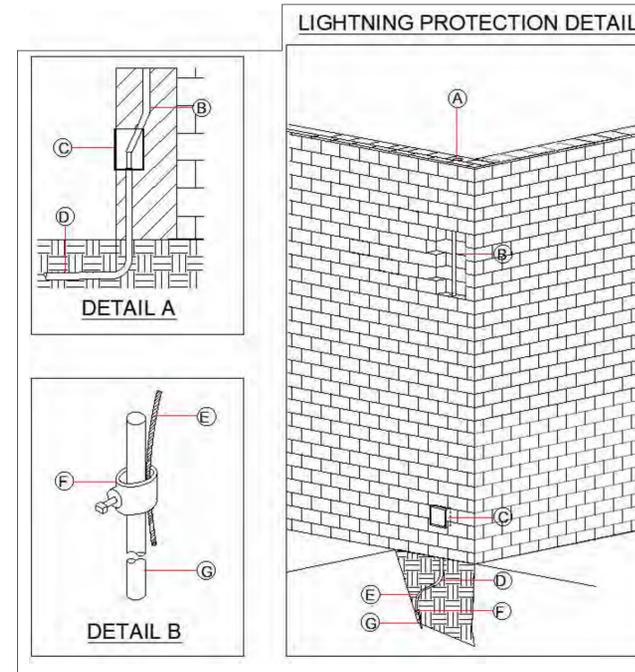


Figure 1: Lightning Protection Legend



Scale 1: 160

Figure 2: Ground Floor Lighting Layout

GENERAL NOTES:

IMPORTANT INFORMATION

- A. This drawing is issued ONLY for the SERVICE INDICATED IN THE TITLE BLOCK.
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- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.

CATAGORIES AND MOUNTING HIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

3. MOUNTING HEIGHTS-UNLESS SPEIFIED

All mounting heights shall be finished floor to bottom. Switches: 1400mm generally, Socket outlets: 300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards: generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Proposed DoH Lighting Legend No. 1

Image	Circuit Symbol	Description
	A1	Fluorescent recessed cans with full plastic cover and secure fasteners. Fluorescent Fitting T8 2 x 58w with Prismatic Diffuser with emergency light. 5 year warranty.
	B1	1200x600 LED Backlit Panel, 3x36w, 5500lm, 4000K, Flicker Free, Non Dimmable. Includes 3m 5 amp Cordset. 5 Year Warranty.
	C1	12w High Performance Non-Dimmable Downlight, 4000K, 1320lm, 110lm/W, IP44, 5 Year Warranty.
	F1	100w Adjustable IP65 LED Floodlight, Salt Spray tested Coastal Quality, 130lm/W, 4000K, Black, 5 Year Warranty.
	3 D1	Daynight Switch.
		Light Switch & Rotary Dimmer

Proposed DoH Lighting Legend No. 2

Image	Circuit Symbol	Description
	C1.1	5w LED Dimmable Downlight Unit, 5 Year Warranty.
	T1	12 x 3w Treatment RM Examination Light, 5 Year Warranty.
	XR	X-ray in use' light
	LN	Linac/Brachy Unit in use' light
	J1	20w LED Bulbhead, 30 Die cast aluminum base and black ring trim, 2000lm, with 5 year warranty.

Indicates Switching ———

Indicates Circuiting ———

Circuit Naming

Figure 1: Lighting Legend

NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-14-GROUND FLOOR LIGHTING LAYOUT



GENERAL NOTES:

IMPORTANT INFORMATION

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- C. Installation shall be undertaken in strict accordance with the STANDARD SPECIFICATION: SECTION B.
- D. The information given hereunder has been abstracted from the above and is provided for ease of reference, but in no way does it replace the contents of Section B.

OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters & numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.

