JABATAN KERJA RAYA MALAYSIA

PEMBINAAN SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, JOHOR

SENARAI KUANTITI

Kami seperti nama syarikat di bawah mengesahkan tawaran harga yang tersenarai di dalam senarai kuantiti ini adalah sama sepertimana di dalam Borang Tender yang dihasilkan di dalam sistem dan sebarang percanggahan akan menyebabkan tawaran kami ditolak.

A. Nama Syarikat: Nama Petender

B. CIDB/UPKJ/PUKONSA No.: No.Pendaftaran Petender

C. Harga Tawaran: Harga Tawaran Petender

D. No. Siri Tender: JKR/IP/CKIP/2024/07

E. Tarikh Cipta Senarai Kuantiti: 11/8/2024

Senarai kuantiti ini dikeluarkan oleh BKUB/CKIP. Sebarang pertanyaan boleh berhubung dengan pegawai yang menyediakan tender dan maklumat pegawai untuk dihubungi boleh didapati di laman iklan.

JABATAN KERJA RAYA MALAYSIA

PEMBINAAN SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, JOHOR

SENARAI KUANTITI

No. Tender: JKR/IP/CKIP/2024/07

RINGKASAN TENDER

PEMBINAAN SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, JOHOR

ITEM	DESCRIPTION	PAGE NO.	AMOUNT(RM)		
A	PRELIMINARIES AND GENERAL CONDITIONS	BILL A/14/25	0.00		
В	PILING WORKS	BILL B/21/21	0.00		
С	MAIN WORKS				
	C1 MARINE WORKS	BILL C1/5/5	0.00		
	C2 BLOK PERSALINAN	BILL C2/SUM	0.00		
D	EXTERNAL WORKS	BILL D/SUM	0.00		
E	PRIME COST SUM	BILL E /1/1	0.00		
	lumlah di baw	a ke Borang Tender	_		
	Jumlah di bawa ke Borang Tender -				

RT/1

Item	DESCRIPTION		
A.	GENERAL INFORMATION TO BILL OF QUANTITIES		
1.0	GENERAL		
1.1	The Works contained in the Contract shall include the provision of all labour, materials, constructional plant, temporary or permanent works as required in the Contract.		
1.2	The Bill of Quantities shall be read in conjunction with the Conditions of Contract, the Specification and the Drawings in the Contract Documents.		
1.3	The items as set out in the Bill of Quantities shall apply to the whole of the Works contained in the Contract and the Contractor shall allow for compliance with the same and for any cost incurred in connection therewith.		
1.4	Headings are not comprehensive and do not necessarily reflect or modify the meaning of the items in the B.Q. The exact nature and extent of the work to be carried out shall be ascertained by reference to the Contract as a whole, in particular the Conditions of Contract, the Specification and the Drawings. It shall be read together with the relevant "Method of Payment".		
1.5	The amounts inserted by the Contractor for such items shall be deemed to apply to the whole of the Works carried out under this Contract.		
1.6	Each item shall be individually priced. Bulk pricing for sections, trades, groups or pages of items shall not be allowed and no subsequent claims for loss or expense and/or profit shall be entertained for failure to comply with this clause.		
1.7	The rates and prices inserted in the Bill of Quantities shall include cost of the works described, all risks, liabilities and obligations set forth or implied in the Contract Document and shall be deemed to include the following, unless expressly stated otherwise:		
	(a) the provision of labour and all costs in connection therewith;		
	(b) the supply of materials, goods, equipment and storage thereof including delivery to site and all costs in connection therewith;		
	(c) taking delivery of materials, goods and equipment necessary for the Works and including those supplied by others, loading and unloading, storage and all costs in connection therewith;		
	(d) the usage of plants and machineries and all costs in connection therewith;		
	(e) the fixing, erecting and installing or placing in position of materials, goods and equipment including around obstruction, tolerances, penetration, working space, over-breaks etc. and all costs in connection therewith;		
	(f) the provision of all temporary works and all costs in connection therewith unless separately provided for in the Bill of Quantities;		

Item	DESCRIPTION	
	GENERAL INFORMATION TO BILL OF QUANTITIES (CONT'D)	
1.0	GENERAL (cont'd)	
	(g) the phasing requirements of the Works including the effect on the programming of the Works of all traffic and drainage diversions, special structural requirements, earthwork restrictions, alterations to services and street lighting (executed under the Contract or in conjunction with it) and all other requirements of the Contract and all costs in connection therewith;	
	(h) all cost of testing to show proof of compliance with the Specification on materials and workmanship inclusive of samples of materials and submission of tests results. Should the frequency of testing and sampling not specified, then it shall be in accordance with the relevant Malaysian/British Standards and Codes of Practice. Where there is no such relevant Standards and Codes of Practice for reference, it shall then be as instructed by the S.O.;	
	(i) all royalties and dues which the Contractor may be required to pay;	
	(j) wastage;	
	(k) establishment charges, overheads and profit;	
	(I) whatsoever method of construction the Contractor may adopt.	
1.8	Where any priced item in the B.Q. but has not been executed on site by the Contractor, the cost of such priced item shall accordingly be deducted from the Contract Sum.	
1.9	All items priced shall be deemed to include compliance with the provisions of the contract, statutes, regulation, by-laws or any order or directive issued by public authority or public service company and other related legislation currently in force.	
1.10	Notwithstanding the above clauses, the S.O. reserves the right to request from the Contractor the detailed breakdown of the pricing for items or rates in the B.Q. for his perusal. The detailed breakdown pricing may be used as a basis for the administration of the Contract.	
2.0	MEASUREMENT	
2.1	Quantities in the Bills of Quantities are measured in accordance with the Malaysian Standard Method of Measurement of Building Works (2nd Edition Metric 2000) and Malaysian Civil Engineering Standard Method of Measurement. Where departures have been made from the standards mentioned, the method adopted in the Bills shall be adhered to for the purposes of ascertaining the value of all variations and measurements.	
3.0	UNPRICED ITEMS	
3.1	Where any item is left unpriced, it shall be deemed that the cost of such item has been allowed for elsewhere within this document. No subsequent claims arising out of expense and/or loss incurred against such unpriced item shall be entertained.	

PEMBINAAN SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, JOHOR

Item	DESCRIPTION	
	GENERAL INFORMATION TO BILL OF QUANTITIES (CONT'D)	
4.0	GENERAL ATTENDANCE FOR NOMINATED SUB-CONTRACTORS AND NOMINATED	
4.1	Attendance and facilities for Nominated Sub-contractors and nominated suppliers shall include:	
	a. in the case of works or services executed : for allowing the use of existing working space, access, temporary roads, erected scaffolding, sanitary, welfare and other facilities existing on Site and the provision of protection, water, electricity for lighting and clearing away rubbish and debris arising from the work;	
	b. in the case of goods, materials or services supplied: for taking delivery, unloading, storing, protection and returning crates, cartons and packing materials,	
	all as specified in the specification.	
5.0	PHASING SEQUENCE OF OPERATIONS AND METHODS OF CONSTRUCTION	
5.1	The rates and prices shall, unless otherwise stated, include for the costs of compliance with any restrictions imposed on the programming of the Works by the Government and Local Authorities and other relevant authorities dealing with phasing sequence of operations, method of construction, safety and health and liaison and access.	
6.0	TRIALS, SAMPLES, TESTS AND INSPECTION	
6.1	The rates and prices shall include for a testing laboratory or laboratory approved by SIRIM or accredited by Department of Standard Malaysia (JSM), equipment and staff for carrying out the tests, tests and the effects on the progress of the Works for the carrying out of all trials, sampling and tests whether specified in the Contract Document or otherwise in order to ensure compliance with the requirements of the Specification except where separately itemised in the Bill of Quantities.	
7.0	EXISTING SERVICES AND MAINS	
7.1	The Contractor shall include in his rates and prices for taking measures to locate the actual position and provide support and full protection of existing services and mains and other equipment and machineries during the progress of the Works. The Contractor shall inform the S.O. of all arrangements with all Statutory and Public Utility Authorities.	
8.0	WORK UNDER WATER	
8.1	The rates shall include any costs arising from and in connection with the execution of work under water wherever required unless otherwise stated.	
9.0	PHRASEOLOGY	
9.1	Differences in the method of billing and in phraseology used in various parts of the Bill of Quantities and/or Schedule of Rates shall not be a basis of any claim for an increase in the rates and prices.	

PEMBINAAN SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH,

JOHOR

Item	DESCRIPTION		
	GENERAL INFORMATION TO BILL OF QUANTITIES (CONT'D)		
10.0	PROVISIONAL SUMS		
10.0	PROVISIONAL SUMS		
10.1	All provisional sums included in the Bill of Quantities are intended to be approximate indications only of the amounts to be expended in respect of the work described and may be omitted entirely or substantially varied without entitling the Contractor to any claim for compensation. No part of the Contractor's overhead, expenses or profit should be included in these sums when the bill is priced unless items for profit and attendance are specifically allowed for.		
11.0	CURRENCY OF PAYMENT		
11.1	Pricing of the Contract shall be in Malaysian Ringgit to two decimal place. Payment to the Contractor under the Contract shall be in Malaysian Ringgit.		
12.0	TEMPORARY DIVERSIONS		
12.1	Work in connection with the temporary diversion and relocation of existing overhead and underground services, whether detailed in the Contract or not shall be covered by the appropriate Lump Sum Items in Bill A: Preliminaries and General Conditions unless separately measured in other parts of the Bill of Quantities.		
13.0	ABBREVIATIONS		
13.1	The following abbreviations or symbols are generally used in the Contract Document and shall be		
	a) MM : millimetre b) M : metre c) M2 : square metre		
	d) M3 : cubic metre		
	e) KG : kilogramme f) TONNE : metric ton		
	g) NO : Number		
	h) L.S. : Lump Sum		
	i) P.C. Sum : Prime Cost Sum		
	j) P.S. : Provisional Sum k) RM : Ringgit Malaysia		
	I) N/A : Not Applicable		
	m) S.O : Superintending Officer		

PEMBINAAN SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, JOHOR

Item	DESCRIPTION	
	GENERAL INFORMATION TO BILL OF QUANTITIES (CONT'D)	
14.0	SCOPE OF WORKS	
14.1	The works included under this Contract comprises:	
	BILL A – PRELIMINARIES AND GENERAL CONDITIONS	
	BILL B – PILING WORKS	
	BILL C - MAIN WORKS	
	BILL C1 – MARINE WORKS	
	BILL C2 – BLOK PERSALINAN	
	BILL D – EXTERNAL WORKS	
	BILL E - PRIME COST SUM	
15.0	LOCATION OF SITE	
15.1	The site for the proposed Works is located at Kompleks Penguatkuasaan Kastam Sungai Pulai,	
	SLIPWAY DI KOMPI EKS PENGUATKUASAAN KASTAM SUNGALPUL AL GELANG PATAH	

PEMBINAAN SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, JOHOR

Item	Description	Amount (RM)
	PRELIMINARIES	
	Project Signboard & Hoarding	
Α	The Contractor shall provide, erect, paint, and maintain a project signboard and fixed hoarding as directed by the S.O, as per drawing no. JKR/CA/P-PTB1M/30/PEL16/003/01C, JKR/CA/P-PTB1M/30/PEL16/003/03C and JKR/CKIP/A/K/MA02/002/HD01. The signboard shall be erected at a prominent position at the Site as approved by the S.O.	
	Site Survey and Setting Out	
В	The Contractor shall employ a licensed surveyor to carry out site surveys before commencement and setting out of the Works.	
С	For the purpose of complying with Tenaga Nasional Berhad's (TNB) requirement, the Contractor shall prepare 15 sets of pre-computation plan which comprised of the survey plan for the TNB Substation. The said pre-computation plan shall be based on the overall certified survey plan by a Licensed Land Surveyor engaged by the Contractor for the project (measured separately). The pre-computation plan shall be prepared and certified by a Licensed Land Surveyor engaged by the Contractor and submitted to the S.O. for approval.	
	Temporary Diversion And Relocation Of Existing Overhead And Underground Services	
D	The Contractor shall enquire from the various authorities and make arrangements for the disconnection, removal, relocation and reconnection of services and pay all necessary cost and fees in connection therewith and make good all damage as specified.	
	Construction Plan	
E	The Contractor shall submit to the S.O. for his approval the following as specified:	
	 a) Programme of Works b) Method statements c) Contractor's organisation chart d) Schedules e) Quality Assurance Plan for Works Contract worth RM10 Million and above: 	
	i) Provide a quality Assurance Team full time on Site for the institution, administration and maintenance of the Quality Assurance Plan and the preparation and submission of all Quality Assurance Reports as specified, throughout the duration of the contract.	
	ii) The Contractor shall appoint a settably qualified and experienced person to act solely as a Quality Assurance Officer full time on site to lead Quality Assurance Team. (Refer Addendum to specification for project worth RM 10 Million and above).	
PEMBINAAN JOHOR	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, To Collection Page	-

ltem	Description	Amount (RM)
	PRELIMINARIES (CONT'D)	
	Contractor's Plant	
A	The Contractor shall provide, erect, keep insured, maintain and remove on completion all requisite scaffolding, hoist, cranage, construction plant, ladder, staging, tarpaulins, tools, vehicles, tackles, and other plants and apparatus (excluding piling and pile testing equipment), as necessary for the execution of the Works as specified.	
	Temporary Water And Power Supplies For The Works	
В	The Contractor shall provide adequate power and water supplies for the execution of the Works including paying all associated costs and fees as specified.	
	Site Security	
С	The Contractor shall provide all necessary personnel and lighting for the security of the site at all times until completion of the whole Works as specified.	
	Temporary Access And Maintenance Of Existing Roads	
D	The Contractor shall provide and maintain all necessary temporary roads, culverts, tracks, bridges, et cetera for access to and within the Site as long as required to the approval of the S.O. as specified. The Contractor to inspect and analyse the suitable method to use in acces the site.	
Е	Temporary structure may require to access to the site and to be removed and make good as per existing after completion of the works.	
F	The Contractor shall maintain all access including existing roads, bridges, drains, culverts, roadside furniture, and all other appurtenances and services on such roads throughout the construction period. The Contractor shall make good any above-mentioned item damaged by any work carried out by him.	
G	The Contractor shall reinstate the same to their original condition to the satisfaction of S.O. and provide support and full protection of existing services and mains during the progress of the Works. The Contractor shall inform the S.O. of all arrangements with the various authorities.	
	Control of Workmen, Plant And Machinery At Site	
Н	The Contractor shall ensure the safety, health and welfare at work of all his workmen as specified.	
PEMBINAAN IOHOR	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, To Collection Page	-

Item	Description	Amount (RM)
	PRELIMINARIES (CONT'D)	
	Contractor's Temporary Accommodation And Facilities For Workmen	
Α	The Contractor shall provide and maintain temporary accommodation including all necessary facilities and services for water supply, drainage, sanitation and lighting for his staff as specified.	
	Contractor's Office And Storage	
В	The Contractor shall provide and maintain Contractor's office and storage on the Site in positions as approved by the S.O. and as specified.	
	Care And Protection Of Materials And Works	
С	The Contractor shall provide and maintain everything necessary for proper protection of materials and Works from any damage by weather carelessness or otherwise. Any damage caused shall be made good at the Contractor's own cost to the approval of the S.O.	
	Shop Drawings, Samples And Mock-ups	
D	The Contractor shall submit relevant shop drawings, samples of materials or workmanship and mock-ups units, manufacturer's specification, et cetera for the S.O.'s approval as specified.	
	Progress Photographs And Progress Report	
E	The Contractor shall take progress photographs at monthly intervals or more frequently as directed by the S.O. and submit to the S.O. as specified.	
	Material Testing Laboratory And Staff	
F	The Contractor shall provide/erect a testing laboratory within the site or rent a premise or propose an accredited laboratory approved by SIRIM or accredited by Department of Standard Malaysia (JSM). The Laboratory shall be equipped with the necessary equipment and staff required to carry out the tests as identified in APPENDIX A/4 (List of Laboratory Equipment).	
	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, To Collection Page	

