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S P E C I F
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$$
\begin{aligned}
& \text { WOODS, BAGOT, JORY } \\
& \text { \& } \\
& \text { IAYBOURIE-SIMITH }\{F F \cdot S \cdot A \cdot I \cdot A . \\
& \text { Architects. }
\end{aligned}
$$

# General ©ondifions of Gonfract 

FOR

Referred to in a CONTRACT dated the
day of One thousand nine hundred and and made between

of the one part, and

## of the other part.

## CONTRACTOR TO PROVIDE LABOUR AND MATERIAL.

1. All labour, scaffolding, hoarding, barricades, machinery, implements, tools, and materials necessary for the carrying on to completion of the works, to be provided, fixed, and maintained by the Contractor at his own risk and expense, unless where distinctly specified to the contrary, and the consideration money mentioned in the Contract shall (subject to these general conditions) be deemed to be the contract price, and shall be accepted by the Contractor in full satisfaction and discharge for all work done under this Contract.

## CONTRACTORS TO PROVIDE ALL ELSE NECESSARY.

2. The Contractor is to provide everything of every sort and kind which, in the opinion of the Architect, may be necessary and requisite for the execution of the several works included in the Contract in a substantial and workmanlike manner, according to the true intent and meaning of the drawings and specification taken either separately or altogether (which are to be signed by the Architect and the Contractor), and whether the same may or may not be particularly described in the specification or shown on the drawings, provided that the same are reasonably and obviously to be inferred therefrom, and whether there be any discrepancy between the drawings and specification or not. Subject to the provisions of Clause 30 hereof, the decision of the Architect as to the true intent and meaning of the drawings and specificaion shall be final.

## FIGURED DIMENSIONS.

3. Wherever the dimensions are written or figured upon the drawings, or in the specification, such dimensions shall be taken as correct, although they may not correspond with the measurement by the scale, which is only to be used when no written dimensions are given; and the drawings to a larger scale are to be considered as more correct than those to a smaller scale. But where material discrepancies between scale and figured dimensions may be discovered after signing the Contract, the Contractor shall be entitled to be supplied with drawings in which the scale and figured dimensions agree, for the purpose of executing the works of the Contract.
4. All prime cost sums (usually marked P.C. in specification) may be expended by the Architect or Proprietor in goods to the full amount, and the Contractor shall take delivery of such goods when notified to do so, and pay the accounts for the same, rendering vouchers therefor to the Architect. Any profit on such prime cost sums shall be deemed to have been allowed for separately by the Contractor in his tender, and any unexpended portion of such prime cost sums, and also the price of any goods chosen and paid for by the Proprietor, and covered by such prime cost sums, shall be considered a debt due from the Contractor to the Proprietor.

PROPERTY IN PLANT AND MATERIALS, \&c., BROUGHT ON SITE.
5. All plant and materials brought upon the premises by the Contractor shall, from the time at which they or any of them may be so brought, and during and until the completion of the works, or until the determination of the Contract as provided by Clause 27 hereof, which ever shall first happen, be considered as immediately attached to and belonging to such premises, and become and be the property of the Proprietor and the Contractor shall not be entitled to remove the same without the written consent of the Architect until the completion of the works, or until such determination, as the case may be, but the Proprietor is not in any way answerable for any loss or damage which may happen to or in respect of any such plant or materials, either by the same being lost or stolen or destroyed or injured by weather or any other cause.

## COPIES OF DRAWINGS, \&c.

6. The Architect will provide for use during the progress of the works, two sets of the necessary working drawings and specifications; one set to be at all times available upon the work, and the other to be for use in the Contractor's workshop, or wherever else required for the purposes of the work.

## CONTRACTOR TO SET OUT WORKS.

7. The Contractor shall, after the Architect has given the starting points, levels, and boundaries, set out accurately at his own expense all the works comprised in this Contract, agreeably to the drawings and specification, and shall be held responsible for their being so set out and executed accordingly, and shall supply correct setting out rods, and leave the same on the building for the use of the Architect and his representative and the foreman of the works.

## COMPLIANCE WITH LOCAL ACTS AND REGULATIONS.

8. The Contractor shall comply in every particular with the provisions of all Acts of Parliament where applicable, and with all rules, regulations, and by-laws made thereunder respectively, and with all local and municipal regulations and by-laws, and shall give all notices required to be given by such Acts, regulations or by-laws, and shall pay all fees and bear all costs connected therewith.

## SUPERINTENDENCE OF WORK.

9. The Contractor shall commence, proceed with, and completely finish the whole of the works under the superintendence of the Architect, and shall permit him, and all persons authorized or appointed by him, to visit and inspect the works or any part thereof at all times and places during the progress of the same, and shall provide sufficient safe and proper facilities for such inspection.

## TIME OF COMPLETION. LIQUIDATED DAMAGES.

10. The works included in the Contract shall be completed and delivered up on or before the day of 192 or within the extended or enlarged time hereinafter mentioned; and if the Contractor fail to complete and deliver them up to the Proprietor by that day or time he shall pay to the Proprietor the sum of
(£ ) for each and every during which the work may remain uncompleted or not delivered up beyond the day or time aforesaid (as the case may be), and the Proprietor may deduct such sum from any money due from him to the Contractor, or obtain payment of it in any way he may think fit, and such payment shall be made as and for ascertained liquidated damages for such default and not by way of penalty.

## COMMENCEMENT OF WORK.

11. Should the Contractor not commence work upon the site within
days of the date hereof, the Contract may be determined and re-let at the risk of the Contractor after days' notice in writing from the Architect.

## REMOVAL AND REPLACEMENT OF OBJECTIONABLE MATERIALS OR WORK.

12. Should any material or workmanship which, in the opinion of the Architect, is of an inferior or different character from that described in the specification, be at any time used in any part of the building,
or be delivered on the premises, the Contractor shall immediately cause the same to be removed and satisfactorily replaced; and if upon the Architect giving a written notice to the Contractor to effect any such removal and replacement, the same be not carried out within the time mentioned in the notice, the Proprietor shall be at liberty to employ other persons to effect the same, and all such expenses, loss, or damage, as in the opinion of the Architect may have been occasioned thereby, shall be borne by the Contractor, and the amount thereof paid by him, or deducted by the Proprietor from any money that may be or become due to the Contractor on account of this Contract.

## REPARATION OF DEFECTS AND DAMAGES. INSURANCE.

13. The Contractor shall have charge of the works, and shall repair all defects and damages, and shall bear and indemnify the Proprietor against all risks and claims in respect of accidents happening to the works, of injuries to any persons, and of damages to adjoining premises during the carrying out of the Contract from whatever cause, and shall insure the works and keep the same insured until the Contract has been determined, as in clause 27 hereof provided, or until the completion, against loss or damage by fire, in an office to be approved by the Proprietor or the Architect in the joint names of the Proprietor and Contractor for per centum of the contract price, and shall lodge the policies and the receipts for the premiums for the renewals of such policies with the Architect. In case the Contractor neglects to lodge the policies or the receipts for the premiums of such policies with the Architect, the Proprietor shall be at liberty to insure and keep the said works insured and deduct the amount of the premiums paid, together with the cost and expenses thereof, from any moneys payable by him to the Contractor, or may sue for and recover the same by process of law. All moneys received under any such policies are to be paid into an account in the joint names of the Proprietor and Contractor, and are to be paid from such account to the Contractor as the work of reinstatement proceeds in such sums as the Architect may certify. The work of reinstatement shall be on the same terms and conditions as the original Contract itself.

## ATTENDANCE OF CONTRACTOR. SERVICE OF NOTICES.

14. The Contractor, either personally or by a foreman or agent approved of by the Architect and qualified to act for the Contractor in every respect, shall be continually present upon the works during working hours, and shall attend when required either at the office of the Architect or at the works, to receive orders and to give the necessary instructions to the workmen without making any charge for the same. The Contractor will be held personally responsible for the proceedings and acts of his foreman ar agent. Any order, request, notice, or other communication given or made by prepaid posted letter addressed to the Contractor or to the Proprietor at the address given by him in the Contract, shall be deemed to be served at the usual time for postal delivery of such letter, or if given to or served upon him, his agent or foreman personally, then at the time of such giving or service.

## SUB-LETTING.

15. The Contractor shall not sell or assign the execution of the work, or employ a sub-contractor for the execution of the same or any part thereof, without the previous written consent of the Architect.

## CLEARING PREMISES.

16. The Contractor shall at his own expense, clear away from the premises on completion of the works, or when so desired by the Architect, all scaffolding, hoarding, barricades, machinery, implements, tools, materials, and rubbish which may be thereon, and shall also keep the walls properly protected from the weather during erection.

## ACCESS TO WORKS AND POSSESSION.

17. The Proprietor is at all times to have free access to the works, and is to have full power to send workmen upon the premises to execute works not included in the Contract, for whose operations the Contractor is to afford every reasonable facility during ordinary working hours, provided that such operations shall be carried on in such a manner as not to impede the progress of the works included in the Contract; but the Contractor is not to be responsible for any damage which may happen to or be occasioned by any such works. Possession of the ground or works shall not be deemed to mean that the Contractor is to have exclusive possession, but only a limited possession in order to enable him to perform the works of the Contract.

## ALTERATIONS-HOW MADE AND VALUED.

additions or omissions
18. The Architect shall have power from time to time to make any alterations/in the works as set forth in the drawings and specification, whether such alterations involve additions to or deductions from the Contract price, and such alterations shall be performed by the Contractor, and shall not invalidate the Contract; but the amount and value of the work as altered shall, unless previously to the commencement of the work the same has been fixed and agreed upon by the Contractor and Architect by writing under their hands, be fixed by the Architect, and additions or deductions shall be made accordingly to or from the Contract price as the case may require, and such amount and value shall be the limit of the Contractor's claim in respect of the work as altered. In fixing the amount and value aforesaid, the Architect will adopt the rates and prices contained in the schedule of prices, if any, which the Contractor has annexed to his tender, so far as the same can in the opinion of the Architect be applied to the work in question, and if there be no such schedule applicable the valuation shall be made by the Architect according to current rates, and his decision thereon shall in all cases, subject to the provisions of Clause 30 hereof, be final and binding on all parties.

## EXTENSION OF TIME.

19. In the event of any such alterations aforesaid being made the Contractor shall execute and complete the works contracted for, with such alterations, in the same manner as if they had been originally comprised in the works of the Contract, and the period for completing the entire works shall not exceed the period limited for completion of the original work. Provided that if the works are suspended as in Clause 27 hereof provided or if the Contractor shall deem the works delayed by material alterations, by delay in obtaining possession of the site, by unusually or excessively bad weather, or by combination of workmen, or by strikes or by lockout affecting the building trade, he may apply to the Architect, who shall from time to time, if he think the cause sufficient, but not otherwise, allow by writing under his hand such an extension of time as he shall consider proper, in which case the liquidated damages aforesaid will not be incurred during such extended time.

## WRITTEN ORDERS FOR EXTRA WORKS.

20. No work of any kind or description whatsoever will be regarded as an extra or paid for as such unless the Contractor obtains from the Architect a written order for, or a written sanction of the same as an extra, and no deviations or substitutions of any kind will be permitted without the written consent of the Architect. The amount and value of such extras, deviations, or substitutions shall be ascertained and fixed in the same manner as is provided in the preceding clause with respect to alterations.

