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LOCAL GOVERNMENT ACT.

At Government House, Melbourne, the twentieth day of May, 1947.

PRESENT:

His Excellency the Governor of Victoria.

Mr. Stoneham | Mr. Hayes.

SCAFFOLDING REGULATIONS.

WHEREAS by section 803 of the *Local Government Act* 1946, it is enacted that the Governor in Council may make Regulations rescinding, amending, varying, or adding to the Regulations in the Thirty-first Schedule to the said Act, and prescribing penalties of not more than Ten pounds for any breach of any Regulations as so amended, varied, or added to: Now therefore His Excellency the Governor of the State of Victoria, by and with the advice of the Executive Council thereof, in pursuance of the powers conferred by the said section of the said Act and all other powers him enabling in that behalf, doth hereby make the following Regulations (that is to say):—

1. The Regulations in the Thirty-first Schedule to the *Local Government Act* 1946 are hereby rescinded.

2. In these Regulations—

"Approval" means approval of inspector.

"Approved" means approved by inspector.

"Engineer" means the engineer or building surveyor of the municipality in which scaffolding is to be erected or used.

"Gear" includes ladder, plank, rope fastening, hoist-block pulley, hanger, sling, brace, or other moveable contrivance of a like kind.

"Inspector" means—

(*a*) the engineer or building surveyor of the municipality; or

(*b*) any other officer of the municipality who is appointed by the council of the municipality to discharge the duties of an inspector under Part XLIII. of the *Local Government Act* 1946.

"Scaffolding" means any structure or frame work of timbers, planks, or other material used or intended to be used for the support of workmen in erecting, demolishing, altering, repairing, cleaning, painting, or carrying on any other kind of work in connexion with any building (other than a wooden building not more than fourteen feet high), structure, ship, or boat, and includes any swinging stage used or intended to be used for any of the purposes aforesaid.

GENERAL.

3. The Regulations herein prescribe a minimum standard for types of scaffolding and gear considered, and variations may be permitted provided that, in the opinion of the engineer, the safety of the scaffolding and gear is not decreased. Scaffolding and gear for which no Regulations are prescribed may be permitted subject to the approval of the engineer, provided detail calculations of the strength of the said scaffolding and gear are submitted to the engineer, in whose possession they shall remain until such time as the said scaffolding and gear are removed. In such calculations the factor of safety based on the ultimate strength shall be not less than four (4) for steel and six (6) for timber.

Precautions shall be taken to prevent material and debris falling upon workmen or others during operations.

During the progress of the works, all scaffolding material and gear shall be safely lowered and not thrown down, and every part of a load in course of being hoisted or lowered shall be adequately suspended or supported.

Safe means of access shall be provided to all working platforms and other working places by means of ladders, ramps, or stairways.

All places to which access is required for any person and every means of approach thereto shall be efficiently lighted.

Precautions shall be taken to prevent and guard workmen and others from coming into contact with electric wires or dangerous equipment.

4. *Covering of Joists.*—For the protection of workmen, flooring joists shall be covered to approval where men are at work below, and where men are obliged to work and carry materials approved covering of floor joists shall be provided for men to work or walk upon.

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5. *Well Holes, Stairways, &c.*—Well holes, stairways, and other openings in floors shall be protected by an approved guard board and railing.

SCAFFOLDING AND GEAR.

6. *Standards.*—Standards shall be—

(*a*) sawn timber, four inches by four inches (4″ x 4″) in dimension;

(*b*) timber poles, four inches (4″) in diameter at the butt, two and a half (2½″) in diameter at the small end;

(*c*) mild steel pipes of steam quality not less than one and twenty-nine thirty-seconds of an inch (1 29/32nds″) outside diameter, with wall thickness of not less than No. 6 British Imperial wire gauge (for use in tubular scaffolding only); or

(*d*) other construction hereinafter provided.

7. *Ledgers.*—Ledgers shall be—

(*a*) sawn timber, four inches by three inches (4″ x 3″) in dimension;

(*b*) timber poles, three inches (3″) in diameter at the small end;

(*c*) mild steel pipes as prescribed in clause 6 (for use in tubular scaffolding only); or

(*d*) other construction hereinafter provided.

8. *Putlogs.*—Putlogs shall be—

(*a*) sawn timber, four inches by three inches (4″ x 3″) in dimension;

(*b*) mild steel pipes as prescribed in clause 6 (for use in tubular scaffolding only); or

(*c*) other construction hereinafter provided.

