ALUPE UNIVERSITY

(BUSIA COUNTY)

STUDENT HOUSING

UNPRICED BILLS OF QUANTITIES

REPUBLIC OF KENYA

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ADDENDUM BILL OF QUANTITIES

FOR:

PROPOSED HOSTEL UNITS FOR ALUPE UNIVERSITY (WITH ASSOCIATED AMENITIES AND INFRASTRUCTURE)

Ministry of Lands, Public Works, Housing and Urban Development

State Department for Housing and Urban Development,

P.O Box 30119-00100 Nairobi,

Kenya Tel: +254-020-2713833

ITEM	DETAILS OF SITE	PROJECT PARTICULARS
1	**Site location**	Busia Town, Busia County
2	**Land Size**	Approximately 1Acre
3	**Scope**	820 No. Of Units in 2No of blocks distributed as follows 2No. Blocks Of Type G+9 Blocks 410 No. Of Units in each 150 No. Of Quad beds units 158 No. of Studios units 98 No. of single units 3 No. Stalls 1 No. Office
4	**Amenities**	Student lounge and kitchenette within block design, Student Centre, and a basketball pitch
5	**External works**	Civil works, Boundary wall, Guard House, Garbage Receptacles, Swimming pool with associated changing rooms
6	**Built area**	27,912 sm

PRELIMINARIES

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	PARTICULAR PRELIMINARIES	
A	**PARTIES**	
	The **Employer** is: Principal Secretary, Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA The **Engineer** is: The term "PM" wherever used in these Bills of Quantities shall be deemed to imply the Engineer as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government . **The Architect is:** Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA **The Quantity Surveyors is:** Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA **The Structural/ Civil Engineers is:** Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA **The Electrical / Mechanical Engineers is:** Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA	

ITEM	DESCRIPTION	AMOUNT
A	**LOCATION OF SITE** The site of the proposed works is located Alupe, Nyanza County The Contractor shall be deemed to have visited the site and satisfied himself as to:- **a)** The nature, position, topography and access of the site **b)** The amount of the rubbish or debris to be cleared away before commencement. **c)** The nature, current usage, proximity and size of adjoining property and buildings **d)** The availability of land for the erection and positioning of all temporary structures, plant and materials necessary for the execution of the works. The Contractor shall obtain approval from the relevant Local Authority in adherence to site access and erection of temporary structures and must ensure all matters relating to the requirements of these authorities. No claim will be allowed for travelling or other expenses which may be incurred by the Contractor in visiting the site or preparing the tender for the works.	
B	**EXISTING SITE CONDITIONS** The site for the proposed works is .....Alupe , Nyanza County The Contractor is advised that the site is in a predominantly residential area and all measures should be taken to avoid nuisance to neighbours. All occupation health and safety requirements must be met as required by law. This includes prevention and or minimizing noise, dust, fumes e.t.c. Notices should be given prior to disruption of services	
C	**SCOPE OF CONTRACT** **The Works under this contract comprises of the following;** **(a) 2 No Type A Hostel Block with a plinth area of 26,520SM** **(b) Waste receptacle Plinth area 112 SM** **(c) 2 No Guard House Plinth area 30 SM** **(d) Basket Ball Pitch 574 Sm** **(e) Boundary wall - 2.4m high with a length of 500LM** **(f) Road works -3540 SM** **(g) Student's Centre Plinth Area 792 SM** **(h) Associated electrical and Mechanical works** **(i) External and Civil works** Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**DESCRIPTION OF THE WORKS**	
	The construction comprises reinforced concrete foundations, masonry walling, reinforced concrete beams, column , staircases and suspended solid slabs, roof construction.	
	The exterior facade consists of steel casement windows, steel and timber doors , render and paint finish, clay and stone facing finish to walls	
	The interior works includes timber doors and finishes which are generally plaster and paint to walls, ceramic and non slip ceramic tiles to floors and walls.	
	External works generally comprise of foul water drainage, storm water drainage, pathway, dryline area, septic tank, underground water tank.	
	All mechanical / electrical services and other specialist works associated with the above works shall be executed by domestic/nominated sub contractors approved by the Engineer	
	CONTRACT PARTICULARS	
B	**FORM OF CONTRACT**	
	The Contractor will be required to enter into a contract with the Employer under the **Terms and Conditions of Contract as "Standard Tender Document for Procurement of Works (Building and Associated Civil Engineering Works) Issued by the Public Procument Regulatory Authority in February 2021 (updated 2022)** and in association with the latest applicable version of the Public Procurement and Asset Disposal Act.	
	The Contractor's attention is called to the appendix of the conditions of Contract and additions and amendments thereto, which shall be read as incorporated herein and he shall allow any sums which he considers necessary for the observance of such conditions, together with sub clauses used in application.	
	The prioirity of such documents shall be as stated in the conditions of agreement.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**LIABILITY AGAINST INJURY TO PERSONS AND PROPERTY** Insurance against injury to persons and property NOTES In addition to the conditions of the contract and the requirement contained herein the contractor's all risk policy shall cover the full value of the following and allow for all costs thereof:- i) The works and temporary works erected in performance of this contract. ii) The materials on site, plant and tools iii) The cost and expense of removing debris of the property insured, destroyed or damaged by any peril insured. iv) Professional fees (to be allowed at 15% of the contract sum) v) Employer's liability (workman's compensation) ii) Third party (Public liability for an indemnity of not less than shs 5,000,000.00 for any accident or series of accidents arising from the same event (unlimited in aggregate) The contractor shall ensure that all sub-contractors effect and maintain such insurances as are necessary to cover their liabilities in respect of injury to persons and property and workman,s compensation. Should the contractor already hold annual insurances covering the whole of his activities, and the indemnity required under the existing policy/ies then further insurances shall be effected and maintained to cover such excess, the policies of insurances being suitably endorsed to cover this project	
B	**Insurance of the works (contractors liability)** The Contractor shall insure as required in the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the Engineer either by production of an Insurance Policy or and Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the Engineer shall from time to time ascertain that premiums are duly paid up by the Contractor who shall if called upon to do so, produce the receipted premium renewals for the Engineer's inspection.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PERFORMANCE BOND	
A	**Performance bond for the works**	
	The Contractor shall find and submit on the Form of Tender an approved bank or approved (By PPRA) Insurance Company and who will be willing to be bound to the Employer in an amount equal to ten **percent (10%)** of the Contract amount for the due performances of the Contract up to the date of completion as certified by the Engineer and who will when and if called upon, sign a Bond to that effect on the relevant standard form as seen in the CONTRACT STANDARD FORMS (without the addition of any limitations) And should the surety fail to be approved, the Contractor shall furnish within seven days another Surety to the approval of the Employer. Note that no payments on account of works executed will be made to the Contractor until he has submitted the Performance bond, duly stamped signed and sealed by an approved bank or insurance company.	
B	**POSSESSION AND COMMENCEMENT**	
	The Contractor shall take possession of the site on the date indicated in the acceptance letter. The date of commencement of the works shall also be communicated to the Contractor and the contract period shall run from the commencement date. The Contractor is expected to utilize the period between possession and commencement to mobilise his resources to ensure smooth running of the works from the commencement date.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PROJECT SUPERVISION	
A	The said works shall be executed under the direction and to the entire satisfaction of the Engineer and Clerk of works who shall have the Engineer's specifically delegated authority and shall at all times have access to the works, to the yards and workshops of the contractor or other places where goods are being prepared for the building.	
	LABOUR CAMPS	
B	The contractor will generally be permitted to house labour on site subject to approval by Architect	
	DOWNTAKINGS	
C	All materials arising from demolitions and downtakings are deemed to be the property of the employer. No claim will be entertained on account of employer excising this right to retain the materials All downtakings shall be carefully removed, taken down, dismantled and stored on site until instructed by the Engineer to remove from the site. Such materials shall only be incorporated in the new works if required by the Engineer in which case appropriate adjustments will be made in the final account for the cost of labour, screws etc for fixing such downtakings in the new works.	
	DAMAGES	
D	Damages for delay in completion shall be levied at the rate of Kshs ……Refer to the special Conditions of Contract)…… …… ……	
	OTHER PRELIMINARIES	
E	Allow for any other item necessary to execute the works and state them below; …… …… …… ……	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	PARTICULAR PRELIMINARIES	
	COLLECTION	
	Carried from page 1/1	
	Carried from page 1/2	
	Carried from page 1/3	
	Carried from page 1/4	
	Carried from page 1/5	
	Carried from page 1/6	
	Particular Preliminaries Carried to Grand Summary	

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 2	
	GENERAL PRELIMINARIES	
	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES	
A	Whenever in the Contractor's priced Bills of Quantities no price appears against an item of Preliminaries or Preambles or work items , the value of such item shall be deemed to be included in his prices for other items in the Bills of Quantities.	
	SUFFICIENCY OF TENDER	
B	The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in the priced Bills of Quantities. Rates and prices quoted shall cover all his obligations under the contract and all the matters and maintenance of the works	
	RECORDS	
C	The Contractor shall ensure proper records are kept and maintained for : Daily Reports on Personnel and Machinery; tracked programme; weather charts/reports; site instruction book and query book,a digital camera shall be provided for taking progress photos The contractor shall be required to provide equipment for taking ground and aerial photos or videos in relation to the progress of works when called upon to do so.	
	DEFINITIONS AND ABBREVIATIONS	
D	Throughout these Bills, units of measurements and terms are abbreviated and shall be interpreted as follows: mm shall mean millimeter lm shall mean linear meter sm shall mean square meter m^2 shall mean square meter cm shall mean cubic meter kg shall mean kilogramme N shall mean Newton KN shall mean KiloNewton	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	in/" shall mean inches L f shall mean linear foot s f shall mean square foot c f shall mean cubic foot L b shall mean pound avoirdupois No. shall mean number B.S.M shall mean both sides measured K.S. shall mean current Kenya Standard specification published by the Kenya Bureau of Standard, P.O. Box 54974. NAIROBI, Kenya. 'As described' shall mean as described in these Bills of Quantities. 'As before described' shall mean the whole of the previous description except as qualified in the current one.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	SITE LEVELS	
A	Before commencing work the Contractor must arrange for and agree with the Architect, Engineer and Quantity Surveyor the existing site levels and similarly establish and agree on a bench mark. The Contractor shall provide a surveyor to ensure all levels are achieved as per the drawings and Architects/Structural Engineer's instructions	
	SETTING OUT	
B	The contractor shall set out works in accordance with the dimensions and levels shown on the drawings and shall be responsible for the correctness of all dimensions and levels set out by him and he will be required to amend all errors arising from inaccurate setting out at his own cost and expenses. In the event of any error or discrepancy in the dimensions or levels marked on the drawings being discovered, such errors or discrepancies must be reported by the Contractor to the Engineer for his immediate attention. No work shall be commenced by the Contractor until he has received written instructions from the Engineer to adjust such discrepancies which may be proved, upon receipt of such instructions and no claim for extra expenses or relief from the provisions of Clause 5 of the Conditions of the Contract , any discrepancy or error in the dimensions or levels shown on the drawings may be made thereafter. The Contractor shall give the Engineer reasonable notice of the intention to set out or take levels for any part of the Works so that arrangements may be made for checking the work. The accuracy of setting out and leveling shall be within the tolerances specified in the Specifications or on the Drawings. The checking of setting out or leveling by the Engineer shall not relieve the Contractor of his duties or responsibilities under the Contract.	
	MEASUREMENTS	
C	Measurements are based on **Standard Methods of Measurement of Building Works and Associated Civil Works For Eastern Africa (SMM) Second Edition 2008.** In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence.	
D	**GENERAL SPECIFICATIONS** All works to be carried out in accordance with the Ministry of Roads, public Works and Housing **General Specifications for Building Works issued in 1976** or as qualified and amended.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	SAMPLES	
A	The contractor shall furnish at the earliest possible opportunity before work commences and at his own cost any samples of materials or workmanship that may be called for by the Engineer for his approval or rejection until such samples are approved to be the acceptable standard for the work to which they apply. The samples shall be maintained and displayed on a designated section within the site for the duration of the project where practical and possible.	
	PROTECTION OF EXISTING PROPERTY	
B	The contractor shall take every precaution to avoid damage to all existing property including boundary wall, carpark, roads, cables, drains,staircases, lift etc including other services and he will be held responsible for all damages hereto arising from the execution of his contract and he shall make good all such damages when directed at his own expense. Any damage or disturbances caused to any element shall be reported immediately to the Engineer and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.	
C	**PROTECTION / RELOCATION OF EXISTING SERVICES** Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes and all other services in the area and he shall make whatever provisions may be required by the authorities concerned for the support and protection and/or relocation of such services as will be necessitated. The contractor is also expected to generate a utility management plan to the approval of the Engineer . Any damage or disturbances caused to any service shall be reported immediately to the Engineer and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**MATERIALS, TOOLS, PLANT AND SCAFFOLDINGS** All materials and workmanship used in the execution of the works shall be of the best quality and description. Any materials for the works condemned by the Engineer shall immediately be removed from the site at the Contractor's expense. The Contractor shall be responsible for the provision of all materials, scaffolding, tools, plant, transport and workmen required for the works except in so far as may be stated otherwise herein and he shall allow for the provision of the foregoing except for such items specifically and only required for the use of Nominated Sub-contractors as described herein. No timber used for scaffolding, formwork or similar purpose shall be used afterwards in the permanent works. All such plant, tools and scaffolding shall comply with all regulations whether general or local in force including Environmental,Social, Health and Safety (ESHS) policies throughout the period of the contract and shall be required as may be necessary to comply with any amendments in or additions to such regulations The Contractor shall keep on the site and maintain in good condition one dumpy or quickset level, metric leveling staff and one 30 metre steel tape for the use of the Architect, Surveyor and Engineer. The contractor may be required to provide an appropriate tower crane as required during the project life. Where a crane is provided, it should meet all regulatory and technical standards, all licences in connection with erection, usage shall be at the Contractors expense. The contractor may be required to provide an appropriate tower crane as required during the project life. Where a crane is provided, it should meet all regulatory and technical standards, all licences in connection with erection, usage shall be at the contractors expense. **Carried to collection**	

ITEM	DESCRIPTION	AMOUNT
A	**LOCAL REGULATIONS AND BY-LAWS** The contractor is to comply with all local regulations and by-laws of the Local Authority including serving notices and paying of fees where applicable. These include, but not limited to: National Environmental Management Authority (NEMA), National Contruction Authority (NCA), Water Resources Management Authority (WARMA) The Contractor will be held responsible for serving on the Chief Inspector of Factories a written notice not later than seven days after the beginning of the building operations included in this contract stating the particulars required. **TRANSPORT TO AND FROM THE SITE** The Contractor shall include in his prices for the transport of materials, workmen etc to and from the site of the proposed works at such hours and by such routes as are permitted by the Authorities. All unit rates for local or imported goods are to include freight, insurance, handling and delivery costs to the project site together with import duties, sale tax, port charges etc and all other charges of whatever nature.	
B		
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**FAIR WAGES** The Contractor shall pay rates of wages and observe hours and conditions of labour not less favourable than the minimum conditions of employment applicable in the area in which the work is carried out. The relevant notice must be posted up and kept posted upon the site where it can be conveniently read by the employees concerned in languages they can understand. The Contractor is to comply with the regulations of Wages and Conditions of Employment Act, Building and Construction Industry Wages Council and is to be responsible for compliance of the sub-contractors employed in the execution of the contract. If required he is to notify the Engineer of the names and addresses of all such Sub-contractors. Any Contractor or Sub-contractors not complying will not be permitted to tender for other work for such a period as the Engineer may determine Should a claim be made to the Engineer alleging the Contractor's default in payment of fair wages to any workman employed on the contract and if proof thereof satisfactory to the Engineer, may failing payment by the Contractor, pay the claim out of any monies due or which may become due to the contractor under this contract. The Contractor is to furnish to the Engineer, if called upon to do so, such particulars of the rates of wages, hours and conditions of labour referred to above as the Engineer may direct	
B	**SECURITY OF WORKS** The Contractor shall be entirely responsible and shall pay security of all works, stores, materials, plant, personnel etc both his own and sub-contractors and shall also provide all necessary watching, lighting, and other precautions as necessary to ensure the security, the safety and protection of the public. He is to ensure that there is no informal business settlement near the establishment.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**OCUPATIONAL HEALTH AND SAFETY MEASURES** The Engineer expects the Contractor to adhere to strict safety measures. In this regard the Contractor should ensure that all his workers, the Consultants and his sub-Contractors workmen are wearing Personal Protective Equipment (PPE) before commencement of any work where applicable including overalls with the company name clearly printed on the back each with clearly marked Identification Numbers stitched or imprinted on. The Contractor shall allow for providing all watching, lighting, barriers, signs, covering open trenches and protection of the works, including Sub-Contract works, as may be necessary for the safety of the works and for the protection of the public and his own and Sub-Contractors' employees. He shall also ensure provision of a certified and qualified safety, health and environmental officer, access to ambulance services at all worksites and arrangement to access a local hospital/dispensary with qualified medical staff. The contractor shall take cognisance and shall fullay adhrere to the regulations of the **Occupational Safety and Health Act of 2007** including all the associated revisions The Engineer shall expect full compliance to this regulation and no excuses will be entertained for non-compliance which may lead to suspension of works until the issue is addressed satisfactorily.	
B	**PUBLIC, PRIVATE ROADS AND PAVEMENTS ETC** The contractor will be required to make good at his own expense any damages he may cause to the present approach and surrounding road surfaces during the period of the works	
C	**POLICE REGULATIONS** The contractor is to allow for complying with all Government Acts, orders or regulations in connection with employment of labour and other matters related to the execution of the works. The Contractor must acquit himself duly with current acts and regulations, including police regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc.. Particular attention is drawn to the rules published in Legal Notice 179 dated 2nd June 1978 (Building Operations and Work of Engineering Construction)	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**AREA TO BE OCCUPIED BY CONTRACTOR** The area of the site which may be occupied by the Contractor for use as storage and for the purpose of erecting workshops etc shall be defined on the site by the Engineer	
B	**PROGRESS SCHEDULE** Immediately after signing the contract the Contractor is to prepare a Time Progress Chart showing the time and order in which he proposes to carry out the works within the total construction time stated in the contract. The chart will show in detail the construction time and order in which each section of the work is to be carried out and be sub-divided into trades and tasks. If the contractor proposes sectional completion of the project he must plan this in detail including access roads, and services and this shall be reflected on the chart Upon the letting of the Sub-Contractors work the Contractor is to incorporate times and details of each separate Sub-Contractor work which information is to be agreed by the Sub-Contractor and the chart will be so designed to accommodate this infantine. At the end of each week the Contractor is to mark on the chart in a different colour the actual time taken to complete the respective stages and sections of the work. The contractor shall obtain the Engineer's approval on the chart and then shall supply copies to the Engineer and Quantity Surveyor If at any time it should appear to the Engineer that the actual progress of the works does not conform to the approved programme progress schedule the Contractor shall produce at the request of the Engineer a revised programme showing the modifications and accelerations to the approved programme necessary to ensure completion of the works within the agreed contract period. The submission of and approval by the Engineer of such revisions and accelerations shall not entitle the Contractor to any extra payment or extension of time and shall not relieve the Contractor of any duties or obligations or responsibilities under the contract	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**OVERTIME** The Contractor shall be responsible for any extra costs for overtime working he considers will be necessary in order to complete the works within the contract period or time for completion apart from overtime working which may be authorised by the Engineer If overtime is worked out in accordance with a written instruction issued by the Engineer the contractor will be reimbursed in respect of such overtime to the unproductive time payable over and above the basic hourly rates as laid down by the Regulation of wages and Conditions of employment Act, Building and Construction Industry Wages Council and excluding any bonuses, profits and overheads.	
B	**WATER** The contractor shall provide at his own risk and cost all water for use in connection with the works including the work of sub-contractors make arrangements with the local authority for the installation of a separate meter where applicable and possible for all water used by him throughout the contract and pay all costs and fees in connection therewith. He shall also provide temporary storage tanks and tubing etc as he may consider necessary and clear away at completion. The contractor is to provide clean drinking water at the construction site for his workers at all times. All water shall be fresh, clean and pure, free from earthly vegetable or organic matter, acid or alkaline substance in solution or suspension.	
C	**TELEPHONE** The contractor shall provide in the office, from the commencement to the completion of the works, a wireless or mobile phone and shall pay all charges or airtime necessary for its use	
D	**LIGHTING AND POWER** The contractor shall provide at his own risk and cost all temporary artificial lighting and power for use on the works including all sub-contractors and specialists requirements and including all temporary connections, wiring, fittings etc and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.	
	Carried to Collection	

ITEM	DESCRIPTION	AMOUNT
A	**<u>TESTING</u>** Allow for all expenses in connection with the testing of materials as specified hereunder including the supply and preparation of materials to be tested, the cost of materials and their packing and conveyance to the nearest approved Testing Laboratory, laboratory charges, etc. The following items of tests will be measured according to the number of tests actually called for by the Engineer but unsuccessful tests will not be included in the remeasurement. Allow for executing the following tests as detailed in the Appendices to these Bills of Quantities (PROVISIONAL)) Water Test ....10.....(litres) Sand Test .....0.1.....(m3) Aggregate Test ....0.1.....(m3) Reinforcement test (1m of mild steel rod or high tensile steel bar of various sizes) .....2..... Concrete Test (each test comprising .....5 no..... cubes as described hereinafter) ..... Testing of concrete or stone blocks of various strengths in accordance with Kenya Standard Specification (one test comprising .....5..... blocks)	
B	**<u>PRICING RATES</u>** The tenderer shall include for all costs in executing the whole of the works, including transport, replacing damaged items, fixing, all to comply with the said Conditions of Contract.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**TEMPORARY STRUCTURES** a) The Contractor shall allow for providing and clearing away on completion of the works such temporary hoarding , rubbish chutes, gates, planked walkways, guard rails etc. as may be necessary for the protection of the workers, the general public, and for the proper execution of the works. b) As such, temporary structures shall be constructed with the approval of the Engineer and to his full satisfaction and in such a manner as to cause minimum intrisiveness and disturbance to occupants of adjacent developments and users of the adjacent roads. c) All such temporary structures shall comply in all aspects with the national laws, rules, and regulations currently in force and applicable to such structures. d) All temporary structures shall be erected in a manner so that the unloading of materials causes minimum obstruction to the use of adjacent roads and other facilities e) All temporary structures shall be kept properly lighted throughout the periods of darkness and any corners or projections shall be painted white. g) Temporary structures shall not be used or permitted to be used for advertisement purposes except with the written consent of the Engineer h) All temporary structures shall be maintained at all times in good order and good condition to the satisfaction of the Engineer. i) All temporary structures shall be removed when so required by the Engineer or at the end of the period for which it is required. j) The Contractor shall indemnify and shall keep the employer idemnified against any expenses, loss, claim or suits arising out of or in connection with the temporary structures.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	SITE OFFICE	
A	The contractor shall supply, maintain, service, clean and light a fully furnished, suitable office having an approximate floor area of not less than .....200.....sqm. . The office shall have a sample room suitable dimensions with clean running water and electricity connected to the approval of the Engineer. The Contractor shall provide offices, messrooms and all other buildings required by the Contractor for his own use and the use of by Clerk of Works and Nominated SubContractors as required by the items or attendance The site office shall be equipped with a table and chairs of sufficient size and number for site meetings and plan chests for drawings shall also be provided by the contractor The Contractor shall allow for the cost of providing light refreshment for the consultants at site meetings.	
	TEMPORARY DISPOSAL OF RAIN WATER	
B	The Contractor shall provide and maintain all necessary temporary gutters, downpipes, chutes, drains etc. for conveying rainwater from the buildings and storage tanks for rainwater harvesting. The Contractor shall allow for temporary drainage plumbing and piping for keeping the premises and site free from accumulation of water. He shall also allow for construction and maintaining any necessary storm water drainage structures as directed.	
	CLEARING AWAY	
C	The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate, on intervals as intructed by the Engineer and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the Engineer. The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Engineer.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**SITE ACCOMODATION & STORAGE** The Contractor shall provide sheds for storage accommodation for all goods and materials liable to suffer damage from exposure to sunlight or inclement weather. The Contractor shall provide offices, mess rooms and all the buildings required by the Contractor for his own use and the use of Nominated Sub-Contractors as required by the items of attendance only. The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the Engineer Upon completion all temporary buildings are to be removed and cleared away	
B	**SANITATION OF THE WORKS** The sanitation of the works shall be provided, maintained and removed on completion by the Contractor to the satisfaction of the Engineers and local Authorities. The sanitary facilities shall be of generally acceptable standard regardless of the material being used to ensure ease of cleaning and maintain general well being of the users. Their location shall be agreed with the Engineers and the works shall not be commenced before the sanitary accommodation has been approved by the above mentioned authorities. The Contractor will be required to pay all conservancy charges and shall ensure clean daily maintenance and disinfecting of the sanitary facilities, and not less than once per week, the whole area shall be sprayed with disinfectant and insecticides and any temporary drains shall be removed and all works and surfaces disturbed made good and then the whole area disinfected and left clean and free from pollution to the satisfaction of the Engineer and local authorities.	
C	**HOARDINGS** The Contractor shall provide, erect and maintain throughout the course of the Contract and thereafter clear away and make good disturbed areas, temporary hoarding; approximate length of 370 metres: 2400mm high above ground consisting of: 100 diametr timber posts at 1200mm centres firmly founded and secured, 75x50mm horizontal timber rails at 900mm centres, painted GCI sheets, proper timber gates with suitable locks to Engineers approval.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**DEMOLITIONS AND DOWNTAKINGS** The Contractor is to allow for all temporary protection required during the works including ordinary and special dust screens, hoardings, barriers, warning signs etc. as directed by the Engineer and as necessary for the adequate protection of adjacent property and finishes, workmen employed upon the site and the public. Any damage or loss incurred due to the insufficiency of such protection must be made good by the Contractor. All protective devices are to be removed on completion of the work and any necessary making good consequent upon this is to be executed to the satisfaction of the Engineer All materials arising from demolitions and downtakings are deemed to be the property of the employer. No claim will be entertained on account of employer excising this right to retain the materials unless otherwise stated. The Contractor shall allow in his rates the cost of handling and disposal of debris arising out of the demolition works All downtakings shall be carefully removed, taken down, dismantled and stored on site until instructed by the Engineer to remove from the site. Such materials shall only be incorporated in the new works if required by the Engineer in which case appropriate adjustments will be made in the final account for the cost of labour, screws etc for fixing such downtakings in the new works. The Contractor shall be entirely responsible for any breakage or damage which may occur to materials required for re-use, during their removal, unless it is certified by the Engineer that such damage or breakage was inevitable as a result of the condition of the item concerned.	
B	**ACCESS TO SITE AND TEMPORARY ROADS** Means of access to the site shall be agreed with the Engineer prior to commencement of the works and the Contractor must allow for building and maintaining any temporary access roads for the transport of materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossings, bridges or any other means of gaining access. Upon the completion the works the Contractor shall remove such temporary roads, temporary culverts bridges etc and make good and reinstate all works and services disturbed to the satisfaction of the Engineer.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**SIGN BOARD** The Contractor shall provide and erect where directed and maintain during the whole period of the building operation and remove at completion, one approved sign board of **approximately 3000x3000mm and approximately 5800mm overall height** to the Architect's later design giving a brief description of the works, a 3D perspective image of the project, and showing the names of the employer and the consultants, with sufficient space to append the names of the sub-contractors and suppliers when known. The lettering concerning the Architect, Quantity Surveyor and Engineer is not to be more than 50mm high.	
B	**PRIME COST SUMS** i) The words "Prime Cost" (or the initials "P.C") appearing in the contract documents shall mean net costs exclusive of any trade, cash or other discount whatsoever but inclusive of the costs of the packing, carriage and delivery. Such costs shall be the same due to the sub-contract or supplier after adjustments where applicable in respect of measurements of rates. ii) Any increase or decrease in the prime costs sums resulting from the adjustments and properly paid by the contractor shall be added or deducted from the contract sum in the final account. In substantiation the contractor will require to produce to the Quantity Surveyor all quotations, invoices and receipted accounts as shall be necessary to show the details of the sums actually paid. iii) Any sum added by the contractor in these Bills of Quantities in respect of profits upon any prime costs will be deducted at the final settlement of accounts and the sum will be added to the amount of which will bear the same proportion to the sum added as the net amount properly expended to the original P.C sum. The profit is a management fee for arranging and taking responsibility of the sub-contract works or arranging for and checking the supply of materials and goods from nominated suppliers.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	NOMINATED SUB-CONTRACTORS The contractor shall accept responsibility for providing the following services for nominated sub-contractors. i) GENERAL ATTENDANCE: The following services are described as "allow for general attendance" . This shall mean: a) Use for the purpose of the sub-contract works of any scaffolding belonging to or provided by the contractor while it remains so erected upon site, provided that no warranty or other liability on the part of the contractor or of his other sub-contractors shall be created or implied in regard to the fitness, condition or suitability of the said scaffolding b) Provision of water, lighting, watching and attendance for the purpose of the sub-contract works. c) Use of sanitary accommodation, mess rooms and welfare facilities. d) Provision of space for erecting of offices or stores or space for storage of plant and materials. ii) SPECIAL ATTENDANCE: The following services are described as "allow for special attendance" . This shall mean: a) Taking delivery and including the provision of unskilled labour necessary to attend upon the sub-contractors workmen for the purpose of unloading plants/equipment and materials of significant weight and/or size, when received upon the site and placing in position within the sub-contractor's storage space or store. b) Special Scaffolding, scaffolding additional to the Contractors scaffolding or Reassembling of contractor's scaffolding. c) Facilitating special power requirements during the course of the works. **Carried to collection**	

ITEM	DESCRIPTION	AMOUNT
	CLAIMS	
A	It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and / or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such a claim or intent to claim notice to the Engineer within the contract period. No claim shall be entertained upon the expiry of the said contract period.	
	PAYMENTS	
B	The tenderer's attention is drawn to the fact that the payments shall be made in accordance with Clause 14 of the Conditions of Contract Agreement. In order to facilitate this, a list of the general component elements for the works is given at the summary page of these specifications and the tenderer is requested to break down his tender sum commensurate to the said elements.	
	PREVENTION OF ACCIDENT, DAMAGE OR LOSS	
C	The Contractor is thus instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of activities being carried out. The Contractor shall allow in his rates any expense he deemed necessary by taking such care within the site.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**NOMINATED SUPPLIERS** The contractor shall take delivery all materials or goods supplied by the Nominated suppliers and shall sign a receipt as having received them in good order and condition. He shall offload, transport to site, unload, hoist, provide safe storage and thereafter be responsible for any loss or damage or replacement of any such lost or damaged articles at his own expense and shall return case if so required. Provision is made herein following each appropriate P.C sums for the costs of the foregoing services against items reading "take delivery of and fix only" Fix Only:- "Fix Only" shall mean take delivery to site, unload, store, unpack, assemble as necessary, distribute to position, hoist and fix only.	
B	**DIRECT CONTRACTS** Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.	
C	**PROTECTION OF THE WORK** The Contractor shall cover up and protect all finished work liable to damage including provision of temporary roof, gutters, drains etc until the completion of the works. In the event of any damages occurring to the works, materials, sewers, drains, gullies, paths or other works on site in temporary possession of the contractor for the purpose of this contract either from weather, want of proper protection, defects, or insufficiency of the works or any other causes or whatsoever during the progress of the works, the contractor shall be responsible and without extra charge, make good all damage and pay all costs which may be levied.	
D	**BLASTING OPERATIONS** Blasting will only be allowed with the express permission of the Engineer in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Engineer governing the use and storage of explosives.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PREVENTION OF NUISANCE	
A	The works and such sections of the site necessary thereafter shall be under the entire care and control of the contractor during the whole period of the contract and shall take all possible precautions to prevent any nuisance, inconvenience or injury to the holder or occupiers of the existing or surrounding properties and to the public generally, and shall at all times keep all paths and roads affected by the works in a safe and clear state, and shall use proper precautions to ensure the safety of all wheeled traffic and pedestrians. The contractor shall provide appropriate screens to seal off the working area.	
	REMOVAL OF PLANT AND RUBBISH ETC	
B	The Contractor shall upon completion of the works remove and clear away all temporary buildings, plant, rubbish and unused materials, and shall leave the whole of the site of the works in a clean and tidy state to the satisfaction of the Engineer. He shall also remove all rubbish and dirt from the site at intervals or as directed by the Engineer. Particular care shall be taken in leaving windows, floors and fittings clean and the removal of all paint and cement stains therefrom. The contractor is expected to have established a well planned method of solid disposal of debris/garbage on and off the camp site	
	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT	
C	The Contractor shall constantly keep on the works a literate English speaking Agent or Representative, competent and experienced in the kind of work involved who shall give his whole experience in the kind of work involved and shall give his whole time to the superintendence of the works. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the Engineer and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of Contract.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	TRAINING LEVY	
A	The Contractor's attention is drawn to legal notice No. 237 of 2007 which requires payment by the Contractor for a training levy and the contractor shall allow in the preliminaries of this contract (basic rates column) for all costs arising or resulting therefrom. Proof of payment of this Levy should be provided at the request of the Engineer	
	STANDARDS LEVY	
B	The Contractor is required to make payments to the Kenya Bureau of Standards as Standard Levy inline with the current current and prevailing regulations. The Contractor shall allow in the Preliminaries of this Contract for all costs arising or resulting therefrom.	
	VALUE ADDED TAX (V.A.T.)	
C	The Contractor's attention is drawn to V.A.T PUBLIC NOTICE NO. 6 of 5th August, 1993 regarding the Finance Bill 1993 which expanded the V.A.T base to cover construction services amongst other items. The Contractor's attention is also drawn to all other notices issued by the government in relation to taxation. The Contractor shall familiarise himself with the said notices and allow in all his Bills of Quantities rates (Excluding P.C and Provisional Sums) for the net tax. (i.e less input tax where applicable) as required by law. Please note that allowing a lump sum tax either in preliminaries or in summary page shall not be acceptable. Any additional information and assistance concerning the application of the said notice should be directed to the office of the Commissioner of Value Added Tax	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	GENERAL PRELIMINARIES	
	COLLECTION	
	Carried from page 1/	
	Carried from page 1/2	
	Carried from page 1/3	
	Carried from page 1/4	
	Carried from page 1/5	
	Carried from page 1/6	
	Carried from page 1/7	
	Carried from page 1/8	
	Carried from page 1/9	
	Carried from page 1/10	
	Carried from page 1/11	
	Carried from page 1/12	
	Carried from page 1/13	
	Carried from page 1/14	
	Carried from page 1/15	
	Carried from page 1/16	
	Carried from page 1/17	
	Carried from page 1/18	
	Carried from page 1/19	
	Carried from page 1/20	
	Carried from page 1/21	
	Total for General Preliminaries Carried to Grand Summary	

PROJECT PROVISIONS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROJECT PROVISIONS				
	Project Manager's Project Provisions. Contractor is advised to price for other preliminaries under the section of particular and General Preliminaries in the tender document				
	Project Manager's staff and Supervision				
A	Provide and maintain equipment for the Project Manager's site office for the duration of the project	Lump Sum	1		
B	Provide for supervision as follows: 1 No. Clerks of works, (Building and services) for the duration of project and 1 no. Work Inspectors, and 1 No Surveyor to be engaged on need basis.	Lump Sum	1		
C	Allow a provisional sum of Kshs. Five Million (5,000,000) for Project Management Team and other stakeholders facilitation allowances during project implementation, as and whenever it is necessary.	Lump Sum	1	5,000,000	
D	Allow for the Contractor's overheads and profits on items A,B, and C above.	%			
E	Provide with driver and maintain One (1) Type 1 vehicle, minimum 2.8 litre turbocharged 4-wheel drive, twin- cab pick up vehicle or similar approved by the Project Manager, fitted with air bags, mobile telephone hand free headset and a two way radio for the exclusive use of the Project manager inclusive of the first 4,000 km per vehicle month. (The vehicle reverts to the Employer upon completion of the Project)	Lump Sum			
F	Provide for the driver, fuels, maintenance, lubricants and servicing of the vehicle for kilometrage over 1000 km per vehicle month.	Km	24,000	75	
G	Provide and erect publicity signboards for the whole of the project includinding defects liability period as will be instructed by the Project Manager and in accordance with the designs and specifications to be issued.	No.	2	50,000	
H	Provide a Prime-cost sum of Kshs Five Hundred Thousand, (500,000.00) only for carrying out environmental impact assessment before the commencemennt of works and and undertaking environmental mitigation measures as the work progresses.	No.	1	500,000	
J	Provide a Prime-cost sum of Kshs five Hundred Thousand, (500,000.00) only for carrying out Geotechnical survey before the commencemennt of works and preparation of the reports	Sum	Item	500,000	
K	Allow a provisional sum of Kshs. Two Hundred and Fifty Thousand (250,000.00) for stationery, documentation, model making, review and preparation of as built drawings Manager.	Lump Sum	1	250,000	
	Contractor's profits and overheads				
L	Allow for the Contractor's overheads and profits on items E, F G, H, J and K above.	%			
	PROJECT PROVISIONS CARRIED TO GRAND SUMMARY				

SPECIFICATIONS

Reference is made to the General Specifications for Building Works (1976) by the Ministry of Works, Housing and Physical Planning.

A copy is available for perusing at the request of the procuring entity.

Contractors are required to adhere to the latest industry standards as outlined in the most recent version of KS (Kenyan Standards). Failure to comply may result in project delays or financial penalties. It is the responsibility of the Contractor to stay informed about and apply the current industry standards throughtout the construction process. Any disputes arising from non-compliance with updated standards will be subject to resolution through dispute resolution mechanism outlined in the contract.

BUILDER'S WORK HOSTEL BLOCK

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes including grubbing up of roots, cart away arising debris and burn them.	SM	1326		
	Excavations				
B	Excavate for vegetable soil average 200 mm deep: and set aside for later reuse in landscaping	SM	1326		
C	Excavate mechanically for raft foundation,depth not exceeding 1.5 metres commencing from stripped level.	CM	1989		
D	Ditto exceeding 1.5m deep but not exceeding 3.0 metres	CM	1989		
E	Extra over excavation for excavating in soft rock	CM	1326		
	Disposal of water				
F	Allow an item for keeping all excavations free from all spring and running water by pumping or any other such means.	Item	1		
	Planking and strutting				
G	Allow an item for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials.	Item	1		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Disposal of excavated materials				
A	Load,wheel and cart away surplus excavated material away from site	CM	3978		
	Fillings				
B	Make up levels with approved imported materials: compacted mechanically in layers not exceeding 300mm thick to the entire satisfaction of the Structural Engineer.	CM	1989		
C	300mm thick hardcore filling,hand packed and compacted in layers not exceeding 150mm thick to the entire satisfaction of the Structural Engineer;with 50mm Thick murram blinding or "equal and approved" on top surface (measured separately)	SM	1326		
D	50 mm Thick Murram Blinding to surfaces of hadcore	SM	1326		
	Anti - termite to treatment				
E	Approved anti-termite chemical treatment with 10 years guarantee,sprayed to the surfaces of hardcore in strict adhearence to manufacture's instruction.	SM	1326		
	Damp-proof membrane				
F	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps)	SM	1326		
	Insitu class 15 / 20 mm aggregates as described in:				
G	50 mm Thick under raft foundation	SM	1326		
	Insitu concrete class 25 (20mm maximum aggregate size):vibrated and reinforced:				
H	Raft foundation	CM	2419		
I	Columns	CM	47		
J	200mm thick lift shaft wall	SM	36		
K	200mm thick reinforced concrete retaining wall	SM	146		
L	100mm thick surface bed	SM	1326		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Ribbed reinforcement bars to KS 573:2014 : , Grade 500 high tensile strength, Including all necessary bends, hooks, tying wires and distance blocks (Provisional):				
A	Assorted reinforcement	Kg	65631		
	Mesh fabric reinforcement to K/EAS 412;2 (2019)BRC A142; 200 x 200mm, weighing 2.22kg/m² (measured net - no allowance for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks				
B	In ground slab	SM	1326		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
C	Sides of raft Foundations	SM	268		
D	Vertical sides of columns	SM	477		
E	Ditto lift shaft wall	SM	72		
F	Ditto lift reinforced concrete retaining wall	SM	292		
G	Edge of groundslab : exceeding 75mm but not exceeding 150mm	LM	244		
	Plinth				
	25mm Thick cement and sand (1:4) render on concreteor masonry ; wood float finished; to				
H	Plinths; externally.	SM	147		
	Two coats black bituminous paint on:				
I	Rendered surfaces	SM	147		
	Pavings in the Void				
J	Supply and lay 600 x 600 x 50mm reinforced concrete precast paving slabs around the building including laying, spreading and compacting 100mm thick approved sand bed blinding, on and including 150mm thick compacted hardcore to Engineer's approval.	SM	353		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Waterproofing				
	CRYSTALLINE WATERPROOFING				
	All areas indicated shall be waterproofed by the MASTERSEAL® 501/502 system as manufactured by BASF, or equal and approved, provide 10 year guarantee, all to manufacturer's specifications and instructions as described:				
	Two coat slurry application: MASTERSEAL® 501: 1kg per m2 per coat, minimum 2 coats to seal all expansion joints, holes, repaired areas and angle fillet				
	Application of render coat: MASTERSEAL® 502: 1kg per m2 at 4.5mm thick on slabs. Rate shall allow for hacking and preparing all concrete surfaces				
A	Vertical surfaces of Lift shaft walls	SM	36		
B	Ditto retaining walls	SM	292		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:		B/1		
	Total brought forward from page no:		B/2		
	Total brought forward from page no:		B/3		
	Total brought forward from Above		B/4		
	ELEMENT NO. 1 **Carried to**				
	SUBSTRUCTURES **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	ELEMENT NO 2 - R.C FRAME				
	Insitu concrete class 25 (20mm maximum aggregate size):vibrated and reinforced:				
A	Columns	CM	473		
B	200mm thick Lift shaft wall	SM	506		
C	Beams	CM	835		
D	150mm thick suspended slabs	SM	11016		
E	150mm thick Roof Slab	SM	1326		
F	150 mm thick landing	SM	120		
G	Staircases	CM	128		
	Ribbed reinforcement bars to KS 573:2014 : , Grade 500 high tensile strength, Including all necessary bends, hooks, tying wires and distance blocks (Provisional):				
H	Assorted reinforcement bars	KG	410324		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to				
I	Vertical sides of columns	SM	5989		
J	Vertical sides of lift shaft wall	SM	1012		
K	Sides and soffites of beams	SM	8264		
L	Soffits of suspended floor slabs	SM	11016		
M	Ditto suspended roof slabs	SM	1326		
N	Ditto landings	SM	120		
O	To sloping soffites of staircases	SM	468		
P	Edges of suspended slabs over 150mm but not exceeding 225mm girth	LM	2758		
Q	Ditto roof slab	LM	306		
R	Ditto landing	LM	416		
S	Ditto risers of steps	LM	1144		
T	Ditto strings cut to profile of steps,extreme girth not exceeding 300mm .	LM	240		
	ELEMENT NO. 2 Carried to				
	R.C FRAME Main summary				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	ELEMENT N0 3-WALLING				
	WALLING				
	EXTERNAL WALLS				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walls	SM	7353		
B	200mm thick parapet wall	SM	676		
	INTERNAL WALLS				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
C	200mm thick walls	SM	8440		
D	100mm thick : ditto	SM	1998		
E	200mm Wide damp proof course to B.S 743 Type A bitumen hessian based 150 mm laps (no allowance made for laps); horizontal, 1 No. layer, bedded in and including cement and sand (1:3) mortar	LM	887		
	COPING				
F	300 x 100mm insitu reinforced concrete class 20Mpa coping, throated and weathered and jointing to columns with cement sand 1:4 mortar	LM	355		
	CONCRETE VENT BLOCKS				
G	100mm thick concrete vent blocks bedded and jointed in cement and sand (1:4) mortar	SM	451		
	ELEMENT NO. 3 WALLING **Carried to Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	ELEMENT NO 4-WINDOWS				
	METAL WORK				
	PURPOSE - MADE UNITS				
	PURPOSE - MADE UNITS				
	Supply, fabricate and fix the following purpose made small pane mild steel casement windows comprising 25 x25 x 3 mm mild steel sections for frame with tee sections as mullions including a permanent vent consisting of T bar, gauze and 16 gauge sheeet metal hood, 50 x50 mm high projections full width of the window, all members welded ground and sanded to a smooth surfaces:lugged and fixed to jambs,heads and sill with screws, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:-				
	A prime cost sum of Kshs 4,500 per Sqm has been allowed for fabrication of the above specified Steel casement Windows by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Window, overall size 2400 X 1500mm high (W 04)	NO	40		
B	Ditto size 2400 X 600mm (W 02)	NO	110		
C	Ditto Size 1200 x 1500mm high (W 01)	NO	364		
D	Ditto Size 1200 x 1200mm high (W 05)	NO	18		
E	Ditto Size 600 x 600mm high (W 03)	NO	136		
	Mild steel lourve				
F	Mild steel lourve comprising of 40x40x3mm section for frames and 25x25x3 stiles welded fixed to masonry walling	SM	176		
	Glazing				
G	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with premium putty	SM	983		
H	Ditto; obscure	SM	49		
	Painting and Decorations				
	Prepare and apply aerosol spray painting in two finishing coats of first grade paint as per the manufacturer's printed instructions to: -				
I	General window and grille surfaces; internally and externally	SM	2046		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Precast concrete window cill finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
A	150 x 25mm thick Precast concrete window sill	LM	1100		
	Curtain rods;				
B	1.5mm thick, 20mm thick diameter twin powdercoated mild steel rod complete accessories to approval	LM	1100		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:		B/7		
	Total brought forward from Above		B/8		
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9) **ELEMENT NO 5-DOORS**				
	External Doors **Glazed mild steel casement doors**				
	Purpose made mild steel door comprising of 25 x 25 x3mm stiles tees to support the glass all in 40 x 40 x 2mm main frame all round , and including 50 x 50 x 3mm RHS fish tailed lugged to the wall on top and on the sides,including 4 mm clear glass fixed on to the metal tees with metal putty, all primed with one coat red oxide rime and spray painted with 2 coats of first quality gloss oil paint; complete with 180 degrees steel hinges, 2 lever mortice lock , keyed entry handle and stainless steel door sign with door number ,and all necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work surround and bedding frame in cement and sand mortar (1:3).				
	A prime cost sum at the rate indicated below has been allowed for fabrication of the above specified Hardwood panelled door leaves by AHP juakali artisans as approved by the Project Manager/Architect. The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Double leaf door (D1) overall size 1800 x 2400 mm high, comprising of 2 No 800 X 2100 mm high opennable leafs and 1800 x 300 mm high fixed fanligh in 4 mm clear glass.(PC Rate Kshs 41,000)	NO	6		
B	Ditto but (D10) overall size 1000 x 2400 mm high, comprising of 2 No 500 X 2100 mm high opennable leafs and 1000 x 300 mm high fixed fanligh in 4 mm clear glass.(PC Rate Kshs 22,800)	NO	18		
C	Ditto but (D11) overall size 1300 x 2400 mm high, comprising of 2 No 500 X 2100 mm high opennable leafs and 1300 x 300 mm high fixed fanligh in 4 mm clear glass.(PC Rate Kshs 29,640)	NO	1		
D	Single leaf door (D12) overall size 900 x 2400 mm high, comprising of 900 X 2100 mm high opennable leaf and 900 x 300 mm high fixed fanligh in 4 mm clear glass.(PC Rate Kshs 20,520)	NO	3		
E	Single leaf door (D9) overall size 1000 x 2400 mm high, comprising of 1 No 900 X 2100 mm high opennable leafs and 900 x 300 mm high fixed fanlight in 4 mm clear glass.(PC Rate Kshs 22,800)	NO	4		
	Flush timber doors				
	50mm thick semi solid cored flush door Ply wood facing finished for painting (m/s) both sides; with 15 mm thick wood liping on edges:all to Architects specifications and approval				
	Allow a prime cost sum for fabrication only at a rate of Ksh 2,200 per m2 for semi solid core flush door leaves to be sourced from approved AHP *juakali artisans*				
	(Contractor shall allow for transport and fixing in their rates)				
F	Double leaf door overall size 1500mm x 2400mm high (D.08) comprising of 2No Opennable leaf size 700 x 2100mm high including fixed fanlight size 1400 x 300mm high in 4mm clear glass (measured separetely)(PC Rate Kshs 7,920)	NO	10		
G	Single leaf door overall size 1100mm x 2400mm high (D.03) comprising of 1 No Opennable leaf size 1000 x 2100mm high including fixed fanlight size 1000 x 300mm high in 4mm clear glass (measured separetely)(PC Rate Kshs 5,810)	NO	70		
H	Ditto 1100 x 1850 mm high (D.04) comprising of 1No. Opennable leaf size 1000 x 1850mm high(PC Rate Kshs 4,480)	NO	30		
I	Ditto overall size 1000mm x 2400mm high (D.02) comprising of 1 No Opennable leaf size 900 x 2100mm high including fixed fanlight size 900 x 300mm high in 4mm clear glass (measured separetely)(PC Rate Kshs 5,280)	NO	412		
J	Double leaf door overall size 900 x 2100mm high (D.06) comprising of 2No. Opennable leaf size 450 x 2050mm high(PC Rate Kshs 4,060)	NO	118		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Internal Doors Continued **Flush timber doors**				
	50mm thick semi solid cored flush door Ply wood facing finished for painting (m/s) both sides; with 15 mm thick wood liping on edges:all to Architects specifications and approval				
	A prime cost sum at the rate indicated below for fabrication of the above specified Timber Flush door leaves by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Single leaf door overall size 800mm x 2400mm high (D.07) comprising of 1 No Opennable leaf size 700 x 2100mm high including fixed fanlight size 700 x 300mm high in 4mm clear glass (measured separetely)(PC Rate Kshs 4,225)	NO	106		
B	Ditto 800 x 1850mm high (D.05) comprising of 1No. Opennable leaf size 700 x 1850mm high(PC Rate Kshs 3,260)	NO	30		
	Frames and frame finishes in wrot softwood				
C	25 x 25mm quadrant(PC Rate Kshs 40)	LM	4656		
D	25 x 50mm architrave with two labours, plugged(PC Rate Kshs 70)	LM	4656		
E	50 x 150mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 700)	LM	4656		
F	10 x 20 mm Glazing beads (PC Rate Kshs 35)	LM	2,769		
	Glazing				
	4mm Thick clear sheet glass fixing with timber glazing beads to timber casements.				
G	In panes exceeding 0.1 sqm but not exceeding 0.5 square metres.	SM	154		
	Painting and decorating				
	Prepare surfaces and apply one coat of first grade quality aluminium wood primer to:-				
H	Surfaces not exceeding 100mm girth	LM	12081		
I	Surfaces over 100mm but not exceeding 200mm girth	LM	4656		
	Prepare surfaces and apply one undercoat and one coat first grade quality ity gloss oil paint from Crown Solo Paints or equal and approved on;				
J	General timber surfaces	SM	4059		
K	Surfaces not exceeding 100mm girth	LM	12081		
L	Surfaces over 100 mm girth but not exceeding 200mm girth	LM	4656		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Doors Continued				
	Ironmongery				
	Supply and Fix the following stainless steel ronmongery,complete with matching screws and keys to the approval of the Architect				
A	100mm pressed steel Butt Hinges	Pairs	1677		
B	2 Lever Door mortice Lock complete with handles	NO	776		
C	200 x 75 x 3mm perspex door signage with door numbers as per Architect detail	NO	776		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no:		B/9		
	Total brought forward from page no:		B/10		
	Total brought forward from Above		B/11		
	ELEMENT NO. 5 **Carried to**				
	DOORS **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render,finished with woodfloat to:-				
A	15mm thick to receive paint - Beam, Columns, Slab Moulds and walling externally	SM	9273		
	External Painting				
	Prepare and apply one coat Alkali Resistant primer followed by 3 coats of silicon exterior Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
B	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	9273		
	ROOF FLOOR FINISHES				
	Lightweight water proofed screeds				
C	55mm (average) thick cement and sand vermiculite (1:6) lightweight waterproofed screed finished to falls and cross falls	SM	1326		
	APP/EPDM membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process from an approved manufacturer; finish to horizontsl roof slab and walls executed by a specialist under 10 years guarantee				
D	4mm thick APP membrane applied to roof slabs	SM	1326		
E	Ditto to skirting 200mm high	LM	322		
F	Dress membrane around 100mm rainwater outlet	NO	6		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
G	20mm thick interlocking Concrete tiles of size 225 x 225mm	SM	1326		
	Fulbora				
H	Heavy duty 150mm fullbora outlet vertical discharge including Air baffle with integrated leaf guard (UV-stabilized) with Connection to UPVC	NO.	8		
I	Supply, deliver and install 150mm thick UPVC rainwater pipes and including all the necessary pipework	LM	252		
	ELEMENT NO. 6 Carried to				
	EXTERNAL FINISHES Main summary				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Internal Wall Finishes				
	15 mm thick Cement and sand (1:4) backings on blockwork to receive ceramic wall tiles:to:				
A	Internal wall surfaces- Wet areas	SM	6721		
	Ceramic wall tiles				
	Allow a Prime Cost supply rate of Ksh. 1000 per SM (Rate to include cost of purchase, transport, offload, storage, fixing including all necessary adhesives and accessories				
B	Supply and Fix ceramic wall tiles as manufactured by Saj Ceramics or equal and approved on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval. - Wall Surfaces	SM	6721		
	15mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
C	Concrete/masonry surfaces **Internally**	SM	29013		
D	Ditto to window cills, door Jambs internally and externally; Surfaces not exceeding 200mm girth	LM	4068		
	Painting and Decoration				
	Prepare, Skim and apply Emulsion or universal undercoat followed by 3 coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
E	Plastered concrete/masonry surface	SM	29013		
F	Ditto to window cills, door Jambs Externally and Surfaces not exceeding 200mm girth	LM	9806		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Floor Finishes				
	32 mm thick Cement and sand (1:3) backing on concrete surfaces,prepared to receive ceramic floor tiles to:				
A	Floor surfaces	SM	4820		
	Ceramic Floor tiles				
	Allow a Prime Cost supply rate of Ksh. 1000 per SM (Rate to include cost of purchase, transport, offload, storage, fixing including all necessary adhesives and accessories				
	Supply and Fix Ceramic tiles, on prepared bed(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval.				
B	Ditto Non Slip Ceramic Tiles	SM	4820		
C	Ditto 100mm high skirting	LM	8114		
	Cement and sand (1:4) backings as described in;				
D	25mm thick finished to receive terrazzo	SM	7522		
	15mm thick Colored terrazzo paving to architects specification on cement sand screed mix 1:4 (m.s),polished to smooth surface and including adhesives, hardener, mixer, and dividing strips on:-				
E	Floor surfaces (Corridors, wash areas and lobby)	SM	7522		
F	Ditto 100mm high skirtings	LM	8555		
	Staircase Finishes				
	25 mm thick Cement and sand (1:4) backings on concrete surfaces prepared to receive terrazo finish : to;				
G	Landings	SM	130		
H	300 mm wide treads to receive terazzo (m.s)	LM	1140		
I	150mm risers to receive terazzo (m.s)	LM	1140		
	15mm thick Colored terrazzo paving to architects specification ,polished to smooth surface and including adhesives, hardener, mixer, and dividing strips on prepared cement sand backin: to:-				
J	Landings	SM	130		
K	300mm wide treads	LM	1140		
L	150 mm high risers	LM	1140		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Staircase finishes continued				
	15mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Soffits of staircase landing	SM	130		
B	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	468		
C	Staircase string 300mm extreme girth and cut to profile of steps	LM	240		
	Painting and Decoration				
	Prepare, skim and apply Emulsion or universal undercoat followed by 3 coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
D	Soffits of staircase landing	SM	130		
E	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	468		
F	Staircase string 300mm extreme girth and cut to profile of steps	LM	240		
	Ceiling finishes				
	15mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
G	Soffites of Concrete surfaces	SM	10353		
	Painting and Decoration				
	Prepare, skim and apply Emulsion or universal undercoat followed by 3 coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
H	Soffites of Concrete surfaces	SM	10353		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	COLLECTION				
	Total brought forward from page no:		B/12		
	Total brought forward from page no:		B/13		
	Total brought forward from page no:		B/14		
	ELEMENT NO. 7 Carried to INTERNAL FINISHES				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	ELEMENT NO 8- BALUSTRADING AND RAILING				
	Balustrades and staircase railings				
A	900mm high mild Steel balustrade; comprising 60 x 10mm mild Steel balusters at 900mm centres; bolted to base plate and tread (m.s), with 7No. 25mm diameter horinzontal bars, and 75x4mm diameter CHS mild Steel handrail part welded into 60x10mm balustrades; to Architects drawings	LM	282		
	Prepare surfaces and apply two coats of first grade quality of gloss oil painton;				
B	General metal surfaces of ballustrading (both sides measured overall)	SM	564		
	Hanging lines				
C	Supply,assemble and fix, drying line consisting of 2 No 50 x 2mm,1800mm high circular hollow section post bolted on to the ground slab with 900 mm long 50 x 2mm CHS section welded at the top to form a T with and including 5 NO hooks welded to receive 5 No 3000 mm long pvc wires	NO	48		
	ELEMENT NO. 8 BALUSTRADE AND RAILING **Carried to the Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	ELEMENT NO 9 - FITTINGS AND FIXTURES				
	Allow for providing materials, labour and constructing fixtures and fittings as per Architects drawings of the following JOINERY FITTINGS AND FIXTURES complete with associated iron mongery;				
	NOTE: All blockboard, MDF boards,etc in joinery works shall be lipped with hardwood beading all round before fixing.				
	High level storage cupboard units 750mm high x 300mm wide				
	400mm Wide high level kitchen cupboards in 18mm laminated mdf sides & shelves complete with doors, top, bottom & divisions with and including all necessary ironmongery; to Architect's details				
A	High level storage cupboard units 600mm high x 300mm deep	LM	120		
	Low level kitchen worktops with 600x600x8mm porcelain tiles top on 100mm thick reinforced concrete slab with A142 BRC mesh, formwork to soffits and slab edges, plater to soffits of slab, screed to top slab, 100mm thick plastered steeper walls, including 300x300x6mm thick ceramic wall tiles on both sides of the wall: 100mm plastered mass concrete plinths in concrete class 15MPa: 18mm laminated mdf sides & shelves complete with doors, shelves, drawers, cutting tiles for kitchen sink (m.s) & all necessary ironmongery; to Architect's details and approval				
B	Low level kitchen cupboards below concrete worktop total girth grouped together 850mm high x 550mm deep	LM	120		
C	25mm thick MDF Worktop fixed on wall at 900mm FFL	SM	410		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	WARDROBES				
	Wardrobes size 2700mm high x 600mm wide in rooms				
A	In built wardrobes	LM	432		
	32mm diameter steel pipe bolted to masonry walls with and including 2No. 10mm dia. Rawl bolts on 2 ends to bedroom in Hostel rooms				
B	Ditto 1000mm long	LM	432		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	COLLECTION				
	Total brought forward from page no:		B/17		
	Total brought forward from page no:		B/18		
	ELEMENT NO. 9 **Carried to the** **JOINERY & FITTINGS** **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BILL NO.1 - HOSTEL BLOCK (G+9)				
	BUILDERS WORKS SUMMARY				
1	**Substructures**				
2	**Reinforced Concrete Frame**				
3	**Walling**				
4	**Windows**				
5	**Doors**				
6	**External Finishes**				
7	**Internal Finishes**				
8	**Balustrade and Railing**				
9	**Joinery Fittings**				
	TOTAL FOR 1NO. BLOCK				
	NO. OF BLOCKS	**2**			
	MULTIPLY BY 2**. NO** OF BLOCKS	X 2			
	TOTAL FOR 2 NO. BLOCKS CARRIED TO BUILDERS WORKS SUMMARY				

