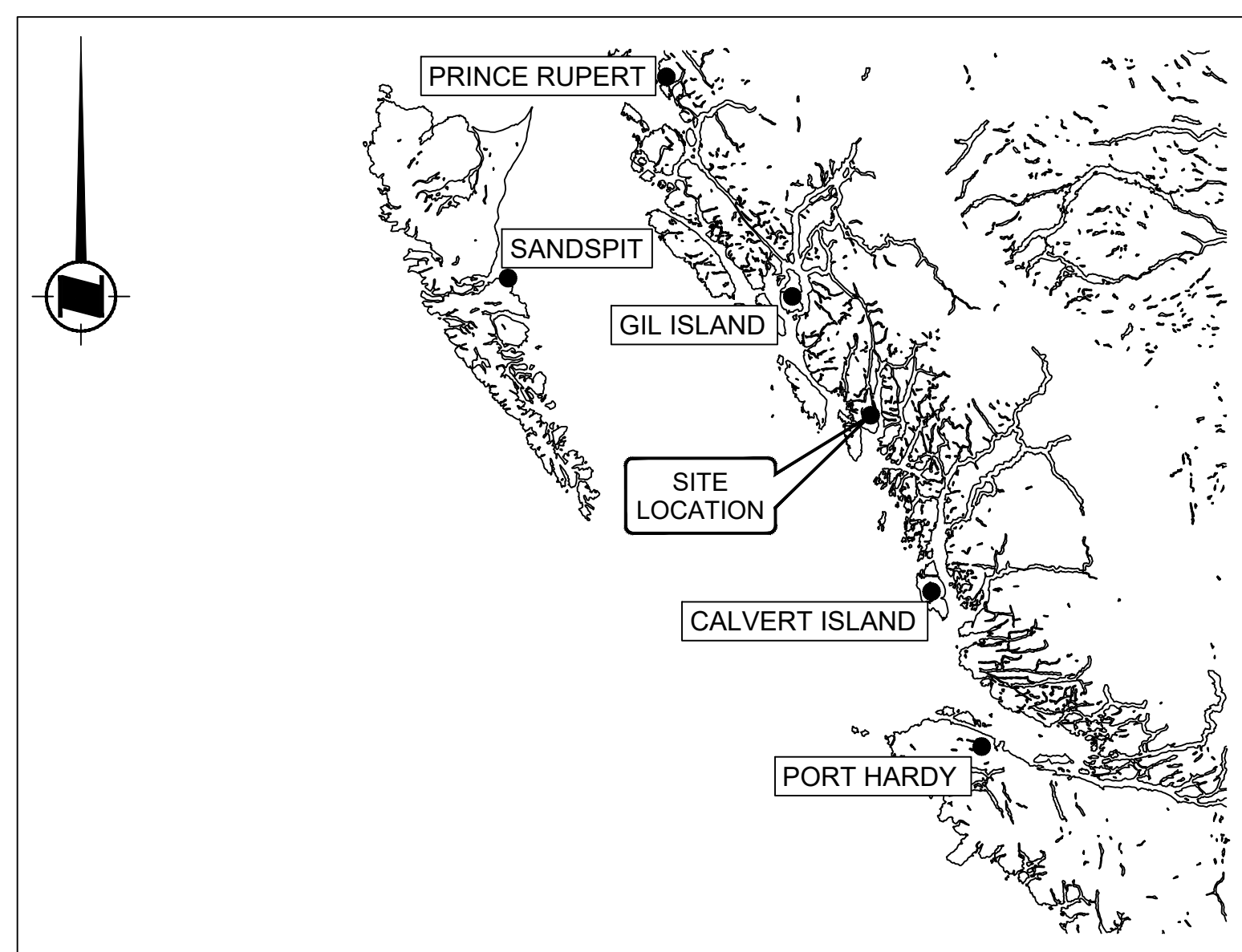


CANADIAN COAST GUARD KLEMTU MCTS SITE SWINDLE ISLAND, BC

DRAWING LIST

SHEET NUMBER	DRAWING NAME
01	COVER SHEET
02	SITE PLAN
03	FOUNDATION PLAN
04	OPTIONAL FOUNDATION WORK
05	ANTENNA LAYOUT
06	GROUNDING PLAN
07	HELIPAD DETAILS
08	FUEL TANK AND TEMPORARY BUILDING DETAILS



SITE LOCATION MAP
NOT TO SCALE



KEY PLAN
SCALE: 1:250

Vendor Information / Sous-traitant

GENERAL NOTES

1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER APPLICABLE CONSTRUCTION DOCUMENTS. DEVIATION OF PROJECT CONSTRUCTION IS NOT ACCEPTABLE UNLESS INSTRUCTED BY THE ENGINEER.
2. ALL INFORMATION CONCERNING EXISTING SITE CONDITIONS HAVE BEEN TAKEN FROM ORIGINAL DRAWINGS AND SITE MEASUREMENTS. SHOULD INFORMATION OR SITE CONDITIONS DIFFER SIGNIFICANTLY FROM THAT SHOWN, ADVISE CCG ENGINEERING.
3. DO NOT COMMENCE CONSTRUCTION USING THESE DRAWINGS UNLESS NOTED "FOR CONSTRUCTION".
4. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE 2015 AND REFERENCED STANDARDS THEREIN.
5. DRAWINGS SHOW COMPLETED STRUCTURES ONLY. CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY STRUCTURES AND BRACING FOR CONSTRUCTION LOADING CONDITIONS AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LOADS.
6. IT IS THE DISCRETION OF THE ENGINEER TO CONDUCT INSPECTIONS OR ACCEPT PHOTOS OF REINFORCING PRIOR TO THE PLACEMENT OF CONCRETE.

0	ISSUED FOR TENDER	BS	2022-02-28
rev	description	by	date

Asset - Actif

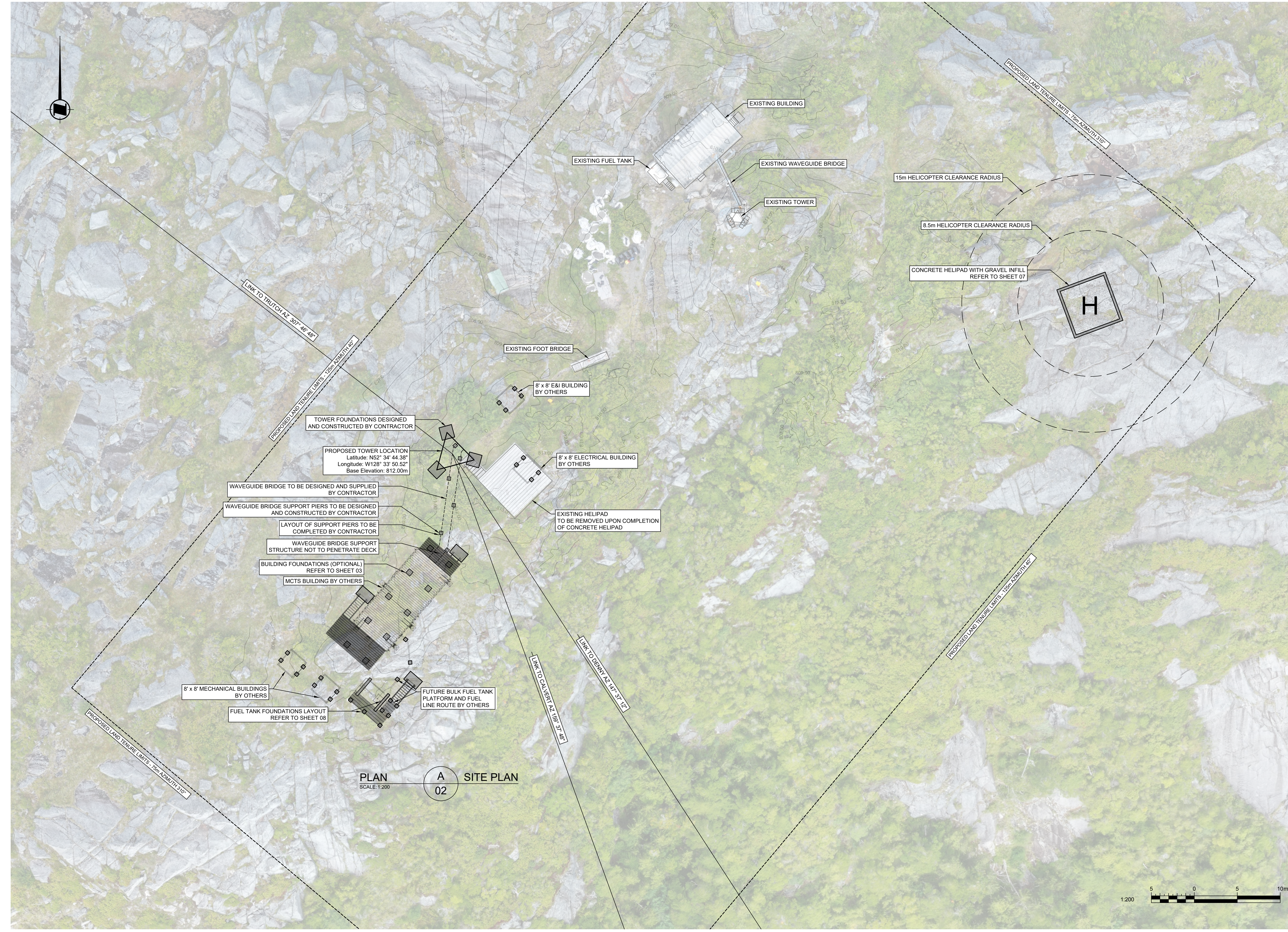
MCTS TOWER SITE
KLEMTU

Drawing - Dessin

COVER SHEET

drawn - dessiné	date
RH/BS	2022-02-28
designed - conception	date
SC	2022-02-28
checked - vérifié	date
SC	2022-02-28
approved - approuvé	date
AW	2022-02-28
CCG ref. no. - no. ref. GCC	scale - échelle
N6247-20010	AS NOTED
drawing no. - no. dessin	sheet/feuille
WM394-1006	01/08 0

LEGEND
 1195.00 MAJOR CONTOURS
 1100.00 MINOR CONTOURS
 TOPOGRAPHIC CONTOURS BASED ON SITE SURVEYS COMPLETED 2019-08-17 & 2021-09-10 UAV SURVEY COMPLETED 2019-08-17.
 ORTHO-IMAGERY DERIVED FROM UAV SURVEY COMPLETED 2019-08-17.
 CONTROL INFORMATION BASED ON BASELINES TO BUTDALE AND BELLA COOLA ACTIVE CONTROL STATIONS
 VERTICAL DATUM: ELEVATIONS ARE REFERRED TO CGVD 28
 HORIZONTAL DATUM: COORDINATES ARE REFERRED TO NAD 83 CSRS (2010 EPOCH)
 PROJECTION INFORMATION: UTM ZONE 9N