9. *Bracings.*—Bracings shall be—

(*a*) sawn timber, four inches by three inches (4″ x 3″) in dimension;

(*b*) timber poles, two inches (2″) in diameter at the small end; or

(*c*) mild steel pipes as prescribed in clause 6 (for use in tubular scaffolding only)—

securely fastened to standards and wedged where necessary.

10. *Scaffold Planks.*—Dimensions of scaffold planks shall be nine inches by one and a quarter inch (9″ x 1¼″), if of hardwood; nine inches by one and a half inch (9″ x 1½″), if of oregon.

11. *Fixings.*—Fixings shall be of iron or steel bolts, five-eighths of an inch (⅝″) in diameter with washers and nuts, lashings of sound fibre rope, or other fixing approved by the engineer. For timbers not more than the dimensions provided in clauses 6, 7, 8, and 9, rope lashings for scaffolding of more than twenty-five feet (25′) in height shall be eighteen feet by one and a half inch (18′ x 1½″) in circumference; and for scaffolding of twenty-five feet (25′) in height or less sixteen feet by one and a half inch (16′ x 1½″) in circumference; for timbers of greater dimensions the length of rope lashings shall be as approved by the engineer.

12. *Ladders.*—Ladders shall be provided from the ground to a height of five feet (5′) above the top of the scaffolding at intervals not exceeding fifty feet (50′). They shall be constructed as follows:—

Maximum length.—Thirty feet (30′).

Inside width.—Maximum, twenty-two inches (22″); minimum, thirteen inches (13″).

Side timbers.—Of oregon larch or other suitable timber.

Rungs.—Of hardwood spaced at a maximum distance of twelve inches (12″) centre to centre.

For the use of bricklayers, masons, and their labourers, side timbers shall be four inches by two inches (4″ x 2″) in dimension; checked half an inch (½″) to receive rungs, which shall be three inches by one inch (3″ x 1″) in dimension, fastened to side timbers by nails or screws, and covered by a continuous strip of hoop iron of No. 10 gauge secured over rungs to side timbers.

For ladders not used by bricklayers and masons, side timbers may be made three inches by two inches (3″ x 2″) in dimension, morticed one inch (1″) deep and one inch (1″) diameter to receive rungs, and secured together with iron or steel bolts or rivets not less than one-quarter inch (¼″) diameter, spaced at six feet (6′) centres immediately under rungs, and so located that one is placed under each of the first and last rungs. Rungs shall be turned from straight grained clear timber, fit tightly in the mortices, and be not less in diameter than as follows:—

Clear Spacing of Side Timbers. Inches.	Central Diameter. Inches.
13	1¼
Exceeding 13 and not exceeding 18	1½
Exceeding 18 and not exceeding 22	1⅝

Ladders shall be securely held top and bottom and shall be stayed in external scaffolds at intervals not exceeding seven feet (7′). Ladders for communication between floors shall be of sufficient length to extend to a height of five feet (5′) above the highest floor served by such ladder.

13. *Barrow Runs, &c.*—Barrow runs shall have planks twelve inches by two inches (12″ x 2″) or nine inches by one and a half inch (9″ x 1½″) in dimension, and shall be three feet (3′) wide supported at intervals not greater than eight feet (8′) in the case of twelve inches by two inches (12″ x 2″) planks, or six feet (6′) in the case of nine inches by one and a half inch (9″ x 1½″) planks, and shall have connecting the planks not less than three timber cleats two inches by one inch (2″ x 1″) in dimension, evenly spaced between supports, such cleats to be secured to the underside of planks by nails or screws.

14. *Barrow Skids and Landings.*—Skids for barrows shall be five scaffold planks wide. Landings for barrows shall be twelve scaffold planks wide not less than fourteen feet (14′) in length.

15. *Construction, &c.*—Except as hereinafter provided, scaffolding for all tradesmen and others employed in the building trades shall be five scaffold planks wide for work of one story, six scaffold planks wide for work other than barrow work over one story, and nine scaffold planks wide for barrow work over one story. Scaffold planks shall be lapped nine inches (9″) immediately over putlogs. Unless approved measures are taken to prevent uplift, no plank shall overhang a support more than nine inches (9″) or be less than fourteen feet (14′) in length.

A guard board, nine inches by one and a quarter inches (9″ x 1¼″) in dimension, unless otherwise specified herein, shall be provided on all external scaffolding, except swing stages. Where scaffolding is over twenty feet (20′) in height, a rail or sound fibre rope shall be fixed three feet (3′) above the scaffolding platform. Rails shall be not less than three inches by two inches (3″ x 2″) in dimension if of timber, one and eleven thirty-seconds of an inch (1 11/32nds″) external diameter if of piping, or three inches (3″) in circumference if of rope.