ELECTRICAL WORKS

SECTION 1: ELECTRICAL INSTALLATION WORKS

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
1.00	**BILL NO.1. TYPICAL STUDIO**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
1.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	3		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
1.02	10A 1 gang 1 way switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
1.03	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	1		
1.04	Type B -bathroom Globe Light	No.	1		
1.05	Type RL -7W 1 FT Reading Light	No.	1		
	POWER POINTS & WIRING ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
1.06	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	2		
1.07	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for instant shower but excluding the DP switch.	No.	1		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
1.08	13A flush mounted twin socket-outlet	No.	2		
1.09	32A flush mounted switched DP switch	No.	1		
	Total Amount for Typical Studio Unit Incl. VAT				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
2.00	**BILL NO.2. TYPICAL QUAD UNIT**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
2.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	3		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
2.02	10A 1 gang 1 way switch	No.	1		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
2.03	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	1		
2.04	Type RL -7W 1 FT Reading Light	No.	2		
	POWER POINTS & WIRING ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
2.05	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	4		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
2.06	13A flush mounted Single socket-outlet	No.	2		
2.07	13A flush mounted twin socket-outlet	No.	4		
	Total Amount for Typical Quad Unit Incl. VAT				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
3.00	**BILL NO.3. TYPICAL DOUBLE UNIT**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
3.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
3.02	10A 1 gang 1 way switch	No.	1		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
3.03	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	1		
3.04	Type RL -7W 1 FT Reading Light	No.	1		
	POWER POINTS & WIRING ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
3.05	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
3.06	13A flush mounted Single socket-outlet	No.	1		
3.07	13A flush mounted twin socket-outlet	No.	1		
	Total Amount for Typical Double Unit Incl. VAT				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
4.00	**BILL NO.4. GROUND FLOOR**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
4.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	66		
4.02	Ditto but for two way switching.	No.	8		
4.03	Ditto but for Emergency Switching.	No.	12		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	10A white moulded wide rocker switch plates:-				
4.04	10A 1 gang 1 way switch	No.	9		
4.05	10A 2 gang 2 way switch	No.	4		
4.06	10A 3 gang 2 way switch	No.	2		
4.07	10A Intermediate switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-				
4.08	Type FB - IP44, 19W, 1200mm LED tube light fitting with diffuser	No.	8		
4.09	Type FBe - IP44, 19W, 1200mm LED tube light fitting with diffuser c/w emergency kit	No.	4		
4.10	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	8		
4.11	Type D - Round Light with LED lamp	No.	46		
4.12	Type De - Round Light with LED lamp c/w emergency kit	No.	8		
4.13	Type J - Lift shaft bulkhead fitting	No.	2		
4.14	Type Exit	No.	6		
4.15	Type P 1200 X 300MM 220/240V x 30 watt Warm White, 6500K Ceiling Mount. (Two LED Tubes)	No.	8		
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
4.16	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	23		
4.17	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for instant shower but excluding the DP switch.	No.	12		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
4.18	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for lift sump pump but excluding the DP switch.	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
4.19	13A flush mounted twin socket-outlet	No.	23		
4.20	20A flush mounted switched DP switch	No.	2		
4.21	32A flush mounted switched DP switch	No.	12		
	ELV CABLE WAYS				
4.22	**ICT Points** Supply, install and connect data outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories but excluding face plates.	No.	20		
4.23	**CCTV Points** Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	26		
4.24	**Fire Alarm Points** Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	18		
	POWER DISTRIBUTION **Supply, Install, connect and set to work the following:-**				
4.25	Supply, install and connect 16 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
4.26	10A SP MCB	No.	25		
4.27	20A SP MCB	No.	20		
4.28	32A SP MCB	No.	40		
4.29	Blanking Plates	No.	11		
4.30	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
4.31	Earthing of the Distribution Board above	Item.	1		
	Sub - Total Carried Forward to Ground Floor Collection Page				

ITEM NO.	TYPICAL GROUND FLOOR COLLECTION PAGE	AMOUNT KShs
1	Total Amount for Page 2 Brought Forward (Studios **x 8**)	
2	Total Amount for Page 3 Brought Forward (Quads **x 14**)	
3	Total Amount for Page 4 Brought Forward (Double **x 14**)	
4	Total Amount for Page 6 Brought Forward (Common Areas)	
	Sub-Total for Ground Floor carried to Electrical Installation Summary Page	

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
5.00	**BILL NO. 5 FIRST FLOOR COMMON AREAS**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
5.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	60		
5.02	Ditto but for two way switching.	No.	8		
5.03	Ditto but for Emergency Switching.	No.	12		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	10A white moulded wide rocker switch plates:-				
5.04	10A 1 gang 1 way switch	No.	9		
5.05	10A 2 gang 2 way switch	No.	4		
5.06	10A 3 gang 2 way switch	No.	2		
5.07	10A Intermediate switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-				
5.08	Type FB - IP44, 19W, 1200mm LED tube light fitting with diffuser	No.	8		
5.09	Type FBe - IP44, 19W, 1200mm LED tube light fitting with diffuser c/w emergency kit	No.	4		
5.10	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	8		
5.11	Type D - Round Light with LED lamp	No.	43		
5.12	Type De - Round Light with LED lamp c/w emergency kit	No.	8		
5.13	Type J - Lift shaft bulkhead fitting	No.	2		
5.14	Type Exit	No.	6		
5.15	Type P 1200 X 300MM 220/240V x 30 watt Warm White, 6500K Ceiling Mount. (Two LED Tubes)	No.	6		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES				
	Supply, Install, connect and set to work the following:-				
5.16	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	15		
5.17	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for instant shower but excluding the DP switch.	No.	12		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
5.18	13A flush mounted twin socket-outlet	No.	15		
5.19	20A flush mounted switched DP switch	No.	2		
5.20	32A flush mounted switched DP switch	No.	12		
	ELV CABLE WAYS				
	ICT Points				
5.21	Supply, install and connect data outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories but excluding face plates.	No.	16		
	CCTV Points				
5.22	Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	16		
	Fire Alarm Points				
5.23	Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	24		
	POWER DISTRIBUTION				
	Supply, Install, connect and set to work the following:-				
5.24	Supply, install and connect 16 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
5.25	10A SP MCB	No.	25		
5.26	20A SP MCB	No.	20		
5.27	32A SP MCB	No.	40		
5.28	Blanking Plates	No.	11		
5.29	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
5.30	Earthing of the Distribution Board above	Item.	1		
	Sub - Total Carried Forward to First Floor Collection Page				

ITEM NO.	TYPICAL FIRST FLOOR COLLECTION PAGE	AMOUNT KShs
1	Total Amount for Page 2 Brought Forward (Studios **x 10**)	
2	Total Amount for Page 3 Brought Forward (Quads **x 15**)	
3	Total Amount for Page 4 Brought Forward (Double **x 16**)	
4	Total Amount for Page 9 Brought Forward (Common Areas)	
	Sub-Total for First Floor carried to Electrical Installation Summary Page	

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
6.00	**BILL NO. 6 SECOND FLOOR COMMON AREAS**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
6.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	60		
6.02	Ditto but for two way switching.	No.	8		
6.03	Ditto but for Emergency Switching.	No.	12		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	10A white moulded wide rocker switch plates:-				
6.04	10A 1 gang 1 way switch	No.	9		
6.05	10A 2 gang 2 way switch	No.	4		
6.06	10A 3 gang 2 way switch	No.	2		
6.07	10A Intermediate switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-				
6.08	Type FB - IP44, 19W, 1200mm LED tube light fitting with diffuser	No.	8		
6.09	Type FBe - IP44, 19W, 1200mm LED tube light fitting with diffuser c/w emergency kit	No.	4		
6.10	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	8		
6.11	Type D - Round Light with LED lamp	No.	43		
6.12	Type De - Round Light with LED lamp c/w emergency kit	No.	8		
6.13	Type J - Lift shaft bulkhead fitting	No.	2		
6.14	Type Exit	No.	6		
6.15	Type P 1200 X 300MM 220/240V x 30 watt Warm White, 6500K Ceiling Mount. (Two LED Tubes)	No.	6		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES				
	Supply, Install, connect and set to work the following:-				
6.16	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	15		
6.17	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for instant shower but excluding the DP switch.	No.	12		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
6.18	13A flush mounted twin socket-outlet	No.	15		
6.19	20A flush mounted switched DP switch	No.	2		
6.20	32A flush mounted switched DP switch	No.	12		
	ELV CABLE WAYS				
	ICT Points				
6.21	Supply, install and connect data outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories but excluding face plates.	No.	16		
	CCTV Points				
6.22	Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	16		
	Fire Alarm Points				
6.23	Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	24		
	POWER DISTRIBUTION				
	Supply, Install, connect and set to work the following:-				
6.24	Supply, install and connect 16 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
6.25	10A SP MCB	No.	25		
6.26	20A SP MCB	No.	20		
6.27	32A SP MCB	No.	40		
6.28	Blanking Plates	No.	11		
6.29	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
6.30	Earthing of the Distribution Board above	Item.	1		
	Sub - Total Carried Forward to Second Floor Collection Page				

ITEM NO.	TYPICAL FIRST FLOOR COLLECTION PAGE	AMOUNT KShs
1	Total Amount for Page 2 Brought Forward (Studios **x 10**)	
2	Total Amount for Page 3 Brought Forward (Quads **x 15**)	
3	Total Amount for Page 4 Brought Forward (Double **x 16**)	
4	Total Amount for Page 9 Brought Forward (Common Areas)	
	Sub-Total for Second Floor carried to Electrical Installation Summary Page	

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
7.00	**BILL NO. 7 3RD TO 9TH FLOOR COMMON AREAS**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
7.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	60		
7.02	Ditto but for two way switching.	No.	8		
7.03	Ditto but for Emergency Switching.	No.	12		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	10A white moulded wide rocker switch plates:-				
7.04	10A 1 gang 1 way switch	No.	9		
7.05	10A 2 gang 2 way switch	No.	4		
7.06	10A 3 gang 2 way switch	No.	2		
7.07	10A Intermediate switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-				
7.08	Type FB - IP44, 19W, 1200mm LED tube light fitting with diffuser	No.	8		
7.09	Type FBe - IP44, 19W, 1200mm LED tube light fitting with diffuser c/w emergency kit	No.	4		
7.10	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	8		
7.11	Type D - Round Light with LED lamp	No.	43		
7.12	Type De - Round Light with LED lamp c/w emergency kit	No.	8		
7.13	Type J - Lift shaft bulkhead fitting	No.	2		
7.14	Type Exit	No.	6		
7.15	Type P 1200 X 300MM 220/240V x 30 watt Warm White, 6500K Ceiling Mount. (Two LED Tubes)	No.	6		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES				
	Supply, Install, connect and set to work the following:-				
7.16	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	15		
7.17	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for instant shower but excluding the DP switch.	No.	12		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
7.18	13A flush mounted twin socket-outlet	No.	15		
7.19	20A flush mounted switched DP switch	No.	2		
7.20	32A flush mounted switched DP switch	No.	12		
	ELV CABLE WAYS				
	ICT Points				
7.21	Supply, install and connect data outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories but excluding face plates.	No.	16		
	CCTV Points				
7.22	Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	16		
	Fire Alarm Points				
7.23	Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	24		
	POWER DISTRIBUTION				
	Supply, Install, connect and set to work the following:-				
7.24	Supply, install and connect 16 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
7.25	10A SP MCB	No.	25		
7.26	20A SP MCB	No.	20		
7.27	32A SP MCB	No.	40		
7.28	Blanking Plates	No.	11		
7.29	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
7.30	Earthing of the Distribution Board above	Item.	1		
	Sub - Total Carried Forward to 3rd to 9th Floor Collection Page				

ITEM NO.	TYPICAL FIRST FLOOR COLLECTION PAGE	AMOUNT KShs
1	Total Amount for Page 2 Brought Forward (Studios **x 10**)	
2	Total Amount for Page 3 Brought Forward (Quads **x 15**)	
3	Total Amount for Page 4 Brought Forward (Double **x 16**)	
4	Total Amount for Page 9 Brought Forward (Common Areas)	
	Sub-Total for 3rd to 9th Floor carried to Electrical Installation Summary Page	

	Multiply By 7 for the Total No. of Typical Floors	**X7**
	Sub - Total Carried Forward to Typical 3rd - 9th Floor Collection Page	

8.00 **BILL NO.8. ROOF TERRACE**

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
8.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	10		
8.02	Ditto but for two way switching.	No.	8		
8.03	Ditto but for Emergency Switching.	No.	10		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:- ***10A white moulded wide rocker switch plates:-***				
8.04	10A 1 gang 1 way switch	No.	2		
8.05	10A 3 gang 2 way switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:- *Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-*				
8.06	Type A4- IP65 External bulkhead fitting	No.	10		
8.07	Type A4E- IP65 External bulkhead fitting	No.	6		
8.08	Type D - Round Light with LED lamp	No.	8		
8.09	Type De - Round Light with LED lamp c/w emergency kit	No.	4		
8.10	Type J - Lift shaft bulkhead fitting	No.	2		
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
8.11	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	14		
8.12	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for Hosereel Pump but excluding the DP switch.	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
8.13	13A flush mounted twin socket-outlet	No.	14		
8.14	20A flush mounted switched DP switch	No.	2		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
	ELV CABLE WAYS				
	CCTV Points				
8.15	Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	10		
	Fire Alarm Points				
8.16	Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	6		
	POWER DISTRIBUTION **Supply, Install, connect and set to work the following:-**				
8.17	Supply, install and connect 4 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
8.18	10A SP MCB	No.	4		
8.19	20A SP MCB	No.	8		
8.20	32A SP MCB	No.	2		
8.21	Blanking Plates	No.	2		
8.22	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
8.23	Earthing of the Distribution Board above	Item.	1		
`					
	Sub-Total for Roof Terrace carried to Electrical Installation Summary Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
9.00	**BILL NO. 9 STUDENT CENTRE**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
9.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	30		
9.02	Ditto but for two way switching.	No.	50		
9.03	Ditto but for Emergency Switching.	No.	20		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	10A white moulded wide rocker switch plates:-				
9.04	10A 1 gang 1 way switch	No.	21		
9.05	10A 2 gang 2 way switch	No.	10		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-				
9.06	Type FB - IP44, 19W, 1200mm LED tube light fitting with diffuser	No.	4		
9.07	Type FBe - IP44, 19W, 1200mm LED tube light fitting with diffuser c/w emergency kit	No.	2		
9.08	Type D - Round Light with LED lamp	No.	30		
9.09	Type De - Round Light with LED lamp c/w emergency kit	No.	6		
9.10	Type D1 - Circular LED Surface mounted Downlighter	No.	30		
9.11	Type D1e - Circular LED Surface mounted Downlighter c/w emergency kit	No.	6		
9.12	Type Exit	No.	6		
9.13	Type P 1200 X 300MM 220/240V x 30 watt Warm White, 6500K Ceiling Mount. (Two LED Tubes)	No.	6		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
9.14	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	30		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
9.15	13A flush mounted twin socket-outlet	No.	30		
	ELV CABLE WAYS **ICT Points**				
9.16	Supply, install and connect data outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories but excluding face plates.	No.	8		
	CCTV Points				
9.17	Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	16		
	Fire Alarm Points				
9.18	Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	20		
	POWER DISTRIBUTION **Supply, Install, connect and set to work the following:-**				
9.19	Supply, install and connect 8 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
9.20	10A SP MCB	No.	25		
9.21	20A SP MCB	No.	20		
9.22	32A SP MCB	No.	40		
9.23	Blanking Plates	No.	11		
9.24	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
9.25	Earthing of the Distribution Boards above	Item.	1		
9.19	Submains circuit from the **Main Board** to **the Student Centre DBs** comprising of 35mm2 XLPE/PVC/SWA 4c + 16mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	100		
	Sub - Total Carried Forward Summary Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
10.00	**BILL NO.10: MAIN POWER DISTRIBUTION**				
	LV BOARDS **Supply, Deliver and Position the Following:**				
	SUB-BOARDS NON-MAINTAINED POWER				
10.01	6 way Sub-board in the ducts as IP-32, Form-2B as per the Schematic and in compliance with IEC 60439 and KSIEC 60439 Standards, complete with the following:- **Incomer** 1No. 250A TP Adj. MCCB Indicator Lamps (RYB) **Outgoers** - 5 nos. adj 3P 63A, 25kA, MCCBs Outgoers - 1 nos. 3P 63A Spares	No.	4		
10.02	Label Subboard as per schematic drawing.	Item	1		
10.03	Provide As-Built Schematic Drawing	Item	1		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	GENERATOR SPLIT BOARD				
10.04	Generator Split board in the in the Generator Room as IP-32, Form-2B as per the Schematic and in compliance with IEC 60439 and KSIEC 60439 Standards, complete with the following:- **Incomer** 250A TP Adj. MCCB Indicator Lamps (RYB) **Outgoers** - 2 nos. adj 3P 100A, 25kA, MCCBs Outgoers - 1 nos. 3P 63A Spares	No.	1		
10.05	Label Subboard as per schematic drawing.	Item	1		
10.06	Provide As-Built Schematic Drawing	Item	1		
	SUB-BOARDS-MAINTAINED POWER-02				
10.07	6 way Sub-board in the ducts as IP-32, Form-2B as per the Schematic and in compliance with IEC 60439 and KSIEC 60439 Standards, complete with the following:- **Incomer** 63A TP Adj. MCCB Indicator Lamps (RYB) **Outgoers** - 5 nos. adj 3P 45A, 25kA, MCCBs Outgoers - 1 nos. 3P 63A Spares	No.	2		
10.08	Label Subboard as per schematic drawing.	Item	1		
10.09	Provide As-Built Schematic Drawing	Item	1		
	DISTRIBUTION BOARDS				
10.10	**Supply, Install, connect and set to work the following:-** Supply, install and connect 16 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	20		
10.11	10A SP MCB	No.	250		
10.12	20A SP MCB	No.	200		
10.13	32A SP MCB	No.	400		
10.14	Blanking Plates	No.	110		
10.15	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
10.16	Earthing of the Distribution Boards above	Item.	1		
	CABLES				
10.17	Submains circuit from the **Main board** to **Sub-Boards (SB-GF/01, SB-FF-01,SB-GF/02, SB-FF-02)** in electrical ducts comprising of 70mm2 XLPE/PVC/SWA 4c + 35mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	200		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
10.18	Submains circuit from the **Generator** to **the Main Board** comprising of 35mm2 XLPE/PVC/SWA 4c + 16mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	20		
10.19	Submains circuit from the **Main board** to the **Typical Floors DB** comprising of 16mm2 XLPE/PVC/SWA 4c + 10.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	540		
10.20	Submains circuit from the **Main board** to the **Pump Room DB** comprising of 16mm2 XLPE/PVC/SWA 4c + 10.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	50		
10.18	Submains circuit from **Mian LV Board** to **Lifts DB** comprising of 10mm2 XLPE/PVC/SWA 4c + 6.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	130		
10.21	Submains circuit from **Main Board** to **Common Area DBs** at the Ground Floor Electrical Ducts comprising of 10mm2 XLPE/PVC/SWA 4c + 6.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	100		
10.22	Submains circuit from **Common Area Sub-Board** at the Ground Floor to, **Common Area** and **Roof Terrace DBs** comprising of 10mm2 XLPE/PVC/SWA 4c + 6.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	100		
10.23	Cable gland for above cables terninations	Lot.	1		
10.24	Cable Lugs for above cables terninations	Lot.	1		
	CABLE MANAGEMENT				
10.25	400 x 50mm Powder coated fabricated Cable tray complete with angle bends, Tees, end caps and mounting brackets & accessories to detail and to approval. Including equipotential bonding.	Lm.	300		
10.26	300 x 50mm Powder coated fabricated Cable tray complete with angle bends, Tees, end caps and mounting brackets & accessories to detail and to approval. Including equipotential bonding.	Lm.	200		
10.27	150 x 50mm Powder coated fabricated Cable tray complete with angle bends, Tees, end caps and mounting brackets & accessories to detail and to approval. Including equipotential bonding.	Lm.	100		
	MECHANICAL LOADS				
10.28	Supply, install and connect 4 way TP/N distribution board for **Pump Room** power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	1		
10.29	Supply, install and connect 4 way TP/N distribution board for **Lifts** power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
10.30	63A TP Isolators for Lift	No.	2		
10.31	Supply and install 16A/ 20 Amp weather proof TP isolators for pumps and other equipment.	No.	4		
	Total Carried to Electrical Installation Summary Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
11.00	**BILL NO. 11. EXTERNAL WORKS**				
11.01	Allow for trenching of 750mm and width 450mm, laying of 2x 200mm Conduit, back filling of trenches, and laying of "DANGER " cable tiling (for cable running along non-concrete areas), reinstatement and making of good of ground as directed by the Engineer on site	Lm	250		
11.02	200mm Heavy Guege PVC pipes and fittings laid in trenches and complete with draw wires	Lm	500		
11.03	100mm Heavy Guege PVC pipes and fittings laid in trenches and complete with draw wires	No.	250		
11.04	Power Manholes of sizes 1000mmLx1000mmWx1000mm deep Cable pits, excavation, 100mm plain in-situ concrete class 21/20 base and sides, 100mm thick precast concrete cover class 21/20 reinforced with two layers of mesh reinforcement A142 weighing 2.2Kgs per square meter with galvanized lifting handles, holes through sides for 100mm & 200mm dia pipes for Power.	No.	13		
11.05	Data Manholes of sizes 600mmLx600mmWx600mm deep Cable pits, excavation, 100mm plain in-situ concrete class 21/20 base and sides, 100mm thick precast concrete cover class 21/20 reinforced with two layers of mesh reinforcement A142 weighing 2.2Kgs per square meter with galvanized lifting handles, holes through sides for 100mm & 200mm dia pipes for Data.	No.	13		
10.10	**EXTERNAL LIGHTING**				
	Supply, Install, Test, Commission and Set to work:-				
11.06	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	32		
11.07	Supply and install 20A 4 poles AC3 duty contactor mounted on DIN rails in the sub-board for external lighting circuits inclusive of wiring to contactor coil.	No.	1		
11.08	Supply and install Programmable digital time switch with minimum 100 hours reserve and over-ride facility for external lighting.	No.	1		
	Supply, deliver to site and install the following complete with lamps, control gear/drivers as approriate including fixings and supports:		1		
11.09	Type WL- IP65 External bulkhead fitting	No.	30		
11.10	Type SL-Street lights 50W c/w 6m pole, integrated, 90AH, 2V Lithium battery, solar panel, and intelligent dusk to dawn controls	No.	14		
11.11	Gate lights 50W	No.	2		
	SPECIALIZED ITEMS CABLE WAYS				
	CCTV POINTS				
11.12	CCTV points drawn in 25mm diameter heavy gauge PVC conduits conceiled in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and termination kits	No.	12		
	Total Carried to Electrical Installation Summary Page				

12.00 BILL NO.12: FIRE ALARM SYSTEM

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
12.01	Microprocessor based 2-Loop Addressable Fire Alarm Control Panel	No.	1		
12.02	Addressable Photoelectric Smoke Detector	No.	200		
12.03	Addressable Heat Detector as Menvier or Approved equivalent	No.	40		
12.04	Addressable Manual Fire Alarm 'Break Glass' call points	No.	40		
12.05	Addressable Electronic Fire Alarm sounder complete with Red Flashing beacon	No.	40		
12.06	Microprocessor based Addressable Fire Alarm Repeater Panel	No.	1		
12.07	2x2.5mm2 FP 200 Network cables for connecting the above panels.	Lm	180		
12.08	Demonstrate operation of the complete fire alarm system in presence of manufacturer's representative	Item	1		
12.09	Connect, test, program and commission the fire alarm system and provide log and schedule of active devices	Item	1		
12.10	Operation manuals and 3 sets of record drawings both hard and soft copies	Item	1		
	Total Carried to Electrical Installation Summary Page				

13.00 **BILL NO.13: LIGHTNING PROTECTION**

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Supply, Install, Test, Commission and Set to work:-				
	Air Termination				
13.01	2000mm x15mmØ multiple point pure copper AirRods/ Termination with spikes as Furse Part No. RA240 or approved equivalent	No	2		
13.02	Copper Air Rod Base as Furse Part No. SD105-H or approved equivalent	No□	□		
13.03	Copper Junction Clamps for copper tape as Furse Part No. CN105-H or approved equivalent	No□	□		
13.04	25x3mm copper tape TC030 on tape clip Furse CP210 including saddles, appropriate bonding & jointing clamps to bond and clamp the tape to masonry wall.	Lm	400		
	Down Conductor				
13.05	32mm diameter HG concealed PVC conduit with factory made bends, all conduit fittings as shown on drawing.	Lm	80		
13.06	70mm2 bare copper conductor enclosed HG concealed PVC conduit between copper tape and test joint (down conductor).	Lm	100		
13.07	Screwdown copper test clamp as Furse CT305 or approved equivalent	No□	□		
	Earth Termination				
13.08	Supply and install earthing complete with Earthing Matt measuring 1000x1000mm build in 25mm x 3mm thick riveted with copper rivets. 2Nos. Earth electrodes, and 2Nos. Rod to tape clamps. The earth matt to be treated by marconite and salt to obtain reading <10.0 ohms.	No.	2		
13.09	70mm2 ECC in 1x25mm dia PVC conduit between the test clamp and the earth rods.	Lm	10		
13.10	Concrete earthing inspection pits	No	2		
13.11	Test the completed lightning protection system and log in results	Item	1		
	Bonding				
2.13	Bonding and clamping to all metal work including water pipes, gas pipes, hand-rails, smatv system, window frames, cladding, metal roof etc. and the main earth for the building.	Item	1		
	Total Carried to Electrical Installation Summary Page				

	ELECTRICAL INSTALLATION WORKS SUMMARY PAGE	AMOUNT
1.00	Bill No.2. Ground Floor Electrical Installation Works	
2.00	Bill No.3. First Floor Electrical Installation Works	
3.00	Bill No.4. Second Floor Electrical Installation Works	
4.00	Bill No.4. Typical 3rd -9th Floor Electrical Installation Works	
5.00	Bill No.5. Roof Terrace	
6.00	Student Centre	
7.00	Bill No.6: Main Power Distribution	
8.00	Bill No. 7. External Works	
9.00	Bill No.8: Fire Alarm System	
10.00	Bill No.9: Lightning Protection	
	Total Amount for 1 Typical Block Inclusive of VAT	
	Total for 2No. Typical Blocks	**x2**
	TOTAL CARRIED FORWARD TO GRAND SUMMARY PAGE INCL. VAT	

	Ommisions				
1.00	Lifts Estimate at **KES.23,200,000.00**				
2.00	Generator Estimate at **KES.3,500,000.00**				
3.00	CCTV Installations at **KES.5,000,000.00**				
4.00	Structured Cabling Installations at **KES.7,50,000.00**				
5.00	MATV Installations at **KES.554,000.00**				
6.00	Capital Contribution to KPLC For Power Connection at **KES.5,500,000.00**				
7.00	Main LV Board at **KES.3,224,000.00**				

Amount in Words: Kenya Shillings……..…..……...

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Official Stamp & Address:……..……

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Tenderer's Signature:……..……...Date:……..……...……

Witness' Name:……Witness' Signature:……..…..……

Address:……..……..……

Date:……

MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B	**SANITARYWARE INSTALL ONLY**				
I	**GROUND & FIRST FLOOR**				
	INSTALL ONLY Supply and deliver the following appliances including their support brackets, screws etc.				
	WC suite				
1	Dual flush close couple toilet suite complete with Push button dual flush system, Comes with Soft Close Seat Cover, WC Connector, fixing brackets, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	18		
	Washbasin and Tap				
2	White Drop In Basin - with full pedestal -White, One central taphole fixing brackets, PVC Bottle Trap and waste 1.25in x 40**,** Chrome Tempo Push-Delay Action Basin Tap**,** PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm**,** Angle Valve, with Extension: 1/2 x 1/2in	No.	23		
	Shower & Fittings				
3	Concealed shower fittings comprising of plastic shower arm, stop cock and bib tap,Instant Shower 3kW Element, Shielded selection switch, Adjustable three temperatures, hard and salty water application	No	20		
	Kitchen sink and Tap				
4	Single Bowl Single Drain Stainless Steel Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40**,** Long Neck Wall type Bib Tap	No.	10		
	Bathroom Accessories				
5	Robe Hook (Single), Chrome Plated	No.	20		
6	Vertical Soap Dispenser: Satin	No.			
7	Toilet Roll Holder	No.	19		
8	Bathroom Mirror, (80×60)cm	No.			
	Fire blankets				
9	Fire Blanket (1.2 x 1.2m)	No.	22		
	Urinal				
10	Urinal bowl white - top entry complete with zeda:bottle trap and waste 1.5in x 40, exposed (top entry) urinal flush valve 40mm, White Wall Hung Urinal Divider	No.	12		
	Disabled WC Suite				
11	**Close Couple** one piece wc, s trap, with soft close seat and twin flush fittings, and wc connector, angle valve and flex hose, crane wall hung wash basin 665 x 545 x 190mm c/w bottle trap, angle valve, flex hose,clinical single lever basin tap, 1no. wall mounted grab bar 600 mm long, 1No. wall mounted hinged hand rail 750 x 100 mm, 1no. door mounted grab bar 600 mm long	No.	1		
	Common Kitchen sink and Tap				
12	Concrete Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40**,** Long Neck Wall type Bib Tap	No.	12		
	Total For 1No. Floor				
					2.00
	Total For 2No. Floor				
	TOTAL TO SANITARYWARE SUPPLY COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
II	**TYPICAL 2ND TO 9TH FLOOR**				
	INSTALL ONLY Supply and deliver the following appliances including their support brackets, screws etc.				
	WC suite				
1	Dual flush close couple toilet suite complete with Push button dual flush system, Comes with Soft Close Seat Cover, WC Connector, fixing brackets, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	19	-	
	Washbasin and Tap				
2	White Drop In Basin - with full pedestal -White, One central taphole fixing brackets, PVC Bottle Trap and waste 1.25in x 40, Chrome Tempo Push-Delay Action Basin Tap, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	24	-	
	Shower & Fittings				
3	Concealed shower fittings comprising of plastic shower arm, stop cock and bib tap,Instant Shower 3kW Element, Shielded selection switch, Adjustable three temperatures, hard and salty water application	No	21	-	
	Kitchen sink and Tap				
4	Single Bowl Single Drain Stainless Steel Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40**,** Long Neck Wall type Bib Tap	No.	10	-	
	Bathroom Accessories				
5	Robe Hook (Single), Chrome Plated	No.	21	-	
6	Vertical Soap Dispenser: Satin	No.		-	
7	Toilet Roll Holder	No.	21	-	
8	Bathroom Mirror, (80×60)cm	No.		-	
	Fire blankets				
9	Fire Blanket (1.2 x 1.2m)	No.	22	-	
	Urinal				
10	Urinal bowl white - top entry complete with zeda:bottle trap and waste 1.5in x 40, exposed (top entry) urinal flush valve 40mm, White Wall Hung Urinal Divider	No.	12	-	
	Disabled WC Suite				
11	Close Couple one piece wc, s trap, with soft close seat and twin flush fittings, and wc connector, angle valve and flex hose, crane wall hung wash basin 665 x 545 x 190mm c/w bottle trap, angle valve, flex hose,clinical single lever basin tap, 1no. wall mounted grab bar 600 mm long, 1No. wall mounted hinged hand rail 750 x 100 mm, 1no. door mounted grab bar 600 mm long	No.	1	-	
	Common Kitchen sink and Tap				
12	Concrete Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap	No.	12	-	
	Total For 1No. Floor				
	Total For 8No. Floor				8.00
	TOTAL TO SANITARYWARE SUPPLY COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
III	**STUDENT CENTER**				
	INSTALL ONLY Supply and deliver the following appliances including their support brackets, screws etc.				
	WC suite				
1	Dual flush close couple toilet suite complete with Push button dual flush system, Comes with Soft Close Seat Cover, WC Connector, fixing brackets, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	8	-	
	Washbasin and Tap				
2	White Drop In Basin - with full pedestal -White, One central taphole fixing brackets, PVC Bottle Trap and waste 1.25in x 40, Chrome Tempo Push-Delay Action Basin Tap, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	10	-	
	Kitchen sink and Tap				
3	Single Bowl Single Drain Stainless Steel Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap	No.	1	-	
	Bathroom Accessories				
4	Robe Hook (Single), Chrome Plated	No.	8	-	
5	Vertical Soap Dispenser: Satin	No.		-	
6	Toilet Roll Holder	No.	8	-	
7	Bathroom Mirror, (80×60)cm	No.		-	
	Fire blankets				
8	Fire Blanket (1.2 x 1.2m)	No.	1	-	
	Urinal				
9	Urinal bowl white - top entry complete with zeda:bottle trap and waste 1.5in x 40, exposed (top entry) urinal flush valve 40mm, White Wall Hung Urinal Divider	No.	4	-	
	Common Kitchen sink and Tap				
10	Single Drain Singel Bowl Stainless Steel Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap	No.	1	-	
	Total For Students Center				
	TOTAL TO SANITARYWARE SUPPLY COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SANITARY INSTALL COLLECTION PAGE				
I	Ground & First Floor				
II	2nd to 9th Floor Typical				
	Sub Total For 1No. Block				
					2.00
	Total For 2No. Blocks				
III	Students Centre				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C	**INTERNAL PLUMBING**				
I	**GROUND FLOOR & FIRST FLOOR**				
	Supply, deliver install, Test and Commission: **PP-R (Polypropylene Random Co-polymer)** pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Cold Water				
1	25mm diameter PPR Pipes	LM	100		
2	32mm diameter PPR Pipes	LM	120		
3	40mm diameter PPR Pipes	LM	180		
	Extra over PPR tubing for the following:				
4	25mm diameter PPR 90° elbow	No.	60		
5	32mm diameter PPR 90° elbow	No.	48		
6	40mm diameter PPR 90° elbow	No.	39		
	Tees				
7	25mm diameter PPR equal tee	No.	24		
8	32mm diameter PPR equal tee	No.	40		
9	40mm diameter PPR equal tee	No.	80		
	Reducer Coupling				
10	25x20mm diameter PPR reducer coupling	No.	88		
11	32x25mm diameter PPR reducer coupling	No.	48		
12	40x32mm diameter PPR reducer coupling	No.	20		
	Reducer Tees				
13	25x20mm diameter PPR reducer tees	No.	16		
14	32x25mm diameter PPR reducer tees	No.	20		
15	40x32mm diameter PPR reducer tees	No.	20		
	Union				
16	25mm diameter PPR union	No.	12		
17	32mm diameter PPR union	No.	16		
18	40mm diameter PPR union	No.	20		
	Gate Valves				
19	32mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and metal/plastic adaptors to PPR tubing. Valve to be as "Crane Model " or equal and approved	No.	12		
20	63mm ditto	No.	20		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
	PPR Male threaded adaptors (Brass threads).				
21	20 x ¾"ø dia Male threaded adaptors (Brass threads).	No.	56		
22	25 x 1"ø dia ditto	No.	28		
23	32 x 11/4"ø dia ditto	No.	12		
24	63 x 11/2"ø dia ditto	No.	20		
	PPR Male/Female threaded elbows (Brass threads).				
25	20 x ¾"ø dia female threaded adaptors (Brass threads).	No.	56		
26	25 x 1"ø dia ditto	No.	28		
27	32 x 11/4"ø dia ditto	No.	12		
28	40 x 11/2"ø dia ditto	No.	20		
	Check Meter				
29	Allow for 63mm diameter "Kent" water check meters	No.			
	Total for 1No. Floor				
					2.00
	Total for 2No. Floor				
	TOTAL TO INTERNAL PLUMBING COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
II	**TYPICAL 2ND TO 9TH FLOOR**				
	Supply, deliver install, Test and Commission: **PP-R (Polypropylene Random Co-polymer)** pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Cold Water				
1	25mm diameter PPR Pipes	LM	100	-	
2	32mm diameter PPR Pipes	LM	120	-	
3	40mm diameter PPR Pipes	LM	180	-	
	Extra over PPR tubing for the following:				
4	25mm diameter PPR 90° elbow	No.	60	-	
5	32mm diameter PPR 90° elbow	No.	48	-	
6	40mm diameter PPR 90° elbow	No.	39	-	
	Tees				
7	25mm diameter PPR equal tee	No.	24	-	
8	32mm diameter PPR equal tee	No.	40	-	
9	40mm diameter PPR equal tee	No.	80	-	
	Reducer Coupling				
10	25x20mm diameter PPR reducer coupling	No.	88	-	
11	32x25mm diameter PPR reducer coupling	No.	48	-	
12	40x32mm diameter PPR reducer coupling	No.	20	-	
	Reducer Tees				
13	25x20mm diameter PPR reducer tees	No.	16	-	
14	32x25mm diameter PPR reducer tees	No.	20	-	
15	40x32mm diameter PPR reducer tees	No.	20	-	
	Union				
16	25mm diameter PPR union	No.	12	-	
17	32mm diameter PPR union	No.	16	-	
18	40mm diameter PPR union	No.	20	-	
	Gate Valves				
19	32mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and metal/plastic adaptors to PPR tubing. Valve to be as "Crane Model " or equal and approved	No.	12	-	
20	63mm ditto	No.	20	-	
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
	PPR Male threaded adaptors (Brass threads).				
1	20 x ¾"ø dia Male threaded adaptors (Brass threads).	No.	56	-	
2	25 x 1"ø dia ditto	No.	28	-	
3	32 x 11/4"ø dia ditto	No.	12	-	
4	63 x 11/2"ø dia ditto	No.	20	-	
	PPR Male/Female threaded elbows (Brass threads).				
5	20 x ¾"ø dia female threaded adaptors (Brass threads).	No.	56	-	
6	25 x 1"ø dia ditto	No.	28	-	
7	32 x 11/4"ø dia ditto	No.	12	-	
8	40 x 11/2"ø dia ditto	No.	20	-	
	Check Meter				
9	Allow for 63mm diameter "Kent" water check meters	No.		-	
	Total for 1No. Floor				
					8.00
	Total for 8No. Floor				
	TOTAL TO INTERNAL PLUMBING COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C III	**INTERNAL PLUMBING STUDENTS CENTER**				
	Supply, deliver install, Test and Commission: **PP-R (Polypropylene Random Co-polymer)** pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Cold Water				
1	25mm diameter PPR Pipes	LM	50		
2	32mm diameter PPR Pipes	LM	200		
3	40mm diameter PPR Pipes	LM	400		
	Extra over PPR tubing for the following:				
4	25mm diameter PPR 90° elbow	No.	30		
5	32mm diameter PPR 90° elbow	No.	48		
6	40mm diameter PPR 90° elbow	No.	50		
	Tees				
7	25mm diameter PPR equal tee	No.	24		
8	32mm diameter PPR equal tee	No.	40		
9	40mm diameter PPR equal tee	No.	80		
	Reducer Coupling				
10	25x20mm diameter PPR reducer coupling	No.	88		
11	32x25mm diameter PPR reducer coupling	No.	48		
12	40x32mm diameter PPR reducer coupling	No.	20		
	Reducer Tees				
13	25x20mm diameter PPR reducer tees	No.	16		
14	32x25mm diameter PPR reducer tees	No.	20		
15	40x32mm diameter PPR reducer tees	No.	20		
	Union				
16	25mm diameter PPR union	No.	12		
17	32mm diameter PPR union	No.	16		
18	40mm diameter PPR union	No.	20		
	Gate Valves				
19	32mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and metal/plastic adaptors to PPR tubing. Valve to be as "Crane Model " or equal and approved	No.	8		
20	63mm ditto	No.	2		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
	PPR Male threaded adaptors (Brass threads).				
21	20 x ¾"ø dia Male threaded adaptors (Brass threads).	No.	20		
22	25 x 1"ø dia ditto	No.	4		
23	32 x 11/4"ø dia ditto	No.	8		
24	63 x 11/2"ø dia ditto	No.	2		
	PPR Male/Female threaded elbows (Brass threads).				
25	20 x ¾"ø dia female threaded adaptors (Brass threads).	No.	20		
26	25 x 1"ø dia ditto	No.	4		
27	32 x 11/4"ø dia ditto	No.	8		
28	40 x 11/2"ø dia ditto	No.	2		
	Check Meter				
29	Allow for 63mm diameter "Kent" water check meters	No.			
	Total for Student Center				
	TOTAL TO INTERNAL PLUMBING COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C	**INTERNAL PLUMBING COLLECTION PAGE**				
I	Ground & First Floor				
II	Typical 1st To 9 th Floor				
	Sub Total For 1No. Block				
	Total For 2No. Blocks				**2.00**
III	Student Center				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D	**FOUL DRAINAGE**				
I	**GROUND FLOOR**				
	Supply, deliver and install the following uPVC Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Note: Trade Names Caradon Terrain Ltd's pipe and fittings have been used as a guide to the type and quality of materials required. Other brands must be equal and approved in writing by the Engineer inconsistency shall not be accepted.				
	SOIL & WASTE DRAINAGE				
	Above Ground				
	MuPVC waste System conforming to BS 5255				
1	32Φ Waste pipe	LM	60		
2	40Φ Waste pipe	LM	150		
3	50Φ Waste pipe	LM	145		
4	100Φ Waste pipe	LM	300		
	Extra over MuPVC waste pipework for the following:				
5	32Φ 90 degree sweep Bend	No.	48		
6	40Φ 90 degree sweep Bend	No.	56		
7	50Φ 90 degree sweep Bend	No.	24		
8	100Φ 90 degree sweep Bend	No.	24		
9	32Φ Sweep Tee	No.			
10	40Φ Sweep Tee	No.	20		
11	50Φ Sweep Tee	No.	20		
12	100Φ Sweep Tee	No.			
13	100Φ Double Branch	No.			
14	32Φ Access plug	No.	16		
15	40Φ Access plug	No.	20		
16	50Φ Access plug	No.	4		
17	100Φ Access plug	No.			
18	32mm dia - socket	No.	12		
19	40mm dia - socket	No.	8		
20	50mm dia - socket	No.			
21	100mm dia - socket	No.			
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
22	50 x 32mm dia - socket reducer	No.	12		
23	50 x 40mm dia - socket reducer	No.	8		
24	100 x 50mm dia - Boss connectors	No.			
25	100 x 50 Floor traps complete with Plastic Grating	No.	32		
26	100Φ Vent Cowl	No.	28		
27	Allow for 2" PVC pipe sleeves through/ on side of the columns in bathrooms	LM	8		
	Total For 1No. Floor				
	TOTAL TO INTERNAL DRAINAGE COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
II	**TYPICAL 1ST TO 9TH FLOOR**				
	Supply, deliver and install the following uPVC Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Note: Trade Names Caradon Terrain Ltd's pipe and fittings have been used as a guide to the type and quality of materials required. Other brands must be equal and approved in writing by the Engineer inconsistency shall not be accepted.				
	SOIL & WASTE DRAINAGE				
	Above Ground				
	MuPVC waste System conforming to BS 5255				
1	32Φ Waste pipe	LM	60	-	
2	40Φ Waste pipe	LM	150	-	
3	50Φ Waste pipe	LM	80	-	
4	100Φ Waste pipe	LM	200	-	
	Extra over MuPVC waste pipework for the following:				
5	32Φ 90 degree sweep Bend	No.	48	-	
6	40Φ 90 degree sweep Bend	No.	56	-	
7	50Φ 90 degree sweep Bend	No.	24	-	
8	100Φ 90 degree sweep Bend	No.	24	-	
9	32Φ Sweep Tee	No.		-	
10	40Φ Sweep Tee	No.	20	-	
11	50Φ Sweep Tee	No.	20	-	
12	100Φ Sweep Tee	No.		-	
13	100Φ Double Branch	No.		-	
14	32Φ Access plug	No.	16	-	
15	40Φ Access plug	No.	20	-	
16	50Φ Access plug	No.	4	-	
17	100Φ Access plug	No.		-	
18	32mm dia - socket	No.	12	-	
19	40mm dia - socket	No.	8	-	
20	50mm dia - socket	No.		-	
21	100mm dia - socket	No.		-	
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
22	50 x 32mm dia - socket reducer	No.	12		
23	50 x 40mm dia - socket reducer	No.	8		
24	100 x 50mm dia - Boss connectors	No.			
25	100 x 50 Floor traps complete with Plastic Grating	No.	32		
26	100Φ Vent Cowl	No.			
27	Allow for 2" PVC pipe sleeves through/ on side of the columns in bathrooms	LM	8		
	Total for 1 No. Floor				
					9.00
	Total for 9 No. Floor				
	TOTAL TO INTERNAL DRAINAGE COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D	**FOUL DRAINAGE**				
I	**STUDENTS HOSTELS**				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Note: Trade Names Caradon Terrain Ltd's pipe and fittings have been used as a guide to the type and quality of materials required. Other brands must be equal and approved in writing by the Engineer inconsistency shall not be accepted.				
	SOIL & WASTE DRAINAGE				
	Above Ground				
	MuPVC waste System conforming to BS 5255				
1	32Φ Waste pipe	LM	60		
2	40Φ Waste pipe	LM	100		
3	50Φ Waste pipe	LM	75		
4	100Φ Waste pipe	LM	100		
	Extra over MuPVC waste pipework for the following:				
5	32Φ 90 degree sweep Bend	No.	16		
6	40Φ 90 degree sweep Bend	No.	50		
7	50Φ 90 degree sweep Bend	No.	16		
8	100Φ 90 degree sweep Bend	No.	8		
9	32Φ Sweep Tee	No.			
10	40Φ Sweep Tee	No.	10		
11	50Φ Sweep Tee	No.	10		
12	100Φ Sweep Tee	No.			
13	100Φ Double Branch	No.			
14	32Φ Access plug	No.	4		
15	40Φ Access plug	No.	10		
16	50Φ Access plug	No.	4		
17	100Φ Access plug	No.			
18	32mm dia - socket	No.	12		
19	40mm dia - socket	No.	8		
20	50mm dia - socket	No.			
21	100mm dia - socket	No.			
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
22	50 x 32mm dia - socket reducer	No.	12		
23	50 x 40mm dia - socket reducer	No.	8		
24	100 x 50mm dia - Boss connectors	No.			
25	100 x 50 Floor traps complete with Plastic Grating	No.	8		
26	100Φ Vent Cowl	No.	4		
27	Allow for 2" PVC pipe sleeves through/ on side of the columns in bathrooms	LM	8		
	Total For Students Center Block				
	TOTAL TO INTERNAL DRAINAGE COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D	**INTERNAL DRAINAGE COLLECTION PAGE**				
I	Ground Floor				
II	Typical 1st To 9th Floor				
	Sub Total For 1No. Block				
	Total For 2No. Blocks				**2.00**
III	Students Center				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E	**EXTERNAL FOUL DRAINAGE**				
I	**STUDENT HOSTELS**				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Below Ground				
	MuPVC waste System conforming to BS 5255				
1	100.4.40 Soil and Vent pipe	LM	75		
2	100.6.60 Soil and Vent pipe	LM	230		
3	101.4.90 Sweep bend	No.	30		
4	100Φ 45 degree sweep Bend	No.	6		
5	104.6.92 Single branch	No.	10		
6	136.4 Access Cap	No.	30		
	Gully Trap - Concrete Cover				
7	Allow for a masonry gully trap of size 300 x 300 x450 mm deep with cast Iron P-Trap, cast iron grating, drain pipe, concrete cover, etc.	No.	40		
	Inspection Chambers				
8	Allow excavation and concreting to Class 1:3:6, walling 150 mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2, rectangular Cast Iron heavy duty cover and MS frame with double air seal for manhole not exceeding 1000 mm depth.	No.	40		
	Sub Total For 1No. Block				
	Total For 2No. Blocks				**2.00**
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E	**EXTERNAL FOUL DRAINAGE**				
II	**STUDENT CENTER**				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Below Ground				
	MuPVC waste System conforming to BS 5255				
1	100.4.40 Soil and Vent pipe	LM	75		
2	100.6.60 Soil and Vent pipe	LM	0		
3	101.4.90 Sweep bend	No.	30		
4	100Φ 45 degree sweep Bend	No.	6		
5	104.6.92 Single branch	No.	0		
6	136.4 Access Cap	No.	4		
	Gully Trap - Concrete Cover				
7	Allow for a masonry gully trap of size 300 x 300 x450 mm deep with cast Iron P-Trap, cast iron grating, drain pipe, concrete cover, etc.	No.	4		
	Inspection Chambers				
8	Allow excavation and concreting to Class 1:3:6, walling 150 mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2, rectangular Cast Iron heavy duty cover and MS frame with double air seal for manhole not exceeding 1000 mm depth.	No.	4		
	TOTAL TO EXTERNAL FOUL DRAINAGE SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E II	**EXTERNAL FOUL DRAINAGE SUMMARY PAGE**				
I	Student Hostels				**0.00**
II	Student Center				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
F	**RAINWATER DRAINAGE**				
	HOSTEL BLOCK				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
I	uPVC Rainwater system conforming to BS 4576				
1	100mm dia pipe	LM	720		
2	100mm Sweep bend	No.	20		
3	100mm dia Fulbora Outlets	No	20		
	Sub Total For 1No. Block				
	Total For 2No. Blocks				**2.00**
II	**STUDENTS CENTER**				
	uPVC Rainwater system conforming to BS 4576				
1	100mm dia pipe	LM	60		
2	100mm Sweep bend	No.	10		
3	100mm dia Fulbora Outlets	No	5		
	Sub Total For 1No. Block				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
G I	**HOSEREELS, FIRE EXTINGUISHERS** **STUDENT BLOCK**				
	GI Class 'B' tubing to KS06-259 with screwed and socketed joints to KS ISO 7-1:1994 including all range piping, fittings, hanagers, supports, brackets, and supports				
1	25mm diameter Black Pipe	Lm	25		
2	50mm diameter ditto	Lm	80		
	Extra over GMS tubing for the following:				
3	25mm diameter Black Pipe elbow	No.	20		
4	50mm dia ditto	No.	2		
	Tees				
5	25mm Black Pipe equal tee	No.	9		
6	50mm ditto	No.	5		
	Reducing Bushes				
7	25 x 20mm Black Pipe reducing bush	No.	10		
8	50 x 25 mm ditto	No.	10		
	Coupler				
9	25mm diameter Coupler	No.	3		
10	50mm ditto	No.	12		
	Gate Valves				
11	25mm dia high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 " or equal and approved	No.	10		
12	50mm ditto	No.	2		
	Pressure Gauge				
13	50mm diameter Pressure Gauge as Pakkens or equal and approved	No.	1		
	Hosereels				
14	Non recessed swinging type hosereel complete with 30 metres of 20mm internal diameter rubber fire hose with nylon spray/jet shut off nozzle , conforming to BS 5274 complete with 25mm diameter Pressure Gauge as Pakkens or equal and approved	No.	10		
15	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	Sum	1		
	Fire Extinguishers				
16	5kg portable water/CO2 (gas cartridge) fire extinguisher conforming to BS 5423 complete with support brackets	No.	10		
17	9 kg portable dry chemical powder extinguisher conforming to BS 5423 complete with support brackets and approvedopriate charge of powder and CO2 cartridge.	No.	10		
18	12kg automatic Dry Powder Fire Extinguisher mounted over generators, witch room	No.	3		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
19	Supply and fix signs indicating the words "FIRE POINT" in 80mm high letters	No.	20		
20	50mm non-return valve	No.	1		
21	50mm dia in-line strainer	No.	1		
22	Electrical wiring from local supply left within 10 metres within the pump room to control panel, from control panel to electric motors and from level controls to control panel.	Sum	1		
23	Allow for 50mm dia. Pressure Reducing Valve	No.	2		
	Sub Total For 1No. Block				
					2.00
	Total For 2No. Blocks				
	TOTAL TO FIRE HOSEREEL SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
G I	**HOSEREELS, FIRE EXTINGUISHERS** **STUDENT CENTER**				
	GI Class 'B' tubing to KS06-259 with screwed and socketed joints to KS ISO 7-1:1994 including all range piping, fittings, hanagers, supports, brackets, and supports				
1	25mm diameter Black Pipe	Lm	10		
2	50mm diameter ditto	Lm	40		
	Extra over GMS tubing for the following:				
3	25mm diameter Black Pipe elbow	No.	4		
4	50mm dia ditto	No.	2		
	Tees				
5	25mm Black Pipe equal tee	No.	4		
6	50mm ditto	No.	2		
	Reducing Bushes				
7	25 x 20mm Black Pipe reducing bush	No.	2		
8	50 x 25 mm ditto	No.	2		
	Coupler				
9	25mm diameter Coupler	No.	1		
10	50mm ditto	No.	2		
	Gate Valves				
11	25mm dia high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 " or equal and approved	No.	1		
12	50mm ditto	No.	1		
	Pressure Gauge				
13	50mm diameter Pressure Gauge as Pakkens or equal and approved	No.	1		
	Hosereels				
14	Non recessed swinging type hosereel complete with 30 metres of 20mm internal diameter rubber fire hose with nylon spray/jet shut off nozzle , conforming to BS 5274 complete with 25mm diameter Pressure Gauge as Pakkens or equal and approved	No.	2		
15	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	Sum	1		
	Fire Extinguishers				
16	5kg portable water/CO2 (gas cartridge) fire extinguisher conforming to BS 5423 complete with support brackets	No.	2		
17	9 kg portable dry chemical powder extinguisher conforming to BS 5423 complete with support brackets and approvedopriate charge of powder and CO2 cartridge.	No.	2		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
18	Supply and fix signs indicating the words "FIRE POINT" in 80mm high letters	No.	2		
19	50mm non-return valve	No.	1		
20	50mm dia in-line strainer	No.	1		
21	Automatic electrical control panel for the two hosereel pumpsets as per general specification	No.	1		
22	Electrical wiring from local supply left within 10 metres within the pump room to control panel, from control panel to electric motors and from level controls to control panel.	Sum	1		
23	Allow for 50mm dia. Pressure Reducing Valve	No.	2		
	Sub Total For Block				
	TOTAL TO FIRE HOSEREEL SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
G	**FIRE HOSEREEL SUMMARY PAGE**				
I	Student Hostels				**0.00**
II	Student Center				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	DRY RISER				
	Supply , deliver and install Galvernised Iron (GI) Pipe to K-SS36 Class B, socketed joints to K-SS36 and Groove fittings including fixing and jointing. Tenderers must allow in their pipework prices for Galvanised Support Brackets, Clamping screw, Threaded Rod, Bolts & all the couplings, connectors, joints etc. required in the running length of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, brackets and pipe sleeves through structural members.				
1	100mm diameter Black Pipe	LM	48		
	Extra over Black Pipe tubing for the following:				
	Bends				
2	100mm diameter bend	No.	8		
	Tees				
3	100mm ditto	No.	10		
	Reducing Bushes				
4	100x65mm Black Pipe reducing bush	No.	10		
	Couplers				
5	100mm diameter Black Pipe union	No.	9		
	Flanges				
6	65mm dia Black Pipe flanges(pair, including bolts, nuts and gasket)	No.	10		
	Landing Valve				
7	65mm diameter landing valve as Merry -Weather "Equery" constant pressure outlet with flanged inlet and 1No. 65mm dia female instantaneous outlet with blank cap and chain.	No.	10		
	Fire Hose				
8	65mmdia x30m long canvas hose as specified	No.	1		
9	Hose cradle for above canvas hose	No.	1		
10	65mm dia branch pipe complete with nozzle/spray	No.	1		
	Gate Valves				
11	100mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 " or equal and approved	No.	1		
12	100mm 2-way horizontal mounted pumping in breeching inlet to BS 5041 Part 3 and horizontal inlet box with door fitted with Georgian wired glass panel to BS5041 Part 5. Inclussive of Breeching inlet cabinet as specified complete with access break glass and painted	Item	1		
13	25mm dia Air Relief Valve as specified	No.	1		
14	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	Sum	1		
	Pressure testing and Painting				
15	Allow for pressure testing of the entire Dry riser installation and obtain relevant test certificates endorsed by the Engineer or his representative.	Sum	1		
	Sub Total For 1No. Block				**0.00**
	Sub Total For 2No. Blocks		2		**0.00**
	TOTAL COST FOR DRY RISER TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
H	**WATER RETICULATION & BOOSTED MAINS**				
	Float Switch & Cable				
1	RC tank low water level cut out float switch, Pressed Steel roof tank high level and low level cut out float switch inclusive of cables and laying from the pump control panel to the controls float switches. (Approx. 80 metres).	Item	1		
	Painting & Colour Coding				
2	Allow for painting of the whole of the plumbing installation with one coat of primer and two finishing coats in accordance with BS1710 specifications and labelling to the satisfaction of the Engineer.	Sum	1		
	Connection to Local Authority Water Mains				
3	Allow for application on behalf of Client and be responsible for water connection to the main supply pipe including liason with the local authority	Sum	1		
	Bulky Water Meter				
4	Allow for 50 mm diameter "Kent" Council water meter	No.	2		
	Valve/Meter Chamber				
5	Allow for a masonry valve chamber for 50 mm diameter valve and above of size 600 x 600 x 450 mm maximum depth with reinforced concrete cover with mild steel frame conforming to local authority requirements.	No.	2		
	Hose Taps				
6	Heavy duty, chrome plated 1/2" hose bibcock with star handles complete with GI stand pipe and support, and hose union	No.	3		
	Excavation				
7	Excavate trench for buried drain pipes not exceeding 1000 mm and average 600 mm deep, part return, fill in, ram and remainder cart away.	LM	0		
8	Allow for bracketing of pipes in vertical and horizontal runs **after evry 1.5m**	Sum	1		
9	Concrete surround for pipe across driveway	LM	0		
	Pump Room				
10	50mm dia galvanised mild steel puddle flange manufactured from K-SS35 Class C pipe with flanges made of 15mm thick mild steel plate, all hot dipped galvanised after manufacture and treated with primer and finishing coats of colas bitumastic-Council inlet, Borehole inlet, float switch cables, domestic outlets	No.	16		
11	75mm dia galvanised mild steel puddle flange manufactured from K-SS35 Class C pipe with flanges made of 15mm thick mild steel plate, all hot dipped galvanised after manufacture and treated with primer and finishing coats of colas bitumastic-Overflow	No.	2		
12	150mm dia galvanised mild steel puddle flange manufactured from K-SS35 Class C pipe with flanges made of 15mm thick mild steel plate, all hot dipped galvanised after manufacture and treated with primer and finishing coats of colas bitumastic-Provision for fire discharge	No.	6		
13	RC Underground Water Tank **150,000 Litres** Capacity	No.	1	MC	MC
14	50mm dia High Pressure Ball float Valve	No.	4		
15	GI Tank breather C/W insect Screen and bends 150mm dia	No.	2		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
16	32mm diameter PPR Pipes	Lm	10		
17	32mm diameter PPR Elbows	No.	2		
18	32 x1 3/4"ø dia threaded adaptors (Brass threads).	No.	4		
19	800x600mm mild steel sheet hinged cover complete with mild steel frame, and padlock.Cover and frame to be painted with corrosion resistant zinc primer and paint.	No.	1		
20	Allow for Stainless Steel Cat Ladder	Item	1		
	Water Supply Pipes From Underground Tank To Each Block Supply, deliver and install- Cold Water, Corrosion Resistant HDPE water supply pipes Tenderers must allow in their pipework prices for all the couplings, connectors, adaptors, joints etc.required in the running length of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, brackets and pipe sleeves through structural members.				
21	75mm diameter HDPE Pipes supply	LM	350		
25	50mm diameter HDPE Pipes supply	LM	40		
	Extra over HDPE pipe				
26	75 mm dia. Bend	No.	8		
27	50 mm dia. Bend	No.	6		
	Gate Valve				
27	50mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 "	Nos	4		
28	75mm ditto	Nos	4		
	Non Retun Valve				
29	50mm dia approved high pressureNon-Return Valve As Crane Model	Nos	6		
	HDPE Female threaded adaptors (Brass threads).				
30	50x 2"ø dia Female threaded adaptors (Brass threads).	No.	6		
31	50mm Bulk meter as Kent	Nos	4		
	Excavation				
32	Excavate trench for buried drain pipes not exceeding 1000 mm and average 600 mmdeep, part return, fill in with quarry dust along driveway, ram and remainder cart away.	LM	400		
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
I	**INTERNAL PLUMBING - RISERS, DROPPERS, & ROOF**				
	Supply, deliver and install PN20 PPR pipes and fittings for sizes up to 110mm for cold water. Tenderers must allow in their pipework prices for all the couplings, connectors, joints etc. required in the running length of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed, brackets, and pipe sleeves through structural members. The solvent weld shall be by a heat gun as recommended by the manufacturer.				
	Cold Water				
1	32mm diameter PPR Pipes	Lm	50		
2	40mm diameter PPR Pipes	Lm	100		
3	50mm diameter PPR Pipes-Rising Main	Lm	150		
4	50mm diameter PPR Pipes - Dropper for 2nd and 3ard Floors	Lm	100		
5	63mm diameter PPR Pipes Dropper from Roof Tank to Wet Areas	Lm	480		
5	100mm diameter GI Pipes at Roof Terrace Painted	Lm	80		
	Extra over PPR tubing for the following:				
6	32mm diameter PPR 90° elbow	No.	15		
7	40mm diameter PPR 90° elbow	No.	10		
8	50mm diameter PPR 90° elbow	No.	12		
9	63mm diameter PPR 90° elbow	No.	24		
9	100mm diameter GI 90° elbow painted	No.	12		
	Tees				
10	32 mm diameter PPR equal tee	No.	12		
11	40 mm diameter PPR equal tee	No.	10		
12	50 mm diameter PPR equal tee	No.	30		
13	63mm diameter PPR 90° equal tee	No.	160		
12	100 mm diameter GI equal tee painted	No.	14		
14	32x25mm diameter PPR reducer coupling	No.	14		
15	40x32mm diameter PPR reducer coupling	No.	14		
16	63x50mm diameter PPR reducer coupling	No.	14		
16	100x63mm diameter GI-PPR reducer coupling painted	No.	20		
	Unions				
17	32mm diameter PPR socket	No.	8		
18	40mm diameter PPR socket	No.	12		
19	50 mm diameter PPR socket	No.	30		
20	63 mm diameter PPR socket	No.	60		
20	100 mm diameter GI socket painted	No.	10		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
	Gate Valves				
21	32mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 "	No.	12		
22	40mm ditto	No.	12		
23	50mm ditto	No.	22		
24	63mm ditto	No.	20		
25	100mm ditto	No.	1		
	PPR Male/Female threaded adaptors (Brass threads).				
26	32 x1 1/4"ø dia threaded adaptors (Brass threads).	No.	5		
27	40 x1 1/2"ø dia threaded adaptors (Brass threads).	No.	5		
26	50 x2"ø dia threaded adaptors (Brass threads).	No.	5		
27	63 x2 1/2"ø dia threaded adaptors (Brass threads).	No.	5		
28	100 x 4"ø dia GI threaded adaptors (Brass threads). Painted	No.	2		
29	50mm diameter Pressure reducing valve with self-contained replaceable cartridge. Brass body. With pressure regulating scale for manual pressure adjustment. Stainless steel strainer cartridge with transparent housing, With replacement strainer and key to service strainer and cartridge, Male union connections, Strainer mesh size Ø: 0,28 mm,Max. working temperature: 40°C Certified to EN 1567.	No.	2		
	Sub Total For 1No. Block				
					2.00
	Total For 2No. Blocks				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	MAIN SUMMARY PAGE				
B	Sanitary Fittings Install Only				
C	Internal Plumbing				
D	Internal Foul Drainage				
E	External Foul Drainage				
F	Rainwater Drainage				
G	Hosereel System				
H	Dry Riser System				
I	Water Reticulation & Boosted Mains				
J	Internal Plumbing-Risers, Droppers, and Roof				
	TOTAL COST FOR MECHANICAL WORKS (INCL 16% VAT)				