PLAN A SITE PLAN
SCALE: 1:200

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rev	description	by	date

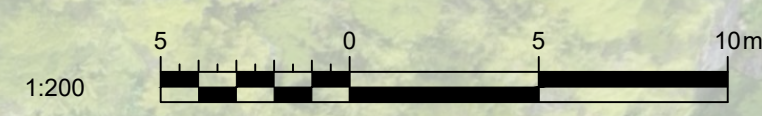
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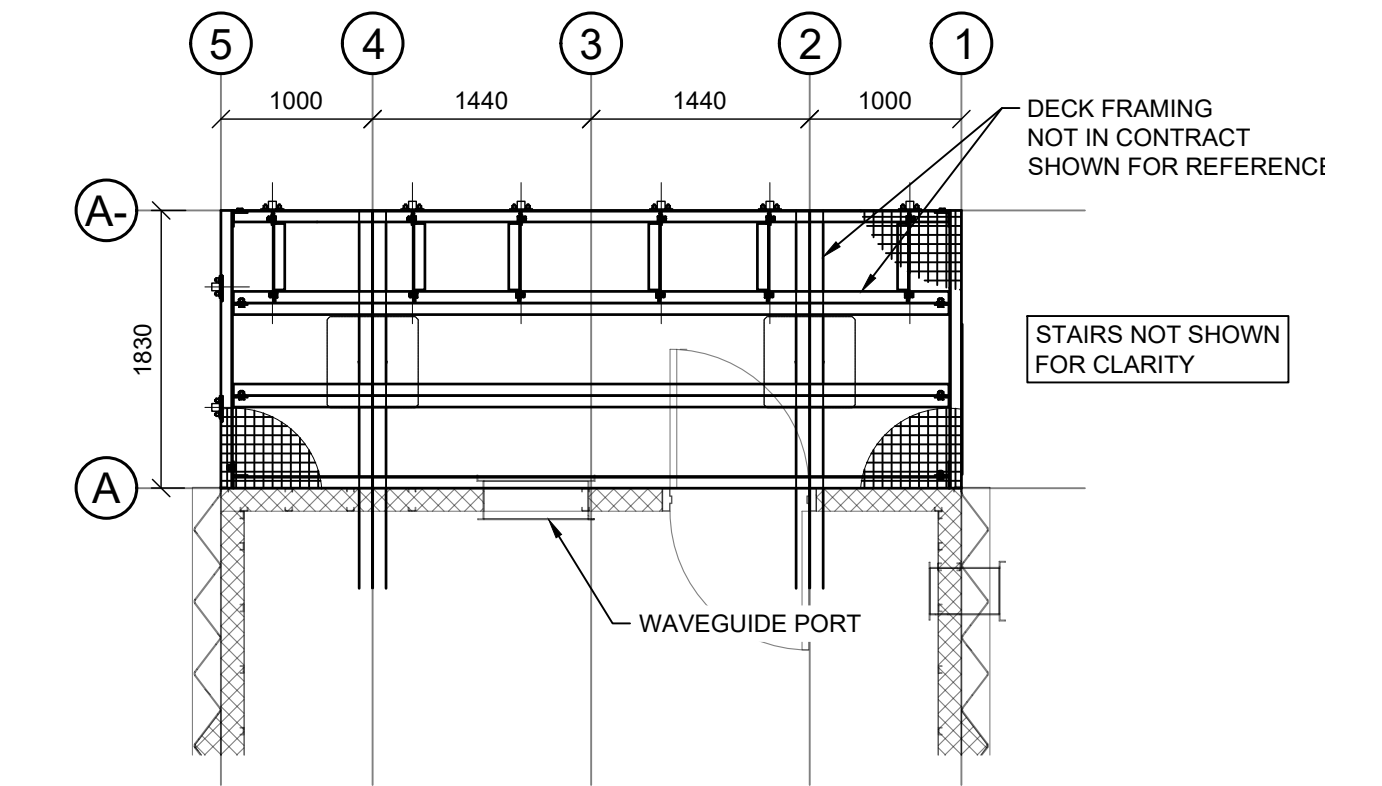
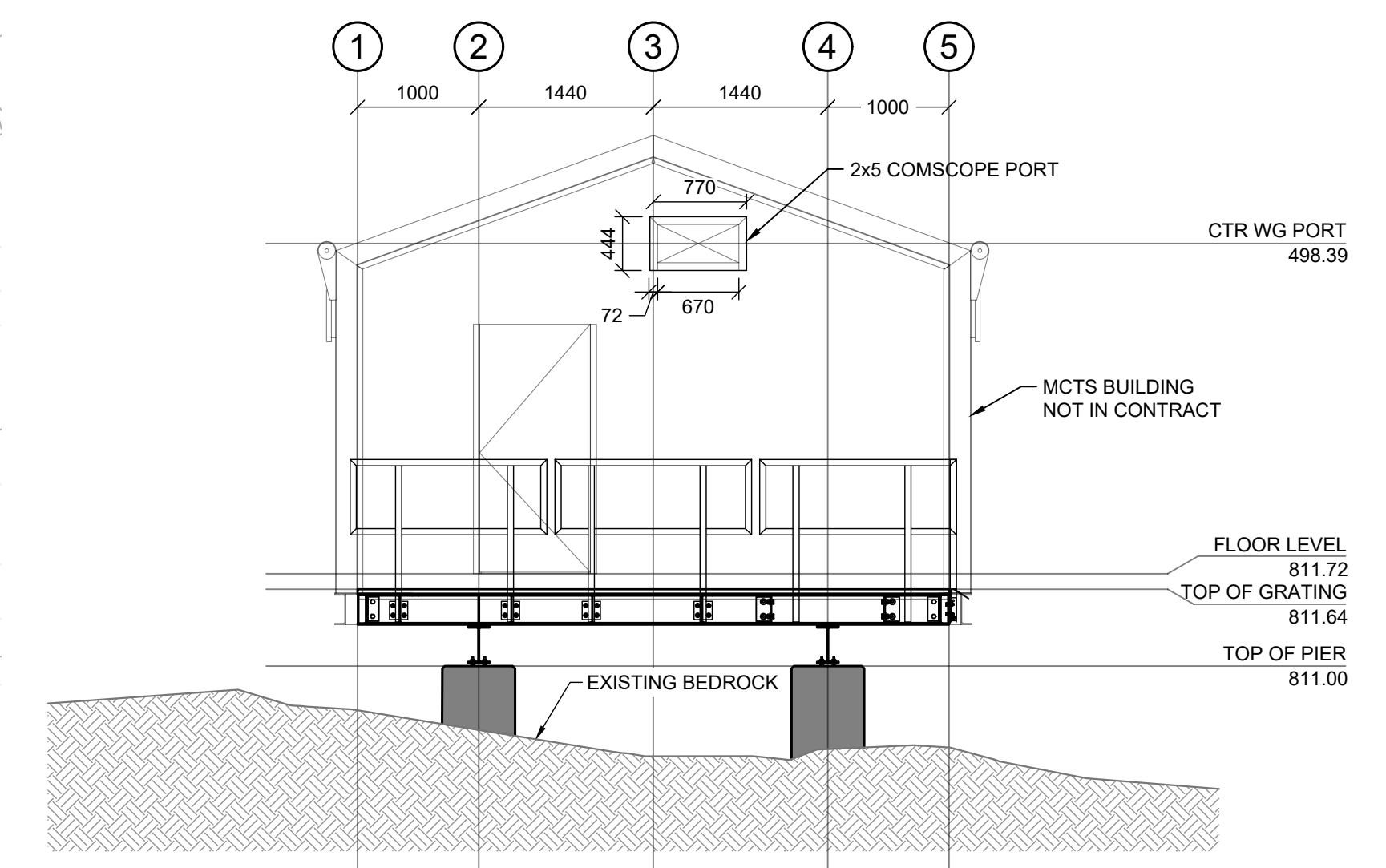
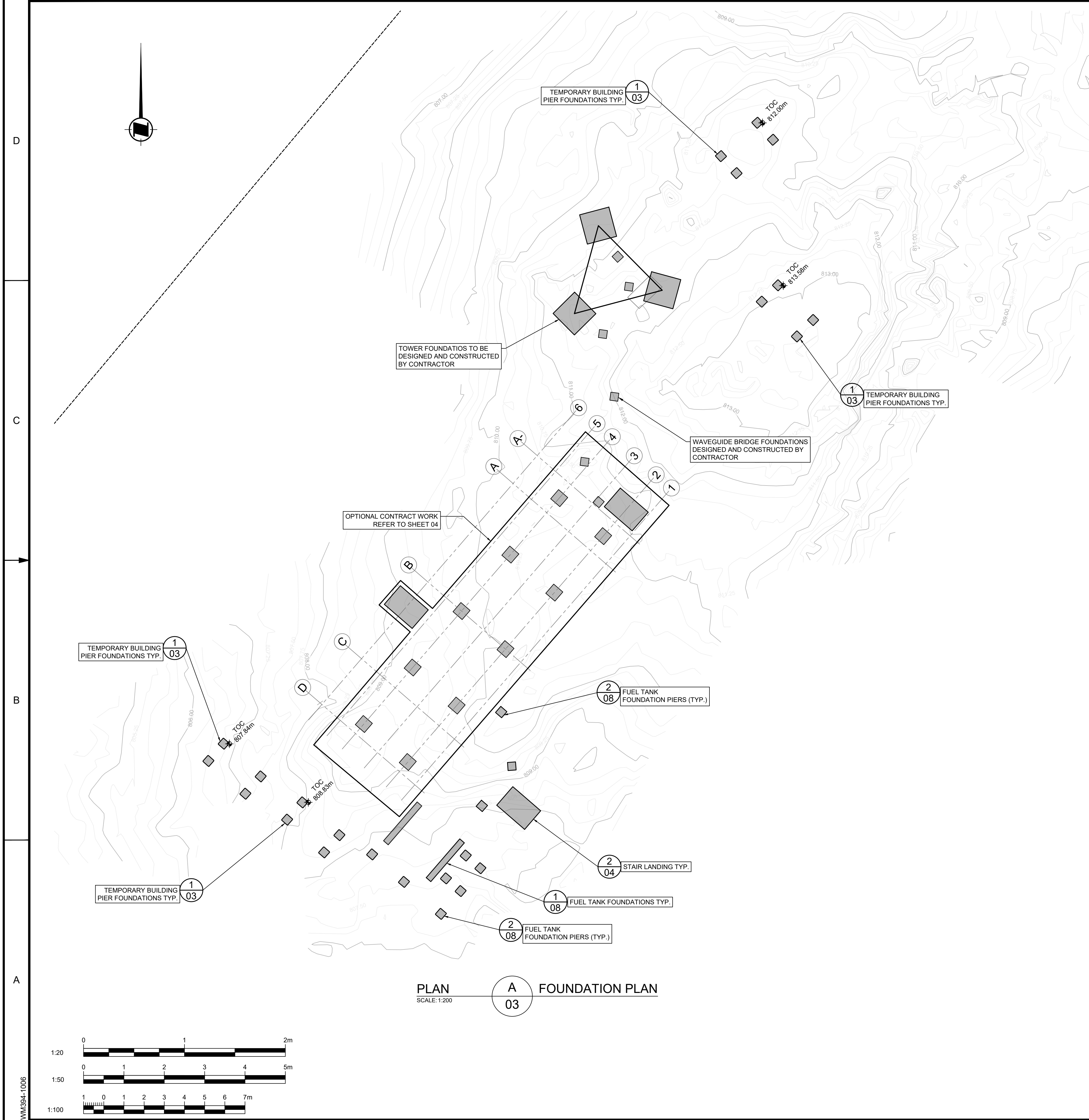
MCTS TOWER SITE
KLEMTU

SITE PLAN

drawn - dessiné	date
RH/BS	2022-02-28
designed - conception	date
SC	2022-02-28
checked - vérifié	date
SC	2022-02-28
approved - approuvé	date
AW	2022-02-28

CCG ref. no. - no. réf. GCC	scale - échelle
N6247-20010	AS NOTED
drawing no. - no. dessin	sheet/feuille
WM394-1006	02/08
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rev	description	by	date
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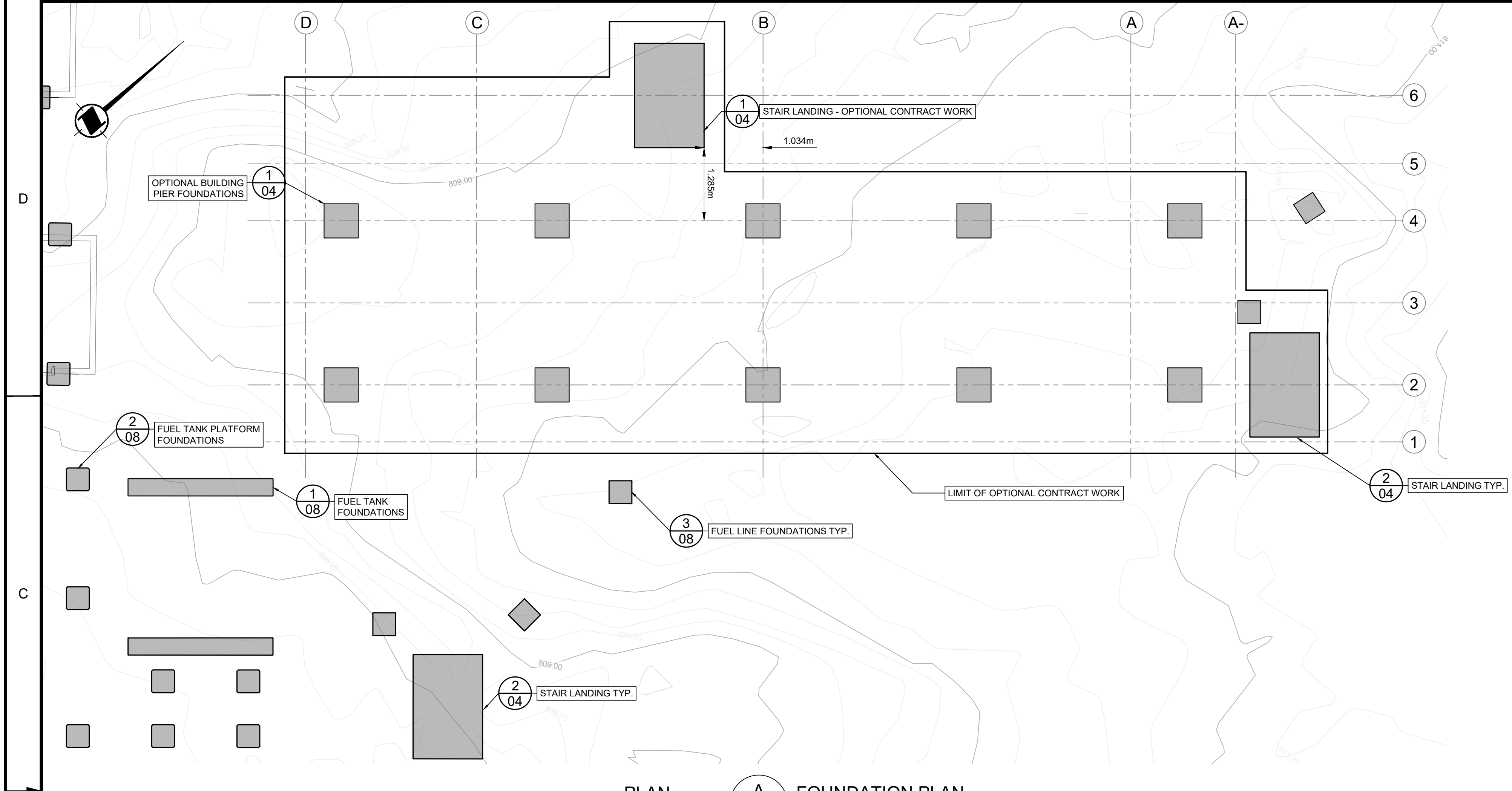
Asset - Actif

