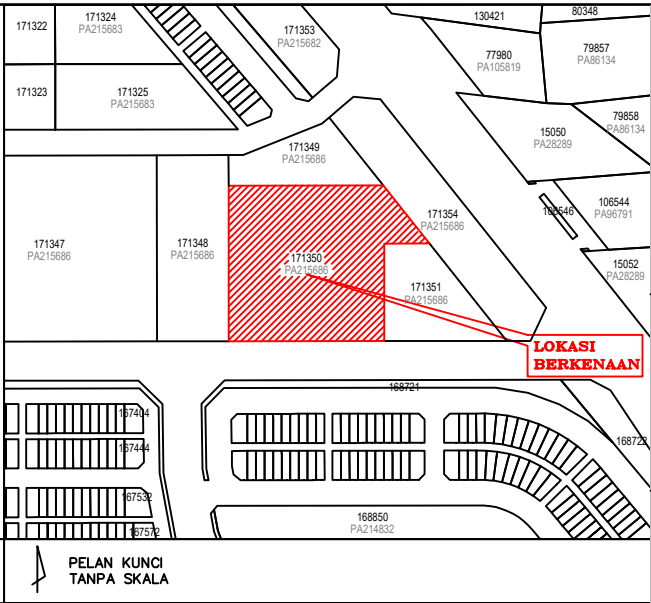
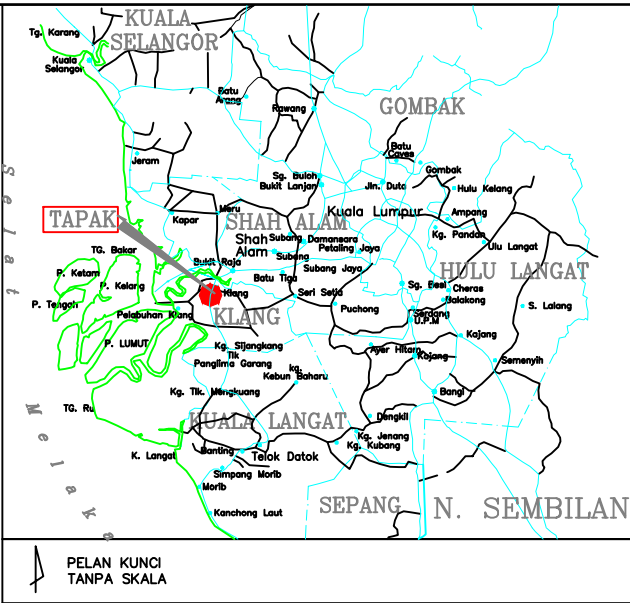
