

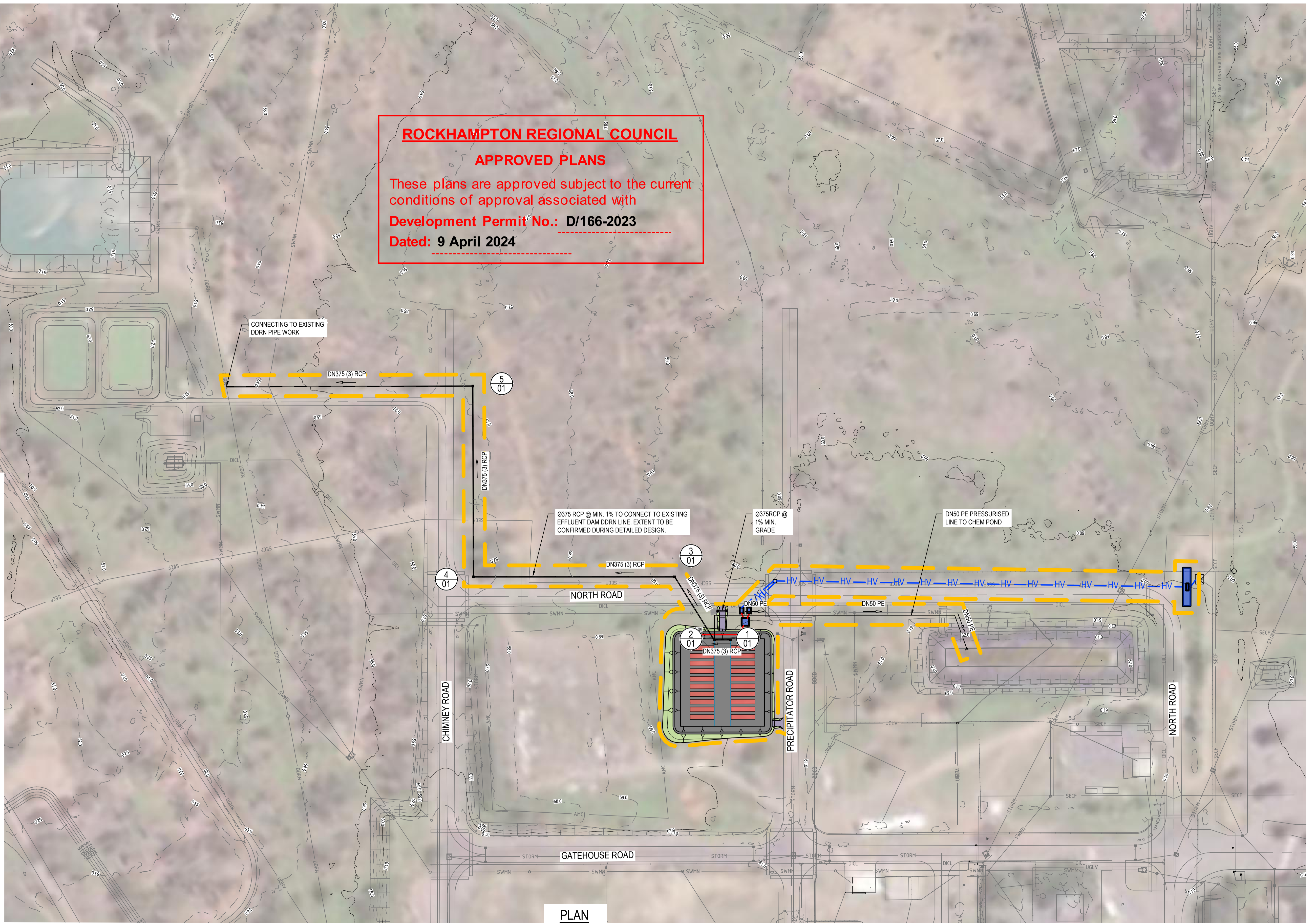
ROCKHAMPTON REGIONAL COUNCIL
APPROVED PLANS
 These plans are approved subject to the current conditions of approval associated with
Development Permit No.: D/166-2023
Dated: 9 April 2024

LEGEND

- LIMITS OF WORKS 25.0
- CONTOUR DESIGN MAJOR (1.0m) ---
- CONTOUR DESIGN MINOR (0.2m) ---
- EXISTING Ø100 SEWER SWMN
- EXISTING Ø100 WATER DCL
- EXISTING COMMS CONDUIT UGLV
- EXISTING ELECTRIC CONDUIT WHD
- PROPOSED ELECTRICAL —HV—HV—
- TOP OF BATTER ▽
- BOTTOM OF BATTER ▽
- BUILDING PAD ■
- BATTERY CELL ■
- ACO TRENCH GRATE ■
- BATTERS ■
- CONCRETE DRIVEWAY ■
- DN375(3) RCP —
- DN50 PE —
- FIELD INLET PIT ■
- PROPOSED HEADWALL ■
- PROPOSED ROCK PROTECTION ■
- FLOW ARROW DIRECTION →
- STRUCTURE LABEL ①

NOTES

1. FOR DRAWING LIST REFER TO DRAWING NUMBER 12596104-C-001
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER 12596104-C-011



PLAN
 SCALE 1:1000

Rev	Description	Checked	Approved	Date
E	RE-ISSUE TO CLIENT	DS	MG	15.03.24
D	RE-ISSUE TO CLIENT	DS	MG	23.06.23
C	RE-ISSUE TO CLIENT	DS	MG	25.05.23
B	ISSUE TO CLIENT	DS	MG	20.01.23
A	PRELIMINARY DESIGN	DS	MG	17.01.23

Author N. BIRINDWA Drafting Check D. SIPPEL
 Designer B. VASTA Design Check M. GRIM