**MCTS TOWER SITE
KLEMTU**

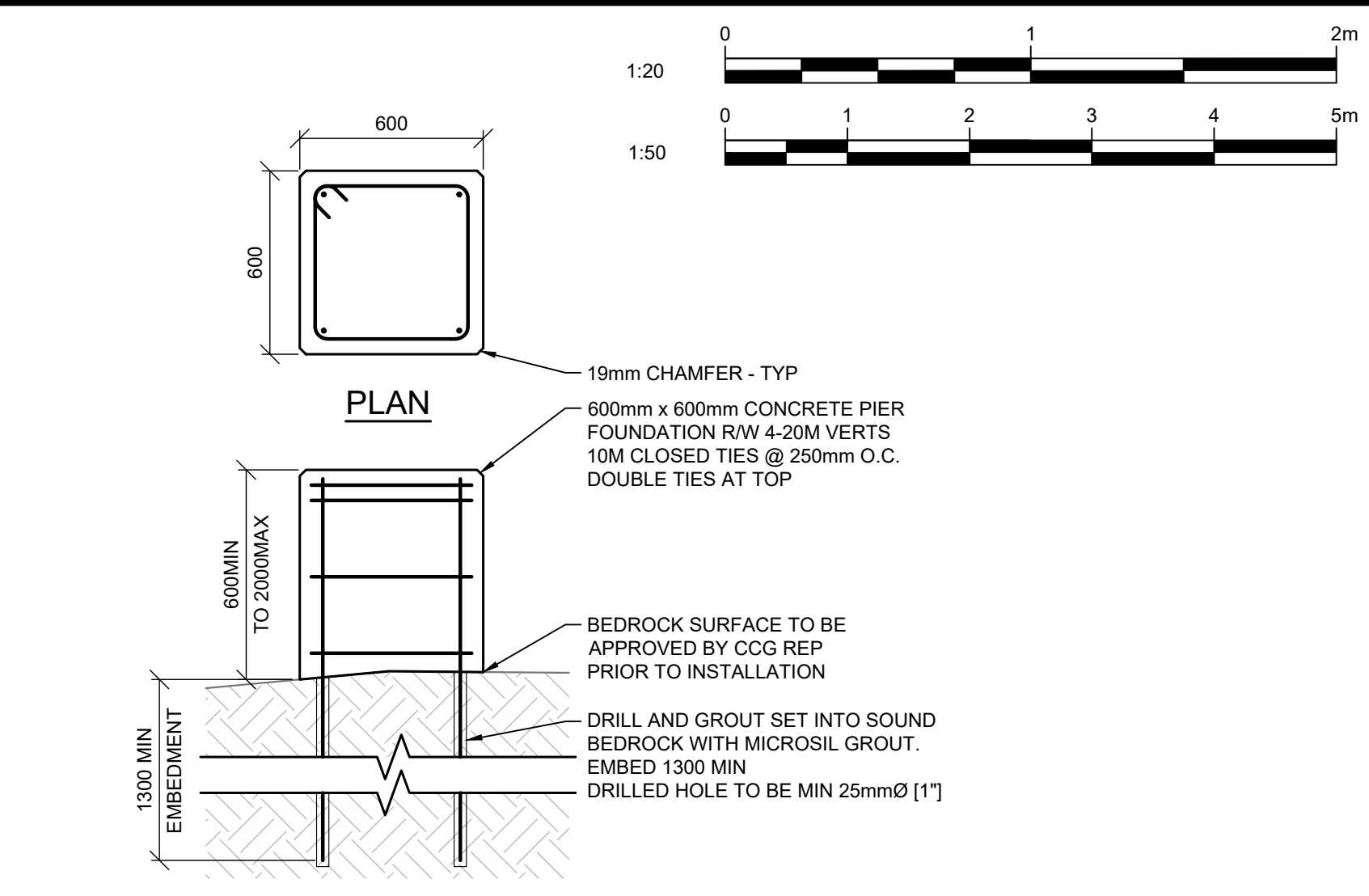
Drawing - Dessin

FOUNDATION PLAN

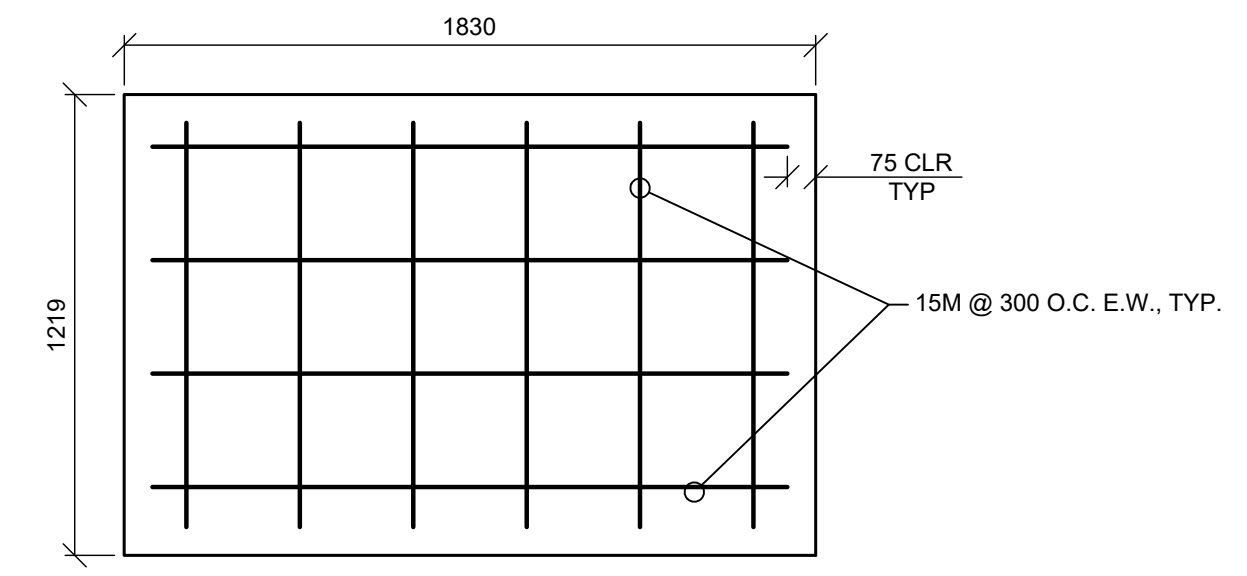
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approved - approuvé	date	
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drawing no. - no. dessin	sheet/feuille	rev-rév
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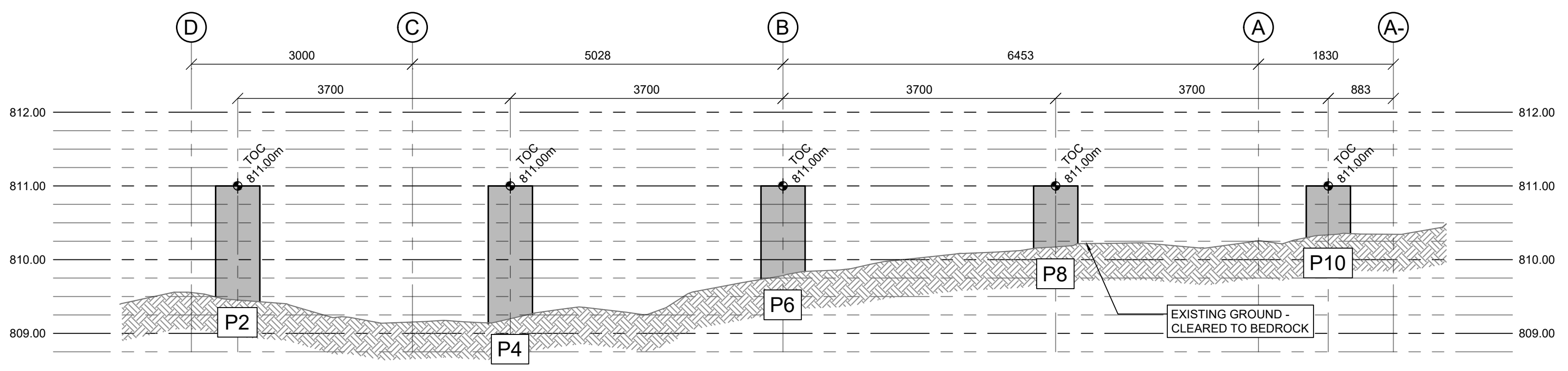
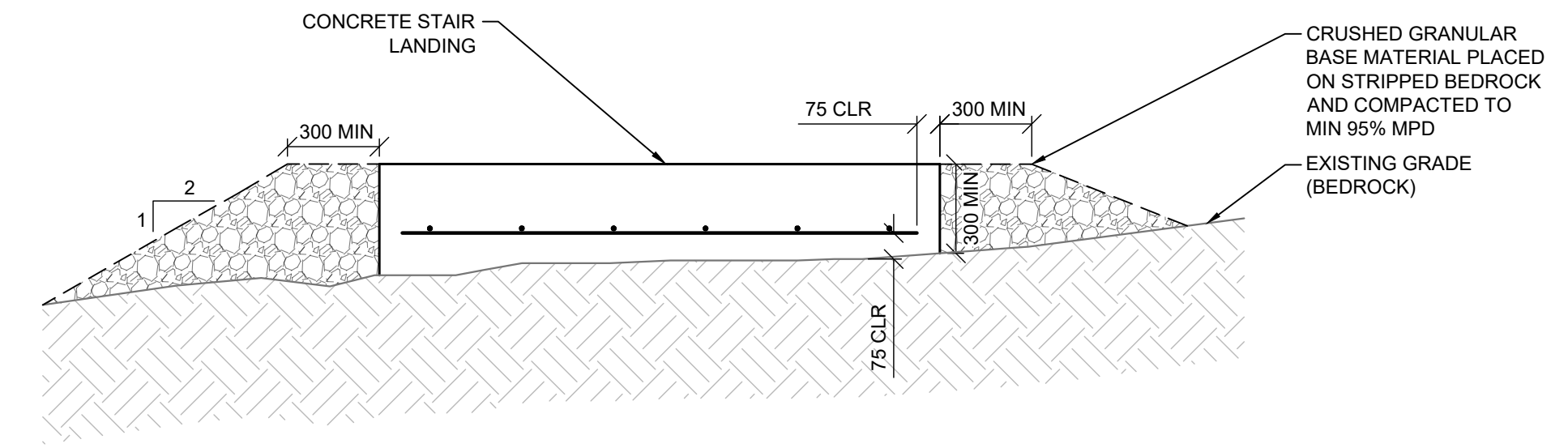
PLAN A 04 FOUNDATION PLAN
SCALE: 1:50



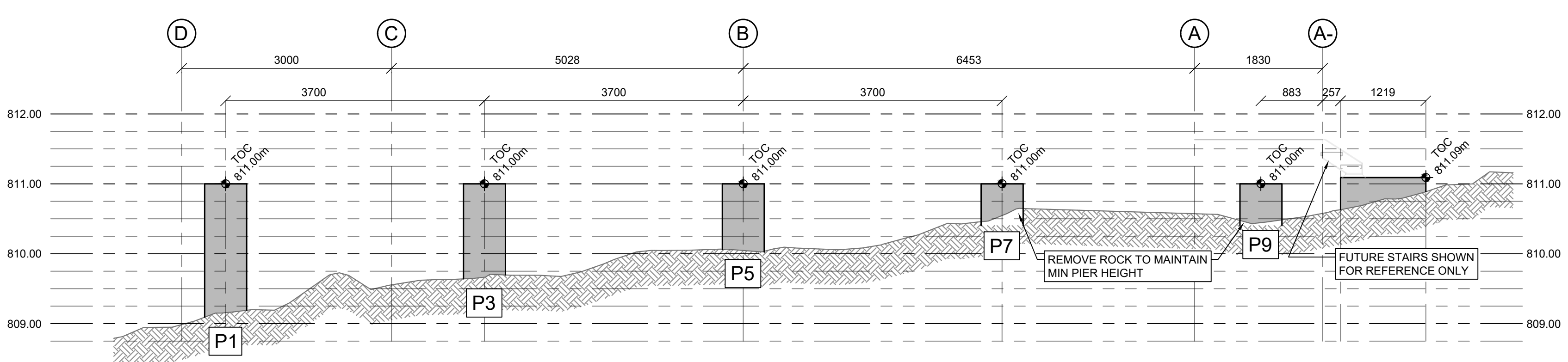
DETAIL 1 04 BUILDING PIER FOUNDATION
SCALE: 1:20



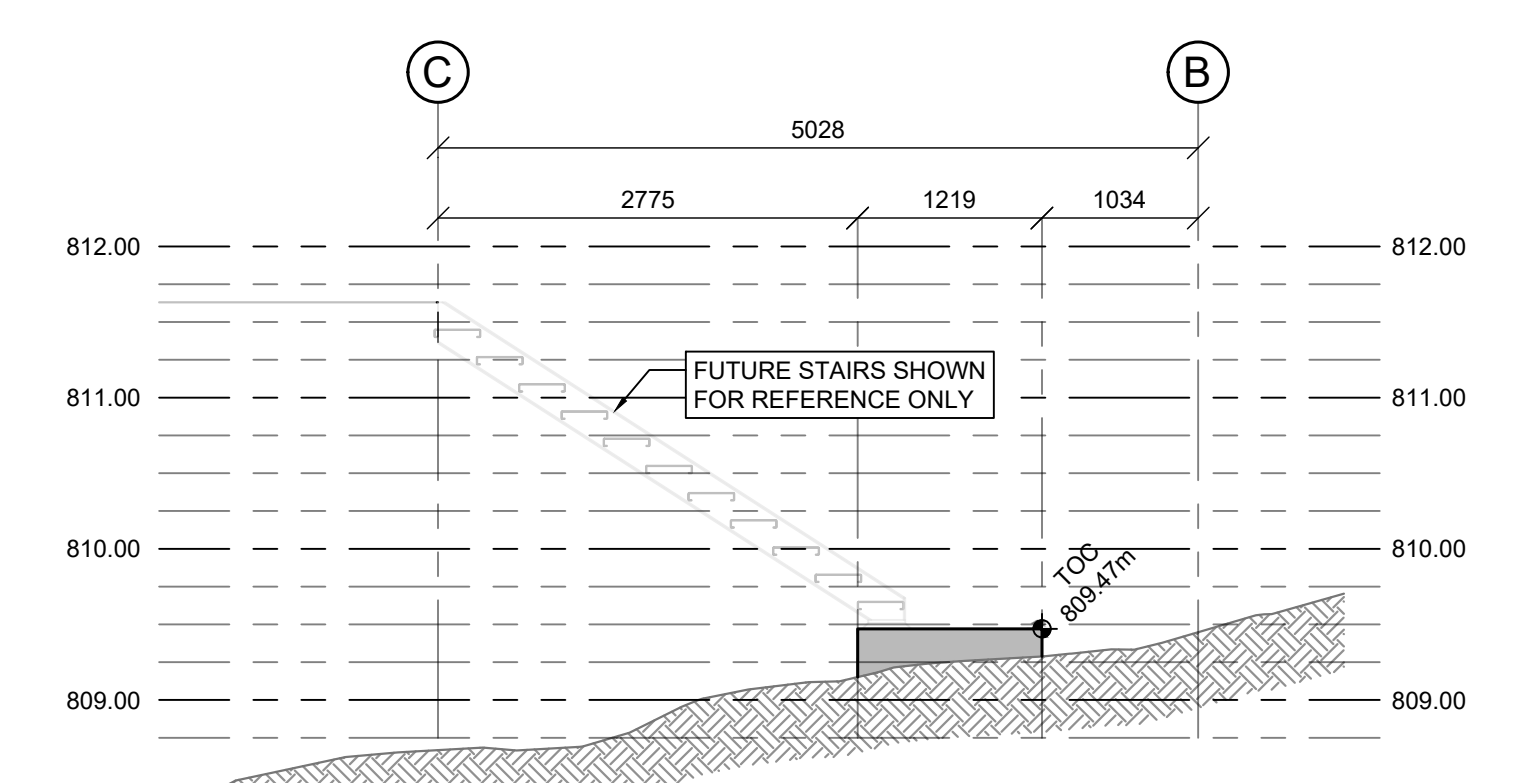
DETAIL 2 04 STAIR LANDING
SCALE: 1:20



SECTION A 04 BUILDING PIER FOUNDATIONS - GRIDLINE 4
SCALE: 1:50



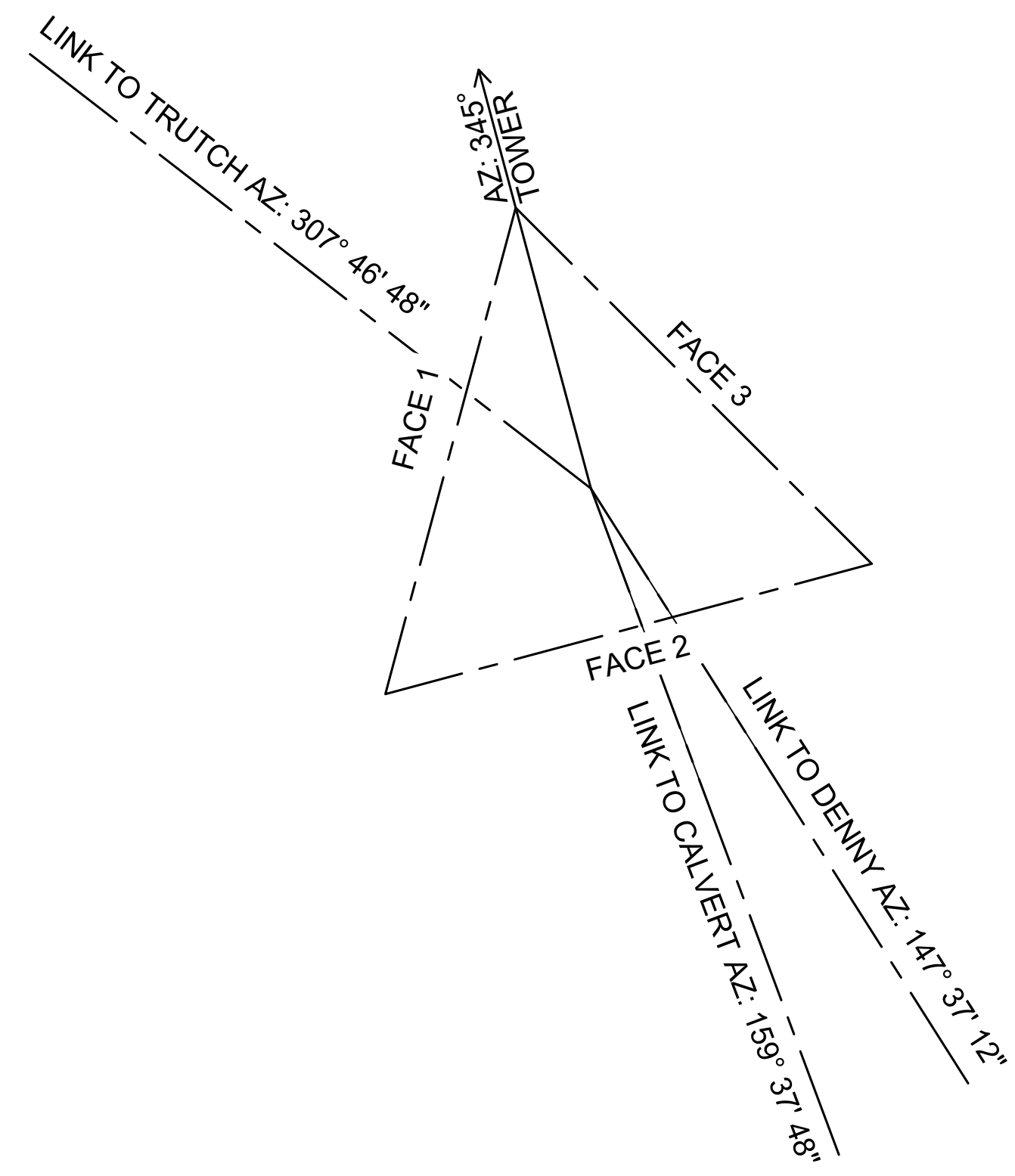
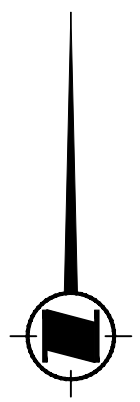
SECTION B 04 BUILDING PIER FOUNDATIONS AND STAIR LANDING - GRIDLINE 2
SCALE: 1:50