## ARCHITECT MAY REQUIRE DISMISSAL OF EMPLOYEES FOR INCOMPETENCE, \&c.

21. The Architect may, at any time, require the Contractor to dismiss any person in the Contractor's employ upon the works who may in the opinion of the Architect be incompetent or misconduct himself, and such requirement shall be forthwith acted upon by the Contractor, or in default the Architect shall have power to suspend the works until the dismissal of such person. The loss or penalty for delay thus caused shall be borne by the Contractor only.

## CLERK OF WORKS

22. Should a Clerk of Works be appointed to whom objection is taken by Contractor within days of having received notice of such appointment, the question as to whether he shall be continued in his position shall be referred for decision to an Architect nominated by the Architect, and who shall be the President or one of the Vice-Presidents of the South Australian Institute of Architects, Incorporated, and a Contractor nominated by the Contractor, and who shall be the President or one of the Vice-Presidents of the Builders' and Contractors' Association of South Australia. Should these two be unable to agree, they shall appoint an umpire, and the decision of the referee or of the umpire, as the case may be, shall be final and binding on all parties. The costs of the reference and award shall be at the discretion of the referees or umpire, as the case may be. The Contractor shall not be entitled, on account of any objection made by him to the Clerk of Works in the manner aforesaid, to refuse to act under such Clerk of Works pending the decision of the objection.

## DECISION OF ARCHITECT FINAL.

23. The decision of the Architect upon the quantity, quality and state of the work, and upon the general management thereof, shall, subject to the exceptions expressly provided in Clause 30 hereof, be final and conclusive on the Proprietor and Contractor.

## FINAL MEASUREMENT.

24. The measuring of the works from time to time to enable the Contractor to receive payments on account thereof, shall not prevent all the works from being remeasured before the final certificate is granted by the Architect; and should any certificate be granted to enable the Contractor to receive progress payments, such certificate or certificates shall not limit or prevent the Architect in or from calling upon the Contractor to remove any defective or objectionable work before the final certificate; and the Contractor shall, at his own cost, remove or replace such work when so called upon. If at any time, it is found that inferior materials, or work different from that described in the specification, have or has been used or done in any part of the building, the Contractor shall pay to the Proprietor such amount as the Architect shall by writing under his hand allow as compensation for the same.

## TERMS OF PAYMENT.

25. Subject to all deductions and reservations herein provided for, and to any amount from time to time due from the Contractor to the Proprietor, payment in respect of the contract price or of any sum in addition thereto, will be made by the Proprietor only on a written certificate from the Architect stating the amount to be paid by the Proprietor to the Contractor, which amount shall be at the rate of 80 per cent. of the value of the works executed and 50 per cent. of the value of the materials upon the premises. And such certificates shall be given at intervals during the progress of the work, at the discretion of the Architect, and be for amounts not less than
at a time; and when the Contract has been determined as in clause 27 hereof provided, or when in the opinion of the Architect the works are practically completed, the Contractor shall be entitled to receive from the Proprietor upon production of the Architect's certificate to that effect and upon delivering up possession to the Proprietor an amount which with the amounts previously certified to be due shall be equal to per cent. of the value of the work actually done, or of the Contract sum as the case may be; and within weeks of the date of the last-mentioned certificate the balance of the value of the work actually done, or of the contract price as the case may be (subject to any such addition or deduction as aforesaid) will be paid by the Proprietor to the Contractor, upon the production of the Architect's written Certificate stating the amount of such balance, provided that the Contractor has executed or completed the works to the Architect's entire satisfaction. In ascertaining the amount of such balance, the Architect shall determine and decide what, if any, sum is to be paid or deducted for any breach of this Contract which shall have been committed by the Contractor or Proprietor, or for liquidated damages under the provisions of clause 10 hereof, and his certificate specifying the balance due shall, subject to the provisions of clause 30 hereof, be binding and conclusive. Any sum which the Proprietor may be entitled to deduct, whether for forfeitures, expenses of finishing, or on account of the works being over-measured, or on account of inferior material, or otherwise howsoever, may be deducted at any time, either from any progress payment or from the final payment, or may be recovered as a debt at law.

## SUSPENSION OF WORES.

26. The Contractor may suspend the whole of the said works as hereinafter provided, and the Contractor upon receiving a written notice from the Architect shall suspend the whole or any portion of the works for a period not exceeding weeks, shall resume the same when directed, and complete the whole without extra charge for such suspension. The period limited for completion of the original work or any extension of time which may be allowed as aforesaid shall be enlarged for a time equal in length to the period of such suspension; but if in the opinion of the Architect, additional expense shall be actually incurred by the Contractor by reason of any rise in the cost of labour or materials during the time of such suspension, the Architect shall in his final certificate fix the amount of such additional expense, and the same when so fixed shall be added to the amount due and be paid by the Proprietor to the Contractor. In the event of such suspension exceeding thirty days the Contractor shall be entitled to interest at the rate of per cent. per annum on the difference between the value of the work done as determined by the Architect at the time of such suspension and the amount which has been paid to the Contractor at such time. Provided, that in the event of suspension in consequence of the materials or workmanship being of inferior character or different from that described in specification, or on account of any other default on the part of the Contractor, the above limit to the period of suspension and the above conditions as to allowances for suspension shall not apply.

## NEGLECT OR REFUSAL TO PAY CERTIFICATES.

27. If the Proprietor refuse or neglect to pay the amount of any certificate given by the Architect during the progress of the work for the period of days after the same shall have been presented to him for payment, the Contractor may give the Proprietor notice in writing that if the said amount be not paid within forty-eight hours after the giving of such notice, he will suspend operations on the said works, and if he does give such notice he must at the same time deliver a copy thereof to the Architect. If the said amount be not paid within the said forty-eight hours he may suspend such operations, in which case he shall give the Proprietor immediate notice in writing that the works are so suspended, and that if the amount of such certificate be not paid within thirty days after such notice has been given the Contract will be determined. If the amount of such certificate be not paid within such period of thirty days the Contractor may, at the expiration of such period, determine the said Contract, and the right and lien of the Proprietor, under these conditions, to and on all plant, materials, and property shall be extinguished.

## PROVISION FOR TAKING POSSESSION OF WORKS

28. If the Architect, at any time or times during the progress of the work, either before or after the expiration of the Contract time, shall discover or be of opinion that the Contractor is using bad materials or workmanship, or is not proceeding with the works in a satisfactory or sufficiently expeditious manner, the Proprietor by the Architect may give to the Contractor or his foreman notice in writing requiring the work to be proceeded with regularly and effectually, or the causes of complaint rectified; and in case of default (either actually or in the opinion of the Architect) on the part of the Contractor for a period of days, or in, case the Contractor shall become himoterit, or compound with his ereditors, or to determine the Contract and to enter upon and take possession of the works, and to employ any other Orea.ch person or persons to carry on and complete the same and to authorize him or them to use the plant, CIause materials, and property of the Contractor upon the works or premises, and the costs and charges incurredhereof in any way in carrying on and completing the said works are to be paid to the Proprietor by the Contractor, or may be set off by the Proprietor against any monies due or to become due to the Contractor, and the Proprietor in addition to the rights given him by clause 5 hereof, shall have a lien on the said plant,

## ASSESSMENT OF AMOUNT DUE UNDER OPERATION OF CLAUSES 27 AND 28.

29. In the event of the Proprietor taking possession of the works as in clause 28 hereof provided, or in the event of the Contractor determining the Contract as in clause 27 hereof provided, the Architect shall have power to determine what sum, if any, shall be deducted from the amount claimed by the Contractor, for delay in carrying out the work already done, or for the use of bad material or bad workmanship in the same, or for any other breach of this Contract of what kind soever. In estimating the amount of such deduction, the Architect shall decide what period of delay would inevitably occur in the completion of the works if they were thenceforth completed in the most expeditious manner possible, and also the costs of substituting good materials or workmanship for such bad materials or worrkmanship.

## ARBITRATION CLAUSE.

30. If the Contractor or Proprietor shall either actually or in the opinion of the Architect commit any breach of this Contract, the party in default shall pay to the other of them for and in respect of such breach such sum as the Architect shall ascertain and certify to be the amount payable in respect of such breach, and the Contractor and Proprietor hereby respectively agree to pay and accept such sum in full satisfaction for such breach. If either the Contractor or Proprietor be dissatisfied with the decision of the Architect. with respect to the quantity or value of the extras and omissions and variations on the Contract or as to questions of delay, and shall have otherwise complied with the requirements of the Contract and of these conditions, such dissatisfied party may within seven days after the decision of the Architect shall have been notified to him, and not otherwise, give to the Architect
days' notice in writing that he desires the matters in dispute to be referred to arbitration, and thereupon such matters shall be submitted to the arbitration of Hubert H. Cowell
event of his death or unwillingness to act, of Frederick William Hocart or in the
being members Hubert H. Cowell
or the said Frederick William Hocart.
(as the case may be) shall be final and binding on both Contractor and Proprietor, and neither party shall be entitled to commence or maintain any action upon any such breach or dispute until such matter shall have been referred or determined as hereinbefore provided, and then only for the amount or relief to which the arbitrator by his award finds either party is entitled. The "Arbitration Act, 1891", shall apply to this submission, and the costs of the submission, reference, and award shall be in the discretion of the arbitrator, and his award shall have the same effect as the certificate of the Architect would have had if no reference to arbitration had been desired.

## PROPERTY IN DRAWINGS, \&c.

31. The specification and all drawings in connection with this Contract are the absolute property of the Architect, and must remain in his custody; neither the Proprietor nor the Contractor shall have any claim, right, title or interest to or in such specification or drawings, and all copies thereof supplied to the Contractor shall, notwithstanding any payment to him for the same, be returned to the Architect before the Contractor receives or is entitled to receive the final certificate before referred to.

## INTERPRETATION.

32. Throughout these general conditions, and throughout the specification and Contract, unless repugnant to the sense or context, words importing the singular number only shall include the plural number, and words importing the plural number only shall include the singular number. The word "Architect" shall mean the Architect for the time being employed by the Proprietor in relation to the works above referred to, and if the Proprietor employ a firm consisting of two or more Architects then any partner in such firm shall be deemed the Architect. The word "works", or "premises" shall mean everything shown and described in the drawings and specification, as agreed to be done, by the Contractor, and shall also include any premises in addition to those belonging to the Proprietor, which may be enclosed or used for the purposes of the said works.

The above are the Conditions of Contract referred to in a Contract dated

Proprietor of the other part.

Contractor.

## Proprietor.

And as between Proprietor and Architect and Contractor and Architect we agree that we are bound thereby.

## WITNESS <br> Contractor.

WITNESS Proprietor.

## WITNESS <br> Architect.

$\mathbb{C}$ antraat

## BETWEEN

of
(who with his executors and administrators is throughout this Contract and the specification and general conditions respectively this day signed by the parties hereto styled 'the Contractor'') of the one part, and
of
(who with his executors and administrators is throughout this Contract and the said specification and general conditions styled "the Proprietor") of the other part WITNESSETH that in consideration of the sum of

## £

to be paid to the Contractor at the times and in the events mentioned in the said general conditions, the Contractor doth hereby agree with the Proprietor that he, the Contractor, shall and will before the
day of 192 erect, do, execute, perform, complete, and deiiver up to the Proprietor all and singular the works, matters, and things mentioned and referred to in the said specification and general conditions and in the drawings therein respectively referred to, and in the manner thereby respectively required. And also shall and will observe, abide by, and perform the said general conditions on his part. And this Contract also witnesses that in consideration of the premises the Proprietor doth hereby covenant with the Contractor that he, the Proprietor, will observe, abide by, and perform the said general conditions on his part.