BILL A	BILL A PRELIMINARIES AND GENERAL CONDITIONS		
Item	Description	Amount (RM)	
	PRELIMINARIES (CONT'D)		
	Office Accommodation For S.O.		
А	The Contractor shall provide and maintain a site office or relocatable site office or rent a premises for the use of the JKR supervisory staff which shall meet the requirement of the JKR design as specified.		
	Telephone For S.O.		
В	The Contractor shall provide a permanning telephone at the S.O.'s site office for the sole use of the S.O. and his reconstitutives as specified.		
	Survey Instruments And Personnel		
С	The Contractor shall provide all such instruments, equipment and survey personnel as specified until thirty (30) days after the issuance of the Certificate of Practical completion as per SO required.		
	Site Items For S.O./Office Equipment And Facilities		
D	The Contractor shall provide all Personal Protective Equipment required for the use of the S.O. and his supervisory staff complete as specified in APPENDIX A/1 and complying with DOSH requirements.		
Е	The Contractor shall provide suitable types of fire extinguishers as specified.		
F	The Contractor shall provide the equipment and facilities as listed as specified in APPENDIX A/2 for the use of the S.O., his representatives and staff throughout the Contract Period.		
G	The Contractor shall provide suitable transportation service by means of vehicle(s) including licensed and competent driver(s) as specified in APPENDIX A/3 throughout the duration of the original Contract Period.		
DEMDINAAN	SUIDWAY DUKOMDUEKS DENGUATKUASAAN KASTAM SUNGALDULAL GELANG DATAU		
JOHOR	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, To Collection Page	-	

Item	Description	Amount (RM)
	PRELIMINARIES (CONT'D)	
	Safe Working Area	
Α	The Contractor shall supply, erect, maintain and remove on completion of the Works, scaffolding and working platform with safety nettings, catch platforms, safety barricades, fencing, railing, screen wire netting and toe board, guardrails or board fences and sufficient illuminations, all as specified.	
В	The Contractor shall supply, erect, maintain and remove on completion of the Works, adequate, protective and security hoarding, scaffolding and working platform with safety nettings and such other safety measures necessary to ensure the safety of the workers, personnel, public and others at or within the vicinity of the Site, all as specified.	
	Safety, Health And Welfare	
С	The Contractor shall ensure the safety, health and welfare at work site as specified including but not limited to:	
	a. Provision of First Aid Kitb. Pest control including keeping the site clean and dry to prevent breeding ofc. Fogging at regular intervals	
	The Contractor shall employ a Safety and Health Officer (SHO) registered with * Delete if not applicable	
D	The Contractor shall employ a Site Safety Supervisor (SSS) registered with DOSH to be stationed a minimum of 15 hours a week at the site for the entire duration of the construction period.	
E	The Contractor shall submit 5 copies of Safety and Health Plan (S-Plan) as required in APPENDIX A/5 as specified.	
F	The Contractor shall submit 5 copies of monthly Safety and Health Report as required in APPENDIX A/6 as specified.	
G	The Contractor shall provide and maintain adequate traffic safety and control including signages, warning lights and flagmen as necessary.	
	Keeping the Site Tidy	
Н	The Contractor shall make every effort to keep the Site in a reasonably clean and tidy condition for the duration of the Works as specified.	
EMBINAAN	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, To Collection Page	

Item	Descr	ription	Amount (RM)		
	PRELIMINARIES (CONT'D)				
	Coordination of Mechanical and Electrical (M&E) Services				
Α	The Contractor shall be responsible for M&E works as specified and appoint M&C cost as follows:				
	Project Cost (RM)	Minimum Requirement of M&E Coordinator			
	Below 10 Million	1 CoW			
	Between 10 to 50 million	1 Engineer & 1 CoW			
	More than 50 million	1 Engineer & 2 CoW			
	As-built Drawings and Documentation	1			
В	Pursuant to the terms of the contract, the built drawings as follows:	ne Contractor shall provide appro	oved As-		
	i. Five (4) sets of As-built drawings as actually constructed pertaining to the Works including all services and facilities systems and all supporting documents such as Operation and Maintenance Manual, Testing and Commissioning Certificates;				
	ii. Five (4) set of Digital Copies in AutoCAD (.dwg) or any other compatible format to be stored in compact discs or removable storage; and				
	iii. Five (4) set of Digital Copies in Acrobat (.pdf) or any other compatible format to be stored in compact disc or removable storage.				
	The As-built documentation and drawir Contractor to the satisfaction of the S.O. of the Works as they were actually built.	•	-		
	Clearing, Cleaning And Making Good	On Completion			
С	The Contractor shall clear and clean the bounding the Site of any debris, earth, upon completion as specified.				
EMBINAAN	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNG	GAI PULAI, GELANG PATAH, To Collec			

Item	Description	Amount (RM)
	PRELIMINARIES (CONT'D)	
	Form of Contract	
Α	The Contractor shall refer to the Standard Form of Contract for further information. The Contractor may price here for all the expenses involved in complying with the terms of these Clauses, otherwise such expenses are deemed to be included elsewhere.	
	Clause No. 13 - Performance Bond/ Performance Guarantee Sum	
	Performance Bond	
В	For due observance and performance of this contract the Contractor shall have to provide:	
	i. Performance Bond in the form of an approved Bank or Insurance Guarantee equal to five percent (5%) of the contract sum to be deposited with the Government as a condition precedent to the commencement of any work under this contract.	
	ii. The Performance Bond shall remain valid and effective for the duration as specified in the Contract.	
С	Clause No.15 Insurance Against Personal Injuries and Damage To Property.	
D	Clause No.16 Indemnities to Government in Respect of Claim by Workmen.	
E	Clause No.17 Employees' Social Security Act, 1969.	
F	Clause No.18 Insurance of Works.	
G	Clause No.22 - Design Sub-clause No. 22.2 - Design Guarantee Bond	
	Design Guarantee Bond substantially in the form of Bank Guarantee for Design Guarantee Bond (PWD DGB 1/2011) appended in the Tender Document.	
EMBINAAN OHOR	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, To Collection Page	-

Item	Description	Amount (RM)
	PRELIMINARIES (CONT'D)	
A	Clause No.35 - Materials, Goods and Workmanship Opening up of work for inspection or testing of materials or goods.	
	Clause No.59 - Site Agent And Assistants	
В	Clause No.59 - Site Agent And Assistants The Contractor shall keep constantly on the Site for the full duration of the Contract a competent, efficient, suitably qualified, experienced and good character Site Agent and his assistants in each trade as may be necessary, who must be capable of receiving instructions in Bahasa Malaysia, and in default it shall be the responsibility of the Contractor to provide replacement for them and all wages and other expenses in connection with the employment of such replacement site agent and assistants. Any directions, explanations or instructions given to such site agent by the S.O. shall be deemed to have been given to the Contractor under this Contract provide all necessary superintending order.	
PEMBINAAN JOHOR	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, To Collection Page	-

Item	Description	Amount (RM)
	PRELIMINARIES (CONT'D)	
	COLLECTION	
	From Page No. BILL A/6/25	-
	From Page No. BILL A/7/25	-
	From Page No. BILL A/8/25	
	From Page No. BILL A/9/25	-
	From Page No. BILL A/10/25	-
	From Page No. BILL A/11/25	-
	From Page No. BILL A/12/25	-
	From Page No. BILL A/13/25	-
PEMBINAAN JOHOR	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, To "Ringkasan Tende	." _

BILL A/14/25

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	GENERAL NOTES (ALL PROVISIONAL)				
	All piles shall be approved Precast Concrete Spun Pile and Steel Sheet Piles				NIL
	The whole of the Works are to be carried out in a manner approved by the S.O.				NIL
	The Tenderer may carry out his own soil investigations in addition to the information given at their own expenses				NIL
	Precast Concrete Spun Piles shall be driven to the required set or otherwise directed by the S.O by hydraulic hammer system				NIL
	Piles shall be measured and paid for by linear metre. Payment for supply of piles shall be based on the actual length pitch at location. Payment for driving shall be the length measured from toe to cut-off level				NIL
	The lengths of piles and the driving depth stated herewith and depths of piles required shall be determined on site				NIL
	The Contractor shall supply and drive the piles based on the proposed length and combinations. Any changes should be approved by the S.O. However any savings due to the changes shall be omitted from the Contract. Any additional cost shall be borne by the Contractor and deems allowed herewith				NIL
	The piling works in expected starts at and measurement have take from platform level or existing level				NIL
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	Э РАТАН,		To Collection Page	

em	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SLIPWAY AND BUILDING STRUCTURE (ALL PROVISIONAL)				
	General Notes				
	The works in this section are carried out in Water				NIL
	The whole works to be carried out in a manner and in accordance to approved method statement.				NIL
	Piling shall commence from whatever platform levels irrespective of either at ground or formation or reduce level, prices for driving shall include for moving of pile frames about the site, raising or lowering them and redriving of heaved piles.				NIL
	The items on mobilisation of piling plant and equipment as provided in this section covers for the whole operation and the Contractor is to price these items accordingly. Prices for testing of piles shall be deemed include the provision of all pile testing equipment on site and dismantling and moving the same on completion of the piling work. Provide, assemble and set up on site piling equipment and subsequently dismantle and remove same upon completion and allowing for all staging/ idling time and cost of operation for the whole duration of the piling works (Piling barge shall be used if necessary)				NIL
	The Contractor is to take all precautionary measures so as to ensure that the most suitable driving method is used to avoid excessive vibrations and disturbances to the existing jetty and building structure. Method statement pertaining to the pile driving work must be submitted to the S.O for approval before the work commenses.				NIL
	The Contractor is required to visit the site and inspected the site and the surroundings and ascertained the exact values and extent of the works to be carried out. No claims what so ever in this respect will be entertained.				NIL

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SLIPWAY AND BUILDING STRUCTURE (ALL PROVISIONAL)				
	General Notes				
	Any pile found defective, damaged, wrongly aligned, misdriven or faulty shall be replaced by the Contractor and all cost for replacement shall be borne by the Contractor.				NIL
	Before commencement and after the completion of the piling works, the Contractor shall engage a Licensed Surveyor to set out the correct allignment and eccentricity of each pile strictly checked in accordance with the Structural Engineer's Layout Drawings or any other layout drawings deemed necessary and subsequently issued by the Engineer's during the progress of the piling works and submit the setting out drawing for S.O. approval and as-built drawing upon completion duly certified by the Licensed Surveyor.				NIL
	The Contractor shall be entirely responsible for all wastages including carting away debris from the site.				NIL
	Pay Length				
	The Contractor shall take note that notwithstanding to term of Condition of Contract, the quantites of piling works in this bill are 'PROVISIONAL', and subject to re-measurement. The payment shall be based on quantity of piles driven and valued in accordance to note hereunder.				NIL
	For supply, deliver, handle, unload, transport, pitch shall be measured for the full approved delivered length.				NIL
	For driving it shall be measured from the toe of the piles when driven to the existing seabed/riverbed/ground level.				NIL
	The rate for every items of piling works shall include working in whatever platform levels irrespective of either at ground or formation or reduce level.				NIL

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SLIPWAY AND BUILDING STRUCTURE (ALL PROVISIONAL) (cont'd)				
	MOBILISATION / DEMOBILISATION				
A	Provide, assemble and set up on site piling equipments including barge/jack up barge, piling frame and drop hammer, crane etc. all as required to complete the specified works and subsequent dismantling and remove same on completion and allowing for all staging / idling time and costs off operative for the whole duration of the piling works for the R.C. structure inclusive of mooring about from piling points to next piles. This includes all mobilisation and demobilisation costs.	LS			
В	Carry out survey by Licensed Surveyor for marine piling works and submit five (5) copies as-built plans/drawings, duly endorsed by Licensed Surveyor.	LS			
C	Submit piling records as specified in triplicate, duly signed by the Contractor and the Engineer and deliver to the S.O as the work proceeds.	LS			
EMBINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	і РАТАН.		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	SLIPWAY				
	PRELIMINARY PILE				
	PRECAST CONCRETE SPUN PILE				
	Precast Concrete Spun Pile in concrete minimum 80N/MM2 (Class C or equivalent)				
Α	350mm Diameter Initial piles in 12.00m length	NO	5		-
В	350mm Diameter extention piles in 12.00m length with and including m.s. head (In no. 5)	М	60		-
С	350mm Diameter extention piles in 6.00m length with and including m.s. head (In no. 5)	М	30		-
	Drive only precast concrete spun piles to the required set from formation level with hydraulic hammer system including handle, transport and pitch in position for driving				
D	350mm Diameter piles	M	150		-
	Butt weld all round connection for connecting in position driven pile with extention pile including coating heavily with bituminous compound,16mm thick mild steel jointing plate, 150mm x 6mm thick mild steel sleeve, 4 nos of 200mm x 8mm thick mild steel collar, 8mm thick fillet weld				
E	350mm Diameter piles	NO	10		-
	Cut-off top, strip and dispose all surplus length of precast concrete concrete spun pile including all necessary excavation and backfilling, preparing pile head, all bending and anchoring steel bars to pile caps and any reinforcement and concrete by Engineer's approval				
F	350mm Diameter piles	NO	5		-

BILL B/5/21

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	SLIPWAY (Cont'd)				
	PRELIMINARY PILE				
	Cross Fin Pile Shoe to suit Precast Concrete Spun Pile with solid-cast iron shoe as manufacturer's instruction				
Α	350mm Diameter piles	NO	5		-
	In-situ concrete plug grade C30/37 complete with mild steel plate and reinforcement all in accordance with the manufacturer's instructions and recommendations.				
В	350mm Diameter piles	NO	5		-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG			To Collection Page	

BILL B/6/21

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	SLIPWAY (Cont'd)				
	WORKING PILE				
	PRECAST CONCRETE SPUN PILE				
	Precast Concrete Spun Pile in concrete minimum 80N/MM2 (Class C or equivalent)				
Α	350mm Diameter Initial piles in 12.00m length	NO	29		-
В	350mm Diameter extention piles in 12.00m length with and including m.s. head (In no. 29)	М	348		-
С	350mm Diameter extention piles in 6.00m length with and including m.s. head (In no. 15)	М	90		-
	Drive only precast concrete spun piles to the required set from formation level with hydraulic hammer system including handle, transport and pitch in position for driving				
D	350mm Diameter piles	M	786		-
	Butt weld all round connection for connecting in position driven pile with extention pile including coating heavily with bituminous compound,16mm thick mild steel jointing plate, 150mm x 6mm thick mild steel sleeve, 4 nos of 200mm x 8mm thick mild steel collar, 8mm thick fillet weld				
Е	350mm Diameter piles	NO	44		-
	Cut-off top, strip and dispose all surplus length of precast concrete concrete spun pile including all necessary excavation and backfilling, preparing pile head, all bending and anchoring steel bars to pile caps and any reinforcement and concrete by Engineer's approval				
F	350mm Diameter piles	NO	29		-