Project No.
12596104

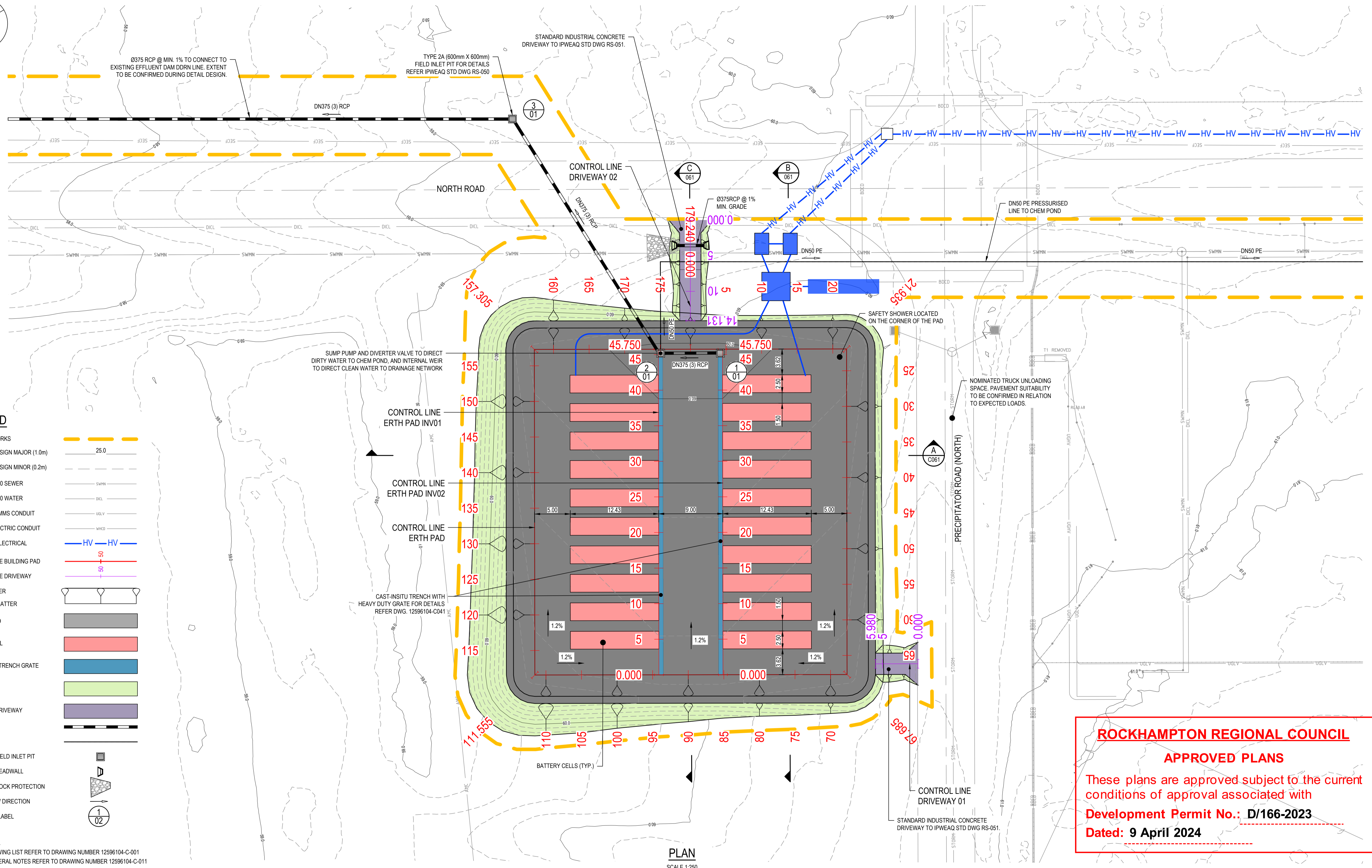
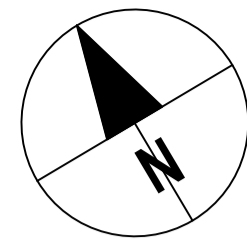
Client **STANWELL CORPORATION**
 Project **STANWELL FUTURE ENERGY INNOVATION & TRAINING HUB**
 Status **PRELIMINARY**

Drawing Title **OVERALL SITE PLAN**

Drawing No. **12596104-C021**

Size **A1**

Rev **E**



LEGEND

- LIMITS OF WORKS: 25.0
- CONTOUR DESIGN MAJOR (1.0m): 25.0
- CONTOUR DESIGN MINOR (0.2m): 25.0
- EXISTING Ø100 SEWER:
- EXISTING Ø100 WATER:
- EXISTING COMMS CONDUIT:
- EXISTING ELECTRIC CONDUIT:
- PROPOSED ELECTRICAL:
- CONTROL LINE BUILDING PAD:
- CONTROL LINE DRIVEWAY:
- TOP OF BATTER:
- BOTTOM OF BATTER:
- BUILDING PAD:
- BATTERY CELL:
- CAST-IN-SITU TRENCH GRATE:
- BATTERS:
- CONCRETE DRIVEWAY:
- DN375(3) RCP:
- DN50 PE:
- PROPOSED FIELD INLET PIT:
- PROPOSED HEADWALL:
- PROPOSED ROCK PROTECTION:
- FLOW ARROW DIRECTION:
- STRUCTURE LABEL:

NOTES

1. FOR DRAWING LIST REFER TO DRAWING NUMBER 12596104-C-001
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER 12596104-C-011

ROCKHAMPTON REGIONAL COUNCIL

APPROVED PLANS

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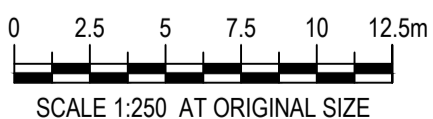
Development Permit No.: D/166-2023

Dated: 9 April 2024

PLAN
SCALE 1:250

Rev	Description	Checked	Approved	Date
D	RE-ISSUE TO CLIENT	DS	MG	23.06.23
C	RE-ISSUE TO CLIENT	DS	MG	25.05.23
B	ISSUE TO CLIENT	DS	MG	20.01.23
A	PRELIMINARY DESIGN	DS	MG	17.01.23

Author	N. BIRINDWA	Drafting Check	D. SIPPEL
Designer	B. VASTA	Design Check	M. GRIM



