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CONTRACT FOR BUILDING IN INGESTRE STREET WELLINGTON N. Z.

FOR HERRMANN LEWIS ESQ. -

S P E C I F I C A T I O N .

SITE - The Site is No 5 Ingestre Street. The existing buildings will be removed by the Employer within fourteen (14) days after the acceptance of tender.

AN EARTH OR WATER CLOSET - shall be supplied for the use of the workmen. It shall be placed where directed and properly cleansed as required by the bye-law.

EXCAVATOR - The site under the buildings shall be excavated (if necessary) so that the floor line shall be at least 12" above surface of ground. Excavation shall also be made for the foundations, drains &c. The excavated material shall be removed and the ground around footings shall be rammed to a hard surface.

FLOOR LINE - of shops shall be 5" above footpath level at the doorways.


CONCRETE - except where otherwise specified, shall be of an aggregate formed of rough river shingle containing such proportion of smaller particles as will ensure the utmost compactness of the mass and entire freedom from holes. No single stone shall be larger in any diameter than 3". The aggregate for breeze blocks shall be gas works breeze with particles of approved size.


CEMENT - for all work shall be either "English Portland" in casks, or "Silicia" cement in bags, all of best approved make.

GAUGES - For concrete in footings Gauge No <sup>(7 to 1)</sup> 7 shall be used: in piles and floors Gauge No 7; In heads over openings, in hearths, projections for <sup>(5 to 1)</sup> Cornices &c. &c. Gauge No 5 shall be used.

CONCRETE FOOTINGS - shall be 12" x 9" under 4½" walls; 18" x 12" under 9" walls, and 27" x 12" under 14" walls. The walls taking ends of girders shall have footings <sup>30"</sup> 30" x 18" deep.

CONCRETE FOR PROJECTIONS - shall be as shewn. The brickwork under each course shall be brought up to the underside of the concrete for the whole length of the course. The wooden moulds shall then be formed and the concrete finished at one operation so that there shall be no vertical joints in the whole course.

CONCRETE HEADS - to square openings shall be 18" longer than the width of opening or continuous as shewn. In each head two 3/8" iron rods shall be placed as directed. 

CONCRETE ROUND GIRDERS - The girders shall be surrounded with concrete as shewn. 

CONCRETE FLOORS - The floors of washhouses, w.c.'s, Coals & the recesses by shop doors shall be formed of concrete 3" thick laid over a damp course.

DAMP COURSES - 3" above ground line, or as shewn, a damp course of tar & concrete shall be laid in all walls; on the tops of all piles and under concrete floors.

#### — BRICK LAYER —

BRICKWORK - The walls &c coloured red on drawings shall be built with bricks laid in mortar as specified below. The bricks shall be new, sound, well shaped, hard burnt, and free from defects of any kind.

CEMENT MORTAR - shall be formed of one part of cement to three of sand and shall be used for the following work:-

All work below floor up to damp course, all 4½" and 9" walls and chimney stacks.

LIME MORTAR - shall be formed of one part of lime to three parts of sand, and shall be used in all work not specified to be built with cement mortar.

All Joints (vertical and horizontal) shall be filled solid with mortar.

All exposed work shall be finished with a neatly struck flush joint.

HOOP IRON - The brickwork shall be bonded every eighth course with No 16 B.W.G. 1½" wide clean gal hoop iron. The ends shall be hooked together in the lengths of walls and at angles.

Walls  $4\frac{1}{2}$ " and 9" thick shall have one piece and other walls two.

BOND - The bond used throughout shall be "English" excepting in  $4\frac{1}{2}$ " & 9" work where "Colonial" shall be used.

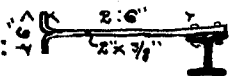
SPACE ROUND TIMBERS - An air space shall be left round the sides and ends of all timbers in walls.

BLOCKS FOR JOINERY - Where necessary for fixing joinery there shall be built in bricks formed of coke breeze and Portland cement 3 to 1.