BILL B/7/21

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	SLIPWAY (Cont'd)				
	WORKING PILE				
	<u>Cross Fin Pile Shoe to suit Precast Concrete Spun Pile with solid-cast iron shoe as manufacturer's instruction</u>				
Α	350mm Diameter piles	NO	29		-
	In-situ concrete plug grade C30/37 complete with mild steel plate and reinforcement all in accordance with the manufacturer's instructions and recommendations.				
В	350mm Diameter piles	NO	29		-
DEMONIA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	DATALL		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	BLOK PERSALINAN				
	PRELIMINARY PILE				
	PRECAST CONCRETE SPUN PILE				
	Precast Concrete Spun Pile in concrete minimum 80N/MM2 (Class C or equivalent)				
Α	350mm Diameter Initial piles in 12.00m length	NO	3		-
В	350mm Diameter extention piles in 12.00m length with and including m.s. head (In no. 3)	М	36		-
С	350mm Diameter extention piles in 6.00m length with and including m.s. head (In no. 3)	М	18		-
	Drive only precast concrete spun piles to the required set from formation level with hydraulic hammer system including handle, transport and pitch in position for driving				
D	350mm Diameter piles	М	90		-
	Butt weld all round connection for connecting in position driven pile with extention pile including coating heavily with bituminous compound,16mm thick mild steel jointing plate, 150mm x 6mm thick mild steel sleeve, 4 nos of 200mm x 8mm thick mild steel collar, 8mm thick fillet weld				
E	350mm Diameter piles	NO	9		-
	Cut-off top, strip and dispose all surplus length of precast concrete concrete spun pile including all necessary excavation and backfilling, preparing pile head, all bending and anchoring steel bars to pile caps and any reinforcement and concrete by Engineer's approval				
F	350mm Diameter piles	NO	3		-
EMBINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	BLOK PERSALINAN (Cont'd)				
	PRELIMINARY PILE				
	<u>Cross Fin Pile Shoe to suit Precast Concrete Spun Pile with solid-cast iron shoe as manufacturer's instruction</u>				
Α	350mm Diameter piles	NO	3		-
	In-situ concrete plug grade C30/37 complete with mild steel plate and reinforcement all in accordance with the manufacturer's instructions and recommendations.				
В	350mm Diameter piles	NO	3		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	BLOK PERSALINAN (Cont'd)				
	WORKING PILE				
	PRECAST CONCRETE SPUN PILE				
	Precast Concrete Spun Pile in concrete minimum 80N/MM2 (Class C or equivalent)				
Α	350mm Diameter Initial piles in 12.00m length	NO	11		-
В	350mm Diameter extention piles in 12.00m length with and including m.s. head (In no. 11)	М	132		-
С	350mm Diameter extention piles in 6.00m length with and including m.s. head (In no. 11)	М	66		-
	Drive only precast concrete spun piles to the required set from formation level with hydraulic hammer system including handle, transport and pitch in position for driving				
D	350mm Diameter piles	М	330		-
	Butt weld all round connection for connecting in position driven pile with extention pile including coating heavily with bituminous compound,16mm thick mild steel jointing plate, 150mm x 6mm thick mild steel sleeve, 4 nos of 200mm x 8mm thick mild steel collar, 8mm thick fillet weld				
Е	350mm Diameter piles	NO	22		-
	Cut-off top, strip and dispose all surplus length of precast concrete concrete spun pile including all necessary excavation and backfilling, preparing pile head, all bending and anchoring steel bars to pile caps and any reinforcement and concrete by Engineer's approval				
F	350mm Diameter piles	NO	11		-

BILL B/11/21

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	BLOK PERSALINAN (Cont'd)				
	WORKING PILE				
	<u>Cross Fin Pile Shoe to suit Precast Concrete Spun Pile with solid-cast iron shoe as manufacturer's instruction</u>				
Α	350mm Diameter piles	NO	11		-
	In-situ concrete plug grade C30/37 complete with mild steel plate and reinforcement all in accordance with the manufacturer's instructions and recommendations.				
В	350mm Diameter piles	NO	11		-
DEMDINA	N SLIDWAY DI KOMDI EKS DENGHATKHASAAN KASTAM SHNGALDHI AL GELANG	DATAU			
OHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PAIAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	JALAN				
	PRELIMINARY PILE				
	PRECAST CONCRETE SPUN PILE				
	Precast Concrete Spun Pile in concrete minimum 80N/MM2 (Class C or equivalent)				
Α	350mm Diameter Initial piles in 12.00m length	NO	5		-
В	350mm Diameter extention piles in 12.00m length with and including m.s. head (In no. 5)	М	60		-
С	350mm Diameter extention piles in 6.00m length with and including m.s. head (In no. 5)	М	30		-
	Drive only precast concrete spun piles to the required set from formation level with hydraulic hammer system including handle, transport and pitch in position for driving				
D	350mm Diameter piles	M	150		-
	Butt weld all round connection for connecting in position driven pile with extention pile including coating heavily with bituminous compound,16mm thick mild steel jointing plate, 150mm x 6mm thick mild steel sleeve, 4 nos of 200mm x 8mm thick mild steel collar, 8mm thick fillet weld				
E	350mm Diameter piles	NO	10		-
	Cut-off top, strip and dispose all surplus length of precast concrete concrete spun pile including all necessary excavation and backfilling, preparing pile head, all bending and anchoring steel bars to pile caps and any reinforcement and concrete by Engineer's approval				
F	350mm Diameter piles	NO	5		-

BILL B/13/21

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	JALAN (Cont'd)				
	PRELIMINARY PILE				
	<u>Cross Fin Pile Shoe to suit Precast Concrete Spun Pile with solid-cast iron shoe as manufacturer's instruction</u>				
Α	350mm Diameter piles	NO	5		-
	In-situ concrete plug grade C30/37 complete with mild steel plate and reinforcement all in accordance with the manufacturer's instructions and recommendations.				
В	350mm Diameter piles	NO	5		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	РАТАН,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	JALAN (Cont'd)				
	WORKING PILE				
	PRECAST CONCRETE SPUN PILE				
	Precast Concrete Spun Pile in concrete minimum 80N/MM2 (Class C or equivalent)				
Α	350mm Diameter Initial piles in 12.00m length	NO	14		-
В	350mm Diameter extention piles in 12.00m length with and including m.s. head (In no. 14)	M	168		-
С	350mm Diameter extention piles in 6.00m length with and including m.s. head (In no. 14)	М	84		-
	Drive only precast concrete spun piles to the required set from formation level with hydraulic hammer system including handle, transport and pitch in position for driving				
D	350mm Diameter piles	M	420		-
	Butt weld all round connection for connecting in position driven pile with extention pile including coating heavily with bituminous compound,16mm thick mild steel jointing plate, 150mm x 6mm thick mild steel sleeve, 4 nos of 200mm x 8mm thick mild steel collar, 8mm thick fillet weld				
E	350mm Diameter piles	NO	28		-
	Cut-off top, strip and dispose all surplus length of precast concrete concrete spun pile including all necessary excavation and backfilling, preparing pile head, all bending and anchoring steel bars to pile caps and any reinforcement and concrete by Engineer's approval				
F	350mm Diameter piles	NO	14		-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	JALAN (Cont'd)				
	WORKING PILE				
	<u>Cross Fin Pile Shoe to suit Precast Concrete Spun Pile with solid-cast iron shoe as manufacturer's instruction</u>				
Α	350mm Diameter piles	NO	14		-
	In-situ concrete plug grade C30/37 complete with mild steel plate and reinforcement all in accordance with the manufacturer's instructions and recommendations.				
В	350mm Diameter piles	NO	14		-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG				

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	SLIPWAY				
	MARKER PILE				
	PRECAST CONCRETE SPUN PILE				
	Precast Concrete Spun Pile in concrete minimum 80N/MM2 (Class C or equivalent)				
Α	350mm Diameter Initial piles in 12.00m length	NO	2		-
В	350mm Diameter extention piles in 12.00m length with and including m.s. head (In no. 2)	М	24		-
С	350mm Diameter extention piles in 6.00m length with and including m.s. head (In no. 2)	М	12		-
	Drive only precast concrete spun piles to the required set from formation level with hydraulic hammer system including handle, transport and pitch in position for driving				
D	350mm Diameter piles	M	60		-
	Butt weld all round connection for connecting in position driven pile with extention pile including coating heavily with bituminous compound,16mm thick mild steel jointing plate, 150mm x 6mm thick mild steel sleeve, 4 nos of 200mm x 8mm thick mild steel collar, 8mm thick fillet weld				
E	350mm Diameter piles	NO	4		-
	Cut-off top, strip and dispose all surplus length of precast concrete concrete spun pile including all necessary excavation and backfilling, preparing pile head, all bending and anchoring steel bars to pile caps and any reinforcement and concrete by Engineer's approval				
F	350mm Diameter piles	NO	4		-

BILL B/17/21

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	SLIPWAY (Cont'd)				
	MARKER PILE				
	Cross Fin Pile Shoe to suit Precast Concrete Spun Pile with solid-cast iron shoe as manufacturer's instruction				
Α	350mm Diameter piles	NO	2		-
	In-situ concrete plug grade C30/37 complete with mild steel plate and reinforcement all in accordance with the manufacturer's instructions and recommendations.				
В	350mm Diameter piles	NO	2		-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG			To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	TESTING (ALL PROVISIONAL)				
	SLIPWAY				
	Provide and maintain as specified all necessary equipment, instrument, gauge, LVDT and kentledge etc. for carrying out Maintained Load Test including providing reports etc.				
Α	350mm Diameter Precast Pretension Reinforced Concrete Spun Piles Maintained Load Test	NO	1		-
	High Strain Dynamic Pile Load Testing using Pile Driving Analysis (PDA) including all necessary labour, material, equipment and construction of pile extension or pile head for the purpose of this testing				
В	350mm Diameter Precast Pretension Reinforced Concrete Spun Piles	NO	2		-
	BLOK PERSALINAN				
	High Strain Dynamic Pile Load Testing using Pile Driving Analysis (PDA) including all necessary labour, material, equipment and construction of pile extension or pile head for the purpose of this testing				
С	350mm Diameter Precast Pretension Reinforced Concrete Spun Piles	NO	1		-
MBINAA OHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	РАТАН,	<u> </u>	To Collection Page	-

BILL B PILING WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	TESTING (ALL PROVISIONAL) (cont'd)				
	JALAN				
	Provide and maintain as specified all necessary equipment, instrument, gauge, LVDT and kentledge etc. for carrying out Maintained Load Test including providing reports etc.				
Α	350mm Diameter Precast Pretension Reinforced Concrete Spun Piles Maintained Load Test	NO	1		-
	High Strain Dynamic Pile Load Testing using Pile Driving Analysis (PDA) including all necessary labour, material, equipment and construction of pile extension or pile head for the purpose of this testing				
В	350mm Diameter Precast Pretension Reinforced Concrete Spun Piles	NO	1		-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG				

BILL B/20/21

BILL B PILING WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PILING WORKS (ALL PROVISIONAL)				
	COLLECTION				
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MBINAA OHOR	 N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANC	PATAH,		To "Ringkasan Tender"	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	CONCRETE RAMP (ALL PROVISIONAL)				
	Temporary Works				
A	Allow for provision of all labours, plants, materials etc for the temporary works of construction at marine environment by barge, sheetpiles cofferdam or/ and partly reclamation filling, including excavation, handling, disposal of excavated spoils and debris, dewatering, shoring, levelling, driving, allowing for access way platform, staging and all other necessary Works for the purpose of construction of any marine structure and removal of all temporary works upon completion including reuse & install the temporary sheetpile for Cofferdam purpose.	LS			
	In-situ Concrete Works & Joints Works Refer as per drawing no. :				
	1) CKIP(BM-2024)13/J/SW/01-S.P 2) CKIP(BM-2024)13/J/SW/02-PE&S 3) CKIP(BM-2024)13/J/SW/03-LP&TPC 4) CKIP(BM-2024)13/J/SW/04-DPC1 5) CKIP(BM-2024)13/J/SW/05-DPC2 6) CKIP(BM-2024)13/J/SW/06-DPC3 7) CKIP(BM-2024)13/J/SW/07-DPC4 8) CKIP(BM-2024)13/J/SW/08-DB 9) CKIP(BM-2024)13/J/SW/09-SPS 10) CKIP(BM-2024)13/J/SW/10-DS				
	Marine Environment Concrete Grade 32/40, with minimum cement content 380kg/m3 and water/cement ratio of 0.4 as specified				
В	Beam	МЗ	95		-
С	Slab	М3	140		-
D	Kerb	М3	9		-
Е	In topping slab 50mm thick; broom finish	М3	20		-
F	Extra over for 25mm wide groove line	M2	322		-
'EMBINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	і РАТАН.		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	CONCRETE RAMP (ALL PROVISIONAL)				
	Reinforcement				
	Supply and fix including all cutting, bending and placing in position reinforcement bars and links to all cast in-situ concrete.				
	High Tensile Steel Reinforcement Bar According to M.S 146 as specified.				
	In Beam				
Α	25mm Diameter; straight and bent	KG	22,000		-
В	10mm Diameter; links, stirrups, binders and the like	KG	600		-
	In Slab				
С	16mm Diameter; straight and bent	KG	16,000		-
	In Kerb				
D	25mm Diameter; straight and bent	KG	4,000		-
	Formwork				
	<u>Class F2 formwork as specified in drawings and specifications</u>				
Е	Beam, Slab and Kerb	M2	2,000		-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	DATALL		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	CONCRETE RAMP (ALL PROVISIONAL) Marine Protective Coating				
Α	Supply and apply two (2) a Damp-tolerent, solvent free, two part epoxy resin protective coating capable of curing underwater at the rate of 0.25 kg/m² per coat all directed by the S.O in accordance to manufacturer's specifications to the sides and soffit of ramp structure as specified in the drawing and specification.	M2	600		-
	Beacon Light				
В	Supply and install solar beacon light (auto powered night sensor) by suitable fixing method (according to S.O instruction). Beacon light must weatherproof, IP65 waterproof, ABS housing material, corrosion resistance maintenance-free gelled baterry mounted complete with base as per specification and drawings inclusive all necessary activities required to complete the work satisfactorily.	NO	2		-
	Expansion Joint				
С	Apply expansion joint 50mm Elastometric Polysulphide join sealant inclusive with Polyseal PS Sealant and Jointflex backer rods or equivalent in expansion joint at ramp all as directed by S.O	M	14		-
	Outlet Pipe				
D	50mm Diameter x 250mm long UPVC pipe cast into concrete kerb	NO	2		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	і РАТАН,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SEDIMENT CONTROL				
	Silt Curtain				
	Installation of silt curtain with high strength woven geotextile fabric (tensile strength atleast 150kN/m) c/w all accesorries (anchors, floats, shackle, steel chain ballast, anchor rope and etc.) as specified and as shown in the drawing or as directed by the S.O.				
Α	20m (Length x 6m (Depth)	SET	4		-
В	10m (Length x 6m (Depth)	SET	1		-
С	Maintenance of silt curtain as specified or as directed by the S.O. Maintenance shall be deemed to include disposal of accumulated debris, sediment and silt to appoved site, unless otherwise stated.	ITEM			
EMBINAAI OHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	В РАТАН,		To Collection Page	-

BILL C1/4/5

Description	Unit	Quantity	Rate (RM)	Amount (RM)
MARINE WORKS (ALL PROVISIONAL)				
COLLECTION				
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	MARINE WORKS (ALL PROVISIONAL) COLLECTION From Page No. C1/1/5 From Page No. C1/2/5 From Page No. C1/3/5	MARINE WORKS (ALL PROVISIONAL) COLLECTION From Page No. C1/1/5 From Page No. C1/2/5 From Page No. C1/3/5	MARINE WORKS (ALL PROVISIONAL) COLLECTION From Page No. C1/1/5 From Page No. C1/2/5 From Page No. C1/3/5	MARINE WORKS (ALL PROVISIONAL) COLLECTION From Page No. C1/1/5 From Page No. C1/2/5 From Page No. C1/3/5

