

APPROVAL:

INDAH WATER KONSORTIUM SDN. BHD.
 AGENSI PERAKUAN - PEMEBETUNGAN (diwakili oleh SP310)

PELAN-PELAN UNTUK MEMBINA
 REKABENTUK SISTEM PEMBETUNGAN
 ADALAH

DILULUSKAN
 BERGASIAN KEPADA PENGESAHAN/TANDATANGAN
 JURUTERA PROFESIONAL BERKENAAN DAN TERHAJIK
 KEPADA SYARAT-SYARAT BIL: / No. 11
 DI DALAM FAIL IMWIC: 02/01/23/0030

(i) KELULUSAN ASAL
 (ii) PINDAAN PERTAMA
 (iii) PINDAAN KEDUA

[Signature]
 Pengurus
 Agensi Perakuan - Pembetungan
 Perak Darul Ridzuan
 (diwakili oleh SP310)

Tarikh: 22/11/2024

KELULUSAN INI TIDAK TERMASUK
 REKABENTUK STRUKTUR KEJURUTERAAN

NAME & SIGNATURE OWNER:

[Signature]

NAMA : SAMSABAHARANI BINTI MOHD NIK
 NO KP : 590908-08-5308

[Signature]

NAMA : MOHAMED RAZIF BIN MOHD NIK
 NO KP : 661111-08-5093

CONSULTANT ENGINEER:

[Signature]

PUSAKA RUNDING SDN. BHD. (800760-U)
 (Engineering Consultancy And Project Management)
 No. 12-A1, Jalan Meru Bestari D1,
 Kompleks Perdagangan DWJ@MERU,
 Bandar Meru Raya, 30020 Ipoh, Perak Darul Ridzuan.
 Tel : 605 - 529 8811 / 529 8812 Fax : 605 - 529 8813
 e-mail : pusakarunding@gmail.com

ENGINEER CHOP & SIGNATURE :

[Signature]

PROFESSIONAL ENGINEER
 WITH PRACTISING CERTIFICATE
 CIVIL
 Ir. Ts. KAMARULLAFFIE HJ. AHMAD
 C113568
 MALAYSIA

I HEREBY CERTIFY THAT THESE WORKS HAVE BEEN DESIGNED
 BY ME IN ACCORDANCE WITH SOUND ENGINEERING PRACTICE
 AND THAT I TAKE FULL RESPONSIBILITY FOR THE DESIGN,
 AND PROPER PERFORMANCE OF THE SAME.

STATUS ISSUE DRAWING

PRELIMINARY (PLM) CONTRACT (CTR)
 PROVISIONAL (PRV) CONSTRUCTION (CNS)
 SUBMISSION (SBM) AS-BUILT (ASB)
 APPROVAL (APR) DIKELUARKAN (DKN)
 TENDER (TDR) BILL QUANTITY
 RESUBMISSION (RESBM) ESTIMATE (BQ)

PURPOSE OF ISSUANCE

SUBMISSION DRAWING

DATE: _____

REFER	AMENDMENT	DATE	APPROVED

PROJECT:
 CADANGAN MEMBINA PUSAT TARIYAH AL MUKMININ NIK ZAIDAH
 YANG MENANGKUNGI:

1. BLOK KELAS 1 TINGKAT
2. BLOK KELAS 2 TINGKAT
3. 1 BLOK ASRAMA PELAJAR 1 TINGKAT
4. 1 BLOK ASRAMA KELUARGA 1 TINGKAT
5. 1 UNIT RUMAH TETAMU 1 TINGKAT
6. 3 UNIT KUARTERS 1 TINGKAT
7. 1 UNIT SURAU SETINGKAT
8. 1 UNIT KANTIN SETINGKAT

DI ATAS PLOT 2, DI SEBAHAGIAN LOT 43650, JALAN TIONG LAHAT, MUKIM HULU KINTA, DAERAH KINTA, PERAK DARUL RIDZUAN UNTUK TETUAN YAYASAN AL MUKMININ