CATAGORIES AND MOUNTING HIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPEIFIED**
 All mounting heights shall be finished floor to bottom. Switches:1400mm generally, Socket outlets:300mm generally(1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards:generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

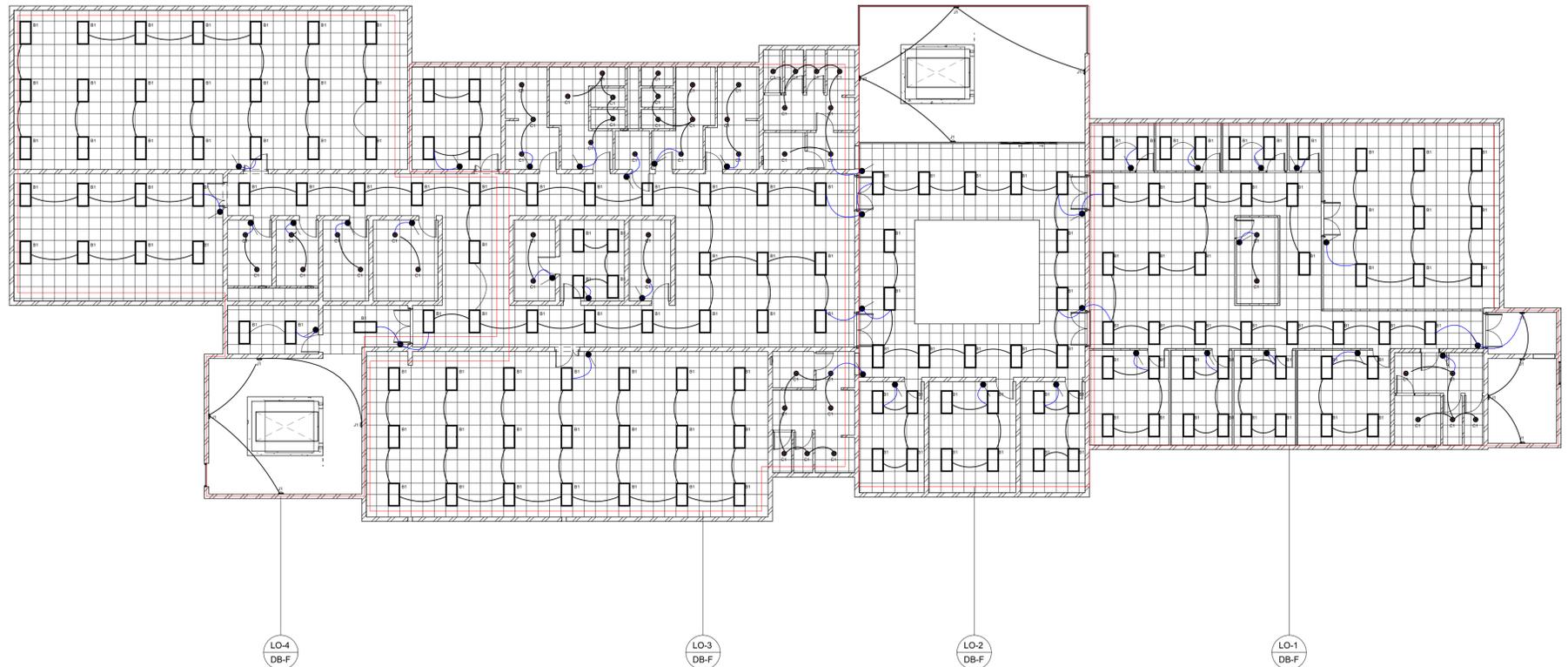
- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet(unswitched)
 DUO-double Switched Socket in one outlet box, AFLL-Above finished floor level, cct-circuit, DB- distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trippl pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2. Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8



Scale 1: 160

Figure 2: First Floor Lighting Layout

Indicates Switching ————

Indicates Circuiting ————

Circuit Naming ————

PO1
DB-K

Proposed DoH Lighting Legend No 2

Image	Circuit Symbol	Description
	C1.1	5w LED Dimmable Downlight Unit, 5 Year Warranty.
	T1	12 x 3w Treatment RM Examination Light, 5 Year Warranty.
	XR	X-ray in use light
	LIN	Linac/Brachy Unit in use light
	J1	20w LED Bulkhead, 30 Die cast aluminum base and black ring trim, 2000lm, with 5 year warranty.