Ladder landings not less than six feet (6′) long of the full width of the scaffold frame shall be provided at intervals not exceeding forty-five feet (45′) in height.

WOODEN SCAFFOLDING FOR PERSONS EMPLOYED IN THE BUILDING TRADE.

16. *General Arrangement.*—The scaffolding shall comprise a number of standards to which are connected horizontal members (ledgers) supporting putlogs on which are laid the scaffold planks, the complete frame being braced both longitudinally and transversely. Where it is impracticable to insert putlogs into walls, there shall be erected an independent system of scaffolding, which may consist of two parallel lines of standards together with ledgers, putlogs, and boards of the strength and sizes prescribed in these Regulations, securely anchored to the wall of the building.

17. *Standards.*—Standards shall be placed in barrels of earth or rubble, or upon a sole plate and cleated. Where splices are necessary in pole standards, butt jointed double pole shall be used breaking joint at least nine feet (9′) and secured together with two rope lashings at base and on each side of each butt joint. Sawn timber standards may be butt jointed with two four inch by two inch by three feet (4″ x 2″ x 3′) long fish plates fixed on each side of butt joint and bolted through with four (4) five-eighths of an inch (⅝″) diameter bolts, washers, and nuts, spaced at nine inch (9″) centres. Fish plates and bolts shall be symmetrically arranged about the joint.

18. *Ledgers.*—Each ledger shall be secured to each standard at each crossing with fixings as prescribed in clause 11 hereof, and when sawn timber is used the four inch (4″) dimension shall be vertical and shall not be spliced between standards. Ledgers shall be continuous for the whole length of the scaffolding frame.

19. *Putlogs.*—Putlogs shall be set above ledgers and securely fixed to ledgers or standards, and when resting in walls shall be inserted four and one-half inches (4½″) and securely wedged. A joint shall not be made in the span of a putlog.

Putlogs shall provide true and even support to the scaffold planks, and on each ledger at least one within two feet (2') of each standard shall remain in the scaffold until such scaffold is finally removed.

20. *Scaffolding Platforms.*—Platforms shall be constructed of scaffold planks closely laid over the full width of the frame and shall lap not less than nine inches (9") over a putlog.

21. *Scaffolding.*—Scaffolding for masons, bricklayers, and their labourers shall have putlogs spaced not more than three feet nine inches (3' 9") centre to centre, ledgers spaced not more than six feet (6') centre to centre in vertical plane, and standards spaced not more than seven feet (7') centre to centre for a five or six-plank scaffold, or six feet (6') centre to centre for a nine-plank scaffold measured along the scaffold.

Scaffolding for other tradesmen and their labourers shall have putlogs spaced not more than five feet (5') centre to centre, ledgers spaced not more than seven feet (7') centre to centre in a vertical plane, and standards spaced not more than eight feet (8') centre to centre.

For these scaffolds the load due to the weight of men and materials uniformly distributed over the area of a bay of the scaffolding platform shall not exceed the tabulated intensities, nor shall the concentrated load applied to any bay of the scaffold exceed the tabulated weight, provided that the concentrated load and the distributed load shall not act simultaneously. The number of full-length working platforms set up and used at any time on a scaffold shall not exceed two (2), but short platforms may be set up in different positions on the scaffold, provided that the total area of these platforms supported by any standard does not exceed that supported by two (2) full length platforms are set up.

Width of Scaffold.	Spacing of—			Permissible Loading.			
				Pole Ledgers.		4" x 3" Ledgers, 4" Vertical.	
	Putlogs.	Ledgers.	Standards.	Distributed.	Concentrated.	Distributed.	Concentrated.
	ft. in.	ft.	ft.	lb. sq. ft.	lb.	lb. sq. ft.	lb.
Masons, Bricklayers, and Their Laborers.							
5 plank	3 9	6	7	40	300	100*	800
6 plank	3 9	6	7	35	300	70	650
9 plank	3 9	6	6	25	340	30	400
Other Tradesmen and Their Laborers.							
5 plank	5 0	7	8	25	250	75†	700
6 plank	5 0	7	8	20	240	50	640
9 plank	5 0	7	8	18	200	20	400

* If two platforms are set up at different levels, the sum of the loading intensities over the area supported by any standard shall not exceed 140 lb. per square foot if round poles are used.