2 APF 3 FRA 4 ROC 5 EXT 6 WIN 7 INT 8 INT 9 EXT 10 INT	SUMMARY ORK BELOW LOWEST FLOOR FINISH LEVEL		
2 APF 3 FRA 4 ROC 5 EXT 6 WIN 7 INT 8 INT 9 EXT 10 INT	ORK BELOW LOWEST FLOOR FINISH LEVEL		1
3 FRA 4 RO 5 EXT 6 WIN 7 INT 8 INT 9 EXT 10 INT		BILL C2/1/6/6	-
4 ROO 5 EXT 6 WIN 7 INT 8 INT 9 EXT 10 INT	PRON	BILL C2/2/3/3	-
5 EXT 6 WIN 7 INT 8 INT 9 EXT 10 INT	RAME	BILL C2/3/3/3	-
6 WIN 7 INT 8 INT 9 EXT	OOF AND ROOF FINISHES	BILL C2/4/6/6	-
7 INT 8 INT 9 EXT 10 INT	CTERNAL WALLS	BILL C2/5/1/1	-
8 INT 9 EXT	INDOWS, VENT AND EXTERNAL DOORS	BILL C2/6/4/4	-
9 EX ⁻¹	TERNAL WALLS	BILL C2/7/1/1	-
10 INT	TERNAL DOORS	BILL C2/8/1/1	-
	(TERNAL FLOOR FINISHES	BILL C2/9/1/1	-
11 EXT	TERNAL FLOOR FINISHES	BILL C2/10/1/1	-
	CTERNAL CEILING FINISHES	BILL C2/11/1/1	-
12 INT	TERNAL CEILING FINISHES	BILL C2/12/1/1	-
13 EX	CTERNAL WALL FINISHES	BILL C2/13/1/1	-
14 INT	TERNAL WALL FINISHES	BILL C2/14/1/1	-
15 SAN	NITARY FITTINGS	BILL C2/15/4/4	-
16 CO	OLD WATER AND SANITARY INSTALLATION	BILL C2/16/6/6	-
17 SUI	JNDRIES	BILL C2/17/1/1	-
PEMBINAAN SI IPI	PWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	в РАТАН.	To "Ringkasan Tender" -

BILL C2/SUM

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WORK BELOW LOWEST FLOOR FINISH LEVEL				
	GENERAL NOTES				
	The description stated in the Bills of Quantities are not comprehensive and reference shall be made to: 1) Specification of Materials and Workmanship 2) General Conditions and Preliminaries;				
	3) Measurement Amplification and Pricing Factor; and 4) Standard Method of Measurement 2				
	The rates and prices inserted shall be deemed to have allowed for compliance with the above stipulation and other documents forming part of the Contract.				
	The whole works to be carried out in a manner and in accordance to approved method statement.				
	The Contractor is to take all precautionary measures so as to ensure that the most suitable excavation method is used to avoid excessive vibrations, ground movement and disturbances to the existing surrounding building.				
	The Contractor shall be entirely responsible for all wastages including carting away debris from the site				
	The Contractor shall provide, maintain, alter, adapt, as required and move as necessary all temporary works on-site and shall clear away (unless otherwise stated) when no longer required and make good thereafter.				
	For excavation works, the Contractor shall ensure at all times, the sides of the excavation are maintained in a safe and stable condition, and shall be responsible for the adequate provision of all shoring and strutting including sheet piling if required. The				
	Contractor shall submit temporary works design certified by a Professional Engineer to the S.O. for his approval if necessary				

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WORK BELOW LOWEST FLOOR FINISH LEVEL (CONT'D)				
	Excavation				
	Excavate pit starting from reduced level; get out, part return, fill in, well ram and remainder load and cart away from site, level grade and ram bottom, trim sides including planking and strutting				
Α	To receive pile cap maximum depth not exceeding 4.00m (Provisional)	M3	18		-
	Excavate trench starting from reduced level; get out, part return, fill in, well ram and remainder load and cart away from site, level grade and ram bottom, trim sides including planking and strutting				
В	To receive ground beams maximum depth not exceeding 1.00m	M3	4		-
	Excavate oversite starting from ground level get out, load and cart away from site including levelling and grading to surfaces of excavation				
С	To receive ground floor slab maximum depth not exceeding 0.25m	M3	6		-
	Filling				
	Hardcore as specified, spread, levelled, well ramp, wateres and blinded on top with sand to receive concrete				
D	Under pile cap; not exceeding 250mm thick, average 150mm thick	M2	8		-
Е	Under ground beam; not exceeding 250mm thick, average 150mm thick	M2	8		-
F	Under ground floor slab; not exceeding 250mm thick, average 150mm thick	M2	22		-
EMBINAA OHOR	 N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	В РАТАН,		To Collection Page	_

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WORK BELOW LOWEST FLOOR FINISH LEVEL (CONT'D)				
	In-Situ Concrete				
	Plain Concrete Grade C12/15 as specified; blinding screed; laid on earth or hardcore				
Α	Under pile cap not exceeding 100mm thick	МЗ	1		-
В	Under ground beam not exceeding 100mm thick	МЗ	1		-
С	Under ground floor slab not exceeding 100mm thick	МЗ	2		-
	Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 360kg/m3 and maximum water cement ratio 0.40 as specified				
D	In pile cap	М3	18		-
Е	In column stump (Provisional)	МЗ	1		-
F	In ground beam	М3	3		-
G	In ground floor slabs exceeding 150mm - 300mm thick, lain on plain concrete	M3	5		-
Н	In topping floor slabs 25mm thick; laid on plain concrete	M3	1		-
J	In topping floor slabs 50mm thick; laid on plain concrete	M3	1		-
K	In topping floor slabs 75mm thick; laid on plain concrete	M3	1		-
L	In topping floor slabs 100mm thick; laid on plain concrete	М3	1		-
EMBINAA OHOR	I N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANC	PATAH,	<u> </u>	To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WORK BELOW LOWEST FLOOR FINISH LEVEL (CONT'D)				
	Reinforcement				
	Reinforcement bars; hot rolled deformed high tensile steel according to MS146 as specified				
	In pile cap				
Α	16mm Diameter	KG	600		-
	In column stump (Provisional)				
В	10mm Diameter	KG	37		-
С	16mm Diameter	KG	176		-
	In ground beam				
В	10mm Diameter	KG	108		-
С	16mm Diameter	KG	141		-
D	20mm Diameter	KG	218		-
	Steel fabric reinforcement to MS145, well lapped at joints including all cutting and waste (measures nett - no allowance made for laps)				
E	In ground floor slabs; Reference No. A393 (6.16 kg/m2), lapped both sides	M2	56		-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG				

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WORK BELOW LOWEST FLOOR FINISH LEVEL (CONT'D)				
	Formwork				
	Class F1 formwork as specified in drawings and specifications;				
Α	To edges and faces of pile cap exceeding 500mm but not exceeding 1000m high	М	33		-
В	To sides of column stumps (Provisional)	M2	14		-
С	To sides of ground beams exceeding 250mm - 500mm High	М	82		-
D	To edges of ground floor slab not exceeding 250mm high	М	22		-
	Damp Proofing and Tanking				
	Damp-proofing or tanking as specified; coverings; a layer of Polythene sheet as specified, 0.5mm thick with tensile strength not less than 44MPa; laid on palin concrete				
E	Over 300mm wide; flat; subsequently covered under ground slab	M2	43		-
	Anti Termite Treatment				
	Anti-termite chemical treatment as specified				
F	To underside of raft foundation, column stumps, ground beams and the ground floor slabs, apron slabs and other structure as directed by the S.O.; with two (2) years warranty effective from the date of Certificate of Practical Completion (CPC).	ITEM			
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANC	PATAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WORK BELOW LOWEST FLOOR FINISH LEVEL (CONT'D)				
	COLLECTION				
	From Page No. C2/1/1/6				-
	From Page No. C2/1/2/6				-
	From Page No. C2/1/3/6				-
	From Page No. C2/1/4/6				-
	From Page No. C2/1/5/6				-
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BILL C2 APRON

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>APRON</u>				
	Excavation				
	Excavate oversite starting from ground level get out, load and cart away from site including levelling and grading to surfaces of excavation				
Α	To receive apron slabs maximum depth not exceeding 1.00m	M3	10		-
	Filling				
	Hardcore as specified, spread, levelled, well ramp, wateres and blinded on top with sand to receive concrete				
В	Under apron slabs not exceeding 250mm thick, average 150mm thick	M2	24		-
	In-situ Concrete				
	Plain Concrete Grade C12/15 as specified; blinding screed; laid on earth or hardcore				
С	Under apron not exceeding 100mm thick	МЗ	2		-
	Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 300kg/m3 and maximum free water cement ratio 0.55 as specified				
D	In apron slabs exceeding 150mm - 300mm Thick, laid on plain concrete	M3	5		-
Е	In topping apron slabs 50mm thick; laid on plain concrete	M3	1		-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG				

BILL C2 APRON

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	APRON (cont'd)				
	Reinforcement				
	Steel fabric reinforcement to MS145, well lapped at joints including all cutting and waste (measures nett-no allowance made for laps)				
Α	In apron slab; Reference No. A393, lapped 225mm both sides	M2	36		-
В	In apron slab; Reference No. A252, lapped 225mm both sides	M2	12		-
	Formwork				
	Class F1 formwork as specified in drawings and specifications;				
С	To edges of apron slabs not exceeding 250mm high	М	40		-

BILL C2 APRON

ltem	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	APRON (cont'd)				
	COLLECTION				
	From Page No. C2/2/1/3				-
	From Page No. C2/2/2/3				-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELA			To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>FRAME</u>				
	In-Situ Concrete				
	<u>Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 360kg/m3 and maximum water cement ratio 0.40 as specified</u>				
Α	In columns	МЗ	2		-
В	In roof beams	МЗ	5		-
С	In concrete plinth	М3	1		-
D	In concrete coping	МЗ	1		-
	Reinforcement bars; hot rolled deformed high tensile steel according to MS146 as specified				
	In columns				
Е	10mm Diameter; Links, stirrups, binders and the like	KG	55		-
F	16mm Diameter; straight and bent	KG	281		-
	In roof beams				
G	10mm Diameter; Links, stirrups, binders and the like	KG	135		-
Н	16mm Diameter; straight and bent	KG	183		-
J	20mm Diameter; straight and bent	KG	283		-
	In concrete plinth				
K	12mm Diameter	KG	50		-
	In concrete coping				
L	10mm Diameter	KG	28		-
DEMONA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	DATALL		To Collection Page	

BILL C2/3/1/3

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	FRAME (CONT'D)				
	Formwork				
	<u>Class F1 formwork as specified in drawings and specifications;</u>				
Α	To sides of columns	M2	23		-
В	To sides and soffits of roof beams	M2	50		-
С	To sides concrete plinth	M2	3		-
D	To sides and soffits of concrete coping	M2	7		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	В РАТАН,	<u>I</u>	To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	FRAME (CONT'D)				
	COLLECTION				
	From Page No. C2/3/1/3				-
	From Page No. C2/3/2/3				-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GEL				

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROOF AND ROOF FINISHES				
	ROOF SLAB				
	In-Situ Concrete				
	<u>Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 360kg/m3 and maximum water cement ratio 0.40 as specified</u>				
Α	In roof slabs; 200mm thick	М3	1		-
В	Extra over for 200mm wide x 25mm deep scupper drain	М	7		-
	Reinforcement				
	Steel fabric reinforcement to MS145, well lapped at joints including all cutting and waste (measures nett - no allowance made for laps)				
С	In roof slabs; Reference No. A252 (3.95 kg/m2), lapped both sides	M2	6		-
	Formwork				
	Class F1 formwork as specified in drawings and specifications;				
D	To sides and soffits of roof slabs	M2	3		-
	Waterproofing				
	Prepare and apply approved waterbased PU bituminous waterproofing membrane or equivalent; all in accordance to the manufacturer's specification, JKR standard specificationand subject to the Architect's approval; laid on concrete slab				
E	Over 300mm wide; laid to fall; subsequently covered on roof slabs	M2	3		-
F	Allow for carrying out ponding test to the satisfaction of the S.O.	ITEM			
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANC	B PATAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROOF AND ROOF FINISHES (Cont'd)				
	ROOF SLAB				
	In-Situ Finishes				
	20mm thick cement and sand (1:3) render, trowelled smooth as specified;				
Α	To roof slab	M2	3		-
	Water Down Pipe				
В	82mm diameter upvc down pipe exposed in wall with all accessories as per manufacturer's specification and architect's approval	M	3		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	S PATAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROOF AND ROOF FINISHES (Cont'd)				
	ROOF TRUSSES				
	Cold Formed Steel Roof Trusses				
	The Contractor shall design, fabricate and deliver to site and furnish at his expense all necessary materials, tools hoist, staging, temporary bracing etc. for the safe and proper erection of the Prefabricate Cold Formed Steel Roof Trusses (herein after called PRT) with corrosivity category C4 (high corrosivity); complete with rafters, top and bottom chords, bracings and tie-downs, struts, bearers, trusses connectors, straps, wall plates, connections, other associated ancillary fixing products and methods obvious items required for the works to ensure that all items act together as an integral structure that is structurally stable under all the specified combinations of loading conditions, all to the approval of the S.O.				
	The design of the PRT shall be by an approved System Provider (S.P) by JKR and fabricated by a fabricator as defined and in accordance with JKR 20601-0270-22: Specification for Prefabricated Cold Formed Steel Roof Trusses and Architect's drawings. The list of the approved S.P is specified in the Appendix of the specification.				
	The Contractor shall note that PRT roof trusses shall be design to suit the ceiling, the location of water tank, roof covering, mechanical and electrical (M&E) facilities and whatever load deemed necessary for the functional purpose of the building. The water tank shall not supported by the ceiling, the Contractor shall include in his design of the PRT roof trusses for any additional bearers, tie-beams, ceiling joints, ext. required to facilities the ceilings panel. The Contractor shall also in his design, facilities the fixing of timber rafters and its components used as an archituctural feature along the eaves of the PRT roof trusses.				