IN WITNESS whereof the said parties to these presents have hereunto set their hands the day and year first above written.

Signed by the Contractor in the presence of

## SPECITICATIOW of Works to be done and Materials to

 be supplied in building the BARR SMITT IIBRARY for the University of ADEIAIDERichards Buildings, ADELAIDE.

MARCH, 1930.
$\left.\begin{array}{l}\text { WOODS , BAGOT, JURY } \\ \left.\begin{array}{l}\& \\ \text { IARYOURNE }\end{array}\right\} \text { SMITH }\end{array}\right\}$.SF. A.A.
Architects.

## PRELIMINARY CLAUSES.

1. THE FOREGOING GENERAI COMDITIONS OT CONTRACR of the S.A. Institute of Architects are bo be read as part of this specification.
2. CERTIEICATES POR PAYMENT - Notwithstanding anything contined in the General Conditions of Contract and so as to incorporate this clause in the General Conditions of Contract, the Contractor agrees that before application to the Architect for any certificate after the first certificate, the Contractor shall satisfy the Architect that all payments in respect of wages and/or material on the site and/or placed in the work and/or for work done by sub-contractors have been made up to the date of the previous ertificate.
3. CONPINGEINCY SUM - The Contractor is to allow a sum equal to Two per cent ( $2 \%$ ) of the contract amount for Contingent Works wo be expended as directed by the Architects or credited in pert or whole if not so expended.
4. IMSURAMCE - The Contractor shall insure all persons employed. in executing this contract against all claims arising under The Employers: Liability Act, 1884, The Employers ' Liability Amendment Act, 1889; The Workmen is Compensation Acts 1911 to 1926, The accidental Deaths Act $1865^{\circ}$ and at Common Lew; such insurance to be effected in the office of a Company approved by the Employer and evidence of such insurance lodged with the Architects.
5. IATRTNE - The Contractor is to provide a latrine for the use of persons employed and to remove same at completion and cleanse the site.
6. WATER - Refer to "Plumber" Paragraph 89.

SITE FENCING AND ACCESS - The area available for the buildIns art -01 the Contractor's reasonable use is shown on site plan. The existing fences dividing it from the land in the present occupation of the University along the South and me west are to be maintained in their present state by the Contractor.

Carting Access is to be from Victoria Drive or from Frome Road II directed by the Architects. Construct and insert to approval in the existing fence along Victoria. Drive a substantial pair of fromed, braced and iron covered gates 8 ft . high and 11 ft . wide with saw toothing along their tops and provide effective bolts, blocks, stays and padlock for keeping closed aiter working hours.
8. RMMOVAI OT GRAID STAMD - On or after the 18 th day of May 1930, the timber and iron stand shown on the site plan encroaching upon the builaing area is to be completely removed by the contractor down to sround level and its site left clear and safe for the public. The materials are at the disposel of the Contractor who shall cause them to be removed from the site by the
day of 1930.

Remove the existing picket fence, gates and pay box from the point where they cross the boundary dotted. on plan and re-erect in good order along the new alignment.
9. STORM HATRRS - At all times protect the excevations and the
builaing from the imush or collection of storm waters and provide means of removal should any such occur. An existing $9^{\prime \prime}$ underground pipe carrying water from the upper levels and crossing the building site is to be maintained. in effective condition at all times until aiverted.

Schedule price to be included per et. for excavation and laying $9^{\prime \prime}$ E.W. pipe to even gradient with wiped joints in cement 1 to 1 at an average depth of 3 it.

Form two new inspection pits $31 \times 21 \times 316^{\prime \prime}$ in $9^{\prime \prime}$ hard shale brick built in cement with $4^{\prime \prime}$ concrete bottom all rendered in cement internally and provided with compressed. concrete block covers.
10. IEIDIMS are to be lodged on the forms supplied by the Architeets with -

1. The names of sub-contractors.
2. The time required. for completion
3. The schedule of prices properly stated.
4. SEPARATE COMPRACTS may be arranged. by the Architects ior Electric Light and Power Wiring, Blectric Blevator Book Cases and othor litwings and for Floor Coverins, uncer ciause li of the printed conditions, duping the currency of this Contract. The Contractor is to allow the se sub-contractors the wadigitekfacilitties and shall build or set in sleeves supplied byn llectrieian with accurate particulars at the proper time for so doing. Tenderers should noteclauses 38, 44 and 79 referring to nett sums provided under Clause 4 of the General Conditions of Contract.
5. PLAIS OFHIOE - The Contractor shall provide for the use of his Agents and those of the Architects an office capable of displaying the drawings conveniently with sufeicient light and table shelving. It is to be suitably lined. and fitted with lock and key.
6. LIIS Ior all purposes shall be of approved brand brought Prequently and used eresh.

OMEFIT shall be of approved South Australian manufacture capable of sustainifg the Government standard tests.

SAll shall be clean sharp grit, free from vegetable matter and to the Architect's approval.
14. LIID HORTAR shall be composed of one part lime to three parts sand as directed.
15. CEMENT MORTAR shall be composed of one part cement to three parts of sand, mixed only as required for inmediate use.
16. CEMSMT CONCRETE - Two grades are to be used -
(a) Composed one part cemen't, two parts sand and lour parts $\frac{3}{4}$ " hard metal screenings (1 : 2 : 4)
(b) One part cement, three parts sand, three parts of "Bulldogn and two parts $\frac{3}{4}$ screenings ( 1 : 3 : 5)
17. MIXIKG - If mixed by hand, concrete is to be gauged and mixed dry on a timber platform, the mixture tumed over twice dry and twice after wetting without excess of water. If machine mixers are used methods of gauging satisfactory to the Architects are to be adopted.

Ram the concrete in large masses as directed.

## MASON, CONCRETOR \& LABOURER. <br> (See Preceding Clauses)

20. EXCAVATE for the foundation piers, beams, lift over-run pit and for the adjustment of levels to the extent shown or figured on drawings. Spread any surplus material on the University site after filling and grading has been completed. Excavate for storm water pipe drains shown.

Trenches and pits are to be teken out level and squere and free from loose earth. The excavation of all pier bottoms shall be completed and passed by the Architect before any concrete is tipped. in.
21. EJLIING - Fill in and ram round piers to level of beams or present ground Iine.
Fill in under solid floors shown on Ground Floor Plan and thoroughl consolidate without excess of water to the level required.

Provide and lay under these solid Rloors a $4^{11}$ lajer of hard stone spalls to approved sample or of $2^{\prime \prime}$ roadmetal. Similarly pack under floor and round sides of Elevator Pit.

Collect and bury well below surfece, all brick bats, broken tile etc.

Provide suitable clean filling for grading round the outer walls and ramping to carting Enbrance, as show, trimmed off to even fells and raked and rolled.
22. CLEAR THE SIME at completion of all debris and waste buildIng material to the satisfaction of the Architects, clearing existing water runs and filling ruts caused. by carting.

SCHUDUSE OF PRICES to be applied to extres or omissions of ties shown is ordered. by the Architects.

Excavation of Piers - and spreading spoil at per cub. yard.
Cement Concrete - $1: 3: 5$ mixture $n$ n $n$ "
Cement concrete - $1: 2: 4$ in in in in n

Pipe Drain - $4^{\text {n }}$ E.I. with wiped joints laid in $12^{\prime \prime}$ trench at per foot run.

Pipe Drain - $9^{n}$ E.V. as specified, Paragraph 10, laid in 3 ft. trench at per foot run.
24. BORMS for concrete are to remain in position as required by the Building Act and removai shall not take place until sanctioned by the Architects.

They are to be ixxed level, plumb and parallel, particularly where concrete is to be left as stripped.

Provide sufficient forms to erecute the whole of the floor slab of Reading Room at one time.

Stair forms are to have accurately cut strings so that the pitch and going are maintained.

Pier forms are to be full helght of storey, to be angle filleted and set back for eapitals.

Bean forms angle filletea where exposed.
25. REIHFORCEMENY - All steel specified shown or implied on
drawings for use in this contract shall be mild steel, uniform in section, free from rust, of ultimate temsile strength not less than 56,000 los. per sq. inch and of approved duetility. All steel rods are to be hooked at endes as shown to scale. Laps where permitted by the Arehitects are to be 40 diameters of rods in length, in beams and slabs, and 30 diameters in columns, such laps in columa steal to occur only at iloor levels. All welding will be prohibited except with the written sanction of the Architects. Rods are to be correctly placed in position and maintained therein, by wiring if required, while concrete is being filled in.

Concrete surrounding the rods shall be agitated during deposition with rammers or suitable tools so that there shall be no air space left between steel and concrete.

Allow excess water means of ezcape as directed.
26. GYPSUK TIIES - The floor slabs above ground are designed Ior the use of Immes Bell tiles as shown on Sheets Nos. 4, 8 \& 9. Provide the se to the extent and sizes indicated and set in position accurately.
27. CEMENY CONCREPE Where colouxed is indicated by Grey in elevaTion and Green in section.

Bxecute the whole of the refifforced conerete construction as generally shown or inplied on drawings and detailed on Sheets No. 4,8 意 9 providing the steel shown therein Pabricated to approval.

The concrete is to be $1: 2: 4$ mixture in all cases except the foundation piess exceeding 2 ft. square in section between the top level of spread footings and the underside of ground beams where $1: 3: 5$ mixture may be used.

Stoppage of concreting－Precautions ahall be taken to give contimuty of conoreting as far as possible beams or slabs may be stopped only at centre of span and the face shall in every case be vertical．

Resumption of concreting－The face of concrete at joints is To be bhoroughly cloaned，wetted and sconed and a thick grout of cement and sand 1 ： 1 ，ppured over it before new concrete is placed．

28．SET IN 211 bolts，wire ties，timbers，pipes，sleeves etc． when supplied by other trades，including Electrician with directions for accurate fixing．

BEAMS AITD BANDS AND IIMMOIS－Execute the following shown to咅 0 原

K．Along walls of Front，North and South Elevation．
Set forms to section shown on Sheet Mo．7．Erovide and set timber or metal sleeve for $9^{\prime \prime}$ 上 $6^{71}$ galva．cast iron air grid one over each window．Reiniorce with seven $\frac{1}{2} n$ rods，contin－ uous with lap and cross lap at angles．

I．Sundry vindow and other 1intols． Twenty－iwo Reading room windows，
$13 \frac{1}{2}{ }^{n} \times 9^{n}$ section with $13 \frac{1}{3^{n}}$ bearings．
Two $\frac{3}{2}^{\prime \prime}$ rods turned up $2^{\prime \prime}$ at ends．
Six－Administration windows and entrance．
$18^{\prime \prime}$ x $9^{\prime \prime}$ section with $13 \frac{1}{3}$＂bearings．
Whree $\frac{1}{2}{ }^{n}$ rods carried continuously through piers．
One－Administration entrance．
$18^{n} \times 13 \frac{1}{2}$ section with $13 \frac{1}{2}{ }^{n}$ beaxings．
Four $\frac{1}{2}{ }^{n}$ rods，two bent up at each end．
Six－Second Floor windows．
132＂$x 9^{\prime \prime}$ continuous bearing over piers．
Two $\frac{z^{n}}{}{ }^{n}$ rods turned at end．s．

M．Continuous top slab．
On Pedinent of Portico including the rakes of same， $a 11$ walls of Reading Room and North and South external walls of Administration $6 \frac{1}{2}{ }^{\prime \prime}$ deep by varied widths shown．

Form Por projection．

Reinforee with $\frac{3}{6} n$ rods three, five and six,
 cantilever rods in projecting portions at $9^{\prime \prime}$ pitch bent up and hooked at each end.
N. One Main Door Iintol, Sheet Mo. 7-

131 ${ }^{n}$ beaxing, $13 \frac{1}{3}{ }^{n}$ deep.
Tive $\frac{1}{z}$ rods turned up at ends.
0. Large Door Iintols - Sheet IIO. 7.