1.00	**OMMISION SUM**				
ITEM	**DESCRIPTION**	**Unit**	**Qty**	**RATE (KSHS)**	**AMOUNT (KSHS)**
1.10	Sanitary Supply Only	Item	1	11,000,000.00	11,000,000.00
1.20	Booster Pumps Supply & Installation (50m³/hr @ 5Bar)	Set	1	2,100,000.00	2,100,000.00
1.30	50,000 Liters GRP Tanks Roof Level	No	2	1,500,000.00	3,000,000.00
1.40	Hose Reel Pumps (100 l/min@ 3Bar)	Set	2	200,000.00	400,000.00
1.50	Borehole Drilling & Equipping Estimate	No.	1	4,500,000.00	4,500,000.00
1.60	1500 P.E Waste Water Treatment Plant (Equiping Only)	No.	1	16,800,000.00	16,800,000.00
1.70	External Reticulation Borehole Water	Item	1	101,800.00	101,800.00
1.80	External Reticulation Council Water	Item	1	131,800.00	131,800.00
	Sub Total				**38,033,600.00**

Amount in Words: Kenya Shillings……..…....……....

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Official Stamp & Address:……..……

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Tenderer's Signature:……..……...Date:……..……...……

Witness' Name:……Witness' Signature:……...…..……

Address:……..……..……

Date:……

GUARD HOUSE

Item	Description	Unit	QTY		
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	15		
B	Excavate average 300mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	15		
C	Excavate for Strip foundations depth not exceeding 1.50 metres starting from Reduced ground levels.	CM	10		
D	Ditto to column bases	CM	2		
E	Extra over all type of excavation for excavating in soft rock	CM	1		
F	Ditto excavation in hard rock class I	CM	1		
	Disposal of water				
G	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item			
	Planking and strutting				
H	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item			
	Carried to collection				

Item	Description	Unit	QTY		
	Disposal of excavated material				
A	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	1.00		
B	Return, fill and ram selected excavated material around sides of foundations.	CM	12		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a roller: to the satisfaction of the Structural Engineer.	CM	0		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	12		
E	50 mm Stone dust/ Murrum blinding to surfaces of hardcore	SM	15		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	15		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	15		
	Concrete Blinding				
	Insitu concrete Class 15MPa: vibrated:				
H	50 mm thick blinding under column bases	SM	6		
I	50 mm thick blinding under strip foundations	SM	8		
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
J	Column bases	CM	2		
K	Strip foundations	CM	2		
L	100mm thick surface bed	SM	15		
M	Steps **In- situ vibrated reinforced concrete Class 25 MPa: in:**	CM	0		
N	Columns	CM	1		
	Carried to collection				

Item	Description	Unit	QTY		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KGS	264		
	Mesh fabric reinforcement to K/EAS 412;2 (2019) BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In ground floor slab	SM	15		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
C	Sides of column bases	SM	7		
D	Vertical sides to columns	SM	8		
E	Edge of slab not exceeding 150mm girth	LM	15		
F	Edges of risers 75 - 150mm high	LM	14		
	Foundation Walling				
	Natural quarry stone walling with a minimum of 7.0 N/mm2 bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
G	200mm thick walls in foundations	SM	18		
	Pavings				
H	Supply and lay 600 x 600 x 50mm reinforced concrete precast paving slabs around the building including laying, spreading and compacting 100mm thick approved sand bed blinding, on and including 150mm thick compacted hardcore to Engineer's approval.	SM	7		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
J	Plinths externally	SM	5		
	Two coats black bitumastic paint on:				
K	Rendered surfaces	SM	5		
	Carried to collection				

Item	Description	Unit	QTY		
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 1 **Carried to** **SUBSTRUCTURES** **Main summary**				

Item	Description	Unit	QTY		
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
A	Columns	CM	2		
B	Beams	CM	2		
C	150mm thick Roof Slab	SM	15		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
D	Assorted reinforcement	Kg	759		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to				
E	Sides of columns	SM	27		
F	Sides and soffites of beams	SM	16		
G	Soffits of suspended slabs	SM	15		
H	Edges of slab over 150mm but not exceeding 225mm girth	LM	15		
	ELEMENT NO. 2 Carried to				
	R.C FRAME Main summary				

Item	Description	Unit	QTY		
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength; bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	SM	24		
B	200mm thick parapet walling	SM	6		
	Internal Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength; bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
C	200mm thick walling Internally	SM	5		
D	150mm thick walling Internally	SM	0		
E	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	LM	11		
F	Approved hessian based damp proof course to 150mm thick walling in cement/sand mortar	LM	0		
	Precast Concrete Breeze Ventilation Blocks				
G	150 x 150mm wide x 50mm thick Pre Cast Concrete flower 3D breeze ventilation blocks bedded and jointed in cement and sand (1:4) mortar	SM	0		
	COPING				
H	300 x 100mm insitu reinforced concrete class 20Mpa coping, throated and weathered and jointing to columns with cement sand 1:4 mortar	LM	11		
	Lintols				
I	200mm x 200mm Deep lintols in reinforced concrete class 20MPa with and including 4No T10 and T8 stirups at 200mm centres; complete with formwork	LM	2		
	ELEMENT NO. 3 Carried to WALLING Main summary				

Item	Description	Unit	QTY		
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 4-WINDOWS				
	MILD STEEL WINDOWS				
	Supply, fabricate and fix the following purpose made small pane mild steel casement windows to be fabricated from approved mild steel sections (atleast 14g 2mm thick) comprising of frame and casement incorporating permanent hooded high level ventilation panels infilled with mosquito gauze : window supplied complete with and including 12mm solid square burglar proofing bars fixed at 200mm centres both ways and metal fixing lugs including building into wall and making good, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:-				
	A prime cost sum of Kshs 4,500 per Sqm has been allowed for fabrication of the above specified Steel casement Windows by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Window, overall size 1900 X 1500mm high to Architects Details	NO	1		
B	Ditto Size 650 x 1500mm high (bedroom)	NO	1		
C	Ditto Size 1000 x 1350mm high (Kitchen)	NO	0		
D	Ditto Size 600 x 900mm high (WC/SH)	NO	1		
	Glazing				
E	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with premium putty	SM	4		
F	Ditto; obscure	SM	1		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in one finishing coats of approved first grade to: -				
G	General window and grille surfaces; over 300mm girth internal	SM	4		
	Carried to Collection				

Item	Description	Unit	QTY		
	Precast concrete window cill finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
A	150 x 25mm thick Precast concrete window sill	LM	3		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

Item	Description	Unit	QTY		
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 5-DOORS				
	External Doors				
	Flush timber doors				
	50 mm thick Semi Solid cored flush doors with plywood facing to receive painting (m.s) all to Architects details, specifications and approval				
	A prime cost sum at the rate indicated below for fabrication of the above specified Timber Flush door leaves by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Door size 900mm x 2400mm High comprising of 1 No Opennable leaf size 800 x 2100mm high including fixed fanlight size 900 x 300mm high in 4mm clear glass (measured separetely) (PC Rate Kshs 4,000)	NO	2		
B	Ditto 800 x 2100mm high comprising of 1No. Opennable leaf size 700 x 2100mm high (PC Rate Kshs 3,500)	NO	0		
	4mm Thick clear sheet glass fixing with matching timber glazing beads to timber frames				
C	In panes exceeding 0.1 sqm but not exceeding 0.5 square metres.	SM	1		
	Frames and frame finishes in cypress Timber				
D	25 x 25mm quadrant (PC Rate Kshs 75)	LM	5		
E	25 x 50mm architrave with two labours, plugged (PC Rate Kshs 150)	LM	8		
F	150mm x 50mm transome with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	8		
G	150mm x 50mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	8		
	Carried to collection				

Item	Description	Unit	QTY		
	Painting and decorating				
	Priming back of frame with an aluminium or equivalent and approved wood primer				
A	Surfaces not exceeding 100mm girth	LM	13		
B	Surfaces over 100mm but not exceeding 200mm girth	LM	15		
	Prepare Knot, prime, stop and apply one undercoat and two finishing coats first grade timber quality paint to wood surfaces as per the manufacturer's printed instructions				
C	General timber surfaces	SM	9		
D	Surfaces over 200mm but not exceeding 300mm girth	LM	15		
E	Architraves: not exceeding 100 mm girth	LM	8		
F	Quadrant beading : not exceeding 100 mm girth	LM	5		
	Ironmongery				
	Supply and fix the following ironmongery to timber complete with matching screws and keys to the approval of the Architect				
G	100mm pressed steel Butt Hinges	PRS	3		
H	Stainless steel 3 Lever Mortice Door Lock with handle furniture set;(keyhole escutcheons, cylinder and latch)	NO	0		
I	Ditto: but 2 Lever Door Lock with handle	NO	2		
J	Door fixing cramps	NO	0		
K	200 x 75 x 3mm perspex door signage with door numbers as per Architect detail	NO	2		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 5 DOORS **Carried to Main summary**				

Item	Description	Unit	QTY		
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	7		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	LM	29		
	External Painting *Prepare and apply one coat Alkali Resistant primer followed by two finishing coats of silicon exterior Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to*				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	7		
	ROOF FINISHES **Cement and sand (1:4) screeded beds: on concrete: complete with coloured pigmentation additives and hardener to:**				
D	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases	SM	12		
	Prepare and apply to vertical/horizontal surfaces 4mm thick APP/EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.				
E	4mm thick APP membrane applied to roof slabs	SM	12		
F	Ditto to skirting 200mm high	LM	11		
G	Dress membrane around 100mm rainwater outlet	No.	2		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
H	20mm thick interlocking Concrete tiles of size 225 x 225mm	SM	12		
	ELEMENT NO. 6 EXTERNAL FINISHES **Carried to Main summary**				

Item	Description	Unit	QTY		
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:3) backings				
A	15mm thick to receive ceramic Wall tiles	SM	12		
B	To receive ceramic wall tiles (m.s.)	SM	24		
	Ceramic wall tiles				
	Allow a Prime Cost supply rate of Ksh. 1000 per SM (Rate to include cost of purchase, transport, offload, storage, fixing including all necessary adhesives and accessories				
C	Supply and Fix approved ceramic wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval. - Wall Surfaces	SM	12		
	Ceramic wall tiles				
	Allow a Prime Cost supply rate of Ksh. 1000 per SM (Rate to include cost of purchase, transport, offload, storage, fixing including all necessary adhesives and accessories				
D	Supply and Fix approved ceramic wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval. - Wall Surfaces	SM	24		
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
E	Concrete/masonry surfaces	SM	8		
	Painting and Decoration				
	Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
F	Plastered concrete/masonry surfaces internally	SM	8		
	Carried to Collection				

Item	Description	Unit	QTY		
	Ceiling finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Soffits of Concrete surfaces	SM	12		
	Painting and Decoration				
	Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
B	Plastered ceilings	SM	12		
	Carried to Collection				

Item	Description	Unit	QTY		
	COLLECTION Total brought forward from page no: Total brought forward from page no:				
	ELEMENT NO. 7 Carried to **INTERNAL FINISHES Main summary**				

Item	Description	Unit	QTY		
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS **MAIN SUMMARY**				
1	**Substructures**				
2	**Reinforced Concrete Frame**				
3	**Walling**				
4	**Windows**				
5	**Doors**				
6	**External Finishes**				
7	**Internal Finishes**				
	TOTAL FOR 1NO. GUARD HOUSE				
	NO. OF BLOCKS				
	MULTIPLY BY **1.NO** OF GUARD HOUSE	**X 1**			
	TOTAL FOR GUARD HOUSE CARRIED TO GRAND SUMMARY				

GARBAGE RECEPTACLE

Item	Description	Unit	QTY		
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	112		
B	Excavate average 300mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	112		
C	Excavate for Strip foundations depth not exceeding 1.50 metres starting from Reduced ground levels.	CM	68		
D	Ditto to column bases	CM	4		
D	Extra over all type of excavation for excavating in soft rock	CM	7		
E	Ditto excavation in hard rock class I	CM	0		
	Disposal of water				
F	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item			
	Planking and strutting				
G	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item			
	Carried to collection				

Item	Description	Unit	QTY		
	Disposal of excavated material				
A	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	2		
B	Return, fill and ram selected excavated material around sides of foundations.	CM	70		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a roller: to the satisfaction of the Structural Engineer.	CM	0		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	112		
E	50 mm Stone dust/ Murrum blinding to surfaces of hardcore	SM	112		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	112		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	112		
	Concrete Blinding				
	Insitu concrete Class 15MPa: vibrated:				
H	50 mm thick blinding under column bases	SM	14		
I	50 mm thick blinding under strip foundations	SM	45		
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
J	Column bases	CM	4		
K	Strip foundations	CM	9		
L	100mm thick surface bed	SM	112		
M	Columns	CM	1		
	Carried to collection				

Item	Description	Unit	QTY		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KGS	812		
	Mesh fabric reinforcement to K/EAS 412;2 (2019) BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In ground floor slab	SM	112		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
C	Sides of column bases	SM	17		
D	Sides of Strip foundations	SM	30		
E	Vertical sides to columns	SM	17		
F	Edge of slab not exceeding 150mm girth	LM	43		
	Foundation Walling				
	Natural quarry stone walling with a minimum of 7.0 N/mm2 bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
G	200mm thick walls in foundations	SM	98		
	Pavings				
H	Supply and lay 600 x 600 x 50mm reinforced concrete precast paving slabs around the building including laying, spreading and compacting 100mm thick approved sand bed blinding, on and including 150mm thick compacted hardcore to Engineer's approval.	SM	45		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
J	Plinths externally	SM	30		
	Two coats black bitumastic paint on:				
K	Rendered surfaces	SM	30		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 1 Carried to				
	SUBSTRUCTURES Main summary				

Item	Description	Unit	QTY		
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
A	Columns	CM	1		
B	Beams	CM	5		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
C	Assorted reinforcement	Kg	783		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to				
D	Sides of columns	SM	27		
E	Sides and soffites of beams	SM	45		
	ELEMENT NO. 2 Carried to				
	R.C FRAME Main summary				

Item	Description	Unit	QTY		
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength; bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	SM	97		
	Internal Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength; bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
B	200mm thick walling Internally	SM	70		
C	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	LM	75		
	ELEMENT NO. 3 WALLING **Carried to Main summary**				

Item	Description	Unit	QTY		
	PROPOSED GARBAGE RECEPTACLE **BILL NO.1-BUILDERS WORKS** **ELEMENT NO 4-ROOF**				
A	IT5 roofing sheets on steel trusses (m/s) with approved galvanised hook bolts, nuts and washers including side and end laps fixed to and including 100x50x4mm rafters spaced at 900mm c/c with 50x50x3mm SHS purlins at 600x600mm c/c with and including all welded and bolted connections : delivery to site and erection with and including one shop coat red oxide, zinc chromate or similar approved primer: complete to manufacturer's specifications	SM	101		
	ELEMENT NO. 4 ROOF **Carried to the Main summary**				

Item	Description	Unit	QTY		
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 5-DOORS				
	External Doors				
	Steel Casement Door				
	Heavy gauge double steel louvered door, all primed with red oxide and spray painted 2 coats eggshell gloss paint; complete with hinges, stays, fasteners and necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work sorroung and bedding frame in cement and sand mortar (1:3).				
	A prime cost sum at the rate indicated below has been allowed for fabrication of the above specified Hardwood panelled door leaves by AHP juakali artisans as approved by the Project Manager/Architect.				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Double leaf door size 1600 x 2100mm high (PC Rate Kshs 31,920)	NO	2		
B	Ditto overall Size 1200 x 2400mm high (PC Rate Kshs 27,360)	NO	4		
	ELEMENT NO. 5 DOORS **Carried to Main summary**				

Item	Description	Unit	QTY		
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	23		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	LM	97		
	External Painting				
	Prepare and apply one coat Alkali Resistant primer followed by two coats of silicon exterior Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	23		
	ELEMENT NO. 6 Carried to				
	EXTERNAL FINISHES Main summary				

Item	Description	Unit	QTY		
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:4) backings				
A	32mm Thick coloured cement sand screed mix 1:3 finished to approval	SM	98		
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
B	Concrete/masonry surfaces	SM	237		
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
C	32mm Thick coloured cement sand screed mix 1:3 finished with red oxide to approval	SM	98		
	ELEMENT NO. 7 Carried to INTERNAL FINISHES Main summary				

Item	Description	Unit	QTY		
	BILL NO.1-BUILDERS WORKS **MAIN SUMMARY**				
1	**Substructures**				
2	**Reinforced Concrete Frame**				
3	**Walling**				
4	**Roof**				
5	**Doors**				
6	**External Finishes**				
7	**Internal Finishes**				
	TOTAL FOR 1NO. GARBAGE RECEPTACLES				
	NO. OF BLOCKS				
	MULTIPLY BY **1.NO** OF RECEPTACLES	**X 1**			1
	TOTAL FOR GARBAGE RECEPTACLES CARRIED TO GRAND SUMMARY				

BASKET BALL PITCH

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROPOSED APARTMENTS FOR AFFORDABLE HOUSING PROGRAM (BASKET BALL PITCH)				
	BILL NO.8 BUILDERS WORKS				
	Oversite Excavation				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	925		
B	Excavate average 200mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	925		
C	Excavate to reduced levels in varying depths not exceeding 1.5m deep from existing ground levels.	CM	324		
D	Load and cart away excess excavated materials as directed on site.	CM	324		
	TOTAL FOR EXCAVATIONS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 2 - BASKET BALL COURT				
	(All provisional)				
	Sub-Grade				
A	Roll and compact subgrade formation to achieve 98% modified proctors MDD including grading to falls and crossfalls	SM	574		
B	Imported and approved murram backfill materials to make up levels, well watered, rolled and compacted to 98% MDD at optimum moisture content in layers not exceeding 150mm Thick to Engineer's approval	CM	201		
	Sub-Base				
C	150mm thick Compacted gravel 3.5mm in sub-base laid at a slope of 1%well watered and compacted to 98% MDD at optimum moisture content in layers each of 150mm Thick to Engineer's approval	SM	574		
	FINISHINGS				
D	**ASPHALT FINISH**				
	Prepare surface and spray MC-30 as a prime coat cutback bitumen at a rate of 0.8 -1.0 lt/m2 as prime coat.	SM	574		
E	Prepare primed surfaces, provide and spray K1-60 bitumen emulsion as tack coat at a spray rate of 0.8 - 1.0 lt/m2 as directed by Engineer.	SM	574		
F	75mm thick Asphalt concrete for surfacing	SM	574		
	Channels				
G	Provide, lay and joint Channel, 125x150mm flush channel block, laid on and including 450x100mm concrete (1:3:6) bed and 100x200mm haunching behind ancluding any necessary formwork and disposal of surplus material as directed.	LM	69		
	TOTAL FOR BASKET BALL COURTS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 3 - WATER DRAINAGE AROUND THE PITCH				
	FRENCH DRAIN				
	Oversite Excavation (All excavations Measured Net)				
	Excavate for French Drain average depth not exceeding 1500mm Deep, uphold the sides of excavation, keep excavations free from water, trim and compact the bottom of excavation to level and cart away the resultant excavated materials as directed on site as described in:				
A	Main-drain	CM	97		
B	Ditto to Sub-drain	CM	5		
	Mass concrete (class 15/20) in;				
	50mm Thick Class 15/20 mass concrete blinding to bottom of trenches to receive drain pipe as described in:				
C	Main-drain	SM	65		
	<u>Underground Drain Pipe.</u>				
D	Supply, lay including necessary jointing and connections approved HDPE Perforated Pipe all to approval as decribed in:				
E	200mm Diameter main drain.	LM	108		
	<u>Hesian Filter Fabric</u>				
F	Supply and lay approved hesian Filter Fabric to french drains girth 600mm wide.	LM	108		
G	Ditto girth 300mm wide.	LM	34		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Drain Fillings.				
A	Approved imported hardcore fillings over perforated underground pipe in main drain.	CM	15		
B	Ditto above formation level on subdrains.	CM	3		
C	Supply and place approved 200mm graded aggregates ballast fillings over perforated underground pipe in main drain.	CM	26		
D	Ditto above formation level on subdrains.	CM	2		
E	Supply and place approved sand fillings over perforated underground pipe in main drain.	CM	13		
F	Ditto above formation level on subdrains.	CM	2		
	Inspection chambers				
G	Construct 600 wide x 600 mm long x 1500 mm deep (internal dimensions) storm water manhole, comprising 150 mm thick concrete class 20 bed, 200 mm thick natural stonewalling in cement and sand (1:3) mortar, 150 mm thick concrete class 20 cover slab with requisite reinforcement, 450x 600 mm heavy duty cast iron cover and frame bedded in cement and sand (1:3) mortar; internally plastered & screeded in 15 mm thick lime plaster; 100 mm thick concrete class 20 benching; complete with necessary excavation, formwork and2 No. connections to pipes not exceeding 200 mm diameter(pipe m/s)	NO.	7		
	Carried to Collection				
	Collection: Brought forward from page BP/3 Brought forward from page Above				
	TOTAL FOR WATER DRAINAGE AROUND THE PITCH CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	ELEMENT NO. 4 - BASKET BALL GOAL POSTS				
	Excavation				
A	Excavation for Goal post sockets diameter 150mm wide average depth not exceeding 1500 mm from formed level.	CM	2		
	Disposal				
B	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	2		
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
C	Socket - bases & stud columns	CM	2		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
D	Assorted reinforcement	KG	200		
	Formwork				
E	Sawn formwork with one coat of an approved retarding agent to vertical sides of socket bases	SM	8		
	Mild steel work in:-				
F	Achoring system anchoring in concrete including neoprene caps all as per manufacturer's instructions.	NO	4		
G	150mm Diamater x 4mm thick CHS sockets all removable.	LM	30		
	Prime stop and apply one undercoat and two finishing coats of gloss paint to CROWN PAINTS first quality or other equal and approved to metal surfaces of:				
H	General metal surfaces	LM	60		
	Goal net and ring				
I	Standard goal net and ring all to approval welded to steel post.	NO.	2		
J	25mm thick fibre glass block board all fixee to approval	SM	4		
K	Supply and fix 100mm thick polytheylene foam padding	SM	4		
L	Supply and fix 25mm thick rubber tubing all around 150mm diameter vertical posts	LM	6		
	TOTAL FOR GOAL POSTS CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SUMMARY FOR BILL NO. 08 BASKET BALL PITCH				
	ELEMENT				
1	**EXCAVATIONS**		BP/1		
2	**BASKET BALL COURT**		BP/2		
3	**WATER DRAINAGE AROUND PITCH**		BP/4		
4	**BASKET GOAL POSTS**		BP/5		
	TOTAL FOR BASKET BALL PITCH CARRIED FORWARD TO GRAND SUMMARY				

BOUNDARY WALL

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BOUNDARY WALL				
	ELEMENT NO.1				
	SUBSTRUCTURES				
	(ALL PROVISIONAL)				
	Siteworks and Excavations				
A	Clear site of all grass, hedges, shrubs, bushes including grubbing up of roots, cart away arising debris and burn them.	SM	500		
	Excavations				
B	Excavate for Strip foundations depth not exceeding 1.50 metres starting groundlevel	CM	252		
C	Ditto to column base	CM	396		
D	Extra over excavation for excavating in soft rock	CM	6		
E	Allow for keeping the whole of the excavations free from all water; include for draining or other wise keeping all works free from water as necessary over the entire contract period		ITEM		
F	Allow for maintaining and upholding sides of excavations and keeping excavations clear of all fallen materials, rubbish etc		ITEM		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY		
	SUBSTRUCTURES-(CONTINUED)				
	Disposal of excavated materials				
A	Return, fill and ram selected excavated material around foundations.	CM	366		
B	Load,wheel and cart away surplus excavated material away from site	CM	282		
	Insitu class 15 / 20 mm aggregates as described in:				
C	50mm Thick blinding to strip foundation	SM	168		
D	Ditto to column bases	SM	183		
	Insitu concrete class 20 (20mm maximum aggregate size):vibrated and reinforced:				
E	Strip footing	CM	34		
F	Ditto to column bases	CM	55		
G	Columns	CM	25		
H	Ground Beam	CM	14		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY		
	SUBSTRUCTURES-(CONTINUED)				
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to:				
A	Sides of stripfooting	SM	385		
B	Ditto ground beam	SM	135		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
C	8mm diameter	KG	1953		
D	10 mm ditto	KG	1241		
E	12 mm ditto	KG	3009		
F	16 mm Ditto	KG	5896		
	Foundation Wall				
	Natural quarry stones rough dressed with a minimum compressive strength of 7.0N/mm2 average compressive strength bedded and jointed in cement and sand(1:4) mortar;reinforcced with 25 x 3mm thick iron strips at alternate courses.				
G	200mm Thick walling	SM	750		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY		
	COLLECTION FROM PAGE BW/1 FROM PAGE BW/2 FROM PAGE BW/3				
	TOTAL FOR ELEMENT NO. 1 CARRIED TO (SUBSTRUCTURES) SUMMARY	**KSHS**			

ITEM	DESCRIPTION	UNIT	QTY		
	ELEMENT NO. 2				
	REINFORCED CONCRETE SUPERSTRUCTURE				
	Insitu concrete class 20 (20mm maximum aggregate size):vibrated and reinforced:				
A	Columns	CM	53		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
B	Vertical sides of columns	SM	616		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
C	12mm diameter ditto	KG	2,149		
D	8mm diameter ditto	KG	1434		
	TOTAL FOR ELEMENT NO. 2 CARRIED TO				
	(REINFORCED CONCRETE) SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY		
	ELEMENT NO. 3				
	WALLING				
	Smooth chisel dressed natural stone walling in cement and sand (1:4) mortar reinforced with and including 25 x 3mm thick hoop iron in every alternate course				
A	200mm Thick walling	SM	1200		
	Precast concrete class 20/20 coping as described in;				
B	450 x 450 x 50 mm thick column capping, four times weathered and throated, bedded and jointed in cement and sand(1:4) mortar	NO	183		
C	250mm wide x 50 mm thick wall coping twice weathered and throated, bedded and jointed in cement and sand morter (1:4) on stone walling (m.s.)	LM	500		
	TOTAL FOR ELEMENT NO. 3 (WALLING) CARRIED TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY		
	ELEMENT NO. 4				
	EXTERNAL FINISHES				
A	Extra over walling for smooth chisel dressing with flush pointed vertical joints and recessed horizontal joints 10 mm rod in cement and sand mix (1:3) mortar including one coat of Bituminous paint	SM	2400		
	12mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
B	Columns	SM	616		
C	Ground beam	SM	135		
	GATES				
	Mild steel sections as described in;				
D	6000mm wide x 2400mm high double gate comprising of 50x50x3mm RHS framing and middle rail 50x25x3mm RHS Vertical infill members at 225mm centres;priming with red oxide primer; purpose made ironmongery; all necessary lugs and grouting as per details (all with roller at the ground)	NO	1		
E	Ditto pedestrian gate size 900x1800 ditto	NO	1		
	Prepare surfaces and apply two coats of first grade quality of gloss oil paint as manufactured by Crown Solo Paints or equal and approved on;				
F	General surfaces of metal	SM	33		
	TOTAL FOR ELEMENT NO. 4 CARRIED TO (EXTERNAL FINISHES) SUMMARY				

ITEM	DESCRIPTION				
	SECTION SUMMARY - BOUNDARY WALL				
1	**SUBSTRUCTURES FROM PAGE.....**	BW/4			
2	**R.C. SUPERSTRUCTURE**				
	FROM PAGE.....	BW/5			
3	**WALLING FROM PAGE.....**	BW/6			
4	**EXTERNAL FINISHES FROM PAGE.....**	BW/7			
	TOTAL FOR BOUNDARY WALL CARRIED TO GRAND SUMMARY				

CIVIL WORKS - ROADS

CIVIL WORKS					
BILL № 1: Preliminary and General Items					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
1.01	Allow Provisional sum of Kenya shillings (KSh 500,000/=) for materials testing as instructed by the Engineer.	Prov. Sum	1	500,000.00	500,000.00
1.02	Extra Over on Item 1.01 for Contractors overheads and profits	%			
1.03	Allow a Prime Cost (P.C) sum of Kenya Shillings One Million (KShs. 1,000,000) for training of Engineers, Technicians and other support staff as maybe instructed by the Engineer.	PC Sum	1	1,000,000.00	1,000,000.00
1.04	Extra Over on Item 1.03 above for the Contractors overheads and profits	%			
BILL 1 TOTAL CARRIED TO SUMMARY PAGE					

BILL № 2: Site Clearance and Topsoil Stripping					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
2.01	Clear site including removal of trees (girth less than 300 mm), hedges, bushes and other vegetation and other deleterious materials, grub up roots and backfilling of holes left by removal of stumps and roots in accordance with the Specifications, as shown on the drawings and as instructed by Engineer.	m2	2200.00		
2.02	Removal of top soil to a maximum depth of 200 mm including excavation, loading and disposal	m3	440.00		
2.03	Cutting of trees of all girth above 300 mm including cutting of trunks, branches, uprooting and removal of all materials and stacking within the Right of Way and complete with filling of depressions/pits by earth including liaison with concerned authorities for obtaining permissions.				
	(i) Girth from 300 mm to 600 mm	№	8		
	(ii) Girth above 600 mm but up to 900 mm	№	5		
	(iii) Girth above 900 mm but up to 1800 mm	№	3		
2.04	Transportation of the existing trees of girth above 600 mm girth as instructed by Engineer, including shifting of the tree and storing at locations as instructed by the Engineer.	№	8		
	Total of Bill № 2(Carried Forward to Summary				

BILL № 3: Earthworks					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
	No separate payments shall be made for the overhaul of the material and the cost of such haulage shall be included in the rates and or prices.				
3.01	Cut to spoil in soft material	m3	1,150		
3.02	As Item 5.01 but in hard material	m3	345		
3.03	Provide, spread, water, process and compact 300 mm improved subgrade to 100% MDD (AASHTO T99) in two layers of 150 mm thickness.	m3	1,062		
3.04	Provide and compact soft material as fill material as shown in the drawing and as directed by the Engineer	m3	2,078		
3.05	Provide and fill in hard material as shown in the drawing and as directed by the Engineer.	m3	416		
3.06	Provide, Spread and compact rockfill in swampy areas	m3	50		
	Total of Bill № 3 (Carried Forward to Summary)				

BILL № 4: Culvert and Drainage Works					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
	No separate payment shall be made for the haulage of surplus or unsuitable excavated material and the cost of such haulage shall be included in the rates and/or prices				
4.01	Excavate in soft material for pipe culverts, subsoil drains, headwalls, wing walls, aprons, toe walls, drop inlets, mitre drains, catch water drains and median drains including support of trench sides, backfilling and compacting as specified or as instructed by the Engineer.	m3	576		
4.02	As Item 8.01 but in hard material (any method)	m3	173		
4.03	Allow for hacking in existing concrete drain for junction connections	m3	10		
4.04	Allow for perforation and connecting to the existing drain including stoppage of inflowing water (hole approximately 600 widex800 high x 250 thick)	no.	2		
4.05	Excavate/ desilt, grade to shape inlets outfalls, side drains to free flow conditons including cart to spoil any excess grass debris and soils as and where directed by the Engineer.	m3	50		

4.06	Provide, lay and joint 450 mm Internal Diameter (I. D.) Reinforced Cement Concrete pipes. The rate to include backfilling and compaction to drain formation level	m	110		
4.07	Ditto item 8.06 above but 600mm I.D. Reinforced Cement Concrete pipes	m	24		
4.08	Provide place and compact class 25/20 concrete to headwalls, wingwalls, aprons and toe walls to pipe culverts.	m3	20		
4.09	Provide place and compact 150mm class 15/20 concrete to beds and surround to 450mm diameter pipes (0.4059m3/m)	m3	45		
4.10	Ditto item 8.11 above but 600mm I.D. Reinforced Cement Concrete pipes (0.5259m3/m)	m3	13		
4.11	Allow for in-situ lining with concrete Class 20/20 on outfall drains through built-up areas and limit of works areas and access roads	m3	10		
4.12	Provide and joint 600mm diameter precast concrete invert block drain (IBD) channels with two double side precast side slabs of 600x225x75mm as lining for side drain including bedding and backfilling with selected material as directed by the Engineer.	m	480		
4.13	Extra Over for precast side slabs of 600x225x75mm.	m	960		
4.14	Provide all materials lay and joint shallow IBD as directed by the Engineer to form mitre drains. Rate to include provision of 100mm well compacted bed and jointed by 1:3 cement mortar	m	500		
4.15	Provide and lay 150mm thick grouted stone pitching with ratio 1:4 cement to Mortar, on culvert inlets and outlets and where directed by the Engineer.	m2	40		
4.16	Provide all materials and construct standard untrapped gully pot in concrete class 20/20 reinforced with BRC A142 and with 350x500mm polyresin frames and covers conforming with standard specifications	no.	9		
4.17	Provide and place A142 fabric Mesh reinforcement or equivalent for wing walls, head walls, aprons, toe, inlets and outlets as directed by the Engineer	m2	40		

4.18	Excavate in soft material for service ducts including support of trench sides, backfilling and compacting as specified or as instructed by the Engineer.	m3	35		
4.19	As Item 8.20 but in hard material (any method)	m3	14		
4.20	Provide and lay 450 Dia service ducts of length 10 m each as per the drawings and as instructed by the Engineer	No.	2		
	Total of Bill № 4 (Carried Forward to Summary)				

BILL № 5: Natural Material for Sub-base and Base					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE (KShs)**	**AMOUNT (KShs)**
	Measurements and payment by method 'A' as defined in the standard specifications. No separate payments shall be made for the overhaul of material and the cost of such haulage shall be included in the rates and or prices				
5.01	Provide, place, water and compact Natural Gravel Material to 95% MDD (AASHTO T180) of sub base quality for base for the walkways of thickness 150mm and on the carriageway and parking to a consolidated thickness of not more than 300mm as shown in the drawings and as instructed by the Engineer	m3	950.00		
5.02	Prepare surface provide, place, handpack (200mm in one layer)and compact quarry chips (natural blue stone) to refusal densities on the carriageway and parking as directed by the Engineer.	m3	550.00		
	Total of Bill № 5 (Carried Forward to Summary)				

BILL № 6: Concrete Works					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE (KSH)**	**AMOUNT (KSH)**
6	CONCRETE				
6.01	Provide and fix on the carriageway and parking interlocking concrete paved unishaped blocks (monolithic single layer precast concrete blocks) of any specified colour/size & shape, with approved pattern of 80 mm thick having average crushing strength of 50 N/mm2 on average thickness of 50 mm complete with uniformly graded river sand cushioning properly compacted with a mechanical compactor to required level, grade and camber as instructed by Engineer. Rate to include bedding sand and that to fill the joints, ties and edge restraints	m2	2,200		
6.01B	Extra over item 17.01 for laying blocks at speed bumps	m2	33		
6.02	Ditto item 17.01 above but for 60mm heavy duty blocks at the walkway	m2	2,208		
6.03	Provide, lay in place and joint 600x600x50mm well cured paving slabs on 50mm well compacted sand/quarry dust bed to footpaths/islands and around the blocks as stipulated in the special Specifications.	m2	100		
BILL 6 TOTAL CARRIED TO SUMMARY PAGE					

BILL № 7: Road Furniture					
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
7A	**Road Marking and Road Signs**				
	Road Marking				
7A.01	Provide and lay hot applied thermoplastic road marking compound in approved colour and shade (ASTM 9) for road marking on bituminous surface on centerline, 100 mm, edge line 150 mm wide 3.0 mm thick, using fully automatic extrusion machine and using pre-melter for melting thermoplastic material including cleaning the surface of all dirt, dust, and other foreign matter, complete with demarcation at site/pre-marking, finishing and managing the traffic movements. Marking to be done as per the specifications, detailed drawings and as instructed by the Engineer.				
	(i) For lane marking (broken lines) with white paint, 100 mm wide	m2	96		
	(ii) For lane marking with yellow paint, 100mm wide	m2	990		
	(iii) For raised kerb lines with black paint, 150 mm wide	m2	144		
70A.02	Provide and lay hot applied thermoplastic road marking compound in approved colour and shade (ASTM 9) for road marking on bituminous road surface on pedestrian crossings, chevrons, directional arrows, give way and stop lines mm thick using fully automatic extrusion machine and using pre-melter for melting thermoplastic. Material, including dispensing drop on glass beads of approved make and as per BS 6088 at the rate of 250g/m² including cleaning the surface of all dirt, dust, and other foreign matter, complete with demarcation at site/ pre-marking, finishing and managing the traffic control. Marking to be done as per the specifications, drawings and as instructed by the Engineer.	m2	300		
7B	**Other Road Furniture**				
7B.01	Provide, lay and Joint complete with hauncing as shown on the drawings and as instructed by the Engineer				
	(i) Raised Kerbs	m	960		
	(ii) Flush Kerbs	m	100		
7B.02	Provide, lay and Joint complete with hauncing as shown on the drawings and as instructed by the Engineer 100 x 125 mm channels for the walkways and shallow drains	m	4,728		
	Total of Bill № 7 (Carried Forward to Summary				

SUMMARY OF CIVIL WORKS

Bill No.	DESCRIPTION	AMOUNT KSHS.
1	Preliminary and General Items	
2	Site Clearance and Topsoil Stripping	
3	Earthworks	
4	Culverts and Drainage Works	
5	Natural Material for Sub-base and Base	
6	Concrete Works	
7	Road Furniture	
A	Sub-total A	

CIVIL WORKS - SEWER

	BILL NO. 1.1 - PRELIMINARIES AND GENERAL ITEMS				
Item No	**Description**	**Unit**	**Quantity**	**Rate**	**Amount**
	CLASS A - GENERAL ITEMS				
	Contractual Requirements				
A140.1	Provide for preparation and submission to the employer 1No set of virograph and 2No sets of blue print copies (A1 SIZE) of as built drawings for all the sewer pipelines in the contract. Note that manhole positions in the layout should be actual (geo-referenced to the national grid).	sum	1		
	Specified Requirements				
	Testing of Materials and Works				
A250	Provide for concrete strength test. Rate to include for casting of the necessary number of cubes, curing,transport from site to testing institution and fees payable for the service.	nr	20		
A250.1	Provide for testing of the sewer pipes.Rate to include for transportation to the testing institutions and fees payable for this service.	nr	10		
	Temporary Works				
A272	Traffic regulation (including signages,warning tapes and warning signs); establishment, operation and removal.	Item	1		
	Bill No. 1.1- PAGE 1 TOTAL CARRIED TO SEWER SUMMARRY				

BILL No. 1.2 MEASURED WORKS					
ITEM No.	**DESCRIPTION**	**Unit**	**Qty**		
	The rates quoted by the Contractor shall be deemed to include provision by the Contractor to provide temporary vehicular access to all construction sites including negotiating with private land owners and paying the necessary charges as required.				
	CLASS A - GENERAL ITEMS				
	GENERAL CLEARANCE				
A140.3	Allow for setting out of the works	m	710.00		
	Testing of the works				
A260	Carrying out test on sewer, a pipeline as specified or directed by the engineer, include provision of all equipment and materials	m	710.00		
A277	Allow for keeping trenches and other excavation free of water which may have entered through ground seepage, rain or by other means as directed by the Engineer	sum	1.00		
	CLASS B - SITE INVESTIGATION				
B111	Trial holes where ordered to prove location , construction size etc., of pipelines, services or existing structures, max depth n.e 1m (provisional)	nr	3.00		
B112	Trial holes where ordered to prove location , construction size etc., of pipelines, services or existing structures, max depth 1- 2m (provisional)	nr	3.00		
B113	Trial holes where ordered to prove location , construction size etc., of pipelines, services or existing structures, max depth 2-3m (provisional)	nr	3.00		
	CLASS D - DEMOLITION AND SITE CLEARANCE				
	The rate quoted is for site clearance and demolition along construction wayleave shall be deemed to include removal of the material and carting away to tips, identified by the Contractor in liaison with the Local Authority.				
D100	General site clearance through undeveloped land over the wayleave, include for additional clearance required	ha	0.21		
D210	Removal of trees girth 0.5- 1m (Provisional)	nr	5.00		
D220	Removal of trees girth 1-2m (Provisional)	nr	1.00		
Bill No. 1.2- PAGE 2 TOTAL CARRIED FORWARD TO COLLECTION SHEET					

ITEM No.	DESCRIPTION	Unit	Qty		
	CLASS I - PIPEWORK - PIPES				
	Supply of pipes				
I230.1	**Nomial bore 150mm uPVC Class 34 Pipeline**	m	500.00		
I230.2	**Nomial bore 225mm uPVC Class 34 Pipeline**	m	10.00		
I230.3	**Nomial bore 300 mm DWC HDPE SN8 Pipe**	m	200.00		
	uPVC & DWC HDPE SN8 PIPES WITH SPIGOT AND SOCKET				
	The rates entered against the items in this section shall include for stripping top soil, laying aside and subsequently replacing over refilled trench, excavation in trench in material other than rock, shuttering where necessary, refilling and compacting spreading surplus soil evenly over and alongside pipe trench, compacting, lay and joint pipes to correct line and level. Depths are stated from ground level to invert level.				
	Nominal bore 150 mm in trenches				
I233.1	depth not exceeding 1.5 m.	m	500.00		
	Nominal bore 225 mm in trenches				
I232.1	depth not exceeding 1.5 m.	m	10.00		
	Nominal bore 300 mm in trenches				
I232.1	depth not exceeding 1.5 m.	m	40.00		
I233.1	ditto but depth; 1.5 - 2.0 m.	m	100.00		
I234.1	ditto but depth; 2.0 - 2.5 m.	m	40.00		
I235.1	ditto but depth; 2.5 - 3.0 m.	m	20.00		
	Bill No. 1.2- PAGE 3 TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	Unit	Qty		
	CLASS K - PIPEWORK - MANHOLES AND PIPEWORK ANCILLARIES				
	Excavation quantities are given net. The rate entered are to include for manhole concrete slabs and covers, step irons or ladder, excavation, shuttering where necessary, refilling and compacting around the finished manholes, and disposing of surplus spoil is to be evenly spread. Excavation in any material other than rock				
	Masonary manhole 1050 mm , reinforced concrete manhole slab and cover.				
K151.1	depth not exceeding 0.6 m.	nr	35.00		
K151.2	depth not exceeding 0.9 m.	nr	15.00		
	MANHOLES				
	Manhole size 1050 mm , reinforced concrete manhole slab and cover.				
K151.1	depth not exceeding 1.5 m.	nr	2.00		
	MANHOLES				
	Manhole size 1200 mm , reinforced concrete manhole slab and cover.				
K152.1	ditto but depth; 1.5 - 2.0 m.	nr	4.00		
K153.1	ditto but depth; 2.0 - 2.5 m.	nr	3.00		
K154.1	ditto but depth; 2.5 - 3.0 m.	nr	1.00		
Bill No. 1.2- PAGE 4 TOTAL CARRIED FORWARD TO COLLECTION SHEET					

ITEM No.	DESCRIPTION	Unit	Qty		
	CLASS L; SUPPORTS AND PROTECTION ANCILLIARIES TO LAYING AND EXCAVATION				
	Extras to Excavation and backfilling Trenches				
	(Note : blasting not allowed for any rock excavation)				
	In pipe trenches 225mm bore				
	In pipe trenches 300mm bore				
L111	Excavation of rock	m3	2.50		
	In pipe trenches 450 mm bore				
L111	Excavation of rock	m3	60.00		
	In Manholes and other chambers				
	(Note: Blasting not allowed for any rock excavation)				
L 121	Excavation of rock	m3	7		
L 128	Allow for excavation of soft material below final surface of manhole and back fill with approved hardcore, well compacted in ,layers of 200mm thickness , depth not exceeding 1.0m	m3	16		
	Bill No. 1.2- PAGE 5 TOTAL CARRIED FORWARD TO COLLECTION SHEET				

ITEM No.	DESCRIPTION	Unit	Qty		
	Bed, Haunches and Surrounds ***Mass concrete grade 15/20 in 150mm Thick Beds, Haunches and surrounds***				
L 444.2	225 mm nominal bore pipeline Bed haunch and surround type D (0.2821 m^3)	m	10.00		
L 444.3	300 mm nominal bore pipeline Bed haunch and surround type A (0.1471 m^3)	m	160.00		
L 444.5	300 mm nominal bore pipeline Bed haunch and surround type D (0.3702 m^3)	m	40.00		
Bill No. 1.2- PAGE 6 TOTAL CARRIED FORWARD TO COLLECTION SHEET					

COLLECTION PAGE					
ITEM No.	**DESCRIPTION**	**Unit**	**Qty**		
	COLLECTION PAGE				
1	**From Page 2**				
2	**From Page 3**				
3	**From Page 4**				
4	**From Page 5**				
5	**From Page 6**				
	Sub-Total (i)				
Bill No. 1.2-TOTAL CARRIED FORWARD TO SEWER SUMMARY					
ITEM No.	**DESCRIPTION**	**Unit**	**Qty**		
	BILL NO 1.3 WASTE WATER TREATMENT				
A	Provide a PC sum of Kenya Shillings Thirteen Million, Five Hundred Thousand (Ksh 13,,500,000) only for Civil installation works associated with the Treatment plant to be executed as authorized by the Engineer	PC Sum	1	13,500,000	13,500,000.00
Bill No. 1.3- PAGE 3 TOTAL CARRIED FORWARD TO GRAND SUMMARRY					