Project No.
12596104

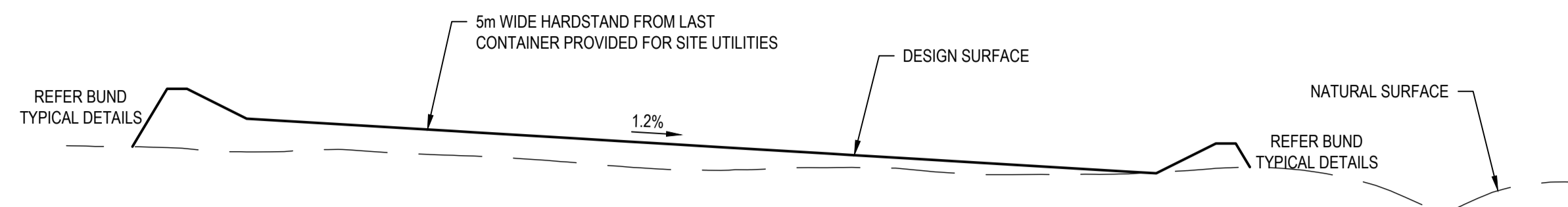
Client	STANWELL CORPORATION
Project	STANWELL FUTURE ENERGY INNOVATION & TRAINING HUB
Status	PRELIMINARY

Drawing Title: GENERAL ARRANGEMENT PLAN

Size
A1

Drawing No.
12596104-C041

Rev
D



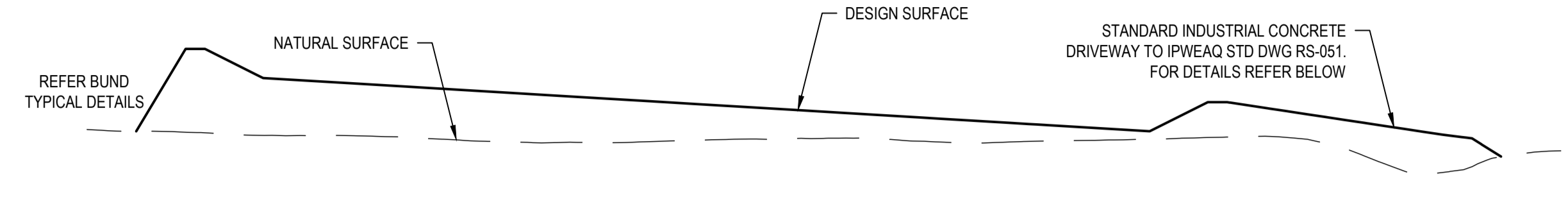
DATUM RL. 58.00

DESIGN SURFACE LEVEL	60.86	60.57	60.51	60.45	60.39	60.33	60.27	60.21	60.15	60.09	60.05				
EXISTING SURFACE LEVEL	60.29	60.24	60.25	60.20	60.14	60.07	60.07	60.09	60.03	60.02	60.04	60.09	59.95	59.69	59.94
CHAINAGE	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00

LONGITUDINAL SECTION - B

HORZ 1:250 VERT 1:50

B SECTION
C041 HORIZONTAL SCALE 1:250
VERTICAL SCALE 1:50



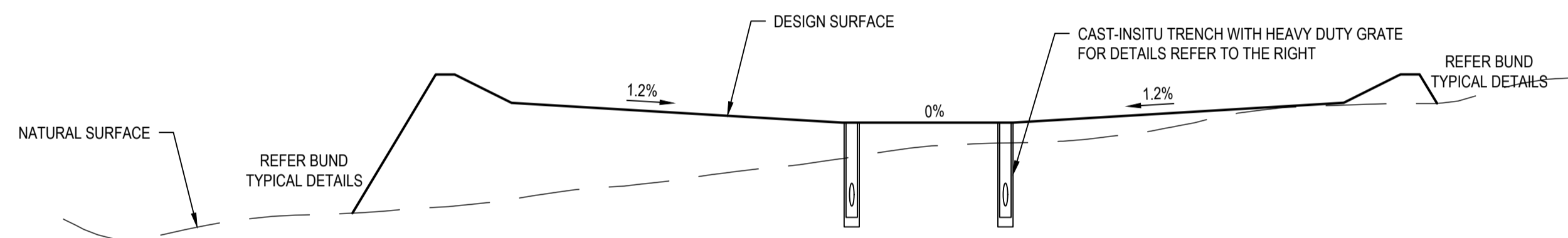
DATUM RL. 58.00

DESIGN SURFACE LEVEL	60.74	60.45	60.39	60.33	60.27	60.21	60.15	60.09	60.03	59.97	59.93	60.18	60.03	59.86	
EXISTING SURFACE LEVEL	59.91	59.87	59.86	59.82	59.80	59.82	59.83	59.85	59.80	59.82	59.83	59.86	59.73	59.49	59.71
CHAINAGE	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00