Cored out for architraves and prepared to receive running gear for sliding doors.

Construct itive of varying widths with equal span over doors to Reading room. One In $^{\prime \prime}$ rod for each $4 \frac{1}{2} n$ of wiath.
$\chi$ P. Horth and South Blevation of Reading Room - Sheet No. 6
 With two $\frac{1}{2}$ rods.
Q. Three Corings for Door Comices - Sheet Ho. 7

릉" bent rods at $9^{\prime \prime}$ pitch and $\frac{3}{6}$ " contimous rods.
R. Continuous beam surxounding Iight Well of Section

Three $\frac{1}{2}{ }^{n}$ rods crossed at angles.
S. Contimuous boam surrounding Elevator Tower -

Three $\frac{k^{2}}{}{ }^{n}$ rods crossed at angles.
T. Clerestorey over Reading Room - Sheet No. 6
 at ends in similar concrete.
V. Four openings to stair landings $416^{\circ}$ span and twenty-
two door and window openings of about 3 ft. span are to have 1 intols $133^{n}$ deep, $132^{\prime \prime}$ bearing reinforcea with one $\frac{1}{2^{\prime \prime}}$ rod for each $4 \frac{2}{2}{ }^{11}$ of wi.ath.

Any Iintols not elsewhere specified are to conform to this bype.
29. a. REMMFORGED COMGRSTE Ground floors, is specilied under Rlasterer with floor cinish.
30. BRICKS for all purposes are to be thoroughly hard burnt and evenly shaped machine pressed. Up to damp proof course levels all bricks used are to be double pressed shale brick using "Bests" where exposed.

For exposed elevational work ell bricks used axe to be dome kiln or superior Hofiman Kiln "Bests" machine pressed sound on edges and "speaially pickod" for colour and size to suit stretchez bond without cutting or disturbence of bond. Refer to iliguring Sheet No. 6.

The successful tenderer is to deposit with the Archi= teets a sample of each kind of bxick proposed for use.

The remainder of the bricins are to be not less than "seconds" in quality.

Houlded bricks for necking, bases, panels, sills and architraves are to be from stock patterns selected, straight and of quality snd texture uniform with the gumounding work. For the auchitrave surroundinc the twenty-two Reading Room windows a special brick shaped as in sketch is to be made to

31.


BUILD the walling coloured red on drawings in brickwork, using stratcher bond on external faces of front, Horth and South elevations. Build the pilasters without closers or as directed, el sewhere use kiglish bond.

Coring for cement - Set back the face brickwork for pressed comont capitals, ornament and bases. Cut coring outsailing for cormices, bases and other mouldings and for sunk jointing of ground storey.
ties spaced not more than 2 tt. apart and staggered in every fifth course.

Jointing and Mortar - Exposed brickwork of Tront, North and South elevabions arid Readers' Entrance is to be pointed in the cement with joints plushed and slightly sunk and polished with a jointer as the work proceeds.

The Festern Hevation cut and struck in the mortar used for building.

Internal faces of Ground. Floor and Elevator Sha ft are to be acourately set flushed up and bagged of 1 as the work proceeds and whitened towards completion with binding lime wash.

Except the two Lavatories raked out for Plasterer.
Rake out the joints for plasterer on First and Second Hloors.

Build soldier courses as ghown to be withdrawn for future floors of extension - Sheet No. 4.
32. WORK IN CMENT - Build the following work in cement mortar.
(a) The Damp Eroof Course and brickwork up to it.
(b) All arches and relieving arches and casings of concerete lintols.
(c) All $4 \frac{1}{3^{n}}$ walling and the piers of second Floor.
(a) Chimneys above roof line.
(e) All sills, outsailing cored courses and parapets above roof flashings and the three top courses of all other walls.
(f) The toothing at four angles for junetioning to future work.
(g) The Elevational brickwork of Front, North and South Elevations at least $4 \frac{1}{2}$ " on the bed.

Wote that a 4 $\frac{1}{2}$ " cavity may be left in all $14^{\prime \prime}$ walling of Reading Room.
(h) The walling of Strongroom.
33. DAMP PROOF COURSE - Provide and lay on all walls on the concrete or near ground line as directed an intercepting course of Adelaide Pottery Cols $9^{n} \times 6^{n} \times 3^{n}$ perforated glazed tiles. Set with clean open joints glazed side outwards and arrange to exclude mice.

GLAZED EARTHENWARE DOWMPIPES - Supply sound tested $4^{\prime \prime}$ pipe With bends and build in to the walls ten stacks of pipe with joints set with pitch and surrounded Fith cement. Keep covered to exclude droppings as the work rises. Two stacks $x$ ise to box gutter of Attic Storey.

At the foot of the five stacks delivering in a Northernly direction build hard brick cemented catchpits large enough to take $10^{\prime \prime}$ square cast gratings and suppiy same dipped in tar thimed with zerosene. Connect these pits as shown on Ground Plan with $4^{\prime \prime}$ and $6^{\prime \prime} \mathbb{E}$.W. pipe arain to previousiy specified pit. Lay to proper falls with carefully wiped joints bedded. on cement concrete.

Carry away irom the other five with $18^{\prime \prime}$ cement concret spoon drain averaging $6^{\prime \prime}$ thick fined off with 1 to 1 cement and cast with clean edges between boards.

Form two cementeả catchpits with cast gratings and. comnect to storm water drain.

Comnect the feet of two R.W. pipes from Light Court at Ground Floor level to the above drain with $4^{\prime \prime}$ and $6^{\prime \prime} p i p e$ with wiped joints and sockets completely surrounded externoily with 1 : 3 : 5 concrete.

Inspections: Provide and set Plush with Rloor two I.P. bends with cemented covers. Externally provide three other I.Ps, with upcasts and cemented covers.

AIR PASSAGE AND GRIDS - Under the sill of every window and - elscwnere in Ground Storey near ground line form a rising air passage at least $9^{71} \times 4 \frac{11}{17}$ connecting with the cavity where such occurs.

Provide and build in 36 Simps on's galvd. Wrot iron. grids $9^{n} \times 9^{n}$ square and plumb and flush with finished face and internally 36 heavy cast "Hit and Miss" vent fronts at least $12^{\prime \prime}$ x $9^{\prime \prime}$ over 2.11 .

Provide 36 gelvd. cast ixom $9^{\prime \prime}$ x $6^{\prime \prime}$ air grids rePerred to under Paragraph 27 K . and set in comection with concrete band with rising passage, Sheet $\mathbb{H o} .7$ or as directed elsevhere. Provide and set 14 Tunderlich $9^{\prime \prime}$ x $6^{\prime \prime}$ Terra Cotta vent fronts.

In internal walls of Ground Storey form where directed 12 rising passages. Provide and build in 24 gelvd. cast $9^{\prime \prime} \times 6^{\prime \prime}$ air grids.

Provide and buile into Strongroom walls two $4^{n}$ I. W. pipe quarter bends, one near floor and one near ceiling.

Reading Room - Just above Bookcase on either side of each pier leave bwo inlet openings, $13 \frac{1}{2}$ " $9^{\prime \prime}$ or as directed comected with ising passages from external vents (Plasterer) 56 in all.

In upper cornice form 32 rising passages leading to cross passages. Provide and build in under roof and in Light Well 36 wrot gal va. $9^{11}$ x $9^{\prime \prime}$ Simp son's grid.s.

IIght We11 of Administration - In comnection with the cavity wall Iomn wielve double opemings $9^{n}$ 天 $6^{n}$, provide and build in 12 Wunderlich T.C. giids externally.

In Western wall near ceiling levels of First and Second Floors form 24 rising passages $9^{\prime \prime}$ ₹ $4 \frac{1}{2 \prime \prime}$, provide and buill in 24 Wunderlich T.C. grids.
36. CHIMIEYS FLUES ETC. - Corbel out from two points on Ground
rioor añ carry up $14^{n}$ x $9^{\prime \prime}$ and $9^{n} \times 9^{n}$ ilues surrounded in $9^{\prime \prime}$ brickwork and parged with ha ir mortar for their full height. Build the breast and jambs shown on Pirst Floor one side forming raised hearth, back hearth, tiled back, splayed jambs, straight arch and bull nosed margins to detail all in $2^{\prime \prime}$ brown glazed brick, Adelaide Pottery Co. set with flushed. joints pressed. in coloured mortar or cement.

Provide and build in a $2^{n} x \frac{11}{6}$ bar over the aroh with ends turned down $6^{\prime \prime}$.

Carry up the stacks gathering in $9^{n} \times 9^{n \prime}$ air flues as directed from Reading Room and Second Floor ceiling, and form eross passages with double outhets for plasterer to finish.
37. ARCHES - Turn eighteen segmental and the semi arch of Reading Room in two $4 \frac{11}{n}$ rings upon stout braced and batten. ed centring. Core out for Plaster archivolt; also the two oval rings of Attic and the eye of Pediment.

Set upon strutted ioms straight soldier arches in brickwork to all external openings shown in finished brickwork in connection with concrete lintols with 4 $\frac{1}{2}$ reveal.

Encase the two intols over Reader's Entrance to detail, in brickworls set on forms before the inntol is cast with slightly panelled soffit with moulded brick pilester caps contimed as a cornice as shown.
38. MURRAY BRIDGE MREESTONE - Provide the sum, P.C. of Twelve Hunared Pounds ( 81200.0 .0 ) nto be expended by the Architects under a separate contract for working and setting the Four Columas of Portico with their caps and bases, and the steps, wing well, capings and facings of same.

Provide the P.C. sum of Twenty Pounds ( 220.0 .0 ) in addition for a Foundation Stone and Inscription, and clear the surrounding area for the ceremony of laying same, with suitable tacke dtc.

Protect the freestone during the periormance of this Contract with angle boards, and cover battens and exclude the public from access to same.
39. MMMPARO STATE is to hold the full dimensions specified, to rube on all faces and edges aawn square and parellel and set level in lime mortar.

Twenty window sills $21^{\prime \prime} \times 78^{\prime \prime} \times 2^{\prime \prime}$ with front upper edge slightly chamfered. Set in lime mortar into pockets of jambs and under steel window frames. Two simi1ar $26^{\prime \prime} \times 78^{\prime \prime} \times 2^{\prime \prime}$.

Four thresholds to doors of Ground Floor are to be $2^{\prime \prime}$ with single splay nosing returned. at ends and holes for stubs of frames.

Five steps for Ilevator Shaft Doors are to be liz squere holec Ior stubs of frame and for centre bolt.

Twenty templates $24^{n \prime} \times 12^{n} \times 2^{\prime \prime}$ with sawn beds for bearing of Principels.
40. AMGASTON MARBIE - The steps of Readers' Entrance with thres-
hold of doors and slips surrounding recesses for scrapers and mat as shown, are to be $2^{\text {m }}$ mbbed Angaston, splayed on upper edge of nosings and returned, in some oeses. The risers are to be 11 secured at top and bottom $W$ ith $\frac{1}{5}$ copper dowels. Set accurately in mortar to slight weathering in single lengths. Joint etc. to perieot finish.