SEWER SUMMARY

Bill No.	Description	Amount (KSh.)
Bill No. 1.1	Preliminaries and General Items	
Bill No. 1.2	Measured Works	
Bill No. 1.3	Waste Water Treatment	
	TOTAL FOR SEWER CARRIED TO GRAND SUMMARY	

STUDENT CENTRE

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	792		
B	Excavate average 200mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	792		
C	Excavate to reduced levels in varying depths not exceeding 1.5m deep from existing ground levels.	Cm	277		
D	Excavate for Strip foundations depth not exceeding 1.50 metres starting from Reduced ground levels.	Cm	290		
E	Excavate for column bases depth not exceeding 1.5m starting from reduced Levels	Cm	189		
F	Extra over all type of excavation for excavating in soft rock	Cm	144		
	Disposal of water				
G	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item	1		
	Planking and strutting				
H	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item	1		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY		
	Disposal of excavated material				
A	Return, fill and ram selected excavated material around foundations.	CM	227		
B	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	634		
	Fillings				
C	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	792		
D	50 mm Thick Murram Blinding to surfaces of hadcore	SM	792		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	792		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	792		
	Concrete Blinding				
	Insitu concrete class 15/20 mm aggregates: vibrated:				
H	50 mm Thick under column bases	SM	157		
J	50 mm Thick under strip foundation	SM	264		
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
K	Column bases	CM	41		
L	Columns	CM	8		
M	Strip foundation	CM	53		
N	100mm thick surface bed	SM	792		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	Kg	9,020		
	Mesh fabric reinforcement to K/EAS 412;2 (2019) BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In floor beds.	SM	792		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
C	Vertical sides of columns	SM	125		
D	Edge of slab not exceeding 150mm girth	LM	115		
	Foundation Walling				
	Natural quarry stones rough dressed; bedded in and including cement and sand (1:4) mortar; reinforced with and including 45 mm wide hoop iron gauge in alternate courses: in:				
E	200mm thick walls in foundations	SM	615		
	Pavings				
F	Supply and lay 600 x 600mm medium duty paving blocks round the Building including laying, spreading and compacting 100mm thick approved sand bed blinding to approval.	SM	70		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
G	Plinths externally	SM	69		
	Two coats black bitumastic paint on:				
H	Rendered surfaces	SM	69		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY		
	COLLECTION				
	Total brought forward from page no:		SC/1		
	Total brought forward from page no:		SC/2		
	Total brought forward from page no:		SC/3		
	ELEMENT NO. 1 Carried to **SUBSTRUCTURES Main summary**				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	Insitu concrete class 25 (20 mm aggregate): vibrated: reinforced				
A	Columns	CM	32		
B	Beams	CM	79		
D	150mm thick suspended slab	SM	458		
E	150 mm thick landing	SM	4		
F	Staircases	CM	1		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
G	Assorted reinforcement	Kg	35,164		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
H	Sides of columns	Sm	485		
J	Sides and soffites of beams	Sm	790		
K	Soffits of suspended solid slabs	Sm	458		
L	Edges of slab over 150mm but not exceeding 225mm girth	Lm	115		
M	Sloping soffites of staircases	SM	6		
N	Soffits of landings	SM	4		
P	Riser of steps over 150 mm but not exceeding 225 mm girth	LM	16		
Q	Staircase string 300mm extreme girth and cut to profile of steps	LM	9		
R	Edges of landing over 150 but not exceeding 225mm high	Lm	8		
	ELEMENT NO. 2 Carried to				
	R.C FRAME Main summary				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	Sm	493		
	Internal Walling				
	Machine cut quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
B	200mm thick walling Internally	Sm	225		
C	150mm thick walling Internally	Sm	130		
D	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	Lm	364		
	ELEMENT NO. 3 WALLING **Carried to Main summary**				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 4-WINDOWS				
	MILD STEEL WINDOWS				
	Supply, fabricate and fix the following purpose made mild steel casement windows to be fabricated from approved mild steel sections (atleast 14g 2mm thick) comprising of frame and casement incorporating permanent hooded high level ventilation panels infilled with mosquito gauze : window supplied complete with and including 12mm solid square burglar proofing bars fixed at 200mm centres both ways and metal fixing lugs including building into wall and making good, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:-				
	Allow a prime cost sum for fabrication only at a rate of Ksh 4,000 per m2 for mild steel window frames to be sourced from approved AHP juakali artisans				
	(Contractor shall allow for transport and fixing in their rates)				
A	Window, overall size 600 x 900mm high to Architects Details (WC/SH)	NO	14		
	Glazing				
B	4mm Thick obscure sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with putty	SM	8		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in two finishing coats of first grade approved paint as described in				
C	General window and grille surfaces; over 300mm girth internal	SM	16		
	Bull-nosed burnt clay, finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
D	150 x 25mm thick clay window sill	LM	10		
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 5-DOORS				
	Glazed mild steel casement doors				
	Heavy gauge purpose made mild steel door comprising 40 x 25 x3mm stiles, top and bottom stiles, 4 No Intermediate rails, 1.5mm steel sheet both sides welded in place and 5mm thick clear glazing, all primed with red oxide and spray painted with 2 coats of first quality gloss oil paint; complete with hinges, stays, fasteners and necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work surround and bedding frame in cement and sand mortar (1:3).				
	Allow a prime cost sum for fabrication only at a rate of Ksh 9,500 per m2 for mild steel door frames and leaves to be sourced from approved AHP *juakali artisans*				
	The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Door overall size 900 x 2400mm high	NO	6		
B	Ditto Size 1500 x 2400mm high Doubleleaf door	NO	2		
	Roller shutter door				
C	Roller shutter door 1800 x 2400mm high ; comprising of 1800 x 2400 mm high roller shutter in 200mm wide gauge 18 mildsteel laths; galvanized iron pipe suspension system inclusive of vertical guide chanels, brackets and brackets in midsteel;2 no 650 x 2000 mm high fixed lights in 75 x 50 mm powder coated frames with all necessary iron mongery, painting all to architects details and approval.	No	12		
	Flush timber doors				
	50 mm thick Semi Solid cored flush doors with plywood facing to receive painting (m.s) all to Architects details, specifications and approval				
D	Door size 1000mm x 2060mm high comprising of 1 No opennable leaf size 900 x 2060mm high	NO	1		
E	Door size 800mm x 2400mm including fixed fanlight size 900 x 300mm high in 4mm clear glass (m.s)	NO	18		
	Carried to collection				

ITEM	DESCRIPTION	UNIT	QTY		
	Frames and frame finishes in soft wood Timber				
A	25 x 25mm quadrant	LM	97		
B	25 x 50mm architrave with two labours, plugged	LM	97		
C	150 x 50mm frame with three labours; chamfered edges; plugged	LM	97		
	Painting and decorating				
	Priming back of frame with an aluminium or equivalent and approved wood primer				
D	Surfaces not exceeding 100mm girth	LM	194		
E	Surfaces over 100mm but not exceeding 200mm girth	LM	97		
	Prepare Knot, prime, stop and apply one undercoat and two coats first grade quality gloss oil paint to wood surfaces				
F	General timber surfaces	SM	72		
G	Surfaces not exceeding 200mm girth	LM	97		
H	Surfaces over 100mm but not exceeding 200mm girth	LM	194		
	Ironmongery				
	Supply and fix the following ironmongery to timber complete with matching screws and keys to the approval of the Architect				
I	100mm pressed steel Butt Hinges	Pairs	29		
J	Stainless steel 2 Lever Door Lock with handle	NO	19		
K	Door fixing cramps	NO	114		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no:		SC/8		
	Total brought forward from page no:		SC/9		
	ELEMENT NO. 5 DOORS **Carried to Main summary**				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	ELEMENT NO. 7				
	ROOF CONSTRUCTION AND FINISHES All members are first grade sawn celcured pressure impregnated cypress				
	The following 29 No. trusses spanning at various lengths at 1200mm c/c and 4.8m from ground level.				
	(All timber work is provisional)				
	Truss T1 (4 no.)				
A	150 x 50 truss rafters	LM	618		
B	150 x 50 mm King post	LM	133		
C	Ditto struts and ties	LM	1,188		
D	Ditto tie beam	LM	282		
E	100 x 50 wall plate.	LM	108		
F	Ditto purlins	LM	324		
	End of trusses				
	ROOF COVERING Prepainted 26 Gauge box profile galvanised steel sheet shaped as per architects approval or equally and approved				
G	Ridge	LM	86		
H	Roof covering	SM	776		
	In wrot cypress - prime grade 250 x 25mm fascia board	LM	118		
J	100 x 20 mm T & G in eaves boarding on blandering	SM	35		
K	25 x 100 mm moulded cornice.	LM	234		
	Roof drainage 26 Gauge galvanised steel sheet shaped as per architects approval or equally and approved				
L	150 x 150 mm GI rain water gutter fixed to fascia board with mild steel brackets at 1.50 m centres.	LM	118		
M	Extra over ditto for stopped ends	No	6		
N	Extra over for 100mm diameter outlet	No	6		
P	100mm diameter down pipe fixed to walls with mild steel brackets at 1.50 m centres.	LM	30		
Q	Extra over ditto for swan neck offset.	No	6		
R	Ditto for splash shoe.	No	6		
S	12 mm diameter x 150 mm holding down bolt with head, nut and washers.	No.	48		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY		
	Painting and decorating				
	Prepare and apply three coats of gloss paint to timber surfaces				
A	Wood surfaces 200 - 300mm girth	LM	118		
	Knot, prime, stop and apply one 3 coats of polyurethane varnish to:-				
B	Wood general surfaces externally.	SM	35		
C	Surfaces of timber cornices, 0-100mm girth.	LM	234		
	Ceiling finishes				
D	Prepare and install 12mm thick Celotex ceiling or approved equivallent as per architects' details and approval.	SM	761		
	Brandering				
E	50 x 50 mm timber brandering spaced 600mm c/c as per architects details and approval	LM	2,659		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no:		SC/8		
	Total brought forward from page no:		SC/9		
	ELEMENT NO. 6 **Carried to**				
	ROOF **Main summary**				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 7- EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick beam, columns, slab moulds and walling externally	SM	97		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	518		
	Painting				
	Prepare and apply one coat undercoat and two finishing coats of long lasting exterior/ weatherguard paint or other equal and approved exterior quality paint to surfaces as described in:-				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	97		
	ELEMENT NO. 7 Carried to				
	EXTERNAL FINISHES Main summary				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 8 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:4) backings				
A	12mm thick to receive Wall tiles	SM	62		
	Ceramic wall tiles				
	Allow a Prime Cost supply rate of Ksh. 1000 per SM				
B	Supply and Fix ceramic wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval. - Wall Surfaces	SM	62		
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
C	Concrete/masonry surfaces Internally	SM	1,253		
D	Ditto to door jambs externally and surfaces not exceeding 200mm girth	LM	97		
	Painting and Decoration				
	Prepare, Skim and apply Emulsion or universal undercoat followed by 2 finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
E	Plastered concrete/masonry surfaces internally	SM	1,253		
F	Ditto to window cills, door Jambs Externally and Surfaces not exceeding 200mm girth	LM	97		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY		
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
A	32mm bed finished to receive Floor Tiles (m.s)	SM	761		
	Ceramic Floor tiles				
	Allow a Prime Cost supply rate of Ksh. 1000 per SM (Rate to include cost of purchase, transport, offload, storage, fixing including all necessary adhesives and accessories				
C	Supply and Fix Ceramic tiles; on prepared bed(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval.	SM	675		
D	Ditto Non Slip Ceramic Tiles	SM	86		
E	Ditto 100mm wide Wall Skirtings	LM	240		
	Staircase floor finishes				
	Cement and sand (1:4) backings etc				
F	32mm bed finished to receive ceramic tiles to surfaces of Landings (m.s)	SM	4		
G	25 x 300 mm wide treads to receive ceramic tiles (m.s)	LM	48		
H	20 x 150mm risers to receive ceramic tiles (m.s)	LM	48		
	Staircase floor finishes				
J	Non Slip Ceramic Tiles to surfaces of Landings)	SM	4		
K	Non Slip Ceramic Tiles to 300 mm wide treads	LM	48		
L	Non Slip Ceramic Tiles to 150mm risers	LM	48		
	Staircase soffit finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
M	Soffits of staircase landing	SM	4		
N	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	22		
O	Staircase string 300mm extreme girth and cut to profile of steps	LM	29		
	Paint works				
P	Soffits of staircase landing	SM	4		
Q	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	22		
R	Staircase string 300mm extreme girth and cut to profile of steps	LM	29		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY		
	Painting and Decoration				
	Prepare and apply one undercoat and one finishing coat first quality plastic emulsion paint on:-				
A	Ceiling surfaces	SM	761		
	Carried to Collection				

ITEM	DESCRIPTION	UNIT	QTY		
	COLLECTION				
	Total brought forward from page no:		CM/14		
	Total brought forward from page no:		CM/15		
	Total brought forward from page no:		CM/16		
	ELEMENT NO. 8 **Carried to** **INTERNAL FINISHES**				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 9- BALUSTRADING AND RAILING				
	Balustrades and staircase railings				
A	1200mm high mild Steel balustrade; comprising 60 x 10mm mild Steel balusters at 900mm centres; bolted to base plate and tread (m.s)with 7No. 25mm diameter horinzontal bars, and 75x4mm diameter CHS mild Steel handrail part welded into 60x10mm balustrades; to Architects drawings	LM	7		
	Prepare, prime and apply one undercoat and two finishing coats first quality gloss oil paint on				
B	General metal surfaces of ballustrading (both sides measured overall)	SM	8		
	ELEMENT NO. 9 BALUSTRADE AND RAILING **Carried to the Main summary**				

ITEM	DESCRIPTION	UNIT	QTY		
	ELEMENT NO. 10 **PROVISIONAL SUMS**				
A	Allow a provisional sum of Kenya Shillings nine hundre Thousand (KSHS. 900,000) for electrical installation and connection works to the guard house per Engineers specification.	SUM	1		
B	Allow a provisional sum of Kenya Shillings seve hundred Thousand (KSHS. 100,000) for mechanical installation and connection works to the guard house per Engineers specification.	SUM	1		
	ELEMENT NO.10 **PROVISIONAL SUMS**				

ITEM	DESCRIPTION	UNIT	QTY		
	PROPOSED STUDENT'S CENTRE FOR STUDENT HOUSING PROGRAM (STUDENT CENTRE)				
	MAIN SUMMARY				
1	**Substructures**				
2	**Reinforced Concrete Frame**				
3	**Walling**				
4	**Windows**				
5	**Doors**				
6	**External Finishes**				
7	**Internal Finishes**				
9	**Balustrade and Railing**				
10	**Provisional sums**				
	TOTAL FOR STUDENT CENTRE CARRIED TO GRAND SUMMARY				

PRIME COST SUMS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROVISIONAL SUM				
A	Provide a Provisional Sum of Ksh Twenty Million Only (KSH. 20,000,000) for a Rectangular swimming pool overall size 25mx 12.5m x 3m deep, on the deep end and 1.2m on the shallow end including all excavations, waterproofing, back filling, 200mmm thick concreting walling. Finished in ceramic tiling and all associated plumbing and electrical works.	SUM	1	20,000,000	20,000,000.00
B	Provide a Provisional Sum of Ksh Four Million Only (KSH. 4,000,000) for Changing rooms overall size 15mx 3m including all excavations, backing filling, 200mmm thick masonry walling, floor and wall tiling, paint works and all associated plumbing and electrical works	SUM	1	4,000,000	4,000,000.00
	PRIME COST SUMS				
	UNDERGROUND WATER TANK				
C	Allow a Prime Cost sum of Kenya Shillings Five Million (KSHS. 5,000,000) for provision of an Underground water tank with 350,000 Litres capacity as per Engineers specification.	SUM	1		5,000,000
D	Allow for profits and overheads	%			
E	Allow for attendance	Sum			
	LIFT INSTALLATION				
F	Allow a Prime Cost sum of Kenya Shillings Twenty three million, five Hundred thousand (KSHS. 23,500,000) for provision of 4 NO Lifts	SUM	1		23,500,000
G	Allow for profits and overheads	%			
H	Allow for attendance	Sum			
	POWER HOUSE				
I	Allow a Prime Cost sum of Kenya Shillings One Million Five Hundred Thousand (KSHS. 1,500,000) for provision of a Power House.	SUM	1		1,500,000
J	Allow for profits and overheads	%			
K	Allow for attendance	Sum			
	GENERATOR				
L	Allow a Prime Cost sum of Kenya Shilling Three Million Five Hundred thousand (KSHS. 3,500,000) for provision of a Generator	SUM	1		3,500,000
M	Allow for profits and overheads	%			
N	Allow for attendance	Sum			
	CCTV INSTALLATION				
O	Allow a Prime Cost sum of Kenya Shilling Five Million Only (KSHS. 5,000,000) for provision for CCTV installation	SUM	1		5,000,000
P	Allow for profits and overheads	%			
Q	Allow for attendance	Sum			
	STRUCTURED CABLING INSTALLATIONS				
R	Allow a Prime Cost sum of Kenya Shillings Seven Million,Five Hundred Thousand Only (KSHS. 7,500,000) for provision for structured cabling	SUM	1		7,500,000
S	Allow for profits and overheads	%			
T	Allow for attendance	Sum			
	Carried forward to next page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Brought forward from previous page				
	MATV INSTALLATION				
A	Allow a Prime Cost sum of Kenya Shilling ,Five hundred and Fifty Four Thousand for provision for MATV installation	SUM	1		554,000
B	Allow for profits and overheads	%			
C	Allow for attendance	Sum			
	EXTERNAL RETICULATION BOREHOLE WATER				
J	Allow a Prime Cost sum of Kenya Shillings One hundred and one thousand, eight hundred for external borehole water reticulation	SUM	1		101,800
K	Allow for profits and overheads	%			
L	Allow for attendance	Sum			
	BOREHOLE DRILLING AND EQUIPPING				
M	Allow a Prime Cost sum of Kenya Shillings Four Million , five hundred thousand for borehole drilling and equipping	SUM	1		4,500,000
N	Allow for profits and overheads	%			
O	Allow for attendance	Sum			
	EXTERNAL RETICULATION COUNCIL WATER				
P	Allow a Prime Cost sum of Kenya Shillings One hundred and thirty one thousand, eight hundred Only for external council water reticulation	SUM	1		131,800
Q	Allow for profits and overheads	%			
R	Allow for attendance	Sum			
	SANITARY SUPPLY				
S	Allow a Prime Cost sum of Kenya Shillings Eleven Million Only for Sanitary Supply	SUM	1		11,000,000
T	Allow for profits and overheads	%			
U	Allow for attendance	Sum			
	EQUIPING OF WASTE WATER TREATMENT PLANT				
P	Allow a Prime Cost Sum of Kenya Shillings Sixteen Million, Eight Hundred Thousand for equipping of 1500 P.E Waste Water Treatment Plant	SUM	1		16,800,000
Q	Allow for profits and overheads	%			
R	Allow for attendance	Sum			
	HOSE REEL PUMPS				
S	Allow a Prime Cost Sum of Kenya Shillings Four Hundred Thousand for 2 No. Hose Reel Pumps (100 l/min@ 3Bar)	SUM	1		400,000
T	Allow for profits and overheads	%			
U	Allow for attendance	Sum			
	Carried forward to next page				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Brought forward from previous page				
	ROOF WATER TANKS				
A	Allow a Prime Cost sum of Kenya Shillings Three Million for 2No. 50,000 Litres GRP roof water tanks	SUM	1		3,000,000
B	Allow for profits and overheads	%			
C	Allow for attendance	Sum			
	WATER PUMPS				
D	Allow a Prime Cost sum of Kenya Shillings Two Million,one hundred thousand for supply and Installation of one set of 50m3/hr @ 5Bar Booster pumps	SUM	1		2,100,000
E	Allow for profits and overheads	%			
F	Allow for attendance	Sum			
	MAIN LV BOARD				
G	Allow a Prime Cost sum of Kenya Shillings Three Million , Two Hundred and Twenty Four Thousand Only for Main LV Board	SUM	1		3,224,000
H	Allow for profits and overheads	%			
I	Allow for attendance	Sum			
	CAPITAL CONTRIBUTION TO KPLC				
J	Allow a Prime Cost sum of Kenya Shillings Five Million , Five Hundred Thousand for capital contribution to Kenya Power and Lighting Company.(KPLC)	SUM	1		5,500,000
K	Allow for profits and overheads	%			
L	Allow for attendance	Sum			
	GROUND BREAKING AND SITE HANDOVER				
M	Allow a provisional sum of Kenya Shillings Five hundred thousand Only (KSHS. 500,000) for Ground breaking ceremony and site handover/commissioning.	SUM	1		500,000
N	Allow for profits and overheads	%			
O	Allow for attendance	Sum			
	MARKETING ON BOMA YANGU				
P	Allow a prime cost of One million (KSHs. 1,000,000) for Marketing and Support to Boma Yangu Platform	SUM	1		1,000,000
Q	Allow for profits and overheads	%			
R	Allow for attendance	Sum			
	PREPARATION AND PRINTING OF RENDERS				
S	Allow a prime cost of Five hundred thousand (KSHs. 500,000) for Preparation of Renders and Printing	SUM	1		500,000
T	Allow for profits and overheads	%			
U	Allow for attendance	Sum			
	TOTAL FOR PC SUMS & PROVISIONAL SUMS CARRIED TO GRAND SUMMARY				

GRAND SUMMARY

PROPOSED HOSTEL BLOCKS AND ASSOCIATED INFRASTRUCTURE IN ALUPE UNIVERSITY

GRAND SUMMARY			
ITEM	**DESCRIPTION**	**TENDERER'S AMOUNT**	**FOR OFFICIAL USE ONLY**
1.00	PARTICULAR PRELIMINARIES		
2.00	GENERAL PRELIMINARIES		
3.00	PROJECT PROVISIONS		
4.00	HOSTEL BLOCKS - 2 NO.		
5.00	ELECTRICAL WORKS		
6.00	MECHANICAL WORKS		
7.00	GUARD HOUSE		
8.00	GARBAGE RECEPTACLE		
9.00	BASKET BALL PITCH		
10.00	BOUNDARY WALL		
11.00	CIVIL WORKS - ROADS		
12.00	CIVIL WORKS - SEWER		
13.00	STUDENT'S CENTRE		
14.00	PROVISIONAL SUMS & PC SUMS		
	SUB-TOTAL		
	ADD CONTINGENCY (2%)		
	GRAND TOTAL CARRIED TO FORM OF TENDER (VAT INCLUSIVE)		

AMOUNT IN WORDS : KENYA SHILLINGS .....

TENDERER'S NAME .....

ADDRESS .....

DATE .....

TENDERER'S SIGNATURE .....

WITNESS'S NAME.....

ADDRESS .....

DATE .....

WITNESS SIGNATURE.....

ARCHITECTURAL DRAWINGS

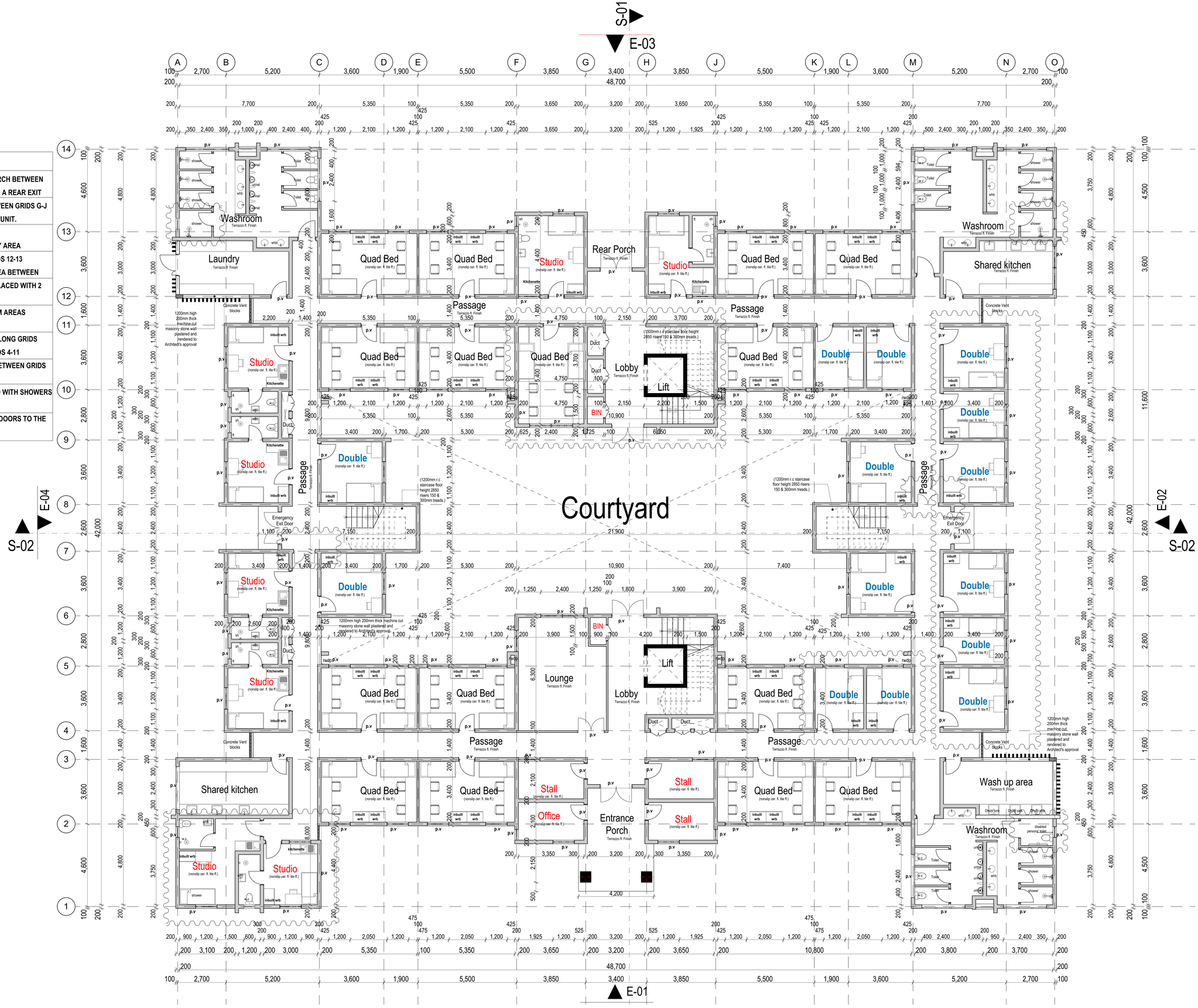
STUDENT HOUSING

PLANS, SECTIONS AND ELEVATIONS

STUDENT HOUSING

Accomodation Schedule		
	No.	capacity
Quad	15	60
Double	14	28
Studio	8	16
	37	**104**
Stall	3	
Office	1	

REVISION NOTES
-RE-DESIGN OF ENTRANCE PORCH BETWEEN GRIDS G-H AND GRIDS 12-13 TO A REAR EXIT
-MAIN LOBBY REDESIGN (BETWEEN GRIDS G-J AND 9-11) TO INCLUDE A QUAD UNIT.
-RELOCATION OF THE DUCTS
-INTRODUCTION OF A LAUNDRY AREA
BETWEEN GRIDS A-C AND GRIDS 12-13
-OMISSION OF WASHROOM AREA BETWEEN GRIDS A-C AND GRIDS 1-2 REPLACED WITH 2 STUDIO UNITS
-REDESIGN OF THE WASHROOM AREAS
-INTRODUCTION OF STALLS
-SINGLE UNITS INTRODUCED ALONG GRIDS BETWEEN GRIDS M-N AND GRIDS 4-11
-SINGLE UNITS INTRODUCED BETWEEN GRIDS K-M AND GRIDS 5-6
-DISABLED TOILETS REPLACED WITH SHOWERS GRIDS A-O AND GRIDS 13-14
-INTRODUCTION OF 2 NO. FIRE DOORS TO THE FIRE EXITS



GROUND FLOOR PLAN

SCALE 1:100

REVISION 01

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

GROUND FLOOR PLAN

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

Accomodation Schedule		
	No.	capacity
Quad	15	60
Double	16	32
Studio	10	20
	41	112

REVISION NOTES

-MAIN LOBBY RE-DESIGN (BETWEEN GRIDS G-J AND 9-11) TO INCLUDE A QUAD UNIT AND RELOCATION OF THE DUCTS

-OMISSION OF WASHROOM AREA BETWEEN GRIDS A-C AND GRIDS 1-2 REPLACED WITH 2 STUDIO UNITS

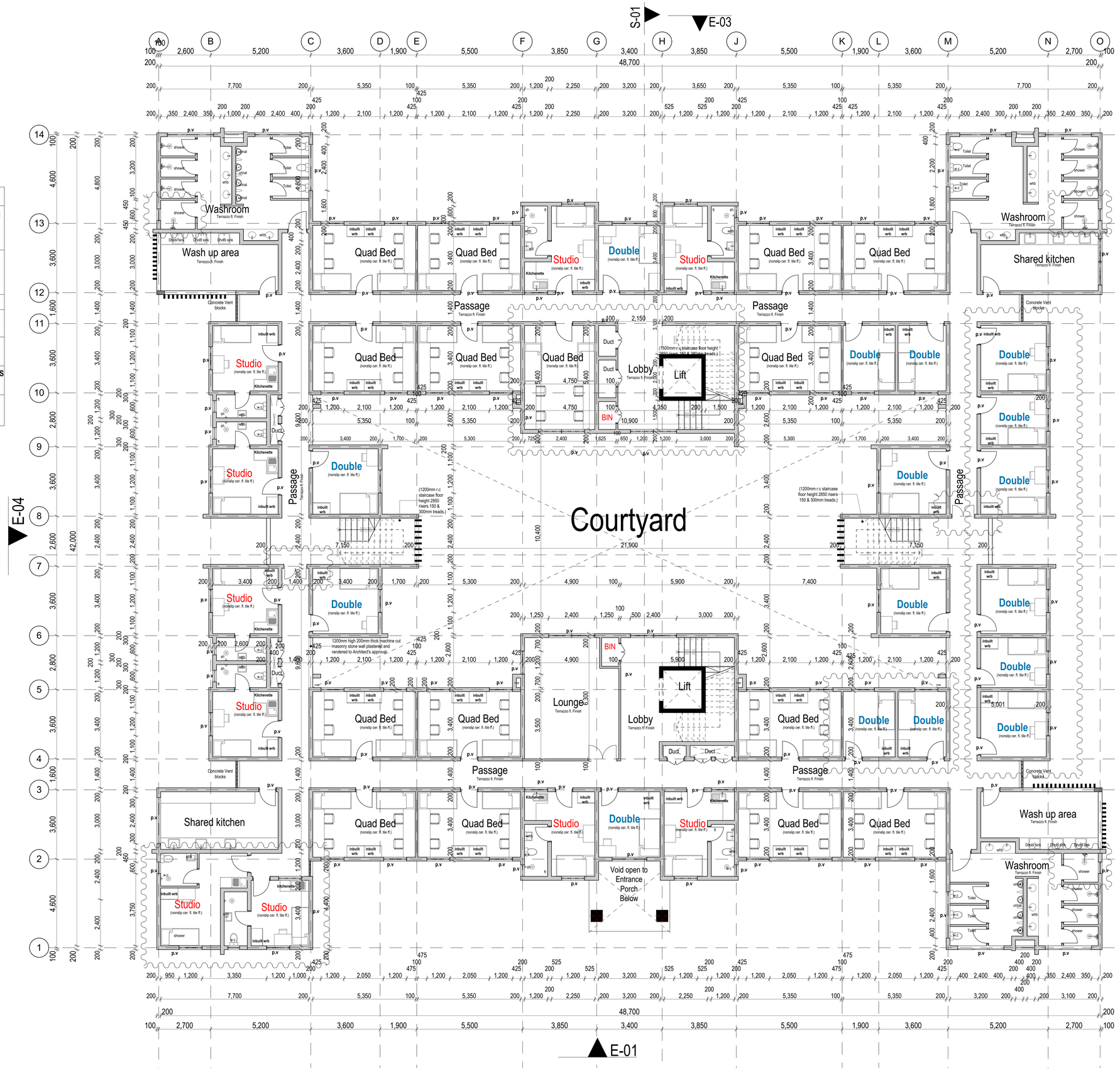
-REDESIGN OF THE WASHROOM AREAS

-SINGLE UNITS INTRODUCED ALONG GRIDS BETWEEN GRIDS M-N AND GRIDS 4-11

-SINGLE UNITS INTRODUCED BETWEEN GRIDS K-M AND GRIDS 5-6

-DISABLED TOILETS REPLACED WITH SHOWERS IN ALL THE WASHROOMS

-INTRODUCTION OF 2 NO. FIRE DOORS TO THE FIRE EXITS



FIRST FLOOR PLAN

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

FIRST FLOOR PLAN

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

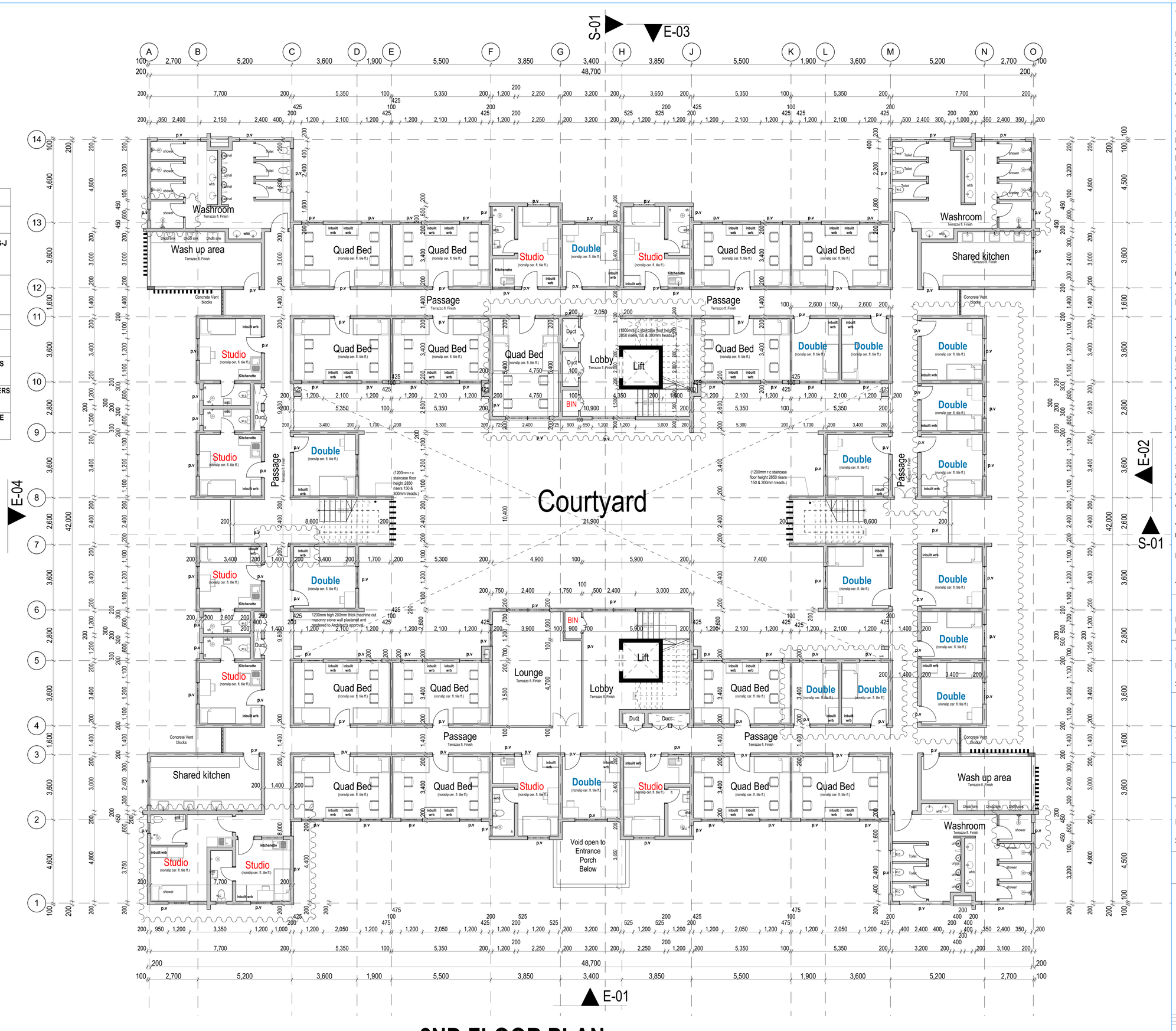
REVISION 01

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

Accomodation Schedule		
	No.	capacity
Quad	15	60
Double	16	32
Studio	10	20
	41	112

REVISION NOTES

- -OMISSION OF CANOPY BETWEEN GRIDS G-J AND 9-11
- -MAIN LOBBY RE-DESIGN (BETWEEN GRIDS G-J AND 9-11) TO INCLUDE A QUAD UNIT AND RELOCATION OF THE DUCTS
- -OMISSION OF WASHROOM AREA BETWEEN GRIDS A-C AND GRIDS 1-2 REPLACED WITH 2 STUDIO UNITS
- -RE-DESIGN OF THE WASHROOM AREAS
- -SINGLE UNITS INTRODUCED ALONG GRIDS BETWEEN GRIDS M-N AND GRIDS 4-11
- -SINGLE UNITS INTRODUCED BETWEEN GRIDS K-M AND GRIDS 5-6
- -DISABLED TOILETS REPLACED WITH SHOWERS IN ALL THE WASHROOMS
- -INTRODUCTION OF 2 NO. FIRE DOORS TO THE FIRE EXITS



2ND FLOOR PLAN

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature:_____ **Date:**_____

DRAWING TITLE:

2ND FLOOR PLAN

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name:_____

Signature:_____ **Date:**_____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

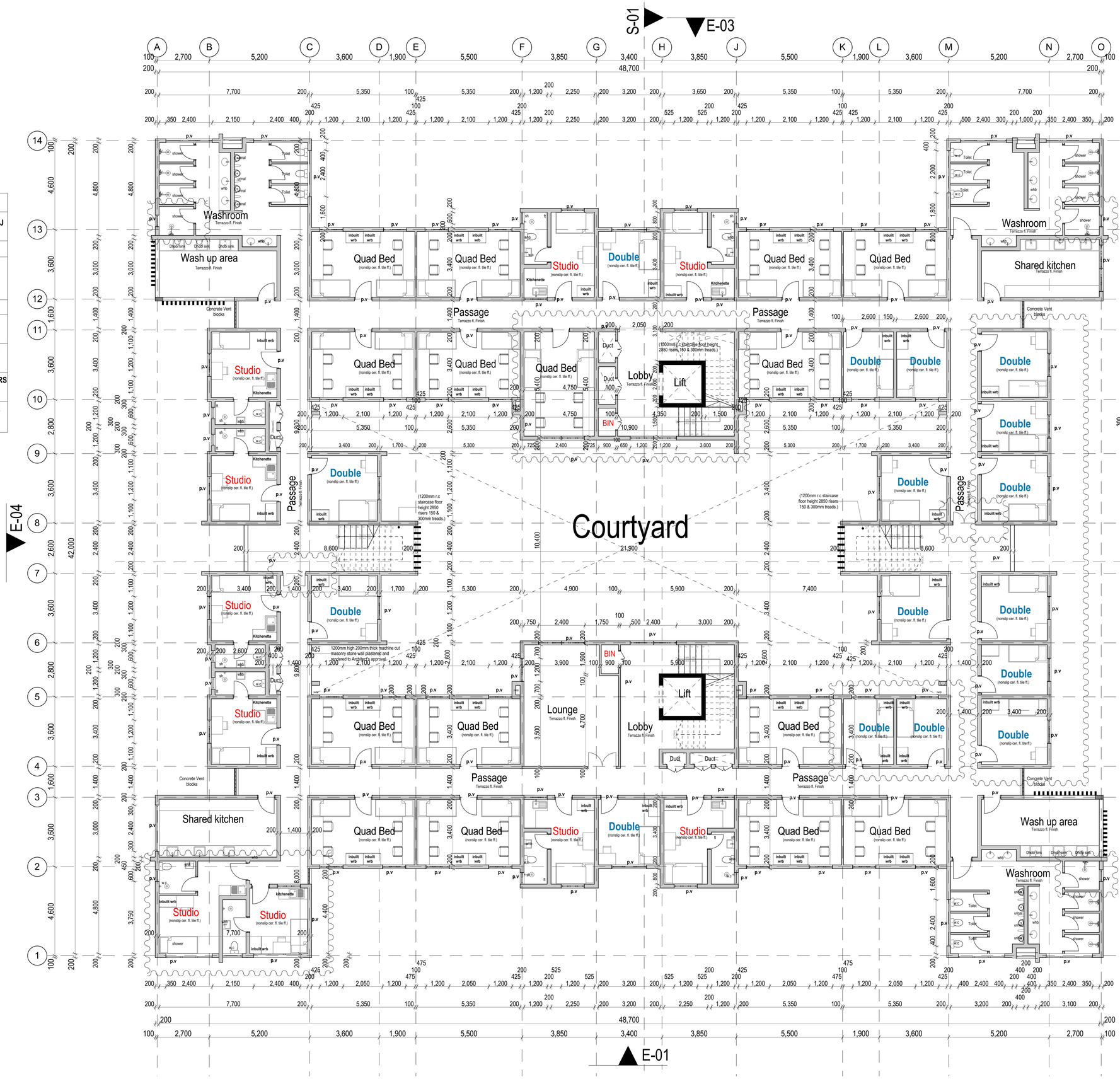
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

REVISION 01

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

Accomodation Schedule		
	No.	capacity
Quad	15	60
Double	16	32
Studio	10	20
	41	112

REVISION NOTES
-MAIN LOBBY RE-DESIGN (BETWEEN GRIDS G-J AND 9-11) TO INCLUDE A QUAD UNIT.
-RELOCATION OF THE DUCTS
-OMISSION OF WASHROOM AREA BETWEEN GRIDS A-C AND GRIDS 1-2 REPLACED WITH 2 STUDIO UNITS
-RE-DESIGN OF THE WASHROOM AREAS
-SINGLE UNITS INTRODUCED ALONG GRIDS BETWEEN GRIDS M-N AND GRIDS 4-11
-SINGLE UNITS INTRODUCED BETWEEN GRIDS K-M AND GRIDS 5-6
-DISABLED TOILETS REPLACED WITH SHOWERS IN ALL THE WASHROOMS
-INTRODUCTION OF 2 NO. FIRE DOORS TO THE FIRE EXITS



GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

3RD - 9TH TYPICAL FLOOR PLANS

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

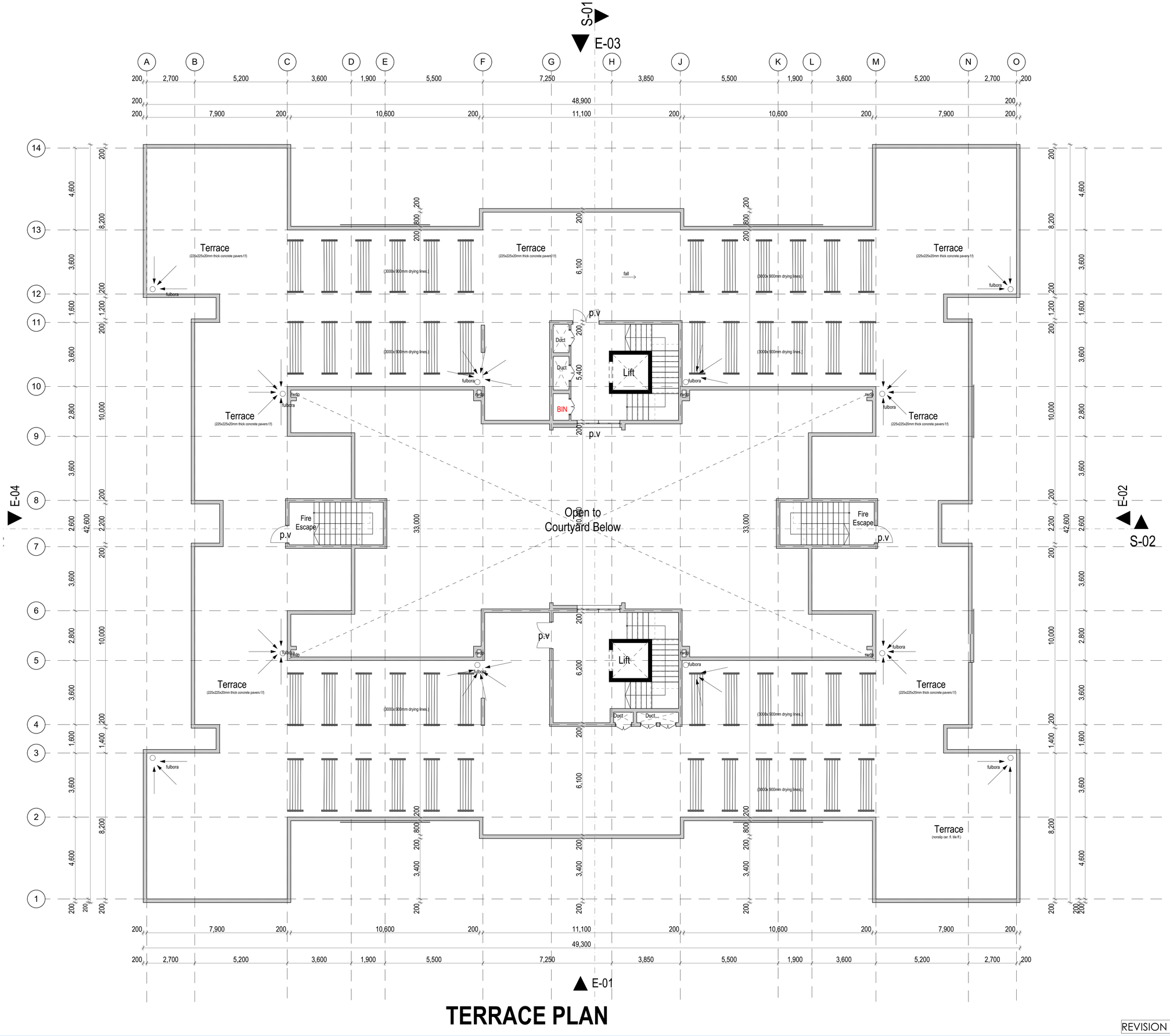
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

3RD - 9TH TYPICAL FLOOR PLANS

REVISION 01

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



TERRACE PLAN

REVISION 01

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

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DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
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3. Foundation depths to be determined on site to S.E approval
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5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

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2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
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5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
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7. No chases for pipes will be allowed in the slabs
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9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
TERRACE PLAN

SCALE:
1:100

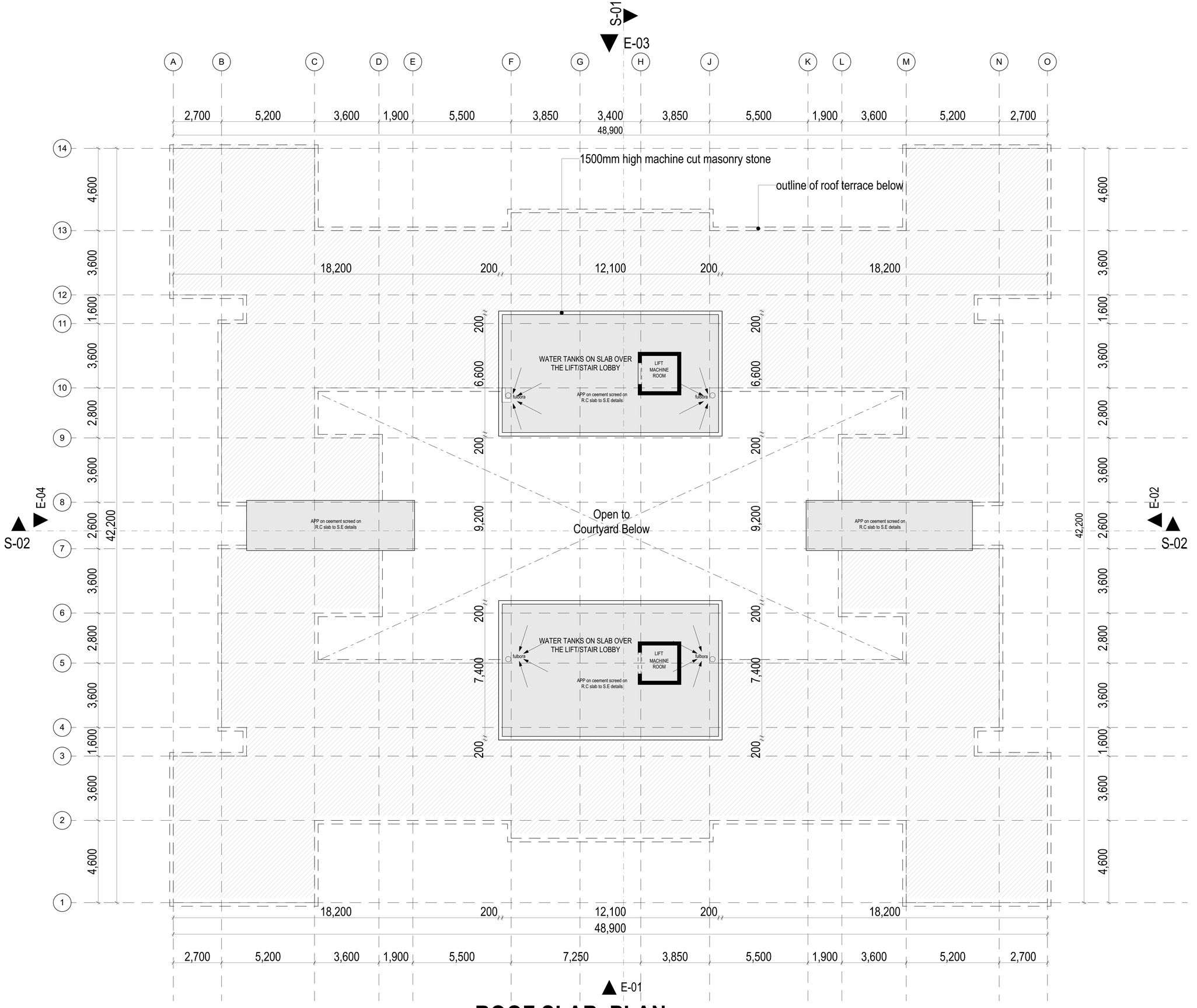
DRAWN BY:

CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



ROOF SLAB PLAN

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
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3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:
ROOF SLAB PLAN

SCALE:
1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

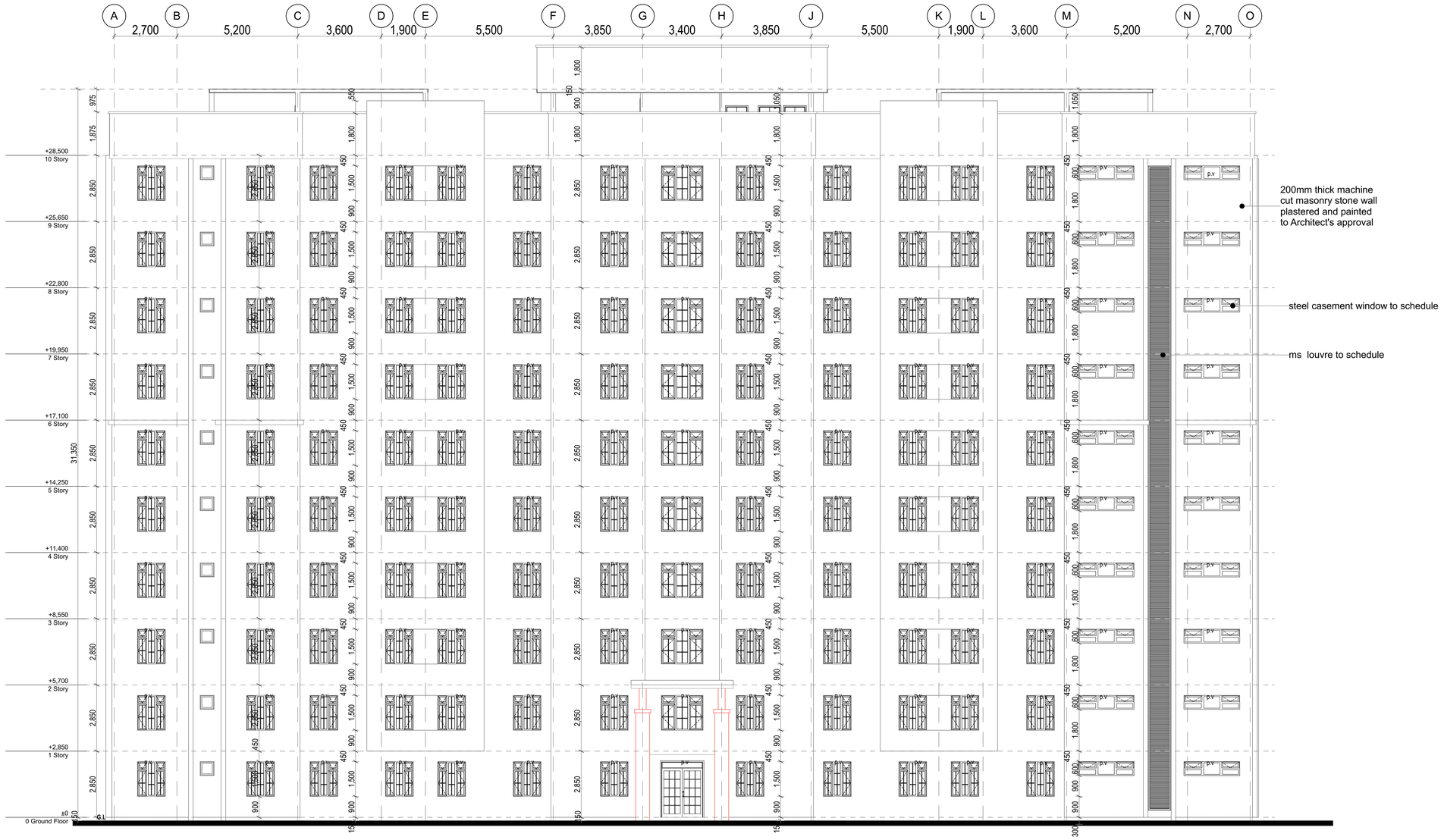
DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