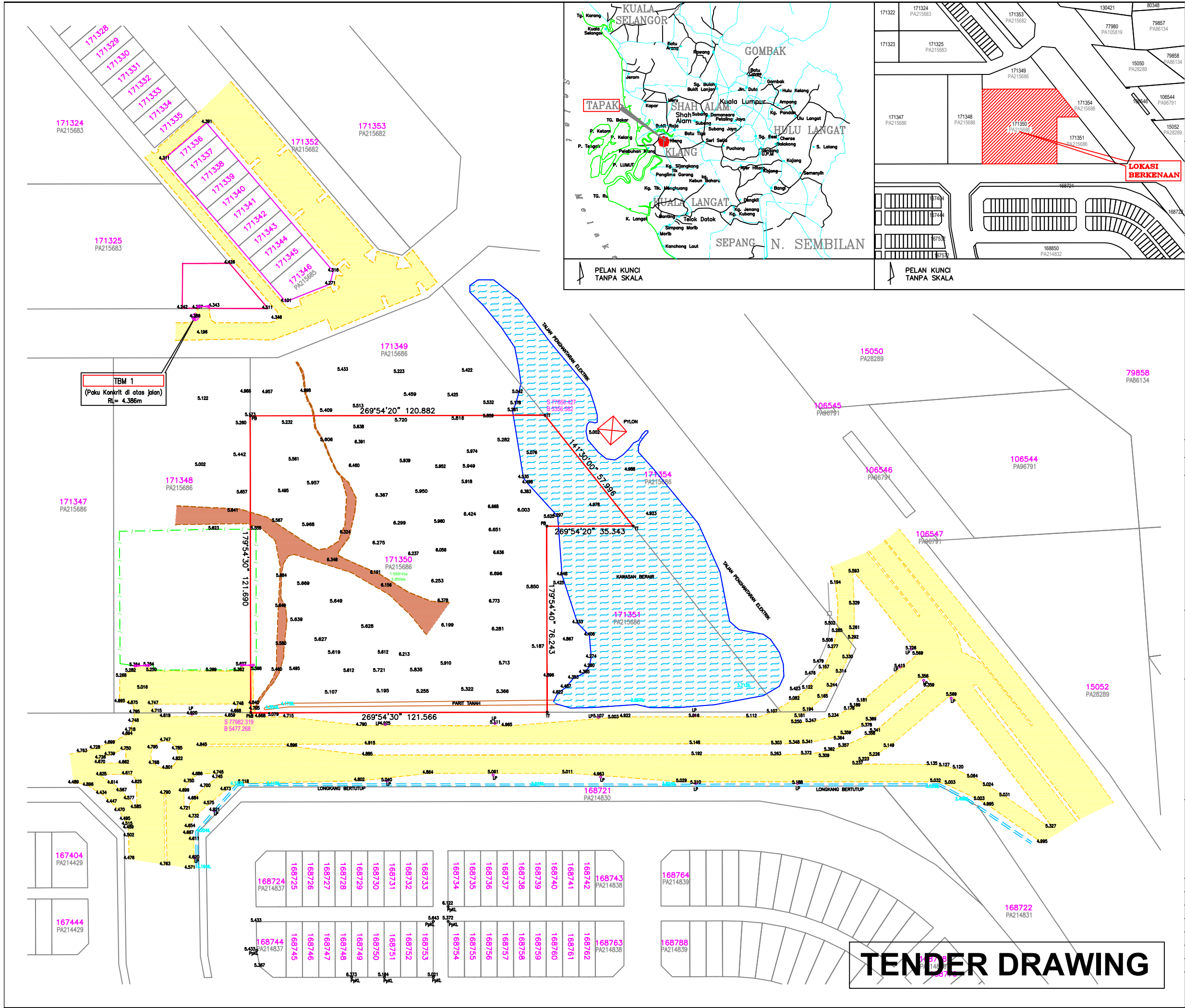