Clean off all slate and maxble at completion with spirits of Salts.
41. COLUN SKIRTINGS - Sheets IVos. 5 \& 7. - Provide and fix marbie skirtings as shown to detail, all round 20 colums, 28 wall piers on one side and two angles, and 4 comer piers one angle only. Subject to slight modification near three entronces and central Platform. The marble is to be polished P1nk Nacclesfield $10^{\prime \prime} x \frac{7}{6}^{\prime \prime}$ finished. with bull nosed angles and roper edges, close jointed and bedded in tinted plester of Paris with 2 brass dowels to each joint. Each column base is to be formed from matched pieces. Extend to form skirting blocks on each side of Portico entrance.
42. STRONG ROON DOOR - Provide the P.C. sum of Thirty-iour Pounds four shillings ( 234.4 .0 ) for the purchase of a No. 2 door, $74^{\prime \prime} \times 31^{\prime \prime}$ opening, and have built in by experienced artisans with approved holding lugs, as the work proceeds, keeping locked until thoroughly set.
43. WROT IRON STAIR HA IDRAILS - Fron Ground Ploor to top Ianding Junctioning with Elevator Shaft, and 14 ft . of Landing Rail. Small stair fron Ground to First Floor With return on two sides of top landing.

Provide and ifx a wrot, iron balustrade for elights and landings with $2 \frac{1}{2} n$ tyre iron continuous tail tapped and countersunk to receive screws, to the top of a baluster every second tread and slotted. below in other cases. Form and set up for approval in position with the curved sets and ramps at angle accurately amranged. Halve and rivet at junctions and secure at wall ends rigidly and neatly.

Balusters are to be su square with shouldered tops prepered to receive small cast moulded stock pattern blocks. The lower ends of balusters are to be forged with eyes for attachment by bolts to the sides of concrete string.

Supply a pitch rod and bolts to Concretor. Finish the handrail at open ends (three) upon a special stock pattern $2^{\prime \prime}$ cast iron, chaped newel with footplate rigidly bolted to tread. Form a ramp in hanarail and a scroll end, or othersise 11t over the newel with a polished cast ball top, threaded on. Attach one open end of landing rail to fixed Wooden book case.

Paint one coat at the foundry after pemoving any sust.
44. STEEL WIMDOWI FRAIES. - Provide the P.C. sum of One Thousand One Hundred and Fifty Pounds सett (21150.0.0) to be expended by the Architects in the supply of 105 steel irames, and build in accurately. Protect from injury.
45. TRERRAZZO PAVIIGG. - Provide the P.C. Sum of Thirty Pounds (230.0.0) to be expended by the Architects in laying Moor Pinish to Portico.

SUNDRTES. - Provide and set in jambs of Stack Room openings three pairs of wrot. iron swallow tail gudgeons with $\frac{3}{8}$ pins for future doors.

Chases. Cut or leave chases, checks and openings for pipes where sequired.

Point over elashings in cement.
Hair Mortar. Supply coloured halr mortar for Roof Tiler"
iron ties Solid Trames Build in with $13 \frac{1}{n^{n}} \times 2^{n}$ galva. hoop
Build in bolts, ties, straps, etc. supplied by कther trades with directions for aqcurate fixing.

$$
\begin{aligned}
& \frac{\text { CARPMMTER \& JOINER. }}{\text { (See Prelininary. Clauses) }} \\
& \text { 50. TIUBERS. AYl timbers for use in this contract are to be of } \\
& \text { gum veins ore loost procurable seasoned, free froms. sip, shakes, it to hold the specified dimen- } \\
& \text { Slons less the trade allowance for working, unless otherwise }
\end{aligned}
$$ stated.

Roofing timbers are to be of Oregon, and Internal Joinery of Yellow Pine, unless otherwise specified.
51. WROUGHP WORK. A.1 timbers exposed to view are to be wrot. and finished by hand, and timber intended for paint is to be primed before being fixed.

Solid frames are to be machined and primed on faces out of sight.
52. ROOPS. Construet ss shown eigured or implied on drawings, and as follows. Work shown on drawings is to be included whether specified herein or not.

Reading Room. Ten Principal Trusses, two of lower pltch at ends are to be iramed. in the best manner, and fitted. with the following Smith's work.
$\frac{7}{3}^{n}$ King Bolt with $4^{n} \times 4^{n} \times \frac{3}{8} n$ plate washer and $3^{n}$ $x$ 骨 forged headstrap secured with four 글 bolts, and four $5^{\prime \prime}$ coach screws.

Two $\frac{3}{4 n}$ queen Bolts, Two $\frac{2}{3}$ Princess Bolts, Two $\frac{2}{5} n$ Heel Bolts each with $\frac{3}{8}$ plate washer and cast fapered washers cogged in, but without otherwise cutting the timbers. Cupply Standard nuts throughout.

Ridge. $9^{n} \times \sum^{n}$ n bracketted up from trusses.
Puxlins. $8^{n} \times 3^{n}$ angle blocked, the lowest row twice strutted in each bey with $6^{\prime \prime} \times 3^{\prime \prime}$ from wall plates.

Common Rafters. $4^{1 n} \times 2^{\prime \prime}$ at 2 ft. centres with similar verical struss at wall line, and seating pieces, all spiked together and elinched.

Three Plates each 4 In $^{n}$ x $1 \frac{2}{2} n$ with similar gutter plate on edge, Ureated all ower with Creosote before fixing.

Supply to Mason, with template for building in, $18^{\mathrm{n}} \mathrm{z} \frac{t^{\prime \prime}}{}$ bolts with muts and plate washers at $5110 \frac{z^{\prime \prime}}{\prime \prime}$ centres, 2 to each bay to hold plate.

Hips $12^{n}$ = $2^{n}$ framed at foot to dragon ties back strutted.

Valleys $11^{\prime \prime} \times 2^{\prime \prime}$ framed to seating pieces and blocked of prinoipals with $7^{n} \times 1^{n}$ valley boards, housed to rafters.

Trough Gutters. Block up Irom the feet of rafter and line with 11 boardings woriking an $1 \frac{1}{2}$ " $1 a 11$ to outlet and trim for hopper.

Weres - Section A.A. Sheet Ho. 6. Torm triangles
 before. Anchor by means of a plate secured with twelve $9^{n} x \frac{1}{2}^{n}$ bolts about 6 ft. centres. Trim for piers and form hips.

Pediment Gutter. Provide and Pix gutter plate with twelve $\frac{1}{2}$ bolts somewhat as shown, Sheet 7. Buila in ridge and purilns supplying $2^{n} x$ s $3^{n}$ anchor irons 3 ft. long turned up at ends and fixed to each timber with three $4^{4 \prime}$ coach screws.

Trim for five roof lights using $3^{n \prime}$ timbers. Jine with $6^{\prime \prime} x$ I'N $^{\prime \prime}$ to clear tiles and put $7^{\prime \prime} \times 1 \frac{1}{4}$ guttex board at back. Form light well through the roof as specified for Domers.

Dormezs. Trim for six dormers and for eighteen vent gable ts and construct the fomer as shown to $\frac{2}{2}$ scale with solid Irame and $9^{\prime \prime} \times 2^{\prime \prime}$ double grooved and canted jarrah sill and fix steel frames supplied under llason, with back stops. Surround with morided architraves and put cornice with bed moulds, fascia and solfit all of Red pine continued. to pitch of pediment. Enclose the raking bottom, the sides and back roof and ceil with $4^{n} \times 2^{11}$ timbers at $18^{\prime \prime}$ centres.
 boarding and iix creeping cleats. Trim for and hang $1 \frac{1}{2}$ " Pramed trap door filled with 3 ply and provide butts and baxrel bolt.

Trim for air outlet in ceiling and fill with $\frac{3}{g}$ galvd. mesh soldered to galvd. wire frame.

Ine the two spandril sides of studs above roof line with $\frac{7}{8}$ T. A $G$. boarding to carry iron. The inside is to be lined by Fibrous Plasterer.

Pascia. Solfit and mould (Sheet 6) about 40 et. run of this.

CEIIINGS. Aisles of Reading Room - $4 \frac{1}{2 \prime \prime} \times 2^{\prime \prime}$ joists at $18^{n}$ centres hung to $9^{\pi} x$ In ${ }^{\prime \prime}$ binder with $2^{\prime \prime}$ diagonal fillets.

Three $6^{n} x \frac{7}{3}^{n}$ boards for walking way, canted pieces and plate $3^{\prime \prime}$ x $2^{n \prime}$ (Section Sheet 7) over every cross beam.

Centre of Reading Room - Between each principal put 8 pairs OT $4{ }^{2} \bar{x}$ 2"Jolstspit ched and skew nailed to $7^{\prime \prime}$ x $1 \frac{1}{2}$ n ridge and checiced at foot over a $4 \frac{1}{2}$ " $x 2^{n}$ plate. Supply to Concretor 66 bolts $9^{\prime \prime} \pi^{\frac{1}{2}}{ }^{n}$ with template for building in to secure same. Ieave passage for central vent tribe.

Hang each joist with $3^{\prime \prime}$ r $3^{\prime \prime}$ angle fillets from six rows of $11^{\prime \prime}$ x $1 \frac{1}{2}$ " binders and block as show on Sheet 6 , extending the angle fillets to carry $4 \frac{17}{\prime \prime} x 2^{n}$ cross joists, four rows in all.

Between each groin of plaster ceiling put one $4 \frac{1}{2 \prime \prime} \times 2^{\prime \prime}$ canted joist spiked to tie beam and seated in pocket lest in brickwork．Arrange with Hason to leave pockets for timbers．

54．ROOF OF ADMINISTRATION－Sheet TO． 1 －Ends per tiy for iron and biles．Rafters for tiles as before with similar external eaves construction．Valleys as before． For each of these pitches provide three trussed principals with $6^{\prime \prime} \times 3^{n}$ refters and collars Iramed together with $3^{\prime \prime}$ King bolt with $2^{n} \times \mathrm{s}^{\prime \prime}$ forged heed strap $28^{\prime \prime}$ long secured with two $\frac{1}{2}$＂bolts and two $5^{n}$ coach screws，mats and platewashers． Unite the collars to rafters with $2^{n} x \frac{a^{\prime \prime}}{8}$ cogged strap ties with long forged 3n bolt ends bored through rafter and fitted With cast tapered washers and nuts．

Prepare each strap and fix to collar with two $\frac{1}{2} n$ bolts and one $5^{\prime \prime}$ coach screw．


Purlins $6^{\prime \prime}$＊ $3^{\prime \prime}$ angle blocked．
Ridge $11^{n \prime} \times 1$ 弐＂built in at ends and blocked．from principals with $2^{" 1}$ brackets．

Feet of rafters to seat upon cross tirber as el se－ where shown for eaves and upon $4 \frac{11}{11} \times 2^{\prime \prime}$ plates on internal walls blocked up as shown．

Ceil these roors with $4^{\prime \prime}$ I $2^{\prime \prime}$ joists at 2 ft． centres pitched egainst a $4^{n} \times 2^{n}$ ridge resting on the tie beams and spiked to eaves timbers．Hang with $2^{\prime \prime}$ duagonal fillets to $11^{\prime \prime}$ z 1 $_{4}^{\prime \prime}$ binders．