† If two platforms are set up at different levels, the sum of the loading intensities over the area supported by any standard shall not exceed 90 lb. per square foot if round poles are used.

Wooden Scaffolding for Ceilings.

22. Standards for scaffolding for internal or external ceilings shall be not more than seven feet (7') centre to centre, ledgers not more than eight feet (8') centre to centre, and putlogs not more than five feet (5') centre to centre. Working platforms shall be close-boarded.

Where in the opinion of the Inspector such scaffolding is suitable for the work contemplated, built-up standards or trestles may be used for scaffolding up to twelve feet (12') in height in conjunction with nine inches by one and a half inch (9" x 1½") putlogs on which scaffold planks are closely laid.

Scaffolding for the erection of ceilings under verandahs shall provide for the safety and convenience of the public.

Hanging Scaffolding for Interiors.

23. Hanging scaffolding erected for boxing and wiring purposes in structural frame work shall consist of standard poles spaced seven feet (7') centre to centre with putlogs spaced five feet (5') centre to centre, and scaffold planks laid to butt closely transversely. The poles shall be suspended by three-quarters of an inch (¾") diameter hook rods fastened to beams of approved dimensions: The suspension rods shall not be spaced at a greater distance than seven feet (7') centres. A guard board and rail as specified in Clause 15 shall be provided.

Painters' Scaffolding.

24. Painters' scaffolding not exceeding ten feet (10') in height shall be one plank wide and may be constructed of steps and scaffold planks of sound timber or of trestles and planks. Painters' scaffolding exceeding ten feet (10') and not exceeding sixteen feet (16') in height shall be two planks wide and may be constructed of approved trestles and planks of sound timber and construction. Spacing of steps and trestles shall not be more than eight feet (8'). Painters' scaffolding exceeding sixteen feet (16') in height shall be built up with standards and planks as prescribed in Clauses 15 to 21.

Swing Stages, &c.

25. Swing stages may be of latter form and not more than seventeen feet (17') long. Ladders shall have a minimum width of fourteen inches (14"). Side timbers may be of oregon or other approved timber three and three-quarter inches by one and three-quarter inches (3¾" x 1¾") in dimension, in which case the distance between slings shall not exceed twelve feet (12'). Rungs shall be two feet (2') apart and one inch (1") in diameter of steel, iron, or wood. A tie of steel or iron shall be rivetted at each end of ladder and shall be a quarter of an inch (¼") in diameter. A plank nine inches by three-quarters of an inch (9" x ¾") in dimension the full length of ladder shall rest upon and be secured to the rungs. The stage shall be swung and securely fastened to chairs of wood two feet nine inches by six inches by one and a half inch (2' 9" x 6" x 1½") in dimension, or steel of approved dimensions and design. The chairs shall be fitted with wire ropes one and one-eighth of an inch (1⅛") in circumference or sound fibre rope three inches (3") in circumference, provided with thimbles for attachment to slings. The slings shall be fitted with double and single iron or wood blocks with sheaves not less than four inches (4") in diameter and reeved with sound fibre rope two and a half inches (2½") in circumference. Secure fixings shall be provided on the roof, and ropes shall be protected from chafing. Not more than two men shall work between slings on swing stages. A guy rope shall be provided for each man working on the stage and shall be two and a half inches (2½") in circumference. Free ends of ropes reaching ground level shall be carefully coiled in barrels or otherwise satisfactorily protected.

Boatswains' Chairs.

26. Boatswains' chairs shall be of sound timber three feet six inches by twelve inches by one and a half inch (3' 6" x 12" x 1½") in dimension. Each chair shall be of approved construction and shall be provided with blocks and ropes similar to those prescribed for swing stages. Free ends of ropes shall be protected as prescribed in Clause 25.

Scaffolding for Dock Workers and Ship Painters.

27. Scaffolding shall consist of trestles of approved material and construction, and of oregon or other approved timber planks nine inches by two inches (9" x 2") in dimension. Trestles shall have steps on one side at least, not more than two feet (2') apart. When the scaffolding is sixteen feet (16') or more in height, two planks shall be provided side by side.

On all scaffolding over ten feet (10') in height a guy rope two and a half inches (2½") in circumference shall be provided for each man working thereon.

SWING STAGES FOR DOCK WORKERS AND SHIP PAINTERS.