Proposed DoH Lighting Legend No. 1

Image	Circuit Symbol	Description
	A1	Fluorescent recessed cans with full plastic cover and secure fasteners. Fluorescent Fitting T8 2 x 58w with Prismatic Diffuser with emergency light. 5 year warranty.
	B1	1200x600 LED Backlit Panel, 3x36w, 5500lm, 4000K, Flicker Free, Non Dimmable. Includes 3m 5 amp Cordset. 5 Year Warranty.
	C1	12w High Performance Non-Dimmable Downlight, 4000K, 1320lm, 110lm/W, IP44, 5 Year Warranty.
	F1	100v Adjustable IP65 LED Floodlight, Salt Spray tested Coastal Quality, 130lm/W, 4000K, Black, 5 Year Warranty.
	3 D1	Daynight Switch.
		Light Switch & Rotary Dimmer

Figure 1: Lighting Legend



NGWELEZANA NEW ONCOLOGY UNIT

NWS-ONCO-15-FIRST FLOOR LIGHTING LAYOUT





GENERAL NOTES:

IMPORTANT INFORMATION

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OUTLETS AND LUMINAIRE

- 1. **OUTLET REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS.**
Outlet & Circuit: The prefix combination of capital letters and numeral(s) of an outlet refers to the distribution boards (DB) from which it is fed. The next numeral(s) indicates the circuit number and subsequent ones. [eg: 2BE3.7=outlet 7 on circuit 3 fed from DB-2BE.]

CATEGORIES AND MOUNTING HEIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPECIFIED**
 All mounting heights shall be finished floor to bottom. Switches: 1400mm generally, Socket outlets: 300mm generally (1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards: generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

- 4. **Abbreviations**
 SSO-Switched Socket Outlet; SO-Socket outlet (unswitched)
 DUO-double Switched Socket in one outlet box, AFLL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Tripole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

Type of Circuit	Conductor Size
Lighting	2.5mm ²
Socket outlet -16A	4mm ²
Heater/geyser to 4kW	4mm ²
Stoves up to 12kW	6mm ²
Isolators up to 40A	4mm ²

SANS 10400-XA:2021 Edition 2, Table 12

Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
E2	Hospital	8
E3	Institutional Residences	8
E4	Health Care	8

Scale 1: 160

Figure 2: Second Floor Lighting Layout

Indicates Switching ————

Indicates Circuiting ————

Circuit Naming ————

Proposed DoH Lighting Legend No.2

Image	Circuit Symbol	Description
	C1.1	5w LED Dimmable Downlight Unit, 5 Year Warranty.
	T1	12 x 3w Treatment RM Examination Light, 5 Year Warranty.
	XR	X-ray in use' light
	LIN	Linac/Brachy Unit in use' light
	J1	20w LED Bulkhead, 30 Die cast aluminium base and black ring trim, 2000lm, with 5 year warranty.

Proposed DoH Lighting Legend No.1

Image	Circuit Symbol	Description
	A1	Fluorescent recessed cans with full plastic cover and secure fasteners. Fluorescent Fitting T8 2 x 58w with Prismatic Diffuser with emergency light. 5 year warranty.
	B1	1200x600 LED Backlit Panel, 3x36w, 5500lm, 4000K, Flicker Free, Non Dimmable. Includes 3m 5 amp Cordset. 5 Year Warranty.
	C1	12w High Performance Non-Dimmable Downlight, 4000K, 1320lm, 110lm/W, IP44, 5 Year Warranty.
	F1	100v Adjustable IP65 LED Floodlight, Salt Spray tested Coastal Quality, 130lm/W, 4000K, Black, 5 Year Warranty.
	3 D1	Daynight Switch.
		Light Switch & Rotary Dimmer