The remainder of the roof shown for iron is to be of collar tie construetion where possible and the lean to rapters strutted．（Sheet 5）timbers are to be as follows：－Ridges $9^{\prime \prime} x 1^{11}$ ，Hip and valleys $211^{\prime \prime} x 2^{\prime \prime}$ with $7^{\prime \prime} x 1^{\prime \prime}$ valley boards and stiffening battens．Raiters and collars，celling joists $5^{\frac{21}{\prime \prime}} x^{1211}$ spiked together，Battens for iron $3^{\prime \prime} \times 2^{\prime \prime}$ 。 Binders $11^{\prime \prime} \times 1 \frac{1}{4}$ with $2^{\prime \prime}$ angle fillets at every crossing．

Wall plates and pitching pieces $4 \frac{12}{}{ }^{n \prime} \times 2^{n}$ ．
Fascias $9^{\prime \prime} \times 1 \frac{12}{2 n}$ or red pine．
Trim for chimneys and form intersections with tiled． pitches．

Fom rising trough gutters of $T$ section with 17 ＂ boarding seated on the rafters and blocked between at 2 It． centres．

Provide and supply to Mason for building in Forty $12^{\text {＂}} x$ 青＂bolts for attachment of plates etc．

Arrange ceiling joists to suit Plasterer＇s battens．
55. ELEVATOR SHAFT ROOF－ $4 \frac{1}{2}$＂ $2^{n}$ rafters for tiles at 2 2t．
centres with shaped but unwrot．ends， $9^{n} \pm 2^{n}$ hips framed to a $4^{\prime \prime} \times 4^{\prime \prime}$ upright and secured with two $\frac{h_{3}}{}{ }^{\prime \prime}$ bolts to
$6^{\prime \prime} \times 2^{\prime \prime}$ collars also bolted to upsight, $4 \frac{1}{2 n} \times 2^{\prime \prime}$ wall plate secured with fourteen $12^{\prime \prime} x^{\frac{1}{2}}$ " bolts supplied to Concretor to set in. Provide seating for hips from a diagonal plate or as arranged. Outer fascia $7^{\prime \prime}$ x $1 \frac{1}{2}{ }^{\prime \prime}$ unwrot, Red ine.


OAK JOIMERY for doors frames and skintings of Reading Room and Corridor including Entronces on First Floor Plan, is to be selected Seasoned European or Manchurian Oak. It is to be ordered within one month of signature of contract, cut to sizes, stacked and stripped.

It is to be finished with the scraper for wax polish and all suriace fixings and tenons and wedges concealed with plugs let in to suit grain and cleaned off. Moulds and finish to fall size details.

Solid franes of jarrah may be built in and Ined with $1^{\prime \prime}$ moulded stops of Oak by arrangement. Harg, a.ll doors with three hinges with loose pin.
57. PORTICO EMERANCE DOORS - The outer sliding doors ame to be out of $3^{\prime \prime}$ WHth $9^{n}$ bottom reil and 7 青 ${ }^{n}$ styles and head. a.11 sunk as shown to line with rails out of $4 \frac{11}{21}$ x $2 \frac{1}{2}$. . Rebate and bead the meeting styles.

Provide the sum of Fifty-three Pounds (253.0.0) P.C. for hammered metal panels and fix with screws supplied. Groove for and fit back panels of $\frac{5}{5}$, ouk Plywood. Hang with wilcox hangers and track so as to allow of removal if required and earry the track upon $4^{11}$ 天 $3^{\prime \prime}$ hardwood lintol supplied to Conoretor with six $12^{n}$ I $\frac{1}{8}^{\prime \prime}$ bolts for builaing in. Frame to 4 "n $3^{n} 3^{n}$ uprights built into the cavity with sole plates fitted
 jarmah built in with galva. stubs to stone sill and cover with $5^{n}$ x $1^{\prime \prime}$ ovolo moulded oak linings scribed to doors and fixed. with round headed serews at $9^{\prime \prime}$ centres.

Put similar back Iinings tongued to imer door frame and fixed to plugs so as to be removeable for access to munning gear.

Groove the bottom rails for bar guides and line the groove with 24 gauge gelva. iron.

Lock each door from the inside lining with a padbolt and. staple with metal socket let into door style. Fix sunk xing pulls let in flush.

The imer pair doors are to be $2^{\prime \prime}$ Iinished with $6^{\prime \prime}$ rounded styles and $11^{" 1}$ bottom rail rebated and ovolo moulded on the solid and with $2^{\prime \prime}$ glazing bars and quadrant beads for glass. Provide similar hinged sashes over with beaded meeting styles and hang both sets to $4 \frac{1}{\prime \prime}^{\prime \prime} x 3^{\prime \prime}$ oak ixame fitted with galvd. stubs to sill and with double movided built up transome $6^{n}$ x $4^{n \prime}$ rebated and sunk.
58. FOUR OPENTMGS TO RBADIMG ROOM AND CORRIDOR are to be similar to the last in gencral, with the following additional items -

Fromes are to be $5^{\prime \prime}$ and set plush with cement or plastes. Surround an one side with $7^{\prime \prime}$ x $2^{\prime \prime}$ moulded arehitrave on 2z" shaped blocks.

One pair of doors is to have transome fixed so as to hinge with upper sashes to allow passage for ladder. Bevel joint.

In three cases ifx hardware as before including stays and fastenings of upper sashes.

One pair of doors is intended to cover Electric Switchboard and to be huag on comeldor side blocked out to suit. Include $3^{\prime \prime}$ back Iinings behind architraves.

LIBRARIANIS DOOR - 3 fit. wide with moulded transome and
hinged transome licht is to be surrounded on corridor side with $1 \frac{1}{2}{ }^{n}$ panelled and $\frac{7 n}{6}$ solid double jamb linings to meet architraves of size similar to the foregoing.

Surcound internally with $7^{11} \times 2^{\prime \prime}$ arehitraves on blocks. Rebate and tongue the jamb and face Inings and. work a bullnose on salient angles. Estimate for 13 panels.

Tix mortice lock and furniture, night latch, fan opener and 3 hinges.
60. READERS : ENTRANGE - Pair 22" doors (Sheet No. 1) with
rounded meeting atyles to open outwards with Vacuum closers otherwise to carespond with preceding. सang to double freme $5^{\prime \prime}$ x $4^{\text {n }}$ with double transome built up with sinflar mouldings. Rebate, bead and mould on all angles with hand. worked stops to detail and eitted with gal va. or brass stabs to marble sil2.

Pxovide fixed side and top sashes for glass and hang fanlight with panes as shown.
pix pulls, plates, closers, four bolts and eanlight opener. Let plates of bolts into marble sill to appror al.
61. SKIRT the Comidor with $9^{n} \mathrm{x}$ 2lan $^{n \prime}$ Oaix moulded to detail accurately mitred and tomgned at angles secured to soldiers and plugs at $18^{\prime \prime}$ centres and grooved against cuxl. House to door blocks and frames.
62. SCREENS A \& B - First Floor - Sheet No. 2 - Doors to be
 glass panel. Provide $4^{\prime \prime}$ butts and hang 3 to each door. Fix mortice locks and fuxniture.

The underiramings are to be $1 \frac{3}{2}$ double moulded. Fix to $4 \frac{1}{2}$ " $x 3^{\text {" }}$ rebated and moulded iraming with beads for gla zing, long stribs for fixing to concrete and. $\frac{3}{8}$ bolts supplied to Concretor to set into piers. Surround against floor walls and piers with small quadrant stops. Round off the edges of transomes.
63. TOUR EXTERIVAL DOORS - Sheet 130.1 - Two with double style to irame and sidelights.
These are to be $2^{\prime \prime}$ bead and butt and moulded out of Baltic Deal with panels of Red. Pine hung with three $4^{n}$ butts to $4^{\prime \prime}$. I $3^{\prime \prime}$ rebated ovolo jarrah frames fitted with stubs to slate sills. Sumpound internally with $3^{\prime \prime} \pi \frac{7}{6}^{\prime \prime}$ bullnosed stops. Fix mortice locks and furntture and holding back hooks to wall plugs.

Provide $1 \frac{1}{}$ " rebeted glazing bars to three doors and three side Iights.

Buffer Plates - Provide and fix with six $18^{n}$ x 曹 bolts supplied to lason for building in, two $4 \frac{1}{2}$ " $\times 3^{\prime \prime}$ wrot chamfered jarrah plates, counter sunk for the muts.
64. FIVE IIPEREAI DOORS - Gpound Floor - Three to be 13n,
$2110^{n}$ x $616^{n}$
$2: 6^{\prime \prime}$
(about)
Pwo $12^{n} \times 2^{n} \times 616^{n}$ squere panelled but with arrises removed. Provide, and hang with three $4^{\prime \prime}$ butts to $1 \frac{11}{}{ }^{14}$ solid linings with $8_{8}^{\prime \prime}$ stops or skeleton lining where applicable. Surround botin sides with $3^{n}$ bullnosed stops.

Fix locks and furniture or plates, pulls and latches.
65. TRAP DOORS - One to space below Portico. Rwo Prom stair - well Into and above roos and one to Reading Room Ceiling, Sheet 1 .

Provide and hang to open as directed with $4^{11}$ butts
 ed, grooved and in one case fitted with $1 \frac{1}{2}$ iron drift's top. Eix pimlocks.

The three former are to be $2^{2111}$ franed and braced as directed, reauced for and illled with $3 \frac{1}{2}^{11}$ x $\frac{7}{8}^{n}$ I $G$ and $V$ jointed Red Pine boarding. Joint the frame to match. The latter $1 \frac{1}{2}$ " two panel monided and square surrounded with bullnosed stops.
66. TWO DOORS - Second Floor - $710^{\prime \prime} \times 313^{\prime \prime}$ x $13^{n}$ n six panelled With three selected seasoned Pacific laple double moulded hung and suriou $4^{n \prime}$ butts to $\frac{1}{2}{ }^{n}$ skeleton linings with ${ }^{\prime \prime}$ " stops tapered blocks. Fix moritice locks, plates and iurniture.
67. HARDWARE for doors and sashes - Provide the P.C. sum of Minety Pounds ( 290.0 .0 ) for the purchase by the Architects of locks, fastenaings, openers, closers and stays.

JOIMERY, ROOI NO. 3 - Sheet NO. 3-Pacific Maple. Surround With $9^{\prime \prime} 2^{\prime \prime}$ moulded skirting to plugs at $18^{\prime \prime}$ centres and mitred and tongued. in the best maner. House to b10cks.

Windows - Surround three with $7^{\prime \prime}$ * $^{2 n}$ moulded architrave with centres and tenoned to lan rounded windom bard. Tix latter to cleats secured. to expanding plugs at $18^{\prime \prime}$ centres and fit $2^{n}$ bed mould below returned at ends.

Mantel and Jamb Lining - Line the returns of jambs above skirting with ly pancling chamfered on the solid and fixed to plugs. Finish on top with an lath $^{1 / n}$ movided eapping with $1 \frac{1}{2}$ " bed moulding. Rebate tongue and mould the angles with breast and extend the panelling as shown. Surround the fireplace with $7^{\prime \prime} \times 2^{n}$ architrave on tapered blocks. Put $8^{n}$ z $1 \frac{11}{4}$ " moulded shelf with retarns and bed mould to detail.

Further panelling indicated is not included.
69. LADDER AND MCAMHOLES - Sheet HO. 5 - Provide two $4^{n \prime} x^{11}$
jarran nanhole frames 4 ft. x 2 ftl and supply to Concretor with four bolts for setting in. Line with 긍" and sumpound at ceiling line with chamered. stops.