PROJEK

GROUND IMPROVEMENT FOR PMU 132/33 kV BAYUMAS AIS

TAJUK

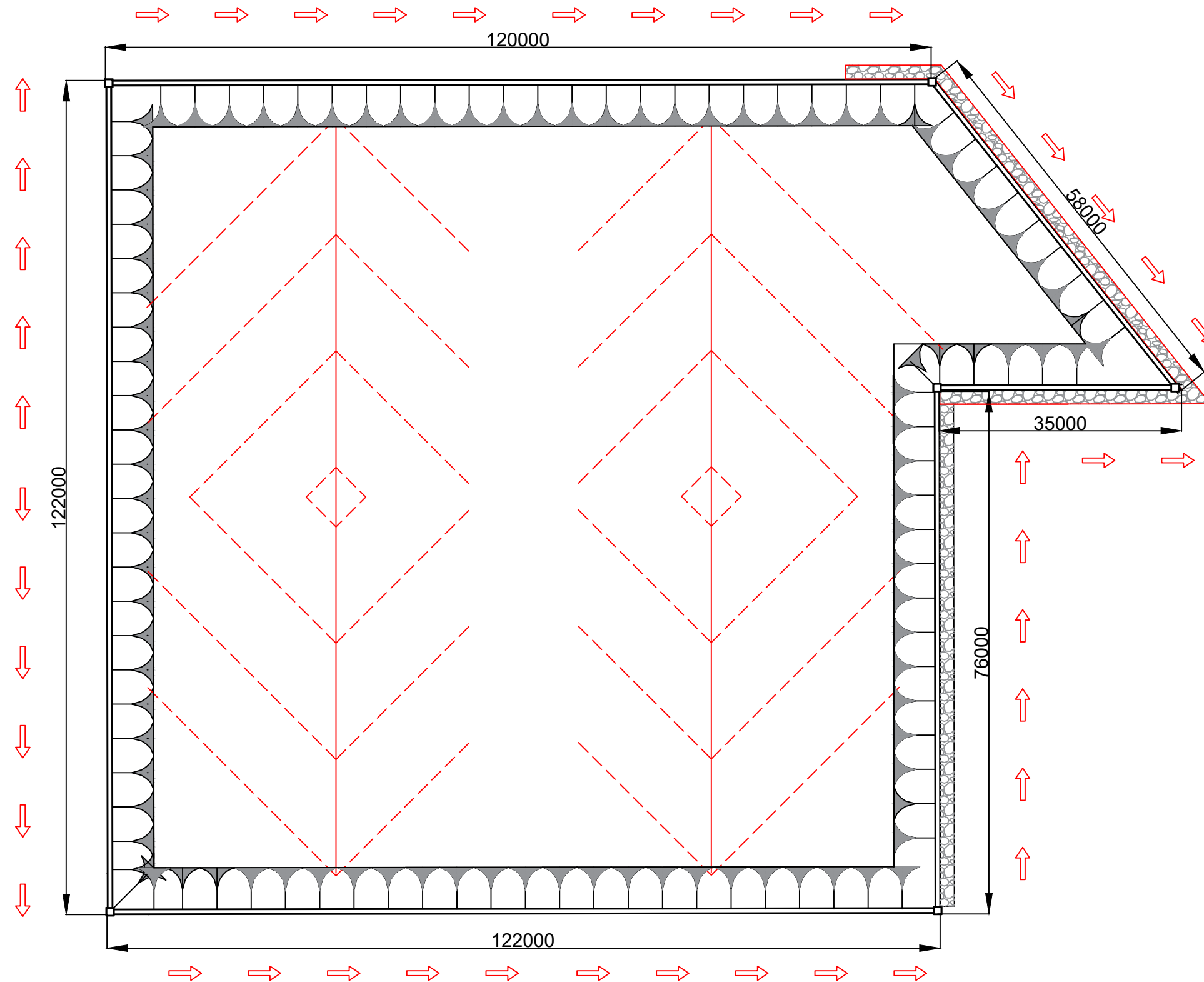
GENERAL LAYOUT PLAN OF GROUND IMPROVEMENT PMU 132/33 kV BAYUMAS AIS

NOTES:

P E N U K A R A N

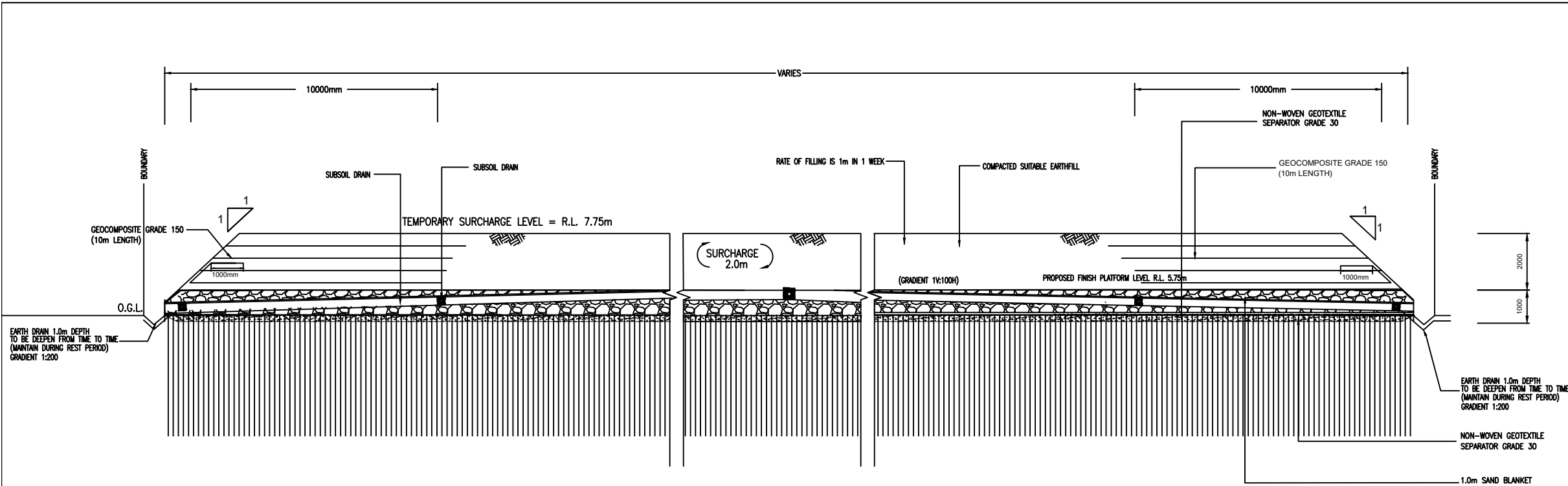
BIL	TARIKH	NAMA	NOTA

NAMA	
DILUKIS OLEH :	HISYAMUDDIN BIN NOR AZRY
DISEMAK OLEH :	Ir. DALIA UTAMA BINTI ZULNISYAM
DIPERAKUKAN OLEH :	EN. WAN ANUL AZLAN BIN AHMAD
DILULUS OLEH :	EN. RAZALI BIN DAMAN
SKALA :	NTS
TARIKH :	17/03/2021
NO. LUKISAN	NO. ACAD
TNB/GD1946A / D1	SLOPE

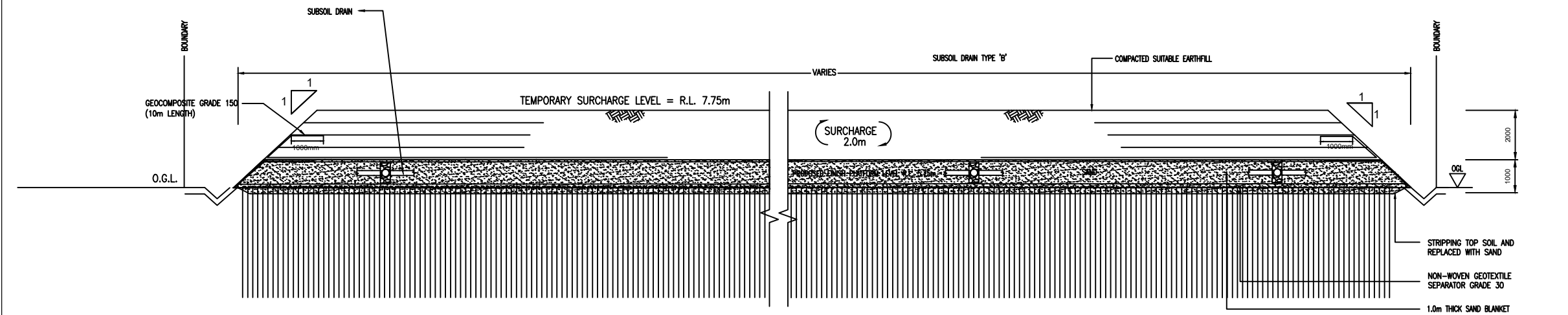


TENDER DRAWING

PROJEK GROUND IMPROVEMENT FOR PMU 132/33 kV BAYUMAS AIS			
TAJUK GENERAL LAYOUT PLAN OF GROUND IMPROVEMENT PMU 132/33 kV BAYUMAS AIS			
NOTES:			
P E N U K A R A N			
BIL	TARIKH	NAMA	NOTA
			
NAMA			
DILUKIS	OLEH :	HISYAMUDDIN BIN NOR AZRY	
DISEMAK	OLEH :	Ir. DALIA UTAMA BINTI ZULNISYAM	
DIPERAKUKAN	OLEH :	EN. WAN AINUL AZLAN BIN AHMAD	
DILULUS	OLEH :	EN. RAZALI BIN DAMAN	
SKALA	:	NTS	
TARIKH	:	12/04/2021	
NO. LUKISAN			NO. ACAD
TNB/GD1946A/D2			SLOPE



SECTION A-A



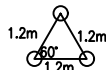
SECTION B-B

NOTES

- (1) ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE STATED.
- (2) THIS DRAWINGS IS TO BE READ IN CONJUNCTION WITH OTHER RELEVANT ENGINEERING DRAWINGS.

VERTICAL DRAINS NOTES

- (1) THE VERTICAL DRAINS SHALL BE SPACED AT 1.2m TRIANGULAR UNLESS OTHERWISE INDICATED.



- (2) BEFORE INSTALLATION OF VERTICAL DRAINS, A 1.0m THICK SAND PLATFORM IS TO BE PLACED ON THE EXISTING GROUND.