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROOF AND ROOF FINISHES (Cont'd)				
	The Contractor shall ensure that all trusses member located on the ducting bracket shall be protected with rubber pad to reduce the vibration caused by ducting. Rod to support ducting shall be installed on web plane member (stronger axist to decrease twisting on trusses member). Drilling is strictly probilired on all trusses member. M&E services shall be installed using strap.				
	The Contractor shall note that he shall be solely responsible for the adequacy and the sufficiency of the PRT roof trusses suitable, safe, compatible and integrates with the design and specifications of the works and it shall be undertaken, approved and endorsed by a competent and registered professional.				
	Rates to include:				
	Rates for the PRT and rafters shall include for all necessary materials, fabricating, delivery to site, hoisting and fixing in position, all fixing accessories including holding down bolt or ram setting, all ancillary item and temporary works for the complete installation of the PRT.				
	Rates for the PRT shall also include for design fees, testing for compliance, quality assurance and control and all other necessary cost for paten right design, trademark or name.				
	Cold formed steel roof trusses with battens at a maximum spacing of 295mm c/c and a minimum headlap distance of 125mm, all necessary supports, purlins, associated members as specified; including design, supply, fabrication, erection, fixing and hoisting in position, welding, screws, bolts and nuts; complying with JKR standard specifications according to coastal development guidelines, all as per manufacturer's details and subject to S.O.'s approval.				
Α	30 Degrees Pitch roof overall area approximately 44m2	ITEM			

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROOF AND ROOF FINISHES (Cont'd)				
	ROOF FINISHES				
	Roof Covering				
	Approved metal decking BMT0.48 thick laid to roof truss complete with necessary requisite fixing screws lapped at joints (measured nett- no allowance made for laps) complete with all specified approved accessories, all in accordance to the manufacturer's instructions and subjected to the Architect's approval.				
Α	Covering sloping, pitch 30 degrees	M2	44		-
В	Ridge capping	M	9		-
	Insulation Works				
С	Double sided aluminium foil insulation as specified; laid on and including chicken wire netting; lapped 150mm at joints	M2	44		-
D	50mm Thick x 40kg/m3 rockwool insulation layer laid on sloping roof well lapped at joints (measured nett - no allowance made for laps)	M2	44		-
	Fascia Board				
	Approved cement fibre board panel as described; subject to Architect's approval				
Е	250mm wide x 10mm thick fascia cement fibre board including necessary frames and fixing accessories	M	46		-
PEMBINAAI	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	РАТАН.		To Collection Page	

Item	Description Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROOF AND ROOF FINISHES (Cont'd)				
	COLLECTION				
	From Page No. C2/4/1/6				-
	From Page No. C2/4/2/6				-
	From Page No. C2/4/3/6				-
	From Page No. C2/4/4/6				-
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Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	EXTERNAL WALLS				
	Brickwork				
	Well burn clay bricks as specified; bedded and jointed in cement mortar (1:3) reinforced with including "exmet" brick reinforcement in every fourth course including mild steel bonding tie hook at both ends				
Α	115mm thick; stretcher bond	M2	58		-
	Concrete vent blocks as specified; 300mm x 300mm x 100mm thick bedded and jointed in cement mortar (1:6) with approved plasticiser; stretcher bond; flush smooth pointing as work proceeds including mild steel bonding tie hook at both ends				
В	Half brick thick; stretcher bond	M2	6		-
	Damp-Proof Course				
	Bituminous damp proof course as specified; 150mm laps; bedding in cement mortar (1:1); no allowance in measurement for laps				
С	Not exceeding 225mm; on horizontal surfaces	M	28		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	БРАТАН,		To Summary Page	-

BILL C2/5/1/1

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WINDOWS, VENT AND EXTERNAL DOORS				
	WINDOWS AND VENT				
	Note: All types of windows including window frames, finishes, caps, tracks, lock systems and other accessories and installations shall refer to the manufacturer and architect's approval; as per drawing no.:				
	1) CKIP/A/K/MF01/002-DT 02				
	Lintol				
	Reinforced concrete class C32/40 as lintol; including hot rolled deformed high tensile reinforcement bars, formwork as specified; all as per drawing no. CKIP/DDT/800/STD/S/BT-CIS/01(03)				
Α	125mm wide x 150mm high lintol (Jenis A)	М	10		-
	Metalwork				
	Approved 6mm thick powder coated aluminium heavy duty window frames; complete with hinges, as specified, all in accordance to manufacturer's details including assembly, all head, jamb, frame transome, mullion, cill etc., and all fixing lugs, bracket, supports, bolts, screws, packing pieces, cutting, notching, mitres and labour, built into concrete or brickwork and bedded in cement and sand mortar (1:3), pointed internally with an approved tropical mastic and externally with an approved silicon sealant caulking etc., complete with 6mm thick heat absorbing float grey tinted glass panel and all necessary painting, ironmongeries, as described; all in accordance to manufacturer's details and subject to Architect's approval				
В	Composite window overall size 750mm x 650mm high; top hung windows; complete with 6mm thick natural anodized glass panel (Type T1)	NO	8		-
MDINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	ΡΔΤΔΗ		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WINDOWS, VENT AND EXTERNAL DOORS (Cont'd)				
	<u>Louvers</u>				
	Supply and install 6mm thick powder coated aluminium Louvers including all head, jamb, frame transome, mullion, cil etc. and all necessary fixing lugs, brackets, strap, supports,bolts, screws and all necessary ironmongery, weather stripping; packing pieces, cutting and waste notching, mitres and labour drilling, plugging, screwing and fixing position complete with silicone sealant, all as per manufacture's detail and architect's approval.				
Α	Aluminium louvers overall size 1350mm x 300mm high; complete with 6mm thick natural anodized glass panel (Type T2)	NO	1		-
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG				

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WINDOWS, VENT AND EXTERNAL DOORS (Cont'd)				
	EXTERNAL DOORS				
	Note: All types of doors including door frames, finishes, door fittings including ironmongery, lock systems, accessories, fittings and installation shall refer to the manufacturer instruction and subject to Architect's approval; as per drawing no.:				
	1) CKIP/A/K/MF01/002-DT 02				
	Lintol				
	Reinforced concrete class C32/40 as lintol; including hot rolled deformed high tensile reinforcement bars, formwork as specified; all as per drawing no. CKIP/DDT/800/STD/S/BT-CIS/01(03)				
А	125mm wide x 150mm high lintol (Jenis A)	M	3		-
	Solid Timber Door				
	Supply and install solid timber door including medium hard steel frame; with approved pattern hanging on but hinges including all necessary ironmongery and painting works as specified; all in accordance to the Architect drawing and manufacturer's specification and S.O.'s approval				
В	Overall size 900mm x 2100mm; (Type P1)	NO	1		-
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	в РАТАН,		To Collection Page	-

ltem		Descript	ion		Unit	Quantity	Rate (RM)	Amount (RM)
	WINDOWS, (Cont'd)	<u>VENT</u> <u>AND</u>	EXTERNAL	DOORS				
		COLLEC	ΓΙΟΝ					
		From Page No	. C2/6/1/4					-
		From Page No	. C2/6/2/4					-
		From Page No	. C2/6/3/4					-
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Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL WALLS Brickwork Well burn clay bricks as specified; bedded and jointed in cement mortar (1:3) reinforced with				
	including "exmet" brick reinforcement in every fourth course including mild steel bonding tie hook at both ends				
А	115mm thick; stretcher bond	M2	104		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Summary Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL DOORS				
	Notes: All types of doors including door frames, finishes, door fittings including ironmongery, lock systems, accessories, fittings and installation shall refer to the manufacturer instruction and subject to Architect's approval; as per drawing no.:				
	1) CKIP/A/K/MF01/002-DT 02				
	Lintol				
	Reinforced concrete class C32/40 as lintol; including hot rolled deformed high tensile reinforcement bars, formwork as specified; all as per drawing no. CKIP/DDT/800/STD/S/BT-CIS/01(03)				
Α	125mm wide x 150mm high lintol (Jenis A)	М	4		-
	UPVC Door				
	Supply and install UPVC door including medium hard steel frame with approved pattern hanging on but hinges including all necessary ironmongery and painting works as specified; all in accordance to the Architect drawing and manufacturer's specification and S.O.'s approval				
В	Overall size 750mm x 2100mm; (Type P2)	NO	3		-
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Summary Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	EXTERNAL FLOOR FINISHES				
	Concrete Imprint				
	Concrete imprint as per manufacturer'sspecification; colour and pattern to Architect's approval				
Α	75mm thick to floor laid to fall.	M2	15		-
	Bed and Backing				
	20mm thick cement and sand (1:3) screeded bed as specified				
В	To floors; to receive tiles	M2	2		-
С	To 25mm high drop	М	2		-
D	To 50mm high drop	M	2		-
	Tile, Slab and Block Finishing				
	Approved Homogenous non slip tiles (rough surface); 300mm x 300mm x 7.5mm thick as specified; bedded and jointed in cement and sand (1:3) mortar; pointing with coloured cement grout; colour and pattern to Architect's approval (jh1)				
Е	To floors	M2	2		-
F	To 25mm high drop	M	2		-
G	To 50mm high drop	М	2		-
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Summary Page	<u>-</u>

BILL C2/9/1/1

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL FLOOR FINISHES				
	Bed and Backing				
	20mm thick cement and sand (1:3) screeded bed as specified				
Α	To floors; to receive tiles	M2	23		-
В	100mm high skirting	M	51		-
С	To 25mm high drop	M	1		-
D	To 50mm high drop	М	3		-
	Tile, Slab and Block Finishing				
	Approved Homogenous non slip tiles (rough surface); 300mm x 300mm x 7.5mm thick as specified; bedded and jointed in cement and sand (1:3) mortar; pointing with coloured cement grout; colour and pattern to Architect's approval (jh1)				
Е	To floors	M2	23		-
F	100mm high skirting	M	51		-
G	To 25mm high drop	M	1		-
Н	To 50mm high drop	М	3		-
	Waterproofing				
	Approved equivalent two coats of waterbased PU bituminous waterproofing coating at the rate of 1.5kg/m2 coat all in accordance with manufacturer's instruction and recommendation (measured nett - no allowance made for laps)				
J	To floors, over 300mm wide; flat; subsequently covered on suspended floor slabs	M2	23		-
K	Upstand high of wall; 900mm high	M2	46		-
PEMBINAAI	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Summary Page	

BILL C2/10/1/1

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	EXTERNAL CEILING FINISHES				
	Notes:				
	All types of ceiling shall refer to the manufacturer instruction and subject to Architect's approval; as per drawing no.: 1) CKIP/A/K/MF01/002-DT 05				
	Fix Ceiling				
	Approved PVC laminated (moisture resistance material) board as specified; 600mm x 600mm x 6mm thick laid in grid and complete with metal framing and tee-grid channel suspension system; 3.50m-5.00m above ground level				
Α	Linings to ceilings; level, falls and crossfalls and to slope not exceeding 15 degrees from horizontal	M2	15		-
	Painting and Decorating				
	Approved one coat alkali-resisting primer and two coats emulsion paint as specified				
В	On ceiling board; over 300mm girth	M2	15		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	і РАТАН,		To Summary Page	<u> </u>

Al in dr 1) Si Al m 6r fra of su	Notes: All types of ceiling shall refer to the manufacturer nstruction and subject to Architect's approval; as per drawing no.: 1) CKIP/A/K/MF01/002-DT 05			
Al in dr 1) So Al m 6r fra of	All types of ceiling shall refer to the manufacturer nstruction and subject to Architect's approval; as per drawing no.: 1) CKIP/A/K/MF01/002-DT 05			
in dr 1) Si Ai m 6r of su	nstruction and subject to Architect's approval; as per drawing no.: 1) CKIP/A/K/MF01/002-DT 05			
A m 6r fra of su				
m 6r fra of su	Suspended Ceiling			
	Approved PVC laminated (moisture resistance material) board as specified; 600mm x 600mm x 600mm x 600mm thick laid in grid and complete with metal raming and channel suspension system; comprising of rondo angle bracket; 3000mm main tee; 4mm suspension rod; adjustable butterfly clip; and cross ee at 600mm c/c; 3.50m-5.00m above ground level			
	Linings to ceilings; level, falls and crossfalls and to slope not exceeding 15 degrees from horizontal	M2	25	<u>-</u>
	Extra over 600mm x 600mm x 6mm thick access panel	NO	1	-
Pa	Painting and Decorating			1
	Approved one coat alkali-resisting primer and two coats emulsion paint as specified			
СО	On ceiling board; over 300mm girth	M2	25	- I
	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG			

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	EXTERNAL WALL FINISHES				
	In-Situ Finishing				
	20mm thick cement and sand (1:3) plainface plaster mixed with an approved plasticiser including raking out joints of brickwalls or hacking concrete surface for key, trowelled smooth as specified;				
Α	To walls	M2	58		-
В	To isolated columns	M2	11		-
	Bed and Backing				
	20mm thick cement and sand (1:3) screed bed as specified;				
С	To walls; to receive tiles	M2	3		-
	Tile, Slab and Block Finishings				
	Approved polished ceramic tiles; 300mm x 300mm x 10mm thick as specified; bedded and jointed in cement and sand (1:3) mortar; pointing with coloured cement grout; colour and pattern to Architect's approval				
D	To walls	M2	3		-
	Painting and Decorating				
	Prepare and apply one coat of 'alkali primer' and two coat 'ultra violet' (UV) weather resistant emulsion paint as specified; all in accordance to manufacturer's specification, colour and pattern subject to Architect's approval				
Е	To plastered surfaces	M2	58		-
F	To isolated columns	M2	11		-
G	To vent blocks	M2	12		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	РАТАН,		To Summary Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL WALL FINISHES				
	In-Situ Finishing				
	20mm thick cement and sand (1:3) plainface plaster mixed with an approved plasticiser including raking out joints of brickwalls or hacking concrete surface for key, trowelled smooth as specified;				
Α	To walls	M2	69		-
В	To isolated columns	M2	15		-
	Bed and Backing				
	20mm thick cement and sand (1:3) screed bed as specified;				
С	To walls; to receive tiles	M2	107		-
	Tile, Slab and Block Finishings				
	Approved polished ceramic tiles; 200mm x 300mm x 10mm thick as specified; bedded and jointed in cement and sand (1:3) mortar; pointing with coloured cement grout; colour and pattern to Architect's approval				
D	To walls	M2	107		-
	Painting and Decorating				
	Prepare and apply one coat of 'modified acrylic sealer' and two coat 'low VOC acrylic paint' as specified; all in accordance to manufacturer's specification, colour and pattern subject to Architect's approval				
Е	To plastered surfaces	M2	69		-
F	To isolated columns	M2	15		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	Б РАТАН,		To Summary Page	-

	SANITARY FITTINGS			-	(RM)
	Notes:				
	The rates shall be deemed to include for all necessary subsidiary materials such as bedding screed, additional screws and bolts, necessary jointing and sealing compounds, cutting and pinning brackets to walls and floors, plugging and screwing bases of fittings to walls and floors, fixing fittings in concrete and timber fitment, connection to service, soil and waste pipes, cutting recess in walls for fixing of fittings as necessary and any other labour required for the fixing of fitting in the proper manner.				
	The Contractor is to submit to the S.O., the manufacturer's type and make of the fittings, all as per Architect's specifications and detail drawings.				
	Supply and fix the following Sanitary Fittings and accessories or other approved equivalent, complete with all fixing including jointing and connecting to services and soil and waste pipes and making good all work disturbed, all fixed strictly in accordance to the manufacturer's instruction				
	Water Closet				
	Approved close coupled washdown complete set with cistern complete with cistern fitting dual flush, pan collar, seat and cover, screw and caps	NO	2		-
	Wash Hand Basin				
	Approved wall-hung basin, complete with brackets, holder and overflow ring as specified	NO	2		-
	Flexible Hose				
С	Approved stainless steel flexible hose as specified	NO	2		-
	I SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG				