Provide ant hang with jepanned. Thinges a ledged and boarded cover to one or these and fix a ring pull.

Construct a wrot ladder with 1 ln rounded hardwood rungs and ditto styles about 3 den $^{n} \times 2$ 2 $^{n}$ Iinished. Fix with plate to floor and to manhole freming.
70. DELIVERY RIATPORN - Sheet $2-12^{n}$ high. Construct wi th

万" plers and to angles supported on three rows of cross bearers and line with $6^{\text {in }} x \frac{7}{6}^{\prime \prime}$ Balbic T \& $Q$ flooxing dogged up and bwice na $2 l e a$.

Trin for and fix three sets of $1 \frac{1}{4}$ " tread and two $1^{\prime \prime}$ risers with top nosing, all of imported oak with rounded nosings and scotia properiy tongued, glued, blocked and bracketted in the best mamer.

Finish with boarded $x$ iser and similar nosing and scotia on the delivery side only, the Reading Room risers to be completed in comnection with Fittings Contrect.
7. HAT RAILS - In each Lavatory provide and fix 6 it. run of $4^{n}$ x $I^{\prime \prime}$ chamfered rail together with one dozen hangers of P.C. value Twenty shillings (20/-).
72. LOWEL ROELERS - Provide and fix two of superior iinish with back boards.
74. DRIP BOARD - Fit up beside one sink on 12" Kauri top housed over flange of sink and, packed with white lead and oil. Groove eight times irom nothing to hall inch. Support upon $3^{n} x$ 2 $\frac{1}{3 n}$ chamfered well rails on two aides and scribe $4^{n}$. x $\frac{7}{8}{ }^{n}$ chamfered skirting over all fixed to plugs.

Stiffen the board eron below with two $3^{n}$ x lag cleat rails rebated for small drawer on hardwood runners with dove tailed Kauri front and shaped wood pull.
75. CORRIDOR CEIEIMG JOISTS - Provide and fix for Plasterer is
batbens 41" $2^{n}$ Oregon joists at 2 ft. centres over Corridor. Support at each end upon $4^{\prime \prime} \mathrm{x}^{2 \prime}$ plates secured at 4 ft. centres with $12^{\prime \prime} x$ $\frac{1}{n^{\prime \prime}}$ bolts, and hang each joist with Inn $^{14}$ galvd. hoop iron from a $4^{n} \times 2^{n}$ plate secured with similer bolts to concrete slab.

Supply to Concretor and. Mason with template for builaing in 27 bolts.
76. CORNICE PLATE - Reading Room - round central space. Provide centres. Supply 56 bolts to Mason to build in at this level.
77. FOUR OVAI FRAITD JIGHTS shown for timber are intended for steel uncer Hason.

TIIE ROOF - Provide the P.C. sum of Pive Hundred and PiPty Pounds (e550.0.0) for tiling the roofing coloured red on drewings with tiles of Marseilles pattern, equal in quality to a sample approved by Architects. This price includes providing and fixing $2^{\prime \prime} \times 1^{* \prime}$ full cut battens and wiring every tile with Mo, 18 gauge copper wire where possible; elsewhere they are to be screwed. In addition to hip and ridge tiles with apex and terminal tiles, include the Elevator Shapt roof with foux stock pattem tile vents and the cornice tilint, shown on Sheet INo. 6. lights. Coloured hair mortar is provided under Mason.

Provide and wire as before 80 glass tiles for slyy-
80. BAVES GUMTERS - Provide and line the Main eaves of tiled root and the rakes of Portico with Simpson's pattern $6^{n \prime} 0 . G$ gitter $4^{n \prime}$ high at back of $1 \frac{1}{4}$ Ib. copper. Fix with $1^{\prime \prime}$ straps rivettea and sweated with soft solder to front roll at 3 ft . centres and turned over fascia secured with copper nails.

Rivet and double solder the functions, and lorm the mitres with the rake of pediment as dixected.

Form outlets of the same copper to deliver into eight earthenware downpipes with $4^{n}$ circular sleeves and $4^{n}$ x $3^{n}$ rectangular cross tubes pivetted and sweated with $4^{n}$ brass inspection screwed cap and socket.

To each gutter outlet put a swinging bird gate of heavy copper wires. Allow play for contraction.

The Elevator roof gutters of copper as above are to be connected to one $4^{\prime \prime}$ copper downpipe delivering with shoe over leanto clear of the iron, with copper straps and swinging gate.

The eaves gutbers of Iron Roof round Iight Well are to be $6^{\prime \prime} 0 . G$. of 24 gauge galva. iron with straps at 3 it. centres, fixed to back of Iascia. All joints to have 3 tinned. rivets and to be well soldered both sides. Gusset strap ongles, allow play for contraction and put 24 geuge shaped splash plates.

Comect the four angles with 24 gauge $4^{n}$ circular piping with approved straps. Two of these carried raking alons walls to junction with the other clear of the conerete gutber. Joints and scams corefully soldered.

Supply to Concretor to set into forms $4^{n}$ No. 20 gauge galvd. iron pipe with joints and seams carefully soldered, and connect at Ground Floor slab level in a watertight marmer to the $4 n$ I.W.P. laid by Mason under Iloor. The upper end of these pipes to be connected in water tight menner to a $6^{n} \times 6^{n}$ box with sleeve and sides carried up the wall faces as a llashing. Fix domed guards of $\frac{\text { gill mesh galva. nettim }}{\text { gin }}$

SLX DORMER GUTMERS, ETC. - Iine the side eaves and raking Fronts or these with $4^{\prime \prime}$ O.G. gutter of 24 genge galva. iron with joints and straps as before and connect from back of gutter with two $3^{\prime \prime}$ spreadersmeth set shoe and strap to deliver over tiles.

Ine the two spendril sides of Dormers with Wunderlich fish scale Zinc sheets, 2 It. sheets lapped and cut to suit the scal es and turned sound angle of front and under timbers. Fill the gable end with 24 gauge sheet, perforated as shown and filled with stamped Zinc grating to approved pattern, rivetted and soldered between the sheet and a blocked roil edging.

Secure behind timbers and dress forward in one piece to ilash comice with edge tumed over and close nailed.

Hlash over the jaxreh sills and under steel frame with 5 lb. lead, dress up and tack behind architrave and zinc linings. One wide flashing dressing over tiles. Flash the raking sides with 5 Ib . lead about $10^{\prime \prime}$ wide dressed onto tiles. Lap the flashings at angles $4^{\prime \prime}$.
82. VAJIEYS - in Iron and Tile Roofs are to be of 24 geuge galva. iron $18^{\prime \prime}$ wide, with edges turned up. Joints dable soldered and rivetted. 5 times. Leave as free as possible, hanging near the top and covering with a saddle 11 ashing.

The valleys of dormers to be $12^{n}$ metal.
83. BOX OR TROUGH GUTYERS are to be lined with 24 geuge galvd. irom jointed etc, as for valleys, but with rivets more mumerous in proportion. Form $4^{\prime \prime}$ circular outlets with hoppers leading to two $\mathbb{E}$.W.I. downpipes built in to Attic walls.

Attic gutter is to have $3^{\prime \prime}$ effective depth at the highest levels.

The troughs in iron roofing are to be of $V$ section increasing in width as they rise to obtain fall, avergging 24 inches.
84. FHASHINGS - Flash and step flash against chimneys and paxapets of rear wall and two Attic walls over gutters and on to tiles in 5 Ib . lead turned up in the chase and packed with rolled lead wedges. It is to aress down over tiles at least 5 inches - Sheet $\mathbb{M o}$. 6.
85. CORPUGATSD IRON - Ine the slopes coloured blue with 24 gauge gal vo. of approved brand such as "orb" with 6" end lag and a flute and a half siae lap. Secure with $2^{\prime \prime}$ cup headed screws or approved galvd. nails every other flute. Trim for trough gutters on the rake.

Iine the ridges and hips with $18^{\prime \prime}$ roll ridging scribed to ilutes and secure with screws.
86. VEIN TUBES AND GABLHPS - Provide nine vertical and cross
trubes or 24 gauge g.i. with rivetted and soldered. joints to sizes shown.

Form fourteen $12^{n}$ squere cones to fit ceiling panel and provide condensation drip above same and connect two to every other vertical tube.

Stay in position with $2^{n}$ gelva. hoop ir on straps. The eighteen gablets axe to be formed to detail of 24 gauge with wide aprons, louvres $2^{n}$ on slope with edges turned up and down $\frac{1}{z^{n}} n$ and $\frac{n}{6} n$ netting soldered on inside.

Form a blocked cyma mould along sides and front. All soldered and pivetted securely.
87. RROVIDE the sum of Ninety-Ioux pounds (294.0.0) subject to Builder's 10\% comission for the purchase and delivery of a wrot steel hipped Lantern Iight for Well. Estimate for assembling from cases and supply of bolts or holdfasts to Contragtor with a template for builaing in to raised curb of we 11.
88. FIVE SKYHIGHMS - shown with gutters and Plashings are provided for with glass thes in Tiling anount.
89. WATER SERVICE - EXisting service on the site is shown on cround plan. Cut off and remove the surface pipe crossing the site of the new building. At the point where present large service crosses the Bastern boundary of the building site, arrange with the Materworks Department for a $3^{\prime \prime}$ meter, and have same connected with a wheel valve set in a brick cemented pit with cover of boiler plate or slate.

Water for use in this contract is to be registered. from this meter.

Extend in $3^{n}$ pipe under Ground Floor to the nearest Hyarent shown on West Wall of Stack Room, thence in $2 \frac{2}{2}$ " pipe exposed on walls and ceiling of Ground Storey and Administration to Mydrents as follows:-

8 on Ground H100r
4 on Pirst Floor
2 on second Floor
these up with
Provide and ilt 2 弪" wheel valves with couplings for hose of Fire Brigade Patterm, the exact track and fixing of same to be studied to suit requirements of Concretor, Blectrician and other trades.

Supply six sets of approved canvas hose at least 36 ft. long each, with union and nozzle complete and support in six approved carriers neatiy constructed and strong.

Take an $I^{\prime \prime}$ branch to supply Lavatories on Ground Floor with $\frac{\text { an }}{4}$ extension to 2 basins on First and Second Floors.

Take a sh branch to supply two similar besins from Southern $r$ ising main, each of these branches controlled by a stop cock and chased into walls of First Floor.
90. PIPING is to be approved galvd., Iloyes or Mational and fittings approved. Malleable gelvd.

The traoks of all piping to be approved.
91. Cocks are to be branded, tested and nickel plated, conne cted without blemish or tool marks, and jointed, without exposed threads, tow etc. Supply and ilx sin Easy Clean pillar cocks for six besins, $\frac{3}{6}$ bibcocks for three sinks and $\frac{1}{2}$ " for two cisterns.
92. SEWER CONMECPION AND FITPINGS - PYOVAde the P.C. sum of Sixby Pounds (260.0.0) for the purchase of -

Six basins p \& w. and cast enanelled brackets. Three sinks, $p$ \& Two Federal pans, seats and cast cisterns
and fix to approval to wall plugs and with stout $I$ iron brackets shaped at end and built in to carry sinks and cisterns.

Provide for and execute the connection to the sewer and venting same as required by the Hydraulic Engineer's Dept., supplying wrot iron wastes. All vents carried up internally in wall checks or through concrete forms, capped and flashed through rool.

Satisfy the Architects as to positions and layout of all pipes and fittings.

Supply copper ilash pipes, $工 \frac{1}{z^{n}}$ wrot. iron sleeves built in for floor drainage and delivering over catch pits.