28. Swing stages for ship work shall have a plank of oregon or other approved timber, fifteen feet long by twelve inches wide by two inches thick (15' x 12" x 2"), provided with spurs two feet nine inches long by three inches wide by one inch thick (2' 9" x 3" x 1") bolted thereto within six inches (6") of each end. Stages shall be suspended by sound fibre rope two and a half inches (2½") in circumference, having double and single blocks to suit. A fibre guy rope two and a half inches (2½") in circumference shall be provided for each man working on scaffold. Not more than two men shall work on each plank.

OUTRIGGER SCAFFOLDING.

29. Needles shall be hardwood or clean oregon of suitable length, spaced seven feet (7') centre to centre and of sectional area not less than thirty-six square inches (36 sq. inches) and a depth not less than six inches (6"). Needles shall be fixed and anchored to the building or structure to approval. Ledgers shall be secured inside, cleated and lashed to approval. The scaffolding shall be six planks wide and braced with sawn timber four inches by two inches (4" x 2") in dimension, secured to approval. In the case of more than two stages on needles, additional strengthening to approval shall be provided by the use of double needles and diagonal stays. Where an outrigger scaffolding is erected for the removal of concrete sheeting or forms and it is only used for one story at a time, it will be sufficient that the scaffolding be four planks in width.

SUSPENDED SCAFFOLDING.

30. *Use.*—The use of suspended scaffolding shall be permissible where, in the opinion of the Inspector, such scaffolding and the framework or building on which it is to be used is suitable for the work contemplated.

31. *Factors of Safety.*—With the exception of overhead construction and attachments to outriggers and of wire cables where the factor of safety shall be not less than five, each part of the suspended scaffolding shall be of sufficient strength to sustain without failure at least three times the stress induced in that part by the maximum load proposed to be used on the scaffolding.

32. *Wire Cables.*—Only flexible steel wire cables shall be used on the scaffolding and shall have a breaking strength of not less than five times the load to be put on them, and shall be at least one and a half inches (1½") in circumference, of an approved brand. All spliced eyes shall be around thimbles and have not less than three full tucks.

All wire cables shall be kept in good condition and be examined by the builder or his representative at least once every seven days, and when any cable shows signs of bunching, stranding, excessive wear, or breaking, it shall be at once discarded. A record of the time and date of inspection and condition of cable at such time shall be certified to by the person making the examination, and be kept by the builder and be available at any time for examination by the Inspector. All wire cables shall be secured to winch drums and outriggers or shackles to approval.

33. *Machines.*—Before any winch is used in connexion with scaffolding, it shall be submitted for approval. All pawls shall be provided with efficient locks to prevent pawls inadvertently getting out of engagement, and all handles shall be kept in position with nuts, proper pins, or collars.

Faces of ratchets, clutches, gear-locks, and collars shall be kept square. Wheels and pinions shall be kept in good condition, properly keyed up and in correct gear relation.

Wheels and pinions with broken teeth shall be immediately discarded and replaced; pegs or dove-tailed teeth shall not be allowed.

Efficient means shall be provided for lubricating all working parts of a machine, which shall be kept clean and free from accumulation of rubbish, dust, or dirt.

No persons other than those specifically empowered by their employer to do so shall operate a machine.

On the outside and at each end of the platform a guard rail shall be affixed not less than three feet (3') high and composed of timber not less than three inches by two inches (3" x 2") and fixed with suitable supports. A wire mesh netting shall also be affixed to the platform between the guard rail and fender board.

No bolts shall be less than five-eighths of an inch (⅝") in diameter. Every winch shall be so constructed that it can be locked in any desired position, and it shall be kept locked at all times when work is proceeding on the platform.

All overhead and other protection to workmen deemed necessary by the Inspector shall be provided.

A.—STANDARD CONSTRUCTION.

34. *General Requirements.*—Clauses 30–33 inclusive of these Regulations shall apply.

35. *Outriggers.*—Outriggers shall consist of rolled steel joists not less than sixteen feet (16') long, seven inches deep by three and a half inches wide (7" x 3½"), fifteen pounds (15 lb.) per foot run; they shall be spaced not more than nine feet (9') centre to centre, and shall not project more than six feet six inches (6'.6") from the outside point of support.

A stop bolt three-quarters of an inch (¾") in diameter shall be put through the outrigger with pipe washers to prevent straps slipping off the end of the outrigger. Outriggers shall be fixed and anchored to the building or structure to approval.

36. *Straps.*—Straps round outriggers for attachment of wire cables shall be of mild steel or wrought iron at least two and a half inches by half an inch (2½" x ½") to fit neatly over top of outrigger; sides to be vertical as far as bottom of outrigger, to then make an angle of not less than seventy-five degrees (75 deg.) with bottom of outrigger until inside faces of straps are within three-quarters of an inch (¾") of one another, then to be vertical again; such vertical portions not to be less than three inches (3") long and holed to take a one inch (1") bolt. At least one and a half inch (1½") of metal shall be provided between bottom of bolt hole and end of strap.