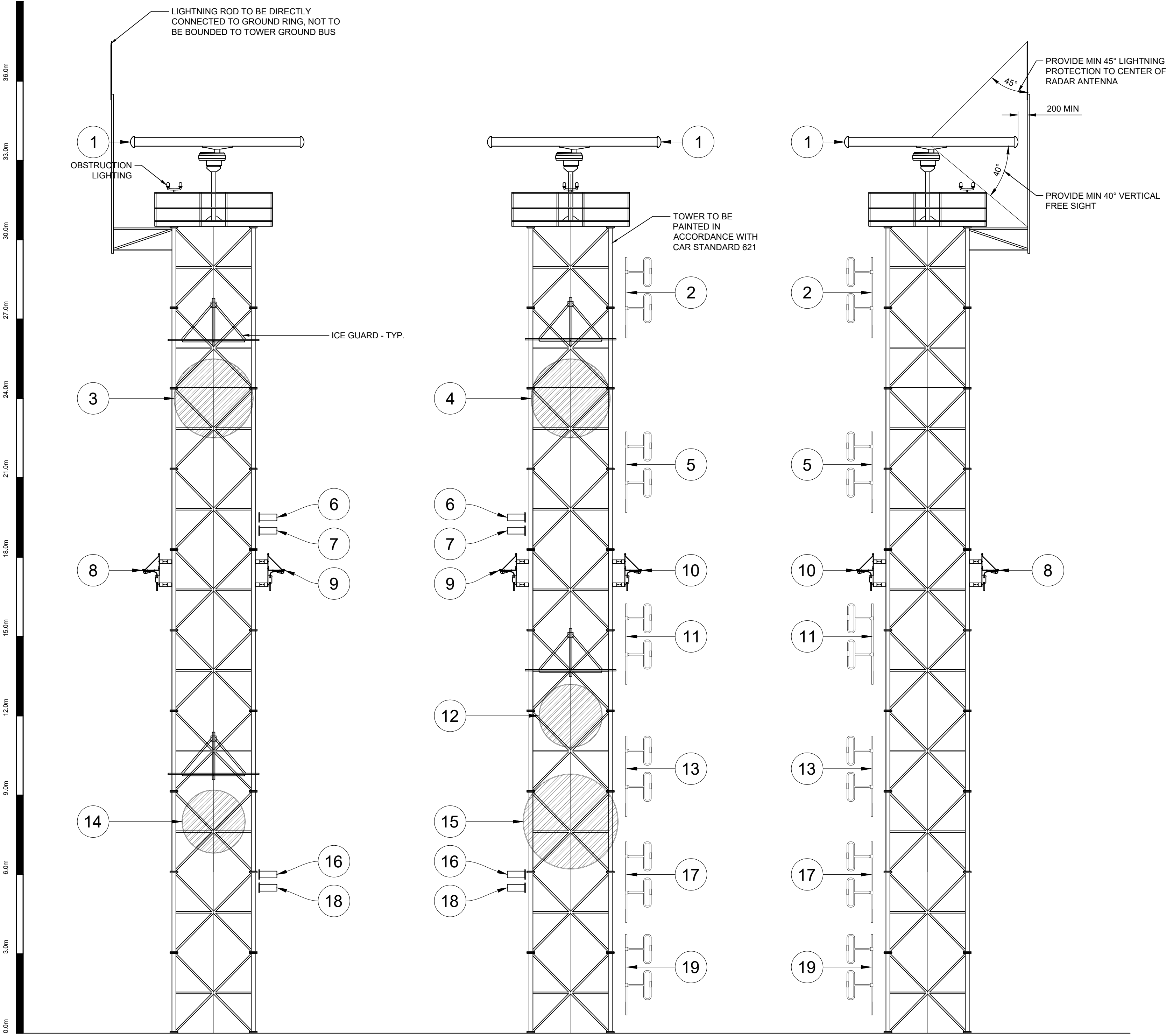
SECTION C 04 BUILDING STAIR LANDING - GRIDLINE 6
SCALE: 1:50

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Asset - Actif			
MCTS TOWER SITE KLEMTU			
Drawing - Dessin			
OPTIONAL FOUNDATION WORK			
drawn - dessiné			date
RH/BS			2022-02-28
designed - conception			date
SC			2022-02-28
checked - vérifié			date
SC			2022-02-28
approved - approuvé			date
AW			2022-02-28
CCG ref. no. - no. ref. GCC			scale - échelle
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Vendor Information / Sous-traitant



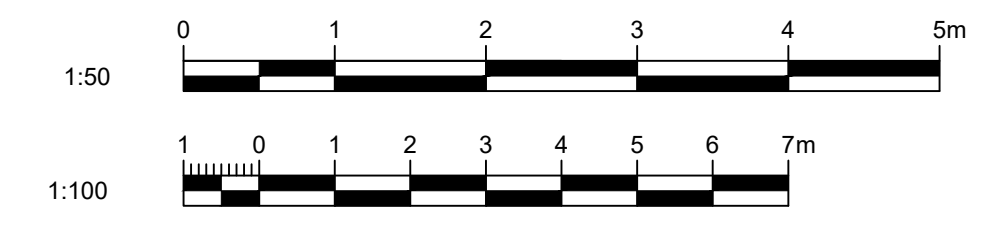
A TOWER ORIENTATION
05



A TOWER ANTENNA LAYOUT
05
SCALE: 1:100

ANTENNA SCHEDULE - KLEMTU

ANTENNA (#)	USER	ELEV	SYSTEM	ANTENNA MODEL	MAKE	INITIAL OR FUTURE	AZIMUTH	Tx-LINE	ANTENNA MOUNT TYPE
1	CCG	30.0m	RADAR 21' SAIL	HG-HP-F-38	TERMA	FUTURE	OMNI	EWP85	PLATFORM
2	CCG	28.0m	VHF CH16	872F-70HDB	COMPROD	INITIAL	80.00	LDF4	LEG MOUNT
3	CCG	24.0m	MICROWAVE MAIN F. TRUTCH	HSX10-59	ANDREWS/COMMSCOPE	INITIAL	307.78	EWP63	FACE MOUNT
4	CCG	24.0m	MICROWAVE MAIN F. CALVERT	HSX12-59	ANDREWS/COMMSCOPE	INITIAL	159.63	EWP63	FACE MOUNT
5	CCG	21.5m	VHF RX	872F-70HDB	COMPROD	INITIAL	80.00	LDF4	LEG MOUNT
6	DFO	19.5m	DFO UHF	307R	SINCLAIR	FUTURE	TBD	LDF4	LEG MOUNT
7	DFO	19.0m	DFO UHF	307R	SINCLAIR	FUTURE	TBD	LDF4	LEG MOUNT
8	CCG	17.5m	CAMERA 1	IN HOUSE	IN HOUSE	INITIAL	345	CAT6	LEG MOUNT
9	CCG	17.5m	CAMERA 2	IN HOUSE	IN HOUSE	INITIAL	225	CAT6	LEG MOUNT
10	CCG	17.5m	CAMERA 3	IN HOUSE	IN HOUSE	INITIAL	105	CAT6	LEG MOUNT
11	CCG	15.0m	VHF TX	872F-70HDB	COMPROD	INITIAL	80.00	LDF4	LEG MOUNT
12	CCG	12.0m	MICROWAVE F. DENNY	HX8-6W	ANDREWS/COMMSCOPE	INITIAL	147.62	EWP63	FACE MOUNT
13	CCG	10.0m	VHF MULTI	872F-70HDB	COMPROD	INITIAL	80.00	LDF4	LEG MOUNT
14	CCG	8.0m	MICROWAVE DIV. F. TRUTCH	HX8-6W	ANDREWS/COMMSCOPE	INITIAL	307.78	EWP63	FACE MOUNT
15	CCG	8.0m	MICROWAVE DIV. F. CALVERT	HSX10-59	ANDREWS/COMMSCOPE	INITIAL	159.63	EWP63	FACE MOUNT
16	RCMP	6.0m	RCMP UHF F. CALVERT	307R	SINCLAIR	INITIAL	160.00	LDF4	LEG MOUNT
17	CCG	6.0m	ALN VHF	872F-70HDB	COMPROD	INITIAL	80.00	LDF4	LEG MOUNT
18	RCMP	5.5m	RCMP UHF F. BELLA BELLA	307R	SINCLAIR	INITIAL	150.00	LDF4	LEG MOUNT
19	DFO	2.5m	DFO / RCMP VHF	872F-70HDB	COMPROD	INITIAL	80.00	LDF4	LEG MOUNT

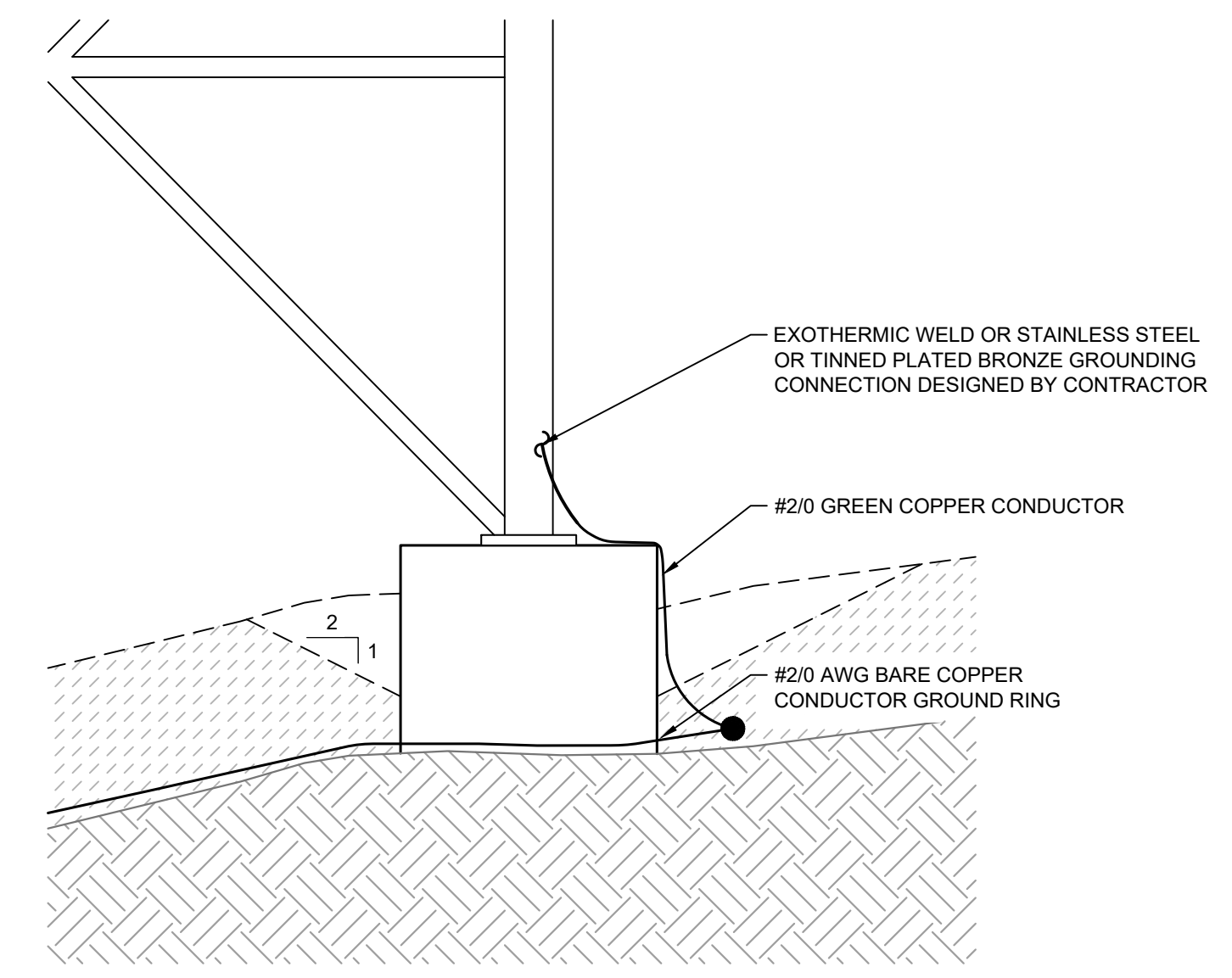
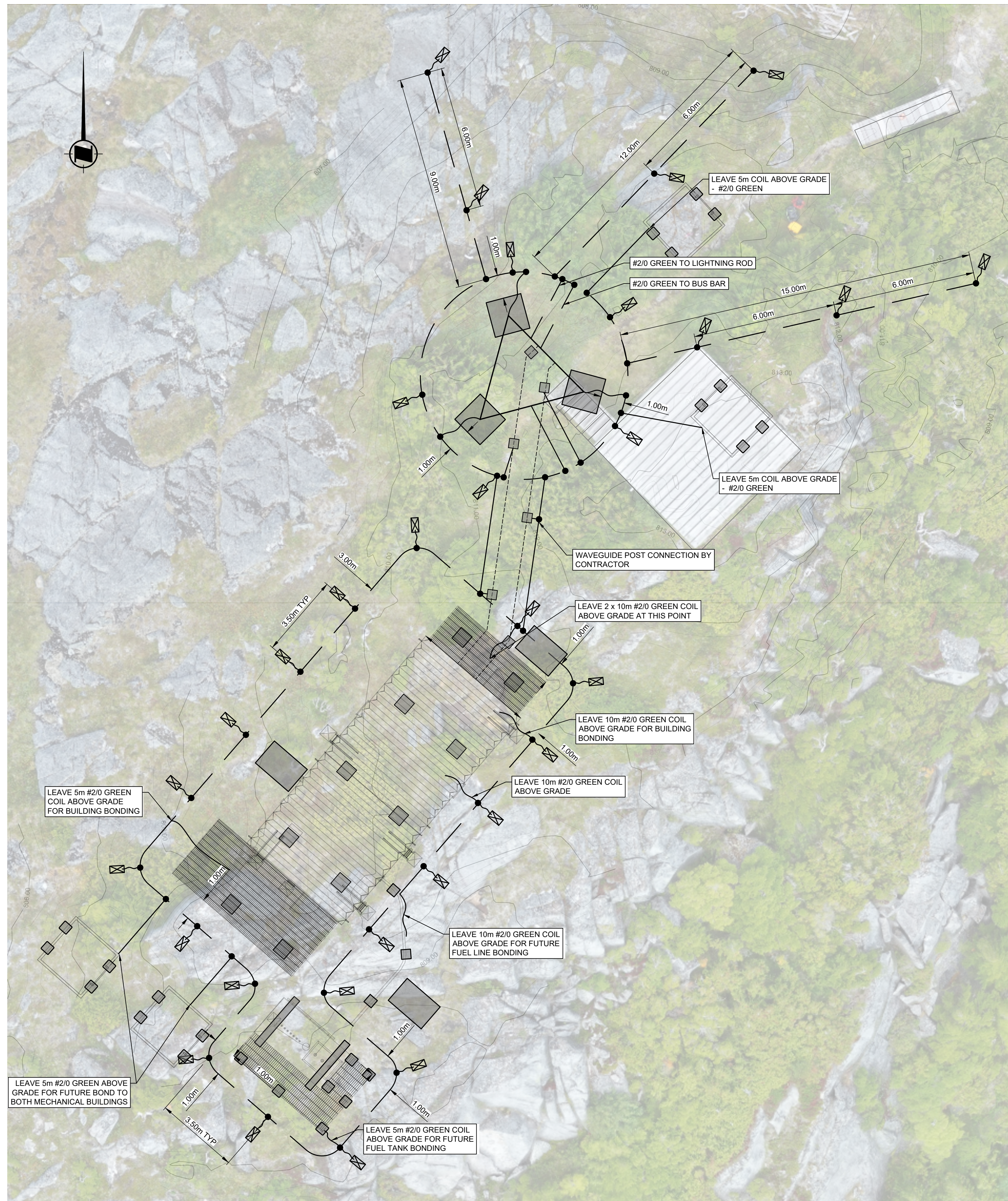