Dip all gratings in thimed tar. Any glazed earthenware pipe where laid on disturbed ground is to be spe cially jointea with cement concrete.
93. MERGENCY RLOOR WASTES - Supply to Mason to build in with outward fall from the level of Ground Floor, six lengths of $2^{\prime \prime}$ galva. wrot iron pipe, the full width of wall with brass caps and hinged drop slap externally.
94. MTTAL RUNGS - Iight Well. Provide sin galva. pipe rungs with ends turned $12^{n}$ and supply to Mason to build in as the work proceeds.

## PIASTERIR.

(See Preliminary Clauses)
96. ALT HORK shall be done in the best manner, evenly ploated and pricked up, setting well trowelled off plumb and accurate. Use angle floats and form curved angles on a.ll piers and salient angles.

Pressed work and fibrous plaster work requiring nodelling is to be executed and set by approved trandesmen to the satisfaction of the Architects. See Clause 15 of Conditions of Contract.
97. FLOATING is to be composea by measure immediately before use.
4. parts of lime mortar separately mixed 3 to 1.

1 part of cement mortar separately mixed 3 to 1.
Setting for Reading Room, plain walling is to be of well ruñlime and fine sand 1 to 1 with admixture of Ochre to approved sample. For use elsewhere it is to be mixed one part "Vietor" Haxd finish and one part lime and fine white sand.

Piers etc. - Render all angles, nibs, plers in Portland cement mortar setting those left white on First and Second Floors above cement dadoes in the "Victor" setting. Finish Corpidor with external work in "Atlas" cement.

Float and set the internal walling of First and Second Floors the Lavatories, W.Cs, and the Stair well as on Section A.B. - Sheet 5 .

Vent Fronts - Provide the R.C. sum of Thirty Pounds (a30.0.0) For purchase of 56 large and 12 small japanned metal gratings.

Special Items in Reading Room - Set the bricks of blind window recesses, obner reveals or these and all windows with splayed jambs in "Victor" setting.

Set the moulded jambs of 3 doorways up to head in Victor on Portland and insert ruming ornament in Plaster to agree with fibrous plaster detail.

Run the impost cap and base mouldings and the archivolt and lintol of central archway to "Delivery" to detail in plaster. Run the small bases of columas and pilasters.
98. CEnCMI DADOES - The walls and piers of Administration on Furt Floor and both stair wells to top landing are to be rendered in Portland 4 ft . high and finished trowelled. in fine stuff 1 to 1 with small $V$ sinking on top. Junction with floor finish to approval. Incluade cills of stair windows.
99. GEMEMT SKIRTIMGS, ETC. - Render and fine trowel and finish with sinking as for dadoes the following skirtings junctioned with floor ininish.

Second Rloor and top landing $9^{11}$ except in Room No. 3.
Fitst Ploor - Reading Room - $9^{n}$ in recesses between piers including sides of piers.

Ground Floor - 2 Lavatories and W.Cs.
The internal sills of Ground Hloor windows in similar iinish setting the Hit and Miss vents provided under Mason.

The concrete band below First Floor slab on the inside of external. walls of Ground Floor rendered only, setting the bar gratings provided under Mason.
100. FLOOR PINISH - Thoroughly cleanse, treat with acid water, SIurry with 1 to 1 grout and lay at least ${ }^{5}$ " thickness of cement trowelled up to level hara suxface with 1 to 1 finish, the whole of Firat and Second Floors and the stairs including strings and soritits of flights and landings.

Work rounded nosings on treads and $x$ isers set back $\frac{311}{4 \prime}$.
101. CEMENY COMGRETE FLOORS AND FINISH - Tay over the whole area OI Ground Floox upon tile broken metal filled in by Mason $1: 2: 4$ concrete $4^{\text {n }}$ thick reinf oreed with B.R.C. fabric No, 655 mesh, Iree from rust and wired as required to keep its position.

Trowel up to hard and smooth surface 1 to 2 Iinish in one operation working to level screeds in sections. Finish the bottom and sides of Elevator over-run Pit as specified Paragraph 25, adding "Colmanoid" Liquid laterproofing (F.F. Snow \& Co. Agents) In the proportion diredted and foming angle roundings with especial care.
102. EXTERMAL RORTLAND FIMISH - Render the coping of Rear Parapet including whe $4 \frac{1}{2}$ " oversail on both sides, weathering the level surface.

Weather sills of all windows and set of is of openings and other projections in brickwork.

Form spoon gutter round Iight Well about 18 n wide with falls to two outlets and skixtings atsides $4^{\prime \prime}$ under light and $9 "$ round walls. Cleanse and slump the concrete as before and render with 2 to 1 and trowel up in 1 to 1 finish with proper admixture of "Colmanoid".

Render the external concrete of lintols and band in Iight We11.

EXTERNAL ATLAS CEMENT TINISH - Execute in cement and Iinish
with Ablas cement and sands admixed to approved. colour and texture, the work shown on arawings or enumerated below. Accurately run mouldings to detail submitting zine templates of same. See the Mason as to accurate coring out.

Supply pressed cement enrichnent of approved quality to match in finish. Modillions and runing omament may be of stock pattem if of exact size, other ornament modelled to detail. Moulded bases are to be pressed in one piece or el se run, no jointing will be accepted.

The work comprises -
(a) Mouldea chimney caps with pediment and necking.
(b) Attic cormice mould parapets and bases.
(c) The enriched entablature with peterae, including Portico with pediment and the inside faces of frieze, architrave and panelled sorilt, Sheet 7. The comnice bed mould to be finished with the iibrous plaster.
(d) The high relief enrichment of Tympanum and two oval Attic windows. Similar detail internally in Fibrous Plaster.

This is to be jointed in blocks and set into pockets in the brickwork after hardening.
(e) The pilaster Capitals and bases and the rendered shafts of four pilasters of Poxtico.
(s) The doowway of portico.
(g) The pressed openworl4 vent panels under Reading Room windows including three Ior Readers' Intrance and Comidor.
(h) The Ground Storey rendering with sunk joint and run base. Joint as airected cut out to rendering.
(j) The walls panelled pilasters and caps of Corridor jointed as directed.
104. CEILIHGS - Setting - Slurry for key if required by the Architects and set the cellings of Ground and First Floors and stair soleits on the concrete and Gypsum Block slabs. Finish an even white. Similazly set the top slab over stair well. Include beams with angle splay Iinish.
105. EIBROUS PLASTER - Upon the ceiling tinbers shown on drawings batten and cross batten and cradle for comices and. fix wall grounds in a substantial memner to approval. Supply bolts, ties or grounds to Coneretor with templates forsetting in.

Erecute in the best manner from models to Iull size details the whole of the colfered, coved and groined ceilings and comices of Reading Room as shown on drevings. Also the Portico and Corridor to the same detail.

Prepare to detail and insert vent gratings for ceiling and wall outlets, two to each compertment of Reading Room.

Execute to detail enriched foliated brackets with plain frieze in Corridor.

In Portico include the bed mould of cornice to same detail as external work.

The frieze of Reading Roon is to carry an Inscription of 250 raised letters to iull size detail, together with 12 open Paterae of same detail as external Prieze.

Execute the enriched architrave of windows and blind recesses ininished on tapered blocks.

The overdoors, comices and foliated consoles and the architraves of three entrances in Fibrous Plaster.

Door jambs within ten reet from the floor are to be run by Plasterer on the solid in Victor on Portland with the same empichment set in.

Execute the high relief foliated decoration of two oval windows modelled to same detall as external pressed world.

Dxecute the square colum and Pilaster Capitals modelled to detail with necking and. ixzed to set off in concrete.

Execute the coved ceilings of Section C.D. Second Floor in iibrous plaster sheets divided symnetrically into straight panels to Iorm the curve. Cover the junctions with $3^{n} x$ I青 cover moulds intersecting accurately and sumpound at well line on the two springing levels with a dentilled comice of six inch girth.

Line the balance of Second Floor ceilings with ilbrous plaster and cover movid set out symmetrically in panels not more than 4 ft . square.

Ifine the sides, tops and backs of 12 roof light wells over Reading Room with fibrous plaster.

All the joint ing of the above fibrous plaster is to be accurately finished and strengthened with additional inbre setwith plaster from on top. All stopping and suriace finishing to be without blemish and left uniformly white.

Fibrous plaster sheets to be not less than $\frac{z_{3}}{}$ in thickness and to be memufactured Prom first quality plaster of Paris and Sisel and to contain not less than 12 ozs. of Sisal to each square yard and the inished sheet to weigh not less than 24 lbs. per squere yard when thoroughly dry. It must be firm and rigid and must ring when tapped and mast be havd to scratch with the inger mail.
107. MATERIAIS - All materials, paints, varnishes, oils and spirits of turpentine shail be of brands approved by the Architects and shall be used free from adulterants. Mixed paints of special brands shall be used for finishing if required.
108. WOODNORK - Inside and out, lmot, stop, prime and paint three coats all wrot woodworl not otherwise specilled. Allow each coatt to harden and then mb down, stop and pace up with putby.
109. IRONWORK - Inside and out, paint two coats all metalwork usually painted, Principal items are steel frames, gutters, vents, flashings, valleys and gablet Iinings, Plumberis pipes, water service and stair handrailings.
110. OAK JOINERY of six principel openings and skireing sre cilied. Is to be twice oiled with raw linseed, stopped and finished internally with two thin coats of Johnson's wax polish well rubbed in. Externally finish with two coats of hardwood oil rubbing down between coats.
111. UNWROT EAVES of Blevator roof are to be treated with twopoats OI Cabotis Cresote stain.
112. KAISOMME IVory White the ceilings and decorative plaster of Reading Room except the dooways, the shafts of column and pilasters which are to receivelinree costs of Mattone to same shade. Similerly kalsomine the fibrous plaster ceiling and cornice of Portico and of Corr idor.
113. ANAGLYPTA DADO - Provide and Iine the lower shafts of Reading roon colums and the exposed faces of pilasters previous to painting with Anaglypta of P.C. value $1 / 6$ per yd. 21" wide, and 3 ft. high. Finish off at top and bottom with bands of Iincrusta of P.O. value $2 / 3$ per yex .
114. ROON 3-SECOMD FLOORS - Stain the Joinery specified under this heading with Cleartone to approved shade, oil and flat varnish or polish without illlers.
115. GLAZING - All glass is to be properiy puttied and back puttied with metal springs in the case of steel Irames. Glass fixed. with beads is to be back puttied. Glass is to be free from blotches or defects.

Glaze all lights, not otherwise specified, and the screens of Administration with Flemish glass, white or pale amber as directed aiter trial.

Glaze the lights of Second Floors and $\frac{g}{B}$ of the area of lights of Administration on First Floor with 21 oz. British sheet.

Glaze the semi-circular light over Delivery Platrom With Flemish leaded as shown with $\frac{1}{a}$ cames stifeened. With stecl core.

Glaze the panes of Readers' Entrance, Portico Intrance and two pair doors to Reading Room (doors only) with $3 / 16$ m British polished plate. The remaining panes of Joinery in Flemish.

Glaze the light well Examing with wired rolled plate.
Note the inmer and outer lights to the clerestory of Reading Room. The five skylights shown are covered by Tiler with glass tiles. Include side cheeks of hoppers in metal fremes of Ground Floor. Inspect blue print in office.
116. LEAVE all gless clean and perfect and all floors clean at completion. Remove paint and oll stains.