AIR GRATINGS - where directed there shall be built in ten 9" x 6" gal: C.I. air gratings with flanges at sides, and there shall be flues from these gratings to the spaces under the building.

PALM BOLTS - shall be built in as directed.

ARCHES OVER OPENINGS - shall be in three rings to approval and shall be built on proper templates.

GIRDERS - The front wall over shop fronts shall be supported by rolled steel joists. Each joist shall be 8" x 4" rolled steel I4' long fixed in concrete beam as shewn. The ends of each joist shall rest on pieces of  $\frac{3}{8}$ " plate iron I4" x 9" well bedded and each end of joists shall be anchored back to the wall as sketched:  Joists shall be of Dorman Long & Co's make and weight shall not be less than 19lbs per foot run.

CHIMNEYS &c - shall be built as shewn. Hearths shall be formed of concrete 4" thick finished with compo; those near ground resting on  $4\frac{1}{2}$ " fender walls. The others on  $4\frac{1}{2}$ " trimmer arches turned on proper centres and skew backs. Arches shall be turned ~~on proper~~ upon hook ended chimney bars 2" x  $\frac{1}{2}$ " flues shall be 9" x 9" pargetted and cored. Stacks shall be roughly plastered in accordance with bye-law. Chimney tops shall be finished as shewn.

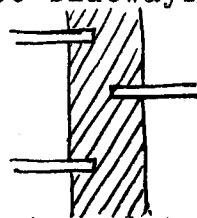
COPPER BOILERS - shall be each 16 gallons and shall be fitted up with an 8" 10" Shacklock patent furnace door, damper &c. complete.

SLEEPERS - shall be 4" x 3" resting on concrete piles.

WALL PLATES - (brick walls) shall be 4" x 3" halved at angles and scarfed with 5" scarfs.

STUDS - Those at each side of all openings shall be 4" x 3" . Trimmers shall be 4" x 3" tenoned, drawbored and pinned. Other studs 4" x 2" at 18" centres. Braces shall be 6" x 1" placed where ~~ver~~ possible and as directed and double nailed. All studs shall be skew nailed to plates with 3 nails to each contact, two on one side and one between on the other.

JOISTS - for floors shall be spaced at 18" centres and on ceilings at 20" centres. All trimming joists and trimmers shall be 3" thick tenoned, drawbored and pinned . 10" joists shall be herring bone strutted with 3" x 2" struts well fitted and nailed on the long edges not sideways. Two rows shall be fixed as shewn.




NOTE RE JOISTS - Joists shall be spaced thus:- on party wall.

PALM BOLTS - Thirty six (36) shall be fixed to joists, plates &c as directed. The bolts shall be  $\frac{3}{4}$ " diameter and the palm shall be 2" x  $\frac{3}{8}$ " clawed at end and bored each for two  $\frac{5}{8}$ " bolts which shall be used to secure the strap to the timber. Each palm bolt shall have a W.I. anchor plate 6" x 6" x  $\frac{1}{2}$ ".

ROOFS - shall be formed as shewn with scantling of the sizes marked. Spacing of rafters (with hangers &c) shall not exceed 20" centres. Ridge, hip, and valley blades shall be 8" x  $1\frac{1}{2}$ " and pole plate 3" x 2". Roofs of lean-to's shall be formed of 4" x 2" rafters at 20" centres.


GUTTER BOARDS - shall be 1" on 2" thick bearers. Falls shall be 1" in every 12'. No drips required.

SARKING - 1" thick shall be laid closely over the whole of the roofs (excepting verandah) and double nailed at every intersection. A manhole with cover 2' 0" x 2' 0" shall be provided as directed.

VERANDAH - shall be formed as shewn. The posts (4) shall be of cast iron pattern No I. Each post shall be let into and secured to curb at footpath at bottom and at top shall be  $\frac{5}{8}$ " coach screwed to top plate. Top plate shall be 8" x 4" and lower plate 3" x 3" moulded on edges. 