REVISION 01



ELEVATION 01

REVISION 01

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

ELEVATION 01

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _____

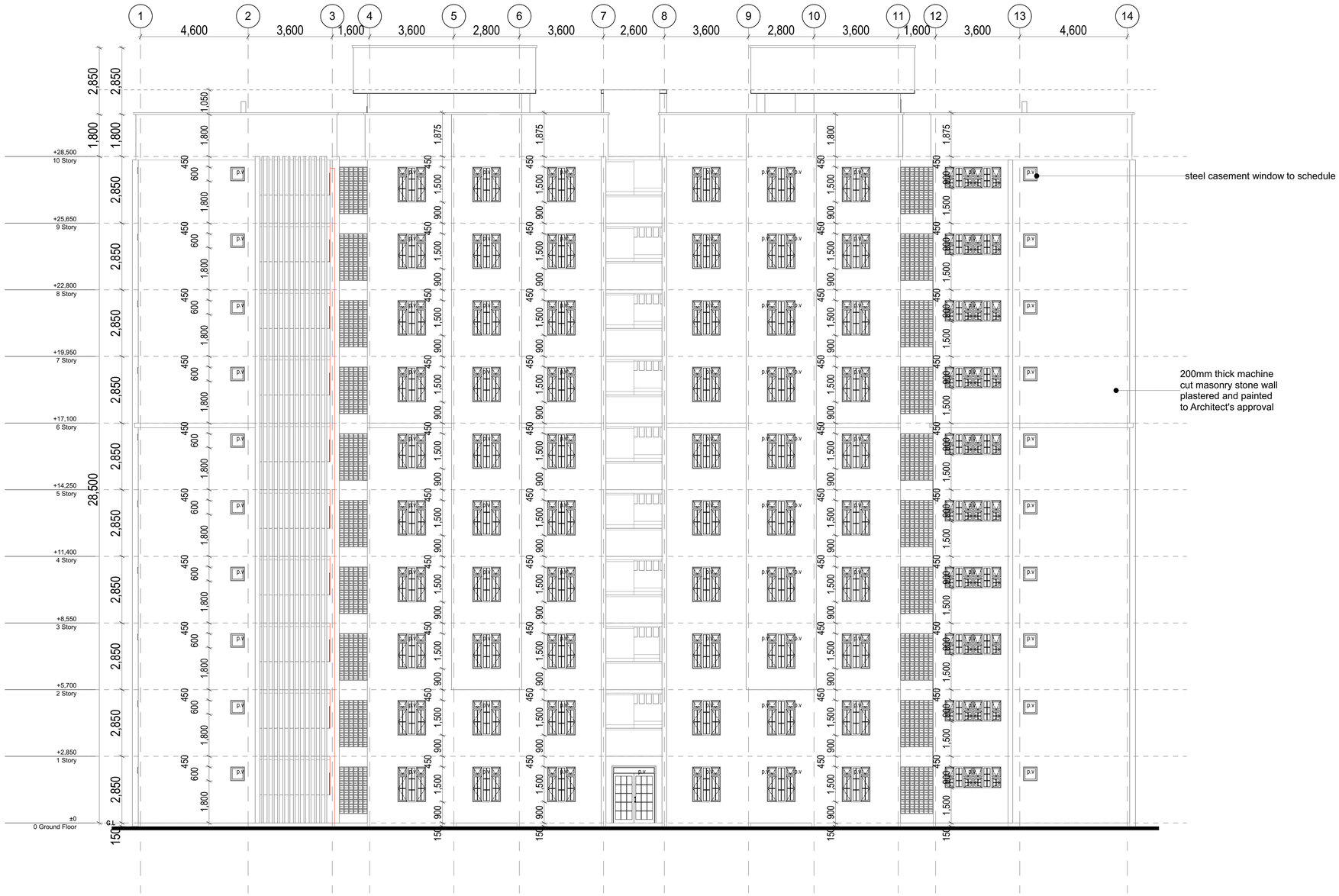
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



ELEVATION 02

REVISION 01

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:
ELEVATION 02

SCALE:
1:100

DRAWN BY:

CHECKED BY:

Name: _____

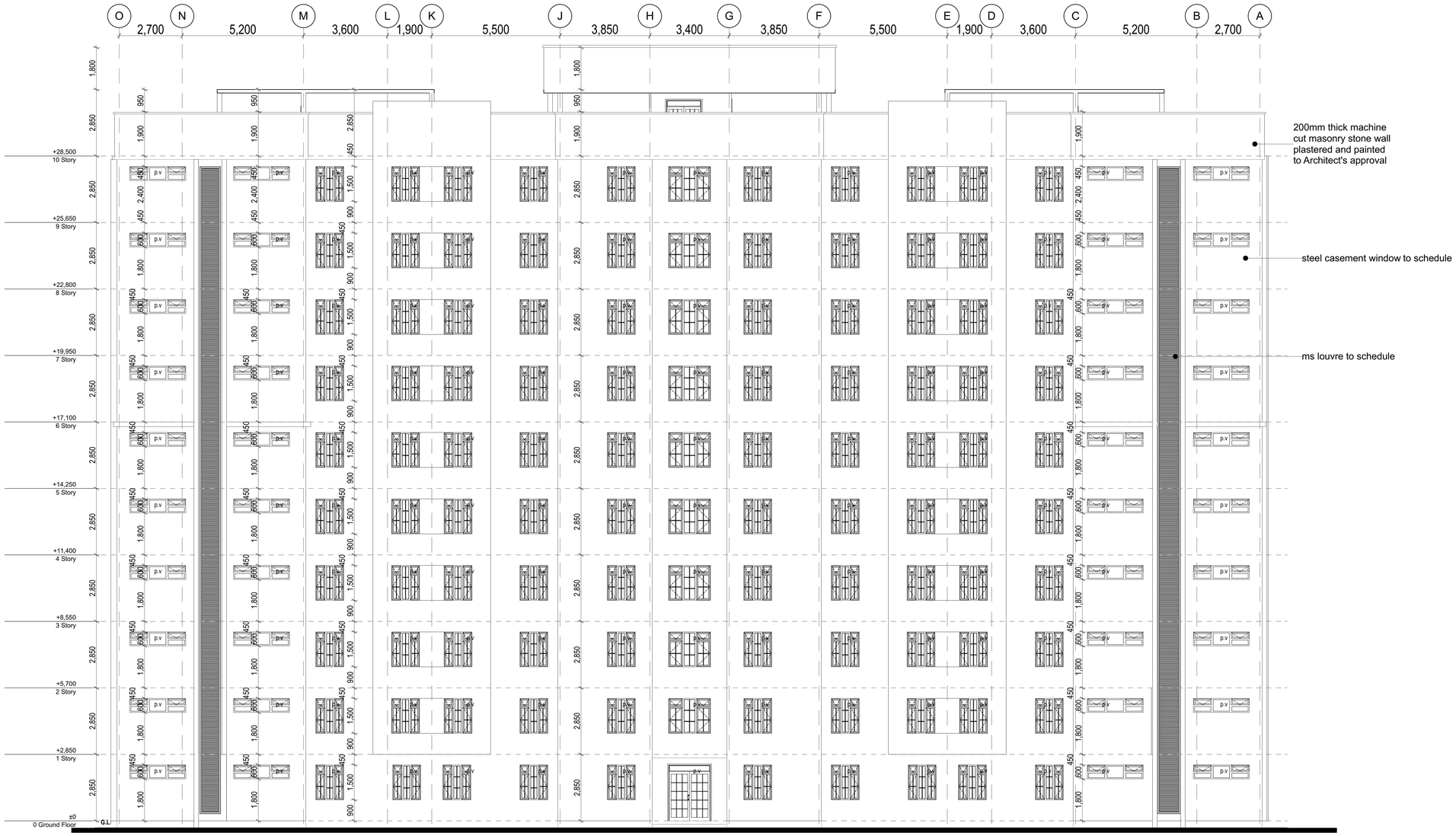
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



ELEVATION 03

REVISION 01

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
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8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

ELEVATION 03

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _____

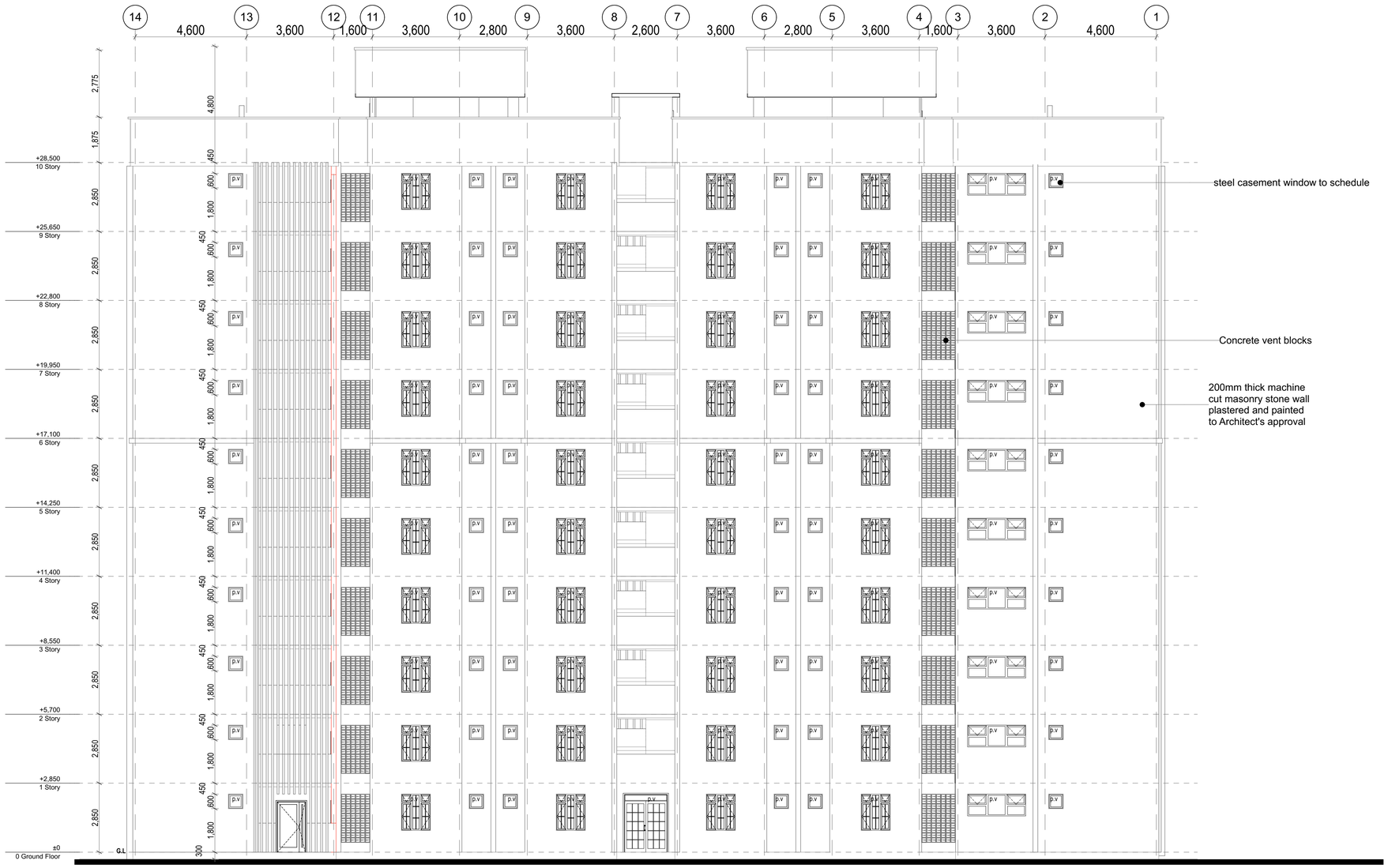
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



ELEVATION 04

REVISION 01

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:
ELEVATION 04

SCALE:
1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

SECTION 01

REVISION 01

GENERAL NOTES

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CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

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2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:
SECTION 01

SCALE:
1:100

DRAWN BY:

CHECKED BY:

Name: _____

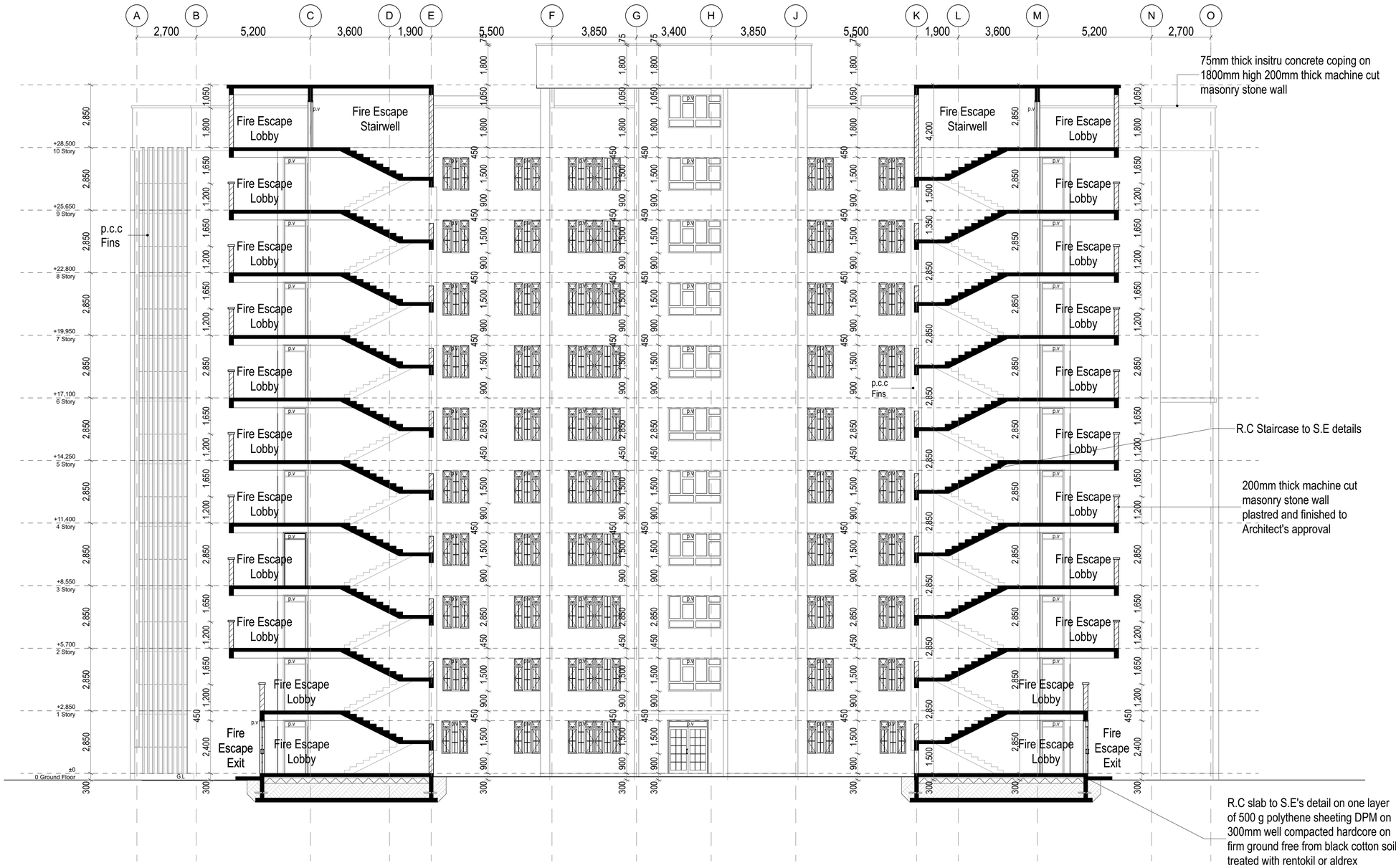
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



SECTION 02

REVISION 01

GENERAL NOTES

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:
SECTION 02

SCALE:
1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

3D VISUALIZATION

STUDENT HOUSING

VIEW 01

REVISION 01

GENERAL NOTES

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PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _

DRAWING TITLE:

VIEW 01

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

VIEW 02

REVISION 01

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

VIEW 02

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

VIEW 03

REVISION 01

GENERAL NOTES

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ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

VIEW 03

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

OPENING SCHEDULES

STUDENT HOUSING

GROUND FLOOR: OPENINGS SCHEDULE

REVISION 01

GENERAL NOTES

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PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _ _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _

DRAWING TITLE:
GROUND FLOOR: OPENINGS SCHEDULE

SCALE:
1:100

DRAWN BY:

CHECKED BY:

Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

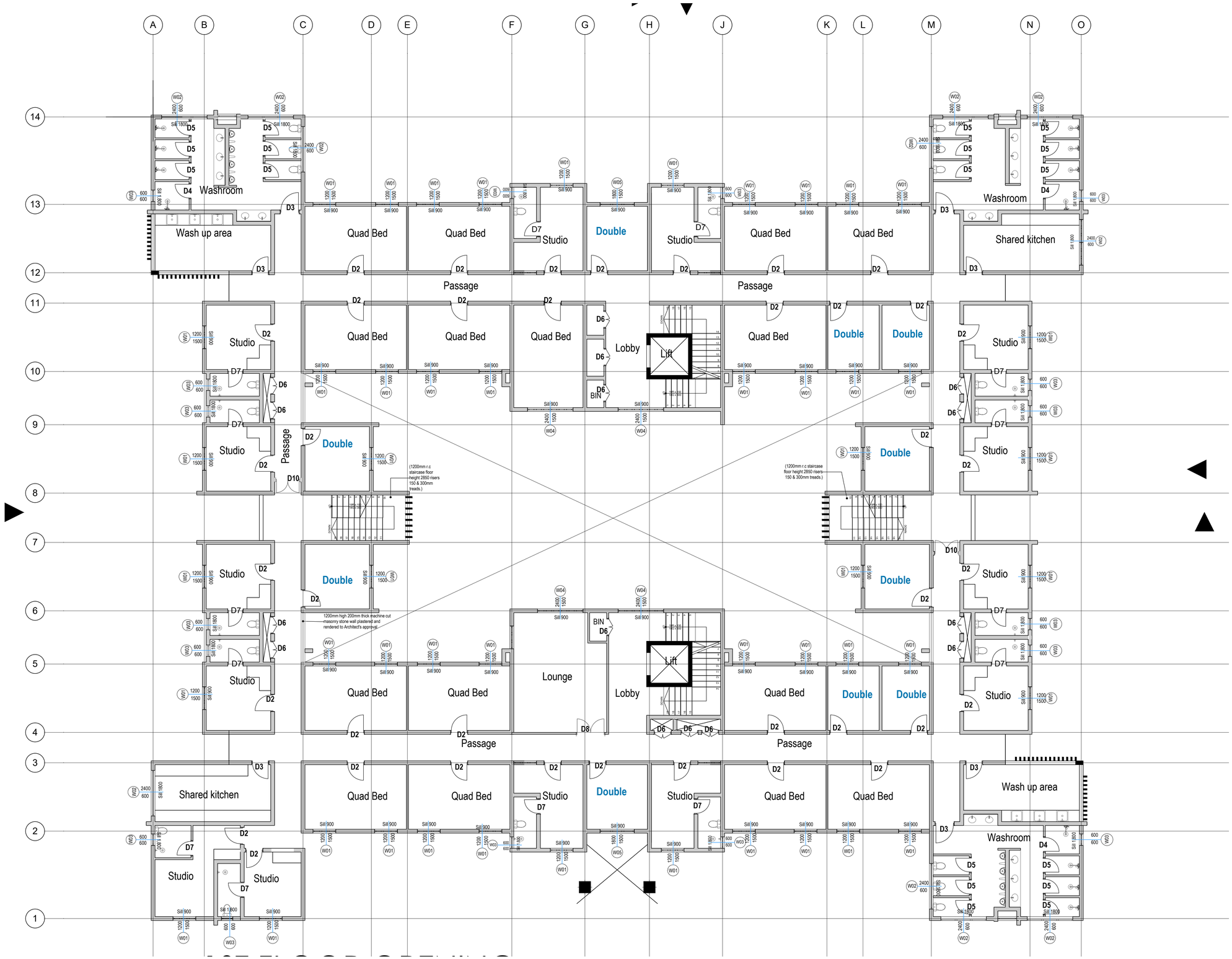
Signature: _ _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



1ST FLOOR: OPENINGS SCHEDULE

REVISION 01

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PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DRAWING TITLE:
1ST FLOOR: OPENINGS SCHEDULE

SCALE:
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DRAWN BY:

CHECKED BY:

Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

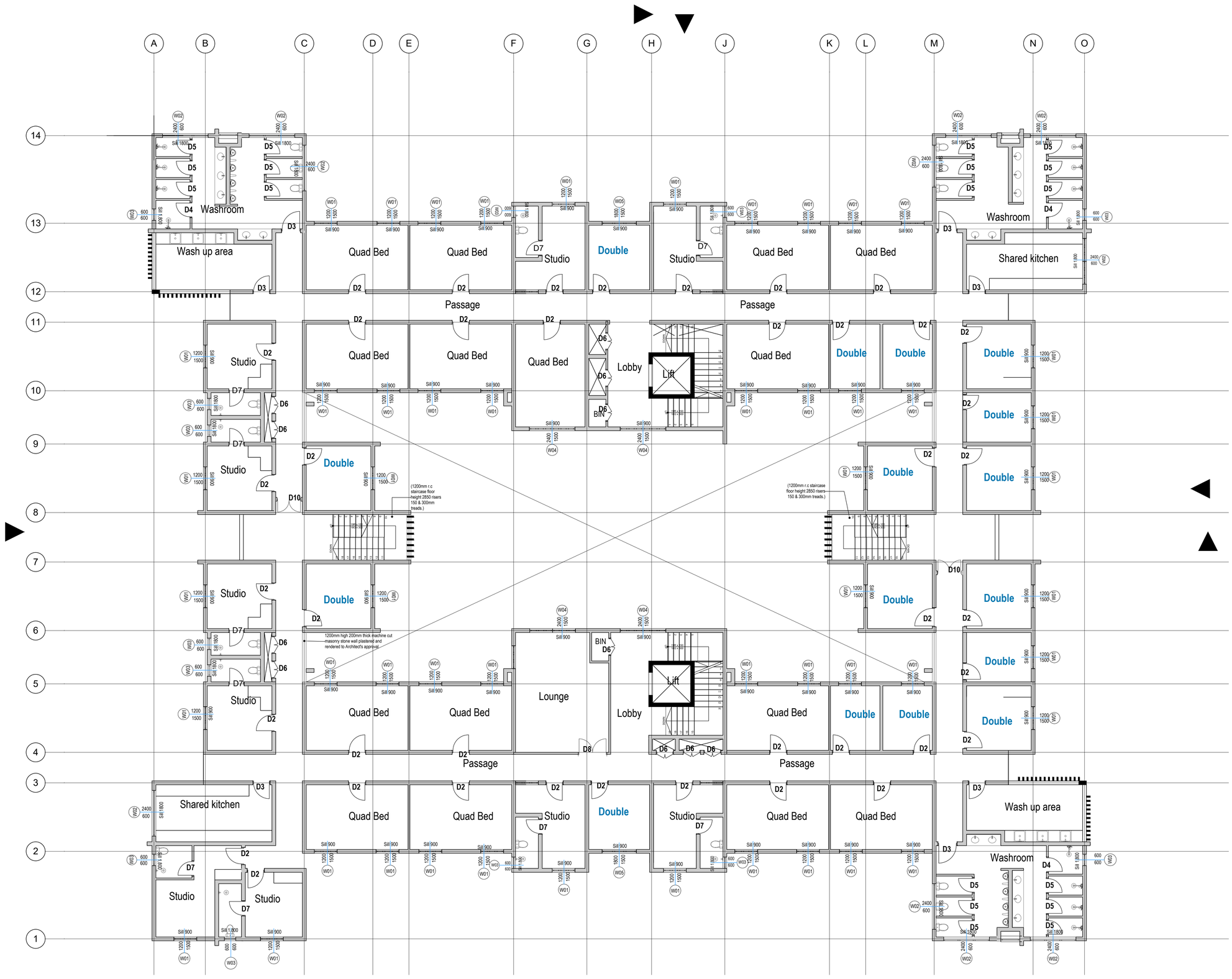
Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



2ND FLOOR: OPENINGS SCHEDULE

REVISION 01

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PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _ _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _ _

DRAWING TITLE:

2ND FLOOR: OPENINGS SCHEDULE

SCALE:

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DRAWN BY:

CHECKED BY:

Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

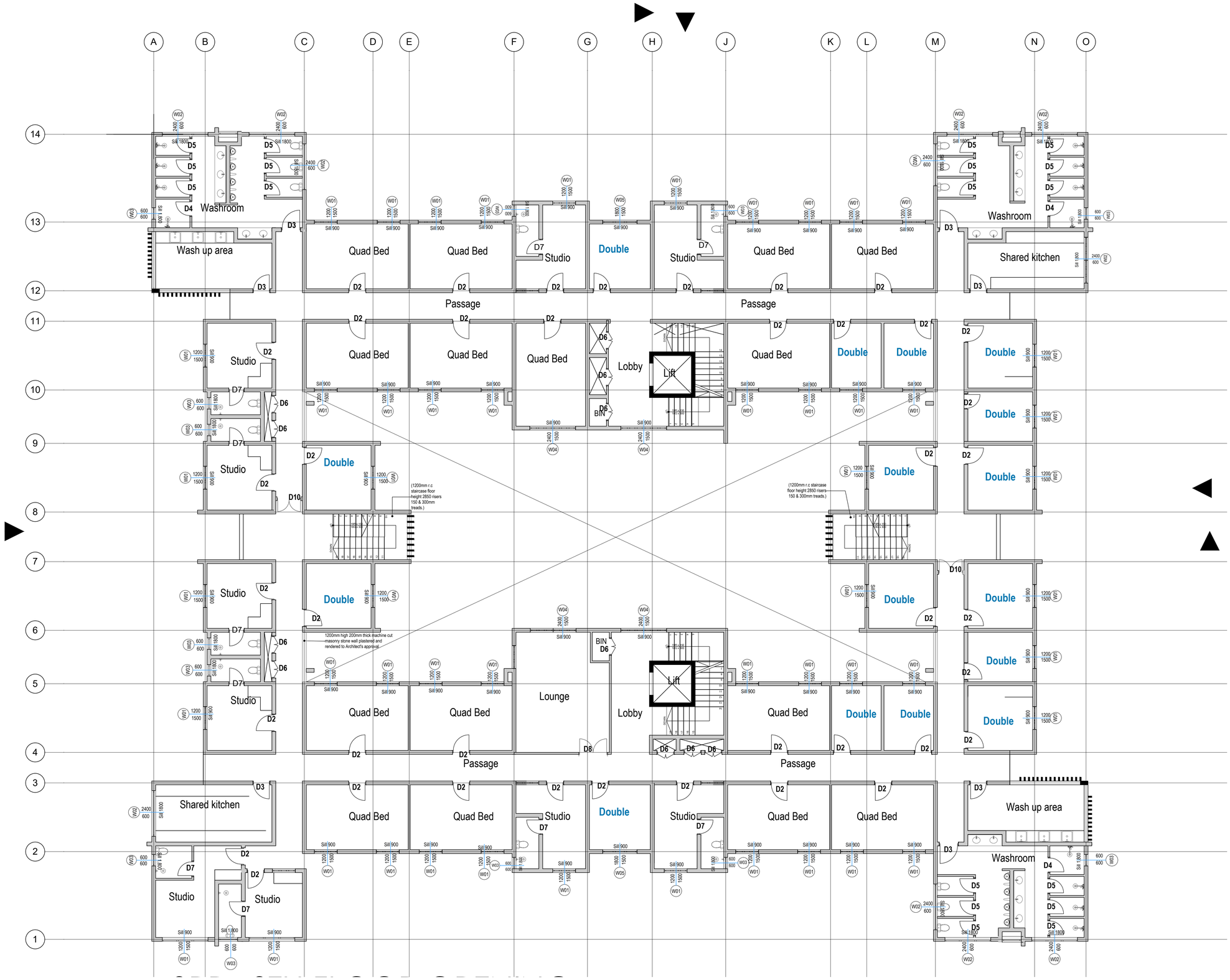
Signature: _ _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



3RD-9TH FLOOR: OPENINGS SCHEDULE

REVISION 01

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PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DRAWING TITLE:

3RD-9TH FLOOR: OPENINGS SCHEDULE

SCALE:

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DRAWN BY:

CHECKED BY:

Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

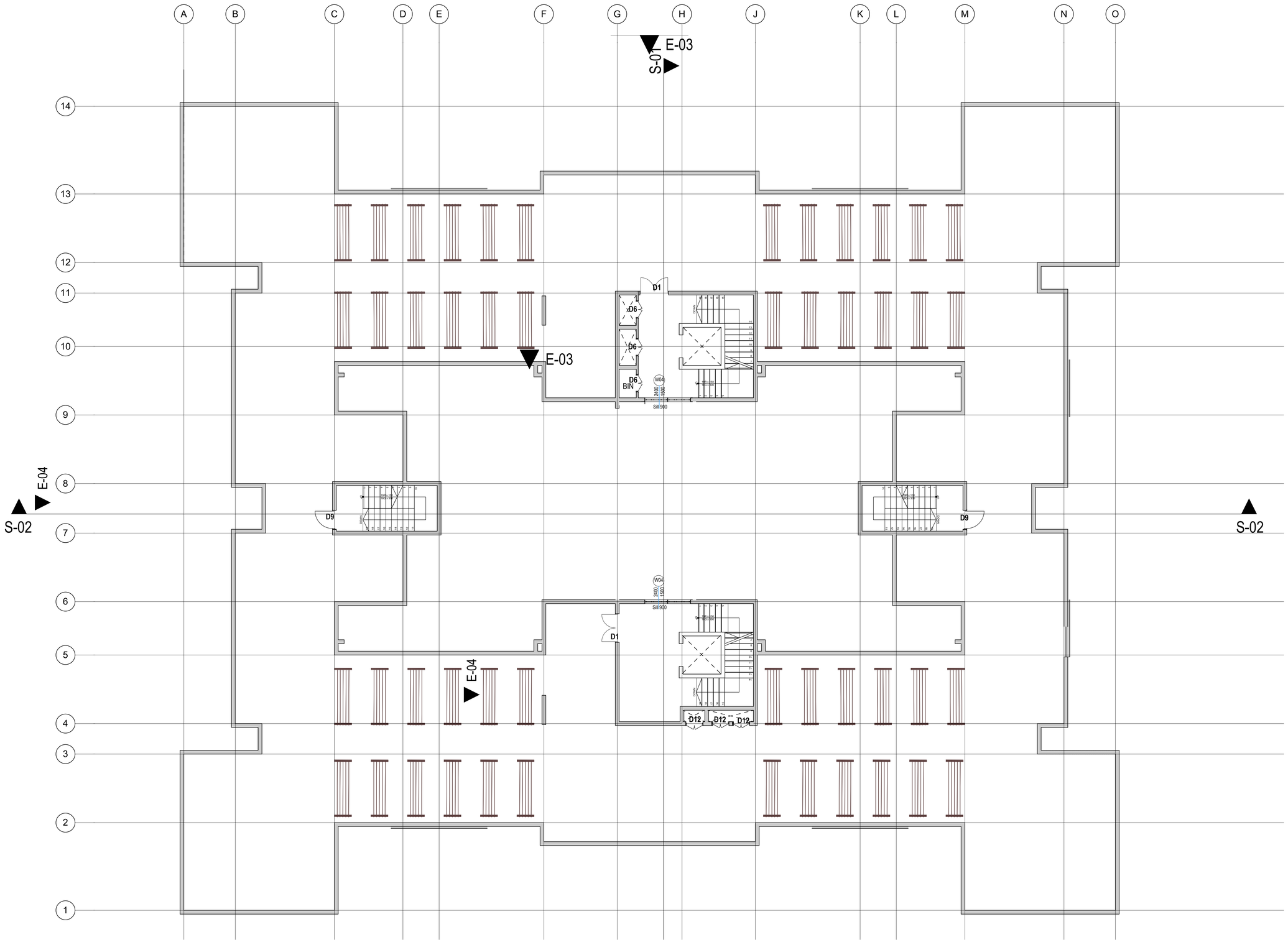
Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



ROOF TERRACE: OPENINGS SCHEDULE

REVISION 01

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PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:
ROOF TERRACE: OPENINGS SCHEDULE

SCALE:
1:100

DRAWN BY:

CHECKED BY:

Name: _____

Signature: _____ **Date:** _____

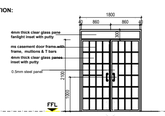
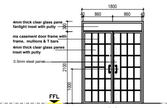
DATE:

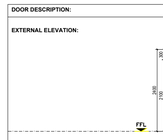
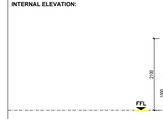
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

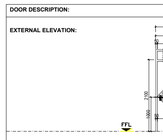
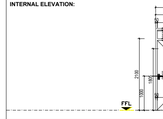
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

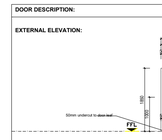
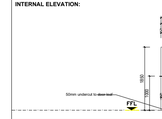
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

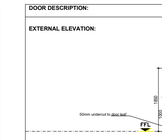
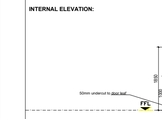
DOOR SCHEDULE

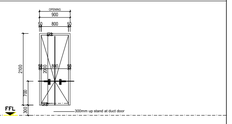
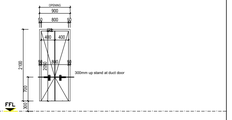
DOOR DESCRIPTION:		
EXTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D 1	
QUANTITY: GROUND FLR:	4	
ROOF TOP.:	2	
TOTAL NO.:	6	
LOCATION: GROUND FLOOR	*Main Entrances & Roof top	
Performance Class	*Steel Door double leaf & single swing door	
Opening size:	*1800x2400mm plaster to plaster opening	
Door frame:	*50mmx150mm mild steel RHS section fishtailed & lugged into the wall on 3 sides	
Architrave:	Nil	
Door leaf:	Leaf size: 2 number 850 x 2100mm high steel door leafs Leaf frame: 40x40x2mm main frames all round with 25x25x3mm Tees to carry glass Material: Still & fixed 4mm clear glass Appearance: Flush panels to both sides - Painted. Finish: 1 coat Steel primer paint with 2 coat gloss paint	
Fan light	*900mmx 300mm fanlight in 4mm thick clear glazing fixed above door	
Ironmongery: Hinge:	*1 ½ pairs of 100mm pressed steel but hinges	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	Two coat of gloss paint on one coat of steel primer	
Signage:	Stainless steel door sign with door numbers	
	Ironmongery and door sample to be provided for approval	

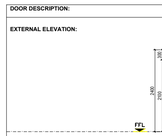
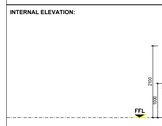
DOOR DESCRIPTION:		
EXTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D 2	
QUANTITY: GROUND FLR:	37	
1ST FLR.:	39	
2ND FLR.:	42	
3RD-9TH FLR.:	294	
TOTAL NO.:	412	
LOCATION: GROUND FLOOR & FLOORS 1-9	*Quad Bed Rooms, Studio & Single	
Performance Class	*Flush Timber Single leaf & single swing door	
Opening:	*1000x2400mm plaster to plaster opening	
Door frame:	*50mmx150mm softwood timber rebated fixed plugged & screwed into walls	
Architrave:	Ex25x50mm architraves all round all sides with 25x25mm quadrant beading	
Door leaf:	Leaf size: 1 No size 900 x 2100mm x 50mm thick semi solid core flush door plywood finished for painting to both sides with 15mm thick wood lipping all round Leaf frame: softwood timber treated & braced Material: Semi Solid core timber infill Appearance: Flush panels to both sides - Painted. Finish: Plywood with hard wood edges finished for painting	
Fan light	*900mmx 300mm fanlight in 4mm thick clear glazing fixed above door	
Ironmongery: Hinge:	*1 ½ pairs of 100mm pressed steel but hinges	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	One coat of paint on one coat of wood primer	
Signage:	Stainless steel door sign with door numbers	
	Ironmongery and door sample to be provided for approval	

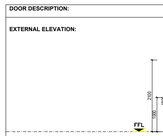
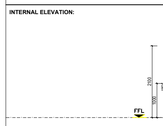
DOOR DESCRIPTION:		
EXTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D 3	
QUANTITY: GROUND FLR:	7	
1ST FLR.:	7	
2ND FLR.:	7	
3RD-9TH FLR.:	49	
TOTAL NO.:	70	
LOCATION: GROUND FLOOR & FLOORS 1-9	*Washrooms,Wash up area & Shared Kitchen	
Performance Class	*Flush Timber Single leaf & single swing door	
Opening:	*1100x2400mm plaster to plaster opening	
Door frame:	*50mmx150mm softwood timber rebated fixed plugged & screwed into walls	
Architrave:	Ex25x50mm architraves all round all sides with 25x25mm quadrant beading	
Door leaf:	Leaf size: 1 No size 1000 x 2100mm x 50mm thick semi solid core flush door plywood finished for painting to both sides with 15mm thick wood lipping all round Leaf frame: softwood timber treated & braced Material: Semi Solid core timber infill Appearance: Flush panels to both sides - Painted. Finish: Plywood with hard wood edges finished for painting	
Fan light	*1000mmx 300mm fanlight in 4mm thick clear glazing fixed above door	
Ironmongery: Hinge:	*1 ½ pairs of 100mm pressed steel but hinges	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	One coat of paint on one coat of wood primer	
Signage:	Stainless steel door sign with door numbers	
	Ironmongery and door sample to be provided for approval	

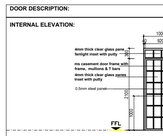
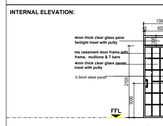
DOOR DESCRIPTION:		
EXTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D 4	
QUANTITY: GROUND FLR:	3	
1ST FLR.:	3	
2ND FLR.:	3	
3RD-9TH FLR.:	21	
TOTAL NO.:	30	
LOCATION: GROUND FLOOR & FLOORS 1-9	*Washrooms	
Performance Class	*Flush Timber Single leaf & single swing door	
Opening size:	*1000x2400mm plaster to plaster opening	
Door frame:	*50mmx150mm softwood timber rebated fixed plugged & screwed into walls	
Architrave:	Ex25x50mm architraves all round all sides with 25x25mm quadrant beading	
Door leaf:	Leaf size: 1 No size 1000 x 1800mm x 50mm thick semi solid core flush door plywood finished for painting to both sides with 15mm thick wood lipping all round. Door leaf undercut by 50mm. Leaf frame: softwood timber treated & braced Material: Semi Solid core timber infill Appearance: Flush panels to both sides - Painted. Finish: Plywood with hard wood edges finished for painting	
Fan light	*Nil	
Ironmongery: Hinge:	*1 ½ pairs of 100mm pressed steel but hinges	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	One coat of paint on one coat of wood primer	
Signage:	Stainless steel door sign with door numbers	
	Ironmongery and door sample to be provided for approval	

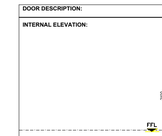
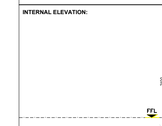
DOOR DESCRIPTION:		
EXTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D 5	
QUANTITY: GROUND FLR:	3	
1ST FLR.:	3	
2ND FLR.:	3	
3RD-9TH FLR.:	21	
TOTAL NO.:	30	
LOCATION: GROUND FLOOR & FLOORS 1-9	Washroom cubicles	
Performance Class	*Flush Timber Single leaf & single swing door	
Opening:	*800x2400mm plaster to plaster opening	
Door frame:	*50mmx150mm softwood timber rebated fixed plugged & screwed into walls	
Architrave:	Ex25x50mm architraves all round all sides with 25x25mm quadrant beading	
Door leaf:	Leaf size: 1 No size 700 x 1800mm x 50mm thick semi solid core flush door plywood finished for painting to both sides with 15mm thick wood lipping all round. Door Leaf undercut by 50mm. Leaf frame: softwood timber treated & braced Material: Semi Solid core timber infill Appearance: Flush panels to both sides - Painted. Finish: Plywood with hard wood edges finished for painting	
Fan light	*Nil	
Ironmongery: Hinge:	*1 ½ pairs of 100mm pressed steel but hinges	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	One coat of paint on one coat of wood primer	
Signage:	Stainless steel door sign with door numbers	
Remarks:	Ironmongery and door sample to be provided for approval	

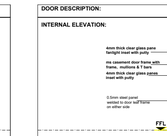
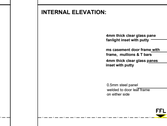
DOOR DESCRIPTION:		
EXTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D 6	
QUANTITY: GROUND FLR:	15	
1ST FLR.:	15	
2ND FLR.:	11	
3RD-9TH FLR.:	77	
TOTAL NO.:	118	
LOCATION: GROUND FLOOR & FLOORS 1-9	Ducts	
Performance Class	*Flush Timber Single leaf & single swing door	
Opening:	*800x2400mm plaster to plaster opening	
Door frame:	*50mmx150mm softwood timber rebated fixed plugged & screwed into walls	
Architrave:	Ex25x50mm architraves all round all sides with 25x25mm quadrant beading	
Door leaf:	Leaf size: 2 No size 400 x 2050mm x 50mm thick semi solid core flush door plywood finished for painting to both sides with 15mm thick wood lipping all round. Duct edge upstand raised by 300mm Leaf frame: softwood timber treated & braced Material: Semi Solid core timber infill Appearance: Flush panels to both sides - Painted. Finish: Plywood with hard wood edges finished for painting	
Fan light	*Nil	
Ironmongery: Hinge:	*3 pairs of 100mm pressed steel but hinges	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	One coat of paint on one coat of wood primer	
Signage:	Stainless steel door sign with door numbers	
Remarks:	Ironmongery and door sample to be provided for approval	

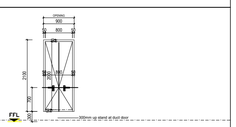
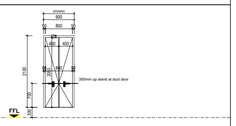
DOOR DESCRIPTION:		
EXTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D 7	
QUANTITY: GROUND FLR:	12	
1ST FLR.:	14	
2ND FLR.:	10	
3RD-9TH FLR.:	70	
TOTAL NO.:	106	
LOCATION: GROUND FLOOR & FLOORS 1-9	Studio WC/SH	
Performance Class	*Flush Timber Single leaf & single swing door	
Opening:	*800x2400mm plaster to plaster opening	
Door frame:	*50mmx150mm softwood timber rebated fixed plugged & screwed into walls	
Architrave:	Ex25x50mm architraves all round all sides with 25x25mm quadrant beading	
Door leaf:	Leaf size: 1 No size 700 x 2100mm semi solid core flush door plywood finished for painting to both sides with 15mm thick wood lipping all round. Leaf frame: softwood timber treated & braced Material: Semi Solid core timber infill Appearance: Flush panels to both sides - Painted. Finish: Plywood with hard wood edges finished for painting	
Fan light	*700mmx 300mm fanlight in 4mm thick clear glazing fixed above door	
Ironmongery: Hinge:	*1 ½ pairs of 100mm pressed steel but hinges	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	One coat of paint on one coat of wood primer	
Signage:	Stainless steel door sign with door numbers	
Remarks:	Ironmongery and door sample to be provided for approval	

DOOR DESCRIPTION:		
EXTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D 8	
QUANTITY: GROUND FLR:	1	
1ST FLR.:	1	
2ND FLR.:	1	
3RD-9TH FLR.:	7	
TOTAL NO.:	10	
LOCATION: GROUND FLOOR & FLOORS 1-9	Lounge	
Performance Class	*Flush Timber Double leaf & single swing door	
Opening:	*1500x2400mm plaster to plaster opening	
Door frame:	*50mmx150mm softwood timber rebated fixed plugged & screwed into walls	
Architrave:	Ex25x50mm architraves all round all sides with 25x25mm quadrant beading	
Door leaf:	Leaf size: 2 No size 700 x 2100mm x 50mm thick semi solid core flush door plywood finished for painting to both sides with 15mm thick wood lipping all round. Leaves rebated. Leaf frame: softwood timber treated & braced Material: Semi Solid core timber infill Appearance: Flush panels to both sides - Painted. Finish: Plywood with hard wood edges finished for painting	
Fan light	*900mmx 300mm fanlight in 4mm thick clear glazing fixed above door	
Ironmongery: Hinge:	*3 pairs of 100mm pressed steel but hinges	
Lock:	*2 Lever mortice lock of approved quality. Bolt to top frame and to floor for one leaf.	
Handle:	Keyed entry handles of approved quality	
Finishing:	One coat of paint on one coat of wood primer	
Signage:	Stainless steel door sign with door numbers	
Remarks:	Ironmongery and door sample to be provided for approval	

DOOR DESCRIPTION:		
INTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D9	
QUANTITY: GROUND FLR:	2	
1ST FLR.:		
2ND FLR.:		
ROOF:	2	
TOTAL NO.:	4	
LOCATION: GROUND FLOOR	Shops & at Roof top	
Performance Class	*Steel Door single leaf & single swing door	
Opening size:	*1000x2400mm plaster to plaster opening	
Door frame:	*50mmx50mm mild steel RHS section fishtailed & lugged into the wall on 3 sides	
Architrave:	Nil	
Door leaf:	Leaf size: 1 number single door 900 x 2100mm high steel door leaf Leaf frame: 40x40x2mm main frames all round with 25x25x3mm Tees to carry glass Material: Steel & fixed 4mm clear glass Appearance: Flush panels to both sides - Painted. Finish: 1 coat Steel primer paint with 2 coat gloss paint	
Fan light	*920mmx 300mm fanlight in 4mm thick clear glazing fixed above door	
Ironmongery: Hinge:	Parliament m.s steel hinges opening 180 degrees	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	Two coat of gloss paint on one coat of steel primer	
Signage:	Stainless steel door sign with door numbers	
Remarks:	Ironmongery and door sample to be provided for approval	

DOOR DESCRIPTION:		
INTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D10	
QUANTITY: GROUND FLR:		
1ST FLR.:	2	
2ND FLR.:	2	
3RD-9TH FLR.:	14	
TOTAL NO.:	18	
LOCATION: GROUND FLOOR	Escape Lobby	
Performance Class	*Steel Door double leaf & single swing door	
Opening size:	*1000x2400mm plaster to plaster opening	
Door frame:	*50mmx50mm mild steel RHS section fishtailed & lugged into the wall on 3 sides	
Architrave:	Nil	
Door leaf:	Leaf size: 2 number double door 600 x 2100mm high steel door leaf both central rebated & opposite side & top rebated Leaf frame: Steel sheet panel 1.4mm thick on both sides of main steel members Material: Steel Appearance: Flush panels to both sides - Painted. Finish: 1 coat Steel primer paint with 2 coat gloss paint	
Fan light	*Nil	
Ironmongery: Hinge:	Parliament m.s steel hinges opening 180 degrees	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality on both sides both leaf's	
Finishing:	Two coat of gloss paint on one coat of steel primer	
Signage:	Stainless steel door sign with door numbers	
Remarks:	Ironmongery and door sample to be provided for approval	

DOOR DESCRIPTION:		
INTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D11	
QUANTITY: GROUND FLR:	1	
1ST FLR.:		
2ND FLR.:		
ROOF:		
TOTAL NO.:	1	
LOCATION: GROUND FLOOR	Laundry	
Performance Class	*Steel Door double leaf & single swing door	
Opening size:	*1300x2400mm plaster to plaster opening	
Door frame:	*50mmx50mm mild steel RHS section fishtailed & lugged into the wall on 3 sides	
Architrave:	Nil	
Door leaf:	Leaf size: 1 number double door 900 x 2100mm & 300x 2100mm high steel door leaf Leaf frame: 40x40x2mm main frames all round with 25x25x3mm Tees to carry glass Material: MS steel & fixed 4mm clear glass Appearance: Flush panels to both sides - Painted. Finish: 1 coat Steel primer paint with 2 coat gloss paint	
Fan light	*1200 mm x 300mm fanlight in 4mm thick clear glazing fixed above door	
Ironmongery: Hinge:	Parliament m.s steel hinges opening 180 degrees	
Lock:	*2 Lever mortice lock of approved quality	
Handle:	Keyed entry handles of approved quality	
Finishing:	Two coat of gloss paint on one coat of steel primer	
Signage:	Stainless steel door sign with door numbers	
Remarks:	Ironmongery and door sample to be provided for approval	

DOOR DESCRIPTION:		
INTERNAL ELEVATION:		
INTERNAL ELEVATION:		
OPENING IDENTIFICATION:	D12	
QUANTITY: GROUND FLR:		
1ST FLR.:		
2ND FLR.:		
ROOF:	3	
TOTAL NO.:	3	
LOCATION: GROUND FLOOR	Roof top	
Performance Class	*Steel Door double leaf & single swing door	
Opening size:	*900x2400mm plaster to plaster opening	
Door frame:	*50mmx50mm mild steel RHS section fishtailed & lugged into the wall on 3 sides	
Architrave:	Nil	
Door leaf:	Leaf size: 2 number double door 600 x 2100mm high steel door leaf both central rebated & opposite side & top rebated Leaf frame: Steel sheet panel 1.4mm thick on both sides of main steel members Material: Steel Appearance: Flush panels to both sides - Painted. Finish: 1 coat Steel primer paint with 2 coat gloss paint	
Fan light	*Nil	
Ironmongery: Hinge:	*3 pairs of 100mm pressed steel but hinges	
Lock:	*Padlock mechanism plus barrel bolt on both sides	
Handle:	30mm thick rods at 200mm high on each leaf	
Finishing:	Two coat of gloss paint on one coat of steel primer	
Signage:	Stainless steel door sign with door numbers	
Remarks:	Ironmongery and door sample to be provided for approval	

DOOR SCHEDULE

REVISION 01

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS5255
5. All ICs within building area, driveway and parking to have heavy duty,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S.E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _ _ _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _ _

DRAWING TITLE:

DOOR SCHEDULE

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name: _

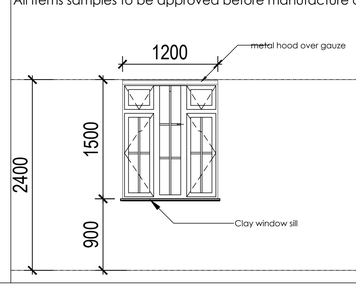
Signature: _ _ _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _ _

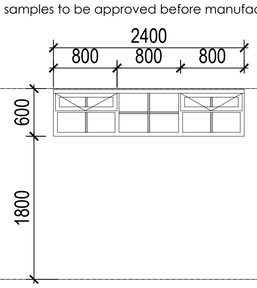
DATE:

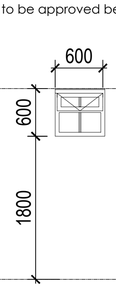
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

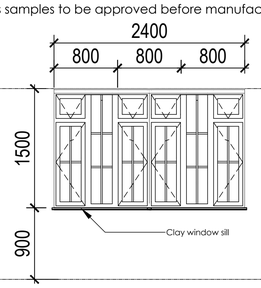
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

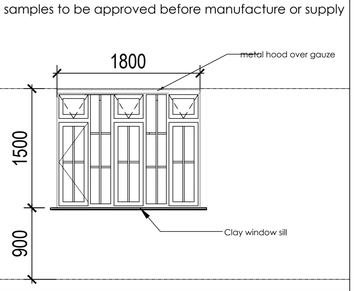
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA











WINDOW SCHEDULE

Window Name	W01	W02	W03	W04	W05
Location	Quad bed, Studio & Single	Washroom	Disabled toilets, Studio ensuites, Washroom	Main staircase lobby, Lounge,Roof terrace	Studio,
Frame material	25 x 25 x 3mm mild steel "z" sections for frame with tee sections as mullions including permanent vent consisting of a T bar, gauze &16 gauge sheet metal hood 50mmx50mm high projection full width of window. All members welded, ground & sanded to a smooth finish. Lugged & fixed to jambs ,head & sill with screws & plugged	25 x 25 x 3mm mild steel "z" sections for frame with tee sections as mullions including permanent vent consisting of a T bar, gauze &16 gauge sheet metal hood 50mmx50mm high projection full width of window. All members welded, ground & sanded to a smooth finish. Lugged & fixed to jambs ,head & sill with screws & plugged	25 x 25 x 3mm mild steel "z" sections for frame with tee sections as mullions including permanent vent consisting of a T bar, gauze &16 gauge sheet metal hood 50mmx50mm high projection full width of window. All members welded, ground & sanded to a smooth finish. Lugged & fixed to jambs ,head & sill with screws & plugged	25 x 25 x 3mm mild steel "z" sections for frame with tee sections as mullions including permanent vent consisting of a T bar, gauze &16 gauge sheet metal hood 50mmx50mm high projection full width of window. All members welded, ground & sanded to a smooth finish. Lugged & fixed to jambs ,head & sill with screws & plugged	25 x 25 x 3mm mild steel "z" sections for frame with tee sections as mullions including permanent vent consisting of a T bar, gauze &16 gauge sheet metal hood 50mmx50mm high projection full width of window. All members welded, ground & sanded to a smooth finish. Lugged & fixed to jambs ,head & sill with screws & plugged
Frame finish	2 coats undercoat (grey oxide rust inhibiting paint) 2 coats finish coat oil paint	2 coats undercoat (grey oxide rust inhibiting paint) 2 coats finish coat oil paint	2 coats undercoat (grey oxide rust inhibiting paint) 2 coats finish coat oil paint	2 coats undercoat (grey oxide rust inhibiting paint) 2 coats finish coat oil paint	2 coats undercoat (grey oxide rust inhibiting paint) 2 coats finish coat oil paint
Glazing	4mm Thick clear sheet panes fixed with putty	4mm Thick clear sheet panes fixed with putty	4mm Thick clear sheet panes fixed with putty	4mm Thick clear sheet panes fixed with putty	4mm Thick clear sheet panes fixed with putty
Ironmongery	Window stays ,mild steel hinges & lock mechanism	Window stays ,mild steel hinges & lock mechanism	Window stays ,mild steel hinges & lock mechanism	Window stays ,mild steel hinges & lock mechanism	Window stays ,mild steel hinges & lock mechanism
Quantity	GF 50 | 1 FL 50 | 2 FL 52	GF 11 | 1 FL 11 | 2 FL 11	GF 15 | 1 FL 17 | 2 FL 13	GF 2 | 1 FL 4 | 2 FL 4	GF - | 1 FL 2 | 2 FL 2
	3-9 per floor | @52 = Total 364	3-9 per floor | @11 = Total 77	3-9 per floor | @13 = Total 91	3-9 per floor | @4 = Total 28 | Roof terr 2	3-9 per floor | @2 = Total 14
	Total = 516	Total = 110	Total = 136	Total = 40	Total = 18
W x H Size	1200× 1500	2400 × 600	600× 600	2400× 1500	1800× 1500
Sill Type	150x 25 mm Thick clay window cill with one rounded edge and throated on the external underside to allow drip	150x 25 mm Thick clay window cill with one rounded edge and throated on the external underside to allow drip	150x 25 mm Thick clay window cill with one rounded edge and throated on the external underside to allow drip	150x 25 mm Thick clay window cill with one rounded edge and throated on the external underside to allow drip	
Sill height	900	1800	1800	900	
Head height	2400	2400	2400	2400	
	All items samples to be approved before manufacture or supply 	All items samples to be approved before manufacture or supply 	All items samples to be approved before manufacture or supply 	All items samples to be approved before manufacture or supply 	All items samples to be approved before manufacture or supply

WINDOW SCHEDULE

REVISION 01

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

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PROJECT:

PROPOSED STUDENT HOUSING
IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _

DRAWING TITLE:

WINDOW SCHEDULE

SCALE:

1:100

DRAWN BY:

CHECKED BY:

Name:_ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Signature:_ _ _ _ _ _ **Date:**_ _ _ _ _

DATE:

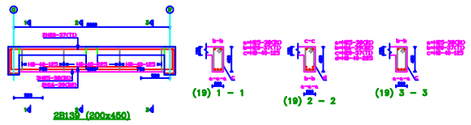
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

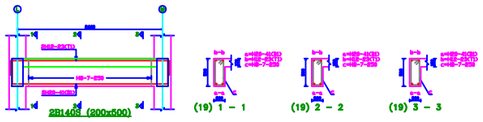
STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