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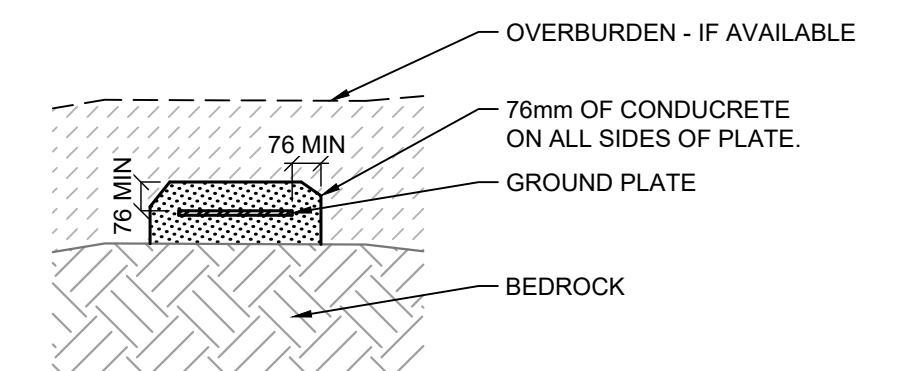
MCTS TOWER SITE
KLEMTU

ANTENNA LAYOUT

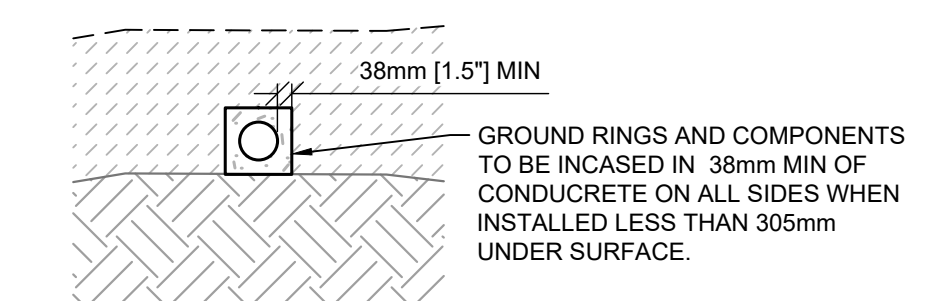
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approved - approuvé	date
AW	2022-02-28
CCG ref. no. - no. ref. GCC	scale - échelle
N6247-20010	AS NOTED
drawing no. - no. dessin	sheet-feuille
WM394-1006	05/08 0



DETAIL 1 TRANSITION TO ABOVE GRADE
SCALE: 1:20



DETAIL 2 GROUND PLATE DETAIL
SCALE: 1:20



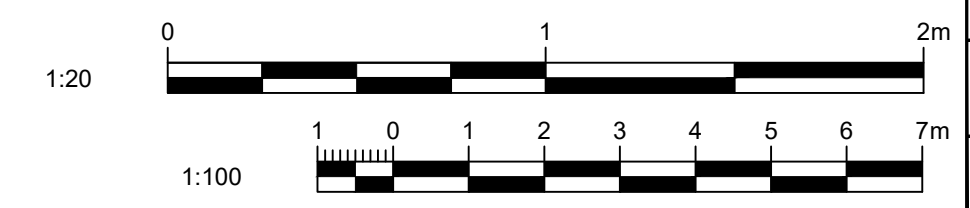
DETAIL 3 TRENCH WITH GEM DETAIL
SCALE: 1:20

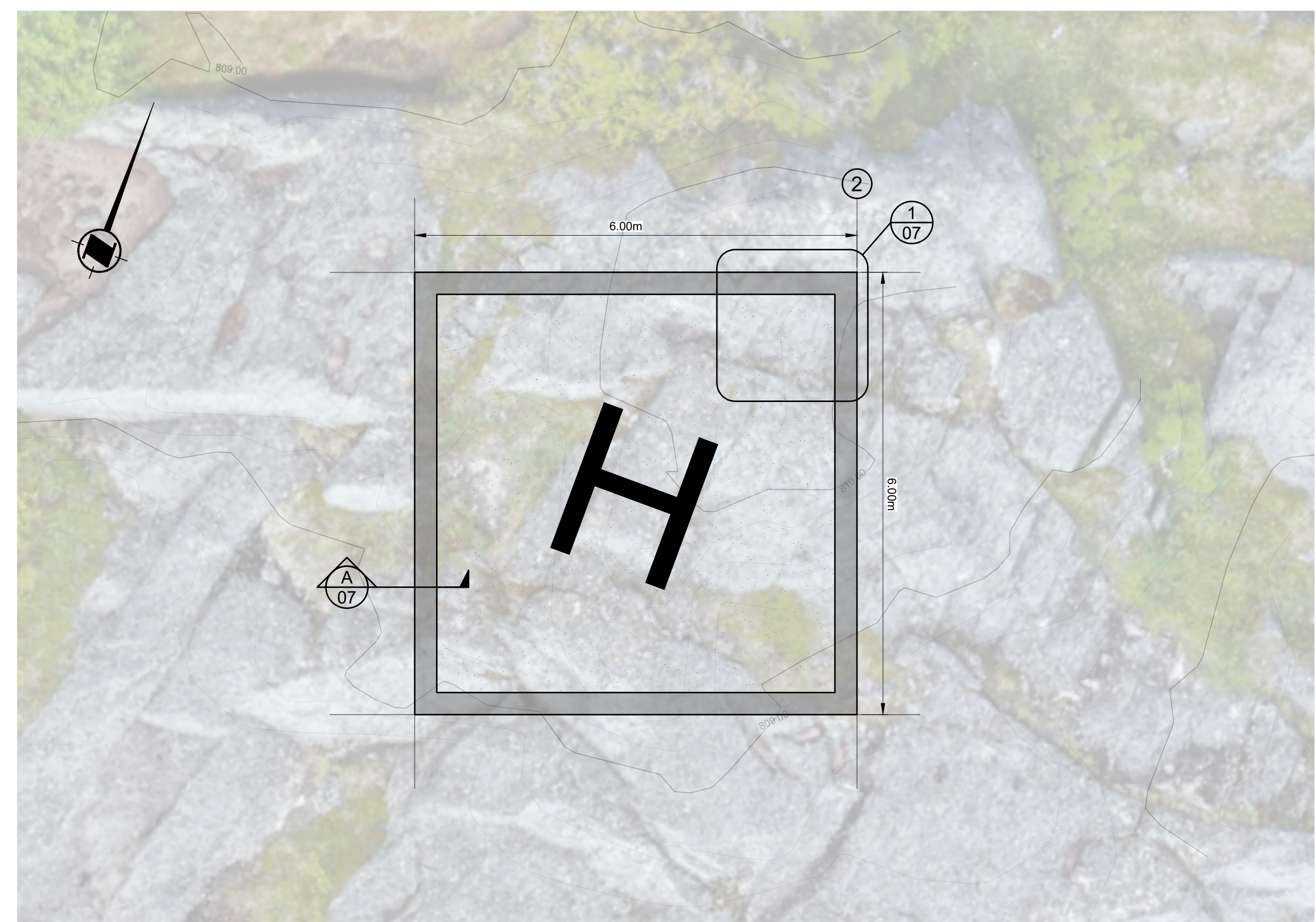
- Vendor Information / Sous-traitant
- ALL BURIED GROUNDING CONDUCTORS SHALL BE #2/0 AWG, BARE, STRANDED TINNED OR UN-TINNED.
 - ALL SPLICES SHALL BE MADE THROUGH IRREVERSIBLE COMPRESSION TYPE CONNECTORS, DESIGNED FOR USE WITH GROUNDING.
 - ABOVE-GROUND BONDING CONDUCTORS SHOULD BE JACKETED, WHENEVER PRACTICAL.
 - SHARP BENDS SHALL BE AVOIDED, WITH A MINIMUM RADIUS OF 203mm.
 - BUILDING SHALL BE BONDED TO THE GROUND RING IN AT LEAST TWO POINTS, WITH AS MUCH PHYSICAL SEPARATION AS PRACTICAL.
 - GROUND RINGS SHALL BE BURIED TO A DEPTH OF 762mm WHERE PRACTICAL. WHEN NOT PRACTICAL TO BURY BELOW 305mm, 38mm OF CONDUIT SHALL BE UTILIZED ON ALL SIDES OF THE GROUND COMPONENT. ANY VARIATIONS ARE TO BE DOCUMENTED AS PART OF RED-LINE MARKUPS.
 - WHEN ADJUSTING GROUND LOOP FROM DIFFERENT DEPTHS, MINIMUM BEND RADIUS OF NOTE 4 SHALL BE ADHERED TO.
 - GROUND RINGS SHALL BE A MINIMUM OF 610mm FROM FOUNDATIONS OF BUILDING AND TOWERS, OR GREATER WHERE SPECIFIED IN THE DRAWINGS.
 - GROUND RODS SHALL BE COPPER OR COPPER CLAD, 3m LENGTH AND 19.05mm DIAMETER.
 - GROUND RODS SHALL BE SPACED 3m TO 4.5m APART AROUND THE GROUND RING.
 - THE UPPER END OF THE GROUND ROD SHALL BE BURIED TO THE DEPTH OF THE GROUND RING TO ALLOW FOR EASY BONDING.
 - GROUND RODS SHALL BE INSTALLED VERTICALLY WHERE PRACTICAL. RODS MAY BE INSTALLED HORIZONTALLY OR AT AN ANGLE OF 45° FROM VERTICAL, AND PERPENDICULAR TO THE BUILDING. ORIENTATION VARIATION AND DEPTHS MUST BE DOCUMENTED AS PART OF RED-LINE MARKUPS.
 - RODS ARE PREFERRED TO BE INSTALLED AS CLOSE TO VERTICAL AS POSSIBLE THROUGH HAMMER DRILLING. IF RODS CANNOT BE INSTALLED WITHOUT DEFORMING, THEY SHALL BE INSTALLED HORIZONTALLY AS DEEP AS PRACTICAL.
 - HORIZONTAL GROUND RODS ON RADIALS WILL BE INSTALLED PERPENDICULAR TO RADIAL.
 - RODS ARE NOT TO BE INSTALLED IN PRE DRILLED HOLES.
 - IF GROUND RODS ARE INSTALLED LESS THAN 305mm DEEP, THEY SHALL BE ENCASED IN 38mm OF CONCRETE ON ALL SIDES.
 - GROUND RODS CAN BE SUBSTITUTED WITH GROUND PLATES, WHERE SITUATIONS DO NOT ALLOW FOR INSTALLATION OF GROUND RODS.
 - COPPER GROUND PLATES SHALL BE 1.5mm THICK AND COPPER-CLAD STEEL SHALL BE 6.4mm MINIMUM.
 - GROUND PLATES SHALL HAVE 0.186m² MINIMUM SURFACE EXPOSED TO BACKFILL MATERIAL.
 - IF GROUND PLATES ARE INSTALLED LESS THAN 305mm DEEP, THEY SHALL BE ENCASED IN 76mm OF CONCRETE ON ALL SIDES.
 - ANY SURFACE INSTALLED GROUNDING EQUIPMENT SHALL HAVE CONCRETE SHAPED TO PREVENT TRIPPING HAZARDS.

- LEGEND
- JUNCTION
 - ⊗ GROUND ROD
 - ⊗ GROUND PLATE
 - GROUND CONDUCTOR

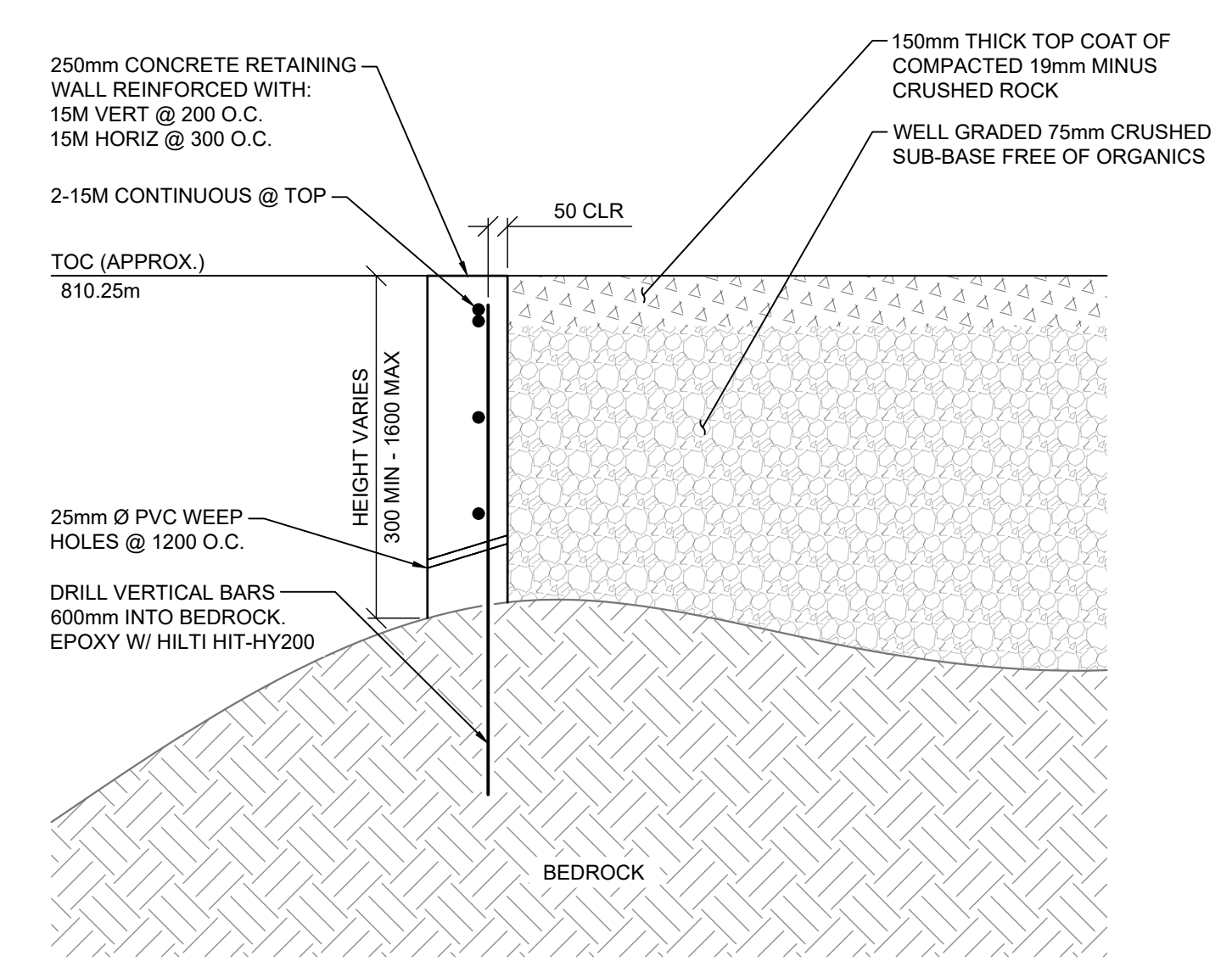
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rev	description	by	date
Asset - Actif			
MCTS TOWER SITE			
KLEMTU			
Drawing - Dessin			
GROUNDING PLAN			
drawn - dessiné		date	
RH/BS		2022-02-28	
designed - conception		date	
TE		2022-02-28	
checked - vérifié		date	
SC		2022-02-28	
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N6247-20010		AS NOTED	
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WM394-1006		06/08	0