Bars shewn between plates in spaces between columns shall be  $1\frac{1}{4}$ " T. iron. Brackets shall be No 25. Fascia boards shall be 6" x 1" and scotia moulding shall be placed under spouting. Roof shall be formed of nine  $2\frac{1}{2}$ " x 2" T iron



rafters screwed to 4" x 2" piece at top and top plate at bottom. Purlins  shall be 3" x 3" beaded on lower edges and secured to rafters. The ends of verandah shall be finished as shewn.

Frieze panels shall be formed of 21oz. glass fixed between small scotia moulding.

Nos of ironwork are from Luke & Cos catalogue.

— P. L U M B E R —

ALL PLUMBING - shall be in accordance with the sanitary bye-law. All joints in lead pipes shall be wiped, all wastes shall be trapped and all traps shall be brass capped.

VALLEYS - shall be formed of No 26 gauge galvanised iron .


FELT - (red edged roofing, weighing 60lbs to the roll), shall be laid with 6" lap and well tacked down on the sarking of all roofs. It shall be turned down and tacked to fascia behind spouting.

IRON - 26 gauge corrugated galvanised of approved brand shall be laid on all roofs (including verandah) with reference to prevailing winds, with a ~~lap~~ lap of two upward corrugations at sides and 6" at ends. It shall be nailed to the sarking or purlins with lead headed nails "Sun brand" placed zig-zag and with three rows of nails to each sheet.

SKYLIGHTS - The two shall be each 5' 0" x 6' 0" "Wades or Empire patent" glazed with 3/16" rolled plate glass. One panel in each skylight shall be hinged to open up to approval and shall have a Preston brass stay fastener.

SPOUTING - shall be 5" O.G. galvanised iron, 24 gauge full with rivetted and soldered joints, 3 rivets to each joint. It shall be fixed on gal iron brackets 1" x 1/8", three brackets to each length of 6' 0" spouting.


Angles in Spouting shall be strengthened with ties .

R.W.P.'s - The verandah shall have four 2 1/2" lead R.W.P.'s leading water through posts to water table. To each of the four gutter outlets at back of building shall be fixed a 24 gauge gal iron head as sketched:-  From each head shall be fixed the 3" R.W.P.'s shewn on block plan. The other R.W.P.'s shall be as shewn.

R.W.P.'s shall be of 26 gauge galvanised iron pipe.

RIDGES AND HIPS - shall be covered with 18" girth gal iron ridging; iron 26 gauge full. Intersections shall be covered with 4lbs lead.

GUTTERS - shall be formed of No.24 gauge gal iron of "Queen's head" brand with joints rivetted and soldered two sides.

Falls shall be to the outlets. A No.12 zinc apron (or 26gauge gal.iron) shall be placed over the junction of gutters with walls. This apron shall be plugged with lead and pointed.  Two 2½" gutter overflows (lead pipe) shall be fixed through walls as directed.

FLASHINGS - of No 12 zinc shall be used to chimney stacks, at junction of roofs with walls, and wherever else necessary to make the work watertight. Flashings to brickwork shall be stepped, plugged with lead and pointed.

FLASHING TO VERANDAH - shall be of 4lbs lead.

WATER SUPPLY - There shall be two services each complete with ½" water metre in accordance with bye-law. Water shall be laid on to each dwelling by ½" pipes to a stand pipe placed over gully trap, to w.c. cistern, hot water cistern, bath, sink, each wash tub, & copper. Cisterns shall have stop cocks.

EACH BATH - shall be 6 feet long of No. 24 gauge full galvanised iron resting upon a cradle, and shall be provided with overflow of full 1½" capacity. The back edge of bath shall be extended to turn up as flashing to return splashings.

EACH SINK - shall be 22" cast iron, porcelain enamelled, with brass socket, plug and chain complete.