DRAWING: SEWERAGE
 DETAILS OF CONCRETE THRUST AND ANCHOR BLOCK

DRAW BY : YAA	SIGNATURE :
DESIGNED BY : NAA	SIGNATURE :
CHECKED BY : Ir. Ts. KAMARULLAFFIE	SIGNATURE :
APPROVED BY : Ir. Ts. KAMARULLAFFIE	SIGNATURE :
SCALE : N.T.S.	DATE : SEPTEMBER 2024
ACAD FILE : PRSB-2216-SW-4.0.dwg	
DRAWING NO. PRSB / 2216 / SW / 4.0	REV. SHEET

SCHEDULE OF CONCRETE THRUST BLOCK FOR HORIZONTAL BEND

NOMINAL DIA. OF PIPE (mm)	11.25° & 22.50°					45°					90° / 22.50° + 45°				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
100	400	100	100	900	100	400	200	100	900	100	400	100	100	900	100
150	450	200	150	1000	150	450	400	150	1000	150	450	150	1000	150	150
200	500	300	200	1100	200	500	600	200	1100	200	500	1100	200	1100	200
250	550	400	250	1200	250	550	800	250	1200	250	550	1500	250	1200	250
300	600	600	300	1300	300	600	1100	300	1300	300	600	2000	300	1300	300
350	650	700	350	1400	350	650	1400	350	1400	350	650	2500	350	1400	350
400	700	900	400	1500	400	700	1700	400	1500	400	700	3000	400	1500	400
450	750	1000	450	1600	450	750	2000	450	1600	450	750	3600	450	1600	450
500	800	1200	500	1700	500	800	2800	500	1700	500	800	4200	500	1800	500
600	900	1500	600	1900	600	900	2900	600	1900	600	900	5400	600	1900	600

SCHEDULE OF CONCRETE THRUST BLOCK FOR VERTICAL BEND (ACTING DOWNWARD)

NOMINAL DIA. OF PIPE (mm)	11.25°				22.50°				45°			
	A	B	C	D	A	B	C	D	A	B	C	D
100	700	100	350	100	700	200	350	100	300	500	350	100
150	750	200	375	150	750	500	375	150	750	1100	375	150
200	800	400	400	200	800	900	400	200	800	1800	400	200
250	850	600	425	250	850	1300	425	250	850	2500	425	250
300	900	800	450	300	900	1700	450	300	900	3400	450	300
350	950	1000	475	350	950	2200	475	350	950	4200	475	350
400	1000	1300	500	400	1000	2600	500	400	1000	5100	500	400
450	1050	1500	525	450	1050	3100	525	450	1050	5900	525	450
500	1400	1400	550	500	1400	3200	550	500	1400	5500	550	500
600	1500	1700	600	600	1500	3600	600	600	1500	7000	600	600

SCHEDULE OF THRUST BLOCK FOR TEE

NOMINAL DIAMETER	DN (mm)	dn (mm)	A				
			B	C	D	E	
100	100	100	400	300	100	900	100
150	100	100	450	200	150	1000	150
200	100	100	500	200	200	1100	200
250	100	100	550	200	250	1200	250
300	100	100	600	200	300	1300	300
350	150	150	650	400	350	1400	350
400	150	150	700	300	400	1500	400
450	150	150	750	300	450	1600	450
500	200	200	800	500	500	1700	500
600	200	200	900	500	600	1700	600

NOTE

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
2. MASS CONCRETE SHALL BE C16/20-20
3. REINFORCED CONCRETE SHALL BE C25/30-20
4. LEAN CONCRETE SHALL BE C8/10-20
5. ALLOWABLE BEARING PRESSURE = 75 KN/SQ.M
6. TEST PRESSURE FOR THRUST BLOCKS IS BASED ON 70m HEAD OF WATER
7. DIMENSIONS OF THRUST BLOCK TO BE INCREASED IF ACTUAL BEARING PRESSURE IS FOUND TO BE LESS THAN 75 KN/SQ.M
8. DIMENSIONS 'A' OF THRUST BLOCK TO BE ADJUSTED BY THE PDP IF NECESSARY TO SUIT TRENCH WIDTH