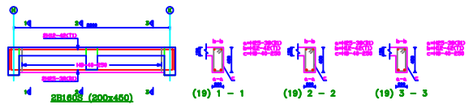
FOR THE GOVERNMENT OF THE
REPUBLIC OF KENYA

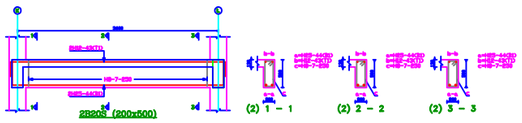
STRUCTURAL DRAWINGS

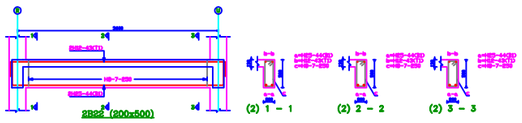
STUDENT HOUSING

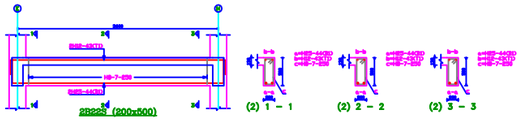


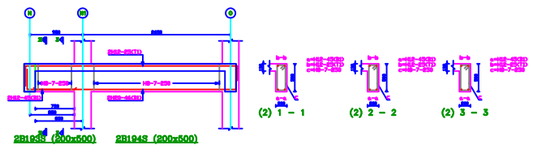


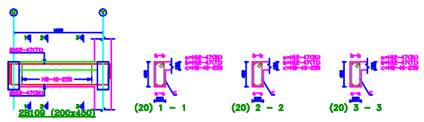


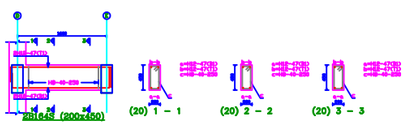


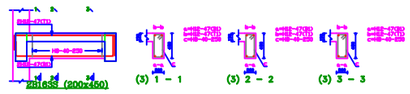


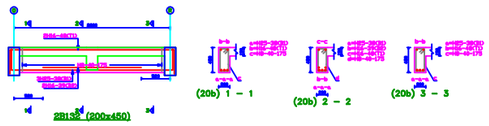


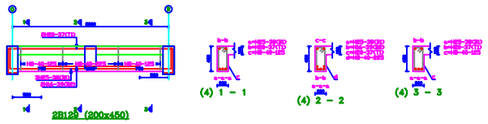


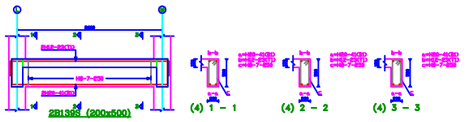


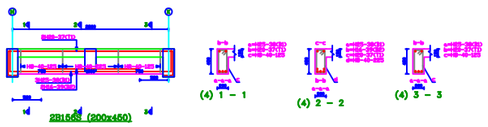


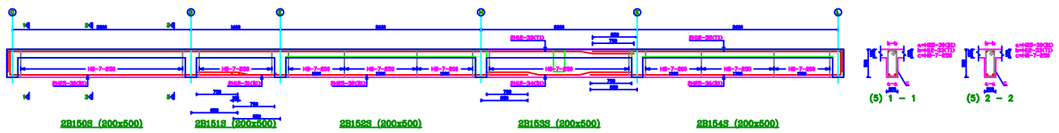


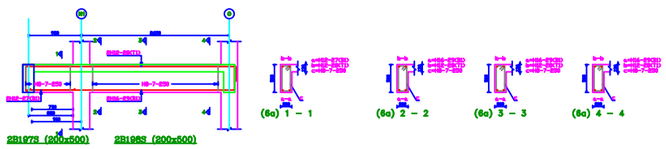


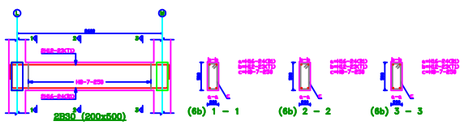


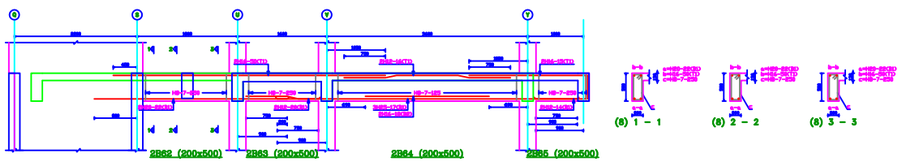


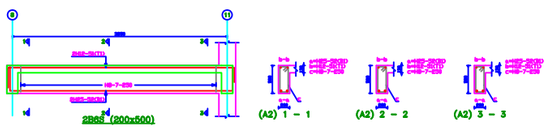












GENERALNOTES

1. Thisdrawingtobereadinconjunctionwith Engineers' drawings.
2. Alldimensionsareinmmunlessotherwise specified.
3. Drawingsarenottobescaled . Onlyfigured dimensionsshouldbeused
4. Thecontractormustcheckandverifyall dimensionsbeforecommencementofwork andifnecessaryconfirmwiththearchitect

CONSTRUCTION

Approvedanti -termitetreatment & 1000 gauge polythenesheetingcovertobeprovidedunder allgroundfloorconcreteslaboncompacted hardcoretoapproval .
DPCtobe 3plybituminousfelttobeprovided underallwalls

STRUCTURAL

1. AllBlackcottonsoiltoberemovedfrom belowallbuildingandpavedsurfaces
2. Allreinforcedconcreteworkwillbein accordancewithstructuraldrawings
3. Foundationdepthstobedeterminedonsite toS .Eapproval
4. Allwallslessthan 200mmthicktobe reinforcedwithhoopironateveryalternate course.
5. AlladjacentR .Cworkandmasonrywallsto betiedwithstrapironsateverycourse

MECHANICAL

1. AllPlumbingandDrainageWorktocomply withspecifications
2. S.V.Pdenotessoilventpipeandtobe providedattheheadofthedrainage
3. Wheredrainageisshownunderdriveways andslabs , tobeencasedin 150mmthick concretesurround .
4. Allundergroundfoulandwastedrainpipes shallbeofPVCtocomplywithBS 5255
5. AllICswithinbuildingarea , drivewayand parkingtohaveheavyduty ,double-sealairtight coversandwallstobe 200mm.
6. Minimumslopeinthedrainpipestobe 1
7. Nochasesforpipeswillbeallowedinthe slabs
8. Sleeveswillbeallowedwithwrittenapproval fromS .E.
9. Nocuttingofconcretewithoutexpress approvaloftheArchitectorS .E
10. Alltestingofpipesmustbecoordinated withelectricalandanyconflictsmustbe resolvedbeforeworksbegin
11. PermanentventsdenotedasP .Vtobe providedasshownonplan

ELECTRICAL

Allconduitsmustbelaidbeforeplastering

PROJECT:
PROPOSEDAFFORDABLEHOUSING DEVELOPMENT IN ALUPE UNIVERSITY

CLIENT:
Name: STATEDEPARTMENTFORHOUSINGAND URBANDEVELOPMENT
Signature: _____ Date: _____

DRAWINGTITLE :
TYPICALBEAMS3OF4

SCALE:

DRAWNBY :

CHECKEDBY :
Name: _____
Signature: _____ Date: _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENTFOR HOUSING & URBAN DEVELOPMENT

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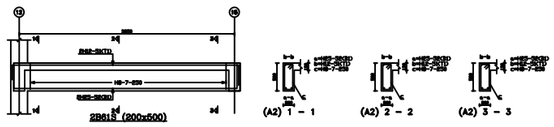
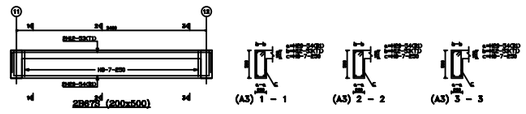
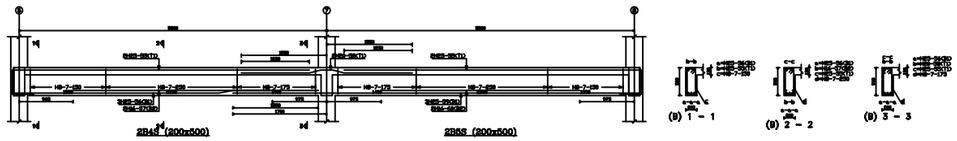
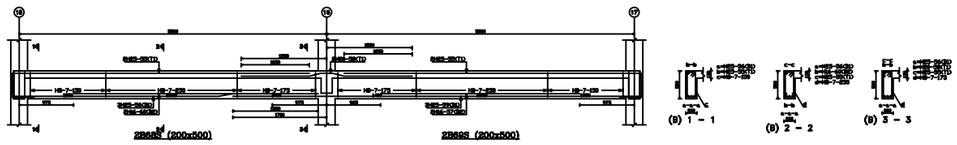
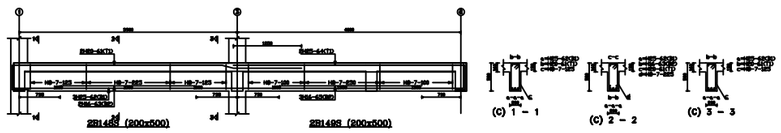
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

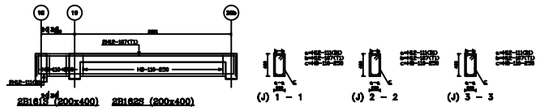


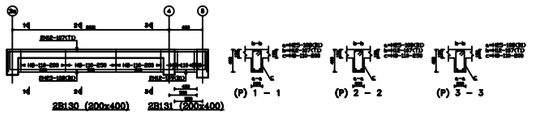


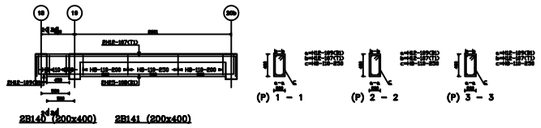


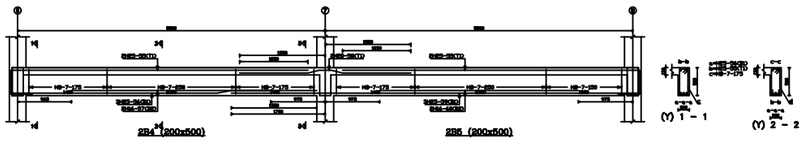


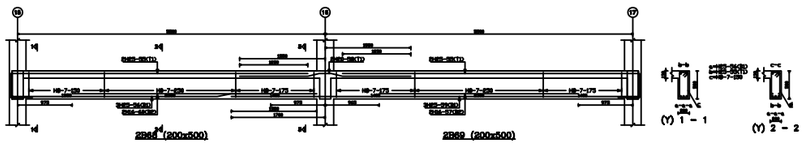


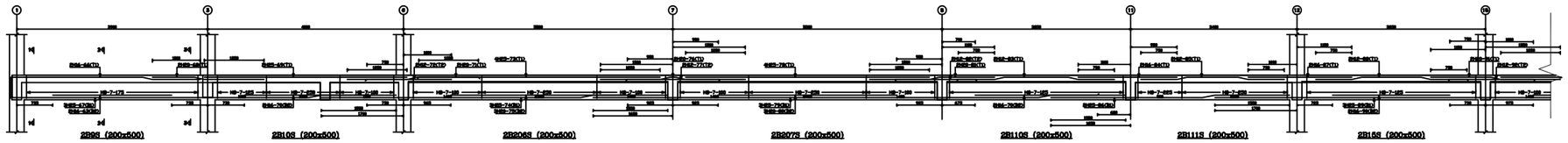


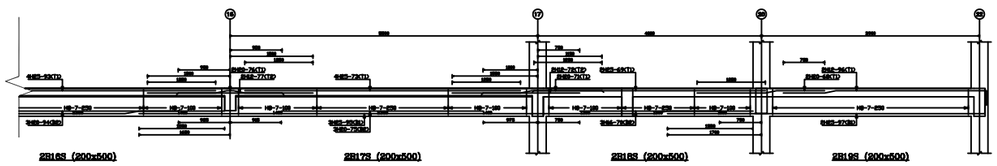


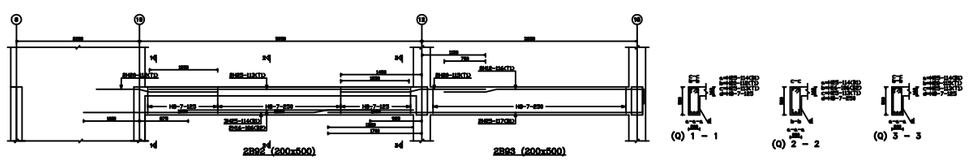


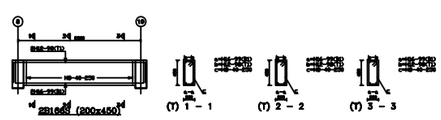












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3. Foundationdepthstobedeterminedonsite toS .Eapproval
4. Allwallslessthan 200mmthicktobe reinforcedwithhoopironateveryalternate course.
5. AlladjacentR .Cworkandmasonrywallsto betiedwithstrapironsateverycourse

MECHANICAL

1. AllPlumbingandDrainageWorktocomply withspecifications
2. S.V.Pdenotessoilventpipeandtobe providedattheheadofthedrainage
3. Wheredrainageisshownunderdriveways andslabs , tobeencasedin 150mmthick concretesurround .
4. Allundergroundfoulandwastedrainpipes shallbeofPVCtocomplywithBS 5255
5. AllICswithinbuildingarea , drivewayand parkingtohaveheavyduty ,double-sealairtight coversandwallstobe 200mm.
6. Minimumslopeinthedrainpipestobe 1
7. Nochasesforpipeswillbeallowedinthe slabs
8. Sleeveswillbeallowedwithwrittenapproval fromS .E.
9. Nocuttingofconcretewithoutexpress approvaloftheArchitectorS .E
10. Alltestingofpipesmustbecoordinated withelectricalandanyconflictsmustbe resolvedbeforeworksbegin
11. PermanentventsdenotedasP .Vtobe providedasshownonplan

ELECTRICAL

Allconduitsmustbelaidbeforeplastering

PROJECT:
PROPOSEDAFFORDABLEHOUSING DEVELOPMENT IN ALUPE UNIVERSITY

CLIENT:
Name: STATEDEPARTMENTFORHOUSINGAND URBANDEVELOPMENT
Signature: _____ Date: _____

DRAWINGTITLE :
TYPICALBEAMS2OF4

SCALE:

DRAWNBY :

CHECKEDBY :
Name: _____
Signature: _____ Date: _____

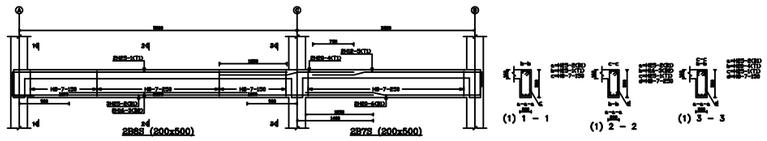
DATE:

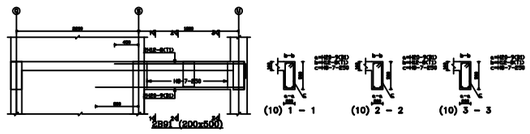
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

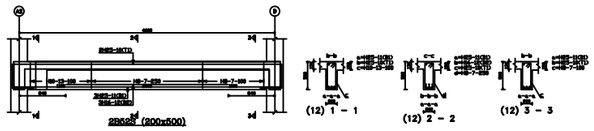
STATE DEPARTMENTFOR HOUSING & URBAN DEVELOPMENT

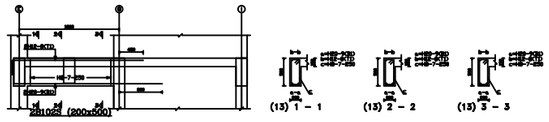
Drg_CDDE34D CDDE343dwg

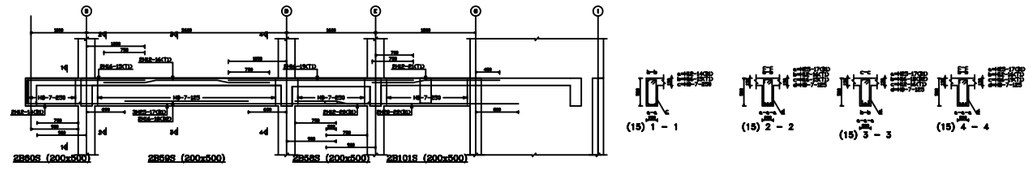
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

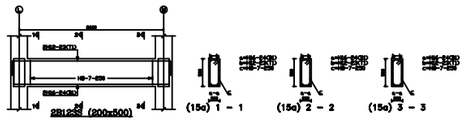


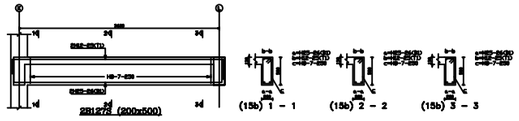


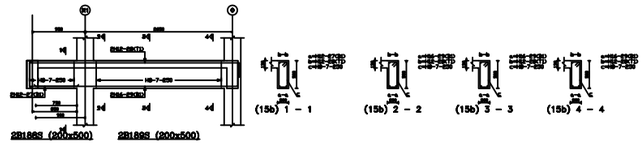


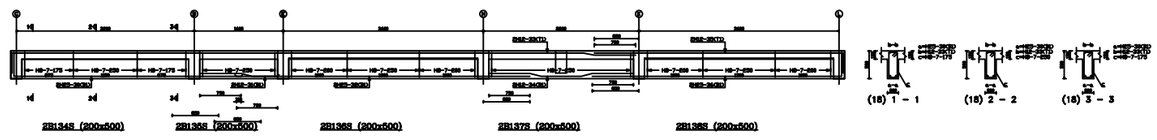


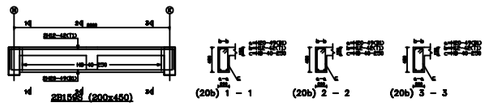


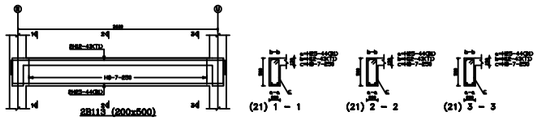


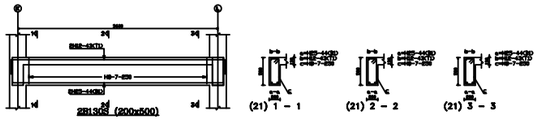


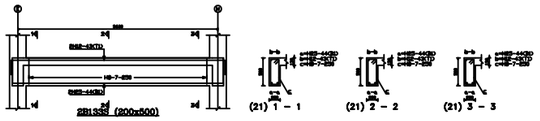


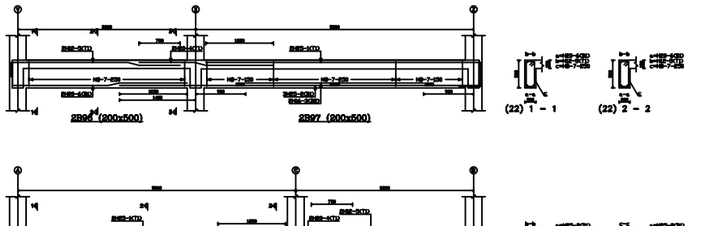


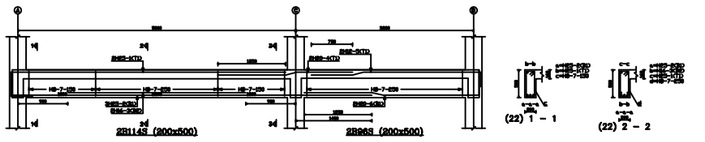


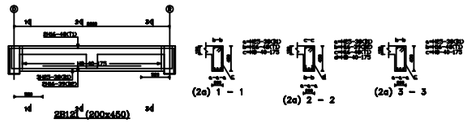


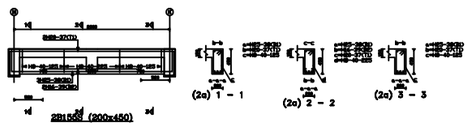


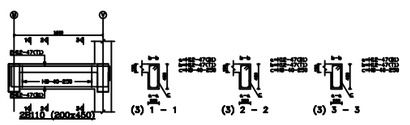












GENERALNOTES

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CONSTRUCTION

Approvedanti -termitetreatment & 1000 gauge polythenesheetingcovertobeprovidedunder allgroundfloorconcreteslaboncompacted hardcoretoapproval .
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ELECTRICAL

Allconduitsmustbelaidbeforeplastering

PROJECT:
PROPOSEDAFFORDABLEHOUSING DEVELOPMENT IN ALUPE UNIVERSITY

CLIENT:
Name: STATEDEPARTMENTFORHOUSINGAND URBANDEVELOPMENT
Signature: _____ Date: _____

DRAWINGTITLE :
TYPICALBEAMS1OF4

SCALE:

DRAWNBY :

CHECKEDBY :
Name: _____
Signature: _____ Date: _____

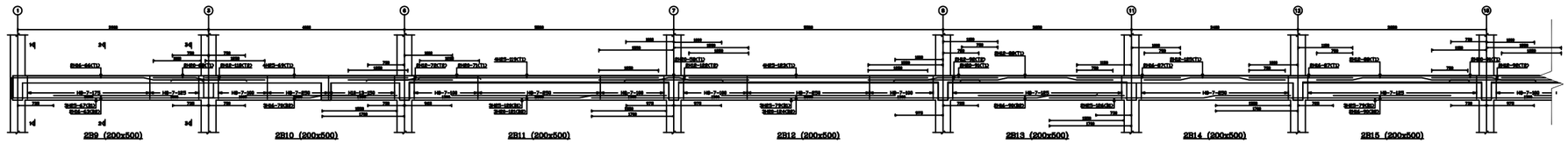
DATE:

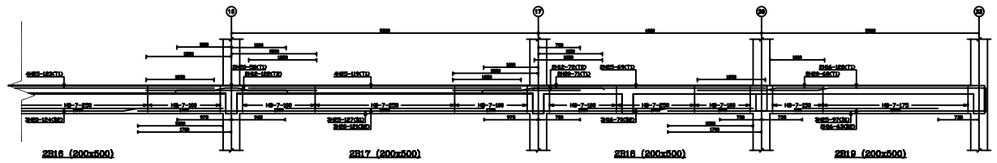
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

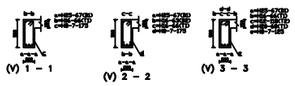
STATE DEPARTMENTFOR HOUSING & URBAN DEVELOPMENT

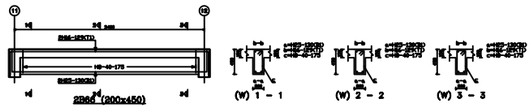
Dwg_CODE34D CODE34Dbmp

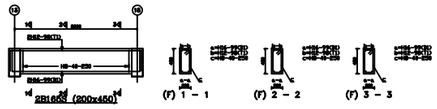
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

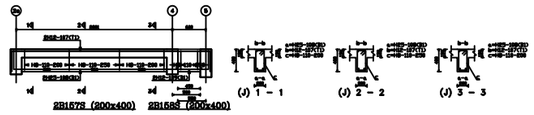


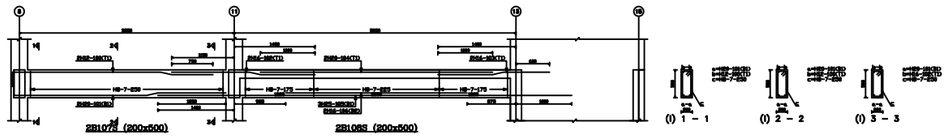












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CONSTRUCTION

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6. Minimumslopeinthedrainpipestobe 1
7. Nochasesforpipeswillbeallowedinthe slabs
8. Sleeveswillbeallowedwithwrittenapproval fromS .E.
9. Nocuttingofconcretewithoutexpress approvaloftheArchitectorS .E
10. Alltestingofpipesmustbecoordinated withelectricalandanyconflictsmustbe resolvedbeforeworksbegin
11. Permanentventsdenotedas P .Vtobe providedasshownonplan

ELECTRICAL

Allconduitsmustbelaidbeforeplastering

PROJECT:
PROPOSEDAFFORDABLEHOUSING DEVELOPMENT IN ALUPE UNIVERSITY

CLIENT:
Name: STATEDEPARTMENTFORHOUSINGAND URBANDEVELOPMENT
Signature: _____ Date: _____

DRAWINGTITLE :
TYPICALBEAMS4OF4

SCALE:

DRAWNBY :

CHECKEDBY :
Name: _____
Signature: _____ Date: _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENTFOR HOUSING & URBAN DEVELOPMENT

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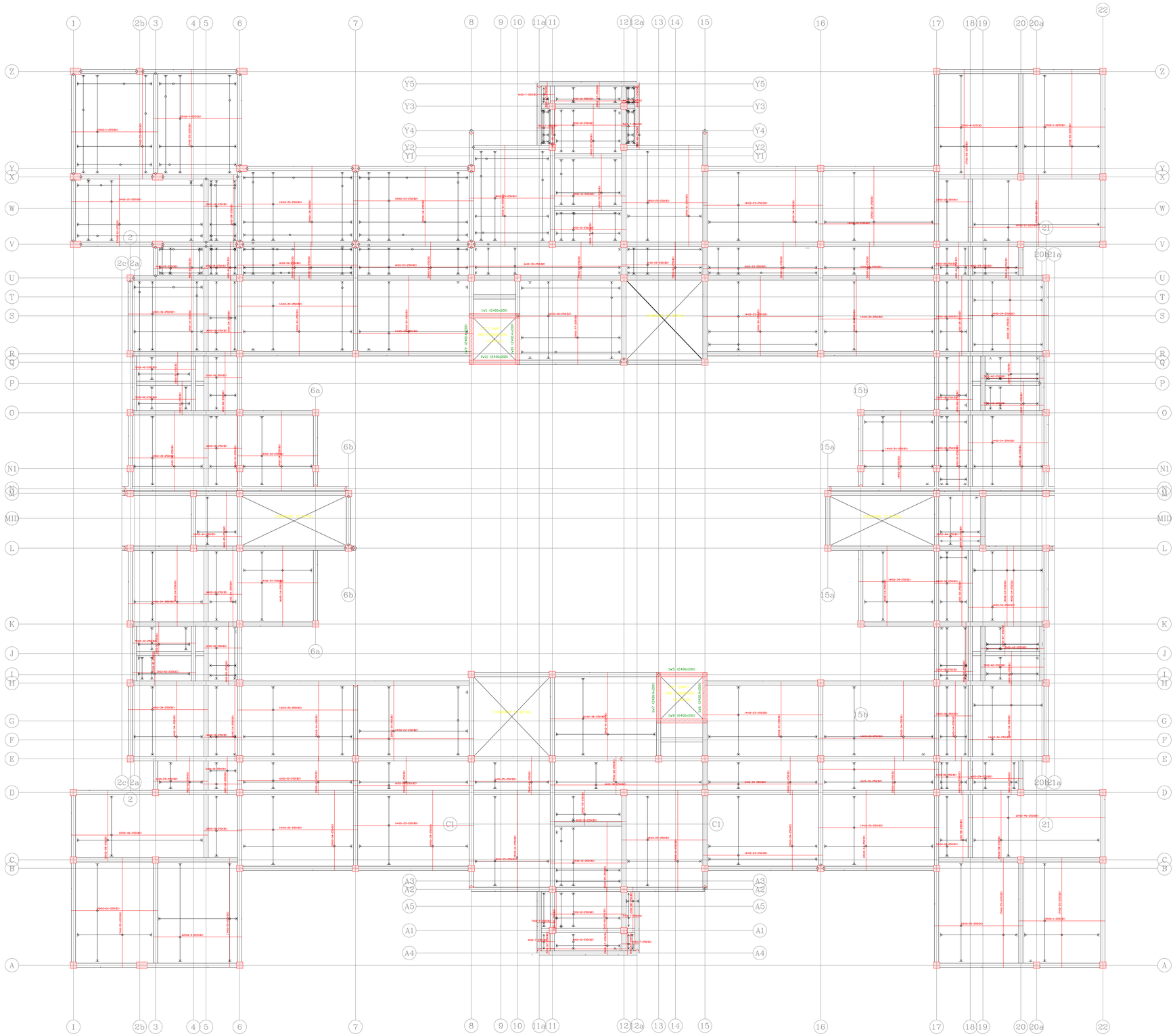
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



1ST FLOOR REINFORCEMENT DETAILS

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval .
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings .
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS 5255
5. All ICs within building area , driveway and parking to have heavy duty ,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S .E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P .V to be provided as shown on plan .

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN ALUPE UNIVERSITY

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
WORKING DRAWINGS

SCALE:
1:2500

DRAWN BY:

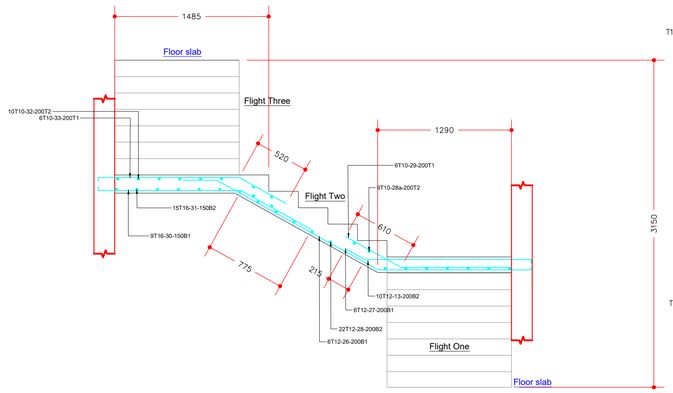
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

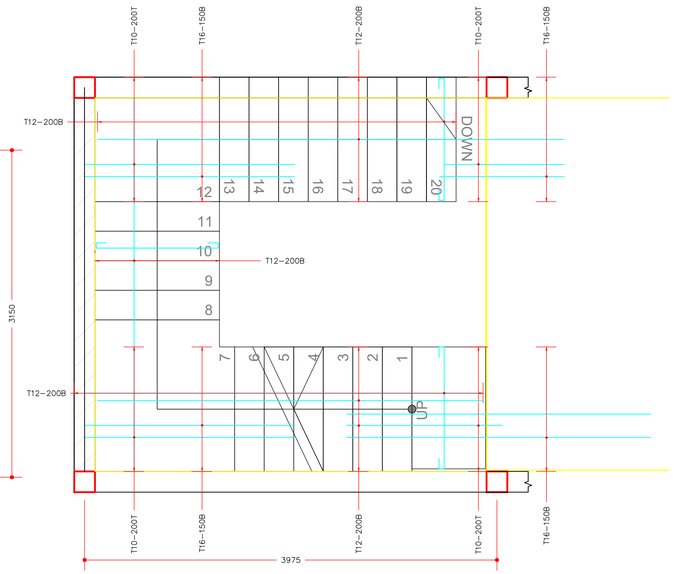
DATE:

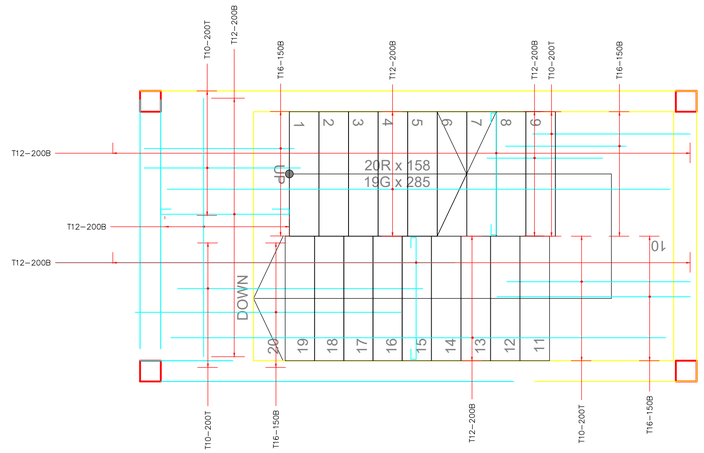
MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

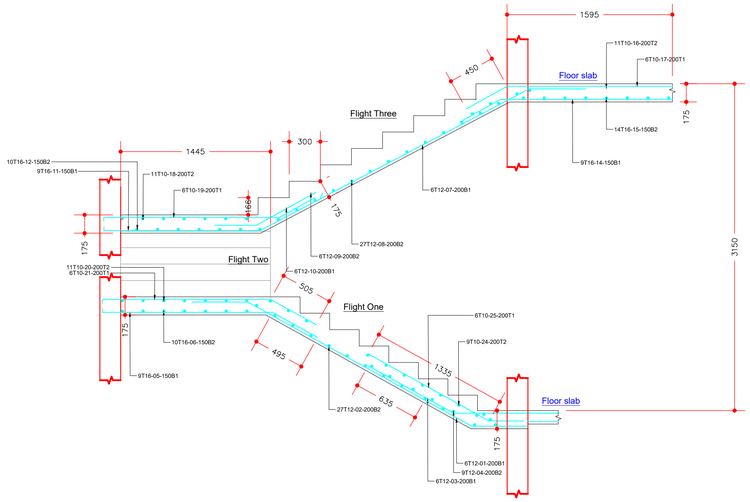
STATE DEPARTMENTFOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

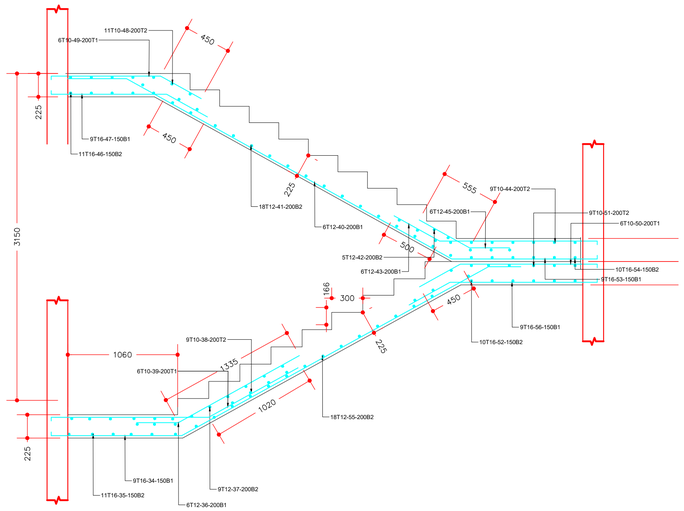








STAIRCASE TYPE 1 SECTION VIEW



STAIRCASE TYPE 2 SECTION VIEW

GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled. Only figured dimensions should be used.
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect.

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval.
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings.
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

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10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P.V to be provided as shown on plan.

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN ALUPE UNIVERSITY

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _____ **Date:** _____

DRAWING TITLE:
TYPICAL STAIRCASE DETAILS

SCALE:
1:1000

DRAWN BY:

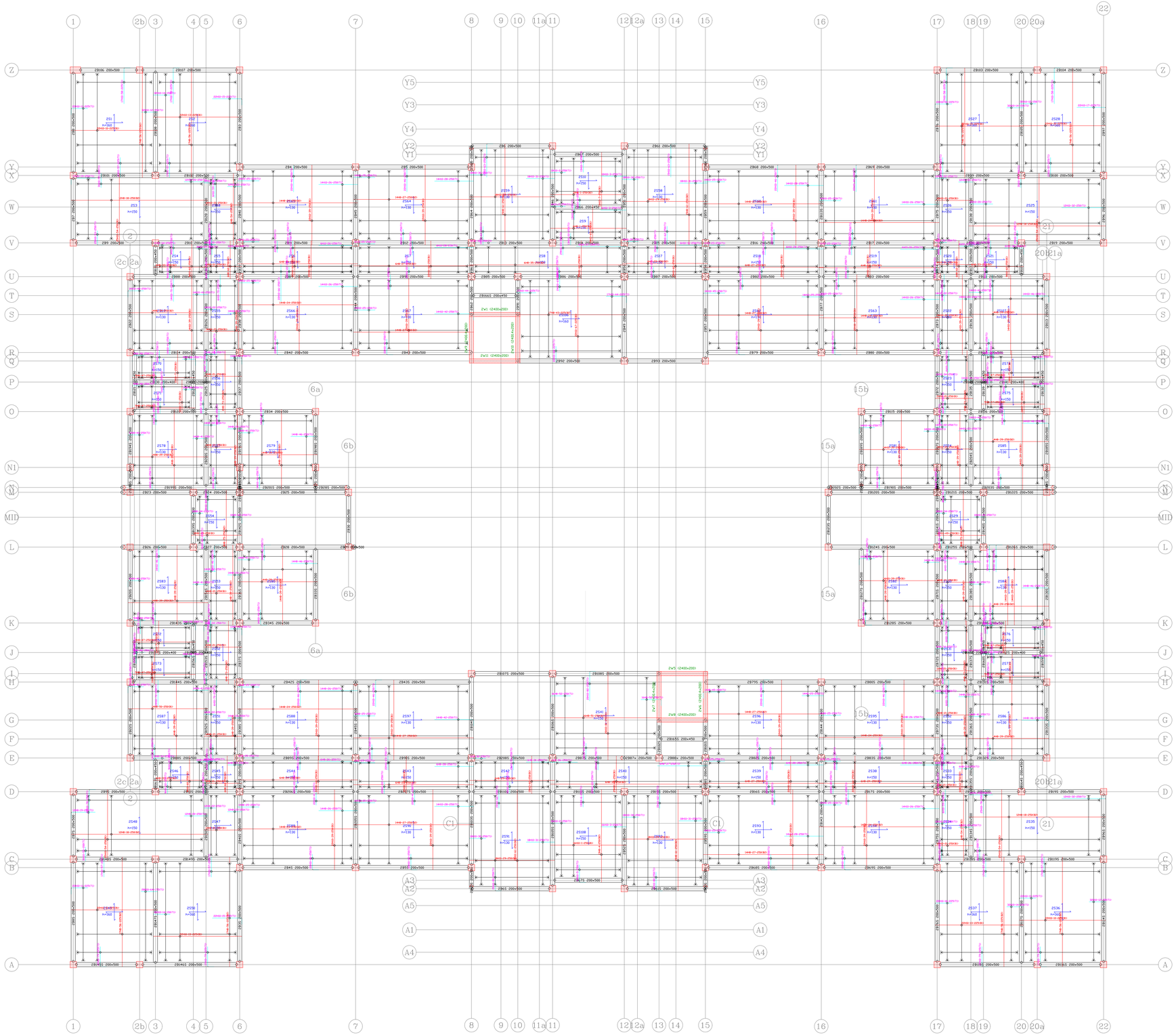
CHECKED BY:
Name: _____
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



TYPICAL FLOOR REINFORCEMENT DETAILS

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PROJECT:

PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN ALUPE UNIVERSITY

CLIENT:

Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Signature: _____ **Date:** _____

DRAWING TITLE:

TYPICAL FLOOR REINFORCEMENT LAYOUT

SCALE:

1:2500

DRAWN BY:

CHECKED BY:

Name: _____

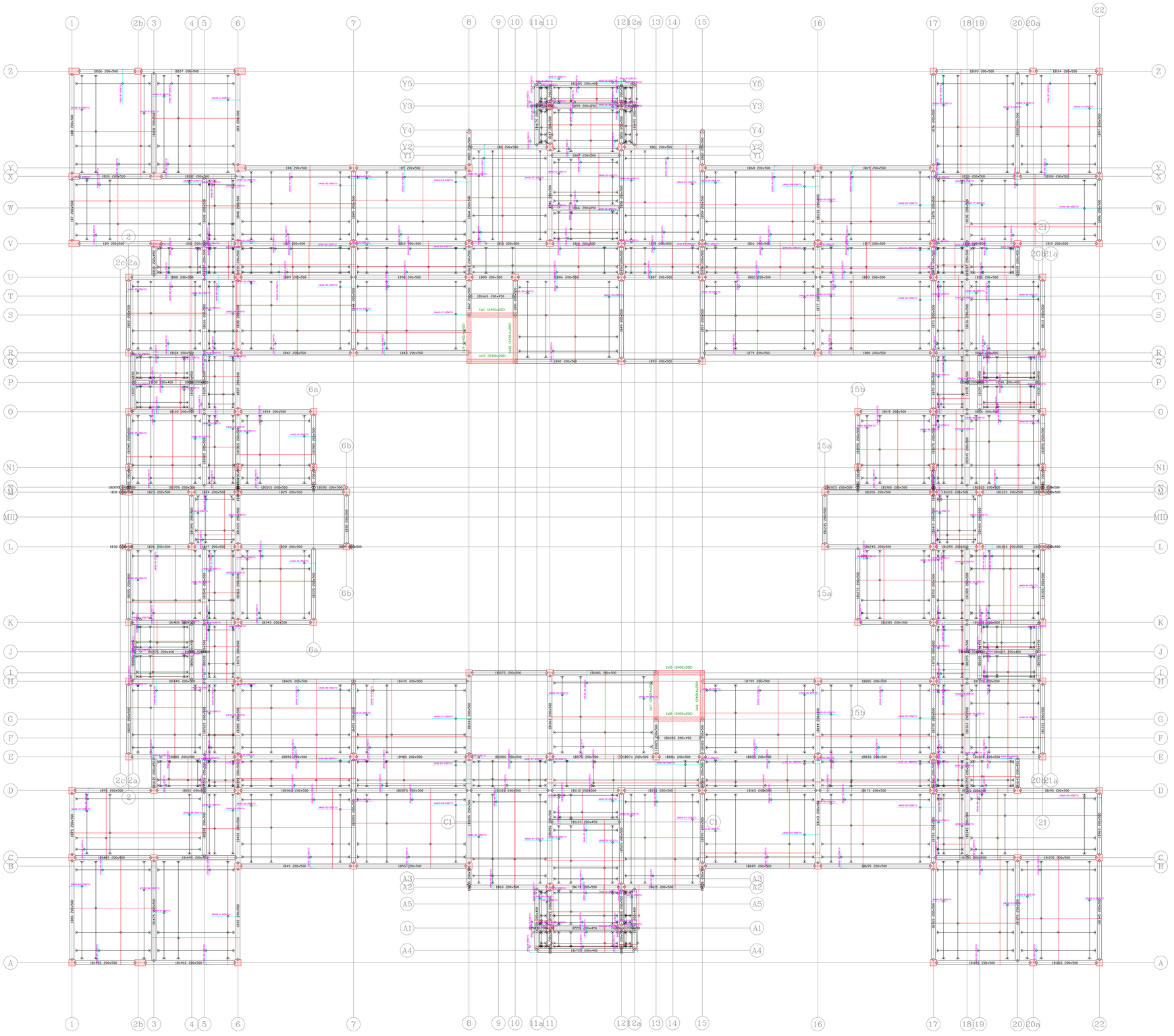
Signature: _____ **Date:** _____

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENTFOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



GENERAL NOTES

1. This drawing to be read in conjunction with Engineers' drawings.
2. All dimensions are in mm unless otherwise specified.
3. Drawings are not to be scaled . Only figured dimensions should be used .
4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

CONSTRUCTION

Approved anti-termite treatment & 1000 gauge polythene sheeting cover to be provided under all ground floor concrete slab on compacted hardcore to approval .
DPC to be 3ply bituminous felt to be provided under all walls.

STRUCTURAL

1. All Black cotton soil to be removed from below all building and paved surfaces
2. All reinforced concrete work will be in accordance with structural drawings .
3. Foundation depths to be determined on site to S.E approval
4. All walls less than 200mm thick to be reinforced with hoop iron at every alternate course.
5. All adjacent R.C work and masonry walls to be tied with strap irons at every course

MECHANICAL

1. All Plumbing and Drainage Work to comply with specifications
2. S.V.P denotes soil vent pipe and to be provided at the head of the drainage
3. Where drainage is shown under driveways and slabs, to be encased in 150mm thick concrete surround.
4. All underground foul and waste drain pipes shall be of PVC to comply with BS 5255
5. All ICs within building area , driveway and parking to have heavy duty ,double-seal airtight covers and walls to be 200mm.
6. Minimum slope in the drain pipes to be 1%
7. No chases for pipes will be allowed in the slabs
8. Sleeves will be allowed with written approval from S.E.
9. No cutting of concrete without express approval of the Architect or S .E
10. All testing of pipes must be coordinated with electrical and any conflicts must be resolved before works begin
11. Permanent vents denoted as P .V to be provided as shown on plan .

ELECTRICAL

All conduits must be laid before plastering

PROJECT:
PROPOSED AFFORDABLE HOUSING DEVELOPMENT IN ALUPE UNIVERSITY

CLIENT:
Name: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT
Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DRAWING TITLE:
WORKING DRAWINGS

SCALE:
1:2500

DRAWN BY:

CHECKED BY:
Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Signature: _ _ _ _ _ _ _ **Date:** _ _ _ _ _ _ _

DATE:

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENTFOR HOUSING & URBAN DEVELOPMENT

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA

□□U□□S□UD□N□□HOUSING

□□□□□RI□□□DRAWINGS

GENERAL NOTES

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REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED ALUPE SHP

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: ALUPE

DRAWING TITLE :

COVER PAGE

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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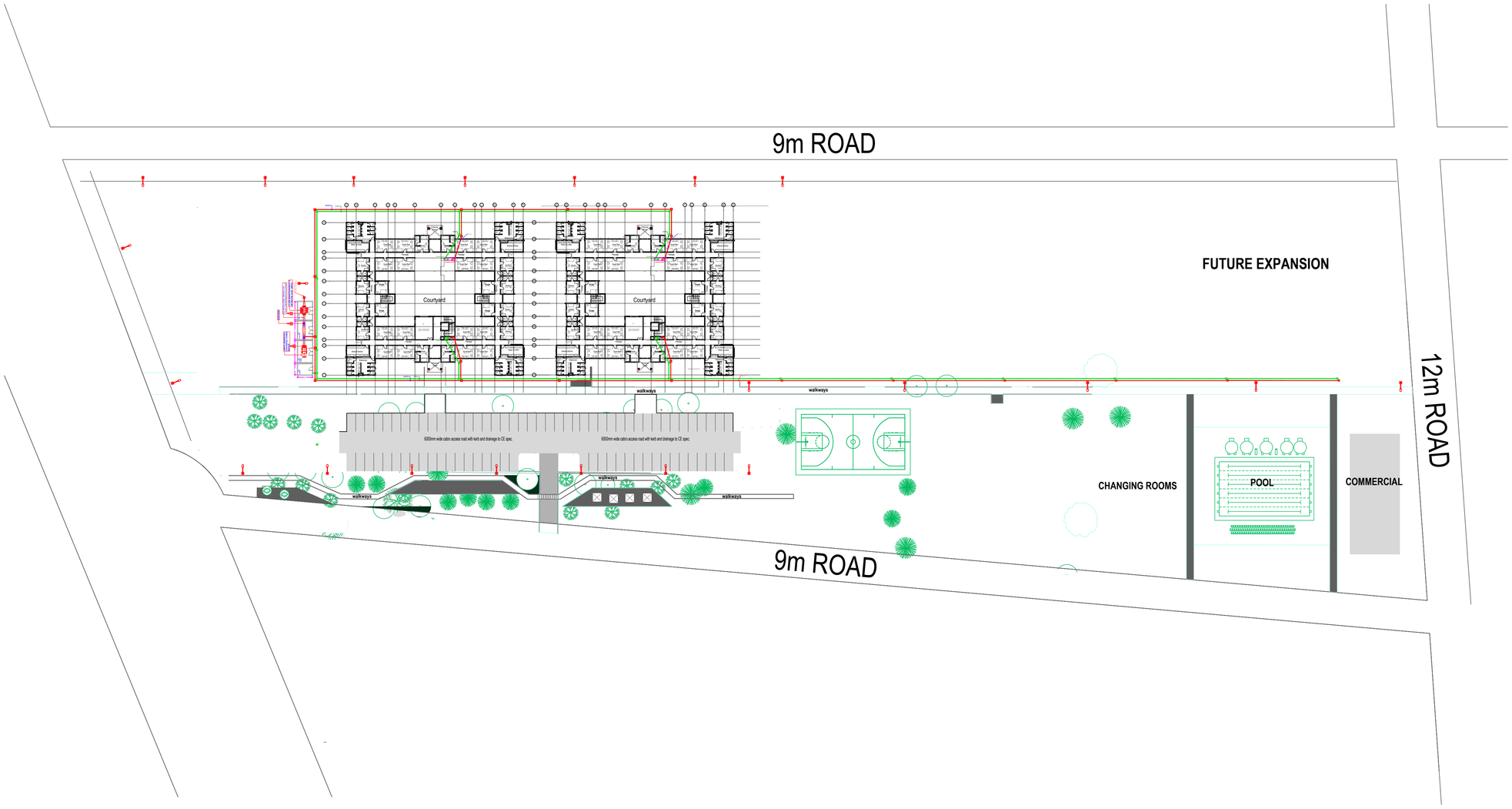
FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



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SYMBOL	DESCRIPTION
	POWER MANHOLE
	ICT MANHOLE
	POWER DISTRIBUTION BOARD
AB	ADAPTABLE BOX
	POWER DUCTS
	ICT DUCTS

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

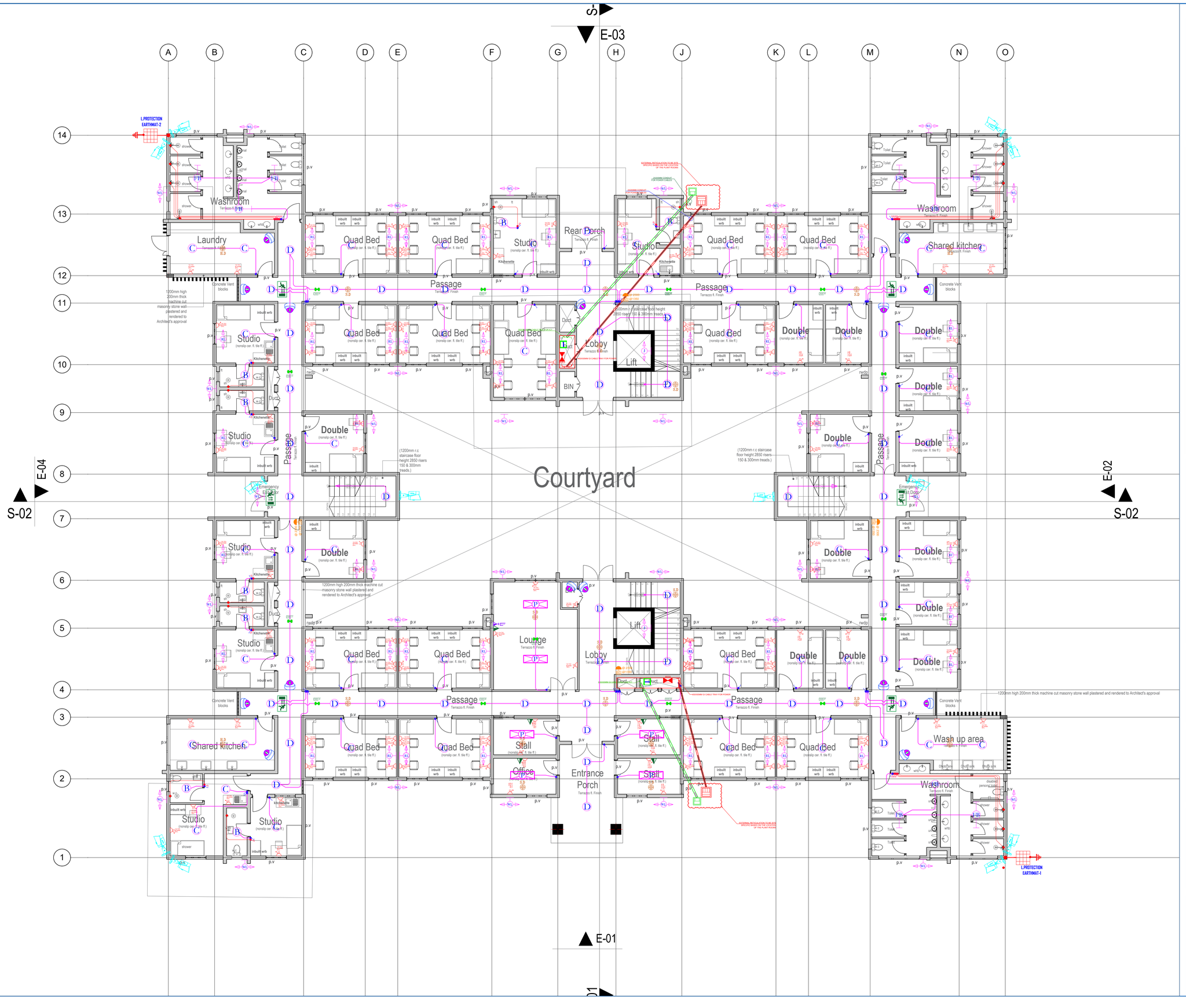
SITE:

ALUPE STUDENT HOUSING

TITLE:

ELECTRICAL SITE PLAN

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:



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LEGEND

SYMBO	DESCRIPTION	PHOTO	QTY
	1Gang 1 Way Switch		
	2Gang 2 Way Switch		
	Intermediate Switch		
	Motion Sensor		
C	12W, Ceiling Rose		
	8W, Exit Light		
D	10W, Surface LED Downlighter		
	1x18W, 4ft IP65 Fluorescent		
	100W, IP65 Bulkhead Fitting		
	16W, Bulkhead Lift Shaft		
B	12W, Ball Fitting		
	Distribution Board		
	20A DP Switch with Neon Light		
	Twin Socket Outlet		
	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

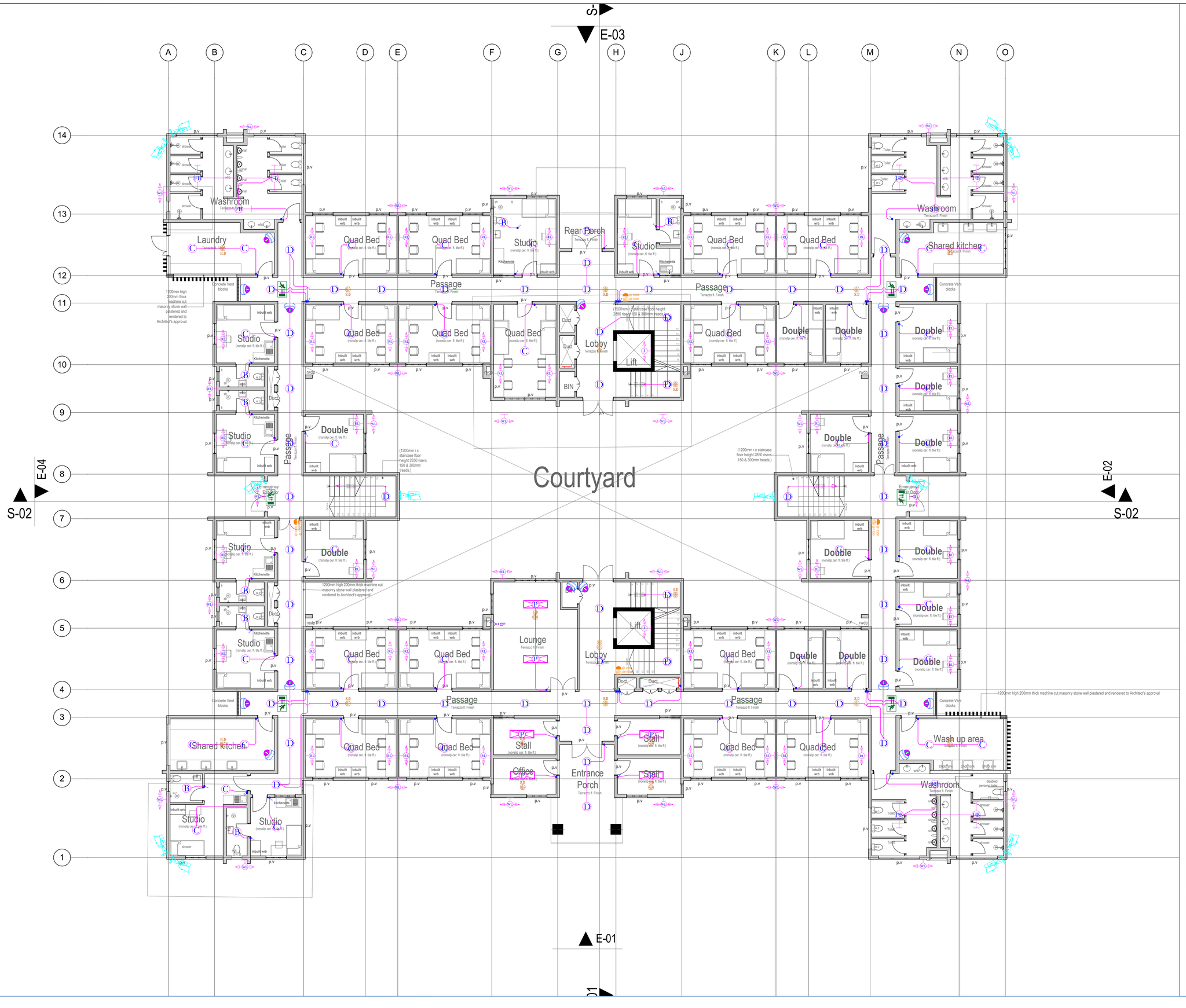
STRUCTURAL:

QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: GROUND FLOOR ELECTRICAL LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:



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S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