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SANITARY FITTINGS (Cont'd)				
	Taps				
Α	Approved stainless steel tap basin mounted as specified	NO	2		-
В	Approved stainless steel tap wall mounted as specified	NO	2		-
	Towel Hook				
С	Approved stainless steel double towel hook as specified	NO	3		-
	Soap Dispenser				
D	Approved stainless steel wall-mounted liquid soap dispenser (vertical) in satin finish as specified	NO	3		-
	Toilet Roll Holder				
Е	Approved stainless steel flat top wall-mounted roll holder, satin finish as specified	NO	2		-
	Shower Rose				
F	Approved 100mm diameter shower head complete with arm as specified	NO	1		-
	Mirror				
	Approved stainless steel frame mirror with 6mm thick plywood and stainless steel mirror support (chrome), hang in position and fixed with screws as specified; all as per manufacturer's specification and subject to the Architect's approval				
G	Overall size 600mm wide x 700mm high mirror	NO	2		-
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	Б РАТАН,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SANITARY FITTINGS (Cont'd)				
	Floor Trap				
А	Approved 150mm x 150mm stainless steel floor trap	NO	4		-
DEMDINA A	N SLIDWAY DI KOMDI EKS DENGIJATKIJASAAN KASTAM SUNGAI DULA LOSI ANG	DATAU			
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	В РАТАН,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SANITARY FITTINGS (Cont'd)				
	COLLECTION				
	From Page No. C2/15/1/4				-
	From Page No. C2/15/2/4				-
	From Page No. C2/15/3/4				-
MBINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELAN	G PATAH.		To Summary Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	COLD WATER AND SANITARY INSTALLATION NOTES				
	The price shall include all supply of materials, all custom duties, sales tax and any other taxes, transportation and delivery, hoisting, welding, insurances, profits, supervision, installation, termination, testing, commissioning and maintenance as described in the drawings and specification. All parts and works which are necessary for the satisfactory operation of the systems shall be supplied by the Contractor, whether specifically mentioned in the Schedule or not, and deemed to be included in the prices entered against the various items.				
	COLD WATER INSTALLATION				
	Cold Water Pipeworks				
	Complete supply, installation and connection of new PP-R PN10 pipes and fittings, from connection of external water reticulation to suction tank, by-pass from external water reticulation to main line with one way valve, inlet and outlet with associated fittings at booster pumps to main line to storage tank at roof level of Main Building, from storage tank to connection of PP-R PN10 pipes to all appliances at toilets, overflow, warning and scour pipes from water storage tank including all necessary requisite opening and holes in roof / ceiling and wall, connections with requisite connectors to water storage tank and PP-R pipes, requisite pipe fittings, stopcock, band hanger, support, mounting bracket and all other accessories and related works, including but not limited as per drawings; JKR.CKIP/MEK/KASTAM/GP/CW/2024/01 JKR.CKIP/MEK/KASTAM/GP/CW/2024/02 JKR.CKIP/MEK/KASTAM/GP/CW/2024/03 JKR.CKIP/MEK/KASTAM/GP/CW/2024/04				
MBINAA HOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	COLD WATER AND SANITARY INSTALLATION (Cont'd)				
	Cold Water Pipeworks				
Α	32mm Diameter PP-R pipe	LOT	1		-
В	25mm Diameter PP-R pipe	LOT	1		-
С	20mm Diameter PP-R pipe	LOT	1		-
D	40mm Diameter PP-R pipe (incoming pipe)	LOT	1		-
	Water Storage Tank				
	Complete supply, delivery, hoist into position, installation and connection of FRP water storage tank (SPAN approved) complete with ball float valve, interconnection pipes, inlet and outlet (stop) valves and all necessary fittings as described and in accordance with manufacturer's instruction.				
Е	1,000 litres (Size : 1,000mm x 1,000mm x 1,000mm (H))	SET	1		-
DEMDINA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	DATALL			
JOHOR	N JEII WAT DI NOMIFLENS FENGUATNUASAAN NASTAM SUNGAI FULAI, GELANG	≱i⁻AIAΠ,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	COLD WATER AND SANITARY INSTALLATION (Cont'd)				
	SANITARY INSTALLATION PIPEWORKS				
	Sanitary Pipeworks				
	Complete supply, installation and connection waste water, soil and vent Unplasticized Polyvinyl Chloride (uPVC) pipes with and including all requisite fittings from sanitary appliances and from floor traps, gully trap and outlet grating to all connecting manholes (inspection chamber) including all necessary excavation, concrete casing around pipework, connections with requisite connectors to sanitary appliances, requisite openings, requisite to chase in roof, floors, beam and wall, and requisite band hanger, support, mounting bracket complete and all other accessories and related works, including but not limited as per drawings; JKR.CKIP/MEK/KASTAM/GP/SN/2024/01 JKR.CKIP/MEK/KASTAM/GP/SN/2024/02 JKR.CKIP/MEK/KASTAM/GP/SN/2024/03				
Α	100mm diameter uPVC pipe	LOT	1		-
В	80mm diameter uPVC pipe	LOT	1		-
С	40mm diameter uPVC pipe	LOT	1		-
	Gully Trap				
	Construct Gully Trap to sizes and detail as specified complete with gully trap cover and frame; including pit excavation commencing from formation level; disposal of surplus excavated material as per drawings; JKR.CKIP/MEK/KASTAM/GP/SN/2024/01 JKR.CKIP/MEK/KASTAM/GP/SN/2024/02 JKR.CKIP/MEK/KASTAM/GP/SN/2024/03				
D	Overall size; 530mm x 530mm, to invert, not exceeding 760mm deep	LOT	2		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Collection Page	-

BILL C2/16/3/6

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	COLD WATER AND SANITARY INSTALLATION (Cont'd)				
	Inspection Chamber				
	Construct Inspection Chamber to sizes and detail as specified complete with cover, frame and galvanised cast iron step; including pit excavation commencing from formation level; disposal of surplus excavated material as per drawings; JKR.CKIP/MEK/KASTAM/GP/SN/2024/01 JKR.CKIP/MEK/KASTAM/GP/SN/2024/02 JKR.CKIP/MEK/KASTAM/GP/SN/2024/03				
Α	Overall size; 1,500mm x 1,350mm, to invert, not exceeding 1.50m deep	LOT	1		-
В	150mm Vitrified Clay Pipe	LOT	1		-
	Testing and Commisioning				
С	On completion of the plumbing installation test all pipeworks as per specification and make good any defects and leave the whole in perfect working order to the entire satisfaction of the Superintending Officer (S.O).	LS			
	Approval From Local Water Authority				
D	All fees pertaining to Local Water Authority (SAJ/SPAN) requirements regarding Internal Cold Water Plumbing System approval.	LS			
	General Works				
E	Making good all necessary floors and walls finish after completed all coldwater and sanitary pipeworks installation.	LS			
PEMBINAAI	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	БРАТАН,		To Collection Page	_

BILL C2/16/4/6

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	COLD WATER AND SANITARY INSTALLATION (Cont'd)				
	Operation and Maintenance Manual				
A	To provide four (6) sets of the Operation and Maintenance Manual for the specified Mechanical works complete with test result, equipment inventory checklist, warranty certification, maintenance schedule, catalogue, etc.	LS			
	Portable Fire Extinguishers				
	Supply, delivery, installation fire extinguisher complete with lockable Mild Steel Cabinet, bracket markings and all other accessories as per specification				
В	Dry Powder Fire Extinguisher - 9kg	NO	1		-
DEMONIA C	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	DATALL		To Collection Page	

Item	Description Description	Unit	Quantity	Rate (RM)	Amount (RM)
	COLD WATER AND SANITARY INSTALLATION (Cont'd)				
	COLLECTION				
	From Page No. C2/16/1/6				-
	From Page No. C2/16/2/6				-
	From Page No. C2/16/3/6				-
	From Page No. C2/16/4/6				-
	From Page No. C2/16/5/6				-
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	B PATAH,		To Summary Page	-

BILL C2 SUNDRIES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>SUNDRIES</u>				
	Signages				
	Supply and install 'PAPAN TANDA', complete with 3mm thick clear acrylicreversed BLACK colour wording and figures fixed with double sided tape (heavy duty) with silver background or equivalent all as per Architect's drawing and manufacturer's instruction and S.O's approval. Drawing No. CKIP/A/K/MF01/002-DT 03				
Α	Overal size 500mm x 100mm; BILIK PERSALINAN	NO	1		-
В	Overall size 150mm x 250mm; TANDAS	NO	2		-
С	Overall size 150mm x 250mm; BILIK MANDI	NO	1		-
	Supply and install the following 1 nos of powder coated MS plate signages; including 100mm diameter hollow MS pole, foundation to engineer's detail and all other necessary works to complete the works all as per Drawing No.Drawing No. CKIP/A/K/MF01/002-DT 07				
D	Overal size 1000mm x 2000mm; KAWASAN LARANGAN & TEMPAT LARANGAN	NO	1		-
PEMBINAAI OHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,	<u> </u>	To Summary Page	-

Item	Description	PAGE NO	Amount (RM)
	SUMMARY		
1	SITE PREPARATION (ALL PROVISIONAL)	BILL D/1/6/6	-
2	ROADWORKS (ALL PROVISIONAL)	BILL D/2/6/6	-
3	SURFACE WATER DRAINAGE (ALL PROVISIONAL)	BILL D/3/6/6	-
4	WATER RETICULATION (ALL PROVISIONAL)	BILL D/4/4/4	-
5	SEWERAGE (ALL PROVISIONAL)	BILL D/5/4/4	-
6	FENCING AND GATE (ALL PROVISIONAL)	BILL D/6/4/4	_
PEMBINAAI IOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PAIAH,	To "Ringkasan Tender" -

BILL D/SUM

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SITE PREPARATION (ALL PROVISIONAL)				
	GENERAL NOTES				
	The whole of the Works are to be carried out in a manner approved by the S.O.				
	The Contractor shall be held to have visited the site, inspected the existing conditions and ascertained the extent and nature of the works to be carried out. No claims for extra payment in this respect will be entertained				
	All underground services pipes and cables uncovered during the excavation for the grubbing out of the structure shall be cut-off to the extent of the excavation and removed.				
	Prior to commencement of works, the Contractor shall liaise with the S.O. to arrange that all services have been disconnected.				
	The Contractor shall take precaution that earth filling shall be commenced only with the specific approval of the S.O. when the site is completely cleared of all rubbish, shrubs, bushes, trees, roots, old foundation, debris etc.				
	Measurement for excavation shall be the nett volume of the voids formed by the removal of excavated material as required and shown in the drawings.				
	Filling shall be measured as equal to the void to be filled. Any thickness stated shall be deemed to be the thickness after compacting. Compacting and treating surfaces of filling including forming slopes and finishing to falls and cambers shall be deemed to be included with the various items of filling by excavation directed by the S.O.				
	The Contractor shall allow in his rate for the increase in bulk after excavation and decrease in shrinkage after filling and compaction or due to settlement, erosion and tolerance.				
PEMBINAA JOHOR	 N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANC	PATAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SITE PREPARATION (ALL PROVISIONAL) (Cont'd)				
	Any charges incurred during the course of Earthwork but not limited to premium, fees, levy, deposit, guarantee, royalties etc. to any Authorities involved.				
	The Contractor shall verify the dimensions and levels of the existing ground as shown on the drawings before commencement of the works. Any discrepancy which may affect the works shall be notified to the S.O. otherwise the dimension and levels shown on drawings or as otherwise determined by the S.O. shall be final.				
	Before commencing any site clearance and demolition works, the Contractor shall ascertain the existence and position of water and other services and inform S.O. if existing services are found on site. The Contractor shall bear the cost for any damages caused to such existing services.				
	The Contractor must ensure that the termination and/or diversion of all services are carried out prior to executing all kind of site clearing activities inclusive of demolition works.				
A	Allow for providing any temporary works whether or not specifically shown in the drawings or stated or indicated in the contract documents and keep them in working order, maintain same throughout the duration of the contract and remove on completion of the works; all to the approval and satisfaction of the S.O.	ITEM			
DEMDINA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	DATAL		To Collection Page	

EMPORARY WORKS All temporary works to be constructed and naintained through out construction period and emove after Certificate of Practical Completion CPC) issued or after the earthworks are completed; Il as per instructed and approved by the S.O. High Pressure Water Jet The Contractor to provide high pressure water jet to naintain existing road in clean and dust free ondition, maintain through the contract period; including all connections and pipings, and labour as	NO	1		
all temporary works to be constructed and naintained through out construction period and emove after Certificate of Practical Completion CPC) issued or after the earthworks are completed; Il as per instructed and approved by the S.O. In the Contractor to provide high pressure water jet to naintain existing road in clean and dust free ondition, maintain through the contract period;	NO	1		
naintained through out construction period and emove after Certificate of Practical Completion CPC) issued or after the earthworks are completed; Il as per instructed and approved by the S.O. Iigh Pressure Water Jet The Contractor to provide high pressure water jet to naintain existing road in clean and dust free ondition, maintain through the contract period;	NO	1		
The Contractor to provide high pressure water jet to naintain existing road in clean and dust free ondition, maintain through the contract period;	NO	1		
naintain existing road in clean and dust free ondition, maintain through the contract period;	NO	1		
pecified; all in accordance to JKR Standard specification and to the S.O. approval and all as per ingineer's drawing no. JKRCKIP.DDT.800-3/J/10/C/ESCP/01(02).				-
Check Dam				
To construct and maintain check dam comprises of xcavation, compacted crusher run to slope and all ecessary works; all in accordance to JKR Standard specification and to the S.O. approval and all as per engineer's drawing no. JKRCKIP.DDT.800-3/J/10/C/ESCP/01(02) and cKIP/DDT/800/STD/C/EW/11(15)	NO	1		-
emporary Earth Drain				
To construct and maintain temporary earth drains verall size 1200mm x 300mm x 300mm within the ite with and including all necessary excavation, cut to slope, forming earth bank from excavated naterials, removal of surplus material and necessary vorks as per directed; all in accordance to JKR standard Specification and to the S.O. approval and	М	42		-
3 Provided to the contract of	AJ/10/C/ESCP/01(02) and AIP/DDT/800/STD/C/EW/11(15) Imporary Earth Drain In construct and maintain temporary earth drains erall size 1200mm x 300mm x 300mm within the ewith and including all necessary excavation, cut slope, forming earth bank from excavated aterials, removal of surplus material and necessary	/J/10/C/ESCP/01(02) and //J/10/C/ESCP/01(02) and //J/10/C/ESCP/01(02) and //J/10/C/ESCP/01(02) and //J/10/C/ESCP/01(02) and //J/10/C/ESCP/01(02)	/J/10/C/ESCP/01(02) and /IP/DDT/800/STD/C/EW/11(15) Imporary Earth Drain In construct and maintain temporary earth drains erall size 1200mm x 300mm x 300mm within the ewith and including all necessary excavation, cut slope, forming earth bank from excavated aterials, removal of surplus material and necessary brks as per directed; all in accordance to JKR andard Specification and to the S.O. approval and as per Engineer's drawing no. JKRCKIP.DDT.800-	/J/10/C/ESCP/01(02) and //J/10/C/ESCP/01(02)

A To siz exconed JK and JK Sil B To ove exconed and ned Sp En		Unit	Quantity	Rate (RM)	Amount (RM)
A To siz exconect A To siz exc	SITE PREPARATION (ALL PROVISIONAL) Cont'd)				
siz exc nec JK and JK Sil B To ove exc geo and nec Sp En	emporary Earth Sump				
B To ove except and necept specific spe	o construct and maintain temporary sump overall ize 1800mm x 450mm x 450mm including xcavation, 200mm thick stone pitching and eccessary works as specified; all in accordance to KR Standard Specification and to the S.O. approval nd all as per Engineer's drawing no. KRCKIP.DDT.800-03/J/10/C/ESCP/01(02)	NO	1		-
ove exc geo and neo Sp En	ilt Fence				
	o construct and maintain silt fence within the site verall 1800mm height as specified, including xcavation, backfilling, compacting, non-woven eotextiles, poles, and to be removed as per directed nd make good area disturbed, including all ecessary works; all in accordance to JKR Standard specification and to the S.O. approval and all as per ingineer's drawing no. JKRCKIP.DDT.800-3/J/10/C/ESCP/01(02) and cKIP/DDT/800/STD/C/EW/10(15).	M	95		<u>-</u>
Те	emporary Interlocking Paver				
ten sar res asp and ma wo Sp En	co construct and maintain 80mm thick heavy duty emporary interlocking paver including of 30mm thick and bedding, 220mm x 100mm x 100mm edge estraint, 10mm thick epoxy mortar, new layer of sphaltic concrete premix; at the entrance of the site and to be demolished as per instructed including take good area disturbed and the like to complete works; all in accordance to JKR Standard specification and to the S.O. approval and all as per ingineer's drawing no. JKRCKIP.DDT.800-3/J/10/C/ESCP/01(02) and JKRCKIP.DDT.800-3/J/10/C/ESCP/02(02)	M2	45		-
					<u> </u>

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SITE PREPARATION (ALL PROVISIONAL) (Cont'd)				
	SITE CLEARANCE				
	The Contractor shall notify the S.O. prior to commencement of site clearance. Site clearance shall be carried out under the direction and supervision of the S.O.				
	Clear the site within the boundary of all shrubs, crops and superfluous vegetation, remove all fallen tree trunks, tree, stumps etc. grub-up roots, including demolish, dig out and break up all foundation or other obstruction which interfere with the execution of the work, make good all works disturbed and remove all debris and surplus from the site including filling up all holes and cavities with approved materials				
Α	Area measured on plan approximately 3,695m2	ITEM			
В	Cut down and clear away from site, trees as per directed including grubbing up roots and filling up holes with approved earth.	ITEM			
С	Provide for the protection of the Site, all slopes of and embankments from and by the effect of soil erosion and keep surface water drains, etc. free from the obstruction by silt from whatever causes arising, including excessive rainfall	ITEM			
D	Carefully dismantle as per instructed and all structures including retaining wall, fixtures and services attached; including demolish, dig out and break up all foundation or other obstruction which interfere with the execution of the work, make good all works disturbed and remove all debris and surplus from the site including filling up all holes and cavities with approved materials.	ITEM			
PEMBINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	в РАТАН,		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SITE PREPARATION (ALL PROVISIONAL) (Cont'd)				
	COLLECTION				
	From Page No. D/1/1/6				-
	From Page No. D/1/2/6				-
	From Page No. D/1/3/6				-
	From Page No. D/1/4/6				-
	From Page No. D/1/5/6				-
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,	I	To Summary Page	-