- (3) THE VERTICAL DRAINS SHALL BE DRIVEN TO REFUSAL OR A MINIMUM DEPTH OF 27m.

- (4) EMBANKMENT FILL HEIGHT SHALL BE PLACED IN ACCORDANCE TO STAGED CONSTRUCTION SPECIFIED IN THE DRAWING.

- (5) DURING THE 'REST PERIOD' OF EACH STAGE, EMBANKMENT FILL HEIGHT SHALL BE MAINTAINED ONCE A MONTH BY TOPPING UP AGAIN TO SPECIFIED FILL HEIGHT UNLESS OTHERWISE DIRECTED BY ENGINEER.

- (6) FOR THESE CONTRACT, THE SURCHARGE SHALL ONLY BE REMOVE AFTER 10 MONTHS OR UNLESS OTHERWISE AS INSTRUCTED BY ENGINEER.

EMBANKMENT CONSTRUCTION

- (1). EXCAVATE BELOW EXISTING GROUND AND REMOVE SOFT SOIL GROUND OR UNSUITABLE MATERIALS.(6). TO LEVELS AS SHOWN IN THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- (2). PLACE APPROVED NON-WOVEN GEOTEXTILE SEPARATOR GRADE 30 OR TECHNICALLY EQUIVALENT PRIOR TO PLACING SAND BLANKET AS DIRECTED BY THE ENGINEER.
- (3). INSTALL INSTRUMENT AND TAKE INITIAL READINGS.
- (4). PLACE EMBANKMENT FILL AND COMPACT EVENLY IN ACCORDANCE TO THE SPECIFICATION. RATE OF FILL SHALL NOT EXCEED THE FOLLOWING UNLESS OTHERWISE APPROVED BY THE ENGINEER
 - (i). 0.3m PER WEEK FOR FILL HEIGHT
 - (ii). (INCLUDING SAND BLANKET)
- (5). THE CONTRACTOR MAY ELECT TO CONSTRUCT THE EMBANKMENTS IN LAYERS OF THICKNESS GREATER THAN SPECIFIED ABOVE, SUBJECT TO THE FOLLOWING:-
 - (i). AGREEMENT IN WRITING IS OBTAINED FROM THE ENGINEER.
 - (ii). MAXIMUM COMPACTED LAYERS THICKNESS DOES NOT EXCEED THAT SPECIFIED IN THE SPECIFICATIONS.
 - (iii). IF ANY DISTRESS OR ANY OTHER PROBLEM IS DETECTED EITHER VISUALLY OR FROM THE INSTRUMENTS BY THE ENGINEER, OR CONTRACTOR, THE RATE OF FILLING SHALL BE REDUCE TO A VALUE PROPOSED BY THE CONTRACTOR AND AGREEABLE TO THE ENGINEER.
 - (iv). ANY DAMAGE TO THE EMBANKMENT SHALL BE MADE GOOD BY THE CONTRACTOR AT HIS EXPENSE.

THE CONTRACTOR SHALL CEASE FILLING AND INFORM THE ENGINEER, SHOULD THE INSTRUMENTS SHOW THE FOLLOWING OVER WEEKLY MONITORING PERIOD IN THE FOLLOWING RATIO:-

- (i). CHANGE OF PORE WATER PRESSURE INCREASE IN EMBANKMENT PRESSURE. > 0.7
- (ii). MAXIMUM LATERAL MOVEMENT MAXIMUM VERTICAL SETTLEMENT > 0.50
- (iii). MAXIMUM SURFACE HEAVE MAXIMUM VERTICAL SETTLEMENT > 0.20

- (7) DURING FILLING OPERATIONS, ALL INSTRUMENTS ARE TO BE ADEQUATELY PROTECTED AND SECURED WITH LOCKABLE CAPS WHICH ARE VANDAL PROOF. THE MONITORING WORKS ARE AN INTEGRAL PART OF THE CONSTRUCTION PROCESS AND THE ENGINEER MAY STOP EMBANKMENT FILLING WORKS AS A RESULT OF THE CONTRACTOR FAILING TO TAKE READING OR IF THE INSTRUMENT ARE DAMAGED UNTIL THE SITUATION IS RECTIFIED. THIS IS TO ENSURE NO EMBANKMENT FAILURE OCCURS DURING PLACEMENT.