PLAN A GROUNDING PLAN
SCALE: 1:100

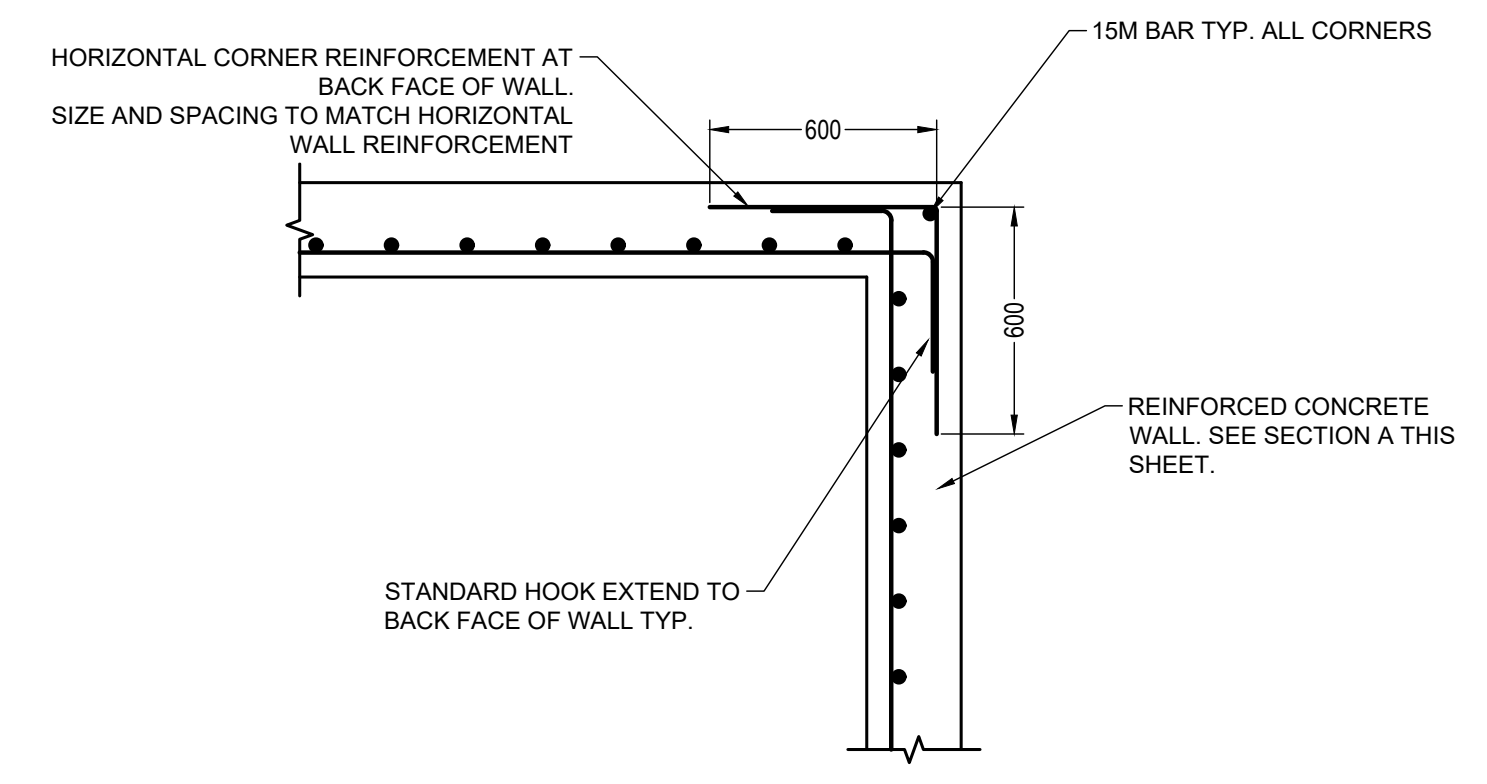




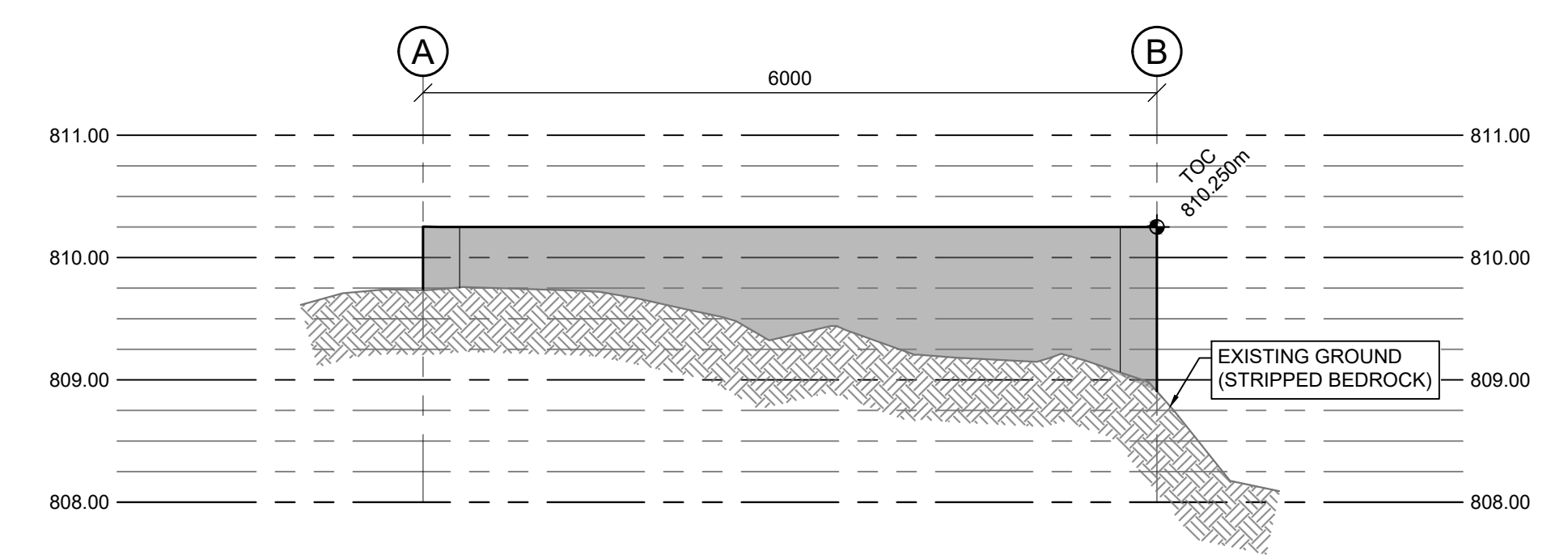
PLAN SCALE: 1:50
A
07 HELIPAD FOUNDATION



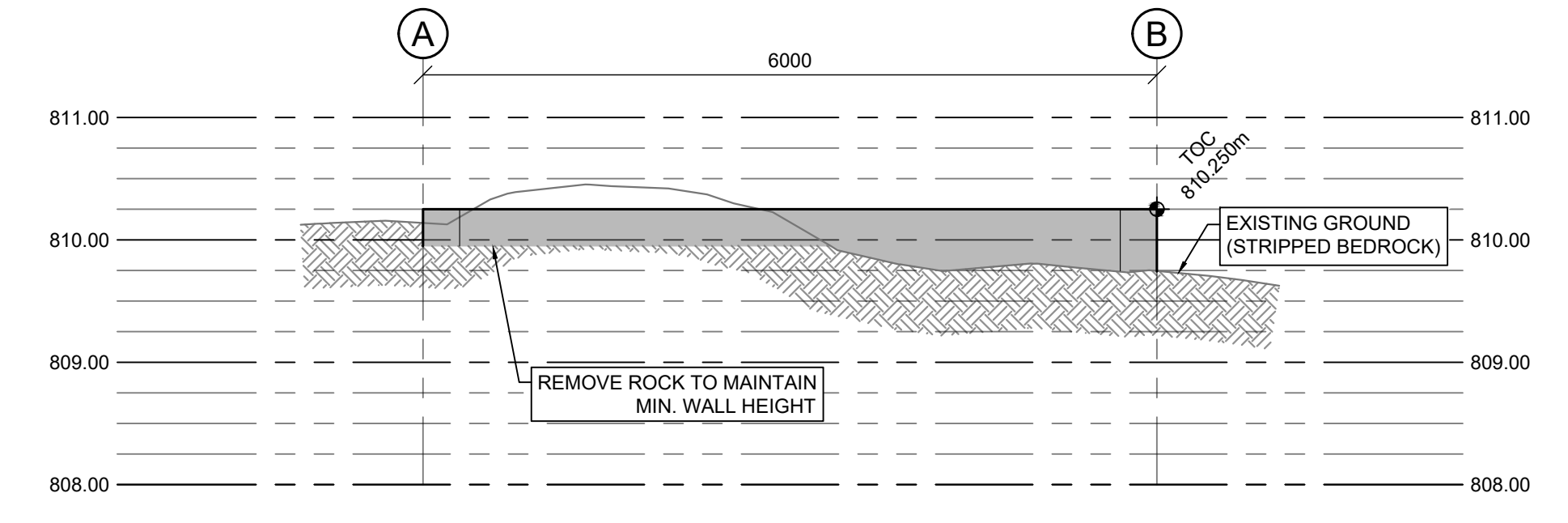
SECTION **A**
07 HELIPAD WALL
SCALE: 1:20