LONGITUDINAL SECTION - C

HORZ 1:250 VERT 1:50

C SECTION
C041 HORIZONTAL SCALE 1:250
VERTICAL SCALE 1:50



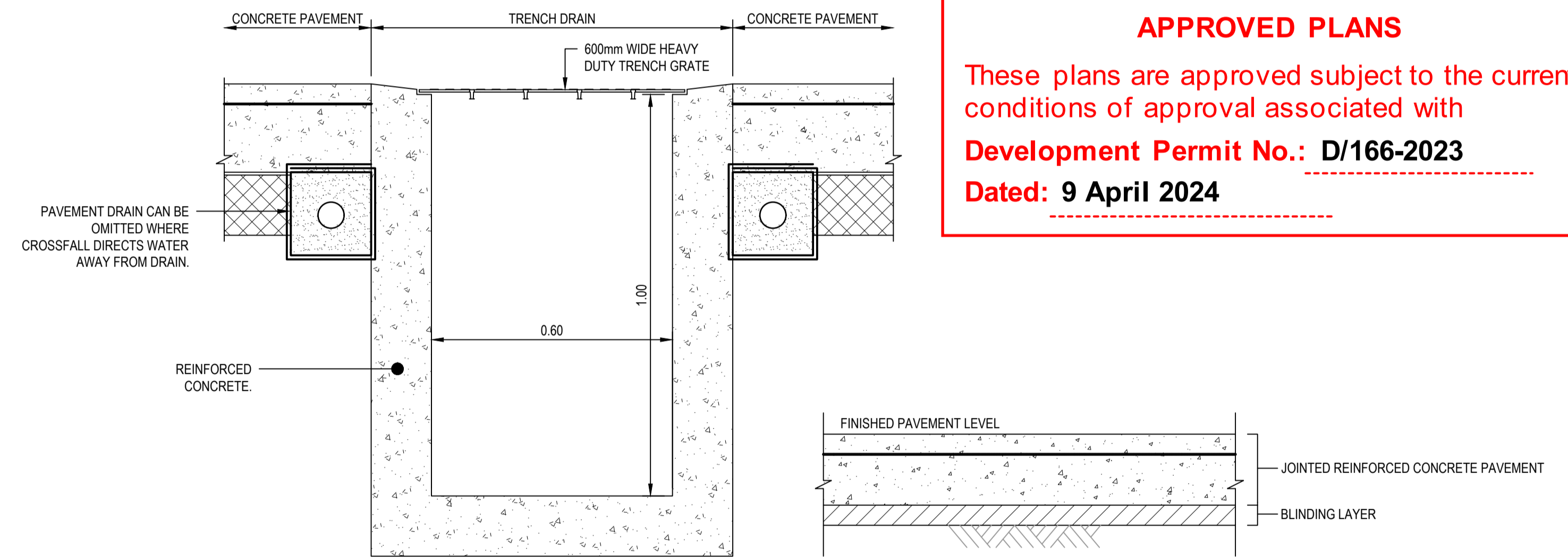
DATUM RL. 58.00

DESIGN SURFACE LEVEL	59.90	59.09	59.14	59.21	59.33	59.44	59.57	59.69	59.83	59.88	59.95	60.10	60.22	60.28	60.56
EXISTING SURFACE LEVEL	58.90	59.09	59.14	59.21	59.33	59.44	59.57	59.69	59.83	59.88	59.95	60.10	60.22	60.28	60.56
CHAINAGE	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00