37. *Bolts Through Straps.*—Bolts through straps to receive wire cables shall be at least one inch (1") in diameter and have standard washers.

38. *Putlogs.*—Each putlog shall consist of two mild steel angle irons, each to be not less than two inches by two inches by three-eighths of an inch (2" x 2" x ⅜"). Putlogs shall be attached to each machine by at least two three-quarter inch (¾") diameter bolts. The clear span of a putlog between supports shall not exceed four feet (4') in the case of two inch by two inch by three-eighths of an inch (2" x 2" x ⅜") angles and five feet six inches (5' 6") in the case of three inch by three inch by three-eighths of an inch (3" x 3" x ⅜") angles.

39. *Platforms.*—Planks shall be of sound timber, not less than nine inches (9") wide, and two inches (2") thick, and shall be laid to butt closely transversely and to overlap putlogs thereto at least twelve inches (12") longitudinally, or be secured thereto. At the ends of platform, planks shall not overlap putlogs more than eighteen inches (18"). The platform shall not be less than three feet (3') nor more than five feet six inches (5' 6") in width. All ties between the platform and building or other structure to prevent swinging or movement of platform shall be of approved pattern and securely fixed.

40. *Protection of Workmen.*—No load at any time (except a bona fide test load) shall exceed one thousand seven hundred pounds (1,700 lb.) on one bay, including both live and dead load. Fender boards nine inches by one and a half inch (9" x 1½") shall be secured on the inside and outside on the ends of the platform.

B.—LIGHT DUTY SUSPENDED SCAFFOLDING.

41. *Use.*—The use of the light duty suspended scaffolding shall be permissible only where, in the opinion of the Inspector, such scaffolding and the framework or building on which it is to be used are suitable for the work contemplated.

Permission by the Inspector to use this type of scaffolding in no way relieves the builder of any responsibility.

42. *General Requirement.*—Clauses 30–33 inclusive of these Regulations shall apply with the exception that wire cables one and one-eighth of an inch (1⅛") in circumference may be used in lieu of one and one-half inch (1½") specified therein.

43. *Outriggers.*—Each outrigger shall consist of two oregon or other approved timber planks, each not less than six inches by two inches (6" x 2") of a minimum length of sixteen feet (16'); they shall be fixed with the greater dimension vertical and loaded with a counter weight to approval. At all times when walls or parapets are less than nine inches (9") thick and whenever considered necessary by the Inspector, when walls or parapets are not less than nine inches (9") thick, each outrigger shall be placed centrally on a plank nine inches by two inches (9" x 2") and five feet (5') long, perpendicular to which shall be

secured by three five-eighths of an inch (⅝") diameter bolts a six inch by two inch (6" x 2") plank to form an "L" section nine inches by eight inches (9" x 8"). The vertical leg of the "L" is to bear against the side of the parapet or wall remote from the wire cables supporting the scaffolding. A suitably shaped packing piece shall be inserted between the outriggers and the plank resting on top of the wall or parapet.

44. *"L" Hook.*—The "L" hook shall be bolted to outriggers by at least one five-eighths of an inch (⅝") diameter bolt, and shall be held in position by a flexible steel wire at least one and one-eighth of an inch (1⅛") in circumference, which shall in turn be bound to approval to the balance weight. The steel flexible wire shall be lashed at intervals of not less than three feet (3') by approved lashing rope to the outrigger. The "L" hook shall consist of a wrought-iron or mild steel solid forging of approved design, and shall have a cross-section of dimensions not less than two and a half inches by five-eighths of an inch (2½" x ⅝"). Each end of the hook shall be turned to form a complete eye. To the eye resting on top of the outrigger shall be attached the steel wire rope passing round the balance weight. The other eye of the "L" hook shall be attached by means of an approved shackle and bolts to the vertical steel wire rope supporting the machine.

45. *Spacing of Outriggers.*—Outriggers shall be spaced not more than thirteen feet six inches (13' 6") centre to centre, and shall not project more than two feet (2') from the point of support. Additional provision for chocks or chafing pieces shall be made as determined by the Inspector.