BILL D/1/6/6

1	ROADWORKS (ALL PROVISIONAL) GENERAL NOTES All work related to construction of road shall comply			<u> </u>
1				
1	All work related to construction of road shall comply			
	to JKR Standard Specification for Building Works 2020 and other standard specification used in JKR projects and in accordance with the Local Authorities requirement.			
,	APPROACH ROAD			
!	Excavation			
<u> </u>	Excavate trench starting from reduced level; get out, part return, fill in, well ram and remainder load and cart away from site, level grade and ram bottom, trim sides including planking and strutting			
	To receive beams maximum depth not exceeding 1.00m	M3	31	-
	To receive beams maximum depth not exceeding 2.00m	M3	26	- I
ľ	Filling			
1	Hardcore as specified, spread, levelled, well ramp, wateres and blinded on top with sand to receive concrete			
	Under beams; not exceeding 250mm thick, average 100mm thick	M2	71	- I
	Under slab; not exceeding 250mm thick, average 100mm thick	M2	219	-
ı	In-Situ Concrete			
	Plain Concrete Grade C12/15 as specified; blinding screed; laid on earth or hardcore			
E	Under beams not exceeding 100mm thick	МЗ	4	-
F	Under slab not exceeding 100mm thick	МЗ	11	-
	SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG			

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROADWORKS (ALL PROVISIONAL)				
	<u>Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 360kg/m3 and maximum water cement ratio 0.40 as specified</u>				
Α	In beams	МЗ	44		-
В	In slab	МЗ	55		-
С	In topping slab 50mm thick; broom finish	МЗ	11		-
D	In kerb	МЗ	7		-
	Reinforcement				
	Reinforcement bars; hot rolled deformed high tensile steel according to MS146 as specified				
	In beam				
Е	20mm Diameter	KG	553		-
F	25mm Diameter	KG	12,000		-
	In slab				
G	16mm Diameter	KG	7,000		-
	In kerb				
Н	12mm Diameter	KG	940		-
	Formwork				
	Class F1 formwork as specified in drawings and specifications;				
J	To sides of beams exceeding 250mm but not exceeding 500mm High	М	152		-
K	To sides of beams exceeding 500mm but not exceeding 1000mm High	М	119		-
L	To sides of slab not exceeding 250mm high	M	111		-
DEMDINA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	DATA		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROADWORKS (ALL PROVISIONAL)				
	Formwork				
	Class F1 formwork as specified in drawings and specifications;				
Α	To sides of kerb exceeding 250mm but not exceeding 500mm High	М	140		-
	Expansion Joint				
В	Apply expansion joint 50mm Elastometric Polysulphide join sealant inclusive with Polyseal PS Sealant and Jointflex backer rods or equivalent in expansion joint at ramp all as directed by S.O	M	14		-
PEMBINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	В РАТАН,		To Collection Page	_

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROADWORKS (ALL PROVISIONAL)				
	RESURFACING OF EXISTING PAVEMENT				
	Mark, scarify, remove and dispose existing premix until road base, prepare and clean the surface of resurfacing area, to receive new pavement all as per Engineer's drawing and subjected to S.O. approval				
Α	Scarify existing premix until road base	M2	1,200		-
В	Allow for repair, make good surrounding, merge joint to existing road level, treatment to existing pavement and any works disturbed such as road kerb, road marking, road furniture, kerb painting, existing structure, fencing and other necessary works.	ITEM			
	Prime Coat				
	Supply and lay one layer of approved bitumenous prime coat SS1K sprayed over road base				
С	To receive bitumenous wearing course	M2	1,200		-
	Wearing Course				
	Hot rolled bitumenous course, spread, levelled and rolled (AC 14)				
D	50mm thick wearing course layer to falls and chamber	M2	1,200		-
	Road Marking				
	Prepare and apply hot spray approved Reflectorised Thermoplastic road paint on premix road to form; as per drawing no. JKR.CKIP.DDT/800-03/J/10/C/RD/01(05)				
Е	150mm wide edge line (Type 6)	М	113		-
F	150mm wide give-way line (Type 2)	М	21		-
PEMBINAAI OHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Collection Page	-

ROADWORKS (ALL PROVISIONAL) Road Signage Supply and fix non-illuminated high intensity prismatic retro-reflective sheeting mounted on aluminium alloy sign plate including foundations, support posts, purlins frame and connections, excavation, preparation of surfaces, disposal of excavated material, upholding sides of excavation, backfilling, concrete, reinforcement, and joints as per Engineer's drawing no CKIP/DDT/800/STD/C/RD/06(15) — 09(15), JKR/CKIP/DDT/800/03/K/09/C/RD/01(02) —02(02) and subject to S.O approval A 'Kurangkan laju 40km/j' (Type WD45a) signage NO 1 Testing B Allow for C.B.R test on road base by approval Local Authorities at point as instructed by S.O and merge joint to existing road level, treatment to existing pavement making good any defects, disturbed works and leave the whole in perfect working order to the entire satisfaction on the S.O and Local Authorities.	Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
Supply and fix non-illuminated high intensity prismatic retro-reflective sheeting mounted on aluminium alloy sign plate including foundations, support posts, purlins frame and connections, excavation, preparation of surfaces, disposal of excavated material, upholding sides of excavation, backfilling, concrete, reinforcement, and joints as per Engineer's drawing no CKIP/DDT/800/STD/C/RD/06(15) ~ 09(15), JKR/CKIP/DDT/800/03/K/09/C/RD/01(02) ~02(02) and subject to S.O approval A 'Kurangkan laju 40km/j' (Type WD45a) signage NO 1 Testing B Allow for C.B.R test on road base by approval Local Authorities at point as instructed by S.O and merge joint to existing road level, treatment to existing pavement making good any defects, disturbed works and leave the whole in perfect working order to the		ROADWORKS (ALL PROVISIONAL)				
prismatic retro-reflective sheeting mounted on aluminium alloy sign plate including foundations, support posts, purlins frame and connections, excavation, preparation of surfaces, disposal of excavated material, upholding sides of excavation, backfilling, concrete, reinforcement, and joints as per Engineer's drawing no CKIP/DDT/800/STD/C/RD/06(15) ~ 09(15), JKR/CKIP/DDT/800/03/K/09/C/RD/01(02) ~02(02) and subject to S.O approval A 'Kurangkan laju 40km/j' (Type WD45a) signage NO 1 Testing B Allow for C.B.R test on road base by approval Local Authorities at point as instructed by S.O and merge joint to existing road level, treatment to existing pavement making good any defects, disturbed works and leave the whole in perfect working order to the		Road Signage				
Testing Allow for C.B.R test on road base by approval Local Authorities at point as instructed by S.O and merge joint to existing road level, treatment to existing pavement making good any defects, disturbed works and leave the whole in perfect working order to the		prismatic retro-reflective sheeting mounted on aluminium alloy sign plate including foundations, support posts, purlins frame and connections, excavation, preparation of surfaces, disposal of excavated material, upholding sides of excavation, backfilling, concrete, reinforcement, and joints as per Engineer's drawing no CKIP/DDT/800/STD/C/RD/06(15) ~ 09(15), JKR/CKIP/DDT/800/03/K/09/C/RD/01(02) ~02(02)				
Allow for C.B.R test on road base by approval Local Authorities at point as instructed by S.O and merge joint to existing road level, treatment to existing pavement making good any defects, disturbed works and leave the whole in perfect working order to the	Α	'Kurangkan laju 40km/j' (Type WD45a) signage	NO	1		-
Allow for C.B.R test on road base by approval Local Authorities at point as instructed by S.O and merge joint to existing road level, treatment to existing pavement making good any defects, disturbed works and leave the whole in perfect working order to the		Testing				
	В	Authorities at point as instructed by S.O and merge joint to existing road level, treatment to existing pavement making good any defects, disturbed works and leave the whole in perfect working order to the	ITEM			

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	ROADWORKS (ALL PROVISIONAL)				
	COLLECTION				
	From Page No. D/2/1/6				-
	From Page No. D/2/2/6				-
	From Page No. D/2/3/6				-
	From Page No. D/2/4/6				-
	From Page No. D/2/5/6				-
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELAN	G PATAH,		To Summary Page	-

BILL D/2/6/6

Description	Unit	Quantity	Rate (RM)	Amount (RM)
SURFACE WATER DRAINAGE (ALL PROVISIONAL)				
The Contractor shall notify the S.O. sufficiently in advance before beginning of any excavation. The excavation works shall be carried out so as not to cause any danger or obstruction to the traffic or public. All excavation shall be inspected and approved by the S.O. prior to further works being carried out.				
Drainage works shall be constructed to the lines, levels, grades and cross-sections shown on the drawings or as directed by the S.O.				
Final discharge point shall be identified and approved by the S.O. where necessary. Existing drainage system shall be upgraded to be fully functional as a drainage system on their own or as part of the new drainage system.				
The tenderer shall include in his pricing the cost for providing temporary earth protection works including water pumping works where necessary, whether or not specifically shown in the drawings or stated or indicated in the contract documents and keep them in working order; all to the S.O's satisfaction.				
All works under this bill are as per Engineer's drawing no.: 1) JKRCKIP.DDT.800-03/J/10/C/DR/01(01) 2) CKIP/DDT/800/STD/C/DR/04(25)				
	SURFACE WATER DRAINAGE (ALL PROVISIONAL) The Contractor shall notify the S.O. sufficiently in advance before beginning of any excavation. The excavation works shall be carried out so as not to cause any danger or obstruction to the traffic or public. All excavation shall be inspected and approved by the S.O. prior to further works being carried out. Drainage works shall be constructed to the lines, levels, grades and cross-sections shown on the drawings or as directed by the S.O. Final discharge point shall be identified and approved by the S.O. where necessary. Existing drainage system shall be upgraded to be fully functional as a drainage system on their own or as part of the new drainage system. The tenderer shall include in his pricing the cost for providing temporary earth protection works including water pumping works where necessary, whether or not specifically shown in the drawings or stated or indicated in the contract documents and keep them in working order; all to the S.O's satisfaction. All works under this bill are as per Engineer's drawing no.:	SURFACE WATER DRAINAGE (ALL PROVISIONAL) The Contractor shall notify the S.O. sufficiently in advance before beginning of any excavation. The excavation works shall be carried out so as not to cause any danger or obstruction to the traffic or public. All excavation shall be inspected and approved by the S.O. prior to further works being carried out. Drainage works shall be constructed to the lines, levels, grades and cross-sections shown on the drawings or as directed by the S.O. Final discharge point shall be identified and approved by the S.O. where necessary. Existing drainage system shall be upgraded to be fully functional as a drainage system on their own or as part of the new drainage system. The tenderer shall include in his pricing the cost for providing temporary earth protection works including water pumping works where necessary, whether or not specifically shown in the drawings or stated or indicated in the contract documents and keep them in working order; all to the S.O's satisfaction. All works under this bill are as per Engineer's drawing no.: 1) JKRCKIP.DDT.800-03/J/10/C/DR/01(01)	SURFACE WATER DRAINAGE (ALL PROVISIONAL) The Contractor shall notify the S.O. sufficiently in advance before beginning of any excavation. The excavation works shall be carried out so as not to cause any danger or obstruction to the traffic or public. All excavation shall be inspected and approved by the S.O. prior to further works being carried out. Drainage works shall be constructed to the lines, levels, grades and cross-sections shown on the drawings or as directed by the S.O. Final discharge point shall be identified and approved by the S.O. where necessary. Existing drainage system shall be upgraded to be fully functional as a drainage system on their own or as part of the new drainage system. The tenderer shall include in his pricing the cost for providing temporary earth protection works including water pumping works where necessary, whether or not specifically shown in the drawings or stated or indicated in the contract documents and keep them in working order; all to the S.O's satisfaction. All works under this bill are as per Engineer's drawing no.: 1) JKRCKIP.DDT.800-03/J/10/C/DR/01(01)	SURFACE WATER DRAINAGE (ALL PROVISIONAL) The Contractor shall notify the S.O. sufficiently in advance before beginning of any excavation. The excavation works shall be carried out so as not to cause any danger or obstruction to the traffic or public. All excavation shall be inspected and approved by the S.O. prior to further works being carried out. Drainage works shall be constructed to the lines, levels, grades and cross-sections shown on the drawings or as directed by the S.O. Final discharge point shall be identified and approved by the S.O. where necessary. Existing drainage system shall be upgraded to be fully functional as a drainage system on their own or as part of the new drainage system. The tenderer shall include in his pricing the cost for providing temporary earth protection works including water pumping works where necessary, whether or not specifically shown in the drawings or stated or indicated in the contract documents and keep them in working order; all to the S.O's satisfaction. All works under this bill are as per Engineer's drawing no.: 1) JKRCKIP.DDT.800-03/J/10/C/DR/01(01)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SURFACE WATER DRAINAGE (ALL PROVISIONAL) (Cont'd)				
	225mm x 225mm Half Round Glazed Ware Drain				
	Excavate trench starting from reduced level; get out, part return, filling, well ram and remainder load and cart away from site, level grade and ram bottom, trim sides including temporary earth protection, planking and strutting				
Α	To receive 225mm x 225mm half round glazed ware drain; maximum depth not exceeding 1.00m	M3	16		-
	Compacted gravel and 25mm crushed stone as specified, spread, levelled, well ramp, wateres and blinded on top with sand to receive concrete				
В	300mm thick to receive lean concrete	МЗ	10		-
	Plain concrete Grade C20/25 lean concrete as specified; laid on earth or hardcore				
С	50mm thick, to receive concrete base under 225mm x 225mm half round glazed ware drain	М3	2		-
	Reinforced concrete Grade C20/25 as specified;				
D	100mm thick in concrete base; to receive 225mm x 225mm half round glazed ware drain	М3	5		-
	Steel fabric reinforcement to MS145 well lapped at joints including all cutting and waste (measured nett-no allowance made for laps)				
Е	In base concrete base; Reference No. A393	M2	31		-
	Class F1 formwork as specified				
F	To both sides of concrete base, not exceeding 1.00m high	M2	82		-
PEMRINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	: ΡΔΤΔΗ		To Collection Page	

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Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SURFACE WATER DRAINAGE (ALL PROVISIONAL) (Cont'd)				
	225mm x 225mm Half Round Glazed Ware Drain				
	Well burnt clay bricks bedded and jointed in cement mortar (1:3)				
Α	Half brick thick walls	M2	44		-
	Cement and sand (1:3) plainface plaster mixed with an approved plasticiser including raking out joints of brickwall or hacking concrete for key; steel trowelled				
В	15mm thick work to walls on brickwork	M2	44		-
	PVC weep hole cast into brickwall at 2000mm centre including forming opening in brickwall and 25mm aggregate wrapped with geotextile				
С	Overal size 75mm diameter x 225mm long	NO	41		-
	Half round glazed ware channel bedded and jointed in cement and sand mortar (1:3); all to manufacturer's details and subject to S.O's approval				
D	225mm x 225mm half round glazed ware drain; laid to falls in trench	М	41		-
	Mild Steel Grating Cover				
E	Approved mild steel grating including cutting, welding, jointing, fixing and painting; to cover 225m x 225mm half drain	M	3		-
PEMBINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	Б РАТАН,		To Collection Page	_