LONGITUDINAL SECTION - A

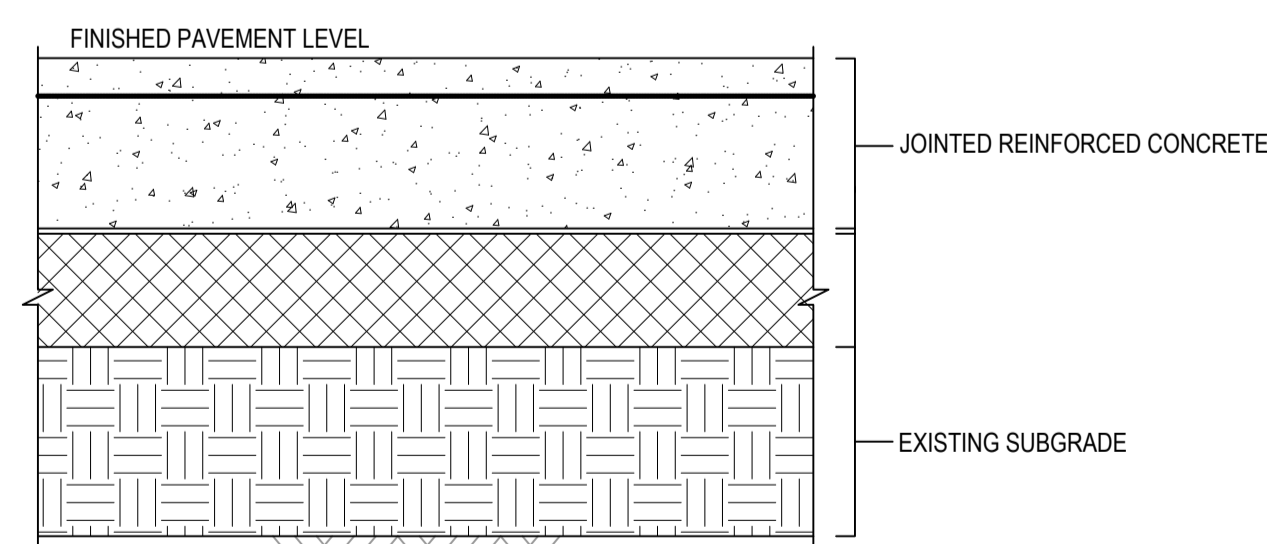
HORZ 1:250 VERT 1:50

A SECTION
C041 HORIZONTAL SCALE 1:250
VERTICAL SCALE 1:50

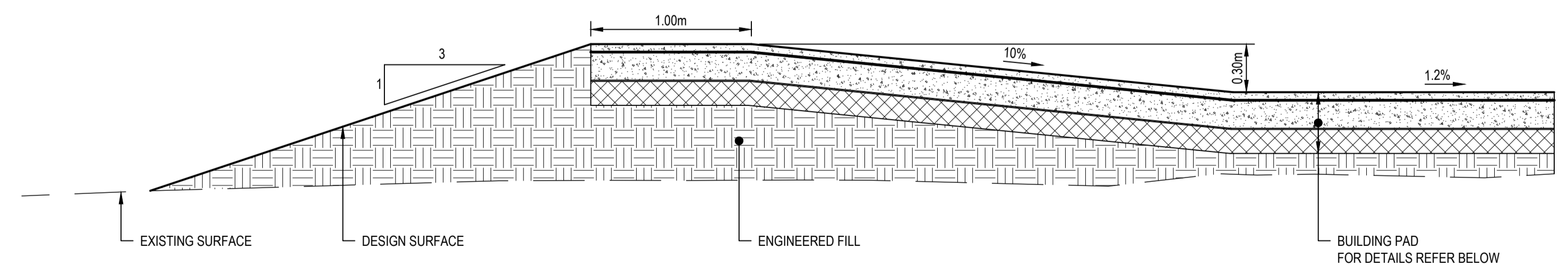


TRENCH DRAIN TYPICAL
DETAIL FOR CONCRETE SLAB
SCALE 1:10

IPWEAQ STANDARD HEAVY DUTY VEHICLE CROSSING DRIVEWAY
CONCRETE PAVEMENT TYPICAL
DETAIL
SCALE 1:10



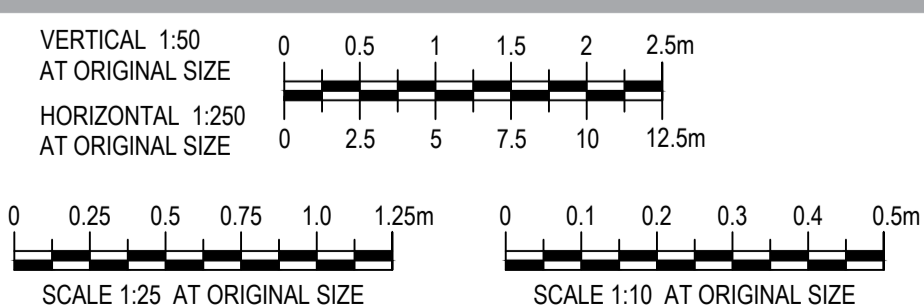
BUILDING PAD JOINTED REINFORCED
CONCRETE PAVEMENT TYPICAL
DETAIL
SCALE 1:10



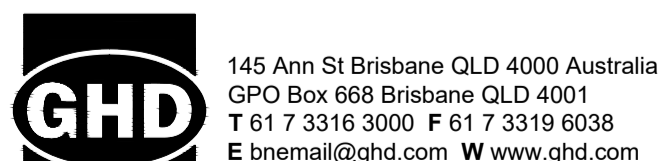
BUND TYPICAL
DETAIL
SCALE 1:25

NOTES

- FOR DRAWING LIST REFER TO DRAWING NUMBER 12596104-C-001
- FOR GENERAL NOTES REFER TO DRAWING NUMBER 12596104-C-011
- ALL DIMENSIONS ARE IN METERS UNLESS INDICATED OTHERWISE.
- FOR BUILDING PAD CONCRETE PAVEMENT DETAIL SIKAFLEX POLYURETHANE FILLET SEALANT OR OTHER APPROVED EQUIVALENT IS TO BE USED.
- FOR DRIVEWAY CONCRETE PAVEMENT DETAILS REFER TO IPWEAQ STANDARD DRAWING RS-051 FOR NOTES.



THIS DRAWING INCLUDES
COLOURED INFORMATION
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PRODUCED IN COLOUR



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Project No.
12596104

Client **STANWELL CORPORATION**
Project **STANWELL FUTURE ENERGY
INNOVATION & TRAINING HUB**
Status **PRELIMINARY**

Drawing Title **SITE SECTIONS AND DETAILS**

Drawing No.
12596104-C061

Size
A1
Rev
D

LEGEND:

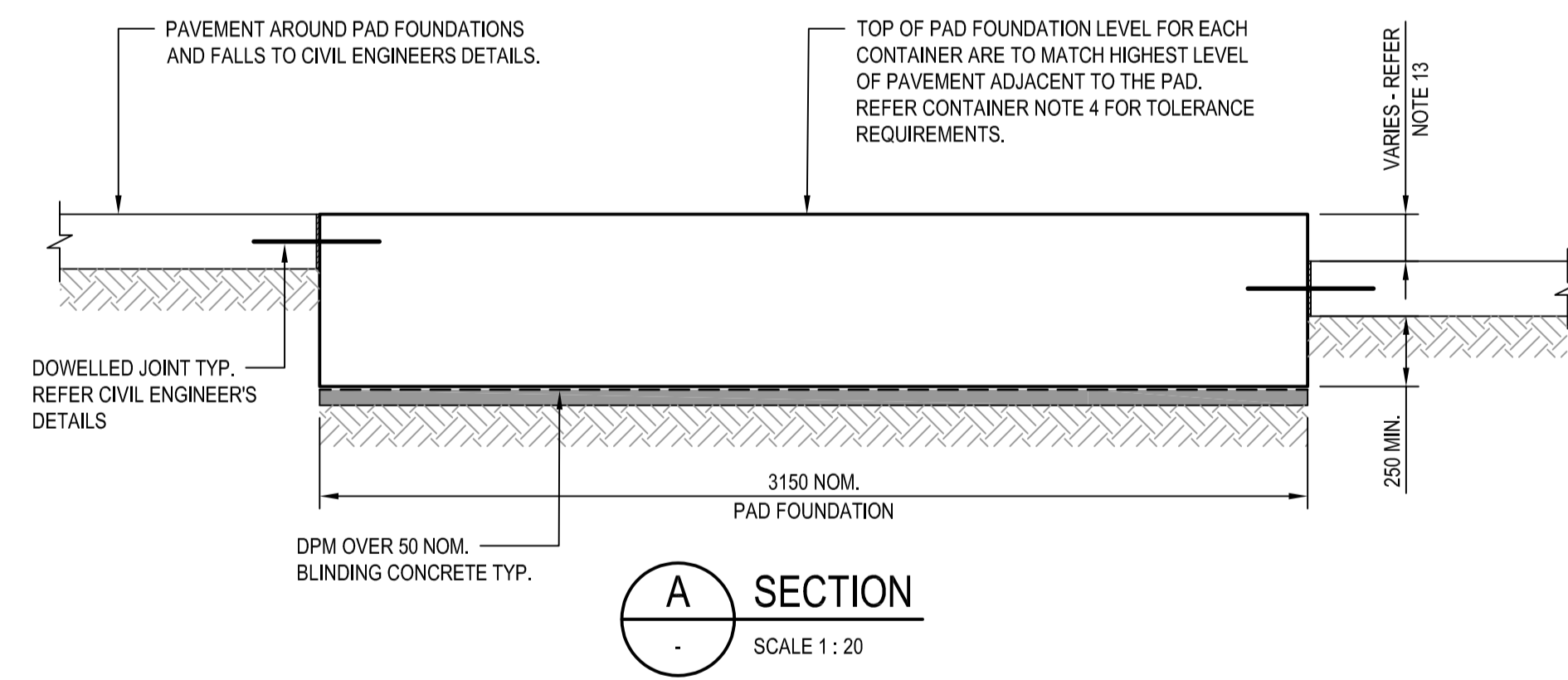
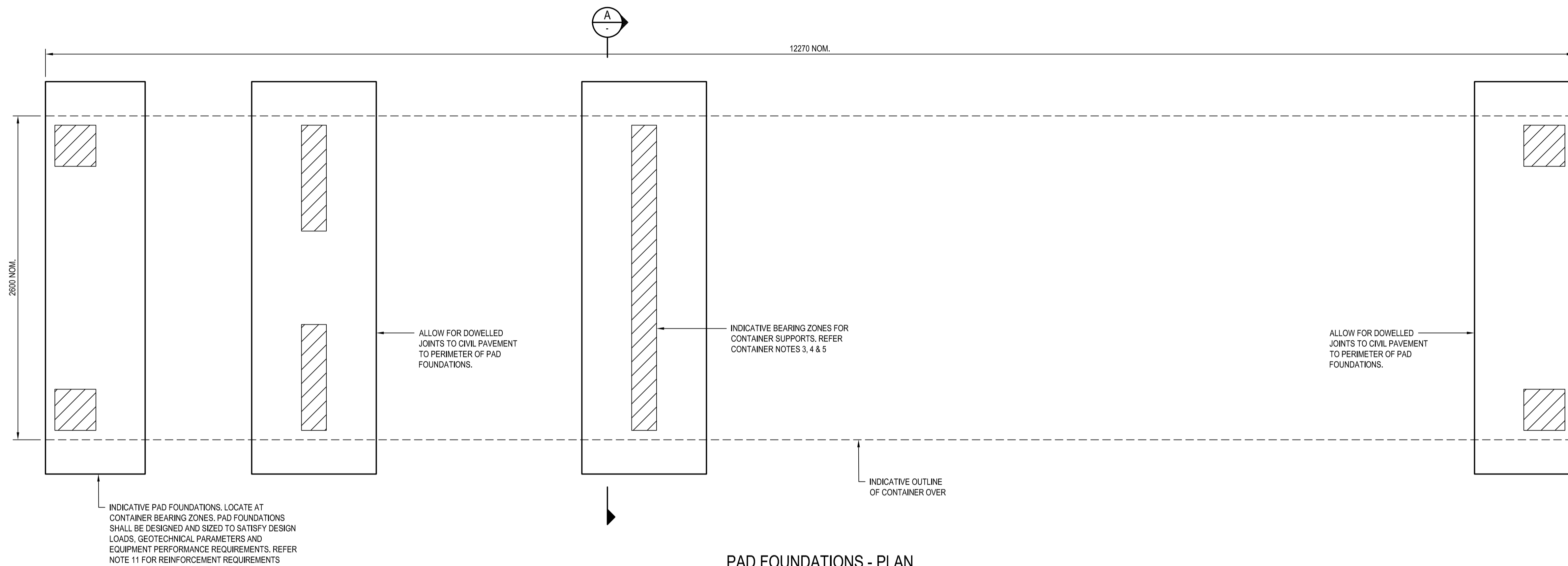
INDICATIVE CONTAINER BEARING ZONES

NOTES:

1. THIS IS A CONCEPT DESIGN DRAWING FOR INFORMATION ONLY AND BASED ON INFORMATION AVAILABLE TO THE DESIGNER AT THE TIME OF DESIGN. THE DESIGN & CONSTRUCT (D&C) CONTRACTOR SHALL DEVELOP THE DESIGN TO 'ISSUE FOR CONSTRUCTION' (IFC) AND CERTIFY.
2. READ THESE NOTES IN CONJUNCTION WITH OTHER ENGINEERING DRAWINGS AND SPECIFICATIONS, INCLUDING EQUIPMENT MANUFACTURER'S DOCUMENTATION.
3. FOR GENERAL AND STRUCTURAL NOTES REFER DRAWINGS 12596104-S001 AND S002.
4. REFER TO CIVIL DRAWINGS FOR ALL SETOUTS, LEVELS AND FALLS.
5. REFER TO ELECTRICAL DRAWINGS FOR CONDUIT LOCATION, SIZE, NUMBER OF AND ALIGNMENT DETAILS.
6. GEOTECHNICAL DESIGN PARAMETERS ADOPTED FOR CONCEPT DESIGN ARE SOURCED FROM A HIGH-LEVEL GEOTECHNICAL DESKTOP STUDY PREPARED BY GHD AND BASED ON INFORMATION PROVIDED BY STANWELL. THE D&C CONTRACTOR SHALL INDEPENDENTLY DETERMINE AND VERIFY GEOTECHNICAL DESIGN PARAMETERS DURING DESIGN DEVELOPMENT.
7. FOUNDATIONS ANTICIPATED TO BE FOUNDED IN CLAY MATERIAL. MINIMUM ALLOWABLE BEARING CAPACITY IS 100 kPa.
8. COMPACT SUBGRADE TO AT LEAST 98% MAXIMUM STANDARD DRY DENSITY (MSDD). REPLACE SOFT SPOTS ACCORDING TO DRAWING 12596104-S001.
9. FOUNDRING MATERIAL SHALL BE INSPECTED BY A SUITABLY QUALIFIED AND EXPERIENCED GEOTECHNICAL ENGINEER AND SHALL CERTIFY THE DESIGN PARAMETERS ADOPTED FOR DESIGN.
10. REFER TO DRAWING 12596104-S001 FOR DESIGN LOADING BASIS AND CONTAINER NOTES ON THIS DRAWING.
11. PAD FOUNDATIONS AND REINFORCEMENT DESIGNED TO AS3600. REINFORCEMENT TO SATISFY MODERATE DEGREE OF CRACK CONTROL.
12. PROVIDE REINFORCED CAST-IN-SITU CONCRETE STEPS AT CONTAINER ACCESS LOCATIONS WHERE PAD FOUNDATIONS ARE >100mm ABOVE FINISH PAVEMENT LEVEL.