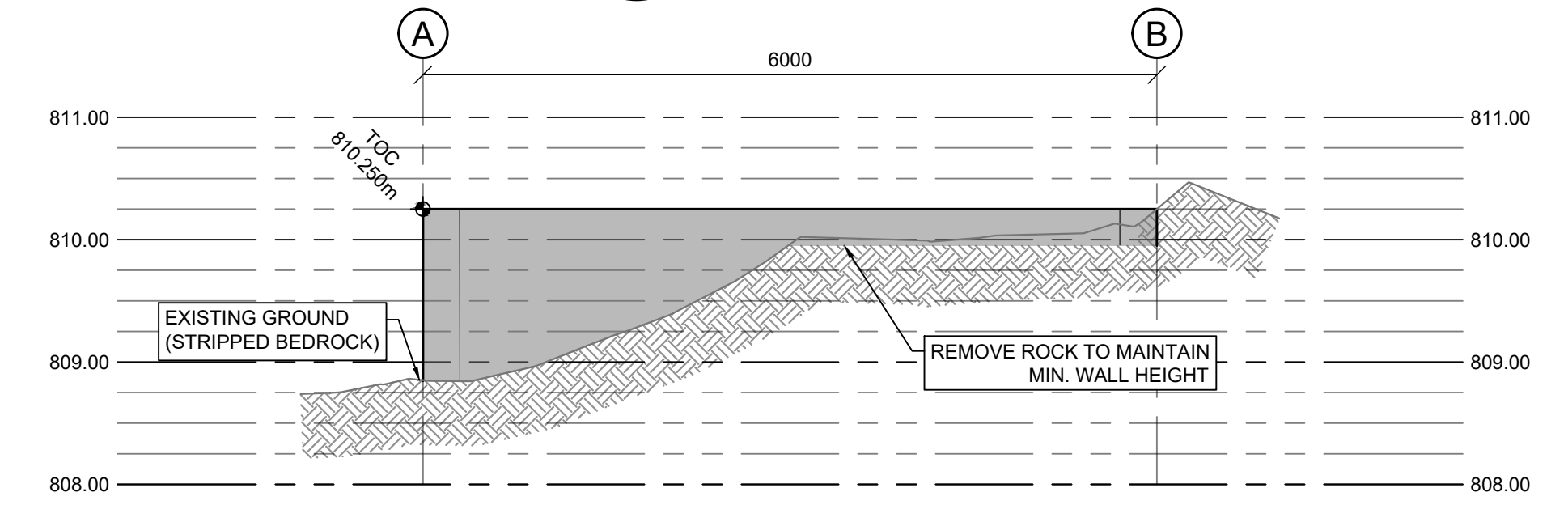
DETAIL **1**
07 HELIPAD CORNER
SCALE: 1:20



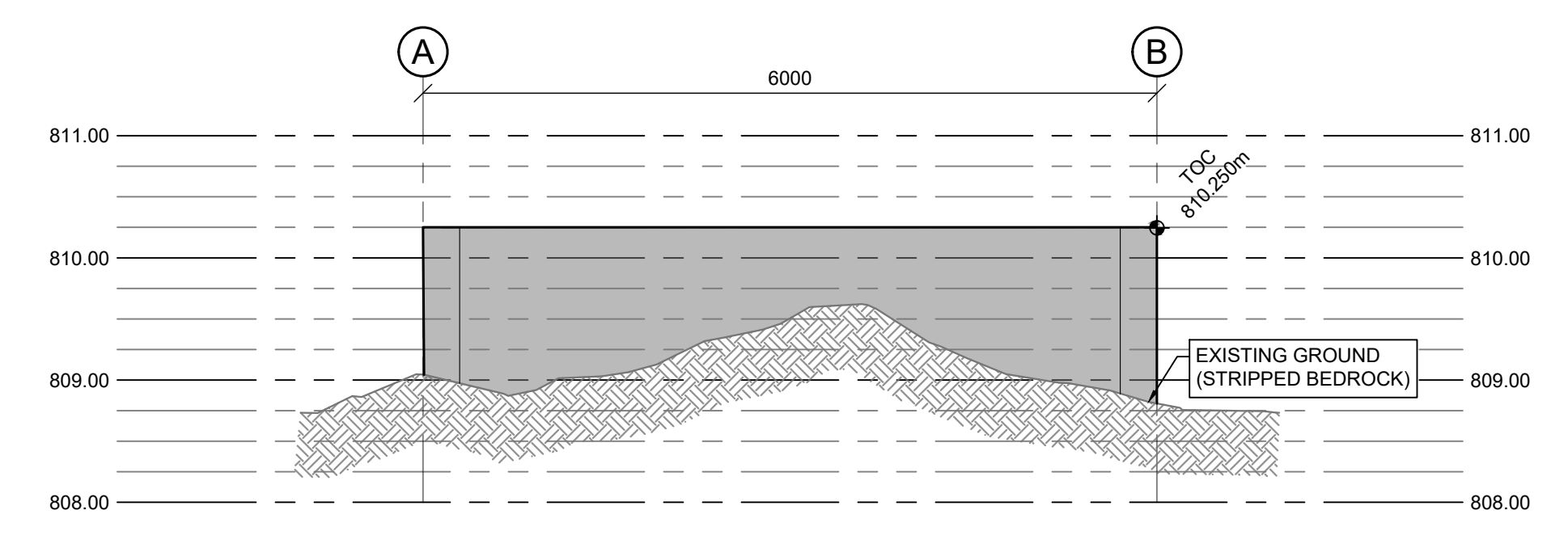
ELEVATION **A**
07 GROUND PROFILE AT GRIDLINE 1
SCALE: 1:50



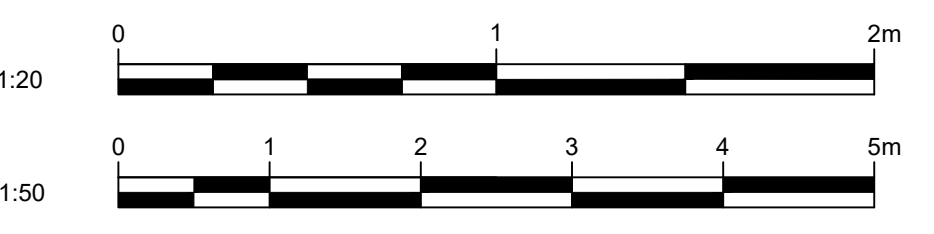
ELEVATION **B**
07 GROUND PROFILE AT GRIDLINE A
SCALE: 1:50



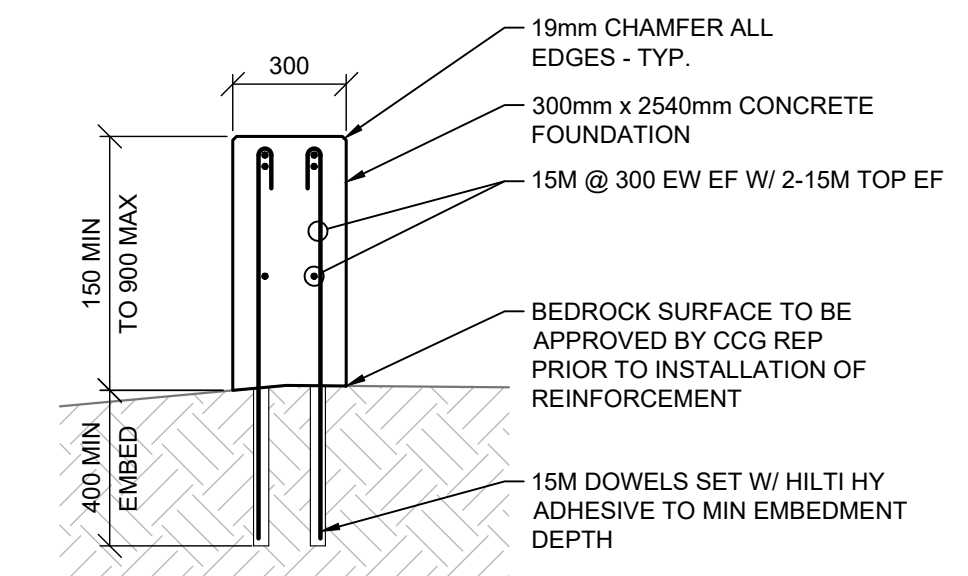
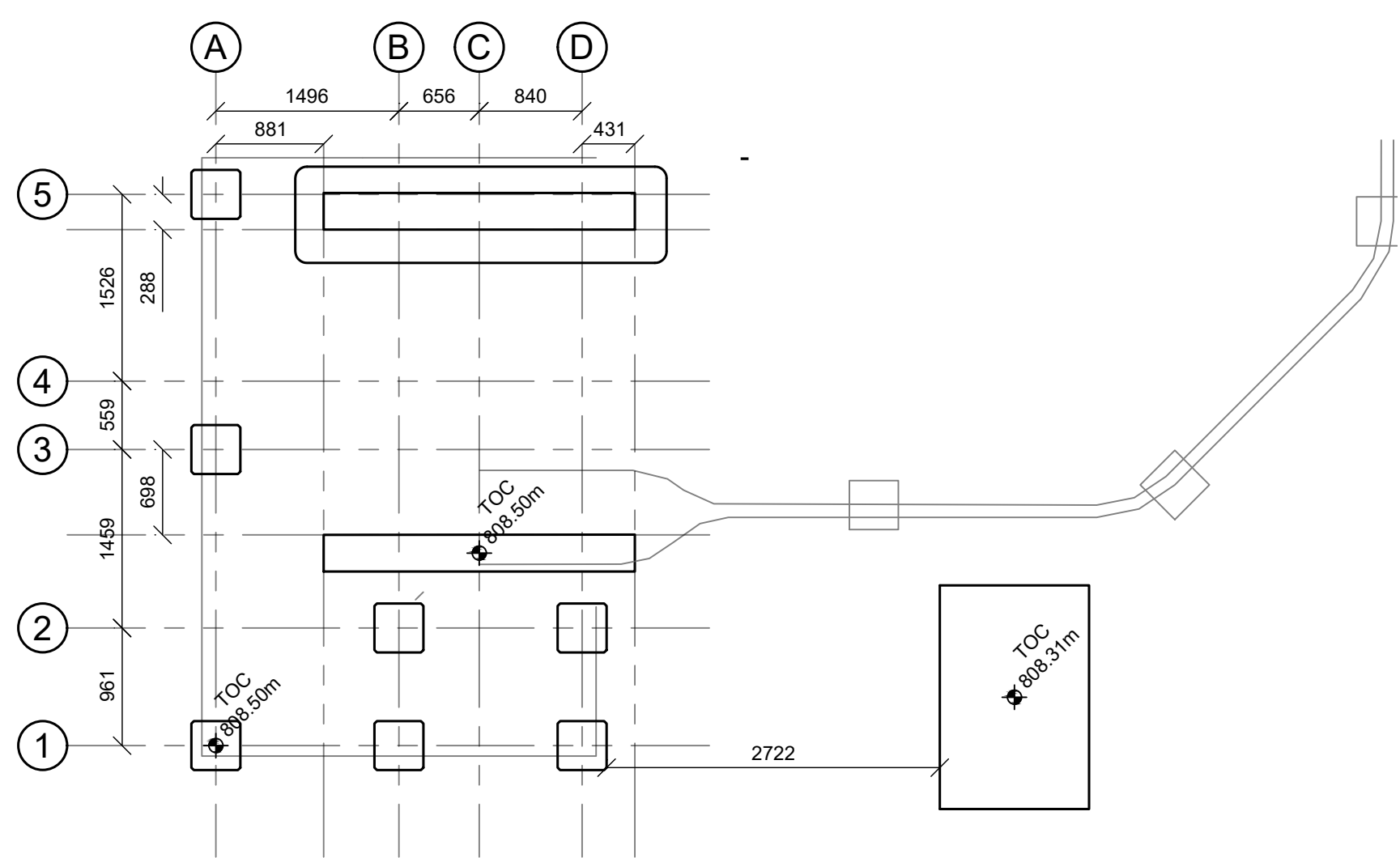
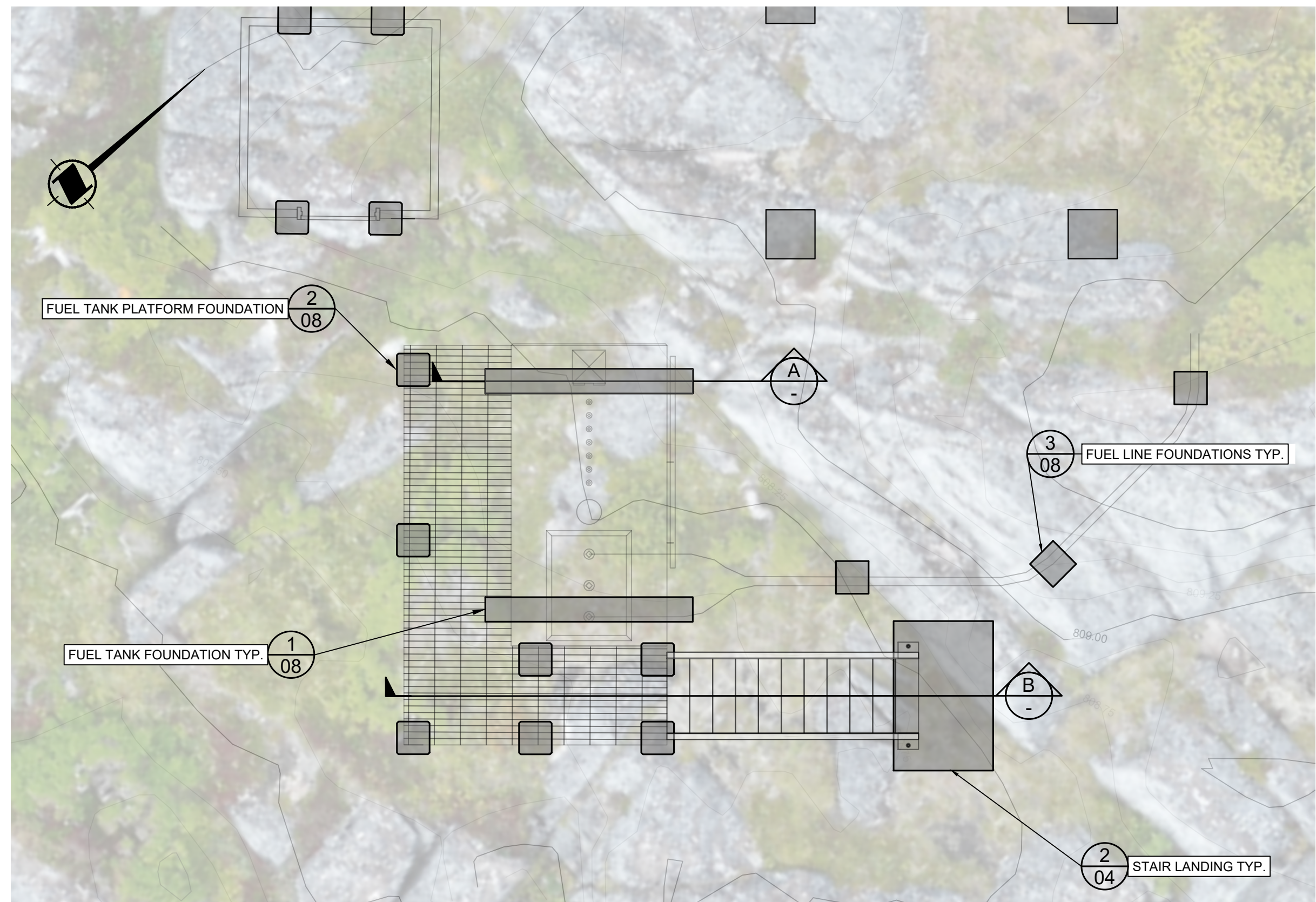
ELEVATION **C**
07 GROUND PROFILE AT GRIDLINE 2
SCALE: 1:50