46. *Shackles.*—Shackles shall consist of wrought iron or mild steel not less than one and a half inch by three-eighths of an inch (1½" x ⅜") in cross section, and shall be of approved design. Not less than three-eighths of an inch (⅜") of metal shall be provided between side of shackle and nearest edge of bolt hole, nor less than three-quarters of an inch (¾") of metal between the top or bottom of shackle and nearest edge of bolt hole. Top and bottom bolts shall be not less than five-eighths of an inch (⅝") in diameter.

47. *Stirrups.*—Stirrups shall be composed of wrought iron or mild steel forgings with minimum dimensions of one and a quarter inch by half an inch (1¼" x ½"), bent to approved shape to support side or longitudinal timbers carrying platforms and secured to machine supports by two bolts, each not less than five-eighths of an inch (⅝") diameter, spaced and secured to approval. All forgings shall be solid.

48. *Platform.*—Platform shall be in one length, not exceeding nineteen feet six inches (19' 6") in length, and shall consist of side timbers composed of not less than four inches by two inches (4" x 2") oregon or other approved timber. The width of the platform shall not exceed two feet four inches (2' 4") overall. The side timbers shall be secured with rungs at least one and three-quarter inches (1¾") in diameter, spaced eighteen inches (18") centre to centre; also with ties or iron or steel not less than three-eighths of an inch (⅜") in diameter, secured to approval by means of washers and nuts. After nuts have been tightened up, ends of ties shall be burred so that nuts cannot be removed. Ties shall be placed at both ends, and at least four other places between, evenly spaced. The recess in side timbers for housing the rungs shall not extend more than five-eighths of an inch (⅝") on either side of centre line of side timbers. The platform shall consist of four planks of oregon or other approved timber, to be each not less than six inches by three-quarters of an inch (6" x ¾") in single pieces of full length of platform to rest on rungs and secured thereto to approval.

The platform shall be secured to stirrups to approval and shall not project more than three feet (3') beyond the stirrup nor less than two feet (2'). Where the platform is less than nineteen feet six inches (19' 6") in length, the live load shall be carried between the machines and not on those portions of the platform projecting beyond the machines. All ties between scaffolding and structure to prevent movement of the platform shall be fixed to approval.

49. *Machines.*—Machines shall be placed vertically below outriggers, and shall be spaced not more than thirteen feet six inches (13' 6") apart.

50. *Protection of Workmen.*—No load at any time (except a bona fide test load) shall exceed five hundred pounds (500 lb.) on one bay, including both live and dead load. Not more than two men shall work on the platform at any one time. On the outside and at each end of the platform a fender board shall be affixed, composed of timber of approved size, but not less than four inches by one inch (4" x 1").

STEEL TUBE SCAFFOLDING.

51. *General Arrangement.*—The scaffolding shall comprise a number of standards to which are connected horizontal members (ledgers) supporting putlogs on which are laid the scaffold planks, the complete frame being braced both longitudinally and transversely. The height of the topmost platform shall not exceed one hundred and fifty feet (150') measured from the base of a standard to the surface of the platform.

52. *Materials.*—Tubes shall be straight and free from indentations and other defects. The ends of all standards shall be squared to ensure even bearing over the whole area of the section at joints. The fittings or devices used for connecting the various members of the scaffolding shall be approved by the engineer. All fittings shall accurately embrace, over the whole area of their bearing surfaces, the member or members on which they are used. Where the efficacy of fittings is dependent on frictional grip, such fittings shall not be used to transmit tension forces. Fittings having screw threads in blind bosses or nuts, in which the amount of screw thread or nut cannot be directly observed, shall not be used.

53. *Standards.*—Standards shall be founded on metal base plates of approved design and construction. Joints in standards shall not occur at a distance greater than nine inches (9") from a ledger and shall be staggered on adjacent standards not less than six feet (6'). Where necessary, suitable guards or fenders shall be provided to prevent standards sustaining damage from any source.

54. *Ledgers.*—Each ledger shall be supported by and at each standard at each crossing, and shall be fixed in a horizontal plane and shall be continuous for the full length of the scaffolding frame. Where a straight ledger is supported by a row of four or more standards, the ledger joints may be placed at any position between the putlogs of a span, except within adjacent or end spans, provided that joints shall be so arranged as to be staggered in the vertical plane, and in the horizontal plane also when a double row of standards is used.