CONTAINER NOTES:

1. DESIGN INFORMATION PERTAINING TO THE CONTAINER ARE SOURCED FROM STANWELL SUPPLIED DRAWINGS EW-075-500-A SHEET 1 TO 3.
2. DESIGN LOADS OF CONTAINER:
 - TOTAL MASS = 41,000 kg
 - TOTAL CORNER SUPPORTS = 15,000 kg
 - TOTAL CENTRAL SUPPORTS = 26,000 kg
 REFER TO CONTAINER SUPPLIER DRAWINGS FOR BREAKDOWN OF LOADING ZONES. CENTRE OF GRAVITY FOR CONTAINER IS OFFSET FROM CONTAINER CENTROID. D&C CONTRACTOR SHALL CONFIRM LOADING INFORMATION WITH SUPPLIER.
3. BEARING ZONES SHOWN ON THE FOUNDATION ARE INDICATIVE ONLY. REFER TO CONTAINER SUPPLIER DRAWINGS FOR SET-OUT, DESIGN INFORMATION AND LIMITATIONS.
4. CONTAINER LEVEL TOLERANCE SHALL NOT EXCEED 12mm IN 6,096mm IN ALL DIRECTIONS. TOLERANCE APPLICABLE TO BOTH CONSTRUCTION OF PAD FOUNDATIONS AND CONTAINER OPERATION, SUCH AS FOUNDATION DIFFERENTIAL MOVEMENT.
5. D&C CONTRACTOR SHALL DESIGN THE CONTAINER SUPPORTS AND HOLD-DOWN BOLTS. REFER TO CONTAINER SUPPLIER DRAWINGS AND SPECIFICATIONS FOR INFORMATION.



ROCKHAMPTON REGIONAL COUNCIL

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D	UPDATED PRELIMINARY ISSUE			23.06.23
C	UPDATED PRELIMINARY ISSUE			14.04.23
B	ISSUE TO CLIENT			20.01.23
A	PRELIMINARY ISSUE			16.01.23

Author	T. NIELSEN	Drafting Check
Designer	J. MORTENSEN	Design Check



Project No. 12596104

Client	STANWELL CORPORATION
Project	FUTURE ENERGY INNOVATION & TRAINING HUB
Status	PRELIMINARY

Drawing Title	STRUCTURAL IRON FLOW BATTERY PAD FOUNDATION PLAN AND DETAILS
Drawing No.	12596104-S010

Size	A1
Rev	D

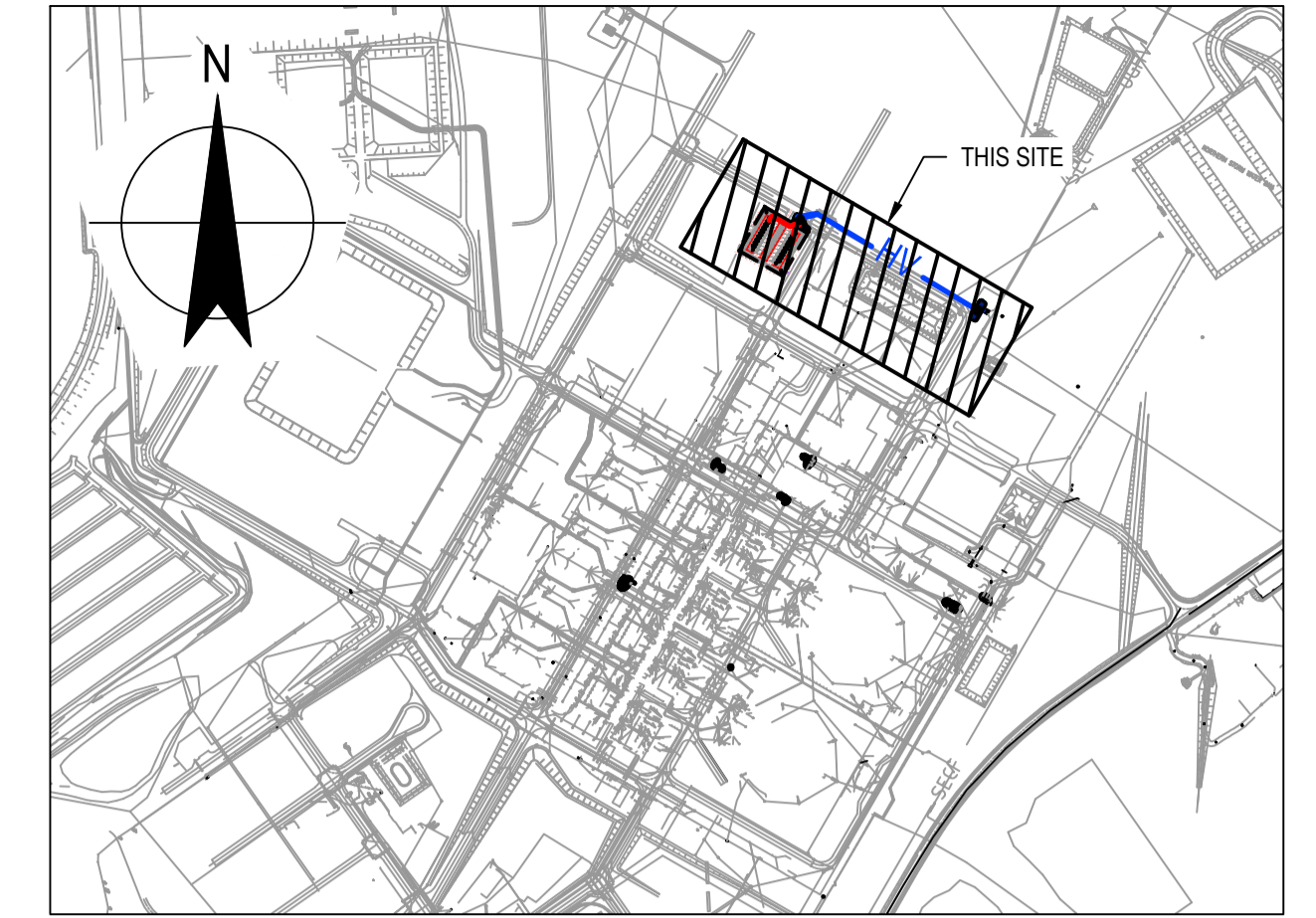
ROCKHAMPTON REGIONAL COUNCIL

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Development Permit No.: D/166-2023