Figure 1: Lighting Legend



NGWELEZANA NEW ONCOLOGY UNIT

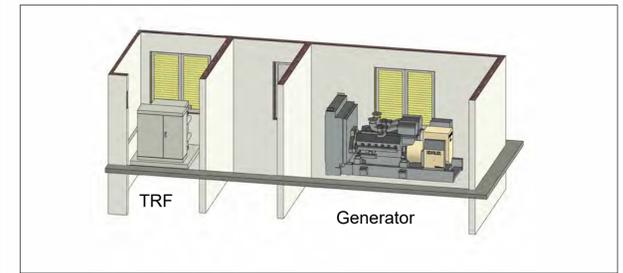
NWS-ONCO-16-SECOND FLOOR LIGHTING LAYOUT





SCALE: 1:450

SITE RETICULATION LAYOUT

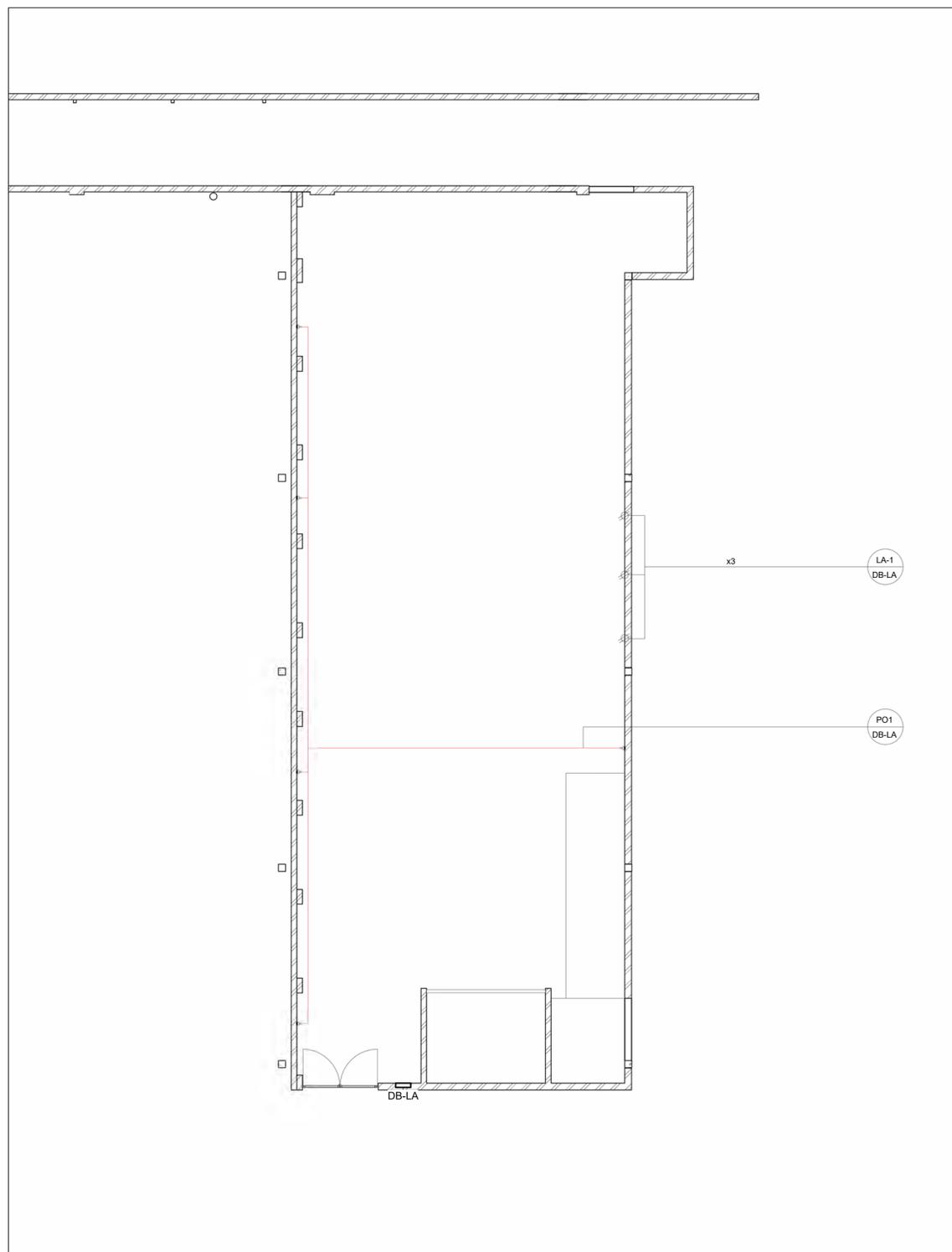


SCALE: 1:125

3D LAYOUT

LEGEND

	240mm ² 3c Cu LV Cable
	95mm ² 4c Cu LV Cable
	95mm ² 3c Cu MV Cable
	LV Cable to be Dismantled
	Existing LV Cable
	LV Room
	Existing Min-Sub



Scale 1: 160 Figure 2: Laundry Power Layout

GENERAL NOTES:

IMPORTANT INFORMATION

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CATEGORIES AND MOUNTING HEIGHTS

- 2. **LUMINAIRE REFERENCE USED IN SCHEDULE OF OUTLETS AND DRAWINGS**
 The lowercase letter indicated in the luminaire column of the schedule of outlets refers to the type of fitting specified on the luminaire schedule.

- 3. **MOUNTING HEIGHTS-UNLESS SPECIFIED**
 All mounting heights shall be finished floor to bottom. Switches: 1400mm generally, Socket outlets: 300mm generally (1400mm factories, 1400mm kitchen/domestic/commercial). Distribution boards: generally door head height OR 2000mm where no surface reference exists.

ABBREVIATIONS

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 DUO-double Switched Socket in one outlet box, AFFL-Above finished floor level, cct-circuit, DB-distribution board
 Tel-Telephone, A-Amp, V-Volt, SP-Single pole, DP-double pole
 TP-Trip pole, ESS- Essential Supply ; dwg-drawing

WIRE SIZES

SANS 10400-XA:2021 Edition 2. Table 12

Type of Circuit	Conductor Size	Occupancy Classification	Occupancy Description	Lighting Power density W/m ²