55. *Putlogs.*—Putlogs shall be fixed to ledgers at each side of each standard, except the standard at each end of the scaffolding frame where one only need be used. Such putlogs shall be placed one foot (1') from standards. The maximum span of a putlog shall be as hereinafter required, measured centre to centre of supports. Where one end of a putlog is supported by a wall or other part of a structure, such end shall be positively secured to the wall or structure, and in this case the span shall be considered as the distance between the face of the wall and the centre line of the ledger supporting the other end. Additional putlogs shall not be placed in positions more than one foot (1') from standards except as provided in clause 56 hereunder. Putlogs shall be set horizontal and above the ledgers. The top surface of each putlog shall be in a plane parallel with the ledgers. Putlogs shall provide true and even support to the scaffold planks. A joint shall not be made in the span of a putlog.

56. *Platforms.*—Platforms shall be constructed of scaffold planks closely laid over the full width of the frame and shall butt near standards with a putlog on each side of the joint not more than one foot (1') from the butt, provided that not more than two (2) planks in any bay may be butted between extra putlogs inserted in the scaffold nine inches (9") on each side of the butt. Unless approved measures are taken to prevent uplift, no plank shall be less than eighteen feet (18') in length.

57. *Bracing.*—Scaffolding shall be securely and effectively braced in all directions.

58. *Scaffolding.*—Scaffolding for masons, bricklayers, and their labourers shall have standards spaced at distances measured along the scaffold not more than seven feet (7') centre to centre for a five or six plank scaffold, or six feet (6') centre to centre for a nine plank scaffold, ledgers spaced not more than six feet (6') centre to centre in a vertical plane. Scaffolding for other tradesmen and their labourers shall have standards spaced not more than eight feet (8') centre to centre, measured along the scaffold, ledgers spaced not more than seven feet (7') centre to centre in a vertical plane.

The maximum span of a putlog shall be five feet (5') for five and six plank scaffold and seven feet (7') for nine plank scaffolds. When two rows of standards are used and spaced five feet six inches (5' 6") apart, a nine plank scaffold may be built with seven (7) planks between standards and two (2) planks on extensions of the putlogs cantilevered towards the working face. In this case the putlogs shall be in one length, and approved measures shall be taken to ensure that the two (2) planks outside the standards cannot be accidentally dislodged. For such scaffolds the load due to the weight of men and materials uniformly distributed over the area of a bay of a scaffolding platform shall not exceed the tabulated intensities, nor

shall the concentrated load applied to any bay of the scaffold exceed the tabulated weight, provided the concentrated load and the distributed load shall not act simultaneously. The concentrated load herein tabulated is not to be applied to the ledgers in positions more than one foot (1') from the standards.

The number of working platforms set up and used at any time on a scaffold shall not exceed two (2), but short platforms may be set up in different positions on the scaffold, provided that the total area of these platforms supported by any standard does not exceed that supported when two (2) full length platforms are set up.

Width of Scaffold.	Spacing of—		Span of Putlogs.	Permissible Loading.	
	Standards.	Ledgers.		Distributed.	Concentrated.
	ft.	ft.	ft. in.	lb. sq. ft.	lb.
MASONS, BRICKLAYERS, AND THEIR LABORERS.					
5 planks	7	6	4 0	70	450
6 planks	7	6	5 0	45	400
9 planks	6	6	7 0	25	250
9 planks divided into 7 and 2	6	6	5 6	35	400
OTHER TRADESMEN AND THEIR LABORERS.					
5 planks	8	7	4 0	55	450
6 planks	8	7	5 0	40	400
9 planks	8	7	7 0	18	250
9 planks divided into 7 and 2	8	7	5 6	20	350

59. *Steel Tube Scaffolding for Ceilings.*—Subject to clauses 50-56 being complied with, steel tube scaffolding for internal or external ceilings may be constructed with standards spaced not more than seven feet (7') centre to centre and ledgers not more than eight feet (8') centre to centre. For such scaffolds the load due to the weight of men and materials uniformly distributed over the area of a bay of scaffolding shall not exceed fifteen pounds (15 lb.) per square foot, nor shall the concentrated load applied to any bay of the scaffold exceed two hundred and fifty pounds (250 lb.), provided that the concentrated load and the distributed load shall not act simultaneously, and that the concentrated load is not applied to the ledgers in positions more than one foot (1') from the standards.

60. *Penalties.*—Any person who contravenes or fails to comply with any of the provisions of these Regulations shall be liable to a penalty of not more than Ten pounds (£10) for any breach of the said Regulations.

And the Honorable Patrick John Kennelly, His Majesty's Commissioner of Public Works for the State of Victoria, shall give the necessary directions herein accordingly.

C. W. KINSMAN,
Clerk of the Executive Council.

By Authority: J. J. COURLEY, Government Printer, Melbourne.