Dated: 9 April 2024



KEY PLAN
NTS



ELECTRICAL CONDUITS AND TRENCHING ROUTES
SCALE 1:500

NOTES:

- CONTRACTOR TO ALLOW FOR 2 x CONDUITS TO FIRST ENERGY WAREHOUSE REFER TO DETAIL 3 IN DRG No. 12596104-E004. VERTICAL CABLE TRAY RISER FIXED TO FIRST ENERGY WAREHOUSE AND RETICULATED ACROSS THE TOP OF THE ENERGY WAREHOUSE CONTAINERS. ALL EXPOSED CABLE TRAYS TO BE PROVIDED WITH TOP HATS.
- FINAL LOCATIONS, DIMENSIONS AND INSTALLATION DETAILS OF EQUIPMENT TO BE CONFIRMED.
- ALL EARTHING CABLES SHALL BE LABELLED WITH CABLE NUMBERS, SIZE AND DESTINATION AS SHOWN IN THE CONTRACTOR'S APPROVED SHOP DRAWINGS AND CABLE SCHEDULES.
- THE MAIN BURIED EARTHING GRID SHALL EXTEND A MINIMUM OF 1m OUTSIDE THE ENTIRE PERIMETER OF THE CONCRETE PAD. REFER 12596104-E004 DRAWING FOR BACKFILL AND BEDDING MATERIAL NOTES AROUND EARTHING GRID CONDUCTOR.
- WELD CONCRETE REINFORCING STEEL, INCLUDING LAPS, TOGETHER AT MAXIMUM 500mm SPACING TO FORM AN ELECTRICALLY CONTINUOUS MASS. SLAB CONTINUITY SHALL BE TESTED IN ACCORDANCE WITH AS 2832.5.
- REINFORCEMENT EARTH BOND (SIMILAR TO DULMISON C120) SHALL BE CONNECTED TO CONCRETE REINFORCING STEEL WHERE SHOWN ON THE EARTHING LAYOUT FOR THE CONCRETE PAD.
- EARTH ELECTRODES TO BE DRIVEN.
- ELECTRODES SHALL NOT BE CUT. IF 3m DEPTH CANNOT BE ACHIEVED WITH A DRIVEN ROD, CONTRACTOR TO USE BARE 120mm² STRANDED COPPER CONDUCTOR INSTALLED IN A 50mm BORED HOLE BACKFILLED WITH EARTH ENHANCING COMPOUND (ERICO GEM OR EQUIVALENT).
- THE CONTRACTOR SHALL INVESTIGATE THE SITE, INCLUDING THE FOOTPATH FOR ANY EXISTING METALLIC SERVICES THAT ARE WITHIN 2m OF THE NEW BURIED GRADING RING. WHERE METALLIC SERVICES ARE PRESENT AND REMAIN WITHIN 2m OF THE NEW BURIED GRADING RING, THEY SHALL HAVE NON-CONDUCTIVE PIPEWORK INSTALLED FOR A LENGTH OF 2m FROM THE NEW BURIED GRADING RING.

LEGEND

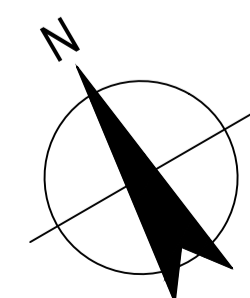
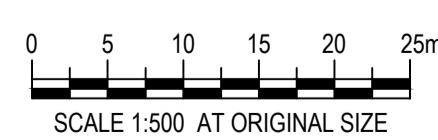
SYMBOL	DESCRIPTION
[Square symbol]	19mm COPPER CLAD STEEL EARTH ELECTRODE IN EARTH PIT, 3m LONG (UNLESS OTHERWISE SHOWN)
[Cross-hatch symbol]	REINFORCEMENT BOND - 10kA (DULMISON C120 OR SIMILAR)
[Dot symbol]	EARTH CONNECTION
[Dash symbol]	EXOTHERMIC CONNECTION (CADWELD OR SIMILAR)
[Dashed line symbol]	120mm ² BARE COPPER CONDUCTOR (BURIED AT 500mm NOMINAL DEPTH)
[Blue line symbol]	100mm DIAMETER HV HD PVC CONDUIT (REFER DETAIL 2 - DRG No. 12596104-E004)
[Red line symbol]	100mm DIAMETER LV HD PVC CONDUIT (REFER DETAILS 1 & 3 - DRG No. 12596104-E004)
[Red rectangle symbol]	BATTERY CELL

REFERENCE DRAWINGS

DRAWING No.	TITLE
12596104-E004	ELECTRICAL TYPICAL TRENCH SECTIONS

Rev	Description	Checked	Approved	Date
E	RE-ISSUE TO CLIENT	SG	IA	21.07.23
D	RE-ISSUE TO CLIENT	SG	IA	23.06.23
C	ISSUE TO CLIENT	SG	IA	24.03.23
B	PRELIMINARY RE-ISSUE	SG	CC	20.01.23
A	PRELIMINARY ISSUE	CC	CC	17.01.23

Author S. ALANO Drafting Check A. BALAJONDA
Designer H. CHAWLA Design Check S. GOUNDER



Project No.
12596104

Client STANWELL CORPORATION
Project FUTURE ENERGY INNOVATION & TRAINING HUB
Status ISSUED FOR CONCEPT
Status Code S3

Drawing Title
ELECTRICAL CONDUITS, TRENCHING AND EARTHING LAYOUT
Drawing No.
12596104-E002
Rev
E

Size
A1

NOT FOR CONSTRUCTION

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