GROUND FLOOR LIGHTING, FIRE ALARM & CCTV LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
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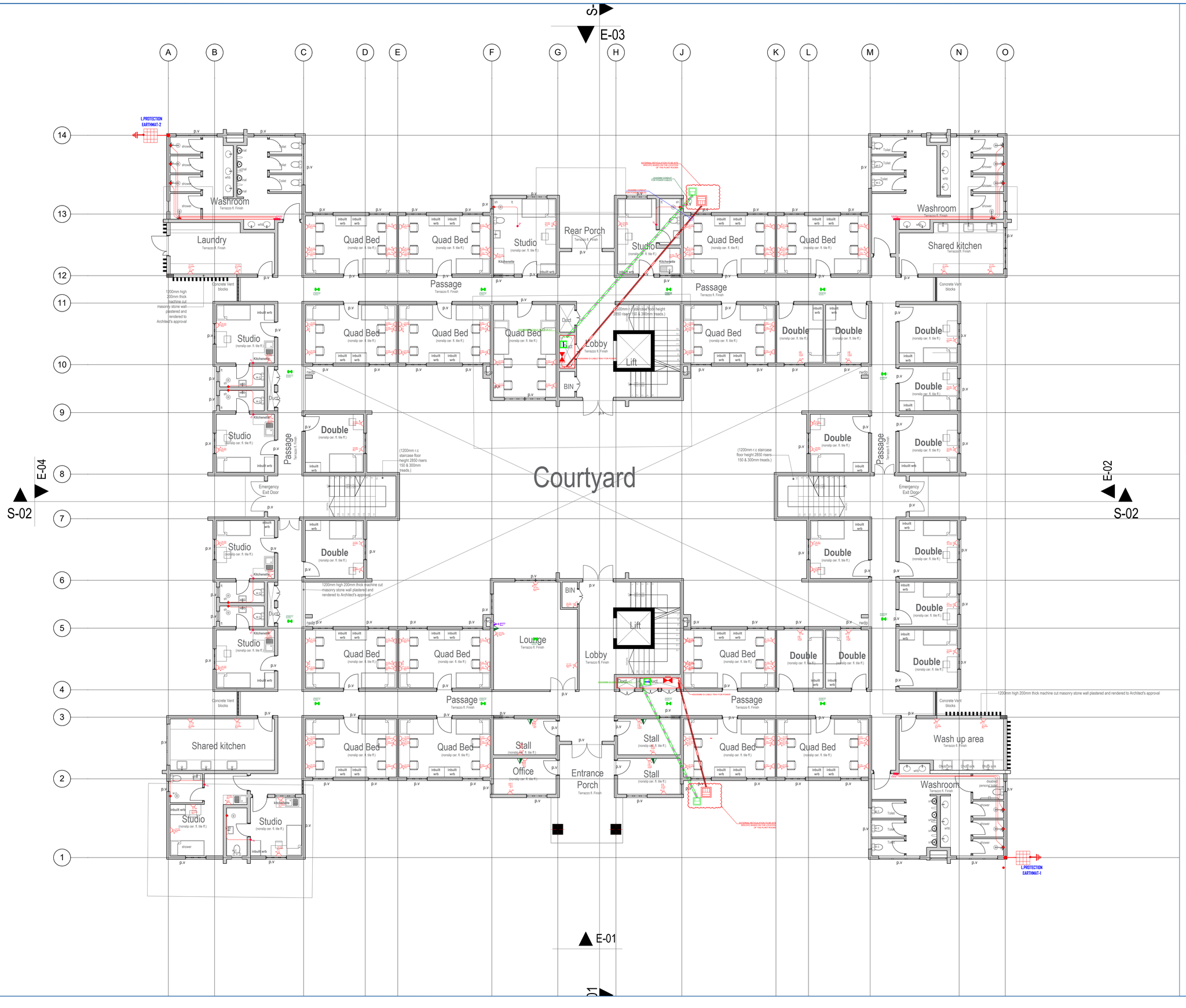

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	Break Glass		

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: GROUND FLOOR POWER & DATA LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
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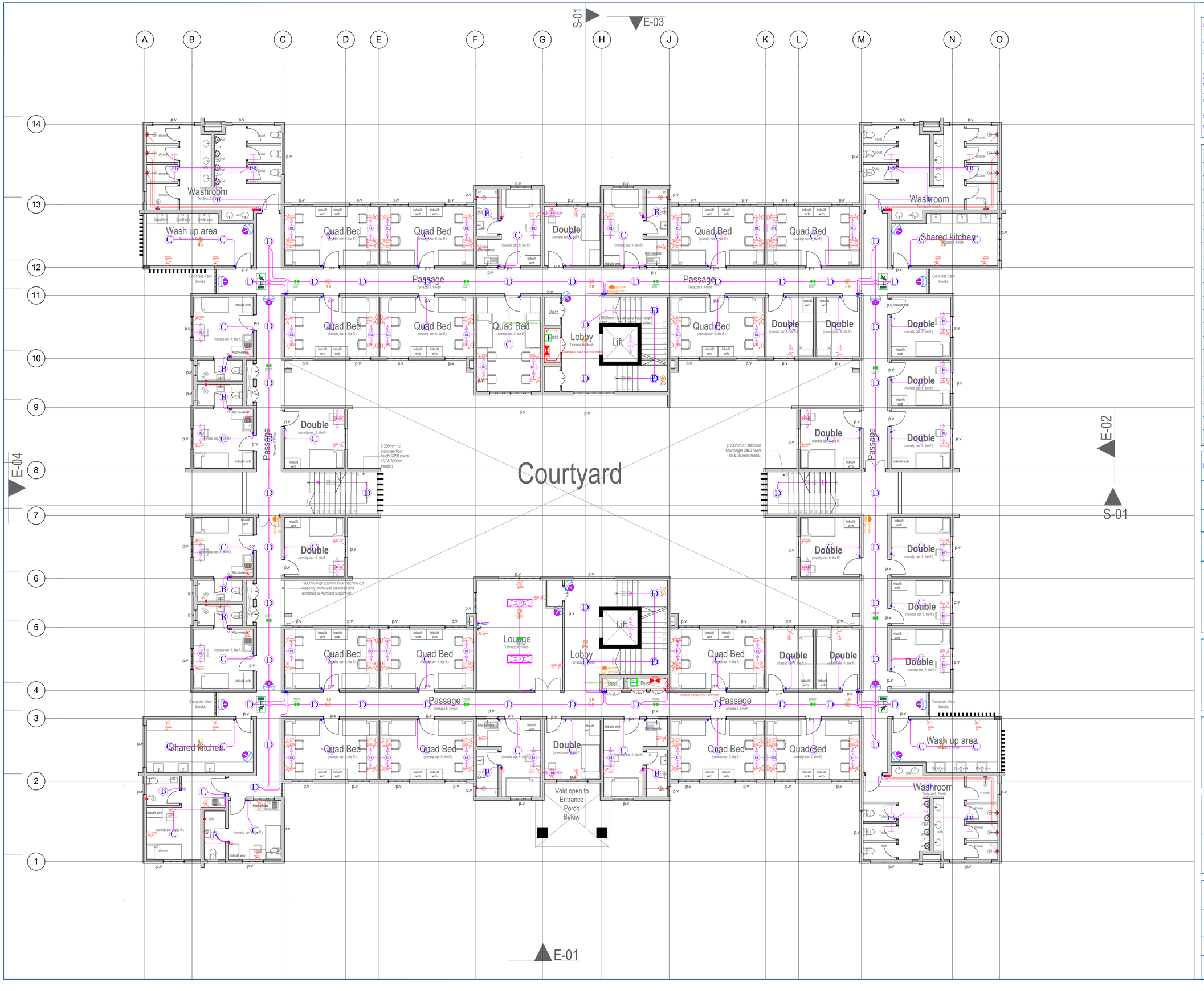

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REV	CHANGES	BY:	DATE:

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

FIRST FLOOR ELECTRICAL LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
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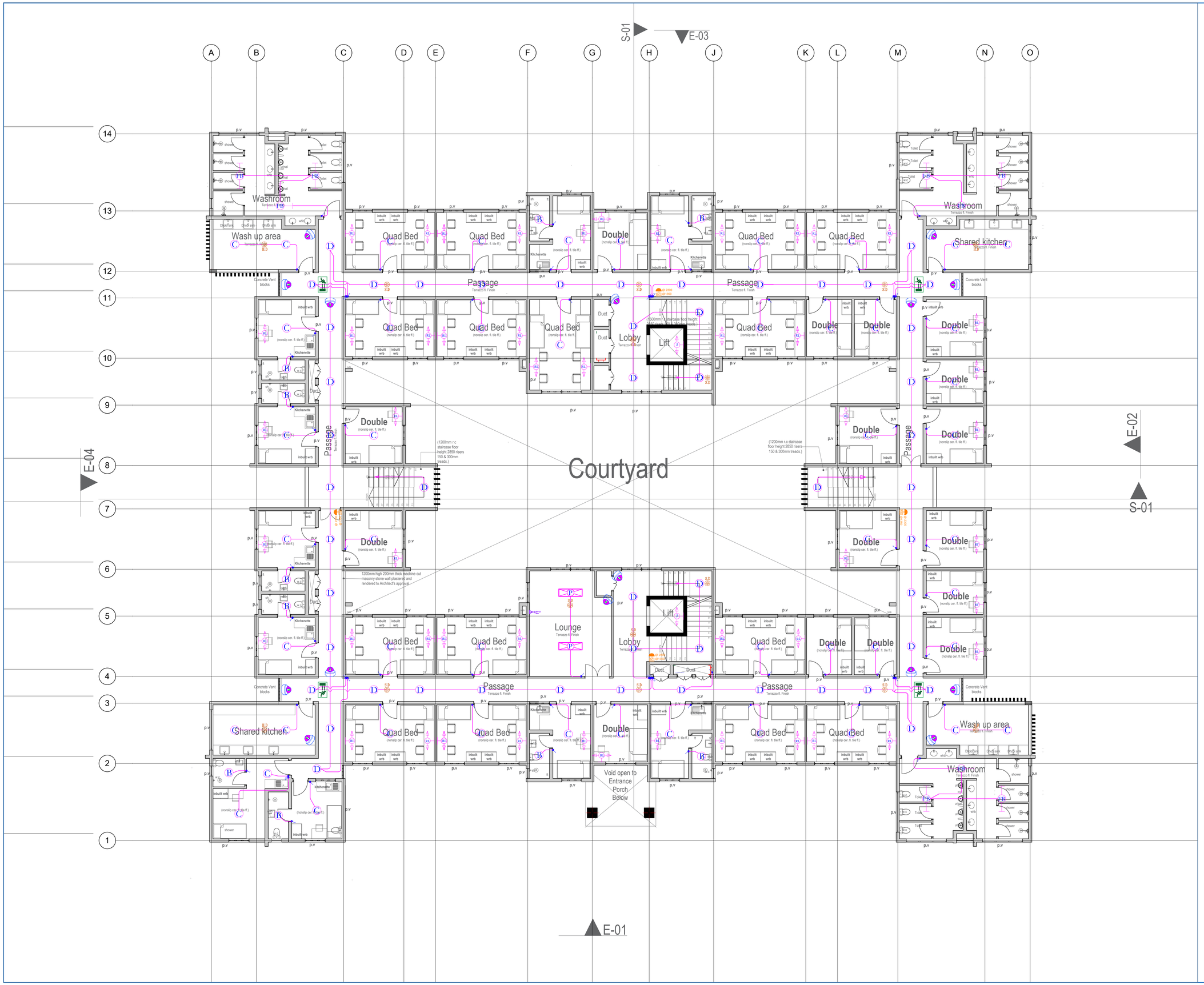
PROJECT NO:	DRAWING NO:		REVISION:



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	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

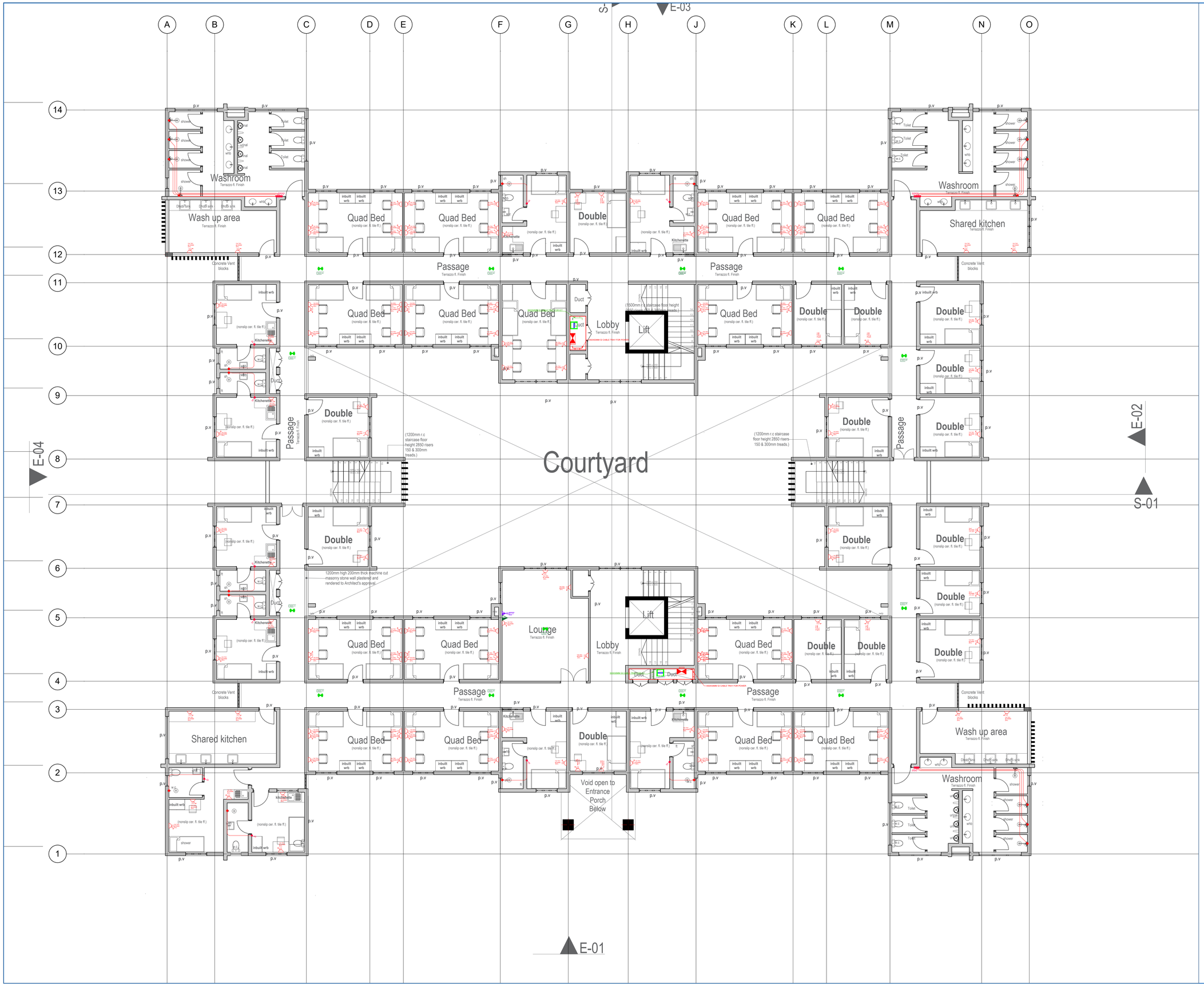
SITE:

ALUPE STUDENT HOUSING

TITLE:

FIRST FLOOR LIGHTING, FIRE ALARM & CCTV LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:



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S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

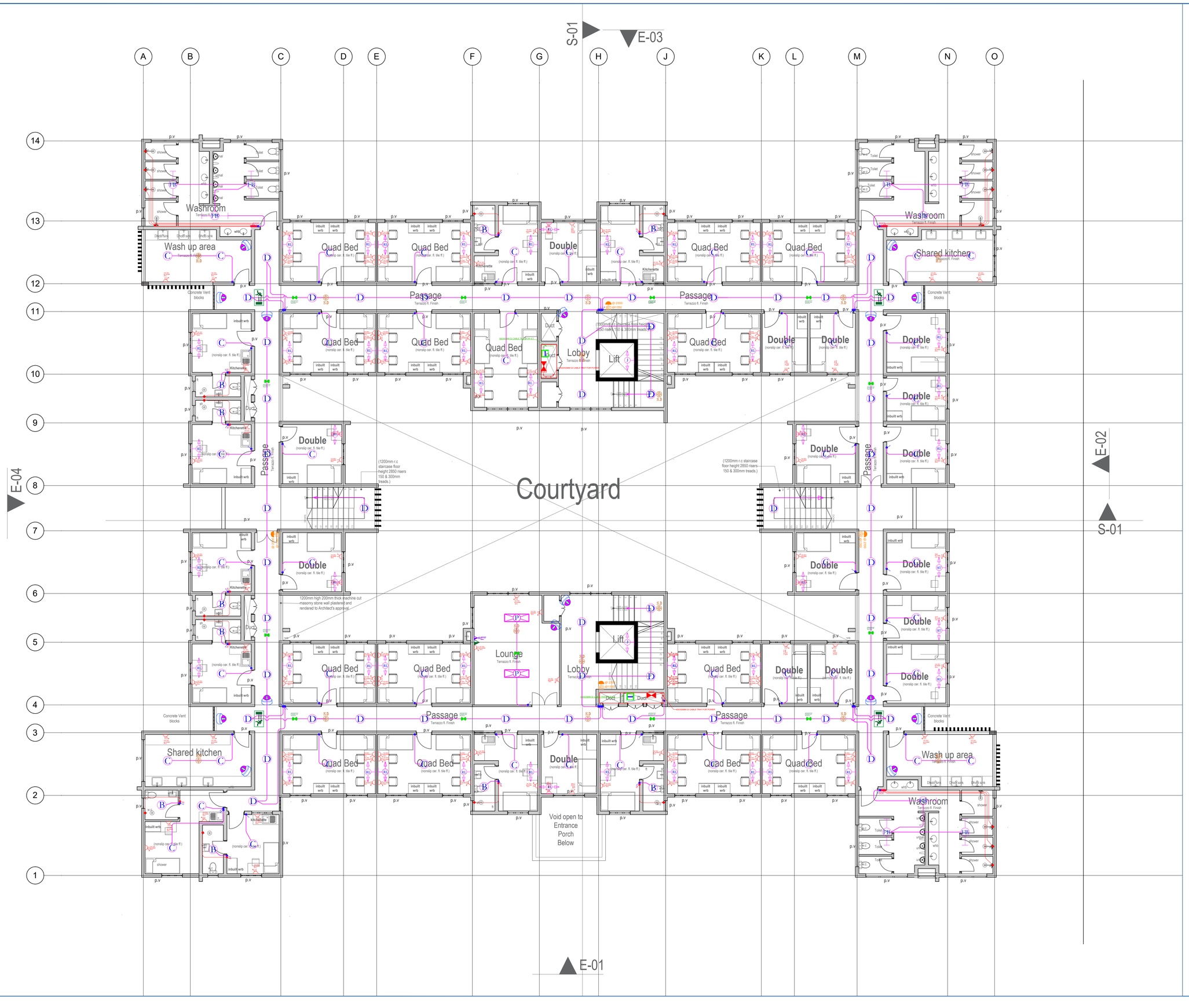
STRUCTURAL:

QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: FIRST FLOOR POWER & DATA LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:



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SYMBOL	DESCRIPTION	PHOTO	QTY
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▶	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
S.D	Smoke Detectors		
BG	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:
STATE DEPARTMENT FOR
HOUSING AND URBAN
DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:
ALUPE STUDENT HOUSING

TITLE:
SECOND FLOOR ELECTRICAL LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
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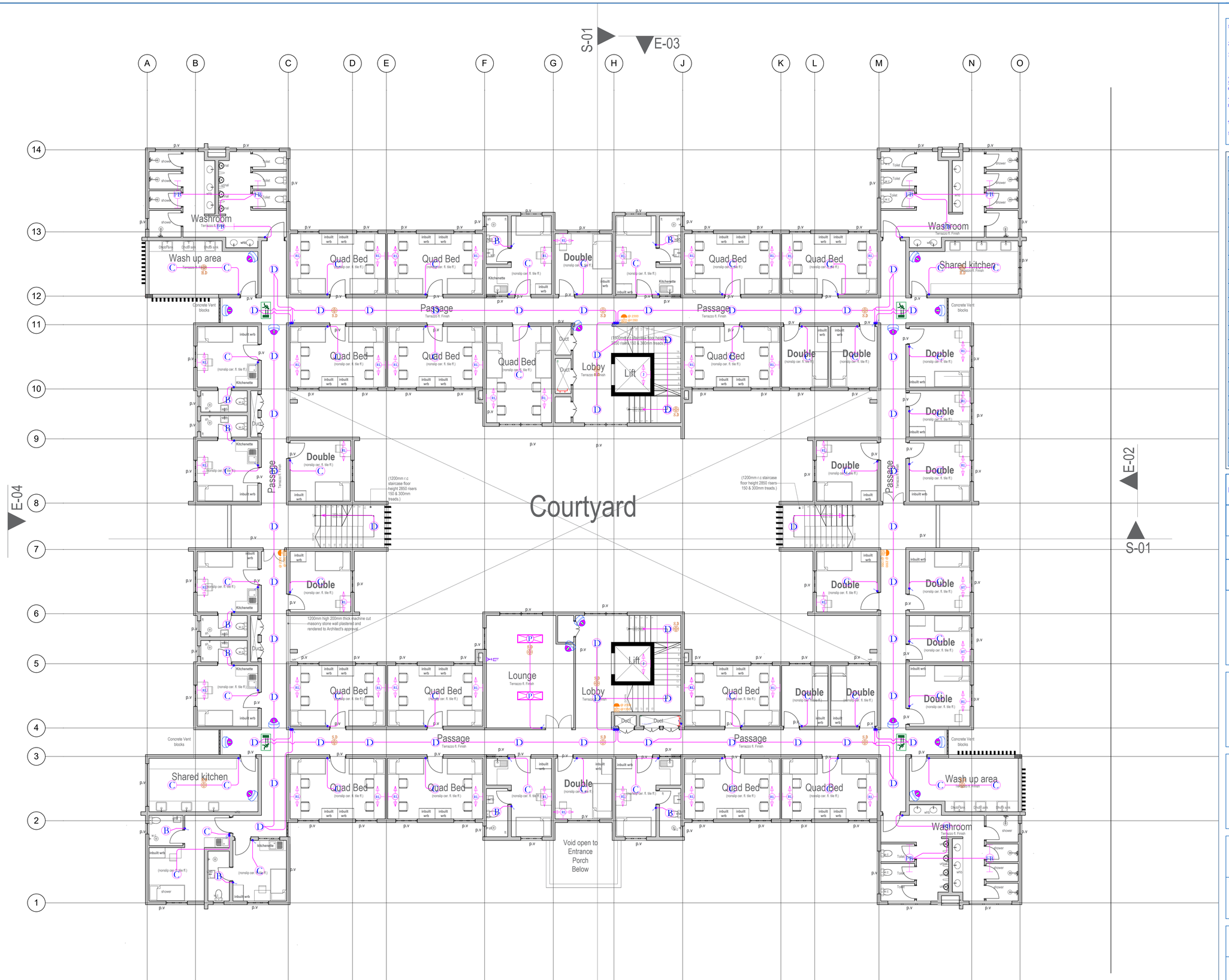

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LEGEND

SYMBO	DESCRIPTION	PHOTO	QTY
	1Gang 1 Way Switch		
	2Gang 2 Way Switch		
	Intermediate Switch		
	Motion Sensor		
C	12W, Ceiling Rose		
	8W, Exit Light		
D	10W, Surface LED Downlighter		
	1x18W, 4ft IP65 Fluorescent		
	100W, IP65 Bulkhead Fitting		
	16W, Bulkhead Lift Shaft		
B	12W, Ball Fitting		
	Distribution Board		
	20A DP Switch with Neon Light		
	Twin Socket Outlet		
	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

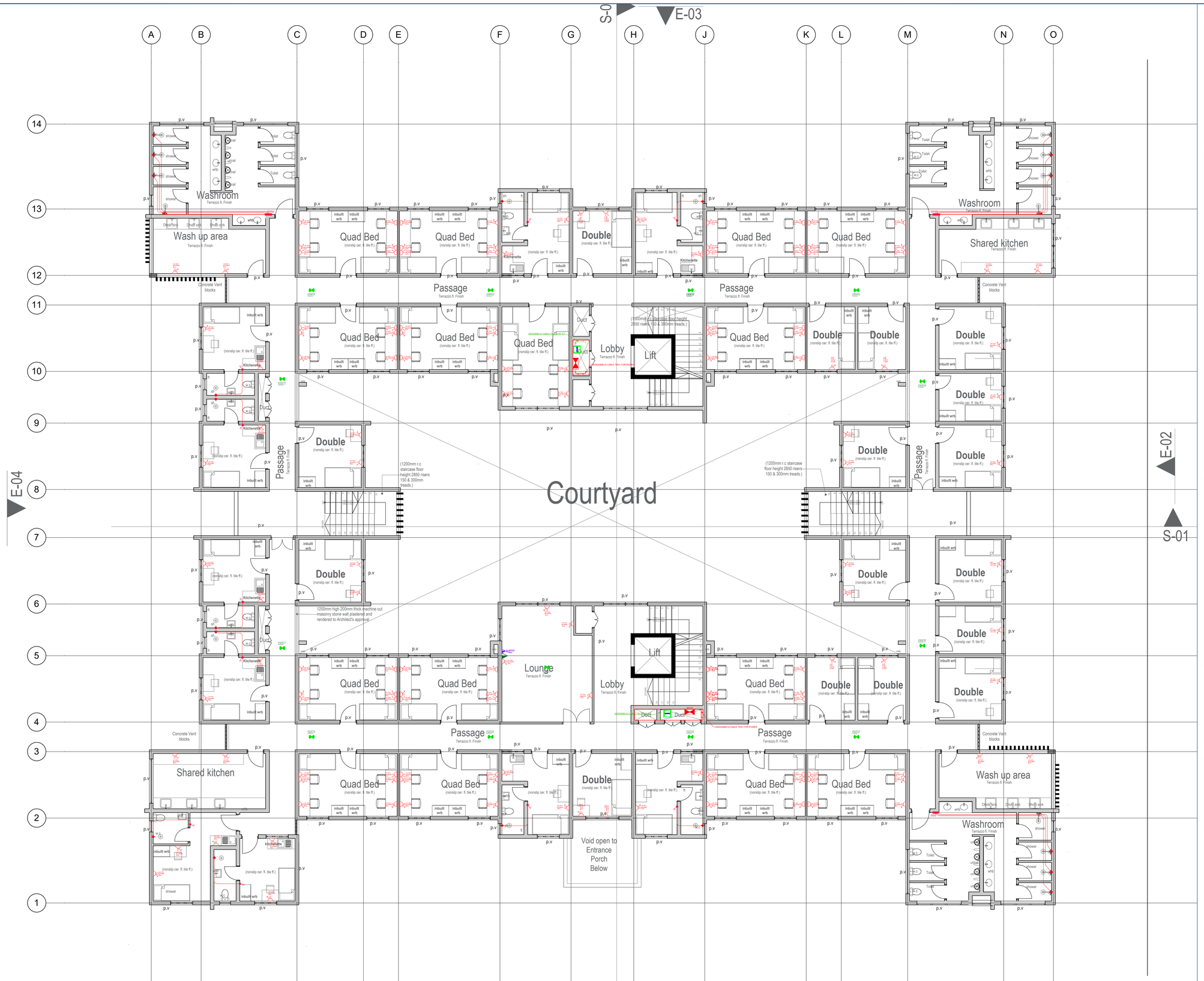
STRUCTURAL:

QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: SECOND FLOOR LIGHTING, FIRE ALARM & CCTV LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:



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	Twin Socket Outlet		
	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: SECOND FLOOR POWER & DATA LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

GROUND FLOOR

E-03

Courtyard

E-04

E-02

S-01

E-01

Notes:

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	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

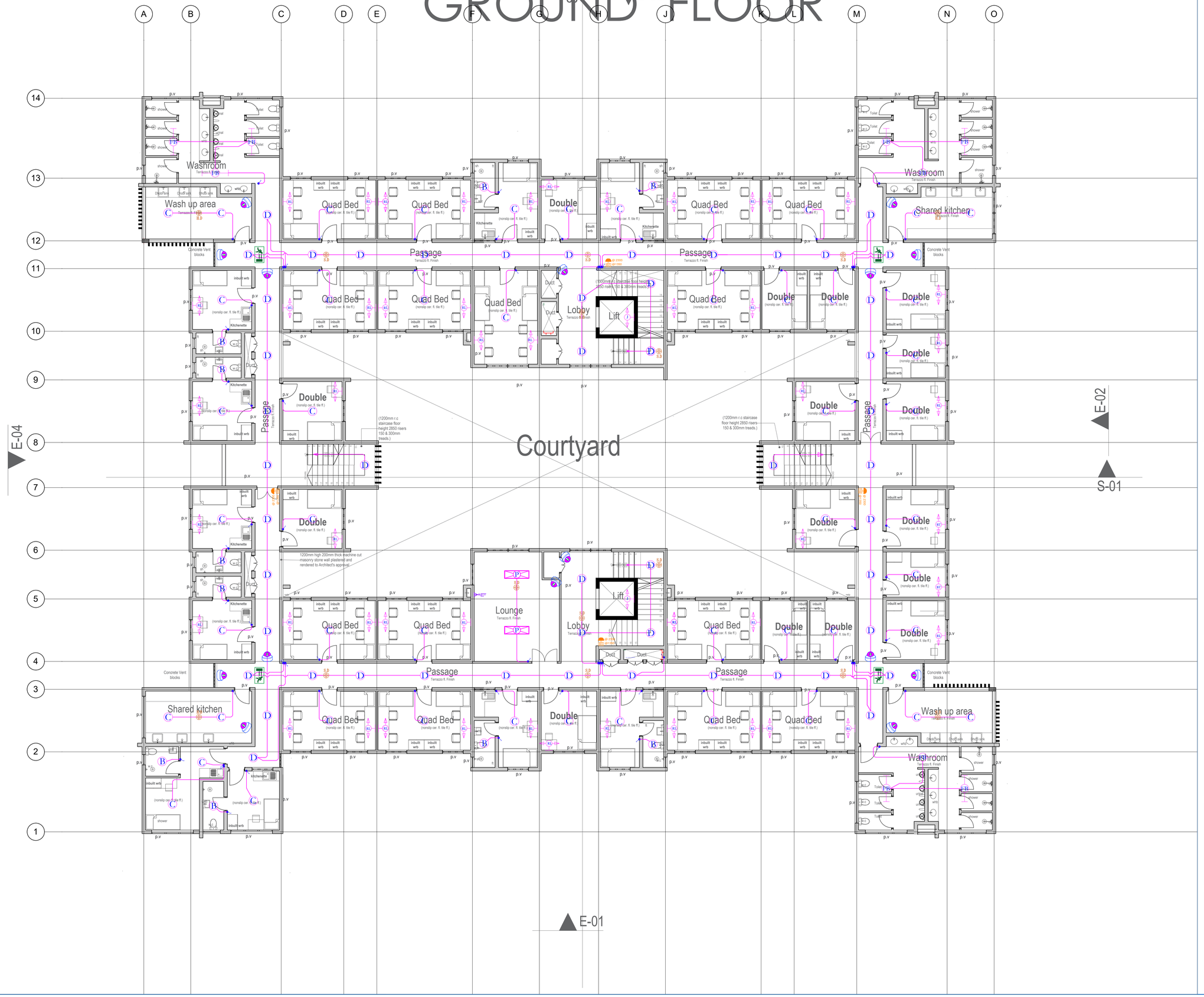
QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: 3RD -9TH FLOOR ELECTRICAL LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

GROUND FLOOR



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	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

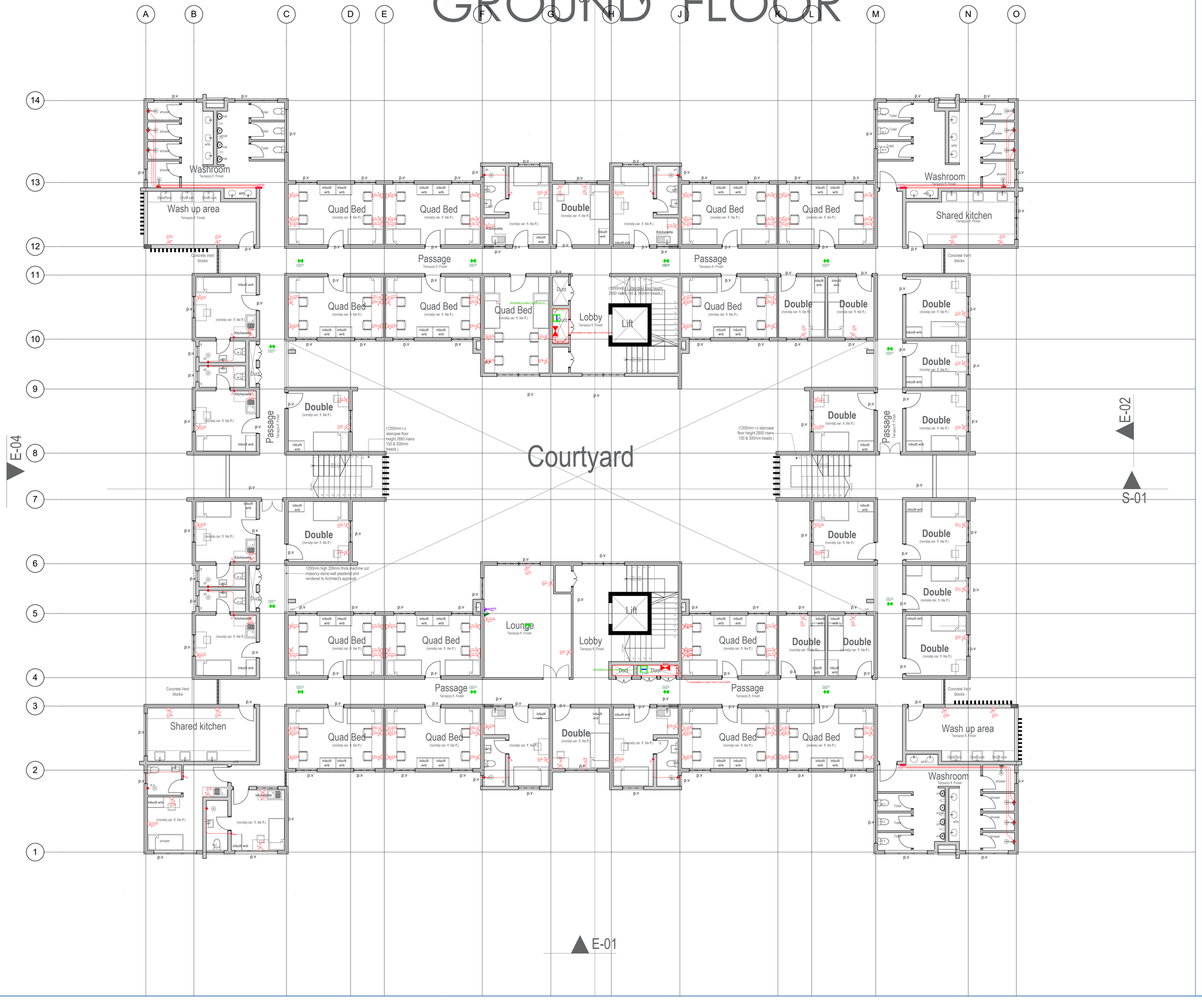
QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: 3RD -9TH FLOOR LIGHTING, FIRE ALARM & CCTV LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

GROUND FLOOR



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	Twin Socket Outlet		
	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

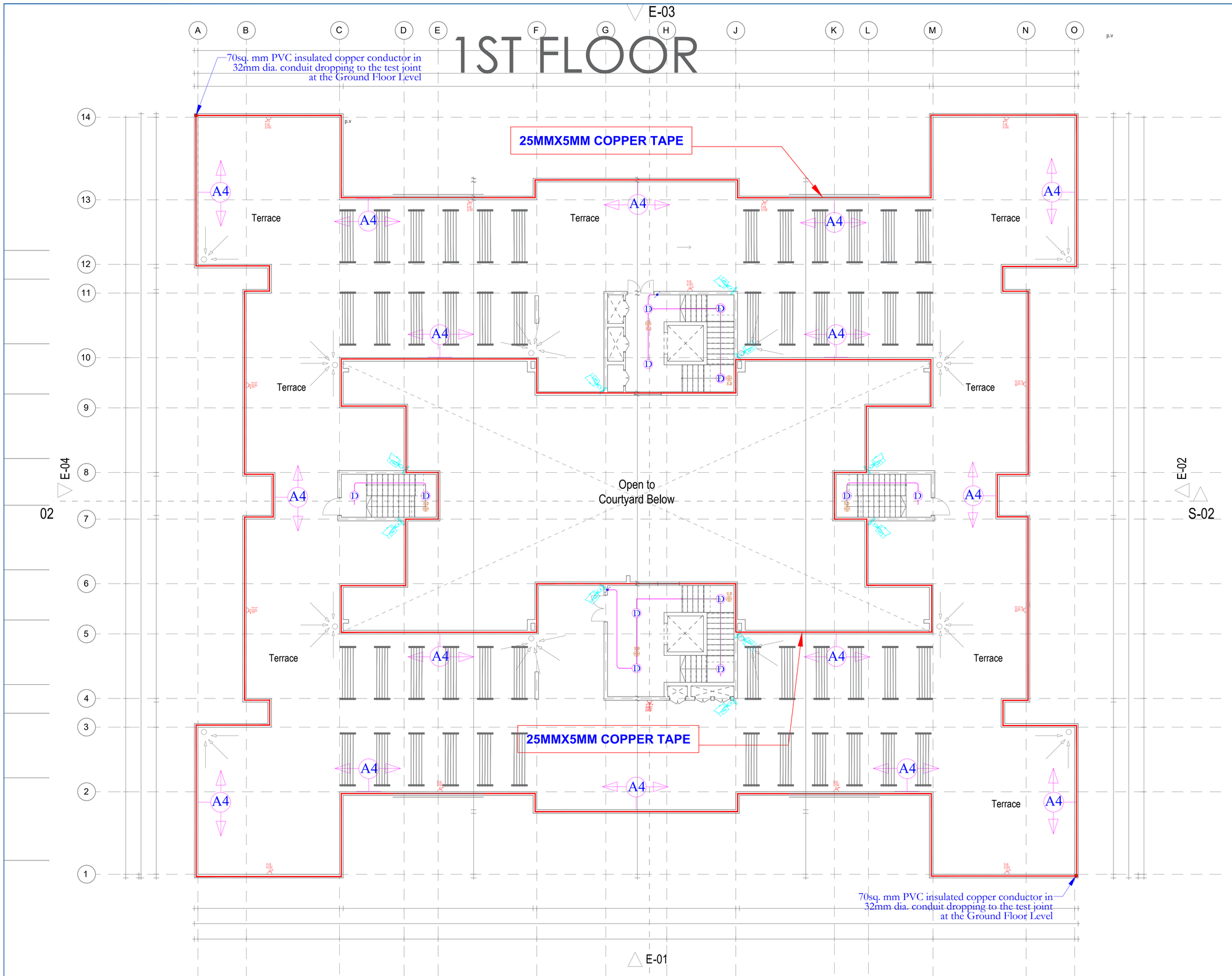
QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: 3RD -9TH FLOOR POWER & DATA LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

1ST FLOOR



TERRACE PLAN

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	20A DP Switch with Neon Light		
	Twin Socket Outlet		
	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
SD	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:
STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

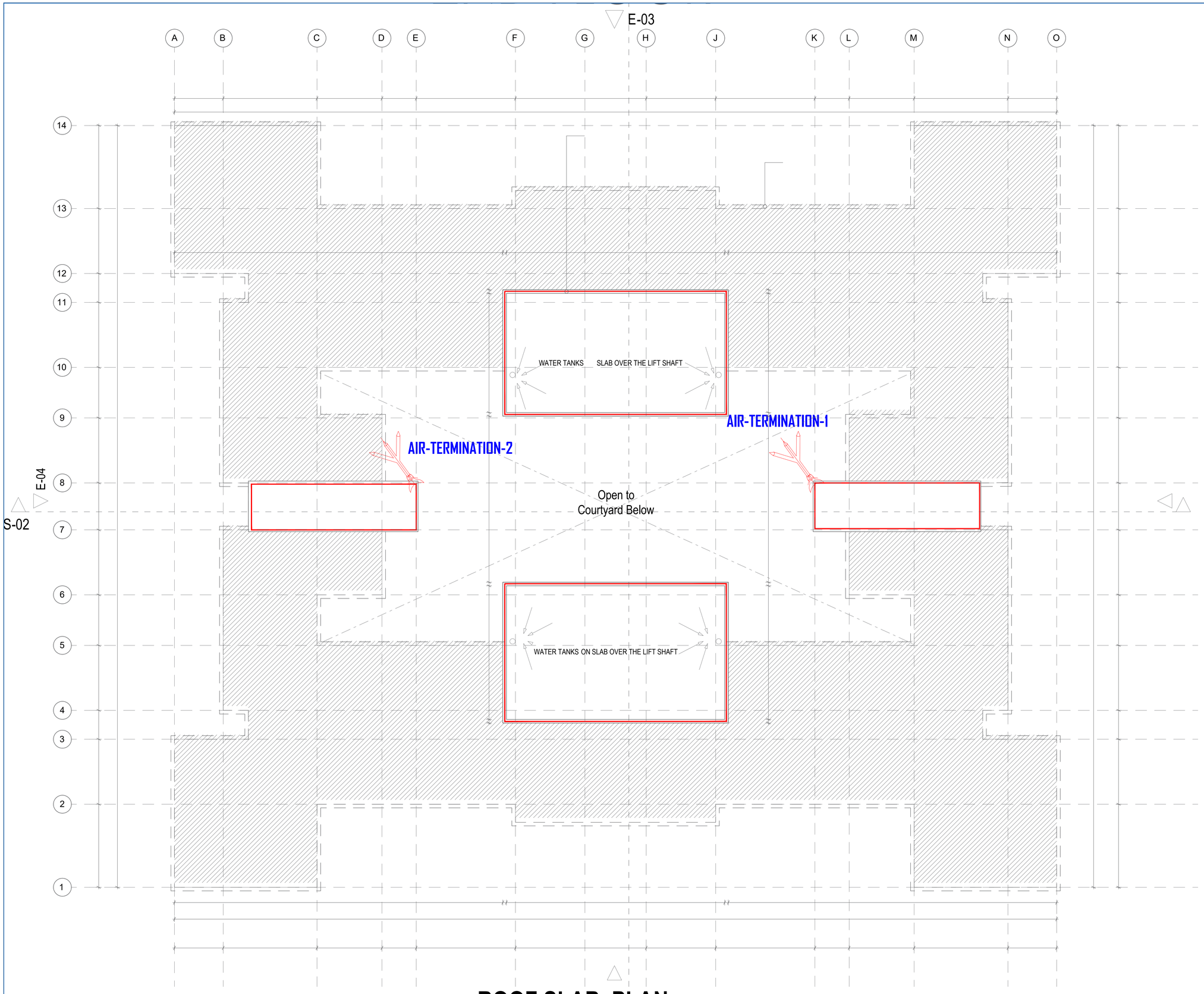
STRUCTURAL:

QUANTITY SURVEYOR:

SITE:
ALUPE STUDENT HOUSING

TITLE:
ROOF TERRACE ELECTRICAL LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:



ROOF SLAB PLAN

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	Intermediate Switch		
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	100W, IP65 Bulkhead Fitting		
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	Twin Socket Outlet		
	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
S.D	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: ROOFTOP ELECTRICAL LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
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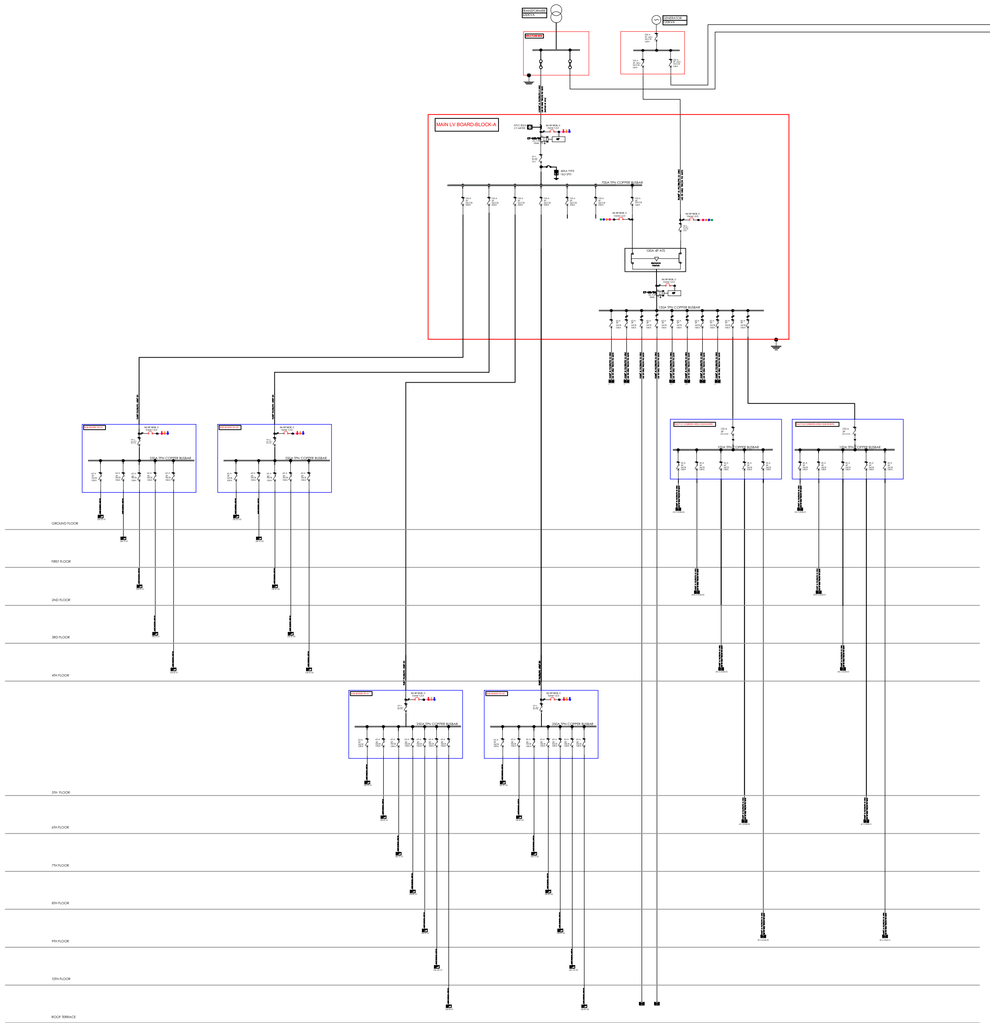
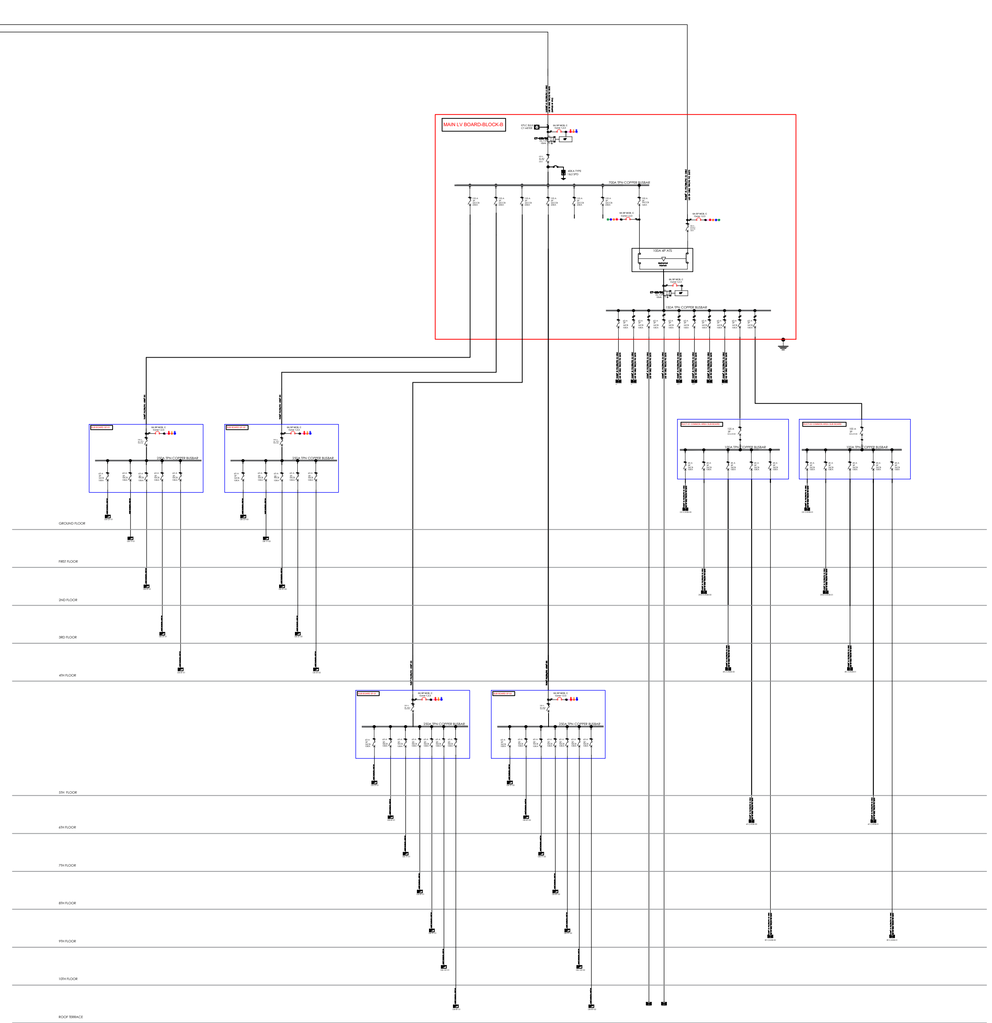
PROJECT NO:	DRAWING NO:		REVISION:





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	4-Way Floor Box		
	Data Outlet		
	Bullet CCTV Camera		
	Dome CCTV Camera		
SD	Smoke Detectors		
	Break Glass		

REV	CHANGES	BY:	DATE:

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

ELECTRICAL SCHEMATIC

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

□□U□□□S□UD□N□□HOUSING

M□□H□NI□□□ DRAWINGS

GENERAL NOTES

1. This drawing to be read in conjunction with architectural drawings.

2. All dimensions are in mm unless otherwise specified.

3. Drawings are not to be scaled . Only figured dimensions should be used .

4. The contractor must check and verify all dimensions before commencement of work and if necessary confirm with the architect .