EACH W.C. - shall be cottage hopper and trap value 12/- and shall be connected with drain. Cisterns shall be 22 gauge galvanised iron Corporation pattern with 1½" lead flush pipe and pear pull.

WASTES - Baths, Sinks, & wash tubs shall have 2" diameter wastes delivering over gully traps. Baths and each wash tub shall have 2" brass bar grating with brass plug and chain.

EACH SEWER VENTILATING PIPE - shall be 4" diameter cast iron and gal:

iron fixed at the required point of drain, carried well above ridge, and there finished with an air pump.

TERMINAL VENTS - shall be placed where shewn or otherwise in accordance with the bye-law.

ALL DRAINAGE - shall be in accordance with the sanitary bye law.

DRAINS - where not otherwise specified shall be of vitrified salt glazed stoneware of the Spigot and Faucet pattern. For cement mortar see "Bricklayer".

DRAINS - shall be accurately laid to gradients. Joints shall be made with cement mortar carefully wiped out inside. Junctions shall be formed with proper junction pipes, and the Inspection chambers, cleaning eyes, Buchan traps, and fresh air inlets ( $\frac{1}{2}$  pipe length above ground and fixed where shewn) shall be built in to accord with sanitary bye-law. Gully traps complete with dishes and gratings, shall be provided and fixed where shewn. Cleaning eyes shall be brought to surface of ground and there finished with plug. Drains where passing under buildings shall be surrounded with concrete in accordance with bye-law. The existing drains on site shall be removed.

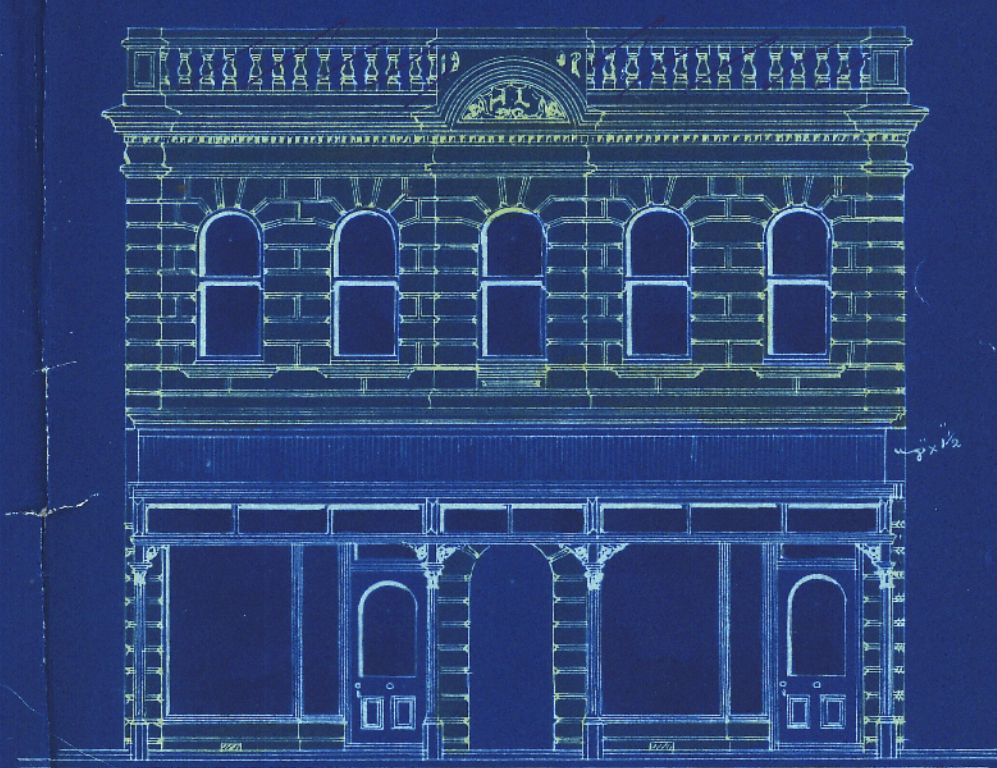
— A S P H A L T —

The portions tinted on block plan shall be laid with best Corporation asphalt 2" thick when rolled. Falls shall be to the storm water gully traps. Kerbs shall be 4" x 1" H.T. secured to H.T. stakes at 3' 0" centres.