THE METHOD OF CONSTRUCTION MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.

STAGED CONSTRUCTION WITH VERTICAL DRAIN AND SURCHARGE

HEIGHT OF FILLING (m)	REST PERIOD (DAYS)	RATE OF FILLING
0 - 1.2	3	0.3m/WEEK
1.2 - 3.0	7	0.3m/WEEK
3.0 - 5.0	-	0.3m/WEEK

SURCHARGE PERIOD (MONTH)	LENGTH OF PVD
10	min 27m

TENDER DRAWING

PROJEK

GROUND IMPROVEMENT FOR PMU 132/33 kV
BAYUMAS AIS

TAJUK

TYPICAL CROSS-SECTION OF GROUND
IMPROVEMENT VIA PVD

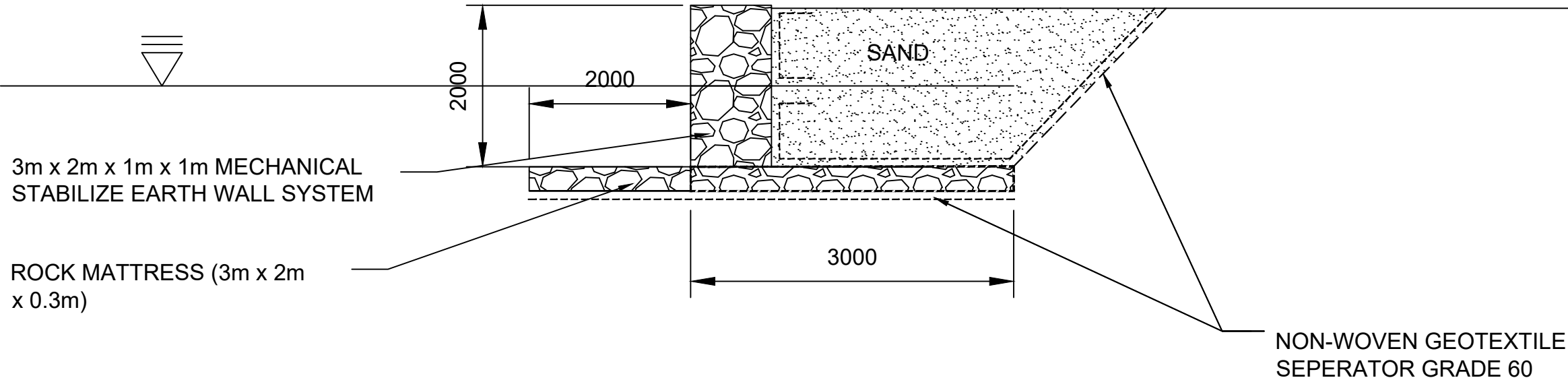
NOTES:

P E N U K A R A N

BIL	TARIKH	NAMA	NOTA



NAMA			
DILUKIS OLEH :	HISYAMUDDIN BIN NOR AZRY	NO. LUKISAN	NO. ACAD
DISEMAK OLEH :	Ir. DALIA UTAMA BINTI ZULNISYAM	TNB/GD1946A/D3	SLOPE
DIPERAKUKAN OLEH :	EN. WAN ANUL AZLAN BIN AHMAD		
DILULUS OLEH :	EN. RAZALI BIN DAMAN		
SKALA :	NTS		
TARIKH :	12/04/2021		



TENDER DRAWING

PROJEK GROUND IMPROVEMENT FOR PMU 132/33 kV BAYUMAS AIS			
TAJUK TYPICAL CROSS-SECTION & DETAILING OF MSE WALL SYSTEM			
NOTES:			
P E N U K A R A N			
BIL	TARIKH	NAMA	NOTA
			
		NAMA	
DILUKIS OLEH :		HISYAMUDDIN BIN NOR AZRY	
DISEMAK OLEH :		Ir. DALIA UTAMA BINTI ZULNISYAM	
DIPERAKUKAN OLEH :		EN. WAN AINUL AZLAN BIN AHMAD	
DILULUS OLEH :		EN. RAZALI BIN DAMAN	
SKALA :		NTS	
TARIKH :		12/04/2021	
NO. LUKISAN TNB/GD1946A/D4			NO. ACAD SLOPE