Lighting	2.5mm ²	E2	Hospital	8
Socket outlet -16A	4mm ²			
Heater/geyser to 4kW	4mm ²	E3	Institutional Residences	8
Stoves up to 12kW	6mm ²			
Isolators up to 40A	4mm ²	E4	Health Care	8

Proposed DoH Power Legend No.2			Proposed DoH Power Legend No.1		
Image	Circuit Symbol	Description	Image	Circuit Symbol	Description
1.		1. Double Compartment Power Skirting C/W Cover 3M - Hosp. Dimension : 165x55mm with no Sharp Edges, Type P801.			16A Plus 1 Euro Plus USB Socket Outlet 4x4 with White Cover, on Earth Leakage used in offices only.
2.		2. Bed head units (BHU) with no Sharp Edges, with 2x Normal & 3x Essential SSO & (For High care only 8xUPS, 8xDedicated, 3xOxygen & 2xVacuum & 3xLP).	1.		1. 16A Normal Double SSO c/w Coverplate Standard, on Earth Leakage.
		Flush Mounted Electricity Distribution Board	2.		2. 16A Dedicated Double SSO c/w Essential Supply Only) Not in Earth Leakage.
		Telephone Socket Outlet for Standard CAT5 RJ11 Type Connection	1.		1. 60A Three Phase Isolator Switch (OD-1), Laundry Machines (LA-1) & 3A Single Phase Isolator Switch (DU-1) for HVAC
		Data Socket Outlet VET13 2 x 4 RJ45-CAT6 Cable From the VET12 Product range	2.		2. 30A Double Pole Isolator Switch for Geyser (HP)
			3.		3. 32A Double Pole Used for Handdreyer (Iso2)
			4.		4. 20A Double Pole Isolator Switch Used for Lift Shaft (CP)

Figure 1: Power Legend

Indicates Switching

Indicates Circuiting

Circuit Naming

NGWELEZANA NEW ONCOLOGY UNIT

KZN-ONCO-18-LAUNDRY POWER LAYOUT