REV.	DATE	DESCRIPTION

DRAWING ISSUED FOR:

☐ APPROVAL ☐ RECORD

☐ DETAILED ☑ TENDER

☐ SHOP DWG ☐ AS BUILT

PROJECT:
PROPOSED ALUPE SHP

CLIENT: SATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

LOCATION: ALUPE

DRAWING TITLE :

COVER PAGE

SCALE : 1:100

DRAWN BY :

CHECKED BY :

Date : Signature:

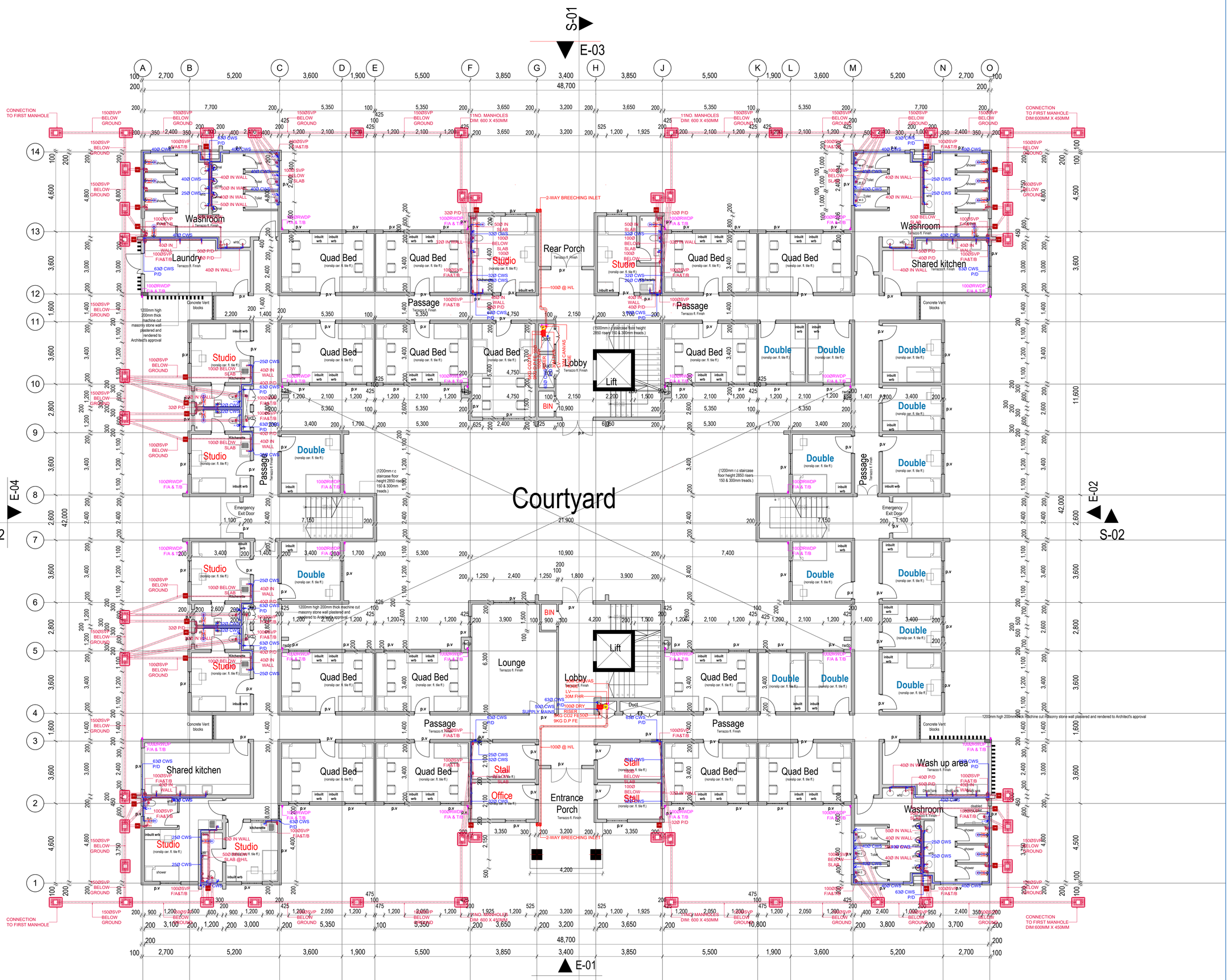
DATE :

MINISTRY OF LANDS, PUBLIC WORKS HOUSING AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

VGOK.png

FOR THE GOVERNMENT OF THE REPUBLIC OF KENYA



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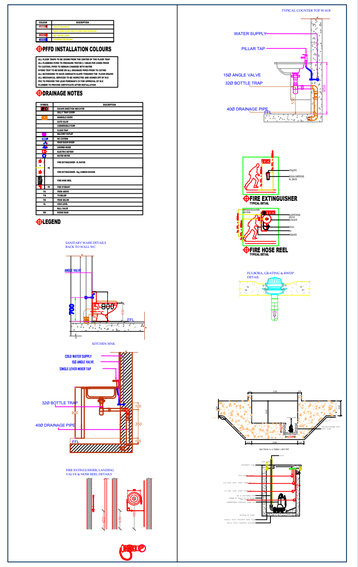

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

GROUND FLOOR PLUMBING DRAINAGE & FIRE FIGHTING LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

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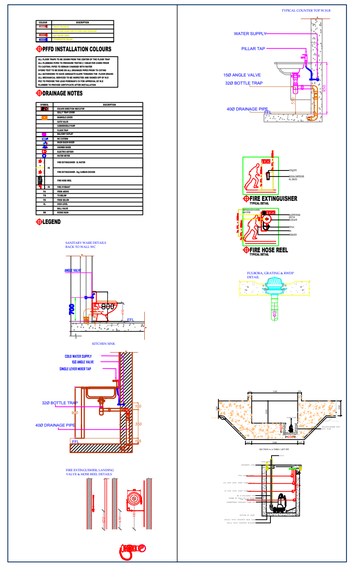

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

GROUND FLOOR PLUMBING & FIRE FIGHTING LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			

PROJECT NO:	DRAWING NO:	REVISION:

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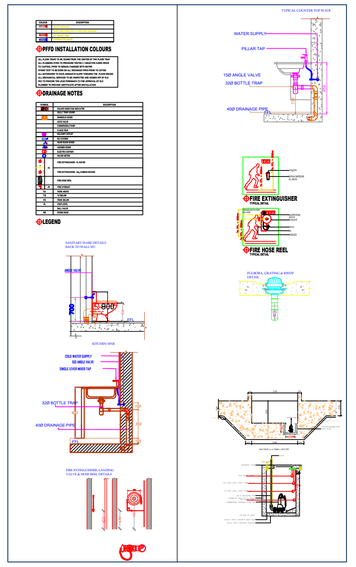

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

GROUND FLOOR DRAINAGE LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

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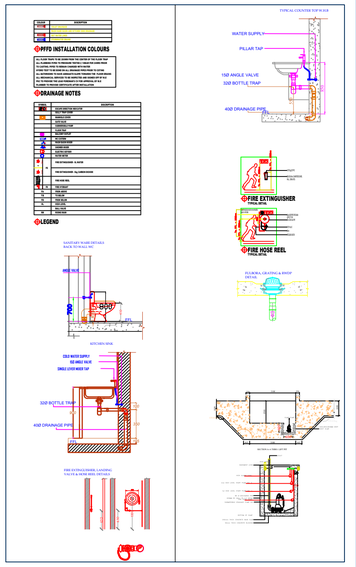

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

FIRST FLOOR PLUMBING DRAINAGE & FIRE FIGHTING LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

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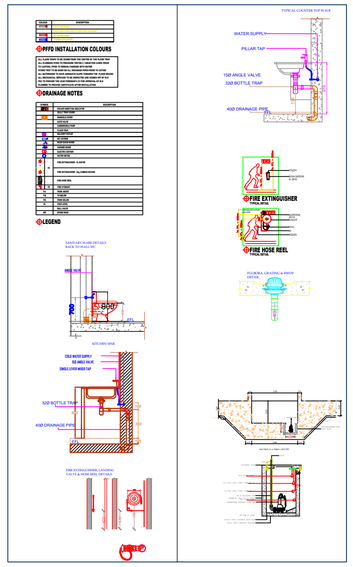

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

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QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

GROUND FLOOR PLUMBING & FIRE FIGHTING LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
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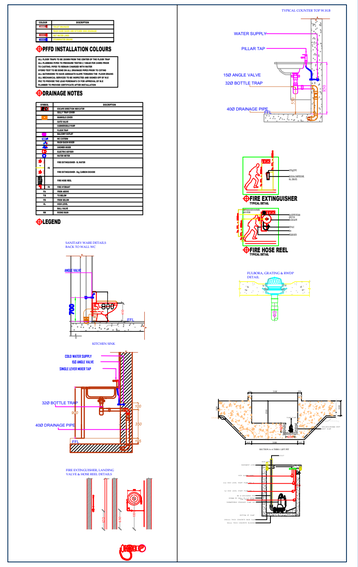

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ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

FIRST FLOOR DRAINAGE LAYOUT

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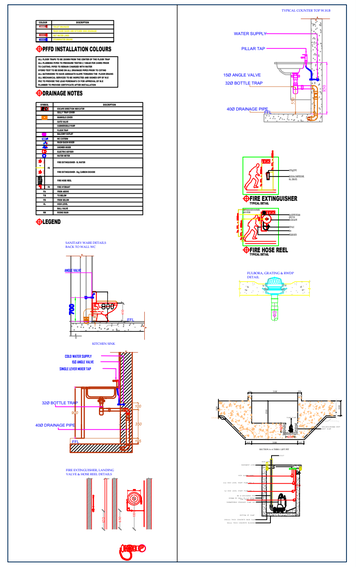

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

SECOND FLOOR PLUMBING DRAINAGE & FIRE FIGHTING LAYOUT

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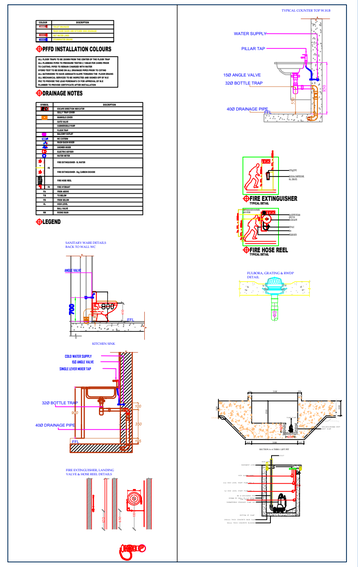

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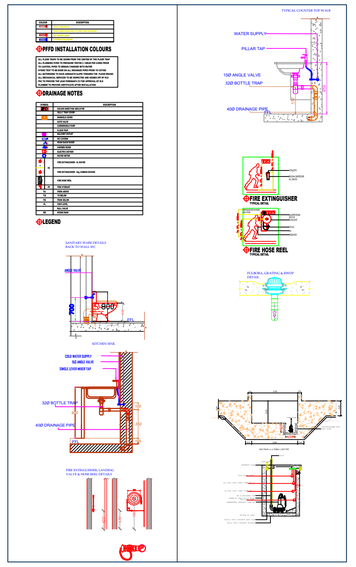

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

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SITE:

ALUPE STUDENT HOUSING

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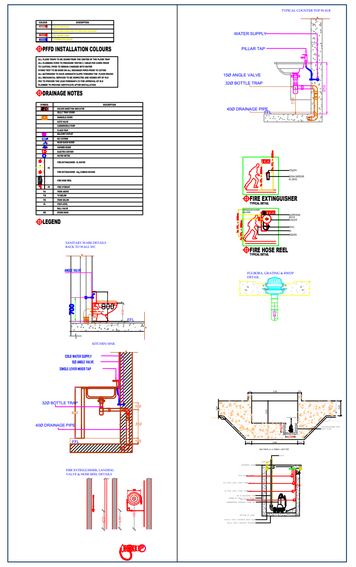

CLIENT:

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

TYPICAL 3ARD TO 9TH FLOOR PLUMBING DRAINAGE & FIRE FIGHTING LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
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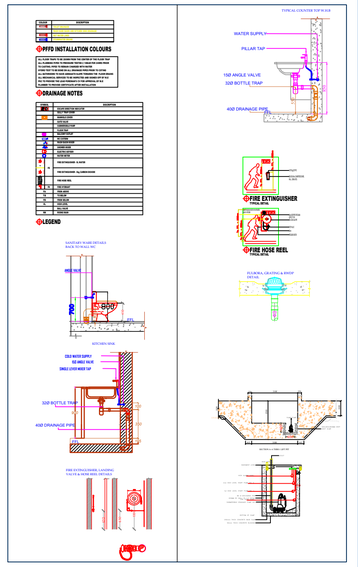

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ALUPE STUDENT HOUSING

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TYPICAL 3ARD - 9TH FLOOR PLUMBING & FIRE FIGHTING LAYOUT

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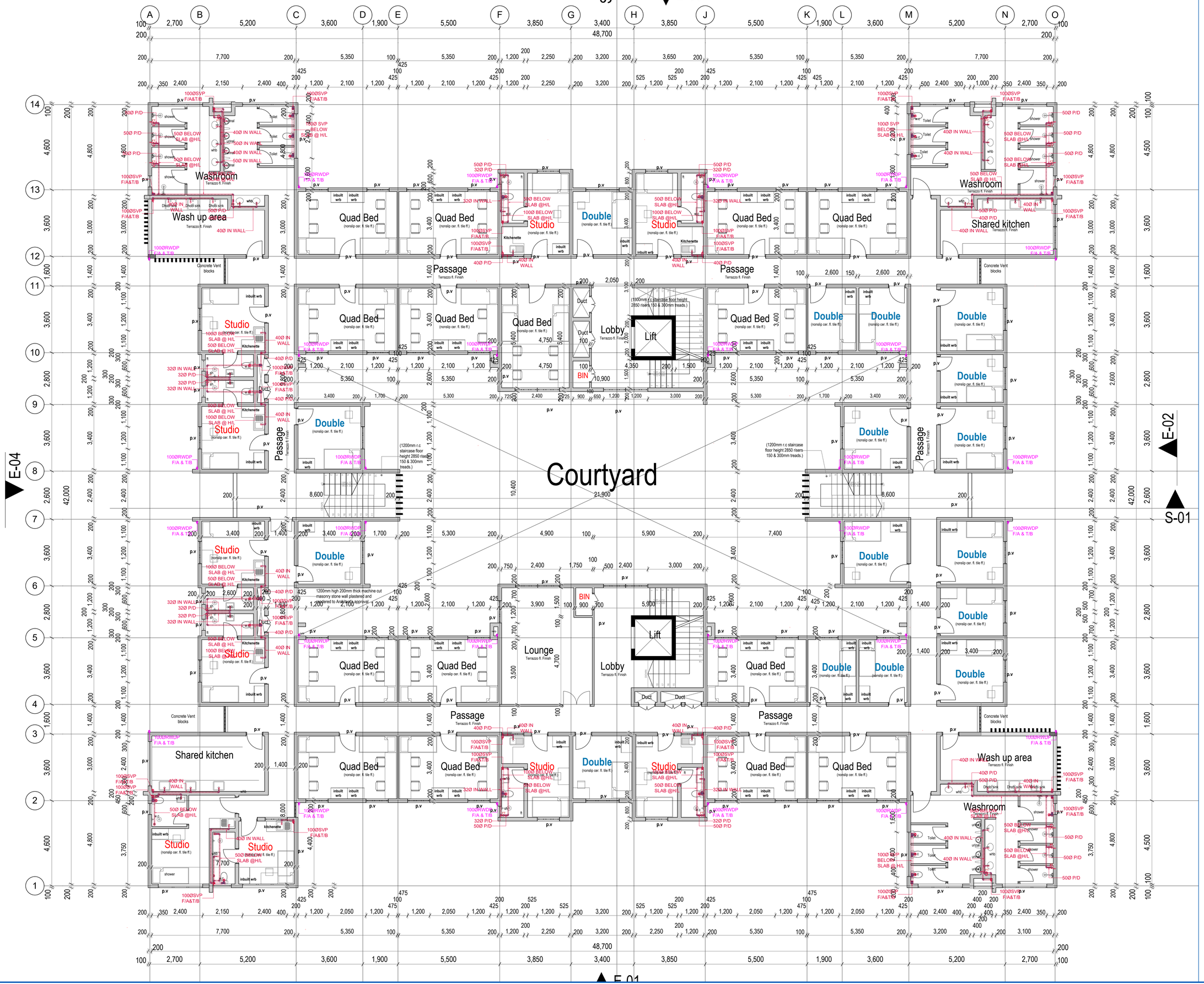

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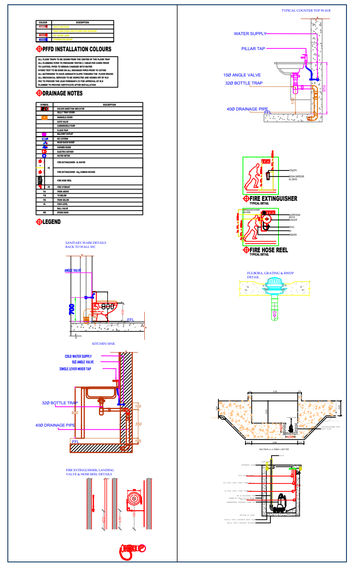

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SITE:

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SCALE :	DATE:	DRAWN:	CHECKED:
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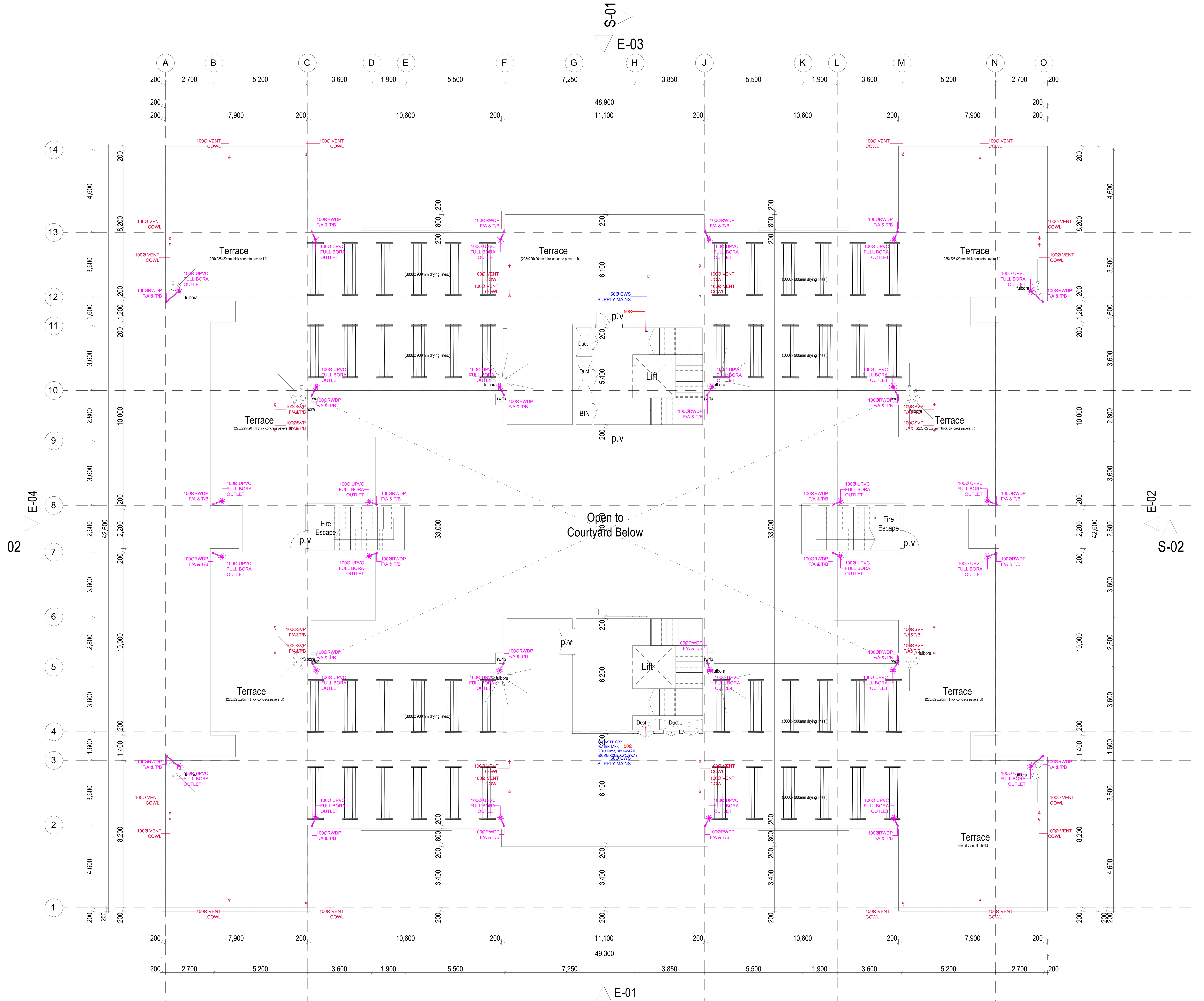

TERRACE PLAN

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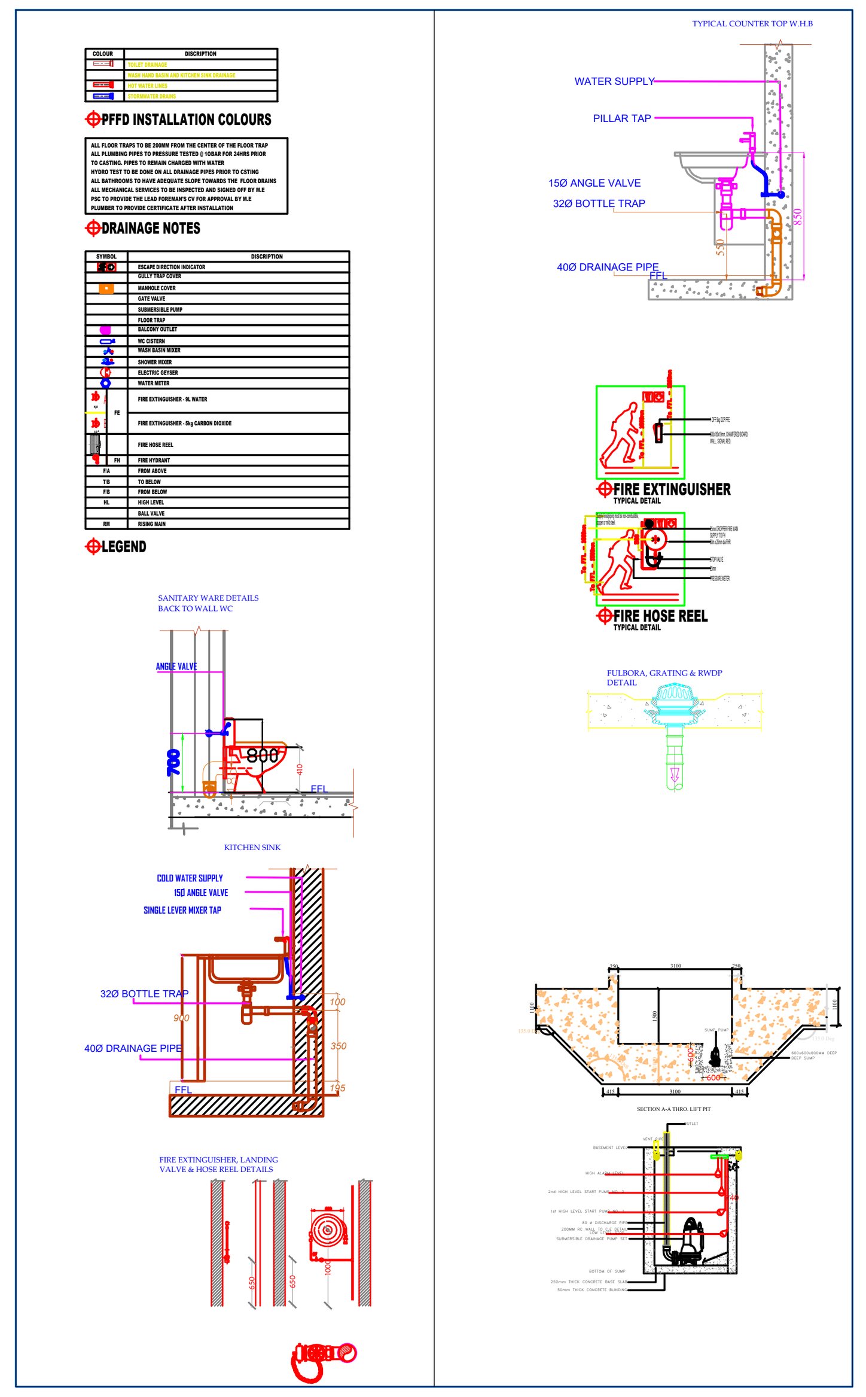

CLIENT: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE: ALUPE STUDENT HOUSING

TITLE: ROOF TERRACE FLOOR PLUMBING DRAINAGE & FIRE FIGHTING LAYOUT

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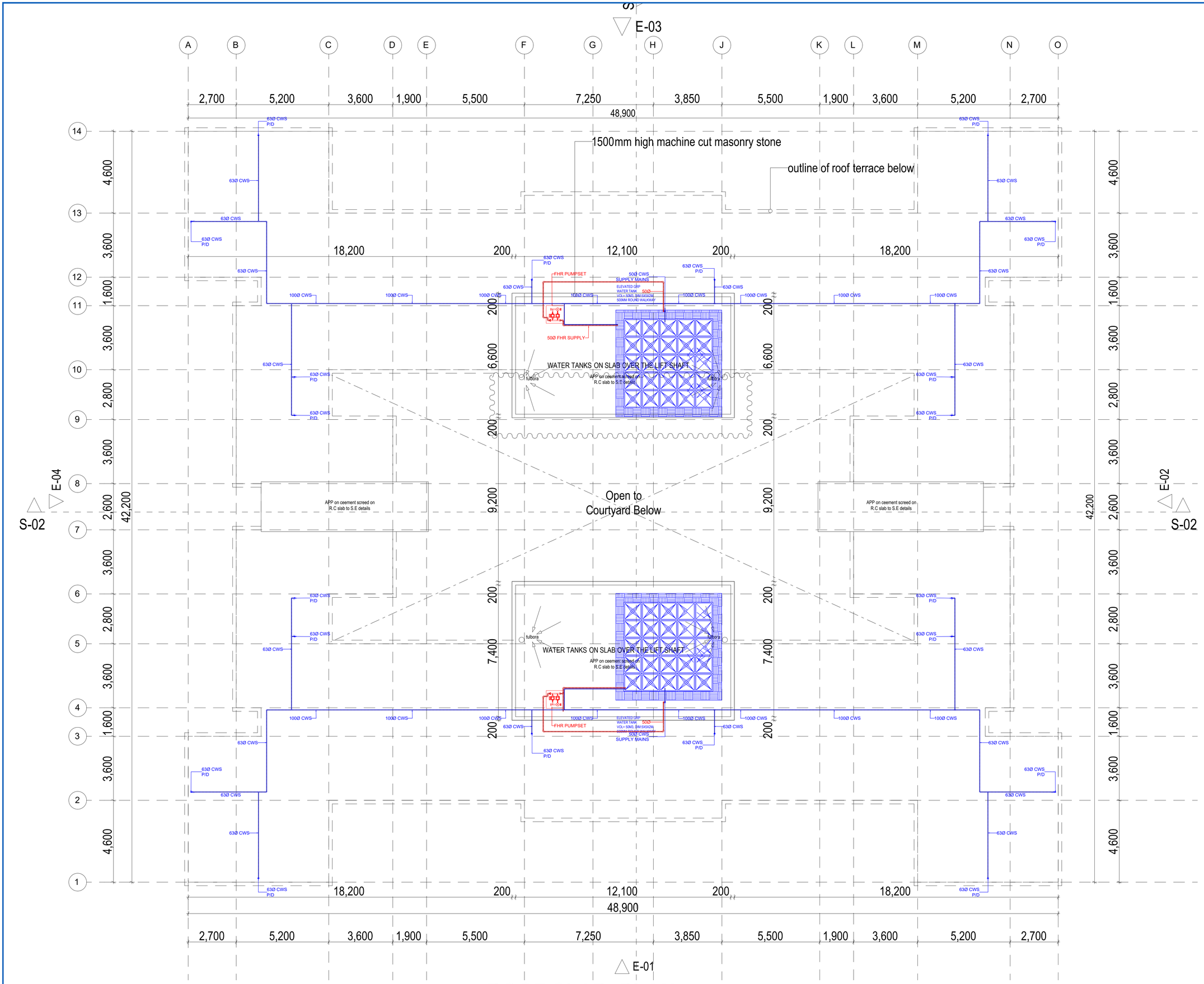

ROOF SLAB PLAN

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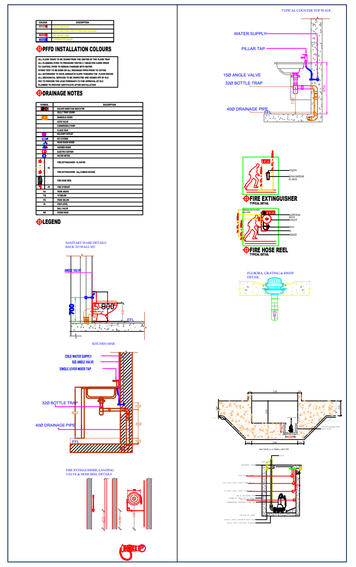

CLIENT:

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ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

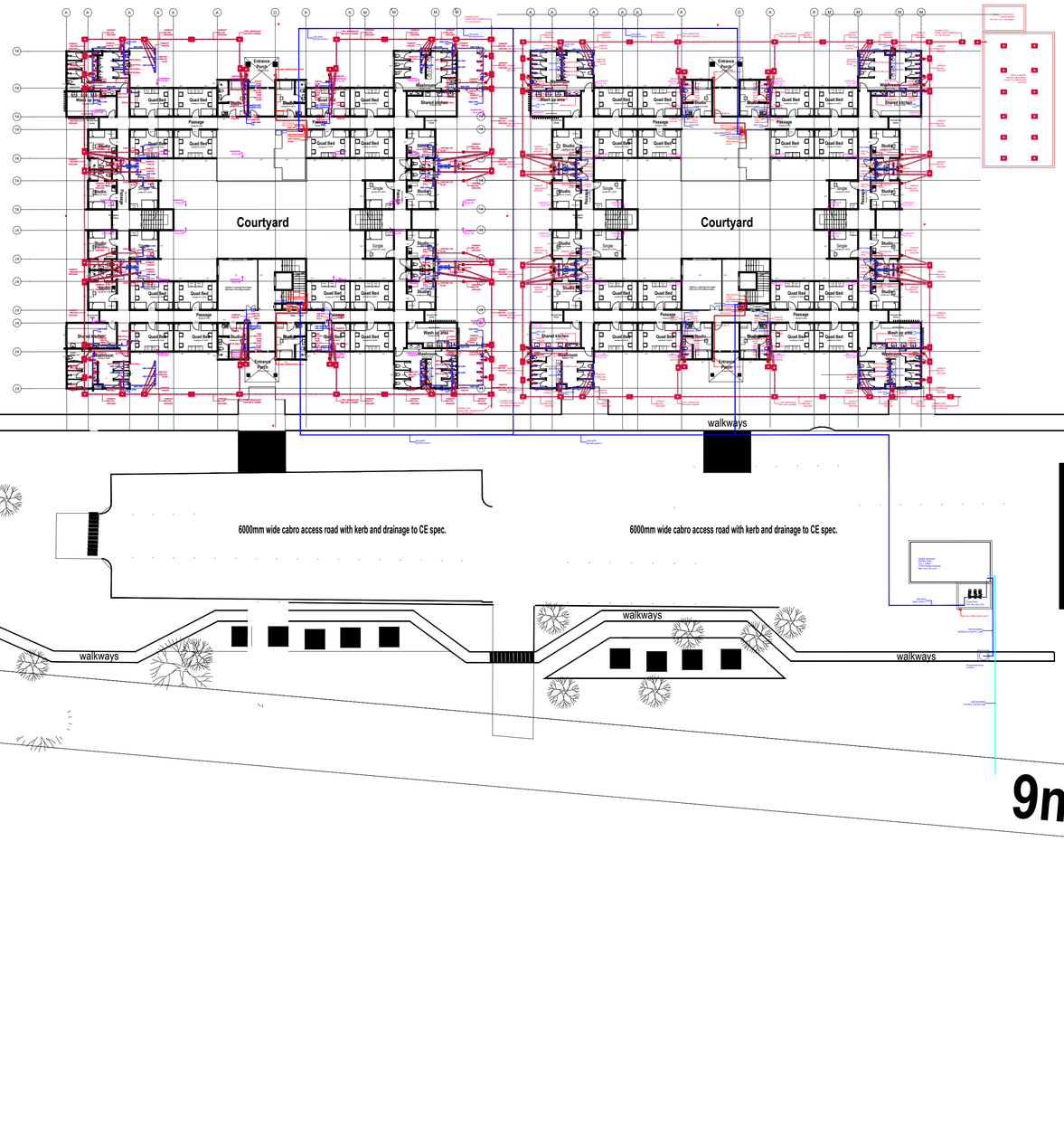
ALUPE STUDENT HOUSING

TITLE:

ROOF LEVEL PLUMBING DRAINAGE & FIRE FIGHTING LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			
PROJECT NO:	DRAWING NO:		REVISION:

9m ROAD



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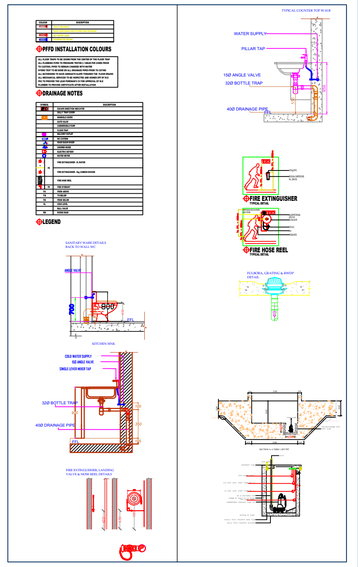

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STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

ARCHITECT:

STRUCTURAL:

QUANTITY SURVEYOR:

SITE:

ALUPE STUDENT HOUSING

TITLE:

SITE PLAN PLUMBING DRAINAGE & FIRE FIGHTING LAYOUT

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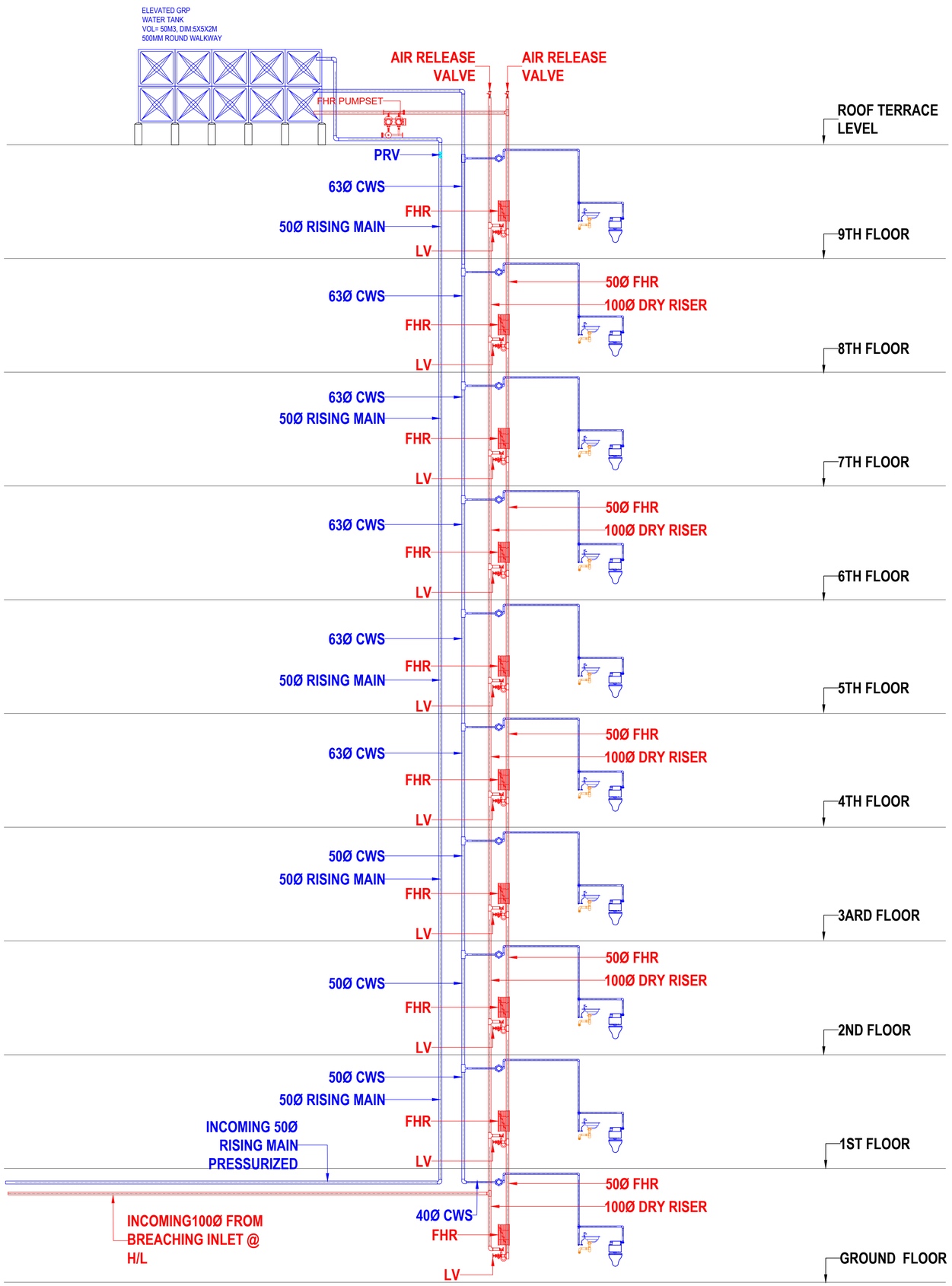

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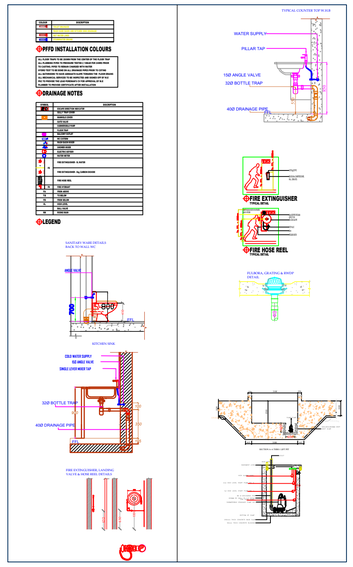

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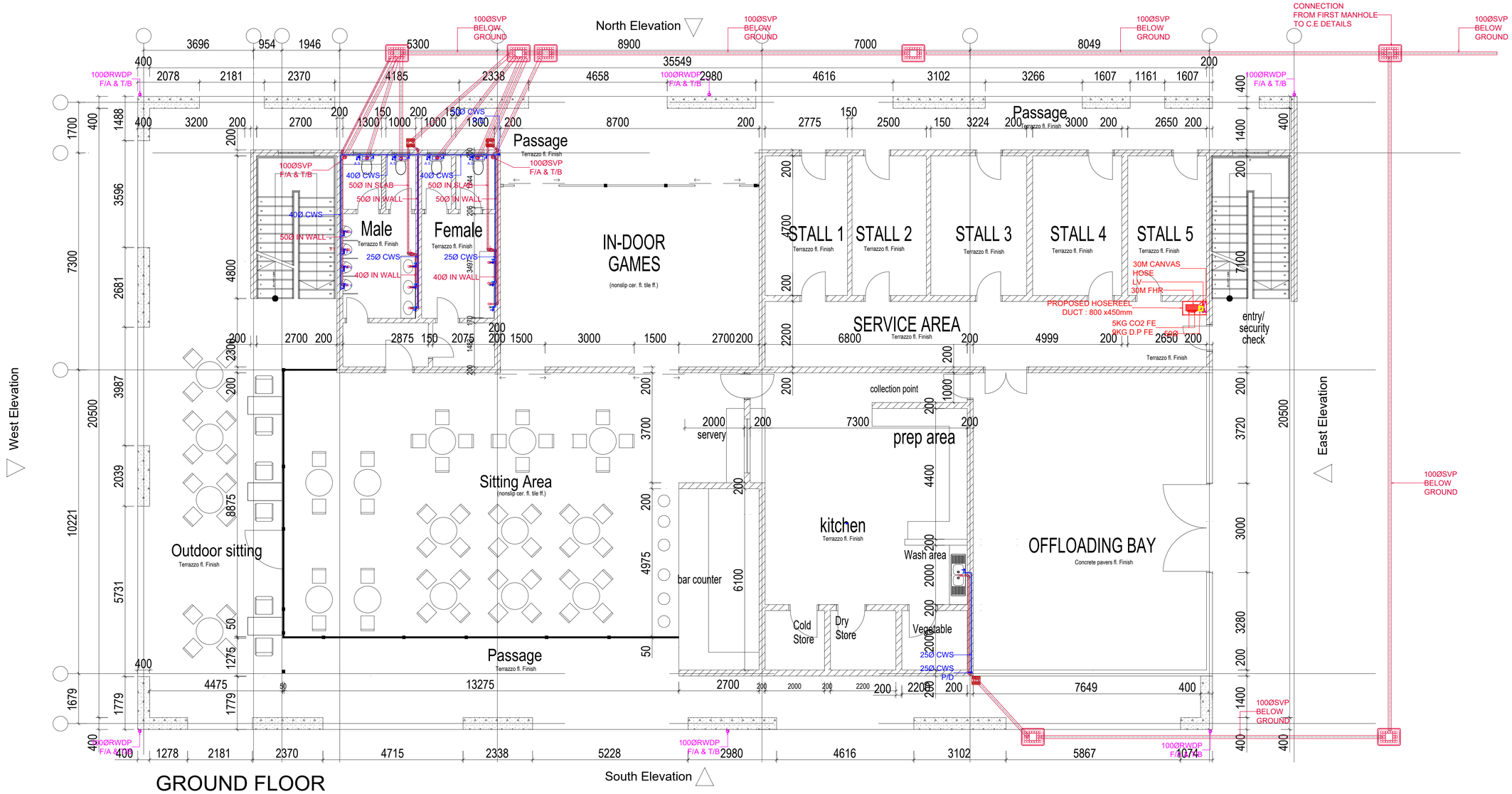

GROUND FLOOR
SCALE 1:100

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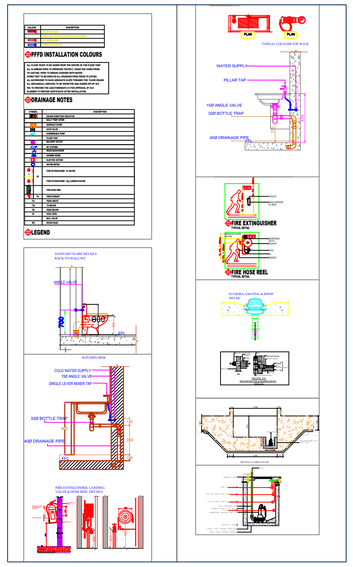

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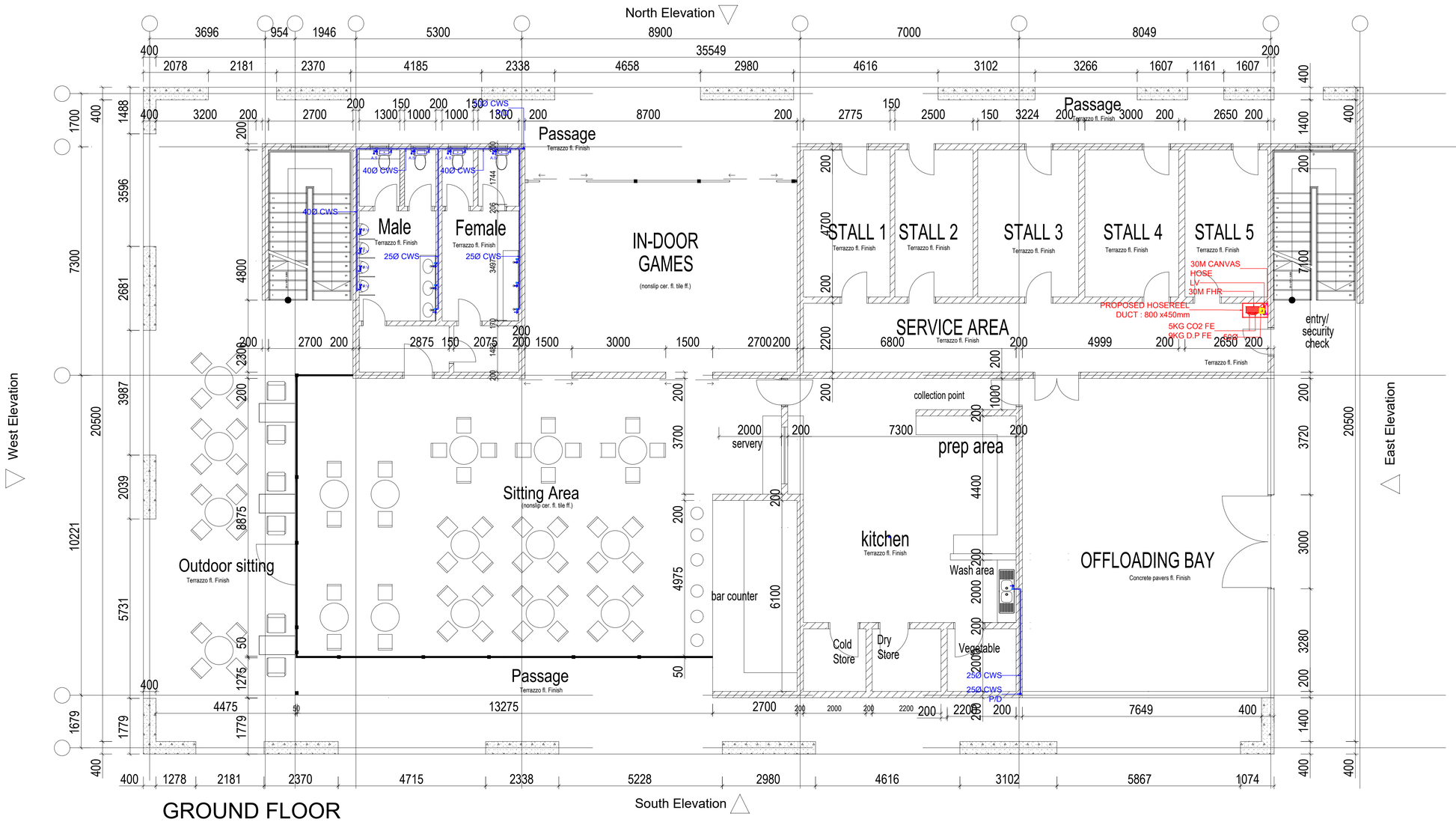

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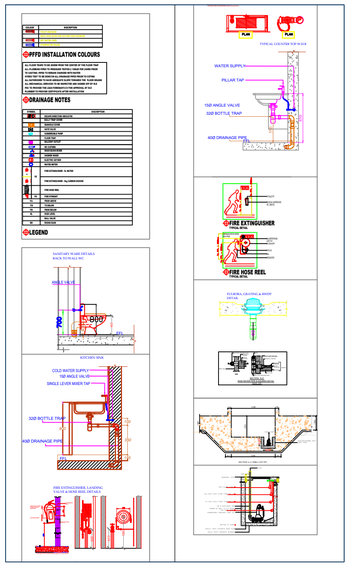

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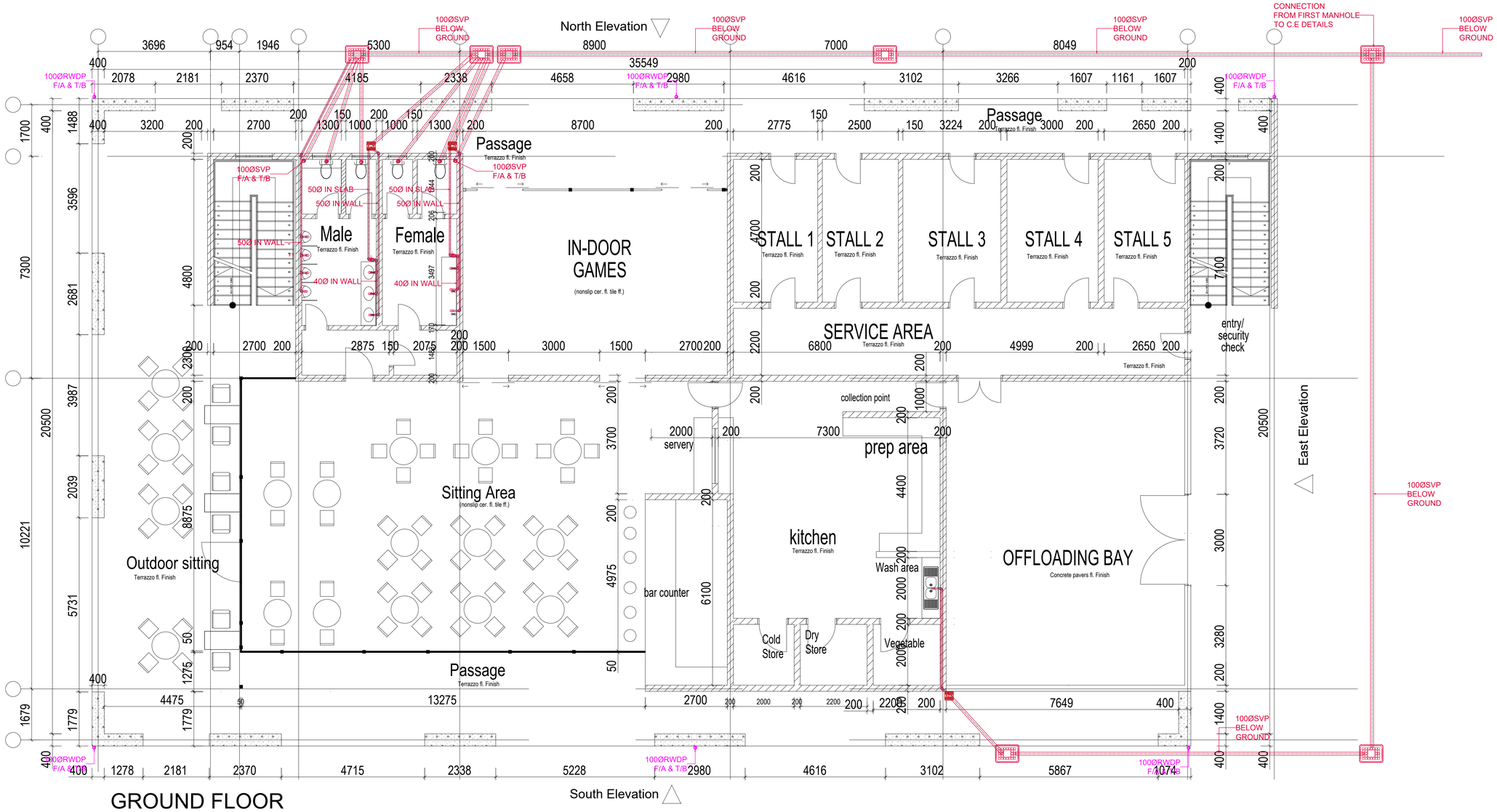

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SCALE 1:100

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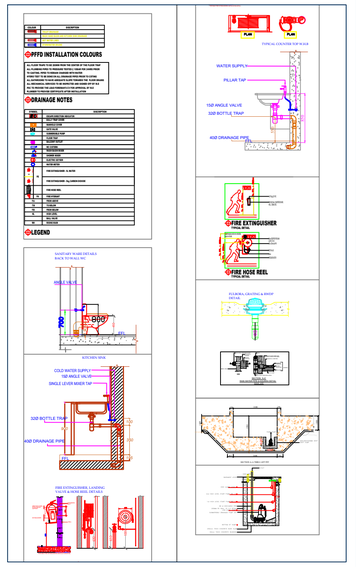

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TITLE:
GROUND FLOOR DRAINAGE LAYOUT

SCALE :	DATE:	DRAWN:	CHECKED:
NOT TO SCALE			

PROJECT NO:	DRAWING NO:	REVISION:

North Elevation

West Elevation

East Elevation

South Elevation

PRINTING
(nonslip cer. fl. tile ff.)

STUDENT OFFICE
(nonslip cer. fl. tile ff.)

STUDENT OFFICE
(nonslip cer. fl. tile ff.)

STUDENT OFFICE
(nonslip cer. fl. tile ff.)

OFFICE
(nonslip cer. fl. tile ff.)

Passage
Terrazzo fl. Finish

entry/ security check

Sitting Area
(nonslip cer. fl. tile ff.)

VOID

HALL
(nonslip cer. fl. tile ff.)

OPEN YARD TO SKY

100ØRWDP F/A & T/B

100ØSVP F/A & T/B

40Ø CWS

50Ø CWS P/D

50Ø IN SLAB

25Ø CWS

50Ø IN WALL

30M CANVAS HOSE LV 30M FHR

PROPOSED HOSEREEL DUCT : 800 x450mm

5KG CO2 FE

9KG D.P FE

FIRST FLOOR
SCALE 1:100

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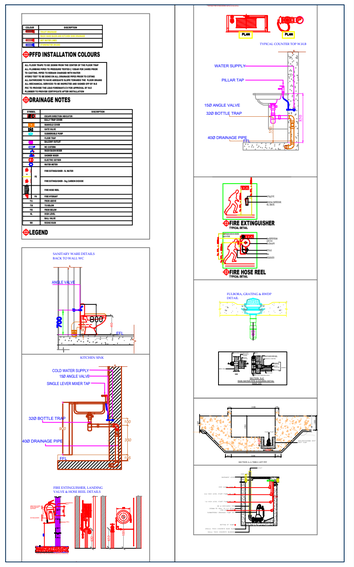

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TITLE:
FIRST FLOOR PLUMBING DRAINAGE & FIRE FIGHTING LAYOUT

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North Elevation

West Elevation

East Elevation

South Elevation

PRINTING
(nonslip cer. fl. tile ff.)

STUDENT OFFICE
(nonslip cer. fl. tile ff.)

STUDENT OFFICE
(nonslip cer. fl. tile ff.)

STUDENT OFFICE
(nonslip cer. fl. tile ff.)

OFFICE
(nonslip cer. fl. tile ff.)

Passage
Terrazzo fl. Finish

entry/ security check

Sitting Area
(nonslip cer. fl. tile ff.)

VOID

HALL
(nonslip cer. fl. tile ff.)

OPEN YARD TO SKY

40Ø CWS
25Ø CWS
50Ø CWS P/D
30M CANVAS HOSE
LV
30M FHR
PROPOSED HOSEREEL DUCT : 800 x450mm
5KG CO2 FE
9KG D.P FE
50Ø
25Ø CWS P/D

FIRST FLOOR
SCALE 1:100

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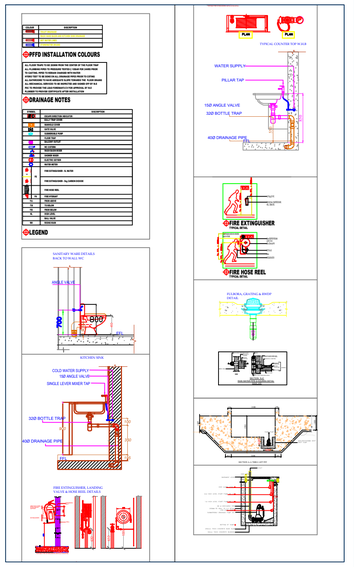

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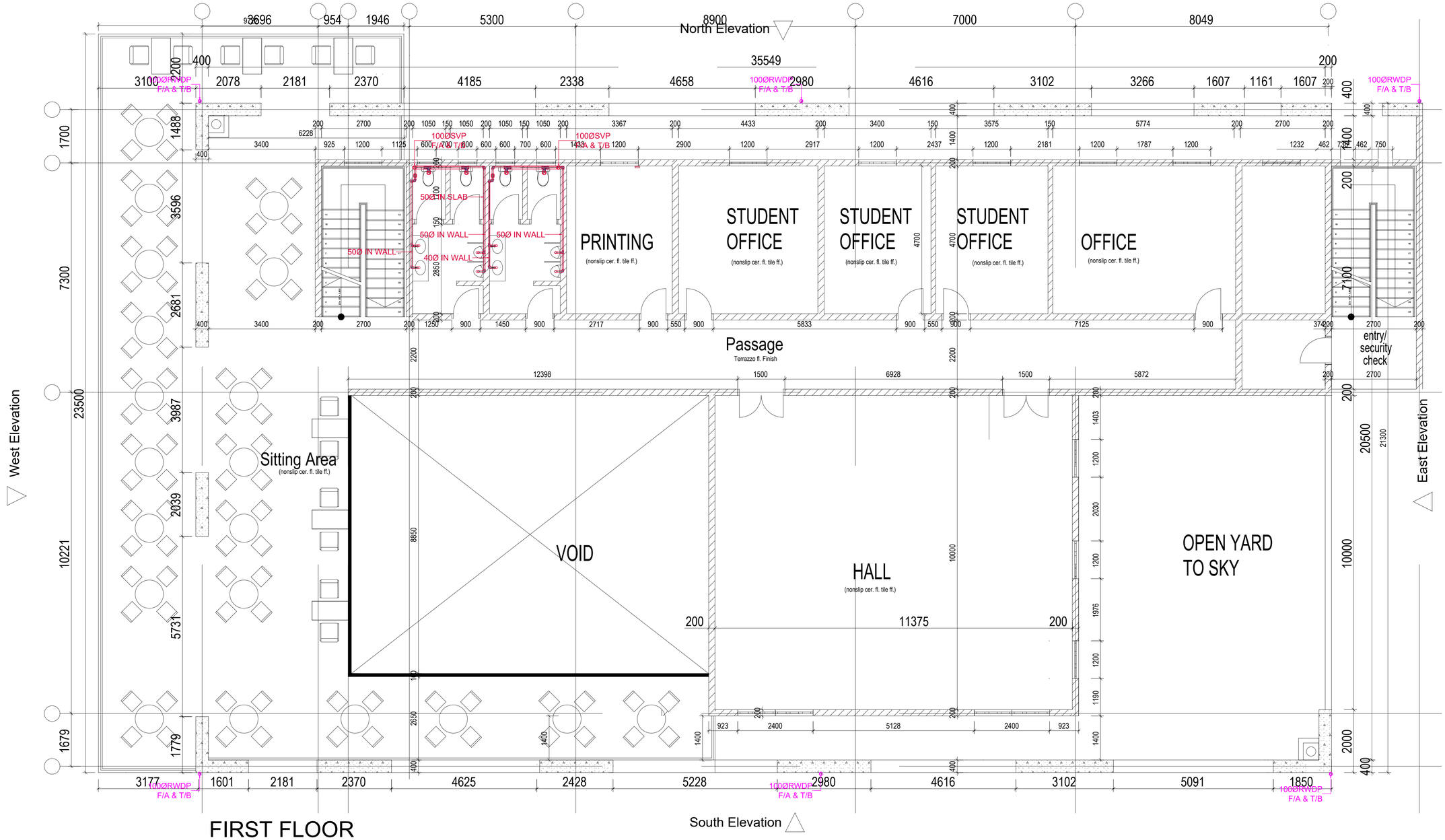

FIRST FLOOR
SCALE 1:100

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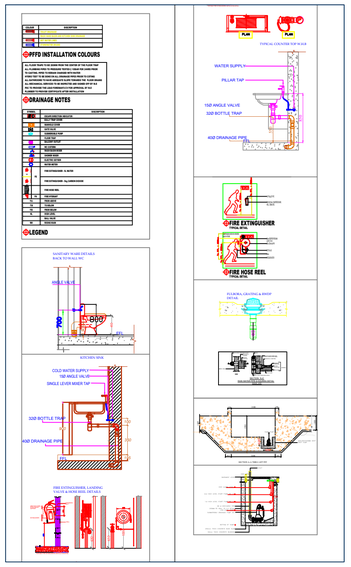

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FIRST FLOOR DRAINAGE LAYOUT

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3696 954 1946 5300 8900 7000 8049

North Elevation

36149

100ØRWDP F/A & T/B 400

100ØRWDP F/A & T/B 35349

100ØRWDP F/A & T/B 400

1700

400

50Ø RISING MAIN
50Ø CWS P/D
100ØSVP VENT COWL
100ØSVP VENT COWL

7300

ELEVATED PRESS STEEL PLATES WATER TANK VOL= 12M3, DIM:4X3X1M 500MM ROUND WALKWAY

50Ø CWS TO WET AREAS

25Ø CWS TO KITCHEN

25Ø CWS TO KITCHEN

50Ø RISING MAIN

25Ø CWS TO KITCHEN

50Ø

50Ø FOR FIRE HOSEREEL

Flat roof slab

(225-300x300mm thick graded to drain to f.p.
on 25mm cement & sand screed laid on 4mm thick torched on
water proofing membrane laid on 25mm cement sand screed all
laid to fall

50Ø FOR FIRE HOSEREEL

50Ø FOR FIRE HOSEREEL

FHR PUMPSET

West Elevation

21300 20500

25Ø CWS TO KITCHEN

25Ø CWS TO KITCHEN

OPEN YARD TO SKY

21300

10221

25Ø CWS P/D

1679

100Ø UPVC FULL BORA OUTLET

100Ø UPVC FULL BORA OUTLET

100Ø UPVC FULL BORA OUTLET

400

3100 100ØRWDP F/A & T/B

36149 100ØRWDP F/A & T/B

100ØRWDP F/A & T/B

South Elevation

ROOF PLAN
SCALE 1:100

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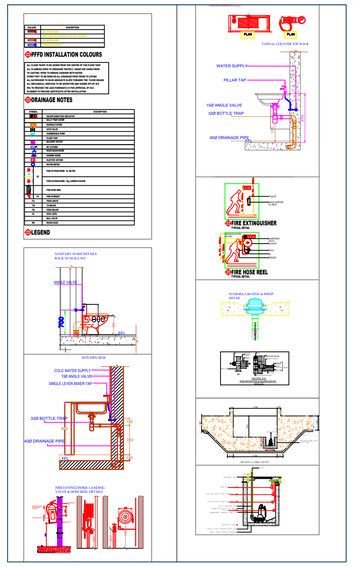

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