John J. Pavan  
architect  
Wellington  
Oct 10/22



SCALE 8 FEET TO 1 INCH



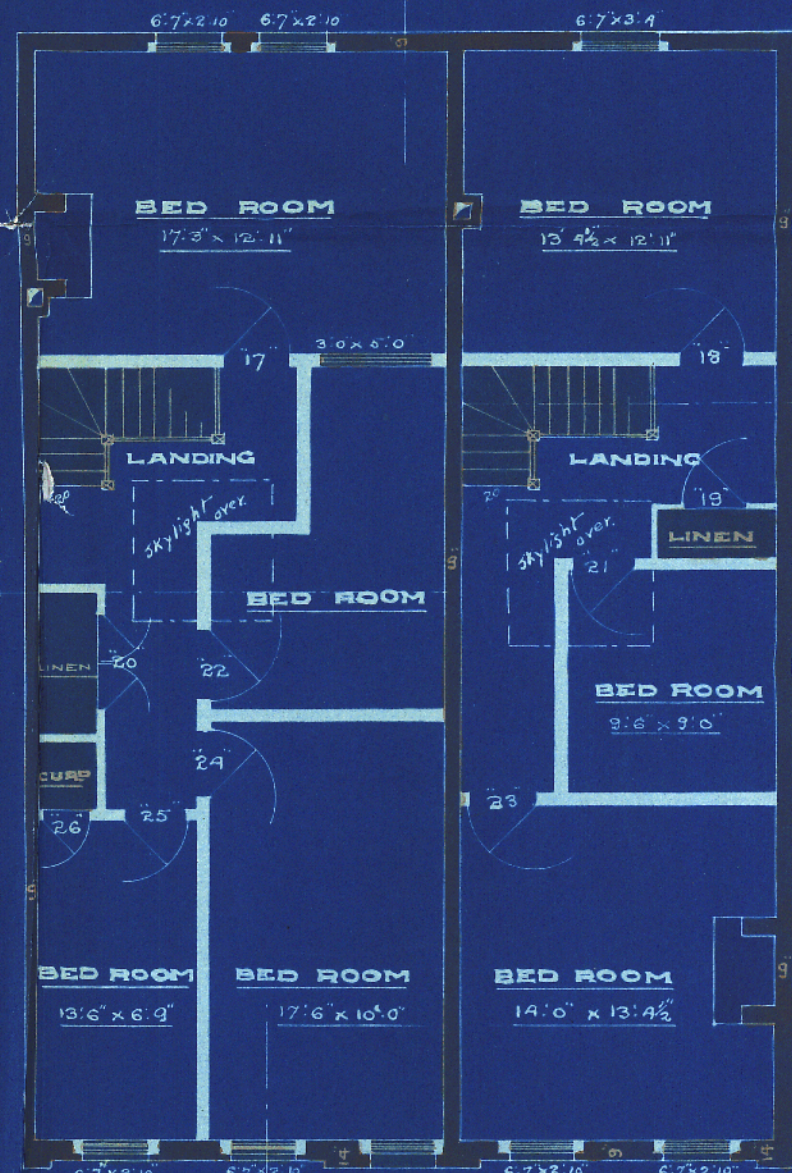
ELEVATION TO STREET

SIDE ELEVATION

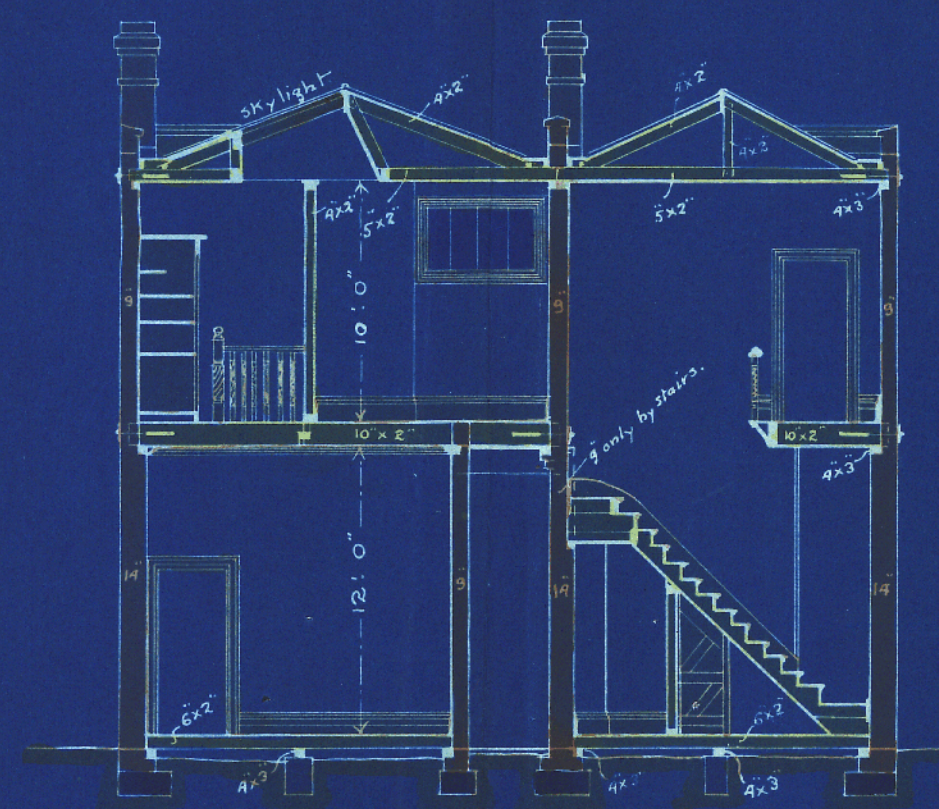


### BACK ELEVATION

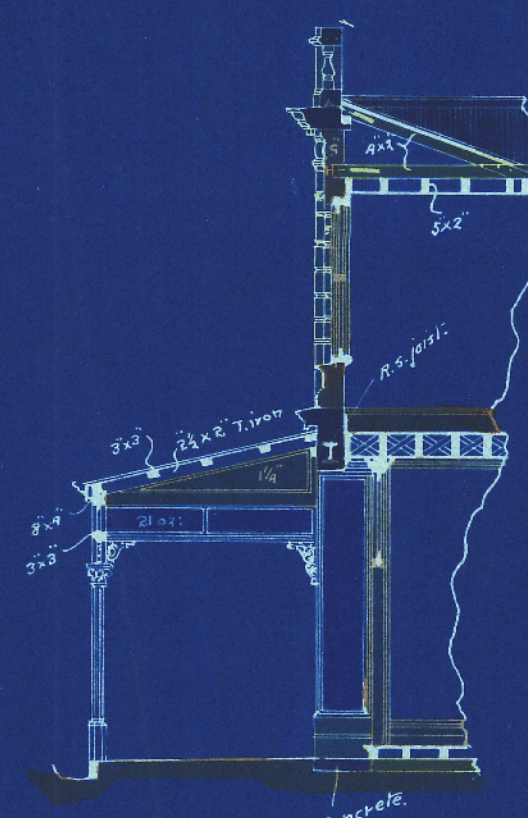
### GROUND PLAN



### FIRST FLOOR PLAN



## SECTION A.-B



SECTION C.-D

John A. Swan  
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Wellington N.H.  
September 4 1902.

JOHN S. SWAN

No 2200 ✓ Sept: 1962  
Del V.W.  
Compd JSS