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SURFACE WATER DRAINAGE (ALL PROVISIONAL) (Cont'd) Precast Concrete Drain Cover				
	Removable precast drain slab cover as specified; reinforced insitu concrete; Concrete Grade C20/25; with handholes at each end complete with one layer of BRC mesh reinforcement A393; including all necessary formworks; fixing in position; all as per Engineer's drawing CKIP/DDT/800/STD/C/DR/04(25)				
Α	Overall size 325mm x 600mm x 100mm thick	М	28		-
	Brick Sump				
	Brick sump constructed with 225mm thick brickwall on both sides and 340mm thick brickwall at bottom, rendered on exposed surfaces with 25mm thick cement and sand (1:3) trowelled finish; 150mm thick reinforced concrete base Grade 25/20 with one layer of BRC No.10 as specified in bed; 50mm thick lean concrete Grade G10; 230mm thick concrete beam as specified including rebated edge to receive hot dipped galvanize mild steel flat frame; 75mm diameter PVC pipe as weephole at 2000mm centres staggered with 300 x 300 x 300 cube 25mm aggregates wrapped in filter fabric; and including all necessary excavation, reinforcement, formwork and disposal of surplus excavated material all as per drawing no. CKIP/DDT/800/STD/C/DR/09(24)				
В	600mm x 600mm brick sump; maximum depth not exceeding 1.00m	NO	1		-
С	750mm x 750mm brick sump; maximum depth not exceeding 1.00m	NO	1		-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SURFACE WATER DRAINAGE (ALL PROVISIONAL) (Cont'd)				
	Hot dipped galvanised heavy duty mild steel grating cover as specified; to suit opening including cutting, welding, jointing, fixing and painting; all as per Engineer's detail drawing no. JKR/CKIP/DDT/800/03/K/09/C/DR/09(24) - 10(24)				
Α	Overall size 600mm x 600mm opening	NO	1		-
В	Overall size 750mm x 750mm opening	NO	1		-
	Connection To Mains				
С	Allow for connection new drainage system to existing sumps including all necessary excavation, concrete, formwork, necessary fitting accessories, form opening for pipes, temporary works, make good existing area disturbed, ensure smooth flow of drainage system and leave the whole of the works in perfect working order to the satisfaction of the S.O; all in accordance with the requirement of the related Local Authorities.	ITEM			
	Testing				
D	Allow testing the whole drainage system in the presence of the S.O, make good any defects, re-test on completion and leave the whole of the Works in perfect working order to the satisfaction of the S.O.	ITEM			
PEMBINAAN JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANC	PATAH,	I	To Collection Page	-

Item	EXTERNAL WORK Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SURFACE WATER DRAINAGE (ALL PROVISIONAL) (Cont'd)				
	COLLECTION				
	From Page No. D/3/1/6				-
	From Page No. D/3/2/6				-
	From Page No. D/3/3/6				-
	From Page No. D/3/4/6				-
	From Page No. D/3/5/6				-
DEMBIN A	N SLIDMAY DI KOMDI EKS DENGHATKHASAAN KASTAM SHNGALDHI AL CELAA	G PATAL			
PEMBINAA JOHOR	 N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELAN	G PATAH,	<u> </u>	To Summary Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WATER RETICULATION (ALL PROVISIONAL)				
	GENERAL NOTES				
	All work related to construction of water reticulation shall comply to JKR Standard Specification for Building Work 2020 and other standard specification used in JKR projects and in accordance to the latest standard imposed by with the Water Authorities.				
	All HDPE pipes for water reticulation shall be PN16 or equivalent and all pipe joints shall used approved electrofusion joints subject to the S.O. approval.				
	The tenderer shall include in his pricing the cost for providing temporary earth protection works including water pumping works where necessary, whether or not specifically shown in the drawings or stated or indicated in the contract documents and keep them in working order; all to the S.O's satisfaction.				
	All works under this bill are as per Engineer's drawing no.: 1) JKRCKIP.DDT.800-03/J/10/C/WR/01(01) 2) CKIP/DDT/800/STD/C/WR/01(25) ~ 10(25) 3) CKIP/DDT/800/STD/C/WR/14(25) ~ 16(25) 4) CKIP/DDT/800/STD/C/WR/18(25) ~ 20(25)				
	Pipeworks				
	Excavate trench for pipe, get out, part return, fill in, well ram and remainder load and cart away from site, level, grade and ram bottom, trim sides including planking and strutting				
Α	To receive 50mm diameter pipe and 325mm wide bed; not exceeding 2.00m depth	M	88		-
		і РАТАН,			

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WATER RETICULATION (ALL PROVISIONAL) (Cont'd)				
	Approved 20mm crushed rock; granular backfilling materials, spread, level and well compacted				
Α	Backfilling to 50mm diameter pipe and 325mm wide bed	М	88		-
	Approved High Density Polyethylene (HDPE) Pipe including all necessary short lengths, sockets, connections, backnuts, thrust blocks, elbows, bends, tees, plugs, reduces the like as specified				
В	50mm Diameter pipe laid in trench, encased in concrete grade C20/25 including necessary approved bedding, compact backfilling and joints; all as per Engineer's drawing and S.O approval	М	40		-
С	50mm Diameter pipe laid in trench, including necessary approved bedding, backfilling and joints; all as per Engineer's drawing and S.O approval	М	48		-
	Approved High Density Polyethylene (HDPE) fittings and including extension piece and jointing pipes				
D	30 degree bends; 50mm diameter pipes	NO	1		-
Е	45 degree bends; 50mm diameter pipes	NO	1		-
F	Reducer; 50mm diameter pipes	NO	2		-
G	Bend (detail B) ; 50mm diameter pipes	NO	1		-
	Taps				
Н	Approved stainless steel tap as specified including all necessary pipe stand, connection and accessories with all necessary work; as per Engineer's drawing and S.O approval	NO	1		-
DEMBINA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	DATAL		To Collection Page	

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Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WATER RETICULATION (ALL PROVISIONAL) (Cont'd)				
	Connection to Mains				
Α	Allow for connection to the existing water main pipe including all necessary excavation, cast iron fittings, adaptors, necessary accessories and labour for the complete connection of the pipes and leave the whole of the works in perfect working order to the entire satisfaction of the S.O and all in accordance with the requirement of the related Local Authorities.	ITEM			
	Testing				
В	Allow for testing and commissioning of all water pipes; i.e. pressure test, sectional hydraulic test and other related test required during construction and on completion and making good any defects and leave the whole Works in perfect working order to the satisfaction of the S.O. and Local Authorities.	ITEM			
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANC	PATAH,	<u>I</u>	To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WATER RETICULATION (ALL PROVISIONAL) (Cont'd)				
	COLLECTION				
	From Page No. D/4/1/4				-
	From Page No. D/4/2/4				-
	From Page No. D/4/3/4				-
MBINAA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH.		To Collection Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SEWERAGE (ALL PROVISIONAL)				
	All work related to construction of sewerage shall comply to JKR Standard Specification for Building Works 2020 and other standard specification used in JKR projects and in accordance to the latest standard imposed by with the Suruhanjaya Perkhidmatan Air Negara (SPAN).				
	All sewer pipe shall be of vitrified clay pipe (VCP) with flexible rubber ring joints conforming to MS 1061 Part1:1999 unless otherwise shown in the drawings.				
	All manhole shall be of precast concrete types conforming to MS EN 1917:2011 unless otherwise stated on the drawings.				
	All material for pipes, fittings as well as method of construction shall comply with the regulations, standards and guidelines that are currently imposed by Suruhanjaya Perkhidmatan Air Negara (SPAN).				
	All test equipment used to carry out the necessary test shall be provided by the Contractor and all costs shall be borne by the Contractor.				
	The Contractor shall verify the actual position of sewer pipelines and manholes. If necessary the contractor shall rectify the design proposal to suit the location prior to commencement of the works, subject to the S.O approval.				
	In the event of discrepancies of measurement, the contractor shall refer to the actual situation on the site subject to the approval of the S.O.				
	All works under this bill are as per Engineer's drawing no.:				
	1) JKRCKIP.DDT.800-03/J/10/C/SW/01(01) 2) CKIP/DDT/800/STD/C/SW(VCP)/01(08) ~ 08(08)				
	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG				

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SEWERAGE (ALL PROVISIONAL)				
	Pipeworks				
	Excavate trench for pipe, get out, part return, fill in, well ram and remainder load and cart away from site, level, grade and ram bottom, trim sides including planking and strutting				
Α	Maximum deep not exceeding 1.50m; average 1.00m for 150mm diameter pipe and 450mm wide bed	М	19		-
	Approved 20mm thick crushed rock aggregate; backfilling materials, spread, level and well compacted				
В	550mm x 175mm thick crusher rock aggregate spread and levelled to falls and well rammed	М	19		-
	Mass concrete grade 20 surround bedding including formwork as specified				
С	550mm Wide x 200mm thick to receive 150mm diameter pipe (measured separately) laid to falls	М	19		-
	Approved High Density Polyethylene (HDPE) Pipe including all necessary short lengths, sockets, connections, backnuts, thrust blocks, elbows, bends, tees, plugs, reduces the like as specified				
D	150mm Diameter pipe laid and jointed in trench and laid to fall; including approved suitable backfilling material, all as per Engineer's drawing	М	19		-
FMRINA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	: ΡΔΤΔΗ		To Collection Page	

BILL D/5/2/4

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SEWERAGE (ALL PROVISIONAL) Manhole				
	Approved equivalent precast concrete manhole comprise 400mm thick concrete base grade 20/25 on 50mm thick lean cementitious blinding, precast R.C. chamber ring with internal lining of high alumina mortar with 2 layer (min) of coal tar epoxy, with 150mm cast in-situ concrete surround, precast R.C. cover slab with underside painted with 2 layer of coal tar epoxy, precast R.C. make up rings, concrete benching with 20mm thick (min) high alumina cement rendering, complete with half round channel, heavy duty ductile iron (D.I) manhole cover and frame fill with non-shrink cementitious, with and including all necessary works such as excavation, backfilling, formwork, reinforcement, blinding, concreting, cutting and jointing to suit the height, hoisting and fixing into position on concrete base, finishing as specified; all as per manufacturer's specifications and Engineer's drawing no. CKIP/DDT/800/STD/C/SW(VCP)/01(08)				
Α	Maximum deep not exceeding 1.50m	NO	1		-
	Connection to Mains				
В	Allow for the connection the existing sewer main pipe or existing mainhole; make good existing mainhole, including all necessary excavation, cast iron fittings, adaptors and accessories necessary for the complete connection of the pipes and leave the whole works in perfect working order to the entire satisfaction of the S.O	ITEM			
	Testing				
С	Allow for testing and commissioning of all sewer line and manhole i.e.visual inspection, CCTV test, pressure test, low water pressure test and others required as specified to the satisfaction of SPAN appointed sewerage certifying agency and/or Authorities and S.O.	ITEM			
PEMBINAA JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	B PATAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	SEWERAGE (ALL PROVISIONAL)				
	COLLECTION				
	From Page No. D/5/1/4				-
	From Page No. D/5/2/4				-
	From Page No. D/5/3/4				-
MDINA	IN SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GE	LANG BATAL		To Summary Page	

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	FENCING AND GATE (ALL PROVISIONAL)				
	Brickwall fence				
	In-Situ Concrete				
	Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 360kg/m3 and maximum water cement ratio 0.40 as specified				
Α	In columns	М3	1		-
В	In beams	МЗ	1		-
С	In concrete column cover	МЗ	1		-
	Reinforcement bars; hot rolled deformed high tensile steel according to MS146 as specified				
	In columns				
D	10mm Diameter; Links, stirrups, binders and the like	KG	50		-
Е	12mm Diameter; straight and bent	KG	57		-
	In beams				
F	10mm Diameter; Links, stirrups, binders and the like	KG	18		-
G	12mm Diameter; straight and bent	KG	24		-
	Formwork				
	Class F1 formwork as specified in drawings and specifications;				
Н	To sides of columns	M2	10		-
J	To sides and soffits of beams	M2	5		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	PATAH,		To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	FENCING AND GATE (ALL PROVISIONAL) (Cont'd)				
	Brickwall fence				
	Brickwork				
	Well burn clay bricks as specified; bedded and jointed in cement mortar (1:3) reinforced with including "exmet" brick reinforcement in every fourth course including mild steel bonding tie hook at both ends				
Α	115mm thick; stretcher bond	M2	13		-
	In-Situ Finishing				
	20mm thick cement and sand (1:3) plainface plaster mixed with an approved plasticiser including raking out joints of brickwalls or hacking concrete surface for key, trowelled smooth as specified;				
В	To walls	M2	26		-
С	To isolated columns	M2	20		-
	Painting and Decorating				
	Prepare and apply one coat of 'alkali primer' and two coat 'ultra violet' (UV) weather resistant emulsion paint as specified; all in accordance to manufacturer's specification, colour and pattern subject to Architect's approval				
D	To isolated columns & walls	M2	33		-
	Prepare and apply texture spray finish as specified; all in accordance to manufacturer's specification, colour and pattern subject to Architect's approval				
E	To walls	M2	13		-
EMBINAA OHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	РАТАН,	1	To Collection Page	-

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
Item	PENCING AND GATE (ALL PROVISIONAL) (Cont'd) Sliding Gate 2400mm high 'anti climb fence' with detailing medium hard steel frame comprising of 100mm x 50mm x 2mm thick galvanised hollow frame horizontal on top and bottom, 75mm x 50mm x 2mm thick in the middle and 20mm x 20mm x 2mm thick vertical frame; 75mm x 50mm x 2mm thick vertical frame; 75mm x 50mm x 2mm thick slanted strut complete with sliding roller and track at top & bottom including anti rust protective coating and painting at all exposed surface; complete with installation system, gate locked system and all necessary works; all as per manufacturer's detail, architect's and S.O. approval Overall size 7500mm x 2400mm	Unit	Quantity 1		
A	architect's and S.O. approval	NO	1		-
PEMBINAAI JOHOR	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG	з РАТАН,		To Collection Page	-

Item	-		Descri	ption		Unit	Quantity	Rate (RM)	Amount (RM)
	FENCING (Cont'd)	<u>AND</u>	<u>GATE</u>	(ALL	PROVISIONAL)				
			COLLE	CTION					
		Fro	m Page I	No. D/6/	1/4				-
		Fro	m Page I	No. D/6/2	2/4				-
		Fro	m Page I	No. D/6/3	3/4				-
MBINAA HOR	N SLIPWAY DI KON	MPLEKS PE	ENGUATKUAS	SAAN KAST	AM SUNGAI PULAI, GELAN	G PATAH,	1	To Summary Page	-

BILL E PRIME COST SUM

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PRIME COST SUM				
	GENERAL				
	The following Prime Cost Sums are provided for works to be executed by Nominated Sub-Contractors.				
	ELECTRICAL WORKS				
Α	Allow a Sum of Ringgit Malaysia Two Hundred Sixty Two Thousand Four Hundred Only (RM265,000.00) for Electrical Works	PC SUM			265,000.00
В	Allow for profit (%)	%			
С	Allow for attendance	ITEM			
EMDINA	N SLIPWAY DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELAN	DATA		To "Ringkasan Tender"	

BILL E /1/1

JKR E-Tender | SD200824 Bill Code Elemen of Work

	Code No.	Description	Unit	Quantity	Rate (RM)	Amount (RM)
PEMBINAA	N SLIPWAY	DI KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, JOH	OR		Sila pilih	

JKR E-Tender | SD200824 Bill Code Elemen of Work

ltem	Code No.	Description	Unit	Quantity	Rate (RM)	Amount (RM)
PEMBINIAAN	SI IDMVA D	I KOMPLEKS PENGUATKUASAAN KASTAM SUNGAI PULAI, GELANG PATAH, JOHO	R		Sila pilih	