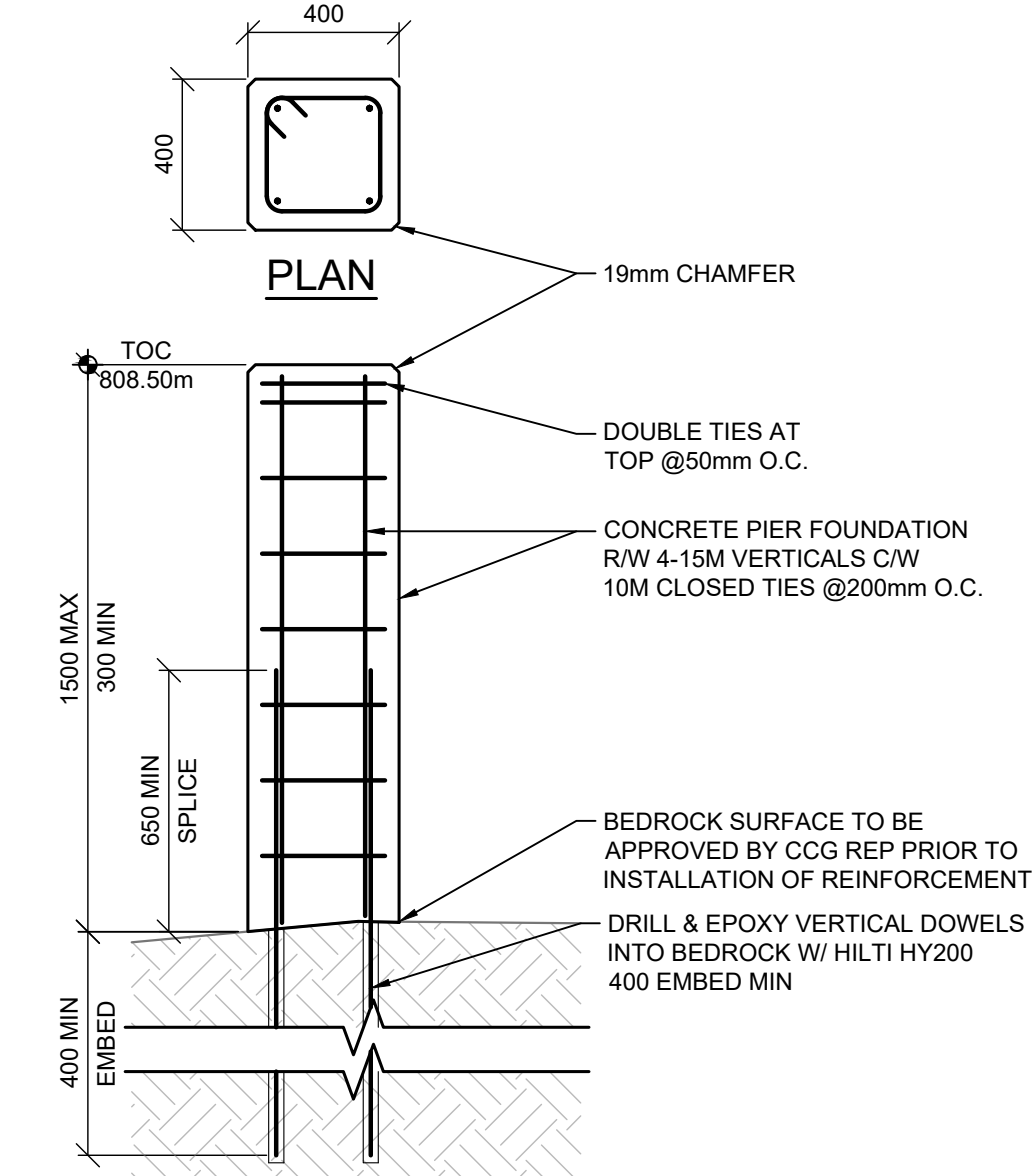
ELEVATION **D**
07 GROUND PROFILE AT GRIDLINE B
SCALE: 1:50



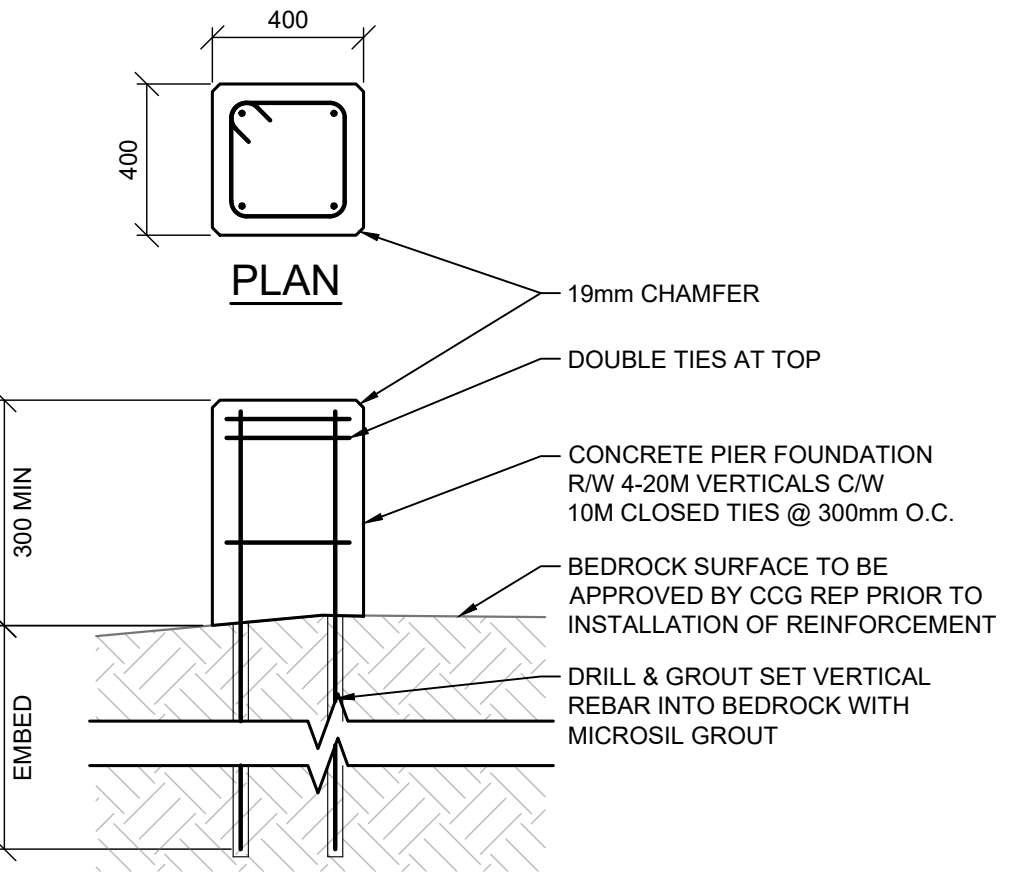
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Drawing - Dessin			
HELIPAD DETAILS			
drawn - dessiné		date	
RH/BS		2022-02-28	
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drawing no. - no. dessin		sheet-feuille	rev-rév
WM394-1006		07/08	0



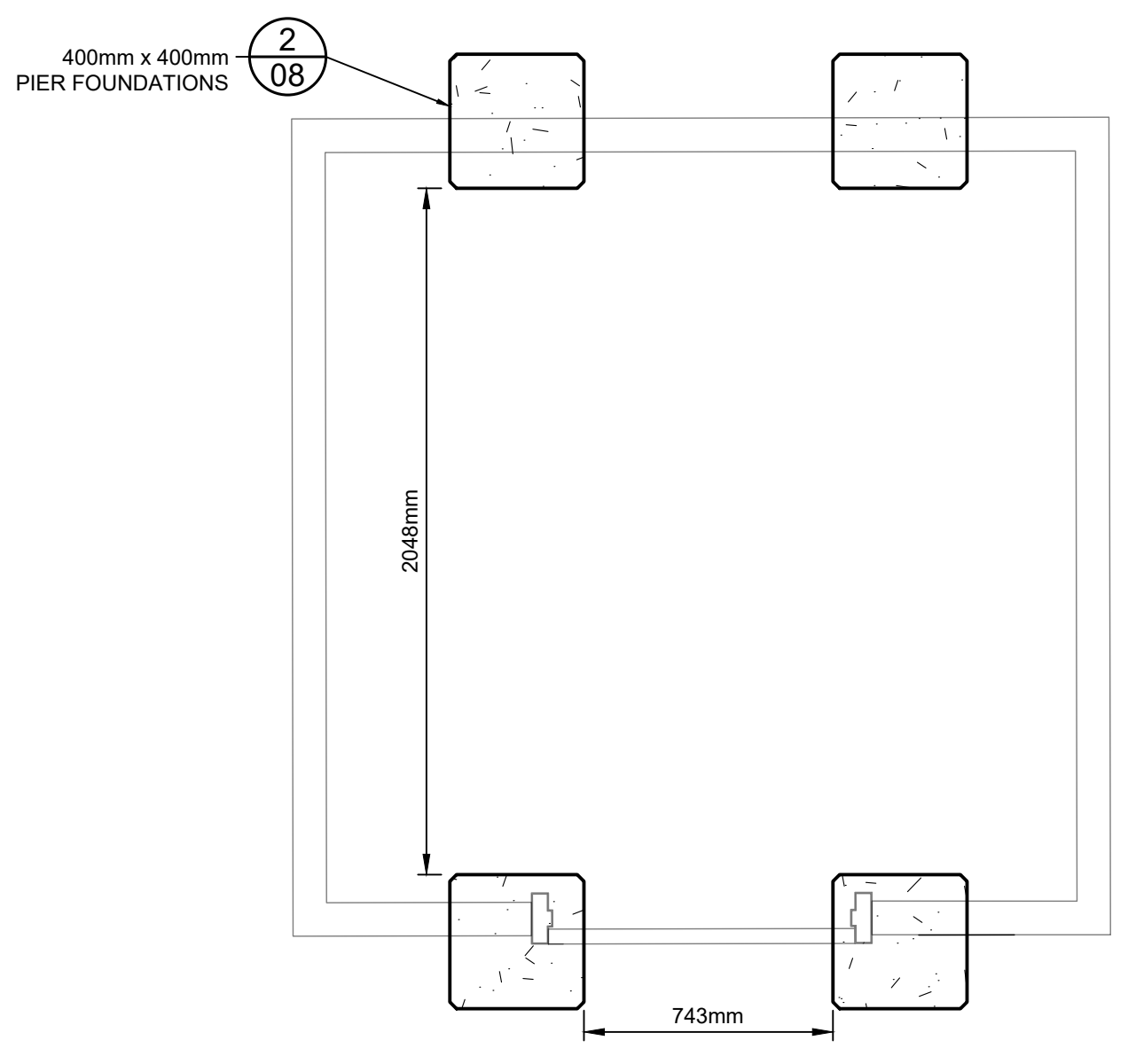
DETAIL 1 FUEL TANK FOUNDATION
SCALE: 1:20



DETAIL 2 400mm x 400mm PIER FOUNDATION
SCALE: 1:20

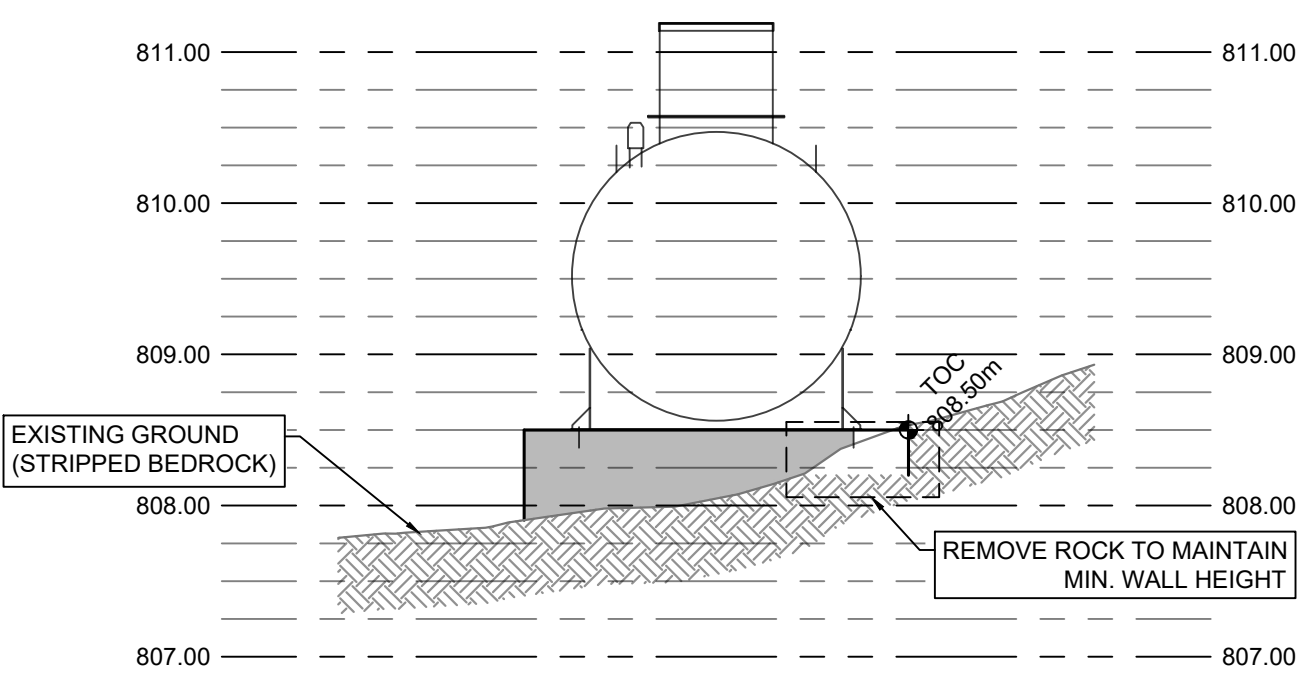


DETAIL 3 FUEL LINE PIER FOUNDATION
SCALE: 1:20

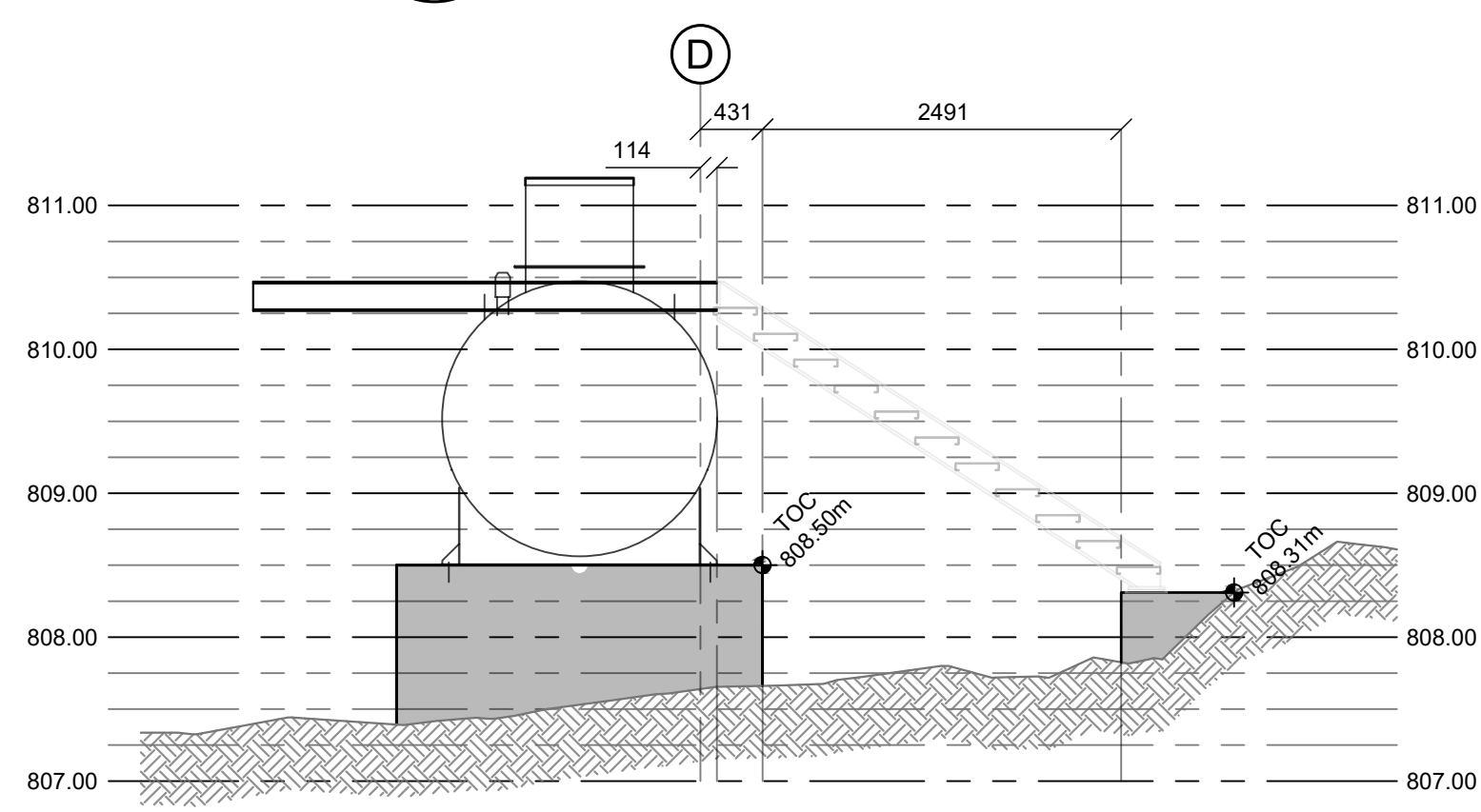


DETAIL 4 TEMPORARY BUILDING FOUNDATION LAYOUT
SCALE: 1:20

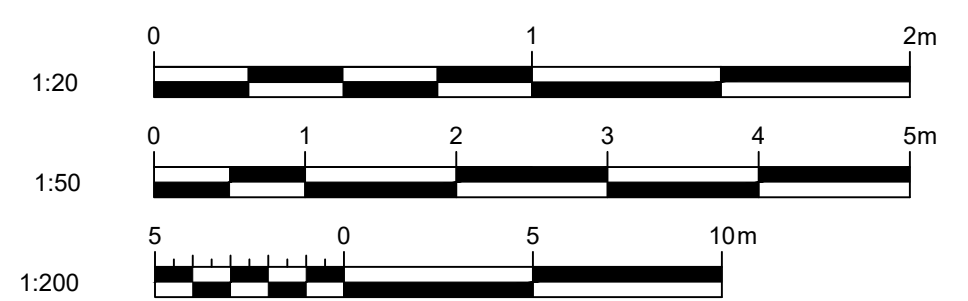
PLAN A FUEL TANK LAYOUT
SCALE: 1:50



SECTION A NORTHEAST FUEL TANK FOUNDATION
SCALE: 1:100



SECTION B PLATFORM STAIRS AND LANDING
SCALE: 1:100



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MCTS TOWER SITE			
KLEMTU			
Drawing - Dessin			
FUEL TANK AND TEMPORARY BUILDING DETAILS			
drawn - dessiné		date	
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CCG ref. no. - no. ref. GCC		scale - échelle	
N6247-20010		AS NOTED	
drawing no. - no. dessin		sheet/feuille	rev/rév
WM394-1006		08/08	0